

1176-2019 ADDENDUM #2

### **BUILDING SYSTEMS UPGRADE – 2055 NESS AVENUE**

# **URGENT**

PLEASE FORWARD THIS DOCUMENT TO WHOEVER IS IN POSSESSION OF THE TENDER ISSUED: December 17, 2019 BY: Kathy Roberts TELEPHONE NO. 204-470-7380

THIS ADDENDUM SHALL BE INCORPORATED INTO THE TENDER AND SHALL FORM A PART OF THE CONTRACT DOCUMENTS

Please note the following and attached changes, corrections, additions, deletions, information and/or instructions in connection with the Tender, and be governed accordingly. Failure to acknowledge receipt of this Addendum in Paragraph 10 of Form A: Bid may render your Bid non-responsive.

# PART B – BIDDING PROCEDURES

Revise:	B2.1 to read:	The Submission Deadline is 12:00 noon Winnipeg time, January 3, 2020.
Add:	B7.3.1	Notwithstanding B7.3, requests for approval of a substitute will <b>not</b> be considered after December 12, 2019.

# PART E - SPECIFICATIONS

Revise:	E1.5 to read:	The following are applicable to the Work:
1.001100.	E 1.0 to 1000.	

Specification No.	Specification Title			
000000	Cover			
000101	Contact List			
NMS SPECIFICATIONS				
DIVISION 01 -	GENERAL REQUIREMENTS			
000110	Table of Contents / Drawing Index			
003100	Available Project Information			
011100	Summary of Work			
012100	Allowances			
013119	Project Meetings			
013233	Photographic Documentation			
013300	Submittal Procedures			
013500	Special Procedures			
013530	Health and Safety Requirements			
014200	References			
014500	Quality Control			
015100	Temporary Utilities			
015200	Construction Facilities			
015600	Temporary Barriers and Enclosures			
016000	Basic Product Requirements			
017400	Cleaning			
017700	Closeout Procedures			
017800	Closeout Submittals			
	EXISTING CONDITIONS			

DIVISION 02 – EX	<b>(ISTING CONDITIONS</b>
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024119 028100-R1 028210-R1 028211-R1 028212-R1 028213 028310-R1 028311-R1		Selective Demolition for Renovations Hazardous Materials – General Provisions Asbestos Abatement – Low Risk Precautions Asbestos Abatement – Moderate Risk Precautions Asbestos Abatement – Glove Bag Asbestos Abatement – High Risk Precautions Lead Abatement – Minimal Precautions Lead-Silica Abatement – Intermediate Precautions
<b>DIVISION 03</b> 031000 032000 033000 033500	-	<b>CONCRETE</b> Concrete Formwork Structural Concrete Reinforcing Cast in Place Concrete Concrete Finishing
<b>DIVISION 04</b> 040510	-	MASONRY Common Masonry
DIVISION 05 051200 055000	-	METALS Structural Steel Metal Fabrications
<b>DIVISION 06</b> 061000 062000 064000 066116	-	WOOD, PLASTICS AND COMPOSITES Rough Carpentry Finish Carpentry Architectural Woodwork Solid Surface Fabrication
DIVISION 07 072100 072500 074213 075350-R1 076200 078110 078400 079200	-	THERMAL AND MOISTURE PROTECTION Thermal Insulation Air/Vapour Barrier Membrane Metal Wall Panels Modified Bituminous Membrane Roofing Sheet Metal Flashing and Trim Sprayed Fireproofing Firestopping Joint Sealing
<b>DIVISION 08</b> 081100 081116 081400 083500 084229 084313 087100 088000	-	OPENINGS Steel Doors and Frames Aluminium Doors and Frames Wood Doors Folding Doors and Grilles Sliding Automatic Entrance – Interior Aluminium Framed Entrances and Storefronts Door Hardware Glazing
<b>DIVISION 09</b> 092216 092900 093013 095130 096500	-	<b>FINISHES</b> Non-Structural Metal Framing Gypsum Board Ceramic Tiling Acoustic Panel Ceilings Resilient Flooring

