

£ G PROJECT: a23-087 - CITY a23-087 Fed Way OMF - Site 님님 ):24 \_Loc PLOTTED: 5/10/2024 3:30 FILE PATH: C:\shive\Revit.

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# SHEET INDEX

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NOTE		
REFER TO NOTES ON	) 'VOLUME - 0' FOR ABBREVIATIONS AND N SHEET G020	
SITE S	TRUCTURES GENERAL DRAWINGS	
GD001 GD002 GD040	VOLUME III SUBCOVER SHEET BUILDING ASSEMBLY LEGEND COLORS AND MATERIALS SCHEDULE	
ARCHIT	ECTURAL DRAWINGS	
AC100 AC300 AD100 AD300 AD400 AE100 AE300 AE400 AF100 AF300 AF400 AG100 AG300 AH100 AH300 AJ300	FLOOR PLANS & CODE INFORMATION EXTERIOR ELEVATIONS BUILDING SECTIONS FLOOR PLAN, SECTION & CODE INFORMATION EXTERIOR ELEVATIONS FLOOR PLANS & CODE INFORMATION EXTERIOR ELEVATIONS	
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SC00I SC002 SC0I0 SC020 SC030 SC040 SC041 SC042 SC050 SC060 SC060 SC060 SC060 SC060 SC060 SC000 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100 SE100	STRUCTURAL NOTES STRUCTURAL NOTES QUALITY ASSURANCE PLAN QUALITY ASSURANCE PLAN TYPICAL DETAILS FRAMING NOTES AND SCHEDULES FOUNDATION DETAILS FOUNDATION DETAILS SITE WALL DETAILS SITE WALL DETAILS TRASH ENCLOSURE PLANS TRASH ENCLOSURE DETAILS FOUNDATION PLAN FOUNDATION PLAN FOUNDATION PLAN FOUNDATION PLAN FOUNDATION PLAN FOUNDATION PLAN FOUNDATION PLAN	
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ELECTR	RICAL DRAWINGS	
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TELECO	OMMUNICATION DRAWINGS	
TC-001	TELECOM LEGEND, GENERAL NOTES,	
TC-002 TC-100 TD-100 TE-100 TF-100 TC-801 TC-802 TC-803 TC-804 TC-805 TC-901	ABBREVIATIONS, AND DRAWING INDEX TELECOM AND SECURITY ROUGH-IN SCHEDULES TELECOM PLAN - BUILDING C TELECOM PLAN - BUILDING D TELECOM PLAN - BUILDING F TELECOM PLAN - BUILDING F TELECOM DETAILS TELECOM DETAILS TELECOM DETAILS SECURITY DETAILS SECURITY DETAILS SECURITY ONE-LINE DIAGRAM	



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PROJECT: a23-087 - CITY OF FEDERAL WAY a23-087 Fed Way OMF - Site Structure C\_Stora PLOTTED: 5/10/2024 2:25:58 Ph FILE PATH: C:\shive\Revit\_Local

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		BUILDING ASSEMBLY NOTES	
		<ul> <li>GENERAL NOTES:</li> <li>I. WALL TYPES: REFER TO FLOOR PLAN FOR WALL TYPE LEGEND.</li> <li>2. REFER TO EXTERIOR ELEVATIONS FOR EXTEND OF EXTERIOR WALL ASSEMBLY</li> <li>3. REFER TO ROOF PLAN FOR ROOF ASSEMBLY LOCATIONS.</li> <li>4. EXTERIOR FINISHES: REFER TO EXTERIOR FINISH SCHEDULE ON ELEVATION SHE</li> </ul>	r. ETS.
		<ul> <li>FOOTNOTES</li> <li>[1] REFER TO STRUCTURAL DRAWINGS FOR REINFORCING STEEL.</li> <li>[2] PRE-ENGINEERED BUILDING SYSTEM.</li> <li>[3] EXTRUDED POLYSTYRENE (XPS) RIGID INSULATION BOARDS: LOW ROOF APPLINISULATION BOARDS. MECHANICALLY ATTACHED TO METAL DECK.</li> <li>[4] GALVANIZED STEEL DECKING. REFER TO STRUCTURAL DRAWINGS FOR TYPE.</li> <li>[5] VAPOR BARRIER: STEGO WRAP IS-MIL VAPOR BARRIER. THICKNESS: IS MILS MIL MANUFACTURER: STEGO WRAP IS-MIL VAPOR BARRIER. THICKNESS: IS MILS MIL MANUFACTURER: STEGO NUSTRIES LLC. PROVIDE ALL MANUFACTURER'S ACO INSTALLATION INCLUDING; TAPES AND MASTIC. ALL PENETRATIONS TO BE SEA A MINIUMUM OF 6-INCHES AND TAPE SEAL.</li> <li>[6] INSTALL ALL HORIZONTALLY ROUTED PIPES AND CONDUITS BELOW CAPILLAR.</li> </ul>	NIMUM. CESSORIES FOR CC ALED. OVERLAP AL Y BREAK LAYER.



FEDERAL WAY, WASHINGTON DATE \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ JOB NO. a23-087 \_\_\_\_\_ **BID SET** 10 GD002 DRAWING NO. © HELIX DESIGN GROUP, INC.: All rights reserved. No part of this document may be reproduced in any form or by any means without permission in writing from Helix Design Group.

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	COLORS AND MA	TERIALS SCH	EDULE			
1	NOTES					
I	[I] FRAME TO MATCH ADJACENT SIDING	G COLOR / INSULATED DOOR	5 AND THERMAL BREAK FRAME	S.		
2						
	SPECIFICATIONS NOTES					
3	<ul> <li>GENERAL NOTES:</li> <li>I. STANDARD ABBREVIATIONS LIST: R</li> <li>2. INSTALL MATERIALS AND PRODUCT AND ACCESSORIES FOR COMPLETE</li> <li>3. REFER TO PROJECT MANUAL FOR S</li> </ul>	EFER TO 'VOLUME O' - SHEET S IN ACCORDANCE TO MANUF INSTALLATION. SPECIFICATIONS OF MATERIAL	G020. ACTURER'S INSTALLATION INST AND PRODUCTS NOT INCLUDE	RUCTIONS, SPECIFICATIONS, I	DETAILS AND WARRANTY REQUIREMENT MATERIALS SCHEDULE.	5. P
0	FOOTNOTES: [A] BASIS OF DESIGN.					
4						



PROJECT: a23-087 - CITY OF a23-087 Fed Way OMF - Site Sti PLOTTED: 5/10/2024 2:25:58 PM FILE PATH: C:\shive\Revit\_Local\_2

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ROVIDE ALL MATERIALS COMPONENTS	

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COLO	DRS AND MATERIALS	S SCHEDULE					
	MATERIAL						
STIBUL	TATERIAL	MANUFACTURER [A]	CULUR / PATTERN / TIPE			LUCATION	
DIVISION 3 - CC	NCRETE						
CONC-I	ARCHITECTURAL CONCRETE	-	COLOR: NATURAL GRAY / SMOOTH FINISH. COLOR: PT-1	EXPOSED VERTICAL SURFACES			
CONC-2	ARCHITECTURAL CONCRETE	-	COLOR: NATURAL GRAY / LIGHT BROOM FINISH. COLOR: PT-I	EXPOSED HORIZONTAL SURFACES - EXT	ERIOR		
CONC-3	ARCHITECTURAL CONCRETE	-	COLOR: NATURAL GRAY / SMOOTH TROWEL FINISH. COLOR: PT-I	EXPOSED HORIZONTAL SURFACES - INTE	RIOR		
CONC-4	ARCHITECTURAL CONCRETE	REDKLI	NATURAL GRAY / FORMLINER I (PELLWORM, OFFSET PLANKS FINISH) PT-5	ART SECURITY WALL - OFF SITE SIDE			
CONC-5	ARCHITECTURAL CONCRETE	-	NATURAL GRAY / FORMLINER 2 (LIGHT SANDBLAST FINISH) / PT-5	ART SECURITY WALL - ON SITE SIDE & E	BUILDING A EXPOSED FOU	INDATIONS AND RETAINING WALLS	
I							
DIVISION 4 - MA	SONRY	1	1				
CMU-I	CONCRETE MASONRY UNIT	MUTUAL MATERIALS	COLOR: CASCADE BLEND, DRIFTWOOD AND ONYX / EQUAL BLEND /GROUN	ID BUILDING D			
M-I	MORTAR	DESIGN MIX	COLOR: GRAY	REFER TO EXTERIOR ELEVATIONS			
PCSU-I	PRECAST CONCRETE SOLID UNIT	-	NATURAL GRAY / PLANT CAST FINISH	ECOLOGY BLOCKS, WHEEL STOPS, AND	BUNKER WALLS		
	<b>T</b> 1 A						
DIVISION 5 - ME	TALS						
	METAL FABRICATIONS	-	COLOR: GALVANIZED, PT-2				
51L-1	STRUCTURAL STEEL FRAMING	-	COLOR: GALVANIZED. PT-3		(Cuto)		
SIL-2	STRUCTURAL STEEL, JOIST AND DECK	-	COLOR: GALVANIZED. PT-4	BUILDINGS E, G & H, HIGH SALT ENVIRON	MEN I S		
DIVISION 7 - TH	FRMAL AND MOISTURE PROTECTION						
MTL-I	METAL FLASHING AND TRIM	-	COLOR: MATCH STANDING SEAM METAL ROOFING SSMR-1				
SSMR-1	STANDING SEAM METAL ROOFING	AFP SPAN	COLOR: SILVERSMITH DESIGN SPAN HP				
VMS-I	VERTICAL METAL SIDING	MORIN CORPORATION	COLOR: CHARCOAL RAL 7024				
DIVISION 8 -OPE	NINGS						
HDW-1	HARDWARE	REFER TO SECTION 08 71 00	FINISH: US32D SATIN STAINLESS STEEL	DOOR HARDWARE			
HM-I	HOLLOW METAL DOOR AND FRAME	CEDO	DOOR: PT-7, [1]				
LVR-I	LOUVER	C/S GROUP	COLOR: MATCH ADJACENT SIDING COLOR				
RSD-I	ROLLING SERVICE DOOR	OVERHEAD DOOR COMPANY	COLOR: SILVER, MATCH STANDING SEAM METAL ROOF COLOR				
DIVISION 9 - FIN	ISHES						
	CONCRETE SEALER	REFER TO SPEC SECTION 03 30 00	COLOR: CLEAR SEALER	REFER TO SPEC SECTION 03 30 00			
P1-2	PAINT	SHERWIN WILLIAMS	GALVANIZED, COLOR: CHEERFUL (SW6903) SAFETY YELLOW				
P1-3	PAINT	SHERWIN WILLIAMS	GALVANIZED, COLOR: WEB GRAY (SW 7905)	EXTERIOR			
PT-4	PAINT - MARINE GRADE EPOXY	DEVOE HIGH PERFORMANCE COATING	GALVANIZED, MARINE GRADE EPOXY FINISH - WHITE	BUILDINGS E, G, AND H, HIGH SALT ENVIR	CONMENTS		
P1-5	PAINT	SHERWIN WILLIAMS	WSDUI CULOR - ST HELENS FLAT FINISH	AKI SECURITY WALL			
PT-6	PAINT	SHERWIN WILLIAMS	COLOR: 10 MATCH SECURITY FENCING	ART SECURITY WALL SPIKES AND MISC.	FENCING ITEMS		
PT-7	PAINT	SHERWIN WILLIAMS	COLOR: SW 9185 MAREA BAJA				

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			FRAME					
RATING	HARDWARE GROUP	MATERIAL	FINISH	TYPE	GLAZING		NOTES	
-	-	STL	FF	-	-	[7]		
-	-	STL	FF	-	1	[7]		
-	HDW-4A	HМ	ΡŤ	FI	1	[5]		
-	HDW-4A	HМ	ΡŤ	FI	1	[5]		
-	-	STL	FF	-	1	[7]		
-	-	STL	FF	-	-	[7]		
-	-	STL	FF	-	1	[7]		
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-	HDW-4A	НM	ΡŤ	FI	-	[5]		



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1		DESCRIP DESCRIP ASSEMB W = u R = r S = s F = f	VATION PTION BLY TYPES wall type roof type soffit type loor type	EXAMPLE AND TEXT	
2	- -	ELEVAT surface	TION T.O.F. = top of flo T.O.B. = top of be T.O.W. = top of wo (E) = existing TERIALS	T.O.F. Paring all <b>LEGEND</b> PATTERN	
3		VERTICAL refer to color ar CAST-IN-PL refer to color ar rusticat per elev	METAL SIDING ( o schedule for nd finish ACE CONCRETE o schedule for nd finish, ion joint pattern vations		
4	- 	ARCHITECT art-sec	URAL CONCRETE ( urity wall	FORMLINER)	
5		NOTE I. REFER ON SH 2. REFER ABBRE 3. PRE-E SEE S ELLE	R TO BUILDING ASS IEET GD002 FOR A R TO SHEET G020 EVIATIONS LIST. INGINEERED METAL ECTION 13 34 19.	DEMBLY LEGEND ASSEMBLY TYPES. D FOR STANDARD . BUILDING,	
6	-	SYMBOL E01 E02 E03 E04 E04 E06 E06 E06 E07 E08	NOTE VERTICAL MET CAST-IN-PLACE STANDING SEA 6" BOX METAL SMACNA FIGUR METAL DOWNSE HOLLOW METAL ROLLING SERVE	AL SIDING E CONCRETE BASE M METAL ROOF GUTTER, E I-2, STYLE 'A' POUT (3" DIA.) - DOOR CE DOOR	
7	_	$\begin{bmatrix} E 0 \\ E 0 \\ E \end{bmatrix}$ $\begin{bmatrix} E 0 \\ E \\ E \\ E \end{bmatrix}$ $\begin{bmatrix} E 1 \\ E \\ E \\ E \end{bmatrix}$ $\begin{bmatrix} E 1 \\ E \\ E \\ E \end{bmatrix}$	STRUCTURAL ( 8" CAST-IN-PL, ART-SECURITY STEEL CANOPY ALUMINUM ID SI KNOX BOX (AC DEPARTMENT F SECURITY WAL 3F/GOO8, VOL	COLUMN ACE CONCRETE WALL, SEE IOA/GOO8 METAL DECK GN CESS BOX) PER FIRE REQUIREMENTS L SPIKES PER UME-0	
8		CAST	IN PLACE CONCRE	NISH SCHE ETE (CONC) G (VMS)	DULI P4 F4
		METAL STAND HOLLOI ROLLIN METAL METAL	UECK (MF) ING SEAM METAL W METAL DOOR G SERVICE DOOR FLASHING AND T GUTTER AND DO	ROOFING ( SSMR) AND FRAMES (HM) (RSD) RIM DWNSPOUTS (MTL)	PA FA PA FA FA FA

VERTICAL METAL SIDING (VMS-I) WEATHER RESISTIVE BARRIER (FLUID APPLIED) HAT CHANNEL-PRE-ENGINEERED STEEL FRAMING PEEL AND STICK MEMBRANE EXTERIOR GYPSUM SHEATHING METAL STUD-METAL FLASHING WITH DRIP-8" CAST-IN-PLACE CONCRETE WALL— DETAIL

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AINT ACTORY FINISH AINT ACTORY FINISH AINT ACTORY FINISH ACTORY FINISH SHOP PRIMED STRUCTURAL STEEL FRAMING GENERAL NOTES: REFER TO EXTERIOR COLORS AND MATERIALS SCHEDULE FOR COLORS AND FINISHES. \*\*\*UNOFFICIAL COPY\*\*\* Official bid documents, plan holder's list, and addenda (if applicable)

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SE	ECTION NOTES
SYMBOL	NOTE
(B501)	CONCRETE SLAB
B502	PRE-CAST CONCRETE BASE
B503	8" CAST-IN-PLACE CONCRETE WALL
B504	VERTICAL METAL SIDING
B505	STEEL FRAMING
B506	6" BOX METAL GUTTER, SMACNA FIGURE 1-2, STYLE 'A'
(B507)	METAL DOWNSPOUT (3" DIA.)
B508	METAL CANOPY
(B509)	STEEL BOLLARDS, SEE 4A/G005
BSID	ROLLING SERVICE DOOR
BSII	STANDING SEAM METAL ROOF

GENERAL NOTES

NOTE

- REFER TO BUILDING ASSEMBLY LEGEND GD002 FOR ASSEMBLY TYPES.
- REFER TO SHEET G020 FOR STANDARD ABBREVIATIONS LIST.
- PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

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DATE 05.06.24 \_\_\_\_\_

JOB NO.

a23-087

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# C

### CODE INFORMATION STRUCTURE D - SWAT VEHICLE STORAGE (Enclosed) \$ COVERED GENERATOR STORAGE STRUCTURES (Open one sides) S-I (Parking Garage & Storage) IBC Section 311 Occupancy Group: Construction Type: IBC Section 602 V-B Construction Type Proposed Design 9,000 (NS) V-B IBC Table 506.2 Allowable Building Area NS = Not Equipped with Fire Sprinkler System Proposed: 900 sf SWAT Storage <u>2,100 sf</u> Generator Storage **3,000 sf** < 9,000 Allowable Building Height 40 ft IBC Table 504.3 20 ft. < 30 ft. avg. height per FWMC Proposed: IBC Table 504.4 Allowable Number of Stories 2 Stories Single Story Structure Proposed: IBC Table 601 Fire Resistive Rating Requirements Structural Frame 0 hr. Bearing Walls Exterior Interior 0 hr. 0 hr. Non-Bearing Walls Exterior Interior Table 602 0 hr. Floor Construction 0 hr. Roof Construction 0 hr. IBC Table 1604.5 Risk Category: Fire Sprinkler System Not Equipped with Fire Sprinkler System IBC Section 903 Fire Alarm System Equipped with Fire Alarm System IBC Section 907



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IOIB       3'-0"       7'-2"       DI       HM       PT       -       HDW-4A       HM       PT       F         SCHEDULE NOTES       GENERAL NOTES       GENERAL NOTES       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, "D       2. REFER TO COLORS AND MATERIALS SCHEDULE FOR         [5]       INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, "D       2. REFER TO COLORS AND MATERIALS SCHEDULE FOR         [7]       INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 81 00, "C         [7]       INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 81 00, "C         [7]       INSULATING GLASS UNITS SHALL BE LABELED AND       4. REFER TO SHEET GO20 FOR STANDARD ABBREVIA         [8]       YANUFACTURER. REFER TO SPECIFICATION.       YEANTY (PT) IS A GENERIC TERM USED IN DOCUMENT SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAIN         [6]       REFER TO PROJECT MANUAL, SECTION 07 25 00, "REQUIREMENTS.       7. REFER TO BUILDING EXTERIOR OPENING PROTECTION	OUB       3'-0"       7'-2"       DI       HM       PT       -       -       HDM-4A       HM       PT       FI         SCHEDULE NOTES       GENERAL NOTES       GENERAL NOTES       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO COLORS AND MATERIALS SCHEDULE FOR C       2. REFER TO COLORS AND MATERIALS SCHEDULE FOR C       3. REFER TO SPECIFICATION.       I. REFER TO SPECIFICATION.       I. REFER TO SPECIFICATION.       I. REFER TO SPECIFICATION.       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 08 71 00, 7000       2. REFER TO PROJECT MANUAL, SECTION 07 25 00, 74EA         REFER TO PROJECT MANUAL, SECTION 07 25 00, 74EA       REFER TO PROJECT MANUAL, SECTION 07 25 00, 74EA       REFER TO BUILDING EXTERIOR OPENING PROTECTION L         SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" I       REFER TO BUILDING EXTERIOR OPENING PROTECTION L       SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" I	IVIB	20'-0"	12'-0"	D5	STL	FF	-	-	-	STL	FF	-
SCHEDULE NOTES       GENERAL NOTES         [5]       INSULATED H.M. DOOR         [7]       INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES         BY MANUFACTURER. REFER TO SPECIFICATION.       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, "D         2. REFER TO COLORS AND MATERIALS SCHEDULE FOR         3. REFER TO PROJECT MANUAL, SECTION 08 80 00, "C         9. NSULATING GLASS UNITS SHALL BE LABELED AND         4. REFER TO SHEET GO20 FOR STANDARD ABBREVIA         5. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMEN         9. REFER TO PROJECT MANUAL, SECTION 07 25 00, "R         10. REFER TO DUILDING EXTERIOR OPENING PROTECTION	SCHEDULE NOTES       GENERAL NOTES         [5] INSULATED H.M. DOOR       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, "DOOL         [7] INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO COLORS AND MATERIALS SCHEDULE FOR C         [8] INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 71 00, "DOOL         [9] INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 81 00, "GLA         [9] INSULATED ROLLING SERVICE DOOR (RSD) : DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES       I. REFER TO PROJECT MANUAL, SECTION 08 81 00, "GLA         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION         [9] INSULATING GLASS UNITS SHALL BE LABELED AND NF       I. REFER TO SHEET GO20 FOR STANDARD ABBREVIATION <td< th=""><th></th><th>3'-0"</th><th>7'-2"</th><th>DI</th><th>HM</th><th>PT</th><th>-</th><th>-</th><th>HDW-4A</th><th>HМ</th><th>ΡŤ</th><th>FI</th></td<>		3'-0"	7'-2"	DI	HM	PT	-	-	HDW-4A	HМ	ΡŤ	FI
<ul> <li>INSULATED H.M. DOOR</li> <li>INSULATED ROLLING SERVICE DOOR (RSD): DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES BY MANUFACTURER. REFER TO SPECIFICATION.</li> <li>REFER TO PROJECT MANUAL, SECTION 08 71 00, "C INSULATING GLASS UNITS SHALL BE LABELED AND</li> <li>REFER TO SHEET G020 FOR STANDARD ABBREVIA 5. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMEN SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAIN</li> <li>REFER TO PROJECT MANUAL, SECTION 07 25 00, " REGUIREMENTS.</li> <li>REFER TO BUILDING EXTERIOR OPENING PROTECTION</li> </ul>	<ul> <li>[5] INSULATED H.M. DOOR</li> <li>[7] INSULATED ROLLING SERVICE DOOR (RSD): DOOR CONTROLS, HARDWARE, OPERATOR AND ACCESSORIES BY MANUFACTURER. REFER TO SPECIFICATION.</li> <li>[8] I. REFER TO PROJECT MANUAL, SECTION 08 71 00, 'DOOL 2. REFER TO COLORS AND MATERIALS SCHEDULE FOR C 3. REFER TO PROJECT MANUAL, SECTION 08 81 00, 'GLA INSULATING GLASS UNITS SHALL BE LABELED AND NER 4. REFER TO SHEET G020 FOR STANDARD ABBREVIATION 5. 'PAINT' (PT) IS A GENERIC TERM USED IN DOCUMENTS. SPECIFIC TYPE OF APPLIED FINISH. THE TERM 'PAINT' F 6. REFER TO PROJECT MANUAL, SECTION 07 25 00, 'WEA REQUIREMENTS.</li> <li>7. REFER TO BUILDING EXTERIOR OPENING PROTECTION L</li> </ul>	SCH	EDULE N	OTES						GENER	AL NOTES	5	
<ul> <li>BY MANUFACTURER. REFER TO SPECIFICATION.</li> <li>3. REFER TO PROJECT MANUAL, SECTION 08 81 00, "C INSULATING GLASS UNITS SHALL BE LABELED AND</li> <li>4. REFER TO SHEET G020 FOR STANDARD ABBREVIA</li> <li>5. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMEN SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAIN</li> <li>6. REFER TO PROJECT MANUAL, SECTION 07 25 00, " REQUIREMENTS.</li> <li>7. REFER TO BUILDING EXTERIOR OPENING PROTECTION</li> </ul>	<ul> <li>BY MANUFACTURER. REFER TO SPECIFICATION.</li> <li>3. REFER TO PROJECT MANUAL, SECTION 08 81 00, "GLA INSULATING GLASS UNITS SHALL BE LABELED AND NFF</li> <li>4. REFER TO SHEET G020 FOR STANDARD ABBREVIATION</li> <li>5. "PAINT" (PT) IS A GENERIC TERM USED IN DOCUMENTS. SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" F</li> <li>6. REFER TO PROJECT MANUAL, SECTION 07 25 00, "WEA REQUIREMENTS.</li> <li>7. REFER TO BUILDING EXTERIOR OPENING PROTECTION L</li> </ul>	[5] [7]	INSULATED	H.M. DOOR	CE DOOR (R	D) : DOOR CONT	ROLS, HARDI	NARE, OPERATO	R AND ACCESS	I. REFER T 2. REFER T	0 PROJECT MANUA 0 COLORS AND MA	L, SECTION 08 7 ATERIALS SCHED	1 00, "DOOR ULE FOR CO
5. PAINT (PT) IS A GENERIC TERT USED IN DOCUMEN SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAIN 6. REFER TO PROJECT MANUAL, SECTION 07 25 00, " REQUIREMENTS. 7. REFER TO BUILDING EXTERIOR OPENING PROTECTIO	<ul> <li>S. PAINT (PT/IS A GENERIC TERTIONED IN DOCUMENTS. SPECIFIC TYPE OF APPLIED FINISH. THE TERM "PAINT" F</li> <li>6. REFER TO PROJECT MANUAL, SECTION 07 25 00, "WEAR EQUIREMENTS.</li> <li>7. REFER TO BUILDING EXTERIOR OPENING PROTECTION L</li> </ul>		BY MANUF	ACTURER. REFER	TO SPECIFIC	CATION.				3. REFER 1 INSULAT 4. REFER 1	O PROJECT MANUA ING GLASS UNITS S O SHEET G020 FOI	AL, SECTION 08 8 BHALL BE LABEL! R STANDARD AB	31 00, "GLAZI ED AND NFRO BREVIATIONS
7. REFER TO BUILDING EXTERIOR OPENING PROTECTIO	7. REFER TO BUILDING EXTERIOR OPENING PROTECTION L									6. REFER 1 REQUIRE	TYPE OF APPLIED O PROJECT MANUA MENTS.	FINISH. THE TER	25 00, "WEAT
										7. REFER 1	O BUILDING EXTERI	OR OPENING PRO	DTECTION LE







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NOTE REFER TO BUILDING ASSEMBLY LEGEND ON SHEET GD002 FOR ASSEMBLY TYPES.

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ELEVATION NOTES		
SYMBOL	NOTE	
EOI	VERTICAL METAL SIDING	
E02	CAST-IN-PLACE CONCRETE BASE	
EO3	CMU VENEER	
E04	METAL DOWNSPOUT (3" DIA.)	
E05	STANDING SEAM METAL ROOF	
E06	6" BOX METAL GUTTER, SMACNA FIGURE I-2, STYLE 'A'	
EOT	HOLLOW METAL DOOR	
E08	ROLLING SERVICE DOOR	
EO9	STRUCTURAL COLUMN	
EIO	8" CAST-IN-PLACE CONCRETE ART-SECURITY WALL, SEE I0A/G008	
EI	EXTRUDED ALUMINUM WALL LOUVER FOR AIR INLET/OUTLET (36" x 24").	
EI2	ALUMINUM ID SIGN	
EI3 EI4	KNOX BOX (ACCESS BOX) PER FIRE DEPARTMENT REQUIREMENTS SECURITY SPIKES	

REFER TO SHEET G020 FOR STANDARD

PRE-ENGINEERED METAL BUILDING,

ABBREVIATIONS LIST.

SEE SECTION 13 34 19.

EXTERIOR FINISH SCHE	DULE
STRUCTURAL STEEL FRAMING	PAINT [I]
VERTICAL METAL SIDING	FACTORY FINISH
STANDING SEAM METAL ROOFING	FACTORY FINISH
METAL FLASHING AND TRIM	FACTORY FINISH
METAL GUTTERS AND DOWNSPOUTS	FACTORY FINISH
CAST-IN-PLACE CONCRETE BASE	NATURAL CONCRETE FINISH
CAST-IN-PLACE CONCRETE WALL	NATURAL CONCRETE FINISH
METAL FABRICATION	PAINT
NOTES:	
[I] STRUCTURAL STEEL FRAMING, (STL-I).	
GENERAL NOTES:	
I. REFER TO EXTERIOR COLORS AND MATERIALS	SCHEDULE FOR COLORS AND FINISHES.

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EXTERIOR FINISH SCHEDULE	
CAST IN PLACE CONCRETE (CONC)	PAINT
STANDING SEAM METAL ROOFING	FACTORY FINISH
METAL FLASHING AND TRIM	FACTORY FINISH
METAL GUTTERS AND DOWNSPOUTS	FACTORY FINISH
VERTICAL METAL SIDING	FACTORY FINISH
ECOLOGY BLOCK (PCSU)	FACTORY FINISH
BULK MATERIAL BUNKER WALL SYSTEM (PCSU)	FACTORY FINISH
STRUCTURAL STEEL FRAMING	PAINT [I]
NOTES:	
[I] STRUCTURAL STEEL FRAMING, (STL-2).	
GENERAL NOTES:	
I. REFER TO EXTERIOR COLORS AND MATERIALS SC	CHEDULE FOR COLORS AND FINISHES.

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![](_page_11_Figure_0.jpeg)

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![](_page_11_Figure_5.jpeg)

![](_page_11_Figure_6.jpeg)

![](_page_11_Figure_8.jpeg)

![](_page_12_Figure_0.jpeg)

SYMBOL NOTE ROI STANDING SEAM METAL ROOF R02 6" BOX METAL GUTTER, SMACNA FIGURE I-2, STYLE 'A' В

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# CODE INFORMATION

Occupancy Group:	S-I (Parking Garage \$ Storage)	IBC Sectior
Construction Type: Proposed Design	V-BConstruction Type	IBC Sectio
Allowable Building Area	9,000 (NS) V-B	IBC Table
	NS = Not Equipped with Fire Sprinkler System	
Proposed:		
Snow Fleet Storage	<b>1,925 sf.</b> < 9,000 sf	
Allowable Building Height	40 ft	IBC Table !
Proposed:	20 ft. < 30 ft. avg. height per FWMC	
Allowable Number of Stories	2 Stories	IBC Table
Proposed: Sir	ngle Story Structure	
Fire Resistive Rating Require	ements	IBC Table
Structural Frame	0 hr.	
Dearing Walls Exterior Interior	0 hr. 0 hr.	
Non-Bearing Walls Exterior Interior Floor Construction Roof Construction	0 hr. 0 hr. 0 hr.	Table 602
Category:	II	IBC Table
Fire Sprinkler System	Not Equipped with Fire Sprinkler System	IBC Sectio

![](_page_12_Figure_6.jpeg)

![](_page_12_Picture_7.jpeg)

FAC Stoi O¢M Fleet FEDER ucture PROJECT: a23-087 - CITY OF a23-087 Fed Way OMF - Site Sti PLOTTED: 5/10/2024 2:35:09 PM FILE PATH: C:\shive\Revit\_Local\_

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ROOF PLAN
1/8" = 1'-0" 5F

> IOG AF300 5G AF400 02-

FLOOR PLAN

ISOMETRIC - VIEW FROM SW

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![](_page_12_Figure_25.jpeg)

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![](_page_12_Figure_30.jpeg)

NORTH

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![](_page_12_Figure_32.jpeg)

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![](_page_12_Picture_36.jpeg)

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![](_page_13_Figure_0.jpeg)

GENERAL NOTES

- NOTE REFER TO BUILDING ASSEMBLY LEGEND ON SHEET GD002 FOR ASSEMBLY TYPES.
- 2. REFER TO SHEET GO20 FOR STANDARD ABBREVIATIONS LIST.
- 3. PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

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# ELEVATION NOTES

SYMBOL	NOTE
EOI	VERTICAL METAL SIDING
E02	CAST-IN PLACE CONCRETE BASE
E03	STANDING SEAM METAL ROOF
E04	6" BOX METAL GUTTER, SMACNA FIGURE 1-2, STYLE 'A'
E05	METAL DOWNSPOUT (3" DIA.)
E06	STRUCTURAL COLUMN
E07	ALUMINUM ID SIGN
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CAST IN PLACE CONCRETE (CONC)	ΡΔΙΝΤ
VERTICAL METAL SIDING	PAINT
STANDING SEAM METAL ROOFING (SSMR)	FACTORY FINISH
METAL FLASHING AND TRIM (MTL)	FACTORY FINISH
METAL GUTTERS AND DOWNSPOUTS (MTL)	FACTORY FINISH
STRUCTURAL STEEL FRAMING (STL)	PAINT [I]

![](_page_13_Figure_10.jpeg)

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![](_page_13_Picture_16.jpeg)

![](_page_13_Figure_17.jpeg)

HELIX DESIGN GROUP, INC

![](_page_13_Figure_19.jpeg)

![](_page_13_Figure_20.jpeg)

![](_page_13_Figure_21.jpeg)

![](_page_13_Figure_22.jpeg)

![](_page_13_Figure_23.jpeg)

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![](_page_14_Figure_0.jpeg)

PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

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![](_page_14_Figure_6.jpeg)

![](_page_14_Figure_7.jpeg)

![](_page_14_Figure_9.jpeg)

![](_page_14_Figure_10.jpeg)

WHITE

А CODE INFORMATION STRUCTURE H WASTE TRANSFER (Open on all sides) S-2 (Open Canopy Structures) IBC Section 311 Occupancy Group: Construction Type: Proposed Design IBC Section 602 V-BConstruction Type IBC Table 506.2 Allowable Building Area 13,500 sf. (NS) S-2 NS = Not Equipped with Fire Sprinkler System Proposed: **I,585** sf. (Canopy) < I3,500 sf. . Trash Transfer Allowable Building Height 40 ft IBC Table 504.3 20 ft. < 30 ft. avg. height per FWMC Proposed: IBC Table 504.4 Allowable Number of Stories | Story S-1 Single Story Structure Proposed:

ROOF PLAN NOTES SYMBOL NOTE ROI STANDING SEAM METAL ROOF R02 METAL GUTTER ROOF PLAN LEGEND DESCRIPTION SYMBOL AND TEXT ROOFING IDENTIFICATION material type SLOPE IDENTIFICATION direction indicator, rise/run

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# FLOOR PLAN NOTES SYMBOL NOTE

FOI	HEAVY-DUTY CONCRETE PAD
F02	CONCRETE RETAINING WALL
F03	GUARDRAIL, REFER TO SECTION 10 70 00
F04	TRASH DUMPSTER (N.I.C.)
F05	CHAIN ATTACHED TO GUARDRAIL
F06	STEEL BOLLARDS, SEE 4A/G005
F07	CONCRETE WHEEL STOPS, 6" x 6'
F08	STEEL COLUMN PER STRUCTURAL
F09	3" DIA. METAL DOWNSPOUT
FIO	DOCK BUMPERS, (2) TWO PER DUMPSTER STALL, REFER TO SECTION 10 70 00

![](_page_15_Figure_5.jpeg)

# GENERAL NOTES NOTE REFER TO BUILDING ASSEMBLY LEGEND ON SHEET GD002 FOR ASSEMBLY TYPES. REFER TO SHEET GO20 FOR STANDARD ABBREVIATIONS LIST. PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

SECTION LEGEND DESCRIPTION SYMBOL AND TEXT ASSEMBLY TYPES W = wall type R = roof type S = soffit type F = floor type surface type designation T.O.F. = top of floor T.O.B. = top of bearing T.O.P. = top of pavement ELEVATION

(E) = existing

SECTION NOTES SYMBOL NOTE (B50) HEAVY-DUTY CONCRETE PAD B502 CONCRETE RETAINING WALL B503 GUARDRAIL, REFER TO SECTION 10 70 00 B504 TRASH DUMPSTER (N.I.C.) B505 FIXED 6" DIA. STEEL BOLLARD, 42" HIGH (BS06) STANDING SEAM METAL ROOF BS07 METAL GUTTER B508 STEEL BEAM PER STRUCTURAL B509 STEEL COLUMN PER STRUCTURAL B510 DOCK BUMPERS, (2) TWO PER DUMPSTER STALL, REFER TO SECTION 10 70 00

FACILITIES ъg PROJECT: a23-087 - CITY a23-087 Fed May OMF - Site PLOTTED: 5/10/2024 2:37:24 Pl FILE PATH: C:\shive\Revit\_Local

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ELEVATION LEGEND SYMBOL AND TEXT DESCRIPTION ASSEMBLY TYPES W = wall type R = roof type S = soffit type • F = floor type ELEVATION T.O.F. ─── surface type designation – T.O.F. = top of floor T.O.B. = top of bearing T.O.C. = top of canopy (E) = existing ELEVATION NOTES SYMBOL NOTE EOI CONCRETE RETAINING WALL E02 GUARDRAIL EO3 STANDING SEAM METAL ROOFING E04 METAL GUTTER E05 STEEL BEAM E06 STEEL COLUMN (E07) METAL DOWNSPOUT (3" DIA.) E08 TRASH DUMPSTER (N.I.C.) E09 CHAIN ATTACHED TO GUARDRAIL EIO FIXED 6" DIA. STEEL BOLLARD, 42" HIGH

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MATERIALS LEGEND		
MATERIAL	PATTERN	
CONCRETE (ARCHITECTURAL) refer to schedule for color and finish, rustication joint pattern per elevations		
PRECAST ARCHITECTURA refer to schedule for color and finish, joint pattern per elevation:	L CONCRETE (PAC)	

# GENERAL NOTES

- NOTE
- I. REFER TO BUILDING ASSEMBLY LEGEND ON SHEET GD002 FOR ASSEMBLY TYPES.
- 2. REFER TO SHEET GO20 FOR STANDARD ABBREVIATIONS LIST.
- 3. PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

EXTERIOR FINISH SCHEDULE		
CAST IN PLACE CONCRETE (CONC)	PAINT	
STRUCTURAL STEEL FRAMING (STL)	PAINT [I]	
STANDING SEAM METAL ROOFING (SSMR)	FACTORY FINISH	
METAL GUTTER AND DOWNSPOUTS (MTL)	FACTORY FINISH	
METAL FABRICATIONS (MF)	PAINT	
NOTES		
LIJ DIRUCIURAL DIEEL FRAILING, (DIL-2).		
GENERAL NOTES:		
I. REFER TO EXTERIOR COLORS AND MATERIALS SCHEDULE FOR COLORS AND FINISHES.		

