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7. Appendix



In January of 2017, Lehrer Architects was retained by Department of Parks and Recreation of the City of South Gate to perform a feasibility study for the Girls Clubhouse located in South Gate Park.

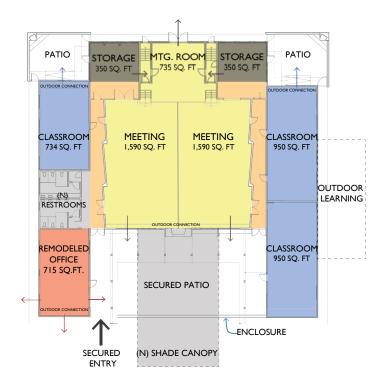
The study was to evaluate a number of options for renovation and expansion of the existing facility. An option to provide a new facility was briefly discussed but it is not considered to be main focus of this study.

Lehrer Architects and our consulting engineers, thus far, conducted engineering evaluations of the building and programming workshops with building patrons, staff and leadership. As a result LA produced this programming document, including building diagrams, physical models and gathered relevant background information.

Initial inquiry revealed that the entire facility would require renovation and that an additional 2,000 sq. feet would have to be added in order to meet program requirements. These are the main conclusions of the initial architectural evaluation:

- I. Move the offices to a central location with "eyes on the park" and most of the facility;
- 2. Control and consolidate access to the building;
- 3. Consolidate men's and women's restrooms into a single location;
- 4. Provide a lounge/waiting area for patrons;
- 5. Increase the amount of "USABLE" storage;
- 6. Update the kitchen and locate in a place where it can serve multiple spaces;
- 7. Remove the stage and increase the area of the Main Hall while providing for at least three divisible spaces;
- 8. Provide outdoor area for preschool activities;

The issues of the building renovation are discussed in the following 3 schemes:



SCHEME I

Scheme I is minimally intrusive and adds no new enclosed square footage. Every attempt is made to leverage the existing building systems against new meeting space, by preserving the attic and structure over the stage.

The main hall is expanded into the area currently occupied by the stage, which adds a 735 sq. ft. meeting room. Kitchen is omitted in an attempt to control costs.

The existing office will be fully remodeled with better outdoor connection to the front yard and newly secured patio. This provid direct visual control of the park and facility grounds. Access is provided through a single point of entry, located directly adjacent to the office.

As suggested by programming, the bathrooms are consolidated at the southern wing of the building.

Classrooms have newly dedicated space for outdoor learning and play in the existing patio space and "borrowed" secured area from the adjacent park.

In addition, a gated enclosure creates a secured patio, and a new canopy creates presence in the park.

Hard Construction Cost: \$2.7 million Contingency & Owner Soft Cost: \$810,000 Grand Total: \$ 3.57 million

SCHEME 2

Scheme 2 adds 2,000 sq. ft. of new construction.

The new office and lounge area account for 1,000 sq. ft. as prescribed by programming. This area is centrally located in the front courtyard and provides controlled access and security. The remaining 1,000 sq. ft. of newly enclosed space is dedicated to kitchen/classroom and meeting space. It is gained by reclaiming space previously occupied as patios.

This scheme provides for the most meeting area and most flexibility in a remodeled building. The meeting space is a high space throughout, and is served by new building systems. The new configuration provides for variety of small and large gathering spaces.

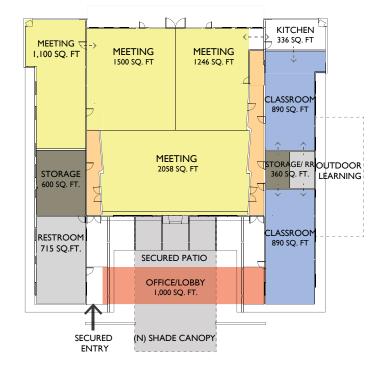
Storage is consolidated into a single 600 sq. ft. room, easily accessible and has the capacity of storing large items.

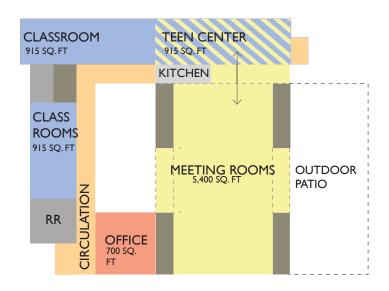
Classrooms and new childrens bathrooms are all located in the northerly wing. Dedicated storage room is conveniently located and easily accessible.

This scheme fulfills the building's original design intent and connects it to the park. It also satisfies all the programming requirements with no compromises.

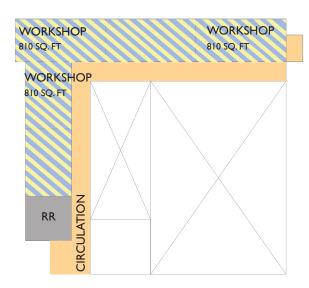
Hard Construction Cost: \$5.56 million Contingency & Owner Soft Cost: \$1.7 million

Grand Total: \$ 7.29 million





FLOOR I



FLOOR 2 (& FLOOR 3 IF NECESSARY)

SCHEME 3

SCHEME 3

Scheme 3 provides for an entirely new multi-story facility of 16,800-21,200 sq. ft. of program.

As building on South Gate Park property is governed by Land and Water Conservation Fund use agreement, the new building would have to occupy the existing Girls Clubhouse building footprint resulting in a two to three story facility.

During the programming exercise it was determined that the current community programming is only limited by available space. Provided a larger facility, programming could be expanded to serve the community via new arts and crafts workshops, meeting rooms and a teen center.

This scheme is architecturally comprised of two major elements: an L shaped meeting/classroom building and a rectangular double-height hall with a secured courtyard in between them. The L-shaped building could be 2 to three stories tall, depending on the amount of program required. The hall will be comprised of a large 5,400 sq. ft. space divisible to a number of smaller meeting rooms. The hall, teen center and adjacent patios would be served by a new kitchen. Due to several stories, a new elevator would be required with two additional means of egress from each floor.

Cost

(two floors)

Hard Construction Cost: \$11.56 million Contingency & Owner Soft Cost: \$3.4 million Grand Total: \$15.1 million

(three floors)

Hard Construction Cost: \$13.86 million Contingency & Owner Soft Cost: \$4.1 million Grand Total: \$18.1 million

Phasing and Operation

For both schemes I and 2, due to the extent of the renovation, the building would have to be closed to the public while the work is taking place. For Scheme 3 to be implemented, the existing building would have to be demolished.

Below is a summary of building and building systems deficiencies as discovered by the A&E Team. If the City of South Gate chooses not to pursue a wholesome remodel of the facility, the following issues, at the very least, should be addressed.

HAZMAT

Hazardous materials survey was conducted as part of the 1996 Remodel. The report found Asbestos containing materials as follows:

- I. Approximately 3450 sq. ft. of vinyl flooring and mastic in rooms, offices and kitchen and storage areas;
- 2. Approximately 4750 sq. ft. of acoustic insulation in the two lobbies, main hall and stage area;
- 3. One 6" transit pipe approximately 20' long connecting water heater behind the kitchen;
- 4. Two insulated HVAC vents, one in each attic space next to HVAC Units.

The full report and recommended remediation is part of the Appendix of this study.

STRUCTURAL

I. One colonnade column at the front entrance exhibited deteriorated base hardware, could be solved by cutting the bottom of the post and install new post base hardware 2. Cracks in the existing slab on grade such as at the front entrance

JLA recommends the following solutions to improve seismic performance.

- I. Upgrade lateral systems to improve seismic resistance, in the event of a major seismic event
- 2.Strengthen the existing stucco and let in braced wood shear walls by adding plywood
- 3. Strengthen the roof and floor diaphragms by adding plywood over existing sheathing
- 4. Strengthen beams, columns, foundations and connections associated at the four interior frames over the assembly space.

ADA (Americans with Disabilities Act)

The building is currently not in compliance with current version of Americans with Disabilities Act (ADA), both from the point of access to the building, maneuverability within the building, and restroom accessibility.

Any improvements to the building in excess of \$140,000.00 would require full compliance with the current version of the ADA.

MECHANICAL

The two existing Rooftop packaged units are at the end of their service life. It is recommended they be replaced with a Title 24 compliant one. In addition, roof mounted exhaust fans should be installed over restrooms.

A range hood should be provided in the kitchen. It should be noted that some ductwork is not SMACNA compliant.

PLUMBING

Hot water distribution system should be upgraded to include a recirculation system.

The hot water distribution system is non-recirculating. There is no recirculation piping and recirculation pumps installed.

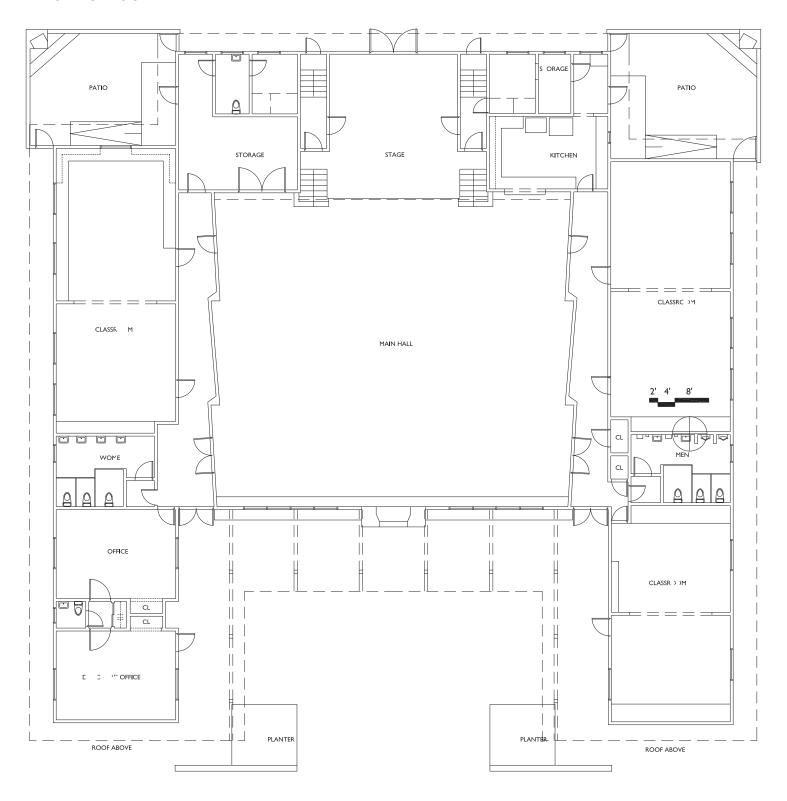
The lavatories also do not have under-counter thermostatic mixing valves. This is required to temper the hot water coming off the faucet to be less than 105 degrees as required by code. Toilet 102 is the only lavatory confirmed to have an under-counter thermostatic mixing valve. Mixing valve is not fixed to the wall but installed in the line unsupported. The hot water distribution system should be upgraded to include a recirculation system to avoid water and energy waste. The new code requires only 0.6 gallons water waste before hot water becomes available from a plumbing fixture. One electric water cooler is not ADA compliant.

The earthquake shut-off valve is not supported against the wall. This should be corrected to allow proper operation of the valve.

ELECTRICAL

In general, most of the existing electrical equipment located in the Building is antiquated and may have exceeded its service life expectancy, new replacement parts are very rare and/or no longer manufactured.

EXISTING FLOOR PLAN



General Description

The Girls Clubhouse in South Gate Park was designed in 1957 by Wallner, Bostock and Wallis, Architects and Engineers (WBW) in a modern craftsman style. WBW were architects and engineers of record providing structural, civil and architectural drawings. It appears that the building was constructed for purposes of housing Girl Scout activities as well as other community services. The building is currently well used as a community center providing preschool, dance, music and athletic lessons.

The building is a one story, wood framed structure with a single-gabled roof. The gabled roof overhangs the front of the building, creating an approximately 10' wide veranda around the building. The front of the building opens onto a courtyard formed by two wings of the extended gable form (classroom and office). The courtyard is open to the park.

The building exhibits wear and tear typical of a 60 year old structure. Portions of the building have been remodeled and updated but despite these efforts the structure is not adequate for current program.

Significant remodel took place in 1996 - designed by Meyer and Associates Architects and Planners - in order to improve storage capacity of the building, add a child-sized bathroom for pre-school and provide ADA compliant access to bathrooms and back exterior patios.

The remodel created accessible bathrooms but is not deemed as successful overall. Added storage space cutoff access to the patios and created ineffective storage riddled with circulation issues, including access to newly created kids bathroom.









HAZMAT (Hazardous Materials)

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- 2. Approximately 4750 sq. ft. of acoustic insulation in the two lobbies, main hall and stage area;
- 3. One 6" transite pipe approximately 20' long connecting water heater behind the kitchen;
- 4. Two insulated HVAC vents, one in each attic space next to HVAC Units.

The full report and recommended remediation is part of the Appendix of this study.

Americans with Disabilities Act (ADA)

The building is currently not in compliance with current version of Americans with Disabilities Act (ADA), both from the point of access to the building, maneuverability within the building, and restroom accessibility. Any improvements to the building in excess of \$140,000.00 would require full compliance with the current version of the ADA.

Program

Building floor plan is relatively simple divided in three parts. Largest part comprises the Main Hall with stage, storage and kitchen. The remaining equal parts house the 3 classrooms, restrooms and offices.

Main Hall/Storage/Kitchen

The Main Hall with stage at 3,500 sq. ft is the largest space in the building with tall cathedral ceiling which is 18' tall at its peak. The space does not have the ability to be divided into smaller meeting spaces, which is one of the goals of the remodel.

The Main Hall is served by an inefficient storage room. Furniture housed in the storage room often encroaches on required clearances for exiting which creates concerns for life and safety of the building occupants. The kitchen and storage rooms also block access to the exterior patios from the Main Hall.

The stage occupies over 500 sq. ft of the overall floor plan and according to the stakeholders is rarely used as a performance space. The stage is also inaccessible to people with disabilities. Space below the stage is used for storage of tables. It is impractical.

A small attic is located directly above the stage accessible by stairs from either side of the stage. The attic is currently used for storage of seasonal items such as holiday decorations. The attic is hard to access and cannot be used to store larger items. The kitchen is a 200 sq. ft space with outdated finishes and appliances which don't work. It is in dire need of an upgrade. Updating the kitchen to meet current standards would greatly improve the facility's rental desirability.

One of the main features of the Main hall is a centrally located fireplace. According to the staff, the fireplace has not been lit in 30 years and has since been sealed. The fireplace could be removed if that resulted in better planning and flow in the renovated facility.











Restrooms

The building currently has 4 sets of restrooms:

- I. Small single occupancy restroom located in the back of the building that is meant to serve the preschool. This restroom is hardly used as it is inaccessible and blocked by storage;
- 2. Small single occupancy restroom serving the offices;
- 3. Men's restrooms located between 2 classrooms in the northern wing;
- 4. Women's restrooms located adjacent to the offices.

Stakeholders main concerns is that the restrooms are not consolidated and pose a security risk as folks wonder throughout the building looking for bathrooms. In addition, even though the restrooms were remodeled in 1996 they still don't meet current ADA code. Consolidation and update of restroom facilities is recommended.

Classrooms

Girls Clubhouse has three classrooms labeled as A, B and C. Classrooms A and B are used and decorated for preschool use during daytime hours. In the evenings, the classrooms are used for a variety of music lessons and meetings. Children's furniture is moved to one side of the room to make space for adult sized furniture and musical instruments. This arrangement is described to be adequate by the stakeholders.

Classroom C is mostly used for evening adult meetings with preschool classes only taking place sometimes. This classroom also contains children's size furniture and is decorated as such.

Cabinetry, work surfaces and storage associated with these rooms is described as adequate. Desire was expressed for better cubbies that fit children's backpacks.

Currently the classrooms have no access to a secured outdoor play / learn area. The children are sometimes guided to a nearby playground which due to its distance takes away from actual learning time. It is recommended that a secured outdoor area be available to the preschool where kids could play, tend to a vegetable garden and do other outdoor activities.

Office Area

The offices are made up of two equally sized rooms located to the left of the main entry into the building. The major issues are described as "not having eyes" on the facility and on the park. A more central location for the office is desired so as to improve security and better control access to the facility.

The counter / patron serving area is also described as inadequate as there is not enough room for queuing and addressing patrons while they are waiting (sometimes with strollers). There is no proper waiting area or lobby so most patrons wait (often for their children in preschool) in the courtyard or in the main hall rendering that space inaccessible to program.

A desire was expressed for a bona fide lobby/lounge/ waiting area to address this concern.







NEW BUILDING

During the stakeholder interviews a note was made that the current community programming is highly successful and that the only thing preventing growth was the size of the facility. If a new larger facility were provided it could be filled and occupied easily with additional program. Some of the program that would be included in the new facility is:

- I. Wood workshop; add additional program from DREAMING list;
- 2. Ceramics workshop;
- 3. Arts and crafts workshop;
- 4. Additional Meeting rooms;
- 5. Teen Center (2,000 sq. ft.)
- 6. Significant flexible meeting space with divisible rooms;
- 7. Preschool Classrooms;
- 8. Offices;
- 9. Affiliated storage, restrooms and support spaces;

The program would result in an approximately 12,000-20,000 sq. ft facility that would be built in place of the existing Girls Clubhouse. Due to an existing agreement with Land and Water Department, no additional building area would be allowed in the park limiting the new facility to its existing footprint. This would result in a new multistory building with requisite elevators and stair access.

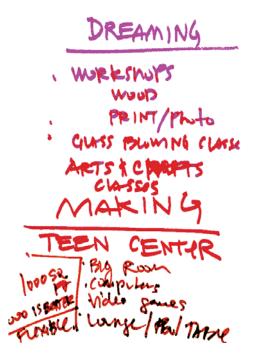
CONCLUSION

In lieu of building a brand new facility, the goal of the Girls Clubhouse renovation should be to perform the following:

- I.Move the offices to a central location with "eyes on the park" and most of the facility;
- 2. Control and consolidate access to the building;
- 3. Consolidate men's and women's restrooms into a single location;
- 4. Provide a lounge/waiting area for patrons;
- 5. Increase the amount of "USABLE" storage;
- 6. Update the kitchen and relocate to a place where it can serve multiple spaces;
- 7. Remove the stage and increase the area of the Main Hall while providing for at least three divisible spaces;
- 8. Provide outdoor area for preschool activities;

The issues of the building renovation and additional program are discussed in the 3 schemes that follow this evaluation. One option should be selected for further development and pricing.







STRUCTURAL DUE DILIGENCE EVALUATION SOUTH GATE GIRL'S CLUBHOUSE

4900 Southern Avenue South Gate, California



Prepared for:
Lehrer Architects
2140 Hyperion Avenue
Los Angeles, California 90027

Prepared by:

John Labib + Associates Structural Engineers
319 Main Street

El Segundo, California 90245

JLA Job # 17107

February 6, 2017



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 - 1.2 Evaluation References
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 - 2.3 Lateral Systems
 - 2.4 Foundation System
- 3.0 Site Observation, Structural Evaluation & Structural Recommendations
 - 3.1 Site Observation
 - 3.2 Structural Evaluation
 - 3.3 Structural Recommendations

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1.0 INTRODUCTION

In accordance with the request of Lehrer Architects, John Labib + Associates Structural Engineers (JLA), performed a structural due diligence evaluation of the existing South Gate Girl's Clubhouse building located at 4900 Southern Avenue in South Gate, CA per the vicinity map in section 1.4 of this report. The basis, findings, and recommendations resulting from the structural due diligence evaluation are presented in this report.

I.I Scope of Work

The structural due diligence evaluation scope of work for the South Gate Girl's Clubhouse building included:

- Review existing available structural and architectural drawings.
- Perform site observation to review condition of existing structure where accessible.
- Perform a structural due diligence evaluation based on available information.
- Provide report with findings and recommendations.

1.2 Evaluation References

- Architectural and structural drawings I to 2 and 4 to 7 (drawing 3 not provided), titled "City of South Gate Girl's Clubhouse", prepared by Bostock & Wallis Architects and Engineers, and dated July 22, 1957.
- Site observation.

1.3 Limitations

The structural due diligence evaluation was performed and the report was prepared based on available information and experience exclusively for the sole use of Lehrer Architects. Services were performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

A level of uncertainty in both the seismic environment and the building's seismic performance exists. JLA is not liable for the accuracy and/or adequacy of the structural design performed by others. An expressed or implied warranty is not provided or made.

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Vicinity Map El Monte Busway Los Angeles City Terrace STAPLES Center ((101) DOWNTOWN (60) 7th St BOYLE HEIGHTS TO University East Los of Southern E Olympic Blvd Angeles California useum County Vernon VERMONT HARBOR Commerce SOUTH PARK CENTRAL SOUTH LOS ANGELES Maywood Huntington E Gage Ave Park Bell Walnut Park Bell G 710 Cudahy South Gate E 92nd St 4900 Southern Avenue nt WATTS Lynwood TID Willowbrook Vicinity Map Southgate Girl's Clubhouse, 4900 Southern Ave., South Gate, CA

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2.0 EXISTING STRUCTURE

2.1 General Information

The building was designed in 1957 and likely per the 1955 Uniform Building Code and the use is a girl's clubhouse for children with an assembly room, stage, and support spaces.

The two story structure is on a relatively flat site and has a partial crawl space below the first floor assembly room/stage areas and a partial second floor above the service areas flanking the stage. An open colonnade connects the east courtyard and main building entrance.

The U-shaped structure is 115 ft by 127 ft with a 73 ft by 36 ft courtyard. The building mean height is 19'-6" with an E-W ridge at 21'-6" and exterior roof eaves at 17'-6".

The majority of the building perimeter consists of stucco and wood load bearing walls with windows. The east wall of the assembly room consists of sliding glass doors between wood columns and beams that support the roof above.

2.2 Gravity Systems

The gravity load carrying system consists of diagonal wood sheathing at the main building and colonnade roof and the first floor over the crawl spaces and plywood sheathing at partial second level north and south attic floors. The wood sheathing is over wood joists supported by wood framed load bearing walls, wood beams with wood columns. At the assembly room and stage areas, four interior steel bent frames support the roof framing. The foundations are shallow footings.

2.3 Lateral Systems

The lateral force resisting system consists of diagonal wood or plywood sheathing acting as horizontal diaphragms that transfer seismic inertial loads to the vertical lateral force resisting system. The vertical lateral force resisting system consists of perimeter and interior wood framed stucco shear walls at the majority of the walls. At localized areas, plywood sheathing was used at east to west walls below the raised stage at the rear west side of the assembly room. The four steel bent frames at the assembly room and stage areas appear to contribute to the vertical lateral force resisting system.

2.4 Foundation System

The foundation system consists of a reinforced concrete slab on grade, continuous reinforced concrete footings at the wood walls and reinforced concrete spread footings at the columns.

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3.0 SITE OBSERVATION, STRUCTURAL EVALUATION & STRUCTURAL RECOMMENDATIONS

3.1 Site Observation

On January 25, 2017, the accessible portions of the structure were generally observed for visible signs of distress and deterioration. The accessible exterior surfaces of the perimeter walls, roof (from ground level), and interior spaces were observed. Every portion of the structure and each structural element could not be observed due to the limited accessibility (especially in the crawl space below the first floor framed areas) and finishes covering most of the structural elements. Non-structural elements, such as mechanical, plumbing, electrical systems, roofing, finish work, etc., were not observed or reviewed. The building materials were not reviewed for hazardous materials such as asbestos or lead.

The following observation findings are based on the observation of the exposed and accessible structural elements.

- The exterior of the perimeter walls were recently painted.
- The structure does not exhibit major signs of distress or deterioration.
- The structure appears to be in good condition and well maintained.
- Structural deficiencies that would pose significant risk to building occupants were not observed.

See Appendix A – Photographs for photos taken during the observation. The following structural condition minor issues were observed but do not appear to currently cause a structural concern.

- Deteriorated corroded base hardware connection at one colonnade column at the front entrance. Bottom of the post can be cut and new post base hardware installed to lift it off the ground.
- Cracks in concrete slab on grade such as the front entrance.

3.2 Structural Evaluation

The structural due diligence evaluation was performed based on the site observation, the available structural drawings, and current seismic design practice and resulted in the following.

- The load path provided between the horizontal diaphragms and vertical shear walls appears to be continuous and regular without major discontinuities.
- The wood shear walls appear to provide a well distributed system to resist seismic loads. However, the majority of the shear walls appear to consist of only stucco and let in braces and not plywood per current requirements.
- The building does not appear to have been structurally modified or upgraded since the building was originally designed and constructed. The current building code does not

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require the structure to be strengthened as long as the occupancy category does not change. Due to the changes in the building code seismic design requirements since the building was designed, the building seismic design requirements for the demand forces, ductility, and connection details are significantly less than the current building code. Based on our evaluation, the seismic performance may not be adequate and structural damage should be expected during strong seismic events. The lateral systems could be seismically upgraded to improve the seismic performance.

3.3 Structural Recommendations

Based on the evaluation of the existing seismic resisting systems, the structure can be expected to experience more structural damage during a seismic event than a structure designed and constructed to the current building code. Although seismic upgrades are not required if the use of the building does not change, the client may want to consider seismic improvements since the primary occupancy includes an assembly space for children. The following are recommendations for consideration to voluntarily improve the seismic performance.

- As a minimum, strengthen the existing stucco and let in braced wood shear walls by adding plywood at strategic locations with hold downs at the wall ends, bolted connections to the foundations, and hardware connections to the horizontal floor and roof diaphragms.
- Consider strengthening the roof and floor diaphragms by adding plywood over the existing sheathing. Further detailed analysis would be required.
- Consider strengthening the beams, columns, foundations, and associated connections at the four interior steel bent frames that support the roof over the assembly room and stage areas. Further detailed analysis would be required.

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Photo I - Front entrance east elevation.



Photo 2 - Rear west elevation.



Photo 3 - Side north elevation.



Photo 4 - Side south elevation.



Photo 5 - Roof south elevation.

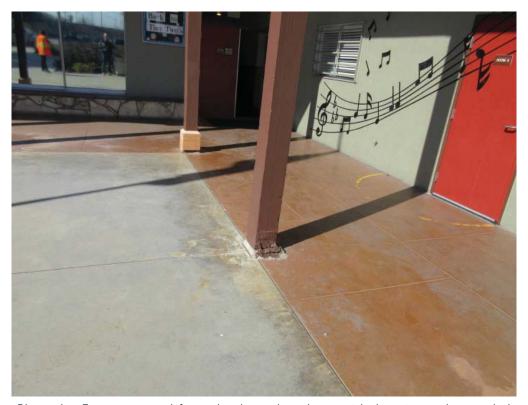


Photo 6 – Entrance wood framed colonnade column with deteriorated corroded base connection.



Photo 7 - Close up of Photo 6.



Photo 8- Crack in slab on grade at front entrance.



Photo 9 - Cracks in slab on grade near flag pole at front entrance,



Photo IO – Front stage platform in assembly room.



Photo II – Assembly room with steel bent frames above the ceiling.



Photo I2 - South attic above the rest rooms.



Photo 13 - North and east walls and wood framing below rear stage platform.



Photo 14 - East wall and wood framing below rear stage platform.



Photo 15 - South and east walls and wood framing below rear stage platform.

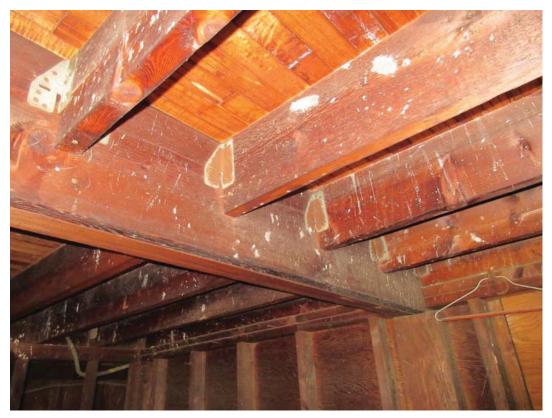


Photo 16 - Close up of wood framing below rear stage platform.

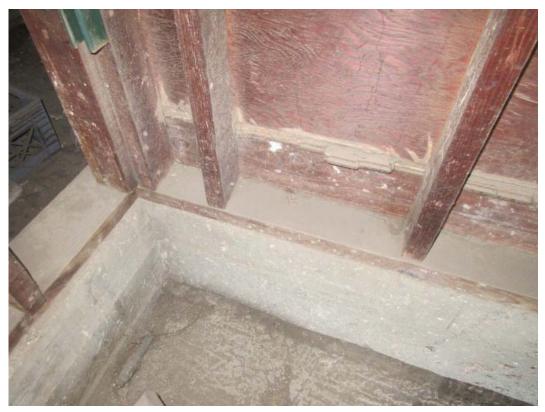


Photo 17 - Close up of north and east wall sill plates with anchor bolts, plywood, and stud framing below rear stage platform.

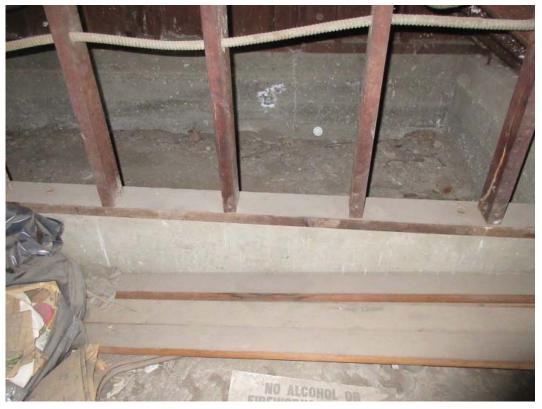


Photo 18 - Close up of north wall sill plates with anchor bolts, plywood, and stud framing below rear stage platform.



Photo 19 - West wall and wood framing below rear stage platform.



Photo 20 - Framing at south side crawl space below restroom.



Photo 21 - Framing at south side crawl space below restroom.



Photo 22 - Framing at south side crawl space below restrooms.

Stantec			SITE REPORT Page 1 of 2
14801Califa Street Van Nuys, CA 91411		Telephone Facsimile	(818) 305 3229 (818) 377 8230
Project	Girls Clubhouse	Site Report Date Project Number	01/20/2017 204530131
Report Prepared by Disciplines Reviewed	Teng Yadao Mechanical	Date Issued	01/26/2017
Distribution	Ben Lehrer-LEHRERArd	chitects LA	

MECHANICAL SYSTEM

The clubhouse HVAC system is composed of two rooftop packaged unit, with DX coil and gas furnace and two sets of split system air-conditioning unit. Each equipment is provided with standalone controllers.

The two rooftop packaged unit (RTU) work together to serve the Assembly and Platform areas. The rooftop unit is at the end of its service life and recommended to be replaced. The RTU also uses R-22 refrigerant which will be phased out by 2020. A new RTU with an economizer and demand control ventilation system is recommended to be installed to meet Title 24 compliance.

A split system air-conditioner serves the south side meeting rooms and offices and another split system air conditioner serves the north side set of meeting spaces. We recommend providing separate set of fan coils and divide the spaces into separate zones depending on their solar exposure/building orientation. The existing split system air conditioners also use R-22 refrigerant which will be phased out by 2020. A new set of energy efficient, Title 24 compliant, split system air conditioners are recommended to replace the existing units.

