

Agenda

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- Relevant Projects
- Team Organizational Chart
- Milestone Project Schedule
- Sample 2-week look ahead
- Staffing Chart
- Summary Estimate

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- Value Engineering Proposal
- Construction Site Logistics Plan
- Constructability Review
- Quality Assurance/ Quality Control Plan
- Construction Site Safety Plan
- Sustainable Construction Plan
- Construction Technology Initiatives



Project Understanding

Project Name: Urban Yard

Project Address: 40-09 21st St.

Long Island City, NY 11101

Owner: Elms Realty

Architect: Murdock Solon Architects

Structural Engineer: Bluesky Design

MEP Engineer: 2LS Consulting Engineering







Project Understanding

Scope of Work:

- Project floor area: 86,040 sqft
- Installation of 2 new elevators
- Lobby Renovation
- Tenant Amenity Center, new roof bulkhead
- Public restrooms, main fire stairwell
- MEP systems
- Signage, Flooring, and windows





Firm Introduction

- Founded in 1985 by Hassan Qamar
- Firm Location: 3541 Steinway Street

Long Island City, NY 1101

- Firm Size: \$200 Million Annually
- 225 Full-time Staff
- Internship Program
- LEED accredited professionals





Gantry Point, 25-11 49th Ave, Long Island City, NY

- Office building
- 9 stories, 240,000 sq.ft office space
- Architect: STUDIOS
- Completion: 2020
- Existing building renovation and new construction
- Old industrial building and modern glass building interlocked









129 Lafayette Street, New York, NY

- Building Use: Residential
- Size: 81,000 sq.ft
- Year of Renovation: 2004

Interior renovation of existing building originally built in 1900

New systems, elevators, new structural roof.







5 Court Square, Long Island City, New York, NY 11101

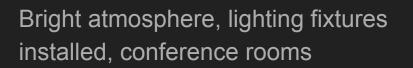
- Building Use: Apartment building
- Size: 80,000 sq.ft, 11 stories
- Architect: My Architect PC
- Year of Completion: 2019
- Demolition of existing structure, new building
- Modernistic glass facade
- 60 luxury apartments, with 10ft ceiling height





Pratt Institute - Student Union

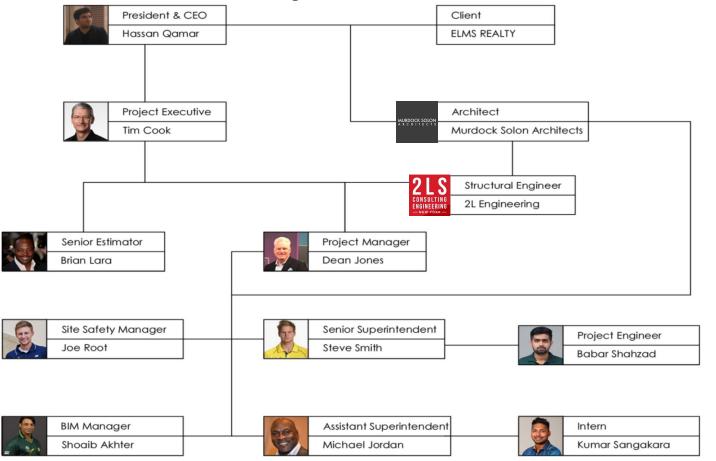
- Location: 200 Willoughby Ave, Brooklyn, NY 11205
- Completion: October 26th, 2019
- Size: 60,856 sq.ft
- Original Masonry Structure built in 1887







Team Organizational Chart



G-FOUR

Milestone Schedule





INTERIOR RENOVATION, 40-09 21ST STREET, LONG ISLAND CITY, NY. 11101

Milestone Baseline Schedule

_						-			-			-				-					
Sr #	Milestone	Duration	Start Date	Finish Date	April-2021	Ma	ry-2021	June-2021	July	-2021	August-2021	Septemb	er-2021 C	October-2021	November-202	1December-202	1 January-2022	February-2022	March-2022	April-2022	May-2022
1	Permitting	10 days	Mon 4/26/21	Fri 5/7/21			Permitting	,													
2	Mobilization	3 days	Mon 5/10/21	Wed 5/12/21			Mobiliz	zation													
3	Earth Work	8 days	Tue 5/11/21	Thu 5/20/21			Ec	arth Work													
4	Structural Work	91 days	Thu 5/20/21	Thu 9/23/21									St	ructural Work							
5	Foundation	17 days	Thu 5/20/21	Fri 6/11/21				Fo	undation	l.											
6	Ground Floor	15 days	Tue 6/15/21	Mon 7/5/21						Ground F	loor										
7	Second Floor	17 days	Wed 6/23/21	Thu 7/15/21						Seco	nd Floor										
8	Third Floor	13 days	Fri 7/2/21	Tue 7/20/21						T	ird Floor										
9	Fourth Floor	15 days	Mon 7/19/21	Fri 8/6/21							Fourth Fl	oor									
10	Fifth Floor	20 days	Thu 7/29/21	Wed 8/25/21								Fifth Floor	2								
11	Sixth Floor	19 days	Wed 8/11/21	Mon 9/6/21								Siz	th Floor								
12	Roof Top	13 days	Wed 8/25/21	Fri 9/10/21									Roof To	op							
13	Bulk Head	13 days	Tue 9/7/21	Thu 9/23/21										Bulk Head							
14	Architectural Work	46 days	Mon 8/9/21	Mon 10/11/21										Arch	itectural Work						
15	Cellar	4 days	Mon 8/9/21	Thu 8/12/21							Ce	lar									
16	Ground Floor	11 days	Fri 8/13/21	Fri 8/27/21								Grour	d Floor								
17	Second Floor	5 days	Mon 8/30/21	Fri 9/3/21									Second I	Floor							
18	Third Floor	5 days	Mon 9/6/21	Fri 9/10/21									Third Flo	oor							
19	Fourth Floor	6 days	Mon 9/13/21	Mon 9/20/21									Fou	rth Floor							
20	Fifth Floor	6 days	Tue 9/21/21	Tue 9/28/21										Fifth Floor							
21	Sixth Floor	6 days	Wed 9/29/21	Wed 10/6/21										Sixth Floo	r						
22	Roof Top	3 days	Thu 10/7/21	Mon 10/11/21										Roo	Тор						
23	Finishing Work	34 days	Wed 9/22/21	Mon 11/8/21											Fini:	hing Work					
24	Plumbing Work	74 days	Fri 8/13/21	Wed 11/24/21												Plumbing Work	k				
25	Openings	24 days	Mon 10/4/21	Thu 11/4/21							_				Openin	gs					
26	Electrical Work	102 days	Mon 8/30/21	Tue 1/18/22													-	Electrical Work			
27	Mechanical Work	45 days	Fri 12/24/21	Thu 2/24/22															Mechanical Work	8	
28	Closeout	50 days	Fri 2/25/22	Thu 5/5/22																	Closeout

