

Village of North Aurora Public Works Facility Feasibility Study December, 2020



LEGATARCHITECTS Design | performance | sustainability

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EXECUTIVE SUMMARY

INTRODUCTION

Legat Architects was commissioned by the Village of North Aurora to lead a Feasibility Study for the existing Public Works Department Campus. The goal of the Study was to evaluate the existing buildings and site amenities, identity current and future space needs, and create options for accommodating growth in the Department. This document is the culmination of the Study and is intended to provide the Village of North Aurora with an overview of the process including conceptual design options and cost estimates to support a strategic decision-making process regarding the future of the Public Works Department Facility.

The existing Public Works Department campus consists of several buildings and structures.

- The Main Building is a pre-fabricated metal building housing administrative offices, a small staff locker room, tool storage and shop space, a sign shop, vehicle storage and maintenance bays, and a storage mezzanine;
- A large Salt Storage Dome;
- An underground concrete vault used for slow-release water storage;
- The East Water Treatment Plant;
- A water tower;
- Multiple metal storage buildings of varying size.

Since the Public Works Department campus was first developed, the population of the Village of North Aurora has increased significantly. However, the capacity of facilities on the Campus has not grown and staff continue to work in the Main Building as it was originally constructed with minimal improvements. In addition, capital improvements projects and deferred maintenance items have been identified but remain unaddressed because it was generally acknowledged the long-term solution to the undersized facilities could be an expansion or replacement of the Main Building.

The Feasibility Study, described in greater detail on the following pages, was a collaborative process that solicited data and opinions from all members of the Public Works Department. Their input coupled with a visual assessment of the existing campus assisted Legat Architects to reach the following conclusions:

- The Public Works Department campus is well situated within the Village and there is significant value in maintaining existing amenities and infrastructure.
- The Campus can accommodate facilities sized to support the current and future needs of the Department.
- Current budget constraints coupled with the logistics of continually operating the existing Campus makes constructing a new, larger building on this site an undesirable option.
- The capital value and condition of the existing Main Building warrants its continued use and inclusion as part of a future project which includes significant renovations and expansion.

VISION STATEMENT

"The vision for the Village of North Aurora Public Works Department Campus is to provide cost effective, long lasting facilities that provide staff with the space needed to do their jobs safely and efficiently and accommodate all Village-owned vehicles and equipment under roof which will encourage increased productivity while reducing repair and operational costs."

PROJECT APPROACH

The visioning and assessment approach used by Legat Architects for this feasibility study is a proven, five-step process that places the needs of the Village of North Aurora and its stakeholders at the center.

Q	Gather	Collect all relevant existing data including Utilization of existing facilities and vehicles and a visual conditions assessment of existing infrastructure.
	Envision	Identify the goals for addressing current and future facility needs for the Public Works Department by engaging stakeholders in a collaborative discussion.
	Define	Create the requirements necessary to support the identified goals including lists of the types and sizes of spaces required for staff, vehicles, and equipment.
	Consider	Develop options that address all of the de- fined requirements while supporting the overall goals. Engage stakeholders to evaluate all options and narrow potential solutions.
	Transform	Turn the results of the Feasibility Study into an action plan that may include minor renova- tions in the near-term or a phased approach to renovations and expansion in the long-term.



KICK-OFF MEETING & TOUR

Legat Architects began the Feasibility Study by hosting a Kick-Off Meeting and participating in a facilities tour on March 21, 2019. The meeting was held with the Public Works Department Leadership Team in the Main Building and its purpose was to discuss the breadth and goals of the Study. Following the meeting was a methodical tour through the existing facilities. Our goal was to gain a basic understanding of the how the Public Works Department functions today.

During the meeting, it was agreed the Study should determine what facilities will be required to support a 25% increase in staff and equipment, identify what spaces exist today and compare those to what will be required, and develop cost effective options which use space more efficiently.

OPERATIONAL ASSESSMENT

An operational assessment of existing Public Works Department facilities was conducted the intent of which was determine how spaces and amenities are being used today. Also identified were the inadequacy of existing spaces and areas not being utilized effectively. Existing access, functionality, and security were also observed along with the overall physical condition of facilities.

SITE ASSESSMENT

An assessment of the existing Public Works Department site was conducted to evaluate the existing campus with a focus on current work spaces, vehicular and pedestrian circulation, and parking for visitors, staff, and operational vehicles, as well as, topographical and environmental issues. Also reviewed were the condition of material storage areas and the location of the fueling station.





MEETING WITH PUBLIC WORKS STAFF

A day-long series of meetings was held with all Public Works Department staff to gather input from all stakeholders and elicit individual perspectives regarding deficiencies in the existing facilities. Discussed were the past, present and future operational and storage needs and desirable adjacencies between the Divisions within the Public Works Department.

During these sessions, Staff identified the following design criteria, or goals, for the Public Works Department Campus. Initially, these items became the priorities which helped shape the design options. They then evolved into the criteria by which each design option was evaluated for success.

- Improve Department efficiency and communication by centralizing operations into an environment that provides appropriate meeting and training spaces, as well as dedicated spaces for all staff in one continuous building.
- Provide employees with amenities typical of other municipal facilities such as locker rooms with showers, sleeping quarters, and a break room.
- Bring gender equality and ADA accessibility to the facility.
- Promote energy efficiency in building design and operations.
- Provide a welcoming and clearly defined parking and entry for visitors.
- Better serve the general public with access to information and Department Staff in a comfortable and healthy environment.
- Improve security, with card access, video surveillance, and better lighting throughout the facility and the site.
- Provide dedicated shop space with appropriate amenities such as task lighting, work benches, tools, lift equipment, and compressed air.
- Increase indoor storage capacity for tools, equipment, and stored material to extend the life of Village assets and minimize theft.
- Allow the Public Works department to respond to emergencies quickly and efficiently with improved access to tools and equipment.
- Locate all vehicles under roof to decrease maintenance costs and increase longevity.
- Separate public vehicles from staff parking and Department traffic.
- Maintain circular traffic pattern around the Main Building for Department vehicles.
- Maintain public works staff on-site during the construction of a new facility to minimize the cost of moving and/or providing temporary work space.





SPACE NEEDS ANALYSIS

The next step in the feasibility study process was to define the problem using all of the gathered information gathered. This led to the creation of the Space Needs Analysis document which is a tabulation of all spaces required, the quantity of staff who occupy those spaces, and the size and quantity of each space needed to create an improved Public Works Department facility which can accommodate current and future growth.

The following steps were followed to create this document:

- Identify current and future staffing requirements;
- Document existing vehicle inventory and identify future vehicle inventory based on projected growth;
- Develop a list of rooms and spaces required based on industry standards, regional precedents, and previous experience.

The Space Needs Analysis document highlights the inadequacy of existing spaces by identifying each along side the additional spaces needed to support the improved facility. It also tabulates the existing and needed room areas to reveal the total square footage required for an improved Public Works facility.

A similar, Fleet Tabulation document was also created. This document listed all existing Public Works Department vehicles with their make, model, year purchased, and size. Proposed future vehicles were also identified with their assumed size.

SITE ANALYSIS



Meetings with Public Works Department staff were held to evaluate the existing site. It was agreed to maintain the single access point to the site from Butterfield Road and a high priority was placed on separating public vehicles from department vehicles while improving overall vehicular circulation around the campus.

Department Staff indicated the existing salt dome building and fueling station were in fair condition and would be more appropriately located near the rear (south end) of the site. They also indicated material storage buildings were in poor condition and too small for current and future needs.

When discussing the location and condition of the East Water Treatment Plant, the adjacent slow-release water storage vault, and the water tower it was agreed all three elements were in fair-to-good condition and did not warrant the expense of relocation.

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COLLABORATIVE DESIGN WORK SESSIONS

Having collected a significant amount of data, identified goals for accommodating the future needs of the Public Works Department, and defined the physical parameters necessary to create improved facilities, it became time develop conceptual design options. Legat Architects believes this is best accomplished during Collaborative Design Sessions where all stakeholders are given an equal voice to propose ideas.

The goal of the first collaborative design session held in November 2019 was to create options for a new Public Works Department building.

