# THE HALL OF JUSTICE 211 WEST TEMPLE STREET LOS ANGELES, CA 90012

# REPAIR & REUSE PROJECT, SPECS. NO. 6649

# COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

# **BASIS OF DESIGN**



# SCOPING DOCUMENTS 100% SUBMISSION

AUGUST 2010



# THE HALL OF JUSTICE

# COUNTY OF LOS ANGELES Department of Public Works

#### REPAIR and RE-USE PROJECT Specs. No. 6649

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## **BASIS OF DESIGN**

General / Architectural / Historic

## A) Background

The County of Los Angeles is proposing to repair and reuse the Hall of Justice for use by County agencies including, the Sheriff's Department, District Attorney, Public Defender and Alternate Public Defender. The primary purpose of the project is to repair and reuse the Hall of Justice by seismically retrofitting the earthquake damaged building and refurbishing the building interior for modern office use, while preserving and restoring selected historic features. The repair and restoration of exterior elements of the building, new site development, landscaping and development of a new 1,000 car parking structure are also proposed for the project.

In 2006, the County certified an Environmental Impact Report for the project. The following reports have also been completed: Soils; Hazardous Materials; Test Reports for existing steel, concrete and pin anchors for stone, URM and terra cotta; HABS Report; and Survey and Documentation of Historic Materials removed during Phase III of the project. The historic materials are stored in the basement and first floor of the Hall of Justice.

The County has developed a phased development process, in which the first four phases have been completed.

Phase I: Debris Removal

<u>Phase II:</u> Interior Demolition A/E Design for demolition of non structural elements, removal and protection of selected historic features.

<u>Phase III:</u> Interior Demolition: Perform interior non-structural demolition activities and remove and store and/or protect selected historic features and removal of hazardous materials, except for lead window paint and roofing.

<u>Phase IV</u>: Structural Retrofit and Exterior Enhancement construction documents and specifications completed in July 2008 (Structural Retrofit Package).

The final phases include:

<u>Phase V</u>: Preparation of Architectural / Engineering **Scoping Documents** which include Design Criteria and Technical Specifications, Drawings, Space Plans, and Program for the Tenant Build-Out, Parking Structure and Site Work drawings (**Tenant Build-Out Package**) and the **Structural Retrofit Package**, completed in July 2008 under the 2002 LACBC, (Construction Documents completed in Phase IV).

<u>Phase VI:</u> Selection of Design/Builder and /or Lease-Lease Back entities utilizing the County of Los Angeles' process which includes parts A & B.

<u>Phase VII:</u> Completion of construction documents, based on Scoping Documents and obtaining approvals from LA County Department of Building and Safety (2010 California Building Code and 2011 Los Angeles County Building Code) of the Tenant Build-Out Package and Structural Retrofit Package by the selected Design/Builder or Lease-Lease Back Entity.

Phase VIII: Start and complete construction activities by the Design/Builder and its subcontractors.

The following scope of work items, listed under B & C below, provides a general outline of what is documented in the Scoping Document Package which is issued in two parts:

- 1). Structural Retrofit Package, Drawings and Specifications (Construction Documents).
- 2) Tenant Build-Out Package, Drawings, Space Plans (schematic level), Specifications, and Program.

# B) <u>Structural Retrofit Package</u> Drawings and Specifications dated August 2010

(to be updated by D/B team to conform with 2010 CBC and LACBC 2011)

- 1. Demolition of existing concrete slabs at basement as required to install new expanded footing / foundation
- 2. Demolition of structural and non structural concrete walls
- 3. Demolition of portions of concrete slabs for shaft penetrations (mechanical and elevators)
- 4. Demolition of the 11<sup>th</sup> and 13<sup>th</sup> floor slabs and beams
- 5. Demolition of penthouse structures and elevator machine rooms at penthouse level.
- 6. All structural work to provide the new expanded concrete footing / foundation system.
- 7. New structural drag beams
- 8. New shotcrete shear walls at corners of building
- 9. New structural strong back supports at Light Courts
- 10. New structural column, beam and diaphragm strengthening
- 11. Remove, repair, and strengthen URM walls at Light Courts
- 12. Structural pinning / anchorage of exterior granite, terra cotta and URM from the building interior and from exterior as required.
- 13. Slab and framing for infill areas at first floor.
- 14. Slab and framing for infill areas at 9<sup>th</sup>, 12<sup>th</sup> and 14<sup>th</sup> floors.
- 15. Exit stair transitions at Stairs A and B and upgrades to comply with Code including stair pressurization (except for fans). This requires modification to the structure at floors 2 through 9.
- 16. New elevator penthouse structures at roof / penthouse to accommodate new elevator system.
- 17. Clean, repair, re-point, and strengthen URM at Light Courts as required. Also provide new parapets at Penthouse level around Light courts.
- 18. Clean all exterior surfaces, stone, terra cotta, URM, concrete; repair and re-point joints at exterior of building as required; stone, terra cotta, and unreinforced masonry (URM).
- 19. Clean and refurbish bronze entry doors and frames at Spring Street, Temple Street and Broadway.
- 20. Replace glass at windows where glass is missing, broken or cracked, and remove plywood panels installed during soft demo phase.
- 21. Refurbish, in place, and repair all windows and frames and remove lead paint throughout (floors 1 to 14), including windows at Light Courts. Provide new window frames to match existing where frames are missing or not repairable.

