STRUCTURAL REMEDIATION BID PACKAGE

PHASE I

FOR

SOUTH HAMPTON

KINGSTON PLANTATION

MYRTLE BEACH, SOUTH CAROLINA

SUBMITTED BY

TABLE OF CONTENTS

SECTION I

SCOPE OF WORK

SCOPE OF WORK

PREPARED FOR (CLIENT):	SOUTH HAMPTON PROPERTY OWNERS ASSOCIATION
PREPARED BY:	MUHLE CONSULTING
DATE:	30 JULY 2018
JOB #:	18-LTL-002-1
PHASE #:	ONE (1)
REVISION #:	ONE (1)
PROPERTY:	SOUTH HAMPTON, KINGSTON PLANTATION
WORK LOCATION:	MAIN BUILDING, GARAGE & ADJOINING STRUCTURES
ENGINEER OF RECORD:	JONATHAN BLACK, PE

- PAYMENT TO THIRD PARTY TESTING FIRM FOR REQUIRED NON-DESTRUCTIVE TESTING WILL BE THE RESPONSIBILITY OF SOUTH HAMPTON HORIZONTAL PROPERTY REGIME.
- THIRD PARTY NON-DESTRUCTIVE TESTING TO BE COMMISSIONED AT THE DISCRETION OF THE ENGINEER OF RECORD.
- REQUIRED PAYMENT TO CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSULTANT WILL BE THE RESPONSIBILITY OF SOUTH HAMPTON HORIZONTAL PROPERTY REGIME, SHOULD CONSULTATION BE NECESSARY.

ENGINEERED DRAWINGS/SPECIFICATIONS/PHOTOS

ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING:

- REFERENCE BASF MASTER SPEC FOR MASTERSEAL 990, MASTERPROTECT FL748 (PATCHING), MASTERPROTECT HB 400, MASTERPROTECT C 350, MASTERPROTECT HB 200, MASTERSEAL NP 100.
- METHOD #200, #201, #202.

PERMITS

SUCCESSFUL CONTRACTOR RESPONSIBLE FOR OBTAINING THE FOLLOWING PERMITS:

- ISSUED BY HORRY COUNTY BUILDING DEPARTMENT AND ALL WORK TO BE PERFORMED IN ACCORDANCE WITH IBC 2018 BUILDING CODES.

MOBILIZATION AND INSTALLATION PROCEDURE

FURNISH ALL MATERIAL, EQUIPMENT & LABOR IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS TO ACCOMPLISH THE FOLLOWING:

- OCCUPY WORK LAY-DOWN AREA AS APPROVED BY THE HOA.
- PROTECT MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS IN AREA AND PERIMETER VEGETATION.
- PROTECT GRASS AND PLANTINGS BY COVERING OR WITH SPRAY FROM SPRINKLERS. ADJACENT SURFACES MAY NEED ADDITIONAL PROTECTION AS WELL.

- PROVIDE TEMPORARY SHORING AS DESIGNATED IN DESIGN DRAWINGS AT INTERIOR AND EXTERIOR OF STRUCTURE AS REQUIRED.
- COORDINATE PLACEMENT OF STAGING BASED ON APPROVED SCHEDULE AND REQUEST OF HOA.
- PROTECT PEOPLE, VEHICLES, PROPERTY AND ALL SURFACES NOT INTENDED FOR CLEANING FROM SPLASH, RESIDUE, FUMES, RINSE AND WIND DRIFT.
- BEGINNING AT TOP LEVEL, PRESSURE CLEAN AT THE DIRECTIVE OF THE EIFS (DRYVIT) MANUFACTURER USING HIGH WATER VOLUME COUPLED WITH LOW WATER PRESSURE AND NON-ABRASIVE CLEANERS.
- READ THE CLEANING SOLUTIONS MANUFACTURER'S INSTRUCTIONS FOR THE PROPER DILUTION APPROPRIATE FOR THE SURFACE CLEANLINESS/CONDITION OF THE TEXTURED FINISH. MIX CLEANING SOLUTION IN ACCORDANCE WITH THOSE MANUFACTURER INSTRUCTIONS.
- TEST THE PREPARED MIXTURE ON ALL SURFACES THAT MAY COME INTO CONTACT WITH IT DURING APPLICATION AND RINSING. CONTACT THE MANUFACTURER OF THE CLEANING SOLUTION FOR MORE INFORMATION AND CAUTIONS FOR USE. CHECK ALL EQUIPMENT FOR COMPATIBILITY WITH THE TYPE OF CLEANSER USED.
- CONTACT ENGINEER OF RECORD IF DAMAGE TO EIFS IS OBSERVED IN THE FORM OF CRACKS OR HOLES. INCLUDE 5,000 LINEAR FEET OF EIFS CRACK REPAIR & 1,000 SQUARE FEET OF EIFS REPAIR.
- REPLACE RUSTED EMBEDDED STEEL ANGLE AT LOADING DOCK(S) WITH APPROVED STAINLESS STEEL GRADE EQUIVALENT SHAPE AND ANCHORED WITH STAINLESS STEEL EPOXY DOWELS 18" ON-CENTER.
- REMOVE CAULKED SEALANT AT ALL WINDOWS, DOORS, WALL INTERFACES, TRIM PERIMETER AND EXPANSION JOINTS.
- CONTACT ENGINEER OF RECORD IF DAMAGED OR DETERIORATED FLASHING IS OBSERVED AT ANY OF THE ABOVE OPENINGS OR EXPANSION JOINTS.
- USING BASF MASTERSEAL® NP 100 SEALANT, RE-CAULK ALL WINDOWS, DOORS, WALL INTERFACES, PERIMETER TRIM AND EXPANSION JOINTS.
- REPAIR ALL CRACKS EXCEEDING HAIR-LINE WIDTH WITH MASTERPROTECT 748 (ACRYLIC BASED).
- UPON ACHIEVING CLEAN, SOUND SURFACE, APPLY PRIMARY COAT OF MASTERPROTECT HB400 SMOOTH (100% ACRYLIC) TO ALL EXTERIOR VERTICAL SURFACES.
- APPLY SECONDARY COAT OF MASTERPROTECT C 350 (100% ACRYLIC) HYDROPHOBIC SURFACE. EXISTING PIGMENTATION AND TEXTURE TO BE MATCHED/REMAIN.
- AT OVERHEAD SURFACES, APPLY TWO COATS OF MASTERPROTECT HB200 (PERMEABLE).
- ASSURE MASTERSEAL® NP 100 SEALANT TREATMENTS ARE COATED WITH MASTERPROTECT HB200.

