WORK PACKAGE AUTHORIZATION NO. 2

Project: **JPS Medical Home Southwest** **(the "Project")**

Date: **June 6th, 2023**

To: **Byrne|Post L – A Joint Venture ("Design-Builder")**

Agreement: **Standard Form of Agreement Between Owner and Design-Builder – AIA Document A141 – 2014, dated June 13th, 2022 (the "Agreement")**

Capitalized terms as used herein such as "Owner", "Design-Builder", "Contractor", and "Project" shall each have the meanings set forth in the Agreement. Definitions set forth in Section 1.4 of the Agreement are hereby fully incorporated into this Work Package Authorization as if copied verbatim herein.

Pursuant to Section 4.3 of the Agreement, the following scope of Work is authorized as a Work Package in connection with the above-referenced Project:

1. Scope of Work:

(a) Design-Builder is authorized to proceed with the Scope of Work referenced herein including the following expenses as indicated:

Design Services and Construction Services on the Project pursuant to the Issued for Construction documents dated 3/15/23. Pricing reflects the scope of work included in the 100% Issue for Construction Documents, Addendum A, Addendum B, Addendum C and includes certain costs and Fees for the Project overall as set forth below:

(b) Design-Builder intends to procure the following scopes of Work as approved by Owner after competitive procurement:

Contractor	Scope of Work	Contract Amount
Procurement in Progress	Temporary Construction	$113,219.00
Procurement in Progress	Concrete	$859,785.00
Procurement in Progress	Masonry	$427,855.00
Procurement in Progress	Steel	$337,865.00
Procurement in Progress	Rough Carpentry	$90,280.00
Procurement in Progress	Architectural Woodwork	$614,139.00
Procurement in Progress	Waterproofing & Sealants	$297,615.00
Procurement in Progress	Metal Wall Panels	$336,357.00
Procurement in Progress	Roofing	$29,400.00
Procurement in Progress	Doors, Frames & Hardware	$530,545.00
Procurement in Progress	Overhead Coiling Security Grille	$44,572.00
Procurement in Progress	Glass and Glazing	$401,307.00
Procurement in Progress	Stucco	$41,795.00
Procurement in Progress	Drywall & Acoustical	$1,261,020.00

Procurement in Progress	Painting	$239,826.00
Procurement in Progress	Operable Partitions	$69,532.00
Procurement in Progress	Appliances	$5,000.00
Procurement in Progress	Fire Protection	$202,550.00
Procurement in Progress	Plumbing & HVAC	$2,298,057.00
Procurement in Progress	Electrical	$2,138,932.00
Procurement in Progress	Communication	$342,892.00
Procurement in Progress	Audio Video System	$240,254.00
Procurement in Progress	Security and Access Control	$401,546.00
Procurement in Progress	Earthwork	($75,575.00)
Procurement in Progress	Enabling	$52,166.00
Procurement in Progress	Termite Treatment	($2,390.00)
Procurement in Progress	Fences & Gates	$54,606.00
Procurement in Progress	Landscaping & Irrigation	$5,496.00
Procurement in Progress	Site Utilities	$460,133.00
	Total:	**$11,818,779.00**

(c) Design-Builder intends to self-perform the following scope of Work as approved by Owner as set forth in Section 5.7.3.5 of the Agreement:

1) Rough Carpentry

2. Notice to Proceed: Design-Builder is hereby given Notice to Proceed with the scope of Work described above as of the **18th day of July 2023**.

3. Authorized Amount:

The authorized amount of this Work Package Authorization ("Authorized Amount"), subject to approved Change Orders, shall not exceed *(check one)*:

☐	A lump sum amount of _____, which sum is inclusive of all labor, materials, equipment, fees, and profit/mark-ups.
X	**$12,289,242.00**, which sum includes (a) the Cost of the Work plus (b) Design-Builder's Fee of **$571,071.00** (5%). This amount will be included in **Exhibit A**, the Design Build Amendment, upon approval by Owner. This Work Package amount includes the following contingencies and allowances to be managed in accordance with the Agreement: (a) Design Completion Contingency of ($683,095.00) (b) "Contractor's" Contingency of $354,563.00 (c) Market Volatility Contingency pursuant to Agreement, Section 4.4.2.1, of ($71,976.00) (d) Owners' Allowance of ($102,515.00)

	And the following Fees and Costs for Insurance, Bonds and Permitting for the overall Project, necessary for Work to begin under this Work Package Authorization: (e) City Impact Fees: ($324,819.00) (f) Building Permit: ($14,316.00) (g) Insurance (Professional Liability, CGL, Umbrella, Builder's Risk): $150,942.00 (h) Project Payment and Performance Bonds: $2,344.00* (i) Security / Bid Bonds: $48,126.00* (j) MultiVista Services $39,759.00 (k) Primary Power (Oncor): $40,000.00 (l) PreConstruction Change Order 01: $87,490.00 (m) CoFW CFA/IPRC/Plat Scope Revisions to Design: $39,000.00 (n) WA-1 Fee Adjustment – (35,015.00)
	* pending receipt of invoice from surety company

The Authorized Amount shall not be exceeded without the express written authorization of Owner.

4. Allowances:

TBD, see 3 (d) above.

5. Alternates:

The following Alternates have been accepted by Owner and are included in the Authorized Amount:

TBD

6. Unit Prices: N/A

Supporting Documentation Attached *(Check if Applicable)*:

☒ Design-Builder's Schedule of Values is attached hereto as **Attachment 1**.

☒ A breakdown of Design-Builder's General Conditions Costs is attached hereto as **Attachment 2**.

☒ Design-Builder's Labor Burden Schedule is attached hereto as **Attachment 3**.

☒ A list of Drawings and Specifications is attached hereto as **Attachment 4**.

☒ A schedule for the scope of Work authorized herein is attached hereto as **Attachment 5**.

☒ Assumptions, Clarifications, and Qualifications for the scope of Work authorized herein are attached hereto as **Attachment 6**.

☒ A list of the Design-Builder's Key Personnel is attached hereto as **Attachment 7**.

☒ A list of Design-Builder-Owned Equipment Rental Rates is attached hereto as **Attachment 8**.

☒ Design-Builder's Quality Control Plan for the scope of Work authorized herein is attached hereto as **Attachment 9** .

☒ Design-Builder's Performance and Payment Bonds for the Work on the Project.

In accordance with the requirements of *Tex. Gov't. Code § 2269.311 and § 2253.001 et seq.* and **Exhibit B to the Agreement, the performance and payment bonds must be in penal sums equal to 100% of the Project and in the form required by Owner, attached as **Attachment 10**.

☒ Certificates of Insurance (Contractors):

(No Work shall be performed unless and until Design-Builder has verification that the Contractors performing Work under this Work Package Authorization have provided the insurance coverages with the designated policy limits required under **Exhibit B** to the Agreement. Design-Builder shall send evidence of Contractors' insurance coverage to Owner.)

The Authorized Amount of this Work Package Authorization will be incorporated into the final Guaranteed Maximum Price as set forth in Section 4.3 of the Agreement. Any fee included in this Work Package Authorization shall be deducted from the Work Package Authorization if, upon determination of the Guaranteed Maximum Price, the Work under the Work Package Authorization is incomplete. Design-Builder's Design-Build Fee shall be included in the Guaranteed Maximum Price only once. Design Fees and Preconstruction Fees are included in the Schedule of Values for purposes of billing only and are not part of the Work Package GMP Amount. All terms and conditions of the Agreement shall continue in full force and effect and shall apply to the scope of Work to be performed under this Work Package Authorization.

OWNER:

TARRANT COUNTY HOSPITAL DISTRICT D/B/A
JPS HEALTH NETWORK

By: _____
Name: Karen Duncan
Title: President and CEO

DESIGN-BUILDER:

BYRNE |POST L – A JOINT VENTURE

By: _____
Name: Matthew Avila
Title: Chief Executive Officer

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ATTACHMENT 1– SCHEDULE OF VALUES

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

CONTINUATION SHEET

Schedules of Values

AIA DOCUMENT G703

Document G703, APPLICATION AND CERTIFICATE FOR PAYMENT, containing
Contractor's signed Certification is attached.

JPS Medical Home Southwest

WPA-2

Application No: 0
Application Date:
Period from:
Period to:

A.0	A.1	B	C	D	E	F	G		H	I	J
				WORK COMPLETED		Materials	Total Completed &		Balance	Cumulative	This Period
Item #	JPS CIP#	Description of Work	Scheduled Value	From Previous Applications	This Period	Stored (Not in D or E)	Stored To Date (D+E+F)	% (G/C)	To Finish (C-G)	Retainage 5%	Retainage 5%
1	215	General Conditions	$ 1,822,395.00				$ -	0.00%	$ 1,822,395.00	$ -	$ -
2	106	Temporary Construction	$ 350,719.00				$ -	0.00%	$ 350,719.00	$ -	$ -
3	200	Concrete	$ 3,643,224.00				$ -	0.00%	$ 3,643,224.00	$ -	$ -
4	201	Masonry	$ 427,855.00				$ -	0.00%	$ 427,855.00	$ -	$ -
5	202	Steel	$ 1,794,185.00				$ -	0.00%	$ 1,794,185.00	$ -	$ -
6	217	Rough Carpentry	$ 90,280.00				$ -	0.00%	$ 90,280.00	$ -	$ -
6.1	206	Architectural Woodwork	$ 614,139.00				$ -	0.00%	$ 614,139.00	$ -	$ -
7	218	Waterproofing & Sealants	$ 297,615.00				$ -	0.00%	$ 297,615.00	$ -	$ -
7.1	217	Metal Wall Panels	$ 336,357.00				$ -	0.00%	$ 336,357.00	$ -	$ -
7.2	213	Roofing	$ 860,400.00				$ -	0.00%	$ 860,400.00	$ -	$ -
8	204	Doors, Frames, & Hardware	$ 530,545.00				$ -	0.00%	$ 530,545.00	$ -	$ -
8.1	204	Overhead Coiling Security Grille	$ 44,572.00				$ -	0.00%	$ 44,572.00	$ -	$ -
8.2	219	Glass & Glazing	$ 1,343,240.00				$ -	0.00%	$ 1,343,240.00	$ -	$ -
9	218	Stucco	$ 41,795.00				$ -	0.00%	$ 41,795.00	$ -	$ -
9.1	220	Drywall & Acoustical	$ 1,261,020.00				$ -	0.00%	$ 1,261,020.00	$ -	$ -
9.2	220	Tile (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
9.3	220	Flooring (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
9.4	220	Painting	$ 239,826.00				$ -	0.00%	$ 239,826.00	$ -	$ -
10	212	Specialties (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
10.1	211	Signage (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
10.2	213	Protective Covers (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
10.3	223	Operable Partitions	$ 69,532.00				$ -	0.00%	$ 69,532.00	$ -	$ -
11	500	Residential Appliances	$ 5,000.00				$ -	0.00%	$ 5,000.00	$ -	$ -
12	220	Window Treatments (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
21	406	Fire Protection	$ 202,550.00				$ -	0.00%	$ 202,550.00	$ -	$ -
22	411	Plumbing (W/HVAC Combined)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
23	408	HVAC & Plumb	$ 3,133,760.00				$ -	0.00%	$ 3,133,760.00	$ -	$ -
26	410	Electrical	$ 2,613,414.00				$ -	0.00%	$ 2,613,414.00	$ -	$ -
27	404	Communications System	$ 342,892.00				$ -	0.00%	$ 342,892.00	$ -	$ -
27.1	504	Audio Video System	$ 240,254.00				$ -	0.00%	$ 240,254.00	$ -	$ -
28	415	Security & Access Control	$ 401,546.00				$ -	0.00%	$ 401,546.00	$ -	$ -
31	301	Earthwork	$ 459,425.00				$ -	0.00%	$ 459,425.00	$ -	$ -
31.1	301	Enabling	$ 101,916.00				$ -	0.00%	$ 101,916.00	$ -	$ -
31.2	301	Termite Treatment	$ 3,550.00				$ -	0.00%	$ 3,550.00	$ -	$ -
32	309	Pavement Markings (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
32.1	309	Site Improvements (Not in WPA#2)	$ -				$ -	#DIV/0!	$ -	$ -	$ -
32.2	310	Fences & Gates	$ 54,606.00				$ -	0.00%	$ 54,606.00	$ -	$ -
32.3	307	Landscape & Irrigation	$ 20,496.00				$ -	0.00%	$ 20,496.00	$ -	$ -
33	302	Site Utilities	$ 832,756.00				$ -	0.00%	$ 832,756.00	$ -	$ -
100	100	Design Completion Factor	$ -				$ -	#DIV/0!	$ -	$ -	$ -
101	214	Market Volatility Contingency	$ 354,959.00				$ -	0.00%	$ 354,959.00	$ -	$ -

CONTINUATION SHEET
Schedules of Values

AIA DOCUMENT G703

Document G703, APPLICATION AND CERTIFICATE FOR PAYMENT, containing
Contractor's signed Certification is attached.

JPS Medical Home Southwest
WPA-2

Application No: 0
Application Date:
Period from:
Period to:

A.0	A.1	B	C	D	E	F	G		H	I	J
				WORK COMPLETED		Materials	Total Completed &		Balance	Cumulative	This Period
Item #	JPS CIP#	Description of Work	Scheduled Value	From Previous Applications	This Period	Stored (Not in D or E)	Stored To Date (D+E+F)	% (G/C)	To Finish (C-G)	Retainage 5%	Retainage 5%
102	214	Contractor Contingency	$ 610,724.00				$ -	0.00%	$ 610,724.00	$ -	$ -
103	104	Building Permit	$ -				$ -	#DIV/0!	$ -	$ -	$ -
104		Preconstruction Fee ($81,812.00)					$ -	#DIV/0!	$ -	$ -	$ -
105		Design Services Fee ($1,533,000.00)					$ -	#DIV/0!	$ -	$ -	$ -
106	105	Construction Fee	$ 1,230,167.00				$ -	0.00%	$ 1,230,167.00	$ -	$ -
	105	WA1 Fee Adjustment	$ (35,015.00)				$ -	0.00%	$ (35,015.00)	$ -	$ -
107		Landscape Design Fee ($26,500.00)					$ -	#DIV/0!	$ -	$ -	$ -
108		Audio/Visual Systems Design Fee ($27,500.00)					$ -	#DIV/0!	$ -	$ -	$ -
109	109	Owner's Controlled Allowance	$ 324,420.00				$ -	0.00%	$ 324,420.00	$ -	$ -
110	104	City Impact Fees	$ -				$ -	#DIV/0!	$ -	$ -	$ -
200	103	CGL & Umbrella Insurance	$ 241,615.00				$ -	0.00%	$ 241,615.00	$ -	$ -
201	103	Professional Liability	$ 37,713.00				$ -	0.00%	$ 37,713.00	$ -	$ -
202	103	Builder's Risk	$ 25,184.00				$ -	0.00%	$ 25,184.00	$ -	$ -
203	102	Payment & Performance Bond	$ 193,159.00				$ -	0.00%	$ 193,159.00	$ -	$ -
	102	Security / Bid Bonds	$ 48,126.00				$ -	0.00%	$ 48,126.00	$ -	$ -
	108	Multivista Services	$ 39,759.00				$ -	0.00%	$ 39,759.00	$ -	$ -
	410	Primary Power (Oncor)	$ 40,000.00				$ -	0.00%	$ 40,000.00	$ -	$ -
	100	PreConstruction Change Order # 1	$ 87,490.00				$ -	0.00%	$ 87,490.00	$ -	$ -
	100	CoFW CFA/IPRC/Plat Design Scope Revisions	$ 39,000.00				$ -	0.00%	$ 39,000.00	$ -	$ -
		BASE BID TOTALS	**$ 25,417,165.00**	**$ -**	**$ -**	**$ -**	**$ -**	**0.00%**	**$ 25,417,165.00**	**$ -**	**$ -**

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ATTACHMENT 2 – GENERAL CONDITIONS COSTS

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

EXHIBIT H

JPS MEDICAL HOME - GENERAL CONDITIONS COST TEMPLATE

Description	Quantity	Units	Cost	% of Time
On-Site Project Management Staff				
Senior Project Manager	4.3	Months		100%
Assistant Project Manager	4.3	Months		100%
Project Coordinator	4.3	Months		100%
Superintendent	4.3	Months		100%
Assistant Superintendent	4.3	Months		100%
Safety Coordinator	4.3	Months		10%
Project Support Staff				
Field Accountant	4.3	Months		25%
Project Staff Subtotal			$270,834	
Bonds and Insurance				
Builders Risk Insurance	1	Lump Sum	See Estimate Summary	
CGL & Umbrella Insurance Cost	1	Lump Sum	See Estimate Summary	
Payment and Performance Bonds	1	Lump Sum	See Estimate Summary	
Temporary Project Utilities				
Dumpsters	16.0	Pulls	$10,800	
Fencing	3.0	Months	$6,000	
Covered Walkways	1.0	Lump Sum	$0	
Monthly Telephone / Internet Service	4.3	Months	$2,009	
Project Electricity	4.3	Months	$3,240	
Project Natural Gas	4.3	Months	$375	
Project Entrance(s)	1.0	Lump Sum	$0	
Project Water	4.3	Months	$1,620	
Site Erosion Control (BMP)	COW	COW	COW	
Street Rental	COW	COW	COW	
Barricades	1.0	Lump Sum	$0	
Temporary Toilets	4.3	Months	$4,320	
Telephone/Internet System Installation	1.0	Lump Sum	$875	
Temporary Fire Protection	10.0	Each	$0	
Trash Removal / Cleanup	4.3	Months	$0	
Temporary Water Distribution and Meters	1.0	Lump Sum	$0	
Electrical Distribution and Meters	1.0	Lump Sum	$0	

EXHIBIT H

JPS MEDICAL HOME - GENERAL CONDITIONS COST TEMPLATE

Description	Quantity	Units	Cost	% of Time
Temporary Project Utilities				
AGC Fees	1.0	Lump Sum	$0	
Drinking Water and Accessories	4.3	Months	$756	
Employee Identification System	1.0	Lump Sum	$0	
First Aid Supplies	1.0	Lump Sum	$0	
Job Photos / Videos	4.3	Months	$540	
Project Scheduling	1.0	Lump Sum	$0	
Mobilization and Demobilization (Equip Only)	1.0	Lump Sum	$0	
Office Supplies	4.3	Months	$1,383	
Office Trailer Rental Costs	4.3	Months	$24,756	
Move-in/Out and Office Setup	1.0	Lump Sum	$4,500	
Office Furniture	1.0	Lump Sum	$0	
Office Clean-Up/Janitorial Services	4.3	Lump Sum	$1,728	
Project Specific Signage	1.0	Lump Sum	$0	
Postage / Special Shipping	4.3	Months	$648	
Project As-Built Drawings	1.0	Lump Sum	$0	
Partnering Cost	1.0	Lump Sum	$0	
Project Reference Manuals / O&M's	1.0	Lump Sum	$0	
Project Milestone Events	1.0	Lump Sum	$0	
Security System/Watchman	2.2	Lump Sum	$3,457	
Radios	1.0	Lump Sum	$0	
Remote Parking Expenses	N/A	N/A	N/A	
Reproduction Services	1.0	Lump Sum	$0	
Safety Material and Equipment	4.3	Months	$0	
Storage Trailers	4.3	Months	$2,160	
Copier Rental	4.3	Months	$1,620	
Mobile Phones	4.3	Months	$2,506	
Small Tools	4.3	Months	$4,428	
Procore	1.0	Lump Sum	$0	
Vehicles, Maintenance, Fuel, Tolls	4.3	Months	$16,744	
Computers	4.3	Months	$3,605	
Total General Conditions			**$368,904**	

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ATTACHMENT 3 – LABOR BURDEN SCHEDULE

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

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Key Personnel and Wages

Company Name: BYRNE | Post L, A Joint Venture
Confidential – Proprietary Information
This document is for JPS's exclusive use in which it is intended.
Its contents are not to be disseminated, reproduced, shared, or distributed.

A	B	C	D	E	F	G	H
Position	Name	Salary	Hrs/ Year	Hourly Rate	Burden Rate	Burden	Hourly Fixed Rate with Burden
				C/D		E*F	E+G
Senior Project Manager					42%		$81.92
Assistant Project Manager					42%		$64.86
Project Coordinator					42%		$47.79
Superintendent					42%		$78.51
Assistant Superintendent					42%		$61.44
Safety Coordinator					42%		$58.03
Field Accountant					42%		$40.96

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ATTACHMENT 4 – LIST OF DRAWINGS AND SPECIFICATIONS

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original Date	Sheet Name
		BID PACKAGE MANUAL
Bid Package Manual	04/06/23	Invitation to Bid
Bid Package Manual	04/06/23	Instructions to Bidders
Bid Package Manual	04/06/23	Summary of Work
Bid Package Manual	04/06/23	Bid Package List
Bid Package Manual	04/06/23	Sample Subcontract Agreement
Bid Package Manual	04/06/23	Supplemental Subcontract Conditions
Bid Package Manual	04/06/23	Exhibit A – Contract Documents
Bid Package Manual	04/06/23	Exhibit B – Subcontractor Safety Responsibilities
Bid Package Manual	04/06/23	Exhibit C – Safety Policy for Drugs, Alcohol, and Other Prohibited Articles
Bid Package Manual	04/06/23	Exhibit D – Project Schedule
Bid Package Manual	04/06/23	Exhibit E - Bid Package Forms (for each trade)
Bid Package Manual	04/06/23	Subcontractor's Payment Bond Form
Bid Package Manual	04/06/23	Subcontractor's Performance Bond Form
Bid Package Manual	04/06/23	Applications & Certificate for Payment Form
Bid Package Manual	04/06/23	Schedule of Values Form
Bid Package Manual	04/06/23	Final Payment Release
Bid Package Manual	04/06/23	Subcontractor Daily Report Form
Bid Package Manual	04/06/23	Job Hazard Analysis (JHA) Form
Bid Package Manual	04/06/23	Warranty Form
Bid Package Manual	04/06/23	TWCC Form 83
Bid Package Manual	04/06/23	Sample ACORD Certificate of Insurance
		SPECIFICATIONS
000101	03/15/23	Title Page
000107	03/15/23	Seals Page
000110	03/15/23	Table of Contents
002600	03/15/23	Procurement Substitution Procedures
003132	03/15/23	Geotechnical Data
011000	03/15/23	Summary
012100	03/15/23	Allowances
012200	03/15/23	Unit Prices
012300	03/15/23	Alternates
012500	03/15/23	Substitution Procedures
012600	03/15/23	Contract Modification Procedures
012900	03/15/23	Payment Procedures
013100	03/15/23	Project Management and Coordination
013200	03/15/23	Construction Progress Documentation
013233	03/15/23	Photographic Documentation
013300	03/15/23	Submittal Procedures
014000	03/15/23	Quality Requirements
014200	03/15/23	References
015000	03/15/23	Temporary Facilities and Controls
016000	03/15/23	Product Requirements
017300	03/15/23	Execution
017700	03/15/23	Closeout Procedures
017823	03/15/23	Operation and Maintenance Data
017839	03/15/23	Project Record Documents
017900	03/15/23	Demonstration and Training
033000	03/15/23	Cast in Place Concrete
033035	03/15/23	Under Slab Sheet Vapor Retarder
042000	03/15/23	Unit Masonry
044313.13	03/15/23	Anchored Stone Masonry Veneer

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
047200	03/15/23	Cast Stone Masonry
051200	03/15/23	Structural Steel
053100	03/15/23	Steel Deck
054000	03/15/23	Cold-Formed Metal Framing
054523	03/15/23	Healthcare Metal Supports
055000	03/15/23	Metal Fabrications
055113	03/15/23	Metal Pan Stairs
055213	03/15/23	Pipe and Tube Railings
061053	03/15/23	Miscellaneous Rough Carpentry
061643	03/15/23	Sheathing
062023	03/15/23	Interior Finish Carpentry
064116	03/15/23	Plastic–Laminate–Clad Architectural Cabinets
066400	03/15/23	Plastic Paneling
072100	03/15/23	Thermal Insulation
072726	03/15/23	Fluid-Applied Membrane Air Barriers
074213.13	03/15/23	Formed Metal Wall Panels
074213.23	03/15/23	Metal Composite Material Wall Panels
074643	03/15/23	Composite Cladding
075216	03/15/23	SBS Modified Bituminous Membrane Roofing
076200	03/15/23	Sheet Metal Flashing and Trim
076210	03/15/23	Flexible Flashing
077200	03/15/23	Roof Accessories
078413	03/15/23	Penetration Firestopping
078443	03/15/23	Joint Firestopping
079200	03/15/23	Joint Sealants
079219	03/15/23	Acoustical Joint Sealants
081113	03/15/23	Hollow Metal Doors and Frames
081216	03/15/23	Aluminum Frames
081416	03/15/23	Flush Wood Doors
081433	03/15/23	Stile and Rail Wood Doors
083113	03/15/23	Access Doors and Frames
083323	03/15/23	Overhead Coiling Doors
083326	03/15/23	Overhead Coiling Grilles
083473.20	03/15/23	Wood Sliding Door Assemblies
084113	03/15/23	Aluminum-Framed Entrances and Storefronts
084229.23	03/15/23	Sliding Automatic Entrances
084413	03/15/23	Glazed Aluminum Curtain Walls
085659	03/15/23	Service Window Units
087100	03/15/23	Door Hardware
087100a	04/21/23	Door Hardware Schedule
087113	03/15/23	Automatic Door Operators
088000	03/15/23	Glazing
088300	03/15/23	Mirrors
088700	03/15/23	Glazing Surface Films
089119	03/15/23	Fixed Louvers
090561.13	03/15/23	Moisture Vapor Emission Control
092216	03/15/23	Non–Structural Metal Framing
092900	03/15/23	Gypsum Board
093013	03/15/23	Ceramic Tiling
095113	03/15/23	Acoustical Panel Ceilings
096116	03/15/23	Concrete Floor Sealing
096513	03/15/23	Resilient Base and Accessories
096519	03/15/23	Resilient Tile Flooring
096813	03/15/23	Tile Carpeting

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
097200	03/15/23	Wall Coverings
098116	03/15/23	Acoustical Blanket Insulation
098433	03/15/23	Sound–Absorbing Wall Units
099113	03/15/23	Exterior Painting
099123	03/15/23	Interior Painting
101400	03/15/23	Signage
102239	03/15/23	Coiling Partition System
102600	03/15/23	Wall and Door Protection
102800	03/15/23	Toilet, Bath, and Laundry Accessories
104100	03/15/23	Fire Department Access Lock and Vault
104313	03/15/23	Emergency Aid Cabinets
104413	03/15/23	Fire Protection Cabinets
104416	03/15/23	Fire Extinguishers
105113	03/15/23	Metal Lockers
107317	03/15/23	Prefabricated Metal Canopies
113013	03/15/23	Residential Appliances
122413	03/15/23	Roller Window Shades
123661.16	03/15/23	Solid Surfacing Countertops
123661.19	03/15/23	Quartz Agglomerate Countertops
124816	03/15/23	Entrance Floor Grilles
134900	03/15/23	Radiation Protection
210500	03/15/23	Common Work Results for Fire Suppression
210523	03/15/23	General-Duty Valves for Water-Based
210553	03/15/23	Identification for Fire Suppression Piping and Equipment
210719	03/15/23	Fire Suppression Piping Insulation
211100	03/15/23	Facility Fire-Suppression Water-Service Piping
211200	03/15/23	Fire-Suppression Standpipes
211300	03/15/23	Fire-Suppression Sprinkler Systems
220500	03/15/23	Common Work Results for Plumbing
220513	03/15/23	Common Motor Requirements for Plumbing Equipment
220517	03/15/23	Sleeves and Sleeve Seals for Plumbing Piping
220519	03/15/23	Meters and Gages for Plumbing Piping
220523	03/15/23	General-Duty Valves for Plumbing Piping
220529	03/15/23	Hangers and Supports for Plumbing Piping and Equipment
220553	03/15/23	Identification for Plumbing Piping and Equipment
220719	03/15/23	Plumbing Piping Insulation
221116	03/15/23	Domestic Water Piping
221119	03/15/23	Domestic Water Piping Specialties
221123	03/15/23	Domestic Water Pumps
221316	03/15/23	Sanitary Waste and Vent Piping
221319	03/15/23	Sanitary Waste Piping Specialties
221323	03/15/23	Sanitary Waste Interceptors
221413	03/15/23	Storm Drainage Piping
221423	03/15/23	Storm Drainage Piping Specialties
223000	03/15/23	Plumbing Equipment
224000	03/15/23	Plumbing Fixtures
230513	03/15/23	Common Motor Requirements for HVAC Equipment
230517	03/15/23	Sleeves and Sleeve Seals for HVAC Piping
230529	03/15/23	Hangers and Supports for HVAC Piping and Equipment
230548	03/15/23	Vibration and Seismic Controls for HVAC
230553	03/15/23	Identification for HVAC Piping and Equipment
230593	03/15/23	Testing, Adjusting, and Balancing for HVAC
230713	03/15/23	Duct Insulation
230716	03/15/23	HVAC Equipment Insulation

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
230719	03/15/23	HVAC Piping Insulation
230913	03/15/23	Instrumentation and Controls for HVAC
230923	03/15/23	Direct Digital Control (DDC) System for HVAC
232300	03/15/23	Refrigerant Piping
233113	03/15/23	Metal Ducts
233300	03/15/23	Air Duct Accessories
233416	03/15/23	Centrifugal HVAC Fans
233600	03/15/23	Air Terminal Units
260500	03/15/23	Common Work Results for Electrical
260500.01	03/15/23	Division 26 Coordination
260519	03/15/23	Low Voltage Electrical Power Conductors and Cables
260526	03/15/23	Grounding and Bonding for Electrical Systems
260529	03/15/23	Hangers and Supports for Electrical Systems
260533	03/15/23	Raceway and Boxes for Electrical Systems
260544	03/15/23	Sleeves and Sleeve Seals for Electrical Raceways and Cabling
260553	03/15/23	Identification for Electrical Systems
260573.13	03/15/23	Short-Circuit Studies
260573.16	03/15/23	Coordination Studies
260573.19	03/15/23	Arc-Flash Hazard Analysis
260923	03/15/23	Lighting Control Devices
260943	03/15/23	Network Lighting Controls
262213	03/15/23	Low-Voltage Distribution Transformers
262413	03/15/23	Switchboards
262416	03/15/23	Panelboards
262726	03/15/23	Wiring Devices
262813	03/15/23	Fuses
262816	03/15/23	Enclosed Switches and Circuit Breakers
262923	03/15/23	Variable-Frequency Motor Controllers
264113	03/15/23	Lightning Protection for Structures
265119	03/15/23	LED Interior Lighting
265619	03/15/23	LED Exterior Lighting
270500	03/15/23	Common Work Results for Communications
270526	03/15/23	Grounding and Bonding for Communications
270528	03/15/23	Pathways for Communications Systems
270543	03/15/23	Underground Ducts and Raceways for Communications
270553	03/15/23	Identification for Communications Systems
271000	03/15/23	Audio and Video System Specifications (AV)
271100	03/15/23	Communications Equipment Room Fittings
271500	03/15/23	Communications Horizontal Cabling
272133	03/15/23	Wireless Access Points
275116	03/15/23	Public Address Systems
280543	03/15/23	Safety Radio Distributed Antenna System
281000	03/15/23	Electronic Security Systems
282000	03/15/23	Closed Circuit Television Systems
284621.11	03/15/23	Addressable Fire-Alarm Systems
311000	03/15/23	Site Preparation and Demolition
312200	03/15/23	Earthwork
312333	03/15/23	Trench Excavation
312334	03/15/23	Trench Backfill
312335	03/15/23	Trench Safety System
312500	03/15/23	Erosion Control
313116	03/15/23	Termite Control
316329	03/15/23	Drilled Piers
321313	03/15/23	Concrete Paving

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
321216	03/15/23	Asphalt Paving
321713	03/15/23	Parking Bumpers
321723	03/15/23	Pavement Markings
322335	03/15/23	Trench Safety System
323130	03/15/23	Welded Metal Gates
323300	03/15/23	Site Furnishings
328400	03/15/23	Planting Irrigation
329113	03/15/23	Soil Preparation
329200	03/15/23	Turf and Grasses
329300	03/15/23	Plants
331000	03/15/23	Water Utilities
333000	03/15/23	Sanitary Sewerage Utilities
334000	03/15/23	Storm Drainage Utilities
		Drawings
A0.00	03/15/23	COVER
A0.01	04/26/23	INDEX SHEET
A0.02	03/15/23	STANDARD ABBREVIATIONS
A0.03	04/05/23	GENERAL ACCESSIBILITY DETAILS
A0.04	04/05/23	LIFE SAFETY PLAN
C0.01	03/15/23	GENERAL NOTES
C1.00	03/15/23	EXISTING CONDITIONS
C2.00	03/15/23	DEMOLITION PLAN
C3.00	04/05/23	ENGINEERING SITE PLAN
C5.00	03/15/23	FIRE PROTECTION PLAN
C6.00	04/05/23	PAVING PLAN
C7.00	04/05/23	GRADING PLAN
C8.00	03/15/23	PRE-DEVELOPMENT DRAINAGE AREA MAP
C8.01	03/15/23	PRE-DEVELOPMENT DRAINAGE AREA MAP
C9.00	03/15/23	POST-DEVELOPMENT DRAINAGE AREA MAP
C9.01	03/15/23	POST-DEVELOPMENT DRAINAGE AREA MAP
C9.02	03/15/23	POND CALCULATIONS
C11.00	03/15/23	OVERALL DRAINAGE PLAN
C11.01	04/05/23	DRAINAGE PLAN - LINE A
C11.02	03/15/23	DRAINAGE PLAN - LINE B
C12.00	04/05/23	WATER PLAN
C13.00	03/15/23	SEWER PLAN & PROFILE
C13.01	03/15/23	SEWER PLAN & PROFILE
C14.00	03/15/23	EROSION CONTROL PLAN
C14.01	03/15/23	EROSION CONTROL DETAILS
C15.00	03/15/23	CIVIL DETAILS
C15.01	03/15/23	COF STANDARD DETAILS
C15.02	03/15/23	COF TRAFFIC CONTROL DETAILS
L1.0	03/15/23	URBAN FORESTRY PHASE 1
L1.1	03/15/23	URBAN FORESTRY PHASE 2
L2.0	03/15/23	PLANTING PLAN AREA A
L2.1	03/15/23	PLANTING PLAN AREA B
L2.2	03/15/23	PLANTING DETAILS
L3.0	03/15/23	IRRIGATION PLAN AREA A
L3.1	03/15/23	IRRIGATION PLAN AREA B
L3.2	03/15/23	IRRIGATION NOTES AND DETAILS
L3.3	03/15/23	IRRIGATION DETAILS
S1.01	03/15/23	STRUCTURAL NOTES
S1.02	03/15/23	STRUCTURAL NOTES
S2.11	04/21/23	FOUNDATION PLAN

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
S2.12	03/15/23	DUMPSTER PLAN AND SECTIONS
S2.21	04/21/23	ROOF FRAMING PLAN
S2.31	04/21/23	HIGH ROOF FRAMING PLAN
S3.01	03/15/23	TYPICAL CONCRETE DETAILS
S3.02	03/15/23	TYPICAL CONCRETE DETAILS
S3.03	04/21/23	TYPICAL CONRETE DETAILS
S3.04	03/15/23	CONCRETE DETAILS
S4.01	03/15/23	TYPICAL MASONRY DETAILS
S5.01	03/15/23	TYPICAL STEEL DETAILS
S5.02	03/15/23	TYPICAL STEEL DETAILS
S5.03	03/15/23	TYPICAL STEEL DETAILS
S5.04	04/21/23	STEEL DETAILS
S5.05	03/15/23	STEEL DETAILS
S5.06	03/15/23	STEEL DETAILS
S5.09	04/21/23	H-FRAME ELEVATIONS
S5.10	03/15/23	BRACE ELEVATIONS - TYPICAL DETAILS
A1.21	04/05/23	OVERALL SITE PLAN
A1.22	04/05/23	SITE DETAILS
A1.23	03/15/23	EXTERIOR MATERIAL MOCK-UP
A2.11	04/21/23	DIMENSION PLAN
A2.21	04/05/23	OVERALL FLOOR PLAN - REFERENCE
A2.22	04/05/23	FLOOR PLAN - AREA A
A2.23	04/21/23	FLOOR PLAN - AREA B
A2.24	04/21/23	FLOOR PLAN - AREA C
A2.25	04/21/23	FLOOR PLAN - AREA D
A2.26	04/21/23	FLOOR PLAN - AREA E
A2.27	04/21/23	FLOOR PLAN - AREA F
A2.28	03/15/23	OWNER EQUIPMENT SCHEDULE
A2.31	04/05/23	ROOF PLAN
A2.32	03/15/23	ROOF DETAILS
A2.33	04/05/23	ROOF DETAILS
A3.11	04/21/23	EXTERIOR ELEVATIONS
A3.12	03/15/23	EXTERIOR ISOMETRIC PROPOSED
A3.21	04/05/23	BUILDING SECTIONS
A3.22	03/15/23	BUILDING SECTIONS
A3.31	04/21/23	WALL SECTIONS
A3.32	04/05/23	WALL SECTIONS
A3.33	04/05/23	WALL SECTIONS
A3.34	04/05/23	WALL SECTIONS
A3.43	04/21/23	SECTION DETAILS
A3.44	03/15/23	SECTION DETAILS
A3.45	04/05/23	SECTION DETAILS
A3.46	04/21/23	SECTION DETAILS
A3.47	03/15/23	SECTION DETAILS
A3.48	04/05/23	SECTION DETAILS
A3.49	03/15/23	SECTION DETAILS
A3.50	04/05/23	SECTION DETAILS
A4.21	04/21/23	PLAN DETAILS
A4.22	04/05/23	PLAN DETAILS
A4.23	03/15/23	PLAN DETAILS
A4.24	03/15/23	PLAN DETAILS
A4.25	04/05/23	PLAN DETAILS
A4.26	04/05/23	PLAN DETAILS
A4.27	04/05/23	PLAN DETAILS

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
A4.50	04/05/23	ENLARGED TOILET PLANS
A4.51	04/05/23	ENLARGED TOILET ELEVATIONS
A4.52	04/05/23	ENLARGED TOILET ELEVATIONS
A5.11	03/15/23	PARTITION TYPES AND MATRIX
A6.10	04/21/23	DOOR SCHEDULE
A6.11	04/21/23	DOOR SCHEDULE
A6.21	04/05/23	DOOR & FRAME SCHEDULE / DOOR & FRAME TYPES
A6.31	04/05/23	DOOR DETAILS
A6.32	03/15/23	DOOR DETAILS
A6.33	04/05/23	DOOR DETAILS
A6.40	03/15/23	EXTERIOR WINDOW TYPES
A7.21	04/21/23	REFLECTED CEILNG PLAN
A7.22	03/15/23	CEILING DETAILS
A7.23	03/15/23	RETRACTABLE WALL DETAILS
A7.24	04/05/23	LOBBY CEILING CLOUDS
A8.21	04/05/23	MILLWORK / INTERIOR ELEVATIONS
A8.22	04/05/23	MILLWORK / INTERIOR ELEVATIONS
A8.23	04/21/23	MILLWORK / INTERIOR ELEVATIONS
A8.24	04/21/23	MILLWORK / INTERIOR ELEVATIONS
A8.25	04/21/23	MILLWORK / INTERIOR ELEVATIONS
A8.26	04/05/23	MILLWORK / INTERIOR ELEVATIONS
A8.27	03/15/23	MILLWORK / INTERIOR ELEVATIONS
A8.40	03/15/23	MILLWORK SECTIONS
A8.41	03/15/23	MILLWORK SECTIONS
A8.42	04/21/23	MILLWORK SECTIONS
A8.43	03/15/23	MILLWORK SECTIONS
A9.11	04/21/23	PENETRATIONS FIRESTOPPING
A9.12	04/21/23	STANDARD PENETRATION DETAILS
ID1.10	03/15/23	FINISH LEGEND AND DETAILS
ID1.11	03/15/23	ROOM SCHEDULE
ID2.10	03/15/23	FINISH PLAN - AREA A
ID2.11	03/15/23	FINISH PLAN - AREA B
ID2.12	03/15/23	FINISH PLAN - AREA C
ID2.13	03/15/23	FINISH PLAN - AREA D
ID2.14	03/15/23	FINISH PLAN - AREA E
ID2.15	03/15/23	FINISH PLAN - AREA F
ID3.10	03/15/23	WALL PROTECTION PLAN - AREA A
ID3.11	03/15/23	WALL PROTECTION PLAN - AREA B
ID3.12	03/15/23	WALL PROTECTION PLAN - AREA C
ID3.13	03/15/23	WALL PROTECTION PLAN - AREA D
ID3.14	03/15/23	WALL PROTECTION PLAN - AREA E
ID3.15	03/15/23	WALL PROTECTION PLAN - AREA F
Q0.01	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.02	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.03	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.04	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.05	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.06	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q0.07	04/05/23	RESPONSIBILITY MATRIX - NON TECH
Q1.01	04/21/23	MEDICAL EQUIPMENT PLAN
M0.01	03/15/23	MECHANICAL GENERAL AND DEMO NOTES, SYMBOLS & ABBREVIATIONS
M2.00	04/21/23	MECHANICAL ZONING PLAN
M2.01	03/15/23	OVERALL FLOOR PLAN - MECHANICAL
M2.01A	04/21/23	OVERALL FLOOR PLAN - MECHANICAL - AREA A

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
M2.01B	03/15/23	OVERALL FLOOR PLAN - MECHANICAL - AREA B
M2.01C	04/26/23	OVERALL FLOOR PLAN - MECHANICAL - AREA C
M2.01D	04/21/23	OVERALL FLOOR PLAN - MECHANICAL - AREA D
M2.01E	04/21/23	OVERALL FLOOR PLAN - MECHANICAL - AREA E
M2.01F	04/21/23	OVERALL FLOOR PLAN - MECHANICAL - AREA F
M2.11	03/15/23	OVERALL ROOF PLAN - MECHANICAL
M4.01	03/15/23	ENLARGED MECHANICAL PLANS
M4.02	03/15/23	ENLARGED MECHANICAL PLANS
M5.01	03/15/23	MECHANICAL DETAILS
M6.01	04/26/23	MECHANICAL SCHEDULES
M7.01	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 1
M7.02	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 2
M7.03	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 3
M7.04	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 4
M7.05	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 5
M7.06	04/05/23	MECHANICAL AIRFLOW DIAGRAMS - RTU 6
E0.00	04/05/23	GENERAL NOTES, LEGEND, AND ABBREVIATIONS
E1.01	04/21/23	ELECTRICAL SITE PLAN
E1.02	04/21/23	ELECTRICAL UNDERFLOOR PLAN
E2.01	03/15/23	OVERALL POWER PLAN - LEVEL 1
E2.02	04/21/23	POWER PLAN - LEVEL 1 AREA A
E2.03	04/21/23	POWER PLAN - LEVEL 1 AREA B
E2.04	04/21/23	POWER PLAN - LEVEL 1 AREA C
E2.05	04/21/23	POWER PLAN - LEVEL 1 AREA D
E2.06	04/21/23	POWER PLAN - LEVEL 1 AREA E
E2.07	03/15/23	POWER PLAN - LEVEL 1 AREA F
E3.01	03/15/23	OVERAL LIGHTING PLAN - LEVEL 1
E3.02	03/15/23	LIGHTING PLAN - LEVEL 1 AREA A
E3.03	03/15/23	LIGHTING PLAN - LEVEL 1 AREA B
E3.04	03/15/23	LIGHTING PLAN - LEVEL 1 AREA C
E3.05	03/15/23	LIGHTING PLAN - LEVEL 1 AREA D
E3.06	03/15/23	LIGHTING PLAN - LEVEL 1 AREA E
E3.07	03/15/23	LIGHTING PLAN - LEVEL 1 AREA F
E3.08	03/15/23	LIGHTING PLAN - LOBBY AREA
E4.01	04/26/13	HVAC POWER PLAN - LEVEL 1
E4.04	03/15/23	HVAC POWER PLAN - ROOF
E5.01	03/15/23	ENLARGED PLANS
E6.01	04/21/23	ONE LINE DIAGRAM
E7.01	03/15/23	ELECTRICAL SCHEDULES
E7.02	04/26/23	ELECTRICAL PANEL SCHEDULES
E7.03	04/26/23	ELECTRICAL PANEL SCHEDULES
E7.04	04/21/23	ELECTRICAL PANEL SCHEDULE
E8.01	04/05/21	ELECTRICAL DETAILS
E9.01	03/15/23	FIRE ALARM PLAN - LEVEL 1
PFP0.01	03/15/23	PLUMBING SYMBOL LEGEND AND GENERAL NOTES
P1.00	03/15/23	PLUMBING SITE PLAN
P1.01	03/15/23	OVERALL UNDERFLOOR PLUMBING PLAN
P1.01A	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA A
P1.01B	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA B
P1.01C	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA C
P1.01D	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA D
P1.01E	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA E
P1.01F	03/15/23	PLUMBING UNDERFLOOR PLAN - AREA F
P2.00	03/15/23	UNDERFLOOR PLAN - PLUMBING