- 22. Remove obscure glazing and provide new vision glass at windows on floors 10 through 14. Steel frames and light dividers to remain in present configuration.
- 23. Provide concealed pin anchors at each piece of stone, terra cotta and at URM.
- 24. Strengthen terra-cotta cornice and repair as required.
- 25. Clean, repair and re-point (re-caulk metal) metal, stone and terra cotta spandrels at 12<sup>th</sup> and 13<sup>th</sup> floors as required.
- 26. Clean and repair existing sloping copper roof. Green patina to remain.
- 27. Modify historic stairs 1, 2, and 3 for installation of fibrous reinforcing system at Light Court walls.
- 28. Modify historic Stair #4 for installation of shear wall
- 29. Provide new roofing at main roof (Penthouse level) and at Light Courts.
- 30. Provide fibrous reinforcing and shotcrete backing at Light Court and exterior walls, as indicated.
- C) <u>Tenant Build-Out Package dated August 2010:</u> Design Criteria and Technical Specifications, Drawings, Space Plans and Program.
- 1. New HVAC and electrical/telecom/security (including card readers)/fire alarm system and data including lighting fixtures and diffusers to all core and shell and programmed tenant areas as indicated on Space Plans.
- 2. Provide new sprinkler system throughout and High Rise Fire/Life Safety package to comply with 2010 California Building Code and 2011 Los Angeles County Building Code.
- 3. Provide new men's and women's toilets using new historically compatible materials, including terrazzo floor, ceramic tile, wainscot, marble toilet partitions to match existing, wood toilet partition doors, stone sink counter, and new compatible lighting fixtures. Provide new plumbing systems, fixtures and accessories.
- 4. Construction of janitor's closets including fixtures.
- 5. Restore, clean and refurbish 2<sup>nd</sup> floor corridor, as indicated. Reinstall marble wall panels over metal stud partitions (except at 2<sup>nd</sup> floor lobby loggia and 1<sup>st</sup> floor corridor adjacent to loggia). Restore/refurbish and reinstall doors, sidelights, base and lighting fixtures as indicated. All ceilings to be new except at grand lobby / loggia, and 1<sup>st</sup> floor corridor adjacent to loggia, which is to be restored. Skim coat of plaster above wall panels. New plaster ceiling and re-install lighting fixtures, doors and sidelights. Refurbish and repair terrazzo floor.
- 6. Restore, clean and refurbish 8<sup>th</sup> floor corridor, as indicated. Reinstall marble wall panels over metal stud support partitions. Restore/refurbish and reinstall doors, sidelights, base and lighting fixtures as indicated. Ceiling to be new plaster and compatible with historic features.
- 7. Restore/Refurbish and repair 8<sup>th</sup> floor Courtroom/Jury Room (816 & 819) floor, wall, ceiling, light fixtures, as indicated.
- 8. Re-install marble wall panels at historic stairs, as indicated. Refurbish, paint and repair stair railings, treads and risers and re-install lighting fixtures (4 stairs total). Refinish wood handrails.
- 9. Clean and refurbish 2<sup>nd</sup> floor Lobby Loggia and corridor to Temple and grand stairs to Broadway and Spring.
- 10. Provide new wall, floor and ceiling finishes and lighting fixtures to programmed spaces including, toilets, elevator lobby, and corridors as indicated on space plans and Tenant Build Out package.
- 11. Provide partitions at low beams on 9<sup>th</sup> floor as indicated avoiding low headroom under beams.
- 12. Provide new concrete (exterior) exit stair at end of exit passageway at first floor at southeast portion of building (sack and rub finish).
- 13. Refurbish historic elevator lobbies on 3<sup>rd</sup> to 8<sup>th</sup> floors, as indicated. Provide new contemporary compatible lobbies at B, 1<sup>st</sup>, 9<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup> and 14<sup>th</sup> floors. Re-use existing marble wainscot wall

panels at elevator door wall on 3<sup>rd</sup> through 8<sup>th</sup> floors. A combination of new and existing restored and refurbished terrazzo floor to be provided. Refurbish and re-install elevator door sidelights as indicated to comply with Code floors 2 to 8.

