
ADDENDUM NO. 3

PROJECT NAME: **Holiday Inn Express - York**

GENERAL CONTRACTOR: NGC Group Inc.

ADDRESS: 3830 South 6th Street
Lincoln, NE 68502

DATE OF ISSUANCE: May 7, 2013

DATE OF BID OPENING: **Tuesday, May 14, 2013**

The bid documents dated March 26, 2013 for the above referenced project are amended by this addendum.

NOTICE: This Addendum is issued to all interested prospective bidders as an amendment to the project manual or other parts of the bidding (contract) documents for the above named project. Reference to this Addendum must be included in the Bid proposal. The information contained herein shall be fully incorporated into the contract documents as though originally included therein.

GENERAL INFORMATION:

ITEM 1: BID & QUESTION DATES:

1. Bids shall be faxed or emailed to NGC Group Inc. by **3:00 PM CST on Tuesday, May 14, 2013.**
2. All questions must be submitted via **email** to NGC Group Inc. by **5:00 PM CST on Thursday, May 9, 2013.**

SPECIFICATIONS:

ITEM 1: SPECIFICATION CLARIFICATIONS:

1. This addendum contains the specifications for the following scopes of work:
 - a. E.I.F.S
 - b. Shingle Roofing
 - c. EPDM Roofing
 - d. Door Hardware
 - e. Ceramic Tile
2. There will not be any specifications issued for any other scopes of work. This project will be bid as an open ended specification project. Contractor is to bid this project with the best

value equipment and provide a detailed list of what equipment the contractor has proposed to use in their quote. All proposed equipment and methods used must meet the strictest local and state standards, codes and ordinances.



CLARIFICATIONS TO THE DRAWINGS:

ITEM 1: ARCHITECTURAL CLARIFICATIONS:

1. Gutters and downspouts should be a minimum of 6". Provide a minimum of one downspout per gutter length at each elevation or a maximum spacing of 40'-0" between any two downspouts. Downspouts should align with room demising wall (exterior vertical strip on elevations).
2. The Roof Plan on Sheet A1.3 is different than what is shown on the North Exterior Elevation on Sheet A2.0. The Roof Plan does not show the gable that is shown in the North Exterior Elevation. The Roof Plan should include this gable.
3. Canopy Section on Sheet A3.0 shows a rake edge, but roof plan and elevations show a cap metal roof. Plan and elevations are correct
4. There is no drain on the cantilever EPDM roof. A spit spout should be in roof edge on EPDM cantilever roof at entry.
5. CT-1 and CT-2 are two different colors of tile. No colors have been selected.
6. Indoor Pool has flooring specified as CT, this should be corrected to CT-1.
7. All grout should be sanded.

ITEM 2: FIRE SPRINKLER CLARIFICATIONS:

1. A dry sprinkler system is required in the attic.
2. Floor truss areas are not required to be protected.
3. A NFPA 13R fire sprinkler system is to be installed.
4. Fire sprinkler heads shall be fully recessed with covers. Guest Rooms shall be bid as semi-recessed heads for base bid and provide an alternate bid for fully recessed heads.
5. Fire sprinkler head covers shall be white in color.
6. There is no fire sprinkler coverage required at the Porte Cochere as it is not connected to the building.

7. NFPA 13R does not require fire sprinklers in bathrooms smaller than 55 SF. Guest bathrooms are just under 55 SF and will not require fire sprinklers. Handicap accessible bathrooms are just over 55 SF and will require fire sprinklers.

ITEM 3: HVAC CLARIFICATIONS:

1. Thermostats in guestrooms shall be remote.

ITEM 4: ELECTRICAL CLARIFICATIONS:

1. All guestroom smoke detectors are to be 120VAC with battery back-up. These smoke detectors are not monitored or connected to the main building Fire Alarm Panel unless required by local AHJ.
2. The strobes and horn/strobes shown in the guestroom are connected to the main building fire alarm system and only activate if the main building panel is in alarm.
3. Type V Fixture: Lithonia VGR1 series, 120V w/ (2) 13W twin tube lamps.
4. Type EMX Fixture: The Exit Light Company #EL-PWL4XJR, 120V
5. AHJ is requiring exterior emergency egress lighting. Type Q fixtures shall be connected to the nearest exit light for EM operation. Exit signs feeding Type Q fixtures must have additional battery capacity to power the Type Q fixtures in an emergency lighting situation.
6. Sheet E6.1: Feeder tag 3003 – (8) 4" C – 3#500KCMIL & 1 #400KCMIL GRD should read 3004 – (8) 4" C – 4 #500KCMIL & 1 #400KCMIL GRD.
7. All panelboard circuit breakers shall be bolt on type.
8. No panel schedules for 2nd – 4th floors will be issued as panel size and breaker size for each circuit are shown on the drawings.
9. Romex cable is acceptable to use throughout entire building.

END OF ADDENDUM NO. 3

SECTION 09310 - CERAMIC TILE

PART I - GENERAL

1.01. GENERAL NOTES

- (A) The general provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this section.
- (B) The extent and location of ceramic tile work shall be as indicated on the drawings and in the schedules and shall be defined to include:
 - 1) Ceramic floor tile.
 - 2) Ceramic tile base.
 - 3) Ceramic wall tile.
 - 4) Edge angle at perimeter of floor tile.

1.02. QUALITY ASSURANCE

- (A) Furnish tile conforming with the Standard Grade Requirements of ANSI A 137.1
- (B) When utilizing setting and grouting materials manufactured under TCA license, include identification and formula number on each container.
- (C) Provide materials obtained from only one source for each type of tile and color to minimize variations in appearance and quality.
- (D) Use adequate numbers of skilled workmen who are thoroughly trained and experience in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.

1.03. SUBMITTALS

- (A) Furnish manufacturer's specifications, material list and other data needed to prove compliance with the specified requirements.
- (B) Submit samples of each type and color of tile required including trim and other units. Colors shall be as selected by the Architect.
- (C) Submit colored grout samples. Colors shall be as selected by the Architect.
- (D) Furnish Master Grade Certificate for each type of tile, signed by the manufacturer and installer.

1.04. JOB CONDITIONS

- (A) Installer shall examine the substrate and the conditions under which the ceramic tile work is to be installed and notify the Contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the installer.
- (B) Maintain a temperature of not less than 50 degrees F. during tile installation and for seven (7) days after completion.

1.05. PRODUCT DELIVERY, STORAGE AND HANDLING

- (A) Deliver packaged materials and store in original containers with seals unbroken and labels intact until time of use, in accordance with manufacturers directions.

PART 2 - PRODUCTS

2.01. MATERIALS

(A) CERAMIC TILE

- 1) Provide ceramic tile and accessories complying with Tile Council of American Specification 137.1, in colors and patterns selected by the Architect from manufacturers standard colors and patterns.
- 2) Floor Tile:
 - a) Provide units with coefficient of friction not less than 0.50 when tested in accordance with ASTM F489, ASTM F609 and NBST Noted 895.
 - b) Provide all purpose edge units and factory mount tile onto sheets with mesh, dot, net or other backing method.
 - c) Size: 12" x 12" or 8" x 8" as selected by Owner, unglazed, group 2 with nonslip finish.
- 3) Ceramic tile base shall be same as floor tile. Provide all rounded internal and external corners, trim shapes and accessories for proper installation as detailed and required.
- 4) Ceramic wall tile shall be standard grade glazed units complying with ANSI A137.1. Provide cushion edge units with matte glaze. Size 6" x 6".

(B) MORTAR

- 1) Portland Cement: ASTM C150, Type I.
- 2) Sand: ASTM C144.

- 3) Hydrated Lime: ASTM C206, Type S.
- 4) Water: Clean, potable.
- 5) Dry-Set Mortar; Floor and Base:
 - a) Presand portland cement and additives; ANSI A118.1.
 - b) Use only the type of dryset mortar to set types of tile for which they are labeled.
- 6) Latex-Portland Cement Mortar; Floor and Base:
 - a) Latex modified portland cement thin set mortar; ASNI A118.4.