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![](_page_16_Figure_11.jpeg)

![](_page_16_Figure_12.jpeg)

![](_page_16_Figure_13.jpeg)

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![](_page_16_Figure_15.jpeg)

![](_page_16_Figure_16.jpeg)

![](_page_16_Figure_17.jpeg)

![](_page_16_Figure_18.jpeg)

![](_page_16_Figure_19.jpeg)

	FLOOR PL	AN LEGEND
1		
I	DESCRIPTION	SYMBOL AND TEXT
	WORK POINT building corner, star building layout refer	ting Tence
	STRUCTURAL COLUM	N I
	centered on grid lir centered in wall	ne, —
	FIRE EXTINGUISHERS	FF
2	wall-mounted fire extinguisher	
	DOWNSPOUT	
	refer to plan for s and locations	<sup>o</sup> D.S.
	ROOF LEADER refer to plan for loo	cations <u> </u>
	FIRE EXTINGUISHER	
	portable fire exting in wall mounted bro	guisher F.E. acket

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FLOOR PLAN NOTES		
SYMBOL	NOTE	
FOI	REINFORCED CONCRETE PAVEMENT	
F02	HEAVY DUTY BOLLARD AT ENDS AND AROUND TANK ¢ PUMP, TYPICAL	
F03	CANOPY COLUMN	
F04	DOUBLE LANE CONCRETE FUEL ISLAND	
F05	METAL DOWNSPOUT (3" DIA.)	
F06	TOOLED CONCRETE CONTROL JOINTS	

# GENERAL NOTES

- NOTE REFER TO BUILDING ASSEMBLY LEGEND ON SHEET GD002 FOR ASSEMBLY TYPES.
- . REFER TO SHEET G020 FOR STANDARD ABBREVIATIONS LIST.
- 3. PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

![](_page_17_Figure_9.jpeg)

ROOF PLAN NOTES SYMBOL NOTE ROI STANDING SEAM METAL ROOF R02 METAL GUTTER

### CODE INFORMATION STRUCTURES G FUELING CENTER (Open on all sides) & Occupancy Group: M Occupancy IBC Section 311 IBC Section 602 Construction Type: V-BConstruction Type Proposed Design IBC Table 506.2 Allowable Building Area 9,000 sf. (NS) M NS = Not Equipped with Fire Sprinkler System **Proposed:** Fuel Center **2,000 sf**. (Canopy) < 9,000 sf.

IBC Table 504.3 Allowable Building Height 40 ft 20 ft. < 30 ft. avg. height per FWMC Proposed: IBC Table 504.4 Allowable Number of Stories | Story M Single Story Structure

![](_page_17_Picture_13.jpeg)

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ISOMETRIC - VIEW FROM SE

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![](_page_17_Figure_28.jpeg)

![](_page_18_Figure_0.jpeg)

![](_page_18_Figure_3.jpeg)

- . REFER TO SHEET G020 FOR STANDARD ABBREVIATIONS LIST.
- . PRE-ENGINEERED METAL BUILDING, SEE SECTION 13 34 19.

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ELE	EVATION NOTES
SYMBOL	NOTE
EOI	REINFORCED CONCRETE PAVEMENT
E02	STANDING SEAM METAL ROOF
E03	METAL GUTTER
E04	STEEL BEAM (TYP.)
E05	STEEL COLUMN
E06	METAL DOWNSPOUT (3" DIA.)
E07	HEAVY DUTY BOLLARD AT EACH END AND AROUND TANK & PUMP
EOB	DOUBLE LANE CONCRETE FUEL ISLAND

CAST IN DIACE CONCRETE (CONC)	DAINT
CAST IN PLACE CONCRETE (CONC)	
STRUCTURAL STEEL FRAMING (STL)	PAINT [2]
STANDING SEAM METAL ROOFING (SSMR)	FACTORY FINISH
METAL GUTTER AND DOWNSPOUTS (MTL)	FACTORY FINISH
BOLLARDS (STEEL)	PAINT

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![](_page_18_Figure_20.jpeg)

![](_page_18_Figure_21.jpeg)

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ISOMETRIC - VIEW FROM NE

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![](_page_19_Picture_22.jpeg)

AMERICAN INSTITUTE OF ARCHITECTS TATE OF WASHINGTON

HELIX DESIGN GROUP, INC

FLOOR PLANS & CODE INFORMATION

CITY OF FEDERAL WAY O&M FACILITIES BULK MATERIAL STORAGE BUNKERS

FEDERAL WAY, WASHINGTON DATE evision \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ DATE JOB NO. a23-087 05.06.24 \_\_\_\_\_ -----BID SET

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![](_page_20_Figure_0.jpeg)

EXTERIOR FINISH SCHEDULE				
ECOLOGY BLOCK (F.O.I.C.)	NATURAL CONCRETE FINISH			

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![](_page_20_Figure_3.jpeg)

# WEST ELEVATION - BULK MATERIALS STORAGE BUNKERS 1/8" = 11-0" 60

![](_page_20_Figure_5.jpeg)

EAST ELEVATION - BULK MATERIALS STORAGE BUNKERS TØD

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0' 2' -8 SCALE: 1/8" = 1'-0"

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1.	STR 1.1.	ANY DISC NOTES, A	NOTES REPANCY FOUND AMONG THE DRAWINGS, SPECIFICATIONS, THESE ND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT STRUCTURAL ENCINEER WHO SHALL CORRECT SUCH DISCREPANCY
		IN WRITIN SUCH DIS CONTRAC DRAWING CONTRAC TEMPOR	ARY CONSTRUCTION SHORE FOR ALL ERECTION BRACING, FORMWORK AND ARY CONSTRUCTION SHORE AT THE CONTRACTOR'S RISK. THE CONTRACTOR'S RISK. THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL AS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION. THE CONTRACTOR IS RESPONSIBLE FOR ALL ERECTION BRACING, FORMWORK AND ARY CONSTRUCTION SHORING.
	1.2.	BY THE A	CT OF SUBMITTING A BID FOR THE PROPOSED CONTRACT, THE CTOR WARRANTS THAT:
		1.2.1.	THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE (INCLUDING AGENTS AND SUPPLIERS) HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS AND STRUCTURAL NOTES AND HAVE FOUND THEM COMPLETE AND FREE FROM AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED.
3		1.2.2.	THE CONTRACTOR HAS CAREFULLY EXAMINED THE SITE OF THE WORK AND FROM THEIR OWN INVESTIGATIONS, THEY HAVE SATISFIED THEMSELF AS TO THE NATURE AND LOCATION OF THE WORK, AS TO THE CHARACTER, QUALITY, AND QUANTITIES OF MATERIAL AND DIFFICULTIES TO BE ENCOUNTERED, AS TO THE EXTENT OF EQUIPMENT AND OTHER FACILITIES NEEDED FOR THE PERFORMANCE OF THE WORK AND AS TO THE GENERAL AND LOCAL CONDITIONS, AND OTHER ITEMS WHICH MAY IN ANY WAY AFFECT THE WORK OR ITS PERFORMANCE.
		1.2.3.	THE CONTRACTOR AND ALL WORKERS THEY INTEND TO USE ARE SKILLED AND EXPERIENCED IN THE TYPE OF CONSTRUCTION REPRESENTED BY THE DRAWINGS AND DOCUMENTS BID UPON.
4		1.2.4.	NEITHER THE CONTRACTOR NOR ANY OF THEIR EMPLOYEES, AGENTS, INTENDED SUPPLIERS, OR SUBCONTRACTORS HAVE RELIED UPON ANY VERBAL REPRESENTATIONS ALLEGEDLY AUTHORIZED OR UNAUTHORIZED FROM THE OWNER OR THEIR EMPLOYEES OR AGENTS, INCLUDING THE ARCHITECT OR ENGINEERS, IN ASSEMBLING THE BID FIGURES.
4		1.2.5.	THE REQUIREMENTS CONTAINED WITHIN THIS SECTION SUPERSEDE REQUIREMENTS AND/OR RECOMMENDATIONS CONTAINED IN THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES", AS WELL AS CASE DOCUMENT 962-D "A GUIDELINE ADDRESSING COORDINATION AND COMPLETENESS OF STRUCTURAL CONSTRUCTION DOCUMENTS"
		1.2.6.	THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE ARE AWARE OF AND ACKNOWLEDGE THAT CLOSE COORDINATION AMONG ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND OTHER TRADE DRAWINGS IS REQUIRED.
		1.2.7.	THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE SHALL RECOGNIZE THAT THE PROJECT CONTRACT DOCUMENTS INCLUDE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL AND OTHER TRADE DRAWINGS AND SPECIFICATIONS
5		1.2.8.	CONTRACTOR AND ALL SUBCONTRACTORS ACKNOWLEDGE THAT CLOSE COORDINATION BETWEEN DISCIPLINES INCLUDED WITHIN THE CONTRACT DOCUMENTS IS NECESSARY. ELEMENTS THAT WILL REQUIRE CLOSE COORDINATION BY THE CONTRACTOR INCLUDE (BUT ARE NOT LIMITED TO):
			A. VERIFICATION OF ALL DIMENSIONS INDICATED ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS
			<ul> <li>B. DETERMINATION OF ALL COLUMN LOCATIONS</li> <li>C. DETERMINATION OF TOP OF FLOOR, TOP OF STEEL, WALL PLATE AND/OR TOP OF BEAM ELEV/ATIONS</li> </ul>
			<ul> <li>D. DETERMINATION OF TOP OF FOOTING ELEVATIONS AND FOOTING STEP LOCATIONS</li> </ul>
			<ul> <li>E. MECHANICAL/ELECTRICAL EQUIPMENT LOCATIONS AND WEIGHTS</li> <li>F. LOCATION AND SIZE OF ALL MECHANICAL/ ELECTRICAL PENETRATIONS THROUGH WALLS AND FLOORS/ ROOFS</li> </ul>
6		100	G. COORDINATION WITH DESIGNERS/ SUPPLIERS OF PRE- ENGINEERED COMPONENTS (JOISTS, TRUSSES, STAIRS, ETC.)
		1.2.9.	AND/OR BRACING MAY BE REQUIRED TO COMPLETE THE PROJECT. DESIGN AND IMPLEMENTATION OF TEMPORARY SHORING AND/OR BRACING DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
		1.2.10.	THE CONTRACTOR AND ALL SUBCONTRACTORS THEY INTEND TO USE SHALL MAKE CONSIDERATION FOR, AND INCLUDE MONIES FOR THE ABOVE IN THE PREPARATION OF THEIR BIDS.
		1.2.11.	THE CONTRACTOR SHALL NOT SCALE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF ELEMENTS NOTED ABOVE.
7		1.2.12.	ELECTRONIC COPIES OF THE STRUCTURAL DRAWINGS (PDF'S, CAD DRAWINGS OR BIM MODELS) MAY BE PROVIDED TO THE CONTRACTOR FOR THEIR USE. THESE FILES MAY BE PROVIDED AT THE REQUEST OF THE CONTRACTOR FOR THEIR CONVENIENCE ONLY. THE CONTRACTOR AGREES THAT THESE FILES SHALL NOT SUPERSEDE INFORMATION SHOWN ON THE ORIGINAL BID/ CONSTRUCTION DOCUMENTS. THE CONTRACTOR AGREES TO HOLD THE STRUCTURAL ENGINEER HARMLESS FOR ANY ERRORS OR DISCREPANCIES CONTAINED WITHIN THESE ELECTRONIC FILES.
		1.2.13.	THE BID FIGURE IS BASED SOLELY UPON THE CONSTRUCTION CONTRACT DOCUMENTS AND PROPERLY ISSUED WRITTEN OR VERBAL REPRESENTATIONS.
	1.3.	CODES 1.3.1.	ALL METHODS, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED AND

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ADOPTED BY THE LOCAL BUILDING AUTHORITY. 1.3.2. ALL REFERENCES TO OTHER CODES, STANDARDS AND SPECIFICATIONS, (ACI, ASTM, ETC.), SHALL BE FOR THE EDITION CURRENTLY REFERENCED BY IBC AS AMENDED AND ADOPTED BY

THE LOCAL BUILDING AUTHORITY.

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1.4.1.	UNIFORM LOADS:			1.0.	1.6.1.	SU	BMIT SHOP DRAWINGS TO THE ARC	CHITECT/ENGINEER FOR THE	υ.	3.1.	GENERAL	211
						FC A.	LLOWING: CONCRETE MIX DESIGN SUBMITT	ALS			ALL CONC	RE /IE
		LIVE LOAD	DEAD LOAD			В.	REINFORCING STEEL				FOR BUILD	)IN B)
	ROOF	25 PSF (SNOW*)	ACTUAL			C.	STRUCTURAL AND MISCELLANEC	US STEEL INCLUDING WELD			PLACE CO	N(
	ROOF (SOLAR READINESS Z	25 PSF (SNOW*) ONE **)	ACTUAL +4 PSF			D.	CONCRETE/MASONRY COORDINA	TION DRAWINGS			NOT OVER	M {-\
	SLAB ON GRADE	125 PSF	+175 PSF (INVERTER)			E. F	PRE-ENGINEERED METAL BUILDI	NG SYSTEMS & COMPONENTS *			PREMATU	RE
	SEAD ON GRADE	OR 2000# CONCENTR	ATED LOAD			G.	PRE-ENGINEERED ECOLOGY BLO	CK WALLS *		32	DAYS AFTI	EF 4
	HANDRAILS AND GUARDS	50 PLF <u>OR</u> 200# CONCENTRA	TED LOAD				* DEFERRED SUBMITTALS: PRE-E	ENGINEERED ITEMS SHALL BE		0.2.	TWENTY-E	' :IC
	* THIS IS NOT A GROU	ND SNOW LOAD					ENGINEER OR RECORD AS A DEF	ERRED SUBMITTAL.			WITH EXPO	DS ES
	** SOLAR READINESS COMMERCIAL PROVIS	ZONE PER WA STATE EN IONS, CHAPTER 51-11C V	ERGY CODE, /AC.		1.6.2.	SH	OP DRAWING REVIEW NOTES					SL
	WHERE LIVE LOADS O	F COMMERCIAL OR INDU	STRIAL BUILDINGS			А.	GENERAL CONFORMANCE WITH	THE PROJECT CONSTRUCTION			)	FC
	PART OF EACH STORY	IN WHICH THEY APPLY	E POSTED IN THAT			В.	ENGINEER OF RECORD REVIEW (	DF SHOP DRAWINGS SHALL NOT			1 1	* N
	8						RELIEVE THE GENERAL CONTRAC	CTOR OF THEIR RESPONSIBILITY			CONCRET	E
1.4.2.		CAD (P)	PTER 7 OF ASCE 7:				THE PROJECT REQUIREMENTS.				318. WHEN	R/
	FLAT ROOF SNOV	ULOAD (Pg). V LOAD (Pf):	25.0 PSF			C.	APPROVAL OF THE SHOP DRAWIN RECORD SHALL NOT BE CONSIDE	NGS BY THE ENGINEER OF ERED AS A GUARANTEE BY THE			WHEN SPE	C
	SNOW EXPOSURE	E FACTOR (C <sub>e</sub> ):	1.0				ENGINEER THAT THE SHOP DRAV PROJECT REQUIREMENTS.	VINGS COMPLY WITH ALL			WITHOUT	TE
	SNOW IMPORTAN	ICE FACTOR (I <sub>s</sub> ):	1.0			D.	CONCURRENT SHOP DRAWING R	EVIEW SHALL ONLY BE				_
12		R (Ct):					PERMITTED IF APPROVED BY THE RECORD PRIOR TO THE START O	E ARCHITECT/ENGINEER OF F SHOP DRAWING REVIEW.				SP
.4.3.	COMPONENTS OR SYS	STEMS SHALL LOCATE, C	OORDINATE, VERIFY	1.7.	MISCEL	LANE	OUS				8	ST
	LOADS AND DESIGN T	HEIR SYSTEM FOR THES	E LOADS.		1.7.1.	VE	RIFY ALL DIMENSIONS AND CONDIT	TONS IN THE FIELD.				30
.4.4.	WIND LOADS (PER IBC 30):	SECTION 1609 AND ASC	E 7 CHAPTERS 26 THRU		1.7.2.	VE AN	RIFY SIZE AND LOCATION OF ALL O D WALLS WITH ARCHITECTURAL, M	PENINGS IN THE FLOORS, ROOF ECHANICAL AND ELECTRICAL			8	40
	BASIC WIND SPEE	ED (V):	98 MPH		1.7.3.	CC	AWINGS. INSTRUCTION DETAILS NOT SPECIF	ICALLY SHOWN ON THE		~ ~		_
	RISK CATEGORY		Ш			DR	AWINGS SHALL FOLLOW SIMILAR D	ETAILS OF SECTIONS OF THIS		3.3.	331	S
	WIND EXPOSURE		В		1.7.4.	SE	E ARCHITECTURAL, MECHANICAL A	ND ELECTRICAL DRAWINGS FOR			0.0.1.	NE
	PRESSURE COEF	RNAL FICIENT:				DI	MENSIONS AND LOCATIONS OF OPE OWN ON STRUCTURAL PLANS.	NINGS NOT DIMENSIONED OR			3.3.2.	CC
	+/-0.18	8 (ENCLOSED OR OPEN	)		1.7.5.	SE	E ARCHITECTURAL, MECHANICAL A	ND ELECTRICAL DRAWINGS FOR			3.3.3.	FL
			D)			EG	UIPMENT INCLUDING HOUSEKEEPI	CHANICAL AND ELECTRICAL NG PADS.			6	AF
	COMPONENTS AND CL	ADDING: ULTIMATE DESI	GN WIND PRESSURES		1.7.6.	FO	R PIPES, CONDUITS, DUCTS AND M	ECHANICAL EQUIPMENT			3.3.5.	GF GF
	TO BE USED FOR THE	DESIGN OF EXTERIOR C	OMPONENT AND			ME	TAL AND AIR CONDITIONING CONTI	RACTORS NATIONAL				RE DE
	ZONE:1 +16.0/-	-31.9 PSF (10 SQ FT)				MA	NUAL GUIDELINES FOR MECHANIC	AL SYSTEMS." ALL BRACING				TE
	ZONE:2e +16.0/-	-31.9 PSF (10 SQ FT)				AN (Sł	D SUPPORTS SHALL BE DESIGNED IL) B. SPRINKLER LINE ATTACHMEN	FOR SEISMIC HAZARD LEVEL ITS SHALL CONFORM TO NFPA		3.4.	ADMIXTUR	ES
	ZONE:2n +16.0/	-40.3 PSF (10 SQ FT)			177	PA TH	MPHLET 13. E STRUCTURE HAS BEEN DESIGNE				5.4.1.	US
	ZONE:2r +16.0/	-40.3 PSF (10 SQ FT) -40.3 PSF (10 SO FT)			1.7.7.	VE	RTICAL AND LATERAL FORCES AFT	ER THE CONSTRUCTION OF ALL			3.4.2.	W
	ZONE:3r +16.0/	-47.4 PSF (10 SQ FT)				ST	RUCTURAL ELEMENTS HAS BEEN C RUCTURE PRIOR TO COMPLETION I	S THE SOLE RESPONSIBILITY OF				CO
	ZONE:4 +16.0/-	-17.1 PSF (10 SQ FT)				TH	E GENERAL CONTRACTOR. THIS R IT LIMITED TO JOB SITE SAFETY: EF	ESPONSIBILITY INCLUDES BUT IS RECTION MEANS, METHODS,			3.4.3.	CC
	ZONE:5 +16.0/-	-21.1 PSF (10 SQ FT)				AN BR	D SEQUENCES; TEMPORARY SHOR ACING: USE OF EQUIPMENT AND CO	ING, FORMWORK, AND				MA
.4.5.	SEISMIC LOADS (PER THRU 13):	IBC SECTION 1613 AND A	SCE 7 CHAPTERS 11				n an				3.4.4.	All PL
	RISK CATEGORY:		Ш	2. SITE	E PREPAR	RATIO	N/SOIL REMEDIATION				245	WI
	SEISMIC IMPORT	ANCE FACTOR (I <sub>e</sub> ):	1.0	2.1.	SOIL DA						3.4.5.	EN
	S <sub>s</sub> :		1.321		FROM V	WIND	SOIL PRESSURE 2,500 PSF. ALLOW OR SEISMIC ORIGIN. SEE GEOTECH	INICAL ENGINEERING REPORT		3.5.	FORMWOR	łK
	S1: SITE CLASS		0.453 D		BY MIG SUBGR	azi gr Ade f	OUP, INC. DATED JUNE 15, 2023. SE REPARATION REQUIREMENTS AS V	EE GEOTECH REPORT FOR ALL VELL AS CAPILLARY BREAK AND			3.5.1.	FC (A
	S <sub>DS</sub> :		0.881		VAPOR	BARF	RIER RECOMMENDATIONS.				3.5.2.	AL
	S <sub>D1</sub> :		0.558		2.1.1.	RE	TAINING WALL DESIGN CRITERIA:					FC PF
	SEISMIC DESIGN	CATEGORY:	D			А. В.	ACTIVE EARTH PRESSURE:	50 PCF (ASSUMED)				PL TC
	DESIGN BASE SH	EAR:	$V = C_s * W$			С.	SEISMIC EARTH PRESSURE:	10 x "H" PSF (ASSUMED)		3.6.	REINFORC	IN
	SEISMIC RESPON	SE COEFFICIENT (Cs):	0.252			D.	PASSIVE EARTH PRESSURE:	225 PCF *			3.6.1.	D
	ANALYSIS PROCE	DURE USED:	LATERAL FORCE			Ε.	FRICTION COEFFICIENT:	0.35 *			362	RE
			PROCEDURE	2.2	EVCAVU		* INCLUDES FACTOR OF SAFETY	OF 1.5			3.6.3.	W
	SEISMIC FORCE-	RESPONSE	OVERSTRENGTH	2.2.	EXCAV	ATE T	O DEPTH SHOWN AND TO FIRM UND	DISTURBED MATERIAL. OVER-				WI
	RESISTING SYSTEM	MODIFICATION	FACTOR, $\Omega_0$		EXCAV/	ATION	S SHALL BE BACKFILLED WITH LEA	N CONCRETE (f.=500-1200 PSI)			3.6.4.	W
		oder Holent, K			CARED	DURIN	G EXCAVATION TO AVOID DAMAGE	TO BURIED LINES, TANKS, AND			3.0.3.	RE
	C. MOMENT-RESISTIN	G FRAME SYSTEMS:			UNTIL F	RECEI	VING WRITTEN INSTRUCTIONS FRO	M THE ARCHITECT. A				
	1. STEEL ORDINARY M	IOMENT FRAMES			COMPE EXCAV/	TENT ATION	REPRESENTATIVE OF THE OWNER S FOR SUITABILITY OF BEARING SU	SHALL INSPECT ALL FOOTING IRFACES PRIOR TO PLACEMENT				
		3 1/2	3		OF REI	NFOR	CING STEEL. PROVIDE DRAINAGE A	S NECESSARY TO AVOID				
	G. CANTILEVERED CO	LUMN SYSTEMS:	TEMO	2.3	FILL. BA	ACKFII	L AND COMPACTION				3.6.6.	EX
	I. STEEL ORDINARY C	ANTILEVER COLUMN SYS	1 1/.	1.01	BACKFI	ILL AG	AINST WALLS SHALL NOT BE PLACE	ED UNTIL AFTER THE REMOVAL				RE
	NOTE: TABULATED OV	ERSTRENGTH FACTOR H	IAS BEEN REDUCED IN		OF ALL RETAIN	MATE	RIAL SUBJECT TO ROT OR CORROS ALLS OR BASEMENT WALLS SHALL	SION. ALL FILL PLACED AGAINST BE FREE DRAINING GRANULAR				rU
	ACCORDANCE WITH A	SCE 7 TABLE 12.2-1 FOO	INOTE B FOR			IAL. S	TRUCTURAL FILL OTHER THAN PEA	GRAVEL SHALL BE GRANULAR				
	STRUCTURES WITH FL	LENIBLE DIAMINAGINO.					A S DETEDMINED BY ASTM D1557 /					

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1.5. STATEMENT OF SPECIAL INSPECTIONS

SEE STATEMENT OF SPECIAL INSPECTION AND TESTING SHEET SC010.

FILL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3/8" DIAMETER.

### STRUCTURAL CONCRETE

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ALL CONCRETE SHALL BE HARD ROCK CONCRETE MEETING THE REQUIREMENTS OF ACI-301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." PROPORTIONING OF INGREDIENTS FOR EACH CONCRETE MIX SHALL BE BY METHOD 2 OR THE ALTERNATE PROCEDURE GIVEN IN ACI-301. PLACE CONCRETE PER ACI-304 AND CONFORM TO ACI-604 (306) FOR WINTER CONCRETING AND ACI-605 (305) FOR HOT WEATHER CONCRETING. USE INTERIOR MECHANICAL VIBRATORS WITH 7,000 RPM MINIMUM FREQUENCY. DO NOT OVER-VIBRATE. CONCRETE SHALL BE PLACED MONOLITHICALLY BETWEEN CONSTRUCTION OR CONTROL JOINTS. PROTECT ALL CONCRETE FROM PREMATURE DRYING, EXCESSIVE HOT OR COLD TEMPERATURE FOR SEVEN DAYS AFTER PLACING.

### TWENTY-EIGHT DAY COMPRESSIVE STRENGTHS (fc) SHALL BE AS FOLLOWS WITH EXPOSURE CATEGORY AND CLASS PER ACI TABLE 19.3.1.1 GIVEN IN

PARENTHESIS:		
SLABS ON GRADE (F0/S0/W0/C0)	4000 PSI	
FOOTINGS (F0/S0/W0/C1)	3000 PSI	
VERTICALLY FORMED WALLS (F1/S0/W0/C0)	4000 PSI *	
* MAXIMUM W/C RATIO SHALL BE 0.55		

CONCRETE SUPPLIER TO PROVIDE TEST RECORDS PER SECTION 26.4 OF ACI 318. WHEN NO PRIOR EXPERIENCE OR TRIAL MIXTURE DATA ARE AVAILABLE, THE WATER/CEMENT RATIO FROM THE TABLE BELOW MAY BE USED, BUT ONLY WHEN SPECIAL PERMISSION IS GIVEN BY ENGINEER. MAXIMUM ABSOLUTE WATER/CEMENT RATIO BY WEIGHT FOR CONCRETE MIXES WITHOUT TEST RECORDS SHALL BE AS FOLLOWS:

NON-AIR ENTRAINED CONCRETE	AIR- ENTRAINED CONCRETE
0.58	0.46
0.44	0.35
	NON-AIR ENTRAINED CONCRETE 0.58 0.44

### 3.3.1. CEMENT: ASTM C150, TYPE I OR TYPE II. ENGINEER'S APPROVAL IS NEEDED FOR USE OF TYPE III CEMENT. 3.3.2. COARSE AND FINE AGGREGATE: ASTM C33.

3.3.3. WATER SHALL BE CLEAN AND POTABLE.

3.3.4. FLYASH: ASTM C618 CLASS C (CLASS F MAY BE ALLOWED IF APPROVED BY THE STRUCTURAL ENGINEER)

3.3.5. GROUND GRANULATED BLAST FURNACE SLAG (GGBFS): ASTM C989 GRADE 100 OR 120. GGBFS SHALL NOT BE PERMITTED UNLESS REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER. MIX DESIGNS SUBMITTED INCLUDING GGBFS SHALL INCLUDE SHRINKAGE TEST RESULTS AT 28 DAYS.

### 3.4.1. WATER REDUCING ADMIXTURE: ASTM C494. ADMIXTURES SHALL BE USED IN EXACT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

3.4.2. WATER REDUCING ADMIXTURES SHALL BE USED AT ALL HEAVILY CONGESTED AREAS (I.E. CONCRETE BEAMS, COLUMNS AND WALLS WITH REINFORCING SPACING OF 4" OR LESS)

3.4.3. CONCRETE USING ADMIXTURES TO PRODUCE FLOWABLE CONCRETE MAY BE USED SUBJECT TO ENGINEER'S APPROVAL. 3.4.4. AIR ENTRAINMENT: ASTM C260 AND ASTM C494 ENTRAIN 5%

> PLUS/MINUS 1.5% BY VOLUME IN ALL CONCRETE EXPOSED TO WEATHER.

3.4.5. NO OTHER ADMIXTURES PERMITTED UNLESS APPROVED BY THE ENGINEER.

3.5. FORMWORK AND SHORING 3.5.1. FOLLOW RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI-347).

3.5.2. ALL SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FORMWORK SUPPORTS AND SHORING SHALL BE DESIGNED TO PROVIDE FINISHED CONCRETE SURFACES AT ALL FACES LEVEL, PLUMB AND TRUE TO THE DIMENSIONS AND ELEVATIONS SHOWN. TOLERANCES AND VARIATIONS SHALL BE AS SPECIFIED.

3.6. REINFORCING STEEL: 3.6.1. DETAIL, FABRICATE, AND PLACE PER ACI-315 AND ACI-318. SUPPORT REINFORCEMENT WITH APPROVED CHAIRS, SPACERS, OR TIES.

3.6.2. DEFORMED BAR REINFORCEMENT: ASTM A615 GR 60 3.6.3. WELDABLE DEFORMED BAR REINFORCEMENT: ASTM A706 GR 60 WHERE NOTED ON STRUCTURAL DRAWINGS

3.6.4. WELDED WIRE FABRIC: ASTM 1064 GR 65 3.6.5. EXCEPT AS NOTED SPECIFICALLY ON THE DRAWINGS, ALL CONCRETE REINFORCEMENT SHALL BE LAP-SPLICED AS FOLLOWS:

> #6 AND SMALLER 48 X BAR DIAMETER #7 AND LARGER 56 X BAR DIAMETER

NO MORE THAN 50% HORIZONTAL OR VERTICAL BARS SHALL BE SPLICED AT ONE LOCATION 3.6.6. EXCEPT AS NOTED SPECIFICALLY ON THE DRAWINGS, PROVIDE

> CORNER BARS TO MATCH QUANTITY AND DIAMETER OF HORIZONTAL REINFORCEMENT AND LAP WITH HORIZONTAL REINFORCEMENT AS FOLLOWS: #6 AND SMALLER 48 X BAR DIAMETER

#7 AND LARGER 56 X BAR DIAMETER

THESE CORNER BARS SHALL BE PLACED AT ALL CORNERS AND INTERSECTIONS IN CONCRETE FOOTINGS AND WALLS. 3.6.7. LAP WELDED WIRE FABRIC 12" OR ONE SPACING PLUS 2", WHICHEVER IS MORE.

3.7. CONCRETE COVER ON REINFORCING SHALL BE AS FOLLOWS (UNLESS SHOWN OTHERWISE): BOTTOM OF FOOTINGS

FORMED EARTH FACE AND SLAB ON GRADE WALLS, WEATHER FACE 1-1/2" WALLS, INSIDE FACE

### 3.8. CONSTRUCTION OR CONTROL JOINTS

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- 3.8.1. UNLESS NOTED OTHERWISE, LOCATION OF THE CONSTRUCTION OR CONTROL JOINTS IN SLAB ON GRADE SHALL NOT EXCEED THE DISTANCES NOTED BELOW. JOINTS SHALL BE LOCATED ON COLUMN GRIDS OR UNDER PERMANENT PARTITIONS TO THE GREATEST EXTENT POSSIBLE. ADDITIONAL JOINTS SHALL BE REQUIRED AT REENTRANT CORNERS AND CORNERS OF SLAB DEPRESSIONS OR PENETRATIONS. SEE ARCHITECTURAL DRAWINGS FOR JOINT LAYOUT AT EXPOSED CONCRETE CONDITIONS. PROVIDE JOINT SEALANT PER SPECIFICATIONS - INSTALL PER MANUFACTURER RECOMMENDATIONS. 6" SLAB ON GRADE 18'-0" OC
- 8" SLAB ON GRADE 20'-0" OC 3.8.2. CONSTRUCTION OR CONTROL JOINT SPACING IN WALLS SHALL NOT EXCEED 50' ON CENTER EXCEPT AS DIRECTED BY THE ARCHITECT/ENGINEER.
- 3.9. CONDUIT AND PIPING EMBEDDED IN CONCRETE
- 3.9.1. ELECTRICAL CONDUIT SHALL NOT BE PLACED WITHIN A SLAB ON GRADE BUT PLACED BELOW THE SLAB IN THE SUB-BASE. 3.10. GROUT FOR BEARING PLATES
- THE NON-SHRINK GROUT SHALL MEET ASTM C1107 GRADE B OR EQUIVALENT (MASTERFLOW 928 BY BASF OR APPROVED EQUIVALENT). GROUT SHALL BE A PRE-PACKAGED HYDRAULIC CEMENT BASED MINERAL AGGREGATE GROUT, MIXED, PLACED AND CURED AS RECOMMENDED BY THE MANUFACTURER. COMPRESSIVE STRENGTH SHALL EXCEED 6000 PSI AT 28 DAYS. 3.11. ADHESIVE EXPANSIVE WATERSTOPS
- ADHESIVE EXPANSIVE WATERSTOP SHALL BE VOLCLAY WATERSTOP-RX (AS MANUFACTURED BY CETCO), SWELLSTOP OR HYDROTIGHT (GREENSTREAK), OR APPROVED EQUIVALENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 3.12. ARCHITECTURALLY EXPOSED CAST IN PLACE CONCRETE
- 3.12.1. WHERE INDICATED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS, THE APPEARANCE OF ARCHITECTURALLY EXPOSED CONCRETE ELEMENTS (BEAMS, COLUMNS AND WALLS) IS CRITICAL. EXTRA CARE SHALL BE TAKEN BY THE CONTRACTOR TO ENSURE THAT APPEARANCE OF THESE NOTED ELEMENTS MEET THE ARCHITECTURAL REQUIREMENTS.
- 3.12.2. PRE-CONSTRUCTION MEETING AND REQUIRED MOCK-UPS SHALL BE PER THE PROJECT SPECIFICATIONS. 3.12.3. THE CONCRETE MIX DESIGN FOR ARCHITECTURALLY EXPOSED CAST
- IN PLACE CONCRETE ELEMENTS SHALL SUBSTITUTE CEMENTITIOUS MATERIAL WITH FLYASH (10% MINIMUM FOR BEAMS AND SLABS, 20% MINIMUM FOR COLUMNS AND WALLS) AND SHALL CONTAIN AT A MINIMUM A MID-RANGE WATER REDUCING ADMIXTURE (TYPE F GLENIUM 3030 WATER REDUCING ADMIXTURE OR APPROVED EQUIVALENT).
- 3.12.4. THE CONTRACTOR SHALL SUBMIT A CONCRETE PLACEMENT WORK PLAN THAT INDICATES PLACEMENT PROCEDURES FOR CONCRETE, NUMBER OF WORKMEN REQUIRED, VIBRATION EQUIPMENT, ETC. PRIOR TO THE PRE-CONSTRUCTION MEETING. REVIEW AND ACCEPTANCE OF THE CONCRETE PLACEMENT PLAN BY THE DESIGN TEAM IN NO WAY RELIEVES THE CONTRACTOR OF RESPONSIBILITY FOR COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
- 3.13. CONCRETE COORDINATION DRAWINGS PRIOR TO THE START OF CONCRETE WALL CONSTRUCTION THE CONTRACTOR
- SHALL SUBMIT CONCRETE COORDINATION DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL. COORDINATION DRAWINGS SHALL INCLUDE DIMENSIONS AND SIZES FOR EMBED LOCATIONS, DOOR AND WINDOW OPENINGS, MECHANICAL PENETRATIONS, AND OTHER APPROPRIATE ITEMS.