- 14. Workstations (county standards) in open office areas (allowance).
- 15. Moveable furniture (allowance).
- 16. Provide partitions for offices, breakrooms, conference rooms, storage and support areas.
- 17. Provide exterior wall furring at exterior walls, shear walls and Light Court strong back walls.
- 18. Provide ceiling, wall and floor finishes to programmed spaces/offices, etc.
- 19. Provide mechanical / HVAC / electrical / security / telecom / data / fire alarm / fire sprinkler distribution to tenant spaces, workstations, offices, support areas.
- 20. Provide finishes for programmed space in basement.
- 21. Provide Audio-Visual equipment (allowance).
- 22. Provide special improvements for executive suites (Sheriff, District Attorney, Public Defender, Alternate Public Defender)

## **Elevators**

- 23. Extend passenger elevator shafts for Elevators 2 and 3 from the 8<sup>th</sup> to the 14<sup>th</sup> floor. Provide new elevator system, including machines, guide rails, and control system. Elevators shall have stops as follows: High Rise Bank Elevator 1 at Basement, 1<sup>st</sup>, 2<sup>nd</sup>, and 8<sup>th</sup> through 14<sup>th</sup> floors; Elevators 2 and 3 at the 1<sup>st</sup>, 2<sup>nd</sup>, and 8<sup>th</sup> through 14<sup>th</sup> floors; Low Rise Bank Elevator 4 at the basement, and 1<sup>st</sup> through 8<sup>th</sup> floors; Elevators 5, 6, and 7 at the 1<sup>st</sup> through the 8<sup>th</sup> floors; and the Freight Elevator at the basement and 1<sup>st</sup> through 14<sup>th</sup> floors and Penthouse.
- 24. Remove, restore, and refurbish wood wall panel interior of the 6 passenger elevator cars. Reinstall into new elevator equipment. Elevator #1 to receive new contemporary compatible interior cab finish.

## Site Work

- 25. Site work, including grading, off site work, landscaping, utility connections, and hardscape.
- 26. Create Spring Street Plaza and lawn areas in a compatible manner and as indicated.
- 27. Create planter walls at the Spring Street Plaza in a compatible manner and as indicated.
- 28. Provide new landscaping and maintain approximately 22 existing trees and as indicated.
- 29. Provide new concrete sidewalks and curb cuts in accordance with LA City standards and maintain existing curbs and gutters.

#### Parking Structure

- 30. Provide new 1,000 car parking structure in accordance with County standards, 4 ½ levels above grade and 4 ½ levels below grade.
- 31. The exterior building massing of the parking structure is designed to not impact the Hall of Justice. The top of the parking structure parapet shall not exceed the top of the 4<sup>th</sup> floor stone cornice of the Hall of Justice. The Parking Structure is located 60 feet from the Hall of Justice and is designed with an architectural pre-cast concrete skin to be compatible with the exterior of the Hall of Justice.
- 32. Provide loading / delivery area
- 33. Provide elevators (three), stairs and ADA parking spaces as required by code.
- 34. Install tie-backs at lower levels of Parking Structure. Obtain City of Los Angeles approvals.

## Hall of Justice

#### Civil Engineering Basis of Design

August 2010

#### Storm Drain System

The site is currently served by means of a 24-inch diameter storm drain line in Temple Street and a 27-inch storm drain line in Aliso Street. The roof drains of the existing Hall of Justice building are discharged to the Temple Street storm drain via a 12-inch diameter storm drain lateral located along the south east side of the building (City of Los Angeles Drawings 29585 and D-18254). The remainder of the site consists of a surface parking lot that drains by sheet flow to an existing on-site catch basin located at the corner of Spring and Aliso Streets. This on-site storm drain in-turn discharges to an off-site catch basin connected into the 27-inch diameter Aliso Street City of Los Angeles Drawing P-16915).

Roof drainage for the existing Hall of Justice building is intended to remain connected to the Temple Street storm drain system. The existing perimeter planters will continue to drain towards the adjacent streets. Depending on the final landscape plans for the project, area drains may be provided for the perimeter planters. These drains will discharge through the curb faces of the adjacent streets. The proposed parking structure roof drains will discharge to the Aliso Street storm drain. A stormceptor storm water treatment device will be provided to treat the storm water discharge prior to its being discharged to the Aliso drainage system.

Site storm drainage will comply with the County of Los Angeles Low Impact Development Ordinance, Title 12 – Section 12.84.

#### Sanitary Sewer Lines

The site is currently being served by four City of Los Angeles sanitary sewer lines as shown on the attached partial copy of City Wye Map 132 A 213C.

On Temple Street at Spring Street there are 8-inch and 6-inch diameter sewers. In addition, a 10-inch diameter sewer is located on Temple Street at North Broadway. This sewer is located in a tunnel that crosses from the Criminal Courts building to the Hall of Justice building. The fourth sewer is located on Spring Street at Aliso and is 10-inch in size. The Aliso sewer crosses the site and falls within the footprint of the proposed parking structure and will therefore have to be relocated on-site.

Because the occupancy of the building is being significantly reduced there is not anticipated to be a problem with off-site sewer capacities.

#### Water Lines

The site is currently served by an 8-inch diameter water line located in Temple Street. Domestic and fire water lines, each 6-inches in diameter in size, exit the building along North Broadway. These lines in-turn traverse the outside of the building along North Broadway to Temple Street. When more definitive information is made available on the domestic, fire, and landscape water requirements for the project, a Service Advisory Request will be processed through the Department of Water and Power to obtain pressure/flow data.

