

WORK PACKAGE AUTHORIZATION NO. 1

Project: JPS MEDICAL HOME SOUTHWEST (the “Project”)
Date: October 13th, 2022
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 100% Schematic Design documents dated 7/29/22. Pricing reflects the scope of work included in the Early Release Package 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 with various Contractors in connection with this Work Package:

Contractor	Scope of Work	Contract Amount
Procurement in Progress	Temporary Construction	\$237,500.00
Procurement in Progress	Concrete	\$2,783,439.00
Procurement in Progress	Steel	\$1,456,320.00
Procurement in Progress	Roofing	\$831,000.00
Procurement in Progress	Glass & Glazing	\$941,933.00
Procurement in Progress	Plumbing	\$440,000.00
Procurement in Progress	HVAC	\$395,703.00
Procurement in Progress	Electrical	\$474,481.00
Procurement in Progress	Earthwork	\$535,000.00
Procurement in Progress	Enabling	\$49,750.00
Procurement in Progress	Termite Treatment	\$5,940.00
Procurement in Progress	Landscape & Irrigation	\$15,000.00
Procurement in Progress	Site Utilities	\$372,624.00
	Total:	\$8,538,690.00

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

- (1) Enabling
- (2) Rough Carpentry
- (3) Residential Appliances

2. **Notice to Proceed:** Design-Builder is hereby given Notice to Proceed with the scope of Work described above as of the **13th day of October 2022**.

3. **Authorized Amount:**

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

<input type="checkbox"/>	A lump sum amount of _____, which sum is inclusive of all labor, materials, equipment, fees, and profit/mark-ups.
<input checked="" type="checkbox"/>	<p>\$13,127,923, which sum includes (a) the Cost of the Work plus (b) Design-Builder’s Fee of \$659,096 (5%). This amount will be included in Exhibit A, the Design Build Amendment, upon approval by Owner.</p> <p>This Work Package amount includes the following contingencies and allowances to be managed in accordance with the Agreement:</p> <ul style="list-style-type: none">(a) “Contractor’s” Contingency of \$256,161;(b) Design Completion Contingency of \$683,095;(c) Market Volatility Contingency pursuant to Agreement, Section 4.4.2.1, of \$426,935;(d) Owner’s Allowance of \$426,935 <p>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:</p> <ul style="list-style-type: none">(e) City Impact Fees: \$324,819(f) Building Permit: \$14,316(g) Insurance (Professional Liability, CGL, Umbrella, Builder’s Risk): \$153,570(h) Project Payment and Performance Bonds: \$190,815

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: _____
Title: _____

DESIGN-BUILDER:

BYRNE |POST L – A JOINT VENTURE

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

ATTACHMENT 1– SCHEDULE OF VALUES

(Attached)

CONTINUATION SHEET

Schedules of Values

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

JPS Medical Home Southwest

AIA DOCUMENT G703

1 of 2

Application No: 1
Application Date: 0-Jan-1900
Period from: 0-Jan-1900
Period to: 0-Jan-1900

A	B	C	D	E	F	G		H	I	J
#	Description of Work	Scheduled Value	WORK COMPLETED		Materials Stored (Not in D or E)	Total Completed & Stored To Date (D+E+F)	% (G/C)	Balance To Finish (C-G)	Cumulative Retainage 5%	This Period Retainage 5%
			From Previous Applications	This Period						
	General Conditions	\$ 1,453,491.00				\$ -	0.00%	\$ 1,453,491.00	\$ -	\$ -
	Temporary Construction	\$ 237,500.00				\$ -	0.00%	\$ 237,500.00	\$ -	\$ -
	Concrete	\$ 2,783,439.00				\$ -	0.00%	\$ 2,783,439.00	\$ -	\$ -
	Masonry	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Steel	\$ 1,456,320.00				\$ -	0.00%	\$ 1,456,320.00	\$ -	\$ -
	Rough Carpentry	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Architectural Woodwork	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Waterproofing & Sealants	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Metal Wall Panels	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Roofing	\$ 831,000.00				\$ -	0.00%	\$ 831,000.00	\$ -	\$ -
	Doors, Frames, & Hardware	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Overhead Coiling Security Grille	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Glass & Glazing	\$ 941,933.00				\$ -	0.00%	\$ 941,933.00	\$ -	\$ -
	Stucco	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Drywall & Acoustical	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Tile	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Flooring	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Painting	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Specialties	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Signage	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Protective Covers	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Operable Partitions	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Residential Appliances	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Window Treatments	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Fire Protection	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Plumbing	\$ 440,000.00				\$ -	0.00%	\$ 440,000.00	\$ -	\$ -
	HVAC	\$ 395,703.00				\$ -	0.00%	\$ 395,703.00	\$ -	\$ -
	Electrical	\$ 474,481.00				\$ -	0.00%	\$ 474,481.00	\$ -	\$ -
	Communications System	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Audio Video System	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Security & Access Control	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Earthwork	\$ 535,000.00				\$ -	0.00%	\$ 535,000.00	\$ -	\$ -
	Enabling	\$ 49,750.00				\$ -	0.00%	\$ 49,750.00	\$ -	\$ -
	Termite Treatment	\$ 5,940.00				\$ -	0.00%	\$ 5,940.00	\$ -	\$ -
	Pavement Markings	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Site Improvements	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Fences & Gates	\$ -				\$ -	#DIV/0!	\$ -	\$ -	\$ -
	Landscape & Irrigation	\$ 15,000.00				\$ -	0.00%	\$ 15,000.00	\$ -	\$ -
	Site Utilities	\$ 372,623.00				\$ -	0.00%	\$ 372,623.00	\$ -	\$ -

CONTINUATION SHEET

Schedules of Values

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2 of 2

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A	B	C	D	E	F	G		H	I	J
#	Description of Work	Scheduled Value	WORK COMPLETED		Materials Stored (Not in D or E)	Total Completed & Stored To Date (D+E+F)	% (G/C)	Balance To Finish (C-G)	Cumulative Retainage 5%	This Period Retainage 5%
			From Previous Applications	This Period						
	Design Completion Factor	\$ 683,095.00				\$ -	0.00%	\$ 683,095.00	\$ -	\$ -
	Market Volatility Contingency	\$ 426,935.00				\$ -	0.00%	\$ 426,935.00	\$ -	\$ -
	Contractor Contingency	\$ 256,162.00				\$ -	0.00%	\$ 256,162.00	\$ -	\$ -
	Building Permit	\$ 14,316.00				\$ -	0.00%	\$ 14,316.00	\$ -	\$ -
	Preconstruction Fee	\$ 81,812.00				\$ -	0.00%	\$ 81,812.00	\$ -	\$ -
	Design Services Fee	\$ 1,633,000.00				\$ -	0.00%	\$ 1,633,000.00	\$ -	\$ -
	Construction Fee	\$ 659,096.00				\$ -	0.00%	\$ 659,096.00	\$ -	\$ -
	Landscape Design Fee	\$ 26,500.00				\$ -	0.00%	\$ 26,500.00	\$ -	\$ -
	Audio/Visual Systems Design Fee	\$ 27,500.00				\$ -	0.00%	\$ 27,500.00	\$ -	\$ -
	Owner's Controlled Allowance	\$ 426,935.00				\$ -	0.00%	\$ 426,935.00	\$ -	\$ -
	City Impact Fees	\$ 324,819.00								
	CGL & Umbrella Insurance	\$ 126,678.00				\$ -	0.00%	\$ 126,678.00	\$ -	\$ -
	Professional Liability	\$ 19,773.00				\$ -	0.00%	\$ 19,773.00	\$ -	\$ -
	Builder's Risk	\$ 7,119.00				\$ -	0.00%	\$ 7,119.00	\$ -	\$ -
	Payment & Performance Bond	\$ 190,815.00				\$ -	0.00%	\$ 190,815.00	\$ -	\$ -
	BASE BID TOTALS	\$ 14,896,735.00	\$ -	\$ -	\$ -	\$ -	0.00%	\$ 14,571,916.00	\$ -	\$ -