The session began with a drawing illustrating the existing site plan. Three-dimensional, color-coded 'building blocks' representing various departments, offices, staff support rooms, shop and storage areas, and vehicle bays were available to be manipulated - arranged and rearranged - by all present. Each variation was discussed and documented before being reassembled into a new option.

At the conclusion of the Collaborative Work Session there was the basis for multiple options to be developed by Legat Architects. These evolved into nine unique Conceptual Design Options which were given back to the Staff, each with a list of pros and cons, for their consideration.

A follow-up Collaborative Work Session was held by Department Staff in December 2019. The Staff now met to review and discuss each of the nine options. During this session, three additional options were created and, eventually, all twelve were narrowed down to two 'preferred design options'.









PREFERRED DESIGN OPTIONS

The collaboration between the Department of Public Works and Legat Architects resulted in two 'preferred design options' which were developed in greater detail. Conceptual cost estimates were also prepared for each option. The final step in the feasibility study process is to begin building consensus around one option which can lead the Village of North Aurora to begin creating an actionable plan for the future.

Upon initial review, both Option One and Option Two appear remarkably similar. This is due to overall design and functionality of the site being common to both. Access to the campus starts by aligning the driveway from Butterfield Road with the West Service Drive. Upon entering the site, visiting vehicles turn left into a public parking area while Department vehicles proceed straight ahead through a secured access gate into the West Yard. Vehicular circulation builds upon what exists today and completes a loop so that departing vehicles pass the East Yard before exiting through another secured access gate. The areas of the East and West Yards are increased to meet the footprint of the two proposed building design options both of which include a combination of additions, interior renovations, and exterior improvements to create a 'new' Public Works Department Facility.

DESIGN OPTION ONE



The existing Main Building is repurposed to accommodate Fleet Maintenance and large vehicles. Administrative Offices are located in the north addition. Water and Street Departments plus vehicle storage bays and general storage are located in the south addition.

DESIGN OPTION TWO



The existing Main Building continues to be used store large vehicles. Administrative Offices are located in the north addition along with Water and Street Departments. Fleet Maintenance is consolidated in the south addition along with vehicle storage bays and general storage.

SPACE NEEDS ANALYSIS

The Space Needs Analysis document on the following pages is a tabulation of all spaces required for an improved Public Works Department Facility. The spreadsheet identifies each space, the quantity of staff who need to occupy those spaces, and the size of each space and the quantity required.

Village of North Auror Final Space Needs Analysis	raF	duc	<u>e</u>	No	orks	ă	spt.										15-Aug-19 LEGATARCHITECTS
	Roor	n Type			Ĩ	xisting	Facility					Pro	posed Fa	cility		Increas	Comments
Room ∉ Room	Exist	New	F.T. Staff	P.T. Staff	Seas. Staff	Space Type	Total Spaces	Space	Total NSF	F.T. Staff	P.T. Staff S	eas. Sp staff T	vpe Spa	al Spa ces NS	e Total		
							Ī			1	1	+					
1.0 Administration		>		10)	10)		<	4	<	22	223	0				-	
100 Secure Vesitione 101 Maiting Area		< >	1						00	•					00	000	Class window into reception Area with partic alarm Sestimation for 3 visitore
101 Prention Area		< ×					00	oc							60 k	2 9	Seatting for 3 visitors Adiacant to Secure Vasitibula with locked door into Admin
103 Public Works Director's Office (John)		×				,	0	0	0				2 a		68	2 00	includes small conference table for 4 people
104 Conference / Training Room		×	1	4	4	•	0	0	0		,	,	EC	-	80 2	00	Seating for 10 - 12 people
105 Streets Superintendent Office (Brian)		×		1			0	0	0	،	,	,	d.	-	60 1	00	5
106 Water Superintendent Office (Paul)		×	*				0	0	0	1			Р	1	60 11	30	
107 Engineer's Office (Future)	0.00	×	*			•	0	0	0	-			Р	+	60 1	00	
108 Office (Future)		×			•		0	0	0	হ			٩	0	60	0	
109 Office (Future)		×	*	*	*	0.000	0	0	0	5	1		٩	0	60	0	
110 Open Work Area		×	100	1401	1400	•	0	0	0	3		-	M	3	80 2	t0	Three (3) 8' x 10' cubicles for staff mostly in the field
111 Work / Copy / Plans / File Storage		×			*			'			3		M	-	00	8	Multi-Purpose space for printer / plotter / copy / work area
112 Men's Toilet Room		×	ŧ		*	1	0	0	0	,	,	, v	ШC	-	60	00	Separate tollet room for administration staff
113 Women's Toilet Room		×	4	4	-		0	0	0	,	,	,	EC	-	60	00	Separate tollet room for administration staff
114 Office Storage		×	*	*	*				3	5	5	,	СU	-	20	8	
115 Coffee Counter		×	*	*	*	•						,	M	-	20	2	Sink, microwave and dishwasher with cabinets
116 I.T. / Server Room		×	•	•	•		0	0	0	•	•	,	ŝ		40	04	
117 Custodian Closet	0.0	×	*	*	*		0	0	0			,	EC		80	00	
116 Coat Closet	>	<	• •			, u		120	120			,	L.C.	- 0	54	4	Descripte this jate athese serves
	<		7	•		OLC		001	001	1				>	2	>	Netiovate this true outer space
Staff Totals			•	•	-					10	•		-				
			4	0	>		1	t	100	2	>	>			e e	5	
Net Square Footage Totals Circulation Factor - 30%									131						¢,3 6	7	
TOTAL GROSS SOUARE FEET (existing and pro	oposed								569						3.0	06 2.43	6 Total Souare Footage Increase
0 Common Areas						Γ	Γ	T		ľ	ŀ	ŀ	ŀ				
200 Man's Locker / Shower / Toilet Room	>					٥	۲	122	122	ļ	ļ		0	Ŧ	8	2	I orkere for 18 men and foilate and chouse as wall
200 Momente Locker / Shower / Toilet Room	< >					. 0		0F	05	1			C L		an o	2 5	Lockers for 6 women and toilets and showers as well
202 Mud / Liniform Wash Room	<	×				1		3	2						24	PO	Adjacent to Locker Room's with host week and weeker and driver
203 Break / Training Room	×	:				SFC	*	364	364			,			00	18	Includes cabinets anniances and tables for 22 staff
204 Mechanical Room		×					C	C	0				C L		00	0	Snace needed if maior addition is built
205 Electrical Service Room		×	ł	à	à	4	0	0	0	1	2		U U	0	50	0	Space needed if major addition is built
206 Water Service Room		×	1	1			0	0	0	,	,	, ,	C	0	50	0	Space needed if major addition is built
207 Tool Storage Room		×					0	0	0	,	,	s,	EC	-	00	00	
								ſ		t	ŀ	┢					
Staff Totals			0	0	0					0	0	0		200			
Net Square Footage Totals									581						2,5	14	
Circulation Factor - 30%									174						7	51	
TOTAL GROSS SQUARE FEET (existing and pro	oposed								755						3,2	55 2,50	D Total Square Footage Increase
10 Straate Division						Ī				ľ	ł		ŀ				
300 Shore		>				Ī	¢	¢	0	0	t	U	C L	4	2	9	7 auroant laborare - alan far 10 - indudae nanonunde on inter
301 Storade Room		×					0	0	0				200		00	0	7 כעודקדו ומטטופיה - אומוי זער דע - זוהעוטעפא אמאמי אעיה עעניינעי
302 Supervisor's Office		×		4	4	100	0	0	0	5	,	,	٩	0	20	0	
303 Mezzanine		×	•	,	,	•	0	0	0	. ,	,	, ,	U U	-	00 2	00	Located above Storage Room - counted as half space
304 Sign Storage Room		×	•				0	0	0	્ય	્ય	,	EC	0	20	0	Signs made by sign company - stored here
Staff Totals		0.2	0	0	0	0.3			5.55	10	0	0	5.5	223	200		
Net Square Footage Totals								1	0						1,1	0	
Circulation Factor - 20%									Þ						2	02	
TOTAL GROSS SQUARE FEET (existing and pro	oposed								0						1,3	20 1,32	Total Souare Footage Increase

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Legend for Space Type:

Village of North Aurol Final Space Needs Analysis	ra F	qn	lic	W	orks	O s	ept.											15-Aug-19 LEGATARCHITECTS
	Room	n Type				Existin	g Facility						Propos	ed Facilit	>		Increase	Comments
Room #	Exist.	New	F.T. Staff	P.T. Staff	Seas. Staff	Space	Total	Space	Total	F.T Staf	F Staf	Seas	. Space	Spaces	Space	Total		
4.0 Water Division																		
400 Water Shop		×	•	•	•	•	0		0	4	1		SEC	-	500	200		3 current laborers - plan for 5
401 Storage Room 402 Sumerview's Office		××			•	• •			000		•	•	SEC		400	400		
403 Mezzanine		×				*	0		0	0		,	SEC		200	200		Located above Storage Room - counted as half space
Staff Totale			•	-	0					4	•	•						
Net Square Footage Totals		1	>	>	>				L	0						1.100		
Circulation Factor - 20%										0						220		
TOTAL GROSS SQUARE FEET (existing and pro	oposed)									0						1,320	1,32(Total Square Footage Increase
5.0 Heated Vehicle Storage																		
500 Heated Vehicle Storage	×		2	•	*	SEC		8,07	0 8,07	- 02	1	•	SEC		18,304	18,304		Refer to Fleet Tabulation Spreadsheet for size determination
						Ţ			↓	╇	╀	\downarrow						
Staff Totals			7	0	0					0	0	0						
Net Square Footage Totals									8,07	02						18,304		
Circulation Factor - 0%	1								10.0	0						0	100.01	
TOTAL GROSS SQUARE FEET (existing and pro	obosed)								8,0,	0						18,304	10,234	I otal Square Footage Increase
6.0 Fleet Division		2													0.0	O A A		
504 Webicle Mointenance Baue	>	<	*				50	00	100		•	•			0//	00000		Wash bay is to be 30 long X ZZ wide with 10 wide doors
601 Vehicle Maintertance bays 602 Fleet Supervisor's Office / Library	<	×				, ,	0	20	t C	000	•	•	SEC	4.0	240	000		Each bay is so intig X zz wide with to wide usors Office as well as storage for shop manuals
603 Fluids Room		×					0		0	0	•	•	SEC		240	240		Adjacent to maintenance bays for piping to overhead reels
604 Parts / Tire Storage Room		×					0		0			•	SEC	-	280	280		
- Mechanic's Shop	×		*	*	*	SEC	5	55	8	-	5	5	SEC	9	0	0		Not needed if Mechanic's area is redesigned
						ſ			ļ	╞	┞							
Staff Totals			0	0	0					2	•	0						
Net Square Footage Totals		~							1,12	92						4,370		
Circulation Factor - 20% TOTAL GBOSS SOUABE FEET /avieting and nor	Inesono								2	55						874	1 80.5	Total Suusra Evotana Incrasca
	in secondo								261							and a	200	
7.0 General Building Storage																	1.	
 Equipment Storage Building 	×		*	*	*	SEC	0	1,65	9	- 0	1	2	•	0	0	0		Demolish building - do not account for square footage
- Old Garage Building	×	2			*	SEC	5	3,66	00	0	•				000,	0		Demolish building - do not account for square footage
700 General Building Storage	>	×	•	•	•	. (0	09	8	•	SEC		1,200	1,200		New space to replace portion of buildings above
/U1 Mezzanine	×		*	*	*	o		1,20	12'1 0	-	1	•	o		1,200	007'L		
				L	L	Ĺ			L	Ļ	Ļ	Ļ	L	L				
Staff Totals			0	0	0					0	0	0						
Net Square Footage Totals									1,20	00						2,400		
Circulation Factor - 20%									24	9						480		
I O I AL GROSS SQUARE FEET (existing and pro	obosed								1,44	0.						2,66U	1,444	I otal square rootage increase
A DESCRIPTION OF A DESC	1																	
6.0 SUMMARY																		
Total Staff			6	0	0					2	~	0						Total Square Footage Increase

(17)

FLEET TABULATION

The Fleet Tabulation document on the following pages is a listing of all existing Public Works Department vehicles including their make, model, year purchased, and dimensions. Vehicles proposed for future acquisition are also identified with their assumed size.

Villag Final Flee	JE Of N et Tabulati	ort on s	h Aurora Public Wo preadsheet - Full Drive Aisle	orks Depar Configuration	tment						5	GATA	15-A RCHIT	ug-19 ECTS
Vehicle #	Division	Year	Description	Make	Model	5	3	т	32'×12'	26'x12'	20'×10'	32'x12'	26'x12'	20'x10'
Street Divi	ision						Size		Heat	ed Parki	bu	Exte	rior Park	bu
119	Street		Roller			7	ŝ	5	0.25					
122	Street		Vermier Chipper	Vermier		14'	5'	8'			1		-	
123	Street	1993	Bobcat 753 Skid-Steer	Bobcat	753	11.	5	7'	0.25					
143	Street/Water	1994	Grumman Water Break Van	Grumman		26'	8	8	2002	-			00	
145	Street	2018	Ford F-150 Pickup	Ford	F-150	20'	8	.9			-		0	
147	Street	2018	Freightliner 108SD	Freightliner	108SD	24'	10'	11.		-	,			
164	Street	2015	Ford F-250 Pickup	Ford	F-250	19'	80	7			-			Ī
165	Street	2016	Freightliner 108SD	Freightliner	108SD	24	10'	10'						Ĩ
108	Street	2102	JUB Wheel Loader	JCB	r 250	17	io ĉ	10		-				
171	Street	C107	Ford F-350 Pickup Hot Patch Machine	Ford	L-300	17	δ	5					0	
172	Street		Bobcat S650	Bobcat	S650	12'	7	7	0.5		•		2	
173	Street	2010	Ford Crown Victoria	Ford	Crown Victoria	18'	2	7'			٢			
174	Street	2014	Ford F-550 Super Duty Pickup	Ford	F-550	20'	9	9,			-			
175	Street	2004	Ford F-450 Bucket Lift Truck	Ford	F-450	24'	9'	10'		-				
176	Street	2005	International 5 Yard Cap	International		22'	10'	11		-	2			
177	Street / Water	2006	Chevy Silverado 15 Pickup	Chevy	Silverado	19'	8'	6'			+			
178	Street	2013	International 7400 4 x 2 (Hook System)	International	7400	23'	10'	11.		-				Τ
B/L	Street	2013	International /400 4 X 2 (Standard)	International	7400	23	10.	11		-	Ī	Ì	T	T
180	Street	0102	International 7400 4 X 2 Chorus Silverado 3/4 Too 4 v 4 Dickers	Chernational	/400 Silverado	23	.0L	.11		-	Ŧ			T
201	Creat	0000	Chevy Silverado 3/4 10/1 4 X 4 Floxup	Change	Cilverado	110	ñ o	10						Ĩ
184	Street / Water	2002	Bobcat Excavator Mini-X, M331D	Bobcat	Mini-X	16'	21.2	o '8		T				Ī
185	Street	2009	Ford F-550 4 x 4 Pickup	Ford	F-550	19'	6	8			-	Ī		Γ
186	Street	2007	International 2007 7000 Series 7400	International	7400	26'	10'	10'		-				Π
187	Street	2007	JCB Backhoe	JCB	Backhoe	25'	80	10'		-				Γ
191	Street	2012	Dodge Ram 2500 ST Pickup	Dodge Ram	2500	19'	8'	6'			1			
192	Street	2008	International 7400 SBA 4 x 2	International	7400 SBA	33'	10'	12"	-				000	
193	Street		New Bonnell Leaf Vactor	New Bonnell	Leaf Vactor	30'	6	10'					~	
134	Street		Uld Ulhkmar Lear Vactor	UIG UINKMAR	Citr Vactor	30	5 a	10						
New	Street		rreigniner old writeeler Leef Mactor	Lieiginniei	N VVIGEIGI	21.	2 0	10,	-		Ŧ			
New	Street		Ford			20'	6	8			-			
Future	Street		Future Vehicle			20'	6	8			-			Γ
Future	Street		Future Vehicle			20'	<i>.</i> 6	8			-			
Subtotal									5	11	17	0	0	0
Water Dep	artment						Size	3	Heat	ed Parki	Dig	Exte	rior Parki	ng
144	Water	2016	Ford Super Duty Cab Utility Truck	Ford	F-450	20'	9'	7.5			1			
190	Water	2007	Chevy Silverado Pickup	CheVy	Silverado	20'	8	7'			-			
Subtotal									0	c	0	c	0	0