2-Week look ahead

40-09 21 St Two Week Look Ahead											
Interior Renovation	May-25	May-26	May-27	May-28	May-29	May-30	May-31	Jun-01	Jun-02	Jun-03	Jun-04
Mobilization	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Site Fencing	x	x	×	x			x	×	×		
Temporary site office	х	х	x	х			х	х	х		
Site Preparation	х	х	х	х			х	х	x		
Earth work											
Demolishing		Х	Х	Х			Х	Х	Х	Х	Х
Excavation		Х	Х	Х			Х	Х	Х	Х	Х





Staffing Chart

Name	Role		2022	
		Avg Hours	Total	% age Of
Hassan Qamar	Principal /CEO	6	66	4%
Tim Cook	Project Executive	15	180	10%
Dean Jones	Project Manager	62	747	41%
Brian Lara	Senior Estimator	26	312	17%
Steve Smith	Senior Superintendent	152	1.820	100%
Michael Jordan	Asst. Superintendent	152	1.820	100%
Babar Shahzad	Project Engineer	147	1.760	97%
Joe Root	Site Safety Manager	152	1.820	100%
Shoaib Akhtar	BIM Manager	18	210	12%
Kumar Sangakara	Intern	35	415	23%
Tota		765	9.150	

Project URBAN YARD

Address 40-09 21 St Long Island City, NY 11101

Firm: G-Four Construction Group

Address 3541 Steinway Street, Long Island City, NY 11101

Date: 04/26/2021

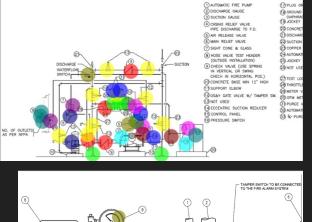
			Project Area: 86	,040/-
DIVISION	TRADE DISCRIPTION	COST (\$)	COST/SFT	%
1	GENERAL REQUIREMENTS	604,987.56	7.03	6.68%
-	EXISTING CONDITIONS	106,869.06	1.24	1.18%
3	CONCRETE	604,081.89	7.02	6.67%
4	MASONRY	327,852.54	3.81	3.62%
5	METALS	914,726.70	10.63	10.10%
6	wood, plastics & compositions	158,492.25	1.84	1.75%
7	THERMAL & MOISTURE PROTECTION	259,927.29	3.02	2.87%
8	OPENINGS	153,058.23	1.78	1.69%
9	FINISHINGS	270,795.33	3.15	2.99%
10	SPECIALTIES	100,529.37	1.17	1.11%
11	EQUIPMENTS	177,511.32	2.06	1.96%
12	FURNISHINGS	534,345.30	6.21	5.90%
13	SPECIAL CONSTRUCTIONS	211,926.78	2.46	2.34%
14	CONVEYING EQUIPMENTS	167,548.95	1.95	1.85%
21	FIRE SUPPRESSION	704,611.26	8.19	7.78%
22	PLUMBING	498,118.50	5.79	5.50%
23	HEATING, VENTILATING & A/C	1,484,393.13	17.25	16.39%
26	ELECTRICAL	901,141.65	10.47	9.95%
27	COMMUNICATIONS	96,906.69	1.13	1.07%
28	ELECTRONIC SAFETY & SECURITY	208,304.10	2.42	2.30%
31	EARTHWORK	135,850.50	1.58	1.50%
32	EXTERIOR IMPROVEMENTS	217,360.80	2.53	2.40%
33	UTILITIES	217,360.80	2.53	2.40%
	TRADE SUBTOTAL	9,056,700.00	105.26	100.00%
BUILDING P	ERMIT FEES	271,701	3.16	3%
GENERAL C	ONDITIONS-REIMBURSEABLES	452,835	5.26	5%
CM STAFF		724,536	8.42	8%
OVERHEAD	AND PROFIT	905,670	10.53	10%
INSURANCE		362,268	4.21	4%
	FEE SUBTOTAL	2,717,010	31.58	30%
	TOTAL	11,773,710.00	136.84	

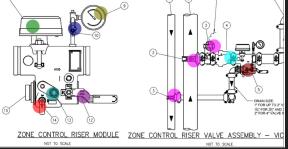
Summary Estimate



Detailed Sprinkler Take-off







G-FOUR



PROJECT:

Interior Renovation Project

ADDRESS

40-09 21St Street Long Island City Ny 11101

DATE	4/26/2021
DAIL	TILUILULI

					DATE	4/26/2021	-			_		-		_			
SR#	CSI SECT	DESCRIPTION	QUANTITY	WASTAGE (5%)	QTY WITH WASTAGE	UNIT OF MEASUREMEN T		T LABOR COST	UNIT MATERI COST	AL	TOTAL LABOR COST	N	TOTAL MATERIAL COST	т	DTAL ITEM COST	TO	TAL TRADE COST
	DIV. 02	DEMOLITION			2		-		0001	-		-	0051	-		Ś	25,674
												_				Ŷ	20,074
		DEMOLISH THE EXISTING CONDITION	1														
			-														
1		Remove Existing Piping And Sprinkler Heads In This Area.	16,980	0%	16,980	SF	\$	1.3			\$ 22,074.0	\$	-	\$	22,074		
2		Existing Sprinkler Heads To Be Removed And Replace.	240	0%	240	EA	\$	15.0			\$ 3,600.0	\$	-	\$	3,600		
	DIV. 21	FIRE SUPPRESSION														\$	92,468
		FIRE SPRINKLER PIPES	1														
		FIRE SPRINKLER FIFES	_														
3		1" Dia Sprinkle Pipe	524	5%	550	LF	\$	2.7	Ś 1	1.3	\$ 1,502.0	Ś	6,200.8	Ś	7,703		
4		1-1/2" Dia Sprinkler Pipe	101	5%	106	LF	\$	3.0		2.5			1,323.2		1,644		
5		1-1/4" Dia Sprinkler Pipe	475	5%	499	LF	\$	3.1	\$ 1	2.9	\$ 1,556.1	\$	6,423.9	\$	7,980		
6		2" Dia Sprinkler Pipe	40	5%	42	LF	\$	3.9	\$ 1	5.1	\$ 163.8	\$	676.2	\$	840		
7		4" Dia Sprinkler Pipe	635	5%	667	LF	\$	4.9	\$ 2	0.1	\$ 3,250.4	\$	13,418.3	\$	16,669		
8		6" Dia Fire Sprinkler Pipe	512	5%	538	LF	\$	5.4	\$ 2	2.1	\$ 2,882.9	\$	11,901.1	\$	14,784		
9		2" Dia Sprinkler Drain Pipe	68	5%	71	LF	\$	3.9	\$ 1	5.1	\$ 278.5	\$	1,149.5	\$	1,428		
10		3" Dia Dry Sprinkler Pipe	20	5%	21	LF	\$	4.6	\$ 1	3.9	\$ 96.2	\$	397.3	\$	494		
			-														
		FIRE SPRINKLER PIPE JOINTS															
11		1" Dia Elbow Joint	15	0%	15	EA	\$	8.8	Ś 3	5.2	\$ 131.6	Ś	543.4	Ś	675		
12		1-1/4" Dia Elbow Joint	15	0%	15	EA	\$	9.4	\$ 3	3.6	\$ 140.4	\$	579.6	\$	720		
13		2" Dia Elbow Joint	6	0%	6	EA	\$	9.8	\$ 4	0.3	\$ 58.5	\$	241.5	\$	300		
14		3" Dia Elbow Joint	2	0%	2	EA	\$	10.7	\$ 4	1.3	\$ 21.5	\$	88.6	\$	110		
15		6" Dia Elbow Joint	10	0%	10	EA	\$	11.3	\$ 4	5.7	\$ 113.1	\$	466.9	\$	580		
16		4" Dia Elbow Joint	18	0%	18	EA	\$	10.9	\$ 4	5.1	\$ 196.6	\$	811.4	\$	1,008		
17		4" Dia Elbow 45* Joint	7	0%	7	EA	\$	8.8	\$ 3	5.2	\$ 61.4	\$	253.6	\$	315		
18		6" X 6" X 6" Dia Tee Joint	3	0%	3	EA	\$	8.8	\$ 3	5.2	\$ 26.3	\$	108.7	\$	135		
19		6" X 6" X 4" Dia Tee Joint	1	0%	1	EA	\$	7.8	\$ 3	2.2	\$ 7.8	\$	32.2	\$	40		
20		6" X 6" X 4" Dia Tee Joint	1	0%	1	EA	\$	7.8		2.2			32.2		40		
21		4" X 4" X 4" Dia Tee Joint	2	0%	2	EA	\$	6.6		7.4		÷	54.7	100	68		
22		4" X 4" X 2" Dia Tee Joint	1	0%	1	EA	\$	6.6		7.4	50		27.4		34		
23		4" X 4" X 1-1/4" Dia Tee Joint	10	0%	10	EA	\$	6.2	- 1979 - 1979	5.8			257.6		320		
24		2"X 2"X 2" Dia Tee Joint	6	0%	6	EA	\$	5.9		1.2			144.9		180		
25		2"X 1"X 2" Dia Tee Joint	1	0%	1	EA	\$	5.9	\$ 2	1.2	\$ 5.9	\$	24.2	\$	30		

