Balconies, Catwalks and Building Walls Repair Project Specifications

For

Delphi Tower Condominium Association
1391 South Ocean Drive
Pompano Beach, Florida 33062

July 31, 2024

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SCOPE OF WORK

Project Description

The project consists of concrete and stucco repairs, new sealants around windows, paint and waterproofing repairs to the balconies andcatwalks. The areas of work include the Tower Balconies and Catwalks andwallsofDelphi TowerCondominium.

General Project Procedure

The Scope of Work to be performed under the terms of this Contract includes furnishing all materials, labor, services, utilities, permit fees, supervision, tools, and equipment required or incidental to the Project. All dimensions are to be verified in the field by the Contractor. The work will include, but will not necessarily be limited to, the following elements:

Balconies and Catwalks

1. Mobilization of equipment and materials as necessary in locations approved by the Owner. Care should be taken to minimize impact on traffic and impedance on common areas of the Condominium.

2. Protection of building components, such as curbs, windows, railings, light fixtures, etc., from potential damage caused during the construction project.

3. The contractor shall prepare a Life Safety Egress Plan for review and acceptance by the Engineer. The Egress Plan shall delineate all necessary signage, barricades, protection, etc. as necessary to comply with the Florida Building Code

4. Removal oftile, coatings, waterproofing membranes, etc., including grinding down to the structural surface, from balconies and catwalks as directed by the Engineer.

5. Installation of shoring in accordance with ACG Engineering Services Inc. drawings where necessary, or as directed by the Engineer, prior to any concrete demolition. Shoring is to remain in place until concrete has reached 95% of its design strength or until specific approval from the Engineer has been received in writing.

6. Repair of deteriorated balcony and catwalkconcrete slabs, columns, and beams, in locations directed by the Engineer and in accordance with these Specifications. **Engineer will advise and approve the limits and extents of repair excavations, as well as repair sequencing during construction inspections.** Only materials per this Specification are to be used unless specifically approved by the Engineer. All concrete repair unit cost include stucco.

7. If screen enclosure railings are removed in locations directed by the Engineer and cannot be reinstalled, replace with New Aluminum Enclosure Picket rails to match existing, and in accordance with the specifications.If New railing system to be selected and a separate permit will be applied for, provided sign and seal engineering plans for the EOR to approve).

8. Inspect water ponding and provide for positive drainage on all repair areas as required.**Engineers will advise and approve the limits and extents of the areas.**

9. Apply waterproofing membrane Sika 710-715-735, per specification and manufacturer's specifications, to all repaired areas, extending under doors (if removed).**A mock-up balcony sample must be done for Board approval.**

10. Apply stucco finish to match existing for all repaired areas. NOTE: This should be included in line-item repair cost.

11. In the instance that an intrusion is necessary to perform concrete remediation, contractor will install a weather wall on the interior of the unit, remove and reinstall all approved doors and windows, and accessories as required and in accordance with this specification. Fill all fastener holes with polyurethane sealant. All new Impact Windows will require a separate permit by the contractor.

12. Remove and reinstall all shutters that are in good working condition, per owner's approval. Owners will have to provide a permit, NOA, etc., to reinstall the shutters. Fill all fastener holes with polyurethane sealant. All new Shutters will require a separate permit by the contractor.

13. Install decorative finish to the balcony per the agreed upon finish. Provide a mock-up for Board approval.

14. Contractor to replace all exterior outlet covers, provide sample to be approved by the Engineer and the Association.

15. Cleaning and removal of debris from the site per this Specification.

DEFINITIONS

1. The term “Owner” or “Association” is hereby defined as Delphi TowerCondominium Associations, or their appointed representative or agent.

2. The term “Engineer” is hereby defined as **ACG Engineering Services, Inc.** or their duly appointed representative or agent.

3. The term “Contractor” is hereby defined as the company, firm, or organization that is in direct contract with the Owner for the Work. The term “Subcontractor” refers to companies, firms, or organizations working for the Contractor.

4. The term “Work,” as used herein, shall include everything required of the Contractor to perform the scope of the Contract and Specifications fully and faithfully.

5. The term “Contract Documents” as used herein shall include all contracts, specifications, bids, drawings, material or product specifications, addenda, etc. that are utilized for the Work.

6. The term “Bid Documents” is hereby defined as Contract Documents supplemented with Invitation to Bid, Instructions to Bidders, Bid Sheet, Bid For and Appendices identified.

7. The term “Supplier,” as used herein, includes any firm or organization furnishing or delivering products directly to the job site and who, because of such direct delivery, could be construed under the lien laws of the State of Florida as having lien rights against the project. Suppliers of material and equipment being delivered to the Contractor or Subcontractor on an open account basis and not having lien rights on the work, will not be Suppliers within the meaning of this Specification and/or contract.

8. The term “Project Schedule” shall mean the project schedule that the Owner and Contractor have agreed upon which must be approved prior to the commencement of the Work and as amended and agreed to by both parties during the course of the project.

9. Where “request”,” approval”, “satisfactory”, and similar words appear, it is the request, approval, or satisfaction of the Engineer that is intended.

10. Where “complete” is used, it shall mean complete with all connections, supports, attachments, and incidental items necessary for a finished and properly operating assembly or installation.

11. The term “furnish” shall be interpreted to mean supply, install, and completely test and have ready for beneficial operation by the Owner.

12. The term “install” shall be interpreted to mean supply, mount, connect, and completely test and have ready for beneficial operation by the Owner.

13. The term “provide” shall be interpreted to mean furnish, install, and completely test and have ready for beneficial operation by the Owner.

SUBJECT AND PROPERTY LOCATION

Delphi Tower Condominium Association
1391 South Ocean Drive
Pompano Beach, Florida 33062

ENGINEERING (GENERAL)

Inspections

All required engineering inspections are to be scheduled with the Engineer a minimum of 48 hours in advance. Failure to do so can result in delay of work or denial of item(s) to be inspected.

1. During onsite engineering inspections, the Engineer shall review any work underway, regarding work locations, methods, shoring, concrete placement, proper curing of newly placed concrete, Owner concerns, or any other items as appropriate.

2. The Engineer shall inspect and approve all crack repairs.

3. **EXCAVATION LIMITS:** The Engineer shall inspect and approve, as required, all limits of concrete removal and all steel reinforcement repairs. The engineer shall verify Contractor’s measurements and approve or disapprove, as required, all contract chargeable quantities for all repairs.

4. **APPROVAL TO PLACE CONCRETE:** The Engineer shall inspect all areas prior to concrete placement and give approval, as required, for all concrete placements. The Engineer shall inspect all prep work, including forms, shoring, steel bar repairs, and any adjustments to excavation limits.

5. **PLACEMENT OF CONCRETE:** The Engineer may inspect bag good concrete placements at his discretion. Contractor is responsible to make Engineer aware of all concrete placements at least 48 hours in advance.

6. **PLACEMENT OF WATERPROOFING:** The Engineer may inspect application of water- proofing membrane at his discretion.

7. **CERTIFICATION AND TESTING:** The Engineer shall be present for all certification inspections by product Manufacturers or installers as well as any testing, formal or informal, to exhibit proper installation of materials.

8. **FINAL:** The Engineer shall inspect and approve, as required, the completion of all repairs, including any correction or punch list items for each work area as appropriate.

9. The Engineer reserves the right to require additional inspections at various times throughout the project.

Approvals

1. The Engineer, when satisfied with the Work, shall approve the Work in writing.

2. The Engineer shall approve or disapprove in writing, as required, specifications for all Contractor-supplied materials not specified herein at least 7 days prior to planned material useand shall be given a minimum of 7 days to review those specifications.

3. The Engineer shall determine at his sole discretion any disputes regarding reasonableness of workmanship.

Contractor Responsible for Means and Methods

The primary purpose of the Engineer's visits at the site will be to provide the Owner a greater degree of confidence that the Work is being completed in accordance with requirements and specifications. **On the other hand, *the Engineer has no authority over nor responsibility for the Contractor's means, methods, techniques, sequences, or procedures, so long as they do not conflict with the approved specifications.*** The Engineer is not responsible for safety precautions and programs or for any failure of the Contractor to comply with laws, rules, or regulations.

Interpretation of Requirements

The Engineer shall act as initial interpreter of the requirements of the Contract Documents and judge the acceptability of the Contractor's Work there under, making decisions in writing on all claims of Owner and Contractor relating to acceptability of the interpretation of requirements. Accordingly, the Engineer shall not be liable for the results of any such interpretations or decision rendered in good faith.

Reuse of Documents / Ownership

All Contract Documents prepared and furnished by the Engineer are instruments of service in respect to the current Project. The Engineer retains ownership and property interest herein whether or not the Project is completed. The Owner may make and retain copies of such in connection with the use of the Project.

However, such documents are not intended or represented to be suitable for reuse by the Owner, Contractor, or others on extensions of the Project or on any other project.

CONTRACTOR'S GENERAL REQUIREMENTS

Administrative Responsibilities

1. The Contractor shall read, become acquainted with, and educate his supervisory staff regarding the specifications for his Subcontractors' fixed equipment and the like that is to be incorporated and attached or built into the Work and shall familiarize himself with their requirements and responsibilities to enable the required coordination and proper supervision.

2. The Contractor shall cooperate with and assist the Subcontractors in the preparation for construction, progress and procedures, Project Schedule, deliveries, and their effects on the overall Project progress and completion. The Subcontractors shall cooperate in getting their work and the Work of their subcontractors completed according to the Project Schedule as prepared and maintained by the Contractor. Each Subcontractor shall immediately notify the Contractor of any delay in delivery of products or in the Project Schedule date of completion that may affect the total progress of the construction.

3. The Contractor shall verify grades, lines, levels, and dimensions as shown on the drawings and shall report errors and inconsistencies discovered in the information furnished to or by the Engineer and/or Landscape Architect.

4. The Contractor shall supply all labor, materials, and equipment necessary for the proper and total completion of the required Work as per the Engineer's and Landscape Architect's Specifications.

Construction Meetings, Schedules& Financial Updates:

1. The Contractor shall be responsible for the on-time maintenance of the construction Project Schedule and general supervision of the Work to be performed. If for any reason the Project Schedule is to change, the Contractor is responsible to update the Project Schedule and submit revisions to Engineer and Owner. This does not alter in any way performance or completion dates as stipulated by the Contract.

2. The Contractor shall also provide, on an ongoing basis,accurate financial data to the Engineer relative to quantities along with current and projected project costs.

3. The Contractor shall also participate in recurring construction meetings on a weekly basis or at a schedule agreed to by Owner, Engineer, and Contractor.

Permits, Fees, and Notices

1. Except as specifically approved by the Owner in writing, the Contractor shall secure and pay for all licenses as may be necessary for the proper execution and completion of his Work, which are applicable at the time the bids are received whether or not effective or scheduled to go into effect and shall obtain and pay the costs of any approvals, permits, and fees that may be required by local authorities.

2. Contractor shall pay all applicable sales, consumer and use taxes.

3. Contractor shall qualify and obtain all required permits. All Subcontractor permits are to be secured by the Contractor or Subcontractor as the Contractor may determine.

4. A copy of all required permits, licenses, certificates, and approvals shall be delivered to the Engineer and a copy shall be posted in a prominent location at the Project site prior to the commencement of the Work.

5. The Contractor shall give notices and comply with laws, ordinances, rules, regulations, and orders of public authority bearing on the performance of his Work. If the Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Engineer in writing and necessary changes shall be adjusted by appropriate notification. If the Contractor performs any Work either knowing, or properly expected to know,it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, the Contractor shall assume full responsibility and shall bear costs attributable thereto.

Substitutions

The Engineer will consider formal requests from the Contractor for substitution of products in place of those specified, except in cases of items specifically followed by the words “no substitutions”. Such written requests should include the following:

1. Complete data substantiating compliance with contract intent.

2. Product identifications, Manufacturer’s literature, reference standards.

3. Detailed description of proposed method(s).

4. Itemized comparison of proposed substitution with specified product.

5. Changes to construction Project Schedule, if any.

6. Accurate cost comparisons between substitute and that specified.

No substitution shall be used without prior Owner’s and Engineer’s written approvals.

Submittals

The Contractor shall submit, with a letter of transmittal to the Engineer, two (2) sets of checked and approved product specifications for materials and components to be installed and not specified herein for the Engineer's review and written approval. Any materials or components ordered without the Engineer's written approval shall not be used on the Project and shall not be paid for by the Owner.

Mobilization / Staging Area

The Contractor is to submit his requirements for a staging area to the Owner for approval prior to starting Work. The Owner shall then provide Contractor with a suitable area for use. At the end of each working day, all equipment, ladders, materials, supplies, vehicles, etc. must be returned to the staging area and working area left clean. Protection of this area is the sole responsibility of the Contractor, and it shall be left in a clean, safe, and acceptable manner.

Utilities

The Contractor may use, at no cost to the Contractor,water, and electricity available on the Owner's property for the performance of the work. The Contractor at his expense shall provide utility requirements beyond those available on site.

Public Construction Inspections

Contractor shall determine requirements for and obtain inspection of all work and trades as necessary and as required by the local building officials.

Personnel Conduct and Dress

1. The Contractor shall be responsible to properly supervise his and his Subcontractors' employees as to proper language, conduct, dress, and noise.

2. Contractor's and Subcontractors' employees shall wear appropriate clothing at all times.

3. Alcohol or drugs on the site or any individual or employee under the influence of such substances shall not be tolerated and shall constitute an immediate cause for the Contractor's or Subcontractor's employee to be permanently removed from the Project.

4. The Owner or Engineer shall have the right to require the Contractor or Subcontractor to remove any employee from the Project.

5. The Contractor will provide, as required, the Engineer with a list of all personnel to be employed at the job site in accordance with the Owner's security policy. The Contractor shall submit to the

Owner and Engineer BIOS's of key employees assigned to the project i.e.: Project Managers, Superintendent, and shall remain on the project for the duration. Key Personnel cannot be changed unless approved by the Owner.

Safety during the Project

1. The Contractor shall, at the end of each workday, secure and properly store all equipment, machinery, materials, etc.

2. The Contractor shall maintain material storage and work areas in a clean and safe condition and remove from the site, daily, trash and debris, flammable cloths and discarded materials that could support combustion. All debris and rubbish must be placed in approved dumpsters daily and dumpsters emptied as required on a regular basis.

3. The Contractor shall always strictly comply with O.S.H.A. regulations and requirements including fall safety and eye, hearing, and respiration requirements.

4. All stages, scaffolding, or lifting devices to be used by the Contractor shall comply with O.S.H.A. requirements and must be in good working order.

5. The Contractor shall keep on hand on each stage and in each work area at least one 5-pound CO2 fire extinguisher for quick access or more as O.S.H.A may require.

6. The Engineer shall have the right (with cause) to stop Work on the Project should he believe an unsafe condition exists until such condition is corrected at no cost or delay to the Owner.

Survey of Existing Conditions

Prior to commencement of repairs at the Work area, the Contractor shall examine and provide photo documentation or video records of all existing damaged building elements. This would include at least a survey of railings, enclosures, windows, shutters, landscaping etc. to determine their condition before the Work begins. In addition, the Contractor shall report any damage, as it occurs, to the Owner. Surrounding areas should be returned to at least the condition they were at the start of construction.

Product or Material Samples

The Contractor is responsible for providing product or material samples to the Owner upon request. This may include demonstration or sample application of products, materials, and equipment. Tile samples must be presented and approved by Owner prior to the ordering of material.

Quality Assurance

1. The Contractor shall use adequate numbers of supervisors and skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specification requirements and methods needed for proper performance of the Work in this specification.

2. Work shall be carried out in such a way as to minimize any inconvenience to the Owner. The Contractor shall maintain a full work force from start to finish and shall have a qualified foreman on the job at all times.

3. The Contractor shall provide the Owner recent certificates of insurance (COI), indemnifying the Owner including, but not limited to the following: WORKMAN'S COMPENSATION, BODILY INJURY, and PROPERTY DAMAGE. There shall be no lapse in coverage throughout the course of the Project. The Contractor shall name the OWNER as Additional insured and provide the owner a copy of the COI prior to start the job.

