Attachment D

15633

HARBORVIEW NINTH & JEFFERSON BUILDING

DEVELOPMENT AGREEMENT

Between

NJB PROPERTIES

a Washington nonprofit corporation

("Owner")

and

WRIGHT RUNSTAD ASSOCIATES LIMITED PARTNERSHIP

a Washington limited partnership

("Developer")

Dated as of

the 1st day of November, 2006

Harborview Ninth & Jefferson Building

Development Agreement

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B	Project Lease Agreement	Recitals; Section 1
C	Base Shell and Core Building	Section 1
D	Project Budget	Sections 1, 4(c)
E	List of Preliminary Plans and Specifications	Section 1
F	Project Schedule	Sections1, 6(d)
G	Dispute Resolution Mediation	Section 24
H	Substantial Completion of IEB Generator	Section 1

HARBORVIEW NINTH & JEFFERSON BUILDING

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (the "Agreement") dated as of the 1st day of November, 2006, is by and between **NJB PROPERTIES**, a Washington nonprofit corporation ("Owner"), and **WRIGHT RUNSTAD ASSOCIATES LIMITED PARTNERSHIP**, a Washington limited partnership ("Developer").

RECITALS

A. Owner is the lessee under that certain Ground Lease dated as of November 1, 2006 (the "Ground Lease"), with King County, a political subdivision of the State of Washington (the "County"), as lessor, pursuant to which Owner leases that certain real property located in the City of Seattle, King County, Washington (the "Land") more specifically described on Exhibit A hereto.

B. Owner wishes to construct on the Land a 14-story first class medical office building containing approximately 440,000 square feet of rentable area as more fully described in the Preliminary Plans and Outline Specifications, including all HVAC, electrical and other building systems, Tenant Improvements, underground parking for approximately 650 vehicles and approximately 13,300 rentable square feet of retail space (the "Building"). The design and construction of the Building is referred to in this Agreement as the "Project."

C. Owner, as landlord, and the County, as tenant ("Tenant") are parties to that certain Project Lease Agreement dated as of November 1, 2006 (the "Project Lease") whereby Tenant has agreed to leaseback the Premises upon the Initial Occupancy Date, at the rent and subject to all of the terms, covenants, and conditions set forth in the Project Lease, a copy of which is attached hereto as Exhibit B and by this reference incorporated herein. The Project Lease requires that Owner shall cause Developer to design, develop, construct and complete the Project.

D. Owner hereby engages Developer to develop, oversee and manage the design, permitting and construction phases of the Project in accordance with the terms and conditions of this Agreement for a Fixed Price of $176,635,000. Developer agrees to perform development and construction management services in connection with the construction of the Project in accordance with the terms and conditions of this Agreement. Subject to the terms and conditions hereof, Developer agrees to provide the financial warranty that the Project will be completed for the Fixed Price of $176,635,000.

E. Owner understands that Developer will perform no construction services. The parties intend for the Owner to contract directly and separately with those contractors performing construction services and with the Architect designing the Base Shell and Core Building and with the Interior Architect designing the Tenant Improvements. If, during the performance of this Agreement, additional construction service contractors are retained, the Owner shall contract with them directly or Developer shall contract with them on behalf of and acting as the Owner's agent.

F. Owner intends to pay the Fixed Price with the proceeds of certain tax-exempt obligations which satisfy the requirements of Revenue Ruling 63-20, Revenue Procedure 82-26 and

other regulations, interpretations and letter rulings issued by the U.S. Treasury with respect to such financings, and of certain taxable obligations.

NOW, THEREFORE, in order to fulfill the foregoing objectives, Owner and Developer desire to enter into this Agreement and proceed in accordance with its terms.

1. Definitions. As used herein, the following terms shall have the following meanings:

"ADA" means the Americans With Disabilities Act of 1990, as amended from time to time.

"Architect" means NBBJ LP, the architect for the Project selected by Owner and Developer with Tenant's approval.

"Architect's Agreement" means the Agreement between Owner and Architect with respect to the Project.

"Base Shell and Core Building" means the Building to be constructed on the Land, including the Garage, but exclusive of the Tenant Improvements. The Base Shell and Core Building is more particularly described in the attached Exhibit C.

"Bond Closing" refers to the date the Bond proceeds are made available to the Trustee.

"Bond Insurer" means an insurance company which issues a municipal bond insurance policy at the request of Owner in connection with the issuance of the Bonds, if any. If no Bond Insurer is selected to insure the Bonds, references to the Bond Insurer hereunder shall be deemed to be deleted.

"Bonds" means the Series A Bonds and the Series B Bonds together, from the proceeds of which Owner intends to pay, among other things, the Fixed Price. The "Series A Bonds" means those tax-exempt obligations to be issued by the Owner which satisfy the requirements of Revenue Ruling 63-20, Revenue Procedure 82-26 and other regulations, interpretations and letter rulings issued by the U.S. Treasury with respect to such financings. The "Series B Bonds" means the NJB Properties Lease Revenue Bonds (King County, Washington Project), 2006 Series B (Taxable).

"Building" means the first-class medical office building to be constructed on the Land containing approximately 440,000 square feet of rentable area, including underground parking for approximately 650 vehicles and approximately 13,300 rentable square feet of retail space, as more fully described in the Preliminary Plans and Outline Specifications, including all HVAC, electrical and other building systems and Tenant Improvements.

"Commencement of Construction" means the date Developer executes and delivers to General Contractor the Release for Construction attached to the General Construction Contract.

"Construction Contracts" means (i) the General Construction Contract and (ii) all other contracts for construction services entered into between Owner, or Developer on the behalf of and acting as agent for Owner, and any Contractor, including General Contractor, for construction of

Tenant Improvements or any other portion of the Project not covered by the General Construction Contract.

"Construction Documents" means the Construction Drawings and Detailed Specifications approved by the Owner with input from the Tenant for construction of the Project, including technical drawings, schedules, diagrams, plans and specifications setting forth in detail the requirements for construction of the Project and providing information customarily required for the use of the building trades.

"Construction Drawings" means drawings setting forth in detail the requirements for the construction of the Project. As used herein "Construction Drawings" include all graphic and pictorial documents depicting the design, location and dimensions of the elements of the Project (including Tenant Improvements) and include plans, elevations, sections, details, schedules and diagrams for the Project. Construction Drawings may consist of separate Construction Drawings for (i) the Base Shell and Core Building prepared by Architect and (ii) the Tenant Improvements prepared by the Interior Architect.

"Contract Documents" means the Construction Documents, the Construction Contracts and the other documents identified as Contract Documents in the General Construction Contract.

"Contractors" means the General Contractor and any other construction contractors with whom Owner enters into direct contracts upon the written recommendation of Developer, or with whom the Developer on behalf of and acting as the Owner's agent contracts for the Project.

"Costs Not To Be Reimbursed" means, except as specifically provided in Section 11 hereof (relating to Developer's Overhead Allowance and Developer's Fee), (i) salaries or other compensation of Developer's personnel or of Contractor's personnel normally situated at the Developer's principal office, Contractor's principal office or branch offices, or for any officer of Developer or Contractor; (ii) expenses of Developer's or Contractor's principal office; (iii) overhead or general expenses; and (iv) Project Costs in excess of the Fixed Price.

"Costs Resulting From Owner-Caused Delay" means any increase in costs of constructing the Project resulting from Owner-Caused Delay. Where additional costs are incurred as a result of a combination of Owner-Caused Delay and (i) failure of Developer to provide, within the time frames allowed hereunder, draw requests, architect's certifications, progress completion certifications, copies of change orders and supporting documentation, shop drawings, schedules, costs, invoices, job progress reports, or other documents or information which Owner is entitled to receive hereunder or which is reasonably requested by Owner in connection with any such decision or response required hereunder, or (ii) delay caused by the existence of reasonable cause to suspect that construction of the Project or Tenant Improvements or any other services provided by Developer hereunder have not been performed in accordance with Construction Documents and other requirements hereunder, Costs Resulting From Owner-Caused Delay shall be only the portion of such costs fairly attributable to Owner-Caused Delay.

"Detailed Specifications" means all written detailed requirements for materials, equipment, construction systems, standards and workmanship for the construction of the Project.

"Developer" means Wright Runstad Associates Limited Partnership, a Washington limited partnership, and its successors and permitted assigns hereunder.

"Developer Obligation Date" means the date thirty (30) months after Bond Closing. The Developer Obligation Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; (ii) Owner-Caused Delays; and (iii) delays incurred as a result of the presence of any Hazardous Substances in, on or emanating from the Land as of the Effective Date of the Project Lease (as defined therein) in excess of the time specifically provided in the approved Project Schedule for remediation of any such Hazardous Substances.

"Developer's Fee" means the fee to be paid to Developer subject to the terms and conditions set forth in Sections 11 and 12 of this Agreement.

"Developer's Overhead Allowance" means the monthly allowance to be paid to Developer subject to the terms and conditions set forth in Section 11 of this Agreement.

"Environmental Laws" means, as amended from time to time, the Federal Resource Conservation and Recovery Act of 1976, 42 U.S.C. Section 6901 et seq., Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 et seq., Federal Hazardous Materials Transportation Control Act, 42 U.S.C. Section 1801 et seq., Federal Clean Air Act, 42 U.S.C. Section 7401 et seq., Federal Water Pollution Control Act, Federal Water Act of 1977, 93 U.S.C. Section 1251 et seq., Federal Insecticide, Fungicide and Rodenticide Act, Federal Pesticide Act of 1978, 7 U.S.C. Section 136 et seq., Federal Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq., Federal Safe Drinking Water Act, 42 U.S.C. Section 300f et seq., Washington Water Pollution Control Act, RCW Chapter 90.48, Washington Clean Air Act, RCW Chapter 70.94, Washington Solid Waste Management Recovery and Recycling Act, RCW Chapter 70.95, Washington Hazardous Waste Management Act, RCW Chapter 70.105, Washington Hazardous Waste Fees Act, RCW Chapter 70.95E, Washington Model Toxics Control Act, RCW Chapter 70.105D, Washington Nuclear Energy and Radiation Act, RCW Chapter 70.98, Washington Radioactive Waste Storage and Transportation Act of 1980, RCW Chapter 70.99, Washington Underground Petroleum Storage Tanks Act, RCW Chapter 70.148.

"Final Acceptance" means the Owner's written approval and concurrence that certain events, more fully defined in Section 12 of this Agreement, have occurred prior to Final Payment being made.

"Final Payment" means payment to Developer, General Contractor and any other Contractors following Final Acceptance of the Project pursuant to Section 12 of this Agreement.

"Financing Costs" means all financing costs approved by bond counsel in connection with the issuance of the Bonds.

"Fixed Price" means $176,635,000, the total amount to be paid by Owner for Project Costs for the completion of the design, development, permitting and construction of the Project, and is the price to be paid by Owner for Project Costs. The Fixed Price includes the amount of the Tenant

Improvement Allowance but does not include Other Costs. A detailed description of Project Costs by line item and category is set forth in the Project Budget.

"Garage" means the underground parking garage within the Building containing spaces for approximately 650 vehicles. The Garage is part of the Project, but it is contemplated that the Garage will be Substantially Completed and open for operation prior to the remainder of the Project.

"General Construction Contract" means the agreement between Owner and the General Contractor for construction of the Base Shell and Core Building and Tenant Improvements for the Project; provided that Owner may select a contractor other than the General Contractor to construct the Tenant Improvements, in which event the General Construction Contract shall refer to both the agreement with the General Contractor for construction of the Base Shell and Core Building and the agreement with such other contractor for construction of the Tenant Improvements.

"General Contractor" means Turner Construction Company, the general contractor for the Project selected by Owner with Tenant's approval.

"Ground Lease" means the long-term ground lease entered into, or to be entered into, by NJB Properties as the tenant and the County as landlord for the Land described on the attached Exhibit A.

"Guaranteed Maximum Construction Price" means the maximum cost for construction of the Base Shell and Core Building and Tenant Improvements as guaranteed pursuant to the terms of the General Construction Contract.

"Hazardous Substances" means any material, waste, substance, industrial waste, toxic waste, chemical contaminant, petroleum, asbestos, polychlorinated biphenyls, radioactive materials or other substances regulated or classified by Environmental Laws as hazardous, toxic or lethal to persons or property.

"IEB" means that certain building commonly known as the In-Patient Expansion Building being constructed on land adjacent to the Land and owned by Tenant.

"IEB Generator" means the backup generator and other emergency backup equipment that will be installed in the Garage for the purpose of serving the IEB. A description of the work required to install the IEB Generator and make it operational is attached as Exhibit H.

"IEB Generator Completion Date" means the date twelve (12) months after Bond Closing. The IEB Generator Completion Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; (ii) Owner-Caused Delays; (iii) delays incurred as a result of the presence of any Hazardous Substances in, on or emanating from the Land as of the Effective Date of the Project Lease (as defined therein) in excess of the time specifically provided in the approved Project Schedule for remediation of any such Hazardous Substances; and (iv) delays in the issuance of a

temporary certificate of occupancy for the IEB for reasons other than the failure of Substantial Completion of IEB Generator to have occurred.

"Indenture" means the trust indenture pursuant to which Owner will cause the issuance of the Bonds, a copy of which shall be provided to Developer by Owner at Bond Closing.

"Initial Draw" refers to Developer's first application for payment of Project Costs, which shall not occur before Bond Closing.

"Initial Occupancy Date" means the date upon which each of the following events shall have occurred:

(a) Substantial Completion of the Garage shall have occurred;

(b) Developer shall have notified Landlord in writing that the Base Shell and Core Building has been substantially complete and not less than 33% of the rentable area of the Premises shall have its required Tenant Improvements substantially completed, all in accordance with the Contract Documents, subject only to the completion of normal Punch List items;

(c) The City of Seattle shall have issued a temporary Certificate of Occupancy such that Tenant is permitted to and could, pursuant to such issued Certificate of Occupancy, physically occupy the Base Shell and Core Building and not less than 33% of the rentable area of the Premises for its Permitted Use;

(d) Landlord shall have received satisfactory evidence from Developer that all real property taxes and assessments for the Project payable by Developer that were due and owing have been paid;

(e) Each Contractor shall have issued, with respect to the Base Shell and Core Building and not less than 33% of the rentable area of the Premises, its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A), together with partial waivers and releases of lien for work performed prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Landlord, with Tenant's concurrence, from such materialmen, laborers, contractors and subcontractors as Landlord, with Tenant's concurrence, may require; and

(f) Landlord, with Tenant's concurrence, shall have accepted the Base Shell and Core Building and not less than 33% of the rentable area of the Premises as substantially complete, subject to completion of the Punch List items agreed upon by Landlord, with Tenant's concurrence.

"Interior Architect" means NBBJ LP, the interior architect for the Project selected by Owner and Developer with Tenant's approval.

"Interior Design Contract" means the contract for space planning design services in connection with the design of Tenant Improvements entered into by Owner and the Interior Architect.

"Land" means the real property located in the City of Seattle, King County, Washington, more specifically described on Exhibit A hereto.

"Laws" means any constitution, statute, ordinance, regulation, rule, resolution, judicial decision, administrative order or other requirement of any federal, state, county, municipal or other governmental agency or authority having jurisdiction over the parties or the Premises, including without limitation, any regulation or order of a quasi-official entity or body (e.g., board of fire examiners or public utilities) and all rules, laws and regulations issued thereunder, as the same may be amended from time to time.

"Master Use Permit" or "MUP" means the Master Use Permit for the Project issued by the City of Seattle, as modified.

"Other Costs" means the costs totaling $1,602,000 listed under the heading "Other Costs" on the Project Budget attached hereto as Exhibit D. Other Costs shall be considered Project Costs but shall not be included in the determination of the Fixed Price.

"Overhead Allowance" means the overhead allowance to be paid to Developer in accordance with the provisions of Section 11(b) of this Agreement.

"Owner" means NJB Properties, a Washington nonprofit corporation, its successors and permitted assigns.

"Owner-Caused Delay" means any period of delay in the overall progress of design, construction, and completion of the Project, including Tenant Improvements, that is caused by Owner-initiated change orders to the General Construction Contracts or by Owner's failure to approve, disapprove, decide, or otherwise respond to Developer with respect to a particular item for which Owner's response is required hereunder or under the General Construction Contract, or failure to deliver plans, information, specifications, or other information within the time frames required under this Agreement or the General Construction Contracts. However, Owner-Caused Delay shall not include: (i) delay for which a substantially contributing cause is Developer's failure to provide, within the time frames allowed hereunder, draw requests, architect's certifications, progress completion certifications, copies of change orders and supporting documentation, shop drawings, schedules, costs, invoices, job progress reports, or other documents or information which Owner is entitled to receive hereunder or which is reasonably requested by Owner in connection with any such decision or response, or (ii) delay caused by the existence of reasonable cause to suspect that construction of the Project or Tenant Improvements or any other services provided by Developer hereunder have not been performed in accordance with Construction Documents and other requirements hereunder, in which case Owner-Caused Delay shall not include the amount of additional time reasonably needed by Owner to determine whether such construction or other services conform to all requirements hereunder, so long as Owner proceeds with all reasonable diligence to make such determination. To facilitate timeliness in Owner's communications with Developer over matters relating to design or construction of the Project and to minimize the possibility of Owner-Caused Delay, Developer shall alert Owner to deadlines for approvals, decisions or other responses that Owner must provide hereunder, including, among other methods, attachment of "deadline cover sheets" on any submissions to Owner that require response by a particular deadline or distribution of weekly calendars that show deadlines

imposed on Owner. If Developer at any time believes that an instance of Owner-Caused Delay has occurred that has directly caused or will directly cause an increase in Project Costs or extension of the Developer Obligation Date, Developer shall send a written notification to Owner within five (5) days of the occurrence of such alleged Owner-Caused Delay explaining the alleged event that constituted such Owner-Caused Delay, specifying the period of alleged Owner-Caused Delay, describing how the alleged Owner-Caused Delay adversely impacted the Project Schedule and identifying any incremental increase in Project Costs that are identifiable or reasonably foreseeable as a direct result of such Owner-Caused Delay. Any disputes between Developer and Owner over Project Costs attributable to Owner-Caused Delay shall not be a reason to stop or delay construction of the Project and shall be resolved by the parties as expeditiously as possible, either by mutual agreement of the parties or in accordance with the dispute resolution mechanisms described in Section 24 hereof.

"Permits" means all land use approvals, permits and approvals required for construction of the Project.

"Permitted Use" means the intended use of the Project by Tenant for medical office purposes, parking, retail space and any other lawful use consistent with the provisions of Section 7 of the Project Lease.

"Preliminary Plans and Outline Specifications" are the initial renditions for the Base Shell and Core Building, schedules of which plans and specifications is attached hereto as Exhibit E and incorporated herein by this reference.

"Premises" means the entirety of the Building to be constructed on the Land together with a leasehold interest in the Land pursuant to the Ground Lease.

"Project" means the total design and construction, including demolition of existing improvements on the Land, all professional design services, and all labor, materials and equipment used or incorporated in such design and construction of the Building to be constructed on the Land. The Project shall include work which is consistent with and reasonably inferable from the approved Project Requirements as being necessary to produce the intended results and may include the acquisition of certain light, view or other easements or property interests benefiting the Project not included in the Project Requirements to the extent that the cost thereof is paid from the Tenant's Contingency.

"Project Application for Payment" means the procedures by which requests for payment for Project Costs and other costs shall be made in accordance with Section 9 of this Agreement.

"Project Budget" means the budget for development of the Project attached to this Agreement as Exhibit D, as revised from time to time in accordance with this Agreement.

"Project Contingency" means the contingency by that name set forth in the Project Budget. The amounts of the various line items of the Project Budget are estimates only of the Project Costs to be incurred. To the extent the actual Project Costs in any line item of the Project Budget exceed the amount shown for such line item, Developer shall first allocate amounts in other line items, in which the actual known Project Costs will be less than the amount of the

Project Budget, to the line item in which the excess Project Cost has been incurred. The Project Contingency is not available for Tenant Improvement costs in excess of the Tenant Improvement Allowance. Following the allocation by Developer as set forth in the preceding sentence with respect to all line items, Developer is entitled to draw upon the Project Contingency for such excess Project Costs.

"Project Costs" means all costs for the completion of the development, design, permitting and construction of the Project, including, without limitation, all demolition costs, all permit fees, all costs of the Base Shell and Core Building, HVAC, electrical and other building systems, all costs of Tenant Improvements, all costs of fixtures, furnishing and equipment described in the Construction Documents, all costs of architectural services provided by the Architect under the Architect's Agreement, all costs of services provided by the Interior Architect under the Interior Design Contract with respect to the Tenant Improvements, all other professional design and other services provided by Contractors or other professionals engaged by the Developer or General Contractor, all amounts paid to General Contractor under the General Construction Contract including all labor, material, and equipment used or incorporated in such design and construction, all amounts paid to other Contractors and subcontractors, if any, under any other Construction Contract or subcontract entered into by Owner upon the written approval of Developer or by the Developer on behalf of and acting as the Owner's agent in connection with the Project, including all labor, material, equipment used or incorporated in such design and construction, services provided by engineers, environmental consultants, surveyors and other professionals and consultants retained by Developer in connection with the Project, Other Costs, Developer's Overhead Allowance, Developer's Fee, insurance (other than Bond insurance), bonds (other than the Bonds), applicable state and local retail sales, business and occupation and other taxes (including real property taxes and assessments accruing from Commencement of Construction to the Initial Occupancy Date), plus the Project Contingency; **excluding only** (a) Tenant's Personal Property and any taxes thereon (which shall be paid by Tenant at its sole cost and expense), (b) Financing Costs, (c) costs for art or similar enhancements that are not included in the Project Requirements and not paid from the Tenant's Contingency; (d) costs of acquiring certain light, view or other easements or property interests benefiting the Project that are not included in the Project Requirements and are not paid from the Tenant's Contingency; (e) costs or fees incurred in connection with the vacation of the alley that currently runs through the Land; (f) costs of removing or remediating any Hazardous Substances in, on or emanating from the Land in excess of the amount specifically set forth in the Project Budget for environmental remediation; (g) notwithstanding the above, real property taxes and assessments, utilities and other operating costs attributable to the Garage accruing after Substantial Completion of the Garage; (h) to the extent not reflected in the Preliminary Plans and Outline Specifications, costs of any off-site improvements required as a condition to or in connection with the development or construction of the Project; and (i) Costs Not To Be Reimbursed.

"Project Fund" means the fund of that name established under the Indenture for the purpose, among others, of paying Project Costs.

"Project Lease" means the lease agreement between Owner and the Tenant for occupancy of the Project in the form attached hereto as Exhibit B.

"Project Requirements" means the Preliminary Plans and Outline Specifications as set forth in Exhibit E and as otherwise specifically agreed to by Owner and Developer.

"Project Schedule" means the schedule for development and construction of the Project as revised from time to time by Developer and Owner in accordance with this Agreement; provided, however, that in no event shall the Project Schedule provide for (i) Substantial Completion of the IEB Generator to occur later than the IEB Generator Completion Date, or (ii) the Initial Occupancy Date to occur later than the Developer Obligation Date, without the written concurrence of Tenant. The initial Project Schedule is set forth in Exhibit F attached hereto and by this reference incorporated herein.

"Punch List" means a list of items prepared in connection with the Initial Occupancy Date, Substantial Completion of the Garage, Substantial Completion of the Project or the Final Acceptance, as applicable, that are minor items which do not affect Owner's ability to lease the Premises to Tenant and do not affect Tenant's ability to use the applicable portion of the Premises for the Permitted Use.

"Requirements of Law" means all requirements relating to land and building construction (including those specifically applicable to Tenant's contemplated use of the Premises as a medical office building and a parking garage), including, without limitation, planning, zoning, subdivision, environmental, air quality, flood hazard, fire safety, accessibility, and other governmental approvals, permits, licenses and/or certificates as may be necessary from time to time to comply with all the foregoing and other applicable statutes, rules, orders, regulations, laws, ordinances, and covenants, conditions and restrictions, which now apply to and/or affect the design, construction, existence, intended use, operation and/or occupancy of the Land, the Premises or any part thereof.

"Sale of the Bonds" means execution and delivery by Owner and a responsible bond underwriter of an agreement providing for the purchase and sale of the Bonds on terms consistent with the terms of the Lease and with no conditions to the underwriter's obligation to pay for and accept delivery of the Bonds other than those conditions contained in said agreement between Owner and the responsible bond underwriter.

"Savings" has the meaning set forth in Section 12(h) of this Agreement.

"Substantial Completion of the Garage" has the meaning set forth in Section 12 of this Agreement.

"Substantial Completion of IEB Generator" means that all of the work described on Exhibit H attached hereto has been completed and the IEB Generator is operational and capable of serving the IEB.

"Substantial Completion of the Project" has the meaning set forth in Section 12 of this Agreement.

"Substantially Complete" or **"Substantially Completed"** means that the Project has been constructed in substantial accordance with the Contract Documents and: (a) all elements required for the functioning of the Project shall be operational and in good working order and

condition including satisfying applicable ADA building requirements and the Washington State Law Against Discrimination, RCW ch. 49.60, as well as regulations adopted thereunder; (b) the Project shall be weather tight and waterproof; (c) the fire and life safety systems within the Project shall be operational and in good working order and condition; (d) the elevators shall operate and function in good working order and condition, but may still require touch up installation and cleaning; (e) the mechanical and electrical systems, including the HVAC system, shall be individually tested and in good working order able to support the Project and shall also be tested to assure that Project systems operate on an integrated basis, but the HVAC system may still require final balancing work; (f) the finish work is substantially completed, including, but not limited to public lobby, elevator, HVAC, plumbing, fire and life safety, sprinkler and electrical systems, doors, partitions, cabinetry, carpet and base, including removal of all construction debris; (g) all site utilities, sidewalks and landscaping are substantially completed and construction barricades and equipment have been removed; (h) the Garage, including Garage elevators and lobbies, and all entrances and exits to the Garage or Project, as applicable, are completed; (i) the access and security systems for the Project are installed and operational, except in each case for minor Punch List items which do not materially affect use and occupancy of the Project for medical offices and parking; and (j) the IEB Generator has been installed and is fully functional.

"Tenant" means King County and its successors and permitted assigns as tenant under the Project Lease.

"Tenant Improvement Allowance" means, within the Fixed Price, an allowance of $47,423,000 to cover the design and construction costs of the Tenant Improvements. If any portion of this allowance is not used, it shall remain the property of Owner.

"Tenant Improvement Design Schedule" has the meaning set forth in Section 2(c) of this Agreement.

"Tenant Improvement Obligation Date" means December 31, 2009. The Tenant Improvement Obligation Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; (ii) Owner-Caused Delays (including delays caused by Tenant or any User in meeting response deadlines or otherwise). If an Unavoidable Delay or an Owner-Caused Delay applies only with respect to a particular User Space (e.g., the failure of Owner, Tenant or User to respond to elements of the Tenant Improvement Package for that User Space within the time period required by the Tenant Improvement Design Schedule for that User Space), the Tenant Improvement Obligation Date shall be extended only with respect to the Tenant Improvements in that User Space.

"Tenant Improvement Package" has the meaning set forth in Section 2(c) of this Agreement.

"Tenant Improvements" means any improvements to the interior of the Building beyond the Base Shell and Core Building, including data wiring, all or which are more specifically described in the Construction Documents.

"Tenant's Contingency" means the contingency in the amount of $12,820,000 which may be used to cover any changes in the Project resulting from any material improvements or deviation required by Owner from the design or level of quality reflected in the Preliminary Plans and Outline Specifications as set forth in Section 4(i) below or for Tenant Improvements requested by Tenant which exceed the Tenant Improvement Allowance. Tenant's Contingency consists of the amounts identified in the following two line items in the Project Budget attached as Exhibit D: "Tenant's Design Contingency" in the amount of $11,500,000, and "Owner Contingency" in the amount of $1,320,000.

"Tenant's Personal Property" means Tenant's furniture, equipment, and movable personal property placed in the Premises; provided, however, that fixtures, furnishing and equipment described in the Construction Documents as being part of the Project are not deemed to be part of Tenant's Personal Property. Tenant shall provide Tenant's Personal Property at Tenant's sole cost and expense.

"Title Policies" shall mean the policy of title insurance issued to Owner upon its leasehold of the Land (herein called the "Title Policy") and the lender's policy of title insurance issued to the Trustee upon the recording of the mortgage or deed of trust in favor of the Trustee (the "Lender's Title Policy").

"Trustee" shall mean a national bank or other financial institution with trust powers selected by Owner to serve as the bond trustee under the Indenture or any duly authorized successor thereto appointed pursuant to the Indenture.

"Unavoidable Delays" means any delay in the performance by Developer or General Contractor of its obligations with respect to construction of the Project caused by strikes (other than those directly caused by Developer's acts, omissions or failure to negotiate in good faith), acts of God, Unusually Severe Weather Conditions, unavoidable casualties, acts of the public enemy, acts of terrorists, governmental embargo restrictions, or similar causes beyond the reasonable control of Developer or General Contractor, which, after the exercise of due diligence to mitigate the effects thereof, delay construction of the Project, other than such delays resulting from (a) Developer's or General Contractor's failure to comply with the terms and provisions of this Agreement or the General Construction Contracts, (b) increased prices, or (c) unavailability of funds, provided the Fixed Price is paid in accordance with Section 9 of this Agreement. Unavoidable Delays will entitle Developer and General Contractor to an extension of the Developer Obligation Date but will in no way entitle Developer to additional compensation. Nothing contained herein shall prevent Developer from allocating the Project Contingency to increased costs of constructing the Project caused by Unavoidable Delays. In the event of any Unusually Severe Weather Conditions, the length of Unavoidable Delay to become effective under this Agreement as a result of such conditions shall be the period of time (not less than one day) by which Developer's progress in constructing the Project has reasonably been delayed as a result of such Unusually Severe Weather Conditions. Developer shall notify Owner in writing as soon as possible but in no event later than 35 days after any Unusually Severe Weather Conditions have occurred, shall provide in such notice a specification as to which of the listed conditions has occurred and the data supporting such determination, and shall provide an explanation of Developer's position as to the length of Unavoidable Delay to be granted as a result of such conditions, explaining how such conditions delayed Developer's construction progress. Owner

shall respond within 10 days thereafter as to whether Owner accepts or disagrees with Developer's position. Any disagreements that cannot be resolved by Developer and Owner shall be resolved in accordance with Section 24 hereof, but work shall continue pending resolution of such dispute.

"Unusually Severe Weather Conditions" means the occurrence of any of the following scenarios of precipitation, low temperature, windstorms, or snow or ice, but only if the building shell has not been sealed from weather and there remains substantial external work or other conditions that are affected by adverse weather and that will adversely affect the Developer's ability to achieve the Initial Occupancy Date by the Developer Obligation Date:

(a) Daily rainfall equal to or greater than .80 inch within any 24 hour period.

(b) Daily rainfall equal to or greater than .50 inch during any "rainy season month" (i.e., October through June) in which the total monthly rainfall (at the end of such month) is at least 115% but less than 150% of the total average monthly rainfall for such month.

(c) Daily rainfall equal to or greater than .30 inch during any rainy season month in which the total monthly rainfall (at the end of such month) is at least 150% but less than 200% of the total average monthly rainfall for such month.

(d) Daily rainfall equal to or greater than .20 inch during any rainy season month in which the total monthly rainfall (at the end of such month) is at least 200% of the total average monthly rainfall for such month.

(e) Daily maximum temperature less than 35 degrees Fahrenheit for two or more consecutive weekday days which impacts critical components of the work.

(f) A combination of temperature and precipitation that results in snowfall in excess of 3 inches on a particular day that does not melt and substantially disappear (but for isolated shaded areas) by 7:00 a.m. on the next work day, or that results in a coating of ice during the bulk of the workday (not merely morning frost) that makes walking, transporting or loading of materials, or operation of equipment or vehicles hazardous or significantly slowed.

(g) Maximum wind gusts exceeding 50 mph at any time during the work day.

(h) Maximum wind gusts exceeding 35 mph during each hour of a continuous four hour period during the work day.

(i) Any other unusually inclement weather condition which causes the construction site to be in a condition such that the General Contractor orders the workers to not work on the construction site.

Weather conditions shall be measured at Sea-Tac International Airport by the Environmental Data and Information Service of the National Oceanic and Atmospheric Administration of the

U.S. Department of Commerce. However, if Developer wishes to monitor weather at a location on or nearer to the Project site, Developer may make a proposal to install and operate, at its expense through Project Contingency, a weather monitoring station at the Property or in the vicinity of the Property, monitored by an independent consultant, and Owner shall not unreasonably withhold its approval to utilization of the weather data from such closer site so long as the equipment and independent consultant appear to be capable and trustworthy and the results obtained from such monitoring appear to be reasonably reliable.

"User" has the meaning set forth in Section 2(c) of this Agreement.

"User Space" has the meaning set forth in Section 2(c) of this Agreement.

"Warranty Period" shall mean that period commencing on the date of Substantial Completion of the Project and expiring two (2) years thereafter.

2. Development of the Project.

(a) Fixed Price. Owner hereby retains Developer and Developer shall develop, oversee and manage the design, permitting and construction phases of the Project in accordance with the terms and conditions of this Agreement. Subject to the terms of this Agreement, and provided the Fixed Price is paid in accordance with Section 9 of this Agreement, Developer warrants the delivery of the Project for a Fixed Price of $176,635,000, constructed in a good and workmanlike manner and in substantial accordance with the Contract Documents. Developer shall cause (i) the Initial Occupancy Date to occur on or before the Developer Obligation Date; and (ii) substantial completion of Tenant Improvements beyond those delivered on the Initial Occupancy date to occur by the Tenant Improvement Obligation Date. Developer further warrants that, subject to the terms of this Agreement, Project Costs exceeding the Fixed Price shall be paid by Developer, with Developer depositing any required funds with Trustee pursuant to Section 9(g) below. Upon compliance by Developer with its obligations under this Agreement, Owner shall cause the Trustee to disburse money from the Project Fund (as those terms are defined in the Indenture) to Developer or any other party entitled to receive such disbursement as set forth in Section 9 of this Agreement to pay the Project Costs, until money in an amount equal to the Fixed Price has been disbursed.

(b) Tenant Improvement Allowance. The Fixed Price will include the Tenant Improvement Allowance of $47,423,000 for the design and construction of Tenant Improvements. Notwithstanding any other provision in this Agreement to the contrary, Developer's liability for the cost of constructing the Tenant Improvements shall be governed by the terms of this Section 2(b). Developer shall work with Owner to develop the pricing on Owner's desired Tenant Improvements. If the total cost of designing and constructing the Tenant Improvements is less than the Tenant Improvement Allowance, then all excess funds in the Tenant Improvement Allowance shall be retained by Owner upon Final Acceptance. Subject to Developer's adherence to the standards set forth in Section 2(e), and to Owner's ability to apply the Tenant's Contingency, if the total cost of designing and constructing the Tenant Improvements exceeds the Tenant Improvement Allowance, such excess costs shall be paid solely by Owner.

(c) Tenant Improvements Construction Schedule. The following provisions shall apply with respect to Tenant Improvements in the Project beyond those delivered by Developer on the Initial Occupancy Date:

(i) On or before September 1, 2007, Tenant shall provide Owner and Developer with the names and location of all Tenant agencies and any user or subtenant of space in the Building, if other than Tenant (such user or subtenant being referred to herein as the "User", and the space in the Building to be subleased or used by such User the "User Space"). Tenant's failure to meet this date may result in an Owner-Caused Delay.

(ii) Promptly after the identification of each Tenant agency or User and all User Spaces, Developer shall prepare and submit to Owner, Tenant and User for their review and approval, for each User Space, a process and schedule (the **"Tenant Improvement Design Schedule"**) pursuant to which a final Tenant Improvement Package (as defined below) for such User Space shall be completed and approved by Developer, Owner, Tenant and User on or before July 1, 2008. The Tenant Improvement Design Schedule shall include reasonable time periods for preparation, review, modification and approval of each component of the Tenant Improvement Package. The approval of Owner, Tenant and User of each Tenant Improvement Design Schedule shall not be unreasonably withheld or delayed. Promptly after agreement has been reached on the Tenant Improvement Design Schedule for a User Space, Developer shall then prepare or cause to be prepared, for such User Space, the following items, which shall collectively be referred to as a **"Tenant Improvement Package"**: (1) space programming, in consultation with the Owner, Tenant and User, as necessary; (2) plans and specifications; (3) construction budget; and (4) construction schedule. With respect to determining item (4), construction schedule, due consideration shall be given to the complexity of the Tenant Improvements being constructed, any long lead time materials that will be required and the number of other Tenant Improvement projects in the Building that will be occurring simultaneously. The construction schedule shall include a date by which construction is expected to be substantially completed (meaning completed except for minor Punch List items that do not materially interfere with the User's use of the User Space). Failure by Owner, Tenant or User to adhere to any of the response times included in the Tenant Improvement Design Schedule may result in an Owner-Caused Delay.

(iii) In performing the foregoing tasks, Developer, Owner, Tenant and the User shall work together in a commercially reasonable and good faith manner. The approval by any party of a Tenant Improvement Design Schedule or a Tenant Improvement Package must be in writing. Developer shall not be required to commence construction of Tenant Improvements in a User Space until each element of the Tenant Improvement Package for that User Space has been approved in writing by each of Developer, Owner, Tenant and User.

(d) Other Costs. Other Costs shall be considered Project Costs but shall not be included in the determination of the Fixed Price. **Any portion of Other Costs not used for the Project shall be added to Tenant's Contingency, and any portion of Tenant's Contingency not used for the Project shall be applied as provided in the Indenture.** If the cost of the items of work described under the heading "Other Costs" on the Project Budget attached hereto as Exhibit D exceeds $1,602,000, such excess shall be paid by Owner.

(e) Diligent Efforts; Relationship of the Parties. Developer accepts the relationship of trust and confidence established with Owner by this Agreement and agrees that in providing the services set forth in this Agreement, Developer shall use its diligent efforts and shall furnish its best skill and judgment consistent with industry standards and shall cooperate with, coordinate, manage, direct and oversee the General Contractor, Architect, Interior Architect, all other Contractors, all other engineers, design consultants, managers and other persons retained in connection with the design, permitting, development and construction of the Project so as to cause Substantial Completion of the Project in an expeditious and economic manner consistent with the best interests of Owner, and otherwise in a good and workmanlike manner and in substantial accordance with the Contract Documents, to cause Substantial Completion of the IEB Generator on or before the IEB Generator Completion Date and to cause the Initial Occupancy Date to occur on or before the Developer Obligation Date, free and clear of liens (provided the Fixed Price is paid in accordance with Section 9 of this Agreement). Developer shall perform its services in accordance with the terms of this Agreement, including, without limitation, all services to be provided by Developer as described in Section 5 herein. Developer shall not perform any construction services in connection with this Agreement. By the terms of this Agreement, Developer is not obligated to perform services for which Owner has contracted with a third party without Developer's prior written consent, nor obligated to pay for such services for which Owner has contracted with third parties without Developer's prior written consent, and such services shall be paid for directly by Owner and shall not be considered Project Costs unless they are pre-approved by Developer in writing.

(f) Mutual Cooperation; Liability of Owner. Developer and Owner shall fully and in good faith cooperate with each other to accomplish each of the activities provided herein. Developer acknowledges and agrees that Owner shall have no liability or responsibility whatsoever with respect to the activities provided to be performed by Developer herein, except to pay the Fixed Price pursuant to the terms and conditions contained herein.

(g) Term. The rights and obligations of the Developer and Owner hereunder shall commence on the date of execution of this Agreement and shall continue, subject to early termination pursuant to Section 3(c), until expiration of the Warranty Period, except with respect to those specific obligations of Developer which may survive the Warranty Period. Notwithstanding the foregoing, Developer's obligation under this Agreement to manage the construction of Tenant Improvements shall apply only with respect to Tenant Improvements in a User Space for which a final Tenant Improvement Package has been agreed upon in writing by each of Developer, Owner, Tenant and User by July 1, 2008. Developer shall have no obligation to manage the construction of Tenant Improvements in any User Space if a final Tenant Improvement Package has not been agreed upon in writing by each of Developer, Owner, Tenant and User by July 1, 2008, unless a separate agreement is reached whereby Developer will be paid an additional developer's fee and additional overhead for any construction work extending beyond the Tenant Improvement Obligation Date.

3. Project Financing.

(a) Issuance of Bonds. Owner intends to issue Bonds in a principal amount sufficient to pay the Project Costs, Financing Costs and other costs payable pursuant to the terms of the Indenture. The Series A Bonds shall comply with the requirements of Revenue Ruling 63-20

and Revenue Procedure 82-26 issued by the U.S. Treasury (collectively, the "Ruling") and other regulations, interpretations and letter rulings issued by the Internal Revenue Service with respect to such financings. Owner intends to have the payment of principal and interest on the Bonds insured by the Bond Insurer selected by Owner upon recommendation by the underwriter retained by Owner to sell the Bonds. The proceeds of the Bonds shall be used to pay Project Costs (in an amount not in excess of the Fixed Price), Financing Costs and other costs.

(b) Disbursal of Proceeds. A portion of the proceeds from the sale of the Bonds shall be deposited into the Project Fund held by the Trustee and shall be used to pay Project Costs and other costs in accordance with the terms of the Indenture and this Agreement.

4. Project Design. Developer shall cause design services to be performed by qualified architects, engineers and other professionals recommended by Developer, approved by Owner and paid as part of the Project Costs.

(a) Selection of Development Team for Project. The following entities are intended to be retained in connection with the Project:

(i) Architect: NBBJ

(ii) General Contractor: Turner Construction Company

(iii) Structural Engineers: Magnusson Klemencic Associates

(iv) Mechanical Design Build Engineers: University Mechanical

(v) Interior Architect: NBBJ

(vi) Electrical Design/Build Engineers: Sequoyah

In order to complete the Project, Developer shall have the right to select other professionals as necessary or desirable for the design, permitting, and development of the Project and shall have the obligation to recommend other Contractors for Owner's approval. All amounts paid to the entities outlined above and any others hereinafter engaged by Developer in connection with the performance of its duties and responsibilities under this Agreement, or as agent for Owner, shall be part of the Fixed Price.

(b) Design Contracts. Owner shall enter into the Architect's Agreement with the Architect and the Interior Design Contract with the Interior Architect.

Consistent with the terms and conditions of the respective General Construction Contract, Interior Design Contract and the Architect's Agreement, there shall be no amendment to those or any other design contract or Construction Contract, without the prior written consent of Owner. All rights of Owner and Developer, respectively, under the Architect's Agreement, the Interior Design Contract and the General Construction Contract and any other contract designated by either Trustee or Bond Insurer shall be assigned to Trustee and/or Bond Insurer as appropriate under assignment agreements in form and substance satisfactory to Trustee and Bond Insurer. Developer shall obtain, at no cost to Owner, the consent of Architect, Interior Architect, General Contractor and other design professionals and Contractors as necessary to each such assignment.

(c) Project Budget. The Project Budget sets forth a detailed itemization by line item and category of all Project Costs, including Tenant's Contingency, Project Contingency, the Overhead Allowance and Developer's Fee. The Project Budget is attached hereto as Exhibit D.

(d) Construction Drawings. Developer shall cause the Architect to prepare the Construction Drawings and Detailed Specifications for the Base Shell and Core Building and cause the Interior Architect to prepare such necessary plans and specifications for the Tenant Improvements, in each case for Developer's review and Owner's approval. The intention of the parties is to cooperate in good faith to provide a completed design which meets all Requirements of Law and is consistent with all Project Requirements and the building quality reflected therein. The Construction Drawings and Detailed Specifications for the Base Shell and Core Building construction and Tenant Improvements shall include, at a minimum, all architectural services set forth under Basic Services in the Architect's Agreement and such other architectural services as may be necessary to provide Construction Documents for the Base Shell and Core Building and Tenant Improvements portions of the Project.

(e) ADA Compliance. Each design contract shall include a provision requiring that upon Substantial Completion of that portion of the work covered by that design contract, the work and the portion of the Project so constructed shall comply with the applicable Americans With Disabilities Act requirements referenced herein.

(f) Owner's Review. Owner may participate in all design meetings with Developer, Architect, Interior Architect and other design professionals as appropriate in the course of the development of all Construction Documents in order to facilitate the approval of such Construction Documents in accordance with the terms of this Agreement. Owner shall promptly review the Project Budget and all Construction Drawings and Detailed Specifications submitted in accordance with this Agreement and shall give Developer written notice within ten (10) business days following its receipt of the Project Budget and/or Construction Drawings and Detailed Specifications of its approval or disapproval thereof, specifying in the case of its disapproval, its reason therefor. Owner shall have the right to disapprove such Construction Drawings and Detailed Specifications which (i) do not meet the Project Requirements, (ii) do not comply with Requirements of Law, (iii) do not comply with previous Construction Drawings and Detailed Specifications in all material respects, or (iv) propose changes in work or materials that would result in a material change in appearance or diminution in quality of the Project. If no objections or comments are received within such ten (10) business day period, then the submittals shall be deemed approved.

(g) Resubmittals. If objections or comments are submitted in writing within the time frame and in accordance with the requirements set forth in the preceding subsection, Developer shall cause the Architect and/or the Interior Architect to make changes in the Construction Drawings and/or Detailed Specifications consistent with reasonable objections or comments made by the Owner and shall resubmit the same to Owner in accordance with the foregoing schedule for further review. The process of resubmittal and review shall continue until the submittals have been approved by all the parties. The final Construction Drawings and Detailed Specifications setting forth in detail the requirements for the construction of the Project which have been approved by Owner shall be the Construction Documents. There shall be no material change in the Construction Documents except as set forth in Section 8 below.

(h) Permit and Construction Documents. Developer shall cause the Architect and other design professionals to prepare Construction Documents as required for submittal of the building permit and other permit applications in accordance with Section 6 hereof, and as required for construction of the Project by the Contractors.

(i) Tenant's Contingency. The Fixed Price includes a Tenant's Contingency in the amount of $12,820,000, which shall be allocated to Project Costs as provided herein. If Owner requires any material improvement or material deviation in the Construction Drawings or the Detailed Specifications from the design or level of quality reflected in the Preliminary Plans and Outline Specifications any resulting increase in design or construction Project Costs shall be charged against the Tenant's Contingency up to a maximum of $12,820,000, after which no further design changes shall be permitted hereunder unless Owner agrees to pay for any resulting increase in Project Costs. To the extent that the Construction Drawings and Detailed Specifications are consistent developments of the Preliminary Plans and Outline Specifications, the Fixed Price shall not be adjusted for any changes in Project Costs required to construct the Project in accordance with such Construction Documents. Additionally, at Owner's option, the Tenant's Contingency may be used for the design and/or construction of Tenant Improvements desired by Owner in excess of Tenant Improvement Allowance.

5. Construction Management Services. Developer shall provide Owner with all construction administration and construction management services necessary or desirable to cause the Initial Occupancy Date to occur on or before the Developer Obligation Date in a good and workmanlike manner and in substantial accordance with the Contract Documents, including, without limitation, the following:

(a) Preconstruction Phase.

(i) Developer shall oversee all design work done by Architect, Interior Architect and other design professionals for the design and development of the Project. Developer shall expeditiously review design documents during their development and advise on proposed site use and improvements, selection of materials, building systems and equipment and methods of Project delivery. Developer shall provide recommendations on relative feasibility of construction methods, availability of materials and labor, and time requirements for procurement, installation, construction and factors related to construction costs including, but not limited to, costs of alternative designs or materials, budgets and possible economics.

(ii) Developer shall prepare and periodically update the Project Schedule for Owner's acceptance. Developer shall obtain the Architect's and Interior Architect's approval for the portions of the preliminary Project Schedule relating to the performance of their services. Developer shall coordinate and integrate the Architect's and Interior Architect's services into the Project Schedule and Developer's and Owner's responsibilities with anticipated construction schedules, highlighting critical and long lead time items.

(iii) Developer shall consult with Owner and Architect regarding the Construction Documents and make recommendations whenever design details adversely affect constructibility, cost or schedules.

(iv) Developer shall cause the General Contractor to establish the assignment of responsibilities for temporary Project facilities and equipment, materials and services for common use of the Contractors. Developer shall verify that such requirements and assignment of responsibilities are included in the proposed Contract Documents.

(v) Developer shall cause the General Contractor to determine the division of the Project into individual contracts for various categories of work, including the method to be used for selecting Contractors and awarding Construction Contracts. Developer shall cause the General Contractor to review the Construction Documents as required to provide that (1) the work of the Contractors is coordinated; (2) all requirements for the Project have been assigned to the appropriate Construction Contract; (3) the likelihood of jurisdictional disputes has been minimized; and (4) proper coordination has been provided for phased construction.

(vi) Developer shall prepare a Project Schedule providing for the components of the work and shall consult with the General Contractor in connection with the preparation and updating of the Project Schedule, including phasing of construction, times of commencement and completion required of each Contractor, ordering and delivery of products requiring long lead time, and the occupancy requirements of Owner. Developer shall provide the current Project Schedule to the General Contractor for each set of bidding documents.

(vii) Developer shall work with the General Contractor to expedite and coordinate the ordering and delivery of materials requiring long lead times.

(viii) Developer shall select and coordinate the professional services of surveyors, special consultants and testing laboratories required for the Project.

(ix) Developer shall cause the General Contractor to provide an analysis of the types and quantities of labor required for the Project and shall review with the General Contractor the availability of appropriate categories of labor required for critical phases. Developer shall make recommendations for actions designed to minimize adverse effects of labor shortages.

(x) Following Owner's approval of the Construction Documents, the Developer shall update and submit the latest estimate of Project Costs, Project Budget and the Project Schedule for Owner approval.

(xi) Developer shall direct the General Contractor to develop bidders' interest in the Project, establish bidding procedures, issue bidding documents to bidders and conduct pre-bid conferences with prospective bidders. Developer shall cause the General Contractor to submit the list of prospective bidders for Owner's review. Owner shall have the right to reject any bidder if there exists substantial and reasonable cause for such rejection. Developer shall assist the General Contractor with respect to questions from bidders and the issuance of addenda.

(xii) Developer and General Contractor shall receive bids, prepare bid analyses and award contracts or reject bids.

(b) Construction Phase.

(i) Developer shall administer all Construction Contracts for the Project in cooperation with the Architect.

(ii) Developer shall provide administrative, management and related services to coordinate scheduled activities and responsibility of the Contractors with each other and with those of the Developer, Owner and Architect to manage the Project substantially in accordance with the Project Schedule and Contract Documents.

(iii) Developer shall cause the General Contractor to update the Project Schedule incorporating the activities of the Contractors on the Project, including activity sequences and duration, allocation of labor and materials, processing of shop drawings, product data and samples and delivery of products requiring long lead time and procurement. The Project Schedule shall include Owner's occupancy requirement showing portions of the Project having occupancy priority. Developer shall update and reissue the Project Schedule as required to show current conditions. If an update indicates that the previously approved Project Schedule may not be met, Developer shall cause the General Contractor to take corrective action so as to cause the Initial Occupancy Date to occur on or before the Developer Obligation Date and to cause the Tenant Improvements to be substantially completed within the time frames required by this Agreement.

(iv) Developer shall cause the General Contractor to schedule and coordinate the sequence of construction so as to cause the Initial Occupancy Date to occur on or before the Developer Obligation Date and to cause the Tenant Improvements to be substantially completed within the time frames required by this Agreement.

(v) Developer shall dutifully administer and enforce the Architect's Agreement and the Interior Design Contract and Developer shall cause the General Contractor to dutifully administer and enforce all Construction Contracts with subcontractors and, provided that Owner authorizes Developer to do so and assigns to Developer any rights necessary in connection therewith, Developer shall fully enforce, administer and take such actions as are necessary to implement contracts with the Architect, Interior Architect, and General Contractor. Developer shall notify and consult with Owner regarding any material breaches or defaults by any party to a Construction Contract relating to the Project. Developer shall, with respect to such breach or default by such contracting party, follow the instructions or directions of Owner so long as such instructions or directions do not, in the reasonable professional judgment of Developer, restrict, delay, impair or otherwise jeopardize the occurrence of the Initial Occupancy Date by the Developer Obligation Date or prevent the Tenant Improvements from being substantially completed within the time frames required by this Agreement.

(vi) Developer shall develop cash flow reports and forecasts for the Project (including variances between actual and budgeted costs) and provide Owner with copies of same.

(vii) In consultation with the Architect, Developer shall oversee the course of construction and shall conduct such inspections of the course of construction and testing of work to insure that the work of each Contractor is being performed in substantial accordance

with the requirements of the Contract Documents in a good and workmanlike manner, free of defects and deficiencies in work, and free and clear of all liens. Developer shall reject all work which does not conform to the requirements of the Contract Documents and cause corrective action to be taken.

(viii) Developer shall transmit to Architect requests for interpretations of the meaning and intent of Construction Drawings and Detailed Specifications and assist in the resolution of questions that arise.

(ix) Developer shall expedite the processing and approval of shop drawings, product data, samples and other submittals.

(x) Section 8 of this Agreement shall control with regard to changes in the work.

(xi) Developer shall record the progress of the Project. Developer shall cause the General Contractor to submit written monthly progress reports to Owner and Developer, including information on each Contractor and each Contractor's work, as well as the entire Project, showing percentages of completion. Developer shall maintain or cause the General Contractor to maintain a daily log, containing a record of weather, each Contractor's work on the site, number of workers, identification of equipment, work accomplished, problems encountered and such other information as Owner may require.

(xii) Developer shall maintain at the Project site or at Developer's offices in Seattle, Washington, for Owner one record copy of all Contract Documents, all drawings, specifications, addenda, change orders and other modifications, in good order and marked currently to record changes and selections made during construction together with approved shop drawings, product data, samples and similar required submittals. Developer shall maintain records, in duplicate, of principal building layout lines, elevations of the bottom of the footings, floor levels and key site elevations certified by a qualified surveyor or professional engineer. All such records shall be made available to Architect, Interior Architect and Owner upon request and, upon completion of the Project, duplicate originals shall be delivered to Owner.