Village of Nor Final Fleet Tabulation	th Aurora Public Wor Spreadsheet - Full Drive Aisle Co	ks Department ^{onfiguration}						EGATA	15-A RCHIT	ug-19 ECTS
Miscellaneous Equipment			L	Size	-	Heated Par	king	Exte	erior Park	Bu
	Bobcat Trailer		11.	6	7				0.5	
	Mowing / Utility Trailer		12'	ō	5				0.5	
	14 Snow Plows, 9' to 12' wide		12'	7'	4'				4	
	8 Salt Spreaders		8	2'	4					2
	4 Leaf Collection Boxes		13'	7	ō				2	
	2 Salt Brine Spray Tanks		14'	8	8	_			-	
	Flat Bed for a Roll of Truck		12'	8	2'					1
	Chipper Box		10'	8	6'					0.5
	Wing Plow		9	14"	2'					0.5
	V-box (salt spreader)		15'	7	7.					-
	Small Tilt Trailer		17'	8	3'					٢
					1					
Subtotal					0	0	0	0	80	9
PARKING SUMMARY I	NFORMATION									
										1.
TOTAL PARKING STALL F	REQUIREMENTS				55	Heated Par	king	Exte	erior Park	ng
					32'x	2' 26'x12'	20'x10'	32'x12'	26'x12'	20'×10'
					5	11	19	0	8	9
						35			14	
					10					
TOTAL STALL SPACE RE	QUIREMENTS					Heated Par	king	Exte	erior Park	bu
					32'x	2' 26'x12'	20'×10'	32'x12'	26'x12'	20'x10'
Number of Stalls x					5	11	19	0	80	6.0
Net Square Feet Per Stall					38	1 312	200	384	312	200
Net Total Square Footage	per Stall Type				1,92	0 3,432	3,800	0	2,496	1,200

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** Total parking area required is based on the current and projected list of vehicles and equipment provided by the Village of North Aurora Public Works staff. Total parking area does not include visitor and staff outside parking.

100% Grossing Factor (Drive aisles, circulation, sidewalks, etc.) =

Net Total Square Footage +

TOTAL PARKING AREA REQUIRED

3,696 s.f. 3,696 s.f.

9,152 s.f. 9,152 s.f. s.f.

18,304

COLLABORATIVE DESIGN OPTIONS







COLLABORATIVE DESIGN WORK SESSIONS





Legat Architects believes conceptual planning is best accomplished by engaging all stakeholders during Collaborative Design Sessions where everyone is given an equal voice to propose and evaluate ideas.

The goal of the first collaborative design session held in November 2019 was to create options for a new Public Works Department building.

The session began with a drawing illustrating the existing site plan and a discussion about which features would remain as-is: the existing Main Building, the East Water Treatment Plant, the adjacent slow-release water storage vault, and the water tower.

Three-dimensional, color-coded 'building blocks' representing all of the building areas identified in the Space Needs Analysis were prepared to the same scale as the site plan. These were given to staff to arrange and rearrange with the goal of identifying where each space, department, vehicle bay, etc. belonged in relation to the Main Building. The goal was to quickly identify relationships between program areas and create options for the effective organization of space.



Each variation was discussed and documented before being reassembled into a new option.

The following pages identify the nine, unique options which resulted from the Collaborative Work Session. Each was further refined by Legat Architects and measured against the goals identified earlier in the Feasibility Study process. A succinct list of pro's and con's was added to each option to help Staff evaluate and select the best option(s).

PROS:

- Division Shops are close to stored vehicles.
- Fleet Division is separate.
- Pull-through wash bay within Fleet Division.
- Majority of Public Works vehicles on west side of building.
- Staff and Visitor parking on east side of building.

CONS:

- Only 30% of vehicles have pull-through storage.
- General Storage may not be in ideal location.
- Vehicle circulation is close to existing sewer treatment.

OPTION ONE



- PROS:
- Fleet Division is separate.

CONS:

- 50% of vehicles have pull-through storage. - Administration is prominently located.

- Division Shops are not close to stored vehicles. - Vehicles at General Storage might block driveway. - No pull-through wash bay. - Staff and Visitor parking is mixed-in with Public Works vehicles. - Vehicle circulation is close to sewer treatment.

OPTION TWO



PROS:

- Fleet Division is separate.

CONS:

- General Storage is easily accessed. - Administration is prominently located. - Good visual control from Administration.

- Only 50% of vehicles have pull-through storage. - Division Shops are not close to stored vehicles. - No pull-through wash bay. - Staff and Visitor parking is mixed-in with Public Works vehicles. - Vehicle circulation is close to sewer treatment.

OPTION THREE



PROS:

CONS:

- Only 1-2 pull through storage.
- No pull-through wash bay.

- Overlap of Fleet Division saves space. - General Storage is easily accessed. - Good visual control from Administration. - All overhead doors on one side of the building. - General Storage is easily accessed. - Shops are close to stored vehicles.

- Fleet Services is not separate. - Vehicle circulation is close to sewer treatment.

OPTION FOUR



PROS:

- Fleet Division is separate.

CONS:

- No pull-through storage.

- General Storage is easily accessed. - All overhead doors on one side of building. - General Storage is easily accessed. - Division Shops are close to stored vehicles. - Administration is prominently located.

No pull-through wash bay.
Vehicle circulation is close to sewer treatment.

OPTION FIVE



PROS:

- Fleet Division is separate.

CONS:

- No pull-through wash bay.

- 90% of vehicles have pull-through storage. - General Storage is easily accessed. - All overhead doors on one side of building. - General Storage is easily accessed. - Division Shops are close to stored vehicles. - Administration is prominently located. - Good visual control from Administration. - Division Shops "buffer" Common Areas.

- Access to Division Shops from vehicles. - Fleet Division vehicle bays are separated. - Vehicle circulation is close to sewer treatment.
OPTION SIX



PROS:

- Fleet Division is separate.

CONS:

- storage.

- 75% of vehicles have pull-through storage. - Pull-through wash bay within Fleet Division. - Small vehicle/equipment access from south. - General Storage is easily accessed. - Administration is prominently located. - Good visual control from Administration. - Sheltered, outdoor "break area".

- Access to Division Shops from vehicles. - Large area of existing garage is not easily accessible for vehicle

- Vehicle circulation is close to sewer treatment.

OPTION SEVEN



PROS:

- Fleet Division is separate.

CONS:

- 75% of vehicle have pull-through storage. - Pull-through wash bay within Fleet Division. - General Storage is easily accessed. - Administration is prominently located. - Good visual control from Administration.

- Access to Division Shops from vehicles. - Large area of existing garage without vehicle storage bays. - Vehicle circulation is close to existing sewer treatment. - Vehicle circulation is close to General Building Storage.

OPTION EIGHT



PROS:

- Fleet Division is separate.

CONS:

- storage.

- 75% of vehicles have pull-through storage. - Pull-through wash bay within Fleet Division. - General Storage is easily accessed. - Administration is prominently located.

- Access to Division Shops from vehicles. - Large area of existing garage is not easily accessible for vehicle

- Vehicle circulation is close to existing sewer treatment.

OPTION NINE



PREFERRED DESIGN OPTIONS

PREFERRED DESIGN OPTION ONE

Design Option One maintains the existing Main Building but re-purposes its space. Its wide but shallow vehicle bays are well suited to become maintenance bays for the Fleet Maintenance Department (orange) where access is required on all sides of the vehicles. The remaining bays (gray) are used for oversized vehicles. The existing mezzanine is maintained for general storage and the spaces beneath are converted to storage, laundry and locker rooms (blue) which create a transition zone from the 'dirty' vehicle storage building to the 'clean' administrative offices

(violet).

A new addition north of the Main Building houses all administrative offices and related support spaces (violet) including a conference room and a training/break room (blue). This addition also creates a new facade facing Butterfield Road which could have architectural elements and signage directing visitors to a new entrance with a secure vestibule and reception/waiting room.