(C) GROUT

- 1) Comply with recommendations contained in TCA "Handbook for Ceramic Tile Installation". Colors shall be as selected by the Architect.
- 2) Commercial portland cement grout; Ceramic Mozaic Floors and Base:
 - a) Provide a commercially prepared mixture of portland cement and other ingredients producing a water resistant, dense uniformly colored materials, factory blended to decrease shrinkage and increase moisture resistance.
 - b) Secure Architect's approval of proposed material prior to use.
 - c) Color to be as selected.

- (D) Edge angle shall be mill finish aluminum performed angle alloy B105, temper H14 or equal.

PART 3 - EXECUTION

3.01. INSTALLATION

- (A) Comply with ANSI standard specifications A108.1 through A108.7 and the "Handbook for Ceramic Tile Installation" of the Tile Council of America.
- (B) Handle, store, mix and apply setting and grouting materials in compliance with the manufacturers instructions.
- (C) Except where otherwise indicated on the Drawings or directed by the Architect, provide portland cement setting beds for walls and floors.
- (D) Limits of tile:
 - 1) Extend tile into recesses and under equipment and fixtures to form a complete covering without interruptions.

- 2) Terminate tile neatly at obstructions, edges, and corners without disruption of pattern or joint alignment.
- (E) Joining pattern:
- 1) Lay tile in grid pattern unless otherwise indicated on the Drawings or directed by the Architect.
 - 2) Align joints when adjoining tiles on floor, base and trim.
 - 3) Layout tile work, and center the tile fields both directions in each space or on each wall area.
 - 4) Adjust to minimize tile cutting.
 - 5) Provide uniform joint widths.
- (F) Provide expansion and control joints where shown on the drawings, and where otherwise recommended by the “Handbook for Ceramic Tile Installation” of the Tile Council of America, sealing in accordance with Section 07920 of these Specifications.
- (G) Cleaning:
- 1) Upon completion of placing and grouting, clean the work of this Section in accordance with recommendations of the manufacturers of the materials used.
 - 2) Protect metal surfaces, cast iron, and vitreous items from effects of acid cleaning.
 - 3) Finish surfaces with clean water before and after cleaning.
- (H) Install edge angle at perimeter of floor tile where tile meets adjacent floor surface materials. Anchor to floor to prevent movement.
- (I) Provide tile surfaces clean and free from cracked, broken, chipped, unbonded and otherwise defective units.
- (J) Provide required protection of tile surfaces to prevent damage and wear prior to acceptance of the Work by the Owner.

END OF SECTION 09310.

SECTION 08710 – HARDWAREPART 1 – GENERAL1.01. SECTION INCLUDES

- (A) Finish hardware for doors as specified and as listed in "Hardware Groups" and required by actual conditions.
 - 1) Include screws, special screws, bolts, special bolts, expansion shields, and other devices for proper application of hardware.
- (B) Related Sections:
 - 1) Section 06101: Carpentry
 - 2) Section 08110, Hollow Metal Doors and Frames
 - 3) Section 08210, Flush Wood Doors
 - 4) Section 08411, Framed Aluminum Entrances and Storefronts.
 - 5) Division 16: Electrical.
 - 6) Division 28: Electronic Safety and Security

1.02. GENERAL REQUIREMENTS

- (A) Provide items, articles, materials, operations and methods listed, mentioned or scheduled herein or on drawings, in quantities as required to complete project. Provide hardware that functions properly. Prior to furnishing hardware, advise Architect of items that will not operate properly, are improper for conditions, or will not remain permanently anchored.

1.03. SUBMITTALS

- (A) Hardware Schedule: Submit 8 copies of hardware schedule in vertical format as illustrated by the Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Schedules which do not comply will be returned for correction before checking.
- (B) Hardware schedule shall clearly indicate architect's hardware group and manufacturer of each item proposed.
- (C) The schedule shall be reviewed prior to submission by a certified Architectural Hardware Consultant (AHC), who shall affix his or her seal attesting to the completeness and correctness of the schedule.
 - 1) Provide 2 copies of illustrations from manufacturer's catalogs and data in brochure form.
 - 2) Check specified hardware for suitability and adaptability to details and surrounding conditions. Indicate unsuitable or incompatible items and proposed substitutions in hardware schedule.
 - 3) Provide listing of manufacturer's template numbers for each item of hardware in hardware schedule.

- 4) Furnish other Contractors and Subcontractors concerned with copies of final approved hardware schedule. Submit necessary templates and schedules as soon as possible to hollow metal, wood door, and aluminum door fabricators in accordance with schedule they require for fabrication.
 - 5) Samples: Lever design or finish sample:
- (D) Wiring Diagrams: Provide complete and detailed system operation and elevation diagrams specially developed for each opening requiring electrified hardware, except openings where only magnetic hold-opens or door position switches are specified. Provide these diagrams with hardware schedule submittal for approval. Provide detailed wiring diagrams with hardware delivery to jobsite.
- (E) Installation Instructions: Provide manufacturer's written installation and adjustment instructions for finish hardware. Send installation instructions to site with hardware.
- (F) Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
- (G) Contract Closeout Submittals: Comply with Section 01700 including specific requirements indicated below.
- 1) Operating and maintenance manuals: Submit 3 sets containing the following:
 - 2) Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - 3) Catalog pages for each product.
 - 4) Name, address, and phone number of local representative for each manufacturer.
 - 5) Parts list for each product.
 - 6) Copy of final approved hardware schedule, edited to reflect "As installed".
 - 7) Copy of final keying schedule.
 - 8) As installed "Wiring Diagrams" for each opening connected to power, both low voltage and 110 volts.
 - 9) One complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.04. QUALITY ASSURANCE

- (A) Manufacturer: Obtain each type of hardware (i.e. latch and locksets, hinges, closers) from single manufacturer, although several may be indicated as offering products complying with requirements.
- (B) Supplier: Recognized architectural finish hardware supplier, with warehousing facilities, who has been providing hardware for period of not less than 3 years. The supplier shall be, or employ, a certified Architectural Hardware Consultant (AHC), who is registered in the continuing education program as administered by the Door and Hardware Institute. The hardware schedule shall be prepared and signed by a certified AHC.

- (C) Installer: Firm with 3 years experience in installation of similar hardware to that required for this project, including specific requirements indicated.
- (D) Regulatory Label Requirements: Provide nationally recognized testing agency label or stamp on hardware for labeled openings. Where UL requirements conflict with drawings or specifications, hardware conforming to UL requirements shall be provided. Conflicts and proposed substitutions shall be clearly indicated in hardware schedule.
- (E) Handicapped Requirements: Doors to stairs (other than exit stairs), loading platforms, boiler rooms, stages and doors serving other hazardous locations shall have knurled or other similar approved marking of door lever handles or cross bars in accordance with local building codes.
- (F) Pre-Installation Conference: Prior to the installation of hardware, manufacturer's representatives for locksets, closers, and exit devices shall arrange and hold a jobsite meeting to instruct the installing contractor's personnel on the proper installation of their respective products. A letter of compliance, indicating when this meeting is held and who is in attendance, shall be sent to the Architect and Owner.

1.05. DELIVERY, STORAGE AND HANDLING

- (A) Deliver hardware to jobsite in manufacturer's original packaging, marked to correspond with approved hardware schedule. Do not deliver hardware until suitable locked storage space is available. Check hardware against reviewed hardware schedule. Store hardware to protect against loss, theft or damage.
- (B) Deliver hardware required to be installed during fabrication of hollow metal, aluminum, wood, or stainless steel doors prepaid to manufacturer.

1.06. WARRANTY

- (A) Guarantee workmanship and material provided against defective manufacture. Repair or replace defective workmanship and material appearing within period of one year after Substantial Completion.
- (B) Provide ten year factory warranty on door closer body against defects in material and workmanship from date of occupancy of Project.
- (C) Replace shortages and incorrect items with correct material at no additional cost to Owner.
- (D) At completion of project, qualified factory representative shall inspect closer installations. After this inspection, letter shall be sent to Architect reporting on conditions, verifying that closers have been properly installed and adjusted.

