

MATERIALS AND ACCESSORIES:

ALUMINUM MEMBERS: ASTM B 221 for extrusions, ASTM B 209 for sheet/plate

STEEL REINFORCEMENT: complete with manufacturer's standard corrosion-resistant primer complying with SSPC-PS Guide No. 12.00 applied immediately after surface preparation and pretreatment, select surface preparation methods according to recommendations in SSPC-SP COM and prepare surfaces according to applicable SSPC standard:

- Structural Shapes, Plates, and Bars: ASTM A 36
- Cold-Rolled Sheet and Strip: ASTM A 1008
- Hot-Rolled Sheet and Strip: ASTM A 1011

FASTENERS: Aluminum, non-magnetic stainless steel, or other materials warranted by manufacturer to be noncorrosive and compatible with aluminum components. Exposed fasteners shall match finish of members and hardware being fastened.

CONCEALED FLASHING: Dead-sold stainless steel, 26 gage minimum, or extruded aluminum, 0.062" minimum, as selected by manufacturer for compatibility with other components.

BRACKETS AND REINFORCEMENTS: Manufacturer's high-strength aluminum units where feasible; or non-magnetic stainless steel or hot-dipped galvanized steel complying with ASTM A-386.

CONCRETE/MASONRY INSERTS: Cast-iron, malleable iron, or hot-dipped galvanized steel complying with ASTM A-386.

BITUMINOUS COATINGS: Cold-applied asphalt mastic complying with SSPC-PS 12, compounded for 30-mil thickness per coat.

COMPRESSION WEATHERSTRIPPING: Manufacturer's standard replaceable stripping of either molded neoprene gaskets complying with ASTM D 2000 or molded PVC gaskets complying with ASTM D 2287.

GLAZING SYSTEM: Provide manufacturer's standard compression type molded or extruded glazing gaskets that maintain uniform pressure and watertight seal, inside-outside matched, with provisions for glass replacement. Provide elastomeric type spacers and setting blocks.

HARDWARE:

REFER TO HARDWARE SECTION of Division 8 for requirements for hardware items other than those indicated herein to be provided by manufacturer of aluminum entrances.

PROVIDE DOOR MANUFACTURER'S STANDARD heavy-duty hardware units, including the following items of sizes, number, and type recommended by manufacturer for service required, finished to match door, unless otherwise indicated.

PIVOTS: mfr's std. top and bottom offset pivots - provide intermediate if door is over 7 feet

LOCKSET AT SINGLE EXTERIOR DOORS: Deadbolt lock with outside cylinder (Adams Rite # 1850S), inside lever/ext indicator (Adams Rite # 4550) and sign above door reading: "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED"

3-POINT LOCKSET AT EXTERIOR DOOR PAIRS: Deadbolt lock with outside cylinder (Adams Rite # 1850S), inside lever/ext indicator (Adams Rite # 4550), header and threshold bolts (Adams Rite # 4016 and # 4015) in active leaf (flush-bolts in inactive leaf are not permitted).

CLOSERS: manufacturer's standard heavy duty surface mounted parallel-arm type unit with cast-iron body and cylinder (aluminum cylinder not acceptable) with integral stop, to comply with local codes and national handicapped accessibility requirements, as applicable.

PULLS: 12 inch high min. x 1 inch diameter satin-stainless steel offset tubular pull

PUSH-BARS: 1 inch diam. satin-stainless steel tubular push bar x 3"LDW (except at exit devices)

CONTRACTOR'S OPTIONAL EXIT DEVICES: Delete deadbolt and 3-point lockset system indicated above and inside push-bars, and provide manufacturer's standard "push-bar" type rim or concealed rod exit devices (equal to Dor-Q-Matic 1590 Rim or 1490 CVR) with exterior cylinder (not required by Building Code except at "Assembly" occupancies).

BOTTOM-RAIL SWEEP (at exterior doors): Manufacturer's standard door bottom sweep with concealed fasteners on mounting strip

THRESHOLD: 1/2" H x 5" wide "saddle" type metal finish

FLOOR STOP: rubber cushioned cast bronze, 626 finish, 2-1/8" H x 2-3/8" long min.

