KEYSTONE
ENGINEERING &
CONSULTING, INC.

Sandpiper Towers Condominium

205 Florida Hwy A1A
Satellite Beach, Florida 32937

Condition Survey Report Exterior Building and Balconies

Prepared By
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November 11, 2019

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Re: Balcony and Exterior Building Inspections

EXECUTIVE SUMMARY

Keystone Engineering was engaged to provide an engineering inspection of the balconies and exterior structural and weatherproofing building elements at Sandpiper Towers Condominium in Satellite Beach, Florida. The inspection was primarily completed on August 29 and September 20, 2019 by project engineers of Keystone, and trained assistants. Several other site visits were made over multiple days to gather additional information.

The following represents the major project issues that require further discussion and decision making, and will be covered in more depth in the written section of the report that follows:

Balconies-The balcony slabs were reportedly replaced fully 15 to 20 years ago. Currently the balconies are showing damage at the perimeter edges, above and below the sliding glass doors, and the perimeter walls. The balcony floor coatings are also beyond their designed service life. Some of the items below are contributing to the balcony issues.

Balcony Screen Enclosures-The balcony screen enclosures exist on the perimeter of all 60 elevated balconies. The screen frame base track is mounted directly to the balcony slab at the perimeter without drainage shims and is inhibiting drainage off the balcony. This lack of drainage is causing concrete damage, stucco delamination and paint failure. The screen frames also have corroding fasteners and other deteriorating components.

Shutters-Many of the balconies have shutters in front of the sliding glass doors, either accordion or roll down style. Many of the accordion style shutters are mounted directly to the balcony floor without drainage shims; inhibiting drainage of water from the sliding glass doors. This condition can exacerbate concrete damage which was observed at many of the sliding glass door sills and a few into the interior space. Other units have a wall mounted roll down box shutter. Concrete damage was observed behind these shutters at the sliding glass door header. This damage can likely be attributed to chronic water intrusion from the sliding glass door above and will require the removal of the shutters to properly repair the structural damage.

Exterior Walls-The exterior walls are a painted stucco finish. In many locations peeling paint was observed. Many of these locations had inadequately prepared “chalky” substrate behind the paint. There is also a high volume of concrete repairs needed on the exterior walls, including the concrete headers, sills, beams, and columns. A large number of past repairs were visible and were of questionable quality, and possibly not performed by experienced and/or properly licensed personnel.

Decorative Block West Elevation-The three decorative block wall panels on the west elevation run the height of the building, floors 2 through 6. These blocks are deteriorating and crumbling due to age and internal reinforcing component corrosion. They are very likely beyond repair and will require removal and either abandonment or replacement with an alternative material.

Fenestrations-Many of the windows, sliding glass doors and storefront glass openings are from original construction and are in excess of 50 years old. Well beyond their intended service life in this harsh environment and far short of current codes for performance characteristics. The fenestrations are also contributing greatly to the chronic water intrusion and deterioration of the structure.

Garage Roof-East Recreation Deck- The roof hosts three of the sixty private balconies and a wooden recreation deck. The Northeast garage roof recreation deck has substantial evidence of water intrusion into the garage and the structural deterioration of the concrete perimeter walls, steel support columns, steel joists and corrugated metal decking.

Within this report you will find a comprehensive written report, estimated project budgets for the work at-hand, including comprehensive, long-term approaches and example photos. Keystone will prepare a PowerPoint presentation to thoroughly explain the findings and recommended options for the Association. The PowerPoint, we have found, is a key step in the process for owners to understand the conditions and choices. The PowerPoint can be provided on-site for owners and on-line simultaneously for those in remote locations.

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November 11, 2019

Sandpiper Towers Condominium
205 Florida Highway A1A
Satellite Beach, FL 32937

Dear Board and Association Members:

Keystone Engineering was contracted to perform an inspection of the exterior building balcony and structural and weatherproofing elements of the Sandpiper Towers Condominium in Satellite Beach. The inspection was completed over several days, with the balcony inspections occurring on August 29 and September 20, 2019. Within this report you will find a description of our inspection process, our findings and recommendations, as well as budget estimates and options for the completion of a comprehensive restoration project. Once this document is reviewed, Keystone can meet with the Association and provide more depth of information and facilitate a dialogue of the specific project issues and options.

Facility Description

Sandpiper Towers is a six-story, oceanfront condominium building with twelve (12) units per floor. The walkways, elevators and stairwells are all in an enclosed interior space. The balconies are exterior and exist on walls facing all four directions around the building's perimeter. Each balcony has an aluminum framed screened enclosure. The walls are a painted stucco finish.

The building was apparently constructed in 1964, with plans dated in 1962. The balcony slabs were replaced by an experienced restoration contractor 15 to 20 years ago. The slabs themselves remain in good condition, with the exception of certain conditions which are accelerating their deterioration in specific locations. The balcony floor coating was applied during the balcony replacement project and has reached the end of its service life.

There are many needed structural concrete repairs detectible throughout the building, exterior walls, columns, beams, headers, sills and walls. Also deteriorating decorative block walls on the west elevation, and badly corroded steel support columns in the northeast garage. Attempted structural repairs over the last several years appear to be of questionable quality and life expectancy, with many in failure at the present time.

A significant amount of chronic water intrusion was observed, and due to aged fenestrations (many from original construction and well beyond their service age),

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structural cracking and spalling, aged roof assemblies and lack of proper sealants and paint application. Peeling paint and chalking substrates were noted in several areas and expected to be consistent throughout the property.

The northeast garage roof was also inspected, including several observation holes to view the substrate conditions. This roof is experiencing chronic water intrusion and includes a wooden recreation/observation deck as well as three private balconies mounted directly on the roof. The substrate was observed to have severe corrosion deterioration of the metal joists and corrugated decking, especially under the three balconies, which currently have a questionable design method. There was also structural concrete damage observed at the perimeter walls and access stairs. It is recommended to include the needed roofing work in the building restoration bid package, as the structural repair work associated with the roof is beyond a roofing contractor's abilities.

Investigation Methodology

The inspection process was completed on a visual, acoustical and hands-on basis by the undersigned Florida Registered Professional Engineer and trained assistants. Generally, the inspection of a coastal condominium focuses on the existing and potential for future concrete damage that occurs due to chloride-induced reinforcing steel corrosion. This electrochemical phenomenon is normally the driving force in coastal building maintenance and repair efforts. As a result of the actual and potential concrete damage, affected building components such as floor finishes, safety railings, glass doors, windows and storm shutters are also evaluated as applicable.

The inspection process was completed in a non-destructive manner by the project engineer(s). The concrete damage evaluation was achieved by visual inspection, chain-drag and hammer sounding. These devices, when utilized by personnel with appropriate experience, prove to be a cost-effective means of evaluating corrosion induced concrete damage and the overall condition of the structure. The inspection process described and completed are acceptable means in accordance with the International Concrete Repair Institute (ICRI) and the American Concrete Institute (ACI). The concrete evaluation performed is generally in accordance with:

ACI 201.1R-92 Guide for Making a Condition Survey of Concrete in Service

ACI 364.1R-07 Guide for Evaluation of Concrete Structures Before Rehabilitation

The results of the inspection and evaluation will generate an anticipated and recommended scope of work. It must be considered and understood that many work items identified are interrelated and therefore not easily or cost-effectively addressed separately. For example, in order to repair or protect the balcony

concrete slabs, a common project item, the screens, railings and floor finishes will be affected and therefore must be considered as part of the repair process.

It should also be well understood that portions of the work anticipated are estimated quantities, while other items are fixed quantities. In general, all of the concrete repair work is an estimated quantity due to the number of variables involved and the high likelihood for hidden damage. Therefore, the concrete work is typically bid on a unit cost basis, since we can establish the necessary concrete repair task items accurately but cannot estimate the exact quantities. Unit cost basis provides the fairest basis for both owner and contractor, as the contractor is paid only for the number of each units completed at the unit rate bid, whether the quantities are higher or lower than the engineer's estimate. The remainder of the bid items will generally be at fixed cost, as they are directly measurable quantities and known scope of work. Railing work, waterproofing of walls and floors, window replacement and door replacement are examples of fixed items as both the task and quantities can be generally established accurately in advance.

It should also be clear that the estimates provided are for budgetary purposes only. Actual bids will need to be solicited for cost purposes. Also, there is a high likelihood for additional damage and hidden conditions to be found during the work that will increase the units of work and the project budget. Proper contingency estimates need to be considered and factored into the project budget estimate.

Concrete Damage General Discussion

Sandpiper Towers is currently experiencing a moderate to severe amount of water intrusion and corrosion induced concrete damage on the balconies, exterior walls and garage areas. This is due to the long-term exposure to the coastal salt air, whereby chlorides will migrate through the concrete and reach the reinforcing steel. Once the chlorides accumulate at the steel level within the slab, the corrosion process will accelerate in an exponential fashion, resulting in delamination of the stucco finishes, cracking and spalling of the surrounding concrete. Left unabated, this process will lead to increasingly costly building repair projects, chronic water intrusion and structural deterioration.

<u>One of the most significant factors in the time and magnitude of reinforcing steel corrosion induced concrete damage is the ease of access for the chlorides to enter the concrete</u>. Properly sealing and waterproofing the building, including all openings, penetrations, and achieving positive drainage, will greatly minimize chloride intrusion and corrosion. As part of a restoration project for an aged building, both existing and future chloride contamination must be considered and reduced.

Quality, long lasting repairs are crucial in controlling future maintenance costs. Additionally, the control of the corrosion rate is the primary factor in reducing the rate and magnitude of future repair projects and costs. Proper structural concrete repairs should not become cyclic type repairs and should last for 20 to 30 years or longer depending upon the level of protection from the elements employed. Original cyclic structural repairs to areas of the structure outside of past repairs can be controlled through corrosion mitigation. There are several corrosion mitigation strategies available, each with varying costs, performance and life expectancies.

Taking steps to reduce the cyclic nature of corrosion induced structural concrete damage has proven to be a good investment of maintenance dollars. Eliminating the redundancy of repairs to the same area can be achieved by ensuring proper industry standard structural repairs are accomplished during the restoration project. Protecting the newly repaired areas and slowing/mitigating the corrosion in the surrounding areas will greatly reduce future maintenance costs, increase the time between repair cycles and lessen the magnitude of each repair cycle.

From a cost perspective, the structural concrete repair costs alone are significant. However, additional costs need to be considered, and strategically avoided as best possible, including the many collateral building components and aspects of a restoration project. The engineering costs, access to the building via scaffolding/staging, building permits, storage, equipment and manpower mobilization all add to the actual costs of accomplishing concrete repairs. Additionally, floor finishes, railings, screens, glass doors and shutters can be impacted during a restoration project, including the removal, reinstallation and/or replacement of these elements. The removal of these items to complete concrete repairs may require the owner to upgrade to newer models that are compliant with current building codes.

Shutters, if impacted by the restoration project, are typically the responsibility of the individual unit owner. Restoration contractors generally are not equipped or desire to be involved in the removal, reinstallation or replacement of the shutters. If the shutters need to be removed, which is common in many cases, they should be first evaluated by a certified shutter company to determine if they can be reinstalled, require any service or refurbishment, or need to be replaced with new due to age, condition or changing building codes. Many times, the Association pools its shutter work to negotiate a volume agreement with a chosen vendor.

In severe cases of concrete damage occurring under and due to the door/window assemblies, they may need to be removed and a temporary barricade installed to accomplish the structural repairs. This type of repair can also affect the interior flooring and finishes of the unit. The window or door removed may or may not be able to be reinstalled, depending upon its age and condition. A new window or door may be needed in such cases. Lastly a concrete restoration project causes

a disruption to the quality of living at the facility, loss of use and rental income, noise, vibration, dust and limited balcony access and view can all be expected.

Because of these direct structural issues, collateral and lifestyle issues and substantial costs, a restoration project should be given due consideration to implement the most cost-effective use of skilled labor, proper materials and methods along with technology to extend the time between repair projects and reduce the magnitude of the corrosion induced damage in the future. Poorly executed restoration projects, with improper repairs and inadequate consideration for future protection will inevitably cost the Association significantly more in terms of dollars, inconvenience and time.

General Industry Methodology

There are several basic aspects to concrete spalling and restoration that must be understood and accepted to allow for the findings and recommendations to be discussed productively. The following represents some basic industry positions that dictate the consultants thought process:

Spalling-Concrete spalling is delamination of the concrete from the expansive effects of reinforcing steel corrosion. Spalling occurs when chlorides migrate to the reinforcing steel, which changes the chemistry of the concrete and creates a corrosive environment. Spalling can be detected visually and/or acoustically and requires an experienced eye to distinguish between spalling and non-spalling and to extrapolate findings into estimated quantities.

Contractor Selection-Concrete restoration is a small, specialized, yet mature industry. While the work must be performed by a licensed general contractor under the supervision of an experienced professional engineer, not all general contractors are experienced in restoration. There is a relatively short, but high-quality list of local qualified restoration contractors. Restoration contractors generally perform best in their local region.

Repair Methods-Concrete restoration methods and materials are well established over the last 30 years, and the procedures and repairs followed in the industry follow the International Concrete Repair Institute (ICRI) standards and have proven to be both reliable and durable. There are no magic or permanent solutions. Concrete restoration/experience is learned “on the job”. By utilizing experienced restoration contractors, you will avoid having an unexperienced team “practice” on your building. These are structural repairs and can eventually affect the building viability.

Cyclic Nature-Spalling will be cyclic on an older building (more than 20 years old) and should be planned for accordingly. Repaired areas should be semi-permanent repairs, as the chlorides have been removed in that area, and future

spalling will occur in other areas where chlorides remain. A recommended repair cycle is 7 to 10 years to coordinate with painting cycles. A cycle of this time frame will keep spalling damage manageable.

Corrosion is Exponential-Spalling will worsen exponentially with time, with an acceleration after a 10-year cycle. Taking care of spalling on a 7 to 10-year cycle, coordinated with painting, and using maintenance friendly balcony finishes, has proven to be a cost-effective time frame and procedure. Allowing the spalling to continue beyond the 7 to 10-year time frame will result in accelerated damage and project costs.

Project Timing-Project timing will be dictated by the decision-making process and contractor availability. However, the lowest cost project is one that is done today, as a single-phase project. Unnecessarily delaying a project or doing it in multiple phases will increase the project costs due to increased corrosion damage and rate, inflation of costs, and mobilization costs. Financing is available to allow for payments over time, while getting the work done in a single, lower cost, lower impact project.

Balcony Floor Finishes-Exposed balcony (and walkway/stair) floor finishes should be a protective coating system that is aesthetically pleasing and easy to repair and renew during future repair cycles. Tile is an improper choice for exposed balconies, as it does not provide protection from saltwater, keeps the balcony wetter, creates drainage issues at the sliders, hides damage longer, and makes the repair more difficult.

Sliding Glass Doors and Windows-The choice of sliding glass doors and windows for a coastal application must be given proper consideration. “Coastal Quality” products are recommended and should consider corrosion resistance, coating finish performance, superior water resistance, the use of all stainless-steel hardware, concealed/sealed stainless-steel fasteners, energy efficiency and proper tint. Many of these are not achieved with a “minimum” code compliant door. Lastly, proper installation is a must, for any door quality level.

Having new glass doors or panels installed over existing spalled concrete is becoming a common issue. Most door installers are either not going to recognize these issues, or purposely overlook them in order to not delay the installation. Buildings that have a concrete spalling history should have an inspection performed by an experienced individual before new glass is installed, either at the opening or perimeter of the balcony.

Drainage- Shutter systems, screen enclosures, floor finishes and sliding glass door installations should all be designed such that water readily drains off the balcony.

Shutters-When installing shutters, the area of installation should be inspected in advance to ensure no concrete repairs are needed that would necessitate the future removal and reinstallation of the shutter. The shutter should be installed to the proper building code and with stainless steel fasteners and appropriate drainage shims.

Water Intrusion-If water can get in, the salt can get in. Sliding glass doors, floor finishes, railings, shutters, fasteners-should all be designed and installed such that water intrusion is minimized.

Project Considerations-Project considerations are primarily safety, asset preservation and aesthetics. It is up to the Association to decide on what level of asset preservation and aesthetics they wish to employ. The engineer can only make recommendations and explain consequences of the decisions. Safety is the only area where the engineer has to insist on a solution. **The Association can decide to adopt all, some or none of the engineer's recommendations.**

Comprehensive Solution-A long-term comprehensive solution provided is the most effective at minimizing future restoration cycles and providing the most aesthetic result. It is the lowest cost over time, and considers proactive protective measures and maintainable coating finishes, and overall protection of the structure from the elements. **This is the highest reasonable level of consideration.**

Short-Term Solution-A short-term solution primarily considers only the structural repairs needed. The existing finishes are maintained/repaired/touched-up as needed, and only minimal protective and aesthetic measures are involved. **This is the lowest reasonable level of consideration. <u>We do not recommend and have not considered this option for this project</u>.**

Decision-Making-Not everyone wants the same level of building maintenance, aesthetic considerations or maintenance budget funding. Everyone will have their individual opinion of what is appropriate or acceptable. That is one of the challenges of providing consultation to a condominium, as we cannot provide any solution that will please all parties. Each of you has the discretion to agree or disagree with our recommendations.

<u>Major Project Considerations for Sandpiper Towers</u>

The following are the key aspects of the project considerations and decisions to be made for the restoration and related work at Sandpiper Towers:

Balconies-The balcony slabs were reportedly replaced fully, 15 to 20 years ago. Currently, the balconies are showing damage at the perimeter edges, above and below the sliding glass doors, and the perimeter walls. The balcony floor coatings

are also beyond their designed service life. Some of the items below are contributing to the balcony issues.

In order to properly repair the balconies as well as eliminate the chronic water intrusion and delaminating stucco and paint, work will require all screen enclosures to be fully removed and the balcony floor finishes be stripped to bare concrete. In some cases, there is peeling paint or improperly applied elastomeric paint on the balcony ceilings. This will all need to be removed before prepping and repainting. Many of the shutters will need to be removed to access the damaged concrete, remove and replace the coatings, and be reinstalled with proper considerations for drainage.

In numerous cases, there is detectible concrete damage above or below the sliding glass door, at the header or sill respectively, and in some cases, into the interior space floor or ceiling. This can be attributed to long-term, chronic water intrusion of the sliding glass door of that unit, or the unit above when the header beam is damaged. In these cases, the sliding glass door will need to be temporarily removed and a weather barrier installed. The reinstallation of the door will be dependent on its age and condition and how the Association decides to move forward with sliding glass door or window replacements.

A high number of sliding glass doors are older models or newer models with some cases of installation issues suspected. Many of the older, and some of the newer doors did not utilize stainless steel fasteners during the installation, which is causing corrosion, water intrusion and weakening of the installation.

The units with shutters are also installed directly in front of the sliding glass doors, with tracks mounted directly to the balcony floor with no accommodation for drainage away from the sill, and/or using non-stainless-steel fasteners which are corroding. New shutters or shutter reinstallations will require drainage shims to accommodate positive water flow away from the sliding glass door and sill.

All of this effort will also allow the entire balcony to be recoated and protected with a new floor coating system for full protection of the balcony surface.

Balcony Screen Enclosures-The balcony screen enclosures exist on the perimeter of all 60 elevated balconies. The screen frame base track is mounted directly to the balcony slab at the perimeter without drainage shims and is inhibiting drainage off the balcony. This lack of drainage is causing concrete damage, stucco delamination and paint failure. The screen frames also have corroding fasteners and other deteriorating components.

A high percentage of the balcony edges have delaminating stucco, peeling paint, rust stains and also structural concrete damage. This can be directly attributed to the lack of drainage at the balcony slab edges due to the improper screen installation. This is also accelerating the deterioration of the screen frames and

fasteners, most of which are not stainless-steel. Many fasteners were observed to be missing or in an advanced state of deterioration.

The removal of the screens will allow the needed concrete repairs to be completed and the protective-decorative floor coating to be applied to the full balcony surface. Once the repairs are completed and the floor coating installed and walls painted, new screen enclosures can be installed to include proper Kynar coated aluminum framing, drainage shims at the perimeter base track to accommodate continuous drainage, and the use of stainless-steel fasteners set in predrilled holes filled with urethane sealant.

Note: The Association could consider switching from screen enclosures to an open railing system. This would reduce both current project and future maintenance costs.

Shutters-As previously mentioned, many of the balconies have shutters in front of the sliding glass doors, either accordion or roll down style. Many of the accordion style shutters are mounted directly to the balcony floor without drainage shims, inhibiting drainage of water from the sliding glass doors. This condition can exacerbate concrete damage which was observed at many of the sliding glass door sills and a few into the interior space. Other units have a wall mounted roll down box shutter. Concrete damage was observed behind these shutters at the sliding glass door header. This damage can likely be attributed to chronic water intrusion from the sliding glass door above and will require the removal of the shutters to properly repair the structural damage.

It is likely a majority of the shutters will need to be removed to perform repair work and install the necessary protective coating finishes. The reinstallation needs to be properly executed to consider the drainage and protection of the structure from water intrusion. Since the shutters are owned by the unit owner, and not the Association, and the restoration contractors are generally uninterested in shutter work (largely, but not completely, due to the fact that it is individual owner and not Association work), a shutter vendor or multiple shutter vendors will need to be secured for the project. Ideally, the Association will negotiate with a single shutter vendor to handle all owners' needs.

The shutter vendor will be required to evaluate all existing shutters and render an opinion of their condition, and whether they can be reinstalled as is, refurbished and reinstalled, or replaced with new-due to age, condition and/or building code requirement changes with time. If the Association chooses a shutter vendor, and any owner disagrees with that vendor opinion of their shutters, that owner could opt to select their own vendor for their unit's shutters.

Exterior Walls-The exterior walls are a painted stucco finish. In many locations peeling paint was observed. Many of these locations had inadequately prepared "chalky" substrate behind the paint. There is also a high volume of concrete

repairs needed on the exterior walls, including the concrete headers, sills, stucco, beams, and columns. A large number of past repairs were visible and were of questionable quality, and possibly not performed by experienced and/or properly licensed personnel.

The paint that exhibits poor adhesion due to the lack of proper surface preparation on past painting projects, will be stripped by high water blasting. This will allow the contractor to expose a suitable substrate for adhesion of the primer/sealer application and ultimately the new paint finish.

Much of this structural damage on the exterior walls is a likely source of chronic water intrusion. Prior to the exterior painting, all of the structural concrete damage should be properly repaired to industry standards. If it is decided to replace the windows and sliding glass doors, that should also be completed before the painting process. Once all of the repair and replacement work is completed, the critical perimeter opening sealants for windows and doors can be professionally applied before the exterior paint finish is applied.

The front canopy on the west elevation parking area is showing some minor structural damage, but also loss of adhesion of the paint throughout the ceiling area. This loss of adhesion is either indicative of poor surface prep, or water intrusion from above, or both.

Decorative Block West Elevation-The three decorative block wall panels on the west elevation run the height of the building, floors 2 through 6. These blocks are deteriorating and crumbling due to age and internal reinforcing component corrosion. They are very likely beyond repair and will require removal and either abandonment or replacement with an alternative material.

We recommend this decorative block be removed fully. This removal will expose the windows of the stairwells, which are also from original construction and allowing water intrusion and building damage. These windows at a minimum should be replaced at this time.

The Association can decide if they want to not replace the decorative block with a new element or consider different feasible options, such as removable decorative aluminum panels. This will need to be discussed further with the Board in order to establish design criteria, budgets and bid parameters.

Fenestrations-Many of the windows, sliding glass doors and storefront glass openings are from original construction and are in excess of 50 years old; well beyond their intended service life in this harsh environment and far short of current codes for performance characteristics. The fenestrations are also contributing greatly to the chronic water intrusion and deterioration of the structure.

Some of the sliding glass doors and windows will likely need to be removed to make needed structural repairs. Many of these are aged, from original construction, or of insufficient quality for an oceanfront commercial application, and will not be able to be reinstalled due to condition or code requirements. These aged and/or deteriorating glass assemblies are also the reason for the structural damage that exists in these locations. The decision to replace all window, sliding glass doors, and storefronts would be a great benefit to the structure, its weather resistance and aesthetically.

Garage Roof-East Recreation Deck-The Northeast garage roof recreation deck has substantial evidence of water intrusion into the garage and the structural deterioration of the concrete perimeter walls, steel support columns, steel joists and corrugated metal decking. The roof also hosts three of the 60 private balconies and a wooden recreation deck.

The roof is an older built up roof with a rock ballast system. We were advised that during tropical storm events, the rocks become airborne and adversely affect the adjacent units. Rock ballast roofs are no longer permitted in Florida high velocity wind zones by the building code.

Openings were made in several locations of the drop ceiling below this roof to determine the condition of the substructure. Some of the openings occurred at areas of obvious chronic water intrusion, mostly the west end of the roof under the unit balconies.

In the areas along the west side of the roof, adjacent to the building, and under the balconies, the roof substructure was found to be badly deteriorating, with corroded steel joists and corrugated metal decking. These areas of the substructure will require substantial repairs before replacing the roof system.

The steel columns supporting this roof deck were also observed to be badly deteriorated by corrosion. These columns will either need to be substantially repaired or fully replaced.

The perimeter concrete walls, and stairs all needed structural work, as do the columns throughout the garage areas.

The three (3) unit balconies that are mounted on the roof, and attempted to be integrated into the roof system, appears to be problematic. Based on the water intrusion observed under the balcony areas, and the flashing methods utilized, a full redesign of this situation will be required. Further investigation of the roof condition in these areas is scheduled for November 13 to take core samples to better understand the makeup of the roofing system and the clearance available to accommodate a balcony redesign.

Recommendations:

Consider bidding the project out ASAP in order to gauge contractor pricing and availability. A 2020 start date may still be possible with some of the bidders. Corrosion issues get worse and more costly with time.

Consider low interest bank financing for a 10-year period if reserve funds are not available and large single assessments are undesired. Guidance can be provided on this option, which many Associations are electing.

Include all needed restoration and exterior painting as a single-phase project to minimize cost and duration as much as possible.

The workflow is assumed to follow this general course and order:

a. Remove the balcony screens and floor finishes.

b. Perform the structural concrete repairs needed to the balconies, exterior wall, and garages, including repairs above and below the sliding glass doors or windows as needed. Replace doors and windows either on an as needed basis or comprehensively as decided by the Association.

c. Install new floor coating finishes on the balconies, including profiling mortar for drainage improvements, and then install new screen railings and new screen with appropriate drainage shims.

d. Replace the northeast garage roof including all needed substrate structural repairs, properly designed to accommodate the observation recreation deck and the three private balconies.

e. Paint and waterproof exterior walls, including interior balcony walls before screens are installed. Replace the west elevation decorative block with a new design if desired.

The Corrosion Process with Chloride Contaminated Concrete

Since we cannot undo the cyclic corrosive effects of decades of exposure to salt air, unless we fully remove all of the concrete slabs, we must consider other available techniques to minimize or at least slow the damage due to corrosion.

The concrete “spalling” damage occurring on the building is primarily caused by reinforcing steel corrosion. The reinforcing steel corrosion is due to ongoing exposure to salt air and eventual saturation with chlorides. It is helpful to have some basic understanding of this phenomenon when faced with decision-making responsibilities for repair of such structures.

Uncontaminated reinforced concrete provides a natural corrosion-inhibiting environment due to the protective nature of high alkalinity concrete surrounding the reinforcing steel. However, in salt-water environments, the chloride intrusion eventually breaks down the concrete's natural ability to inhibit corrosion by creating corrosion cells throughout the concrete. A corrosive environment is created whereby corrosion cells are created due to slight variations in corrosion potential throughout the structure. This is due to the slight inconsistency of the chloride intrusion. Therefore, areas with higher levels of chlorides have higher corrosion potential versus adjacent areas with lower potentials. These higher potential areas (called anodes or anodic areas) corrode and spall, while lower potential areas (called cathodes) do not.

The proper understanding of the corrosion process allows for a project to address the problem of rebar corrosion as well as the symptom of concrete spalling. It is therefore an important aspect of the project to take measures to mitigate the corrosion of the reinforcing steel while also repairing the damaged concrete. Effective corrosion mitigation can delay or eliminate future concrete spalling from rebar corrosion.

For the specific situations on this project, the most effective solutions available to us involve reducing the exposure of the structural components of the building to the corrosive atmospheric elements along with the use of corrosion mitigation products. This is best accomplished by the elimination of the current cracking due to concrete spalling (by repairing the concrete structural spall to ICRI standards), reducing exposure at railing posts, fasteners, shutter tracks, glass doors and horizontal surfaces by utilizing proper fasteners, methods, sealants and coatings. While these efforts will not fully stop the effects of corrosion on the building structure, they can greatly reduce the magnitude and rate of their effects over time. This will save the Association substantially in terms of maintenance costs, future assessments, the inconvenience and loss of use as a result of construction and the collateral costs of construction including removing, reinstalling and/or replacing components such as railings, coatings, shutters and doors.

RECOMMENDATIONS

It is recommended that Sandpiper Towers undergo an exterior structural building repair, weatherproofing and preventive maintenance project as soon as practical and determine a priority list for the project based on Association timing and funding. The work would include concrete repairs, existing railings and screen removal and reinstall/replacement, stucco finishes, waterproof coating finishes, and exterior painting. Budget estimates are enclosed to accomplish the anticipated work.

Once the information in this report is reviewed, discussed and understood, the Association can reach conclusions as to the planning and timing of the recommended repair work. Keystone Engineering can provide valuable input and services towards this discussion and decision-making process. Keystone can also provide the necessary services for the subsequent solicitation of bids for the work from qualified contractors as well as the oversight of the construction phase to ensure the work is properly executed, including control of the budget, quality of work, contractor payments and warranties.

CONCLUSION

It is our intention to assist and guide you to complete a quality and cost-effective project that will both enhance the value of your building, lower future maintenance costs and provide extended service life. Enclosed you will find survey summary quantities, survey results and project budget estimates. The actual survey maps are also enclosed. We look forward to meeting and discussing the project further in order to assist with the ongoing decision process.

Sincerely,

James E. Emory, P.E.
President
Keystone Engineering & Consulting, Inc.