Another new addition located south of the Main Building houses narrower but longer vehicle bays used to store the bulk of the Departments vehicles (purple). Shops and storage space for the Water Department (dark green) and the Streets Department (yellow) are placed conveniently between the existing and new vehicle storage bays. Both departments have separate, exterior access points for loading/unloading equipment and materials in the West and East Yards, respectively.

Within the addition and south of the vehicle bays, is a large, general storage room (green) accessible from both the East and West Yards. East of the general storage room is a pull-through wash bay (orange). As department vehicles enter at the West Yard, circulate counterclockwise around the site, and prepare to exit, they can pull through the wash bay before proceeding through the East Yard to the gate.

South of the existing East Water Treatment Plant is located a new, larger salt storage building whose loading zone overlaps with an enlarged staging area located south of the Water Treatment Plant.

At the far south end of the site, beyond the existing water tower, are new material storage bins and staging areas.

PREFERRED DESIGN OPTION ONE



PREFERRED DESIGN OPTION TWO

Design Option Two maintains the existing Main Building mostly as-is. The wide vehicle storage bays are used to store oversized vehicles with room for accessories between bays. The existing mezzanine is maintained for general storage and the spaces beneath are converted to storage, laundry and locker rooms (blue) which create a transition zone from the 'dirty' vehicle storage building to the 'clean' administrative offices (violet).

A new addition north of the Main Building houses all administrative offices and related support spaces (violet) including a conference room and a training/break room (blue). This addition also creates a new facade facing Butterfield Road which could have architectural elements and signage directing visitors to a new entrance with a secure vestibule and reception/waiting room.

The north addition also extends to the west to house both the Water Department (dark green) and the Streets Department (yellow). Both departments have separate, exterior access points for loading/unloading in the West Yard and the tight adjacency of both departments creates efficiencies with equipment and material access and storage.

Another new addition located south of the Main Building houses narrower but longer vehicle storage bays used to store the bulk of the Departments vehicles (purple). At the south end of this addition is a large, general storage room (green) with access from the both the East and West Yards.

Between the vehicle maintenance bays and general storage is located the Fleet Maintenance Department (orange). Wider vehicle maintenance bays straddle equipment storage rooms (orange) and the pull-through wash bay (orange) is conveniently located near-by. Consolidating the Fleet Maintenance Department at this location keeps it separate from the day-to-day activities occurring in the East and West Yards.

South of the existing East Water Treatment Plant is located a new, larger salt storage building whose loading zone overlaps with an enlarged staging area located south of the Water Treatment Plant.

At the far south end of the site, beyond the existing water tower, are new material storage bins and staging areas.

PREFERRED DESIGN OPTION TWO



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DESIGN OPTION THREE

Design Options One and Two are the result of the collaborative design process which solicited ideas and feedback from all stakeholders. Design Option Three was created solely by Legat Architects in response to the initial reaction to the conceptual cost estimates prepared for Design Options One and Two. The intent of this option was to show how the proposed Public Works Facility could be scaled back to meet a tighter budget. Cost savings were achieved by reducing the quantity of indoor vehicle storage and the extent of site development. This option has not been critiqued by the stakeholders.

Design Option Three is a variation of Preferred Design Option One. The existing Main Building is re-purposed to house the Fleet Maintenance Department (orange) and storage of oversized vehicles (gray). The existing mezzanine is maintained for general storage and the spaces beneath are converted to storage, laundry and locker rooms (blue) which act as a transition zone from the 'dirty' vehicle storage building to the 'clean' administrative offices (violet).

A new addition north of the Main Building houses all administrative offices and related support spaces (violet) including a conference room and a training/break room (blue). This addition also creates a new facade facing Butterfield Road which could have architectural elements and signage directing visitors to a new entrance with a secure vestibule and reception/waiting room.

Another new addition located south of the Main Building has been organized to accommodate future expansion. The Water Department (dark green) and the Streets Department (yellow) plus general building storage (green) are all are placed conveniently between the existing and new vehicle storage bays (purple) and all have exterior access points for loading/unloading equipment and materials in the West and East Yards. The pull-through wash bay (orange) is located east of the Streets Department and near Fleet Maintenance.

A new, larger salt storage building replaces the existing salt dome and its loading zone overlaps with the East Yard.

At the far south end of the site, beyond the existing water tower, are new material storage bins and staging areas.

DESIGN OPTION THREE



Note: This option accommodates storing (23) vehicles indoors.



CONCEPTUAL COST ESTIMATES

PREFERRED DESIGN OPTION ONE

The existing Main Building is re-purposed to accommodate Fleet Maintenance and large vehicles. Administrative Offices are located in the north addition. Water and Street Departments plus vehicle storage bays and general storage are locate in the south addition. A total of (37) vehicles can be stored indoors.



Village of North Aurora Public Works Dept. Conceptual Design Construction Cost Estimate - OPTION 1

8-Apr-20 LEGAT ARCHITECTS

Item	Building or Space Type	Unit	S		Cost / s.f. *		Inflation	ı	Total Cost
	NEW BUILDING CONSTRUCTION								
1.	Administration	3.350	s.f.	х	\$192	х	4%	=	\$668.928
2.	Common Areas (Break/Training Room)	750	s.f.	х	\$339	х	4%	=	\$264,420
3.	Streets Division	1.250	s.f.	х	\$191	х	4%	=	\$248,300
4.	Water Division	1,250	s.f.	х	\$191	х	4%	=	\$248,300
5.	Heated Vehicle Storage	12,750	s.f.	х	\$227	х	4%	=	\$3,010,020
6.	Fleet Division (Wash Bay)	850	s.f.	х	\$360	х	4%	=	\$318,240
7.	General Building Storage	3,000	s.f.	х	\$191	х	4%	=	\$595,920
8.	X _ X	23,200	s.f.	Tota	New Construct	tion			
9.		\$230.78	/s.f.						
10.	Subtotal - New Construction								\$5,354,128
	EXISTING BUILDING RENOVATIONS								
11.	Administration	0	s.f.	х	\$0	х	0%	=	\$0
12.	Common Areas (Locker Rooms, Tool Storage)	2,150	s.f.	х	\$200	х	0%	=	\$430,000
13.	Streets Division	0	s.f.	х	\$0	х	0%	=	\$0
14.	Water Division	0	s.f.	х	\$0	х	0%	=	\$0
15.	Heated Vehicle Storage (Interior paint; Misc. Repairs)	10,675	s.f.	х	\$20	х	0%	=	\$213,500
16.	Fleet Division (Shop, Office)	850	s.f.	х	\$150	х	0%	=	\$127,500
17.	General Building Storage	0	s.f.	х	\$0	х	0%	=	\$0
18.		13,675	s.f.	Total	l Existing Buildir	ng Rer	novations		
19.		\$56.38	/s.f.						
20.	Subtotal - Renovated Construction								\$771,000
	EXTERIOR/SITE CONSTRUCTION								
21.	General Sitework (grading, paving, lighting, etc.)	1	allow.	x	\$1,000,000	Х	0%	=	\$1,000,000
22.	Stormwater Management (Detention Basin)	1	allow.	X	\$250,000	х	0%	=	\$250,000
23.	Salt Building	1	allow.	х	\$250,000	х	0%	=	\$250,000
24.		7 000	allow	X	\$250,000	х	0%	=	\$250,000
25.	Unneated Covered Venicle Storage Building	7,392	S.T.	X	\$120	X	4%	=	\$922,522
26.	Fueling Island (Includes tanks, canopy, fuel managemer	1	allow	<u> </u>	\$350,000	X	4%	=	\$364,000
27.	Subtotal - Exterior/Site Construction								\$3,030,522
	EXISTING BUILDING DEMOLTION								
28.	Salt Dome Demolition	1	allow	х	\$5,000.00	х	4%	=	\$5,200
29.	Equipment Storage Building Demolition	1	allow	х	\$5,000.00	х	4%	=	\$5,200
30.	Old Garage Building Demolition	1	allow	x	\$7,500.00	Х	4%	=	\$7,800
31.	Subtotal - Exterior/Site Construction								\$18,200
TOTAL C	ONSTRUCTION COST ("Hard" Costs)								\$9,179,850
						Tota	I Square Foo	otage	33,875 s.f.
	CONTINGENCIES AND "SOFT" COSTS								
32.	Design Contingency						10%		\$917,985
33.	Construction Contingency						10%		\$917,985
34.	Professional Fees (Architectural, Engineering, Surveying	, Testing))				10%		\$917,985
35.	Fixtures, Furniture, & Equipment						allowance		\$75,000
36.	Fleet Maintenance Equipment								Included Above
37.	Subtotal - "Soft" Costs								\$2,828,955
									¢42.009.904
I UTAL P	NUJEUT CUST								φ12,000,004

Notes:

This cost estimate is based on conceptual diagrams and assumptions about existing conditions. Costs must be further refined as a 38. more detailed scope of work is defined.