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
P2.01A	03/15/23	PLUMBING FLOOR PLAN - AREA A
P2.01B	04/21/23	PLUMBING FLOOR PLAN - AREA B
P2.01C	04/26/23	PLUMBING FLOOR PLAN - AREA C
P2.01D	04/21/23	PLUMBING FLOOR PLAN - AREA D
P2.01E	04/21/23	PLUMBING FLOOR PLAN - AREA E
P2.01F	04/21/23	PLUMBING FLOOR PLAN - AREA F
P3.01A	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA A
P3.01B	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA B
P3.01C	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA C
P3.01D	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA D
P3.01E	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA E
P3.01F	03/15/23	PLUMBING FLOOR PLAN - VENT & STORM - AREA F
P4.01	03/15/23	ROOF PLAN - PLUMBING
P6.01	03/15/23	PLUMBING SCHEDULES
P7.01	03/15/23	PLUMBING DETAILS
P7.02	03/15/23	PLUMBING DETAIL
P7.03	03/15/23	SANITARY AND VENT DIAGRAM
P7.04	03/15/23	PLUMBING RISER DIAGRAM
P7.05	03/15/23	STORM RISER DIAGRAM
FP2.01	03/15/23	FIRST FLOOR PLAN - FIRE PROTECTION
TN0.00	04/21/23	TECHNOLOGY LEGEND, NOTES & SCOPE OVERVIEW
TN1.00	03/15/23	TECHNOLOGY SITE PLAN
TN2.21	03/15/23	TECHNOLOGY OVERALL FLOOR PLAN
TN2.22	03/15/23	TECHNOLOGY FLOOR PLAN - AREA A
TN2.23	04/21/23	TECHNOLOGY FLOOR PLAN - AREA B
TN2.24	04/21/23	TECHNOLOGY FLOOR PLAN - AREA C
TN2.25	04/21/23	TECHNOLOGY FLOOR PLAN - AREA D
TN2.26	03/15/23	TECHNOLOGY FLOOR PLAN - AREA E
TN2.27	04/21/23	TECHNOLOGY FLOOR PLAN - AREAD F
TN3.21	03/15/23	TECHNOLOGY OVERALL REFLECTED CEILING PLAN
TN4.01	04/21/23	TECHNOLOGY ENLARGED ROOM PLANS - IT ROOM 256
TN5.01	03/15/23	TECHNOLOGY EARLY PROCUREMENT DETAILS
TN5.02	03/15/23	TECHNOLOGY DETAILS
TN5.03	03/15/23	TECHNOLOGY DETAILS
TN6.01	03/15/23	TECHNOLOGY SCHEDULES
TY0.00	03/15/23	SECURITY COVER SHEETS
TY1.00	03/15/23	SECURITY SITE PLAN
TY2.21	03/15/23	SECURITY OVERALL FLOOR PLAN
TY2.22	03/15/23	SECURITY FLOOR PLAN - AREA A
TY2.23	03/15/23	SECURITY FLOOR PLAN - AREA B
TY2.24	03/15/23	SECURITY FLOOR PLAN - AREA C
TY2.25	03/15/23	SECURITY FLOOR PLNAN - AREA D
TY2.26	03/15/23	SECURITY FLOOR PLAN - AREA E
TY2.27	03/15/23	SECURITY FLOOR PLAN - AREA F
TY4.00	03/15/23	SECURITY SCHEDULES
TY5.01	03/15/23	SECURITY DETAILS
TY5.02	03/15/23	SECURITY DOOR DETAILS
TY5.03	03/15/23	SECURITY CAMERA DETAILS
TY7.01	03/15/23	SECURITY CAMERA VIEWS
AV1.10	03/15/23	AV SYSTEM GENERAL INFORMATION
AV1.11	03/15/23	AV SYSTEM GENERAL INFORMATION
AV2.11	03/15/23	AV SYSTEM INSTALLATION DETAILS
AV2.12	03/15/23	AV SYSTEM INSTALLATION DETAILS
AV2.13	03/15/23	AV SYSTEM INSTALLATION DETAILS

NINE DECADES OF EXCELLENCE
551 E Berry St.
Fort Worth, TX 76110
817/335/3394
FAX 817/877-5507

Contract Documents List

JPS Medical Home Southwest
Fort Worth, Texas
Work Package Authorization #2 (WPA-2)

Date: 6/6/2023

Sheet	Original	Sheet Name
AV2.14	03/15/23	AV SYSTEM INSTALLATION DETAILS
AV4.10	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.11	03/15/23	AV SYSTEM CONDUIT & DEVICE LAYOUT
AV4.12	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.13	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.14	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.15	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.16	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV4.20	03/15/23	AV SYSTEM CONDIUT & DEVICE LAYOUT
AV6.11	03/15/23	AV SYSTEM SCHEMATICS
AV6.12	03/15/23	AV SYSTEM SCHEMATICS
AV6.13	03/15/23	AV SYSTEM SCHEMATICS
AV6.15	03/15/23	AV SYSTEM RACK ELEVATIONS
AV7.11	03/15/23	AV SYSTEM RACK ELEVATIONS
AV8.11	03/15/23	AV SYSTEM PLATE DETAILS
Addenda		
Addendum A	04/05/23	Addendum A
Addendum B	04/21/23	Addendum B
Addendum C	04/25/23	Addendum C

JPS Medical Home Southwest

Construction Documents
Volume 1 Divisions 00-14

March 15, 2023

PROJECT MANUAL

JPS Medical Home Southwest
Fort Worth, Texas

March 15, 2023 **Construction Documents**

Owner
JPS Health Network

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Broddus-LeVis

Construction Manager:
Byrne | Post L, A Joint Venture
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Contact: John Vetter (Electrical)
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Electronic Mail: jvetter@kai-db.com

Communications:
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Landscape Architect:
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Fort Worth, Texas 76107
Contact: Anita Beard
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Electronic Mail: abeard@dunaway.com

SBL Architecture, Inc. Project Number: **M30481.01**

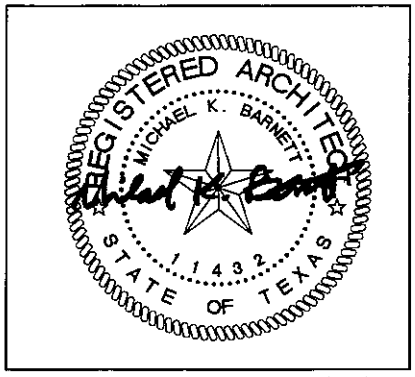
END OF DOCUMENT

DOCUMENT 000107

PROFESSIONAL SEALS PAGE

The specification sections listed below were prepared by or under the direct supervision of the Architect:

SBL Architecture, Inc.
1000 Ballpark Way, Suite 200
Arlington, Texas 76011



3/15/23

DIVISION 01 - GENERAL REQUIREMENTS

011000	Summary
012100	Allowances
012200	Unit Prices
012300	Alternates
012500	Substitution Procedures
	Substitution Request Form
012600	Contract Modification Procedures
012900	Payment Procedures
013100	Project Management and Coordination
013200	Construction Progress Documentation
013233	Photographic Documentation
013300	Submittal Procedures
014000	Quality Requirements
014200	References
015000	Temporary Facilities and Controls
016000	Product Requirements
017300	Execution
017700	Closeout Procedures
017823	Operation and Maintenance Data
017839	Project Record Documents
017900	Demonstration and Training

DIVISION 03 - CONCRETE

033035	Under Slab Sheet Vapor Retarder

DIVISION 04 – MASONRY

042000	Unit Masonry
044313.13	Anchored Stone Masonry Veneer
047200	Cast Stone Masonry

DIVISION 05 - METALS

054000	Cold–Formed Metal Framing
054523	Healthcare Metal Supports
055000	Metal Fabrications
055113	Metal Pan Stairs
055213	Pipe and Tube Railings

DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES

061053	Miscellaneous Rough Carpentry
061643	Sheathing
062023	Interior Finish Carpentry
064116	Plastic–Laminate–Clad Architectural Cabinets
066400	Plastic Paneling

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

072100	Thermal Insulation
072726	Fluid–Applied Membrane Air Barriers
074213.13	Formed Metal Wall Panels
074213.23	Metal Composite Material Wall Panels
074643	Composite Cladding
075216	SBS Modified Bituminous Membrane Roofing

076200	Sheet Metal Flashing and Trim
076210	Flexible Flashing
077200	Roof Accessories
078413	Penetration Firestopping
078443	Joint Firestopping
079200	Joint Sealants
079219	Acoustical Joint Sealants

DIVISION 08 - OPENINGS

081113	Hollow Metal Doors and Frames
081216	Aluminum Frames
081416	Flush Wood Doors
081433	Stile and Rail Wood Doors
083113	Access Doors and Frames
083323	Overhead Coiling Doors
083326	Overhead Coiling Grilles
083473.20	Wood Sliding Door Assemblies
084113	Aluminum–Framed Entrances and Storefronts
084229.23	Sliding Automatic Entrances
084413	Glazed Aluminum Curtain Walls
085659	Service Window Units
087100	Door Hardware
	Door Hardware Schedule
087113	Automatic Door Operators
088000	Glazing
088300	Mirrors
088700	Glazing Surface Films
089119	Fixed Louvers

DIVISION 09 - FINISHES

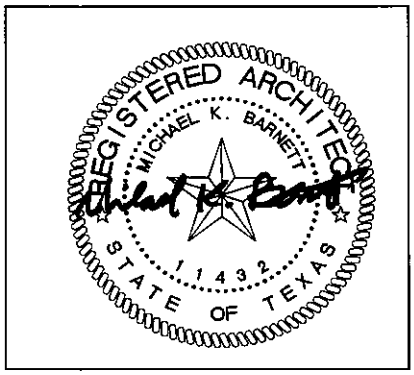
090561.13	Moisture Vapor Emission Control
092216	Non–Structural Metal Framing
092900	Gypsum Board
093013	Ceramic Tiling
095113	Acoustical Panel Ceilings
096116	Concrete Floor Sealing
096513	Resilient Base and Accessories
096519	Resilient Tile Flooring
096813	Tile Carpeting
097200	Wall Coverings
098116	Acoustical Blanket Insulation
098433	Sound–Absorbing Wall Units
099113	Exterior Painting
099123	Interior Painting

DIVISION 10 - SPECIALTIES

101400	Signage
102239	Coiling Partition System
102600	Wall and Door Protection
102800	Toilet, Bath, and Laundry Accessories
104100	Fire Department Access Lock and Vault
104313	Emergency Aid Cabinets
104413	Fire Protection Cabinets
104416	Fire Extinguishers
105113	Metal Lockers
107317	Prefabricated Metal Canopies

DIVISION 11 – EQUIPMENT

113013	Residential Appliances



3/15/23

DIVISION 12 – FURNISHINGS

122413	Roller Window Shades
123661.16	Solid Surfacing Countertops
123661.19	Quartz Agglomerate Countertops
124816	Entrance Floor Grilles

DIVISION 13 – SPECIAL CONSTRUCTION

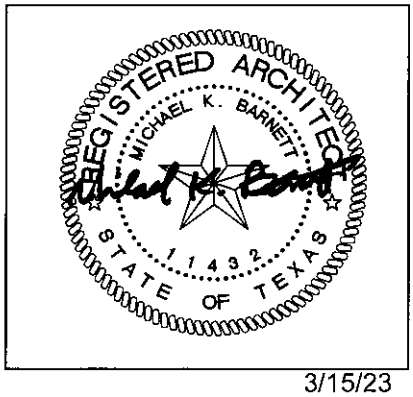
134900	Radiation Protection

DIVISION 31 – EARTHWORK

313116	Termite Control

DIVISION 32 – EXTERIOR IMPROVEMENTS

321713	Parking Bumpers
323130	Welded Metal Gates



3/15/23

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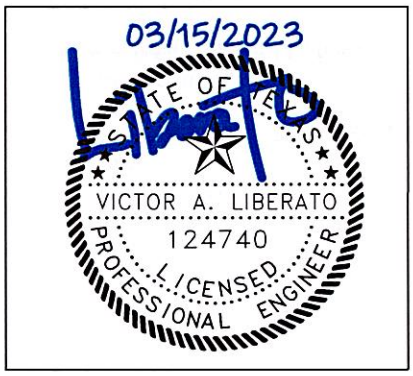
The specification sections listed below were prepared by or under the direct supervision of the Structural Engineer:

JQ Infrastructure
3017 West 7th street, Suite 400
Fort Worth, TX 76107

SEAL



DIVISION 03 – CONCRETE
033000 Cast in Place Concrete

DIVISION 05 – METALS
051200 Structural Steel
053100 Steel Deck

DIVISION 31 – EARTHWORK
316329 Drilled Piers

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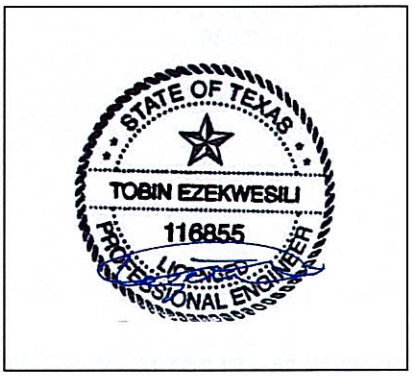
DOCUMENT 00 0107

PROFESSIONAL SEALS PAGE

KAI Engineering
5010 Riverside Dr, Suite 250
Irving, Texas 75039

SEAL



DIVISION 26 – ELECTRICAL

260500	COMMON WORK RESULTS FOR ELECTRICAL
260500.01	DIVISION 26 COORDINATION
260519	LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
260526	GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
260529	HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
260533	RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS
260544	SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING
260553	IDENTIFICATION FOR ELECTRICAL SYSTEMS
260573.13	SHORT-CIRCUIT STUDIES
260573.16	COORDINATION STUDIES
260573.19	ARC-FLASH HAZARD ANALYSIS
260923	LIGHTING CONTROL DEVICES
260943	NETWORK LIGHTING CONTROLS
262213	LOW-VOLTAGE DISTRIBUTION TRANSFORMERS
262413	SWITCHBOARDS
262416	PANELBOARDS
262726	WIRING DEVICES
262813	FUSES
262816	ENCLOSED SWITCHES AND CIRCUIT BREAKERS
264113	LIGHTNING PROTECTION FOR STRUCTURES
265119	LED INTERIOR LIGHTING
265619	LED EXTERIOR LIGHTING

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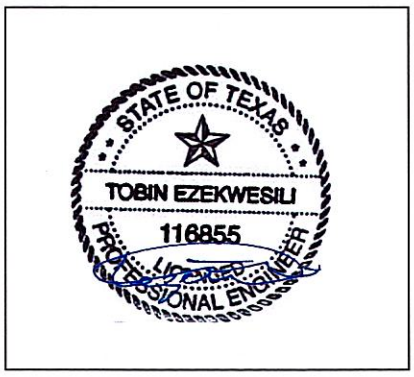
PROFESSIONAL SEALS PAGE

KAI Engineering
5010 Riverside Dr, Suite 250
Irving, Texas 75039

SEAL



DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

284621.11 ADDRESSABLE FIRE-ALARM SYSTEMS (PERFORMANCE SPECIFICATION ONLY)

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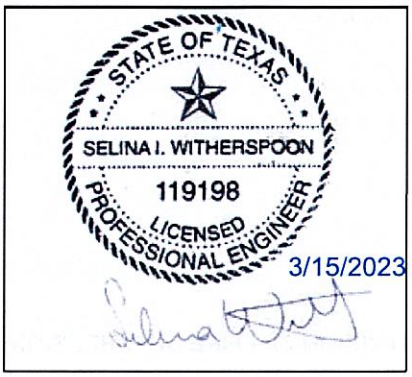
PROFESSIONAL SEALS PAGE

KAI Engineering
5010 Riverside Dr, Suite 250
Irving, Texas 75039

SEAL



DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING

230513	COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT
230517	SLEEVES AND SLEEVE SEALS FOR HVAC PIPING
230529	Hangers and Supports for HVAC Piping and Equipment
230548	Vibration Controls For HVAC
230553	Identification for HVAC Piping and Equipment
230593	Testing, Adjusting, and Balancing for HVAC
230713	Duct Insulation
230716	HVAC Equipment Insulation
230719	HVAC Piping Insulation
230913	Insturmentation and controls for hvac
230923	Direct Digital Control (DDC) System for HVAC
232300	Refrigerant Piping
233113	Metal Ducts
233300	Air Duct Accessories
233416	Centrifugal HVAC Fans
233600	Air Terminal Units 233600 - Air Terminal Units

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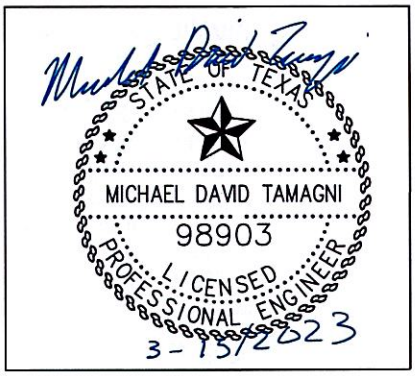
DOCUMENT 000107

PROFESSIONAL SEALS PAGE

KAI Engineering
5010 Riverside Dr, Suite 250
Irving, Texas 75039

SEAL



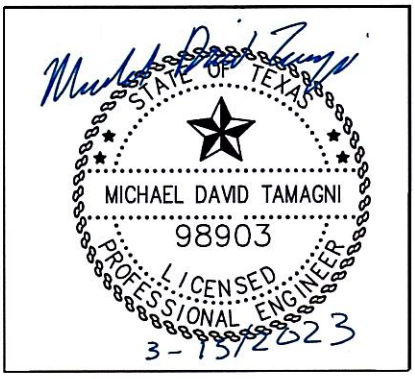
DIVISION 21 – FIRE SUPPRESSION

210500 COMMON WORK RESULTS FOR FIRE SUPPRESSION
210523 GENERAL-DUTY VALVES FOR WATER-BASED FIRE SUPPRESSION PIPING
210553 IDENTIFICATION FOR FIRE SUPPRESSION PIPING AND EQUIPMENT
210719 FIRE SUPPRESSION PIPING INSULATION
211100 FACILITY FIRE-SUPPRESSION WATER-SERVICE PIPING
211200 FIRE-SUPPRESSION STANDPIPES
211300 FIRE-SUPPRESSION SPRINKLER SYSTEMS

DIVISION 22 – PLUMBING

220500 COMMON WORK RESULTS FOR PLUMBING
220513 COMMON MOTOR REQUIREMENTS FOR PLUMBING EQUIPMENT
220517 SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING
220519 METERS AND GAGES FOR PLUMBING PIPING
220523 GENERAL-DUTY VALVES FOR PLUMBING PIPING SEAL
220529 HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT
220553 IDENTIFICATIONS FOR PLUMBING PIPING AND EQUIPMENT
220719 PLUMBING PIPING INSULATION
221116 DOMESTIC WATER PIPING
221119 DOMESTIC WATER PIPING SPECIALTIES
221123 DOMESTIC WATER PUMPS
221316 SANITARY WASTE AND VENT PIPING
221319 SANITARY WASTE PIPING SPECIALTIES
221323 SANITARY WASTE INTERCEPTORS
221413 STORM DRAINAGE PIPING
221423 STORM DRAINAGE PIPING SPECIALTIES
223000 PLUMBING EQUIPMENT
224000 PLUMBING FIXTURES

SEAL



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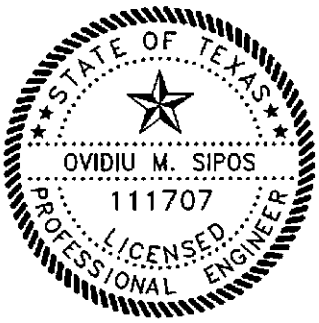
PROFESSIONAL SEALS PAGE

The specification sections listed below were prepared by or under the direct supervision of the Civil Engineer:

JQ INFRASTRUCTURE, LLC
100 Glass Street, Suite 201
Dallas, Texas 75207

SEAL



DIVISION 31 – EARTHWORK

311000	Site Preparation and Demolition
312200	Earthwork
312333	Trench Excavation
312334	Trench Backfill
312335	Trench Safety System
312500	Erosion Control

DIVISION 32 – EXTERIOR IMPROVEMENTS

321216	Asphalt Paving
321313	Concrete Paving
321723	Pavement Markings

DIVISION 33 – UTILITIES

331000	Water Utilities
333000	Sanitary Sewerage Utilities
334000	Storm Drainage Utilities

END OF DOCUMENT

DOCUMENT 000107E

PROFESSIONAL SEALS PAGE

The specification sections listed below were prepared by or under the direct supervision of the Landscape Architect:

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550 Bailey Ave, Suite 400
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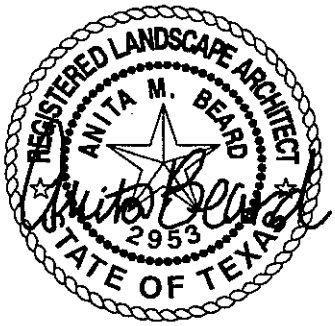
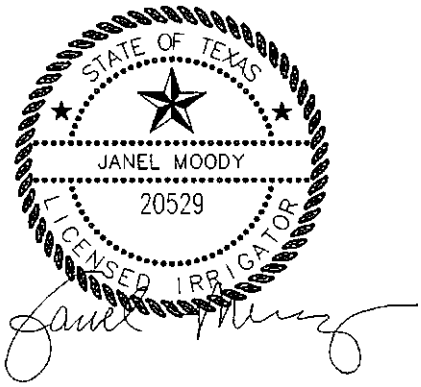
SEAL





DIVISION 32 – EXTERIOR IMPROVEMENTS

323300	Site Furnishings
328400	Planting Irrigation
329113	Soil Preparation
329200	Turf and Grasses
329300	Plants

END OF DOCUMENT

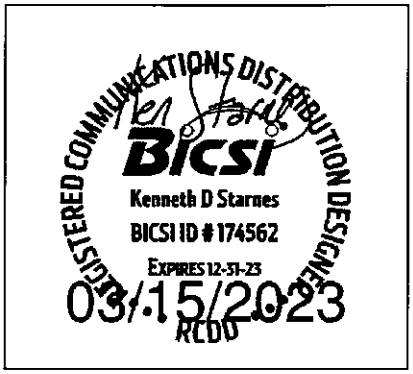
DOCUMENT 000107

PROFESSIONAL SEALS PAGE

The specification sections listed below were prepared by or under the direct supervision of the Registered Communications Distribution Designer:

Kenneth Starnes, RCDD
TLC Engineering Solutions, Inc.
1255 Corporate Drive, Suite 100
Irving, TX 75038

SEAL



DIVISION 27 – COMMUNICATIONS

270500	Common Work Results for Communications
270526	Grounding and Bonding for Communications
270528	Pathways for Communications Systems
270543	Underground Ducts and Raceways for Communications
270553	Identification for Communications Systems
271100	Communications Equipment Room Fittings
271500	Communications Horizontal Cabling
272133	Wireless Access Points
275116	Public Address Systems

DIVISION 28 – COMMUNICATIONS & SECURITY

280543	Safety Radio Distributed Antenna System
281000	Electronic Security Systems
282000	Closed Circuit Television Systems

END OF DOCUMENT

DOCUMENT 000110

TABLE OF CONTENTS

INDEX OF ISSUES

Construction Documents ..... 15 March 2023
Early Procurement Package-Conformed Set ..... 10 February 2023

NUMBER	NAME	ISSUE DATE	REVISED DATE
	VOLUME 1 OF 2		
INTRODUCTORY INFORMATION			
000101	Title Page	10 Feb 23	15 Mar 23
000107	Seals Page	10 Feb 23	15 Mar 23
000110	Table of Contents	10 Feb 23	15 Mar 23
DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS			
002600	Procurement Substitution Procedures	10 Feb 23	15 Mar 23
	Procurement Substitution Request Form	10 Feb 23	15 Mar 23
003132	Geotechnical Data	10 Feb 23	15 Mar 23
	Geotechnical Report	10 Feb 23	15 Mar 23
DIVISION 01 – GENERAL REQUIREMENTS			
011000	Summary	10 Feb 23	15 Mar 23
012100	Allowances	10 Feb 23	15 Mar 23
012200	Unit Prices	10 Feb 23	15 Mar 23
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015000	Temporary Facilities and Controls	10 Feb 23	15 Mar 23
016000	Product Requirements	10 Feb 23	15 Mar 23
017300	Execution	10 Feb 23	15 Mar 23
017700	Closeout Procedures	10 Feb 23	15 Mar 23
017823	Operation and Maintenance Data	10 Feb 23	15 Mar 23
017839	Project Record Documents	10 Feb 23	15 Mar 23
017900	Demonstration and Training	10 Feb 23	15 Mar 23
DIVISION 02 – EXISTING CONDITIONS	**NOT USED**		
DIVISION 03 – CONCRETE			
033000	Cast-in-Place Concrete (S)	10 Feb 23	15 Mar 23
033035	Under Slab Sheet Vapor Retarder	10 Feb 23	15 Mar 23
DIVISION 04 – MASONRY			
042000	Unit Masonry	10 Feb 23	15 Mar 23
044313.13	Anchored Stone Masonry Veneer	10 Feb 23	15 Mar 23
047200	Cast Stone Masonry	10 Feb 23	15 Mar 23
DIVISION 05 – METALS			
051200	Structural Steel (S)	10 Feb 23	15 Mar 23
053100	Steel Deck (S)	10 Feb 23	15 Mar 23

NUMBER	NAME	ISSUE DATE	REVISED DATE
054000	Cold-Formed Metal Framing	10 Feb 23	15 Mar 23
054523	Healthcare Metal Supports	10 Feb 23	15 Mar 23
055000	Metal Fabrications	10 Feb 23	15 Mar 23
055113	Metal Pan Stairs	10 Feb 23	15 Mar 23
055213	Pipe and Tube Railings	10 Feb 23	15 Mar 23
DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES			
061053	Miscellaneous Rough Carpentry	10 Feb 23	15 Mar 23
061643	Sheathing	10 Feb 23	15 Mar 23
062023	Interior Finish Carpentry	10 Feb 23	15 Mar 23
064116	Plastic–Laminate–Clad Architectural Cabinets	10 Feb 23	15 Mar 23
066400	Plastic Paneling	10 Feb 23	15 Mar 23
DIVISION 07 – THERMAL AND MOISTURE PROTECTION			
072100	Thermal Insulation	10 Feb 23	15 Mar 23
072726	Fluid-Applied Membrane Air Barriers	10 Feb 23	15 Mar 23
074213.13	Formed Metal Wall Panels	10 Feb 23	15 Mar 23
074213.23	Metal Composite Material Wall Panels	10 Feb 23	15 Mar 23
074643	Composite Cladding	10 Feb 23	15 Mar 23
075216	SBS Modified Bituminous Membrane Roofing	10 Feb 23	15 Mar 23
076200	Sheet Metal Flashing and Trim	10 Feb 23	15 Mar 23
076210	Flexible Flashing	10 Feb 23	15 Mar 23
077200	Roof Accessories	10 Feb 23	15 Mar 23
078413	Penetration Firestopping	10 Feb 23	15 Mar 23
078443	Joint Firestopping	10 Feb 23	15 Mar 23
079200	Joint Sealants	10 Feb 23	15 Mar 23
079219	Acoustical Joint Sealants	10 Feb 23	15 Mar 23
DIVISION 08 – OPENINGS			
081113	Hollow Metal Doors and Frames	10 Feb 23	15 Mar 23
081216	Aluminum Frames	10 Feb 23	15 Mar 23
081416	Flush Wood Doors	10 Feb 23	15 Mar 23
081433	Stile and Rail Wood Doors	10 Feb 23	15 Mar 23
083113	Access Doors and Frames	10 Feb 23	15 Mar 23
083323	Overhead Coiling Doors	10 Feb 23	15 Mar 23
083326	Overhead Coiling Grilles	10 Feb 23	15 Mar 23
083473.20	Wood Sliding Door Assemblies	10 Feb 23	15 Mar 23
084113	Aluminum-Framed Entrances and Storefronts	10 Feb 23	15 Mar 23
084229.23	Sliding Automatic Entrances	10 Feb 23	15 Mar 23
084413	Glazed Aluminum Curtain Walls	10 Feb 23	15 Mar 23
085659	Service Window Units	10 Feb 23	15 Mar 23
087100	Door Hardware	10 Feb 23	15 Mar 23
	Door Hardware Schedule	10 Feb 23	15 Mar 23
087113	Automatic Door Operators	10 Feb 23	15 Mar 23
088000	Glazing	10 Feb 23	15 Mar 23
088300	Mirrors	10 Feb 23	15 Mar 23
088700	Glazing Surface Films	10 Feb 23	15 Mar 23
089119	Fixed Louvers	10 Feb 23	15 Mar 23
DIVISION 09 – FINISHES			
090561.13	Moisture Vapor Emission Control	10 Feb 23	15 Mar 23
092216	Non–Structural Metal Framing	10 Feb 23	15 Mar 23
092900	Gypsum Board	10 Feb 23	15 Mar 23
093013	Ceramic Tiling	10 Feb 23	15 Mar 23
095113	Acoustical Panel Ceilings	10 Feb 23	15 Mar 23
096116	Concrete Floor Sealing	10 Feb 23	15 Mar 23
096513	Resilient Base and Accessories	10 Feb 23	15 Mar 23
096519	Resilient Tile Flooring	10 Feb 23	15 Mar 23
096813	Tile Carpeting	10 Feb 23	15 Mar 23
097200	Wall Coverings	10 Feb 23	15 Mar 23

NUMBER	NAME	ISSUE DATE	REVISED DATE
098116	Acoustical Blanket Insulation	10 Feb 23	15 Mar 23
098433	Sound–Absorbing Wall Units	10 Feb 23	15 Mar 23
099113	Exterior Painting	10 Feb 23	15 Mar 23
099123	Interior Painting	10 Feb 23	15 Mar 23
DIVISION 10 – SPECIALTIES			
101400	Signage	10 Feb 23	15 Mar 23
102239	Coiling Partition System	10 Feb 23	15 Mar 23
102600	Wall and Door Protection	10 Feb 23	15 Mar 23
102800	Toilet, Bath, and Laundry Accessories	10 Feb 23	15 Mar 23
104100	Fire Department Access Lock and Vault	10 Feb 23	15 Mar 23
104313	Emergency Aid Cabinets	10 Feb 23	15 Mar 23
104413	Fire Protection Cabinets	10 Feb 23	15 Mar 23
104416	Fire Extinguishers	10 Feb 23	15 Mar 23
105113	Metal Lockers	10 Feb 23	15 Mar 23
107317	Prefabricated Metal Canopies	10 Feb 23	15 Mar 23
DIVISION 11 – EQUIPMENT			
113013	Residential Appliances	10 Feb 23	15 Mar 23
DIVISION 12 – FURNISHINGS			
122413	Roller Window Shades	10 Feb 23	15 Mar 23
123661.16	Solid Surfacing Countertops	10 Feb 23	15 Mar 23
123661.19	Quartz Agglomerate Countertops	10 Feb 23	15 Mar 23
124816	Entrance Floor Grilles	10 Feb 23	15 Mar 23
DIVISION 13 – SPECIAL CONSTRUCTION			
134900	Radiation Protection	10 Feb 23	15 Mar 23
DIVISIONS 14 – 20	**NOT USED**		

VOLUME 2 OF 2

INTRODUCTORY INFORMATION			
000101	Title Page	10 Feb 23	15 Mar 23
000107	Seals Page	10 Feb 23	15 Mar 23
000110	Table of Contents	10 Feb 23	15 Mar 23
DIVISION 21 – FIRE SUPPRESSION			
210500	Common Work Results for Fire Suppression	10 Feb 23	15 Mar 23
210523	General-Duty Valves for Water-Based Fire-Suppression Piping	10 Feb 23	15 Mar 23
210553	Identification for Fire Suppression Piping and Equipment	10 Feb 23	15 Mar 23
210719	Fire Suppression Piping Insulation	10 Feb 23	15 Mar 23
211100	Facility Fire-Suppression Water-Service Piping	15 Mar 23	
211200	Fire-Suppression Standpipes	15 Mar 23	
211300	Fire-Suppression Sprinkler Systems	10 Feb 23	15 Mar 23
DIVISION 22 – PLUMBING			
220500	Common Work Results for Plumbing	10 Feb 23	15 Mar 23
220513	Common Motor Requirements for Plumbing Equipment	10 Feb 23	15 Mar 23
220517	Sleeves and Sleeve Seals for Plumbing Piping	10 Feb 23	15 Mar 23
220519	Meters and Gages for Plumbing Piping	10 Feb 23	15 Mar 23
220523	General-Duty Valves for Plumbing Piping	10 Feb 23	15 Mar 23
220529	Hangers and Supports for Plumbing Piping and Equipment	10 Feb 23	15 Mar 23
220553	Identification for Plumbing Piping and Equipment	10 Feb 23	15 Mar 23
220719	Plumbing Piping Insulation	10 Feb 23	15 Mar 23
221116	Domestic Water Piping	10 Feb 23	15 Mar 23
221119	Domestic Water Piping Specialties	10 Feb 23	15 Mar 23
221123	Domestic Water Pumps	10 Feb 23	15 Mar 23

NUMBER	NAME	ISSUE DATE	REVISED DATE
221316	Sanitary Waste and Vent Piping	15 Mar 23	
221319	Sanitary Waste Piping Specialties	15 Mar 23	
221323	Sanitary Waste Interceptors	15 Mar 23	
221413	Storm Drainage Piping	15 Mar 23	
221423	Storm Drainage Piping Specialties	15 Mar 23	
223000	Plumbing Equipment	10 Feb 23	15 Mar 23
224000	Plumbing Fixtures	10 Feb 23	15 Mar 23
DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)			
230513	Common Motor Requirements for HVAC Equipment	10 Feb 23	15 Mar 23
230517	Sleeves and Sleeve Seals for HVAC Piping	10 Feb 23	15 Mar 23
230529	Hangers and Supports for HVAC Piping and Equipment	10 Feb 23	15 Mar 23
230548	Vibration and Seismic Controls for HVAC	10 Feb 23	15 Mar 23
230553	Identification for HVAC Piping and Equipment	10 Feb 23	15 Mar 23
230593	Testing, Adjusting, and Balancing for HVAC	10 Feb 23	15 Mar 23
230713	Duct Insulation	10 Feb 23	15 Mar 23
230716	HVAC Equipment Insulation	10 Feb 23	15 Mar 23
230719	HVAC Piping Insulation	10 Feb 23	15 Mar 23
230913	Instrumentation and Controls for HVAC	10 Feb 23	15 Mar 23
230923	Direct Digital Control (DDC) System for HVAC	10 Feb 23	15 Mar 23
232300	Refrigerant Piping	10 Feb 23	15 Mar 23
233113	Metal Ducts	10 Feb 23	15 Mar 23
233300	Air Duct Accessories	10 Feb 23	15 Mar 23
233416	Centrifugal HVAC Fans	10 Feb 23	15 Mar 23
233600	Air Terminal Units	10 Feb 23	15 Mar 23
DIVISIONS 24 – 25	**NOT USED**		
DIVISION 26 – ELECTRICAL			
260500	Common Work Results for Electrical	10 Feb 23	15 Mar 23
260500.01	Division 26 Coordination	10 Feb 23	15 Mar 23
260519	Low Voltage Electrical Power Conductors and Cables	10 Feb 23	15 Mar 23
260526	Grounding and Bonding for Electrical Systems	10 Feb 23	15 Mar 23
260529	Hangers and Supports for Electrical Systems	10 Feb 23	15 Mar 23
260533	Raceway and Boxes for Electrical Systems	10 Feb 23	15 Mar 23
260544	Sleeves and Sleeve Seals for Electrical Raceways and Cabling	10 Feb 23	15 Mar 23
260553	Identification for Electrical Systems	10 Feb 23	15 Mar 23
260573.13	Short-Circuit Studies	10 Feb 23	15 Mar 23
260573.16	Coordination Studies	10 Feb 23	15 Mar 23
260573.19	Arc-Flash Hazard Analysis	10 Feb 23	15 Mar 23
260923	Lighting Control Devices	10 Feb 23	15 Mar 23
260943	Network Lighting Controls	10 Feb 23	15 Mar 23
262213	Low-Voltage Distribution Transformers	10 Feb 23	15 Mar 23
262413	Switchboards	15 Mar 23	
262416	Panelboards	10 Feb 23	15 Mar 23
262726	Wiring Devices	10 Feb 23	15 Mar 23
262813	Fuses	10 Feb 23	15 Mar 23
262816	Enclosed Switches and Circuit Breakers	15 Mar 23	
262923	Variable-Frequency Motor Controllers	10 Feb 23	15 Mar 23
264113	Lightning Protection for Structures	10 Feb 23	15 Mar 23
265119	LED Interior Lighting	10 Feb 23	15 Mar 23
265619	LED Exterior Lighting	10 Feb 23	15 Mar 23

NUMBER	NAME	ISSUE DATE	REVISED DATE
DIVISION 27 – COMMUNICATIONS			
270500	Common Work Results for Communications (T)	10 Feb 23	15 Mar 23
270526	Grounding and Bonding for Communications (T)	10 Feb 23	15 Mar 23
270528	Pathways for Communications Systems (T)	10 Feb 23	15 Mar 23
270543	Underground Ducts and Raceways for Communications (T)	10 Feb 23	15 Mar 23
270553	Identification for Communications Systems (T)	10 Feb 23	15 Mar 23
271000	Audio and Video System Specifications (AV)	10 Feb 23	15 Mar 23
271100	Communications Equipment Room Fittings (T)	10 Feb 23	15 Mar 23
271500	Communications Horizontal Cabling (T)	10 Feb 23	15 Mar 23
272133	Wireless Access Points (T)	10 Feb 23	15 Mar 23
275116	Public Address Systems (T)	10 Feb 23	15 Mar 23
DIVISION 28 – ELECTRONIC SAFETY AND SECURITY			
280543	Safety Radio Distributed Antenna System (T)	10 Feb 23	15 Mar 23
281000	Electronic Security Systems (T)	10 Feb 23	15 Mar 23
282000	Closed Circuit Television Systems (T)	10 Feb 23	15 Mar 23
284621.11	Addressable Fire-Alarm Systems	15 Mar 23	
DIVISIONS 29 – 30	**NOT USED**		
DIVISION 31 – EARTHWORK			
311000	Site Preparation and Demolition (C)	10 Feb 23	15 Mar 23
312200	Earthwork (C)	10 Feb 23	15 Mar 23
312333	Trench Excavation (C)	10 Feb 23	15 Mar 23
312334	Trench Backfill (C)	10 Feb 23	15 Mar 23
322335	Trench Safety System (C)	10 Feb 23	15 Mar 23
312500	Erosion Control (C)	10 Feb 23	15 Mar 23
313116	Termite Control	10 Feb 23	15 Mar 23
316329	Drilled Piers (S)	10 Feb 23	15 Mar 23
DIVISION 32 – EXTERIOR IMPROVEMENTS			
321216	Asphalt Paving (C)	10 Feb 23	15 Mar 23
321313	Concrete Paving (C)	10 Feb 23	15 Mar 23
321713	Parking Bumpers	10 Feb 23	15 Mar 23
321723	Pavement Markings (C)	10 Feb 23	15 Mar 23
323130	Welded Metal Gates	10 Feb 23	15 Mar 23
323300	Site Furnishings (LA)	10 Feb 23	15 Mar 23
328400	Planting Irrigation (LA)	10 Feb 23	15 Mar 23
329113	Soil Preparation (LA)	10 Feb 23	15 Mar 23
329200	Turf and Grasses (LA)	10 Feb 23	15 Mar 23
329300	Plants (LA)	10 Feb 23	15 Mar 23
DIVISION 33 – UTILITIES			
331000	Water Utilities (C)	10 Feb 23	15 Mar 23
333000	Sanitary Sewerage Utilities (C)	10 Feb 23	15 Mar 23
334000	Storm Drainage Utilities (C)	10 Feb 23	15 Mar 23
DIVISIONS 34 – 49	**NOT USED**		

END OF TABLE OF CONTENTS

JPS HEALTH NET

JPS MEDICAL HO

JPS HEALTH NET

JPS MEDICAL HO

PROJECT DATA

PROJECT DESCRIPTION:

ARCHITECTURAL NARRATIVE

THE NEW JPS MEDICAL HOME SOUTHWEST WILL BE LOCATED ON 6.422 ACRES OF VACANT LAND ON THE CORNER OF GRANBURY ROAD AND MESA SPRINGS DRIVE IN SW FORT WORTH. THE CLINIC BUILDING WILL PROVIDE 39,834 SF OF CONDITIONED SPACE AND BE ONE STORY IN HEIGHT. THE BUILDING WILL FEATURE A BEAUTIFUL EXTERIOR OF STONE, BRICK AND CURTAINWALL WITH GREEN TINTED GLAZING. THE SITE WILL PROVIDE PARKING FOR 233 SPACES INCLUDING ADA COMPLIANT SPACES.