Balconies

Sandpiper Towers
Estimated Project Budget

Keystone Engineering
August 2019

	A	B	C	D	E	F
1		**Budget Balconies**	**Comprehensive Long Term**			
2		**Item**	**Estimated Quantity**	**Units**	**Estimated Unit Cost**	**Estimated Extended Cost**
3	1	Mobilization	1	EA	$ 65,000.00	$ 65,000.00
4	2	Floor Coating Strip	6775	SF	$ 4.00	$ 27,100.00
5	3	Concrete Repairs*				
6		a. Floor Surface	72	SF	$ 150.00	$ 10,800.00
7		b. Slab Edge	204	LF	$ 200.00	$ 40,800.00
8		c. Slab Full Depth	32	SF	$ 175.00	$ 5,600.00
9		d. Column/Beam/Headers/Sills	338	CF	$ 450.00	$ 152,100.00
10		e. Small Repairs Allowance	200	EA	$ 75.00	$ 15,000.00
11		f. Ceiling Spalls	60	SF	$ 185.00	$ 11,100.00
12		g. Profiling Mortar	6775	SF	$ 10.00	$ 67,750.00
13	4	Screen Enclosure Remove and Replace w/New	1755	LF	$ 110.00	$ 193,050.00
14	5	Interior Weather Barricade-Door Removal/Reinstall**	320	LF	$ 80.00	$ 25,600.00
15		(interior finishes by others)				
16	6	Balcony Floor Coating System-New	6775	SF	$ 7.00	$ 47,425.00
17	7	Stucco Over Masonry Repairs Allowance	1500	SF	$ 24.00	$ 36,000.00
18	8	Remove and Replace Misc. Fastener Allowance	120	LF	$ 15.00	$ 1,800.00
19	9	Electrical Allowance	1	EA	$ 3,600.00	$ 3,600.00
20	10	Paint Balcony Walls-Inside Screens	60	EA	$ 300.00	$ 18,000.00
21		a. Strip Ceiling Elastomeric Paint	6775	SF	$ 2.00	$ 13,550.00
22		b. Stucco Balcony Edge/Face	1755	LF	$ 15.00	$ 26,325.00
23		**Balconies Estimated Budget Total**				**$ 699,125.00**
24						
25		**Recommeded Contigency Funds**				**$ 150,000.00**
26						
27		**Other Alternatives and Costs to Consider**				
28	11	Shutter R&R by others-as needed to access repairs, improve drainage and apply protective coatings				
29	12	New Sliding Glass Door				
30		a. 10' x 6'-8"		EA	TBD	
31	13	Use Convention Railings instead of Screen Enclosures - option for consideration at 1755 LF at $75/LF	$ 131,625.00		Budget Credit Amount	$ (61,425.00)
32						
33		**Contingencies need to be added to budget for increased costs that are probable due to hidden conditions and**				
34		**additional concrete damage that may exist or occur over time**				
35		***Probable hidden concrete spalling under tile, coating, screen frames and shutters**				
36		****For re-installation of existing door only-if new door is required, the cost of the new door is additional**				

Sandpiper Towers
Estimated Project Budget

	A	B	C	D	E	F
1		**Budget-Exterior Building/Walls Repairs and Painting**	**Comprehensive Long Term**			
2		**Item**	**Estimated Quantity**	**Units**	**Estimated Unit Cost**	**Estimated Extended Cost**
3	1	**Mobilization**	1	EA	$ 38,000.00	$ 38,000.00
4	2	**Decorative Concrete Panels-West Elevation**				
5		a. Demo and dispose	1800	SF	$ 10.00	$ 18,000.00
6		b. Replace Windows 5' x 12' openings	15	EA	$ 6,000.00	$ 90,000.00
7		c. Column/Beam Repairs	36	CF	$ 450.00	$ 16,200.00
8		d. New Panels-TBD for Cost and Design	1800	SF	$ -	$ -
9	3	**Front Parking Canopy**				
10		a. Strip Paint Finishes top and bottom sides	6000	SF	$ 2.00	$ 12,000.00
11		b. Concrete Repairs-Beams-Columns-Slabs	10	CF	$ 400.00	$ 4,000.00
12		c. Paint/Coat entire structure-top-bottom-columns	8000	SF	$ 2.00	$ 16,000.00
13	4	**Exterior Building Walls-Perimeter Walls-Garage area**				
14		a. Concrete Repairs-Walls-Columns-Beams-Sills	75	CF	$ 450.00	$ 33,750.00
15		b. Stucco Repairs	3500	SF	$ 24.00	$ 84,000.00
16		c. Paint Stripping due to Poor Adhesion/past prep	18000	SF	$ 2.00	$ 36,000.00
17		d. Paint-Waterproof-Seal Exterior Wall Surfaces	54000	SF	$ 1.65	$ 89,100.00
18	5	**Fenestration Replacements**				
19		a. Sliding Glass Doors			TBD	
20		b. Windows			TBD	
21		c. Common Areas and Storefronts			TBD	
22		**Exterior Building/Walls-Estimated Budget Total**				**$ 437,050.00**
23						
24		**Recommended Contigency Funds**				**$ 100,000.00**
25						
26						
27		**Contingencies need to be added to budget for increased costs that are probable due to hidden conditions and**				
28		**additional concrete damage that may exist or occur over time**				

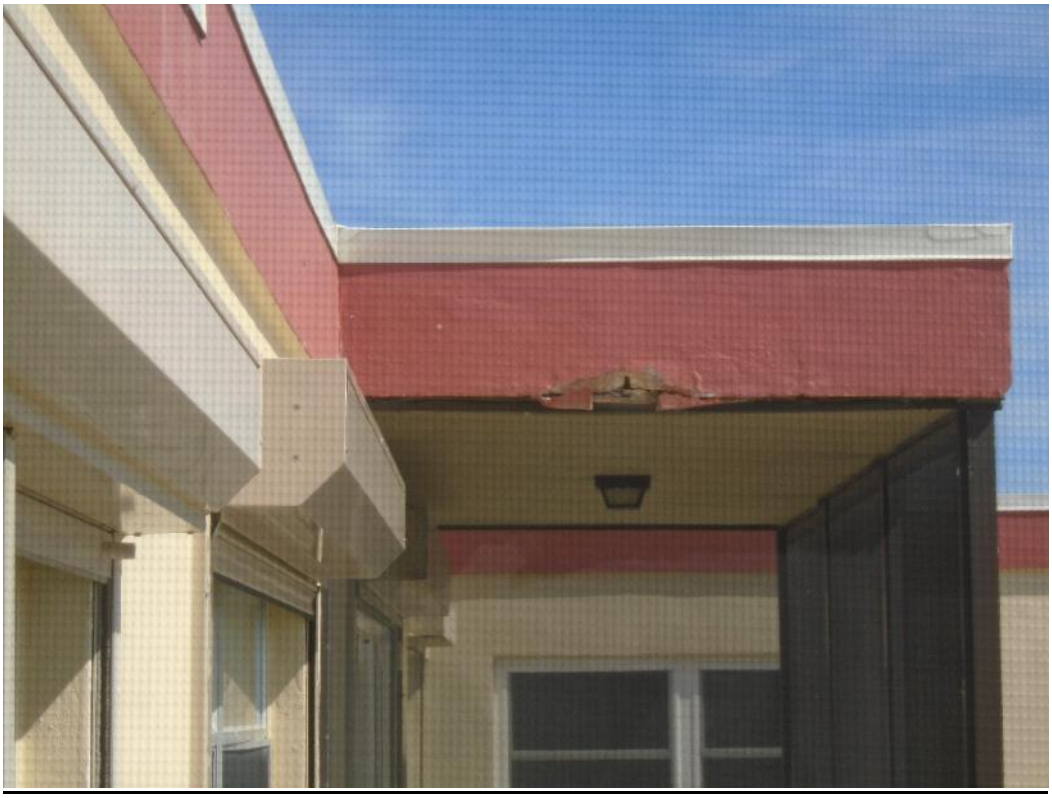
Sandpiper Towers
Estimated Project Budget

	A	B	C	D	E	F
1		**Budget-Garage Roof and Related Substructure and Balconies**	**Comprehensive Long Term**			
2		**Item**	**Estimated Quantity**	**Units**	**Estimated Unit Cost**	**Estimated Extended Cost**
3	1	**Mobilization**	1	EA	$ 12,000.00	$ 12,000.00
4	2	Garage Steel Column Repair/Replace Allowance	11	EA	$ 600.00	$ 6,600.00
5	3	Concrete Column Spall Repairs	78	CF	$ 400.00	$ 31,200.00
6	4	Concrete Slab Repairs	30	SF	$ 200.00	$ 6,000.00
7	5	Substrate Steel Joists and Metal Deck Repairs Allowance	1	EA	$ 24,000.00	$ 24,000.00
8	6	Balcony (Roof Surface) Redesign/Replacement Allowance	342	SF	$ 150.00	$ 51,300.00
9	7	Concrete Repairs-Perimeter Walls/Stairs Allowance	35	CF	$ 400.00	$ 14,000.00
10	8	New Perimeter and Stair Railings	163	LF	$ 75.00	$ 12,225.00
11	9	**New Roof System**	3975	SF	$ 25.00	$ 99,375.00
12	10	Recreation Deck on Roof System Allowance	1200	SF	$ 20.00	$ 24,000.00
13		**Garage Roof and Substructure-Estimated Budget Total**				**$ 280,700.00**
14						
15		**Recommended Contigency Funds**				**$ 60,000.00**
16						
17		**Contingencies need to be added to budget for increased costs that are probable due to hidden conditions and**				
18		**additional concrete damage that may exist or occur over time**				

	A	B	C	D	E	F	G	H	I	J	K	L
1	**Balconies - Sandpiper Towers**											
2	**Unit #**	**Balcony Surface Area (SF)**	**Balcony Finish**	**Screened Railings (LF)**	**Concrete Spall Surface (SF)**	**Concrete Spall Ceiling (SF)**	**Concrete Spall Edge (LF)**	**Concrete Spall Full Depth (SF)**	**Concrete Spall Column- Beam-Header -Sill (CF)**	**Sliding Glass Door Intrusion (LF)**	**Sliding Glass Door Condition**	**Shutters**
3	201	110	Urethane Coating	30	0	0	0	0	0	0	Newer	Accordion at Door
4	301	110	Urethane Coating	30	0	0	0	0	3	10	Older	Accordion at Door
5	401	110	Urethane Coating	30	8	0	0	0	4	10	Newer	Accordion at Door
6	501	110	Urethane Coating	30	0	0	0	0	5	0	Older	Roll Down at Door
7	601	110	Urethane Coating	30	0	0	0	0	2	0	Older	Accordion at Door
8	202	117	Urethane Coating	31	14	0	8	0	6	10	Older	Accordion at Door
9	302	117	Urethane Coating	31	6	0	4	0	7	0	Newer	
10	402	117	Urethane Coating	31	0	0	0	0	6	0	Older	Panels at Door
11	502	117	Urethane Coating	31	0	0	0	8	4	0	Older	Roll Down at Door
12	602	117	Urethane Coating	31	0	0	4	0	3	10	Older	Accordion at Door
13	203	114	Urethane Coating	30.5	0	0	0	0	5	0	Older	Roll Down at Door
14	303	114	Urethane Coating	30.5	0	0	0	0	6	0	Older	Roll Down at Door
15	403	114	Urethane Coating	30.5	0	0	0	0	4	0	Older	Roll Down at Door
16	503	114	Urethane Coating	30.5	4	0	8	0	9	10	Newer	None
17	603	114	Urethane Coating	30.5	0	0	10	0	3	10	Older	Roll Down at Door
18	204	114	Urethane Coating	30.5	0	0	0	0	3	0	Older	Roll Down at Door
19	304	114	Urethane Coating	30.5	0	0	0	0	8	10	Older	Accordion at Door
20	404	114	Urethane Coating	30.5	0	0	0	0	3	0	Older	Roll Down at Door
21	504	114	Urethane Coating	30.5	10	0	12	6	6	10	Older	Roll Down at Door
22	604	114	Urethane Coating	30.5	0	0	14	0	4	0	Newer	Roll Down at Door
23	205	114	Urethane Coating	30.5	0	0	0	0	9	10	Older	Roll Down at Door
24	305	114	Urethane Coating	30.5	2	0	4	0	0	0	Older	Roll Down at Door
25	405	114	Urethane Coating	30.5	2	0	4	0	3	10	Older	
26	505	114	Urethane Coating	30.5	4	0	8	0	11	10	Older	Accordion at Door
27	605	114	Urethane Coating	30.5	0	0	18	0	10	10	Newer	None
28	206	108	Urethane Coating	23	0	0	0	0	9	10	Newer	Accordion at Door
29	306	108	Urethane Coating	23	0	0	0	0	5	0	Older	Roll Down at Door
30	406	108	Urethane Coating	23	0	0	0	0	6	10	Older	Accordion at Door
31	506	108	Urethane Coating	23	0	16	4	8	6	10	Older	Roll Down at Door
32	606	108	Urethane Coating	23	0	0	6	0	6	0	Newer	None

	A	B	C	D	E	F	G	H	I	J	K	L
1	**Balconies - Sandpiper Towers**											
2	**Unit #**	**Balcony Surface Area (SF)**	**Balcony Finish**	**Screened Railings (LF)**	**Concrete Spall Surface (SF)**	**Concrete Spall Ceiling (SF)**	**Concrete Spall Edge (LF)**	**Concrete Spall Full Depth (SF)**	**Concrete Spall Column- Beam-Header -Sill (CF)**	**Sliding Glass Door Intrusion (LF)**	**Sliding Glass Door Condition**	**Shutters**
33	207	108	Urethane Coating	23	0	0	0	0	2	10	Older	Roll Down at Door
34	307	108	Urethane Coating	23	0	0	0	0	2	0	Older	Roll Down at Door
35	407	108	Urethane Coating	23	12	0	0	0	1	10	Older	Roll Down at Door
36	507	108	Urethane Coating	23	0	0	0	6	9	10	Older	Roll Down at Door
37	607	108	Urethane Coating	23	0	0	14	0	10	10	Older	Roll Down at Door
38	208	114	Urethane Coating	30.5	0	0	0	0	4	0	Older	Roll Down at Door
39	308	114	Urethane Coating	30.5	0	0	0	0	10	10	Older	Roll Down at Door
40	408	114	Urethane Coating	30.5	0	0	0	0	4	10	Older	Accordion at Door
41	508	114	Urethane Coating	30.5	0	0	0	0	2	0	Older	Roll Down at Door
42	608	114	Urethane Coating	30.5	0	0	12	0	2	0	Newer	None
43	209	114	Urethane Coating	30.5	0	0	0	0	2	0	Older	Roll Down at Door
44	309	114	Urethane Coating	30.5	0	0	0	0	6	10	Older	Accordion at Door
45	409	114	Urethane Coating	30.5	0	0	0	0	8	10	Newer	Roll Down at Door
46	509	114	Urethane Coating	30.5	0	0	0	0	17	10	Older	Accordion at Door
47	609	114	Urethane Coating	30.5	6	0	24	0	2	0	Newer	Roll Down at Door
48	210	114	Urethane Coating	30.5	0	0	0	0	4	0		
49	310	114	Urethane Coating	30.5	0	0	6	0	6	10	Older	Accordion at Door
50	410	114	Urethane Coating	30.5	0	12	0	0	7	10	Older	Roll Down at Door
51	510	114	Urethane Coating	30.5	0	0	0	0	11	10	Older	Accordion at Door
52	610	114	Urethane Coating	30.5	0	14	14	0	3	0	Older	Roll Down at Door
53	211	114	Urethane Coating	30.5	0	0	0	0	8	10	Older	Roll Down at Door
54	311	114	Urethane Coating	30.5	0	0	0	0	13	10	Older	Panels at Door
55	411	114	Urethane Coating	30.5	0	0	0	0	10	10	Older	Roll Down at Door
56	511	114	Urethane Coating	30.5	0	0	4	0	11	10	Older	Accordion at Door
57	611	114	Urethane Coating	30.5	4	14	16	4	12	0	Older	Accordion at Door
58	212	114	Urethane Coating	30.5	0	0	0	0	4	0	Older	Panels at Door
59	312	114	Urethane Coating	30.5	0	0	0	0	7	10	Older	Roll Down at Door
60	412	114	Urethane Coating	30.5	0	0	6	0	1	0	Older	Roll Down at Door
61	512	114	Urethane Coating	30.5	0	0	0	0	4	0	Older	Roll Down at Door
62	612	114	Urethane Coating	30.5	0	4	4	0	0	0	Older	Roll Down at Door
64	**Totals**	**6775**		**1755**	**72**	**60**	**204**	**32**	**338**	**320**		

Example view slab edge Concrete spalling due to reinforcing steel corrosion



Example view slab roofline edge Concrete spalling due to reinforcing steel corrosion

Example view Window Sill Concrete spalling due to reinforcing steel corrosion

Example view Sliding Glass Door Sill Concrete spalling due to reinforcing steel corrosion

Example view Exterior Wall Concrete spalling due to reinforcing steel corrosion

Example view Sliding Glass Door Header Beam Concrete spalling due to reinforcing steel corrosion

Example view Interior Ceiling Concrete spalling due to reinforcing steel corrosion

Example view Column Concrete spalling due to reinforcing steel corrosion

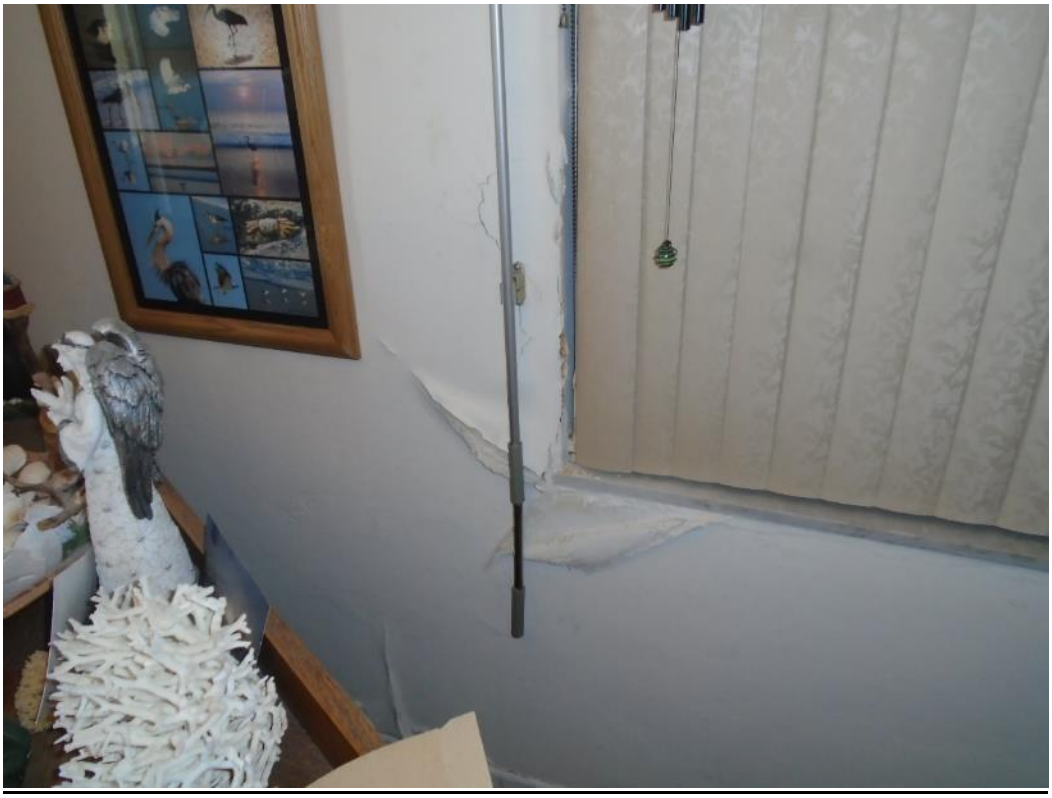
Example view Garage Column Concrete spalling due to reinforcing steel corrosion

Example view Beam Concrete spalling due to reinforcing steel corrosion-with past repairs in failure

Example view Stairs Concrete spalling due to reinforcing steel corrosion

Example view Exposed Wall Concrete spalling due to reinforcing steel corrosion

Example view of lack of drainage at shutter track resulting in floor coating failure



Example view of water intrusion at window opening due to either window failure, sealant failure or structural damage

Example view of water intrusion at window opening due to either window failure, sealant failure or structural damage

Example view of water intrusion at Sliding Glass Door opening

Example view of screen frame fastener deterioration

Example view of window shutter track inhibiting drainage off of sill

Example view of balcony drainage inhibited by the screen framing

Example view of stucco and paint damage due to inhibition of balcony drainage at screen frame tracks

Example view of corroding sliding glass door fasteners

Example view of paint loss of adhesion-improper application of elastomeric on balcony ceilings

Example view of stucco loss on balcony ceiling due to poor drainage at screen frame above

Example view of paint loss of adhesion-chalkiness under substrate-poor surface prep

Example view of miscellaneous corroded fasteners

Example view of corroded steel garage support columns

Example view of water intrusion damage behind decorative block windows

Example view of falling debris from decorative block deterioration

Example view of decorative block deterioration and corrosion

Visual evidence of long term water intrusion from northeast garage roof under balconies

Example view of corroded substructure under northeast garage roof balconies

Example view of questionable flashing at roof mounted balcony over garage

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Balcony Survey Map

Project: Sandpiper Towers Unit # 251 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

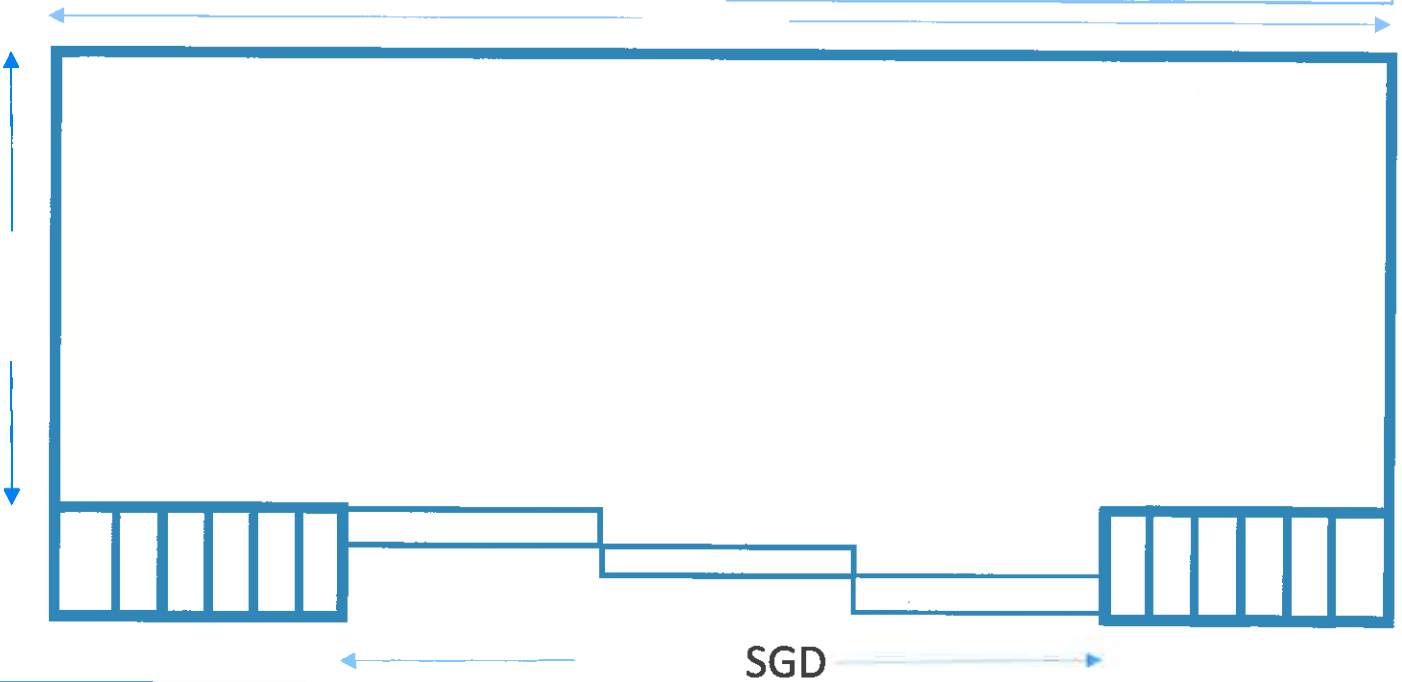
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

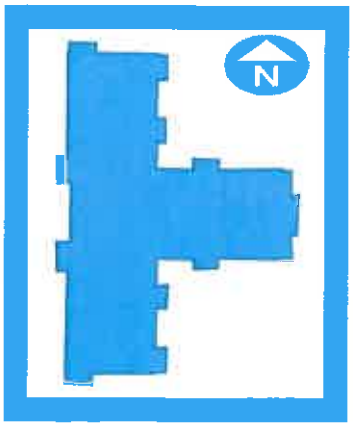
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 301 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

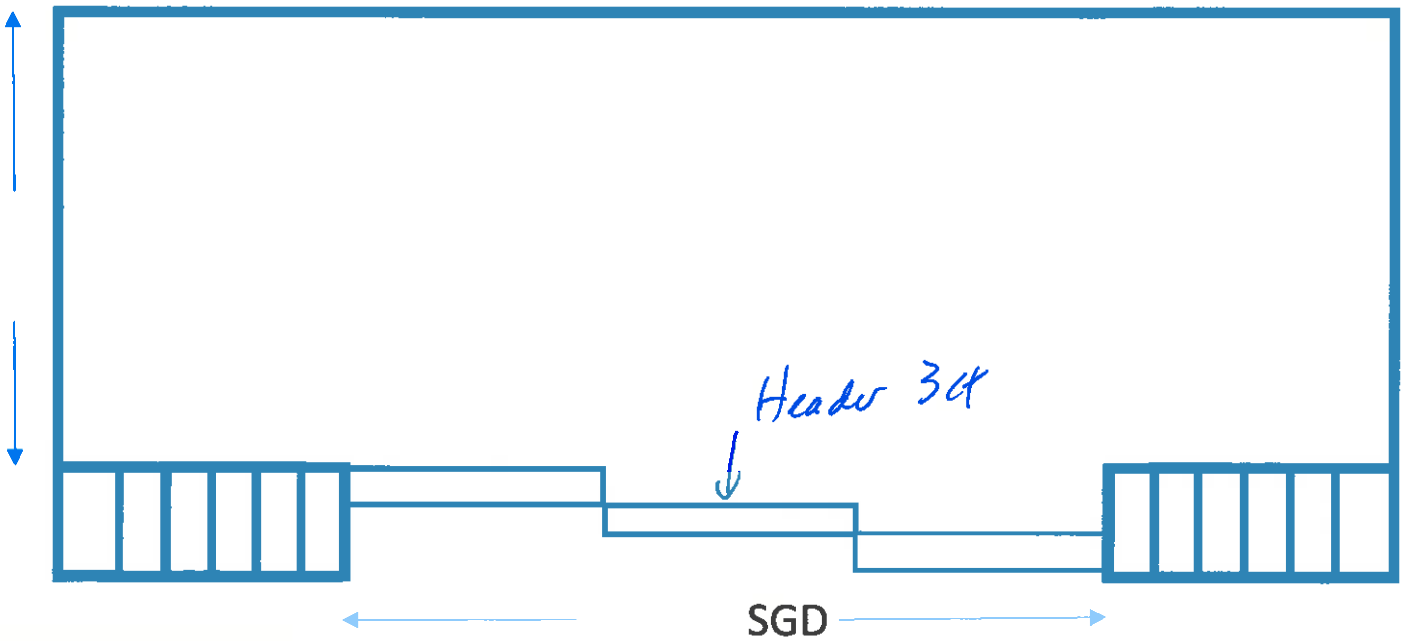
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

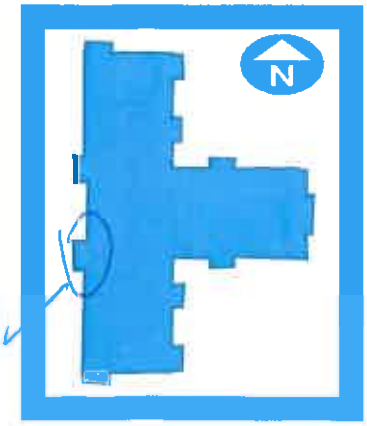
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - Dirt - Plants - Rocks

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 401 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

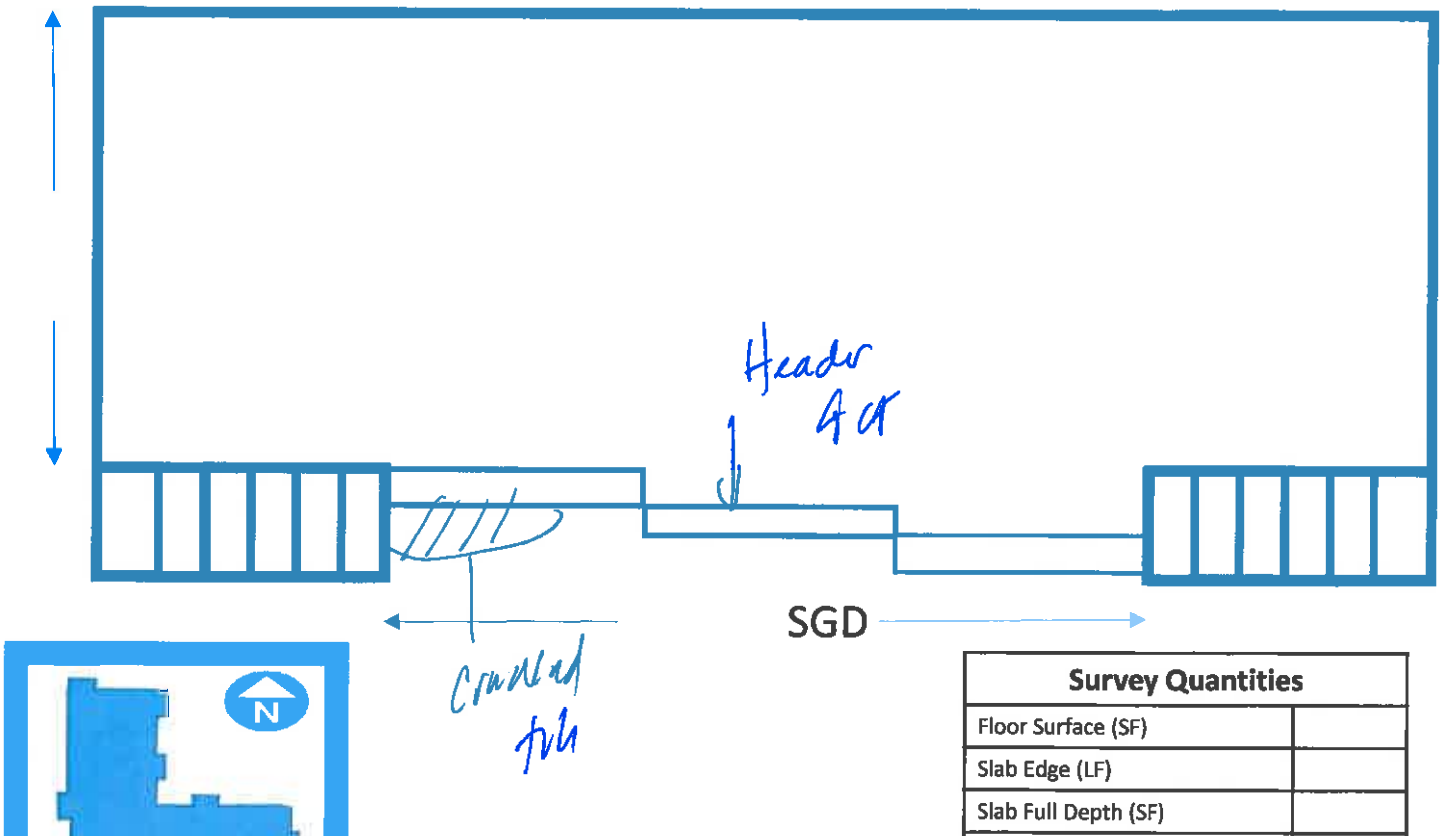
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

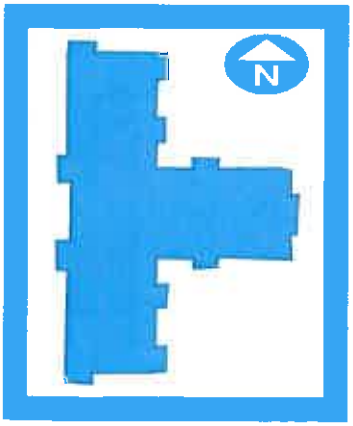
Shutters Drawers
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 501 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

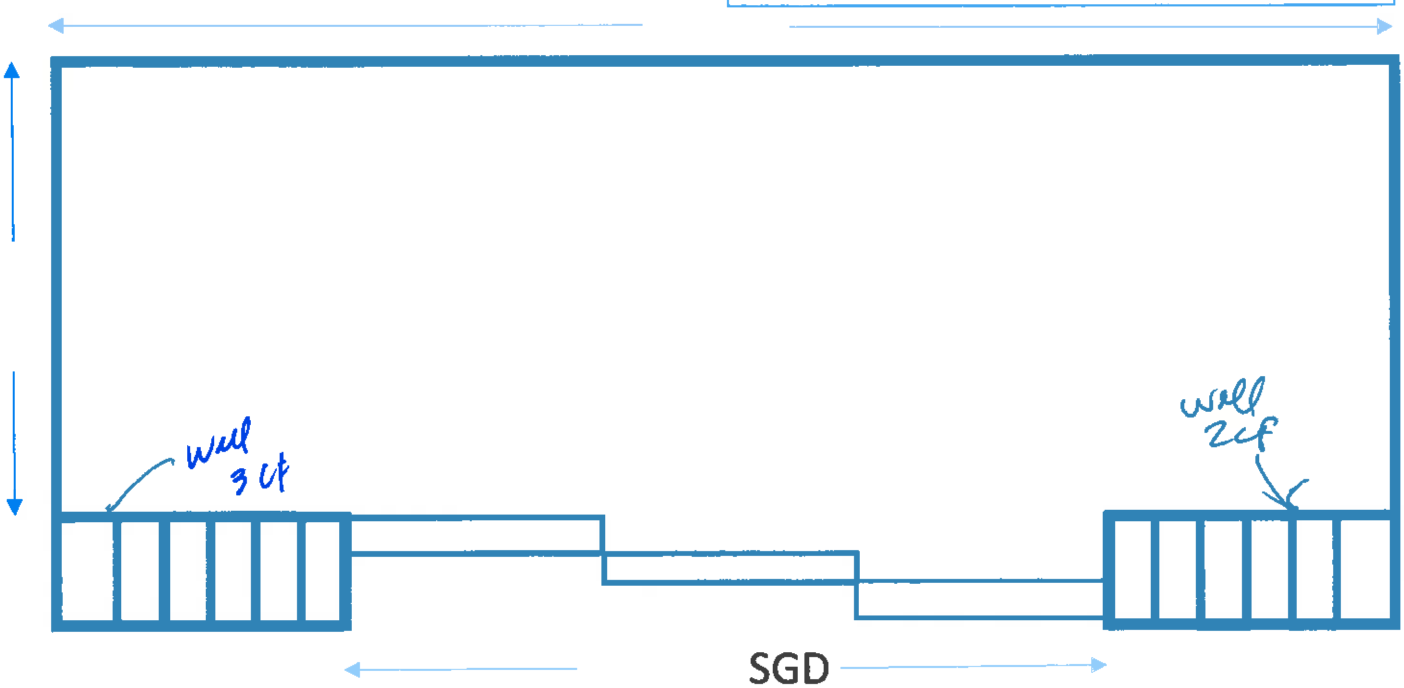
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

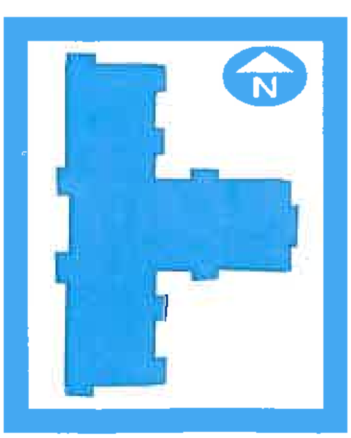
Shutters
Yes No
Edge **Door**
Accordion **Roll Down**

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair **Poor**
Age: **Older** Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: fair





Screens - Remove & Replace
Floor Coating - Strip & Replace
SGD's - replace older doors
Exterior painting - waterproofing
Shutters - as needed
Stucco / sill / col. / beam / header / wall
2 always

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

Need ph II/III Proposal Bids By Oct 31, 2019

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→ NE Roof Deck and N-Garage
→ Garage Drop Ceiling - Remove & Inspect 2000

Balcony Survey Map

Project: Sandpiper Towers **Unit #** 601 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

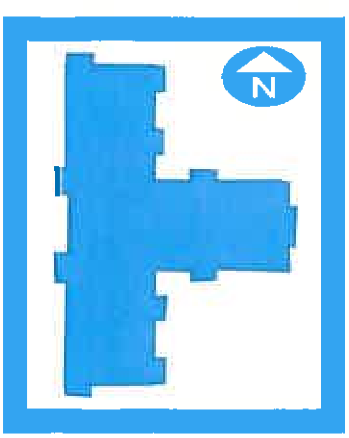
Shutters Orange
(Yes) No
Edge (Door) Hurricane
(Accordion) Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair (Poor)
Age: (Older) Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair - Drainage

Main Roof - Legal Recourse



Ok? replaced Balcony

Main Roof - 2018
N-Garage Roof - Needs New
Garage - Expose @ drop ceiling

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 202 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