### 4. MASONRY 4.1. MORTAR

### CMU:

### ASTM C270, TYPE S, f'c = 1800 PSI AT 28 DAYS, OR ASTM C270, TYPE M, $f_c = 2500$ PSI AT 28 DAYS.

- BRICK VENEER: ASTM C270, TYPE N, f'c = 750 PSI AT 28 DAYS.
- 4.2. GROUT
- ASTM C476, f<sub>c</sub> = 2500 PSI AT 28 DAYS, 5-1/2 SACK MIX (MINIMUM), 3/8" MAX AGGREGATE SLUMP 8" TO 11"
- 4.3. REINFORCEMENT: SEE STRUCTURAL CONCRETE MATERIALS SECTION OF THESE NOTES.
- 4.4. CONCRETE MASONRY UNITS (CMU) CONFORM TO ASTM C90, MINIMUM FACE SHELL THICKNESS OF 1-1/4", GRADE N-1. MINIMUM COMPRESSIVE STRENGTH OF MASONRY (fm) SHALL BE 2000 PSI, UNLESS NOTED OTHERWISE.
- 4.5. INSTALLATION OF MASONRY UNITS. PER THE IBC SECTION 2104 FOR UNIT MASONRY CONSTRUCTION REQUIREMENTS.
- 4.6. MASONRY COORDINATION DRAWINGS: PRIOR TO THE START OF MASONRY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT MASONRY COORDINATION DRAWINGS TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL. COORDINATION DRAWINGS SHALL INCLUDE DIMENSIONS AND SIZES FOR EMBED LOCATIONS, DOOR AND WINDOW OPENINGS, MECHANICAL PENETRATIONS, AND OTHER APPROPRIATE ITEMS.
- 4.7. CONDUIT OR PIPING EMBEDDED IN MASONRY: 4.7.1. NO MASONRY LINTELS SHALL BE SLEEVED FOR PIPING OR CONDUIT EXCEPT AS NOTED ON THE STRUCTURAL DRAWINGS OR AS APPROVED BY THE ENGINEER.
- 4.7.2. CONDUIT SHALL NOT BE PLACED WITHIN CELLS CONTAINING REINFORCING UNLESS APPROVED BY THE ENGINEER.

![](_page_21_Figure_68.jpeg)

2	4.8.	ANCHORE 4.8.1. 4.8.2.	ED MASONRY VENEER (BRICK, CMU OR STONE UNITS) MATERIALS: SEE ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS. INSTALL PER IBC SECTION 1405 AND ACI 530. ANCHORS, SUPPORTS
		4.8.3.	AND TIES SHALL BE NONCOMBUSTIBLE AND CORROSION RESISTANT AND SHALL BE DESIGNED TO RESIST A HORIZONTAL FORCE EQUAL TO AT LEAST TWICE THE WEIGHT OF THE VENEER. MASONRY VENEER AND TIES (5" MAXIMUM IN THICKNESS)
			<ul> <li>A. MASONRY AND STONE VENEER NOT EXCEEDING 5" IN THICKNESS SHALL BE ANCHORED DIRECTLY TO STRUCTURAL MASONRY, CONCRETE OR STUDS.</li> <li>B. WALL TIES SHALL BE SPACED SO AS TO SUPPORT NOT MORE</li> </ul>
3			<ul> <li>THAN 2 SQUARE FEET OF WALL AREA BUT SHALL NOT BE MORE THAN 24 INCHES ON CENTER HORIZONTALLY.</li> <li>C. CORRUGATED SHEET METAL TIES SHALL NOT BE PERMITTED FOR VENEER TALLER THAN 8 FEET. FOR VENEER TALLER THAN 8 FEET, ADJUSTABLE ANCHORS WITH MINIMUM CLEARANCE BETWEEN PARTS OF 1/16 INCH AND DETAILED TO PREVENT DISENGAGEMENT SHALL BE USED. WALL TIES SHALL BE CORROSION RESISTANT.</li> </ul>
			<ul> <li>D. CORRUGATED SHEET METAL ANCHORS SHALL BE AT LEAST 7/8" WIDE WITH A BASE METAL THICKNESS OF 0.03 INCHES AND SHALL HAVE CORRUGATIONS WITH A WAVELENGTH OF 0.3-0.5 INCHES AND AN AMPLITUDE OF 0.06-0.10 INCHES.</li> <li>E. SHEET METAL ANCHORS SHALL BE AT LEAST 7/8" WIDE WITH A BASE METAL THICKNESS OF 0.06 INCHES AND SHALL BE BENT, NOTCHED OR DUNCHED TO PROVIDE ADEQUATE DUIT OR</li> </ul>
4			<ul> <li>NOTCHED, OR FORCHED TO PROVIDE ADEQUATE FOLL-OUT OR PUSH-THROUGH PERFORMANCE.</li> <li>F. WIRE ANCHORS SHALL BE AT LEAST WIRE SIZE W1.7 (0.148 INCH DIAMETER) AND SHALL HAVE ENDS BENT TO FORM AN EXTENSION FROM THE BEND OF AT LEAST 2 INCHES.</li> <li>G. PINTLE ANCHORS SHALL HAVE ONE OR MORE PINTLE LEGS OF WIRE SIZE W2.8 (0.189 INCH DIAMETER) AND AN OFFSET NOT EXCEEDING 1 1/4".</li> </ul>
			<ul> <li>H. WIRE COMPONENTS OF ANCHORS OR JOINT REINFORCING SHALL NOT HAVE DRIP BENDS.</li> <li>I. WALL TIES SHALL HAVE A LIP OR HOOK ON THE EXTENDED LEG THAT WILL ENGAGE OR ENCLOSE A HORIZONTAL W1.4 (0.148 INCH DIAMETER) JOINT REINFORCEMENT WIRE. THE JOINT REINFORCEMENT SHALL BE CONTINUOUS WITH BUTT SPLICES BETWEEN TIES PERMITTED.</li> </ul>
			<ul> <li>J. WALL TIE ASSEMBLIES SHALL BE BY HOHMANN BARNARD OR APPROVED EQUIVALENT. CONTRACTOR SHALL SUBMIT TO ENGINEER FOR APPROVAL OF PROPOSED WALL TIE SYSTEM (INCLUDING ANCHORAGE DETAILS).</li> </ul>
5	5. MET/ 5.1.	4.8.4. ALS STRUCTU	AT OPENINGS IN MASONRY VENEER, THE GENERAL CONTRACTOR SHALL PROVIDE GALVANIZED LINTEL ANGLES OR GALVANIZED RELIEF ANGLES AS INDICATED ON STRUCTURAL DRAWINGS.
		5.1.1.	ALL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO AISC 360-16 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 341-16 "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" AND AISC 303-16 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" EXCEPT AS AMENDED BY THESE STRUCTURAL NOTES.
	5.2.	STRUCTU 5.2.1. 5.2.2.	IRAL STEEL STEEL W SHAPES AND C & MC SHAPES 8" OR LARGER SHALL BE ASTM A992 (F <sub>y</sub> =50 KSI). STEEL M, S, HP AND L SHAPES SHALL BE ASTM A572 Gr. 50 (F <sub>y</sub> =50 KSI).
6		5.2.3. 5.2.4.	STEEL PLATES THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM SHALL BE ASTM A572 Gr. 50 ( $F_y$ =50 KSI). OTHER STEEL PLATES AND C & MC SHAPES SMALLER THAN 8" SHALL BE ASTM A36 ( $F_y$ =36 KSI).
		5.2.5.	STEEL PIPE SECTIONS (PIPE) SHALL BE AS IM A53 Gr. B ( $F_y$ =35 KSI). RECTANGULAR AND ROUND HOLLOW STEEL SECTIONS (HSS) OR
		5.2.7.	TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (F <sub>y</sub> =50 KSI). STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.
		5.2.7. 5.2.8.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (F<sub>y</sub>=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL</li> </ul>
7		5.2.7.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (F<sub>y</sub>=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL BOLTS SHALL BE CONSIDERED BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (CONNECTION TYPE N) UNLESS NOTED OTHERWISE. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED WITH NUTS CONFORMING TO ASTM A563 AND HARDENED WASHERS CONFORMING TO ASTM F436.</li> </ul>
7		5.2.7.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (F<sub>y</sub>=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL BOLTS SHALL BE CONSIDERED BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (CONNECTION TYPE N) UNLESS NOTED OTHERWISE. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED WITH NUTS CONFORMING TO ASTM F436.</li> <li>C. HIGH STRENGTH BOLTS WITH TWIST OFF TYPE TENSION CONTROL MAY BE SUBSTITUTED FOR CONVENTIONAL BOLTS AND SHALL BE ASTM F3125 GRADE F1852 OR GRADE F2280, AND MAY BE USED FOR GRADE A325 OR GRADE A490 RESPECTIVELY.</li> <li>D. FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS SHALL</li> </ul>
7		5.2.7. 5.2.8.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (Fy=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL BOLTS SHALL BE CONSIDERED BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (CONNECTION TYPE N) UNLESS NOTED OTHERWISE. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED WITH NUTS CONFORMING TO ASTM A563 AND HARDENED WASHERS CONFORMING TO ASTM F436.</li> <li>C. HIGH STRENGTH BOLTS WITH TWIST OFF TYPE TENSION CONTROL MAY BE SUBSTITUTED FOR CONVENTIONAL BOLTS AND SHALL BE ASTM F3125 GRADE F1852 OR GRADE F2280, AND MAY BE USED FOR GRADE A325 OR GRADE A490 RESPECTIVELY.</li> <li>D. FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS SHALL BE AT LOCATIONS NOTED ON THE STRUCTURAL DRAWINGS.</li> <li>E. AT FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS WASHER TYPE INDICATING DEVICES (ASTM F959) OR TWIST-OFF TYPE TENSION-CONTROL BOLT ASSEMBLIES (ASTM F3125 GRADE F1852 OR F2280) SHALL BE USED UNLESS ALTERNATE SYSTEMS ARE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.</li> </ul>
8		5.2.7. 5.2.8.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (F<sub>y</sub>=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL BOLTS SHALL BE CONSIDERED BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (CONNECTION TYPE N) UNLESS NOTED OTHERWISE. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED WITH NUTS CONFORMING TO ASTM F436.</li> <li>C. HIGH STRENGTH BOLTS WITH TWIST OFF TYPE TENSION CONTROL MAY BE SUBSTITUTED FOR CONVENTIONAL BOLTS AND SHALL BE ASTM F3125 GRADE F1852 OR GRADE F2280, AND MAY BE USED FOR GRADE A325 OR GRADE A490 RESPECTIVELY.</li> <li>D. FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS SHALL BE AT LOCATIONS NOTED ON THE STRUCTURAL DRAWINGS.</li> <li>E. AT FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS WASHER TYPE INDICATING DEVICES (ASTM F599) OR TWIST-OFF TYPE TENSION-CONTROL BOLT ASSEMBLIES (ASTM F3125 GRADE F1852 OR F2280, SHALL BE USED UNLESS ALTERNATE SYSTEMS ARE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.</li> <li>F. ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED PER THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS (LATEST EDITION) BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (WWW.BOLTCOUNCIL.ORG).</li> </ul>
7 8		5.2.7. 5.2.8.	<ul> <li>TUBE STEEL SECTIONS (TS) SHALL BE ASTM A500, GR. C (Fy=50 KSI).</li> <li>STRUCTURAL TEES SHALL BE CUT FROM W, M OR S SHAPES TO MAKE WT, MT AND ST SHAPES.</li> <li>BOLTS</li> <li>A. MACHINE BOLTS NOT SPECIFIED AS HIGH STRENGTH SHALL BE ASTM A307 GRADE A.</li> <li>B. HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR GRADE A490 AS INDICATED ON STRUCTURAL DRAWINGS. ALL BOLTS SHALL BE CONSIDERED BEARING TYPE WITH THREADS INCLUDED IN SHEAR PLANE (CONNECTION TYPE N) UNLESS NOTED OTHERWISE. ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL BE INSTALLED WITH NUTS CONFORMING TO ASTM F436.</li> <li>C. HIGH STRENGTH BOLTS WITH TWIST OFF TYPE TENSION CONTROL MAY BE SUBSTITUTED FOR CONVENTIONAL BOLTS AND SHALL BE ASTM F3125 GRADE F1852 OR GRADE F2280, AND MAY BE USED FOR GRADE A325 OR GRADE A490 RESPECTIVELY.</li> <li>D. FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS SHALL BE AT LOCATIONS NOTED ON THE STRUCTURAL DRAWINGS.</li> <li>E. AT FULLY PRE-TENSIONED AND SLIP CRITICAL CONNECTIONS WASHER TYPE INDICATING DEVICES (ASTM F959) OR TWIST-OFF TYPE TENSION-CONTROL BOLT ASSEMBLIES (ASTM F3125 GRADE F1852 OR F2280, SHALL BE USED UNLESS ALTERNATE SYSTEMS ARE REVIEWED AND APPROVED BY THE STRUCTURAL ENGINEER.</li> <li>F. ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED PER THE SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS (LATEST EDITION) BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (WWW.BOLTCOUNCIL.ORG).</li> </ul>

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5.2.9.	STEEL ANCHORAGE ELEMENTS:

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- A. THREADED RODS SHALL BE ALL-THREAD ASTM A36 (F<sub>y</sub>=36 KSI) UNLESS NOTED OTHERWISE.
- B. WELDED HEADED STUDS: "NELSON STUDS" SHALL BE BY NELSON STUD WELDING, INC. OR APPROVED EQUIVALENT COMPLYING WITH ASTM A108. STUDS SHALL HAVE A MINIMUM F<sub>u</sub> OF 65 KSI.

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- C. ANCHOR RODS: ANCHOR RODS SHALL BE ASTM F1554, Fv=36 KSI WITH HOOKED, HEADED OR THREADED AND NUTTED ENDS AS INDICATED. AT COLUMN LOCATIONS ANCHOR RODS SHALL BE ASTM F1554, F<sub>v</sub>=36 KSI WITH HEADED OR THREADED/NUTTED
- END. TACK WELD NUT TO ANCHOR ROD UNLESS NOTED OTHERWISE. WHERE NOTED, HIGH STRENGTH ANCHOR RODS SHALL BE ASTM F1554, F<sub>y</sub>=105 KSI WITH DOUBLE NUTTED PLATE WASHER. D. EXPANSION ANCHORS SHALL BE CARBON STEEL AS NOTED IN THE FOLLOWING TABLE. ANCHORS IN CONCRETE SHALL HAVE
- BEEN TESTED IN ACCORDANCE WITH ACI 355.2 AND/OR ICC-ES AC193 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. ANCHORS SHALL HAVE A CURRENT CODE REPORT THAT COMPLIES WITH THE CURRENT EDITION OF THE IBC AND SHALL BE RATED FOR USE IN THE SEISMIC DESIGN CATEGORY NOTED IN THE DESIGN CRITERIA SECTION OF THESE NOTES.

ICC ESR-1917
ICC ESR-3037
ICC ESR-2502
CODE REPORT
ICC ESR-1385
IAPMO ER-240
ICC ESR-2966

HEAVY DUTY CONCRETE/ MASONRY SCREW ANCHORS	CODE REPORT
HILTI KWIK HUS-EZ	ICC ESR-3027(CONC) ICC ESR-3056 (CMU)
SIMPSON TITEN HD	ICC ESR-2713 (CONC) ICC ESR-1056 (CMU)
DEWALT SCREW BOLT+	ICC ESR-3889 (CONC) ICC ESR-4042 (CMU)

### F. ADHESIVE ANCHORS SHALL BE THREADED ANCHOR RODS OR REBAR DOWELS USING AN INJECTABLE ADHESIVE AS NOTED IN THE FOLLOWING TABLE. ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND/OR ICC-ES AC-308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. ANCHORS SHALL HAVE A CURRENT CODE REPORT THAT COMPLIES WITH THE CURRENT EDITION OF THE IBC AND SHALL BE RATED FOR USE IN THE SEISMIC DESIGN CATEGORY NOTED IN THE DESIGN CRITERIA SECTION OF THESE NOTES.

CODE
REPORT
ICC ESR-3187
IAPMO ER-263
ICC ESR-4027
CODE
ICC ESR-4143
IAI WO LIV-201

(1) ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI, OR AN APPROVED ALTERNATE WHEN SUBMITTED AND APPROVED BY THE ENGINEER. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.

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(2) ADHESIVE ANCHORS MUST BE INSTALLED IN CONCRETE AGED A MINIMUM OF 21 DAYS. (3) SIMPSON SET-XP MAY BE USED WHERE BASE MATERIAL

TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT OR FOR EMBEDMENT GREATER THAN 12-INCHES FOR LONGER GEL TIME. SEE ICC ESR-2508 (CONC) AND IAPMO ER-265 (MASONRY).

		G.	POWDER ACTUATED FASTENERS: PDF'S MINIMUM 0.157" DIA KNURLED SHANK FA THE FOLLOWING TABLE, UNLESS NOTED FASTENERS DRIVEN INTO STEEL SHALL POINT OF THE FASTENER COMPLETELY BASE MATERIAL. AT TOPPING SLABS, PT RADIANT HEAT TUBES EMBEDDED WITH PDF PENETRATION TO 3/4" MAXIMUM AN TENDON/TUBE PLACEMENT AND COVER	S OR PAF'S SHALL BE A ASTENER AS NOTED IN O OTHERWISE. BE DRIVEN SO THAT THE PENETRATES THE STEEL I SLABS OR SLABS WITH IN THE SLAB, LIMIT THE ID COORDINATE WITH
			POWDER ACTUATED FASTENERS	CODE REPORT
			HILTI X-U	ICC ESR-2269
			SIMPSON PDPA	ICC ESR-2138
			DEWALT CSI PIN	ICC ESR-2024
		H.	CONCRETE/MASONRY SCREWS SHALL E FOLLOWING TABLE:	BE AS NOTED IN THE
			CONCRETE/MASONRY SCREWS	CODE REPORT
			HILTI KWIK CON II+	
			SIMPSON TITEN	:-0
			DEWALT TAPPER+	ICC ESR-3068 (CONC)
				ICC ESR-3196 (MAS)
	5.2.10.	ME SOI AS J PRI	TAL PROTECTION: ALL STEEL EXPOSED T L, OR AS NOTED SHALL BE GALVANIZED F APPLICABLE. ALL OTHER STEEL SURFAC MED AFTER FABRICATION.	TO WEATHER, MOISTURE, PER ASTM A123 OR A153 ES SHALL BE SHOP
		LIN PEF	R SQUARE FOOT OF SURFACE AREA.	1.5 OZ OF ZINC SPELTER
		REF WE	PAIR ALL DAMAGED AREAS OF GALVANIZI LDS, ETC. APPLY REPAIR COATING THICI EQUAL TO ORIGINAL ZINC COATING THIC	ED PARTS SUCH AS FIELD KNESS GREATER THAN KNESS.
	5.2.11.	STE BEE NO "CO COI ANE STE COF THE	EL COLUMNS: ALL VERTICAL LOAD CARR EN NOTED AS "COLUMNS" ON THE STRUC TATION DOES NOT IDENTIFY THESE MEMI OLUMNS" AS DEFINED BY THE LATEST OSI LUMN ANCHORAGE REQUIREMENTS (OSH D 1926.755). THE GENERAL CONTRACTOR EL ERECTOR SHALL BE RESPONSIBLE TO RRECT OSHA DESIGNATION OF EACH ME E NOTATION SHOWN ON THE STRUCTURA	AYING MEMBERS HAVE TURAL DRAWINGS. THIS BERS AS "POSTS" OR HA RULES REGARDING HA 29 CFR PARTS 1926.751 , STEEL DETAILER, AND D DETERMINE THE MBER REGARDLESS OF AL DRAWINGS.
	5.2.12.	WEI EXF PEF COI ADI	LDED MARK NUMBERS ON STRUCTURAL POSED TO VIEW ARE UNACCEPTABLE AND RMITTED. ANY WELDED MARKS SHALL BE NTRACTOR'S EXPENSE. SEE ARCH SPEC DITIONAL REQUIREMENTS.	STEEL MEMBERS D SHALL NOT BE E REMOVED AT THE IFICATIONS FOR
.3.	WELDING			
	5.3.1.	ALL WE	WELDING SHALL BE IN ACCORDANCE WI LDING CODE," AWS D1.1, AWS D1.4 AND A PROPRIATE.	TH THE "STRUCTURAL WS D1.8 AS
	5.3.2.	ALL HYE UN SHA POL	WELDING SHALL BE BY CERTIFIED WELD DROGEN FILLER METAL AND SHALL BE PF FIL USE. FOR ALL FULL PENETRATION WE ALL BE NOTCH TOUGH TO MEET CHARPY JND AT -20°F.	DERS; USE 70 KSI LOW ROTECTED PER AWS D1.1 ELDS, FILLER METAL V-NOTCH OF 20 FOOT-
	5.3.3.	NO WH ANS WH	WELDING OF REINFORCING STEEL SHALI ERE SHOWN. ALL WELDING OF REINFOR SI/AWS D1.4. THE FOLLOWING FILLER ME EN WELDING REINFORCEMENT:	L BE ALLOWED EXCEPT CEMENT SHALL BE PER TAL SHALL BE USED
		Α.	FOR WELDING OF ASTM A706 GR 60 REE	BAR, 80 KSI FILLER METAL
		Β.	FOR WELDING OF ASTM A615 GR 60 REE	BAR, NOT PERMITTED.
		C.	FOR WELDING OF ASTM A615 GR 40 REE	BAR, NOT PERMITTED.

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INSPECTED AND TESTED BY NON-DESTRUCTIVE PROCEDURES. RESULTS OF TESTS SHALL BE SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER. 5.4. WELDING PROCEDURE SPECIFICATION (WPS) 5.4.1. FOR ALL WELDING OF REINFORCING STEEL, NON-PREQUALIFIED WELDS AND ALL WELDING OF COMPONENTS WHICH ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM, CONTRACTOR SHALL

5.3.4. ALL FULL PENETRATION FIELD AND SHOP WELDS SHALL BE FULL TIME

SUBMIT A WELDING PROCEDURE SPECIFICATION (WPS) TO ENGINEER FOR APPROVAL. PRIOR TO WELDING, EACH WPS SHALL INCLUDE ALL NECESSARY INFORMATION REQUIRED BY AWS D1.1, AWS D1.4 AND AWS D1.8 AND AS FOLLOWS: A. APPLICABLE BASE METAL TYPES AND THICKNESSES.

B. SKETCH OF JOINT INDICATING APPLICABLE DIMENSIONS. INDIVIDUAL PASSES SHALL BE IDENTIFIED AND NUMBERED TO IDENTIFY THE SEQUENCE. THE SKETCH SHALL IDENTIFY THE MAXIMUM THICKNESS AND BEAD WIDTH. IN NO CASE SHALL THE LAYER THICKNESS EXCEED 1/4" NOR THE BEAD WIDTH EXCEED

C. PREHEAT REQUIREMENTS.

D. ELECTRICAL CHARACTERISTICS (I.E., CURRENT, VOLTAGE, TRAVEL SPEED, ETC.).

E. ELECTRODE REQUIREMENTS SHALL MEET THE REQUIREMENTS OF AWS A5.1, AWS A5.5, AWS A5.17, AWS A5.23, AWS A5.18, AWS A5.20, AWS A5.28, AND AWS A5.29, AS APPLICABLE FOR WELDING METHOD USED.

D. IT SHALL BE THE RESPONSIBILITY OF THE BUILDING MANUFACTURER TO PROVIDE ALL ADDITIONAL CLIPS, ANCHORS, AND FRAMING MEMBERS ETC. AS REQUIRED TO INTEGRATE THEIR STANDARD BUILDING COMPONENTS WITH WORK BY OTHERS. SEE ALSO SHOP DRAWINGS REQUIREMENTS. 5.5.8. PRE-ENGINEERED BUILDING MATERIALS

A. ALL STRUCTURAL STEEL SECTIONS AND WELDED PLATE MEMBERS SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH AISC "SPECIFICATION FOR THE DESIGN,

FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS," LATEST EDITIONS. B. ALL COLD-FORMED STRUCTURAL MEMBERS AND EXTERIOR COVERINGS SHALL BE DESIGNED AND FABRICATED IN

ACCORDANCE WITH THE LATEST EDITION OF THE AISI, "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS." C. STEEL RIGID FRAMES AND OTHER BUILT-UP PRIMARY FRAMING

SHALL BE FABRICATED FROM HOT ROLLED STEEL PLATE PER ASTM A-572 (MINIMUM YIELD STRENGTH 50,000 PSI). D. LIGHT GAUGE Z AND C PURLINS, GIRTS AND SECONDARY FRAMING SHALL BE COLD FORMED UTILIZING HOT ROLLED STEEL

COIL MEETING ASTM A570 (F<sub>v</sub> = 55 KSI MINIMUM). E. STEEL ROOF AND WALL PANELS (SEE SPECIFICATIONS) SHALL BE COLD FORMED FROM HIGH STRENGTH (50 KSI) STEEL MEETING THE CHEMICAL REQUIREMENTS OF ASTM A446 GRADE D AND GALVANIZED WITH 1.25 OZ COMMERCIAL GRADE COATING

MEETING THE BEND, COATING AND TOLERANCE REQUIREMENTS OF ASTM A525. F. FOUNDATION ANCHOR BOLTS AND TENSION RODS USED FOR WALL AND ROOF BRACING SHALL BE FABRICATED FROM A36

MATERIAL AS A MINIMUM EXCEPT AS NOTED. MACHINE BOLTS AND HIGH STRENGTH BOLTS SHALL BE AS INDICATED IN THE STRUCTURAL STEEL BOLTS SECTION OF THESE NOTES. 5.6. PRE-ENGINEERED FALL PROTECTION SYSTEM

5.6.1. THE FALL PROTECTION SYSTEM MANUFACTURER SHALL DESIGN THE FALL PROTECTION SYSTEM TO COMPLY WITH THE LATEST OSHA/WISHA REQUIREMENTS.

5.6.2. THE FALL PROTECTION SYSTEM MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE PROJECT.

5.6.3. THE GENERAL CONTRACTOR SHALL COORDINATE ANCHOR LOCATIONS AND REQUIRED LOADS WITH THE ARCHITECT/ ENGINEER AND ANY PRE-ENGINEERED FRAMING SYSTEM MANUFACTURERS WHOSE COMPONENTS SUPPORT THE FALL PROTECTION SYSTEM ANCHORS.

5.5. PRE-ENGINEERED BUILDINGS 5.5.1. THE METAL BUILDING MANUFACTURER SHALL BE CURRENTLY APPROVED BY ICC (INTERNATIONAL CODE COUNCIL).

MATERIALS AND EQUIPMENT FOR THE STRUCTURAL DESIGN AND

RESISTING SYSTEMS, BRACING, SECONDARY FRAMING, ROOFING,

FABRICATION OF THE COMPLETE PRE-ENGINEERED BUILDING PACKAGE INCLUDING PRIMARY FRAMING SYSTEMS, LATERAL LOAD

COORDINATION DURING BIDDING AND CONSTRUCTION AS THE

BUILDING MANUFACTURER'S "STANDARD BUILDING PACKAGE" MAY

NOT INCLUDE SOME STRUCTURAL STEEL MEMBERS REQUIRED BY

5.5.2. STEEL FRAME MANUFACTURER SHALL PROVIDE ALL LABOR,

5.5.3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLOSE

ARCHITECTURAL/STRUCTURAL DRAWINGS.

SKYLIGHTS, WINDOW ELEMENTS, ETC.

5.5.4. BAY SPACINGS, PLAN DIMENSIONS, COLUMN LOCATIONS, EAVE

HEIGHTS AND ROOF SLOPE SHALL BE AS SHOWN ON

5.5.5. PRE-ENGINEERED FRAME MEMBERS SHALL BE PROPORTIONED AS

REQUIRED TO AVOID CONFLICTS WITH BUILDING CLEARANCE

A. BUILDING MANUFACTURER SHALL DESIGN ROOF FRAMING TO SUPPORT A MINIMUM 5 PSF COLLATERAL DEAD LOAD AT ALL ROOFS UNLESS NOTED OTHERWISE. AT ROOFS SUPPORTING

DROP OR HARD CEILINGS, BUILDING MANUFACTURER SHALL

B. SEE THE DESIGN CRITERIA SECTION OF THESE NOTES FOR

A. THE MANUFACTURER SHALL FURNISH COMPLETE DESIGN

B. THE MANUFACTURER SHALL (PRIOR TO THE CONCRETE

ADDITIONAL LOADING REQUIREMENTS.

PLACEMENT PLANS FOR APPROVAL.

DESIGN ROOF FRAMING TO SUPPORT A COLLATERAL DEAD LOAD

DRAWINGS (CAN BE SHOP AND ERECTION DRAWINGS), SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF THE

FOUNDATION WORK) FURNISH ALL ANCHOR BOLT SIZES AND

C. THE MANUFACTURER SHALL FURNISH DESIGN CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE

REQUIREMENTS AND TO AVOID CONFLICTS WITH BUILDING

SIDING, FLASHING AND GUTTERS.

THE DRAWINGS.

OF 10 PSF.

PROJECT.

OF THE PROJECT.

5.5.6. DESIGN LOADS:

5.5.7. DOCUMENTS

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IBC	SI	SO		TITLE	
1705.2	✓	✓	STEEL CONSTRUCTION (SEE 1	TABLES 15A, 15B, 15C, AND	) 15D)
1705.3	√	✓	CONCRETE CONSTRUCTION (	SEE TABLE 13)	
1705.4	✓ ✓	✓   NI/D	MASONRY CONSTRUCTION (S	EE TABLES 14A, 14B, 14C,	14D & 14E)
1705.0	✓ ✓		STRUCTURAL STEEL SEISMIC		FM
1705.13.1 1705.12.4					
1705.13.3	• •	N/R			
1705.12.5	▼ ▼	N/R	PLUMBING, MECHANICAL AND	ELECTRICAL COMPONEN	TS (SEE TABLI
1705.12.7	✓	N/R	STORAGE RACKS (SEE TABLE	18)	
SI	= SPECIAL IN	SPECTION			
SO	= STRUCTUR	AL OBSERVATION			
$\checkmark$	= ITEM IS REC	QUIRED			
N/R	= ITEM IS NOT	T REQUIRED			
SPEC ADD	CIAL INSPECTION	IS INDICATED ARE FO	OR STRUCTURAL ELEMENTS ONLY	. SEE ARCH, MECH AND EL	EC DRAWING
11.					
11.1. INSP	ECTION/TESTING	BREQUIREMENTS:		7	
SEE I	DRAWINGS, SPE		SU SECTIONS 110, AND CHAPTER 17	(.	
11.2. INSP			(IDU SEUTION TTU): ECTIONS SHALL RE MADE AFTED E		
11.2.	2. CONCRETE S	G IS IN PLACE. ANY F	REQUIRED FORMS SHALL BE IN PLA DOR INSPECTIONS SHALL BE MADE	CE PRIOR TO INSPECTION	NDER FLOOR
11.2.3	PRIOR TO CO	PRCRETE PLACEMEN	T OR FLOOR SHEATHING INSTALLA	ATTIC AND ACCESSORI	
11.2.4	AND ALL PIPE 4. IN ADDITION OTHER INSPE	ES, DUCIS, ELECTRIC TO THE INSPECTION ECTIONS OF ANY CO	JAL, PLUMBING, ETC., ARE INSTALL S SPECIFIED ABOVE, THE BUILDING NSTRUCTION WORK TO ASCERTAIN	EU AND APPROVED PRIOF GOFFICIAL IS AUTHORIZED N COMPLIANCE WITH THE	R TO COVER. D TO MAKE OR PROVISIONS C
11.3. STRU	OR OTHER LA	AWS ENFORCED BY T AND SPECIAL INSPE	I HE BUILDING OFFICIAL. CTIONS (IBC CHAPTER 17):		
11.3.*	I. SEE PROJEC	TESTS AND SPECIA	UK AUDITIONAL REQUIREMENTS.		
11.3.	OF CHAPTER FROM THE LIS PROVIDING T	17 OF THE IBC AS W ST BELOW OF TESTI ESTING AND INSPEC	ELL AS ANY ADDITIONAL REQUIRED NG AND INSPECTION REQUIREMEN TION REQUIRED BY THE SPECIFIC/	MENTS OF THE BUILDING ( ITS SHALL NOT RELIEVE TI ATIONS, THE IBC AND THE	OFFICIAL. OM HE CONTRACT BUILDING OF
11.3.3	3. TESTING AND	) SPECIAL INSPECTION	ONS SHALL BE COMPLETED IN ACC	ORDANCE WITH THE REQU	UIREMENTS O
11.4. STRU	JCTURAL OBSER	VATION			
11.4.1	1. STRUCTURAL	OBSERVATION MAY	BE PERFORMED DURING CONSTR	RUCTION IN A MANNER AS	REQUIRED TO
			IN-PLACE CONSTRUCTION.		
11.4.2	2. STRUCTURAL SHALL BE CO	ORDINATED WITH TH	ENT SHALL BE AS INDICATED ABOV HE GENERAL CONTRACTOR DURIN	CONSTRUCTION.	UF UBSERV
11.4.3	3. CONSTRUCT		EPORTS AND FINDINGS SHALL NO	T BE VIEWED AS A WARRA	NTY OR GUAF
11 5 SPEC		URAL ENGINEER. : SHALL BE CURREN'	TLY WABO CERTIFIED		
11.5.	1. THE SPECIAL	INSPECTOR SHALL	OBSERVE THE WORK ASSIGNED FO	DR CONFORMANCE WITH 1	THE APPROVE
		ND SPECIFICATIONS			
11.5.	2. THE SPECIAL ARCHITECT C IMMEDIATE A PROPER DES	INSPECTOR SHALL OF RECORD, AND OT ITTENTION OF THE G	FURNISH INSPECTION REPORTS TO HER DESIGNATED PERSONS. ALL D ENERAL CONTRACTOR FOR CORR D BUILDING OFFICIAL	D THE BUILDING OFFICIAL, DISCREPANCIES SHALL BE ECTION, THEN, IF NOT IN C	ENGINEER O BROUGHT TO CONFORMANC
11.5.3	3. THE SPECIAL INSPECTION WORKMANSH	INSPECTOR SHALL WAS IN CONFORMAN	SUBMIT A FINAL REPORT STATING NCE WITH THE APPROVED PLANS A FHE IBC.	WHETHER THE WORK REC ND SPECIFICATIONS AND	QUIRING SPEC THE APPLICA
12A. RE	QUIRED S	PECIAL INS	PECTIONS AND TES	T OF SOILS	
			IBC TABLE 1705.6		
	SPECI	AL INSPECTION OR 1	EST TYPE		PERIODIC S
1. VERIFY M	IATERIALS BELO	W SHALLOW FOUND	ATIONS ARE ADEQUATE TO	N/R	
ACHIEVE 2. VERIFY E	THE DESIGN BE	ARING CAPACITY RE EXTENDED TO PR	OPER DEPTH AND HAVE		
REACHEI				N/R	<b>√</b>
3. PERFORM 4. VERIFY L	VI GLASSIFICATIO	JN AND TESTING OF MATERIALS, DENSIT	COMPACTED FILL MATERIAL	N/R	✓ 
		COMPACTION OF C	OMPACTED FILL	<b>v</b>	N/F
D. FRIURIC		DOWEROTED FILL,	INOI LOT SUDGRADE AND VERIET	N/R	√

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13	CONSTRUCTION									
		IBC T	ABLE 1705.3							
		SPECIAL INSPECTION OR TEST TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE				
1.		INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT	N/R	1	ACI 318: CH. 20, 25.2, 25.3, 26.6.1- 26.6.3	1908.4				
2.		REINFORCING BAR WELDING:								
	A.	VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	N/R	✓	AWS D1.4 ACI 318:26.6.4					
	В.	INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	N/R	✓						
	C.	INSPECT ALL OTHER WELDS	✓	N/R						
3.			N/R		ACI 318: 17.8.2					
4.	A.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	√	N/R	ACI 318: 17.8.2.4					
	В.	MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A	N/R	✓	ACI 318: 17.8.2					
5.		VERIFY USE OF REQUIRED DESIGN MIX	N/R	√	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3				
6.		PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	√	N/R	ASTM C 172 ASTM C 31 ACI318:26.4, 26.12	1908.10				
7.		INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	$\checkmark$	N/R	ACI 318: 26.5	1908.6, 1908.7, 1908.8				
8.		VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	N/R	√	ACI 318: 26.5.3- 26.5.5	1908.9				
9.	A.	INSPECT PRESTRESSED CONCRETE FOR: APPLICATION OF PRESTRESSING FORCES	$\checkmark$	N/R	ACI 318: 26.10					
	В.	GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE RESISTING SYSTEM	$\checkmark$	N/R						
10.		INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	N/R	1	ACI 318: 26.9					
11.		VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	N/R	~	ACI 318: 26.10.2					
12.		INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	N/R	✓	ACI 318: 26.11.1.2(b)					

E

13.1. CONCRETE: SPECIAL INSPECTION AND TESTING PER IBC TABLE 1705.3 AS NOTED IN TABLE 13, INCLUDING:

13.1.1. CONTINUOUS SPECIAL INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. 13.1.2. CONTINUOUS SPECIAL INSPECTION OF BOLTS INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.