27 1"X.1-J4"X1"Dia Tee Joint 6 0% 6 EA S 5.5 S 22.5 S 32.8 S 135.2 S 28 1-3/4"X1-J2"X1"Dia Tee Joint 1 0% 1 EA S 4.9 S 20.1 S 4.9 S 20.1 S 4.9 S 20.1 S 4.4 S 1.9 S 4.7 S 1.9 S 4.7 S 1.9.3 S 4.7 S 1.9.3 S 4.7 S 1.9.3 S 1.7 S 1.0 S 2.0 S 2.4 S 3.5 S 1.4.5 S 7.0 S 2.9.0 S 31 1"X1'X1"Dia Tee Joint 1 0% 1 EA S 3.1 S 1.1.6 S 7.6 7.5 7.5 S 3.1 S 1.1.6 S <	26	1-1/2" X 1-1/4" X 4" Dia Tee Joint	1	0%	1	EA	\$	5.5	Ś	22.5	Ś	5.5	Ś	22.5	Ś	28	1
28 1-1/4" X1-1/2" X1" Dia Tes Joint 1 0% 5 EA 5 4.9 5 20.1 5 20.5 3 30 10.1/4"X1"Dia Tes Joint 20.0 2 20.4 5 31.1 5 12.0 5 31.6 12.0 5 31.6 12.0 5 2.0 5	A 2 0 - 0 - 1															168	
30 1-1/2" X 2" X 1-1/2" Dia Tee Joint 1 0% 1 EA \$ 4.7 \$ 1.9.3 \$		time sequences and sequences and second and second term	1			EA										25	
31 1*X 1*X 1*Dia Tee Joint 5 0% 5 EA 5 3.5 5 1.4.5 5 7.7.5 5 32 1*X 1*X 1*Dia Tee Joint 2 0% 2 EA 5 3.1.5 5 1.4.5 5 7.0.6 5 7.2.5 5 33 1*X 1*X 1*Dia Tee Joint 1 0% 1 EA 5 3.1.5 5 1.4.5 5 7.0.6 5 7.2.5 5 34 Ground Face Union-Non Corrosive Diaphragm 3/32*Orfice 1 0% 1 EA 5 3.0 5 1.6.1 5 1.6.1 5 Finet SprinkLer Head, Manufacturer: Tyco, Model No: Tyco: 150 0% 150 EA 5 1.6.6 5 68.4 5 3.6.5.3 5 1.8.0 5 1.8 Finet SprinkLer Mead, Manufacturer: Tyco, Model No: Tyco: 150 0% 120 EA 5 1.6.6 5 68.4 \$ 3.4.1 5 1.4.36.9 \$ 1.8 6* 10	29	1-1/4" X 1-1/4" X 1" Dia Tee Joint	5	0%	5	EA	\$	4.9	\$	20.1	\$	24.4	\$	100.6	\$	125	
32 1 "X1"X1"Dia Tee Joint 2 0% 2 EA S 3.5 S 1.4.5 S 7.0 S 29.0 S 33 1 "X1-X1"X1"Dia Tee Joint 1 0% 1 EA S 3.1 S 12.9 S 16.1 S 3.9 S 16.1 S 3.9 S 16.1 S 3.9 S 16.1 S 3.9 S 16.1 S 3.0 S 16.0 S 6.70.6 S 2.80.1 S 1.8 1.00.6 S 3.656.3 S 1.50.93.8 S 1.8 1.430.9 S 1.8 1.40.9 S 3.4 <t< td=""><td>30</td><td>1-1/2" X 2" X 1-1/2" Dia Tee Joint</td><td>1</td><td>0%</td><td>1</td><td>EA</td><td>\$</td><td>4.7</td><td>\$</td><td>19.3</td><td>\$</td><td>4.7</td><td>\$</td><td>19.3</td><td>\$</td><td>24</td><td></td></t<>	30	1-1/2" X 2" X 1-1/2" Dia Tee Joint	1	0%	1	EA	\$	4.7	\$	19.3	\$	4.7	\$	19.3	\$	24	
33 1"X1-1/4"X1"Dia Teoloint 1 0% 1 EA S 3.1 S 1.2.9 S 3.1 S 3.2.9 S 1.6.1 S 3.9 S 1.8 S <td>31</td> <td>1" X 1" X 1" Dia Tee Joint</td> <td>5</td> <td>0%</td> <td>5</td> <td>EA</td> <td>\$</td> <td>3.5</td> <td>\$</td> <td>14.5</td> <td>\$</td> <td>17.6</td> <td>\$</td> <td>72.5</td> <td>\$</td> <td>90</td> <td></td>	31	1" X 1" X 1" Dia Tee Joint	5	0%	5	EA	\$	3.5	\$	14.5	\$	17.6	\$	72.5	\$	90	
34 Ground Face Union-Non Corrosive Diaphragm 3/32" Orifice 1 0% 1 EA \$ 3.9 \$ 16.1	32	1" X 1" X 1" Dia Tee Joint	2	0%	2	EA	\$	3.5	\$	14.5	\$	7.0	\$	29.0	\$	36	
FIRE SPRINKLER HEADS 35 Concealed Pendant Sprinkler Head, Manufacturer: Tyco, Modi 29 0% 29 EA \$ 23.4 \$ 96.6 \$ 678.6 \$ 2,801.4 \$ 3 36 Concealed Pendant Sprinkler Head, Manufacturer: Tyco, Model No: Tyco: 150 0% 150 EA \$ 24.4 \$ 100.6 \$ 3,656.3 \$ 15,033.8 \$ 18 FIRE SPRINKLER VALVES 37 6" Dia Ball Valve 21 0% 21 EA \$ 16.6 \$ 68.4 \$ 348.1 \$ 1,436.9 \$ 1 38 4" Dia Ball Valve 6 0% 6 EA \$ 21.5 \$ 88.6 \$ 42.9 \$ 177.1 \$ 1 1 6" Dia Obel Check Detector Assembly 10 0% 10 EA \$ 14.6 \$ 64.4 \$ 14.6 \$ 64.4 \$ 14.08 <td>33</td> <td>1" X 1-1/4" X 1" Dia Tee Joint</td> <td>1</td> <td>0%</td> <td>1</td> <td>EA</td> <td>\$</td> <td>3.1</td> <td>\$</td> <td>12.9</td> <td>\$</td> <td>3.1</td> <td>\$</td> <td>12.9</td> <td>\$</td> <td>16</td> <td></td>	33	1" X 1-1/4" X 1" Dia Tee Joint	1	0%	1	EA	\$	3.1	\$	12.9	\$	3.1	\$	12.9	\$	16	
35 Concealed Pendant Sprinkler Head, Manufacturer: Tyco, Model No: Tyco- 29 EA S 23.4 S 96.6 S 678.6 S 2,801.4 S 38 IFRE SPRINKLER VALVES 37 6° Dia Ball Valve 21 0% 21 EA S 16.6 S 68.4 S 348.1 S 1,436.9 S 1,436.9 S 1,436.9 S 1,8 37 6° Dia Ball Valve 6 0% 6 EA S 16.6 S 68.4 S 348.1 S 1,436.9 S 1,38 4° Dia Ball Valve 6 0% 6 EA S 12.8 S 29.3 S 120.8 S 12.0 S 314.0 S 120.8 S <t< td=""><td>34</td><td>Ground Face Union-Non Corrosive Diaphragm 3/32" Orifice</td><td>1</td><td>0%</td><td>1</td><td>EA</td><td>\$</td><td>3.9</td><td>\$</td><td>16.1</td><td>\$</td><td>3.9</td><td>\$</td><td>16.1</td><td>\$</td><td>20</td><td></td></t<>	34	Ground Face Union-Non Corrosive Diaphragm 3/32" Orifice	1	0%	1	EA	\$	3.9	\$	16.1	\$	3.9	\$	16.1	\$	20	
35 Concealed Pendant Sprinkler Head, Manufacturer: Tyco, Model No: Tyco- 29 EA S 23.4 S 96.6 S 678.6 S 2,801.4 S 38 IFRE SPRINKLER VALVES 37 6° Dia Ball Valve 21 0% 21 EA S 16.6 S 68.4 S 348.1 S 1,436.9 S 1,436.9 S 1,436.9 S 1,8 37 6° Dia Ball Valve 6 0% 6 EA S 16.6 S 68.4 S 348.1 S 1,436.9 S 1,38 4° Dia Ball Valve 6 0% 6 EA S 12.8 S 29.3 S 120.8 S 12.0 S 314.0 S 120.8 S <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																	
