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Fax: 203 422 7784

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Washington, D.C. 20008
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Tel: 202 457 7841
Fax: 202 955 5564

ZONING COMMISSION
District of Columbia
CASE NO. 07-21
EXHIBIT NO. 19

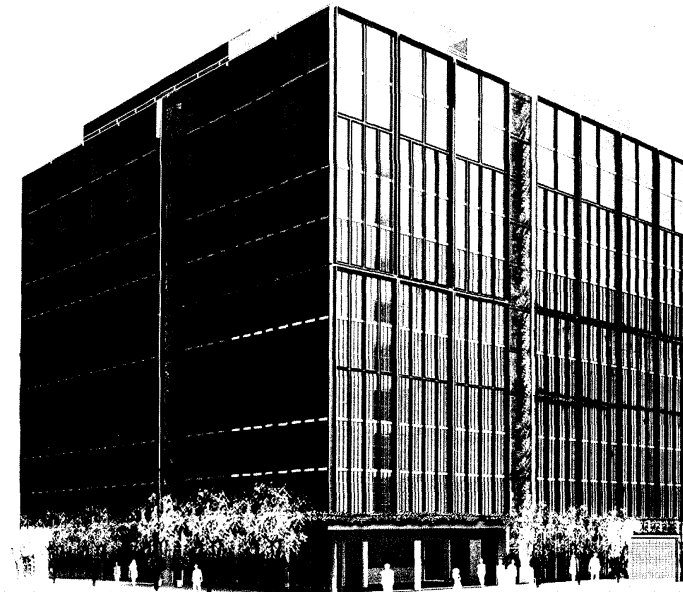
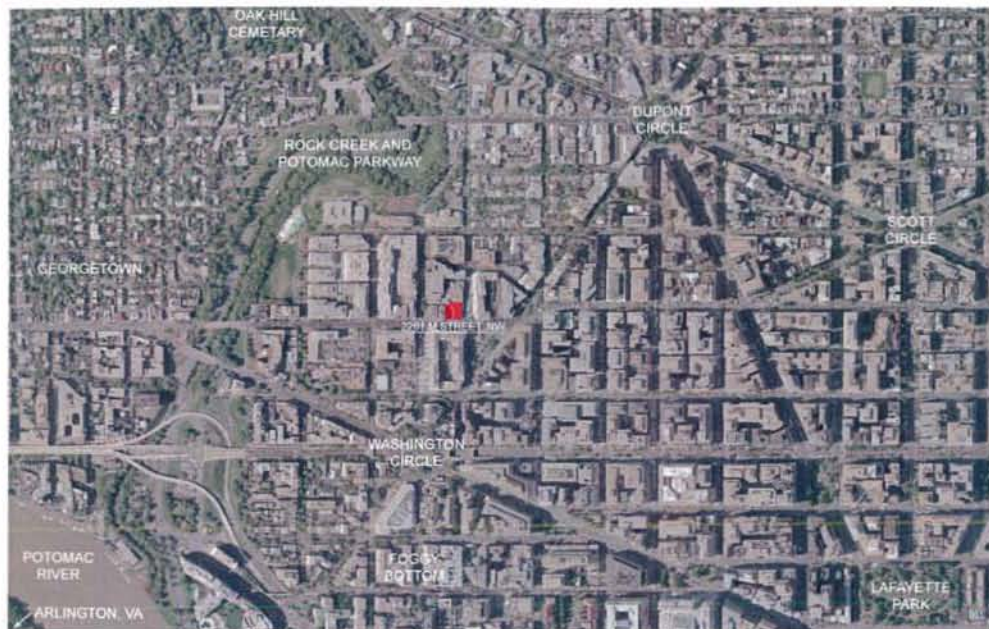


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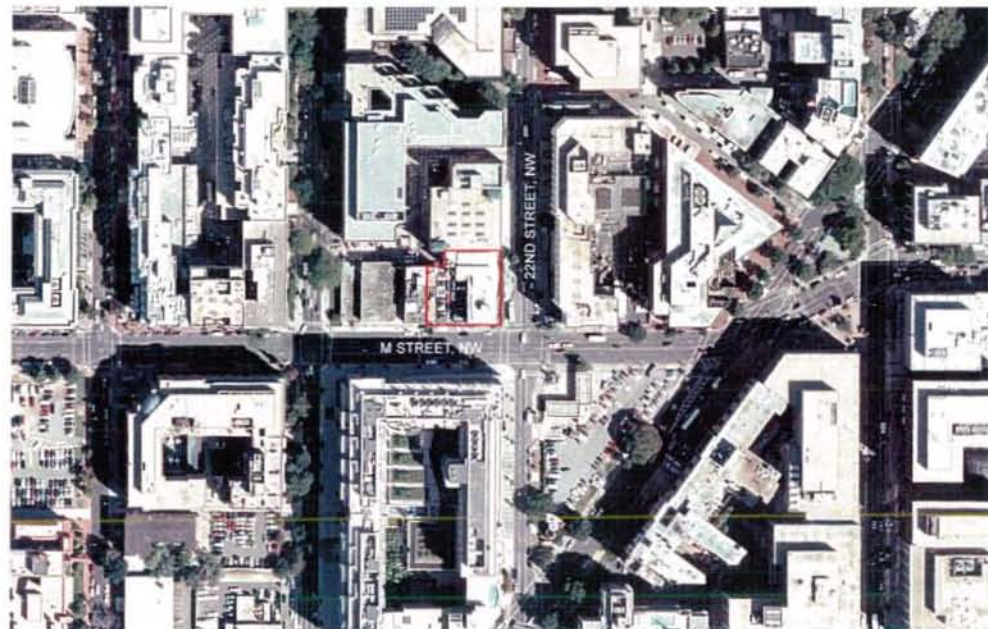
SECTION	ITEM	SHEET
2406 11(b)	Map showing location, existing zoning of subject site and adjacent properties and any change of zoning	Z.00
2406 11(e)	Tabulation of development data:	
.11(e)(1)	Area and dimensions of each lot Exact area of total site	Z.00
.11(e)(2)	Percentage of lot occupancy: for each building on each lot for all buildings on entire site	Z.00
.11(e)(3)	Gross floor area and floor area ratio: for each building on each lot for all buildings on entire site including a breakdown for each use	Z.00, Z.01
11(e)(6)	Estimated quantities of potable water, sanitary sewage and storm water including methods of calculation	C.04
2406 12(c)	Detailed site plan:	
.11(d)	Location and external dimensions of all buildings and structures	A.00b
	Utilities and other easements	C.02
	Walkways and driveways	A.00b
	Plazas, arcades and open spaces	A.00b
2406 12(d)	Detailed landscaping and grading plan:	
.11(e)(5)	Existing topography, contours, natural features, landscaping	C.01
	Existing trees of 6" caliper or greater	C.01
	New contours, proposed finished grades, planting and landscaping	C.02
	Proposed drainage, including water and sewer lines, inlets and basins connections to public water and sewer lines	C.01, C.02
	Proposed erosion controls	C.03
	Location and elevations of public or private streets, alleys or easements bounding or traversing the site, including an indication of any rights-of-way or easements to be continued, relocated or abandoned	A.00b, C.02
2406 12(e)	Architectural plans:	
	Typical floor plans and elevations for each building	A.03-A.11, A.14-A.19b
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2406 12(f)	Circulation plan:	
.11(e)(4)	Driveways and walkways, including widths, grades and curb cuts	A.00b
	Location and number of parking spaces	A.03, A.04, Z.00
	Location and number of loading berths	A.00b, Z.00
	Designation of spaces for different uses	A.03, A.04

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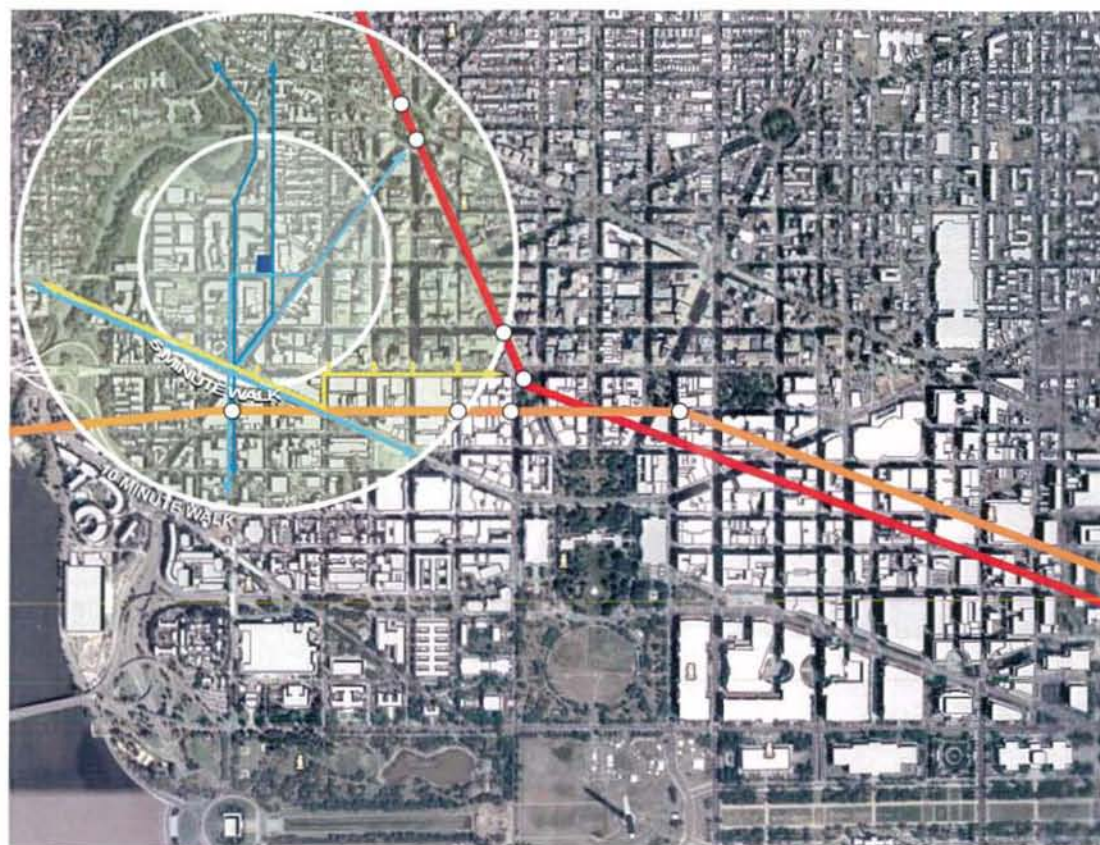
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E.02	Existing Site Photos
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Z.03	Zoning: Building Envelope Rear Yard
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C.05	Computations Sheet



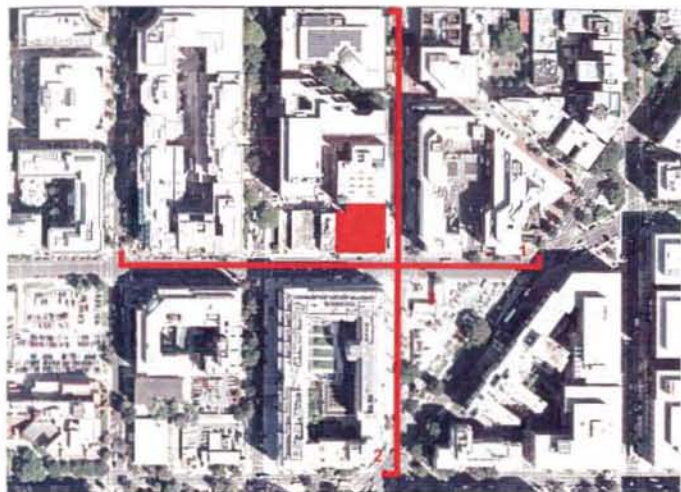
LOCATION PLAN - REGIONAL



LOCATION PLAN - LOCAL



- SITE ■
- FARRAGUT WEST METRO LINE ■
- FARRAGUT NORTH METRO LINE ■
- METRO STATION ENTRANCE ○
- METRO BUS LINES ■
- GEORGETOWN UNION STATION ■
- CIRCULAR BUS ROUTE ■



3 M STREET AND 22ND SE CORNER



1 M STREET CONTEXTUAL ELEVATION



2 22ND STREET CONTEXTUAL ELEVATION



ZONING MAP
SCALE: 1/250'