(xiii) Although Developer shall not be responsible for the purchase of materials, systems and/or equipment, Developer shall assure that the General Contractor is responsible for the delivery and storage, protection and security of such materials, systems and equipment that are part of the Project until such items are incorporated into the Project.

(xiv) Developer shall develop and implement procedures for the review and processing of applications by Contractors for progress and final payments.

(xv) Based on the Developer's observations and evaluations of each Contractor's Application for Payment, the Developer shall review and certify the amounts due the respective Contractors. The Developer shall prepare Project Applications for Payment based on the Contractors' Applications for Payment.

(xvi) Each Project Application for Payment and certification of the Contractor(s)' certificates for payment shall constitute a representation to Owner based on the Developer's overall supervision of the course of construction, inspections conducted at the site, and review of the data comprising the Contractors' Application for Payment that, to the best of Developer's knowledge, information and belief, the work has progressed to the point indicated and the quality of the work is in substantial accordance with the Contract Documents (subject to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by Developer in Developer's Project Application for Payment).

(xvii) Developer shall supervise the final testing and start-up of utilities, operational systems and equipment.

(xviii) When Developer considers each Contractor's work or a designated portion thereof substantially complete, the Developer shall, jointly with the Architect, prepare for the Contractor a list of incomplete or unsatisfactory items (Punch List) and a schedule for their completion. The Developer shall assist Architect in conducting inspections to determine whether the work or designated portion thereof is substantially complete.

(xix) Developer shall cause the General Contractor to coordinate the correction and completion of the work, including all Punch List items, and shall evaluate the completion of the work of the Contractors and make final recommendations to the Architect when the Project or any designated portion thereof has achieved Final Acceptance. Developer shall assist Architect in conducting final inspections of the work.

(xx) Developer shall take such other and further action as may be necessary or desirable to cause the Initial Occupancy Date to occur on or before the Developer Obligation Date and to cause the Tenant Improvements to be substantially completed within the time frames required by this Agreement.

6. Permits.

(a) Master Use Permit. A Master Use Permit will be obtained by the Developer.

(b) Permits. Developer shall obtain all Permits necessary to construct the Project. For those Permits yet to be acquired as of the date of the execution of this Agreement, Owner shall have ten (10) business days to review any Permit application Developer intends to submit. Owner's failure to object to terms or conditions of a Permit application shall not be construed as approval of the same but shall constitute Owner's authorization for Developer to submit the Permit application. For those Permit applications already submitted by Developer prior to the execution of this Agreement, Owner shall receive a copy upon request. Owner shall join in any application for Permits as required, at the expense of Developer. Developer shall pursue issuance of such Permits with all due diligence.

(c) Costs. All costs associated with issuance of the Permits shall be Project Costs.

(d) Schedule and Delays. Owner and Developer anticipate issuance of Permits by the City of Seattle and commencement of construction of the Project within the time set forth in the Project Schedule set forth as Exhibit F hereto. The Project Schedule shall be updated by Developer and Owner from time to time as reasonably required to reflect the current status of the Project. There shall be no increase in the Fixed Price as a result of any delay in issuance of the Permits or commencement or completion of construction of the Project.

7. Construction.

(a) Commencement of Construction. As soon as reasonably practical following issuance of the Permits, Developer shall cause Commencement of Construction to occur and to diligently and continuously prosecute such work to Final Acceptance. Developer shall coordinate the sequencing of all construction and shall cause all other Contractors to commence construction of that portion of the work covered under their respective Construction Contracts and diligently and continuously prosecute such work to Final Acceptance. Developer warrants to the Owner that materials and equipment incorporated into the Project shall be new unless otherwise specified.

(b) Substantial Completion Schedule. Developer shall cause Substantial Completion of the IEB Generator to occur on or before the IEB Generator Completion Date in a good and workmanlike manner, free from defects in work or materials and in substantial accordance with the Contract Documents, free and clear of all liens, provided the portion of the Fixed Price attributable to the IEB Generator is paid in accordance with Section 9 hereof. Developer shall cause the Initial Occupancy Date to occur on or before the Developer Obligation Date in a good and workmanlike manner, free from defects in work or materials and in substantial accordance with the Contract Documents, free and clear of all liens, provided the Fixed Price is paid in accordance with Section 9 hereof. Developer shall cause all Tenant Improvements beyond those delivered on the Initial Occupancy Date to be substantially completed on or before the Tenant Improvement Obligation Date.

(c) Delays. The existence of Unavoidable Delays of up to 90 days shall excuse General Contractor and Developer for resulting delays and changes in the Project Schedule, provided however that there shall not be any adjustment to the Fixed Price for additional costs resulting therefrom.

(i) IEB Generator Delays. If Substantial Completion of the IEB Generator fails to occur by the IEB Generator Completion Date, then Developer shall pay to Owner the sum of Five Thousand Dollars ($5,000) per day for each day that elapses from the IEB Generator Completion Date to the date that Contractor achieves Substantial Completion of the IEB Generator. Such amount represents liquidated damages and does not constitute a penalty, but is a reasonable estimate of the amount of damages Owner will suffer as a result of such delays. Such amounts shall be paid by Developer within ten (10) days of such demand. Owner agrees that the recovery of such damages constitutes Owner's sole remedy for the Developer's failure to timely achieve Substantial Completion of the IEB Generator.

(ii) Initial Occupancy Date Delays. If the Initial Occupancy Date fails to occur by the Developer Obligation Date, then Developer shall pay to Trustee on the first day of each month an amount equal to the sum of the Monthly Rent payable under the Project Lease, until

the earlier of the Initial Occupancy Date or termination of the Project Lease pursuant to Section 9.18 thereof; provided, however, that to the extent Owner receives insurance proceeds under the Builders Risk Insurance Policy described in Section 16(a)(v) below to reimburse Owner for loss of income and rents, such sums shall be credited against Developer's obligation to pay Monthly Rent to the Trustee. The Monthly Rent paid by Developer shall be prorated if a partial month elapses before the Initial Occupancy Date occurs. Upon Final Acceptance, if there are funds remaining in the Project Fund (as defined in the Indenture) prior to the final distribution of said Fund (i.e., the sharing of contingency money), if the Initial Occupancy Date has failed to occur by the Developer Obligation Date, and if Developer has made the payments it is required to make pursuant to this Section 7(b), the Developer and the Owner, with written concurrence by the Tenant, shall determine and direct Trustee to pay to the Developer any additional interest earnings that accrued on the undisbursed Bond proceeds as a direct result of such delay in excess of interest that would have accrued absent such delay.

(iii) Tenant Improvement Delays. If substantial completion of all Tenant Improvements beyond those delivered on the Initial Occupancy Date fails to occur on or before the Tenant Improvement Obligation Date, the Developer shall pay to Trustee on the first day after the Tenant Improvement Obligation Date, and thereafter on the first day of each calendar month, an amount equal to the Monthly Rent payable under the Project Lease for each User Space in which the Tenant Improvements have not been substantially completed by the Tenant Improvement Obligation Date (based on the ratio of the rentable area of such User Space to the rentable area of the Project), until such Tenant Improvements have been substantially completed. The Monthly Rent paid by Developer shall be prorated if a partial month elapses before the Tenant Improvements have been substantially completed.

(d) Guaranteed Maximum Construction Contract. As part of the Fixed Price, the Base Shell and Core Building (which constitutes a portion of the Project) and the Tenant Improvements, subject to Section 2(b), shall be constructed pursuant to the General Construction Contract, containing the Guaranteed Maximum Construction Price, between Owner and the General Contractor. The General Construction Contracts shall contain a provision for payment and performance bonds issued by a surety reasonably acceptable to Owner pursuant to which Owner and Trustee shall be named as obligees pursuant to a rider or riders reasonably acceptable to Owner and Trustee.

(e) Construction Contracts. All Construction Contracts shall include recitations or provisions requiring the following:

(i) Owner intends to lease the Project to Tenant, a public agency, and desires that the Project incorporate and include public art, consistent with the spirit and intent of King County's Public Art Program. Tenant shall have the right to review and approve the process for, and selection of, public art for the Project, which approval shall not be unreasonably withheld; provided, however, that Owner may condition or withhold approval for the installation of any public art in the Project if it would have a material and adverse effect on the construction of the Project or on the Project Schedule. The cost of any such public art shall not be a Project Cost and shall not be included in the Fixed Price.

(ii) All Contractors and subcontractors employed on the Project shall

comply with the prevailing wage requirements of Chapter 39.12 of the Revised Code of Washington.

(iii) Provisions for initiating, maintaining and providing supervision of safety precautions and programs in connection with the construction of the Project.

(iv) A statement that provides: "Notwithstanding the consent or request of Tenant, express or implied, for the performance of any labor or services or for the furnishing of any materials or equipment for any construction, alteration, addition, repair or demolition of or to the Premises (or any part thereof), Tenant shall not be liable for any labor, services, materials or equipment furnished or to be furnished to Owner, Developer or anyone holding an interest in the Premises (or any part thereof) through or under Owner or Developer, and no construction or other liens for any such labor, services, materials or equipment shall attach to or affect the interest of Tenant in the Premises."

(f) Protection of Persons and Property.

(i) Developer shall be responsible for initiating, maintaining and providing supervision of safety precautions and programs in connection with the construction of the Project.

(ii) Developer shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to: (1) all persons working on the Project construction site and all other persons who may be affected thereby; (2) the Project and materials and equipment to be incorporated therein; and (3) other property at or adjacent to the site.

(iii) Developer shall or shall cause the General Contractor and all other Contractors to give notices and comply with all applicable laws, ordinances, rules, regulations, and orders of public authorities bearing on the safety of persons and property and their protection from damage, injury or loss.

(iv) Developer shall be liable for all damage or loss (other than damage or loss insured under the property insurance) to the Project except to the extent caused by the negligent actions of Owner, its agents or employees or by Tenant.

(g) Insurance During Construction. Insurance shall be provided by Developer, Owner, Architect and Contractors in accordance with the provisions of Section 16 of this Agreement.

(h) Use of Project Contingency. The amounts set forth in the various line items of the Project Budget are estimates only of Project Costs to be incurred. To the extent the actual Project Costs in any line item of the Project Budget exceed the amount shown for such line item, Developer shall first allocate amounts in other line items, in which the actual known Project Costs shall have been less than the amount in the Budget, to the line item in which the excess Project Cost(s) has occurred. Following the allocation by Developer as set forth in the preceding sentence with respect to all line items, except Project Contingency, Developer shall be fully entitled to draw

upon the Project Contingency line item of the Project Budget and use the Project Contingency in its entirety, if necessary to pay the Project Costs.

(i) Warranties. Developer shall cause the General Contractor to secure for the benefit of Owner all warranties and guarantees of the work by Contractors, suppliers and manufacturers of components of the Project. Upon Final Acceptance, Developer shall cause the General Contractor to assign such warranties to Owner. After Final Acceptance of the Project and during the Warranty Period, Developer shall assist Owner to enforce any warranties or guarantees with respect to the Project upon request. The General Construction Contract shall provide a warranty of materials and workmanship for a period of two (2) years with respect to each major component of the work following Substantial Completion of the Project.

(j) Correction of Work. During the Warranty Period, Developer shall promptly correct or cause to be corrected work properly rejected by Owner or known by Developer to be defective or failing to conform to the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed, and shall correct or caused to be corrected work found to be defective or non-conforming within the Warranty Period. Such costs (to the extent not borne by insurance) shall be Project Costs. It is intended that at Final Acceptance, there shall remain at least $50,000 in the Project Fund to cover these items during the Warranty Period; said $50,000 shall be held by Trustee in trust upon Final Acceptance to be applied toward warranty work in accordance with the General Construction Contract, with any amounts not so expended to be treated as Savings in accordance with, and subject to the limitations in, Section 12(h)(ii) below; however if there are no funds left in the Project Fund (including the Project Contingency) to pay for the corrective action, such costs shall be paid by Developer from its own funds.

(k) Stop Work by Owner. If General Contractor fails to correct defective work as required, or persistently fails to carry out work in accordance with the Construction Documents, Owner, by written order, may order Developer and General Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated.

(l) Developer Default. If Developer defaults or neglects to carry out the work in accordance with the Contract Documents and fails within seven calendar days after receipt of written notice from Owner to commence and continue correction of such default or neglect with diligence and promptness, Owner may give a second written notice to Developer and, if Developer fails within such second seven calendar day period to commence and continue correction of such default or neglect with diligence and promptness, then Owner may, without prejudice to other remedies Owner may have, act to correct such deficiencies. In such case an appropriate change order shall be issued deducting from the Fixed Price the costs of correcting such deficiencies. If the payments then or thereafter due Developer are not sufficient to cover the amount of the deduction, Developer shall pay the difference to the Owner. Such action by the Owner shall be without prejudice to any other rights or remedies to which Owner may be entitled under this Agreement or applicable law.

8. Changes to the Work.

(a) No Changes Without Owner Approval. Following approval of the Construction Documents by Owner there shall be no changes in the work except in accordance with this Section 8. Changes in the work covered by the General Construction Contract and approved by Owner shall be processed in accordance with the General Construction Contract.

(b) Developer Approved Changes in the Work. It is anticipated that there will be field orders and change orders which shall result in changes to the scope of work. Developer shall use its reasonable efforts to apprise Owner of proposed changes in the work and its recommendations regarding them prior to any action being taken. It is anticipated that it may not always be possible to receive Owner's prior approval to these changes in a timely manner. Therefore, field orders and change orders may be approved by the Developer, without prior Owner approval, but only if the changes authorized by these field orders and change orders shall not have the effect of extending the Developer Obligation Date or materially altering the work. As soon as practical, but no later than with the next Project Application for Payment, Developer shall provide Owner with all field orders and/or change orders approved by Developer. For the purposes of this Section a material alteration would reduce the intended quality of the Project, result in an increase of Owner's operational costs over time, or result in a substitution of any of the systems in the Project (including but not limited to HVAC, plumbing, electrical, elevators, roofing, fire and life safety, infrastructure components). In the case of either a material alteration or a change that would result in failure to Substantially Complete the IEB Generator by the IEB Generator Completion Date or to achieve the Initial Occupancy Date by the Developer Obligation Date, prior written approval by the Owner of the proposed change must be received.

(c) Change Proposals Initiated by Owner. In accordance with the provisions governing Tenant's Contingency, Owner may initiate change proposals which shall be processed in accordance with the General Construction Contract.

9. Payment of Project Costs. Trustee will act as disbursing agent and hold and disburse money on deposit in the Project Fund to pay Project Costs and other costs in accordance with the Indenture and this Agreement. The parties intend that there occur monthly disbursements from the Project Fund to the Architect and Contractors with whom Owner has contracted and to Developer in order that Developer be able to pay other Project Costs. So long as there has not occurred an Event of Default by Developer under this Agreement, such disbursements of money from the Project Fund shall continue until the Fixed Price has been disbursed. Disbursements received by Developer from the Project Fund shall, except as otherwise expressly provided herein, be used solely to pay the Project Costs. Upon Developer's compliance with its obligations under this Agreement, Owner shall take all such action as is necessary and required to obtain such disbursements of money from the Project Fund by the Trustee.

(a) Applications for Payment. Developer shall submit to Owner and Tenant on or before the last business day of each month a Project Application for Payment signed by Developer, which shall also include a pay application submitted by the General Contractor consistent with the terms of the General Construction Contracts. The Project Application for Payment shall request payment of a specified dollar amount, which shall constitute a portion of the Fixed Price, reasonably detailed to reflect the amount of the Project Costs expended in each category of the Project Budget. Such Project Application for Payment shall request the appropriate amount of hard or soft costs based on a percentage of completion basis with respect to such work as

of the date of such Project Application for Payment, less retainage being withheld by the General Contractor from any of the Contractors. When retainage that has been previously withheld from a pay application submitted by the General Contractor is to be paid by the General Contractor to a Contractor, it shall be added to the next pay application of the General Contractor submitted to the Developer. Project Costs other than hard and soft construction costs that are incurred or paid on a schedule that is not related to percentage of completion (e.g., property taxes payable twice per year, Developer's Contingency paid only as allocated by Developer to specific costs incurred, Owner's Contingency paid only as allocated by Owner to specific costs incurred, Developer's Fee paid as described in Section 11(a), Developer's Overhead paid as described in Section 11(b), reserves for warranty work paid only after Substantial Completion, payment of unutilized contingency accounts or Savings to Owner and/or Developer, etc.) shall be included in the Project Application for Payment only when such items are to be paid in accordance with other provisions of this Agreement, without regard to the percentage completion of the Project. Developer shall also provide a reconciliation between the total of all draw amounts requested (including such draw request) under a Project Application for Payment and the then current Project Budget and include all the information and documentation required to be provided by the General Contractor to the Owner pursuant to the General Construction Contracts, as well as a conditional partial lien release from the General Contractor to become effective upon payment to the General Contractor of the amount of the payment specified in said Contractor's Application for Payment, and Endorsement No. 122 to the Lender's Title Policy and a similar endorsement to the Owner's Title Policy showing no liens or claims of lien; provided, that if a lien has been filed, Developer and/or General Contractor may resolve such lien in accordance with Section 19 below. Developer shall provide copies of all conditional partial lien releases to the title company issuing the Title Policies and shall execute an indemnity agreement with the title company in a form sufficient to enable the title company to issue the foregoing endorsements.

(b) Payment Procedures. Architect shall certify General Contractor's application for payment. Owner and Tenant shall have the opportunity to attend all meetings between Developer and Contractors at which applications for payments are to be discussed (e.g. Developer shall be available and shall require the General Contractor to be available for a monthly meeting for review of the current month's application for payment, if requested by Owner). Owner and Tenant shall receive with the Project Application for Payment any documentation submitted to Developer supporting the General Contractor's application for payment. So long as Owner and Tenant shall have received the Project Application for Payment on or before the last business day of a calendar month, Owner shall make any objections regarding such Project Application for Payment in writing prior to the twelfth (12th) day of the succeeding calendar month or the Owner shall be deemed to have waived its right to object to such Project Application for Payment. Owner shall be obligated to pay those portions of the Project Application for Payment as to which there was no objection in accordance with Section 9(b) hereof on or before the twelfth (12th) day of the succeeding calendar month. If Owner fails to receive the Project Application for Payment on or before the last business day of the month, Owner shall have a period of at least 12 days from its receipt of such Project Application for Payment to review, approve and pay the same. If Owner objects to any portion of a Project Application for Payment, Owner shall provide detailed written comments explaining the nature of the disapproval, whereupon (i) Project Costs which are approved by Owner shall be paid in accordance with Section 9(d), and (ii) Developer and Owner shall meet within two (2) business days to determine mutually acceptable revisions to the Project Application for Payment. Failure of Developer and Owner to determine mutually acceptable

revisions to the Project Application for Payment within the two business day period shall entitle either Owner or Developer to commence the dispute resolution process described in Section 24 hereof and then, if necessary, litigation.

(c) Review and Inspections. Owner, Tenant and/or Trustee shall have the right, but not the obligation, to have such additional independent consulting architects, engineers or any other appropriate consultants retained and paid by such party (not as a Project Cost), to inspect the construction work as it progresses and to review the Contract Documents. Such inspections shall be coordinated with Developer so as to not interfere with or delay construction of the Project and, if Owner receives any written report from any such consultant that Owner believes would be helpful to Developer in administering and enforcing any of the Contracts or in completing the Project, Owner shall provide Developer with a copy of such written inspection report. If during the course of such construction Owner, Tenant and/or Trustee shall determine that the construction is not proceeding in accordance with the Contract Documents, Owner shall give notice in writing to Developer that includes Owner's best efforts to specify the particular deficiency or omission and Developer shall thereupon take, or cause to be taken, all steps necessary to correct same. The failure to give such notice shall not give rise to any liability for Owner and shall not be considered a waiver of any right of Owner under this Agreement, including, without limitation, the enforcement of the representations and warranties of Developer under this Agreement and the requirements with respect to construction of the Project in accordance with the Contract Documents, but such failure may limit any recovery against Developer if such failure is determined to constitute a breach of a contracting party's duty to take reasonable actions to mitigate its damages caused by another party's breach.

(d) Requisition from Project Fund. Owner shall execute and deliver the requisition to the Trustee for the amount of the Project Application for Payment, or such undisputed portion thereof under Section 9(b), on or before expiration of the 12-day period specified in Section 9(b) above. Owner shall take all reasonable steps to cause Trustee to disburse the amount shown on such requisition to Developer for disbursement to applicable Contractors and others on the 10th day of each calendar month and no later than the 12th day of the month if the Project Application for Payment was received by the last business day of the previous month.

(e) Application for Payment for Tenant or Owner Costs. Upon the prior written request of Owner, Developer shall include in any Project Application for Payment a request that the Trustee disburse to Developer, Owner or Tenant, as appropriate, Bond proceeds held in the Project Fund or Bond proceeds to be applied to the cost of art or similar Building enhancements that are not Project Costs. Developer shall have no right or responsibility to review or determine the appropriateness of the requests for such costs or the amount thereof.

(f) Initial Draw. The Initial Draw shall include a mutually agreed amount to reimburse Developer and Tenant for Project Costs actually incurred or paid by those parties (including, without limitation, fees and costs incurred prior to this Agreement for the General Contractor, Architect and other design professionals) on and before the date of Bond Closing. Developer and Owner shall agree on the maximum amount of the Initial Draw and shall notify Tenant of that agreed maximum amount by no later than three (3) business days prior to the Sale of the Bonds; in addition, Developer and Owner shall agree on the exact amount of the Initial Draw and shall notify Tenant of that agreed Initial Draw amount by no later than seven (7) business days

prior to the Bond Closing.

(g) Cost Overruns; Sufficiency of Funds to Complete Construction. Owner shall have no obligation to request any disbursement of money on deposit in the Project Fund unless and until the Project is in balance. The Project shall be deemed to be in balance only when the undisbursed portion of Bond proceeds in the Project Fund together with funds deposited by Developer with Trustee and expected earnings on the Project Fund to the date of their anticipated disbursement after provision for all contingencies shall equal or exceed the amount reasonably estimated by Owner to pay for all work done or to be done but not yet paid for by Developer and all other Project Costs required to cause Final Acceptance of the Project. In the event Owner advises Developer that the Project is not in balance, Developer shall deposit into the Project Fund held by the Trustee the amount necessary to bring the Project into balance, and such funds shall be disbursed in their entirety prior to any further disbursement of Bond proceeds from the Project Fund, provided that if the shortfall in the Project Fund is due to Owner's failure to deposit funds as required in connection with any Owner-initiated change orders, Owner shall deposit the necessary funds into the Project Fund held by the Trustee.

10. Other Services by Developer. Services may be performed by the Developer at the written request of Owner which are not included as part of the Project. Such services shall be performed pursuant to a separate written agreement between Owner and Developer.

11. Developer's Fee and Overhead Allowance.

(a) Developer's Fee. The Fixed Price includes a fee payable to Developer in the amount of Five Million Fourteen Thousand Dollars ($5,014,000) (the "Developer's Fee"). The Developer's Fee shall be allocated between the Base Shell and Core Building and the Tenant Improvements. Four Million Four Hundred Fourteen Thousand Dollars ($4,414,000) of the Developer's Fee shall be attributable to the Base Shell and Core Building and Six Hundred Thousand Dollars ($600,000) shall be attributable to the Tenant Improvements. The Developer's Fee shall be payable as set forth below.

(i) As part of a Project Application for Payment, Developer shall be entitled to the portion of the Developer's Fee attributable to the Base Shell and Core Building as determined by the following formula: (A) determine the percentage that Developer's Fee is of the total Base Shell and Core Building costs (the "Shell and Core Costs"), as shown in the Project Budget; (B) identify seventy-five percent (75%) of that percentage (the "Payment Percentage"); and (C) for each payment made on the Project Application for Payment submitted after each of the milestones described below has been achieved (as reasonably determined by Owner and Developer), Developer shall be entitled to a portion of its fee equal to (i) the sum of the Shell and Core Costs incurred to date, multiplied by the Payment Percentage; less (ii) the Developer's Fee previously paid to Developer hereunder; provided, however, that Developer shall be entitled to such payment only if the Shell and Core Costs incurred as of any of the milestone dates set forth below do not exceed the percentage of the Shell and Core Costs budgeted to be incurred as of such milestone date, as also set forth below. If the Shell and Core Costs incurred as of a date a milestone is achieved exceed the budgeted percentage of Shell and Core Costs, as set forth below, Developer shall not be entitled to draw that portion of its Developer's Fee until the next milestone is achieved, and then only if the Shell and Core Costs incurred as of such milestone do not exceed the budgeted

percentage of Shell and Core Costs to be incurred by such milestone date. Any unpaid portion of the Developer's Fee attributable to the Base Building Shell and Core shall be paid upon the Initial Occupancy Date.

The milestone dates and percentages of Shell and Core Costs budgeted to be incurred by each such milestone date are as follows:

Milestone		Budgeted Percentage of Shell and Core Costs
1.	Substantial Completion of IEB Generator	32%
1.	Substantial Completion of the Garage	69%
2.	Completion of structural steel framing	79%
3.	Completion of installation of all exterior curtain walls	87%
4.	Initial Occupancy Date	100%

(ii) By way of example only, if Shell and Core Costs are $100,198,000, the Developer's Fee is 5% of that total ($5,014,000/$100,198,000). Seventy five percent of that percentage is 3.75% (the "Payment Percentage"). If the budgeted Shell and Core Costs as of the first milestone are t10% of the total Shell and Core Costs, or $10,020,000, and provided the Hard Costs incurred as of the date that milestone is achieved are less than or equal to $10,020,000 (for this example assume the Shell and Core Costs incurred as of that milestone are exactly $10,020,000), Developer shall be entitled to a portion of its Developer's Fee equal to $375,750 (3.75% x $ 10,020,000).

(iii) The portion of the Developer's Fee attributable to the Tenant Improvements ($600,000) shall be paid to Developer in proportion to the rentable area of space in which the Tenant Improvements are Substantially Completed and occupied by Tenant. For example, upon substantial completion of the Tenant Improvements in 10% of the rentable area of the Project and occupancy of that area by Tenant, Owner shall pay Developer $60,000 of the Developer's Fee attributable to the Tenant Improvements. Notwithstanding the foregoing, in no event shall any portion of the Developer's Fee attributable to the Tenant Improvements be paid to Developer prior to the Initial Occupancy Date.

(b) Overhead Allowance. Developer shall be paid an Overhead Allowance in connection with the work in the amount of One Million Six Hundred Ninety One Thousand Dollars ($1,691,000), payable in installments of Forty One Thousand Two Hundred Forty Four Dollars ($41,244) per month from July 1, 2006 (the commencement of pre-construction activity for the Project) through occupancy of the Project by Tenant (which amount shall not be changed notwithstanding any change to the Fixed Price). Such amount shall be paid to Developer as follows:

(i) At Bond Closing, an amount equal to $41,244 multiplied by the number of months elapsed from July 1, 2006 to the date of the Bond Closing;

(ii) With each monthly Project Application for Payment prior to Final Acceptance, $41,244 (not to exceed in the aggregate, including the payment following Bond Closing, the sum of $1,691,000; and

(iii) Any unpaid balance shall be paid with the Final Payment.

12. Completion of the Project.

(a) Substantial Completion of the Garage. "Substantial Completion of the Garage" means that each of the following events shall have occurred with respect to the Garage:

(i) Developer shall have notified Owner in writing that the Garage is Substantially Complete in substantial accordance with the Contract Documents, subject only to the completion of normal Punch List items;

(ii) Architect shall have issued its "Certificate of Substantial Completion" (AIA Document G704) stating that the work under the General Construction Contract related to the Garage is sufficiently complete in substantial accordance with the Contract Documents to permit Tenant to occupy or utilize the Garage for vehicle parking;

(iii) The City of Seattle has issued a temporary certificate of occupancy such that the Tenant is permitted to and could, pursuant to such issued certificate of occupancy, physically occupy the Garage for vehicle parking;

(iv) Owner has received evidence from Developer satisfactory to Owner that all real property taxes and assessments on the Garage Property payable by Developer that were due and owing have been paid;

(v) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims," (AIA Forms 706 and 706A) together with partial waivers and releases of lien for work performed with respect to the Garage prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Owner, from such materialmen, laborers, contractors and subcontractors as Owner, with Tenant's concurrence, may require; and

(vi) Owner, with Tenant's concurrence, shall have accepted the Garage as Substantially Complete, subject to completion of the Punch List items agreed upon by Owner, with Tenant's concurrence.

Notwithstanding that Substantial Completion of the Garage shall have occurred, Owner shall be entitled to provide Developer with a Punch List, in accordance with the provisions of this Section 12.

(b) Substantial Completion of the Project. "Substantial Completion of the Project" means that each of the following events shall have occurred with respect to the Project:

(i) Substantial Completion of the IEB Generator and Substantial Completion of the Garage shall have occurred;

(ii) Developer shall have notified Owner in writing that the Project, including the Tenant Improvements, are Substantially Complete in substantial accordance with the Contract Documents, subject only to the completion of normal Punch List items.

(iii) Architect shall have issued its "Certificate of Substantial Completion" (AIA Document G704) stating that the work under the General Construction Contract is sufficiently complete in substantial accordance with the Contract Documents to permit Tenant to occupy or utilize the Project for medical office purposes;

(iv) The City of Seattle has issued a temporary certificate of occupancy such that the Tenant is permitted to and could, pursuant to such issued certificate of occupancy, physically occupy the Project for normal medical office purposes, including parking in the Building.

(v) Owner has received evidence from Developer satisfactory to Owner that all real property taxes and assessments on the Project payable by Developer that were due and owing have been paid.

(vi) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims," (AIA Forms 706 and 706A) together with partial waivers and releases of lien for work performed prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Owner, from such materialmen, laborers, contractors and subcontractors as Owner, with Tenant's concurrence, may require; and

(vii) Owner, with Tenant's concurrence, shall have accepted the Project as Substantially Complete, subject to completion of the Punch List items agreed upon by Owner, with Tenant's concurrence.

Notwithstanding that Substantial Completion of the Project shall have occurred, Owner shall be entitled to provide Developer with a Punch List, in accordance with the provisions of this Section 12. In addition, notwithstanding the foregoing, Developer shall not be required to substantially complete the Tenant Improvements in any User Space for which a Tenant Improvement Package has not been agreed upon by Developer, Owner, Tenant and User by July 1, 2008, and Developer's failure to substantially complete any such Tenant Improvements shall not prevent or delay the Project from being deemed Substantially Complete.

(c) Notice of Substantial Completion of the Project. Developer shall give notice in writing to Owner at least thirty (30) days prior to the date upon which Developer anticipates the Project shall be Substantially Complete. During the fifteen (15) business day period after the delivery of the estimated completion notice, Owner, Developer, Architect, General Contractor and Tenant shall meet on one or more occasions, if necessary, and tour to inspect and review the Project to determine whether it is Substantially Complete. The parties shall prepare the Punch List to be

completed prior to Final Acceptance. The completion of the Punch List shall not be required in order for the Project to be Substantially Complete.

(d) Completion of Punch List Items. Following Substantial Completion of the Project, Developer shall cause all Punch List items to be completed promptly in accordance with the Contract Documents.

(e) Final Acceptance. Upon Final Acceptance, Developer shall be entitled to payment of the balance of Developer's Fee as well as all other Project Costs incurred in connection with the work, not to exceed the Fixed Price. Developer shall give notice in writing to Owner at least thirty (30) days prior to the date upon which the Project shall be ready for Final Acceptance. "Final Acceptance" means that each of the following items shall have occurred with respect to the Project:

(i) The City of Seattle has issued all Temporary Certificates of Occupancy.

(ii) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A) together with final waivers and releases of lien in form satisfactory to Owner from such materialmen, laborers, contractors and subcontractors as Owner may require.

(iii) All Punch List items have been completed.

(iv) Developer shall have submitted its final Project Application for Payment together with evidence reasonably satisfactory to Owner that all construction costs have been paid in full, including evidence of full payment for any personal property installed on the Land as part of the Project Costs.

(v) The period for filing construction liens has expired or releases or discharges of construction liens in form and substance satisfactory to Owner have been obtained by the Developer from all Contractors in accordance with all Construction Contracts.

(vi) Architect shall have issued its "Certificate of Final Completion" and Owner shall have received the certificate of any other architect or engineer requested by Owner.

(vii) General Contractor shall have issued a certificate that (1) the Project has been finally completed in substantial accordance with the Contract Documents, and (2) no Hazardous Substances as defined in said certificate were incorporated into the structure of the Project.

(viii) Developer shall have delivered to Owner a written report showing the allocation of Project Costs among the categories of the Project Budget and the remaining specified dollar amount of the Tenant's Contingency, Project Contingency and the undisbursed portion of the Developer's Fee.

(ix) Owner shall have received an endorsement to its Title Policy dated as of and issued on the date of Final Acceptance, which shall insure Owner and Trustee (1) against any liens for labor or materials, whether or not of record, which may have arisen in connection with the construction of the Project, and (2) show no additional exceptions to the Title Policy other than those approved by or arising through Owner.

(x) Developer shall have completed and delivered the matters set forth in Section 14.

Notwithstanding the foregoing, Developer shall not be required to substantially complete the Tenant Improvements in any User Space for which a Tenant Improvement Package has not been agreed upon by Developer, Owner, Tenant and User by July 1, 2008, and Developer's failure to substantially complete any such Tenant Improvements shall not prevent or delay the Final Acceptance of the Project from being deemed to have occurred.

(f) Approval of Final Application for Payment. Upon delivery of Developer's Final Application for Payment and other materials set forth above, Owner shall, acting reasonably and in good faith, review and approve the Final Application for Payment on or before that period expiring fourteen (14) business days after receipt of the Final Application for Payment, receipt of notice from Developer that the Punch List matters are complete, and Owner's receipt of the materials set forth in Section 14 of this Agreement. In the event no comments are received within said 14 business day period, Owner shall have waived its right to comment on the Final Application for Payment or to disapprove the completion of the Punch List. If Owner disapproves the Final Project Application for Payment or completion of the Punch List, or any portion thereof, Owner shall provide detailed written comments explaining the nature of the disapproval; whereupon, Developer and Owner shall meet within two (2) business days to determine mutually acceptable revisions to the Final Application for Payment and the completion of the Punch List. Failure of Developer and Owner to determine mutually acceptable revisions to the Final Application for Payment and the completion of the Punch List within the five (5) business day period, shall entitle either Owner or Developer to commence the disputes resolution process described in Section 24. Failure to reach agreement on the amount of the Developer's Final Application for Payment which is approved for payment shall in no way release Developer from its duties and obligations under this Agreement.

(g) Requisition of Final Payment. Owner shall execute and deliver the requisition for Final Payment to the Trustee within one (1) business day following expiration of said 14-business day period, or if Owner disapproves of the final Project Application for Payment, then within one (1) business day after the date of approval of the mutually acceptable revisions to the final Project Application for Payment or the determination of the disputes resolution process, if applicable. Owner shall take all steps to cause the Trustee to disburse the remaining money in the Project Fund, except for the $50,000 reserved for warranty work as provided for in Section 7(i), up to the Fixed Price in the amount shown on such requisition within one (1) business day of Trustee's receipt of such requisition. In addition, Owner shall in such requisition direct payment of the unexpended Tenant's Contingency and Project Contingency and of the remaining Developer's Fee in accordance with the provisions of Sections 11(a) and 12(g) hereof.

(h) Savings; Disbursement of Tenant's Contingency; Project Contingency.

(i) If all or some portion of the $12,820,000 Tenant's Contingency is not used for the Project, then the remaining portion of the Tenant's Contingency shall be applied as provided in the Indenture.

(ii) If all or some portion of the Project Contingency (as such amount may be increased or decreased in accordance with the terms of this Agreement) is not used for Project Costs, then such unused portion of the Project Contingency (**"Savings"**) shall be shared with Developer as set forth below. Any Savings not paid to Developer shall be added to the Tenant's Contingency.

	Savings Achieved	**Accumulated Savings**	**% of Savings to Developer**	**Savings to Developer**	**Total Savings to Developer**
First	$500,000	$500,000	10%	$50,000	50,000
Second	500,000	1,000,000	20%	100,000	150,000
Third	500,000	1,500,000	25%	125,000	275,000
Fourth	500,000	2,000,000	30%	150,000	425,000
Fifth	500,000	2,500,000	35%	175,000	600,000
Sixth	500,000	3,000,000	40%	200,000	800,000
Seventh	500,000	3,500,000	50%	250,000	1,050,000
Eighth	500,000	4,000,000	50%	250,000	1,300,000
Ninth	500,000	4,500,000	50%	250,000	1,550,000
Tenth	500,000	5,000,000	50%	250,000	1,800,000

One third (1/3) of all Savings in excess of $5,000,000 shall be paid to Developer. The amount of Savings shall be determined as of the Initial Occupancy Date. Savings shall be paid in installments, in proportion to the total amount of Project Costs paid as of a given date, with the first installment paid within thirty (30) days after the Initial Occupancy Date. For example, if, as of the Initial Occupancy Date, 80% of Project Costs have been paid, then with the next monthly payment of Project Costs made pursuant to Section 9 of this Agreement, 80% of the Savings payable to Developer, as determined above, shall be paid to Developer. Subsequent installments of Savings shall be paid to Developer each ninety (90) days thereafter, and any unpaid Savings still owing to Developer shall be paid to Developer with the Final Payment.

(i) Certificate of Occupancy. Beyond Developer's obligation to obtain temporary certificates of occupancy for all space other than any retail space as a condition of Final Acceptance (subject to Developer's receipt of the Tenant Improvement Package for all such space on or before August 1, 2009, as described in Section 2(g)), Developer shall for a period of one (1) year from Substantial Completion of the Project use its best efforts and due diligence in assisting Owner to obtain from the City of Seattle a final, unconditional certificate of occupancy of the Project permitting Tenant to occupy and use the Project for its Permitted Use, including parking in accordance with the conditions imposed by the City of Seattle.

13. Developer Representations; Warranties. Upon Substantial Completion of the Project, Developer shall represent and warrant as follows:

(a) The Project has been completed in substantial accordance with the Contract Documents (as revised by Project change orders set forth in Section 8) and is, and at all times during the Warranty Period shall be, free from defects in workmanship and materials in connection with the construction thereof.

(b) Developer has no knowledge of any structural defects, latent defects or building systems defects within the Project.

(c) The Project has been constructed in accordance with all Requirements of Law, all Permits and all insurance laws, regulations and requirements in effect at the time of construction of the Project.

(d) The Project is served by water, storm and sanitary sewage facilities, telephone, electricity, fire protection and other required public utilities adequate to serve the Project at the time of Substantial Completion of the Project.

(e) The General Contractor, Architect, Interior Architect and all Contractors, suppliers, materialmen and consultants have (subject to Developer's receipt of the payment of the Fixed Price) been paid in full for work related to construction of the Project and there are no liens, encumbrances or other defects affecting title to the Land which has been or will be filed against the Land and /or the Project with respect thereto, or if any such lien has been filed, Developer and/or General Contractor shall have arranged for a bond to remove such lien in accordance with Section 19 below.

(f) Developer is not aware of any physical defect in the Land or the Project which would prevent Owner from leasing the Project to Tenant for the Permitted Use.

(g) The use and operation of the Project for medical office, retail and parking purposes is permitted pursuant to the MUP.

(h) To the best of Developer's knowledge and except as disclosed in writing there are no condemnation, environmental, zoning or other land use regulation proceedings currently instituted which could detrimentally affect the use and operation of the Project for its intended purpose. If during the term of this Agreement any such proceedings have been instituted, Developer shall have used its best efforts and due diligence to resolve them prior to Substantial Completion of the Project.

(i) Developer has provided Owner with prompt notice of any special assessment proceedings affecting the Land.

(j) The Project does not encroach onto adjoining land or onto any easements and there are no encroachments of improvements from adjoining land onto the Land. The location of the Project does not violate any applicable setback requirements. The Land is not located in a flood zone.

(k) Except as disclosed to Owner in writing, there is no litigation pending, or to the best knowledge of Developer, threatened, with respect to the Project for matters undertaken by Developer under this Agreement.

(l) To the best of Developer's knowledge and except as disclosed in writing, there are no Hazardous Substances located in, on, under or affecting the Land or the Project or any Hazardous Substances incorporated into the structure of the Project.

(m) Prior to Substantial Completion of the Project, Developer has removed or remediated and properly disposed of all known Hazardous Substances first existing on the Land following the Commencement of Construction of the Project and if applicable, received a no further action letter from the appropriate governmental agency with respect to such Hazardous Substances, provided the foregoing shall not make the Developer responsible for the removal or remediation of any Hazardous Substances that the County is obligated to remove or remediate the Ground Lease.

(n) To the best of Developer's knowledge, after due and diligent inquiry, all Permits necessary for the construction, use and occupancy of the Project have been obtained and are in full force and effect.

Each of the foregoing warranties with respect to the Project shall expire and be of no further force or effect, unless Owner shall have made a claim based upon an alleged breach of such warranties by Developer on or before the expiration of the Warranty Period; however such expiration shall not otherwise limit Owner's rights and remedies hereunder. In the event Owner alleges a breach of any of the foregoing warranties, Owner shall give Developer written notice of any such allegation together with a detailed explanation of the alleged breach ("Owner's Warranty Claim"). Developer shall, within thirty (30) days of receipt of Owner's Warranty Claim, proceed to commence to cure the circumstances specified in Owner's Warranty Claim, or provide Owner with written notice of Developer's dispute of Owner's Warranty Claim. If Developer commences a cure or correction of the matter alleged in Owner's Warranty Claim, Developer shall proceed reasonably diligently and promptly to complete such cure or correction, and the Warranty Period for the particular matter shall be extended for the period necessary to complete cure or correction.

Developer shall warrant neither artist-made materials included in the Project nor those recycled construction products which Owner has directed Developer to include in the Project over Developer's prior written objections.

14. Developer Obligations. On or before Final Acceptance of the Project, Developer shall obtain and submit to Owner, the following:

(a) As-Built Plans. A complete set of final as-built plans and specifications prepared by General Contractor for the Project. Tenant Improvements will be provided on CAD.

(b) Manuals. All technical and service, instruction and procedure manuals relating to the operation and maintenance of all HVAC systems and other mechanical devices and equipment installed in the Project, except insofar as relating to Tenant's Personal Property.

(c) Warranties. An assignment and delivery of all warranties, guarantees, maintenance contracts, and machinery and equipment warranties received by Developer from the General Contractor or any subcontractor thereof, or any supplier, materialmen or manufacturer relating to the Project; provided, however, that so long as Developer's warranty set forth in Section 13 herein remains in effect, and so long as Developer is not in default of its obligations under this Agreement, Developer reserves the right, notwithstanding the assignment and delivery of such warranties hereunder to Owner, to fully enforce all such warranties in the place and stead of Owner.

(d) Permits and Licenses. The originals (if not posted at the Project) of all Permits, licenses and other approvals necessary for the occupation, use and operation of the Project.

(e) As-Built Survey. An as-built Survey of the Land showing the location of all improvements constructed thereon.

15. Indemnification.

(a) Developer's Indemnification. The Developer shall protect, defend, indemnify, and save harmless the Owner, Trustee, Bond Insurer, Tenant, and their respective officers, officials, employees, and agents, from any and all claims, demands, suits, penalties, losses, damages, judgments, or costs of any kind whatsoever (hereinafter "claims"), arising out of or in any way resulting from the Developer's officers, employees, agents, and/or subcontractors of all tiers, acts or omissions, performance or failure to perform this Agreement, to the maximum extent permitted by law or as defined by RCW 4.24.115, as now enacted or as hereinafter amended.

Developer's obligations under this Section 15 of this Agreement shall include, but not be limited to:

(i) The duty to promptly accept tender of defense and provide defense to Owner at Developer's own expense.

(ii) The duty to indemnify and defend Owner from any claim, demand, and/or cause of action brought by or on behalf of any of Developer's employees, or agents. The foregoing duty is specifically and expressly intended to constitute a waiver of Developer's immunity under Washington's Industrial Insurance Act, RCW Title 51, as respects the Owner only, with a full and complete indemnity and defense of claims made by Developer's employees. The parties acknowledge that these provisions were mutually negotiated and agreed upon by them.

(iii) To the maximum extent permitted by law, Developer shall indemnify and defend Owner from and be liable for all damages and injury which shall be caused to owners of property on or in the vicinity of the construction of the Project or which shall occur to any person or persons or property whatsoever arising out of this Agreement, whether or not such injury or damage is caused by negligence of the Developer or caused by the inherent nature of the construction of the Project.

(iv) In the event the Owner incurs any judgment, award, and/or costs arising therefrom, including attorneys fees, to enforce the provisions of this Section, all such reasonable fees, expenses, and costs shall be recoverable from the Developer.

Notwithstanding the provisions contained in this subsection above, Developer's obligation to indemnify Owner shall not extend to any claim, demand or cause of action arising or in connection with the negligence, intentional acts or breach of this Agreement by Owner, Trustee, Tenant or their respective agents or employees.

(b) Owner's Indemnification. If prior to Final Acceptance, Owner exercises its rights to enter or allow Tenant to enter upon the Project and occupy any portion of the Project, Owner shall protect, defend, indemnify, and save harmless Developer, Tenant, Trustee, Bond Insurer and their respective officers, officials, employees, and agents, from any and all claims, demands, suits, penalties, losses, damages, judgments, or costs of any kind whatsoever (hereinafter "claims"), arising out of or in any way resulting from Owner's negligence to the maximum extent permitted by law.

Notwithstanding the previous paragraph contained in this subsection above, Owner's obligation to indemnify Developer shall not extend to any claim, demand or cause of action arising or in connection with Developer's negligence, intentional acts or breach of this Agreement.

(c) Notice of Claim. Any party making a claim for indemnification pursuant to this Section 15 (an "Indemnified Party") must give the party from whom indemnification is sought (an "Indemnifying Party") written notice of such claim (an "Indemnification Claim Notice") promptly after the Indemnified Party receives any written notice of any action, lawsuit, proceeding, investigation or other claim (a "proceeding") against or involving the Indemnified Party by a government entity or other third party, or otherwise discovers the liability, obligation or facts giving rise to such claim for indemnification; provided that the failure to notify or delay in notifying an Indemnifying Party will not relieve the Indemnifying Party of its obligations pursuant to this Section 15 except to the extent that the Indemnifying Party's ability to defend against such claim is actually prejudiced thereby. Such notice shall contain a description of the claim and the nature and amount of such loss (to the extent that the nature and amount of such loss is known at such time).

16. Insurance Requirements.

(a) Developer's Insurance. By the date of the execution of this Lease Agreement, Developer shall procure and maintain, at a minimum, for the duration of this Agreement the following insurance against claims for injuries to persons or damages to property which may arise from, or in connection with the performance of work hereunder by the Developer, its agents, representatives, employees and/or subcontractors. The cost of such insurance shall be paid by the Developer or its subcontractor. Coverage shall be at least as broad as:

(i) General Liability: Insurance Services Office form number (CG00 001) covering Commercial General Liability, with a limit of not less than; $5,000,000 combined single limit per occurrence, $5,000,000 aggregate.

(ii) Automobile Liability: Insurance Services Office form number (CA 00 01) covering Business Automobile Coverage, symbol 1 "any auto"; or the combination of symbols 2,

8, and 9, with a limit of not less than; $1,000,000 combined single limit per occurrence.

(iii) Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, statutory limits.

(iv) Employer's Liability or "Stop Gap": The protection provided by the Workers' Compensation Policy, Part 2 (Employer's Liability) or, in states with monopolistic state funds, the protection provided by the "Stop Gap" endorsement to the General Liability Policy in the amount of at least $1,000,000.

During the period of construction, Developer as construction manager shall also provide:

(v) Builders Risk Insurance: Insurance Services Office form number (CP 00 02 Ed. 10-90) Builders All Risk Coverage Form covering all work to be done on the Property for the full 100% replacement cost of all such improvements. Coverage shall be provided for (i) the perils of earth movement and flood; (ii) resultant damage from errors in design, plans, specifications, faulty workmanship, materials and construction; (iii) "extra expense"; (iv) all materials to be stored offsite and while in transit to the jobsite; (v) "cold testing" of all building systems; (vi) Owner's and Developer's loss of use of the Property due to delays in Project completion caused by covered peril losses to the Project, including loss of income and rents and soft costs such as interest on the Bonds, real estate taxes and insurance premiums; (vii) the increased cost of construction, debris removal and demolition due to the operation of building laws and code upgrades; and (viii) direct physical damage to the Project and loss of use caused by an off premises power interruption. Coverage shall not be provided for Tenant's Personal Property and art not installed by the General Contractor. The policy shall include a waiver of subrogation provision, shall grant permission for partial occupancy of the facilities without having a detrimental affect on the coverage provided, and shall contain a separate debris removal limit of liability which is separate from, in addition to, and not part of the overall policy limit of liability. Notwithstanding the foregoing in this Section 16(a), Developer shall have the required Builder's Risk Policy in place no later than Commencement of Construction. The Builder's Risk Policy shall include Developer, General Contractor and its subcontractors, other Contractors, and Owner as insureds in an amount equal to their interest with a loss payable clause in favor of Trustee. Developer shall keep the Builder's Risk Policy in place from Commencement of Construction to the Commencement Date defined in the Lease.

(b) Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by Owner. The deductible and/or self-insured retention of the policies shall be the sole responsibility of Developer.

(c) Other Insurance Provisions. The insurance policies required by this Agreement are to contain or be endorsed to contain the following provisions where applicable:

(i) Liability Policies:

(A) Owner and Tenant, their officers, officials, employees and agents are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of Developer in connection with this Agreement.

(B) Developer's insurance coverage shall be primary insurance as respects Owner and Tenant, their officers, officials, employees and agents. Any insurance and/or self-insurance maintained by Owner and/or Tenant their officers, officials, employees and/agents shall not contribute with Developer's insurance or benefit Developer in any way.

(C) Developer's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(ii) All Policies. Coverage shall not be canceled until after forty-five (45) days' (10 days' for non-payment) prior written notice has been given to Owner.

(iii) Acceptability of Insurers.

(A) Unless otherwise approved by Owner and Tenant, insurance is to be placed with insurers with a Best's rating of no less than A:VIII, or, if not rated by Best's, with minimum surpluses the equivalent of Best's surplus size VIII.

(B) If, at anytime, any of the foregoing policies shall fail to meet the above minimum standards, Developer shall, upon notice to that effect from Owner, promptly obtain a new policy, and shall submit the same to Owner, with certificates and endorsements, for approval.

(iv) Verification of Coverage. Developer shall furnish Owner with certificates of insurance and endorsements required by this Agreement. The certificates and endorsements for each policy are to be signed by a person authorized by that insurer. The certificates are to be on standard insurance industry ACORD form 25-S with required endorsements attached and are to be received and approved by Owner prior to the commencement of activities associated with this Agreement. Owner reserves the right to require Developer to deliver complete certified copies of all required policies at any time.

(v) Subcontractors. Developer shall include all subcontractors as insureds under its policies, or shall furnish separate certificates of insurance and policy endorsements from each subcontractor. Insurance coverages provided by subcontractors as evidence of compliance with the insurance requirements of this Agreement shall be subject to all of the requirements stated herein.

(vi) For All Coverages.

(A) Each insurance policy shall be written on an "occurrence" form, excepting that insurance for professional liability, errors and omissions, when required, may be acceptable on a "claims made" form.

(B) If coverage is approved (if approval is required above) and purchased on a "claims made" basis, Developer warrants continuation of coverage, either through policy renewals or the purchase of an extended discovery period, if such extended coverage is available, for not less than three years from the date of completion of the work which is subject to said insurance.

(C) By requiring such minimum insurance, Owner and/or Tenant shall not be deemed to, or construed to, have assessed the risks that may be applicable to Developer associated with this Agreement. Developer shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits or broader coverage.

(D) Nothing contained within these insurance requirements shall be deemed to limit the scope, application and/or limits of coverage afforded, which coverage will apply to each insured to the full extent provided by the terms and conditions of the policy(ies). Nothing contained within this provision shall affect and/or alter the application of any other provision contained within this Lease Agreement.

(d) Owner's Insurance. By the date of the execution of this Agreement between the Owner and the Developer, the Owner shall procure and maintain for the duration of this Agreement, insurance against claims for injuries to persons or damages to property which may arise from, or in connection with the performance of work hereunder by the Owner, its agents, representatives, employees and/or subcontractors. The cost of such insurance shall be paid by the Owner. Coverage shall be at least as broad as:

(i) General Liability: Insurance Services Office form number (CG00 001 Ed. 11-88) covering Commercial General Liability, with a limit of not less than: $1,000,000 combined single limit per occurrence, $2,000,000 aggregate.

(ii) Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, statutory limits.

(e) Other Insurance Provisions. The insurance policies required by this Agreement are to contain or be endorsed to contain the following provisions where applicable:

(i) Liability Policies: The Owner, the Tenant and their respective officers, officials, employees and agents are to be covered as additional insureds as respects liability arising out of activities performed by or on behalf of the Developer in connection with this Agreement.

(A) To the extent of the Developer's negligence, insurance coverage shall be primary insurance as respects the Owner, its officers, officials, employees and agents. Any insurance and/or self-insurance maintained by the Owner, its officers, officials, employees and/agents shall not contribute with the Developer's insurance or benefit the Developer in any way.

(B) Developer's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(ii) All Policies: Coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except by the reduction of the applicable aggregate limit by claims paid, until after forty-five (45) days prior written notice has been given to the Owner and Trustee.

(iii) Acceptability of Insurers: Unless otherwise approved by the Owner and Bond Insurer, all insurance is to be placed with insurers with a Best's rating of no less than A:VIII, or, if not rated by Best's, with a rating in one of the two highest categories maintained by Standard & Poor's Ratings Services Group and Moody's Investors Service.

