

PART 1 - GENERAL

1.1 REFERENCES

- .1 ASTM International
 - .1 ASTM C 612-14, Standard Specification for Mineral Fibre Block and Board Thermal Insulation.
 - .2 ASTM E 96/E 96M-13, Standard Test Methods for Water Vapour Transmission of Materials.
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.2 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for board insulation and adhesive. Include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements. Indicate VOC's during application and curing.
- .3 Certificates:
 - .1 On request, submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .4 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.

1.3 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect specified materials.
 - .3 Replace defective or damaged materials with new.

PART 2 - PRODUCTS

2.1 INSULATION

SPEC NOTE: Mineral fibre boards covered under CAN/ULC-S702 are applicable to wall sheathing and basement wall exterior sheathing applications only.

- .1 Mineral fibre board: semi-rigid, to ASTM C 612.
 - .1 Type: IVA.
 - .2 Density: ASTM C 303, 64kgs/m³.
 - .3 Thickness: 101.6mm.
 - .4 Size: 610mm x 1219mm.
 - .5 Thermal resistance: RSI value/25.4mm at 24 degrees C, 0.70.
 - .6 Reaction to moisture: moisture sorption ASTM C 1104, 0.03%.
 - .7 Determination of fungi resistance: ASTM C 1338, passed.
 - .8 Reaction to fire:
 - .1 ASTM E84 and CAN/ULC S102: flame spread index = 0, smoke developed index = 0.
 - .2 CAN/ULC S114: test for non-combustibility = non-combustible.

2.2 ADHESIVE

- .1 Adhesive for mineral semi-rigid board insulation.
 - .1 Type as recommended by insulation manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for board insulation application in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate.
 - .2 Proceed with installation only after unacceptable conditions have been remedied.

3.2 INSTALLATION

- .1 Install insulation after substrate materials are dry.
- .2 Install insulation to maintain continuity of thermal protection to building elements and spaces.
- .3 Fit insulation tight.
- .4 Keep insulation minimum 75 mm from heat emitting devices.
- .5 Cut and trim insulation neatly to fit spaces. Butt joints tightly. Use only insulation boards free from damage or broken edges. Use largest possible dimensions to reduce number of joints.

- .6 Do not enclose insulation until it has been inspected and approved by Departmental Representative.

3.3 SEMI-RIGID
INSULATION
INSTALLATION

- .1 Install at insulated sleeves. Refer to Section 05 55 00 – Metal Fabrications.
- .2 Apply adhesive in accordance with manufacturer's recommendations.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

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| <u>1.1 REFERENCES</u> | .1 | Underwriters Laboratories of Canada (ULC)
.1 CAN/ULC-S702, Standard for Mineral Fibre Insulation for Buildings. |
| <u>1.2 ACTION AND INFORMATIONAL SUBMITTALS</u> | .1 | Submit in accordance with Section 01 33 00 - Submittal Procedures. |
| | .2 | Product Data:
.1 Submit manufacturer's instructions, printed product literature and data sheets for blanket insulation and include product characteristics, performance criteria, physical size, finish and limitations. |
| <u>1.3 DELIVERY, STORAGE AND HANDLING</u> | .1 | Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions. |
| | .2 | |
| | .3 | Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address. |
| | .4 | Storage and Handling Requirements:
.1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
.2 Store and protect specified materials.
.3 Replace defective or damaged materials with new. |

PART 2 - PRODUCTS

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| <u>2.1 INSULATION: THERMAL</u> | .1 | Batt and blanket mineral fibre: to CAN/ULC-S702.
.1 Type: 1.
.2 Density: 32 kgs/m3.
.3 Flame spread index: 0.
.4 Smoke developed index: 0.
.5 Thickness: as indicated. |
| <u>2.2 INSULATION: ACOUSTIC</u> | .1 | Batt and blanket mineral fibre: to ASTM C 553, ASTM C 665 and CAN/ULC-S702.
.1 Type: 1. |

- .2 Density: 45 kgs/m3.
 - .3 Flame spread index: 0.
 - .4 Smoke developed index: 0.
 - .5 Acoustical performance:
 - .1 Sound absorption coefficients: ASTM C 423.
 - .2 Airborne sound transmission loss: to ASTM E 90.
 - .3 Rating sound insulation: to ASTM E 413.
 - .6 Thickness: as indicated.
- .2 Accessories:
- .1 Acoustical sealant.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for blanket insulation application in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate.
 - .2 Proceed with installation only after unacceptable conditions have been remedied.