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097216 099000		Rigid Sheet Vinyl Wall Covering Painting
<b>DIVISION 10</b> 109990	-	SPECIALITIES Miscellaneous Specialties
<b>DIVISION 14</b> 142000	-	CONVEYING EQUIPMENT Material Lift
<b>DIVISION 21</b> 210500 211100 211300 211450	-	<b>GENERAL MECHANICAL / FIRE SUPPRESSION</b> Common Work for Mechanical Fire Protection Piping Sprinklers Fire Extinguishers
<b>DIVISION 22</b> 221000 224201 224202 224700	-	<b>PLUMBING</b> Plumbing Piping Plumbing Specialties Plumbing Fixtures Plumbing Equipment
DIVISION 23 230513 230516 230519 230520 230529 230548 230553 230593 230713 230716 230716 230719 232100 232123 232500 233100 233248 233300 233700 235100 235216 235700 23516 235700 236400 236516 237200 237323 237324 237324 237413 238200		HEATING, VENTILATING AND AIR CONDITIONING Motors Piping Expansion Compensation Gauges and Meters Hydronic Specialties Supports and Anchors Vibration Isolation Mechanical Identification Testing, Adjusting and Balancing Duct Insulation Equipment Insulation Piping Insulation Hydronic Piping HVAC Pumps Chemical Treatment for Piping Ductwork Sound Attenuators Ductwork Accessories Air Outlets and Inlets Breechings, Chimneys and Stacks Boilers – Condensing Water Tube Heat Exchangers Water Chillers – Packaged Cooling Towers – Induced Draft Air-to-Air Heat Exchangers Air Handling Units Dehumidification Units Air Conditioning Units – Packaged Rooftop Terminal Heat Transfer Units
<b>DIVISION 25</b> 253000 255002 259000	-	INTEGRATED AUTOMATION Instruments and Control Elements Digital Control Equipment Sequence of Operation

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DIVISION 26 260310 260500 260519 260526 260529 260533 260534 260553 260580 261216 262401 262413 262416 262416 262716 262726 265113	-	ELECTRICAL Minor Electrical Demolition for Remodeling Common Work Results for Electrical Building Wire and Cable Grounding and Bonding Electrical Supporting Devices Conduit Boxes Electrical Identification Equipment Wiring Transformers – Dry Type Utility Service Entrance Distribution Switchboards Panelboards Cabinets and Enclosures Wiring Devices Interior Luminaires
<b>DIVISION 27</b> 270528 271005 275123	-	<b>COMMUNICATIONS</b> Pathways for Communications Systems Structured Cabling for Communications Systems Intercom Devices
<b>DIVISION 28</b> 281000 281600 282300 284600	-	ELECTRONIC SAFETY AND SECURITY Access Control Intrusion Detection Video Surveillance Fire Alarm
DIVISION 32 328310	-	EXTERIOR IMPROVEMENTS Chain Link Fencing
Drawing No. A-000-R0 A-001-R0 A-002-R1 L-100-R0 A-100-R0 A-101-R0 A-102-R0 A-200-R0 A-200-R0 A-201-R0 A-202-R0 A-203-R0 A-205-R0 A-205-R0 A-206-R0 A-300-R0 A-301-R0 A-500-R0 A-501-R0 A-602-R0 A-700-R0	CONSTRU SITE PLAN BASEMEN MAIN FLO SECOND I BASEMEN MAIN FLO MAIN FLO SECOND I ROOF PLA ENLARGE ENLARGE REFLECTI BUILDING BUILDING BUILDING WALL SEC DETAILS DETAILS	EET CODE SUMMARY JCTION ASSEMBLIES / SCHEDULES N – DEMOLITION & RENOVATION IT / CRAWLSPACE DEMOLITION PLAN OR EMOLITION PLAN – SOUTH FLOOR / ROOF DEMOLITION PLAN IT / CRAWLSPACE RENOVATION PLAN OR RENOVATION PLAN – SOUTH OR RENOVATION PLAN – NORTH FLOOR RENOVATION PLAN AN D PLANS ED CEILING PLAN SECTIONS SECTIONS