4. The Contractor, having started the Work, will continuously and expeditiously proceed with its prosecution until completion in strict accordance with the Project Schedule.

5. Quality assurance representatives from the product manufacturers and/or suppliers that are included in these Specifications shall make periodic inspections before, during, and upon completion of the Project. Copies of each inspection shall be submitted to both the Engineer and Owner within five (5) working days.

Additional Work or Work Not Anticipated

1. All Work anticipated to be performed on this Project is included at no extra cost. Otherwise,separate pricing must be provided for in the contract, or in a contract addendum, or as approved by the Owner in writing.

2. Any additional Work requested, or unanticipated Work needed must be brought to the attention of the Engineer before the Work is performed. Any questions regarding pricing for the Work must be resolved before the Work is performed. The Contractor shall have the opportunity to propose pricing for any such Work not covered by contract. Any such Work should only be performed upon acceptance of the proposed pricing by the Owner or the Engineer in writing.

3. The Owner is not obligated to make payments for any such Work performed that is not provided for in the Contract, or a contract addendum, or approved by the Owner in writing.

Acceptance of Substrate

The Contractor's application of any products on a surface or substrate shall constitute full acceptance of the condition of the surface as sound and appropriate to receive the product(s) applied. Defective Work resulting from unsound or unacceptable surfaces or substrates shall be repaired at the Contractor's sole expense, including repairs or corrective action required of the surface or substrate.

Rain Days

Rain days and delays associated with them shall be documented in writing and forwarded to both the Engineer and the Owner for approval within 5 working days of the rain day.

Storm Protection

The Contractor shall provide storm protection covering on all glass sliding doors and all fixed glass at all areas where shutters have been removed or the shutters cannot be closed for the duration of the hurricane season. The minimum protection shall be ¾" CDX sheathing. The contractor shall minimize penetration of the walls and surrounding elements for the attachment of the protection. The contractor shall repair all damages resulting from the installation and removal of the protection system.

As-Built Drawings

The Contractor shall prepare and submit to the Engineer and Owner a set of drawings indicating the "as built" conditions for each area of the building repaired. These drawings will indicate locations, dimensions, quantities, and types of repair materials utilized.

DAMAGE LIABILITIES / RESPONSIBILITIES

1. The Contractor will be held solely responsible for the protection of the Owner's property, including all balconies, screens, windows, shutters, walkways, shrubbery, parked vehicles, and any other property in the vicinity of Work, from damage. **Contractor must provide adequate covering and protection as required during the Work.**

2. The Contractor will be held responsible for securing and restricting free access to Work areas where Work is being performed. The Contractor must notify the condominium in writing when and if any Work areas cannot be safely secured at the end of each workday.

3. If, for purposes of cleaning up at project completion, Contractor desires to apply paint over concrete and/or coating splatter on any existing surfaces (i.e.: railings, enclosures, etc.) as part of cleaning or repairing of exterior damages, Contractor is responsible to obtain Owner's prior written approval.

4. The Contractor will be held responsible for repairing damages caused by carelessness or lack of protection while performing the work identified in the scope of work and work items list. Contractor must anticipate and provide adequate protection for hidden electric conduits,

water,and phone lines, etc. as required during the work. The Engineer shall determine any question regarding Contractor's responsibility to repair damaged electrical conduits, water, and phone lines, etc.

5. The Contractor will also be responsible for the cleanup involved in the Work outlined in this specification.

6. The Engineer shall determine any disputes regarding the reasonableness of repairs.

Responsibility for Interior Areas

1. The Contractor will be held responsible for securing and restricting free access to interior apartment areas or common areas where Work is being performed that requires opening of exterior walls, windows, or doors. The Contractor must notify the Condominium in writing when any apartments or common areas cannot be safely secured at the end of each workday.

2. The Contractor will be held responsible for repairing interior damages and cleaning unreasonable amounts of dust caused by carelessness or lack of protection while performing the Work.

3. The Contractor will be responsible for reasonable repairs to walls, ceilings, floors, or baseboards. The Contractor will be held responsible for repairing interior drywall and re-painting walls and ceilings in the immediate repair area, including popcorn ceiling finishes as best as possible. Such restoration and repairs are included and will be at no cost to the Owner(s).

4. The Contractor will not be held responsible for removal of normal amounts of dust caused by the concrete excavations that settle in interior areas when performing the Workwhile using reasonable care in performing such work.

5. Unless otherwise provided for, the Contractor will not be held responsible for unavoidable damages, including but not limited to: replacing floor coverings such as carpet, tile, marble, wood, and vinyl; wallpaper or special wall painting; removing and reinstalling draperies or other window treatments.

6. The Engineer shall determine any disputes regarding reasonableness of interior repairs.

CONCRETE REPAIR

Repair Materials

A preliminary list of material requirements for this project is shown below. Any changes to this specification shall be submitted to the Engineer for specific approval. Approved materials must be used in accordance with manufacturer's application guidelines.

1. New ready mix concrete materials shall meet the following minimum requirements:

   a. f'c > 6000 psi at 28 days

   b. Cement content $\geq$ 560 lbs./yd., W/C ratio $\leq$ 0.40

   c. Total water-soluble chloride ion (Cl) content $\leq$ 0.05% by weight of cement

   d. No concrete shall be placed, which is in excess of 90 minutes from the ticketed batch time.

   e. The Contractor shall follow the recommendations of the ACI 305R-91 "Hot Weather Concreting" when the relative humidity is less than the corresponding concrete temperatures of the intended placements.

      The following **Design Mix** is specifically approved for use: **Rinker P/C 1177769.**

2. **Admixture Requirement** – W.R. Grace corrosion-inhibitor DCI-S in the amount of 2.5 gals / C.Y. is a requirement of any design mixtures utilized in the project.

3. New polymer modified bag-mix concrete materials shall meet the following minimum requirements:

   Tensile bond strength, 28 days, ASTM C-882m > 1000 psi
   Shrinkage, 28 days, ASTM C-157 < 0.06 %
   Rapid chloride permeability, ASTM C-1202 < 1000 coulombs

4. Additional aggregate for repair material extension shall meet ASTM C33 and be certified asnon-reactive. Certification of non-reactive aggregate shall be submitted for the Engineer's approval prior to use.

5. New reinforcing steel shall be ASTM A615, grade 60.

The following named **bag** materials are specifically approved for use. The Contractor shall submit to the Engineer for review and acceptance concrete mix designs, Manufacturer's product information and Manufacturer's installation instructions for all other materials to be utilized.

Approved Materials

Approved materials are SIKA and STOproducts or similar (see attachments).

Codes & Standards

Repair work under this specification shall be accomplished in compliance with the following codes, specifications and standards, except as otherwise specified:

1. ACI 301 "Specification for Structural Concrete"
2. ACI 311 "Recommended Practice for Concrete Inspection"
3. ACI 318 "Building Code Requirements for Reinforced Concrete"
4. ACI 347 "Recommended Practice for Concrete Formwork"
5. ACI 304R "Guide for Measuring, Mixing and Placing Concrete"
6. ACI 546 "Repair of Concrete"
7. ACI 562 "Evaluation, Repair, and Rehabilitation of Concrete Buildings"
8. ACI 563 "Specifications for Repair of Structural Concrete in Buildings"
9. ICRI – Guideline No. 03731, "Guide for Selecting Application Methods for the Repair of Concrete Surfaces"

Concrete Testing

Contractor shall retain an engineering testing laboratory at his expense to perform all concrete testing. The testing laboratory shall conform to the applicable requirements of ASTM C 1077 and shall be inspected and accredited by the Concrete and Materials Engineering Council, Inc or an equivalent national authority. The agent of the testing laboratory performing field samples shall be certified by the American Concrete Institute as a Technician Grade 1 or be equivalent or shall be a licensed professional engineer.

Testing shall be performed as described hereinafter for each **10 yards** of fresh concrete or fraction thereof placed at the project but for not less than one set for each day's concrete placement.

1. Compression and Strength Tests: Each test shall consist of four (4) standard 6" x 12" cylinders, one cylinder tested at the age of 3 days, one at the age of 7 days, and 1 at the age of 28 days. The remaining cylinder shall be held in reserve. Samples for compression testing shall be secured in accordance with ASTM C 172. Specimens made to check adequacy of design strength or to be usedas a basis for acceptance of concrete shall be in accordance with ASTM C 31. Strength tests shall be in accordance with ASTM C 39.

2. Slump Tests: Tests for slump shall be made at the place of deposit and in accordance with ASTM C 143. Slump shall be reported on test reports to the Engineer.

Except as otherwise directed, the laboratory shall send a minimum of two copies of test reports to the Owner, Engineer and Contractor.

Concrete Curing

1. All repair areas shall be covered and maintained damp by frequent spraying with water for at least 5 days or an application of BURKE "Aqua Resin" membrane curing compound or equivalent (approved by the Engineer) after finishing in accordance with the Manufacturer's instructions and recommendations.

2. All concrete shall cure a minimum of 28 days or testing shall show that the concrete has reached at least 80% of its design strength, prior to application of any coatings or finishes. No coatings or finishes shall be applied, until the concrete has been tested and the water vapor requirements from the Manufacturers' specifications of the coatings/finishes have been met.

3. An observation shall be conducted by the Engineer prior to application of any coatings on the concrete. Any cracks in the repair areas shall be repaired in accordance with the requirements for crack repairs. Repair of cracks shall be at no additional cost to the Owner.

General Concrete Repair Procedure

Concrete repairs will be accomplished in accordance with International Concrete Repair Institute standards as described below.

1. Concrete repairs shall be provided for areas identified as exhibiting signs of spalling, deterioration, and unacceptable concrete.

2. All loose, spalled, and unsound concrete in the area of deterioration shall be removed. Areas to be repaired must be clean, sound and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means approved by the Engineer.

3. The area of concrete to be removed shall extend along the length of the reinforcing, beyond the limits of the reinforcing deterioration a minimum of 6" into sound concrete.

4. Concrete shall be removed completely around the reinforcing steel providing a minimum clearance of ¾" between reinforcing and remaining concrete.

5. The perimeter shall be saw-cut a minimum of ½" perpendicular or slightly undercut to the concrete surface at the limits of the repair to prevent feathering. No reinforcing steel shall be cut except as accepted by the Engineer.

6. The concrete substrate shall be chipped to obtain a surface profile of 1/8" in depth with a new fractured aggregate surface.

7. Occasional excess excavation performed for the Contractor's convenience will be acceptable, but not billable.

8. Application of repair material shall not be less than ½" in thickness.

9. All rust and scaling of reinforcing steel shall be thoroughly removed by sandblasting.

10. The prepared concrete surface shall be saturated surface dry (SSD), and free of standing water.

11. A coat of bonding agent shall be applied as specified herein covering all exposed steel and concrete surfaces.

12. A scrub coat shall be applied and while still wet repair concrete shall be placed in accordance with ACI 301 and Manufacturer's specifications.

Reinforcement Replacement

1. Any questionable placement of the existing steel, as placed in the original construction, should be brought to the attention of the Engineer.

2. All reinforcing steel with deterioration of more than 15% of the original bar diameter, as determined by the Engineer, shall be replaced.

3. To permit lapping of the new reinforcing steel, the concrete shall be removed along the length of the reinforcing a minimum of 40 bar diameters beyond the deterioration into sound concrete to permit splicing of the reinforcing. Provide minimum lap splices in overlap areas as follows: #3 bars- 15", #4 bars- 20", #5 bars- 25", #6 bars- 30' and #7 bars – 35".

4. After the existing reinforcing steel has been prepared, the new reinforcing steel shall lap beside the entire length of the exposed reinforcingsteel bar and shall be secured in place with the use of tie wires.

Crack Repair

1. Crack repairs will be performed for all areas identified by the Engineer. Cracks, which are a direct result of new concrete placement or Contractors' means or methods, will be repaired at no additional cost to the Owner.

2. All loose and unsound concrete within and adjacent to the crack shall be removed.

3. For gravity feed applications of topside horizontal cracks, v-notch the surface of the crack with a mechanical router or hand-held routing tool to maximum width of ¼". Remove loose debris. Substrate may be dry or damp but must be clear of standing water prior to product application.

Where it is determined the crack is full depth, the underside of the crack shall be sealed with Epoxy Gel as listed above to act as a dam to hold the liquid epoxy resin adhesive until cured. Maximum application thickness of Epoxy Gel shall not exceed ¼". Pour Epoxy Binder into the v-notch until the crack is completely filled, adding more resin as the product penetrates. Allow to cure and grind to a flat finish.

4. For pressure injection applications, remove loose and deteriorated materials for 1 inch on each side of the crack. Assure surfaces are sound, clean, and free of all bond-inhibiting materials including oil, dust, and dirt. Blow the crack clean with oil-free compressed air. Rout the crack. Surfaces must be dry or damp, and free from standing water. Install injection ports, with Epoxy Gel, directly to the crack. Using a putty knife, force the material against the concrete and around the injection port, sealing the surface of the crack. Allow the gel to completelycure before pressure injecting the crack with Epoxy Binder using standard pressure injection equipment.

STUCCO REPAIRS

Inspection

1. Before plaster is applied, surfaces to be plastered shall be carefully examined by the Contractor and/or Subcontractor. The Engineer shall be notified of unsatisfactory surfaces or conditions. Application of plaster shall not proceed until any imperfections, irregularities and unsatisfactory conditions that may compromise the final finish have been corrected and the surfaces are ready to receive work.

2. Proceeding with the application will constitute acceptance of the substrate by the Contractor. Any corrective effort required to correct the substrate after application of the stucco will be at the Contractor's sole expense.

    a. **Masonry:** Verify joints are cut flush and surface is ready to receive work described in this Section. Verify no bituminous or water repellent coatings exist on masonry surfaces that would affect the adhesion of the stucco finish.

    b. **Concrete:** Verify surfaces are flat, honeycomb is filled flush, and the surface is ready to receive work described in this Section. Verify no bituminous, water repellent, or form release agents exist on concrete surfaces that are detrimental to plaster adhesion.

    c. **Grounds and Blocking:** Verify items within walls for other Sections of work have been installed.

Preparation

1. Limits of stucco and counter flashing removal shall be saw cut to permit installation of new counter flashing with a minimum four-inch coverage over top of base flashings. Remove all stucco material and sheet material on the repair side of eachsaw cut.

2. Roughen and clean masonry and concrete surfaces to the degree required to achieve mechanical bond. Apply bonding agent where needed for adhesion. Surfaces to receive stucco shall be damp without visible surface water.

Cement Plastering (Stucco)

1. Cement plastering shall consist of the number of coats specified by the stucco Manufacturer and as allows for the thickness to match existing.

2. **Mixing:** Mechanical mixers of an approved type shall be used. The mixer and tools shall be kept clean. Re-tempering will not be permitted.

3. Each coat shall consist of the mixture of ingredients that strictly matches the specifications provided by the stucco Manufacturer.

Moisture Retention and Curing

1. Previous plaster coats, which have dried out prior to time for application of the next coat shall be dampened. Dampen with water as required for uniform suction. The Contractor is responsible for determining the most effective procedure for curing and time lapse between applications of coats based on climatic and job conditions.

2. Plaster, which is cracked or crazed due to improper timing and curing, will not be accepted. Defective plaster shall be removed and replaced, including plaster base materials if damaged as part of the removal process.

General

Stucco plaster shall be mixed, the substrate upon which it is to be applied shall be prepared, the stucco plaster shall be applied, and the stucco plaster system shall be cured in general conformance with ACI 524R-08.

SHUTTER REMOVAL AND REINSTALLATION

1. Prior to commencement of the Work, the Contractor shall conduct a survey identifying any defects in the proper operation of the shutters and any physical damage. A copy of the survey shall be provided to the Engineer for acceptance prior to commencement of shutter work.

2. **The Building Department will require that any shutter that is partially or fully removed, the owner will have to provide permit documents and NOA, that are not more than 10 years old and that the shutter will not require to be modified to be reinstalled due to difference in height once all tile is removed.**

3. All approved Shutters are to be carefully removed, marked for identification, and wrapped for each individual balcony. Shutters shall be stored at the Contractor's at the Unit OwnerUnit; all areas must be properly protected by The Contractor. Hardware shall be retained for use if acceptable.