36 Pendant Sprinkler Head, Manufacturer: Tyco, Model No: Tyco 150 0% 150 EA \$ 24.4 \$ 100.5 \$ 3,656.3 \$ 15,093.8 \$ 18 FIRE SPRINKLER VALVES 37 6* Dia Ball Valve 21 0% 21 EA \$ 16.6 \$ 68.4 \$ 348.1 \$ 1,436.9 \$ 1 38 4* "Dia Ball Valve 2 0% 1 EA \$ 12.7 \$ 5.2.3 \$ 7.6.1 \$ 314.0 \$ 39 6* "Dia Check Datector Assembly 1 0% 1 EA \$ 21.5 \$ 8.8.6 \$ 41.4 \$ 10.0 % 10 EA \$ 14.1 \$ 10.9 \$ 11.8 \$ 14.6 \$ 60.4 \$ 11.5 \$ 4.5 16.6 \$ 68.4 \$ 16.6 \$ 68.4 \$ 10.5 \$ </td <td></td> <td>FIRE SPRINKLER HEADS</td> <td></td>		FIRE SPRINKLER HEADS															
FIRE SPRINKLER VALVES 37 6" Dia Bail Valve 21 0% 21 EA \$ 16.6 \$ 68.4 \$ 348.1 \$ 1,436.9 \$ 1 38 4" Dia Bail Valve 6 0% 6 EA \$ 12.7 \$ 52.3 \$ 76.1 \$ 310.0 \$ 39 6" Dia Double Check Detector Assembly 1 0% 1 EA \$ 29.3 \$ 120.8 \$ 29.3 \$ 120.8 \$ 29.9 \$ 17.1 \$ 41 6" Dia Ocky Gate Valve With Tamper Switch 10 0% 1 EA \$ 34.1 \$ 1,408.8 \$ 1,42 3" Dia Dry Valve 1 0% 1 EA \$ 14.6 \$ 60.4 \$ 65.3 \$ 273.7 \$ 43 Check Valve For Pump 3 0% 3 EA \$ 14.6 \$ 60.4	35	Concealed Pendant Sprinkler Head, Manufacturer: Tyco, Mode	29	0%	29	EA	\$	23.4	\$	96.6	\$	678.6	\$	2,801.4	\$	3,480	
37 6" Dia Ball Valve 21 0% 21 EA \$ 16.6 \$ 68.4 \$ 348.1 \$ 1,436.9 \$ 1 38 4" Dia Ball Valve 6 0% 6 EA \$ 12.7 \$ 52.3 \$ 76.1 \$ 314.0 \$ 39 6" Dia Double Check Detector Assembly 1 0% 1 EA \$ 22.3 \$ 12.0 \$ 24.3 \$ 120.8 \$ 24.4 \$ 21.5 \$ 88.6 \$ 42.9 \$ 177.1 \$ 41 6" Dia Os&Y Gate Valve With Tamper Switch 10 0% 1 EA \$ 14.6 \$ 66.3 \$ 27.77 \$ 43 Check Valve For Pump 3 0% 3 EA \$ 16.6 \$ 68.4 \$ 66.3 \$ 273.77 \$ 44 Butterfly Valve For Pump 1 0% 1 EA \$ 16.6 \$ 68.4 \$ 66.5 68.4 \$	36	Pendant Sprinkler Head, Manufacturer: Tyco, Model No: Tyco-	150	0%	150	EA	\$	24.4	\$	100.6	\$	3,656.3	\$	15,093.8	\$	18,750	
37 6" Dia Ball Valve 21 0% 21 EA \$ 16.6 \$ 68.4 \$ 348.1 \$ 1,436.9 \$ 1 38 4" Dia Ball Valve 6 0% 6 EA \$ 12.7 \$ 52.3 \$ 76.1 \$ 314.0 \$ 39 6" Dia Double Check Detector Assembly 1 0% 1 EA \$ 22.3 \$ 12.0 \$ 24.3 \$ 120.8 \$ 24.4 \$ 21.5 \$ 88.6 \$ 42.9 \$ 177.1 \$ 41 6" Dia Os&Y Gate Valve With Tamper Switch 10 0% 1 EA \$ 14.6 \$ 66.3 \$ 27.77 \$ 43 Check Valve For Pump 3 0% 3 EA \$ 16.6 \$ 68.4 \$ 66.3 \$ 273.77 \$ 44 Butterfly Valve For Pump 1 0% 1 EA \$ 16.6 \$ 68.4 \$ 66.5 68.4 \$		a. 38 0.02, 36 34															
38 4*"Dia Ball Valve 6 0% 6 EA \$ 12.7 \$ 52.3 \$ 76.1 \$ 314.0 \$ 39 6" Dia Double Check Detector Assembly 1 0% 1 EA \$ 29.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 1		FIRE SPRINKLER VALVES															
38 4*"Dia Ball Valve 6 0% 6 EA \$ 12.7 \$ 52.3 \$ 76.1 \$ 314.0 \$ 39 6" Dia Double Check Detector Assembly 1 0% 1 EA \$ 29.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 20.3 \$ 120.8 \$ 1	37	6" Dia Ball Valve	21	0%	21	EA	Ś	16.6	Ś	68.4	Ś	348.1	Ś	1.436.9	Ś	1,785	
39 6 " Dia Double Check Detector Assembly 1 0% 1 EA \$ 29.3 \$ 120.8 \$ 120.8 \$ 40 6 " Dia ObskY Gate Valve 2 0% 2 EA \$ 21.5 \$ 88.6 \$ 42.9 \$ 177.1 \$ 41 6 " Dia ObskY Gate Valve With Tamper Switch 10 0% 10 EA \$ 34.0 \$ 140.9 \$	2000															390	
40 6" Dia Check Valve 2 0% 2 EA \$ 21.5 \$ 88.6 \$ 42.9 \$ 177.1 \$ 41 6" Dia Os&Y Gate Valve With Tamper Switch 10 0% 10 EA \$ 31.1 \$ 341.3 \$ 1,40.8 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ 1,41.1 \$ <td></td> <td>A DECEMBER OF A DECEMBER OF A</td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>- S</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>150</td> <td></td>		A DECEMBER OF A	1						- S							150	
41 6 "Dia Os&Y Gate Valve With Tamper Switch 10 0% 10 EA \$ 14.0 \$ 341.3 \$ 1,408.8 \$ 1,42 42 3 "Dia Dry Valve 1 0% 1 EA \$ 14.6 \$ 64.3 \$ 64.4 64.4 \$ </td <td>40</td> <td></td> <td>2</td> <td>0%</td> <td>2</td> <td>EA</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>220</td> <td></td>	40		2	0%	2	EA										220	
43 Check Valve For Pump 4 0% 4 EA \$ 16.6 \$ 68.4 \$ 66.3 \$ 273.7 \$ 44 Butterfly Valve For Pump 3 0% 3 EA \$ 14.6 \$ 60.4 \$ 43.9 \$ 181.1 \$ 45 Throttle Valve-O,S& YValve For Pump 1 0% 1 EA \$ 16.6 \$ 68.4 \$ 181.1 \$ 46 Os&Y Gate Valve With Tamper Switch For Pump 1 0% 1 EA \$ 34.1 \$ 140.9 \$ 273.0 \$ 1,127.0 \$ 1, 47 Shutoff Valve For Pump 1 0% 1 EA \$ 32.2 \$ 132.8 \$ 225.2 \$ 929.8 \$ 1 48 Floor Control Valve Assembly 7 0% 7 EA \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 10.8 \$ 72.5 \$ 10.8 \$ 72.5	41	6" Dia Os&Y Gate Valve With Tamper Switch	10	0%	10	EA		34.1	\$	140.9	\$	341.3	\$	1,408.8	\$	1,750	