PROPOSAL & BREAK-OUT PRICING

WITH CONSIDERATION AND IN ADDITION TO THE ABOVE, THE FOLLOWING ITEMS MUST BE PROVIDED AND BROKEN OUT SEPARATELY FOR COMPARISON:

REPAIR METHODS

- PROVIDE PRICING FOR TOTAL NUMBER OF REPAIRS REQUIRED PER METHOD #200.
- PROVIDE PRICING FOR TOTAL NUMBER OF REPAIRS REQUIRED PER METHOD #201.
- PROVIDE PRICING FOR TOTAL NUMBER OF REPAIRS REQUIRED PER METHOD #202.

NOTE: ESTIMATED QUANTITY PROVIDED FOR BID SUBMISSION PURPOSES (SEE SECTION IV). PROVIDED QUANTITIES ARE ESTIMATES UNTIL PROJECT COMPLETION. A CREDIT OR DEBIT WILL BE ISSUED UPON PROJECT COMPLETION.

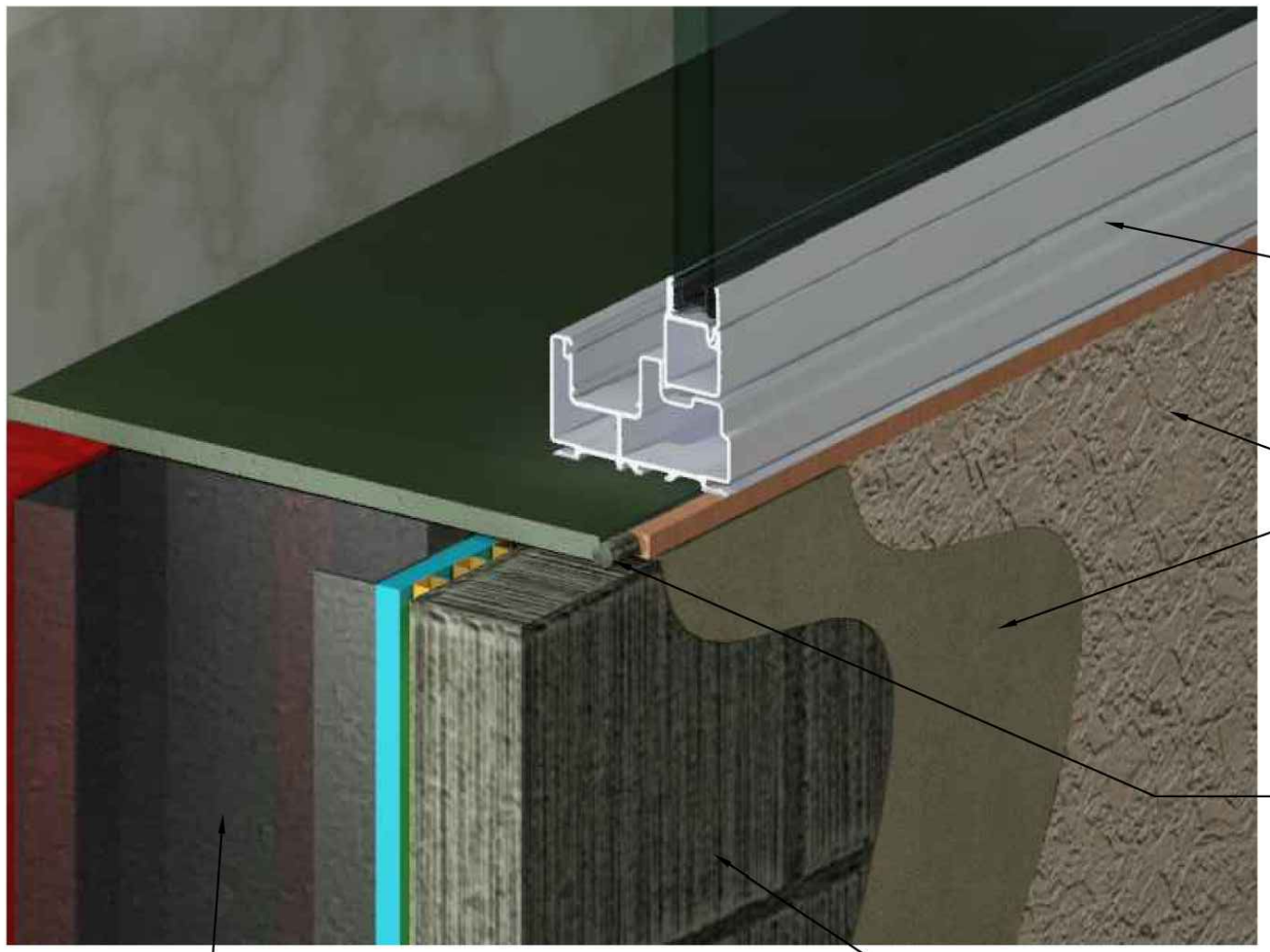
CONTRACTUAL OBLIGATIONS

- SUCCESSFUL CONTRACTOR NOTIFIED IN WRITING OF AWARD MUST SUBMIT CONTRACT OF SERVICES TO BE REVIEWED AND APPROVED BY HOA AND PROPERTY MANAGER.
- CONTRACTOR TO PROVIDE TIME OF COMPLETION IN PROPOSAL AND CONTRACT OF SERVICES.
- CONTRACTOR TO PROVIDE TERMS OF PAYMENT IN PROPOSAL AND CONTRACT OF SERVICES.
- CONTRACTOR TO PROVIDE TERMS OF WARRANTY IN PROPOSAL AND CONTRACT OF SERVICES.
- CONTRACTOR TO INCLUDE HOA AS ADDITIONALLY INSURED. ALL CONTRACTOR INSURANCE POLICIES SHALL BE ENDORSED TO INCLUDE OWNER AS AN ADDITIONAL INSURED (ADDITIONAL INSURED ENDORSEMENT CG 2010 11 85 EDITION OR EQUIVALENT REQUIRED) WITH COMPLETED OPERATIONS COVERAGE. SUCH ADDITIONAL INSURED COVERAGE WITH COMPLETED OPERATIONS COVERAGE SHALL BE PRIMARY AND NONCONTRIBUTORY. SHOULD THIS COVERAGE CEASE TO EXIST OR LAPSE AT ANY TIME, CONTRACTOR SHALL BE DEEMED TO BE IN MATERIAL BREACH OF THIS AGREEMENT.