Civil Engineering Survey + Mapping 3D Surveying Subdivision Mapping Construction Surveying



Charlotte Sahara Nadel Architects, Inc. John B. Black Hall of Justice

July 2, 2010 Schematic hydrology analysis RBA No. 0301.001.10

Review the impact of the proposed improvements from a hydrology standpoint versus the existing improvements. The analysis will be based upon the following criteria:

- 1. Rational formula, Q = CIA
- 2. Rain intensity i of three (3) inches per hour.
- Run-off coefficients of 1.00 for impervious areas (conservative) and 0.60 for pervious areas.

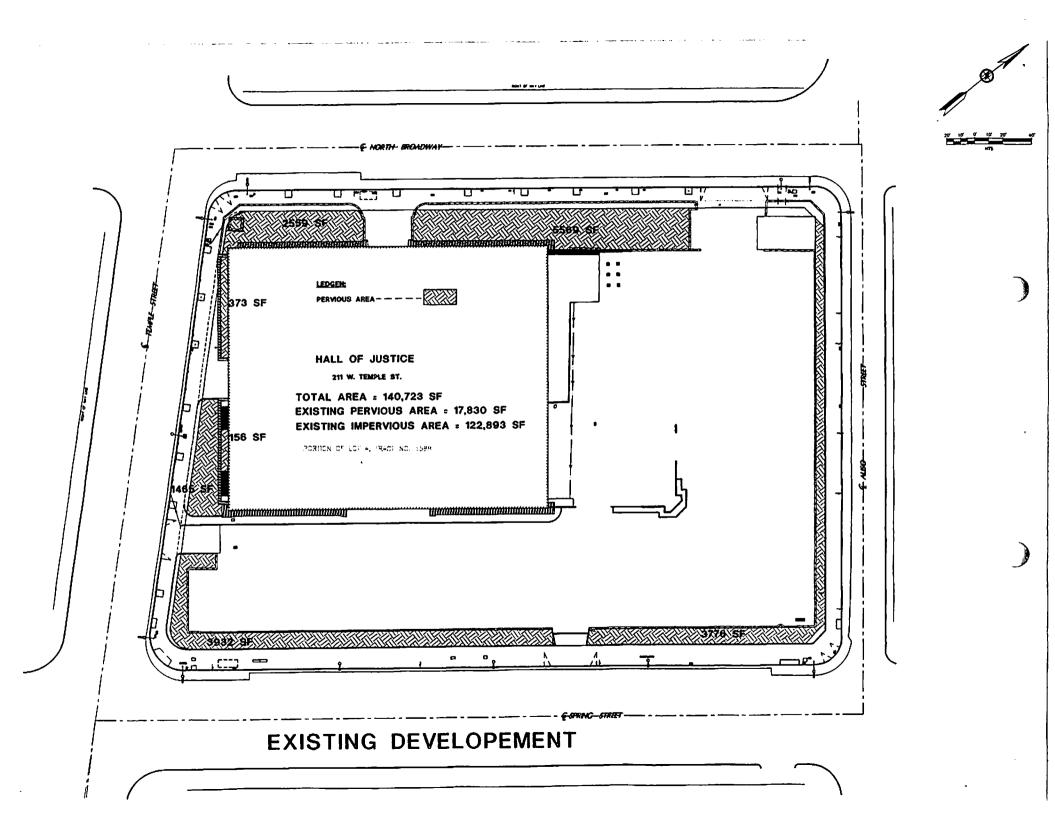
Existing conditions

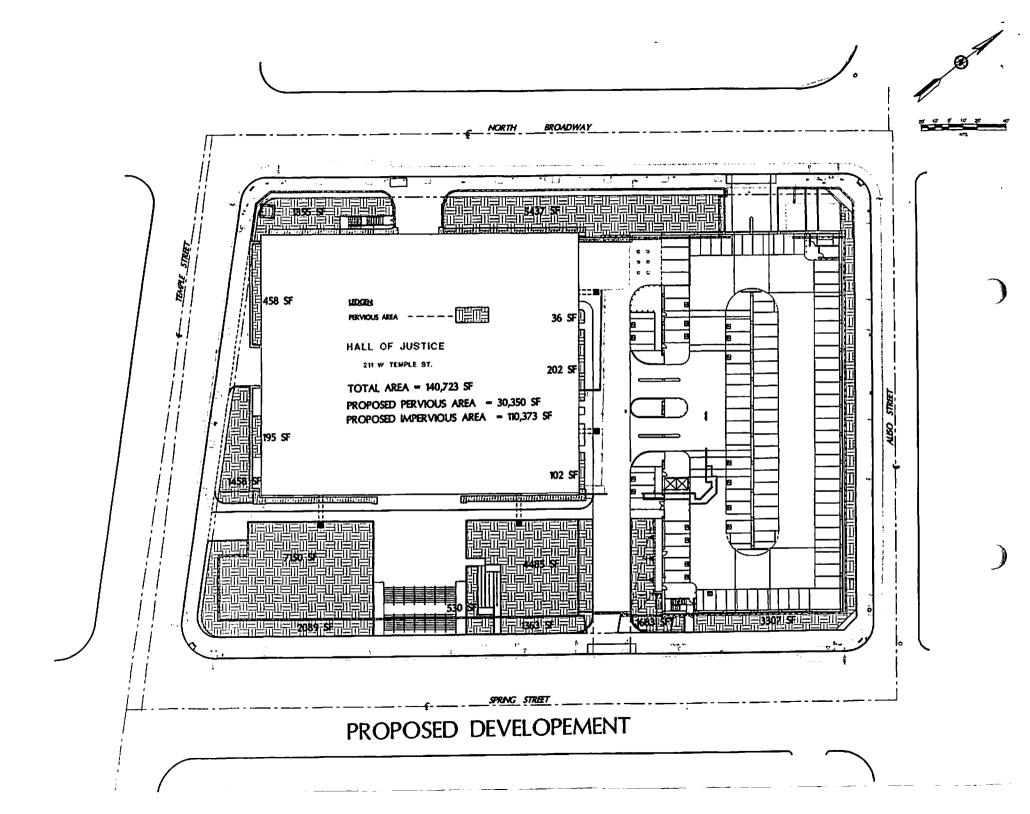
	SF	Acres	%
Pervious area	17,830	0.41	12.7
Impervious area	122,893	2.82	87.3
Total	140,732 sf	3.23 ac	100