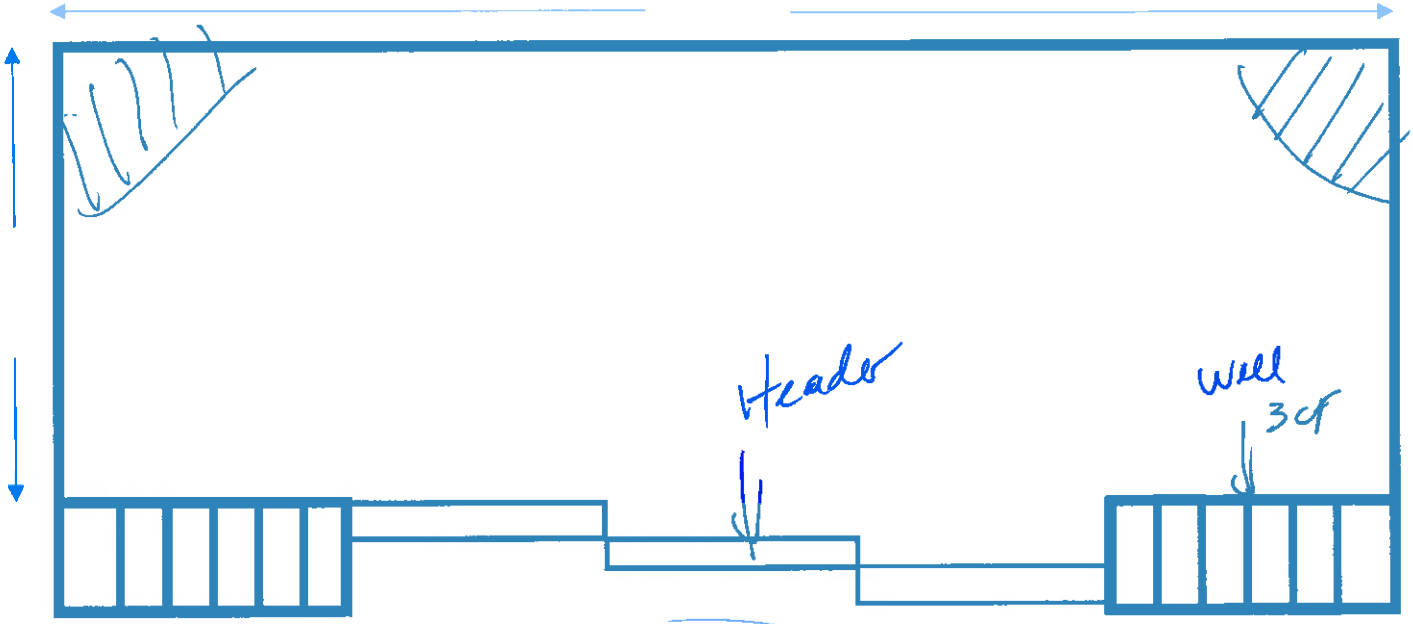
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

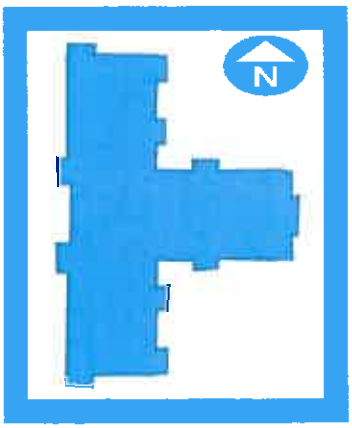
Shutters
Yes No drawn
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: Fair





1964 Construction

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 302 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

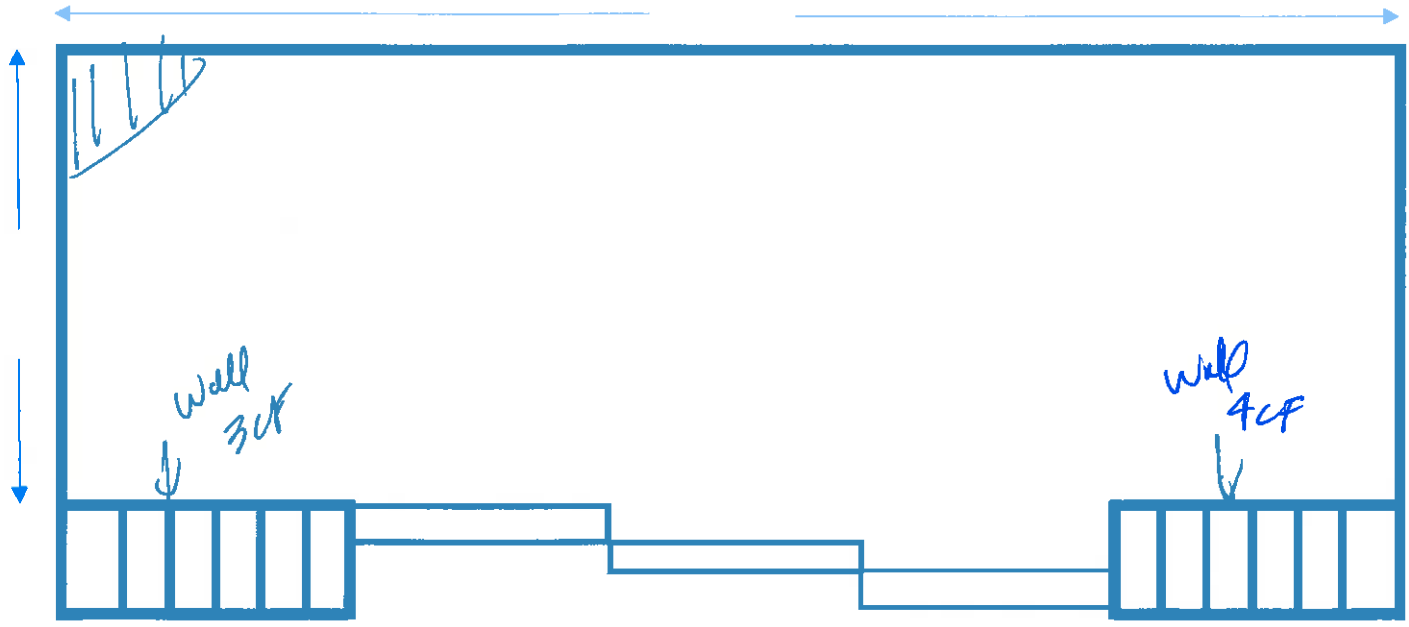
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

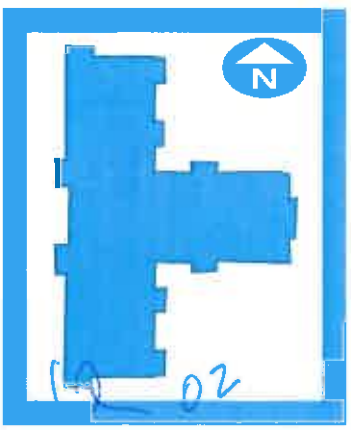
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: fair





Past wall Leaks

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 402 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

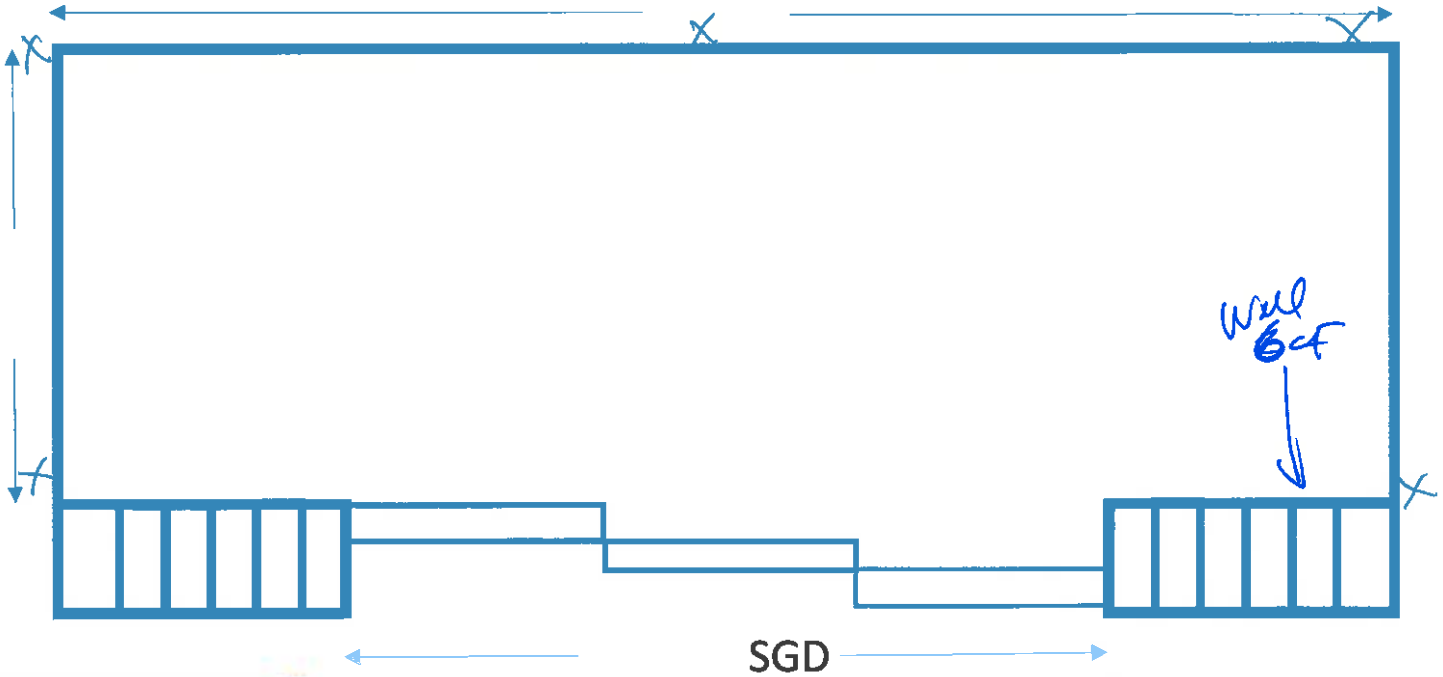
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

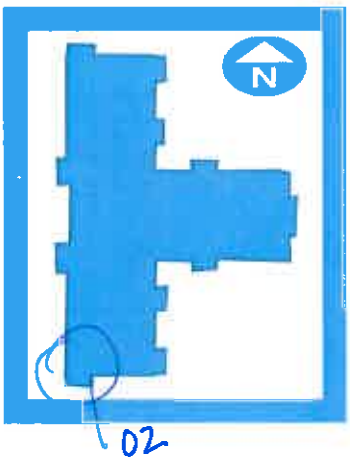
Shutters
Yes No (PANELS)
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Carpet

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 502 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

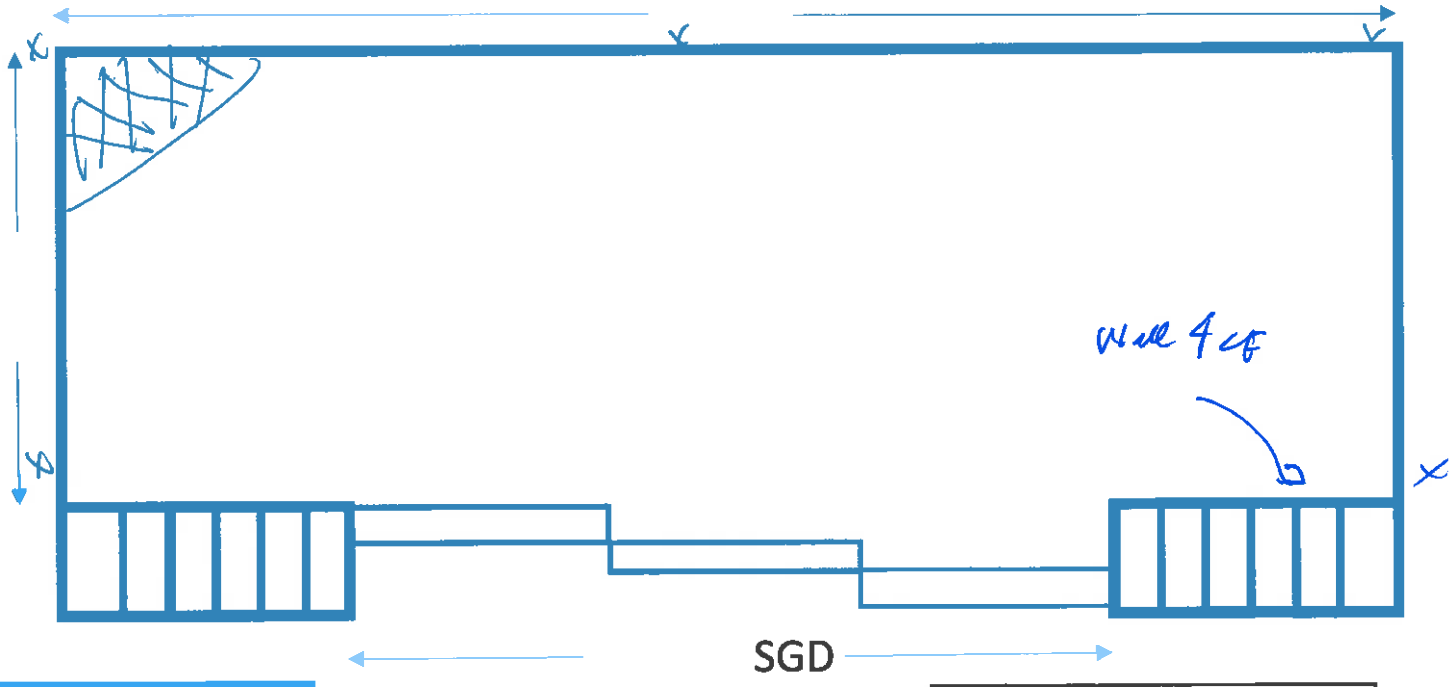
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

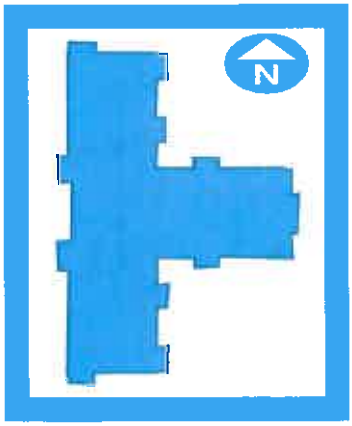
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Corrugated
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 602 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

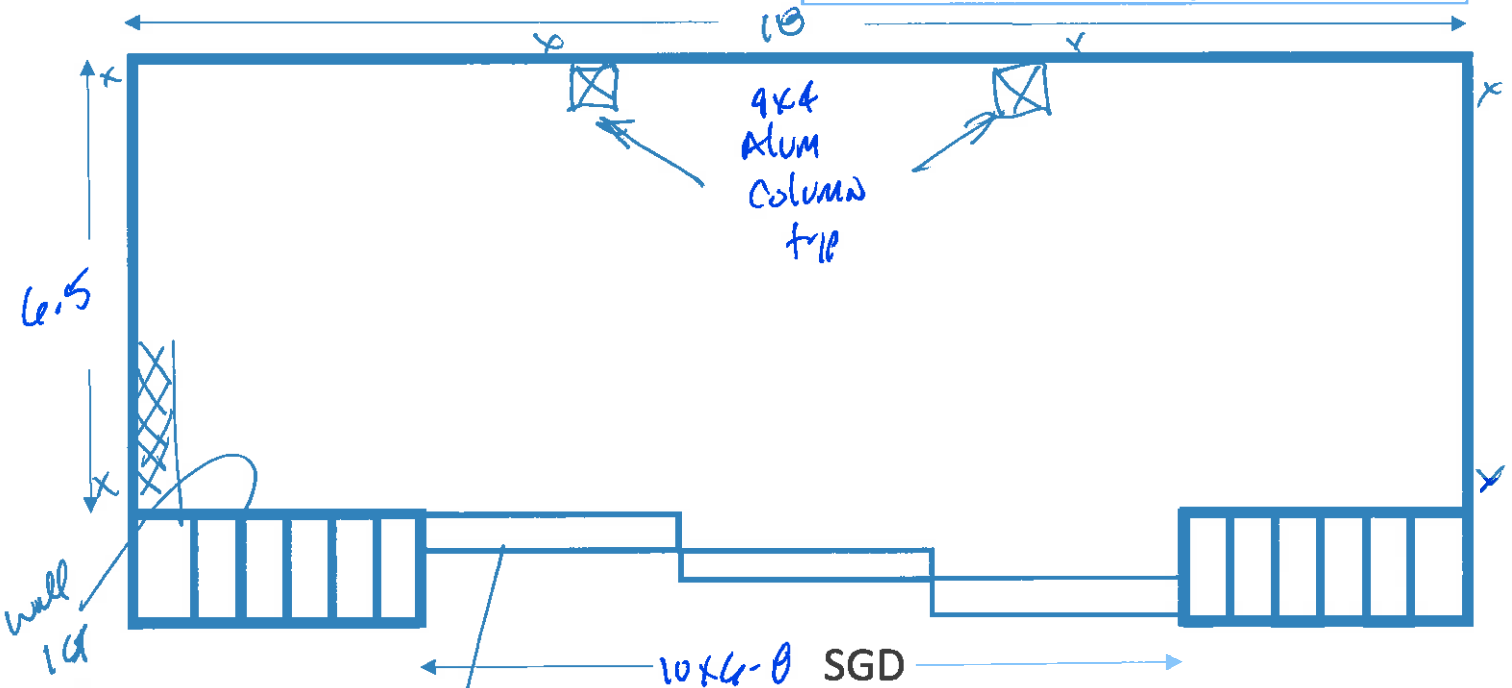
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

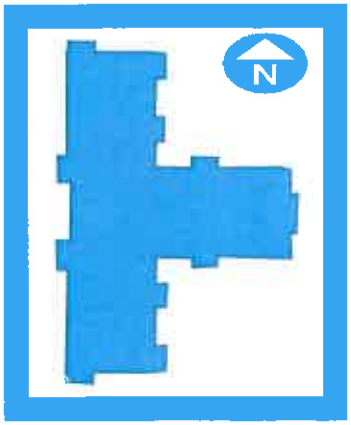
Shutters Drainage
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - Elepatten

Screened Enclosure
Condition: Fair - Drainage





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 203 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

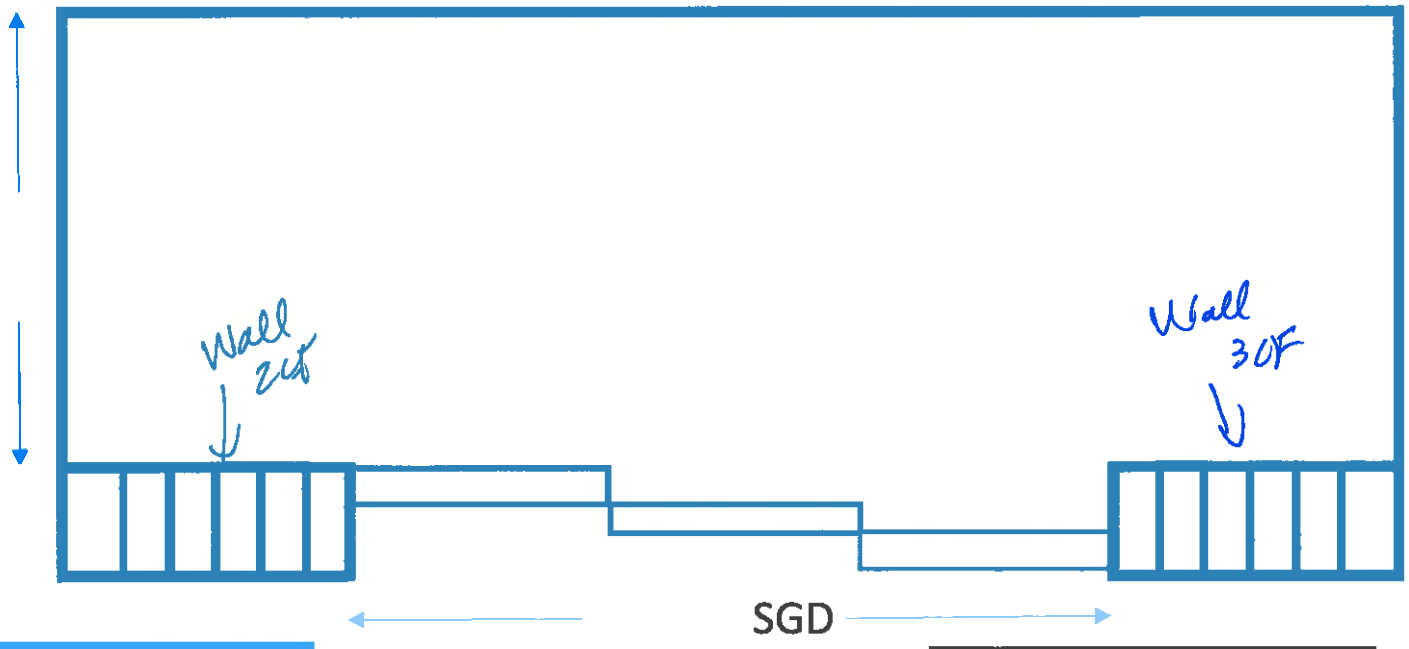
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

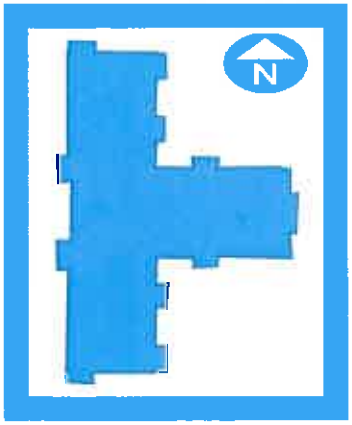
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: Fair - drainage





Headers - Hidden by shutters

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 303 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

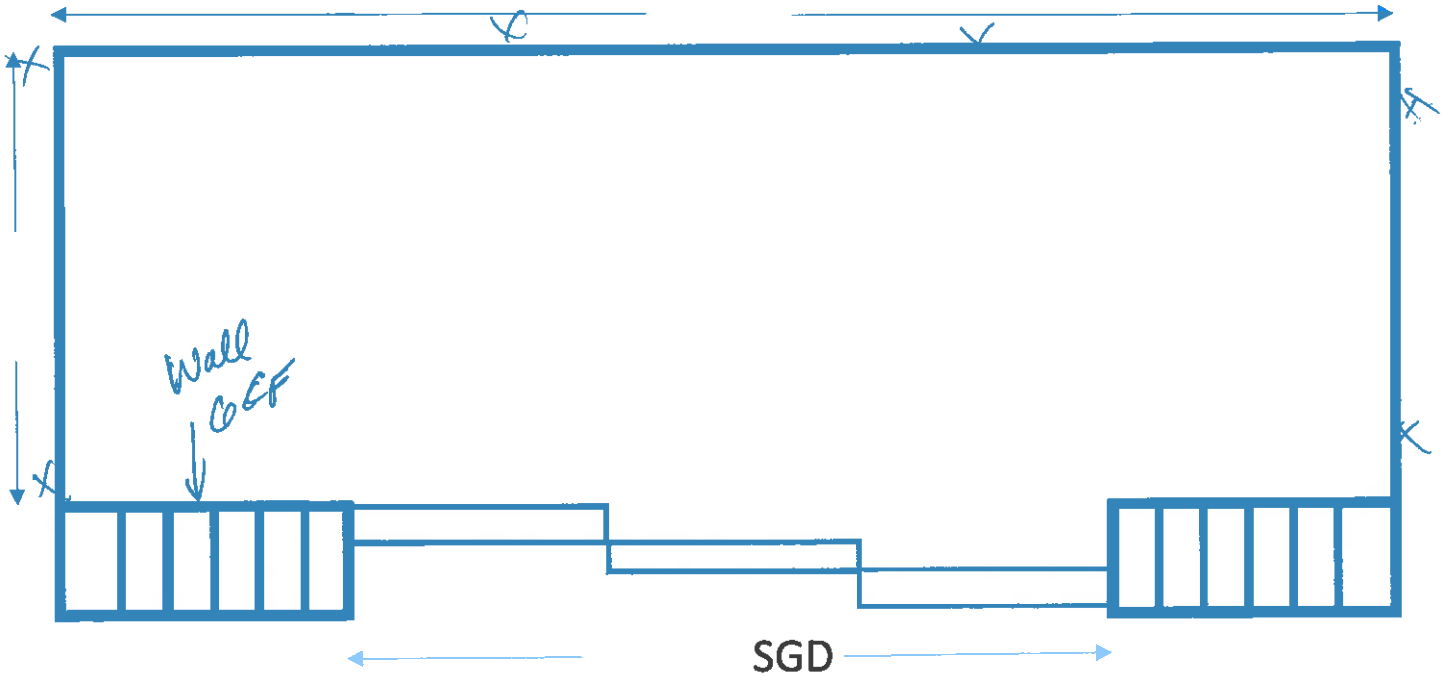
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

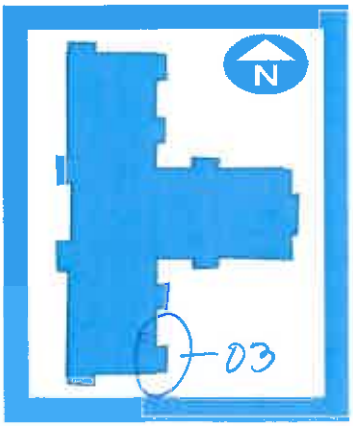
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Carpet

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 403 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

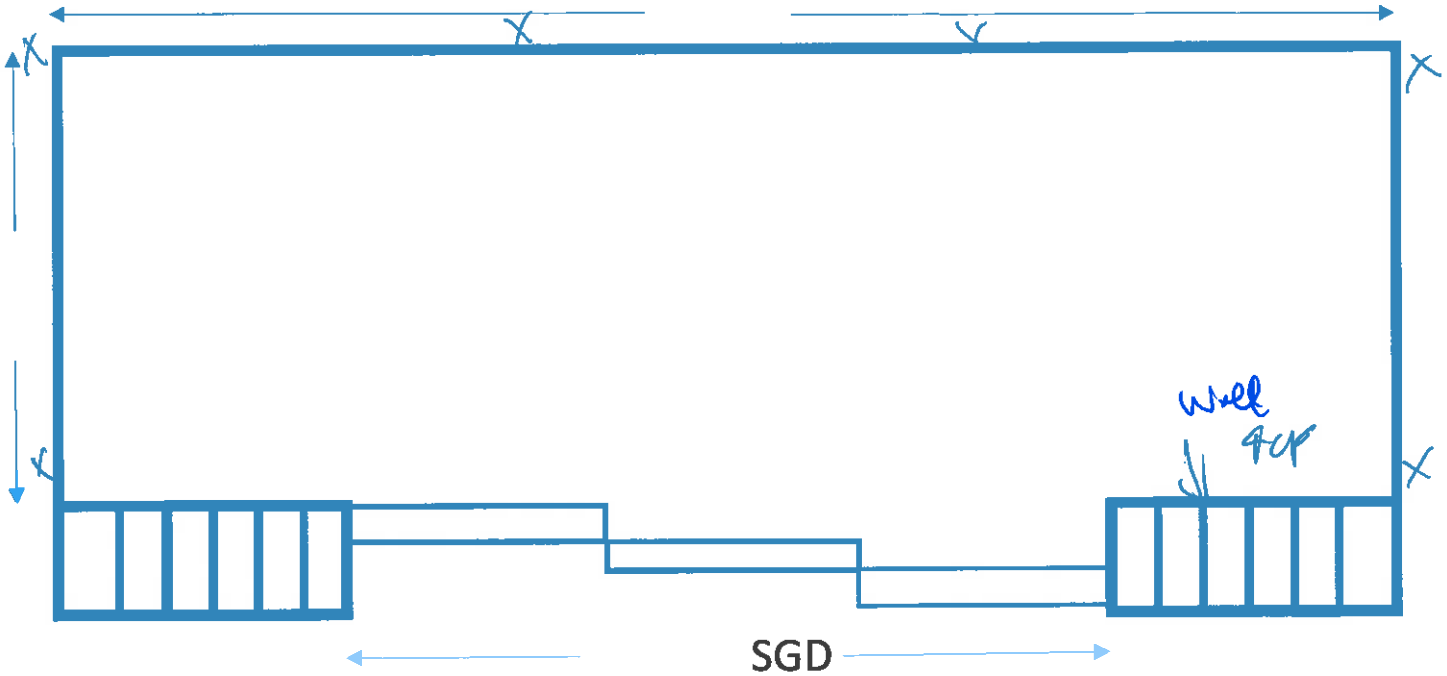
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

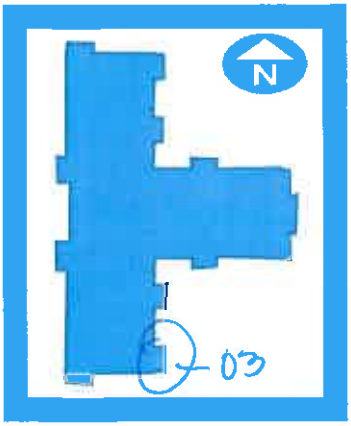
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coat

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 503 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

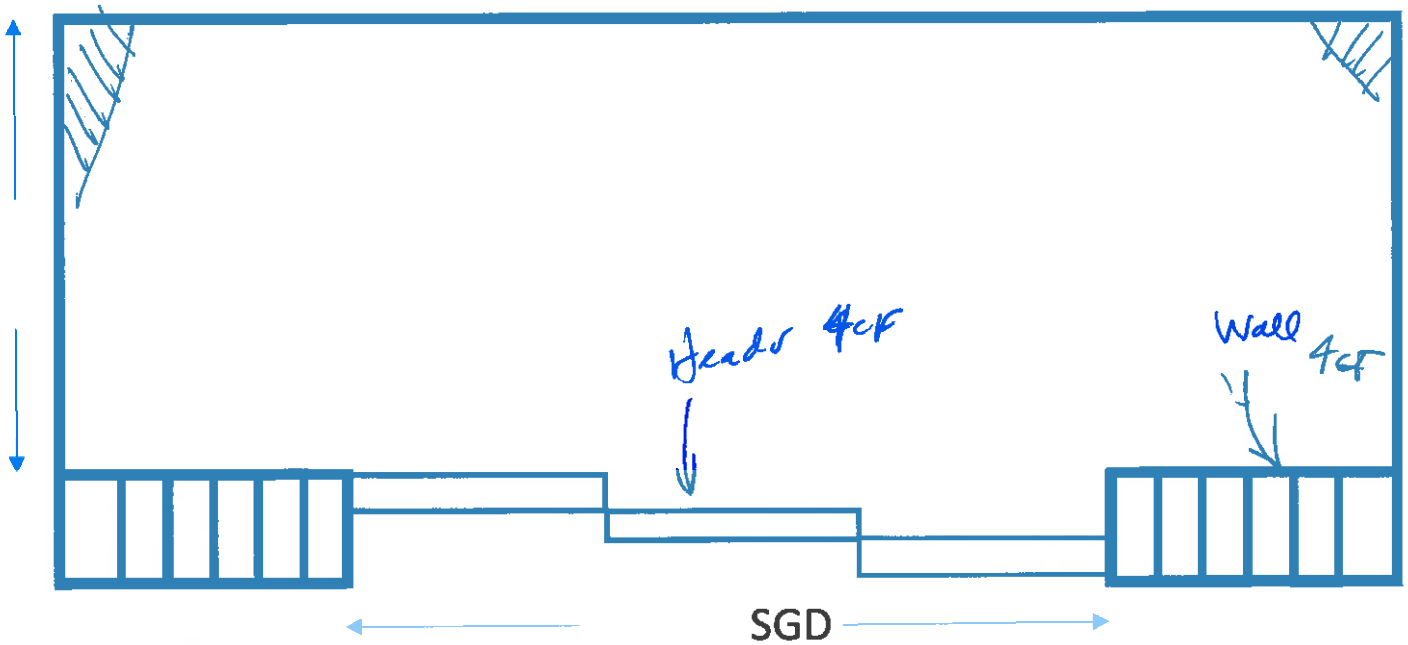
Shutters
Yes No
Edge Door
Accordion Roll Down

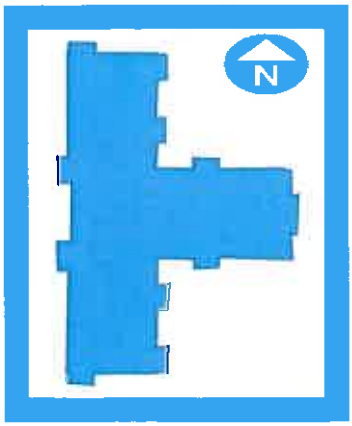
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type:

Screened Enclosure - Four
Condition: Coating - tile pattern

OR - sill 4LF





Hidden Conditions
- screens/frames
- interior newer tile
- coating
- shutters

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 603 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

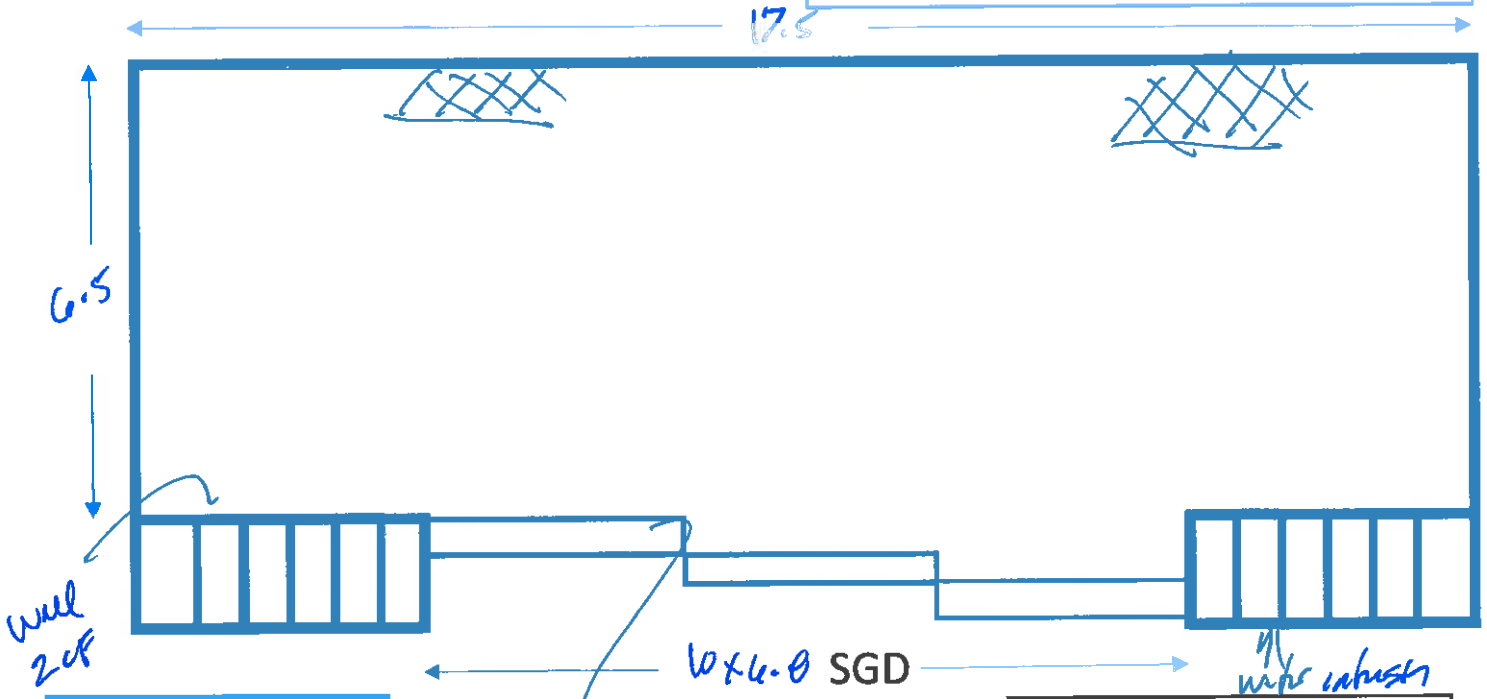
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

