

ADDENDUM NO. 3

Project Designation: 16070 - JJSD #251 Harwood Elementary Addition and Remodel

For: Jefferson Joint School District No. 251

Date: May 7, 2019

This Addendum applicable to work designated herein shall be understood to be and is an Addendum and as such shall be part of and included in the Contract.

Failure to acknowledge receipt of this Addendum on the bid proposal form may result in rejection of your bid.

Architectural Items:

1. See revised Sheet **A1.5** – Part 2 – Annotation Plan and Finish Plan.
 - a. Door numbers changed to match Door Hardware in Specifications.
2. See revised Sheet **A6.1** – Door and Window Schedule.
 - a. Door Schedule updated.

Specification Items:

1. See revised Section **08 7100** – Door Hardware.
 - a. Remove Door **225** from HW SET NO: 8
 - b. Add Doors **225A** and **225B** to HW SET NO: 8

Manufacturers and Product Approvals:

1. Section 09 8410 – Tackable Wall Panels. Add **Inwest Manufacturing** as approved Manufacturer.
 - a. Inwest Manufacturing LP, P.O. Box 1186, Draper, Utah, 84020 Phone: (801) 619-7044

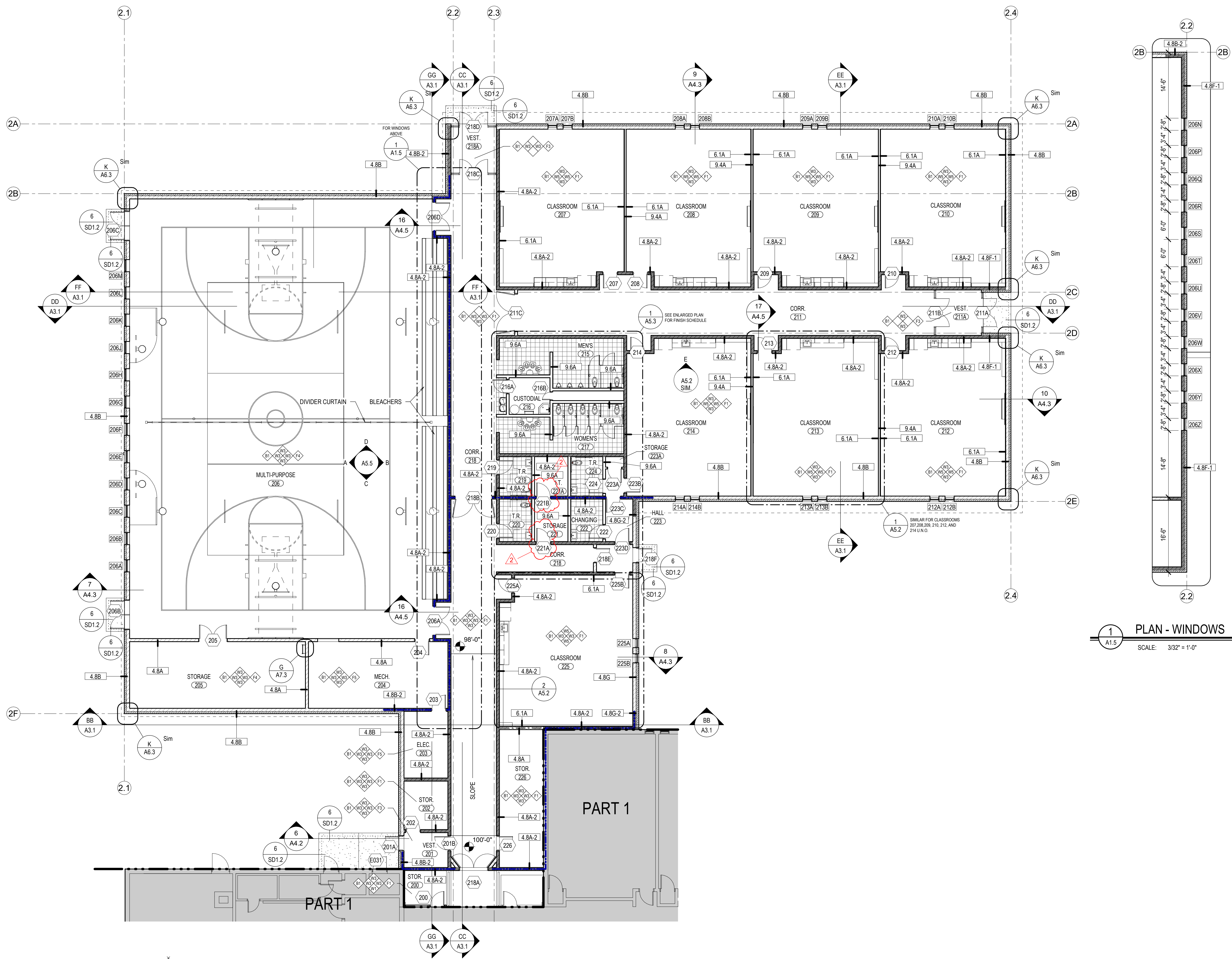
Attachments:

The Addendum consists of: 1 pages. Attached Documents consist of – A1.5, A6.1, and Specification Section 08 7100

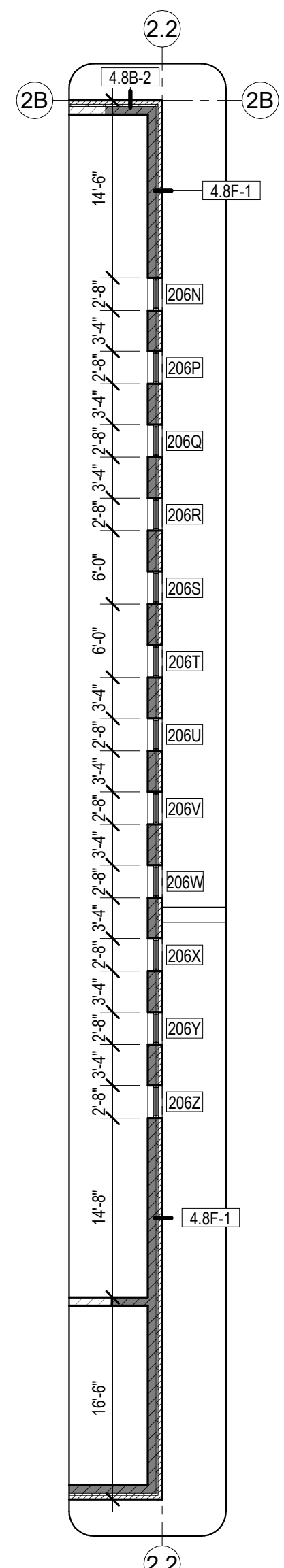
END OF ADDENDUM NO. 3



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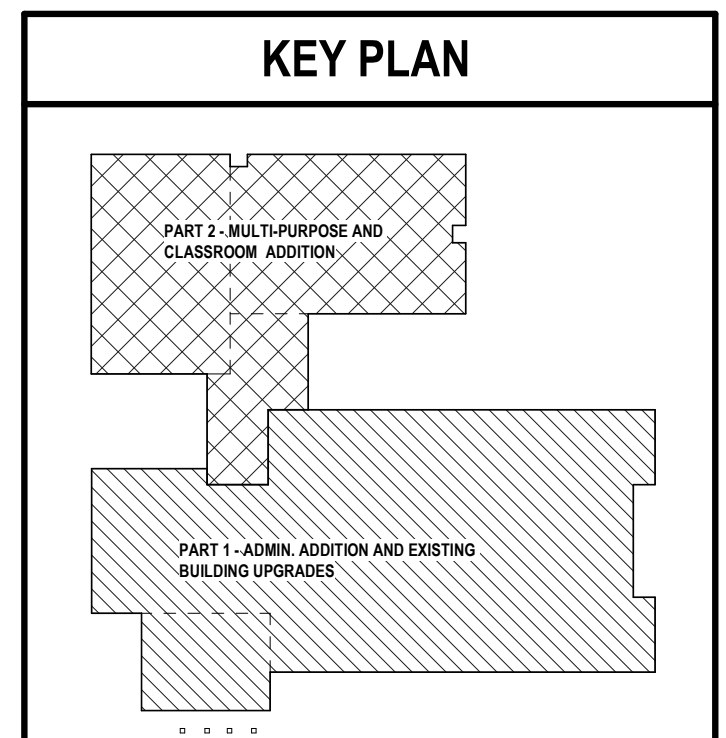


1 PLAN - WINDOWS
SCALE: 3/32" = 1'-0"



PART 2 - ANNOTATION PLANS
SCALE: 3/32" = 1'-0"

FINISH SCHEDULE KEY	
WALL FINISH	
W1	TEXTURED/PAINTED GYP. BOARD
W2	TILE WAINSCOT OVER W1 OR W3
W3	PAINTED MASONRY
W4	NEW PAINT ON EXISTING WALLS
W5	TACKABLE WALL SURFACE
BASE FINISH	
B1	4" COVED RUBBER
B2	6" X 12" CERAMIC TILE
FLOOR FINISH	
F1	CARPET TILE
F2	TILE OVER THIN SET
F3	ENTRANCE MATTING
F4	RUBBER FLOORING
F5	POLISHED AND SEALED CONCRETE



LICENSED ARCHITECT

nbw architects p.a.
 ARCHITECTURE / PLANNING / INTERIORS
 SCOTT L NELSON A.I.A. KEVIN R BODILY A.I.A. JAMES HWYATT A.I.A.
 990 JOHN RIBBING PARKWAY P.O. BOX 2212 - IRIDI FALLS, IDAHO 83402-2212
 (208) 522-8778 (208) 522-8785 (208) 522-8786

**ADDITION AND REMODEL TO:
 HARWOOD ELEMENTARY**
 JEFFERSON JOINT SCHOOL DISTRICT NO. 251
 200 W 3RD N, RIGBY, IDAHO 83442

PART 2 - ANNOTATION PLAN AND FINISH PLAN

PROJECT:
 SHEET TITLE:

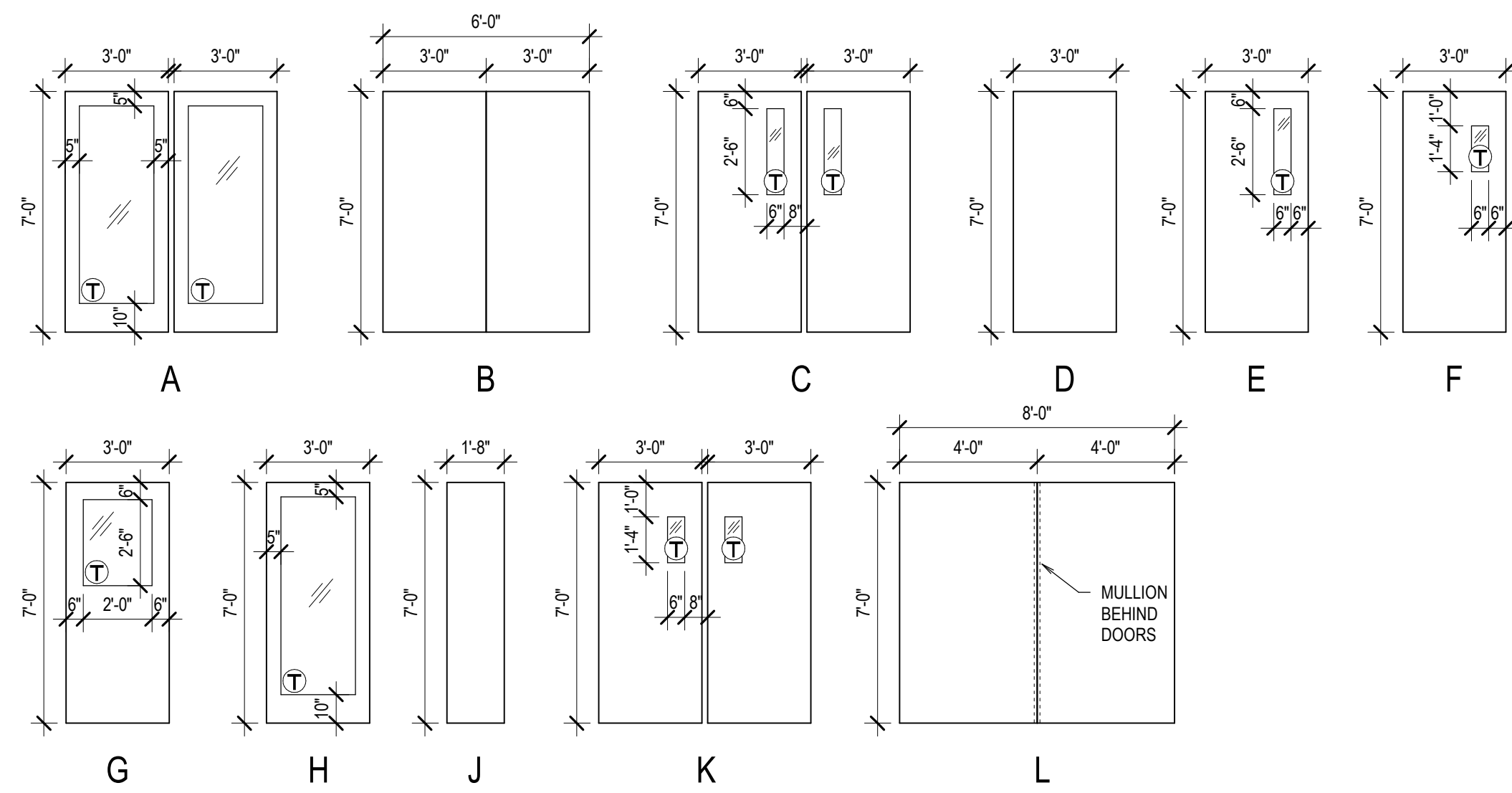
REVISIONS	DATE
2 ADDENDUM #3	2019-05-07

PROJECT NO.
16070
 DATE:
APRIL 2019
 DRAWN BY:
BTH
 CHECKED BY:
KRB

DRAWING NO.:

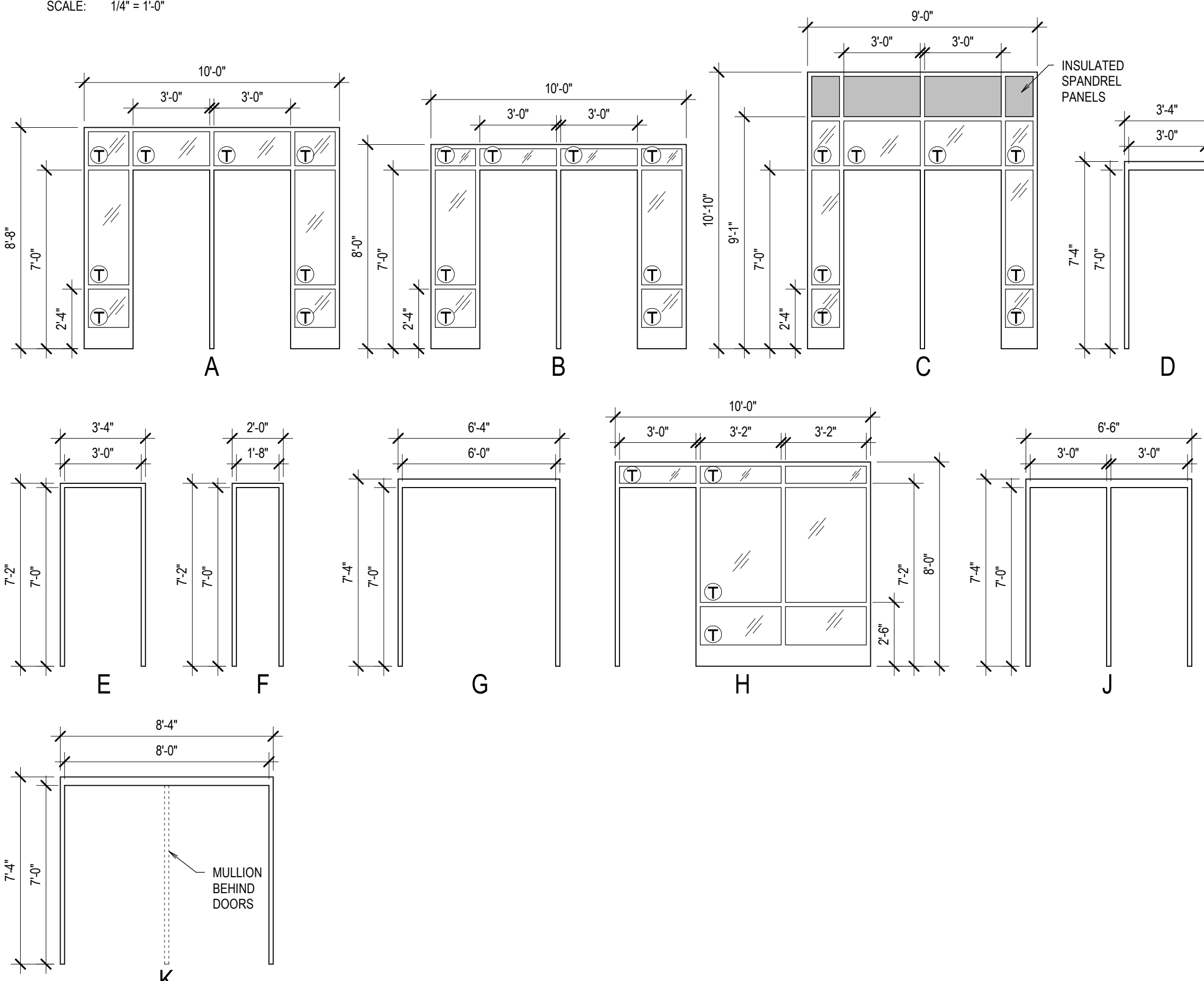
A1.5

WINDOW SCHEDULE									
WINDOW NUMBER	WINDOW TYPE	SIZE		SILL HEIGHT	FRAME MATERIAL	DETAILS			REMARKS
		WIDTH	HEIGHT			HEAD	JAMB	SILL	
001	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
002	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
003	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
004	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
005	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
006	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
007	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
008	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
009	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
010	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
011	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
012	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
013	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
014	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
015	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
016	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
017	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
018	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
019	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
020	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
021	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
022	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	45 MIN
023	A	2'-8"	15'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
101A	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
101B	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
101C	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
101D	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
103	F	5'-0"	3'-6"	3'-6"	HM	FA6.3	FA6.3	UA6.3	
103A	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
103B	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
108A	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
108B	C	5'-4"	6'-8"	2'-0"	AL	FA6.2	FA6.2	RA6.2	
108C	D	3'-4"	4'-8"	2'-8"	HM	FA6.2	FA6.2	RA6.2	45 MIN
108E	D	3'-4"	4'-8"	2'-8"	HM	FA6.2	FA6.2	RA6.2	45 MIN
108F	D	3'-4"	4'-8"	2'-8"	HM	FA6.2	FA6.2	RA6.2	45 MIN
111	D	3'-4"	4'-8"	2'-8"	HM	FA6.2	FA6.2	RA6.2	45 MIN
206A	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206B	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206C	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206D	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206E	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206F	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206G	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206H	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206J	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206K	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206L	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206M	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206N	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206P	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206Q	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206R	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206S	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206T	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206U	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206V	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206W	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206X	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206Y	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
206Z	E	2'-8"	2'-0"	16'-0"	AL	LA6.2	LA6.2	RA6.2	
207A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
207B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
208A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
208B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
209A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
209B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
210A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
210B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
212A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
212B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
213A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
213B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
214A	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
214B	B	2'-0"	9'-4"	0'-0"	AL	MA6.2	SA6.2	UA6.2	
225A	G	2'-0"	7'-4"	2'-0"	AL	GA6.3	GA6.3	MA6.3	
225B	G	2'-0"	7'-4"	2'-0"	AL	GA6.3	GA6.3	MA6.3	