The location of the supply grilles in the assembly area does not facilitate good air supply. The east side of the assembly area is likely starved of conditioned air as return air system grilles are located in the platform area which is at the west end of the area.

The mens and womens gang restrooms have no environmental exhaust systems which is not code compliant. Dedicated roof mounted exhaust fans should be installed.

Single occupancy restrooms have no environmental exhaust systems. An operable window is available for exhausting air to outdoors.

The kitchen 6-burner range has no dedicated range hood installed and uses the ceiling exhaust grille for exhausting it and the kitchen area. There is no fan installed in the ductwork and system relies on pressure to assist kitchen exhaust which is not very efficient and may allow air transfer into the assembly area. We recommend a range hood installed on top of the range with an integral fan.

The attic space is ventilated. Exterior louvers are installed at the building exterior perimeter and gravity ventilators are installed on the roof. Most of the exterior louvers are in good condition except for some which are badly warped or distorted and needs replacement.

The supply air ductwork in the attic area is exposed with no insulation. It needs to be confirmed if the duct is internally lined or an external insulation should be installed. The attic ductwork has also been patched in several locations which may become a source of air leakage. We have noted several locations where ductwork is used to support ductwork which is not SMACNA compliant.

Stantec SITE REPORT

II PLUMBING SYSTEM

WATER HEATING SYSTEM

There are two natural gas fired water heaters located in the attic space. First unit is 33,500 BTUH, 30 gallon water heater, is 20 years old but is still in good condition. This water heater serves the South side plumbing fixtures. The second water heater is 30,000 BTUH, 28 gallon water heater. Equipment is brand new and serves the North side plumbing fixtures including the kitchen.

There is no central thermostatic mixing valve. We cannot verify the operating temperature of the water heater.

The hot water distribution systems are non-recirculated. There are no recirculation piping and recirculation pumps installed. We did not feel hot water coming off the lavatory faucet when we used it. The lavatories also do not have undercounter thermostatic mixing valves. This is required to temper the hot water coming off the faucet to be less than 105 degrees as required by code. Toilet 102 is the only lavatory confirmed to have an undercounter thermostatic mixing valve. Mixing vale is not fixed to the wall but installed in the line unsupported.

The hot water distribution system should be upgraded to include a recirculation system to avoid water and energy waste. New LA City code requires only 0.6 gallons water waste before hot water becomes available from a plumbing fixture.

MISCELLANEOUS

Standalone electric water cooler found in Corridor 128. This unit is not ADA compliant. Another electric water cooler found in Corridor 112. Unit should be confirmed if ADA compliant.

Hose bibs (exposed) are installed along the exterior perimeter of the building. We suggest providing lockable hose-bib accessible by client to prevent tampering and vandalism.

RESTROOMS

The womens gang restrooms have wall mounted water closets and wall mounted lavatories. Water closets have manual flush valves and lavatories have metered faucets. The fixtures require to be upgraded to the code minimum 1.28 gpf water closets and 0.35 gpm faucets. Floor drains are available in the restroom.

The mens gang restroom have wall mounted water closets, a wall mounted waterless urinal, a wall mounted urinal and wall mounted lavatories. Water closets and urinal have manual flush valves and lavatories have metered faucets. The fixtures require to be upgraded to the code minimum 1.28 gpf water closets and 0.35 gpm faucets. The waterless urinal can be reused. Floor drains are available in the restroom.

Single occupancy restrooms have a wall mounted water closet and a wall mounted lavatory. The water closet has a manual flush valve and lavatory has non-ADA faucet. The fixtures require to be upgraded to the code minimum 1.28 gpf water closet and 0.35 gpm faucet. There is no floor drain installed.

In general, the waste line under the sink are covered and insulated but the hot water supply under the sink is not covered and needs to be covered/insulated to be ADA compliant.

The janitors closet has a wall mounted janitors sink with wall mounted faucet.

2. D. MECHANICAL / ELECTRICAL EVALUATION

KITCHEN

The kitchen has a stainless steel double sink with single wall mounted faucet. The sink assembly include a separate sink with hot water rinse section complete with flexible spray faucet and commercial grade garbage disposer.

Coffee machine is provided with water supply. An in-line filter is provided exposed against the wall.

NATURAL GAS

Natural gas is available in the building. Pressure regulator, gas meter and earthquake shut-off valve are installed outside the building. The earthquake shut-off valve is not supported against the wall, should be corrected to allow proper operation of the valve. Natural gas is supplied to the rooftop package unit and fan coil's furnace. Gas is also supplied to the domestic water heaters and the 6-burner gas range.

STORM DRAINAGE

Storm drainage is provided using roof gutters with exposed downspout spilling to grade.

End of Report.

Stantec			SITE REPORT Page 1 of 2
14801Califa Street Van Nuys, CA 91411		Telephone Facsimile	(818) 305 3229 (818) 377 8230
Project	Girls Clubhouse	Site Report Date Project Number	01/20/2017 204530131
Report Prepared by Disciplines Reviewed	Cosimo Rossetti Electrical	Date Issued	01/26/2017
Distribution	Ben Lehrer-LEHRERArd	chitects LA	

I ELECTRICAL SYSTEM

The clubhouse electrical service switchboard and utility meter is located outside in a self-standing weather proof metal enclosure on the south-west corner of the building.

The utility company is Southern California Edison (SCE), the service is 400A, 240/120V, 3-phase, 4-wire, meter No. SCE 259000-022362, date of installation 9-11.

The switchboard consists of two sections: a) the underground pull section and b) Meter, 400A, 3-pole Main Service Disconnect [Circuit Breaker (CB)] and Distribution section. The distribution section consists of:

- \	0	Office Devel 4004 October
d)	No name 20A-1pole CB, 15A-1pole	No name 15A-1pole CB, 15A-1pole.
c)	AC-3 40A-? pole CB	AC4 40A-? pole CB
b)	AC-1 90A-? pole CB	AC2 90A-? pole CB
a)	Main Panel 200A-2pole CB	No name 50A-? pole CB

e) Space Office Panel 100A-2pole.

Three conduits are routed from the main service switchboard, underground at first then along the wall of the south-west patio to the AC units on roof. One conduit crosses above the side gate of the south-west patio into the ceiling of the building, could not trace and confirm where is going or what is feeding – the assumption would be that it is feeding the original service and main panel near the stage and panel PO in the office.

The panel south of the stage appears to be the original electrical service to the building and the main appears to be a T type fuses.

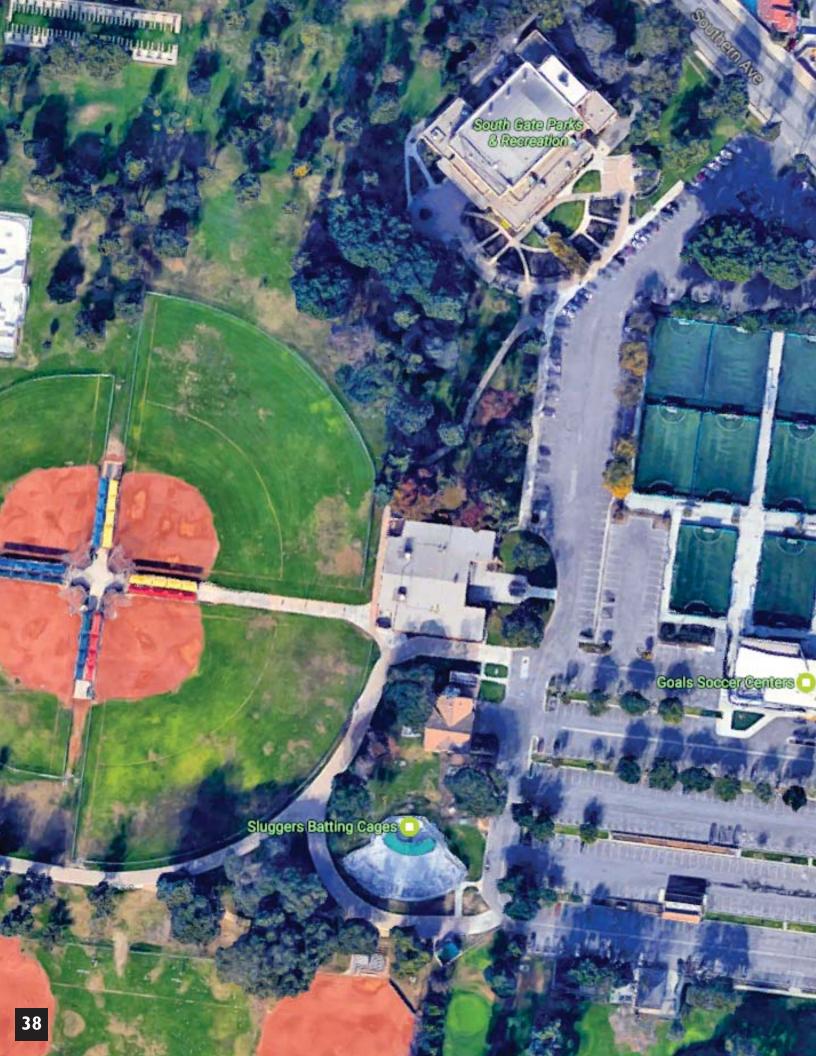
Panels A, B, and C are load centers, recessed in the wall and appear to be fed from the old main panel. Panel A south is in the south corridor, panel B in the north corridor, panel C is in the kitchen area, and panel PO in the office.

In general, most of the existing electrical equipment located in the Building is antiquated and may have exceeded its service life expectancy, new replacement parts are very rare and/or no longer manufactured.

We could not access the roof to verify the roof mounted equipment.

All the existing electrical equipment are in good operating conditions and heard no complaints from the tenants as far as the performance of the existing system. Visual inspection only and no testing were made to the existing electrical equipment at the subject building. Only visible and accessible electrical equipment only was the subject of this site visit.

Any plan for future renovation to the building involving additional electrical loads may require further analysis, testing and metering of the existing service to determine the actual spare capacity of the unit.





1.0 INTRODUCTION

The project site is located within the City of South Gate at the Girls Club House, 4940 Southern Avenue, South Gate, CA 90280. Having a latitude of 33°56'45"N and a longitude of 118°11'4" W with an elevation of ±108 ft. above sea level. The site is adjacent to the Hildreth Ave on the west, Southern Ave. on the north, Pinehurst Ave. on the east, and Tweedy Blvd on the south as shown in figure 1.

The Girls Club House (GCH) was built in 1958 and is currently no longer meeting the needs of the community. Currently, it is used for preschool programs, community classes, small events and public meetings. It was reported that there were some issues and a need for improvement such as security and control, underutilized space and improvement of the facilities.

Based on a civil engineering perspective, we will provide our assessment and understanding about the existing condition of the GCH and provide our findings in narrative report. We will focus and limit within the GCH propose future improvement and renovation (approximately 10,000 sq. ft.) adjacent the building only and sketches for reference will be provided for reference.





Figure 1: SITE- South Gate Park Girls Club House

1.1 PROJECT APPROACH

The project approach in the assessment is as follows:

- Raise awareness of any existing issues occurring.
- Identify the existing underground wet utilities: sewer, water, and storm.
- Identify surface and existing condition of the site.

2.0 EXISTING SITE

2.1 STORM WATER

From available as-built drawings, research, and site visit/visual inspection, the adjacent area around the GCH has no existing stormwater drainage system such as area drains, catch basins or trench drains. The stormwater run-off from the building is sheet flowing towards the walkways, landscape areas and to the paved driveway path area.

- Along the east side of the GCH, which is the main entrance and areas further to the east is a parking area, see figure 3. Accordingly, based on field inspection during the rainfall event. It is observed that puddles of stormwater run-off are visible along the main entrance walkway path of travel and people have to walk around to avoid shoes getting soaked in these puddles, see figure 3. For plan reference to all figures in this section, refer to figure 2.
- Northside of GCH building It appears that some of the stormwater run-off water ponds along the existing walkway during a rain event. This indicates that the walkway is lower than the adjacent area and run-off water has difficulty to sheet flow further to the north landscape areas, see figure 4 and 5. It was observed that part of the area is partially sloping towards the building. Positive drainage may be needed and diversion of water run-off towards the lower level must be done not only on this side but also on all sides around the building.
- Southside of GCH building In figure 6, run-off water coming from the downspout has
 observed to be ponding along the concrete surface area next to the wall and downspout.



Figure 7 shows that water is ponding in the landscape area by the building. It appears that this run-off water and ponding from the roof downspout will consequently affect the building wall. Proper positive drainage should be done and protection of the wall may be needed.

• Westside of the GCH building – Two downspouts see figure 8 and 9, along this side are discharging directly to the surface of the walkway and flows towards the landscape area. The landscape adjacent to the walkway appears to be lower than the walkway that allows the run-off water from downspout to sheet flow towards the landscape. However, some portion of the landscape areas are higher than the walkway. Run-off water tends to pond in the south part because the walkway and landscape area is lower, as shown in figure 10.

Overall, since there is no existing stormwater drainage system on-site then it is highly recommended that the stormwater be redirected towards the curb and gutter located along the parking lot as shown on figure 11, 12, and re 13. The stormwater from the downspouts and hardscape will curb drain to the existing curb and gutter flowing the water off site and into the cities storm drainage system. Regrading in the landscape area might be required in order to create stormwater flow to end up in the curb and gutter towards the east.



Figure 2: Plan location reference where figures were taken on the next 6 pages



Figure 3: Front concrete walkway where there is no existing storm water drainage system



Figure 4: On the north of the Girls Club House storm water ponds on the walkway



Figure 5: On the north side of the building water ponds on the walkway and partially flows back towards the building affecting the structural integrity of the building.



Figure 6: On the south side of the building water ponds on the concrete area from the buildings storm water



Figure 7: On the south side of the building water ponds on the Landscape area from the buildings storm water downspouts



Figure 8: Water from downspouts flow into existing walkway in the back of the building



Figure 9: Water from downspouts flow into existing walkway in the back of the building



Figure 10: Ponding area in the back of the building where the walkway and landscape meet



Figure 11: Existing Curb and Gutter.



Figure 12: Existing Curb and Gutter on parking lot looking to the south.



Figure 13: Existing Curb and Gutter on parking lot looking to the north.

2.2 GRADING

The following details the grading based on a conducted site visit and research, there are some grading and general ADA issues, for ADA issues refer to section 2.8 of this narrative. The overall site and surrounding perimeter is relatively flat with no difference in grade being above 1 foot. The existing Girls Club House building has a finish floor of 108.50 feet and after the proposed renovation to the building; it should still maintain its existing elevation.

- Along the east side of the GCH, this area should be regraded to slope to areas that will
 prevent the storm water from puddling throughout the hardscape. For visual, please refer
 to figure 3.
- Northside of GCH building since this walkway is in bad condition it should be regraded and repaved to slope towards the landscape area at a 2% maximum slope. This regrading will help prevent any future issues similar to the same issue as in figure 4 and 5.
- Southside of GCH building- similar to the north side the south side should be regraded so that the concrete will slope away from the building to prevent any more damage to the structural integrity of the structure. Such as the issues currently faced in figure 6.

• Westside of the GCH building – The brick walkway should be graded to slope to various area drain/s or catch basin/s as required depending on the final limit of work.

2.3 SANITARY SEWER

The existing Clubhouse building on site discharges through a 4" dia lateral sewer pipe on the south end and flows into a 6" dia sewer pipe on the back end of the propoerty. The pipe connects through 8" dia. concrete pipe all the way to the 24" dia. LA County sewer main line located along Southern Ave., as shown in figure 14, per sheet 2 of Electrical Utility Plan from Southern California Edison (year unknown). It is recommended that a underground utility survey be done on site to verify with the as-built drawings and our findings.



Figure 14: Existing sewer utility line

2.4 WATER

On site there is one existing 6" C.I. (Cast Iron) water main line south of the existing administration building per the 1972 As-built drawings from Southern California Edison (sheet 2 of D-077). The domestic water flows into the building with 2 connections from the south as shown on figure 9.

The water main is used for domestic purposes and supplying the existing building. The approximate location of this water main is shown on figure 15, information to be verified through the coordination of a detailed underground utility survey.

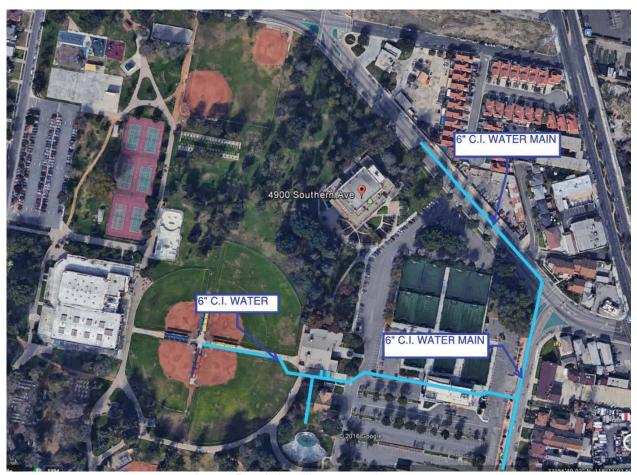


Figure 15: Existing 6" Water Main

2.8 ADA Accessibility

Figure 16 and 17 below show the current existing ADA path of travel to the Girls Club House. There currently are 3 existing ADA parking stalls next to an accessible path which leads to the main entrance of the existing building. An issue we currently found on-site is that the 2 access doors in the back of the building will are not ADA compliant as shown on figure 18. The access to these doors will need to be ADA compliant by adding a ramp. Per the County of LA ADA requirements, if any ADA access is between a 2-5% slope then it is considered a ramp and if the slope is between 5-8.33% then the ramp will require handrails. No ADA ramp may exceed a slope of 8.33%.



Figure 16: Location of ADA accessible ramp to the Girls Club House.



Figure 17: Picture of ADA accessible ramp.



Figure 18: Non-compliant ADA acessibility in the back of existing building



MEETING MINUTES

luring this meeting, unle	ss written notice to the contrary is sent to the author within	,	
roject Name:	Girls Club House of South Gate	Project No:	1701
leeting Location:	Girls Club House of South Gate	Meeting Date:	January 15, 2017
1eeting Subject:	Feasibility Study: Program Interviews	Meeting No.:	I
repared By:	Benjamin Lehrer	Distribution:	Lehrer Architects LA
resent:	0 1 2 1		
	Organization Name:		<u>Name</u>
	Girls Club House of South Gate (GC	A) Administration	Paul Adams (PA) Director
	Girls Club House of South Gate (GC	S) Staff	Paulita (P) Recreation Supervisor Kendrick (K) Evelyn (E) Armando (A) Wendy (W)
	Girls Club Parents (GCP)		Cindy (C) Daisy (D) Carmen (Car)
	Lehrer Architects (LA)		Nerin Kadribegovic (NK) Roberto Sheinberg (RS) Benjamin Lehrer (BFL)

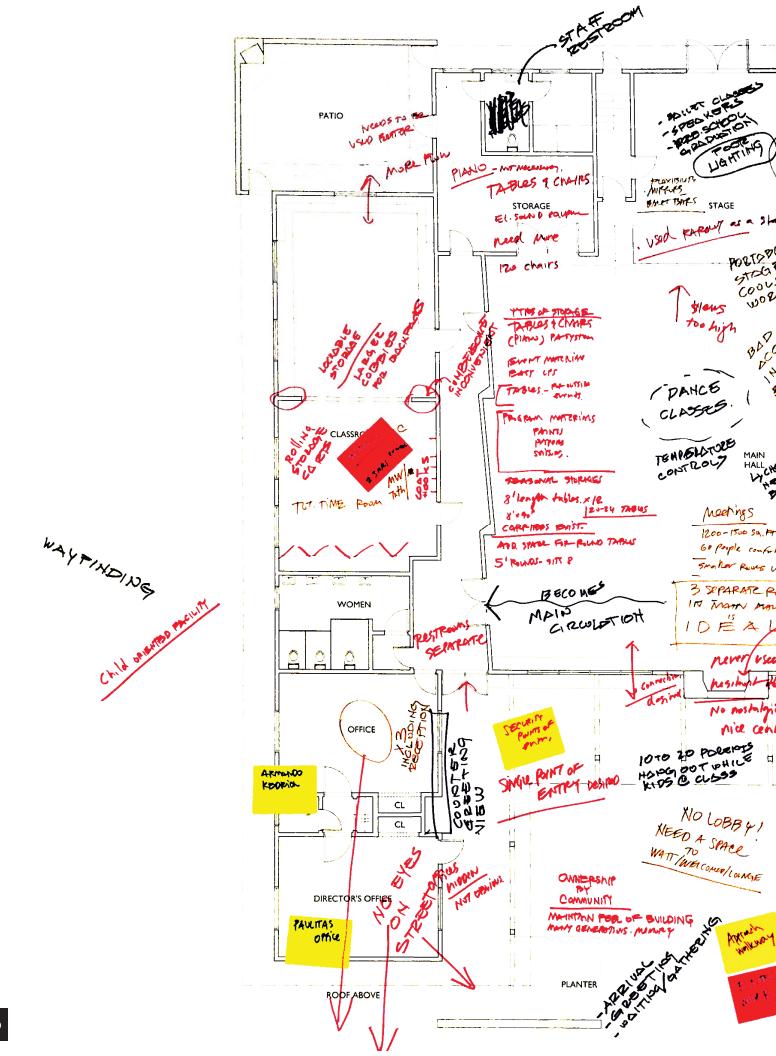
Discus	sion:	Action/Decisions Pending/Follow-up
	DISCUSSION ITEMS:	
I	UNDERUSED SPACES - PATIOS	PA - patios historically used by Girl
		Scouts
la	GCP – kids don't go outdoors more than once a year (last day of class)	LA patio could be everyday play
	– patios are barely known about	space or gardening place
Ιb	Patio is secure	GCP possibly connect both patios
lc	PA needs a Play Area	
2	MAIN HALL	
2a	Surprise uses – Parents waiting 2 hours for classes to end	
2b	GCP some parents run errands, but it's too short a time to get a lot	GCS Possible Lounge, vending
	done; closest library is I mile away; D likes Farmers Market on Mondays	machine; also, GCP suggest library, maybe a gym
2c	GCP Classes are staggered by thirty minutes to avoid pick-up/drop-off	, ,
	congestion	
2d	GCP majority of waiting parents are women	LA (at time of meeting there were 9-
		12 parents)
2e	Controversial usages – Entry benches – some like them	GCP Main hall needs more entry
	P does not, thinks they are uncomfortable and ugly, inside and out	seating
2f	A HVAC is extreme/too hot or cold – walls are paper thin/no insulation	

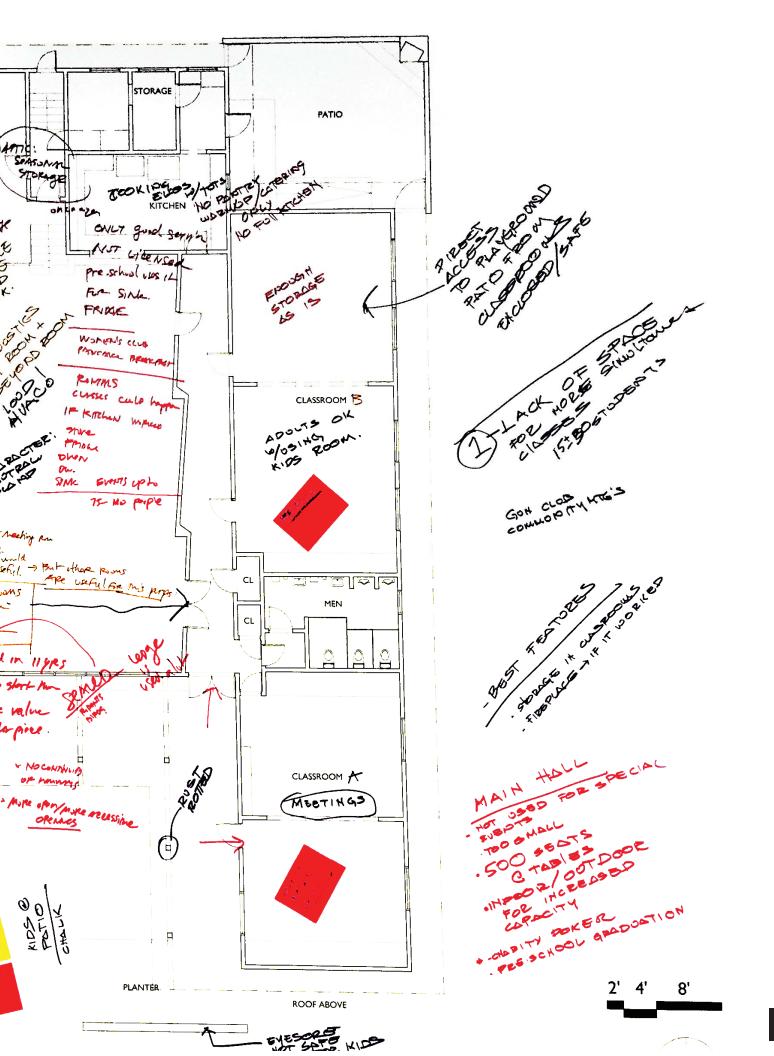
2 of 4

MEETING MINUTES

	T	T
3	SIMULTANEOUS PROGRAMMING	
3a	Bad acoustics	
3b		
	PA could be used as rental space – current capacity is 110	
3c	Main Hall is larger, 60 people, 1,200-1,600 sf meeting space	PA Smaller meetings in classrooms
3d	PA would love flexibility in Main Hall/split it into 3 meeting spaces	
3e	P would use Main Hall for special events if it were nicer, i.e. quinceaneras	P would love 500 person capacity for graduations, presentations, weddings
3f	LA indoor/outdoor events?	Classrooms are bright and friendly
3g	GCS needs visual access to outside	
4	PROGRAMMING	
4a	GCP would like classes for parents;	PA there are currently no cross-
	Current classes include: Tap, Baby Boogie, balloon decorating, cake decorating, fashion design, flower design	generational activities
4b	PA Could migrate Women's Club from Senior Center	PA Women's Club meets 1x/wk
4c	GCH is oriented towards children, Sports Center is oriented towards teens	
4d	Classroom A is used for spillover; it seems to have been created for symmetry alone	
4e	Night evening shared usage has not been a problem with messes left or kids furniture in the way	
4f	P lack of space for contract classes i.e. self-defence, hip hop, Mexican folk, which typically have 15-30 students	
5	OVERALL SENSE	
5a	GCP are very proud of, satisfied with GCS, PA likes "sense of ownership" – wants to maintain this	C drives from Huntington, chose GCH over other community schools
5b	GCP feel GCH is small but safe overall	PA could use park security wall
E.c.	PA GCH is not safe enough	CCB want their groundlyide at CCHI
5c	GCP like sense of community/familiar faces/good teachers	GCP want their grandkids at GCH!
5e	GCP would like kid-friendly colors	C understands neutral colors must be for rental spaces/Main Hall
5f	Parking is good, but:	Widen concrete in front for stroller
6	UNDERUSED AREA: KITCHEN	
6a	Little Chefs use kitchen	
6b	Preschool kids only use kitchen to wash hands and store snacks	
6c	Kitchen is not Health licensed, can be used for event service, but not catering. (Main Hall Capacity is 75 people unless it is expanded)	PA would like to use kitchen as catering space for larger events
6d	P would like to compete with Auditorium for larger events (during graduation, for instance)	Need a working stove, kitchen & oven
6e	Currently no pantry	
7	ADMINISTRATIVE OVERLOOK	
7a	PA Preschool is at capacity	
7b	PA Lack of Safety: Restrooms are across building	
7c	PA Have to cross 2 hallways to exit	
	1	

7d	PA No natural flow/indoor outdoor continuity	
7e	PA Offices are not obvious/they are hidden	RS Wayfinding must be improved
	·	
8	FIREPLACES are never used (not in 11 years - P)	
8a	GCS Has little value as centerpiece	
8b	GCS planter walls in front are climbing hazard/dangerous	
8c	PA We need a lobby (would need to be fully wired for vending)	GCS Agree – need a foyer
9	UNDERUSED SPACES: STAGE	
9a	Halloween and Christmas parades and ballet classes with bar and mirror	PA Stage is too high for ballerinas/could be shallower
9b	Portable stage could work	Dailer mas/could be shallower
10	STORAGE	
	STORAGE	
10a	Attic is Seasonal (Christmas/Halloween)	
10b	Storage off main hall is overflowing with tables, chairs, AV, and piano	Stuff is supposed to be under stage
I0c	PA Need space to stock 120 chairs	
I0d	PA Need space for event storage & paints, art supplies, & class materials	
I0e	PA Need shelves, 12 8' x 30" tables (20x-24x?) PA Need space for round tables – 5'radius (8 people) or 6' radius (10 people)	LA possibly set up tables outside
П	DREAMING	
Ha	PA wants a woodshop for middle and high school students	Woodworking, print shop, glassblowing, arts & crafts
llb llc	PA would love to move Teen Center to GCH – in a big, 1,000 sf room with computers, comfy chairs, pool table? GCS LA suggest STAFF LOUNGE – coffee/library/relax	
IId	GCP Parents lounge/library/vending machine	
12	CLASSROOMS	
I 2a	Classrooms are bright and friendly	
I2b	GCS and GCP backpacks don't fit in classroom storage	
I2c	Classroom acoustics are fine	
I2d	Need coathooks in classrooms - GCS	
I2e	A could use new latch push/rollout cabinetry in classroom	
I2f	LA suggests ability to divide classrooms into two	GCS is lukewarm
13	BUILDING CONDITION	
13a	P Front columns are rotted, curbs are cracked off	
I3b	A AV equipment needs to be updated	





South Gate Program questionnaire

For Director, Staff

General

- 1. What is the best / most beloved feature of this facility?
- 2. What does it need to be excellent?
- 3. Please list operational / functional challenges of the facility;
- 4. Please list any deferred maintenance issues;
- 5. What other groups, besides the ones listed in the schedule, use the facility?
- 6. What type of events are held at the facility?
- 7. What is your largest event? Smallest?
- 8. Is there a need for simultaneous events to happen? Would they need acoustical autonomy?
- 9. Are there any special events and how often do they happen?
- 10. Please list any security concerns;
- 11. How often is the fireplace used? Would there be an opposition to removing it?
- 12. Are any features of the facility off-the-table, due to their "beloved" status?

Kitchen

- 13. How often is the kitchen used and which groups use it?
- 14. Who is responsible for maintaining the kitchen?
- 15. What types of events would the new kitchen serve?
- 16. How many people would need to be served?
- 17. In your opinion, what type of equipment would be needed in the new kitchen?
- 18. Do you require a pantry?

Storage

- 19. Does the facility have adequate storage?
- 20. If not, how much additional storage is required?
- 21. Which programs store furniture/equipment?
- 22. What type of items are stored? Large equipment / shelve-able items?

PRE-SCHOOL Specific Questions

- 1. Do other programs use the classrooms or are these rooms dedicated to the preschool?
- 2. Please describe how drop-off / pick up works? What are the challenges?
- 3. Please describe your daily schedule;

For each Class/Group:

- 1. What is the best feature of the facility?
- 2. What do you find to be the most challenging aspect of the facility?
- 3. How do you use the space? Multiple groups/single activity etc..
- 4. Is the amount of space adequate?