Q = (1) (3) (2.82) +	(0.6) (3) (0.41)	= 9.2  cfs	
Proposed conditions			
	SF	Acres	%
Pervious area	30,350	0.70	21.6
Impervious area	110,373	2.53	78.4
Total	140,732 sf	3.23 ac	100

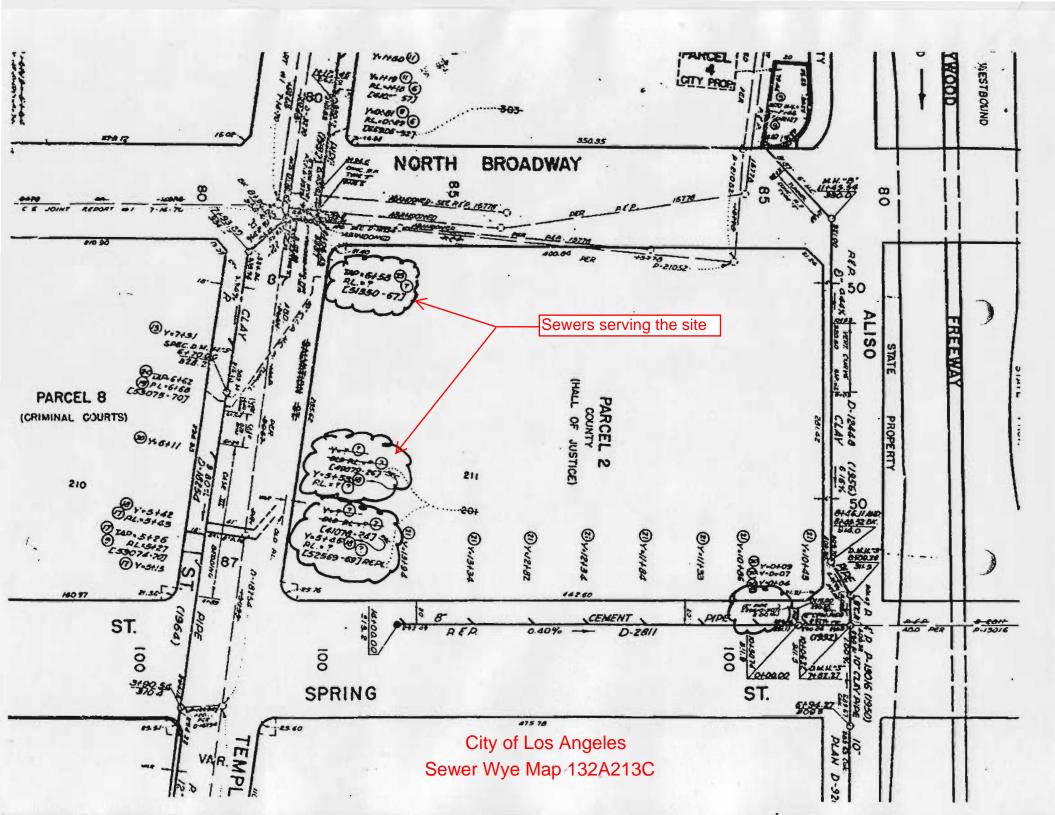
Q = (1) (3) (2.53) + (0.6) (3) (0.70) = 8.8 cfs

The anticipated storm water run-off from the proposed project will be reduced from the existing conditions by approximately 0.4 cfs as a result of the addition of approximately 12,520 sf of new landscape area to the project.

End of memo.







# MECHANICAL / PLUMBING / ELECTRICAL – BASIS OF DESIGN

## **Existing Conditions**

#### **Plumbing/Fire Protection**

The entire plumbing/fire protection system has been demolished except part of the storm drainage system and other items as indicated on plans.