If at any time any of the foregoing policies shall be or become unsatisfactory to the Owner, due to a change in form or substance, or if a company issuing any such policy shall be or become unsatisfactory to the Owner, the Developer shall, upon notice to that effect from the Owner, promptly obtain a new policy, and shall submit the same to the Owner, with certificates and endorsements, for approval.

(f) Verification of Coverage. The Developer shall furnish the Owner with certificates of insurance and endorsements required by this Agreement. The certificates and endorsements for each policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms reasonably approved by the Owner and are to be received and approved by the Owner prior to the commencement of activities associated with this Agreement. The Owner reserves the right to require complete certified copies of all required policies at any time.

(g) Subcontractors. The Developer shall include all subcontractors as insureds under its policies, or shall furnish separate certificates of insurance and policy endorsements from each subcontractor. Insurance coverages provided by subcontractors as evidence of compliance with the insurance requirements of this Agreement shall be subject to all of the requirements stated herein (provided builders risk coverage must be carried only by the General Contractor).

(h) Factory Mutual Engineering Plan Review. Developer shall submit to Factory Mutual Engineering Association ("Factory Mutual"), for its review, plans of all elements of the building design and construction, including but not limited to: seismic and wind loading, roofing and HVAC systems, fire protection and alarm systems, and boiler systems (if any). Plans shall be submitted for review at the 90% design phase. All Factory Mutual recommendations shall be immediately shared with Owner, and Owner and Developer shall work together with Factory Mutual to reasonably incorporate those recommendations into the Project design. Developer is obligated under this Agreement to design and cause to construct the Project in compliance with Requirements of Law. However, Owner and Developer acknowledge that the Fixed Price may not include the cost of incorporating the recommendations of Factory Mutual, and if Owner elects to incorporate any of the Factory Mutual recommendations and such changes increase Project Costs, Owner shall bear the costs of those changes.

Upon completion of the fire protection system installations, one copy of the Contractor's Materials and Test Certificate shall be forwarded to Factory Mutual's District Office for their records:

Factory Mutual Engineering Association
601 108th Avenue N.E., Suite 1400
Bellevue, Washington 98004
Telephone: (425) 455-5333

17. Representatives.

(a) Developer Representatives. Developer shall consult with Owner on initial assignments of personnel assigned to the Project. Owner agrees that the persons with overall responsibility for the work for the Project for the Developer shall be H. Jon Runstad or Gregory K. Johnson. The Project Manager shall be Cindy Edens. Owner shall have the right to approve any changes in the personnel named above, such approval not to be unreasonably withheld.

(b) Owner Representative. Owner designates John Finke as Owner's Representative authorized to act on the Owner's behalf with respect to the Project. Owner shall promptly render decisions to avoid delay in the orderly process of design and construction of the Project. Owner shall communicate with the Contractor and the Architect only through Developer. Owner's Representative may be changed by Owner from time to time.

18. Accounting, Inspection and Audit.

(a) Accounts. Developer shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement.

(b) Inspection and Audit. Owner may, at its sole discretion, from time to time whether before or after Final Acceptance or termination of this Agreement inspect all books and records of Developer or any Contractor relating to the Project and/or elect to have an audit conducted to verify Project Costs through the date of the latest progress payment. If Owner so elects to conduct such an audit, it shall give notice to Developer, and such audit shall be conducted as soon as is reasonably feasible thereafter, but progress payments to Developer shall not be delayed pending the outcome of the audit. Such audit shall be conducted by an auditor selected by Owner, and Owner shall, except as hereinafter provided, pay the cost of such audit. Developer agrees to cooperate with the auditor and make available for examination at its principal office all of its books, records, correspondence and other documents deemed necessary to conduct the audit by the auditor. If the audit reveals a variation of one percent (1%) or more of the then Project Costs, Developer shall pay the cost of the audit, not to exceed $10,000.

(c) Preservation of Records. Developer shall preserve all records for a period of six (6) years after Final Payment hereunder; provided, however, if at any time prior to the expiration of seven (7) years after Final Payment, Developer proposes to dispose of any Contract Documents related to the Project, Developer shall deliver the same to Owner for disposition by Owner.

19. Construction Liens. Upon Final Acceptance of the Project and upon Owner's request during the progress of the Project, Developer shall submit evidence that all payrolls, material bills and other indebtedness relating to the work have been paid. If at any time there shall be appropriate evidence of any lien or claim for which, if established, Owner shall be liable, or which would constitute a lien on the Project, and which is chargeable to Developer, Contractor or one of its subcontractors, upon written request by Owner, Developer or Contractor shall furnish a bond in form and amount satisfactory to remove such lien from the public records. If any potential lien claimant gives notice to Trustee in accordance with the provisions of RCW 60.04.221, there shall be no further disbursement of Bond proceeds until Developer shall have provided Trustee and

Owner with a bond or other security in accordance with RCW 60.04.221(5), to the amount claimed under the lien or notice until resolution of such dispute and payment of such lien, agreement with such potential lien claimant that such notice is withdrawn, or a court declaration that such notice is void in accordance with the provisions of RCW 60.04.221(9). Developer shall notify Owner and Trustee upon the filing of any lien or the service of any notice in connection with the Project.

20. Priority Agreements. Developer shall require the General Contractor to subordinate its lien rights, by agreement in form and substance satisfactory to Owner, to the lien of mortgage(s) securing the Bonds in favor of Trustee and Bond Insurer and their respective successors or assigns, and shall use its best efforts to obtain a similar subordination from all subcontractors under this Agreement. Any subcontractor which refuses to so subordinate its lien rights must be specifically approved in writing by Owner.

21. Damage and Destruction; Condemnation.

(a) Damage and Destruction. After the happening of any casualty to the Project, Developer shall give Owner, Tenant and Trustee prompt written notice thereof generally describing the nature and cause of such casualty and the extent of the damage or destruction to the Project. Developer and Owner acknowledge, agree and assign all insurance proceeds which Developer or Owner may be entitled to receive prior to Final Acceptance of the Project with respect to damage or destruction to the Project to Trustee for deposit into the Project Fund held by Trustee under the Indenture, and the insurance carrier is hereby irrevocably instructed in accordance herewith. Such insurance proceeds shall be used to pay Project Costs, including increases in the Project Costs caused by such casualty. If, prior to the Substantial Completion of the Project, damage or destruction occurs to the Project, Developer shall proceed diligently to reconstruct and restore the Project in accordance with the Contract Documents and the provisions of this Agreement. Insurance proceeds deposited in the Project Fund shall be disbursed to Developer in accordance with the provisions of Section 9 herein for payment of progress payments for payment of the costs to repair and restore the Project. All costs of such repair or restoration of the Project exceeding the amount of the insurance proceeds shall be paid by Developer.

(b) Condemnation. In the event of a partial condemnation of the Project to the extent that the Project may still be constructed in accordance with the Contract Documents, or may be constructed in accordance with the Contract Documents as modified by changes acceptable to Owner and Developer, Developer shall proceed diligently to construct the Project in accordance with the Contract Documents, as modified, if applicable. Any such partial condemnation proceeds shall be deposited in the Project Fund and disbursed in accordance with the provisions of Section 9 above. Condemnation proceeds shall be disbursed for such purposes whether or not such disbursements exceed the Fixed Price. In the event of a condemnation of all of the Project or so much thereof that the Project may no longer be constructed in accordance with the Contract Documents, this Agreement shall terminate, Developer shall be paid for all costs incurred as of the date of such condemnation (including costs that Developer is obligated to pay third parties as of that date, together with a prorata portion of the Developer's Overhead and the Developer's Fee), and the parties shall have no further obligations hereunder. In such event, after Developer has been paid in accordance with the foregoing sentence, all condemnation proceeds shall be paid applied by the Trustee pursuant to the Indenture.

22. Payment of Taxes/Assessments.

(a) Real Property Taxes. Any and all real property taxes and assessments (including leasehold excise tax) levied against the Land and the Project or any portion thereof shall be paid by Owner until the Commencement of Construction. Developer shall pay all such taxes and assessments from the Commencement of Construction until the Initial Occupancy Date with respect to taxes and assessments levied on the remainder of the Project.

(b) Other State and Local Taxes. Developer shall pay any and all state and local taxes assessed in connection with the Project (other than real property taxes and assessments as provided in Section 22(a) above), including, but not limited to, state and local retail sales taxes and business and occupation taxes as part of the Fixed Price. Developer shall complete all necessary tax returns relating to such taxes and file the same with the applicable state or local governmental agency and remit, on or before the date such tax payment is due, payment of such state and local taxes to the proper taxing authority.

23. Default.

(a) Developer Default. The following events shall constitute an "Event of Default" by Developer:

(i) If Developer shall fail to perform any material obligation under this Agreement;

(ii) If Developer persistently or repeatedly refuses or fails to cause to be supplied to the Project enough properly skilled workers or proper materials to complete the Project, including Tenant Improvements, or if Developer ceases work on the Project for a period of fourteen (14) consecutive days (subject to Unavoidable Delays);

(iii) If Developer misappropriates any funds received by Developer pursuant to the provisions of this Agreement;

(iv) If Developer persistently disregards and fails to comply with laws, ordinances or rules, regulations or orders of a public authority having jurisdiction over the Project.

(v) If, due to the actions of Developer, any Permit required for construction of the Project shall be revoked or canceled;

(vi) If there shall occur any lien or other encumbrance on the Land or the Project caused by Developer which is not bonded and removed in accordance with Section 19 above;

(vii) If there shall have occurred defective workmanship or materials within the Project which is not cured within the time period provided in Section 7 of this Agreement;

(viii) If Developer shall have assigned, pledged or encumbered its rights, duties or obligations under this Agreement in violation of Section 25 of this Agreement;

(ix) If any warranty made by Developer as set forth in Section 13 shall be untrue or breached in any material respect; or

(x) If Developer files a petition for bankruptcy or if it makes a general assignment for the benefit of Developer's creditors, or if a receiver is appointed on account of Developer's insolvency and any such petition or appointment is not dismissed within sixty (60) days.

(b) Owner Remedies upon Developer Event of Default. Upon any Event of Default by Developer, Owner shall give Developer written notice of the same, whereupon following receipt of such written notice Developer shall have thirty (30) days within which to commence all necessary action to cure any such Event of Default, (and if such cure is commenced, proceed to diligently complete such cure within a reasonable period of time not to exceed 60 days), except with respect to Events of Default set forth in Section 23(a)(iii) and (viii) for which the cure period shall be ten (10) business days, or Section 23(a)(x) for which no cure period exists beyond the time period stated therein; provided however, that such cure period shall not apply to failure of Developer to (1) achieve Substantial Completion of the IEB Generator by the IEB Generator Completion Date; (2) cause the Initial Occupancy Date to occur on or before the Developer Obligation Date; and (3) achieve substantial completion of all Tenant Improvement Packages on or before the Tenant Improvement Obligation Date. In the event Developer fails to cure such Event of Default within the time period set forth above, Owner shall be entitled to the following remedies:

(i) To take over and complete the Project. Owner is hereby irrevocably appointed attorney-in-fact (the appointment being coupled with an interest) to incur obligations, enforce contracts or agreements theretofore made by Developer and to do any and all things that are necessary and proper to complete the Project and be entitled to use the undisbursed Project Fund proceeds to pay Project Costs;

(ii) In addition to a claim for damages for such breach or default, and in addition to and without prejudice to any other right or remedy available under this Agreement or at law or in equity, the right to demand specific performance of this Agreement;

(iii) To withhold approval of further disbursement of Bond proceeds;

(iv) Bring an action for damages; or

(v) Terminate this Agreement without liability upon ten (10) days written notice.

(c) Owner Default. The following shall constitute an "Event of Default" by Owner:

(i) Owner fails to cause Trustee to make disbursements to Developer of any sum of money owed to Developer pursuant to this Agreement as and when due, including

without limitation, all monies due and owing from the Project Fund unless Developer shall have committed an Event of Default as set forth in Section 23(a) above;

(ii) Owner shall have assigned, pledged or encumbered its rights, duties or obligations under this Agreement in violation of Section 25; or

(iii) Owner shall have failed to perform any other material obligation under this Agreement.

(d) Developer Remedies Upon Owner Event of Default. Upon any Event of Default by Owner, Developer shall give Owner written notice of the same. Upon receipt of such written notice Owner shall have ten (10) business days to cure any such Event of Default. In the event Owner fails to cure such Event of Default within said 10 day period, Developer shall be entitled to stop all work relating to the Project, if Developer so desires and shall further be entitled to pursue its rights and remedies at law and in equity under this Agreement, including without limitation, specific performance of Owner's obligations hereunder.

(e) Remedies Not Exclusive. No remedy conferred upon either party in this Agreement is intended to be exclusive of any other remedy herein or by law provided or permitted, but each shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

24. Disputes. Owner and Developer agree to follow the independent resolution process set forth in this Section 24 to resolve disputes regarding preparation of the Construction Drawings and Detailed Specifications and changes to Construction Documents in an economic and time efficient manner so that such documents conform to the requirements of this Agreement, the Project Schedule is not adversely impacted, and the Project as constructed will satisfy the Project Requirements. In the event that a dispute arises between Owner and Developer during the design or construction of the Project regarding the adequacy of any Drawings or Specifications or the responsibility for any costs associated with any design development, addition or change (e.g., whether any design development is consistent with and reasonably inferable from the Project Requirements), the parties shall attempt to resolve such dispute as expeditiously as possible and shall cooperate so that the progress of the design and construction of the Project is not delayed. If, however, the parties are unable to resolve the dispute within three (3) business days, either party may, by delivering written notice to the other and the Bond Insurer, refer the matter to a dispute resolution mediator as set forth on the attached Exhibit G.

25. Miscellaneous.

(a) Waiver. Any waiver by either of the parties of any breach of any covenant herein contained to be kept and performed by the other party shall not be deemed or considered as a continuing waiver, and shall not operate to bar or prevent the damaged party from declaring a forfeiture for any succeeding breach, either of the same condition or covenant or otherwise.

(b) Neutral Authorship. In connection with the execution and delivery hereof, each party has been represented by counsel. Each of the provisions of this Agreement has been

reviewed and negotiated, and represents the combined work product of both parties hereto. No presumption or other rules of construction which would interpret the provisions of this Agreement in favor of or against the party preparing the same shall be applicable in connection with the construction or interpretation of any of the provisions of this Agreement.

(c) Severability. If any portion or portions of this Agreement is declared void or unenforceable, it shall not affect the other provisions of this Agreement.

(d) Relationship of Parties. Developer and Owner shall not be construed as joint venturers or general partners, and neither shall have the power to bind or obligate the other party except as set forth in this Agreement. Nothing herein shall be construed as reserving to Owner the right to control Developer's business.

(e) No Third Party Rights. The provisions of this Agreement are intended solely for the benefit of, and may only be enforced: (i) by the parties hereto and their respective successors and assigns, including, as to Owner, Trustee and Bond Insurer, and (ii) with respect to rights expressly granted to Tenant in this Agreement, by Tenant. None of the rights or obligations of the parties herein set forth (or implied) is intended to confer any claim, cause of action, remedy, defense, legal justification, indemnity, contribution claim, set-off, or other right whatsoever upon or otherwise inure to the benefit of any Contractor, Architect, subcontractor, worker, supplier, mechanic, architect, insurer, surety, guest, member of the public, or other third parties having dealings with either of the parties hereto or involved, in any manner, in the Project.

(f) Assignment; Encumbrance or Pledge. Neither this Agreement nor any rights or duties hereunder nor any benefits derived herefrom may be assigned, delegated, pledged or encumbered to any other person or entity by either party hereto without the express written consent of the other, which consent may be withheld by either party in the exercise of its absolute discretion, except that Owner may assign its rights under this Agreement to the Trustee and the Bond Insurer pursuant to the Indenture as security in connection with the financing described in Section 3 above.

(g) Notices. All notices or requests required or permitted under this Lease shall be in writing, shall be personally delivered or sent by certified mail, return receipt requested, postage prepaid, by nationally recognized overnight courier or by facsimile transmission and shall be deemed given when so delivered, received or faxed (provided the fax machine has issued a printed confirmation of receipt). All notices or requests to any party shall be sent to all other parties as follows:

Owner: NJB PROPERTIES
1425 4th Avenue, Suite 608
Seattle, WA. 98101
Fax: 206-448-5246

Developer: WRIGHT RUNSTAD ASSOCIATES
LIMITED PARTNERSHIP
Attn: H. Jon Runstad, Gregory K. Johnson and Cindy Edens
Suite 2700
1201 Third Avenue
Seattle, WA. 98101
Fax: 206-223-8791

Either party may change its address for the purposes of this section by giving written notice of such change to the other party in the manner provided in this Section.

A copy of all notices, plans and specifications, change orders, invoices, documents or other agreements required to be delivered by one party to the other pursuant to this Agreement shall be simultaneously sent to Tenant and Bond Insurer at their addresses set forth below and Tenant shall have the right, but not the obligation, to attend all meetings and participate in all decisions to protect its leasehold interest under the Lease.

Tenant: KING COUNTY
Facilities Management Division
Rm. 800 King County Admin. Bldg.
500 4th Avenue
Seattle, Washington 98104
Fax: 206-205-5070

Bond Insurer: _____ Insurance Corporation
_____
_____
Attn: _____

(h) Entire Agreement. This Agreement (and the exhibits referred to herein) constitute the entire agreement between the parties with respect to the subject matter hereof and may be amended only in writing signed by both parties.

(i) Time is of the Essence. Time is of the essence of this Agreement.

(j) Employees of Developer. Developer is acting under this Agreement as an independent contractor and nothing herein contained, or any acts of Developer or Owner, nor any other circumstances, shall be construed to establish Developer as an agent of Owner. Developer shall be responsible for each of Developer's employees or other persons performing services to be performed by Developer hereunder and for determining the manner and time of performance of all acts to be performed by Developer hereunder. Developer shall maintain all required industrial and worker's compensation insurance for all employees of Developer and shall cause all Contractors, Architect and all design professionals and other persons, firms and corporations employed to perform services in connection with the Project to provide worker's compensation and similar insurance with respect to their respective employees.

(k) Exhibits. The Exhibits to this Agreement are:

Exhibit	Description	Partial Section Reference
A	Legal Description of Land	Recitals
B	Project Lease Agreement	Recitals; Section 1
C	Base Shell and Core Building	Section 1
D	Project Budget	Sections 1, 4(c)
E	List of Preliminary Plans and Specifications	Section 1
F	Project Schedule	Sections1, 6(d)
G	Dispute Resolution Mediation	Section 24
H	Substantial Completion of IEB Generator	Section 1

[Signatures on following page]

DATED at Seattle, Washington the day and year first above written.

OWNER: NJB PROPERTIES,
a Washington nonprofit corporation

By: _____
Its: _____

DEVELOPER: WRIGHT RUNSTAD ASSOCIATES LIMITED PARTNERSHIP,
a Washington limited partnership

By: Wright Runstad & Company,
a Washington corporation, its general partner

By: _____
Its: _____

EXHIBIT A

Legal Description of Land

LOTS 1 THROUGH 8, BLOCK 81, TERRY'S SECOND ADDITION TO THE TOWN OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 87, IN KING COUNTY, WASHINGTON.

Attachment B

PROJECT LEASE AGREEMENT

between

NJB PROPERTIES,
a Washington nonprofit corporation

as Landlord

and

KING COUNTY,
a political subdivision of the State of Washington

as Tenant

November 1, 2006

Ninth & Jefferson Building Project
Seattle, Washington

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Exhibit K	Minimum Insurance Requirements for General Contractor

PROJECT LEASE AGREEMENT

This Project Lease Agreement ("Lease") is dated for reference purposes November 1, 2006 and is made by and between **NJB PROPERTIES**, a Washington nonprofit corporation ("Landlord"), and **KING COUNTY**, a political subdivision of the State of Washington ("Tenant"). Landlord and Tenant agree as follows:

RECITALS

A. Landlord is the lessee under that certain Ground Lease dated November 1, 2006 ("Ground Lease"), with Tenant as lessor, pursuant to which Landlord leases that certain real property located in the City of Seattle, King County, Washington ("Land") more specifically described therein.

B. Tenant desires to have Landlord construct on the Land a 14-story first-class medical office building containing approximately 440,000 square feet of rentable area (including approximately 13,300 square feet of retail space) together with parking for approximately 650 vehicles ("Building"). Design and construction of the Building is referred to herein as the "Project."

C. Landlord and Tenant desire to enter into this Lease whereby Tenant shall lease and, when Substantially Complete, first occupy the Garage portion and then, on the Initial Occupancy Date, the remainder of the Building at the rent and subject to all of the terms, covenants and conditions set forth herein. This Lease requires that Landlord will cause Wright Runstad Associates Limited Partnership as Developer to develop, oversee and manage the design, permitting and construction of the Project. This Lease provides for Tenant to commence payment of Additional Rent for the Garage upon its Substantial Completion and to commence payment of both Additional Rent and Monthly Rent upon the Initial Occupancy Date of the Project.

D. Landlord intends to engage Developer to develop, oversee and manage the design, permitting and construction phases of the Project in accordance with the terms and conditions of a Development Agreement for a Fixed Price of $176,635,000. Subject to the terms and conditions thereof, Developer will provide a financial warranty that the Project will be completed for the Fixed Price.

E. As part of the Project, a backup generator facility will be installed in the Garage to serve an adjacent property belonging to Tenant which is commonly known as the In-Patient Expansion Building ("IEB"). Because completion of the generator installation is required for Tenant's use and occupancy of the IEB, Landlord shall cause Developer to complete such work on or before the IEB Generator Completion Date, as defined below.

F. Landlord intends to pay the Fixed Price with the proceeds of certain tax-exempt obligations which satisfy the requirements of Revenue Ruling 63-20, Revenue Procedure 82-26 and other regulations, interpretations and letter rulings issued by the U.S. Treasury with respect to such financings, and of certain taxable obligations.

AGREEMENT

1. Definitions. As used in this Lease, the following capitalized terms shall have the following meanings:

1.1. "ADA" means the Americans With Disabilities Act of 1990, as amended from time to time.

1.2. "Additional Rent" means the Operating Costs, Taxes, and Utilities, each as defined herein, the costs of maintenance and repair of the Premises (as provided in Section 10.1 hereof), and any other monetary sum to be paid by Tenant to Landlord or to third parties under the provisions of this Lease (other than Monthly Rent).

1.3. "Architect" means NBBJ LP, the architect for the Project selected by Landlord with Tenant's approval.

1.4. "Base Shell and Core Building" means the Building to be constructed on the Land, including the Garage, but exclusive of the Tenant Improvements. The Base Shell and Core Building is more particularly described in the Preliminary Plans and Outline Specifications attached hereto as **EXHIBIT B**.

1.5. "Bond Closing" refers to the date the Bond proceeds are available to the Trustee.

1.6. "Bond Insurer" means an insurance company which issues a municipal bond insurance policy at the request of Landlord in connection with the issuance of the Bonds, if any. If no Bond Insurer is selected to insure the Bonds, references to the Bond Insurer hereunder shall be deemed to be deleted.

1.7. "Bonds" means the Series A Bonds and the Series B Bonds, together, from the proceeds of which Landlord intends to pay, among other things, the Fixed Price. The "Series A Bonds" means those tax-exempt obligations to be issued by Landlord which satisfy the requirements of Revenue Ruling 63-20, Revenue Procedure 82-26 and other regulations, interpretations and letter rulings issued by the Internal Revenue Service with respect to such financings and taxable obligations. The "Series B Bonds" means the NJB Properties Lease Revenue Bonds (King County, Washington Project), 2006 Series B (Taxable).

1.8. "Building" means the 14-story first-class medical office building containing approximately 440,000 square feet of rentable area (including approximately 13,300 square feet of retail space) including the Garage with parking for approximately 650 vehicles. The Building is more particularly described in the Preliminary Plans and Outline Specifications.

1.9. "Calendar Year" means a calendar year commencing with January 1 and ending with December 31.

1.10. "Code" means the Internal Revenue Code of 1986, as amended, or any successor federal income tax statute or code. Any reference to a provision of the Code shall include the applicable Department of Treasury regulations.

1.11. "Commencement Date" means the Initial Occupancy Date, which is also the date upon which Tenant's obligation to pay Monthly Rent hereunder commences.

1.12. "Construction Contracts" means (i) the General Construction Contract and (ii) all other contracts for construction services entered into between Landlord, or Developer, on behalf of and acting as agent for Landlord, and any Contractor, including the General Contractor, for construction of Tenant Improvements or any other portion of the Project not covered by the General Construction Contract.

1.13. "Construction Documents" mean the Construction Drawings and Detailed Specifications approved by Landlord with input from Tenant pursuant to Section 9.3 below, for the construction of the Project, including technical drawings, schedules, diagrams, plans and specifications setting forth in detail the requirements for construction of the Project and providing information customarily required for the use of the building trades.

1.14. "Construction Drawings" means drawings setting forth in detail the requirements for the construction of the Project. As used herein, "Construction Drawings" include all graphic and pictorial documents depicting the design, location and dimensions of the elements of the Project (including Tenant Improvements) and include plans, elevations, sections, details, schedules and diagrams for the Project. Construction Drawings may consist of separate Construction Drawings for (i) the Base Shell and Core Building prepared by the Architect and (ii) the Tenant Improvements prepared by the Interior Architect.

1.15. "Contract Documents" means the Construction Documents, the Construction Contracts and the other documents identified as Contract Documents in the General Construction Contract.

1.16. "Contractors" means the General Contractor and any other construction contractors with whom Landlord enters into direct contracts upon the written recommendation of Developer, or with whom Developer on behalf of and acting as the Landlord's agent, contracts for the Project.

1.17. "Detailed Specifications" means all written detailed requirements for materials, equipment, construction systems, standards and workmanship for the construction of the Project.

1.18. "Developer" means Wright Runstad Associates Limited Partnership, a Washington limited partnership, and its successors and permitted assigns under the Development Agreement.

1.19. "Developer Obligation Date" for the Project means the date thirty (30) months after Bond Closing. The Developer Obligation Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; (ii) Owner-Caused Delays as defined in the Development Agreement

directly resulting from the action or failure to act of Tenant such as delays due to Tenant-initiated change proposals; and (iii) delays incurred as a result of the presence of any Hazardous Substances in, on or emanating from the Land as of the Effective Date in excess of the time specifically provided in the approved Project Schedule for remediation of any such Hazardous Substances.

1.20. "Development Agreement" means that certain Development Agreement of even date herewith, as amended from time to time, between Developer and Landlord which provides for the development, design, permitting and construction of the Project.

1.21. "Effective Date" means the date that this Lease is fully executed, acknowledged and delivered by Landlord and Tenant.

1.22. "Environmental Laws" means, as amended from time to time, the Federal Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6901 *et seq.*, Federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 *et seq.*, Federal Hazardous Materials Transportation Control Act, 42 U.S.C. § 1801 *et seq.*, Federal Clean Air Act, 42 U.S.C. § 7401 *et seq.*, Federal Water Pollution Control Act, Federal Water Act of 1977, 93 U.S.C. § 1251 *et seq.*, Federal Insecticide, Fungicide and Rodenticide Act, Federal Pesticide Act of 1978, 7 U.S.C. § 136 *et seq.*, Federal Toxic Substances Control Act, 15 U.S.C. § 2601 *et seq.*, Federal Safe Drinking Water Act, 42 U.S.C. § 300f *et seq.*, Washington Water Pollution Control Act, RCW ch. 90.48, Washington Clean Air Act, RCW ch. 70.94, Washington Solid Waste Management Recovery and Recycling Act, RCW ch. 70.95, Washington Hazardous Waste Management Act, RCW ch. 70.105, Washington Hazardous Waste Fees Act, RCW ch. 70.95E, Washington Model Toxics Control Act, RCW ch. 70.105D, Washington Nuclear Energy and Radiation Act, RCW ch. 70.98, Washington Radioactive Waste Storage and Transportation Act of 1980, RCW ch. 70.99, Washington Underground Petroleum Storage Tanks Act, RCW ch. 70.148.

1.23. "Event(s) of Default" has the meaning set forth in Section 22 of this Lease.

1.24. "Expiration Date" means (i) the earlier of December 31, 2036, or (ii) the date that the Bonds have been paid and retired, unless sooner terminated pursuant to this Lease.

1.25. "Final Acceptance" means that the following events have occurred with respect to the Project prior to Final Payment being made:

(a) The City of Seattle, Washington has issued all temporary certificates of occupancy for the Project.

(b) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A), together with final waivers and releases of lien, in form satisfactory to Landlord, from such materialmen, laborers, contractors and subcontractors as Landlord may require.

(c) All Punch List items shall have been completed.

(d) Developer shall have submitted its application for Final Payment together with evidence reasonably satisfactory to Landlord that all construction costs for the Project have been paid in full including evidence of full payment for any personal property installed on the Land as part of the Project Costs.

(e) The period for filing construction liens for the Project has expired or releases or discharges of construction liens have been obtained by Developer from all Contractors in accordance with all Construction Contracts.

(f) Architect shall have issued its "Certificate of Final Completion" for the Project and Landlord shall have received the certificate of any other architect or engineer requested by Landlord.

(g) General Contractor shall have issued a certificate that (i) the Project has been finally completed in substantial accordance with the Contract Documents, and (ii) no Hazardous Substances as defined in said certificate were incorporated into the structure of the Project.

(h) Developer shall have delivered to Landlord a written report showing the allocation of Project Costs among the categories of the Project Budget and the remaining specified dollar amount of the Tenant's Contingency, Project Contingency and the undisbursed portion of the Developer's Fee (as defined in the Development Agreement).

(i) Landlord shall have received an endorsement to its title policy dated as of and issued on the date of Final Acceptance, which shall insure Landlord and Trustee (i) against any liens for labor or materials, whether or not of record, which may have arisen in connection with the construction of the Project, and (ii) show no additional exceptions to the title policy other than those approved by or arising through Landlord.

(j) Developer shall have completed and delivered the matters set forth in Section 14 of the Development Agreement.

Notwithstanding the foregoing, Developer is not required to substantially complete the Tenant Improvements in any User Space for which Developer has not received an approved Tenant Improvement Package pursuant to Section 9.5 below by July 1, 2008 and Developer's failure to substantially complete any such Tenant Improvements shall not prevent or delay Final Acceptance of the Project.

1.26. "Final Payment" means payment to the Developer, General Contractor and any other Contractors by Landlord following Final Acceptance of the Project.

1.27. "Fixed Price" means $176,635,000, the total amount to be paid by Landlord for Project Costs for the design, development, permitting and construction of the Project. The Fixed Price includes the amount of the Tenant Improvement Allowance, but does not include Other Costs (as defined in the Development Agreement). A detailed description of Project Costs by line item and category is set forth in the Project Budget.

1.28. "Garage" means the underground parking garage within the Building containing approximately 650 parking stalls to be constructed as part of the Project, including any applicable Tenant Improvements. The Garage is more particularly described in the Preliminary Plans and Outline Specifications.

1.29. "General Construction Contract" means the agreement between Landlord and the General Contractor for construction of the Project.

1.30. "General Contractor" means Turner Construction Company, the general contractor for the Project selected by Landlord with Tenant's approval.

1.31. "Ground Lease" means the long-term ground lease entered into, or to be entered into, by NJB Properties as tenant and King County as landlord for the Land.

1.32. "Hazardous Substance" means any material, waste, substance, industrial waste, toxic waste, chemical contaminant, petroleum, asbestos, polychlorinated biphenyls, radioactive materials, or other substances regulated or classified by Environmental Laws as hazardous, toxic or lethal to persons or property.

1.33. "IEB" means that certain building commonly known as the In-Patient Expansion Building being constructed on land adjacent to the Land and owned by the Tenant.

1.34. "IEB Generator" means the backup generator and other emergency backup equipment to be installed in the Garage for the purpose of serving the IEB. Upon completion of its installation, the IEB Generator is intended to fulfill any applicable specifications set forth in Exhibit H of the Development Agreement as well as any requirements related to the IEB Generator for a temporary or permanent certificate of occupancy for the IEB.

1.35. "IEB Generator Completion Date" means the date which is twelve (12) months after Bond Closing. The IEB Generator Completion Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; (ii) Owner-Caused Delays (as defined in the Development Agreement); (iii) delays incurred as a result of the presence of any Hazardous Substances in, on or emanating from the Land as of the Effective Date in excess of the time specifically provided in the approved Project Schedule for remediation of any such Hazardous Substances; and (iv) delays in the issuance of a temporary certificate of occupancy for the IEB for reasons other than the failure of Substantial Completion of the IEB Generator to have occurred.

1.36. "Indenture" means the trust indenture pursuant to which Landlord will cause the issuance of the Bonds, a copy of which shall be provided to Tenant by Landlord at Bond Closing.

1.37. "Initial Occupancy Date" means the date upon which each of the following events shall have occurred such that the Tenant may begin its occupancy of the Project as it is completed as of such date and shall commence payment of Monthly Rent:

(a) Substantial Completion of the Garage shall have occurred;

(b) Developer shall have notified Landlord in writing that the Base Shell and Core Building shall be substantially complete and not less than 33% of the rentable area of the Premises shall have its required Tenant Improvements substantially completed, all in accordance with the Contract Documents, subject only to the completion of normal Punch List items;

(c) Except as otherwise provided in Section 36 below, the City of Seattle shall have issued a temporary Certificate of Occupancy such that Tenant is permitted to and could, pursuant to such issued Certificate of Occupancy, physically occupy the Base Shell and Core Building and not less than 33% of the rentable area of the Premises for its Permitted Use;

(d) Landlord shall have received satisfactory evidence from Developer that all real property taxes and assessments for the Project payable by Developer that were due and owing have been paid;

(e) Each Contractor shall have issued, with respect to the Base Shell and Core Building and not less than 33% of the rentable area of the Premises, its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A), together with partial waivers and releases of lien for work performed prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Landlord, with Tenant's concurrence, from such materialmen, laborers, contractors and subcontractors as Landlord, with Tenant's concurrence, may require; and

(f) Landlord, with Tenant's concurrence, shall have accepted the Base Shell and Core Building and not less than 33% of the rentable area of the Premises as substantially complete, subject to completion of the Punch List items agreed upon by Landlord, with Tenant's concurrence.

1.38. "Interior Architect" means NBBJ LP, the interior architect for the Project selected by Landlord with Tenant's approval.

1.39. "Land" means the real property located in the City of Seattle, King County, Washington, more particularly described in the Ground Lease.

1.40. "Landlord" means NJB Properties, a Washington nonprofit corporation, its successors and permitted assigns.

1.41. "Laws" means any constitution, statute, ordinance, regulation, rule, resolution, judicial decision, administrative order or other requirement of any federal, state, county, municipal or other governmental agency or authority having jurisdiction over the parties or the Premises, or both, in effect either at the time of execution of this Lease or at any time during the Term, including without limitation, any regulation or order of a quasi-official entity or body (e.g., board of fire examiners or public utilities) and all rules, laws and regulations issued thereunder, as the same may be amended from time to time.

1.42. "Lease Year" means each succeeding year of the Term, commencing with the Commencement Date and ending with the date which is one (1) day less than one (1) year later.

1.43. "Liens" means any lien, charge, security interest or encumbrance, except the Indenture and the Mortgage, which may be attached to, upon or against the Premises or any portion thereof.

1.44. "Monthly Rent" means the rent payable by Tenant under this Lease from the Commencement Date to and including the Expiration Date in the amounts for each Lease Year as set forth on the Schedule of Monthly Rent annexed hereto as **EXHIBIT A** and by this reference incorporated herein.

1.45. "Mortgage" means the (a) Leasehold Deed of Trust, Security Agreement, Assignment of Leases and Rents, and Fixture Filing; (b) Assignment of Leases and Cash Collateral; (c) applicable Uniform Commercial Code financing statements; and (d) other security documents executed by Landlord in connection with or to secure the Bonds.

1.46. "Notice Address" means, as to each of the Notice Parties, its respective address as specified in or pursuant to Section 32.7 of this Lease.

1.47. "Notice Parties" means each of Landlord, Tenant, Trustee and Bond Insurer.

1.48. "Operating Costs" has the meaning given to it in Section 5 of this Lease.

1.49. "Permitted Use" has the meaning given to it in Section 7 of this Lease.

1.50. "Preliminary Plans and Outline Specifications" are the initial renditions for the Base Shell and Core Building, a schedule of which plans and specifications is attached hereto as **EXHIBIT B** and incorporated herein by this reference.

1.51. "Premises" means the entirety of the Building to be constructed on the Land together with a leasehold interest in the Land pursuant to the Ground Lease.

1.52. "Project" means the total design and construction, including demolition of existing improvements on the Land, all professional design services, and all labor, materials and equipment used or incorporated in such design and construction of the Building to be constructed on the Land. The Project shall include work which is consistent with and reasonably inferable from the approved Project Requirements as being necessary to produce the intended results and may include the acquisition of certain light, view or other easements or property interests benefiting the Project not included in the Project Requirements to the extent that the cost thereof is paid from the Tenant's Contingency.

1.53. "Project Budget" means the budget for development of the Project as revised from time to time by Developer and Landlord, in accordance with the Development Agreement.

1.54. "Project Contingency" means the contingency by that name set forth in the Project Budget. The amounts of the various line items of the Project Budget are estimates only of the Project Costs to be incurred. To the extent the actual Project Costs in any line item of the Project Budget exceed the amount shown for such line item, Developer shall first allocate amounts in other line items, in which the actual known Project Costs will be less than the amount of the Project Budget, to the line item in which the excess Project Cost has been incurred. The Project Contingency is not available for Tenant Improvement costs in excess of the Tenant Improvement Allowance. Following the allocation by Developer as set forth in the preceding sentence with respect to all line items, Developer is entitled to draw upon the Project Contingency for such excess Project Costs.

1.55. "Project Costs" means all costs for the completion of the development, design, permitting and construction of the Project, including, without limitation, all demolition costs, all permit fees, all costs of the Base Shell and Core Building, HVAC, electrical and other building systems, all costs of Tenant Improvements, all costs of fixtures, furnishing and equipment described in the Construction Documents, all costs of architectural services provided by the Architect, all costs of services provided by the Interior Architect with respect to the Tenant Improvements, all other professional design and other services provided by Contractors or other professionals engaged by Developer or General Contractor, all amounts paid to General Contractor under the General Construction Contracts including all labor, material, and equipment used or incorporated in such design and construction, all amounts paid to other Contractors and subcontractors, if any, under any other Construction Contract or subcontract entered into by Landlord upon the written approval of Developer or by Developer on behalf of and acting as the Landlord's agent in connection with the Project, including all labor, material, equipment used or incorporated in such design and construction, services provided by engineers, environmental consultants, surveyors and other professionals and consultants retained by Developer in connection with the Project, Other Costs as set forth in the Project Budget, Developer's Overhead Allowance and Developer's Fee (each as defined in the Development Agreement), insurance (other than Bond insurance), bonds (other than the Bonds), applicable state and local retail sales, business and occupation and other taxes (including real property taxes and assessments accruing from commencement of construction to the Initial Occupancy Date), plus the Project Contingency; **excluding only** (a) Tenant's Personal Property and any taxes thereon (which shall be paid by Tenant at its sole cost and expense), (b) financing costs in connection with the issuance of the Bonds, (c) costs for art or similar enhancements that are not included in the Project Requirements and not paid from the Tenant's Contingency; (d) costs of acquiring certain light, view or other easements or property interests benefiting the Project that are not included in the Project Requirements and are not paid from the Tenant's Contingency; (e) costs or fees incurred in connection with the vacation of the Alley (as defined in Section 36 below) that currently runs through the Land; (f) costs of removing or remediating any Hazardous Substances in, on or emanating from the Land in excess of the amount specifically set forth in the Project Budget for Environmental Remediation (as defined in the Development Agreement); (g) to the extent not reflected in the Preliminary Plans and Outline Specifications, costs of any off-site improvements required as a condition to or in connection with the development or construction of the Project; (h) notwithstanding the above, real property taxes and assessments, utilities and other operating costs attributable to the Garage accruing after Substantial Completion of the Garage; and (i) Costs Not To Be Reimbursed (as defined in the Development Agreement).

1.56. "Project Requirements" means the Preliminary Plans and Outline Specifications and other requirements for the Project specifically agreed to by Landlord and Developer.

1.57. "Project Schedule" means the schedule for development and construction of the Project as revised from time to time by Developer and Landlord in accordance with the Development Agreement; provided, however, that in no event shall the Project Schedule provide for (i) installation of the IEB Generator to occur later than the IEB Generator Completion Date, or (ii) the Initial Occupancy Date to occur later than the Developer Obligation Date without the written concurrence of Tenant. The initial Project Schedule is set forth in **EXHIBIT C** attached hereto and by this reference incorporated herein.

1.58. "Punch List" means a list of items required to be completed prior to Substantial Completion of the Garage, Substantial Completion of the Project, the Initial Occupancy Date, or the Final Acceptance, as applicable, that are minor items which do not affect Landlord's ability to lease the Premises to Tenant and do not affect Tenant's ability to use the applicable portion of the Premises for their Permitted Use.

1.59. "Rent" means the sum of Monthly Rent and Additional Rent, each as defined herein.

1.60. "Requirements of Law" means all requirements relating to land and building construction (including those specifically applicable to Tenant's contemplated use of the Premises as a medical office building), including, without limitation, planning, zoning, subdivision, environmental, air quality, flood hazard, fire safety, accessibility, and other governmental approvals, permits, licenses and/or certificates as may be necessary from time to time to comply with all the foregoing and other applicable statutes, rules, orders, regulations, laws, ordinances, and covenants, conditions and restrictions, which now apply to and/or affect the design, construction, existence, intended use, operation and/or occupancy of the Land, the Premises or any part thereof.

1.61. "State Nonprofit Corporation Act" means the Washington Nonprofit Corporation Act, Chapter 24.03 RCW, as amended from time to time.

1.62. "Substantial Completion of the Garage" means that each of the following events shall have occurred with respect to the Garage:

(a) Developer shall have notified Landlord in writing that the Garage, including all Tenant Improvements are Substantially Complete in substantial accordance with the Contract Documents, subject only to the completion of normal Punch List items;

(b) Architect shall have issued its "Certificate of Substantial Completion" (AIA Document G704) stating that the work under the Construction Contracts is sufficiently complete in substantial accordance with the Contract Documents to permit Tenant to occupy or utilize the Garage portion of the Premises for its Permitted Use;

(c) The City of Seattle has issued a temporary certificate of occupancy such that Tenant is permitted to and could, pursuant to such issued certificate of occupancy, physically occupy the Garage portion of the Premises for its Permitted Use;

(d) Landlord has received satisfactory evidence from Developer that all real property taxes and assessments on the Garage payable by Developer that were due and owing have been paid;

(e) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A), together with partial waivers and releases of lien for work performed prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Landlord, with Tenant's concurrence, from such materialmen, laborers, contractors and subcontractors as Landlord, with Tenant's concurrence, may require; and

(f) Landlord, with Tenant's concurrence, shall have accepted the Garage as Substantially Complete, subject to completion of the Punch List items agreed upon by Landlord, with Tenant's concurrence.

1.63. "Substantial Completion of the IEB Generator" means that all of the work with respect to the IEB Generator described on the attached **EXHIBIT B** has been completed and the IEB Generator is operational and capable of serving the IEB.

1.64. "Substantial Completion of the Project" means that each of the following events shall have occurred with respect to the Project:

(a) Developer shall have notified Landlord in writing that the Project, including all Tenant Improvements are Substantially Complete in substantial accordance with the Contract Documents, subject only to the completion of normal Punch List items;

(b) Architect shall have issued its "Certificate of Substantial Completion" (AIA Document G704) stating that the work under the Construction Contracts is sufficiently complete in substantial accordance with the Contract Documents to permit Tenant to occupy or utilize the Premises for its Permitted Use;

(c) The City of Seattle has issued a temporary certificate of occupancy such that Tenant is permitted to and could, pursuant to such issued certificate of occupancy, physically occupy the Premises for its Permitted Use;

(d) Landlord has received satisfactory evidence from Developer that all real property taxes and assessments on the Project payable by Developer that were due and owing have been paid;

(e) Each Contractor shall have issued its "Certificate of Substantial Completion" together with its "Affidavit of Payment of Debts and Claims" (AIA Forms 706 and 706A), together with partial waivers and releases of lien for work performed prior to the date of its "Certificate of Substantial Completion" in form satisfactory to Landlord, with Tenant's

concurrence, from such materialmen, laborers, contractors and subcontractors as Landlord, with Tenant's concurrence, may require; and

(f) Landlord, with Tenant's concurrence, shall have accepted the Project as Substantially Complete, subject to completion of the Punch List items agreed upon by Landlord, with Tenant's concurrence.

Notwithstanding the foregoing, Developer is not required to substantially complete the Tenant Improvements in any User Space for which Developer has not received an approved Tenant Improvement Package pursuant to Section 9.5 below by July 1, 2008 and Developer's failure to substantially complete any such Tenant Improvements shall not prevent or delay the Project from being deemed Substantially Complete.

1.65. "Substantially Complete" means that the Garage or Project, as applicable, has been constructed in substantial accordance with the Contract Documents and: (a) all elements required for the functioning of the Garage or Project, as applicable, shall be operational and in good working order and condition including satisfying applicable ADA building requirements and the Washington State Law Against Discrimination, RCW ch. 49.60, as well as regulations adopted thereunder; (b) the Garage or Project, as applicable, shall be weather tight and waterproof; (c) the fire and life safety systems within the Garage or Project, as applicable, shall be operational and in good working order and condition; (d) the elevators within the Garage or Project, as applicable, shall operate and function in good working order and condition, but may still require touch up installation and cleaning; (e) the mechanical and electrical systems, including the HVAC system, shall be individually tested and in good working order able to support the Garage or Project, as applicable, and shall also be tested to assure that the Garage or Project, as applicable, systems operate on an integrated basis, but the HVAC system may still require final balancing work; (f) the finish work is substantially completed, including, but not limited to public lobby, elevator, HVAC, plumbing, fire and life safety, sprinkler and electrical systems, doors, partitions, cabinetry, carpet and base, including removal of all construction debris for the Garage or Project, as applicable; (g) all site utilities, sidewalks and landscaping are substantially completed and construction barricades and equipment have been removed for the Garage or Project, as applicable; (h) the Garage, including Garage elevators and lobbies, and all entrances and exits to the Garage or Project, as applicable, are completed; (i) the access and security systems for the Garage or Project, as applicable, are installed and operational, except in each case minor Punch List items which do not materially affect use and occupancy of the Garage or Project, as applicable, for its Permitted Use; and (j) with respect to the Garage, the IEB Generator has been installed and is fully functional.

1.66. "Taxes" means all real property taxes and assessments (including assessments for special improvements), license and permit fees, charges for public utilities, leasehold excise taxes, other excise taxes, levies, sales, use and occupancy taxes, any tax or charge assessed against the Rent or fair market value of the Premises and any taxes levied or assessed in addition to or in lieu of, in whole or in part, such taxes, assessments or other charges and all other governmental impositions and charges of every kind and nature, general and special, ordinary and extraordinary, foreseen and unforeseen of every character (including interest and penalties thereon) which at any time from and after the Commencement Date of this Lease may be imposed, levied upon or assessed against or which arise with respect to or

constitute a lien upon the Land, the Premises (or any part thereof), the leasehold estate created by this Lease or any part thereof, or any estate, right or interest therein, or any occupancy, use or possession of or activity conducted on the Premises or any part thereof. Taxes shall not include any tax computed on the basis of Landlord's net income.

1.67. "Tenant" means King County, a political subdivision of the State of Washington, and its successors and permitted assigns, as the tenant under this Lease.

1.68. "Tenant Improvement Allowance" means, within the Fixed Price, an allowance of $47,423,000 to cover the design and construction costs of the Tenant Improvements.

1.69. "Tenant Improvement Design Schedule" means the process and schedule which Developer shall prepare and submit to Landlord, Tenant and the applicable User for their review and approval for each User Space pursuant to which a final Tenant Improvement Package for such User Space shall be completed and approved by Developer, Landlord, Tenant and the applicable User on or before July 1, 2008.

1.70. "Tenant Improvement Obligation Date" means December 31, 2009. The Tenant Improvement Obligation Date shall be extended to the extent of (i) Unavoidable Delays; provided, however, that extensions due to Unavoidable Delays shall not exceed ninety (90) days; and (ii) Owner-Caused Delays (as defined in the Development Agreement) including delays caused by Tenant or any User in meeting response deadlines or otherwise. If an Unavoidable Delay or an Owner-Caused Delay applies only with respect to a particular User Space (e.g., the failure of Landlord, Tenant or User to respond to elements of the Tenant Improvement Package for that User Space within the time period required by the Tenant Improvement Design Schedule for that User Space), the Tenant Improvement Obligation Date shall be extended only with respect to the Tenant Improvements in that User Space.

1.71. "Tenant Improvement Package" means, with respect to any User Space for which the Tenant Improvements are not complete on the Initial Occupancy Date, the following items with respect to such User Space: (i) space programming; (ii) plans and specifications; (iii) construction budget and (iv) construction schedule; provided, however, that the foregoing items shall only constitute a Tenant Improvement Package when agreed upon by Landlord, Tenant, Developer and the applicable User.

1.72. "Tenant Improvements" means any improvements to the interior of the Project beyond the Base Shell and Core Building, including data wiring, all of which are more specifically described in the Construction Documents.

1.73. "Tenant's Construction Representative" means the designee of King County's Facilities Management Division as named in a notice from Tenant to Landlord given from time to time.

1.74. "Tenant's Contingency" means the contingency in the amount of $12,820,000 which may be used to cover any changes in the Project resulting from any material improvements or deviation required by Tenant from the design or level of quality reflected in the Preliminary Plans and Outline Specifications as set forth in Section 9.4 below or for Tenant

Improvements requested by Tenant which exceed the Tenant Improvement Allowance. Tenant's Contingency consists of amounts identified in the following line items in the Project Budget: "Tenant's Design Contingency" in the amount of $11,500,000 and "Owner Contingency" in the amount of $1,320,000.

1.75. "Tenant's Personal Property" means Tenant's furniture, equipment and movable property placed in the Premises by the Tenant and any property installed in or about the Premises by Tenant; provided, however, that fixtures, furnishing and equipment described in the Construction Documents as being part of the Project are not deemed to be part of Tenant's Personal Property. Tenant shall provide Tenant's Personal Property at Tenant's sole cost and expense.

1.76. "Term" means the period beginning on the Effective Date and ending on the Expiration Date.

1.77. "Trustee" means a national bank or other financial institution with trust powers selected by Landlord to serve as the bond trustee under the Indenture or any duly authorized successor thereto appointed pursuant to the Indenture.

1.78. "Unavoidable Delays" means any delay in the performance by Developer or General Contractor of its obligations with respect to construction of the Garage or the remainder of the Project, as applicable, caused by strikes (other than those directly caused by Developer's acts, omissions or failures to bargain in good faith), acts of God, unusually inclement weather, unavoidable casualties and similar causes which, after the exercise of due diligence to mitigate the effects thereof, delay construction of the Project, other than such delays resulting from (a) Developer's or General Contractor's failure to comply with the terms and provision of the Development Agreement or the General Construction Contract, (b) increased prices, or (c) unavailability of funds, provided the Fixed Price is paid in accordance with the Development Agreement. Unavoidable Delays will entitle Developer to request an extension of time within which to complete the Project but will in no way entitle Developer to additional compensation. In the event of any Unusually Severe Weather Conditions (as defined in the Development Agreement), the length of Unavoidable Delay to become effective under this Lease as a result of such condition shall be the period of time (not less than one day) by which Developer's progress in constructing the Project has reasonably been delayed as a result of such Unusually Severe Weather Conditions, all as more specifically set forth in the Development Agreement.

1.79. "User" means any Tenant agency occupying space in the Building, any subtenant of Tenant in the Building or any user of space in the Building as permitted by Tenant.

1.80. "User Space" means any space in the Building to be subleased or used by a User.

1.81. "Utilities" means all utilities and services furnished to the Premises, including without limitation, gas, electricity, water, sewer, garbage collection, and telephone service.

2. Premises. Landlord leases to Tenant and Tenant leases from Landlord the Premises for the Term. Tenant shall not, however, be entitled to occupy (i) the Garage portion of

the Premises until the date of Substantial Completion of the Garage and (ii) the remainder of the Premises until the Initial Occupancy Date, subject to the on-going work required to complete any Tenant Improvements not completed as of such Date.

3. Term. The Term shall commence on the Effective Date and shall expire on the Expiration Date; provided, however, that the obligation of the Tenant to pay Monthly Rent shall not commence until the Commencement Date. Landlord and Tenant shall confirm the Commencement and Expiration Dates by executing within fifteen (15) days after the Commencement Date, a written Confirmation of Commencement and Expiration Dates in the form attached hereto as **EXHIBIT E**, which Confirmation of Commencement and Expiration Dates shall become a part of this Lease and be binding upon Landlord and Tenant to establish the actual Commencement Date and Expiration Date of the Term. Notwithstanding that the obligation of Tenant to pay Monthly Rent under this Lease shall not commence until the Commencement Date, all of the other terms and provisions of this Lease shall be effective from and after the Effective Date (except as otherwise provided herein).

4. Monthly Rent.

4.1 Obligation to Pay Rent. Commencing on the Commencement Date, Tenant shall pay to Landlord or as Landlord may otherwise direct in writing and without deduction, offset, prior notice or demand, in advance on the first day of each month during the Term an amount equal to Monthly Rent; provided, however, that the first payment of Monthly Rent shall also include an amount in arrears for the prorated Monthly Rent due and owing from the Commencement Date through and including the last day of the month preceding such first payment date; and provided further, that Tenant may elect to offset against its obligation to pay Monthly Rent amounts in the Bond Fund held by Trustee under the Indenture that are available to pay the principal of or interest on the Bonds, to the extent permitted under the Indenture. Tenant acknowledges that time is of the essence in payment of Monthly Rent since Landlord intends to use Monthly Rent to make principal and interest payments on the Bonds.