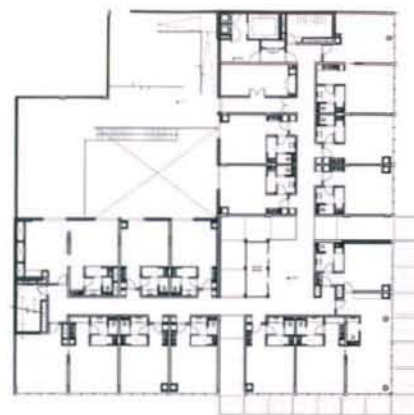
Zoning District: CR			
SECTION: ZONING TABULATION OF DEVELOPMENT DATA: 1 HOTEL - 2201 M STREET			
Lot Areas:			
2201 M Street NW Square 50, Lots 82, 84, 813, 814, and 816			
Address 2201 M Street NW, Washington, DC			
Site Area 15,590 SQ. FT.			
		Permitted / Required	Proposed
630 / 2405	Max. Building Height (FT)	+ 110' - 0"	+ 110' - 0"
631 / 2405	Max. FAR w / PUD	8.0	7.84
FAR Calculations			
8.0 x Gross Lot 15,590 SF =		124,720 SQ. FT.	122,235 SQ. FT.
Level 1 - Lobby, Bar, Restaurant		14,102 SQ. FT.	
Level 2 - Guest Rooms, Tea Room		11,559 SQ. FT.	
Level 3 - Guest Rooms (Typical)		10,784 SQ. FT.	
Level 4 - Guest Rooms (Typical)		10,784 SQ. FT.	
Level 5 - Guest Rooms (Typical)		10,784 SQ. FT.	
Level 6 - Guest Rooms (Typical)		10,784 SQ. FT.	
Level 7 - Guest Rooms (Typical)		10,688 SQ. FT.	
Level 8 - Guest Rooms (Typical)		10,688 SQ. FT.	
Level 9 - Guest Rooms (Typical)		10,688 SQ. FT.	
Level 10 - Guest Rooms (Suites)		10,688 SQ. FT.	
Level 11 - Guest Rooms (Suites / PH)		10,688 SQ. FT.	
Total		122,235 SQ. FT.	
633	Min. Req'd. Public Space at Grd. Level (SF)	1,559	0
634	Min. Req'd. Lot Occupancy	100%	90%
636	Min. Req'd. Rear Yard (FT)	27.5'	0
638	Min. Req'd. Court Width (FT) + Area (SF)	22'-11" x 12' = 275 SF	45' x 30' = 1,350 SF
639 / 411	Max. Roof Structure Height	18'-6"	18'-6"
639 / 411	Roof Structure Setback - Street Frontage (FT)	18'-6"	18'-6"
FAR Calculations Roof			
.37 x Gross Lot 15,590 SF		5,768 SQ. FT.	4,940 SQ. FT.
Level 13 - enclosed stairs, elevator lobby + mech		4,940 SQ. FT.	
Total		4,940 SQ. FT.	
2101	Parking: Hotel 148 Rooms * (1 space / 4 rooms)	37	42
2201	Min. Req'd. Loading Berths	1 @ 12' x 30'	1 @ 12' x 30'
	Min. Req'd. Service/Delivery Loading Spaces	1 @ 12' x 20'	1 @ 12' x 25'
	Min. Req'd. Loading Platforms	1 @ 100 SQ. FT.	1 @ 305 SQ. FT.

* Applicant seeking flexibility to provide up to 176 rooms, based on 42 zoning compliant parking space.

TABULATION OF DEVELOPMENT DATA



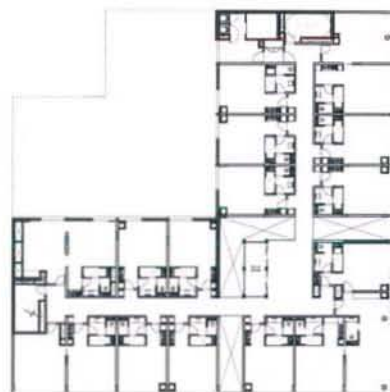
FAR GROUND LEVEL
14,102 SQ. FT.



FAR LEVEL 2
11,559 SQ. FT.



FAR TYP. LEVELS 3-6
10,784 SQ. FT.



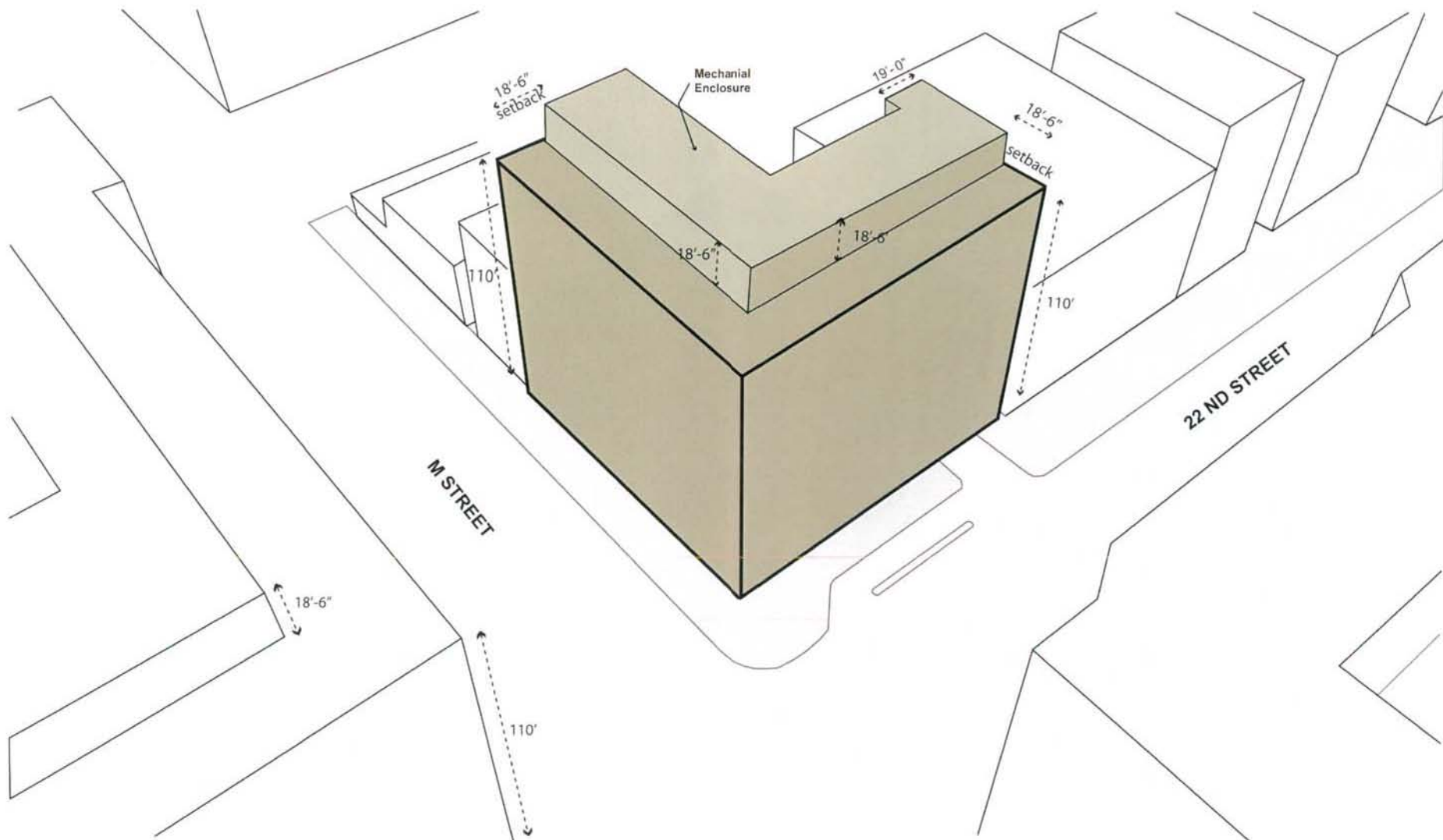
FAR LEVEL 7-10
10,688 SQ. FT.



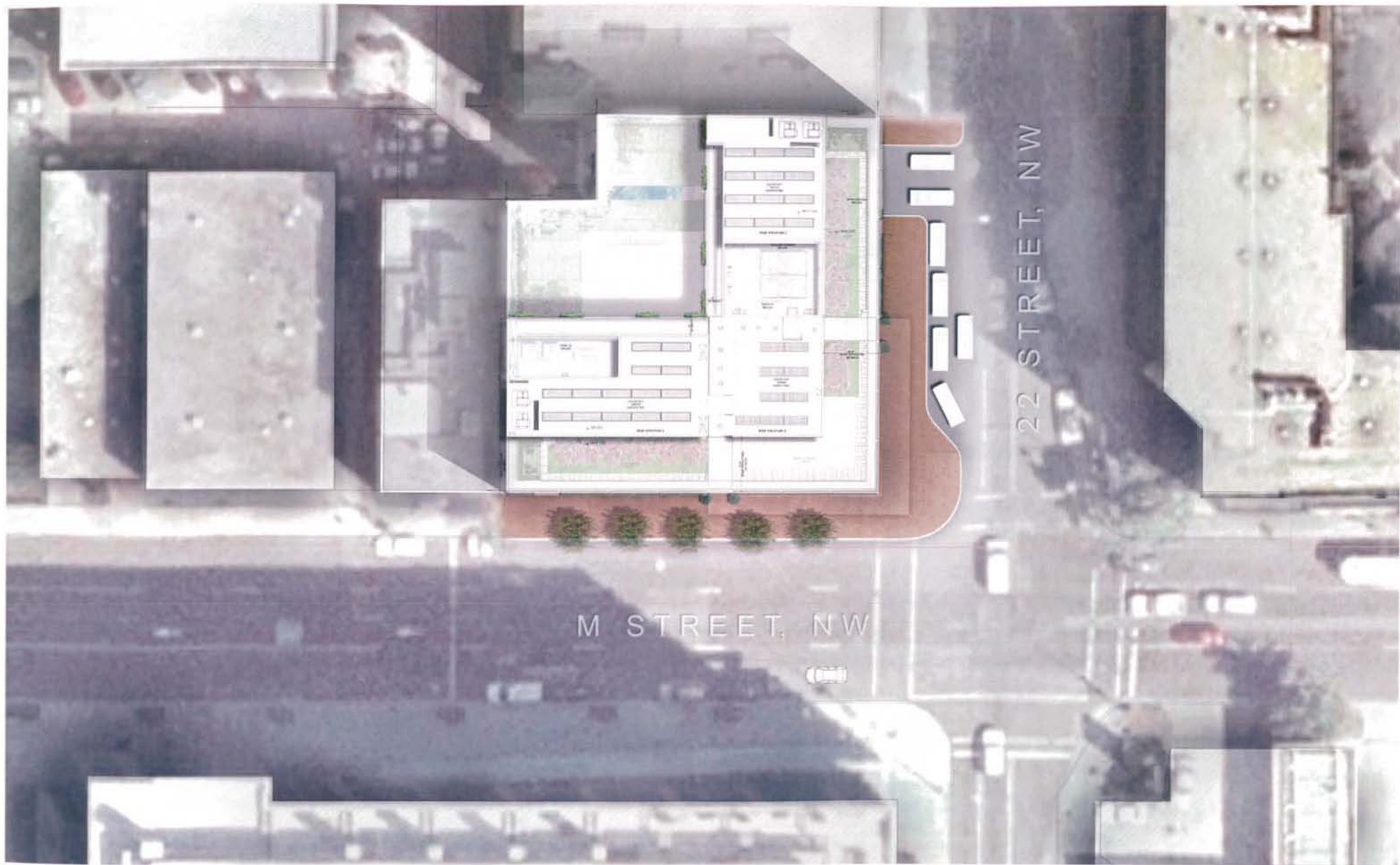
FAR LEVEL 11
10,686 SQ. FT.