ATTACHMENT 2 – GENERAL CONDITIONS COSTS

(Attached)

EXHIBIT H

JPS MEDICAL HOME - GENERAL CONDITIONS COST TEMPLATE

Description	Quantity	Units	Cost	% of Time
On-Site Project Management Staff				
Senior Project Manager				100%
Assistant Project Manager				100%
Project Coordinator				100%
Superintendent				100%
Assistant Superintendent				100%
Safety Coordinator				10%
Project Support Staff				
Field Accountant				25%
Project Staff Subtotal			\$932,122	
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	50	Pulls	\$33,831	
Fencing	1,900	Linear Feet	\$11,400	
Covered Walkways	1	Lump Sum	\$9,000	
Monthly Telephone / Internet Service	14	Months	\$6,659	
Project Electricity	14	Months	\$35,740	
Project Entrance(s)	1	Lump Sum	\$5,000	
Project Water	14	Months	\$5,370	
Site Erosion Control (BMP)	COW	COW	COW	
Street Rental	COW	COW	COW	
Barricades	1	Lump Sum	\$15,000	
Temporary Toilets	14	Months	\$14,320	
Telephone/Internet System Installation	1	Lump Sum	\$875	
Temporary Fire Protection	10	Each	\$1,500	
Trash Removal / Cleanup	14	Months	\$70,990	
Temporary Water Distribution and Meters	1	Lump Sum	\$7,500	
Electrical Distribution and Meters	1	Lump Sum	\$12,000	

EXHIBIT H

JPS MEDICAL HOME - GENERAL CONDITIONS COST TEMPLATE

Description	Quantity	Units	Cost	% of Time
Temporary Project Utilities				
AGC Fees	1	Lump Sum	\$11,000	
Drinking Water and Accessories	14	Months	\$2,506	
Employee Identification System	1	Lump Sum	\$3,500	
First Aid Supplies	1	Lump Sum	\$1,275	
Job Photos / Videos	14	Months	\$1,790	
Project Scheduling	1	Lump Sum	\$4,500	
Mobilization and Demobilization (Equip Only)	1	Lump Sum	\$15,000	
Office Supplies	14	Months	\$4,583	
Office Trailer Rental Costs	14	Months	\$17,184	
Move-in/Out and Office Setup	1	Lump Sum	\$9,500	
Office Furniture	1	Lump Sum	\$3,400	
Office Clean-Up/Janitorial Services	14	Lump Sum	\$5,728	
Project Specific Signage	1	Lump Sum	\$5,200	
Postage / Special Shipping	14	Months	\$2,148	
Project As-Built Drawings	1	Lump Sum	\$3,500	
Partnering Cost	1	Lump Sum	\$5,000	
Project Reference Manuals / O&M's	1	Lump Sum	\$1,500	
Project Milestone Events	1	Lump Sum	\$7,000	
Security System/Watchman	1	Lump Sum	\$22,000	
Radios	1	Lump Sum	\$1,300	
Remote Parking Expenses	N/A	N/A	N/A	
Reproduction Services	1	Lump Sum	\$7,500	
Safety Material and Equipment	14	Months	\$9,308	
Storage Trailers	14	Months	\$7,160	
Copier Rental	14	Months	\$5,370	
Mobile Phones	15	Months	\$8,897	
Small Tools	14	Months	\$14,678	
Procore	1	Lump Sum	\$39,600	
Vehicles, Maintenance, Fuel, Tolls	15	Months	\$59,253	
Computers	15	Months	\$12,803	
Total General Conditions			\$1,453,491	

ATTACHMENT 3 – LABOR BURDEN SCHEDULE

(Attached)

Key Personnel and Wages

Company Name: BYRNE | Post L, A Joint Venture

Confidential – Proprietary Information

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Its contents are not to be disseminated, reproduced, shared, or distributed.

[illegible]

This table must be updated each time a staff member is added and submitted via a Zero Dollar PCO.

ATTACHMENT 4 – LIST OF DRAWINGS AND SPECIFICATIONS

(Attached)

SECTION 000110

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012100 - ALLOWANCES	1
012200 - UNIT PRICES	1
012300 - ALTERNATES	1
012500 - SUBSTITUTION PROCEDURES	1
012600 - CONTRACT MODIFICATION PROCEDURES	1
012900 - PAYMENT PROCEDURES	1
013100 - PROJECT MANAGEMENT AND COORDINATION	1
013200 - CONSTRUCTION PROGRESS DOCUMENTATION	1
013233 - PHOTOGRAPHIC DOCUMENTATION	1
013300 - SUBMITTAL PROCEDURES	1
014000 - QUALITY REQUIREMENTS	1
014200 - REFERENCES	1
015000 - TEMPORARY FACILITIES AND CONTROLS	1
015700 - EROSION AND SEDIMENT CONTROL	1
016000 - PRODUCT REQUIREMENTS	1
017300 - EXECUTION REQUIREMENTS	1
017700 - CLOSEOUT PROCEDURES	1
017823 - OPERATION AND MAINTENANCE DATA	1
017839 - PROJECT RECORD DOCUMENTS	1
017900 - DEMONSTRATION AND TRAINING	1
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074214 - METAL WALL PANELS	1

074243 - COMPOSITE WALL PANELS	1
074643 - COMPOSITE SIDING AND SOFFITS	1
075419 - TPO MEMBRANE ROOFING	1
076200 - SHEET METAL FLASHING AND TRIM	1
076210 - FLEXIBLE FLASHING	1
077100 - ROOF SPECIALTIES	1
077200 - ROOF ACCESSORIES	1
078100 - APPLIED FIREPROOFING	1
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079200 - JOINT SEALANTS	1
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088700 - GLAZING SURFACE FILMS	1
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DIVISION 14 — CONVEYING EQUIPMENT

NOT USED

DIVISION 20 — MECHANICAL SUPPORT

NOT USED

DIVISION 21 — FIRE SUPPRESSION

NOT USED

DIVISION 22 — PLUMBING

NOT USED

DIVISION 23 — HEATING VENTILATING AND AIR CONDITIONING

NOT USED

DIVISION 25 — INTEGRATED AUTOMATION

NOT USED

DIVISION 26 — ELECTRICAL

NOT USED

DIVISION 27 — COMMUNICATIONS

NOT USED

DIVISION 28 — ELECTRONIC SAFETY AND SECURITY

NOT USED

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312000 - EARTH MOVING 1

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315000 - EXCAVATION SUPPORT AND PROTECTION 1