4. Shutter tracks and edges shall be re-installed with stainless steel Tap-con anchors at the tops and sides. The bottom tracks shall be installed in accordance with the provisions shown on the drawings.

5. Upon reinstallation, shutter systems shall be aligned and lubricated for optimal operation. Shutters shall operate as well or better than before they were removed, in accordance with the accepted survey described in paragraph one (above). Any discrepancies shall be brought to the attention of the Engineer.

6. An allowance will be provided for repair or replacement of shutter components as necessary for proper operation as requested by the Engineer.

WINDOW REMOVAL AND REINSTALLATION

1. Prior to commencement of the Work, the Contractor shall conduct a survey identifying any defects in the proper operation of the windows and any physical damage. A copy of the survey shall be provided to the Engineer for acceptance prior to commencement of shutter work.

2. Once the windows have been approved to be in good working condition, the owner will have to supply all permit documents, NOA, etc. for final re-installation approval. If no documents are provided the owner/contractor will have to apply for a new permit.

3. All approved windows are to be carefully removed, marked for identification, and wrapped for each individual balcony. Windows shall be stored at the Unit Owner unit; all areas must be properly protected by The Contractor Owner. Hardware shall be retained for use if acceptable.

4. The stainless-steel fasteners are to be 410 stainless steel and a ¼" in diameter. The fasteners are to be provided on a 12" on center twin fastener lay out and are to have a minimum of 1-1/4" of

embedment into the existing concrete. The fastener holes are to be filled with polyurethane sealant.

5. The fixed glass is to be attached with 410 stainless steel fasteners to the sliding glass door jambs. The bottom of the fixed glass has an aluminum or stainless-steel block installed to prevent fixed glass panel movement.

SCREEN ALUMINUM ENCLOSURE RAILINGS

Aluminum Structure(s) Design Requirements

Railings and other components to be designed in strict accordance with the Current Florida Building Code Chapter16: Structural Design and the Aluminum Design Manual 2010 published by The Aluminum Association, Inc. Calculations submitted must include applicable wind loads for the building, minimum design loads per code, and proper or minimum requirements of the building to receive the loadings from the railing system (i.e. embedment depth, grout strength, edge distance, etc.). The maximum possible loading should be applied to individual components and continued through a logical load path. Also, calculations are to include all attachment details for both railing components and railing system to the existing building.

Aluminum Structure(s) Painting and Coating Requirements

All new aluminum structures including hand/guard rails and integral enclosures are to be coated in conformance with AAMA 2605-05 "Voluntary Specifications, Performance Requirements and Test Procedures for High Performance Organic coatings on Aluminum Extrusions and Panels." Increased requirements from Section "7.9 WEATHERING" for South Florida Exposure are also to be met. Data and test reports of chosen coating, to be submitted along with engineering calculations and site-specific drawings for all aluminum structures. Additionally, all drawings need to include painting or coating type, any special requirements to conform to AAMA 2604-05, and any other pre-determined requirements from the design engineer.

All aluminum structure coatings are to bear a Manufacturer or installer unconditional five (5) year warranty on all extruded aluminum, structural aluminum, and attachment components (such as screws, Tapcons ®, bolts, clips, angles, etc.) against all forms of bubbling, peeling, rusting, signs of corrosion, chalking, or any other form of aesthetic degradation of the coating.

PROJECT CLOSEOUT

General

Closeout is hereby defined to include general requirements near the end of Contract Time in preparation for final acceptance, final payment, normal termination of contract, re-occupancy by the Owner, and similar actions evidencing completion of the Work. Time of closeout is directly related to the issuance of the "Notice of Substantial Completion."

Prerequisites for Substantial Completion

Prior to requesting Owner/Engineer inspection/observation for confirmation of Substantial Completion (for either entire Work or portions thereof), the Contractor shall complete the following and list known exceptions in request:

1. Submission of specific warranties, workmanship/maintenance bonds, maintenance agreements, agreements, final certifications, and similar documents.

2. Submittal of releases enabling Owner's full and unrestricted use of the Work and access to services and utilities, including occupancy permits, operating certifications, and similar releases.

3. Delivery of tools, spare parts, extra stocks of materials, and similar physical items to locations as directed by the Owner. Two percent (2%) of each type of product shall be given to the Owner for future repairs.

4. Discontinuation and removalof temporary facilities and services from the Project site, along with construction tools and facilities, mock-ups, and similar elements.

5. Completion of final clean-up requirements.

Substantial Completion will be approved when the Work is completed,and the prerequisites have been met to the satisfaction of the Engineer.

Prerequisites for Final Payment

Prior to requesting Owner/Engineer final inspection/observation for certification of final payment, the Contractor shall do the following:

1. Submit final payment request.

2. Provide the Engineer and Owner with a Contractor’s Final Payment Affidavit and Release of Lien Document, which shall cover all materials supplied and equipment used in the performance of his work.

3. Complete final cleanup and landscaping replacementas required and described in the sections below.

4. Submit copy of Owner/Engineer's final punch list of itemized Work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.

5. Provide documentation of warranties as detailed in Warranty section below.

6. Receive Engineer's and Owner's approval, in writing, of all items above.

7. Provide copies of all Building Permit signoff from the Local Municipality having jurisdiction over the project.

Cleaning and Restoration of Property at Completion of Project

At the Project completion, the Contractor shall:

1. Reinstall all exterior building components removed or adjusted to provide access for doing repairs. The reinstallation shall be done using the materials and workmanship that would be expected for a new installation, taking into consideration any installation difficulties caused by existing defects or changes in the building. Any reinstallation problems must be brought to the attention of the Engineer in a timely manner.

2. Promptly remove all debris, materials, equipment, etc., from the site and leave the premises of the buildings, driveways, and deck areas clean. Surface areas shall be cleaned of excess paint, coatings, sealants, etc. The Engineer will observe the Work after final clean up. Rejected Work shall be addressed until completed to an acceptable condition. The following are examples, but not by way of limitation, of cleaning levels required:

    a. Removal of labels that are not required as permanent labels.

    b. Cleaning of transparent materials, including mirrors and window/door glass, to a polished condition, removing substances that are noticeable as vision-obscuring materials.

    c. Replacement of broken glass and damaged transparent materials.

    d. Cleaning of exposed exterior hard surface finishes to a dirt-free condition, free of dust, stains, films, and similar noticeable distracting substances. Except as otherwise indicated, avoid the disturbance of natural weathering of exterior surfaces. Restoration of reflective surfaces to original reflective condition.

    e. All surfaces shall be free of debris and surface dust.

f. Replacement or repair of any areas damaged during the progress of Work.

Warranty

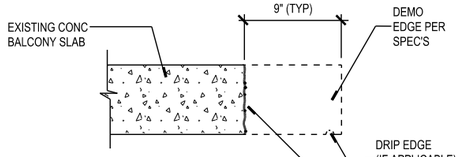
At Project completion, the Contractor shall issue a warranty for all items included in the Scope of Work throughout the Project for a period of not less than 5 years against defective materials and/or workmanship of Contractor's Work.

Contractor will provide copies of sample warranties to the Owner prior to contract signing along with executed and assembled documents from subcontractors, suppliers, and manufacturers. Allfinal notarized copies of warranties are to be supplied to Owners prior to final payment. For items of Work delayed beyond date of Substantial Completion, the Contractor shall provide updated submittals within 10 days after acceptance, listing date of acceptance as the start of warranty period. The warranty period shall not commence prior to Substantial Completion of the Work. Prior to final payment, duplicate notarized warranties issued by the Contractor and principal material suppliers shall be issued to the Owner.

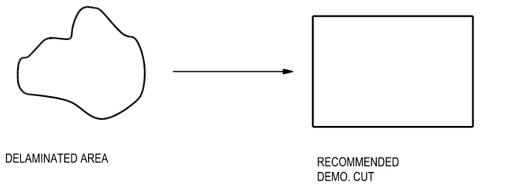
Areas determined to be defective by the Engineer shall be fixed to the satisfaction of the Engineer at the Contractor's sole expense. The Contractor's expense will include all costs for material, equipment, and labor as necessary to correct the defective Work.

INCLUSION OF APPLICABLE PRODUCT SPECIFICATIONS

Specific product specifications regarding storage, preparation, application, and warranty for the materials called out above have been omitted herein for clarity. Such applicable specifications for those products listed herein, or subsequently approved for use by the Engineer, including preparation procedures, inspection requirements as associated with warranty provision, Contractor qualifications and any other requirements specifically required by the producers of such are considered a part of this Specification. Copies of such will be provided to the Building Officials or Owners upon request.



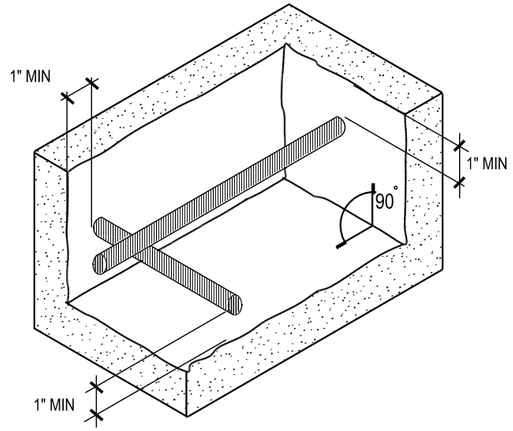
EDGE REPAIR DETAIL



GC IS REQUIRED TO MAKE RIGHT ANGLE CUTS TO THE CONCRETE SURFACES. REPAIR CONFIGURATIONS SHOULD BE KEPT TO SIMPLE BOX SHAPES.

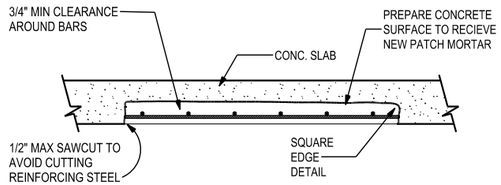
CAUTION! BEFORE STARTING REMOVALS, REVIEW EFFECT OF REMOVALS ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBER AS NECESSARY. PARTICULAR CARE SHALL BE EXERCISED AT SLAB/BEAM CONNECTIONS TO COLUMNS.

PRIOR TO REMOVAL OF CONCRETE
PROPER INSPECTION BY ACG ENGINEERING IS REQUIRED.
PARTICULAR CARE WILL BE EXERCISED IN REMOVAL OF CONC.
ON COLUMNS AND AT POST TENSION CABLES AS NECESSARY



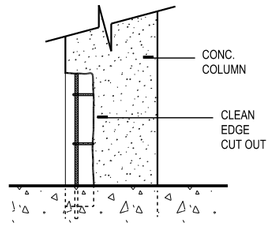
SURFACE CONDITIONS FOR REPAIRS

HORIZONTAL, VERTICAL AND OVERHEAD CONDITIONS



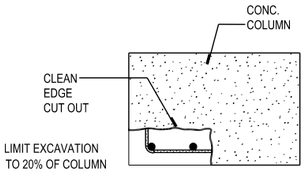
OVERHEAD REPAIR SECTION

1) SMALL OVERHEAD REPAIRS 4 SQ FT OR LESS) SHALL BE MADE W/ A V.O.H. REPAIR MORTAR.
2) OVERHEAD REPAIRS LARGER THE 4 SQ FT SHALL NOT BE MADE W/O E.O.R.ADDRESSING SHORING NEEDS FIRST.
3) OVERHEAD REPAIRS LARGER THE 4 SQ FT SHALL BE MADE W/ REPAIR CONCRETE (MAY REQUIRE FORM AND PUMP)



COLUMN ELEVATION

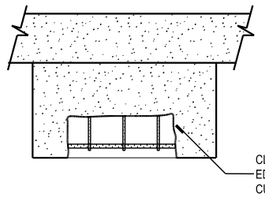
NO REMOVAL OF CONCRETE SHALL COMMENCE AT A COLUMN REPAIR WITHOUT PRIOR APPROVAL FROM THE E.O.R.



LIMIT EXCAVATION TO 20% OF COLUMN CROSS SECTION UNLESS DIRECTED BY ENGINEER

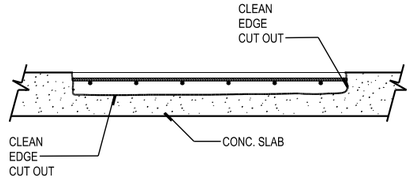
COLUMN SECTION

PLAN VIEW



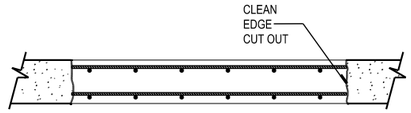
BEAM SECTION

BEAM OR RIB



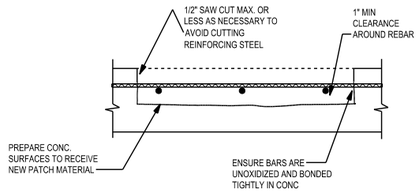
CONC. SLAB AND WALL REPAIR

PARTIAL DEPTH REPAIRS



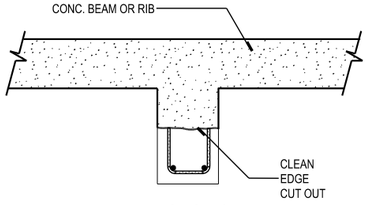
CONC. SLAB AND WALL REPAIR

FULL DEPTH REPAIRS



DEMO. CUTTING DETAIL

TYP PREPARATION



BEAM SECTION

GENERAL NOTES

1. THE SCOPE OF WORK TO BE PERFORMED UNDER THE TERMS OF THIS CONTRACT INCLUDES FURNISHING ALL MATERIALS, LABOR, SERVICES, UTILITIES, PERMIT FEES, SUPERVISION, TOOLS, AND EQUIPMENT REQUIRED OR INCIDENTAL TO THE PROJECT. ALL MEASUREMENTS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND OTHER DIMENSIONS ARE TO BE TAKEN FROM THE ORIGINAL BUILDING PLANS. THE WORK WILL INCLUDE BUT IS NOT NECESSARILY LIMITED TO THE FOLLOWING ELEMENTS:

GOVERNING CODE: THE FLORIDA BUILDING CODE, 2023 8TH EDITION / ASCE 7-22.