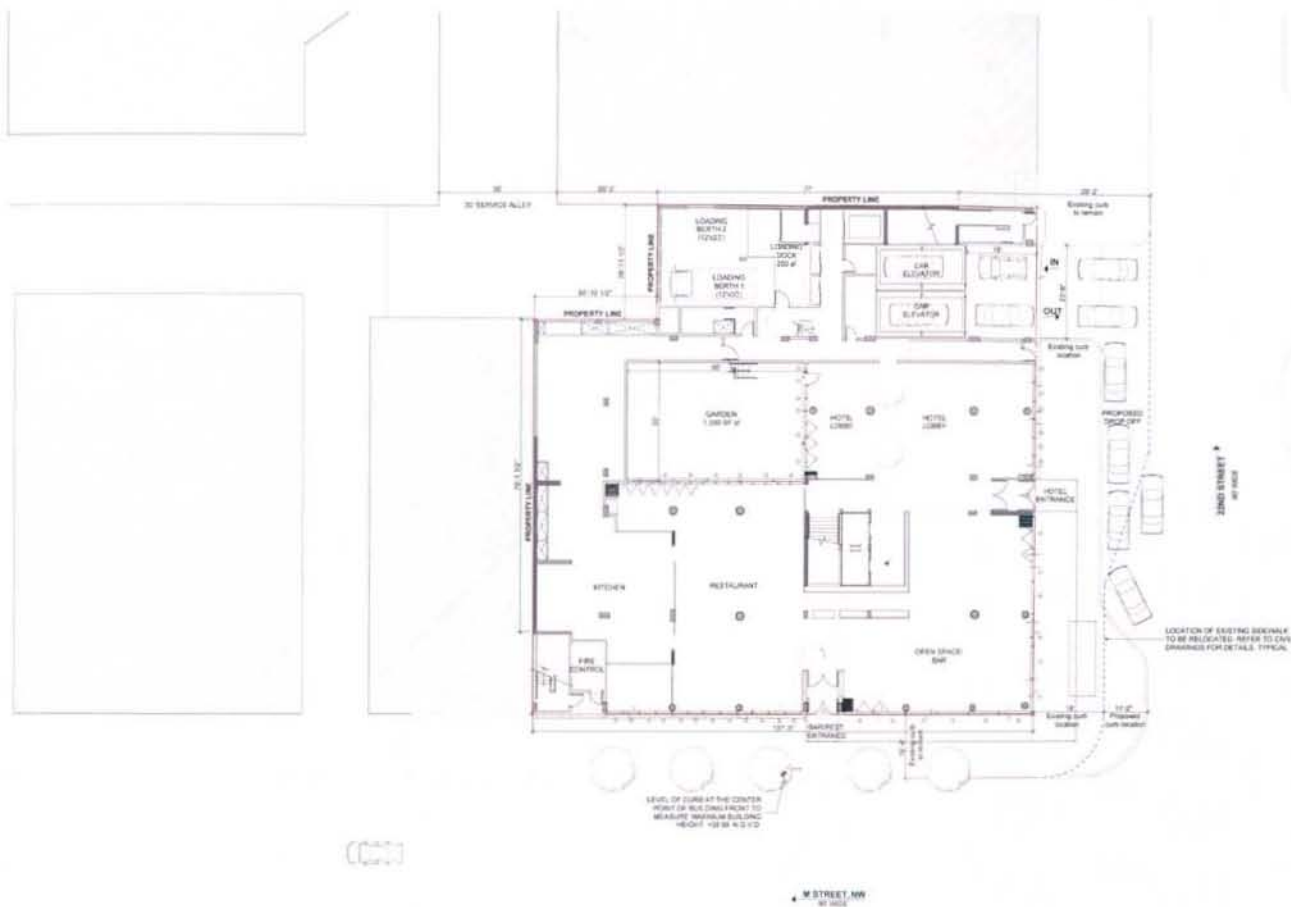


ROOF FAR
4,940 SQ. FT.



Proposed Building Envelope





BRICK PAVING OF COURTYARD
(CONTINUATION OF INTERIOR)

COURTYARD TREES
8 SHAWNEE CANOPY

CLIMBING PLANTS IN PLANTERS
PLY OR SIMILAR TREES BY THE PLANT

SHADES TREES
10 SHAWNEE CANOPY

CLIMBING PLANTS IN PLANTERS
PLY OR SIMILAR TREES BY THE PLANT

SHRUBS IN PLANTERS
3 SHAWNEE CANOPY

BRICK PAVING
(CONTINUATION OF INTERIOR)

FINAL LANDSCAPE DESIGN
DETAILS SUBJECT TO CHANGE
AND WILL BE SUBMITTED
PRIOR TO PUBLIC HEARING

1" = 10' 0"

LEVEL 2 - TEA GARDEN

REFLECTING POOL 1

COURTYARD TREES
6' - 8' DIAMETER CANOPY

SHRUBS AND FLOWERING PLANTS
VARIATIONS OF EVERGREENS AND DECIDUOUS

LEVEL 12 - ROOF GARDEN

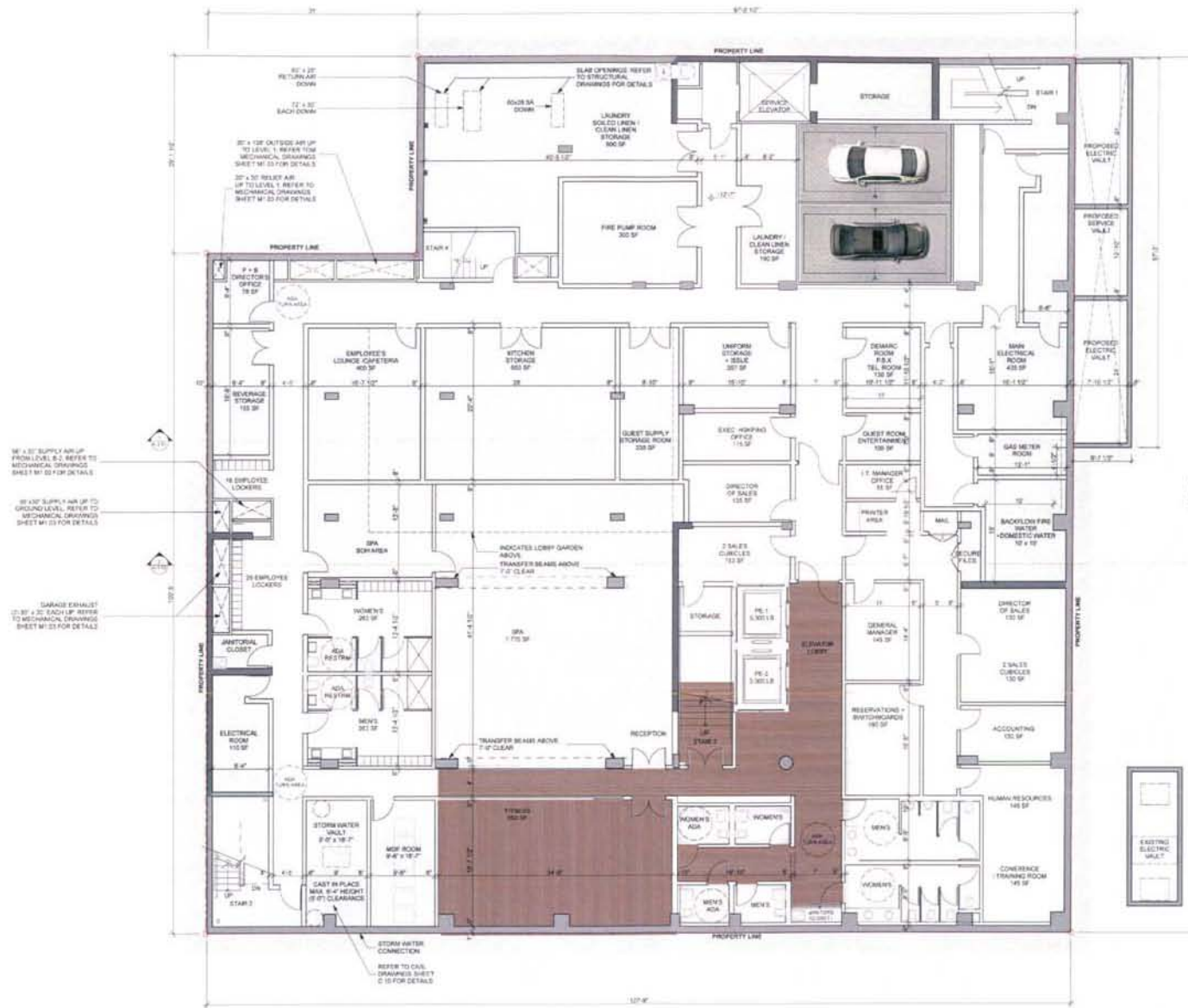
TREES IN RAISED PLANTERS
6' - 8' DIAMETER CANOPY

PERMEABLE ROOF SURFACE

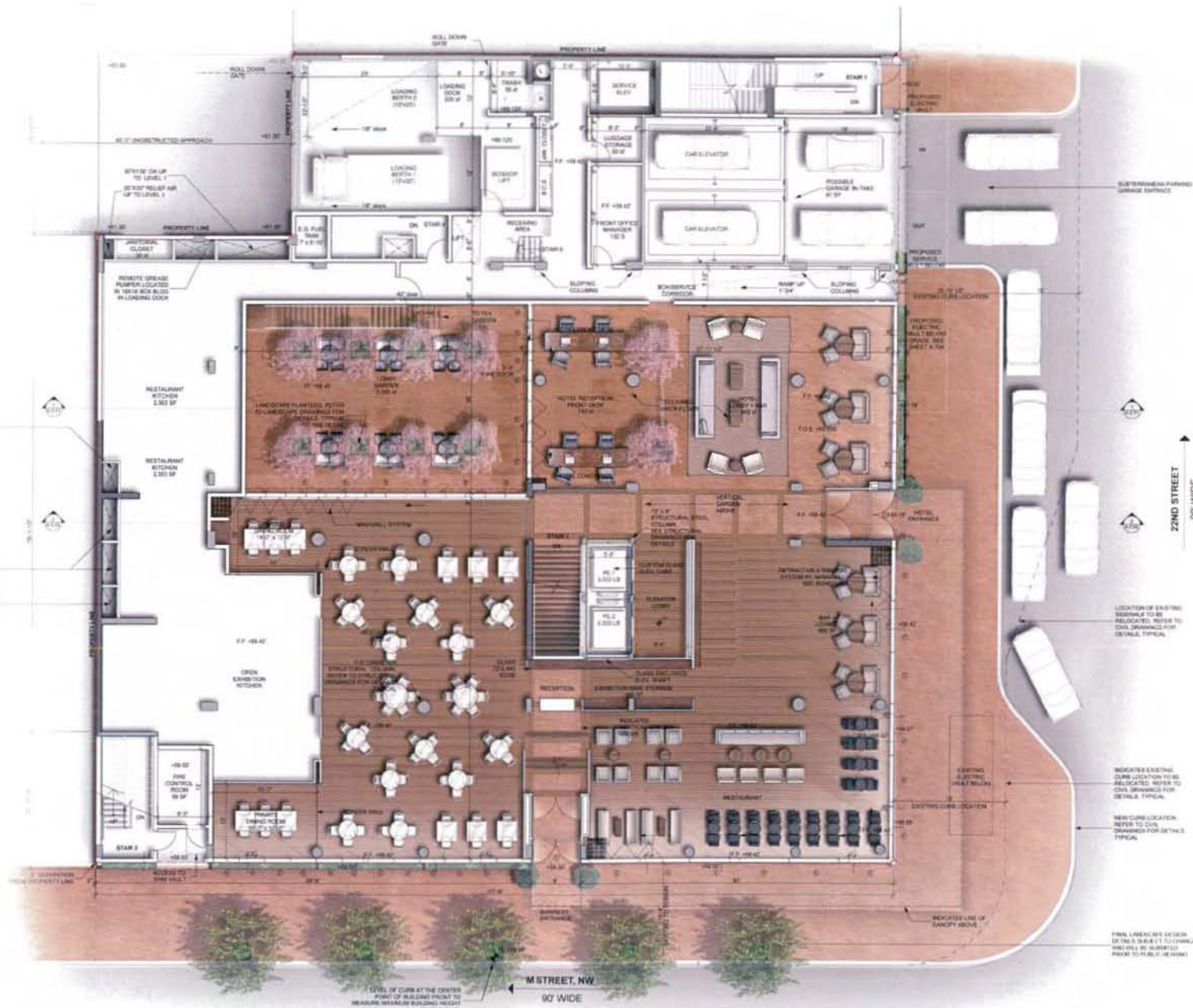
HARDSCAPE ROOF SURFACE
(DECK AND TERRACE)

