

ENGINEERS & ARCHITECTS

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Greenwich Condominiums

40-Year Building Safety Recertification

Architecture
Structural
MEP/FP
Restoration
Parking

Exterior Envelope
Energy
Studies
Expert Witness
Regulatory & Compliance

Submitted By:
O&S Associates, Inc.
2500 Hollywood
Boulevard
Suite 212
Hollywood, FL 33020
305.676.9888

Submitted To:
Greenwich Condominiums
1470 NE 123rd St
North Miami, FL 33161

July 16, 2021

Greenwich Condominiums
1470 NE 123rd St
North Miami, FL 33161

c/o Jorge Hernandez, LCAM
Community Manager
GreenwichManager@Outlook.com
(305) 895-0191

**Re: Greenwich Condominiums
Façade Condition Assessment**

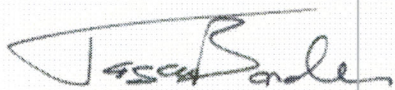
Dear Mr. Hernandez:

Please find attached our proposal to assist the Greenwich Condominiums community with the mandatory 40-year recertification inspection.

O&S specializes in the field of renewals and restoration. O&S is a full-service multi-discipline firm that provides a unique approach to the design and management of resiliency and renewal projects. Our approach concentrates on the building as a system and provides flexible options with fiscal and technical transparency so that the building can make accountable decisions regarding scope and budget.

Thank you for the opportunity to work on this project. Please contact us with any questions regarding the following detailed description of our proposed scope of services.

Respectfully,
O&S Engineers & Architects



Jason Borden, PE
Regional Director
JBorden@OandSassociates.com

PROJECT UNDERSTANDING & SCOPE OF WORK



O&S understands that Greenwich Condominiums seeks to retain an engineering consultant to complete the required 40-year building safety structural and electrical inspection. Greenwich Condominiums is 14 story condominium building 220 residential units.

As part of the assessment, we will review a minimum of 25 percent of the balconies and the unit electrical services.

As such, O&S proposes the following scope:

40-Year Recertification Inspection

1. Review any documents pertinent to the evaluation as made available to us, such as photos existing plans, engineering and testing reports, and construction, repair, or maintenance information.

2. Visually observe the project structural and electrical components or conditions, and other incidental appurtenances related to determining the condition of the structure, in accordance with the checklists and forms attached in the appendices.
3. Recommend any additional testing or analysis to help understand unknown conditions or probable construction costs. Additional reimbursable expenses may be required.
4. Provide a brief written report that will be submitted electronically.
 - a. An opinion of probable construction costs would be provided for any corrective work determined to be required to recertify the work.
5. Complete the forms required by the county and file the same upon written authorization from the owner.

SCOPE OF STRUCTURAL INSPECTION

The following scope of work is prescribed and contained in Miami-Dade County resources:

The fundamental purpose of the required inspection and report is to confirm in reasonable fashion that the building or structure under consideration is safe for continued use under the present occupancy. As implied by the title of this document, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgment.

Such inspection shall be for the purpose of determining the general structural condition of the building or structure to the extent reasonably possible of any part, material or assembly of a building or structure which affects the safety of such building or structure and/or which supports any dead or designed live load, and the general condition of its electrical systems pursuant to the Building Code.

In general, unless there is obvious overloading, or significant deterioration of important structure elements there is little need to verify the original design. It is obvious that this has been "time tested" if still offering satisfactory performance. Rather, it is of importance that the effects of time with respect to deterioration of the original construction materials be evaluated. It will rarely be possible to visually examine all concealed construction, nor should such be generally necessary. However, a sufficient number of typical structure members should be examined to permit reasonable conclusions to be drawn.

Visual Examination will, in most cases, be considered adequate when executed systematically. The visual examination must be conducted throughout all habitable and non-habitable areas of the building, as deemed necessary by the inspecting professional to establish compliance. Surface imperfections such as cracks, distortion, sagging, excessive deflections, significant misalignment, signs of leakage, and peeling of finishes should be viewed critically as indications of possible difficulty.

Testing Procedures and quantitative analysis will not generally be required for structural members or systems except for such cases where visual examination has revealed such need, or where apparent loading conditions may be critical.

Manual Procedures such as chipping small areas of concrete and surface finishes for closer examinations are encouraged in preference to sampling and/or testing where visual examination alone is deemed insufficient. Generally, unfinished areas of buildings such as utility spaces, maintenance areas, stairwells and elevator shafts should be utilized for such purposes. In some cases, to be held to a minimum, ceilings or other construction finishes may have to be opened for selective examination of critical structural elements. In that event, such locations should be carefully located to be least disruptive most easily

repaired, and held to a minimum. In an event, a sufficient number of structural members must be examined to afford reasonable assurance that such are representative of the total structure.