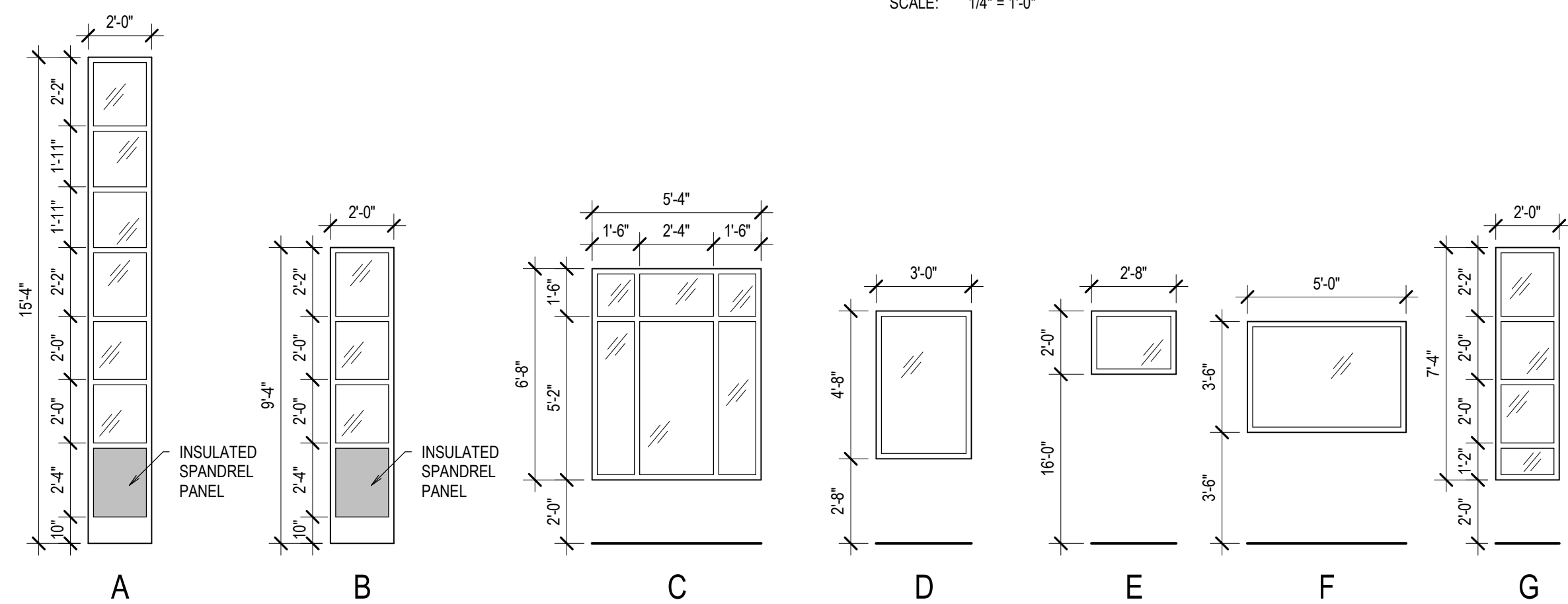
DOOR TYPES T = TEMPERED GLAZING

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



FRAME TYPES T = TEMPERED GLAZING

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



WINDOW TYPES

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

DOOR SCHEDULE																
DOOR NUMBER	DOOR HANDING	LOCATION			SIZE		SINGLE OR PAIR	DOOR TYPE	FRAME TYPE	FRAME		MATERIAL	REMARKS			
		ROOM #	NAME	ROOM #	NAME	WIDTH				HEIGHT	HEAD			JAMB		
101	LH	110	ENTRY CORRIDOR	101	WORK ROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	09
102	RHR/LHR	EXT	EXTERIOR	102	ENTRY VESTIBULE	3'-0"	7'-0"	P	A	A	AA6.2	FA6.2	AL	AL		A1
103	RH	109	FRONT DESK	103	PRINCIPAL	3'-0"	7'-0"	S	E	E	EA6.2	KA6.2	WD	HM		16
104	RHR	106	SICK ROOM	104	STORAGE	3'-0"	7'-0"	S	D	E	DA6.2	KA6.2	WD	HM		19
105	RHR	106	SICK ROOM	105	MECH.	3'-0"	7'-0"	S	D	E	EA6.2	KA6.2	WD	HM		19
107	LH	106	SICK ROOM	107	T.R./SHOWER	3'-0"	7'-0"	S	D	E	DA6.2	VA6.2	WD	HM		15
108A	RHR	109	FRONT DESK	108	CONF. ROOM	3'-0"	7'-0"	S	G	E	GA6.2	VA6.2	WD	HM		13
108B	RHR	109	FRONT DESK	108	CONF. ROOM	3'-0"	7'-0"	S	G	E	EA6.2	KA6.2	WD	HM		10
109A	LH	102	ENTRY VESTIBULE	109	FRONT DESK	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	10
109B	LHR	109	FRONT DESK	110	ENTRY CORRIDOR	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	09
110A	RHR/LHR	102	ENTRY VESTIBULE	110	ENTRY CORRIDOR	3'-0"	7'-0"	P	A	A	AA6.2	TA6.2	AL	AL		A2
110B	RHR/LHR	110	ENTRY CORRIDOR	115	SOUTH CORRIDOR	3'-0"	7'-0"	P	B	G	CA6.2	HA6.2	HM	HM	90 MIN	05
111	RH	110	ENTRY CORRIDOR	111	OFFICE	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	09
112	LH	101	WORK ROOM	112	STORAGE	3'-0"	7'-0"	S	D	E	DA6.2	VA6.2	WD	HM		20
113	RH	115	SOUTH CORRIDOR	113	STORAGE	3'-0"	7'-0"	S	D	E	EA6.2	KA6.2	WD	HM		20
114	RH	115	SOUTH CORRIDOR	114	STORAGE	3'-0"	7'-0"	S	D	E	EA6.2	KA6.2	WD	HM		20
116A	LHR	115	SOUTH CORRIDOR	116	MEDIA CENTER	3'-0"	7'-0"	S	H	H	HA6.2	TA6.2	AL	AL		18
116B	LH	115	SOUTH CORRIDOR	116	MEDIA CENTER	3'-0"	7'-0"	S	G	D	CA6.2	HA6.2	WD	HM		18
200	RH	119	NORTH CORRIDOR	200	STOR.	3'-0"	7'-0"	S	D	E	EA6.2	KA6.2	WD	HM		20
201A	LHR	EXT	EXTERIOR	201	VEST.	3'-0"	7'-0"	S	E	D	EA6.2	KA6.2	HM	AL		01
201B	LHR	201	VEST.	218	CORR.	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	11
202	LH	201	VEST.	202	STOR.	3'-0"	7'-0"	S	D	D	CA6.2	HA6.2	WD	HM	30 MIN	20
203	LHR	204	MECH.	203	ELEC.	3'-0"	7'-0"	S	D	D	CA6.2	HA6.2	HM	HM	90 MIN	07
204	LH	206	MULTI-PURPOSE	204	MECH.	3'-0"	7'-0"	S	D	D	CA6.2	HA6.2	WD	HM		07
205	RHR/LHR	206	MULTI-PURPOSE	205	STORAGE	3'-0"	7'-0"	P	B	G	CA6.2	HA6.2	WD	HM		17
206A	RHR/LHR	218	CORR.	206	MULTI-PURPOSE	3'-0"	7'-0"	P	K	J	CA6.2	HA6.2	WD	HM	90 MIN	06
206B	RHR/LHR	EXT	EXTERIOR	206	MULTI-PURPOSE	3'-0"	7'-0"	P	C	J	BA6.2	GA6.2	FRP/AL	AL		02
206C	RHR/LHR	EXT	EXTERIOR	206	MULTI-PURPOSE	3'-0"	7'-0"	P	C	J	BA6.2	GA6.2	FRP/AL	AL		03
206D	RHR/LHR	218	CORR.	206	MULTI-PURPOSE	3'-0"	7'-0"	P	K	J	CA6.2	HA6.2	WD	HM	90 MIN	06
207	LHR	211	CORR.	207	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
208	RHR	211	CORR.	208	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
209	LHR	211	CORR.	209	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
210	LHR	211	CORR.	210	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
211A	RHR/LHR	EXT	EXTERIOR	211A	VEST.	3'-0"	7'-0"	P	A	C	CA6.3	HA6.3	FRP/AL	AL		A2
211B	RHR/LHR	211A	VEST.	211	CORR.	3'-0"	7'-0"	P	A	B	NA6.2	TA6.2	FRP/AL	AL		B1
211C	RHR/LHR	218	CORR.	211	CORR.	4'-0"	7'-0"	P	L	K	CA6.2	HA6.2	WD	HM		21
212	RHR	211	CORR.	212	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
213	RHR	211	CORR.	213	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	08
214	RHR	211	CORR.	214	CLASSROOM	3'-0"	7'-0"	S	F	D	CA6.2	HA6.2	WD	HM	30 MIN	04
216A	LHR	218	CORR.	216	CUSTODIAL	3'-0"	7'-0"	S	D	E	EA6.2	VA6.2	WD	HM		20
216B	RHR	216	CUSTODIAL	CHASE	CHASE	1'-8"	7'-0"	S	J	F	QA6.2	VA6.2	HM	HM		05
218A	RHR/LHR	119	NORTH CORRIDOR	218	CORR.	4'-0"	7'-0"	P	B	G	CA6.2	HA6.2	HM	HM	90 MIN	05
218B	RHR/LHR	218	CORR.	218</												

SECTION 08 7100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Commercial door hardware for the following:
 - a. Swinging doors.
 - b. Fire-rated swinging doors.
 - c. Other doors to the extent indicated.
 - 2. Cylinders for doors specified in other Sections.
 - 3. Electrified door hardware.
- B. Related Sections include the following:
 - 1. Division 08 Section "Hollow Metal Doors and Frames"
 - 2. Division 08 Section "Aluminum-Framed Entrances and Storefronts"
 - 3. Division 08 Section "Flush Wood Doors"
 - 4. Division 26 Sections for connections to electrical power system and for low-voltage wiring work.
 - 5. Division 28 Section "Access Control" for access control devices installed at door openings and provided as part of a security access system.
 - 6. Division 28 Section "Intrusion Detection" for detection devices installed at door openings and provided as part of an intrusion detection system.
 - 7. Division 28 Section "Fire Detection and Alarm" for connections to building fire alarm system.
- C. Products furnished, but not installed, under this Section include the following. Coordinating, purchasing, delivering, and scheduling remain requirements of this Section.
 - 1. Thresholds, weather stripping, and cylinders for locks specified in other Sections.