Description of the existing plumbing/fire protection systems:

- 1) Storm drain system (area drains, roof drains): May not be in working order. There is no overflow drainage system.
- 2) Domestic cold water: Capped 6 inch DWP service on North Broadway side of building.
- 3) Domestic Hot Water: Equipment and most piping have been removed.
- 4) Fire Protection: Capped 6 inch DWP service on North Broadway and Temple Street sides of building. Most piping has been removed except standpipe risers and historic fire department connection.
- 5) Housekeeping Vacuum: Capped abandoned service, LA County service tunnel at southwest corner of building in basement.
- 6) Natural Gas: Capped SCG Co service on North Broadway side of building.
- 7) Waste and vent: Capped service on north side of building to Spring Street on south side of building to Temple Street and in LA County service tunnel at southwest corner of building all in basement.

#### Electrical:

Descriptions of the existing electrical systems are as follows.

- Existing Electrical System: The existing electrical system is comprised of two unit substations, 75KV-120/240 volt, single-phase, 500KVA and one 400 amp, oil-filled, load break switch. All existing electrical rooms in building have been demolished.
- 2) Existing Lighting System: The existing lighting system consisting of a variety of fixtures and lamps, including fluorescent and incandescent fixtures; lighting control devices; associated conduit and wiring; have been demolished with the exception on any fixtures deemed part of the historical fabric of the building.
- 3) Existing Fire Alarm System: The existing fire alarm system consisting of manual system with supplemental automatic fire alarm devices has been demolished.

- 4) Existing Security and CCTV system: The existing security and CCTV system has been demolished.
- 5) Existing Telephone / Data System
  - a) The main telephone backboard with distribution throughout the building has been demolished.
  - b) The data system is basically present in the building.
- 6) Public Address, Sound and CATV Systems.
  - a) There is no overall public address system or background music system.
  - b) There is no overall cable TV system to the building.

#### **Design Narrative**

#### Mechanical

1) Codes and Standards: The HVAC systems will be designed to conform, at a minimum to the following codes and standards.

California Building Code California Mechanical Code California Fire Code The National Fire Protection Code (NFPA) American Society of Heating, Refrigeration and Air Conditioning (ASHRAE) American Society for Testing and Materials (ASTM) American National Standards Institute (ANSI) Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) American Society of Mechanical Engineers (ASME) Air Conditioning and Refrigeration Institute (ARI)

- 2) Basis of Design
  - a) Cooling and Heating Load calculation will be performed using the design conditions as follows:

Outdoor Condition: Based on the 0.5% design temperatures ASHRAE Climatic Data for Los Angeles, California.

Summer 92 degrees F db/68 degrees F wb Winter 41 degrees

Indoor Condition 75 degrees at 50% RH

Lighting 1.5 Watts/SF Receptacle 0.5 Watts/SF People 100 SF/Person Offices 15 SF/Person Halls/Assembly Areas

Ventilation 20 CFM/Person

- 3) Air Handling System
  - a) Air handling system will be variable air volume with relief economizer. Each air handling unit will include supply fan with variable frequency drive, cooling coils and filters.
  - b) Basement and 1st floor will be served by 2 units located in the basement. 2nd and 3rd floor will be served by units located on the 3rd floor. The 4th thru 8th floors and 14th floor will be served by air handling units located on each floor and the 9th and 10th floors will be served by units located on the 10th floor.
  - c) Economizer is thru use of relief fans. Individual fans will be used for units serving Basement, 1st, 2nd and 3rd floors. Relief for the 4th through 14th floors will be common thru a relief shaft adjacent to the fan room. Exhaust/Relief fan will be located on the roof.
  - d) Zoning will include exterior and interior. Zones and will be served by variable volume terminal boxes with reheat coils.
- 4) Chilled Water System
  - a) Source of chilled water is the existing central plant serving the building. Secondary chilled water pumps will be provided to supply the building. Piping system will be provided with a bypass to maximize the temperature going back to the central plant. Pumps will be provided with variable frequency drives.
  - b) Water will be circulated from the pumps to air handling units within the building. Two way valves will be provided to control chilled water to the air handling units.
  - c) Chilled water pumps will be located in the basement mechanical room.
- 5) Heating system
  - a) Heating hot water system will consist of steam to water heat exchangers, heating hot water pumps, expansion tank, air separator and pot feeder.
  - b) Water will be circulated from the heat exchangers up the all variable air volume terminal box reheat coils on each floor. Pumps will be provided with variable frequency drives.
  - c) Steam source will be from the existing central plant serving the building.
  - d) Heat exchangers, pumps, expansion tank and air separator will be located in the basement mechanical room.