44 Butterfly Valve For Pump 3 0% 3 EA 5 14.6 5 60.4 \$ 43.9 \$ 181.1 \$ 45 Throttle Valve-O,S& Y Valve For Pump 1 0% 1 EA \$ 16.6 \$ 68.4 \$ 68.4 \$ 46 Os&Y Gate Valve With Tamper Switch For Pump 8 0% 8 EA \$ 34.1 \$ 140.9 \$ 273.0 \$ 1,127.0 \$ 1, 47 Shutoff Valve For Pump 1 0% 1 EA \$ 32.2 \$ 132.8 \$ 225.2 \$ 929.8 \$ 1 48 Floor Control Valve Assembly 7 0% 7 EA \$ 132.8 \$ 225.2 \$ 929.8 \$ 1 49 Casing Relief Valve 1 0% 1 EA \$ 185.5 \$ 195.5 \$ 80.5 \$ 9 255.2 \$ 50 Air Release Valve 1 0% 1 EA \$ </td <td>42</td> <td>3" Dia Dry Valve</td> <td>1</td> <td>0%</td> <td>1</td> <td>EA</td> <td>\$</td> <td>14.6</td> <td>\$</td> <td>60.4</td> <td>\$</td> <td>14.6</td> <td>\$</td> <td>60.4</td> <td>\$</td> <td>75</td> <td></td>	42	3" Dia Dry Valve	1	0%	1	EA	\$	14.6	\$	60.4	\$	14.6	\$	60.4	\$	75	
45 Throttle Valve-O,S& YV alve For Pump 1 0% 1 EA \$ 16.6 \$ 68.4 \$ 68.4 \$ 46 Os&Y Gate Valve With Tamper Switch For Pump 8 0% 8 EA \$ 34.1 \$ 140.9 \$ 273.0 \$ 1,127.0 \$ 1,47 47 Shutoff Valve For Pump 1 0% 1 EA \$ 29.3 \$ 120.8 \$ 29.3 \$ 120.8	43	Check Valve For Pump	4	0%	4	EA	\$	16.6	\$	68.4	\$	66.3	\$	273.7	\$	340	
46 Os&Y Gate Valve With Tamper Switch For Pump 8 0% 8 EA \$ 34.1 \$ 140.9 \$ 273.0 \$ 1,127.0 \$ 1,47 47 Shutoff Valve For Pump 1 0% 1 EA \$ 29.3 \$ 120.8 \$ <	44	Butterfly Valve For Pump	3	0%	3	EA	\$	14.6	\$	60.4	\$	43.9	\$	181.1	\$	225	
47 Shutoff Valve For Pump 1 0% 1 EA \$ 29.3 \$ 120.8	45	Throttle Valve-O, S& Y Valve For Pump	1	0%	1	EA	\$	16.6	\$	68.4	\$	16.6	\$	68.4	\$	85	
48 Floor Control Valve Assembly 7 0% 7 EA \$ 32.2 \$ 132.8 \$ 225.2 \$ 929.8 \$ 1 49 Casing Relief Valve 1 0% 1 EA \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 80.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$<	46	Os&Y Gate Valve With Tamper Switch For Pump	8	0%	8	EA	\$	34.1	\$	140.9	\$	273.0	\$	1,127.0	\$	1,400	
49 Casing Relief Valve 1 0% 1 EA \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ 10.6 \$ <td>47</td> <td>Shutoff Valve For Pump</td> <td>1</td> <td>0%</td> <td>1</td> <td>EA</td> <td>\$</td> <td>29.3</td> <td>\$</td> <td>120.8</td> <td>\$</td> <td>29.3</td> <td>\$</td> <td>120.8</td> <td>\$</td> <td>150</td> <td></td>	47	Shutoff Valve For Pump	1	0%	1	EA	\$	29.3	\$	120.8	\$	29.3	\$	120.8	\$	150	
50 Air Release Valve 1 0% 1 EA \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 18.5 \$ 76.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 108.7 \$ 26.3 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 \$ 108.7 <td>48</td> <td>Floor Control Valve Assembly</td> <td>7</td> <td>0%</td> <td></td> <td>EA</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1,155</td> <td></td>	48	Floor Control Valve Assembly	7	0%		EA										1,155	
51 Main Relief Valve 1 0% 1 EA \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 17.6 \$ 72.5 \$ 108.7 \$ 1		, i i i i i i i i i i i i i i i i i i i	-													100	
52 Test And Drain Valve 1 0% 1 EA \$ 108.7 \$ 26.3 \$ 108.7 \$ 5 108.7 \$																95	
53 Automatic Air Vent Valve 1 0% 1 EA \$ 19.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 19.5 \$ 80.5 \$ 13.6.9 \$ 16.6 \$ 68.4 \$ 33.2 \$ 136.9 \$ 55 Isolation Valve For Pressure Gauge 1 0% 1 EA \$ 14.6 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$																90	
54 Meter Valve 2 0% 2 EA \$ 16.6 \$ 68.4 \$ 33.2 \$ 136.9 \$ 55 Isolation Valve For Pressure Gauge 1 0% 1 EA \$ 14.6 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 60.4 \$ 5 60.4 \$ 14.6 \$ 60.4 \$	1000															135	
55 Isolation Valve For Pressure Gauge 1 0% 1 EA \$ 14.6 \$ 60.4																100	
56 Hose Valve Test Header 3 0% 3 EA \$ 28.3 \$ 116.7 \$ 84.8 \$ 350.2 \$	73,0320															170	
	1221020															75	
57 3/4" Dia Purge Valve 3 0% 3 EA \$ 21.5 \$ 88.6 \$ 64.4 \$ 265.7 \$																435	
	57	3/4" Dia Purge Valve	3	0%	3	EA	Ş	21.5	Ş	88.6	Ş	64.4	Ş	265.7	Ş	330	
METERS		METERS															
58 Bypass Meter 1 0% 1 EA \$ 126.8 \$ 523.3 \$ 126.8 \$ 523.3 \$	58	Bypass Meter	1	0%	1	EA	\$	126.8	\$	523.3	\$	126.8	\$	523.3	\$	650	
59 Gpm Meter-Venturi Package 1 0% 1 EA \$ 146.3 \$ 603.8 \$ 146.3 \$ 603.8 \$	59	Gpm Meter-Venturi Package	1	0%	1	EA	\$	146.3	\$	603.8	\$	146.3	\$	603.8	\$	750	
60 Discharge Gauge 1 0% 1 EA \$ 24.4 \$ 100.6 \$	60	Discharge Gauge	1	0%	1	EA	\$	24.4	\$	100.6	\$	24.4	\$	100.6	\$	125	
61 Suction Gauge 1 0% 1 EA \$ 23.4 \$ 96.6 \$	61	Suction Gauge		0%		EA		23.4	\$	96.6	\$	23.4	\$	96.6	\$	120	
62 Pressure Gauge 1 0% 1 EA \$ 19.5 \$ 80.5 \$ 10.5 \$ 80.5 \$	62	Pressure Gauge	1	0%	1	EA	\$	19.5	\$	80.5	\$	19.5	\$	80.5	\$	100	