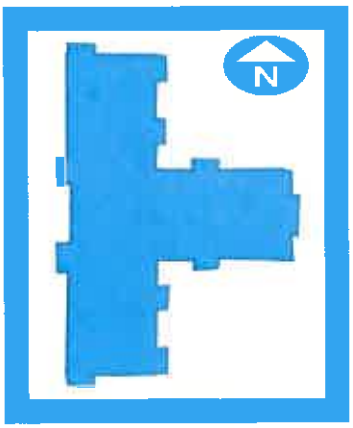
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Corr. fair
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 204 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

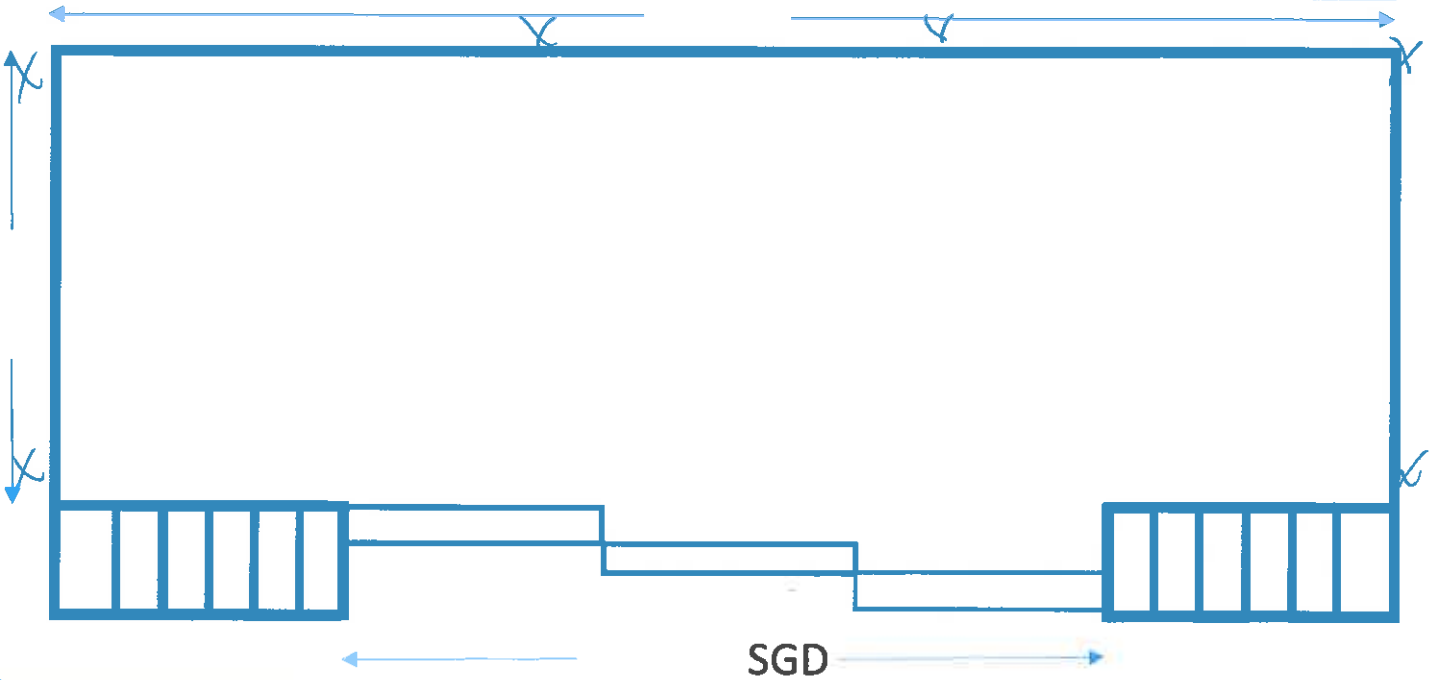
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

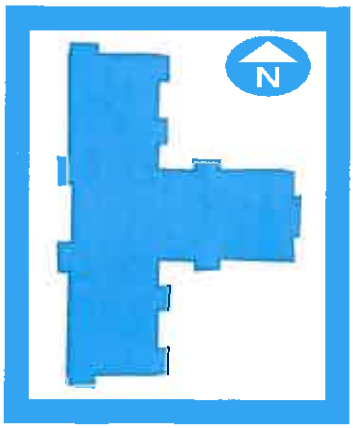
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Wall
34'

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 304 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

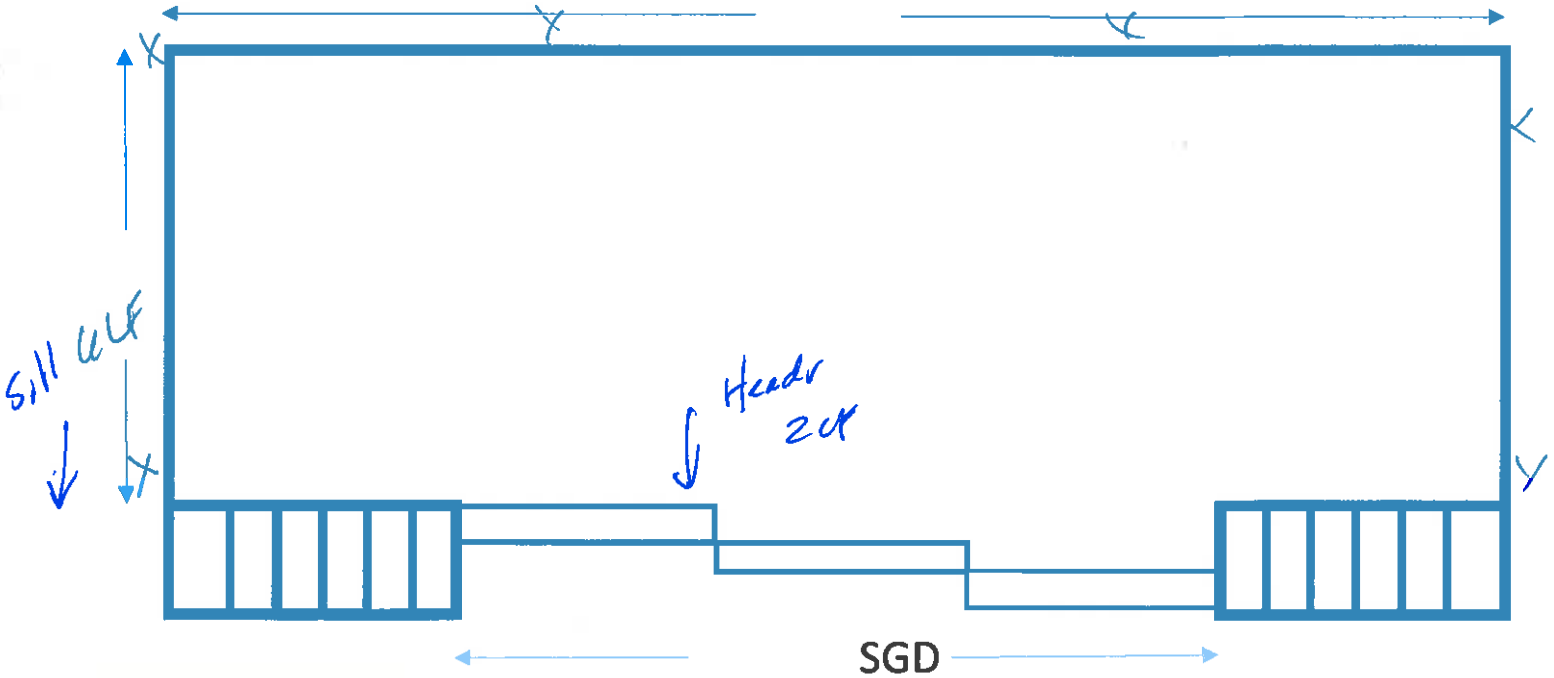
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

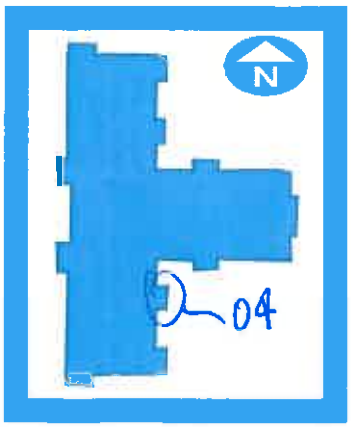
Shutters
Shuttered
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 404 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

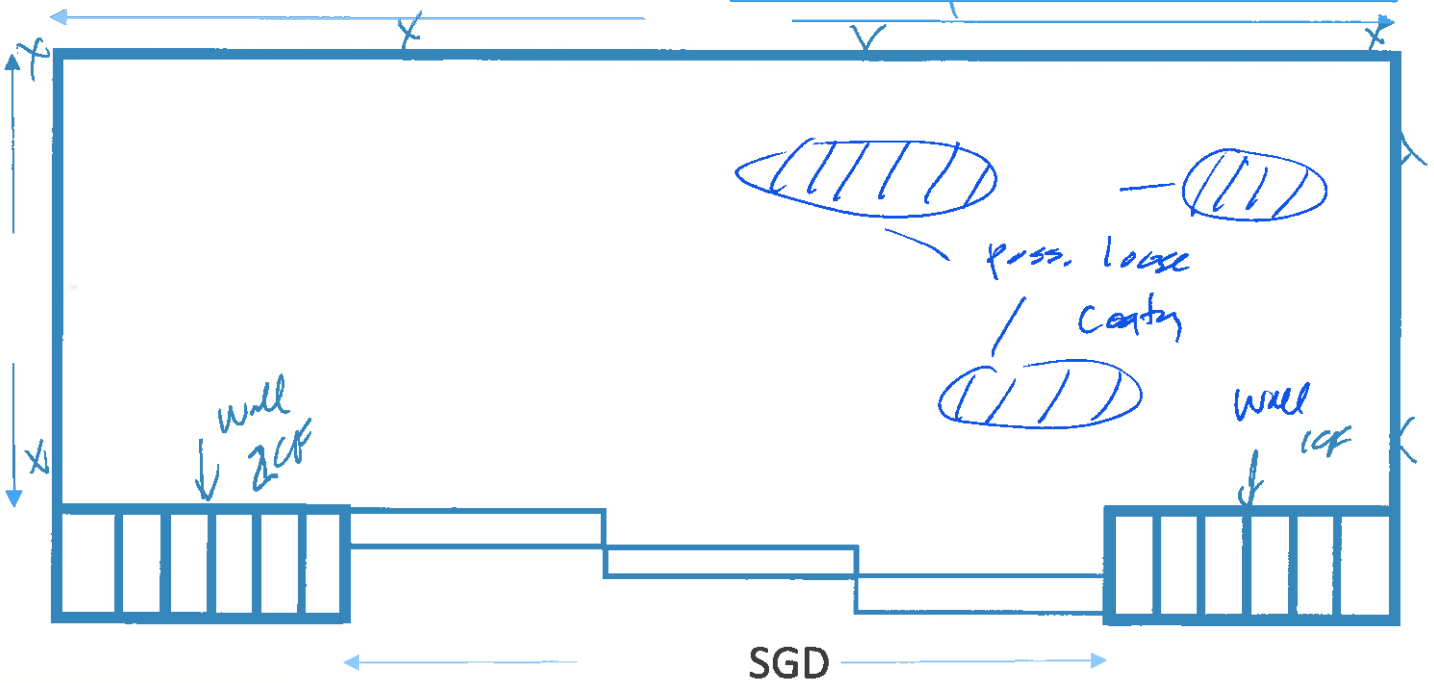
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

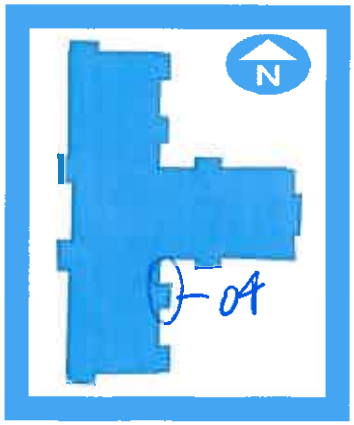
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Steve Mowrey

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 504 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

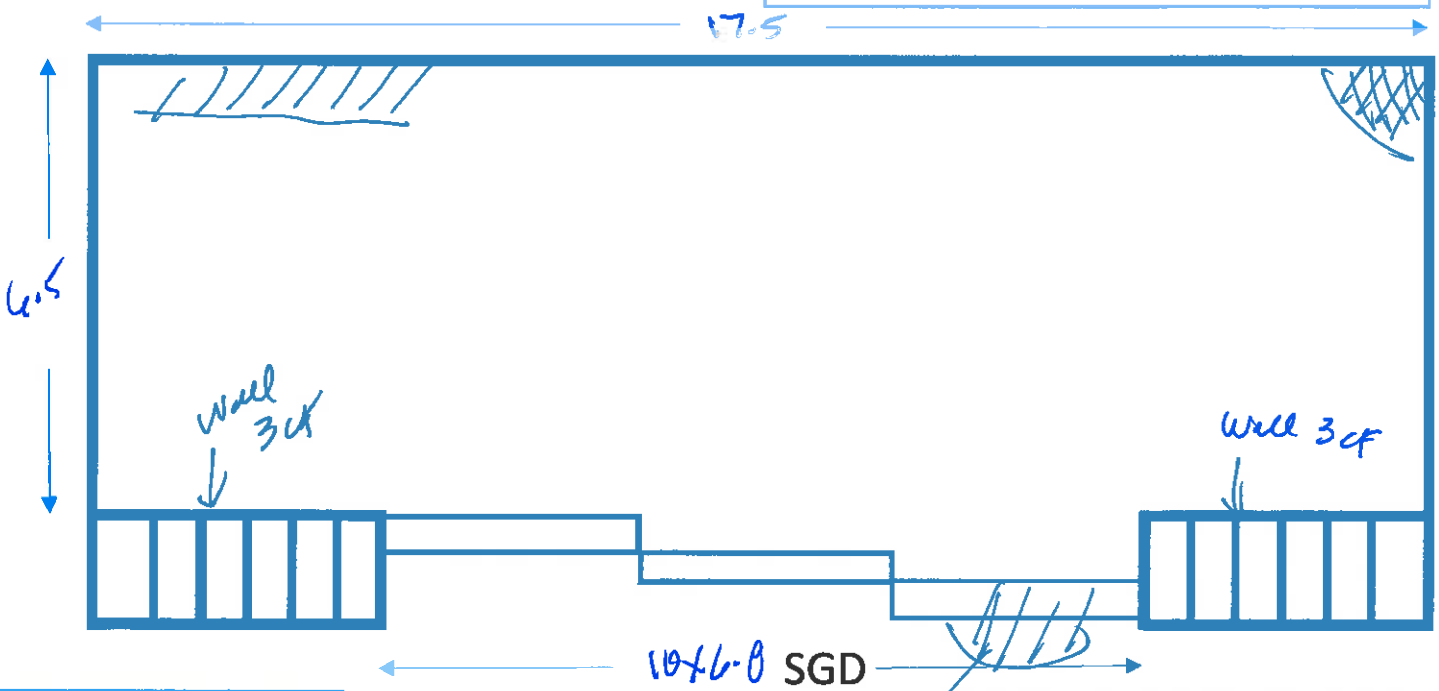
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

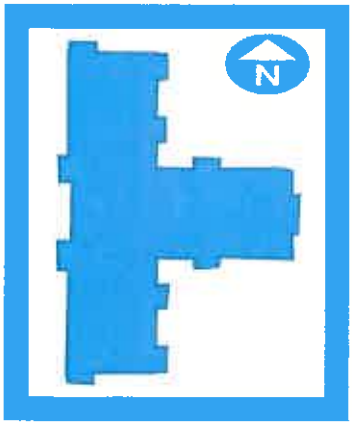
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors (Corr. Int)
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Concrete - tile pattern

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 604 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

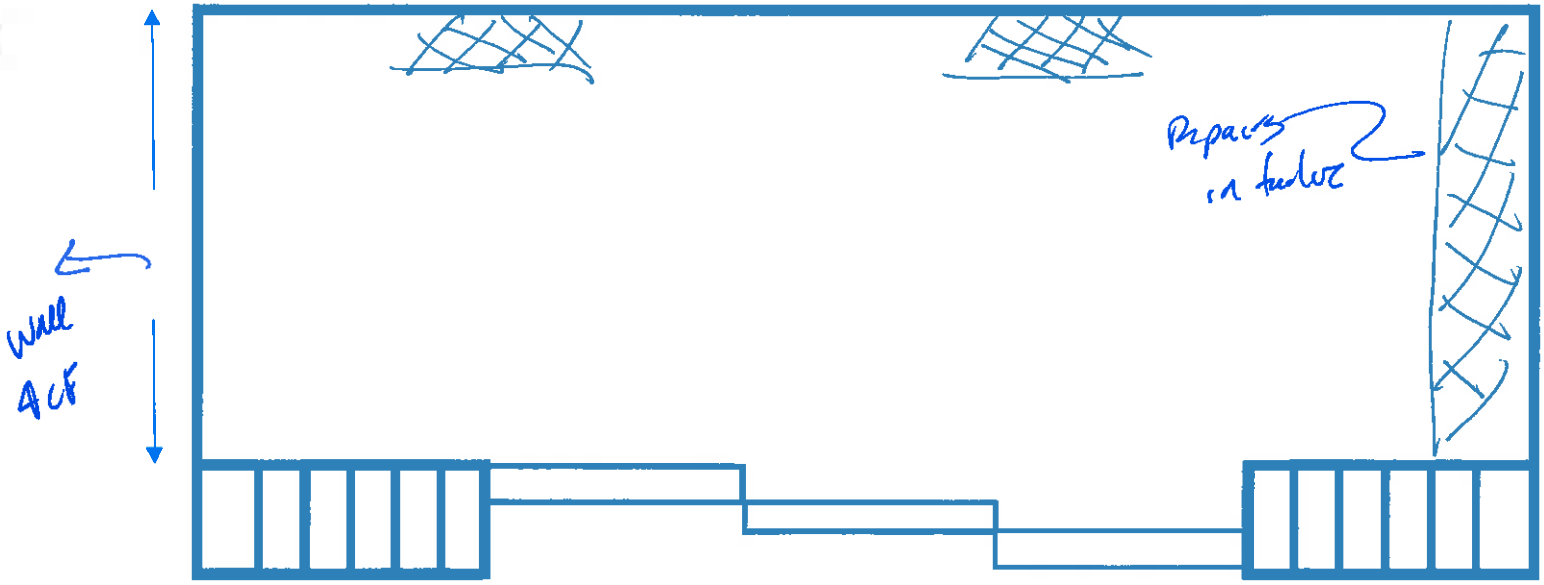
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

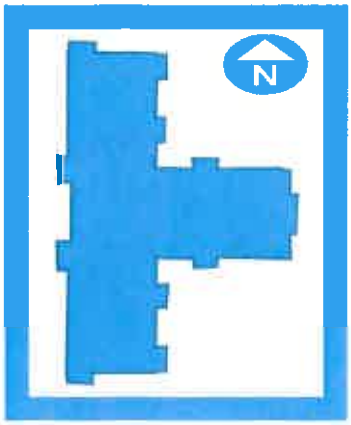
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors missing finish covers
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure added
Condition: fair - damage





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 204 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

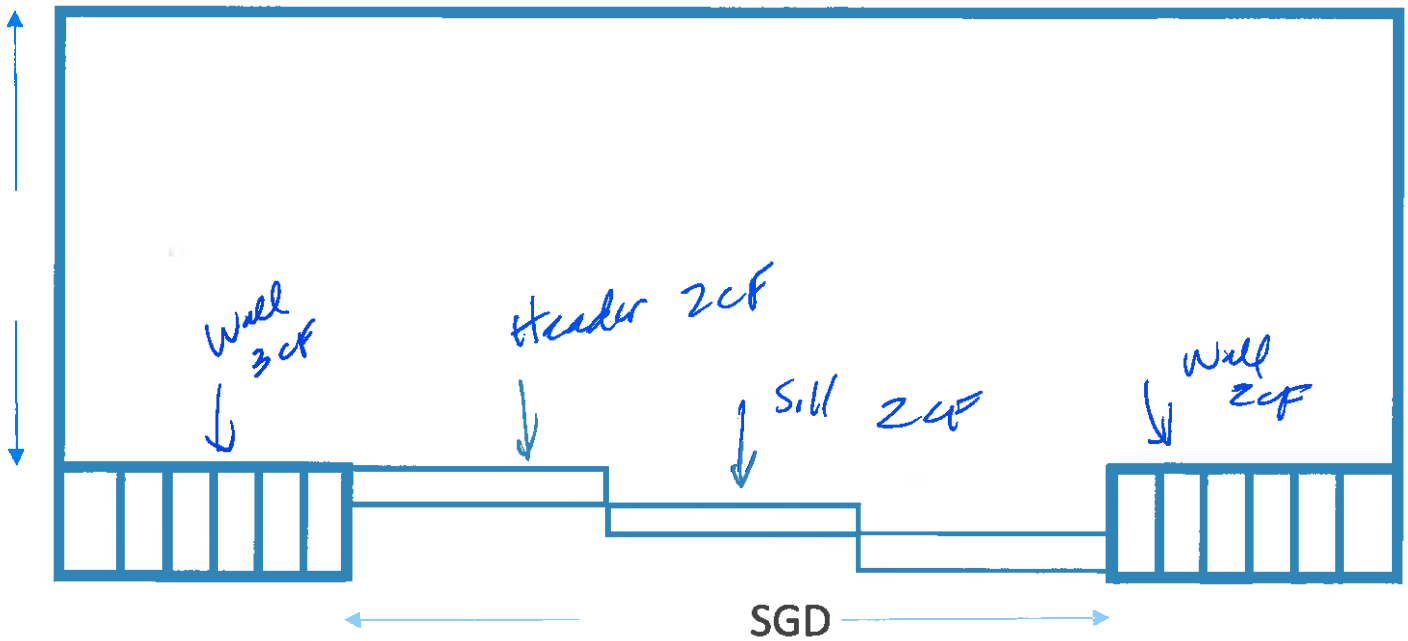
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

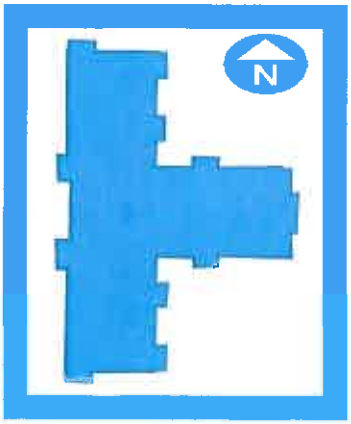
Shutters
Yes No Poor
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In few
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: fair - drains at typ





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 305 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

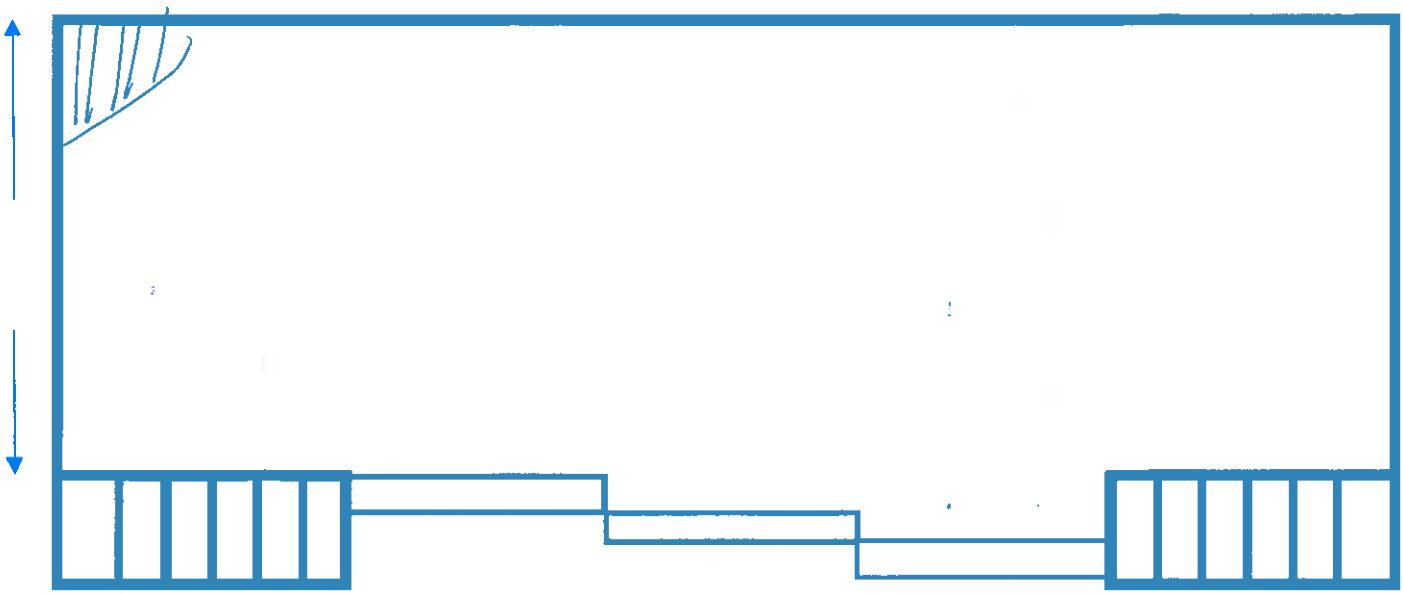
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

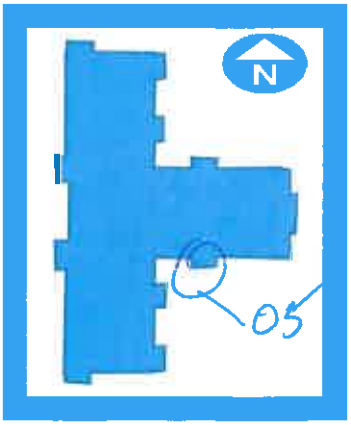
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Carpet

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 405 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

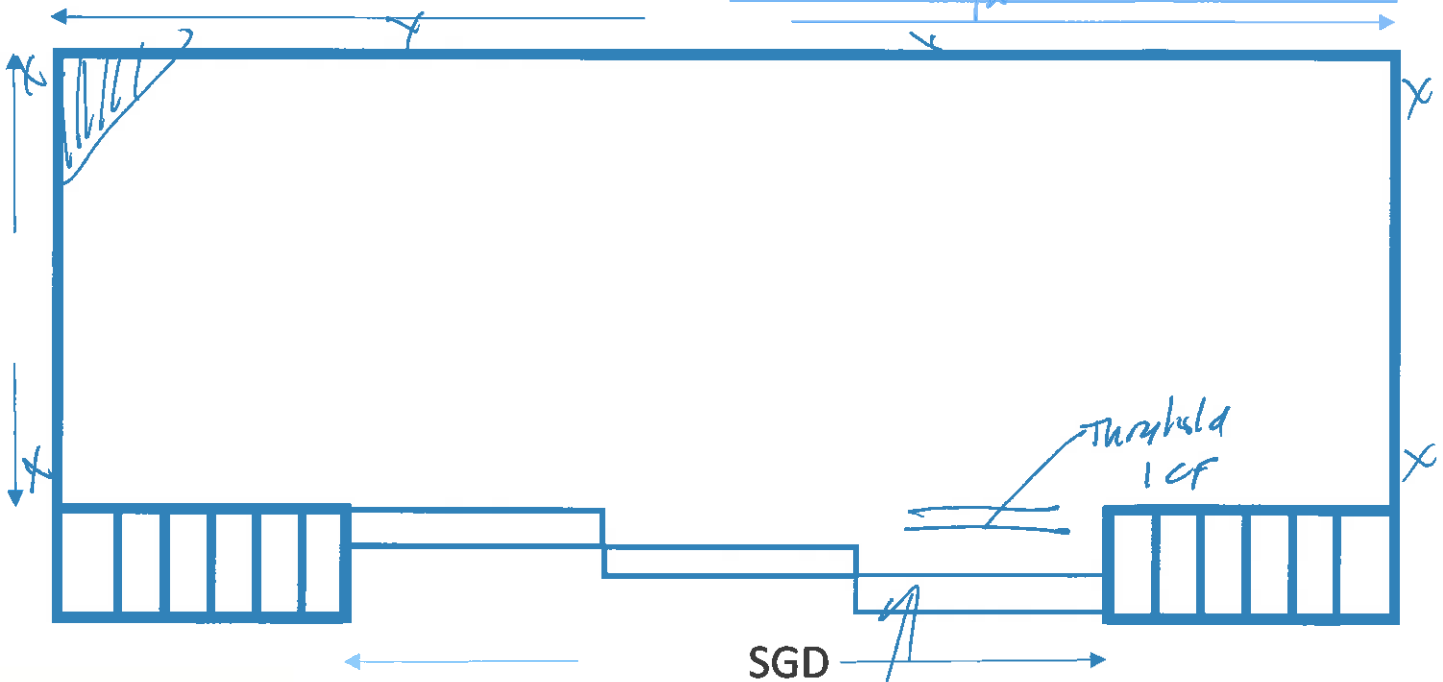
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

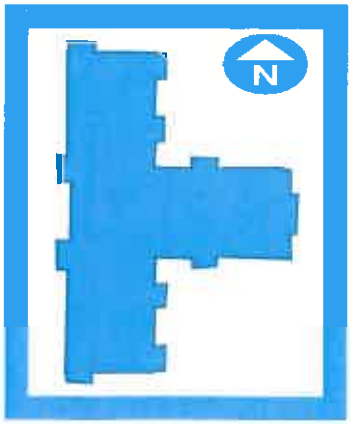
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 505 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

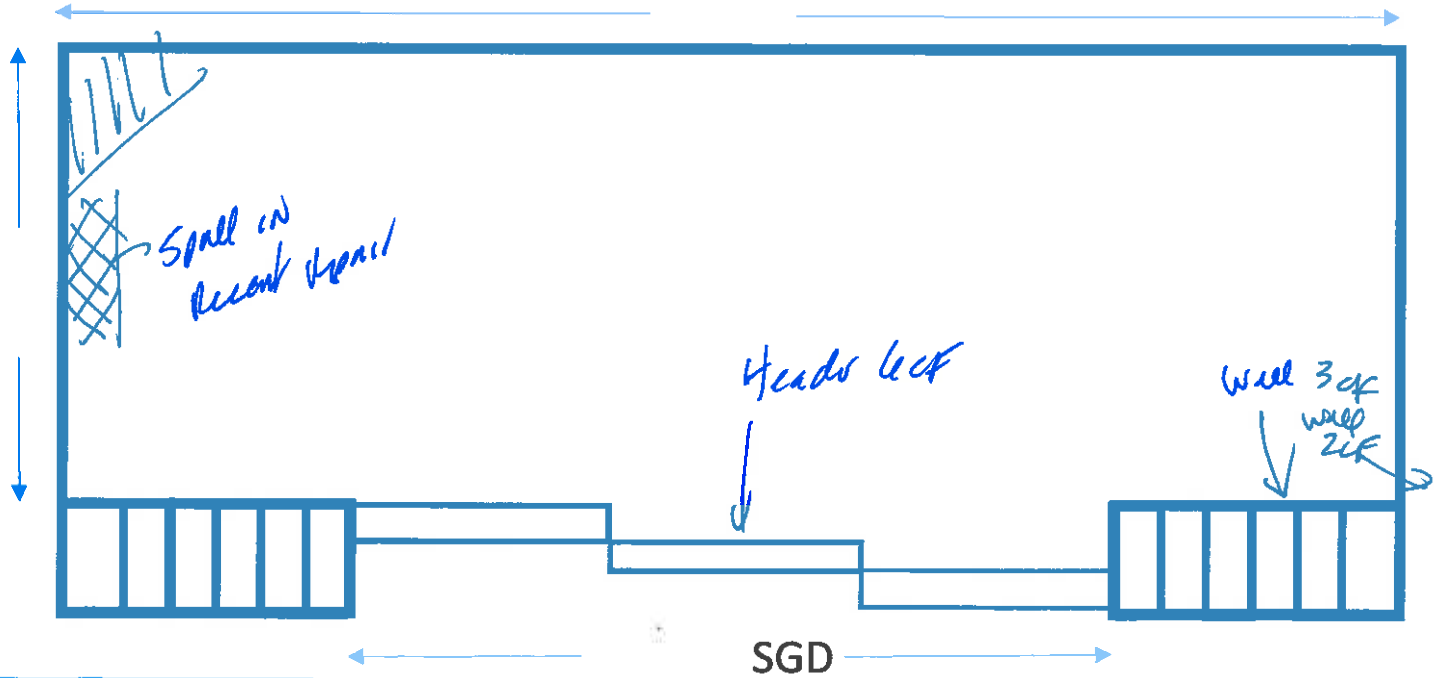
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