Costs per Square Foot are based on similar projects and estimates completed within the past two years. Inflation mark-up adjusts previous estimates for 2020 costs.

PREFERRED DESIGN OPTION TWO

The existing Main Building continues to be used store large vehicles. Administrative Offices are located in the north addition along with Water and Street Departments. Fleet Maintenance is consolidated in the south addition along with vehicle storage bays and general storage. A total of (36) vehicles can be stored indoors.



Village of North Aurora Public Works Dept. Conceptual Design Construction Cost Estimate - OPTION 2

8-Apr-20 LEGAT ARCHITECTS

Item	Building or Space Type	Unit	S	Cost / s.f. *			Inflation		Total Cost
	NEW BUILDING CONSTRUCTION								
1.	Administration	3,350	s.f.	х	\$192	х	4%	-	\$668,928
2.	Common Areas (Break/Training Room)	750	s.f.	х	\$339	х	4%	=	\$264,420
3.	Streets Division	1,250	s.f.	х	\$191	х	4%	=	\$248,300
4.	Water Division	1,250	s.f.	х	\$191	х	4%	=	\$248,300
5.	Heated Vehicle Storage	10,750	s.f.	х	\$227	х	4%	=	\$2,537,860
6.	Fleet Division	4,650	s.f.	х	\$360	х	4%	=	\$1,740,960
7.	General Building Storage	3,000	s.f.	Х	\$191	Х	4%	=	\$595,920
8.		25,000	s.f.	Total	New Construct	ion			
9.	Subtotal New Construction	\$252.19	/s.f.						¢6 304 699
10.									φ0,30 4 ,000
	EXISTING BUILDING RENOVATIONS								
11.	Administration	0	s.f.	х	\$0	х	0%	=	\$0
12.	Common Areas (Locker Rooms, Tool Storage)	2,150	s.f.	х	\$200	х	0%	=	\$430,000
13.	Streets Division	0	s.f.	х	\$0	х	0%	=	\$0
14.	Water Division	0	s.f.	х	\$0	х	0%	=	\$0
15.	Heated Vehicle Storage (Interior paint; Misc. Repairs)	10,675	s.f.	х	\$20	х	0%	=	\$213,500
16.	Fleet Division (Shop, Office)	0	s.f.	х	\$0	х	0%	=	\$0
17.	General Building Storage	0	s.f.	х	\$0	Х	0%	=	\$0
18.		12,825	s.f.	Total	Existing Buildir	ng Rer	novations		
19.		\$50.18	/s.f.						A 040 500
20.	Subtotal - Renovated Construction								\$643,500
	EXTERIOR/SITE CONSTRUCTION								
21.	General Sitework (grading, paving, lighting, etc.)	1	allow	. х	\$1,000,000	х	0%	=	\$1,000,000
22.	Stormwater Management (Detention Basin)	1	allow	. х	\$250,000	х	0%	=	\$250,000
23.	Salt Building	1	allow	. х	\$250,000	х	0%	=	\$250,000
24.	Material Storage Bins	1	allow	. х	\$250,000	х	0%	=	\$250,000
25.	Unheated Covered Vehicle Storage Building	7,392	s.f.	х	\$120	х	4%	=	\$922,522
26.	Fueling Island (includes tanks, canopy, fuel managemer	1	allow	. X	\$350,000	Х	4%	=	\$364,000
27.	Subtotal - Exterior/Site Construction								\$3,036,522
	EXISTING BUILDING DEMOLTION								
28.	Salt Dome Demolition	1	allow	. х	\$5,000.00	х	4%	=	\$5,200
29.	Equipment Storage Building Demolition	1	allow	. х	\$5,000.00	х	4%	=	\$5,200
30.	Old Garage Building Demolition	1	allow	. х	\$7,500.00	х	4%	=	\$7,800
31.	Subtotal - Exterior/Site Construction								\$18,200
TOTAL C	ONSTRUCTION COST ("Hard" Costs)								\$10,002,910
						Tota	I Square Foot	age	35,675 s.f.
	CONTINGENCIES AND "SOFT" COSTS								
32.	Design Contingency						10%		\$1,000,291
33.	Construction Contingency						10%		\$1,000,291
34.	Professional Fees (Architectural, Engineering, Surveying	g, Testing)					10%		\$1,000,291
35.	Fixtures, Furniture, & Equipment						allowance		\$75,000
36.	Fleet Maintenance Equipment								Included Above
37.	Subtotal - "Soft" Costs								\$3,075,873
	ROJECT COST								\$13,078,782
									ψ10,070,70Z

Notes:

This cost estimate is based on conceptual diagrams and assumptions about existing conditions. Costs must be further refined as a more detailed scope of work is defined.

Costs per Square Foot are based on similar projects and estimates completed within the past two years. Inflation mark-up adjusts previous estimates for 2020 costs.

DESIGN OPTION THREE

A less costly option where the existing Main Building is re-purposed to accommodate Fleet Maintenance and large vehicles. Administrative Offices are consolidated in the north addition. The south addition houses the Water and Street Departments plus general storage and a smaller but expandable vehicle storage area. A total of (23) vehicles can be stored indoors.



Village of North Aurora Public Works Dept. Conceptual Design Construction Cost Estimate - OPTION 1R

20-Apr-20 LEGAT ARCHITECTS

Item	Building or Space Type	Unit	s	Cost / s.f. *		Inflation			Total Cost
	NEW BUILDING CONSTRUCTION								
1.	Administration	3,350) s.f.	х	\$220	х	4%	=	\$766,480
2.	Common Areas (Break/Training Room)	750) s.f.	x	\$220	х	4%	=	\$171,600
3.	Streets Division	1,250) s.f.	х	\$191	х	4%	=	\$248,300
4.	Water Division	1,250) s.f.	х	\$191	х	4%	=	\$248,300
5.	Heated Vehicle Storage (Reduced by 5 bays)	7,650) s.f.	х	\$227	х	4%	=	\$1,806,012
6.	Fleet Division (Wash Bay)	850) s.f.	х	\$360	х	4%	=	\$318,240
7.	General Building Storage (Originally 2,500 sf)	2,500) s.f.	х	\$191	х	4%	=	\$496,600
8.		17,600) s.f.	Total	New Constructi	on			
9.		\$230.43	8 /s.f.						
10.	Subtotal - New Construction								\$4,055,532
	EXISTING BUILDING RENOVATIONS								
11.	Administration	() s.f.	Х	\$0	Х	0%	=	\$0
12.	Common Areas (Locker Rooms, Tool Storage)	2,150) s.f.	х	\$200	х	0%	=	\$430,000
13.	Streets Division	() s.f.	х	\$0	х	0%	=	\$0
14.	Water Division	() s.f.	х	\$0	х	0%	=	\$0
15.	Heated Vehicle Storage (Interior paint; Misc. Repairs)	10,675	is.f.	х	\$20	х	0%	=	\$213,500
16.	Fleet Division (Shop, Office)	850) s.f.	х	\$150	х	0%	=	\$127,500
17.	General Building Storage	() s.f.	х	\$0	х	0%	=	\$0
18.		13,675	is.f.	Total	Existing Buildin	g Rer	novations		
19.		\$56.38	8 /s.f.		-	-			
20.	Subtotal - Renovated Construction								\$771,000
21	General Sitework (grading, paying, lighting, etc.)	1	allow	v	000 0082	v	0%	-	000 0082
21. 22	Stormwater Management (Detention Basin)	1	allow.	· ^	\$250,000	×	0%		\$250,000
22.	Salt Building	1	allow.	. ^ v	\$250,000	× v	0%	_	\$250,000
23.	Meterial Storage Rine	1		. ^ V	\$250,000	~	0%	_	\$250,000
24.	Unheated Covered Vehicle Storage Building	ا 2 302 T	allow.	. ^ V	φ230,000 ¢0	×	0%		\$230,000 ¢0
25.	Fueling Island (includes tanks, canony, fuel management	1,002	allow	×	\$350,000	v	1%		φυ \$364 000
20.	Subtotal - Exterior/Site Construction	I	allow.	. ^	\$330,000	^	4 /0	-	\$304,000
21.								l	ψ1,014,000
28	EXISTING BUILDING DEMOLTION	1	allow	v	\$5,000,00	v	1%	_	\$5 200
20.	Equipment Storage Building Demolition	1	allow.	. ^ v	\$5,000.00	v	470		\$5,200
29.	Old Garage Building Demolition	1	allow.	. ^ v	\$3,000.00 \$7,500.00	× v	470	_	\$3,200 \$7,800
30.	Subtotal - Exterior/Site Construction	1	allow.		φ1,500.00	^	4 /0	_	\$18,200
TOTAL C	ONSTRUCTION COST ("Hard" Costs)					T-4-	1.0 miles 5 a a	4	\$6,758,732
						lota	al Square Foo	tage	28,275 s.f.
	CONTINGENCIES AND "SOFT" COSTS								
32.	Design Contingency						10%		\$675,873
33.	Construction Contingency						10%		\$675,873
34.	Professional Fees (Architectural, Engineering, Surveying, Testing) 10%						\$675,873		
35.	Fixtures, Furniture, & Equipment						allowance		\$75,000
36.	Fleet Maintenance Equipment								Included Above
37.	Subtotal - "Soft" Costs								\$2,102,620
TOTAL									¢0.004.050
TOTALP	RUJECI CUSI								۵ ۵,861,352
Notes	:								