FINAL LANDSCAPE DESIGN
DETAILS SUBJECT TO CHANGE
AND WILL BE SUBMITTED
PRIOR TO PUBLIC HEARING

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



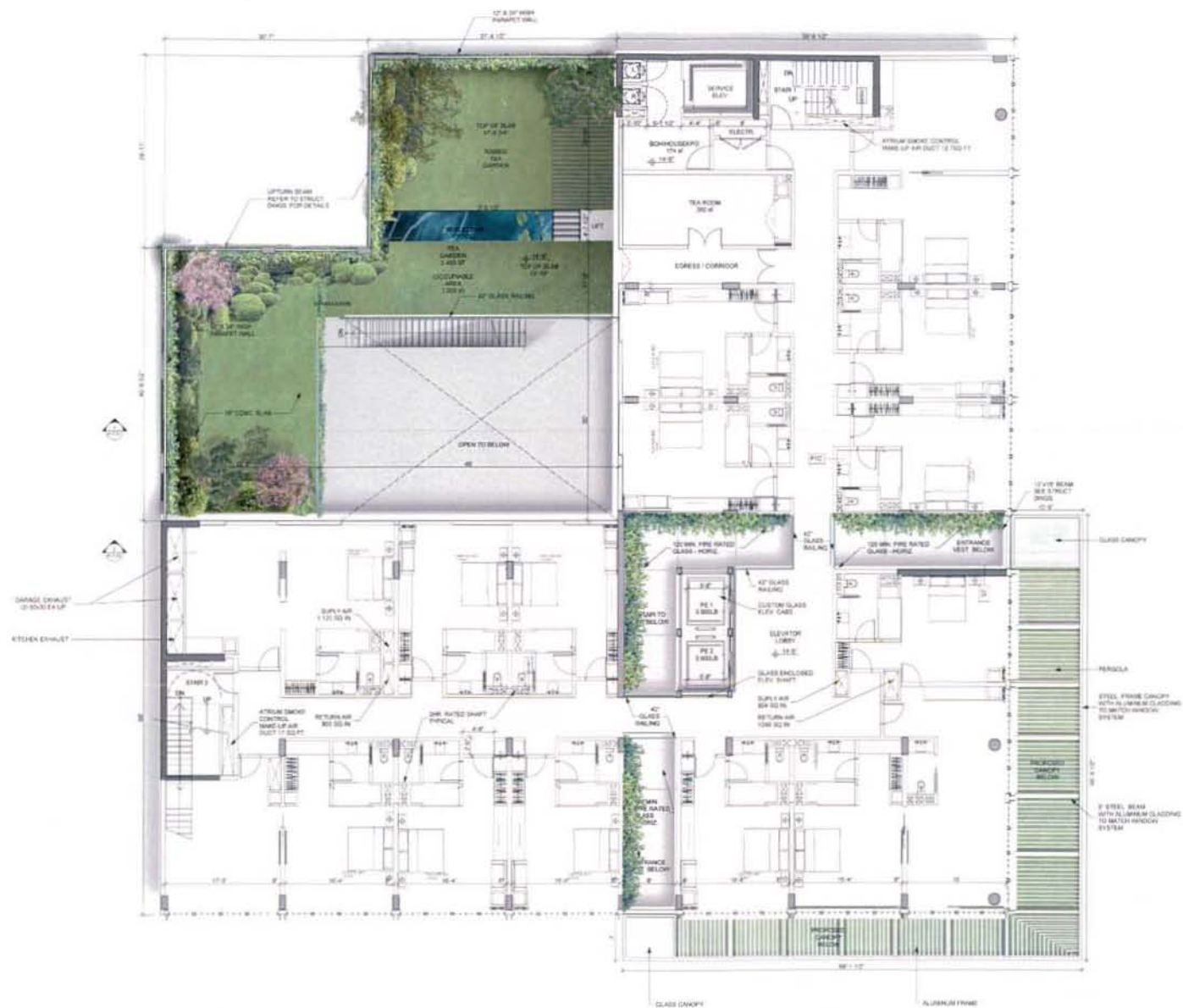
0 10 20 30



PERSTAR M STREET PARTNERS L.L.C.
 2213 M STREET LIMITED PARTNERSHIP
 OPPENHEIM + LEO A DALY

1
 HOTEL WASHINGTON, D.C.
 2301 M STREET, NW

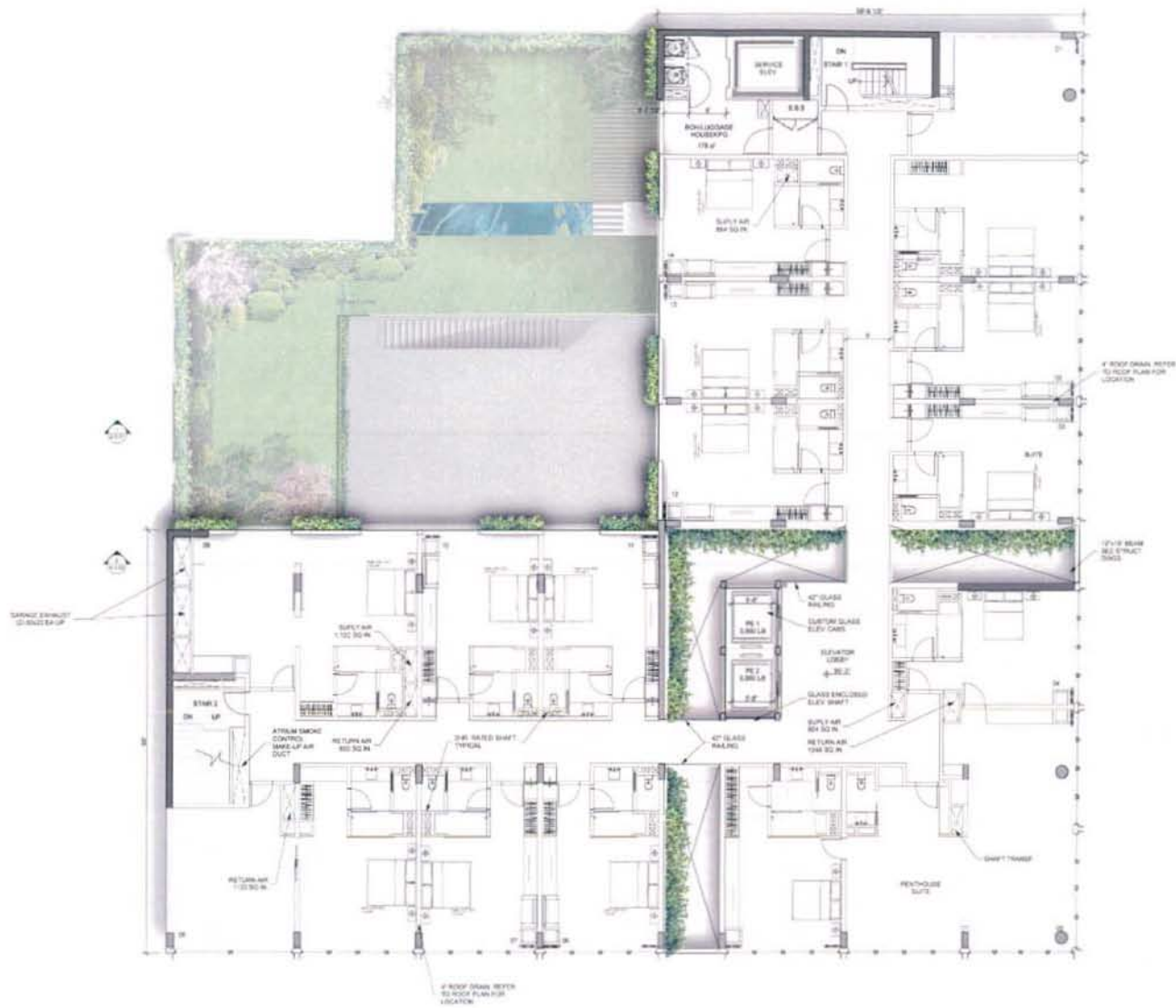
DEC 07, 2007
 A.08
 LEVEL 1 - LOBBY, RESTAURANT + BAR
 © OPPENHEIM 2007



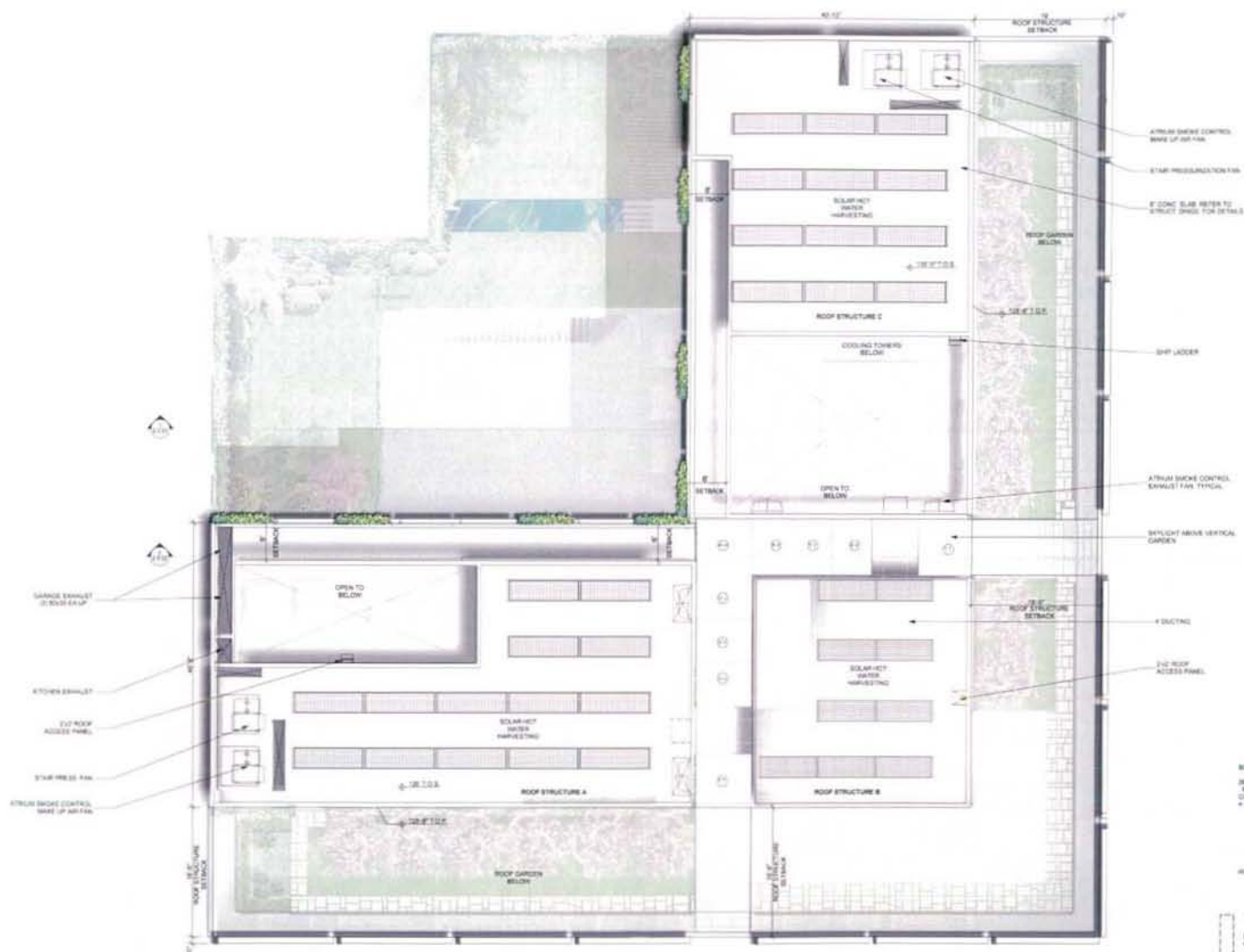
0' 5' 10' 15' 20'



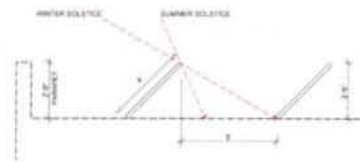
3' 0" 6' 0" 9' 0" 12' 0" 15' 0" 18' 0" 21' 0" 24' 0" 27' 0" 30' 0"



1" = 10' 0"