- CONTRACTOR SHALL REQUIRE ALL SUBCONTRACTORS TO MAINTAIN INSURANCE POLICIES ENDORSED TO INCLUDE OWNER AS AN ADDITIONAL INSURED (ADDITIONAL INSURED ENDORSEMENT CG 2010 11 85 EDITION OR EQUIVALENT REQUIRED) WITH COMPLETED OPERATIONS COVERAGE. SUCH ADDITIONAL INSURED COVERAGE WITH COMPLETED OPERATIONS COVERAGE SHALL BE PRIMARY AND NON-CONTRIBUTORY. SHOULD THIS COVERAGE CEASE TO EXIST OR LAPSE AT ANY TIME, CONTRACTOR SHALL BE DEEMED TO BE IN MATERIAL BREACH OF THIS AGREEMENT.
- CONTRACTOR TO PROVIDE PERFORMANCE BOND FOR VALUE OF PROJECT OR SUM DESIGNATED BY HOA ATTORNEY.
- CONTRACTOR TO PROVIDE LIQUID DAMAGES IN THE AMOUNT OF $500 PER DAY FOR EVERY WORKING DAY MONDAY THROUGH SATURDAY THE SCOPE OF WORK IS NOT COMPLETED PAST THE CONTRACT COMPLETION DATE.
- CONTRACTOR TO PROVIDE JOB SUPERINTENDENT(S) TO BE PRESENT DURING ALL WORK ACTIVITIES.
- CLEAN-UP WORK-SPACE AND SURROUNDING AREAS
- CONTRACTOR TO PROVIDE REQUEST FOR PAYMENT TO BE APPROVED BY ENGINEER OF RECORD IN AIA FORMAT.

- PROOF OF INSURANCE ($1,000,000.00 LIABILITY)
- TIME OF COMPLETION
- TERMS OF PAYMENT
- TERMS OF WARRANTY
- CONTRACTOR TO PROVIDE MINIMUM THREE (3) CLIENT WORK REFERENCES
- CONTRACTOR TO PROVIDE TIME SHEETS AND MATERIAL PURCHASE RECEIPTS FOR ALL CHANGE-ORDER WORK.
- CONTRACTOR TO PROVIDE STANDARD MARK-UP FEE/PERCENTAGE OF WORK CHANGE ORDERS.