13.1.3. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE SHALL BE AS DESCRIBED IN THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE (ICC, IAPMO, ETC.). 13.2. SPECIAL INSPECTIONS AND TESTS SHALL NOT BE REQUIRED FOR THE FOLLOWING:

13.2.1. NON-STRUCTURAL CONCRETE SLABS ON GRADE.

13.

### TMS 602 TABI MINIMUM VERIFICATION REQUIREMENTS PRIOR TO CONSTRUCTION, VERIFICATION OF COMPLIANCE OF SU PRIOR TO CONSTRUCTION, VERIFICATION OF fm AND face, EXCEPT V SPECIFICALLY EXEMPTED BY THE CODE. DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISI INDEX (VSI) WHEN SELF- CONSOLIDATING GROUT IS DELIVERED TO DURING CONSTRUCTION, VERIFICATION OF f'm AND facc, FOR EVERY FEET DURING CONSTRUCTION, VERIFICATION OF PROPORTIONS OF MAT DELIVERED TO THE PROJECT SITE FOR PREMIXED OR PREBLENDE PRESTRESSING GROUT, AND GROUT OTHER THAN SELF-CONSOLI 14.B REQUIRED SPECIAL INSPECTION AN CONSTRUCTION – MINIMUM SPECIAL TMS 602 TAB CONTINU SPECIA INSPECTION TASK INSPECT LEVEL AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE: A. PROPORTIONS OF SITE-PREPARED MORTAR N/R B, GRADE AND SIZE OF PRESTRESSING TENDONS N/R AND ANCHORAGES C. GRADE, TYPE AND SIZE OF REINFORCEMENT, N/R CONNECTORS, ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES D. PRESTRESSING TECHNIQUE N/R E. PROPERTIES OF THIN-BED MORTAR FOR AAC REQUIRED MASONRY FIRST 500 N/R F. SAMPLE PANEL CONSTRUCTION PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE: A. GROUT SPACE B. PLACEMENT OF PRESTRESSING TENDONS AND N/R ANCHORAGES C. PLACEMENT OF REINFORCEMENT, N/R CONNECTORS, AND ANCHOR BOLTS D. PROPORTIONS OF SITE-PREPARED GROUT N/R AND PRESTRESSING GROUT FOR BONDED TENDONS VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION: A. MATERIALS AND PROCEDURES WITH THE N/R APPROVED SUBMITTALS B. PLACEMENT OF MASONRY UNITS AND MORTAR N/R JOINT CONSTRUCTION C. SIZE AND LOCATION OF STRUCTURAL N/R MEMBERS D. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE N/R OF MASONRY TO STRUCTURAL MEMBERS, FRAME, OR OTHER CONSTRUCTION E. WELDING OF REINFORCEMENT F. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD N/R WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURES ABOVE 90°F) G. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE H. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS REQUIRED OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS N/R

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NOTE: SPECIAL INSPECTION PER TABLE 14.B NOT REQUIRED FOR QUALITY ASSURANCE LEVEL 1 14.

14.1. SPECIAL INSPECTION AND VERIFICATION OF MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH TMS 402 AND TMS 602 QUALITY ASSURANCE REQUIREMENTS, AS NOTED IN THE TABLES ABOVE INCLUDING: 14.1.1. COMPRESSIVE STRENGTH OF MASONRY SHALL BE CONSIDERED SATISFACTORY IF THE COMPRESSIVE STRENGTH OF EACH MASONRY WYTHE AND GROUTED COLLAR JOINT MEETS OR EXCEEDS THE SPECIFIED f'm. 14.1.2. COMPRESSIVE STRENGTH OF MASONRY SHALL BE DETERMINED IN ACCORDANCE WITH THE PROVISIONS OF TMS 602

USING THE UNIT STRENGTH METHOD. 14.1.3. FOR RISK CATEGORY I, II OR III, MINIMUM QUALITY ASSURANCE LEVEL FOR BRICK VENEER SHALL BE LEVEL 1, AS

NOTED IN TABLE 14A. 14.1.4. FOR RISK CATEGORY I, II, OR III, MINIMUM QUALITY ASSURANCE LEVEL FOR STRUCTURAL MASONRY SHALL BE LEVEL

2 AS NOTED IN TABLES 14A AND 14B.

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14	14.A REQUIRED SPECIAL INSPECTION AND TEST OF MASONRY CONSTRUCTION – MINIMUM VERIFICATION REQUIREMENTS								
			TMS 602 TABLE 3						
		MINIMUM VERIFICATION REQUIR	EMENTS		REQUIR QUALITY A		REFERENCE FOR CRITERIA		
1.	PR	OR TO CONSTRUCTION, VERIFICATION OF COMPLI	IANCE OF SUBMITTAL	S.	V		ART. 1.5		
2.	PR	OR TO CONSTRUCTION, VERIFICATION OF fm AND	N/R	1	ART. 1.4 B				
SPECIFICALLY EXEMPTED BY THE CODE.       INT       ✓         3. DURING CONSTRUCTION, VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) WHEN SELF- CONSOLIDATING GROUT IS DELIVERED TO THE PROJECT       N/R       ✓									
4.	DU	E. RING CONSTRUCTION, VERIFICATION OF Ifm AND Ifa ET	cc, FOR EVERY 5,000 S	QUARE	N/R	N/R	ART. 1.4 B		
5.	DU DEI PRI	RING CONSTRUCTION, VERIFICATION OF PROPOR IVERED TO THE PROJECT SITE FOR PREMIXED OF ESTRESSING GROUT, AND GROUT OTHER THAN SE	TIONS OF MATERIALS R PREBLENDED MOR ELF-CONSOLIDATING	S AS TAR, GROUT.	N/R	N/R	ART. 1.4 B		
		i.							
14	I.B	REQUIRED SPECIAL INSPECT	FION AND TE	ST OF M	IASONF	RY			
		CONSTRUCTION – MINIMUM S	SPECIAL INS	PECTIO	N REQU	JIREM	ENTS		
			TMS 602 TABLE 4	DEDIODIO					
		INSPECTION TASK	SPECIAL INSPECTION	SPECIAL	RE	FERENCE	FOR CRITERIA		
1.		AS MASONRY CONSTRUCTION BEGINS, VERIFY	LEVEL 2	LEVEL 2	TM	S 402	TMS 602		
	Α.	PROPORTIONS OF SITE-PREPARED MORTAR	N/R	√			ART. 2.1, 2.6 A, & 2.6 C		
	В,	GRADE AND SIZE OF PRESTRESSING TENDONS AND ANCHORAGES	N/R	✓			ART. 2.4 B & 2.4 H		
	C.	GRADE, TYPE AND SIZE OF REINFORCEMENT, CONNECTORS, ANCHOR BOLTS, AND PRESTRESSING TENDONS AND ANCHORAGES	N/R	1			Art. 3.4 & 3.6 A		
-	D.	PRESTRESSING TECHNIQUE	N/R				Art. 3.6 B		
	с.	MASONRY	REQUIRED FOR FIRST 5000 SF	AFTER FIRS	ST		Art. 2.1 C.1		
	F.	SAMPLE PANEL CONSTRUCTION	N/R	1			Art. 1.6 D		
2.	٨	PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:	N/D	1					
	A. B.	PLACEMENT OF PRESTRESSING TENDONS AND	N/R	×	Sec. 10	0.8 &	Art. 3.2 D & 3.2 F		
-	-	ANCHORAGES	N/R	v	10.9		Art. 2.4 & 3.6		
	C.	PLACEMENT OF REINFORCEMENT, CONNECTORS, AND ANCHOR BOLTS PROPORTIONS OF SITE-PREPARED GROUT	N/R	✓	Sec. 6. 6.3.6 &	1, 6.3.1, 6.3.7	Art. 3.2 E & 3.4		
	D.	AND PRESTRESSING GROUT FOR BONDED TENDONS	N/R	✓			Art. 2.6 B & 2.4 G.1.b		
3.		VERIFY COMPLIANCE OF THE FOLLOWING DURING CONSTRUCTION:							
	A.	APPROVED SUBMITTALS	N/R	~			Art. 1.5		
	В.	PLACEMENT OF MASONRY UNITS AND MORTAR JOINT CONSTRUCTION	N/R	✓			Art. 3.3 B		
	C.	SIZE AND LOCATION OF STRUCTURAL MEMBERS	N/R	✓			Art. 3.3 F		
	D.	TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAME, OR OTHER CONSTRUCTION	N/R	ü	Sec. 1. 6.2.1, 8	2.1(E), & 6.3.1			
	E.	WELDING OF REINFORCEMENT	✓	N/R	Sec.6.1	1.6.1.2			
	F.	PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40°F) OR HOT WEATHER (TEMPERATURES ABOVE 90°F)	N/R	~			Art. 1.8 C & 1.8 D		
	G.	APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	√	N/R			Art. 3.6 B		
	H.	PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS IS IN COMPLIANCE	~	N/R			Art. 3.5 & 3.6 C		
	l.	PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	REQUIRED FOR FIRST 5000 SF	REQUIRED AFTER FIRS 5000 SF	D ST		Art. 3.3 B.9 & 3.3 F.1.b		
4.		OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	N/R	1			Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.2.c.3, 1.4 B.3, & 1.4 B.4		

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15	.AF (	REQUIRED SPECIAL INSPECTION AND TES CONSTRUCTION – INSPECTION OF WELDI	STS OF STF NG	RUCTURAL	STEEL
		SPECIAL INSPECTION OR TEST TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
		AISC TABLE N5.4-1			
1.		PRIOR TO WELDING, VERIFY AND INSPECT THE FOLLOWING:	N/R	✓	
	Α.	WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS	✓	N/R	
	B.	WELDING PROCEDURE SPECIFICATIONS (WPS)	✓	N/R	
	C.	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	✓	N/R	AISC 360 A3.5
	C.	MATERIAL IDENTIFICATION OF STRUCTURAL STEEL MEMBERS	N/R	✓	AISC 360 A3.1
	E.	WELDER IDENTIFICATION SYSTEM	N/R	✓	
	F.	FIT-UP OF GROOVE WELDS, INCLUDING JOINT GEOMETRY			
		1) JOINT PREPARATION	N/R	✓	
		2) DIMENSIONS: ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL	N/R	✓	
		3) CLEANLINESS: CONDITION OF STEEL SURFACES	N/R	✓	
		4) TACKING: TACK WELD QUALITY AND LOCATION	N/R	✓	
		5) BACKING TYPE AND FIT (IF APPLICABLE)	N/R	✓	
	G.	FIT-UP OF CJP GROOVE WELDS OF HSS T-,Y- AND K-JOINTS WITHOUT BACKING, INCLUDING JOINT GEOMETRY.			
			<b>√</b>	N/R	
		2) DIMENSIONS: ALIGNMENT, ROUT OPENING, ROUT FACE, BEVEL	<b>√</b>	N/R	
		3) CLEANLINESS: CONDITION OF STEEL SURFACES	<b>√</b>	N/R	
			V	N/R	
	H.		N/R	<b>√</b>	
	Н.	TIT-UP OF FILLET WELDS 1) DIMENSIONS: ALIGNMENT, GAPS AT ROOT			
		2) CLEANLINESS: CONDITION OF STEEL SURFACES		•	
		3) TACKING: TACK WELD OLIALITY AND LOCATION		V (	
	1		N/R	<b>v</b>	
	1.		IN/R	v	
		AISC 360 TABLE N5.4-2			
2.		DURING WELDING, VERIFY AND INSPECT THE FOLLOWING:			
	A.		N/R	✓	
	В.	CONTROL AND HANDLING OF WELDING CONSUMABLES 1) PACKAGING	N/R	✓	
		2) EXPOSURE CONTROL	N/R	<b>√</b>	
	С.	NO WELDING OVER CRACKED TACK WELDS	N/R	<b>√</b>	
	D.				
			N/R	V	
			N/R	v	
	⊑.	1) SETTINGS ON WEI DING FOLIPMENT	N/R	1	
		2) TRAVEL SPEED	N/R	↓ ✓	
		3) SELECTED WELDING MATERIALS	N/R	✓ ✓	
		4) SHIELDING GAS TYPE AND FLOW RATE	N/R	↓ ✓	
		5) PREHEAT APPLIED	N/R	↓ ✓	
		6) INTERPASS TEMPERATURE MAINTAINED	N/R	↓ ✓	
		7) PROPER POSITION	N/R	✓ ×	
	F.	WELDING TECHNIQUES			
		1) INTERPASS AND FINAL CLEANING	N/R	✓	
		2) EACH PASS WITHIN PROFILE LIMITATIONS	N/R	$\checkmark$	
		3) EACH PASS MEETS QUALITY REQUIREMENTS	N/R	$\checkmark$	
	G.	PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	✓	N/R	
		AISC 360 TABLE N5 4-3			
3					
<u> </u>	Α.	WELDS CLEANED	N/R	✓	
	B.	SIZE, LENGTH, AND LOCATION OF WELDS	<b>√</b>	N/R	
	C.	WELDS MEET VISUAL ACCEPTANCE CRITERIA			
		1) CRACK PROHIBITION	✓	N/R	
		2) WELD TO BASE METAL FUSION	✓	N/R	
1		3) CRATER CROSS SECTION	✓	N/R	
1		4) WELD PROFILES	✓	N/R	
		5) WELD SIZE	✓	N/R	
		6) UNDERCUT	✓	N/R	
		7) POROSITY	✓	N/R	
	D.	ARC STRIKES	✓	N/R	
	E.	k-AREA	✓	N/R	
	F.	BACKING REMOVED AND WELD TABS REMOVED, IF REQUIRED	✓	N/R	
	G.	REPAIR ACTIVITIES	✓	N/R	
	Η.	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR		N/P	
			•		
	1.	APPROVAL OF THE ENGINEER OF RECORD	N/R	✓	

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	15.B REQUIRED SPECIAL INSPECTION AND TES CONSTRUCTION – INSPECTION OF BOLTIN	TS OF STF	RUCTURAL	STEEL
	SPECIAL INSPECTION OR TEST TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD
	AISC 360 TABLE N5.6-1		1	1
	PRIOR TO BOLTING, VERIFY AND INSPECT THE FOLLOWING:     A. MANUFACTURER'S CERTIFICATIONS FOR FASTENER MATERIALS		N/R	
	B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	N/R	 ✓	
	C. PROPER FASTENER SELECTED FOR JOINT DETAIL	N/R	✓	AISC 360 A3.1
0	D. PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	N/R	✓	
Z	E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITIONS AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	N/R	✓	
	F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	√	N/R	
	G. PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS AISC 360 TABLE N5.6-2	N/R	√	
	2. DURING BOLTING, VERIFY AND INSPECT THE FOLLOWING:			
	A. FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	N/R	1	
	B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	N/R	√	
3	PREVENTED FROM ROTATING     PREVENTED SARE PRETENSIONED IN ACCORDANCE WITH THE ROSC	N/R	<b>√</b>	
	SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	N/R	√	
	A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	~	N/R	
	15.C REQUIRED SPECIAL INSPECTION AND TES	TS OF CO	LD FORME	D
		CONTINUOUS	PERIODIC	REFERENCED
	SPECIAL INSPECTION OR TEST TYPE	INSPECTION	INSPECTION	STANDARD
4	1. PRIOR TO DECK PLACEMENT VERIFY AND INSPECT THE			
	A. COMPLIANCE OF MATERIALS (DECK AND ALL ACCESSORIES) WITH			
	PROPERTIES, AND BASE METAL THICKNESS	<b>v</b>	N/R	
	B. DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	√	N/R	
	SDI QA/QC TABLE 1.2			
	2.         AFTER DECK PLACEMENT VERIFY AND INSPECT THE FOLLOWING:           A.         COMPLIANCE OF DECK AND ALL ACCESSORIES INSTALLATION WITH		N/R	
	B. DECK MATERIALS ARE REPRESENTED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION	√	N/R	
	DOCUMENTS           C.         DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF	✓	N/R	
r	DECK AND ACCESSORIES SDI QA/QC TABLE 1.3			
5	3. PRIOR TO WELDING, VERIFY AND INSPECT THE FOLLOWING:			
	A. WELDING PROCEDURE SPECIFICATION (WPS)	N/R	✓	
	B. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES	N/R	✓ ✓	
		N/R	✓ ✓	
		IN/IX		
	4. DURING WELDING. VERIFY AND INSPECT THE FOLLOWING:			
	A. USE OF QUALIFIED WELDERS	N/R	✓	
	B. CONTROL AND HANDLING OF WELDING CONSUMABLES	N/R	<b>√</b>	
	C. ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	N/R	✓	
	D. WPS FOLLOWED	N/R	$\checkmark$	
	SDI QA/QC TABLE 1.5		1	1
6	5.         AFTER WELDING, VERIFY AND INSPECT THE FOLLOWING:           A.         SIZE AND LOCATION OF WELDS INCLUDING SUPPORT SIDELAP	1		
		<b>√</b>	N/R	
	B. WELDS MEET VISUAL ACCEPTANCE CRITERIA	✓ 	N/R	
	D. DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	✓ ✓	N/R	
		· ·	19/13	1
	6. PRIOR TO MECHANICAL FASTENING, VERIFY AND INSPECT THE			
	FOLLOWING: A. MANUFACTURER INSTALLATION INSTRUCTIONS AVAILABLE FOR MECHANICAL FASTENERS	N/R	✓	
	B. PROPER TOOLS AVAILABLE FOR FASTENER INSTALLATION	N/R	✓	
	C. PROPER STORAGE FOR MECHANICAL FASTENERS	N/R	$\checkmark$	
	SDI QA/QC TABLE 1.7			
7	7. DURING MECHANICAL FASTENING, VERIFY OR INSPECT THE FOLLOWING			
,	<ul><li>A. FASTENERS ARE POSITIONED AS REQUIRED</li><li>B. FASTENERS ARE INSTALLED IN ACCORDANCE WITH</li></ul>	N/R	✓ ✓	
	MANUFACTURER'S INSTRUCTIONS SDI QA/QC TABLE 1.8	N/R	<b>√</b>	
	8. AFTER MECHANICAL FASTENING, VERIFY OR INSPECT THE			
	A. CHECK SPACING, TYPE, AND INSTALLATION OF SUPPORT FASTENERS	✓	N/R	
	B. CHECK SPACING, TYPE, AND INSTALLATION OF SIDELAP FASTENERS	√	N/R	
	C. CHECK SPACING, TYPE, AND INSTALLATION OF PERIMETER	√	N/R	
	D. VERIFY REPAIR ACTIVITIES	✓	N/R	
	E. DOCUMENT ACCEPTANCE OR REJECTION OF MECHANICAL			

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### 15.1. STRUCTURAL STEEL CONSTRUCTION:

15.

С

SPECIAL INSPECTION AND NONDESTRUCTIVE TESTING OF STRUCTURAL STEEL ELEMENTS SHALL BE IN ACCORDANCE WITH THE QUALITY CONTROL AND QUALITY ASSURANCE REQUIREMENTS OF AISC 360, AS NOTED IN TABLES 15A, 15B, AND AWS D1.1, INCLUDING:

Е

F

15.1.1. INSPECTION OF ERECTED STEEL SYSTEM.

D

- 15.1.2. REVIEW OF MATERIAL TEST REPORTS AND CERTIFICATIONS FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.
- 15.1.3. OBSERVATION OF WELDING OPERATIONS AND VISUAL INSPECTION OF IN-PROCESS AND COMPLETED WELDS SHALL BE AS FOLLOWS: A. VERIFY THAT WELD FILLER MATERIAL AND MANUFACTURER'S CERTIFICATE OF COMPLIANCE CONFORM TO AWS
  - SPECIFICATION SPECIFIED. VERIFY WELDERS ARE CERTIFIED BY WABO, THAT PROPER ELECTRODES IN OVEN DRY CONDITIONS ARE USED, AND THAT PROPER METHODS AND PREPARATIONS ARE USED.
- B. PERIODIC SPECIAL INSPECTION OF WELDING SHALL BE PERFORMED FOR SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16" AND FLOOR AND DECK WELDS.
- C. CONTINUOUS SPECIAL INSPECTION OF WELDING SHALL BE PERFORMED ON COMPLETE AND PARTIAL PENETRATION GROOVE WELDS AND FILLET WELDS GREATER THAN 5/16".
- D. ALL WELDS SHALL BE CHECKED VISUALLY.
- E. ALL SHOP AND FIELD WELDING SHALL BE SUBJECT TO INSPECTION BY A WABO CERTIFIED WELDING INSPECTOR EMPLOYED BY THE OWNER. THE INSPECTOR SHALL UTILIZE RADIOGRAPHIC, ULTRASONIC, OR MAGNETIC PARTICLE TESTING AND ANY OTHER AID TO VISUAL INSPECTION THAT MAY BE DEEMED NECESSARY TO ASSURE THE ADEQUACY OF WELDING. THE OWNER SHALL CARRY OUT TESTING AND INTERPRETATION AT ANY STAGE AFTER WELDING.
- F. 10% OF ALL FILLET WELDS SHALL BE CHECKED BY MAGNETIC PARTICLE TESTING.
- G. 100% OF ALL COMPLETE PENETRATION WELDS SHALL BE CHECKED BY ULTRASONIC TESTING.
- H. ALL WELDS FOUND DEFECTIVE AND REPAIRED SHALL BE REINSPECTED BY THE SAME METHOD ORIGINALLY USED. THE COST OF REPAIR AND REINSPECTION SHALL BE BORNE BY THE CONTRACTOR. I. STANDARDS FOR ACCEPTANCE SHALL BE AS GIVEN IN AWS D1.1.
- 15.1.4. OBSERVATION OF BOLTING OPERATIONS.
- 15.1.5. WHERE CONTINUOUS SPECIAL INSPECTION IS NOTED, IT SHALL BE PERFORMED FOR EACH JOINT OR MEMBER. WHERE PERIODIC SPECIAL INSPECTION IS NOTED, IT SHALL BE PERFORMED ON ITEMS ON A RANDOM BASIS. PERIODIC SPECIAL INSPECTION NEED NOT DELAY FABRICATION OR ERECTION OPERATIONS. 15.1.6. COLD FORMED STEEL DECK:
- SPECIAL INSPECTIONS AND QUALIFICATION FOR WELDING SPECIAL INSPECTORS SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF SDI QA/QC, AS NOTED IN TABLE 15C.
- 15.1.7. EPOXY ANCHORS: SPECIFIC REQUIREMENTS FOR INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE OR MASONRY SHALL BE AS DESCRIBED IN THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE (ICC, IAPMO, ETC.).
- 15.1.8. EXPANSION ANCHORS: SPECIFIC REQUIREMENTS FOR INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE OR MASONRY SHALL BE AS DESCRIBED IN THE RESEARCH REPORT ISSUED BY AN APPROVED SOURCE (ICC, IAPMO, ETC.).

18.	18. REQUIRED SPECIAL INSPECTION AND TESTS FOR SEISMIC RESISTANCE						
		SPECIAL INSPECTION OR TEST TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION			
3.	A.	ARCHITECTURAL COMPONENTS IN SEISMIC DESIGN CATEGORY D, E OR F: THE ERECTION AND FASTENING OF EXTERIOR CLADDING, INTERIOR AND EXTERIOR NON-BEARING WALLS, AND INTERIOR AND EXTERIOR VENEER	N/R	~			
4.	A.	PLUMBING, MECHANICAL AND ELECTRICAL COMPONENTS IN SEISMIC DESIGN CATEGORY C, D, E OR F: ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS	N/R	✓			
5.		ANCHORAGE OF STORAGE RACKS THAT ARE 8 FEET OR GREATER IN HEIGHT IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY D, E OR F.	N/R	~			

18.1. SPECIAL INSPECTIONS AND TESTING FOR SEISMIC RESISTANCE:

18.1.1. SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE PER IBC 1705.12 SHALL BE REQUIRED FOR SEISMIC FORCE-RESISTING SYSTEMS IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY B, C, D, E OR F PER TABLE 18 AND THE FOLLOWING:

- A. SPECIAL INSPECTIONS OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341.
- 18.1.2. TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE PER IBC 1705.13 SHALL BE REQUIRED FOR SEISMIC FORCE-RESISTING SYSTEM IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F FOR THE FOLLOWING:
- A. NONDESTRUCTIVE TESTING FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 341. 18.1.3. SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING:
- B. SPECIAL INSPECTION IS NOT REQUIRED FOR ARCHITECTURAL COMPONENTS WHERE:

a. EXTERIOR CLADDING, INTERIOR AND EXTERIOR NONBEARING WALLS AND INTERIOR AND EXTERIOR

- VENEER ARE 30 FEET OR LESS IN HEIGHT ABOVE GRADE OR WALING SURFACE.
- b. EXTERIOR CLADDING AND INTERIOR AND EXTERIOR VENEERS WEIGHTING 5 PSF OR LESS.
- c. INTERIOR NONBEARING WALLS WEIGHING 15 PSF OR LESS.

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C D E F G H J Κ

![](_page_24_Figure_37.jpeg)

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![](_page_25_Figure_0.jpeg)

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![](_page_25_Figure_2.jpeg)

![](_page_25_Figure_3.jpeg)

![](_page_25_Picture_5.jpeg)

C D E F G H J

![](_page_25_Figure_6.jpeg)

TYPICAL CONTROL JOINT W/ DOWEL BASKETS

D

CONTRACTOR NOTE:

1/8" SAWCUT x 1/5 SLAB -----

HOURS AFTER CONCRETE

THICKNESS (1 1/4" MIN) - SAWCUT

HARDENS - BLADES SHALL NOT BE

BLUNT AS TO CAUSE CHIPPING OF

CONC - PROVIDE JNT SEALANT

PER SPECIFICATIONS - INSTALL

PER MFR RECOMMENDATIONS

2

MUST BE MADE WITHIN 4 TO 12

EXTENT OF DOWEL BASKETS MAY BE REVIEWED

CONTRACTOR NOTE:

CONSTRUCTION JOINTS

STOP REINF AT

SLAB JNT

PROVIDE CONSTRUCTIOM JOINT SHOWN AT 60'-0" OC

CONTROL JOINT WITH DOWEL BASKETS IN LIEU OF

MAX EACH WAY. AT CONTRACTOR'S OPTION PROVIDE

- TOOLED JNT R=1/8"

Е

F

#4 NOSING BAR

![](_page_25_Figure_10.jpeg)

J

TYPICAL REINFORCING AT OPENINGS LESS THAN 12" IN CONC WALL OR SLAB

![](_page_25_Figure_12.jpeg)

![](_page_25_Figure_13.jpeg)

![](_page_25_Figure_14.jpeg)

![](_page_25_Figure_15.jpeg)

![](_page_25_Figure_16.jpeg)

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![](_page_25_Figure_19.jpeg)

![](_page_25_Picture_20.jpeg)

- BLOCKOUT OR RE-ENTRANT

# CORNER BAR CENTERED

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![](_page_25_Picture_30.jpeg)

![](_page_25_Picture_31.jpeg)

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![](_page_25_Picture_33.jpeg)

TYPICAL DETAILS

FEDERAL WAY **O&M FACILITIES** SITE STRUCTURES

FEDERAL WAY, WASHINGTON DATE revision -----\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ JOB NO. DATE 05.06.24 a23-087 \_\_\_\_ BID SET

10 SC020

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I	<u>FC</u>	UNDATION NOTES
	1.	SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES, SHEET SC020 FOR TYPICAL DETAILS, AND SHEETS SC010 AND SC011 FOR TESTING AND INSPECTION NOTES.
	2.	SEE SOILS REPORT FOR ALL FOUNDATION AND SLAB SUPPORT REQUIREMENTS. THIS INCLUDES ALL EXCAVATION, FILL AND FILL PLACEMENT REQUIREMENTS.
	3.	SEE ARCHITECTURAL/MECHANICAL DRAWINGS FOR DRAINS, SLOPES, AND OTHER FLOOR DEPRESSIONS NOT SHOWN.
	4.	SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND WALLS NOT SHOWN.
	5.	VERIFY ALL WINDOW AND DOOR WIDTHS AND HEIGHTS WITH ARCHITECTURAL DRAWINGS.
2	6.	LOCATIONS OF COLUMNS LOCATED IN WALLS ARE SHOWN SCHEMATICALLY ON STRUCTURAL DRAWINGS. THE CONTRACTOR IS TO COORDINATE LOCATION OF COLUMNS WITH ARCHITECTURAL DRAWINGS.
	7.	COLUMNS NOT SPECIFICALLY LOCATED BY DIMENSIONS SHALL BE LOCATED ADJACENT TO OPENINGS AS DIMENSIONED BY THE ARCHITECT. SEE ARCHITECTURAL DRAWINGS FOR DETAILS AT ALL WINDOW AND DOOR JAMBS.
	8.	SEE ARCHITECTURAL DRAWINGS FOR STUD SIZE, SPACING, AND CALLOUTS AT NON-STRUCTURAL WALLS.
	9.	FOR TYPICAL CONNECTION OF NON-LOAD BEARING WALLS TO SLAB, USE POWDER ACTUATED FASTENERS AT 16" OC.
	10.	ALL LIGHT GAGE WALL STUDS SHALL BE COVERED WITH A MIN OF 1/2" SHEATHING (EITHER GWB, WOOD SHEATHING OR STEEL SHEET AS APPLICABLE) BOTH SIDE OF STUDS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL COVERING REQUIREMENTS. AT WALLS WITH SHEATHING ON ONE SIDE OF WALL ONLY PROVIDE BRIDGING PER TYPICAL STEEL STUD DETAILS
3	11.	LATERAL LOAD RESISTING SYSTEM SHOWN IS SCHEMATIC. ALTERNATE LATERAL LOAD RESISTING SYSTEMS MAY BE USED, PROVIDED THEY ARE SUBMITTED TO AND APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO THE START OF FOUNDATION CONSTRUCTION.
	12.	ANCHOR BOLT QUANTITIES, SIZES, AND LOCATIONS SHALL BE INSTALLED PER THE BUILDING MANUFACTURER ANCHOR BOLT SETTING PLAN. THE ANCHOR BOLT SETTING PLAN SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER FOR APPROVAL PRIOR TO THE START OF FOUNDATION CONSTRUCTION.
	13.	ANCHOR BOLT GROUPS SHALL BE SET TRUE AND PLUMB BY TEMPLATE AS INDICATED ON THE BUILDING MANUFACTURER ANCHOR BOLT SETTING PLAN.
	14.	FOUNDATIONS SHALL NOT BE FORMED OR PLACED UNTIL PRE-ENGINEERED BUILDING SHOP DRAWINGS, CALCULATIONS AND FRAME REACTIONS HAVE BEEN REVIEWED AND APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER FOOTING SIZES INDICATED ON STRUCTURAL DRAWINGS ARE PRELIMINARY, AND MUST BE VERIFIED FOR ACCURACY AGAINST THE FINAL BUILDING REACTIONS.
4	15.	FOUNDATIONS HAVE BEEN DESIGNED ASSUMING A PINNED CONNECTION AT THE BASE OF MOMENT FRAMES AND WIND COLUMNS. DESIGNS WHICH ATTEMPT TO USE A FIXED BASE CONNECTION SHALL NOT BE PERMITTED.
	16.	BUILDING MANUFACTURER TO DESIGN BUILDING TO SUPPORT ALL SUSPENDED EQUIPMENT (E.G. EXHAUST FANS, PIPING, LIGHTING, ETC) SHOWN ON ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. BUILDING MANUFACTURE TO COORDINATE WEIGHTS AND LOCATIONS AND DESIGN BUILDING ACCORDINGLY.

BC

17. BUILDING MANUFACTURER SHALL COMPLY WITH THE DESIGN CRITERIA SECTION AND SECTION 5.5.6 OF THE STRUCTURAL NOTES

FOOTING SCHEDULE					
MARK	SIZE	REINFORCING	REMARKS		
F3.0	3'-0" x 3'-0" x 1'-0"	(4) #5 EACH WAY AT BOTTOM OF FOOTING			
F5.0	5'-0" x 5'-0" x 1'-0"	(6) #5 EACH WAY AT BOTTOM OF FOOTING			

### FOUNDATION SCHEDULE NOTES

1. TOP OF FOOTING ELEVATION = -1'-0" UNLESS NOTED OTHERWISE ON PLAN.

2. FOOTING DESIGN BASED ON 2500 PSF ALLOWABLE SOIL BEARING PRESSURE.

3. EQUALLY SPACE REINFORCING IN EACH DIRECTION.

4. PROVIDE 3" CLEAR TO REINFORCING AT BOTTOM OF FOOTING.

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END:	WALL
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KEYNOTE - REFER TO KEYNOTES ON SHEET WHICH IT IS NOTED.  $\underbrace{\times \times \times \times \times \times}_{\text{FLOOR}} \text{STEEL STUD STRUCTURAL WALL ORIGINATING ON FOUNDATION OR}_{\text{FLOOR FRAMING PLAN ON WHICH IT IS NOTED.}}$ STEEL STUD STRUCTURAL WALL WITH BRICK VENEER. SEE SECTION 4.8 OF THE STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR VENEER ATTACHMENT REQUIREMENTS. CAST-IN-PLACE CONCRETE WALL. SEE PLAN AND DETAIL 1 / SC050 FOR REINFORCING REQUIREMENTS.