1.3 REFERENCED STANDARDS

- A. Provide hardware in accordance with the following standards in addition to those specified in Division 01 Section "References".
 - 1. American National Standards Institute (ANSI), A117.1: Accessible and Usable Buildings and Facilities, edition as adopted by local Authority Having Jurisdiction (AHJ).
 - 2. Builders Hardware Manufacturer's Association (BHMA)
 - a. ANSI/BHMA A156.2: Bored and Preassembled Locks and Latches, 2011 edition
 - b. ANSI/BHMA A156.3: Exit Devices, 2008 edition
 - c. ANSI/BHMA A156.4: Door Controls - Closers, 2008 edition
 - d. ANSI/BHMA A156.13: Mortise Locks and Latches, 2012 edition
 - e. ANSI/BHMA A156.15: Release Devices – Closer Holder, Electromagnetic, and Electromechanical, 2011 edition
 - f. ANSI/BHMA A156.18: Materials and Finishes, 2006 edition
 - 3. Door and Hardware Institute (DHI)
 - a. Recommended Locations for Architectural Hardware for Flush Wood Doors, 1993 edition
 - b. Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames, 2004 edition
 - c. Installation Guide for Doors and Hardware, 1994 edition
 - d. Keying Systems and Nomenclature, 2003 edition
 - e. Sequence and Format for the Hardware Schedule, 2001 edition
 - 4. National Fire Protection Association (NFPA)
 - a. NFPA 70: National Electrical Code, edition as adopted by local AHJ.
 - b. NFPA 80: Standard for Fire Doors and Other Opening Protectives, edition as adopted by local AHJ.
 - c. NFPA 252: Standard Methods of Fire Tests of Door Assemblies, edition as adopted by local AHJ.

1.4 SUBMITTALS

- A. Product Data: Include construction and installation details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Details of electrified door hardware, indicating the following:
 - 1. Wiring Diagrams: Power, signal, and control wiring. Include the following:
 - a. System schematic.
 - b. Point-to-point wiring diagram.
 - c. Riser diagram.
 - d. Elevation of each door.
 - 2. Detail interface between electrified door hardware and fire alarm, access control, security, building control system.
 - 3. Operation Narrative: Describe the operation of doors controlled by electrified door hardware.
- C. Samples for Verification: For exposed door hardware of each type, in specified finish, full size. Tag with full description for coordination with the door hardware sets. Submit Samples before, or concurrent with, submission of the final door hardware sets, if requested.
 - 1. Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.
- D. Qualification Data: For Installer
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for locks, latches, and closers as requested.
- F. Maintenance Data: For each type of door hardware to include in maintenance manuals. Include final hardware and keying schedule.
- G. Warranty: Special warranty specified in this Section.
- H. Door Hardware Sets: Prepared by or under the supervision of Architectural Hardware Consultant, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final door hardware sets with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
 - 1. Format: Use same scheduling sequence and format and use same door numbers as in the Contract Documents.
 - 2. Content: Include the following information:
 - a. Identification number, location, hand, fire rating, and material of each door and frame.
 - b. Type, style, function, size, quantity, and finish of each door hardware item.
 - c. Complete designations of every item required for each door or opening including name and manufacturer.
 - d. Fastenings and other pertinent information.
 - e. Location of each door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - f. Explanation of abbreviations, symbols, and codes contained in schedule.
 - g. Mounting locations for door hardware.
 - h. Door and frame sizes and materials.
 - i. Description of each electrified door hardware function, including location, sequence of operation, and interface with other building control systems.
 - j. Sequence of Operation: Include description of component functions that occur in the following situations: authorized person wants to enter; authorized person wants to exit; unauthorized person wants to enter; unauthorized person wants to exit.
 - k. List of related door devices specified in other Sections for each door and frame.
 - 3. Submittal Sequence: Submit the final door hardware sets at earliest possible date, particularly where approval of the door hardware sets must precede fabrication of other work that is critical in Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the door hardware sets.
- I. Keying Schedule: Prepared by or under the supervision of Architectural Hardware Consultant, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by lock manufacturer.
 - 1. Installer's responsibilities include supplying and installing door hardware and providing a qualified Architectural Hardware Consultant available during the course of the Work to consult with Contractor, Architect, and Owner about door hardware and keying.
 - 2. Installer shall have warehousing facilities in Project's vicinity.
 - 3. Scheduling Responsibility: Preparation of door hardware and keying schedules.
 - 4. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
- B. Architectural Hardware Consultant Qualifications: A person who is currently certified by DHI as an Architectural Hardware Consultant and who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project.
- C. Source Limitations: Obtain each type and variety of door hardware from a single manufacturer, unless otherwise indicated.
 - 1. Engineering Responsibility: Preparation of data for electrified door hardware, including Shop Drawings, based on testing and engineering analysis of manufacturer's standard units in assemblies similar to those indicated for this Project.
- D. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252 and UBC Standard 7-2.
 - 1. Test Pressure: After 5 minutes into the test, neutral pressure level in furnace shall be established at 40 inches (1016 mm) or less above the sill.
- E. Keying Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." In addition to Owner, Construction Manager, Contractor, and Architect, conference participants shall also include Installer's Architectural Hardware Consultant and Owner's Security Consultant. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including, but not limited to, the following:
 - 1. Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2. Preliminary key system schematic diagram.
 - 3. Requirements for key control system.
 - 4. Address for delivery of keys.
- F. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.
- B. Tag each item or package separately with identification related to the final door hardware sets, and include basic installation instructions, templates, and necessary fasteners with each item or package.
- C. Deliver keys to Owner's Representative by registered mail or overnight package service.

1.7 COORDINATION

- A. Coordinate layout and installation of recessed hardware with floor construction. Cast anchoring inserts into concrete. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Templates: Distribute door hardware templates for doors, frames, and other work specified to be factory prepared for installing door hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

- C. Coordinate with aluminum entrance door supplier for door hardware installation.
- D. Electrical System Roughing-in: Coordinate layout and installation of electrified door hardware with connections to power supplies, fire alarm system and detection devices, access control system, security system, and building control system.
- E. Existing Openings: Where new hardware components are scheduled for application to existing construction or where modifications to existing door hardware are required, field verify existing conditions and coordinate installation of door hardware to suit opening conditions and to provide for proper operation.

1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including excessive deflection, cracking, or breakage.
 - b. Faulty operation of operators and door hardware.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
 - 2. Warranty Period: Three (3) years from date of Substantial Completion, except as follows:
 - a. Continuous Hinges: Lifetime of Building
 - b. Mortise Locks: Five (5) years from date of Substantial Completion.
 - c. Grade 1 Cylindrical Locks: Ten (10) years from date of Substantial Completion.
 - d. Exit Devices: Three (3) years from date of Substantial Completion.
 - e. Manual Closers: Thirty (30) years from date of Substantial Completion.
 - f. Automatic Operators: Two (2) years from date of Substantial Completion.
 - g. Electrified Hardware Items: One (1) year from date of Substantial Completion.

1.9 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- B. Maintenance Service: Beginning at Substantial Completion, provide six (6) months' full maintenance by skilled employees of door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door hardware operation. Provide parts and supplies same as those used in the manufacture and installation of original products.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Hinges:	Ives, Hager, Stanley, McKinney, Bommer
2. Continuous Hinges:	Ives, Stanley, Hager, Select, McKinney, Pemko
3. Operating Door Trim:	Ives, Rockwood, Hager, Trimco
4. Electric Strikes:	Von Duprin, HES
5. Locks and Latches:	Schlage, Owner's Standard
6. Cylinders and Cores:	Match Existing Arrow Key System
7. Exit Devices:	Von Duprin, Owner's Standard
8. Mechanical Door Closers:	LCN, Owner's Standard
9. Closer Release Devices:	ABH, LCN, Rixon
10. Accessories and Trim:	Ives, Rockwood, Hager, Trimco
11. Overhead Stops and Holders:	Glynn Johnson, Rixson, ABH, Sargent
12. Saddle and Panic Thresholds:	Zero, National Guard, Pemko
13. Weather Strip and Gasket:	Zero, National Guard, Pemko
14. Miscellaneous Hardware:	Ives, Rockwood, Hager, Trimco
15. Electronic Accessories	Schlage Electronics / Von Duprin
- B. Substitutions submitted in compliance with Division 01 Section "Substitutions" requirements will be reviewed for conformance to basis of design.

2.2 SCHEDULED HARDWARE

- A. Requirements for design, grade, function, finish, size, and other distinctive qualities of each type of finish hardware are indicated in the "Hardware Schedule" at the end of this Section. Products are identified by using hardware designation numbers of the following:
1. Manufacturer's Product Designations: The product designation and name of one manufacturer are listed for each hardware type required for the purpose of establishing minimum requirements. Provide either the product designated or, where more than one manufacturer is specified under the Article "Manufacturers" in Part 2 for each hardware type, the comparable product of one of the other manufacturers that complies with requirements.

2.3 MATERIALS AND FABRICATION

- A. General
1. Manufacturer's Name Plate: Do not use manufacturers' products that have manufacturer's name or trade name displayed in a visible location (omit removable nameplates) except in conjunction with required fire-rated labels and as otherwise acceptable to Architect.
 - a. Manufacturer's identification will be permitted on rim of lock cylinders only.
 2. Base Metals: Produce hardware units of basic metal and forming method indicated using manufacturer's standard metal alloy, composition, temper, and hardness, but in no case of lesser (commercially recognized) quality than specified for applicable hardware units for finish designations indicated.
 3. Provide hardware manufactured to conform to published templates generally prepared for machine screw installation. Do not provide hardware that has been prepared for self-tapping sheet metal screws, except as specifically indicated.
- B. Fasteners
1. Furnish screws for installation with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Furnish stainless steel (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of this other work as closely as possible including "prepared for paint" surfaces to receive painted finish.
 2. Provide concealed fasteners for hardware units that are exposed when door is closed except to the extent no standard units of type specified are available with concealed fasteners. Use through bolts only as indicated in this section unless their use is the only means of reinforcing the work adequately to fasten the hardware securely. Where thru-bolts are used as a means of reinforcing the work, provide sleeves for each thru-bolt or use sex screw fasteners.