4.2 Proration of Rent. Monthly Rent for any partial month shall be prorated on a daily basis at the rate of 1/30th of the Monthly Rent. All Monthly Rent shall be paid to Landlord at Landlord's Notice Address or as otherwise directed in writing by Landlord.

4.3 Rent a General Obligation. Tenant's obligation to pay Rent constitutes a limited tax general obligation of the Tenant. Tenant irrevocably covenants and agrees that it will include in its annual budget and levy taxes annually on all taxable property within King County, within and as a part of the tax levy permitted to Tenant without a vote of the electors, amounts sufficient, together with all other money legally available and to be used therefor, to pay Rent as the same shall become due. The full faith, credit and resources of Tenant are irrevocably pledged for the annual levy and collection of such taxes and the prompt payment of such Rent.

4.4 Defeasance. In the event that money and/or "Government Obligations," as such obligations are now or may hereafter be defined in Chapter 39.53 RCW, maturing at such time or times and bearing interest to be earned thereon in amounts sufficient to pay or prepay all Monthly Rent and to pay any Additional Rent then due under this Lease in accordance with the terms of this Lease, are irrevocably set aside and pledged in a special account created pursuant to

Section 10.02 of the Indenture to effect such payment or prepayment and defeasance of the Bonds, then upon such pledge, this Lease shall automatically terminate, no further payments need be made of any Monthly Rent under this Lease and Landlord shall not be entitled to any lien, benefit or security in the Premises, except the right to receive the funds so set aside and pledged, and Landlord shall have no further obligation to Tenant hereunder. Landlord shall apply such prepaid Rent to the defeasance or redemption of Bonds in accordance with the Indenture.

5. Additional Rent; Payment of Operating Costs, Taxes and Utilities.

5.1 Absolute Net Lease. Tenant acknowledges that this Lease is an absolute net lease. From and after the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and from and after the Commencement Date with respect to the remainder of the Premises, Tenant shall, for such portion of the Premises, (i) provide for and pay costs of maintenance and operation in accordance with Section 10.1 hereof, (ii) pay Taxes, (iii) pay Utilities, and (iv) reimburse Landlord for all Operating Costs. Prior to the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and the Commencement Date with respect to the remainder of the Premises, all Operating Costs, if any, Taxes and Utilities shall be paid by Developer or Landlord pursuant to the provisions of the Development Agreement.

5.2 Operating Costs. In accordance with Section 5.7 hereof, Tenant shall pay as Additional Rent amounts sufficient to reimburse Landlord for all Operating Costs incurred by Landlord and identified in this Section 5.2. All other costs of operating and maintaining the Premises shall be paid directly by Tenant pursuant to Section 10.1 hereof. Operating Costs means any and all costs and expenses directly related to ownership and operation of the Premises incurred and invoiced by Landlord from and after the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and the Commencement Date with respect to the remainder Premises in connection with:

(a) the repair, replacement, operation, and maintenance of the Premises, including, without limitation, interior and exterior maintenance, all exterior doors and windows, elevators, sidewalks, driveways, interior perimeter and interior partition walls and finishes (including periodic painting thereof), exterior wall finishes, broken glass in exterior and interior doors and windows, roof, floor covering, window frames, gutters and downspouts, HVAC system, landscaping and all other areas used in connection with the Premises, excluding, those costs described in Section 5.3(h)-(i);

(b) the asset management fee paid Landlord pursuant to Section 10.2(c);

(c) the property management fees, if any, paid to the entity or entities managing the Premises under property management contracts entered into pursuant to Section 10.2(a) of this Lease;

(d) the auditing fees incurred by Landlord in connection with the preparation of the financial statements required under Section 10.2(b) of this Lease;

(e) if Tenant requests that Landlord hire an operator of the parking operations within the Premises, any expenses, fees, and charges paid to such operator of the parking operations within the Premises, provided that such fees are competitive with then current market rates and that any parking management contract complies with Revenue Procedure 97-13 or any successor revenue procedure issued by the Internal Revenue Service governing management, operation, or other service contracts in connection with the issuance of tax exempt obligations;

(f) all costs of services furnished by or through Landlord, if any, in connection with the Premises, including janitorial, security, gardening, landscaping, and related costs and expenses, licenses, permits, and inspection fees, the cost of supplies, materials, equipment, and tools used in connection with the maintenance, operation, or repair of the Premises and all other reasonable, necessary and customary costs and expenses directly related to the operation, maintenance, and repair of the Premises (provided, however, that if, with the prior written approval of Tenant or upon Tenant's material uncured default hereunder or a default by Tenant under a property management agreement executed for the Premises, Landlord contracts with any non-governmental and non-public entity for property management services or other services relating to the Premises, Landlord shall be required to obtain such services at rates generally competitive in the marketplace);

(g) any damage to the Premises (but not to Tenant's Personal Property) caused by breaking and entering or other criminal act and not covered by insurance;

(h) all costs of compliance with Laws or the board of fire underwriters (or similar organization) now or hereafter constituted as applicable to the Premises;

(i) all insurance premiums for insurance required to be carried under this Lease (including loss of rent insurance);

(j) all costs resulting from Owner-Caused Delay (as described in the Development Agreement) and all other additional costs and liabilities that Landlord may incur under the Development Agreement as a result of decisions, determinations, change orders, or other actions or omissions made by Tenant, but excluding any such costs and liabilities (i) paid from the Tenant's Contingency or (ii) incurred as a result of Landlord's negligence, Landlord's intentional misconduct, or Landlord's breach of provisions of the Development Agreement;

(k) following Final Acceptance, all attorneys' fees and other costs incurred by Landlord in efforts to enforce (i) the provisions of the Development Agreement and/or the General Construction Contracts as a result of decisions, determinations or change orders made by Tenant or (ii) product or workmanship warranties given by Developer, General Contractor, or other Contractors or suppliers of equipment or materials (unless Tenant desires that Landlord instead assign such claims and/or warranties to Tenant in accordance with Section 5.8 hereof); provided, that Tenant is obligated under this subsection only to the extent that such attorneys' fees and costs have not been paid from the Owner Contingency or reimbursed by or recovered from Developer, General Contractor, any other Contractor, or any other party who may be obligated to Landlord;

(l) Trustee's fees for the Bonds, any rebate payable with respect to the Bonds, costs payable in connection with any defeasance or prepayment of Monthly Rent and any defeasance or redemption of the Bonds;

(m) the commercially reasonable cost to retain Developer or any other qualified contractor to assist in the commissioning of the Garage and the Building during the two years following the Substantial Completion of the Project; and

(n) all other costs reasonably incurred by Landlord in connection with the ownership, leasing (under this Lease), maintenance, and upkeep of the Premises in order to: (i) prevent any dangerous or unsafe condition on the Premises that could result in liability to Landlord or its officers, employees, directors, or other agents, or (ii) comply fully with and to avoid or to cure any default under the Indenture, Mortgage, and other documents relating to the Bonds and all Requirements of Law; provided, however, that prior to incurring any such costs, Landlord shall (except for costs advanced under emergency circumstances to protect the Premises from immediate risk of danger or destruction) have given Tenant and/or the property manager under any property management agreement reasonable notice (i.e., the lesser of 30 days or such shorter period as is permitted under the Indenture, Mortgage, or other Bond documents to avoid an imminent default or to cure a default for which notice has already been given) of Landlord's intention to take such action to remove such dangerous condition or to achieve such compliance with the Bond documents and shall have given Tenant the first opportunity to take such curative action, prior to Landlord taking such action itself.

Notwithstanding the foregoing list of Operating Costs, which Landlord may incur from time to time, as described in this Section 5.2, and which Tenant shall pay as Additional Rent, the listing of such items as Operating Costs is not intended to suggest that Landlord has a duty to maintain or repair the Premises or to take any other actions that Landlord is not expressly obligated to undertake under other provisions of this Lease.

5.3 Exclusions from Operating Costs. Operating Costs shall exclude:

(a) costs of the Project, including the cost of construction;

(b) costs arising from Landlord's political or charitable contributions;

(c) fines, penalties and interest penalties incurred as a result of Landlord's negligence or unwillingness to make payments when due or take such other actions as may be required;

(d) legal fees, accountant's fees and other expenses incurred in connection with (a) disputes with Tenant or associated with the interpretation of the terms of this Lease (unless Tenant is otherwise required to pay such fees and expenses pursuant to Section 29 of this Lease); or (b) legal proceedings arising out of Landlord's violation of the terms of this Lease;

(e) costs of any service provided to Tenant for which Landlord is reimbursed, or any other expense for which Landlord is or will be reimbursed by another source (i.e., expenses covered by insurance or warranties);

(f) fees to Landlord for goods or services in excess of the fees that would typically be charged by unrelated, independent persons or entities for similar goods and services;

(g) Taxes and Utilities paid by the Tenant directly to the applicable government authority or utility provider pursuant to the provisions of Section 5.4 and Section 6 of this Lease;

(h) repairs or replacements made to rectify or correct any latent defect(s) in the original design, materials or workmanship of the Project, as originally constructed, to the extent of and in the amount that the cost of such repairs or replacements are paid to Landlord (i) from the Project Contingency or (ii) by reimbursement or other recovery from Developer, General Contractor, any other Contractor, or any other party who may be obligated to Landlord to pay or reimburse for such repairs, including, but not limited to, warranty claims;

(i) repairs or replacements necessitated by the negligence or willful misconduct of Landlord, Landlord's employees, contractors or agents;

(j) notwithstanding anything to the contrary in Section 5.2 above, any Utilities directly related to completion of the Project following the Initial Occupancy Date in an amount determined by Landlord in the exercise of its reasonable discretion if not otherwise metered, all of which shall be payable as part of the Project Costs; and

(k) any cost of repair, replacement, operation and/or maintenance of the Premises incurred as a direct result of the ongoing construction of the Project following the Initial Occupancy Date, all of which shall be payable as part of the Project Costs.

5.4 Payment of Taxes by Tenant. Tenant shall be liable only for Taxes that accrue from and after the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and the Commencement Date with respect to the remainder of the Premises. Tenant shall pay all Taxes directly to the applicable governmental agency prior to delinquency and shall provide proof of such payment promptly to Landlord and Trustee. To the extent Taxes or other charges can be paid in installments, Tenant may pay such Taxes in installments. With respect to any general or special assessments which may be levied against or upon the Premises, or which under the Laws then in force may be evidenced by improvement or other bonds or may be paid in annual installments, only the amount of such annual installment, and interest due thereon, shall be included within the computation of Taxes.

5.5 Real Property Tax Statements. Tenant shall make appropriate arrangements to receive directly from the applicable governmental agency assessment notices and real property tax statements for the current year, and Tenant shall provide a copy thereof promptly to Landlord and Trustee.

5.6 Right to Contest Taxes. If Landlord receives prior notice that an appraisal of the Premises, or any portion thereof, will be conducted for real property tax purposes, Landlord shall so notify Tenant and permit Tenant to be present during such appraisal if Tenant so elects. Tenant shall have the right in Landlord's name and stead, and at Tenant's

sole expense, to contest the validity or amount of any real property taxes provided all such taxes are paid when and as due. Landlord shall cooperate with Tenant and provide reasonable assistance with respect to any such contest, including, without limitation, such information and supporting documents as may be reasonably requested by Tenant. Notwithstanding any provision of this Lease to the contrary, Tenant shall not be required, nor shall Landlord have the right, to pay, discharge or remove any such real property tax so long as no Event of Default has occurred and Tenant is contesting the existence, amount, applicability or validity thereof by appropriate proceedings conducted in good faith with due diligence. In the event Landlord shall obtain a tax refund as a result of any such tax appeal or other proceedings Tenant shall be entitled to, and Landlord shall promptly pay to Tenant, all such tax refunds.

5.7 Payment of Operating Costs. From and after the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and the Commencement Date with respect to the remainder of the Premises, Tenant shall in accordance with Section 5.2, reimburse Landlord for all Operating Costs within thirty (30) days of receiving an invoice therefor from Landlord. If Tenant fails to pay Taxes or Utilities, Landlord may advance funds to pay such items and demand reimbursement from Tenant within ten (10) days of making such advance.

5.8 Warranties. During the Term of this Lease, Landlord shall exert its good faith and diligent efforts to enforce any and all applicable warranties, express or implied, in connection with defects which may arise in the original design, materials or workmanship of the Premises as originally constructed. Prior to Final Acceptance, costs incurred by Landlord in enforcing any such warranties shall be deemed a Project Cost and not payable by Tenant. Thereafter, costs incurred by Landlord to enforce any warranties shall be an Operating Expense, subject to the provisions of Section 5.2(k) above; provided, however, that Landlord shall incur no such Operating Expense without first obtaining the written approval of Tenant. Following Final Acceptance, at Tenant's request, Landlord shall assign to Tenant any warranty right held by Landlord with respect to the original design, materials or workmanship of the Premises, as originally constructed. After expiration of any applicable warranty period, Tenant acknowledges that it shall be fully responsible for the cost of the maintenance and repair of the Premises pursuant to the terms of this Lease.

6. Utilities. From and after the Substantial Completion of the Garage with respect to the Garage portion of the Premises and the Commencement Date with respect to the remainder of the Premises, Tenant shall be solely responsible for and shall pay separately for all charges for Utilities used or consumed in such portions of the Premises. It is understood that Landlord shall not be required to provide any Utilities to Tenant, and Tenant shall make any necessary arrangements to have all such Utilities billed directly to and paid for directly by Tenant.

7. Use. Tenant intends to use the Premises for a parking garage (as to the Garage), and for medical offices and clinics (as to the remainder of the Building), and may use the Premises for any other lawful use consistent with the provisions of this Section 7 (the "Permitted Use"). Tenant has determined to its satisfaction that the Premises can be used for the Permitted Use. Tenant's use of the Premises shall be in accordance with the following:

7.1 No Insurance Cancellation. Tenant shall not do, bring, or keep anything in or about the Premises that will cause a cancellation of any insurance covering the Premises.

7.2 Compliance with Laws. From and after the Commencement Date of this Lease, or such earlier date as Tenant occupies the Premises or any portion thereof, Tenant shall comply with all Laws concerning the Premises and Tenant's use of the Premises, including without limitation, Environmental Laws. Tenant shall not use the Premises for the transportation, storage or generation of any Hazardous Substances in violation of Environmental Laws. From and after the Commencement Date of this Lease or such earlier date as Tenant occupies the Premises, and to the extent permitted by law, Tenant shall absolutely and unconditionally indemnify, defend and hold Landlord harmless from and against any and all debts, demands, obligations, liens, judgments, claims, liabilities, losses, damages, cleanup costs and expenses (including reasonable attorneys' fees) now or hereafter arising in connection with the presence, transportation, storage, disposal or handling of Hazardous Substances located in, on or about the Premises or Land caused by or resulting from the actions of Tenant, its agents or employees after the Commencement Date of this Lease or such earlier date as Tenant occupies the Premises, excluding (a) any Hazardous Substances present on the Land or the Premises prior to the Commencement Date of this Lease or which migrates onto the Land from property not owned by Tenant through no act or omission of Tenant; (b) any such debt, demand, obligation, lien, judgment, claim, liability, loss, damage, cleanup cost or expense resulting from the actions or omissions of Landlord, Developer, General Contractor and their respective agents, employees, contractors, subcontractors or invitees; or (c) any debt, demand, obligation, lien, judgment, claim, liability, loss, damage, cleanup cost or expense as a result of Landlord's violation of any contractual obligation under this Lease, the Indenture, or any other document executed by Landlord in connection with a Mortgage incurred in connection with Section 11 of this Lease. This indemnification shall survive the Expiration Date of this Lease.

7.3 No Waste, Nuisance or Damage. Tenant shall not use the Premises in any manner that will constitute waste of the Premises or nuisance and Tenant shall not do anything on the Premises that will cause damage to the Premises.

7.4 Tax Covenants. At all times from and after the Effective Date, Landlord (a) shall maintain its purposes and engage only in activities which are in furtherance of its purposes and which are permitted by the State Nonprofit Corporation Act; (b) will maintain its status as a nonprofit corporation under the State Nonprofit Corporation Act and as an organization described in Section 501(c)(3) of the Code whose income does not inure to the benefit of any private person; (c) shall not encumber, pledge, hypothecate or grant a security interest in all or any part of the Premises (except for the Indenture and the Mortgage which comply with the provisions of Section 11 of this Lease) or except as consented to by Tenant and Bond Insurer in writing; (d) shall not engage in any activities related to the Premises or the Mortgage (except those specifically set forth in Sections 9 and 11 of this Lease) which would cause the transaction contemplated under this Lease to constitute an unrelated trade or business determined by applying Section 513(a) of the Code; and (e) will not take any action or omit to take any action which, if taken or omitted, would adversely affect the tax-exempt status of interest payable on the Series A Bonds. At all times during the term of this Lease, Landlord shall not assign its rights under this Lease (except to Trustee pursuant to the Indenture and the Mortgage) without the prior written consent of Tenant and Bond Insurer and the opinion of

nationally recognized bond counsel to the effect that such assignment will not adversely affect the tax-exempt status of interest payable on the Series A Bonds. At all times from and after the Effective Date of this Lease, Tenant covenants that it will not take any action or omit to take any action which, if taken or omitted, would adversely affect the tax-exempt status of interest payable on the Series A Bonds.

8. Liens.

8.1 Covenant Against Liens. Except for the Indenture and the Mortgage incurred by Landlord in compliance with the provisions of Sections 9 and 11 of this Lease to secure the Bonds, Landlord covenants and agrees that it shall not during the Term of this Lease suffer or permit any Liens to be attached to, upon or against the Premises, or any portion thereof or any Rent payable under this Lease for any reason, including without limitation, Liens arising out of the possession, use, occupancy, acquisition, construction, repair, or rebuilding of the Premises or by reason of the furnishing of labor, services, materials, or equipment to the Premises or to Landlord. Tenant acknowledges that Landlord shall cause Developer to keep the Premises free and clear of all construction liens resulting from the initial construction of the Project (including the right to contest same by appropriate proceedings conducted in good faith with due diligence) under the terms of the Development Agreement prior to the Commencement Date of this Lease. If Developer shall fail to do so, Landlord shall protect, defend, indemnify and hold Tenant harmless against any such liens. Landlord agrees to indemnify, protect, defend and hold Tenant harmless from and against all liabilities, losses, damages, expenses and costs (including reasonable attorneys' fees and costs) incurred in connection with any such Lien. Landlord's obligations pursuant to this Section 8.1 shall survive the Expiration Date of this Lease. Tenant covenants and agrees that, from and after the Commencement Date, it shall not during the Term of this Lease suffer or permit any Liens to be attached to, upon or against the Premises, or any portion thereof or its leasehold interest in the Premises for any reason, including without limitation, Liens arising out of the possession, use, occupancy, acquisition, maintenance, operation, repair, or rebuilding of the Premises or by reason of the furnishing of labor, services, materials, or equipment to the Premises or to Tenant.

8.2 Covenant to Remove Liens. Landlord will promptly, and in all events within thirty (30) days following the attachment of same, remove and discharge any and all Liens which attach to, upon or against the Premises or any portion thereof, or any leasehold interest of Tenant created under this Lease (other than liens or encumbrances arising through the actions of Tenant). Landlord reserves the right to contest the validity or amount of any such Lien in good faith provided that, within thirty (30) days after the filing of such Lien, Landlord discharges said Lien of record or records a bond which complies with the requirements of RCW 60.04.161 eliminating said Lien as an encumbrance against the Premises. In the event Landlord shall fail to so remove any such Lien, Tenant may take such action as Tenant shall reasonably determine to remove such Lien and all costs and expenses incurred by Tenant including, without limitation, amounts paid in good faith settlement of such Lien, and attorneys' fees and costs shall be paid by Landlord to Tenant together with interest thereon at the rate of twelve percent (12%) interest per annum from the date advanced until paid. Landlord's obligations pursuant to this Section 8.2 shall survive the Expiration Date of this Lease and, unless properly incurred under other provisions of this Lease, the costs of such obligations shall not be included as Operating Costs hereunder.

8.3 Tenant's Disclaimer. Notwithstanding the consent or request of Tenant, express or implied, for the performance of any labor or services or for the furnishing of any materials or equipment for any construction, alteration, addition, repair or demolition of or to the Premises (or any part thereof), LANDLORD AND TENANT AGREE AND NOTICE IS HEREBY GIVEN THAT TENANT WILL NOT BE LIABLE FOR ANY LABOR, SERVICES, MATERIALS OR EQUIPMENT FURNISHED OR TO BE FURNISHED TO LANDLORD, DEVELOPER OR ANYONE HOLDING AN INTEREST IN THE PREMISES (OR ANY PART THEREOF) THROUGH OR UNDER LANDLORD OR DEVELOPER, AND THAT NO CONSTRUCTION OR OTHER LIENS FOR ANY SUCH LABOR, SERVICES, MATERIALS OR EQUIPMENT SHALL ATTACH TO OR AFFECT THE INTEREST OF TENANT IN THE PREMISES. Nothing in this Section 8.3 shall relieve Tenant of its obligations to pay Rent hereunder.

9. Construction of Project. Tenant would not have entered into this Lease but for the agreement by Landlord to undertake, at Landlord's sole cost and expense, the Project, including without limitation (i) the obtaining of financing for the Project, (ii) the acquisition of a leasehold interest in the Land by way of the Ground Lease, and (iii) the construction and equipping of the Premises for use by Tenant primarily as medical offices and a parking garage. It is of critical importance to Tenant that the construction of the Project on the Land be completed in a timely manner, within the Project Budget and thereafter, if so elected by Tenant in accordance with this Lease, professionally managed by Landlord. Accordingly, Landlord shall diligently cause the Project to be designed, constructed and prosecuted to completion in a good and workmanlike manner and in accordance with the provisions of this Section 9, free and clear of all Liens and otherwise in accordance with the requirements of this Lease. In order to assure timely communications between Landlord and Tenant during the construction process, any notice to Tenant requiring or permitting a response by Tenant shall specify the outside date by which Tenant's response must be received to be effective.

9.1 Development Agreement. To meet the requirements of this Lease for completion of the Project, Landlord shall, simultaneously with the execution of this Lease by the parties, enter into the Development Agreement with Developer. As part of the Development Agreement. Landlord shall cause Developer to procure and maintain, at a minimum, for the duration of the Development Agreement, insurance as more particularly described in the attached **EXHIBIT J**, against claims for injuries to persons or damages to property which may arise from, or in connection with, the performance of work pursuant to the Development Agreement by Developer, its agents, representatives, employees and/or subcontractors. The cost of such insurance shall be paid by Developer or its subcontractors.

9.2 Schedule for Design and Construction. Landlord and Tenant acknowledge and agree that the dates set forth in the initial Project Schedule attached hereto as **EXHIBIT C** and by this reference incorporated herein, and as revised from time to time in accordance with the terms of the Development Agreement, shall serve as target dates for achieving the matters set forth therein. In order to ensure to the greatest extent practicable that the Project is designed, permitted and completed on or before the dates set forth in the Project Schedule, Landlord and Tenant shall each proceed with all necessary due diligence and in good faith to complete such matters as require action or approval on the part of Tenant and Landlord. Landlord shall, following consultation with Tenant, promptly and diligently respond to all

questions and concerns raised by Developer or by the Architect, Interior Architect, Contractors, engineers or other consultants.

(a) Notices from Developer to Landlord. To ensure that Tenant is fully apprised of decisions required of Landlord pursuant to the Development Agreement, Landlord shall require Developer to simultaneously provide to Tenant and Bond Insurer a copy of all notices, plans and specifications, change orders, Project Applications for Payment, progress reports, invoices, cash flow reports, documents or other agreements required to be delivered by Developer to Landlord under the Development Agreement and Landlord shall also simultaneously provide to Tenant and Bond Insurer a copy of all notices, plans and specifications, change orders, invoices, cash flow reports, documents or other agreements required to be delivered by Landlord to Developer under the Development Agreement. In addition, Tenant and Bond Insurer shall have the right, but not the obligation, to attend all meetings, including without limitation, design meetings with Developer, Architect, Interior Architect and all other design professionals as appropriate in the course of development of all Construction Documents.

(b) Notices by Tenant to Landlord and Developer. To ensure that Developer is fully apprised of Tenant's position on Project decisions to be made by Landlord, Tenant shall have the right to simultaneously provide to Developer a copy of any notice Tenant issues to Landlord hereunder. Such notice shall be sent to Developer at the following address by messenger or fax:

Wright Runstad Associates Limited Partnership
Attn: Cindy Edens, Gregory K. Johnson and H. Jon Runstad
1201 Third Avenue, Suite 2700
Seattle, WA 98101
Fax: 206-223-8791

(c) Tenant's Construction Representative. Landlord shall, and shall direct Developer to, direct all notices and submittals required to be sent to Tenant hereunder to the attention of Tenant's Construction Representative.

9.3 Plans and Specifications.

(a) Preliminary Plans and Outline Specifications. As of the date of this Lease, Tenant has reviewed and accepted the Project Requirements for the Project to be constructed on the Land, including the Preliminary Plans and Outline Specifications, a list of which is attached to this Lease as **EXHIBIT B**. In addition, Tenant has reviewed and accepted the Project Budget which sets forth a detailed itemization by line item and category for all Project Costs, including the Tenant Contingency, the Project Contingency, the Tenant Improvement Allowance, and Developer's fees as set forth therein.

(b) Construction Drawings and Detailed Specifications. Landlord will cause the preparation by Architect of Construction Drawings and Detailed Specifications for the Base Shell and Core Building and shall cause the preparation by Interior Architect of plans and specifications for Tenant Improvements, in each case for review and acceptance by Tenant.

Landlord shall, following consultation with Tenant, cooperate in good faith with Developer to cause a completed design which meets all Requirements of Law and is consistent with all Project Requirements and the building quality reflected therein. Accordingly, as provided above, Developer will provide Tenant a copy of all submittals requiring Landlord's review and approval pursuant to the Development Agreement, as and when such submittals are provided to Landlord. Tenant shall only have the right to disapprove interim and final sets of such Construction Drawings and Detailed Specifications which (i) do not meet the Project Requirements, or (ii) do not comply with Requirements of Law, or (iii) do not comply with previous iterations of the Construction Drawings and Detailed Specifications in all material respects, or (iv) propose changes in work or materials that would result in a material change in appearance or diminution in quality of the Project. Tenant shall have the right to give notice to Landlord disapproving any such iterations of the Construction Drawings and Detailed Specifications, and Landlord shall notify Developer in the manner and within the time period set forth in the Development Agreement. If Tenant fails to issue such notice so as to allow Landlord to make timely objection or comment, such submittals shall be deemed approved by Tenant. The final Construction Drawings and Detailed Specifications setting forth in detail the requirements for the construction of the Project which have been approved by Landlord, following consultation and concurrence by Tenant, shall be the Construction Documents.

(c) ***Factory Mutual Engineering Plan Review.*** Landlord shall cause Developer to submit to Factory Mutual Engineering Association ("Factory Mutual"), for its review, plans of all elements of the Project's design and construction, when and as specified in the Development Agreement.

(d) ***Changes to Construction Documents.*** Landlord has directed that Developer provide Tenant a copy of all proposed changes in the Construction Documents requiring Landlord's review and/or approval pursuant to the Development Agreement, as and when such proposed changes are provided to Landlord. Tenant shall have the right to give notice to Landlord disapproving any such proposed change in the Construction Documents within the time period set forth in the notice of any such proposed change. If Tenant fails to issue such notice so as to allow Landlord to make timely objection or comment, any such change shall be deemed approved by Tenant. If Tenant timely disapproves any such proposed change, Tenant shall notify Landlord in writing specifying the reason for its disapproval and Landlord shall so notify Developer. Tenant shall only have the right to disapprove changes which (i) are not a consistent development of the Project Requirements in all material respects, (ii) do not meet Project Requirements, (iii) do not comply with Requirements of Law, (iv) would violate the terms of any permits, (v) would cause the Project Schedule to be adversely impacted as a result of such proposed changes, or (vi) involve proposed changes in work or materials which would result in a material change in appearance or diminution in quality of the Project. Disputes regarding a proposed change in the Construction Documents shall be subject to the dispute resolution process set forth in Section 9.7 of this Lease.

9.4 Tenant's Contingency; Public Art.

(a) ***Tenant's Contingency.*** The Project Budget includes the Tenant's Contingency. During the course of the Project, Tenant may request changes in the Project, but if Tenant requires any material improvement or material deviation in the Construction Documents

or the Detailed Specifications from the design or level of quality reflected in the Preliminary Plans and Outline Specifications, any resulting increase in design or construction Project Costs will be charged against the Tenant's Contingency up to its full amount. No further design changes shall be permitted unless Landlord and Tenant agree to an adjustment in Rent to compensate for any resulting increase in Project Costs. To the extent that the Construction Drawings and Detailed Specifications are consistent developments of the Preliminary Plans and Outline Specifications, the Fixed Price shall not be adjusted for any change in the Project Costs required to construct the Project in accordance with such Construction Documents. Any portion of the Tenant's Contingency unexpended upon Final Acceptance of the Project shall be applied as provided in Section 9.12 below.

*(b) **Public Art.*** The Project Budget includes $897,000 to provide public art consistent with the spirit and intent of King County's Public Art Program. Landlord shall coordinate with Tenant during the review and approval process for and selection of public art for the Project, which approval shall not be unreasonably withheld; provided, however, that Landlord may condition or withhold approval for the installation of any public art in the Project if it would have a material and adverse effect on the construction of the Project or on the Project Schedule. The cost of any such public art shall not be included in the Fixed Price.

*(c) **Other Costs.*** Other Costs, as defined in the Development Agreement, include, but are not limited to, the amounts described in Section 9.4(b) with respect to public art. Other Costs shall not be included in the determination of the Fixed Price. Any portion of Other Costs not used for the Project shall be added to the Tenant's Contingency. If the cost of the items of work described under the heading "Other Costs" in the Project Budget exceeds $1,602,000, Landlord shall have no obligation for such excess amount unless Landlord and Tenant agree to an adjustment to Rent to compensate for any such excess costs.

9.5 Tenant Improvements Construction Schedule. Tenant Improvements in the Project beyond those delivered by Developer on the Initial Occupancy Date will be completed by Developer in accordance with Section 2(c) of the Development Agreement by the Tenant Improvement Obligation Date.

*(a) **Identification of User and User Spaces.*** On or before September 1, 2007, Tenant shall provide Landlord and Developer with the names and location of all Users within the Building and the User Space to be subleased, used or occupied by such Users. Tenant's failure to meet this date may be an Owner-Caused Delay as defined in the Development Agreement. Following the identification of such Users and User Spaces, Developer is required to prepare and submit to Landlord, Tenant and the applicable User for their review and approval a Tenant Improvement Design Schedule. Tenant and the applicable User shall not unreasonably withhold or delay approval of any such Tenant Improvement Design Schedule.

*(b) **Tenant Improvement Package.*** Upon approval of the Tenant Improvement Design Schedule for a User Space, Developer shall prepare all four components of the Tenant Improvement Package and submit them to each of Landlord, Tenant and User for its review and approval. Failure by Tenant or any User to adhere to any of the response times included in the Tenant Improvement Design Schedule may be an Owner-Caused Delay as defined in the Development Agreement. Tenant shall, and shall require each User to, work with

Developer and Landlord in a commercially reasonable and good faith manner to complete each Tenant Improvement Package as expeditiously as reasonably possible.

(c) Construction Schedule. Developer shall not be required to commence construction of Tenant Improvements in a User Space until each element of the Tenant Improvement Package for that User Space has been agreed upon in writing by each of Developer, Landlord, Tenant and User. The construction schedule shall not be established until all of the other components of the Tenant Improvement Package have first been agreed upon in final form. When establishing the construction schedule, due consideration shall be given to the complexity of the Tenant Improvements being constructed, any long lead time materials that will be required and the number of other Tenant Improvement projects in the Building that will be occurring simultaneously. The construction schedule shall include a date by which the Tenant Improvements in the User Space are expected to be substantially completed (meaning completed except for minor Punch List items that do not materially interfere with the User's use of the User Space).

(d) Failure to Achieve Timely Substantial Completion of Tenant Improvements. In the event Developer fails to substantially complete the Tenant Improvements in a User Space by the Tenant Improvement Obligation Date (provided that a final Tenant Improvement Package has been agreed upon in writing by each of Developer, Landlord, Tenant and User by July 1, 2008), Landlord shall cause Developer , commencing on the first day after the Tenant Improvement Obligation Date and thereafter on the first day of each calendar month, to pay to Landlord an amount equal to the Monthly Rent payable under the Project Lease for such User Space (based on the ratio of the rentable area of such User Space to the rentable area of the Project), until such Tenant Improvements have been substantially completed and Tenant shall be relieved of its obligation for that portion of the Monthly Rent until the Tenant Improvements for the User Space are substantially completed. The Monthly Rent paid by Developer shall be prorated if a partial month elapses before the Tenant Improvements have been substantially completed.

(e) Deadline for Tenant Improvements. The Development Agreement provides that Developer is only obligated to manage the construction of Tenant Improvements for which Developer has received an approved Tenant Improvement Package pursuant to this Section 9.5 on or before July 1, 2008, unless a separate agreement is reached whereby Developer will be paid an additional developer's fee and additional overhead for any construction work extending beyond the Tenant Improvement Obligation Date. Accordingly, Landlord and Tenant shall use their commercially reasonable best efforts to complete all Tenant Improvement Packages by such date.

9.6 Tenant Improvement Allowance. The Fixed Price includes the Tenant Improvement Allowance for design and construction of Tenant Improvements. If the total cost of designing and constructing the Tenant Improvements is less than the Tenant Improvement Allowance, all excess funds in the Tenant Improvement Allowance shall be subject to Section 9.12 below. If the total cost of designing and constructing the Tenant Improvements desired by Tenant is greater than the Tenant Improvement Allowance, Landlord shall have no obligation to cause such Tenant Improvements to be designed and constructed.

9.7 Dispute Resolution Process. Tenant and Landlord agree to follow the independent resolution process set forth in this Section 9.7 to resolve disputes regarding preparation of the Construction Drawings and Detailed Specifications and changes to Construction Documents in an economic and time efficient manner so that such documents conform to the requirements of this Lease, the Project Schedule is not adversely impacted, and the Project as constructed will satisfy the Project Requirements. In the event that a dispute arises between Tenant and Landlord during the design or construction of the Project regarding the adequacy of any Drawings or Specifications or the responsibility for any costs associated with any design development, addition or change (e.g., whether any design development is consistent with and reasonably inferable from the Project Requirements), the parties shall attempt to resolve such dispute as expeditiously as possible and shall cooperate so that the progress of the design and construction of the Project is not delayed. If, however, the parties are unable to resolve the dispute within three (3) business days, either party may, by delivering written notice to the other and the Bond Insurer, refer the matter to a dispute resolution mediator as set forth on the attached **EXHIBIT G.**

9.8 Permits; Costs; Compliance with Legal Requirements. Landlord shall cause Developer to secure all permits, licenses, permissions, consents and approvals required to be obtained from governmental agencies or third parties in connection with construction of the Project pursuant to Requirements of Law. In addition, if final plans for any Tenant Improvements are not completed at the time the application for the building permit for the Base Shell and Core Building is submitted, the cost of any additional building permits for Tenant Improvements shall be paid from the Tenant Improvement Allowance. Tenant shall join in the application for such permits or authorizations whenever such joinder is required; provided, however, Tenant shall incur no expense or liability in connection therewith. Landlord shall cause all work on the Premises during the Term to be performed in accordance with the Development Agreement and all Requirements of Law and all directions and regulations of all governmental agencies and the representatives of such agencies having jurisdiction over the Project and/or the Premises.

9.9 Construction Contracts. Landlord intends to contract for the construction of the Project directly with the General Contractor and to cause Developer to serve as construction manager in connection therewith pursuant to the provisions of the Development Agreement. Prior to its execution, Landlord shall provide Tenant with a copy of the General Construction Contract with the General Contractor for Tenant's information. In addition, Tenant shall have the right to view, for its own information, all Construction Contracts and the bids submitted by potential Contractors and subcontractors.

(a) General Contractor's Insurance. By the date of the execution of the General Construction Contract between Landlord and General Contractor, Landlord shall cause the General Contractor to procure and maintain, at a minimum, for the duration of that General Construction Contract the insurance described in the attached **EXHIBIT K** against claims for injuries to persons or damages to property which may arise from, or in connection with the performance of work thereunder by the General Contractor, its agents, representatives, employees and/or subcontractors. The cost of such insurance shall be paid by the General Contractor or its subcontractor.

(b) No Assumption of Risk. By requiring such minimum insurance, Landlord shall not be deemed to, or construed to, have assessed the risks that may be applicable to the General Contractor in the General Construction Contract. The General Contractor shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits or broader coverage.

9.10 Construction of Project. Landlord shall use its reasonable best efforts to commence initial construction of the Project following receipt of the building permits, and thereafter, Landlord shall cause construction of the Project to be diligently and continuously prosecuted. All work shall be performed in a good and workmanlike manner, shall be free of defects in the work and materials and shall be constructed in substantial accordance with the Contract Documents, the requirements of this Lease and Requirements of Law. Landlord shall use its reasonable best efforts to cause Substantial Completion of the Garage on or before January 2008, and to cause the Initial Occupancy Date to occur by November 2008.

9.11 Payment of Project Costs and Other Costs Associated with the Project. Throughout the course of construction of the Project, Developer shall submit to Landlord on a monthly basis Project Applications for Payment, as defined in, and in the manner, and with all supporting documentation described in, the Development Agreement. Pursuant to Section 9.2(a) above, Landlord shall require Developer to simultaneously provide Tenant and Bond Insurer with a copy of all such Project Applications for Payment and supporting documentation. Tenant shall have the right, but not the obligation, to give notice to Landlord objecting to any aspect of such submittals and Landlord shall notify Developer in the manner and within the time period set forth in the Development Agreement. If Tenant fails to give such notice so as to allow Landlord to make timely objection, Landlord shall be free to approve or to take such other action as it deems appropriate with respect to any such submittal. Any dispute with respect to Project Applications for Payment shall be subject to dispute resolution pursuant to Section 9.7 above.

9.12 Savings. Upon Final Acceptance of the Project, Landlord shall provide Tenant and Trustee notice of the unexpended amount of the Tenant Improvement Allowance, the Tenant's Contingency, and the Project Contingency. One hundred percent of the unexpended portion of the Tenant Improvement Allowance and the Tenant's Contingency, if any, and the unexpended portion of the Project Contingency, if any, after payment to Developer of its share of Savings, as defined in, and pursuant to, Section 12(h) of the Development Agreement, shall be applied as provided in the Indenture.

9.13 Installation of the IEB Generator. Landlord shall use its commercially reasonable best efforts to cause Developer to achieve Substantial Completion of the IEB Generator not later than the IEB Generator Completion Date. If installation of the IEB Generator is not complete by the IEB Generator Completion Date, Landlord shall cause Developer to pay directly to Tenant $5,000 per day as liquidated damages for Developer's failure to achieve Substantial Completion of the IEB Generator by such Date.

9.14 Substantial Completion of the Project. Substantial Completion of the Project shall have occurred when all of the events described in Sections 1.62, 1.63 and 1.64 of this Lease have occurred.

9.15 Final Acceptance. Final Acceptance of the Project shall have occurred when all of the events set forth in Section 1.25 of this Lease have occurred.

9.16 As-Built Plans and Specifications; Manuals; Warranties; Permits and Licenses; and Survey. On or before Final Acceptance of the Project, Landlord shall provide Tenant with a complete and detailed set of "as-built" plans and specifications for the Project (Tenant Improvements to be provided on CAD), together with copies of all other materials received from Developer pursuant to the Development Agreement including manuals, warranties, permits and licenses and an as-built survey.

9.17 Inspection by Tenant. Tenant and Bond Insurer shall have the right to inspect the on-going construction of the Project and the Contract Documents upon reasonable prior notice to Landlord. In addition, Tenant shall have the right to have an independent consulting architect, engineer or other appropriate consultant inspect the Project and the Contract Documents. Landlord shall cause Developer to provide Tenant's Construction Representative and Bond Insurer with all updates of the status of the construction of the Project issued to Landlord in accordance with the Development Agreement.

9.18 Unavoidable Delays. Notwithstanding the provisions of Sections 9.9, 9.13 and 9.14 above, the dates for obtaining permits, commencing construction and achieving Substantial Completion of the Garage, Substantial Completion of the Project, the Initial Occupancy Date and Final Acceptance of the Project shall be extended for Unavoidable Delays. In the event that the Initial Occupancy Date does not occur on or prior to the Developer Obligation Date, Landlord shall require that Developer pay to Trustee on the first day of each month an amount equal to the Monthly Rent prorated retroactively for a partial month until the earlier of the Initial Occupancy Date or termination of this Lease pursuant to Section 9.19 of this Lease. If Developer has made any payments to Trustee pursuant to the provisions of the Development Agreement, upon Final Acceptance, if there are funds remaining in the Project Fund (as defined in the Indenture) prior to final disbursement of said Project Fund (i.e., sharing of contingency funds), Developer and Landlord, with written concurrence by the Tenant, shall determine and direct Trustee to pay to Developer any additional interest earnings that accrued on the undisbursed funds in the Bond Proceeds Subaccount within the Project Fund (all as defined in the Indenture) as a direct result of such delay in excess of interest that would have accrued absent such delay.

9.19 Termination of Lease. Upon sixty (60) days' prior written notice to Landlord and in the event that the Initial Occupancy Date has not occurred for any reason whatsoever including, but not limited to Unavoidable Delays described in Section 9.18 above by December 31, 2011, Landlord shall be in default under this Lease and Tenant shall have the right to terminate this Lease, without liability to Landlord.

9.20 No Amendment of Documents. In the event Landlord desires to amend the Architect's Agreement, the General Construction Contract, any Contract Document, the Development Agreement, the Indenture, the Mortgage, or any other document, contract or agreement entered into in connection with the Project or the Bonds, Landlord shall submit a copy of such proposed amendment to Tenant. In the event Tenant notifies Landlord within five (5) business days following receipt of such proposed amendment of its objection to such proposed

amendment, Landlord shall not enter into the proposed amendment unless (i) Landlord first responds to the concerns expressed by Tenant and (ii) any such amendment does not materially and adversely affect the Project.

10. Maintenance and Modification.

10.1 Maintenance and Repair. Except as otherwise expressly provided herein and except for warranty claims for which Developer is responsible as provided in the Development Agreement and except for damage caused by the negligent acts or omissions of Landlord, from and after the date of Substantial Completion of the Garage with respect to the Garage portion of the Premises and from and after the Commencement Date of this Lease with respect to the entire Premises, Tenant shall, at Tenant's sole cost and expense, maintain the Premises and appurtenances and every part thereof in good order, condition and repair and will take all action and will perform all interior and exterior, structural and non-structural, foreseen and unforeseen, ordinary and extraordinary, maintenance and repairs required to keep all parts of the Premises in good repair and condition, subject only to ordinary wear and tear. Except as otherwise expressly provided herein and except for warranty claims which Landlord shall cause Developer to cure or remedy in accordance with the provisions of the Development Agreement, Landlord shall not be required to pay for the cost required to maintain all or any part of the Premises in good order, condition and repair.

10.2 Management of Premises; Accounting.

(a) Property Management. Tenant may at any time following Substantial Completion of the Garage or Project, as applicable, request that Landlord enter into a property management agreement in form and substance satisfactory to Landlord and Tenant under which the appointed property manager may assume some or all of the obligations of a property manager for all or a portion of the Premises. Landlord may also enter into a property management agreement in form and substance satisfactory to Landlord in accordance with the provisions of Section 10.3 of this Lease. Any such property management agreement shall comply with Revenue Procedure 97-13 or any successor revenue procedure issued by the U.S. Treasury governing management, operation or other service contracts for facilities financed by the issuance of tax-exempt obligations. The appointed property manager shall at all times operate the Premises in compliance with all Requirements of Law and in compliance with the terms and provisions of this Lease and the property management agreement. Such private property manager shall have experience managing buildings of comparable size and quality and shall be paid a management fee not in excess of the management fee customarily charged by other property managers who manage similar buildings. If a property management agreement is terminated in accordance with the provisions therein due to a material and uncured default by the property manager, Landlord shall have the ability to replace the property manager with a private professional property management company selected by Landlord and not unreasonably objected to by Tenant.

(b) Financial Statements. As soon as reasonably possible and in any event within ninety (90) days after the close of each fiscal year of Landlord, Landlord shall deliver to Tenant, Trustee, and Bond Insurer the (i) consolidated balance sheet of Landlord and the Premises as at the end of such fiscal year setting forth in comparable form the corresponding

figures as at the end of the preceding fiscal year, certified as to accuracy by an officer of Landlord; (ii) statements of income, retained earnings and changes in financial position for such fiscal year of Landlord and the Premises setting forth in comparable form the corresponding figures for the previous fiscal year prepared in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year or containing disclosure of the effect on financial position or results of operations of any change in the application of accounting principles during the year certified as to accuracy by an officer of Landlord; (iii) operating statement for the Premises for the preceding fiscal year certified as to accuracy by an officer of Landlord; and (iv) certificate executed by an officer of Landlord certifying compliance by Landlord with the requirements of this Lease, the Mortgage, the Indenture and the Bonds. Such year-end balance sheet and income statements of the Premises shall be accompanied by an unqualified report and audit opinion of independent public accountants of recognized standing selected by Landlord and not objected to by Tenant, which report and opinion shall be in accordance with generally accepted auditing standards relating to reporting, or, if qualified, the opinion shall not be qualified due to any departure from any generally accepted accounting principles, and shall be accompanied by a statement of such accountants that in making the audit necessary for the certification of such financial statements and any such report, such accountants have obtained no knowledge of any default under this Lease, the Mortgage, the Indenture, the Bonds or any other evidence of indebtedness or of any event which, with notice or lapse of time, or both, would constitute an event of default under this Lease, the Mortgage, the Indenture, the Bonds or any other evidence of indebtedness or, if in the opinion of such accountants any such event of default or other event shall exist, shall include a statement as to the nature and status thereof.

(c) Asset Management Fee. As compensation for its services in overseeing the management of the Premises and the preparation of financial statements, Tenant shall pay Landlord an asset management fee equal to 0.667% of the Monthly Rent payable under this Lease. Such asset management fee shall be paid monthly in advance at the same time and in the same manner that Monthly Rent is paid.

10.3 Landlord's Remedies. Tenant shall diligently pursue all necessary or appropriate maintenance and repairs in accordance with its obligations under Section 10.1 hereof, but failure to do so shall not constitute an Event of Default. However, if, based on inspections of the Premises permitted under Section 25 hereof, Landlord becomes aware of needed maintenance or repairs, Landlord shall provide Tenant written notice of any maintenance or repair required to the Premises. Tenant shall have sixty (60) days after receipt of notice from Landlord detailing the need for maintenance or repair, to commence to perform such maintenance and repair, except that Tenant shall perform its obligations as soon as reasonably possible if the nature of the problem presents a hazard or emergency. If Tenant does not perform such maintenance and repair within the time limitations set forth in this Section 10.3, provided written notice has been given to Tenant as provided in this Section 10.3, Landlord may, with the prior written consent of Tenant, perform such maintenance and repair and shall, in that event, have the right to be reimbursed by Tenant for the sum it actually expends in the performance of such work. In connection with Landlord's exercise of default remedies under Section 22 hereof, Landlord shall have the right, but not the obligation, upon thirty (30) days' written notice to Tenant, to enter into a property management agreement in form and substance satisfactory to Landlord under which the appointed property manager shall assume all obligations of a property

manager for the Premises. Any such property management agreement shall comply with the requirements of Section 10.2(a) hereof.

10.4 Modifications, Alterations and Additions. From and after the Commencement Date, Tenant may, at Tenant's sole cost and expense, make modifications, alterations and additions to the Premises provided that such modifications, alterations and additions do not decrease the value of the Premises, and such modifications, alterations and additions shall be expeditiously completed in a good and workmanlike manner and in compliance with all applicable Laws and the requirements of all insurance policies required to be maintained by Tenant, without further consent from Landlord. Landlord shall, upon reasonable notice, have access to all plans and specifications relating to alterations and modifications made by Tenant to the Premises.

11. Landlord Financing of Project. Landlord shall not have the right to mortgage, pledge, encumber or assign the Premises in whole or in part except in connection with its financing of the Project through Bonds issued by Landlord pursuant to the Indenture and secured by the Mortgage. Copies of the Indenture and the Mortgage securing the Bonds shall be provided to and shall be approved by Tenant, which approval shall not be unreasonably withheld provided Tenant receives an opinion from nationally recognized bond counsel acceptable to Tenant that the interest on the Series A Bonds secured by such Mortgage is exempt from taxation under the provisions of the Code. The Mortgage shall expressly provide that so long as Tenant is not in default under any of the terms, covenants or conditions of this Lease, the beneficiary under the Mortgage shall not disturb Tenant's possessory rights in the Premises in the event such beneficiary should foreclose the Mortgage.

12. Construction Liens. From and after the Commencement Date of this Lease, Tenant shall pay all costs for modifications, alterations and additions done by it or caused to be done by it on the Premises as permitted by this Lease (other than the construction of the Project) and Tenant shall keep the Premises free and clear of all construction liens resulting from modifications, alterations and additions done by or for Tenant; provided, however, Tenant shall have the right to contest the correctness or validity of any such Lien by appropriate proceedings conducted in good faith with due diligence. Within thirty (30) days following written notice from Landlord, Tenant shall discharge said Lien of record or record a bond which complies with the requirements of RCW 60.04.161 eliminating said Lien as an encumbrance against the Premises if in the reasonable exercise of Landlord's judgment the protection of the Premises or Landlord's interest therein shall require such payment. In the event Tenant shall fail to so remove any such Lien, Landlord may take such action as Landlord shall reasonably determine to remove such Lien and all costs and expenses incurred by Landlord including, without limitation, amounts paid in good faith settlement of such Lien and attorneys' fees and costs shall be paid by Tenant to Landlord. Tenant's obligations pursuant to this Section 12 shall survive the Expiration Date of this Lease.

Tenant acknowledges that Landlord shall cause Developer to keep the Premises free and clear of all construction liens resulting from the initial construction of the Project (including the right to contest same by appropriate proceedings conducted in good faith with due diligence) under the terms of the Development Agreement prior to the Commencement Date of this Lease.

If Developer shall fail to do so, Landlord shall protect, defend, indemnify and hold Tenant harmless against any such liens.

13. Indemnity and Hold Harmless. Landlord and Tenant mutually agree that in any and all causes of action and/or claims or third party claims arising out of or in connection with the terms, activities, use and/or operations of this Lease, including the Premises, each party shall be responsible to the other only to the extent of each other's comparative fault in causing the alleged damages or injuries.

As to any and all causes of action and/or claims or third-party claims arising from the sole fault of a party to this Lease, the indemnifying party shall have the duty to defend, save and hold the other party harmless and upon failure to do so, the indemnifying party shall pay reasonable attorneys' fees, costs, and expenses incurred by the other party to this Lease in defense of said claims and/or actions.

Nothing contained within this Section 13 shall affect and/or alter the application of any other provision contained within this Lease.

14. Minimum Scope of Insurance Coverage for Landlord.

14.1 Landlord's Coverages. During the Term of this Lease, Landlord shall at a minimum maintain: Commercial General Liability insurance (Insurance Services Office form number (CG00 01), covering Commercial General Liability with a limit of not less than $1,000,000 combined single limit per occurrence; $2,000,000 aggregate. In addition, Landlord shall maintain workers' compensation coverage as required by the Industrial Insurance Act of the State of Washington, statutory limits.

14.2 Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by the Tenant. The deductible and/or self-insured retention of the policies shall not limit or apply to the Tenant and shall be the sole responsibility of Landlord.

14.3 Other Insurance Provisions. The insurance policies required by this Lease are also to contain or be endorsed to contain the following provisions where applicable:

(a) Liability Policies:

(1) The Bond Insurer, the Trustee and the Tenant, their officers, officials, employees and agents are to be covered as additional insureds as respects liability arising out of activities performed by or on behalf of Landlord in connection with this Lease.

(2) Landlord's insurance coverage shall be primary insurance as respects the Bond Insurer, Trustee and Tenant, their officers, officials, employees and agents. Any insurance and/or self insurance maintained by Bond Insurer, Trustee and Tenant, their officers, officials, employees and agents shall not contribute with the Landlord's insurance or benefit Landlord in any way.

(3) Landlord's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(b) All Policies. Coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except by the reduction of the applicable aggregate limits by claims paid, until after forty-five (45) days' prior written notice has been given to Landlord, Tenant, Trustee and Bond Insurer.

(c) Acceptability of Insurers. Unless otherwise approved by Tenant and Bond Insurer:

(1) Insurance is to be placed with insurers with a Best's rating of no less than A:VIII, or, if not rated by Best's with a rating in one of the two highest categories maintained by Standard & Poor's Ratings Services and Moody's Investors Service.

(2) If at any time any of the foregoing policies shall fail to meet the above minimum standards Landlord shall, upon notice to that effect from Tenant promptly obtain a new policy and shall submit the same to Tenant and Bond Insurer with certificates and endorsements, for approvals.

15. Minimum Scope of Insurance Coverage for Tenant.

15.1 General Liability. During the Term of this Lease, Tenant shall have the right to self-insure under Section 15.2 or, at its sole cost and expense, shall obtain and keep in force throughout the Term of this Lease a Commercial General Liability insurance policy on an-occurrence basis insuring Tenant against claims for injuries to persons and property damage liability. "Commercial General Liability" insurance shall mean Insurance Services Office form number (CG00 01) with a limit of not less than $1,000,000 combined single limit per occurrence, $2,000,000 aggregate. Tenant agrees to add Landlord, Trustee and the Bond Insurer as additional insureds to any Commercial General Liability insurance policy.

