



# PROPOSAL FOR CONSTRUCTION MANAGEMENT SERVICES URBAN YARD

APRIL 26, 2021



April 26, 2021

Mayer Steg President Elms Realty 10 Linore Avenue Monsey, NY 10952 (310) 215-9009

RE: Interior Renovation & Fit-Out of 40-09 21st Street, Long Island City, NY 11101 (Urban Yard)

Dear Mr. Steg,

Thank you for considering Zeppelin Construction & Associates (ZC&A) for the construction management opportunity for the Urban Yard Project. Attached below, you will find our proposal for the construction management and general contracting services for the renovation of the property located at 40-09 21st Street. ZC&A is thrilled to have this opportunity to showcase our expertise in this area of construction. We are incredibly confident that our services will surpass your expectations and leave you satisfied with your decision should we be awarded this project.

Our estimators believe that we can complete this project in **12 months** at the cost of **\$11,239,979.06**. We have every confidence in our abilities as contractors and project managers to complete the renovation and fit out of the 86,040 square foot project as early as June 1, 2021 and, complete the project on time and within budget. Our staff comprises some of the industry's most respected and experienced professionals in several areas of expertise, such as structural engineering, demolition, historic property renovations, and many more.

Our organization has completed several projects of similar scope and size, giving ZC&A the necessary experience to complete any relevant commercial or residential renovation projects. For example, we recently renovated a series of Pre-war Era tenements located in the Park Slope neighborhood of Brooklyn on behalf of Better Homes Development Firm. Ultimately, demolishing the existing curtain walls and performing a renovation to connect the four separate buildings to form a luxury office building, totaling 16 units (two per floor) totaling 102,000 square feet.

ZC&A looks forward to working with the development team at Elms Realty and creating a lifelong relationship between our two companies. Please feel free to contact us with any questions, comments, or concerns; ZC&A are more than happy to answer any questions related to our proposal or background. We are more than excited to get a chance to renovate this remarkably creative and unique space for Elms Realty. Thank you for your time and consideration.

Regards,

Chris Whitson

**Project Executive** 

**Zeppelin Construction & Associates** 

Chris Whitson



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## **Section 00 – Project Directory**

#### **OWNER**

Elms Realty 10 Linore Avenue Monsey, NY 10952 (310) 215-9009

#### **ARCHITECT**

Murdock Solon Architects 508 West 26<sup>th</sup> Street, Suite 5B New York, NY 10001 (212) 929-3336

#### **INTERIOR DESIGNER**

Input Creative Studio 58 East 11<sup>th</sup> Street, 8<sup>th</sup> Floor New York, NY 10003 (646) 230-9900

#### STRUCTURAL ENGINEER

121 West 27<sup>th</sup> Street, Suite 904 New York, NY, 10001 (646) 230-9900

#### **MEP ENGINEER**

2LS Consulting Engineering 150 West 30<sup>th</sup> Street, 4<sup>th</sup> Floor New York, NY 10001 (917) 267-8945











## Section 01 - Project Understanding & Approach

The project is in the joint property nicknamed the "Urban Yard" or "Urban City," located at 40-09 21st Street, Long Island City, NY 11101. The property houses commercial retail space and residential condominiums, with the six-story structure adjacent to 21st Street being entirely commercial. The renovation of this project will add an additional 7,885 square feet to pre-existing 78,155 square foot commercial space (86,040 square feet total) and will be home to 6-12 different organizations, with one suite on either side of each floor.

The Urban Yard building is situated in the heart of Long Island City, two blocks from the F train and East River. The location will provide a stunning view of the New York City skyline and offer a tremendous amount of travel options and numerous shops and restaurants nearby.

Although the property was built in 1923, it will become known as one of the most state of the art, beautiful, and environmentally conscious office spaces in New York. The open floor design will allow for several interior design variations to accommodate future tenants' tastes and needs.

The renovation involves the demolition of the cellar and existing office space to fit the specifications, excavation of the basement floor, the addition of new fire protection systems, fresh concrete flooring, and structural support systems (columns), new staircase, two new elevator shafts and all new electrical (lighting layout), plumbing, and mechanical work.

The interior fit-out will include all new millwork, furniture, paint, and hardware finishes and retrofitting existing spaces such as the public bathroom to accommodate the building population, updating the building layout to accommodate more people and encourage an open design.

This space will include multiple different types of office rooms like open offices, war rooms, boardrooms, and open seating areas, in addition to traditional lunch/break rooms, restrooms, and a lounge.

While this work is being performed, Zeppelin Construction & Associates will be mindful of other neighboring buildings and the public. We consider our impact on our projects very seriously. We will not jeopardize the health, safety, and welfare of occupants of neighboring buildings or the public.

We plan on beginning the project with a traditional management approach, focusing on moving from activity to activity and putting our full efforts towards completing that one task in a linear fashion.

We will also use this strategy with our procurement and logistical processes, we plan on ordering all required material three months ahead of the corresponding activities anticipated start date, this will allow ample time for long-lead items to arrive on site and give the team enough resources to complete the existing work scheduled before having to use the material previously noted.

In addition, our Project Management team will be heavily involved in the on-going site activity daily by keeping track of daily reports logs, requisitions, material and tool usage, manpower counts and locations of material and tools, supply inspections and photographic journal. These actions will allow the management team to account for any issues unforeseen on the site or with contractors by having several forms of written and photographic documentation of "who, what, where and when" activities were occurring on site and ensure that no unnecessary additional costs will fall to the client.

We plan on accomplishing this project by recording the progress via bi-weekly progress reports, weekly schedule reviews and project controls meetings. We believe that we can successfully manage the project with a microscope and in a broader lens through the methods listed above and tracking our performance with our Project Management software, Procore. We also plan to use the traditional phasing approach of initiation, planning, execution, control, and closing. Focusing on what is in front of us then rather than activities in the distant future.



## **Section 02 – Firm Introduction**

Zeppelin Construction & Associates (ZC&A) is a Construction Management and General Contracting Firm based in New York, NY. ZC&A works in commercial and residential construction, with office renovation projects and interior fit outs being our area of expertise.

The firm was founded in 1993 by Jimmy Page, Robert Plant, John Bonham, and John Paul Jones in New York City. The firm quickly rose to prominence domestically with their commercial renovation projects of Pre-War buildings. By 2013 the firm had grossed more than **\$100 million** in revenue and sought to expand due to their success.

As of 2019, ZC&A employs 125 full-time staff members and 75 part-time employees and interns and grossed **\$140 million** in revenue and our completed projects totaled to **1.2 million square feet**.

Our diverse team consists of professionals from various fields and backgrounds, such as architects, mechanical engineers, civil engineers, structural engineers, construction managers, and general contractors.

Throughout our firm's history, we have overcome several challenges logistically and physically across our portfolio of completed projects, particularly after the events of September 11, 2001 and the recession of 2008. Despite this, we have continued to carry out the legacy and message that our founder's set 28 years ago, and that is to "Embrace challenges with creative solutions and develop clearly defined plans with hard work and sufficient backup."

At ZC&A, we look forward to starting new projects and embracing the idea of resolving complex challenges relative to the project's scope. We pride ourselves on viewing every project with optimism and independently researching creative solutions.



## **Section 03 – Relevant Projects**

Pratt Institute - Student Union

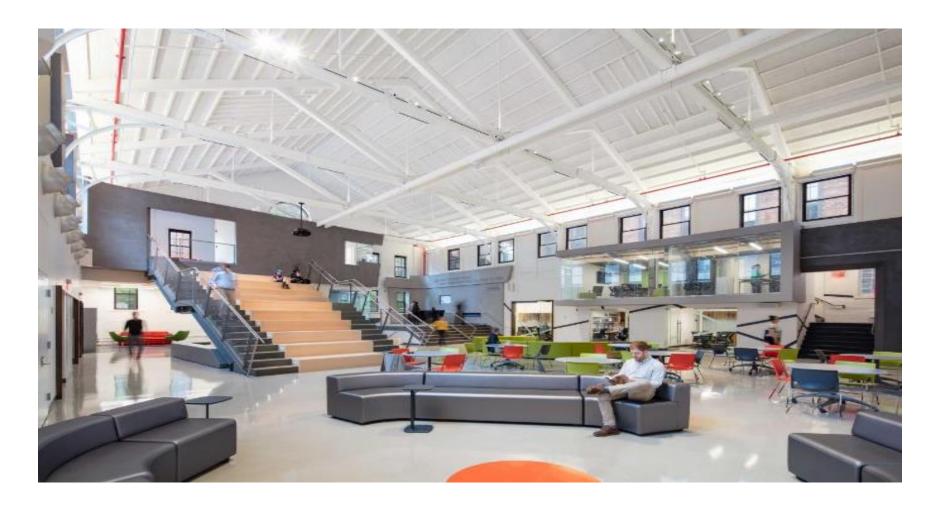
200 Willoughby Ave, Brooklyn, NY 11205

Cost: \$14.8 million

**Size:** 60,856 Square Feet **Schedule:** 13 Months

Date Completed: October 26<sup>th</sup>, 2019

- Workspace was retrofitted to accommodate an open and "free flowing" design similar to the design we see at Urban Yards.
- Emergency stairwell was installed.
- Bleachers and conference rooms were installed around the edges of the space.





### **Serendipity Labs Office Renovation**

28 Liberty St, New York, NY 10005

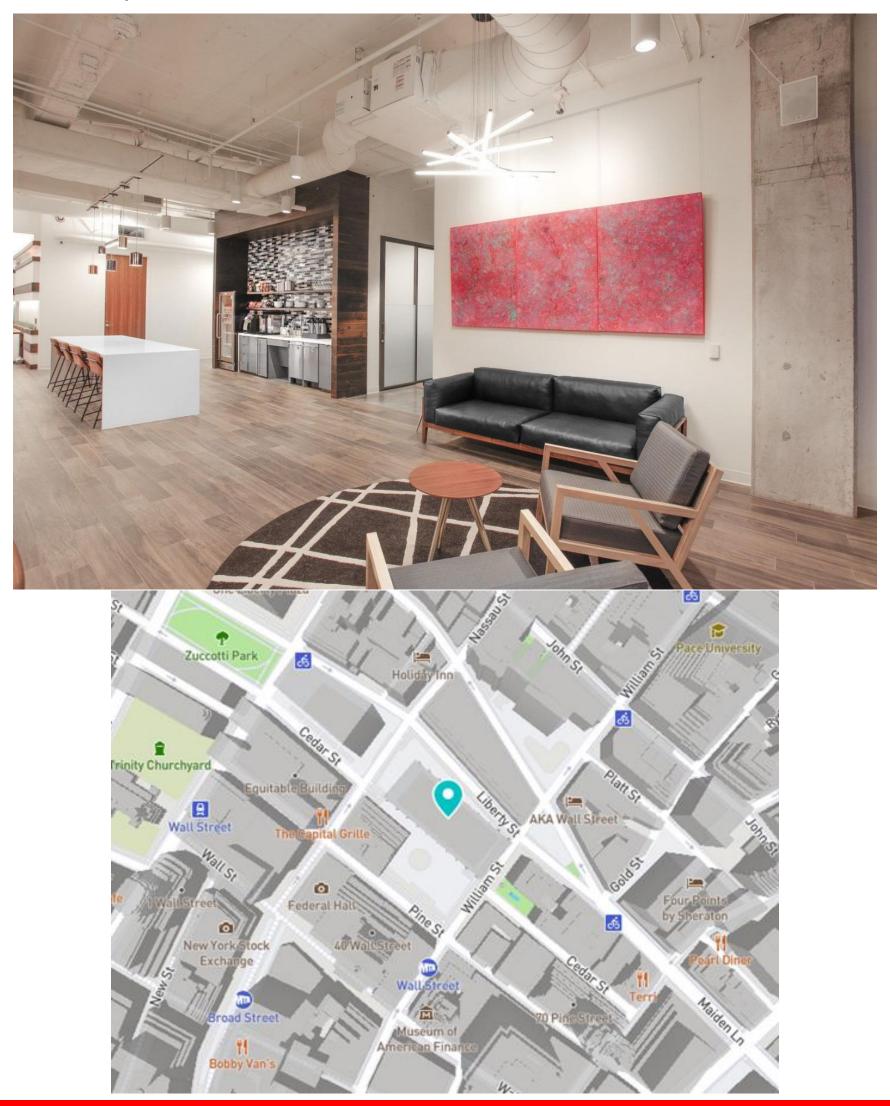
Cost: \$17.1 million

Size: 89,314 Square Feet (7 Floors)

Schedule: 12 Months

Date Completed: March 13<sup>th</sup>, 2019

- 28<sup>th</sup> to 34<sup>th</sup> Floor.
- Gut renovation, stripping of MEP material, demolition of office space.
- Installation of new stairwell.
- 2LS was the MEP Engineer.





#### **One Grand Central Place**

60 E 42nd St, New York, NY 10165

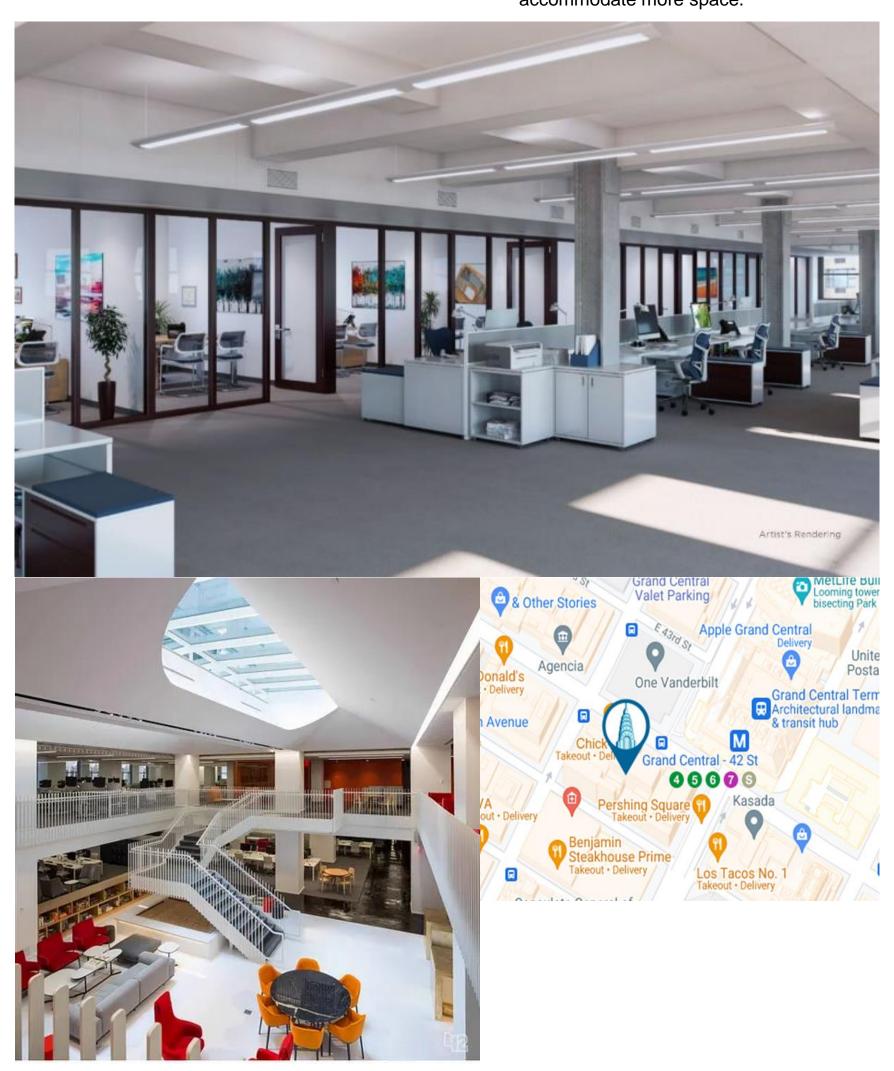
Cost: \$13.7 million

Size: 58,200 Square Feet (12 Floors)

Schedule: 10 Months

Date Completed: April 8th, 2016

- 3<sup>rd</sup> to 15<sup>th</sup> Floor (All offices).
- Building repositioning project, to open office space.
- Interior retrofit and additional lobby staircase.
- Demolition of central wall partitions to accommodate more space.





## **Mastercard Headquarters – East Wing**

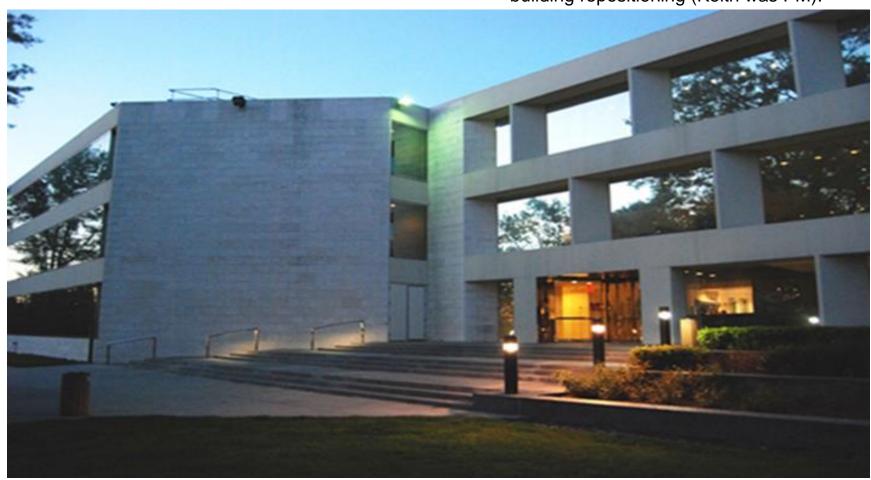
2000 Purchase St, Purchase, NY 10577

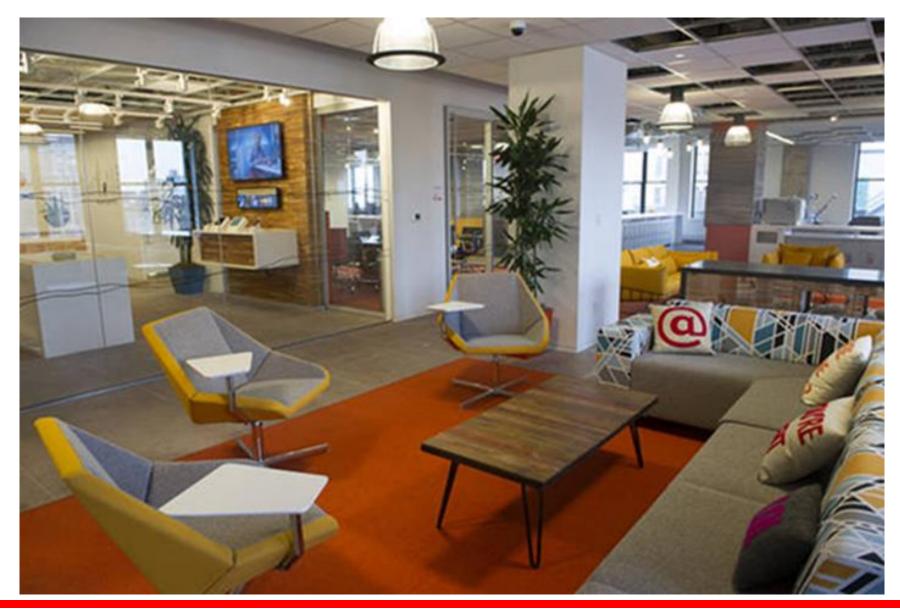
Cost: Withheld

Size: 79,650 Square Feet Schedule: 10 Months

Date Completed: December 29th, 2020

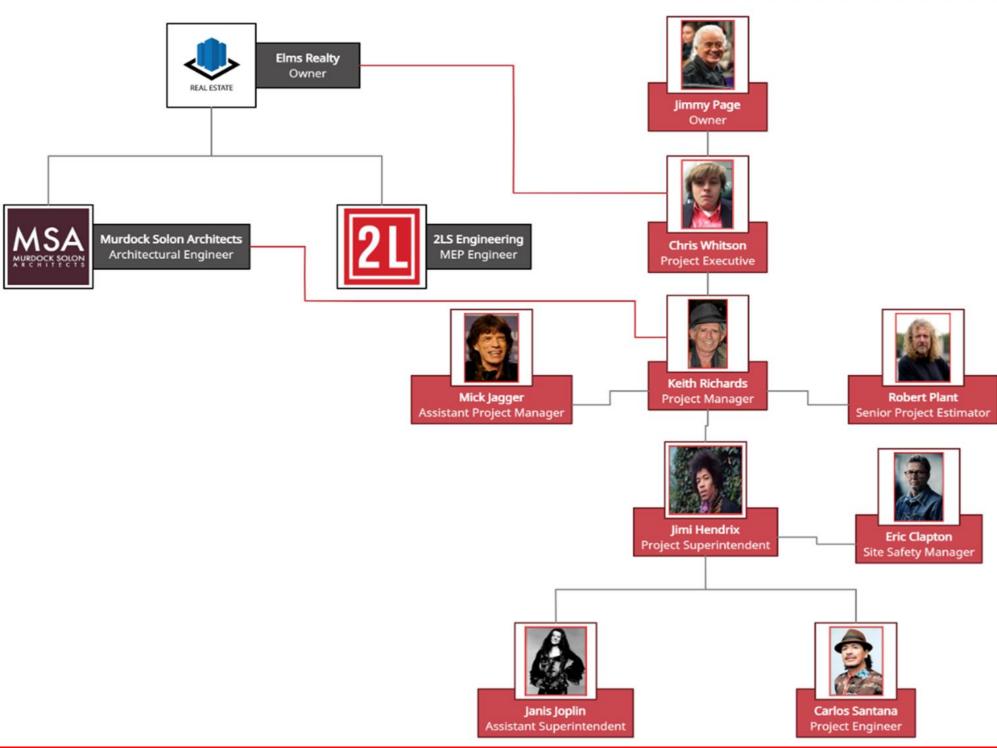
- Demolition of existing office space and MEP.
- Two new elevators and fire stairwells were installed.
- Murdock Solon was the A/E, partial building repositioning (Keith was PM).