PART 2 – PRODUCTS2.01. BUTTS AND HINGES

(A) Acceptable Manufacturers and Types:

Type	McKinney	Hager	Stanley
Type 1	TA2714	BB1279	FBB179
Type 2	TA2314	BB1191	FBB191
Type 3	T4A3786	BB1168	FBB168
Type 4	T4A3386	BB1199	FBB199

(B) Application:

- 1) Exterior out swinging doors Type 4 x NRP
- 2) Exterior inswinging doors and vestibule doors Type 3
- 3) Interior doors with closers Type 1 or 3
- 4) Interior doors over 36 inches wide Type 3
- 5) Interior doors 36 inches or less without closer Type 1
- 6) Main Corridor Doors Type 3
- 7) Provide NRP (non-removable pins) at out-swinging lockable doors.

(C) Size:

- 1) 2-1/4 inch Doors 5 inch by 5 inch
- 2) 1-3/4 inch Doors 4-1/2 inch by 4-1/2 inch
- 3) 1-3/8 inch Doors 3-1/3 inch by 3-1/2 inch

(D) Quantity:

- 1) 2 - hinges per leaf for openings through 60 inches high.
- 2) 1 - additional hinge per leaf for each additional 30 inches in height or fraction thereof.
- 3) 4 - Dutch doors up to 90 inches in height.

(E) Drill 5/32 inch hole and use No. 12, 1-1/4 inch steel threaded to the head wood screws for hinges on wood doors.

2.02. ELECTRIC HINGES

(A) Acceptable manufacturers:

- 1) McKinney QC

(B) Provide electric hinges with standardized wire colors and concealed plug connectors to accommodate up to 12 wires.

(C) Coordinate plug connectors so that they plug directly into wiring harnesses for connection to electric locking devices and power supplies.

- (D) Provide sufficient number of concealed wires to accommodate electric function of specified hardware.
- (E) Locate electric hinges at second hinge from bottom. Where electric hinges are used in conjunction with exit devices, locate hinge nearest to exit device.
- (F) Provide mortar guard similar to McKinney MG-16 for each electric hinge specified.

2.03. CONTINUOUS GEARED HINGES

- (A) Acceptable manufacturers:

McKinney	Select	Pemko
MCK-14HD	SL-18HD	CFM79SLIHD
MCK-25HD	SL-24HD	SNFM83HD

- (B) Provide one of the above two models of continuous hinges as appropriate for the type, inset, and thickness of door where specified. Coordinate hinge types with the door supplier.

2.04. FLUSH BOLTS AND DUSTPROOF STRIKES

- (A) Acceptable manufacturers:

Trimco	McKinney	Rockwood
3915	FB01M	555
3916	FB02W	557
3923	SB012F	585-24
3810	FB06M	1842
3815	FB10W	1942
3910	DPS1	570x571

- (B) Non-labeled Openings: Provide 2 flush bolts FB01 or FB02W for inactive leaf of pairs of locked and latched doors. Locate centerline of top bolt not more than 78 inches from finished floor. Provide dustproof strike DPS1 for bottom bolt.
- (C) Labeled Openings: Provide automatic flush bolt set FB06M or FB10W, as applicable, for inactive leaf of pairs of doors. Provide dustproof strike DPS1 for bottom bolt.

2.05. LOCKSETS – CYLINDRICAL

- (A) Acceptable Manufacturer and Series:

Manufacturer	Grade 1	Grade 2
Sargent	10-Line x LP	65-Line x OP
Yale	5400L x PB	4300 x PB
Schlage	ND series x 17A	S series x 17A

- (B) Cylinders: Manufacturer's security removable core 6-pin, with patented key control.

- (C) Backsets: 2-3/4 inches.
- (D) Strikes: Provide wrought boxes and strikes with proper lip length to protect trim but not to project more than 1/8 inch beyond trim, frame or inactive leaf. Where required, provide open back strike and protected to allow practical and secure operation.

2.06. EXIT DEVICES

- (A) Acceptable Manufacturers:

Sargent	Corbin Russwin	Von Duprin
80 Series	ED4000/ ED5000	35/98 Series

- (B) Provide exit device series and functions as specified in Hardware Groups. Sargent product numbers are referenced in the Hardware Groups.
- (C) All exit devices shall be UL listed for panic. Exit devices for labeled doors shall be UL listed as "Fire Exit Hardware".
- (D) Where lever trim is specified, provide lever design to match lockset levers.
- (E) Provide cylinders for exit devices with locking trim and cylinder dogging.
- (F) Provide cylinder dogging feature for non-rated exit devices.
- (G) Provide keyed removable mullions, as specified in the Hardware Groups.

2.07. ELECTRIC STRIKES

- (A) Acceptable Manufacturers and Series:

HES	Folger-Adam	Von Duprin	Adams Rite
<u>1006 Series</u>	310 Series	6200	
5100			<u>7100</u>

- (B) Provide electric strikes designed for use with the type locks shown at each opening where specified.
- (C) Electric Strikes shall be UL Listed as Burglary-Resistant Electric Door Strikes and where required shall be UL Listed as Electric Strikes for Fire Doors and Frames. Provide non fail-safe type electric strikes, unless specified otherwise.
- (D) Provide power supply for each strike as required. Verify voltage with electrical contractor.

2.08. MAGNETIC LOCKS

(A) Acceptable Manufacturers and Series:

Sargent	Securitron	Folger Adam
1584	62	9970LM
1585	62(2)	9970LM (2)

- (B) Magnetic locks shall meet ANSI/BHMA A156.23-1992 classification criteria including a minimum holding force of 1200 LBF.
- (C) Locks shall be equipped with a SPDT Magnetic Bond Sensing device to monitor whether sufficient magnetic holding force exists to ensure adequate locking. The bond sensor shall be fully concealed within the electromagnet to resist tampering or damage.
- (D) Magnetic Locks shall be equipped with a concealed adjustable time delay option to re-lock the door, adjustable from 1 to 90 seconds.
- (E) Provide power supplies for magnetic locks by the same manufacturer as locks.
- (F) Provide fasteners, mounting brackets, and spacer bars required to suit details.

2.09. KEYING

(A) Acceptable Manufacturers and Series:

Sargent	Schlage	Yale
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- (B) Provide Level 3, grandmaster patented key system as defined in (DHI) "Keying Systems and Nomenclature". Master key or Grand master key cylinders and key in groups, unless otherwise specified. Factory masterkey with manufacturer retaining permanent keying records.
- (C) Provide 6 masterkeys for each masterkey set. Provide 3 change keys for each lock. Provide 2 control keys for core removal. Stamp keys with "Visual Key Control" symbols and "DO NOT DUPLICATE."
- (D) Submit proposed keying schedule to Architect. If requested, meet with Owner and Architect to review schedule.
- (E) Provide removable core cylinders for each lock with construction masterkeying. Permanent cores shall be installed upon completion of the project.

2.10. DOOR TRIM

(A) Acceptable Manufacturers and Types:

McKinney	Trimco	Rockwood
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(B) Push Plates:

- 1) McKinney P053 unless otherwise indicated.

(C) Pulls:

- 1) McKinney OP9013, or DP703
- 2) Where required, mount back to back.

(D) Kick Plates and Armor Plates: Countersunk holes, beveled 4 edges.

- 1) At single doors provide width 1-1/2 inch less than door width on stop side and one inch less than door width on face side.
- 2) At pairs of doors provide width one inch less than door width on both sides.
- 3) Height of 8 inches, unless otherwise indicated for Kick Plates
- 4) Height of 4 inches, unless otherwise indicated for Mop Plates.

(E) Edge Guards: Minimum .050" thick, stainless steel.

- 1) McKinney type EG11 x 42 inches high as noted in Hardware Groups.

2.11 COORDINATORS

(A) Acceptable Manufacturers:

McKinney	Trimco	Rockwood
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(B) Provide UC125 Series coordinator for labeled pairs of doors equipped with automatic flush bolts and those with vertical rod/mortise lock fire exit device combinations with astragals.

(C) Provide filler bars for total opening width, closer mounting brackets, carry bars, and special preparation for top latches where applicable.

