Property Condition Assessment™

for

Three Waters
Three Waters Park Drive
San Mateo, California 94403

prepared for

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1. Executive Summary

1.1 Introduction

This report presents the results of a Property Condition Assessment (PCA™) performed on Three Waters, Three Waters Park Drive, San Mateo, California, during May and June of 1995. This PCA™ was comprised of the following tasks:

* Inspect the visible portions of the interior and exterior wall, roof, and floor surfaces as well as the landscaping and parking areas. A notebook with photographs from this inspection accompanies this report. Subsequent references to photographs refer to these.
* Review inspection reports on the sprinkler system, the electrical system, wood destroying pests & organisms, and seismic capacity of the structural system.
* Identify items that need repair.
* Review bids to perform major repairs, and prepare cost estimates for repairs that can be performed by maintenance personnel.
* Evaluate fire safety condition of the building.
* Evaluate accessibility for disabled persons.

1.2 Results

The following table lists the major items that need repair and their bid or estimated repair cost. These items are listed in order of priority. Grouting and seismic upgrades should be done immediately; these are life safety issues. Routing roof drainage to Bernal Creek will help preserve the integrity of the grout beneath the slab. The parking lot should be resurfaced within the next 1 to 3 years; future degradation of the parking lot probably will not produce pot-holes or excessive puddles (which are slip, trip, and fall hazards) before this time. When re-striping the parking lot, be certain to provide parking spaces for disabled drivers; these spaces should provide for an accessible route that is not behind parked cars and that allow for van-lift wheelchair access. Provided immediate repairs are made to the roof membrane, its useful life and be extended between 5 and 10 years from today; after this time, the entire membrane should be removed, damaged roof panels should be replaced, the roof sloped to the drains, and a new membrane installed.

Repair / Upgrade Item	Bid / Estimated Repair Cost ($US 1995)
Grout between Structural Slab and Grade	$70,000
Upgrade Seismic Resistance of HVAC Roof Units	$4,000
Repair Roof Membrane (recurring annual cost)	$4,000
Repair Moisture / Decay Damage	$1,000
Repair & Adjust HVAC Roof Units plus Clean Cooling Towers	$2,000
Replace AC Economizer Controls (Optional)	$2,000
Resurface Parking Lot in 1-3 Years	$19,000
Rout Roof Drainage to Bernal Creek in 1-3 Years	$10,000
Install Exterior Wall Panel Vents in 3-5 years	$2,000
Replace Roof Membrane in 5-10 Years	$43,000

The life safety features - fire doors enclosing the atrium, fire-rated hallways, complete sprinklering, exterior stairways, an area separation wall, and multiple exits from all areas - are state-of-the-art even by current practices. Disabled persons can access all retail parts of the building via ramps on the front rear, and side of the building, elevators between levels, and stairways with handrails. The entrance to the women's toilet does not appear to comply with either ADA or Title 24 wheelchair access requirements. Although the building was built prior to the adoption of either of these laws, I suggest that the men's and women's toilet be switched on one level to accommodate women in wheelchairs.

1.3 Limitations, Disclaimer, & Warning

This report is based on visual inspections only. No destructive testing was performed. No materials testing was performed. No systems testing was performed. No testing for hazardous materials or contamination was done. W. Charles Perry & Associates disclaims all liability for any latent defects in design, construction, maintenance, or operation. W. Charles Perry & Associates disclaims all liability for the presence of any hazardous materials or contamination.

Verifying conformance of the as-built structure to the design drawings was beyond the scope of this investigation. W. Charles Perry & Associates disclaims all liability for any failure of the building to perform as it was designed or built.

This PCA™ is neither a design, nor specification, nor recommendation to perform repairs or modifications to the subject property. It is not a bid to perform such repairs or modifications. It not a recommendation for insurance premium level, insurance reserve, repair reserve, or reserve contribution. It is neither a guarantee of future performance of the subject building nor a warranty of its current condition. Individuals who rely on this PCA™ for their financial decisions do so at their own risk. All consequences of actions based on the results of this PCA™ are the responsibility of the acting party. W. Charles Perry & Associates disclaims all liability for these consequences.

2. Objective, Methodology, and Limitations of Property Condition Assessment

2.1 Objective

The objective of this Property Condition Assessment (PCA™) is to establish to a reasonable engineering certainty the condition of the major physical systems at Three Waters building, Three Waters Park Drive, San Mateo, California, during May and June of 1995. This information is intended to help prospective buyers, lenders, and insurers assess the value of the subject property in accordance with their respective interests.