A-701-R0 A-702-R0 <mark>A-703-R0 SKA-01-R0 S1.1-R0 S1.2-R0 S2.1-R0 S2.2-R0 S2.3-R0 S2.4-R0 S5.1-R0 M0.1-R0</mark>	INTERIOR ELEVATIONS & MILLWORK MILLWORK & DETAILS INTERIOR ELEVATIONS INTERIOR GLAZING SCHEDULE LOT SERVICE PLAN GENERAL NOTES TYPICAL DETAILS PARTIAL MAIN FLOOR FRAMING PLAN SECOND FLOOR FRAMING PLAN PARTIAL ROOF FRAMING PLAN MECH ENCLOSURE ROOF PLAN SECTIONS MECHANICAL SYMBOLS
MP2.0-R0	BASEMENT DEMOLITION – PLUMBING PLAN LEVEL 1 DEMOLITION – PLUMBING PLAN
MP2.1-R0 MP2.2-R0	LEVEL 2 DEMOLITION – PLUMBING PLAN
MP2.3-R1	BASEMENT RENOVATION – PLUMBING PLAN
MP2.4-R1	LEVEL 1 RENOVATION – PLUMBING PLAN
MP2.5-R0	LEVEL 2 RENOVATIO - PLUMBING PLAN
MP4.1-R0	DETAILS – PLUMBING
MF2.0-R0	BASEMENT – FIRE PROTECTION RENOVATION PLAN
MF2.1-R0	LEVEL 1 RENOVATION – FIRE PROTECTION PLAN LEVEL 2 RENOVATION – FIRE PROTECTION PLAN
MF2.2-R0 MF2.3-R1	ARENA SOUTH – FIRE PROTECTION PLAN
MF2.4-R1	ARENA NORTH – FIRE PROTECTION PLAN
MF2.5-R0	ARENA SOUTH – FIRE PROTECTION PLAN
MF2.6-R0	ARENA NORTH – FIRE PROTECTION PLAN
MF4.1-R0	DETAILS – FIRE PROTECTION PLAN
MY2.0-R0	BASEMENT DEMOLITION - HYDRONIC PLAN
MY2.1-R0	LEVEL 1 DEMOLITION – HYDRONIC PLAN LEVEL 2 DEMOLITION – HYDRONIC PLAN
MY2.2-R0 MY2.3-R1	BASEMENT RENOVATION – HYDRONIC PLAN
MY2.4-R0	LEVEL 1 RENOVATION – HYDRONIC PLAN
MY2.5-R0	LEVEL 2 RENOVATION – HYDRONIC PLAN
MY3.1-R0	LARGE SCALE PLANS – HYDRONIC
MY4.1-R0	DETAILS – HYDRONIC
MH2.0-R0	BASEMENT DEMOLITION – HVAC PLAN
MH2.1-R0	LEVEL 1 DEMOLITION – HVAC PLAN LEVEL 2 DEMOLITION – HVAC PLAN
<mark>MH2.2-R1</mark> MH2.3-R0	BASEMENT RENOVATION – HVAC PLAN
MH2.4-R1	LEVEL 1 RENOVATION – HVAC PLAN
MH2.5-R0	LEVEL 2 RENOVATION – HVAC PLAN
MH2.6-R1	ROOF RENOVATION – HVAC PLAN
MH3.1-R0	LARGE SCALE PLANS – HVAC
MH3.2-R0 MH4.1-R0	3D LAYOUTS AND SECTIONS – HVAC DETAILS – HVAC
MH4.1-R0 MH4.2-R0	DETAILS – HVAC DETAILS – HVAC
M5.1-R0	MECHANICAL SCHEMATICS – HVAC
M5.2-R0	MECHANICAL SCHEMATICS – HYDRONIC
<mark>M7.1-R1</mark>	HVAC & PLUMBING SCHEDULE
M7.2-R1	HYDRONIC SCHEDULE
E0.1-R0	ELECTRICAL SYMBOLS AND ABBREVIATIONS
E1.1-R0 E1.2-R0	ELECTRICAL SITE PLAN – DEMOLITION ELECTRICAL SITE PLAN – RENOVATION
EDL2.0-R0	BASEMENT DEMOLITION – LIGHTING PLAN
EDL2.1-R0	LEVEL 1 DEMOLITION – LIGHTING PLAN
EDL2.2-R0	LEVEL 2 DEMOLITION – LIGHTING PLAN
EDP2.0-R0	BASEMENT DEMOLITION – POWER & SYSTEMS PLAN
EDP2.1-R0	LEVEL 1 DEMOLITION – POWER & SYSTEMS PLAN