SOLAR HOT WATER
 36 - 17' x 8' PANELS
 6 - 8' x 8' PANELS
 COMPLETE SUN-1500 - ROUN
 11400 SFT AREA

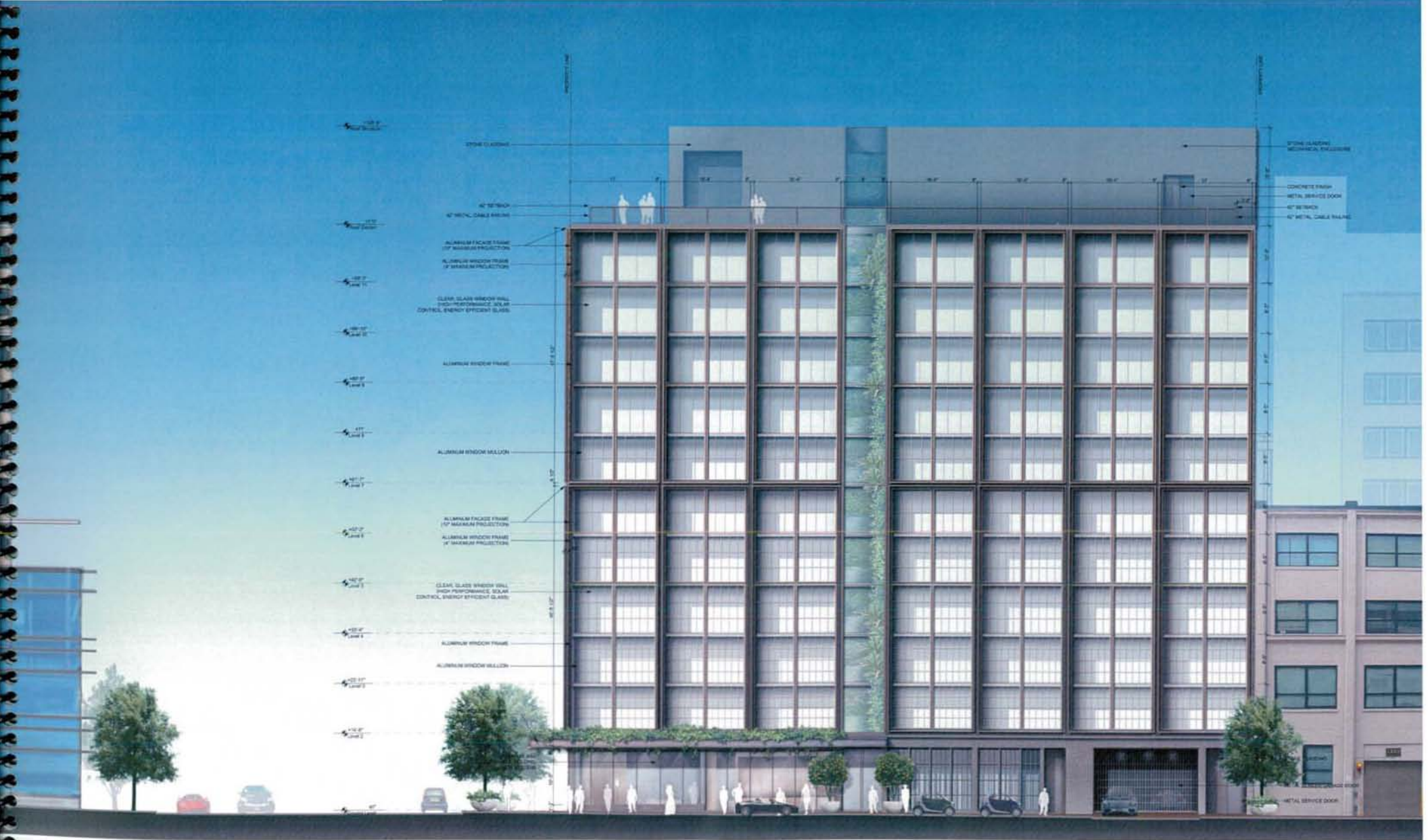


0' 5' 10' 15' 20'











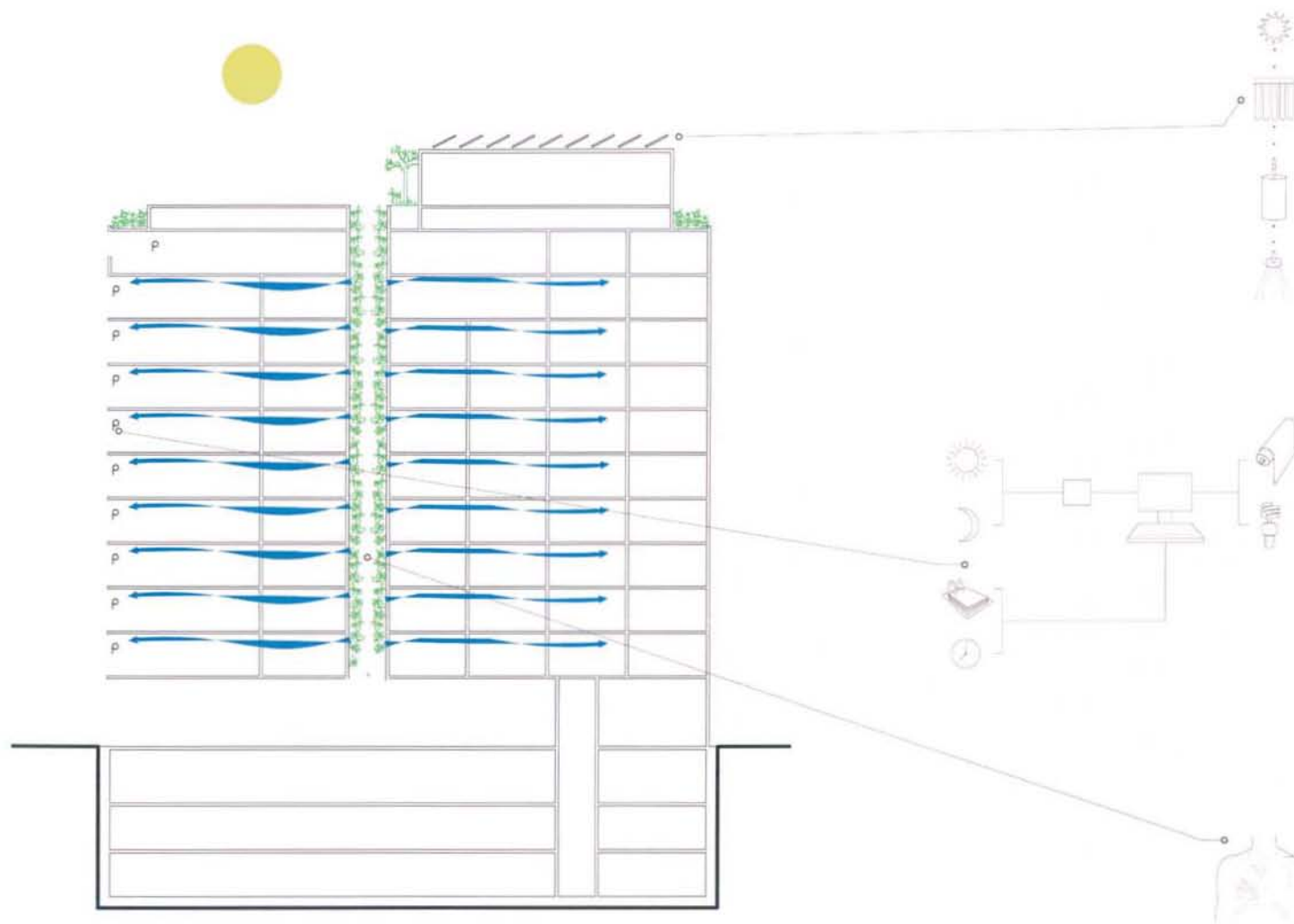




118'-0"
110'-0"



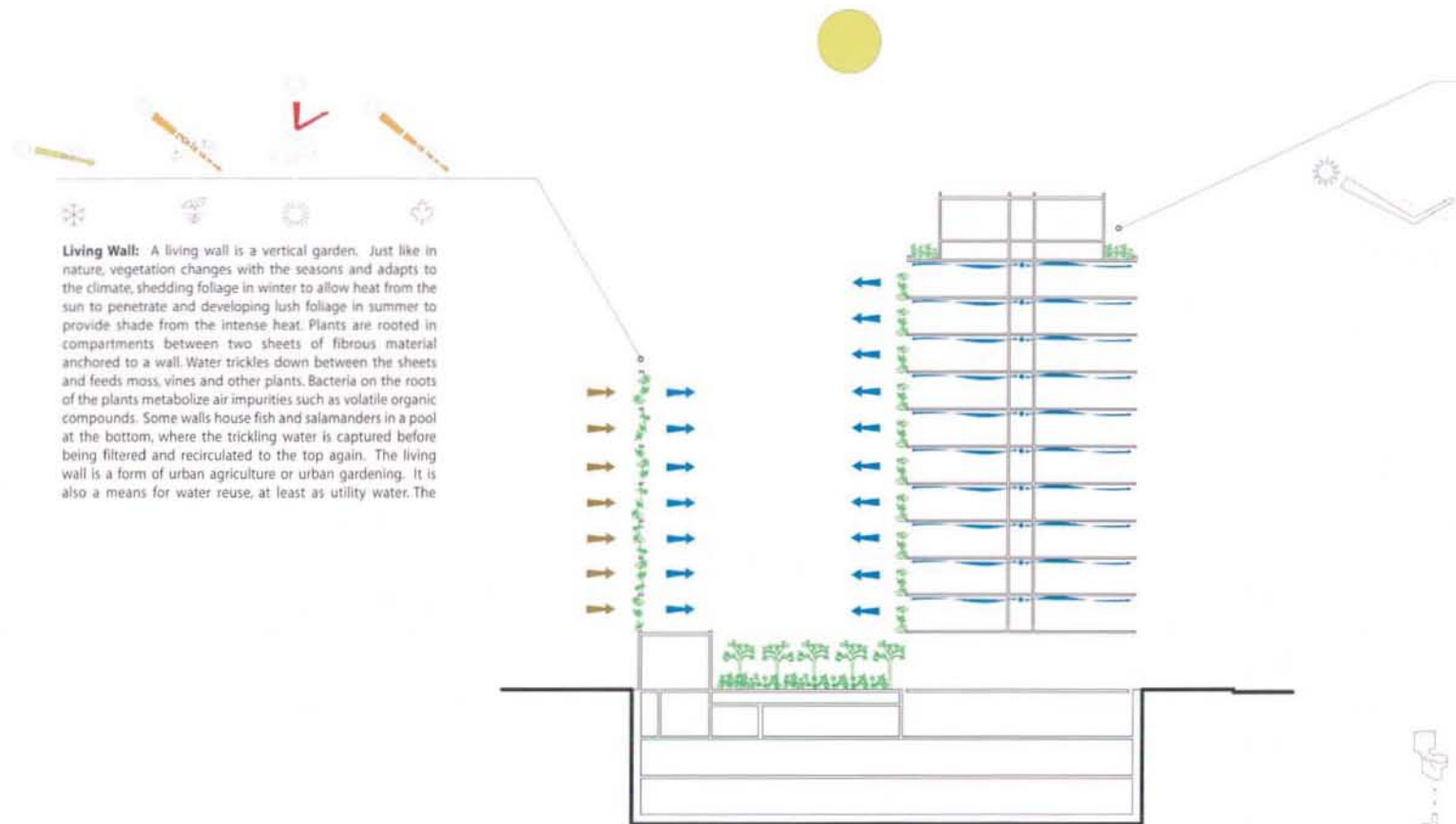




Solar Hot Water Panel: A solar water heater that uses the sun's energy to heat a fluid, which is used to transfer the heat to a heat storage vessel. In the home, for example, potable water would be heated and then stored in a hot water tank. Flat-plate solar-thermal collectors are usually placed on the roof, and have an absorber plate to which fluid circulation tubes are attached. The absorber, usually coated with a dark selective surface, assures the conversion of the sun's radiation into heat, while fluid circulating through the tubes carries the heat away where it can be used or stored. The heated fluid is pumped to a heat exchanger, which is a coil in the storage vessel or an external heat exchanger where it gives off its heat and is then circulated back to the panel to be reheated. Solar hot water system will provide the majority of the hot water needs. Hot water is typically about 15%-20% a facility this size, which will be eliminated due to hot water panels.

Daylighting and Automated Lighting Control System: Daylighting is the practice of placing windows, or other transparent media, and reflective surfaces so that, during the day, natural light provides effective internal illumination without the use of artificial light. Within the overall architectural design of a building, particular attention is given to daylighting when the aim is to maximize visual comfort, productivity, or to reduce energy use. Energy savings from daylighting are achieved by reducing the use of electric lighting. A lighting control system consists of a device, typically an embedded processor or industrial computer, that controls electric lights for a building or residence. Lighting control systems usually include one or more keypads or touch panel interfaces. These interfaces allow users the ability to toggle power to lights and fans, dim lights, and program lighting levels. Guestrooms will have occupancy sensors for all electricity in rooms. The sensors will be activated by keycard when the guest enters the room.