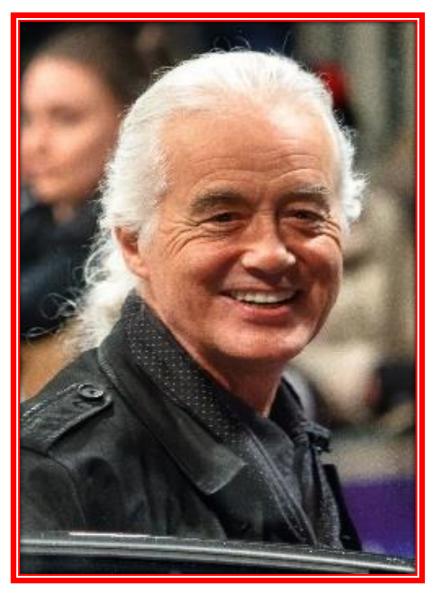


# **Section 04 – Project Team**







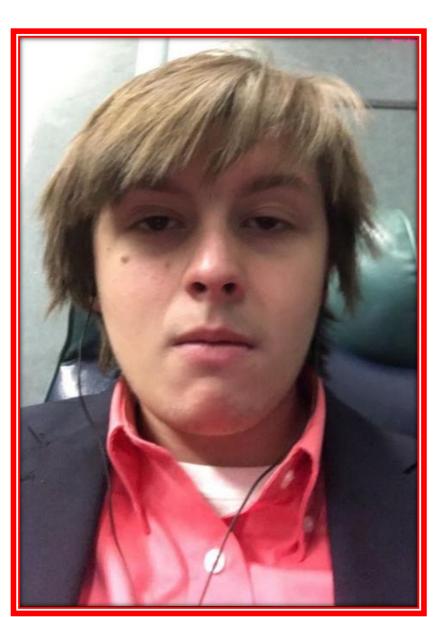


#### Jimmy Page - President & CEO

In late 1993, Jimmy founded ZC&A with three friends in New York City. Robert Plant, a skilled estimator, John Paul Jones a journeyman carpenter and John Bonham, a master stone mason. Together, the four of them embarked on a tremendous journey to become one of New York's largest construction firms. Jimmy attended Sutton School of the Arts from 1982 to 1985. He graduated a year ahead of schedule with a BS in Architecture. Jimmy then worked as a free-lance architect and contractor until 1991. Jimmy has a keen understanding of marketing and business finance, which helped develop the company into a profitable organization with strong client relationships and philanthropic efforts throughout New York City.

#### Certifications

- OSHA-30 and OSHA-16 (Scaffolding)
- CCM
- AIA
- LEED AP

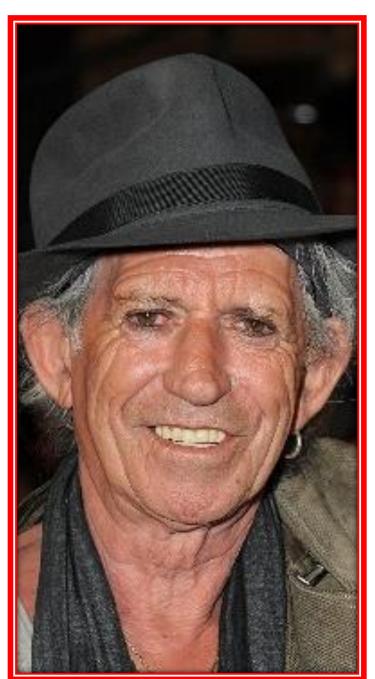


#### **Chris Whitson – Project Executive**

Chris is one of the Project Executives from our New York office; he joined ZC&A in 2012 as an Assistant Project Manager and was promoted to Project Manager in 2015 and promoted again to Project Executive in 2017. Since then, Chris has been overseeing the Commercial Renovation Division in the greater New York area. He graduated from Pratt Institute with a BPS in Construction Management in 2012. He is committed to delivering our projects on time and within budget. He is determined, and perseverant. He actively challenges himself by tackling complex issues and solving them with creative solutions.

- OSHA-30 and OSHA-16 (Scaffolding)
- CCM
- Procore Mastery Badge 2019



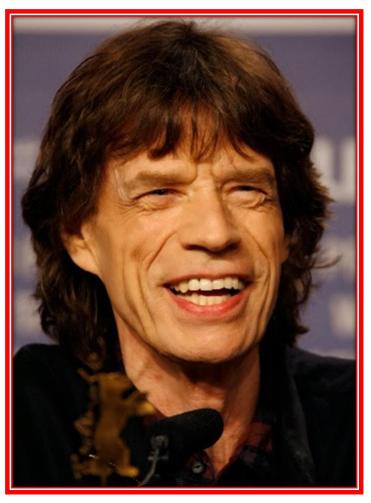


#### **Keith Richards – Project Manager**

Keith is one of the first employees of ZC&A. He has been with the company since 1994 and was the Project Manager on our first project. Since then, he has acted as the PM on 46 completed projects, ranging from new construction, renovation projects, and in commercial and residential construction: making him the most experienced PM in our company. Keith has always maintained a unique approach to project management, prioritizing an open-door policy between trades and clients. This transparency and open communication has allowed him to develop excellent relationships with all who work with him and push the boundaries of the traditional construction process, many times resulting in his projects being completed ahead of schedule. Keith graduated from Sidcup Art College in 1986 with a BS in Architecture. Worked on Mastercard HQ, Serendipity Labs and One Grand Central.

#### **Certifications**

- OSHA-30 and OSHA-16 (Scaffolding)
- CCM
- AIA
- AIC
- PMP
- LEED AP

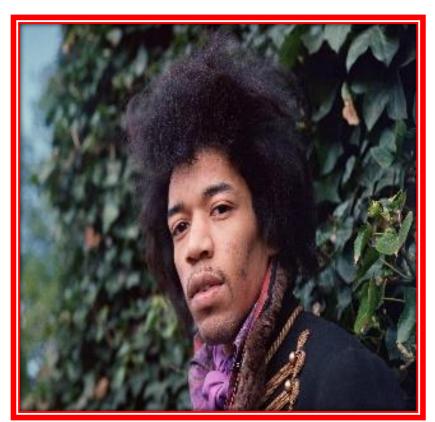


#### Mick Jagger – Assistant Project Manager

Mick joined ZC&A in 1994 and acted as Assistant Project Manager on our first project. Mick has typically worked as the APM to Keith. Together they have completed 44 projects. Mick attended the London School of Economics and graduated with a BS in Business Management in 1986. He then spent the next five years as a PE for another CM firm. He carries the same unique management strategy as Keith, but where Keith is the Yin, Mick is the Yang. He is committed to completing projects with as few conflicts as possible and is willing to go the extra mile for our clients. Worked on the Mastercard HQ project and Serendipity Labs, both with Keith.

- OSHA-30
- OSHA-16 (Scaffolding)
- CCM
- LEED AP





#### Jimi Hendrix - Project Superintendent

Jimi Hendrix was the premier Project Super from our Pacific North-West Headquarters located in Seattle. In 2014, Jimi was relocated from Seattle to oversee the construction activities of One Grand Central Place. At One Grand Central, Jimi's supervision of the lobby staircase installation and demolition of existing floor slabs saved two months off the original schedule by catching the installation conflicts in the lobby and mezzanine level. Before joining ZC&A in 2006, Jimi was a member of the Army Corps of Engineers for 16 years.

#### **Certifications**

OSHA-30 and OSHA-24 (Scaffolding)



#### **Eric Clapton – Site Safety Manager**

Eric has been at ZC&A since 1995. Like Keith, he has overseen the completion of more than 40 projects acting as the Site Safety Manager. Eric graduated from the Kingston College of Art in 1983 with a BS in Industrial Design. From 1983 to 1992, Eric worked in construction as a Project Super until he pursued a career in Site Safety. In 1997, Eric was promoted to the Director of Site Safety. Eric is OSHA 500 Certified and has an unparalleled understanding of safety standards, and the patience to successfully train others, he is committed to ensuring our job sites excel in safety protocols and expectations. He spends countless hours working our job sites to safeguard safety for all. Worked on Serendipity Labs and One Grand Central.

- OSHA-500
- OSHA Certified Instructor
- CCM
- AIA
- AIC
- LEED AP





Janis Joplin – Assistant Project Superintendent
Janis joined ZC&A in 2006 after graduating from the
University of Texas at Austin with a BS in Business
Administration. She began working as a Project
Engineer but was quickly promoted to Assistant Project
Super after her ability to assess risks was noticed. Since
then, Janis has become one of our most experienced
Assistant Supers, with experience with residential and
commercial renovation projects. She has an in-depth
working knowledge of the construction process and
alignment of resources at project sites to ensure
completion, this includes resource allocation and
delegation as it pertains to construction activities. She
worked on the One Grand Central Place renovation/

#### **Certifications**

- OSHA-30
- OSHA-16 (Scaffolding)

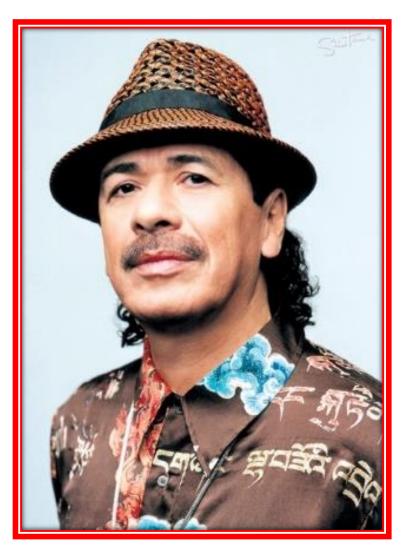


#### **Robert Plant - Senior Project Estimator**

Robert helped co-found ZC&A in 1993 with Jimmy Page and has nearly 30-years put in the construction industry. He is skilled in estimating and project controls. He graduated from Columbia University with a BS in Construction Administration; he then pursued an MS in Project Controls from New York University. He has been instrumental in providing our customers with fair quotes. He has an in-depth knowledge of the construction process, material and labor pricing, and current trends in construction. Robert conducts the bids for all ZC&A projects.

- OSHA-30 and OSHA-16 (Scaffolding)
- CCM
- AIA





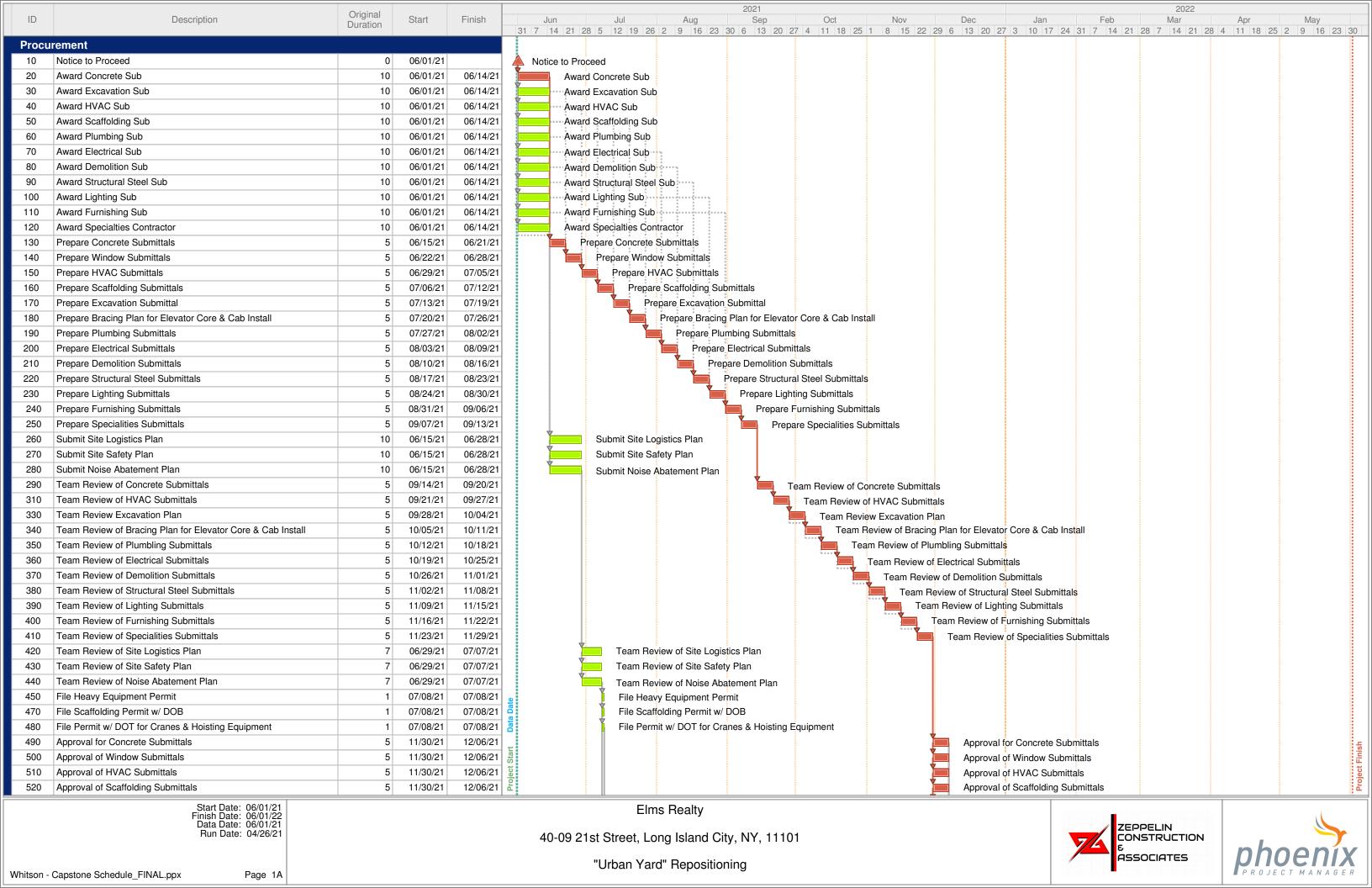
#### **Carlos Santana – Project Engineer**

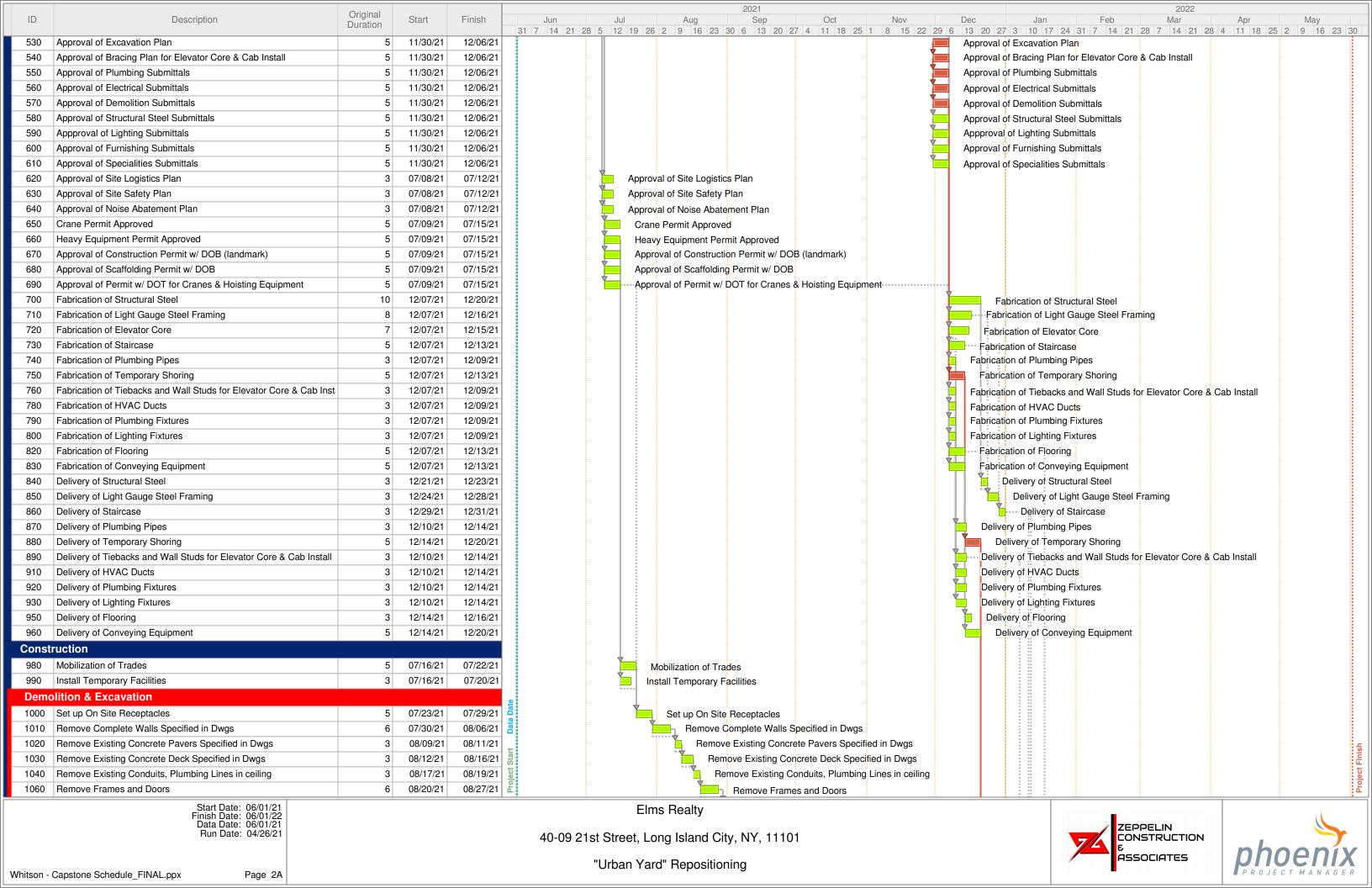
Carlos joined ZC&A in 2018. Over the last three years, Carlos has proven himself to be a highly effective Project Engineer. His portfolio is diverse, with experience in retail and commercial renovation projects. He graduated from Cornell University in 1990 with a BS in Architecture and a minor in Construction Management. He worked as as an artist for several years before switching to focus on the CM. His organizational skills have been influential in supporting our job site management of labor and materials. He values communication and alignment to the schedule and budget. Worked on Serendipity Labs and One Grand Central.