15.2 Self-Insurance by Tenant. Notwithstanding anything herein to the contrary, Tenant may self-insure for general liability coverage, provided that Tenant maintains at all times a program of self-insurance and provides Landlord, Trustee and Bond Insurer annually with a certified actuarial statement from an independent insurance consultant or actuary that such program is in full force and effect and is actuarially sound and consistent with industry standards and prudent risk management standards. Annual evidence of Tenant's program of self-insurance is and shall continue to be included in the Tenant's financial report and shall be provided to Landlord, Trustee and Bond Insurer. Tenant agrees to provide Landlord and Bond Insurer with at least thirty (30) days' prior written notice of any change in Tenant's self-insured status and will provide Landlord and Bond Insurer with a certificate of self-insurance as adequate proof of insurance. In the event Tenant fails to satisfy the condition set forth above, Tenant shall immediately procure the Commercial General Liability insurance coverage specified in Section 15.1. If Tenant elects to self-insure as set forth in this Section, Tenant acknowledges and agrees that Landlord shall have no liability for such losses or damage which would otherwise have been covered by the general liability insurance which Tenant could have provided in

accordance with Section 15.1 of this Lease, nor shall Tenant's failure to obtain commercial general liability insurance have any effect on Tenant's obligations under this Lease.

15.3 Workers' Compensation. Landlord acknowledges, agrees and understands that Tenant is self-insured for all of its workers' compensation liability exposure. Tenant agrees, at its own expense, to maintain through its self-insurance program coverage for its workers' compensation liability exposure for the duration of the Term of this Lease. Tenant agrees to provide Landlord and Bond Insurer with at least thirty (30) days' prior written notice of any change in the Tenant's self-insured status and will provide Landlord and Bond Insurer with a certificate of self-insurance as adequate proof of insurance.

16. Property Insurance.

16.1 Coverage for Premises. From and after the Commencement Date of this Lease, Tenant agrees that it shall cause the Premises to be insured at 100% of replacement value for fire and other perils currently covered by a special causes of loss commercial property insurance form. Such coverage shall include twelve (12) months of rental interruption coverage and shall name Trustee as loss payee as its interests may appear. Tenant further agrees to cause the Premises to be insured against the perils of earthquake and flood, either as part of the aforementioned commercial property policy, or under a separate policy or policies. Such earthquake and flood insurance shall include twelve (12) months of rental interruption coverage and shall name Trustee as loss payee as its interests may appear. Tenant shall cause coverage to be maintained against loss arising from earthquake and flood so long as such coverage is available at a commercially reasonable cost and in coverage amounts which are commercially available, but shall not be in default under this Lease if coverage is no longer written, is unavailable for properties comparable to the Premises or is not available at commercially reasonable premium amounts. Tenant will provide Landlord and Trustee with thirty (30) days' prior written notification of material changes in coverage. Tenant will, upon request, furnish Landlord and Trustee with satisfactory evidence that such coverage is in effect.

16.2. Coverage for Tenant's Personal Property. Landlord shall have no obligation to insure any of Tenant's Personal Property.

17. Waiver of Subrogation. Landlord and Tenant shall cause their respective property insurance carriers to release and waive all rights of subrogation against the other to the extent a loss is covered by property insurance in force. Landlord and Tenant hereby mutually release each other from liability and waive all right of recovery against each other for any loss from perils insured against under their respective fire insurance policies, including any extended coverage endorsements hereto; provided, that this provision shall be inapplicable if it would have the effect of invalidating any insurance coverage of Landlord or Tenant.

18. Other Insurance Matters.

18.1 Insurance Requirements.

(a) At all times from and after the Effective Date of this Lease, Landlord and Tenant agree to procure and maintain in full force and effect for the duration of the

Term of this Lease insurance, as specified in Sections 14, 15 and 16 against claims for injuries to persons or property damage which may arise from or in connection with this Lease.

(b) Each insurance policy shall be written on an "occurrence" form.

(c) By requiring such minimum insurance as specified herein, neither party shall be deemed to, or construed to, have assessed the risks that may be applicable to the other party to this Lease. Each party shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits or broader coverage.

(d) Nothing contained within these insurance requirements shall be deemed to limit the scope, application and/or limits of coverage afforded, which coverage will apply to each insured to the full extent provided by the terms and conditions of the policy(s). Nothing contained within this provision shall affect and/or alter the application of any other provision contained within this Lease.

(e) Each insurance policy required to be carried by Tenant hereunder shall comply with the provisions of Section 14.3 of this Lease.

(f) Each party shall furnish the other party with certificates of insurance and endorsements as required by this Lease. The certificates and endorsements for each policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements for Landlord's insurance are to be on forms approved by Tenant and are to be received and approved by the Tenant and Bond Insurer prior to the Effective Date of this Lease. The certificate and endorsements for Tenant's insurance are to be received and approved by the Bond Insurer prior to the Effective Date or Commencement Date of this Lease as appropriate. Tenant and Bond Insurer each reserves the right to require complete certified copies of all required policies at any time.

18.2 Insurance Prior to the Commencement Date of This Lease. Prior to the Commencement Date of this Lease, Landlord and Tenant acknowledge, understand and agree that all liability and property insurance necessary in connection with the Land and the Premises (except for Tenant's commercial general liability insurance described in Section 15.1 of this Lease which can be self-insured by Tenant pursuant to Section 15.2 of this Lease) shall be obtained and thereafter maintained in full force and effect by Landlord or Developer with the cost to be allocated between Landlord and Developer pursuant to the provisions of the Development Agreement. Such insurance shall name Landlord, Tenant, Trustee and Bond Insurer as additional insureds and shall name the Trustee, Bond Insurer and Tenant, as their respective interests may appear, as loss payee, where appropriate, and shall be in form satisfactory to Tenant and Bond Insurer.

19. Destruction. In the event that the Premises are damaged or destroyed by fire or other casualty following the Commencement Date, this Lease shall not terminate nor shall there be any abatement of Monthly Rent or Additional Rent otherwise payable by Tenant hereunder; provided, however, that Tenant may elect to defease or prepay Monthly Rent in accordance with Section 4.4 and Section 35 hereof.

20. Condemnation.

20.1 Total Condemnation. If there is a taking or damaging of all or any portion of the Premises by the exercise of any governmental power, whether by legal proceedings or otherwise, by a governmental agency with jurisdiction over the Premises or a transfer by Landlord either under threat of condemnation or while legal proceedings for condemnation are pending (a "Condemnation") such that there can be no reasonable use of the Premises by Tenant, as reasonably determined by Tenant, this Lease shall terminate on the date the condemnor has the right to possession of the property being condemned. The entire award with respect to a taking of the Premises (including Tenant's leasehold estate under this Lease) shall be paid to Trustee and (i) applied at the Bond Insurer's direction, if there has been no default by the Bond Insurer under the terms of its municipal bond insurance policy that insures payment of principal of and interest on the Bonds, and otherwise (ii) applied at the direction of Landlord in accordance with the Indenture. Any Condemnation proceeds remaining after Bonds have been paid in full shall be paid to Tenant.

20.2 Partial Condemnation. If, prior to Substantial Completion of the Project, there is a partial taking of the Premises by Condemnation and Landlord reasonably determines that the Project can be completed in accordance with Section 21(b) of the Development Agreement, such condemnation proceeds shall be paid to Trustee who shall deposit such condemnation proceeds into the Non-Bond Proceeds Account established under the Indenture for purposes of paying Project Costs. Following Substantial Completion of the Project, if there is a partial taking of the Premises by Condemnation, and Tenant determines that a reasonable use can be made of the Premises, then the condemnation proceeds shall be paid to Trustee who shall deposit said condemnation proceeds into the Capital Repairs Fund established under the Indenture and shall disburse such condemnation proceeds to Landlord from time to time as restoration progresses. Otherwise, the condemnation proceeds shall be applied as provided by the Indenture. In no event shall this Lease terminate as a result of a partial taking nor shall there be any abatement of Monthly Rent or Additional Rent otherwise payable by Tenant hereunder; provided, however, that Tenant may elect to defease or prepay Monthly Rent in accordance with Section 35 hereof.

21. Assignment of Project; Subletting. Landlord shall not assign its interest in this Lease or in the Premises (except to Trustee) without the prior written consent of Tenant and the Bond Insurer and receipt by the Trustee of a written opinion from nationally recognized bond counsel that any such sale, transfer, conveyance or assignment by Landlord of all or any portion of its interest in this Lease or the Premises will not have an adverse effect on the tax exempt status of interest payable on the Series A Bonds and any attempted assignment in violation of the consent requirements under this Section 21 shall be null and void and shall constitute an event of default under the Indenture. Tenant shall not assign its interest in this Lease or in the Premises without the prior written consent of Landlord and Bond Insurer together with an opinion of nationally recognized bond counsel that any such assignment will not adversely affect the tax exempt status of interest payable on the Series A Bonds. Tenant may sublease the Premises or any portion thereof, to the extent and on the terms and conditions set forth under Section 7 of this Lease and so long as the execution of such sublease would not violate the provisions of Section 7 hereof; provided, however, that under no circumstances shall Tenant be released or relieved from any of its obligations hereunder. Any such assignment or sublease as provided for in this Section

shall be in writing and shall require such assignee or subtenant to comply fully with the terms of this Lease, including, without limitation, the provisions of Section 7 regarding use of the Premises. Tenant shall provide Landlord, Trustee and Bond Insurer with written notice of any such assignment or sublease and a copy of any such assignment or sublease documentation.

22. Default by Tenant. The occurrence of any of the following shall constitute an Event of Default by Tenant under this Lease:

22.1 Payment. Failure (a) to make any Monthly Rent payments due under this Lease if the failure to pay is not cured within seven (7) days after written notice of such failure has been given by Trustee or Landlord to Tenant, or (b) failure to make any other payment required if the failure to pay is not cured within ten (10) days after written notice of such failure has been given by Landlord to Tenant.

22.2 Other Failure to Perform. Failure to perform any other provision of this Lease if the failure to perform is not cured within thirty (30) days after written notice of such default has been given by Landlord to Tenant. If the default cannot reasonably be cured within thirty (30) days, then Tenant shall not be in default under this Lease if Tenant commences to cure the default within thirty (30) days and diligently and in good faith continues to cure the default; provided, however, that if such default is of a nature such that it cannot be cured within ninety (90) days Tenant shall obtain the written approval of Landlord and the Trustee to continue its efforts to cure such default following the ninety (90) day cure period.

22.3 Late Charges; Interest on Past Due Monthly Rent. Tenant acknowledges that a late payment of Monthly Rent hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which are difficult to ascertain. Therefore, in the event Tenant shall fail to pay any installment of Monthly Rent due hereunder for fifteen (15) days after the date such amount is due, Tenant shall also pay Landlord a late charge equal to two percent (2%) of the amount then owing and past due together with interest on such past due amount at an interest rate of twelve percent (12%) per annum commencing eight (8) days after the date such amount is due until paid. Payment of such late charges and/or default interest shall not excuse or cure any default by Tenant under this Lease.

22.4 Remedies for Tenant Default. If Tenant commits a default under Section 22.1(a) above and fails to cure such default within the time period provided therein, then Landlord, by providing Tenant with ten (10) days' advance written notice, may cancel and terminate this Lease, evict the Tenant and re-enter the Premises, but notwithstanding such re-entry by Landlord, Tenant covenants and agrees to make good to Landlord any deficiency arising from a re-entry and reletting of the Premises at a lesser Rent than the Rent agreed to through the Term of this Lease, provided Landlord has taken all reasonable measures to ensure that a maximum rental rate was obtained for reletting. Landlord shall provide notice to Tenant of any amount by which rentals from such reletting are less than the Rent and the due dates of such Rent. The deficiency amount for each such Rent payment shall be paid by Tenant on or before the due date for such Rent payment. In addition to the remedy specified above for Tenant's failure to pay Monthly Rent, if Tenant commits any default and fails to cure such default within the time period provided under this Section 22, Landlord shall have the right to pursue any and all remedies available at law or in equity.

23. Default by Landlord. Landlord shall not be in default unless Landlord fails to perform its obligations (i) within five (5) business days after notice by Tenant specifying the obligation which Landlord has failed to perform if such failure occurs prior to the Commencement Date and (ii) within thirty (30) days after notice by Tenant specifying the obligation which Landlord has failed to perform if such failure occurs after the Commencement Date; provided, that if the nature of Landlord's obligation is such that more than five (5) business days or thirty (30) days, as applicable, are required for performance, Landlord shall not be in default if Landlord commences performance within such period following Tenant's notice and thereafter completes performance within a reasonable time. If the nature of the obligation presents a hazard or emergency, Landlord shall commence performance as soon as reasonably possible. In the event that Landlord fails to cure any such default, Tenant shall have the right to pursue any and all remedies available at law or in equity; provided, however, that Tenant shall have no right to offset against Rent payable under this Lease, but Tenant may seek as part of its remedies a judgment against any amounts held as reserves by Landlord under this Lease.

24. Signs. Tenant shall have the right to place identification signage, other signage, advertisements, awnings, banners or other exterior decorations on the exterior of the Premises without any further consent or approval from Landlord. Any sign that Tenant has the right to place, construct and maintain shall comply with all Laws, and Tenant shall obtain any approval required by such Laws. Landlord makes no representation with respect to Tenant's ability to obtain such approval.

25. Landlord's Right to Enter the Premises. Landlord shall have the right to enter the Premises at reasonable times during Tenant's normal business hours for the below listed purposes; provided, however, Landlord acknowledges and agrees to comply with Tenant's requests regarding security. Landlord shall conduct its activities on the Premises as allowed in this Section in a manner that will cause the least possible inconvenience, annoyance or disturbance to Tenant. Landlord shall not be liable in any manner for any inconvenience, annoyance, disturbance, loss of business, nuisance, or other damage arising out of Landlord's entry on the Premises as provided in this Section, except damage resulting from the negligent acts or omissions of Landlord. Tenant shall not be entitled to an abatement or reduction of Rent if Landlord exercises any right reserved in this Section:

25.1 Condition. To determine whether the Premises are in good condition, whether Tenant is complying with its obligations under this Lease and to perform any maintenance, repair or replacement obligations of Landlord pursuant to Section 10 above.

25.2 Notices. To serve, post or keep posted any notices required or allowed under the provisions of this Lease.

26. No Encumbrances by Landlord. Except to the extent expressly authorized in Sections 11 and 21 of this Lease, Landlord shall not at any time during the Term of this Lease sell, transfer, lease (other than to Tenant pursuant to this Lease), convey, encumber (other than to Trustee pursuant to the Mortgage), pledge (other than to Trustee pursuant to the Indenture), hypothecate or otherwise grant a security interest in the Premises or any portion thereof.

27. Right to Estoppel Certificates. Each party, within fifteen (15) days after notice from the other party, shall execute and deliver to the other party, in recordable form, a certificate stating that this Lease is unmodified and in full force and effect, or in full force and effect as modified and stating the modifications. Failure to deliver the certificate within such fifteen (15) day period shall be conclusive upon the party failing to deliver the certificate for the benefit of the party requesting the certificate and any successor to the party requesting the certificate, that this Lease is in full force and effect and has not been modified except as may be represented by the party requesting the certificate.

28. Limitation on Landlord's Liability. Notwithstanding any provision in this Lease to the contrary, Tenant agrees that it shall look solely to the estate and property of Landlord in the Land and buildings constituting the Premises, any insurance proceeds or condemnation proceeds payable to Landlord under this Lease, the asset management fee provided for in Section 10.2(c), and any sums paid to Landlord under the Development Agreement for the collection of any judgment requiring the payment of money by Landlord or for the enforcement of any other judgment or remedy against Landlord, and no other assets of Landlord shall be subject to levy, execution or other procedure for the satisfaction of Tenant's remedies.

29. Attorneys' Fees. In the event either party requires the services of an attorney in connection with enforcing the terms of this Lease, or in the event suit is brought for the recovery of any Rent due under this Lease or for the breach of any covenant or condition of this Lease, or for the restitution of said Premises to Landlord and/or eviction of Tenant during said Term or after the expiration thereof, the prevailing party will be entitled to a reasonable sum for attorneys' fees, witness fees, and court costs, including costs of appeal.

30. Surrender. Landlord shall, on the Expiration Date, surrender and deliver up the Premises, including all improvements then located thereon and the appurtenances thereto, into the possession of Tenant, in good order, condition and repair, free and clear of all lettings and occupancies, and free and clear of all liens and encumbrances other than those existing on the date of this Lease and those, if any, created by Tenant, without any payment or allowance whatsoever by Tenant. Landlord shall execute, acknowledge and deliver to Tenant such instruments of further assurance as in the opinion of Tenant are necessary or desirable to confirm or perfect Tenant's right, title and interest in and to all of the above-described property. The provisions of this Section shall survive the expiration or termination of this Lease.

31. Broker. Landlord and Tenant each represent to the other that neither is represented by any broker, agent or finder with respect to this Lease in any manner. Each party agrees to indemnify and hold the other party harmless from and against any and all liability, costs, damages, causes of action or other proceedings instituted by any other broker, agent or finder, licensed or otherwise, claiming through, under or by reason of the conduct of the indemnifying party in any manner whatsoever in connection with this Lease.

32. Miscellaneous Provisions.

32.1 Entire Agreement. This Lease sets forth the entire agreement of the parties as to the subject matter hereof and supersedes all prior discussions and understandings

between them. This Lease may not be amended or rescinded in any manner except by an instrument in writing signed by a duly authorized officer or representative of each party hereto and the consent of Bond Insurer if required pursuant to the provisions of Section 32.13 of this Lease.

32.2 Governing Law. This Lease shall be governed by and construed and enforced in accordance with the laws of the State of Washington.

32.3 Severability. Should any of the provisions of this Lease be found to be invalid, illegal or unenforceable by any court of competent jurisdiction, such provision shall be stricken and the remainder of this Lease shall nonetheless remain in full force and effect unless striking such provision shall materially alter the intention of the parties.

32.4 Jurisdiction/Venue. In the event any action is brought to enforce any of the provisions of this Lease, the parties agree to be subject to exclusive in personam jurisdiction in the King County Superior Court for the State of Washington and agree that in any such action venue shall lie exclusively in King County, Washington.

32.5 Waiver. No waiver of any right under this Lease shall be effective unless contained in writing signed by a duly authorized officer or representative of the party sought to be charged with the waiver and no waiver of any right arising from any breach or failure to perform shall be deemed to be a waiver of any future right or of any other right arising under this Lease.

32.6 Captions. Section captions contained in this Lease are included for convenience only and form no part of the agreement between the parties.

32.7 Notices. All notices or requests required or permitted under this Lease shall be in writing, shall be personally delivered or sent by certified mail, return receipt requested, postage prepaid, by nationally recognized overnight courier or by facsimile transmission and shall be deemed given when so delivered, received or faxed (provided the fax machine has issued a printed confirmation of receipt). All notices or requests to any party shall be sent to all other parties as follows:

If to Landlord:
NJB Properties
c/o National Development Council
1425 Fourth Avenue, Suite 608
Seattle, WA 98101
Facsimile: (206) 448-5246

If to Tenant:
King County
Facilities Management Division
800 King County Administration Building
500 Fourth Avenue
Seattle, WA 98104
Facsimile: (206) 205-5070

If to Trustee: The Bank of New York Trust Company
601 Union Street, Suite 520
Seattle, WA 98101
Facsimile: (206) 667-8906

If to Bond Insurer: _____
_____
_____
_____

Any party may change the address to which notices shall be sent by notice to the other party in the manner and with the effect set forth in this Section 32.7.

32.8 Binding Effect. Subject to the provisions of Sections 11 and 21 hereof, this Lease shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors and assigns. No permitted assignment of this Lease or Tenant's rights hereunder shall be effective against Landlord unless and until an executed counterpart of the instrument of assignment shall have been delivered to Landlord and Landlord shall have been furnished with the name and address of the assignee. The term "Tenant" shall be deemed to include the assignee under any such permitted assignment. The term "Landlord" shall include any successors to or assigns of the Landlord's interest in the Premises following any foreclosure of the Mortgage, including Trustee or any purchaser at a trustee's or sheriff's sale of the Premises.

32.9 Gender and Number. As used in this Lease, the masculine shall include the feminine and neuter, the feminine shall include the masculine and neuter, the neuter shall include the masculine and feminine, the singular shall include the plural and the plural shall include the singular, as the context may require.

32.10 Nondiscrimination. Landlord and Tenant each agree it will not discriminate in employment at the Premises on the basis of race, color, religion, sex, national origin, veteran status, sexual orientation or physical and mental disability in regard to any position for which the prospective employee is qualified, nor will Landlord or Tenant maintain facilities which are segregated on the basis of race, color, religion, sex or national origin at the Premises.

32.11 Recording; Memorandum of Lease. Neither Landlord nor Tenant shall record this Lease without the written consent of the other; provided, however, that Tenant shall have the right to record a Memorandum of this Lease in the form attached hereto as **EXHIBIT F** and by this reference incorporated herein upon the Effective Date. Such Memorandum of Lease shall be amended by the parties and a new Memorandum recorded once the Commencement Date and Expiration Date of this Lease has been determined.

32.12 Amendment of Lease; Bond Insurer Consent. So long as the Bonds remain outstanding and there has been no default by the Bond Insurer under the terms of its municipal bond insurance policy which insures payment of principal and interest on the Bonds, there shall be no amendment of this Lease without the prior written consent of the Bond Insurer.

32.13 Time Is of the Essence. Time is of the essence in the performance of each party's obligations under this Lease. Each party will carry out its obligations under this Lease diligently and in good faith.

33. Prevailing Wage. Landlord agrees and covenants with Tenant that the Development Agreement shall obligate Developer to require contractors and subcontractors of such Contractors in connection with such contracts as may be let regarding the construction of the Project to comply with RCW ch. 39.12, including payment of prevailing wages to the workmen, laborers and mechanics as may then be determined by the Washington State Department of Labor and Industries for the particular craft in the particular geographic area.

34. Authority. Landlord is a Washington nonprofit corporation, duly organized, validly existing and in good standing under the laws of the State of Washington. Tenant is a political subdivision of the State of Washington. By execution of this Lease, Landlord and Tenant represent that they have authority to enter into this Lease.

35. Option to Prepay Lease; Payment or Defeasance of Bonds; Federal Tax Requirements.

35.1 Option to Partially Prepay Lease. Tenant shall have the option to partially prepay the principal component of Monthly Rent, in $5,000 increments for periods to be determined by Tenant (as represented by the principal portion of Monthly Rent due each year as set forth in **EXHIBIT A**). Notice of such intent to prepay shall be given to Landlord in writing not less than forty-five (45) days in advance of the intended prepayment date. Such prepayment may be at any time on or after December 1, 2016. The notice of partial prepayment shall be substantially in the form set forth on **EXHIBIT K** attached hereto. By 10:00 a.m. Seattle time on the date set for such prepayment, Tenant shall pay to Landlord in cash or same-day available funds, an amount equal to the principal portion of Monthly Rent to be prepaid, together with interest thereon to the date of prepayment. Upon such prepayment, the term of this Lease shall be deemed modified such that this Lease terminates on the payment date for the last outstanding Monthly Rent not prepaid.

35.2 Bonds. Upon full payment or defeasance of the Bonds in accordance with the Indenture, the Ground Lease and this Lease shall terminate, and unencumbered fee simple title to the Premises will revert to the County. In the event Landlord defaults in its payment of the Bonds, Tenant has the exclusive option to purchase the Premises and any additions to the Premises for the amount of the outstanding principal of and accrued interest to the date of default. Tenant shall have (a) not less than ninety (90) days from the date it is notified by Landlord of the default in which to exercise such option, and (b) not less than ninety (90) days from the date it exercises such option to purchase the Premises.

36. Vacation of Alley. The Land described on the attached **EXHIBIT D** is bisected by an alley ("Alley") which is the subject of a petition for vacation ("Petition") approved by the Seattle City Council on March 31, 2003 and filed under Clerk's File No. 304408. Final vacation of the Alley is conditioned upon the satisfaction of certain conditions as set forth in the Petition. Pursuant to the terms of the Ground Lease, once Landlord has completed the Project to an extent sufficient to meet the requirements of the City and once all other conditions for completion of the

vacation of the Alley have been met, Lessor under the Ground Lease will take all actions, including the payment of all applicable costs and fees, to cause the City to enact the final street vacation ordinance with respect to the Alley and to convey ownership of the Alley to the Lessor under the Ground Lease. At that time, Landlord and Tenant shall execute an amendment to this Project Lease, the Memorandum of Lease, applicable financing documents for the Project and any other documents related to the Project which contain a legal description of the Land for the purpose of including the vacated Alley within the description of the Land. In the event that all conditions for achieving the Initial Occupancy Date shall have been met except that the City delays or refuses to issue a temporary certificate of occupancy for the Base Shell and Core Building solely as a result of issues related to the vacation of the Alley, the Initial Occupancy Date shall nonetheless be deemed to have been achieved and Tenant shall be obligated to commence the payment of Monthly Rent pursuant to Section 4.1 above.

DATED the date first above written.

LANDLORD:

NJB PROPERTIES,
a Washington nonprofit corporation

By_____
John Finke
Vice President

Date: _____, 2006

TENANT:

KING COUNTY,
a political subdivision of the
State of Washington

APPROVED AS TO FORM:

By_____
Senior Deputy Prosecuting Attorney

Date: _____, 2006

By_____
Kathy Brown
Director, King County
Facilities Management Division

Date: _____, 2006

STATE OF WASHINGTON }
ss.
COUNTY OF KING }

I certify that I know or have satisfactory evidence that John Finke is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Vice President of **NJB PROPERTIES**, a Washington nonprofit corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this _____ day of _____, 2006.

_____
Printed Name _____
NOTARY PUBLIC in and for the State of Washington,
residing at _____
My Commission Expires _____

STATE OF WASHINGTON }
ss.
COUNTY OF KING }

I certify that I know or have satisfactory evidence that Kathy Brown is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that she was authorized to execute the instrument and acknowledged it as the Director, Facilities Management Division of **KING COUNTY**, a political subdivision of the State of Washington, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this _____ day of _____, 2006.

_____
Printed Name _____
NOTARY PUBLIC in and for the State of Washington,
residing at _____
My Commission Expires _____

EXHIBIT A

MONTHLY RENT

In the event that the Initial Occupancy Date occurs prior to _____, 20__, Monthly Rent shall be $_____, prorated for any partial month. From and after _____, 20__, Monthly Rent shall be as set forth on the attached schedule.

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

Exhibit B

EXHIBIT E

Architectural Drawing Index – Schematic Design Set		Architect	Dated
A0.01	Drawing Index, Project Info & Abbreviations	NBBJ	9/20/06
A0.02	Vicinity Map, Architectural Site Plan	NBBJ	9/20/06
A1.00	Code Analysis	NBBJ	9/20/06
A1.01	Parking Level P4 & P5 Life Safety Plan	NBBJ	9/20/06
A1.02	Parking Level P2 & P3 Life Safety Plan	NBBJ	9/20/06
A1.03	Parking Level P1 & G Life Safety Plan	NBBJ	9/20/06
A1.04	Loading Levels & Lobby Life Safety Plan	NBBJ	9/20/06
A2.00	Parking Level P5 Plan	NBBJ	9/20/06
A2.01	Parking Level P4 Plan	NBBJ	9/20/06
A2.02	Parking Level P3 Plan	NBBJ	9/20/06
A2.03	Parking Level P2 Plan	NBBJ	9/20/06
A2.04	Parking Level P1 Plan	NBBJ	9/20/06
A2.05	Level G Plan	NBBJ	9/20/06
A2.06	Level S Plan	NBBJ	9/20/06
A2.07	Level 1 Plan	NBBJ	9/20/06
A2.08	Level 2 Plan	NBBJ	9/20/06
A2.09	Level 3 Plan	NBBJ	9/20/06
A2.10	Level 4 Plan	NBBJ	9/20/06
A2.11	Level 5 Plan	NBBJ	9/20/06
A2.12	Levels 6 – 14 Plan	NBBJ	9/20/06
A2.13	Level PH Plan	NBBJ	9/20/06
A2.14	Roof Plan	NBBJ	9/20/06
A3.01	Exterior Elevation – North	NBBJ	9/20/06
A3.02	Exterior Elevation – West	NBBJ	9/20/06
A3.03	Exterior Elevation – East	NBBJ	9/20/06
A3.04	Exterior Elevation – South	NBBJ	9/20/06
A3.11	Bldg Section – N-S	NBBJ	9/20/06
A3.12	Bldg Section – E-W	NBBJ	9/20/06
A3.21	Garage Sections	NBBJ	9/20/06
A3.22	Garage Sections	NBBJ	9/20/06
A3.31	Exterior Wall Sections	NBBJ	9/20/06
A3.32	Exterior Wall Section	NBBJ	9/20/06
A3.33	Exterior Wall Sections	NBBJ	9/20/06
A3.34	Exterior Wall Sections	NBBJ	9/20/06
A3.35	Exterior Wall Sections	NBBJ	9/20/06
A3.36	Entry Canopy	NBBJ	9/20/06
A7.00	Stair Plans & Sections	NBBJ	9/20/06
A7.01	Stair Plans & Sections	NBBJ	9/20/06
A7.10	Stair & Elevator Details	NBBJ	9/20/06
A9.00	Partition Schedule	NBBJ	9/20/06
A9.01	Details	NBBJ	9/20/06

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

Structural Drawing Index - Garage Permit Set		Engineer	Dated
S0.01	Abbreviations, Legends, & Drawing List	Magnusson Klemencic Assoc.	
S0.02	General Notes	Magnusson Klemencic Assoc.	
S0.03	General Notes	Magnusson Klemencic Assoc.	
S1.01	Load Maps	Magnusson Klemencic Assoc.	
S1.02	Load Maps	Magnusson Klemencic Assoc.	
S1.03	Load Maps	Magnusson Klemencic Assoc.	
S1.04	Load Maps	Magnusson Klemencic Assoc.	
S2.00	Level P5 Foundation & Framing Plan	Magnusson Klemencic Assoc.	
S2.01	Level P4 Foundation & Framing Plan	Magnusson Klemencic Assoc.	
S2.01R	Level P4 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.02	Level P3 Framing Plan	Magnusson Klemencic Assoc.	
S2.02R	Level P3 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.03	Level P2 Framing Plan	Magnusson Klemencic Assoc.	
S2.03R	Level P2 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.04	Level P1 Framing Plan	Magnusson Klemencic Assoc.	
S2.04R	Level P1 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.05	Level G Framing Plan	Magnusson Klemencic Assoc.	
S2.05R	Level G Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.06	Level 01 Framing Plan	Magnusson Klemencic Assoc.	
S2.06R	Level 01/S Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.08	Level 02 Framing Plan	Magnusson Klemencic Assoc.	
S2.09	Level 03 Framing Plan	Magnusson Klemencic Assoc.	
S2.10	Level 04 Framing Plan	Magnusson Klemencic Assoc.	
S2.11	Level 05 Framing Plan	Magnusson Klemencic Assoc.	
S2.12	Level 06-14 Framing Plan	Magnusson Klemencic Assoc.	
S2.21	Penthouse Level Framing Plan	Magnusson Klemencic Assoc.	
S2.22	Penthouse Roof Framing Plan	Magnusson Klemencic Assoc.	
S3.01	Corewall Elevations	Magnusson Klemencic Assoc.	
S3.02	Corewall Elevations	Magnusson Klemencic Assoc.	
S3.11	Shearwall Sections	Magnusson Klemencic Assoc.	
S3.21	Basement Wall Sections	Magnusson Klemencic Assoc.	
S3.22	Basement Wall Sections	Magnusson Klemencic Assoc.	
S3.51	Elevations	Magnusson Klemencic Assoc.	
S4.01	Typical Foundation Details& Schedules	Magnusson Klemencic Assoc.	
S4.02	Typical Concrete Details& Schedules	Magnusson Klemencic Assoc.	
S4.03	Typical Concrete Column Details& Schedule	Magnusson Klemencic Assoc.	
S4.04	Typical Concrete Slab Details & Schedule	Magnusson Klemencic Assoc.	
S4.05	Typical Concrete Beam Details & Schedule	Magnusson Klemencic Assoc.	
S4.06	Typical Post-Tension Details	Magnusson Klemencic Assoc.	
S4.11	Typical CMU Details	Magnusson Klemencic Assoc.	
S5.01	Foundation Sections and Details	Magnusson Klemencic Assoc.	

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

Mechanical Drawing Index – SD GMP Set		Engineer	Dated
M2.FND	NJB Foundation Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.00	NJB Parking Level 5 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.01	NJB Parking Level 4 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.02	NJB Parking Level 3 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.03	NJB Parking Level 2 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.04	NJB Parking Level 1 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.05	NJB Level G Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.06	NJB Level S Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.07	NJB Level 1 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.08	NJB Level 2 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.09	NJB Level 3 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.10	NJB Level 4 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.11	NJB Level 5 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.12	NJB Level 6 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.13	NJB Level 7 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.14	NJB Level 8 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.15	NJB Level 9 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.16	NJB Level 10 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.17	NJB Level 11 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.18	NJB Level 12 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.19	NJB Level 13 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.20	NJB Level 14 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.21	NJB Level PH Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.22	NJB Roof Plan Plumbing	University Mechanical Contractors	10/06/06
M3.05	NJB Level G Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.06	NJB Level S Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.07	NJB Level 1 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.08	NJB Level 2 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.09	NJB Level 3 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.10	NJB Level 4 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M5.00	NJB Prkg Level 5 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.01	NJB Prkg Level 4 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.02	NJB Prkg Level 3 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.03	NJB Prkg Level 2 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.04	NJB Prkg Level 1 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.05	NJB Level G Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.06	NJB Level S Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.07	NJB Level 1 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.08	NJB Level 2 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.09	NJB Level 3 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.10	NJB Level 4 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.11	NJB Level 5 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.12	NJB Level 6 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.13	NJB Level 7 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.14	NJB Level 8 Plan-Air Distribution	University Mechanical Contractors	10/06/06

Mechanical Drawing Index – SD GMP Set (cont.)		Engineer	Dated
M5.15	NJB Level 9 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.16	NJB Level 10 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.17	NJB Level 11 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.18	NJB Level 12 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.19	NJB Level 13 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.20	NJB Level 14 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.21	NJB Level PH Plan-Air Distribution	University Mechanical Contractors	10/06/06

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

PART I

The following Preliminary outline specifications are included with respect to the Base Shell and Core Building and Structured Parking Garage:

CATEGORY 00 – SITE GOALS
Project Description:

A. Location: The Harborview Ninth and Jefferson Building project is located in the City of Seattle, King County, between Ninth and Terry Avenues and James and Jefferson Streets. The total estimated site area is 61,346 sf. The site has high transit access and is located on the Harborview Campus (Land Use Zone MIO-240-HR)

B. Site Design Goals:

a. The site and building will attempt to meet the LEED "certified" standard for shell and core. Outline and criteria to follow.
b. The entire development should fit with the surroundings and reinforce the Harborview Medical Center campus master plan.
c. The use of recycled materials in the design and construction of the site improvements will be considered.
d. Design to emphasize pedestrian access and minimize difficulties of people with disabilities in accessing the site. Focus on site development program for private vehicle parking, transit access, bicycle and motorcycle facilities, encouraging the use of alternate transportation other than single occupancy vehicles.
e. Where practical, the building will be oriented to take advantage of daylighting and views.
f. Parking garage should minimize the environmental impact to the site. Parking stalls will be as prescribed by governing codes. All parking areas will be well lit to insure the security of pedestrians. A minimum of one "van accessible" parking space per 6 accessible parking stalls will be provided per chapter 11 of the Seattle Building Code. Bicycle parking for staff to be considered near employee entrances, (secure).
g. Areas for building waste and collection of recyclable materials will be part of the loading facility and will be screened and secured away from public view.
h. The building will be a non-smoking facility.
i. The base structure at the corner of Ninth and Jefferson will be setback creating connections with the rest of the campus, allowing the streetscape to be the primary interface with the community, reducing building scale at the street level and creating a safe and active public space.
j. Retail spaces will be created all along James Street to the north, Ninth Avenue to the west and at the corner of Terry and Jefferson Streets, accessible just off the lobby located on Jefferson.

C. Building Design Goals:

a. The building will have a 50 year life expectancy and will express stewardship and public trust.
b. The architecture will be appropriate to the Harborview campus plan and will be designed with a structural module appropriate for medical and lab facilities.
c. The building design should serve as a model of conservation of resources and the County's responsibility to the environment. The building will attempt to be a LEED "certified," standard certification, building for shell & core.
d. For the tower, there will be a minimum 8'-6" floor to ceiling height in office spaces with a 12'8" floor to floor height. The podium (levels 2 and 3) will have a floor to floor height of 15'-0" to accommodate the required services for lab and research functions with a minimum ceiling height of 9'-0".
e. Materials will denote quality and permanence, resource conservation and practicality. Materials will be low maintenance and sustainable under the weather conditions that exist in the Northwest.
f. Windows will be non-operable.
g. The exterior closure system will be energy efficient, requiring minimal maintenance beyond window washing.
h. The safety of staff and visitors is a primary concern. An overview of safety and security considerations will be applied to all aspects of site, planning, facility design and operations. King County will be made aware of all reasonable options related to safety and personal security.

PART II

The following Outline Specifications are included with respect to the Base Shell and Core Building:

OUTLINE SPECIFICATIONS

CATEGORY 01 – GENERAL DESIGN CRITERIA

Structural and Building Envelope Criteria

A. Live Loads
1. Roof: 25 psf snow/live load for concrete and concrete/metal deck roofs (reducible per IBC)
2. Floors:
a. 100 psf. Typical office floor –(reducible), based on 80 psf plus 20 psf partition load.
b. 125 psf. Mechanical rooms and penthouse (or use actual equipment weight and housekeeping pads plus 40 psf at open areas around equipment where 125 psf LL is exceeded) (no reduction)
c. 100 psf. Exit corridors and stairways (reducible)
d. 100 psf. Assembly areas lobby (no reduction)
e. 100 psf. Retail spaces (reducible)

f. 125 psf. Storage (no reduction)
g. 40 psf. Parking levels (reducible)
h. 250 psf. Sidewalks, Loading dock

B. Seismic:
1. Seismic Use Group I
2. Importance Factors, Ie, Is, =1.0
3. Seismic Design Category D
4. Response Modification Coefficient R=6 for special reinforced concrete shearwalls in Parking Structure and Office Building.
5. Allowable Story Drift: 0.025 x story height, based on IBC code level forces

C. Wind:
1. Basic Wind Speed = 85 mph
2. Exposure Category B
3. Importance Factor, Iw = 1.0
4. Enclosure classification: Enclosed
5. Internal pressure coefficient: GCpi = 0.18
6. Allowable Story Drift = 0.0025 x story height

CATEGORY 02 – DEMOLITION

A. Site Demolition and Relocations:
1. The site has been previously cleared and excavated. Remaining site demolition to include sidewalk, curb and gutter, asphalt and concrete pavement
2. Disposal of all removed items shall be off-site at an approved location.
a. Comply with City of Seattle and King County recycling guidelines for demolished materials.
3. Relocations shall include any effected utilities; i.e., gas, TV, power, phone, water, sanitary sewer, fiber optics/telecomunications and storm sewer.

CATEGORY 03 – SITE

A. Plaza Paving:
1. Steps and accents: Concrete; quality finish and stone accents.
2. Typical pedestrian paving: City of Seattle standard specification; concrete with lampblack added, light broom finish, and scored joints.
3. Treat concrete paving with curing compound.

B. Roadways: Improvements with be in conformance with the City of Seattle Standard Specifications for Street Construction, latest edition.
1. Street improvements will be conducted on James and Jefferson Streets and Ninth and Terry Avenues, as required.
2. Improvements to include sidewalk, curbwalk, curb and gutter, base course and pavement (asphalt or concrete), street lights, street trees, planters and signage.

C. Utilities: Provide the following in conformance with code, City of Seattle Standards, and utility owner requirements:
1. Domestic and fire protection water supply.

2. Electrical power.
3. Storm and sanitary sewer.
4. Telephone and data access pathway only (wiring to be provided under Tenant Improvements).

CATEGORY 04 – STRUCTURE

Standard Foundations

A. Foundation: Reinforced concrete spread footings.

Description of Structural Systems

A. Roof: 2½-inch normal weight concrete on 3-inch composite type metal deck. Composite designed steel beams and girders. Steel columns.
B. Typical floors:
   1. Parking Garage: 9-inch thick unbonded post-tensioned two-way concrete slab
   2. Office Building:
      a. Levels "G" through 4; 10 to 14-inch thick mild-reinforced two way concrete slab.
      b. Level 5 through Penthouse; 2 ½-inches normal weight concrete on 3-inch composite type metal deck. Composite designed steel beams and girders. Steel columns.
      c. Sprayed fireproofing on steel frame.
C. Structural slab on grade: 4-inch concrete slab at parking structure. Concrete grade beams.
D. Lateral force-resisting system: Special reinforced concrete shearwalls in Parking Structure and Office Building.

04 – EXTERIOR WALLS

A. General Performance Criteria: See Category 01, above.
B. Typical Walls: Unitized curtain wall with vision glass, spandrel glass, stone and metal panel at the tower, brick veneer masonry and stone over lightgage steel stud framing with fiberglass-faced exterior gypsum sheathing (G-P Dens-Glass) and moisture barrier ("BluSkin") at the base.
   1. Batt insulation in stud space to meet energy code.
   2. Through-wall flashing: Stainless steel with self-adhesive rubberized asphalt (Grace "Perm-a-Barrier") in cavity.
C. Exterior Walls at Parapet, Elevator Penthouse and Mechanical Equipment Screen: Smooth-textured, pre-finished aluminum composite panels or metal siding.
   1. Premium system with 10-year warranty.
D. Exterior Metalwork.
   1. Typical: Steel fabrications.
      a. Shop prime: Zinc-rich urethane.
      b. Intermediate coat: Polyamide epoxy.
      c. Finish coat: Acrylic-aliphatic urethane; satin.

F. Aluminum Curtainwall: Thermally-broken unitized and stick frame.
   1. Design to withstand wind loads.
   2. Air infiltration: 0.05 cfm per minute at 12 psf.
   3. No uncontrolled water penetration at 12 psf.
   4. Finish: AAMA 605.2 fluoropolymer.
   5. Vision Glass: 1-inch insulated, clear or tinted, Low-E.
      a. Glass tint or clear to be determined by Energy Code analysis.
   6. Stone panels in curtainwall: 25mm granite (color to be determined).
   7. Metal panels in curtainwall: .125" aluminum panels.
   8. 3" mineral wool batts at spandrel canditions: min 40 lbs density.

G. Hollow Metal Doors: Non-public exterior doors.
   1. Insulated; U-Value 0.10 or better.
   2. 16 gage faces, 14 gage frames.
   3. Doors and frames: Galvanized, field painted.

H. Louvers: High-performance, drainable blade; minimum 50 percent free area.
   1. Finish: AAMA 605.2 fluoropolymer.

I. Overhead Doors at Garage and Loading Area:
   1. Coiling grilles.
   2. Operators: Electric.

J. Sealants:
   1. Traffic Bearing Joints: 2-component urethane.
   2. Concealed metal-to-metal joints: Non-skinning polyisobutylene.
   3. Joints at edges of roofing and waterproofing: Single component urethane.
   4. Other exterior joints: Ultra-low modulus silicone.

CATEGORY 05 - ROOFING

A. Design Criteria:
   1. External Fire Hazard Classification: Class A per IBC or UL.
   2. Uplift: Comply with SPRI or FM for design wind speed and building height.
   3. Energy-star compliant

B. Insulation: R-30 minimum, rigid insulation with appropriate facing materials at underside of roof deck.

C. Membrane Roofing, Typical:
   1. Concrete topping slab.
   2. "Derbi-Gum GP" set in adhesive – 2 ply
   3. "Derbi-Brite" – 1 ply

D. Terraces: Hot-rubberized asphalt membrane with protection course.
   1. Cover with cast-in place concrete paving.

CATEGORY 06 - INTERIORS

Interior Construction

A. Partitions: Gypsum board on metal studs typical:
   1. Provide sound insulation and sealed acoustical partitions:
      a. Mechanical rooms: STC 48.

b. Toilet rooms: STC 42.
c. Other: STC 38.

B. Shaftwall: Gypsum shaftwall system on metal framing.
   1. Elevators and mechanical shafts: 2-hour; STC 45.

C. Interior Doors:
   1. Non-rated and 20-minute rated door: Solid core flush wood, custom grade, transparent finish veneer faces.
   2. Fire doors: Composition core wood doors with faces to match non-rated doors.
   3. Fire door Frames: Hollow metal, 16 gage typical.
   4. Door Hardware:
      a. Mortise looks: Corbin, Sargent or equal.
      b. Cylinders: Bilock 12 pin or alternates as approved by King County
      c. Closers: Surface mounted with plated cover.

D. Interior Specialties:
   1. Code required signage.
   2. Fire extinguishers and cabinets.
   3. Toilet partitions: Stainless steel.
   4. Toilet accessories.

Interior Stairways

A. Stairs:
   1. Treads and risers:
      a. Cast-in-place or
      b. Precast concrete with non-slip treads or
   2. Landing: Cast-in-place concrete, or precast.
   3. Railings: Tubular steel.
   4. 1 duplex receptacle at landing.

Interior Finishes

A. Finish Schedule Criteria:
   1. Building Operation Spaces:
      a. Floor: VCT.
      b. Base: Rubber base.
      c. Typical Wall: Painted gypsum board.
      d. Ceiling: 2' by 4' acoustical lay-in.
   2. Toilet Rooms:
      a. Floor: Ceramic tile.
      b. Base: Ceramic tile.
      c. Typical Wall: gypsum board, water-base epoxy paint.
      d. Ceiling: 2' by 2' acoustical lay-in.
   3. Entry Lobby:
      a. Floor: Combination of stone and carpet.
      b. Base: Stone or wood.
      c. Wall Features: Wood and GWB.
      d. Wall: Painted gypsum board.

e. Ceiling: Painted gypsum board with features.

4. Janitor Closets:
   a. Floor: Sealed concrete.
   b. Base: Rubber base.
   c. Walls: Gypsum board, water-based epoxy paint.
   d. Ceiling: Exposed structure.
5. Utility Rooms (Data closets, Telephone, Electrical, Etc.):
   a. Floor: Sealed concrete.
   b. Base: Rubber base.
   c. Typical Wall: Painted gypsum board.
   d. Mounting panels: ¾-inch thick fire-retardant treated (FRT) plywood.
   e. Ceiling: Exposed structure.

B. Resilient Flooring and Accessories:
   1. VCT: Commercial quality vinyl composition tile, 12 by 12 by 1/8 inch.
   2. RB: Rubber base, solid color. 4-inch height typical. Toe base typical, straight base at carpet (exception – carpet tile). Field-formed corners.

C. CPT – Carpet: 32 ox. 4th generation nylon; low static generation.
   1. Installation: Direct glue typical and/or over pad.

D. CT – Ceramic Tile:
   1. Toilet Room Floors: 2 by 2 by ¼ inch, unglazed ceramic mosaic, cushion edge, 7½ percent slip resistant. Latex thinset; latex grout.
   2. Other Floors: 8 by 8 by 3/8 inch, unglazed paver. Latex thinset; latex grout.
   3. Toilet Room Wet Walls: 2 by 1 by ¼ inch, glazed ceramic mosaic, cushion edge. Latex thinset on backer unit; latex grout to 5'.
   4. Backer Board: Cementitious backer or Georgia Pacific "Dens'Shield" fiberglass-faced gypsum units.

E. Paint: Water-based, Low VOC, typical:
   1. Typical: Latex eggshell.
   2. Epoxy: Water-based epoxy, satin.
   3. Metal: Doors & frames, handrails, etc.: Acrylic, semi-gloss.

F. Transparent Finish Wood Paneling:
   1. AWI Premium Grade, Wood veneer over particle board.
   2. Finish: AWI System TR-4, Conversion Varnish, Premium Grade.

G. Ceilings:
   1. Acoustical lay-in ceilings:
      a. Utility spaces: 24 by 48 by 5/8 inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid, or open to structure.
      b. Public spaces: 24 by 24 inch by ¾ inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid.
      b. Toilet rooms: 24 by 24 inch by 5/8 inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid vinyl or mylar faced in shower rooms.
   2. Gypsum board ceiling: 5/8 inch gypsum board on conventional furring with option to use direct-hung grid suspension.

Furnishings

A. Typical Casework: AWI Custom Grade, Plastic Laminate (HPL) over particle board.
   1. Edges: PVC edge band.
   2. Tops: HPL
B. Lavatory Counters: Polished stone.
C. Entrance Mat: Polypropylene carpet; recessed.

CATEGORY 07 – VERTICAL TRANSPORTATION:

See Attachment A, attached

CATEGORY 08 – HVAC

See Attachment B, attached.

CATEGORY 09 – PLUMBING

See Attachment C, attached.

CATEGORY 10 – FIRE SPRINKLERS

See Attachment D, attached.

CATEGORY 11 – ELECTRICAL

See Attachment E, attached.

BRIGHT LINE SCOPE MATRIX

See Attachment F, attached.

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

The following clarifies the bid response dated 5/26/06:

A. Finish Schedule Criteria:
   1. Retail spaces include the following:
      a. Individual utility meters for each possible tenant space.
      b. 1-hour separation between tenant spaces and the rest of the building.
      c. Mechanical, electrical and plumbing stubbed to each tenant space.

   2. Loading Dock and support spaces include the following:
      a. Wall protection and bollards through out dock and retail parking area.
      b. 1 scissors lift.
      c. 2 dock levelers.
      d. Trash compactors.
      e. Receiving area.
      f. Holding areas for hazardous medical waste, card board, recycling, soiled linen.
      g. Six mechanical air changes minimum to ventilate enclosed loading dock.
      h. Sealed concrete floor.
      i. Corner guards.
      j. Cart wash.
      k. Three (3) 35' truck bays.
      l. Dock ambient lighting and specialty lighting without any specialty lighting included at dock. Lighting will meet code requirements and be typical of a functioning loading dock.
      m. Emergency eye wash.
      n. Floor drains.
      o. Security gate for enclosure. (remote controlled add $25,000)
      p. Proximity card system, parking system card reader, pin pad, intercom. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware
      q. Security Cameras. A total of seven (7) security cameras are included in shell and core package.

   3. Tenant Office/Clinic Space:
      a. Core walls with gypsum wall board fire taped structure to structure.
      b. Window walls insulated, framed with gypsum wall board.
      c. Columns are framed with gypsum wall board screwed to 9'-6" above floor.
      d. Horizontal blinds at all exterior windows.

   4. IDF Rooms:
      a. Telephone access per floor.
      b. Cooling 12 months 24/7 and on emergency power.
      c. Sealed concrete floor.
      d. Fire retardant plywood at walls.

5. Electrical Rooms:
   a. Wall phone: Rough-in only is included.
   b. Sealed concrete floor.

6. Exit Stairs:
   a. Ceiling painted with exposed construction excluded. Optional, please add $15,000.
   b. Walls finished and painted.
   c. Floors sealed concrete.
   e. 1 duplex electrical receptacle at intermediate landings.

7. Public Elevators:
   a. Finished interior cabs including lighting.
   b. Proximity card readers at each elevator, pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement for this allowance.
   c. 10 extra pair of copper cabling.

8. Service Elevators:
   a. Finished interior cabs including lighting.
   b. Key card readers at each elevator, pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement for this allowance.
   c. 10 extra pair of capper cabling.

9. Elevator Lobby and Building Lobby Consistent with a Class A Office Building:
   a. Reception desk – without security is included.

10. Fire Command Center:
    a. Per Seattle Building Code.

11. Multi-fixture Toilet Rooms Consistent with Class A Office Building:
    Toilets are consistent with standard Class A MOB shell and core in 60% of the building, 40% includes more dense fixtures consistent with a Class A office building.
    a. Stainless steel ceiling mounted toilet partitions.

12. Janitor's closet:
    a. Plastic sheet wall protection wainscot or plywood painted with finished gypsum board above, top set rubber coved base.
    b. Sealed concrete floors.
    c. Shelf and hooks for supplies.
    d. Floor mop sink.

13. Mechanical rooms, building storage, elevator machine rooms:
    a. Sealed concrete floors.
    b. Fluorescent strip lighting.

14. Mechanical Systems:
    a. Chilled water system with rooftop VAV air handling units to economically support 25% - 50% of building 24/7.
    b. Medium velocity duct distribution system with supply/return shaft, plenum return in non-clinical (must maintain AIA guideline standards for health care acoustics).
    c. Main building restroom exhaust and shafts to meet type A office building standards.
    d. Plumbing loops and multiple plumbing chases to support future clinic tenant improvements.
    e. 100% ducted exhaust at patient care areas excluded as T.I. allowance would need to cover this requirement, shell systems sized to meet the need.
    f. Future 100% exhaust and future 100% clinical fresh air requirements to meet Department of Health standards with louvers for 60% of added area.

15. Electrical:
    a. See original building drawings for conceptual electrical system distribution.
    b. Original phase I calculated load: 4,300 amperes.
    c. Original phase II calculated load: 5,400 amperes.
    d. Total phase I and phase II load: 9,700 amperes.
    e. Generators provided by previous project, installed per the bright line attached.
    f. All lobbies to include tamperproof receptacles.
    g. Any receptacle within five feet of water will be GFCI.

16. Pneumatic tube system:
    a. Provide connection to existing central system. Optional, please add $350,000 under tenant improvements.
    b. Assume 10 new stations. Optional, costs could be as high as $350,000 depending on location in tenant improvements.