GENERAL FABRICATION:

PREFABRICATION: Complete fabrication, assembly, finishing, hardware application, and other work before shipment to project site. Disassemble components only as necessary for shipment and installation. Comply with AWS recommendations to avoid discoloration: grind exposed welds smooth and restore mechanical finish. Install reinforcing if required for performance requirements; separate dissimilar metals with bituminous paint or other separator which will prevent corrosion. Maintain accurate relation of planes and angles, with hairline fit of contacting members. Conceal fasteners wherever possible.

WEATHER-STRIPPING: For exterior doors, provide compression weather-stripping against fixed posts; at other edges, provide sliding weather-stripping retained in adjustable strip mortised into door edge.

STOREFRONT FRAMING SYSTEM FABRICATION: Provide inside-outside matched resilient flush-glazed system with provisions for glass replacement. Shop-fabricate and pre-assemble frame components where possible.

STILE AND RAIL TYPE ALUMINUM DOOR FABRICATION:

FRAME: Provide tubular frame members, fabricated with mechanical joints using heavy inserted reinforcing plates and concealed tie-rods or j-bolts, or fabricate with structurally welded joints, at manufacturer's option.

DESIGN: Provide Medium stile units with 3-1/2" nominal width, 1-3/4" thick, with glazing channels for single-pane glass typically (except as otherwise indicated).

FINISHES:

CLASS 1 COLOR ANODIZED FINISH: AA-M12C22A42/A44 (Mechanical Finish: as fabricated, nonspecular; Chemical Finish: etched, medium matte; Anodic Coating: Class I Architectural, film thicker than 0.7 mil with integral color or electrolytically deposited color) complying with AAMA 606.1 or AAMA 608.1.

Color: As indicated on the Drawings

PART 3 - EXECUTION

TAKE FIELD MEASUREMENTS prior to preparation of shop drawings and fabrication, to ensure proper fitting of Work.

COMPLY with manufacturer's instructions and recommendations for installation of aluminum entrances and storefronts.

SET UNITS PLUMB, level, and true to line, without warp or rack of framing members, doors, or panels. Anchor securely in place, separating aluminum and other corrodible metal surfaces from sources of corrosion of electrolytic action at points of contact with other materials.

DRILL AND TAP frames and doors and apply surface-mounted hardware items, complying with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.

SET SILL MEMBERS in bed of sealant as indicated, or with joint fillers or gaskets as indicated to provide watertight construction. Comply with requirements of Division 7 for sealants, fillers, and gaskets.

ADJUST AND CLEAN:

ADJUST OPERATING HARDWARE to function properly, without binding, and to prevent tight fit at contact points and weather-stripping.

CLEAN COMPLETED SYSTEM, inside and out, promptly after erection and installation of glass and sealants. Remove excess glazing and joint sealants, dirt, and other substances from aluminum surfaces.

INSTITUTE PROTECTIVE MEASURES and precautions required to assure that aluminum entrances and storefronts will be without damage or deterioration, other than normal weathering, at time of acceptance.

END OF SECTION 08 41 13

PASS WINDOW

SECTION 08 56 19

PART 1 - GENERAL

RELATED DOCUMENTS: The Drawings, and general provisions of the Contract, including the General and Supplementary Conditions, and Division-I Sections of the Specifications, apply to this Section.

PROVIDE pass window, where indicated on the Drawings, and as specified herein. Provide unit complete with all components, pre-fabricated and finished, with manufacturer's installation instructions.

PROVIDE SHOP DRAWINGS showing installation plans, elevations, sections, and details, indicating dimensions, tolerances, materials, fabrication, glazing, fasteners, hardware, finish, options, and accessories.

DELIVER MATERIALS in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.

STORE MATERIALS inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Stack materials flat to prevent sagging.

FIELD MEASUREMENTS: Where the Work of this Section is indicated to fit to other adjacent construction elements, verify dimensions by field measurements before fabrication and indicate measurements obtained on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

ESTABLISHED DIMENSIONS: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabrication without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

COORDINATION

COORDINATE INSTALLATION OF ANCHORAGES for the Work of this Section. Furnish setting drawings, templates, and directions as applicable for installing anchorages, which may include sleeves, inserts, anchor bolts, and items with integral anchors that are to be pre-installed or embedded in supporting substrates. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

PASS WINDOW: Factory assembled and factory glazed unit, assembled with stainless steel rivets and hex-head zinc-plated self-threading machine screws, and as follows:

- Overall Unit size: 3'-3" wide x 3'-9" high x 4-1/2 inch thick
- Service Opening: 15-3/8 inches wide by 34-5/8 inches high.
- Door Operation: Manual open - self close
- Door Type: Single-sliding inside panel
- Counter Top: Type 304 Stainless steel with # 4 satin finish
- Model / Manufacturer: SS 300-5 Model by "Easi-Serv Products Inc.", Website: www.easi-serv.com or approved equal

GLAZING: 1/4-inch tempered glass, meeting ASTM C 1048 to match color/tint of adjacent glazing.