2.2 Methodology

The subject property was visually inspected on several occasions. Photographs documenting the general condition of the property were taken. The architectural plans were reviewed. Soils reports were reviewed. The electrical, telephone, sprinkler, plumbing, & HVAC systems were visually inspected. Inspection reports on the sprinkler system, the electrical system, wood destroying pests & organisms, and seismic capacity of the structural system were reviewed. Items that needed repair were identified. Bids to perform major repairs were collected. Cost estimates for repairs that can be performed by maintenance personnel were prepared. The fire safety condition of the building was evaluated. The accessibility of the building to disabled persons was evaluated

2.3 Limitations

This report is based on visual inspections only. No destructive testing was performed. No materials testing was performed. No systems testing was performed. Verifying conformance of the as-built structure to the design drawings was beyond the scope of this investigation. No testing for hazardous materials or contamination was done.

3. Property Description & Condition Assessment

3.1 Site

3.1.1 Landscaping

Based on the tax assessors parcel map and the architectural drawings, the subject building is located on 3.9 acres of a 11.53 acre joint parcel with two similar buildings (photographs 1, 2, 3, 6, 7, 8, 12, 13, & 14). A decorative pond is situated between the three buildings; the subject property boundary appears to encompass this pond (photographs 37 & 38). The buildings were surrounded by a grass lawn, a rock bed adjacent to the building, and mature trees (photographs 4, 5, & 6 plus previous references).

At the time of the inspections, the grass was green, and the soil was soft. This indicated that the soil was overwatered by the automatic sprinkler system. To avoid future overwatering and consequent high water utility bills, the sprinkler system controls should be replaced with moisture sensitive controls or reset seasonally.

The trees appeared to drop leaves onto the roof of the subject building (photographs 9 & 10). Although the roof was free of debris at the time of the inspections, there was evidence of long standing collections of debris (photographs 22, 23, 24, & 26). This debris must be removed regularly to avoid clogged roof drains and consequent roof leaks and damage. To reduce

the frequency of this roof cleaning, the trees near the building should be pruned to a height less than the parapet of the subject building.

The Wood Destroying Pests and Organisms Inspection Report identified earth to wood contact in small retaining boards and benches in lightposts. These should be either replaced with pressure treated wood or treated and covered with an asphalt based compound.

The downspouts from the roof discharge water onto splashplates immediately adjacent to the based of the building; some are damaged; the remainder are above grade (this was noted in Wood Destroying Pests and Organisms Inspection Report). Replacing damaged splash plates will have no effect on the building's structural performance or on the amount of water migrating beneath the building. In the future when the landscaping around the building is modified (possibly when the grouting is done), these downspouts should be channeled into a subsurface PVC drain system which is directed to Bernal Creek. The estimated cost to perform this upgrade is approximately $10,000.

3.1.2 Parking

The parking lot is comprised approximately 83,000 square feet; it is delineated into approximately 301 parking spaces. Based on the 63,350 square feet of gross floor area of the subject building, this is approximately 1 parking space per 210 square street. The surface of the drainage swales in the middle of the driveways was covered with a spider-web-like pattern of cracks. Local surface irregularities appeared to provide locations for the formation of small puddles. The surface appeared to have been recently sealed with a thin coat of a tar-based compound; the parking place delineation stripes also appeared new. The perimeter of the lot was delineated with curbs. There were no curb stones. Parking spaces for disabled drivers were delineated (photographs 47 & 48).

Due to constant saturation of the soil beneath the parking lot, apparently non-existent subgrade drainage, and inevitable cracks in the asphalt surface, the parking lot will chronically settle, crack, and degrade. This degradation will create puddles, pot holes, and surface irregularities. These all constitute hazards: people can slip & fall when walking through puddles, people can trip and fall on uneven surfaces (vertical offsets greater than 1/4 inch and sloped offsets greater than 1/2 inch can induce a trip & fall), and people can break their ankles when stepping into potholes. Although parking for disabled drivers was provided, these parking spaces did not provide for an accessible route that was not behind parked cars or in traffic. No comparison of number of spaces available versus the number of required spaces was performed; however, many municipalities require 1 parking space for every 250 gross square foot.