2. REFER TO THESE DRAWINGS, FOR DETAILS OF SCOPE OF WORK, MATERIALS, & GENERAL REPAIR PROCEDURES.
3. REPAIRS SHALL BE IN ACCORDANCE WITH REPAIR SPECIFICATIONS & STANDARDS SET FORTH BY THE INTERNATIONAL CONCRETE REPAIR INSTITUTE (ICRI). SEE GENERAL NOTES BELOW.
4. REMOVE LOOSE OR DELAMINATED CONCRETE ABOVE OXIDIZED REINFORCING STEEL. ONCE INITIAL REMOVALS ARE MADE, PROCEED WITH THE UNDERCUTTING OF ALL EXPOSED OXIDIZED (CORRODED) BARS. UNDERCUTTING WILL PROVIDE CLEARANCE FOR UNDER BAR CLEANING, FULL BAR CIRCUMFERENCE BONDING TO SURROUNDING CONCRETE, & WILL SECURE THE PATCH STRUCTURALLY.
5. PROVIDE MINIMUM 1" CLEARANCE BETWEEN EXPOSED BARS & SURROUNDING CONCRETE
6. CONCRETE REMOVALS SHALL EXTEND ALONG THE BARS TO LOCATIONS ALONG THE BAR FREE OF BOND INHIBITING CORROSION, & WHERE THE BAR IS WELL BONDED TO SURROUNDING CONCRETE. MINIMUM EXPOSURE OF CLEAN STEEL SHALL BE 2" OF BAR.
7. IF UNOXIDIZED REINFORCING STEEL IS EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE BAR'S BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR & CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR SHALL BE REQUIRED.
8. ANY REINFORCEMENT WHICH IS LOOSE SHALL BE SECURED IN PLACE BY TYING TO OTHER SECURED BARS OR BY OTHER APPROVED METHODS.
7. REMOVE DELAMINATED CONCRETE, UNDERCUT REINFORCING STEEL (REFER TO REINFORCING STEEL UNDERCUTTING GUIDELINE). REMOVE ADDITIONAL CONCRETE AS REQUIRED TO PROVIDE MINIMUM REQUIRED THICKNESS OF REPAIR MATERIAL.
8. AT EDGE LOCATIONS PROVIDE EITHER METHOD A OR METHOD B RIGHT ANGLE CUTS. AVOID FEATHER EDGES. FOR SHOTCRETE REPAIRS REFER TO ACI506 EDGE PREPARATION GUIDELINES PATCH CONFIGURATIONS SHOULD BE KEPT AS SIMPLE AS POSSIBLE. FOR EXAMPLE:
9. AFTER REMOVALS & EDGE CONDITIONING ARE COMPLETE, REMOVE BOND INHIBITING MATERIALS (DIRT, CONCRETE SLURRY, LOOSELY BONDED AGGREGATES) BY ABRASIVE METHOD. CHECK THE SURFACES AFTER CLEANING TO ENSURE THAT SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE, OR THAT ADDITIONAL DELAMINATIONS ARE NOT PRESENT.
10. PRIME AREAS TO RECEIVE REPAIR MORTAR WITH BONDING AGENT PER SPECIFICATION.
11. PATCHING MATERIAL TO BE POLYMER MODIFIED REPAIR MORTAR PER E.O.R. APPROVAL.
12. MOBILIZE EQUIPMENT AND MATERIALS AS NECESSARY IN LOCATIONS APPROVED BY THE OWNER. CARE SHOULD BE TAKEN TO MINIMIZE IMPACT ON TRAFFIC AND IMPEDANCE ON COMMUNAL AREAS OF THE BUILDING.
13. PROTECT BUILDING COMPONENTS, SUCH AS FOUNTAINS, CURBS, WINDOWS, RAILINGS, LIGHT FIXTURES, ETC. FROM POTENTIAL DAMAGE
14. EOR SHALL PREPARE A LIFE SAFETY EGRESS/ PROTECTION PLAN FOR REVIEW AND ACCEPTANCE BY CITY OFFICIALS IF APPLICABLE. THE EGRESS PLAN SHALL DELINEATE ALL NECESSARY SIGNAGE, BARRICADES, PROTECTION, ETC. AS NECESSARY TO COMPLY WITH THE FLORIDA BUILDING CODE
15. INSTALL SHORING WHERE NECESSARY, OR AS DIRECTED BY THE ENGINEER, PRIOR TO ANY CONCRETE DEMOLITION. BALCONY AND CATWALK SHORING FOR COLUMN EXCAVATION HAS BEEN INCLUDED HEREIN. SHORING TO REMAIN IN PLACE UNTIL CONCRETE HAS REACHED 95% OF ITS DESIGN STRENGTH OR UNTIL SPECIFIC APPROVAL FROM THE ENGINEER IN WRITING.
16. ANY SPECIAL SHORING REQUIRED FOR TOTAL COLUMN REPLACEMENT WILL BE PROVIDED BY E.O.R.
17. REPAIR DETERIORATED CONCRETE SLABS, BEAMS, COLUMNS, EDGES, WINDOWSILLS, WALLS, COOLING TOWER BEAMS AND EXTERIOR STAIRCASE IN LOCATIONS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THESE SPECIFICATIONS. ENGINEER WILL ADVISE AND APPROVE THE LIMITS AND EXTENTS OF REPAIR EXCAVATIONS DURING CONSTRUCTION INSPECTIONS. USE ONLY MATERIALS PER THESE DRAWINGS.
18. SPLICING AND REPLACEMENT OF POST-TENSIONING CABLES, IN LOCATIONS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIFICATIONS. DEMOLITION OF THESE AREAS HAVE TO BE DONE BY A QUALIFIED POST TENSION COMPANY.
19. RESTORATION OF AND/OR REPLACEMENT OF POST-TENSIONING TENDON ANCHORAGES INCLUDING, AS NECESSARY, ANCHOR PLATES, ANCHOR WEDGES, TENDON ENDS, AND STRESSING POCKETS GROUT "PLUGS." (IF APPLICABLE)
20. APPLY STUCCO FINISH TO MATCH EXISTING FINISH FOR ALL REPAIRED AREAS. NOTE: THIS SHOULD BE INCLUDED IN LINE ITEM REPAIR COST. CONTRACTOR MUST FEATHER UP STUCCO REPAIRS TO TRY TO CAMOUFLAGE THE REPAIRS AS BEST AS POSSIBLE, A SAMPLE AREA MUST BE DONE AS A SAMPLE FOR BOARD APPROVAL AND GUIDE FOR ALL OTHER REPAIRED AREAS.
21. INSPECT FOR WATER PONDING AND PROVIDE FOR POSITIVE DRAINAGE ON ALL REPAIR AREAS AS REQUIRED
22. REMOVAL AND REINSTALLATION OF RAILINGS ALONG THE EDGES, AS REQUIRED BY AND IN ACCORDANCE WITH REQUIRED REPAIRS IN LOCATIONS DIRECTED BY THE ENGINEER AND IN ACCORDANCE WITH THE SPECIFICATIONS.
23. APPLICATION OF STUCCO FINISH TO MATCH EXISTING FOR ALL REPAIRED AREAS. NOTE: THIS SHOULD BE INCLUDED IN LINE ITEM REPAIR COST.
24. INSTALLATION OF FLOOR COVERINGS AND ACCORDINGLY WITH DESIGN APPROVED BY THE BOARD AND UNIT OWNER(S).
25. REPLACE LANDSCAPING DAMAGED BECAUSE OF CONTRACTOR'S PERFORMANCE OF WORK.
26. PAINTING SPECIFICATIONS PROVIDED BY MANUFACTURER AND APPROVED BY THE ASSOCIATION.
27. CLEAN AND REMOVE DEBRIS FROM THE SITE PER THIS SPECIFICATION
28. IF REPAR HAS LOST GRESSTER THEN 10% OF ITS CROSS SECTION, REBAR REPLACED OR SPLICED W/ NEW BAR EQUAL IN SIZE. REPLACED OR SPLICED REBAR TO EXTENS A MINIMUM OF 40 BAR DIA. (DB) IN EITHER DIRECTION OF DETERIORATED STEEL. NEW BARS TO BE WIRE TIRED TO EXISTING BARS. ALL REPLACEMENT REINFORCING STEEL TO BE GRADE 60.

NOTES:

ALL REPAIRS TO BE COMPLETED AT AREAS AS MARKED BY PROJECT ENGINEER & IN ACCORDANCE WITH PROJECT SPECIFICATIONS WITH REGARD TO APPROVED MATERIALS & METHODS.

ALL REPAIRS ARE TO BE INSPECTED & APPROVED BY ENGINEER PRIOR TO CONCRETE PLACEMENT.THIS INCLUDES BUT, IS NOT LIMITED TO, LIMITS OF EXCAVATION, CLEANING OF DAMAGED STEEL, LAPPING / REPLACEMENT OF STEEL, APPLICATION OF REBAR COATING, PLACEMENT OF NEW CONCRETE, ETC. INSPECTIONS MUST BE SCHEDULED WITH THE ENGINEER A MINIMUM OF 24-HOURS IN ADVANCE.

ALL CONCRETE COMPRESSIVE STRENGTH TESTS TO BE PERFORMED BY A CERTIFIED LABORATORY. ALL TESTS TO BE SIGNED & SEALED BY A PROFESSIONAL ENGINEER AND SUBMITTED TO BOTH THE ENGINEER OF RECORD & THE BUILDING DEPARTMENT.

SHORING TO BE PLACED AS ENGINEER DIRECTS, BASED ON LIMITS OF EXCAVATION EXPECTED IN EACH AREA OF REPAIR.

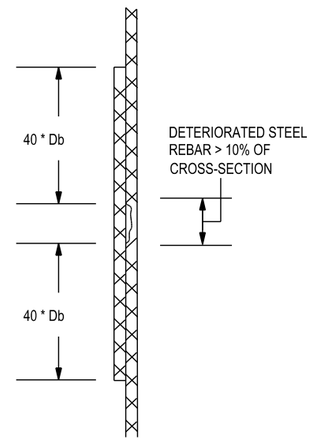
IF REBAR HAS LOST GREATER THAN 10% OF ITS CROSS SECTION, REBAR SHALL BE REPLACED OR SPLICED WITH NEW PIECE EQUAL IN SIZE. REPLACED OR SPLICED REBAR TO EXTEND A MINIMUM OF 40 BAR DIAMETERS (DB) IN EITHER DIRECTION OF DETERIORATED STEEL. NEW BAR TO BE WIRE TIED TO OLD REBAR.

STANDARD TO BE FOLLOWED DURING THE PROJECT: 1- FLORIDA BUILDING CODE (EXISTING), 2- CONCRETE REPAIR MANUAL (ICRI AND ACI)

AMERICAN CONCRETE INSTITUTE: ACI437R-STRENGTH EVALUATION OF EXISTING CONCRETE BUILDINGS, ACI 201.1R GUIDE OF MAKING A CONDITION SURVEY OF CONCRETE SERVICE, ACI 228.1R IN PLACE METHODS TO ESTIMATE CONCRETE STRENGTH, ACI 546R CONCRETE REPAIR GUIDE, ACI 503.4 STANDARD SPECIFICATIONS FOR REPAIRING CONCRETE WITH EPOXY MORTARS

MORTARS: ACI 506.2 SPECIFICATIONS OF CONCRETE, ICRI GUIDELINE NO. 03733 GUIDE FOR SELECTING & SPECIFYING MATERIALS FOR REPAIR CONCRETE SURFACES, ICRI GUIDELINE NO. 03731 GUIDE FOR SELECTING APPLICATION METHODS FOR REPAIRS OF CONCRETE SURFACES, ICRI GUIDELINE NO. 03730 GUIDE FOR SURFACE PREPARATION FOR REPAIR OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION

IN THE EVENT THAT THE EXISTING REINFORCING BARS NEED TO BE REPLACED
GC IS TO REPLACE EXISTING BARS WITH EQUAL SIZE AND SPACING
ALL REPLACEMENT REINFORCING TO BE GRADE 60 DEFORMED
REINFORCING BARS



REBAR SPLICE DETAIL

ACG
Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME

DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

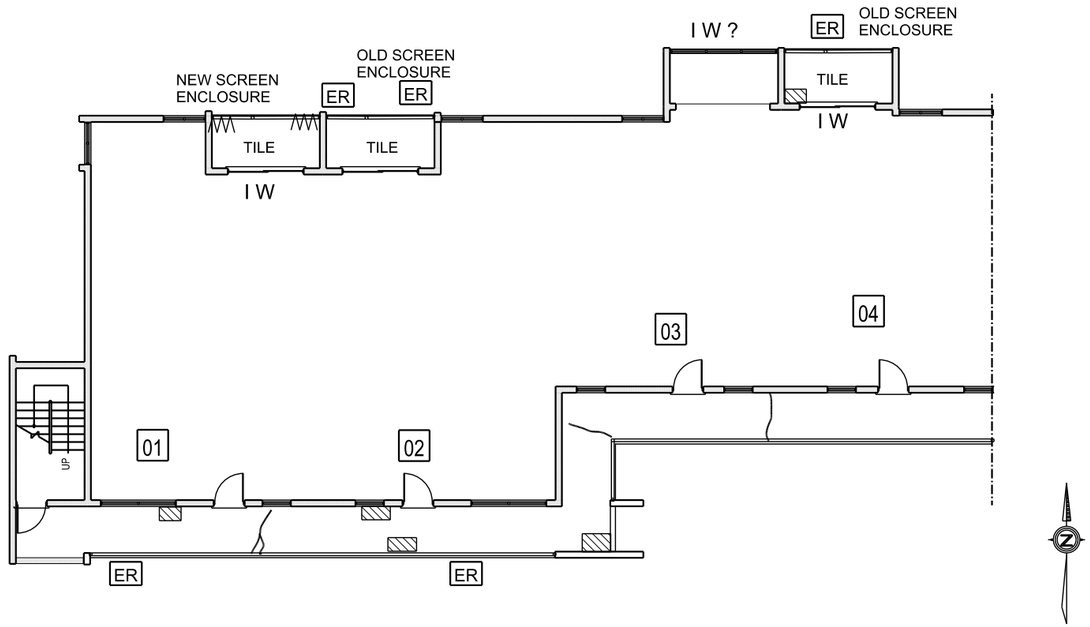
DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-13

SEAL :

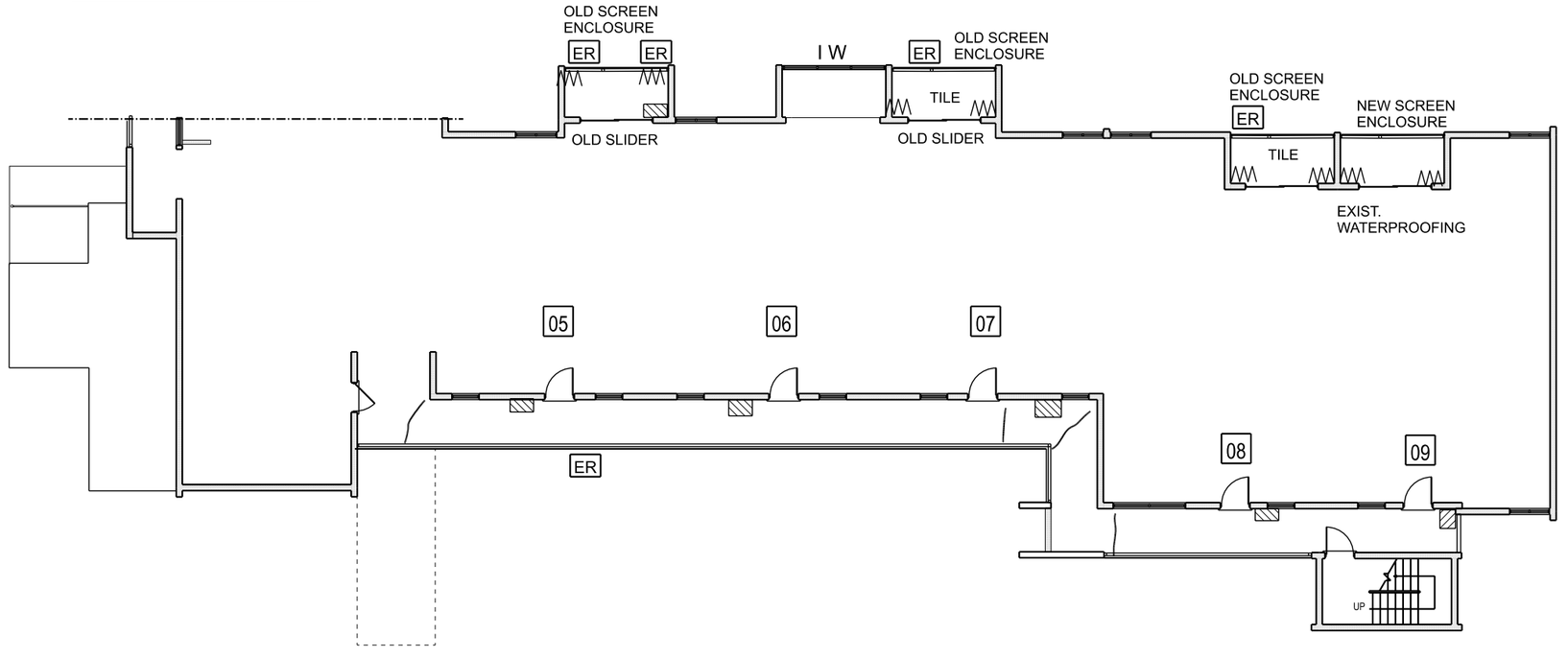
HENRY RAND P.E.
PE # 82394 SI LTD.
hr@shorelinestructural.com