SECTION II

REPAIR METHODS



METHOD #200
SEALING OF EIFS AT WINDOW SILL

REVISION:	DESCRIPTION:	BY:	DATE:
0	IFC	JMB	05/17/18

STATUS: ISSUED FOR CONSTRUCTION

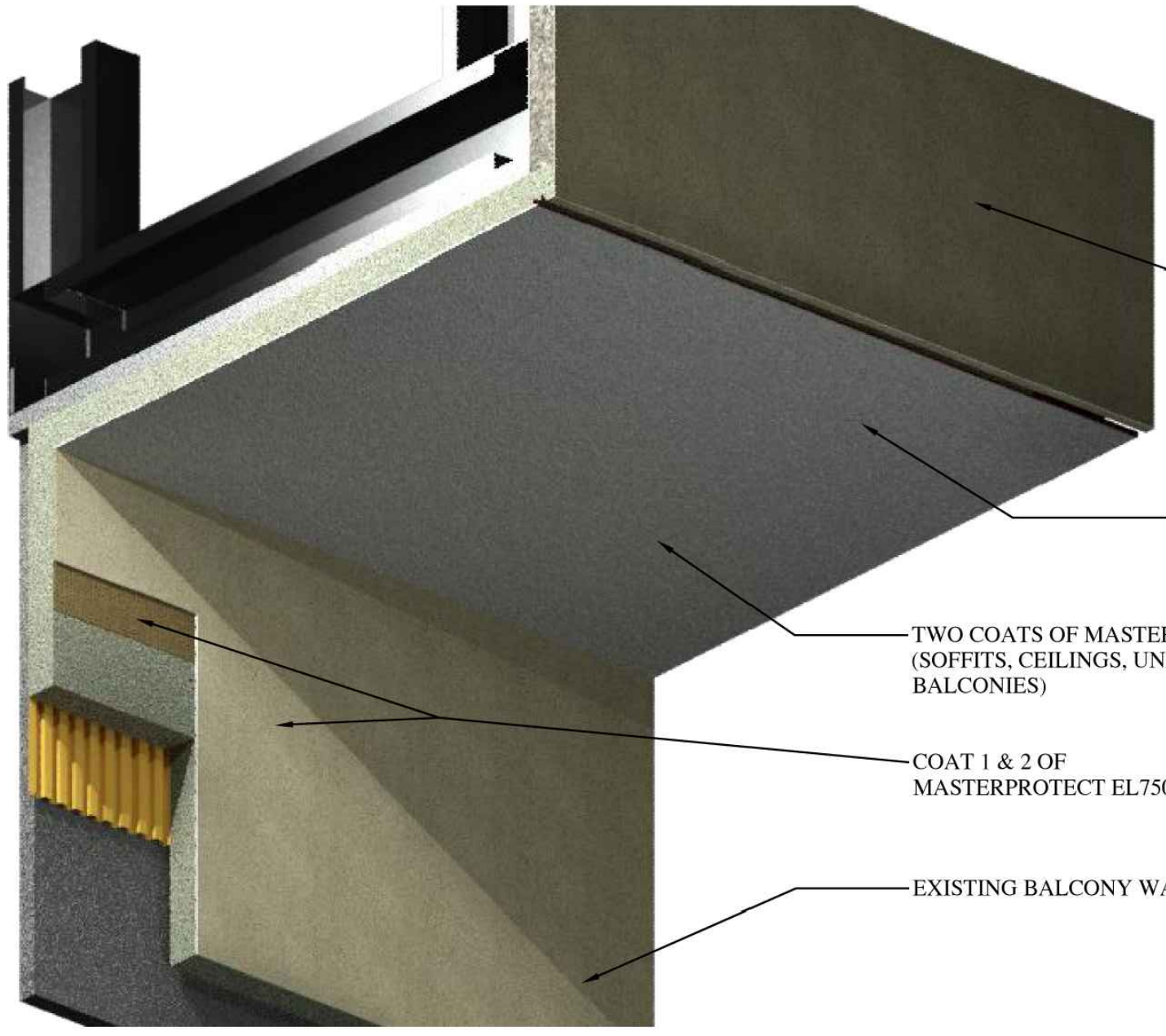
MÜHLE CONSULTING
1413 HIGHWAY 17S
#397
SURFSIDE BEACH, SC
29575
706.526.2511

TITLE: SOUTH HAMPTON REPAIR METHODS

SCALE:	DATE:	DRAWN:	CHECKED:
VARIES	05/17/18	JMB	JMB

PROJECT #:	SHEET #:	DRAWING #:
18-LTL-002	1 OF 3	18-LTL-002

JOB #: 18-LTL-002-I, REV. #1



METHOD #201
REPAIR AT SOFFIT AND FACIA TERMINATION

JOB #: 18-LTL-002-I, REV. #1

0	IFC	JMB	05/17/18
REVISION:	DESCRIPTION:	BY:	DATE:

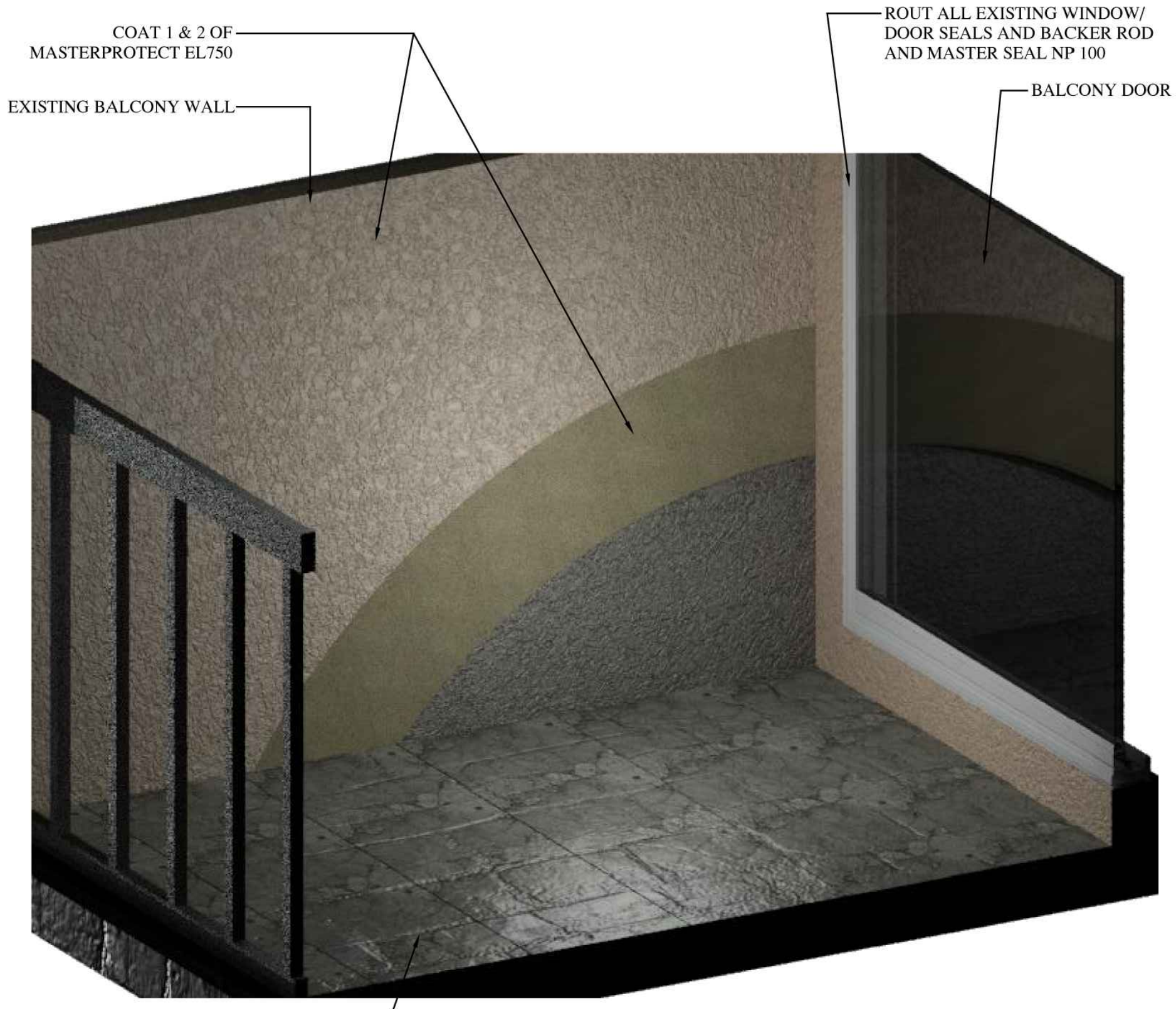
STATUS: ISSUED FOR CONSTRUCTION

MÜHLE CONSULTING
1413 HIGHWAY 17S
#397
SURFSIDE BEACH, SC
29575
706.526.2511

TITLE: SOUTH HAMPTON
REPAIR METHODS

SCALE:	DATE:	DRAWN:	CHECKED:
VARIES	05/17/18	JMB	JMB

PROJECT #:	SHEET #:	DRAWING #:
18-LTL-002	2 OF 3	18-LTL-002



METHOD #202
REPAIR AT WALL TO DECK TERMINATION

0	IFC	JMB	05/17/18
REVISION:	DESCRIPTION:	BY:	DATE:

STATUS: ISSUED FOR CONSTRUCTION

MÜHLE CONSULTING
1413 HIGHWAY 17S
#397
SURFSIDE BEACH, SC
29575
706.526.2511

TITLE: SOUTH HAMPTON
REPAIR METHODS

SCALE:	DATE:	DRAWN:	CHECKED:
VARIES	05/17/18	JMB	JMB

PROJECT #:	SHEET #:	DRAWING #:
18-LTL-002	3 OF 3	18-LTL-002

JOB #: 18-LTL-002-I, REV. #1

SECTION III

SPECIFICATIONS

Product Guide Specification

Section numbers and titles are based on *MasterFormat 2014 Update*

SECTION 09 97 23

CONCRETE AND MASONRY COATINGS

This section covers BASF Corporation "MasterProtect C 350" water-based, 100 percent acrylic, smooth, easy-cleaning, waterproof coating used on exterior, above-grade, vertical surfaces of concrete, masonry, stucco, EIFS, and existing coatings.

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Water-based, 100 percent acrylic, smooth, easy-cleaning, waterproof coating for exterior, above-grade, vertical surfaces of EIFS.

1.2 RELATED REQUIREMENTS

A. Section 03 30 00 – Cast-in-Place Concrete.

B. Section 04 22 00 – Concrete Unit Masonry.

C. Section 07 24 00 – Exterior Insulation and Finish Systems.

1.3 REFERENCE STANDARD

A. ASTM D 522 / D 522M – Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings.

B. ASTM D 1475 – Standard Test Method For Density of Liquid Coatings, Inks, and Related Products.

C. ASTM D 3359 – Standard Test Methods for Measuring Adhesion by Tape Test.

D. ASTM D 3719 – Standard Test Method for Quantifying Dirt Collection on Coated Exterior Panels.

E. ASTM D 4541 – Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.

F. ASTM D 5201 – Standard Practice for Calculating Formulation Physical Constants of Paints and Coatings.

G. ASTM D 5590 – Standard Test Method for Determining the Resistance of Paint Films and Related Coatings to Fungal Defacement by Accelerated Four-Week Agar Plate Assay.

H. ASTM E 96 – Standard Test Methods for Water Vapor Transmission of Materials.

I. ASTM G 155 – Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials.

J. ICRI 310.2R – Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair.