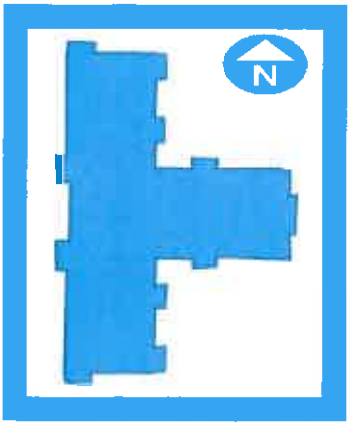
Shutters Drainage
Yes No
Edge Door
Accordion Roll Down

Sliding Doors Corr. Int
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile bottom

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 605 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

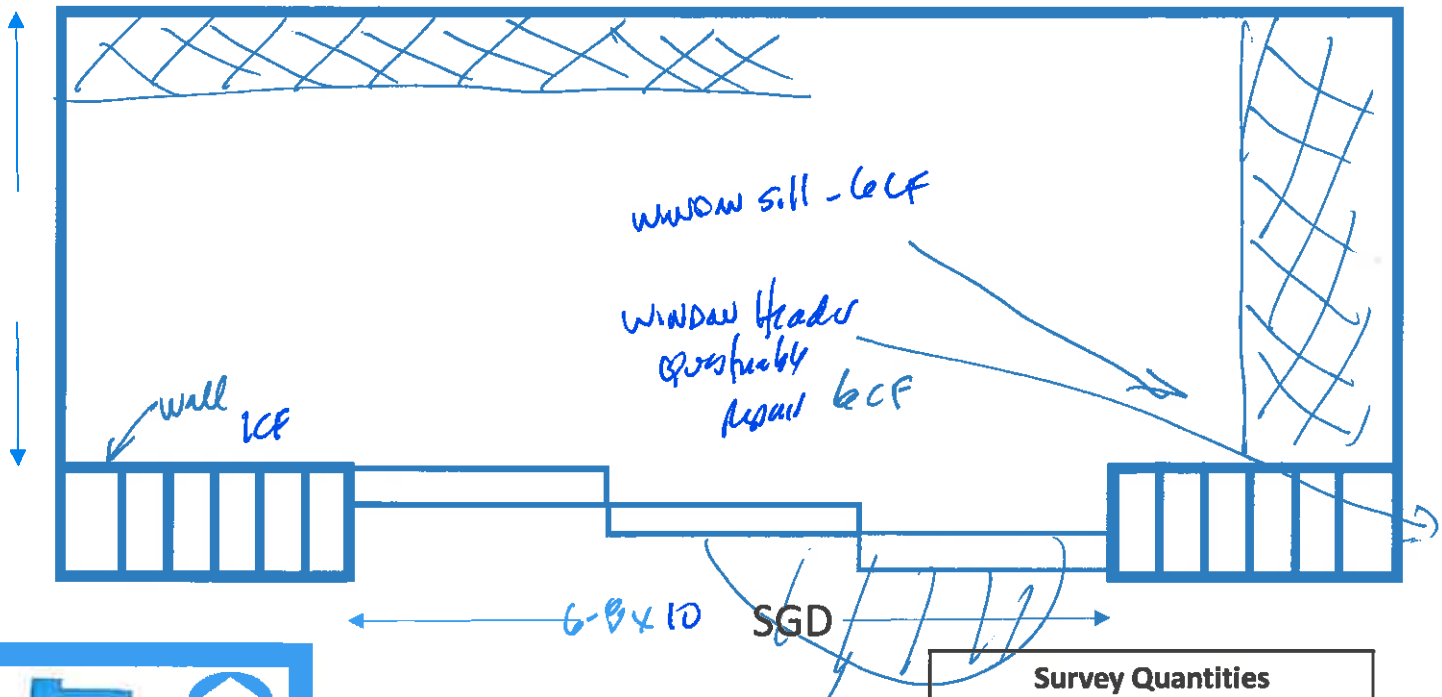
Shutters
Yes No
Edge Door
Accordion Roll Down

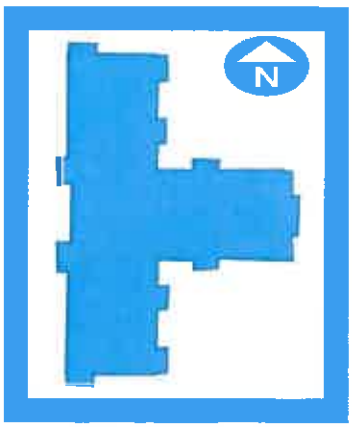
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: Fair

EXTERIOR PAINT / WATERPROOFING → WALL REPAIRS - HEADERS + SILLS ALWAYS





SHUTTERS NOT SEALED

CRACKED LOOSE ETC PROBABLY SPALLING

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 206 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

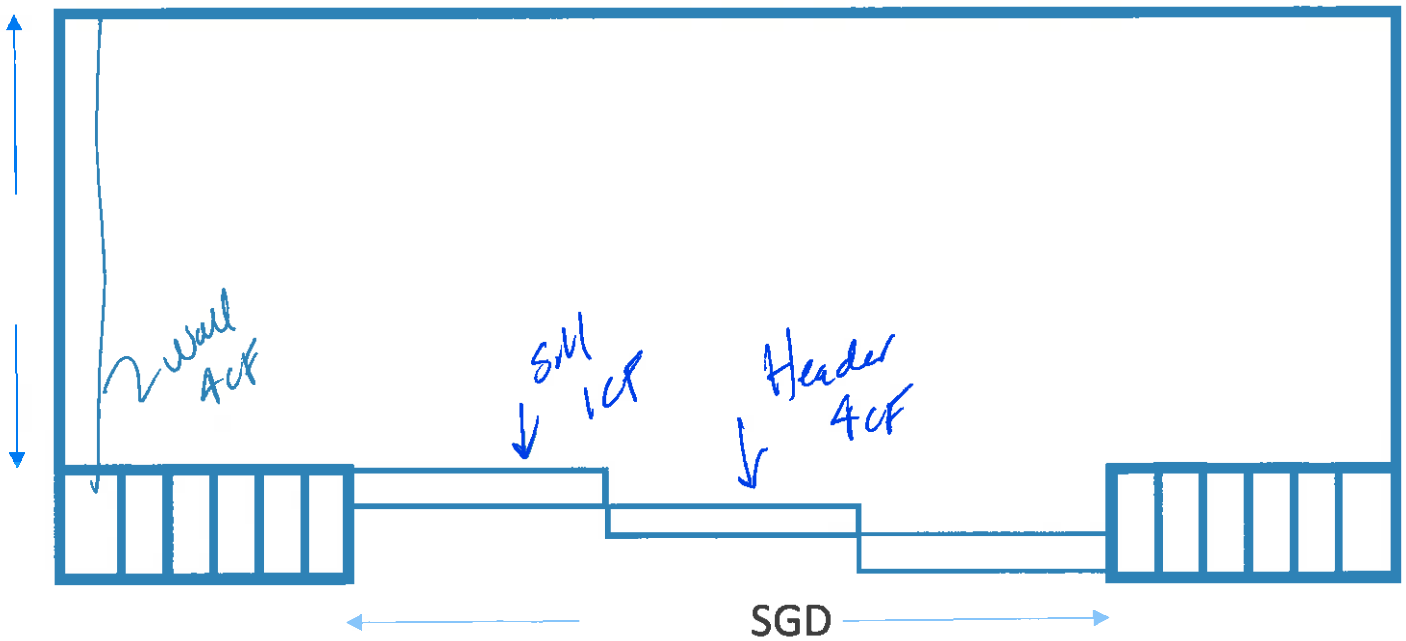
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

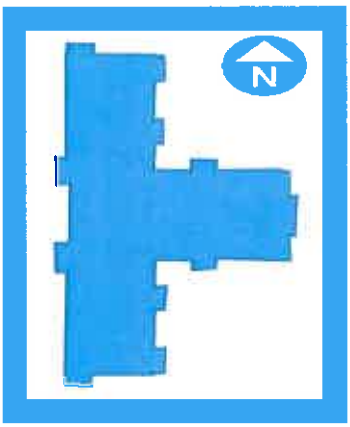
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 304 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

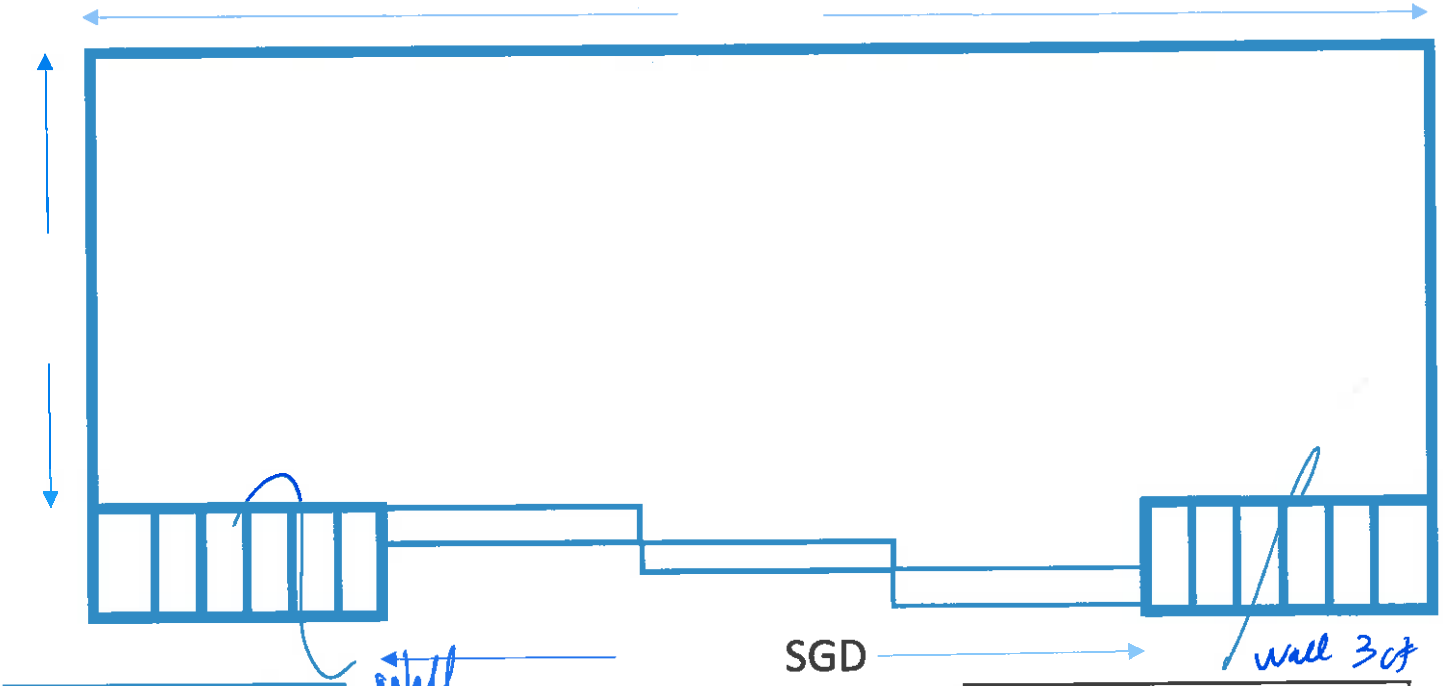
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

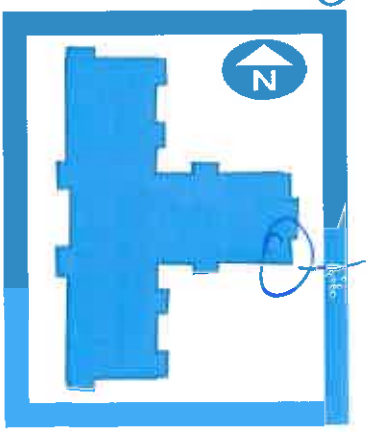
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 406 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

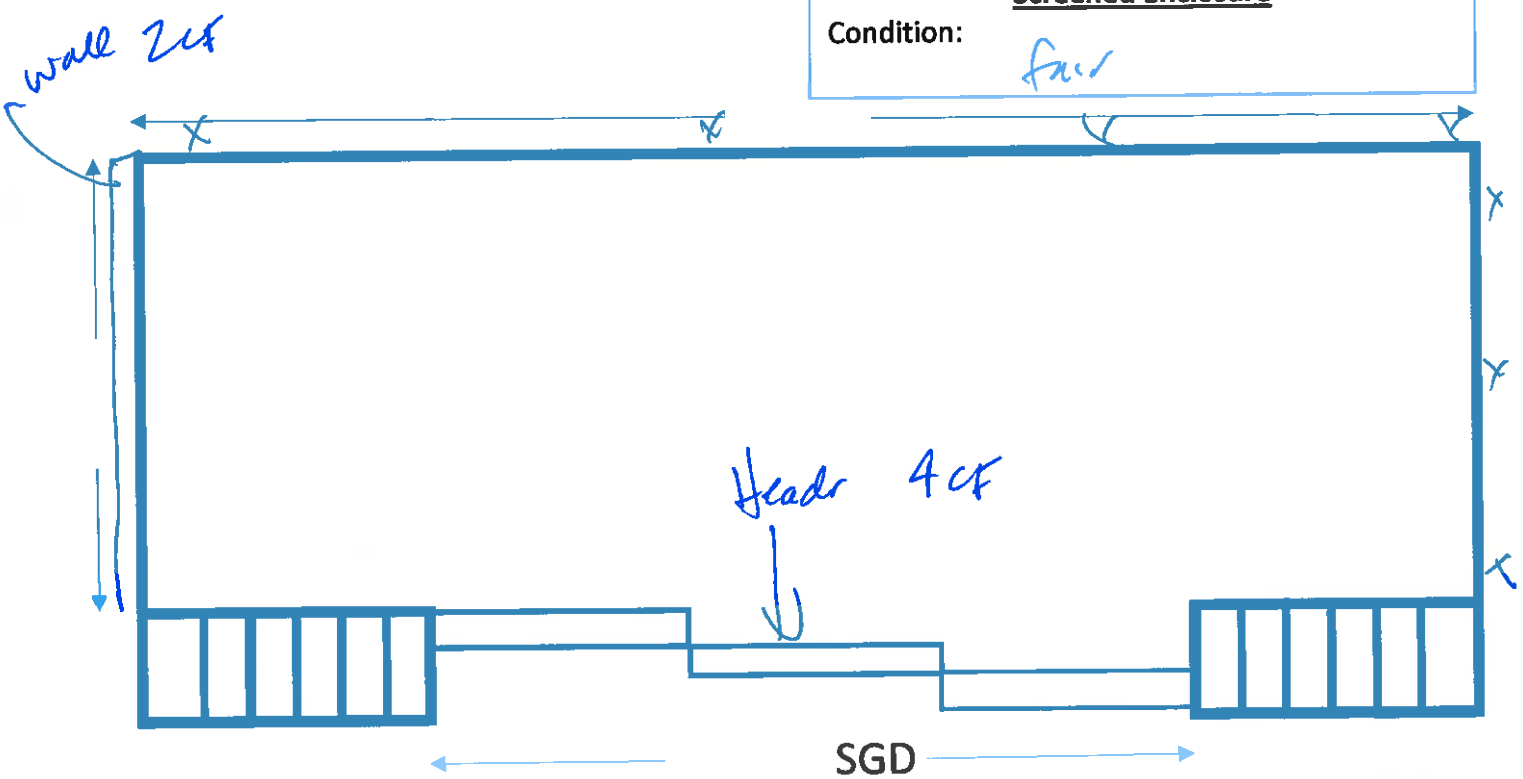
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

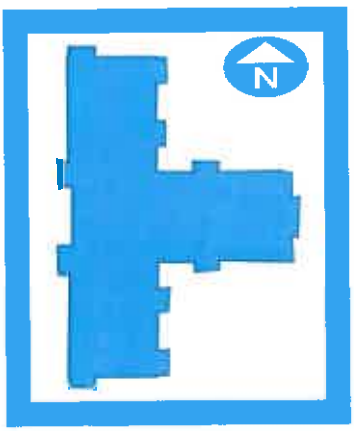
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 506 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

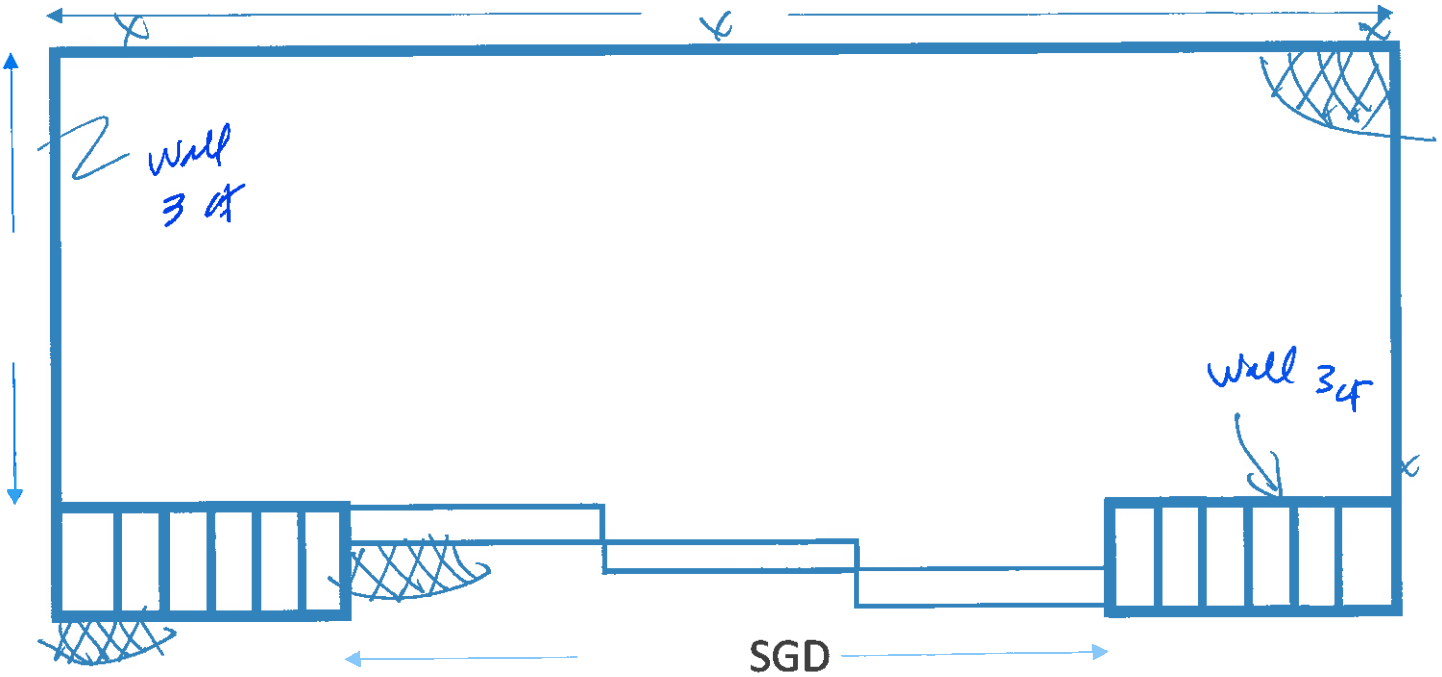
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

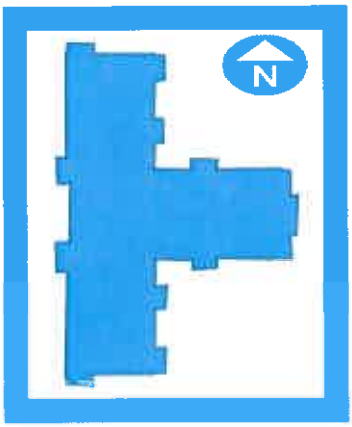
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Ceramic

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 604 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

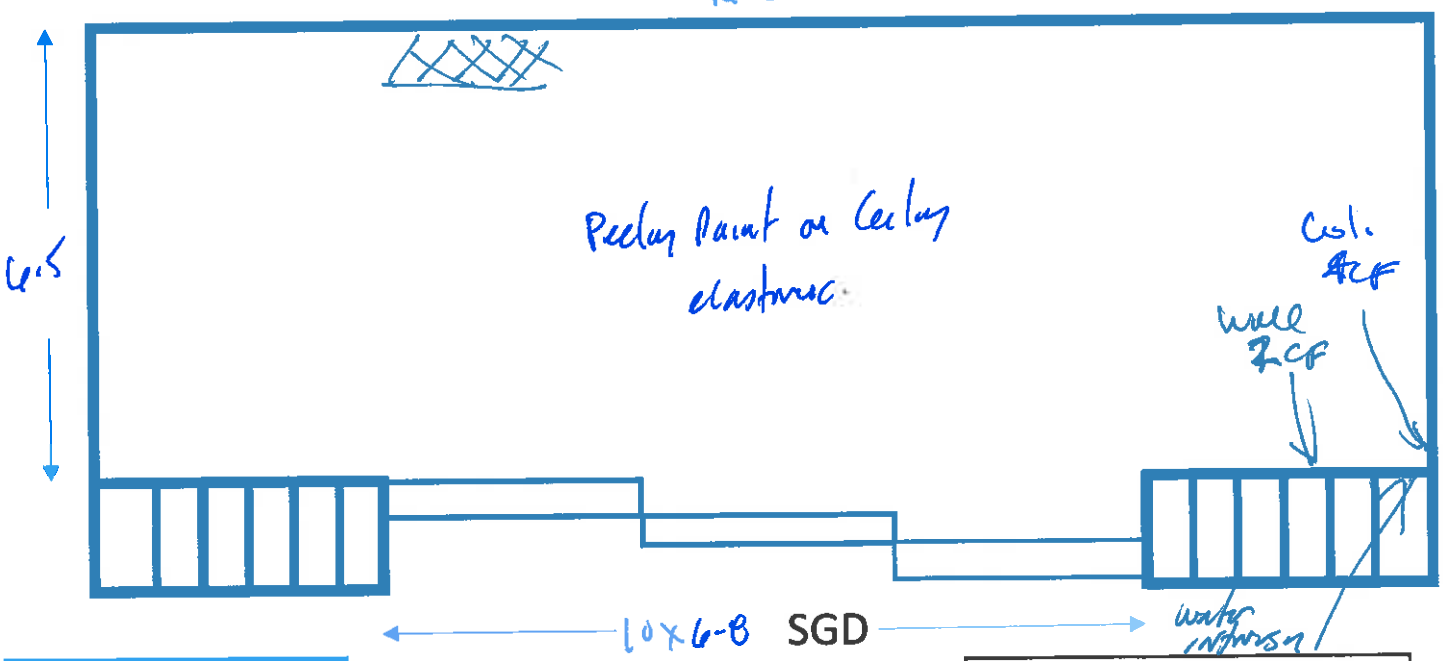
Shutters
Yes No
Edge Door
Accordion Roll Down

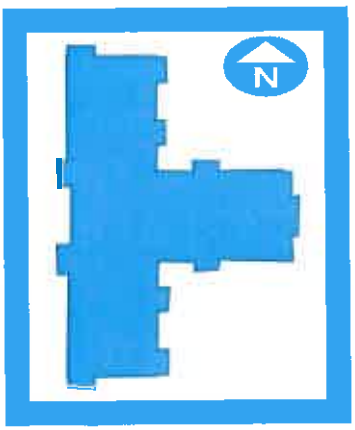
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair

Roof Leaks? New in 2018 sat
Elastomeric Paint on Ceilings





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 207 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

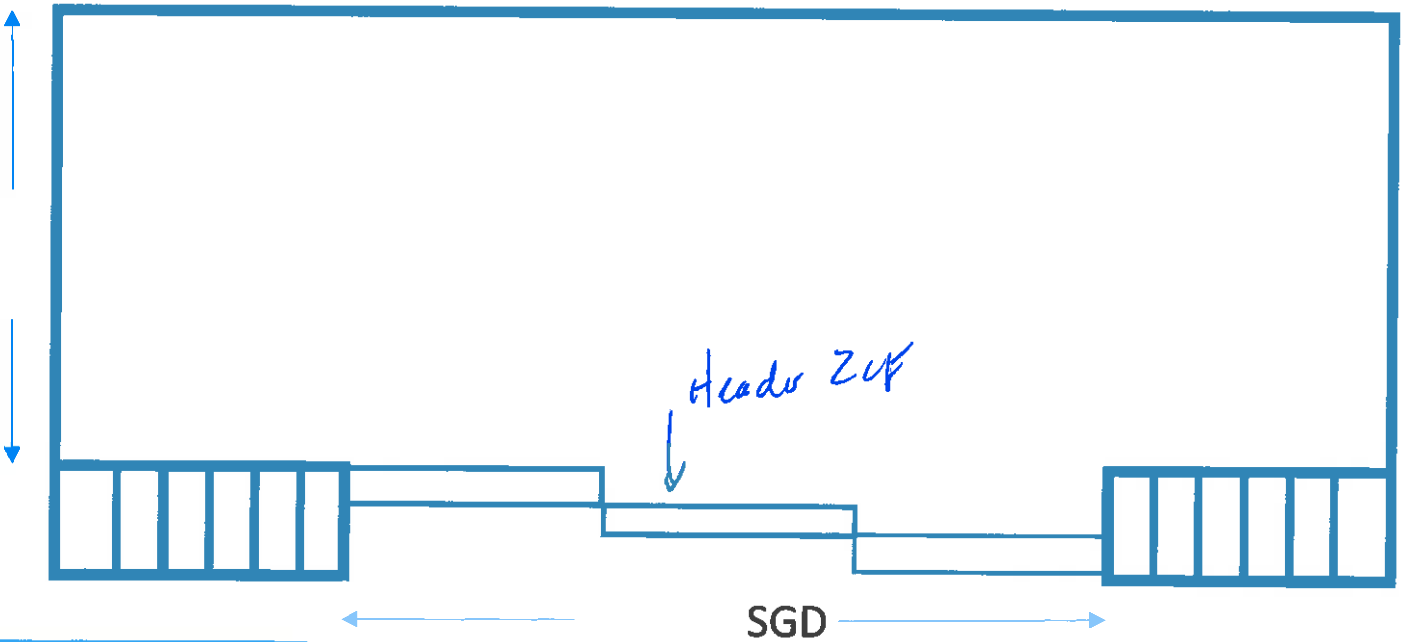
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

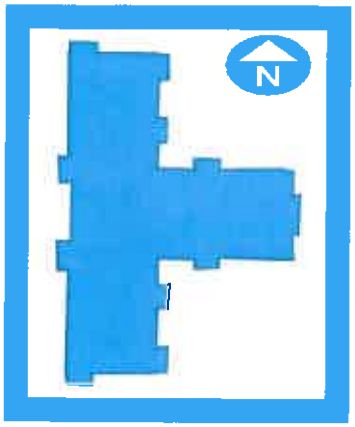
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 307 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

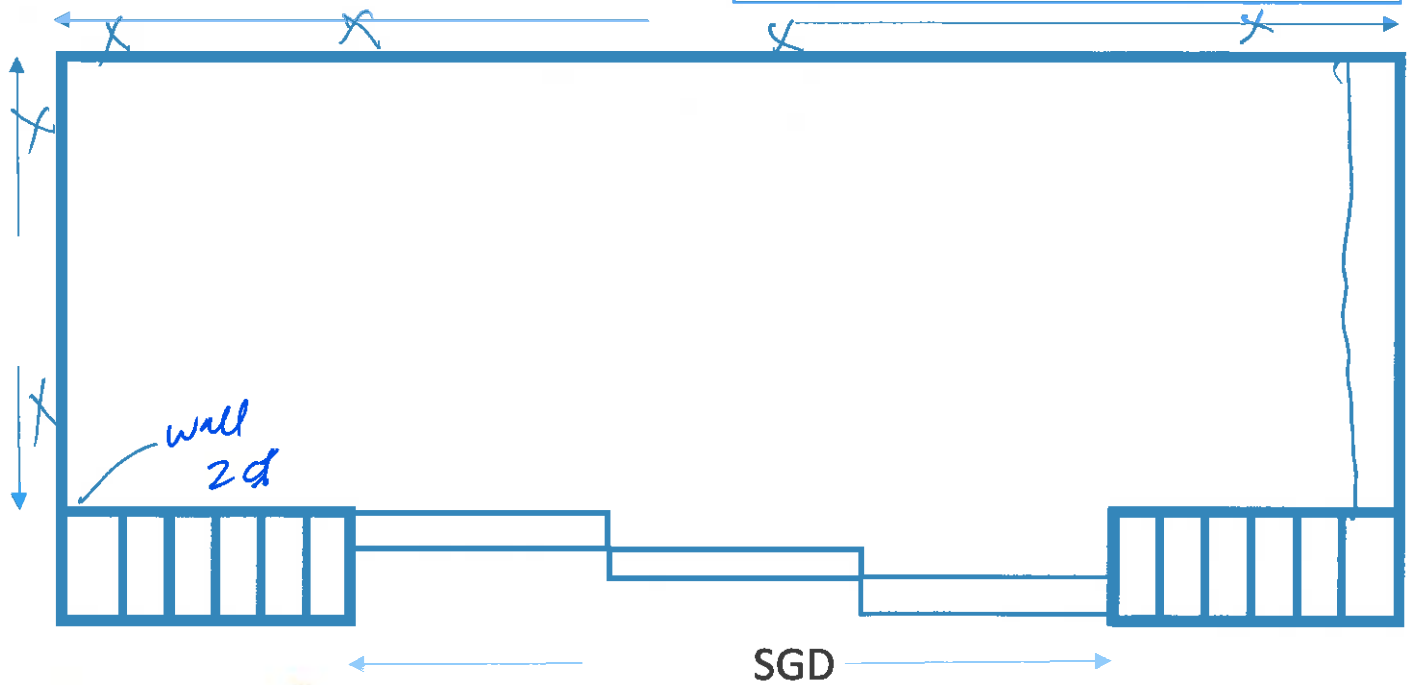
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

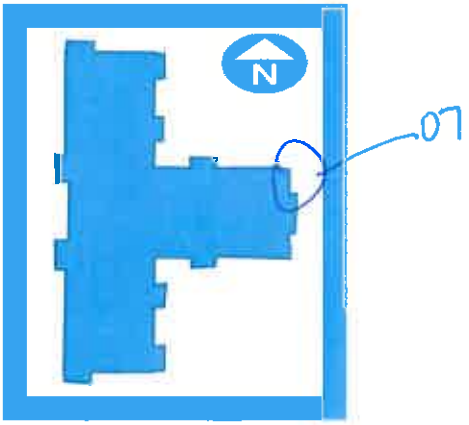
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In fair
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 407 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

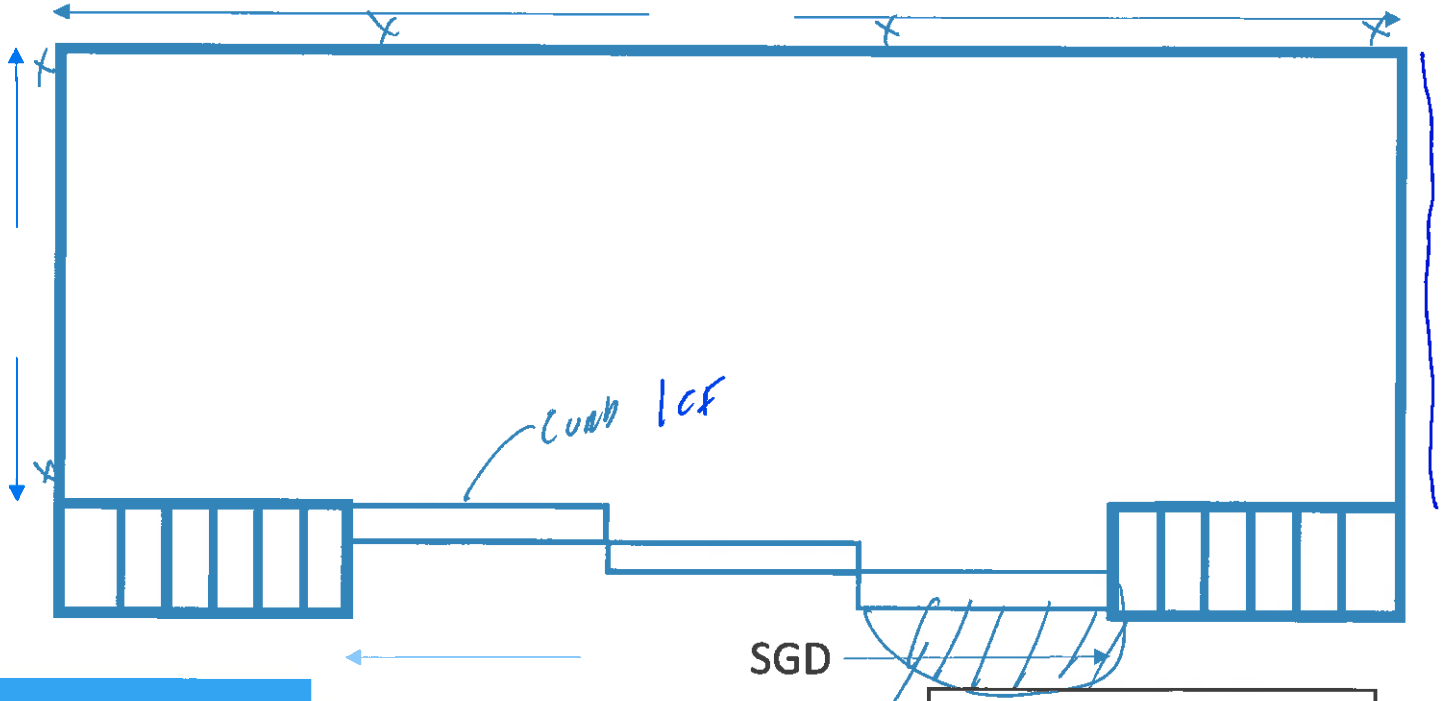
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

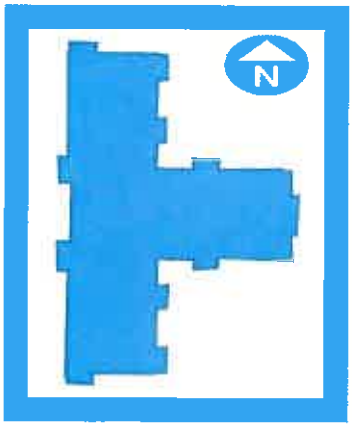
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In Roof
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 507 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