Evaluating an existing structure for the effect of time, must take into account two, basic considerations; movement of structural components with respect to each other, and deterioration of materials.

With respect to the former, volume change considerations, principally from ambient temperature changes, and possible long time deflections, are likely to be most significant. Foundation movements will frequently be of importance, usually settlement, although upward movement due to expansive soils actually may occur. However, it is infrequent in this area. Older buildings on spread footings may exhibit continual, even recent settlements if founded on deep unconsolidated fine grained or cohesive soils or from subterranean losses or movements from several possible causes.

With very little qualification, such as rather rare chemically reactive conditions, deterioration of building materials can only occur in the presence of moisture, largely to metals and their natural tendency to return to the oxide state in the corrosive process.

In this marine climate, highly aggressive conditions exist year round. For most of the year, outside relative humidity may frequently be about 90 or 95%, while within air-conditioned buildings, relative humidity will normally be about 35 to 60%. Under these conditions moisture vapor pressures ranging from about 1/3 to 1/2 pounds per square inch will exist much of the time. Moisture vapor will migrate to lower pressure areas. Common building materials such as stucco, masonry and even concrete, are permeable even with these slight pressures. Since most of our local construction does not use vapor barriers, condensation will take place within the enclosed walls of the building. As a result, deterioration is most likely adjacent to exterior walls, or wherever else moisture or direct leakage has been permitted to penetrate the building shell.

Structural deterioration will always require repair. The type of repair, however, will depend on the importance of the member in the structural system and degree of deterioration. Cosmetic type repairs may suffice in certain non-sensitive members such as tie beams and columns, provided that the remaining sound material is sufficient for the required function. For members carrying assigned gravity or other loads, cosmetic type repairs will only be permitted if it can be demonstrated by rational analysis that the remaining material, if protected from further deterioration can still perform its assigned function at acceptable stress levels. Failing that, adequate repairs or reinforcement will be considered mandatory.

Written Reports shall be required attesting to each required inspection. Each such report shall note the location of the structure, description of type of construction, and general magnitude of the structure, the existence of drawings and location thereof, history of the

structure to the extent reasonably known, and description of the type and manner of the inspection, noting problem areas and recommending repairs, if required to maintain structural integrity.

FOUNDATION

If all of the supporting subterranean materials were completely uniform beneath a structure, with no significant variations in grain size, density, moisture content or other mechanical properties; and if dead load pressures were completely uniform, settlements would probably be uniform and of little practical consequence. In the real world, however, neither is likely. Significant deviations from either of these two idealism are likely to result in unequal vertical movements.

Monolithic masonry, generally incapable of accepting such movements will crack. Such cracks are most likely to occur at corners, and large openings. Since, in most cases, differential shears are involved, cracks will typically be diagonal.

Small movements, in themselves, are most likely to be structurally important only if long term leakage through fine cracks may have resulted in deterioration. In the event of large movements, continuous structural elements such as floor and roof systems must be evaluated for possible fracture or loss of bearing.

Pile foundations are, in general, less likely to exhibit such difficulties. Where such does occur, special investigation will be required.

ROOFING SYSTEMS

Sloping roofs, usually having clay or cement tiles, are of concern in the event that the covered membrane may have deteriorated, or that the tiles may have become loose. Large deflections, if merely resulting from deteriorated rafters or joists will be of greater importance. Valley Flashing, and Base Flashing at roof penetration will also be matters of concern.

Flat roofs with built up membrane roofs will be similarly critical with respect to deflection considerations. Additionally, since they will generally be approaching expected life limits at the age when building recertification is required, careful examination is important. Blisters, wrinkling, alligating, and loss of gravel are usually signs of difficulty. Punctures or loss of adhesion of base flashing, coupled with loose counterflashing will also signify possible problems. Wind blown gravel, if excessive, and the possibility of other debris, may result in pounding, which if permitted, may become critical.

MASONRY BEARING WALLS

Random cracking, or if discernible, definitive patterns of cracking, will of course, be of interest. Bulging, sagging, or other signs of misalignment may also indicate related problems in other structural elements. Masonry walls where commonly constructed of

either concrete masonry units or scored clay tile, may have been constructed with either reinforced concrete columns tie beams, or lintels.