SLAB STEP PER ARCH. 77777

	KEY TO ABBREVIATIONS									
AB	ANCHOR BOLT	L	ANGLE							
ABV	ABOVE	ŪН								
ADDI	ADDITIONAL									
AD.I	ADJACENT									
AFF	ABOVE FINISH FLOOR	LONGIT								
	AI TERNATE	MAX	MAXIMI IM							
ARCH	ARCHITECTURAL ARCHITECT	MB	MACHINE BOI T							
ASD	ALLOWARI E STRESS DESIGN	MECH	MECHANICAL							
BEL	BELOW	MEGIN	MANUFACTURER							
BLKG	BLOCKING	MIN	MINIMUM							
BM	BEAM	MIW	MALLEABLE IRON WASHER							
BNDY	BOUNDARY	NS	NEAR SIDE							
BOT	BOTTOM	NTS	NOT TO SCALE							
BRG	BEARING	NWT	NORMAL WEIGHT							
BS	BOTH SIDES	0/	OVER							
BTWN	BETWEEN	0C	ON CENTER							
BU	BUILT UP	0.F.	OUTSIDE FACE							
CIP	CAST IN PLACE	OPP	OPPOSITE HAND							
CJ	CONSTRUCTION/CONTROL JOINT	OPNG	OPENING							
CL	CENTERLINE	OSB	ORIENTED STRAND BOARD							
CLG	CEILING	PC	PRE-CAST							
CLR	CLEAR	PDF	POWER DRIVEN FASTENERS, PAF							
CMU	CONCRETE MASONRY UNIT	PAF	POWER ACTUATED FASTENERS, PDF							
COL	COLUMN	PERP	PERPENDICULAR							
CONC	CONCRETE	PL	PLATE							
CONN	CONNECT, CONNECTION	PLF	POUNDS PER LINEAR FOOT							
CONT	CONTINUÓUS	PNL	PANEL							
COORD	COORDINATE	PRE-ENGR	PRE-ENGINEERED							
CSK	COUNTERSINK	PROV	PROVIDE							
CTR	CENTER	PT	POST TENSIONED							
CVR	COVER	PW	PLYWOOD							
DEG	DEGREE	REF	REFERENCE							
DIA	DIAMETER	REINF	REINFORCE, REINFORCEMENT							
DBL	DOUBLE	REQ'D	REQUIRED							
EA	EACH	RF	ROOF							
EF	EACH FACE	SCHED	SCHEDULE							
ELEV	ELEVATION, ELEVATOR	SFRS	SEISMIC FORCE RESISTING SYSTEM							
EMB	EMBEDMENT	SHTG	SHEATHING							
ENGR	ENGINEER	SIM	SIMILAR							
EQ	EQUAL/EQUIVALENT	SIMP	SIMPSON STRONG-TIE							
EQUIV	EQUIVALENT	SOG	SLAB ON GRADE							
ES	EACH SIDE	SPCG	SPACING							
EW	EACH WAY	SQ	SQUARE							
(E)	EXISTING	SID	STANDARD							
EXP	EXPANSION	STIFF	STIFFENER							
		500								
		TÃG								
FOC		T.U.								
FOM		TOC								
FS										
FTG	FOOTING	TOPL								
GA	GAGE	TOW								
GALV		TRANSV	TRANSVERSE							
GC	GENERAL CONTRACTOR	TRTD	TREATED							
G	GLUE LAMINATED	TYP	TYPICAI							
GWB	GYPSUM WALL BOARD	UNO	UNI ESS NOTED OTHERWISE							
HGR	HANGER	VFY	VERIFY							
HORIZ	HORIZONTAL	VFRT	VERTICAL							
HSS	HOLLOW STEEL SECTION	W/	WITH							
HT	HEIGHT	W/O	WITHOUT							
I.F.	INSIDE FACE	WF	WIDE FLANGE							
INT	INTERIOR	WHS	WELDED HEADED STUD							
JNT	JOINT	WP	WORK POINT							
JST	JOIST	WTS	WELDED THREADED STUD							
K, KIPS	KIPS=1000 LBS	WWF	WELDED WIRE FABRIC							
			-							

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![](_page_26_Figure_21.jpeg)

![](_page_27_Figure_0.jpeg)

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![](_page_27_Figure_2.jpeg)

![](_page_27_Figure_3.jpeg)

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![](_page_28_Figure_0.jpeg)

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![](_page_28_Figure_4.jpeg)

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![](_page_28_Figure_5.jpeg)

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4 SECTION 1" = 1'-0" SC041-4

![](_page_28_Figure_7.jpeg)

![](_page_29_Figure_0.jpeg)

∑ 20 JJECT: a23-087 - FEDER 0572-STRUCT-R22-Site S 51 PM PLOTTED: 5/10/2024 9:1-FILE PATH: C:\Users\kgy

![](_page_29_Figure_3.jpeg)

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![](_page_29_Figure_6.jpeg)

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			В			С	D
RET	AININC	G WAL	L SCH	EDUL	Ξ		
Hb	На	STEM	HEEL	TOE	Tb	LAP "B"	
LESS THAN 4'-0"	0'-6"	0'-8"	3'-0"	2'-0"	1'-2"	3'-0"	
UP TO 8'-0"	0'-6"	0'-8"	6'-0"	3'-0"	2'-0"	3'-6"	
Hb	BAR "A"	BAR "B"	BAR "C"	BAR "D"	BAR "E"	BAR "F"	
LESS THAN 4'-0"	#5 AT 18" OC	#5 AT 18" OC	N/R	N/R	#5 AT 12" OC	#5 AT 18" OC	
UP TO 8'-0"	#6 AT 9" OC	#5 AT 18" OC	#5 AT 12" OC	#5 AT 18" OC	#6 AT 12" OC	#5 AT 18" OC	

![](_page_30_Figure_1.jpeg)

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B C D E F G H J

![](_page_30_Figure_9.jpeg)

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![](_page_31_Figure_0.jpeg)

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![](_page_31_Figure_2.jpeg)

TRASH ENCLOSURE

![](_page_31_Figure_4.jpeg)

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### GENERAL PLAN NOTES

- 1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.
- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

ÀT 4'-0" OC

### HSS 7 x 7 x 1/2

![](_page_31_Picture_23.jpeg)

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![](_page_31_Figure_31.jpeg)

![](_page_32_Figure_0.jpeg)

В

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![](_page_32_Figure_2.jpeg)

С

![](_page_32_Figure_3.jpeg)

G

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![](_page_32_Figure_4.jpeg)

F

![](_page_32_Figure_5.jpeg)

![](_page_32_Picture_6.jpeg)

SOFFIT FRAMING BEL PER PLAN - SEE SC061

![](_page_32_Picture_8.jpeg)

![](_page_32_Figure_9.jpeg)

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![](_page_32_Picture_10.jpeg)

TYPICAL BRIDGING

![](_page_32_Picture_17.jpeg)

![](_page_32_Picture_18.jpeg)

AMERICAN INSTITUTE OF ARCHITECTS

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FEDERAL WAY O&M FACILITIES SITE STRUCTURES

FEDERAL WAY, WASHINGTON revision

DATE

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TRASH

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DETAILS

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BID SET

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PROJECT: a23-087 - FEDERAL WAY O&M FACILITIES	ients\2200572-STRUCT-R22-Site Structures_kgysler2FSQ3.rvt	
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PM PROJECT: a23-087 )ocuments/2200572-STRUCT-R
PM PRO, ocuments/2200

![](_page_33_Figure_4.jpeg)

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### GENERAL PLAN NOTES

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1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

![](_page_33_Figure_13.jpeg)

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![](_page_34_Figure_12.jpeg)

CONTRACTOR NOTES:

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![](_page_34_Figure_13.jpeg)

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### GENERAL PLAN NOTES

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1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

0 4 8 SCALE: 1/8" = 1'-0"

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![](_page_34_Picture_21.jpeg)

![](_page_34_Figure_23.jpeg)

<b>3&amp;M FACILITIES</b>	kgysler2FSQ3.rvt
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CILITIES PESQ3.rvt B					03 2 2 2 2 2 2 2 2 2 2 2 2 2	PRE-ENGR PORT FRAME COL FRAME COL FRAME COL FF5.0 FF5.	AL B" CONC SLAB ON O W/#5 AT 12" OC EA AT CL SLAB - TYP THROUGHOUT HAIRPIN PLICE TO ROSSTIES R 3 SCO40 1 1 SCO40	F5.0	PRE-ENGR PORTAL FRAME COL	8" CONC SLAB ON GRADE W/#5 AT 12" OC EA WAY AT CL SLAB - TYP THROUGHOUT	
-087 - FEDERAL WAY O&M F/ CT-R22-Site Structures_kgysler <b>V</b>					FOUND/ 1/8" = 1'-0"	A ATION P	LAN-E	B			
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![](_page_35_Figure_22.jpeg)

DIPPED GALVANIZED PROVIDE MIN G90 GALV COATING AT ALL LIGHT GAGE FRAMING AND METAL ROOF DECKING

CONTRACTOR NOTES: ALL EXTERIOR STEEL FRAMING SHALL BE HOT-

### GENERAL PLAN NOTES

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1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

SCALE: 1/8" = 1'-0"

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![](_page_35_Figure_33.jpeg)

CT: a23-087 - FEDERAL WAY O&M FACILITIES 2-STRUCT-R22-Site Structures_kgysler2FSQ3.rvt	9
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![](_page_36_Figure_22.jpeg)

![](_page_36_Figure_23.jpeg)

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### GENERAL PLAN NOTES

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1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

DN PLAN-F	
	<b>SCALE</b> : 1/8" = 1'-0"

![](_page_36_Figure_32.jpeg)

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![](_page_37_Picture_24.jpeg)

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### GENERAL PLAN NOTES

1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

![](_page_37_Figure_30.jpeg)

![](_page_37_Figure_31.jpeg)

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### GENERAL PLAN NOTES

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1. SEE SHEETS SC001 AND SC002 FOR STRUCTURAL NOTES.

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

![](_page_38_Figure_30.jpeg)

CONTRACTOR NOTES:

FOUNDATION PLAN-H  $\mathbb{Z}$ 1 / 1/8" = 1'-0" 0 4 8 16 SCALE: 1/8" = 1'-0"

![](_page_38_Figure_32.jpeg)

	A		В		С		D	E		F		G	Н		J
1															
														GENERAL PLAN N 1. SEE SHEETS SC001 AND 2. SEE SHEETS SC010 AND 3. SEE SHEET SC030 FOR FI	OTES SC002 FOR STRUCTURAL NOTES. SC011 FOR QUALITY ASSURANCE PLAN. RAMING NOTES AND SCHEDULES.
2														4. SEE SHEETS SC020 THRU	I SC021 FOR TYPICAL DETAILS.
3															
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5															
6											(F)			G	
											9 SC040		 		
7					1'-0"		SLAB CONSTRUCTION								
					9 1 SC040		CALLOUIS SEE 2 SC020			<ul> <li>— 8" CONC SLAB ON GRADE</li> <li>— W/ #5 AT 12" OC EA WAY</li> <li>AT CL SLAB - TYP</li> <li>THROUGHOUT</li> </ul>					
8								 7 SC040 WALL	OGY K S				 		(02)
											9 SC040 TY		 <u> </u>		
9															
				FOUNE 1/8" = 1'-0"	DATION F	PLAN-J									0 4 8 16 SCALE: 1/8" = 1'-0"
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![](_page_39_Figure_2.jpeg)

### GENERAL PLAN NOTES

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- 2. SEE SHEETS SC010 AND SC011 FOR QUALITY ASSURANCE PLAN.
- 3. SEE SHEET SC030 FOR FRAMING NOTES AND SCHEDULES.
- 4. SEE SHEETS SC020 THRU SC021 FOR TYPICAL DETAILS.

![](_page_39_Figure_13.jpeg)

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### Е

EXISTING MECHANICAL TO BE

EXISTING MECHANICAL TO

NEW MECHANICAL WORK

MATCHLINE OR PROPERTY

ENLARGED PLAN BOUNDARY

DETAIL/PLAN IDENTIFIER

SECTION IDENTIFIER

ELEVATION IDENTIFIER

CHANGES MADE

**REVISION CALLOUT** 

FLAG NOTE CALLOUT

EQUIPMENT TAG

NORTH ARROW

DEMOLITION NOTE TAG

MECHANICAL EQUIPMENT TAG

MECHANICAL EQUIPMENT TAG

LOCATION WHERE PICTURE

WAS TAKEN AND DIRECTION

INVERT ELEVATION OR POC

PLUMBING FIXTURE TAG

ISSUE

**REVISION DEFINITION AREA**,

AREA ENCIRCLED CONTAINS

SUBSEQUENT TO PREVIOUS

REMOVED

REMAIN

LINE

# DUCTWORK

----- $\boxtimes$  $\square$  $\ge$ 

 $\bigotimes$ 

GENERAL \_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ • \_\_\_\_ • \_\_\_\_ \_\_\_\_\_ M1.01 M1.01 1 M1.01  $\sim$  $\overline{1}$  $\langle 1 \rangle$  $\left( 1 \right)$ AHU-1  $\bigwedge$ (1)

<u>XX-1</u>

### —("XX" INDICATES TYPE) **ELECTRICAL PROVISIONS FOR MECHANICAL WORK**

	다	LOCATION OF STARTER, DISCONNECT & CONTROLS
	VFD	VARIABLE FREQUENCY DRIVE
HT		HEAT TRACE BETWEEN SYMBOLS OR END OF RUN

# ACCESS, EXCAVATION, AND BACKFILLING

ACCESS DOOR (SPECIFIED OR AS SHOWN ON DWGS)

MECHANICAL ACCESS (SPECIFIED OR AS SHOWN ON DWGS)

C D E F G

BACKDRAFT DAMPER

FLEXIBLE CONNECTION TO

RECTANGULAR TO ROUND

TRANSITION - FROM ROUND

DUCT SIZE (CLEAR INSIDE

RECTANGULAR DUCT UP

RECTANGULAR DUCT DN

ROUND DUCT UP

ROUND DUCT DN

ON BOTTOM)

45° ELBOW,

90° ELBOW, R/D OR R/W=1.5

R/D OR R/W=1.5

TURNING VANES

45° TAKE-OFF

WYE FITTING

RADIUS TEE

BULLHEAD TEE

SUPPLY AIR DUCT

EXHAUST AIR DUCT

OR OUTSIDE AIR DUCT

AIR DUCT

AIR DUCT

VANES

FLEXIBLE DUCTWORK

TRANSITION OR REDUCER

**TRANSITION - ECCENTRIC** 

(FOT=FLAT ON TOP, FOB=FLAT

SQUARE CORNER ELBOW WITH

90° TAKE-OFF WITH 45° TAPER

SQUARE TEE WITH TURNING

SECTION THRU RECTANGULAR

SECTION THRU RECTANGULAR RETURN OR OUTSIDE AIR DUCT

SECTION THRU RECTANGULAR

SECTION THRU ROUND SUPPLY

SECTION THRU ROUND RETURN

SECTION THRU ROUND EXHAUST

MECHANICAL EQUIPMENT

VOLUME DAMPER

**TRANSITION - FROM** 

TO RECTANGULAR

(D=DROP IN DUCT)

**RISE IN DUCT** 

DIMENSION)

G

FIRE DAMPERS Ł

Н

E DAWFERS	
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FIRE DAMPER FIRE/SMOKE DAMPER SMOKE DAMPER CEILING FIRE DAMPER DRAWING INDEX

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MD001	MECHANICAL LEGEND AND DRAWING INDE
MD002	MECHANICAL ABBREVIATIONS AND GENER NOTES
MD003	MECHANICAL SCHEDULES
MD300	MECHANICAL PLANS - BUILDING D
MD801	MECHANICAL DETAILS
MD901	MECHANICAL CONTROL DIAGRAMS AND SE OF OPERATIONS

INI	ETS		ETC

INLETS AND OUTLETS				
	-GRILLE REGISTER OR DIFFUSER TYPE			
A) 24X24	-RUNOUT SIZE (INCHES)			
	—AIR QUANTITY (CFM)			
$\boxtimes$	CEILING DIFFUSER			
	1-WAY DIRECTION FLOW			
<b>←</b> ⊠→	2-WAY DIRECTION FLOW			
<b>-</b> -⊠	3-WAY DIRECTION FLOW			
	RETURN/RELIEF AIR GRILLE			
$\bowtie$	EXHAUST AIR GRILLE			
<u> </u>	LINEAR DIFFUSER/GRILLE			
	SUPPLY GRILLE			
	RETURN/EXHAUST GRILLE			
<b>╶</b> ── <b>││ │ │ │</b>	TRANSFER GRILLE			
~/~	RETURN/EXHAUST AIRFLOW			
	SUPPLY AIR FLOW			

### CONTROLS (PLAN VIEW)

	<u>.</u>		
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THERMOSTAT OR TEMPERATURE SENSOR
SENSOR: SHOWN WITH GUARD (TYPICAL ALL SENSORS)
HUMIDISTAT OR HUMIDITY SENSOR
CARBON MONOXIDE SENSOR
CARBON DIOXIDE SENSOR
INDOOR AIR QUALITY SENSOR
NOTORIZED DAWPER

### AIRFLOW MEASURING UNIT

DUCT SMOKE DETECTOR

TEMPERATURE TRANSMITTER

### PRESSURE TRANSMITTER

AQUASTAT

### DIFFERENTIAL PRESSURE SENSOR

DIFFERENTIAL PRESSURE MONITOR AUTOMATIC CONTROL VALVE, 3-WAY AUTOMATIC CONTROL VALVE, 2-WAY DIRECT DIGITAL CONTROL PANEL SWITCH BY MECHANICAL

NOT ALL SYMBOLS MAY APPEAR ON THE DRAWINGS

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DEX	
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ID SEQUENCE

![](_page_40_Picture_66.jpeg)

![](_page_40_Figure_67.jpeg)

![](_page_40_Figure_68.jpeg)

![](_page_40_Figure_69.jpeg)

![](_page_40_Figure_70.jpeg)

![](_page_40_Figure_71.jpeg)

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ABBRE	VIATIONS				
Ø	DIAMETER, PHASE	EWT	ENTERING WATER TEMP	MPG	MEDIUM P
Δ	AIR AMPS	EXH FXT	EXHAUST EXTERIOR EXTERNAL	MPS MV	MEDIUM P
AAV	AUTOMATIC AIR VENT	LXI			
ABV	ABOVE	F	FAHRENHEIT, FIRE MAIN PIPING	NA	NOT APPL
AC		F/S			
ACU AD	ACCESS DOOR	FC	FLOOR CLEANOUT	NO	NORMALL
ADA	AMERICANS WITH DISABILITIES ACT	FCU	FAN COIL UNIT	NO.	NUMBER
AF		FD	FIRE DAMPER, FLOOR DRAIN, DRY SPRINKLER	NP	NON POTA
AFF AFS	ABOVE FINISHED FLOOR	FDC	FIRE DEPARTMENT CONNECTION	NPC NPH	
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	FF	FOULING FACTOR, FLAT FILTER, FINISHED FLOOR	NTS	NOT TO S
AG	ABOVE GROUND	FFD	FUNNEL FLOOR DRAIN		
AHJ	AUTHORITY HAVING JURISDICTION	FLA	FULL LOAD AMPS	02	OXYGEN
AHU		FLEX FLR		OA	OUTDOOR
AL AMB	ACOUSTIC LINED (DUCT) AMBIENT	FLTR	FILTER		OPPOSED ON CENTE
AP	ACCESS PANEL	FMS	FLOW MEASUREMENT STATION (HVAC, PLUMBING)	OD	OUTSIDE
APD	AIR PRESSURE DROP	FOR	FUEL OIL RETURN PIPING	ORD	OVERFLO
ARCH		FOS	FUEL OIL SUPPLY PIPING	ORL	OVERFLO
ASHKA E	AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS, INC.	FP	FIRE PUMP, FLOATING POINT CONTROL	OSA OSD	OVERELO
ASSY	ASSEMBLY	FPM	FEET PER MINUTE	OV	OUTLET V
ATM	ATMOSPHERE	FPS	FEET PER SECOND		
AV Δ\//	ACID RESISTANT VENT	FPVC	APPROVED PVC FIRE SPRINKLER ROUTING	P	PUMP, PRI
		FT	FEET, FIN TUBE	PD PH	PRESSUR
В	BOILER	FTD	FOOTING DRAIN	PIV	POST INDI
BC	BLOWER COIL	FTG		PLD	PLANTER
BDD	BACK DRAFT DAMPER BELOW ELOOR	FIU FV		POC	POINT OF
BHP	BRAKE HORSE POWER	FW	FILTERED WATER PIPING	PR PRV	PRESSURI
BLW	BELOW			PSIG	POUNDS F
BOD	BOTTOM OF DUCT	G	GAS		
BOP	BOTTOM OF PIPE	GA		QTY	QUANTITY
BTUH	BRITISH THERMAL UNIT PER HOUR	GAHU GAI	GALLONS	D٨	
BV	BALL VALVE	GALV	GALVANIZED	RD	ROOF DRA
		GC	GAS COCK, GENERAL CONTRACTOR	REF	REFEREN
	CONDENSATE PIPING	GFU		REG	REGISTER
C. IK C.A	AIR COMPRESSION TANK	GPF GPH	GALLONS PER FLUSH GALLONS PER HOUR	RF	RELIEF FA
CAP	CAPACITY	GPM	GALLONS PER MINUTE	RH	ROOF HO
CBV	CIRCUIT SETTING BALANCING VALVE	GPRV	GAS PRESSURE REGULATING VALVE	RI&C	ROUGH IN
		GRD	GRILLES, REGISTERS, AND DIFFUSERS	RL	RAIN LEAD
CD CEG	CEILING DIFFUSER, CONDENSATE DRAIN	GV GW	GREASE WASTE PIPING	RLA	RATED LO
CFM	CUBIC FEET PER MINUTE	GWB	GYPSUM WALLBOARD	RPBA	REDUCED
CG	CEILING GRILLE			RPBP	REDUCED
CH		Н		RPM	REVOLUTI
CHP		HC.	HOSE BIBB HEATING COIL	RTU	ROOFTOP
CHS	CHILLED WATER SUPPLY	HD	HEAD, HUB DRAIN	κv	SAFELLK
CKV	CHECK VALVE	HGL	REFRIGERANT HOT GAS LINE	S	SENSOR
CLG		HORIZ	HORIZONTAL	S. TK	STORAGE
CO CO2	CLEANOUT, CO SENSOR	HP	HORSEPOWER, HEAT PUMP	SA	SUPPLY A
COMB	COMBUSTION. COMBINATION	HPS	HIGH PRESSURE STEAM	SAT	SUPPLY A
COND	CONDENSER, CONDENSATE	HRU	HEAT RECOVERY UNIT	SD	STORM DF
CONN	CONNECTOR	HST	STORAGE TANK	SENS	SENSIBLE
	CONTINUE, CONTROL	HTG	HEATING	SF	SUPPLY F
COF	CLEANOUT TO GRADE	HW	HOT WATER PIPING	SG	
CR	CONDENSATE RECEIVER, CONDENSER WATER	HWC	HOT WATER CIRCULATING PIPING	SHC	STEAM HE
~~		HWR	HOT WATER RETURN	SIM	SIMILAR
CT	CONDENSER WATER SUPPLY		HOT WATER SUPPLY	SL	REFRIGER
CTF	COOLING TOWER FILTER	HZ	HERTZ	SOV	SHUTOFF
CU	CONDENSING UNIT, CUBIC			SP	STATIC PF
CV	CONSTANT VOLUME	IAQ	INDOOR AIR QUALITY	SPKR	SPRINKLE
CV CW/	FLOW COEFFICIENT	ID		SPS	STATIC PF
CWR	CONDENSING WATER RETURN	IE IN		SS ST	
CWS	CONDENSING WATER SUPPLY	IN. WG	INCHES WATER COLUMN	STM	STEAM
		IRR	IRRIGATION PIPING	SW	SOFT WAT
D		IW	INDIRECT WASTE PIPING	_	
dB		k\//	ΚΙΙ ΟWATT		
DCVA	DOUBLE CHECK VALVE ASSEMBLY	ix V V		TCV	TEMPERA
DDCV	DOUBLE DETECTOR CHECK VALVE	L	LENGTH	TD	TRENCH D
		LAT	LEAVING AIR TEMPERATURE	TDH	TOTAL DY
DH	DUCT HEATER		LINEAR DAK POUND	IEMP TG	
DI	DUCTILE IRON	LD	LINEAR DIFFUSER	TOD	TOP OF DI
DIA	DIAMETER	LL	REFRIGERANT LIQUID LINE	TOF	TOP OF PI
	DIMENSION	LPC	LOW PRESSURE CONDENSATE RETURN	TOP	TOP OF ST
	CONTROLS	LPG	LIQUID PETROLEUM GAS PIPING	TOS TRAP	STEAM TR
DISCH	DISCHARGE	LR	LINEAR RETURN	TSP	TOTAL ST
		LRA	LOCKED ROTOR AMPS	TSTAT	THERMOS
DV DV	DIFFERENTIAL PRESSURE VALVE	LVR		TU	TERMINAL
DWB	DOMESTIC WATER BOOSTER			TYP	TYPICAL
DWGS	DRAWINGS	LWS	LOW WALL SUPPLY	UG	UNDERGR
	EXISTING	LWT	LEAVING WATER TEMPERATURE	UH	UNIT HEAT
(⊑) EA	EXHAUST AIR	N <i>A</i> A		UNO	UNLESS N
EAT	ENTERING AIR TEMPERATURE	ΜΔΩ	MEDICAL AIR MEDICAL AIR COMPRESSOR	V	VENT DIDI
EER	ENERGY EFFICIENCY RATIO	MAT	MIXED AIR TEMPERATURE	VA	VALVE
EF		MAV	MANUAL AIR VENT	VAV	VARIABLE
EFF FG		MAX		VCD	VOLUME C
EJ	EXPANSION JOINT	MBH MC			
EL	ELEVATION	MCA	MINIMUM CIRCUIT AMPACITY	VEL VENT	νείοςτι γ Ventil δτι
ELEC	ELECTRIC	MECH	MECHANICAL	VFD	VARIABLE
	EMERGENCY MANAGEMENT AND CONTROL SYSTEM	MERV	MINIMUM EFFICIENCY REPORTING VALVE	VOLT	VOLTAGE
ESP	EXTERNAL STATIC PRESSURE	MIN		VTR	VENT THR
ET	EXPANSION TANK			\٨/	WASTE W
EVAP	EVAPORATOR, EVAPORATIVE	MPC	MEDIUM PRESSURE CONDENSATE RETURN	W/	WITH
EWC	ELECTRIC WATER COOLER		-	WB	WET BULB

### PRESSURE GAS PRESSURE STEAM VACUUM

- LICABLE Y CLOSED, NOISE CRITERIA ONTRACT Y OPEN, NITROUS OXIDE
- ABLE ABLE COLD WATER PIPING ABLE HOT WATER PIPING CALE
- R AIR
- ) BLADE DAMPER DIMENSION OR DIAMETER W ROOF DRAIN OW RAIN LEADER R SUPPLY AIR
- OW STORM DRAIN /ELOCITY RESSURE, PLUMBING FIXTURE
- RE DROP, PUMPED DRAIN
- ICATOR VALVE DRAIN CONNECTION SATE PUMP RETURN
- REDUCING VALVE PER SQUARE INCH GAGE
- AIR, RELIEF AIR
- ICE, RETURN/EXHAUST FAN
- GRILLE OD
- AND CONNECT DER
- DAD AMPS
- AND CONNECT PRESSURE BACKFLOW ASSEMBLY PRESSURE BACKFLOW PREVENTER
- IONS PER MINUTE P UNIT
- RELIEF VALVE
- E TANK IR
- AIR TEMPERATURE RD CUBIC FEET PER MINUTE RAIN PIPING
- AN, SQUARE FOOT GRILLE, SIGHT GLASS WITH MOISTURE
- EATING COIL
- RANT SUCTION LINE ED OPENING
- VALVE RESSURE
- RESSURE STATION SS STEEL, SANITARY SEWER RAP
- TER PIPING
- D WATER PIPING
- YPASS VALVE ATURE CONTROL VALVE DRAIN, TEMPERATURE DIFFERENCE
- NAMIC HEAD
- TURE R GRILLE
- UCT IPE
- TEEL OOTING
- RAP ATIC PRESSURE STAT
- L UNIT
- ROUND
- TER NOTED OTHERWISE
- ING, VOLT
- E AIR VOLUME CONTROL DEVICE DAMPER
- ION, VENTILATOR FREQUENCY DRIVE
- RU ROOF

WCO

WG

WH

WT WEIGHT

- VATT, WIDE, WATER
- B (TEMPERATURE) WC WATER CLOSET, WATER COLUMN
  - WALL CLEANOUT WATER GAGE
- WATER HEATER, WALL HYDRANT WHA WATER HAMMER ARRESTOR
- WM WATER METER WSEC WASHINGTON STATE ENERGY CODE
- WSFU WATER SUPPLY FIXTURE UNIT

**GENERAL NOTES - MECHANICAL** 

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- 1. COORDINATE MECHANICAL WORK WITH THAT OF OTHER TRADES (ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE). REFER TO ELECTRICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE DRAWINGS AND SPECIFICATIONS. COORDINATION SHALL OCCUR PRIOR TO FABRICATION, PURCHASE, AND/OR INSTALLATION OF ALL WORK.
- 2. COORDINATE PLUMBING, HVAC, AND FIRE PROTECTION SYSTEMS ROUTING PRIOR TO INSTALLATION. DURING LAYOUT COORDINATION, DUCTWORK TAKES PRECEDENCE OVER PLUMBING, INCLUDING FIRE PROTECTION SYSTEMS.
- 3. UNLESS OTHERWISE SPECIFIED, THE GENERAL CONTRACTOR (GC) SHALL BE RESPONSIBLE FOR PAINTING, CUTTING, AND PATCHING OF EXISTING FLOORS, WALLS, AND PARTITIONS IN THE EXISTING BUILDING.
- 4. REFER TO STRUCTURAL DRAWINGS FOR ALLOWABLE METHODS/LOADS FOR HANGING PIPING/DUCTS FROM STRUCTURAL MEMBERS.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE KEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT, AND ENVIRONMENTAL CONDITIONS.
- MECHANICAL EQUIPMENT INSTALLATION NOTES
- 1. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.
- SHEET METAL NOTES
- 1. VOLUME DAMPERS: PROVIDE A MANUAL VOLUME DAMPER FOR EACH SUPPLY, RETURN, AND EXHAUST OPENING, LOCATED AS FAR UPSTREAM AS POSSIBLE FROM THE OPENING. PROVIDE A MANUAL VOLUME DAMPER FOR BRANCH MAINS SERVING MORE THAN ONE OPENING.
- 2. BACKDRAFT DAMPERS: PROVIDE ADJACENT TO LOUVERS UNLESS MOTOR OPERATED DAMPERS PROVIDED.
- 3. ACCESS DOORS: MOTOR OPERATED DAMPERS AND PLENUMS.
- 4. UNLESS NOTED TO USE LARGER SIZE DUCT, PROVIDE THE FOLLOWING MINIMUM SIZE BRANCH DUCTS TO CEILING DIFFUSERS.
  - 6" DIA. FOR UP TO 120 CFM 8" DIA. FOR 121-210 CFM 10" DIA. FOR 211-300 CFM
  - 12" DIA. FOR 301-450 CFM 14" DIA. FOR 451-600 CFM 16" DIA. FOR 601-820 CFM]
- 5. PROVIDE 12" LONG, 1/2" WIDE FLUORESCENT ORANGE TAPE AT CONCEALED VOLUME DAMPER LOCATIONS.

# NON-STRUCTURAL MECHANICAL COMPONENT NOTES

- 1. THE COMPONENT IMPORTANCE FACTOR (Ip) FOR ALL NON-STRUCTURAL COMPONENTS SHALL BE: lp = 1.5
- 2. THE FOLLOWING ITEMS ARE TAKEN DIRECTLY FROM THE 2018 INTERNATIONAL BUILDING CODE AND FROM THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD 7. THE CONTRACTOR SHALL REFER TO THE ABOVE FOR ADDITIONAL INFORMATION, EXCEPTIONS, AND FURTHER DESCRIPTIONS. THE CONTRACTOR SHALL ADHERE TO REQUIREMENTS AND AS SUCH, SHALL BE INCLUDED WITHIN BID. ALSO REFER TO SPECIFICATION SECTION 230550.
- 3. 2018 IBC, 1613.1, SCOPE: ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND NON-STRUCTURAL COMPONENTS THAT ARE PERMANENTLY ATTACHED TO STRUCTURES AND THEIR SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST THE EFFECTS OF EARTHQUAKE MOTIONS IN ACCORDANCE WITH ASCE 7, EXCLUDING CHAPTER 14 AND APPENDIX 11A.
- 4. <u>2018 IBC, 1704.4, CONTRACTOR RESPONSIBILITY:</u> THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF A SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS AND SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE THE FOLLOWING:
- A. ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS; Β. ACKNOWLEDGEMENT THAT CONTROL WILL BE
- EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL; C. PROCEDURES FOR EXERCISING CONTROL WITHIN
- THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS; IDENTIFICATION AND QUALIFICATIONS OF THE D. PERSON(S) EXERCISING SUCH CONTROL AND THEIR
- POSITION(S) IN THE ORGANIZATION. 5. DIVISION 21, 22, 23 RESPONSIBILITIES:
- HANGERS AND SEISMIC BRACING FOR MECHANICAL Α. SYSTEMS SHALL BE DESIGNED AND SPECIFIED BY DIVISION 21, 22, 23. DIVISION 21, 22, 23 SHALL REFER TO THE MECHANICAL DRAWINGS FOR LOCATIONS OF EQUIPMENT AND HUNG MECHANICAL SYSTEMS AS STRUCTURAL DRAWINGS DO NOT SHOW THE LOCATIONS OF MECHANICAL EQUIPMENT, DUCTWORK, PIPING, AND OTHER COMPONENTS.
- DIVISION 21, 22, 23 SHALL COORDINATE THE В. SUPPORT SYSTEMS AND DESIGN LOADS FOR HUNG PIPING AND OTHER MECHANICAL SYSTEMS (INCLUDING COMBINED MULTIPLE PIPE RUNS) WITH THE GENERAL CONTRACTOR AND THE STEEL AND WOOD JOIST MANUFACTURERS IN ADDITION TO

Κ

OTHER TRADES THAT MAY BE IMPACTED.

![](_page_41_Picture_136.jpeg)

AMERICAN INSTITUTE OF ARCHITECTS

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MECHANICAL **ABBREVIATIONS** AND GENERAL NOTES

CITY OF FEDERAL WAY SITE

FEDERAL WAY, WASHINGTONG REVISION DATE \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ JOB NO. DATE a23-087 05.06.24 BID SET

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1				FAN SCHELMARKLOCATIOEF-D-01ROOFNOTES:	ON     AREA SERVED       SWAT VEHICLE STORAGE <sup>2</sup>	MANUFACTURER / MODEL N 01 GREENHECK / G-099-VG	O. FAN TYPE AIRF (C) DOWNBLAST 8	FLOW ESP FAN RPM TYP	FAN WHEELPESIZE (IN)DRIVE CLASS11.188DIRECTI	MOTOR         RPM       BHP       HP       International statements         1725       0.12       1/4       2	SPEED CONTROLBACKDRA DAMPTER FAN115/1ECMN	AFT ELECTRICAL R AT MCA MOCP SO (1) 4 15	PHYSICALCCRDIAxH (INxIN)WEIGHT (LBS)525x2650	SOUND INLET (SONES)MOUNTING / SUPPORTIN 	TERLOCK DIV 23INTERLOCK DIV 26YN	DETAIL / DIAGRAM EFERENCE 2 / MD801 CONTROL DIAGRAM / SEQUENCE 1 / MD901	NOTES         MARK           1, 2, 3, 4         EF-D-01	
	-			<ol> <li>EQUIPMENT SHALL B</li> <li>PROVIDE WITH MOTO</li> <li>PROVIDE WITH VARI-</li> <li>VERIFY ELECTRICAL</li> </ol>	E PROVIDED WITH A VISIBLE NAME DRIZED DAMPER, BIRDSCREEN, NEM GREEN HOA. CHARACTERISTICS WITH ELECTRIC	PLATE INDICATING THE SHORT CIRC /A 3R DISCONNECT, CURB SEAL, HIN CAL PLANS.	UIT CURRENT RATING (SCCR)	IN ACCORDANCE WITH UL REQUI	REMENTS. REFER TO ELECTRICA I SECTION 233400, AND ECM MOT	L DRAWINGS FOR MINIMU OR WITH 0-10 VDC INPUT	UM RATINGS.							design group
2									AIR DEVICI         MARK       MANUF         E1       E1	E SCHEDULE ACTURER / MODEL NO. TITUS 33RL	SUPPLY / DES RETURN / EXH RET/EXH HEAVY DUT	SCRIPTION (	TYPE NECK SIZ (BORDER TYPE) (LxW) (IN) ICT OR SIDEWALL PER PLAN	ZE FACE SIZE AIRFLOW (LxW) RANGE (IN) < 25 NC	FRAME TYPE 1 WHITE	MATERIAL ACC. STEEL -	NOTES MARK	2 AMERICAN INSTITUTE OF ARCHITECTS
	-								NOTES: 1. NONE.									
3																		3
	-																	HELIX DESIGN GROUP, INC
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	-																	www.hargis.biz HARGIS ENGINEERS
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7																		7 SCHEDULES
	-																	CITY OF FEDERAL WAY
8																		8 SITE FEDERAL WAY, WASHINGTONG
-EDERAL WAY - Mech_andy.hubbell.rvt	-																	REVISION DATE
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う 亡		***UNOFFICIAL COPY***	Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

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# SHEET NOTES

- 1. REFER TO MD800 SERIES SHEETS FOR STANDARD DETAILS REFERENCED ON PLANS. COMPLY WITH ALL REQUIREMENT DETAILS.
- 2. REFER TO ARCHITECTURAL DRAWINGS FOR ROOFING DETAILS. 3. PROVIDE PRE-MANUFACTURED ROOF CURB FOR ALL ROOFTOP EXHAUST FANS AND HOODS. PROVIDE TOP OF CURB MINIMUM 10 INCHES ABOVE FINISHED ROOF SURFACE. REFER TO DIVISION 23 SPECIFICATIONS.

# FLAG NOTES

1 INSTALL EXHAUST GRILLE APPROXIMATELY 17'-6" AFF. COORDINATE FINAL HEIGHT WITH ARCHITECT.

2 12x12 EXHAUST DUCT UP TO EF-D-01.

3 CONNECT DUCT TO LOUVER PROVIDED BY ARCHITECT. COORDINATE DUCT AND MOTORIZED DAMPER DIMENSION TO MATCH LOUVER, APPROXIMATELY 36x24.

COMBINATION CARBON MONOXIDE (CO) AND NITROGEN DIOXIDE (NO2) GAS SENSORS. BASIS OF DESIGN: MSA Z-GARD DS. PROVIDE WITH 24V DC POWER OPTION AND 4-20 mA OUTPUT TO DDC SYSTEM. LOCATE SENSORS AT 4 FEET ABOVE FINISHED FLOOR IN THE OCCUPANT BREATHING ZONE. SENSORS SHALL BE CALIBRATED AT THE FACTORY. CO SENSOR RANGE IS 0-100 PPM. NO2 SENSOR RANGE IS 0-10 PPM. SENSOR RANGE IS 50 FT.

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# CO NO2 CO AND NO2 GAS SENSORS LOCATE AS INDICATED ON HVAC PLAN

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SEQUENCE OF OPERATION - EXHAUST FAN (EF-D-01)

RUN CONDITIONS - SCHEDULED: THE FAN SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE (INITIALLY SET FOR 24/7).

<u>EXHAUST FAN:</u> THE EXHAUST FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN PER THE SCHEDULE.

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FAN STATUS: THE CONTROLLER SHALL MONITOR THE FAN STATUS.

EXHAUST DAMPER:

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THE CONTROLLER OPEN THE TWO POSITION DAMPER PRIOR TO STARTING THE FAN. DAMPER SHALL BE CLOSED WHEN THE FAN IS OFF. DDC SHALL MONITOR THE DAMPER POSITION.

<u>OUTDOOR AIR DAMPER:</u> THE CONTROLLER OPEN THE TWO POSITION DAMPER PRIOR TO STARTING THE FAN. DAMPER SHALL BE CLOSED WHEN THE FAN IS OFF. DDC SHALL MONITOR THE DAMPER POSITION.