- 5. Please describe qualitatively what is missing to fulfill the needs of your program ...for example: is the space too loud or too quiet? Is the space private or public enough? Is it too big or to small? Is there enough natural light?
- 6. Would your program grow if you had more space?
- 7. What are your storage needs? Are they currently addressed?
- 8. How often do you use the stage?
- 9. Do you use the kitchen?
- 10. Do you use the back patios?
- II. Do you use the front patio?
- 12. Would you use exterior space if it were easily accessed / seamless? Would it need to be secured?
- 13. What would make the facility work better for your purposes?

Activities

Art / Crafts Music / Piano / Guitar

Community Meetings (club, overeaters)

Dance Classes Gymnastics/ Tumbling Martial Arts



I	UNDERUSED SPACES - PATIOS	PA – patios historically used by Girl Scouts
la	GCP – kids don't go outdoors more than once a year (last day of class) – patios are barely known about	LA patio could be everyday play space or gardening place
lb	Patio is secure	GCP possibly connect both patios
lc	PA needs a Play Area	



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2a	Surprise uses – Parents waiting 2 hours for classes to end	
2b	GCP some parents run errands, but it's too short a time to get a lot done; closest library is I mile away; D likes Farmers Market on Mondays	GCS Possible Lounge, vending machine; also, GCP suggest library, maybe a gym
2c	GCP Classes are staggered by thirty minutes to avoid pick-up/drop-off congestion	
2d	GCP majority of waiting parents are women	LA (at time of meeting there were 9-12 parents)
2e	Controversial usages – Entry benches – some like them P does not, thinks they are uncomfortable and ugly, inside and out	GCP Main hall needs more entry seating
2f	A HVAC is extreme/too hot or cold – walls are paper thin/no insulation	



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3e	P would use Main Hall for special events if it were nicer, i.e. quinceaneras	P would love 500 person capacity for graduations, presentations, weddings
3f	LA indoor/outdoor events?	Classrooms are bright and friendly
3g	GCS needs visual access to outside	



4	PROGRAMMING	
4a	GCP would like classes for parents; Current classes include: Tap, Baby Boogie, balloon decorating, cake decorating, fashion design, flower design	PA there are currently no cross- generational activities
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	PA GCH is not safe enough	
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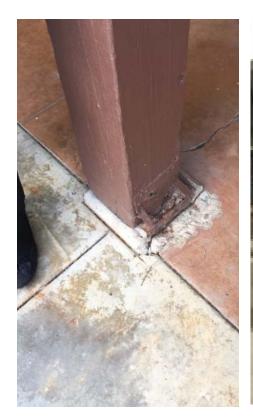


12	CLASSROOMS	
I2a	Classrooms are bright and friendly	
12b	GCS and GCP backpacks don't fit in classroom storage	
I2c	Classroom acoustics are fine	
I2d	Need coathooks in classrooms - GCS	
I2e	A could use new latch push/rollout cabinetry in classroom	
12f	LA suggests ability to divide classrooms into two	GCS is lukewarm



3.A.2. PHOTOGRAPHS

13	BUILDING CONDITION	
I3a	P Front columns are rotted, curbs are cracked off	
I3b	A AV equipment needs to be updated	







	Existing Size					Scheme 3	Scheme 3
Program	(in sf)	Subtotals		Scheme I	Scheme 2	Floor I	Floor 2
Classrooms			Classrooms	950	950	933	
A North	361			950	1280	904	
A South	351			734			
B Subtotal		712					
B North	468			'			
B South	431						
B Subtotal		899					
C North	433						
C South	519						
C Subtotal		952	Subtotal	2634	2230	1837	
			Teen Center			904	
			Subtotal			904	
			Workshops				809
							809
							809
			Subtotal				2427
			Subtotur				2.127
			Lounge		300		
Education Total		2563	Education Total	2634	2530	2741	2427
Main Hall	3122		Main Hall				
Stage	532		Meeting Room I	1590	1577	1812	
Juage	332		Meeting Room 2	1590		1812	
			Meeting Room 3	735	1661	1812	
			Meeting Room 4	/33	1001	1012	
			Lounge		300		
Subtotal		3654	Subtotal	3915	5115	5436	0
Subtotal		3634	Subtotal	3713	3113	3430	
Offices			Offices	715	700	/00	
Offices	214		Offices	715	700	698	
Supervisor	316 349						
Staff Subtatal	349	£4E	Subtotal	715	700	400	•
Subtotal		665	Subtotal	715	700	698	0
Restrooms			Restrooms	480	715	433	
Men's	192		Kids Restroom	700	155	733	433
Women's	192		Kius Kesti Oolii		133		733
Staff	23						
Rear	57						
Subtotal	5/	469					433

Storage			Storage				
North Janitor's Closets	30			309	155	184	
Kitchen Storage	58			353	593	800	
Rear Southwest Rooms	138					420	
North Attic	325						
South Attic	325						
Behind Rear Restroom	77						
South of Stage	104						
Subtotal		1057	Subtotal	662	748	1404	0
Kitchen	245		Kitchen	0	1100	424	
Subtotal		245	Subtotal	0	1100	424	0
Circulation			Circulation			1406	1406
North Hall	336			442	297		
South Hall	375			413	315		
Stage Stairs & Landing	151						
North Rear Hallway	490						
South Rear Hallway	490						
Subtotal		1842	Subtotal	855	612	1406	1406
			Subtotal Floors I & 2			12542	4266
INTERIOR TOTAL		10495	INTERIOR TOTAL	9261	11675	16808	
Patios			Patios				
North Patio	521		North Patio	522		1756	
South Patio	468		South Patio	465		433	
East/Front Patio	3133		Front Patio	2564	1537		
			North Spillout	1140		3201	
Subtotal		4122	Subtotal	4691	1537	5390	

TOTAL AREA

13952

13212

22198

14617

TOTAL AREA



This scheme addresses the concerns brought up during the programming exercise while remaining within the footprint of the existing building and the courtyard.

Concept

The driving concept of this scheme was to come up with the most economical scheme. This is accomplished by retaining most of the building and structural systems, by preserving the attic space above the stage. As a result, the building layout remains largely unchanged.

Office, Lounge and Entry

The current office remains in the Southeast corner of the building, but is fully remodeled into an open office. Newly installed windows and doors control entry into the building and offer views of the park and the secured patio.

Restrooms

Men's restrooms are relocated next to women's into a portion of the currently occupied classroom. This makes them easily accessible and visually controlled by the office staff.

The Main Hall and Meeting Room

The main hall is expanded into the area currently occupied by the stage. The attic is to remain, but the stage is removed throughout this location to create a new meeting room of 735 sq. ft. The existing main hall, at 3,000 sq. ft. space, can be partitioned into two 1,500 sq. ft. spaces using a movable door system. In addition, it is proposed that the main hall be connected to the courtyard by means of large glass doors.

Kitchen

The kitchen in scheme I is omitted due to cost limitations.

Preschool

Preschool classrooms are to remain in the same spaces they are currently occupying. The northerly wing is dedicated to classrooms, converting the space previously used for storage and maintenance, to a connective kids bathroom and storage. They can be connected through an enclosed patio, made from "borrowed" outdoor space from the adjacent park and securing it for outdoor learning and play. The classroom adjacent to the patio will be directly connected to it by means of glass doors.

The 735 sq. ft. classroom, located in the southerly wing, also has the opportunity for outdoor play space within the 450 sq. ft. enclosed existing patio.

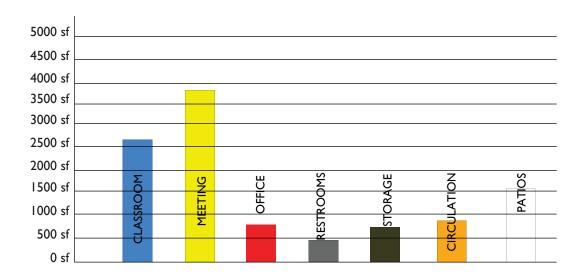
Storage

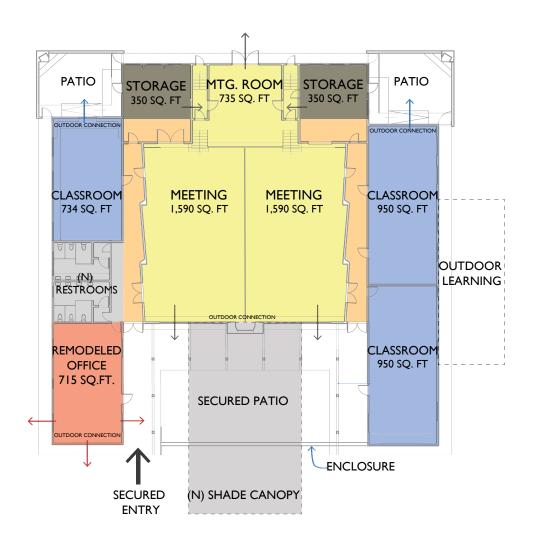
In the current building, storage is plentiful at a glance. Upon further examination it was determined that most of the actual storage area was dedicated to circulation and was difficult to access, as it was either under the stage or up in the attic. This scheme proposes that storage for large items, such as tables, instruments etc is distributed into two 350 sq. ft. spaces, flanking the new meeting room.

Additionally, storage for smaller items is provided for in the meeting rooms and classrooms themselves.

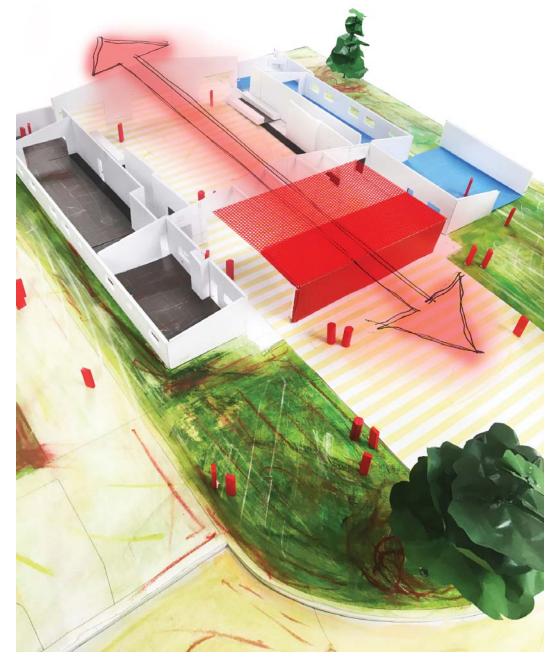
Cost

This is the most economical of all three schemes, appropriating \$2.7 million for hard construction cost, and approximately \$810,000 of added contingency and owner soft cost, with a grand total of \$3.57 million.











PROS

- I. Lowest Cost
- 2. Secured Entry and Patio
- 3. Combined Restrooms

CONS

- I.No kitchen is provided
- 2. Least amount of flexible meeting space
- 3. No new construction



Concept

The organizing concept of this scheme is that it expands, liberates, and opens the main hall to outdoor areas to the east and west. The support program is consolidated in the southeast corner of the building, while school program occupies the northern wing.

Office, Lounge and Entry

As directed by programming a new lounge / waiting area is provided for next to the office. The lounge, along with the office create a new secured courtyard that is easily accessible by the pre-school or as spill over outdoor activity of the main hall. This space adds approximately 1,000 sq. ft. of enclosed space to the building.

Restrooms

Men's restrooms are relocated next to women's into the area currently occupied by the office staff in the support wing. This makes them easily accessible and visually controlled by the office staff, which is located in the new building in the center of the courtyard.

The Main Hall and Meeting Rooms

The main hall is expanded into the area currently occupied by the stage, kitchen, and storage functions. The attic and the stage are removed throughout this location to create a 5000 sq. ft. space that can be divided into three smaller rooms,. In addition, it is proposed that the main hall be connected to the courtyards by means of large glass doors creating an outdoor connection to the newly enclosed patio and park.

Existing outdoor patios, located in the corners of the building, are enclosed and converted to meeting space and classroom/kitchen space. This adds approximately

I,000 sq.ft of enclosed space to the building, thus, capitalizing on the building footprint, which cannot be expanded.

Kitchen

The new catering kitchen with sinks, stove, warming oven, refrigerator and dishwasher is located in the area previously occupied by the patio. This 300 sq. ft space allows for direct service to meeting rooms and one of the classrooms making it ideal for toddler cooking classes. Connection could be further enhanced with use of pass-through windows.

Preschool

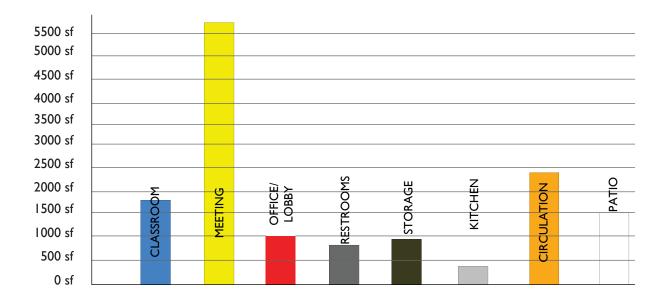
Preschool is consolidated into two classrooms to the northerly wing of the building with shared storage and bathroom with child appropriate fixtures in between. Similar to Scheme I, secured outdoor space provides for outdoor learning opportunities and play. In addition, the classroom located in the front of the building can open onto the main courtyard.

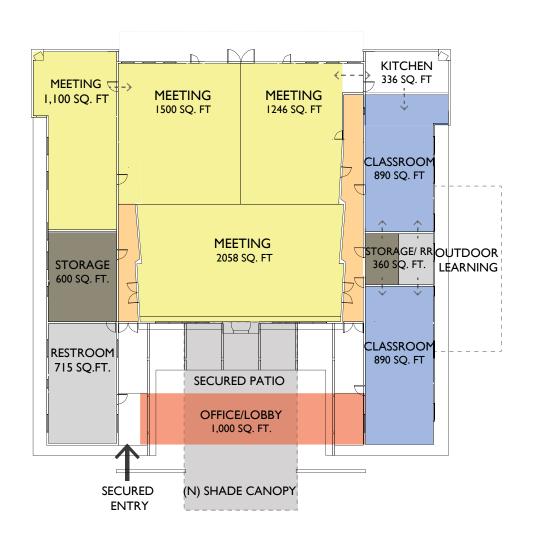
Storage

In the current building, storage is plentiful at a glance. Upon further examination it was determined that most of the actual storage area was dedicated to circulation and was difficult to access, as it was either under the stage or up in the attic. This scheme proposes to dedicate two storage areas; one between the classrooms and one adjacent to the meeting and restroom. These spaces can store large items, such as tables, instruments. Additionally, storage for smaller items is provided for in the meeting rooms and classrooms themselves.

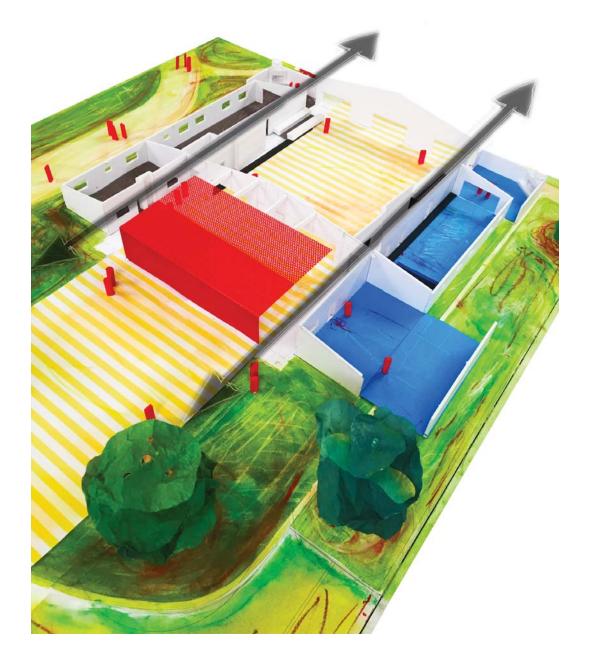
Cost

Scheme 2 appropriates \$5.56 million for hard construction cost, and approximately \$1.6 million of added contingency and owner soft cost, with a grand total of \$7.29 million.









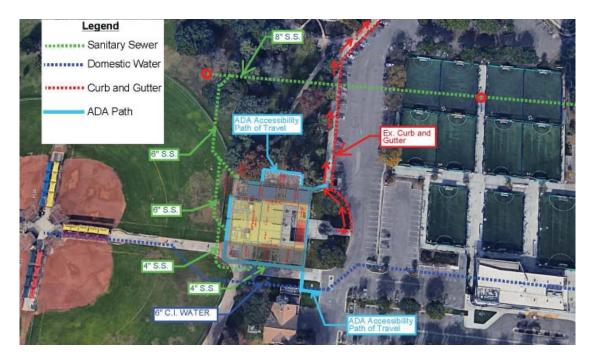


PROS

- 1. New construction of 2,000 sq. ft. of added enclosed space
- 2. Secured Entry
- 3. Combined Restrooms
- 4. More Flexible meeting spaces
- 5. Seamless indoor/outdoor connections
- 6. Maximizes building footprint

CONS

I. Costed higher than Scheme I, but provides for new building systems and energy efficiency



Schemes I & 2

Schemes I & 2 for GCH involves the distribution of the support programs, school programs and meeting rooms into their own portions of the building. For these schemes, all wet utilility lines currently running into the building can be protected in place, however a CCTV should be performed to confirm if the lines are in adequate condition. It is up to the plumbing engineer to rout the pipes within the building based on the proposed renovation scheme that is chosen.

For storm water, the water should flow to the existing curb and gutter located in front of the building running along the parking lot, as shown in figure 19. The stormwater will flow north towards Southern Ave eventually being collected in the city's storm drain line. The existing water inlet to the building will be protected in place, but water lines inside the building will need to be rerouted based on the plumbing engineers design and based on the building scheme.

The site will need to be regraded to collect stromwater and to meet all LA County ADA acessibility requirements. Since this is a redevelopment project, Low Impact Development might be require because the LA County LID manual states that construction activity that results in the creation, addition or replacement of 5,000 sq-ft or more of impervious surface area will need to comply with LID. In addition to the present ADA path, the ADA accessible path of travel needs to be extended to the back of the building, as well as both side of the building. This will provide the accessible ADA path to all proposed doors to the building based on the light blue line shown.



Scheme 3

Scheme 3 is architecturally comprised of two major elements: an L-shaped meeting/classroom building and a rectangular double-height hall with a secured courtyard in between them. For this scheme all wet utilility lines currently running into the building can be protected in place as shown in figure 21, however a CCTV should be performed to confirm if the lines are in adequate condition. It is up to the plumbing engineer to rout the pipes within the building based on the proposed renovation scheme that is chosen.

For storm water, the water should flow to the existing curb and gutter located in front of the building running along the parking lot. The stormwater will flow north towards Southern Ave eventually being collected in the city's storm drain line. The existing water inlet to the building will be protected in place, but water lines inside the building will need to be rerouted based on the plumbing engineers design and based on the building scheme.

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Civil - Scheme I & 2 & 3

The existing utility lines for fire and water should be adequate. However, an underground utility survey might be needed to confirm.

For sanitary sewer the main line should be adequate, with a possible new point of connection for all schemes,

Storm: there is currently no storm drainage on site. New storm drainage will be required to flow the storm water to the existing curb and gutter. Regrading of the site is required to prevent water ponding.

Plumbing -Scheme I & 2

With all the plumbing and kitchen fixtures now located on the south side only, we suggest providing one water heater to serve the building. Assume a 120 gallon and 150 MBH capacity. Water will be generated at 140 deg F for kitchen use. There will be a central thermostatic valve to bring the water temperature down to 120 deg F for the rest of the plumbing fixtures. An undercounter thermostatic mixing valve shall be provided for each lavatory.

Hardwired flush valves and wall mounted with wall carriers WCs and Urinal water fixtures should be assumed. Lavs will be wall mounted with carriers and hardwired sensor faucets. Service sink to be floor mounted with wall mounted faucet.

For schemes I & 2, all water piping will be new. There will be a hot water recirculation so recirculation pump, expansion tank and aquastat for controls shall be added. Cold water piping will not be insulated but hot water piping will be insulated. Please note that there will be major work to layout underground waste piping and slab on grade may need to be cut.

Fire Protection - Scheme 1 & 2

There is currently no sprinkler system in the building and a new sprinkler system needs to be added.

Mechanical System -Scheme I & 2

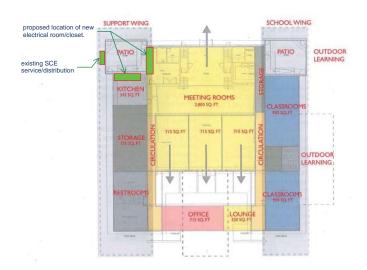
We would use a VRF system, 35 ton capacity, with 8 fan coils. No gas required as unit will be heat recovery type.

All ductwork will be new.

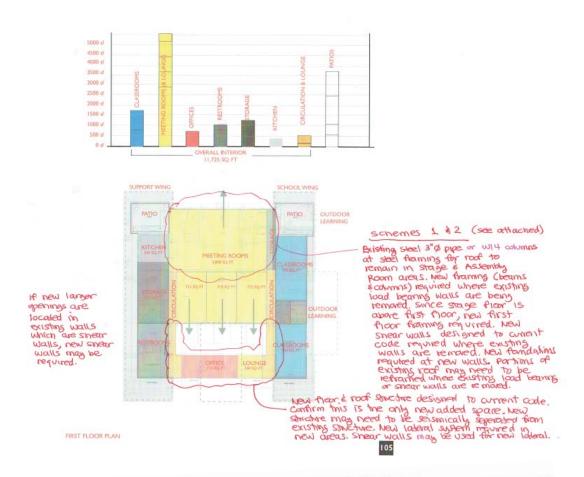
Electrical System - Scheme I & 2

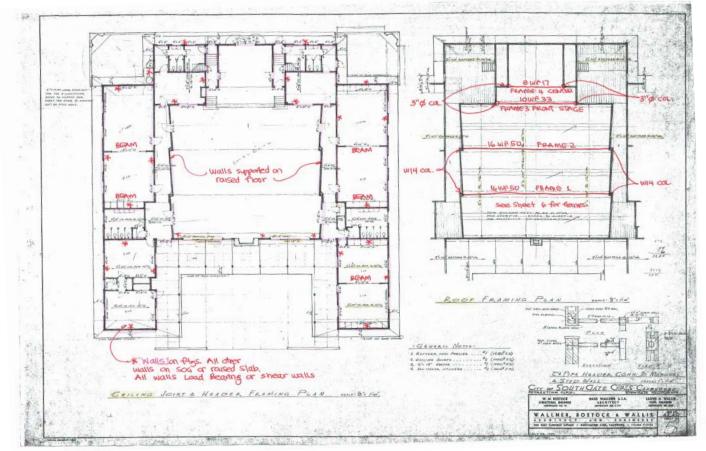
With the re-arrangement of the rooms for Schemes I and 2, it will require:

- -the removal of all existing interior panels to be replaced with new panels;
- upgrade the building to the latest technology (LED lighting) to comply with Title 24 (Occ sensor, dimming, day light harvesting, etc.);
- -the new panels, lighting controls, etch. should be located in an electrical room (see attached sketch for proposed location) and where most of the load may be (i.e. kitchen, offices, IT room).
- The Fire Alarm and Tele/Data/Av is also a complete redo. Fire Alarm required for FCU with 2000 cfm air and fire sprinkler system.



Structural System - Scheme I & 2 & 3







Scheme 3 provides for an entirely new multi-story facility of 16,800-21,200 sq. ft. of program. As building on South Gate Park property is governed by Land and Water Conservation Use Agreement, the new building would have to occupy the existing Girls Clubhouse building footprint, resulting in a two to three story facility.

During the programming exercise it was determined that the current community programming is only limited by available space. Provided a larger facility, programming could be expanded to serve the community via new arts and crafts workshops, meeting rooms and a teen center.

Concept

This scheme is architecturally comprised of two major elements: an L-shaped meeting/classroom building and a rectangular double-height hall with a secured courtyard in between them.

Meeting Rooms, Workshops

The L-shaped building will be 2 to three stories tall, depending on the amount of program required. Each floor would have 4 to 5 classrooms or workshops with double sided orientation and views to the park and courtyard.

The L-shaped classroom building would have a floor plate of approximately 4,300 sq. ft resulting in a 16,800 sq. ft. building for two-stories, and a 21,200 sq. ft. building at three-stories.

Circulation would line the courtyard and animate it with activity. Due to several stories, a new elevator would be required with two additional means of egress from each floor.

Preschool

2 preschool classrooms would be located on the first floor of the L-shaped building given the exiting requirements for this type of facility.

Similarly to previous schemes, outdoor secured space could be "borrowed" from the park for outdoor learning opportunities and play. Third classroom could be located in place of the teen center as it could populate one of the top floors.

Main Hall, Teen Center, Kitchen

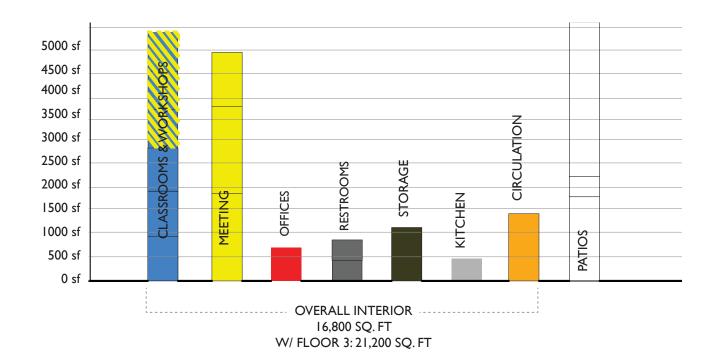
The hall will be comprised of a large 5,500 sq. ft. space divisible to three smaller meeting rooms. Several options are available vis-à-vis location of the teen center. If located on the main level, it could provide contiguous open space to the main hall therefore expanding its capacity to 6,400 sq. ft.

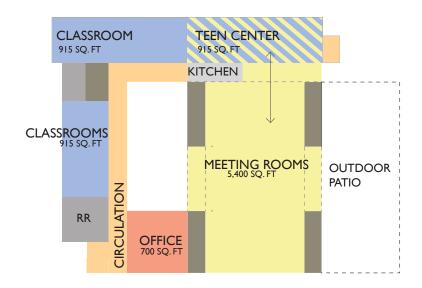
The hall, teen center and adjacent patios would be served by a new kitchen located at the intersection of these spaces. Alternatively, the teen center could be located on one of the upper levels with preschool occupying this location. Thus, expanding the overall program of the preschool to approximately 3,000 sq. ft.

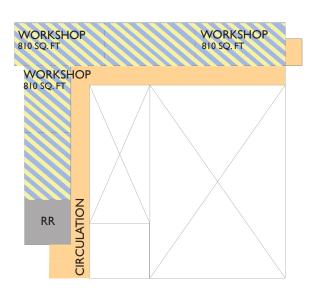
Cost

Scheme 3 appropriates \$11.57 million for hard construction cost, and approximately \$3.5 million of added contingency and owner soft cost, with a grand total of \$15.1 million (for a new two story building).

Adding another floor appropriates \$13.8 million for hard construction cost, and comes to a grand total of 18.1 million.



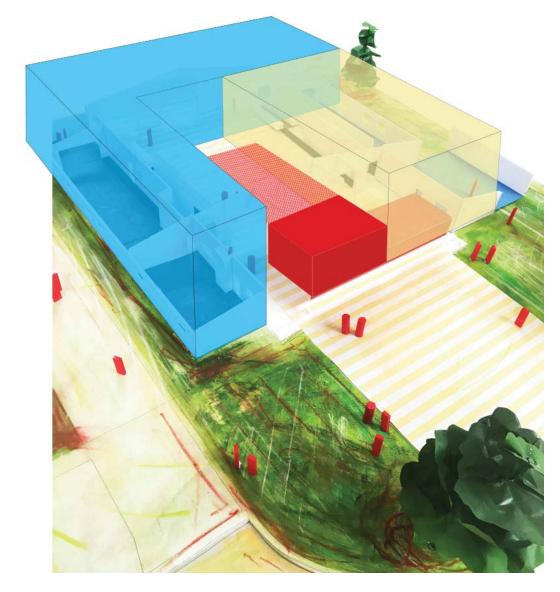




FLOOR I

FLOOR 2 (& FLOOR 3 IF NECESSARY)





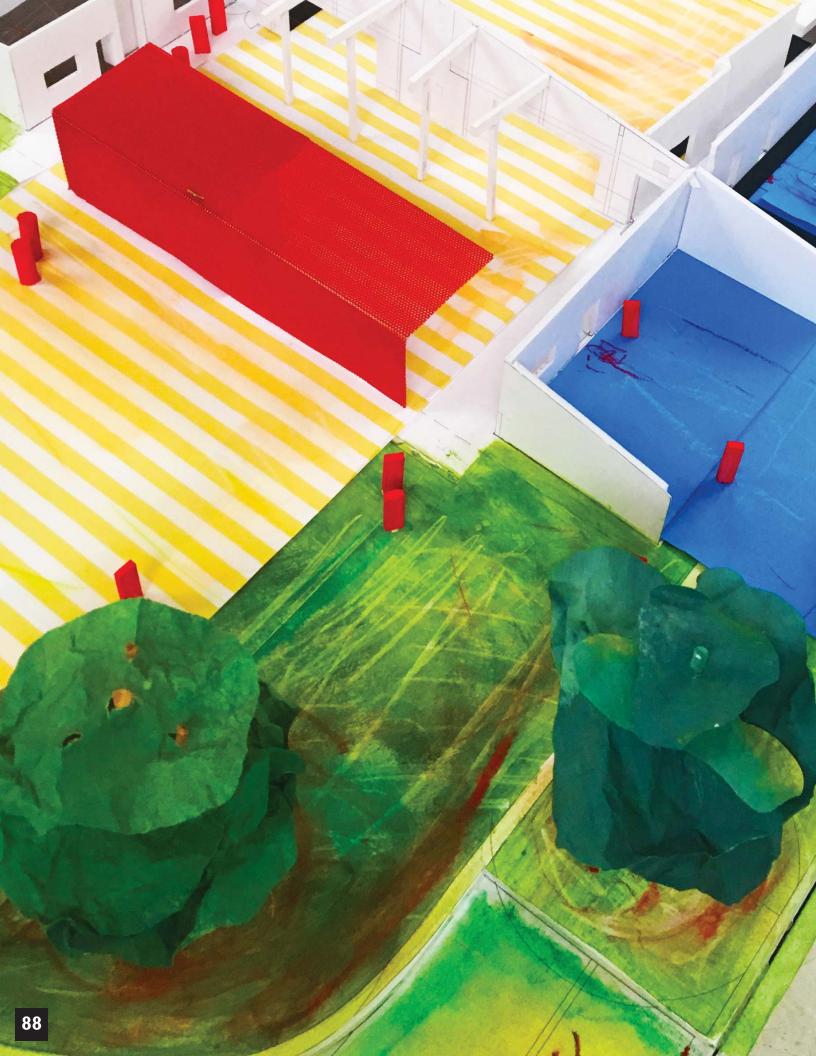


PROS

- I. Brand new state-of-the-art equipment
- 2. Secured Entry
- 3. More Flexible meeting spaces
- 4. Seamless indoor/outdoor connections

CONS

I. Highest Cost



Although this project does not have a LEED mandate, there are a number of opportunities that should be explored to make the new Girls Clubhouse and its remodel reduce its impact on the environment. The work of our studio usually doesn't place a premium on sustainability. In other words, our buildings perform well environmentally as a baseline, without paying for additional bona fide sustainability features.