ALUMINUM FINISH: "Dark-Bronze" anodized finish to match color of adjacent aluminum storefront framing.

SHOP ASSEMBLY: Preassemble the Work of this Section in the fabrication-shop to the greatest extent feasible to minimize field-splicing and/or field-assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain the structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

PART 3 - EXECUTION

EXAMINE adjacent Work for verification of installation tolerances and for compliance with other requirements and conditions affecting installation. Verify critical dimensions, and examine supporting structure and other conditions under which the Work of this Section is to be installed. Proceed with installation only after unsatisfactory conditions have been corrected.

COMPLY WITH MANUFACTURER'S installation instructions, and install pass-thru windows plumb, level, square, true to line, and without warp or rack. Install pass-thru window components weathertight. Anchor securely in place to supports. Use attachment methods permitting adjustment for construction tolerances, irregularities, alignment, and expansion and contraction. Separate aluminum from other metal surfaces with bituminous coatings or similar separator material approved for use by the Manufacturer.

INSTALL sheet metal flashing and joint sealers as required in Division 07 Sections.

REPAIR MINOR DAMAGE to finish in accordance with manufacturer's instructions. Remove and replace damaged components that cannot be successfully repaired.

ADJUST DOORS to be weathertight in closed position. Adjust doors and operating hardware to function properly and for smooth operation without binding.

CLEAN pass-thru window promptly after installation in accordance with manufacturer's instructions. Remove excess joint sealant in accordance with manufacturer's instructions. Do not use harsh cleaning materials or methods that would damage glazing or finish.

PROTECT installed pass-thru windows to ensure that, except for normal weathering, pass-thru windows will be without damage or deterioration at time of substantial completion.

END OF SECTION 08 56 19

DOOR HARDWARE

SECTION 08 71 00

1 - GENERAL

RELATED DOCUMENTS: The Drawings, and general provisions of the Contract, including the General and Supplementary Conditions, and Division-I Sections of the Specifications, apply to this Section.

WORK INCLUDED: Provide door hardware where indicated on the Drawings, as specified herein, and as necessary for complete installation. This Section includes items known commercially as finish or door hardware that are required for swing, sliding, and folding doors, except special types of unique hardware specified in the same sections as the doors and door frames on which they are installed. This Section includes the following:

- "Knox"-Box(es)
- Hinges
- Lock cylinders and keys
- Lock and latch sets
- Bolts
- Push-pull units
- Closers
- Miscellaneous door control devices
- Door trim units
- Protection plates
- Weatherstripping for exterior doors
- Astragals or meeting seals on pairs of doors
- Thresholds.

RELATED SECTIONS: The following Sections contain requirements that relate to this Section: Division 8 Section "Steel Doors and Frames" for silencers integral with hollow metal frames.

PRODUCTS FURNISHED BUT NOT INSTALLED under this Section include: Final replacement cores and keys to be installed by Owner.

REFERENCE STANDARDS:

ACCESSIBILITY STANDARDS: COMPLY WITH ICC/ANSI A117.1 "Accessible and Usable Buildings and Facilities" (most recent edition) and with requirements of the federally required Americans with Disabilities Act (ADA), including but not limited to the following:

- Provide an accessible clear floor space at all accessible, operational door hardware
- Accessible hardware to be operable with one (1) hand in a single motion.
- Accessible hardware to be operable without tight grasping, pinching, or twisting of the wrist.
- Maximum operational force for accessible hardware: five (5.0) pounds (except at exterior doors)
- Allowable height limits for accessible, operational door hardware:
 - lowest height above grade or floor: 1'-3" (15")
 - highest height above grade or floor: 4'-0" (48")

SUBMITTALS

PRODUCT DATA including manufacturers' technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.