17. Security:
    a. Proximity card readers at each elevator; pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    b. Card readers at all egress stairs. An overall allowance if $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    c. Card readers at (3) exterior doors. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    d. Cameras at exterior perimeter, and interior lobby. Included (A total of seven (7) on the project).

18. Doors & Builders' Hardware: This section is included to help develop the proposers understanding for spaces and systems included in the shell and core. It is meant only as a reference of quality and basis of design. In no way should it be assumed that this is a closed specification. Potential add to Shell & Core - $81,000 and potential add to TI - $823,000 (assumes approx. 1,900 doors) to be reviewed in detail with owner prior to proceeding with any hardware purchase.
    a. Hinges/Pivot: Hagar, Bommer, McKinney
    b. Lock & Latchsets: Corbin/Russin or Schlage
    c. Exit Devices and accessory power supplies: VonDuprin
    d. 10" stainless steel kick plates, 4" mop plates.
    e. Solid core wood doors faced w/stiles particleboard grade 1-LD-2 25-32 pcf bonded to stiles (min 5") and rails (2 ¼" & 7").
    f. Automatic door operators: Keene – Monroe.
    g. Cylinder cores: BiLock 12 pin interchangeable core cylinders, match existing master key system.
    h. Electric hardware: 24 VDC, strikes Folger Adams.
    i. Coordinators: Door controls international, Glyyn Johnson.
    j. Closers: LCN.
    k. All finish floor "unprotected edges" to receive a reducing strip.

Access panels provided at all MEP concealed spaces (ie. Ceilings/chases).

Addendum 1

19. Parking garage and related facilities include the following:
    a. Maximize ambient lighting in garage within energy code with increased lighting levels at pedestrian paths, elevator lobby areas, and egress stair entrances.
    b. If post tensioning is chosen as the structural slab system, then the tendons will be fully grouted. Excluded, option was rejected during design phase by Owner and Tenant.
    c. Floor drains at sprinkler legs.
    d. Sump pump.
    e. All handicap parking and patient parking is on flat slabs.
    f. Electric and low voltage closets as required by program.
    g. Water tank.
    h. Bollards, wall protection and visible paint to protect partitions within the garage is included. Staff by-pass for exiting is included with separation of parking type by card access system.
    i. McGann parking system (or approved equal that can communicate with McGann).
    j. Garage to meet ADA requirements including van requirements.
    k. Private ITA Court van drop-off area with access to service elevators.
    l. Attendant booth(s) for visitor parking.
    m. 600 parking spaces. Actual is 654 or greater provided.

20. Generator Plant includes the following:
    a. Two (2) 15,000 gal tanks.

b. Required fire suppression systems is not included – Add $175,000.
c. Ability to replace generator from street.
d. Generator plant includes generators four (4), switchgear, BUS to IEB, exhaust system.
e. We have included one (1) generator and installation of three (3) generators provided by others. Switchgear for NJB is included ref. bright line scope matrix, see Attachment F.

21. Required Building Infrastructure.
    a. Seattle City Light transformers and switch gear is included.
    b. Manifolded gas cylinder cylinder rooms – oxygen, nitrogen, and nitrous oxide. Rooms only included.
    c. Utility entrance. Rough in by others.
    d. Main data room, PBX. Rooms only included

ATTACHMENT A

CATEGORY 07 – VERTICAL TRANSPORTATION

SECTION 14210

TRACTION ELEVATORS

PART 1 GENERAL

1.01 QUALITY ASSURANCE

A. All work shall be performed in accordance with the latest edition of the "American Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks" (ASME A17.1), including published supplements; "National Electrical Code," "OSHA," "NFPA," "IBC," Accessibility Codes, and such state and local codes as may be applicable.

PART 2 PRODUCTS

2.01 SUMMARY – TRACTION ELEVATOR EQUIPENT

A. Three Garage Elevators:

Garage Cars 1-3

Number:	Cars 1-3
Capacity:	3500 #
Class Loading:	Passenger Class A
Contract Speed:	350 fpm
Roping:	1:1
Machine:	Gearless, Machine-Room-Less
Machine Location:	Overhead
Supervisory Control:	Group Automatic Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz

Garage Cars 1-3

Stops and Openings:	6, All Front
Floors Served:	P4, P3, P2, P1, G, 01
Travel:	49'-9" ±
Platform Size:	7'-0" Wide X 6'-2" Deep
Minimum Clear Inside Car:	6'-8" Wide X 5'-4" Deep
Entrance Size:	3'-6" Wide X 7'-0" High
Entrance Type:	Single Speed, Center Opening
Door Operation:	High-Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide
Car Enclosure:	Steel Shell as Specified Plus $25,000 Allowance and 1,000# Weight Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment. Illuminate Portion of Normal Car Lighting
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Risers Dual Car Operating Panels

Garage Cars 1-3

	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Dual Digital with Car Direction Arrows
	Firefighters' Control Panel
Hall Lanterns:	At All Floors with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction with Predictive Function
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Cars 1-3:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Swing Car Return Panels Arranged for Integral Car Operating Panels

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Garage Cars 1-3

Independent Service Feature

Card Reader Provisions

CCTV Provisions

Digital Video Display Provisions

Firefighters' Control Panel and Remote Wiring

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Firefighters' Telephone Jack

Emergency Paging Speaker Installation

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

System Diagnostic Means and Instructions

Non-Proprietary Control System and Diagnostics Provisions

B. Six Passenger Elevators:

Passenger Cars 4-9

Number:	Cars 4-9
Capacity:	4000 #

Passenger Cars 4-9

Class Loading:	Passenger, Class A
Contract Speed:	500 fpm
Roping:	2:1
Machine:	Gearless
Machine Location:	Overhead
Supervisory Control:	Group Automatic Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	14, All Front
Floors Served:	01-14
Travel:	177'-9" ±
Platform Size:	8'-0" Wide X 6'-2" Deep
Minimum Clear Inside Car:	7'-8" Wide X 5'-4" Deep
Entrance Size:	4'-0" Wide X 7'-0" High
Entrance Type:	Single Speed, Center Opening
Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide

Passenger Cars 4-9

Car Enclosure:	Steel Shell as Specified Plus $25,000 Allowance and 1,000# Weight Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment. Illuminate Portion of Normal Car Lighting
Signal Fixtures:	LED Illumination. Standard Design
Hall and Car Pushbutton Stations:	Dual Hall Pushbutton Risers Dual Car Operating Panels
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Dual Digital with Car Direction Arrows
	Firefighters' Control Panel
Hall Lanterns:	At All Floors with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction with Predictive Function
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid
Additional Features – Cars 1-6:	
	Car and Counterweight Roller Guides
	Car Top Inspection Station
	Firefighters' Service, Phase I and II, Including Alternate Floor Return
	Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Passenger Cars 4-9

Accessibility Signage

Swing Car Return Panels Arranged for Integral Car Operating Panels

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Independent Service Feature

Card Reader Provisions, All Cars

CCTV Provisions, All Cars

Digital Video Display Provisions, All Cars

Firefighters' Control Panel and Remote Wiring and Conduit

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Firefighters' Telephone Jack

Emergency Paging Speaker Installation

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

Passenger Cars 4-9

System Diagnostic Means and Instructions

Non-Proprietary Control System and Diagnostics Provisions

C. One Service Elevator:

Service Car 10

Number:	Car 10
Capacity:	5000 #
Class Loading:	Service Class C3
Contract Speed:	500 fpm
Roping:	2:1
Machine:	Gearless
Machine Location:	Overhead
Operational Control:	Selective Collective Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	14, Front; 2 Rear
Floors Served:	Front: S, 01, 02-14 Rear: S, Loading Dock
Travel:	184'-0" ±
Platform Size:	6'-0" Wide X 10'-1½" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-7½" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening

Service Car 10

Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	10'-0" Clear Height Under Canopy
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Riser Dual Car Operating Panels, Front and Side walls
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows
	Firefighters' Control Panel
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction. Vandal Resistant Assembly
Hall Car Position Indicator:	Digital with Car Direction Arrows at All Floors. Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication

Service Car 10

Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Car 10:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Stationary Car Return Panel Arranged for Integral Car Operating Fixtures

Recessed Side Wall Panel Arranged for Recessed Applied Car Operating Panel

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Independent Service Feature

Attendant Operation

Card Reader Provisions

CCTV Provisions

Firefighters' Control Panel and Remote Wiring

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

Service Car 10	
	One Year Warranty Maintenance with 24-Hour Call-Back Service
	Sill Support Angles
	Firefighters' Telephone Jack
	Emergency Paging Speaker Installation
	Seismic Devices
	Signage Engraving Filled with Black Paint or Approved Etching Process
	No Visible Company Name or Logo
	Wiring Diagrams, Operating Instructions, and Parts Ordering Information
	Non-Proprietary Control System and Diagnostics Provisions

D. One Service Elevator:

Service Car 11	
Number:	Car 11
Capacity:	4500 #
Class Loading:	Service Class C3
Contract Speed:	350 fpm
Roping:	Basement Traction
Machine:	Geared
Machine Location:	Bottom Landing, Rear
Operational Control:	Selective Collective Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz

Service Car 11

Stops and Openings:	2: 1 Front at 2; 1 Rear at S
Floors Served:	S, 02
Travel:	19'-0" ±
Platform Size:	6'-0" Wide X 9'-8" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-1" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening
Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment.
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Riser Dual Car Operating Panels, Front and Side Walls
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows

Service Car 11

	Firefighters' Control Panel
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction. Vandal Resistant Assembly
Hall Car Position Indicator:	Digital with Car Direction Arrows at All Floors. Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Car 11:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Stationary Car Return Panel Arranged for Integral Car Operating Fixtures

Recessed Side Wall Panel Arranged for Recessed Applied Car Operating Panel

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Service Car 11

	Independent Service Feature
	Attendant Operation
	Card Reader Provisions
	CCTV Provisions
	Firefighters' Control Panel and Remote Wiring
	Machine, Power Conversion Unit, and Controller Sound Isolation
	Tamper Resistant Fasteners for All Fastenings Exposed to the Public
	One Year Warranty Maintenance with 24-Hour Call-Back Service
	Sill Support Angles
	Firefighters' Telephone Jack
	Emergency Paging Speaker Installation
	Seismic Devices
	Signage Engraving Filled with Black Paint or Approved Etching Process
	No Visible Company Name or Logo
	Wiring Diagrams, Operating Instructions, and Parts Ordering Information
	Non-Proprietary Control System and Diagnostics Provisions
Alternates:	Provide Stop at G Level

PART 3 EXECUTION

3.01 INSTALLATION

A. Comply with applicable codes, manufacturer's instructions, shop drawings and recommendations. Comply with National Electrical Code (ASME C1 by NFPA) for electrical work required during construction.

3.02 Final Inspection and Test

A. Comply with ASME A17.2-latest edition Inspectors' Manual.

SECTION 14240

HYDRAULIC ELEVATORS

PART 1 GENERAL

1.01 QUALITY ASSURANCE

A. "American Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks" (ASME A17.1), including published supplements; "National Electrical Code," "OSHA," "NFPA," "IBC," Accessibility Codes, and such state and local codes as may be applicable.

PART 2 PRODUCTS

2.01 SUMMARY - HYDRAULIC ELEVATOR EQUIPMENT

A. One Service Elevator:

Service Car 12

Number:	Car 12
Capacity:	5000 #
Class Loading:	Service, Class C3, for 2000# Single Piece Load
Contract Speed:	100 fpm
Machine:	Hydraulic Pump
Machine Location:	Adjacent at Bottom Landing
Operational Control:	Two-Stop Selective Collective Microprocessor-Based System
Motor Control:	Single Speed AC with SCR Soft Start with Closed Transition
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	1 Front; 1 Rear
Floors Served:	S Front; G Rear

Service Car 12

Travel:	7'-1" ±
Platform Size:	6'-0" Wide X 10'-3½" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-9" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening
Door Operation:	Medium Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 1-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Hydraulic Type:	Dual Jack Holeless
Guide Rails:	Planed Steel Tees
Buffers:	Spring
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	10'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment
Signal Fixtures:	LED Illumination. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Dual Hall Pushbutton Risers, Front and Rear Dual Car Operating Panels, One Front, One Side Wall
	Vandal Resistant Car And Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal

Service Car 12

	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking, and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Pricing
Additional Features – Car 12:	
	Car Solid Slide Type Guides
	Car Top Inspection Station
	Firefighters' Service, Phase I and II, Including Alternate Floor Return
	Battery Lowering Device
	Accessibility Signage
	Stationary Car Return Panels Arranged for Surface Applied Car Operating Panel
	Recessed Side Wall Panels Arranged for Recessed Applied Car Operating Panel
	Hoistway Door Unlocking Device, All Floors
	Platform Isolation, Jack to Platen Connection(s)
	Independent Service Feature
	Selective Door Operation
	Card Reader Provisions
	CCTV Provisions
	Firefighters' Control Panel and Remote Wiring
	Hydraulic Pump Unit and Controller Sound Isolation
	Tamper Resistant Fasteners for All Fastenings Exposed to the Public

Service Car 12

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Emergency Paging Speaker Installation

Seismic Safety Valve

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

Non-Proprietary Control System and Diagnostics Provisions

PART 3 EXECUTION

3.01 INSTALLATION

A. Comply with applicable codes, manufacturer's instructions, shop drawings and recommendations. Comply with National Electrical Code (ASME C1 by NFPA) for electrical work required during construction.

3.02 FINAL INSPECTION AND TEST

A. Comply with ASME A17.2-latest edition Inspectors' Manual.

ATTACHMENT B

CATEGORY 08 – HVAC

SECTION 15010

BASIC MECHANICAL REQUIREMENTS

PART 1 GENERAL

1.00 SYSTEM DESCRIPTION

A. Cooling Plant - The HVAC system selected for the new Ninth and Jefferson Building is a chilled water system with custom air handling units. This system includes a central chilled water plant comprised of chillers, chilled water pumps, chilled water piping, condenser water pumps, condenser water piping, and rooftop cooling towers.

Water is cooled at the chiller and delivered to the chilled water air handlers via chilled water piping. A modulating control valve at each air handler allows chilled water to enter the coil to cool the supply air.

B. Heating Plant - Heat for the building is provided by steam-to-hydronic converters located in the Level 4 mechanical room. This system includes a central heating water plant comprised of steam converters, heating water pumps and piping, pre-heat water pumps and piping, steam piping, and controls. Distribution piping is routed through the building to provide hot water to the hydronic coils in the shell and core air handling units and VAV zone boxes. Provisions are made for future Tenant Improvement connections to the heating water system.

Water is heated at the converters and delivered to the air handler via heating water piping. A modulating control valve at each air handler allows heating water to enter the coil to cool the supply air.

C. Air Delivery System - The air systems for NJB are divided into two distinct types - Tower (Levels 5 through Level 14) and Podium (Levels G through Level 4). Separate air-handling systems have been designed to accommodate the specific requirements of the Tower and the Podium.

The Tower air delivery system is designed for general medical office use. The air handlers are complete with a chilled water coil, hot water pre-heat coil, pre-filters, final filters, dual VAV supply fans, dual VAV return/exhaust fans, and economizer dampers. The Tower system is a re-circulating system that varies the amount of ventilation air. The percent of outside air to total supply air in the Tower will range from 25% to 100% depending on internal load (demand) and ambient temperature.

Conditioned air is supplied to the Tower through a medium-velocity duct distribution system. The duct mains will be installed and ready to be extended by future Tenants.

Each shell and core temperature control zone has a series VAV fan terminal unit. The VAV damper unit precisely controls the quantity of cooling required to satisfy the zone. The series VAV fan terminal unit has a fan that runs continuously during occupied hours. The fan draws air from the medium velocity cooling duct and from the ceiling return plenum as required to satisfy the zone temperature. When heat is required, the hydronic control valve modulates as required to maintain the space temperature at the minimum setpoint. The occupants perceive the system to be a constant air volume system. Comfort and indoor air quality is increased through constant air motion

The Podium air delivery system is designed for laboratory or similar use and delivers 100% outside air with matched 100% exhaust (non-recirculated) air. The system is intended to supply a constant air volume. Pressure relationships are maintained by supply/exhaust airflow differentials ("CFM offset"). The Supply air handlers are complete with a chilled water coil, heat recovery coil, hot water pre-heat coil, pre-filters, final filters, sound attenuators, and a supply fan. The Exhaust air handlers are complete with a heat recovery coil, pre-filters, sound attenuators, and an exhaust fan.

Conditioned air is supplied to the Podium through a medium-velocity duct distribution system. The duct mains will be installed and ready to be extended by future Tenants. Each shell and core temperature control zone has a single duct terminal unit. The terminal unit damper precisely controls the quantity of air required to maintain pressure relationships and satisfy the zone. When heat is required, the hydronic control valve modulates as required to maintain the space temperature at the minimum setpoint.

D. Tower Auxiliary Cooling System -The Tower shall use the chilled water system for auxiliary cooling needs. The allocated capacity for each floor is ten (10) tons.

E. Podium Auxiliary Cooling Loop -The Podium will be supplied with auxiliary cooling water from the IEB auxiliary cooling system. Floors "G" through 1 will be served by this system.

F. Garage Ventilation System - The garage ventilation system consists of wall mounted; propeller-type supply fans and exhaust fans. The supply and exhaust fans are located at opposite ends of the garage in order to promote good cross ventilation. Fans are located on each floor in architectural shafts; ductwork is not provided inside the shafts. The exhaust fans discharge to louvers located along Terry Avenue, and the supply fans draw air from intake wells located along 9th Avenue. A grid of carbon monoxide sensors (multiple sensors on each floor) controls the amount of ventilation air in the garage.

G. Toilet Exhaust System - The shell and core toilet exhaust system consists of a roof exhaust fan and associated ductwork. The system operates as scheduled by the DDC system.

H. Stairwell Pressurization System - High-Rise stairwells are provided with pressurization fans and relief dampers. Low-rise stairwells not pressurized will be provided with relief dampers as required by IBC.

I. Elevator Pressurization System – High-rise elevator shafts are provided with pressurization. Low-rise elevator shafts not provided with fire/smoke doors will be pressurized.

J. Control System - Complete DDC control system including low-voltage wiring, thermostats to terminal units, night setback zones, building static pressure control, duct static pressure control, economizer control, garage carbon monoxide monitoring, and building time clock.

K. Domestic Water System - Complete domestic cold water and hot water systems are provided. Provisions for future tenant connections have been made. The domestic cold and hot water systems are comprised of a duplex booster pump, instantaneous steam hot water generators for the Podium and an electric hot water tank for the upper zone in the tower, hot water circulation pumps, piping, and controls.

L. Storm System A complete rain leader and overflow system is provided.

M. Sanitary Waste and Vent System- A complete sanitary waste and vent system is provided. Provisions for future tenant connections have been made.

N. Garage Drainage System - A complete garage drainage system is provided. This system is comprised of sand-oil interceptor, sump pump, area drains, and piping.

O. Foundation Wall Drain System- A portion of the foundation wall drainage system was installed under a previous contract. This project will connect to and complete the installation. This system is comprised of a sump pump, existing and new piping, and drain connections.

P. NJB Mechanical Systems to Support IEB – The following mechanical systems in NJB are necessary to support the IEB. These systems will need to be functional in order for the IEB to be occupied.

1. Emergency Generator Ventilation System - The generator ventilation system consists of radiator intake ductwork, exhaust ductwork, and diesel generator exhaust pipe.
2. Generator Fuel Oil Storage and Delivery System – The fuel oil system consists of fuel storage tanks, fuel pumps, day tanks, fuel piping, fill station with alarms, and fuel storage room ventilation.
3. SCL Vault Ventilation – The SCL ventilation system consists of a supply fan, an exhaust fan, and associated ductwork. The exhaust ductwork will terminate at 10 feet above grade along Terry Avenue.
4. Main Electrical Room & Emergency Switchgear Room – The air conditioning units for the main electrical rooms will need to be functional. The cooling source for the A/C units comes from the IEB's auxiliary cooling loop.
5. Medical Gas Systems – The Nitrogen, Nitrous Oxide, and Oxygen systems consist of manifolds, manifold relief vents, gas piping, and associated alarms. Gas cylinders are provided by others. Each medical gas room has a ventilation system consisting of a dedicated exhaust fan and supply/exhaust ductwork. The ductwork routes from each gas room to the exterior in 1-hour enclosures.

6. Medical Air and Medical Vac Systems – The medical air and medical vacuum systems consist of air compressors, vacuum pumps, piping, intake/exhaust vents, and associated alarms. The Med Air / Vac room air conditioning unit will need to be functional. The cooling source for the A/C unit comes from the IEB's auxiliary cooling loop.
7. Medical Gas Alarms – Wiring for source alarms for the medical gases in the NJB will be terminated at the Utility tunnel leading to the IEB. A j-box is provided for this purpose.
8. Lab Air and Building Air - The lab air and building air systems consist of air compressors, piping, intake vents, and associated alarms. The lab air and building air compressors are located in the Med Air / Vac room.
9. MDF/PBX - The air conditioning units for the MDF/PBX Room will need to be functional. The cooling source for the A/C units comes from the IEB's auxiliary cooling loop.
10. Pathways and corridors form NJB to IEB will need to be functional. Temporary ventilation in the corridors will be provided using fan coil unit(s) with electric heat.
11. DDC controls for systems mentioned above where applicable.
12. The NJB provides a backup source for domestic water and steam to the IEB. These systems will be functional as well.

1.01 ALTERNATES

A. Option excluded in the GMP are listed below as alternates:
   a. Additional cooling capacity to support a 2,000 square foot server room with 150 watts/sf of critical load. Mechanical costs only add $825,000.
   b. Rough-in only for red bag medical waste disposal unit add $12,000.

1.02 DESIGN PARAMETERS

A. The following criteria shall apply to the Tower (levels 5 through 14) portion of the project:

   1) The building will be steel and concrete construction
   2) The lighting and equipment load will be no greater than 3.6 watts per square foot.
   3) The building occupancy will not exceed 1 person per 143 square feet.
   4) The ventilation rate is based at 25 cfm per person.

B. The following criteria shall apply to the Podium (levels "G" through 4) portion of the project:

   1) The building will be concrete construction
   2) The lighting and equipment load will be no greater than 5.0 watts per square foot average.
   3) The building occupancy will not exceed 1 person per 143 square feet average.
   4) The ventilation rate is based on 10 air changes per hour with a 9'-0" ceiling height in lab areas and at 25 cfm per person in non-lab areas.

1.03 Not Used

1.04 Not Used

1.05 Not Used

1.06 Not Used

1.07 QUALITY ASSURANCE

A. All work shall comply with the governing ordinances of the local jurisdiction and applicable Codes of the State of Washington.

B. Comply with the most recently published versions of the following codes as amended by the City of Seattle:

International Building Code 2003
International Mechanical Code 2003
International Fire Code 2003
Washington State Energy Code 2004
Uniform Plumbing Code 2003
Washington State Ventilation & Indoor Air Quality Code 2003
National Electric Code

1.08 BALANCING AND TESTING

A. Balancing of air conditioning and ventilating systems will be done after the systems are substantially completed and shall be performed by the Mechanical Contractor.

1.09 INSTRUCTION FOR OWNER'S REPRESENTATIVES

A. Following initial operation of all mechanical equipment and prior to acceptance of the mechanical work, the Contractor shall conduct demonstrations of equipment operation and instruction periods for the Owner's representatives.

B. Duration of instruction periods:

Plumbing	½ day
Heating Systems	½ day
AC Systems	1 day
Temperature Control/EMS System	2 days

ATTACHMENT C

CATEGORY 09 – PLUMBING

SECTION 15140 & 15150

PLUMBING/PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe and fittings for domestic or potable water, sanitary sewer, and storm water drainage service.

B. This section covers service within the building and to 5 feet outside the building.

C. Miscellaneous piping for instruments, testing, and temporary services. Make same as for the connecting service if not otherwise specified.

D. Services covered under this section:

SYMBOL	SERVICE	DESIGN PRESSURE (PSIG)	DESIGN TEMP. (°F)
CW	Domestic Cold Water	175	50
HW	Domestic Hot Water	175	120
HWC	Domestic Hot Water Circulating	175	120
SS (W)	Sanitary Sewer (Waste)	10' of Head	120
RL	Rainwater Leader	10' of Head	32
SD	Storm Drain	10' of Head	40
V, VTR	Vents for Sanitary Sewer	10' of Head	Ambient

PART 2 PRODUCTS

2.01 DOMESTIC COLD AND HOT WATER (CW, HW, HWC) - ABOVE GRADE

A. Copper pipe, fittings, and joints: Anaconda, American Brass Co., Nibco, Inc., Mueller Brass Co.

1. Pipe: Type L hard-drawn seamless copper, water tube, ASTM B 88.

2. Fittings: Wrought-copper solder joints fittings, ANSI B16.22 and ASTM B 75. Cast bronze may be used for fittings not available in wrought copper.

3. Unions: Wrought-copper and solder joint unions with copper seats, ANSI B16.22 and ASTM B 75.

4. Flanges: Class 125 cast-bronze solder joint flanges, flat faced, ASTM B 584, 175 lb WOG @ 150° F. Furnish flanges factory-faced, drilled, and spot-faced.

5. Joints: Soldered. Flanged at flanged equipment connections and flanged valves.

6. Solder: 95-5 tin antimony, 95.5/4 tin/copper, 91.5/5/3.5 tin/antimony/copper per ASTM B 32-89, Grade 50A, Alpha Metals, Inc., Anchor Alloys Inc., Kester Solder Co., Harris, Engelhard, or approved.

7. Gaskets: Full face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1450 lb @ 750° F, Richard Klinger, Inc., Crane Packing Co., Garlock Co., or approved.

8. Bolting: Silicon bronze hex-head cap screws with regular hex nuts.

2.02 SANITARY SEWER, STORM DRAIN, AND ASSOCIATED VENT PIPING (SS (W), SD, V) - BELOW GRADE

A. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

B. Provide factory fabricated transition coupling or adapter gasket at interface between building cast-iron piping and site piping.

2.03 SANITARY SEWER AND VENT PIPING (SS (W), V, VTR) - ABOVE GRADE

A. Use either B or C consistently throughout project for a given size range of piping.

B. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

C. Copper pipe system:

1. Pipe: 1-1/2" maximum: Type DWV copper tubing, ASTM B306.

2. Fittings: Wrought copper solder joint drainage fittings, ANSI B16.29 or cast bronze solder joint drainage fittings, ANSI B16.23. Solder per domestic water specification.

2.04 STORM DRAIN AND RAINWATER LEADER PIPING (SD, RL) - ABOVE GRADE

A. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

PART 3 EXECUTION

3.01 TESTING

A. Hydrostatic test as specified in Contract Documents, before disinfection.

3.02 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

A. Sterilize all water piping, using 50 ppm chlorine concentration; per Seattle-King County Health Department regulations; 8 hour contact time; open all valves several times during contact period; followed by flushing with clean water until residual chlorine is less than 0.2 ppm.

END OF SECTION

SECTION 15181

HYDRONIC PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Water piping for heating, cooling, and other nonpotable water services as identified below.

B. Miscellaneous piping for drains, vents, instrument connections and temporary services. Make the same as for the connecting service if not otherwise specified.

C. Services covered under this section:

SYMBOL	SERVICE	DESIGN PRESSURE (PSIG)	DESIGN TEMP. (°F)
CHS	Chilled Water Supply	175	42
CHR	Chilled Water Return	175	56
CS	Condenser Water Supply	175	75
CR	Condenser Water Return	175	90
HWS	Heating Water Supply	175	160
HWR	Heating Water Return	175	135
HGS	Preheat Supply	175	125
HGR	Preheat Return	175	100
ACS	Aux Cooling Supply	172	85
ACR	Aux Cooling Return	175	95
COND	Condensate	10' of Head	Ambient

1.02 QUALITY ASSURANCE

A. Welding materials and procedures: Section 15060 - General Piping Requirements.

B. Welder's certification: Section 15060.

PART 2 PRODUCTS

2.01 CHILLED AND CONDENSER WATER PIPING (CHWS,CHWR,CWS,CWR)

A. Black Steel pipe, fittings, and joints, 2 1/2 inches & larger:

1. Pipe material: Black steel, ASTM A 53, Grade A or B, electric resistance welded or ASTM A106 seamless.

2. Weight and ends: 2 1/2 inch through 10 inches, Schedule 40. 12 inches and larger, Schedule 40S (0.375" thickness. Thin wall pipe acceptable for roll-grooved-end pipe: 2 inch to 6 inch: Schedule 10.

3. Fittings: 2-1/2 inches and larger, Standard weight seamless steel butt welding, ASTM A 234 Grade WPB; dimensions to ANSI B16.9 and B16.10. Weldolets, Threadolets, Sockolets, or as approved may be used where branch pipe size is less than or equal to half the main line size or Grooved end type, ductile iron, ASTM A 536 or malleable iron, ASTM A 47, with EPDM gasket. Victaulic or approved.

4. Unions: Class 150 malleable iron, brass seat, threaded, ASTM A 197, ANSI B16.3, 150-lb. SWP @ 366°F., 300-lb WOG @ 150°F.

5. Flanges: Class 150 slip-on or welding neck forged steel flanges with raised face, ASTM A 181-1 or A 105-1, ANSI B16.5, 150-lb WP @ 500°F, 255-lb. WP @ 150°F. Use flat-faced flanges when mating steel flanges to cast iron flanges. Slip-on flanges: Double fillet weld.

6. Joints: 2 1/2 inches and larger: welded, flanged, or grooved.

7. Thread lubricant: Teflon tape or pipe dope.

8. Gaskets: Ring type for raised face flanges and full-face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1000-lb. @ 700°F., Garlock Co., or approved.

9. Bolting: Carbon steel hex-head machine bolts and hex nuts, ASTM A 307, Grade A bolt, ASTM A563 nut or continuous thread stud bolts and hex nuts, ASTM A193B7 stud, ASTM A1942H nut.

B. Copper pipe, fittings, and joints: Anaconda, American Brass Co., Nibco, Inc., Mueller Brass Co.

1. Pipe: 2 inches & smaller: Type L hard-drawn seamless copper, water tube, ASTM B 88.

2. Fittings: Wrought-copper solder joints fittings, ANSI B16.22 and ASTM B 75. Cast bronze may be used for fittings not available in wrought copper.

3. Unions: Wrought-copper and solder joint unions with copper seats, ANSI B16.22 and ASTM B 75.

4. Flanges: Class 125 cast-bronze solder joint flanges, flat-faced, ASTM B 584, 175-lb WOG @ 150° F. Furnish flanges factory-faced, drilled, and spot-faced.

5. Joints: Soldered, sweat, or threaded. Flanged at flanged equipment connections and flanged valves. Grooved end or Victaulic joint connections also may be approved by mechanical engineer.

6. Solder: 95-5 tin antimony, 95.5/4 tin/copper, 91.5/5/3.5 tin/antimony/copper per ASTM B 32-89, Grade 50A, Alpha Metals, Inc., Anchor Alloys Inc., Kester Solder Co., Harris, Engelhard, or approved.

7. Gaskets: Full-face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1000 lb @ 700° F, Richard Klinger, Inc., Crane Packing Co., Garlock Co., or approved.

8. Bolting: Silicon bronze hex-head cap screws with regular hex nuts.

2.02 CONDENSATE PIPING

A. Copper pipe and fittings.

1. Pipe material: Type DWV copper tubing, ASTM B306.

2. Fittings: Wrought copper solder joint drainage fittings, ANSI B16.29 or cast bronze solder joint drainage fittings, ANSI B16.23.

3. Joints: Soldered per domestic water specification.

PART 3 EXECUTION

3.01 TESTING

A. Hydrostatically test piping in accordance with Contract Documents.

3.02 CLEANING

A. Flush system to remove oil and pipe cuttings with a mixture of water and trisodium phosphate, 1 lb for each 50 gallons of water, circulate for 2 hours, then drain and flush with clean water under pressure to remove traces of detergent. Remove strainer baskets and screens, clean thoroughly, and replace.

END OF SECTION

ATTACHMENT D

CATEGORY 10 – FIRE SPRINKLERS

SECTION 15310

FIRE PROTECTION SPRINKLER AND STANDPIPE SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Provide design and construction of a complete design-build automatic fire protection sprinkler system. The sprinkler system shall extend throughout the building (including combustible overhangs where required by code) and meet code requirements for high rise buildings. The parking garage shall be fully protected per Seattle's requirements. It is the contractor's responsibility to verify and comply with all applicable city codes and ordinances. In case of any conflict with drawings or specifications, the codes and ordinances shall govern.

2. Shop drawings, hydraulic calculations, material submittals, test reports and certificates, operation and maintenance manuals, as-built drawings.

1.2 REFERENCES

A. National Fire Protection Association, NFPA 13, Installation of Sprinkler Systems

B. National Fire Protection Association, NFPA 14, Standpipe and Hose Systems

C. 2004 Seattle Building Code (SBC)

D. Underwriters Laboratories (UL)

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials and equipment to be new UL listed, pressure rated for system pressures, and shall be in accordance with NFPA 13 and the City of Seattle requirements.

2.2 PIPE AND FITTINGS

A. Pipe: Provide pipe in accordance with NFPA 13, as applicable for the type of system or application.

B. Fittings: Provide sizes and types matching pipe, valves, and equipment connections. Fittings shall be threaded, fit socket, grooved, or flanged.

C. Pipe used for dry pipe sprinkler systems shall be schedule 10 or schedule 40.

2.3 PIPE HANGERS AND SUPPORTS

A. Support and seismically restrain the fire protection piping with UL listed hangers and support devices. The design, selection, spacing, restraining, and anchors shall be in accordance with NFPA 13.

2.4 VALVES

A. All fire protection valves shall be UL listed for fire protection use. Valves shall be threaded, grooved, or flanged, and shall be provided for the correct application and pressure rating as required.

2.5 CHECK VALVES

A. All check valves shall be UL listed swing type check valves with replaceable seat. Valves shall be threaded, grooved, wafer, or flanged, and shall be provided for the correct application and pressure rating as required.

2.6 SPRINKLER HEADS

A. All sprinkler heads shall be quick response type. Temperature rating shall be in accordance with NFPA 13.

B. Sprinkler heads in unfinished areas to be upright or pendent with brass finish.

C. Sprinkler heads in finished ceiling areas to be recessed with chrome finish and or painted escutcheon.

D. Provide a metal cabinet containing a stock of spare sprinklers and head wrenches in accordance with NFPA 13. Locate the cabinet in the fire sprinkler riser room.

2.7 VALVE SUPERVISORY SWITCHES

A. All control valves in the fire protection piping shall be supervised. Supervisory switches shall be furnished and installed by this contractor and wired by the Electrical Contractor. Valves without built in supervisory switches shall be provided with Potter Electric supervisory switches.

2.8 WATERFLOW SWITCHES

A. All waterflow and pressure alarm switches shall be furnished and installed by this contractor and wired by the Electrical Contractor.

B. Wet pipe waterflow alarm switches to be Potter VSR-F.

C. Dry pipe pressure alarm switches to be Potter PS 10-2.

D. Dry pipe high/low air alarm switches to be Potter PS 40-2.

2.9 ACCESS DOORS

A. Provide wall or ceiling access doors in finished areas for the access to concealed equipment. Coordinate locations with the architect before installation.

B. All access doors provided shall be compatible with the type of construction to be installed in. Access doors in fire rated assemblies shall be rated to maintain the rated assembly.

2.10 SLEEVES

A. Provide sleeves around all piping passing through masonry, CMU, concrete walls and floors.

B. This contractor is responsible for the timely placement of sleeves in construction. If sleeves are not placed during construction, permission shall be obtained before any core drilling is performed.

C. Sleeves shall be sized in accordance with NFPA 13.

2.11 FIRESTOPPING

A. Provide a classified UL firestopping system of all pipe penetrations through fire rated assemblies in accordance with the City of Seattle building inspector.

2.12 FIRE HOSE VALVES

A. Standard Hose Valves: 2 ½ inch, cast brass finish, angle pattern, with hose threads, cap with 1/8 inch hole, and chain.

2.13 DRY PIPE VALVES

A. The dry valve is to be Reliable Model D or equal. Include pressure alarm switch, high/low air switch, and other all necessary trim and devices.

2.14 AIR COMPRESSOR

A. Provide a tank mounted fire sprinkler system air compressor sized in accordance with NFPA 13. Coordinate electrical wiring requirements with the electrical contractor.

2.15 ELEVATOR MACHINE ROOMS

A. Elevator machine rooms, shafts, and pits are to be protected in accordance with the state elevator inspector's guidelines.

END OF SECTION 15550

ATTACHMENT D

CATEGORY 11 – ELECTRICAL

SECTION 16000

SHELL AND CORE SCHEMATIC DESIGN ELECTRICAL OUTLINE

1.00 BASIS OF DESIGN NARRATIVE

PROJECT DESCRIPTION

A) The Harborview Medical Center (HMC) Ninth and Jefferson Building (NJB) from hereon consists of 5 levels of below grade parking, retail at grade and 14 floors of clinics/labs/office space. The building is 726,103 GSF. This narrative describes the scope of electrical work for Shell and Core only.

B) The project is located in Seattle, Washington.

CODES

A) The facility will be designed and built to current and applicable codes as follows (with Seattle Supplements and standards):
   1) 2002 National Electrical Code, NFPA 70, with City of Seattle amendments.
   2) 2003 International Building Code with City of Seattle amendments.
   3) 2003 International Fire Code with City of Seattle amendments.
   4) Applicable Illuminating Engineering Society (IES) recommendations.
   5) Applicable American National Standards Institute (ANSI) standards.
   6) Applicable National Electrical Manufacturer's Association (NEMA) standards.
   7) 2004 Washington State Energy Code with City of Seattle amendments.

SCOPE OF WORK

A) GENERAL:
   1) Generally, the electrical system for this project will be based on an industry standard medical office building with specialty spaces defined in the RFP dated April 20, 2006. The final electrical "Design and Specifications" for this project will be reflective of this type of project and not a hospital facility.

   2) All electrical equipment installation shall meet the International Building Code seismic zone 3 requirements or the local codes whichever is more comprehensive.

   3) All ceiling mounted equipment shall be independently supported from structure and clipped to the ceiling grid where appropriate.

4) Transient voltage surge suppression protection will be provided for panelboards serving computer workstations, network equipment and other sensitive electronic equipment that are being served under the core and shell. Additional TVSS devices will be provided under a separate T.I. contract. This includes all 208Y/120 volt normal and emergency panels.

B) UTILITY SERVICES:

1) Power:

The local power utility company is Seattle City Light (SCL). SCL will provide new service to the site at 12.47 KV, 3 phase from the South Service District which is not on the spot network. This means that the NJB project would not have the reliability and back-up of the SCL spot network system, so if a building service transformer or transformers have a problem, the entire building will be without power, until SCL can repair the problem.

a) The Owner will construct a primary switch room and transformer vault to SCL's requirements. The Owner will also provide provisions for an additional future transformer vault for the building. The transformer vault will be sized accordingly for four. Sequoyah will lead the effort for SCL approval of the primary switch room and transformer vault design and obtain a "Service Agreement Letter" from SCL for the Owners.

b) The primary switch room and transformer vault will be constructed to accommodate a future spot network connection.

c) Incoming service voltage will be 480Y/277 volts, 3 phase, 4 wire.

d) The Electrical Contractor will provide the underground power duct bank system to the property line only. Extension to the nearest SCL vault as is designated by SCL is by others. Seattle City Light will install, own, operate and maintain the primary distribution system around the site.

e) All utility charges shall be paid directly by the Owner.

f) The SCL contact is: Bob Risch @ (206) 684-3269.

2) Telephone:

a) The local telephone utility company will provide telephone service to the NJB project.

b) The Electrical Contractor shall provide (7) 4" raceways from the main point of entry (MPOE) in the MDF/PBX room (demarc room) on Level G to a manhole and utility pole as designated by the local telephone utility company located on Jefferson Street. The Electrical Contractor shall also provide (7) 4" sleeves through the east wall for an alternate route for an alternate telephone utility company.

c) All utility charges excluded by electrical contractor.

3) Cable TV (CATV) System:

a) The local cable TV utility company will provide CATV service to the project, if required during the tenant improvement phase of the project.

b) The Electrical Contractor shall provide (2) 2" raceways from the main point of entry (MPOE) in the MDF/PBX room (demarc room) on Level G to the property line. The local CATV utility company shall provide the infrastructure (raceways, duct banks, vaults, etc.) to the intercept point at the property line.

c) All utility charges excluded by electrical contractor.

C) EMERGENCY POWER SYSTEM:

1) Four 1,250 KW emergency generators with paralleling switchgear will be located in NJB on Level P3 and will serve the NJB project, Inpatient Expansion Building (IEB) project and various loads in the existing Hospital.

a) One 1,250 KW generator will be provided under the NJB contract.

b) Fuel storage tanks will be provided by others and consists of two 15,000 gallon tanks located in NJB Fuel Storage Rooms on Level 4.

2) The emergency generators will provide power to the following branches of emergency loads via automatic transfer switches with bypass/isolation.

a) Life Safety Branch (Priority 1).

b) Critical Branch (Priority 1).

c) Fire Pumps (Priority 2).

d) Essential Equipment or Legally Required Branch (Priority 3).

e) Optional Standby Branch (Priority 4).

D) BUILDING POWER DISTRIBUTION:

1) The NBJ project is designed to provide 480Y/277 volt, 3 phase, 4 wire power to retail spaces, clinic/labs/office areas and below grade parking. The local power utility company will install and maintain transformers located in the transformer vault as previously described in section B.

2) The following distribution system is anticipated for the building:

a) The 480Y/277 volt, 3 phase, 4 wire, 60 hertz system will consist of two main switchboards rated at 4,000 amps, one main switchboard rated at 5,000 amps and one main switchboard (retail tenant meter center) rated at 600 amps. The RFP required a 9,400 Amp service at 277/480 volt, 3 phase, 4 wire. The current design is about 13,000 Amps.

b) This system will power mechanical equipment, plumbing equipment, fire protection equipment, elevators and building lighting. Each switchboard will incorporate the six disconnect arrangement and allow for future expansion. A Multifunction Digital Power/Energy/Demand Meter will be provided in three of the main switchboards. The Digital Meter will provide the following information:

i) Voltage (phase to phase; phase to neutral)

ii) Frequency

iii) Amps (phase to phase; phase to neutral)

iv) Total Harmonic Distortion (THD)

v) KW Demand

vi) KVAR
vii) KVAR/HR
viii) Power Factor (PF)

c) With the exception of the retail spaces, all other loads will be on the house utility meter.
d) No other owner check metering will be provided.
e) The 208Y/120 volts, 3 phase, 4 wire, 60 hertz system will consist of dry type transformers located in most of the electrical rooms throughout the building. This system will power receptacles, computer equipment, small equipment, etc.

3) Each floor will have a minimum of one electrical room with a couple of floors requiring two. Each electrical room will be dedicated to electrical equipment only per the NEC with no mechanical, plumbing, architectural appurtenances or other equipment not specifically related to the electrical space shall be installed in the electrical spaces. The electrical rooms will be stacked from floor to floor to minimize riser impacts. Electrical rooms are sized for the initial electrical installation and allow for future addition of tenant improvement panels and transformer. No other tenant equipment can be located in these spaces.

4) A Retail Tenant Meter Center will be located in the Main Electrical Room on Level P1. It will be rated at 600 amps at 480Y/277 volts with seven 200A meters and space for one more. Retail tenants will need to provide space for their own transformers and panelboards as needed. Conduit only will be provided to the ceiling space on Level S for future extension by the tenants.

5) No special electrical services such as 400Hz or "clean" power will be provided. All lighting shall be powered at 277 volts, except incandescent lighting shall be powered at 120 volts, wherever possible.

6) Provide convenience receptacles in each mechanical room, electrical room, storage room, telephone room, utility service entrance location and support areas. GFI receptacles will be provided near sinks, in exterior locations, and where required by the NEC.

7) Provide full size neutral conductors and busses throughout in all 4 wire systems. Switchboards and panelboard buses as well as the transformer windings will be aluminum.

8) Feeders and Branch Circuits:
a) Main feeders and branch circuits will be MC copper or aluminum cable wherever practical and allowed by the NEC.
b) A grounding conductor will be provided in feeders with sensitive loads only.
c) Branch circuiting for power and lighting in the garage will be based on using PVC coated MC Cable in the slabs.

9) Wiring will be routed in the slab for Level G and below to minimize surface conduits whenever and wherever practical and will be coordinated with the Structural Engineer. Conduit and cables will be surface mounted for all levels from Level 1 and above to allow for ease of identification of drilling through the concrete slabs.

10) Mechanical Equipment:
   a) Provide power and disconnects for all mechanical equipment. Each piece of equipment shall have a single point connection with one disconnect switch.
   b) Provide all standard FVNR starters for mechanical equipment except where equipment requires a VFD, two-speed starter or is a packaged unit and a starter is provided as part of the package such as fire pumps, duplex sewage pumps, duplex or triplex domestic water pumps or chiller starters. Control system and wiring shall be part of the Division 15 scope of work.
   c) Provide control system panels power.

11) Code required receptacles for mechanical and conveyance systems will be provided.

12) Mount all disconnects to structure and connect with flexible raceway.

E) LIGHTING:

1) General: All lighting will meet Washington State Non-Residential Energy Code and Seattle supplements that apply. Light sources will be energy efficient metal halide and/or fluorescent lamps. The design will keep the number of different lamps required to a minimum. Lighting levels will be per IESNA standards. Refer to the lighting fixture schedule for fixture types and the drawings for the lighting layout.
   a) Back of House Spaces – Lighting shall consist primarily of fluorescent strip light fixtures.
   b) Parking Garage and Ramps – Lighting shall consist primarily of fluorescent strip light fixtures.
   c) Stair Landings – Wall mounted fluorescent light fixtures shall be provided on emergency circuits in accordance with the International Building Code with Seattle amendments for accessible means of egress.
   d) Public Lobbies, Corridors and Spaces – Lighting control to meet energy code.
   e) Emergency Egress Lighting – Will be provided throughout all public areas and parking garage as required and circuited to the emergency power system.

2) Lighting Control:
   a) Programmable low voltage lighting control with daylight controls and centralized on-off master control will be provided in accordance with the Washington State Non-Residential Energy Code and Seattle supplements that apply. Control will be as follows:
      i) Public Lobbies, Corridors and Spaces – Low voltage relay controlled by time clock and daylighting controls.
      ii) Back of House Spaces – Occupancy sensors and local controls.
      iii) Parking Garage – Entries controlled for dual levels to compensate for daylight; all other parking garage lights are on 24/7 via a time clock.
      iv) Outdoor – Photocell and time clock control.
      v) Exterior Signage – Photocell and time clock control.

F) GROUNDING:
1) Provide all grounding per the NEC.

2) Provide ground ring electrode for the building. Provide exothermic connections for all below grade connections. Provide 3/4 inch diameter copper clad ground rods minimum 8'-0" in length. Connect grounding to concrete column rebar.

3) All LV/IDF rooms will have a separate ground bus tied together and extended to the building ground.

G) BUILDING TELECOMMUNICATIONS DISTRIBUTION:
1) Telecommunications General:
   a) The Electrical Contractor shall provide the following raceway and pathway systems:
      i) Cable tray and conduit sleeves from the MDF/PBX Room (demarc room) on Level G to the north end of the tunnel to the IEB project will be provided for telecommunications cabling infrastructure connected to the IEB project and existing Hospital.
      ii) (10) 4" riser raceways from the main point of entry (MPOE) in the MDF/PBX Room (demarc room) on Level G to the first LV/IDF Room on Level 2 via the IDF Room on Level S.
      iii) (10) 4" riser sleeves in each LV/IDF Room floor starting from Level 3 through Level 8. (6) 4" riser sleeves in each LV/IDF Room floor starting from Level 9 through Level 14. A floor opening provided between floors in lieu of sleeves is preferred.
      iv) (1) 2" riser raceway from the main point of entry (MPOE) in the MDF/PBX Room (demarc room) on Level G to the ceiling space of each of the (7) retail tenants on Level S.

   b) The Telecommunications Contractor's work is part of the Tenant Improvement scope of work.

2) Main Point of Entry (MPOE):
   a) The MPOE shall be in the MDF/PBX Room (demarc room) located on Level G.
      i) Emergency Optional Standby power will be provided as required to equipment.
      ii) Telephone MPOE backboard will be provided by the General Contractor, which shall consist of the walls within the main telephone room being lined with ¾ inch fireproof "AC" plywood from 3 inches above the finished floor.
      iii) Additional space for alternate providers has not been provided.

3) LV/IDF Rooms (Telecommunications Infrastructure):
   a) LV/IDF Rooms shall be located on each floor, stacked vertically above each other, starting from Level 2 through Level 14. Rooms shall be located so that maximum cable length does not exceed 295ft from terminal to terminal. These rooms shall not be accessible to the public.
   b) Emergency Optional Standby power will be provided as required to equipment.
   c) Telephone terminal backboard will be provided by the General Contractor, which shall consist of the room being lined with ¾ inch fireproof "AC" plywood from 3 inches above the finished floor.

4) Telecommunications Grounding:
   a) Provide a telecommunications grounding system at the MDF/PBX Room and LV/IDF Rooms. Provide a separate copper conductor in conduit bonded to wall mounted copper bus bars in the MDF/PBX Room and LV/IDF Rooms. Bond conductors to the building's main electrical ground, and to the cold water risers and sanitary drains at each floor.

H) CABLE PLANT:
The system will be designed and installed by the tenant improvement's Telecommunications Contractor.

I) FIRE DETECTION, ALARM AND COMMUNICATION SYSTEM:
1) The system will be a stand alone microprocessor based addressable class B system for a high rise building that will monitor all fire alarm devices and provide visual and audible annunciation that will comply with FDI Standards and as required by code and the local jurisdiction. The system will be connected to the NJB fire alarm control panel (FACP) in the NJB fire command center (FCC) and designed to meet the governing accessibility requirements, ADA requirements and shall be UL listed for ADA compliance. The fire alarm system will be connected by a data loop to inter-tie the NJB project, IEB project and existing Hospital FCC's. We are assuming that a pathway will be provided to run the fire alarm cable to the IEB project FCC.
2) Features will include:

a) Addressable devices with each having its own digital address.
b) Geographic zoning by floor and wing with separate annunciation for smoke detectors, manual pull stations and water flow devices.
c) LED lights for modules for remote contacts.
d) Power supplies will be contained within the fire alarm panel.
e) Higher speaker density with lower volume for each.
f) Strobes in public spaces only.
g) Speaker volume bypass access numbers for telephone operators and security paging.
h) Fire Command Center inter-tied with IEB project and existing Hospital Fire Command Centers.

J) SECURITY MANAGEMENT SYSTEMS:

1) Card Access Control System:
   a) The head-end equipment will be located in the LV Room on Level S.
   b) The system will be inter-tied with the systems in the IEB project and the existing Hospital.
   c) The core and shell electrical budget includes card readers in the following locations at this time:
      i) Each elevator.
      ii) Egress stairs – Rough-in only.
      iii) One (1) exterior pedestrian door and two (2) interior doors at lobby level.
      iv) Garage and loading dock entries.

2) CCTV Camera System:
   a) The head-end equipment will be located in the LV Room on Level S.
   b) The electrical contractor shall provide the raceway from the NJB project to the East Hospital Center Wing 8th Floor monitoring station.
   c) The core and shell electrical budget includes (7) CCTV cameras in the following locations at this time:
      i) Exterior perimeter.
      ii) Interior lobbies.
      iii) Loading dock.

K) HOSPITAL TV SYSTEM:

1) Hospital TV Services General:
   a) The Electrical Contractor shall provide the following raceway systems:
      i) (3) 2" riser sleeves from the LV Room on Level S to the MDF/PBX Room on Level G for future extension to the IEB project and existing Hospital systems during the tenant improvement phase.
      ii) (3) 2" riser raceways from the LV Room on Level S to the first LV/IDF Room on Level 2.
      iii) (3) 2" riser sleeves in each LV/IDF Room floor starting from Level 3 through Level 8. (2) 2" riser sleeves in each LV/IDF Room floor starting from Level 9 through Level 14. A floor opening provided between floors in lieu of sleeves is preferred.

iv) Cabling to be provided during the tenant improvement phase.

L) PARKING EQUIPMENT:

1) Parking equipment system shall be provided, coordinated and installed by others.
2) The Electrical Contractor shall only provide the power connection, control raceway, security raceway and telecommunications raceway from the parking equipment system devices to a location to be determined at a later date. The electrical budget includes the following at this time:
   a) Parking equipment system device locations at the car entrance to the parking garage.
   b) Parking equipment system device locations at the car exit to the parking garage.
   c) Card key entry system and interface with parking equipment.

M) PARKING PANIC ALARM SYSTEM (ALTERNATE BID):
Not included, please add $274,000 for this work.

N) NURSE CALL:
Tenant Improvement scope of work.

O) CLINIC ROOM STATUS SYSTEM:
Tenant Improvement scope of work.

P) AUDIO-VIDEO SYSTEM:
Tenant Improvement scope of work.

Q) CRITICAL ALARM SYSTEM:
Tenant Improvement scope of work.

R) RADIO PAGING SYSTEM:
Tenant Improvement scope of work.

S) ENGINEERING RADIO 800MHz SYSTEM:
Tenant Improvement scope of work.

T) IN-HOUSE PAGER SYSTEM:
Tenant Improvement scope of work.

U) METROCALL PAGER SYSTEM:
Tenant Improvement scope of work.

V) PNEUMATIC TUBE SYSTEM:
Tenant Improvement scope of work.

1.01 GENERAL PROVISIONS

GENERAL SHELL AND CORE:

A) Project Design: Provide complete electrical design, including (where applicable):
   1) Power and Lighting device layout and circuiting.
   2) Mechanical device coordination and circuiting.
   3) Complete load calculations.
   4) Fault current calculations.
   5) Energy Calculations.