Wood joists and rafters are most often in difficult from "dry rot", or the presence of termites. The former (a misnomer) is most often prevalent in the presence of sustained moisture or lack of adequate ventilation. A member may usually be deemed in acceptable condition if a sharp pointed tool will penetrate no more than about one eighth of an inch under moderate hand pressure. Sagging floors will most often indicate problem areas. Gypsum roof decks will usually perform satisfactorily except in the presence of moisture. Disintegration of the material and the foam-board may result from sustained leakage. Anchorage of the supporting bulb tees against uplift may also be of importance, with significant deterioration. Floor and roof systems of cast in place concrete with self centering reinforcing, such as paper backed mesh and rib-lath, may be critical with respect to corrosion of the unprotected reinforcing. Loss of uplift anchorage on roof decks will also be important if significant deterioration has taken place, in the event that dead loads are otherwise inadequate for that purpose.

FLOOR AND ROOF SYSTEMS

Cast in place reinforced concrete slabs and/or beams and joists may often show problem due to corroding rebars resulting from cracks or merely inadequate protecting cover of concrete. Patching procedures will usually suffice where such damage has not been extensive. Where corrosion and spalling has been extensive in structurally critical areas, competent analysis with respect to remaining structural capacity, relative to actual supported loads, will be necessary. Type and extent of repair will be dependent upon the results of such investigation.

Precast members may present similar deterioration conditions. End support conditions may be important. Adequacy of bearing, indications of end shear problems, and restraint conditions are important, and should be evaluated in at least a few typical locations.

CONCRETE FRAMING SYSTEMS

Concrete deterioration will, in most cases similarly to related to rebar corrosion possibly abetted by the presence of salt-water aggregate or excessively permeable concrete. In this respect, honeycomb areas may contribute adversely to the rate of deterioration. Columns are frequently most suspect. Extensive honeycomb is most prevalent at the base of columns, where fresh concrete was permitted to segregate, dropping into form boxes. This type of problem has been known to be compounded in areas where flooding has occurred, especially involving salt water.

In spall areas, chipping away a few small loose samples of concrete may be very revealing. Especially, since loose material will have to be removed even for cosmetic

type repairs, anyway. Fairly reliable quantitative conclusions may be drawn with respect to the quality of the concrete. Even though our cement and local aggregate are essentially derived from the same sources, cement will have a characteristically dark grayish brown color in contrast to the almost white aggregate. A typically white, almost alabaster like coloration will usually indicate reasonably good overall strength. The original gradation of aggregate can be seen through a magnifying glass. Depending upon the structural importance of the specific location, this type of examination may obviate the need for further testing if a value of 2000 psi to 2500 psi is sufficient for required strength, in the event that visual inspection indicates good quality for the factors mentioned.

WINDOWS

Window condition is of considerable importance with respect to two considerations. Continued leakage may have resulted in other adjacent damage and deteriorating anchorage may result in loss of the entire unit in the event of severe wind storms short of hurricane velocity. Perimeter sealant, glazing, seals, and latches should be examined with a view toward deterioration of materials and anchorage of units for inward as well as outward (section) pressures, most importantly in high buildings.

LOADING

It is of importance to note that even in the absence of any observable deterioration, loading conditions must be viewed with caution. Recognizing that there will generally be no need to verify the original design, since it will have already been "time tested", this premise has validity only if loading patterns and conditions remain unchanged. Any material change in type and/or magnitude or loading in older buildings should be viewed as sufficient jurisdiction to examine load carrying capability of the affected structural system.

SCOPE OF ELECTRICAL INSPECTION

The purpose of the required inspection and report is to confirm with reasonable fashion that the building or structure and all habitable and non-habitable areas, as deemed necessary by the inspecting professional to establish compliance, are safe for continued use under present occupancy. As mentioned before, this is a recommended procedure, and under no circumstances are these minimum recommendations intended to supplant proper professional judgement.

ELECTRIC SERVICE

A description of the type of service supplying the building or structure must be provided, stating the size of amperage, if three (3) phase or single (1) phase, and if the system is protected by fuses or breakers. Proper grounding of the service should also be in good standing. The meter and electric rooms should have sufficient clearance for equipment and for the serviceman to perform both work and inspections. Gutters and electrical panels should all be in good condition throughout the entire building or structure.

BRANCH CIRCUITS

Branch circuits in the building must all be identified and an evaluation of the conductors must be performed. There should also exist proper grounding for equipment used in the building, such as an emergency generator, or elevator motor.

CONDUIT RACEWAYS

All types of wiring methods present in the building must be detailed and individually inspected. The evaluation of each type of conduit and cable, if applicable, must be done individually. The conduits in the building should be free from erosion, and checked for considerable dents in the conduits that may be prone to cause a short. The conductors and cables in these conduits should be chafe free, and their currents not over the rated amount.