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### **DRAWINGS**

- Replace: 1176-2019 \_Drawing\_A-002-R0 with 1176-2019 \_Addendum-#2 Drawing\_A-002-R1
- Replace: 1176-2019 \_Drawing\_MP2.3-R0 with 1176-2019 \_Addendum-#2 Drawing\_MP2.3-R1
- Replace: 1176-2019 \_Drawing\_MP2.4-R0 with 1176-2019 \_Addendum-#2 Drawing\_MP2.4-R1
- Replace: 1176-2019 \_Drawing\_MH2.2-R0 with 1176-2019 \_Addendum-#2 Drawing\_MH2.2-R1
- Replace: 1176-2019 \_Drawing\_MH2.4-R0 with 1176-2019 \_Addendum-#2 Drawing\_MH2.4-R1
- Replace: 1176-2019 \_Drawing\_MH2.6-R0 with 1176-2019 \_Addendum-#2 Drawing\_MH2.6-R1
- Replace: 1176-2019 \_Drawing\_M7.1-R0 with 1176-2019 \_Addendum-#2 Drawing\_M7.1-R1
- Replace: 1176-2019 \_Drawing\_M7.2-R0 with 1176-2019 \_Addendum-#2 Drawing\_M7.2-R1
- Replace: 1176-2019 \_Drawing\_E5.4-R0 with 1176-2019 \_Addendum-#2 Drawing\_E5.4-R1
- Replace: 1176-2019 \_Drawing\_E6.1-R1 with 1176-2019 \_Addendum-#2 Drawing\_E6.1-R2
- Replace: 1176-2019\_Drawing\_EF2.1-RO with 1176-2019\_Addendum-#2\_Drawing\_EF2.1-R1
- Add: 1176-2019\_Addendum-#2\_Drawing\_A-703-R0

1176-2019\_Addendum-#2\_Drawing\_SKA-01-R0

### **NMS SPECIFICATIONS**

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### Section 02 81 00 Hazardous Materials – General Provisions

Replace: 1176-2019 \_NMS\_Section-028100 with 1176-2019 \_Addendum-#2\_NMS\_Section-028100-R1

#### Section 02 82 10 Asbestos Abatement – Low Risk Precautions

Replace: 1176-2019 \_NMS\_Section-028210 with 1176-2019 \_Addendum-#2\_NMS\_Section-028210-R1

#### Section 02 82 11 Asbestos Abatement – Moderate Risk Precautions

Replace: 1176-2019 \_NMS\_Section-028211 with 1176-2019 \_Addendum-#2\_NMS\_Section-028211-R1

### Section 02 82 12 Asbestos Abatement – Glove Bag

Replace: 1176-2019 \_NMS\_Section-028212 with 1176-2019 \_Addendum-#2\_NMS\_Section-028212-R1