B) CODES: Comply with:
   1) City of Seattle Electrical Code Supplement.
   2) Seattle Energy Code.
   3) National Electrical Code, latest edition.
   4) The City of Seattle Plan Review Requirements.
   5) NFPA 110-Standard for emergency and standby power systems.

C) PERMITS: The Electrical Contractor shall obtain and pay for permits.

END SECTION 16000

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ATTACHMENT F

Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix HVAC/PLUMBING

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstand & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Plumbing Systems							
Domestic Cold Water		Piping to 5-feet south of 'K' line	Connect 8" CW feed downstream of meter & RPBP to 5-feet south of 'K' line				6" for shared redundancy
Domestic Hot Water		services not shared	n/a				
Lab Cold Water		services not shared	n/a				
Lab Hot Water		services not shared	n/a				
Sanitary Waste/Vent		services not shared	n/a				
Lab Waste/Vent		services not shared	n/a				
Storm Drainage		services not shared	n/a				
Medical Gases							
O2		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for O2 supply line to IEB & pathway for two manifold relefs to exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.		X	Primary service to IEB from Hospital, backup from NJB.
Nitrogen		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for nitrogen supply line to IEB & pathway for two manifold relefs to exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.		X	Primary service to IEB from NJB, backup from Hospital
Nitrous (N20)		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for nitrous supply line to IEB & pathway for manifold relef to exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.		X	Primary service to IEB from NJB, backup from Hospital
Medical Air		Piping to South doorway near 'L' line. Certify piping to termination point.	Pathway for medical air supply line to IEB & pathway for compressor air intake at exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.		X	Primary service to IEB from NJB, backup from Hospital
Medical Vac		Piping to South doorway near 'L' line. Certify piping to termination point.	Pathway for medical vacuum supply line to IEB & pathway for vacuum pump discharge at exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.		X	Primary service to IEB from NJB, backup from Hospital
Lab Air		Piping to South doorway near 'L' line. Lab air system NOT certified.	Pathway for medical air supply line to IEB & pathway for compressor air intake at exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line. Lab air system NOT certified.		X	Primary service to IEB from NJB, no backup
Lab Vacuum		services not shared	Pathway for medical vacuum supply line to IEB & pathway for vacuum pump discharge at exterior of bldg.	Plant equipment & piping through NJB		X	
Medical Gas Certification		IEB Team to certify the systems/piping in the IEB building and participate in final connection. IEB/NJB teams will collaborate for final certification of the new systems serving IEB.		NJB Team to certify the systems/piping in the NJB building and participate in final connection. IEB/NJB teams will collaborate for final certification of the new systems serving IEB.			
Controls for Medical Gas		Provided by IEB to 8th floor Safety Command Center East Hospital	Pathway for control wiring to IEB	Connect to junction box @ 'L' line. Master alarm panel in NJB. NJB plant reports to 8th Floor Safety Command Center East Hospital.			
HVAC Systems							
Building Compressed Air (100psi)		Piping to South doorway near 'L' line. Compressed air NOT certified	Pathway for building air line to IEB & pathway for compressor air intake at exterior of bldg.	Plant equipment & piping through NJB to utildor entrance at South doorway near 'L' line.Compressed air is not certified.		X	Primary service to IEB from NJB, no backup. Serves fire sprinkler dry system, pneumatic controls, etc.
Chilled Water		services not shared	n/a				
Heating Water		services not shared	n/a				
Steam		Piping to 5-feet south of 'K' line. Test piping to termination point. Provide high pressure condensate return piping to 5-feet south of 'K' line.	Provide 6" (60psi) backup steam line to 5-feet south of 'K' line. Test system to point of connection. Make final connection.			X	6" steam line for shared redundancy.
Condenser Water		services not shared	n/a				
Supply Air		services not shared	n/a				
Exhaust Air		services not shared	n/a				
Garage Ventilation		services not shared	n/a				
Fume Exhaust		services not shared	n/a				
Biosafety Hood Exhaust		services not shared	n/a				
Auxiliary Cooling Loop		Piping to 5-feet south of 'K' line. Test piping to termination point. Plant equipment & piping through IEB to utilidor to connection point.	Connect to pipe 5-feet south of 'K' line and extend Auxiliary cooling loop into NJB. Make final connection. Auxiliary Cooling loop shall support the cooling needs of spaces in NJB needed to serve IEB (example: Medical Air/Vac Room)			X	Coffman to research how much cooling is available.
Emergency Generator / Fuel Fill							
Emergency Generators	Provided & installed by old NJB						
Mufflers	Provided by old NJB		Installed by NJB			X	
Fuel Fill Station		n/a	Provided & installed by NJB			X	
Diesel Generator Exhaust Stacks		n/a	Provided & installed by NJB			X	
Radiator Ventilation		n/a	Provided & installed by NJB			X	
Fuel Day Tanks		n/a	Provided/ installed by NJB			X	
Fuel Storage Tanks		n/a	Provided & installed by NJB			X	
Fuel Delivery System		n/a	Fuel pumping system from storage tanks to day tanks			X	

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Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix **ELECTRICAL**

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstand & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Emergency Generator Plant							
IEB Emergency Generators	3(ea) Furnished old NJB		Installed and connected by NJB			X	Testing, commissioning, warranty included in purchase. Both NJB & IEB electrical contractors involved in the testing and commissioning.
NJB Emergency Generator					1(ea)Designed, furnished, installed and connected by NJB	X	Testing, commissioning, warranty included in purchase. The NJB electrical contractor involved in the testing and commissioning. The IEB electrical contractor may be involved depending on installation completion of this generator. IEB electrical contractor paid by NJB project if required.
Finalize design of emergency generator load calculations.	Sparling to finalize design of load calcs for IEB and new NJB (pd by NJB)		Sequoyah to quality revised loads for NJB and forward to Sparling.				
NJB Emergency Generator Distribution Switchboard	Furnished by old NJB		Installed and connected by NJB. NJB add breakers to paralleling gear to support NJB revised loads according to Sparlings final design			X	Testing, commissioning, warranty included in purchase. Both NJB & IEB electrical contractors involved in the testing and commissioning.
IEB Emergency Power Busways		Design of extension by Sparling (pd by NJB) Furnished installed, connected by IEB	NJB to coordinate route through NJB			X	
IEB Emergency Power Conduits and Conductors		Design of extension by Sparling (pd by NJB) Furnished installed, connected by IEB	NJB to coordinate route through NJB			X	
IEB Emergency Control Conduits and Conductors		Design of extension by Sparling (pd by NJB) Furnished installed, connected by IEB	NJB to coordinate route through NJB			X	
Medical Gas Pump Room							
Power to Medical Gas Pump Room equipment from the NJB electrical distribution system.			Furnished, installed and connected by NJB			X	
Lighting and lighting control in room powered from the NJB electrical distribution system.			Furnished, installed and connected by NJB			X	
General convenience power devices in room powered from the NJB electrical distribution			Furnished, installed and connected by NJB			X	
Telecommunications devices in room.			Furnished, installed and connected by NJB			X	
Fire alarm system devices in room connected to the NJB main fire alarm system panel.			Furnished, installed and connected by NJB			X	
Power to remote med gas alarm panel in fire control room IEB-rm 117		Furnished by division 15 IEB installed, connected by Div. 16 IEB				X	
Fire Alarm System Connection between the NJB and IEB Projects						X	
Necessary equipment in the IEB project fire alarm control panel (FACP) so that NJB project fire alarm system can connect to it.		Furnished & installed by IEB			Connected by NJB	X	
Necessary equipment in the Hospital Center Wing fire alarm control panel (FACP) so that NJB project fire alarm system can connect to it.					Furnished, installed & connected by NJB	X	
Connect the NJB project fire alarm system to the IEB project main fire alarm system panel.		2" conduit per current design, furnished & installed by IEB			Cabling furnished, installed and connected by NJB	X	
Connect the NJB project fire alarm system to the Hospital Center Wing main fire alarm system panel.		Conduit per current design, furnished & installed by IEB			Cabling furnished, installed and connected by NJB	X	
Provide a second NJB project fire alarm system annunciator in the Safety Command Center Room #8EH-74 in the East Hospital. Also provide the connection between the NJB fire alarm system and second NJB project fire alarm system					Furnished, installed and connected by NJB include conduit and wiring from Generator to 8th floor East Hospital Security Command Center Room #8EH-74.	X	
Telecommunications System Connection between the NJB and IEB Projects						X	
Telecommunications cable between the IEB project MDF Room and the NJB project MDF Room.		Furnished installed Connected by IEB. Pending outcome of Telecommunications meeting.	NJB to coordinate route through NJB.			X	

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Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix **ELECTRICAL**

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstand & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Cable tray and conduits between the north end of the tunnel (gridline "K") and the NJB project MOF Room.					Furnished, installed and connected by NJB		
Inside Re-Radiating System (IRS) Connection between the NJB and IEB Projects							
ias cable between the south end of the tunnel in the IEB project and the IEB project system.		Furnished Installed Connected by IEB. Previously deleted by Change order.					IEB has changed system there is no longer a system for NJB to connect to
ias cable from the NJB project level G LV Room to the south end of the tunnel in the IEB project and connect to IEB project shielded riser cable.					Delete IRS. Add Firefighter phone jacks to the fire alarm system as required. Add riser pathway (raceway & sleeves) to each floor for future Johnson Controls Wireless Infrastructure System.		
Security System Backbone Connection between the NJB and IEB Projects							
Necessary equipment in the IEB project Main Security Room on level 1 so that NJB project security system can connect to		Furnished and installed by IEB. Pending outcome of Security meeting					Might not be enough capacity because equipment may be sized per IEB drawings which conflict with NJB
(2) 300 pair CAT 3 UTP cables from the NJB project level G LV Room to the IEB project Main Security Room on level 1.					Furnished, installed and connected by NJB. Pending outcome of security meeting		
Hospital Entertainment TV Coaxial System Backbone Connection between the NJB and IEB Projects							
Hospital Entertainment TV coaxial backbone cable from the IEB project system to the south end of the tunnel in the		Furnished, installed & connected by IEB					
Hospital Entertainment TV coaxial backbone cable from the NJB project level G LV Room to the south end of the tunnel in the IEB project and connect to the IEB Hospital Entertainment TV coaxial backbone system on level G.					Furnished, installed and connected by NJB		Provide Hospital Entertainment TV pathway (raceways & sleeves) only through the 14th floor. Provide Hospital Entertainment TV cabling to two floors of T.I., spaces in pedestal TBD. Provide CATV service & distribution pathways (raceways & sleeves) into and through the building and up to the 14th floor. CATV cabling to be provided by the CATV utility company.

EXHIBIT E

Harborview
Ninth and Jefferson Building

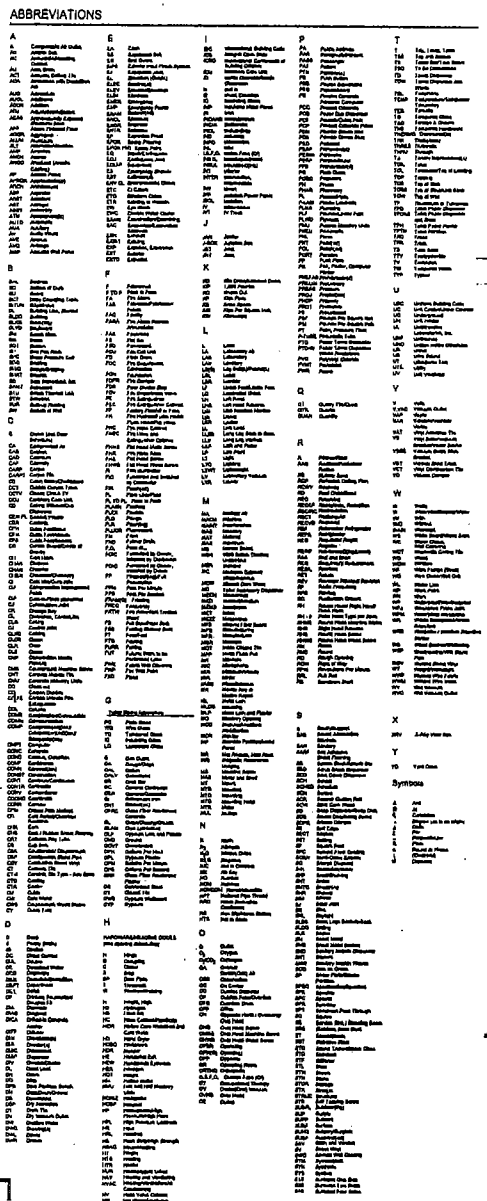
Schematic Design

September 20, 2006

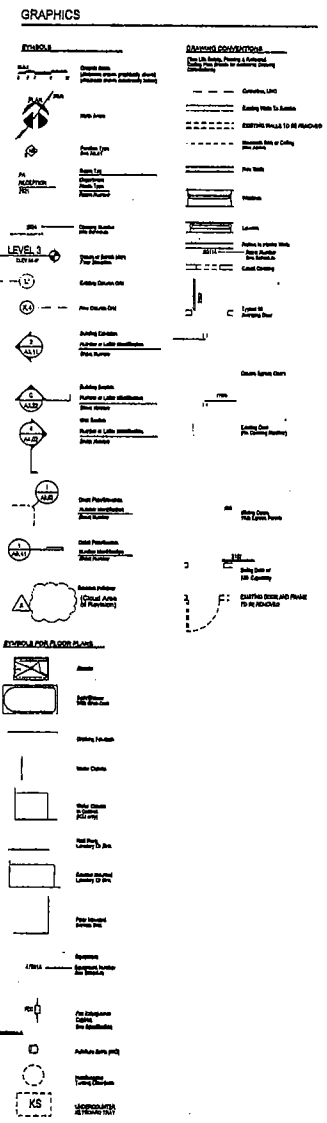
nbbj

Wright Runstad & Company

ABBREVIATIONS



GRAPHICS



REQUIREMENTS FOR ACCESSIBILITY

1. DURING ALL HOURS THE BUILDING IS OPEN TO THE PUBLIC, ALL PRIMARY ENTRANCES TO THE BUILDING, THE SHORTEST PATH OF TRAVEL FROM THE ENTRANCES TO ALL PORTIONS OF THE BUILDING AND ALL PUBLIC USE AREAS WITHIN THE BUILDING SHALL BE ACCESSIBLE AND PUBLIC TOILETROOMS SHALL BE PART OF THE BUILDING PART AT ALL TIMES OPEN TO THE PUBLIC.

   ALL BUILDING ENTRANCES SHALL BE EQUIPPED WITH AT LEAST ONE STANDARD DOOR AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS.

2. HANDICAPPED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES ABOVE THE FINISHED FLOOR. LATCHING AND LOCKING DOORS THAT ARE IN THE PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, BY PANIC BAR, PUSH-PLATE ACTUATING BAR, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT ONE ABILITY TO GRASP THE OPENING DEVICE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN THE DIRECTION OF EGRESS.

3. MANUALLY OPERATED DOOR OR SURFACE MOUNTED PUSH BOLTS ARE NOT ALLOWED. PANIC EXIT DEVICES ARE USED IN PAIRS, AND APPROVED FLUSH BOLTS ARE USED, THE DOOR LEAF HAVING THE AUTOMATIC FLUSH BOLTS SHALL HAVE NO DOOR KNOB OR PUSH/PULL HANDLE ABOVE THE FLOOR. THE LOCATIONS OF ANY LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.

4. REGARDLESS OF THE OCCUPANCY LOAD, THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR, AND SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN UP AND UP SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2.

5. THERE SHALL BE A LEVEL AND CLEAR FLOOR OR LANDING ON EACH SIDE OF A DOOR, THE LEVEL AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60 INCHES AND THE LENGTH OPPOSITE THE DIRECTION OF THE DOOR SWING OF AS INDICATED AS RIGHT ANGLES TO THE PLANE OF THE DOOR IN ITS CLOSED POSITION.

6. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 1/2 INCH. WHEN CHANGES IN LEVEL DO OCCUR, THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. EXCEPT THAT LEVEL CHANGES EXCEEDING 1/4 INCH MAY BE VERTICAL. WHEN CHANGES IN LEVELS GREATER THAN 1/4 INCH ARE REQUIRED, THEY SHALL BE ACCOMPLISHED BY MEANS OF A RAMP, LIFT OR ELEVATOR.

7. STEPS REQUIRED ALONG ACCESSIBLE ROUTES SHALL HAVE RISERS NOT EXCEEDING 7 INCHES AND TREADS NOT LESS THAN 11 INCHES. THE NOSING SHALL NOT EXCEED 1 1/2 INCHES. THE RISER SHALL BE SOLID. STEPS SHALL HAVE HANDRAILS ON BOTH SIDES AND SHALL EXTEND AT LEAST 12 INCHES BEYOND THE TOP AND BOTTOM STEPS.

8. FOR HANDICAP USE, DRINKING FOUNTAINS, IF THE SPOUT IS MORE THAN 3 INCHES FROM THE FRONT OF THE UNIT, SHALL BE MOUNTED AT A HEIGHT NOT EXCEEDING 36 INCHES ABOVE THE FINISHED FLOOR. THE SPOUT SHALL BE LOCATED NOT MORE THAN 5 INCHES FROM THE FRONT OF THE UNIT AND SHALL DISPENSE WATER IN A FLOW AT LEAST 4 INCHES HIGH SO AS TO ALLOW THE INSERTION OF A CUP UNDER THE FLOW OF WATER.

9. A MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR INTERIOR DOORS, 15 POUNDS FOR EXTERIOR DOORS AND 15 POUNDS FOR FIRE-RATED DOORS. SUCH PUSH OR PULL EFFORT SHALL APPLY AT AUDIO FRONT EDGE OF DOOR, AND TO THE CENTER OF PLANE OF FOR BLADED DOORS ON HARDWARE DOMETION.

10. THE BOTTOM 10 INCHES OF ALL DOORS EXCEPT AUTOMATIC AND SLIDING SHALL HAVE A SMOOTH, UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST IN FAULT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAMED DOORS ARE USED, IT IS SUCH HIGH SMOOTH PANEL IS REQUIRED ON THE PULL SIDE OF THE DOOR. THE PANEL SHALL ALLOW FOR THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST OR PUSH PLATE OR PUSH PLATE AND A REAR DOOR.

11. DOORS LEADING TO NON-SANITARY FACILITIES SHALL BE IDENTIFIED BY AN EQUILATERAL TRIANGLE 3/8" THICK WITH SEVEN 1/2" LONG AND A VERTICAL POINTING UPWARD. WOMEN'S SANITARY FACILITIES SHALL BE IDENTIFIED BY A CIRCLE 1/4" THICK AND 1'-0" IN DIAMETER.

   UNISEX SANITARY FACILITIES SHALL BE IDENTIFIED BY A CIRCLE 1/4" THICK, 1'-0" IN DIAMETER, WITH A 1/4" LONG TRIANGLE CENTERED ON THE CIRCLE AND WITH THE 1/2" DIAMETER.

   GEOMETRIC CIRCLE AND TRIANGLE SYMBOLS SHALL BE CENTERED ON THE DOOR AT A HEIGHT OF 60" ABOVE FINISHED FLOOR AND SHALL CONTRAST WITH THE DOOR, I.E. EITHER LIGHT ON A DARK SURFACE OR DARK ON A LIGHT SURFACE.

   ADDITIONAL SIGNAGE REQUIREMENTS: RAISED LETTERS SHALL BE PREFERRED AND SHALL BE ACCOMPANIED BY BRAILLE IN CORRESPONDENCE WITH SECTION 11.7.5.5.A. THEY SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SURFACE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. PREFERABLY ON THE RIGHT. MOUNTING HEIGHT SHALL BE 60" ABOVE FINISHED FLOOR TO THE CENTER OF THE SIGN. MOUNTING LOCATION SHALL BE DETERMINED SO A PERSON MAY APPROACH WITHIN 3 INCHES OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

GENERAL REQUIREMENTS:

1. ALL WORK IDENTIFIED AS "DESIGN-BUILD", "DESIGN-BUILD BY OTHERS", OR "BY OTHERS" IS WORK NOT UNDER THE ARCHITECT'S CONTRACT. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK IDENTIFIED AS "DESIGN-BUILD", "DESIGN-BUILD BY OTHERS", OR "BY OTHERS".
2. ALL WORK SHALL COMPLY WITH CURRENT APPLICABLE CODES AND ORDINANCES.
3. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS ON THE JOB AND BE RESPONSIBLE FOR SAME. CONTRACTOR SHALL ALERT ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
4. CONTRACTOR SHALL VISIT THE JOB SITE TO BETTER ACQUAINT HIM OR HERSELF WITH THE DEMOLITION AND THE WORK SHALL BE INCLUDED AS PART OF THIS PROJECT.
5. COORDINATE WORK EITHER ALL OPERATIONS (NOW) ON AREAS USED FOR MATERIALS STORAGE, ACCESS TO AND FROM WORK, HOURS OF OPERATIONS OF NOISY OPERATIONS, TIMING OF WORK, INTERRUPTION OF MECHANICAL AND ELECTRICAL SERVICES AND RELOCATION OF EXISTING OVERHEAD OR BURIED CONDUITS.
6. DO NOT SCALE DRAWINGS. IF A CONFLICT IN THE DIMENSIONS IS ENCOUNTERED, NOTIFY THE ARCHITECT IN WRITING FOR A CLARIFICATION. FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION.
7. ALL EXISTING FIRE RESISTIVE ASSEMBLIES SHOWN ARE BASED ON AS-BUILTS AND/OR CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THOSE FIRE RATINGS IN THE FIELD. ALL FIRE RATED PORTS OF WORK AND UNDER THE OWNER'S REPRESENTATIVE AND ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

HAZARDOUS MATERIALS:

IN BUILDINGS ERECTED PRIOR TO 1975 THERE IS A POSSIBILITY THAT ASBESTOS CONTAINING MATERIALS WILL BE FOUND. WHEN SUSPECTED ASBESTOS IS ENCOUNTERED, NOTIFY THE OWNER WITHOUT DELAY AND STOP ALL WORK IN THE VICINITY UNTIL SPECIFIC INSTRUCTIONS CONCERNING THE EXAMINATION OF THE MATERIALS HAVE BEEN COMPLETED. THE OWNER IS RESPONSIBLE TO RESOLVE ANY SUSPECT ASBESTOS AND THEREFORE IS NOT LIABLE FOR ANY UNAUTHORIZED REMOVAL.

CONSTRUCTION NOTES:

1. WHEN INSTALLING DRILLDOWN ANCHORS AND OR POWDER DRIVEN PINS IN CASE ONE NON-FALLEN RATED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING STEEL. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE HEAD OF CONCRETE STEEL AND THE DRILLDOWN ANCHOR, AND OR PIN.

2. IN GENERAL, PLAN DIMENSIONS SHOWN ARE:
   A. TO THE FACE OF STF BOARD AT STUD PARTITIONS AND FURRING.
   B. TO THE FACE OF CONCRETE WALLS.
   C. TO THE COLUMN GRID LINES.
   D. TO THE FACE OF CONCRETE PARTITIONS.

3. PARTITIONS NOT DIMENSIONED ARE LOCATED IN CENTERLINES OF COLUMNS OR CENTERLINES OF WALLS/ONS.

4. ALL DOORS NOT LOCATED BY DIMENSIONS ON PLANS OR DETAILS SHALL BE 4" FROM FACE OF STF BOARD IN ADJACENT RIGHT ANGLE WALL TO SIDE OF DOOR OPENING OR CENTERED BETWEEN JAMBS PARTITIONS, AS SHOWN, UNLESS NOTED OTHERWISE ON DOOR SCHEDULE.

5. THE CONTRACTOR SHALL CONTACT ALL TRADES FOR OPENINGS REQUIRED THROUGH WITH CONSTRUCTION FOR DUCTS, PIPES, CONDUITS, CABINETS AND EQUIPMENT. CONTRACTOR SHALL VERIFY ALL NEED AND LOCATIONS.

6. ALL PENETRATIONS THROUGH FIRE RESISTIVE ASSEMBLIES ANY OPENINGS OR CONDITIONS AROUND INCLUDING CONDUITS AND PIPING SHALL BE TIGHTLY SEALED WITH APPROVED UL LISTED FIRE STOP SEALANT SYSTEM.
   WHERE PLUMBING PIPE TRAPS AN AREA SEPARATION WALL BARRIER, THE AREA FRAMING THROUGH THE WALL SURFACE AND THE FIXTURE CONNECTIONS THERETO SHALL BE WITH METAL JACKETS.

7. EACH MINERAL FIBER INSULATION AROUND PIPES, DUCTS, CONDUITS, OR OTHER SYSTEMS THAT PENETRATE NON-FIRE RATED WALLS. WHERE ANY FIRE PENETRATIONS SHALL BE SEALED WITH APPROVED PERMANENT RESILIENT SEALANT.

8. ALL PENETRATIONS INTO SOUND RATED PARTITIONS, INSULATED PARTITIONS OR CEILING ASSEMBLIES SHALL BE SEALED WITH APPROVED PERMANENT RESILIENT SEALANT. ELECTRICAL DEVICES SHALL BE SEALED, LASED, INSULATED, OR OTHERWISE TREATED TO MAINTAIN MAJORITY OF THE ACOUSTICAL ASSEMBLY.

9. CONTRACTOR SHALL REFER TO DRAWINGS AND SPECIFICATIONS FOR ACCESS DOOR LOCATIONS AND ASSEMBLY WITH OTHER TRADES AND MECHANICAL AND ELECTRICAL CONTRACTOR FOR EXACT LOCATIONS OF ACCESS REQUIRED BY THE WORK. OBTAIN THE ARCHITECT'S APPROVAL IN LOCATING ACCESS DOORS.

10. DRAWINGS HAVE BEEN DETAILED IN COMPLIANCE WITH ALL LISTING REQUIREMENTS AND A.S.A. REPORTS FOR THE MATERIALS SPECIFIED. (INSTALLED AN ALTERNATE OR SUBSTITUTED MATERIAL IS ACCEPTED AS AN EQUAL BY THE CONTRACTOR, HE WILL ASSUME THE RESPONSIBILITY FOR WHATEVER CONSTRUCTION MODIFICATION AND OR ADDITIONAL COSTS ARE REQUIRED BY REASON OF THIS ACCEPTANCE.

11. ALL EXPOSED PAINTED SURFACES SHALL BE EXTENDED TO THE NEAREST WALL OR CEILING JOINT, A CHANGE IN COLOR OF SURFACE TO OCCUR ON WALLS ONLY AT POINTS OF CEILING VALUES AND BUILT-IN WORK.

12. CONTRACTOR IS RESPONSIBLE FOR ALL PATCHING, PAINTING, AND PREPARATIONS FOLLOW-UPS AS REQUIRED BY WORK OF ALL TRADES.

13. CONTRACTOR SHALL VERIFY ALL REQUIREMENTS FOR EXACT SIZE AND QUANTITY (LAYOUTS OF CLOTHING PLANNED BY OWNER) AND BE RESPONSIBLE FOR ALL ROUGH-INS, CONNECTIONS AND BACKING. SEE EQUIPMENT PLAN, AND SCHEDULE IN PROJECT MANUAL.

14. ELECTRICAL, COMMUNICATION, LOW-VOLTAGE AND MECHANICAL OUTLETS ARE ONLY SHOWN ON ARCHITECTURAL ELEVATIONS FOR REFERENCE ONLY AND IN THERE MAY BE A COORDINATION PROBLEM WITH OTHER WORK. LOCATION OF OUTLETS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF LIGHTING AND NEW OUTLETS WITH DRAWINGS. CONTRACTOR SHALL OBTAIN ARCHITECTS AND OWNER'S APPROVAL OF OUTLET LOCATIONS BY MEANS OF A SCHEDULED "BOX WALK" PRIOR TO INSTALLATION OF CONDUIT, PIPING AND DUCTWORK.

15. ROOM MATERIAL AND FINISH SCHEDULES SHALL NOT BE TAKEN AS A COMPLETE SPECIFICATION FOR ALL INTERIOR ROOM MATERIALS. IT SHALL BE ENDING TO THE EXTENT OF THE MATERIALS IT DOES SPECIFY. THE CONTRACTOR SHALL CHECK THE SCHEDULES WITH THE SPECIFICATIONS AND DRAWINGS FOR OTHER MATERIALS NOT COVERED BY THE SCHEDULE AND REFER ALL MISMATCH.

16. FILL ALL HOLES AND VOIDS IN FLOORS, WALLS AND CEILINGS WHICH RESULT FROM THE REMOVAL OF ANY WORK WITH RELATION OF EXISTING MECHANICAL AND EQUIPMENT REQUIRED BY THE CONTRACT, INCLUDING DEMOLISHED MECHANICAL AND ELECTRICAL SYSTEMS. PATCHED AREAS SHALL MATCH THE MATERIAL, PRE-FINISHING, FINISHES AND LEVELS ADJACENT.

17. ALL MATERIALS INDICATED TO MATCH EXISTING SHALL DO SO IN RESPECT TO SIZE, SHAPE, COLOR AND TEXTURE, AND SHALL BE APPROVED BY THE ARCHITECT BEFORE USE. NO EXISTING MATERIALS SHALL BE RELOCATED UNLESS NOTED OTHERWISE OR WITHOUT SPECIFIC WRITTEN AUTHORIZATION FROM THE ARCHITECT.

18. EXISTING CONDITIONS DAMAGED OR REMOVED AS A RESULT OF ALL WORK REQUIRED TO BE DONE UNDER THIS CONTRACT SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION AND FINISHED TO MATCH ADJACENT FINISHES.

APPLICABLE CODES AND REGULATIONS:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LISTED APPLICABLE CODES LISTED BELOW.

IN ADDITION TO ALL LOCAL AND STATE CODES, ALL WORK SHALL COMPLY WITH THE ACCESSIBILITY REQUIREMENTS OF THE STATE OF WASHINGTON CODE OF REGULATIONS, AND THE AMERICANS WITH DISABILITIES ACT (ADA).
IN ADDITION, REFER TO "REQUIREMENTS FOR ACCESSIBILITY" NOTES INDICATED ON THIS SHEET.

REFER TO DESIGN-BUILD MECHANICAL AND ELECTRICAL DOCUMENTS BY OTHER FOR REQUIRED LOCAL AND STATE CODES.

APPLICABLE CODES

2003 INTERNATIONAL BUILDING CODE WITH WASHINGTON STATE AMENDMENTS
2003 SEATTLE BUILDING CODE
SEATTLE LAND USE AND ZONING CODE
WASHINGTON STATE ENERGY CODE WITH SEATTLE AMENDMENTS
WASHINGTON ADMINISTRATIVE CODE, PERTAINING TO NEW PUBLIC FACILITIES (WAC)
NFPA SECTIONS 101 AND 99, PERTAINING TO LIFE SAFETY AND HEALTHCARE FACILITIES

PROJECT DESCRIPTION:

SCOPE OF WORK THIS PERMIT:	CONSTRUCT A 2 STORY BELOW-GRADE GARAGE, WITH AT-GRADE ENTRY, LOADING AND RESIDENCE AMENITIES, AND RETAIL SHELL, MIDSTORY OFFICE BUILDING (SHELL AND CORE ONLY) ABOVE GRADE, WITH PENTHOUSE.
OCCUPANCY TYPE:	GROUP B, M, A-3, R-2
TYPE OF CONSTRUCTION:	TYPE IA FULLY SPRINKLERED
NUMBER OF STORIES:	2 BELOW-GRADE, 24 ABOVE-GRADE, 1 PENTHOUSE.

PROJECT DIRECTORY:

PROJECT ADDRESS
ESTA PRIVATE,
SEATTLE, WASHINGTON 98104

PROPERTY INFORMATION
APN: 0659-000-000, 0659-0074, 0659-0085, 0659-0109
PORTION OF BLKS 1 & 2, TOWN OF TENNESSEE
(CIRCLE STATE PERMIT: SET AT PT
SECTION 29, TOWNSHIP 24 N, RANGE 4 E
THE BASE LIN (EA, S-N)

OWNER
WRIGHT RUNSTAD & CO.
1201 3RD AVE., SUITE 2700
SEATTLE, WASHINGTON 98101
(206) 447-9600

ARCHITECT
NBBJ
223 YALE AVE. N.
SEATTLE, WASHINGTON 98109
(206) 223-5055

STRUCTURAL ENGINEER
MAHLUM/KLEIN OLSEN ASSOCIATES
1201 4TH AVE., SUITE 2000
SEATTLE, WASHINGTON 98101
(206) 624-1280

MECHANICAL ENGINEER
UNIVERSITY MECHANICAL CONTRACTORS
13611 NE PL, S
KIRKLAND, WASHINGTON 98071
(206) 285-3344

ELECTRICAL ENGINEER
SEQUOYAH
12010 124TH CT. NE
REDMOND, WASHINGTON 98052
(425) 814-3882

FIRE PROTECTION
DESIGN-BUILD BY OTHERS

REVIEWING AGENCY:

CITY OF SEATTLE
DEPARTMENT OF PLANNING AND DEVELOPMENT
700 5TH AVE., SUITE 2000
SEATTLE, WASHINGTON 98124
PHONE: (206) 684-4000

DPD PERMIT#
7607-8

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5 of 5 UTILITY SURVEY (FOR REFERENCE ONLY)

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A4.03 DETAILS

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S0.02 GENERAL STRUCTURAL NOTES
S0.03 GENERAL STRUCTURAL NOTES
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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

dev	DATE	DESCRIPTION

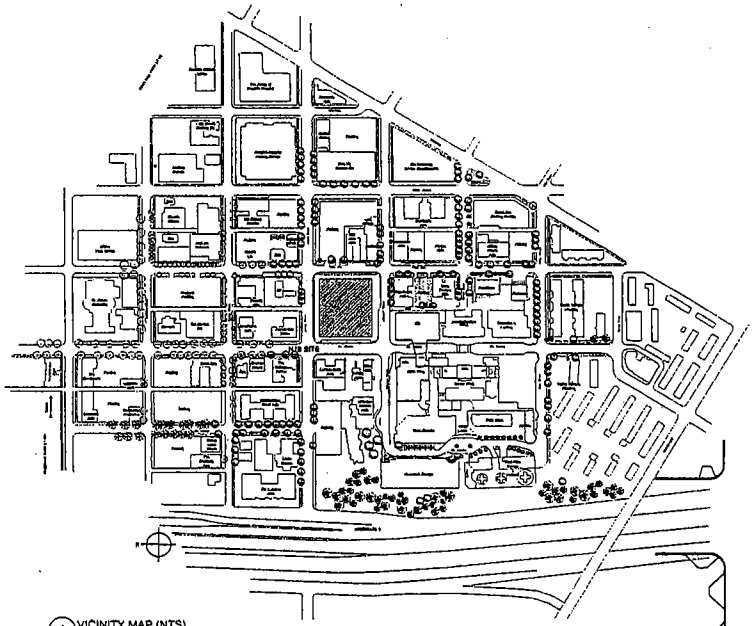
PROJ. ID: 100132.00
DATE: 09/20/2006

DRAWING INDEX, PROJECT INFO AND ABBREVIATIONS

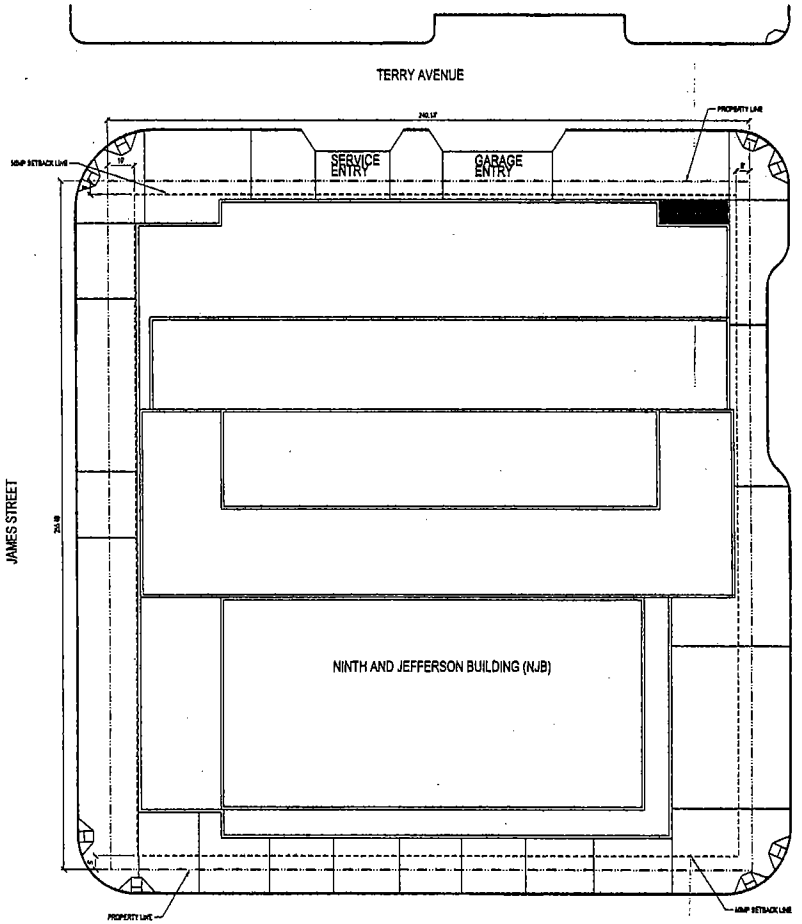
A0.01

EXHIBIT E

EXHIBIT E



1 VICINITY MAP (NTS)



2 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 08/20/2008

VICINITY MAP, ARCHITECTURAL SITE PLAN

SCALE: 1/16" = 1'-0"

A0.02

HARBORVIEW NINTH AND JEFFERSON BUILDING
CODE REFERENCE INFORMATION

I. APPLICABLE CODES

A. ACCESSIBILITY CODE
2003 Seattle Building Code - Chapter 11

B. BOILER CODE
Seattle Boiler and Pressure Vessel Code

C. BUILDING CODE
2003 SEATTLE BUILDING CODE

2003 Seattle Building Code (Ch. 30)

D. ELECTRICAL CODES
2002 Seattle Electrical Code Supplement
2002 National Electrical Code

E. ENERGY CODES
2003 Washington State Energy Code (WSEC)
2003 Seattle Supplement to WSEC

F. FIRE CODE
Seattle Fire Code is comprised of :
2003 International Fire Code
2003 Seattle Supplements to the 2003 International Fire Code (2003 Seattle Fire Code).

G. LAND USE CODE
City of Seattle Title 23

H. MECHANICAL CODE
2003 International Mechanical Code with Washington Amendments
2004 Seattle Amendments to IMC
2003 International Fuel Gas Code
2003 Uniform Plumbing Code with Washington Amendments

II. FLOOR AREA (gross)

Floor Levels	Grp	Occupancy/ Use	Floor Area	Location
Level 15		Mech (NOT PART OF PERMIT		Elevated
Level 14		Office (NOT PART OF PERMI		Elevated
Level 13		Office (NOT PART OF PERMI		Elevated
Level 12		Office (NOT PART OF PERMI		Elevated
Level 11		Office (NOT PART OF PERMI		Elevated
Level 10		Office (NOT PART OF PERMI		Elevated
Level 9		Office (NOT PART OF PERMI		Elevated
Level 8		Office (NOT PART OF PERMI		Elevated
Level 7		Office (NOT PART OF PERMI		Elevated
Level 6		Office (NOT PART OF PERMI		Elevated
Level 5		Office (NOT PART OF PERMI		Elevated
Level 4		Office (NOT PART OF PERMI		Elevated
Level 3		Office (NOT PART OF PERMI		Elevated
Level 2		Office (NOT PART OF PERMI		Elevated
Level 1 and Level S	B, M, S-2	Retail/Office/Parking /Loading	35,360	At Grade
Level G	S-2		12,000	Below Grade
Parking P1	S-2	Garage, Parking	60,000	Below Grade
Parking P2	S-2	Garage, Parking	60,000	Below Grade
Parking P3	S-2	Garage, Parking	60,000	Below Grade
Parking P4	S-2	Garage, Parking	60,000	Below Grade
Parking P5	S-2	Garage, Parking	31,425	Below Grade

Total Area	318,785
Total Area Above Grade	35,360

III. OCCUPANCY & GROUP

A. TYPES INCLUDED

Group B (Business) Occupancy -Office (Section 304)
Group M (Mercantile) Occupancy -Retail (Section 309)
Group S-2 (Storage) Occupancy - Enclosed Parking Garage (Section 311)

B. REQUIRED SEPARATION OF MIXED OCCUPANCIES (Table 302.3.2 exception 1)

Group B to Group M: N (No requirements for fire resistance)
Group B to Group S-2: 1 hour fire resistance
Group M to Group S-2: 1 hour fire resistance

IV. TYPE OF CONSTRUCTION

Type I-A Fully Sprinkled (Section 602)

A. TYPE 1A (FULLY SPRINKLED) REQUIREMENTS FOR BUILDING ELEMENTS

FIRE RESISTIVE REQUIREMENTS (TABLE 601)	
Building Element	Construction
1. Bearing Walls -Exterior	3 hrs (see table 602)
2. Bearing Walls -Interior	3 hrs.
3. Nonbearing Walls -Exterior	Table 602
4. Structural Frame	3 hrs.
5. Shaft Enclosures	2 hrs.
6. Floors & Floor-ceilings	2 hrs.
7. Roofs & Roof-ceilings	1 1/2 hrs

NOTES:
NOTE #1. SEE PARTITION TYPES SCHEDULE (A9.00) FOR CONSTRUCTION ASSEMBLY RATING.

NOTE #2. SEE DOOR TYPES SCHEDULE (A9.10) FOR CONSTRUCTION ASSEMBLY RATING.

V. GENERAL BUILDING LIMITATIONS

A. LOCATION ON PROPERTY (Section 503)

EXTERIOR WALL & OPENING PROTECTION BASED ON LOCATION - SEE TABLE 602
Fire separation distance greater than 30 feet on all sides - no requirements for fire-resistance rating for exterior walls.

B. SBC ALLOWABLE BUILDING HEIGHT & FLOOR AREA (table 503)

BASIC ALLOWABLE BUILDING HEIGHT & FLOOR AREA (TABLE 503)			
Use Groups	Type	Height	Area
B, M, S-2	I-F.R.	Unlimited Stories	Unlimited Sq. Ft.

VI. MEANS OF EGRESS

A. EGRESS REQUIREMENTS

MINIMUM EGRESS REQUIREMENTS (TABLE 1014.1)		
Use	Min. 2 egress where max. # of occupants is	Occup. Load Factor
B (Office)	50	130 /Sq. Ft.
M (Retail -ground floor)	50	30/ Sq. Ft
S-2 (Parking, Storage)	30	200/ Sq. Ft.

EGRESS WIDTH PER PERSON SERVED (TABLE 1005.1)		
Use	Stairways	Other Egress
H-1,H-2,H-3,H-7	0.3 inch/person	0.2 inch/person
All other except I-2&3	0.2 inch/person	0.15 inch/person

NOTES:
NOTE #1. STAIR WIDTH SHALL GENERALLY NOT BE LESS THAN 44" (1009.1)

NOTE #2. STAIRWAYS SERVING OCCUPANT LOAD LESS THAN 50 SHALL NOT BE LESS THAN 36" WIDE (1009.1 exception 1)

NOTE #3. HANDRAILS MAY PROJECT INTO REQUIRED WIDTH UP TO 4 1/2" FROM EACH SIDE OF STAIRWAY (1009.11.7)

NOTE #4. REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" WIDE (1008.1.1)

NOTE #5. SEPARATION OF EXITS -WHERE 2 OR MORE REQUIRED, SHALL BE PLACED A DISTANCE APART EQUAL TO NOT LESS THAN ONE THIRD OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVED MEASURED IN A STRAIGHT LINE BETWEEN THE CENTER OF EXIT DOORS OR EXIT ACCESS DOORWAYS. (1014.2.1 EXCEPTION 2)

B. OCCUPANT LOAD (1003.2.2)

Floor Levels	Grp	Occupancy/ Use	Occup Load Area	SF/ Occup	Occup	# Exit Stairs/ Exits	Occ/ Exit Stair/ Exit	Stair Exit Width (44" min)	Other Exit Width
Level 1									
	B	Pharmacy	3,839	130	30	2	15	3	2
	B	Lobby	3,905	130	31	2	16	3	2
Level S									
Retail SNJ-S36	M	Retail	930	30	31	2	16	3	2
Retail SNJ-S35	M	Retail	1,438	30	48	1	48	10	7
Retail SNJ-S34	M	Retail	2,285	30	76	2	38	8	6
Retail SNJ-S33	M	Retail	2,027	30	68	2	34	7	5
Retail SNJ-S32	M	Retail	830	30	28	2	14	3	2
Retail SNJ-2755	M	Retail	2,755	30	92	2	46	9	7
Parking/Loading	S-2	Parking/Loading	3,600	200	18	2	9	2	1
Level G	S-2	Storage, Mechanical	10,012	300	34	2	17	3	3
Parking P1									
	S-2	Garage, Parking	50,929	200	255	2	128	26	19
Accessory Storage	S-2	Storage, Mechanical	4,967	300	17	2	9	2	1
Parking P2									
	S-2	Garage, Parking	52,050	200	261	2	131	26	20
Accessory Storage	S-2	Storage, Mechanical	1,925	300	7	2	4	1	1
Parking P3									
	S-2	Garage, Parking	52,577	200	263	2	132	26	20
Accessory Storage	S-2	Storage, Mechanical	5,380	300	18	2	9	2	1
Parking P4									
	S-2	Garage, Parking	57,385	200	287	2	144	29	22
Accessory Storage	S-2	Storage, Mechanical	2,621	300	9	2	5	1	1
Parking P5									
	S-2	Garage, Parking	30,478	200	153	2	77	15	12
Accessory Storage	S-2	Storage, Mechanical	913	300	3	2	2	0	0

NOTES:

C. EXIT WIDTHS
A. STAIRWAYS (1003.3)

STAIRWAY CONSTRUCTION
NOTE #1. STAIRWAYS SHALL BE BUILT OF MATERIALS CONSISTENT WITH THE TYPES PERMITTED FOR THE TYPE OF CONSTRUCTION OF THE BUILDING, EXCEPT THAT WOOD HANDRAILS SHALL BE PERMITTE FOR ALL TYPES OF CONSTRUCTION. (1009.5)

NOTE #2. INTERIOR EXIT STAIRWAYS AND INTERIOR RAMPS SHALL BE ENCLOSED WITH FIRE BARRIERS. EXIT ENCLOSURES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 2 HOURS WHERE CONNECTING MORE THAN FOUR STORIES AND NOT LESS THAN 1 HOUR WHERE CONNECTIONG FOUR AND FEWER STORIES. (1019.1)

VII. FIRE PROTECTION SYSTEMS

A. FIRE-EXTINGUISHING SYSTEMS (SECTION 903)

1. AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (903)
AN AUTOMATIC SPRINKLER SYSTEM WILL BE INSTALLED ON ALL FLOORS.