2.4 HINGES

- A. Acceptable Products:
- | | | |
|--------------|--------|---------|
| 1. Ives: | 5BB1 | 5BB1HW |
| 2. Hager: | BB1279 | BB1168 |
| 3. Stanley: | FBB179 | FBB168 |
| 4. McKinney: | TB2714 | T4B3386 |
| 5. Bommer: | BB5000 | BB5004 |
- B. Requirements:
1. Quantity: Provide the following, unless otherwise indicated:
 - a. Two Hinges: For doors with heights up to 60 inches.
 - b. Three Hinges: For doors with heights 61 to 90 inches.
 2. Template Requirements: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.
 3. Hinge Weight: As indicated in hardware sets.
 4. Hinge Base Metal: Unless otherwise indicated, provide the following:
 - a. Exterior Hinges: Stainless steel with stainless-steel pin.
 - b. Interior Hinges: Steel with steel pin.
 - c. Hinges for Fire-Rated Assemblies: Steel with steel pin.
 5. Hinge Options: Where indicated in door hardware sets or on Drawings:
 - a. Safety Stud: Designed for stud in one leaf to engage hole in opposing leaf.
 - b. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for out-swinging doors.

- c. Corners: Square.
- 6. Fasteners: Comply with the following:
 - a. Machine Screws: For metal doors and frames. Install into drilled and tapped holes.
 - b. Wood Screws: For wood doors and frames.
 - c. Threaded-to-the-Head Wood Screws: For fire-rated wood doors.

2.5 CONTINUOUS HINGES

- A. Acceptable Products:
 - 1. Ives: 112HD
 - 2. Stanley: 661HD
 - 3. Hager: 780-112HD
 - 4. Select: SL11HD
 - 5. McKinney: MCK-12HD
 - 6. Pemko: FMSLFHD
- B. Requirements:
 - 1. Geared Continuous Hinges: Shall utilize a single gear section for the door leaf and a separate gear section for the frame side of the door. Provide full mortise or surface applied hinge as scheduled in each set. Geared hinges are to be UL 10C tested and approved for 90 minutes.

2.6 OPERATING DOOR TRIM

- A. Door Bolts
 - 1. Acceptable Products:
 - a. Ives: FB358/FB458
 - b. Rockwood: 557/555
 - c. Hager: 283D/282D
 - d. Trimco: 3915/3917
 - 2. Requirements:
 - a. Provide bolt model recommended by manufacturer for door material type.
 - b. Provide 1 inch throw stainless steel bolt with 12 inch length unless otherwise scheduled in the sets.
 - c. Provide a dust proof strike for bottom bolt at all locations where there is not a threshold.
- B. Push Plates, Pull Plates, and Pulls
 - 1. Acceptable Products:
 - a. Ives: 8200 8305
 - b. Rockwood: 70C 111x70C
 - c. Hager: 30S 31J
 - d. Trimco: 1001 1018
 - 2. Requirements:
 - a. Push Plate: Provide 6 inch by 16 inch by .050 inch push plate constructed of stainless steel. Bevel all four edges.
 - b. Pull Plate: Provide 4 inch by 16 inch by .050 inch push plate constructed of stainless steel, bevel all four edges. Provide 10 inch center to center (CTC) pull constructed of stainless steel with a diameter of 1 inch.

2.7 LOCKS AND LATCHES

- A. General:
 - 1. Lock Chassis: Shall be made from steel, with locking spindles of stainless steel.
 - 2. Latch Bolt: Shall be constructed of stainless steel with 3/4 inch throw on mortise locks and 1/2 inch throw otherwise. Latch to be deadlocking on keyed functions.
 - 3. Lever Trim: Shall be pressure cast brass, bronze, zinc, or steel with wrought rose design. Levers are to be solid with no voids or plastic inserts.
 - 4. Fire Rating: Lock shall be listed for up to 3 hours.
 - 5. Strike Plates: Provide ANSI 4-7/8 inch strike plates. At pairs of doors, provide strike with 7/8 inch flat lip. At single doors, provide round-lipped strike with lip length as required to minimally clear jamb and trim. Provide dust box at each strike location.
- B. Mortise Locks

1. Acceptable Products:
 - a. Schlage: L Series, 06A Trim Design
2. Requirements:
 - a. ANSI Grade: BHMA/ANSI A156.13, Series 1000, Grade 1.
 - b. Deadbolt: Shall be constructed of stainless steel and include security roller pins. Shall have a minimum 1 inch throw.
 - c. Spring Cages: Lock shall have individual external spring cages for each lever.
 - d. Lever Spindles: Provide lockset with independent, breakaway type lever spindles. Spindles that are continuous through the lock case are not acceptable.
 - e. Hub Blocking: Provide lockset with a hub blocking plate to resist unauthorized entry.
 - f. Vandal Resistant Lever: Where scheduled, provide lockset with lever that freely rotates even when locked to resist vandalism and abuse.
 - g. Thumbturns: Provide thumbturns as enlarged, ADA designated style thumbturns.
 - h. Visual Indicator: Where scheduled, provide visual indicator showing “Vacant” or “Occupied”.

C. Grade 1 Bored Locks

1. Acceptable Products:
 - a. Schlage: ND Series, Rhodes
2. Provide cylindrical locks exceeding the ANSI/BHMA A156.2 Grade 1 performance standards for strength, security & durability in the categories below:
 - a. Abusive locked lever torque – minimum 3,100 inch-pounds without gaining access
 - b. Offset lever pull - minimum 1,600 foot pounds without gaining access Simulates pry-bar attacks
 - c. Vertical lever impact - minimum 100 impacts without gaining access Simulates sledgehammer-blows to trim, very aggressive abuse
 - d. Cycle life - minimum 16 million cycles Cycle life speaks to robustness of lock, ensuring operation after 10M cycles (BHMA requirement is 1M).
 - 1) With no visible lever sag Working after 15M cycles is not the same as working well. No droop and wobble means the lock still works like new after the test.
 - 2) Without the use of performance aids (i.e. set screws, spacers, etc.) Set screws and spacers are a poor fix for droop and wobble. Both add to installation complexity, and set screws can be tamper targets.
 - e. Door Prep: Provide lockset to install using a standard ANSI I61 door preparation.
 - f. Anti-Rotation Plate: Provide lockset with a mechanically interlocked anti-rotation plate. Anti-Rotation teeth or “bite tabs” are not acceptable. Locks without any rotation prevention devices are not acceptable.
 - g. Lever Return Springs: Provide each lever with two compression type return springs that are easily accessible without dismantling the lock chassis. Locks utilizing tension or torsion lever return springs are unacceptable. Locks with internal springs that require dismantling the lock chassis are unacceptable.
 - h. Lever Spindles: Provide lock with either milled or 1-piece deep drawn spindles. 2-piece interlocking stamped spindles are not acceptable.
 - i. Multi-Functionality: Provide modular lockset with capability to convert to a new lock function by changing key cams.
 - j. Vandal Resistant Lever: Where scheduled, provide lockset with lever that freely rotates even when locked to resist vandalism and abuse.

D. Deadbolts

1. Requirements:
 - a. Provide deadbolts by same manufacturer as the provided locksets.
 - b. Provide chassis type, function, and grade as scheduled.

2.8 CYLINDERS AND CORES

A. Acceptable Products:

1. Match School’s existing Full Size Interchangeable Core Primus key system.

B. Requirements:

1. Full Size Interchangeable Cylinders as scheduled. . Provide cylinders of quantity and type and with the appropriate cam/tailpiece to be compatible with the locking hardware provided. Provide cylinder housings ready to accept 6-pin, Full-Size Interchangeable Cores (FSIC) where scheduled.

- a. Temporary Construction Keying: Provide each cylinder housing and/or lock lever with keyed construction core during the construction period. Cores will remain property of the contractor and will be returned upon installation of owner's permanent key system.
 - b. Permanent Cores: At substantial completion, accompany the owner's representative while replacing temporary construction cores with the owner's permanent key system.
2. Keys: Provide cylinder manufacturer's standard keys. Keys shall be shipped separate from cores directly to owner's representative. For estimating purposes, provide keys in the following quantities:
- a. Construction Control Keys: 2 each
 - b. Construction Change Keys: 12 each
 - c. Permanent Control Keys: 2 each
 - d. Split Key Voiding Keys: 2 each
 - e. Permanent Master Keys: 2 each
 - f. Permanent Change Keys: 4 per core

2.9 EXIT DEVICES

A. Acceptable Products:

- 1. Von Duprin: XP98 Series 98/35A Series
- 2.

B. Requirements:

- 1. ANSI Grade: BHMA/ANSI A156.3, Grade 1.
- 2. Device Construction:
 - a. Exit device(s) shall have a mechanism case constructed of extruded aluminum or wrought stainless steel, base plates constructed of cold rolled or cast steel, push pad of extruded aluminum with stainless steel covering or wrought stainless steel, and end caps with flush mounted, sloped design. At full-glass doors, provide exit devices with no exposed fasteners or rivets visible through glass. Where required by stile width, provide narrow-stile type device.
 - b. Latchbolt: Provide Pullman-type deadlocking latch bolts constructed of stainless steel. Where specified provide high security Pullman-type latchbolt that collapses to be square faced under high pull forces. Latch return springs shall be compression type. Tension and Torsion latch return springs are not acceptable.
 - c. Dogging Mechanism: where dogging or latch-retraction options are not specifically scheduled for non-fire rated doors, provide device with a hex-key activated hook-type dogging mechanism constructed of steel.
 - d. Plastic or nylon used for the push pad, or parts in the dogging mechanism or latchbolt mechanism are unacceptable.
 - e. Sound Dampening: Device shall be provided with factory-installed sound dampening materials.
 - f. Provide device type, function, and trim style as indicated in hardware schedules.
- 3. Where exit device(s) are provided for fire rated door, provide with fire listing and label indicating "Fire Exit Hardware". If device is mounted on wood doors, provide sex nuts and bolts.
- 4. Provide shim kits, filler plates, and other accessories as required for each opening.
- 5. Unless otherwise indicated in the sets, provide device with roller-type strike.
- 6. Where scheduled, provide removable mullions by same manufacturer as provided exit devices. Provide mullion stabilizers, key removable option, strike preps, and fire rating as indicated in sets.
- 7. Concealed vertical exit devices shall be a cable-actuated concealed vertical latch system available in two-point and less bottom latch (LBL) configurations. Vertical rods are not acceptable.
 - a. Cable shall include color-coded stainless steel with polytetrafluoroethylene (Teflon®) liner and stainless steel core wire. Latches and center slides are color coded to aid in installation. Conduit and core wire ends snap into latch and center slides without the use of tools. Latchbolts and blocking cams shall be manufactured from sintered metal low carbon copper- infiltrated steel, with a molybdenum disulfide coating for low friction and consistent performance.
 - b. Top latchbolt shall have a minimum 0.382 inch and greater than 90 degree engagement with strike to prevent door and frame separation under high static load. Bottom latchbolt, when used, shall have a minimum of 0.44 inch engagement with strike.
 - c. Product cycle life shall exceed 1,000,000 cycles.
 - d. Latch release does not require separate trigger mechanism.
 - e. Top and bottom latch must operate independently of each other. Top latch will fully engage top strike even when bottom latch is compromised.
 - f. Cable and latching system shall have the ability to:
 - 1) Be assembled as a complete assembly and function prior to being installed in the door.
 - 2) Install into the door as a one-piece single assembly

- 3) Be installed independently of device installation and function on door even prior to device and trim installation.
- 4) Connect to the exit device at a single attachment point.
- 5) Adjust bottom latch height from a single point, after the system is installed and connected to exit device, while the door is hanging
- 6) Alter latch position up and down within two-inches without additional adjustment.
- 7) Ability to remove the system while door is hanging.
- 8) Configure latchbolt mounting: double or single tab mount for steel doors, and wood doors, face mount for aluminum doors, eliminating requirement of tabs.
- 9) Provide adjustable exit device to latch center line adjustment. Ensures double tab mounting option for top latch, regardless of exit device centerline.