SCHEMES I & 2

Some of the features that could be implemented into the design of Schemes I and 2 are as follows:

- I. Storm Water. Capturing of storm water and its detention or retention. The roof water could be captured, stored in underground tanks/cisterns, treated and used for irrigation of the park. Alternatively, the water could be diverted into areas that slow its release into the storm water cistern and in that way alleviate the load on the overall system.
- 2. Roof. Portion of the roof that is affected by the remodel, and the new covered entry should be made out of a material that is light in color and reduces the heat island effect. The new cover would also shield the existing structure from additional heat gain.
- 3. Water Efficiency. Since both schemes I and 2 require reconfiguration of the bathrooms, new water efficient fixtures should be used to reduce the water consumption.
- 4. Systems. According to the evaluation of our engineering team, the current MEP systems are at the end of their life and are in dire need of replacement. This remodel opportunity should be used to upgrade and replace the systems with new energy efficient features. Doing so will also reduce overall energy consumption.
- 5. Renewable Energy. Using renewable energy usually does come at a premium but it also significantly offsets the utility bills. Photo Voltaic panels are a common source of renewable energy while they also provide additional layer of shade and insulation for the building. Provided proper engineering, Photo Voltaic panels can pay for themselves in a number of years, making them suitable for municipal work where buildings remain in ownership for a long period of time.











- 6. Materials and Resources. Using and specifying products with high recycled content, or materials that are sustainably harvested and have a high natural regeneration rate (rapidly renewable), will also reduce the overall impact on the environment. Materials like cork, linoleum, bamboo for flooring, cabinetry and wall finishes are perfectly suited for this use.
- 7. Natural Ventilation. Using passive design strategies such as providing ample natural ventilation through means of operable windows and large doors can greatly offset the demand on the mechanical systems.
- 8. Natural Light. Using skylights and strategically positioned doors and windows can not only reduce the demand on the electrical systems, saving you money on electricity, but is scientifically proven to improve the well-being of the building occupants. Balancing the amount of skylights and their shades, with the mechanical systems is of utmost importance.

SCHEME 3

Given that the Scheme 3 is proposed as a new building, we would urge the City to creating a mandate for a ZERO-Net Energy building making it a real environmental showcase or consider a LEED Rating system at the very least. Some of the same features described in schemes I and 2 would be implemented in this scheme albeit with a greater emphasis on the renewable energy component of design. An overarching canopy / roof would serve a dual purpose of protecting the building from the elements while also providing the infrastructural support for a significant PV installation.

The goal for this building would be to produce more energy than it consumes making it a Net Plus building. If this option is chosen, we can provide further detail on the systems size and their cost implications.

\$2,078,518

\$18,073,819

Owner Soft Owner Construction Statement of Probable Cost Grand Total Costs Continguency Program \$/SF Present Value Esc. 01/19 Total @15% @15% KPJ Consulting has no control over the cost of labor and materials, the Scheme 1 \$374 \$2,454,604 \$245,460 \$2,700,065 \$60,000 \$405.010 \$405.010 \$3.570.084 general contractor's or any subcontractor's method of determining prices, \$366 \$5,056,920 \$505,692 \$5,562,612 \$60,000 \$834,392 \$834,392 \$7,291,396 or competitive bidding and market conditions. \$10,516,832 \$1,051,683 \$11,568,515 \$1,735,277 \$1,735,277 \$15,099,070 Scheme 3 \$567 \$60,000 \$2,078,518

\$12,597,076

\$1,259,708

\$13,856,784

\$60,000

Scheme 3A

\$567

This opinion of the probable cost of construction is made on the basis of the experience, qualifications, and best judgment of a professional consultant familiar with the construction industry. However, KPJ Consulting cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

Overall Assumptions made in the Cost Estimate

The site will be fully accessible during normal working hours. No phasing is assumed.

Construction contract procurement method is Design Bid Build. Prevailing wage labor rate structure.

No allowance for cost associated with deep footing system (No geotechnical report is not available)

Allowance for cost escalation to January 2019

Permit fees and inspection costs are excluded

Moving costs are excluded

No Owner soft costs unless noted

No construction contingency unless noted

Items Affecting the Cost Estimate

 ${\it Modifications to the scope of work included in this estimate}.$

Restrictive technical specifications or excessive contract conditions. Any specified item of equipment, material, or product that cannot be obtained from at least three (3) different sources. Any other non-competitive bid situations.

. Bids delayed beyond the projected schedule.

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			Site Preparation and Demolition				
			Site clearing and grubbing	6,000	SF	\$3.50	\$21,000
			Interior minor demolition	10.495	SF	\$5.00	\$52,475
			Allow Gas/Fire/Water utilities connections, 5' pt of connect	3	EA	\$10,000.00	\$30,000
			Allow for new Sewer/Storm drainage lines and pt of connection	2	EA	\$20,000.00	\$40,000
			Canopy system	2,000	SF	\$80.00	\$160,000
			Site development, security fencing	4,691	SF	\$50.00	\$234,550
						(\$51 / SF)	\$538,025
			Main Building Construction				
Controls	<u>SF</u>	% Eff	Core & Shell -Renovation	(\$17 / SF)			
Controls	<u>3F</u>	70 EII	Wood truss framing and floor deck at stage	500	SF	\$15.00	\$7,500
Area			Reframe steel columns & beams	300	31	\$15.00	\$7,500 NA
Renovation area	10,495 SF		Shear wall/floor/roof				Excluded
Addition area	NA		Exterior cladding systems, painting only	24.000	SF	\$2.00	\$48,000
Total Interior fit out	10,495 SF		Exterior glazing, meet T24 req	960	SF	\$100.00	\$96,000
			Patch and repair roofing	10,495	SF	\$3.00	\$31,485
Roof area							
Existing	10,495 SF		Interior Fit Out	(\$41 / SF)			
New roof	1,230 SF		Classrooms Meeting rooms & Lounges	2,634 3,915	SF SF	\$45.00 \$55.00	\$118,530 \$215,325
Gross Wall Area			Offices	715	SF	\$55.00 \$45.00	\$215,325 \$32,175
Existing	24,000 SF		Restrooms	480	SF	\$65.00	\$31,200
New wall	21,000 51		Storage	662	SF	\$25.00	\$16,550
Total GWA	24,000 SF		Kitchen (catering)			7	NA
New glazing area			Circulation	855	SF	\$25.00	\$21,375
Existing glazing area	960 SF		Patios	4,691	SF		in Site
				(4 ()			
Section Notes & Exclusions			Modify Mechanical & Electrical Systems	(\$59 / SF)			
Full Title 24 compliance is excluded			Modify plumbing systems	10,495	SF	\$4.00	\$41,980
Structural/seismic modifications is excluded			Modify HVAC and distribution systems	10,495	SF	\$20.00	\$209,900
Full ADA compliant is excluded			Modify Electrical systems	10,495	SF SF	\$30.00 \$5.00	\$314,850
New roofing is excluded			New fire Suppression systems	10,495	31	\$5.00	\$52,475
						(\$118 / SF)	\$1,237,345
			Total Construction Cost	10,495	SF	\$ 169.16	\$1,775,370
			General Conditions & Requirements	12.00%			5213,044
			Contractor's Bonds	1.50%			\$26,631
			General Liability Insurance	1.00%			\$17,754
			Contractor's OH&P	5.00%			\$101,640
			Design Contingency	15.00%			\$320,166
			Total Construction Cost	10,495	SF	\$ 233.88	\$2,454,604
			Escalation - Compounded and Escalating rate at 5%, midpoint of Jan 2019	10.000			\$245,460
			5013	10.00%			
			Total Construction Cost incl. escalation	10,495	SF	\$ 257.27	\$2,700,065

ACM removal based SCS Engineers recommendation Aug 1996

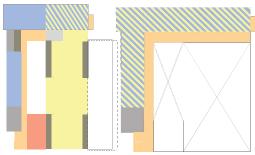
\$60,000

			Site Preparation and Demolition				
			Site clearing and grubbing	6,000	SF	\$3.50	\$21,000
			Interior complete demolition	9,147	SF	\$10.00	\$91,470
			Allow Gas/Fire/Water utilities connections, 5' pt of connect	3	EA	\$10,000.00	\$30,000
			Allow for new Sewer/Storm drainage lines and pt of connection	2	EA	\$20,000.00	\$40,000
			Canopy system	2,000	SF	\$80.00	\$160,000
			Site development, incl. patios	4,000	SF	\$35.00	\$140,000
						(\$42 / SF)	\$482,470
-			Main Building Construction				
Controls	<u>SF</u>	% Eff	Core & Shell -Addition	(\$393 / SF)			
			CIP foundations, shallow footing	2,337	SF	\$12.00	\$28,044
Area			Steel columns, allow 3LB/SF	2,337	SF	\$10.00	\$23,370
Renovation area	9,147 SF		Floor SOG and roof structures, allow 12LB/SF	2,337	SF	\$65.00	\$151,905
Addition area	2,337 SF		Exterior cladding systems, stucco/panels	9,200	SF	\$45.00	\$414,000
Total Interior fit out	11,484 SF		Exterior cladding systems, 20% glazing	2,500	SF	\$100.00	\$250,000
Roof area			Roofing systems Vertical transportation -NA	2,337	SF	\$22.00	\$51,414
Existing	10,495 SF		vertical transportation - NA				
New roof	2,537 SF		Core & Shell -Renovation	(\$67 / SF)			
			Wood truss framing and floor deck at stage	500	SF	\$15.00	\$7,500
Gross Wall Area			Reframe steel columns & beams	9,147	SF	\$10.00	\$91,470
Existing	16,800 SF	1.84	Shear wall/floor/roof				Excluded
New wall	9,200 SF	3.94	Exterior cladding systems, painting only	16,800	SF	\$2.00	\$33,600
Total GWA	26,000 SF		Exterior glazing, meet T24 reg	2,500	SF	\$100.00	\$250,000
New glazing area	2,500 SF	10%	Roofing systems, meet T24 reg	10,495	SF	\$22.00	\$230,890
Existing glazing area	960 SF	38%	Skylight	1	SF	\$30,000.00	\$30,000
Floor to Floor Height	15' 919 LF	0.00		(0.40 (.55)			
Interior partition	919 LF	0.08	Interior Fit Out Classrooms	(\$49 / SF) 2,000	SF	\$45.00	\$90,000
Section Notes & Exclusions			Meeting rooms & Lounges	5,764	SF	\$55.00	\$317,020
Full Title 24 compliance is excluded			Offices	700	SF	\$45.00	\$31,500
Structural/seismic modifications is excluded			Restrooms	915	SF	\$65.00	\$59,475
Full ADA compliant is excluded			Storage Kitchen (catering)	1,080 345	SF SF	\$25.00 \$75.00	\$27,000 \$25,875
New roofing is excluded			Circulation	680	SF	\$25.00	\$17,000
			New Mechanical & Electrical Systems	(\$91 / SF)			
			New plumbing systems	11,484	SF	\$8.00	\$91,872
			New HVAC and distribution systems, VRF, 35ton	11,484	SF	\$40.00	\$459,360
			New Electrical systems	11,484	SF	\$38.00	\$436,392
			New fire Suppression systems	11,484	SF	\$5.00	\$57,420
						(\$276 / SF)	\$3,175,107
			Total Construction Cost	11,484	SF	\$ 318.49	\$3,657,577
			General Conditions & Requirements	12.00%			\$438,909
			Contractor's Bonds	1.50%			\$54,864
			General Liability Insurance	1.00%			\$36,576
			Contractor's OH&P	5.00%			\$209,396
			Design Contingency	15.00%			\$659,598
			Total Construction Cost	11,484	SF	\$ 440.34	\$5,056,920
			Escalation - Compounded and Escalating rate at 5%, midpoint of Jan 2019	10.00%			\$505,692
			Total Construction Cost incl. escalation	11,484	SF	\$ 484.38	\$5,562,612
				-,		,	, -,,

ACM removal based SCS Engineers recommendation Aug 1996

\$60,000

Site Layout



Controls	<u>Unit</u>	% Eff
Ist Floor encl area	12,542 SF	
2nd Floor encl area	4,266 SF	
Total encl area	16,808 SF	
Circulation Total covered area	full value (see enc area)	
GFA (Enc + 1/2 cov area)	16,808 SF	
Roof area	12,542 SF	
Canopy area	3,000 SF	
Gross Wall Area	22,660 SF	1.35
Total Glazing Area	9,064 SF	40.009
Floor to Floor Height	15'	
Interior partition	1,345 LF	0.08

Section Notes & Exclusions

All other fixtures, mobile furniture, workstations, office furniture, etc. are excluded will be part of Owner's soft costs

AV equipment and cabling is excluded

Security equipment and cabling is excluded

Site Preparation and Demolition

Building demolition	14,605	SF	\$15.00	\$219,075
Site clearing and grubbing	17,233	SF	\$3.50	\$60,316
Site development permeable paving, structures, sidewalk, plaza, canopy etc.	31,838	SF	\$30.00	\$955,140
Landscaping	31,838	SF	\$10.00	\$318,380
New site utilities	31,838	SF	\$8.00	\$254,704

(\$108 / SF) \$1,807,615

Main Building Construction

Type I Core & Shell	(\$209 / SF)			
CIP foundations, shallow footing	16,808	SF	\$20.00	\$336,160
Steel columns & bracing, allow 3LB/SF	16,808	SF	\$8.00	\$134,464
Floor and roof structures, allow 15LB/SF	16,808	SF	\$40.00	\$672,320
Exterior cladding systems, metal panel & soffits	22,660	SF	\$45.00	\$1,019,700
Exterior cladding systems, glazing	9,064	SF	\$100.00	\$906,400
Roofing systems	12,542	SF	\$22.00	\$275,924
Vertical transportation, 3 exterior stairs, walkway and 2 stop elevators	16,808	SF	\$10.00	\$168,080
Interior Fit out Construction	(\$45 / SF)			
Classrooms	5,168	SF	\$45.00	\$232,560
Main Hall	5,436	SF	\$55.00	\$298,980
Offices	698	SF	\$45.00	\$31,410
Restrooms	866	SF	\$65.00	\$56,290
Storage	1,404	SF	\$25.00	\$35,100
Kitchen (catering)	424	SF	\$75.00	\$31,800
Circulation	2,812	SF	\$25.00	\$70,300
Patios	5,390	SF		in Site
New Mechanical & Electrical Systems	(\$91 / SF)			
Plumbing systems	16,808	SF	\$8.00	\$134,464
New HVAC and distribution systems, VRF, 35ton	16,808	SF	\$40.00	\$672,320
Electrical systems	16,808	SF	\$38.00	\$638,704
Fire Suppression systems	16,808	SF	\$5.00	\$84,040

General Conditions & Requirements	12.00%	\$1,093,348	
Contractor's Bonds	1.50%	\$136,668	
General Liability Insurance	1.00%	\$91,112	
Contractor's OH&P	5.00%	\$521,618	
Design Contingency	15.00%	\$1,643,097	

 Total Construction Cost
 22,206 SF \$ 567.28
 \$12,597,076

 Escalation - Compounded and Escalating rate at 5%, midpoint of Jan 2019
 10.00%
 \$1,259,708

Total Construction Cost incl. escalation 22,206 SF \$ 624.01 \$13,856,784

ACM removal based SCS Engineers recommendation Aug 1996

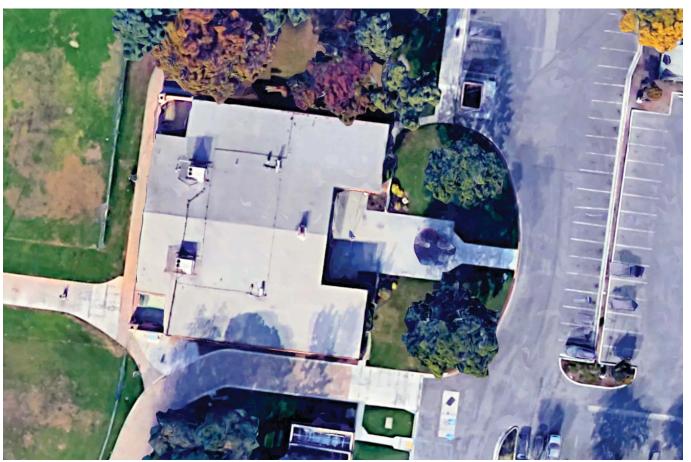
\$60,000

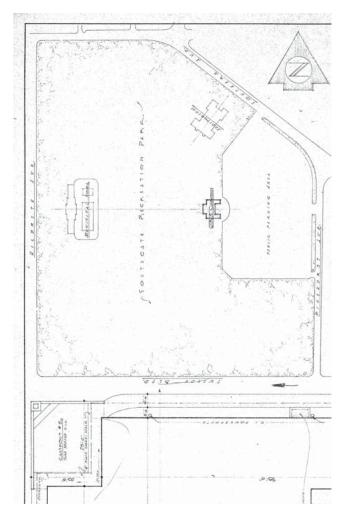
\$5,799,016

(\$345 / SF)

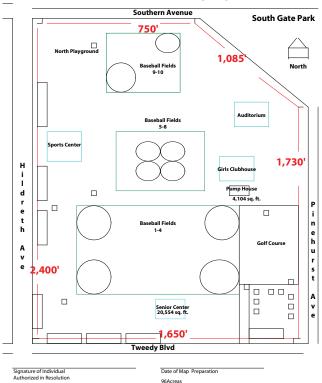
cheme 1 & 2







Section 6(f)(3) Boundary Map



96Acreas Section 6 (f) (3) Boundary Acreage

7.C PHOTOGRAPHY- EXTERIOR



panaromic view from the entrance



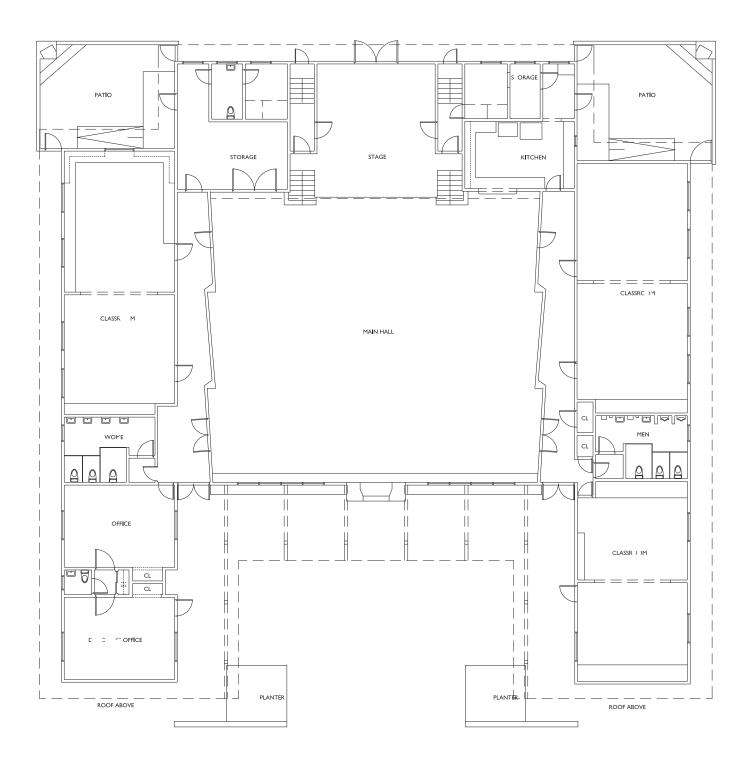
view from front patio

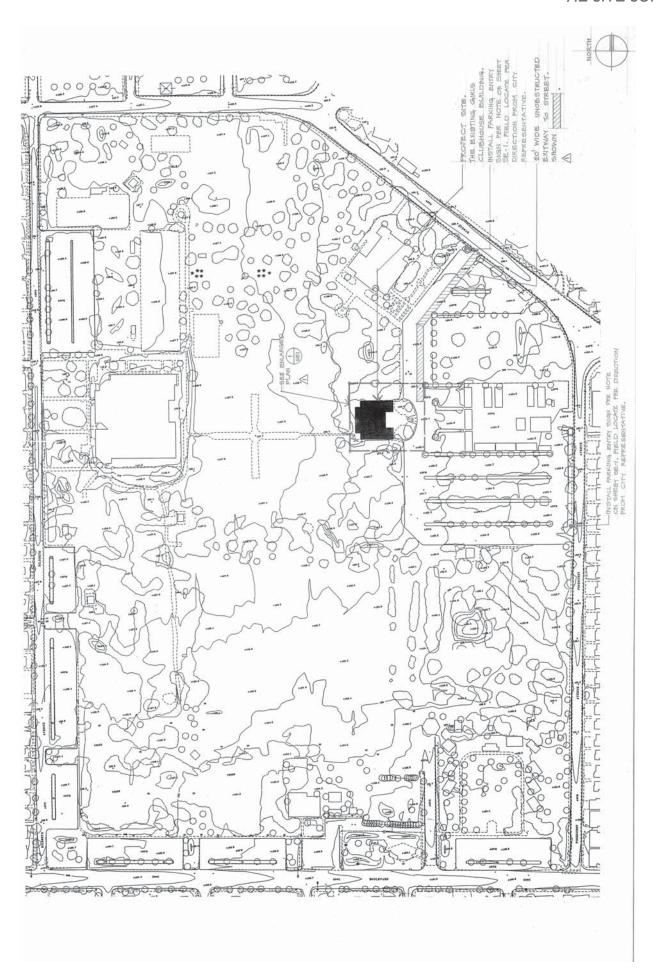




view of south patio and wall







7.F. PHOTOGRAPHY



panaromic view of main hall



panaromic view from stage to fireplace



panaromic view of kitchen



panaromic view of staff office



panaromic view of classroom

REPORT OF INVESTIGATION FOR ASBESTOS-CONTAINING BUILDING MATERIALS GIRLS CLUB HOUSE, RECREATION PARK SOUTH GATE, CALIFORNIA

Prepared For:

City of South Gate
Engineering Department
8650 California Avenue
South Gate, California 90280

Prepared By:

SCS Engineers 3711 Long Beach Boulevard, Suite 900 Long Beach, California 90807 (310) 426-9544

August, 1996

File No. 0196080.00

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APPENDICES

A Analytical Results and Field Notes

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DISCLAIMER

This report has been specifically prepared for use and reliance by the CITY OF SOUTH GATE with application to a limited survey for asbestos-containing building materials (ACBMs) at the Girls Club House, Recreation Park, South Gate, California. This report has been prepared in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the opinions presented herein. Third parties use this report at their own risk. SCS assumes no responsibility for the accuracy of information obtained, compiled or provided by others in preparation of this report.

This limited survey focused on potential sources of ACBMs that could be considered a potential hazard for asbestos fiber migration through exposure pathways (e.g., human contact with damaged, friable ACBMs) or economic burden due to their presence in significant quantities. Other hazardous materials present (e.g., heavy metals, radon, hydrocarbons, other ACMs or chemicals.) or asbestiforms naturally occurring in soils and rock at this site were not considered.

This report and analysis represent a characterization of ACBMs within a site structure. A representative number of samples were collected from each suspect building material considered relevant, e.g. vinyl flooring, insulation, and acoustical materials. No samples were collected of exterior building materials and only a limited number of samples were collected from drywall and plaster materials inside the structure. Moreover, no attempt was made to provide a valid statistical approach to characterize all ACBMs within the structure.

It is possible that additional asbestos-containing building materials (ACBMs) may be present within the roof system or ceiling areas, or other locations within the structure which were not accessible during this survey. Prior to and/or during renovation or demolition activities, suspect building materials not adequately characterized during this survey should be sampled and analyzed for asbestos content.

It is also possible that additional information exists beyond the scope of this survey regarding asbestos-containing materials at this site. Changes in site use and conditions may also occur due to variations in use, remodeling activities, mechanical system repair, economic, or other factors. Additional information which was not available to SCS Engineers at the time this survey was conducted or changes which may occur on the site, may result in a modification to the conclusions and recommendations presented herein. This report is not a legal opinion.

SITE INSPECTION AND SAMPLING SUSPECT ACBMs

A walk-through of the structure was conducted on August 14, 1996 by Mr. Michael Geyer of SCS Engineers. Mr. Geyer is a Cal-OSHA State-certified asbestos consultant (Certification No: 92-0089C) and U.S. E.P.A. AHERA-accredited building inspector with over 10 years of experience inspecting structures for asbestos-containing building materials (ACBMs).

The subject structure was typical of wood frame construction with plaster and/or drywall covered walls. Two mechanical HVAC systems were located within the structure in two attic areas, the north and south attic storage areas. Next to each HVAC unit, suspect insulation on an abandoned vent was sampled. One transite vent pipe was observed above the kitchen's water heater; however, it was not sampled. The roof shape was moderately sloped in two directions to shed water.

The structure was reported to be scheduled for moderate renovation, therefore, invasive and destructive sampling was limited. Samples of plasters and drywall materials were collected from areas with previous damage. Samples were also collected from each type of floor material observed; multiple samples were collected of flooring materials that appeared similar but were observed in different areas of the structure. Moreover, ceiling acoustical materials were observed in the main hall and two lobby areas and composite samples were collected from each area where the acoustical material was observed.

ANALYTICAL RESULTS

A total of 29 bulk samples were collected from the structure during the inspection and delivered to Forensic Analytical Laboratory for analysis of asbestos content. Forensic is a state-certified laboratory in the analysis of asbestos in bulk samples and is NVLAP and AlHA accredited. Bulk samples were analyzed using Polarized Light Microscopy (PLM) and Dispersion Staining in accordance with the Environmental Protection Agency (EPA) Interim Method for the Determination of Asbestos in Bulk Samples (40 CFR 763, Subpart F, Appendix A).

Analytical results indicate that 23 of the 29 samples of suspect building materials collected from the subject structure contained asbestos at concentrations greater than one percent. Samples of building materials that did not contain detectable levels of asbestos include: drywall and plaster

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materials, and two samples collected from a green and white marbled floor tile observed in both hallways.

Analytical results are summarized in Table 1; the laboratory report is provided in Appendix A.

CONCLUSIONS

The following conclusions are based both on observations of potential ACBMs identified during the investigation and on analytical results. By federal definition, for purposes of protecting the environment and people's health, any material that contains more than 1.0% asbestos is classified as an asbestos-containing material. Moreover, within the State of California, Cal-OSHA considers a material that contains at least 0.1% asbestos to be an asbestos-containing material from a worker exposure perspective.

Based on analytical results and our observations, most flooring materials within the structure contain asbestos and/or are contaminated with asbestos. Vinyl flooring was observed in all areas with the exception of the main hall, stage area, bathrooms, attics, and the lobby areas with a terrazzo floor. It also appears that most vinyl floor tiles (VFTs) were glued in-place with a black asbestos-containing mastic. For example, Sample No. 9768 was a gray VFT collected from the Kitchen area. Although the gray tile itself did not contain asbestos, the black mastic that appeared to have remained from a previous VFT was adhering to the gray tile along with its nonasbestos tan mastic. This black mastic contaminated the gray VFT.

Most Vats observed appeared to be in good condition, are considered nonfriable ACBMs (Class II ACBMs per OSHA), and should not pose a significant potential for airborne asbestos fiber release if left undisturbed. It should be noted that nonfriable ACBMs can become friable during renovation or demolition activities if precautions are not adequately followed to prevent breaking the flooring materials and the release of asbestos fibers.

Ceiling acoustical materials observed in both lobbies and the main hall and stage area appear to be in good to fair condition. However, in several localized areas, acoustical material has been disturbed or damaged by an object hitting against it. Ceiling areas within the main hall appear painted while the two lobby areas do not. While collecting samples of acoustical material within the main hall, overspray and debris were observed in the light wells that run along the supporting roof members.

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While most of the acoustical material observed appeared to be in good condition, this material is considered a friable ACBM (Class I ACBMs per OSHA). If painted and/or encapsulated, and well maintained and not disturbed, it should not pose a significant potential for airborne asbestos fiber release. However, the lobby areas are not painted and ceilings in both the lobbies and main hall have small damaged areas. If not adequately maintained and protected, this material can become friable and release airborne asbestos fibers.

The transite pipe observed while in the northerly attic area was not sampled because sampling this material may have fractured the pipe and could allow combustion gases to escape into the attic area.

LOCATION AND QUANTITY OF ACBMs

Based on observations, our estimates of the quantity of ACBMs in the structure is:

- Vinyl flooring materials in rooms, offices, and kitchen and storage areas represent approximately 3,500 sq.ft. (refer to Figure 2).
- Acoustical materials in the main hall, stage area, and two lobbies represent approximately 4,750 sq.ft. of material (refer to Figure 3).
- One, 6-inch transite pipe approximately 20 feet long was observed connected to the water heater behind the kitchen in dressing room No. 2 in the northerly attic space.
- Two insulated HVAC vents, one in each attic space, next to the HVAC units.

ESTIMATED ACBM REMEDIATION COSTS

For budgetary purposes, the cost to properly remove and dispose of the ACBMs pursuant to Federal, State and local requirements is estimated to be \$13,000 to \$24,000.

This is based on a unit cost of:

- \$1.00 to \$2.00 per square foot for the removal of asbestos-containing vinyl flooring materials and black mastic, and
- \$2.00 to \$3.50 per square foot for the ceiling acoustical material.



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Costs associated with removing the two HVAC vents with asbestos insulation and the transite pipe are estimated to be under \$500 if done separately, and insignificant if conducted in conjunction with other asbestos remediation activities.

Note, that the above figures are rough estimates for removal costs and may vary according to bids received from abatement contractors. Moreover, in several locations, multiple layers of floor sheeting were observed which may make removal more difficult. In addition, small scale, short duration projects are typically much more expensive on a unit cost basis than projects of a significantly larger scope. The above cost estimates do not include cost for returning abated areas back to "like" conditions, e.g., replacement flooring or acoustical insulation.

An alternative to removing the asbestos-containing VFTs would be to leave the materials in place and/or cover the flooring with a new flooring material. Both options are effective, however, leaving the asbestos-containing flooring in place without a covering may require more diligent floor maintenance.

An alternative to removing the ceiling acoustical material would be to apply one of the new encasement materials being used on abatement projects in lieu of removal. These encasement materials are typically applied in several layers to form a durable surface that resists abrasion. Encasement materials are many times thicker than paint, can be painted any desirable color, and does not significantly alter the acoustical properties of the underlying material. The cost to apply the encasement material is more expensive than painting, but is typically much less expensive than removing the asbestos-containing material. Encasement coatings also have a greater durable life than paint.

RECOMMENDATIONS

The following recommendations are provided for the ACBMs identified within the subject structure. Recommendations are based on laboratory analysis and on the assumption that the structure is renovated and not demolished at some time in the near future:

 Asbestos-containing flooring materials identified at the subject structure were observed to be in good condition. These ACBMs do not pose a significant potential for airborne asbestos fiber release and they can be safely left in place if procedures are implemented to prevent intentionally or accidentally disturbing them. Removal/disturbance of these flooring materials, such as that conducted during renovation activities should be done by a properly licensed asbestos abatement contractor in accordance with OSHA Category II asbestos abatement procedures prior to initiating any renovation activity involving the floor system.