Dryco submitted a bid of $16,803 to replace the most badly damaged section of pavement and to sealcoat the remainder of the pavement. In addition to the work proposed by Dryco, any local surface irregularities that can create a puddle or a trip and fall hazard should be located and filled or repaired respectively; additionally, curb cuts should be installed at all parking spaces for disabled driver vans to allow an accessible route to the building that does not pass behind any parking spaces. The estimated cost to perform this work is $19,000.

This parking lot remediation also presents an ideal time to install a subsurface drain from the building to Bernal Creek to re-rout roof drainage away from the building as describing as described in the Landscaping section of this report.

3.1.3 Soil / Structure Interface

The soil beneath the subject property is comprised of approximately 3 feet of engineered fill over approximately 22 feet of bay mud over at least 100 feet of very stiff sandy clay. The water table is approximately 3 feet below the ground surface.

Based on a review of the original building plans, the building is supported by precast concrete piers embedded into stable strata below the bay mud. Based on the site inspection, the soil has settled approximately 9 inches relative to the building. This necessitated installation of additional stair steps, altering ramps, and re-landscaping around the building (photographs 4, 5, & 6).

Based on a review of the original soils investigation for the subject building, long term settlement appears complete. Excluding earthquake induced settlement, no major relative settlement between the building and adjoining ramps, stairways, and walkways is expected.

Based on the Probable Seismic Loss Analysis™ of the subject building performed by W. Charles Perry & Associates dated June 8, 1995, the void between the bottom of the structural slab and the grade should be filled with an engineered fill such as Elastazill EF, Class IV (36 - 42 pcf; 120 psi minimum compressive strength), Type I cement, no gypsum, & no admixtures. Based on a bid by Cell*Crete Corporation, the estimated cost to perform this grouting is roughly $70,000. This work will alter the rock "landscaping" around the perimeter of the building; this presents an ideal time to install a subsurface drainage system that routs roof drainage away from the building as described in the landscaping section.

To maintain continuity between the structural slab and grade after grouting, further settlement should be prevented. This required maintenance of uniform moisture conditions beneath the building annually. Routing roof drainage away from the building and maintaining low moisture consumption vegetation around the building will assist in this matter.

3.2 Structure

The subject building has an "L" shaped footprint that covers approximately 31,675 square feet. The building has two habitable levels with a total of 63,350 gross square feet. The following table summarizes the main features.

System	Description
Foundation	Driven Concrete Pier (59' deep on a 16'x24' grid) with structural slab and pier caps; soil is ~1 foot beneath slab due to earthquake settlement.
Vertical Load Bearing	Pipe Columns
Horizontal Load Bearing (2nd level)	Plywood to joists to glulam beams
Horizontal Load Bearing (roof)	Plywood to sub-purlins to purlins to glulam beams
Shear Resisting (perimeter)	Plywood shear walls tied to horizontal diaphragms
Shear Resisting (interior)	Steel frames (3) with ductile connections tied to horizontal diaphragms
Seismic Details	Simpson ties between members; load collectors to shear resisting elements.

Based on visual examination of the building, review of the plans, and review of the PSLA™, no repairs or modifications to the structural system appeared necessary. (Notice that is exclusive of the soil/structure interface grouting discussed in the preceding section).

3.3 Surface Finish

3.3.1 Exterior Walls, Windows, & Doors

The exterior wall surface composed of alternating shear panels and window panels. The surfaces that extended from the plane of the windows were stucco covered decorative panels (photograph 6). The paneling surrounding the windows was decorative paneling. The windows had aluminum frame, tinted glass, and non-opening panels (photographs 17).

The stucco on the decorative panels along the western face of the building was cracked (photographs 16 & 18). The crack pattern was consistent with shrinkage of the stucco during initial application; typically this type of shrinkage is caused by stucco with too much water. These cracks appeared to have been repaired and painted. This cracking was noted in the Wood Destroying Pests and Organisms Inspection Report; it recommended periodic inspection to ensure no moisture intrusion; it also noted that these panels were not vented. When the stucco of the building is painted in the next 3 to 5 years, soffit and panel strip vents should be installed on their undersides; the estimated cost of this upgrade is approximately $2000.

The Wood Destroying Pests and Organisms Inspection Report identified several areas with small voids that were open to the environment, fungus growth, and weathering. All items appeared to be repairable by on-site maintenance personnel. Their estimated cost of repair is approximately $1000.