2.10 MECHANICAL DOOR CLOSERS

A. General:

1. Valves: Closers shall have separate valves for latch speed, main speed, and back check. Valves shall be staked to prevent accidental removal. Internal Pressure Relief Valves (PRVs) are prohibited
2. Provide the appropriate closer body, handing, and brackets to mount closer inside the building on the least-public side of the door.
 - a. Where closers are to be mounted parallel arm, provide with heavy duty, fully forged arms.
 - b. Where closers are to be mounted regular arm and the opening can otherwise be opened to 180 degrees, provide closer with the appropriate special templating to allow 180 degree door swing. Where a special template is not available for 180 degree swing, provide closer arm with integrated stop.
3. Integrated Stop Closer Arms: Where a closer with integrated stop is required, provide the appropriate closer and arm as follows:
 - a. Parallel arm with spring-cushioned stop arm: Provide where door is otherwise able to open to 95 degrees and requires a parallel arm mount closer.
 - b. Parallel arm with dead stop arm: Provide where door is obstructed from opening to 95 degrees and requires a parallel arm mount closer.
 - c. Regular arm with push side surface-mounted overhead stop: Provide where door closer should mount on pull side of door.
4. Hold Open Arms: Provide closer arms with mechanical hold-opens as scheduled.
5. Provide closers with any special templates, brackets, plates, or other accessories required for interface with header, door, wall, and other hardware. Provide closers with screw packs containing thru-bolts, machine screws, and wood screws.
6. Closers shall be provided with all-weather fluid and shall not require readjustment from 120 degrees F to -30 degrees F. Fluid shall be non-flaming and shall not fuel door or floor covering fires. Upon request, provide data indicating thermal properties of fluid.
7. Closers shall close and latch door when adjusted to meet accessibility requirements for door opening force: 8.5 lbs at exterior doors, 5 lbs at interior doors, and 15 lbs at labeled fire doors.

B. Heavy Duty Door Closers:

1. Acceptable Products:
 - a. LCN: 4040XP/4050/4011/4111
2. Requirements:
 - a. ANSI Grade: BHMA/ANSI A156.4, Grade 1.
 - b. Closer Construction: Closer shall have cast iron or aluminum alloy body with 1-1/2 inch steel piston, double heat treated pinion, 5/8 inch bearing journals, and full complement needle or caged ball bearings. Closer shall be adjustable from sizes 1 through 6.
 - c. Provide closers with spring size adjustment dial for ease of adjusting.

C. Closer Release Devices

1. Acceptable Products:
 - a. LCN: SEM7800 Series
 - b. Rixson: 900 Series
 - c. ABH: 2000 Series

D. Requirements:

- a. Provide 35 pound electro-magnetic hold open device constructed of die cast metal or plastic. Electromagnet shall accept 120VAC, 24VDC, and/or 12VDC power from fire alarm. Provide mounting style as scheduled.

2.11 AUTOMATIC OPERATORS

- A. Acceptable Products:
 - 1. LCN: 4600 Series
 - 2. Stanley: Magic Force
 - 3. Horton: HD 4000 Series
- B. Requirements:
 - 1. Provide low energy automatic operator units with hydraulic closer complying with ANSI A156.19.
 - 2. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door.
 - a. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
 - 3. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
 - 4. Provide drop plates, brackets, or adapters for arms as required for details.
 - 5. Provide actuator switches for operation as specified. Provide weather-resistant actuators at exterior applications.
 - 6. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf.
 - 7. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.12 ARCHITECTURAL DOOR TRIM

- A. Protection Plates and Edge Guards
 - 1. Acceptable Products:
 - a. Ives: 8400 Series
 - b. Rockwood: K1050
 - c. Hager: 194S
 - d. Trimco: K Series
 - 2. Requirements:
 - a. Provide .050 inch thick stainless steel protection plates with height as scheduled. Plate shall have four beveled edges and countersunk screws. Provide plate with width as follows:
 - 1) Pairs of Doors: Provide plate to be 1 inch less door width.
 - 2) Single Doors: Provide plate to be 2 inches less door width on push side, pull side mounted plates to be 1 inch less door width.
- B. Door Stops and Holders
 - 1. Acceptable Products:
 - a. Ives: WS407
 - b. Rockwood: 405/406
 - c. Hager: 236W
 - d. Trimco: 1270
 - 2. Requirements:
 - a. Provide stops and holders as indicated in the HW sets.
 - b. Where wall bumpers are scheduled, provide concave rubber bumper where the adjacent lever trim incorporates a push-button. Otherwise, provide convex rubber bumpers.

2.13 OVERHEAD STOPS AND HOLDERS

- A. Acceptable Products:
 - 1. Glynn Johnson: 100 Series 90 Series
 - 2. Rixson-Firemark: 6 Series 9 Series
 - 3. ABH: 1000 Series 9000 Series

- | | | | |
|----|----------|------------|-----------|
| 4. | Sargent: | 100 Series | 90 Series |
|----|----------|------------|-----------|

B. Requirements:

1. Provide overhead stops and holders as scheduled, sized per manufacturer’s recommendations based on door width.
2. Provide concealed overhead stops with adjustable jamb bracket.
3. Where possible without conflicting with other hardware, mount surface overhead stops on least public side of door.
4. Provide stops with any special templates, brackets, plates, or other accessories required for interface with header, door, wall, and other hardware.

2.14 SADDLE AND PANIC THRESHOLDS

A. Acceptable Products:

- | | | |
|----|---------------------|-------|
| 1. | Zero International: | 655A |
| 2. | National Guard: | 425HD |
| 3. | Pemko: | 1715A |

B. Requirements:

1. Saddle thresholds: Provide with length equal to the width of the opening.
2. Panic thresholds: Provide with length equal to the overall frame width. Provide with mitered and welded ends.
3. Where floor closers are scheduled with thresholds, provide threshold with factory cut outs to be compatible with the provided floor closer.
4. Provide stainless steel machine screws and lead anchors for each threshold.

2.15 WEATHERSTRIP AND GASKET

A. General:

1. Provide weather strip and gasketing as scheduled.
2. Size weather strip and gasket to provide a continuous seal around opening and at meeting stiles.

B. Perimeter Seals

1. Acceptable Products:

- | | | | |
|----|-----------------|--------|---------|
| a. | Zero: | 429A | 488S-BK |
| b. | National Guard: | 700SA | 5050B |
| c. | Pemko: | 2891AS | S88D |

C. Astragals, Meeting Stiles, and Mullion Seals

1. Acceptable Products:

- | | | |
|----|-----------------|------|
| a. | Zero: | 43SP |
| b. | National Guard: | 139A |
| c. | Pemko: | 357C |

2. Requirements

- a. Where overlapping astragals are scheduled on exterior doors, provide with thru-bolts.
- b. Where overlapping astragals are scheduled on out-swinging doors, provide for mounting on the pull-side of the active leaf. Otherwise, provide for mounting on the push-side of the inactive leaf.

D. Door Bottoms

1. Acceptable Products:

- | | | |
|----|-----------------|---------|
| a. | Zero: | 39A |
| b. | National Guard: | 200NA |
| c. | Pemko: | 3452CNB |

2.16 MISCELLANEOUS HARDWARE

A. Silencers

1. Acceptable Products:

- | | | |
|----|-----------|------|
| a. | Ives: | SR64 |
| b. | Rockwood: | 608 |

- c. Hager: 307D
 - d. Trimco: 1229A
2. Requirements:
- a. Where indicated on single openings, provide 3 each rubber silencers on lock jamb.
 - b. Where indicated on paired openings, provide 2 each rubber silencers on header.
 - c. Where indicated on dutch door openings, provide 4 each rubber silencers on lock jamb.

2.17 ELECTRONIC ACCESSORIES

A. Power Supplies

- 1. Acceptable Products:
 - a. Schlage Electronics: PS900 Series
- 2. Requirements:
 - a. Provide power supplies, recommended and approved by the manufacturer of the electrified locking component, for the operation of electrified locks, electrified exit devices, magnetic locks, electric strikes, and other components requiring a power supply.
 - b. Provide the appropriate quantity of power supplies necessary for the proper operation of the electrified locking component and/or components as recommended by the manufacturer of the electrified locking components with consideration for each electrified component utilizing the power supply, the location of the power supply, and the approved wiring diagrams. Locate the power supplies as directed by the Architect.
 - c. Provide a power supply that is regulated and filtered 24 VDC, or as required, and UL class 2 listed.
 - d. Options: Provide the following options.
 - 1) Provide a power supply, where specified, with the internal capability of charging optional sealed backup batteries 24 VDC, or as required, in addition to operating the DC load.
 - 2) Provide sealed batteries for battery back-up at each power supply where scheduled.
 - 3) Provide keyed power supply cabinet.
 - 4) Provide a power supply complete requiring only 120VAC to the fused input and shall be supplied in an enclosure.
 - e. Provide a power supply with emergency release terminals, where required, that allow the release of all devices upon activation of the fire alarm system complete with fire alarm input for initiating “no delay” exiting mode.