2.12. DOOR CLOSERS

(A) Acceptable Manufacturers and Types of Exposed Closers:

Sargent	Norton	LCN	Yale
1130 BC COV	1703 BC COV	1521 BC	5010 BC P
1430	8500	1460	3500
351/351-P10	7500/PR7500	4041/4041CUSH	4400/PR4400

(A) Provide non-sized closers, adjustable to meet maximum opening force requirements of ADA.

(B) Provide drop plates, brackets, or adapters for arms as required to suit details.

(C) Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

- (D) Provide back-check for closers.
- (E) Provide hold-open arms where indicated.
- (F) Provide closers for doors as noted in Hardware Groups and, in addition, provide closers for labeled doors whether or not specifically noted in group.
- (G) Provide closers meeting the requirements of UBC 7-2, 1997 and UL 10C positive pressure tests.

2.13. OVERHEAD STOPS

- (A) Acceptable Manufacturers

Sargent	Rixson	ABH
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- (B) Provide 1540 Series overhead stops for doors equipped with regular arm surface type closer that swing more than 140 degrees before striking wall, and for doors that open against equipment, casework, sidelights, other objects that would make wall stops inappropriate.
- (C) Provide sex bolt attachments for mineral core door application.

2.14. WALL STOPS AND HOLDERS

- (A) Acceptable Manufacturers and Types:

Trimco	McKinney	Rockwood
1270WXCP	WS01	406

- (B) Provide WS01 Series wall stop as applicable, for each door leaf, except where conditions require the use of an overhead stop.
- (C) Floor or base stops shall be used only where definitely specified or absolutely unavoidable.

2.15. THRESHOLDS

- (A) Acceptable Manufacturers: McKinney, Pemko, and National Guard.

McKinney	Pemko	National Guard
MCK170A	170A	424

- (B) Where thresholds are specified in hardware groups, provide MCK170A thresholds unless detailed otherwise.
- (C) Refer to drawings for special details. Provide accessories, shims and fasteners.
- (D) Where thresholds occur at openings with one or more mullions, they shall be cut for the mullions and extended continuously for the entire opening.

2.16. WEATHERSTRIPPING

(A) Acceptable Manufacturers and Product:

	McKinney	Pemko	National Guard
Sweeps	<u>MCK307</u>	307	100V
Jambs/Head	<u>MCK290</u>	290	9700
Door top drips	<u>MCK346C</u>	346C	R201A

(B) Where weather stripping is specified in hardware groups, provide MCK290 unless detailed otherwise.

(C) Provide self-tapping fasteners for weatherstripping being applied to hollow metal frames.

(D) Where sweeps are specified in hardware groups, provide MCK307 unless detailed otherwise.

(E) Where rain drips are specified in hardware groups, provide MCK346C x full frame width, unless detailed otherwise.

2.17. GASKETING

(A) Acceptable Manufacturers: McKinney, Pemko, and National Guard. Refer to drawings for special details. Provide accessories, shims and fasteners.

McKinney	Pemko	National Guard
MCKS88	S88	5050
MCK332C R	332CR	110NA
MCK313A N	313AN	112N

(B) Where smoke gasket is specified in hardware groups, provide MCKS88, unless detailed otherwise.

(C) Provide gaskets for 20-minute doors and doors designated for smoke and draft control.

(D) Where frame applied intumescent seals are required by the manufacturer, provide gaskets that comply with UBC 7-2, 1997 and UL 10C positive pressure tests.

2.18. SOUND GASKETING

(A) Acceptable Manufacturers:

1) Acoustical gasketing and door bottoms:

	McKinney	Pemko	National Guard
Automatic Door Bottoms	<u>MCK411ASL</u>	411ASL	225
Jambs/ Head	<u>MCK312 DR</u>	312 DR	1038

(B) Where gasketing is specified in hardware groups, provide MCK411ASL and MCK322CR unless detailed otherwise.

- 1) Provide self-tapping fasteners being applied to hollow metal doors and frames.
- 2) Cutting or notching of sound gasket for stop mounted hardware shall not be permitted.

2.19. MAGNETIC HOLDERS

(A) Acceptable Manufacturers and Types:

Sargent	Rixson-Firemark	ABH
1561	FM-998	2100

(B) Where magnetic holders are specified in the Hardware Groups, provide Rixson FM-998, ABH 2100, or Sargent 1561 unless detailed otherwise.

- 1) Verify voltage with Electrical Contractor.

2.20. ELECTRICAL ACCESSORIES

(A) Acceptable Manufacturers and types:

Von Duprin	Securitron	Sargent
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(B) Electrical Power Transfer (EPT); Key Switches

(C) Power Supply; filtered and regulated enclosed in a UL approved metal case.

(D) Molex Connectors to be used for low voltage wiring connections for electrical hardware.

2.21. ELECTRONIC LOCK SYSTEM DESCRIPTION

(A) Install an electronic lock system, complete and including without limitation, the following components.

(B) Approved Manufacturers:

- 1) "Saflok MT"; Saflok
- 2) "Onity HT-24"; Onity (formally Tesa Entry Systems)
- 3) "Classic"; VingCard Elsafe, an ASSA Abloy Group Company

(C) Guest Room Locking System, Front Desk System

- 1) "Saflok Passport System", or approved substitution by listed manufacturer.
- 2) Microprocessor based Front Desk Controller System shall be a PC base motorized key encoding system with remote system printer and lock integration (LPI) feature. Include the following:

- a) Main PC Base computer, RS232 Cable and support hardware.
 - b) Motorized keycard encoder station and power supply.
 - c) 1 Each Basic System Items: Manuals, etc.
 - d) 1 Each System Printer with Serial Cable
 - e) Keycards: Generic reusable plastic magnetic keycards. Quantity: 1700 and 300 emergency keycards.
- 3) System shall be designed for the following features:
- a) Password access to front desk system
 - b) Transaction log of last 4,000 transactions
 - c) Simple three-step check in progress
 - d) Encoder to be insertion type
 - e) Encoder must encode and validate cards
 - f) Encoder must be able to "read a card"
 - g) Back-up cards in case of catastrophic power failure
 - h) Portable programmer interrogator: Password protected and be able to program up to 250 locks. Shall be separate from Front Desk Controller, furnish two Front Desk Controllers. Program shall include:
 - 1. Set time clock
 - 2. Perform diagnostic check
 - 3. Interrogate up to last 100 entries: time, date and card identification
 - i) Front Desk Controller to have "hot" keys for front desk check-in type function.
 - j) Front Desk Controller must have capability of adding a secondary station that communicates with Primary Front Desk Controller in order to prevent double issuing keys for rooms.
- 4) Guest Room: Locks shall be opened by a correctly coded card, upon removal after insertion. Use of a newly issued card shall automatically re-key the lock to void the previous card, and guest cards shall additionally self-cancel by date and time automatically. Perimeter door reader to allow authorized guest cards. Canceled cards must not access perimeter reader.
- a) Audit trail in lock of last 100 entries - time, date, and card identification
 - b) Office/passage function by card for offices, entry doors or hospitality suites
 - c) Reusable ABA standard magstripe cards
 - d) Four (4) standard AA batteries or a (4) AA battery pack.
 - e) Non-volatile memory lock will not lose program even if the batteries are removed
 - f) Four levels of master/staff cards; 50 masters per level
 - g) Staff cards shall be individualized to identify individual card holder via lock audit
 - h) All cards are time limited
 - i) For Finish and Lever design see hardware sets
 - j) Deadbolt override cards for emergency level and guest cards (programmable).
 - k) Simultaneous retraction of deadbolt and latchbolt (1" steel dead bolt with security pins and 3/4" anti-friction latch bolt).
 - l) Intelligent power shutdown feature. Batteries remain deactivated until keycard is inserted. Master level card key will activate a flashing red "Low Battery" light warning system three (3) months in advance of battery failure.

- m) Mortise lockset to conform to BHMP Grade One, and meet UL Fire Rating C through A
- n) Exterior door applications shall have special weather protection stand.

2.22. KEY CABINET

- (A) Provide key cabinets by Lund Equipment, Telkee Incorporated, or Key Control.
- (B) Lund Deluxe wall type cabinet, Series 1200.
- (C) Provide cabinet with one hook for each lock or cylinder plus at least 50 percent extra hooks.
- (D) Provide each hook with one non-removable security key tag and one snap-on link duplicate key tag.
- (E) Provide tools, instruction sheets and accessories required to complete installation.
- (F) Owner will place keys in key cabinet and complete index cards furnished with key system.