P H FLOOR PLAN

LEGEND

EJ — EXPANSION JOINT	PARTIAL DEPTH REPAIR
BR — BEAM REPAIR	TILE DELAMINATION
COL. REPAIR	PP — POST POCKET REPAIR
WS — WALL STUCCO REPAIR	RUST SPOTS
ER — EDGE REPAIR	HURRICANE SHUTTERS
OHR — OVER HEAD REPAIR	I W — IMPACT GL. UNIT
	FLOOR CRACK



P H FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME

DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-12

SEAL :

HENRY RAND P.E.
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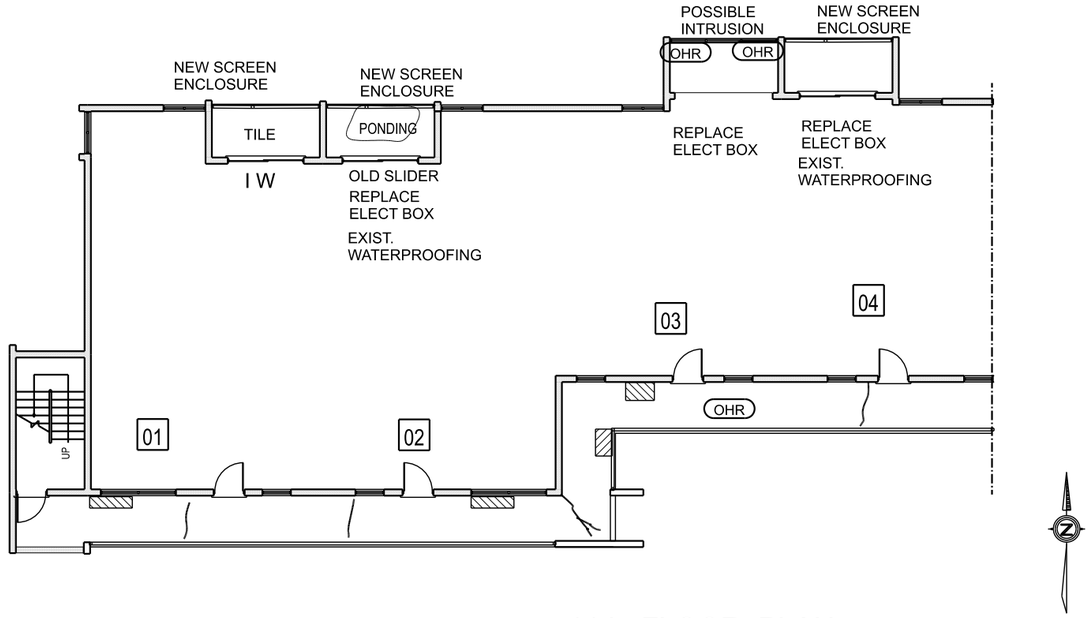
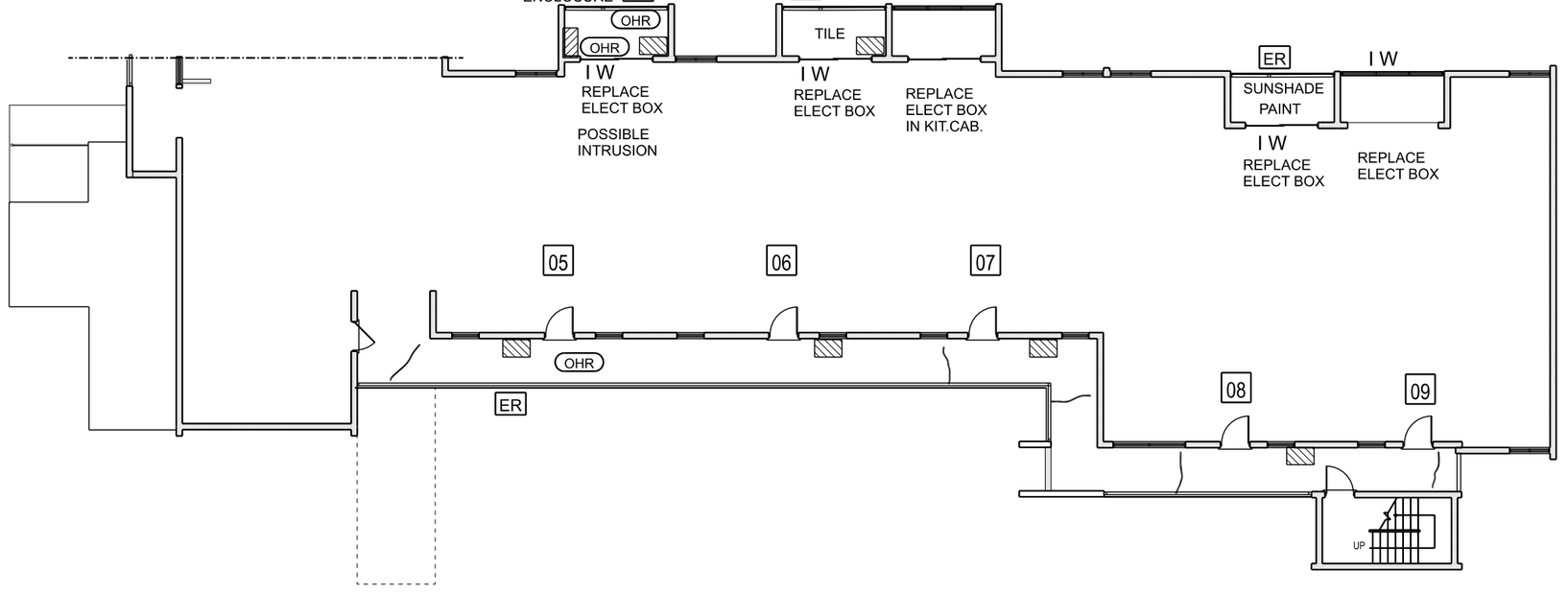
hr@shorelinestructural.com



11th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT		PARTIAL DEPTH REPAIR
BR	BEAM REPAIR		TILE DELAMINATION
	COL. REPAIR	PP	POST POCKET REPAIR
WS	WALL STUCCO REPAIR		RUST SPOTS
ER	EDGE REPAIR		HURRICANE SHUTTERS
OHR	OVER HEAD REPAIR	I W	IMPACT GL. UNIT
			FLOOR CRACK



11th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS
1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-11

SEAL :

HENRY RAND P.E.
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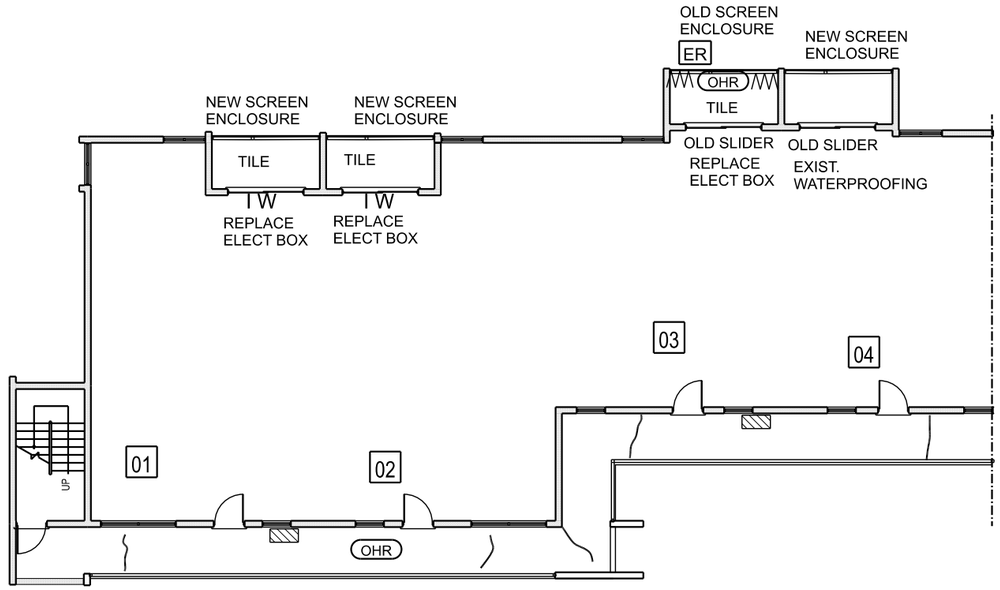
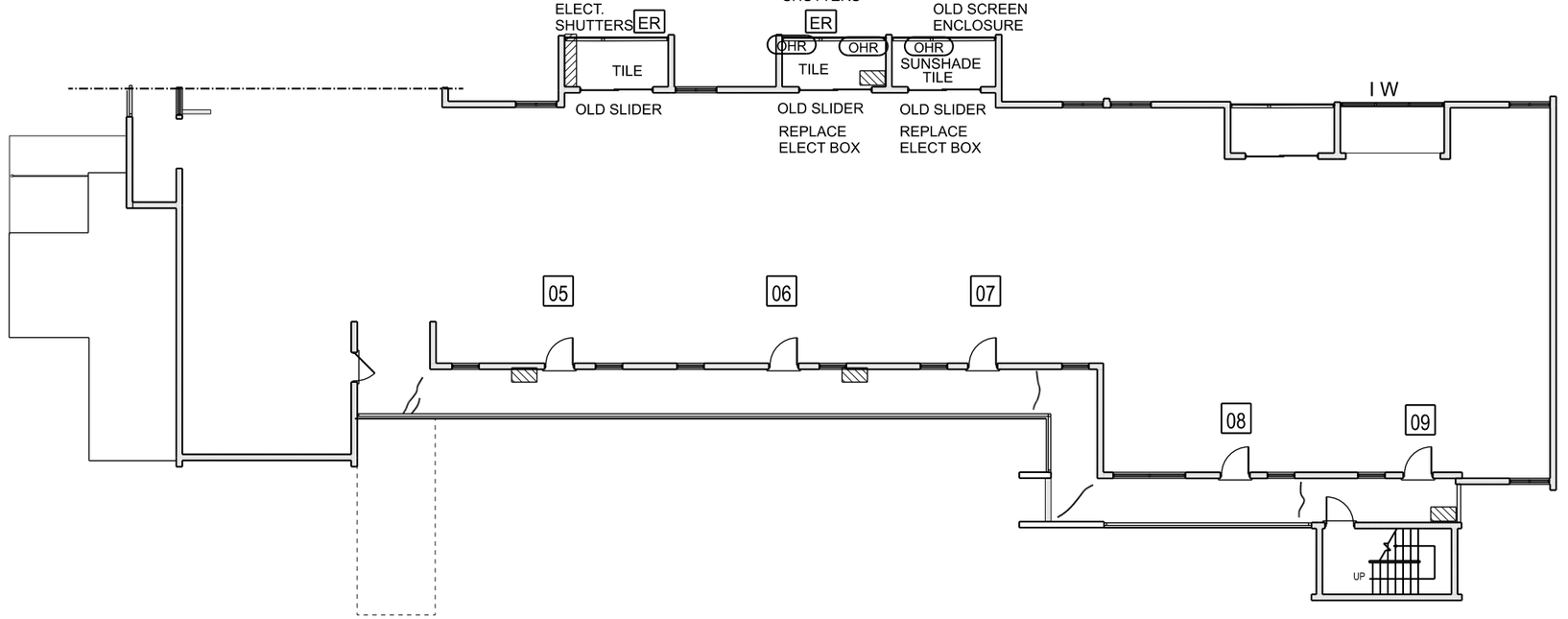


10th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT		PARTIAL DEPTH REPAIR
BR	BEAM REPAIR		TILE DELAMINATION
	COL. REPAIR	PP	POST POCKET REPAIR
WS	WALL STUCCO REPAIR		RUST SPOTS
ER	EDGE REPAIR		HURRICANE SHUTTERS
OHR	OVER HEAD REPAIR	I W	IMPACT GL. UNIT
			FLOOR CRACK



10th FLOOR PLAN

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS
1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024
DATE 06/22/24
DWG. BY: S.L.S.
PLAN : S-10
SEAL :

HENRY RAND P.E.
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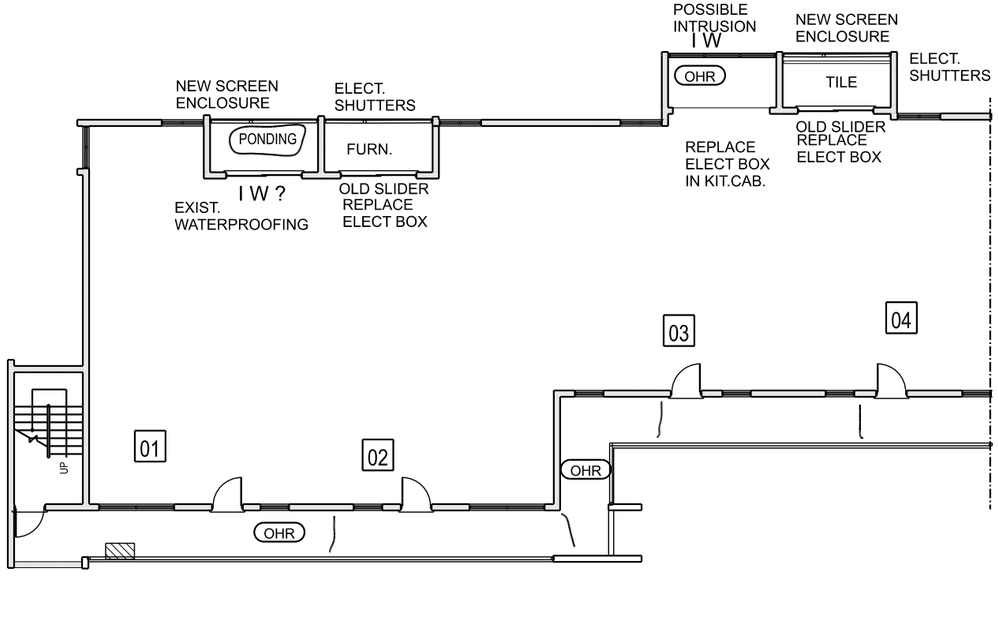
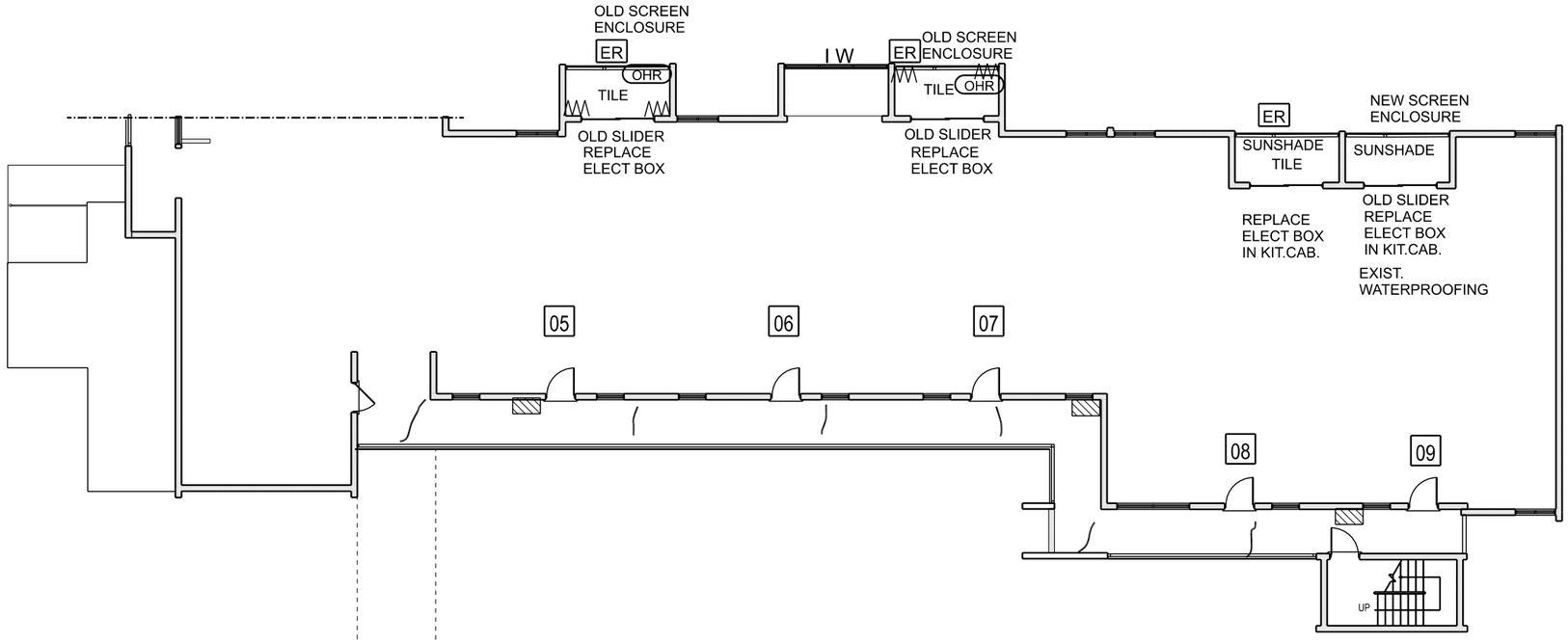