Asbestos-containing ceiling acoustical materials were observed to be in fair to good condition with localized areas of damage. These ACBMs pose a potential for airborne asbestos fiber release when disturbed or damaged. Intentional removal or disturbance of this material should only be done by a properly licensed asbestos abatement contractor in accordance with OSHA Category I asbestos abatement procedures. An alternative to removing all acoustical materials from this structure would be to consider encasing the material under a tough coating, and/or only removing acoustical materials from the lobby areas with a 8-foot ceiling height and periodically painting the ceiling above the main hall and stage area.

Loose acoustical materials in the light wells should be removed and/or encapsulated or encased to prevent disturbing the material during lighting changes, maintenance, or other activities associated with the light wells.

- All asbestos removal operations should be performed by properly licensed asbestos abatement contractors within the State of California. It is also recommended that the contractor demonstrate sufficient qualifications to perform the level of work required as well as providing "true occurrence" insurance coverage for the asbestos removal project.
- Procedures should be established whereby all utility personnel and contractors who
 may be conducting work within the building are informed, prior to initiating work, as
 to the presence of ACBMs, their location, type, and condition.
- The EPA recommends annually inspecting ACMs within structures. The inspection should be conducted by trained building maintenance personnel or a reputable outside consultant to properly evaluate the condition of each ACBM.
- The Environmental Protection Agency also recommends that when ACBMs have been identified within a structure or a facility and are not removed, an operation and

maintenance (O&M) program for ACBMs should be implemented. O&M plans typically include such program elements as the designation of a responsible person, notification and labeling, periodic reinspection; employee training and protection, emergency response procedures, documentation, etc.

Warning signs should be posted on doors and access panels which lead directly into areas with ACBMs. These signs should clearly state that ACBMs are present as required by Proposition 65. However, signs may not be required in areas with non-friable ACBMs. Legal counsel should be consulted prior to posting any signs.

TABLE 1. ASBESTOS ANALYTICAL RESULTS GIRLS CLUB HOUSE RECREATION PARK, SOUTH GATE, CALIFORNIA

Sample Number	Building and Sample Location	Sample Type Description	ACBM Friability	Asbestos Content*	Asbestos Type
9756	Staff Office; Under carpet, SE corner	Vinyl Floor Tiles - Green-tan mottled	Nonfriable	5-10%	Chrysotile
9757	Staff Office; Toilet area, under carpet	Vinyl Floor Tiles - Tan	Nonfriable	5-10%	Chrysotile
9758	Staff Office; Reception area to staff office	Vinyl Floor Tiles - 12"x12", Tan	Nonfriable	1-5%	Chrysotile
9759	Craft Room; South wall at floor	Vinyl Floor Tiles - 9"x9", Green-tan mottled	Nonfriable	1-5%	Chrysotile
9760	Storage Room; Center of floor	Vinyl Floor Tiles - 9"x9", Brown speckled	Nonfriable	5-10%	Chrysotile
9761	Storage Room; North wall	Wall Plaster - Tan color coat		ND	
9762	Attic Storage; South side	White paper wrap on HVAC duct	Friable	65-70%	Chrysotile
9763	Attic Storage; South side	Drywall Materials - no paint		ND	
9764	Attic Storage; North side	Drywall Materials - green paint		ND	
9765	Attic Storage; North side	White paper wrap on HVAC duct	Nonfriable	65-70%	Chrysotile
9766	Dressing Room No. 2	Vinyl Floor Tiles - 9"x9", Green w/ blk. & white streaks	Nonfriable	5-10%	Chrysotile
9767	Dressing Room No. 2	Vinyl Floor Tiles - 9"x9", Green-tan mottled	Nonfriable	5-10%	Chrysotile

ND = None Detected

TABLE 1. ASBESTOS ANALYTICAL RESULTS, continued GIRLS CLUB HOUSE RECREATION PARK, SOUTH GATE, CALIFORNIA

Sample <u>Number</u>	Building and Sample Location	Sample Type <u>Description</u>	ACBM Friability	Asbestos Content*	Asbestos Type
9768	Kitchen	Vinyl Floor Tiles - 12"x12", Gray	Nonfriable .	TRACE	Chrysotile
9769	Kitchen	Plaster Skim Coat; Off-white paint color		ND	
9770	Room No. E	Vinyl Floor Tiles - 9"x9", Green w/ blk & white streaks	Nonfriable	5-10%	Chrysotlle
9771	South Hallway; Near Craft Room	Vinyl Floor Tiles - 9"x9", Green & white marbled		ND	
9772	South Hallway; Under Sample No. 9771	Vinyl Floor Material, Brick Red	Nonfriable	5-10%	Chrysotile
9773	North Hallway; Under Sample No. 9774	Vinyl Floor Material, Green	Nonfriable	5-10%	Chrysotile
9774	North Hallway	Vinyl Floor Tiles - 9"x9", Green & white marbled		ND	
9775	Room No. C	Vinyl Floor Tiles - 9"x9", Brown speckled	Nonfriable	5-10%	Chrysotile
9776	Custodial Room; North side	Vinyl Floor Tiles - 9"x9", Black	Nonfriable	1-5%	Chrysotile
9777	Men's Bathroom	Vinyl Floor Tiles - 12"x12", Tan mottled	Nonfriable	5-10%	Chrysotile
9778	Room No. A	Vinyl Floor Tiles - 9"x9", Brown speckled	Nonfriable	5-10%	Chrysotile
9779	North Lobby at ceiling, composite sampling	Ceiling Acoustical Materials - Unpainted	Friable	5-10%	Chrysotile

^{*} Asbestos content determined by Polarized Light Microscopy (PLM) with dispersion staining as recommended by the Environmental Protection Agency (EPA)

ND = None Detected

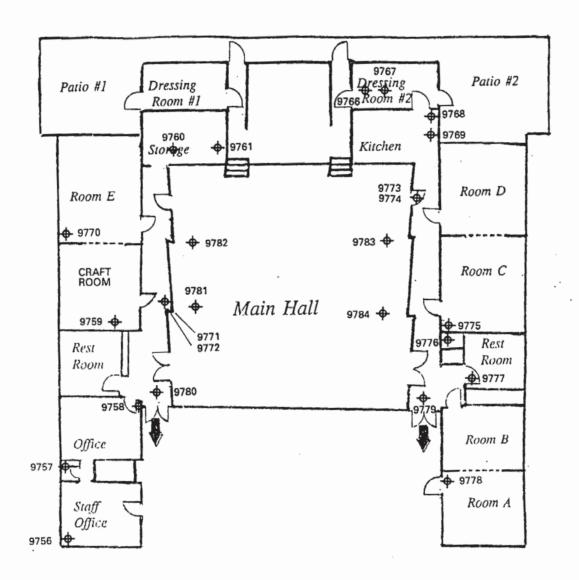
* Asbestos content determined by Polarized Light Microscopy (PLM) with dispersion staining as recommended by the Environmental Protection Agency (EPA)

TABLE 1. ASBESTOS ANALYTICAL RESULTS, continued GIRLS CLUB HOUSE RECREATION PARK, SOUTH GATE, CALIFORNIA

Sample <u>Number</u>	Building and Sample Location	Sample Type Description	ACBM Friability	Asbestos Content*	Asbestos Type
9780	South Lobby at ceiling, composite sampling	Ceiling Acoustical Materials - Unpainted	Friable	5-10%	Chrysotile
9781	Main Hall; SE corner at overhead beam, composite	Ceiling Acoustical Materials - Painted white	Friable	5-10%	Chrysotile
9782	Main Hall; SW corner at overhead beam, composite	Ceiling Acoustical Materials - Painted white	Friable	5-10%	Chrysotlle
9783	Main Hall; NW corner at overhead beam, composite	Ceiling Acoustical Materials - Painted white	Friable	5-10%	Chrysotile
9784	Main Hall; NE corner at overhead beam, composite	Ceiling Acoustical Materials - Painted white	Friable	5-10%	Chrysotile

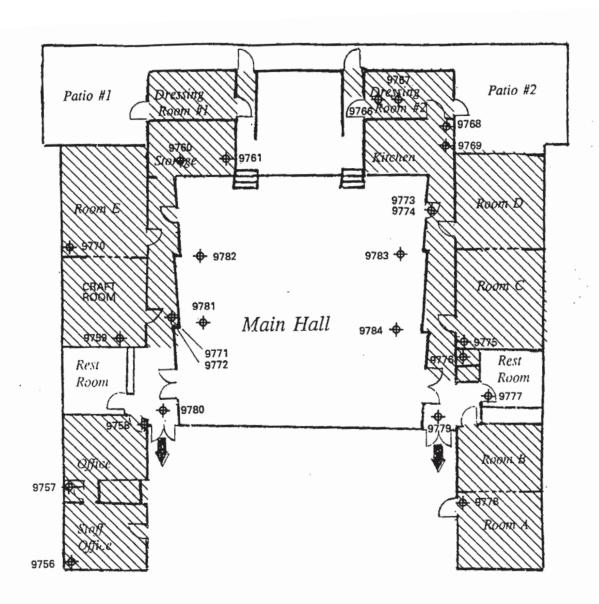
ND = None Detected

* Asbestos content determined by Polarized Light Microscopy (PLM) with dispersion staining as recommended by the Environmental Protection Agency (EPA)
...



Girls Clubhouse Evacuation Plan

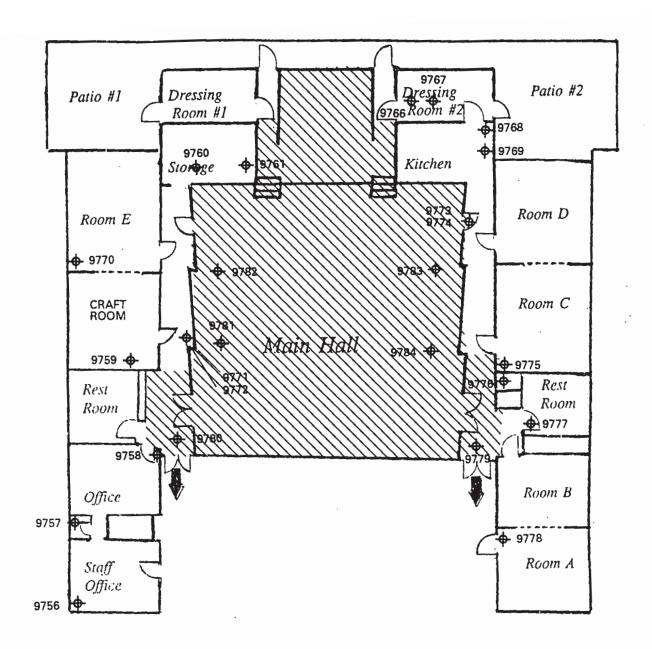
FIGURE No. 1
SAMPLE LOCATIONS



Girls Clubhouse Evacuation Plan

FIGURE No. 2

AREAS WITH VINYL FLOORING



Girls Clubhouse Evacuation Plan

FIGURE No. 3

AREAS WITH ACOUSTICAL MATERIALS



Analytical Report

San Francisco • 3777 Depot Road, Suite 409, Hayward, CA 94545 • Phone 510/887-8828 • Fax 510/887-4218 Los Angeles • 2959 Pacífic Commerce Drive, Rancho Dominguez, CA 90221 • Phone 310/763-2374 • Fax 310/763-8684

Bulk Material Analysis Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:

SCS Engineers Environmental Consultants

Client ID:

Report Number: 582124

3711 Long Beach Blvd., 9th Floor

Date Received: 08/14/96

Long Beach, CA 90807

P.O. Num: Svc. Order #186

Job ID: 0196080.00

Site:

South Gate - Girls Clubhouse Recreation Park.

Sample Mumber Gross Description/Connents	Lab Number	Total Asbestos	Fotal Pibrous Non-Asbestos	(Breakdown by type)
9756 Green tile with black masti (5-10%). Composite reported	59633241 c. Asbestos in green tile (5-10%) and mastic	5-10%	Tracel	Chrysotile (5-10%) Cellulose (Trace%)
9757 Tan tile with tan mastic. P	59633242 Asbestos in tile (5-10%). Composite reported.	5~10%	frace}	Chrysotile (5-10%) Cellulose (Trace%)
9758 Beige tile with black and y nastic (1-5%). Composite re	59633243 rellow mastics. Asbestos in tile (1-5%) and black eported.	1-5%	Frace?	Chrysotile (1-5%) Cellulose (Trace%)
9759 Green tile with black mastiand black mastic (1-5%). Co	59633244 ic and yellow mastic. Asbestos in green tile (1-5%) omposite reported.	1-5%	Trace:	Chrysotile (1-5%) Cellulose (Trace%)
9760 Brown and tan tile with bla (1-5%). Composite reported.	59633245 ack mastic. Asbestos in tile (5-10%) and mastic	5-10%	Trace?	Chrysotile (5-103) Cellulose (Trace%)
9761 White and beige plaster.	59633246	Ron-Det.%	Trace%	Cellulose (Trace3)
9762 Gray fibrous material.	59633247	65-70%	20-25%	Chrysotile (65-70%) Cellulose (20-25%)
9763 White drywall.	59633248	Non-Det.%	25-30%	Cellulose (25-30%)

Hatilde Antillon, Laboratory Supervisor, Rancho Dominguez Laboratory

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Analytical Report

San Francisco • 3777 Depot Road, Suite 409, Hayward, CA 94545 • Phone 510/887-8828 • Fax 510/887-4218 Los Angeles • 2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221 • Phone 310/763-2374 • Fax 310/763-8684

Bulk Material Analysis 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:

SCS Engineers Environmental Consultants

Client ID:

Report Number: 582124

3711 Long Beach Blvd., 9th Floor

Long Beach, CA 90807

Date Received: 08/14/96

P.O. Num: Svc. Order #186

Job ID: 0196080.00

South Gate - Girls Clubhouse Recreation Park.

Sample Runber Gross Description/Comment	Lab Hunber s	Total Asbestos	Total Pibrous Hon-Asbestos	(Breakdown by type)
9764 White drywall with paint.	59633249	Non-Det.%	30-35%	Cellulose (30-35%)
9765 Gray fibrous material.	59633250	65-70%	20-25%	Chrysotile (65-70%) Cellulose (15-20%) Fibrous Glass (1-5%)
9766 Green tile with black mass (1-5%). Composite reported	59633251 tic. Asbestos in green tile (5-10%) and mastic H.	5-10}	Trace:	Chrysotile (5-10%) Cellulose (Trace%)
9767 Green tile with black mass (5-10%). Composite reporte	59633252 tic. Asbestos in green tile (5-10%) and mastic ed.	5-10%	Trace}	Chrysotile (5-10%) Cellulose (Trace%)
9768 Gray tile with black and y Composite reported.	59633253 yellow mastics. Asbestos in black mastic (1-5%).	Tracel	1-5%	Chrysotile (Trace%) Cellulose (1-5%)
9769 White and beige plaster w	59633254 ith paint.	Non-Det.%	Tracet	Cellulose (frace%)
9770 Green tile with black mass (1-5%). Composite reporter	59633255 tic. Asbestos in green tile (5-10%) and mastic d.	5-10%	Tracel	Chrysotile (5-10%) Cellulose (Trace%)

Matilde Intellor

Matilde Antilloń, Laboratory Supervisor, Rancho Dominguez Laboratory

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Client:

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3711 Long Beach Blvd., 9th Floor

Long Beach, CA 90807

P.O. Num: Svc. Order #186

Site:

Job ID: 0196080.00

South Gate - Girls Clubhouse Recreation Park.

Sample Number Gross Description/Comments	Lab Number	Total Asbestos	Total Fibrous Ron-Asbestos	(Breakdown by type)
9771 Green tile with brown mast	59633256	Non-Det.%	1-5%	Cellulose (1-5%)
9772 Red tile with yellow mastic	59633257 :. Asbestos in tile (5-10%). Composite reported.	5-10%	Trace%	Chrysotile (5-10%) Cellulose (Frace%)
9773 Green tile with black mast: (1-5%). Composite reported	59633258 ic. Asbestos in green tile {5-10%} and mastic	5-10%	Trace:	Chrysotile (5-10%) Cellulose (Trace%)
9774 Green tile and brown mastic	59633259 :.	Non-Det.%	Trace%	Cellulose (Frace%)
9775 Tan and brown tile with bla (5-10%). Composite reported	59633260 ack mastic. Asbestos in tile (5-10%) and mastic H.	5~10%	Trace%	Chrysotile (5-10%) Cellulose (Trace%)
9776 Black tile with yellow mast Composite reported.	59633261 Fic and white debris. Asbestos in tile (1-5%).	1-5%	1-5%	Chrysotile (1-5%) Cellulose (1-5%)
9777 Beige tile with yellow mast	59633262 ic. Asbestos in tile (5-10%). Composite reported.	5-10%	Fracel	Chrysotile (5-10%) Cellulose (Trace%)
9778 Tan and brown tile.	59633263	5-10%	Trace:	Chrysotile (5-10%) Cellulose (Trace%)

Matelde Intellor

Matilde Antillon, Laboratory Supervisor, Rancho Dominguez Laboratory

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Bulk Material Analysis Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:

SCS Engineers Environmental Consultants

Client ID: Report Number: 582124

3711 Long Beach Blvd., 9th Floor

Long Beach, CA 90807

Date Received: 08/14/96

P.O. Num: Svc. Order #186

Job ID: 0196080.00

Site:

South Gate - Girls Clubhouse Recreation Park.

Sample Number Gross Description/Comments	Lab Honber	Fotal Asbestos	Total Pibrous Non-Asbestos	(Breakdown by type)
9779 Beige semi-fibrous material	59633264	5-10%	Trace%	Chrysotile (5-10%) Cellulose (Trace%)
9780 Beige semi-fibrous material	59633265	5-10%	Tracet	Chrysotile (5-10%) Cellulose (Trace%)
9781 Beige semi-fibrous material	59633266	5-10%	Tracel	Chrysotile (5-10%) Cellulose (Trace%)
9782 Beige semi-fibrous material	59633267	5-10%	Tracel	Chrysotile (5-10%) Cellulose (Trace%)
9783 Beige seni-fibrous naterial	59633268	5-10%	Trace	Chrysotile (5-10%) Cellulose (Trace%)
9784 Beige semi-fibrous material	59633269	5-10%	Tracel	Chrysotile (5-10%) Cellulose (Trace%)

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Matilde Antillon, Laboratory Supervisor, Rancho Dominguez Laboratory

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INSPECTION REPORT

PROJECT NAME: Girus Chighrasse RECREATION PARK South Gate California JOB NUMBER 0196080.00
DATE: 814 96 WEDNESDAY INSPECTION HOURS: 18AM - 3pm PURPOSE OF VISIT: Thispect For ACBM's
CONTRACTOR: NA CONTACT CINDY TALLY PAULLA
INSPECTOR: M. Geyer OTHER CONTACTS:
Tusper Facility for ACBYS Minimized invasine somering efforts. No sangles of Extens walls no rod cooks Occupied by staff and public. Waited for some rooms to clear of public before sampling. Most areas readily accessible.
TESTS TAKEN: Buck Samples No. 9756 Then 9784 REMARKS: Semples submitted same days
INSTRUCTIONS TO CONTRACTOR AND REQUIRED ACTION: NA SCS ENGINEERS: M.J.

BUILDING INSPECTION FORM

Building: GIRLS CLUBHOUSE	Area:	TWIL	SE ONL	Room:	ALL		Page .	lof l
RECREATION RACK								
ITEM								NOTES
ROOM TYPE	Retail	Mech	Storage		RestRm	WareH	Other	
General Condition	Excel	(Good)	Fair	Poor	V.Poor	<u>'</u>		
Occupied	Yes	No		No.				
POPULATION TYPE	Staff	Office	Public	(Maint)	Contr	Vendor	Other	
Room Activity/Use	High	(Med)	Low	V. Low			N/A	
Population Number	un 10	20	30	50 🤇	ovr.59		N/A	
Population Exposure (hrs per wk)	un 20	40	60	80	ovr 100	\supset	N/A	
WALL MATERIAL	Conc	Masnny	Wood	Drywal	Plastr	Metal	Other	
Wall Texture (Rum	Pitted	Text (Smooth	Coregat	W.Paper	Other	
Floor Material	Conc	Vinyl	Carp	Wood	Dirt	Ceramic	Other	
Ceiling Material	Conc		Plastr	Wood	Steel	Drywal	Other	3
Ceiling Shape		Pitched	ستكاء ميوسوسوس	Ribbed	Waffle	Joist	Other	
Celling Access Doors / Size (CAD)	No.		Size:	1			N/A)	
Wall Access Doors / Size (WAD)	No.		Size:				N/A)	
SUSPECTED ACM MATERIAL TYPE	Pipe	(SAM)		VFS	(VFT)	Other	N/A	2
Material Thickness (Inches) approx.	in.=		SAM		FT	- Ca.ivi	N/A	<u> </u>
	High	(Med)		(V. Low	Other	1	N/A	
Physical Damage **	SB	Cliena	MB	V. LOW	LB		N/A	
Number of Pipes (SB <2", LB >5"Xapprox)			+		LB		N/A)	
Pipe Diameter (Inches) (approx)	SB		MB.		+	<u> </u>		
Number of: Elbows, Tee's, Valves (approx)			MB	0 - 2	LB TRA		N/A)	2
Material Footage-Lineal Footage (approx)	SB		MB 6"	20		OP LIB	N/A	2_
Number of Ducts / Size (approx)	No.		Size	<u>i</u>			N/A)	
Material Footage-Square Footage (approx)	sq.ft.=	See	BSSL.	T	Not Qua	ntifled	N/A	
FRIABILITY #	V. High	+ -	Med	Low	None		N/A	1-4-
Exposure Potential	V. High		÷	Low	(None)		N/A	4,
Exposed, Potentially Friable, ACM *	V. High	High	Med	Low	None)		N/A	4
Friable Assessment	Renov	Detero	EarthQ	Age	Abuse	Other	N/A	
Water Damage *	High	Med	Low	V. Low	None	Other	N/A	
BARRIERS	Celling	Encls	Rail	Pipes	Furnatr	Other	N/A	
Accessability *	Encl	Plenum	Pipes	Tight	Med	Open	N/A	
Distance to Repairs (ft. above head level)	(211)	4ft	6 ft	101	15ft	ovr 15	N/A	
AIR MOVEMENT *	High	(Med	Low	V. Low	-> HV.	AC.	N/A	
Air Erosion Evident	Yes	(No)						
Distance from Intake Vent (feet)	ft.= 1			Ì			N/A	
Distance to Outflow Vent (feet)		lo	1				N/A	
Vents near Friable Material	(Yes)	No				 		
Outside Openings	Yes	No	Window	Door	Vent	1	Other	
SAMPLES TAKEN	Yes		Bulk			Amt-		
Sample Numbers	9756		9784		 	-	<u> </u>	
	000	+						
EQUIPMENT (What Type)			Transf	Pump	Comp	Other	N/A	
Electrical Equipment	Motor			Cleanre				
Chemicals	Acids	Fuels	DOIVING	Cleanre	Oll/ Gire	Juler	THE COL	1
Notes:	- ,	<u> </u>	<u> </u>					
1 - RECREATION BLDG -> AUDITOR	UM/HA	u, M	EETING	REOMS,	KITCHEN) TUEST	PLOOM	144-
2 - TEANSITE (NOTETH ATTIC STORAGE)	6' ~ W	माहाङ १	18000	to kitt	CHEN.			HUAC V
3 - MANY ROOMS HAUF 12X12								
4 - HIGH EXPOSURE ASSUMES S	AM co	NTAINS	ASB.	SOME	AREAS	NOT P	AINTEN	
Contacts : Paula								
* Factors used to determine EXPOSURE IN	DEV /	E	en Algori	then)	Denie	ct No.:	01960	CO, 056

BULK SAMPLE SUMMARY LOG

PAGE 1 OF 3 SCS ENGINEERS Long Beach, California

	SAMPLE NUMBER	BUILDING	AREA	ROOM	MATERIAL TYPE	MATERIAL CONDITION	COLOR	SAMPLE LOCATION
1	9756	Girls Club HOUSE BRODDERTION PARK	STAFF OFFICE	_	VFT	Fair	GREEN/TAN MOTHLED	UNDER CARPOR NEAT TO CARINET BLACK MASTIC
2	9157	M	STAPF TOILUTT	_	VFT	11	TAY	LINDER SIME IN CORNER. LINDER CARPET TAN MASTIL ~ 254"
3	9758	o o	SMALL RECEPTION ADEA, ENTRANCE TO OFFICE	office	VET	19	TAH	BUNCK MEETE ~ 25.472
4	9759	h	-	CRAFT	9×9°	G2000	GEERN/TAN MOTHED	CABINET
5	9760	u	-	CTORAGE		••	ERROWN SPECKERED	MIDDLE OF FLACE AT 25 DAMAGED LOCATION 28 PR 8X12 6X12X2 12X16
6	9761	v	. —	1)	PLASTER	GOOD	Thu cade &	DOWNGOD ARDA NOOT TO PIANO/GLECTORAL CONTROLS
7	9762	η	SOUTH STORAGE	1	PAPER	Poore	WHITE	COLLECTED FROM HYAC: VENT NO CONSEL IN USE 3541100 WATER HENDER ~442
8	9763	ч	v	7	DRYWALL	Emp	WHITE	From ARTA ABOUT" WATER HEATER
9	9764	"	ATTIC STORAGE HORSH	_	1.	``	CREEN FROM	NEAR WATER HOWTER
10	9765	ţı	,,		78949 43W	POOL	MHILE	BEHIND WATER HENTER. WALL HUAC VERT ~44,2
11	9766	//	_	DRESSING BOOM #2	9×9 VFT	6000	GROBBU W/ BUK+ White STREEKS	SOMPLED UNDER WATER HEATER THE MATTER GKIZX Z 8X12
12	9767	\1	-	ы	11	Grap	Georn/Tim Mottled	SAMPLED FROM DAMAGED ARUSE BLK WASTIC The see above
INS	PECTOR(s): M. Gener		DATE :	8 14 96		JOB No	: <u>0194080,00</u> @1990

BULK SAMPLE SUMMARY LOG

PAGE 2 OF 3

SCS ENGINEERS Long Beach, California

Γ	SAMPLE NUMBER	BUILDING	AREA	ROOM	MATERIAL TYPE	MATÉRIAL CONDITION	COLOR	SAMPLE LOCATION
1	976B	GIRLS CLUBROUSE RECROSTION PARK	_	KITCHEO	12XIZ VFT	G200	Gery	IN CORNER LINDER SINK 14X18 TOWNWETTC OVER BUX MASTIC
2	9769	h.	_	KUCHEN	PLASTIER Skim CONT	Good	OFF White Paint	Above sint wext to hard
3	9770	11		Room E	9x9 VFT	"	GREEN WY BLK+WAT STREAKS	CABINETS , 17x20'
4	9771	11	SOUTH HALLMAY	-	9×9 VFT/TE	n	Green + WHITE MARBLE	DOOR. 6x40
5	9772	11	",	ı	?	7.	Beich Bed	MATERIAL IS LINDER- SAMPLE NO. 9771
6	97784	t,	HORTH HALLMAY	_	9x9 VPT/TQ	Good	GREEN+ WHITE MARGUE	Access From Room D 6x50
7	97743	"	11	_	2		GREEN	MATERIAL IS LINDER.
8	9775	11	-	Room .	9 X 9 VFT	6,000	BROWN	Near Date in CARNER 16×40 -> Rooms C+D
9	9776	"	-	Custobial Room	VFT	FAIR	BLACK	SUMPLED NEAR DOOR
10	9777	И		Menis Bathroom	12XIZ NFT	G200	TAM Notted	SAMPUND NEAR DOOR
11	9778	11	_	ROSM A	9×9 VFT	G=0	Speckuso Speckuso	SAMPLIED NEAR EXCEPTION DOOR ROOMS AT B -> 16x30
12	9779	t.	Новти вовну	-	SAM	FAIR	MHIDE	Composite 4 ACENS

INSPECTOR(S) : M. Gayan DATE : 8 14 96 JOB No : 01 960 80.00 @1990

BULK SAMPLE SUMMARY LOG

PAGE 3 OF 3 SCS ENGINEERS Long Beach, California

Γ	SAMPLE NUMBER	BUILDING	AREA	ROOM	MATERIAL TYPE	MATERIAL CONDITION	COLOR	SAMPLE LOCATION
1	9780	Giero Cubhase Recepanion Park	Source Labor		SAM	FAIR	WHITE	Composite 4 Locations 8x16
2	978!		Main Hou	SÉ	11	п	*1	Composite 3 LOCATIONS
3	9782	Λ,	11	\$W	14	11	l r	t s
4	9783		"	NW	11	et	**	и
5	9784	V	17	хe	15	11	11	''
6								
7								
8								
9								
10								
11								
12								
INS	SPECTOR(s):M	GEYER_	DATE :	8 14 96		JOB No	: <u>0196080.00</u> @1990

PERSONNEL INFORMATION Name (Print) M. Ger Sampler (Signature) Project Geologist/Engineer Field Crew Supervisor Field Company SCS Field Company Phone Relinquished by (Signature) Turn Around Time Required: Laboratory should Sample Sample Number Type 1 9156 3 4	M. Goyar Engineers Receive	Job Numbe Job Name Job Addres P.O. Numbed by (Signature) d by (Signature)	SS GIELS C	Date Date Pure	Time 14:40 Time
Sampler (Signature) Project Geologist/Engineer Field Crew Supervisor Field Company SCS Field Company Phone Relinquished by (Signature) Turn Around Time Required: Laboratory should Sample Sample Number Type 1	Received Normal Complete "sample condition	Job Name_ Job Addres P.O. Numb by (Signature) d by (Signature) 48-hour n upon receipt" section	SOUTH GARS SS GLESS RECEONS DET 24-hour Lion, sign, and return Analysis	Date Date Pure	Time 14:40 Time liate Attention per Sample Condition
Relinquished by (Signature) Turn Around Time Required: Laboratory should Sample Sample Number Type 1	Received Normal complete "sample condition Sample	d by (Signature) 48-hour n upon receipt" secti	tion, sign, and return Analysis	Date Immed copy to ship	Time Time Sample Condition
Turn Around Time Required: Laboratory should Sample Sample Number Type 1	Normal complete "sample condition"	48-hour [tion, sign, and return Analysis	Immed copy to ship	liate Attention per Sample Condition
Laboratory should Sample Sample Number Type 1 2 9156	complete "sample condition	n upon receipt" secti	tion, sign, and return Analysis	copy to ship	per Sample Condition
Sample Sample Number Type 1 2 9156	Sample	Date	Analysis		Sample Condition
Number Type 1 2 9156	·				
4 THRU BULK 5 \(\sqrt{1}\) 6 9784 7 \(See About	8 । ।	Pum Pum		