FINAL HARDWARE SCHEDULE coordinated with doors and frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware. Based on hardware indicated, organize schedule into "hardware sets" indicating complete designations of every item required for each door or opening. Include the following information:

- Type, style, function, size, and finish of each hardware item.
- Name and manufacturer of each item.
- Fastenings and other pertinent information.
- Location of each hardware set cross referenced to indications on Drawings both on floor plans and in door and frame schedule.
- Explanation of all abbreviations, symbols, and codes contained in schedule.
- Mounting locations for hardware.
- Door and frame sizes and materials.
- Keying information.

QUALITY ASSURANCE

SINGLE SOURCE RESPONSIBILITY: Obtain each type of hardware (latch and lock sets, hinges, closers, etc.) from a single manufacturer.

SUPPLIER QUALIFICATIONS: A recognized architectural door hardware supplier, with warehousing facilities in the Project's vicinity, that has a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project and that employs an experienced architectural hardware consultant (AHC) who is available to Owner, Architect, and Contractor, at reasonable times during the course of the Work, for consultation.

REQUIRE HARDWARE SUPPLIER TO MEET WITH THE OWNER'S REPRESENTATIVE to verify requirements of specified hardware items indicated herein and to determine the final keying requirements. Confirm decisions made in writing, and submit to Architect for record within three (3) days of meeting. Allow for a minimum of two (2) meetings, each to take not less than THREE (3) hours each, with all meetings to be held at the project site (unless otherwise agreed to with Owner's representative).

REFER TO DRAWINGS for special requirements, manufacturers, etc.

PRODUCT HANDLING

TAG EACH ITEM OR PACKAGE SEPARATELY with identification related to final hardware schedule, and include basic installation instructions with each item or package. Packaging of door hardware is responsibility of supplier. As material is received by hardware supplier from various manufacturers, sort and repackage in containers clearly marked with appropriate hardware set number to match set numbers of approved hardware schedule. Two more identical sets may be packed in same container.

INVENTORY DOOR HARDWARE jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.

DELIVER INDIVIDUALLY PACKAGED DOOR HARDWARE ITEMS promptly to place of installation (shop or Project site).

PROVIDE SECURE LOCK-UP for door hardware delivered to the Project, but not yet installed. Control handling and installation of hardware items that are not immediately replaceable so that completion of the Work will not be delayed by hardware losses both before and after installation.

MAINTENANCE

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.

PART 2 - PRODUCTS

MATERIALS AND FABRICATION

MANUFACTURER'S NAME PLATE: Do not use manufacturer's 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. Manufacturer's identification will be permitted on rim of lock cylinders only.

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 by applicable ANSI/BHMA A156 series standards for each type of hardware item and finish designations indicated. Do not furnish "optional" materials or forming methods for those indicated, except as otherwise specified.

FASTENERS: Provide hardware manufacturer 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.

FURNISH SCREWS FOR INSTALLATION with each hardware item. Provide Phillips flat-head screws except as otherwise indicated. Finish exposed (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.

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. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work 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.

HINGES, BUTTS, AND PIVOTS

Templates: Except for hinges and pivots to be installed entirely (both leaves) into wood doors and frames, provide only template-produced units.

Screws: Provide Phillips flat-head screws complying with the following requirements:

- For metal doors and frames install machine screws in pre-drilled and tapped holes.
- Finish screw heads to match surface of hinges or pivots.
- Hinge Pins: Non-removable or non-rising (NRP) typically with flat button tips and matching plug, finished to match leaves.
- Number of Butt Hinges: Provide number of hinges indicated but not less than 3 hinges per door leaf for doors 90 inches or less in height and one additional hinge for each 30 inches of additional height.

Acceptable Manufacturers:

- Hager Hinge Co.
- McKinney Products Co.
- PBH (specified manufacturer for butt hinges)
- Penko Manufacturing Co., Inc (continuous geared hinges)
- Select Products Limited (specified manufacturer for continuous geared hinges)
- Stanley Hardware, Div. Stanley Works.

LOCK CYLINDERS AND KEYING

Review the keying system with the Owner and provide the type required (master, grandmaster or great-grandmaster).

Metals: Construct lock cylinder parts from brass or bronze, stainless steel, or nickel silver.

Comply with Owner's instructions for masterkeying and, except as otherwise indicated, provide individual change key for each lock that is not designated to be keyed alike with a group of related locks.

Permanently inscribe each key with number of lock that identifies cylinder manufacturer's key symbol, and notation, "DO NOT DUPLICATE".