FAN SPEED: THE CONTROLLER OPERATE FAN SPEED AT MINIMUM SPEED, INITIALLY 10% OF MAXIMUM AIRFLOW AT ALL TIMES UNLESS GAS CONCENTRATIONS EXCEED SETPOINT. SETPOINTS ARE 35 PPM FOR CO AND 3 PPM FOR NO2. WHEN SETPOINTS ARE EXCEEDED THE FAN SHALL RAMP UP TO MAXIMUM SPEED UNTIL GAS CONCENTRATIONS ARE BELOW SETPOINT FOR 5 MINUTES (ADJUSTABLE).

ALARMS: • FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.

• FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

• CO OR NO2 SENSORS EXCEED SETPOINTS.

EXHAUST FANS Points AI AO BI BO Sched Trend Alarm Graphic Comments Point Name Exhaust Fan Start/Stop X X X X Х Exhaust Fan Status X Х Exhaust Fan Speed Adjust Х X Exhaust Fan Speed X X X Exhaust Fan Damper XX Х Outdoor Air Damper Schedule X X Fan Failure 
 X
 X
 X

 X
 X
 X
 Fan In Hand CO and NO2 Sensors

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### **EXHAUST FAN - SCHEDULED** ( 1

MD901 SCALE: NONE

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![](_page_45_Figure_40.jpeg)

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ΗΛRGIS

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seattle, wa 98101

206.448.3376

![](_page_45_Picture_46.jpeg)

1	GENERAL	POWER	
	EXISTING ELECTRICAL TO BE REMOVED		SWITCHBOARD/SWITCHGEAR
	EXISTING ELECTRICAL TO REMAIN		PANELBOARD, FLUSH-MOUNTED
	NEW ELECTRICAL WORK		PANELBOARD, SURFACE-MOUNTED
	MATCHLINE OR PROPERTY LINE		FRONT) IRANSFORMER
			MOTOR CONNECTION
		5	DISCONNECT SWITCH, NON-FUSED
2	E1.01	<b>-</b>	DISCONNECT SWITCH, FUSED
	E1.01 SECTION IDENTIFIER	B E	ENCLOSED CIRCUIT BREAKER
		VFD	VARIABLE FREQUENCEY DRIVE
	E1.01	\$м <b>м</b>	MANUAL MOTOR STARTER WITH THERMAL OVERLOADS
(	REVISION DEFINITION AREA, AREA ENCIRCLED CONTAI CHANGES MADE SUBSEQUENT TO PREVIOUS ISSUE	NS KAR (	COMBINATION STARTER/DISCONNECT
		۵ E	EQUIPMENT CONNECTION. CONFIRM CONNECTION WITH EQUIPMENT MANUFACTURER
3	FLAG NOTE CALLOUT	() <sub>F/S</sub> ⊨	FIRE/SMOKE DAMPER
	DEMOLITION NOTE TAG	F F	PUSHBUTTON CONTROLLER SINGLE OR MULTIPLE BUTTONS)
		<b>—</b> •	EMERGENCY POWER OFF PUSHBUTTON
	AHU-01 MECHANICAL EQUIPMENT TAG	RECEPT	ACLES
		P1A-2	
		+42" GF (	JEVICE SUBSCRIPTS CIRCUIT NUMBER) CR,D,EM,GB,GF,IG,SB,TP,USB,WP OR OTHER SUBSCRIPT)
	WAS TAKEN AND DIRECTION		
4	LIGHTING		
	(REFER TO LIGHTING FIXTURES SCHEDULE FOR ADDITIONAL INFORMATION)	$\Theta$	SIMPLEX RECEPTACLE
	POLE-MOUNTED LIGHTING FIXTURE, QUANTITY OF HEA AS INDICATED	DS Original of the second seco	CORD DROP RECEPTACLE
	DOUBLE HEAD, POLE-MOUNTED, LIGHTING FIXTURE		RETRACTABLE CORD REEL RECEPTACLE
5	FIRE ALARM SYSTEM		
5	FIRE ALARM SYSTEM	— <u>Racewa</u>	Y AND BOXES
5	FIRE ALARM SYSTEM	— <u>RACEWA</u> ① 、	AY AND BOXES
5	FIRE ALARM SYSTEM WP DEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS) +42" WP, WG OR OTHER SUBSCRIPT) (NON-STANDARD MOUNTING HEIGHT) FACP FIRE ALARM CONTROL PANEL	- <u>RACEWA</u> ① ① <sub>F</sub> F	<b>AY AND BOXES</b> JUNCTION BOX FURNITURE WALL FEED OUTLET BOX
5	FIRE ALARM SYSTEM WP DEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS) +42" WP, WG OR OTHER SUBSCRIPT) (NON-STANDARD MOUNTING HEIGHT) FACP FIRE ALARM CONTROL PANEL FAAP FIRE ALARM ANNUNCIATOR PANEL	- <u>RACEWA</u> ① ~ ② ~ ③ <sub>F</sub> F <u>PB</u> F <sub>XX</sub> (	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER)
5	FIRE ALARM SYSTEM         WP         F42"         WP, WG OR OTHER SUBSCRIPTS (TYPICAL ALL SYSTEMS)         WP, WG OR OTHER SUBSCRIPT)         (NON-STANDARD MOUNTING HEIGHT)         FACP       FIRE ALARM CONTROL PANEL         FAAP       FIRE ALARM ANNUNCIATOR PANEL         NAC       NOTIFICATION APPLIANCE CIRCUIT	- <u>RACEWA</u> ① ~ ① ~ ① <sub>F</sub> F PB F XX ( EH H	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER)
5	FIRE ALARM SYSTEM         Image: Provide all systems         Image: Prov	$- \frac{RACEWA}{O_F}$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR
6	FIRE ALARM SYSTEM         Image: Stress of the subscripts of typical all systems in the subscript is the subscript in the subscript is the subscript in the subscript is the subscript is the subscript in the subscript is the subscript in the subscript is the subscript is the subscript is the subscript in the subscript is t	$- \frac{RACEWA}{O_{F}}$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE)
5	FIRE ALARM SYSTEM         Image: Provide and the system of the system o	$- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}$ $\mathbb{O}_{F} = \mathbf{F}$ $\mathbb{PB}_{XX} = \mathbf{F}$ $\mathbb{PB}_{XX} = \mathbf{F}$ $\mathbb{PB}_{XX} = \mathbf{F}$ $\mathbb{PB}_{XX} = \mathbf{F}$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU TYPE)
5	FIRE ALARM SYSTEM         Image: Provide all systems         Image: Prov	$- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}$ $\mathbf{O}_{F} = \mathbf{F}$ $\mathbf{PB}_{XX} = \mathbf{F}$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU TYPE) POWER POLE, FLOOR TO CEILING
6	FIRE ALARM SYSTEM         VP         DEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS)         VP, WG OR OTHER SUBSCRIPT)         (NON-STANDARD MOUNTING HEIGHT)         FACP       FIRE ALARM CONTROL PANEL         FACP       FIRE ALARM CONTROL PANEL         FACP       FIRE ALARM ANNUNCIATOR PANEL         FACP       NOTIFICATION APPLIANCE CIRCUIT         FAC       AUDIBLE/VISUAL COMBINATION, WALL-MOUNTED         FAC       AUDIBLE/VISUAL COMBINATION, CEILING-MOUNTED         FAC       VISUAL ONLY, WALL-MOUNTED         FAC       VISUAL ONLY, CEILING-MOUNTED         FAC       VISUAL ONLY, CEILING-MOUNTED         FAC       VISUAL ONLY, CEILING-MOUNTED	$- RACEWA$ $\bigcirc_{F} F$ $\bigcirc_{XX} F$ $\bigcirc_{A} F$ $\square XX$ $\bigcirc_{A} F$ $\square F$ $\square F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING
6	FIRE ALARM SYSTEM         Image: Provide a subscript of the subscrip	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BEI OW GRADE
6	Image: Street all street	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE
6	FIRE ALARM SYSTEM         Image: Construction of the subscript of th	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES FLOOR SOURT WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION)
5 6	FIRE ALARM SYSTEM         Image: Construction of the subscripts (typical all systems)         Image: Construction of the subscript)         Image: Construction of the subscript of the subscrip	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY CONTINUATION
5	FIRE ALARM SYSTEM         Image: Provide and any	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) ANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) ANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) ANULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY STUB WITH BUSHINGS
5	FIRE ALARM SYSTEM   PEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS)   WP, WG OR OTHER SUBSCRIPTS   NMC   FACP   REALARM CONTROL PANEL   FACP   RER ALARM ANNUNCIATOR PANEL   IMAC   NOTIFICATION APPLIANCE CIRCUIT   IMAC   AUDIBLE/VISUAL COMBINATION, WALL-MOUNTED   IMAC   AUDIBLE/VISUAL COMBINATION, CEILING-MOUNTED   IMAC   VISUAL ONLY, WALL-MOUNTED   IMAC   IMANUAL PULL STATION	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) /AULT WHERE INDICATED, SUBSCRIPT INDICATES FLOOR SOCKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY STUB WITH BUSHINGS RACEWAY SLEEVE WITH BUSHINGS
5	FIRE ALARM SYSTEM         Image: Construct of the subscript of the s	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) VAULT WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY STUB WITH BUSHINGS RACEWAY SLEEVE WITH BUSHINGS FIRE STOPPING SLEEVE
5	FIRE ALARM SYSTEM         Image: Additional and the subscript of the	$- RACEWA$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) ANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) ANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) ANULT WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) AULT WHERE INDICATED, SUBSCRIPT INDICATES FLOOR SOKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY STUB WITH BUSHINGS RACEWAY SUB WITH BUSHINGS FIRE STOPPING SLEEVE CABLE TRAY, 12"W x 4"H OVERHEAD, UNLESS DTHERWISE NOTED
5	FIRE ALARM SYSTEM         Image: Device Subscripts (typical all systems)         VP, WG OR OTHER SUBSCRIPT)         VP, WG OR OTHER SUBSCRIPT)         NOTIFICATION APPLIANCE CIRCUIT         Image: Device Subscript (typical all systems)         VIA         MAC         NATIFICATION APPLIANCE CIRCUIT         Image: Device Subscript (typical all systems)         VIA         VIA         AUDIBLE/VISUAL COMBINATION, WALL-MOUNTED         Image: Distribution (typical all systems)         VISUAL ONLY, WALL-MOUNTED         Image: Distribution (typical all systems)         VISUAL ONLY, CEILING-MOUNTED         Image: Distribution (typical all systems)         Image: Distribution	$- RACEWA$ $\bigcirc F$ $\bigcirc F$ $\bigcirc F$ $\bigcirc F$ $\bigcirc A$ $\bigcirc A$ $\bigcirc A$ $\bigcirc A$ $\bigcirc A$ $\bigcirc F$ $\bigcirc A$ $\bigcirc F$ $\bigcirc A$ $\bigcirc F$	AY AND BOXES JUNCTION BOX FURNITURE WALL FEED OUTLET BOX PULL BOX WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES PULL BOX NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES HANDHOLE NUMBER) HANDHOLE WHERE INDICATED, SUBSCRIPT INDICATES VAULT TYPE) FLOORBOX (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR POKE-THRU (WHERE INDICATED, SUBSCRIPT INDICATES FLOOR BOXE-THRU TYPE) POWER POLE, FLOOR TO CEILING SURFACE METAL RACEWAY RACEWAY CONCEALED IN-WALL OR IN-CEILING EXPOSED IN UNFINISHED AREAS) RACEWAY RUN BELOW FLOOR OR BELOW GRADE FLEXIBLE RACEWAY RACEWAY (CIRCLE DENOTES VERTICAL TRANSITION) RACEWAY SUB WITH BUSHINGS RACEWAY SUB WITH BUSHINGS FIRE STOPPING SLEEVE CABLE TRAY, 12"W x 4"H OVERHEAD, UNLESS DTHERWISE NOTED CABLE TRAY, OVERHEAD LADDER TYPE
5	FIRE ALJEND SYSTEM         Image: Construct of the subscript of the	$- RACEWA$ $\bigcirc F$	AY AND BOXES UNICTION BOX UNICTION UNICTION BOX UNICTION UNICTION BOX UNICTION UNICTIO
5 7	FIRE ALARM SYSTEM         Image: Construct of the subscript of typical all systems)         Image: Construct of the subscript)         Image: Construct of the subscript o	$- RACEWA$ $\bigcirc F$	Y AND BOXES JUNCTION BOX JUNCTION BELOW FLOOR OR BELOW GRADE JUNCTION BELOW FLOOR OR BELOW GRADE JUNCTION BOX JUNCTION BELOW FLOOR OR BELOW GRADE JUNCTION BELOW JUNCTION JUNCTION JUNCTION JUNCTION JUNCTION JUNCTION JUNCTION JUNCTION JUNCTION BUSHINGS JUNCTION
5 7	FIRE ALARM SYSTEM   Image: System subscripts (typical all systems)   Image: System subscript)	$- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}$ $\bigcirc_{A} = \mathbf{F}$	AVAILABLE CONSTRUCTION AND CONSTRUCTION
5 7 8	FIRE ALARM SYSTEM   Image: Subscripts (Typical all systems)   Very, WG OR OTHER SUBSCRIPTS (TYPICAL ALL SYSTEMS)   Very, WG OR OTHER SUBSCRIPT)   IMAC   IRE ALARM CONTROL PANEL   IMAC   INAC   NOTIFICATION APPLIANCE CIRCUIT   Image: Subscript (Typical all systems)	$- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}$ $\mathbf{O}_{F} = \mathbf$	AVANDED SOLUTION AND AND AND AND AND AND AND AND AND AN
5 7 8	FIRE ALARM SYSTEM   DEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS)   UP, WG OR OTHER SUBSCRIPT)   IRCE   FRE ALARM CONTROL PANEL   FAP   FRE ALARM ANNUNCIATOR PANEL   FAP   AUDIBLE/VISUAL COMBINATION, VALL-MOUNTED   FAP   FINE   VISUAL ONLY, WALL-MOUNTED   FAP   VISUAL ONLY, CEILING-MOUNTED   FAP   BEAM SMOKE DETECTOR - RECEIVER   FAP   MANUAL PULL STATION   SOMCE DETECTOR   G   COMBINATION CARBON MONOXIDE/SMOKE DETECTOR   FIRE/SMOKE DAMPER   FAP   FIRE/SMOKE DAMPER   FAP   FIRE/SMOKE DAMPER   FAP   FIRE/SWITCH   FAP   FIRE/SWITCH   FAP   FIRE/SWITCH   FAP   FIRE/SWITCH   FINE/SANCKE DETECTOR   FINE/SANCKE DETECTOR   FINE/SANCKE DETECTOR   FINE/SANCKE DETECTOR   FINE/SANCKE DETECTOR <t< th=""><th><math display="block">- RACEWA</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc A</math> <math display="block">\bigcirc A</math> <math display="block">\bigcirc A</math> <math display="block">\bigcirc A</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc A</math> <math display="block">\bigcirc F</math> <math display="block">\bigcirc F</math></th><th>AVAILABLE VALUE OF A CONSTRUCTION OF A CONSTRUCT</th></t<>	$- RACEWA$ $\bigcirc F$ $\bigcirc F$ $\bigcirc F$ $\bigcirc F$ $\bigcirc A$ $\bigcirc A$ $\bigcirc A$ $\bigcirc A$ $\bigcirc F$ $\bigcirc A$ $\bigcirc F$	AVAILABLE VALUE OF A CONSTRUCTION OF A CONSTRUCT
5 7 8	FIRE ALARM SYSTEM   DEVICE SUBSCRIPTS (TYPICAL ALL SYSTEMS)   VP, WG OR OTHER SUBSCRIPT)   NONSTANDARD MOUNTING HEIGHT)   FACE   FIRE ALARM CONTROL PANEL   FACE   FIRE ALARM CONTROL PANEL   FACE   FIRE ALARM ANNUNCIATOR PANEL   FACE   ICAC   NOTIFICATION APPLIANCE CIRCUIT   FACE   AUDIBLE/VISUAL COMBINATION, WALL-MOUNTED   FACE   VISUAL ONLY, WALL-MOUNTED   FACE   VISUAL ONLY, CEILING-MOUNTED   FACE   BEAM SMOKE DETECTOR - RECEIVER   SMOKE DETECTOR   SMOKE DETECTOR <tr< th=""><th><math display="block">- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}</math> <math display="block">= \frac{\mathbf{O}_{F}}{\mathbf{O}_{F}} = \mathbf{F}</math> <math display="block">= \frac{\mathbf{O}_{A}}{\mathbf{O}_{A}} = \mathbf{F}</math></th><th>AVAILABLE RACEWAY RACEWAY CONTINUATION RACEWAY SLEEVE WITH BUSHINGS RACEWAY SLE RACEWAY SLEEVE WITH BUSHINGS RACEWAY SLE RACEWAY SLE</th></tr<>	$- \frac{\mathbf{RACEWA}}{\mathbf{O}_{F}} = \mathbf{F}$ $= \frac{\mathbf{O}_{F}}{\mathbf{O}_{F}} = \mathbf{F}$ $= \frac{\mathbf{O}_{A}}{\mathbf{O}_{A}} = \mathbf{F}$	AVAILABLE RACEWAY RACEWAY CONTINUATION RACEWAY SLEEVE WITH BUSHINGS RACEWAY SLE RACEWAY SLEEVE WITH BUSHINGS RACEWAY SLE RACEWAY SLE

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NOT ALL SYMBOLS MAY APPEAR ON THE DRAWINGS

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\*\*\*UNOFFICIAL COPY\*\*\* Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