															1	
	CONTROL SWITCHES															
63	Pressure Switch	1	0%	1	EA	\$	24.4	\$	100.6		24.4		100.6	\$	125	
64	Discharge Water flow Switch	1	0%	1	EA	\$	26.3	\$	108.7	- C	26.3	- C	108.7		135	
65	Flow Switch	1	0%	1	EA	\$	25.4	\$	104.7	\$	25.4	\$	104.7	\$	130	
	FIRE SPRINKLER SYSTEM PUMPS															
66	Jockey Pump, Manufacturer: Starite,	1	00/	1	54	ć	102.4	ć	422.0	ć	102.4	ć	422.6	ć	535	
	Model No: Hp10D3-02, Gpm: 7.5, Hd: 84, Rpm: 3500, Hp: 0.75, Volt: 208/3/60	1	0%	1	EA	\$	102.4	Ş	422.6	\$	102.4	\$	422.6	\$	525	
67																
07	Automatic Fire Pump, Manufacturer: Pentair 911 Series, Model No: 383-7B, Gpm: 400, Hd: 65Psi, Rpm: 3600, Hp: 25,	1	0%	1	EA	Ś	92.6	Ś	382.4	¢	92.6	Ś	382.4	ć	475	
	Volt: 208/3/60	1	070	1	5	2	52.0	2	502.4	7	52.0	4	502.4	Ŷ	475	
	PUMP CONTROLLER															
22	Jockey Pump Controller	1	0%	1	EA	\$	29.3	\$	120.8	\$	29.3	\$	120.8	\$	150	
68	Fire Pump Control Panel	1	0%	1	EA	\$	24.4	\$	100.6	\$	24.4	\$	100.6	\$	125	
	MISCELLENEOUS															
60		2	001	2		<i>*</i>		<i>c</i>	20.2	<i>.</i>	40.7	A	56.4	A	70	
69	Elbow Supports	2	0% 0%	2	EA EA	\$	6.8		28.2 60.4		13.7	200	56.4 60.4		70 75	
70 71	Plug Or Pet Cock Site Glass	1	0%	1	EA	\$ \$	14.6 48.8		201.3		14.6 48.8		201.3		250	
72	Site Glass Sign Cone And Glass	1	0%	1	EA	\$ \$	48.8		181.1		48.8		181.1		250	
73	Zone Control Drain	1	0%	1	EA	\$	63.4		261.6		63.4		261.6		325	
15	Lone control brain	1	070	1	LA	\$	05.4	4	201.0	Ŷ	05.4	Ŷ	201.0	Ŷ	525	
		T	T					тот		RIAL	COST	\$	74,437	Г		
						то	TALLABO			\$	43,705	1		\vdash		
SUB T	OTAL	·	,			<u> </u>						<u> </u>		\$	118,142	\$ 118,142
OVER	HEAD & PROFIT (20%)										20%		20%		23,628.37	23,628.37
TOTAL	BID													\$	141,770	\$ 141,770