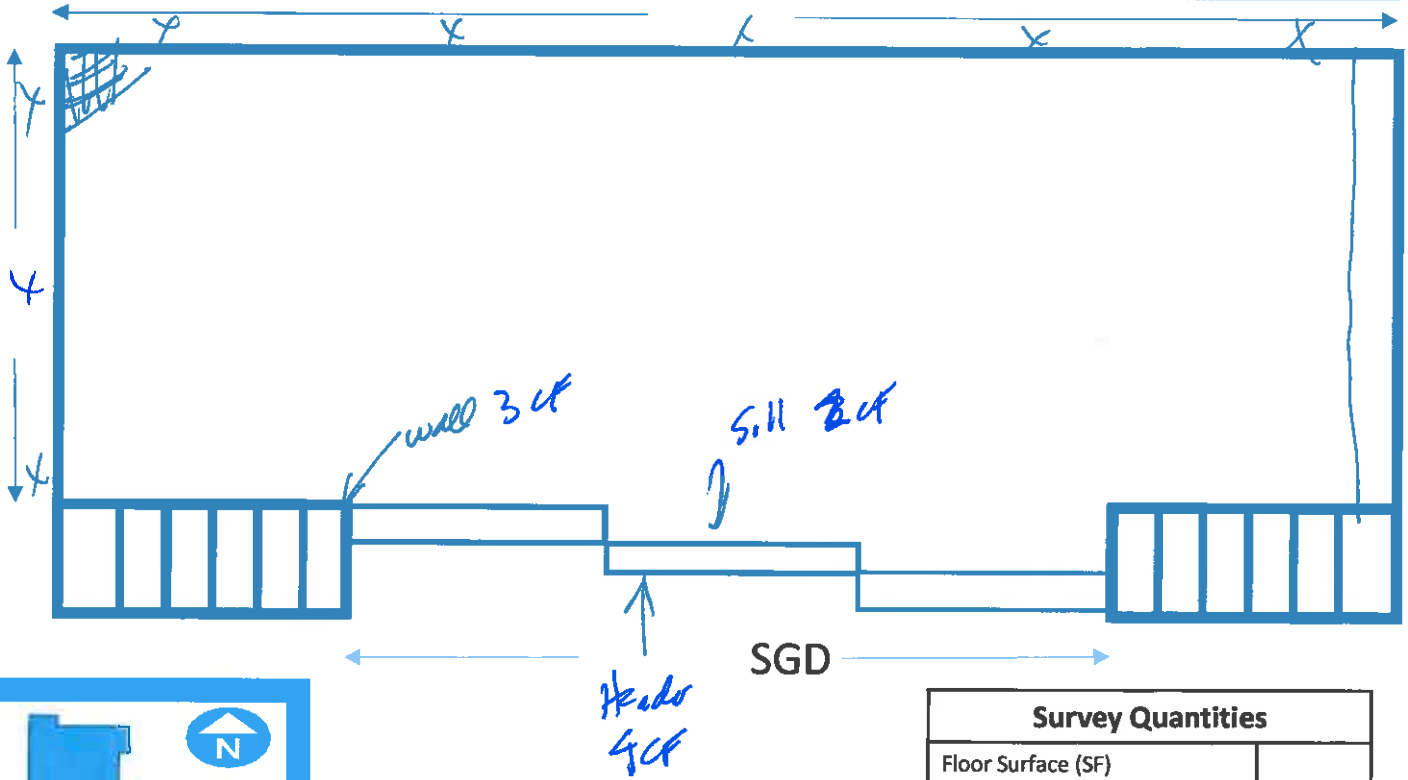
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

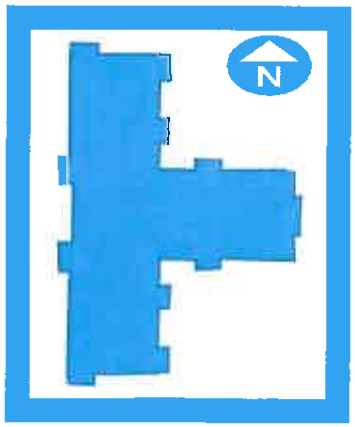
Shutters
Drawing
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
corr. fwt
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coarby - tile pattern

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 607 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

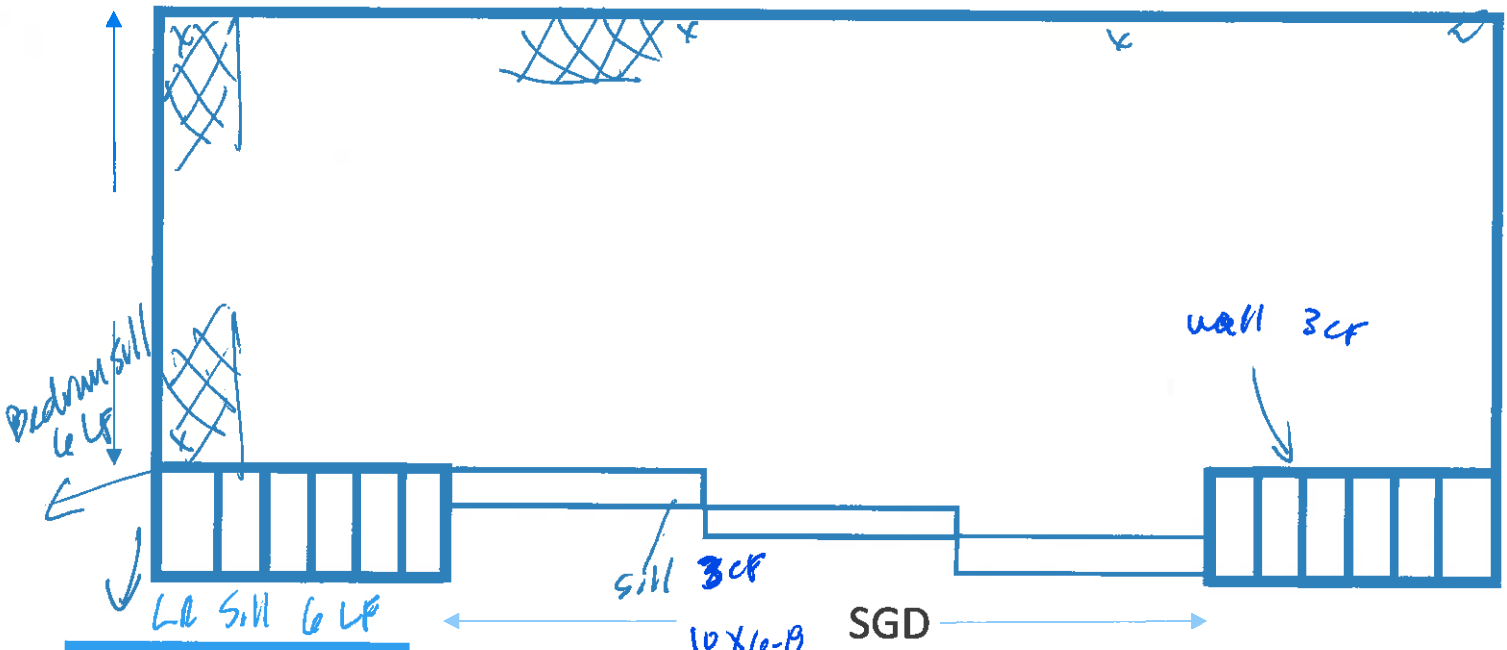
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

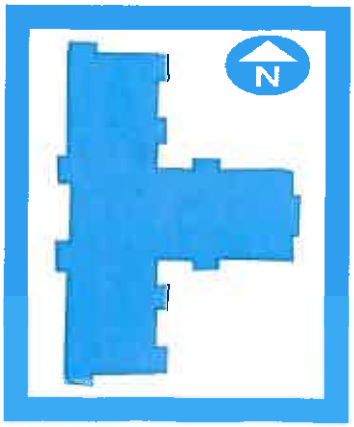
Shutters
Yes No
Edge Door
Accordion Roll Down

Corr. Alt **Sliding Doors**
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: fair





- window shutter tracks holding water in Bedrms
- 2nd Bedr. - Sill 6 CF
- Stucco allowance

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 208 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

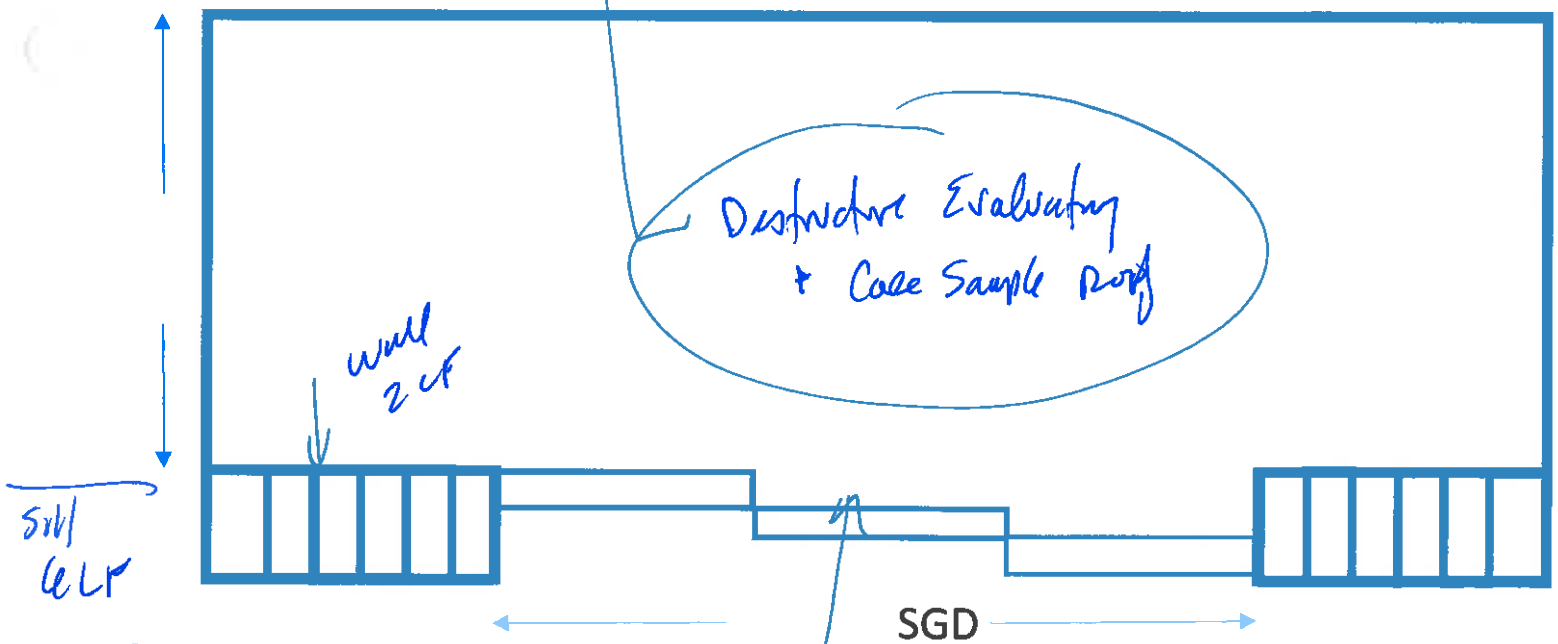
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

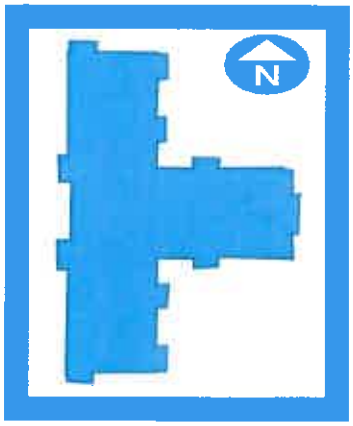
Flooring
Type: Coaty

Screened Enclosure
Condition: Fair

1 of 3 Balcony on Roof Deck



Sill
6 LF



No threshold

Leaks in Bedrooms
⇒ Roof drainage
- Sills

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 309 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

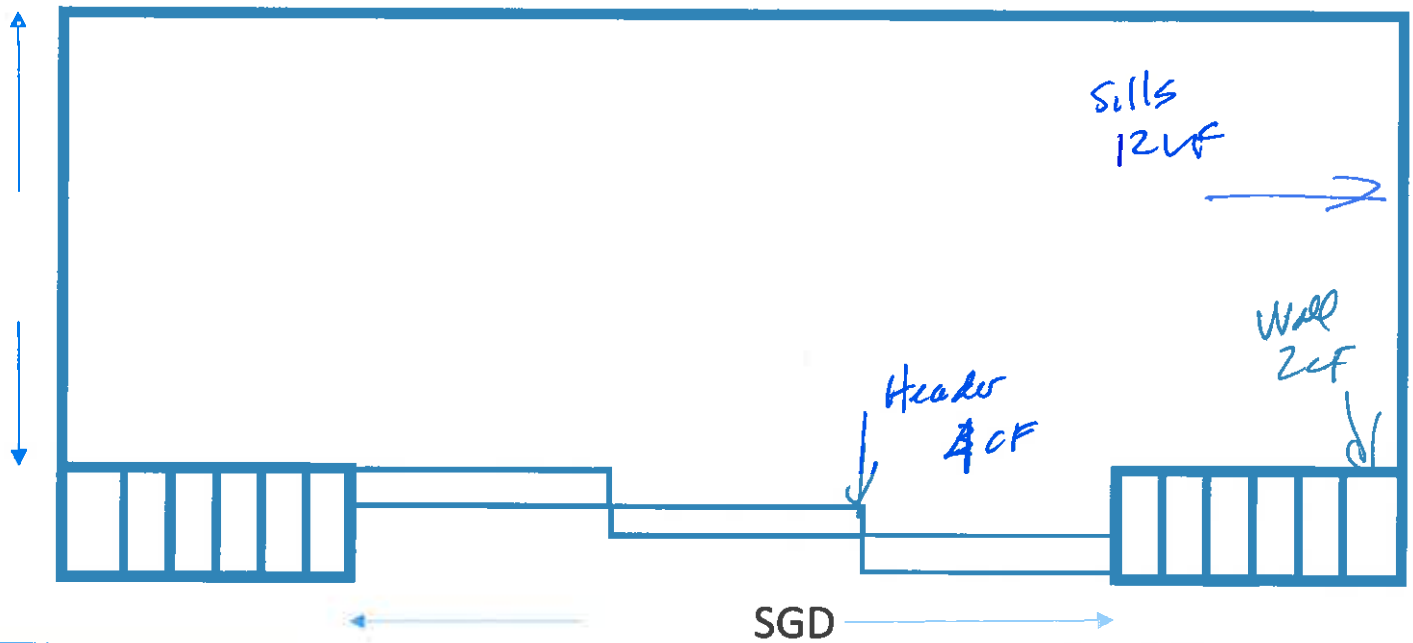
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

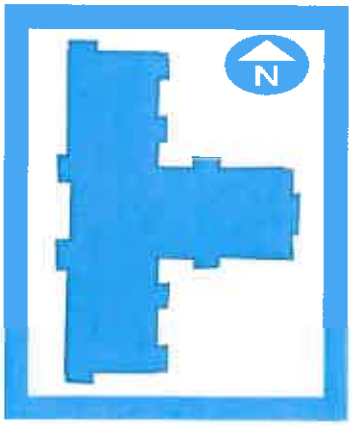
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 408 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

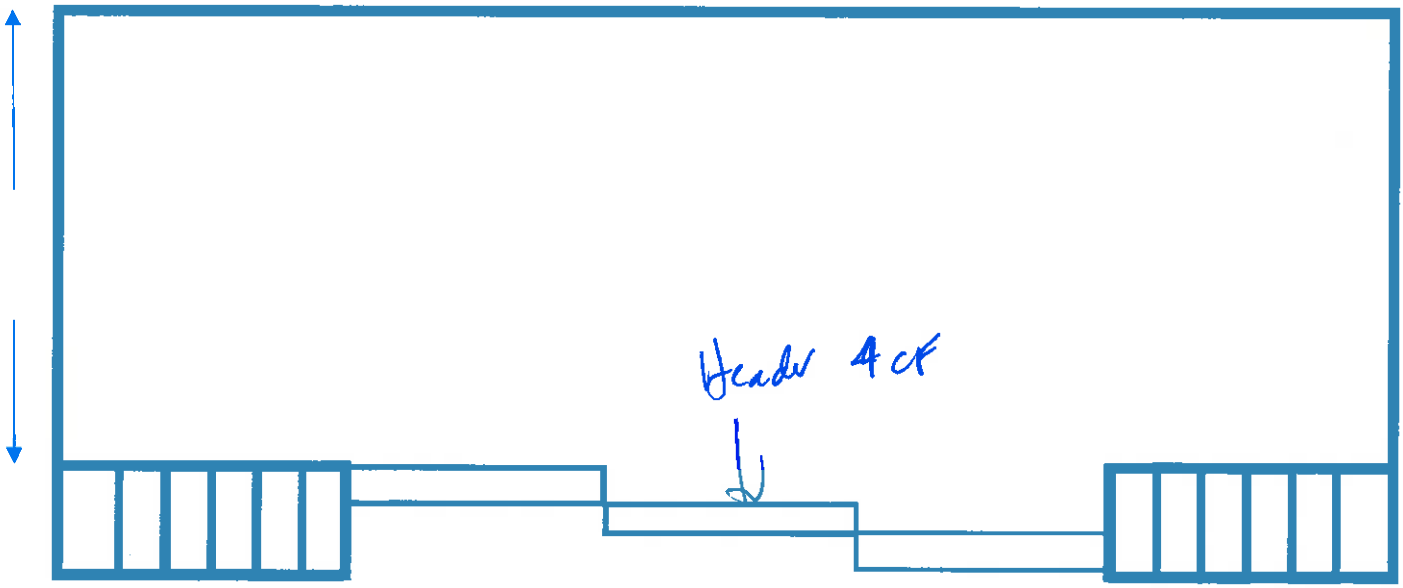
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

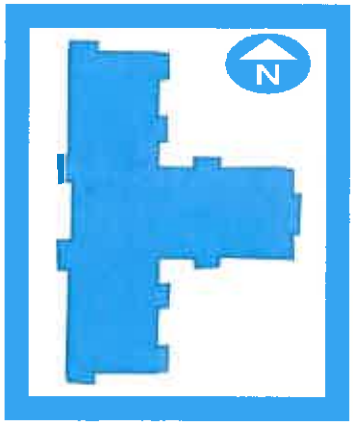
Shutters Damage
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In Rust
Threshold: Yes No

Flooring
Type: Ceramic

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 508 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

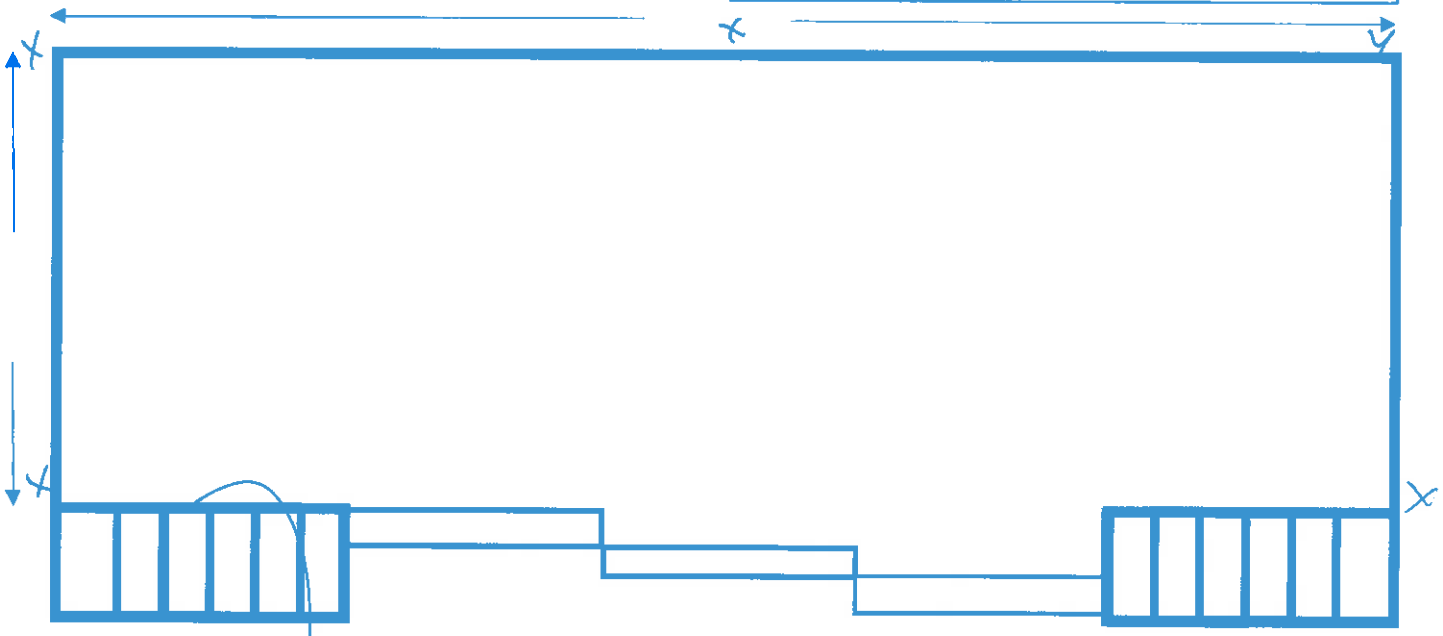
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

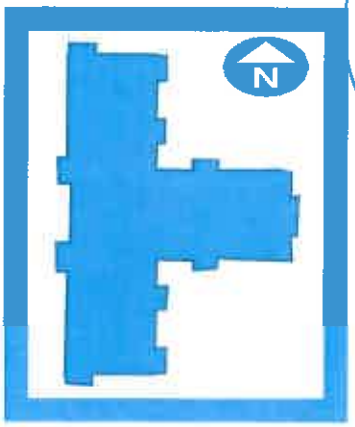
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: fair





wall 20'

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 608 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

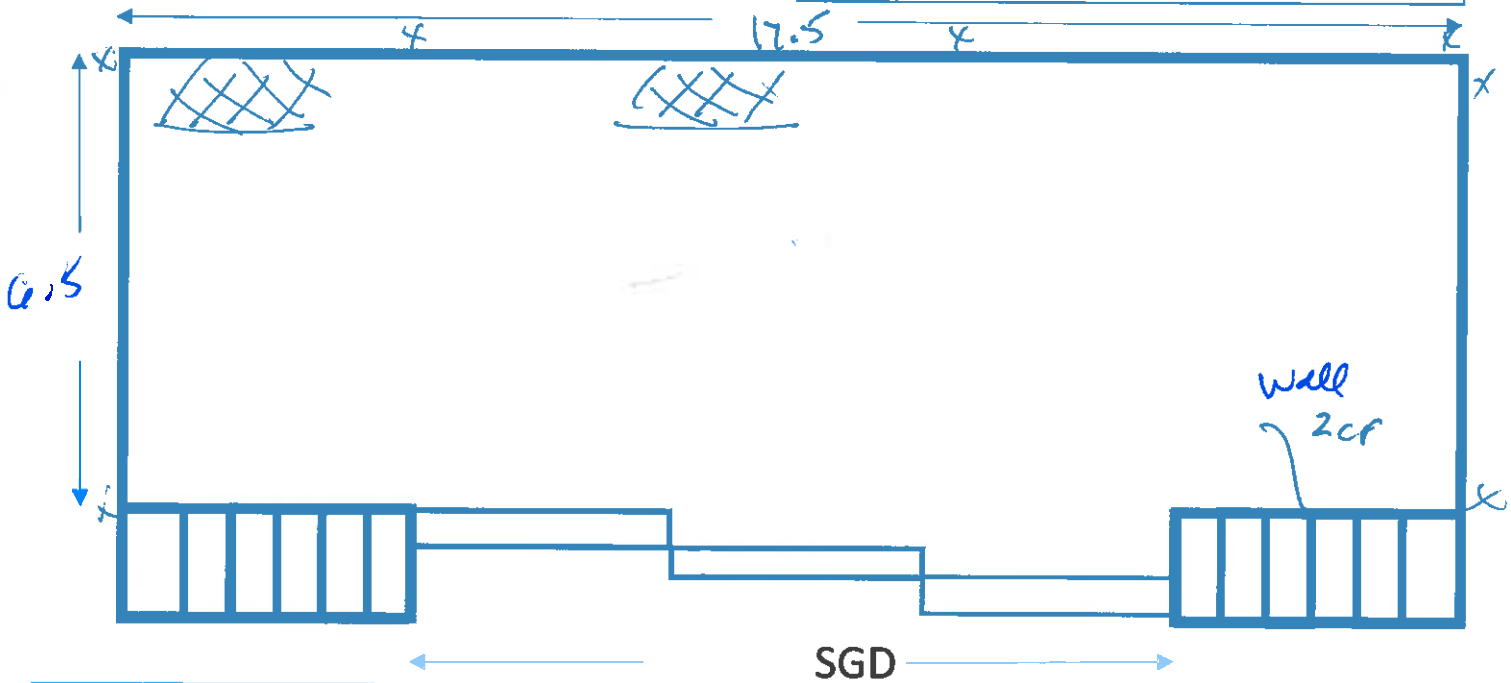
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

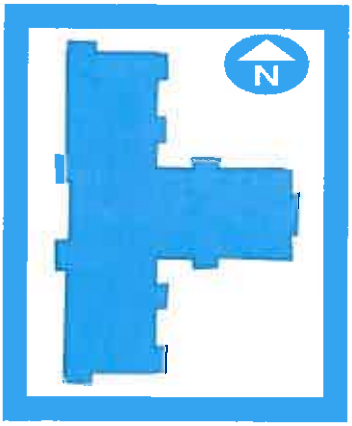
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coaty

Screened Enclosure
Condition: Fair - Damage (typ)





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 209 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

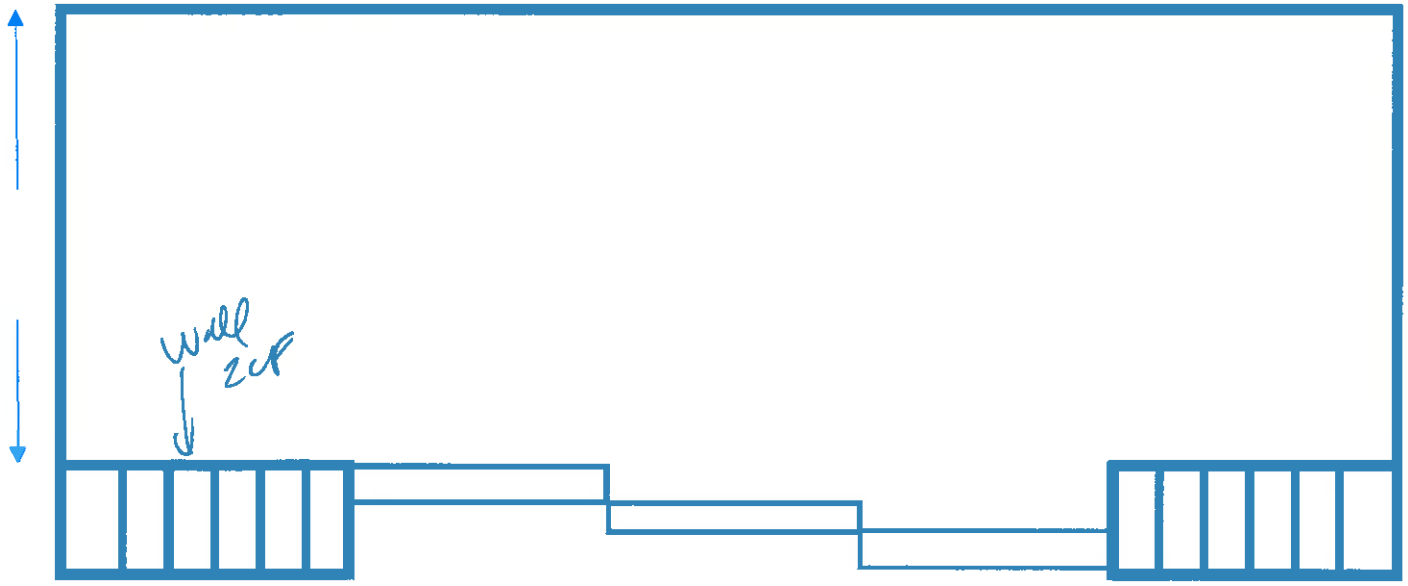
Shutters
Yes No
Edge Door
Accordion Roll Down

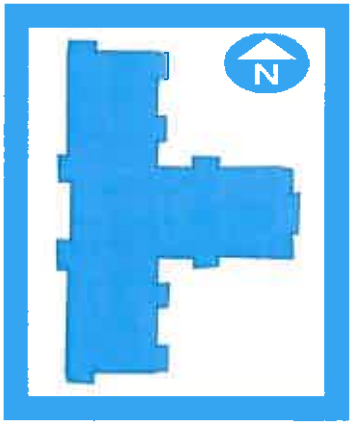
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition:

213 Balconies on Roof Slab





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 309 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

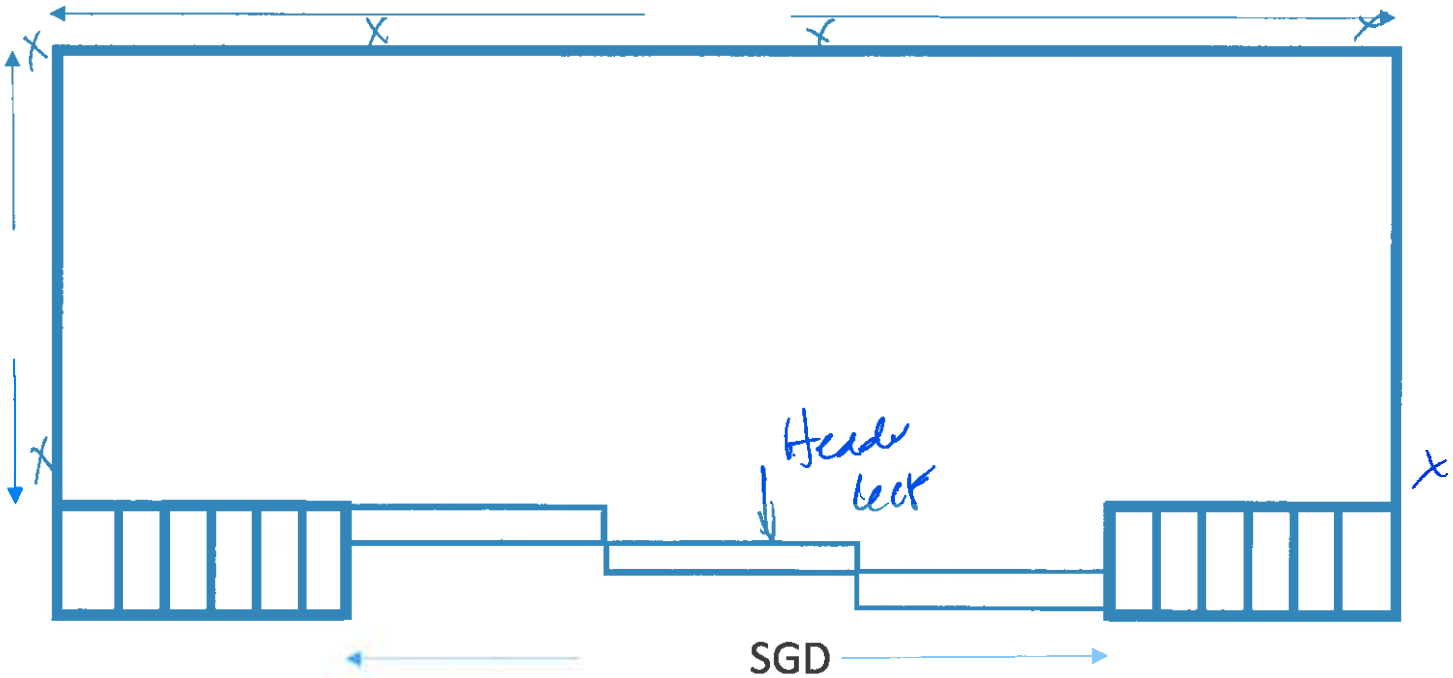
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

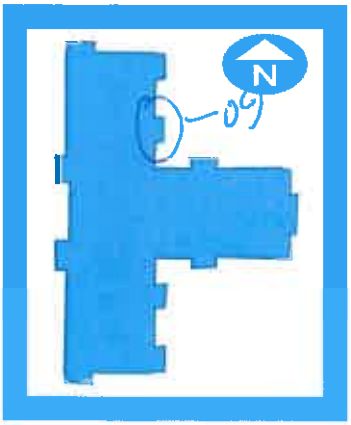
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 409 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