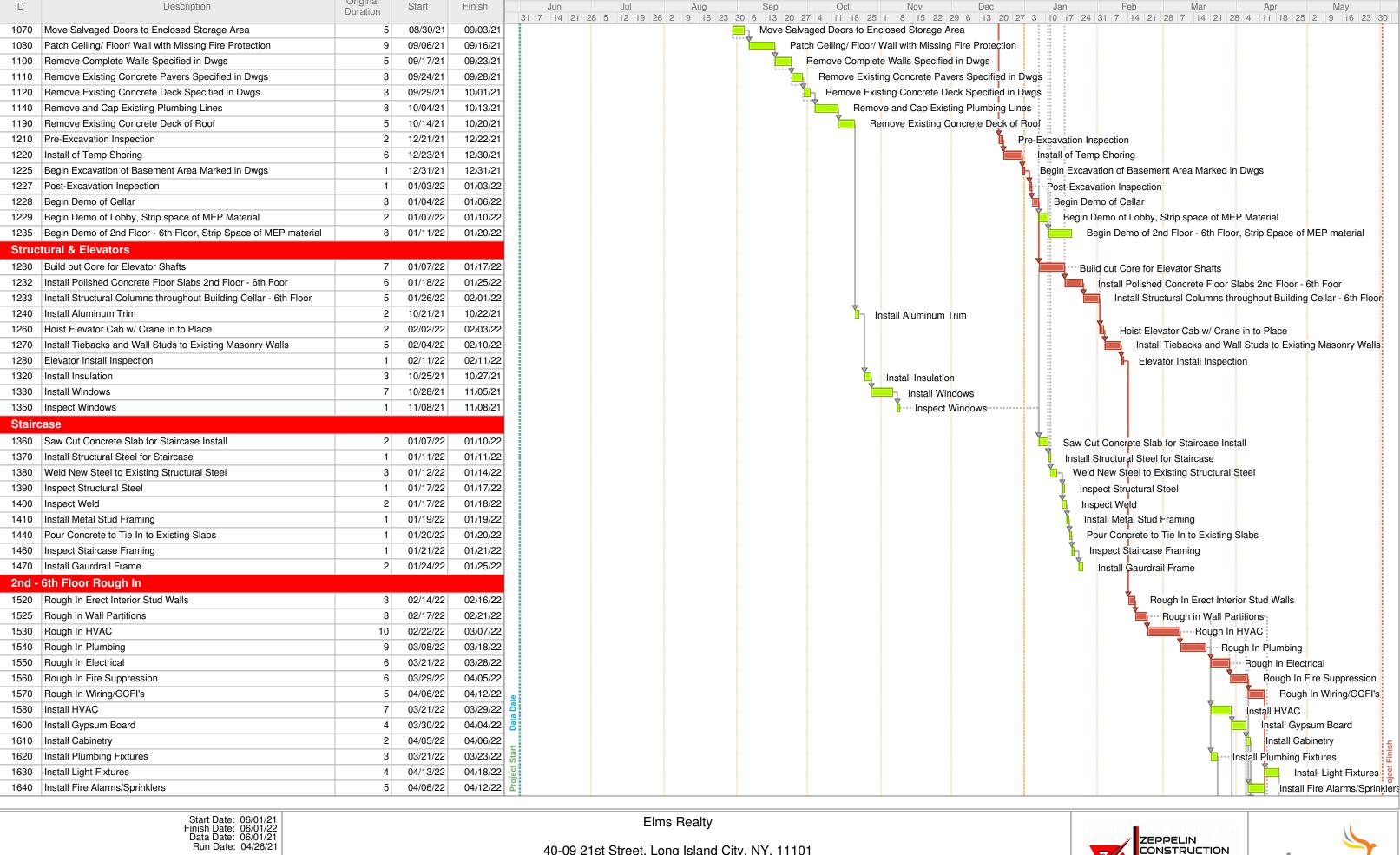
- OSHA-30 and OSHA-16 (Scaffolding)
- CCM
- AIA



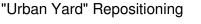
# **Section 05 – CPM Project Schedule**







40-09 21st Street, Long Island City, NY, 11101

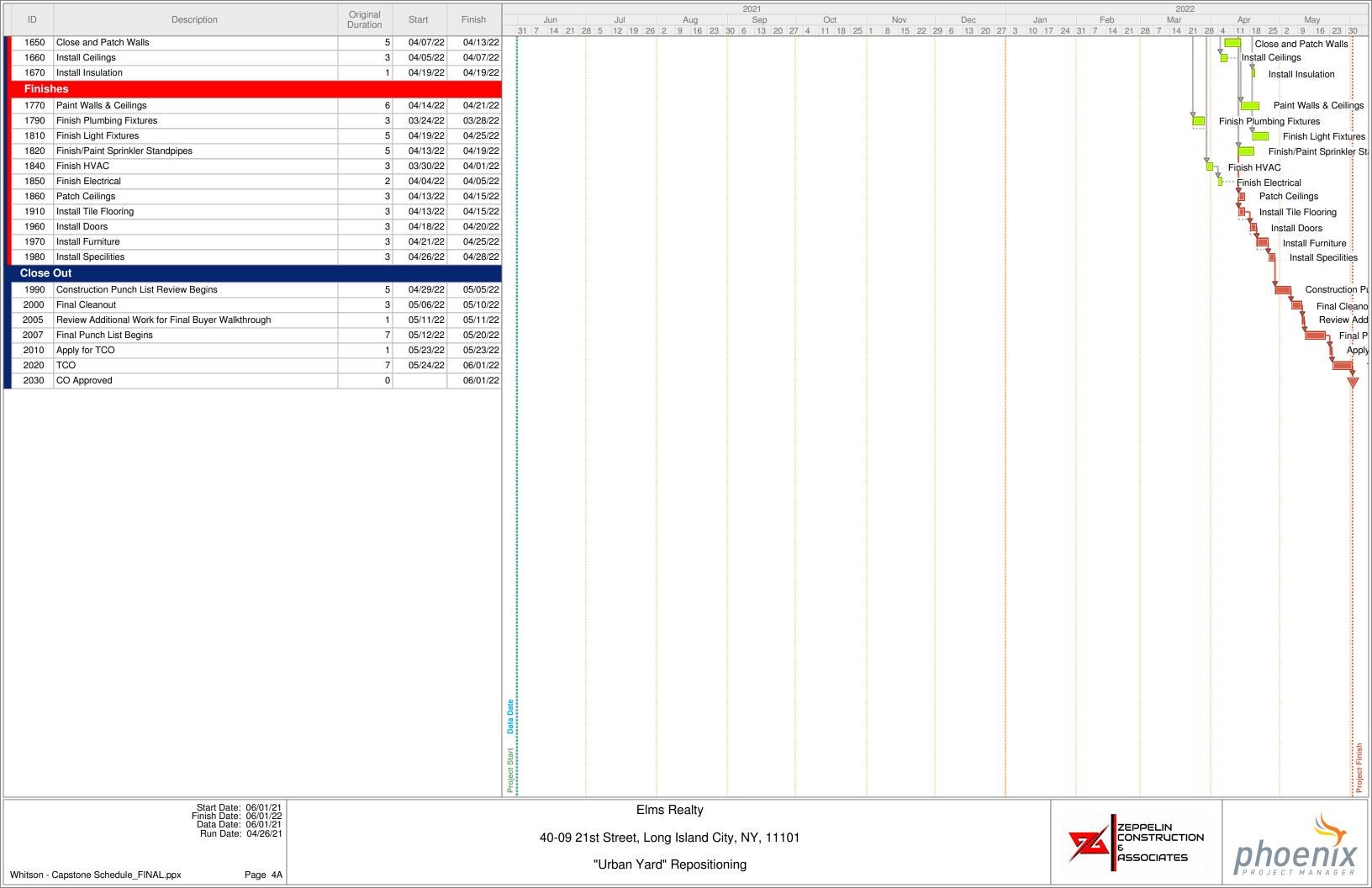




2022



Original





## **Three Week Project Lookahead**

	7/12/2021 - 8/1/2021																				
3 Week Construction Look Ahead	WEEK 1						WEEK 2						WEEK 3								
	М	Т	W	Th	F	S	Su	М	Т	W	Th	F	S	Su	М	Т	W	Th	F	S	Su
ACTIVITY	12-Jul	13-Jul	14-Jul	15-Jul	16-Jul	17-Jul	18-Jul	19-Jul	20-Jul	21-Jul	22-Jul	23-Jul	24-Jul	25-Jul	26-Jul	27-Jul	28-Jul	29-Jul	30-Jul	31-Jul	1-Aug
Mobilization of excavation team	Х	Х																			
Delivery of Excavation Material & Equip.			X	X																	
Mobilization of all remaining trades					X			X	X	X	X										
Install temp. facilities					X			X	X												
Set up receptacles										X	X	X			Х	X	X	X			
Approve MEP submittals												X			Х	X	X	X	X		
Approve concrete submittals																			Х		
File and organize permits for equip.																	X	X	Х		
Prepare jobsite											X	X			Х	X	X	X	Х		



## **Section 06 – Project Staffing**

			•					2021					2022		
NAME	ROLE						HOURS PER	MONTH						TOTAL HOURS PER MONTH	DEDCENT OF TIME
		JUNE	JULY A	UGUST	SEPTEMBER	<b>OCTOBER</b>	NOVEMBER	DECEMBER	JANUARY	<b>FEBRUARY</b>	MARCH A	APRIL	MAY	TOTAL HOURS PER MONTH	PERCEINT OF THINE
<b>Jimmy Page</b>	PRESIDENT & CEO	2	2	2	2	2	2	2	2	2	2	2	2	24	1.25%
<b>Chris Whitson</b>	PROJECT EXECUTIVE	8	8	8	8	8	8	8	8	8	8	8	8	96	5.00%
<b>Keith Richards</b>	PROJECT MANAGER	160	160	160	160	160	160	160	124	40	20	20	20	1,344	75.00%
Mick Jagger	ASST. PROJECT MANAGER	160	160	160	160	160	160	160	124	40	20	20	20	1,344	75.00%
Robert Plant	SENIOR ESTIMATOR	80	80	80	40	20	20	20	10	10	10	10	4	384	20.00%
Jimi Hendrix	PROJECT SUPERINTENDENT	160	160	160	160	160	160	160	160	160	160	160	160	1,920	100.00%
Janis Joplin	ASST. PROJECT SUPERINTENDENT	160	160	160	160	160	160	160	160	160	160	160	160	1,920	100.00%
<b>Carlos Santana</b>	PROJECT ENGINEER	160	160	160	160	160	160	160	160	160	160	160	160	1,920	100.00%
Eric Clapton	SITE SAFETY MANAGER	160	160	160	160	160	160	160	160	160	160	160	160	1,920	100.00%

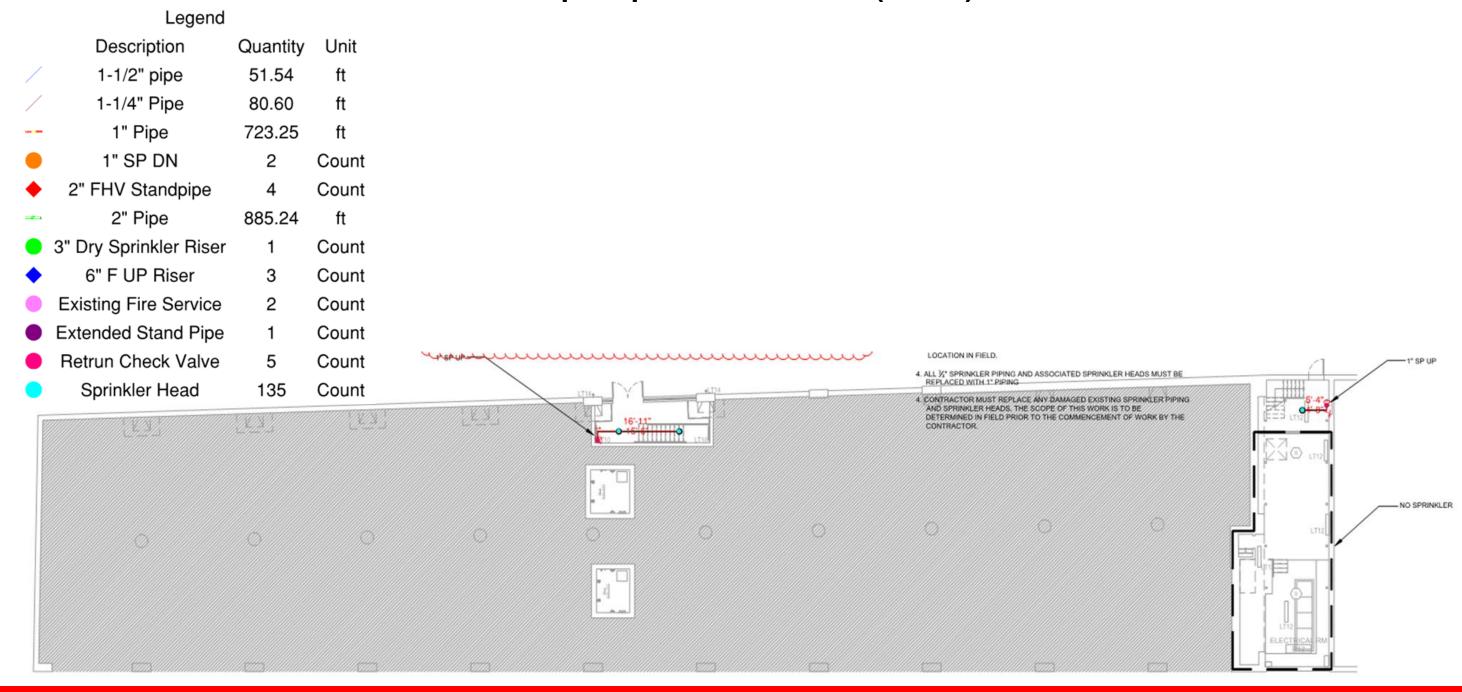


# **Section 07 – Summary Estimate**

		PROJECT:		Urban Yard	
	SUMMARY BID	LOCATION	: 40-09 21st	Street, LIC, NY, 11101	ZEPPELIN CONSTRUCTION
	ESTIMATE	FIRM:	Zeppelin Co	onstruction & Associates	E ASSOCIATES
		DATE:	A	April 26, 2021	<u>-</u>
				86,040	SF
Divisions (T	rades)		Cost (\$)	Cost per SF (\$)	Percentage of Cost (%)
Division 01	General Requirements		\$583,400.00	\$6.78	6.89%
Division 02	Existing Conditions	9	\$523,400.00	\$6.08	6.18%
Division 03	Concrete	97	\$728,768.00	\$8.47	8.60%
Division 04	-		\$153,900.00	\$1.79	1.82%
Division 05		97	\$369,500.00	\$4.29	4.36%
	Wood, Plastics, and Composites	97	\$285,768.00	\$3.32	3.37%
Division 07	Thermal and Moisture Protection	97	\$108,725.00	\$1.26	1.28%
Division 08	Openings	9	\$139,270.00	\$1.62	1.64%
Division 09	Finishes	97	\$102,680.00	\$1.19	1.21%
Division 10	Specialties		\$62,420.00	\$0.73	0.74%
Division 11	Equipment	9	\$928,350.00	\$10.79	10.96%
Division 12	Furnishings		\$38,850.00	\$0.45	0.46%
Division 13	Special Construction	,	\$146,080.00	\$1.70	1.72%
Division 14	Conveying Equipment	9	\$466,340.00	\$5.42	5.51%
Division 21	Fire Suppression	•	\$495,692.41	\$5.76	5.85%
Division 22	Plumbing	9	\$798,930.08	\$9.29	9.43%
Division 23	Heating, Ventilating, and Air-Conditioning	•	\$813,600.74	\$0.10	9.61%
Division 26	Electrical	9	\$776,740.83	\$9.03	9.17%
Division 27	Communications		\$47,250.00	\$0.55	0.56%
Division 28	Electronic Safety and Security	,	\$133,600.00	\$1.55	1.58%
Division 31	Earthwork	9	\$223,600.00	\$2.60	2.64%
Division 32	Exterior Improvements	•	\$104,630.00	\$1.22	1.24%
Division 33	Utilities	9	\$438,684.00	\$5.10	5.18%
	TRADE SUBTOTAL	\$8	,470,179.06	\$89.08	100.00%
	Building Permit Fees		\$50,000.00	\$0.58	0.44%
	General Conditions - Reimbursables		\$75,000.00	\$0.87	0.67%
	CM Staff	9	\$677,300.00	\$7.87	6.03%
	Overhead & Profit	\$1	,100,000.00	\$12.78	9.79%
	Insurance	9	\$867,500.00	\$10.08	7.72%
	FEES TOTAL	\$2	,769,800.00	\$32.19	
	GRAND TOTAL	\$11	,239,979.06	\$121.28	