K. ISO 9001:2008 – Quality Management Systems – Requirements.

L. Miami/Dade TAS 143-95 – Dirt Pickup Resistance.

1.4 PREINSTALLATION MEETINGS

A. Convene pre-application meeting 2 weeks before start of application of waterproof coating.

B. Require attendance of parties directly affecting work of this section, including Contractor, Engineer, applicator, and manufacturer's representative.

C. Review the Following:
1. Mock-ups.
2. Materials.
3. Protection of in-place conditions.
4. Surface preparation.
5. Mixing.
6. Application.
7. Protection.
8. Coordination with other work.

1.5 SUBMITTALS

A. Comply with Section 01 33 00 – Submittal Procedures.

B. Product Data: Submit manufacturer's product data, including surface preparation, mixing, and application instructions.

C. Samples: Submit manufacturer's samples of standard colors of waterproof coating.
1. Sample Size: Minimum 3 inches by 3 inches.

D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.

E. Manufacturer's Project References: Submit manufacturer's list of successfully completed waterproof coating projects, including project name and location, and type and quantity of waterproof coatings furnished.

F. Applicator's Project References: Submit applicator's list of successfully completed waterproof coating projects, including project name and location, name of Engineer, and type and quantity of waterproof coatings applied.

G. Cleaning Instructions: Submit manufacturer's cleaning instructions.

H. Warranty Documentation: Submit manufacturer's standard warranty.

1.6 QUALITY ASSURANCE

A. Manufacturer's Qualifications:
1. Manufacturer regularly engaged, for a minimum of 10 years, in the manufacturing of waterproof coatings of similar type to that specified.
2. ISO 9001:2008 certified.

B. Applicator's Qualifications:
1. Applicator regularly engaged, for a minimum of 5 years, in application of waterproof coatings of similar type to that specified.
2. Employ persons trained for application of waterproof coatings.

C. Mock-ups:
1. Apply materials to 4-foot by 4-foot (1.2-m by 1.2-m) mock-up to verify acceptable color, texture, and adhesion.
2. Measure adhesion in accordance with ASTM D 3359, Method A.
   a. Required Minimum Adhesion Rating, 0 to 5 Scale: 4A.
3. Construct mock-ups using same materials, surface preparation, mixing, and application for use in the Work.
4. Construct mock-ups at locations determined by Engineer.
5. Do not proceed until mock-ups are approved by Engineer.
6. Retain approved mock-ups.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage and Handling Requirements:
1. Store and handle materials in accordance with manufacturer's instructions.
2. Keep materials in manufacturer's original, unopened containers and packaging until installation.

3. Store materials in clean, dry area.
4. Store materials out of direct sunlight.
5. Keep materials from freezing.
6. Protect materials during storage, handling, and application to prevent contamination or damage.