9th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT
BR	BEAM REPAIR
	COL. REPAIR
WS	WALL STUCCO REPAIR
ER	EDGE REPAIR
OHR	OVER HEAD REPAIR
	PARTIAL DEPTH REPAIR
	TILE DELAMINATION
PP	POST POCKET REPAIR
●	RUST SPOTS
	HURRICANE SHUTTERS
I W	IMPACT GL. UNIT
	FLOOR CRACK



9th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

NAME

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-9

SEAL :

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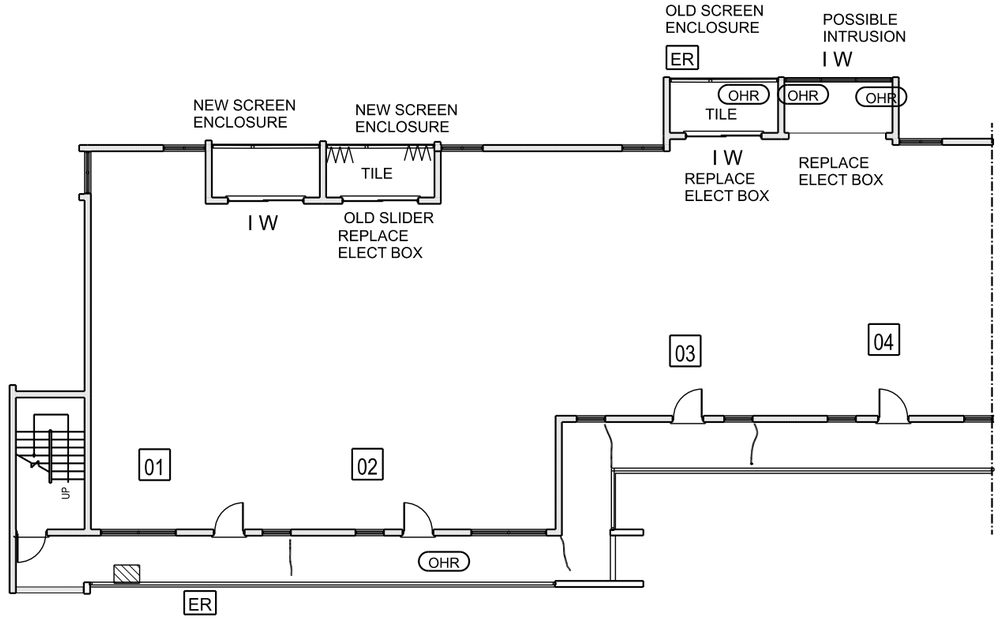
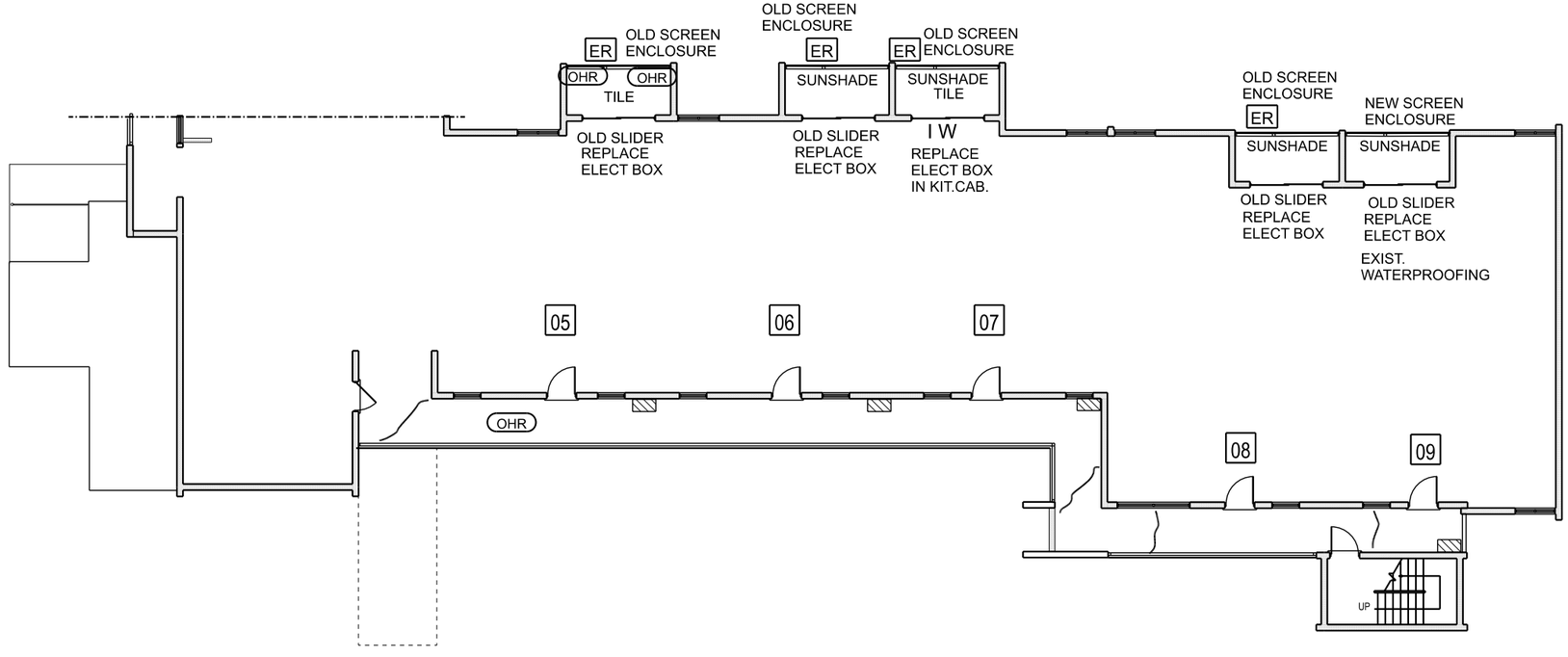


8th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT		PARTIAL DEPTH REPAIR
BR	BEAM REPAIR		TILE DELAMINATION
	COL. REPAIR	PP	POST POCKET REPAIR
WS	WALL STUCCO REPAIR	●	RUST SPOTS
ER	EDGE REPAIR		HURRICANE SHUTTERS
OHR	OVER HEAD REPAIR	I W	IMPACT GL. UNIT
			FLOOR CRACK



8th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-8

SEAL :

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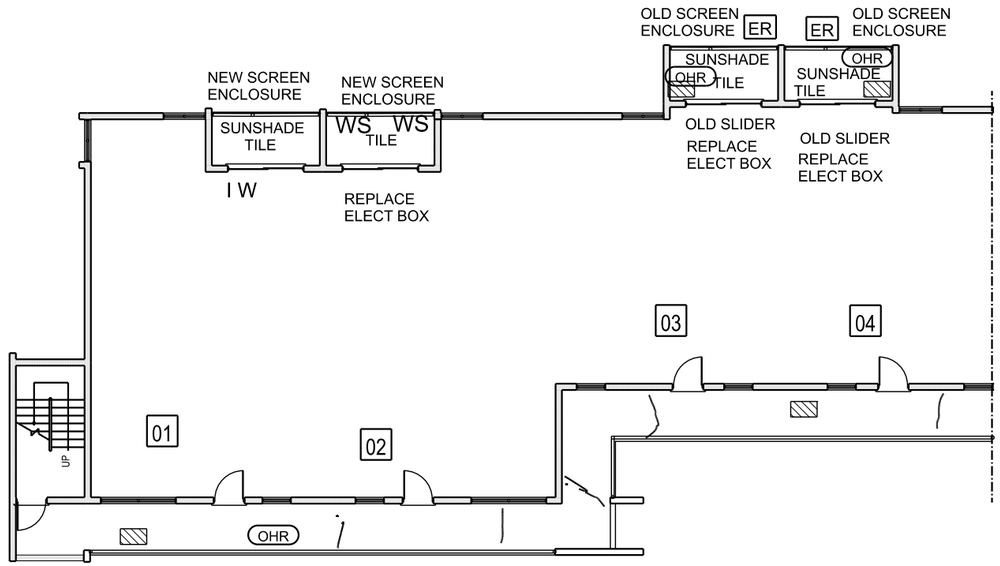
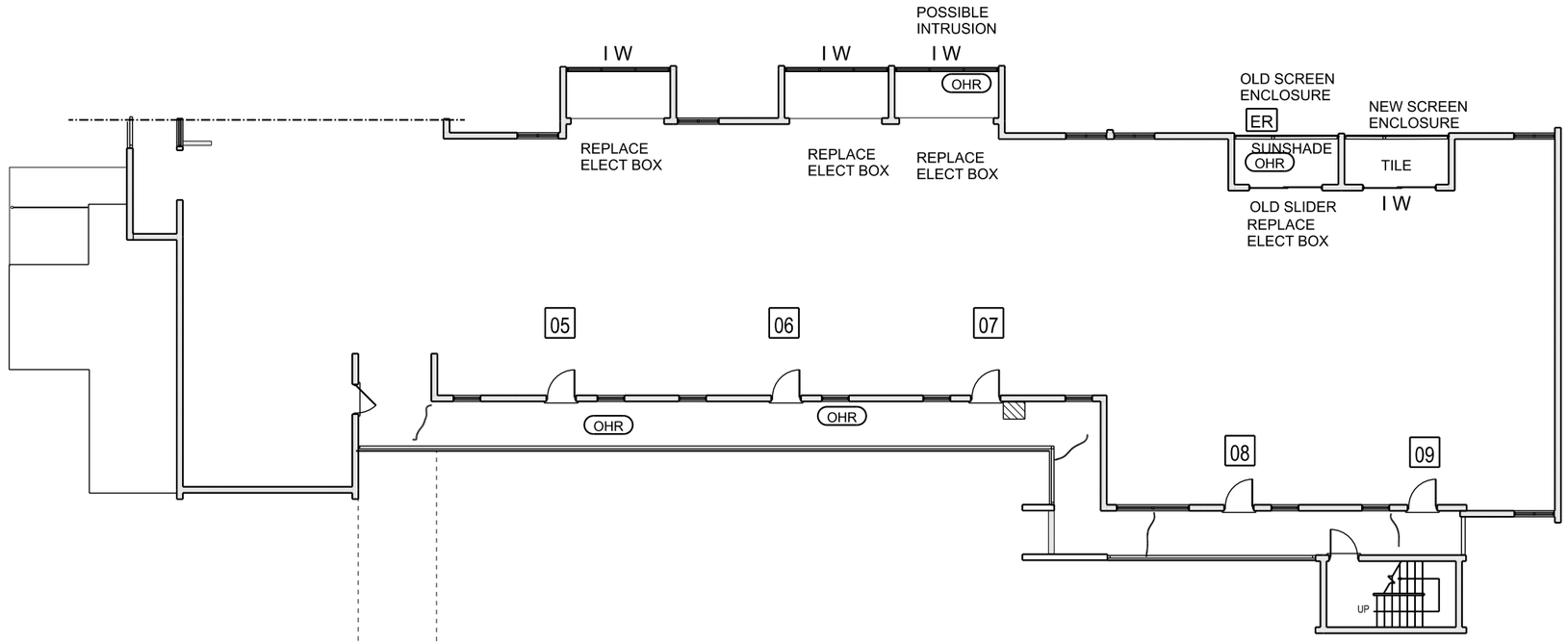


7th FLOOR PLAN

LEGEND

EJ — EXPANSION JOINT	PARTIAL DEPTH REPAIR
BR — BEAM REPAIR	TILE DELAMINATION
COL. REPAIR	PP — POST POCKET REPAIR
WS — WALL STUCCO REPAIR	RUST SPOTS
ER — EDGE REPAIR	HURRICANE SHUTTERS
OHR — OVER HEAD REPAIR	I W — IMPACT GL. UNIT
	FLOOR CRACK



7th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-7

SEAL :

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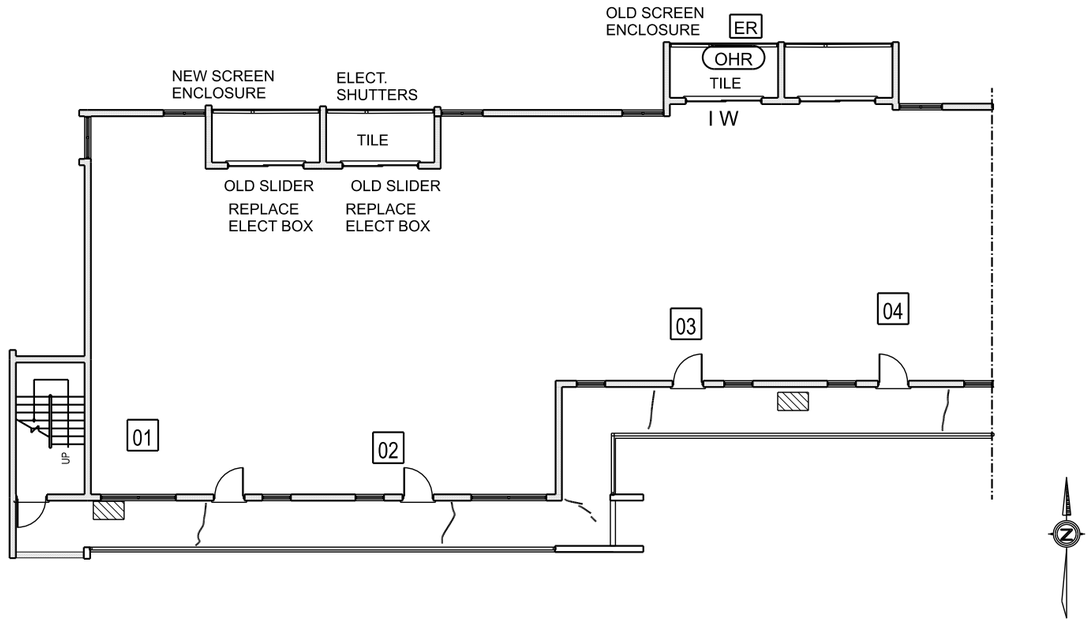
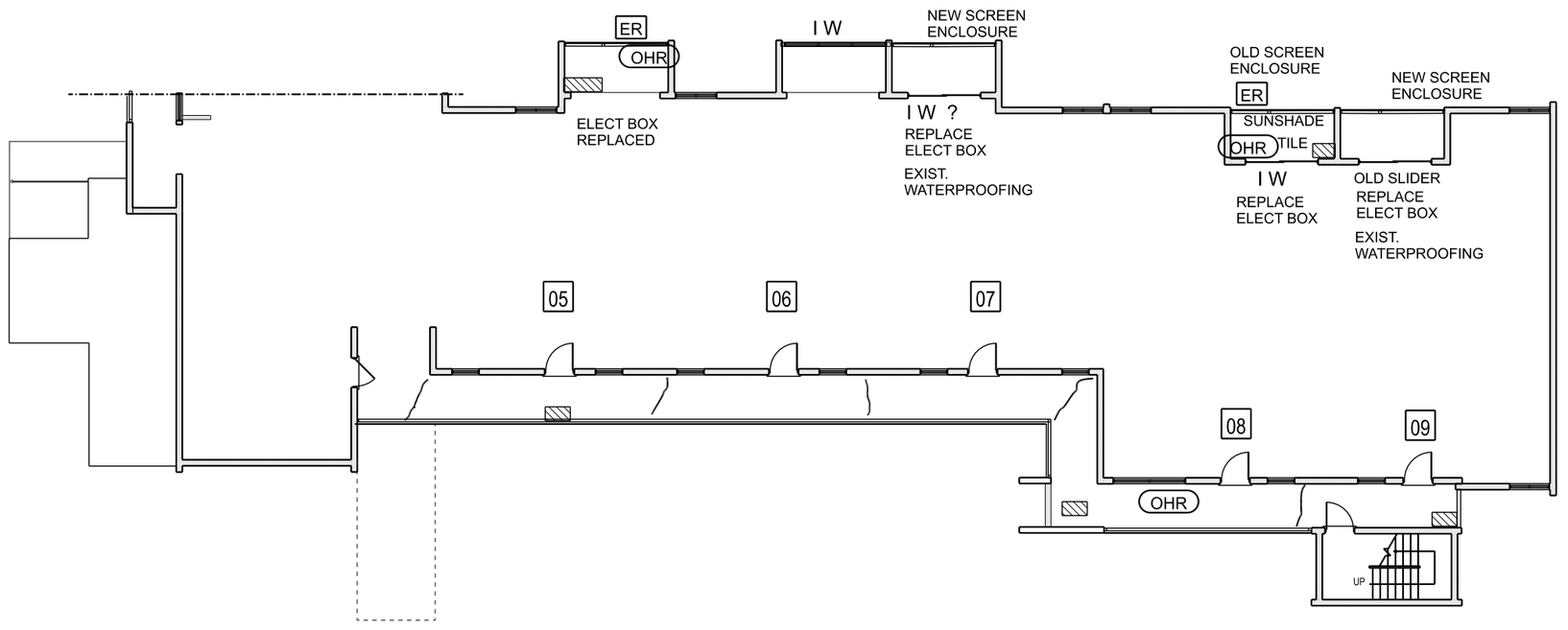