2.23. KEY MANAGEMENT SOFTWARE

- (A) Provide Key Wizard® key management software.
- (B) Software shall provide tracking, issuing, collecting and transferring information regarding keys, doors, and hardware.
- (C) Provide training for Owner's personnel on the proper operation and application of the key management software.

2.24. FASTENERS

- (A) Including, but not limited to, wood or machine screws, bolts, nuts, anchors, etc. of proper type, material, and finish required for installation of hardware.
- (B) Use phillips head for exposed screws. Do not use aluminum screws to attach hardware.
- (C) Provide self-tapping (TEC) screws for attachment of sweeps and stop-applied weatherstripping only.

2.25. TYPICAL FINISHES AND MATERIALS

- (A) Finishes, unless otherwise specified:
 - 1) Butts: Outswinging Exterior Doors
 - a) US26D on Brass or Bronze
 - 2) Butts: Interior Doors and Inswinging Exterior Doors
 - a) US26D on Steel

- 3) Continuous Hinges:
 - a) US28 on Aluminum
- 4) Flush Bolts:
 - a) US26D on Brass or Bronze
- 5) Exit Devices:
 - a) US32D
- 6) Locks and Latches:
 - a) US26D on Brass or Bronze
- 7) Push Plates, Pulls and Push Bars:
 - a) US32D
- 8) Coordinators:
 - a) USP (BHMA 600) on Steel
- 9) Kick Plates, Armor Plates, and Edge Guards:
 - a) US32D
- 10) Overhead Stops and Holders:
 - a) US26D on Brass or Bronze
- 11) Closers: Surface mounted.
 - a) Sprayed Aluminum
- 12) Latch Protectors:
 - a) US32D (BHMA 630) on Stainless Steel
- 13) Miscellaneous Hardware:
 - a) US32D

PART 3 – EXECUTION

3.01. EXAMINATION

- (A) Examine doors, frames, and related items for conditions that would prevent the proper application of finish hardware. Do not proceed until defects are corrected.

3.02. INSTALLATION

- (A) Install finish hardware in accordance with reviewed hardware schedule and manufacturer's printed instructions. Pre-fit hardware before finish is applied, remove and reinstall after finish is completed. Install hardware so that parts operate smoothly, close tightly and do not rattle.
- (B) Installation of hardware shall comply with NFPA 80 and NFPA 101 requirements.
- (C) Set units level, plumb and true to line and location. Adjust and reinforce attachment to substrate as necessary for proper installation and operation.
- (D) Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

- (E) Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant, forming tight seal between threshold and surface to which set. Securely and permanently anchor thresholds, using countersunk non-ferrous screws to match color of thresholds (stainless steel screws at aluminum thresholds).
- (F) Lead Protection: Lead wrap hardware penetrating lead-lined doors. Levers and roses to be lead lined. Apply kick and armor plates with 3M adhesive #1357, as recommended by 3M Co., on lead-lined doors.

3.03. FIELD QUALITY CONTROL

- (A) After installation has been completed, provide services of qualified hardware consultant to check Project to determine proper application of finish hardware according to schedule. Also check operation and adjustment of hardware items.
- (B) Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.04. ADJUSTING AND CLEANING

- (A) At final completion, hardware shall be left clean and free from disfigurement. Make final adjustment to door closers and other items of hardware. Where hardware is found defective repair or replace or otherwise correct as directed.
- (B) Adjust door closers to meet opening force requirements of Uniform Federal Accessibility Standards.
- (C) Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of space or area, return to work during week prior to acceptance or occupancy, and make final check and adjustment of hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors.
- (D) Instruct Owner's personnel in proper adjustment and maintenance of door hardware and hardware finishes.
- (E) Clean adjacent surfaces soiled by hardware installation.

3.05. PROTECTION

- (A) Provide for proper protection of items of hardware until Owner accepts Project as complete.

3.06. HARDWARE GROUPS

- (A) The following schedule of hardware groups shall be considered a guide only, and the supplier is cautioned to refer to general conditions, special conditions, and the preamble to this section. It shall be the hardware supplier's responsibility to furnish all required hardware.

(B) Refer to the door schedule for hardware group required at each door opening.

Heading 1

Doors: xxxA – Guest Room Entry

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Hotel lock Battery Operated	ELECTRONIC LOCK CLASSIC	26D	VING
1	Closer	1130-RU C	EN	SA
1	Door Guard Protection Plate	DGP1	US26D	MC
1	Door Guard	DG03	US26D	MC
1	Door Viewer	DV2	US26	MC
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
1	Door Bottom	2173PWV36 36"	WHT	PEMK
1	Set Smoke Seal	S773 D 18'		PE

Note: 2 viewers on Accessible Guest Rooms.

Heading 2

Doors: xxxB – Guest Room Bath

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Privacy Set	28 65U65 KP	26D	SA
1	Wall Stop	WS02	US32D	MC
3	Door Silencers	S1M		MC

Heading 3

Doors: xxxC – Guest Room Connecting

2	Set of Hinges	1522 4 1/2 X 4 1/2	26D	MC
2	Exit Set	28 65G15-3 KP	26D	SA
2	Deadlock	489	26D	SA
2	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Door Viewer	DV2	US26	MC
2	Set Smoke Seal	S773 D 18'		PE
2	Wall Stop	WS02	US32D	MC

Heading 4

Doors: 170A

1	Mortise Cylinder	11 63 42	26D	SA
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Note: REMAINDER OF HARDWARE BY DOOR MANUFACTURER

Heading 5

Not Used

Heading 6

Doors: 150B, 157, 169B, 181B

1	Continuous Hinge	MCK-14HD 83	CLEAR MC
1	Exit Device	11 16 63 8804 F ETP	32D SA
1	Electric Strike	9600 12/24VDC	630 HS
1	Closer	351 CPS	EN SA
1	Weatherstrip	MCK290 APK 1 x 36" 2 x 84" TEK SCREWS	MW
1	Door Bottom	MCK307 AV 36" TEK SCREWS	MW
1	Threshold	MCK170 A 36"	MW
1	Raindrip	MCK346 C 36"	MW
1	Power Supply	BPS-12-1	SN
1	VC Wall Mounted Card Reader	VC CARD READER WALL	32D VING

Heading 7

Doors: 170B

2	Mortise Cylinder	11 63 42	26D SA
1	Mortise Keyswitch	MKA	US32D SN
1	Push Button	PB3ER	US32D SN
1	VC Wall Mounted Card Reader	VC CARD READER WALL	32D VING
1	Intercom	INTERCOM	AIPH

Note: REMAINDER OF HARDWARE BY DOOR MANUFACTURER

Heading 8

Doors: 168, 182B

1	Continuous Hinge	MCK-14HD 83	CLEAR MC
1	Lockset	11 28 63 10G04 LP	26D SA
1	Closer	351 CPS	EN SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D MC
1	Weatherstrip	MCK290 APK 1 x 36" 2 x 84" TEK SCREWS	MW
1	Door Bottom	MCK307 AV 36" TEK SCREWS	MW
1	Threshold	MCK170 A 36"	MW
1	Raindrip	MCK346 C 36"	MW

Heading 9

Not Used

Heading 10

Doors: 150A, 169A, 250, 257, 350, 357, 450, 457

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Exit Device	12 8815 F ETP	32D	SA
1	Closer	1431 O	EN	SA
1	Magnetic Holder	1561	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Door Bottom	307 AV 36"		PE
1	Smoke Seal	S88 C 17'		PE

Heading 11

Doors: 256, 356, 456

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 O	EN	SA
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 12

Doors: 251, 351, 451

3	Hinges	TA2714 4 1/2 X 4 1/2 NRP	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 PS	EN	SA
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 13

Not Used

Heading 14

Doors: 176

3	Hinges	TA2714 4 1/2 X 4 1/2 NRP	26D	MC
1	Exit Device	11 12 63 8813 F ETP	32D	SA
1	Closer	1431 PS	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 15