- This cost estimate is based on conceptual diagrams and assumptions about existing conditions. Costs must be further refined as a more detailed scope of work is defined.
- Costs per Square Foot are based on similar projects and estimates completed within the past two years. Inflation mark-up adjusts 39. previous estimates for 2020 costs.

APPENDIX

EXISTING SITE SURVEY



EXISTING SITE PLAN



EXISTING FACILITY FLOOR PLAN

PROS:

- Division Shops are close to stored vehicles.
- Fleet Division is separate.
- Pull-through wash bay within Fleet Division.
 Majority of Public Works vehicles on west side of building.
- Staff and Visitor parking on east side of building.



(67)



EXISTING FACILITY PHOTOS













EXISTING FACILITY PHOTOS

























EXISTING FACILITY PHOTOS
























EXISTING FACILITY PHOTOS













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EXISTING FACILITY PHOTOS

























MEETING MINUTES LEGATARCHITECTS

DESIGN | PERFORMANCE | SUSTAINABILITY

May 8, 2019

VIA Email

Mr. John Laskowski Public Works Director Village of North Aurora Public Works Department 25 East State Street North Aurora, IL

RE Village of North Aurora – Analysis of the Public Works Facility Architect's Project Number: 219064.00 **Meeting Minutes**

Following is a summary of a Kick-Off Meeting held at 9:00 a.m. on Tuesday, March 21st, 2019 at the North Aurora Village Hall Conference Room. These notes record our understanding of items discussed and decisions made at this meeting. Please notify us within seven (7) calendar days of any necessary additions or corrections.

PERSONS IN ATTENDANCE

Bill Hannah	Finance Director
David Hansen	Admin/GIS Analysis
Brian Richter	Street Superintendent
John Laskowski	Public Works Director
Steven Bosco	Village Administrator
Marc Rohde, AIA, LEED AP	Legat Architects

- 1. Introductions were made all around.
- 2. Everybody is excited about the project, and the opportunity to develop options to improve their existing facility.
- 3. The Public Works Team will send existing drawings to Legat for the exiting buildings. Legat will put those buildings in Revit, a 3D drawing / modeling program, for use in the study.

Mr. John Laskowski **Meeting Minutes** March 21, 2019 Page 2 of 3

- 4. The Village of North Aurora will procure a survey for the existing site and send that to Legat Architects in both AutoCAD as well as pdf.
- 5. The current population is approximately 18,000, with a potential increase to 22,000. We will plan this study to accommodate 25% growth in the staff.
- 6. There are 13 current full-time staff today, so we will plan for 15 to 18.
- 7. The Public Works Department is "lean", in that they are staffed for a village with a population of 12,000. We need to plan for additional staff as noted above, and also for the fact that the PW Department will likely be increasing their services. Some of the staff that they do not have but would in the foreseeable future are:
 - a. Village / staff engineer.
 - b. Mechanics.
 - c. Arborist.
 - d. Building Maintenance.
- 8. 20-25% of snow plowing work is subcontracted out. This may be a future discussion as it may be advisable to increase the staff so they can do this work in house.
- 9. The official name of the group that we are meeting with today will be the "Public Works Facilities Team".
- 10. There are only two divisions Water and Streets.
- 11. The Project Goals are as follows:
 - a. Determine what space is needed (they already know they do not have enough).
 - b. Better utilize existing space within buildings as well as on the site.
 - c. Plan for the next 25 years.
 - d. Propose cost effective solutions.
- 12. The next steps include getting the existing building drawings so we can put them into electronic format, creating the existing vehicle spreadsheet to plan for parking needs, and develop the draft space needs analysis based on the spaces they currently have.

Mr. John Laskowski **Meeting Minutes** March 21, 2019 Page 3 of 3

13. Our next meeting will to discuss the desired rooms and spaces, after we have completed the tasks described above.

Sincerely,

Marc Rohde, AIA, LEED AP Project Manager

Legat Architects, Inc.

MCR/MCR

- ATTACHMENTS Attendance Record
- EC None

File: 219064.00: 5.01

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June 26, 2019

VIA Email

Mr. John Laskowski Public Works Director Village of North Aurora Public Works Department 25 East State Street North Aurora, IL

RE Village of North Aurora – Analysis of the Public Works Facility Architect's Project Number: 219064.00 Meeting Minutes

Following is a summary of a Staff Input Meeting held at 2:00 p.m. on Wednesday, June 21st, 2019 at the North Aurora Village Hall Conference Room. These notes record our understanding of items discussed and decisions made at this meeting. Please notify us within seven (7) calendar days of any necessary additions or corrections.

PERSONS IN ATTENDANCE

Bill Hannah	Finance Director
David Hansen	Admin/GIS Analysis
Brian Richter Street Superinte	endent
Paul Young	Water Superintendent
John Laskowski	Public Works Director
Steven Bosco Village Adminis	trator
Marc Rohde, AIA, LEED AP	Legat Architects

- We started the meeting by reviewing the floor plans that Legat prepared by using the available drawings provided by the Public Works Department as well as by visiting the site. They were generally okay, with the most notable exception being that some of the building names were different from what the department refers to them as.
- 2. The main deficiencies in the site, or items that need to be accommodated in the design of a new Master Plan, are the following:

Mr. John Laskowski Meeting Minutes June 18, 2019 Page 2 of 4

- a. Parking for up to 22 employees (planning for future).
- b. Parking for 2 4 seasonal employees.
- c. Parking for 4 6 visitor spaces.
- d. Total parking of 22 28.
- e. Clearly defined and separated parking area from public works vehicle circulation area.
- f. Replacement of the old salt dome in the middle of the site with a salt building at the rear of the site with other material storage bins.
- g. Sporadic asphalt paving layout should be revised / redone to fill in openings and square off paved areas. Openings by main garage, east water treatment plant, and other areas should be addressed.
- 3. A new set of covered and uncovered material storage bins should be planned for at the south (rear) portion of the site and including space for the following:
 - a. Stone 1 CA6.
 - b. Stone 2 CA7.
 - c. Stone 3 3" rock.
 - d. Dirt.
 - e. Steel castings.
 - f. Rings / frames / lids.
 - g. Street lighting (size to be determined for bin or storage area).
 - h. Piping on racks (preferable to be on the inside of the building).
 - i. Cold patch.
 - j. Salt 1,600 tons.
- 4. The building deficiencies are as follows:
 - a. The Old Garage and Equipment Storage Buildings are past their useful life and should be demolished. Does the material currently stored within them need to be accommodated within the new spaces planned? Or, is the material in these buildings not currently used and could be removed?
 - b. Water Treatment Plant is fine and will not be addressed by the study.
 - c. The Public Works Garage is okay in terms of condition. What it is lacking is additional space, which will be addressed in the Space Needs spreadsheet.
- 5. The next step was to review the Draft Space Needs spreadsheet that Marc had prepared prior to the meeting. Marc noted that the spreadsheet tallied the existing spaces, and that he developed a list of other spaces that he felt might be needed, based on experience with other public works projects.
- 6. We reviewed each potential new space by projecting the spreadsheet on the monitor and went line by line to discuss each and every space. Some were added, some were deleted, and

Mr. John Laskowski Meeting Minutes June 18, 2019 Page 3 of 4

some square footages were revised. The spreadsheet (attached) reflects the final sizes and spaces at this meeting.