EMERGENCY LIGHTING

Exit signs lighting and emergency lighting, along with a functional fire alarm system must all be in good working condition.

WORK BY OWNER

If available, we request that the following information be provided to allow the successful completion of the project:

- Copies of relevant design and/or "as built" drawings
- Copies of structural shop drawings
- Copies of previous engineering studies or condition assessments
- Coordinated access (including ladders, if necessary) to all building areas, including the roof
- Detailed leak report

PROFESSIONAL FEES

O&S proposes to provide the above services on an hourly or lump sum basis, plus customary reimbursable expenses as per the following table.

A retainer of \$2,500 is required prior to starting the inspection.

Service	Fee	Estimated Reimbursables
40-Year Building Safety Inspection	\$9,000	Included

Notes:

1. *Reimbursable expenses, including travel, document reproduction, sub-consultants, and testing expenses will be invoiced at 1.15 times the actual direct cost, unless otherwise included in fee.*
2. *Prices are subject to change January 1 of each year. Rates do not include customary reimbursable expenses such as travel (portal to portal), reproductions and reprographics, testing laboratories, and other direct expenses listed in the proposal. Reimbursable expenses will be invoiced at our direct cost-plus mark-up for handling. Mileage is billed at current IRS rate plus tolls and/or fares.*

Additional Services will be billed per the following:

2021 Hourly Rates	
Principal	\$225.00
Senior Project Manager	\$195.00
Project Manager.....	\$185.00
Professional Engineer / Registered Architect	\$185.00
Structural Engineer	\$165.00
Architect Designer	\$165.00
CAD Technician.....	\$90.00

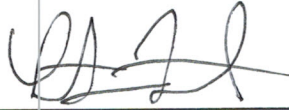


AUTHORIZATION

Trusting the above is satisfactory, indicate which services you desire to accept, sign, and return one (1) copy of this document (with a Purchase Order Number if applicable) as your acknowledgement and authorization to proceed.

FOR OWNER:

Authorized By:



Name:

STEFAN ZAK

Title:

PRESIDENT

Company:

GREENWICH ASSOCIATION, INC.

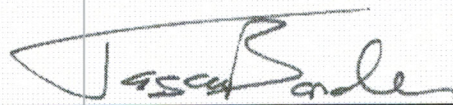
Date:

7/21/21

PO#:

FOR O&S:

By:



Name:

Jason R. Borden, PE

Title:

Regional Director

Company:

O&S Associates, Inc.

GENERAL CONDITIONS

The Owner will provide O&S Associates, Inc. (O&S) original design documents and all previous survey and design documentation (reports, drawings and specifications) prepared by others.

INSTRUMENTS OF SERVICE

Drawings and Specifications prepared by O&S as instruments of service are and shall remain the property of O&S whether the project for which they are made is executed or not. They are not to be used on other projects, extensions to this project, or for completion of this project by others, except by agreement in writing and with appropriate compensation to O&S.

HAZARDOUS MATERIALS

O&S shall have no responsibility for the discovery, presence, handling, removal or disposal or of exposure of persons to hazardous materials in any form at the Project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB or other toxic substances). To the fullest extent permitted by law, Client shall hold harmless, defend and indemnify O&S and its consultants, and each of their owners, directors, employees, heirs, successors and assigns from any and all claims, damages, losses, judgments and expenses which directly or indirectly arise from or relate to this project with respect to: asbestos or any material containing asbestos or any disease directly or indirectly related to asbestos; or any act, error, or omission, professional or otherwise, involving the existence, use, detection, removal, elimination of or exposure to asbestos or any material containing asbestos.

CONSTRUCTION OBSERVATION

Periodic site visits, if included in O&S's Scope of Services, shall mean that O&S shall visit the site at intervals, appropriate to the stage of construction, or as otherwise agreed with Client in writing, to become generally familiar with the progress and quality of the work and to determine in general if such work is proceeding in accordance with the Contract Documents. However, O&S shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. On the basis of such on-site observations as a design professional, O&S shall keep Client informed of the progress and quality of the work and shall endeavor to guard the Client against defects and deficiencies in such work of the Contractor. The furnishing of periodic or full-time controlled inspections or project representation services shall not make O&S responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs.

O&S shall not have control or charge of, and shall not be responsible for, construction means, methods, techniques, sequences or procedures, for safety precautions and programs in connection with the work, for the acts or omissions of the Contractor, Subcontractors or any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the Contract Documents.

OPINION OF PROBABLE CONSTRUCTION COSTS

Evaluation of the Owner's project budget, and/or opinions of construction cost, if included in O&S's Scope of Services, represent O&S's best judgment as a design professional familiar with the construction industry. It is recognized, however, that O&S does not have control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, O&S cannot and does not warrant or represent that bids or negotiated prices will not vary from the projects budget proposed, established or approved by the Owner, if any, or form any statement of probable construction cost or other cost estimate or evaluation prepared by O&S.