1.8 AMBIENT CONDITIONS

A. Do not apply materials when substrate or ambient temperatures are 40 degrees F (4 degrees C) or below during application or within 24 hours after application.

B. Do not apply materials when rain, snow, or excessive moisture is expected during application or within 24 hours after application.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: BASF Corporation, 889 Valley Park Drive, Shakopee, Minnesota 55379. Toll Free 800-433-9517. Website www.master-builders-solutions.basf.us.

B. Substitutions: Not permitted.

C. Single Source: Provide materials from single manufacturer.

2.2 CONCRETE AND MASONRY COATINGS

A. Waterproof Coating: BASF MasterProtect C 350
1. Description: Water-based, 100 percent acrylic, smooth, easy-cleaning, waterproof coating.
2. Use: Exterior, above-grade, vertical surfaces.
3. Tint base: [Pre-tinted].
4. Color: Custom Color matched by BASF.
5. Hydrophobic.
6. Breathable.
7. UV resistant.
8. VOC Content: Less than 50 g/L, less water and exempt solvents.

B. Test Data:
1. Density, ASTM D 1475: 11.8 lbs/gal (1.41 kg/L).
2. Solids by Volume, ASTM D 5201: 41 percent.
3. Adhesion to Concrete, ASTM D 4541, 28 Days: 500 psi.
4. Dirt Pickup Resistance, Miami/Dade TAS 14395, Section 7.8 (Modified): Greater than 90 percent retention of reflectance.
5. Dirt Collection, ASTM D 3719, 61 Days, 45-Degree Angle, Southern Exposure, Dc Index: 0.98.

6. Artificial Weathering and UV Resistance, ASTM G 155, Xenon Arc, Type B, 2,000 Hours: No deleterious effect.
7. Water-Vapor Permeance, ASTM E 96, Wet Cup Test: 20 perms.
8. Flexibility, ASTM D 522, 7 Wet Mils, 1/2-Inch Mandrel, 40 Degrees F (4 Degrees C) and 70 Degrees F (21 Degrees C): No cracking.
9. Fungus Resistance, ASTM D 5590, 30-Day Exposure: No growth.

2.3 ACCESSORIES

A. Patching Compound: BASF MasterProtect FL 748, smooth
1. Description: 100 percent acrylic-emulsion patching compound.
2. Use: Crack repair.

B. Base Coat: BASF MasterProtect HB 400
1. Description: Water-based, 100 percent acrylic, smooth, waterproof coating.
2. Use: Base coat for waterproof coating applied at 6 to 8 dry film thickness (DFT)

C. Ceiling Coating: BASF MasterProtect HB 200
1. Description: 100 percent acrylic smooth, high permeable coating
2. Use: Waterproof coating for overhead surfaces – 2 coats 5 to 8 dry film thickness (DFT)

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive waterproof coating.

B. Notify Engineer of conditions that would adversely affect application or subsequent use.

C. Do not begin surface preparation or application until unacceptable conditions are corrected.

3.2 PROTECTION OF IN-PLACE CONDITIONS

A. Protect adjacent surfaces and landscaping from contact with waterproof coating.

3.3 SURFACE PREPARATION

A. Prepare surfaces in accordance with manufacturer's instructions.

B. Ensure surfaces are sound, clean, dry, and free of bond-inhibiting contaminants.

C. Ensure concrete substrates are fully cured.

D. Repair Materials: Repair holes, spalled areas, and damaged concrete with appropriate repair materials from same manufacturer as waterproof coating.
   1. Apply repair materials in accordance with manufacturer's instructions.
   2. Ensure repair materials are compatible with waterproof coating.
   3. Allow repair materials to fully cure.

E. Remove protruding concrete accessories.

F. Smooth out surface irregularities.

G. Roughen concrete surfaces in accordance with manufacturer's instructions to achieve surface profile of CSP 3 in accordance with ICRI 310.2R.

H. Use chemical cleaning compounds in accordance with manufacturer's instructions, if necessary to remove stains.

I. Existing Coatings:
   1. Check adhesion of existing coatings in accordance with ASTM D 3359, Method A.
   2. Remove blisters and delaminated areas.
   3. Sand edges to smooth rough areas and provide transition to existing coating areas.

J. Crack Repair:
   1. Treat cracks larger than 1/32 inch with patching compound from same manufacturer as waterproof coating.
      a. Apply patching compound in accordance with manufacturer's instructions.
      b. Ensure patching compound is compatible with waterproof coating.
      c. Allow patching compound to fully cure.
   2. Treat cracks larger than 1/4 inch as expansion joints and fill with appropriate sealant from same manufacturer as waterproof coating.
      a. Apply sealant in accordance with manufacturer's instructions.
      b. Ensure sealant is compatible with waterproof coating.
      c. Allow sealant to fully cure.

3.4 MIXING

A. Mix waterproof coating in accordance with manufacturer's instructions.

B. Mix waterproof coating to ensure uniform color and texture.

C. Mix waterproof coating to minimize air entrapment.

3.5 APPLICATION

A. Apply waterproof coating in accordance with manufacturer's instructions at locations indicated on the Drawings.

B. Apply 1 coat of MasterProtect HB 400 and 1 coat of MasterProtect C 350 on all vertical wall surface

C. Apply 2 coats of MasterProtect HB 200 on the ceilings
   1. Apply MasterProtect FL 748 smooth patching compound on any cracks exceeding 1/32”

D. Maintain proper uniform wet-film thickness (WFT) during application.

E. Work to natural break and maintain wet edge during application.

F. Apply waterproof coating using consistent techniques to achieve uniform thickness, consistent appearance, and uniform color and texture.

G. Do not thin waterproof coating.

3.6 PROTECTION

A. Protect applied waterproof coating to ensure that, except for normal weathering, coating will be without damage or deterioration at time of Substantial Completion.

MasterSeal® NP 100 Sealant

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Joint sealants designed for interior and exterior above grade applications.