#### Section 02 82 13 Asbestos Abatement – High Risk Precautions

Add: 1176-2019 \_Addendum-#2\_NMS\_Section-028213

#### Section 02 83 10 Lead Abatement – Minimal Precautions

Replace: 1176-2019 \_NMS\_Section-028310 with 1176-2019 \_Addendum-#2\_NMS\_Section-028310-R1

#### Section 02 83 11 Lead/Silica Abatement – Intermediate Precautions

Replace: 1176-2019\_NMS\_Section-028311 with 1176-2019\_Addendum-#2\_NMS\_Section-028311-R1

#### Section 07 53 50 Modified Bituminous Membrane Roofing

Replace: 1176-2019 \_NMS\_Section-075350 with 1176-2019 \_Addendum-#2\_NMS\_Section-075350-R1

#### Section 07 84 00 Firestopping

Revise: 2.3 to read: ACCEPTABLE FIRE STOP APPLICATORS

- .1 National Firestop Ltd.
- .2 Total Fire Stop Systems Limited
- .3 Western Industrial Services Ltd.
- .4 Groundstar Systems (1987) Ltd.
- .5 Secure Firestop
- .6 Eco-Lok Protective Coatings

#### Section 08 42 29 Sliding Automatic Entrances - Interior

Revise: 2.2.1 to read: Standard of Acceptance: Besam SL500 sliding automatic doors. (Basis of Design). Other acceptable product: Horton Automatics series 2003.

.1 Aluminum doors and frames with sidelites and active door leaves.

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- .2 Overhead concealed, electro-mechanical, microprocessor controlled, sliding door operator.
- .3 Operator housing, guide system and door carriers.

#### Section 08 71 00 Door Hardware

### 2.4 HARDWARE SCHEDULE

Hardware Sets

Revise: Set 7.0 to read:	<u>Set: 7.0</u>
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4 Hinge	TA2714 4-1/2" x 4"	US26D	MK
1 Storeroom Lock	ND80 T D RHO	626	SC
1 BEST Core	To Match Existing	626	BE
1 Cylinder	23-030 (Confirm Keyway and	626	SC
	Keying)		
1 Electric Strike	5000C-LBM	630	HS
1 Automatic Operator	5710	689	NO
	Or Approved Alternate: Horton 710	0	
1 Kick Plate	K1050 10"	US32D	RO
1 Floor Stop	441/443	US26D	RO
2 Full Height Actuator	639		NO
1 Restroom Relay Kit	Camden CX-WC11		CA
1 Power Supply	By Electrical		ОТ

### Section 09 65 00 Resilient Flooring

Revise: 2.2.1.7 to read:	Tile design, texture , and colour:
	.1 Supplier to allow for colour selection from full range of manufacturer's available colours as noted below.
	.2 Speckled Colour – selected from manufacturer's full available range.
	.3 Marbleized Colour – selected from manufacturer's full available range.
Revise: 2.2.1.20 to read:	No bricks or weights required for installation (for weighting down product for proper adhesion) unless specifically required in the manufacturer's installation instruction for warrantable installation.

### Section 09 67 00 Fluid-Applied Flooring

Replace: 1176-2019 \_NMS\_Section-096700 with 1176-2019 \_Addendum-#2\_NMS\_Section-096700-R1

### Section 10 99 90 Miscellaneous Specialties

# 2.1 WASHROOM ACCESSORIES

Revise: 2.1 to read:

Code	Description	Manufacturer's Products No.			
		Bobrick	Frost	Bradley	Dyson

BCS	Baby Change Station, surface mounted			962-11	
EHD	Electric Hand Dryer, white	B-7125			Airblade V #HU02 (sprayed nickel)
FSS	Folding Shower Seat. Refer to Drawings for left/right configuration		975		
GB-1	Grab Bar - 24"	B-5806X24	1001-SP24"		
GB-2	Grab Bar - 36"	B-5806X36	1001-SP36"		
GB-3	Grab Bar - 30"	B-5806X30	1001-SP30"		
GB-4	Grab Bar - 24" x 36""		1001-SP 24x36		
GB-5	Grab Bar - Flip-up, with carrier		1055-S, 1055-500		
GB-6	Grab Bar - Flip-up, with carrier and toilet paper holder		1055-FTS, 1055-500		
GB-7	Grab Bar - 36" x 36""		1003-SP 36x36		
MIR	304 stainless steel sheet, #8 mirror finish, custom sizes, fasten to plywood and mount to wall. No visible fasteners. In BF applications over single wall mounted sinks, use BradleyCorp product			748-2436	
PTD	Paper Tower Dispenser - Kimberley Clark #09990 "Smoke"				
RH	Robe Hook, collapsible		1150		
RSD	Recessed Soap Dish		1132HD		
SH	Shelf, stainless steel	B-295			
SD	Soap Dispenser, surface mounted	B-4112			
SN	Sanitary Napkin Disposal, surface mounted	B-270			

ТР	Toilet Paper Dispenser, surface mounted		165	
WR	Waste Receptacle, surface mounted	B-279		
Waste Chute	Waste Receptacle Chute mounted in millwork with floor standing open top waste receptacle below	B-529 and B-2260		

### Section 22 47 00 Plumbing Equipment

Delete: 2.3 SUBMERSIBLE SUMP PUMPS

Delete: 3.1.3

# Section 22 42 01 Plumbing Specialties

### 2.1 FLEXIBLE PIPE CONNECTORS

Revise: 2.1.1 to read: Manufacturers:

- .1 Flextrol
- .2 Flex Tech Industries
- .3 Hydro-flex
- .4 Flex-Home Pumpsaver
- .5 Substitutions: Refer to Section 21 05 00

### Section 22 42 02 Plumbing Fixtures

# 2.1 FLUSH VALVE WATER CLOSETS – FLOOR MOUNTED

WC-1

Revise: 2.1.1.1 to read: Manufacturer: TOTO CT705ULN(G) or Approved Alternative GERBER 25-733

WC-2 (incorrectly labelled as a duplicate 2.1.1.1)

Revise: 2.1.2.1 to read: Manufacturer: TOTO CT705ULN(G) or Approved Alternative GERBER 25-733

# 2.2 LAVATORIES

## LAV-3

Revise: 2.2.3.1 to read: Manufacturer: TOTO LT501 or Approved Alternative Gerber 12-831-CH

### Section 23 05 16 Piping Expansion Compensation

### 2.1 FLEXIBLE PIPE CONNECTORS

Revise: 2.1.1.1 to read: Manufacturers:

- .1 HYSPAN
- .2 Flex-Hose Pumpsaver

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	.3	Substitutions: Refer to Section 21 05 00		
Revise: 2.1.2.1 to read:	Manufacturers:			
	.1	Hydro Flex Inc.		
	.2	HYSPAN		
	.3	Flex-Hose Pumpsaver		
	.4	Substitutions: Refer to Section 21 05 00		
Revise: 2.1.3.1 to read:	Manufactu	rers:		
	.1	Hydro Flex Inc.		
	.2	Flex-Hose Pumpsaver		
	.3	Substitutions: Refer to Section 21 05 00		
Revise: 2.1.4.1 to read:	Manufacturers:			
	.1	Hydro Flex Inc.		
	.2	Flex-Hose Pumpsaver		
	.3	Substitutions: Refer to Section 21 05 00		
Revise: 2.1.5.1 to read:	Manufactu	rers:		
	.1	Model G-FLEX		
	.2	Flex-Hose Pumpsaver		
	.3	Substitutions: Refer to Section 21 05 00		
2.2 EXPANSION JOINTS				
Revise: 2.2.1.1 to read:	Manufactu	rers:		
	.1	HYSPAN model 8503		

- .2 Flextronics
- .2 Flex-Hose Stoplink
- .3 Substitutions: Refer to Section 21 05 00