3.2 INSULATION INSTALLATION

- .1 Install in accordance with manufacturer's instructions.
- .2 Install thermal insulation to maintain continuity of thermal protection to building elements and spaces and to ASTM C 1320.
- .3 Fit insulation closely around electrical boxes, pipes, ducts, frames and other objects in or passing through insulation.
- .4 Fill voids between frames and wall components with insulation.
- .5 Do not compress insulation to fit into spaces.
- .6 Keep insulation minimum 75 mm from heat emitting devices. Verify clearances with local building regulations and safety codes and meet requirements.
- .7 Do not enclose insulation until it has been inspected by Departmental Representative.
- .8 Where acoustic insulation is required, seal joints with acoustic sealant.

3.3 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

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<u>1.1 REFERENCES</u>	.1	American Society for Testing and Materials International (ASTM)
	.1	ASTM D 4541, Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
	.2	ASTM E 1186-03, Standard Practices for Air Leakage Site Detection in Building Envelope and Air Retarder Systems.
<u>1.2 PERFORMANCE REQUIREMENTS</u>	.1	Provide continuity of air/vapour barrier materials in conjunction with other materials in wall system.
<u>1.3 ACTION AND INFORMATIONAL SUBMITTALS</u>	.1	Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
	.2	Product Data:
	.1	Submit manufacturer's printed product literature, specifications and datasheet and include product characteristics, performance criteria, physical size, finish and limitations for air/vapour barrier membrane, primer and sealant.
	.2	Submit WHMIS MSDS - Material Safety Data Sheets.
	.3	Manufacturer's Instructions:
	.1	Submit manufacturer's installation instructions and special handling criteria, installation sequence and cleaning procedures for air/vapour barrier membrane, primer and sealant.
<u>1.4 DELIVERY, STORAGE AND HANDLING</u>	.1	Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
	.2	Deliver, store and handle materials in accordance with manufacturer's written instructions.
	.3	Avoid spillage, immediately notify Departmental Representative if spillage occurs and start clean up procedures.
	.4	Clean spills and leave area as it was prior to spill.
<u>1.5 WASTE MANAGEMENT AND DISPOSAL</u>	.1	Separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
		Place materials defined as hazardous or toxic waste in designated containers.
	.2	Ensure emptied containers are sealed and stored safely for disposal away from children.

1.6 SEQUENCING

- .1 Sequence work in accordance with Section 01 32 16 - Construction Progress Schedule.
- .2 Sequence work to permit installation of materials in conjunction with related materials and seals.

1.7 WARRANTY

- .1 Provide three year warranty under provisions of Section 01 78 00 - Closeout Submittals and in accordance with General Conditions (GC).
- .2 Warranty: include but not limited to coverage of air/vapour barrier installed sealant and materials which:
 - .1 Fail to achieve air tight and watertight seal, and/or;
 - .2 Exhibit loss of adhesion or cohesion, and/or;
 - .3 Do not cure.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Materials: functionally compatible with adjacent materials and components.
- .2 Air/vapour barrier membrane, primer and sealant by same manufacturer.
- .3 Air/vapour barrier membrane: self-adhered water resistive air barrier consisting of SBS rubberized asphalt compound laminated to engineered thermoplastic. Material to be self-gasketing when penetrated and under compression with self-tapping screws.
 - .1 Properties:
 - .1 Thickness: 1.0 mm.
 - .2 Service temperature: -40 degrees C to 70 degrees C.
 - .3 Water vapour permeance to ASTM E96, method A 1.71 ng/Pa.m²s.
 - .4 Water vapour permeance to ASTM E96, method B 4.57 ng/Pa.m²s.
 - .5 Elongation, minimum to ASTM D412: 200%.
 - .6 Nail sealability to ASTM D1970: Pass.
 - .7 Low temperature flexibility at -30 degrees C to CGSB 37-GP-56M: Pass.
 - .8 Lap peel strength ay 4 degrees C to ASTM D903, 180 degree bend: >4378.4 N/m.
 - .9 Water absorption to ASTM D570: 0.1%.
 - .10 Air leakage at 75 Pa to ASTM E2178: 0.0011 L/s.m.².
 - .11 Air leakage rate: CAN/ULC-S742-11 Classification A1.
 - .2 Acceptable material: Henry Blueskin SA, or approved equal .
- .4 Primer: polymer emulsion based primer for use with self-adhesive membranes.