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321713 - PRECAST CONCRETE SITE ACCESSORIES 1

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NOT USED

DIVISION 34 — TRANSPORTATION

NOT USED

DIVISION 35 — WATERWAYS AND MARINE CONSTRUCTION

NOT USED

DIVISION 40 — PROCESS INTERCONNECTIONS

NOT USED

DIVISION 41 — MATERIAL PROCESSING AND HANDLING EQUIPMENT

NOT USED

DIVISION 42 — PROCESS HEATING, COOLING, AND DRYING EQUIPMENT

NOT USED

DIVISION 43 — PROCESS GAS AND LIQUID HANDLING, PURIFICATION AND STORAGE EQUIPMENT

NOT USED

DIVISION 44 — POLLUTION CONTROL EQUIPMENT

NOT USED

DIVISION 45 — INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT

NOT USED

JPS Medical Home Southwest
Fort Worth, Texas
Issue for Schematic Design

SBL Architecture
M30481.01
29 July 2022

DIVISION 46 — WATER AND WASTEWATER EQUIPMENT
NOT USED

DIVISION 48 — ELECTRICAL POWER GENERATION
NOT USED

JPS Medical Home

List of Drawings

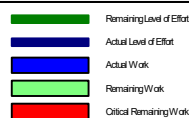
LIST OF DRAWINGS		
		100% SD's 07/29/2022
SHEET NO.	DRAWING TITLE	
GENERAL		
A0.01	COVER/ INDEX SHEET	■
A0.02	STANDARD ABBREVIATIONS	■
A0.03	GENERAL ACCESSIBILITY DETAILS	■
INTERIOR DESIGN		
ID1.11	FINISH LEGEND AND SCHEDULES	■
ARCHITECTURE		
A1.21	OVERALL SITE PLAN	■
A2.21	FLOOR PLAN	■
A3.11	EXTERIOR ELEVATIONS	■
A3.12	BUILDING AXONOMETRIC	■
A3.31	WALL SECTIONS	■

ATTACHMENT 5 – SCHEDULE FOR THE WORK

(Attached)

Activity ID	Activity	OD	RD	Start	Finish	22	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
JPS Medical Home Southwest														
PreConstruction - Design Build														
Programming \ Schematic Design \ Work Authorization # 1														
A1035	NTP for PreConstruction - Design Build	0	0	16-May-22 A		or PreConstruction - Design Build								
A1000	Programming Concept / Gaming	10	0	17-May-22 A	14-Jun-22 A	Programming Concept / Gaming								
A1015	50% Schematic Design Development (WA#1)	23	0	15-Jun-22 A	15-Jul-22 A	50% Schematic Design Development (WA#1)								
A1010	50% SD Drawings Issued for Pricing (WA#1)	0	0		15-Jul-22 A	50% SD Drawings Issued for Pricing (WA#1)								
A1020	50% SD Estimate (WA#1)	15	0	18-Jul-22 A	29-Jul-22 A	50% SD Estimate (WA#1)								
A1210	100% Schematic Design Development	10	0	18-Jul-22 A	29-Jul-22 A	100% Schematic Design Development								
A1018	100% SD Drawings Issued	0	0		29-Jul-22 A	100% SD Drawings Issued								
A1045	100% SD Estimate	10	10	29-Jul-22 A	11-Aug-22	100%SD Estimate								
A1028	WA#1 Budget Cost Due for JPS Routing Approvals	0	0		29-Jul-22 A	WA#1 Budget Cost Due for JPS Routing Approvals								
A1105	Contract Amount to Executive Steering Committee	1	1	29-Jul-22	29-Jul-22	Contract Amount to Executive Steering Committee								
A1085	WA#1 Budget to Executive Steering Committee	0	0		05-Aug-22*	WA#1 Budget to Executive Steering Committee								
A1075	App of 100% SD Estimate (Cost Review Mtg)	1	1	12-Aug-22	12-Aug-22	App of 100% SD Estimate (Cost Review Mtg)								
A1038	WA#1 Budget due to Planning	0	0		18-Aug-22*	WA#1 Budget due to Planning								
A1095	Contract Amount Due to Executive Steering Committee	0	0		02-Sep-22*	Contract Amount Due to Executive Steering Committee								
A1115	WA#1 Contract Amount Due to Finance	0	0		22-Sep-22*	WA#1 Contract Amount Due to Finance								
A1048	WA#1 to Board of Managers	0	0		13-Oct-22*	WA#1 to Board of Managers								
Design Development														
A1030	Design Development	32	32	29-Jul-22 A	13-Sep-22	Design Development								
A1040	DD Drawings Issued for Pricing	0	0		13-Sep-22*	DD Drawings Issued for Pricing								
A1050	DD Estimate	15	15	15-Sep-22	05-Oct-22	DD Estimate								
A1055	DD Estimate Cost Meeting to Move into CD's	1	1	06-Oct-22	06-Oct-22*	DD Estimate Cost Meeting to Move into CD's								
GMP Early Release Package - Grading\ Civil\ Foundation\ Procure														
A1120	Early Release Package - Issued for Bidding	0	0		27-Sep-22*	Early Release Package - Issued for Bidding								
A1220	Early Release Package - 1st Public Advertisement	0	0		30-Sep-22*	Early Release Package - 1st Public Advertisement								
A1230	Early Release Package - 2nd Public Advertisement	0	0		07-Oct-22*	Early Release Package - 2nd Public Advertisement								
A1240	Early Release Package - Bid Date	1	1	11-Oct-22	11-Oct-22*	Early Release Package - Bid Date								
A1250	ERP Bidding Subcontractor Scope Review	7	7	12-Oct-22	20-Oct-22	ERP Bidding Subcontractor Scope Review								
A1190	Early Release Package GMP - Submitted to Owner	1	1	21-Oct-22	21-Oct-22	Early Release Package GMP - Submitted to Owner								
A2750	Owner Approval of Early Release Package GMP	2	2	24-Oct-22	25-Oct-22	Owner Approval of Early Release Package GMP								
A1180	Commissioners Court Approval (ERP Package)	0	0	25-Oct-22	25-Oct-22*	Commissioners Court Approval (ERP Package)								
A2740	Limited NTP for - Early Release Package	1	1	25-Oct-22	25-Oct-22	Limited NTP for - Early Release Package								
A1130	Ground Breaking Ceremony (Early Packages)	1	1	01-Nov-22	01-Nov-22	Ground Breaking Ceremony (Early Packages)								
Construction Document Design														
A1060	For Construction Drawings Development	51	51	07-Oct-22	20-Dec-22	For Construction Drawings Development								
A1065	50% For Construction Drawings Estimate	15	15	10-Oct-22	28-Oct-22	50% For Construction Drawings Estimate								
A1070	100% For Construction Drawings Issued for Bidding	0	0		21-Dec-22	100% For Construction Drawings Issued for Bidding								
Project Permitting w/ City														
A1200	Permit Dwg Review by City (3 Wks) Early Package	15	15	28-Sep-22	18-Oct-22	Permit Dwg Review by City (3 Wks) Early Package								
A1080	Permit Dwg Review by City (4 Wks) 10% IFC	20	20	22-Dec-22	18-Jan-23	Permit Dwg Review by City (4 Wks) 10% IFC								
GMP Development & Approval														
A2135	Finalize Trade Package Documents for Bidding	5	5	22-Dec-22	28-Dec-22	Finalize Trade Package Documents for Bidding								
A2720	Issue Documents for Subcontractor Bidding	20	20	29-Dec-22	25-Jan-23	Issue Documents for Subcontractor Bidding								
A2140	Public Advertisement # 1	0	0		30-Dec-22	Public Advertisement # 1								