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### ONE-LINE DIAGRAM

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	EQUIPMENT ENCLOSURE
	BUS
	WIRE
<b></b>	TERMINAL / LUG
<b></b>	CONNECTION
$\bigtriangleup$	DELTA
\}≩	WYE
~~~	POWER TRANSFORMER
5	CURRENT TRANSFORMER
	TRANSFER SWITCH
	CIRCUIT BREAKER, FIXED
-≪-^-≫-	CIRCUIT BREAKER, DRAWOUT
_~	DISCONNECT SWITCH
-\_	FUSED SWITCH
	FUSE
	FUSED CUTOUTS
GF-C	CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
ST-C	CIRCUIT BREAKER WITH SHUNT TRIP OPERATOR
K-C	CIRCUIT BREAKER WITH KIRK KEY
GF T	FUSED SWITCH WITH GROUND FAULT PROTECTION
$\bigwedge$	MOTOR CONNECTION
/G/	GENERATOR
M	METERING DEVICE (M = METER) (WH = WATT HOUR METER) –(A = AMMETER) (V = VOLTMETER)
ST	SHUNT TRIP
GF	GROUND FAULT PROTECTION
EPM	ELECTRONIC POWER METER
SPD -	SURGE PROTECTIVE DEVICE
<u> </u>	GROUND
12 2/1	AVAILABLE FAULT CURRENT

\_\_\_\_\_\_ (SYMMETRICAL) TAG 225 FEEDER TAG

PAD-MOUNTED TRANSFORMER

TRANSFORMER

PANELBOARD - MAIN LUGS ONLY

PANELBOARD - MAIN CIRCUIT BREAKER

### GROUNDING

| % 0

 $\Delta$  Q 480

 $\approx$ 

**₩** 0 120V

—G—	GROUNDING CONDUCTOR
$\overline{\bullet}$	GROUNDING ROD
	GROUNDING BUSBAR
$\neg$	EQUIPMENT GROUNDING CONNECTION

D

GROUNDING STRAP

### NON-STRUCTURAL ELECTRICAL COMPONENT NOTES

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- 1. THE FOLLOWING ITEMS ARE TAKEN DIRECTLY FROM THE 2018 INTERNATIONAL BUILDING CODE AND FROM THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD 7. THE CONTRACTOR SHALL REFER TO THE ABOVE FOR ADDITIONAL INFORMATION, EXCEPTIONS, AND FURTHER DESCRIPTIONS. THE CONTRACTOR SHALL ADHERE TO REQUIREMENTS AND AS SUCH, SHALL BE INCLUDED WITHIN BID. ALSO REFER TO SPECIFICATIONS.
- 2. 2018 IBC, 1613.1, SCOPE: ARCHITECTURAL, MECHANICAL ELECTRICAL, AND NON-STRUCTURAL COMPONENTS THAT ARE PERMANENTLY ATTACHED TO STRUCTURES AND THEIR SUPPORTS AND ATTACHMENTS SHALL BE DESIGNED AND CONSTRUCTED TO RESIST THE EFFECTS OF EARTHQUAKE MOTIONS IN ACCORDANCE WITH ASCE 7, EXCLUDING CHAPTER 14 AND APPENDIX 11A.
- ASCE 7 CONTRACTOR RESPONSIBILITY: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF A SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR COMPONENT LISTED IN THE QUALITY ASSURANCE PLAN AND SHALL SUBMIT A WRITTEN CONTRACTOR'S STATEMENT OF RESPONSIBILITY TO THE AUTHORITY HAVING JURISDICTION AND TO THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL INCLUDE THE FOLLOWING:
- A. ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE QUALITY ASSURANCE PLAN;
- ACKNOWLEDGMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE AUTHORITY HAVING JURISDICTION;
- PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND THE DISTRIBUTION OF THE REPORTS; AND
- IDENTIFICATION AND QUALIFICATIONS OF THE D. PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.
- DIVISION 26 RESPONSIBILITIES:
- HANGERS AND SEISMIC BRACING FOR ELECTRICAL SYSTEMS SHALL BE DESIGNED AND SPECIFIED BY DIVISION 26. DIVISION 26 SHALL REFER TO THE ELECTRICAL DRAWINGS FOR LOCATIONS OF EQUIPMENT AND ELECTRICAL SYSTEMS AS STRUCTURAL DRAWINGS DO NOT SHOW THE LOCATIONS OF ELECTRICAL EQUIPMENT, RACEWAYS, AND OTHER COMPONENTS.
- DIVISION 26 SHALL COORDINATE THE SUPPORT SYSTEMS AND DESIGN LOADS FOR HUNG RACEWAYS AND OTHER ELECTRICAL SYSTEMS (INCLUDING COMBINED MULTIPLE RACEWAY RUNS) WITH THE GENERAL CONTRACTOR AND THE STEEL AND WOOD JOIST MANUFACTURERS IN ADDITION TO OTHER TRADES THAT MAY BE IMPACTED.

### GENERAL NOTES

- 1. PERFORM WORK IN ACCORDANCE WITH APPLICABLE NATIONAL AND STATE CODES AS AMENDED LOCALLY AND ENFORCED BY THE AHJ.
- 2. OBTAIN AND PAY FOR PERMITS REQUIRED FOR INSTALLATION OF WORK. ARRANGE AND SCHEDULE REQUIRED INSPECTIONS.
- 3. COORDINATE WITH UTILITY COMPANIES FURNISHING SERVICES TO PROJECT. INSTALLATION OF UTILITY SERVICES SHALL BE IN ACCORDANCE WITH UTILITY REQUIREMENTS. VERIFY APPLICABLE INSTALLATION STANDARDS AND REQUIREMENTS. PROVIDE AND SUBMIT ELECTRICAL DRAWINGS TO UTILITY FOR APPROVAL PRIOR TO ROUGH-IN AND PRIOR TO ORDERING EQUIPMENT.
- DEVICE LOCATIONS ARE APPROXIMATE. COORDINATE DEVICE LOCATIONS AND ELEVATIONS WITH APPROPRIATE DOCUMENTS INCLUDING CASEWORK SHOP DRAWINGS AND ARCHITECT'S INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
- 5. COORDINATE ELECTRICAL WORK WITH THAT OF OTHER TRADES. REFER TO MECHANICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE DRAWINGS AND SPECIFICATIONS. COORDINATION SHALL OCCUR PRIOR TO FABRICATION, PURCHASE, AND INSTALLATION OF WORK.
- 6. COORDINATE LOCATION OF LIGHT FIXTURES WITH ARCHITECTURAL AND CIVIL PLANS AND ELEVATIONS.
- 7. DEMOLISH EXISTING SYSTEMS AS INDICATED ON PLANS OR AS REQUIRED FOR INSTALLATION OF NEW WORK. MATERIAL SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF OFF SITE UNLESS OTHERWISE DIRECTED. RETURN ITEMS TO OWNER IN EXISTING CONDITION WHEN DIRECTED BY OWNER.
- 8. COMPLETION OF WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE PROJECT SCHEDULE. SCHEDULE INSTALLATION WITH OTHER TRADES TO ENSURE PROJECT MILESTONES ARE MET.
- 9. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE COMPONENTS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEMS INCLUDING RACEWAYS, CONDUCTORS, BOXES, SUPPORTS AND SIMILAR ITEMS.

### ENERGY CODE NOTES

- 1. RECORD DRAWINGS: SUBMIT TO THE BUILDING OWNER PER ENERGY CODE ENFORCED BY THE LOCAL AHJ.
- 2. OPERATION AND MAINTENANCE MANUALS: SUBMIT TO THE BUILDING OWNER PER ENERGY CODE ENFORCED BY THE LOCAL AHJ.
- 3. THIS BUILDING AND ITS ENERGY SYSTEMS HAVE BEEN DESIGNED TO COMPLY WITH ENERGY CODE ENFORCED BY THE LOCAL AHJ. CONTRACTOR IS RESPONSIBLE FOR CORRECT INSTALLATION OF ENERGY CONSERVATION MEASURES.
- 4. LIGHTING CONTROL SYSTEMS COMMISSIONING AND COMPLETION REQUIREMENTS: TEST SYSTEMS TO ENSURE THAT BUILDING SYSTEMS HAVE BEEN INSTALLED AND FUNCTION PROPERLY AND EFFICIENTLY, AND CAN BE MAINTAINED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND OPERATIONAL REQUIREMENTS PER ENERGY CODE ENFORCED BY THE AHJ. REFER TO SPECIFICATIONS FOR ADDITIONAL COMMISSIONING REQUIREMENTS.

 ABBREVIA	TIONS
A AC	AMPERE AIR CONDITIONING; ALTERNATING CURRENT,
AF	ABOVE COUNTER AMP FUSE: AMP FRAME
AFC	AVAILABLE FAULT CURRENT
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
AHJ	AUTHORITIES HAVING JURISDICTION
AHU	
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AS	AMP SWITCH
AT	AMP TRIP
ATM	ASYNCHRONOUS TRANSFER MODE
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
5.4.0	
BAS	BUILDING AUTOMATION SYSTEM
BIL	BASIC IMPULSE INSULATION LEVEL
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
С	CONDUIT; DEGREES CELCIUS
CAB	CABINET
CAT	CATEGORY
CAIV	
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
CM	CEILING-MOUNTED
CO	CONDULL ONLY CONTROLLED RECEPTACLE
CT	CURRENT TRANSFORMER
CU	COPPER
-	
DEMARC	DEMARCATION POINT
DISC	DISCONNECT
DIST	DISTRIBUTION
DSL	DIGITAL SUBSCRIBER LINE
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EXHAUST FAN
ELEV	ELEVATION
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	
EPM FPO	ELECTRONIC POWER METER EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EVCS	ELECTRIC VEHICLE CHARGING STATION
EVVC	ELECTRIC WATER COOLER
F	FUSES; DEGREES FAHRENHEIT
FA	
	FIRE ALARM ANNUNCIATOR PANEL
FBO	FURNISHED BY OWNER
FOIC	FURNISHED BY OWNER INSTALLED BY
FSD	FIRE SMOKE DAMPER
G	GROUND
GВ GF	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HC	HORIZONTAL CROSS CONNECT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HTR	
112	
J	JUNCTION
к	KIRK KEY
KCMIL	THOUSAND CIRCULAR MILS
kVA	
KVAK kW	KILOVOLT AMPERE REACTIVE
LAN	LOCAL AREA NETWORK
LCP	
	LUCAL EXCHANGE CARRIER LIGHT
LTG	LIGHTING
M	
IVIAN MAX	
MC	MAIN CROSS CONNECT; METAL CLAD (CABLE)
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
IVIUE	

G

MAIN DISTRIBUTION FRAME MAIN DISTRIBUTION PANEL

G

MDP

F

MINIMUM MAIN LUGS ONLY MULTIMODE MAIN POINT OF ENTRY MAIN POINT OF PRESENCE MOUNTED MANUAL TRANSFER SWITCH MEDIUM VOLTAGE NEW NEUTRAL NOTIFICATION APPLIANCE CIRCUIT NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NON-FUSED NOT IN CONTRACT NIGHT LIGHT OPTICAL FIBER CABLE OVERHEAD LINE OVERLOAD OCCUPANCY SENSOR OUTSIDE PLANT POLE PULL-BOX POWER FACTOR PHASE PASSIVE INFRARED POST INDICATING VALVE PANEL PATCH POTENTIAL TRANSFORMER POLYVINYL CHLORIDE REFLECTED CEILING PLAN RECEPTACLE REFER TO REVISION ROOM REINFORCED THERMOSETTING RESIN CONDUIT RACK UNIT SHEET SIGNALING LINE CIRCUIT SINGLEMODE SURFACE-MOUNTED OPTICAL FIBER CABINET SURFACE METAL RACEWAY SONET SYNCHRONOUS OPTICAL NETWORK SERVICE PROVIDER SURGE PROTECTIVE DEVICE SPECIFICATIONS SINGLE POLE SINGLE THROW SHUNT TRIP SHIELDED TWISTED PAIR SUPER VIDEO GRAPHICS ARRAY SWITCH SWITCHBOARD TELECOMMUNICATIONS BONDING BACKBONE TELEPHONE TELEPHONE COMPANY TELECOMMUNICATIONS GROUNDING BUSBAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION TELECOMMUNICATIONS MAIN GROUNDING BUSBAR TAMPERPROOF TELECOMMUNICATIONS ROOM TELEVISION TRANSIENT VOLTAGE SURGE SUPPRESSION TYPICAL UNDERGROUND UNDERWRITERS LABORATORIES UNLESS OTHERWISE NOTED UNINTERRUPTIBLE POWER SUPPLY UNIVERSAL SERIAL BUS UNSHIELDED TWISTED PAIR UNIT VENTILATOR VOLTS VOLT AMPERES VARIABLE FREQUENCY DRIVE WASTE, WATT, WIDE, WATER WITH WITHOUT WIDE AREA NETWORK WIRE GUARD WATT HOUR METER WEATHERPROOF XFMR TRANSFORMER WYE

Н

MANUFACTURER

MANHOLE

MFR

MH

MIN

MLO

MM

MPOE

MPOP

MTD

MTS

MV

(N)

NAC

NEC

NEMA

NF

NIC

OFC

OHL

OL

OS

Р

PB

PF

PH

PIR

PIV

PNL

PP

PT

PVC

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WG

WH

WP

VA

VFD

TELCO

TMGB

SVGA

SWBD

OSP

N

IMPEDANCE

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DRAWING INDEX EC001 ELECTRICAL LEGEND, ABBREVIATIONS AND NOTES EC100 ELECTRICAL PLAN - BUILDING C ONELINE DIAGRAM

C901	ONELINE DIAGRAM
C902	PANEL SCHEDULES
D100	ELECTRICAL PLAN - BUILDING D
E100	ELECTRICAL PLAN - BUILDING E
F100	ELECTRICAL PLAN - BUILDING F
G100	ELECTRICAL PLAN - BUILDING G
H100	ELECTRICAL PLAN - BUILDING H

![](_page_46_Figure_50.jpeg)

![](_page_46_Picture_52.jpeg)

![](_page_46_Figure_53.jpeg)

![](_page_47_Figure_0.jpeg)

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В

C D

E

F

# G Н

# LIGHTING CONTROL LEGEND

<ul> <li>OCCUPANCY SENSOR CONTROL (STORAGE ROOMS)</li> <li>LIGHTING SHALL AUTOMATICALLY TURN ON UPON OCCUPANCY (EACH LIGHT FIXTURE IS A SEPARATE ZONE) WITH LIGHT OUTPUT DETERMINED BY PHOTOCELL</li> <li>LIGHTING SHALL TURN OFF WITHIN 20 MINUTES AFTER ALL OCCUPANTS HAVE LEFT THE SPACE</li> <li>PROVIDE WALL SWITCH FOR ON/OFF MANUAL CONTROL</li> </ul>
PRIMARY DAYLIGHT ZONE
SECONDARY DAYLIGHT ZONE

PROVIDE COMMISSIONING OF LIGHTING CONTROLS IN ACCORDANCE WITH AHJ AND CODE REQUIREMENTS.

![](_page_47_Picture_8.jpeg)

# SHEET NOTES

- CIRCUITS SHALL INCLUDE A DEDICATED NEUTRAL UNLESS OTHERWISE NOTED.
- EXIT SIGNS MOUNTED ABOVE DOORS SHALL BE CENTERED ON DOOR FRAME.
- PROVIDE UNSWITCHED HOT CONDUCTOR TO EXIT SIGNS. 3. CONFIRM LOCATION OF ALL EXIT SIGNS WITH ARCHITECT. PROVIDE DIRECTIONAL ARROWS TO CORRESPOND WITH EGRESS PATHWAY.
- ALL FIXTURES CONNECTED TO EMERGENCY CIRCUIT 5. SHALL BE CONTROLLED THROUGH UL924 RELAYS. THE UL924 CONTROL INPUT SHALL BE THE ADJACENT NORMAL CONTROLLED CIRCUIT (LIGHTING CONTROL PANEL, RELAY OUTPUT OR MANUAL SWITCH).
- PROVIDE ONE UL924 RELAY FOR EACH SWITCH LEG. 6. PROVIDE 0-10V BYPASS CONTACT AS APPLICABLE. REFER TO DETAIL 1 ON SHEET EA801 FOR FURTHER INFORMATION.
- SURFACE MOUNT ALL ELECTRICAL EQUIPMENT, CONDUIT, 7. AND OUTLET BOXES.
- STRUCTURE IS UNCONDITIONED ALL DEVICES (FIRE ALARM, 8. ELECTRICAL) SHALL BE RATED FOR OPERATIONS IN AMBIENT CONDITIONS.
- REFER TO SITE VOLUME OF THE PROJECT FOR SITE PLAN, BRANCH CIRCUIT/FEEDER SCHEDULE AND ONE-LINE DIAGRAM FOR BRANCH CIRCUIT/FEEDER ROUTING, CONDUIT AND CONDUCTOR SIZING AND ANY ADDITIONAL INFORMATION.

# **FLAG NOTES**

FIXTURE IS EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR FOR AUTO ON/OFF OPERATION OF INDIVIDUAL FIXTURES.

- 2 PROVIDE POWER CONNECTION TO OVERHEAD DOOR CONTROLLER. MOUNT DOOR CONTROLLER. DOOR CONTROLLER FURNISHED BY OTHERS. MOUNT DISCONNECT ADJACENT TO DOOR CONTROLLER. PROVIDE INTERCONNECTIONS TO DOOR MOTORS, AND DOOR OPERATORS. PROVIDE CONDUIT AND CONDUCTORS FOR DOOR SYSTEM INTERCONNECTIONS. REFER TO MANUFACTURERS MANUAL FOR INSTALLATION REQUIREMENTS.
- 3 LIGHTING SWITCH TO OVERRIDE LIGHTING TO OFF. 4 EXTEND NAC CIRCUIT FROM BUILDING B FACP.

		LIGHT FIXTU	RE SCHEDULE				
TYPE	DESCRIPTION	MANUFACTURER	MODEL		INPUT	INPUT	
				TYPE	VOLTS	WATTS	
L11B	LED RECTANGULAR HIGH BAY WITH INTEGRAL OCCUPANCY SENSOR AND DIMMING PHOTOCELL, WET RATED. ADJUSTABLE OUTPUT SET TO 69%	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-IBAC120SS	LED 3500K 8280 LM	UNV	54	
L11BE	LED RECTANGULAR HIGH BAY WITH INTEGRAL OCCUPANCY SENSOR AND DIMMING PHOTOCELL, WET RATED. ADJUSTABLE OUTPUT SET TO 69%. CONNECTED TO EMERGENCY POWER	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-IBAC120SS	LED 3500K 8280 LM	UNV	54	
REMARKS 1. 2. 3.	S: S: SUSPEND FIXTURES 2'-6" BELOW ROOF STRUCTURE COORDINATE FINISH COLOR WITH ARCHITECT CONFIRM MOUNTING HARDWARE WITH STRUCTURAL PRIOR TO ORDERING		·				

![](_page_47_Picture_23.jpeg)

![](_page_47_Picture_24.jpeg)

![](_page_47_Picture_25.jpeg)

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![](_page_47_Picture_37.jpeg)

![](_page_47_Picture_38.jpeg)

![](_page_47_Figure_39.jpeg)

HELIX DESIGN GROUP, INC

![](_page_47_Picture_42.jpeg)

5/6/2024

![](_page_47_Figure_44.jpeg)

CITY OF FEDERAL WAY SITE STRUCTURES FEDERAL WAY, WASHINGTON DATE evision -----\_\_\_\_\_ \_\_\_\_\_

![](_page_47_Figure_46.jpeg)

![](_page_48_Figure_0.jpeg)

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![](_page_48_Figure_7.jpeg)

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# SHEET NOTES

- 1. ALL BUSSES SHALL BE 100% RATED.
- 2. TRANSFORMERS ARE 480 VOLT, 3 PHASE, 3 WIRE DELTA PRIMARY TO 208/120 VOLT WYE, 3 PHASE, 4 WIRE SECONDARY, UNLESS INDICATED OTHERWISE.
- CONNECT ADDITIONAL SECTIONS OF MULTI-SECTION PANELS WITH CONDUCTORS SIZED THE SAME AS THE PANEL FEEDERNDUCTORS.
- PROVIDE ARC FLASH LABEL ON ALL NEW SWITCHBOARDS, PANEL BOARDS, DISCONNECT SWITCHES, ETC. PROVIDE SHORT CIRCUIT CALCULATIONS. REFER TO SPECIFICATIONS.
- 5. ALL ELECTRICAL EQUIPMENT SHORT CIRCUIT RATINGS SHALL EXCEED AVAILABLE FAULT CURRENTS. PROVIDE SHORT CIRCUIT CALCULATIONS TO DETERMINE AVAILABLE FAULT CURRENT BASED ON FIELD CONDITIONS.
- 6. COORDINATE FEEDER TAPS SUCH THAT LENGTH DOES NOT EXCEED 25' PER NEC REQUIREMENTS. EQUIPMENT GROUNDING CONDUCTORS OF TAPS SHALL BE SAME SIZE AS FEEDER EQUIPMENT GROUNDING CONDUCTOR OR SAME SIZE AS TAP PHASE CONDUCTOR, WHICHEVER IS SMALLER.

# **FLAG NOTES**

- 1> PROVIDE 100% LOAD RATED SERVICE ENTRANCE CIRCUIT BREAKER.
- <sup>2</sup> PROVIDE TRENCHING AND BACKFILL FOR THE PRIMARY UTILITY EXTENSION IN ACCORDANCE WITH THE LOCAL UTILITY ELECTRIC SERVICE HANDBOOK.
- <sup>3</sup> PROVIDE EVACUATION FOR TRANSFORMER UTILITY VAULT INSTALLATION IN ACCORDANCE WITH LOCAL UTILITY ELECTRIC SERVICE HANDBOOK. PROVIDE ASSOCIATED VAULT GROUDNING, GUARD POSTS, AND ALL OTHER WORK NECESSARY TO COMPLY WITH THE UTILITY REQUIREMENTS.

		FEEDER	SCHEDU	LE	
TAG	QUANTITY	RACEWAY		CONDUCTOR	RS
	OF SETS	SIZE	PHASE	NEUTRAL	G
70	1	1-1/4"	3#4	-	-
70N	1	1-1/4"	3#4	1#4	
100	1	1-1/2"	3#1	-	
100N	1	1-1/2"	3#1	1#1	
125	1	2"	3#1/0	-	
125N	1	2"	3#1/0	1#1/0	
125*	1	2"	3#1/0	-	
150T	1	2"	2#1/0	-	
150N	1	2"	3#1/0	1#1/0	
175	1	2"	3#2/0	-	
175N	1	2-1/2"	3#2/0	1#2/0	
200T	1	2-1/2"	2#3/0	1#3/0	
200	1	2-1/2"	3#3/0	-	
200N	1	2-1/2"	3#3/0	1#3/0	
225	1	2-1/2"	3#4/0	-	
225N	1	2-1/2"	3#4/0	1#4/0	
250	1	2-1/2"	3#250kcmil	-	
250N	1	3"	3#250kcmil	1#250kcmil	
350	1	3"	3#500kcmil	-	
350N	1	3-1/2"	3#500kcmil	1#500kcmil	
400	2	2-1/2"	3#3/0	-	
400N	1	4"	3#600kcmil	1#600kcmil	
450	2	2"	3#4/0	-	
450N	2	2-1/2"	3#4/0	1#4/0	
600	2	3"	3#350kcmil	-	
600N	2	3"	3#350kcmil	1#350kcmil	
800	2	4"	3#600kcmil	-	
800N	2	4"	3#600kcmil	1#600kcmil	
1000	3	4"	3#400kcmil	-	
1000N	3	4"	3#400kcmil	1#400kcmil	1#
1200	4	3"	3#350kcmil	-	
1200N	4	3"	3#350kcmil	1#350kcmil	
1600	4	4"	3#600kcmil	-	
1600N	4	4"	3#600kcmil	1#600kcmil	
3000	8	4"	3#500kcmil	-	
3000N	8	4"	3#500kcmil	1#500kcmil	

NOTES:

COPPER FEEDERS ARE BASED ON COPPER CONDUCTORS WITH THWN/THHN INSULATION. CONDUCTORS DERATING IS BASED ON TWHN/THHN CONUCTORS WITH 90 DEGREES C RATING

GROUND CONDUCTOR (BONDING JUMPR) SHALL BE INCREASED FOR FEEDERS FROM THE SOURCE OF A SEPARATELY DERIVED SYSTEM TO THE FIRST DISCONNECTING MEANS PER NEC 250.30(A). SIZE AS INDICATED IN PARENTHESES.

# **SHEET SHOWN FOR REFERENCE**

![](_page_48_Figure_28.jpeg)

![](_page_48_Figure_29.jpeg)

![](_page_48_Figure_32.jpeg)

![](_page_48_Figure_33.jpeg)

HELIX DESIGN GROUP, INC

HARGIS

1201 third avenue, ste 600

seattle, wa 98101

206.448.3376

www. hargis.biz

HARGIS ENGINEERS

![](_page_48_Figure_36.jpeg)

![](_page_48_Figure_37.jpeg)

PANEL SCHEDULE : 05/03/2024				PA	NEL	. 'C'				PROJECT: Federal Way O
CLASSIFICATION: NORMAL	VOLT	AGE: 2	08Y/12	0V 3Ø, 4-	WIRE		SEC	TION:	1 OF 1	
FED FROM: TRANSFORMER 'T-C'	MAIN	S: 60A	MAIN C		BREA	KER				
MOUNTING: SURFACE	NEUT	RAL: 1	00% RA	ATED						
	СКТ	BRE	AKER	LOAD		LOAD	BRE	AKER	СКТ	
NOTE ITEM DESCRIPTION	NO.	AMPS	POLE	(VA)	Ø	(VA)	AMPS	POLE	NO.	ITEM DESCRIPTION
EQUIP - OVERHEAD DOOR	1	20	3	901	A	901	20	3	2	EQUIP - OVERHEAD DOOR
	5	-	-	901	C	901	-	-	4	- -
EQUIP - OVERHEAD DOOR	7	20	3	901	A	901	20	3	8	EQUIP - OVERHEAD DOOR
-	9	-	-	901	В	901	-	-	10	-
	11	- 20	- 3	901		901	20	- 1	12	
	15	-	-	901	В	540	20	1	16	REC - STORAGE
-	17	-	-	901	С	360	20	1	18	REC - STORAGE
EQUIP - OVERHEAD DOOR	19	20	3	901	A	360	20	1	20	
	21	-	-	901	B	500	20	1	22	EQUIP - NAC PANEL
SPARE	25	20	1	301	A		20	1	26	SPARE
SPARE	27	20	1		В		20	1	28	SPARE
SPARE	29	20	1		С		20	1	30	SPARE
RECEPTACLES OVER 10kVA		1260			100% 50%	0		1260		PHASE B: 6,446 VA 54 A
										PHASE C: 5,766 VA 48 A
										TOTAL CALCULATED LOAD: 19,734
TOTALS		18,842	2					19,734		TOTAL CALCULATED AMPS: 55 A
NOTES:										HARGIS ENGINEERS, INC.
1. 2										1201 THIRD AVENUE, SUITE 60 SEATTLE, WA 98101
<b>L</b> .										PH. (206) 448-3376 FAX. (206) 448-4450
3. 4. 5.										
3. 4. 5.										
2. 3. 4. 5. 5. PANEL SCHEDULE : 04/30/2024				PA	NEL	. 'E'				PROJECT: Federal Way O
2. 3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL	VOLT	AGE: 2	08Y/12	<b>PA</b> ⊃V 3Ø, 4-	NEL WIRE	. 'E'	SEC		1 OF 1	PROJECT: Federal Way O
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E'	VOLT	AGE: 2	08Y/12 MAIN C	PA DV 3Ø, 4- CIRCUIT I	<b>NEL</b> WIRE BREA	<b>. 'E'</b> KER	SEC	TION: <sup>2</sup>	1 OF 1	PROJECT: Federal Way O
A. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE	VOLT MAIN NEUT	AGE: 2 S: 60A RAL: 10	08Y/12 MAIN C 00% R/	PA DV 3Ø, 4- DIRCUIT I ATED	NEL WIRE BREA	<b>. 'E'</b>	SEC	TION: 1	1 OF 1	PROJECT: Federal Way O
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE	VOLT MAIN NEUT CKT	AGE: 2 S: 60A   RAL: 10 BRE	08Y/12 MAIN C 00% R/ AKER	PA DV 3Ø, 4- DIRCUIT I ATED	NEL WIRE BREA	KER	SEC	AKER	1 OF 1	PROJECT: Federal Way O
A. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION FOLUE - BRINE MAKER	VOLT MAIN NEUT CKT NO.	AGE: 2 S: 60A   RAL: 10 BRE AMPS 20	08Y/12 MAIN C 00% R/ AKER POLE 2	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA)	NEL WIRE BREA	LOAD (VA) 312	SEC BRE AMPS 20	AKER	1 OF 1 CKT NO. 2	PROJECT: Federal Way O
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER	VOLT MAIN NEU1 CKT NO. 1 3	AGE: 2 S: 60A RAL: 10 BRE AMPS 20 -	08Y/12 MAIN C 00% RA AKER POLE 2 -	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA) 1352 1352	NEL WIRE BREA	LOAD (VA) 312 324	SEC BRE AMPS 20 20	AKER POLE	1 OF 1 CKT NO. 2 4	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER	VOLT MAIN NEUT CKT NO. 1 3 5	AGE: 2 S: 60A RAL: 10 BRE AMPS 20 - 20	08Y/12 MAIN C 00% R/ AKER POLE 2 - 2	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA) 1352 1352 541	MEL WIRE BREA	LOAD (VA) 312 324 540	SEC AMPS 20 20 20	AKER POLE	1 OF 1 NO. 2 4 6	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER - ODADE	VOLT MAIN NEU1 CKT NO. 1 3 5 7	AGE: 2 S: 60A RAL: 10 BRE AMPS 20 - 20 - 20 -	08Y/12 MAIN C 00% R/ POLE 2 - 2 -	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA) 1352 1352 541 541	NEL WIRE BREA	LOAD (VA) 312 324 540	SEC BRE AMPS 20 20 20 20 20 20 20 20 20 20	AKER POLE 1 1 1	CKT NO. 2 4 6 8	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES SPARE
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER - SPARE SPARE SPARE	VOLT MAIN NEUT CKT NO. 1 3 5 7 9 11	AGE: 2 S: 60A RAL: 1 BRE AMPS 20 - 20 - 20 - 20 20 20	08Y/12 MAIN C 00% R/ AKER 2 - 2 - 1 1	PA DV 3Ø, 4- CIRCUIT F ATED LOAD (VA) 1352 1352 541 541	WIRE BREA	LOAD (VA) 312 324 540	SEC AMPS 20 20 20 20 20 20 20	AKER POLE	CKT NO. 2 4 6 8 10 12	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES SPARE SPARE SPARE
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER - SPARE SPARE SPARE SPACE	VOLT MAIN NEUT CKT NO. 1 3 5 7 9 11 13	AGE: 2 S: 60A RAL: 11 BRE AMPS 20 - 20 - 20 - 20 - 20 -	08Y/12 MAIN C 00% R/ AKER POLE 2 - 2 - 1 1 1	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA) 1352 1352 541 541	WIRE BREA Ø A B C A B C A A	LOAD (VA) 312 324 540	SEC BRE AMPS 20 20 20 20 20 20 20 20 20 20 20 20 20	AKER POLE	CKT NO. 2 4 6 8 10 12 14	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES SPARE SPARE SPARE SPARE SPARE
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER - SPARE SPARE SPARE SPACE SPACE	VOLT MAIN NEU1 CKT NO. 1 3 5 7 9 11 13 15	AGE: 2 S: 60A RAL: 10 AMPS 20 - 20 - 20 - 20 - 20 - 20 - 20 - 20	08Y/12 MAIN C 00% R POLE 2 - 2 - 1 1 1 1 1 1	PA DV 3Ø, 4- CIRCUIT I ATED LOAD (VA) 1352 1352 541 541	WIRE BREA	LOAD (VA) 312 324 540	SEC AMPS 20 20 20 20 20 20 20 20 20 20 20 20 20	AKER POLE 1 1 1 1 1 1 1 1 1 1 1	CKT NO. 2 4 6 8 10 12 14 16	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES SPARE SPARE SPARE SPARE
3. 4. 5. PANEL SCHEDULE : 04/30/2024 CLASSIFICATION: NORMAL FED FROM: TRANSFORMER 'T-E' MOUNTING: SURFACE NOTE ITEM DESCRIPTION EQUIP - BRINE MAKER - SITE GATE CONTROLLER - SITE GATE CONTROLLER - SPARE SPARE SPACE SPACE SPACE	VOLT MAIN NEUT CKT NO. 1 3 5 7 9 11 13 15 17	AGE: 2 S: 60A RAL: 11 AMPS 20 - 20 - 20 - 20 - - 20 - - - - -	08Y/12 MAIN C 00% R/ AKER 2 - 2 - 1 1 1 1 1 1	PA DV 3Ø, 4- CIRCUIT R ATED LOAD (VA) 1352 1352 541 541	WIRE BREA Ø A B C A B C A B C A	LOAD (VA) 312 324 540	SEC AMPS 20 20 20 20 20 20 20 20 20 20 20 20 20	AKER POLE 1 1 1 1 1 1 1 1 1 1 1	CKT NO. 2 4 6 8 10 12 14 16 18	PROJECT: Federal Way O ITEM DESCRIPTION LTG - BUIDLING E - SAND SHED LTG - BUILDING F - SNOW FLEET SITE RECETPACLES SPARE SPARE SPARE SPARE

		LOAD CALCULATIONS			
LOAD DESCRIPTION	CONN. (VA)	DEMAND FACTOR	CALC. (VA)		
MISCELLANEOUS CONTINUOUS:	-	125%	-	LOAD SUMMA	ARY
EQUIPMENT & MISCELLANEOUS:	3786	100%	3786		
LIGHTING:	636	125%	795	TOTAL	
LARGEST MOTOR:	-	125%	-	CONNECTED LOAD	AMPS
MOTORS:	-	100%	-	PHASE A: 2,205 VA	18 A
RECEPTACLE:	540	100%	540		
RECEPTACLES OVER 10kVA:	-	50%	-	PHASE B: 1,676 VA	14 A
				PHASE C: 1,081 VA	9 A
				TOTAL CALCULATED LO	AD: 5,121 V
				TOTAL CALCULATED AM	PS: 14 A
TOTALS:	4,962		5,121		
DTES:				HARGIS ENGINE	ERS, INC.
				1201 THIRD AVENU	E, SUITE 600
				SEATTLE. WA	98101
				PH. (206) 448-3	3376
				FAX. (206) 448-	4450

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ANE	L SCHEDULE : 05/05/2024				PAN	IEI	_ 'D'				PROJECT: Federal Way C	)&M Facili
LAS	SIFICATION: NORMAL	VOLT	AGE: 2	08Y/120	V 3Ø, 4-V	VIRE	Ξ	SEC	TION: 1	OF 1		
ED F	ROM: TRANSFORMER 'T-D'	MAIN	S: 60A	MAIN C	IRCUIT B	RE/	AKER					
IOUI	NTING: SURFACE	NEUT	RAL: 1	00% RA	TED							
		CKT	BRE	AKER	LOAD		LOAD	BRE/	AKER	CKT		
OTE	ITEM DESCRIPTION	NO.	AMPS	POLE	(VA)	Ø	(VA)	AMPS	POLE	NO.	ITEM DESCRIPTION	NO
	EQUIP - OVERHEAD DOOR	1	20	3	901	А	500	20	1	2	LTG - SWAT STORAGE	
	-	3	-	-	901	В	720	20	1	4	REC - SWAT STORAGE	
	-	5	-	-	901	С	540	20	1	6	REC - SWAT STORAGE	
	SPARE	7	20	1		А	360	20	1	8	REC - SWAT STORAGE	
	SPARE	9	20	1		В	500	20	1	10	EQUIP - NAC PANEL	
	SPARE	11	20	1		С	500	20	1	12	EQUIP - BMS PANEL	
	SPARE	13	20	1		А	696	20	1	14	EQUIP - EF-D-1	
	SPACE	15	-	1		В		-	1	16	SPACE	
	SPACE	17	-	1		С		-	1	18	SPACE	
	SPACE	19	-	1		А		-	1	20	SPACE	
	SPACE	21	-	1		В		-	1	22	SPACE	
	SPACE	23	-	1		С		-	1	24	SPACE	

 B
 C
 D
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 K

		LOAD CALCULATIONS			
	CALC. (VA)	DEMAND FACTOR	CONN. (VA)	LOAD DESCRIPTION	
LOAD SUMMARY	-	125%	-	MISCELLANEOUS CONTINUOUS:	
	1696	100%	1696	EQUIPMENT & MISCELLANEOUS:	
TOTAL	625	125%	500	LIGHTING:	
CONNECTED LOAD AMPS	3379	125%	2703	LARGEST MOTOR:	
PHASE A: 2,457 VA 20 A	-	100%	-	MOTORS:	
	1620	100%	1620	RECEPTACLE:	
PHASE B: 2,121 VA 18 A	-	50%	-	RECEPTACLES OVER 10kVA:	
PHASE C: 1,941 VA 16 A					
TOTAL CALCULATED LOAD: 7,320 VA					
TOTAL CALCULATED AMPS: 20 A					
	7,320		6,519	TOTALS:	
HARGIS ENGINEERS, INC.				3:	TES:
1201 THIRD AVENUE. SUITE 600					
SEATTLE, WA 98101					
PH. (206) 448-3376					
FAX. (206) 448-4450					

ANE	L SCHEDULE : 05/07/2024				PAN	EL	'FS'				PROJECT: Federal Way O&M Facili		
LAS	SIFICATION: NORMAL	VOLT	AGE: 2	08Y/120	)V 3Ø, 4-V	VIRE	E	SEC	TION: 1	I OF 1			
ED I	FROM: TRANSFORMER 'T-FS'	MAIN	MAINS: 125A MAIN CIRCUIT BREAKER										
100	NTING: SURFACE	NEUT	RAL: 1	00% RA	TED								
		СКТ	BRE	AKER	LOAD		LOAD	BRE	AKER	СКТ			
OTE	ITEM DESCRIPTION	NO.	AMPS	POLE	(VA)	Ø	(VA)	AMPS	POLE	NO.	ITEM DESCRIPTION	NO	
	EQUIP - FA-05 FUEL DISPENSING TANK	1	30	3	2880	А	1500	20	1	2	EQUIP - FA-06 CARDLOCK SYSTEM		
	-	3	-	-	2880	В	1920	20	1	4	REC - FA-07 DEF SYSTEM PUMP		
	-	5	-	-	2880	С	324	20	1	6	LTG - FUELING CENTER		
	EQUIP - FA-05 FUEL DISPENSING TANK	7	30	3	2880	А	216	20	1	8	LTG - WASTE TRANSFER		
	-	9	-	-	2880	В		20	1	10	SPARE		
	-	11	-	-	2880	С		20	1	12	SPARE		
	EQUIP - FA-01 FUEL STORAGE TANK	13	30	2	2496	А		20	1	14	SPARE		
	-	15	-	-	2496	В		20	1	16	SPARE		
	SPACE	17	-	1		С		-	1	18	SPACE		
	SPACE	19	-	1		А		-	1	20	SPACE		
	SPACE	21	-	1		В		-	1	22	SPACE		
	SPACE	23	-	1		С		-	1	24	SPACE		

		LOAD CALCULATIONS	6		
LOAD DESCRIPTION	CONN. (VA)	DEMAND FACTOR	CALC. (VA)		
MISCELLANEOUS CONTINUOUS:	-	125%	-	LOAD SUMMA	ARY
EQUIPMENT & MISCELLANEOUS:	8412	100%	8412		
LIGHTING:	540	125%	675	TOTAL	
LARGEST MOTOR:	8640	125%	10800	CONNECTED LOAD	AMPS
MOTORS:	8640	100%	8640	PHASE A: 9,972 VA	83 A
RECEPTACLE:	-	100%	-		
RECEPTACLES OVER 10kVA:	-	50%	-	PHASE B: 10,176 VA	85 A
				PHASE C: 6,084 VA	51 A
				TOTAL CALCULATED LO	AD: 28,527 VA
				TOTAL CALCULATED AM	PS: 79 A
TOTALS:	26,232		28,527		
NOTES:				HARGIS ENGINE	ERS, INC.
1.				1201 THIRD AVENU	E, SUITE 600
2.				SEATTLE, WA	98101
3.					
4.				PH. (206) 448-3	3376
5.				FAX. (206) 448-	4450

PANEL SCHEDULE : 05/07/2024				PAN	EL	'HE'				PROJECT: Federal Way O&M	Facility
CLASSIFICATION: NORMAL	VOLT	AGE: 4	80Y/277	7V 3Ø, 4-V	VIRE		SEC	TION: 1	1 OF 1		
FED FROM: DIST. PANEL 'MDPB'	MAIN	S: 225A	MAIN	LUGS ON	LY						
MOUNTING: SURFACE	NEUT	RAL: 1	00% RA	TED							
	CKT BREAKER LOAD   LOAD BREAKER CKT										
NOTE ITEM DESCRIPTION	NO.	AMPS	POLE	(VA)	ø	(VA)	AMPS	POLE	NO.	ITEM DESCRIPTION	NOT
SPARE	1	30	3	. ,	А		20	1	2	SPARE	
-	3	-	-		В		20	1	4	SPARE	
-	5	-	-		С		20	1	6	SPARE	
SPARE	7	30	3		А		20	1	8	SPARE	
-	9	-	-		В		20	1	10	SPARE	_
-	11	-	-		С		20	1	12	SPARE	_
SPARE	13	30	3		А		20	1	14	SPARE	_
-	15	-	-		В		20	1	16	SPARE	
-	17	-	-		C		20	1	18	SPARE	
SPARE	19	20	1		A		20	1	20	SPARE	
SPARE	21	20	1		В		20	1	22	SPARE	_
SPARE	23	20	1		C		20	1	24		
	20	20	1		A		20	1	26		_
	2/	20			В		20	1	20		
	29	20					20	1	30		
	31	20					20	1	3/		
SPARE	35	20	1				20	1	36	SPARE	-
SPARE	37	20	1		Δ	2205	70	3	38	TRANSFORMER 'T-F'	
SPARE	39	20	1		B	1676	-	-	40		
SPARE	41	20	1		c	1081	-	-	42	_	
					LCI	ULATION	IS				
	С	ONN ()	/A)	DEMA		FACTOR	 C/		(A)		
MISCELLANEOUS CONTINUOUS		-	,,,,	125% -			-	, , ,			
FOUIPMENT & MISCELLANEOUS	.	3786		100%			3786				
	.	636		125%			795			TOTAL	
LARGEST MOTOR		-			125%	6		_		CONNECTED LOAD AMPS	
MOTORS	:	-			100%	6		-		PHASE A: 2,205 VA 8 A	_
RECEPTACLE	:	540			100%	6		540			
RECEPTACLES OVER 10kVA	:	-			50%	)		-		PHASE B: 1,676 VA 6 A	
										PHASE C: 1,081 VA 4 A	_
										TOTAL CALCULATED LOAD: 5,121 VA	
										TOTAL CALCULATED AMPS: 6 A	
TOTALS		4,962						5,121			
NOTES:										HARGIS ENGINEERS, INC.	
1. 2.										1201 THIRD AVENUE, SUITE 600 SEATTLE, WA 98101	
4. 5.										PH. (206) 448-3376 FAX. (206) 448-4450	

![](_page_49_Figure_12.jpeg)

DRAWING NO.

![](_page_50_Figure_0.jpeg)

LIGHT FIXTURE SCHEDULE									
N	MANUFACTURER	MODEL		INPUT	INPUT	REMARKS			
			IYPE	VOLIS	WATTS				
CUPANCY SENSOR AND DIMMING ET TO 69%	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	LED 3500K 8280 LM	UNV	54	1,2,3			
CUPANCY SENSOR AND DIMMING ET TO 69%. CONNECTED TO	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	LED 3500K 8280 LM	UNV	54	1,2,3			

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- CONTROLLER. MOUNT DOOR CONTROLLER. DOOR CONTROLLER CONDUCTORS FOR DOOR SYSTEM INTERCONNECTIONS. REFER

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![](_page_50_Figure_39.jpeg)

![](_page_51_Figure_0.jpeg)

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R O Site CII OMF 3-087 Wav ( a2 al 5/7/2024 C:\Users PLOTTED: 5 FILE PATH:

![](_page_51_Figure_2.jpeg)

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![](_page_51_Figure_3.jpeg)

![](_page_51_Figure_4.jpeg)

![](_page_51_Figure_5.jpeg)

![](_page_51_Figure_6.jpeg)

### PRIMARY DAYLIGHT ZONE

### SECONDARY DAYLIGHT ZONE

PROVIDE COMMISSIONING OF LIGHTING CONTROLS IN ACCORDANCE WITH AHJ AND CODE REQUIREMENTS.

# SHEET NOTES

CIRCUITS SHALL INCLUDE A DEDICATED NEUTRAL UNLESS OTHERWISE NOTED. 1.

Κ

- SURFACE MOUNT ALL ELECTRICAL EQUIPMENT, CONDUIT, AND OUTLET BOXES.
- REFER TO SITE VOLUME OF THE PROJECT FOR SITE PLAN, BRANCH CIRCUIT/FEEDER SCHEDULE AND ONE-LINE DIAGRAM FOR BRANCH CIRCUIT/FEEDER ROUTING, CONDUIT AND CONDUCTOR SIZING AND ANY ADDITIONAL INFORMATION.

## FLAG NOTES

FIXTURE IS EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR/PHOTOCELL FOR AUTO ON/OFF OPERATION OF INDIVIDUAL FIXTURES

- 2 APPLY ADHESIVE TAPE AS NECESSARY TO MASK PIR LENSE OF OCCUPACY SENSOR TO GET CUTOFF ALONG THE STORAGE FRONT OPENINGS.
- 3 LIGHTING SWITCH TO OVERRIDE LIGHTING TO OFF. 4 PROVIDE CONNECTION TO BRINE MAKER.

![](_page_51_Picture_18.jpeg)

![](_page_51_Picture_19.jpeg)

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![](_page_51_Figure_21.jpeg)

![](_page_52_Figure_0.jpeg)

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LIGHT FIXTURE SCHEDULE									
	MANUFACTURER	MODEL		INPUT	INPUT	REMARKS			
			TYPE	VOLTS	WATTS				
DIMMING	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	LED 3500K 8280 LM	UNV	54	1,2,3			

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![](_page_52_Figure_3.jpeg)

![](_page_52_Picture_4.jpeg)

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# SHEET NOTES

J

1. CIRCUITS SHALL INCLUDE A DEDICATED NEUTRAL UNLESS OTHERWISE NOTED.

Κ

- 2. SURFACE MOUNT ALL ELECTRICAL EQUIPMENT, CONDUIT, AND OUTLET BOXES.
- 3. REFER TO SITE VOLUME OF THE PROJECT FOR SITE PLAN, BRANCH CIRCUIT/FEEDER SCHEDULE AND ONE-LINE DIAGRAM FOR BRANCH CIRCUIT/FEEDER ROUTING, CONDUIT AND CONDUCTOR SIZING AND ANY ADDITIONAL INFORMATION.

# FLAG NOTES

FIXTURE IS EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR FOR AUTO ON/OFF OPERATION OF INDIVIDUA SENSOR FOR AUTO ON/OFF OPERATION OF INDIVIDUAL FIXTURES

APPLY ADHESIVE TAPE AS NECESSARY TO MASK PIR LENSE OF OCCUPACY SENSOR TO GET CUTOFF ALONG THE STORAGE FRONT OPENINGS.