6th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT
BR	BEAM REPAIR
	COL. REPAIR
WS	WALL STUCCO REPAIR
ER	EDGE REPAIR
OHR	OVER HEAD REPAIR
	PARTIAL DEPTH REPAIR
	TILE DELAMINATION
PP	POST POCKET REPAIR
●	RUST SPOTS
	HURRICANE SHUTTERS
I W	IMPACT GL. UNIT
	FLOOR CRACK



6th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-6

SEAL :

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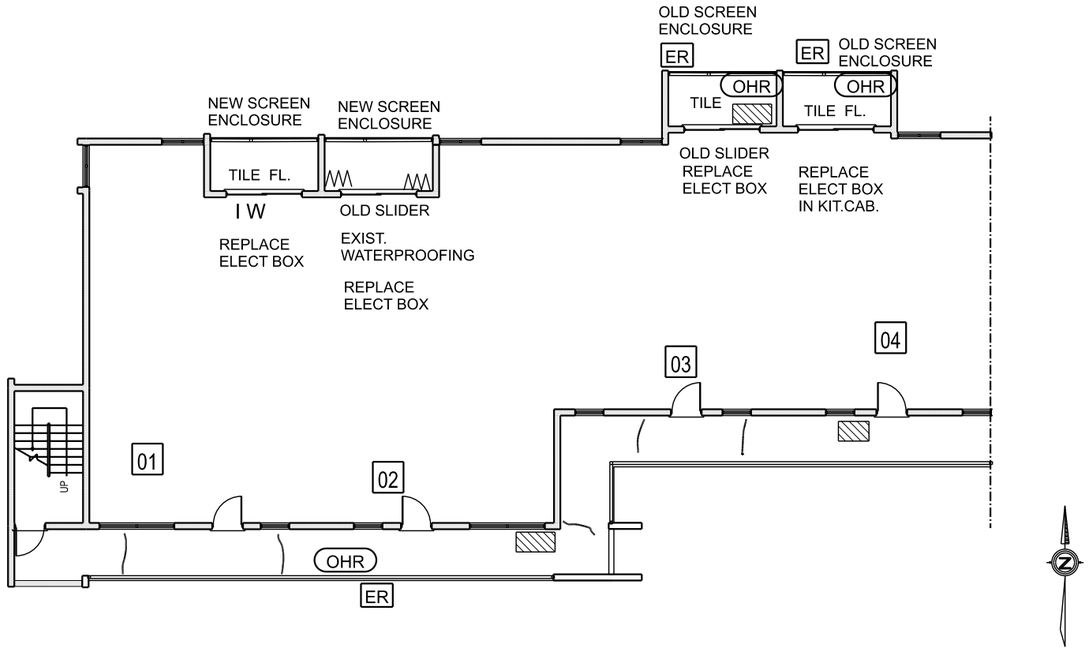
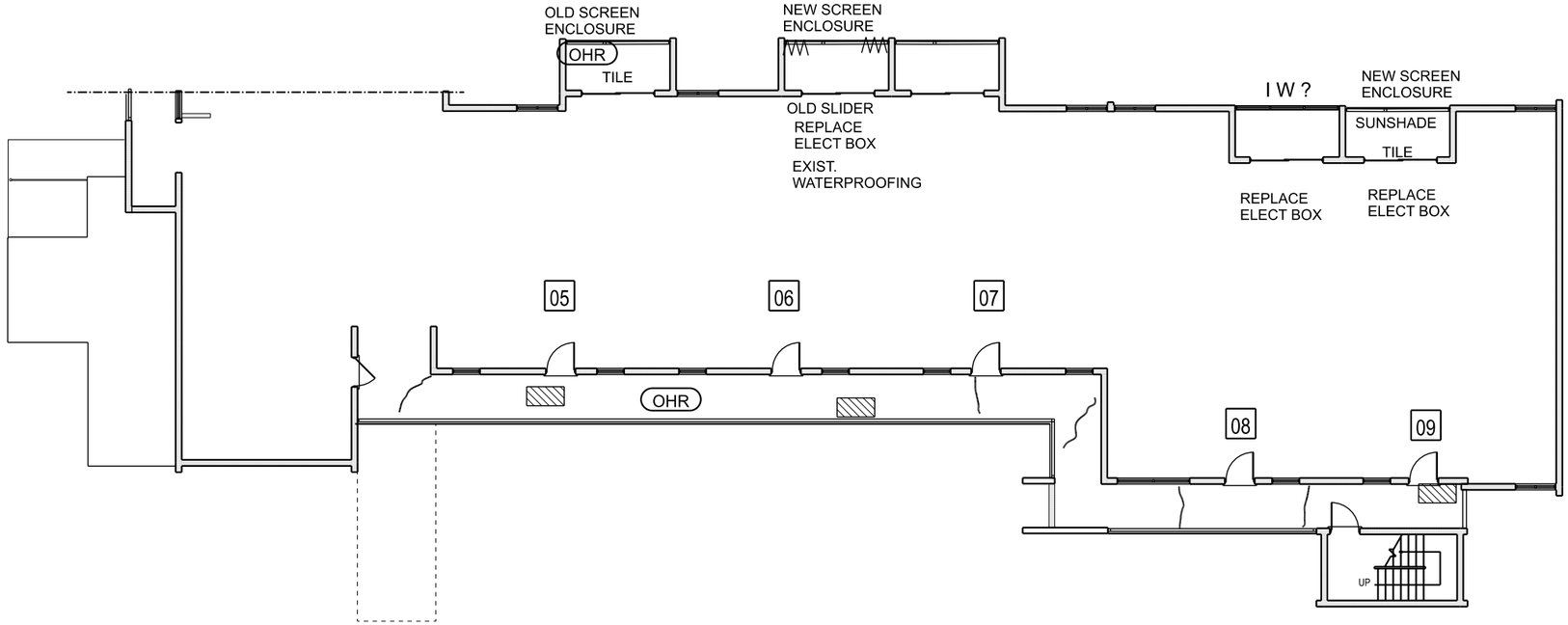


5th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT		PARTIAL DEPTH REPAIR
BR	BEAM REPAIR		TILE DELAMINATION
	COL. REPAIR	PP	POST POCKET REPAIR
WS	WALL STUCCO REPAIR	●	RUST SPOTS
ER	EDGE REPAIR		HURRICANE SHUTTERS
OHR	OVER HEAD REPAIR	I W	IMPACT GL. UNIT
			FLOOR CRACK



5th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-5

SEAL :

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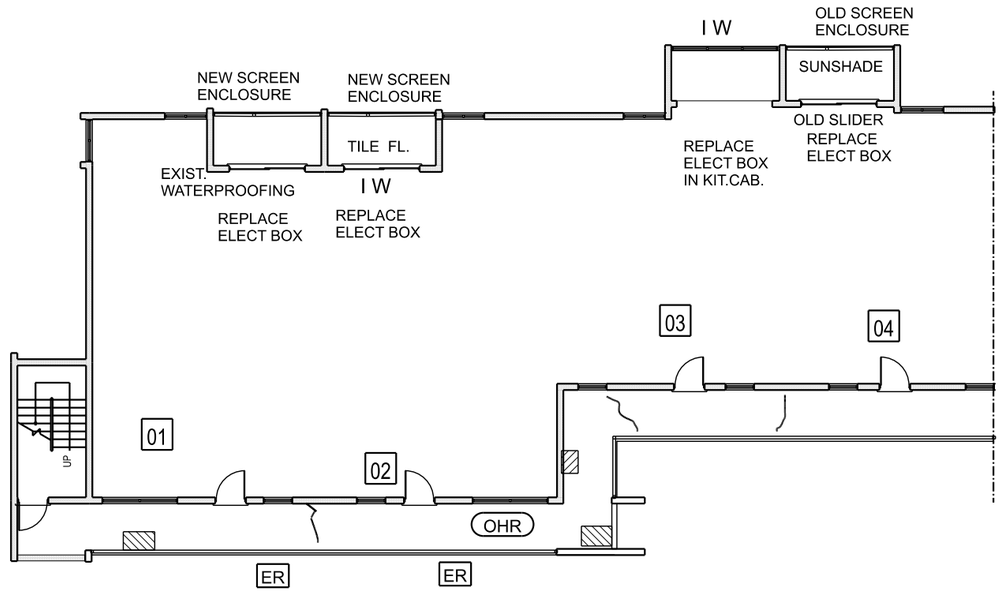
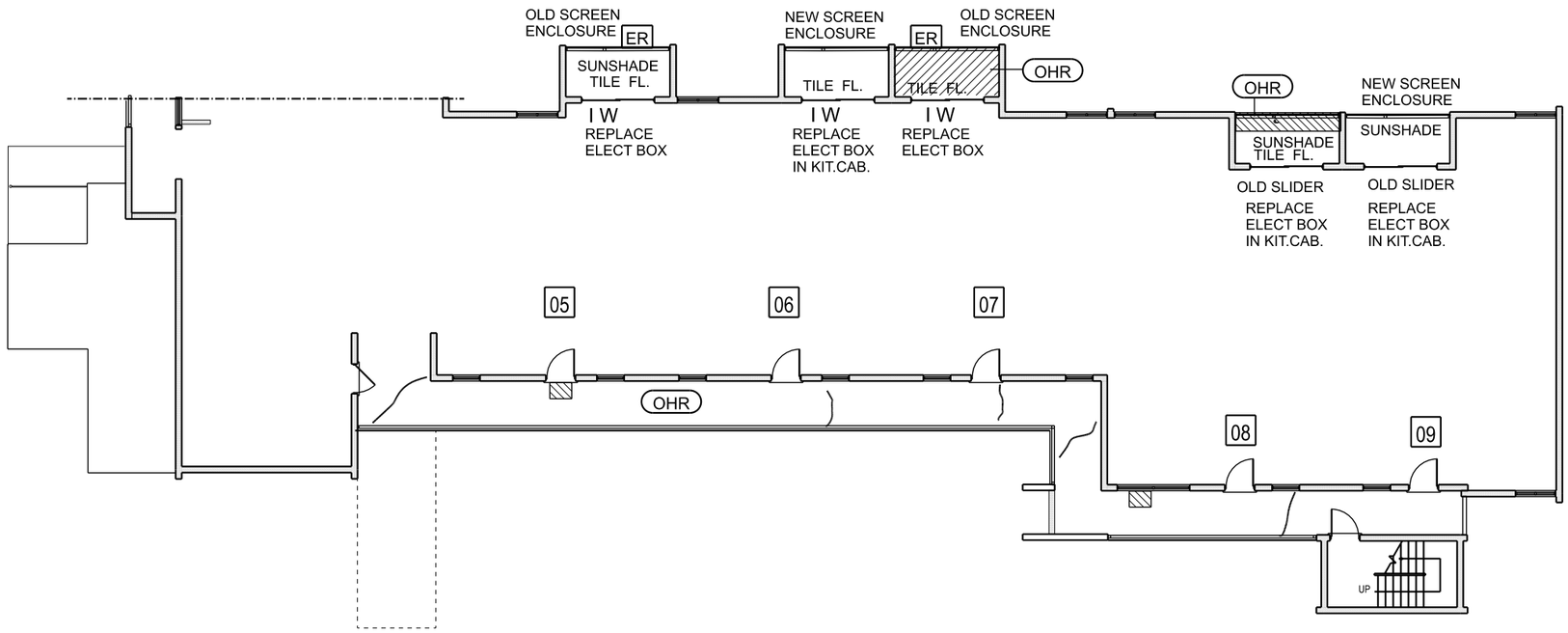


4th FLOOR PLAN

LEGEND

EJ	EXPANSION JOINT
BR	BEAM REPAIR
	COL. REPAIR
WS	WALL STUCCO REPAIR
ER	EDGE REPAIR
OHR	OVER HEAD REPAIR
	PARTIAL DEPTH REPAIR
	TILE DELAMINATION
PP	POST POCKET REPAIR
●	RUST SPOTS
	HURRICANE SHUTTERS
I W	IMPACT GL. UNIT
	FLOOR CRACK



4th FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME

DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-4

SEAL :