## **Sample Sprinkler Take-Off (Cellar)**



ELMS REALTY 40-09 21ST STREET, LONG ISLAND CITY, NY 11101 URBAN YARD

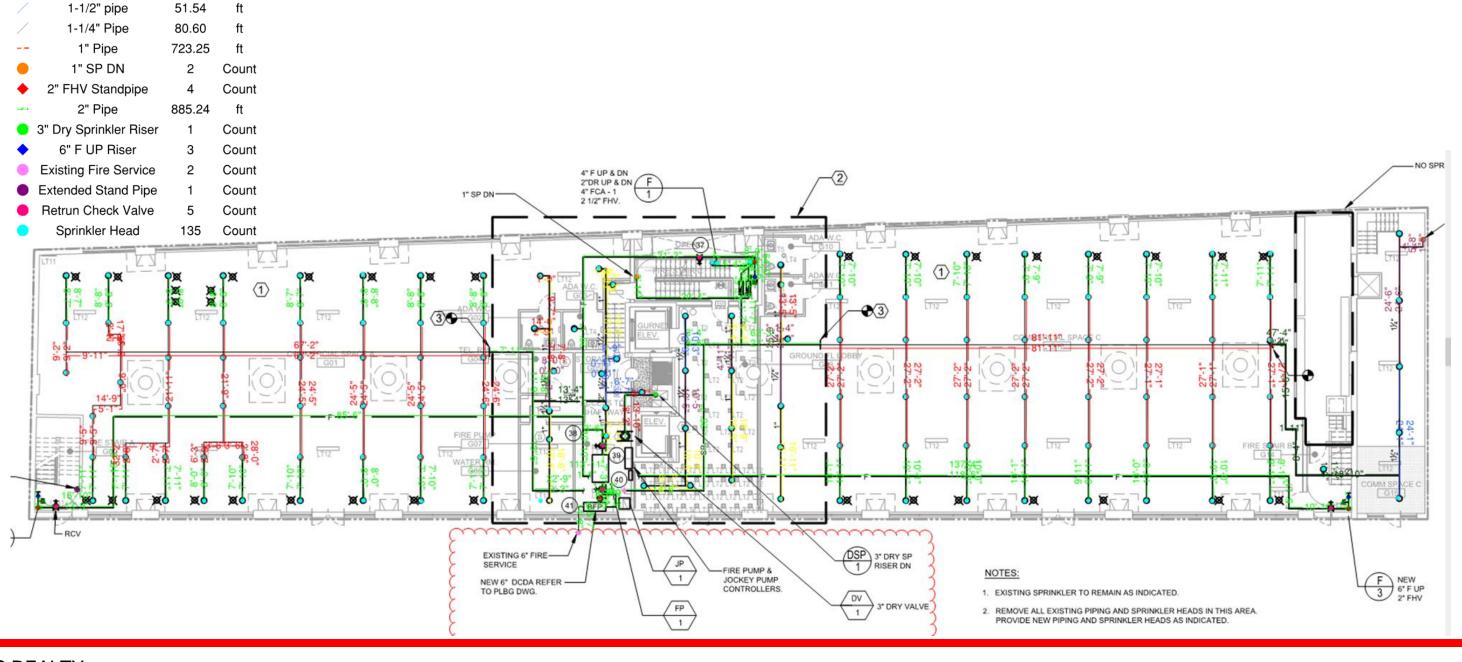
Legend

Quantity

Description



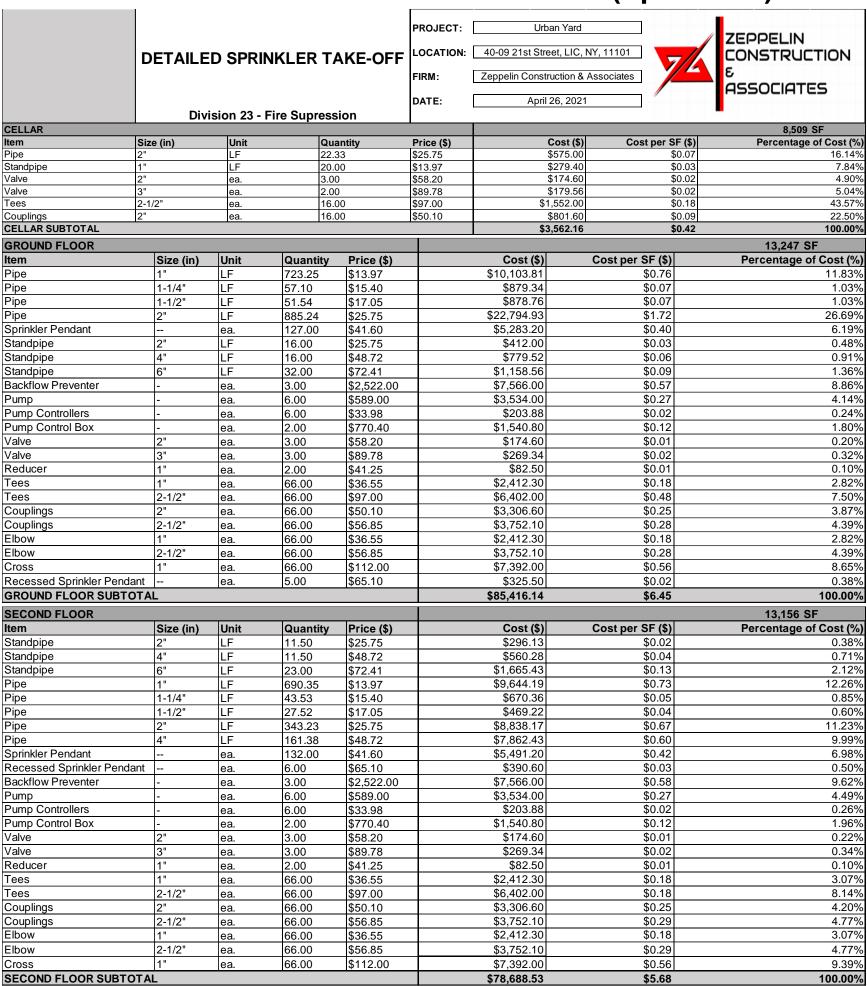
## Sample Sprinkler Take-Off (Ground Floor)



ELMS REALTY 40-09 21ST STREET, LONG ISLAND CITY, NY 11101 URBAN YARD

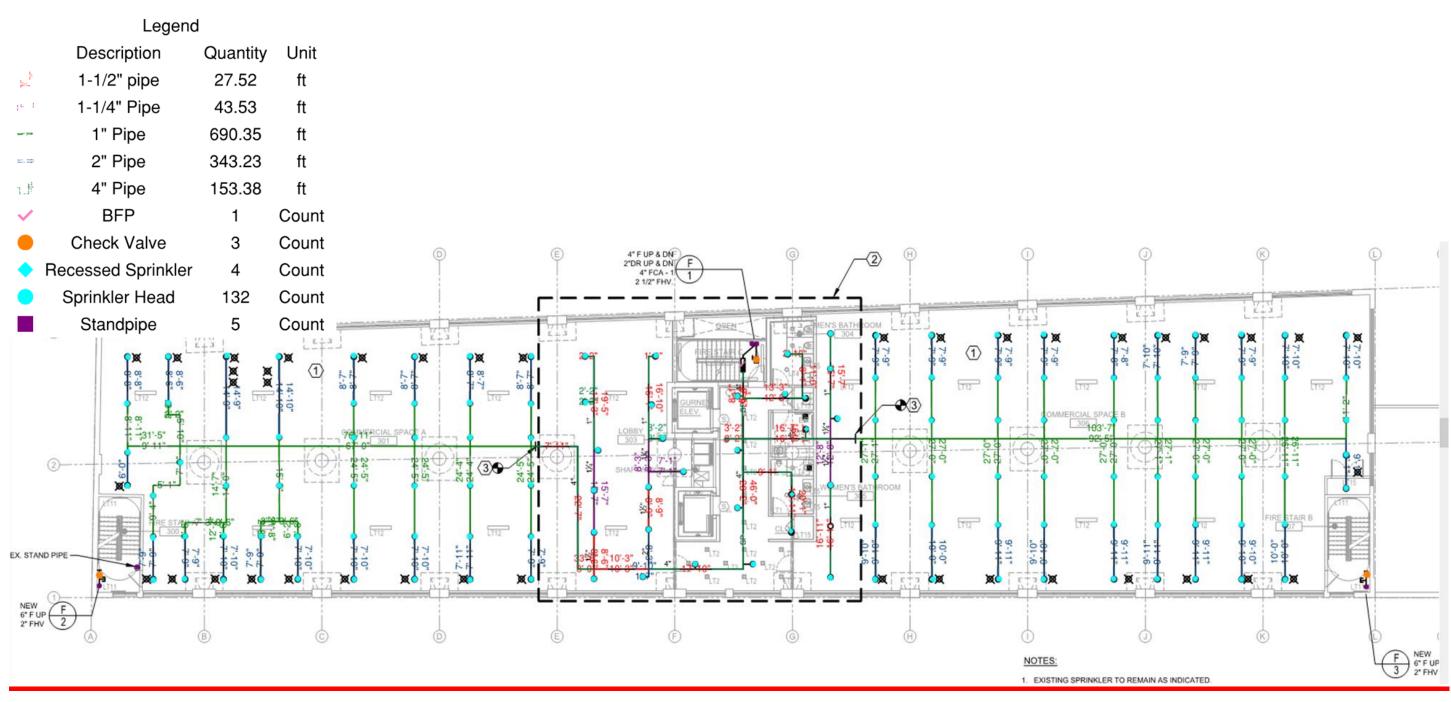


## Section 08 - Detailed Trade Take-Off (Sprinklers)





## Sample Sprinkler Take-Off (per Typical Floor)



ELMS REALTY 40-09 21ST STREET, LONG ISLAND CITY, NY 11101 URBAN YARD

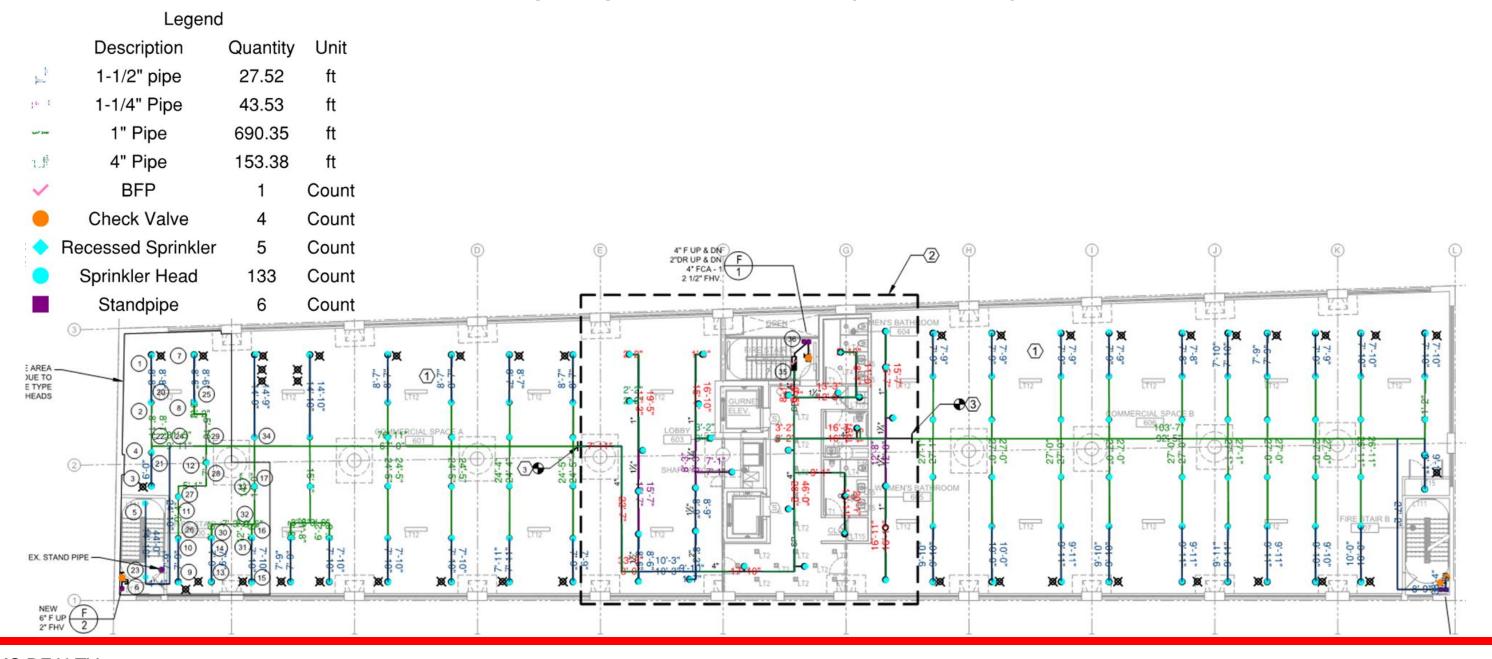


# Detailed Trade Take-Off (Sprinklers) Continued.

THIRD FLOOR							13,156 SF
Item	Size (in)	Unit	Quantity	Price (\$)	Cost (\$)	Cost per SF (\$)	Percentage of Cost (%
Standpipe	2"	LF	11.50	\$25.75	\$296.13	\$0.02	0.38
Standpipe	4"	LF	11.50	\$48.72	\$560.28	\$0.04	0.71
Standpipe	6"	LF	23.00	\$72.41	\$1,665.43	\$0.13	2.12
Pipe	1"	LF	690.35	\$13.97	\$9,644.19	\$0.73	12.26
Pipe Pipe	1-1/4"	LF	43.53	\$15.40	\$670.36	\$0.05	0.85
Pipe	1-1/2"	LF	27.52	\$17.05	\$469.22	\$0.04	0.60
Pipe	2" 4"	LF LF	343.23 161.38	\$25.75 \$48.72	\$8,838.17 \$7,862.43	\$0.67 \$0.60	11.23 9.99
Pipe Sprinkler Pendant	4	ea.	132.00	\$48.72	\$7,662.43 \$5,491.20	\$0.60	
Recessed Sprinkler Pendant	 	ea.	6.00	\$65.10	\$390.60	\$0.03	0.50
Backflow Preventer		ea.	3.00	\$2,522.00	\$7,566.00	\$0.58	9.62
Pump	-	ea.	6.00	\$589.00	\$3,534.00	\$0.27	4.49
Pump Controllers	-	ea.	6.00	\$33.98	\$203.88	\$0.02	0.26
Pump Control Box	_	ea.	2.00	\$770.40	\$1,540.80	\$0.12	1.96
Valve	2"	ea.	3.00	\$58.20	\$174.60	\$0.01	0.22
Valve	3"	ea.	3.00	\$89.78	\$269.34	\$0.02	0.34
Reducer	1"	ea.	2.00	\$41.25	\$82.50	\$0.01	0.10
Tees	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	3.07
Tees	2-1/2"	ea.	66.00	\$97.00	\$6,402.00	\$0.18	8.14
Couplings	2"	ea.	66.00	\$50.10	\$3,306.60	\$0.25	4.20
Couplings	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.77
Elbow	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	3.07
Elbow	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.77
Cross	1"	ea.	66.00	\$112.00	\$7,392.00	\$0.56	9.39
THIRD FLOOR SUBTOTAL					\$78,688.53	\$5.68	100.00
FOURTH FLOOR							13,156 SF
Item	Size (in)	Unit	Quantity	Price (\$)	Cost (\$)	Cost per SF (\$)	Percentage of Cost (%
Standpipe	2"	LF	11.50	\$25.75	\$296.13	\$0.02	0.38
Standpipe	4"	LF	11.50	\$48.72	\$560.28	\$0.04	0.71
Standpipe	6"	LF	23.00	\$72.41	\$1,665.43	\$0.13	2.12
Pipe	1"	LF	690.35	\$13.97	\$9,644.19	\$0.73	12.26
Pipe	1-1/4"	LF	43.53	\$15.40	\$670.36	\$0.05	0.85
Pipe	1-1/2"	LF	27.52	\$17.05	\$469.22	\$0.04	0.60
Pipe	2"	LF	343.23	\$25.75	\$8,838.17	\$0.67	11.23
Pipe	4"	LF	161.38	\$48.72	\$7,862.43	\$0.60	9.99
Sprinkler Pendant		ea.	132.00	\$41.60	\$5,491.20	\$0.42	6.98
Recessed Sprinkler Pendant Backflow Preventer		ea.	6.00	\$65.10	\$390.60 \$7,566.00	\$0.03 \$0.58	0.50 <sup>o</sup> 9.62 <sup>o</sup>
Pump	-	ea. ea.	3.00 6.00	\$2,522.00 \$589.00	\$3,534.00	\$0.36	4.49
Pump Controllers	-	ea.	6.00	\$33.98	\$203.88	\$0.02	0.26
Pump Control Box	_	ea.	2.00	\$770.40	\$1,540.80	\$0.02	1.96
Valve	2"	ea.	3.00	\$58.20	\$174.60	\$0.01	0.22
Valve	3"	ea.	3.00	\$89.78	\$269.34	\$0.02	0.34
Reducer	1"	ea.	2.00	\$41.25	\$82.50	\$0.01	0.10
Tees	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	3.07
Tees	2-1/2"	ea.	66.00	\$97.00	\$6,402.00	\$0.18	8.14
Couplings	2"	ea.	66.00	\$50.10	\$3,306.60	\$0.25	4.20
Couplings	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.77
Elbow	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	3.07
Elbow	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.77
Cross	1"	ea.	66.00	\$112.00	\$7,392.00	\$0.56	9.39
FOURTH FLOOR SUBTOTA	<u>L</u>				\$78,688.53	\$5.68	100.00
FIFTH FLOOR							13,156 SF
Item	Size (in)	Unit	Quantity	Price (\$)	Cost (\$)	Cost per SF (\$)	Percentage of Cost (%
Standpipe	2"	LF	11.50	\$25.75	\$296.13	\$0.02	0.38
Standpipe	4"	LF	11.50	\$48.72	\$560.28	\$0.04	0.71
Standpipe	6"	LF	23.00	\$72.41	\$1,665.43	\$0.13	2.12
Pipe	1"	LF	690.35	\$13.97	\$9,644.19	\$0.73	12.26
Pipe	1-1/4"	LF	43.53	\$15.40	\$670.36	\$0.05	0.85
Pipe	1-1/2"	LF	27.52	\$17.05	\$469.22	\$0.04	0.60
Pipe	2"	LF	343.23	\$25.75	\$8,838.17	\$0.67	11.23
Pipe Cariallas Bandont	4"	LF	161.38	\$48.72	\$7,862.43	\$0.60	9.99
Sprinkler Pendant		ea.	132.00	\$41.60	\$5,491.20	\$0.42	6.98
Recessed Sprinkler Pendant Backflow Preventer		ea.	6.00	\$65.10	\$390.60 \$7,566.00	\$0.03 \$0.58	0.50 <sup>-</sup> 9.62 <sup>-</sup>
Pump	-	ea.	3.00 6.00	\$2,522.00 \$589.00	\$7,566.00	\$0.58 \$0.27	9.62 4.49
Pump Controllers	1	ea.	6.00	\$33.98	\$3,534.00 \$203.88	\$0.27 \$0.02	0.26
Pump Control Box	1	ea.	2.00	\$770.40	\$1,540.80	\$0.02	1.96
Valve	2"	ea.	3.00	\$58.20	\$1,340.80	\$0.12	0.22
Valve	3"	ea.	3.00	\$89.78	\$269.34	\$0.01	0.34
Reducer	1"	ea.	2.00	\$41.25	\$82.50	\$0.02	0.10
	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.01	3.07
rees	1.	ea.	66.00	\$97.00	\$6,402.00	\$0.18	8.14
	12-1/2"	,				\$0.25	4.20
Tees	2-1/2"		66.00	I\$50.10	3.3.3UD DUI		
Tees Couplings	2"	ea.	66.00 66.00	\$50.10 \$56.85	\$3,306.60 \$3,752.10		
Tees Couplings Couplings	2" 2-1/2"	ea. ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.77
Couplings Couplings Elbow	2" 2-1/2" 1"	ea. ea. ea.	66.00 66.00	\$56.85 \$36.55	\$3,752.10 \$2,412.30	\$0.29 \$0.18	4.77 3.07
Tees Couplings Couplings Elbow Elbow	2" 2-1/2" 1" 2-1/2"	ea. ea. ea.	66.00 66.00	\$56.85 \$36.55 \$56.85	\$3,752.10 \$2,412.30 \$3,752.10	\$0.29 \$0.18 \$0.29	4.77 3.07 4.77
Tees Couplings Couplings Elbow	2" 2-1/2" 1"	ea. ea. ea.	66.00 66.00	\$56.85 \$36.55	\$3,752.10 \$2,412.30	\$0.29 \$0.18	4.77 3.07