THE CLINIC WILL PROVIDE PROGRAM FOR THE FOLLOWING SERVICES:

- BEHAVIORAL HEALTH
- EDUCATION SPACE
- RETAIL PHARMACY
- LAB SERVICES
- OPTOMETRY
- IMAGING
- 3 PODS OF EXAM AND ANCILLARY SERVICES
- AFTER HOURS CARE ENTRY
- DOCKING SPACE FOR MOBILE IMAGING UNITS

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ATTACHMENT 5 – SCHEDULE FOR THE WORK

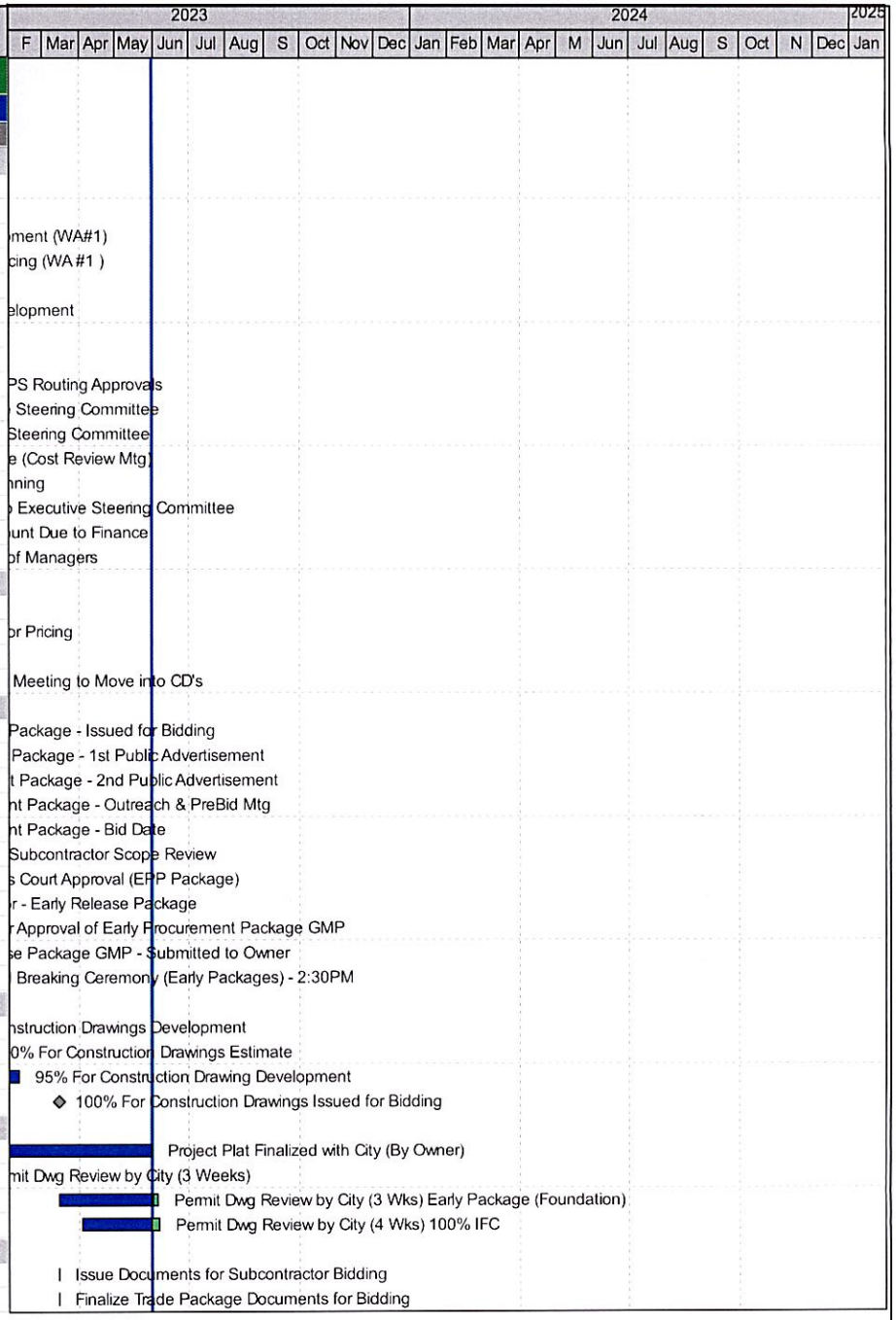
(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

JPS MEDICAL HOME SOUTHWEST

JPSMHSW Global Schedule

Activity ID	Activity	OD	RD	Start	Finish
Pre-Construction - Design/Build					
Programming / Schematic Design / Work Authorization # 1					
A1035	NTP for PreConstruction - Design Build	0	0	16-May-22 A	
A1000	Programming Concept / Gaming	10	0	17-May-22 A	14-Jun-22 A
A1015	50% Schematic Design Development (WA#1)	23	0	15-Jun-22 A	15-Jul-22 A
A1010	50% SD Drawings Issued for Pricing (WA #1)	0	0		15-Jul-22 A
A1020	50% SD Estimate (WA #1)	15	0	18-Jul-22 A	29-Jul-22 A
A1210	100% Schematic Design Development	10	0	18-Jul-22 A	29-Jul-22 A
A1018	100% SD Drawings Issued	0	0		29-Jul-22 A
A1045	100% SD Estimate	10	0	29-Jul-22 A	12-Aug-22 A
A1028	WA#1 Budget Cost Due for JPS Routing Approvals	0	0		29-Jul-22 A
A1105	Contract Amount to Executive Steering Committee	1	0	29-Jul-22 A	29-Jul-22 A
A1085	WA#1 Budget to Executive Steering Committee	0	0		05-Aug-22 A
A1075	App of 100% SD Estimate (Cost Review Mtg)	1	0	12-Aug-22 A	23-Aug-22 A
A1038	WA#1 Budget Due to Planning	0	0		18-Aug-22 A
A1095	Contract Amount Due to Executive Steering Committee	0	0		02-Sep-22 A
A1115	WA#1 Contract Amount Due to Finance	0	0		22-Sep-22 A
A1048	WA#1 to Board of Managers	0	0		13-Oct-22 A
Design Development					
A1030	Design Development	32	0	29-Jul-22 A	13-Sep-22 A
A1040	DD Drawings Issued for Pricing	0	0		13-Sep-22 A
A1050	DD Estimate	15	0	15-Sep-22 A	05-Oct-22 A
A1055	DD Estimate Cost Meeting to Move into CD's	1	0	06-Oct-22 A	06-Oct-22 A
GMP Early Procurement Package - Grading/Civil/Foundation/Procure					
A1120	Early Procurement Package - Issued for Bidding	0	0		27-Sep-22 A
A1220	Early Procurement Package - 1st Public Advertisement	0	0		29-Sep-22 A
A1230	Early Procurement Package - 2nd Public Advertisement	0	0		06-Oct-22 A
A1260	Early Procurement Package - Outreach & PreBid Mtg	1	0	12-Oct-22 A	12-Oct-22 A
A1240	Early Procurment Package - Bid Date	1	0	20-Oct-22 A	20-Oct-22 A
A1250	EPP Bidding Subcontractor Scope Review	7	0	21-Oct-22 A	31-Oct-22 A
A1180	Commissioners Court Approval (EPP Package)	0	0	25-Oct-22 A	25-Oct-22 A
A2740	Limited NTP for - Early Release Package	1	0	25-Oct-22 A	25-Oct-22 A
A2750	Owner Approval of Early Procurement Package GMP	2	0	09-Nov-22 A	15-Dec-22 A
A1190	Early Release Package GMP - Submitted to Owner	1	0	09-Nov-22 A	09-Nov-22 A
A1130	Ground Breaking Ceremony (Early Packages) - 2:30PM	1	0	07-Dec-22 A	07-Dec-22 A
Construction Document Design					
A1060	50% For Construction Drawings Development	23	0	05-Oct-22 A	08-Nov-22 A
A1065	50% For Construction Drawings Estimate	15	0	08-Nov-22 A	13-Jan-23 A
A1280	95% For Construction Drawing Development	21	0	09-Nov-22 A	10-Feb-23 A
A1070	100% For Construction Drawings Issued for Bidding	0	0		15-Mar-23 A
Project Permitting w/City of FW					
A1810	Project Plat Finalized with City (By Owner)	20	1	27-Sep-22 A	31-May-23
A1800	Grading Permit Dwg Review by City (3 Weeks)	15	0	17-Oct-22 A	07-Nov-22 A
A1200	Permit Dwg Review by City (3 Wks) Early Package (Foundation)	15	3	15-Mar-23 A	05-Jun-23
A1080	Permit Dwg Review by City (4 Wks) 100% IFC	15	5	03-Apr-23 A	06-Jun-23
GMP Development & Approval (Work Authorization-2)					
A2720	Issue Documents for Subcontractor Bidding	20	0	15-Mar-23 A	15-Mar-23 A
A2135	Finalize Trade Package Documents for Bidding	5	0	15-Mar-23 A	15-Mar-23 A



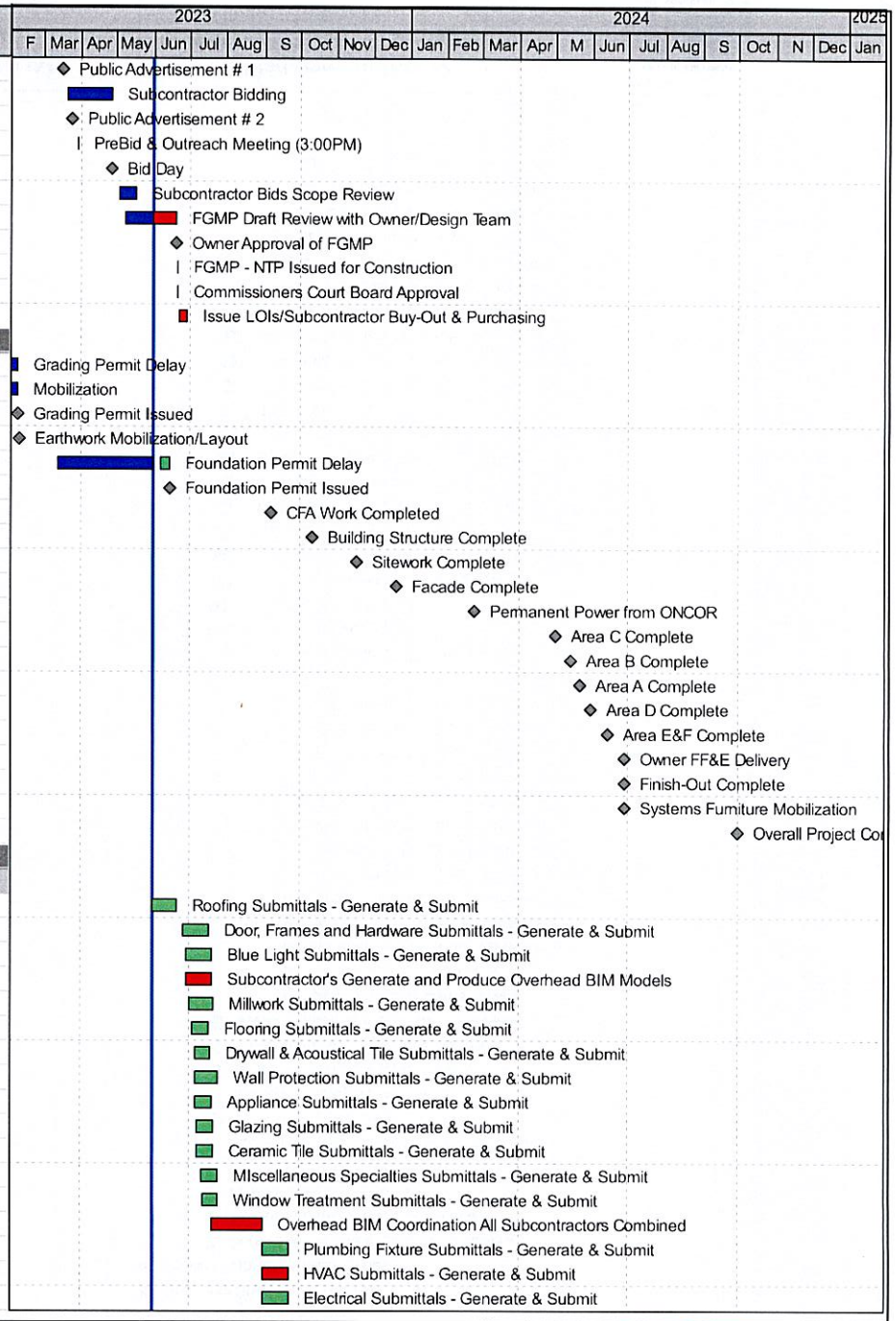
BYRNE POST L GROUP

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
MIL

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
Data Date: 31-May-23

Activity ID	Activity	OD	RD	Start	Finish
A2140	Public Advertisement # 1	0	0		17-Mar-23 A
A1160	Subcontractor Bidding	10	0	20-Mar-23 A	26-Apr-23 A
A2670	Public Advertisement # 2	0	0		24-Mar-23 A
A1090	PreBid & Outreach Meeting (3:00PM)	1	0	29-Mar-23 A	29-Mar-23 A
A1100	Bid Day	0	0		26-Apr-23 A
A1110	Subcontractor Bids Scope Review	10	0	03-May-23 A	16-May-23 A
A1138	FGMP Draft Review with Owner/Design Team	23	14	08-May-23 A	19-Jun-23
A1140	Owner Approval of FGMP	0	0		19-Jun-23
A1150	FGMP - NTP Issued for Construction	1	1	20-Jun-23	20-Jun-23
A1820	Commissioners Court Board Approval	1	1	20-Jun-23	20-Jun-23
A1170	Issue LOIs/Subcontractor Buy-Out & Purchasing	5	5	21-Jun-23	27-Jun-23
Milestones					
Mile- 1070	Grading Permit Delay	65	0	07-Nov-22 A	07-Feb-23 A
Mile- 1080	Mobilization	5	0	02-Jan-23 A	07-Feb-23 A
Mile- 1060	Grading Permit Issued	0	0		07-Feb-23 A
Mile- 1050	Earthwork Mobilization/Layout	0	0	08-Feb-23 A	
Mile-1120	Foundation Permit Delay	66	6	13-Mar-23 A	13-Jun-23
Mile-1110	Foundation Permit Issued	0	0		13-Jun-23
Mile-1130	CFA Work Completed	0	0		06-Sep-23
Mile-1090	Building Structure Complete	0	0		10-Oct-23
Mile-1080	Sitework Complete	0	0		16-Nov-23
Mile-1100	Facade Complete	0	0		20-Dec-23
Mile-1070	Permanent Power from ONCOR	0	0		23-Feb-24
Area. C-1260	Area C Complete	0	0		01-May-24
Area.. B-1260	Area B Complete	0	0		13-May-24
Area.. A-1260	Area A Complete	0	0		21-May-24
Area.. D-1260	Area D Complete	0	0		30-May-24
Area. E&F-1300	Area E&F Complete	0	0		13-Jun-24
Mile-1000	Owner FF&E Delivery	0	0		27-Jun-24
Mile-1020	Finish-Out Complete	0	0		27-Jun-24
Mile-1040	Systems Furniture Mobilization	0	0		27-Jun-24
Mile-1030	Overall Project Complete	0	0		30-Sep-24
Preparation of Submittals/Procurement					
Generate Submittals					
Generate Submit.1550	Roofing Submittals - Generate & Submit	15	15	31-May-23	20-Jun-23
Generate Submit.1440	Door, Frames and Hardware Submittals - Generate & Submit	15	15	26-Jun-23	17-Jul-23
Generate Submit.1470	Blue Light Submittals - Generate & Submit	15	15	28-Jun-23	19-Jul-23
Generate Submit.1570	Subcontractor's Generate and Produce Overhead BIM Models	15	15	28-Jun-23	19-Jul-23
Generate Submit.1500	Millwork Submittals - Generate & Submit	15	15	30-Jun-23	21-Jul-23
Generate Submit.1460	Flooring Submittals - Generate & Submit	10	10	03-Jul-23	17-Jul-23
Generate Submit.1480	Drywall & Acoustical Tile Submittals - Generate & Submit	10	10	05-Jul-23	18-Jul-23
Generate Submit.1510	Wall Protection Submittals - Generate & Submit	15	15	05-Jul-23	25-Jul-23
Generate Submit.1530	Appliance Submittals - Generate & Submit	10	10	06-Jul-23	19-Jul-23
Generate Submit.1490	Glazing Submittals - Generate & Submit	10	10	07-Jul-23	20-Jul-23
Generate Submit.1520	Ceramic Tile Submittals - Generate & Submit	10	10	07-Jul-23	20-Jul-23
Generate Submit.1450	MIscellaneous Specialties Submittals - Generate & Submit	10	10	11-Jul-23	24-Jul-23
Generate Submit.1540	Window Treatment Submittals - Generate & Submit	10	10	12-Jul-23	25-Jul-23
Generate Submit.1560	Overhead BIM Coordination All Subcontractors Combined	30	30	20-Jul-23	30-Aug-23
Generate Submit.1410	Plumbing Fixture Submittals - Generate & Submit	15	15	31-Aug-23	21-Sep-23
Generate Submit.1420	HVAC Submittals - Generate & Submit	15	15	31-Aug-23	21-Sep-23
Generate Submit.1430	Electrical Submittals - Generate & Submit	15	15	31-Aug-23	21-Sep-23



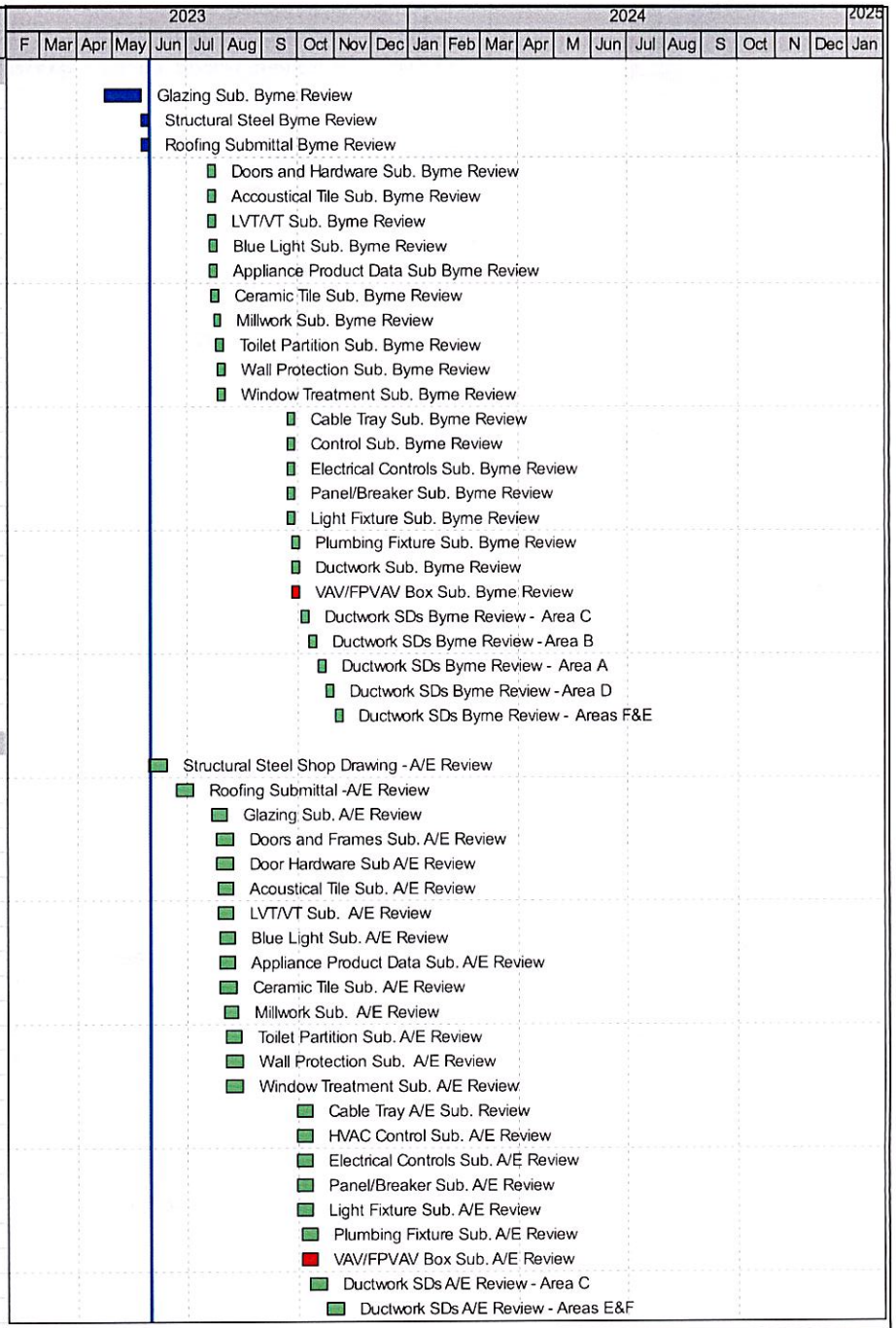
BYRNE POST L GROUP

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
M.L.

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
Data Date: 31-May-23

Activity ID	Activity	OD	RD	Start	Finish
Byrne Submittal Review					
Byme Submit.1320	Glazing Sub. Byme Review	5	0	24-Apr-23 A	24-May-23 A
Byme Submit.1400	Structural Steel Byme Review	5	0	24-May-23 A	30-May-23 A
Byme Submit.1410	Roofing Submittal Byme Review	5	0	25-May-23 A	30-May-23 A
Byme Submit.1300	Doors and Hardware Sub. Byme Review	5	5	18-Jul-23	24-Jul-23
Byme Submit.1260	Accoustical Tile Sub. Byme Review	5	5	19-Jul-23	25-Jul-23
Byme Submit.1170	LVT/VT Sub. Byme Review	5	5	19-Jul-23	25-Jul-23
Byme Submit.1310	Blue Light Sub. Byme Review	5	5	20-Jul-23	26-Jul-23
Byme Submit.1330	Appliance Product Data Sub Byme Review	5	5	20-Jul-23	26-Jul-23
Byme Submit.1160	Ceramic Tile Sub. Byme Review	5	5	21-Jul-23	27-Jul-23
Byme Submit.1220	Millwork Sub. Byme Review	5	5	24-Jul-23	28-Jul-23
Byme Submit.1250	Toilet Partition Sub. Byme Review	5	5	25-Jul-23	31-Jul-23
Byme Submit.1210	Wall Protection Sub. Byme Review	5	5	26-Jul-23	01-Aug-23
Byme Submit.1340	Window Treatment Sub. Byme Review	5	5	26-Jul-23	01-Aug-23
Byme Submit.1190	Cable Tray Sub. Byme Review	5	5	22-Sep-23	28-Sep-23
Byme Submit.1150	Control Sub. Byme Review	5	5	22-Sep-23	28-Sep-23
Byme Submit.1200	Electrical Controls Sub. Byme Review	5	5	22-Sep-23	28-Sep-23
Byme Submit.1230	Panel/Breaker Sub. Byme Review	5	5	22-Sep-23	28-Sep-23
Byme Submit.1240	Light Fixture Sub. Byme Review	5	5	22-Sep-23	28-Sep-23
Byme Submit.1270	Plumbing Fixture Sub. Byme Review	5	5	26-Sep-23	02-Oct-23
Byme Submit.1280	Ductwork Sub. Byme Review	5	5	26-Sep-23	02-Oct-23
Byme Submit.1290	VAV/FPVAV Box Sub. Byme Review	5	5	26-Sep-23	02-Oct-23
Byme Submit.1350	Ductwork SDs Byme Review - Area C	5	5	03-Oct-23	09-Oct-23
Byme Submit.1360	Ductwork SDs Byme Review - Area B	5	5	10-Oct-23	16-Oct-23
Byme Submit.1380	Ductwork SDs Byme Review - Area A	5	5	17-Oct-23	23-Oct-23
Byme Submit.1370	Ductwork SDs Byme Review - Area D	5	5	24-Oct-23	30-Oct-23
Byme Submit.1390	Ductwork SDs Byme Review - Areas F&E	5	5	31-Oct-23	06-Nov-23
A/E Submittal Review					
A/E Submit.1280	Structural Steel Shop Drawing - A/E Review	10	10	30-May-23 A	13-Jun-23
A/E Submit.1410	Roofing Submittal -A/E Review	10	10	21-Jun-23	05-Jul-23
A/E Submit.1380	Glazing Sub. A/E Review	10	10	21-Jul-23	03-Aug-23
A/E Submit.1300	Doors and Frames Sub. A/E Review	10	10	25-Jul-23	07-Aug-23
A/E Submit.1310	Door Hardware Sub A/E Review	10	10	25-Jul-23	07-Aug-23
A/E Submit.1150	Acoustical Tile Sub. A/E Review	10	10	26-Jul-23	08-Aug-23
A/E Submit.1170	LVT/VT Sub. A/E Review	10	10	26-Jul-23	08-Aug-23
A/E Submit.1370	Blue Light Sub. A/E Review	10	10	27-Jul-23	09-Aug-23
A/E Submit.1390	Appliance Product Data Sub. A/E Review	10	10	27-Jul-23	09-Aug-23
A/E Submit.1190	Ceramic Tile Sub. A/E Review	10	10	28-Jul-23	10-Aug-23
A/E Submit.1230	Millwork Sub. A/E Review	10	10	31-Jul-23	11-Aug-23
A/E Submit.1260	Toilet Partition Sub. A/E Review	10	10	01-Aug-23	14-Aug-23
A/E Submit.1220	Wall Protection Sub. A/E Review	10	10	02-Aug-23	15-Aug-23
A/E Submit.1400	Window Treatment Sub. A/E Review	10	10	02-Aug-23	15-Aug-23
A/E Submit.1200	Cable Tray A/E Sub. Review	10	10	29-Sep-23	12-Oct-23
A/E Submit.1160	HVAC Control Sub. A/E Review	10	10	29-Sep-23	12-Oct-23
A/E Submit.1210	Electrical Controls Sub. A/E Review	10	10	29-Sep-23	12-Oct-23
A/E Submit.1240	Panel/Breaker Sub. A/E Review	10	10	29-Sep-23	12-Oct-23
A/E Submit.1250	Light Fixture Sub. A/E Review	10	10	29-Sep-23	12-Oct-23
A/E Submit.1270	Plumbing Fixture Sub. A/E Review	10	10	03-Oct-23	16-Oct-23
A/E Submit.1290	VAV/FPVAV Box Sub. A/E Review	10	10	03-Oct-23	16-Oct-23
A/E Submit.1320	Ductwork SDs A/E Review - Area C	10	10	10-Oct-23	23-Oct-23
A/E Submit.1330	Ductwork SDs A/E Review - Areas E&F	10	10	24-Oct-23	06-Nov-23



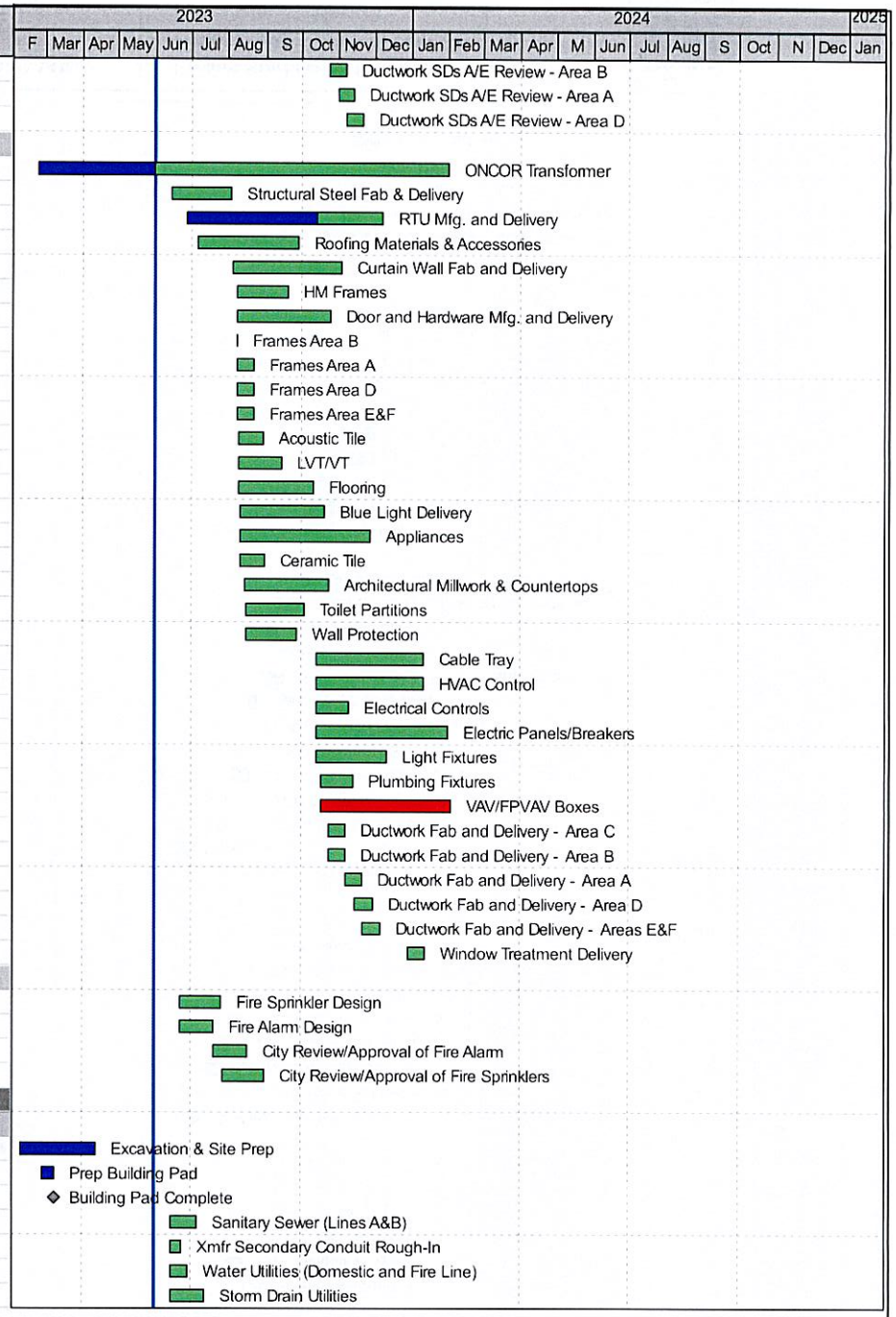
BYRNE POST GROUP

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
M.L.

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
Data Date: 31-May-23

Activity ID	Activity	OD	RD	Start	Finish
A/E Submit.1340	Ductwork SDs A/E Review - Area B	10	10	24-Oct-23	06-Nov-23
A/E Submit.1350	Ductwork SDs A/E Review - Area A	10	10	31-Oct-23	13-Nov-23
A/E Submit.1360	Ductwork SDs A/E Review - Area D	10	10	07-Nov-23	20-Nov-23
Fabrication & Delivery					
Proc. & Delivery1310	ONCOR Transformer	225	170	23-Feb-23 A	31-Jan-24
Proc. & Delivery1240	Structural Steel Fab & Delivery	35	35	14-Jun-23	02-Aug-23
Proc. & Delivery1330	RTU Mfg. and Delivery	100	38	27-Jun-23 A	07-Dec-23
Proc. & Delivery1320	Roofing Materials & Accessories	60	60	06-Jul-23	28-Sep-23
Proc. & Delivery1220	Curtain Wall Fab and Delivery	65	65	04-Aug-23	03-Nov-23
Proc. & Delivery1030	HM Frames	30	30	08-Aug-23	19-Sep-23
Proc. & Delivery1160	Door and Hardware Mfg. and Delivery	55	55	08-Aug-23	24-Oct-23
Proc. & Delivery1270	Frames Area B	0	0	08-Aug-23	08-Aug-23
Proc. & Delivery1280	Frames Area A	10	10	08-Aug-23	21-Aug-23
Proc. & Delivery1290	Frames Area D	10	10	08-Aug-23	21-Aug-23
Proc. & Delivery1300	Frames Area E&F	10	10	08-Aug-23	21-Aug-23
Proc. & Delivery1050	Acoustic Tile	15	15	09-Aug-23	29-Aug-23
Proc. & Delivery1040	LVT/VT	25	25	09-Aug-23	13-Sep-23
Proc. & Delivery1020	Flooring	45	45	09-Aug-23	11-Oct-23
Proc. & Delivery1210	Blue Light Delivery	50	50	10-Aug-23	19-Oct-23
Proc. & Delivery1250	Appliances	75	75	10-Aug-23	27-Nov-23
Proc. & Delivery1010	Ceramic Tile	15	15	11-Aug-23	31-Aug-23
Proc. & Delivery1090	Architectural Millwork & Countertops	50	50	14-Aug-23	23-Oct-23
Proc. & Delivery1120	Toilet Partitions	35	35	15-Aug-23	03-Oct-23
Proc. & Delivery1080	Wall Protection	30	30	16-Aug-23	27-Sep-23
Proc. & Delivery1060	Cable Tray	60	60	13-Oct-23	10-Jan-24
Proc. & Delivery1000	HVAC Control	60	60	13-Oct-23	10-Jan-24
Proc. & Delivery1070	Electrical Controls	20	20	13-Oct-23	09-Nov-23
Proc. & Delivery1100	Electric Panels/Breakers	75	75	13-Oct-23	31-Jan-24
Proc. & Delivery1110	Light Fixtures	40	40	13-Oct-23	11-Dec-23
Proc. & Delivery1130	Plumbing Fixtures	20	20	17-Oct-23	13-Nov-23
Proc. & Delivery1150	VAV/FPVAV Boxes	75	75	17-Oct-23	02-Feb-24
Proc. & Delivery1140	Ductwork Fab and Delivery - Area C	10	10	24-Oct-23	06-Nov-23
Proc. & Delivery1170	Ductwork Fab and Delivery - Area B	10	10	24-Oct-23	06-Nov-23
Proc. & Delivery1180	Ductwork Fab and Delivery - Area A	10	10	07-Nov-23	20-Nov-23
Proc. & Delivery1190	Ductwork Fab and Delivery - Area D	10	10	14-Nov-23	29-Nov-23
Proc. & Delivery1200	Ductwork Fab and Delivery - Areas E&F	10	10	21-Nov-23	06-Dec-23
Proc. & Delivery1260	Window Treatment Delivery	10	10	29-Dec-23	12-Jan-24
City Required Reviews					
Design-1010	Fire Sprinkler Design	25	25	21-Jun-23	26-Jul-23
Design-1000	Fire Alarm Design	20	20	21-Jun-23	19-Jul-23
Design-1030	City Review/Approval of Fire Alarm	20	20	20-Jul-23	16-Aug-23
Design-1050	City Review/Approval of Fire Sprinklers	25	25	27-Jul-23	30-Aug-23
Construction Phase					
Site Work					
Site1000	Excavation & Site Prep	2	0	08-Feb-23 A	12-Apr-23 A
Site1040	Prep Building Pad	10	0	27-Feb-23 A	09-Mar-23 A
Site1120	Building Pad Complete	0	0		09-Mar-23 A
Site1010	Sanitary Sewer (Lines A&B)	15	15	14-Jun-23	05-Jul-23
Site1020	Xmfr Secondary Conduit Rough-In	7	7	14-Jun-23	22-Jun-23
Site1030	Water Utilities (Domestic and Fire Line)	10	10	14-Jun-23	27-Jun-23
Site1060	Storm Drain Utilities	20	20	14-Jun-23	12-Jul-23



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JPS MEDICAL HOME SOUTHWEST
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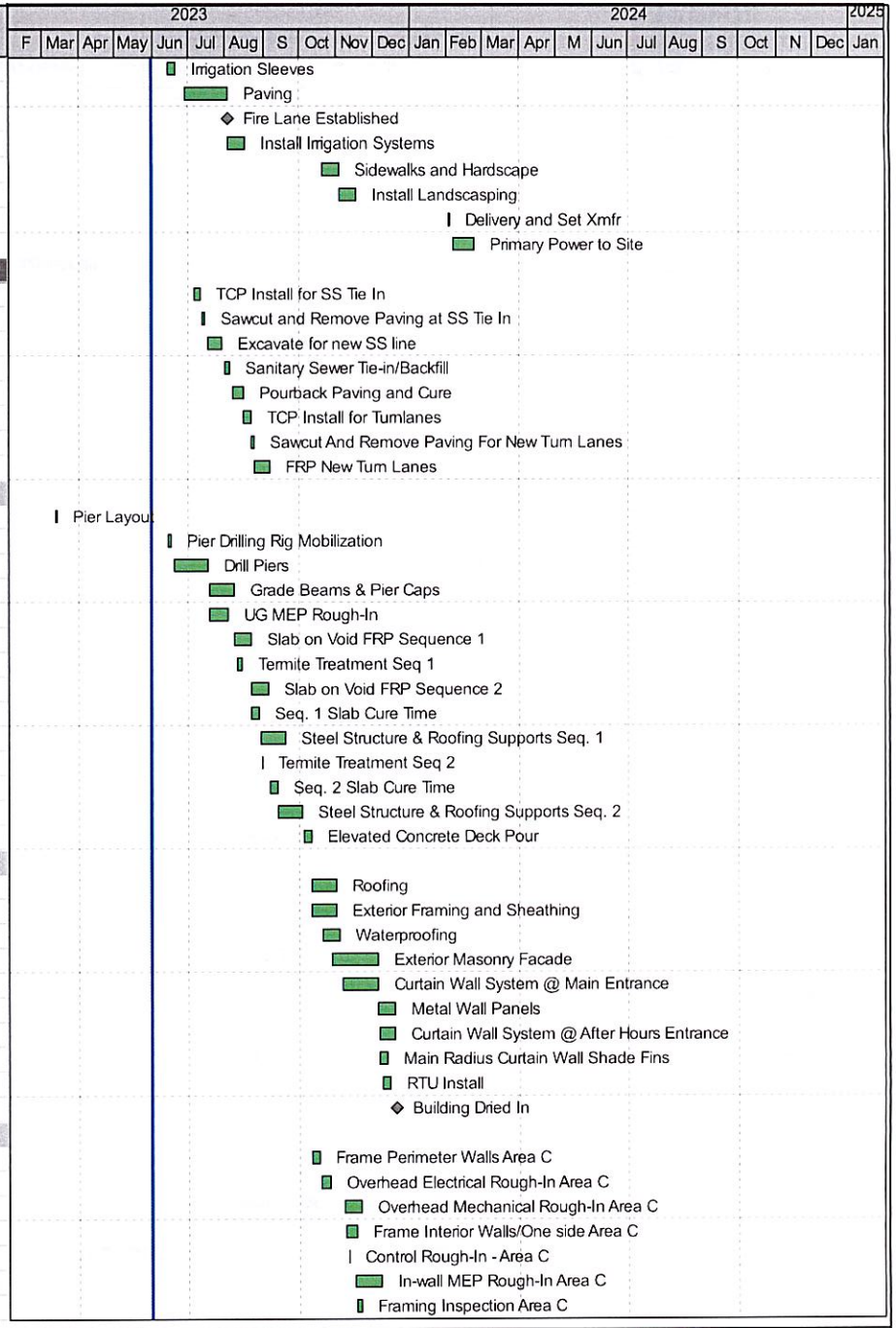
Activity ID	Activity	OD	RD	Start	Finish
Site1090	Irrigation Sleeves	5	5	14-Jun-23	20-Jun-23
Site1080	Paving	25	25	28-Jun-23	02-Aug-23
Site1130	Fire Lane Established	0	0		02-Aug-23
Site1220	Install Irrigation Systems	10	10	03-Aug-23	16-Aug-23
Site1100	Sidewalks and Hardscape	10	10	20-Oct-23	02-Nov-23
Site1110	Install Landscasping	10	10	03-Nov-23	16-Nov-23
Site1050	Delivery and Set Xmfr	2	2	01-Feb-24	02-Feb-24
Site1070	Primary Power to Site	15	15	05-Feb-24	23-Feb-24
CFA					
Site1150	TCP Install for SS Tie In	4	4	06-Jul-23	11-Jul-23
Site1160	Sawcut and Remove Paving at SS Tie In	3	3	12-Jul-23	14-Jul-23
Site1170	Excavate for new SS line	10	10	17-Jul-23	28-Jul-23
Site1140	Sanitary Sewer Tie-in/Backfill	5	5	31-Jul-23	04-Aug-23
Site1180	Pourback Paving and Cure	7	7	07-Aug-23	15-Aug-23
Site1190	TCP Install for Turnlanes	4	4	16-Aug-23	21-Aug-23
Site1200	Sawcut And Remove Paving For New Turn Lanes	3	3	22-Aug-23	24-Aug-23
Site1210	FRP New Turn Lanes	8	8	25-Aug-23	06-Sep-23
Building Structure					
Bldg. Struct.1000	Pier Layout	2	0	13-Mar-23 A	14-Mar-23 A
Bldg. Struct.1130	Pier Drilling Rig Mobilization	3	3	14-Jun-23	16-Jun-23
Bldg. Struct.1010	Drill Piers	20	20	19-Jun-23	17-Jul-23
Bldg. Struct.1030	Grade Beams & Pier Caps	15	15	18-Jul-23	07-Aug-23
Bldg. Struct.1040	UG MEP Rough-In	12	12	18-Jul-23	02-Aug-23
Bldg. Struct.1050	Slab on Void FRP Sequence 1	10	10	08-Aug-23	21-Aug-23
Bldg. Struct.1020	Termite Treatment Seq 1	2	2	11-Aug-23	14-Aug-23
Bldg. Struct.1060	Slab on Void FRP Sequence 2	10	10	22-Aug-23	05-Sep-23
Bldg. Struct.1070	Seq. 1 Slab Cure Time	5	5	22-Aug-23	28-Aug-23
Bldg. Struct.1090	Steel Structure & Roofing Supports Seq. 1	15	15	29-Aug-23	19-Sep-23
Bldg. Struct.1120	Termite Treatment Seq 2	1	1	31-Aug-23	31-Aug-23
Bldg. Struct.1080	Seq. 2 Slab Cure Time	5	5	06-Sep-23	12-Sep-23
Bldg. Struct.1100	Steel Structure & Roofing Supports Seq. 2	15	15	13-Sep-23	03-Oct-23
Bldg. Struct.1110	Elevated Concrete Deck Pour	5	5	04-Oct-23	10-Oct-23
Exterior Facade and Roofing					
Exterior 1000	Roofing	15	15	11-Oct-23	31-Oct-23
Exterior 1010	Exterior Framing and Sheathing	15	15	11-Oct-23	31-Oct-23
Exterior 1030	Waterproofing	10	10	20-Oct-23	02-Nov-23
Exterior 1040	Exterior Masonry Facade	25	25	27-Oct-23	04-Dec-23
Exterior 1020	Curtain Wall System @ Main Entrance	20	20	06-Nov-23	05-Dec-23
Exterior 1090	Metal Wall Panels	10	10	05-Dec-23	18-Dec-23
Exterior 1060	Curtain Wall System @ After Hours Entrance	10	10	06-Dec-23	19-Dec-23
Exterior 1080	Main Radius Curtain Wall Shade Fins	5	5	06-Dec-23	12-Dec-23
Exterior 1100	RTU Install	5	5	08-Dec-23	14-Dec-23
Exterior 1070	Building Dried In	0	0		20-Dec-23
Area C					
Area C-1010	Frame Perimeter Walls Area C	5	5	11-Oct-23	17-Oct-23
Area C-1070	Overhead Electrical Rough-In Area C	7	7	18-Oct-23	26-Oct-23
Area C-1050	Overhead Mechanical Rough-In Area C	10	10	07-Nov-23	20-Nov-23
Area C-1020	Frame Interior Walls/One side Area C	7	7	08-Nov-23	16-Nov-23
Area C-1220	Control Rough-In - Area C	1	1	10-Nov-23	10-Nov-23
Area C-1030	In-wall MEP Rough-In Area C	15	15	15-Nov-23	07-Dec-23
Area C-1040	Framing Inspection Area C	2	2	17-Nov-23	20-Nov-23



BYRNE POST L GROUP

Remaining Level of Effort
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Remaining Work
Critical Remaining Work
M.L.