### Section 23 05 20 Hydronic Specialties

### 2.1 FLEXIBLE PIPE CONNECTORS

Revise: 2.1.1 to read: Manufacturers:

- .1 Flextrol
- .2 Flex Tech Industries
- .3 Hydro-flex
- .4 Flex-Hose Pumpsaver
- .5 Substitutions: Refer to Section 21 05 00

### Section 23 33 00 Duct Work Accessories

### 2.2 BACKDRAFT DAMPERS

Add: 2.2.1.1: Acceptable Manufacturers: Ventex. Substitutions: Refer to Section 21 05 00

### 2.10 VOLUME CONTROL DAMPERS

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Add: 2.10.1.1: Acceptable Manufacturers: Alumavent. Substitutions: Refer to Section 21 05 00

### Section 23 51 00 Breechings, Chimneys and Stacks

### 2.2 DOUBLE WALL METAL STACKS – AIR GAP

Revise: 2.2.1 to read: Manufacturers:

- .1 Schebler Chimney Systems model eVent
- .2 Approved Alternative: ICC model VIC
- .3 Substitutions: Refer to Section 21 05 00

### 2.3 DOUBLE WALL METAL STACKS - INSULATED

Revise: 2.2.1 to read: Manufacturers:

- .1 Schebler Chimney Systems model eVent Plus2
- .2 Approved Alternative: ICC model VIC
- .3 Substitutions: Refer to Section 21 05 00

### Section 23 52 16 Boilers – Condensing Water Tube

Revise: 2.1.2 to read: Substitutions:

- .1 Viessmann Manufacturing C. (US) Inc.
- .2 Lochinvar LLC
- .3 RBI Infinite Energy 2-1000
- .4 RBI FlexCore CK1000

#### Section 23 57 00 Heat Exchangers

Revise: 2.1.1 to read: Manufacturers:

- .1 Bell & Gossett
- .2 Armstrong
- .3 Taco
- .4 Wilo (Wessels)
- .5 SEC Heat Exchangers

#### Section 23 64 00 Water Chillers – Packaged

Revise: 2.1.2 to read: Substitutions:

- .1 Trane CICD / CGWR
- .2 Carrier 30MPW
- .3 Climacool UCW030
- .4 Substitutions: Refer to Section 21 05 00

#### Section 23 65 16 Cooling Towers – Induced Draft

Revise: 2.1.2 to read: Substitutions:

.1 Evapco eco-ATWB 9-4H9-Z

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.2 Substitutions: Refer to Section 21 05 00

#### Section 23 73 23 Air Handling Units

Revise: 2.1.1 to read:	Carrier shall be the basis of design

Revise: 2.1.2 to read: Substitutions (AHU-1,2,3):

- .1 Trane CSAA021, CSAA017, CSAA003
- .2 Daikin CAH018GDAM, CAH013GDAM, CAH003GDAM
- .3 Substitutions: Refer to Section 21 05 00

#### Section 23 73 24 De-Humidification Units

Revise: 1.4.1.1 to read: Dectron and LD series are basis of design. Approved Alternate: Seresco NP-018-NT

#### Section 23 74 13 Air Conditioning Units – Packaged Roof Top

Revise: 2.1.2 to read: Substitutions

- .1 Aaon RQ-006-4-V-HA02-33B
- .2 Trane
- .3 Daikin
- .3 Substitutions: Refer to Section 21 05 00

### Section 23 82 00 Terminal heat Transfer Units

### 2.1 FINNED TUBE RADIATION

Revise: 2.1.2 to read: Other acceptable manufacturers offering equivalent products:

- .1 Sigma SWF
- .2 Substitutions: Refer to Section 21 05 00

### 2.2 UNIT HEATERS

Revise: 2.2.2 to read: Other acceptable manufacturers offering equivalent products:

- .1 Sigma SUH
- .2 Trane UHSB
- .3 Substitutions: Refer to Section 21 05 00

### 2.4 FAN-COIL UNITS

Revise: 2.4.1 to read:	Manufacturer: Carrier 42DC08B, 42DC06B
Revise: 2.4.2 to read:	Other acceptable manufacturers offering equivalent products:

- .1 Trane FFCB
- .2 Daikin FCHH
- .3 Substitutions: Refer to Section 21 05 00

### 2.5 HYDRONIC RADIANT PANELS

Revise: 2.5.1 to read: Manufacturers:

- .1 TWA
- .2 Price Industries

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- .3 Engineered Air
- .4 Sigma SLC

### Section 28 23 00 Video Surveillance

Delete: 3.4 Interface with Other Products

#### Section 28 46 00 Fire Alarm

Revise: 2.1.1 to read: The fire alarm devices as described herein are based on the Simplex 4100 fire alarm system.

#### Section 28 10 00 Access Control

Revise 2.1.1 to read:	Kantech KT-400 series complete with Entrapass Special Addition single workstation software management system (ACS).
Revise 2.3.1 to read:	Manufacturer: Kantech KT-400 series, or approved equal in accordance with B7.

### **QUESTIONS AND ANSWERS**

- **Q1:** Drawing S1.2: Question regarding wall reference points for details 5 through 9.
  - A1: Coordinate with new wall locations as per Architectural drawings, where new CMU walls are indicated.
- **Q2:** Drawing L-100 references thickened edge slab and refers to Structural. Can't find reference in Structural.
  - A2: Thicken edge slab in question appears to be the electrical transformer slab (\$/L-100) and shall use the same thickened edge slab type as the concrete pad on the west side of the building at gridline 2 & A, with dimensions as per 4/L-100. Typical thickened edge detail is shown on 11/S5.1.
- Q3: Will all end devices such as card readers, cameras, speakers, etc. be surface mounted?
  - A3: Yes.
- **Q4:** Drawing EC1.2 shows 1 manual station, 3 heat detectors, and 1 bell. Can you confirm which devices are new and which are existing?
  - A4: The manual station is new, the heat detectors are existing to remain, and the bell is actually a new Horn/Strobe.
- **Q5:** Drawing EF2.0 indicates to provide non-addressable moisture-proof heat detectors. Will they each require an addressable monitor IAM?

A5: Yes.

**Q6:** The fire alarm zone schedule indicates two zones for 'Gas detection high level', what gas detection system or device is this monitoring?

- A6: There are CO detectors in the building.
- **Q7:** Do the main service feeders needs to be encased in concrete in the crawl space, or simply hung on strut from the structure until they come up through the floor (Drawing E1.2)?
  - A7: Within the crawlspace, the conduits can be hung on struts from the structure.
- **Q8:** When re-feeding existing panels, can the existing panel feeder conduit and wire be re-used by simply cutting in a box, using uni-taps and extending the feeders into the new distribution where applicable? (Drawing E5.2)
  - **A8:** This is acceptable.
- Q9: Drawing E4.1 mentions a manhole?
  - **A9:** The note regarding the manhole does not apply.
- Q10: Can Panel M100 be quoted as a 66-circuit panel?
  - A10: Number of circuits to be as per drawing. Double tub panel is acceptable.
- Q11: Is Panel Z new?
  - A11: Panel Z is existing.
- Q12: What is the value of future load breakers in various panels/switchboards?
  - A12: These should be quoted as adjustable electronic breakers, with a frame size based on the largest feeder breaker in the respective panel.
- Q13: Which starters need to be quoted from the Mechanical Schedule?
  - A13: Starters denoted by "MAG" need to be quoted.
- **Q14:** Bus bar and ground bar materials for panels and switchboards?
  - A14: These are indicated in conduit schedules on the drawing.
- **Q15.** Are all the fire alarm bells in the building to be demolished? Are the Electrical Contractors to re-use existing notification wiring or provide new?
  - A15: All bells in the building are to be demolished. New wiring is to be provided.