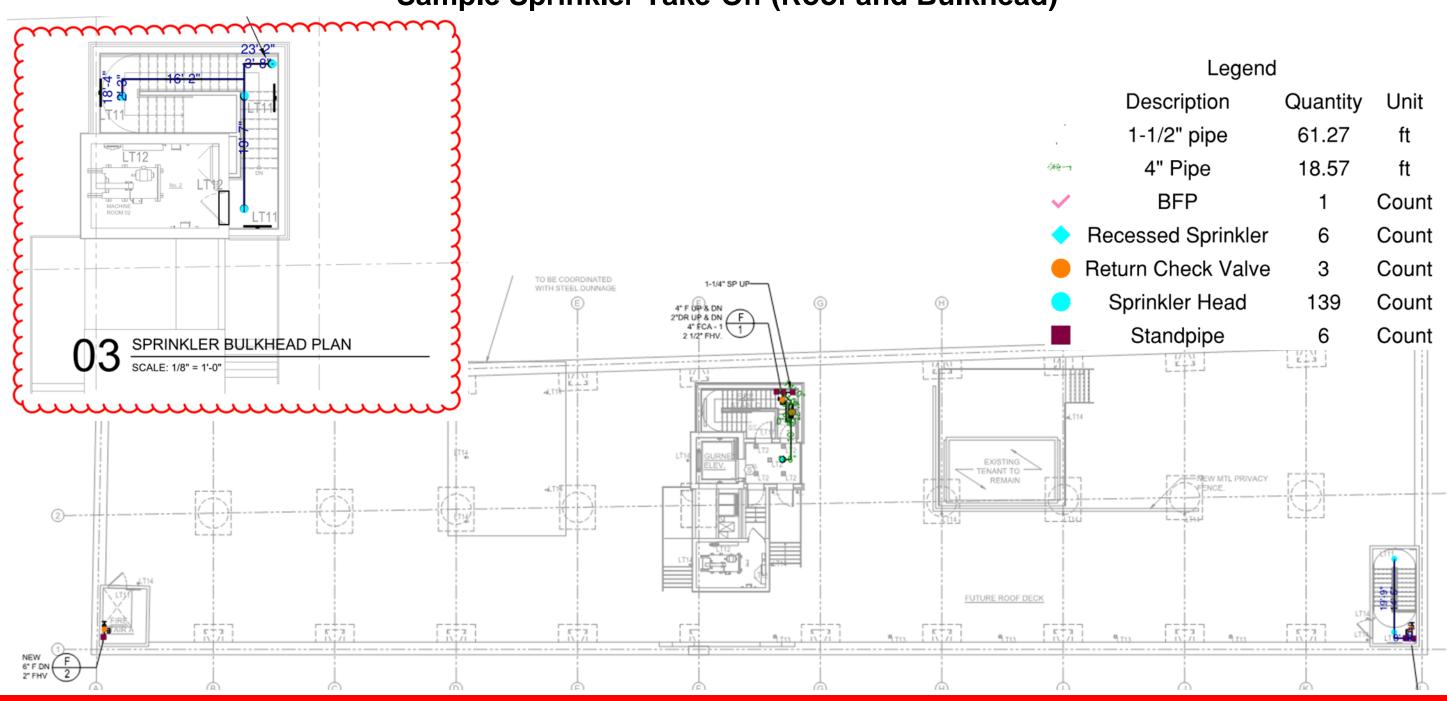
## **Sample Sprinkler Take-Off (Sixth Floor)**



ELMS REALTY 40-09 21ST STREET, LONG ISLAND CITY, NY 11101 URBAN YARD



## Sample Sprinkler Take-Off (Roof and Bulkhead)



ELMS REALTY 40-09 21ST STREET, LONG ISLAND CITY, NY 11101 URBAN YARD



# Detailed Trade Take-Off (Sprinklers) Continued.

SIXTH FLOOR					13,156 SF						
Item	Size (in)	Unit	Quantity	Price (\$)	Cost (\$)	Cost per SF (\$)	Percentage of Cost (%)				
Standpipe	2"	LF	11.50	\$25.75	\$296.13	\$0.02	0.36%				
Standpipe	4"	LF	11.50	\$48.72	\$560.28	\$0.04	0.68%				
Standpipe	6"	LF	23.00	\$72.41	\$1,665.43	\$0.13	2.02%				
Pipe	1"	LF	690.35	\$13.97	\$9,644.19	\$0.73	11.69%				
Pipe	1-1/4"	LF	43.53	\$15.40	\$670.36	\$0.05	0.81%				
Pipe	1-1/2"	LF	27.52	\$17.05	\$469.22	\$0.04	0.57%				
Pipe	2"	LF	488.23	\$25.75	\$12,571.92	\$0.96	15.24%				
Pipe	4"	LF	161.38	\$48.72	\$7,862.43	\$0.60	9.53%				
Sprinkler Pendant		ea.	134.00	\$41.60	\$5,574.40	\$0.42	6.76%				
Recessed Sprinkler Pendant		ea.	6.00	\$65.10	\$390.60	\$0.03	0.47%				
Backflow Preventer	-	ea.	3.00	\$2,522.00	\$7,566.00	\$0.58	9.17%				
Pump	-	ea.	6.00	\$589.00	\$3,534.00	\$0.27	4.28%				
Pump Controllers	-	ea.	6.00	\$33.98	\$203.88	\$0.02	0.25%				
Pump Control Box	-	ea.	2.00	\$770.40	\$1,540.80	\$0.12	1.87%				
Valve	2"	ea.	3.00	\$58.20	\$174.60	\$0.01	0.21%				
Valve	3"	ea.	3.00	\$89.78	\$269.34	\$0.02	0.33%				
Reducer	1"	ea.	2.00	\$41.25	\$82.50	\$0.01	0.10%				
Tees	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	2.92%				
Tees	2-1/2"	ea.	66.00	\$97.00	\$6,402.00	\$0.18	7.76%				
Couplings	2"	ea.	66.00	\$50.10	\$3,306.60	\$0.25	4.01%				
Couplings	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.55%				
Elbow	1"	ea.	66.00	\$36.55	\$2,412.30	\$0.18	2.92%				
Elbow	2-1/2"	ea.	66.00	\$56.85	\$3,752.10	\$0.29	4.55%				
Cross	1"	ea.	66.00	\$112.00	\$7,392.00	\$0.56	8.96%				
SIXTH FLOOR SUBTOTAL					\$82,505.48	\$5.97	100.00%				
ROOF & BULKHEAD							88 SF				
Item	Size (in)	Unit	Quantity	Price (\$)	Cost (\$)	Cost per SF (\$)	Percentage of Cost (%)				
Standpipe	1-1/4"	LF	11.50	\$15.40	\$177.10	\$2.01	1.87%				
Standpipe	2"	LF	23.25	\$25.75	\$598.69	\$6.80	6.33%				
Standpipe	2-1/2"	LF	11.50	\$33.85	\$389.28	\$4.42	4.12%				
Standpipe	6"	LF	22.00	\$72.41	\$1,593.02	\$18.10	16.85%				
Pipe	2"	LF	19.60	\$25.75	\$504.70	\$5.74	5.34%				
3-Way Roof Manifold	-	ea.	3.00	\$1,672.50	\$5,017.50	\$57.02	53.07%				
Sprinkleer Pendant	-	ea.	3.00	\$41.60	\$83.20	\$0.95	0.88%				
Valve	2"	ea.	2.00	\$58.20	\$116.40	\$1.32	1.23%				
Tees	1"	ea.	8.00	\$36.55	\$292.40	\$3.32	3.09%				
Couplings	2-1/2"	ea.	12.00	\$56.85	\$682.20	\$7.75	7.22%				
ROOF & BULKHEAD					\$9,454.49	\$107.44	100.00%				
						* .					
GRAND TOTAL					\$495,692.41	\$142.98					



## **Section 09 – Value Engineering**

After reviewing the provided plans, ZC&A has identified a potential item that we believe can be value-engineered and provide alternate solutions that do not sacrifice the project's quality and save you money in the process.

The item we identified to be value-engineered is Light Fixture #2 (LT-2). It is a standard surface-mounted fixture that appears throughout the lobby area and hallways of the building. Currently, there are 135 LT-2 fixtures throughout the project, with 56 located in the first floor extending from the lobby entrance to hallway near the elevators, 15 per typical floor in the elevator lobby and 4 spread out throughout the roof/bulkhead.

The specified LT-2 fixtures from Industrial Light Electric are 5" in diameter and 60W/110V E26/G25 bulbs with a matte black finish, **totaling \$7,425** or **\$55 per unit**. Our alternative from Ledpax Technology, the *Prescott 1 (Model #LPCLMBS1)* meets all the same specifications per the spec book as the current LT-2 fixture from Industrial Light Electric at nearly half the cost. Our alternative fixture would **total \$3,456** or **\$25.60 per unit**. This switch would save **\$3,969** about **53%** compared to the costs of the current LT-2 fixture. One benefit of this alternative is that Ledpax Technology products are available from Home Depot and thus we can reduce lead time and save money on deliveries that you would otherwise have to spend from a private manufacturer.

We believe that this VE alternative will be hardly noticeable to the design team and tenants alike due to the raised positioning of the LT-2 fixtures in the ceiling especially since the specs of each fixture including finish are identical.



## **Specified LT-2 Fixture**

Cost: \$55 per unit

Quantity: 135 fixtures

Total Cost: \$7,425

• Savings: --

Savings Percentage: --



#### Alternative LT-2 Fixture

Cost: \$25.60 per unit

Quantity: 135 fixtures

• Total Cost: \$3.456

• Savings: \$3,969

Savings Percentage: 53%

#### Specified LT-2 Fixture

· Manufacturer: Industrial Light Electric

Ceiling Canopy: 5" Diameter

Rated: 60W, 110V

Bulb Base/Shape: Medium E26/G25

#### **Alternative LT-2 Fixture**

Manufacturer: Ledpax Technology

• Ceiling Canopy: 5" Diameter

• Rated: 60W, 110V

• Bulb Base/Shape: Medium E26/G25



## Section 10 - Site Logistics Plan

At ZC&A, our primary goal is to fulfill our client's vision by completing their projects on time and under budget. We believe the first step towards achieving this goal is done during Pre-construction by having a detailed Site Logistics Plan. We consider a good site logistics plan to meet the job site's demands in the most efficient and straightforward way possible while ensuring the safety of those working in and around the job site and accommodating the community's natural flow. Our site logistics plan will be consistent throughout each phase of the project, focusing on adjusting to the construction team's progress and providing them with all the necessary tools to finish on time. All tenants shall be notified via mail and phone before construction beginning. All construction personnel will have to meet our Site Safety Manager to sign in and get their temperatures taken before work commences. This will be a daily task, and all on-site will have to show their "Clear" receipt for the day. If the person is found not to have this receipt, they may be subject to a fine.

Construction will begin with a bottom-up approach to demolition. In contrast, the construction phase will start with a top-down approach with a "core" focus. Both demolition and construction will begin in the middle of the building and move outwards. This method will allow for the bulk of the work being the initial focus, and as the trades move outwards, there will be fewer activities for them to complete. The site is set up with the building front facing North-West towards 21st Street, 22nd Street faces South-East while 40th Avenue and 41st Avenue are on the East and West, respectively. Temporary electricity will be provided via the nearby Con-Ed vault located on 21st Street. Access to temporary water will also be accessible from 21st Street via the access points at the building's front.

There will be portable waste bins (recycling and trash) throughout the building to accommodate the disposal of smaller materials and debris. These bins will be disposed of at the dumpsters located on either side of the rear of the building or can be disposed of via the trash cutes situated at the corners of each commercial space (per floor, 2 - 6). Dumpsters will be replaced every four weeks to help maintain the premise. However, if material begins to exceed each dumpster's limits, the schedule may be adjusted.

The rear "yard" of the project will be utilized for most of our equipment, storage, and personal areas on site. Our field office and security office are situated at the farthest end of the yard, with site safety residing in our field office. A temporary loading will be constructed along the western side of the yard, granting access directly to the ground floor and our hoist at the opposite end of the sidewalk. This loading dock will handle all deliveries and act as a staging area.

In the rear yard, opposite our hoist, is a large material storage shed, granting mobility to trades carrying heavy material to higher elevations and maximizing time.

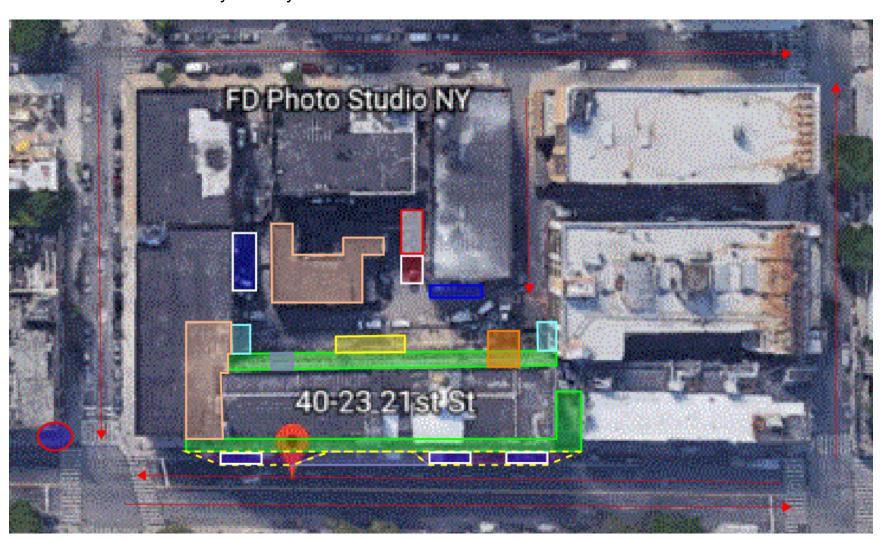
Additionally, we plan to utilize a mobile crane at the South-East (back)side of the job site to maneuver perpendicularly to the building, where there is ample space to pick and lift any structural material and MEP equipment to the roof.

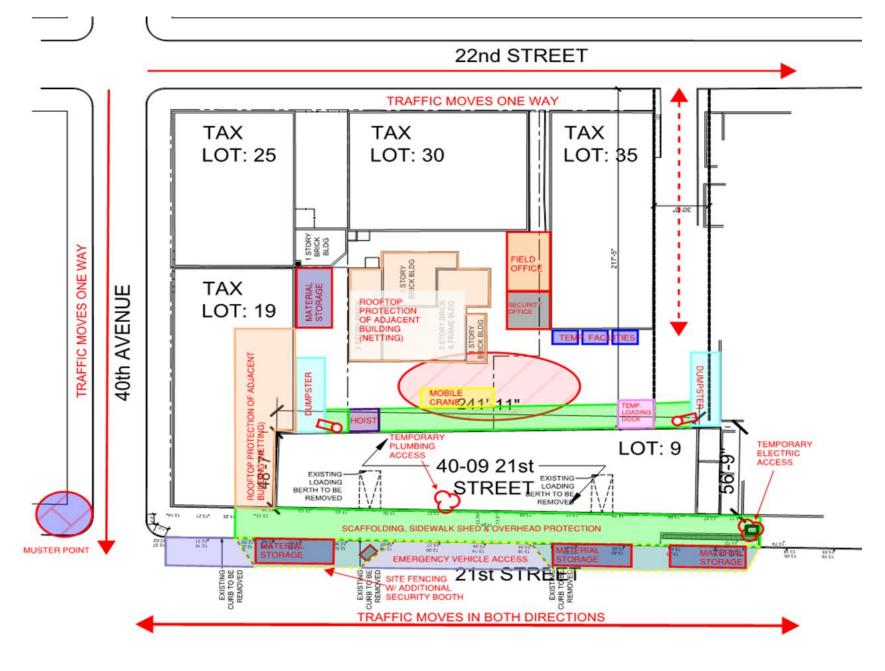
The building's front will utilize NYC DOT permits to fence and close the east bound lane of travel on 21st Street. This fenced area will not impede pedestrian foot traffic in front of the building. However, it will allow for more storage containers, an additional security booth, and emergency vehicle access to the building. Another constant through our site logistics plan is the muster point on the corner of 21st Street and 40th Avenue, far enough away from the building to be deemed safe and is accessible from the three emergency exits at the front and the rear yard of the building as well.

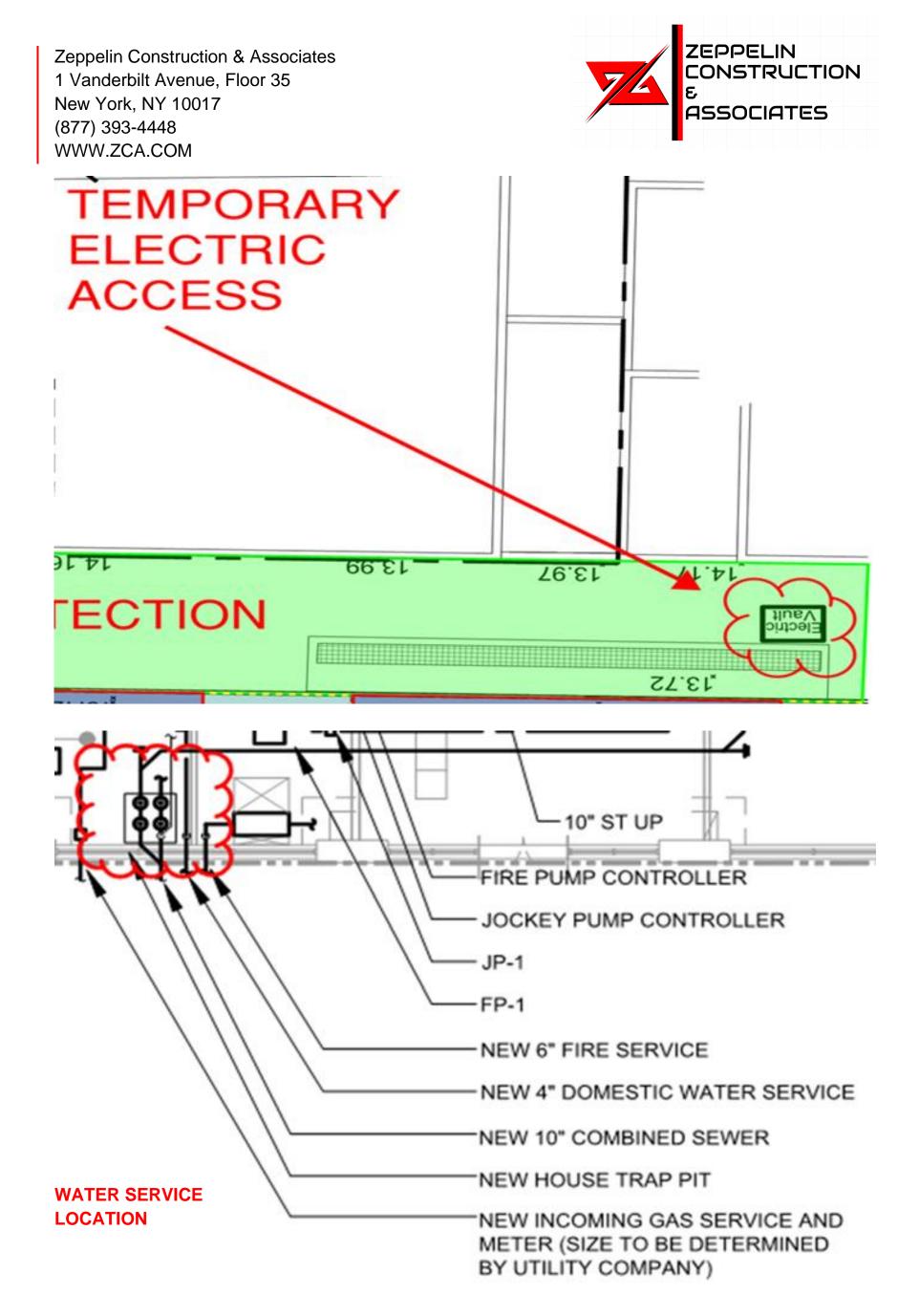
Our scaffolding and sidewalk sheds will also remain on-site throughout the project. Our first objective will be to install sidewalk sheds along 21st Street and the walkway on the building's backside. Safety netting will run vertically along the building's facade on both sides and be supported by our scaffolding, which will be stacked upon our sidewalk sheds. Additional rooftop protection will be used on the adjacent property cluster in the rear yard and directly east of the Urban Yard renovation.



Finally, temporary facilities will be subjugated with port-a-potties in the rear yard and removed when the plumbing is permanently installed and functional. However, until then, the port-a-potty's will be cleaned and drained every ten days.