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
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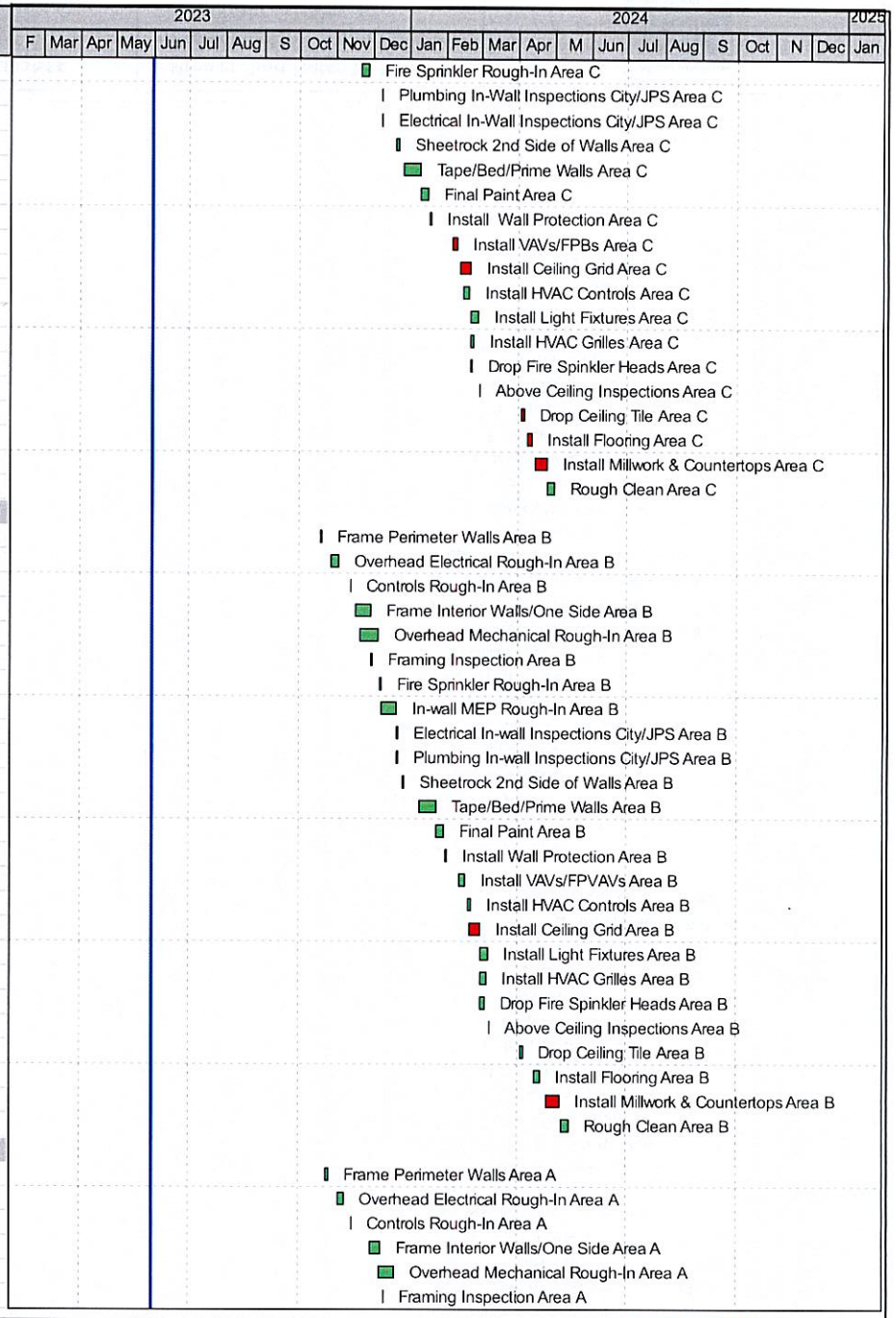
Activity ID	Activity	OD	RD	Start	Finish
Area C-1080	Fire Sprinkler Rough-In Area C	3	3	21-Nov-23	27-Nov-23
Area C-1090	Plumbing In-Wall Inspections City/JPS Area C	1	1	08-Dec-23	08-Dec-23
Area C-1260	Electrical In-Wall Inspections City/JPS Area C	1	1	08-Dec-23	08-Dec-23
Area C-1120	Sheetrock 2nd Side of Walls Area C	3	3	20-Dec-23	22-Dec-23
Area C-1130	Tape/Bed/Prime Walls Area C	10	10	26-Dec-23	09-Jan-24
Area C-1170	Final Paint Area C	5	5	10-Jan-24	16-Jan-24
Area C-1210	Install Wall Protection Area C	2	2	17-Jan-24	18-Jan-24
Area C-1060	Install VAVs/FPBs Area C	5	5	05-Feb-24	09-Feb-24
Area C-1140	Install Ceiling Grid Area C	7	7	12-Feb-24	20-Feb-24
Area C-1180	Install HVAC Controls Area C	3	3	15-Feb-24	19-Feb-24
Area C-1150	Install Light Fixtures Area C	5	5	21-Feb-24	27-Feb-24
Area C-1160	Install HVAC Grilles Area C	3	3	21-Feb-24	23-Feb-24
Area C-1240	Drop Fire Spinkler Heads Area C	2	2	21-Feb-24	22-Feb-24
Area C-1100	Above Ceiling Inspections Area C	1	1	28-Feb-24	28-Feb-24
Area C-1230	Drop Ceiling Tile Area C	3	3	03-Apr-24	05-Apr-24
Area C-1190	Install Flooring Area C	5	5	08-Apr-24	12-Apr-24
Area C-1200	Install Millwork & Countertops Area C	8	8	15-Apr-24	24-Apr-24
Area C-1250	Rough Clean Area C	5	5	25-Apr-24	01-May-24
Area B					
Area B-1040	Frame Perimeter Walls Area B	3	3	18-Oct-23	20-Oct-23
Area B-1030	Overhead Electrical Rough-In Area B	5	5	27-Oct-23	02-Nov-23
Area B-1230	Controls Rough-In Area B	1	1	13-Nov-23	13-Nov-23
Area B-1050	Frame Interior Walls/One Side Area B	7	7	17-Nov-23	29-Nov-23
Area B-1070	Overhead Mechanical Rough-In Area B	10	10	21-Nov-23	06-Dec-23
Area B-1080	Framing Inspection Area B	1	1	30-Nov-23	30-Nov-23
Area B-1100	Fire Sprinkler Rough-In Area B	2	2	07-Dec-23	08-Dec-23
Area B-1060	In-wall MEP Rough-In Area B	10	10	08-Dec-23	21-Dec-23
Area B-1090	Electrical In-wall Inspections City/JPS Area B	1	1	22-Dec-23	22-Dec-23
Area B-1120	Plumbing In-wall Inspections City/JPS Area B	1	1	22-Dec-23	22-Dec-23
Area B-1130	Sheetrock 2nd Side of Walls Area B	3	3	26-Dec-23	28-Dec-23
Area B-1170	Tape/Bed/Prime Walls Area B	10	10	10-Jan-24	23-Jan-24
Area B-1220	Final Paint Area B	5	5	24-Jan-24	30-Jan-24
Area B-1330	Install Wall Protection Area B	2	2	31-Jan-24	01-Feb-24
Area B-1160	Install VAVs/FPVAVs Area B	5	5	12-Feb-24	16-Feb-24
Area B-1150	Install HVAC Controls Area B	3	3	20-Feb-24	22-Feb-24
Area B-1190	Install Ceiling Grid Area B	7	7	21-Feb-24	29-Feb-24
Area B-1240	Install Light Fixtures Area B	5	5	01-Mar-24	07-Mar-24
Area B-1250	Install HVAC Grilles Area B	3	3	01-Mar-24	05-Mar-24
Area B-1260	Drop Fire Spinkler Heads Area B	2	2	01-Mar-24	04-Mar-24
Area B-1280	Above Ceiling Inspections Area B	1	1	08-Mar-24	08-Mar-24
Area B-1320	Drop Ceiling Tile Area B	3	3	03-Apr-24	05-Apr-24
Area B-1350	Install Flooring Area B	5	5	15-Apr-24	19-Apr-24
Area B-1360	Install Millwork & Countertops Area B	8	8	25-Apr-24	06-May-24
Area B-1370	Rough Clean Area B	5	5	07-May-24	13-May-24
Area A					
Area A -1020	Frame Perimeter Walls Area A	4	4	23-Oct-23	26-Oct-23
Area A -1010	Overhead Electrical Rough-In Area A	3	3	03-Nov-23	07-Nov-23
Area A -1140	Controls Rough-In Area A	1	1	14-Nov-23	14-Nov-23
Area A -1050	Frame Interior Walls/One Side Area A	7	7	30-Nov-23	08-Dec-23
Area A -1030	Overhead Mechanical Rough-In Area A	10	10	07-Dec-23	20-Dec-23
Area A -1060	Framing Inspection Area A	1	1	11-Dec-23	11-Dec-23



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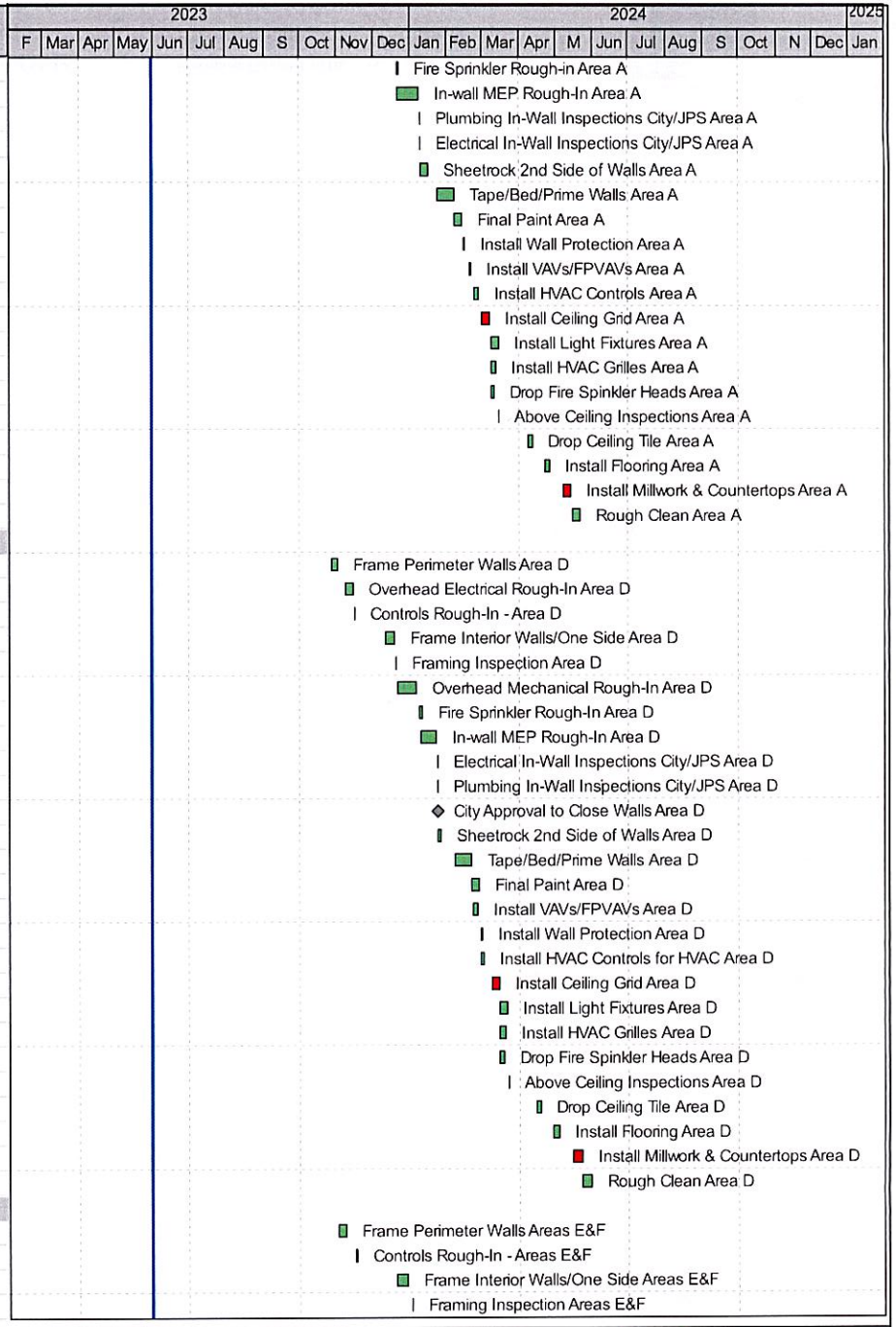
Activity ID	Activity	OD	RD	Start	Finish
Area A -1040	Fire Sprinkler Rough-in Area A	2	2	21-Dec-23	22-Dec-23
Area A -1070	In-wall MEP Rough-In Area A	10	10	22-Dec-23	08-Jan-24
Area A -1100	Plumbing In-Wall Inspections City/JPS Area A	1	1	09-Jan-24	09-Jan-24
Area A -1110	Electrical In-Wall Inspections City/JPS Area A	1	1	09-Jan-24	09-Jan-24
Area A -1120	Sheetrock 2nd Side of Walls Area A	5	5	10-Jan-24	16-Jan-24
Area A -1130	Tape/Bed/Prime Walls Area A	10	10	24-Jan-24	06-Feb-24
Area A -1150	Final Paint Area A	5	5	07-Feb-24	13-Feb-24
Area A -1210	Install Wall Protection Area A	2	2	14-Feb-24	15-Feb-24
Area A -1080	Install VAVs/FPVAVs Area A	3	3	19-Feb-24	21-Feb-24
Area A -1090	Install HVAC Controls Area A	3	3	23-Feb-24	27-Feb-24
Area A -1160	Install Ceiling Grid Area A	5	5	01-Mar-24	07-Mar-24
Area A -1190	Install Light Fixtures Area A	5	5	08-Mar-24	14-Mar-24
Area A -1170	Install HVAC Grilles Area A	3	3	08-Mar-24	12-Mar-24
Area A -1180	Drop Fire Spinkler Heads Area A	2	2	08-Mar-24	11-Mar-24
Area A -1200	Above Ceiling Inspections Area A	1	1	15-Mar-24	15-Mar-24
Area A -1220	Drop Ceiling Tile Area A	5	5	08-Apr-24	12-Apr-24
Area A -1230	Install Flooring Area A	5	5	22-Apr-24	26-Apr-24
Area A -1240	Install Millwork & Countertops Area A	6	6	07-May-24	14-May-24
Area A -1250	Rough Clean Area A	5	5	15-May-24	21-May-24
Area D					
Area D-1030	Frame Perimeter Walls Area D	4	4	27-Oct-23	01-Nov-23
Area D-1010	Overhead Electrical Rough-In Area D	5	5	08-Nov-23	14-Nov-23
Area D-1150	Controls Rough-In - Area D	1	1	15-Nov-23	15-Nov-23
Area D-1050	Frame Interior Walls/One Side Area D	7	7	11-Dec-23	19-Dec-23
Area D-1060	Framing Inspection Area D	1	1	20-Dec-23	20-Dec-23
Area D-1040	Overhead Mechanical Rough-In Area D	10	10	21-Dec-23	05-Jan-24
Area D-1020	Fire Sprinkler Rough-In Area D	3	3	08-Jan-24	10-Jan-24
Area D-1070	In-wall MEP Rough-In Area D	10	10	09-Jan-24	22-Jan-24
Area D-1100	Electrical In-Wall Inspections City/JPS Area D	1	1	23-Jan-24	23-Jan-24
Area D-1110	Plumbing In-Wall Inspections City/JPS Area D	1	1	23-Jan-24	23-Jan-24
Area D-1120	City Approval to Close Walls Area D	0	0		23-Jan-24
Area D-1140	Sheetrock 2nd Side of Walls Area D	3	3	24-Jan-24	26-Jan-24
Area D-1130	Tape/Bed/Prime Walls Area D	10	10	07-Feb-24	20-Feb-24
Area D-1170	Final Paint Area D	5	5	21-Feb-24	27-Feb-24
Area D-1090	Install VAVs/FPVAVs Area D	3	3	22-Feb-24	26-Feb-24
Area D-1220	Install Wall Protection Area D	2	2	28-Feb-24	29-Feb-24
Area D-1080	Install HVAC Controls for HVAC Area D	3	3	28-Feb-24	01-Mar-24
Area D-1160	Install Ceiling Grid Area D	5	5	08-Mar-24	14-Mar-24
Area D-1200	Install Light Fixtures Area D	5	5	15-Mar-24	21-Mar-24
Area D-1180	Install HVAC Grilles Area D	3	3	15-Mar-24	19-Mar-24
Area D-1190	Drop Fire Spinkler Heads Area D	2	2	15-Mar-24	18-Mar-24
Area D-1210	Above Ceiling Inspections Area D	1	1	22-Mar-24	22-Mar-24
Area D-1230	Drop Ceiling Tile Area D	4	4	15-Apr-24	18-Apr-24
Area D-1240	Install Flooring Area D	5	5	29-Apr-24	03-May-24
Area D-1250	Install Millwork & Countertops Area D	6	6	15-May-24	22-May-24
Area D-1260	Rough Clean Area D	5	5	23-May-24	30-May-24
Area E&F					
Area E&F-1110	Frame Perimeter Walls Areas E&F	4	4	02-Nov-23	07-Nov-23
Area E&F-1200	Controls Rough-In - Areas E&F	1	1	16-Nov-23	16-Nov-23
Area E&F-1120	Frame Interior Walls/One Side Areas E&F	7	7	20-Dec-23	29-Dec-23
Area E&F-1140	Framing Inspection Areas E&F	1	1	02-Jan-24	02-Jan-24



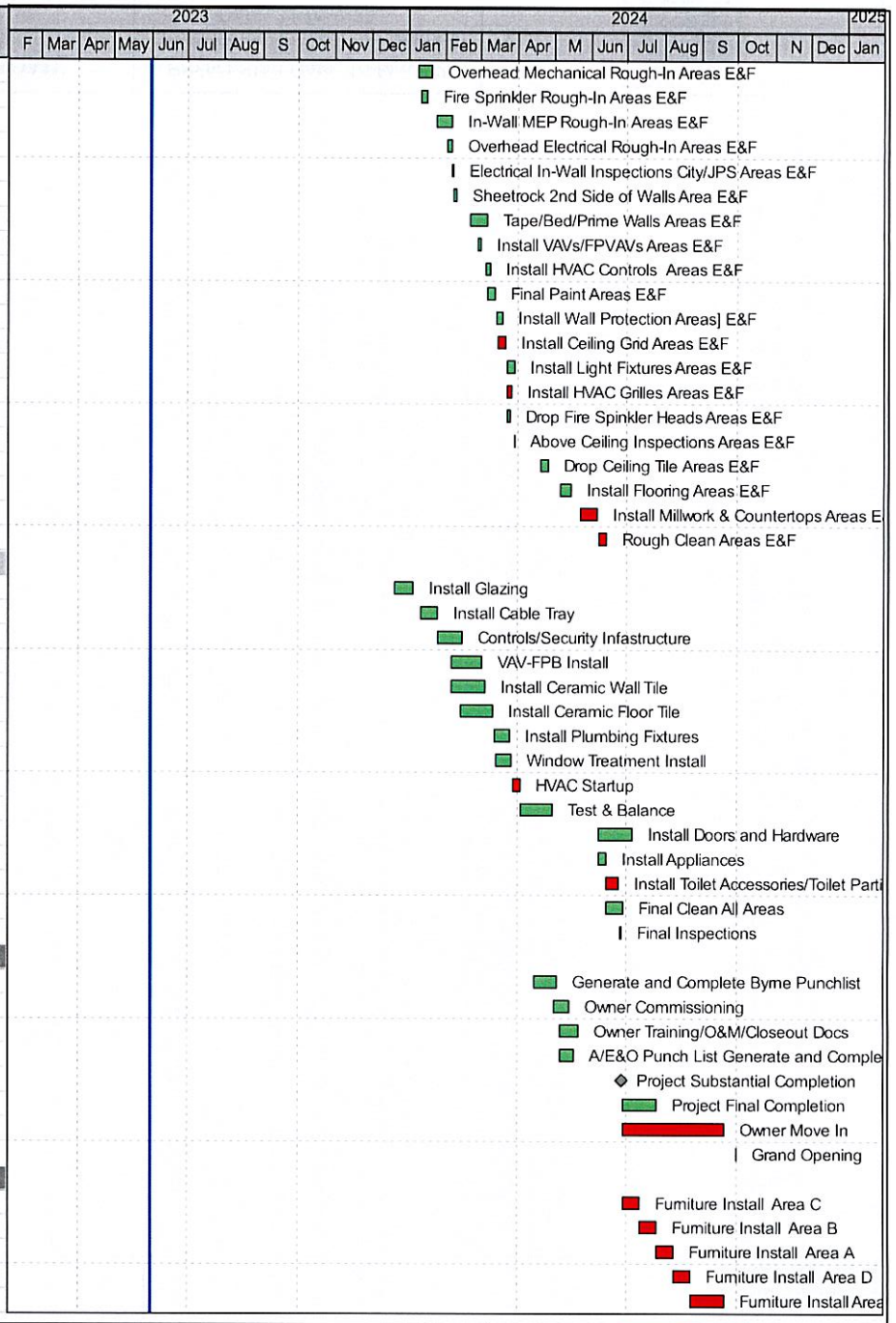
BYRNE POST L GROUP

Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
M.L.

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
Data Date: 31-May-23

Activity ID	Activity	OD	RD	Start	Finish
Area E&F-1150	Overhead Mechanical Rough-In Areas E&F	10	10	08-Jan-24	19-Jan-24
Area E&F-1090	Fire Sprinkler Rough-In Areas E&F	3	3	11-Jan-24	15-Jan-24
Area E&F-1180	In-Wall MEP Rough-In Areas E&F	10	10	23-Jan-24	05-Feb-24
Area E&F-1190	Overhead Electrical Rough-In Areas E&F	3	3	01-Feb-24	05-Feb-24
Area E&F-1220	Electrical In-Wall Inspections City/JPS Areas E&F	1	1	06-Feb-24	06-Feb-24
Area E&F-1240	Sheetrock 2nd Side of Walls Area E&F	3	3	07-Feb-24	09-Feb-24
Area E&F-1280	Tape/Bed/Prime Walls Areas E&F	10	10	21-Feb-24	05-Mar-24
Area E&F-1210	Install VAVs/FPVAVs Areas E&F	3	3	27-Feb-24	29-Feb-24
Area E&F-1230	Install HVAC Controls Areas E&F	5	5	04-Mar-24	08-Mar-24
Area E&F-1310	Final Paint Areas E&F	5	5	06-Mar-24	12-Mar-24
Area E&F-1370	Install Wall Protection Areas] E&F	4	4	13-Mar-24	18-Mar-24
Area E&F-1300	Install Ceiling Grid Areas E&F	5	5	15-Mar-24	21-Mar-24
Area E&F-1320	Install Light Fixtures Areas E&F	5	5	22-Mar-24	28-Mar-24
Area E&F-1330	Install HVAC Grilles Areas E&F	3	3	22-Mar-24	26-Mar-24
Area E&F-1340	Drop Fire Spinkler Heads Areas E&F	2	2	22-Mar-24	25-Mar-24
Area E&F-1350	Above Ceiling Inspections Areas E&F	1	1	29-Mar-24	29-Mar-24
Area E&F-1380	Drop Ceiling Tile Areas E&F	5	5	19-Apr-24	25-Apr-24
Area E&F-1400	Install Flooring Areas E&F	8	8	06-May-24	15-May-24
Area E&F-1410	Install Millwork & Countertops Areas E&F	10	10	23-May-24	06-Jun-24
Area E&F-1420	Rough Clean Areas E&F	5	5	07-Jun-24	13-Jun-24
All Areas					
All Areas 1100	Install Glazing	10	10	20-Dec-23	04-Jan-24
All Areas 1130	Install Cable Tray	10	10	11-Jan-24	24-Jan-24
All Areas 1080	Controls/Security Infastructure	15	15	25-Jan-24	14-Feb-24
All Areas 1050	VAV-FPB Install	20	20	05-Feb-24	01-Mar-24
All Areas 1140	Install Ceramic Wall Tile	20	20	06-Feb-24	04-Mar-24
All Areas 1150	Install Ceramic Floor Tile	20	20	13-Feb-24	11-Mar-24
All Areas 1070	Install Plumbing Fixtures	10	10	12-Mar-24	25-Mar-24
All Areas 1120	Window Treatment Install	10	10	13-Mar-24	26-Mar-24
All Areas 1000	HVAC Startup	5	5	27-Mar-24	02-Apr-24
All Areas 1010	Test & Balance	20	20	03-Apr-24	30-Apr-24
All Areas 1020	Install Doors and Hardware	20	20	07-Jun-24	05-Jul-24
All Areas 1110	Install Appliances	5	5	07-Jun-24	13-Jun-24
All Areas 1040	Install Toilet Accessories/Toilet Partitions	7	7	14-Jun-24	24-Jun-24
All Areas 1060	Final Clean All Areas	10	10	14-Jun-24	27-Jun-24
All Areas 1030	Final Inspections	2	2	25-Jun-24	26-Jun-24
Closeout					
B/P-L JPS1000	Generate and Complete Byme Punchlist	15	15	15-Apr-24	03-May-24
B/P-L JPS1030	Owner Commissioning	10	10	01-May-24	14-May-24
B/P-L JPS1020	Owner Training/O&M/Closeout Docs	12	12	06-May-24	21-May-24
B/P-L JPS1050	A/E&O Punch List Generate and Complete	10	10	06-May-24	17-May-24
B/P-L JPS1010	Project Substantial Completion	0	0		26-Jun-24
B/P-L JPS1040	Project Final Completion	20	20	27-Jun-24	25-Jul-24
B/P-L JPS1070	Owner Move In	60	60	27-Jun-24	20-Sep-24
B/P-L JPS1060	Grand Opening	1	1	30-Sep-24	30-Sep-24
Furniture and Equipment Installation					
Own.1020	Furniture Install Area C	10	10	27-Jun-24	11-Jul-24
Own.1030	Furniture Install Area B	10	10	12-Jul-24	25-Jul-24
Own.1040	Furniture Install Area A	10	10	26-Jul-24	08-Aug-24
Own.1050	Furniture Install Area D	10	10	09-Aug-24	22-Aug-24
Own.1080	Furniture Install Areas E&F	20	20	23-Aug-24	20-Sep-24



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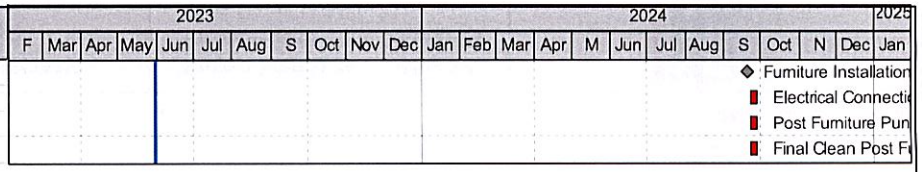
M.L.

JPS MEDICAL HOME SOUTHWEST
100% IFC Documents
As of 31-May-23

Project Start Date: 16-May-22
Project Finish Date: 30-Sep-24
Data Date: 31-May-23

Activity ID	Activity	OD	RD	Start	Finish
Own.1000	Furniture Installation Complete	0	0		20-Sep-24
Own.1010	Electrical Connections to Furniture	5	5	23-Sep-24	27-Sep-24
Own.1060	Post Furniture Punch List Repairs	5	5	23-Sep-24	27-Sep-24
Own.1070	Final Clean Post Furniture Install	5	5	23-Sep-24	27-Sep-24



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ATTACHMENT 6 – ASSUMPTIONS, CLARIFICATIONS, AND QUALIFICATIONS

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

NINE DECADES OF EXCELLENCE
551 E. Berry Street
Fort Worth, Texas 76110
(817) 335-3394
Fax (817) 877-5507

Qualifications & Clarifications

JPS Medical Home Southwest

Work Package Authorization No. 2

Date: June 6, 2023

	General Conditions:
1	A Contractor's Construction Contingency is included in this estimate, and is intended for construction use only.
2	An Owner's Controlled Allowance of 3% is included on the cost summary, and is based upon the cost of work subtotal (value excludes insurances, bonds, general conditions, or fees).
3	A construction fee of 5% is included on the cost summary, and is based upon the total construction cost.
4	Builders Risk Insurance is included, and based upon the total cost.
5	CGL & Umbrella Insurance is included, and based upon the total cost.
6	Payment and Performance bonds for Byrne | Post-L have been included on the cost summary, and are based upon the total cost.
7	A pre-construction services fee is included in this estimate.
8	All costs associated with approvals, easements, assessments, fees, deposits, charges, permits, studies, impact fees, tap fees, services fees, or similar, required by any governing agency to include County, City, State, or Federal entities, in addition to any and all utility entities are specifically excluded.
9	Building permit cost is by Owner.
10	Testing Lab services for materials, mock-ups, or delegated engineering components are to be provided by the Owner, and are excluded.
11	Testing of building components for water or air intrusion is not included and is to be provided by the Owner.
12	Commissioning Agent and Services are to be provided by the Owner.
13	Design Fees for civil engineering, structural engineering, mechanical engineering, electrical engineering, plumbing engineering, landscaping architect, audio/visual design, security & access control design, architectural design services are included in this estimate.
14	Includes trucks, fuel, tolls, and maintenance related to the Byrne | Post-L personnel assigned to this project. Truck / Auto pricing is inclusive of vehicle costs, insurance, fuel and maintenance.
15	All costs for mobile phones is inclusive of mobile data management.
16	All initial and final survey's and plats required by the City are by the Owner; costs for these services and documents are excluded from this estimate.
17	All temporary electrical costs associated with construction are included.
18	All temporary water costs associated with construction are included.
19	This estimate is to be reviewed as a whole; not as individual line items.

	Temporary Construction Cost of Work Items:
1	Sales tax is excluded.
2	This estimate is based upon electronic design document files and models being available to all subcontractors at no additional cost.
3	All furnishings, fixtures, and equipment are excluded from this estimate, unless specifically noted otherwise.
4	All hazardous or contaminated material and soil testing, remediation, investigation, and abatement is excluded.
5	Site is assumed to be free of any contaminates, unencumbered, and ready to begin excavation work.
6	Initial design models shall be provided by the design team to Byrne | Post-L. BIM coordination and clash detection is included for M/E/P during construction.
7	LEED management of onsite waste and documentation of LEED compliances is excluded.
8	All costs associated with temporary fencing and gates are included.
9	Estimate includes pricing for construction progress photo/video documentation provided by Multivista (scope directed by JPS).
10	Estimate excludes pricing for a dance floor scaffolding system intended for wall/ceiling access at the main lobby during construction.

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Date: June 6, 2023

General Comment:	
1	All costs are based upon the information provided in the 100%CD IFC project documents as well as the geotechnical report recommendations.
2	Includes pricing for the proposed mockup as indicated on sheet A1.23.
3	All interior signage (room signs, way-finding signage, and interior logo signage) shall be by Owner (excludes interior code-required signage).
4	Medical equipment is by Owner. Reference the Medical Equipment Matrix for additional information (sheets Q0.01, Q0.02, Q0.03, Q0.04, Q0.05, Q0.06, Q0.07, & Q1.01).
5	A 2-year standard warranty (inclusive of parts & labor) is included for each trade.
Division 3 - Concrete:	
1	Includes structural concrete (drilled straight-shaft concrete piers (100% cased), grade beams, slab-on-void foundation system, and slab-on-metal deck system).
2	Includes site related concrete (site paving, sidewalks, curbs & gutters, concrete retaining wall, and dumpster pad foundation with associated piers).
3	Includes concrete sub-base beneath the proposed site pavers as indicated.
4	Includes carton void forms associated with the slab-on-void foundation system.
5	Includes concrete mechanical pads as indicated.
6	Includes vapor barrier beneath concrete foundation system as indicated.
7	Includes setting of architectural site bollards (provided by Others).
8	Includes concrete paving and curbs associated with the CFA improvements at Granbury Road.
9	Excludes site-related concrete associated with Alternate #1 - Parking Lot Expansion (alternate not approved by Owner).
10	Includes concrete fill at steel pan stairs.
11	Includes concrete transformer pad for the proposed transformer.
12	Includes installation of concrete-filled steel pipe bollards (including concrete fill).
Division 4 - Masonry:	
1	Division 4 masonry systems (brick, stone, cast stone, & CMU) are included as shown.
2	Includes through-wall flashing associated with masonry construction.
3	Includes 8" ground face CMU with grout fill and reinforcing steel for the construction of the proposed dumpster enclosure.
4	Includes masonry systems associated with the proposed mockup as indicated on sheet A1.23.
Division 5 - Metals:	
1	Includes structural steel framing (steel fabrication & steel erection) as indicated in the structural drawings.
2	Includes a shop-finished, perforated, acoustical metal deck at the main entry lobby as indicated.
3	Excludes all Architecturally Exposed Structural Steel (AESS), category 2 services per the Owner's instructions.
4	Includes structural steel framing associated with the rooftop mechanical screen wall (metal infill panels by
5	Includes steel dumpster gates and associated hardware as indicated.
6	Includes steel columns associated with the main entry cantilevered canopy system.
7	Includes 3" composite metal deck beneath the proposed slab-on-metal deck system (located beneath rooftop units) per sheet S2.21.
8	Includes standard 3" metal deck (non-acoustical) with galvanized finish at all other deck conditions.
9	Includes steel pan stairs and associated pipe steel railings as indicated.
10	Includes roof access ladder (8') with galvanized finish.
11	Includes standard concrete-filled steel pipe bollards as indicated.

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Division 6 - Wood, Plastics and Composites:	
1	Rough carpentry includes in-wall blocking for all millwork, toilet accessories, fire extinguisher cabinets, counter support brackets, wall protection systems, and wall-mounted items provided by Owner.
2	Finish carpentry systems are included in this estimate as shown in the drawings. Finish carpentry systems include plastic laminate base cabinets, wall cabinets, full height cabinets, nurse control stations, countertops, etc.
3	Solid surface countertops and associated backsplashes are included in this estimate.
4	Plastic laminate countertops and associated backsplashes are included in this estimate.
5	Epoxy resin countertops and associated backsplashes are excluded from this estimate.
6	Wall-mounted and free-standing storage shelving is excluded (by Owner; none shown in construction documents).
7	Solid surface splash guards are included where indicated.
8	Laboratory & pharmacy related millwork systems (base cabinets, wall cabinets, full height cabinets, countertops, etc.) are included in this estimate.
9	Interior wood wall paneling and/or suspended wood ceiling systems are excluded from this estimate.
10	Includes wall protection sheets WP1&2 at millwork/casework desks only.
11	Includes solid surface chair rail (keynote "CHR1") wall protection.
12	Includes 3Form, Chroma Umbra 1" thick panels for the pharmacy counter dividers (detail 5/A8.42 calls for "*3 Form Chroma Umbra 2" Panel*"; this material is not available in 2" thickness).
13	Includes metal base (keynote "MB-1") at millwork systems.
14	Includes integral trash chutes, grommets, and sinks where indicated.
15	Includes metal CPU louvers where indicated at nurse control stations / desks.
Division 7 - Thermal and Moisture Protection:	
1	Dampproofing and waterproofing is included.
2	Rigid insulation is included at the cavity space of all gypsum board exterior partitions.
3	Site & building sealants are included in this estimate.
4	SBS modified bituminous membrane roofing is included.
5	The rooftop mechanical screen wall with perforated, shop-finished corrugated infill panels is included as shown.
6	Includes aluminum composite metal panels (ACM) at interior and exterior building locations as shown.
7	Excludes waterproofing scope/comments provided by the Owner's waterproofing consultant, CDC (add pricing provided; pending Owner approval).
8	Spray-applied fireproofing systems are excluded from this estimate.
Division 8 - Openings:	
1	Hollow metal frames and aluminum knockdown frames are included as shown.
2	Hollow metal doors are as shown.
3	Solid core wood doors and PLAM doors are included as shown.
4	Door hardware is included in this estimate per the 100%CD IFC project specifications. Per the Owner's instruction, a $25,000 allowance has been included to account for unforeseen door hardware changes to comply with JPS door hardware standards.
5	A motor-operated, overhead coiling security grille is included at the Pharmacy counter.
6	A motor-operated, overhead coiling door is included at the Pharmacy counter and drive-thru window as indicated.
7	Exterior storefront systems and curtain wall systems are included.
8	Aluminum louver fins are excluded at the main entry curtain wall system (replaced by fritted glass).
9	Integral mullion lites are included at the horizontal exterior punched openings as shown on drawings.

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Division 9 - Finishes:	
1	Carpet tile, LVT, rubber tile flooring, and wall base finishes are excluded from this estimate.
2	Floor protection is excluded from this estimate.
3	Includes stainless steel column wraps at radius columns located within building lobby.
4	Interior and exterior paint systems are included. All interior walls are assumed to be painted unless specifically noted otherwise in the design narrative.
5	Drywall partitions are included as shown.
6	Wall tile and floor tile are excluded from this estimate.
7	Ceramic tile backsplashes are excluded from this estimate.
8	Standard ACT and gypsum board ceilings are included as shown.
9	This estimate excludes pricing for suspended acoustical ceiling clouds at the lobby (replaced by light fixtures).
Division 10 - Specialties:	
1	Division 10 toilet accessories and miscellaneous specialties are excluded from this estimate.
2	Wall protection systems (wall protection sheets, corner guards, end wall protectors, and chair rails) are excluded from this estimate.
3	Installation of Owner-provided toilet accessories (paper towel dispensers, toilet paper dispensers, soap dispensers, & hand sanitizers) is excluded from this estimate.
4	Furnish/install of contractor-furnished / contractor-installed toilet accessories (sanitary napkin disposal units, grab bars, mop racks, toilet seat cover dispensers, surface mounted towel pins, baby changing stations, and framed mirrors) are excluded from this estimate.
5	Excludes marker boards and/or tack boards (by Owner).
6	Excludes specimen pass-thru boxes.
7	Cubicle curtains (keynote "CC-1") are excluded from this estimate.
8	Excludes AED cabinets/devices (by Owner).
9	Excludes door protection (keynote "DP1"); excluded from project per Addendum A.
10	HDPE lockers are excluded from this estimate.
11	Exterior signage systems, monument sign, interior code-required signage & building identification signage are excluded from this estimate.
12	Excludes interior signage systems (room signage & wayfinding signage); these signage systems are by Owner.
13	Cantilevered, building-mounted, and/or overhead-braced aluminum canopy systems are excluded from this estimate.
14	An aluminum framed trellis system is excluded from this estimate.
15	A acoustic-rated, motor-operated, operable partition system is included in this estimate and based upon 10' tall ceiling systems.
16	Design services fees for signage systems are by Owner.
17	Flagpoles are excluded from this estimate (none shown in construction documents).
Division 11 - Equipment:	
1	People lifts are excluded (per Owner).
2	Medical equipment is excluded from this estimate (Provided by Covalus).
3	Appliances are excluded (Provided by Covalus).
4	Metal storage shelving shall be by Owner.
5	Laboratory & pharmacy refrigerators are assumed to be (Owner Furnished/Owner-Installed).
6	Laboratory & pharmacy equipment is excluded.
7	Freestanding trash receptacles are excluded from this estimate (Owner-Furnished/Owner-Installed).
8	Stools are excluded from this estimate.
9	Printers, computers, telephones, fax machines, check-in kiosks, free-standing hand sanitizer stations, clocks, & employee time-in/time-out machines, are excluded from this estimate (by Owner).

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JPS Medical Home Southwest

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10	Vending machines are excluded from this estimate.
11	Mobile carts are excluded from this estimate.
12	PPE drying cabinets are excluded from this estimate.
13	Clothes washers/dryers are excluded from this estimate.
Division 12 - Furnishings:	
1	Window Treatments are excluded from this estimate.
2	Cubicles are excluded from this estimate.
3	Furniture is excluded from this estimate.
4	Stools are excluded from this estimate.
5	Outdoor benches, trash receptacles, and bike racks are excluded from this estimate.
Division 13 - Special Construction:	
1	None shown.
Division 14 - Conveying Equipment:	
1	None shown.
Division 21 - Fire Suppression:	
1	A wet-pipe fire suppression system is included in this estimate.
2	A dry-pipe fire suppression system is included in this estimate. The dry-pipe fire suppression system is included beneath all large canopy systems.
3	A pre-action fire suppression system is included at IT Room #256.
4	Specialized fire suppression systems are excluded from this estimate (ANSUL, halon, etc.).
5	Remote FDC is excluded.
6	A fire pump is not required per fire protection designer (excluded).
Division 22 - Plumbing:	
1	This estimate includes pricing for plumbing systems as shown.
2	All underground plumbing systems are included in this estimate. Includes below-slab pipe void system (SmartVoid manufactured by SuperVoid).
3	Estimate excludes upsizing the underground sanitary sewer mains from 4" to 6" diameter piping (option rejected by Owner).
4	This estimate includes gas piping as shown.
Division 23 - Heating, Ventilating and Air Conditioning:	
1	This estimate includes pricing for HVAC systems as shown.
2	Electric reheat included at all scheduled VAV unit per Addendum C (ADD Alternate #3). Alternate #3 approved by Owner on 5/17/2023.
3	RTUs are included in this estimate.
4	VAV systems are included as shown.
5	Estimate excludes duct cleaning services prior to final completion (reference alternate pricing).
Division 25 - Integrated Automation:	
1	This estimate includes building automated controls (basis-of-design: Johnson Controls).
Division 26 - Electrical:	
1	This estimate includes pricing for electrical systems as shown.
2	All underground electrical systems & switchgear are included in this estimate.
3	Includes fire alarm and lightning protection systems.
4	Includes lighting controls as specified.
5	Includes light fixtures as scheduled.
6	Conduit systems for the Division 27 & 28 trades are included in the electrical estimate.

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Division 27 - Communications & Audio Visual:	
1	This estimate includes Division 27 - Audio/Visual Systems. Includes televisions, television mounts, HDMI connections, speakers, software licenses, and audio/video support systems.
2	This estimate includes Division 27 - Communications & Structured Cabling Systems. Includes communications cabling, IT/Data cabling, ladder racks, cable trays, and intercom/paging systems.
Division 28 - Electronic Safety and Security:	
1	Division 28 - Security & Access Control Systems are included in this estimate. Includes card readers, security cameras, cabling, and security systems.
Division 31 - Earthwork:	
1	All earthwork services were included (clear/grub services, grading, excavating, building pad prep, & detention pond grading).
2	Site enabling services are included (SWPPP, erosion control, tree protection, etc.).
3	Includes termite control services.
Division 32 - Exterior Improvements:	
1	This estimate includes design services fees for landscape/irrigation systems.
2	Landscape/irrigation systems (except for irrigation sleeves) are excluded from this estimate.
3	Landscape boulders are excluded from this estimate.
4	Pavement markings, wheel stops, and parking signage are excluded from this estimate.
5	This estimate includes pricing for a decorative metal fencing system with concrete footings supporting each fence post is included in this estimate and based upon the provided site plan. Mow strips are excluded beneath the proposed fencing system.
6	Brick pedestrian unit pavers, vehicular pavers, and porcelain tile pavers are excluded from this estimate.
Division 33 - Utilities:	
1	All site utility systems are included as shown (storm drainage systems, sanitary sewer systems, and domestic water systems).
Other:	
1	Primary power services (provided by Oncor) are included as a budget of $40,000.
2	CFA costs are excluded in this estimate.

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ATTACHMENT 7 – DESIGN-BUILDER'S KEY PERSONNEL

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

JPS Medical Home

Design Build Project Team Personnel

J.R. Evans, AC LEED AP
Principal-in-Charge/
Construction Manager
BYRNE

Jeffrey Postell
Principal-in-Charge
POST L GROUP

Tammy Crooks
Senior Project Manager
BYRNE

Ryan Balliett
Senior Estimator
BYRNE

Bobby Robertson
Assistant Project Manager
POST L GROUP

Harrison Riley
Senior Project Coordinator
BYRNE

Justin Cooper
Superintendent
BYRNE

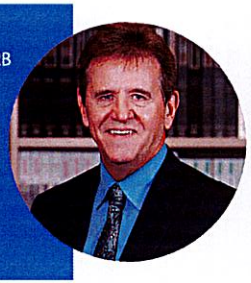
JPS Health Network
Fort Worth, Texas

BYRNE POST L GROUP SBL

JPS Medical Home

Design Build Project Team Personnel

Michael Barnett, AIA, NCARB
Principal-in-Charge /
Project Manager
SBL architecture



Cliff Spruill, AIA
Project Architect
SBL architecture

Kellye Johnson, AIA, NCARB
Planning & Programmer
SBL architecture

Kristina Warren, RID, NCIDQ
Interior Design
SBL architecture

Carlo Taddei, PE, LEED AP
Structural Project Manager
JQ

Ovi Sipos, P.E., LEED AP
Civil Project Manager
JQ

Aleksandar Milenkov,
PE, LEED AP
Principal Mechanical Engineer
KAI

John Vetter, PE
Electrical Engineer Lead
KAI

Anita Beard, ASLA
Landscape Architect
DUNAWAY

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ATTACHMENT 8 – DESIGN-BUILDER-OWNED EQUIPMENT RENTAL RATES

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

DocuSign Envelope ID: E6877C6C-ADE9-4894-BC54-FEDEB753A1FC

Equipment Rental Rates

Bobcat Skidsteer -$1900/monthly

Water Wagon- $1000/monthly

Equipment Dropoff Rate $350

Equipment Pickup Rate $350

*Excludes fuel cost, billed separately

Barricade Rental Rates

Water Barricades $300 each one-time charge

Traffic Pylons $40 each one-time charge

Barricade Dropoff Rate $150

Barricade Pickup Rate $150

DocuSign Envelope ID: E6877C6C-ADE9-4894-BC54-FEDEB753A1FC

ATTACHMENT 9 – QUALITY CONTROL PLAN

(Attached)

EXHIBIT G: WORK PACKAGE AUTHORIZATION TEMPLATE

Quality Control Plan

BYRNE | Post L Group, A Joint Venture

July 2022

JPS Medical Home Southwest

TABLE OF CONTENTS

Section 1 **General**

Section 2 **Project Team**

Section 3 **Preconstruction Phase**

Section 4 **Construction Phase**

Section 5 **Close Out Phase**

Section 6 **Appendices**

Appendix A	**Contract Documents List**
Appendix B	**Expediting Log**
Appendix C	**Testing / Inspection Matrix**
Appendix D	**Closeout Forms**
Appendix E	**Quality Control Forms**

1 GENERAL

2 PROJECT TEAM

3 PRECONSTRUCTION PHASE

4 CONSTRUCTION PHASE

5 CLOSE OUT PHASE

6 APPENDICES

SECTION 1

GENERAL

SECTION 1

GENERAL

I. Introduction

This dedication to quality is at the heart of our business practices and is front and center in our company's Mission Statement.

Byrne | Post L, A Joint Venture Mission Statement

BYRNE | Post L Group, a Joint Venture is committed

To achieve a level of construction excellence that sets BYRNE | Post L apart from the rest.

To provide our clients with the finest quality and instill in them a level of satisfaction that brings them back to us time and time again.

To conduct our business and personal lives with the highest levels of integrity and honesty in everything we do.

II. BYRNE | Post L Policy

BYRNE | Post L (BPL) shall implement the concepts, best practices, and procedures presented in this Quality Control Plan uniformly across the board for every project with the goal to provide our clients with an exceptional level of quality.

Based upon a thorough analysis of each project's construction documents, the BPL project team will adjust this Quality Control Plan to create a plan tailored to meet the requirements of each project's plans and specifications.

The BPL project team will implement the project specific Quality Control Plan to achieve a high level of quality in construction craftsmanship and for all project deliverables furnished to the Owner in accordance with contract requirements and customer expectations.

III. Overview of the Quality Control Plan

A. The purpose of the **Quality Control (QC) Plan** is to provide management guidelines, processes, and procedures to enable each project team to accomplish Byrne's stated mission and policy.

B. The QC Plan is designed to ensure quality in construction by promoting an emphasis and awareness of the quality standards to be met through active participation by all team members.

C. The plan provides definition of the project team's organization, authority levels, roles, and responsibilities that encompass normal day-to-day operations from the perspective of quality control. It stresses that achieving quality is the responsibility of each project team member – BPL personnel, the Owner, design consultants, and subcontractors – in the performance of their daily routine tasks.

D. It encompasses all aspects of the project to include the physical construction elements, construction management processes, and all project deliverables that are furnished to the Owner throughout the course of the project.

E. BPL quality control procedures are incorporated into all phases of the construction process. A summary of these procedures is presented here and are presented in detail in subsequent sections of the Quality Control Plan.

1. **Preconstruction Phase -** During preconstruction, processes affecting quality are initiated by the project team, to include:

   - Establish the Contract Documents List
   - Conduct constructability reviews as plans and specifications are issued
   - Establish comprehensive subcontractor bid package scopes of work and conduct buyout review sessions
   - Prepare the Construction Schedule
   - Set up the Expediting Log
   - Set up the Testing / Inspection Matrix
   - Conduct preconstruction meeting with the Owner and design consultants

2. **Construction Phase** – As the project moves from the preconstruction phase to construction, QC processes started in preconstruction are continued and implemented in the field with subcontractors and suppliers of major equipment and materials:

   - Document control management
   - Maintain and update the Construction Schedule
   - Expediting of materials & equipment
   - Submittal review
   - Material/equipment receiving and storage

- Testing and inspections
- Commissioning

3. **Close Out Phase**

- Preparation of O&M Manual
- Conduct training of Owner personnel
- Preparation of the Warranty Binder
- Turnover of misc. contract deliverables
- Submittal of record documents
- Completion of subcontractor evaluations

SECTION 2

PROJECT TEAM

SECTION 2

PROJECT TEAM

I. BPL PROJECT ORGANIZATION

The BPL project team consists of the Construction Manager, Project Manager, Superintendent, Assistant Superintendent and the Project Coordinator. The overall team also includes subcontractors' project managers, superintendents, and foremen who provide quality control management for their specific scopes of work in the field as well as the Owner and design consultants.

A. The Construction Manager (CM) reports to the Division President and has the overall responsibility for the implementation of the Quality Control Plan for assigned projects. The CM will coordinate with and provide oversight for the project staff in the planning, management and execution of the QC Plan for all phases of the project. The CM will be responsible to guide, mentor, and train the project staff with respect to Quality Control processes and will ensure that clear lines of communication are established and maintained among members of the entire project team.

B. The Project Manager (PM) reports to Construction Manager and has the authority and responsibility for managing, planning, directing, controlling, and coordinating the project staff, subcontractors, and other support personnel in attaining the project goals. The PM is responsible to ensure that the project is delivered on time, in budget, and with the highest standards of quality defined by the contract documents. From the perspective of quality control, the PM has the responsibility to manage the execution of the project Quality Control Plan in accordance with the requirements of the project contract documents and to mentor and train the OE/PE in the performance of his or her job duties. The PM is accountable for developing and maintaining clear lines of communication with the Owner, design consultants, subcontractors, and suppliers, which is vital to the overall success of the project.