Value Engineering Proposal: LT7 light fixture

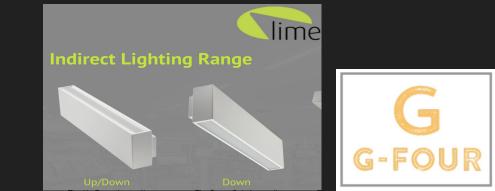
- Brand: Oracle
- Wall mount linear light
- Available in white
- Dimensions: L 2' W 2",4"
- Luminaire Lifetime: L70 at 50,000 hrs

- Brand: Limelight
- Wall mount linear light
- Available in white, black, silver
- Dimensions: L 2' W 2",4"
- Luminaire Lifetime: L70 at 72,000 hrs



from luminaire to luminaire, in a variety of formed angles and shapes. Be inspired to create a long-lasting impression with a unique design that complements corporate offices, educational,

commercial, and retail spaces.



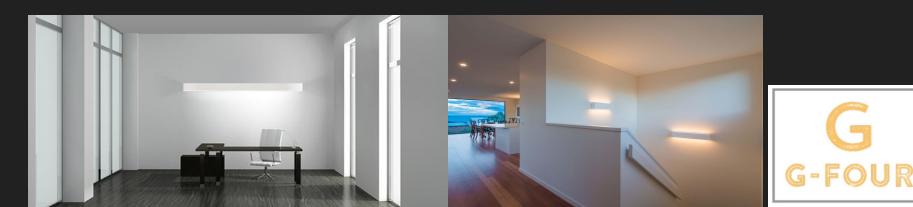
LT7 light fixture

Oracle

- Cost per unit: \$180
- Quantity: 25
- Total Cost: \$4500

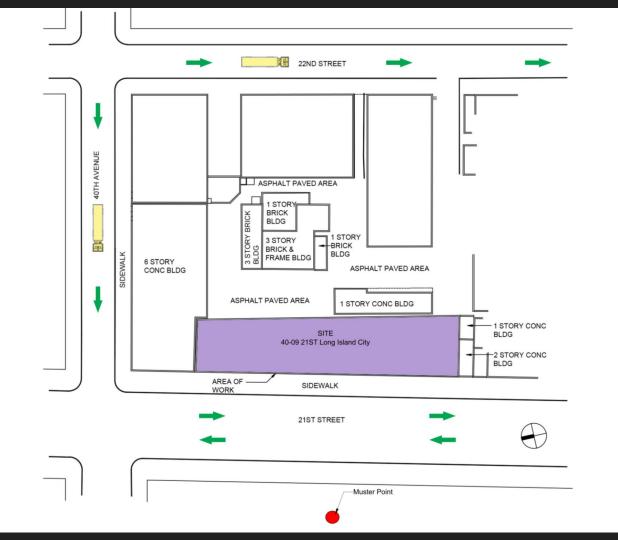
Limelight

- Cost per unit: \$150
- Quantity: 25
- Total Cost: \$3759
- Cost Savings: \$750
- Percentage Saving: 20%

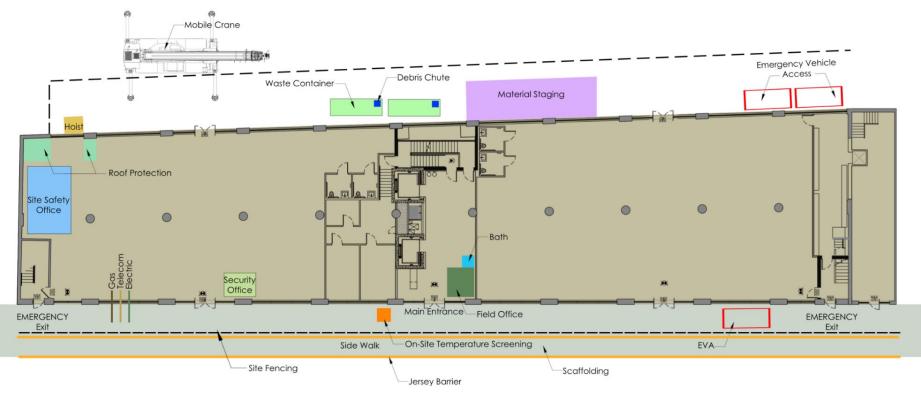


Site Logistics Plan



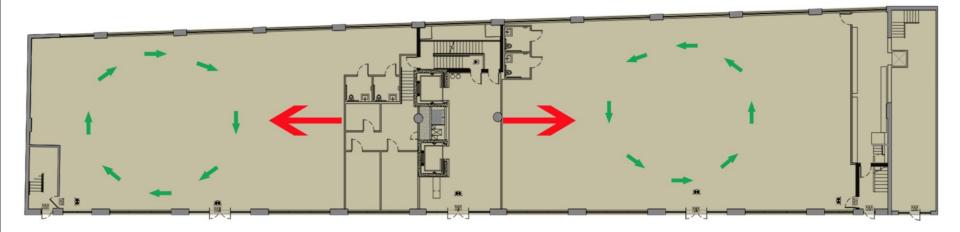


G-FOUR





Flow of Work





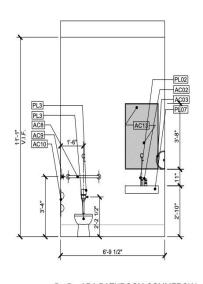
Constructability Review

Issue 1: ADA BATHROOM COMMERCIAL, TYP.