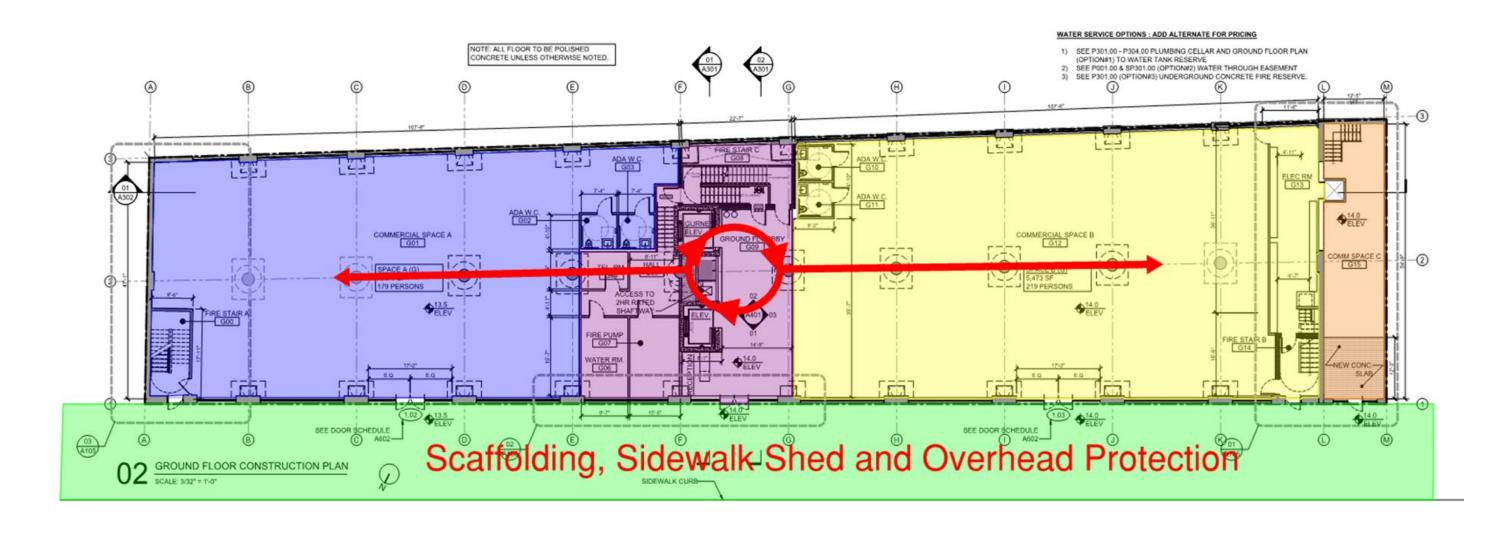








## **Site Logistics**





#### Section 11 - Site Safety Plan

ZC&A's top priority on any job site, large, medium, or small, is safety. Our staff works tirelessly on ensuring that everyone on or near the job site is safe. ZC&A can confidently say that with our years of experience, high standard for safety procedures, and properly trained team members, we will always consider safety a strength. ZC&A is proud to call itself one of the 2019 AGC NYS Safety Award recipients. ZC&A Construction currently maintains an Experience Modification Rate (E.M.R) of .71.

Construction Site safety will always be a priority on any job because we are a family-oriented business. We understand that people's lives are at stake every day. Workers should rest easy knowing that they will come back home to loved ones at the end of each day. Suppose someone feels like they are getting put in danger or at risk. In that case, they need not hesitate to refuse putting themselves in that situation.

ZC&A's safety process begins by breaking down the following core elements to create a successful and safe job site.

- 1. Establish a clearly defined set of goals and accomplishments.
- 2. Ensure that all staff and site personnel are properly trained and follow safety procedure.
- 3. Keep an open communication line between all aspects of construction, i.e., trade contractors, employees, job site personnel, and surrounding tenants and neighbors.

ZC&A believes that the previous elements stated directly relate to a safe and successful project because clear goals can simplify complex parts of a project, a properly and well-trained staff can react and understand risks associated with an activity and keeping a positive relationship with the surrounding community can make all the difference.

ZC&A will conduct a risk assessment analysis to identify job site risks, determine potential mitigation techniques and the steps necessary to assess the significance of the hazard. ZC&A will then conduct an implementation simulation, where they we will review the hazard further to determine the longevity of the issue and whether it is a quick-fix or a long-term problem that will take several iterations to resolve fully.

ZC&A has always followed the federal regulations created by OSHA and all local regulations issued by the NYC DOB to ensure site safety for the public and those working on the job site. We annually review site safety standards issued by the AHJ's listed above (and others as they pertain to our projects) to ensure we conform to the latest industry standards and best protect our client, employees, and public from any job-related hazards. We are proud to say we have never suffered a fatality on the job site and have add four injuries in the past three years across all our projects, the last of which occurred in 2019.

ZC&A are always accessible to address any concerns related to job site safety, below are the contacts for our Project Superintendent and Site Safety Manager. Eric our site safety manager is OSHA-500 certified, we recommend contacting him first, as he will more than likely be able to guide your in the right direction. We will also provide the nearest FDNY Station and EMS locations below as well.

#### FDNY: Ladder 116

- Address: 37-20 29th St, Long Island City, NY 11101.
- About 9 blocks away from the site, 3 blocks north-6 blocks east (four min drive).
- FDNY Engine 260 is a good alternative if there is heavy traffic and roughly 9 blocks away from the site, 6 blocks north-3 blocks west (six min drive).

#### Urgent Care/EMS: CityMD

- Address: 25-18 Queens Plaza South,
   Queens, NY 11101
- Hours: 8:00am to 8:00pm
- Phone #: (646) 647 1261
- About 9 blocks away from site, 3 blocks south-6 blocks east (two min drive).
- For severe emergencies, the nearest
   Hospital is Mount Sinai Queens about 1.5
   miles North of the project (five min drive).



## Site Safety: Emergency Contacts

#### Eric Clapton, Site Safety Manager

Phone #: (877) 393 – 4448 ext. 68

Mobile #: (917) 687 – 5555

Email: eclapton@zca.com



#### Jimi Hendrix, Project Superintendent

Phone #: (877) 393 – 4448 ext. 92

Mobile #: (917) 196 – 5555

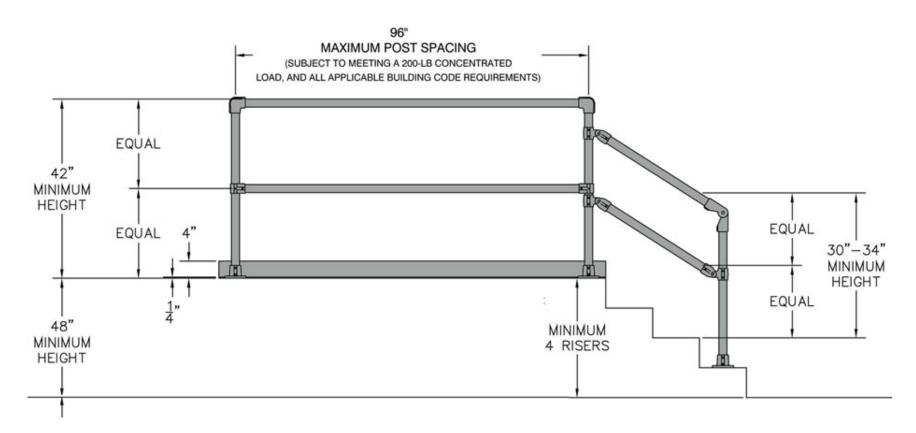
Email: jimihendrix@zca.com





#### **Project Concerns: Falls & Height**

As Falls may not be the first safety concern that pops into your head when performing work for a building repositioning, ZC&A believes in this project's activities such as forming two elevator cores, installing both elevator cabs in the roof bulkhead, and installing a staircase can lead to many potential falling hazards. However, with proper site protection, precautionary planning, and well-trained and knowledgeable staff, the job site can thrive safely and successfully. ZC&A will practice the install the use of engineered guardrails with a top rail (at least 42 in. from the floor), mid-rail, and toe board around any drop over 6ft (refer to the diagram below for an example of a guardrail system.) Also, laborers working around large openings will be using a personal fall arrest system. Fall protection can be broken down into its ABCs (Anchorage, Bodywear, and Connectors). Falling Systems will be installed around areas like the roof opening area and openings around the facade and worn while utilizing scaffolding.



## **Project Concerns: Performance of Work in Populated Areas**

Performing work in a populated area can be challenging but not impossible. There are varying amounts of solutions and methods to work around pedestrian foot and vehicle traffic. When it comes to working in New York City, you must be aware of worker and pedestrian safety. A simple way to keep out unauthorized personnel out of harm's way is to establish clear signage around the construction site, have a well-trained security staff, and have clear access points. So, workers and pedestrians know where and where not to enter. Communication is a crucial player in this aspect of construction safety. Neighbors will be well informed of the future construction taking place by receiving a construction notice letter 30 days before construction starts. The use of dust and noise abatement plans will be in place to establish a game plan on how ZC&A will protect its workers and neighbors.

Another concern related to working in a populated area is the heavy traffic of the streets and sidewalks. ZC&A understands that the Urban Yard consists of commercial spaces and neighbors' residential housing and retail shops, all of which share access points with the heavily used 21st Street and 40th and 41st Avenue and will ensure the protection of the community and its members at all costs. The use of overhead protection will be in place above the sidewalks and pedestrian walkways to maintain typical and safe foot traffic flow in the area, and without disrupting access to neighboring properties. As well as having security stationed out by the delivery drop-off area for the construction site. Deliveries will also be scheduled at off-peak times of heavy traffic and as discussed in our site logistics plan, moved to the building's rear to best limit our impact on traffic flow on 21st street.



#### **Project Concerns: COVID-19**

ZC&A acknowledges COVID-19, and its tremendous impact on the construction industry and the world as a whole this past year. Since March of 2020, ZC&A has worked tirelessly to help stop the spread and limit COVID's ability to impact our job site. We have done this by creating a guide and regulations pamphlet for COVID-19. The guide is based on CDC guidelines and DOB regulations for COVID-19 safety on the job site.

#### The key points are:

- Temperature scanner and hand sanitizing stations located at job site entrances and site safety office.
- COVID-19 sign-in/out sheet located in the site safety office to track workers on site.
- Masks must be always worn on-site and in the office except when eating/drinking.
- Groups larger than six (6) people cannot congregate together.
- Suppose a person feels sick or has been exposed to COVID-19 in or outside of work. In that case, they must report their symptoms within 48 hours of feeling ill to their foreman and site-safety manager and provide a negative COVID-19 test 24 hours before returning from work if their symptoms fall in line with CDC guidelines for COVID-19.
- Failure to abide by the above regulations may result in a fine on the job site in the form of a company back charge or thrown off the site.





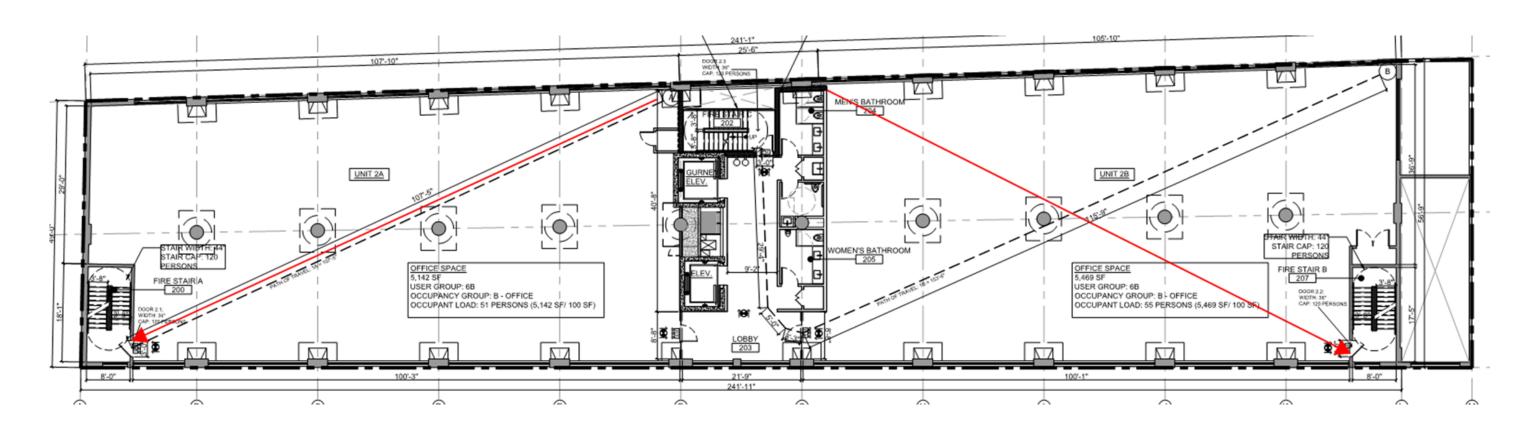
Additionally, ZC&A has provided the locations of where we plan to install fire extinguishers, wash stations, first aid kits. As previously mentioned in our logistics plan, our field office will contain all the above-mentioned materials and be accessible to all on site. Electrical panels have also been marked for lock out/tag out to ensure unauthorized or untrained personnel cannot access breakers and fuse boxes when site operations are occurring. There will also be a usage sheet to track who has been using what panel at what time.

We have also noted slab penetrations, and edge of slab/building hazards on our drawings below. We plan on marking these areas with guardrails, nettings, and additional coverings to protect those onsite from any unnecessary fall or trip hazards due to the demolition of the slab and rooftop work.

To summarize we plan on giving each floor/unique or independent space access to the abovementioned materials to ensure that if there is an emergency everyone will be protected. This means each commercial space will have its own set of fire extinguishers while a first aid station and wash stations will be shared in the building core to avoid cluttering. See below graphics for details.

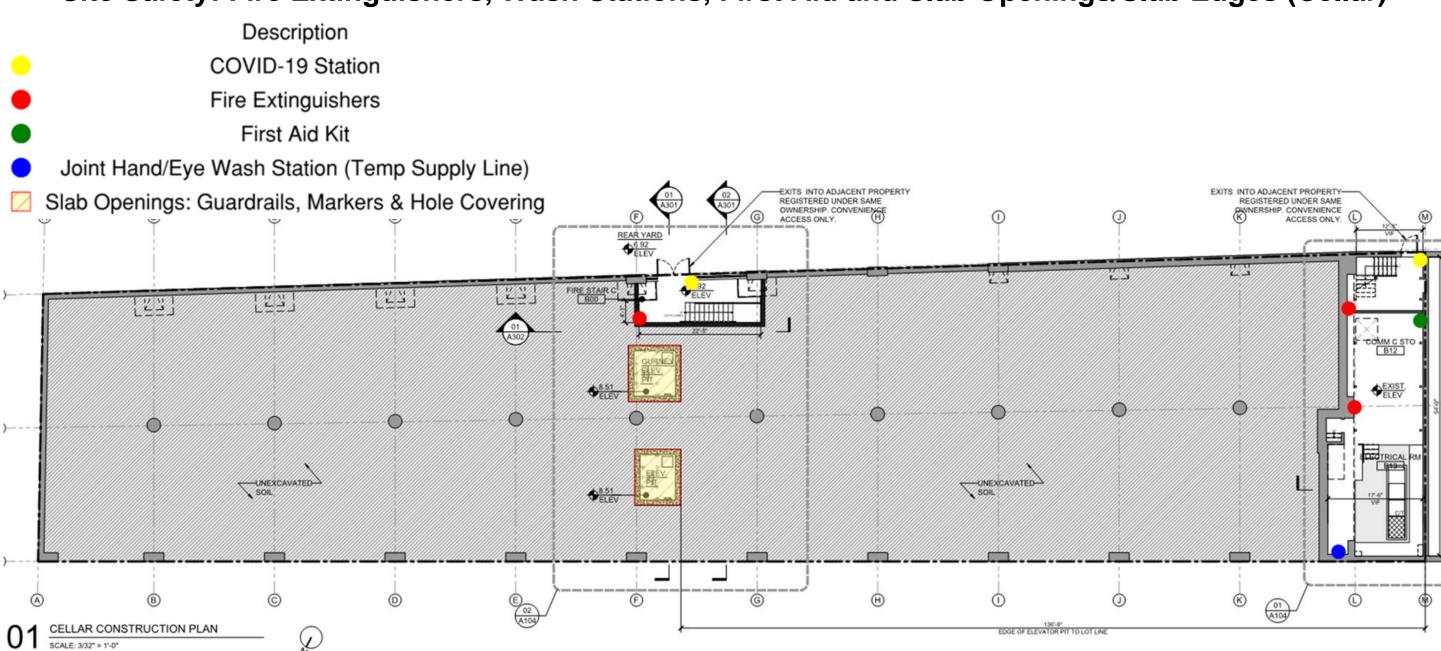


## **Site Safety: Egress Path**





#### Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Cellar)





#### Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Ground Floor)

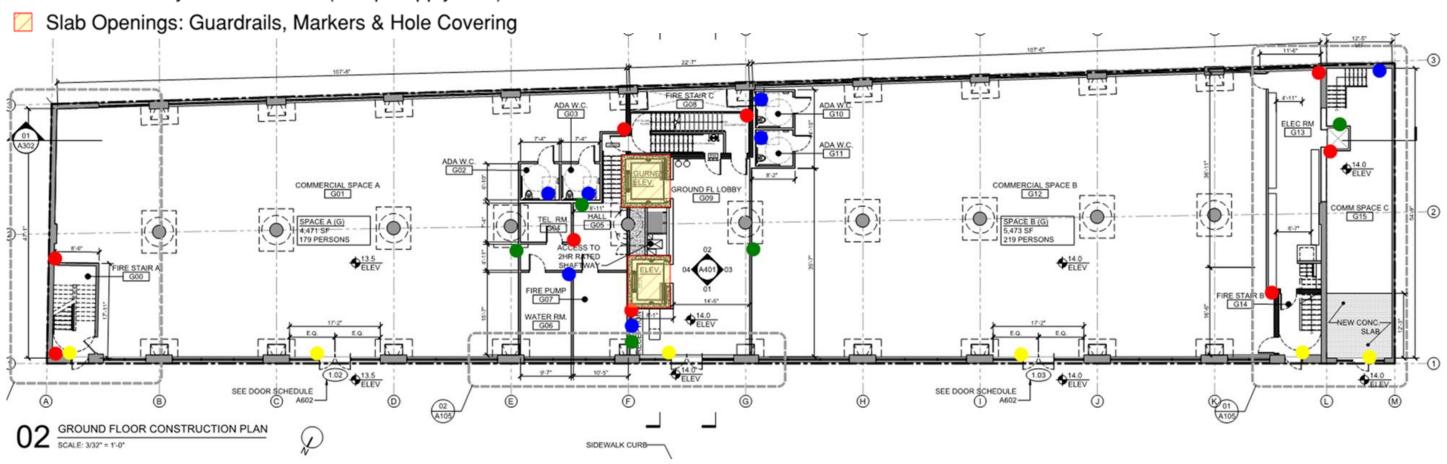
Description

COVID-19 Station

Fire Extinguishers

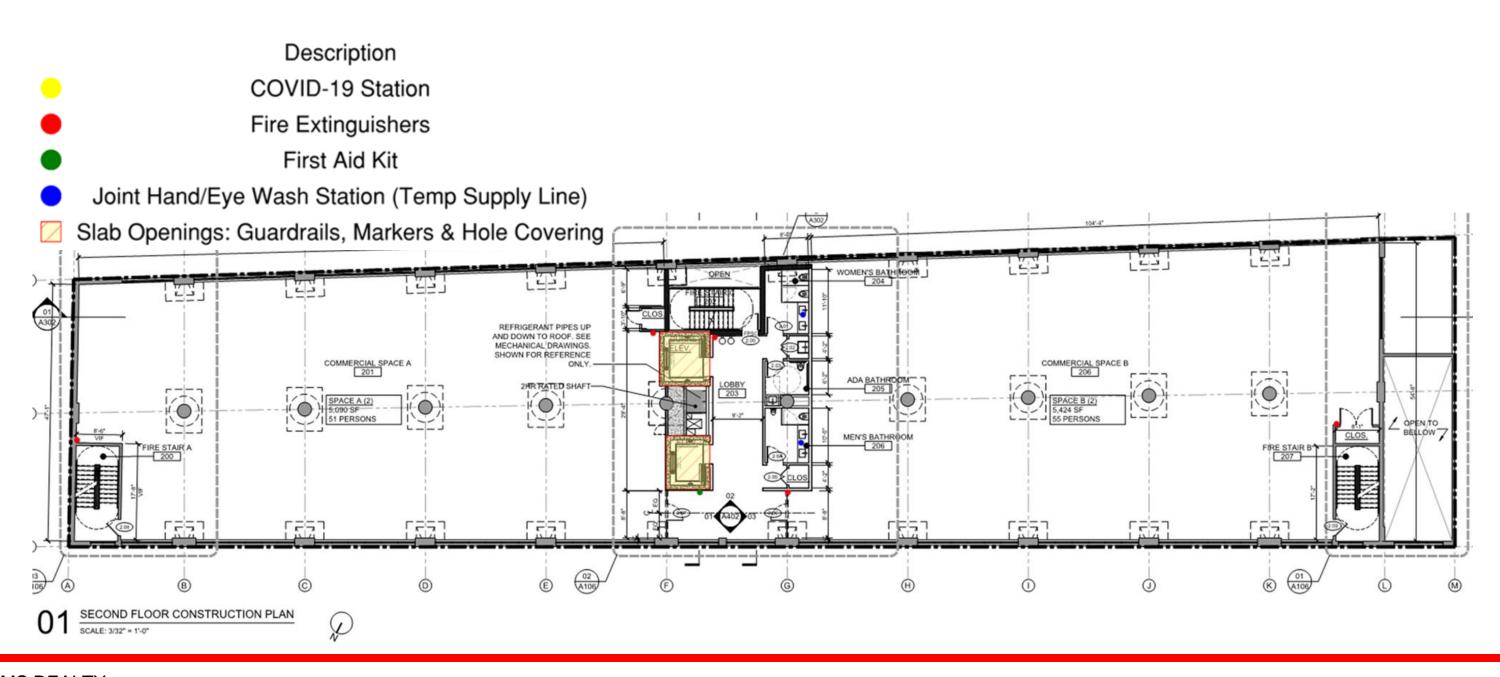
First Aid Kit

Joint Hand/Eye Wash Station (Temp Supply Line)