Activity ID		Activity		OD	RD	Start	Finish	22	2023					2024			
									Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
		A2670	Public Advertisement #2	0	0		06-Jan-23	<div><div></div><div>Public Advertisement #2</div><div><div></div>PreBid & Outreach Meeting</div><div><div></div>Bid Day</div><div><div></div>Subcontractor Bids Scope Review</div><div><div></div>FGMP Draft Review with Owner/Design Team</div><div><div></div>Owner Approval of FGMP</div><div><div></div>FGMP - NTP Issued for Construction</div></div>									
		A1090	PreBid & Outreach Meeting	1	1	11-Jan-23	11-Jan-23										
		A1100	Bid Day	0	0		26-Jan-23										
		A1110	Subcontractor Bids Scope Review	10	10	30-Jan-23	10-Feb-23										
		A1138	FGMP Draft Review with Owner/Design Team	5	5	13-Feb-23	17-Feb-23										
		A1140	Owner Approval of FGMP	0	0		17-Feb-23										
		A1150	FGMP - NTP Issued for Construction	1	1	20-Feb-23	20-Feb-23										
Construction																	
Key Dates / Milestones																	
		A1160	Construction	300	300	01-Nov-22	05-Jan-24								Construction		
		A1170	Project Closeout	20	20	08-Jan-24	02-Feb-24									Project Close	
Mobilization and Buyout																	
		A1270	Issue LOI's / Sub Buyout & Purchasing	30	30	26-Oct-22	08-Dec-22										
		A1285	Mobilization	5	5	01-Nov-22	07-Nov-22										
		A1320	Site Survey & Dimension Control	2	2	07-Nov-22	08-Nov-22										
		A1310	Project / Safety Kick-Off Meeting - Owner / Design Team	1	1	07-Nov-22	07-Nov-22										
		A1300	Temporary Site Fencing	2	2	07-Nov-22	08-Nov-22										
		A1290	SWPPP - Erosion Control	2	2	07-Nov-22	08-Nov-22										
Site																	
		A1330	Excavation & Site Prep	15	15	09-Nov-22	01-Dec-22										
		A1340	Utilities	20	20	02-Dec-22	29-Dec-22										
		A1360	Paving	20	20	30-Dec-22	26-Jan-23										
		A1560	Sidewalks and Hardscape	10	10	08-Sep-23	21-Sep-23								Sidewalks and Hardscape		
		A1350	Landscaping & Irrigation	15	15	22-Sep-23	12-Oct-23								Landscaping & Irrigation		
Building Structure																	
		A1380	Building Foundation	40	40	21-Feb-23	17-Apr-23										
		A1550	Foundation Cure Time	5	5	18-Apr-23	24-Apr-23										
		A1390	Structural Steel Delivery	0	0		24-Apr-23										
		A1400	Steel Structure & Roofing Supports	35	35	25-Apr-23	13-Jun-23										
Exterior Facade and Roofing																	
		A1410	Roofing	15	15	14-Jun-23	05-Jul-23										
		A1570	Roofing Dried-In	0	0		05-Jul-23										
		A1370	Exterior Facade, Stone & Veneer	45	45	06-Jul-23	07-Sep-23								Exterior Facade, Stone & Veneer		
		A1420	Glass & Glazing	15	15	08-Sep-23	28-Sep-23								Glass & Glazing		
		A1580	Building Dried-In	0	0		28-Sep-23								Building Dried-In		
Interior																	
		A1590	Overhead MEP Rough-In	25	25	06-Jul-23	09-Aug-23										
		A1430	Interior Wall Construction	35	35	03-Aug-23	21-Sep-23										
		A1620	Tape, Bed, Float and Paint	30	30	08-Sep-23	19-Oct-23										
		A1610	Ceiling Systems	25	25	13-Oct-23	16-Nov-23										
		A1540	Millwork	20	20	10-Nov-23	11-Dec-23										
		A1630	Specialties	5	5	28-Nov-23	04-Dec-23										
		A1530	Flooring	15	15	28-Nov-23	18-Dec-23										
		A1600	MEP Trim Out	20	20	29-Nov-23	27-Dec-23										
Start-Up & Closeout																	
		A1450	Permanent Power	0	0		28-Sep-23									Permanent Power	



JPS Medical Home Southwest
Schematic Design
As of 7/29/22

Project Start Date: 16-May-22
Project Finish Date: 02-Feb-24
Data Date: 29-Jul-22
Page 2 of 3



Activity ID	Activity	OD	RD	Start	Finish	22		2023				2024	
						Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
A1440	Conditioned Air	0	0		28-Sep-23						◆	Conditioned Air	
A1460	Byrne Punchlist	5	5	05-Dec-23	11-Dec-23							■	Byrne Punchlist
A1480	Owner Training	5	5	12-Dec-23	18-Dec-23							■	Owner Training
A1470	Architect Punchlist	15	15	12-Dec-23	03-Jan-24							■	Architect Punchlist
A1510	Finals	5	5	28-Dec-23	04-Jan-24							■	Finals
A1500	Substantial Completion	1	1	05-Jan-24	05-Jan-24							■	Substantial Comp
A1640	Final Completion	20	20	08-Jan-24	02-Feb-24							■	Final Comple
A1490	Owner Furniture Delivery & Medical Equipment Move-In	20	20	08-Jan-24	02-Feb-24							■	Owner Furnitu
A1520	Grand Opening	0	0		02-Feb-24							◆	Grand Openi

ATTACHMENT 6 – ASSUMPTIONS, CLARIFICATIONS, AND QUALIFICATIONS

(Attached)



Qualifications & Clarifications

JPS Medical Home Southwest

Work Package Authorization No. 1 - EARLY RELEASE PACKAGE

100% Schematic Design Estimate

Date: August 29, 2022

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 5% is included on the cost summary, and is based upon the cost of work subtotal.
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 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 (other than those described <i>General Comment #5</i> , below), 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 included with the Early Release Package (ERP) cost breakdown.
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.
14	Includes trucks, fuel, tolls, and maintenance related to the Byrne personnel assigned to this project. Truck / Auto Allowance 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.
17	All electrical costs associated with construction are included.
18	All 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 budget, unless specifically noted otherwise. Refer to responsibility matrix attached to this cost summary to review what is included by contractor/owner.
4	All hazardous or contaminated material and soil testing, remediation, investigation, and abatement is excluded.
5	Site is assumed to be free of any contaminants, unencumbered, and ready to begin excavation work.
6	Initial design models shall be provided by the design team to Byrne. 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.