3.3.2 Roof

The roof structure was 5/8 inch thick plywood with 2 inch by 4 inch sub-purlins between 4 inch by 14 inch purlins. The roof had a low pitch to perimeter drains and overflow scuppers (photographs 22, 23, 24 & 25). The roof was covered with a built-up multi-layer asphalt-based membrane. There was evidence of ponding around the drains, along the perimeter, and beneath the HVAC units (photographs 26, 29, 30, 31, & 36). There were numerous bubbles and water filled pockets in the membrane. There were several soft plywood panels. Some drains were missing overflow scuppers (photograph 34). Some of the tiles on the Mansard roof were damaged were missing (photograph 35).

Star Roofing has submitted a bid to repair the most egregious of the noted problems for $3,520 combined with bi-annual inspections and maintenance; their work is expressly not guaranteed. Given that the building was built in approximately 1979, the roof membrane is approximately 16 years old. Built-up roof membranes typically endure between 15 and 30 years of exposure depending on the quality of the initial installation. Given the apparent quality of the initial installation, the roof membrane appeared to be near the end of its useful life. Given the roof membrane's current condition and Star Roofing's refusal to guarantee their work, the room membrane most probably will require roughly $4,000 worth of annual maintenance and repair. In lieu of this annualized cost, the roof membrane can be replaced for approximately $43,000.

To minimize clogging of roof drains which allows approximately 2 inches of standing water on the roof, the trees adjacent to the building should be pruned to limit their height to less than the height of the parapet.

3.3.3 Interior Walls, Windows, Ceilings & Doors

With the exception of the walls surrounding the atrium, mechanical stacks, and moment resisting steel frames, none of the interior walls were load bearing walls. All walls in the tenant areas could be relocated. These walls were sheathed with painted gypsum wallboard. The ceilings and lights were part of a suspended system. None appeared to be in need of major repair. The Wood Destroying Pests and Organisms Inspection Report noted water stains in the inside walls by the entry windows. The flashing around these windows should be sealed on the exterior. Additionally, all windows should be inspected for leaks. These are normal maintenance items

3.4 Plumbing & Mechanical Equipment

The only sanitary plumbing in the building is associated with the two toilets on each level. The second level toilets are immediately above the first level toilets. Both toilets share a common plumbing stack. From examining the pipe supports visible in the electrical and telephone cabling room, the pipes appeared to be adequately supported (photographs 45 & 46)). Both men's toilets appeared to comply with the accessibility requirements of disabled persons. The women's toilets appeared to restrict access by wheelchairs in order to provide privacy from hallway occupants. Although the building was built prior to passage of Title 24 access requirements by the State of California and prior to passage of the Americans with Disabilities Act (ADA), switching the men's and women's toilets on one level would provide toilet access to women in wheelchairs. No operational problems with the plumbing fixtures were observed in the men's toilets.

There were 3 BAC water-evaporation-based cooling towers on the roof of the northeast wing that provided condenser water for heat exchangers in the CCMC tenant space (photograph 32). At the time of the site inspection, these towers chilled water from 88^{o} F to 77^{o} F which is a typical temperature drop. The units appeared to operate on demand. Algae was growing in the interiors of the towers and there were corrosion deposits on the interior surfaces. The pump for the corrosion inhibitor (which prevents precipitation of solids on the plumbing) and algaecide was not operating properly. Given that these units were roughly 6 months old, this condition can probably be reversed by aggressive chemical treatment. According to an inspection report by James Stewart of Bayside dated June 5, 1995, the bleed rate was set too high; this needs to be adjusted once the corrosion injection pump operated properly. When opened the drain lowed constantly; this indicates that the water-level control floats were set too high; these should be reset. These items are all normal maintenance types of items.

The supports for each of the 3 cooling towers appeared to be balanced over a main support beam. The lower supports appeared to be aligned with the 6" by 14" purlins that spaned between the main beams. None of these supports were blocked against tipping. In the event of an earthquake, these units most probably would tip, damage the roof, and damage their plumbing. Although the spring mounts for each tower did provided for lateral resistance, these supports were only attached with 2 of 4 required bolts. The supports for these towers should be fully blocked and bolted to prevent tipping. The estimated cost of these upgrades is $1,500.