C. The Superintendent reports to the PM and has the authority and responsibility for managing, planning, directing, controlling, and coordination of all field operations. The Superintendent will be the single point of contact through which the project staff coordinates its efforts in providing management, direction, or otherwise interfacing with subcontractors in the field. The Superintendent's primary management responsibilities include enforcement of Byrne's safety program, management of the construction schedule and subcontractors' sequence of work, managing field logistics, and enforcing compliance with the project quality control requirements of work performed in the field. The Superintendent is also

responsible for mentoring, training, and coordinating with the P in the performance of his or her job duties.

D. The Assistant PM and Project Coordinator are assigned the primary responsibility of managing subcontractors and suppliers in the expediting of material and equipment to the project to ensure timely delivery per schedule. This responsibility includes the detailed review of submittals to ensure that material and equipment delivered to the project are in conformance with construction documents. This process includes the identification and resolution of constructability issues prior to fabrication. Additionally, the PC is responsible for conducting field inspections using approved submittals to ensure that the quality of work conforms with contract drawings and specifications and subcontract scopes of work.

II. QC RESPONSIBILITIES AND DUTIES

A. Construction Manager

Duties & Responsibilities:

- Overall responsibility for the implementation of the Quality Control Program on all projects that fall under his/her responsibility.
- Review and approve the project specific Quality Control Plan prepared by the PM, Superintendent, and PC.
- Periodically review documentation with the project staff for QC compliance.
- Manage/lead project constructability review studies of contract documents as they are developed during preconstruction.
- Assist the estimating staff in creating complete subcontract scopes of work. Attend estimating buyout meetings with Subcontractors. Develop a clear understanding of contract scopes of work and quality control requirements that are incorporated in subcontracts and major purchase orders.
- Develop the master project schedule to include detailed preconstruction activities and condensed construction & close out phase activities.
- Oversight and mentoring of the project staff concerning –
  - Establishing and maintaining clear lines of communication between Byrne's staff, the Owner, design consultants, subcontractors, and major suppliers.
  - Material expediting to ensure deliveries are timely in coordination with the project schedule.
  - Exercise of project controls to ensure the construction schedule is maintained. Assist when needed to resolve issues that might adversely affect schedule and the resulting quality of work achieved in the field.
  - Timely issuance of updated contract documents to subcontractors and suppliers.

- Conduct of routine record document updates by the project staff.
- Maintaining quality of installed work in conformance with contract plans and specifications. Conduct a monthly review of quality of work performed and the project's compliance with the QC Plan.
- Ensure that the "Three Phase Inspection" process is being routinelyfollowed by the project staff.
- Provide oversight in the commissioning process managed by the PM.
- Completion and documentation of all quality control activities – testing, inspections, mockups, startup, commissioning, and code enforcement inspections.
- Timely completion of punch list issues.
- Review and follow up of inspection deficiencies and non-conformances to ensure corrections are made prior to covering up work.
- Timely completion and submission of quality close-out deliverables to the Owner. "Finish Strong".

Authority:

- Direction of the project staff to ensure contract compliance with respectto quality control.
- Order correction of defective work.
- Report to Byrne senior management regarding important quality related issues.

B. Project Manager

Duties and Responsibilities

- Overall responsibility for the success of the project and management of the project team.
- Preparation of the project specific Quality Control Plan.
- Assume responsibility for managing the Contract Documents List from the Estimating Department prior to start of construction and oversee thetimely update of this log regularly during construction by the PC.
- Jointly work with the Superintendent in preparing the baseline project construction schedule. Develop the basic logical sequence of work, breakdown of detailed activities, monitor schedule progress, and make schedule adjustments as necessary to maintain overall project completion dates. Manage the project schedule to help enhance durations and/or mitigate impacts to the project schedule which affects the quality of work attained in the field.
- Conduct a thorough review of contract documents to develop a clear understanding of contract quality control requirements. Review detailsto

identify issues regarding constructability, interface of subcontractors' scopes of work, and construction tolerances affecting the interface of adjoining features of work.

- If available during preconstruction, attend the Estimating Department's buyout meetings with subcontractors to develop a clear understanding of contract scopes of work and quality control requirements.
- Oversee and mentor the PC in the management of the material and equipment expediting process. Ensure a thorough Expediting Log is developed to assess fabrication & delivery lead-times and establish procurement priorities to make certain deliveries are made on time per the project schedule.
  Regularly review the expediting log with the Superintendent and OE/PE to ensure log delivery dates are in line with current schedule updates.
- Oversee and mentor the PC in the submittal review process to ensure detailed reviews are being performed based upon a thorough understanding of contract specifications & detail requirements.
- During preconstruction, monitor the development of the Testing / Inspection Matrix based upon the quality assurance / quality control requirements ofthe contract documents.
- Coordinate with municipalities and utility providers concerning expediting ofsite utility Three-Way contracts requirements & tie-in of private utility work.
- Manage project constructability reviews during the construction phase as design revisions are issued.
- Obtain city permit review comments and TDLR TAS accessibility review comments and monitor required revisions to the contract documents to ensure any noted issues are corrected.
- Oversee the PC in the management of the RFI process.
- Ensure timely issuance of updated contract documents to subcontractors and suppliers. Review and establish plan distribution procedures. Manage the OE/PE in the maintenance of contract documents and ensure all informationis being posted in a timely manner.
- Manage contract changes to ensure timely submittal, review, approval, and issuance of change orders in order to prevent adverse impacts to the schedule and subsequent detrimental effect on the quality of work.
- Assist the Superintendent and PC in ensuring subcontractors are using current plans and specifications and that they are aware of approvedchanges and RFI responses.
- Monitor the project team's routine implementation of the "Three Phase Inspection" process during construction.
- Conduct periodic review of work in progress to ascertain that the level of quality is in conformance with contract plans, specifications, and Byrne standards and that completed work is protected from damage from adjacent construction.

- Confirm that results of code enforcement inspections, third party test procedures, and design consultant inspections are documented in a timely fashion with subcontractors and are archived with project records.
- Monitor the completion and proper documentation of all contract required quality control activities to include testing, inspections, mockups, equipment startup activities, commissioning, and code enforcement inspections.
- Ensure Non-Conforming Work Notices are issued to subcontractors when major deficiencies are identified. Monitor corrective work to prevent the incorporation of latent defects into the work.
- Keep track of the punch list inspection process and provide support to the Superintendent where needed to ensure subcontractors proactively correct issues in a timely manner.
- Manage the commissioning process to include monitoring progress of equipment installation and startup, integration of equipment into systems, systems startup, and final testing. Ensure that the test and balance work has been performed on required equipment and all identified commissioning and TAB deficiencies have been corrected. Ensure startup reports and other commissioning related reports are documented, submitted as specified, or otherwise archived for record purposes.
- Oversee all project close-out functions and timely submittal of deliverables to include O&M manuals, training, warranty manual, attic stock, spare parts, and misc. maintenance equipment.
- Conduct the 11-month walk-thru with the Owner to document the closing of the warranty period and to identify any unresolved warranty callback issues that require action by subcontractors or suppliers.

Authority

- Decision making authority concerning issues related to quality control.
- Direct contract compliance by all trades.
- Stop / reject noncompliant work.
- Order correction of defective work.

C. Superintendent

Duties and Responsibilities

The Superintendent is responsible for planning, managing, directing, controlling and coordinating all field operations. The project staff shall coordinate through the Superintendent when providing direction or interfacing with subcontractors' field operations. Responsibilities are:

- Maintain quality workmanship as a standard among field crews and subcontractors.
- Conduct a thorough review of contract documents to develop a clear understanding of contract quality control requirements. Review details to identify issues regarding constructability, interface of subcontractors' scopes of work, and construction tolerances to integrate adjoining features of work.
- Review subcontract and purchase contract documents to develop a clear understanding of scopes of work and quality control requirements. If available, attend estimating buyout meetings with Subcontractors and assist the project team with creating complete subcontract scopes of work.
- Jointly work with the PM in preparing the baseline project construction schedule. Develop the basic logical sequence of work, breakdown of detailed activities, monitor schedule progress, and make schedule adjustments as necessary to maintain overall schedule completion dates.
- Manage the project schedule to improve activity durations and/or mitigate adverse impacts to the schedule and the subsequent detrimental effects on quality.
- At the start of construction, develop a comprehensive Testing / Inspection Matrix with assistance of the PC based upon the quality control requirements contained in the contract documents.
- Review the initial Expediting Log prepared by the PC to assess long lead-time items and establish procurement priorities to ensure deliveries are made in accordance with the project schedule. Ensure that the scheduled delivery dates recorded in the log align with the construction schedule early start dates.
- Meet weekly with the PC to review and update the Expediting Log projected and confirmed delivery dates in comparison to the construction schedule requirements.
- Establish / document benchmarks and stake property and building corners with a licensed surveying company. All Byrne projects are to have a third-party certification of the building property lines and building corners as part of the project budget.
- Maintain line and grade control with initial layout from third party surveyor.
- Compare the existing grade elevations shown on plans with the actual site grades to ensure no discrepancies exist.
- From the construction details, identify critical construction tolerances and coordinate with subcontractors in maintaining these tolerances as work progresses especially where abutting scopes of work occur.
- Ensure that Subcontractors are using current plans and specifications as listed in the Contract Documents List and that they are aware of approved changes and RFI responses.

- Manage the Three Phase Inspection Process and the routine inspection of all work to ensure subcontractor's level of quality is consistent with plans and specifications. Document deficiencies in writing with subcontractors and reinspect to ensure corrective work is completed.
- Supervise subcontractors in the timely completion and documentation of all contract mandated quality control activities to include testing, inspections, mockups, startup, commissioning, and code enforcement inspections.
- Routinely update the Project Record Set of documents with information from field changes to be included in the Project Record Documents submitted during close out.
- Proactively review construction details for possible constructability issues, inconsistent or missing details, etc.) Take steps to manage the timely resolution of such issues with the PM and PC through the RFI and change management process.
- Ensure that completed features of work are properly protected by the responsible subcontractor and by subcontractors performing adjacent work.
- When materials arrive on site, conduct material receipt inspections with assistance by the PC and routinely inspect stored materials to confirm proper storage conditions are maintained.
- Oversee all mockups being constructed onsite for compliance with the contract documents and quality of craftsmanship.
- Issue Non-Conforming Work Notices when subcontractor deficiencies are identified. Track deficiency resolution and reinspect to make certain correction work is completed prior to covering up work.
- Manage the scheduling and conduct of code enforcement inspections with subcontractors. Attend code inspections with subcontractors.
- Ensure that results of code enforcement inspections, third party test procedures, and design consultant inspections are documented in a timely fashion with subcontractors prior to covering up any work.
- Confirm test and balance work for all mechanical systems is performed and identified TAB deficiencies are corrected.
- Coordinate subcontractors in the commissioning process to include sequencing of equipment installation and startup, integration of equipment into systems, systems startup, life-safety system integration with MEP equipment, testing and final code inspections.
- Conduct Byrne's pre-punch list inspection with the assistance of the PC, issue deficiency lists to subcontractors, and manage the correction of deficiencies prior to scheduling the formal punch list inspection.
- Schedule punch list review by the design consultants. Provide management and supervision of subcontractors in correcting deficiencies in a timely manner.

Authority

- Coordinate and supervise all work performed in the field in accordance with contract documents and the project schedule.
- Direct contract compliance by all trades with respect to quality control for all features of work.
- Stop / reject non-compliant work.
- Direct correction of non-compliant/defective work.
- Direct safe performance of the work.

D. Project Coordinator (PC)

Duties and Responsibilities

- The PC's primary responsibility is the expediting of all material and equipment to ensure timely delivery to the jobsite per schedule and in conformance with the contract documents and specified quality standards. This responsibility includes:

  - Conduct a thorough review of contract documents to develop a clear understanding of contract documents and related quality control requirements.
  - Review subcontract and purchase contracts to develop clear understanding of scopes of work and quality control requirements.
  - Prepare and routinely update the expediting log coordinated with the schedule, product fabrication lead times, and submittal review and approval dates.
  - Communicate expediting schedule requirements with subcontractors and suppliers.
  - Manage subcontractors and suppliers to ensure submittals dates are on schedule.
  - Track fabrication and delivery of material and equipment to the jobsite.
  - Perform careful and detailed review of submittals to ensure that material and equipment delivered to the project are in conformance with the project drawings and specifications, to identify and resolve constructability issues prior to fabrication, and to ensure completeness and proper interface of subcontract / purchase contract scopes of work.
  - Upon delivery, assist the Superintendent in performing Material Receipt Inspections to confirm all materials and equipment are in accordance with approved submittals and are properly stored.
  - Ensure that subcontractors follow contract requirements regarding product substitutions and that substitutions are submitted within contract mandated timeframe.

- Review Owner changes and RFI clarifications and ensure that approved submittals incorporate changes that are issued during the construction phase of the project. This responsibility requires that the OE/PE keep up with the administrative approval or advance release of changes by the Project Manager and review previously approved submittals to determine if shop drawings or product data require revision and resubmittal for approval.
- Post updated submittals and final "Field Use" shop drawings in the field project files and on the O: Drive to be used as the basis for field inspections performed by the project staff.
- Distribute approved submittals to the project team to include subcontractors, suppliers, Owner commissioning agent, and separate contractors.

- Regularly update and transmit the Contract Documents List to subcontractors. Transmit revised contract documents to subcontractors as required. Assist the Superintendent in ensuring Byrne and Subcontractors are working with current plans and specifications.
- Establish and maintain the Project Record Set of plans and specifications. Update this set with document changes and RFI responses throughout the construction phase.
- Conduct submittal coordination meetings with subcontractors to coordinate the preparation of shop drawings and the resulting interface of work in the field.
- Assist the Superintendent in managing, inspecting, and obtaining approval of project mock-ups.
- Process substitution requests in a timely manner. While reviewing submittals, be alert to identify products that are not specified and have the subcontractor resubmit with the required substitution request form.
- Manage the RFI process to include RFI preparation, logging, communication, expediting of responses, and recording responses in the Project Record Set of documents.
- Be proactively alert for possible deficiencies (design errors, missing details, etc.) with the aid of other project team members and Subcontractors and take steps to expedite timely resolution through the RFI and change management process. Coordinate with the PM and Superintendent on developing viable solutions for review by the design team.
- As directed by the PM, conduct offsite QC inspections of materials and building assemblies under fabrication.
- Jointly work with the Superintendent to develop a comprehensive Testing/ Inspection Matrix based upon the quality control requirements of the contract documents. (Many of the items listed on the Matrix will have

corresponding reports that must be submitted and consequently should be listed in the Expediting Log prepared by the PC.)

- Assist the Superintendent with managing subcontractors in their performance of specified testing and inspections and provide notification to the Owner and design consultants of all scheduled QC activities to be performed in the field.
- Assist the Superintendent in performing inspections of work being performed in the field to ensure quality compliance in accordance with the contract documents, approved shop drawings, and approved submittal product data.
- Under the direction of the PM, participate in the Commissioning of building equipment and systems.
- Obtain test reports, field inspection records, commissioning records, and other quality control documents and ensure documents are distributed to the project team and saved in the project files.
- Assist the PM in preparing, maintaining, and updating building systems pre-functional and start-up commissioning documentation.
- Under the direction of the Superintendent, participate in punch list inspections with subcontractors and the design consultants. Prepare, distribute, and file inspection documents.
- Assist the PM in the change order process to include receipt and distribution of changes to the project staff, subcontractors, and suppliers, associated logging of changes, pricing review, proposal preparation, subcontractor change order preparation, and incorporation of changes into the project files and Project Record Set.
- Prepare the final Project Record Documents and transmit them to the Architect.
- Manage subcontractors in submitting close out documentation to include O&M manuals, training, warranty manuals, turnover of attic stock and misc. deliverables, and submittal of project record documents. Assemble these documents in their final form. Transmit all deliverables to the Architect and Owner.

E. Subcontractors

Subcontractors' have the same quality control duties and responsibilities to Byrne with regards to their respective scopes of work, as Byrne does to the Owner within the prime contract. It is the responsibility of subcontractor supervisory personnel to proactively manage and enforce their QC Plans in coordination with Byrne's QC Plan.

It will be written into all subcontractors' scope of work to provide direct quality control supervision in the performance of their work and 2ND tier subcontractors' work. Prior to the preconstruction meeting, the PM will request that major subcontractors submit a written quality control plan that outlines their procedures to proactively manage all aspects of their work to ensure a level of quality that meets or exceeds the project's specified requirements. Expectations of the level of detail presented in the plan should be commensurate with the subcontractors' scope of work. This plan will be presented and discussed during the Pre-Installation Review meeting along with Byrne's QC plan and expectations.

SECTION 3

PRECONSTRUCTION PHASE

SECTION 3

PRECONSTRUCTION PHASE

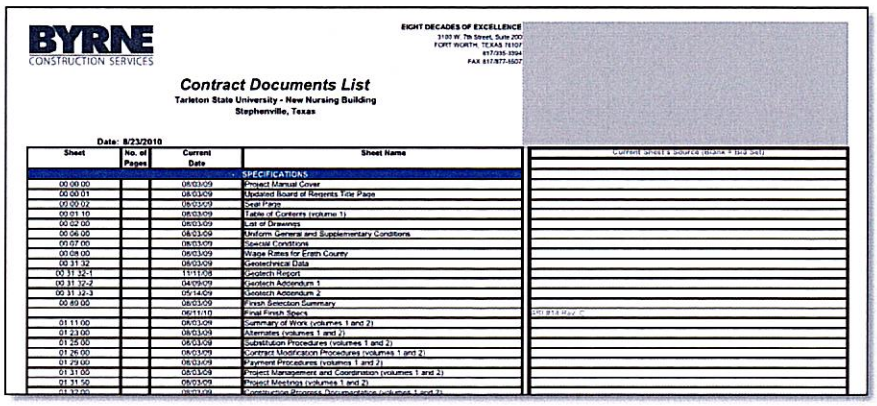
I. INTRODUCTION

The foundation of the Quality Control Plan is established during the preconstruction phase during which time a thorough understanding can be developed of the contract documents and related quality control requirements. For purposes of this QC Plan, the Preconstruction Phase is considered the time period from the initial acquisition of project documents to the point of mobilization onto the site to begin construction.

The lead estimator, estimating staff, Construction Manager, and the appropriate level of field staff are engaged during preconstruction in conducting a thorough review of construction documents, estimating, and project planning in preparation for the start of construction. For the Byrne operations staff, preconstruction work includes familiarization with details and specifications, setting up document controls, conducting constructability reviews, reviewing scopes of work defined in bid documents and subcontracts, and assisting in buyout meetings. It also includes development of a detailed construction schedule, preparing the Expediting and Submittal Logs, assembling the Testing / Inspection Matrix, and conducting the project preconstruction meeting with the Owner and design consultants.

II. Document Control

An important starting point for the building process is to ensure that Byrne's project staff and subcontractors have access to the most current construction documents. During the preconstruction phase, Byrne's Estimating Department is responsible for tracking, logging, distributing, and electronically filing all project documents. The Contract Documents List will be initiated by estimating during preconstruction, a copy of which will be electronically filed on the S:Drive. The creation of this log is the starting point of all project document tracking. The estimating team will continue to log and download documents as they are issued during preconstruction.



BYRNE
CONSTRUCTION SERVICES

EIGHT DECADES OF EXCELLENCE
3100 W. 7th Street, Suite 200
FORT WORTH, TEXAS 76107
817-335-3504
FAX 817-877-5507

Contract Documents List
Tarleton State University - New Nursing Building
Stephenville, Texas

Date: 8/23/2010

Sheet	No. of Pages	Current Date	Sheet Name	Current Sheet's Source (Blank = 1st Set)
			SPECIFICATIONS	
00 00 00		06/03/09	Project Manual Cover	
00 00 01		08/03/09	Updated Board of Regents Title Page	
00 00 02		06/03/09	Seal Page	
00 01 10		06/03/09	Table of Contents (volume 1)	
00 02 00		06/03/09	List of Drawings	
00 06 00		06/03/09	Uniform General and Supplementary Conditions	
00 07 00		06/03/09	Special Conditions	
00 08 00		06/03/09	Wage Rates for Erath County	
00 31 32		06/03/09	Geotechnical Data	
00 31 32-1		11/11/08	Geotech Report	
00 31 32-2		04/09/09	Geotech Addendum 1	
00 31 32-3		05/14/09	Geotech Addendum 2	
00 89 00		06/03/09	Finish Selection Summary	
		06/11/10	Final Finish Specs	[illegible]
01 11 00		06/03/09	Summary of Work (volumes 1 and 2)	
01 23 00		06/03/09	Alternates (volumes 1 and 2)	
01 25 00		06/03/09	Substitution Procedures (volumes 1 and 2)	
01 26 00		06/03/09	Contract Modification Procedures (volumes 1 and 2)	
01 29 00		06/03/09	Payment Procedures (volumes 1 and 2)	
01 31 00		06/03/09	Project Management and Coordination (volumes 1 and 2)	
01 31 50		06/03/09	Project Meetings (volumes 1 and 2)	
01 32 00		06/03/09	Construction Progress Documentation (volumes 1 and 2)	

All documents will be filed on the S:Drive for use by the Estimating Department only. Copies will be made available on the O:Drive for use by the field operations staff for preconstruction planning purposes.

When the design team distributes the "Issued for Construction" set of documents, the Estimating Department will update the Contract Documents List. At the project turnover meeting with estimating, the operations staff will obtain an updated Contract Documents List from estimating and will begin tracking documents for field project control purposes. Further discussion of project document controls is presented in the Construction Phase section.

III. Constructability Review

For projects in which Byrne is contracted to provide preconstruction services, we have adopted a policy to perform a constructability analysis to assist the Owner and the design team to produce the most effective and complete set of documents for construction. This review will enable the Owner to maximize their budget and produce a quality set of documents enabling a timely completion of the project.

A. Goals of Constructability Review

1. Correct any items that negatively impact the construction process.
2. Prepare / organize the bid documents for the most effective bid.
3. Identify and recommend corrections to the design team concerning any errors, omissions or discrepancies in the documents.
4. Identify and suggest more efficient or effective construction techniques to maximize project performance.
5. Improve the project's cost effectiveness by implementing constructability concepts.
6. Suggest value engineering and cost saving ideas for incorporation into the documents.

B. As the design evolves during preconstruction, estimating and field operations staff are jointly reviewing documents for estimating, bid, and scheduling purposes. Of equal importance, the documents are reviewed with a critical eye to spot inconsistencies, omissions, and coordination issues that may require resolution by the design team. Byrne's constructability checklist will be used during the review to check on drawing details and specifications to identify and resolve issues that can impact the construction process and quality of work.

Constructability Checklist					
Items by CSI Division	**PRGM**	**SD**	**DD**	**CD**	**Comments**
Division 00 - Procurement & Contracting					
Site Location	X				
Contracting Method CM@Risk etc.	X				
Division 01 - General Requirements					
Temporary Facilities		X	X		
Site Logistics		X	X		
Haul Routes		X	X		
Heavy Lifting Plan		X	X		
Lifting Equipment Selection			X	X	
Can Badging be avoided with Fencing and Securing Construction		X			
Division 02 - Existing Conditions					
Demo Debris Haul off		X	X		
Demo Sequence		X	X		
Division 03 - Concrete					
Major Construction Components ie Concrete vs. Steel	X	X			
Piers vs. Spread Footings		X			
Check Section, Elev. & Detail References			X	X	
Crane Support Foundation			X	X	
Concrete Forming Systems		X			
Fly-Ash as a Cement Substitute		X			
Consider Rebar Fab Area, i.e. Pier Cages		X	X		

C. The staff assigned to the project are responsible to review the construction documents to cross reference details for constructability problems based upon field experience and lessons learned.

D. As issues are identified, the estimating team will notify the Architect requesting clarification. The lead estimator will track resolution of issues in a Constructability Review Open Item Log. Byrne will review this log with the Architect during preconstruction design coordination meetings to ensure all issues are evaluated and resolved by the time final construction documents are issued.

Example – Constructability Review Open Item Log

Project Name
Constructability Review
Open Item Log

50% CD Review

Print Date: 4/14/2017

Sheet / Spec	Detail	Open Item Description	Date of Comment	Responsibility	Date Resolved	Manner of Resolution	Comments
Ex: A701	Detail 5	EXAMPLE: Need enlarged detail to indicate flashing	MM/DD/YY	Arch	MM/DD/YY	Ex: Issued in Addendum 1	Ex: Be sure to note in revised Bid Package
EX: 265100	Section 2.3	EXAMPLE: Open spec to allow for competition of mfrs.	MM/DD/YY	A/E	MM/DD/YY	Ex: Added 2 additional manufacturers in 50%CD Specs	Ex: Be sure to note in revised Bid Package

E. The design details and specifications will be reviewed from a risk management perspective to identify major features of work where quality assurance and quality control practices will need to be emphasized to ensure latent defects are

prevented as work progresses during construction. Typically, areas of interest are:

1. Waterproofing of below-grade structures
2. Flashing details surrounding windows and curtainwall systems
3. Waterproofing and flashing details where dissimilar envelope systems interface (Parapets, soffits, interface of different finishes)
4. Interrelation of building mechanical system controls and life safety systems
5. Tie-in of elevators and life safety systems
6. Interface of civil, hardscape, and building elevations and details

F. These critical details can be emphasized in scopes of work defined in bid packages and ultimately in subcontract and major purchase orders. These critical areas will be re-emphasized during the construction phase at subcontractor pre-installation review meetings, initial work review, work progress inspections, weekly subcontractor coordination meetings, and during submittal reviews.

G. Consideration will be given to include costs in project budgets for peer review of envelope waterproofing details by a third party technical consultant. Ideally, this review should start during preconstruction to provide technical evaluation and input to the Architect as details are developed to preclude any gaps in the envelope "water line". This review can be continued during the construction phase to include the evaluation of product data, shop drawings, and mockups, and during initial work review inspections and periodic inspections as work progresses.

H. Permit Review Comments - The Project Manager should seek to obtain a copy of the permit review comments that are provided by the City to the Architect and review noted issues. This will alert the project staff to necessary corrections to the contract documents in subsequent document revisions. In the event Byrne is submitting the permit set for review, it is imperative that Byrne transmit all code review comments in writing to the Architect and Owner. A copy of the transmittal and permit review comments will be filed in the project files.

I. Texas Accessibility Standards (TAS) Document Review –

1. In accordance with Texas Code Chapter 469, an Owner may not allow an application for permit to be filed with a municipality without having the Architect register the project with the Texas Dept. of Licensing and Regulation (TDLR) and without having submitted plans and specifications for review by a Registered Accessibility Specialist (RAS).

2. The RAS is required to identify issues in a follow up report submitted to the Architect, the city's plan reviewer, and TDLR, which will require correction in subsequent contract document revisions.

3. As part of a constructability review process, the CM should request a copy of the review comments to become aware of any identified issues. The issues can be logged in the Constructability Issues Log and tracked to ensure that they are addressed in revisions to the contract documents.

IV. Establish Comprehensive Bid Package Scopes of Work

A. The Estimating Department creates bid packages that are further reviewed by field operations staff to ensure scopes of work are complete and coordinated with other subcontractors' scopes of work to eliminate gaps and overlaps.

B. The project team should review the list of subcontractors on the project bid list to ensure that those companies listed have the experience and capability to perform the defined scope of work. Subcontractor evaluations prepared on completed Byrne projects should be reviewed to provide insight to inherent strengths and weaknesses in subcontractors' abilities to perform the current scope of work under consideration.

C. Subcontractors' scope of work will require that they assign competent supervision to proactively manage quality control processes in the performance of their work and of work performed by 2ND tier subcontractors. Major subcontractors will be required to submit an outline of their quality control procedures that provides evidence that they have a coherent plan to achieve a level of quality which meets or exceeds the project's specified requirements.

D. Buyout Meetings – The estimating department will conduct pre-award buyout meetings with subcontractors with the goal to procure and document the complete scope of work to be included in each subcontract. This meeting also entails the review of Byrne's quality control program and obtaining from the subcontractor their commitment to quality control. The CM, PM, Superintendent (if available) will attend and provide input. The four primary objectives of this meeting are to:

1. Procure and document the complete scope of work to be included in the subcontract.
2. Evaluate the Subcontractor's ability and commitment to completing the scope in accordance with the contract documents and project schedule.
3. Communicate Byrne's Quality Control Plan to the subcontractor and obtain a commitment to following it.
4. Review major project requirements:
   - Thorough Submittal Processing - Allowing adequate time for a thorough review by Byrne and the design consultants

- Review of contemplated product substitutions and substitution approval requirements
- Identification of material fabrication lead times
- Review project, and review specifications and drawings
- Review estimate expectations / standards
- Review of company chain of command and field management
- Clarify if portions of work are subcontracted out
- Review schedule activities related to subcontractor's work, including crew size and production to confirm their ability to meet construction milestones and quality requirements
- Subcontractor's responsibilities for conducting required testing and commissioning requirements
- Review of Byrne's Three-Phase Inspection process
- Preparation of mock-ups and conducting of special testing
- Review of the commissioning process with the MEP subcontractors.

V. Prepare Construction Schedule –

A. One facet of the construction process that can have a profound effect on the level of quality is the construction schedule and the related universal element of time. The schedule is the primary tool that is used by the PM and Superintendent for planning and communicating with all project team members. Preparation of a thoughtful and detailed schedule that incorporates the activities, task durations, and logic reflective of the work shown in the contract documents is the essential framework around which the project is organized and from which a level of quality can be produced.

B. Careful consideration should be given when producing the construction schedule to:

1. Establish a basic schedule to incorporate all definable features of work as a start.

2. Review critical elements of work such as the structure, envelope and waterproofing details, and major MEP systems to ensure that there is adequate breakdown of activities.

3. When estimating time durations, consider the difficulty of the task and required level of quality workmanship that is reflected in the details and specifications.

4. Be mindful of the ease of access and level of safety that is required for the building trades to install their work when estimating time durations.

5. Incorporate adequate time to allow for specified testing and inspections prior to continuing subsequent work activities such as wall and ceiling cover up.

6. Identify the processing of major submittal packages in the schedule and allow adequate time for review, final submittal revisions, fabrication, and delivery of materials and equipment to the project.

7. Ensure the schedule accounts for commissioning activities to include startup, testing of equipment, test and balance activities, inspections by the design consultants, formal commissioning if required, and city final inspections.

8. Ensure the schedule includes activities and time required for the proper integration of systems that support building life safety functions.

9. Include activities that address Owner building turnover requirements that may require separate TCO's, work by Owner's separate contractors, and installation of Owner furnished equipment.

10. Include time for final inspections by the city code department, health department, and Fire Marshal.

C. As part of the overall master project schedule, all major pre-bid milestones and activities are listed to include issuance of major design development packages and the submittal of related budget updates to the Owner. During preconstruction, the master schedule will be used to track progress to include the design team's issuance of documents, submittal of budget updates to the Owner, and Owner's review and feedback on design and budgetary matters.

D. See further discussion of scheduling in Section 4 Construction Phase.

VI. Set up the Expediting Log

The primary purpose of this log is to serve as a central management tool for the PC that is used to ensure deliveries are made to the project in a timely manner in accordance with the project construction schedule and the submittal review process. As the PC conducts a thorough review of contract specifications and drawings, he/she will enter in all required material, equipment, and contract deliverables into the Expediting Log. This tracking log is prepared to provide a detailed list of all specified shop drawings, product data, technical reports, startup and test reports, warranties, attic stock, turnover of misc. product equipment and keys, training, and record documents. The scheduled delivery dates listed in the log are directly tied to construction start dates listed in the schedule. The Superintendent and PC will develop a priority list of early submittals that need to be processed to ensure material and equipment delivery dates do not delay work progress in the field. See detailed discussions of expediting and submittal procedures in Section 4 Construction Phase and in Byrne's related procedures.

VII. Set up the Testing and Inspection Matrix

As part of developing a project specific QC Plan during preconstruction, this log is

established by the PC and Superintendent to provide a detailed list of all specified quality control measures to be performed during the project. The Matrix is organized by specification section and lists the detailed quality control measures to be followed, the frequency of testing, and the reporting requirements. The specified details of the QC activities can be easily cut and pasted from the specifications to provide an easy to read and condensed reference to follow during construction. Refer to Section 4 Construction Phase for further details.

Example – Testing / Inspection Matrix

TESTING / INSPECTION MATRIX
SAMPLE PROJECT
Project No. XXXXXXX Permit XXX

BYRNE

Report Date: 1/9/2017

SPEC SECTION	PARA	REQUIREMENTS	TYPE	RESPONSIBILITY	FREQUENCY/LOCATION	STATUS	SCHEDULE ES Date
03 1511		**EMBEDDED METAL ASSEMBLIES AND INSERTS**		MDI			
03 1511	1.4	**Embedded Metal Assemblies and Inserts** Qualifications 1. Fabricator: minimum of 3 years experience in related or similar work. 2. Welders: certified for type of welding required within previous 6 months	**Submittal**	MDI	As work progresses		
03 1511	3.2	**Embedded Metal Assemblies and Inserts** Laboratory Testing: provide independent testing laboratory services as follows 1. Inspect steel fabrications for sizes, spacings and general quality of fabrication. 2. Inspect welding of steel fabrications for size, length and quality. 3. Inspect positioning of assemblies and inserts in the forms. 4. Visually inspect welds at anchors and shear stud connectors. Test studs which do not appear to have full sound 360 degree fillet weld at base. Test by bending 15 degrees. Replace studs which fail this test.	**Submittal**	MDI Terracon	As work progresses		
03 2000		**CONCRETE REINFORCING**		MDI			
03 2000	1.3.B	**Concrete Reinforcing** 1. Submit certified copies of mill reports, evidencing compliance with requirements of Specifications. 2. Submit copies of laboratory testing and inspection reports.	**Submittal**	MDI			
03 2000	2.5	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect fabricating and bending procedures. 2. Inspect fabricated materials	**Inspection**	MDI Terracon	Prior to placement		
03 2000	3.4	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect reinforcing sizes, quantities and placement. 2. Inspect support and securement of reinforcing. 3. Inspect condition of reinforcing.	**Inspection**	MDI Terracon	Prior to pouring concrete-check alignment, layout and securement of reinforcing		
03 3100		**STRUCTURAL CONCRETE**		MDI			
03 3100	2.7	**Structural Concrete** Source Quality Control A. Laboratory Inspection 1. Verify required plant certifications. 2. Inspect batching equipment periodically. 3. Inspect batching and loading of transit-mix trucks at the start of each day. B. Materials Testing 1. Sieve analysis of aggregates.	**Inspection**	MDI Terracon	Daily inspections at plant		
03 3100	3.3.D.3	**Structural Concrete** **Floor flatness and levelness measurements** a. Measurements shall be made where requested by Owner or Architect, at Owner's expense. b. Measurements shall be made in accordance with ASTM E-1155 and ACI 117.	**Test**	MDI Terracon	As requested by Owner or Architect		

Byrne Test / Inspection Matrix Sample Project 1 of 72

VIII. Preconstruction Meeting

Schedule a preconstruction meeting with the Owner, design team, and major subcontractors to discuss all aspects of the project. Agenda items concerning the topic of quality control and assurance should include:

A. Testing Lab – Confirm who is providing third party inspections and testing services for earthwork, concrete, steel, roofing, waterproofing, and fireproofing. Ensure that the services of a third-party testing lab are in place to support early site work activities.

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B. Three Way Agreements – Site utility construction will typically include construction of utilities in city right of ways which must be performed under separate Three Way Agreements between the Owner, the City, and the utility subcontractor. The execution of these agreements may be a priority at the start of construction which requires an expedited process. Responsibility of testing – by City or by the Owner - will be spelled out in the agreement.

C. Submittal review procedures

D. Substitution request procedures

E. Major mockup reviews

F. RFI procedures

G. Design Consultant Progress Inspections – Review what is listed in the specifications and identify any other inspections that may be performed by the design engineers.

H. Commissioning of Equipment and Systems – Review formal commissioning procedures if specified. This topic should include test and balance work. If commissioning is not specified, discuss informal project equipment startup and checkout by subcontractors and testing of systems that the design team and Owner representatives may want to observe.

I. Independent peer review of envelope details

J. Punch list procedures

K. Close out deliverables

SECTION 4

CONSTRUCTION PHASE

SECTION 4

CONSTRUCTION PHASE

I. INTRODUCTION

The quality control processes established during preconstruction serve as a solid foundation to kick off construction in the field with an emphasis on quality control functions. These functions include document control, scheduling, material expediting, submittal review, testing and inspections, and equipment / systems commissioning.

II. DOCUMENT CONTROL

A. Document control is an underlying essential process for Quality Assurance and Quality Control. The tracking of project contract documents is extremely important during construction since the project design continues to evolve based upon Owner changes and clarifications issued via the RFI process. Consequently, an important starting point for the building process is to ensure that the project staff and subcontractors have access to the most current construction documents that have been approved for construction.

B. The Project Coordinator (PC) is responsible for monitoring and maintaining current contract documents in project files, for distributing construction documents to assigned project personnel and subcontractors, and for keeping the Contract Documents List up to date. Communication and coordination between the Project Manager (PM) and PC is important to ensure document revisions are expeditiously released based upon their approval status.

C. When the "Issued for Construction" contract set of documents is submitted to Byrne by the Architect, the Estimating Department is responsible to upload these contract documents and an updated Contract Documents List to the project folder located in S:Drive (accessed only by Estimating). Prior to the project turnover meeting conducted with the operations staff, Estimating will ensure these current contract documents are transferred to the O:Drive (accessible by the project staff) along with the updated Contract Documents List. Responsibility of document control is formally turned over to the PM at that point in time at the turnover meeting.

D. During the construction phase, all contract change documents and supplemental sketches issued by the Architect will be recorded by the Project PC in the **Contract Documents List**. At a minimum, monthly updates to the Contract

Documents List will be issued by the PC to the project team for their review to ensure they are using the most current set of documents. It is the responsibility of the Superintendent with assistance by the OE/PE to ensure that subcontractors are using updated contract documents

Example of Contract Documents List

BYRNE
CONSTRUCTION SERVICES

EXAMPLE

NINE DECADES OF EXCELLENCE
2601 Scott Avenue, Suite 300
Fort Worth, Texas 76103
817-335-3394

Contract Documents List
PROJECT NAME
LOCATION

Date: 4/8/2017

Sheet	No. of Pages	Current Date	Sheet Name	Set
			SPECIFICATIONS	
00 00 00		08/03/09	Project Manual Cover	
00 00 01		08/03/09	Updated Board of Regents Title Page	
00 00 02		08/03/09	Seal Page	
00 01 10		08/03/09	Table of Contents (volume 1)	
00 02 00		08/03/09	List of Drawings	
00 06 00		08/03/09	Uniform General and Supplementary Conditions	
00 07 00		08/03/09	Special Conditions	
00 08 00		08/03/09	Wage Rates for Erath County	
00 31 32		08/03/09	Geotechnical Data	
00 31 32-1		11/11/08	Geotech Report	
00 31 32-2		04/09/09	Geotech Addendum 1	
00 31 32-3		05/14/09	Geotech Addendum 2	
00 89 00		08/03/09	Finish Selection Summary	
		06/11/10	Final Finish Specs	ASI #14 Rev. C
01 11 00		08/03/09	Summary of Work (volumes 1 and 2)	
01 23 00		08/03/09	Alternates (volumes 1 and 2)	
01 25 00		08/03/09	Substitution Procedures (volumes 1 and 2)	
01 26 00		08/03/09	Contract Modification Procedures (volumes 1 and 2)	
01 29 00		08/03/09	Payment Procedures (volumes 1 and 2)	
01 31 00		08/03/09	Project Management and Coordination (volumes 1 and 2)	
01 31 50		08/03/09	Project Meetings (volumes 1 and 2)	
01 32 00		08/03/09	Construction Progress Documentation (volumes 1 and 2)	
01 33 00		08/03/09	Submittal Procedures (volumes 1 and 2)	
01 34 00		08/03/09	Shop Drawings, Product Data, and Samples (volumes 1 and 2)	
01 42 00		08/03/09	References (volumes 1 and 2)	
01 43 00		08/03/09	Quality Assurance (volumes 1 and 2)	
01 45 00		08/03/09	Quality Control (volumes 1 and 2)	
01 50 00		08/03/09	Temporary Facilities and Controls (volumes 1 and 2)	
01 60 00		08/03/09	Product Requirements (volumes 1 and 2)	
01 72 50		08/03/09	Field Engineering (volumes 1 and 2)	
01 73 50		08/03/09	Cutting and Patching (volumes 1 and 2)	
01 74 00		08/03/09	Cleaning and Waste Management (volumes 1 and 2)	
01 77 00		08/03/09	Closeout Procedures (volumes 1 and 2)	
01 78 00		08/03/09	Closeout Submittals (volumes 1 and 2)	
03363-P		08/28/09	Pool Plaster (Exposed Aggregate Finish)	Addendum D
13150-P		08/28/09	Swimming Pools & Fountains	Addendum D
13153-P		08/28/09	Swimming Pool & Fountain Piping	Addendum D
16450-P		08/28/09	Grounding and Bonding for Pools & Fountains	Addendum D
03 30 00		08/03/09	Cast-In-Place Concrete	

E. Proposed Changes –

1. The PM is responsible for tracking and managing the flow of proposed change documents issued by the Architect or Owner.

2. Changes are logged in on the PC Log which is updated as soon as an action has occurred in the issuance, pricing, approval, & issuance of change orders.

3. It is important that the PM manage contract changes to ensure timely submittal, review, approval, and issuance of change orders to prevent adverse impacts to the schedule and subsequent detrimental effect on the quality of work.

4. The PM should ensure that revisions to the status of PC's are communicated clearly to the project staff, subcontractors, and major suppliers.

5. The PC is responsible to update the Contract Documents List with changes based upon the PM's direction regarding approval status.

6. The PC is also responsible for updating the Project Record Set with approved change documents.

F. RFI's – Requests for Information are a means of seeking clarification from the design consultants when questions arise about contract document details and specifications.

1. The PC is responsible for generating, tracking, and managing the flow of RFI's between the Architect, Byrne, and our subcontractors.

2. Since responses directly affect details and specifications, the timely transmittal and recording of RFI responses is critical from a quality assurance standpoint.

3. The PC will daily update the RFI log as questions are generated and responses are received from the Architect.

4. Sometimes RFI responses can result in a change in the scope of work which then causes the RFI to be processed as a proposed change. In this situation, the PM must release the Superintendent and PC as to when an RFI response and related change can be incorporated into the contract documents and subcontractors can be given direction to proceed prior to execution of a contract change order.

G. Project Record Set - A "hard copy" set of project record documents will be established and maintained by the PC in which all updated plans and specifications are posted as well as clarifications issued by RFI. At the direction of the PM, an electronic copy of this set also will be maintained by the PC for use by the field (Plan Grid platform). The PM & Superintendent are responsible for monitoring updates to the Project Record Set.

III. CONSTRUCTION SCHEDULE

Refer to Section 3 Preconstruction Phase concerning preparation of the construction schedule and to Article IV of this section concerning Expediting. Management of the schedule and expediting materials and equipment deliveries have a direct effect on the quality that can be achieved by the construction forces in the field. Consequently, the following considerations should be taken into account when managing the Construction Schedule:

A. **Schedule Coordination Sessions** - Prior to construction, the PM, Superintendent, and PC will conduct scheduling coordination sessions with subcontractors responsible for major components of the work. Although, the basic schedule will be reviewed with each subcontractor during the buyout meeting, it will be necessary to refine the schedule to introduce important

detailed input from our subcontractors.

B. **QC Schedule Activities** - Quality control activities must be included in the construction schedule. Completion of work does not occur when the last screw is screwed, the last paint brush stroke occurs, and equipment is turned on. Quality Control activities must be thought of as part of our Work that is required to validate field construction is in conformance with contract requirements. These QC activities require commitment of resources to be performed like any other construction activity - supervision, allocation of labor, allocation of time in the schedule, thoughtful planning, and the expenditure of dollars. Often these activities must be performed prior to subsequent work being performed, such as overhead MEP rough in inspections and testing being done, before being covered up by hard ceilings. Consequently, it is important for the PM and Superintendent to incorporate these QC activities in the construction schedule.

C. **Schedule Coordination with Municipalities** - The PM and Superintendent should schedule an initial meeting with City's Building Department Officials, Fire Marshal and Health Department to understand their requirements for interim and final code inspections, issuance of TCO's, and related Owner furniture move in. Activities need to be entered into the schedule's critical path to allow these important QC related inspections to be well managed to support required TCO's and Substantial Completion dates.

D. **Construction Schedule Updates**

1. The PM will prepare weekly updates to the schedule and will make adjustments based upon field progress, additional knowledge and assumptions obtained from RFI responses, changes that are introduced to the project, and updates to material/equipment delivery dates.

2. The PM and Superintendent will need to review the resulting effect of updates on the project schedule's critical path and the potential for compression of activity durations which can detrimentally affect quality of workmanship.

3. Input from Subcontractors and Suppliers will be required when significant critical path changes or compression of task durations occur. In analyzing schedule impacts, the PM and Superintendent need to account for possible adjustments in activities' durations and sequence of work to ensure the quality of workmanship does not suffer.