Key Material: Provide keys of nickel silver only.

Key Quantity: Furnish 3 change keys for each lock, 5 master keys for each master system, and 5 grandmaster keys for each grandmaster system.

Furnish one extra blank for each lock.

Deliver keys to Owner.

Acceptable Manufacturers:

- Corbin & Russwin Architectural Hardware, Div. Black & Decker Corp.
- Sargent Manufacturing Company.
- Schlage Lock, Div. Ingersoll-Rand Door Hardware Group (specified cylinder manufacturer)
- Yale Security Inc.

KEY CONTROL SYSTEM: Provide a key control system including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible change forms.

EMERGENCY KEY BOX: Knox-Box 3200 Series with hinged door, #3270 Recessed or #3266 Surface Mounted as appropriate, as manufactured by the Knox Company (www.knoxbox.com) - no substitutions permitted

LOCKS, LATCHES, AND BOLTS

Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt, with curved lip extended to protect frame, finished to match hardware set, unless otherwise indicated.

Provide flat tip strikes for locks with 3-piece, anti-rattle latchbolts as recommended by manufacturer.

Provide extra long strike lips for locks used on frames with applied wood casing trim.

Provide recess type top strikes for bolts locking into head frames, unless otherwise indicated.

Provide dust-proof strikes for foot bolts, except where special threshold construction provides nonrecessed strike for bolt.

Lock Throw: Provide 5/8-inch minimum throw of latch on pairs of doors. Comply with UL requirements for throw of bolts and latch bolts on rated fire openings.

Provide 1/2-inch minimum throw of latch for other bolted and preassembled types of locks and 3/4-inch minimum throw of latch for mortise locks. Provide 1-inch minimum throw for all dead bolts.

Flush Bolt Heads: Minimum of 1/2-inch diameter rods of brass, bronze, or stainless steel with minimum 12-inch long rod for doors 60 inches or less in height. Provide longer rods as necessary for doors exceeding 84 inches in height.

Exit Device Dogging: Except on fire-rated doors where closers are provided on doors equipped with exit devices, equip the units with keying dogging device to keep the latch bolt retracted, when engaged.

Acceptable Manufacturers for Locks:

- Cal-Royal Products Inc (specified manufacturer)
- Corbin & Russwin Architectural Hardware, Div. Black & Decker Corp.
- PDQ Manufacturing
- Sargent Manufacturing Company.
- Schlage Lock, Div. Ingersoll-Rand Door Hardware Group (specified cylinder manufacturer)
- Yale Security Inc.

Acceptable Manufacturers for Bolts:

- H. B. Ives, A Harrow Company.
- Quality Hardware Mfg. Co., Inc.; Div. Newman Tonks, Inc.
- Stanley Hardware, Div. Stanley Works.
- Von Duprin, Div. Ingersoll-Rand Door Hardware Group.
- Yale Security Inc.

PUSH/PULLS, DOOR TRIM AND FLATGOOD UNITS

Fasteners: Provide manufacturer's standard exposed fasteners for door trim units consisting of either machine screws or self-tapping screws, thru-bolted for matched pairs but not for single units.

Fabricate edge trim of stainless steel to fit door thickness in standard lengths or to match height of protection plates.

Fabricate protection plates not more than 1-1/2 inches less than door width on hinge side and not more than 1/2-inch less than door width on pull side by height indicated.

Metal Plates: Stainless steel, 0.050 inch (U.S. 18 gage)

Acceptable Manufacturers:

- Brookline Industries, Div. Yale Security Inc.
- Hager Hinge Co.
- H. B. Ives, A Harrow Company.
- Rockwood (specified manufacturer)

CLOSERS AND DOOR CONTROL DEVICES

Size of Units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit depending on size of door, exposure to weather, and anticipated frequency of use.

Provide parallel arms for all overhead closers, except as otherwise indicated, with closer unit one size larger than recommended for use with standard arms.

Access-Free Manual Closers: Provide adjustable units complying with ANSI A117.1 accessibility standards.

Provide black resilient parts for exposed bumpers.

Provide units with high-strength, cast-iron bodies (aluminum body is not acceptable), tamper resistant regulating screws for speed, back-check and latch speed, and with "all-temperature" fluid:

Acceptable Manufacturers:

- Cal-Royal Products, Inc (specified manufacturer)
- LCN, Div. Ingersoll-Rand Door Hardware Group
- Sargent Manufacturing Company - Series 281 "Powerglide"

DOOR STRIPPING, SEALS, & THRESHOLDS

Provide continuous weatherstripping on exterior doors and smoke, light, or sound seals on interior doors typically. Provide noncorrosive fasteners for exterior applications and elsewhere as indicated.