Doors: 172A, 172B

6	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Deadlock	11 63 4877	26D	SA
2	Flush Bolt	FB02W	US26D	MC
2	Closer	1431 O	EN	SA
2	Door Pull	OP9013	US32D	MC
2	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
2	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
2	Door Silencers	S1M		MC

Heading 16

Not Used

Heading 17

Doors: 163

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Keypad Lock	11 63 KP10G77 LP	26D	SA
1	Closer	1431 O	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
3	Door Silencers	S1M		MC

Heading 18

Doors: 164, 165A, 165B

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Lockset	11 28 63 10G05 LP	26D	SA
1	Wall Stop	WS02	US32D	MC
3	Door Silencers	S1M		MC

Heading 19

Not Used

Heading 20

Doors: 154, 155, 158

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Privacy Set	28 10U65 LP	26D	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
3	Door Silencers	S1M		MC

Heading 21

Doors: 158

3	Hinges	TA2714 4 1/2 X 4 1/2 NRP	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 PS	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 22

Not Uaed

Heading 23

Doors: 253, 353, 453

3	Hinges	TA2714 4 1/2 X 4 1/2 NRP	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 P9	EN	SA
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 24

Doors: 177

3	Hinges	TA2714 4 1/2 X 4 1/2 NRP	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 PS	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 25

Doors: 159

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Passage Set	28 10U15 LP	26D	SA
1	Wall Stop	WS01	US32D	MC

Heading 26

Not Used

Heading 27

Doors: 160A, 175A

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Lockset	11 28 63 10G05 LP	26D	SA
1	Closer	1431 O	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 28

Doors: 160B, 175B

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Lockset	11 28 63 10G05 LP	26D	SA
1	Closer	1431 O	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
3	Door Silencers	S1M		MC

Heading 29

Doors: 156, 182A

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Lockset	11 28 63 10G04 LP	26D	SA
1	Closer	1431 O	EN	SA
1	Mop Plate	KP50 4" x 35" CSK HB4E	US32D	MC
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
1	Wall Stop	WS02	US32D	MC
1	Smoke Seal	S88 C 17'		PE

Heading 30

Doors: 167, 180, 181A

1	Continuous Hinge	MCK-14HD 83	CLEAR	MC
1	Exit Device	12 8815 F ETP	32D	SA
1	Closer	1431 O	EN	SA
1	Kickplate	KP50 8" x 34" CSK HB4E	US32D	MC
3	Door Silencers	S1M		MC

Heading 31

Doors: 255, 355, 455

Note: ELEVATOR NO HARDWARE REQUIRED

Heading 32

Doors: MISC

1	VC System DB Build & Training	VC SYSTEM DB BUILD & TRAINING	VING
1	Ving Card Encoder	VC ENCODER	VING
1000	Ving Card Magnetic Card	VC CARD	VING
1	KEY CABINET	1201	LUND
1	Key Wizard Software	KW-SS1	SA

END OF SECTION 08710.

SECTION 07530 – EPDM ELASTOMERIC MEMBRANE ROOFING SYSTEM

PART 1 – GENERAL

1.01. GENERAL

- (A) The general provisions of the contract, including General, Special Conditions and Division 1 specification sections apply to the work specified in this section.

1.02. DESCRIPTION OF WORK

- (A) Contractor shall provide single-ply EPDM fully adhered roofing and flashing system at new canopies and new roof areas as shown herein specified.

- (B) Install new:

1. Insulation and crickets.
2. Base flashings.
3. Counterflashing.
4. Termination bar.
5. Roof membrane.

1.03. QUALITY ASSURANCE

- (A) Qualifications:

1. Be, or subcontract to, a firm approved or franchised by a manufacturer.

- (B) Source Quality Control:

1. Each manufacturer confirms the following prior to bidding:
 - a. They have examined project drawings, specifications and warranty requirements.
 - b. Their products herein specified are acceptable for and compatible with the roofing and flashing system design.
 - c. If their system is used, they certify that all products delivered to the job site will meet or exceed project specification requirements.
 - d. They will issue the specified warranty if the roofing and flashing systems are installed in accord with their requirements.

- (C) Upon completion of the installation, an inspection shall be made by a representative of the manufacturer to ascertain the roofing system has been installed in accordance with the drawings, specifications and manufacturer's recommendations.

1.04. REFERENCES: Cited standards and specified manufacturers' catalogs, or portions thereof, current at date of bidding documents, unless otherwise specified, are incorporated herein by reference and govern the work. In conflict between referenced standards or catalogs and the project specifications, request written clarification from the Architect/Engineer. Do not proceed with the work until receiving such clarification.

(A) Standards:

1. American Society for Testing and Materials (ASTM).
2. Factory Mutual Laboratories (FM).
3. National Fire Protection Association (NFPA).

1.05. PRODUCT DELIVERY, STORAGE AND HANDLING

- (A) Deliver materials requiring fire resistance classification packaged with labels intact and legible, and as required by the Standards Agency.
- (B) Store all materials on clean raised platforms with weather protective covering when stored outdoors.
- (C) All materials, except membrane, must be stored between 60 degrees F. and 80 degrees F. If exposed to lower temperatures, restore to 60 degrees F. before using.

1.06. WARRANTY. General Contractor provide:

- (A) General Contractor: Ten (10) years manufacturers standard warranty.

PART 2 - PRODUCTS

2.01. MATERIALS. For the entire roofing system, use materials either manufactured by or certified as compatible by one of the acceptable manufacturers.

2.02. ACCEPTABLE ROOFING SYSTEM MANUFACTURERS:

(A)	<u>CODE</u>	<u>BRAND NAME</u>	<u>MANUFACTURER</u>
1.	CAR	Sure-Seal	Carlisle SynTec Systems, Carlisle, PA.
2.	FIR	Rubbergard	Firestone Building Products Co., Carmel, IN.
3.	GDY	Versigard	The Goodyear Tire & Rubber Co., Akron, OH
4.	GTR	GenFlex	GenCorp Polymer Division, Toledo, OH.
5.	MAN	SPM	Manville Building Materials, Corp. DenverCO

2.03. ACCEPTABLE SYSTEMS:

(A) Fully Adhered:

1. CAR Design "A" .060
2. FIR Rubbergard .060
3. GDY Versigard .060
4. GTR Genflex .060
5. MAN SPM-60

(B) Provide adhesives, sealants, premolded flashings and other related components as manufactured or recommended by the roofing system manufacturer.

2.04. ROOF INSULATION

(A) Acceptable Roof Insulation Types:

	TYPE	ASTM	FED.SPEC.	"R" INCH	"K"
1.	1/2" Hi-Density	C208	LLL-1-5358	1.39-1/2"	0.36
2.	Polyisocyanurate		HH-1-1972	5.56 (aged)	0.17

(B) Roof Insulation type and thickness shall be as follows:

1. Provide a minimum one-layer of one inch (1") board insulation covered by one-half inch (1/2") hi-density board insulation specifically designed for use under fully adhered roofing systems.

(C) Roof Insulation:

1. Fully Adhered System

- a. First Layer
Flat, Minimum Thickness

CAR	FIR	GTR	GDY	MAN
R-Max	R-Max	R-Max	R-Max	Manville
Multi-Max	Multi-Max	Multi-Max	Multi-Max	UltraGard
Flat 1"	Flat 1"	Flat 1"	Flat 1"	Gold

- b. Second Layer
Flat, Thickness

<u>CAR</u>	<u>FIR</u>	<u>GTR</u>	<u>GDY</u>	<u>MAN</u>
Sure Seal	Manville	Manville	Manville	Manville
HP Recovery	Retrofit Board	Retrofit Board	Retrofit Board	Retrofit Board
BD. Flat 1/2"	Flat 1/2"	Flat 1/2"	Flat 1/2"	Flat 1/2"

2. Crickets shall be constructed from wood fiber insulation, tapered 1/4 inch per foot.

2.05. OTHER MATERIALS

(A) Uncured Flashing: .060 mil thick uncured EPDM.