- 7. Marc explained that it is normal for the first draft spreadsheet to be a bit on the large size, but that is the purpose of the study, which is to identify every potential desired space that is needed. Prior to establishing a budget for the project, we will develop a conceptual cost estimate based on this first draft space needs, as a starting point to see if we need to make any adjustments.
- 8. Once we develop a program that is acceptable, then we will look at potential design scenarios. Three (3) options that will be looked at will be:
 - a. Renovate existing building and add site material storage area.
 - b. Renovate existing building, provide additions to the building and add site material storage area as well as site improvements.
 - c. New standalone building, renovate old building into vehicle storage and maintenance, and add site material storage area as well as site improvements.
- 9. I will send the draft space needs to John next week for his input. I will also develop a conceptual design cost estimate based on that spreadsheet.

Sincerely,

Marc Rohde, AIA, LEED AP Project Manager

None

Legat Architects, Inc.

MCR/MCR

attachments	Attendance Record
	Draft Space Needs Analysis spreadsheet dated June 18, 2019

EC

Mr. John Laskowski Meeting Minutes June 18, 2019 Page 4 of 4

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July 15, 2019

VIA Email

Mr. John Laskowski Public Works Director Village of North Aurora Public Works Department 25 East State Street North Aurora, IL

RE Village of North Aurora – Analysis of the Public Works Facility Architect's Project Number: 219064.00 **Meeting Minutes**

Following is a summary of an Operational Assessment held at 2:30 p.m. on Tuesday, July 9, 2019 at the Public Works Facility. These notes record our understanding of items discussed and decisions made at this meeting. Please notify us within seven (7) calendar days of any necessary additions or corrections.

PERSONS IN ATTENDANCE

Brian Richter	Street Superintendent
John Laskowski	Public Works Director
Marc Rohde, AIA, LEED AP	Legat Architects

- 1. The site is completely fenced off from Butterfield Road with a chain link fence and sliding gates at the northwest and northeast corners of the property.
- 2. At the northwest corner of the site, accessible to the public is a large mulch pile.
- 3. Employee parking is in the asphalt area near the front door. There are really no striped spaces designated.
- 4. The Streets Division is the only division that reports to this building in the morning to start their day. Everybody comes in to the building, checks in at the front and signs in on a sign-in sheet, and then goes to the Break Room, where there is currently seating only for 6 with a couple of other chairs at a smaller second table.

Mr. John Laskowski **Meeting Minutes** July 9, 2019 Page 2 of 3

- 5. There are no locker rooms. There are lockers within the toilet rooms but they are very crowded and almost impossible to maneuver in or change clothes comfortably.
- 6. Regular work hours are 7:00 am until 3:30 pm. Typical break hours are 9:30 to 10:00 am and lunch is 12:00 to 12:30 pm.
- 7. There are two areas that serve as mechanic's bays, but they currently do not have a full-time mechanic. Vehicles and equipment are worked on an asneeded basis.
- 8. There is a fair amount of wall space between the overhead doors and that requires some careful maneuvering of vehicles when the vehicle storage area is completely filled up in winter.
- 9. There are no specific storage rooms within the main public works building. Wall space is used in all locations for storage.
- 10. The existing salt dome on this site holds 750 tons of salt. The salt barn on the other site holds 1,700 tons of salt. For this project, we should plan on a new salt building that holds 1,400 tons of salt.
- 11. Contractors working in the Village on long term contracts park their vehicles on the west side of the building.
- 12. There is plenty of site available for parking of employee, visitor and public works vehicles. However, the site is not organized nor is there any striped or identified parking. We will address this in the Master Plan.
- 13. The building is set far enough away from the property lines that it appears we could expand the building literally in any direction. From my site visit today, it seems that we could expand the building with additional vehicle storage to the south, in the same pre-engineered metal building style as the current building. Then we could wrap that building with lower spaces for office, administration, shops, etc. that would also allow for a nice visual appearance to the facility.
- 14. The two buildings on the south side of the site are in bad shape and also not fully utilized so we can remove them to free up space and also put back some of their square footage, but not all. They are probably only actually using 25% of their available square footage.

Mr. John Laskowski **Meeting Minutes** July 9, 2019 Page 3 of 3

- 15. The larger green building is mostly filled with vehicle sand there is some miscellaneous storage in there. They also use that building as their wash bay. The vehicles in this building have already been accounted for in the Fleet Tabulation spreadsheet.
- 16. There is a brine making tank in the larger building and this would need to be relocated elsewhere.
- 17. In that same building, one corner is used for Water Department storage. We would need to account for approximately 400 s.f. in the program for the Water Department.

Sincerely,

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Marc Rohde, AIA, LEED AP Project Manager

Legat Architects, Inc.

MCR/MCR

ATTACHMENTS None

EC None

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November 11, 2019

VIA Email

Mr. John Laskowski Public Works Director Village of North Aurora Public Works Department 25 East State Street North Aurora, IL

RE Village of North Aurora – Analysis of the Public Works Facility Architect's Project Number: 219064.00 **Meeting Minutes**

Following is a summary of a Collaborative Design Meeting held at 9:00 am on Wednesday, October 30, 2019. at Village of North Aurora Public Works Garage. These notes record our understanding of items discussed and decisions made at this meeting. Please notify us within seven (7) calendar days of any necessary additions or corrections.

PERSONS IN ATTENDANCE

Marc Rohde, Project Manager, Legat Architects Audrey Blankenship, Project Associate, Legat Architects Bill Hannah, Finance Director, Village of North Aurora Paul Young, Water Superintendent, Village of North Aurora David Hansen, Admin/GIS Analyst, Village of North Aurora Steve Bosco, Village Administrator, Village of North Aurora Cory Kennedy, Street Department, Village of North Aurora Brian Rickter, Street Department, Village of North Aurora Alex Pepper, Street Department, Village of North Aurora Ture Paulson, Street Department, Village of North Aurora

- 1. Important site considerations
 - a. Avoid backwash tanks located south of the main garage, this can be moved but it would be better not to due to its concrete, not fiber glass construction
 - b. Need to be able to circulate around the site
- 2. Important building considerations
 - a. Everyone in one continuous building
 - b. Improve appearance from street

- c. General building storage includes liquid tanks (outside) for mixing with salts and will therefore need to be located closest to the salt dome, this space will also need a garage door to allow trucks to drive into space
- 3. Fleet Division
 - a. 4 side by side bays and one wash bay
 - b. 4 bays to be pull in and out, wash bay to be pull through
 - c. No need to have garage doors into main vehicle storage, only a man door
 - d. Needs a separate bathroom due to distance from rest of shops and administration
- 4. Heated vehicle storage
 - a. Additional square footage is necessary for additional future vehicles, list and sizes to be provided by VONA
 - b. Pull through garage doors is ideal however a combination is acceptable in front of shops
 - c. Can consider separate vehicle storage for normal (pickup truck) size vehicles
 - d. Need to consider larger vehicle sizes during fall months when leaf machines are attached to back of trucks
 - e. Consider mezzanine storage space above shop spaces for additional storage

Thank you.

Sincerely,

Audrey Blankenship

Project Associate

Legat Architects, Inc. 2015 Spring Road Unit 106 Oak Brook, IL 60523

AB/AB

- ATTACHMENTS None
- EC None
- FILENAME 21906400_MIN_191030-CollabortativeDesignMtg