B. Related Sections:
1. Section 03 30 00 – Cast-In-Place Concrete.
2. Section 03 41 00 – Precast Structural Concrete.
3. Section 04 21 00 – Masonry Assemblies Unit Masonry.
4. Section 07 95 13 – Expansion Joint Cover Assemblies.
5. Section 07 62 00 – Flashing and Sheet Metal Flashing and Trim.
6. Section 08 41 00 – Aluminum Entrances and Storefronts.
7. Section 08 81 00 – Glass Glazing.
8. Section 32 13 13 – Concrete Paving.

1.2 SYSTEM DESCRIPTION

A. Design Requirements:

1. Design number of joints and joint widths for maximum of plus or minus 50 percent movement.
2. Design depth of sealant to be 1/2 width of joint.
   a. Maximum Depth: 1/2 inch (13 mm).
   b. Minimum Depth: 1/4 inch (6 mm).

B. Performance Requirements: ASTM C920 Type S, Grade NS, Class 50, Use T, NT, M, A and O.

1.3 SUBMITTALS

A. Comply with Section 01 33 00.

B. Product Data: Submit manufacturer's technical bulletins and MSDS on each product.

C. Samples:
1. Initial Selection Purposes: For each product exposed to view, manufacturer's standard bead consisting of strips of actual products showing full range of colors available.
2. Verification: 2 sets of each type and color of joint sealant required. Install joint sealant samples in 1/2 inch wide joints formed between two 6 inch long strips of material matching appearance of exposed surfaces adjacent to joint sealants.

D. Submit laboratory tests or data validating product compliance with performance criteria specified.

E. Submit list of references from 5 projects similar in scope to this Project. Include contact name and phone number of person charged with oversight of each project.

1.4 QUALITY ASSURANCE

A. Comply with Section 01 40 00.

B. Manufacturer Qualifications: Company regularly engaged in manufacturing and marketing of products specified in this Section.
   1. Manufacturer Qualifications: Company shall be ISO 9001:2000 Certified.

C. Installer Qualifications: Qualified to perform Work specified by reason of experience or training provided by product manufacturer.

D. Mock-Ups:
   1. At start of Project, perform mock-up of required sealant. Work at one area of building. Perform minimum of 1 mock-up for each different combination of substrates to be sealed. Coordinate mock-up areas with Engineer.
   2. Install mock-ups and test in presence of sealant manufacturer's authorized representative and Engineer to assure installation procedures are consistent with warranty requirements.
   3. After sealant has achieved sufficient cure as coordinated with manufacturer's representative, conduct adhesion pull-tests, or non-destructive testing, at discretion of Engineer. Conduct tests per ASTM C1521.
      a. Confirm results of adhesion tests as acceptable by Engineer, Owner or Owner's representative, and sealant manufacturer prior to proceeding with Work.
   4. Leave approved mock-ups in place to establish standards and guidelines for acceptable installation of sealant Work and acceptable appearance.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 60 00.

B. Deliver products in original factory packaging bearing identification of product, manufacturer, and batch number. Provide Material Safety Data Sheets for each product.

C. Store products in a location protected from freezing, damage, construction activity, precipitation, and direct sunlight per manufacturer's recommendations.

D. Condition products to approximately 60 degrees F (16 degrees C) to 70 degrees F (21 degrees C) for use per manufacturer's recommendations.

E. Handle products with appropriate precautions and care as stated on Material Safety Data Sheet.

1.6 PROJECT CONDITIONS

A. Do not use products under conditions of precipitation, or in inclement or freezing weather. Verify that substrates are clean, dry, and frost-free. Use appropriate measures for protection and supplementary heating to ensure proper curing conditions per manufacturer's recommendations if application during inclement weather occurs.

1.7 WARRANTY

A. Provide manufacturer's 10 year standard material warranty.

B. Include coverage for replacement of sealant materials which fail to achieve water tight seal, exhibit loss of adhesion or cohesion, or do not cure, provided sealant has been installed per manufacturer's recommendations.

C. Warranty Exclusions: Failure resulting from concrete shrinkage, excessive movement structural cracks or defects, faulty construction, faulty design, faulty materials (other than joint sealants), improper installation, misuse of structure, settlement, or accident, fire, or other casualty or physical damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Subject to compliance with requirements, provide products from the following manufacturer:

1. BASF Corporation
   Construction Chemicals
   889 Valley Park Drive
   Shakopee, MN 55379
   Customer Service: 800- 433-9517
   Technical Service: 800-243-6739
   Direct Phone: 952-496-6000
   Internet: www.master-builders-solutions.BASF.us

B. Substitutions: Notify Engineer of Record.

C. Specifications and Drawings are based on manufacturer's proprietary literature from BASF. Other manufacturers shall comply with minimum levels of material, color selection, and detailing indicated in Specifications or on Drawings. Engineer will be sole judge of appropriateness of substitutions.

2.2 MATERIALS

A. A premium, very low-modulus, high-movement, nonsag, fast-curing, ready-to-use, silyl-terminated polyurethane sealant. ASTM C 920 compliance:

1. Type and Grade: S (single component) and NS (nonsag).

2. Class: 50 for vertical joints.
3. Use Related to Exposure: NT (nontraffic) and T (traffic).
4. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.
5. USDA compliant for use in meat and poultry areas.
6. Acceptable Product: MasterSeal NP 100 by BASF.

B. Accessories:
1. Soft Backer Rod by BASF.
2. Closed Cell Backer Rod by BASF.
3. Porous Substrate Primer: MasterSeal P 179 and MasterSeal P 173 by BASF.
4. Cleaner: MasterSeal 990 by BASF.

2.3 COLORS (TO MATCH EXISTING)

A. Colors:
1. White
2. Stone
3. Limestone
4. Black
5. Medium Bronze
6. Aluminum Gray
7. Tan
8. Off-White
9. Special Bronze
10. Redwood Tan
11. Hunter Green
12. Buff
13. Anodized Aluminum

PART 3 - EXECUTION

3.1 EXAMINATION

A. Comply with Section 01 70 00.

B. Inspect areas involved in Work to establish extent of Work, access, and need for protection of surrounding construction.