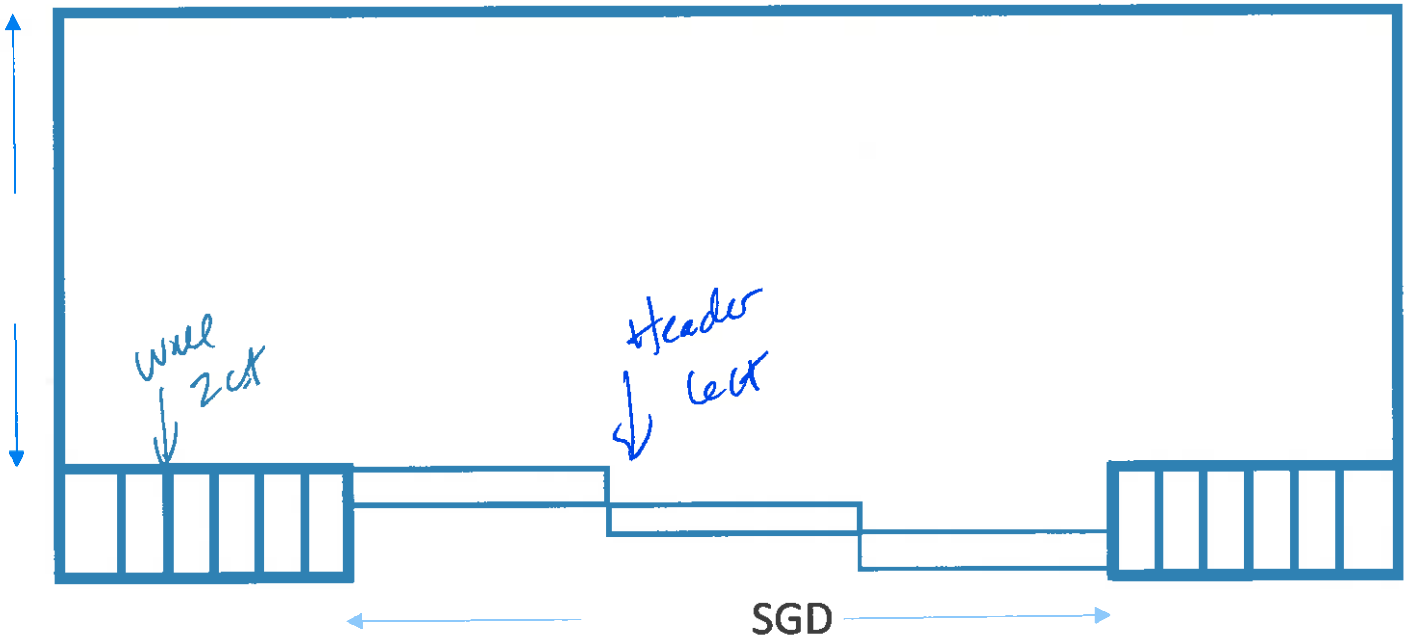
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

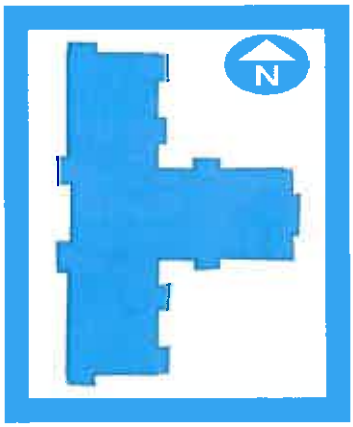
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors CWS
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Carpet

Screened Enclosure
Condition: Damaged Screen - Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 509 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

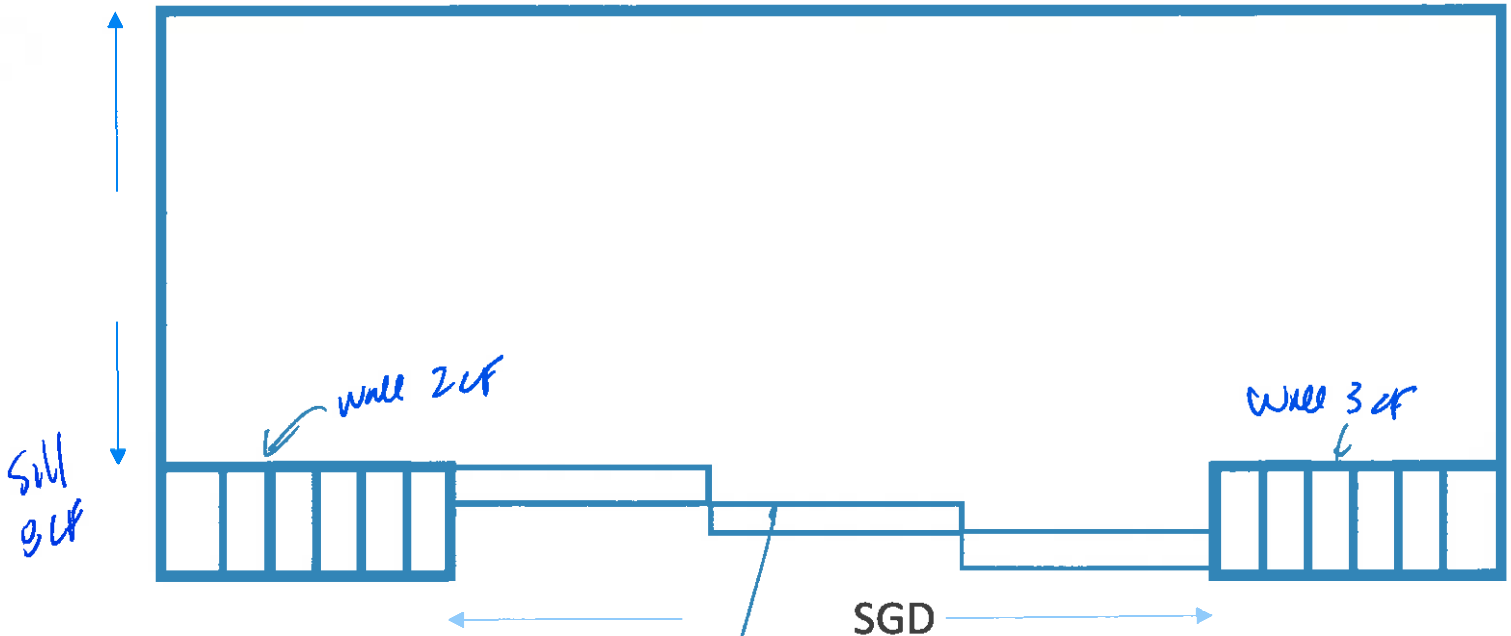
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

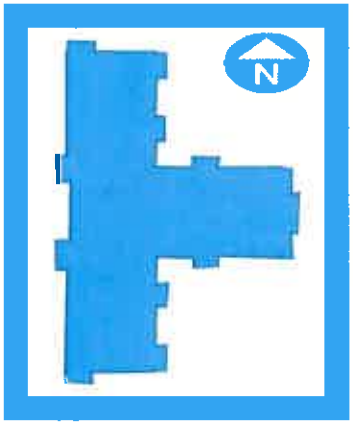
Shutters drawings
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile Pattern

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 609 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

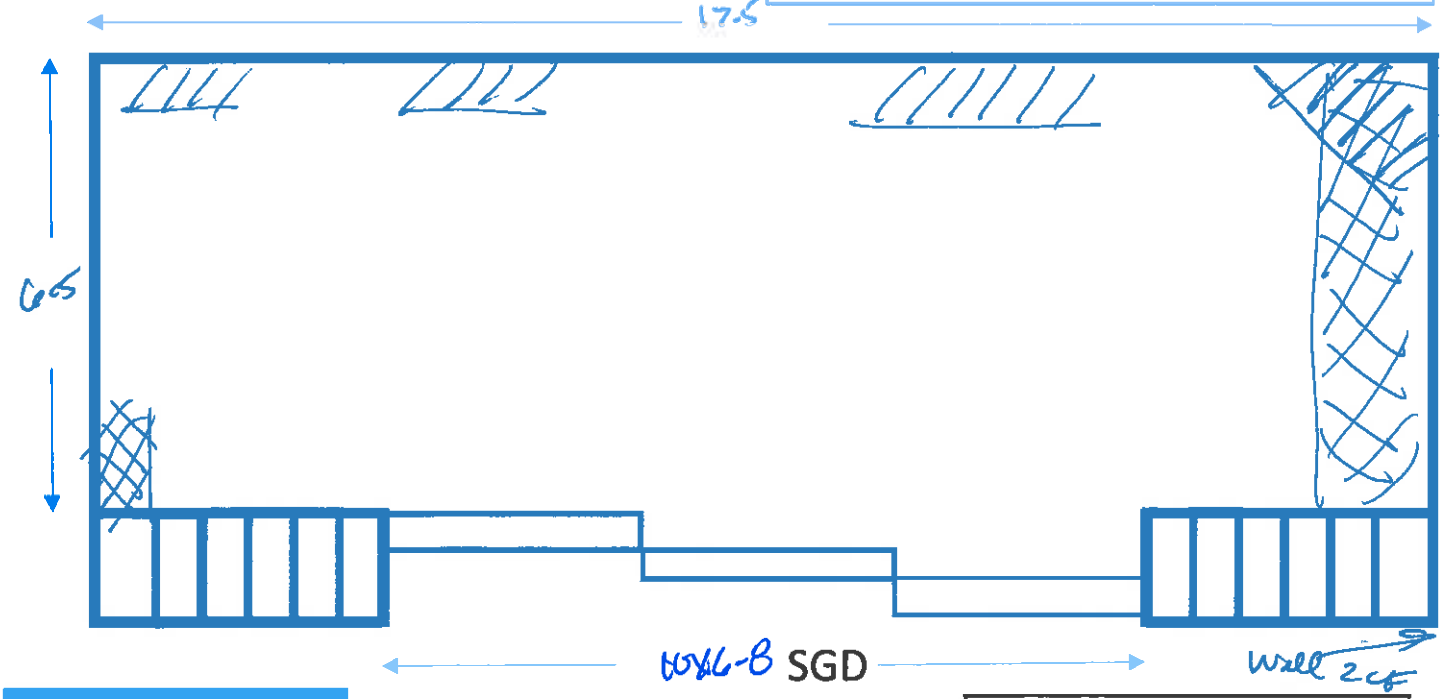
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

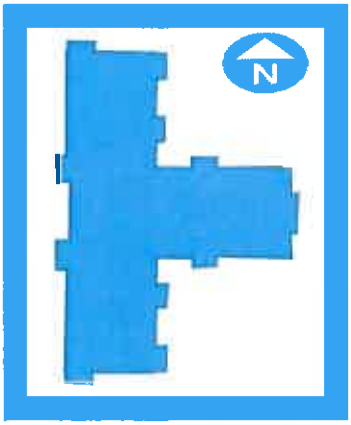
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coatm - tile Pattern

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 210 - [illegible] **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

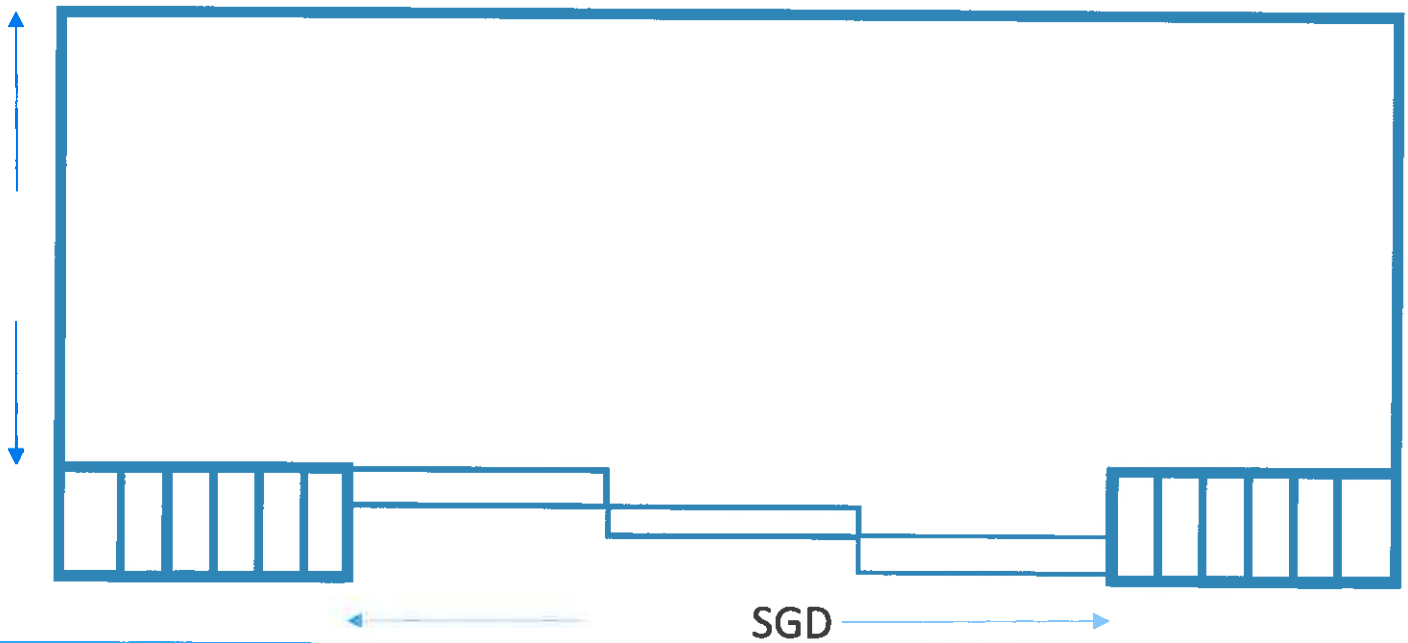
Shutters
Yes No
Edge Door
Accordion Roll Down

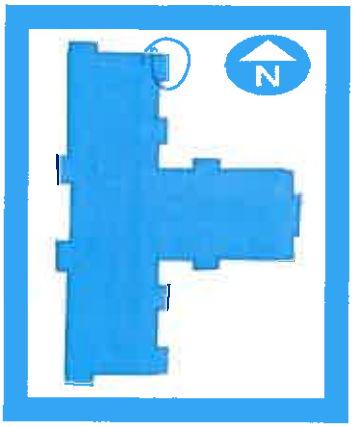
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type:

Screened Enclosure
Condition:

3rd of 3 Balconies on Roof





Wall 4CF

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 310 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

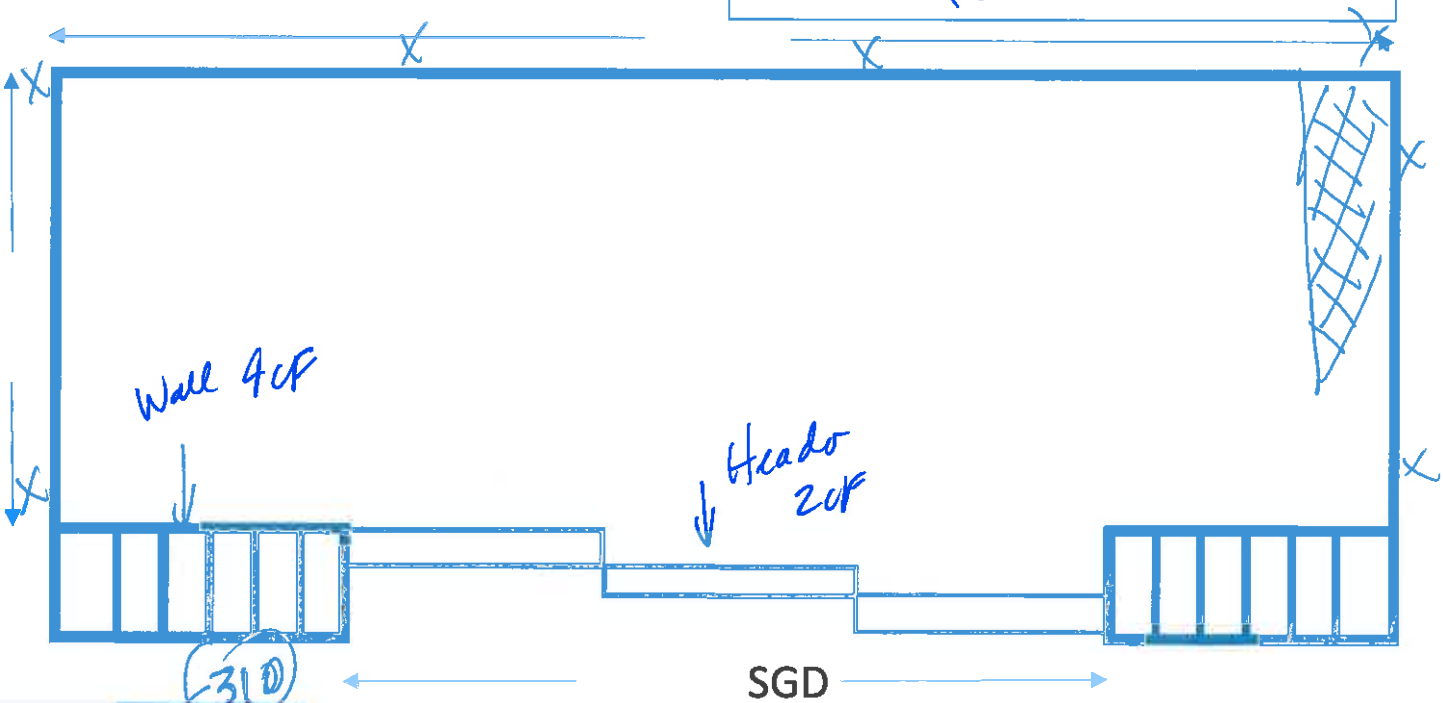
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

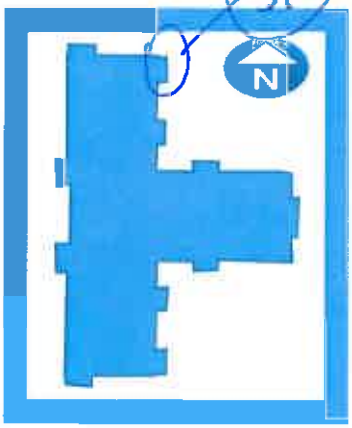
Shutters Manga
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 410 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

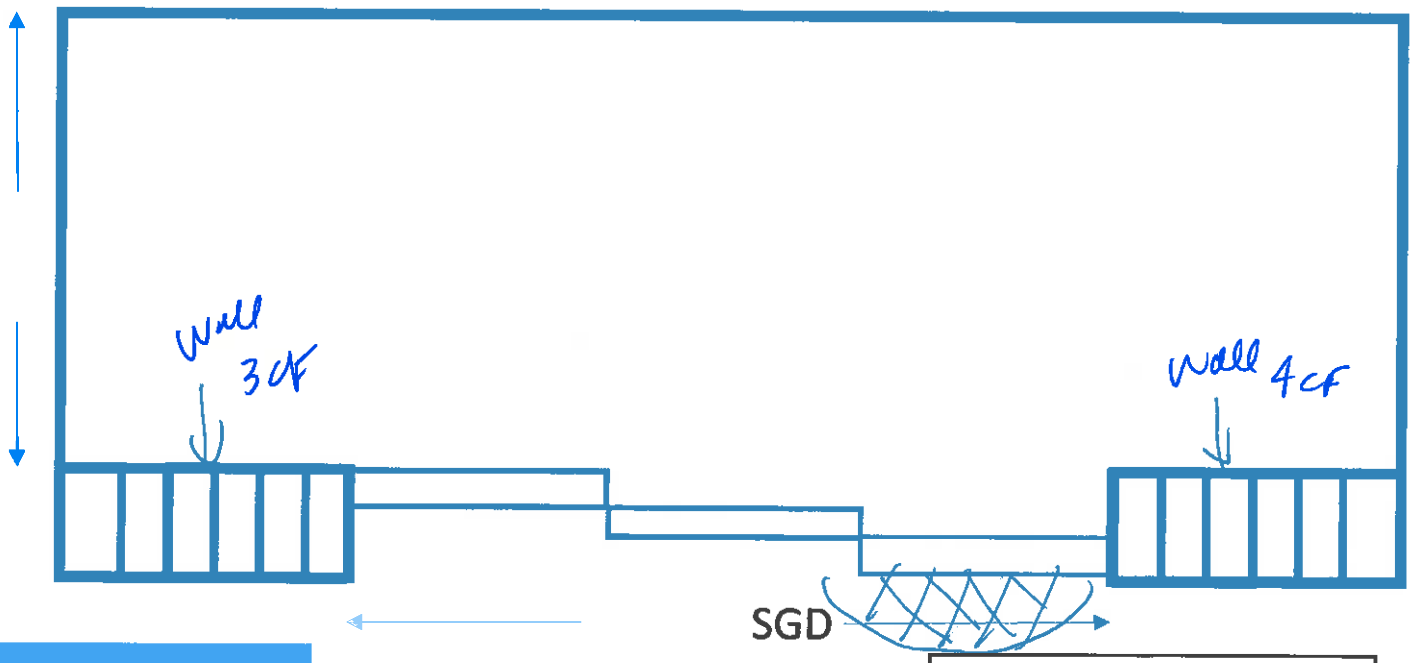
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

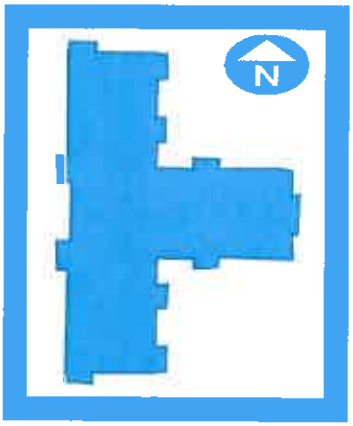
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors Cerr. Gate
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: older - Orange (typ)





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 510 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

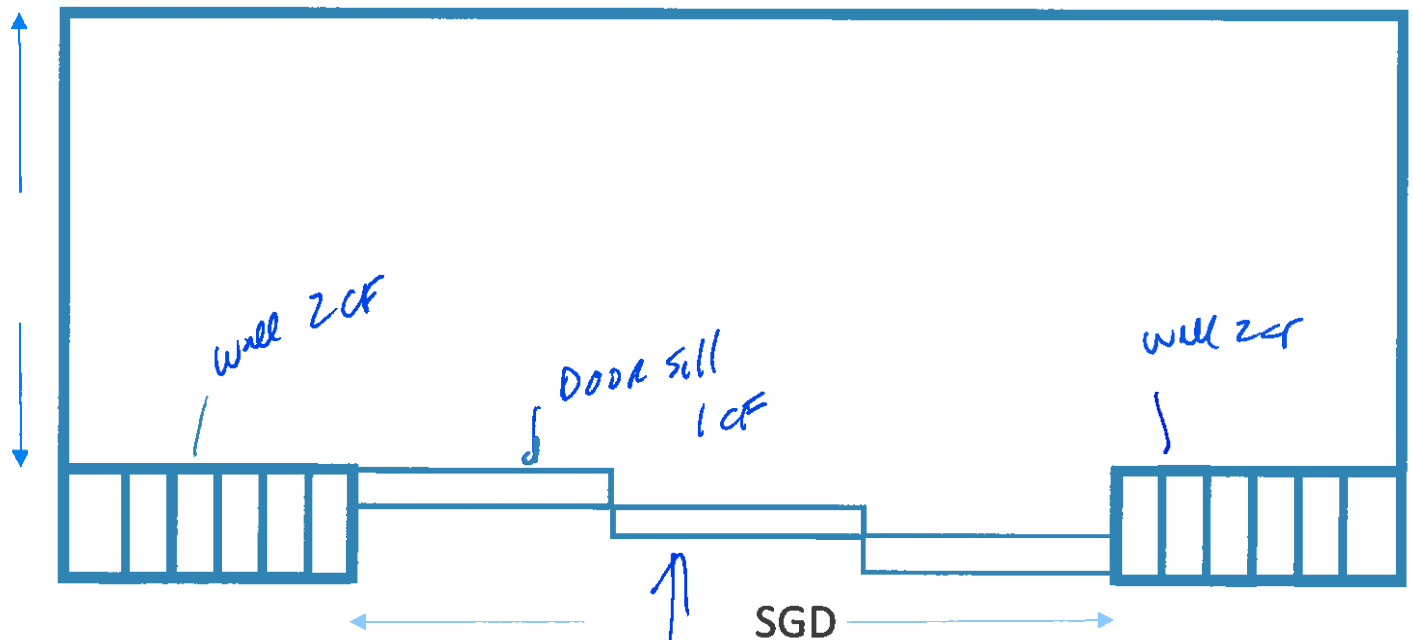
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

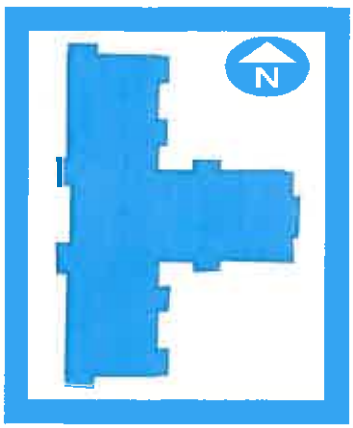
Shutters Drawn
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 610 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

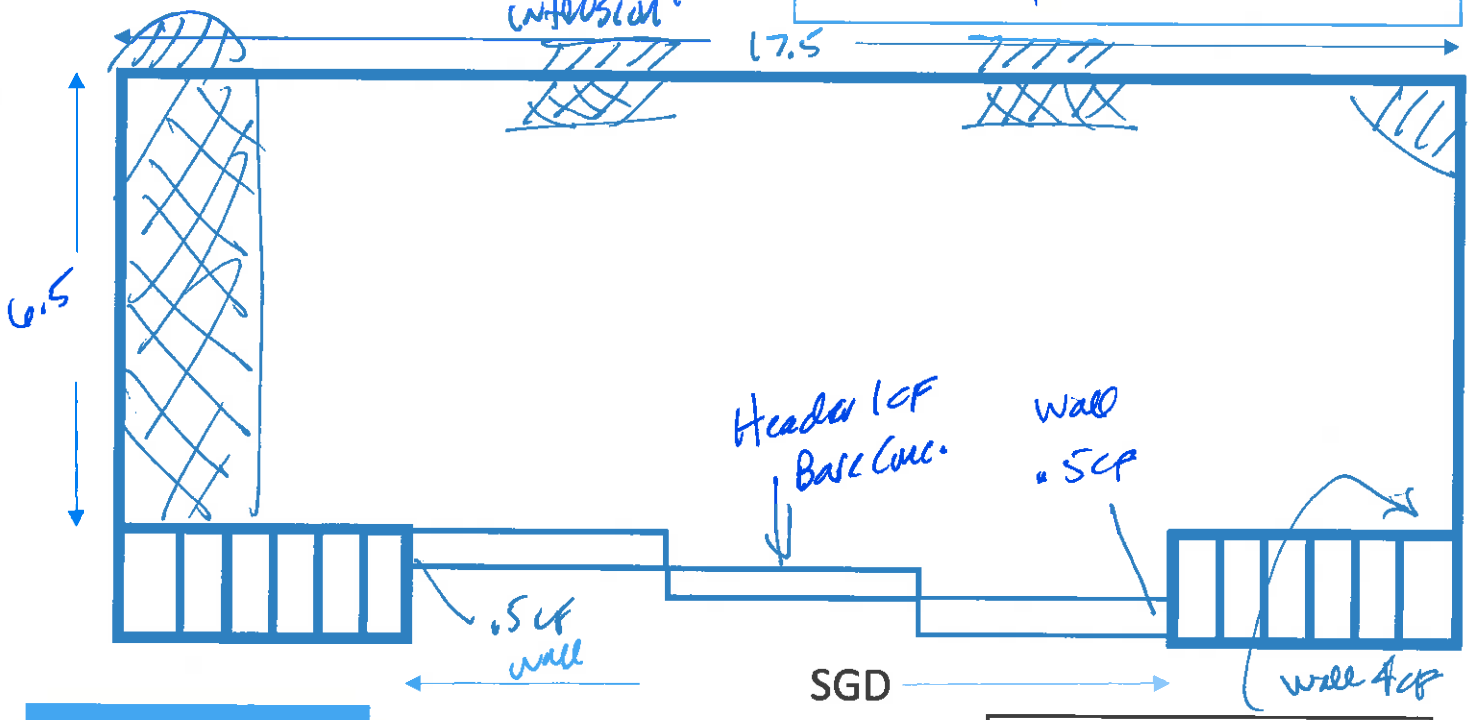
Shutters
Yes No
Edge Door
Accordion Roll Down

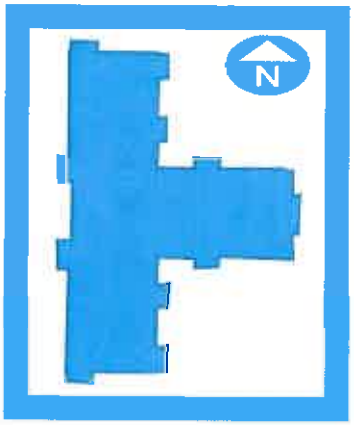
Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Ceramic - tile pattern

Screened Enclosure
Condition: Fair

"odor from pool water intrusion"





Elec. Alum

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 211 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

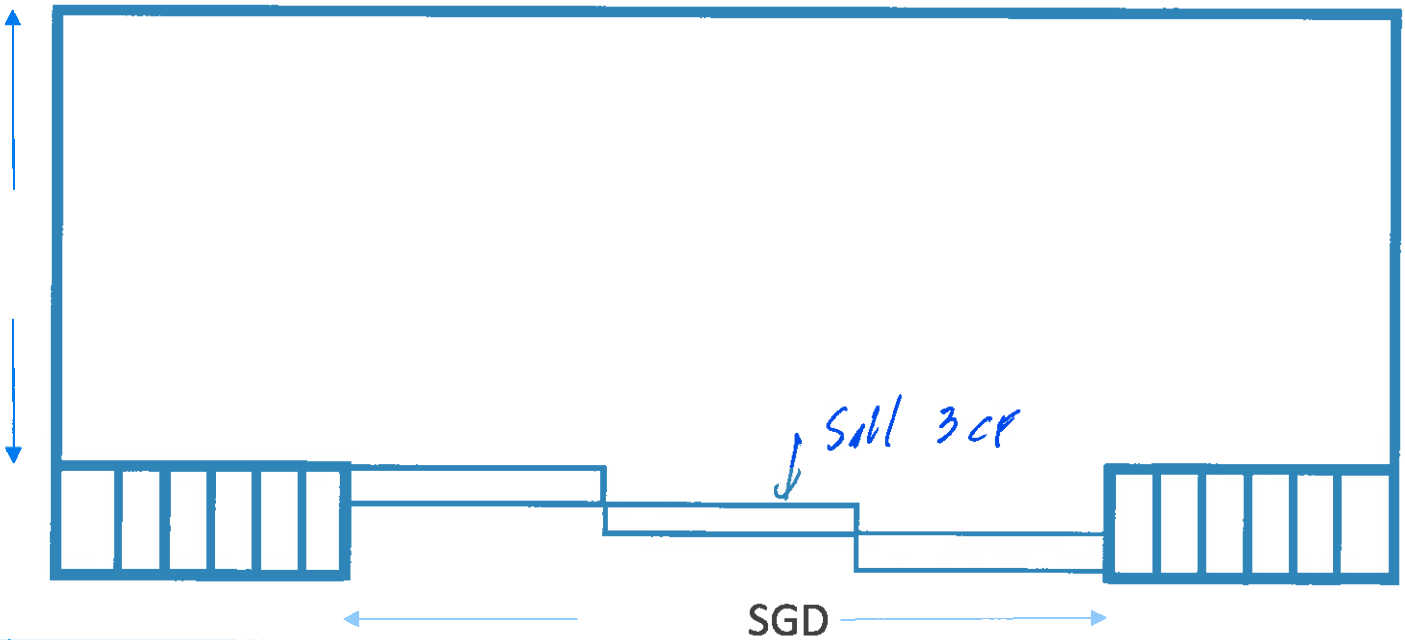
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

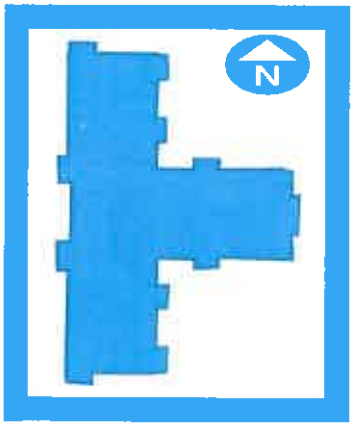
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Fair





Wall 6cf

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 311 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

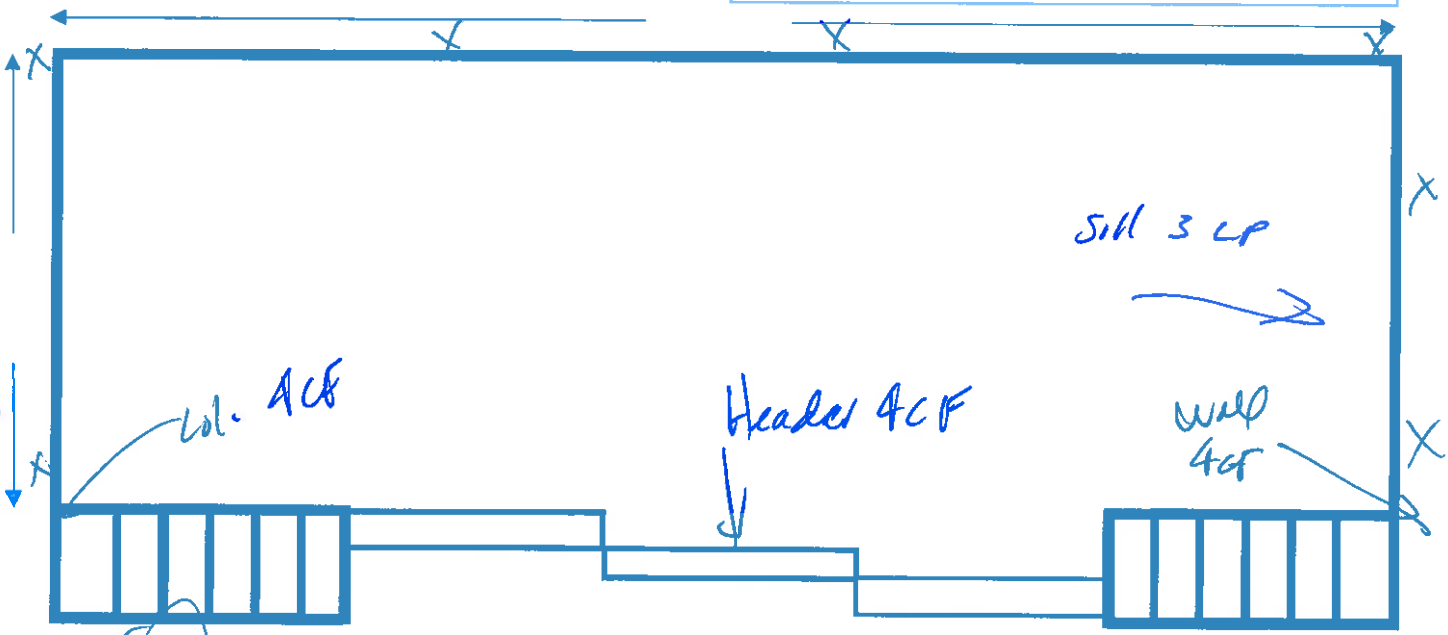
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