										OMB Approv	al No. 29-	R0218
	FEDE	RAL	ASSISTANC		2 APPLI- CANT'S	a. NUMBER N/A	Α	ATE ICA-	s. NUMBE	830 3 1948		
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		•	ICATION		CATION	19 83	03 01	FIER	ASSIGN	ED 198	3 03	22
	(Mark ap- propriets bes)	_	FICATION OF INTE IRT OF FEDERAL A		Leave Blank							
	4. LEGAL A	PLICANT	/RECIPIENT	//	OLIF.				EMPLOYE	R IDENTIFICAT	ION NO.	
Ì	a. Applicant No.	- /	Russell W					N/A				
I	b. Organization	/	Talif. De			Recreat	tion	6.		t- 1	-1-17	12
l	e. Street/P.Q.	Box	: Post Offi			C		PRO- GRAM	a. NUMBER	R []	5 • 4	010
۱	d. City f. State		: Sacrament : Californi		e. Causty ; g. ZIP Code:	Sacramer 95811	100	(From		or Recreat	ion -	
	A. Contact Per	(N		a	g. ZIP Case:	93011	74	Federal Catalog)	Acquis	sition, De	evelop	ment
	& telephon		:J. Warren	Gardne	er (916) 4	45-4441				Lanning		
I			RIPTION OF APPLI	CANT'S PR	OJECT					T/RECIPIENT	A SAMEN	
١			le: South G				lopment	A-State B-Interstate C-Substate	Jan 8	ommunity Action A	Jastitution	
			ticipant:			te		District D-County	K-C	ndian Tribe ther (Specify):	00	
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	Descri		uth Gate, C of Project		50			G-Special Par District	P014	Enter appro	priate let	er A
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	Reh	nabili	tation of i	rrigati	ion system			A-Basic Great B-Supplement		Reurance (04	
								G-Loca	E1 Q1001 U		letter(a)	A
	10. AREA O	F PROJEC	T IMPACT (Nem	es of cities,	counties,	11. ESTIMA	TED NUM-	12 TYPE O			<u></u>	
	City	F 50	6-73080- th Gate, Lo	037		BENEFI	TING	B-Renewal C	-Revision -Continuation	E-Augmentati		
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ł	a. FEDERAL		400 .00	APPLICAN		b. PROJECT	9	B-Decrease De C-increase De D-Decrease De	riars ration			
	b. APPLICANT	N/A	,400 .00	16. PROJE		17. PROJEC		D-Decrease Di E-Cancellation	eretica i	-		
	d. LOCAL	N/A	.00.	DATE	3 10 02	DURATI	ON Months			Enter app	er(a)	
	. OTHER	N/A	.00	18. ESTIMA	ATED DATE TO	Year	month day	19. EXISTIN	G FEDERA	L IDENTIFICAT	ON NUM	BER
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	450 Or	SLDER	U GATE.	AVE,	SAN FI	CANCISC	O, CA.	94102		06 -00		
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<	AWARD!		s. FEDERAL	\$ 50,		33. ACTION		19838	3/	DATE 198	38	31
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STATE OF CALIFORNIA Department of Parks and Recreation PROJECT AGREEMENT Land and Water Conservation Fund Program

Project Title	South Gate Recreation E	Park Development								
Participant _	City of South Gate									
Project Period	8/31/83 to 6/30/88	Project Number	06-00996							
Project Scope:	Develop support facilit	Develop support facilities at a 97+ acre park.								
	ity agrees to submit plans opproval to this Department		review							
Stage Covered	by this Agreement	Complete								
Project Cost:										
Total Estin	nated Direct Project Cost proposal)	(as shown in	\$ 100,000 (1)							
Amount of I	Line (1) subject to surchar	rge	\$ 100,000 (2)							
of Line (State Administrative Asses (2) (subject to adjustment (1 2, Page 4)		\$(3)							
	ect Costs Eligible for Federlus Line 3)	eral Funding	\$ 100,800 (4)							
up to 50%	rticipationup to 50% of 1% of actual costs, whichevenot to exceed:		\$ 50,400 (5)							
Continued on a	ure 6 pages numbered 2 thre	ough 7 inclusively.								
		City of Sc								
		PARTI	CIPANT							
		By Street C	Surge							
		Title Chief Adm	inistrative Office							
STATE DEPARTME	INT OF PARKS AND	Date10-14-83								
By W	aren gardner	Ву								
Date	1-27-83	Title								
		Date								

PROJECT AGREEMENT

I. Definitions

- A. The term "NPS" as used herein means the National Park Service, United States Department of the Interior.
- B. The term "Director" as used herein means the Director of the National Park Service, or any representative lawfully delegated the authority to act for such Director.
- C. The term "Liaison Officer" as used herein means the California Director of Parks and Recreation, or other State officer as designated by the Governor from time to time and authorized by the State Legislature.
- D. The term "Manual" as used herein means the National Park Service Manual, formerly the Bureau of Outdoor Recreation Manual (Outdoor Recreation Grants-in-Aid Manual).
- E. The term "Project" as used herein means the project or project segment which is the subject of this agreement as defined in the Project Proposal.
- F. The term "Project Proposal" as used herein means the form and all supplemental attachments used to describe and estimate the cost of planning, acquisition, or development project filed with the Liaison Officer in support of an application for federal financial assistance.
- G. The term "State" as used herein means the State of California, and/or its official representative, the Department of Parks and Recreation.
- H. The term "Participant" as used herein means the recipient of the federal funds to be disbursed in accordance with the terms of this agreement.
- The term "State Funds" as used herein means those moneys made available by the State as matching money for projects under the Land and Water Conservation Fund Act of 1965, 78 Stat, 897 (1964).
- J. The term "Leased Land" or "Lease" as used herein means land leased from the Federal Government.

II. Continuing Assurances

The parties to the project agreement specifically recognize that the Land and Water Conservation Fund assistance project creates an obligation to maintain the property described in the project agreement consistent with the Land and Water Conservation Fund Act and the following requirements.

Further, it is acknowledged intent of the parties hereto that recipients of assistance will use moneys granted hereunder for the purposes of this program, and that assistance granted from the Fund will result in a net increase, commensurate at least with the State cost-share, in a participant's outdoor recreation. It is intended by both parties hereto that assistance from the Fund will be added to, rather than replace or be substituted for, State and local outdoor recreation funds.

- A. The participant agrees, as recipient of this assistance, that it will meet the following specific requirements and the terms of the project agreement.
- B. The participant agrees that the property described in the project agreement and the dated project boundary map made part of that agreement is being acquired or developed with Land and Water Conservation Fund assistance or is integral so such acquisition or development, and that, without the approval of the Liaison Officer, the Director, and/or the Secretary of the Interior, it shall not be converted to other than public outdoor recreation use but shall be maintained in public outdoor recreation in perpetuity or for the term of the lease in the case of leased property. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location. This replacement land becomes subject to Section 6(f) (3) protection. The approval of conversion shall be at the sole discretion of the Secretary, or his designee. Prior to the completion of this project, the participant, the Liaison Officer, and the Director may mutually alter the area described in the project agreement and the dated project boundary map to provide the most satisfactory public outdoor recreation unit, except that acquired parcels are afforded Section 6(f) (3) protection as Fund reimbursement is provided.

In the event the National Park Service provides Land and Water Conservation Fund assistance for the acquisition and/or development of property subject to reversionary interests with full knowledge of those reversionary interests, conversion of said property to other than public outdoor recreation uses as a result of such reversionary interest being exercised is approved. In receipt of this approval, the participant agrees to notify the State of the conversion as soon as possible and to seek approval of replacement property in accord with the conditions set forth in these provisions. The participant further agrees to effectuate such replacement within a reasonable period of time, acceptable to the State, after the conversion of property takes place. The provisions of this paragraph are also applicable to: leased properties acquired and/or developed with Fund assistance where such lease is terminated prior to its full term due to the existence of provisions in such lease known and agreed to by the State; and properties subject to other outstanding rights and interests that may result in a conversion when known and agreed to by the State.

7.H. LAND USE AGREEMENT

- C. The participant agrees that the benefit to be derived by the State from the full compliance by the participant with the terms of this agreement is the preservation, protection, and the net increase in the quality of public outdoor recreation facilities and resources with are available to the people of the State and of the United States, and such benefit exceeds to an immeasurable and unascertainable extent the amount of money furnished by the State by way of assistance under the terms of this agreement. The participant agrees that payment by the participant to the State of an amount equal to the amount of assistance extended under this agreement by the State would be inadequate compensation to the State for any breach by the participant of this agreement. The participant further agrees, that the appropriate remedy in the event of a breach by the participant of this agreement shall be the specific performance of this agreement.
- D. The participant agrees to comply with the policies and procedures set forth in the National Park Service Grants-in-Aid manual. Provisions of said manual are incorporated into and made a part of the project agreement.
- E. The participant agrees that the property and facilities described in the project agreement shall be operated and maintained as prescribed by manual requirements.
- F. The participant agrees that a permanent record shall be kept in the participant's public property records and available for public inspection to the effect that the property described in the scope of the project agreement, and the dated project boundary map made part of that agreement, has been acquired or developed with Land and Water Conservation Fund assistance and that it cannot be converted to other than public outdoor recreation use without the written approval of the Liaison Officer, the Director, and/or the Secretary of the Interior.

G. Nondiscrimination

- 1. The participant shall comply with Title VI of the Civil Rights Act of 1964 (P.L.88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, religion, color, or national origin, excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of any property or facility acquired or developed pursuant to the project agreement. The participant shall immediately take any measures necessary to effectuate this provision. This assurance shall be binding on the participant or any political subdivision or other appropriate public agency to which Fund assistance or property acquired or developed with Fund assistance has been transferred for public recreation purposes.
- The participant shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) prohibiting employment
 discrimination where (1) the primary purpose of a grant is to provide employment or (2) discriminatory employment
 practices will result in unequal treatment of persons who are or should be benefitting from the grant-aided activity.
- The participant shall comply with the regulations and guidelines promulgated pursuant to the Civil Rights Act of 1964 by the Secretary of the Interior and the National Park Service.
- The provisions of the first three paragraphs apply to any part of the recreation system within which the assisted facility or property exists.
- 5. The participant shall not discriminate against any person on the basis of residence, except to the extent that reasonable differences in admission or other fees may be maintained on the basis of residence as set forth in the manual.

III. Project Assurances

A. Applicable Federal Circulars

The State shall comply with applicable regulations, policies, guidelines and requirements including Office of Management and Budget Circulars No. A-102 (Uniform administrative requirements for grants-in-aid to State and local governments), A-A-87 (Cost principles for State and local governments), and A-128 (Audits of State and local government) as they relate to the application, acceptance and use of Federal funds for this federally assisted project.

B. Project Proposal

- 1. The project proposal for State assistance bearing the same project number as the agreement and associated documents is by this reference made a part of this agreement.
- 2. The participant possesses legal authority to apply for the grant, and to finance and construct the proposed facilities. A resolution, motion or similar action has been duly adopted or passed authorizing the filing of the project proposal, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the participant to act in connection with the project proposal and to provide such additional information as may be required.
- The participant has the ability and intention to finance the non-state share of the costs for the project. Sufficient funds will be available to assure effective operation and maintenance of the facilities acquired or developed by the project.

C. Project Execution

. It is understood by the parties hereto that this agreement shall not obligate State of California funds for the project costs described herein. The participant hereby promises, in consideration of the promises made by the Liaison Officer herein, to execute the project stage described herein, in accordance with the terms of this agreement. Any disbursement hereunder shall not be made unless and until funds therefor are received by the Liaison Officer from the National Park Service. This item shall not apply when the participant is an agency of the State of California.

- 2. The Liaison Officer hereby promises, in consideration of the promises made by the participant herein, to accept appropriated federal funds for the purposes of the project and disburse the same to reimburse the participant up to 50 percent of the eligible project cost not to exceed 50 percent of the direct project cost shown in this agreement; except for a surcharge for administrative costs to be applied to twice the federal share of direct eligible project costs. The surcharge is to be deducted from the reimbursements received from the Federal Government applicable to this project and will be computed at the federally approved surcharge rate in effect at the time the billing is submitted to the Federal Government.
- 3. The project period shall begin with the date of approval of the project agreement or the effective date of a waiver of retroactivity and shall terminate at the end of the stated or amended project period unless the project is completed or terminated sooner in which event the project period shall end on the date of completion or termination. For project elements added to a consolidated project, the project period will begin on the date the project element is approved.
- 4. The participant will cause work on the project to be commenced within a reasonable time after receipt of notification that funds have been approved and assure that the project will be prosecuted to completion with reasonable diligence.
- The State will require the facility to be designed to comply with the Architectural Barriers Act of 1968 (Public Law 90-480), and DOI Section 504 Regulations (43 CFR Part 17). The State will be responsible for conducting inspections by the contractor.
- The participant shall secure completion of the work in accordance with approved construction plans and specifications, and shall secure compliance with all applicable federal, state, local laws and regulations.
- 7. In the event the project covered by the project agreement, including future stages of the project, cannot be completed in accordance with the plans and specifications for the project; the participant shall bring the project to a point of recreational usefulness agreed upon by the participant and, the Director or his designee, and the Liaison Officer.
- 8. The participant will provide for and maintain competent and adequate architectural engineering supervision and inspection at the construction site to insure that the completed work conforms with the approved plans and specifications; that it will furnish progress reports and such other information as the NPS may require.
- 9. The participant will comply with the terms of Title II and Title III, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646), 94 Stat. 1894 (1970), and the applicable regulations and procedures implementing such Act for all real property acquisitions and where applicable shall assure that the Act has been complied with for property to be developed with assistance under the project agreement.
- 10. The participant will comply with the provisions of: Executive Order 11988, relating to evaluation of flood hazards: Executive Order 11288, relating to the prevention, control, and abatement or water pollution, and Executive Order 11990, relating to the protection of wetlands.
- 11. The participant will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards. The phrase "federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect federal assistance.
- 12. The participant will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities, pursuant to 40 CFR, Part 15.20 and that it will notify the State and NPS of the receipt of any Communication from the Director of the EPA Office of Federal Activities indicating that a facility to be utilized in the project is under consideration for listing by the EPA. The participant agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970. The participant further agrees to insert this clause into any contract or subcontract in excess of \$100,000.
- 13. The participant will assist the State and NPS in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 U.S.C. 470), Executive Order 11593, and the Archeological and Historic Preservation Act of 1966 (16 U.S.C. 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to effects (see CFR Part 800.8) by the activity, and notifying the federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the federal grantor agency to avoid or mitigate adverse effects upon such properties.
- D. Construction Contracted for by the Participant Shall Meet the Following Requirements:
 - Contracts for construction in excess of \$10,000 shall be awarded through a process of competitive bidding involving formal advertising, with adequate purchase description, sealed bids, and public openings. Copies of all advertisements, bids, and a copy of the contract shall be retained for inspection by the Director and the State.
 - The participant shall inform all bidders on contracts for construction that federal funds are being used to assist in construction.

7.H. LAND USE AGREEMENT

- Written change orders shall be issued for all necessary changes in the facility being constructed under contracts of \$10,000 or more. Such change orders shall be made a part of the project file and should be kept available for audit.
- Contracts for construction shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented by Department of Labor regulations (29 CFR, Part 3).
- 5. The participant will comply with other procurement standards of OMB Circular A-102, Attachment O, except for provisions related to compliance with Davis Bacon Act requirements (unless required by a program providing supplemental funding). Should supplemental funding be provided which requires compliance with Davis Bacon Act requirements, all construction contracts awarded by the grantee and subgrantee in excess of \$2,000 shall include a provision for compliance with such Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR, Part 5).
- 6. The participant shall incorporate, or cause to be incorporated, into all construction contracts exceeding \$10,000 (ten-thousand), the following provisions:

"During the performance of this contract the contractor agrees as follows:

- "(1) The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color or national origin. Such action shall include, but not be limited to, the following: Employment; upgrading; demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- "(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, sex, or national origin.
- "(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 as amended (3 CFR 169 (1974), and shall post copies of notices in conspicuous places available to employees and applicants for employment.
- "(4) The contractor will comply with all provisions of Executive Order No. 11246, as amended, and the rules, regulations, and relevant orders of the Secretary of Labor.
- "(5) The contractor will furnish all information and reports required by Executive Order No, 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency, the State, and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- "(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246, as amended, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246, as amended, or by rules, regulations, or orders of the Secretary of Labor, or as otherwise provided by law.
- "(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246, as amended, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.
- 7. The participant shall (1) comply with the above provisions in construction work carried out by itself, (2) assist and cooperate actively with the Secretary of the Interior and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the above contract provisions and with the rules, regulations, and relevant orders of the Secretary of Labor, (3) obtain and furnish to the Secretary of the Interior and to the Secretary of Labor such information as they may require for the supervision of such compliance, (4) enforce the obligation of contractors and subcontractors under such provisions, rules, regulations, and orders, (5) carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the State, or the Secretary of Labor, or the Secretary of the Interior pursuant to Part II, Subpart D, of Executive Order No. 11246, as amended, and (6) refrain from entering into any contract with a contractor debarred from government contracts under Part II, Subpart D, of Executive Order No. 11246, as amended. In addition, the participant agrees that if it fails or refuses to comply with these undertakings, the NPS may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant; refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

E. Conflict of Interests

- No official or employee of the participant, State, or Federal Government who is authorized in his official capacity
 to negotiate, make, accept, or approve, or take part in such decisions regarding a contract or subcontract in
 connection with this project shall have any financial or other personal interest in any such contract or subcontract.
- 2. No person performing services for the participant in connection with this project shall have a financial or other personal interest other than his employment or retention by the participant, in any contract or subcontract in connection with this project. No officer or employee of such person retained by the participant shall have any financial or other personal interest in any real property acquired for this project unless such interest is openly disclosed upon the public records of the participant, and such officer, employee or person has not participated in the acquisition for or on behalf of the participant.
- No member of or delegate to Congress shall be admitted to any share or part of this agreement, or to any benefit to
 arise hereupon, unless such benefit shall be in the form of an agreement made with a corporation for its general
 henefit
- 4. The participant, State, and the Director shall be responsible for enforcing the above conflict of interest provisions.

F. Hatch Act

The participant will comply with the provisions of the Hatch Act which provides that no officer or employee of the participant whose principal employment is in connection with any activity which is financed in whole or in part pursuant to this agreement shall take part in any of the political activity prescribed in the Hatch Political Activity Act, 5 U.S.C. Sec. 118k (1964), with the exceptions therein enumerated.

G. Project Costs

- Project costs eligible for assistance shall be determined upon the basis of the criteria set forth in the manual and OMB Circular A-87.
- The agreement may include the use of the indirect cost rate currently approved, in accordance with A-87, for the participant that is a party to this agreement.

H. Project Administration

- The participant shall promptly submit such reports and documentation as the Director or Liaison Officer may request.
- Any moneys advanced to the participant are "public moneys" and shall be deposited in a bank with FDIC insurance
 coverage and the balances exceeding the FDIC coverage shall be collaterally secured as provided for in 12 U.S.C. 265.
- The participant shall use any funds received by way of advance payment from the State under the terms of this
 agreement solely for the project or project stage described in the agreement.
- Properties and facilities acquired or developed with Fund assistance shall be available for inspection by the State or the NPS at such intervals as the Liaison Officer or the Director shall require.

Retention and Custodial Requirements for Records

- Financial records, supporting documents, statistical records, and all other records pertinent to this grant shall be retained for a period of three years; except the records shall be retained beyond the three-year period if audit findings have not been resolved.
- 2. The retention periods starts from the date of the final expenditure report for the project or the consolidated project
- 3. State and local governments are authorized to substitute microfilm copies in lieu of original records.
- 4. The Liaison Officer, Secretary of the Interior, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the participant and their subgrantees which are pertinent to a specific project for the purpose of making audit, examination, excerpts and transcripts.

J. Project Termination

- The Liaison Officer of the Director may temporarily suspend State assistance under the project pending corrective action by the participant or pending a decision to terminate the grant by the NPS or the State.
- The participant may unilaterally terminate the project or consolidated project element at any time prior to the first
 payment on the project or consolidated project element. After the initial payment, the project may be terminated,
 modified, or amended by the participant only by mutual agreement.

7.H. LAND USE AGREEMENT

- 3. The Liaison Officer or the Director may terminate the project in whole, or in part, at any time before the date of completion, whenever it is determined that the grantee has failed to comply with the conditions of the grant. The Liaison Officer or Director will promptly notify the participate in writing of the determination and the reasons for the termination, together with the effective date. Payments made to the participant or recoveries by the State under projects terminated for cause shall be in accord with the legal rights and liabilities of the parties.
- 4. The Director, State, or participant, may terminate grants in whole, or in part at any time before the date of completion, when both parties agree that the continuation of the project would not produce beneficial results commensurate with the further expenditure of funds. The two parties shall agree upon the termination conditions, including the effective date and, in the case of partial termination conditions, including the effective date and, in the case of partial termination, the portion after the effective date, and shall cancel as many outstanding obligations as possible. The State may allow full credit to the participant for the state share of the noncancellable obligations, properly incurred by the grantee prior to termination.
- Terminations either for cause or for convenience requires that the project in question be brought to a state of recreational usefulness agreed upon by the participant, the Liaison Officer, or the Director, or that all funds provided by the National Park Service be returned.

K. Fund Acknowledgment

The participant will permanently display in a conspicuous place a bronze plaque which acknowledges Land and Water Conservation Fund assistance. The plaque will be provided by the State Department of Parks and Recreation and its installation by the participant will be required upon initial development of the property.

L. Hold Harmless

The participant shall indemnify the State of California and its officers, agents and employees against and hold the same free and harmless from any and all claims, demands, damages, losses, costs, and/or expenses of liability due to, or arising out of, either in whole or in part, whether directly or indirectly, the organization, development, construction, operation, or maintenance of the project.

M. The participant will comply with the provisions of OMB Circular A-128 establishing audit requirements for state and local governments that receive federal assistance.

H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET . ORANGE, CA 92866

PHONE/FAX (714) 997-0679

GEOTECHNICAL

INVESTIGATIONS

PHASE 1

PRELIMINARY SOILS AND

FOUNDATION INVESTIGATION

Comprehensive report covers phases 1, 2 and 3 for Promenade Walkway, Southgate Park Infrastructure Improvements, City of Southgate, California.

Client:

Southgate Park

City of Southgate, California

c/o DMS Consultants

Site Engineer:

DMS Consultants

12371 Lewis Street, #203 Garden Grove, CA 92640

Surender M. Dewan, RCE 34559

Phone (714) 740-8840 FAX (714) 740-8842

Job No. F10-20-1

March 18, 2010

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H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET . ORANGE, CA 92866

Job No. F10-20-1 March 18, 2010 Page 1

PHONE/FAX (714) 997-0679

GEOTECHNICAL INVESTIGATIONS, PHASE 1 PRELIMINARY SOILS AND FOUNDATION INVESTIGATION

Comprehensive report covers phases 1, 2 and 3 for Promenade Walkway, Southgate Park Infrastructure Improvements, City of Southgate, California.

Client:

City of Southgate, c/o

Mr. Surender M. Dewan, DMS Consultants

INTRODUCTION

In accordance with authorization by Mr. Surender Dewan and with information provided by the City of Southgate Public Works Dept. and Parks and Recreation Dept., we have proceeded with a geotechnical soils and investigation to determine the overall soil conditions for phases 1, 2 and 3 of the subject park, and with three individual locations selected by Mr. Surender Dewan, whom we met at the site and proceeded under his direction approximately two weeks ago.

We have been involved in soils engineering activities since 1954, and we have conducted soils engineering studies in the City of Southgate and the surrounding cities with respect to housing developments, flood control construction, city and commercial buildings as well as City public construction.

The site topography is flat and level with a gentle slope towards the south and southwest. All of the soils encountered were alluvial in nature, being described as recent alluvium and being deposited over the last 1,000 years.

GENERAL SITE CONDITIONS

The overall park site is roughly rectangular in shape, being slightly longer in a north-south direction than in an east-west direction. There is a triangular portion missing at the northeast corner where Southern Ave. has a bend going from west-east to southeast.

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The park is well maintained, and the main groundcover is grass with grass sod about 4 inches in depth. There are numerous buildings and various sports activity projects with numerous medium to large trees, a soccer field and a quadruple baseball area. All of the soil encountered was sandy in composition, which is typical of natural alluvial deposits in this area.

The soils were classified as slightly silty, very fine to fine sands with occasional layers of fine, micaceous silt and clean sand with a few layers of slightly clayey sand. However, there was no pronounced change in any of the soil conditions over the park area based on the three borings that were conducted.

The moisture content was slightly over optimum near the surface from recent heavy rains; however, all of these sandy soils tend to drain vertically with time. Even though there were a few areas where surface water was observed, this would tend to settle into the ground.

The density of these sands was below 90%, averaging about 83% to 84%. This is typical of alluvial deposits where there has been no appreciable overburden.

After these soils have been properly excavated, mixed and compacted with heavy grading equipment, they will consolidate and provide a firm, stable base for streets, walkways, paver stones and building foundations. If any building foundations were planned, then deeper excavation and recompaction would be required over what will be specified for the new proposed walkway and interior driveway areas.

GENERAL SITE INVESTIGATION AND EXPLORATORY EXCAVATIONS

The overall property was examined and numerous surficial excavations were made over the complete site to generally assess the existing soils.

Three (3) specific areas were outlined by the engineer, Mr. Surender Dewan. We have shown these locations on the attached plan. In all instances soils were sandy in nature, being essentially slightly silty to clean, very fine to fine sands and occasional small pebbles were observed with depth. Undisturbed portions of the park where grass was present indicated loose to slightly compact soils, and additional compaction will be required to provide the necessary support and stability for the proposed driveways and/or interlocking paver walk areas.

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LIQUEFACTION

The true groundwater surface, based on previous records for this area, would be 25 to 40 feet deep and would present no problem for any of the grading or excavations that will be involved, or for any underground utility lines. It will also provide no future problem for any of the proposed construction procedures.

GENERAL SEISMICITY

Table 1.

Estimated Probability of Ground Acceleration

	Probability of One
Acceleration of Gravity	Occurrence per 100 Years
0.05	97%
0.10	90%
0.15	66%
0.20	45%
0.30	29%
0.35	16%

Based on earthquake requirements as outlined in the recent Uniform Building Code and the California Building Code, we are giving information with respect to seismic coefficients and site categorization procedure:

Table 16R, Seismic Coefficient: Section 1636 "Site Categorization Procedure."

Soil Profile: S_D The soils on the subject site would be classified in this range as medium dense soil, having a velocity between 500 feet per second and 1100 feet per second and N > 30.

Table 16S - Near-Source Factor (N_a) with a distance greater than 10 kilometers (6 miles), N_a = 1.0, distance 11 kilometers, maximum magnitude 6.9.

Some shaking that could be considered of a significant nature has taken place from earthquakes as would apply to most of east Los Angeles County and northwest Orange County.

Southern California is considered susceptible to a large earthquake, and design must be in accordance with the Uniform Building Code and the California Building Code. Statistical analysis of earthquake records for California would indicate that a ground acceleration of 0.25 to 0.35 would have a 20% probability, based on a 50-year life structure. This is predicated on the repeatable high ground acceleration being approximately 65% of maximum ground acceleration.

Based on the current Uniform Building Code, additional refinements have been made. The subject site would be considered to be in site category S_D , where the typical soils would be firm, alluvial type material such as a stiff clay or dense silty fine sand. Table $16\text{-S}-\underline{\text{Near-Source Factor}}$ (N_a) with a distance greater than 10 kilometers, N_a =1.0; Table $16\text{-T}N_v$) = 1.0. The maximum fills that will be placed on the site for the various structures will be on the order of approximately 1.0 foot to 1.5 feet in depth, and mostly would be excavated and recompacted soils.

LABORATORY TESTING AND SOIL CRITERIA

The typical native soils are uniform over the complete site, being described generally as very fine sands and fine sandy silts. Two representative soil types were procured as bulk samples from the property and were additionally tested. Maximum density determinations were made by the A.S.T.M. D1557-70T standard, modified to use 25 blows on each of five layers with a 10-pound hammer falling 18 inches in a mold of 1/30 cubic foot volume.

Soil Type A: Brown silty very fine to fine sand; Maximum Density 109.4 p.c.f. at

12.9% Optimum Moisture; and

Soil Type B: Light gray-brown, clean very fine to fine sand; Maximum Density

101.5 p.c.f. at 13.5% Optimum Moisture.

Expansion Tests

The results of expansion tests performed on remolded samples of the typical foundation soils, compacted to over 90% and set up to be equal to 50% saturation, and then measured to full 100% saturation after a period of several days and until no further expansion occurred in a 24-hour period in accordance with Table 29-C of the Uniform Building Code, are as follows:

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Expansion Test Results

Soil Type	Confining Load	Expansion Index	% Expansion
A	144 p.s.f.	4	0.4
В	144 p.s.f.	1	0.1

In accordance with the Uniform Building Code and the California Building Code, the expansion potential of the native soils for the park, which are all sandy in nature, would be considered very low with respect to potential expansion and could be considered non-expansive..

CALCULATED ALLOWABLE SOIL BEARING VALUES

The results of saturated direct shear tests for the typical foundation soils that will provide support for the new proposed foundations indicate an angle of internal friction of 26° with 150 p.s.f. available cohesion. Utilizing the Terzaghi Bearing Equation with a factor of safety of 3.0, the following calculations have been determined:

For Either Continuous or Square Footings

- q = CNc + wDfNq + wBNw
 - = 100(22) + 1200(1.0)16 + 100(0.5) + 14
 - = 2200 + 1600 + 700
 - = 4500 p.s.f. (ultimate)
- q_a = 1500 (allowable for square or continuous footings 12 inches wide and 12 inches deep);
- q_a = 1625 p.s.f. (allowable for square or continuous footings 18 inches wide and 12 inches deep);
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- q_a = 1875 p.s.f. (allowable for square or continuous footings 18 inches wide and 18 inches deep);
- q_a = 2000 p.s.f. (allowable for square or continuous footings 24 inches wide and 18 inches deep); and
- q_a = 2125 p.s.f. (allowable for square or continuous footings 30 inches wide and 18 inches deep).

H & T SOILS TESTING

NOTE: All of these bearing values utilize a factor of safety of 3.0 and these values may be increased by a factor of one-third when considering temporary wind and/or seismic loading which are not considered to act simultaneously.

ALLOWABLE ACTIVE PRESSURES FOR RETAINING WALL DESIGN AND FOR FOUNDATION STABILITY

For design purposes for free-standing retaining walls or perimeter walls, if they retain some backfilled soils, then we recommend that an active pressure of 45 p.c.f. equivalent fluid pressure be utilized where there is a level backfill against the retaining wall.

If a rising slope occurs behind the wall not steeper than a 2:1 angle, then the active pressure should be increased to 55 p.c.f. equivalent fluid pressure.

If the retaining wall is fixed at the top, which would be the case of a building foundation wall that is holding back soil, then the active pressure should be increased to 60 p.c.f. equivalent fluid pressure.

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LATERAL BEARING RESISTANCE

For determining lateral resistance, foundation design passive pressures of 300 p.s.f. per foot of depth may be used, up to a maximum of 2400 p.s.f. A coefficient of friction of 0.35 can be used for lateral resistance for all foundations in contact with certified compacted soil areas. If these values are used in conjunction, then the coefficient of friction may be left at 0.35 but the passive pressure should be reduced to 250 p.s.f. per foot of depth.