<u>CAR</u>	<u>FIR</u>	<u>GTR</u>	<u>GDY</u>	<u>MAN</u>
Elastoform	Formflash	Genflex	Wingprene	SPM Flashing

(B) Bonding adhesive, slip sheets, splicing cements, lap sealants, water cut-off mastic, prefabricated accessories, temporary seal material, pourable sealers for pitch pockets, perimeter nailing system, etc. shall be furnished by the Elastomeric Membrane Roofing Manufacturer and as specified in manufacturer's current written specifications.

(C) Tapered edge strips shall be manufactured from impregnated fiberboard insulation, 12" x 48", 1-5/8" tapered to 1/8".

(D) Termination bar at all wall terminations where required shall be 1 " aluminum bar with 45 degree sealant pocket on top specifically designed for use indicated.

2.06. FASTENERS:

(A) Fasteners manufactured or approved by roofing manufacturer.

(B) Fasteners that comply with ASTM D1836.

(C) Fasteners that comply with FM Class I and 1-90.

PART 3 - EXECUTION

3.01. INSPECTION

(A) Verify that all work of other contractors and subcontractors which penetrates the roof deck, or requires men and equipment to traverse the roof deck, has been completed.

- (B) Examine all surfaces for inadequate anchorage, foreign material, moisture, unevenness or other conditions which would prevent the best quality installation of the roofing and flashing systems, and accessory items.
- (C) Do not proceed with the roofing system installation until all defects have been corrected to the satisfaction of the roofing system manufacturer, and the Architect/Engineer.

3.02. INSTALLATION

- (A) General: Comply with manufacturer's instructions except where more stringent requirements are indicated herein.
- (B) Install the roof insulation with staggered joints in each layer. Offset the joints between layers a minimum of six inches.
 - 1. Fully Adhered Systems: Provide a minimum of one fastener for each two square feet of insulation. Install fasteners a minimum of 6 inches in from the edges of the board.
- (C) Install the roofing and flashing system and all accessory items in strict accord with the manufacturer's printed instructions, current at the date of the bidding documents.
- (D) Flash all projections (pipes, conduits, etc.) passing through the membrane. Prefabricated pipe seals shall be used to flash all pipes. All flashings and terminations shall be done in accordance with roofing system manufacturer's published details.

3.03. ADJUST AND CLEAN

- (A) Carefully inspect all completed work and correct all defects.
- (B) Accompany the manufacturer's Technical Inspector during his inspection, and assist the Inspector with equipment and workmen when necessary to provide access to the roof. Correct all defects noted during the inspection.
- (C) Remove from the jobsite and legally dispose of rubbish and debris.
- (D) Prevent storage of materials or equipment on the completed roof.

END OF SECTION 07530.

SECTION 07310 - SHINGLE ROOFINGPART I - GENERAL1.01. GENERAL

- (A) The general provisions of the contract, including General, Special Conditions and Division I specifications sections apply to the work specified in this section.
- (B) General: Provide all labor, materials, equipment and tools required to remove and replace existing roofing systems with new materials as detailed on the drawings and as specified herein.
- (C) Description of Work: Includes but is not necessarily limited to the following:
 - 1) The extent of the shingle roofing work is indicated on the drawings and is hereby defined to include laminated asphalt shingle units employed as weather protection for roof areas and all items and accessories necessary for a complete water tight installation.
 - 2) Includes the flashing of all vents, chimneys, crickets, ridges, valleys, etc., required for new roofing system.
 - 3) Includes the installation of sheet metal flashings and drips to be installed where indicated (Sheet metal shall be furnished under Section 07600).
 - 4) Includes ridge vents in shingle roofing system.
 - 5) Includes waterproof membrane ice and water shield to be installed beneath shingle roofing at all eaves from fascia to 2'-0" in from interior face of exterior wall.

1.02. QUALITY ASSURANCE

- (A) Provide labeled materials which have been tested and listed by U.L. for Class and Rating indicated for shingle roofing.
- (B) The Contractor shall, upon request, be able to provide evidence of at least three (3) successful experiences installing the type of roofing system proposed for use and shall demonstrate ability to accomplish the unique details required for proper completion of this project.
- (C) The Contractor shall use adequate numbers of skilled workmen who are thoroughly trained in the crafts and techniques required to properly install the type of roofing system proposed for use.

1.03. SUBMITTALS

- (A) Submit technical product data, installation instructions and recommendations from shingle manufacturer, including data that indicates the materials comply with requirements.
- (B) Submit full range of samples for color and texture selection. After selection, submit two (2) full size shingles for verification of color/style/texture selected. One color/style/texture of shingle will be selected for use on all buildings.

1.04. DELIVERY, STORAGE AND HANDLING

- (A) Deliver materials in manufacturer's unopened, labeled containers.
- (B) Store materials to avoid water damage, and store rolled goods on end. Comply with manufacturer recommendations for job site storage and protection.

1.05. JOB CONDITIONS

- (A) Proceed with shingle work only after substrate construction and penetrating work have been completed.
- (B) Proceed with shingle work only when weather conditions are in compliance with manufacturer's recommendations and when substrate is completely dry.

1.06. SPECIFIED PRODUCT WARRANTY

Provide shingle manufacturer's warranty on installed work, agreeing to pay for repair or replacement of defective shingles as necessary to eliminate leaks. Period of warranty is thirty (30) years from date of substantial completion.

PART 2 - PRODUCTS

2.01. MATERIALS

- (A) Shingles shall be 3-Dimensional Laminated Strip Shingle, U.L., Class "A". Units shall be mineral-surfaced, self-sealing, random edge (shake), laminated multi-ply overlay construction fiberglass based strip shingle complying with ASTM D 3018 bearing U.L. Class "A" external fire exposure label and U.L. "Wind Resistant" label, weighing not less than 425 lbs. per square. Color shall be as selected by the Architect. Subject to compliance with requirements, provide one of the following products:

Heritage II; Tamko Asphalt Products
Independence; Certainteed Corp.

Timberline Fiberglass; GAF Corp.
Summit; Georgia Pacific
Oakridge; Owens Corning Fiberglass Corp.
Prestique Plus; Elk Corporation

- (B) Provide manufacturer's standard hip and ridge shingle, factory pre-cut units to match shingles.
- (C) Asphalt-saturated roofing felt underlayment shall be No. 15, unperforated fiberglass felt complying with ASTM D 226-81, 36 inches wide with an approximate weight of 18 lbs/square, plus-or-minus.
- (D) Asphalt plastic cement shall be fibrated asphalt cement complying with ASTM D 2822 designed for trowel application.
- (E) Fasteners: Shall be hot-galvanized or aluminum 11 or 12-gage sharp point conventional roofing nails with barbed shank and minimum 3/8" diameter head. Provide fasteners of sufficient length to penetrate a minimum 3/4" into solid decking or to penetrate through plywood sheathing.
- (F) Ridge vents shall be similar to Ridge Master Plus as manufactured by Mid-America Building Products Corp. or approved equal.
- (G) Waterproof membrane underlayment ice and water shield shall be elastomeric membrane. Thickness 40 mils similar to:

Certainteed – Winterguard
W. R. Grace Ice and Water Shield
GAF Corp; Weather Watch
Georgia Pacific Corp.; Tough-Guard

PART 3 - EXECUTION

3.01. INSTALLATION

- (A) Inspection: Installer of shingles must examine substrate and conditions under which work is to be performed and must notify the Architect in writing of unsatisfactory conditions. Do not proceed with work until unsatisfactory conditions have been corrected.
- (B) Preparation of Substrate:
 - 1) Clean substrate of any projections and substances detrimental to shingling work. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails.

- 2) Coordinate installation of shingles with flashing and other adjoining work to ensure proper sequencing. Do not install shingle roofing until all vent stacks and other penetrations through roofing have been installed and are securely fastened against movement.