IV. MATERIAL EXPEDITING

A. **Introduction -** Material and equipment expediting is an essential element of project quality control that must be managed by the OE/PE. The full details concerning expediting the review of submittals and subsequent fabrication and delivery of materials and equipment is described in a separate Byrne procedure.

For purposes of the Byrne QC Plan, an overview of the major elements of this procedure are presented.

B. **OE/PE Responsibility -** It is the primary responsibility of the PC to see that ALL materials and equipment furnished by subcontractors and suppliers are delivered on time per the project schedule and have undergone a submittal review process that ensures the materials and equipment are in accordance with the contract documents.

C. **The Importance of Material Expediting -** The process of managing the on-time delivery of materials and equipment to the project is referred to as Material Expediting. It is an organized, systematic management process in which the PC identifies all specified materials and equipment to be installed on the project. For each product, a delivery date is assigned which is tied to an associated schedule activity early start date and a fabrication delivery lead time is identified. From this information, a date for each submittal to be sent to Byrne is calculated. With this information, the PC can proactively manage the flow of submittals through the submittal review process in an organized and timely manner and can track subsequent fabrication and delivery of all materials and equipment to the project site.

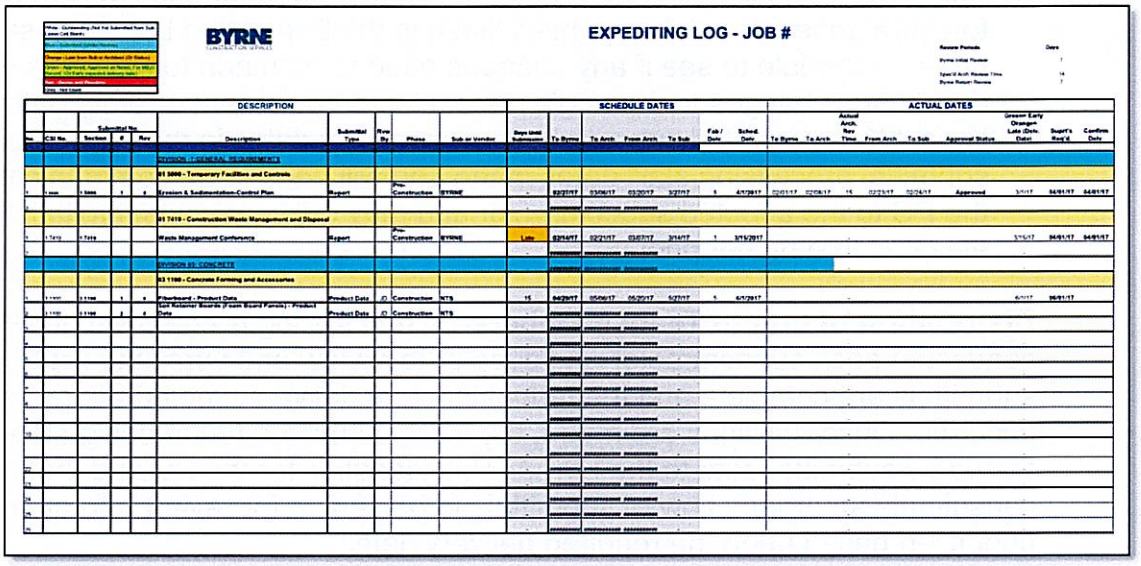
   Why is this important concerning quality control? The obvious answer is that the start date of activities and continued work progress in the field can be delayed due to not having the correct materials on hand per the construction schedule. When this happens, work progress is delayed and the time allowed for proper installation of the work becomes compressed. The scheduled sequence of work in the field becomes upset. Disorganization occurs due to "stacking of trades" in affected areas of the project and loss of productivity can occur due to extended overtime work schedules. All of these factors have a huge negative impact on achieving the level of quality required by the specifications. Consequently, the expediting of on-time material and equipment deliveries is critical to maintaining the construction schedule and the ability of the work force to produce quality work.

D. **Document Study -** The PC begins material expediting by performing a detailed document study of a complete and updated set of plans and specifications. This study should include a careful review of all notes on the plans looking for any material item that may be included on the plans but not listed in the specifications. The purpose of this review is to compile a complete list of all materials and equipment that go into the project.

   The OE/PE should list all deliverables required for the design team's review and approval. These deliverables include submittal of shop drawings, samples, mock ups, brochures, certificates, test results, startup reports, O&M manuals, training, attic stock, spare parts, misc. maintenance support equipment, warranties, and record documents. This list is recorded in the Expediting Log.

E. **Expediting Log -** Managing the delivery of material and equipment to the project site is directly linked to the project construction schedule and activity early start dates. The Construction Schedule and the Expediting Log are critical tools that are jointly used to ensure materials are procured and fabricated per specification and are delivered to the project on time.

<u>Example of Expediting Log</u>



BYRNE

EXPEDITING LOG - JOB #

DESCRIPTION									SCHEDULE DATES							ACTUAL DATES								
No.	CSI No.	Submittal No. Section	#	Rev	Description	Submittal Type	Req By	Phase	Sub or Vendor	Days Until Submission	To Byrne	To Arch	From Arch	To Sub	Fab / Delv.	Schedd. Delv.	To Byrne	To Arch.	Actual Arch. Rev Time	From Arch	To Sub	Approval Status	Green Early Orange Late (Delv. Date)	Supt's Req'd.	Confirm Date
					DIVISION 1 - GENERAL REQUIREMENTS																				
					01 5000 - Temporary Facilities and Controls																				
1	1.xxx	1.5000	1	0	Erosion & Sedimentation-Control Plan	Report		Pre-Construction	BYRNE	-	02/27/17	03/06/17	03/20/17	3/27/17	1	4/1/2017	02/01/17	02/06/17	15	02/23/17	02/24/17	Approved	3/1/17	04/01/17	04/01/17
					01 7419 - Construction Waste Management and Disposal																				
1	1.7419	1.7419			Waste Management Conference	Report		Pre-Construction	BYRNE	Late	02/14/17	02/21/17	03/07/17	3/14/17	1	3/15/2017							3/15/17	04/01/17	04/01/17
					DIVISION 03 - CONCRETE																				
					03 1100 - Concrete Forming and Accessories																				
1	3.1100	3.1100	1	0	Fiberboard - Product Data	Product Data	/O	Construction	NTS	15	04/25/17	05/06/17	05/20/17	5/27/17	1	6/1/2017							6/1/17	06/01/17	
2	3.1100	3.1100	1	0	Self Retainer Boards (Foam Board Panels) - Product Data	Product Data	/O	Construction	NTS																

1. The PC uses the Expediting Log as the main management tool in expediting the delivery of materials and equipment. The spreadsheet is broken down into 3 sections – Description, Schedule Dates, and Actual Dates.

2. Description - The OE/PE lists all material and equipment that must be reviewed and approved by the design team. The list is organized by specification section.

3. Schedule Dates – This section contains the dates that submittals must be processed to ensure delivery is on time. The PC and Superintendent enter a scheduled delivery date for each material or equipment item based upon the <u>early start</u> date of the related activity shown in the construction schedule. An estimated fabrication delivery lead time is also entered. (This lead date is later reviewed and changed based upon subcontractor input.)

4. Based upon these entries, the formulas in the log back calculates the date that each submittal must be received by Byrne in order that deliveries can occur on time per the project schedule. With the schedule dates clearly defined for submittals to be sent to Byrne, the PC can prioritize and proactively manage the flow of submittals during the Construction Phase based upon required delivery dates.

5. Actual Dates - Next to the "Schedule Dates" section of the log, the PC enters the actual dates that submittals are processed and the submittal review status. In the last columns on the right of the form, the PC enters the Superintendent's current required delivery date and the currently confirmed delivery date that is obtained from the subcontractor or supplier. See Article V of this section regarding submittal review.

6. With each project schedule update, the Superintendent and PC are required to check scheduled delivery dates listed in the Expediting Log against the project schedule to see if any changes need to be made to the Log's delivery dates. Any changes to the Log's material and equipment delivery dates will impact the calculated submittal processing start dates in the Log. Changes to submittal processing start dates in the Log will need to be communicated by the PC to the affected subcontractor and may cause some submittals to be elevated to a higher priority.

F. **Distribution of Log to Team Members**– When the log is complete, the PC sends it to each subcontractor and suppler to review and verify the list of submittals are complete and the fabrication and delivery time durations are accurate. Once revisions are made, the list is submitted to the design team sorted by submittal date to the Byrne. This identifies for the PC and the design consultants an orderly flow of submittals to be sent in for review and approval prioritized based upon the required delivery dates.

G. **Review, Communication, and Follow Up** - A good expediting program will include a routine review of the status of submittals and deliveries by the PC. At a minimum, the PC should:

- Review and update the log weekly to track the flow of submittals and current status of the delivery date to the project.

- Maintain periodic contact with the subcontractors and suppliers to remind them of upcoming submittals to be processed and to reconfirm delivery date commitments.

- Proactively communicate with the Architect to ensure submittals are reviewed and returned within the prescribed time allowed for submittal review.

- On a weekly basis, review the status of submittals and delivery dates with the PM and Superintendent and make adjustments as necessary in expediting priorities based upon schedule updates.

- Email standard Schedule Delivery Notices to subcontractors and suppliers which documents submittal and material delivery date requirements and commitments. See Section 6 Appendix E for an example.

H. **Expediting Owner Furnished Equipment** – The PC is required to track equipment that is furnished by the Owner or installed by the Owner's separate contractors in the same manner as items Byrne is responsible for. If equipment is to be installed or utility connections are to be made by our subcontractors, submittal information must be obtained from the Owner and distributed to Byrne subcontractors. Fabrication and delivery of these materials will be tracked by the PC and logged into the Expediting Log.

V. SUBMITTAL REVIEW

A. **Introduction –** The detailed review of submittals is another essential element of project quality control that is managed by the PC. The full details concerning submittal review is described in a separate Byrne procedure. For purposes of the Byrne QC Plan, an overview of the major elements of the submittal review process is presented here.

B. **OE/PE Responsibility –** It is the PC's responsibility to ensure that all materials and equipment have undergone a thorough submittal review to confirm compliance with contract requirements before the subcontractor or supplier is released to begin fabrication.

C. **Purpose –** Processing of submittals is a basic quality control procedure performed by the PC that requires the detailed review of shop drawings, manufacturer product data, material certifications, performance criteria, product samples, and mockups. Once done the submittal is then transmitted to the design consultants for their review and approval. This is an important quality control practice which allows subcontractors and suppliers a means to convey and obtain formal approval from Byrne, the design consultants, and Owner concerning their interpretation of the design, details, material specifications, and contract scope of work prior to fabrication and field installation.

D. **Submittal Format** – Submittals typically come in the follow forms:

1. Shop drawings provide general details, dimensions, sections, elevations, and fabrication details based upon each subcontractor's scope of work.

2. Manufacturer product data provides detailed information about materials and equipment that can include diagrams, certification, and test data to confirm conformance with specification requirements.

3. Material samples are submitted to confirm quality and physical characteristics such as color, texture, and pattern.

4. Mockups involve the construction of a small section of an exterior or interior assembly in order for Byrne, the Architect, and Owner to examine and approve the buildup and integration of internal and external components and the final

assembled product and finishes.

5. Test Reports – The submittal and approval of specified product and equipment testing is required to document compliance with contract specifications. All specified test procedures and test results will be submitted to the design consultants.

6. Closeout submittals – In addition to providing information to confirm quality of material and equipment, other deliverables are submitted to meet specification requirements including operations and maintenance manuals, warranty manuals, field start up and test results, and as-built information. These deliverables are outlined in Section 5 of the QC Plan.

E. Submittal Process

1. Expediting Log – Article IV of this plan describes the set up and use of this log. As submittals are received and processed, actual dates will be recorded on the log under the "Actual Dates" columns. The log will be routinely updated by the OE/PE with actual dates as submittals cycle through the review process.

2. The PC is required to proactively reach out to subcontractors and suppliers to communicate the prioritized submittal schedule and ensure that submittals are received on time to allow adequate time for review and approval, fabrication, and shipment to the jobsite.

3. Byrne's role in the submittal review process is to ensure that subcontractors and suppliers are satisfying the terms, conditions, and scope of work included in their contract which includes the quality of materials and equipment being provided and the proper interface of materials and constructed assemblies with adjoining construction trades' work.

4. The design consultants' responsibility in the submittal process is to review the specific materials, equipment, and fabricated assemblies that are proposed to be installed to ensure compliance with the contract documents and design intent. Their review may include issuance of clarifying details, specification requirements, and revisions based upon the Owner's evolving understanding of the end product and their possible changing program needs.

5. Once reviewed and approved by the design team, the PC returns the submittal to the subcontractor or supplier releasing them to proceed with fabrication.

F. OE/PE Submittal Review Responsibilities

Once the PC receives a submittal, they are to proceed with performing a detailed review of the submittal before transmitting it to the Architect for review by the design team. This review should take into consideration the following points

that can affect the quality of material products and equipment that are installed:

1. The PC is responsible to read and understand subcontractors' and suppliers' scopes of work to ensure all requirements are being addressed in their submittals.

2. Initially review the submittal to ensure that it is complete and includes the essential information that the specification requires for review and approval. If it does not, return it to the subcontractor or supplier with specific instructions on what is missing.

3. Review submittal information against the plans and specifications. Note required corrections for the design team to review and confirm. There will be no "rubber stamped" cursory review of submittals by Byrne. Likewise, the PC will not accept submittals from subcontractors that show no evidence of review by the subcontractor.

4. Ensure shop drawings clearly identify required field dimensions. The PC shall check critical dimensions shown in shop drawings against dimensions shown in the contract documents.

5. For any new work that interfaces with existing structures, the PC will ensure that critical dimensions are highlighted requiring field verification prior to fabrication.

6. Ensure shop drawings are prepared with adequate details, materials (types, thickness, finishes), and connections to ensure they accurately reflect contract drawings and specifications. Shop drawings that are merely reproductions of the contract drawings will be rejected.

7. Look for any gray areas or inconsistencies in the submittal and make note of it to the design team to review and provide input or clarification.

8. Ensure deviations from specification or details are pointed out to the Architect to confirm acceptance or to seek further input from the Architect.

9. Require subcontractors and suppliers to follow substitution request procedures if the submitted products are not the listed manufacturer or model number. Return the submittal with instructions to submit the required substitution request. When processing a substitution request, the PC shall review this request to ensure that it provides adequate proof that the product is equal to the specified product. Otherwise, return the substitution request as rejected.

10. Be on the look for shop drawing details and notes that indicate "work to be performed by others". The PC must confirm the accuracy of this scope definition and note corrections on the submittal if necessary. If the work

shown to be "by others" is correct, the PC shall send a copy of the shop drawing to the affected subcontractor for coordination purposes when the reviewed submittal is returned from the Architect.

11. Review shop drawing details where elements of work interface with other subcontractors' work. Cross reference review and coordinate shop drawing details with adjacent work by other subcontractors.

12. Search drawings for materials and equipment that may not be reflected in specifications or drawing-related equipment lists and ensure that the subcontractor has included these products in their submittals.

13. Review product data and delete information that is not applicable to the contract scope of work.

14. Ensure samples are submitted from the same supply source which will supply the materials used in the field.

15. Ensure samples are submitted that indicate the full range of variation in color, texture, graining or other characteristics that will be present in the materials used in the field.

16. Ensure samples are clearly labeled or tagged noting the location where the sample product is to be installed.

17. When questions crop up during the submittal review, the PC should check with the Superintendent and PM to obtain their experienced input. "There's no such thing as a stupid question."

18. Manage timely <u>resubmittals</u> and check that all corrections have been made and are clearly noted.

19. Be alert for changes and RFI responses issued by the Architect that may affect previously approved submittals. Ensure that any required resubmittals are processed in a timely manner.

20. Require submittal of final corrected and "scrubbed up" field use shop drawings and product data for distribution to Byrne and other subcontractors for coordination purposes.

21. When subcontractors or suppliers' are responsible for "performance specifications" in which they take on design responsibility, ensure that design calculations with a registered engineer stamp are submitted with shop drawings to support shop drawing details.

22. The PC is responsible to manage the production of interdisciplinary coordination drawings when required by specification. Coordination drawings

are submitted to clarify and illustrate the integration of materials, equipment, assemblies, and systems. Allow adequate time to schedule the production of coordination drawings to ensure work progress in the field is not delayed.

23. The PC will coordinate with the PM, Superintendent, and subcontractors to ensure large complex submittals are broken down into smaller packages that support the sequences of work and related delivery dates shown in the schedule.

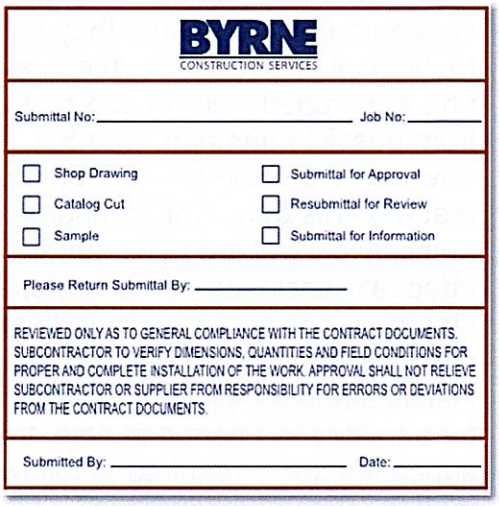
G. Submittal Review Detailed Checklist

The PC's responsibility is to perform a detailed review of the submittal to ensure it is in conformance with the project contract documents and the subcontractor or supplier's scope of work. Byrne's Submittal Procedure contains detailed checklists compiled by CSI division of work that the PC should reference during the submittal review.

H. BPL's Submittal Approval Stamp

When the submittal review is done, the PC will stamp and sign the submittal package with the BYRNE review stamp as shown below and send it to the Architect with a formal transmittal letter.

The PC is attesting that he/she has verified and determined to the best of his/her ability that the information contained in the submittal package complies with the contract documents.


BYRNE
CONSTRUCTION SERVICES

Submittal No: _____ Job No: _____

☐ Shop Drawing ☐ Submittal for Approval
☐ Catalog Cut ☐ Resubmittal for Review
☐ Sample ☐ Submittal for Information

Please Return Submittal By: _____

REVIEWED ONLY AS TO GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. SUBCONTRACTOR TO VERIFY DIMENSIONS, QUANTITIES AND FIELD CONDITIONS FOR PROPER AND COMPLETE INSTALLATION OF THE WORK. APPROVAL SHALL NOT RELIEVE SUBCONTRACTOR OR SUPPLIER FROM RESPONSIBILITY FOR ERRORS OR DEVIATIONS FROM THE CONTRACT DOCUMENTS.

Submitted By: _____ Date: _____

I. Architect's Approval Stamp

Once the submittal has been reviewed and returned from the Architect, it is typically marked with one of the following actions:

Approved or No Exceptions Taken: No corrections are required. Proceed with fabrication or procurement of materials and equipment.

Approved as Noted: Some corrections are noted. The submittal is released to proceed with fabrication.

Revise & Resubmit: Numerous corrections are noted and fabrication cannot begin. Corrections must be made by the subcontractor and resubmitted for approval.

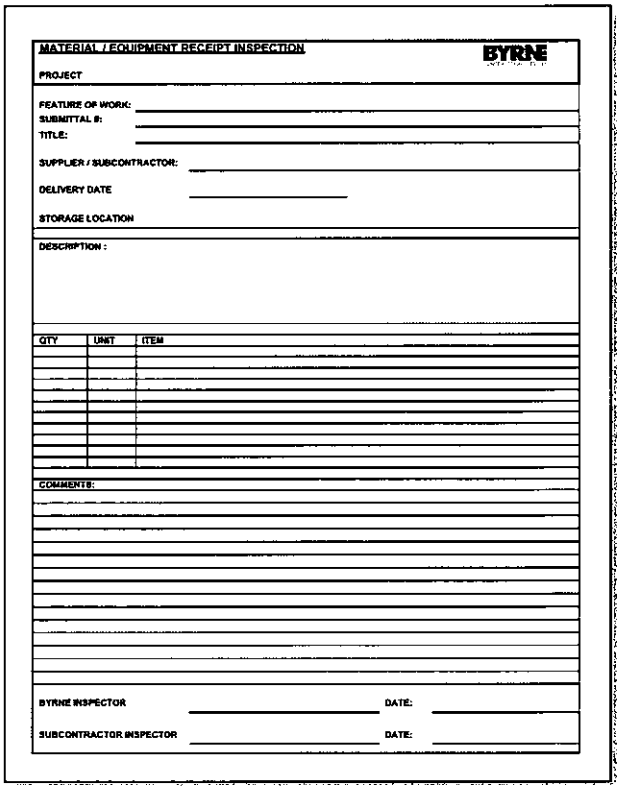
Rejected – The submittal contents are not in accordance with the contract documents. The subcontractor or supplier needs to completely start over with a new submittal per contract requirements.

J. Field Use Copies

After the submittal or drawing is returned approved or approved as noted, the OE/PE formally transmits it to the subcontractor or supplier. In the case of shop drawings, typically the detailer has certain fabrication details that need to be cleaned up before materials are placed into fabrication. Consequently, the OE/PE will require a "Field Use" copy of the final "scrubbed up" shop drawing to be returned to Byrne and will review it to ensure that all corrections have been made. Once this has been verified, copies are distributed to the Superintendent and subcontractors for coordination of work.

VI. MATERIAL/EQUIPMENT RECEIVING AND STORAGE

When major materials and equipment deliveries occur, the PC will record the delivery date in the Expediting Log. The Superintendent and PC will inspect materials and equipment delivered to the project with the subcontractor's superintendent to ensure they conform to the final approved submittal review and are properly stored and protected from possible damage, weather, and environmental conditions. Equipment that requires temperature and/or humidity control are to be stored in an adequate enclosure. If equipment is stored on-site for an extended period of time prior to installation, or if it is installed and not placed into service for an extended period of time, the subcontractor is required to follow maintenance procedures in accordance with manufacturer recommendations (grease bearings, rotate fans, etc.). Maintenance requirements can be found in O&M manuals and need to be reviewed as part of the initial storage inspection. The results of the inspection are recorded on the Material Receipt Inspection form and filed with the QC record documents.


MATERIAL / EQUIPMENT RECEIPT INSPECTION

BYRNE

PROJECT

FEATURE OF WORK:

SUBMITTAL #:

TITLE:

SUPPLIER / SUBCONTRACTOR:

DELIVERY DATE

STORAGE LOCATION

DESCRIPTION :

QTY	UNIT	ITEM

COMMENTS:

BYRNE INSPECTOR DATE:

SUBCONTRACTOR INSPECTOR DATE:

VII. TESTING AND INSPECTIONS

All testing and inspections are conducted in accordance with the contract documents to ensure contract compliance.

A. Testing / Inspection Matrix

As part of the QC Plan, a **Testing / Inspection Matrix** is completed in conjunction with the Superintendent's and PC's document study. The Matrix identifies each test and inspection required by the contract documents by specification paragraph. It also indicates the frequency of each test and inspection and the subcontractor responsible for performing each test or inspection. A copy of the completed Matrix will be included in the project specific QC plan.

The Testing / Inspection Matrix is maintained by the Superintendent and PC and is an effective tool for coordination, scheduling, and confirmation of required testing during the construction phase. This list is also used to document the date/time, location, and type of test performed. Upon receipt of the final test report from the testing agency, the PC records in the Testing / Inspection Matrix status that the activity is completed.

Example of Testing / Inspection Matrix

TESTING / INSPECTION MATRIX
SAMPLE PROJECT
Project No. XXXXXXX Permit XXX

BYRNE

Report Date: 1/9/2017

SPEC SECTION	PARA	REQUIREMENTS	TYPE	RESPONSIBILITY	FREQUENCY/LOCATION	STATUS	SCHEDULE ES Date
03 1511		**EMBEDDED METAL ASSEMBLIES AND INSERTS**		MDI			
03 1511	1.4	**Embedded Metal Assemblies and Inserts** Qualifications 1. Fabricator: minimum of 3 years experience in related or similar work. 2. Welders: certified for type of welding required within previous 6 months	**Submittal**	MDI	As work progresses		
03 1511	3.2	**Embedded Metal Assemblies and Inserts** Laboratory Testing: provide independent testing laboratory services as follows: 1. Inspect steel fabrications for sizes, spacings and general quality of fabrication. 2. Inspect welding of steel fabrications for size, length and quality. 3. Inspect positioning of assemblies and inserts in the forms. 4. Visually inspect welds at anchors and shear stud connectors. Test studs which do not appear to have full sound 360 degree fillet weld at base. Test by bending 15 degrees. Replace studs which fail this test.	**Submittal**	MDI Terracon	As work progresses		
03 2000		**CONCRETE REINFORCING**		MDI			
03 2000	1.3.B	**Concrete Reinforcing** 1. Submit certified copies of mill reports, evidencing compliance with requirements of Specifications. 2. Submit copies of laboratory testing and inspection reports.	**Submittal**	MDI			
03 2000	2.5	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect fabricating and bending procedures 2. Inspect fabricated materials	**Inspection**	MDI Terracon	Prior to placement		
03 2000	3.4	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect reinforcing sizes, quantities and placement 2. Inspect support and securement of reinforcing. 3. Inspect condition of reinforcing.	**Inspection**	MDI Terracon	Prior to pouring concrete-check alignment, layout and securement of reinforcing		
03 3100		**STRUCTURAL CONCRETE**		MDI			
03 3100	2.7	**Structural Concrete** Source Quality Control A. Laboratory Inspection 1. Verify required plant certifications 2. Inspect batching equipment periodically 3. Inspect batching and loading of transit-mix trucks at the start of each day. B. Materials Testing 1. Sieve analysis of aggregates	**Inspection**	MDI Terracon	Daily inspections at plant		
03 3100	3.3.D.3	**Structural Concrete** **Floor flatness and levelness measurements:** a. Measurements shall be made where requested by Owner or Architect, at Owner's expense. b. Measurements shall be made in accordance with ASTM E-1155 and ACI 117.	**Test**	MDI Terracon	As requested by Owner or Architect		

Byrne Test / Inspection Matrix Sample Project 1 of 72

B. Three-Phase Inspection Process

The project staff will utilize the **three-phase QC inspection process.** This process includes the Pre-installation Review, Initial Work Review, and Work Progress Inspections. These three phases of review are scheduled and conducted by the PM, Superintendent, PC, and the subcontractors' staff.

1. **Pre-installation Review** - For each Feature of Work, the PM and Superintendent will conduct an initial review with the responsible subcontractor. As subcontractors are brought under contract, a preconstruction meeting is conducted to review all aspects of project management procedures. During the meeting, Byrne will review in detail with the subcontractor the scope of work and specified quality control requirements that the subcontractor is responsible for.

   For major subcontractors, Byrne should request the subcontractor submit a copy of their quality control plan at the meeting and present a short briefing on how they intend to implement it on the project. Also, a review is conducted of the plans and specifications; material and equipment submittals are verified; material certifications are confirmed; the test matrix is reviewed and arrangements for testing are confirmed.

   As construction progresses and the subcontractor mobilizes to begin work, the Superintendent will coordinate with the PM and OE/PE to conduct up a field preconstruction meeting with the subcontractor's field management. The meeting will include:

   a. The schedule and Safety Plan are reviewed.
   b. An inspection of the work area is performed.
   c. Materials and equipment are reviewed to verify compliance with approved submittals and that sufficient quantities are available.
   d. Construction methodology is reviewed from a QC perspective to identify and resolve potential problems before work begins.
   e. Preparation of mock-ups.
   f. Specified testing and inspections to be performed.
   g. Code inspection requirements
   h. Detailed review of work that affects the "dry line" of the building envelope that requires installation of waterproofing details.
   i. Interface of the subcontractor's work with adjoining trades' work.

   The OE/PE will prepare meeting minutes and distribute them to attendees.

2. **Initial Work Review** - The Superintendent will coordinate with the PM and OE/PE to conduct an initial work review with the subcontractors PM and superintendent as a specific feature of work is starting for the first time. The purpose of this review is to observe the initial segment of work to ensure that

it complies with contract requirements. The PC will assist in this inspection with regards to significant submittal details that need to be reviewed.

Essentially, this field review establishes the quality of workmanship to be achieved during construction, resolves any conflicts, reviews the Safety Plan to ensure appropriate measures are being implemented, and ensures that provisions for specified testing are being scheduled. A written report of this review session will be prepared by the PC, distributed to the subcontractor, and saved in the project files. Any identified issues are documented and tracked for timely resolution.

3. **Work Progress Inspections** - The Superintendent will coordinate with the subcontractors' superintendents in the day-to-day inspections of work performed in the field. They will work together to conduct inspections on a periodic basis to ensure continued contract compliance for a specific Feature of Work until the work is complete. The quality of the workmanship is checked to ensure that it is being maintained as established in the initial work review.

   They will also participate in inspections conducted by the local code enforcement authorities, review of work by the design consultants, and witnessing of field tests.

   Testing is monitored and reviewed to ensure that it is being properly performed and satisfactory results are obtained. Any re-work items are checked to ensure that they are being corrected. The Superintendent and OE/PE will record and distribute inspection and field test results, and will issue Non-Conforming Work Notices when significant deficiencies are identified.

   Any non-conforming results are addressed prior to further work progressing. Once issues are corrected, the Superintendent or PC will conduct a follow-up inspection to document the satisfactory completion of corrective work. After corrective actions are taken, a reinspection is performed to confirm satisfactory results have been achieved.

C. Scheduling of Inspections and Testing

The Superintendent is responsible for scheduling and participating in inspections by the local code enforcement authorities, Fire Marshal, design consultants, the scheduling of third party testing, and in witnessing tests that are conducted in the field. The PC will assist the Superintendent in this process. The following is an outline of the procedure for scheduling these QC functions.

1. **Subcontractor Review & Inspection** - When a segment of work is complete, the subcontractor's Superintendent or QC personnel will conduct an inspection of the work and should complete an inspection report. Once all

aspects of work are ready for Code inspection or testing, the subcontractor's superintendent will notify Byrne's Superintendent that they are ready to walk the area with us.

2. **Scheduling Inspections & Testing** - Sufficient time must be allowed by the subcontractor when requesting inspections and testing to permit Byrne's staff time to inspect & schedule the work with the Code Enforcement Department, test lab, or design consultants. Depending upon the specific city and test lab requirements, request for inspection and testing should be submitted a min. of 24 hours prior to date & time of inspection. Design consultants typically require 3-7 days' advance notification.

   Requests received by Byrne after 3:00 PM will not be processed until the following business day. This time can be adjusted based upon each project's needs. As work load permits, Byrne will strive to conduct and schedule inspections and tests as soon as possible.

3. **Superintendent Review** - When the inspection request is received, Byrne's Superintendent will review the work to determine if it is complete per plans and specification. If the subcontractor has a standard inspection form, it can be used during the Byrne inspection. Otherwise, Byrne standard inspection forms modified for each project can be used. Byrne inspection form templates can be found in Appendix E – Quality Control Forms.

   If the inspection is approved, the inspection or test will be scheduled with the Code Department or test lab. When the inspection or test is conducted, the Superintendent will log the event and results on the Daily Report. If in the Superintendent's judgment the work is not complete, he will notify the subcontractor by email that the work is disapproved.

4. At the preconstruction meeting, the project staff will formally transmit instructions to subcontractors describing the procedures to be followed for notifying Byrne of inspection requests, testing, and equipment start up.

D. Code Inspections

1. During preconstruction, the PM and Superintendent will meet with the municipality's code department, Fire Marshal, and health department to review all required inspections, procedures for scheduling inspections, means of obtaining inspection results, final inspections, and temporary / final certificates of occupancy.

2. Obtain written inspection scheduling procedures and a list of required inspections from the code department. The project staff will formally transmit this information to all subcontractors to ensure they understand the required inspections that must be performed to keep the project on schedule.

Sample of List of Code Enforcement Inspections

LIST OF CODE ENFORCEMENT & TEST LAB INSPECTIONS BYRNE

Project Name & Permit No.

CODE INSPECTIONS

02 Building Wall Framing
03 Building Above Ceiling
04 Building Masonry

06 BUILDING FINAL
07 Building Energy / Insulation
08 Accessibility Preliminary
09 Accessibility Final

30 Structural Foundation (Piers, GB, SOG)
31 Structural Super Structure (Cols, beams, floors, roofs)
32 Concrete Tilt-Wall
35 Structural Other
36 Fireproofing

10 Electrical Service
11 Electrical Switchgear / Panel
12 Electrical Underground Conduit
13 Electrical / Telephone Duct Bank
14 Electrical Pole Base
15 Electrical Grounding
16 Electrical Above Ceiling
17 Electrical Rough In
18 ELECTRICAL FINAL
19 Comm / Data - Conduit & Cable (ADE Code - Impact)

20 Mechanical Underground
21 Mechanical Rough In (Incl. Above Ceiling)
22 MECHANICAL FINAL

3. During the initial meeting, discuss with the Building Inspector and Fire Marshal about plans for early furniture move-in and TCO milestones to determine the city's requirements. Considerations should include establishing TCO areas with the code department to allow progress work inspections and final inspections to be well managed to ultimately support separate TCO's, if required.

4. A second meeting should be scheduled with the Building Code Department and Fire Marshal in advance of project completion to finalize plans for multiple TCO's and furniture move-in. A well thought out plan should be prepared for the meeting to discuss:

   - Phased completion of life safety systems to include fire protection. systems, fire alarm system, control shutdown of air handling systems, activation of smoke dampers, and smoke evacuation systems.
   - Review of the building fire command center functions and testing.
   - Review of elevator shutdown requirements.
   - Segregation of areas of construction activity from public paths of egress and from areas that are to be occupied.
   - Barricades and signage requirements.
   - Fire marshal final inspection requirements.

5. The Superintendent will manage the scheduling of code enforcement inspections and be the main point of contact with all inspectors to ensure good relationships are maintained. As code inspections are scheduled, Byrne's Superintendent and subcontractor superintendents will attend the inspection. Ensure provisions are made for safe access to areas to be inspected.

6. As the project nears substantial completion, the Superintendent should prepare and update a separate list of all city final inspections organized by TCO areas. The list can be used as a tool to plan and track progress of inspections and can be reviewed with subcontractors during the subcontractor coordination meetings to coordinate completion of work.

7. Results of code inspections will be recorded daily in the Superintendent's Daily Report.

E. **Independent Testing Lab** - A meeting with the Owner and third party test lab should be scheduled at the start of the project.

1. Review all specified testing and inspections to be performed by the test lab.

2. Review concrete test cylinder onsite cure box and provisions to protect cylinders due to high ambient temperatures and from being disturbed prior to transport to test lab.

3. Review test lab scheduling requirements and procedures for distributing test results.

4. Identify any special requirements for safe access to points of inspection.

5. Confirm procedures for updating contract documents and approved shop drawings with the test lab as needed.

F. **Punch List Inspections**

1. The Superintendent is responsible for scheduling punch list inspections with the design consultants and subcontractors as the project is nearing completion. The planning for an orderly conduct of punch list inspections will be a focus of discussion at OAC meetings and subcontractor coordination meetings.

2. Byrne punch list inspections are performed near the completion of the project. However, provision for review of in-wall and overhead MEP work by the design consultants must be incorporated into the schedule as work progresses prior to cover up.

3. Prior to the design team performing their inspections, the Superintendent will conduct pre-punch list inspections with the help of the PM and OE/PE. The OE/PE will issue a log of pre-punch list deficiencies to the subcontractors for corrections. Follow-up inspections will be performed to confirm correction of work.

4. As the pre-punch list is nearing completion, the Superintendent will request that the design consultants conduct their punch list review. The

Superintendent should submit this request to the Architect with an updated list of the remaining uncorrected pre-punch list deficiencies.

5. The PC will formally transmit all punch list inspections to the subcontractors and will be responsible for filing of all updates to the Project Folder on the O:Drive.

6. Follow-up inspections will be conducted by the Superintendent with the assistance of the PM and PC as the schedule may require.

G. Accessibility Standards and TDLR Accessibility Inspection

1. All construction projects are required to conform to the Architectural Barriers Texas Accessibility Standards (TAS) mandated by Article 9102 of the Texas Civil Statutes, and regulated by Texas Department of Licensing and Regulation (TDLR). For all projects, the Architect has specific sheets dedicated to documenting accessibility standards to include dimensioned plans, elevations, and notes that must be followed during construction.

2. During construction, it is incumbent upon the Superintendent to review these accessibility standards with our subcontractors and to inspect areas of the work during construction that fall under the standards.

3. In the state of Texas, the building Owner is required to obtain an inspection to verify compliance with TAS no later than 1 year after completion of construction. Either the Owner or the Architect submits a request for inspection to TDLR or to a local RAS no later than 30 calendar days after completion of construction.

4. It is important for the PM to check on whether this inspection request is submitted to ensure the RAS inspection is performed in a timely manner. If possible, the PM or CM should be present during the inspection to monitor the identification of deficiencies. The RAS will submit a written report of their findings to TDLR and the Owner and will identify any issues that require correction.

5. In the event issues are reported, Byrne will be notified by the Owner to investigate and fix the problem. Most likely, it will be up to Byrne to determine if the problem is due to a deficient installation. The sooner this process occurs in relation to substantial completion, the easier it will be for Byrne to address and resolve the identified issues while the 1 year warranty period is in effect with our subcontractors.

H. Non-Conforming Work Notice Procedure

1. Significant quality control issues that are identified as work progresses will be managed by Byrne using the Non-Conforming Work Notice and associated

log. This procedure serves as a means to manage and track significant issues requiring follow-up corrective work to prevent them from becoming unresolved latent defects as work is covered up.

2. When a deficiency is identified, the Superintendent will issue a **Non-Conforming Work Notice** to the subcontractor directing them to correct the work in a timely manner. For each major non-conformance, a separate folder is created in the project's QC files saved on the O:Drive in which all documents related to the non-conformance are saved to include inspection reports, photographs, RFI's, and documentation of corrective work performed.

Example of Notice

Non-Conforming Work Notice

BYRNE CONSTRUCTION SERVICES

Project Name **Permit No.**
Contract No.

Report of Deviation from Contract Document **NCW#** 001

Report By: Paul Austin
Report Date: 11/11/2016
Issued To: Concrete Company of Texas (Company) — Red Bennett (Individual)
Spec. / Drawing Reference: Section 03300
Location:
Level 2 of Infill Structure

Description of Deviation from Contract Documents:
The top of slab at Level 2 exceeds tolerances for both elevation and flatness.

Remedial Work Required:
Repair / level slab as outlined in RFI #528.

Complete by: 11/21/2016 (Date) — Paul Austin (Signed) — Date

Report of Remedial Work

Notes: **Date Completed:**

How Can Deviation Be Avoided In Future ? (Use additional sheets if needed):

Completed by: Print Name — Signed — Date

cc: Project File Project Mgr Superintendent Project Engineer

Project Name & Address
Byrne Project Telephone No.

3. Example of Log

Non-Conforming Work Log UPDATED 2/11/2013 BYRNE

Project Name **Project Contract No.**

Rept. No.	Description	Location	Responsibility	Reported By	Report Date	Date To Complete Remedial Work	Completed On	Signed Off By	Notes
001	The top of slab at Level 2 exceeds tolerances for both elevation and flatness.	Level 2 of Infill Structure	Concrete Company of TX	Paul Austin	11-Nov-16	21-Nov-16			Repair / level slab as outlined in RFI #528
002									
003									
004									
005									
006									
007									
008									
009									
010									

4. The Non-Conforming Work Notification will be entered in the log and tracked until the problem is resolved. A copy of the current Non-Conforming Work Notice Log is distributed and reviewed at the subcontractor coordination meeting.

5. The log records all items noted as incomplete, missing, or requiring corrective action. Each item will include the date discovered, point of contact for resolution, action required, and date completed.

6. Non-conforming work should be corrected within a reasonable amount of time unless the non-conformance has an immediate impact on critical schedule activities.

7. Items will remain open until corrections are completed, verified as satisfactory, and signed off by the Superintendent.

8. Primary input for this list of deficiencies is from the inspection process with additional input coming from the Owner, Architect Field Reports, contractor observations, testing agency reports, above ceiling and wall close-up inspections, and other QC efforts.

I. Recording, Saving, & Distribution of Quality Control Reports

The Superintendent will record all major quality control processes in the Project Daily Report. The PC is responsible for saving all testing and inspection reports in a tabbed binder on the project and a digital copy under the project folder on the O:Drive. The PC will submit QC reports to the design consultants as required by specification and will send copies to subcontractors as applicable.

VIII. COMMISSIONING

Commissioning is a systematic process by which Byrne ensures building MEP

systems and associated equipment are properly functioning, interfaced, and working together in accordance with the project specifications. The process of commissioning occurs throughout the construction phase and culminating with the turnover of the building to the Owner's building maintenance personnel.

A. **Commissioning Team** – Depending upon the project, the Owner may employ a Commissioning Agent who coordinates and oversees the development and execution of a formal Commissioning Plan to verify the functioning of HVAC systems, sanitary sewer and domestic water equipment, building automation system, and lighting controls.

   However, the commissioning process is typically managed by Byrne's project staff. Regardless whether or not there is an assigned third party commissioning agent, the Byrne PM has the overall responsibility for managing the commissioning process. The scope of this responsibility includes monitoring the progress of equipment installation, equipment startup, systems integration, testing and verification of proper equipment functions, test and balance work, demonstration of the acceptable performance of life safety systems to the Fire Marshal, and ensuring that all identified deficiencies are corrected.

   The commissioning team includes:

   1. Project Manager
   2. Superintendent
   3. Office Engineer / Project Engineer
   4. Owner building management
   5. Design consultants
   6. Commissioning agent (If formal commissioning is specified)
   7. Mechanical subcontractor
   8. Controls system subcontractor
   9. Test and balance subcontractor
   10. Electrical subcontractor
   11. Fire protection subcontractor
   12. Fire alarm subcontractor

B. **Commissioning Plan** – The PM will work with the project team to develop and execute a comprehensive commissioning plan as defined by the project documents. This plan will include:

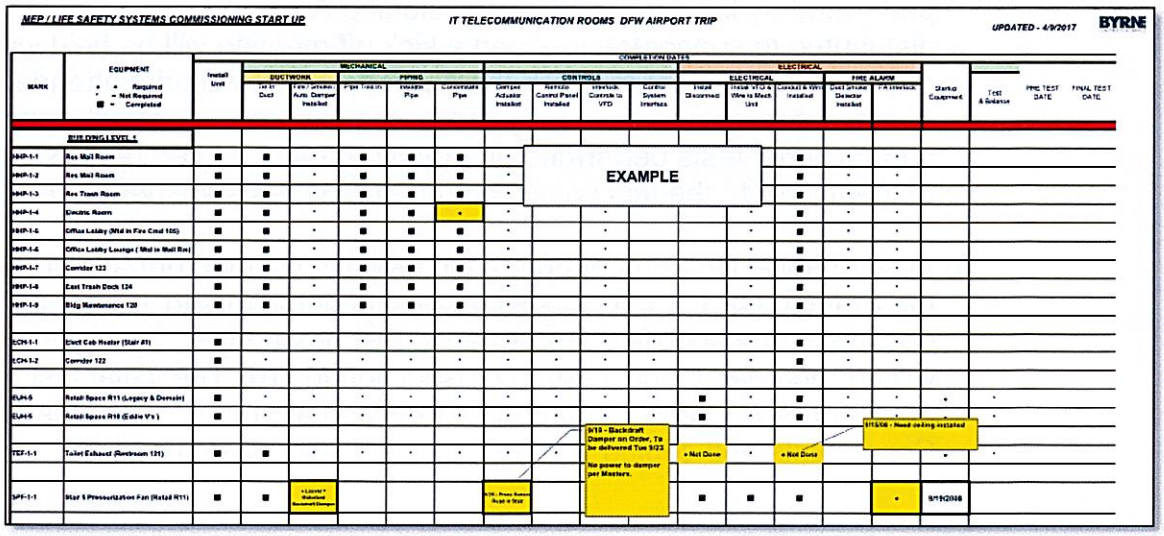
   1. Identification and listing of equipment and systems included in commissioning:

      a) Air handling units and associated variable frequency drives
      b) Fan powered boxes and VAV's
      c) Fan coil units
      d) Roof top units
      e) Split system DX units
      f) PTAC units

g) Chillers
h) Cooling towers
i) Condensing water pumps
j) Heat exchangers
k) Electric unit heaters
l) Fans – Outside air, stair pressurization, exhaust
m) Electric duct heaters
n) Building automation system
o) Sanitary sewage ejector pumps
p) Storm water ejector pumps
q) Elevator pit sump pumps
r) Boilers and hot water generators
s) Fire projection systems
t) Fire pumps
u) Fire alarm systems – fire detection, alarm, voice evacuation, fire sprinkler system flow and tamper monitoring, fire pump status indicators, fire fighters smoke control panel, fire department communication system, and fire fighter public phone
v) Elevators to include fire alarm recall and shunt trip functions
w) Lighting control system

2. MEP / Life Safety Systems Startup Matrix – From this list, it is recommended that a detailed spreadsheet is developed to track the installation ofequipment and interface of complimentary equipment. The matrix can be used as a pre-functional readiness checklist used in conjunction with the Commissioning plan checklist to verify that system components are completely installed, pre-tested, and ready for final acceptance testing. The matrix will be updated regularly as work progresses

<u>Example of Commissioning Start Up Matrix</u> (See full size form in Appendix E)



3. Commissioning Meetings – As work progresses, periodic Commissioning Meetings will be held to ensure progress is maintained in accordance with the project construction schedule and to discuss and resolve interdisciplinary installation issues. A good time to convene this meeting is after the weekly subcontractor coordination meeting. The meeting will be used to provide a forum for planning and tracking the progress of installation of MEP systems, interface of these systems, the orderly startup of equipment, pre-operational testing, Owner acceptance testing, and Owner training. The Commissioning Start Up Matrix can be used as good communication tool at the meeting to track and record progress of work.