B. Electric Power Transfers

- 1. Acceptable Products:
 - a. Von Duprin: EPT-10
- 2. Requirements:
 - a. Provide edge-mounted electric power transfer with either two 18 gauge wires or ten 24 gauge wires as scheduled.
 - b. Provide transfer capable of carrying a 16 Amp current for a minimum of .3 seconds.

C. Door Contacts

- 1. Acceptable Products:

a. Schlage Electronics:	679-05	7764
b. Securitron:	DPS Series	--
c. Security Door Controls:	MC-4	MC-4M
- 2. Requirements:
 - a. Provide concealed, edge-mounted door contacts as appropriate for door/frame material.
 - b. Provide 7764 door contacts where scheduled on fire rated openings, otherwise provide 679-05 switches.

D. Motion Sensors

- 1. Acceptable Products:

a. Schlage Electronics:	SCAN II
b. Securitron:	XMS Series
c. Security Door Controls:	MD31 Series
- 2. Requirements:
 - a. Provide surface mounted infrared motion sensor as indicated in the sets.

2.18 FINISHES

- A. Match items to the manufacturer's standard color and texture finish for the latch and locksets (or push-pull units if no latch or locksets).
- B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.
- C. The designations used in schedules and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18, "Materials and Finishes," including coordination with the traditional U.S. finishes shown by certain manufacturers for their products.
- D. The designations used in schedules and elsewhere to indicate hardware finishes are the industry-recognized standard commercial finishes, except as otherwise noted.
 - 1. Brushed Chrome and/or Stainless Steel Appearance
 - a. Brushed Stainless Steel, no coating: ANSI 630.
 - b. Satin Chrome, Clear Coated: ANSI 626, ANSI 652.
 - c. Powder Coated Aluminum finish: ANSI 689.
 - d. Saddle and Panic Thresholds: Mill Aluminum finish.
 - e. Weatherstrip and Gasket: Clear Anodized Aluminum finish.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Steel Doors and Frames: Comply with DHI A115 Series.
 - 1. Surface-Applied Door Hardware: Drill and tap doors and frames according to ANSI A250.6.
- B. Wood Doors: Comply with DHI A115-W Series.

3.3 INSTALLATION

- A. Pre-installation conference shall be conducted prior to installation of hardware at Project site. Meet with the, Owner, Contractor, installer, and manufacturer's representatives. A separate pre-installation conference shall be conducted prior to the installation of electronic security hardware with the electrical contractor Review catalogs, brochures, templates, installation instructions, and the approved hardware schedule. Survey installation procedures and workmanship, with special emphasis on unusual conditions, as to ensure correct technique of installation, and coordination with other work. Notify participants at least ten, 10 working days before conference.
- B. Hardware Installers must have a minimum of five (5) years' experience in installation of hardware. Provide verification of installer's qualification to Consultant for approval. All installers to attend review meetings with the hardware distributor.
- C. Install hardware using only manufacturer supplied and approved fasteners in strict adherence with manufacturers published installation instructions.
- D. Install head seal prior to installation of "PA"-parallel arm mounted door closers and push side mounted door stops/holders. Trim, cut and notch thresholds and saddles neatly to minimally fit the profile of the door frame. Install thresholds and saddles in a bed of caulking completely sealing the underside from water and air penetration.

- E. Counter sink through bolt of door pull under push plate during installation.
- F. Mounting Heights: Mount door hardware units at heights indicated, as follows, unless otherwise indicated or required to comply with governing regulations.
 - 1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
 - 2. Custom Steel Doors and Frames: DHI's "Recommended Locations for Builders' Hardware for Custom Steel Doors and Frames."
 - 3. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
- G. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.
 - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- H. Furnish wiring diagrams to electrical contractor for use in installing electrical hardware products.
 - 1. Electrical contractor to run all wiring and make all final connections for electrified hardware. Hardware supplier shall be responsible to furnish all wiring diagrams to operate electrified hardware. Access control material and electrified hardware to interface at junction boxes.
- I. Boxed Power Supplies: Locate power supplies as indicated. Verify location with Architect.
 - 1. Configuration: Provide one power supply for each door opening.
 - 2. Configuration: Provide the least number of power supplies required to adequately serve doors with electrified door hardware.
- J. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

3.4 FIELD QUALITY CONTROL

- A. Architectural Hardware Consultant: Architect shall engage a qualified Architectural Hardware Consultant to perform inspections and to prepare inspection reports.
- B. Architectural Hardware Consultant shall inspect door hardware and state in each report whether installed work complies with or deviates from requirements, including whether door hardware is properly installed and adjusted.

3.5 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Door Closers: Unless otherwise required by authorities having jurisdiction, adjust sweep period so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the leading edge of the door.
- B. Occupancy Adjustment: Approximately six months after date of Substantial Completion, Installer's Architectural Hardware Consultant shall examine and readjust, including adjusting operating forces, each item of door hardware as necessary to ensure function of doors, door hardware, and electrified door hardware.

3.6 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.

- C. Provide final protection and maintain conditions that ensure that door hardware is without damage or deterioration at time of Substantial Completion.

3.7 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes. Refer to Division 01 Section "Demonstration and Training."

3.8 DOOR HARDWARE SETS

- A. The following schedule of hardware sets shall be considered a guide and the supplier is cautioned to refer to general conditions, special conditions, and the full requirements of this section. It shall be the hardware supplier's responsibility to furnish all required hardware.
- B. Where items of hardware are not definitely or correctly specified and are required for completion of the Work, a written statement of such omission, error, conflict, or other discrepancy shall be sent to the Architect, prior to date specified for receipt of bids, for clarification by addendum.
- C. Adjustments to the Contract Sum will not be allowed for omissions or items of hardware not clarified prior to bid opening.

HW SET NO: 01

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

201A

3 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1 EA	POWER TRANSFER	EPT10	↗ 689	VON
1 EA	ELEC FIRE EXIT HARDWARE	RX-QEL-XP98-NL-F-24VDC	↗ 626	VON
1 EA	PRIMUS RIM CYLINDER	20-757 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	SURFACE CLOSER	4040XP SCUSH MC TBWMS	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	GASKETING	429AA-S	628	ZER
1 EA	DOOR SWEEP	39A	719	ZER
1 EA	THRESHOLD	655A-223	719	ZER
1 EA	CREDENTIAL READER	BY DIV 28	↗	B/O
1 EA	DOOR CONTACT	679-05	↗	WHT SCE
1 EA	POWER SUPPLY	PS902 900-2RS 120/240VAC	↗	VON

CARD IN. USER PRESENTS CREDENTIAL, EXIT DEVICE LATCH RETRACTS, USER OPENS DOOR TO ENTER. REQUEST TO EXIT IS IN EXIT DEVICE PUSH BAR. DOOR POSITION IS MONITORED BY ACCESS CONTROL SYSTEM.

HW SET NO: 01.1

E031

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

<u>3</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1HW 4.5 X 4.5 NRP</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>STOREROOM LOCK</u>	<u>ND80JD RHO</u>	<u>626</u>	<u>SCH</u>
<u>1</u>	<u>EA</u>	<u>PRIMUS CORE</u>	<u>20-740</u>	<u>626</u>	<u>SCH</u>
<u>1</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4040XP SCUSH MC TBWMS</u>	<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>GASKETING</u>	<u>429AA-S</u>	<u>AA</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>DOOR SWEEP</u>	<u>39A</u>	<u>A</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>THRESHOLD</u>	<u>655A-223</u>	<u>A</u>	<u>ZER</u>

HW SET NO: 01.2

218F

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

<u>3</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1HW 4.5 X 4.5 NRP</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>PANIC HARDWARE</u>	<u>LD-XP98-EO</u>	<u>626</u>	<u>VON</u>
<u>1</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4040XP SCUSH MC TBWMS</u>	<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>KICK PLATE</u>	<u>8400 10" X 2" LDW B-CS</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>GASKETING</u>	<u>429AA-S</u>	<u>AA</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>DOOR SWEEP</u>	<u>39A</u>	<u>A</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>THRESHOLD</u>	<u>655A-223</u>	<u>A</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>DOOR CONTACT</u>	<u>679-05</u>	↗	<u>WHT</u> <u>SCE</u>
<u>1</u>	<u>EA</u>	<u>PIR REQUEST TO EXIT</u>	<u>SCANII</u>	↗	<u>BLK</u> <u>SCE</u>

HW SET NO: 02

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

206B

6 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1 EA	REMOVABLE MULLION	KR4954	689	VON
1 EA	PANIC HARDWARE	CD-XP98-DT	626	VON
1 EA	PANIC HARDWARE	CD-XP98-NL	626	VON
3 EA	FSIC MORTISE CYLINDER	20-700 (EXISTING RESTRICTED SIDEBAR) (DOGGING & MULLION)	626	SCH
1 EA	PRIMUS RIM CYLINDER	20-757 (EXISTING RESTRICTED SIDEBAR)	626	SCH
2 EA	SURFACE CLOSER	4111 AVB SCUSH MC TBWMS	689	LCN
2 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2 EA	GASKETING	429AA-S	628	ZER
1 EA	MULLION SEAL	8780NBK PSA	BK	ZER
3 EA	DOOR SWEEP	39A	719	ZER
2 EA	THRESHOLD	655A-223	719	ZER
2 EA	DOOR CONTACT	679-05	↗	WHT SCE
1 EA	PIR REQUEST TO EXIT	SCANII	↗	BLK SCE

EXIT DEVICES MAY BE MECHANICALLY DOGGED BY CYLINDERS FOR PUSH/PULL OPERATION. DOOR POSITION IS MONITORED THROUGH ACCESS CONTROL SYSTEM. MOTION DETECTOR IS REQUEST TO EXIT.