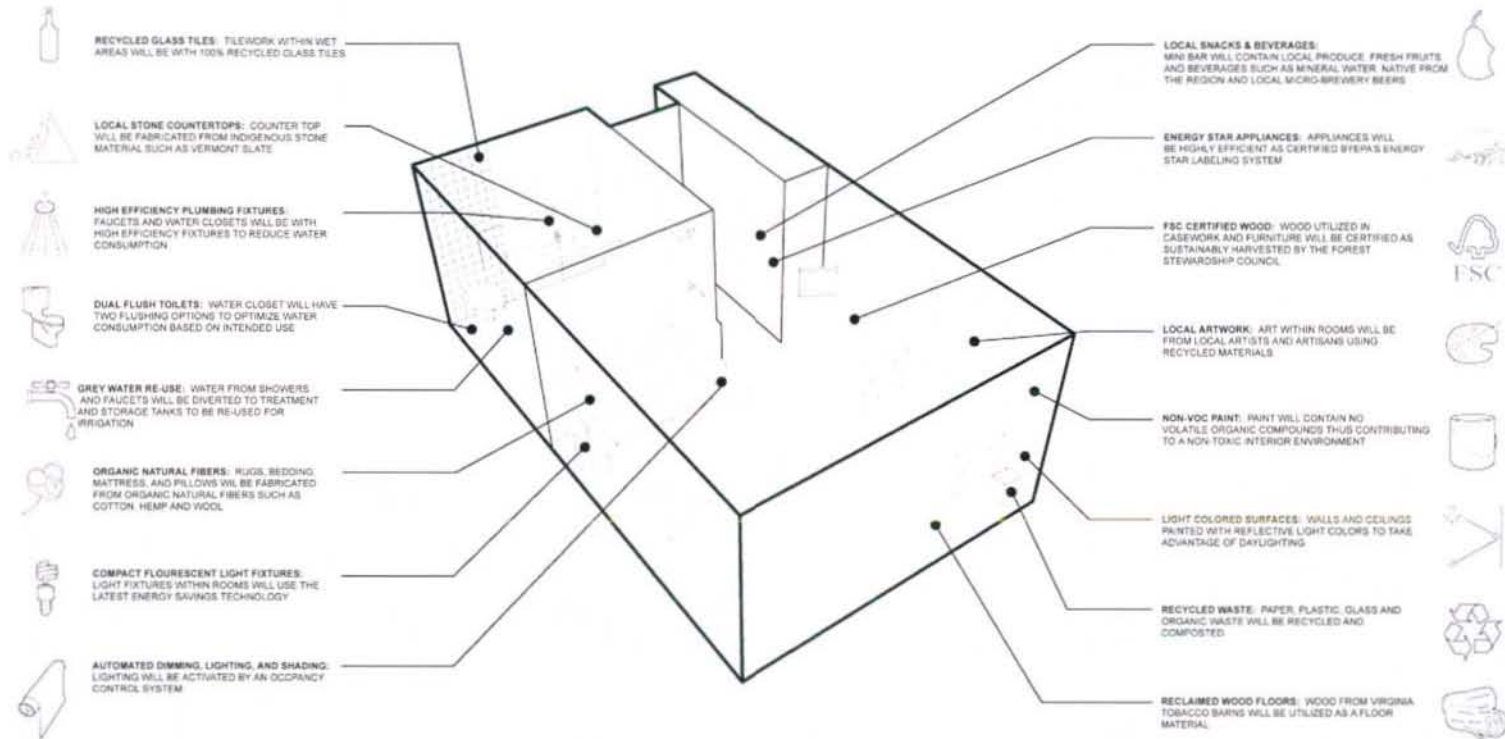
Vertical Garden: A permeable atrium with vegetated walls creates a green space in the middle of the building to provide daylight, purify the air, and create a stack effect that will promote cross ventilation. In this case, the "green lung" is connected to the building's air circulation system.



Living Wall: A living wall is a vertical garden. Just like in nature, vegetation changes with the seasons and adapts to the climate, shedding foliage in winter to allow heat from the sun to penetrate and developing lush foliage in summer to provide shade from the intense heat. Plants are rooted in compartments between two sheets of fibrous material anchored to a wall. Water trickles down between the sheets and feeds moss, vines and other plants. Bacteria on the roots of the plants metabolize air impurities such as volatile organic compounds. Some walls house fish and salamanders in a pool at the bottom, where the trickling water is captured before being filtered and recirculated to the top again. The living wall is a form of urban agriculture or urban gardening. It is also a means for water reuse, at least as utility water. The

Green Roof: A green roof is a roof of a building that is partially or completely covered with vegetation and soil, or a growing medium, planted over a waterproofing membrane. Vegetated roofs provide amenity space for building users, grow fruits, vegetables, and flowers, reduce heating (by adding mass and thermal resistance value) and cooling (by evaporative cooling) loads on a building, reduce the urban heat island effect, increase roof life span, reduce stormwater run off, filter pollutants and CO₂ out of the air, filter pollutants and heavy metals out of rainwater, and increase wildlife habitat in built up areas.

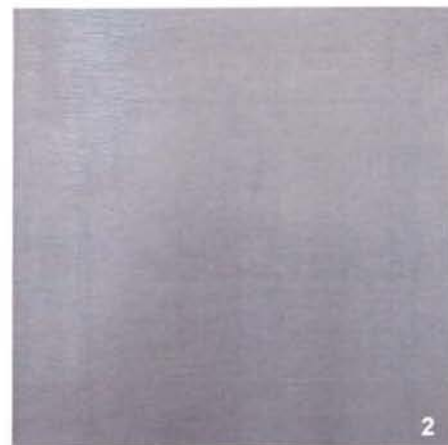
Gray Water Treatment & Re-Use: "Gray water" is wastewater collected from clothes washers, bathtubs, showers, and laundry or bathroom sinks. If properly collected and stored, it can be safely re-used, thereby reducing fresh water consumption. Reuse of gray water can also reduce the load on septic tanks and leach fields. Gray water may contain food particles, detergent or soap residue, and possibly some human pathogens. But as a general rule, gray water does not require extensive chemical or biological treatment before being used for landscape irrigation. Gray water can be put to other uses. It is best to use gray water on ornamental plants and lawns, or to irrigate trees, rather than on food plants, especially those that are often eaten raw; such as carrots or lettuce or herbs. Gray water may be immediately directed to landscaping, or it may be stored for later use. When stored, filtering the water is more important, to reduce the growth of any pathogens. Gray water should not be used for dust control, cooling, spray irrigation, or any other use that would result in air-borne droplets or mist.



1

2

CLEAR GLASS
(High performance/Energy efficient)



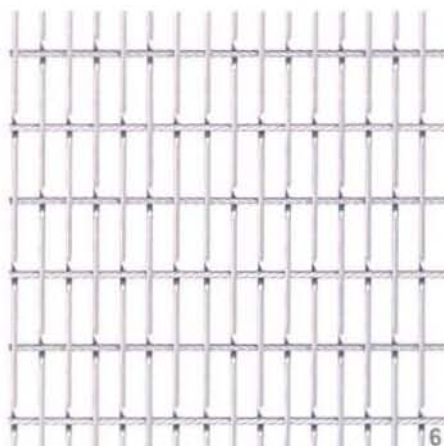
METAL FACADE FRAMES



GREYSTONE CLADDING



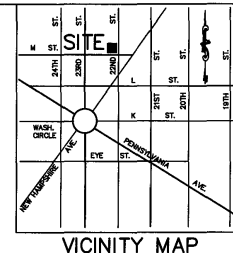
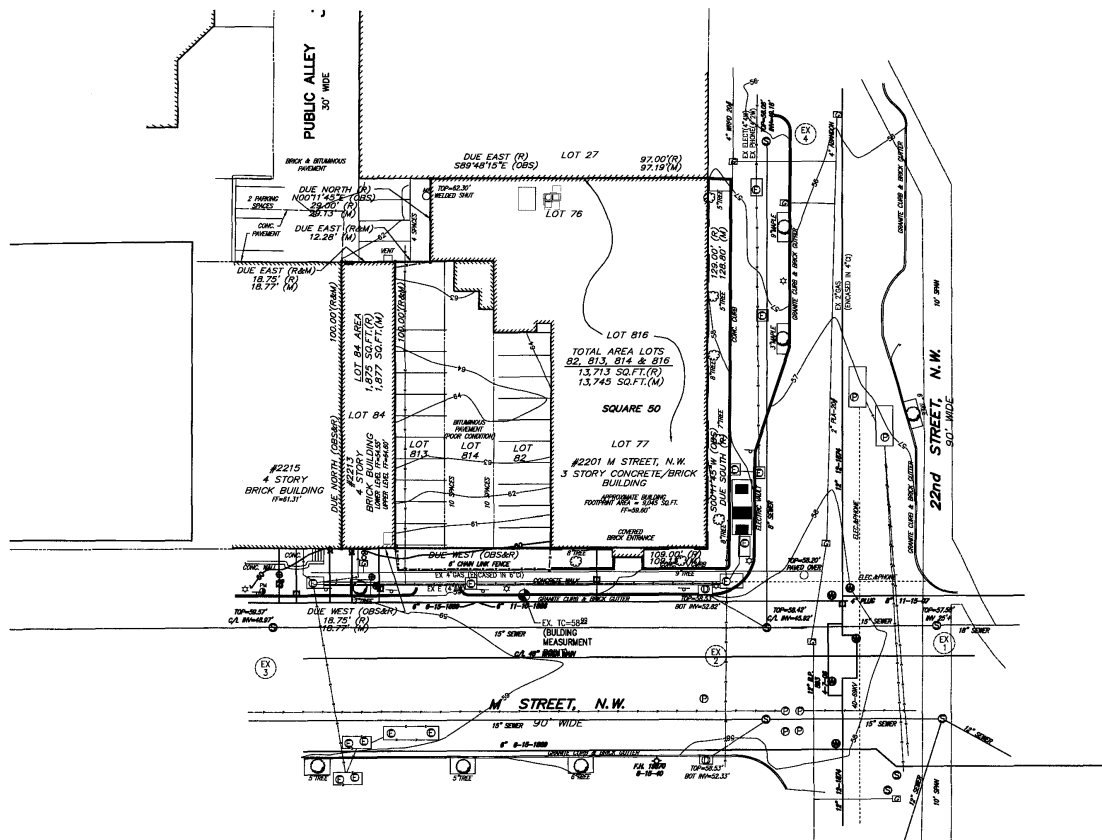
VERTICAL GARDEN COMPONENT



METAL GRATE



RECLAIMED BRICK PAVERS



STANDARD DISTRICT OF COLUMBIA SURVEY REQUIREMENTS:

EXPLANATION:

BOUNDARY LINES IN THE DISTRICT OF COLUMBIA ARE BROKEN UP INTO TWO BASIC MEASUREMENTS. THE FIRST IS RECORD BEARINGS AND DISTANCES. THIS INFORMATION IS SHOWN ON ALL RECORD PLATS AND BUILDING PLATS RECORDED IN D.C. AND TYPICALLY IS WHAT IS USED FOR ANY ALTA/ACSM LAND TITLE SURVEYS THAT ARE DONE SINCE THEY DO NOT NEED TO BE APPROVED BY THE D.C. SURVEYOR. THIS IS KNOWN AS "RECORD INFORMATION" AND IS USED FOR ALL ZONING, PLATTING, AND SITE PLAN PURPOSES. THE OTHER IS OBSERVED ANGLES AND MEASURED DISTANCES. THESE ARE USED WHEN ESTABLISHING "ON THE GROUND" THE TRUE CONFIGURATION OF THE SUBJECT PROPERTY. THE OBSERVED ANGLES AND DISTANCES ARE CALCULATED BY A REGISTERED D.C. SURVEYOR AND APPROVED BY THE OFFICE OF THE D.C. SURVEYOR. TYPICALLY THIS IS DONE IN ACCORDANCE WITH A "SURVEY TO MARK" THAT IS APPROVED AND THEN RECORDED IN THE OFFICE OF THE D.C. SURVEYOR. A "SURVEY TO MARK" ESTABLISHES ACTUAL GROUND CONTROL POINTS THAT WILL BE USED BY THE D.C. SURVEYOR'S OFFICE FOR FUTURE WALL CHECKS. THE OBSERVED ANGLES AND MEASURED DISTANCES ARE TO BE HELD FOR THE PURPOSE OF CONSTRUCTION OF PROPOSED BUILDINGS AND SITE FEATURES. OTHER RECORD AND MEASURED INFORMATION MAY NOT BE IDENTICAL.

PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR'S CONSTRUCTION SURVEYOR MUST ESTABLISH THE OBSERVED ANGLE AND MEASURED DISTANCES OF THE SUBJECT PROPERTY THROUGH THE OFFICE OF THE D.C. SURVEYOR BY RESEARCHING THE BOUNDARY PAPERS (THIS WOULD INCLUDE RESEARCHING ANY "SURVEY TO MARK" THAT MIGHT BE ON FILE) AND THEN COORDINATING THE FINAL BOUNDARY OUTLINE WITH THE SURVEYOR'S OFFICE. ONCE CONSTRUCTION OF THE FOUNDATION OF THE BUILDING IS COMPLETE, AND WHEN THE WALL LOCATIONS ARE ESTABLISHED, THE D.C. SURVEYOR OR HIS AGENT MUST CHECK THE LOCATION OF THE WALLS (A WALL CHECK), FOR ANY POSSIBLE ERRORS IN CONSTRUCTION OF ITS LOCATION, AND DOCUMENT THE LOCATION FOR ZONING PURPOSES. THIS WALL CHECK MUST BE APPROVED BY THE OFFICE OF THE SURVEYOR, DISTRICT OF COLUMBIA PRIOR TO PROCEEDING WITH CONSTRUCTION OF THE WALLS.