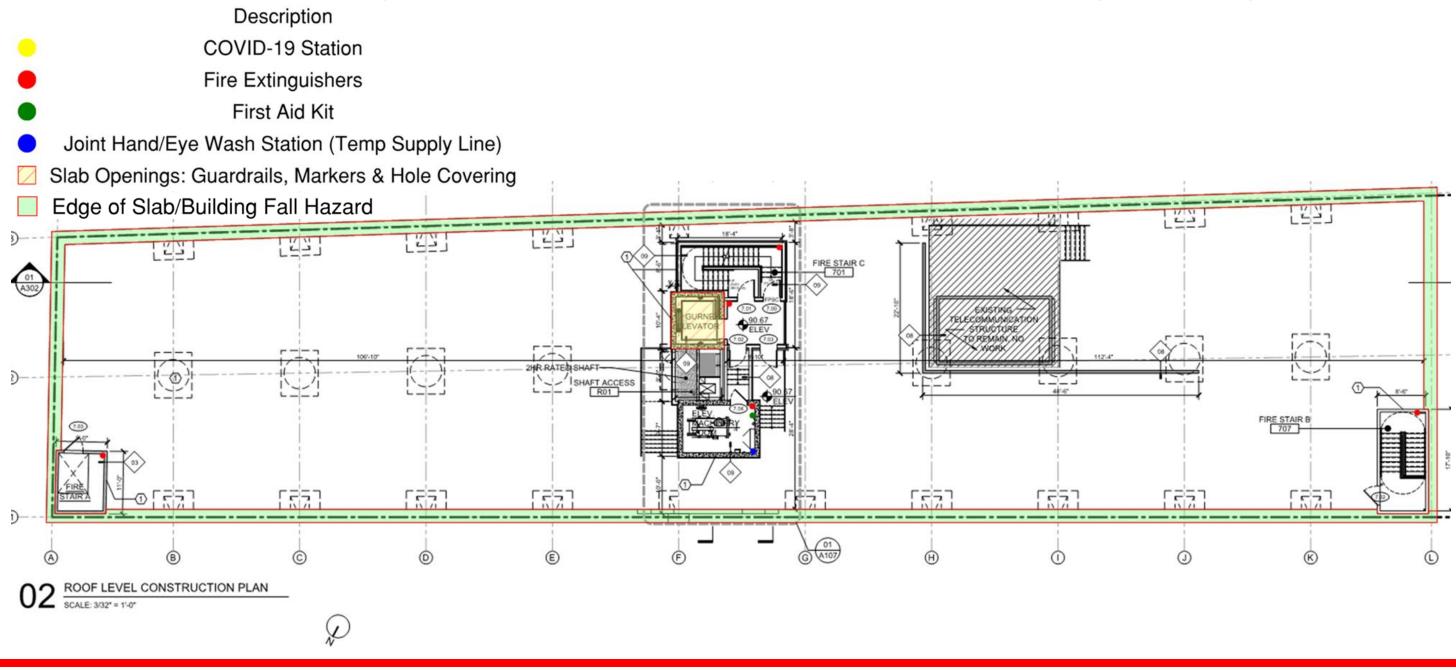


#### Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Typical Floor)





## Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Roof)





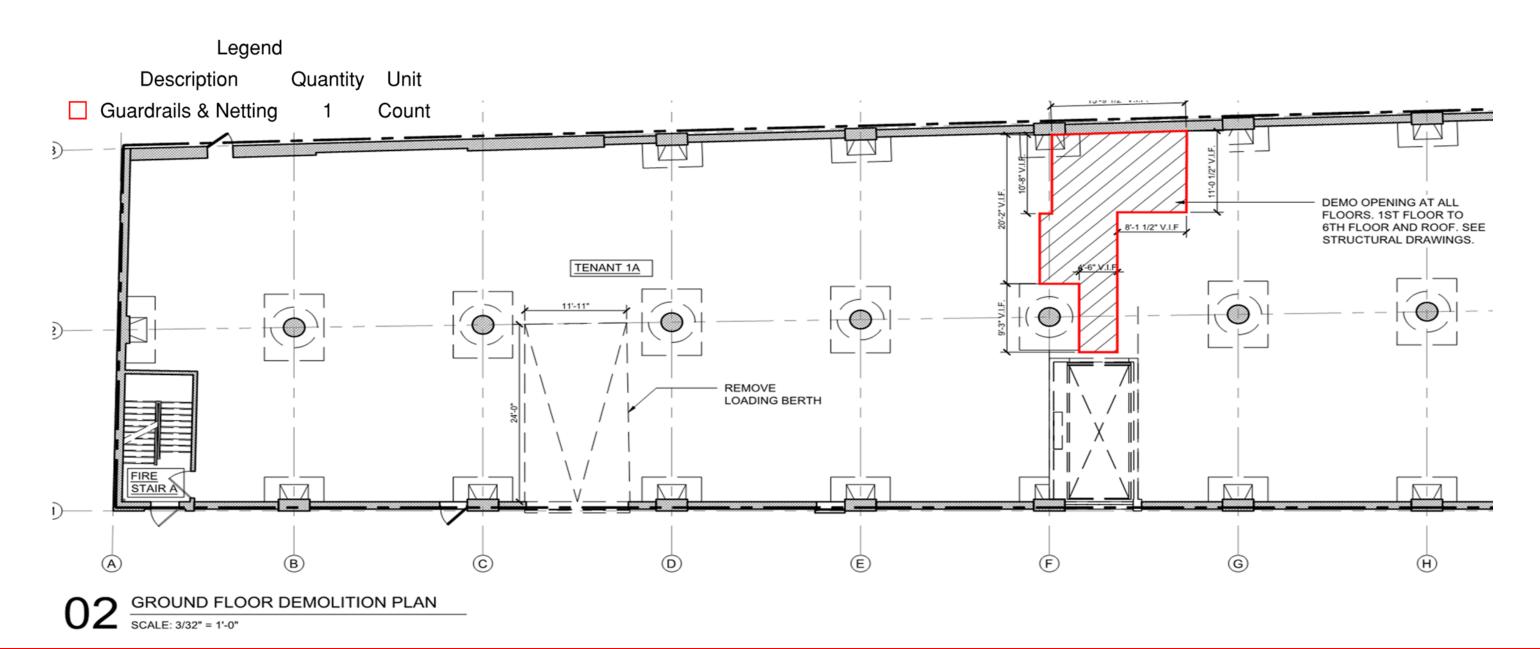
## Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Bulkhead)

Description COVID-19 Station Fire Extinguishers First Aid Kit Joint Hand/Eye Wash Station (Temp Supply Line) Slab Openings: Guardrails, Markers & Hole Covering Edge of Slab/Building Fall Hazard NO. 1 ELEVATOR RM

01 BULKHEAD CONSTRUCTION PLAN
SCALE: 3/32\* = 1'-0"



## Site Safety: Fire Extinguishers, Wash Stations, First Aid and Slab Openings/Slab Edges (Demo)

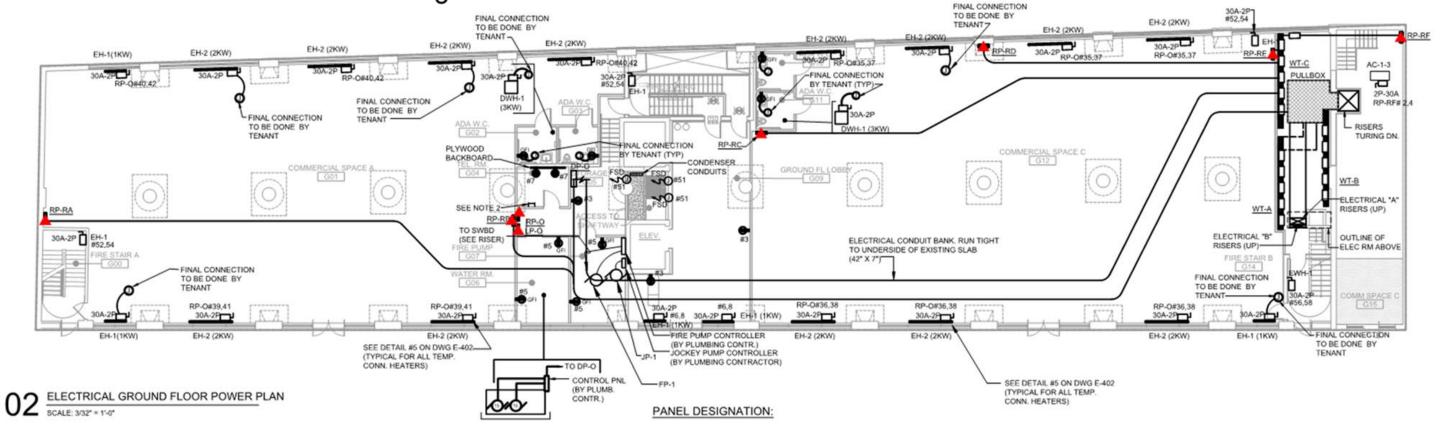




#### Site Safety: Electrical Panels for Lock Out/Tag Out (Ground Floor)

#### Description

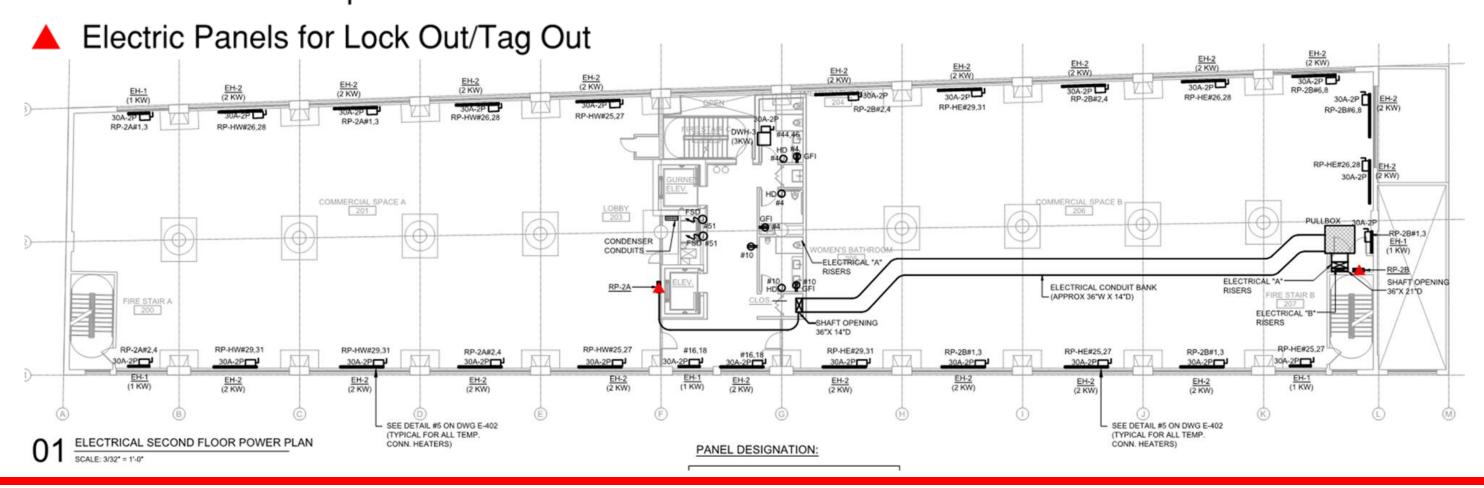
▲ Electric Panels for Lock Out/Tag Out





#### Site Safety: Electrical Panels for Lock Out/Tag Out (Typical Floor)

## Description





#### Section 12 - Quality Assurance/Quality Control

Quality assurance refers to protocols used to mitigate the product flaws before installation and during throughout the job's completion. Submittals are the primary tool that is used to keep quality assurance in check. Subcontractors are responsible for reviewing the product data according to the original drawings, submitting shop drawings related to their scope of work, and addressing any design discrepancies they found with that drawing set. Any outstanding questions or concerns can be handled through Request for Interpretation (RFIs) with the designer.

Our team will use the Procore project management software to control this aspect of the project. Procore is a project management software that helps streamline the submittals process by allowing markups to be made directly in the app and for the consultants (A/E and MEP teams) to stamp and review directly from their computers or phones. The documents tool then automatically creates a submittal register from the drawings and specifications within minutes for easy record keeping throughout the submittal process. The flow of the submittal process is as follows: the trade submits their shop drawings to Procore via the submittals tool, and the PM reviews the submittals assign the correct specification, workflow, and review duration, then the consultants are notified and review the submittals, leaving their comments. All parties must respond to keep the workflow moving. This method allows for quick accessibility and review for each submittal. It provides an in-depth log to track all changes in the submittal review process. Procore is easily accessible through multiple platforms like the Apple App Store, Google Play, and the Microsoft Store. The software will be made available to all subcontractors and consultants so that there is total project buy-in. This software allows for a clear and uninterrupted communication line, resulting in an increase in the project's efficiency, saving time and money.

Additionally, Procore's software is cloud-based, which allows for immediate and automatic updates; that way, there is no wasted time communicating. The software is intuitive and easy to use without training. However, there are several training videos provided by Procore themselves. Our team can assist with any additional issues anyone might have.

Although the project may have complex tasks such as the installation of the two elevator cabs and steel pieces at the bulkhead, construction of elevator shafts, and construction of the emergency staircase, ZC&A's experienced team members will continuously work and communicate with the designer and or associated parties needed to get the job done right.

Quality Control refers to the process of testing and inspection of installed work and material. Assuring that a specific product is held to its standard and that a particular sequence of events is taken to maintain them through analysis, comparison, and testing. It is a significant contributor to the success of any project.

These standards are supported by regular and routine inspections ranging from the most critical tasks to the utmost detail. Examinations like Structural Steel Inspections, Welding Inspections, Concrete Inspections, Elevator Inspections, Roofing Inspections, MEP Inspections, Finish Inspections, and Punch Lists. Procore allows for an intuitive Punch List process that, similarly to submittals, carries a changelog and can be easily trimmed via the filters tab, converted to an Excel file or PDF, and transposed onto a graph, making it very easy to hold every trade accountable for their work and keep track of backup.

Another vital element of QC is Pre-Inspections. Pre-Inspections add another layer of control for CM's to QC as it allows them to get ahead of certain activities and determine any issues prior to the work beginning. By mitigating these issues, the CM can then do a post or con-current inspection to see the progress from their pre-inspection and determine whether or not the work or material is being utilized efficiently and correctly.

In Summary, both Quality Assurance and Quality control require proper planning, coordination, and organization. ZC&A believes that with Procore's Software, which our team has years of experience with, this project will be safe, efficient, and successful.



#### **Section 13 – Constructability Review**

After examination of the construction documents, ZC&A performed a constructability review. The practice of constructability reviews is a vital part of the construction process that allows the CM and GC to identify any conflicts in the drawings that the A/E or MEP consultants might have overlooked when designing the building while giving the consultants a chance to resolve any issues that may arise before the start of construction. We believe that a thorough constructability review is mandatory for all projects due to how frequently conflicts between two drawings can arise. Every project will have conflicting items; the severity of the issue and whether a solution can be proposed promptly that varies. It is of the utmost importance that these conflicts be resolved before construction begins. They can often be minor issues that cause more considerable headaches later and can be costly to the client.

A constructability issue that ZC&A is concerned about is the installation of Domestic Water Heater 1 (DWH-1). The water heater conflicts with the wall partition that separates the ground floor bathroom in commercial space 1A. The floor plan (Drawing P-301) indicates that the water heater is installed in the ceiling as the detail and notation calls for. ZC&A's solution for this problem is to open an RFI with the MEP Consultant (2LS Consulting Engineering), the Architect (Murdock Solon Architects), and the Plumbing Contractor (to be awarded later) for coordination and guidance on how to proceed. Coordination will be required because DWH-1 is specified as an AO Smith Del-6 water heater with the dimensions of 15-1/2 in x 14-1/14 in x 11 in and will be exposed if installed in its current location, a location that we believe is unsuitable for in an occupied building.

Our solution is to move the water heater from its current location to a more secluded location in the corner of the closest bathroom from the lobby wall. The water heater would be able to be suspended in from the ceiling and not pose a risk to tenants while still providing easy access to the maintenance team.

There will be daily coordination meetings before any work is performed to ensure close coordination between the plumbing contractor, the electrician, and the design team. This will work as part of Quality Assurance/Quality Control, so no time or material is wasted and to avoid delays to the schedule. Running the coordination meeting between the contractors will be our Superintendent, Jimi Hendrix, and Project Manager, Keith Richards. Procore can help aid the process assuring that the work is done well and done with respect to the other surrounding trades and provide an excellent application to track the issue.