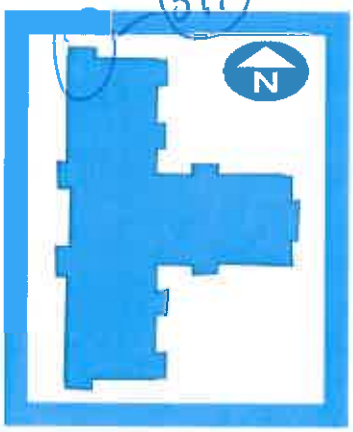
Shutters
Yes No Panels
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coady

Screened Enclosure
Condition: fair





West Window Wall
Deco Block
- trade at Block
- New windows that open

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 411 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

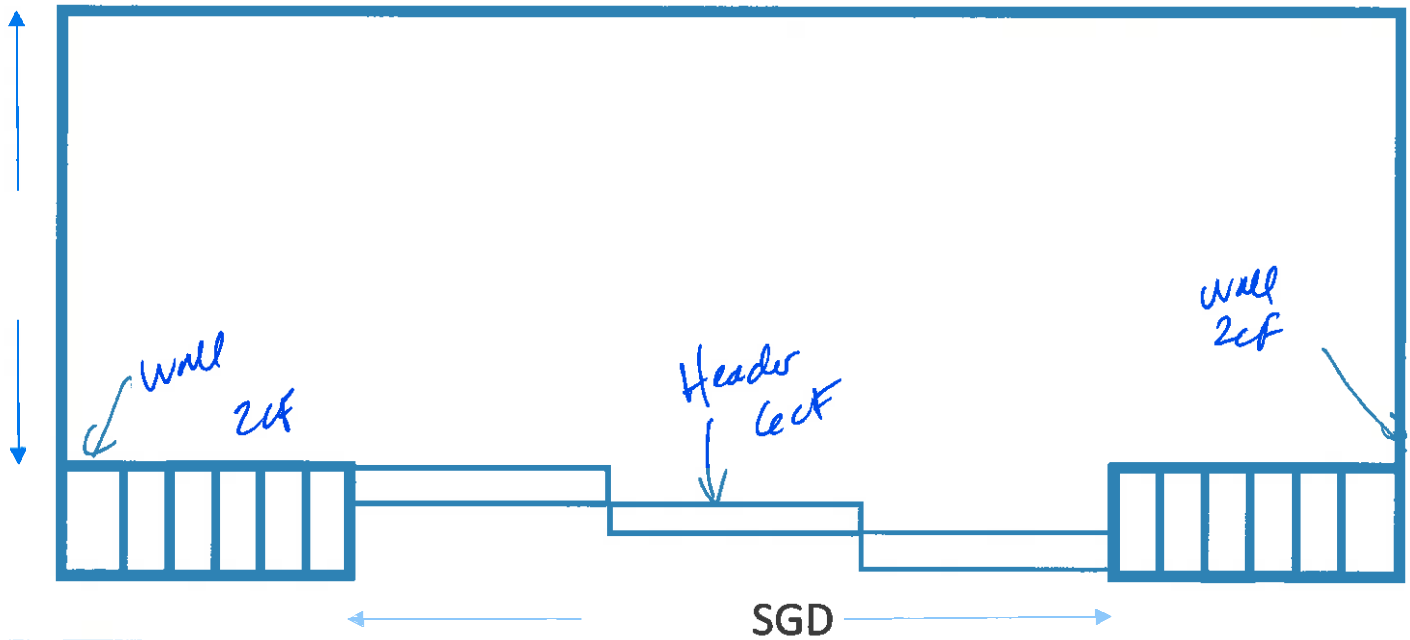
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

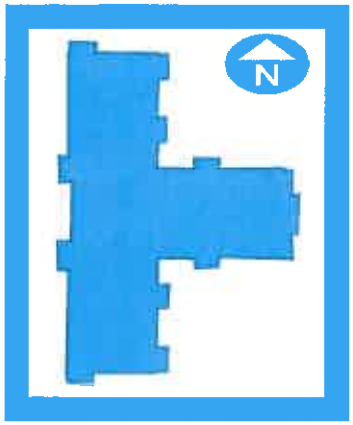
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors Carr. Int
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: New





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 611 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

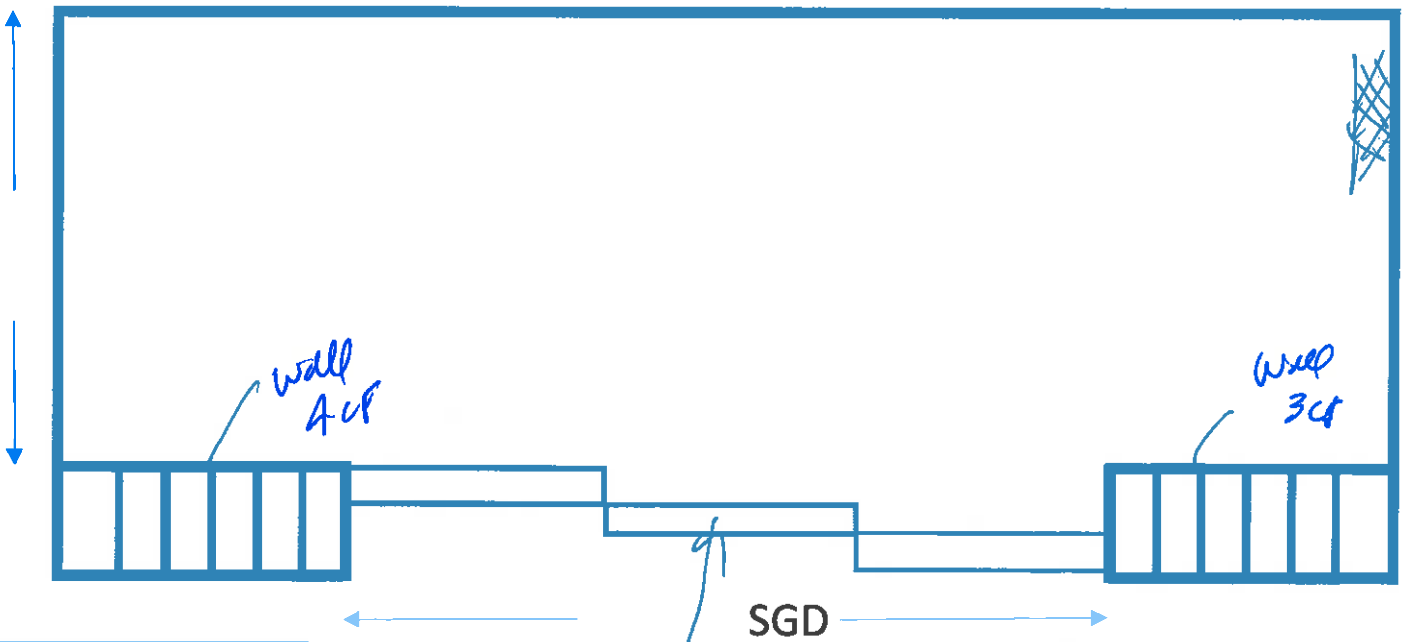
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

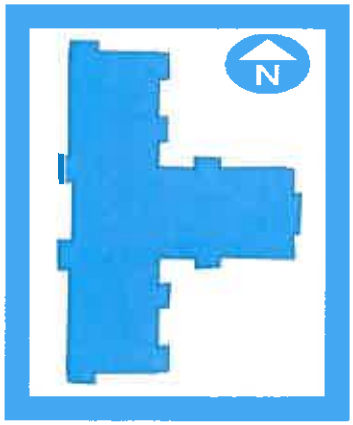
Shutters Cant. Sgt
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coolum - tile pattern

Screened Enclosure
Condition: Fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 611 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

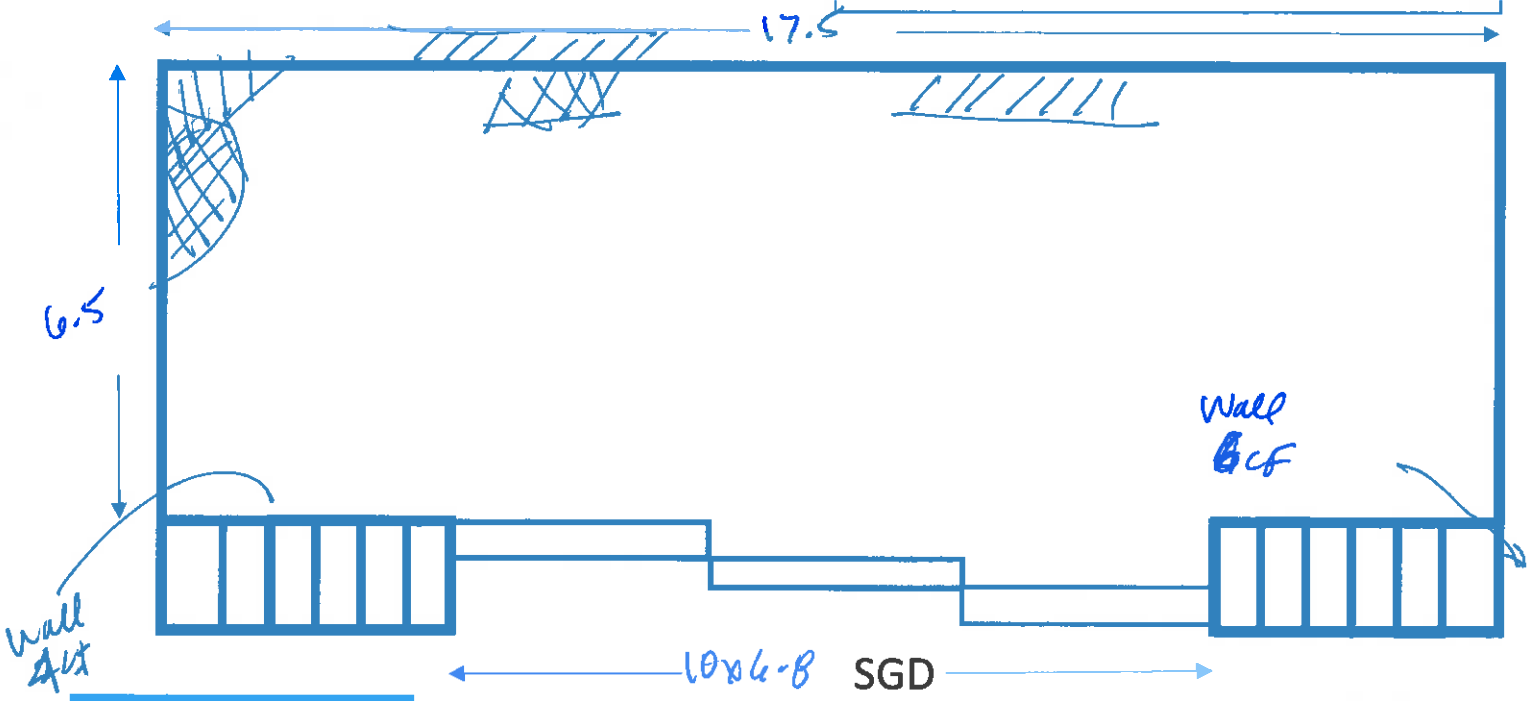
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

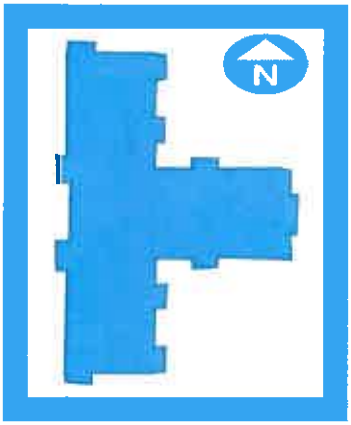
Shutters drainage
Yes No
Edge Door
Accordion Roll Down

Sliding Doors Corr. fnt
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: fair - drainage top





BL sill - 6 LF
→ Need sill Allowance

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 212 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

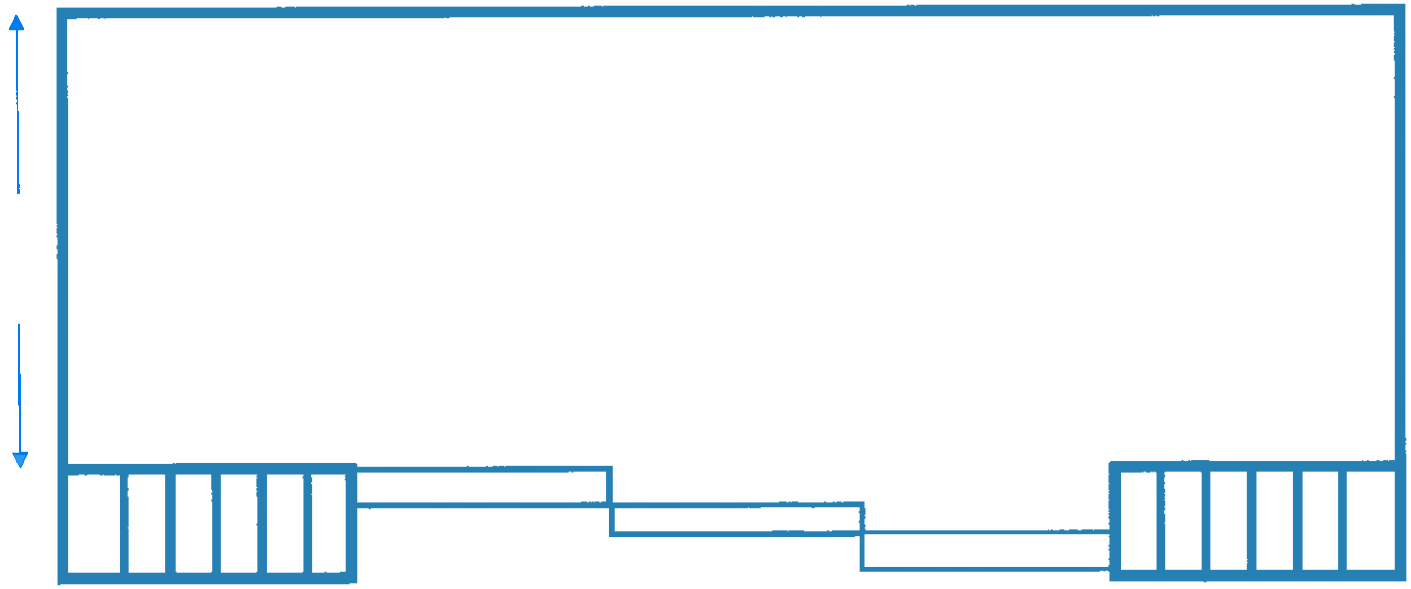
Shutters
Yes No (Panels)
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

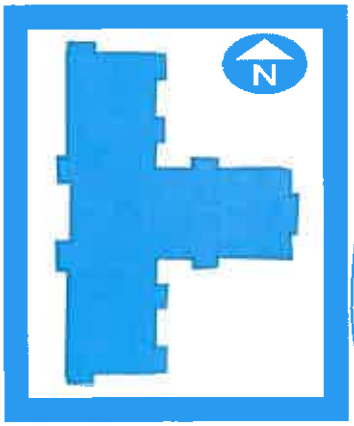
Flooring
Type: Coachy

Screened Enclosure
Condition: ~~Rusty~~ Screen

Walls ACF



SGD



Deco Block
→ Decorative Aluminum panels that can be removed & reinstalled for painting/sealing
Barrett

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 312 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

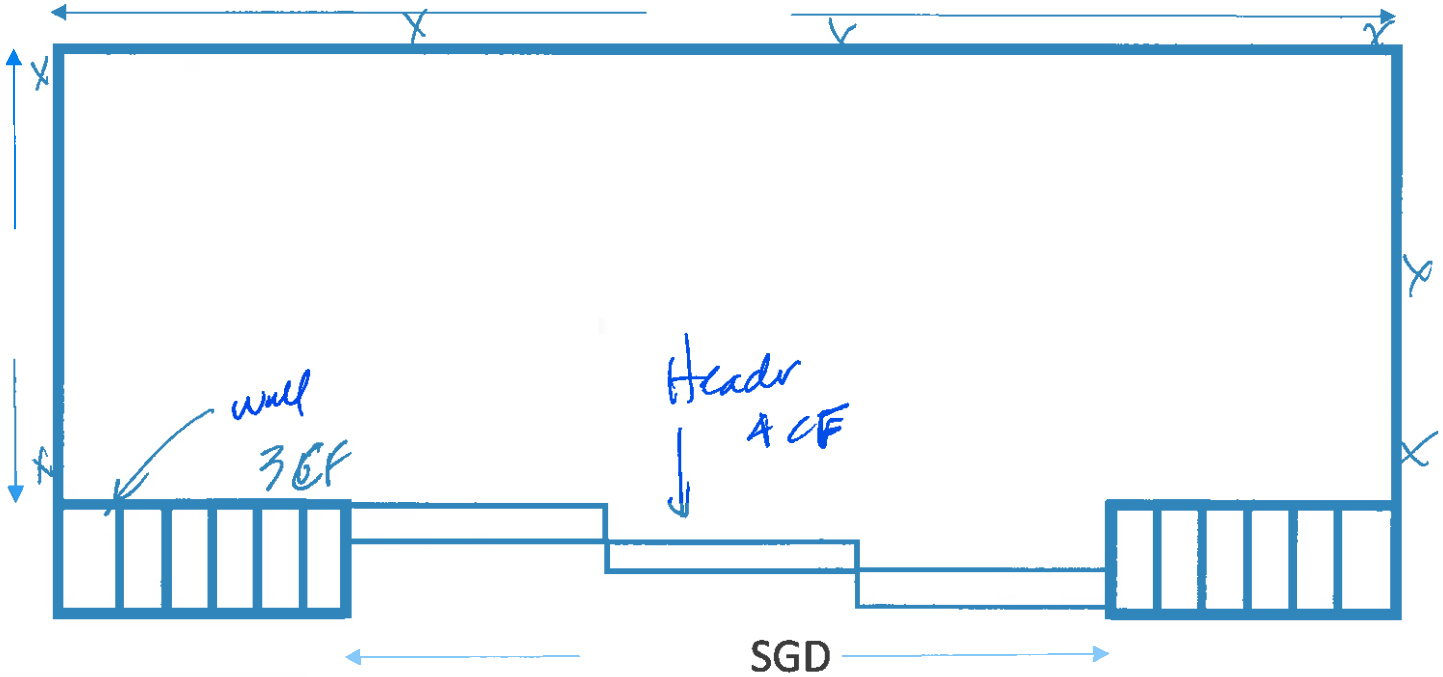
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

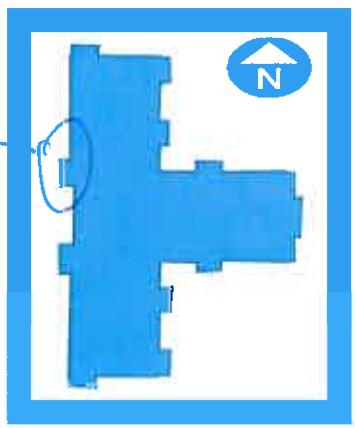
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coatny

Screened Enclosure
Condition: fair





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 412 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

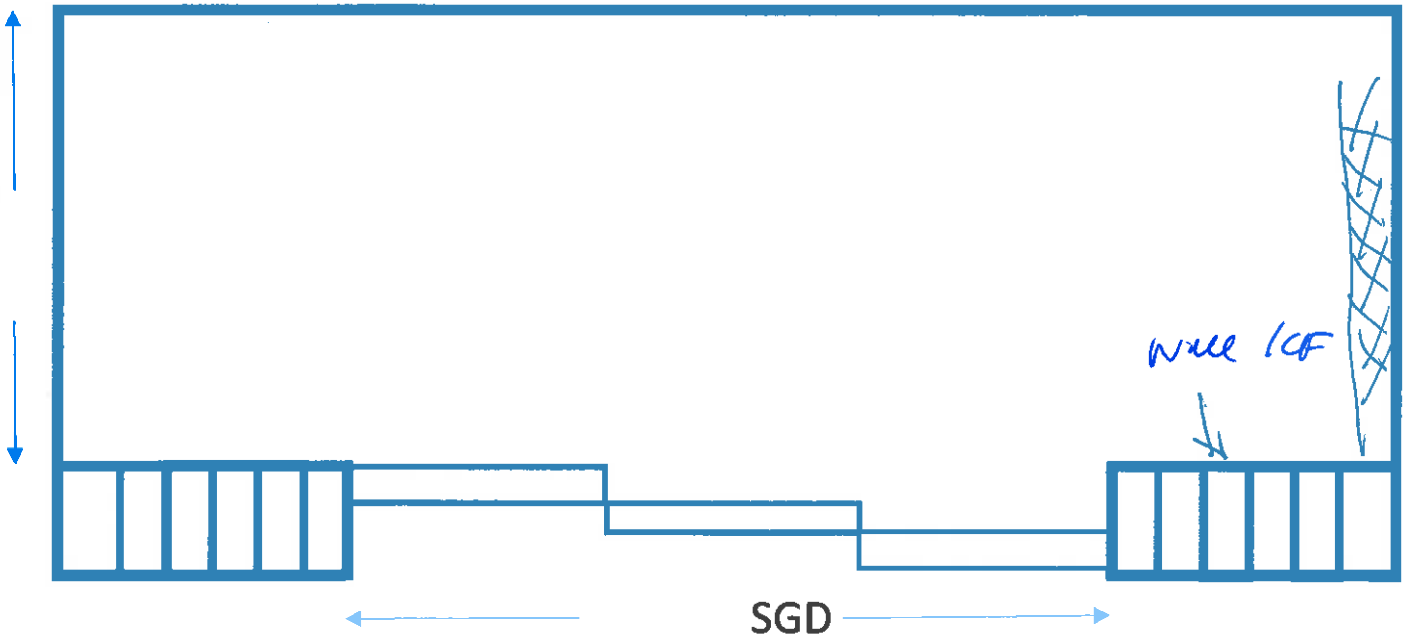
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen
Newer

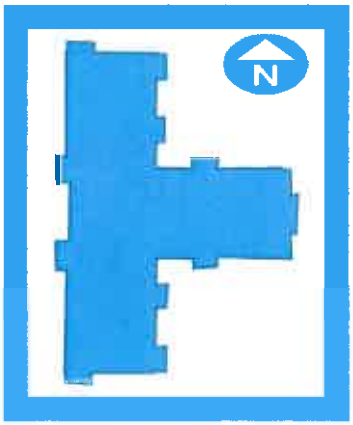
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating

Screened Enclosure
Condition: Newer





Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit # 512 Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

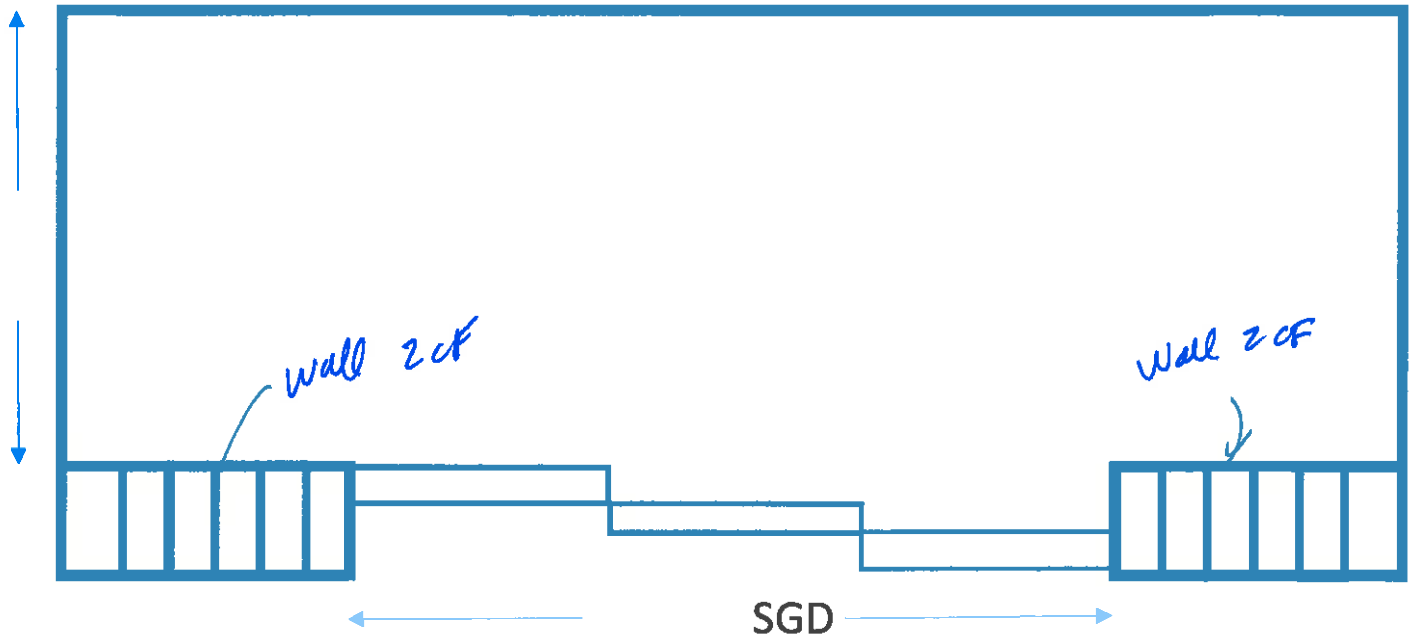
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

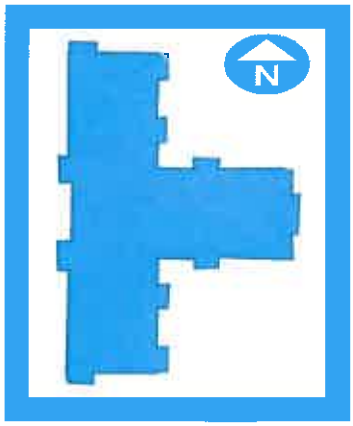
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors Corr. Ext
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: fair





Shutters - Hdm Pass
Header Dmg

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

KEYSTONE ENGINEERING & CONSULTING, INC.
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Balcony Survey Map

Project: Sandpiper Towers **Unit #** 612 **Date:** August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

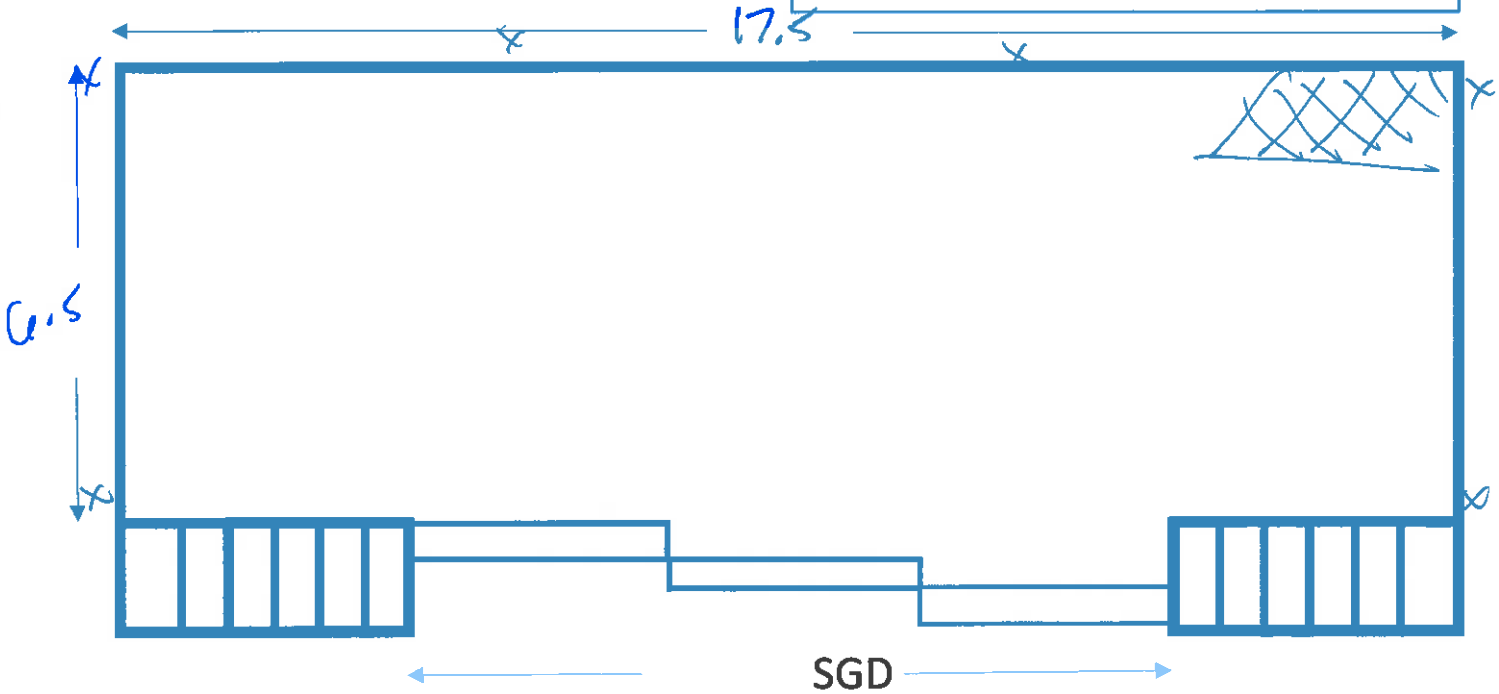
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

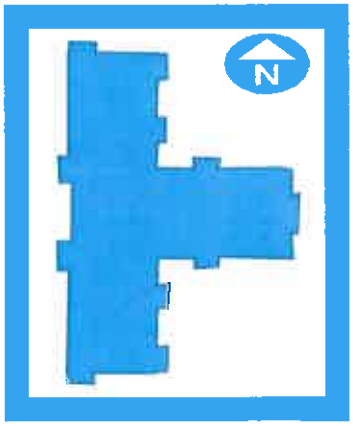
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type: Coating - tile pattern

Screened Enclosure
Condition: Fair





Walls - peeling paint

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	

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Balcony Survey Map

Project: Sandpiper Towers Unit #_____ Date: August 29, 2019

LEGEND
- Spall Above
- Spall Below
- Crack
- Rust Spot

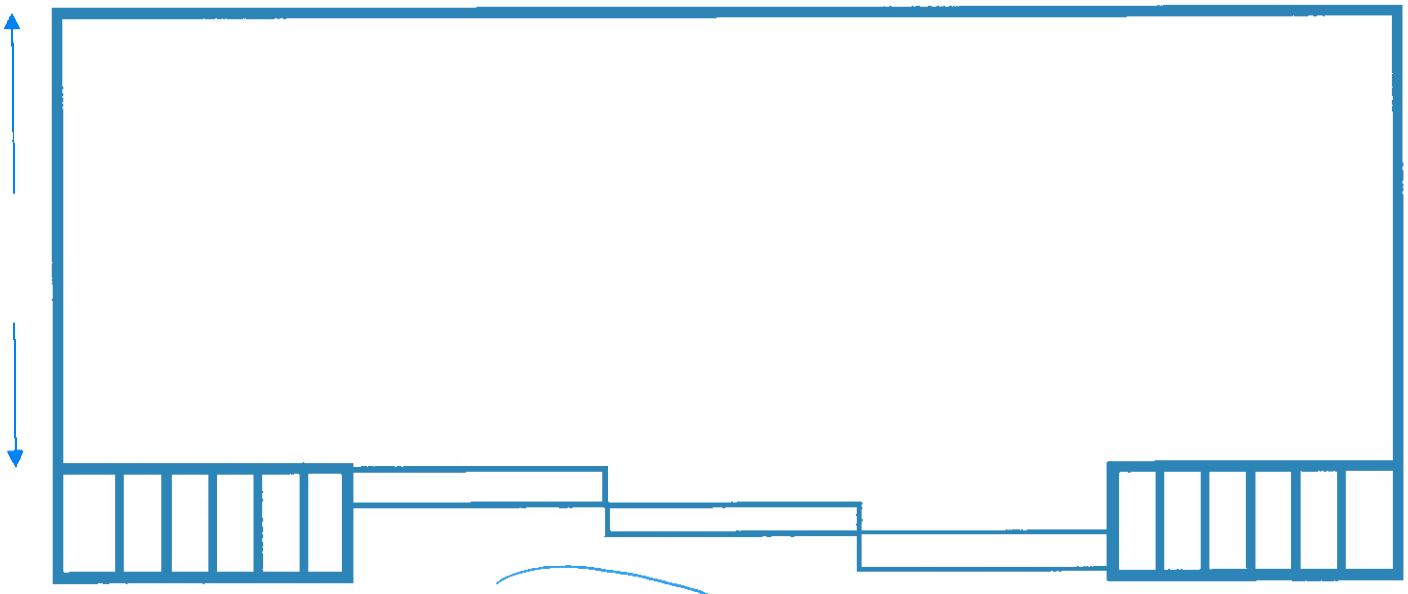
Railings
Code Compliant: Yes No
Condition: Good Fair Poor
Type: Cored Surface Mount Screen

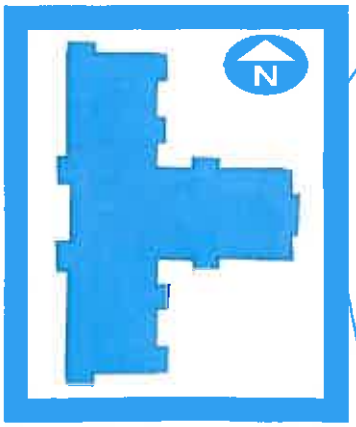
Shutters
Yes No
Edge Door
Accordion Roll Down

Sliding Doors
Code Compliant: Yes No
Condition: Good Fair Poor
Age: Older Newer Corroded
Fasteners: Yes No Holes In
Threshold: Yes No

Flooring
Type:

Screened Enclosure
Condition:





EAST STAIRS
NEW WINDOWS
40" tall x 30" wide
2 per floor
FIXED GLASS

Survey Quantities	
Floor Surface (SF)	
Slab Edge (LF)	
Slab Full Depth (SF)	
Column/Beam/ Header (CF)	
Small Repair (ea)	
Ceiling Spall (SF)	
Profiling Mortar (SF)	
Window Sill (LF)	