Heating, Ventilation, and Air Conditioning (HVAC) for the general tenant and public spaces was provided by 3 Trane 4- ton Model SAHA nnnnn Units and 1 Trane 25-ton Model SAHA25040 Unit. Subsequent references to Unit 1 refer to the northeastern-most unit that served tenant CCMC. Subsequent references to Unit 2 refer to the central unit that served tenant Cal-OSHA. Subsequent references to Unit 3 refer to the southwestern-most unit that served tenant Macromedia. Subsequent references to Unit 4 refer to the 25-ton unit that served tenant Ebsco. All units utilize freon compressors, expansion valves, and heat exchangers. All appear to use R22 refrigerant; this refrigerant currently is *not* scheduled for removal from the market until roughly 2010 to 2020. The wiring on all units was intact and showed no indications of shorting, burning, melting, or overheating. The cooling cycle equipment appeared to be operating correctly; there was a noticeable temperature drop across the heat exchangers; the heat exchangers were damp and not frozen; condensate formed on the

lines after the expansion valves. The filters appeared clean. The tenant spaces were serviced by supply and return air ducts. Supply air temperature in each zone was controlled by one mixing box.

On the day of the first inspection, May 26, 1995, all units were operating. The ambient temperature was 70^{o} F and the heating units were operating; these need to be re-adjusted. This is a normal maintenance type of adjustment.

Units 1 through 4 had vibration-isolation spring mounts. The mounts do not provided lateral restraint in earthquakes. Horizontal and vertical displacement restraints should be added to prevent tipping of the HVAC unit in the event of an earthquake. The estimated cost of this upgrade is $2,500.

The following problems were noticed on Unit 2: Oil leak on the motor; missing insulation around blower and in supply box; broken weld on divider between blower and supply box. The following problems were noticed on Unit 3: Hole in the return air duct near the roof unit; excessive vibration (apparently unbalanced blower wheel); crack in main blower front bearing mount (apparently fatigue crack growth from vibration); broken lubrication line for main blower rear bearing; insulation missing around blower and in supply box. The following problems were noticed on Unit 4: Leak in main supply duct at attachment to roof unit; rust on underside; clogged condensate drain line and pan; standing water in condensate pan; seal failure on fan bearing. The estimated cost to repair these items is $2,000.

All units were configured to close their economizer vent when the compressor was operating; these probably could be re-wired to allow the use of fresh-air when it is cooler than the return air; this would provide additional operating economy. The estimated cost to perform this upgrade is $2000.

The building had one electrically-powered hydraulic-lift elevator; this elevator appeared to operate normally and the cab interior was in serviceable condition. The permit inside the elevator was 2 years out of date. According to the current building manager, the mandatory state inspection was performed recently yet a new permit had not been delivered. The elevator's shaft, doors, controls, and drive-train were not independently inspected.

3.5 Fire Suppression & Containment

The fire suppression system in the subject building consisted of a wet sprinkler system in all hallways, rental spaces excluding the first level computer room, equipment rooms, and Mansard roof parapets (photographs 28, 40, & 41). The first level computer room had a pre-action system (a dry system that floods upon alarm and before any sprinkler opens). According to a Fire Protection Equipment Performance Certificate by Firemasters dated August 22, 1994, the entire system was operational.

The fire containment system in the subject building consisted of 1 hour rated hallways including windows and doors (photographs 42, 43, & 44) , a 2 hour rated area separation wall between the wings of the building, fire doors to seal the atrium, 1 hour rated equipment rooms, and exterior stairways. Penetrations in rated walls appeared to be filled with fire-resistant compounds. These passive systems appeared to be in original condition and not in need of repair.

The sprinkler system would sound an alarm when activated; the alarm system which presumably was attached to the fire doors was tested by Firemasters and found to perform properly.

3.6 Lights & Electrical System

According to the Lysgard Electric report dated June 6, 1995, the main electrical service for the building provided 1000 amps at 480/277 volts (3 phase). Both the first and second levels had two 225 amp 120/208 (3 phase) subpanels, one 277/480 volt lighting panels, and 1 480 - 208 KVA transformer. Visual inspection of the wiring and conduit showed no indicators of overheating, shorting, or other electrical problems.

The lights were part of a suspended ceiling system. The supports for the system were tied to the upper structure on roughly a 2 foot by 4 foot grid. The system showed no signs of looseness of failure in the inspected spaces.

Cabling for the telephone system and conduit for the electrical system were routed above the suspended ceiling. The installation appeared typical for suspended ceiling installations.

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