4. Commissioning Testing –

   a) Start Up - Typically, specifications require that major equipment undergo a formal start up procedure conducted by an authorized manufacturer's representative. The Superintendent and PC will record the performance of startup work in the Test / Inspection Matrix. Byrne will require a written startup report to be submitted certifying that the equipment checks and testing required by the manufacturer were performed and that the equipment is ready to be put into service. A copy of the startup reports will be formally submitted to the design consultants and commissioning agent and a copy included with the commissioning records.

   b) Test and Balance – Test and balance procedures will be followed in accordance with specification requirements. Typically, a test and balance plan and schedule is required to be submitted for approval along with the TAB firm's credentials. Initial TAB reports will be submitted for approval. Outstanding TAB issues will be tracked until all deficiencies are corrected and a Final TAB report is submitted for approval.

   c) Formal Commissioning - If formal commissioning is specified to be performed by the Owner's Commissioning Agent, the agent's plan will be distributed to subcontractors and a kick off meeting will be held with the commissioning team in which the Owner's agent will brief attendees on the formal commissioning plan. Typically, the Owner's agent will want to have prefunctional tests performed on equipment and related reports submitted to them prior to the functional commissioning tests are performed.

   d) Performance Test Procedures – On projects without formal commissioning, the PM and OE/PE will work with the subcontractors to identify and document any specified performance test procedures. These procedures will be recorded in the Testing / Inspection Matrix. The initial test procedures will be submitted for review and approval to the Design Consultants and copied to the Owner's building maintenance

representative. Final record copies of test results will be submitted for review and record purposes.

5. The PM will ensure that the design consultants and Owner's representative are notified of the scheduled dates and times for all commissioning activities, which will afford them the opportunity to witness this work. If a Commissioning agent is employed by the Owner, the agent will be invited to witness equipment startup, pre-functional testing, and test and balance work. All participating subcontractors are required to provide skilled technicians and testing equipment necessary to conduct all testing.

6. Submittals – The OE/PE shall ensure that copies of all submittals for equipment that require commissioning are transmitted to the Commissioning Agent and Owner's representative for review and record purposes.

C. **Integration of Life Safety Systems** - Once mechanical and plumbing systems are commissioned, the integration of life safety systems must be tested to verify that they are working correctly before conducting final inspections with the Fire Marshal. This includes verification of:

1. Fire alarm system functional test.
2. Fire alarm interface with mechanical equipment to ensure shutdown of equipment.
3. Fire alarm interface with mechanical equipment to ensure activation and functioning of smoke evacuation system. This typically includes conducting a timed smoke evacuation test.
4. Fire alarm activation and reset of smoke dampers.
5. Fire alarm interface with building elevators.
6. Fire alarm interface with door hold open hardware and proper functioning of door smoke seals
7. Fire protection systems – wet systems & pre-action systems
8. Fire alarm interface with fire protection system – pre-action release and monitoring of water flow and valve tamper switches
9. If the building has a fire command center, verify interface of all control and annunciation devices installed in the command center
10. Performance of elevator shunt trip and recall functions.
11. Activation of wet sprinkler system and interface with fire pumps.
12. Loss of building power and activation of the electrical automatic transfer switch and startup of the power generator.
13. Loss of building power and activation of emergency lights.

D. **Commissioning Documentation** – All equipment startup reports, test reports, test and balance reports, formal commissioning documents, commissioning issues logs and photographs will be organized and compiled as commissioning progresses. Once commissioning is completed, an electronic copy of these documents will be filed by the OE/PE on the O:Drive and will be sent to the design team and Owner for record purposes.

SECTION 5

CLOSE OUT PHASE

SECTION 5

CLOSE OUT PHASE

I. INTRODUCTION

"Finish Strong" - Once Byrne has received a Temporary Certificate of Occupancy and Substantial Completion is reached, the Owner can occupy the completed portions of the project and assume responsibility for maintenance purposes. Consequently, the goal for the project staff is to begin planning for project closeout early enough during construction so that quality closeout deliverables have been prepared, submitted, approved, and turned over to the Owner at Substantial Completion. Contract close out deliverables typically include preparation and submittal of operations and maintenance manuals, training and training videos, warranty manual, turnover of attic stock, spare parts and tools, and preparation of project record documents.

II. OPERATIONS & MAINTENANCE MANUALS

A. The submittal of operations and maintenance (O&M) manuals are managed and tracked as part of the expediting and submittal process prior to project closeout. During preconstruction, the OE/PE reviews all specifications and records O&M's that are required in the Expediting Log. During the construction phase, subcontractors are required to compile, organize, and submit O&M's to the Architect and Owner for review and approval.

B. A separate composite O&M tracking log can be created from the Expediting Log to better manage and track the submittal review process. This log should include the following information:

1. Description of the equipment or system & responsible subcontractor
2. Specification number
3. Various steps of review process
4. Warranty requirement
5. Training requirement
6. Subcontractor responsible for equipment or system

Example of O&M Log

Operations and Maintenance (O&M) Manual Log

Project name			Y	Complete				Not Required				*						Required / Not Submitted		
Date			I	Issues				S	Submitted			TBD						TBD - To Be Determined		
			N	Late / Deficiency				NR	Not Reviewed			N/A						Not Applicable		
	Project Name																			
#	System or Equipment	Responsible Sub	Specification Section	Unifier Record Number	Unifier OMM Submission	OMM Required	TRIP Technical Review	AE Team Review	CMAR Review	ADE/ETAM Review	OMM Hard Copy to ADE	OMM Hard Copy Uploaded	OMM to Records Mgmt	Training Required	O&M Submitted in SA	Warranty	BYRNE CONSTRUCTION SERVICES Comment	PC
1	Roof Maintenance and Repair	K-Post	07 01 50	OMM-0016	Y	Y	Y	S										DR
2	Self Adhering Sheet Water Proofing	PMC - Alpha	07 13 26	OMM-0009	Y	Y	Y	S							x			CV
3	Impact Resistant Ext. Insulation/Finish System	Marek	07 24 19		N										x			DR
4	Batten Seam Metal Roofing	PMC	07 41 13.19		Y	Y	Y	S							x			DR
5	Formed Metal Wall Panels	PMC	07 42 13.13	OMM-0011	Y	Y	Y	S							x			CV
6	Insulated Metal Wall Panels	PMC	07 42 13.19	OMM-0010	Y	Y	Y	S							x			CV
7	Composite Wall Panels	PMC	07 42 43	OMM-0012	Y	Y	Y	S							x			CV

C. Each subcontractor shall provide Byrne with organized and collated copies of the O&M manuals in the specified media (paper copies, digital copies). The O&M manuals should be organized and tabbed to include:

1. Title page with appropriate identification information.
2. Master Table of Contents
3. Contractor, subcontractor, and project contact information
4. Subcontractor warranty and manufacturer's warranty documentation
5. O&M product data, installation and start-up information, operation, maintenance, and troubleshooting procedures, diagrams, test reports, and warranty request procedures.

D. Each subcontractor's O&M's shall be submitted to the Architect for review and approval well in advance of training that is conducted. The goal of an early submission of O&M's is to ensure the Owner's facility manager and maintenance technicians have approved O&M manuals in their possession to review and study prior to receiving training. Noting on the O&M log which O&M's have related training to be performed can help the PC prioritize the submittal of those O&M's first.

E. As O&M's are approved by the Architect, the PC will compile them in a master set containing multiple volumes organized by CSI specification. Once all O&M's are compiled in the master set, the PC will transmit the required number of hard copies and digital copies to the Architect for final review and submission to the Owner.

II. TRAINING

A. Training sessions cover the installation, operation and maintenance, owner warranty and customer support services of specified products and systems. The training is to be conducted after the start-up of the equipment and after the O&M

Manuals have been approved by the design consultants.

B. Organizing, managing, and scheduling of Owner training is an important closeout duty of the PC. Based upon specified training that is recorded in the Expediting Log, the PC can prepare a separate Owner Training Checklist to schedule and track the progress of training.

<u>Example of Owner Training Checklist</u> -

TRAINING CHECKLIST — Date Updated May 01 2015

BYRNE

LEGEND
- ✓ Complete
- • Issues or deficiencies
- N/A Training not required
- N/C Not complete
- N/S Not started
- T/C Training completed; required notifications or documents not provided

#	System or Equipment Involved	Maintained by	Specifications: Training Spec Section	Prior to Training: Notification 20 Days Prior to Training	Prior to Training: Agenda provided	Prior to Training: Syllabus/ Training Manuals	Prior to Training: Trainer Name and Contact Info	Training Information and Closeout: Proposed Training Date	Training Information and Closeout: Actual Training Date	Training Information and Closeout: Hours of Training Provided	Training Information and Closeout: List of attendees	Training Information and Closeout: Electronic Copies of all handouts	Training Information and Closeout: Video recording DVD in MP4 format	Comments
PROJECT NAME														
11	Fans and Ventilators	ETAM	23 34 23-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Training not required by ETAM
12	Fan Coil Units	ETAM	23 82 19-6	T/C	✓	T/C	✓	10/23/13	10/23/13	1 Hr classroom; 30 min field	✓	✓	✓	Traing Video On SKIRE 1003
13	CRAC Units / Air Cooled Condensers	ETAM	23 81 23-12	T/C	✓	T/C	✓	12/13/12	12/13/12	45 min classroom; 45 min field	T/C	✓	✓	Traing Video On SKIRE 1003
14	UPS Systems	ETAM	26 61 10-10	T/C	✓	T/C	✓	12/11/12	12/11/12	1 hr classroom; 1	✓	✓	✓	Traing Video On SKIRE 1003
15	Automatic Transfer Switches	ETAM		✓	✓	✓	✓	12/11/12	4/24/13	T/C	T/C	T/C	✓	Traing Video On SKIRE 1003
16	Fire Sprinkler Systems	ETAM	21 13 13-11	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	Training deferred till the end of SAC5
17	Electrical Switchgear / Breakers	ETAM		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Training will not be conducted since no switchgear was installed
18	Mechanical Vibration Isolation	ETAM	23 05 40-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Training not required
19	Door Hardware Adjustments	ETAM	08 71 00-9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Training not required
20	Communications Systems	ITS	27 01 00-16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Maintained by ITS
21	Automated Access Control System	ITS	28 13 00-13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Maintained by ITS

C. Based upon the specifications, here are typical items that should be considered by the OE/PE:

1. Coordinate the scheduling of training sessions between the Owner and subcontractors. This may include both a classroom and/ or on-site training.

2. Obtain a training syllabus or agenda of the topics to be covered in the training session from the subcontractors and submit it to the Owner in advance.

3. Ensure all O&M's have been approved by the Architect and have been submitted to the Owner prior to scheduling of training.

4. The OE/PE should request that subcontractors arrange for a qualified manufacturer's representative who is knowledgeable about proper maintenance, operation, and calibration of equipment to conduct the training. If possible, the subcontractor should provide training material handouts to include pertinent sections of the O&M Manual.

5. The PC will video record all training sessions and download the recordings to DVD's to be turned over to the Owner.

6. During the training session, the PC will monitor the quality of training and have a sign in sheet used for documentation of attendees.

7. Deliver a 'Thumb Drive' of each training session to the Owner's representative and have them sign a record copy of the transmittal sheet.

8. The PC will file training documentation (syllabus, attendee sheet and video) in the project folder under File 19 Warranties and Closeout.

III. WARRANTY MANUAL

A. The development, approval, and submittal of the Warranty Manual is managed by the PC. During preconstruction, the PC reviews all specifications and records all specified warranty documents that are to be submitted and approved in the Expediting Log.

B. During construction, subcontractors are required to compile, organize, and submit warranties for review and approval by Byrne and the Architect.

C. A separate detailed warranty log can be generated from the Expediting Log to better manage and track the submittal review process and can then be included in the final Warranty Manual. This log should include the specification section, paragraph, and section, description of special warranty requirements, warranty start date, duration, and warranty expiration date.

Example of Warranty Log

WARRANTY SUMMARY LIST		Project Name		BYRNE CONSTRUCTION SERVICES		
		Contract #:	Permit #:			
SPEC #	**Para/Section**	**Description**	**Responsibility**	**Duration**	**Start**	**Expiration**
06.41.16	1.10	Plastic Laminate clad Architectural Cabinets 2 year manufacturer and labor warranty	Fish	2 Year	10/24/2016	10/23/2018
07.01.50	1.7	Roof Maintenance and Repair Warranty References "existing roof system warranty"	K-Post	must follow manufactures warranty		
07.13.26	1.6.A	Replacement Waterproofing Warranty 10 Year manufacturer's warranty	PMC	10 Year	10/24/2016	10/21/2026
07.13.26.	1.6.B	Waterproofing Installers special warranty	PMC	2 Year	10/24/2016	10/23/2018
07.21.29	1.6	Spray Insulation Special warranty	Alpha	2 Year	10/24/2016	10/23/2018
07.41.13.19	1.10.A	Batten Seam Metal Roof Panels - 5 year warranty	PMC	5 Year	10/24/2016	10/22/2021

D. The PC will send the warranty log and standard Byrne subcontractor warranty certificates to each subcontractor requiring the certificate to be returned with the supplemental manufacturer warranties. These forms should be signed, dated, notarized, and organized for the PC.

E. It is recommended that an equipment check list be compiled identifying all major equipment installed on the project. This checklist can be included with the warranty manual. The list should be arranged by division, and should include the description, location, manufacturer, model number, serial number, date of operation, supplier, and start and expiration of warranty.

Example of Equipment Warranty Checklist

EQUIPMENT WARRANTY CHECKLIST

Project Name

Contract No:

BYRNE

Equip. Description	Location	Manufacturer	Model No.	Serial No.	Date of Operation	Supplier	Warranty Start Date	Warranty Expiration Date	Warranty Duration
Air Handler AHU-B-3-C-97	B-3-C-97	Climate Craft	CAH 84X132	24041	5/12/2014	McMillan James	1/1/2015	12/31/2015	12 Months
VFD EF-B-C-83	B-C-83	ABB, Inc.	ACH550-PCR-06A9-4	TRIP - XXXXX	8/31/2014	Texas Air Systems	1/1/2015	12/31/2019	5 Years

F. Include in the warranty manual a title page, table of contents, project information, warranty contact information, substantial completion certificate identifying warranty start dates, warranty log, equipment warranty checklist, and all subcontractor and manufacturer warranties organized by specification section.

G. Double check manufacturer warranties to see if evidence of successful test results need to be filed with the manufacturer to ensure warranty repair requests are honored. Some manufacturers (example heat trace system) require that the Owner register their system with attached successful test reports before they will honor any subsequent warranty repair requests.

H. The PC will file a completed copy of the warranty manual in the projectfolder under File 19 Warranties and Closeout.

IV. TURNOVER OF MISC. DELIVERABLES

A. The PC will record specified miscellaneous project deliverables in the Expediting Log. Items to be included in the log are attic stock of finish products, spare parts, door keys, keys for misc. specialties, elevator keys, computer hardware and software, sprinkler system heads, maintenance tools, mechanical equipment filters, and electrical panel keys.

B. From the Expediting Log, the PC will generate a log of these deliverables and send it to subcontractors in order to track the turnover of these items to the Owner.

Example of Misc. Deliverables Log

Turn Over of Spare Parts, Keys, & Accessories
Project Name

Updated 2/10/2017

Spec. Section	Description	Quantity	Date	Transmittal #
87011	Uncombinated permanent cores & key blanks: Cores Keys - Uncut	 176 Ea 352 Ea	12/6/16	Delivered direct to Owner Tran-001
83113	Access Door Keys	4 Ea	12/13/16	Tran-0039
84216	Automatic Sliding Door Keys	12 Ea	5/12/17	Tran-010
87011	Family Restroom Emergency Key			
87011	Key Cabinet			
102813	Paper Towel Dispenser Keys			
102813	Toilet Paper Dispenser Keys			
102813	Soap Dispenser Keys			
102813	Restroom undermount soap dispensers			
102813	SS Trash Can			
102813	AED Cabinet Keys	4 Ea	5/12/17	Tran-012
104413	Fire Extinguishers - Accepted by Mitch Gray DPS Fire & Life Safety Inspection			
102813	Bag Room Wind curtains	3 Ea	12/6/16	Tran-002
142100	Elevator Keys - airside			

C. When delivering the items to the Owner, the PC will prepare a transmittal letter that has a place for the Owner's representative to sign and date indicating receipt.

D. The delivery of items will be recorded in the Expediting Log and a copy of signed transmittals will be digitally saved in the project closeout folder.

V. PROJECT RECORD DOCUMENTS

A. Prior to substantial completion, the PM should request an updated set of drawings from the design team in the specified format for record documents. This updated set should incorporate all RFI's and associated misc. sketches issued at that time.

B. When the updated record set is received, the PC will transmit the appropriate documents to subcontractors based upon their scope of work. Subcontractors will be required to incorporate all as-built information onto the record set of

documents and to provide a final field use set of shop drawings based upon their final installation.

C. Reliability of the information included on the record document set is important. The OE/PE should instruct subcontractors to include a stamp indicating that they have reviewed each drawing and the information entered is complete and accurate to the best of their knowledge. The subcontractor may have a standard stamp they use.

Example - Record Document Stamp

To the best of _____ belief and knowledge, the as-built conditions shown on this drawing constitute an accurate and complete depiction of the manner in which this the Work was installed during the performance of Contract No. _____.

COMPANY NAME

_____ _____

John Doe, Project Manager Date

D. The PC should strive to have all record documents returned within 30 days of substantial completion and collated and submitted to the Architect within 40 days.

E. Prior to submission of the Record Documents, the PC will update the Contract Documents List to include all incorporated misc. sketches that were not incorporated into the updated set from the Architect. The updated log will be incorporated with the Project Record Set submitted to the Architect and filed in the Project Folder on the O:Drive.

F. If the contract requires mylars to be used to record as-built information, the OE/PE should have all record documents scanned, saved on DVD, and saved to the Project Folder on the O:Drive.

G. If CAD drawings are required to be used for the project record set, the completed record set of CAD sheets will be converted to pdf's. Both the CAD files and pdf's of the project record set will be saved to the Project Folder on the O:Drive.

H. The PC will also prepare a conformed set of specifications to be included with the record documents that records as-built information based upon RFI responses, submittal information, substitution requests, and the like.

I. The PC will post all RFI's to the project set that the Architect did not incorporate in the final updated set of contract documents. The PC will cloud areas on the drawings affected by the RFI response and will note the RFI # by

the cloud. Similarly, the PC will note in the final set of specifications where an RFI response has clarified the specification. A full set of RFI responses and RFI log will be submitted with the Project Record Documents.

VI. SUBCONTRACTOR EVALUATION

A. At the conclusion of every project, the Byrne project team will evaluate the performance of our subcontractors. This evaluation report is kept internal to Byrne and provides valuable feedback to senior management and the estimating department in aligning subcontractors' capabilities with future projects.

B. The PC is responsible for managing and submitting the Sub Evaluation Report.

C. There should be evaluations submitted by each team member (CM, Superintendent, PM, PC, Field Accountant). The template for the sub evaluation report is located on the O:Drive - Byrne Templates / Constructability.

D. Once all evaluations are compiled, the PC is responsible to submit the evaluations to all Byrne Construction Managers, Byrne Estimating Department, and Corporate Management.

Example of Subcontractor Evaluation Report

BYRNE CONSTRUCTION SERVICES
PROJECT NAME: XXXXXXXXXXXXX
JOB # : 0000
SUBSTANTIAL COMPLETION MM/DD/YYYY
SUBCONTRACTOR EVALUATION REPORT

Performed by: Onsite Byrne Representatives

Job Number	SubK / MPO Number	Subcontractor / Vendor	Trade	SubK/PO Value	Supt. J Doe	Proj Mgr J Doe	OE/PE J Doe	Other J Doe	Average	Comments * **
0000	S01	Example Company A	CONCRETE	$1,259,125	C	D	C	N/A	C-	Supt. Field staff is very helpful. Main office clogs up correspondence, and is argumentative. PM. Form crew excelled; Finishers were not properly equipped or staffed. Requested Changes for items until you proved they should have been included. OE/PE. Submittals were difficult to obtain and revise.
0000	S02	Example Company B	PAINTING	$65,850	C	A	B	N/A	B	Supt. Shorthanded throughout project. Had to overstaff at end to finish on time. Finished Well. PM. Pay-aps were smooth and correct. OE/PE. Submittals were smooth; RFI's clear and appropriate.
0000										Supt. Comment here... PM. Comment here... OE/PE. Comment here
0000										Supt. Comment here... PM. Comment here... OE/PE. Comment here
0000										Supt. Comment here... PM. Comment here... OE/PE. Comment here
0000										Supt. Comment here... PM. Comment here... OE/PE. Comment here
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0000										Supt. Comment here... PM. Comment here... OE/PE. Comment here

*** Grading Criteria**

- **A** Exceeded all expectations.
- **B** Met Overal Expectations
- **C** Met Minimal Requirments, But Needs Improvement
- **D** Did Not Meet Minimal Requirements.
- **F** Performed Below Minimal Standards. Do Not Recommend.
- —— **** Any score for C or worse must have a detailed explanation**
- —— **** Comments are encouraged for all scores. (Describe how a score of A or B was achieved.) ***

SECTION 6

APPENDICES

Appendix A	Contract Documents List
Appendix B	Expediting Log
Appendix C	Testing / Inspection Matrix
Appendix D	Closeout

- Operations & Maintenance Manual Log
- Owner Training Checklist
- Summary of Special Warranties
- Equipment Warranty Checklist
- Turnover of Misc. Deliverables Log
- Subcontractor Evaluation Report

Appendix E	Quality Control Forms
Appendix F	Expediting Procedures
Appendix G	Submittal Review Procedures

APPENDIX A

CONTRACT DOCUMENTS LIST

NINE DECADES OF EXCELLENCE

2601 Scott Avenue, Suite 300
Fort Worth, Texas 76103
817-335-3394

EXAMPLE

Contract Documents List

Date: 4/8/2017

PROJECT NAME
LOCATION

Sheet	No. of Pages	Current Date	Sheet Name	Set)
			SPECIFICATIONS	
00 00 00		08/03/09	Project Manual Cover	
00 00 01		08/03/09	Updated Board of Regents Title Page	
00 00 02		08/03/09	Seal Page	
00 01 10		08/03/09	Table of Contents (volume 1)	
00 02 00		08/03/09	List of Drawings	
00 06 00		08/03/09	Uniform General and Supplementary Conditions	
00 07 00		08/03/09	Special Conditions	
00 08 00		08/03/09	Wage Rates for Erath County	
00 31 32		08/03/09	Geotechnical Data	
00 31 32-1		11/11/08	Geotech Report	
00 31 32-2		04/09/09	Geotech Addendum 1	
00 31 32-3		05/14/09	Geotech Addendum 2	
00 89 00		08/03/09	Finish Selection Summary	
		06/11/10	Final Finish Specs	ASI #14 Rev. C
01 11 00		08/03/09	Summary of Work (volumes 1 and 2)	
01 23 00		08/03/09	Alternates (volumes 1 and 2)	
01 25 00		08/03/09	Substitution Procedures (volumes 1 and 2)	
01 26 00		08/03/09	Contract Modification Procedures (volumes 1 and 2)	
01 29 00		08/03/09	Payment Procedures (volumes 1 and 2)	
01 31 00		08/03/09	Project Management and Coordination (volumes 1 and 2)	
01 31 50		08/03/09	Project Meetings (volumes 1 and 2)	
01 32 00		08/03/09	Construction Progress Documentation (volumes 1 and 2)	
01 33 00		08/03/09	Submittal Procedures (volumes 1 and 2)	
01 34 00		08/03/09	Shop Drawings, Product Data, and Samples (volumes 1 and 2)	
01 42 00		08/03/09	References (volumes 1 and 2)	
01 43 00		08/03/09	Quality Assurance (volumes 1 and 2)	
01 45 00		08/03/09	Quality Control (volumes 1 and 2)	
01 50 00		08/03/09	Temporary Facilities and Controls (volumes 1 and 2)	
01 60 00		08/03/09	Product Requirements (volumes 1 and 2)	
01 72 50		08/03/09	Field Engineering (volumes 1 and 2)	
01 73 50		08/03/09	Cutting and Patching (volumes 1 and 2)	
01 74 00		08/03/09	Cleaning and Waste Management (volumes 1 and 2)	
01 77 00		08/03/09	Closeout Procedures (volumes 1 and 2)	
01 78 00		08/03/09	Closeout Submittals (volumes 1 and 2)	
03363-P		08/28/09	Pool Plaster (Exposed Aggregate Finish)	Addendum D
13150-P		08/28/09	Swimming Pools & Fountains	Addendum D
13153-P		08/28/09	Swimming Pool & Fountain Piping	Addendum D
16450-P		08/28/09	Grounding and Bonding for Pools & Fountains	Addendum D
03 30 00		08/03/09	Cast-In-Place Concrete	
03 35 00		08/03/09	Concrete Floor Finishing	
03 35 36		08/03/09	Clear Concrete Sealer	
04 05 13		08/03/09	Masonry Mortaring	
04 20 00		08/03/09	Unit Masonry	
04 72 00		08/03/09	Cast Stone Masonry	
05 12 00		08/03/09	Structural Steel	
05 21 00		08/03/09	Steel Joists	
05 31 00		08/03/09	Steel Deck	
05 40 00		08/03/09	Cold-Formed Metal Framing	
05 50 00		08/03/09	Metal Fabrications	
05 51 00		08/03/09	Metal Stairs	
05 51 33		08/03/09	Metal Ladders	
05 52 13		08/03/09	Pipe and Tube Railings	
05 53 00		08/03/09	Gratings	
05 73 00		08/03/09	Decorative Metal Railings	
06 10 00		08/03/09	Rough Carpentry	
06 20 23		08/03/09	Interior Finish Carpentry	
06 41 00		08/03/09	Custom Casework	
06 61 16		08/03/09	Solid Polymer Fabrications	
06 82 13		08/03/09	Glass Fiber Reinforced Plastic Paneling	
07 11 13		08/03/09	Bituminous Dampproofing	
07 11 19		08/03/09	Sheet Dampproofing	
07 16 50		08/03/09	Cementitious Waterproofing.	
07 21 00		08/03/09	Thermal Building Insulation	
07 21 29		08/03/09	Sprayed Insulation	
07 26 16		08/03/09	Below-Grade Vapor Retarders	
07 27 26		02/26/10	Fluid-Applied Membrane Air Barriers	ASI #10
07 41 13		08/03/09	Preformed Metal Roofing	
07 42 43		08/03/09	Aluminum Composite Panel System	
07 54 19		08/03/09	Thermoplastic Membrane Roofing	
07 62 00		08/03/09	Sheet Metal Flashing and Trim	
07 65 00		08/03/09	Flexible Flashing	
07 71 00		08/03/09	Manufactured Roof Specialties	
07 72 00		08/03/09	Roof Accessories	
07 84 00		08/03/09	Firestopping	
07 90 00		08/03/09	Joint Sealants	
08 11 13		08/03/09	Hollow Metal Doors and Frames	
08 12 16		08/03/09	Interior Aluminum Frames	
08 14 16		08/03/09	Flush Wood Doors	
08 31 13		08/03/09	Access Doors and Frames	

APPENDIX B

EXPEDITING LOG

White - Outstanding (Not Yet Submitted from Sub-Leave Cell Blank)
Blue - Submitted (Under Review)
Orange - Late from Sub or Architect (Or Status)
Green - Approved, Approved as Noted, For MBJ3 Record, (Or Early expected delivery date)
Red - Revise and Resubmit
Grey - Not Used

EXPEDITING LOG -

EXAMPLE

DESCRIPTION										SCHEDULE DATES						
		Submittal No.														
No.	CSI No.	Section	#	Rev	Description	Submittal Type	Rvw .By	Phase	Sub or Vendor	Days Until Submission	To Byrne	To Arch	From Arch	To Sub	Fab / Delv.	S
					DIVISION -1:GENERAL REQUIREMENTS											
					01 5000 - Temporary Facilities and Controls											
1	1 5000	1 5000	1	0	Erosion & Sedimentation-Control Plan	Report		Pre-Construction	BYRNE	-	02/27/17	03/06/17	03/20/17	3/27/17	5	4/
2										-	#########	###########	###########	-		
					01 7419 - Construction Waste Management and Disposal											
1	1 7419	1 7419			Waste Management Conference	Report		Pre-Construction	BYRNE	Late	02/14/17	02/21/17	03/07/17	3/14/17	1	3/
2										-	#########	###########	###########	-		
					DIVISION 03: CONCRETE					-	#########	###########	###########	-		
					03 1100 - Concrete Forming and Accessories											
1	3 1100	3 1100	1	0	Fiberboard - Product Data	Product Data	JD	Construction	NTS	15	04/29/17	05/06/17	05/20/17	5/27/17	5	6/
2	3 1100	3 1100	2	0	Soil Retainer Boards (Foam Board Panels) - Product Data	Product Data	JD	Construction	NTS	-	#########	###########	###########	-		
3										-	#########	###########	###########	-		
4										-	#########	###########	###########	-		
5										-	#########	###########	###########	-		
6										-	#########	###########	###########	-		
7										-	#########	###########	###########	-		
8										-	#########	###########	###########	-		
9										-	#########	###########	###########	-		
10										-	#########	###########	###########	-		
										-	#########	###########	###########	-		
22										-	#########	###########	###########	-		
23										-	#########	###########	###########	-		
24										-	#########	###########	###########	-		
25										-	#########	###########	###########	-		
26										-	#########	###########	###########	-		

APPENDIX C

TESTING / INSPECTION MATRIX

TESTING / INSPECTION MATRIX

PROJECT NAME
Project No. XXX Permit No. XXX

EXAMPLE

Report Date: 1/16/2017

SPEC SECTION	PARA	REQUIREMENTS	TYPE	RESPONSIBILITY	FREQUENCY/LOCATION	STATUS	SCHEDULE ES Date
03 1511		**EMBEDDED METAL ASSEMBLIES AND INSERTS**		MDI			
03 1511	1.4	**Embedded Metal Assemblies and Inserts** Qualifications 1. Fabricator: minimum of 3 years experience in related or similar work. 2. Welders: certified for type of welding required within previous 6 months	**Submittal**	MDI	As work progresses		
03 1511	3.2	**Embedded Metal Assemblies and Inserts** Laboratory Testing: provide independent testing laboratory services as follows: 1. Inspect steel fabrications for sizes, spacings and general quality of fabrication. 2. Inspect welding of steel fabrications for size, length and quality. 3. Inspect positioning of assemblies and inserts in the forms. 4. Visually inspect welds at anchors and shear stud connectors. Test studs which do not appear to have full sound 360 degree fillet weld at base. Test by bending 15 degrees. Replace studs which fail this test.	**Submittal**	MDI Terracon	As work progresses		
03 2000		**CONCRETE REINFORCING**		MDI			
03 2000	1.3.B	**Concrete Reinforcing** 1. Submit certified copies of mill reports, evidencing compliance with requirements of Specifications. 2. Submit copies of laboratory testing and inspection reports.	**Submittal**	MDI			
03 2000	2.5	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect fabricating and bending procedures 2. Inspect fabricated materials	**Inspection**	MDI Terracon	Prior to placement		
03 2000	3.4	**Concrete Reinforcing** Testing Laboratory Services 1. Inspect reinforcing sizes, quantities and placement 2. Inspect support and securement of reinforcing. 3. Inspect condition of reinforcing.	**Inspection**	MDI Terracon	Prior to pouring concrete-check alignment, layout and securement of reinforcing		
03 3100		**STRUCTURAL CONCRETE**		MDI			
03 3100	2.7	**Structural Concrete** Source Quality Control A. Laboratory Inspection 1. Verify required plant certifications 2. Inspect batching equipment periodically 3. Inspect batching and loading of transit-mix trucks at the start of each day. B. Materials Testing 1. Sieve analysis of aggregates	**Inspection**	MDI Terracon	Daily inspections at plant		
03 3100	3.3.D.3	**Structural Concrete** **Floor flatness and levelness measurements**: a. Measurements shall be made where requested by Owner or Architect, at Owner's expense. b. Measurements shall be made in accordance with ASTM E-1155 and ACI 117.	**Test**	MDI Terracon	As requested by Owner or Architect		

APPENDIX D

CLOSE OUT FORMS

Operations & Maintenance Manual Log

Owner Training Checklist

Summary of Special Warranties

Equipment Warranty Checklist

Turnover of Misc. Deliverables Log

Subcontractor Evaluation Report

EXAMPLE

Operations and Maintenance (O&M) Manual Log

Date:

Y	Complete		Not Required	•	Required / Not Submitted
I	Issues	S	Submitted	TBD	TBD - To Be Determined
N	Late / Deficiency	NR	Not Reviewed	N/A	Not Applicable

Project Name

Contract No:

#	System or Equipment	Specification Section	O&M Submission	OMM Required	Byrne Review	AE Team Review	Client Review	Client Review	OMM Delivered to Client	Training Required	Comment	PC
1	ROOF MAINTENANCE AND REPAIR	07 01 50		•	•	•	•	•	•			CK
2	BATTEN-SEAM METAL ROOF SYSTEMS	07 41 13.19	OMM-0006	Y	S	•	•	•	•			CK
3	FORMED METAL WALL PANELS	07 42 13.13	OMM-0006	Y	S	•	•	•	•			CK
4	INSULATED METAL WALL PANELS	07 42 13.19	OMM-0006	Y	S	•	•	•	•			CK
5	COMPOSITE WALL PANELS	07 42 43	OMM-0006	Y	S	•	•	•	•			CK
6	THERMOPLASTIC MEMBRANE ROOFING	07 54 00		•	•	•	•	•	•			CK
7	EPDM ROOFING	07 55 53		•	•	•	•	•	•			CK
8	SHEET METAL ROOFING	07 61 00		•	•	•	•	•	•			CK
9	SHEET METAL FLASHING AND TRIM	07 62 00		•	•	•	•	•	•			CK
10	ROOF SPECIALTIES	07 71 00		•	•	•	•	•	•			CK
11	OVERHEAD COILING DOORS	08 33 23		•	•	•	•	•	•			CK
12	OVERHEAD COILING GRILLES	08 33 26		•	•	•	•	•	•			CK
13	ALL-GLASS ENTRANCES AND STOREFRONTS	08 41 26		•								SV
14	AUTOMATIC ENTRANCE DOORS	08 42 26	OMM-0005	Y	S	•	•	•	•			SV
15	DOOR HARDWARE	08 70 11	OMM-0007	Y	S	•	•	•	•			SV
16	DOOR HARDWARE (AACS)	08 70 11		•	•	•	•	•	•			SV
17	ACOUSTICAL METAL PAN CEILINGS	09 51 33		•	•	•	•	•	•			SV
18	RESILIENT TILE FLOORING	09 65 19	OMM-0004	Y	Y	S	•	•	•			SV
19	STATIC-CONTROL RESILIENT FLOORING	09 65 36	OMM-0004	Y	Y	S	•	•	•			SV
20	RESINOUS FLOORING AND WALL COATING SYSTEMS	09 67 23		•	•	•	•	•	•			SV
21	SOLID PHENOLIC WALL PANELING	09 77 33	OMM-0005	Y	Y	S	•	•	•			SV
22	SIGNAGE	10 14 00		•	•	•	•	•	•			SV
23	METAL TOILET COMPARTMENTS	10 21 13		•								SV
24	TOILET AND BATH ACCESSORIES	10 28 13		•	•	•	•	•	•			SV
25	FIRE EXTINGUISHERS, CABINETS AND ACCESSORIES	10 44 13		•								SV
26	GENERAL ELEVATOR REQUIREMENTS	14 20 50		•	•	•	•	•	•	•	** TRAINING REQUIRED **	CK
27	HEAT TRACING FOR FIRE SUPPRESSION PIPING	21 05 33	OMM-0001	Y	Y	Y	Y	Y	Y	Y	** TRAINING REQUIRED **	SV
28	FIRE SUPPRESSION SYSTEMS INSULATION	21 07 00	OMM-0001	Y	Y	Y	Y	Y	Y	Y		SV
29	FIRE SUPPRESSION STANDPIPES	21 12 00	OMM-0001	Y	Y	Y	Y	Y	Y	Y		SV
30	WET PIPE SPRINKLER SYSTEMS	21 13 13	OMM-0001	Y	Y	Y	Y	Y	Y	Y	** TRAINING REQUIRED **	SV
31	DRY PIPE AND PREACTION SPRINKLER SYSTEMS	21 13 16	OMM-0001	Y	Y	Y	Y	Y	Y	Y	** TRAINING REQUIRED **	SV
32	COMMON WORK RESULTS FOR PLUMBING	22 05 00	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
33	THERMOMETERS AND GAUGES FOR PLUMBING PIPING	22 05 19	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
34	HEAT TRACING FOR PLUMBING PIPING	22 05 33	OMM-0002	Y	Y	Y	Y	Y	Y	S	** TRAINING REQUIRED **	SV
35	DOMESTIC WATER PIPING SPECIALTIES	22 11 19	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
36	DOMESTIC WATER PUMPS	22 11 23	OMM-0002	Y	Y	Y	Y	Y	Y	S	** TRAINING REQUIRED **	SV
37	FACILITY NATURAL GAS PIPING	22 11 24	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
38	SANITARY WASTE PIPING SPECIALTIES	22 13 19	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
39	GREASE WASTE AND SANITARY SEWAGE PUMPS	22 13 29	OMM-0002	Y	Y	Y	Y	Y	Y	S	** TRAINING REQUIRED **	SV
40	SUMP PUMPS	22 14 29	OMM-0002	Y	Y	Y	Y	Y	Y	S	** TRAINING REQUIRED **	SV
41	DOMESTIC WATER HEAT EXCHANGERS	22 35 00	OMM-0002	Y	Y	Y	Y	Y	Y	S	** TRAINING REQUIRED **	SV
42	PLUMBING FIXTURES	22 40 00	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
43	EMERGENCY PLUMBING FIXTURES	22 45 00	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
44	DRINKING FOUNTAINS AND WATER COOLERS	22 47 00	OMM-0002	Y	Y	Y	Y	Y	Y	S		SV
45	HVAC AIR DUCT CLEANING	23 01 30	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV
46	METERS AND GAGES FOR HVAC PIPING	23 05 19	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV
47	HEAT TRACING FOR HVAC PIPING	23 05 33	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV
48	IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT	23 05 53	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV
49	CONTROL VALVES AND DAMPERS	23 09 13	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV
50	INSTRUMENTATION AND CONTROL FOR HVAC	23 09 23	OMM-0003	Y	Y	Y	Y	Y	Y	Y		SV

EXAMPLE

Owner Training Checklist

Date Updated: May 31, 2017

Project Name:
Contract No:

LEGEND

✓	Complete
•	Issues or deficiencies
N/A	Training not required
N/C	Not complete
N/S	Not started
T/C	Training completed; required notifications or documents not provided

#	System or Equipment Involved	Maintained by	Specifications	Prior to Training				Training Information and Closeout						Comments
			Training Spec Section	Notification 20 Days Prior to Training	Agenda provided	Syllabus/ Training Manuals	Trainer Nameand Contact Info	Proposed Training Date	Actual Training Date	Hours of Training Provided	List of attendees	Electronic Copies of all handouts	Video recording DVD in MP4 format	
1	Air Handling Units		237323	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	N/C	Video not received
2	HVAC Fans & Ventilators - Exhaust Fans		233400 3.6	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	N/C	Video not received
3	HVAC Fans & Ventilators - Gravity Intake Hoods		233400 3.6	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	N/C	Video notreceived
4	Fan Powered Air Terminal Units		233600	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	N/C	Video not received
5	Variable Volume Terminal Units		233600	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	N/C	Video not received
6	BAS Controls		230900 3.9	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	
7	Lighting Controls		260923 3.2	✓	✓	✓	✓	12/2/2013	12/2/2013	5	✓	✓	•	Not in MP4 Format
8	Lighting Fixtures		265111	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	
9	Sump Pumps		221429	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
10	Domestic Water System - Thermostic Mixing Valve		221119 2.7	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
11	Domestic Water System - Hydraulic Shock Arrestor		221119 2.12	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
12	HW Recirculation Pump			✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
13	Heat Trace - Plumbing		220533	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
14	Domestic Water System - Backflow Preventer		221119 2.4	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
15	Domestic Water System - Trap Seal Primer		221119 2.14	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
16	Commericial Water Closets - Flushometer Valves		22421313 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
17	Commericial Urinals - Urinal Flushometer Valves		22421316 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
18	Commericial Lavatories - Faucets		22421613 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
19	Commericial Sinks - Service Basin Faucets		22421616 2.3	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
20	Pressure Water Coolers (Electric)		224716	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
21	Terminal Box & Equipment Controls		230913.13 3.2	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	•	Not in MP4 Format
22	Control Valves & Dampers		230913.33 3.4	✓	✓	✓	✓	11/21/2013	12/2/2013	5	✓	✓	•	Not in MP4 Format
23	Panelboards		262416	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	•	Not in MP4 Format
24	Telecommunications System		270100 3.4.B.4	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	N/S	
25	Elevators		143100 3.4	✓	✓	✓	✓	12/18/2013	12/18/2013	3	✓	✓	•	Not in MP4 Format
26	Moving Walks		143200 3.4	✓	✓	✓	✓	12/18/2013	12/18/2013	3	✓	✓	•	Not in MP4 Format
27	Fire Suppression		211200 3.6	✓	✓	✓	✓	12/30/2013	12/30/2013	1	✓	✓	•	Not in MP4 Format
28	Wet Pipe Sprinklers		211313 3.7	N/S	N/S	N/S	N/S	N/S	N/S		N/S	N/S	N/S	
29	Electric Traction Elevators		142400 3.4	✓	✓	✓	✓	12/18/2013	12/18/2013	3	✓	✓	•	Not in MP4 Format
30	Escalators		143100 3.4	✓	✓	✓	✓	12/18/2013	12/18/2013	3	✓	✓	•	Not in MP4 Format

EXAMPLE

SUMMARY OF SPECIAL WARRANTIES

Project Name and Contract No:

SPEC SECTION	PARA	DESCRIPTION	CONTRACTOR	WARRANTY INFORMATION	DURATION	Start Date	End Date
064113	1.10	WOOD-VENEER-FACED ARCHITECTURAL CABINETS	Fish	A. Furnish written warranty signed by **Contractor and Woodwork Manufacturer**, in accordance with requirements of Contract Documents and specifically including guarantee against warpage and delamination for a period of **two years.**	2 Year		
064116	1.10	PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS	Fish	A. Furnish warranty with provisions for making good or replacing, at no cost to Owner, cabinetwork and other millwork items which exhibit defects in material and workmanship within a period of **two years.**	2 Year		
07.10.50		ROOF MAINTENANCE	K-Post		1 Year		
071326	1.6	Self-Adhering Sheet Waterproofing Warranty	K-Post	**A. Special Manufacturer's Warranty**: Manufacturer's standard form in which manufacturer agrees to replace waterproofing material that does not comply with requirements or that fails to remain watertight within specified warranty period. **1. Warranty Period: Ten years** from date of Substantial Completion. **B. Special Installer's Warranty**: Specified form, signed by Installer, covering Work of this Section, for warranty period of **two years.** **1.** Warranty includes removing and reinstalling protection board, drainage panels, insulation, pedestals, and pavers on plaza decks.	10 Year 2 Year		
074113 .19	1.10	BATTEN-SEAM METAL ROOF SYSTEMS	PMC	**A. Special Warranty:** Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period. **1. Failures include, but are not limited to, the following:** a. Structural failures including rupturing, cracking, or curing. b. Deterioration of metals and other materials beyond normal weathering. **2. Warranty Period: Five years** from date of Substantial Completion. **B. Special Warranty on Panel Finishes:** Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period. **1. Exposed Panel Finish:** Deterioration includes, but is not limited to, the following: a. Color fading more than 5 Hunter units when tested according to ASTM D 2244. b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214. c. Cracking, checking, peeling, or failure of paint to adhere to bare metal. **2. Finish Warranty Period: 20 years** from date of Substantial Completion.	5 Year 20 Years		

EXAMPLE

EQUIPMENT WARRANTY CHECKLIST

Project Name

Contract No:

Equip. Description	Location	Manufacturer	Model No.	Serial No.	Date of Operation	Supplier	Warranty Start Date	Warranty Expiration Date	Warranty Duration
Division 14 Elevators									
#1 - EVB8L21	Col Line A-24/25	KONE, Inc.	HW74 - Resolve 100	20350722	2/8/2016	KONE, Inc.	**2/22/2016**	**2/21/2018**	**2 year**
Division 21 Fire Protection									
Air Compressor	Valve Room #1	South Tek Systems	UR5-8	DR-02369	1/31/2016	South Tek Systems	**2/22/2016**	**2/21/2017**	1 year
Nitrogen Generator	Valve Room #1	South Tek Systems	FPS-15000	NB 12000-10012	1/31/2016	South Tek Systems	**2/22/2016**	**2/21/2017**	1 year
Division 23 Mechanical									
Air Handler AHU-B-3-B-14	AHU-B-3-B-14	Climate Craft	CAH54X90	24804	1/31/2016	McMillan James	**2/22/2016**	**2/21/2017**	1 year
Air Handler AHU-B-3-C-14	AHU-B-3-C-14	Climate Craft	CAH114X138	24800	1/31/2016	McMillan James	**2/22/2016**	**2/21/2017**	1 year
VFD B-3-B-14	Mech Rm #1	ABB, Inc.	ACH550-PCR-06A9-4	55916	1/31/2016	Texas Air Systems	**2/22/2016**	**2/20/2021**	5 Years
VFD B-3-C-14	Mech Rm #2	ABB, Inc.	ACH550-PCR-06A9-4	55917	1/31/2016	Texas Air Systems	**2/22/2016**	**2/20/2021**	5 Years
Air Terminal Box	Col Line B-2	Price	FDV5	1055721-001-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line B-4	Price	FDV5	1055721-002-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line A-3	Price	FDV5	1055721-003-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line D-4.5	Price	FDV5	1055721-003-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line A-6	Price	SDV5	1055721-003-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line B-7	Price	FDV5	1055721-003-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year
Air Terminal Box	Col Line C-8	Price	FDV5	1055721-007-001	9/16/2015	Texas Air Systems	**2/22/2016**	**2/21/2017**	1 year

EXAMPLE

Turn Over of Spare Parts, Keys, & Accessories
Project Name

Updated 2/10/2017

Spec. Section	Description	Quantity	Date	Transmittal #
87011	Uncombinated permanent cores & key blanks: Cores Keys - Uncut	 176 Ea 352 Ea	12/6/16	Delivered direct to Owner Tran-001
83113	Access Door Keys	4 Ea	12/13/16	Tran-0039
84216	Automatic Sliding Door Keys	12 Ea	5/12/17	Tran-010
87011	Family Restroom Emergency Key			
87011	Key Cabinet			
102813	Paper Towel Dispenser Keys			
102813	Toilet Paper Dispenser Keys			
102813	Soap Dispenser Keys			
102813	Restroom undermount soap dispensers			
102813	SS Trash Can			
102813	AED Cabinet Keys	4 Ea	5/12/17	Tran-012
104413	Fire Extinguishers - Accepted by Mitch Gray DPS Fire & Life Safety Inspection			
102813	Bag Room Wind curtains	3 Ea	12/6/16	Tran-002
142100	Elevator Keys - airside			
211313	Wet Pipe Sprinkler Cabinet, Heads, & Escutcheons/ Wrench	1 Lot	1/10/17	Tran-003
211313	Preaction Sprinkler Cabinet, Heads, & Escutcheons	1 Lot	1/10/17	Tran-003
220533	Heat Trace Keys	4	1/24/17	Tran-005
221119	Hose Bibb Keys	4	1/24/17	Tran-005
83113	Mech & Plumbing Access Door Keys	4	1/24/17	Tran-005
238239	Cabinet Unit Heater Keys	4	1/24/17	Tran-005
230923	BAS Control Cabinet Keys	10	1/24/17	Tran-005
263323	Central Battery Equipment Keys	5	1/17/17	Tran-004
263623	Automatic Transfer Switch Keys	2	1/17/17	Tran-004
262416	Electrical Panel Board Keys from Eaton	2	2/7/17	Tran-006
262418	Electrical Switchgear Keys	4	2/7/17	Tran-006
262813	Spare Fuse Cabinet (Phase 3B)	1	2/7/17	Tran-006
263533	Power Factor Correction Capacitor Banks (keys)	2	2/8/17	Tran-007
262816	Circuit Breaker Removal Apparatus	1	2/8/17	Tran-007
262418	MBS 1 Racking Handle	1	2/8/17	Tran-007

BYRNE CONSTRUCTION SERVICES
PROJECT NAME: XXXXXXXXXXXXX
JOB # : 0000
SUBSTANTIAL COMPLETION: MM/DD/YYYY
SUBCONTRACTOR EVALUATION REPORT

EXAMPLE

Performed by: Onsite Byrne Representatives

Job Number	SubK / MPO Number	Subcontractor / Vendor	Trade	SubK/PO Value	Supt. J Doe	Proj Mgr J Doe	OE/PE J Doe	Other J Doe	Average	Comments * **
0000	*S01*	*Example Company A*	*CONCRETE*	*$1,259,125*	*C*	*D*	*C*	*N/A*	C-	Supt: Field staff is very helpful. Main office clogs up correspondence, and is argumentative. PM: Form crew excelled; Finishers were not properly equipped or staffed. Requested Changes for items until you proved they should have been included. OE/PE: Submittals were difficult to obtain and revise.
0000	*S02*	*Example Company B*	*PAINTING*	*$65,850*	*C*	*A*	*B*	*N/A*	B	Supt: Shorthanded throughout project. Had to overstaff at end to finish on time. Finished Well. PM: Pay-aps were smooth and correct. OE/PE: Submittals were smooth; RFI's clear and appropriate.
0000										Supt: Comment here... PM: Comment here... OE/PE: Comment here...
0000										Supt: Comment here... PM: Comment here... OE/PE: Comment here...
0000										Supt: Comment here... PM: Comment here... OE/PE: Comment here...
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0000										Supt: Comment here... PM: Comment here... OE/PE: Comment here...