C. Examine joints for defects that would adversely affect quality of installation.

D. Provide additional joint preparation, beyond that outlined in Specifications, as required by sealant manufacturer and Engineer's recommendations based on mock-ups and field adhesion tests.

3.2 PREPARATION

A. Remove loose materials and foreign matter that impair adhesion of joint sealant.

B. Rout and clean joints as required to expose sound surface free of contamination and laitance.

C. Ensure structurally sound surfaces, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and parting compounds, membrane materials, and other foreign matter.

D. Concrete, Stone, and Other Masonry:
1. Clean by grinding, sandblasting, or wire brushing to expose sound surface free of contamination and laitance.
2. Prime masonry.

E. Metal:
1. Remove scale and rust from metal to expose bright white surface. Remove any poorly bonded protective coatings as well as chemical residue or film.
2. Aluminum Frames: Remove clear lacquer before application of joint sealants. If coatings cannot be removed, test coatings to verify adhesion of sealant or determine an appropriate primer.
3. Prime the following surfaces with primer recommended by joint sealant manufacturer:
   a. Copper.
   b. Stainless steel.
   c. Galvanized steel.
   d. Polyvinyldiene fluoride (PVDF) coatings.
4. Remove other protective coatings or finishes that could interfere with adhesion.

3.3 PRIMING

A. Where circumstances or substrates require primer, comply with the following requirements:
1. Apply primer full strength with brush or clean, lint-free cloth. Apply primer to a light, uniform coating. Porous surfaces require more primer. Do not over apply, or allow primer onto face of substrate.
2. Allow primer to dry before applying joint sealants
3. Prime and seal on same workday.

3.4 INSTALLATION

A. Back-Up Material:
1. Install appropriate size backer rod, larger than joint per manufacturer's recommendations, and in manner to provide concave sealant profile.

2. Where joint depth does not permit installation of backer rod, install adhesive-backed polyethylene bond-breaker tape along entire back of joint to prevent 3-sided adhesion of joint sealant.

B. Sealant:
1. Verify that temperature and moisture conditions are within manufacturer's acceptable limits.
2. Using fresh sealant and equipment that is in proper working order, completely fill joint with sealant, filling from bottom up to avoid entrapping air.
3. Using clean, dry tool with rounded edge, and of appropriate width for each joint, tool freshly installed sealant to provide preferred concave profile, to ensure intimate contact between sealant and substrate, and to provide neat appearance. Where surface aggregate does not permit proper tooling, install sealant and backer rod so that face of joint is recessed behind exposed aggregate, and sealant is bonded to firm, even surface.
4. Use dry tooling method. Do not use tooling agents such as soapy water or solvents that have not been approved by sealant manufacturer.
5. Application of sealant in areas outlined around all windows, doors and other penetrations, as well as all EIFS termination conditions.

3.5 CURING TIME

A. Curing of joint sealants varies with temperature and humidity. The following times assume 75 degrees F (24 degrees C), 50 percent relative humidity, and joints 1/2 inch (13 mm) wide by 1/4 inch (6 mm).
1. Skins: Within 1 hour.
2. Functional: Within 3 days.
3. Full Cure: Approximately 1 week.

3.6 INSPECTION

A. During execution of Work, inspect Work to assure compliance with manufacturer's guidelines, these Specifications when they exceed manufacturer's guidelines, and good construction practice.
1. Refer to latest revision of ASTM C1521 for test methods and frequency.
2. Allow inspections of Work and assist in testing requested by manufacturer's representative and Engineer.

B. Non-Compliant Work: If inspections reveal non-compliant Work or Work that was not installed per Specifications, and/or manufacturer requirements, remove adjacent Work until a location is reached where installation was performed properly. Assist in spot-checking of remainder of Work.

3.7 CLEANING

A. Remove uncured sealant and joint filler with xylene, toluene, MEK, or other sealant manufacturer approved solvent. Do not use alcohol-based products.

B. Remove cured sealant by cutting with sharp-edged tool.

C. Remove thin films by abrading.

D. Remove debris related to application of sealants from Project site per applicable regulations for hazardous waste disposal.

3.8 PROTECTION

A. Protect Work from contaminating substances and damage resulting from other construction operations or other causes so that sealed joints are without deterioration or damage at time of Project completion.

END OF SPECIFICATION

SECTION IV

BID SUBMISSION FORM

SOUTH HAMPTON AT KINGSTON PLANTATION - PHASE I - BID SUBMISSION FORM									
Item #	Description	Quantity	Unit	Unit Price - Total	Unit Price - Material	Unit Price - Labor	Total Material $	Total Labor $	Total $
1	Existing sealant removal & BASF MasterSeal NP 100 Installation	50,000	SF				$ -	$ -	$ -
2	Clean and apply 1st coat of MasterProtect EL 750	95,000	SF				$ -	$ -	$ -
3	Apply 2nd coat of MasterProtect EL 750	95,000	EA				$ -	$ -	$ -
4	Clean and apply two coats of MasterProtect HB200 @ balcony ceilings	65,000	EA				$ -	$ -	$ -
5	Remove existing and replace angle at Loading Dock	1	EA				$ -	$ -	$ -
6	EIFS Crack Repair	5,000	SF				$ -	$ -	$ -
7	EIFS Repair	1,000	SF				$ -	$ -	$ -
8	Overhead Concrete Repair	500	SF				$ -	$ -	$ -
9							**TOTAL**	$	-
10	Manhour - Additional Work		HR				$ -	$ -	$ -
11	Profit Percentage						$ -	$ -	$ -
12	Overhead Percentage						$ -	$ -	$ -
13	Mobilization		EA				$ -	$ -	$ -
14	Access Equipment		/MONTH				$ -	$ -	$ -
15	General Conditions		/MONTH				$ -	$ -	$ -
NOTE: Phase I & II are intended to be worked concurrently. Submit Line Item #13-15 independently per phase for purposes of bid submission & comparison.									