- 6) Steam System
  - a) Steam from the existing central plant will be providing steam for the building. Steam will be supplied to heating hot water heat exchangers and domestic water heat exchangers.
- 7) Exhaust Systems
  - a) Exhaust fans will be provided for all toilets, janitor's closets and other rooms such as mechanical and electrical room. Exhaust for toilets will be located on the roof.
- 8) Stair Pressurization.
  - a) Each exit stair will be provided with stair pressurization fan. Supply will be ducted and will be supplying each floor to maintain the differential pressure between the stair and vestibule and vestibule and occupied space.
- 9) Smoke Evacuation
  - a) Smoke evacuation exhaust fans will be provided for the Basement and 1st floor.
- 10) Elevator Machine Rooms
  - a) Elevator machine rooms will be provided with package roof top air conditioning units.
- 11) IT Rooms
  - a) IT rooms will be provided with chilled water fan coil units.
- 12) Parking Garage
  - a) Five levels of underground parking garage will be provided with mechanical ventilation system. System will be a push/pull system complete with exhaust and makeup fans.

Parking levels BP-1 through BP-4 will be provided with 2 exhaust fan each and one make up fan. The exhaust fans will be located in fan rooms located at the South east and north west corner of the parking structure. The make fan for each level will be located in a fan room located at the east side of the parking structure. The enclose portion of level one will also be provided with one exhaust fan.

Ducted exhaust will be provided and will be ducted directly to the exhaust fans. Low inlet approximately 12" above finish floors will be provided at 50 ft interval maximum.

Exhaust and intake shafts will be provided at each fan room.

b) Carbon monoxide monitoring system will be provided to control operation of exhaust and makeup fans.

# Plumbing

- 1) Storm drain and overflow:
  - a) Demolish all existing piping and drains.
  - b) Provide all new roof drains, overflow drain and piping as indicated on plans.
  - c) Provide receiver sump pump in basement for building light wells at 1<sup>st</sup> floor.
  - d) Jet clean basement and 1<sup>st</sup> floor air/light well areas and 12<sup>th</sup> floor ledge drains. Replace corroded / damaged piping and drains with new.
- 2) Domestic cold water:
  - a) Verify site water pressure with DWP.
  - b) Replace building water service and provide reduced pressure type backflow preventor.
  - c) Provide variable speed booster pump system in basement serving interior building, restrooms and kitchen (size at maximum 5 psi/100 ft @ 8 ft/sec velocity).
- 3) Domestic hot water:
  - a) Provide steam fired 140 degree hot water storage type water heater with circulating pump for kitchen.
  - b) Provide steam fired 120 degree hot water storage type water heater with circulating pump for hand washing etc.
  - c) Provide variable speed hot water booster pump for upper floors and to maintain equal pressure with cold water system (size at maximum 5 psi/100 ft @ 5 ft/sec velocity).
  - d) Design circulating piping system to provide the rule of 15 second maximum to faucet and maximum 15 feet branch line.
  - e) Provide high temperature alarm on 120 degree hot water system at water heater with alarm at a 24 hour manned location.
- 4) Fire Protection:
  - a) Entire existing building is to be fire protected.
  - b) Provide duplex electric fire pumps with jockey system located in basement. Contractor to soft start and transfer switch assembly.

- c) Provide second source of water.
- d) Verify/provide fire service (existing or new) with DWP and include detector check with Fire Department connection.
- e) Existing Fire Department connection plate on building is to be used if possible.
- 5) Housekeeping Vacuum: Remove remaining parts and piping except in inaccessible areas.
- 6) Natural Gas:
  - a) Coordinate with Gas Company to provide new gas service for kitchen.
  - b) Provide earthquake valve outside at gas meter.
- 7) Waste and Vent:
  - a) Provide all new cast iron waste and vent piping except existing vents thru roof may be used.
  - b) Provide stainless steel to all kitchen waste piping.
  - c) Provide grease interceptor outside on north side of building, include heat trace and level alarm.
  - d) Provide sewer ejector for any basement sewer system. All other floors shall be gravity flow.
- 8) Parking Structure:
  - a) Entire piping structure is to be fire protected.
  - b) Storm drains with piping to site storm drain piping system. All horizontal piping shall have 8'-0" minimum clearance.
  - c) Overflow drains with piping to spill to grade. All horizontal piping shall have 8'-0" minimum ADA clearance.
  - d) Provide emergency floor drains on floor below grade to a sewage ejector pumped to sewer system.
  - e) Provide perforated subsoil piping around base of structure and drain to sump pit, pumped to storm drain system.
  - f) Coordinate first flush interceptor with civil site storm drain system.