(C) Installation:

- 1) General: Comply with manufacturer's instructions except where more stringent requirements are indicated herein.
- 2) Apply one layer of felt underlayment horizontally over the entire roof surface, lapping succeeding courses a minimum of 2" and fastening with sufficient nails to secure in place until shingle application.
- 3) Ice shields: Thoroughly sweep substrate clean and apply continuous along eaves of all roofs, a self adhesive waterproof membrane (ice shield), extending up from edge of roof to a point 2'-0" from the interior face of exterior wall studs. Lap seams as required and install membrane ice and water shield in strict accordance with manufacturer's recommendations. Install ice and water shield at the following locations:
 - a) All roof areas.
 - b) Low edge starter courses, 4'-0" horizontal back from eave and 3'-0" from rakes.
 - c) Hips, valleys, and ridges. 1'-6" from hip or ridge and 2'-0" from centerline of valley.
- 4) Shingles: Install starter strip of roll roofing or inverted shingles with tabs removed, fasten shingles in manufacturer's recommended pattern, weather exposure and number of fasteners per shingle.
- 5) Comply with installation details and recommendations of the shingle manufacturer and NRCA Steep Roofing Manual.
- 6) Install metal flashings at vents, etc. as indicated on the drawings and in compliance with details and recommendations of the NRCA Steep Roofing Manual.

END OF SECTION 07310.

SECTION 07240 – EXTERIOR PLASTER FINISH SYSTEMPART 1 – GENERAL1.01. GENERAL

- (A) The general provisions of the Contract, including General and Supplementary Conditions and General Requirements, apply to the work specified in this section.
- (B) Refer to the drawings for locations and extent of exterior plaster finish system work required.

1.02. DESCRIPTION OF WORK

- (A) Exterior Plaster Finish System shall be defined to include, but not necessarily limited to the following:
 - 1) A 100% pure synthetic plaster-like material on a 100% pure synthetic plaster adhesive mix on selected reinforcing mesh, which is embedded into the adhesive; on expanded polystyrene insulation board which is applied with mechanical fasteners to the approved substrate. Provide drainable system in accordance with applicable codes and requirements.

1.03. QUALITY ASSURANCE

- (A) Applicator: Contractor specializing in exterior insulation and finish system specified, with five (5) years experience on similar projects. Contractor shall have been trained by the manufacturer and possess a current certificate of training.
- (B) Approved as described in the following documents:
 - 1) Code Research Report No. 78-98.
 - 2) ICBO Research Committee Report No. 2728.
 - 3) SBCCI Compliance Report No. 7218.
 - 4) HUD Materials Release No. 883a.
- (C) The system shall meet the requirements of H.H.S. Technical Bulletin No. 30.

1.04. SUBMITTALS

- (A) Submit shop drawings and samples for exterior plaster finish system including all details, accessories, etc. for complete installation.
- (B) Samples shall be minimum 6 in. x 6 in. with selected integral finish texture and color. Use same tools and techniques proposed for actual installation.

- (C) The trained applicator shall submit a copy of his current certificate of training by the manufacturer to the architect prior to application.

1.05. DELIVERY, STORAGE AND HANDLING

- (A) Deliver products to site in accordance with Section 01600, in original unopened containers with labels intact. Store materials protected from weather and at not less than 40 degrees F.

1.06. INSTALLATION REQUIREMENTS

- (A) Ambient air temperature shall be 40 degrees F. or greater and rising at the time of installation of the system and shall remain at 40 degrees F. or greater for at least 24 hours after application.
- (B) Protect adjacent materials and coating system while curing from weather variations and other damage.

PART 2 – PRODUCTS

2.01. MATERIALS

- (A) Exterior plaster finish system shall be similar to systems as manufactured by STO, Dryvit, Parex, Senergy, Firestone or equal.
- (B) Adhesive: Adhesive, shall be manufacturer's standard 100% pure acrylic product.
- (C) Insulation Board: Nominal 1.0 pcf, aged expanded polystyrene. Board manufacturer to be approved and licensed by system manufacturer.
 - 1) Flamespread: 25 or less and smoke development: 450 or less per ASTM E 84.
 - 2) Size: No greater than 2 ft. x 4 ft.
 - 3) Thickness: As shown on drawings, but no less than one inch at reveals.
- (D) Reinforcing Mesh:
 - 1) Detail Mesh: A balanced, open weave, treated glass fiber used for lamina wrap-aesthetic joints, corner openings and other detail areas.
 - 2) Hi-Standard Mesh: A balanced, open weave, treated glass fiber used to completely encapsulate/cover exposed insulation board.
 - 3) Intermediate Mesh: A balanced, open weave, treated glass fiber used for intermediate impact areas.
 - 4) Panzer Mesh System: A balanced, open weave, treated glass fiber used as a two (2) layer application combined with Hi-standard mesh for extreme impact elevations.

- 5) Panzer Corner: A balanced, open weave, treated glass fiber used for corner reinforcing.
- (E) Finish: Manufacturers standard 100% pure acrylic, factory-mixed coating with no non-acrylic additives.
 - 1) Colors to be selected by Owner and approved by Franchise.
- (F) Lamina: U.L. classified, flamespread 25 or less per ASTM E 84.
- (G) Fire Resistance: System must pass the following tests:
 - 1) ASTM E 119 type exposure.
 - 2) Factory Mutual Corner Test.
 - 3) Multi-Story Fire Test (2-story simulation)
 - 4) Full Scale Multi-Story Fire Test.
- (H) The system design shall be a drainable, breathable, passing a water vapor transmission test.
- (I) Utilize PVC control joints, screeds, casing beads, etc. as recommended by the manufacturer.
- (J) Mechanical fasteners shall be type as recommended by the manufacturer for the substrates indicated.

PART 3 – EXECUTION

3.01. INSPECTION

- (A) The substrate surface shall be free of foreign materials such as oil, dust, dirt, form-release agents, paint, wax, glazing, water, moisture, frost, etc.
- (B) The substrate shall be examined for soundness, such as tightness of connections, crumbling or looseness of surface, voids and projections, etc.
- (C) The substrate shall be examined for dimensional correctness (flat within 1/4" within any 4' radius).

3.02. MIXING AND PREPARATION

- (A) Adhesive: Due to shipping/storage there may be some separation of materials. Prior to adding the portland cement, premix the adhesive thoroughly. DO NOT OVER MIX. Mix 1 part adhesive to 1 part cement by weight, wait five minutes, stir again, use immediately.
- (B) Finish and the Finisher Coating: Stir until homogeneous. DO NOT OVER MIX.

3.03. INSTALLATION

(A) Insulation Board:

- 1) General: Insulation board shall be applied with its joints offset with respect to substrate joints using a running bond pattern. Joints shall be staggered and interlocked at corners.
- 2) Mechanically attach board or pieces to substrate.
- 3) Entire board surface must be sanded flat. Sanding is accomplished using a light circular motion. DO NOT SAND PARALLEL TO BOARD JOINT.
- 4) Provide moldings and details fabricated or cut from insulation to provide profiles indicated.

(B) Base Coat:

- 1) General: Inspect surface for flatness, damage and deterioration due to weathering, a repair for application of Base Coat.
- 2) Standard Base Coat: Apply 1/16" thick coat of Adhesive mixture to entire surface of insulation board. Immediately embed reinforcing mesh into the Adhesive and smooth surface until mesh is not visible. Lap mesh edges 2-1/2" minimum on all sides. ALLOW TO DRY 24 HOURS.
- 3) Panzer Mesh Base Coat: Apply 3/32" thick coat of Adhesive mixture to entire surface of insulation board. Immediately embed Panzer mesh into wet Adhesive mixture and smooth surface until mesh is not visible. Adjacent Panzer mesh pieces shall be abutted. ALLOW TO DRY 24 HOURS. Apply one layer of Standard Base Coat to Panzer mesh layer as outlined in Paragraphs B., 1 and 2. Apply Panzer corners in similar fashion at lower elevation corner reinforcement. Install Panzer mesh only at entry areas – four feet each side of door to height of seven feet.

(C) Before application of selected Finish Coat, correct all irregularities before proceeding with Finish Installation.

(D) Finish: Apply finish using clean stainless steel trowel using sufficient manpower and equipment to insure a continuous operation without cold joints, scaffolding lines, etc. Texture finish to match approved sample.

(E) The Finisher Coating: Apply to prepared substrate per corresponding or selected Finish type for integral color and texture.

3.04. CLEAN UP

- (A) Remove materials left over by the Applicator.
- (B) Clean adjacent materials and surfaces, and the work area, of foreign materials resulting from work.

END OF SECTION 07240.