NOTES:

- BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM OFFICIAL CITY RECORDS, AND VERIFIED IN THE FIELD INsofar AS POSSIBLE. PROPERTY LINE DIMENSIONS FROM OFFICIAL RECORDS MAY NOT NECESSARILY AGREE WITH THE ACTUAL MEASURED DIMENSIONS. ALL PROPERTY LINES IN THE DISTRICT OF COLUMBIA ARE SUBJECT TO CHANGE BY THE OFFICE OF THE SURVEYOR, DISTRICT OF COLUMBIA.
- CONTRACTOR TO COORDINATE WITH THE OFFICE OF THE SURVEYOR, DISTRICT OF COLUMBIA, TO ENGAGE A SURVEYOR LICENSED BY THAT OFFICE TO PREPARE A WALLCHECK SURVEY AS REQUIRED BY THE DC CODE IN ADVANCE OF PLACING CONCRETE ASSOCIATED WITH THE FOUNDATION.
- CONTRACTOR IS RESPONSIBLE TO OBTAIN A "SURVEY TO MARK" TO MONUMENT PROPERTY CORNERS PREPARED BY A LAND SURVEYOR LICENSED TO PROVIDE THOSE SERVICES BY THE DISTRICT OF COLUMBIA PRIOR TO ANY ON-SITE DEMOLITION.

D.C. BOUNDARY NOTE

BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM OFFICIAL CITY RECORDS AND VERIFIED IN THE FIELD INsofar AS POSSIBLE. PROPERTY LINE DIMENSIONS FROM OFFICIAL RECORDS MAY NOT NECESSARILY AGREE WITH ACTUAL MEASURED DIMENSIONS. ALL PROPERTY LINES IN THE DISTRICT OF COLUMBIA ARE SUBJECT TO CHANGE WITH THE FINAL DETERMINATION TO BE MADE BY THE OFFICE OF THE SURVEYOR, D.C.

LEGEND

- | | | |
|---|--|--|
| <p>CONC. CONCRETE</p> <p>CAB. CURB AND GUTTER</p> <p>BLDG. BUILDING</p> <p>R/W RIGHT-OF-WAY</p> <p>R. RECORD</p> <p>M. MEASURED</p> <p>+CO. SANITARY CLEANOUT</p> <p>SD. STORM DRAIN MANHOLE</p> <p>ED. ELECTRICAL JUNCTION BOX</p> <p>EM. ELECTRICAL MANHOLE</p> | <p>ST. STORY</p> <p>TRV. ELECTRICAL TRANSFORMER</p> <p>ASPH. ASPHALT</p> <p>ESMT. EASEMENT</p> <p>SM. SANITARY MANHOLE</p> <p>TCB. TRAFFIC CONTROL BOX</p> <p>TS. TRAFFIC SIGNAL POLE</p> <p>TR. TREE</p> <p>BCATV. CABLE TELEVISION PEDESTAL</p> <p>PM. UNKNOWN UTILITY MANHOLE</p> <p>WM. WATER METER</p> | <p>WM. WATER MANHOLE</p> <p>WV. WATER VALVE</p> <p>SP. SIGN POST</p> <p>B. BOLLARD</p> <p>I. INLETS</p> <p>CI. CURB INLET</p> <p>RCP. REINFORCED CONCRETE PIPE</p> <p>OMP. CORRUGATED METAL PIPE</p> <p>BR. BUILDING RESTRICTION LINE</p> |
|---|--|--|

SHEET INDEX

- C.01 EXISTING CONDITIONS PLAN
- C.02 SITE AND UTILITY PLAN
- C.03 GRADING PLAN
- C.04 SEDIMENT & EROSION CONTROL PLAN
- C.05 SWM COMPUTATIONS



GRAPHIC SCALE

(IN FEET)

1 inch = 20 ft.

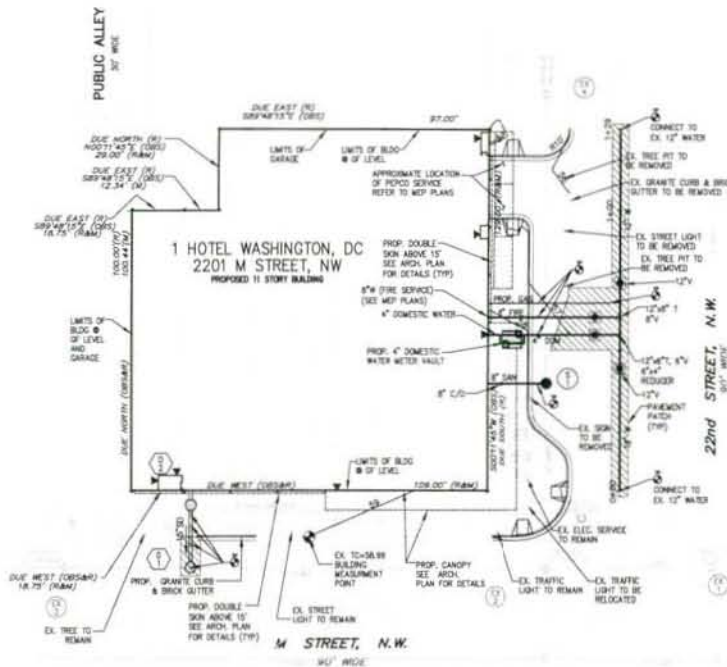
VIA
ENGINEERS, PLANNERS, LANDSCAPE ARCHITECTS, SURVEYORS, GPS SERVICES
VIA INCORPORATED
20251 CENTURY BOULEVARD SUITE 400 W. BETHESDA, MD 20814
WASHINGTON, DC

STARWOOD HOTEL
2201 M STREET, NW
LOTS 76, 77, 82, 84, 815 & 814
SQUARE 50
WASHINGTON, D.C.

EXISTING CONDITIONS PLAN

VIA REVISIONS

SD SUBMISSION	08-29-07
DES.	FTC
DWN.	FTC
SCALE:	1"=20'
PROJECT/FILE NO.	1425
SHEET NO.	C.01



TEST PIT NOTE

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION, ELEVATIONS, AND SIZES OF EX. UTILITIES BY DIGGING TESTS PIT IN HAND AT ALL PORTS OF CONNECTION AND AT CROSSINGS. RESULTS FROM THESE TEST PITS SHALL BE SUBMITTED TO THE ARCHITECT FIVE (5) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION AND/OR ORDERING MATERIALS.

COORDINATION NOTES:

- IF WMA IS NOT PROVIDING STAKEOUT SERVICE, THE CONTRACTOR IS TO ESTABLISH AND CHECK ALL HORIZONTAL AND VERTICAL CONTROLS TO BE USED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO COMPUTE THE LAYOUT OF THE ENTIRE PLAN IN ADVANCE OF BEGINNING ANY WORK ASSOCIATED WITH THE SUBJECT PLANS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECTURAL/MEP PLANS AND COORDINATE SAME WITH THE SITE PLAN PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF CONSTRUCTION WITH THE FOLLOWING UTILITY COMPANIES SERVING THE SITE:
POPS, WASHINGTON GAS, DISTRICT CABLE VISION.
- CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH THE DISTRICT OF COLUMBIA WATER AND SEWER AGENCY (DCWASA) FOR TAPPING FEES AND DETERMINING THE EXTENT OF WORK (FOR WATER CONNECTIONS) TO BE ACCOMPLISHED BY DCWASA.
- CONTRACTOR TO COORDINATE WITH THE OFFICE OF THE DC SURVEYOR TO ENGAGE A SURVEYOR LICENSED BY THAT OFFICE TO PREPARE A WELLSHED SURVEY AS REQUIRED BY THE DC CODE IN ADVANCE OF PLACING CONCRETE ASSOCIATED WITH THE FOUNDATION.
- A. NOTIFY DCWASA ONE WEEK PRIOR TO START OF CONSTRUCTION, UTILITY INSPECTION SECTION AT 202-381-2377, WATER SERVICES 202-462-3400 OR 3400 AND SENIOR SERVICES 202-284-3634 OR 3634.
- DEVELOPERS, CONTRACTORS, AND PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO THE APPROPRIATE DCWASA INSPECTORS FOR REVIEW AND APPROVAL. UPON COMPLETION OF NEW UTILITIES IN PUBLIC SPACE, APPLICANT MUST SUBMIT THESE DRAWINGS. AS-BUILT DRAWINGS MUST SHOW DIMENSION, ELEVATION, RELATIONSHIP OF ANY WMA UTILITIES AND PERMIT INFORMATION.
- ONCE THE WMA INSPECTOR APPROVES THE AS-BUILT, A COPY MUST BE SUBMITTED TO THE DOCUMENTS AND PERMITS OFFICE AT ROOM 203 AND THE WATER AND SEWER DESIGN SECTION AT 5000 OVERLOOK AVE., S.W., 5TH FLOOR.

LEGEND

- 15" SD STORM DRAIN
- 8" FIRE WATER LINE
- 8" S SANITARY SEWER
- CURB LINE
- BUILDING ENTRANCE / EXIT
- PROPERTY LINE
- TEST PIT REQUIRED

GENERAL NOTES:

- THE BUILDING INFORMATION (DIMENSIONS, UTILITY CONNECTIONS, ETC.) SHOWN ON THIS PLAN HAS BEEN TAKEN FROM PLANS PREPARED BY OPENHIM ARCHITECTURE & DESIGN (ELECTRONIC FILES) 10/19/2007
ARCHITECT DATE
E-KEY (SCHEMATIC DESIGN) N/A
MEP DATE
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE MOST CURRENT APPROVED ARCHITECT / MEP PLANS AND COORDINATE SAME WITH SITE PLAN PRIOR TO BEGINNING CONSTRUCTION OPERATIONS.
- THE CONTRACTOR IS TO VERIFY THAT THE RELOCATION OF ANY UTILITY IN CONFLICT WITH PROPOSED WORK HAS BEEN COMPLETED, INCLUDING UTILITY POLYS AND BUY WHIES.
- IF THE CONTRACTOR HAS ANY QUESTIONS AS TO THE WAY, METHOD, OR DETAIL OF THE PERFORMANCE OF HIS WORK OR THE CONTRACT DOCUMENTS, HE SHOULD CONTACT WMA INC. AT 202-381-2377 PRIOR TO COMMENCING WORK. WMA INC. ACCEPTS NO LIABILITY OR ASSUMPTION OR INTERPRETATIONS MADE BY THE CONTRACTOR ON HIS SUBCONTRACTORS.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" FOR MARKING LOCATIONS OF EXISTING UTILITIES AT 1-800-257-7777, 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATIONS OF THE UTILITIES BY DIGGING TEST PITS IN HAND AT ALL UTILITY CROSSINGS. RESULTS FROM THESE TEST PITS SHALL BE SUBMITTED TO THE ARCHITECT FIVE (5) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION AND/OR ORDERING MATERIALS.
- IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY WMA, INC. IMMEDIATELY OF ANY CHANGES AND/OR ADDITIONS OF UTILITIES FOUND BY ANY CONTRACTOR ENGAGED IN EXCAVATION AT THIS SITE.
- DRAINAGE SHALL BE DONE IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE.

- THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STRUCTURES, WHEN NECESSARY, TO MEET EXISTING CONDITIONS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- ALL EXISTING UTILITIES AND STRUCTURES NOT SHOWN TO BE REMOVED ARE TO REMAIN AND BE PROTECTED AS FUNCTIONAL.
- REPAIRS TO UTILITIES OR PROPERTY DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- BETWEEN EXISTING WH-1 & EXISTING WH-3 ON M STREET AND BETWEEN EXISTING WH-2 & EXISTING WH-4 ON 22ND STREET, TV INSPECTION SHALL BE PERFORMED FOR DODGE SECTION 515.

GENERAL ROADWAY PAVING CONSTRUCTION NOTES

- ALL ROADWAY WORK WILL BE PERFORMED IN ACCORDANCE WITH DODGE STANDARDS AND SPECIFICATIONS.
- ALL EXISTING UTILITIES WILL BE ADJUSTED TO GRADE AS NECESSARY BY THE CONTRACTOR.
- STABLE SUBGRADE IS DEFINED AS THAT SOIL UNDISTURBED EXCEPT BY SUPPORTING STREET LOADS WITHOUT DAMAGING SETTLEMENT AS DETERMINED BY THE GEOTECHNICAL ENGINEER.
- WHERE UNSTABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE MADE STABLE BY COMPACTION OR REPLACEMENT, AS REQUIRED.
- CONTRACTOR TO PROVIDE ROADWAY UNDERDRAINAGE FOR GEOTECHNICAL DIRECTION IF REQUIRED.
- ALL EXISTING CURB AROUND THE SITE IS TO BE EVALUATED ON ITS CONDITION BY THE CONTRACTOR AND DODGE INSPECTOR PRIOR TO AND AFTER CONSTRUCTION TO DETERMINE THE EXTENTS OF EXISTING CURB TO BE REPLACED.