# Electrical

- 1) Tenant Package Power System:
  - a) A new 1000A medium voltage service from DWP will be required to meet the estimated power load of the building and parking structure. This will require the construction of a 25' x 30' exterior utility enclosure adjacent to the new parking structure. The enclosure will contain DWP provided high voltage switch and utility transformer. The enclosure will be positioned in such a way as to provide 24/7 access to within 5'-0" for a 5-ton DWP truck.
  - b) Adjacent to the DWP yard, will be a 1,000A, 5K NEMA 3R main switchboard "MSA" custommade for "front access only". From this location, conduits will be routed underground to feed the medium-voltage switchboard located in the main electrical room.
  - c) Adjacent to the main switchboard "MSA" area, will be a 750 KVA emergency generator in a sound attenuated enclosure. This generator will have a 24 hour rated sub-base fuel tank, a remote annunciator located in the fire control room and feeders to a generator switchboard located in the main electrical room.
  - d) The main electrical room will be located in the basement. This will consist (3) 400A, 5KV rated disconnect switches that will feed (3) unit substations. The substations will step-down 4160 volts to 480/277 volts at three-phase, 4-wire and feed (3) 1600A bus ducts.
  - e) The building distribution will consist of (2) bus ducts serving six floors each and (1) bus duct to feed a 1,600A switchboard to power mechanical loads and the parking structure. In the electrical room on each floor, a 400A bus plug switch will feed a 400A, 480/277V, 3-phase, 4-wire distribution switchboard. This switchboard will in turn feed the 480V HVAC loads and 277V lighting loads for that floor. In addition, the switchboard will also feed a 225KVA, 480-208/120V, 3-phase, 4-wire step-down transformer, which will in turn feed an 800A, 208/120V, 3-phase, 4-wire distribution switchboard that provides power for multiple 225A branch panel-boards for all the 120V load requirements for that floor.
  - f) An 800A switchboard will be located in the parking structure to feed all the mechanical, lighting and elevator loads.
- 2) Lighting System: The lighting system will consist of energy efficient fixtures along with the use of lighting control devices to comply with Title 24 and LEED Silver requirements. Primarily fluorescent fixtures will be used in office spaces and other general areas. In cases where historic materials are concerned, proper incandescent lighting will be considered. Also, fixtures identified as historical will be kept and utilized. Lighting to create proper ambiance, such as lobbies, corridors, and other places of public gathering will be selected appropriately. Lighting controls to assist the use of energy efficiently, such as occupancy sensors, timers and bi-level switching will be utilized. Dimming capabilities will be provided conference areas. LED lights will be used for the parking structure.

- 3) Fire Alarm System: A new fully-automatic, addressable fire alarm system. This will consist of smoke and heat detectors providing full coverage in every occupant space and a manual pull-station on each floor and at all exit doors on the ground level for the initiation requirements of the system. The notification devices will consist of a voice evacuation system with speakers to provide audible alarm and strobe lights to provided visual alarm, located per current CFC code, to comply with ADA requirements. Additional ancillary detectors and monitors (i.e., elevator recall, emergency generator annunciation, secured communication telephone circuits for Fire Department use, etc) will be required along with any other equipment to be monitored and/or controlled by the fire alarm system.
- 4) Security and CCTV System: A new security and CCTV system will be utilized throughout. Provide conduit and wiring for detection and alarm equipment at entry levels. Coordinate with the County representatives on the location of anticipated motion detectors and additional CCTV and provide power connections.
  - a) Intrusion alarm system
    - 1) Provide conduit and wiring for detection and alarm equipment at entry levels.
  - b) Check point entry system (card readers)
    - 1) Provide conduit and wiring at parking structure entry points, stairwells on each floor, elevators and six entry points.
  - c) CCTV system
    - 1) Provide conduit and wiring to camera locations in public areas including parking structure.
- 5) Telephone / Data System: A new structured cabling system, utilizing upgraded technology driven cable will be provided. A data system consisting of fiber optic cables and CAT 6 copper cables will be provided to allow a building wide network to be implemented. Each individual tenant will have the capability of utilizing a local area network, however provisions for a building wide network should be considered. Utilize CAT 6 cabling for the telephone system. Design/Build contractor shall provide a complete and operable County approved building-wide telephone system. Coordinate incoming services with utility representatives.
- 6) Public Address, Sound, and CATV system:
  - a) A conduit system for required public address system will be provided and coordinated with the County. It is expected that the County will provide criteria and the Design Builder coordinate the specialty contractor.
  - b) A complete CATV system will be provided. Location of CATV outlets will be coordinated with the county to ensure all locations requiring CATV will be provided. Coordinate incoming services with utility representatives.

#### **AREA TABULATION**

# August 2010

# HALL OF JUSTICE

FLOOR	GROSS AREA (SQ. FT.)	RENTABLE AREA (SQ. FT.)	USABLE AREA (SQ. FT.)
Basement	37,900	34,700	20,210
1st Floor	36,418	29,134	19,444
2nd Floor	36,418	28,959	16,142
3rd Floor	36,418	30,020	25,365
4th Floor	35,450	29,458	25,853
5th Floor	35,450	29,458	26,125
6th Floor	35,450	29,388	25,800
7th Floor	35,450	29,669	26,390
8th Floor	35,450	29,892	21,537
9th Floor	32,621	27,446	20,586
10th Floor	35,037	31,571	27,153
11th Floor	0		
12th Floor	32,700	28,467	24,830
13th Floor	0		
14th Floor	34,626	28,520	25,143
Penthouse	0		
GRAND TOTAL	459,388	386,682	304,578

-Site Area within property lines - 140,700 sq. ft. - HOJ & PS 81,000 sq. ft. = 59,700 -Area beyond property line to curb 163,000 - 140,700

= 23,000 sq. ft.

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