STANDARD OF CARE

Service performed by this office under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering profession currently practicing under similar conditions. Client acknowledges that O&S's services will be rendered without any warranty, express or implied. Nothing contained in this Agreement shall create a contractual relationship with, or a cause of action in, favor of a third party against either the Client or O&S.

RESTORATION INDEMNITY

Inasmuch as the remodeling and/or rehabilitation of the existing structure requires that certain assumptions be made by the Consultant regarding existing conditions, and because some of these assumptions may not be verifiable without the Client's expending substantial sums of money or destroying otherwise adequate or serviceable portions of the structure, the Client agrees, to the fullest extent permitted by the law, to indemnify and hold harmless the Consultant, its officers, directors, employees and sub-consultants (collectively, Consultant) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with this Project, excepting only those damages, liabilities or costs to the extent that are attributable to the sole negligence and willful misconduct by the Consultant.

LIMITATION OF LIABILITY

PURSUANT TO FLORIDA STATUTE 558.035, NO INDIVIDUAL DESIGN PROFESSIONAL, EMPLOYEE OR AGENT OF O&S ASSOCIATES MAY BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.

In recognition of the relative risks and benefits of the Project to both the Client and O&S, the Client agrees, to the fullest extent permitted by law, to limit the liability of O&S to the Client and all persons providing work or materials to this project as a result of acts, errors or omissions of O&S, so that the total aggregate liability of O&S to the Client shall be limited to the fees paid.

EXTENSION OF PROTECTION

Client shall cause any and all Contractors, Subcontractors, Material Suppliers and other entities or persons (hereinafter "Contractor") actually responsible for construction of the work to indemnify O&S to the extent permitted by law against risks which are not normally borne by the architectural or engineering profession in the form of AIA Document A-201 – General Conditions of the Contract

from Construction (1987 Edition), Section 3.18. Client shall also cause Contractor to name O&S as an additional insured on Contractor's Comprehensive General Liability policy.

PAYMENT TERMS

If payment is not received within 30 days of invoicing O&S may discontinue all services relating to this contract and retain all information, plans and specifications completed for the project.

If the project is suspended or abandoned in whole or in part for more than three months, O&S shall be compensated of all services performed and expenses incurred prior to receipt of written notice from Client of such suspension or abandonment in an amount as determined in accordance with the provisions set forth in this Agreement, together with all reasonable termination costs and expenses.

If O&S is called upon by Client, or subpoenaed by another person, to testify, in an action at law, equity, arbitration, or in a pre-trial hearing or conference, as to any work performed by anyone in connection with this project, then O&S shall be paid by Client for all time spent while testifying and preparing therefore in accordance with the rates stated in the attached Agreement.

SEVERABILITY AND SURVIVABILITY

If any of O&S's Standard Conditions, or portions thereof, shall be adjudged null and void, it is agreed that the remaining Standard Conditions, or portions thereof, shall remain intact and be given full force and effect. These Standard Conditions shall not be construed to indemnify O&S of its own negligence if not permitted by law, or to provide for any indemnification which would, as a result thereof, make the provisions of these Standard Conditions void, or to eliminate or reduce any other indemnification or right which O&S has by law.

APPENDIX A: SCHEDULE OF INSURANCE

Professional Liability Policy with limits of \$ 1,000,000 per claim and \$ 2,000,000 aggregate.

Professional Liability Project Policy with limits of \$_____ per claim and \$_____ project aggregate. This policy shall remain in force for the period of design and construction (estimated to be ___ years, ___ months) but not beyond (*date*) and shall include a discovery period of ___ years, ___ months, to commence upon substantial completion of the project.

Commercial General Liability Insurance with limits of \$ 1,000,000 each occurrence and \$ 2,000,000 aggregate, and \$ 4,000,000 excess liability. This policy shall be written or endorsed to include the following Provisions (If checked):

- Client shall be named as additional insured.
- Waiver of Subrogation
- Severability of Interest (Separation of Insureds).
- Cross Liability Endorsement
- Other (Specify): _____

Workers Compensation Insurance as required by statute, including Employers Liability.

Automobile Liability Insurance with limits of \$1,000,000 each accident, combined single limits.

Non-Owned Automobile Liability Insurance, including coverage for hired and leased vehicles, with limits of \$ 1,000,000 each accident, combined single limit.

The indicated coverages shall be subject to all of the terms, exclusions and conditions of the policies.