- .1 Acceptable material: Henry Aquatac Primer, or approved equal.
- .5 Sealant: as recommended by air/vapor barrier manufacturer.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 GENERAL

- .1 Perform Work in accordance with Sealant and Waterproofer's Institute - Sealant and Caulking Guide Specification requirements for materials and installation.
- .2 Perform Work in accordance with National Air Barrier Association - Professional Contractor Quality Assurance Program and requirements for materials and installation.

3.3 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for vapour barrier installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate.
- .2 Proceed with installation only after unacceptable conditions have been remedied.

3.4 PREPARATION

- .1 Prepare substrate surfaces in accordance with air/vapour barrier material manufacturer's instructions.

3.5 INSTALLATION

- .1 Install air/vapour barrier materials in accordance with manufacturer's instructions.
- .2 Install sealant materials in accordance with manufacturer's instructions.
- .3 Seal around any openings and at leading edge at end of the workday.
- .4 Apply materials within recommended application temperature ranges.
- .5 Ensure services are installed and inspected prior to installation of air/vapour barrier.
- .6 Install sheet vapour retarder on warm side of wall insulation to form

continuous retarder.

- .7 Use sheets of largest practical size to minimize joints.
- .8 Inspect for continuity and repair as required before work is concealed.

3.6 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
 - .1 Remove insulation material spilled during installation and leave work area ready for application of wall board.
- .3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Dispose of materials at appropriate facility.

3.7 PROTECTION OF FINISHED WORK

- .1 Protect finished work in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Do not permit adjacent work to damage work of this Section.

PART 1 – GENERAL

1.1 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Shop drawings, product data and installation instructions:
 - .1 Provide shop drawings, the most recent product data and installation instructions. Include product characteristics, performance criteria, physical size, finish and limitations for each accessory component.
 - .2 In cooperation with accessory supplier, provide product data sheets that match the project specifications with appropriate edits. Note that some accessories are custom-sized. Do not submit off-the-shelf product data.
 - .3 Submit for the following accessories:
 - .1 Vent stack flashing.
 - .2 Sloped roof vent stack flashing.
- .3 Provide Manufacturer's warranty documents.
 - .1 Refer to warranty requirements indicated in this specification Section.

1.2 CLOSE-OUT
SUBMITTALS

- .1 Provide maintenance data for roofing accessories for incorporation into manual specified in Section 01 78 00 – Close-out Submittals.
- .2 Include copies of product data for all components.
- .3 Executed warranty.

1.3 QUALITY
ASSURANCE

- .1 Manufacturer's qualifications: company specializing in design and fabrication of roofing accessories with minimum 5 years' documented experience.

1.4 DELIVERY,
STORAGE, AND
HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions and Section 01 61 00 – Common Product Requirements.
- .2 Storage and Handling Requirements:
 - .1 Safety: comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of asphalt materials.
 - .2 Deliver and store all materials in original packaging.
 - .3 Provide and maintain dry, off-ground weatherproof, well-ventilated storage.

- 1.5 WARRANTY .1 For Work of this Section 07 52 10 – Roofing Accessories, warranty products under this section to be free of leaks, condensation and defects in materials and or manufacture for a period of twenty (20) years.

PART 2 – PRODUCTS

- 2.1 VENT STACK FLASHING FOR FLAT ROOF .1 Vent Stack Flashing: to CSA B272-93, Prefabricated Self-Sealing Roof Vent Flashings.
- .1 Vent stack flashing consists of:
- .1 Metal flashing sleeve: 0.8 mm thick, Type 304 stainless steel, 178 mm high, diameter to suit pipe.
- .2 Pre-molded urethane insulation liner.
- .3 Integral deck flange: bituminous painted by manufacturer, allowing minimum 100 mm embedment in roofing membrane.
- .4 Seals:
- .1 EPDM triple pressure grommet seal.
- .2 EPDM base seal bonded to sleeve.
- .5 Size: to suit pipe.
- .2 Acceptable material: Thaler Vent Stack Jack Flashing SJ-37SS or approved equal.