Qualifications & Clarifications

JPS Medical Home Southwest

Work Package Authorization No. 1 - EARLY RELEASE PACKAGE

100% Schematic Design Estimate

Date: August 29, 2022

General Comment:

1	This estimate is schematic, and based upon limited information available. Quantities and selections of materials and components are gathered or assumed per interpretation of the available documents. The quantities and selections may vary as the project is further developed by the design team.
2	All estimated costs indicated on the Cost Summary Sheets are qualified as allowances due to the limited available information provided in the 100% Schematic Design documents.
3	At the time of this estimate, a geotechnical report and/or site survey were not available for review, and any design revisions have not been accounted for. All costs are based upon the information provided in the 100% Schematic Design Civil Narrative and best-practice assumptions.
4	A 2-year standard warranty is included.
5	City impact fees are included. The city impact fee value is only an estimate and is based upon available information. The city impact fee value is subject to change. The city impact fees include the following: Transportation Impact Fees & Water and Wastewater Impact Fees.

Division 3 - Concrete:

1	An allowance is included for Division 3 concrete systems. Reference estimate detail report to review scope inclusions & associated quantities assumed for this estimate. All concrete assumptions are based upon the information provided in the 100% Schematic Design Structural Narrative.
2	Structural drawings were not provided. All concrete, steel, and other structural inclusions were based upon the 100% Schematic Design Structural Narrative and best-practice assumptions.
3	Site paving is included as shown. Heavy-duty paving (fire lanes & dumpster enclosure) is assumed to be 7" thick, medium-duty paving (driveways, parking stalls, delivery areas) is assumed to be 6" thick, and concrete sidewalks 5" thick.
4	Drilled, straight-shaft piers and casing are included in this estimate. Per the 100% Schematic Design Structural Narrative, piers are assumed to have a total depth of 40' below existing grade (Bearing Strata 30' + Penetration 10' = 40' Total Depth per Pier).
5	Housekeeping pads and equipment pads are included.
6	Miscellaneous site concrete includes pads for the generator & transformer, one (1 EA) flagpole base, light pole bases, and setting of concrete filled bollards.
7	A slab-on-void structural concrete building slab (8" thick) is included in this estimate per information provided in the 100% Schematic Design Structural Narrative.

Division 4 - Masonry:

1	Masonry construction is excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with masonry construction.
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Division 5 - Metals:

1	An allowance is included for Division 5 structural steel, metal decking, and miscellaneous metals.
2	This estimate assumes a structural steel framed building structure (wide flanges, tube steel, steel columns, etc.).
3	Joists are excluded from this estimate; this estimate assumes the building will include structural steel framing consisting of wide-flange steel beams, wide flange steel columns, tube steel, channels, angle steel, & 1.5" metal roof decking (20GA). Per the 100% Schematic Design Structural Narrative, this estimate assumes the building will require 7PSF of structural steel.
4	This estimate includes a 1.5", 20GA, galvanized metal roof deck below the roofing system.
5	This estimate includes double-leaf steel gates and hardware at the dumpster enclosure.
6	This estimate includes steel bollards.

Qualifications & Clarifications

JPS Medical Home Southwest

Work Package Authorization No. 1 - EARLY RELEASE PACKAGE

100% Schematic Design Estimate

Date: August 29, 2022

Division 6 - Wood, Plastics and Composites:	
1	Division 6 rough carpentry systems and finish carpentry systems are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 6 systems (finish carpentry, millwork systems, countertops, & rough carpentry systems).
Division 7 - Thermal and Moisture Protection:	
1	Waterproofing & sealants are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 7 waterproofing & sealants.
2	A single-ply TPO membrane flat roof system is included in the Early Release Package (ERP) breakdown.
3	A rooftop mechanical screen wall system is included in the Early Release Package (ERP) breakdown.
4	Spray-applied fireproofing systems are excluded from this estimate.
Division 8 - Openings:	
1	Hollow metal and wood doors/frames/hardware and overhead coiling grilles are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with hollow metal and wood doors/frames/hardware and overhead coiling grilles.
2	Allowances for aluminum framed curtain wall systems, aluminum framed storefront systems, aluminum storefront doors, automatic entrances, transaction windows, and aluminum storefront hardware are included as shown in the Early Release Package (ERP) breakdown.
3	Glass systems are excluded at all canopy systems.
Division 9 - Finishes:	
1	Division 9 systems are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 9 systems (floor finishes, wall finishes, drywall/acoustical/ceiling systems, etc.).
Division 10 - Specialties:	
1	Division 10 specialties & signage systems/equipment are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 10 specialties & signage systems/equipment.
Division 11 - Equipment:	
1	Division 11 systems/equipment are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 11 systems/equipment.
Division 12 - Furnishings:	
1	Division 12 furnishings are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 12 furnishings.
Division 13 - Special Construction:	
1	None shown.
Division 14 - Conveying Equipment:	
1	None shown.
Division 21 - Fire Suppression:	
1	Division 21 fire protection systems are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 21 fire protection systems.
Division 22 - Plumbing:	
1	The Early Release Package (ERP) breakdown includes a plumbing allowance; the plumbing allowance is based on information provided by the 100% Schematic Design MEP Narrative.
2	This estimate does not include pricing for below-slab pipe hanger support systems (SuperVoid, or similar).
3	The Early Release Package (ERP) breakdown includes an allowance for gas piping.



Qualifications & Clarifications

JPS Medical Home Southwest

Work Package Authorization No. 1 - EARLY RELEASE PACKAGE

100% Schematic Design Estimate

Date: August 29, 2022

Division 23 - Heating, Ventilating and Air Conditioning:	
1	The Early Release Package (ERP) breakdown includes a HVAC allowance; the HVAC allowance is based on information provided by the 100% Schematic Design MEP Narrative (DX/RTU's).
Division 25 - Integrated Automation:	
1	The Early Release Package (ERP) breakdown includes an allowance for building automated controls as required (basis-of-design: Johnson Controls).
Division 26 - Electrical:	
1	The Early Release Package (ERP) breakdown includes an electrical allowance based on the 100% Schematic Design MEP Narrative.
2	Reference the estimate detail report to review additional information & scope inclusions associated with the electrical systems.
3	An emergency generator system has been included in this estimate.
4	This estimate includes Blue Light Emergency Call Boxes.
Division 27 - Communications & Audio Visual:	
1	Division 27 - Audio/Visual Systems are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 27 - Audio/Visual Systems (televisions, television mounts, HDMI connections, speakers, software licenses, and audio/video support systems).
2	Division 27 - Communications & Structured Cabling Systems are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 27 - Communications & Structured Cabling Systems (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 excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 28 - Security & Access Control Systems (card readers, security cameras, cabling, and security systems).
Division 31 - Earthwork:	
1	The Early Release Package (ERP) breakdown includes an allowance for earthwork services (grading, excavating, building pad prep, & detention pond) earthwork services are based on the provided site plan.
2	The Early Release Package (ERP) breakdown includes an allowance for site enabling services (SWPPP, erosion control, tree protection).
3	The Early Release Package (ERP) breakdown includes an allowance for termite control services.
Division 32 - Exterior Improvements:	
1	The Early Release Package (ERP) breakdown includes an allowance for irrigation sleeves, only.
2	Division 32 Landscape/Irrigation Systems, Site Improvements, Fences & Gates, Pavement Markings, etc. are excluded from the Early Release Package (ERP) breakdown. Reference the Main Project cost breakdown for allowances associated with Division 32 systems/equipment (excluding irrigation sleeves).
Division 33 - Utilities:	
1	The Early Release Package (ERP) breakdown includes an allowance for site utility systems (storm drainage systems, sanitary sewer systems, and domestic water systems).