Replaceable Seal Strips: Provide only those units where resilient or flexible seal strip is easily replaceable and readily available from stock maintained by manufacturer.

Weatherstripping at Jambes and Heads: Provide bumper-type resilient insert and metal retainer strips, surface applied unless shown as mortised or semi-mortised.

Weatherstripping at Door Bottoms: Provide threshold consisting of contact-type resilient insert and metal housing of design and size indicated.

Acceptable Manufacturers:

- National Guard Products, Inc. (Specified manufacturer)
- Penko Manufacturing Co., Inc.
- Reese
- Zero

HARDWARE FINISHES

MATCH ITEMS to the manufacturer's standard color and texture finish for the latch and lock sets (or push-pull units if no latch or lock sets).

PROVIDE FINISHES THAT MATCH those established by BHMA or, if none established, match the Architect's sample.

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.

PROVIDE PROTECTIVE LACQUER COATING on all exposed hardware finishes of brass, bronze, and aluminum, except as otherwise indicated. The suffix "-NL" is used with standard finish designations to indicate "no lacquer".

PART 3 - EXECUTION

INSTALLATION

MOUNT HARDWARE UNITS at heights indicated in following applicable publications, except as specifically indicated or required to comply with governing regulations and except as otherwise directed by Architect.

"Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute.

INSTALL EACH HARDWARE ITEM in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.

SET UNITS LEVEL, PLUMB, AND TRUE to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.

DRILL AND COUNTERSINK UNITS that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

SET THRESHOLDS FOR EXTERIOR DOORS in full bed of butyl-rubber mastic sealant complying with requirements specified in Division 7 Section "Joint Sealers".

WEATHERSTRIPPING AND SEALS: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

ADJUSTING, CLEANING, AND DEMONSTRATING

ADJUST AND CHECK each operating item of hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate freely and smoothly or as intended for the application made. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

CLEAN ADJACENT SURFACES soiled by hardware installation.

INSTRUCT OWNER'S PERSONNEL in the proper adjustment and maintenance of door hardware and hardware finishes.

HARDWARE SCHEDULE

EMERGENCY KEY ACCESS BOX: Provide ONE (1) unit per building typically at fire-sprinkler control valve and alarm control access door and at location and height as approved by local fire-department officials having jurisdiction. Coordinate keying of cylinders with local Fire Department officials.

ROOFTOP ACCESS DOORS: Provide minimum 2 stainless-steel hinges, lockset with cylinder master-keyed to building system, full-width overhead rain-drp, door bottom drip/sweep, and weatherstripping seal all around access door unit.

SOFFT ACCESS DOORS: Provide cylinder master-keyed to building system.

ALL DOORS:

DOOR BUMPER: Provide 3 each (or 1 at each leaf of door pairs) resilient door bumpers for either hollow-metal or wood door frames.

GLAZING

SECTION 08 80 00

PART 1 - GENERAL

RELATED DOCUMENTS: The Drawings, and general provisions of the Contract, including the General and Supplementary Conditions, and Division-I Sections of the Specifications, apply to this Section.

WORK INCLUDED: Provide glazing where indicated on the Drawings, as specified herein, and as necessary for complete installation. This Section includes glazing for windows and doors.

PERFORMANCE:

WATERIGHT AND AIRTIGHT INSTALLATION of each glass product is required, except as otherwise shown. Each installation must withstand normal temperature changes, wind loading, impact loading (for operating sash and doors), without failure including loss or breakage of glass, failure of sealants or gaskets to remain watertight and airtight, deterioration of glazing materials and other defects in the work.

GLASS DESIGN: Glass thicknesses indicated are minimums and are for detailing only. Confirm glass thicknesses by analyzing Project loads and in-service conditions. Provide glass lites for various size openings in nominal thicknesses indicated, but not less than 1/4" inch.

WIND LOAD: Provide capacity to withstand uniform pressure loading of 25 PSF inward and 25 psf outward.

QUALITY ASSURANCE

INSTALLER QUALIFICATIONS: An experienced installer who has completed glazing similar in material,