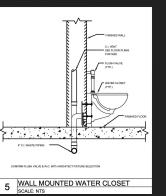
• A-403.00 indicating floor-mounted toilet

Review Drawing

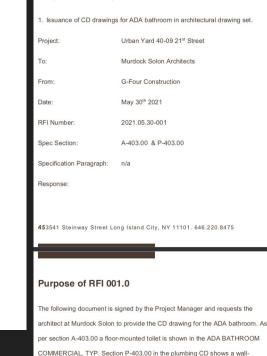
- P-403.00 wall-mounted toilet
- Bowl height adjusted between 15-19"
- Adv: Space Saving, cleaning



D6 ADA BATHROOM COMMERCIAL, TYP. SCALE: 3/8" - 1'- 0"



Request for Interpretation:



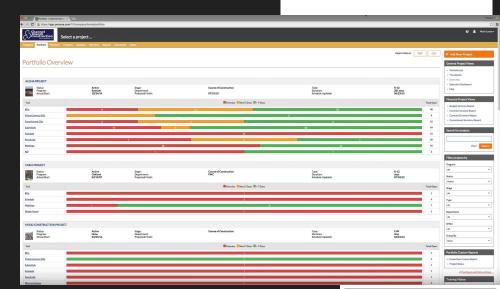
mounted toilet. We request if you can please review the specifications and CD drawings and make the following revision in the architectural drawing section A-



Quality Assurance & Quality Control

Quality Assurance:

- Submittals
- Sustainability
- Mock-ups and Sampling





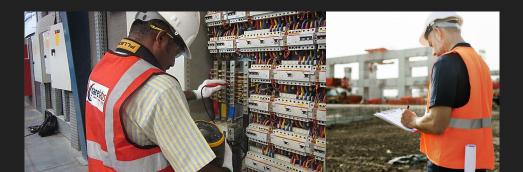


PROCORE

Quality Assurance & Quality Control

Quality Control:

- Delivery Inspection
- Pre-Inspection Checklist
- Material Testing and Inspections
- Commissioning



STANDARD INSPECTION FORM GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY

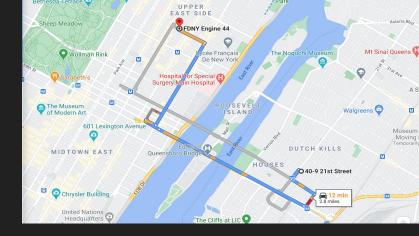
	General Information	
Project Name		
Permittee		
NOI#	Date of Inspec	tion
Start Time	End Time	
Inspector's Name(s)		
Green Card Certification #		
Inspector's Contact Information		
Describe present phase of construction	Clearing/Grubbing Rough Gradi	
Type of Inspection: Weekly routine Pre-sto significant amounts of sediment	rm event During storm event [Post-storm event Due to a discharge of
Has there been a storm event sinc If yes, provide: Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitati	e the last inspection? Yes No	

		Permi	t Coverage and Plans	
	Subject	Status	Corrective Action Needed and Notes	Date Corrected
1	Was an NOI submitted for all disturbed acres?	□Yes □No		
2	Is the permittee listed above still in control of permitted activities at the site? (If no, submit a Transfer of Authorization form to MDE)	□Yes □No		
3	Do the approved plans reflect current site conditions?	□Yes □No		
1	Are the approved E&S and SWM plans maintained at the site?	□Yes □No		
	Have the E&S or SWM plan approvals expired?	□Yes □No		
8	Are all inspection reports and enforcement actions on file at the site?	□Yes □No		
5	Is the site permanently stabilized, temporary erosion and sediment controls are removed or set to be removed, and stormwater discharges from construction activity are eliminated?	□Yes □No		
7	If #6 is Yes, has a Notice of Termination been submitted to MDE?	□Yes □No		



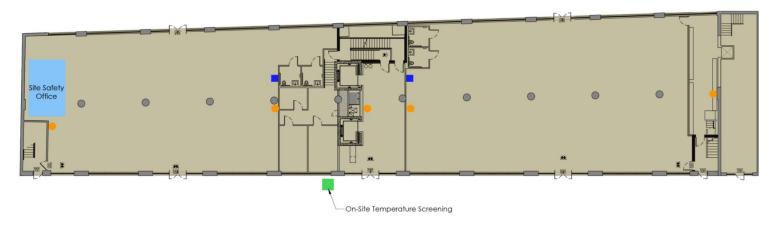
- 0.80 EMR (Experience Modification Rate)
- Weekly feedback, site safety meetings
- Training on handling equipment and machinery
- Risk assessment
- Emergency Muster Point across 21st Street
- FDNY: Engine 44, 221 E 75th St, NY

- COVID 19: On-Site temperature screening
- Social Distancing on site









G-FO

Legend:

- On-Site Temprature Screening
- Site Safety Office
- Eyewash/Handwash Station
- Fire Extinguisher

Fall Prevention:

- Guardrail Systems
- Safety Nets
- Protection from falling objects
- Personal Fall Arrest System (PFA)







Sidewalk: Pedestrian Safety

- Proper Signage
- Work will only be performed

once correct signage is applied

to detour pedestrians from the

site until the scaffolding is fully erected.







Crane and Hoist:

- Daily Inspections
- PPE
- Crane loading capacity
- Crane Management System.







Sustainability

- Buildings generate 40% annual ghg emissions
- Effective sustainability measures at G-FOUR :
- 1. Noise Mitigation
- 2. Waste Management
- 3. Air Quality Control
- 4. Fundamental Commissioning







Sustainability

Construction Noise Mitigation

- Sound Baffles
- Ear Protection
- Low-noise equipment options (acoustic insulators, porous materials such as cloths)



Waste Management

- Labelled waste disposals
- Debris chute

- Recyclable materials
 - (Glass, plastics, corrugated cardboard)



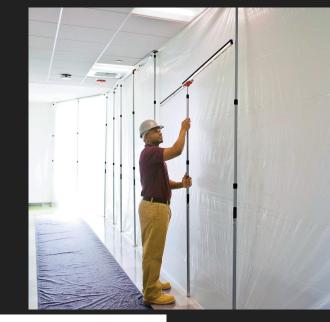
Sustainability

Dust & Air Quality Control

- Dust barrier system
- Air purifier
- HVAC ducts wrapped in

adhesive blue plastic









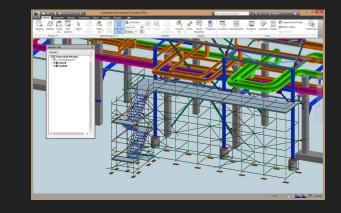
Construction Technology

Autodesk Revit-VDC

- 3D Modelling
- Work-In-Place Tracking
- Quality Control

<u>Navisworks</u>

- Scheduling
- Work-In-Place Tracking
- Quality Control





AUTODESK°

REVIT



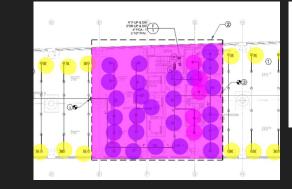
Construction Technology

<u>Planswift</u>

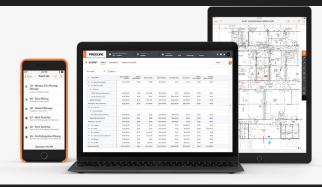
- Estimating
- Track Changes, plan overlays

<u>Procore</u>

- Document Management
- Submittals
- Budgeting
- RFI Tracking
- IOS & Android Phone App







PROCORE



Construction Technology

<u>Leica BLK360</u>

- Scanning the entire building as well as the external envelope
- Scan result within a matter of hours
- Scan uploaded on cloud provided by Procore
- MEP and HVAC trades: overlapping the cloud drawings and see difference between the scanned result and the existing drawings.







Thank you!

Questions? Comments? Concerns?