- 2.2 VENT STACK FLASHING FOR SLOPED ROOF .1 Sloped Roof Vent Stack Flashing: to CSA B272-93, Prefabricated Self-Sealing Roof Vent Flashings.
- .1 Vent stack flashing consists of:
- .1 Sloped roof stack jack flashing sleeve: 0.8 mm thick, Type 304 stainless steel, 178 mm high, diameter to suit pipe.
- .2 Sloped integral deck flange: 508 mm x 508 mm square metal deck flange, bituminous painted by manufacturer, allowing minimum 102 mm on down slope.
- .3 To suit existing roof slope.
- .4 Seals:
- .1 EPDM triple pressure grommet seal.
- .2 EPDM base seal bonded to sleeve.
- .5 Size: to suit pipe.
- .2 Acceptable material: Thaler Vent Stack Jack Flashing SJ-44SS or approved equal.

- 2.3 ACCESSORY PRODUCTS .1 Roofing materials to match existing.
- .2 Plastic cement.

- .3 Bituminous coating.
- .4 Roofing mastic.

PART 3 – EXECUTION

3.1 INSTALLATION VENT STACK FLASHING

- .1 Ensure prior to installation that vent pipe has been extended to proper height at least 76 mm above new vent stack flashing.
- .2 Install vent flashing at location indicated in accordance with manufacturer's instructions indicated to suit site specific requirements. Roof-in matching existing roofing materials and application.
- .3 Ensure deck flange is bituminous painted. Site applied bituminous coating must dry for 24-hours before installation.
- .4 Install vent flashing at location indicated in accordance with manufacturer's instructions indicated to suit site specific requirements. Roof-in matching existing roofing materials and application.
- .5 Do not overheat base seal.
- .6 Provide bead of waterproofing roofing mastic at full perimeter at base of flashing.

3.2 INSTALLATION SLOPED ROOF VENT STACK FLASHING

- .1 Ensure prior to installation that vent pipe has been extended to proper height at least 76 mm above new vent stack flashing.
- .2 Install vent flashing at location indicated in accordance with manufacturer's instructions indicated to suit site specific requirements. Roof-in matching existing roofing materials and application.
- .3 Ensure deck flange is bituminous painted. Site applied bituminous coating must dry for 24-hours before installation.
- .4 Install vent flashing at location indicated in accordance with manufacturer's instructions indicated to suit site specific sloped roofing requirements. Roof-in as indicated by manufacturer.

PART 1 - GENERAL

1.1 REFERENCES

- .1 ASTM International
 - .1 ASTM C 919-12 (2017), Standard Practice for Use of Sealants in Acoustical Applications.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-19.13-M87, Sealing Compound, One-component, Elastomeric, Chemical Curing.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.2 ACTION AND
INFORMATIONAL
SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for joint sealants and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Manufacturer's product to describe:
 - .1 Sealing compound, each type, including compatibility when different sealants are in contact with each other.
 - .2 Primers.
 - .3 Backer rod.
 - .3 Submit WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Manufacturer's Instructions:
 - .1 Submit instructions to include installation instructions for each product used.

1.3 CLOSEOUT
SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for incorporation into manual.

1.4 DELIVERY,
STORAGE AND
HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials indoors, in dry location and in accordance with

manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect joint sealants.

.3 Replace defective or damaged materials with new.

- .4 Waste Management: in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

1.5 SITE CONDITIONS

- .1 Ambient Conditions:
- .1 Proceed with installation of joint sealants only when:
- .1 Ambient and substrate temperature conditions are within limits permitted by joint sealant manufacturer or are above 5 degrees C.
- .2 Joint substrates are dry.
- .3 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.
- .2 Joint-Width Conditions:
- .1 Proceed with installation of joint sealants only where joint widths are those allowed by joint sealant manufacturer for applications indicated.
- .3 Joint-Substrate Conditions:
- .1 Proceed with installation of joint sealants only after contaminants capable of interfering with adhesion are removed from joint substrates.

1.6 ENVIRONMENTAL REQUIREMENTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Material Safety Data Sheets (MSDS) acceptable to Health Canada.
- .2 Departmental Representative will arrange for ventilation system to be operated on maximum outdoor air and exhaust during installation of caulking and sealants. Ventilate area of work as directed by Departmental Representative by use of approved portable supply and exhaust fans.