The lateral resistance from coefficient of friction is determined by taking the actual bearing in pounds per square foot on the soil times the foundation area times the coefficient of friction.

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Job No. F10-20-1 March 18, 2010 Page 7

SOIL TESTING PROCEDURES & CALCULATIONS FOR CONCRETE FLATWORK AND PAVEMENT DESIGN

We have analyzed the general subgrade soils, which are slightly silty very fine to fine sands. Utilizing a conservative R-value of 30 and a traffic index of 5.0, we have determined that an approximate gravel equivalent of 12 inches would suffice. With a gravel equivalent factor of 2.5 we would need approximately 2 inches of concrete placed over 6 inches of properly compacted Class II road base.

The actual paver section will be about 2-3/4 inches thick and will be more than adequate when placed on 1 inches of moist leveling base and 8 inches of Class II base, which would be compacted to a minimum of 95%.

The underlying subgrade soils will be excavated and recompacted so that at least the top 12 inches directly below the aggregate base has been brought up to a minimum of 90% relative compaction.

The 16-inch wide by 16-inch deep concrete curb on both sides of the paver walk will also have the underlying subgrade soils for a depth of 12 inches compacted to a minimum of 90%. This complete operation can be done at one time.

GENERAL GRADING PROCEDURES

Grading operations will involve excavating the complete walkway and concrete curb area, which will be from 16 feet to wider, excavated so that the underlying soils for a depth of 12 inches below the sections can be processed, watered where needed, and thoroughly compacted to a minimum of 90% for the upper 12 inches of the native soils.

The 16-inch wide concrete curbs can be poured on both sides of the walkway, and then the crushed rock can be placed in lifts and compacted to a minimum of 95%. Finally, the 1.0 inch of sand, which should be watered and kept firm and the final interlocking concrete pavers placed.

SUMMATION AND CONCLUSIONS

All of the work has been carried out in accordance with acceptable geotechnical standards and testing procedures. The calculations are based on laboratory testing of the soils at the site. The results of the undisturbed sampling are presented in the boring logs. The test results, as can be seen for compaction, were 82%, 87%, 85% and 81% with moistures varying from a low of 8.9% to a maximum of 18.8%.

H & T SOILS TESTING

The final excavation, grading and compaction procedures will require that a soils engineer inspects, tests and approves the excavation and compaction procedures for both the subgrade and the aggregate base. However, the City of Southgate Public Works might feel comfortable in utilizing their own personnel for this work.

We will be available to provide information and interpretation of any portion of this work. We will also be available to conduct additional soils engineering and geotechnical procedures if and when required by the City of Southgate.

We thank you for this opportunity to be of service, and we will be available if required at such time that the excavation, grading and compaction procedures are undertaken.

Respectfully submitted, H & T SOILS TESTING

Ross Hammond, Soils Consultant Robert J. Nugent

No. 8200

R.C.E. 9200

4 -Client c/o DMS Consultants (including & T SOILS TESTING wet-ink signature for Bldg. Dept.)

Remme

H&T SOILS ENGINEERING

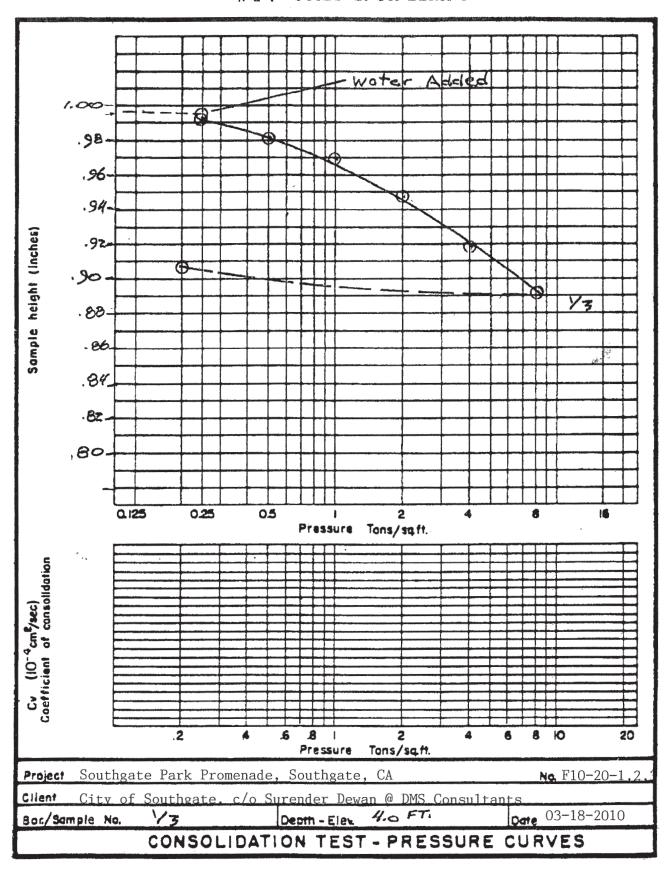


FIG. I

TEST BORING LOG

Job No: F10-20-1,2,5

H & T SOILS ENGINEERING

Type

BORING NO: 1/8 2 Soil description

2.	7.5	13.0	87		3		very fine sand.
5.0	0'			765			TOTAL DEPTH 6.0 FT.
Depth in feet							BORING 2
2.5	86.7	11.9	85		1	- 100	Grass sod Wet dark brown very fie sandy silt, loose to slightly compact. Moist, loose tan slightly silty, slightly micaceous very fine to fine sand. Damp, firm yellow-brown clayey very fine sand layers.
5.0	Ó	11.2			2		Tan slightly compact slightly silty very fine to fine sand. TOTAL DEPTH 6.0 FT.
7.	Dry density (1bs./cu.ft)	Noisture (4)	Relative Compaction %	Group Symbol	Sample No.		

Page 11

TEST BORING LOG

Job No: F10-20-1, 2

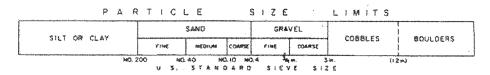
Type

H&T SOILS ENGINEERING BORING NO: 3
Soil description

ype								Soil description
0.0								BORING 3
2.5			ļ		\downarrow	#	U A1	Grass & sod 4"
				ĺ		E		Damp slightly compact dk brown silty very fine sand.
	88.7	18.9	81		1	-		Damp slightly compact cxlean very fine sand.
5.0				_	\downarrow	1		Alternating layers of oray-brown dampclean very fine to fine sands & fine to med. sand (slightly micaceous), loose
						t		to slightly compact.
		14.8			2		-	ALL NATURAL DEPOSITS
7.5					L	_		TOTAL DEPTH 7.5 FT.
						Ь		
Depth in feet						H		
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ept					1	Н		
9						H		
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	7		5-2	—		Ħ		*
	Dry density (1bs./cu.	Hoisture (4)	Relative Compaction %	Group Symbol	Sample No.	H		
	de:	183	ativ	S dn	nple.			
	Dry	-	Com	Gro	San			

M	JOR DIVISIO	NS	GROUP SYMBOLS		TYPICAL NAMES
namental a constitución de la const		CLEAN	7.30 0.00 0.00	GW	Well graded gravels, gravel-send mixtures, little or no lines.
	GRAVELS	GRAVELS (Little or no fines)		GР	Paorly graded gravels or gravel-sand mistures little or no lines.
	codrse fraction is LARGER than the No 4 siere sizel	GRAVELS WITH FINES		GM	Silty gravels, gravel-send-silt mineuros,
COARSE GRAINED	and the second of the second o	(Appreciable ami, of fines)		GC	Clayey grovels, gravel-send-clay mixtures.
SOILS (More than 30% of material is LARGER than No 200 sieve		CLEAN SANDS		SW	Well groded sonds, gravelly sends, little or no fines.
****	SANDS	(Little or no fines)		SP	Poorly graded sends or gravelly sands, little or no lines.
	coorse fraction is SMALLER than the No 4 sleve size)	SANDS WITH FINES		SM	Sitty sands, sand-sit mixtures.
	-	(Appreciable amt. of fines)		\$C	Clayey sands, sand-clay instrures,
And the second s				ML.	thorponic silts and very fine sands, rock flour silty or cloyey fine sands or cloyey silts with slight plasticity.
		ND CLAYS LESS (Non 50)		CL	inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lead clays.
FINE GRAINED SOILS				OL	Organic sits and organic sity clays of law plasticity.
SOTES (More them 50 % of morerial is SMALLER from No. 200 steve size)	***************************************			МН	Inorganic silts, micareaus or distembaceous fine sandy or silty soils, stastic silts.
	1	ND CLAYS EATER inon 50)		сн	inorganic clays of high plasticity, for clays.
				он	Organic clays of medium to high stasticity, organic silts
HIGH	LY ORGANIC S	BOILS	777	PI	Peal and other highly organic soils

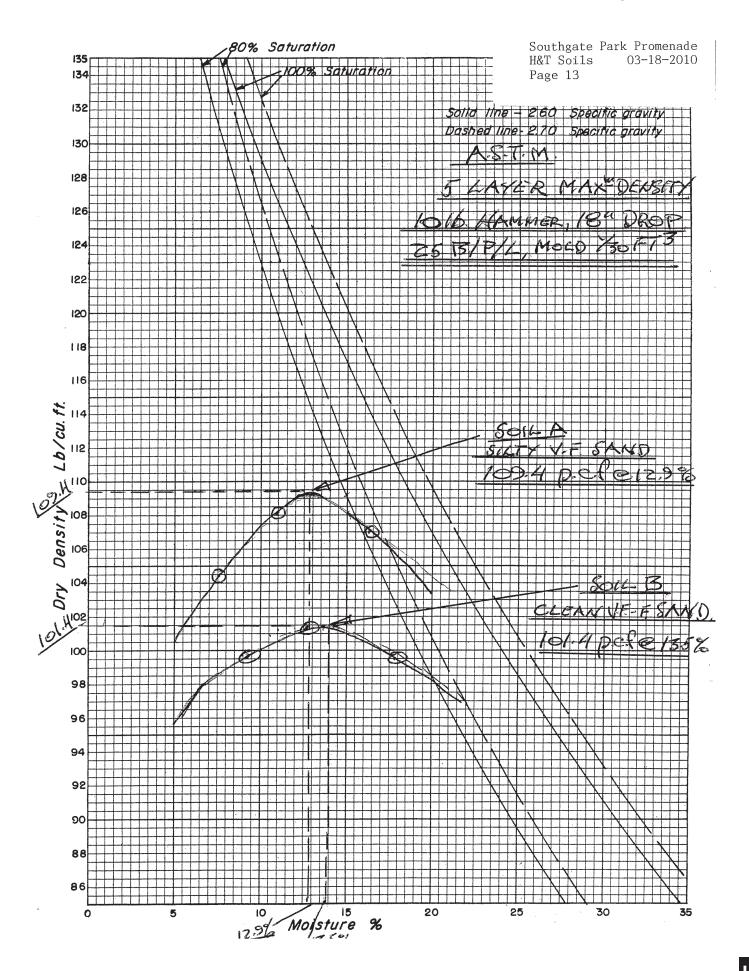
<u>BOUNDARY CLASSIFICATIONS</u>: Soils possessing characteristics of two groups are designated by combinations of group symbols

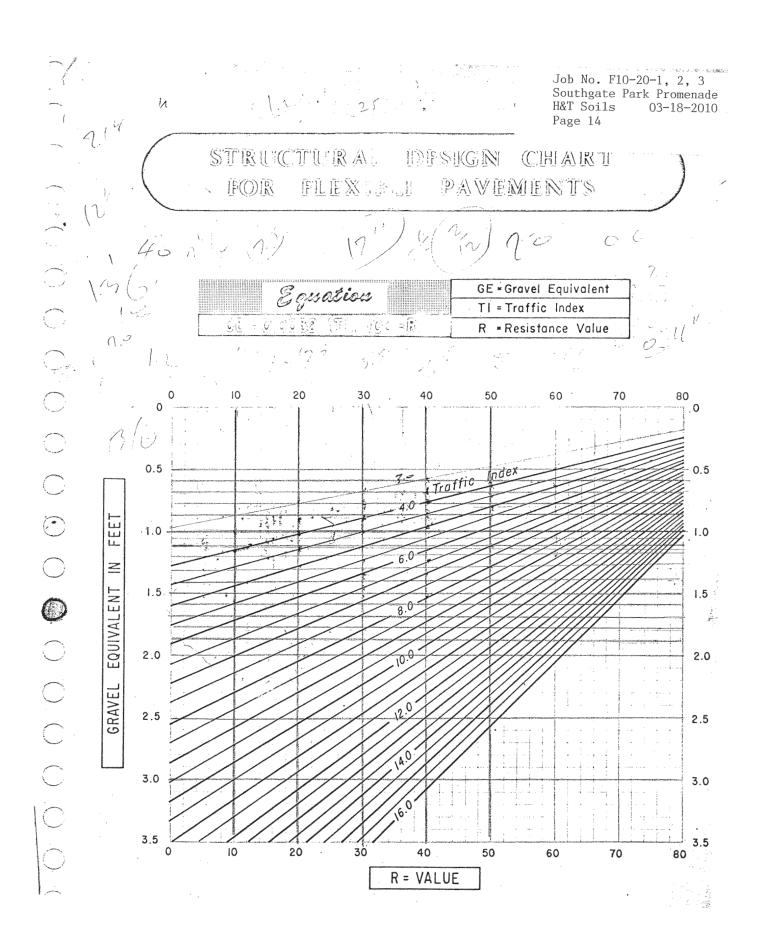


UNIFIED SOIL CLASSIFICATION SYSTEM

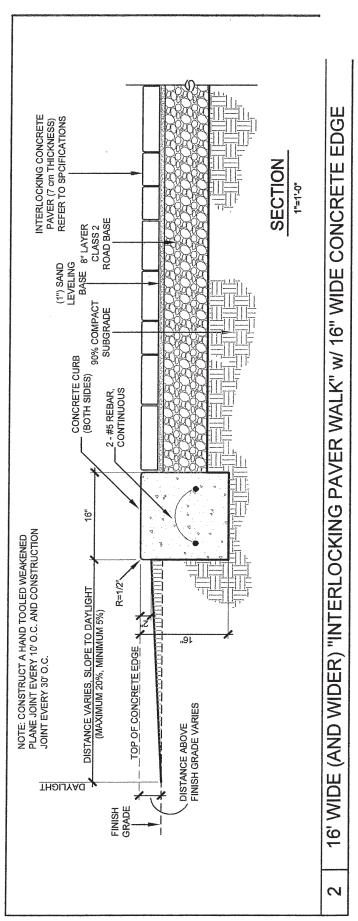
Reference
The United Sail Classification System, Carps of Engineers, U.S. Army Technical Memorandum No 3-357, Vol. 1, March, 1953 (Revised April, 1960)

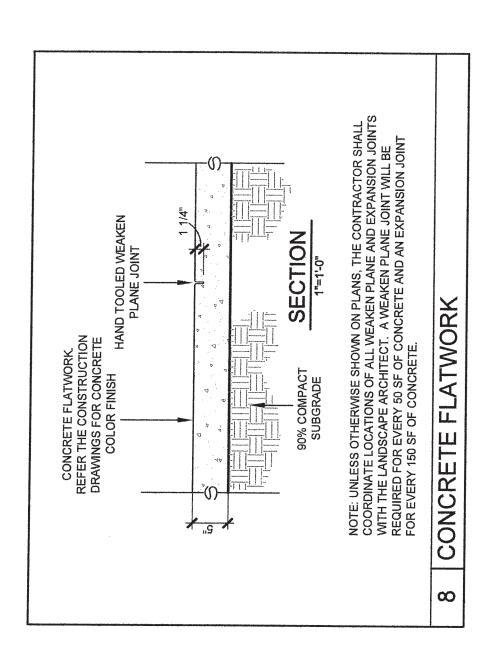
Hammond Soils Testing (H & T Soils Engineering)

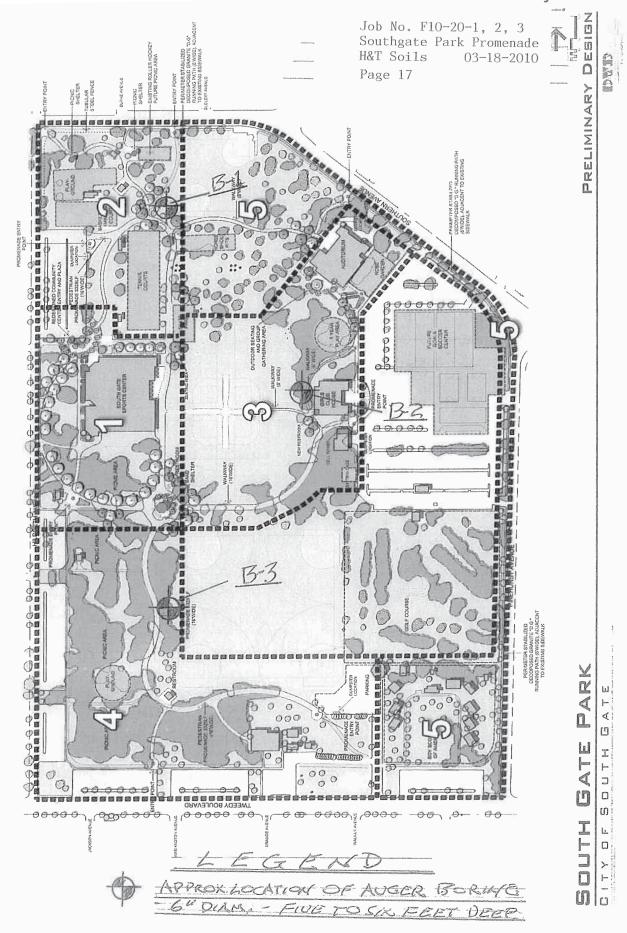




Job No. F10-20-1, 2, 3 Southgate Park Promenade H&T Soils 03-18-2010 Page 15







H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET + ORANGE, CA 92866

PHONE/FAX (714) 997-0679

GEOTECHNICAL

INVESTIGATIONS

PHASE 2

PRELIMINARY SOILS AND

FOUNDATION INVESTIGATION

Comprehensive report covers phases 1, 2 and 3 for Promenade Walkway, Southgate Park Infrastructure Improvements, City of Southgate, California.

Client:

Southgate Park

City of Southgate, California

c/o DMS Consultants

Site Engineer:

DMS Consultants

12371 Lewis Street, #203 Garden Grove, CA 92640

Surender M. Dewan, RCE 34559

Phone (714) 740-8840 FAX (714) 740-8842

Job No. F10-20-2

March 18, 2010

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DI ANI

H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET . ORANGE, CA 92866

Job No. F10-20-2 March 18, 2010 Page 1

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PHONE/FAX (714) 997-0679

GEOTECHNICAL

INVESTIGATIONS, PHASE 2

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Client:

City of Southgate, c/o

Mr. Surender M. Dewan, DMS Consultants

INTRODUCTION

In accordance with authorization by Mr. Surender Dewan and with information provided by the City of Southgate Public Works Dept. and Parks and Recreation Dept., we have proceeded with a geotechnical soils and investigation to determine the overall soil conditions for phases 1, 2 and 3 of the subject park, and with three individual locations selected by Mr. Surender Dewan, whom we met at the site and proceeded under his direction approximately two weeks ago.

We have been involved in soils engineering activities since 1954, and we have conducted soils engineering studies in the City of Southgate and the surrounding cities with respect to housing developments, flood control construction, city and commercial buildings as well as City public construction.

The site topography is flat and level with a gentle slope towards the south and southwest. All of the soils encountered were alluvial in nature, being described as recent alluvium and being deposited over the last 1,000 years.

GENERAL SITE CONDITIONS

The overall park site is roughly rectangular in shape, being slightly longer in a north-south direction than in an east-west direction. There is a triangular portion missing at the northeast corner where Southern Ave. has a bend going from west-east to southeast.

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Job No. F10-20-2 March 18, 2010 Page 2

The park is well maintained, and the main groundcover is grass with grass sod about 4 inches in depth. There are numerous buildings and various sports activity projects with numerous medium to large trees, a soccer field and a quadruple baseball area. All of the soil encountered was sandy in composition, which is typical of natural alluvial deposits in this area.

The soils were classified as slightly silty, very fine to fine sands with occasional layers of fine, micaceous silt and clean sand with a few layers of slightly clayey sand. However, there was no pronounced change in any of the soil conditions over the park area based on the three borings that were conducted.

The moisture content was slightly over optimum near the surface from recent heavy rains; however, all of these sandy soils tend to drain vertically with time. Even though there were a few areas where surface water was observed, this would tend to settle into the ground.

The density of these sands was below 90%, averaging about 83% to 84%. This is typical of alluvial deposits where there has been no appreciable overburden.

After these soils have been properly excavated, mixed and compacted with heavy grading equipment, they will consolidate and provide a firm, stable base for streets, walkways, paver stones and building foundations. If any building foundations were planned, then deeper excavation and recompaction would be required over what will be specified for the new proposed walkway and interior driveway areas.

GENERAL SITE INVESTIGATION AND EXPLORATORY EXCAVATIONS

The overall property was examined and numerous surficial excavations were made over the complete site to generally assess the existing soils.

Three (3) specific areas were outlined by the engineer, Mr. Surender Dewan. We have shown these locations on the attached plan. In all instances soils were sandy in nature, being essentially slightly silty to clean, very fine to fine sands and occasional small pebbles were observed with depth. Undisturbed portions of the park where grass was present indicated loose to slightly compact soils, and additional compaction will be required to provide the necessary support and stability for the proposed driveways and/or interlocking paver walk areas.

LIQUEFACTION

The true groundwater surface, based on previous records for this area, would be 25 to 40 feet deep and would present no problem for any of the grading or excavations that will be involved, or for any underground utility lines. It will also provide no future problem for any of the proposed construction procedures.

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Job No. F10-20-2 March 18, 2010 Page 4

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The actual paver section will be about 2-3/4 inches thick and will be more than adequate when placed on 1 inches of moist leveling base and 8 inches of Class II base, which would be compacted to a minimum of 95%.

The underlying subgrade soils will be excavated and recompacted so that at least the top 12 inches directly below the aggregate base has been brought up to a minimum of 90% relative compaction.

The 16-inch wide by 16-inch deep concrete curb on both sides of the paver walk will also have the underlying subgrade soils for a depth of 12 inches compacted to a minimum of 90%. This complete operation can be done at one time.

GENERAL GRADING PROCEDURES

Grading operations will involve excavating the complete walkway and concrete curb area, which will be from 16 feet to wider, excavated so that the underlying soils for a depth of 12 inches below the sections can be processed, watered where needed, and thoroughly compacted to a minimum of 90% for the upper 12 inches of the native soils.

The 16-inch wide concrete curbs can be poured on both sides of the walkway, and then the crushed rock can be placed in lifts and compacted to a minimum of 95%. Finally, the 1.0 inch of sand, which should be watered and kept firm and the final interlocking concrete pavers placed.

SUMMATION AND CONCLUSIONS

All of the work has been carried out in accordance with acceptable geotechnical standards and testing procedures. The calculations are based on laboratory testing of the soils at the site. The results of the undisturbed sampling are presented in the boring logs. The test results, as can be seen for compaction, were 82%, 87%, 85% and 81% with moistures varying from a low of 8.9% to a maximum of 18.8%.

H & T SOILS TESTING

Job No. F10-20-2 March 18, 2010 Page 8

The final excavation, grading and compaction procedures will require that a soils engineer inspects, tests and approves the excavation and compaction procedures for both the subgrade and the aggregate base. However, the City of Southgate Public Works might feel comfortable in utilizing their own personnel for this work.

We will be available to provide information and interpretation of any portion of this work. We will also be available to conduct additional soils engineering and geotechnical procedures if and when required by the City of Southgate.

We thank you for this opportunity to be of service, and we will be available if required at such time that the excavation, grading and compaction procedures are undertaken.

Respectfully submitted, H & T SOILS TESTING

Ross Hammond, Soils Consultant Robert J. Nugent, R.C.E. 9200

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4 –Client c/o DMS Consultants (including $\pmb{\mathsf{H}}$ & $\pmb{\mathsf{T}}$ SOILS TESTING wet-ink signature for Bldg. Dept.)

Keconical

H&T SOILS ENGINEERING

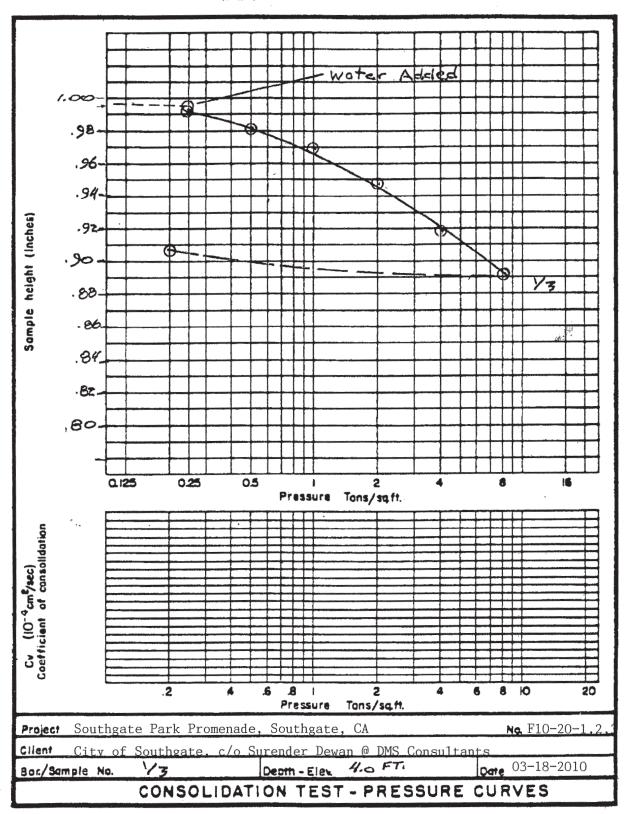


FIG. I

TEST BORING LOG

Job No: F10-20-1,2,3

H&T SOILS ENGINEERING BORING NO: 1/8, 2

06								Soil description
0.0								BORING, 1 -Grass & sod 4"
C.F	89.9	15.6	82		1 2			Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand.
2.5	Manager and	13.0	87		3	700		
5.0								TOTAL DEPTH 6.0 FT.
7.5								BORING 2
0.0								Wet dark brown very fie sandy silt, loose to slightly
2.5	86.7	11.9	85		1			Moist, loose tan slightly silty, slightly micaceous very fine to fine sand.
i i		11.2			2			Damp, firm yellow-brown clayey very fine sand layers. Tan slightly compact slightly silty very fine to fine sand.
5.0	_						11	TOTAL DEPTH 6.0 FT.
7.5	Dry density (1bs./cu.ft)	Notsture (4)	Relative Compaction %	Group Symbol	Sample No.			27.