HW SET NO: 03

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

206C

6 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
2 EA	POWER TRANSFER	EPT10	↗	689 VON
1 EA	REMOVABLE MULLION	KR4954	689	VON
1 EA	ELEC PANIC HARDWARE	RX-QEL-XP98-DT-24VDC	↗	626 VON
1 EA	ELEC PANIC HARDWARE	RX-QEL-XP98-NL-24VDC	↗	626 VON
3 EA	FSIC MORTISE CYLINDER	20-700 (EXISTING RESTRICTED SIDEBAR) (DOGGING & MULLION)	626	SCH

1 EA	PRIMUS RIM CYLINDER	20-757 (EXISTING RESTRICTED SIDEBAR)	626	SCH
2 EA	SURFACE CLOSER	4111 AVB SCUSH MC TBWMS	689	LCN
2 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2 EA	GASKETING	429AA-S	628	ZER
1 EA	MULLION SEAL	8780NBK PSA	BK	ZER
3 EA	DOOR SWEEP	39A	719	ZER
2 EA	THRESHOLD	655A-223	719	ZER
1 EA	CREDENTIAL READER	BY DIV 28	⚡	B/O
2 EA	DOOR CONTACT	679-05	⚡	WHT SCE
1 EA	POWER SUPPLY	PS902 900-2RS 120/240VAC	⚡	VON

AUTO LOCK/UNLOCK THROUGH ACCESS CONTROL SYSTEM FOR PUSH/PULL OPERATION DURING NORMAL BUSINESS HOURS. CARD ENTRANCE AFTER HOURS. USER PRESENTS CREDENTIAL, EXIT DEVICE LATCH RETRACTS, USER OPENS DOOR TO ENTER. REQUEST TO EXIT IS IN EXIT DEVICE PUSH BAR. DOOR POSITION IS MONITORED BY ACCESS CONTROL SYSTEM.

HW SET NO: 04

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

219 220

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	KEYED PRIVACY W/DB & IND	L9496JD 06A L583-363	626	SCH
1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	SURFACE CLOSER	4050 RW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 05

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

110B 218A 218B

6 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
2 EA	FIRE EXIT HARDWARE	9849-L-NL-F-06-LBL	626	VON
2 EA	PRIMUS RIM CYLINDER	20-757 (EXISTING RESTRICTED SIDEBAR)	626	SCH
2 EA	SURFACE CLOSER	4040XP EDA MC	689	LCN
2 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2 EA	FIRE/LIFE WALL MAG	SEM7850 AS REQ (12/24/120V AC/DC TRI- VOLT) (ARMATURE EXTENSIONS AS REQ'D)	⚡ 689	LCN
1 EA	GASKETING	488SBK PSA	BK	ZER
1 EA	ASTRAGAL	155AA X 55AA	719	ZER

INTERFACE REQUIRED WITH FIRE LIFE SAFETY SYSTEM FOR IMMEDIATE RELEASE OF MAG HOLDERS IN THE EVENT OF A FIRE.

HW SET NO: 05.1

218A

218B

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

<u>2</u>	<u>EA</u>	<u>CONT. HINGE</u>	<u>224HD</u>	<u>628</u>	<u>IVE</u>
<u>2</u>	<u>EA</u>	<u>FIRE EXIT HARDWARE</u>	<u>9849-L-NL-F-06-LBL</u>	<u>626</u>	<u>VON</u>
<u>2</u>	<u>EA</u>	<u>PRIMUS RIM</u>	<u>20-757</u>	<u>626</u>	<u>SCH</u>
		<u>CYLINDER</u>			
<u>2</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4040XP EDA MC</u>	<u>689</u>	<u>LCN</u>
<u>2</u>	<u>EA</u>	<u>KICK PLATE</u>	<u>8400 10" X 2" LDW B-CS</u>	<u>630</u>	<u>IVE</u>
<u>2</u>	<u>EA</u>	<u>FIRE/LIFE WALL MAG</u>	<u>SEM7850 AS REQ (12/24/120V AC/DC TRI-VOLT)</u> ⚡	<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>GASKETING</u>	<u>488SBK PSA</u>	<u>BK</u>	<u>ZER</u>
<u>1</u>	<u>EA</u>	<u>ASTRAGAL</u>	<u>155AA X 55AA</u>	<u>AL</u>	<u>ZER</u>

HW SET NO: 06

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

206A

206D

6 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	652	IVE
1 EA	FIRE RATED REMOVABLE MULLION	9954	689	VON
2 EA	FIRE EXIT HARDWARE	98-L-F-06	626	VON
2 EA	PRIMUS RIM CYLINDER (EXISTING RESTRICTED SIDEBAR)	20-757	626	SCH
2 EA	SURFACE CLOSER	4040XP EDA MC	689	LCN
2 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2 EA	FIRE/LIFE WALL MAG	SEM7850 AS REQ (12/24/120V AC/DC TRI-VOLT)	689	LCN
1 EA	GASKETING	488SBK PSA	BK	ZER
1 EA	MULLION SEAL	8780NBK PSA	BK	ZER

INTERFACE REQUIRED WITH FIRE LIFE SAFETY SYSTEM FOR IMMEDIATE RELEASE OF MAG HOLDERS IN THE EVENT OF A FIRE.

HW SET NO: 07

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

203

204

221A

221B

226

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	STOREROOM LOCK	ND80JD RHO	626	SCH
1 EA	PRIMUS CORE	20-740	626	SCH
		(EXISTING RESTRICTED SIDEBAR)		
1 EA	SURFACE CLOSER	4050 RW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 08

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

207

208

209

210

212

213

214

223C

~~225~~225A

225B

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
------	-------	--------------------	-----	-----

1 EA	CLASSROOM SECURITY	ND75JD RHO	626	SCH
2 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	SURFACE CLOSER	4050 RW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 09

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

101 109B 111

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	CLASSROOM LOCK	ND70JD RHO	626	SCH
1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	SURFACE CLOSER	4050 RW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 10

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

109A

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	STOREROOM LOCK	ND80JD RHO	626	SCH
1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	ELECTRIC STRIKE	5100-3FP FSE	⚡ 689	VON
1 EA	SURFACE CLOSER	4050 RW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER
1 EA	CREDENTIAL READER	BY DIV 28	⚡	B/O
	POWER SUPPLY	BY DIV 28	⚡	B/O
1 EA	REMOTE SWITCH	BY DIV 28	⚡	B/O

ELECTRIC STRIKE MAY BE RELEASED FOR ENTRANCE OR CARD IN. USER PRESENTS CREDENTIAL, ELECTRIC STRIKE KEEPER RELEASES, USER OPENS DOOR TO ENTER, OR IF LOCKED ELECTRIC STRIKE MAY BE RELEASED BY REMOTE SWITCH. LOCATION OF SWITCH TO BE DETERMINED.

HW SET NO: 11

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

201B

3 EA	HINGE	5BB1HW 4.5 X 4.5 NRP	630	IVE
1 EA	FIRE EXIT HARDWARE	98-L-BE-F-06	626	VON
1 EA	SURFACE CLOSER	4040XP SCUSH MC TBWMS	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 12

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

108A

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	PASSAGE SET	ND10S RHO	626	SCH
1 EA	WALL STOP	WS406/407CCV	630	IVE
3 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 13

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)
108B

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	PASSAGE SET	ND10S RHO	626	SCH
1 EA	OH STOP	90S	630	GLY
3 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 14

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)
216B

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	SGL CYL DEADBOLT	B760R (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	OH STOP	450S	630	GLY
3 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 15

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)
107 222 224

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	PRIVACY W/ INDICATOR	L9040 06A L583-363 L283-722	626	SCH
1 EA	SURFACE CLOSER	4050 HW/PA MC	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HW SET NO: 16

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)
103

3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	ENTRANCE LOCK	ND53JD RHO	626	SCH
1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
1 EA	WALL STOP	WS406/407CCV	630	IVE
3 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 17

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)
205

6 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1 EA	MANUAL FLUSH BOLT	FB458 (TOP)	626	IVE
1 EA	CLASSROOM LOCK	ND70JD RHO	626	SCH

1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH
2 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	SECURITY ASTRAGAL	43SP (PULL SIDE, ACTIVE LEAF)	600	ZER
2 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 18

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

116A	116B	223B	223D		
3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE	
1 EA	CLASSROOM SECURITY	ND75JD RHO	626	SCH	
2 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH	
1 EA	SURFACE CLOSER	4050 HW/PA MC	689	LCN	
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE	
1 EA	WALL STOP	WS406/407CCV	630	IVE	
3 EA	SILENCER	SR64	GRY	IVE	

HW SET NO: 19

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

104	105				
3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE	
1 EA	STOREROOM LOCK	ND80JD RHO	626	SCH	
1 EA	PRIMUS CORE	20-740 (EXISTING RESTRICTED SIDEBAR)	626	SCH	
1 EA	OH STOP	90S	630	GLY	
3 EA	SILENCER	SR64	GRY	IVE	

HW SET NO: 20

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

112	113	114	200	202	216A
223A					
3 EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE	
1 EA	STOREROOM LOCK	ND80JD RHO	626	SCH	
1 EA	PRIMUS CORE	20-740	626	SCH	
1 EA	WALL STOP	WS406/407CCV	630	IVE	
3 EA	SILENCER	SR64	GRY	IVE	

HW SET NO: 21

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

211C					
2 EA	CONT. HINGE	224HD	628	IVE	
1 EA	REMOVABLE MULLION	KR4954	689	VON	
2 EA	PANIC HARDWARE	98-L-06	626	VON	
2 EA	FSIC MORTISE CYLINDER	20-700 (EXISTING RESTRICTED SIDEBAR) (MULLION)	626	SCH	
2 EA	PRIMUS RIM CYLINDER	20-757 (EXISTING RESTRICTED SIDEBAR)	626	SCH	

2 EA	SURFACE CLOSER	4040XP EDA MC	689	LCN
2 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2 EA	FIRE/LIFE WALL MAG	SEM7850 AS REQ (12/24/120V AC/DC TRI- VOLT)	689	LCN
2 EA	SILENCER	SR64	GRY	IVE

HW SET NO: 22

218E

DOOR NUMBER: (INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING DOORS)

<u>3</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1 4.5 X 4.5 NRP</u>	<u>652</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>PULL PLATE</u>	<u>8305 10" 4" X 16"</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>PUSH PLATE</u>	<u>8200 4" X 16"</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>SURFACE CLOSER</u>	<u>4050 RW/PA MC</u>	<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	<u>KICK PLATE</u>	<u>8400 10" X 2" LDW B-CS</u>	<u>630</u>	<u>IVE</u>
<u>1</u>	<u>EA</u>	<u>WALL STOP</u>	<u>WS406/407CCV</u>	<u>630</u>	<u>IVE</u>
<u>3</u>	<u>EA</u>	<u>SILENCER</u>	<u>SR64</u>	<u>GRY</u>	<u>IVE</u>

END OF SECTION 08 7100