STARWOOD HOTEL
2201 M STREET, NW
LOTS 76, 77, 82, 84, 813 & 814
SQUARE 50
WASHINGTON, D.C.

SITE AND UTILITY PLAN

VKA REVISIONS

NO.	DATE	DESCRIPTION
1	11-12-2007	PLD SUBMISSION
2	08-28-07	SD SUBMISSION
3	07-11-2007	SD SUBMISSION
4	DATE: JUNE 2007	DATE: JUNE 2007
5	DATE: JUNE 2007	DATE: JUNE 2007
6	DATE: JUNE 2007	DATE: JUNE 2007
7	DATE: JUNE 2007	DATE: JUNE 2007
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CALL "MISS UTILITY" AT
1-800-257-7777
48 Hours Before Start Of Construction

PROJECT/FILE NO.
1425
SHEET NO.
C.02

PUBLIC ALLEY
50' WIDE



22nd STREET, N.W.
50' WIDE



VKA
INCORPORATION • WASHINGTON • ARCHITECTS • ENGINEERS • PLANNERS • ENVIRONMENTAL SCIENTISTS
1000 12TH STREET, N.W. • SUITE 1000 • WASHINGTON, D.C. 20004
TEL: (202) 462-1000 • FAX: (202) 462-1001
WWW.VKA.COM

STARWOOD HOTEL
2201 M STREET, NW
LOTS 76, 77, 82, 84, 81.3 & 81.4
SQUARE 50
WASHINGTON, D.C.

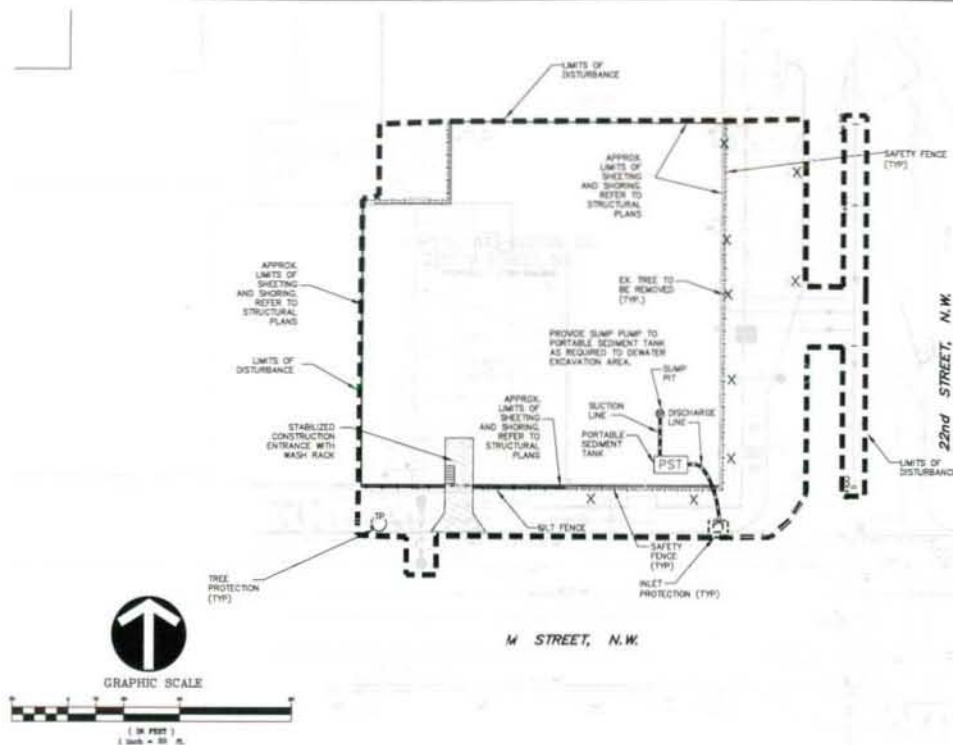
GRADING PLAN

VKA REVISIONS

NO.	DATE	DESCRIPTION
1	11-13-2007	REVISED SUBMISSION
2	10-01-2007	DATE: OCTOBER, 2007
3	DES. FTC	DWN. FTC
4	SCALE: 1"=20'	

PROJECT/FILE NO.
1425
SHEET NO.
C.03

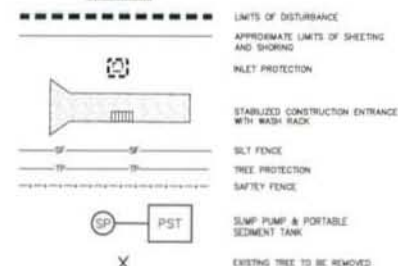
CALL "MISS UTILITY" AT
1-800-257-7777
48 Hours Before Start of Construction



NOTES:

1. ADDITIONAL SEDIMENT CONTROL MEASURES MAY BE REQUIRED AS WORK PROGRESSES.
2. SILT FENCE (SF) MAY BE RELOCATED DURING CONSTRUCTION TO CONTAIN DISTURBED AREAS AS THEY CHANGE.
3. STABILIZED CONSTRUCTION ENTRANCES MAY BE MOVED WITH INSPECTOR'S PERMISSION.
4. CONTRACTOR SHALL INSTALL 8' HIGH CONSTRUCTION FENCE AT THE LIMITS OF EXCAVATION.
5. ACTUAL LOCATION OF SUMP PIT AND SEDIMENT TANK TO BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.

LEGEND



EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL, AND OTHER DESTRUCTIVE MATERIAL, TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRINKLING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE.
 - B. ARRANGE SPRAY BAR PROXY, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
 - C. DISPOSE WATER THROUGH NOZZLES ON SPRAY BAR AT 30 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FLOODING.
 - D. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND WEST NOZZLES.
 - B. LOCATE TANK AND SPRINKLING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE WATERED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FLOODING.
 - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.

STANDARD EROSION CONTROL NOTES

1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. ALL DEBRIS IS TO BE REMOVED FROM SITE.
3. ALLEY AND/OR STREETS/SEWERALS SHALL BE KEPT CLEAN AT ALL TIMES DURING DEMOLITION, EXCAVATION AND CONSTRUCTION.
4. ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
5. IF ANY CATCH BASINS OR DRAINS BECOME CLOGGED AS A RESULT OF DEMOLITION, EXCAVATION OR CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
6. WHEN SEDIMENT TANK HAS REACHED 80% CAPACITY, CLEANING OUT OF SAME IS REQUIRED.
7. ANY STOPPING, REGARDLESS OF LOCATION SHALL BE STABILIZED AND COVERED WITH PLASTIC OR CANVAS, AFTER ITS ESTABLISHMENT AND FOR DURATION OF THE PROJECT.
8. AFTER FINISHING OR DEMOLITION, THERE IS THE NEED FOR BROADCASTING TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING. SUCH AS APPLYING SEED, SOIL PAKE, BROADCAST OR MULCH, ETC.
9. THE SITE'S APPROVAL LETTER, APPROVED EROSION AND SEDIMENT CONTROL PLANS, DAILY LOG BOOKS AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY AUTHORIZED OFFICIALS OF DORA RESPONSIBLE FOR THE PROJECT.
10. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF DORA INSPECTOR, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
11. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE DORA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFERS TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SOILING AND GROUND COVERS.
12. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR TREE-SAVE AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
13. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, SEDIMENT BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE DEVELOPER OF CHAINS SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH, HAVE POSTS SPACED NO GREATER THAN 8 FEET, HAVE HORIZONTAL RAILS SPACED NO GREATER THAN 2 INCHES IN WIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.
14. SEDIMENT CONTROLS FOR UTILITY CONSTRUCTION FOR AREAS OUTSIDE OF DESIGNATED CONTROLS OR AS DIRECTED BY ENGINEER OR DORA INSPECTOR:
 - (A) CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK.
 - (B) EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH.
 - (C) TRENCHES FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED AND STABILIZED AT THE END OF EACH WORKING DAY. NO MORE TRENCHES SHALL BE OPENED THAN CAN BE COMPLETED THE SAME DAY, UNLESS:
 - (D) TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY.

OFF-SITE SPOIL, WASTE, OR BORROW AREAS IN THE DISTRICT OF COLUMBIA ON FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY DORA. ALL WASTE OR BORROW AREAS OFF-SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED IN ACCORDANCE WITH THE ORDINANCES AND REGULATIONS OF THE JURISDICTION WHERE THE SPOIL, WASTE, OR BORROW AREA IS LOCATED/STABILIZED.

STARWOOD HOTEL
2201 M STREET, NW
LOTS 76, 77, 82, 83, 815 & 816
SQUARE 50
WASHINGTON, D.C.

SEDIMENT & EROSION
CONTROL PLAN

WKA REVISIONS

NO.	DATE	DESCRIPTION
1	08-29-2007	SG SUBMISSION
2	07-11-2007	PGD SUBMISSION
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CALL "MISS UTILITY" AT
1-800-257-7777
48 Hours Before Start of Construction

PROJECT/FILE NO.
1425
SHEET NO.
C.04

Project Name: **1 Hotel Washington, DC - 2201 M Street NW**
 Date: **8-Nov-07**
 Stormwater Management Computations

Inputs:

Depth of First Flush
 Roofs and Sidewalks 0.30 inches
 Parking Lots and Roadways 0.50 inches

Rain Intensity*
 2-Year 5.28 in/hr
 15-Year 7.56 in/hr

C Factor
 Impervious 0.90
 Perious 0.30

Enter Site Details (Post Developed Values)
 Impervious Area (Acres) 0.15 *Roofs and Sidewalks
 0.00 *Parking Lots and Roadways
 Perious Area (Acres) 0.21
 Total Site Area (Acres) 0.36
 CSO Area (yes or no) yes

Determine Site Impervious Factor
 C= 0.55

Determine Flow Rates for Q2(pre) and Q15(post)
 Q2(pre)= 0.57024 CFS
 Q15(post)= 2.44944 CFS

Determine Quantity and Quality Control Volumes
 Vquality= 163.35 CF
 Vquantity= 704.7 CF
 Correction Factor 1.25
 Time of Concentration (Tc) 5 min
 or 300 sec

Determine Flow Rate for First Flush (Qff)
 Qff= 0.0405 CFS

Determine Number of Cartridges Required (N)
 N= 1.227273 Use 4 Cartridges
 (See Note this sheet)

Determine Rate of Release (Qr) for the system at 50% Clogged
 Qr= 0.096 CFS

Determine Time of Discharge (Ttd)
 Ttd= 2.965909 Hr

PRELIMINARY STORMWATER MANAGEMENT COMPUTATIONS

Project Name: **1 Hotel Washington, DC - 2201 M Street NW**
 Date: **8-Nov-07**
 Estimated Peak Quantities

Estimated Sewer Flow Computations
 Average Sewer Flow 60 GPD Gallons/day/person
 *Peak Sewer Flow 21600 GPD Gallons per day
 *Assumes a maximum of 360 persons per day

Estimated Water Flow Computations
 **Peak Domestic Flow 300 GPM Gallons per minute
 ***Peak Fire Flow 1000 GPM Gallons per minute
 **Assumes an 4" domestic service
 ***Assumes an 8" fire service

Note: The estimated quantities noted above are based on the scope of the proposed improvements and the information obtained from the MEP.

PRELIMINARY WATER AND SEWER COMPUTATIONS

STORMWATER MANAGEMENT NARRATIVE

AS PER THE EXISTING CONDITIONS SURVEY PREPARED BY ARA, INC. IN SEPTEMBER 2006, THERE ARE NO EXISTING STORMWATER FACILITIES ON THE SITE. AS PART OF THE PROPOSED DEVELOPMENT, STORMWATER MANAGEMENT CONTROLS WILL BE PROVIDED VIA AN UNDERGROUND STORMWATER MANAGEMENT STRUCTURE OR THROUGH THE USE OF A GREEN ROOF FACILITY.

CARTRIDGES NOTE:

PER REQUESTED BY THE DEPARTMENT OF ENVIRONMENT SWM DIVISION, TWO ADDITIONAL CARTRIDGES ARE REQUIRED DUE TO THE ROOF AREA NOT BEING A WATER QUALITY FACILITY.



STARWOOD HOTEL
 2201 M STREET, NW
 LOTS 76, 77, 82, 84, 813 & 814
 SQUARE 50
 WASHINGTON, D.C.

STARWOOD HOTEL
 2201 M STREET, NW
 LOTS 76, 77, 82, 84, 813 & 814
 SQUARE 50
 WASHINGTON, D.C.

SWM COMPUTATIONS

UNA REVISIONS

50 SUBMISSION
 08-28-07
 P.O. SUBMISSION
 07-11-07
 DATE: JULY, 2007
 DCL: FIC Date: FIC
 SCALE: AS SHOWN
 PROJECT/FILE NO: 1425
 SHEET NO: C.05