*** Grading Criteria**

- **A** Exceeded all expectations.
- **B** Met Overall Expectations.
- **C** Met Minimal Requirments, But Needs Improvement.
- **D** Did Not Meet Minimal Requirements.
- **F** Performed Below Minimal Standards. Do Not Recommend.

-------- ** Any score for C or worse must have a detailed explanation

-------- ** Comments are encouraged forall scores. (Describe how a score of A or B was achieved.) *

APPENDIX E

QUALITY CONTROL FORMS

LIST OF CODE ENFORCEMENT & TEST LAB INSPECTIONS

Project Name & Permit No.

CODE INSPECTIONS

02 Building Wall Framing
03 Building Above Ceiling
04 Building Masonry

06 BUILDING FINAL
07 Building Energy / Insulation
08 Accessibility Preliminary
09 Accessibility Final

30 Structural Foundation (Piers, GB, SOG)
31 Structural Super Structure (Cols, beams, floors, roofs)
32 Concrete Tilt-Wall
35 Structural Other
36 Fireproofing

10 Electrical Service
11 Electrical Switchgear / Panel
12 Electrical Underground Conduit
13 Electrical / Telephone Duct Bank
14 Electrical Pole Base
15 Electrical Grounding
16 Electrical Above Ceiling
17 Electrical Rough In
18 ELECTRICAL FINAL
19 Comm / Data - Conduit & Cable (ADE Code - Impact)

20 Mechanical Underground
21 Mechanical Rough In (Incl. Above Ceiling)
22 MECHANICAL FINAL
23 Mechanical Pressure Test
24 Mechanical Other

25 Plumbing Underground
26 Plumbing Rough In
27 PLUMBING FINAL
28 Plumbing Pressure Test
29 Fuel Gas

33 Pavements (Airfield, streets, parking, sidewalks, approaches)

LIST OF CODE ENFORCEMENT & TEST LAB INSPECTIONS

Project Name & Permit No.

38 Gas Well Inspection
39 GAS WELL PAD FINAL
40 ENERGY FINAL

52 DPS Security
55 Fence
56 Sign / Graphics
57 Pavement Marking
58 Traffic Control

61 Utility Reclaimed Water System
62 Utility Backflow Protection
68 CATHODIC PROTECTION FINAL
69 Utility Natural Gas
70 Utility Storm Drainage System
71 Utility Water Distribution
72 Utility Sanitary Sewer
73 Utility Glycol System
74 Utility Erosion Control / SWPPP
75 Utility Line Pressure Test
76 Water Sample
77 Utility Service Inspection Certification
78 Cathodic Protection
79 UTILITY FINAL

80 Hazardous Materials Storage (24 hr)
81 Piping & Pressure Test (24 hr)
82 AST or UST Removal (24 hr)
83 Combustible Liquid Generator (24 hr)
84 Dry System Flush (24 hr)
85 Dry Sprinkler Air Test (24 hr)
86 Fire Sprinkler Above Ceiling (24 hr)
87 Fire Sprinkler Hydrostatic Test (24 hr)
88 Fire Sprinkler Trip / Flow Test (24 hr)
89 Fire Riser Flow Test (24 hr)
90 All Fire Extinguishing Systems Test (24 hr)
91 Fire Alarm Wiring (24 hr)
92 Fire Alarm Acceptance Test (24 hr)
93 Fire Hydrant Flow Test (24 hr)
94 Elevator Acceptance Test (24 hr)
95 Smoke Control Devices (24 hr)

LIST OF CODE ENFORCEMENT & TEST LAB INSPECTIONS

Project Name & Permit No.

96 DPS FIRE & LIFE SAFETY FINAL (24 hr)
98 Fire Pump Test (24 hr)
Fire Alarm Raceway Inspection (ITS - Skire)
Fire Alarm Wiring Inspection (ITS - Skire)

ITS DEPT. INSPECTIONS - Requested Though Skire

AACS Raceway Inspection (ITS Dept - Skire)
AACS Wiring Inspection (ITS - Skire)
AACS Final Inspection (ITS - Skire)
AACS FINAL ACCEPTANCE TEST (ITS - Skire)
CCTV Raceway Inspection (ITS - Skire)
CCTV Wiring Inspection (ITS - Skire)
CCTV Final Inspection (ITS - Skire)
CCTV FINAL ACCEPTANCE TEST (ITS - Skire)
PA Raceway Inspection (ITS - Skire)
PA Wiring Inspection (ITS - Skire)
PA Final Inspection (ITS - Skire)
PA FINAL ACCEPTANCE TEST (ITS Skire)
Voice Evac Raceway Inspection (ITS - Skire)
Voice Evac Wiring Inspection (ITS - Skire)
Voice Evac Final Inspection (ITS - Skire)
Voice Evac FINAL ACCEPTANCE TEST (ITS Skire)
MATV Raceway Inspection (ITS - Skire)
MATV Wiring Inspection (ITS - Skire)
MATV Final Inspection (ITS - Skire)
MATV FINAL ACCEPTANCE TEST (Skire)

TESTING & INSPECTIONS PERFORMED BY TERRACON & WJE

1) Moisture / Density Relationship Test (ASTM D698)
2) Atterburg Limits Test, PI
3) Material Finer than #200 sieve
4) Nuclear density
5) PID Measurement
6) Pavement Subgrade - Recycled crushed concrete base unconfined test
7) Pavement Subgrade - Lime treated subgrade unconfined test
8) Pavement Subgrade - Lime series PH method
9) Pavement Subgrade - Lime series PI method
10) Asphalt Pavement - Core
11) Asphalt Pavement - Core thickness & density

LIST OF CODE ENFORCEMENT & TEST LAB INSPECTIONS

Project Name & Permit No.

12) Asphalt Pavement - Extraction & gradation
13) Asphalt Pavement - Stability test
14) Reinforcing Steel Inspection
15) Concrete Compressive Strength & Pour Monitoring
16) Concrete Beam Flexural Strength Test
16) Floor Flatness / Levelness (ASTM E1155)
18) CMU block prism (ASTM C1314)
19) Masonry mortar cube test (ASTM C780)
20) Grout prism test (ASTM C1019)
21) Structural Steel - Visual inspection
22) Structural Steel - Ultrasonic test
23) Composite Metal Floor Deck & Shear Stud Inspection
24) Fireproofing - Density test (ASTM E605)
25) Fireproofing - Bond strength test (ASTM E736)
26) Fire Caulk Inspection
27) Roofing & Flashing Inspection
28) Waterproofing or Dampproofing Inspection
29) Curtainwall / Storefront Installation Inspection

Non-Conforming Work Notice

Project Name **Permit No.**
Contract No.

NCW# 001

Report of Deviation from Contract Document

Report By: **Paul Austin**

Report Date: 11/11/2016

Issued To: **Concrete Company of Texas** **Red Bennett**

Company Individual

Spec. / Drawing Reference: Section 03300

Location:
Level 2 of Infill Structure

Description of Deviation from Contract Documents:
The top of slab at Level 2 exceeds tolerances for both elevation and flatness.

Remedial Work Required:
Repair / level slab as outlined in RFI #528.

Complete by: 11/21/2016 Paul Austin

Date **Signed** Date

Report of Remedial Work

Notes: **Date Completed:**

How Can Deviation Be Avoided in Future ? (Use additional sheets if needed):

Completed by:

Print Name **Signed** Date

cc: Project File Project Mgr Superintendent Project Engineer

Project Name & Address

Byrne Project Telephone No.

Non-Conforming Work Log

UPDATED 2/11/2013

Project Name **Project Contract No.**

Rept. No.	Description	Location	Responsibility	Reported By	Report Date	Date To Complete Remedial Work	Completed On	Signed Off By	Notes
001	The top of slab at Level 2 exceeds tolerances for both elevation and flatness.	Level 2 of Infill Structure	Concrete Company of TX	Paul Austin	11-Nov-16	21-Nov-16			Repair / level slab as outlined in RFI #528.
002									
003									
004									
005									
006									
007									
008									
009									
010									

MEP / LIFE SAFETY SYSTEMS COMMISSIONING START UP

IT TELECOMMUNICATION ROOMS DFWAIRPORT TRIP

UPDATED - 1/20/2017

COMPLETION DATES

MARK	EQUIPMENT	Install	MECHANICAL: DUCTWORK		MECHANICAL: PIPING			CONTROLS				ELECTRICAL	ELECTRICAL	FIRE ALARM					
	• = Required * = Not Required □ = Completed	Unit	Tie-In Duct	Fire / Smoke / Auto Damper Installed	Pipe Tie-In	Insulate Pipe	Condensate Pipe	Damper Actuator Installed	Remote Control Panel Installed	Interlock Controls to VFD	Control System Interface	Install Disconnect	Install VFD & Conduit & Wire to Mech Unit	Wire Installed	Duct Smoke Detector Installed	FA Interlock	Startup Equipment	Test & Balance	PRE TEST DATE	FINAL TEST DATE
	BUILDING LEVEL 1																			
HHP-1-1	Res Mail Room	□	□	•	□	□	□	•		•			•	□	•	•				
HHP-1-2	Res Mail Room	□	□	•	□	□	□	•		•			•	□	•	•				
HHP-1-3	Res Trash Room	□	□	•	□	□	□	•						□	•	•				
HHP-1-4	Electric Room	□	□	•	□	□	•	•		•			•	□	•	•				
HHP-1-5	Office Lobby (Mtd in Fire Cmd 105)	□	□	•	□	□	□	•		•			•	□	•	* HHP-1-6				
Office Lobby Lounge (Mtd in Mail Rm)		□	□	•	□	□	□	•	•			•	□	•	* HHP-1-7	Corridor				
123		□	□	•	□	□	□	•	•		•	□	•	* HHP-1-8	East Trash Dock					
124		□	□	•	□	□	□	•	•		•	□	•	* HHP-1-9	Bldg Maintenance 120					
□	□	•	□	□	□	•	•	•	□	•	•									
ECH-1-1	Elect Cab Heater (Stair #1)	□	•	•	•	•	•	•	•	•	•		•	□	•	•				
ECH-1-2	Corridor 122	□	•	•	•	•	•	•	•	•	•		•	□	•	•				
EUH-5	Retail Space R11 (Legacy & Domain)	□	•	•	•	•	•	•	•	•	•	□	•	□	•	•	•	•		
EUH-5	Retail Space R10 (Eddie V's)	□	•	•	•	•	•	•	•	•	•	□	•	□ * * • *		9/15/08 - Need ceiling installed				
TEF-1-1	Toilet Exhaust (Restroom 121)	□	□	•	•	•	•	•	•	9/19 - Backdraft Damper on Order, To be delivered Tue 9/23 * No power to damper per Masters.	•	• Not Done	•	• Not Done			•	•		
SPF-1-1	Stair 5 Pressurization Fan (Retail R11)	□	□	• Louver + Motorized Backdraft Damper				9/25 - Press Sensor Reqs in Stair				□	□	□		•	9/19/2008			
Rm 120	BOOSTER PUMPS - Domestic Water System		•	•	•	•	•	•	•	•	•	•	•	9/19 - Ckt has been revised per RFI			9/15/2008			
FIRE COMMAND CENTER		NEED CITY REVIEW RETURNED																		
FIRE ALARM PANEL:			•	•	•	•	•	•	•	•	•	Need 1 week to install FA panels + 2 weeks to get system 100% tested.								
	Emerg Voice/ Alarm Commo Sys		•	•	•	•	•	•	•	•	•						9/27/2008		9/27/2008	
	Fire Dept Commo Unit		•	•	•	•	•	•	•	•	•						9/27/2008		9/27/2008	
	Fire Detection & Alarm Annunciator Unit		•	•	•	•	•	•	•	•	•						9/27/2008		9/27/2008	
	Sprinkler Water Flow Display		•	•	•	•	•	•	•	•	•						9/27/2008		9/27/2008	
	Fire Fighter Public Telephone		•	•	•	•	•	•	•	•	•	•	•	•	•	•	9/27/2008		9/27/2008	
	Fire Pump Status Indicators		•	•	•	•	•	•	•	•	•	•	•	9/08 - Panel not installed	•	•	9/27/2008		9/27/2008	
	Fire Fighter's Smoke Control Panel		•	•	•	•	•	•	•	•	Thru FACP Interface with VFD	•	•	9/08 - RFI367 being reviewed	•	•	9/27/2008		9/27/2008	

EXAMPLE

Elevator Annunciator Panel

9/27/2008

9/27/2008

Fire Alarm Relay Interface w/ Security System /Stair Door Unlock Controls

9/27/2008

9/27/2008

PAGE 1

CONCRETE PREPOUR CHECK
Project Name and Contract No.

4/28/2015

DATE:	**12/9/16**	**Inspector**	**Fred Johnson**
Permit		**Company**	**Concrete Placement Inc.**
Element	**Entrance Structure Gradebeam**	**Level**	**Ramp**
Gridlines	**Col. Line C / 100**	**Area**	**Landside**

Installation

	Contractor		Byrne	Notes
	Yes	No		
Excavation & Subgrade Acceptable?	X			
Forms - Line & Grade Acceptable?	X			
Forms - Braced, Ready to Pour?		X		
Field Use Reinforcing Steel Shop Dwgs Available?	X			
Reinf. Steel - Size & Quantity Checked & OK?	X			
Reinf. Steel - Clearances Checked & OK	X			
Reinf. Steel - Secured in Place & Supported?	X			
Seals / Waterstop - Installed and Acceptable?	X			
Pipe Sleeves - Quantity Checked & Secure?				NA
Electrical Conduit & Sleeves - Quantity & Secure?				NA
Electrical Grounding Installed?				NA
Anchor Bolts - Installed and Acceptable?	X			
Steel Embeds Installed and Acceptable?	X			
Final Cleanup of Pour Area		X		
Wash Out Area Acceptable?		X		
O.K. to Pour?		X		

Additional Comments

Rebar stirrups have been corrected from previous inspection. Added corner bars included.

Contractor Inspector Signature _____

BYRNE Inspector Signature _____

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MASONRY INSPECTION
Project Name and Contract No.

DATE:	Inspector				
Permit No.	Company				
Ref. SECTIONS: 040513 Masonry Mortar and Grout 040519 Masonry Anchorage, Reinforcement, & Accessories 042200 Concrete Unit Masonry. Ref. All Structural Drawings. See Shts SF0-0-5000-CD, SF0-0-5001-CD, & SF5-0-5001-CD for general masonry notes, details & inspection requirements.					
Element	Level				
Gridline	Lift				
Materials and Testing					
Reference all structural details for masonry walls during inspection!!	Contractor Yes	Contractor No	MBJ3	Notes	
Are masonry units being installed per approved submittal and in acceptable condition?					
Mortar - Are specified mix, color, & mix proportions being used?					
Are any water repellants or waterproofing required for mortar and is the specified product being used? What Type?					
Grout - Are specified mix & mix proportions being used?					
Is testing lab required for this inspection? Note tests being performed - mortar cubes, grout prisms, CMU prisms. **Refer to SF0-0-5001-CD Statement of Special Inspections**				List tests to be performed ...	
Installation					
Vertical Reinforcing Load Bearing Walls - 12" CMU walls at **elevator towers** shall be fully grouted and vertical reinforcing shall be 2 #6 vert. spaced @ 24" OC. 8" CMU walls at**pump rooms** shall have vert. reinforcing of 1#5 vert. spaced @ 32"OC in fully grouted cells. 8" CMU walls @**interior elevator doghouses** shall have vert. reinforcing of 1 #5 vert spaced @ 16"OC in fully grouted cells. Install same reinf @ 1ST cell in corners, ends of wall, & each side of openings. Is base course doweled?					
Horiz Bond Beams Load Bearing Walls - Horiz. wall reinforcing for load bearing **elevator towers** shall be 12 x 8 bondbeams with 2 #5 cont. rebar spaced @ max coursing of 48"OC. Where bond beams abut existing CIP concrete walls, are 2 #5 x 3-0 dowels drilled & epoxied 8" into existing concrete?					
Bond Beams - Check masonry details for locations! Is solid bottom CMU being used? At rebar splices, is rebar lapped 30 bar diam & adjoining splices staggered 48 " apart? Are corner bars installed at wall corners & intersections using same size bar & spacing as bond beam rebar?					
Vertical Reinforcing Non-load bearing walls exterior exposure (Ramp) - Are first cells @ wall corners, ends of walls, & each side of openings grouted & have 1 #5 vertical reinf? Is base course doweled?					
Vertical Rebar - Is rebar spliced 48 bar diameters & wire tied at splices? Does vert. rebar pass through bond beams?					
Horiz. Joint Reinforcing in Typical Walls - Is specified 9 ga.horiz. truss type reinforcing installed @ 16" OC vertically, "L" & "T" shapes used @ intersections, 2 cont. wires for 8" CMU & 3 wires for 12", & wire splices lapped 12"?					
Lintels - Must check CMU Lintel Schedule for correct lintel block depth & reinf.					
A. Are solid bottom trough masonry units being used?					
B. Is correct depth lintel block being used for wall thickness & max. span?					
C. Do grouted lintels extend 8" beyond opening @ each side & are vert. cells @ ea side of opening >6' grouted to bottom of lintel?					
D. Is correct size horiz reinf & count being used per lintel schedule? Is rebar spliced min. 30 bar diam? Are top bars held in place with #2 stirrup @ 24" OC?					
Control joints - Are location of joints correct, and is rubber control joint inserted?					
Grout Lifts - Are vertical cells cleaned out and grout lift does not exceed 5 feet?					
Are anchor bolts required? If so, are bolts installed with correct embedment & is rebar installed correctly @ bolts, per structural details? **Check details.**					
All conduits and sleeves from other contractors are being installed?					
Are mechanical openings laid out / blocked out @ correct coursing?					
Is CMU insulation required & installed?					
If top of wall is left open, does protection need to be installed for weather?					
Additional Comments					
ss					

Contractor Inspector Signature ______________________

BYRNE Inspector Signature ______________________

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STRUCTURAL & MISC. STEEL INSPECTION
Project Name and Contract No.

DATE:	Inspector
Permit No.	Company
Element	Level
Gridlines	Area

Ref. Spec. Sections: 051200 Structural Steel 053113 Composite Metal Floor Deck 053123 Metal Roof Deck 055000 Metal Fabrications 055010 Metal Fabrications Garage 055100 Metal Stairs 055135 Prefab Steel Stair System
Reference Structural Drawings for Details & SF0-0-2001 for Structural Statement of Special Inspections

Reference final field use sets of shop drawings!	Contractor Yes	Contractor No	MBJ3	Notes
GENERAL				
Is final field use set of structural steel erection shop drawings on hand to conduct inspections.				
Is adequate temporary bracing of steel frame installed?				
Check location and condition of anchor bolts.				
Check plumbness and tolerance of steel frame.				
Conduct inspection of steel frame per final field use shop dwgs. Are all primary, secondary members, bracing, & stiffeners present?				
Are bearing plates & pads installed in correct location?				
Qualifications of welders and welding techniques have been checked?				
Visually inspect all field and shop welds per field use shop dwgs. Are welds complete and of acceptable quality?				
Are there full penetration welds? Requires ultrasonic or X-ray testing by Test Lab per AWS Stds of 100% of shop & field full penetration welds.				
High Strength Bolting				
Confirm that fasteners meet project specification and are properly stored and handled				
Confirm that faying (adjoining) surfaces have been properly prepared before connections are assembled.				
Are proper procedures & calibrated equipment being used that result in the required fastener tension?				
Visually inspect connections. Are all bolts and nuts installed and tight?				
Composite Metal Floor Deck				
Damaged decking shall not be used. Any damaged deck installed?				
Is deck welded to supporting steel using 5/8" puddle welds or headed shear studs at max. 12" OC?				
Are side laps & connection of perimeter edges to supports @ spacing of 3 feet or less? Are side laps fastened by welding, screws, or button punching per approved submittal?				
Where deck has been cut or welded, has rust been removed & deck recoated?				
If opening in deck exceeds 12" diameter and is not shown in contract drawings, has condition been RFI'd and reviewed by Structural Engr?				
Testing of Shear Studs				
When temperature is below 32 F, test one stud for each hundred studs.				
Minimum of 2 shear studs will be tested at start of each production period in order to determine proper generator, control unit and stud welder setting.				
Studs shall be capable of being bent 45 degrees from vertical with out failure				
After welding, if visual inspection reveals that sound weld or full 360 degree fillet has not been obtained for a particular stud, stud shall be struck with hammer and bent 15 degrees off perpendicular. Studs failing this test shall be replaced. Has this been checked?				

Additional Comments

Contractor Inspector Signature _____

BYRNE Inspector Signature _____

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IN WALL & ABOVE CEILING INSPECTION
Project Name and Contract No.

Date:		**Inspector**	
Permit No.		**Company**	
Level		**Gridline**	
Area		**Room # or Name**	
In Wall Inspection ?		**Above Ceiling Inspection ?**	

Wall Framing	Contractor Yes	Contractor No	MBJ3	Notes
All studs and runners are to 20 gauge or 25 gauge				
Frame Door Openings with (2) 20 gauge studs at each jamb extending 1 stud at each jamb to structure				
Frame openings to be installed same as Door Opening except one jamb stud at each jamb does not extend to above structure				
Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.				
Stud spacing at 16" o.c. U.N.O.				
Cold rolled channels are to be 16 gauge				
Backer plates are 6" min. width, galvanized, and 18 gauge unless otherwise noted on drawings				
Wall Furring				
Furring channels firmly attached to substrate				
Maximum spacing is 16" O.C. Furring to be installed a maximum of 4" from floor, walls, and ceiling assemblies.				
Erect free-standing metal stud framing spaced 1" from walls				
Ceiling Framing				
Drywall Ceiling Suspension systems framing is a Heavy Duty classification main and cross tees with 1 1/2" and 15/16" wide face flange				
Secure hangers directly to structure where possible using approved concrete inserts and hanger wire				
Keep hangers and braces 2" clear from ducts conduit and pipes				
Ceiling Framing is independent of walls, columns, and above ceiling work.				
Reinforce openings in ceiling suspension system which interrupt main carrying channels or furring channels, with lateral channel bracing extending bracing a minimum of 24" past each end of opening.				
Alignment of devices not to vary more than 1/2".				
General				
Blocking Installation (Fire retardant labeled?)				
Firestop / Firesafing / Sealing				
Fireproofing				
Ductwork and Sleeving				
Ductwork Leakage Test Performed?				
Plumbing Pipe and Sleeving				
Plumbing Fixture Wall Carriers				

Continued on Page 2

CONTINUATION OF IN WALL OR ABOVE CEILING INSPECTION - SA12 Terminal B Phase 2

Date:		Inspector	
Permit No.		Company	
Level		Gridline	
Area		Room # or Name	
In Wall Inspection ?		Above Ceiling Inspection ?	

General	Contractor		MBJ3	Notes
	Yes	No		
Plumbing Insulation				
HVAC Piping and Sleeving				
HVAC Piping Leakage Test Performed?				
Mech. Insulation				
Fire Protection System Pipe and Sleeving				
Heat Trace Wiring				
Electrical R.I., Sleeving, J Box Covers				
Communication R.I, Sleeving, J Box Covers				
Controls R.I., Sleeving, J Box Covers				
Wall Cavity Clean of All Debris				
Acoustical/Thermal Insulation				
DFW Airport Code Compliance Inspections				
Wall or Ceiling Framing Inspection				
Firestop Inspection - Substrate Inspection				
Firestop Inspection - Applied Drywall Layer				
Mechanical - Ductwork, Pipe, & Sleeves				
Plumbing - Pipe & Sleeves				
Fire Protection System - Pipe & Sleeves				
Electrical - Roughin & Sleeves				
Communications - Roughin & Sleeves				
DFW Airport Fire Marshal Inspection				

Additional Comments

Contractor Inspector Signature & Date	
BYRNE Inspector Signature & Date	

PLUMBING INSPECTION

Project Name and Contract No.

8/19/2015

Date		**Inspector**	
Permit No.		**Company**	
Area		**Level**	
Grid Lines		**Room #**	

	Contractor		MBJ3
GENERAL	Yes	No	
Are pipe hangers, supports, and thermal hanger shield installed correctly & at specified spacing?			
Are pipe hangers & supports adjusted to distribute load evenly & piping installed free of sags and bends?			
Are vertical pipe risers properly supported?			
Is lateral bracing installed to prevent swaying of pipe?			
Is pipe installed at specified slopes?			
Are approved sleeves installed for non-rated or rated assemblies?			
Are link seals installed where required?			
DOMESTIC WATER			
Are specified materials and solder being used?			
Are dielectric fittings installed at joining of copper & ferrous materials?			
Are shutoff valves installed upstream of dielectric fittings?			
Are valves, thermometers, & gauges installed where shown per contract & shop dwgs?			
Are anti-siphon vacuum breakers & water hammer arrestors installed where required?			
Are backflow preventers installed where required and tested?			
NATURAL GAS			
Are specified materials being used?			
Are dielectric fittings installed where required?			
Have welded joints been inspected & all deficiencies resolved?			
Have protective coatings been touched up?			

	Contractor		MBJ3
SANITARY WASTE & VENT	Yes	No	
Are floor drains, floor sinks, & cleanouts installed at proper elevation for finish flooring?			
Are cleanouts installed at accessible locations?			
Fixture roughin & supports are installed correctly with adequate blocking for rigid support?			
Has fixture roughin height & location been checked to ensure ADA requirements have been met?			
Is horizontal vent piping sloped properly and flashing installed through roof?			
Are trap primers installed where shown in contract docs?			
STORM DRAINAGE			
Are specified pipe materials and joints being used?			
UNDERGROUND PLUMBING			
Underground Structures - Has bottom of excavation been cut to insitu material or has been recompacted and tested?			
Has backfill been compacted in lifts and density test results meet spec?			
Is approved flowable fill being used and compressive strength testing performed?			
Have concrete thrust blocks been installed where required?			
Is cathodic protection system installed, inspected and tested?			
OTHER			

Remarks			
SUB QC Inspector	*Signature* *Date*	**BYRNE QC Inspector**	*Signature* *Date*

MECHANICAL INSPECTION
Project Name and Contract No.

8/19/2015

Date		Inspector	
Permit No.	A11-179T	Company	Dynamic Systems, Inc.
Area		Level	
Grid Lines		Room #	

HYDRONIC PIPING FOR HVAC	Contractor Yes	Contractor No	MBJ3
Have welded pipe joints been inspected with no deficiencies remaining?			
Is pipe installed indicated slopes or @ uniform grade of 0.2% upward in direction of flow?			
Are the correct pipe clevis hangers, roller supports, pipe clamps at correct spacing & adjusted to distribute the load?			
Is lateral bracing used with pipe hangers & support to prevent swaying?			
Are vertical pipe risers supported by steel pipe riser clamps?			
Are vertical pipe risers supported by steel pipe riser clamps?			
Are dielectric fittings installed at joining of copper / ferrous materials?			
Are manual, control, & balancing valves installed where shown?			
Are manual or automatic air vents installed @ high points piping & elsewhere where shown?			
Are manual or automatic air vents installed @ high points piping & elsewhere where shown?			
Can insulation installation proceed after pressure testing?			
EQUIPMENT			
Terminal units are properly anchored & installed with vibration isolators (unless unit is internally isolated)			
Units are located to allow maintenance access for disconnects, controls, coil removal, filter change, etc.			
Control dampers and actuators are installed and actuator range of movement verified			

METAL DUCT & ACCESSORIES	Contractor Yes	Contractor No	MBJ3
Are sealants or gaskets installed @ all duct joints w/o breaks or gaps?			
Duct supports installed @ correct spacing, installed w/i 24" of elbows & w/i 48" of branch intersection?			
Is vertical duct supported at each floor with max spacing of 16 feet?			
Are fire, smoke, & comb fire / smoke dampers installed where duct passes through fire rated assemblies?			
Have fire, smoke and comb fire/smoke dampers been tested to verify full range of movement?			
Has contractor verified that control dampers have full range of movement?			
Are flexible connectors installed where required?			
Are duct mounted access doors installed where required & labeled?			
Are sleeves installed for duct penetrations @ fire rated assembly per approved UL fire stop details?			
Has tests and inspections for leaks been conducted for medium pressure ductwork before applying external insulation?			
HEAT TRACE			
Before insulation is installed, has Contractor performed continuity and insulation resistance test of heat trace cable?			
OTHER			

Remarks			
SUB Inspector	*Signature* / *Date*	BYRNE QC Inspector	*Signature* / *Date*

ELECTRICAL INSPECTION
Project Name and Contract No.

Permit No.	Company		
Equipment ID / Name	**Room #/Area**	**Column Line & Floor #**	**Inspection Type**
Main Switchgear	Electrical Room	Col Line a- 1-10	Rough In

	Contractor		MBJ3		Contractor		MBJ3	Inspected By	Date
Wall Rough	Yes	No		**Equipment Installation**	Yes	No			
Boxes roughed in at the proper height				Housekeeping pads					
Boxes secured properly				Proper Clearance					
Grounding pigtails				Secured in place					
MC or Raceway size & Installed per DWS				Grounding Bushings					
Isolated throat connectors				Grounded/Bonded X0					
Mud ring matches wall thickness				Openings closed					
Fittings properly tight- conn, & coup.				Shipping Bolts Loosened					
Strapping per NEC				Mounting Brackets					
Back to back boxes 6" sep., 24" in acoustic wall				Termination Type					
Putty packs installed @ boxes - rated walls				Torque forms filled out					
Fire caulk @ rated assy per UL app'd detail				DFW inspector ready					
Conduit seal at non-rated exterior walls									
Overhead Rough				**Light Fixture Rough**					
Unistrut rack installed per EP5-0-2001				Proper structural support					
Racks at Proper Space per NEC				J box within 6' of fixture					
Expansion joint fitting if applicable				Fixture wire support					
Bonding jumper				Fixture whip no more than 6'					
No more than 3- 90's per 100'				Grounded per NEC					
No more than 2- 90's for AACS every 30'				Equipment/Fixture clean					
MC cable supported @ 12" & @ 4.5"				Plumb & level					
Pipe Bends per NEC				Equipment labeled					
J Boxes sized, Painted, & supported									
Bushings if applicable									
Fire caulk @ rated assy per UL app'd detail									
Conduit seal at non-rated exterior walls									

Remarks

SUB QC INSPECTOR	8/6/15	BYRNE QC INSPECTOR	8/6/15
Signature	*Date*	*Signature*	*Date*

ATTACHMENT 10(A)—PERFORMANCE BOND

(See Attached)

CONTRACT NO._____

BOND NO. 022231230

STATE OF TEXAS §
§
COUNTY OF TARRANT §

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

Byrne/Post L - A

That we Joint Venture as Principal, hereinafter referred to as "Principal" and Liberty Mutual Insurance Company, a corporate surety/sureties, duly authorized to do business in the State of Texas, hereinafter referred to as "Surety" (whether one or more), are held and firmly bound unto **Tarrant County Hospital District d/b/a JPS Health Network**, a hospital district and political subdivision of the State of Texas, hereinafter referred to as "**JPS**" in the penal sum of Twenty five million two hundred thirty two thousand nine hundred eighty two & no/100- ($ 25,232,982.00), lawful money of the United States, to be paid in Fort Worth, Tarrant County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain contract with JPS, dated the 13th day of June 2022, attached hereto and incorporated herein for all purposes as if fully set forth herein, to furnish all materials, equipment labor and other accessories as defined by law, in the prosecution of the work provided for said contract.

NOW THEREFORE, the condition of this obligation is such that if the said Principal shall faithfully perform said contract and shall in all respects duly and faithfully observe and perform all and singular the covenants, conditions, and agreements in and by said contract, agreed and covenanted by the Principal to be observed and performed, and according to the true intent and meaning of said contract and the plans and specifications therein referred to, and as well during any period of extension of said contract that may be granted on the part of JPS, as during the original terms of same, then this obligation shall be and become null and void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that if any legal action be filed on this Bond, venue shall lie in Tarrant County, Texas.

AND PROVIDED FURTHER, that said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder.

This bond is executed in compliance with the provisions of Texas Government Code Sections 2253.001 et seq. and 2269.311, as amended.

PERFORMANCE BOND
(Continued)

IN WITNESS WHEREOF, the Principal and the Surety have signed this instrument by duly authorized agents and officers and affixed corporate seals hereto on the 6th day of September 20 22.

Principal: Byrne/Post L - A Joint Venture

By: _____

Title: Chief Executive Officer

Surety: Liberty Mutual Insurance Company
(Print First Name and Seal)

By: _____
Tracy Tucker
Title: Attorney in Fact

Surety Contact Information where any notice of claim should be sent:

Name: Tracy Tucker

Mailing Address: P O Box 2285 Ft Worth, TX 76113

Physical Address: 121 N Rayner St. Ft Worth, TX 76111

Telephone Number: 817/336-8520

The address of the Surety to which any notice of claim should be sent may be obtained from the Texas Department of Insurance by calling the following toll-free number: 1-800-252-3439.

[ATTACH POWER OF ATTORNEY FOR SURETY'S ATTORNEY-IN FACT]

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8205229-975271**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Bennett Brown, Kevin J. Dunn, Roberta Erb, Steven Tucker, Tanner Langston, Tracy Tucker, W. Lawrence Brown

all of the city of Fort Worth state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of April, 2021.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of April, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of September, 2022.

By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

ATTACHMENT 10(B)—PAYMENT BOND

(See Attached)

CONTRACT NO._____

BOND NO. 022231230

STATE OF TEXAS §
§
COUNTY OF TARRANT §

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we Byrne/Post L - A Joint Venture as Principal, hereinafter referred to as "Principal" and Liberty Mutual Insurance Company, a corporate surety/sureties, duly authorized to do business in the State of Texas, hereinafter referred to as "Surety" (whether one or more), are held and firmly bound unto **Tarrant County Hospital District d/b/a JPS Health Network**, a hospital district and political subdivision of the State of Texas, hereinafter referred to as "JPS" in the penal sum of Twenty five million two hundred thirty two thousand nine hundred eighty two and no/100-- ($ 25,232,982.00), lawful money of the United States, to be paid in Fort Worth, Tarrant County, Texas, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain contract with JPS, dated the 13th day of June, 20 22, attached hereto and incorporated herein for all purposes as if fully set forth herein, to furnish all materials, equipment labor and other accessories as defined by law, in the prosecution of the work provided for in said contract.

NOW, THEREFORE, the condition of this obligation is such that if the said Principal, shall pay all sub-contractors, workmen, laborers, mechanics, furnishers of material and claimants (as defined in Chapter 2253 of the Texas Government Code, as amended) supplying labor and material to him or sub-contractor in the prosecution of the work provided for in said contract, all monies to them owing by Principal for sub-contracts, work, labor, and materials furnished for the construction of such improvements for JPS, then this obligation shall be and become null and void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that if any legal action be filed on this Bond, venue shall lie in Tarrant County, Texas.

AND PROVIDED FURTHER, that said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work performed thereunder, or the plans, specifications, drawings, etc. accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work to be performed hereunder.

This bond is executed in compliance with the provisions of Texas Government Code Sections 2253.001 et seq. and 2269.311, as amended.

PAYMENT BOND
(Continued)

BOND NO. 022231230

IN WITNESS WHEREOF, the Principal and Surety have signed and sealed this instrument by duly authorized agents and officers and affixed corporate seal hereto on this the 6th day of September, 2022.

Principal: Byrne/Post L - A Joint Venture

By: _____

Title: Chief Executive Officer

Surety: Liberty Mutual Insurance Company
(Print First Name and Seal)

By: _____
Tracy Tucker
Title: Attorney in Fact

Surety Contact Information where any notice of claim should be sent:

Name: Tracy Tucker

Mailing Address: P O Box 2285 Ft Worth, TX 76113

Physical Address: 121 N Rayner St Ft Worth, TX 76111

Telephone Number: 817/336-8520

The address of the Surety to which any notice of claim should be sent may be obtained from the Texas Department of Insurance by calling the following toll-free number: 1-800-252-3439.

[ATTACH POWER OF ATTORNEY FOR SURETY'S ATTORNEY-IN FACT]

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual. SURETY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8205229-975271

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Bennett Brown, Kevin J. Dunn, Roberta Erb, Steven Tucker, Tanner Langston, Tracy Tucker, W. Lawrence Brown

all of the city of Fort Worth state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of April, 2021.

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS — THE OHIO CASUALTY INSURANCE COMPANY INCORPORATED 1919 NEW HAMPSHIRE — WEST AMERICAN INSURANCE COMPANY INCORPORATED 1991 INDIANA

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of April, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

TERESA PASTELLA COMMONWEALTH OF PENNSYLVANIA NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 6th day of September, 2022.

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS — THE OHIO CASUALTY INSURANCE COMPANY INCORPORATED 1919 NEW HAMPSHIRE — WEST AMERICAN INSURANCE COMPANY INCORPORATED 1991 INDIANA

By: Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

Important Notice

TO OBTAIN INFORMATION OR TO MAKE A COMPLAINT:

You may write to Liberty Mutual Surety at:

Liberty Mutual Surety
Interchange Corporate Center
450 Plymouth Road, Suite 400
Plymouth Meeting, PA 19462-8284

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

Premium or Claim Disputes

Should you have a dispute concerning a premium, you should contact the agent first. If you have a dispute concerning a claim, you should contact the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

Attach This Notice To Your Policy:

This notice is for information only and does not become a part or condition of the attached document.

NOTIFICACION IMPORTANTE

PARA OBTENER INFORMACION O REALIZAR UNA QUEJA:

Usted puede escribir la notificación y dirigirla a Liberty Mutual Surety en la siguiente dirección:

Liberty Mutual Surety
Interchange Corporate Center
450 Plymouth Road, Suite 400
Plymouth Meeting, PA 19462-8284

Usted puede contactar al Departamento de Seguros de Texas para obtener informacion acerca de las compañías, coberturas, derechos o quejas:

1-800-252-3439

Usted puede escribir al Departamento de Seguros de Texas a la siguiente dirección:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

Disputas acerca de primas o reclamos

En caso de que usted quiera elevar una disputa concerniente al tema de primas, por favor contacte en primer lugar a su agente. Si el tema de la disputa es relativo a un reclamo, por favor contacte a la compañía de seguros en primer término. Si usted considera que la disputa no es apropiadamente resuelta en estas instancias, entonces usted puede contactar al Departamento de Seguros de Texas..

Adjunte esta notificacion a su póliza:

Esta notificación es a los solos fines de su información y la misma no forma parte o condiciona de manera alguna el documento adjunto.

ATTACHMENT 10(C)—RIDER

(See Attached)

RIDER

Attached to and forming part of Bond No. **022231230**, effective **June 13, 2022**, on behalf of **Byrne/Post L – A Joint Venture**, of **Ft Worth, Texas**, in favor of the **Tarrant County Hospital District d/b/a JPS Health Network** and in the amount of **Twenty five million two hundred thirty two thousand nine hundred eighty two & no/100--- ($25,232,982.00)** Dollars.

It is understood and agreed that effective **June 15, 2023**,

The **Contract Amount and Bond Amount** shall be changed from **Twenty five million two hundred thirty two thousand nine hundred eighty two & no/100--- ($25,232,982.00)** Dollars.

To

Twenty five million four hundred seventeen thousand one hundred sixty five & no/100--- ($25,417,165.00) Dollars.

All other terms and conditions to remain as originally written.

Signed, sealed and dated this **15th** day of **June**, 2023.

Liberty Mutual Insurance Company

By_____
Tracy Tucker, Attorney-in-Fact

JAUTUM LIBERTY COLLEGE
INCORPORATED
BOSTON

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: 8205229-975271

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Bennett Brown, Kevin J. Dunn, Roberta Erb, Steven Tucker, Tanner Langston, Tracy Tucker, W. Lawrence Brown

all of the city of Fort Worth state of TX each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 7th day of April, 2021.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: David M. Carey, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 7th day of April, 2021 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 15th day of June, 2023.

By: Renee C. Llewellyn, Assistant Secretary

LMS-12873 LMIC OCIC WAIC Multi Co 02/21

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

BIBLIOTHEQUE NATIONALE DU QUEBEC
1989