PART 2 - PRODUCTS

2.1 SEALANT MATERIALS

- .1 Do not use caulking that emits strong odours, contains toxic chemicals or is not certified as mould resistant in air handling units.
- .2 When low toxicity caulks are not possible, confine usage to areas which off gas to exterior.

- .3 Where sealants are qualified with primers use only these primers.

2.2 SEALANT
MATERIAL
DESIGNATIONS

- .1 Urethanes one-part:
.1 Self-levelling: to CAN/CGSB-19.13, Type 1, colours selected from standard range. Paintable.
.2 Single component, low modulus, hybrid sealant
.3 To ASTM C920 Type S, Grade NS, Class 35, Use: NT, M, A and O.
.4 Meets UL 2079 (ASTM E 1966), CAN-4-S115M.
.5 CFIA and USDA Approved.
.6 GREENGUARD certified.
- .2 Acoustical sealant: to ASTM C 919.
- .3 Preformed compressible and non-compressible back-up materials, of type recommended by sealant manufacturer:
.1 Polyethylene backer rod:
.1 Extruded closed.
.2 Size: oversize 30 to 50 %.
.2 Where depth of joint will prevent, use:
.1 Bond breaker tape to prevent three-sided adhesion.
.1 Adhesive backed polyethylene tape.
- .4 Primer, where deemed necessary:
.1 Type as recommended by sealant manufacturer.

2.3 SEALANT
SELECTION

- .1 Sealing of Walk-in Freezer box penetrations: responsibility is entirely by Section 11 41 26 – Walk-in Freezers.
- .2 Perimeters of exterior openings: sealant type: Urethane one-part.
- .3 Exterior chain link fence baseplates: sealant type: Urethane one-part.
- .4 Seal interior perimeters of exterior openings: sealant type: Urethane one-part.
- .5 Penetrations through interior masonry walls: Urethane one-part.
- .6 Penetrations through exterior walls: Urethane one-part.
- .7 Perimeters of interior frames: sealant type: Urethane one-part.
- .8 Perimeter of steel angle at concrete floor: Urethane one-part.
- .9 Stainless steel sleeve at masonry wall as detailed: Urethane one-part.
- .10 Joints at tops of non-load bearing masonry walls at the underside plaster ceiling: sealant type: Urethane one-part.
- .11 Tops of existing plaster wall finish at existing plaster ceiling finish: Urethane one-part.

2.4 JOINT CLEANER

- .1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant in accordance with sealant manufacturer's written recommendations.
- .2 Primer: in accordance with sealant manufacturer's written recommendations.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for joint sealants installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied.

3.2 SURFACE
PREPARATION

- .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
- .2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.
- .3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.
- .4 Ensure joint surfaces are dry and frost free.
- .5 Prepare surfaces in accordance with manufacturer's directions.
- .6 Perform a pull test in accordance with sealant manufacturer's instructions to determine if application of primer is required.

3.3 PRIMING

- .1 Where necessary to prevent staining, mask adjacent surfaces prior to priming and caulking.
- .2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.

3.4 BACKUP MATERIAL

- .1 Apply bond breaker tape where required to manufacturer's instructions.
- .2 Install joint filler to achieve correct joint depth and shape, with approximately 30% compression.

3.5 MIXING

- .1 Mix materials in strict accordance with sealant manufacturer's instructions.

3.6 APPLICATION

- .1 Sealant:
 - .1 Apply sealant in accordance with manufacturer's written instructions.
 - .2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
 - .3 Apply sealant in continuous beads.
 - .4 Apply sealant using gun with proper size nozzle.
 - .5 Use sufficient pressure to fill voids and joints solid.
 - .6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
 - .7 Tool exposed surfaces before skinning begins to give slightly concave shape.
 - .8 Remove excess compound promptly as work progresses and upon completion.
- .2 Curing:
 - .1 Cure sealants in accordance with sealant manufacturer's instructions.
 - .2 Do not cover up sealants until proper curing has taken place.

3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
 - .2 Clean adjacent surfaces immediately.
 - .3 Remove excess and droppings, using recommended cleaners as work progresses.
 - .4 Remove masking tape after initial set of sealant.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.8 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by joint sealants installation.