ATTACHMENT 7 – DESIGN-BUILDER’S KEY PERSONNEL

(Attached)

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

Kayla Cordero
Assistant Project Manager



POST L GROUP

Justin Cooper
Superintendent



BYRNE

JPS Medical Home

Design Build Project Team Personnel

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



Cliff Spruill, AIA
Project Architect



Kellye Johnson, AIA, NCARB
Planning & Programmer



Kristina Warren, RID, NCIDQ
Interior Design



Carlo Taddei, PE, LEED AP
Structural Project Manager



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



Aleksandar Milenkov,
PE, LEED AP
Principal Mechanical Engineer



John Vetter, PE
Electrical Engineer Lead



Anita Beard, ASLA
Landscape Architect



ATTACHMENT 8 – DESIGN-BUILDER-OWNED EQUIPMENT RENTAL RATES

(Attached)

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

ATTACHMENT 9 – QUALITY CONTROL PLAN

(Attached)

Quality Control Plan

BYRNE | Post L Group, A Joint Venture



July 2022

JPS Medical Home Southwest

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Section 2 Project Team

Section 3 Preconstruction Phase

Section 4 Construction Phase

Section 5 Close Out Phase

Section 6 Appendices

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Appendix B	Expediting Log
Appendix C	Testing / Inspection Matrix
Appendix D	Closeout Forms
Appendix E	Quality Control Forms

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PROJECT TEAM

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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 routinely followed 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 respect to 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 the timely 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 details to

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 of the contract documents.
- Coordinate with municipalities and utility providers concerning expediting of site 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 information is 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 approved changes 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
817.335.3304
FAX 817.817.5007

Contract Documents List

Tarleton State University - New Nursing Building

Stephenville, Texas

Date: 8/23/2019

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			SPECIFICATIONS
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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.

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. XXXXXXXX Permit XXX							
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

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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.

- 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
817-335-3384

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	
01 11 00		08/11/10	Final Finish Specs	ASI #14 Rev. C
01 23 00		08/03/09	Summary of Work (volumes 1 and 2)	
01 25 00		08/03/09	Alternates (volumes 1 and 2)	
01 26 00		08/03/09	Substitution Procedures (volumes 1 and 2)	
01 29 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)	
0363-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.

- ### Example of Expediting Log

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 early start 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 supplier 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 resubmittals 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: _____	
<input type="checkbox"/> Shop Drawing	<input type="checkbox"/> Submittal for Approval
<input type="checkbox"/> Catalog Cut	<input type="checkbox"/> Resubmittal for Review
<input type="checkbox"/> Sample	<input type="checkbox"/> 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.

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. XXXXXXXX Permit XXX						
Report Date: 1/9/2017						
SPEC SECTION	PARA	REQUIREMENTS	TYPE	RESPONSIBILITY	FREQUENCY/LOCATION	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	1.3.8	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	

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.																											
<u>Report of Deviation from Contract Document</u>		NCW#	001																								
<table border="1"><tr><td>Report By:</td><td colspan="3">Paul Austin</td></tr><tr><td>Report Date:</td><td colspan="3">11/11/2016</td></tr><tr><td>Issued To:</td><td colspan="2">Concrete Company of Texas</td><td>Red Bennett</td></tr><tr><td></td><td>Company</td><td colspan="2">Individual</td></tr><tr><td>Spec. / Drawing Reference:</td><td colspan="3">Section 03300</td></tr><tr><td>Location:</td><td colspan="3">Level 2 of Infill Structure</td></tr></table>				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		
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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.																											
<table border="1"><tr><td>Complete by:</td><td>11/21/2016</td><td colspan="2">Paul Austin</td></tr><tr><td></td><td>Date</td><td>Signed</td><td>Date</td></tr></table>				Complete by:	11/21/2016	Paul Austin			Date	Signed	Date																
Complete by:	11/21/2016	Paul Austin																									
	Date	Signed	Date																								
<u>Report of Remedial Work</u>																											
Notes:		Date Completed:																									
How Can Deviation Be Avoided in Future ? (Use additional sheets if needed):																											
<table border="1"><tr><td>Completed by:</td><td></td><td>Signed</td><td>Date</td></tr><tr><td></td><td>Print Name</td><td></td><td></td></tr></table>				Completed by:		Signed	Date		Print Name																		
Completed by:		Signed	Date																								
	Print Name																										
cc: Project File Project Mgr Superintendent Project Engineer																											
Project Name & Address Byrne Project Telephone No.																											

3. Example of Log

Non-Conforming Work Log									
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 RF1 #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 of equipment 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

Example of Commissioning Start Up Matrix (See full size form in Appendix E)

MARK	EQUIPMENT + = Required + = Not Required = Completed	Install Unit	COMPLETION DATES														Startup Equipment	Test & Balance	PRE TEST DATE	FINAL TEST DATE		
			MECHANICAL		ELECTRICAL		ELECTRICAL		ELECTRICAL		ELECTRICAL		ELECTRICAL		ELECTRICAL							
			DUCTWORK	PIPING	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK	PIPEWORK						
BUILDING LEVEL 4																						
BMP-1-1	Res Mail Room																					
BMP-1-2	Res Mail Room																					
BMP-1-3	Res Trash Room																					
BMP-1-4	Electric Room																					
BMP-1-5	Office Lobby (Mail in Rm Cont 100)																					
BMP-1-6	Office Lobby Lounge (Mail in Mail Rm)																					
BMP-1-7	Corridor 123																					
BMP-1-8	East Trash Dock 124																					
BMP-1-9	Blkg Maintenance 120																					
ECM-1-1	Elect Cab Heater (Stair #1)																					
ECM-1-2	Corridor 122																					
ELM-5	Retail Space R11 (Legacy & Domain)																					
ELM-6	Retail Space R19 (Saddle V's)																					
TEF-1-1	Toilet Exhaust (Restroom 123)																					
SPF-1-1	Stair 5 Pressurization Fan (Retail R11)																					

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

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.