#### REQUEST FOR INFORMATION FORM



#### **DOMESTIC WATER HEATER (DWH-1) LOCATION DISCREPENCY**

RFI#: 001 4/26/2021 DATE: PROJECT NAME: **Urban Yard** PROJECT #: A033-01-001

Plumbing Contractor, Electrical Contractor, 2LS TO: Consulting Engineering, Murdock Solon

#### **RFI Description**

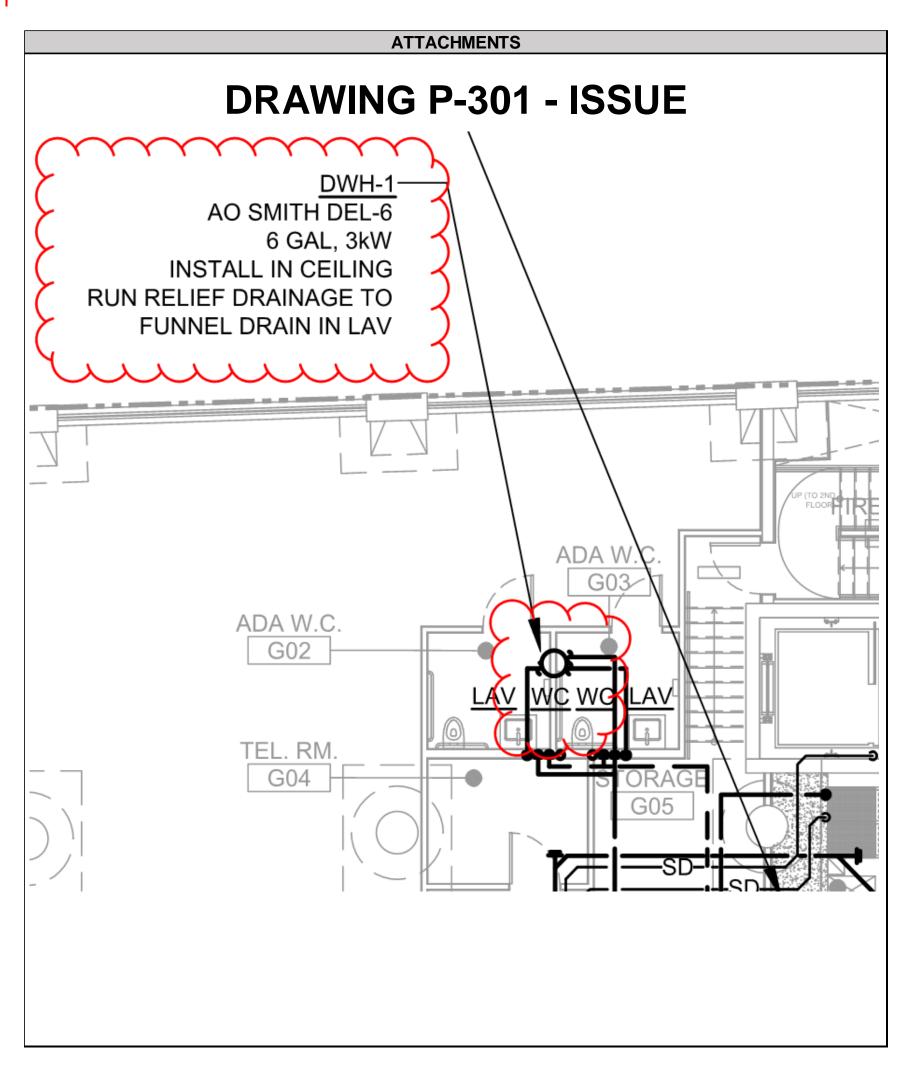
Question: In commercial space 1A located on the ground floor there is a Domestic Water Heater (DWH-1) set into the wall parition between the two bathrooms. The notations on drawing P-301 calls for the domestic water heater to be installed from the ceiling. Based on the specs of DWH-1 (AO Smith Del-6 water heater), it has a height of 15-1/2 in x 14-1/4 x 11 in. A size too large to be set between the wall. Where is DWH-1 to be installed? 2LS and MSA must choose a location in one of the bathrooms for DWH-1 be installed, and issue two sketches to reflect it's location relative to the floor plan on the drawings previously referenced.

Additional Comments: ZC&A recommends installing the domestic water heater (DWH-1) from the ceiling in the bathroom nearest to the lobby wall. We believe that there is enough clearence to hang DWH-1 from the ceiling and in the corner of the bathroom. See proposed location below.

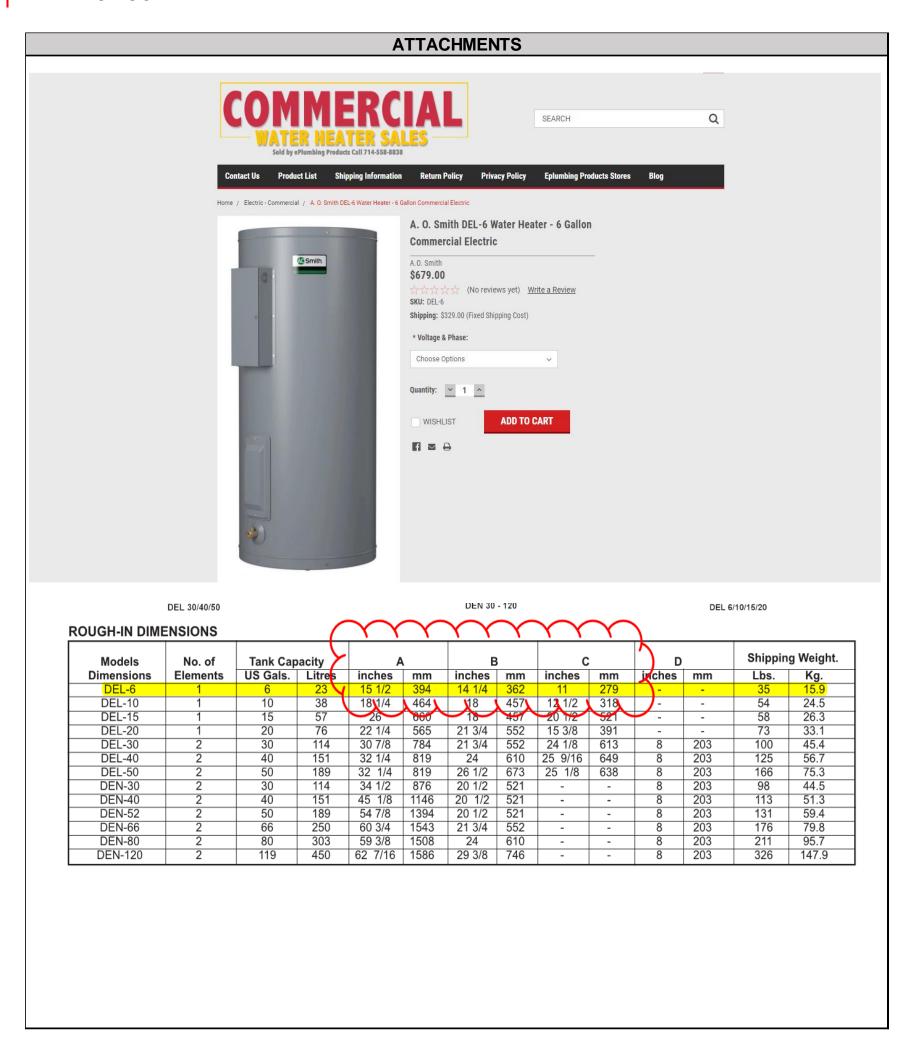
ATTACHMENTS Urban Yard - RFI 001 - DWH-1 Discrepancy 20210426.pdf Urban Yard - Plumbing Set - Drawing P-301 20210426.pdf

# **SUBMITTED BY:** Keith Richards, Project Manager Zeppelin Cosntruction & Associates **RESPONSE TO RFI** RESPONSE BY: (Name, Title) DATE: Company

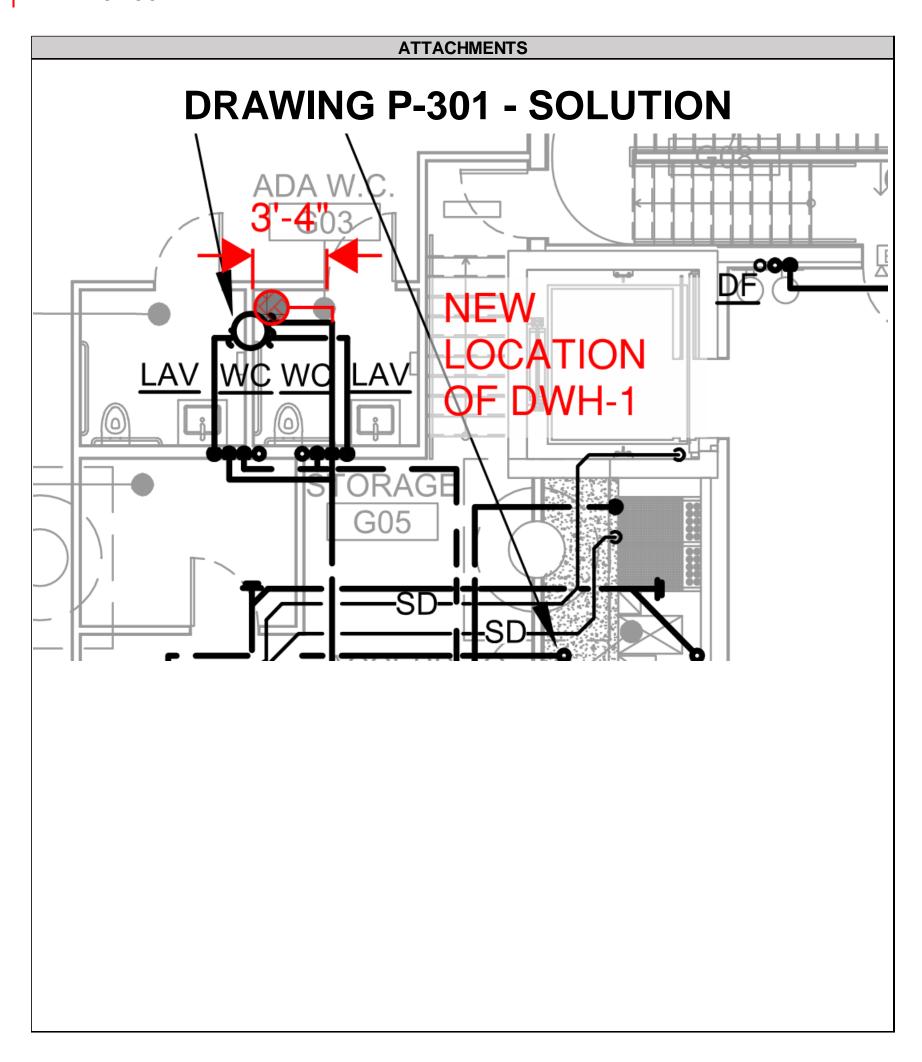














## Section 14 – Sustainability

Until about 2010, sustainability was often an afterthought to those in the construction industry; however, with recent advancements in science and the study of global warming, it has not only become relevant to discuss sustainability but a responsibility to the construction industry to research and find sustainable solutions for projects that reduce the building's carbon footprint and are less invasive to our surroundings and environment.

Since then, many organizations such as LEED and Net Zero have emerged to guide and award projects that go the extra mile and achieve specific sustainability or "green" goals. An expensive and challenging task that requires extensive research, careful planning, and near-perfect execution to ensure that the project's design and resources are sustainable down to every detail, and each piece of equipment.

Nowadays, it is an industry-standard to take into consideration the environment. Without the proper methods, construction can create hazards and dangers to the surrounding environment and the general environment. However, construction done correctly with the correct sustainable technologies can always be achieved. ZC&A assures you that any job we perform maximizes energy efficiency and reduces our carbon footprint. We believe that the site should be sustainable during a job, but the building itself should be. As you may know, as part of QA/QC, we discussed our plan to utilize fundamental commissioning, which is the testing of MEP to make sure they are working at total capacity. Fundamental commissioning relates to sustainability because testing these systems impacts future performance and often results in a more efficient and cost-effective building. Although ZC&A does not have a sustainability manager on the team, we believe our Project Manager has a well-rounded experience with Sustainable techniques and technologies. Keith Richards has worked on many projects that required a rating in sustainable elements of a building and has worked on the LEED Platinum Certified Mastercard Headquarters Renovation and learned much about the complicated process necessary to receive a LEED certification (previously shown in our relative projects).

Suppose you decide to go LEED certified for this project. In that case, you will be happy to know that ZC&A can provide excellent sustainable options.

LEED certifications can be achieved by getting a rating in each of the following categories:

- sustainable sites
- water efficiency
- energy & atmosphere
- material & resources
- indoor environmental quality
- innovation
- · regional priority credits

A great way to get certification points is to use certified materials and reuse materials as often as possible, such as reusing existing doors and sprinkler heads noted in the contract documents. Another method is to make use of a recycling plant with a designation of materials being processed or removed off-site to where the material can be appropriately recycled (i.e. refrigeration parts). However, pursuing LEED certification is very costly. Having a LEED certified building will incur additional costs that could easily exceed six figures. A registration certification alone will cost around \$8,000 and not to mention the addition of a Sustainability Manager's salary, which can range anywhere from \$60,000 to \$100,000. And on a project of this scale, it might not be worth allocating funding to such expensive practices that could take decades to pay off. However, there is a certain level of prestige that is associated with achieving a LEED Certification, and it is beneficial to the environment; the decision remains yours.

Although some sustainable practices are harder to accept and install than others, ZC&A believes that there can always be a more energy-efficient way of doing things regardless of the job. ZC&A has a basic sustainability plan for any building we practice while on and off the job site. For this project specifically, ZC&A would like to implement the use of Negative Pressure Particle Containment (NPPC) inside while



work is being performed. This will reduce the number of air particles and odors inside the building and improve overall air quality, which we think is exceedingly necessary due to COVID-19 restrictions.

For our noise control, ZC&A will be making sure they are not performing excessively loud activities during critical business hours for neighboring tenants. The use of electric power tools can replace loud gas-powered tools that exhaust fumes. Additionally, ZC&A will utilize low output generators to supply temporary power for these tools that can operate at low volumes to ensure that there is no disruption to the neighbors. We will also supplement our sidewalk fencing with a noise barrier alternative that is constructed from sound absorbing foam and wood materials that will limit excess noise pollution onto the street level.

We will have a labor clean-up crew with a squeegee broom and wet vac and set up sump pumps to prevent stagnant water from accumulating for water waste run-off.

For dust control, dust barriers will be implemented to reduce overall pollution, particularly during the demolition phase. Any saw cutting or dust-related activity taking place will have water running over it to mitigate any debris/dust created by the cutting, specifically for concrete material, steel, or wood. Only the National Institute of Occupational Safety and Health (NIOSH) approved fittings and masks will be permitted for any spraying of any kind.

Tenting will be set up to avoid contamination of any spraying going on. While the spraying is going on, there will be ample air purifiers and ventilation to establish control and air quality standards both indoors and outdoors. ZC&A will then complete a study of the air quality before construction begins and establish a standard that the air quality must meet. As work progresses, we will carefully monitor the air and ensure it remains to the set standard.

Sustainability is more than a state of mind, it's an obligation that construction managers need to be actively exploring and investing resources towards to full comprehend its significance, and the actions that can be taken to improve a building by adopting green ideas.



#### **Section 15 – Construction Technology Initiatives**

Construction Technology is a relatively new and rapidly growing industry that focuses on new technology and project software that streamlines the construction process, job site efficiency, and safety. Since the dramatic rise of construction software in the mid-2000s, ZC&A has constantly been researching and exploring new options within this industry to uncover the latest and most intuitive software to improve our projects and compete with other firms in order to offer the best service available in the industry to our clients.

We will achieve this by using several new construction softwares to aid in our project controls, scheduling, organization of paperwork (Submittals, RFIs, Punch List, Change Orders, Drawings, Bids, etc.) and site safety.

As stated previously in our QA/QC plan, ZC&A will utilize Procore's Project Management Software to manage all paperwork (see above for references). Additionally, Procore provides services ranging from Project Management, Quality, Safety, Design Coordination, Clash Detection, Productivity Studies, and Financial assessments. But why use Procore's services as opposed to another program like BIM 360 or ASITE? Since switching to Procore in 2009, ZC&A has reduced losses on the number of non-recoverable change orders by 45% purely based on organizing backup and tracking events more efficiently. Additionally, we have improved our communication on projects by 60% due to Procore's unique "message all" feature and other filters they provide. ZC&A understands that programs like this are standard to deliver a construction project, and we believe that Procore shines above all the others due to its ability to be accessed fully on computers and mobile devices. With the use of Procore integrated into ZC&A's Construction Process, we have found great success. We found Procore to be very useful in the construction of Serendipity Labs in collaboration with 2LS. Procore streamlined the day-to-day operations allocating time that can be focused on critical items and activities to be completed in the scope of work. Procore is also a great organizational tool, and it also helps keep all office and field members on the same page.

As for scheduling software, ZC&A uses Phoenix Project Manager 4 software. Phoenix scheduling software is very versatile and offers numerous methods to organize and create a schedule. The software can convert/import/export different schedule files, such as Primavera, Microsoft Project, XML format, and Excel for ease of use and allows in-engine add-ons to expand methods of organization further.

ZC&A goes above and beyond, especially when it comes to safety. It is essential that all safety standards and procedures are enforced and followed by all workers and any visitors to the job site. ZC&A will implement the use of construction site safety cameras that provide a 24/7 live feed in high definition, all easily accessible from a mobile device, tablet, or computer via ADT.

The camera's we have decided to use are the Arlo Ultra Wireless HDR cameras. They feature an ultra-HD 2k resolution, spotlight, alarm, high quality microphone, are weather resistant in rain and snow as well as temperatures as low as 0°F. Additionally, they are wireless with a 6-month life span (batteries can be replaced easily) and the camera records all video over Wi-Fi and stores it through a cloud-based server for up to 30 days. The camera also has an App so that remote access can be utilized via the web or on mobile devices, as well as compatibility with custom management software such as ADT Commercial.

We have had success with these in the past on other job sites in a similar location to this project. Busy streets, pedestrian walkways, and high traffic flow is a risk that must be addressed seriously. The cameras are an excellent tool for procedure enforcement as well. Our safety and other team members will have access to view the camera feed anytime to ensure the job is done correctly. The camera also serves as excellent site security. Although these cameras will not replace an on-site security team, they are connected to ADT's video surveillance and monitoring center. ADT can complete video surveillance and analytics that provide real-time alert notifications, video recording, and tracking.



#### **Works Cited**

"Construction Submittals Software." Procore, <a href="https://www.procore.com/project-management/submittals#intro">https://www.procore.com/project-management/submittals#intro</a>.

"Micro: Corporate Fit-Out." Fenton Construction, <a href="https://www.fentonconstruction.com/gallery/micro-solutions-corporate-fit-out/">https://www.fentonconstruction.com/gallery/micro-solutions-corporate-fit-out/</a>.

"Real Estate Trends: Trends & Insights: JLL." Commercial Real Estate, Jones Lang LaSalle (JLL), <a href="https://www.us.jll.com/en/trends-and-insights?68e01ed9-56db-49ed-9454-b2ef4a98ba48">https://www.us.jll.com/en/trends-and-insights?68e01ed9-56db-49ed-9454-b2ef4a98ba48</a>.

Rebong, Kevin. "Empire Stores: Midtown Equities: AIG." The Real Deal New York, 3 June 2019, <a href="https://therealdeal.com/2019/02/12/midtown-equities-hk-organization-recapitalize-empire-stores-in-420m-deal/">https://therealdeal.com/2019/02/12/midtown-equities-hk-organization-recapitalize-empire-stores-in-420m-deal/</a>.

Slowey, Kim. "JLL Releases Cost Benchmark Guide for Office Buildouts." Construction Dive, Jones Lang LaSalle (JLL), 28 Mar. 2018, <a href="https://www.constructiondive.com/news/jll-releases-cost-benchmark-guide-for-office-buildouts/519920/">https://www.constructiondive.com/news/jll-releases-cost-benchmark-guide-for-office-buildouts/519920/</a>.

Solomon, Serena. "Office Renovation Cost: How to Budget for an Office Renovation." Sweeten Blog, 3 May 2019, <a href="https://blog.sweeten.com/commercial-reno/commercial-101/office-renovation-cost/">https://blog.sweeten.com/commercial-reno/commercial-101/office-renovation-cost/</a>.

Structure Tone. "Building Repositioning." *Building Repositioning - Structure Tone*, Structure Tone, structuretone.com/services/building-repositioning/.

Structure Tone. "Podcast: Building Repositioning in..." *Structure Tone*, Structure Tone, 5 Aug. 2020, structuretone.com/podcast-ep-2-building-repositioning-in-nyc/.

"Construction Noise Control: Environmental Noise Control." *Environmental Noise Control*, 16 Dec. 2016, www.environmental-noise-control.com/industries/construction/.

BigRentz, Inc. "HOME." *BigRentz*, 19 Apr. 2021, <u>www.bigrentz.com/blog/sustainable-construction#:~:text=Sustainable%20construction%20is%20the%20practice,%2Dtoxic%20and%20high%20quality.%E2%80%9D</u>.



#### **PowerPoint Presentation**