3 LIGHTING SWITCH TO OVERRIDE LIGHTING TO OFF.

![](_page_52_Figure_16.jpeg)

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from Helix Design Group.

	A		В	С		D	E		F	
1								TYPE         L11B       LED RECTANGULAR HIGH BAY WITH         PHOTOCELL, WET RATED. ADJUSTA         REMARKS:         1.       SURFACE MOUNT TO UNDERSIDE C         2.       COORDINATE FINISH COLOR WITH A         3.       CONFIRM MOUNTING HARDWARE W	DESCRIPTION INTEGRAL OCCUPANCY SENSOR AND DIM BLE OUTPUT SET TO 69% F ROOF STRUCTURE RCHITECT ITH STRUCTURAL PRIOR TO ORDERING	LIGHT FIXTUR         MANUFACTURER         IMING       ACUITY         LITHONIA
2								LIGHTING CON	AYLIGHT ZONE (FUEL CENTER	D R AND WASTE
								<ul> <li>TRANSFER)</li> <li>LIGHTING SH/ OCCUPANCY ZONE)</li> <li>LIGHT OUTPU PHOTOCELL E</li> <li>LIGHTING SH/ ALL OCCUPAN</li> </ul>	ALL AUTOMATICALLY TURN ON (EACH LIGHT FIXTURE IS A SEF T SHALL BE UTOMATICALLY AE BASED ON DAYLIGHT LEVEL AV ALL TURN OFF WITHIN 20 MINU ITS HAVE LEFT THE SPACE	UPON PARATE DJUSTED BY (AILABLE TES AFTER
3				· · · · · · · · · · · · · · · · · · ·				PROVIDE COMMISSIONING OF L REQUIREMENTS.	GHTING CONTROLS IN ACCOR	DANCE WITH AHJ AND CODE
					$[S=8] \rightarrow 1 \rightarrow $					
4										
5										
		ING G LIGH <sup>-</sup>	TING	┍┙┍┙┍┙┍┙┍┙┍┙┍╢┣┙┍┙┍						
	1/8" = 1'-0"									
6				°						
7				0 0						
8										
9										
	BUILDI	ING G POW	<u>ER</u>							
10	***UNOFFICIAL COPY*** Offic	cial bid documents, plan holder's list, an	nd addenda (if applicable)							

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LIGHT FIXTURE SCHEDULE										
MODEL	TYPE	INPUT VOLTS	INPUT WATTS	EFFICACY LPW	REMARKS					
XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	LED 3500K 8280 LM	UNV	54	153	1,2					
	MODEL         XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	MODEL       TYPE         XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2       LED 3500K 8280 LM	MODEL       INPUT VOLTS         XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2       LED 3500K 8280 LM       UNV	MODEL       INPUT         TYPE       VOLTS         XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2       LED         3500K       3280 LM	MODEL       INPUT       INPUT       INPUT       EFFICACY         XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2       LED       UNV       54       153					

NORTH D' 2'

SCALE: 1/8" = 1'-0"

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# SHEET NOTES

J

1. REFER TO SITE VOLUME OF THE PROJECT FOR SITE PLAN, BRANCH CIRCUIT/FEEDER SCHEDULE AND ONE-LINE DIAGRAM FOR BRANCH CIRCUIT/FEEDER ROUTING, CONDUIT AND CONDUCTOR SIZING AND ANY ADDITIONAL INFORMATION. 2. CIRCUITS SHALL INCLUDE A DEDICATED NEUTRAL UNLESS OTHERWISE NOTED.

Κ

# FLAG NOTES

	FIXTURE IS EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR/PHOTOCELL FOR AUTO ON/OFF/DIMMING OPERATION OF INDIVIDUAL FIXTURES.
2	APPLY ADHESIVE TAPE AS NECESSARY TO MASK PIR LENSE OF OCCUPACY SENSOR TO GET CUTOFF ALONG

THE CANOPY EDGES.

![](_page_53_Picture_8.jpeg)

![](_page_53_Figure_12.jpeg)

![](_page_54_Figure_0.jpeg)

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: a23-087 - CITY OF eral Way OMF Site 5 PROJECT: PLOTTED: 5/7/2024 11:38:00 PM FILE PATH: C:\Users\ChrisT\Docu

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	LIGHT FIXTURE SCHEDULE										
TYPE	DESCRIPTION	MODEL		INPUT	INPUT	EFFICACY	REMARKS				
				TYPE	VOLTS	WATTS	LPW				
L11B	LED RECTANGULAR HIGH BAY WITH INTEGRAL OCCUPANCY SENSOR AND DIMMING PHOTOCELL, WET RATED. ADJUSTABLE OUTPUT SET TO 69%	ACUITY LITHONIA	XIB-L24-12000LM-AFMD-MVOLT-GZ10-35K-80CRI-NLTAIR2 RMSOD45-XIBSMB2	LED 3500K 8280 LM	UNV	54	153	1,2			
REMARKS 1 2 3	S: SURFACE MOUNT TO UNDERSIDE OF ROOF STRUCTURE COORDINATE FINISH COLOR WITH ARCHITECT CONFIRM MOUNTING HARDWARE WITH STRUCTURAL PRIOR TO ORDERING										

# LIGHTING CONTROL LEGEND

AUTO ON/OFF DAYLIGHT ZONE (FUEL CENTER AND WASTE TRANSFER) LIGHTING SHALL AUTOMATICALLY TURN ON UPON OCCUPANCY (EACH LIGHT FIXTURE IS A SEPARATE ZONE) • LIGHT OUTPUT SHALL BE UTOMATICALLY ADJUSTED BY PHOTOCELL BASED ON DAYLIGHT LEVEL AVAILABLE • LIGHTING SHALL TURN OFF WITHIN 20 MINUTES AFTER ALL OCCUPANTS HAVE LEFT THE SPACE

F

PROVIDE COMMISSIONING OF LIGHTING CONTROLS IN ACCORDANCE WITH AHJ AND CODE REQUIREMENTS.

![](_page_54_Picture_6.jpeg)

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# SHEET NOTES

Н

CIRCUITS SHALL INCLUDE A DEDICATED NEUTRAL UNLESS 1. OTHERWISE NOTED.

J

REFER TO SITE VOLUME OF THE PROJECT FOR SITE PLAN, 2. BRANCH CIRCUIT/FEEDER SCHEDULE AND ONE-LINE DIAGRAM FOR BRANCH CIRCUIT/FEEDER ROUTING, CONDUIT AND CONDUCTOR SIZING AND ANY ADDITIONAL INFORMATION.

Κ

### FLAG NOTES

J

FIXTURE IS EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR/PHOTOCELL FOR AUTO ON/OFF/DIMMING OPERATION OF INDIVIDUAL FIXTURES.

- 2 APPLY ADHESIVE TAPE AS NECESSARY TO MASK PIR LENSE OF OCCUPACY SENSOR TO GET CUTOFF ALONG THE CANOPY EDGES. MAKE FINAL CONNECTION TO FUEL STORAGE TANK; 24A, 208V/1PH. REFER EQUIPMENT SHEDULE ON SHEET EB004 IN THE BUILDING B VOLUME OF THE PROJECT.
- 3 MAKE FINAL CONNECTION TO FUEL STORAGE TANK; 24A, 208V/1PH. REFER EQUIPMENT SHEDULE ON SHEET EB004 IN THE BUILDING B VOLUME OF THE PROJECT.
- 4 PROVIDE NEMA 3R 30AS/2P/NF DISCONNECT SWITCH
- 5 MAKE FINAL CONNECTION TO CARDLOCK SYSTEM; 16A, 120V/1PH. REFER EQUIPMENT SHEDULE ON SHEET EB004 IN THE BUILDING B VOLUME OF THE PROJECT. 6 PROVIDE NEMA 3R 30AS12P/NF DISCONNECT SWITCH.
- 7 MAKE FINAL CONNECTION TO CARDLOCK SYSTEM; 16A, 120V/1PH.
- REFER EQUIPMENT SHEDULE ON SHEET EB004 IN THE BUILDING B VOLUME OF THE PROJECT.

![](_page_54_Figure_23.jpeg)

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DRAWING NO.

1.	PERFORM WORK IN ACCORDANCE WITH APPLICABLE NATIONAL AND STATE CODES AS
2.	AMENDED LOCALLY AND ENFORCED BY THE AHJ. OBTAIN AND PAY FOR PERMITS REQUIRED FOR INSTALLATION OF WORK, ARRANGE AND SCHEDULE
3.	REQUIRED INSPECTIONS. COORDINATE WITH UTILITY COMPANIES FURNISHING SERVICES TO PROJECT. INSTALLATION OF UTILITY SERVICES SHALL BE IN ACCORDANCE WITH UTILITY REQUIREMENTS. VERIEY APPLICABLE
4	INSTALLATION STANDARDS AND REQUIREMENTS. PROVIDE AND SUBMIT ELECTRICAL DRAWINGS TO UTILITY FOR APPROVAL PRIOR TO ROUGH-IN AND PRIOR TO ORDERING EQUIPMENT.
4.	DEVICE LOCATIONS ARE APPROXIMATE. COORDINATE DEVICE LOCATIONS AND ELEVATIONS WITH APPROPRIATE DOCUMENTS INCLUDING CASEWORK SHOP DRAWINGS AND ARCHITECT'S INTERIOR ELEVATIONS PRIOR TO ROUGH-IN.
5.	COORDINATE TELECOM WORK WITH THAT OF OTHER TRADES. REFER TO ELECTRICAL, MECHANICAL, ARCHITECTURAL, STRUCTURAL, CIVIL, AND LANDSCAPE DRAWINGS AND SPECIFICATIONS. COORDINATION SHALL OCCUR PRIOR TO FABRICATION, PURCHASE, AND INSTALLATION OF WORK.
6.	REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF EXPANSION/SEISMIC JOINTS. PROVIDE RACEWAY EXPANSION/SEISMIC JOINTS FOR RACEWAYS CROSSING BUILDING EXPANSION/SEISMIC JOINTS.
7.	DEMOLISH EXISTING SYSTEMS AS INDICATED ON PLANS OR AS REQUIRED FOR INSTALLATION OF NEW WORK. MATERIAL SHALL BE REMOVED FROM SITE AND LEGALLY DISPOSED OF OFF SITE UNLESS OTHERWISE DIRECTED. RETURN ITEMS TO OWNER IN EXISTING CONDITION WHEN DIRECTED BY OWNER.
8.	COMPLETION OF WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE PROJECT SCHEDULE. SCHEDULE INSTALLATION WITH OTHER TRADES TO ENSURE PROJECT MILESTONES ARE MET.
9.	DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL COMPONENTS REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE COMPONENTS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEMS INCLUDING RACEWAYS, CONDUCTORS, BOXES, SUPPORTS AND SIMILAR ITEMS.
10.	LOCATIONS OF RACEWAY, PATHWAY AND SIMILAR ITEMS ARE SHOWN SCHEMATICALLY. COORDINATE INSTALLATION, INCLUDING BUT NOT LIMITED TO CABLING, TELECOMMUNICATION PATHWAYS AND SPACES, AND EXACT LOCATION OF HORIZONTAL AND BACKBONE CABLING WITH LOCATIONS OF FIXED CASEWORK AND BUILDING CONDITIONS AFFECTING THE WORK OF THIS CONTRACT.
11.	NEW CABLING INSTALLATIONS SHALL BE CONCEALED IN WALL, CEILINGS, AND BELOW RAISED FLOOR SPACES UNLESS OTHERWISE NOTED ON THE DRAWINGS. CABLING IN ACCESSIBLE CEILING SPACES SHALL BE INSTALLED AS OPEN CABLING NEAR STRUCTURES AND WALLS OR AS SPECIFICALLY NOTED ON DRAWINGS. SEE SPECIFICATIONS FOR SUPPORT REQUIREMENTS.
12.	PROVIDE FIRESTOPPING SYSTEMS FOR CONDUIT AND RACEWAY SYSTEMS AT PENETRATIONS, SLEEVES AND SLOTS OF FIRE RATED CONSTRUCTION FOR HORIZONTAL AND INTRABUILDING PATHWAYS AND SPACES.
13.	INTRABUILDING OPTICAL FIBER CABLING SHALL BE CLEARLY AND VISIBLY IDENTIFIED IN PULLBOXES, ENTRANCE POINTS, EACH RISER ROOM, AND 5'-0" BEFORE ENTERING A FREE STANDING RACK UTILIZING AN OPTICAL FIBER CABLE MARKER TAG SYSTEM.
14.	MAINTAIN A MINIMUM SPACING OF 12" FROM ELECTRICAL FEEDERS AND BRANCH CIRCUIT WIRING AND 12" FROM AUXILIARY SYSTEM CABLING.
15.	MINIMUM SPACING FROM ELECTRICAL APPARATUS SUCH AS MOTOR DRIVEN EQUIPMENT AND TRANSFORMERS SHALL BE 6'-0". SPACING REQUIREMENTS SHALL APPLY TO OPEN CABLING PATHWAYS WHERE EQUIPMENT IS LOCATED ON THE SAME FLOOR, FLOOR ABOVE, FLOOR BELOW, OR IN ROOMS ADJACENT TO SUCH EQUIPMENT AS THOUGH WALLS AND FLOORS DID NOT EXIST. EXCEPTION: BUILDING CONSTRUCTION THAT RESULTS IN CONTINUOUS METALLIC BARRIER BETWEEN ELECTRICAL APPARATUS AND CABLE PATHWAYS SHALL BE CONSIDERED AS SUITABLE SEPARATION.
16.	PRIOR TO STARTING TELECOMMUNICATIONS INSTALLATION, CAREFULLY INSPECT INSTALLED WORK OF OTHER TRADES AND VERIFY THAT SUCH WORK IS COMPLETE TO THE POINT WHERE WORK MAY PROPERLY COMMENCE. NOTIFY THE ARCHITECT AND ENGINEER IN WRITING OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK.
17.	DO NOT BEGIN TELECOMMUNICATIONS INSTALLATION UNTIL ALL UNSATISFACTORY CONDITIONS ARE RESOLVED. BEGINNING WORK CONSTITUTES ACCEPTANCE OF CONDITIONS AS SATISFACTORY.
18.	ROUTE CATEGORY 6/6A CABLES TO THEIR ASSIGNED CROSS-CONNECT PER THE IDENTIFICATION LABEL AT EACH TELECOMMUNICATIONS WORKSTATION DEVICE. TERMINATE ALL CABLES ON 48-PORT PATCH PANELS ON RACKS UNLESS OTHERWISE NOTED.
19.	THE TELECOM CONTRACTOR SHALL PROVIDE ALL CONDUIT, OUTLET BOXES, JUNCTION BOXES, RACEWAY SYSTEMS, ETC. FOR A COMPLETE AND OPERATIONAL PATHWAY SYSTEM FOR ALL TELECOMMUNICATIONS SYSTEMS PER THE SCOPE OF WORK INDICATED ON THE CONSTRUCTION DRAWINGS AND BID SPECIFICATIONS.
20.	CABLE TRAY PATHWAYS ABOVE ACCESSIBLE CEILINGS SHALL BE PROVIDED BY THE TELECOM CONTRACTOR. CABLE TRAY PATHWAYS BELOW BAISED ELOOD SPACES OUTLUE DE DEOL/(DED DIV

A	AMPERE
AC	AIR CONDITIONING; ALTERNATING CURRENT,
AF	ABOVE COUNTER
AFC	AMP FUSE; AMP FRAME
AFF	AVAILABLE FAULT CURRENT
AG	ABOVE FINISHED FLOOR
AHJ	ABOVE GRADE
AHU	AUTHORITIES HAVING JURISDICTION
AIC	AIR HANDLING UNIT
AL	AMPERE INTERRUPTING CAPACITY
ANSI	ALUMINUM
AS	AMERICAN NATIONAL STANDARDS INSTITUTE
AT	AMP SWITCH
ATS	AMP TRIP
AV	ASYNCHRONOUS TRANSFER MODE
AWG	AUTOMATIC TRANSFER SWITCH
BAS	AUDIO VISUAL
BATT	AMERICAN WIRE GAUGE
BIL	BASIC IMPULSE INSULATION LEVEL
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT; DEGREES CELCIUS
CAB	CABINET
CAT	CATEGORY
CATV	COMMUNITY ANTENNA TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CLG	CEILING
CM	CEILING-MOUNTED
CO	CONDUIT ONLY
CR	CONTROLLED RECEPTACLE
CT	CURRENT TRANSFORMER
CU	COPPER
D	DEDICATED
DDC	DIRECT DIGITAL CONTROL
DEMARC	DEMARCATION POINT
DISC	DISCONNECT
DIST	DISTRIBUTION
DSL	DIGITAL SUBSCRIBER LINE
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EXHAUST FAN
EIA	ELECTRONIC INDUSTRIES ASSOCIATION
ELEV	ELEVATION
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPM	ELECTRONIC POWER METER
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
ETR	EXISTING TO REMAIN
EVCS	ELECTRIC VEHICLE CHARGING STATION
EWC	ELECTRIC WATER COOLER
F FA FAAP FACP FBO FOIC FOIO FSD	FUSES; DEGREES FAHRENHEIT FIRE ALARM FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM CONTROL PANEL FURNISHED BY OWNER FURNISHED BY OWNER INSTALLED BY CONTRACTOR FURNISHED BY OWNER INSTALLED BY OWNER FIRE SMOKE DAMPER
G	GROUND
GB	GROUND FAULT CIRCUIT INTERRUPTER BREAKER
GF	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HC	HORIZONTAL CROSS CONNECT
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HTR	HEATER
Hz	HERTZ
J	JUNCTION
K	KIRK KEY
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LEC	LOCAL EXCHANGE CARRIER
LT	LIGHT
LTG	LIGHTING
M	METER
MAN	METROPOLITAN AREA NETWORK
MAX	MAXIMUM
MC	MAIN CROSS CONNECT; METAL CLAD (CABLE)
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MDF	MAIN DISTRIBUTION FRAME
MDP	MAIN DISTRIBUTION PANEL

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ABBREVIATIONS

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D	I	E	I	F	l
		GENERAL		R	ACEWAY AND BOXES

			J	JUNCTION BOX
MFR	MANUFACTURER	EXISTING TELECOM TO REMAIN		FURNITURE WALL FEE
MH MIN	MANHOLE MINIMUM		[PB]	PULL BOX
MLO MM	MAIN LUGS ONLY MULTIMODE			
MPOE	MAIN POINT OF ENTRY	MATCHLINE OR PROPERTY LINE		(WHERE INDICATED, SUBS
MPOP MTD	MAIN POINT OF PRESENCE MOUNTED	ENLARGED PLAN BOUNDARY		VAULT (WHERE INDICATED, SUBS
MTS	MANUAL TRANSFER SWITCH	$\begin{pmatrix} 1 \end{pmatrix}$		FLOORBOX (BOX TYPE)
IVI V		E1.01 DETAIL/PLAN IDENTIFIER	$\odot$	POKE-THRU
(N) N	NEW NEUTRAI			(POKE-THRU TYPE)
NAC		E1.01 SECTION IDENTIFIEN		FOWERFOLE, FEOOR
NEC NEMA	NATIONAL ELECTRICAL CODE NATIONAL ELECTRICAL MANUFACTURERS			SURFACE METAL RAC
NF	ASSOCIATION NON-FUSED	E1.01		RACEWAY CONCEALE (EXPOSED IN UNFINISHED
NIC	NOT IN CONTRACT			RACEWAY RUN BELOW
NL		CHANGES MADE SUBSEQUENT TO PREVIOUS ISSUE	$\sim\sim\sim$	FLEXIBLE RACEWAY
OFC OHI	OPTICAL FIBER CABLE			
OL	OVERLOAD		0	RACEWAY (CIRCLE DE
OS OSP	OCCUPANCY SENSOR OUTSIDE PLANT	1 FLAG NOTE CALLOUT	<u> </u>	RACEWAY CONTINUA
D		DEMOLITION NOTE TAG	]	RACEWAY STUB WITH
P PB	PULL-BOX	1 EQUIPMENT TAG	[]	RACEWAY SLEEVE WI
PF PH	POWER FACTOR PHASE			FIRE STOPPING SLEEV
PIR	PASSIVE INFRARED			CABLE TRAY 12"W x 4
PIV PNL	POST INDICATING VALVE PANEL			OTHERWISE NOTED
PP PT	PATCH POTENTIAL TRANSFORMER			CABLE TRAY, OVERHE
PVC	POLYVINYL CHLORIDE	1 LOCATION WHERE PICTURE WAS TAKEN AND DIRECTION	НА	HOMERUN TO PANEL
RCP	REFLECTED CEILING PLAN		117-	
REC REE	RECEPTACLE REFER TO	GROUNDING		-(GAUGE OF WIRE OTHER <sup>-</sup> NUMBER OF CONDUC
REV	REVISION			-(GROUND CONDUCTOR) -(PHASE CONDUCTORS)
RM RTRC	ROOM REINFORCED THERMOSETTING RESIN CONDUIT		~	-(NEUTRAL CONDUCTOR)
RU	RACK UNIT			
SHT	SHEET	EQUIPMENT GROUNDING CONNECTION		
SLC SM	SIGNALING LINE CIRCUIT SINGLEMODE	<u>+</u>		
SMFC	SURFACE-MOUNTED OPTICAL FIBER CABINET			
SONET	SYNCHRONOUS OPTICAL NETWORK			
SP SPD	SERVICE PROVIDER SURGE PROTECTIVE DEVICE			
SPEC	SPECIFICATIONS			
SPST	SINGLE POLE SINGLE THROW SHUNT TRIP			
STP SVGA	SHIELDED TWISTED PAIR SUPER VIDEO GRAPHICS ARRAY			
SW	SWITCH			
SWBD	SWITCHBOARD			
TBB TEI	TELECOMMUNICATIONS BONDING BACKBONE			
TELCO	TELEPHONE COMPANY			
TGB TIA	TELECOMMUNICATIONS GROUNDING BUSBAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION			
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR			
TP	TAMPERPROOF			
TR TV	TELECOMMUNICATIONS ROOM TELEVISION			
TVSS TYP	TRANSIENT VOLTAGE SURGE SUPPRESSION TYPICAL			
UG UL	UNDERGROUND UNDERWRITERS LABORATORIES			
UON UPS	UNLESS OTHERWISE NOTED			
USB	UNIVERSAL SERIAL BUS			
UTP				
UV	UNSHIELDED TWISTED PAIR UNIT VENTILATOR			

VA	VOLT AMPERES
VFD	VARIABLE FREQUENCY DRIVE
W	WASTE, WATT, WIDE, WATER
W/	WITH
W/O	WITHOUT
WAN	WIDE AREA NETWORK
WG	WIRE GUARD
WH	WATT HOUR METER
WP	WEATHERPROOF
XFMR	TRANSFORMER

### WYE Y

IMPEDANCE Ζ

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### ALL FEED OUTLET BOX

- , SUBSCRIPT INDICATES PULL BOX NUMBER)
- , SUBSCRIPT INDICATES HANDHOLE NUMBER)
- D, SUBSCRIPT INDICATES VAULT TYPE)

# FLOOR TO CEILING

### L RACEWAY

- ICEALED IN-WALL OR IN-CEILING
- INISHED AREAS)
- BELOW FLOOR OR BELOW GRADE

CLE DENOTES VERTICAL TRANSITION)

### ITINUATION

- B WITH BUSHINGS
- EVE WITH BUSHINGS

### SLEEVE

2"W x 4"H OVERHEAD, UNLESS

### VERHEAD LADDER TYPE<sup>-</sup> INDICATES FLOOR

### L DESIGNATION AND CIRCUIT NUMBER)

- OTHER THAN AWG#12) ONDUCTORS
- TOR) ORS)

TELECOMMUNICATIONS DEVICE (X = REPRESENTS THE # OF TELECOMMUNICATIONS MODULES) (W = TELECOMMUNICATIONS WALL PHONE MTD AT +48" AFF)  $\exists$  (B = BLANK COVER PLATE) (IC = CABLING FOR INTERCOM , INTERCOM BY OTHERS) (AC = ABOVE COUNTER DEVICE) (CAM = CABLING FOR SECURITY VIDEO CAMERA, CAMERA BY OTHERS)

TELECOMMUNICATIONS SYSTEM

- (WAP = WALL-MOUNTED WIRELESS ACCESS POINT DATA DEVICE) ABOVE CEILING TELECOMMUNICATIONS DEVICE (X = REPRESENTS THE # OF TELECOMMUNICATIONS MODULES) (WAP = WIRELESS ACCESS DEVICE) (CAM = SECURITY VIDEO CAMERA)
- FIRE RESISTANT 3/4" PLYWOOD BACKBOARD
- TWO-POST EQUIPMENT RACK
- 4" DOUBLE-SIDED VERTICAL CABLE MANAGEMENT
- WALL-MOUNTED ENCLOSURE
- WBX RECESSED WALL BOX, WALL-MOUNTED
- -C COAX, WALL-MOUNTED
- -AV HDMI (ROUGH-IN ONLY)

### ACCESS CONTROL SYSTEM

- ACP ACCESS CONTROL PANEL
- CREDENTIAL/CARD READER
- CR (CR = CARD READER, WALL-MOUNTED) CR (CR/P = CARD READER W/PIN, WALL-MO (CR/P = CARD READER W/PIN, WALL-MOUNTED) (CR/M = CARD READER, MULLION-MOUNTED)
- S DOOR POSITION SWITCH
- SECURITY BUTTONS/SWITCH, WALL-MOUNTED
- (LD = LOCKDOWN) (KS = KEYED SWITCH)
- SECURITY BUTTONS, UNDER-DESK-MOUNTED SECURITY BUTTONS, (DR = DOOR RELEASE) (LD = LOCKDOWN)
- (PB = PANIC/DURESS)
- EL DOOR HARDWARE POWER SUPPLY (DIV 08) (EL = ELECTRIFIED LOCKSET/EXIT DEVICE) (ES = ELECTRIFIED STRIKE)
- (PB = PANIC/DURESS)
- R REQUEST TO EXIT, INTEGRAL MICRO SWITCH
- (ML = ELECTRIFIED MAGNETIC LOCK)

(MH = ELECTRIFIED MAGNETIC HOLD OPEN)

DRAWING INDEX TC-001 TELECOM LEGEND, GENERAL NOTES, ABBREVIATIONS, AND

DRAWING INDEX TC-002 TELECOM AND SECURITY ROUGH-IN SCHEDULES TC-100 TELECOM PLAN - BUILDING C TD-100 TELECOM PLAN - BUILDING D TE-100 TELECOM PLAN - BUILDING E TF-100 TELECOM PLAN - BUILDING F TH-100 TELECOM PLAN - BUILDING H TC-801 TELECOM DETAILS TC-802 TELECOM DETAILS TC-803 TELECOM DETAILS TC-804 SECURITY DETAILS TC-805 SECURITY DETAILS TC-901 SECURITY ONE-LINE DIAGRAM

NOT ALL SYMBOLS MAY APPEAR ON THE DRAWINGS

Helix design group

![](_page_55_Figure_68.jpeg)

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K

TELI SYMBO	ECOMMUNICA MOUNTING HEIGHT	ATIONS ROUGH-		HEDULE	ΟΤΥ	CON		MUD RING	DETAIL NOTES
	STANDARD, UON	CATEGORY 6 DEVICE	1	<b>عند</b> 4-11/16"	1	512E	IDF	SINGLE GANG	1,2/ TC-803 -
<u>GENERA</u> <u>NOTES:</u>	<u>NOTE:</u> 1. MOUNTING HEIGHTS IN 1. PROVIDE ROUGH-IN (FI 2. FLOOR BOX DEVICES L 3. MOUNT DEVICE ABOVE 4. FLOOR BOXES ARE PR 5. PROVIDE RECESSED W	IDICATED ON THE SCHEDULE RE LUSH) FOR HARD-LID AND (SURF OCATED ON THE FIRST FLOOR S COUNTER TO MATCH ELECTRIC OVIDED UNDER SECTION 260535 (ALL BOX WITH (2) LOW-VOLTAG	FER TO CE ACE MOUN SHALL ROUT AL RECEPT S, SEE SECT E BACK BO	NTER OF BACK E T) IN OPEN TO S <sup>-</sup> TE TO THE NEAR ACLES. ION 271100 FOR KES & (2) ELECTF	SOX. FRUCTUR EST TELE CONNEC RICAL BAC	E CEILINGS COM ROOM TIVITY. CK BOXES.	1 OR AS INDICATED Of	N THE FLOOR PLA	I
			יחבטו						
						CON	NDUIT		
91WBO			QTY	SIZE	QTY	SIZE	TERM LOCATION		
J	<sup>M</sup> +108", UON	INTERIOR CAMERA	1	4"S	1	3/4"	SEE PLAN	DOUBLE GANG	4/TC-803 1,3,4

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SVMBOI			O	UTLET BOX		CO	NDUIT		DETAIL	NOTES
STMBOL			QTY	SIZE	QTY	SIZE	TERM LOCATION		DETAIL	NUTES
(J)(1)CAM	+108", UON	INTERIOR CAMERA	1	4"S	1	3/4"	SEE PLAN	DOUBLE GANG	4/TC-803	1,3,4
J	+156", UON	EXTERIOR CAMERA	1	MASONRY	1	3/4"	SEE PLAN	SINGLE GANG	3/TC-803	1
GENERAL N 1. NOTES <sup>.</sup>	IOTE: MOUNTING HEIGHTS INE	DICATED ON THE SCHEDULE F	REFER TO C	ENTER OF BACK	BOX.					L
<u>1.</u>	DEVICE REQUIRES NETV	VORK CONNECTION, PROVID	E CATEGOR	Y 6 CABLING (CA	BLING BY 2	71100).				
2.	DEVICE REQUIRES NET	VORK CONNECTION, PROVID	E OPTICAL F	FIBER CABLING (C	CABLING B	, ( 271100).				
2	COODDINATE DACK DOV					NCTALLAT	ON			

4. SINGLE GANG MASONRY BACK BOXES ARE ACCEPTABLE FOR EXTERIOR CAMERA LOCATIONS. 5. PROVIDE STAINLESS STEEL FACEPLATE AND GASKET WITH 3/4" WEATHERTIGHT CONDUIT TO CAMERA HOUSING.

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55 CON
MOUNTING HE
+44"
+44"
TOP OF FRA
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UNDER DES
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SEE NOTE
IOTE: MOUNTING HEI DEVICE REQUIF COORDINATE F SINGLE GANG I PROVIDE FACE WHERE DOOR PROVIDE SINGI

D E F G H J

E F G

# NTROL ROUGH-IN SCHEDULE

		OUTLET BOX		CON	DUIT			NOTES	
IGHT	DEVICE NAME	QTY	SIZE	QTY	SIZE	TERM LOCATION		DETAIL	NOTES
	CARD READER	1	4"S	1	3/4"	J-BOX ABOVE ACCESSIBLE CLG	SINGLE GANG	TC-804 & TC-805	3
	CARD READER, MULLION	-	-	1	3/4"	J-BOX ABOVE ACCESSIBLE CLG	-	TC-804 & TC-805	-
ME	DOOR POSITION SWITCH	-	SEE NOTE	1	3/4"	J-BOX ABOVE ACCESSIBLE CLG	-	TC-804 & TC-805	2,5
к	DOOR RELEASE BUTTON	1	4"S	1	3/4"	ACCESSIBLE CLG	SINGLE GANG	-	4
к	PANIC BUTTON	1	4"S	1	3/4"	ACCESSIBLE CLG	SINGLE GANG	-	4
	INTEGRAL MICRO REX	-	-	-	-	-	-	TC-804 & TC-805	2
	ELECTRIFIED LOCKSET/ EXIT DEVICE	VARIES	MASONRY	VARIES	3/4"	J-BOX ABOVE ACCESSIBLE CLG	SINGLE GANG	TC-804 & TC-805	2,6

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EIGHTS INDICATED ON THE SCHEDULE REFER TO CENTER OF BACK BOX.

IRES NETWORK CONNECTION, PROVIDE CATEGORY 6 CABLING (CABLING BY 271100). REQUIREMENTS WITH SECURITY CONTRACTOR AND DOOR HARDWARE CONTRACTOR.

MASONRY BACK BOXES ARE ACCEPTABLE FOR EXTERIOR MOUNTED DEVICES.

EPLATE WITH COMPRESSION BOX CONNECTOR AND 1/4" ARMORD CABLING UNDER WORK SURFACE TO DEVICE. R FRAME IS FILLED, PROVIDE SINGLE GANG MASONRY BACK BOX AT TOP OF DOOR FRAME AT 4" ON CENTER FROM STRIKE SIDE OF DOOR.

GLE GANG MASONRY BACK BOX AT CENTER HINGE ON BOTH SIDES OR AT STRIKE.

![](_page_56_Figure_18.jpeg)

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# SHEET NOTES

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- 1. SEE SHEET TC002 FOR BACK BOX AND CONDUIT ROUGH-IN REQUIREMENTS.
- 2. COORDINATE DEVICE LOCATIONS AND HEIGHTS WITH ARCHITECTURAL ELEVATION DRAWINGS.
- 3. OPEN CABLING PATHWAYS HAVE BEEN SHOWN FOR MAIN PATHWAYS ONLY. J-HOOKS SHALL BE PROVIDED TO EACH DEVICE LOCATION. J-HOOKS SHALL BE SPACED 4'-0" APART AND BE SUPPORTED BY DEDICATED HANGER/ROD FROM STRUCTURE AND/OR WALLS. PROVIDE SEPARATE J-HOOK PATHWAY FOR EACH LOW-VOLTAGE SYSTEM.

# **FLAG NOTES**

- PROVIDE WALL-MOUNTED TELECOM ENCLOSURE. FIELD COORDINATE FINAL LOCATION PRIOR TO INSTALLATION. SEE 1/T801 AND 2/T801 FOR ADDITIONAL INFORMATION.
- PROVIDE POLE-MOUNTED TELECOM ENCLOSURE. FIELD COORDINATE FINAL LOCATION PRIOR TO INSTALLATION. SEE 2/T801 FOR ADDITIONAL INFORMATION.
- 3 OSP PATHWAY. FIELD COORDINATE FINAL STUB-UP LOCATION PRIOR TO INSTALLATION. SEE T101 FOR ADDITIONAL INFORMATION.
- ACCESS CONTROL PANEL SHALL BE PROVIDED BY THE CITY'S SECURITY VENDOR.

![](_page_57_Picture_15.jpeg)

![](_page_57_Figure_20.jpeg)

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## SHEET NOTES

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![](_page_58_Figure_17.jpeg)

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# SHEET NOTES

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![](_page_59_Figure_15.jpeg)

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## SHEET NOTES

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![](_page_60_Picture_15.jpeg)

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## SHEET NOTES

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![](_page_61_Picture_12.jpeg)

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![](_page_62_Figure_7.jpeg)

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# **TYPICAL INDOOR WALL-MOUNTED IDF RACK ELEVATION**

![](_page_62_Figure_9.jpeg)

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**DETAIL - ACCESS CONTROL PANEL - 16 DOORS 3 NEW PANEL INSTALLATION** TC801 SCALE: NONE

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![](_page_62_Picture_11.jpeg)

### **RACK REQUIREMENTS**

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1. RACK ASSEMBLY SHALL INCLUDE BY NOT LIMITED TO ANCHOR BOLTS, CLAMPS, RACKS AND MISC. INSTALLATION HARDWARE. EQUIP EACH RACK AS SHOWN, AND AS DESCRIBED IN THE SPECIFICATIONS. PROVIDE CABLE MANAGEMENT PANELS, PATCH PANELS, ETC., UNLESS NOTED OTHERWISE.

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- 2. GROUND EQUIPMENT TO NEAREST NEC RECOGNIZED GROUNDING ELECTRODE SUBSYSTEM WITH A DEDICATED #6 AWG COPPER, STRANDED, GREEN GROUNDING CONDUCTOR.
- 3. ASSEMBLE EQUIPMENT RACKS SO RACK UNIT 1 IS NEAREST TO THE FLOOR AND NUMBERS INCREASE VERTICALLY.

# **RACK COMPONENTS**

- 1) WALL-MOUNTED LOCKABLE CABINET, GREAT LAKES MODEL GL36WM OR APPROVED EQUAL. FIELD COORDINATE FINAL LOCATION PRIOR TO INSTALLATION
- 2 2-RU OPTICAL FIBER CABLE MANAGEMENT PANEL
- (3) 2-RU HORIZONTAL CABLE MANAGEMENT PANEL
- (4) 2-RU RMFC (X/Y), (X) DENOTES QUANTITY OF 6-LC DUPLEX SM MODULES, (Y) DENOTES QUANTITY OF BLANK PANELS
- 5 CATEGORY 6 24-PORT WAP PATCH PANEL
- (6) CATEGORY 6 24-PORT STATION PATCH PANEL
- (7) CONDUIT PATHWAY, PROVIDE CONDUIT WATERFALLS FOR EACH 4"C SLEEVE. SEE FLOOR PLAN FOR QUANTITY AND SIZES
- (8) OSP PATHWAY, SEE SITE PLAN FOR QUANTITY AND SIZES. FIELD COORDINATE FINAL STUB-UP LOCATION
- (9) 3/4" FIRE RETARDANT PLYWOOD BACKBOARD, MOUNT AT +6"AFF
- (10) 10" TGB, SEE 2/T802
- (11) FIBER SERVICE LOOP
- (12) ETHERNET NETWORK SWITCH, (OFOI)
- (13) BONDING STRAP #6AWG WITH 2-HOLE GROUND LUG

![](_page_62_Figure_30.jpeg)

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### **TYPICAL OUTDOOR NEMA 3R IDF ENCLOSURE**

### **DETAIL - ACCESS CONTROL PANEL - 8 DOORS** A NEW PANEL INSTALLATION

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![](_page_62_Figure_34.jpeg)

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	OVERHEAD CABLE
3/O AWG BARE COPPER TO BUILDING STEEL 3/O AWG BARE COPPER ROUTED TO EACH 10" TGB AS APPLICABLE	TRAY / LADDER RACK  EACH EQUIPMENT RACK / ENCLOSURE
250 KCMIL BARE COPPER TO MAIN ELECTRICAL GROUND COVERHEAD CABLE TRAY / LADDER RACK	TWO HOLE COMPRESSION GROUND LUG (TYP)
EACH EQUIPMENT RACK / ENCLOSURE CONDUITS / CONDUIT SLEEVES	SIGNAL REPERENCE GRID
BUILDING ENTRANCE PROTECTION DEVICE	3/O AWG BARE COPPER TO BUILDING STEEL 3/O AWG BARE COPPER
	NOTES         1. NOT ALL PARTS AND PART NUMBERS ARE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION INCLUDING, MISCELLANEOUS APPURTENANCES.         2. ALL GROUNDING CONNECTORS SHALL BE DOUBLE LUG, DOUBLE COMPRESSION TERMINATIONS ON BOTH ENDS.
DETAIL - TELECOMMUNICATIONS GROUND BUSBAR ASSEMBLY - 20" SCALE: NONE	DETAIL - TELECOMMUNICATIONS 2 GROUND BUSBAR ASSEMBLY - 10" TC802 SCALE: NONE
	PATCH PANEL 110 CONNECTOR STRIP
	MAXIMUM LENGTH OF CONDUCTOR PAIR EXPOSED BEYOND CABLE JACKET NOT TO EXCEED 1/2" (TYP)
	MAINTAIN TIGHT PAIR TWIST UP TO POINT OF TERMINATION (TYP EACH PAIR)
FIBER OPTIC CABLE       CABLE         ORIGINATION AND       DESTINATION         Image: Mode xxxx, ide xxxx       Image: Mode xxxx         Image: Lommer indoor/outdoor ofc       Cable type and count	110 TERMINATION PROTECTION COVER SUPPLIED WITH PANEL
NOTES:         1.         THE PART NUMBER AND TYPE ABOVE ARE EXAMPLES ONLY.         PROVIDE THE CORRECT INFORMATION IN TAG PER SPECIFICATIONS	BEND RADIUS MINIMUM 4 TIMES OUTSIDE CABLE BEND RADIUS MINIMUM 4
<ul> <li>OF INSTALLED TYPE. OTHER CABLE TYPES AND CONFIGURATIONS MAY VARY.</li> <li>2. REFER TO TELECOMMUNICATIONS RISER DIAGRAM AND TERMINATION SCHEDULES FOR CABLE ORIGINATION AND DESTINATION LOCATIONS, CABLE TYPES, AND STRAND/PAIR COUNTS.</li> </ul>	DIAMETER. WITH PANEL
4 DETAIL - OPTICAL FIBER CABLE MARKER DETAIL TC802 SCALE: NONE	5 DETAIL - UNIVERSAL PATCH PANEL TERMINATION SCALE: NONE

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![](_page_63_Figure_1.jpeg)

![](_page_63_Figure_3.jpeg)

![](_page_63_Figure_9.jpeg)

![](_page_63_Picture_10.jpeg)

![](_page_63_Picture_11.jpeg)

![](_page_63_Picture_13.jpeg)

# DETAIL - TELECOMMUNICATIONS GROUND BUSBAR ASSEMBLY - 10"

# **DETAIL - UNIVERSAL PATCH PANEL TERMINATION**

# 1/4"D x 2"W x 10"L COPPER GROUND BAR WITH WALL MOUNTING

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![](_page_63_Figure_24.jpeg)

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3. CONDUIT SHALL BE 3/4" EMT UNLESS NOTED OTHERWISE.

REQUIREMENTS. COORDINATE GAUGE REQUIREMENTS

FLOOR PLANS FOR EXACT DOOR ORIENTATION, DEVICE TYPES AND DEVICE PLACEMENTS RELATIVE TO DOOR

WITH MANUFACTURER BASED ON ACTUAL WIRE

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4. DIVISION 26 & 28 SHALL PROVIDE CONDUIT AND CABLING AS INDICATED.

# **COMPONENTS**

POSITION AND SWING.

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LENGTHS.

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- (1) 12" x 12" x 6" JUNCTION BOX (1 PER DOOR) SHALL BE MOUNTED +12" ABOVE ACCESSIBLE CEILING, WHERE NO CEILING EXIST MOUNT AT NEAREST ACCESSIBLE CEILING SPACE OR AS SHOWN ON THE FLOOR PLANS. PROVIDE (1)2" NIPPLE ON TOP OF BOX AND (1)1"C TO POWER SUPPLY/ CONTROL J-BOX WHERE APPLICABLE
- (2) CABLING SHALL ROUTE TO DESIGNATED ACCESS CONTROL PANEL
- 3 CARD (IN) READER SHALL BE MOUNTED ON UNSECURE SIDE OF DOOR
- 4 DOOR POSITION SWITCH SHALL BE RECESSED IN DOOR FRAME
- 5 ELECTRIFIED MORTISE LOCKSET/EXIT DEVICE, FURNISHED BY DIV 08
- 6 CABLING THROUGH DOOR FOR POWER AND INTEGRAL MICRO REX BUILT INTO DOOR HARDWARE
- 7 POWER TRANSFER HINGE / POWER TRANSFER DEVICE
- (8) MASONRY BACK BOX /MORTAR BOX SHALL BE MOUNTED TO ALLOW ACCESS TO WIRING FROM POWER TRANSFER HINGE/DEVICE
- 9 AUTO OPERATOR CONTROLLER, FURNISHED BY DIV 08
- (10) KEYED SWITCH, FURNISHED BY DIV 08
- <sup>/</sup> AUTO OPERATOR ACTUATOR, FURNISHED BY DIV 08
- (12) DOOR AUTO OPERATOR, FURNISHED BY DIV 08
- (13) DOOR HARDWARE POWER SUPPLY, FURNISHED BY DIV [08/28]
- ELECTRIC STRIKE SURFACE/ FLUSH MOUNT
- (15) REQUEST TO EXIT DEVICE

![](_page_65_Figure_22.jpeg)

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# **GENERAL NOTES**

- 1. WIRE GAUGES NOTED ARE MINIMUM GAUGE REQUIREMENTS. COORDINATE GAUGE REQUIREMENTS WITH MANUFACTURER BASED ON ACTUAL WIRE LENGTHS.
- 2. DETAIL SHOWN IS A TYPICAL ELEVATION, REFER TO FLOOR PLANS FOR EXACT DOOR ORIENTATION, DEVICE TYPES AND DEVICE PLACEMENTS RELATIVE TO DOOR POSITION AND SWING.
- 3. CONDUIT SHALL BE 3/4" EMT UNLESS NOTED OTHERWISE.
- 4. DIVISION 26 & 28 SHALL PROVIDE CONDUIT AND CABLING AS INDICATED.

# **COMPONENTS**

- (1) 12" x 12" x 6" JUNCTION BOX (1 PER DOOR) SHALL BE MOUNTED +12" ABOVE ACCESSIBLE CEILING, WHERE NO CEILING EXIST MOUNT AT NEAREST ACCESSIBLE CEILING SPACE OR AS SHOWN ON THE FLOOR PLANS. PROVIDE (1)2" NIPPLE ON TOP OF BOX AND (1)1"C TO POWER SUPPLY/ CONTROL J-BOX WHERE APPLICABLE
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- (13) DOOR HARDWARE POWER SUPPLY, FURNISHED BY DIV [08/28]
- (14) ELECTRIC STRIKE SURFACE/ FLUSH MOUNT
- (15) REQUEST TO EXIT DEVICE

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AMERICAN INSTITUTE OF ARCHITECTS

HELIX DESIGN GROUP, INC

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Bicsi Patrick D Shannon BICSI ID # 122533 EXPIRES 12-31-26

SECURITY DETAILS

CITY OF FEDERAL WAY SITE

FEDERAL WAY, WASHINGTON DATE REVISION \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ ------JOB NO. DATE 05.06.24 a23-087 \_\_\_\_ BID SET 10 TC-805

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\*\*\*UNOFFICIAL COPY\*\*\* Official bid documents, plan holder's list, and addenda (if applicable) are available on BXWA.com

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