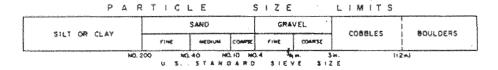
TEST BORING LOG

Job No: F10-20-1, 2

ype			н	& T	S	0	Job No: F10-20 S ENGINEERING BORING NO: 3 Soil description
0.0 2.5 5.0	88.7	14.8			1		BORING 3 Grass & sod 4" Damp slightly compact dk brown silty very fine sand. Damp slightly compact cxlean very fine sand. Alternating layers ofgray—brown dampclean very fine to fine sands & fine to med. sand (slightly micaceous), loose to slightly compact. ALL NATURAL DEPOSITS TOTAL DEPTH 7.5 FT.
	Dry density (1bs./cu.ft)	Notsture (4)	Relative Compaction %	Group Symbol	Sample No.		1.50 1.50

, M2	JOR DIVISIO	NS	GRC SYME		TYPICAL NAMES
maan de action of information and information of the control of th		CLEAN	7.00 010 010	GW	Well graded gravels, gravet-sand mixtures, little or no lines.
	GRAVELS	GRAVELS (Little or no fines)		GР	Poorly graded gravels or gravet-sand mixtures little or no fines.
	codrise fraction is LARGER than the No 4 stere \$128)	GRAVELS		GM	Silty grovels, grovel-send-selt mixtures,
COARSE		WITH FINES (Appreciable omi, of Imes)	STATE OF	GC	Clayey grovers, gravel-sand-clay mixtures.
SOILS More than 50% of material is LARGER than No 200 sieve		CLEAN SANDS		S₩	Well graded sands, gravelly sends, little or no fines.
\$1 2# }	SANDS	(Little or no fines)		SP	Poorly graded sends or gravetly sends, little or no fines.
	(More than 50 % of course fraction is SMALLER than the No 4 sieve size)	SANDS		SM	Silty sands, sond-silt mixtures.
		WITH FINES (Appreciable and, of lines)		\$C	Clayey sands, sand-clay mixtures,
erren (d. m. /del>				ML	thorquinic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		ND CLAYS LESS than 50)		CL	Inorganic clays of low to medium plasficity, gravefly clays, sandy clays, sifty clays, lean clays.
FINE	-			OL	Organic sifts and organic sifty clays of low plasticity.
SOILS More than 50% of material a SMALLER than No 200 stere			***************************************	мн	Inorganic sitts, micoreous or dietomaceous fine sandy or sitty soils, elastic sitts
10.E#)		ND CLAYS EATER inon 50)		сн	Inorganic clays of high plasticity, fat clays,
				он	Organic clays of medium to high plasticity, organic silts
HIGH	LY ORGANIC	SOILS	2222 2222	PI	Peat and other highly organic soils

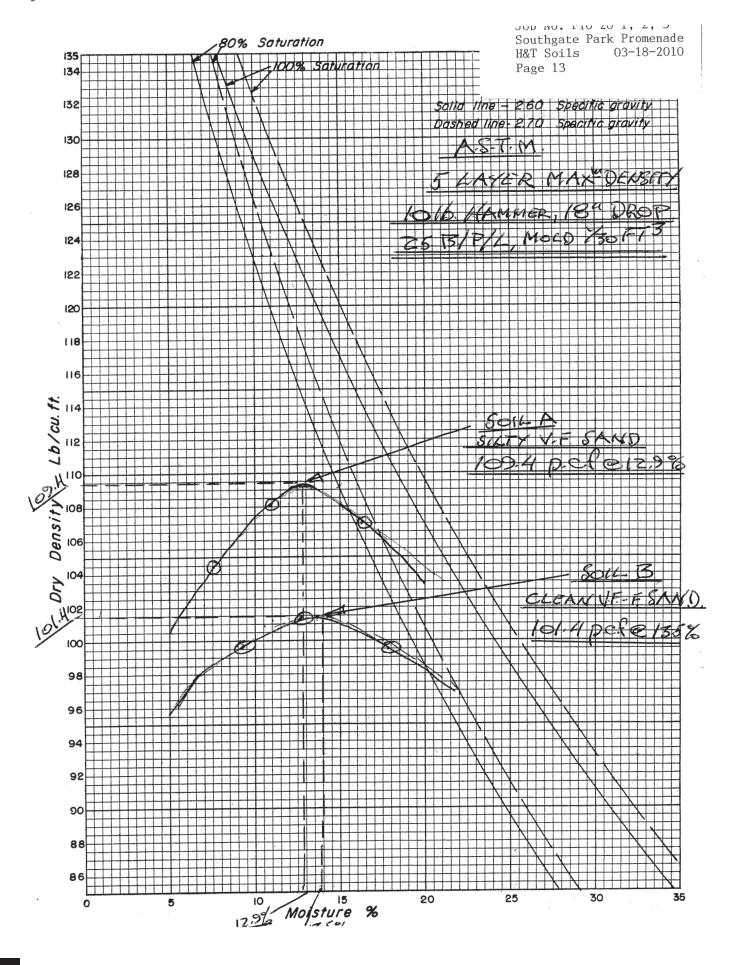
<u>BOUNDARY CLASSIFICATIONS</u>: Soils possessing characteristics of two groups are designated by combinations of group symbols

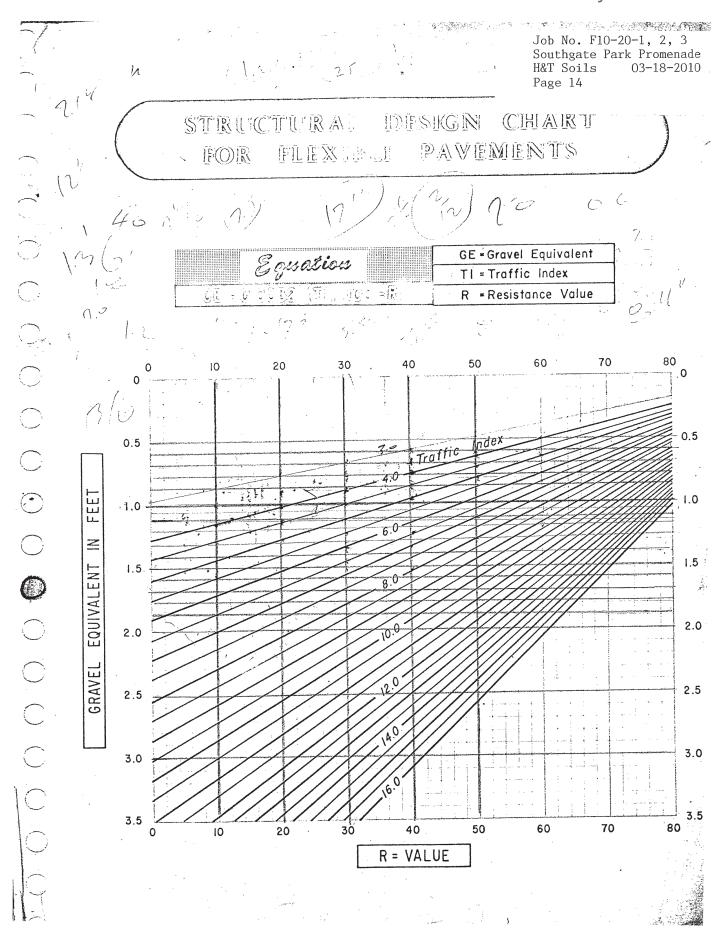


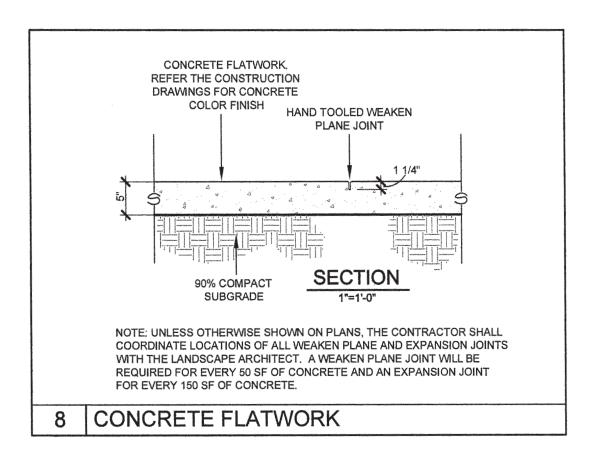
UNIFIED SOIL CLASSIFICATION SYSTEM

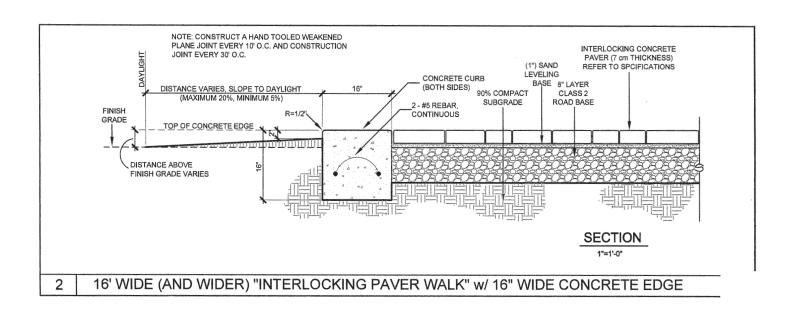
Reference
The Unitied Sail Classification System, Corps of Engineers, U.S. Army Technical Mamorandum No. 3:357, Vol. 1, March, 1953 (Revised Agril, 1960)

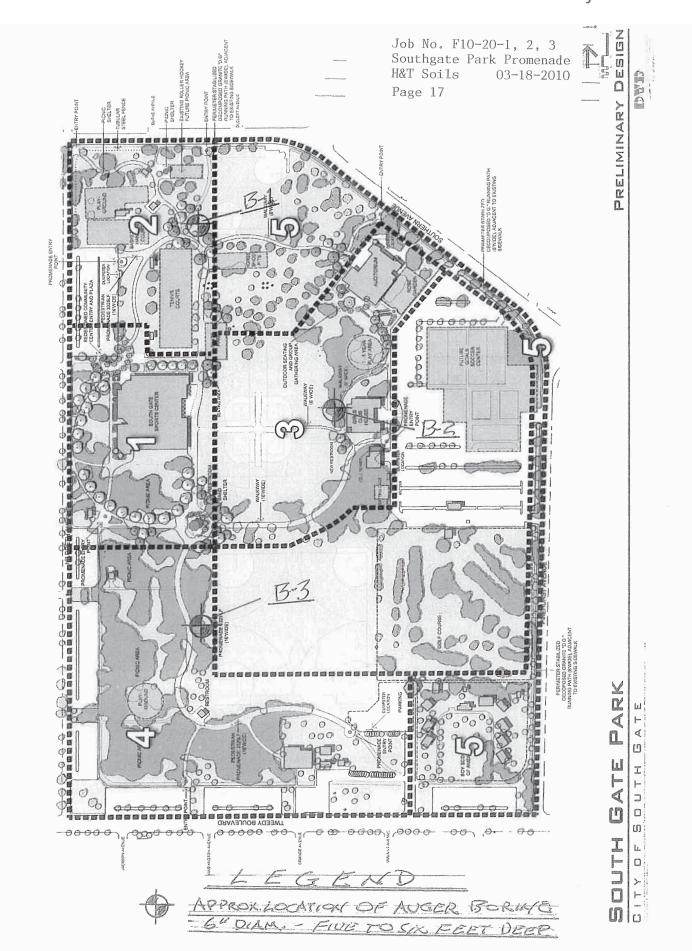
Hammond Soils Testing (H & T Soils Engineering)











H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET . ORANGE, CA 92866

PHONE/FAX (714) 997-0679

GEOTECHNICAL

INVESTIGATIONS

PHASE 3

PRELIMINARY SOILS AND

FOUNDATION INVESTIGATION

Comprehensive report covers phases 1, 2 and 3 for Promenade Walkway, Southgate Park Infrastructure Improvements, City of Southgate, California.

Client:

Southgate Park

City of Southgate, California

c/o DMS Consultants

Site Engineer:

DMS Consultants

12371 Lewis Street, #203 Garden Grove, CA 92640

Surender M. Dewan, RCE 34559

Phone (714) 740-8840 FAX (714) 740-8842

Job No. F10-20-3

March 18, 2010

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H & T SOILS TESTING

PRELIMINARY SOILS INVESTIGATION & FOUNDATION STUDIES

FILL CONTROL

344 N. LINCOLN STREET . ORANGE, CA 92866

Job No. F10-20-3 March 18, 2010 Page 1

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PHONE/FAX (714) 997-0679

GEOTECHNICAL

INVESTIGATIONS, PHASE 3

PRELIMINARY SOILS AND

FOUNDATION INVESTIGATION

Comprehensive report covers phases 1, 2 and 3 for Promenade Walkway, Southgate Park Infrastructure Improvements, City of Southgate, California.

Client:

City of Southgate, c/o

Mr. Surender M. Dewan, DMS Consultants

INTRODUCTION

In accordance with authorization by Mr. Surender Dewan and with information provided by the City of Southgate Public Works Dept. and Parks and Recreation Dept., we have proceeded with a geotechnical soils and investigation to determine the overall soil conditions for phases 1, 2 and 3 of the subject park, and with three individual locations selected by Mr. Surender Dewan, whom we met at the site and proceeded under his direction approximately two weeks ago.

We have been involved in soils engineering activities since 1954, and we have conducted soils engineering studies in the City of Southgate and the surrounding cities with respect to housing developments, flood control construction, city and commercial buildings as well as City public construction.

The site topography is flat and level with a gentle slope towards the south and southwest. All of the soils encountered were alluvial in nature, being described as recent alluvium and being deposited over the last 1,000 years.

GENERAL SITE CONDITIONS

The overall park site is roughly rectangular in shape, being slightly longer in a north-south direction than in an east-west direction. There is a triangular portion missing at the northeast corner where Southern Ave. has a bend going from west-east to southeast.

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The park is well maintained, and the main groundcover is grass with grass sod about 4 inches in depth. There are numerous buildings and various sports activity projects with numerous medium to large trees, a soccer field and a quadruple baseball area. All of the soil encountered was sandy in composition, which is typical of natural alluvial deposits in this area.

The soils were classified as slightly silty, very fine to fine sands with occasional layers of fine, micaceous silt and clean sand with a few layers of slightly clayey sand. However, there was no pronounced change in any of the soil conditions over the park area based on the three borings that were conducted.

The moisture content was slightly over optimum near the surface from recent heavy rains; however, all of these sandy soils tend to drain vertically with time. Even though there were a few areas where surface water was observed, this would tend to settle into the ground.

The density of these sands was below 90%, averaging about 83% to 84%. This is typical of alluvial deposits where there has been no appreciable overburden.

After these soils have been properly excavated, mixed and compacted with heavy grading equipment, they will consolidate and provide a firm, stable base for streets, walkways, paver stones and building foundations. If any building foundations were planned, then deeper excavation and recompaction would be required over what will be specified for the new proposed walkway and interior driveway areas.

GENERAL SITE INVESTIGATION AND EXPLORATORY EXCAVATIONS

The overall property was examined and numerous surficial excavations were made over the complete site to generally assess the existing soils.

Three (3) specific areas were outlined by the engineer, Mr. Surender Dewan. We have shown these locations on the attached plan. In all instances soils were sandy in nature, being essentially slightly silty to clean, very fine to fine sands and occasional small pebbles were observed with depth. Undisturbed portions of the park where grass was present indicated loose to slightly compact soils, and additional compaction will be required to provide the necessary support and stability for the proposed driveways and/or interlocking paver walk areas.

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LIQUEFACTION

The true groundwater surface, based on previous records for this area, would be 25 to 40 feet deep and would present no problem for any of the grading or excavations that will be involved, or for any underground utility lines. It will also provide no future problem for any of the proposed construction procedures.

GENERAL SEISMICITY

Table 1.
Estimated Probability of Ground Acceleration

	Probability of One
Acceleration of Gravity	Occurrence per 100 Years
0.05	97%
0.10	90%
0.15	66%
0.20	45%
0.30	29%
0.35	16%

Based on earthquake requirements as outlined in the recent Uniform Building Code and the California Building Code, we are giving information with respect to seismic coefficients and site categorization procedure:

Table 16R, Seismic Coefficient: Section 1636 "Site Categorization Procedure."

Soil Profile: S_D The soils on the subject site would be classified in this range as medium dense soil, having a velocity between 500 feet per second and 1100 feet per second and N > 30.

Table 16S - Near-Source Factor (N_a) with a distance greater than 10 kilometers (6 miles), N_a = 1.0, distance 11 kilometers, maximum magnitude 6.9.

Some shaking that could be considered of a significant nature has taken place from earthquakes as would apply to most of east Los Angeles County and northwest Orange County.

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Southern California is considered susceptible to a large earthquake, and design must be in accordance with the Uniform Building Code and the California Building Code. Statistical analysis of earthquake records for California would indicate that a ground acceleration of 0.25 to 0.35 would have a 20% probability, based on a 50-year life structure. This is predicated on the repeatable high ground acceleration being approximately 65% of maximum ground acceleration.

Based on the current Uniform Building Code, additional refinements have been made. The subject site would be considered to be in site category S_D , where the typical soils would be firm, alluvial type material such as a stiff clay or dense silty fine sand. Table $16\text{-S}-\underline{\text{Near-Source Factor}}$ (N_a) with a distance greater than 10 kilometers, N_a =1.0; Table 16-T N_v) = 1.0. The maximum fills that will be placed on the site for the various structures will be on the order of approximately 1.0 foot to 1.5 feet in depth, and mostly would be excavated and recompacted soils.

LABORATORY TESTING AND SOIL CRITERIA

The typical native soils are uniform over the complete site, being described generally as very fine sands and fine sandy silts. Two representative soil types were procured as bulk samples from the property and were additionally tested. Maximum density determinations were made by the A.S.T.M. D1557-70T standard, modified to use 25 blows on each of five layers with a 10-pound hammer falling 18 inches in a mold of 1/30 cubic foot volume.

Soil Type A: Brown silty very fine to fine sand; Maximum Density 109.4 p.c.f. at 12.9% Optimum Moisture; and

Soil Type B: Light gray-brown, clean very fine to fine sand; Maximum Density 101.5 p.c.f. at 13.5% Optimum Moisture.

Expansion Tests

The results of expansion tests performed on remolded samples of the typical foundation soils, compacted to over 90% and set up to be equal to 50% saturation, and then measured to full 100% saturation after a period of several days and until no further expansion occurred in a 24-hour period in accordance with Table 29-C of the Uniform Building Code, are as follows:

Expansion Test Results

Soil Type	Confining Load	Expansion Index	% Expansion
A	144 p.s.f.	4	0.4
В	144 p.s.f.	1	0.1

In accordance with the Uniform Building Code and the California Building Code, the expansion potential of the native soils for the park, which are all sandy in nature, would be considered very low with respect to potential expansion and could be considered non-expansive..

CALCULATED ALLOWABLE SOIL BEARING VALUES

The results of saturated direct shear tests for the typical foundation soils that will provide support for the new proposed foundations indicate an angle of internal friction of 26° with 150 p.s.f. available cohesion. Utilizing the Terzaghi Bearing Equation with a factor of safety of 3.0, the following calculations have been determined:

For Either Continuous or Square Footings

- q = CNc + wDfNq + wBNw
 - = 100(22) + 1200(1.0)16 + 100(0.5) + 14
 - = 2200 + 1600 + 700
 - = 4500 p.s.f. (ultimate)
- q_a = 1500 (allowable for square or continuous footings 12 inches wide and 12 inches deep);
- q_a = 1625 p.s.f. (allowable for square or continuous footings 18 inches wide and 12 inches deep);
- q_a = 1750 p.s.f. (allowable for square or continuous footings 24 inches wide and 12 inches deep);
- q_a = 1750 p.s.f. (allowable for square or continuous footings 12 inches wide and 18 inches deep);
- q_a = 1875 p.s.f. (allowable for square or continuous footings 18 inches wide and 18 inches deep);
- q_a = 2000 p.s.f. (allowable for square or continuous footings 24 inches wide and 18 inches deep); and
- q_a = 2125 p.s.f. (allowable for square or continuous footings 30 inches wide and 18 inches deep).

H & T SOILS TESTING

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NOTE: All of these bearing values utilize a factor of safety of 3.0 and these values may be increased by a factor of one-third when considering temporary wind and/or seismic loading which are not considered to act simultaneously.

ALLOWABLE ACTIVE PRESSURES FOR RETAINING WALL DESIGN AND FOR FOUNDATION STABILITY

For design purposes for free-standing retaining walls or perimeter walls, if they retain some backfilled soils, then we recommend that an active pressure of 45 p.c.f. equivalent fluid pressure be utilized where there is a level backfill against the retaining wall.

If a rising slope occurs behind the wall not steeper than a 2:1 angle, then the active pressure should be increased to 55 p.c.f. equivalent fluid pressure.

If the retaining wall is fixed at the top, which would be the case of a building foundation wall that is holding back soil, then the active pressure should be increased to 60 p.c.f. equivalent fluid pressure.

All retaining type walls where earth backfill is placed behind the wall must have a drainage system of crushed rock or coarse sand behind them so that there will be no problem with hydrostatic pressure. A perforated pipe is also normally incorporated in the design to properly collect and drain any excessive water away from the walls.

LATERAL BEARING RESISTANCE

For determining lateral resistance, foundation design passive pressures of 300 p.s.f. per foot of depth may be used, up to a maximum of 2400 p.s.f. A coefficient of friction of 0.35 can be used for lateral resistance for all foundations in contact with certified compacted soil areas. If these values are used in conjunction, then the coefficient of friction may be left at 0.35 but the passive pressure should be reduced to 250 p.s.f. per foot of depth.

The lateral resistance from coefficient of friction is determined by taking the actual bearing in pounds per square foot on the soil times the foundation area times the coefficient of friction.

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SOIL TESTING PROCEDURES & CALCULATIONS FOR CONCRETE FLATWORK AND PAVEMENT DESIGN

We have analyzed the general subgrade soils, which are slightly silty very fine to fine sands. Utilizing a conservative R-value of 30 and a traffic index of 5.0, we have determined that an approximate gravel equivalent of 12 inches would suffice. With a gravel equivalent factor of 2.5 we would need approximately 2 inches of concrete placed over 6 inches of properly compacted Class II road base.

The actual paver section will be about 2-3/4 inches thick and will be more than adequate when placed on 1 inches of moist leveling base and 8 inches of Class II base, which would be compacted to a minimum of 95%.

The underlying subgrade soils will be excavated and recompacted so that at least the top 12 inches directly below the aggregate base has been brought up to a minimum of 90% relative compaction.

The 16-inch wide by 16-inch deep concrete curb on both sides of the paver walk will also have the underlying subgrade soils for a depth of 12 inches compacted to a minimum of 90%. This complete operation can be done at one time.

GENERAL GRADING PROCEDURES

Grading operations will involve excavating the complete walkway and concrete curb area, which will be from 16 feet to wider, excavated so that the underlying soils for a depth of 12 inches below the sections can be processed, watered where needed, and thoroughly compacted to a minimum of 90% for the upper 12 inches of the native soils.

The 16-inch wide concrete curbs can be poured on both sides of the walkway, and then the crushed rock can be placed in lifts and compacted to a minimum of 95%. Finally, the 1.0 inch of sand, which should be watered and kept firm and the final interlocking concrete pavers placed.

SUMMATION AND CONCLUSIONS

All of the work has been carried out in accordance with acceptable geotechnical standards and testing procedures. The calculations are based on laboratory testing of the soils at the site. The results of the undisturbed sampling are presented in the boring logs. The test results, as can be seen for compaction, were 82%, 87%, 85% and 81% with moistures varying from a low of 8.9% to a maximum of 18.8%.

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The final excavation, grading and compaction procedures will require that a soils engineer inspects, tests and approves the excavation and compaction procedures for both the subgrade and the aggregate base. However, the City of Southgate Public Works might feel comfortable in utilizing their own personnel for this work.

We will be available to provide information and interpretation of any portion of this work. We will also be available to conduct additional soils engineering and geotechnical procedures if and when required by the City of Southgate.

We thank you for this opportunity to be of service, and we will be available if required at such time that the excavation, grading and compaction procedures are undertaken.

Respectfully submitted, H & T SOILS TESTING

Ross Hammond, Soils Consultant Robert J. Nuger R.C.E. 9200

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4 - Client c/o DMS Consultants (including & T SOILS TESTING wet-ink signature for Bldg. Dept.)

Rune

H&T SOILS ENGINEERING

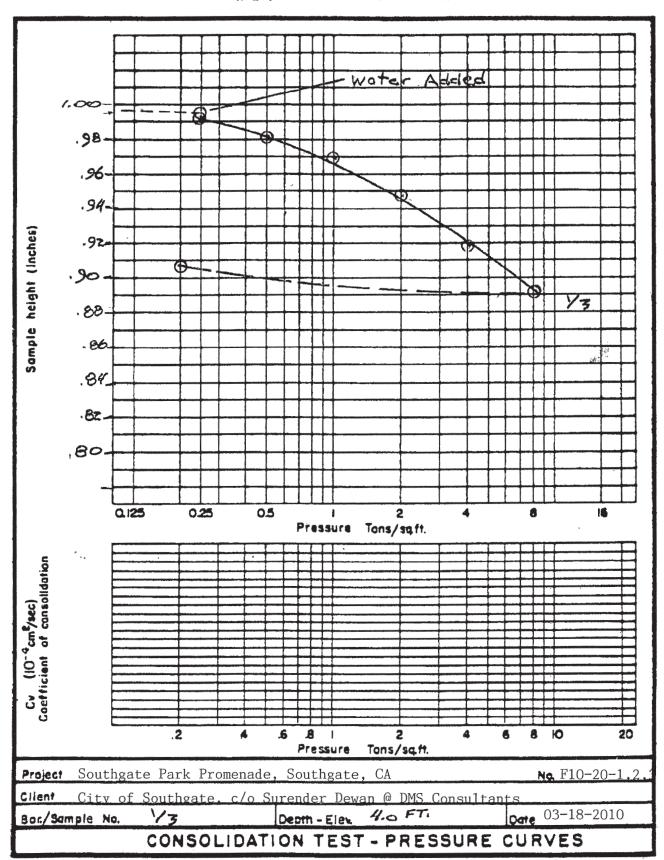


FIG. I

TEST BORING LOG

H&T SOILS ENGINEERING

Job No: F10-20-1,2,3

Type

BORING NO: 1/8, 2/Soil description

BORING, 1 Grass 8 sod 4" 1 Grass 8 sod 4" 15.5 2 1	7.5	Dry density (1bs./cu.f	Osture (A)	Relative Compaction 2	Group Symbol	Sample No.			
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. 2.5 Basa 13.0 Basa Bas	7 5	(1						- 11	TOTAL DEPTH 6.0 FT.
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. 2.5 88.3 13.0 87 3	5.0						H		sand.
89.9 15.6 82 1	2.5		11.2			2			Damp, firm yellow-brown clayey very fine sand layers.
89.9 15.6 82 1 Noist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand. 2.5 88.3 13.0 87 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		86.7	11.9	85		1			Moist, loose tan slightly silty, slightly micaceous
89.9 15.6 82 1 Noist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand. 2.5 88.3 13.0 87 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	,					Γ	H		Wet dark brown very fie sandy silt, loose to slightly
89.9 15.6 82 1 Noist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand. 2.5 88.3 13.0 87 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.0								
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand. 2.5 88.3 13.0 87 3 4.1							1		BORING 2
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand. 2.5 88.3 13.0 87 3 4.1							E		
89.9 15.6 82 1	5.0				_	\vdash	F		TOTAL DEPTH 6.0 FT.
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt. Damp, clean slightly compact slightly micaceous silty very fine sand.	1	1	13.0	87	8	3			
89.9 15.6 82 1 Moist slightly compact brown silty very fine to fine sand w/layers of very fine micaceous silt.	2.5		15.5		_	2			
	1		15.6	82		1	5	1	sand w/layers of very fine micaceous silt.
	0.0								

TEST BORING LOG

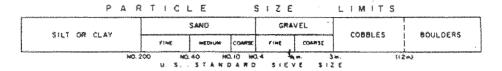
Job No: F10-20-1,2

H & T SOILS ENGINEERING

yps							Soil description
0.0							BORING 3
2.5						-	
2.5	88.7	18.9	81		1		Damp slightly compact dk brown silty very fine sand. Damp slightly compact cxlean very fine sand. Alternating layers ofgray—brown dampclean very fine to
5.0		14.8			2		 fine sands & fine to med. sand (slightly micaceous), loose to slightly compact. ALL NATURAL DEPOSITS
Jepth in feet							TOTAL DEPTH 7.5 FT.
Depth	20						
	383						
	Dry density (1bs./cu.f	Notsture (4)	Relative Compaction %	Group Symbol	Sample No.		

MA	JOR DIVISIO	NS	GROUP SYMBOLS		TYPICAL NAMES
And the second s	Anna anna anna anna anna anna anna anna	CLEAN	7:00 00:00	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
	GRAVELS	GRAVELS (Little or no fines)		ĢР	Poorly graded gravels or gravel-send mixture little or no lines.
	codrse fraction is LARGER than the No 4 sterm size!	GRAVELS WITH FINES		GM	Silty gravels, gravel-band-silt mixtures,
COARSE GRAINED SOILS		(Appreciable omi. of lines)	STATE OF	вс	Clayey grovets, grovet-send-clay mixtures.
(More than 50% of material is LARGER than No 200 sieve		CLEAN SANDS		S₩	Well graded sands, provelly sands, tittle or no fines.
\$ \$ \$ \$ \$	SANDS (More than 50 % of course fraction is SMALLER than the No 4 sieve size)	(Little or no fines)		SP	Poorly graded sends or grovelly sands, little or ina times.
		SANDS		SM	Sitty sands, sand-sit mixtures,
		WITH FINES (Appreciable ann. of lines)		sc	Clayey sands, sand-clay mixtures.
				ML.	Inorganic silts and very fine sands, rock flow silty or clayer fine sands or clayer silts with slight plasticity.
	1	ND CLAYS LESS them 50)		CL	thorganic clays of low to medium plasticity, gravelly clays, sandy clays, sifty clays, let clays.
FINE GRAINED	Giornal Line Month (March 1987)			OL	Organic sifts and organic sifty clays of low plasticity.
SOILS (More than 50% of material is SMALLER than No. 200 steve.	Vestalandiano di Vanasara	-		мн	Inorganic sitts, micoreoux or distamaceous fine sandy or sitty soils, microreous sitts.
₩ *** ** ** ** ** ** ** ** ** ** ** ** *	SILTS AND CLAYS (Liquid limit GREATER inon 50)			сн	inorganic clays of high plasticity, far clays,
				он	Organic clays of medium to high plasticity, organic silts
нівн	LY ORGANIC :	SOILS	272	Pł	Peat and other highly organic soils

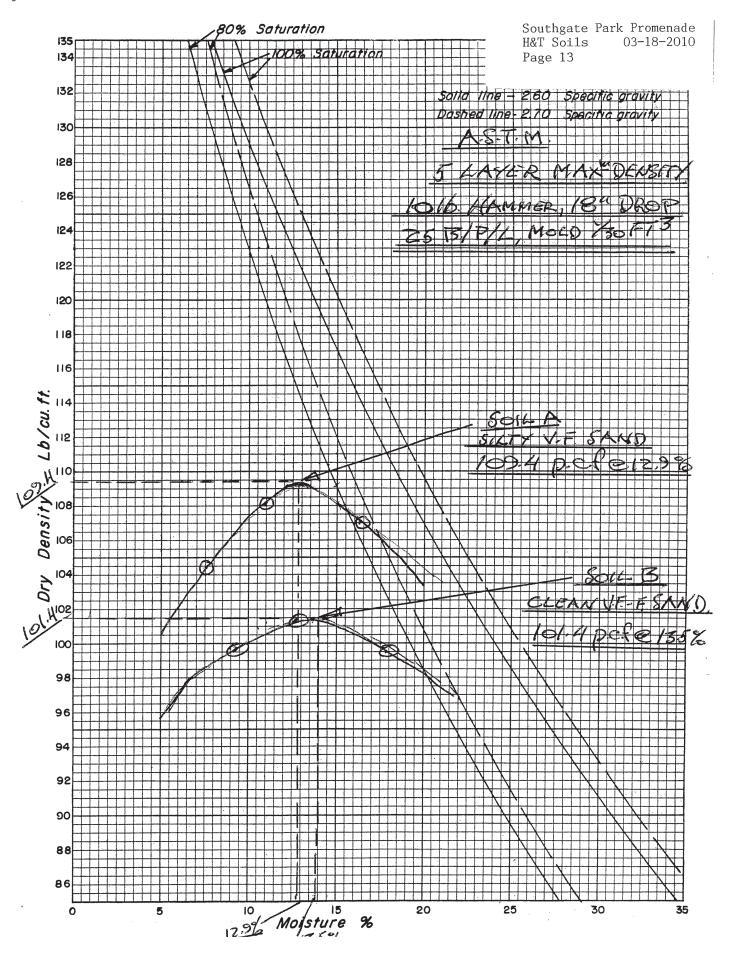
<u>BOUNDARY CLASSIFICATIONS</u>: Soils possessing characteristics of two groups are designated by combinations of group symbols

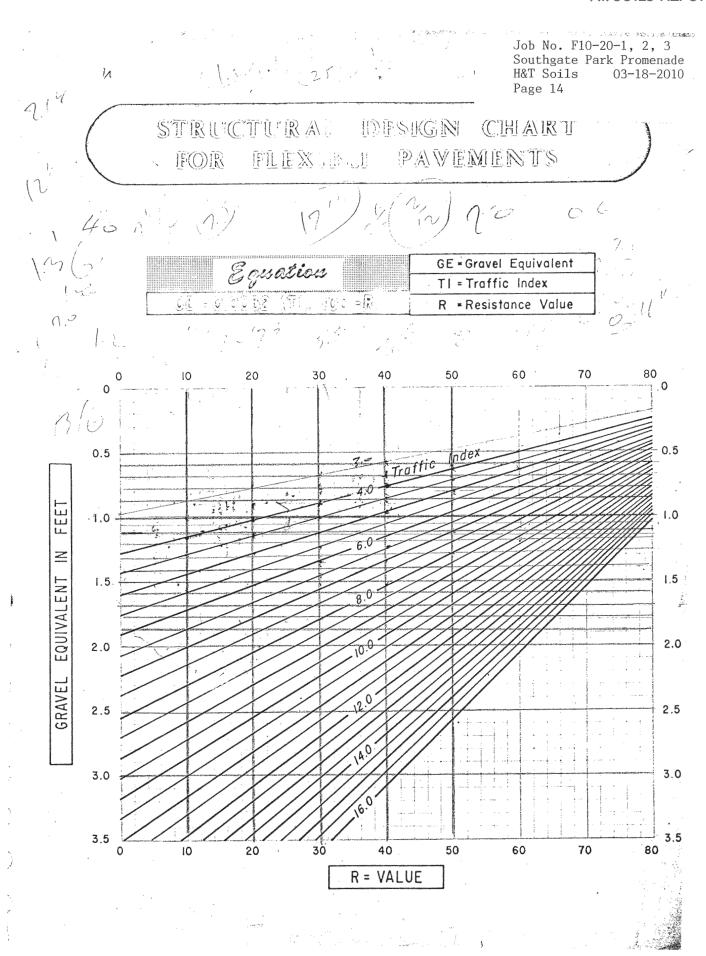


UNIFIED SOIL CLASSIFICATION SYSTEM

Reference
The Writied Soil Classification System, Corps of Engineers, U.S. Army Technical Memorandum No 3-357, Vol. 1, March, 1983 (Revised April, 1960)

Hammond Soils Testing (H & T Soils Engineering)





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