Example of Owner Training Checklist -

TRAINING CHECKLIST														Date Updated: May 01, 2015
BYRNE														
		<div><div>LEGEND</div><div><div>✓</div> Complete</div><div><div>✗</div> Issues or deficiencies</div><div><div>N/A</div> Training not required</div><div><div>N/C</div> Not complete</div><div><div>N/S</div> Not started</div><div><div>T/C</div> Training completed; required notifications or documents not provided</div></div>												
#	System or Equipment Involved	Maintained By	Specifications Training Spec Section	Notification 30 Days Prior to Training	Prior to Training Agenda provided	Syllabus/ Training Manuals	Trainer Name and 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	Comments
PROJECT NAME														
11	Fans and Ventilators	ETAM	23.3.4.23-5	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	23.8.2.18-6	T/C	✓	T/C	✓	10/19/13	10/23/13	2 Hr classroom; 30 min field	✓	✓	✓	Training Video On SKIRE 10.03
13	CRAC Units / Air-Cooled Condensers	ETAM	23.8.1.23-12	T/C	✓	T/C	✓	12/13/12	12/13/12	45 min classroom; 45 min field	T/C	✓	✓	Training Video On SKIRE 10.03
14	UPS Systems	ETAM	26.6.1.10-10	T/C	✓	T/C	✓	12/13/12	12/13/12	1 Hr classroom; 1 Hr field	✓	✓	✓	Training Video On SKIRE 10.03
15	Automatic Transfer Switches	ETAM		✓	✓	✓	✓	12/13/12	4/24/13	T/C	T/C	✓	✓	Training Video On SKIRE 10.03
16	Fire Sprinkler Systems	ETAM	21.1.3.13-11	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 S403
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	23.09.40-6	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	28.7.1.00-9	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	27.02.00-14	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	28.3.3.00-13	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:									
							Warranty		
Equip. Description	Location	Manufacturer	Model No.	Serial No.	Date of Operation	Supplier	Start Date	Expiration Date	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 project folder 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	Uncombined 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 <small>Insert Company Name</small> 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 SubEvaluation 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: XXXXXXXXXXXXXXXX										
JOB #: 0000										
SUBSTANTIAL COMPLETION: MM/DD/YYYY										
SUBCONTRACTOR EVALUATION REPORT										
Performed by: Onsite Byrne Representatives										
Job Number	SubK / MPO Number	Subcontractor / Vendor	Trade	SubKPO Value	Subt. J Dos	Proj Mgr J Dos	OE/PE J Dos	Other J Dos	Average	Comments * **
0000	S01	Example Company A	CONCRETE	\$1,258,125	C	D	C	N/A	C-	Subt. Field staff is very helpful. Main office stops up correspondence, and is argumentative. SM: Forms crew excelled. Finishers were not properly equipped or trained. 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	Subt. Shorthanded throughout project. Had to overstaff at end to finish on time. Finished Well. SM: Pay-aps were smooth and correct. OE/PE: Submittals were smooth; RFIs clear and appropriate.
0000										Subt. Comment here...
0000										SM: Comment here...
0000										OE/PE: Comment here...
0000										Subt. Comment here...
0000										SM: Comment here...
0000										OE/PE: Comment here...
0000										Subt. Comment here...
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0000										SM: Comment here...
0000										OE/PE: Comment here...

* Grading Criteria:
A Exceeded all expectations.
B Met Overall Expectations.
C Met Minimal Requirements, 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

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 - JOB #

EXAMPLE

Review Periods	Days
Byrne Initial Review	7
Spec'd Arch Review Time	14
Byrne Return Review	7

DESCRIPTION										SCHEDULE DATES						ACTUAL DATES											
		Submittal No.			Description	Submittal Type	Rvw .By	Phase	Sub or Vendor	Days Until Submission	To Byrne	SCHEDULE DATES			Fab / Delv.	Sched. Delv.	ACTUAL DATES										
No.	CSI No.	Section	#	Rev								To Arch	From Arch	To Sub			To Byrne	To Arch	From Arch	To Sub	Time	From Arch	To Sub	Approval Status	Green= Early Orange= Late (Delv. Date)	Suprt's Req'd.	Confirm Delv.
					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	4/1/2017	02/01/17	02/08/17	15	02/23/17	02/24/17	Approved	3/1/17	04/01/17	04/01/17		
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	3/15/2017				-			3/15/17	04/01/17	04/01/17		
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	6/1/2017				-			6/1/17	06/01/17			
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	Y		SV	
33	THERMOMETERS AND GAUGES FOR PLUMBING PIPING	22 05 19	OMM-0002	Y	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	Y	S	** TRAINING REQUIRED **	SV
35	DOMESTIC WATER PIPING SPECIALTIES	22 11 19	OMM-0002	Y	Y	Y	Y	Y	Y	Y	S	SV	
36	DOMESTIC WATER PUMPS	22 11 23	OMM-0002	Y	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	Y	S	SV	
38	SANITARY WASTE PIPING SPECIALTIES	22 13 19	OMM-0002	Y	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	Y	S	** TRAINING REQUIRED **	SV
40	SUMP PUMPS	22 14 29	OMM-0002	Y	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	Y	S	** TRAINING REQUIRED **	SV
42	PLUMBING FIXTURES	22 40 00	OMM-0002	Y	Y	Y	Y	Y	Y	Y	S	SV	
43	EMERGENCY PLUMBING FIXTURES	22 45 00	OMM-0002	Y	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	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 Name and 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 not received
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	Commercial Water Closets - Flushometer Valves		22421313 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
17	Commercial Urinals - Urinal Flushometer Valves		22421316 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
18	Commercial Lavatories - Faucets		22421613 2.2	✓	✓	✓	✓	11/25/2013	11/25/2013	4	✓	✓	•	Not in MP4 Format
19	Commercial 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	<p>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.</p> <p>1. Warranty Period: Ten years from date of Substantial Completion.</p> <p>B. Special Installer's Warranty: Specified form, signed by Installer, covering Work of this Section, for warranty period of two years.</p> <p>1. Warranty includes removing and reinstalling protection board, drainage panels, insulation, pedestals, and pavers on plaza decks.</p>	<p>10 Year</p> <p>2 Year</p>		
074113 .19	1.10	BATTEN-SEAM METAL ROOF SYSTEMS	PMC	<p>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.</p> <p>1. Failures include, but are not limited to, the following:</p> <p>a. Structural failures including rupturing, cracking, or curing.</p> <p>b. Deterioration of metals and other materials beyond normal weathering.</p> <p>2. Warranty Period: Five years from date of Substantial Completion.</p> <p>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.</p> <p>1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:</p> <p>a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.</p> <p>b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.</p> <p>c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.</p> <p>2. Finish Warranty Period: 20 years from date of Substantial Completion.</p>	<p>5 Year</p> <p>20 Years</p>		

EXAMPLE

EQUIPMENT WARRANTY CHECKLIST

Project Name

Contract No:

							Warranty		
Equip. Description	Location	Manufacturer	Model No.	Serial No.	Date of Operation	Supplier	Start Date	Expiration Date	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	Uncombined 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...
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 for all 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.