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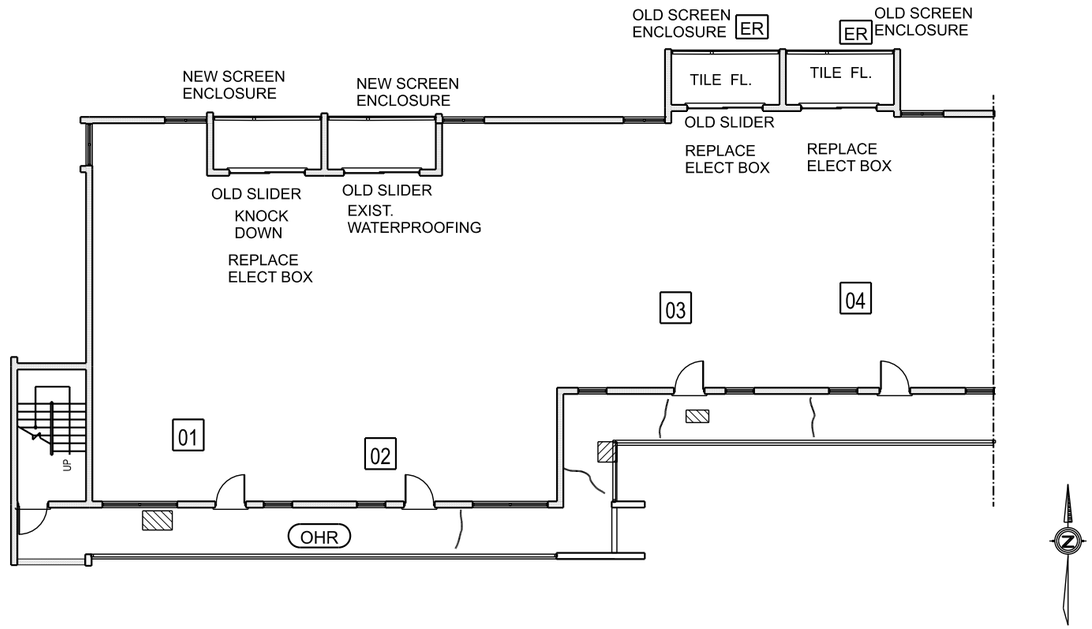
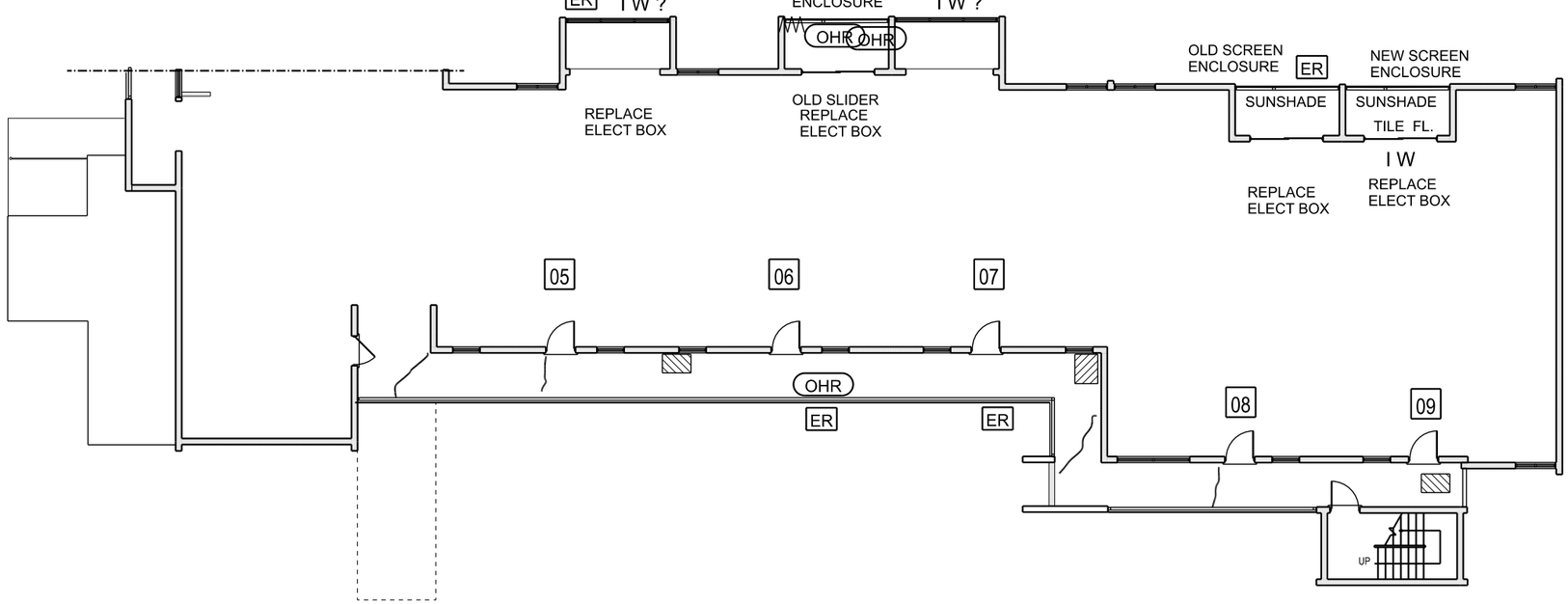


3rd FLOOR PLAN

LEGEND

- EJ — EXPANSION JOINT
- BR — BEAM REPAIR
- COL. REPAIR
- WS — WALL STUCCO REPAIR
- ER — EDGE REPAIR
- OHR — OVER HEAD REPAIR
- PARTIAL DEPTH REPAIR
- TILE DELAMINATION
- PP — POST POCKET REPAIR
- RUST SPOTS
- HURRICANE SHUTTERS
- I W — IMPACT GL. UNIT
- FLOOR CRACK



3rd FLOOR PLAN

ACG
Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME

DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-3

SEAL :

HENRY RAND P.E.
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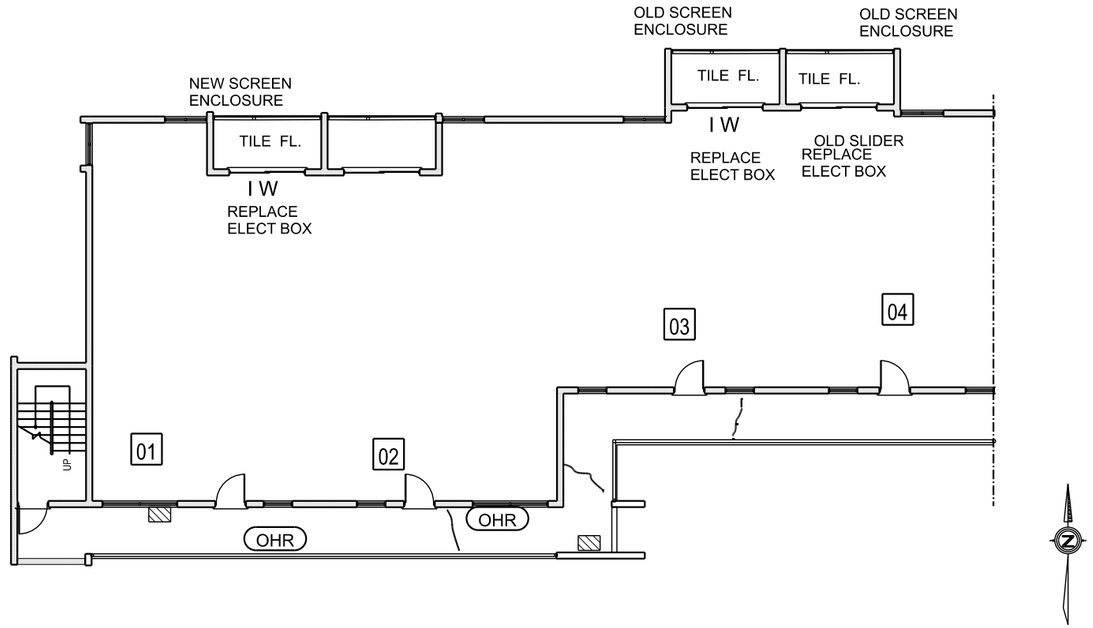
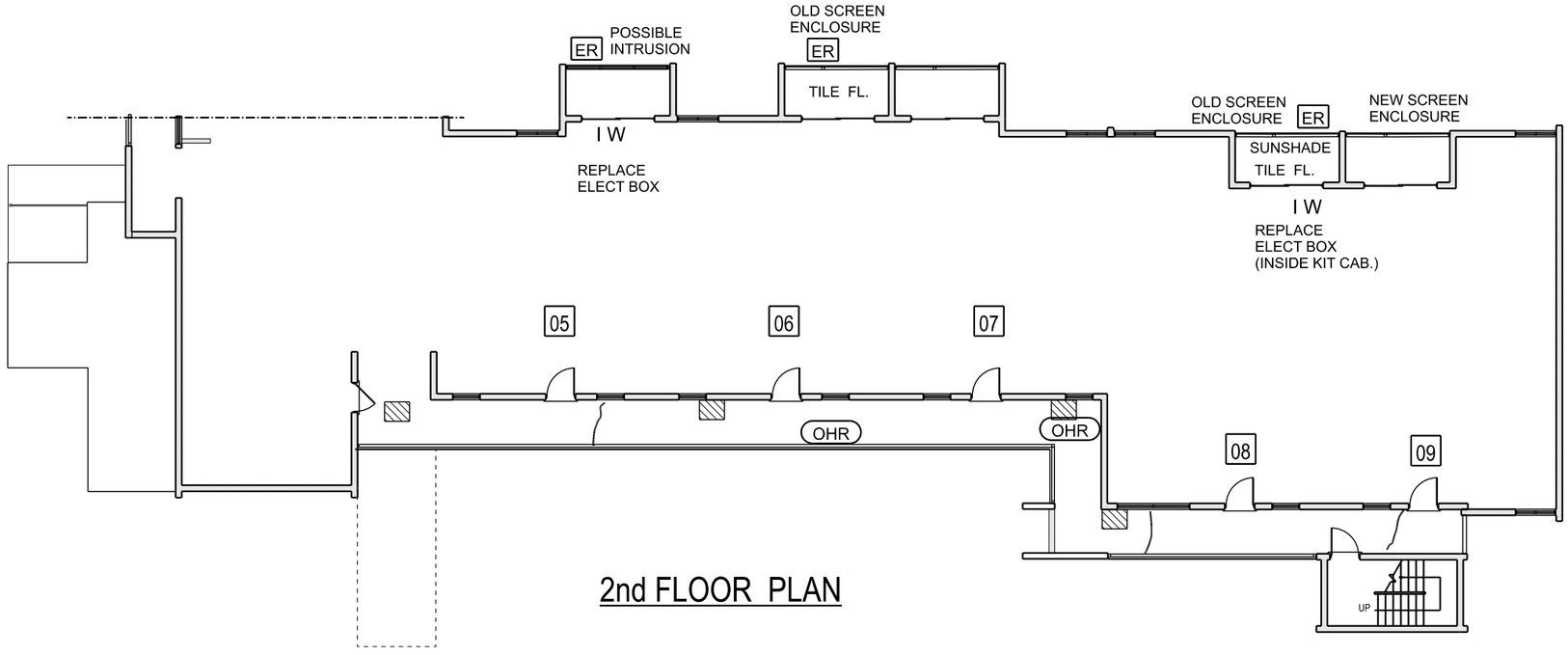


2nd FLOOR PLAN

LEGEND

EJ — EXPANSION JOINT	PARTIAL DEPTH REPAIR
BR — BEAM REPAIR	TILE DELAMINATION
COL. REPAIR	PP — POST POCKET REPAIR
WS — WALL STUCCO REPAIR	RUST SPOTS
ER — EDGE REPAIR	HURRICANE SHUTTERS
OHR — OVER HEAD REPAIR	I W — IMPACT GL. UNIT
	FLOOR CRACK



2nd FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

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NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-2

SEAL :

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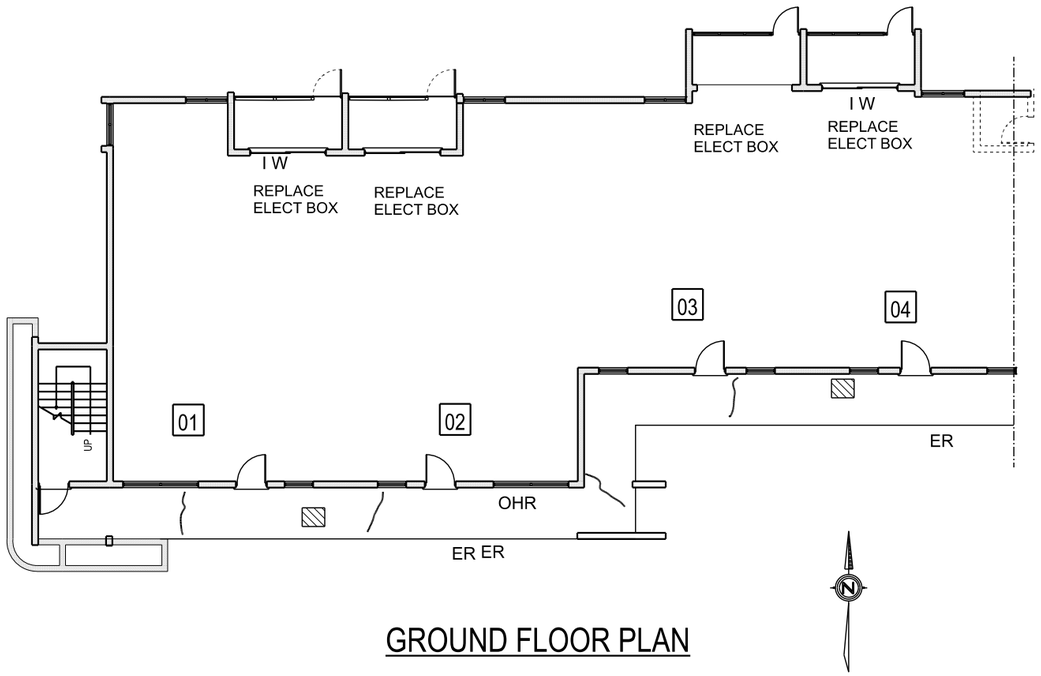
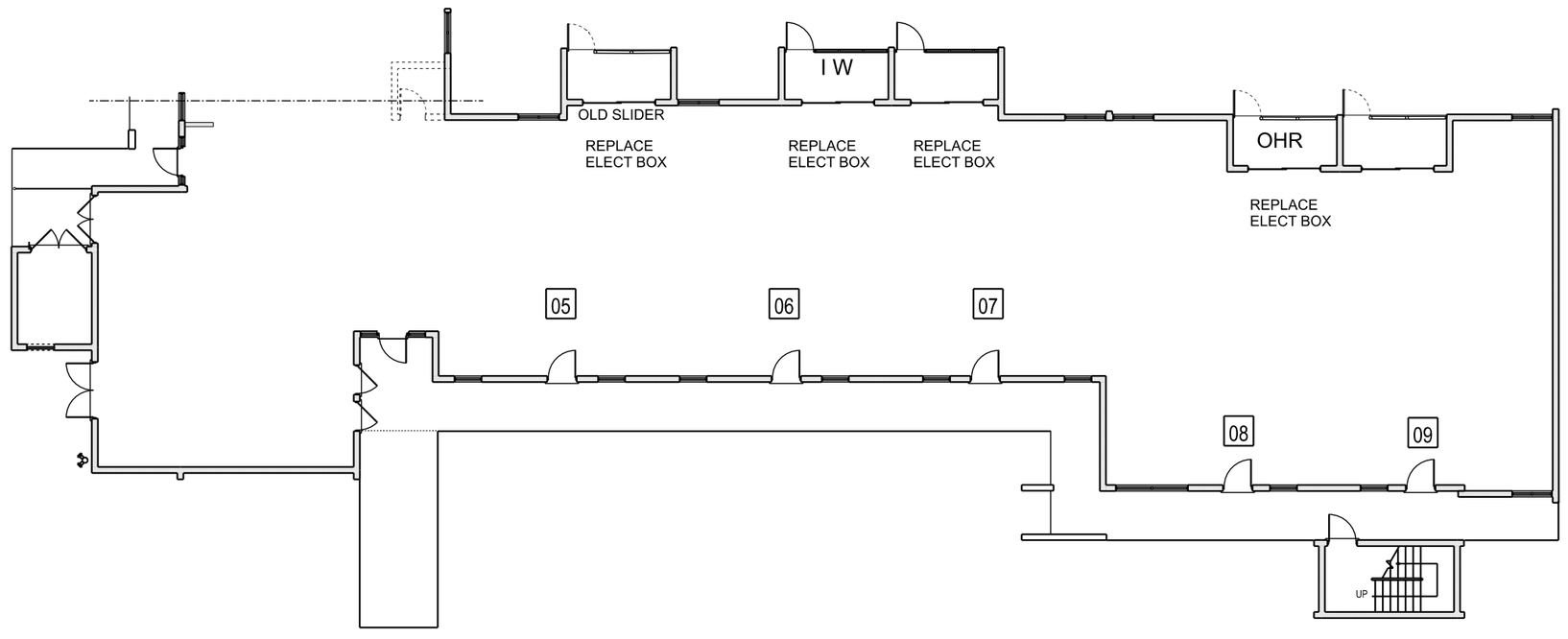


GROUND FLOOR PLAN

LEGEND

EJ — EXPANSION JOINT	PARTIAL DEPTH REPAIR
BR — BEAM REPAIR	TILE DELAMINATION
COL. REPAIR	PP — POST POCKET REPAIR
WS — WALL STUCCO REPAIR	RUST SPOTS
ER — EDGE REPAIR	HURRICANE SHUTTERS
OHR — OVER HEAD REPAIR	I W — IMPACT GL. UNIT
	FLOOR CRACK



GROUND FLOOR PLAN

ACG Engineering Services Inc.

REVISIONS:

AREA	DATE

NAME: DELPHI TOWERS

1391 S. OCEAN BLVD. POMPANO BEACH FL. 33062

PROJECT # 062024

DATE 06/22/24

DWG. BY: S.L.S.

PLAN : S-1

SEAL :

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