Project Name	Project Contract No.
---------------------	-----------------------------

Project Name	Project Contract No.
---------------------	-----------------------------

[illegible]

EQUIPMENT		Install	DUCTWORK		MECHANICAL		PIPING		COMPLETION DATES				ELECTRICAL		ELECTRICAL		FIRE ALARM		PRE TEST DATE	FINAL TEST DATE
MARK	• = Required * = Not Required □ = Completed		Unit	Tie In Duct	Fire / Smoke / Auto Damper Installed	Pipe Tied 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 Wire Installed Unit	Duct Smoke Detector Installed	FA Interlock	Startup Equipment	Test & Balance		
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	
										9/19 - Backdraft Damper on Order, To be delivered Tue 9/23										
TEF-1-1	Toilet Exhaust (Restroom 121)	□	□	*	*	*	*	*	*				* Not Done	*	* Not Done		*	*		
										No power to damper per Masters.										
SPF-1-1	Stair 5 Pressurization Fan (Retail R11)	□	□	* Louver + Motorized Backdraft Damper					8/25 - Press Sensor Reqd 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:																				
			*	*	*	*	*	*	*	*	*									
	Emerg Voice/ AlarmCommo 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 - RFI 367 being reviewed	*	*		9/27/2008	9/27/2008

EXAMPLE

9/19 - Backdraft Damper on Order, To be delivered Tue 9/23

No power to damper per Masters.

• Not Done

• Not Done

9/15/08 - Need ceiling installed

9/19 - Ckt has been revised per RFI

9/15/2008

Need 1 week to install FA panels + 2 weeks to get system 100% tested.

9/08 - Panel not installed

9/08 - RFI 367 being reviewed

Thru FACP Interface with VFD

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: <u>040513</u> Masonry Mortar and Grout <u>040519</u> Masonry Anchorage, Reinforcement, & Accessories <u>042200</u> Concrete Unit Masonry. Ref. <u>All Structural Drawings</u> . 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				
<i>Reference all structural details for masonry walls during inspection!!</i>	Contractor		MBJ3	Notes
	Yes	No		
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" & "I" 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				
=====				

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: <u>051200</u> Structural Steel <u>053113</u> Composite Metal Floor Deck <u>053123</u> Metal Roof Deck <u>055000</u> Metal Fabrications <u>055010</u> Metal Fabrications Garage <u>055100</u> Metal Stairs <u>055135</u> Prefab Steel Stair System Reference Structural Drawings for Details & <u>SF0-0-2001</u> for Structural Statement of Special Inspections				
Reference final field use sets of shop drawings!		Contractor		MBJ3
		Yes	No	
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 Std 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		MBJ3
			Yes	No	
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						

Project Name and Contract No.

Project Name and Contract No.

Date		Inspector				
Permit No.		Company				
Area		Level				
Grid Lines		Room #				
	Contractor		Contractor			
GENERAL	Yes	No	MBJ3			
Are pipe hangers, supports, and thermal hanger shield installed correctly & at specified spacing?			Are floor drains, floor sinks, & cleanouts installed at proper elevation for finish flooring?	Yes	No	MBJ3
Are pipe hangers & supports adjusted to distribute load evenly & piping installed free of sags and bends?			Are cleanouts installed at accessible locations?			
Are vertical pipe risers properly supported?			Fixture roughin & supports are installed correctly with adequate blocking for rigid support?			
Is lateral bracing installed to prevent swaying of pipe?			Has fixture roughin height & location been checked to ensure ADA requirements have been met?			
Is pipe installed at specified slopes?			Is horizontal vent piping sloped properly and flashing installed through roof?			
Are approved sleeves installed for non-rated or rated assemblies?			Are trap primers installed where shown in contract docs?			
Are link seals installed where required?						
DOMESTIC WATER			STORM DRAINAGE			
Are specified materials and solder being used?			Are specified pipe materials and joints 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?			UNDERGROUND PLUMBING			
Are backflow preventers installed where required and tested?			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?			
NATURAL GAS			Is approved flowable fill being used and compressive strength testing performed?			
Are specified materials being used?			Have concrete thrust blocks been installed where required?			
Are dielectric fittings installed where required?			Is cathodic protection system installed, inspected and tested?			
Have welded joints been inspected & all deficiencies resolved?			OTHER			
Have protective coatings been touched up?						
Remarks						
SUB QC Inspector			BYRNE QC Inspector			
	Signature	Date		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 #								
							Contractor								
HYDRONIC PIPING FOR HVAC							Yes	No	MBJ3	METAL DUCT & ACCESSORIES			Yes	No	MBJ3
Have welded pipe joints been inspected with no deficiencies remaining?										Are sealants or gaskets installed @ all duct joints w/o breaks or gaps?					
Is pipe installed indicated slopes or @ uniform grade of 0.2% upward in direction of flow?										Duct supports installed @ correct spacing, installed w/i 24" of elbows & w/i 48" of branch intersection?					
Are the correct pipe clevis hangers, roller supports, pipe clamps at correct spacing & adjusted to distribute the load?										Is vertical duct supported at each floor with max spacing of 16 feet?					
Is lateral bracing used with pipe hangers & support to prevent swaying?										Are fire, smoke, & comb fire / smoke dampers installed where duct passes through fire rated assemblies?					
Are vertical pipe risers supported by steel pipe riser clamps?										Have fire, smoke and comb fire/smoke dampers been tested to verify full range of movement?					
Are vertical pipe risers supported by steel pipe riser clamps?										Has contractor verified that control dampers have full range of movement?					
Are dielectric fittings installed at joining of copper / ferrous materials?										Are flexible connectors installed where required?					
Are manual, control, & balancing valves installed where shown?										Are duct mounted access doors installed where required & labeled?					
Are manual or automatic air vents installed @ high points piping & elsewhere where shown?										Are sleeves installed for duct penetrations @ fire rated assembly per approved UL fire stop details?					
Are manual or automatic air vents installed @ high points piping & elsewhere where shown?									Has tests and inspections for leaks been conducted for medium pressure ductwork before applying external insulation?						
Can insulation installation proceed after pressure testing?															
EQUIPMENT										HEAT TRACE					
Terminal units are properly anchored & installed with vibration isolators (unless unit is internally isolated)										Before insulation is installed, has Contractor performed continuity and insulation resistance test of heat trace cable?					
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															
										OTHER					
Remarks															
SUB Inspector							BYRNE QC Inspector								
	Signature						Date			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	
	Yes	No			Yes	No					
Wall Rough				Equipment Installation							
Boxes roughed in at the proper height				Housekeeping pads							
Boxes secured properly				Proper Clearance							
Grounding pigtailed				Secured in place							
MC or Raceway size & Installed per DWS				Grounding Bushings							
Isolated throat connectors				Grounded/Bonded XO							
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 – PERFORMANCE AND PAYMENT BONDS

(See Attached)

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)

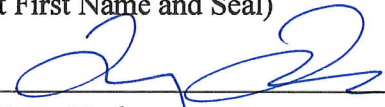
IN WITNESS WHEREOF, the Principal and the Surety have signed this instrument by duly authorized agents and officers and affixed corporate seals hereto on the 6th day of September 2022.

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]

ATTACHMENT 10(B) – PAYMENT BOND

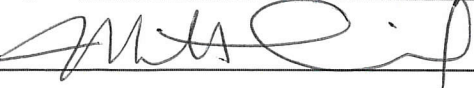
(See Attached)

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 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
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
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
Renee C. Llewellyn, Assistant Secretary



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.