2. STANDPIPES (905)

EXHIBIT E

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PHONE 206 223 5555
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WRIGHT RUNSTAD & COMPANY

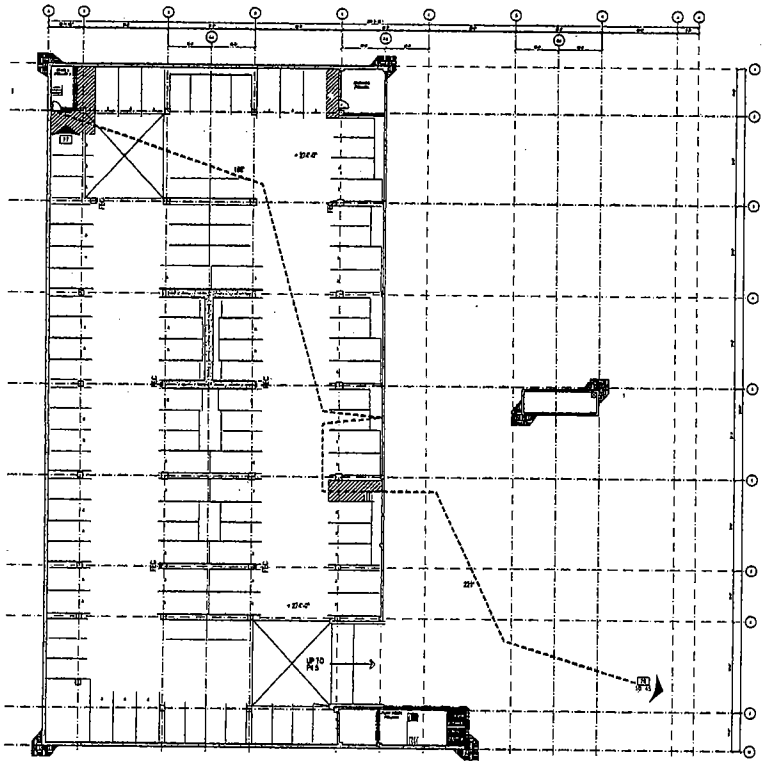
HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

PROJ NO	100130.00	
DATE	09/20/2006	

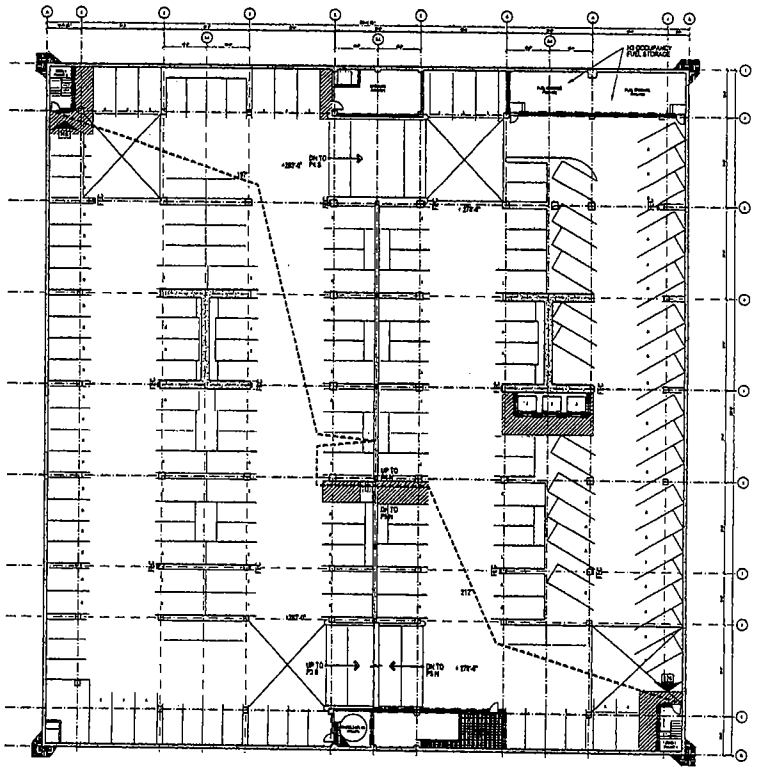
CODE ANALYSIS

A1.00



2 LIFE SAFETY PARKING LEVEL P5 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY



1 LIFE SAFETY PARKING LEVEL P4 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

H2 - OCCUPANCY (FUEL STORAGE)

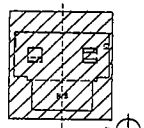
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	DOOR	REMARKS
As Shown	1HR	1HR	
As Shown	2HR	1 HR OR 1.5 HR	
As Shown	3HR	3HR	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

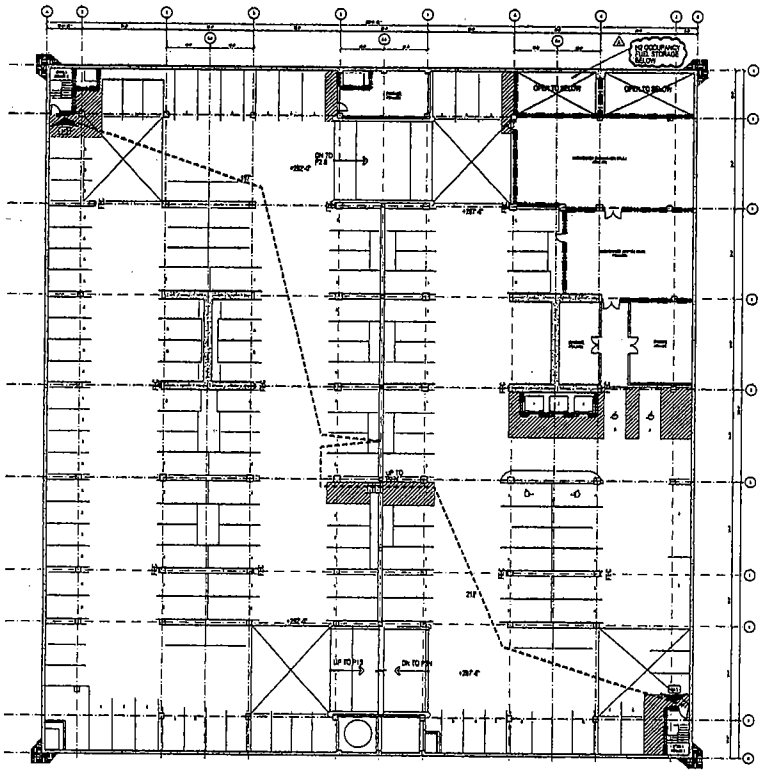
PROJECT NO: 100132.00

DATE: 09/20/2006

PARKING LEVEL P4 & P5 LIFE SAFETY PLAN

A1.01

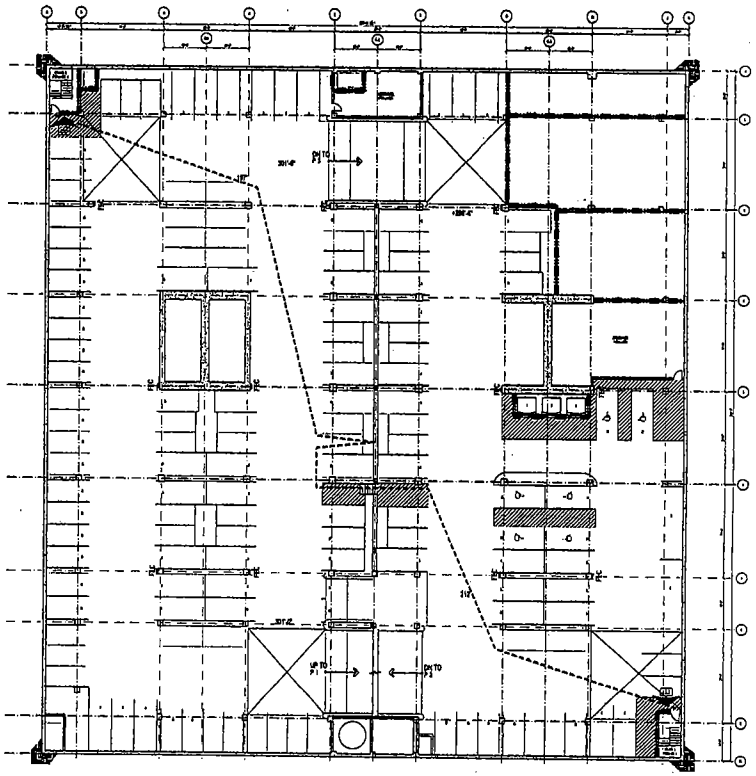
EXHIBIT E



2 LIFE SAFETY PARKING LEVEL P3 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

H2 - OCCUPANCY (FUEL STORAGE)



1 LIFE SAFETY PARKING LEVEL P2 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

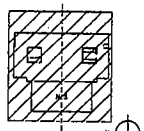
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	BASIS	WALLS	SYMBOL
Fire Barrier	1 HR	IBC	3HR	
Fire Barrier	2 HR	IBC	3HR	
Fire Barrier	3 HR	IBC	3HR	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

EXHIBIT E

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

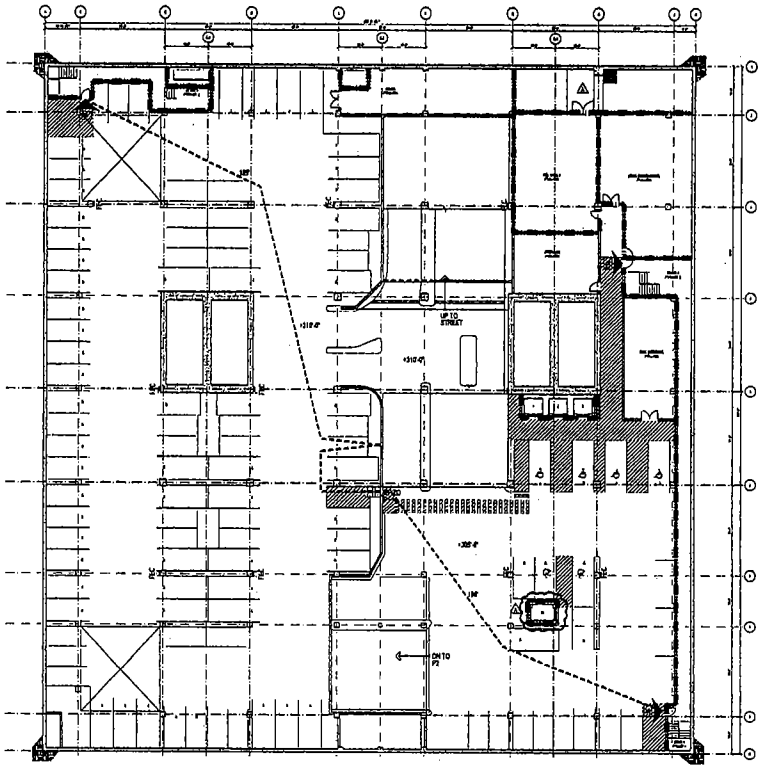
NO.	DATE	DESCRIPTION

Project No. 100132.00

Date: 09/20/2006

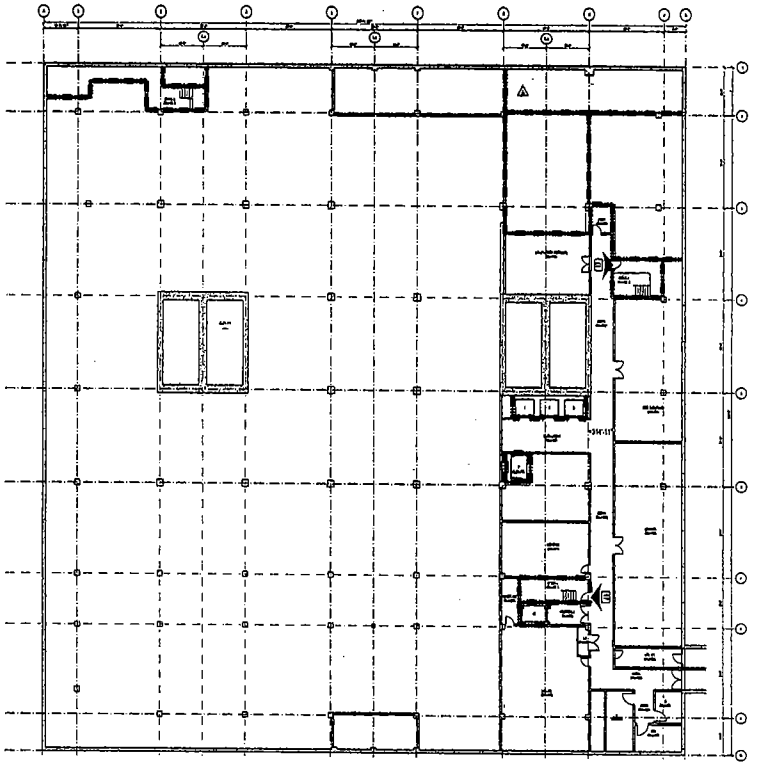
PARKING LEVEL P2 & P3 LIFE SAFETY PLAN

A1.02



2 LIFE SAFETY PARKING LEVEL P1 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY



1 LIFE SAFETY PARKING LEVEL G PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

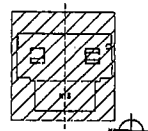
EXHIBIT E

LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5500

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

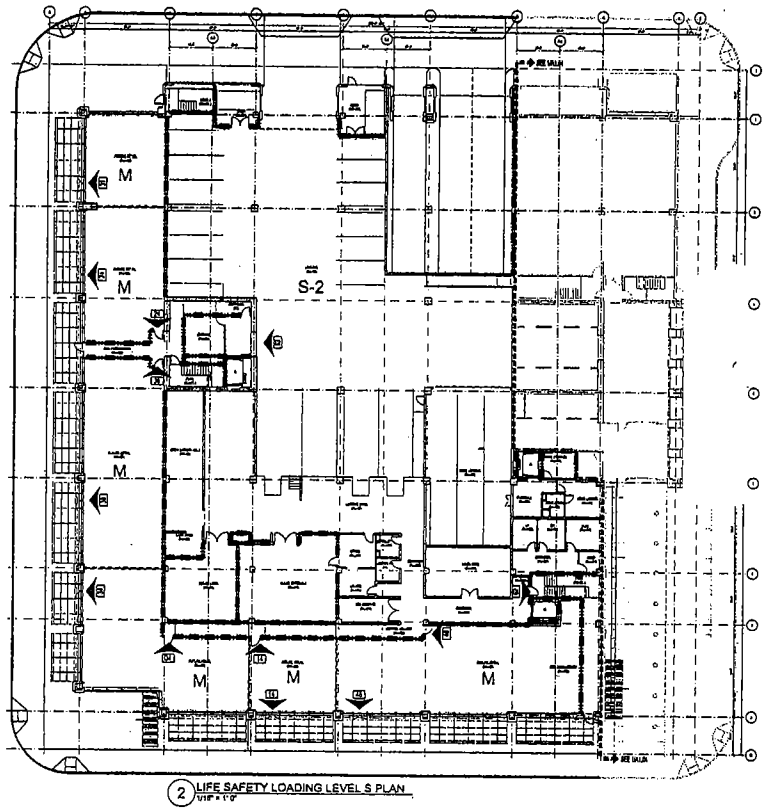
SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

JOB NO. 100132.00
DATE 09/20/2006

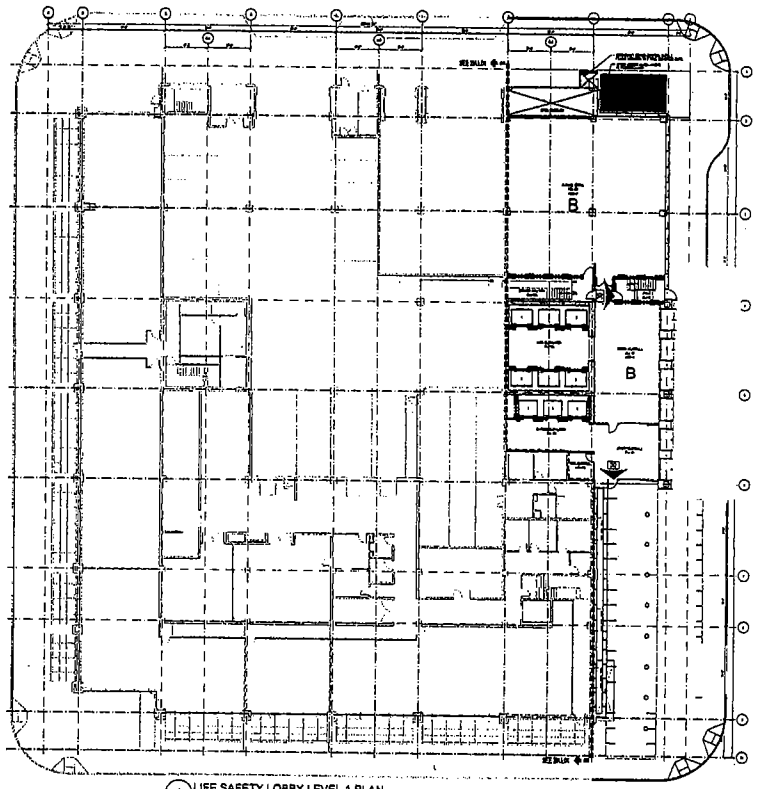
PARKING LEVEL P1 & G LIFE SAFETY PLAN

A1.03



2 LIFE SAFETY LOADING LEVEL S PLAN
1/16" = 1'-0"

M - OCCUPANCY (RETAIL)
S2 - OCCUPANCY (PARKING, LOADING, KCME)



1 LIFE SAFETY LOBBY LEVEL 1 PLAN
1/16" = 1'-0"

B - OFFICE (PHARMACY, LOBBY)

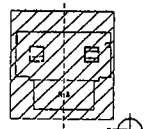
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	DOOR	FRAME	ENABEL
Fire Barrier	1HR	1HR	3HR	
Fire Barrier	2HR	1.5HR	3HR	
Fire Barrier	1HR	1HR	3HR	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

EXHIBIT E

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
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FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS.

NO.	DATE	DESCRIPTION

PROJECT NO: 100132.00
DATE: 09/30/2008

LOADING LEVEL S & LOBBY LIFE SAFETY PLAN

A1.04

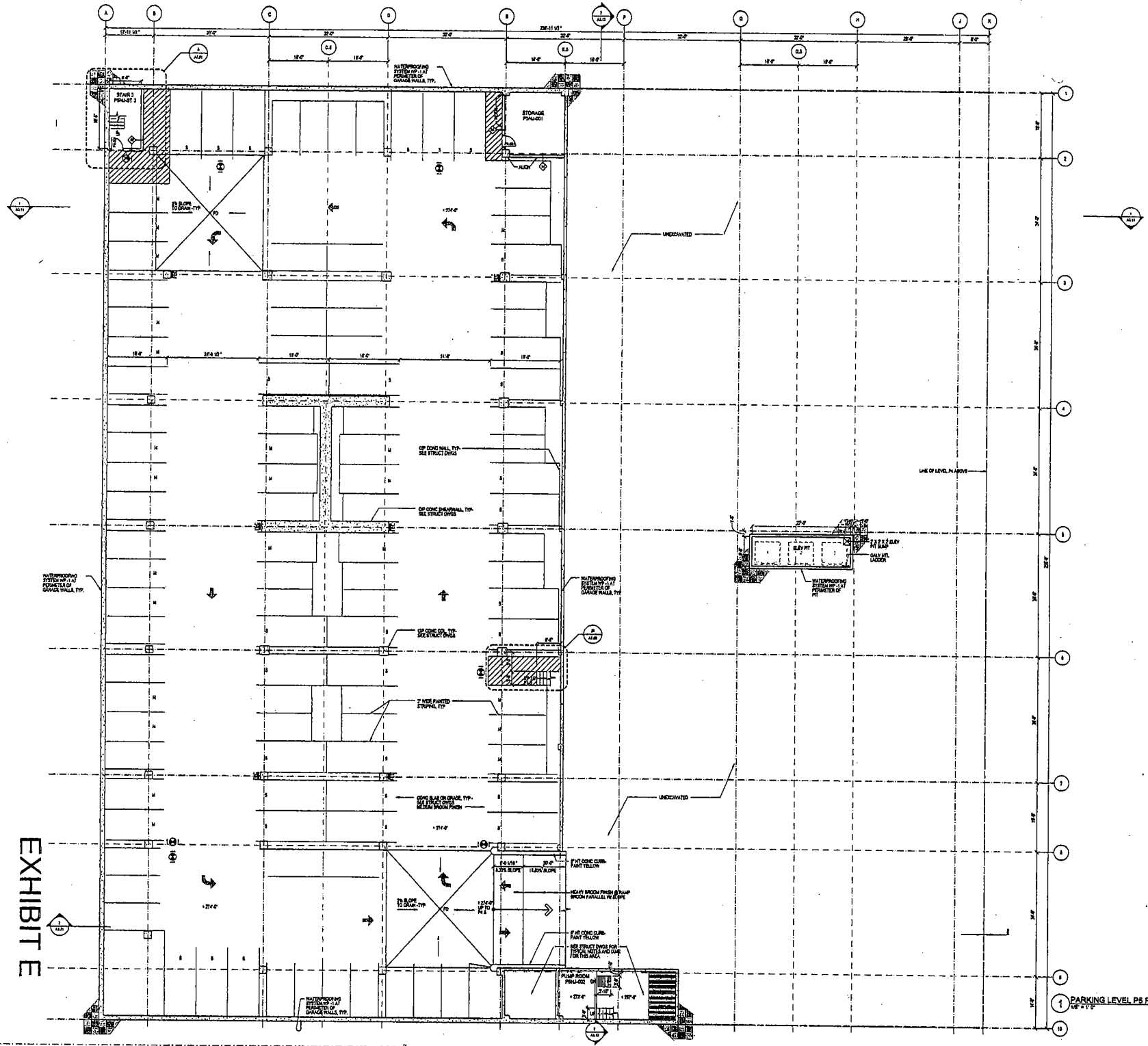

EXHIBIT E

1 PARKING LEVEL P5 PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-0" (W) X 18'-0" (L)	
COMPACT:	7'-6" (W) X 15'-0" (L)	
HANDICAP (H):	8'-0" (W) X 18'-0" (L)	
HANDICAP VAN (V):	8'-0" (W) X 18'-0" (L)	

NOTE: ALL SPACES ARE COMPACT, U.N.O.

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	37	56	36	2	2	133
P2	62	34	50	0	0	142
P3	80	38	53	4	0	155
P4	75	53	48	0	0	176
P5	22	23	30	0	0	105
	276	165	206	13	2	602

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SCHEMATIC DESIGN DOCUMENTS

JOB NO. 100133.00
DATE 09/20/2006

PARKING LEVEL P5 PLAN

SCALE: 1/8" = 1'-0"

A2.00

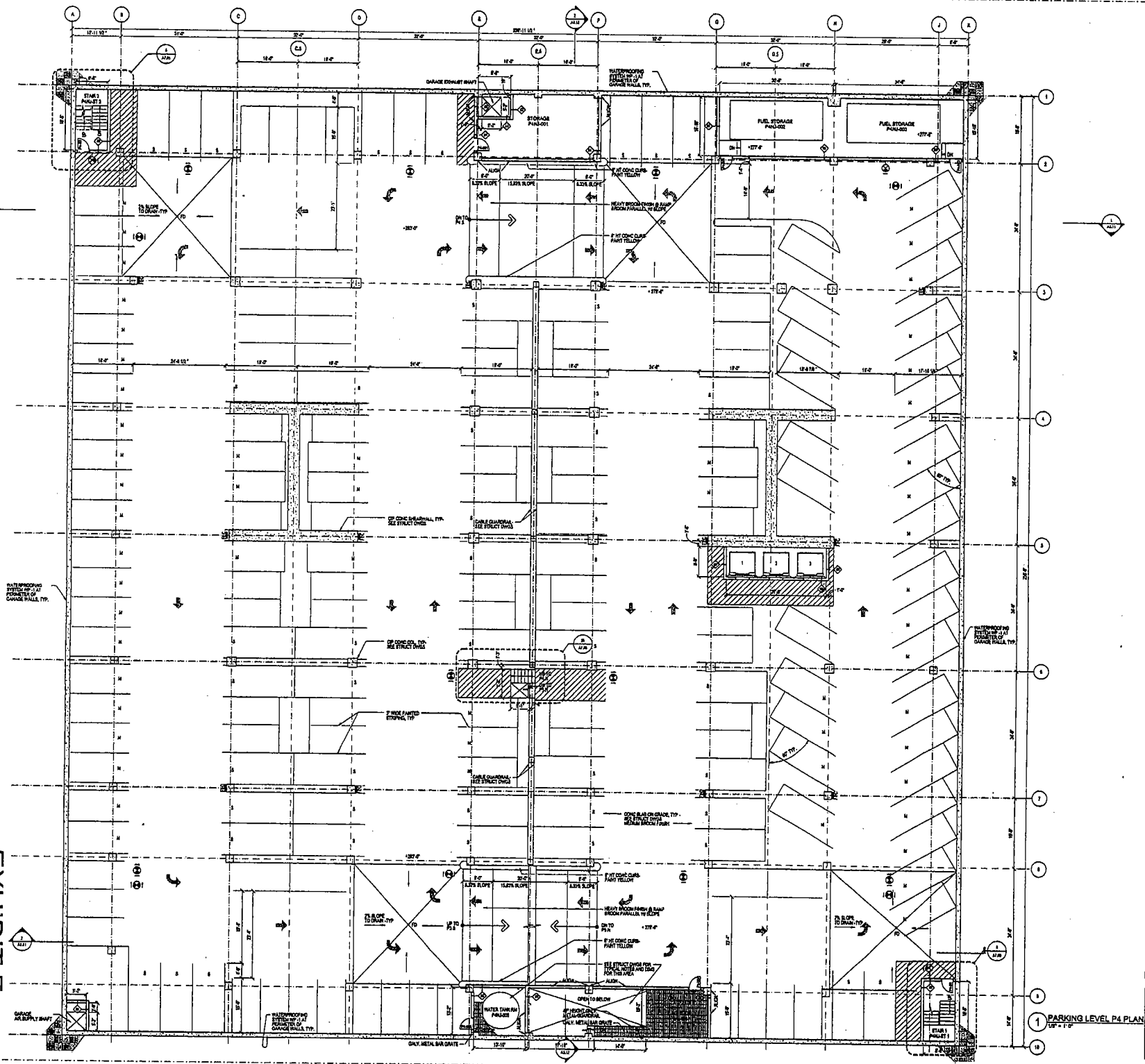

EXHIBIT E

1 PARKING LEVEL P4 PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-6" (W) x 18'-0" (L)	
COMPACT:	7'-6" (W) x 15'-0" (L)	
COMPACT (P):	7'-6" (W) x 18'-0" (L)	
HANDICAP VAN (V):	8'-0" (W) x 18'-0" (L)	
HANDICAP STD (H):	8'-0" (W) x 18'-0" (L)	

NOTE: ALL SPACES ARE COMPACT, U.N.O.

PARKING COUNT

	CMP	HCP	STD	HCP	HC-V	TOTAL
P1	37	33	26	3	3	106
P2	52	34	50	6		142
P3	60	38	52	4		154
P4	76	55	48			178
P5	52	37	35			105
	276	185	209	13	3	685

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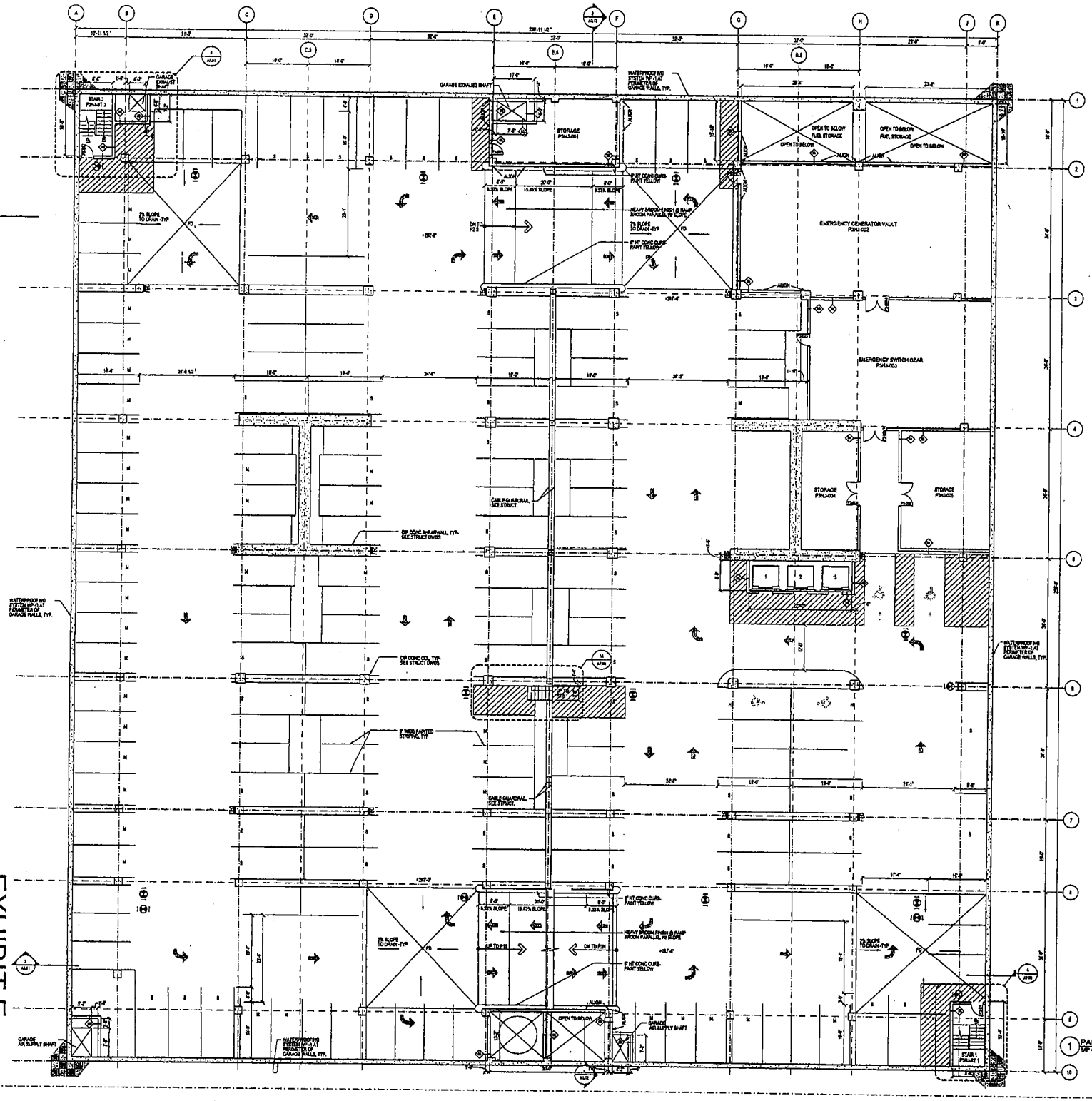
SCHEMATIC DESIGN DOCUMENTS

PROJ. NO.	100132.00
DATE	09/20/2006

PARKING LEVEL P4 PLAN

A2.01



1 PARKING LEVEL P3 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-6" (W) X 18'-0" (L)
COMPACT:	8'-0" (W) X 16'-0" (L)
HANDICAP (H):	8'-0" (W) X 18'-0" (L)
HANDICAP VAN (V):	8'-0" (W) X 18'-0" (L)

NOTE: ALL SPACES ARE CONCRETE, U.N.O.

PARKING COUNT

	CMP	MED	STD	HCP	HCV	TOTAL
P1	27	35	28	3	3	100
P2	52	34	50	6		142
P3	60	36	93	4		195
P4	73	55	48			176
P5	63	23	20			106
	276	183	209	13	3	689

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SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

PROJECT NO. 100132.00
DATE 06/20/2006

PARKING LEVEL P3 PLAN

SCALE: 1/8" = 1'-0"

A2.02

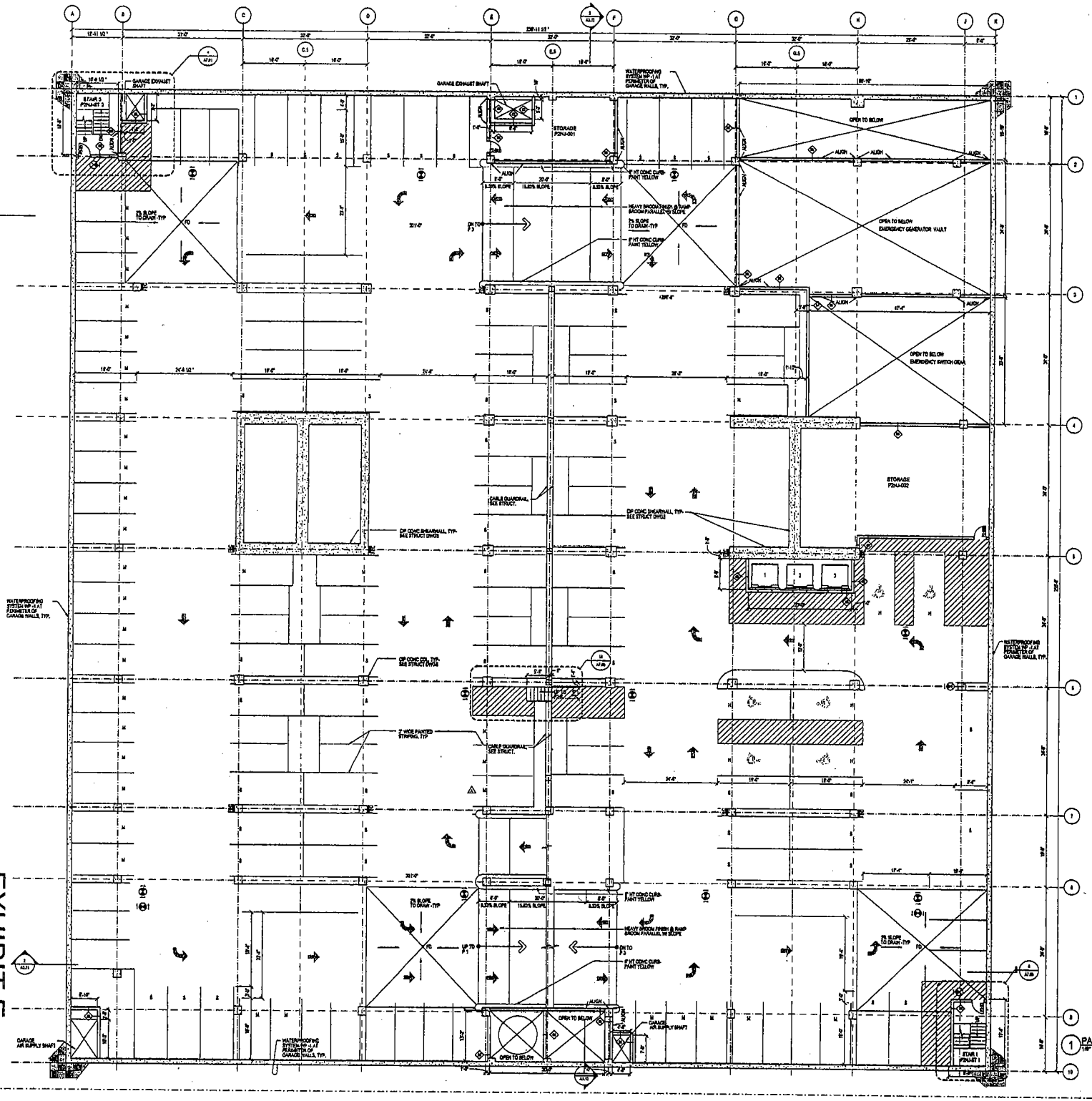

EXHIBIT E

1 PARKING LEVEL P2 PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD PD:	8'-0" OR 8'-6"	
COMPACT:	7'-6" OR 8'-0"	
HANDICAP PD:	8'-0" OR 8'-6"	
HANDICAP VAN PD:	8'-0" OR 8'-6"	
NOTE: ALL SPACES ARE		

PARKING COUNT

	STD	MED	STD	HCP	HC-V	TOTAL
P1	97	25	28	2	3	155
P2	52	34	60	6		142
P3	62	26	53	4		155
P4	75	55	45			174
P5	52	23	30			105
	278	163	240	12	3	906

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SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJECT NO: 100132.00
DATE: 09/20/2006

PARKING LEVEL P2 PLAN

A2.03

SCALE: 1/8" = 1'-0"

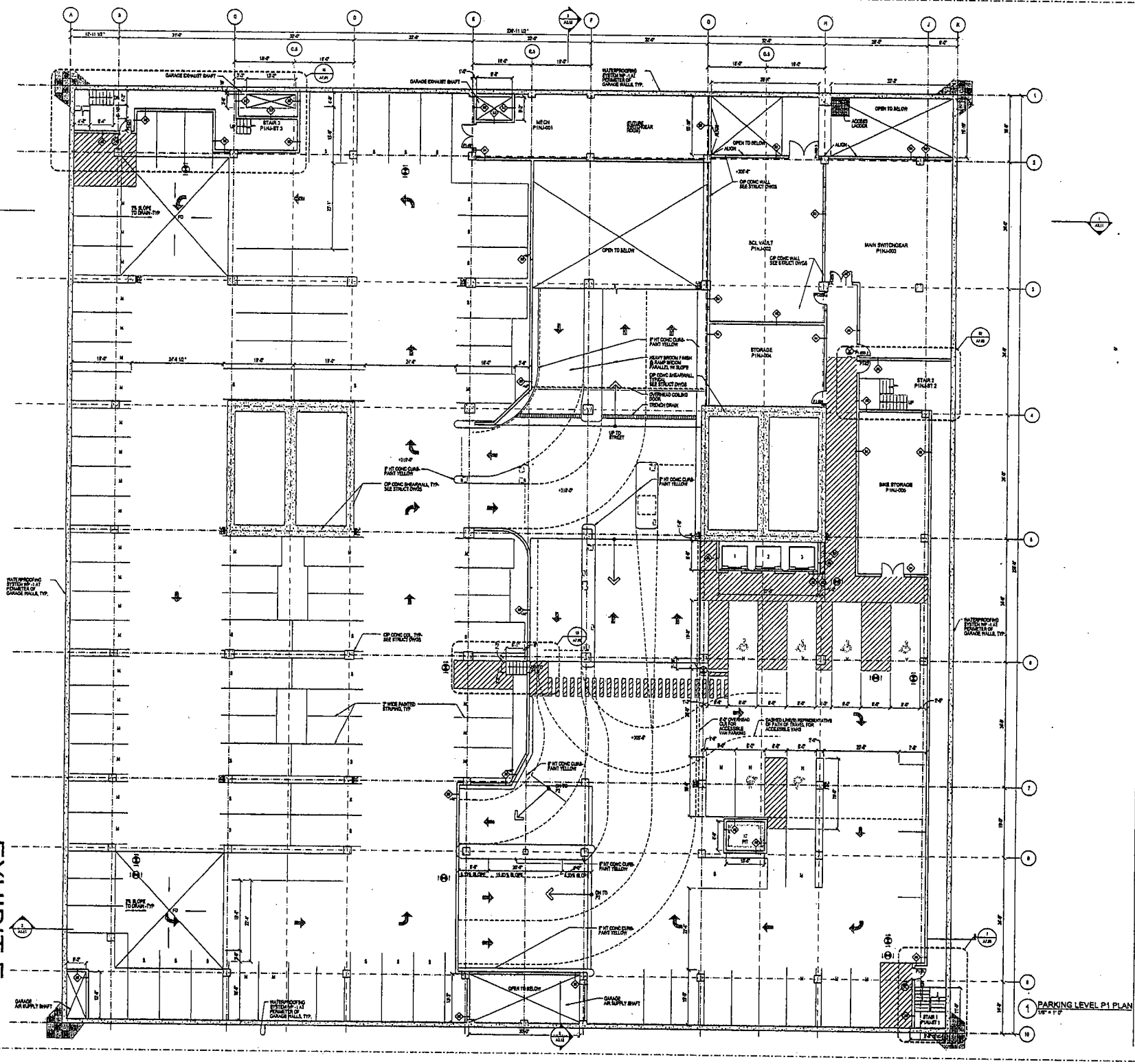

EXHIBIT E

1 PARKING LEVEL P1 PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-0" WIDE X 18'-0"
COMPACT:	7'-6" WIDE X 15'-0"
HANDICAP (H):	8'-0" WIDE X 18'-0"
HANDICAP VAN (VH):	8'-0" WIDE X 18'-0"
NOTE: ALL SPACES ARE CONCRETE (UNO)	

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	32	35	26	2	3	100
P2	53	34	50	6		143
P3	60	34	53	4		151
P4	73	55	48			176
P5	52	23	28			103
	270	183	206	12	3	674

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HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

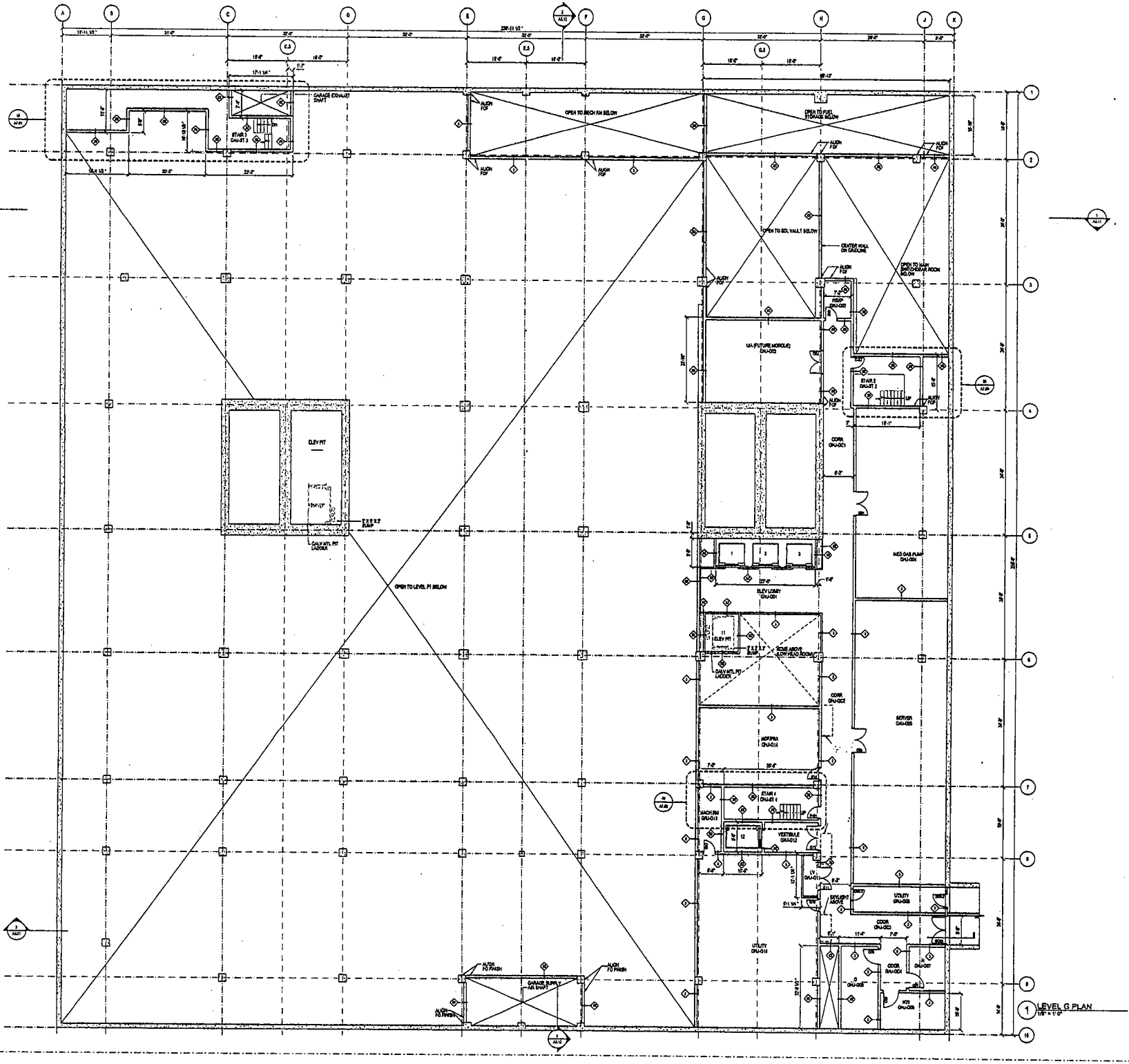
NO.	DATE	DESCRIPTION

PROJECT NO. 100132.00
DATE 09/20/2006

PARKING LEVEL P1 PLAN

SCALE: 1/8" = 1'-0"

A2.04



DRAWING NOTES

CODED NOTES

LEGENDS

EXHIBIT E

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HARBORVIEW NINTH & JEFFERSON BUILDING

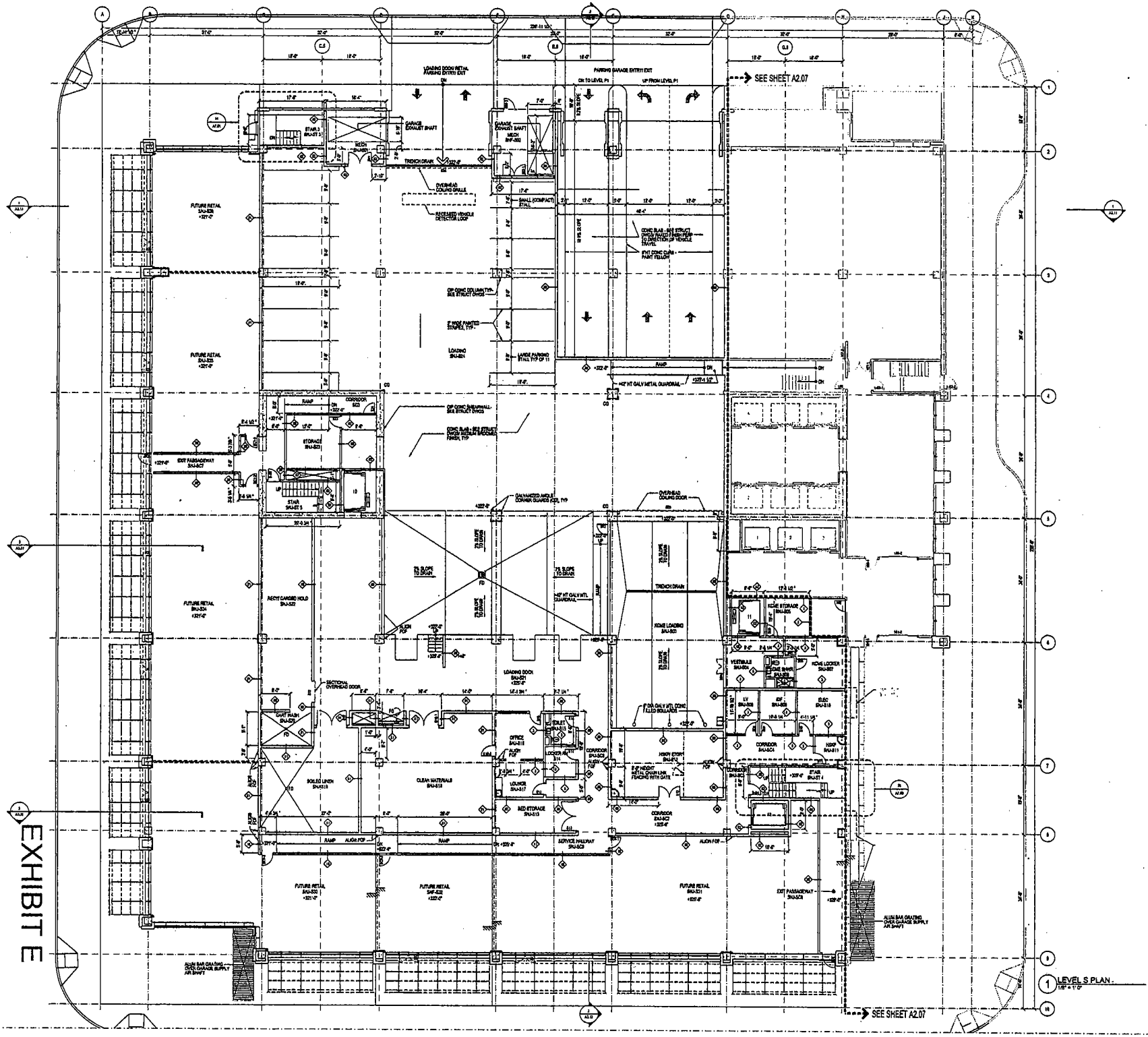
SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 08/20/2008

LEVEL G PLAN

A2.05



DRAWING NOTES

CODED NOTES

LEGENDS

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HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJ. NO. 100132.00

DATE 09/30/2008

LEVEL S PLAN

SCALE: 1/8" = 1'-0"

A2.06

nbbj
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SEATTLE WASHINGTON 98109
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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

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DRAWING NOTES

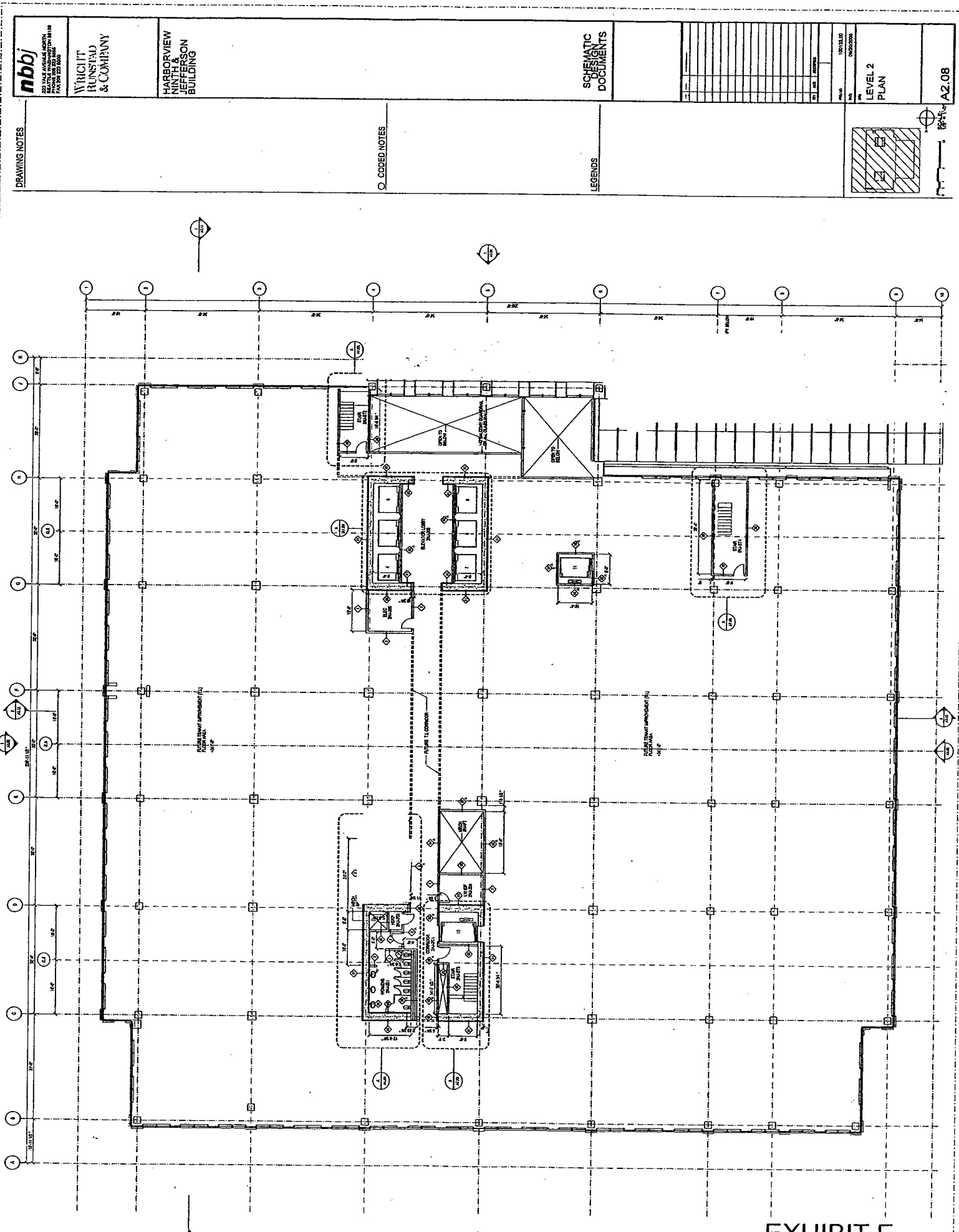
CODED NOTES

LEGENDS

LEVEL 1 PLAN

A2.07

EXHIBIT E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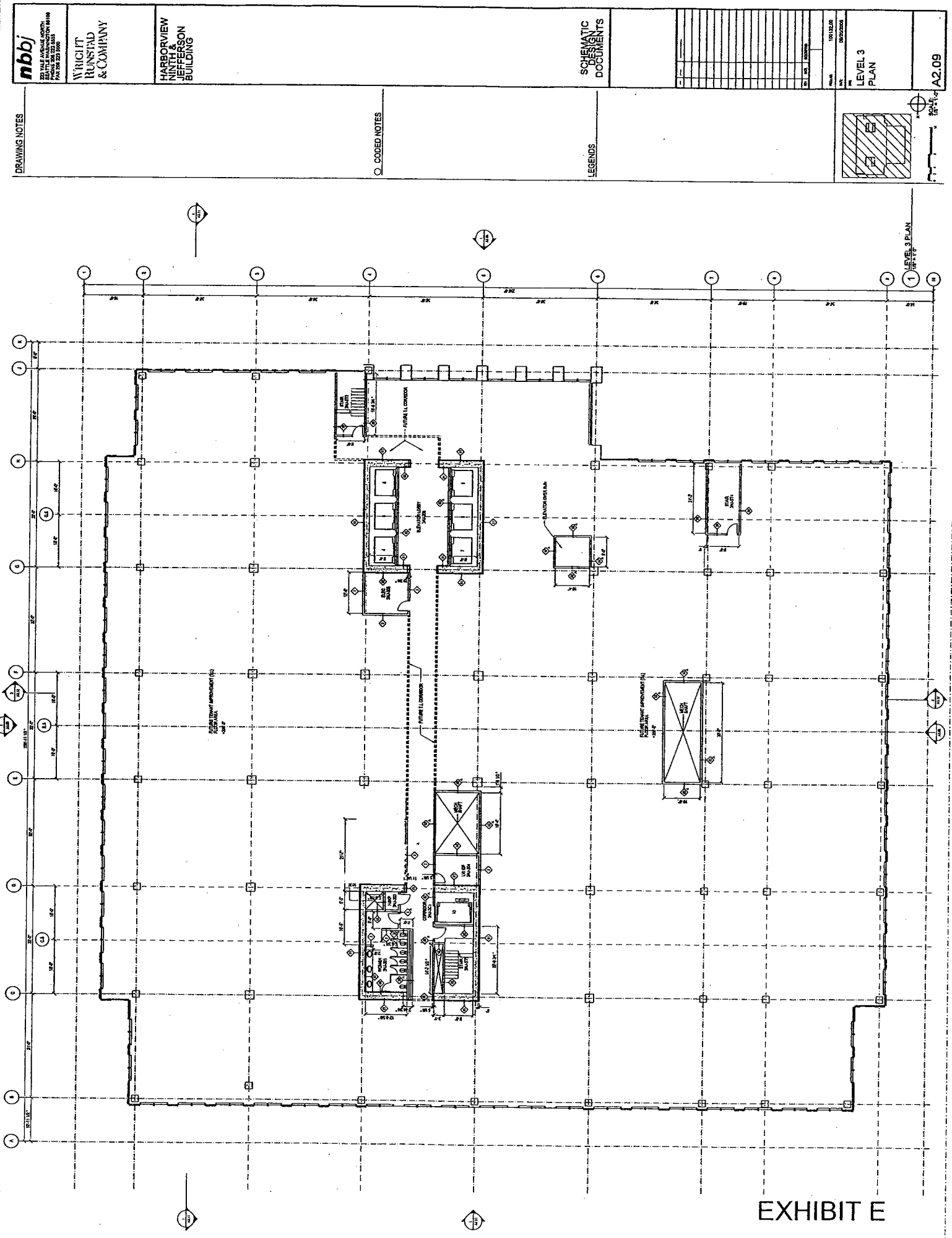
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 2 PLAN
A2.08
EXHIBIT E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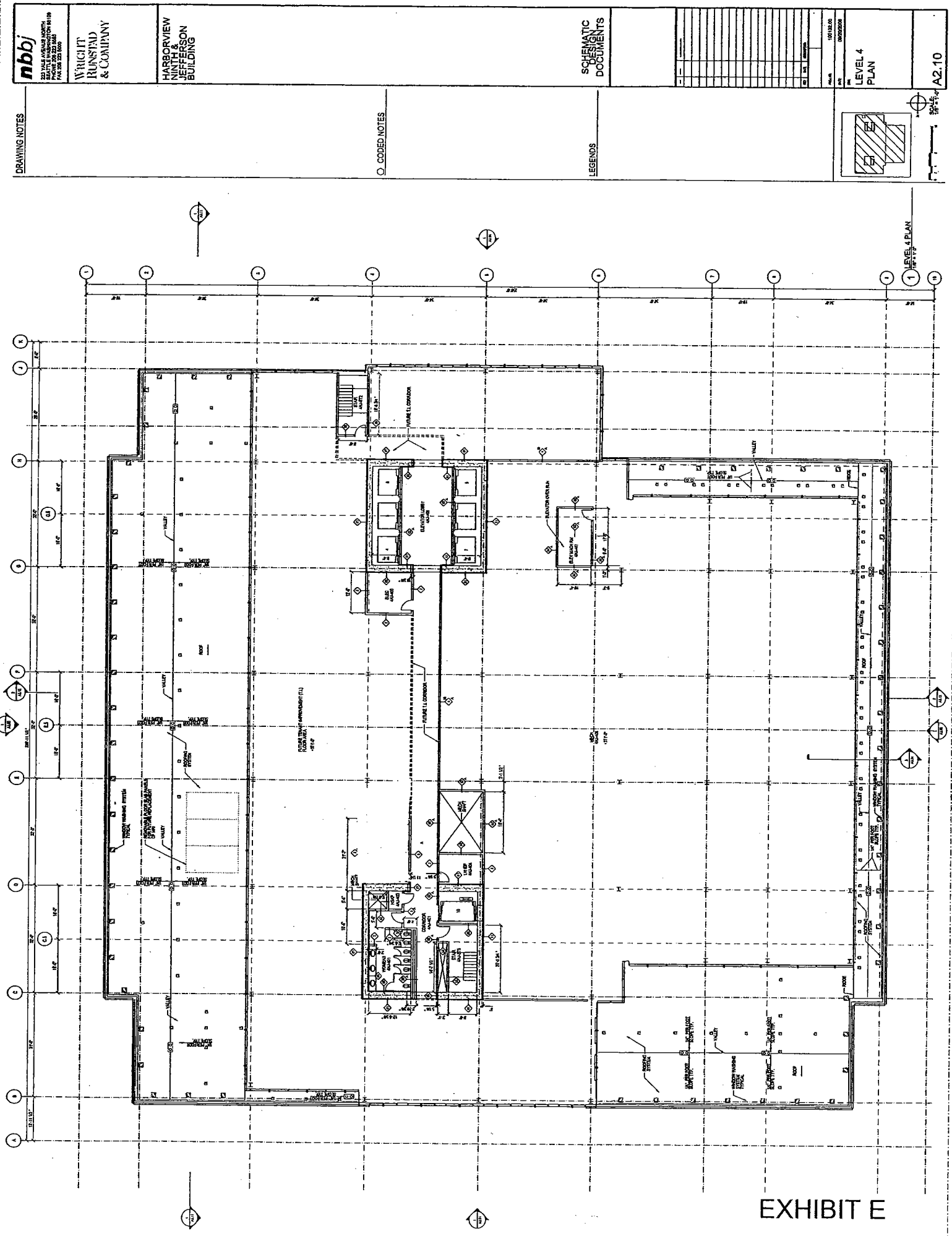
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 3 PLAN
A2.09
LEVEL 3 PLAN
FUTURE I.L. CORRIDOR
ELEVATOR EXPANSION
FUTURE TENANT IMPROVEMENT (TI)

EXHIBIT E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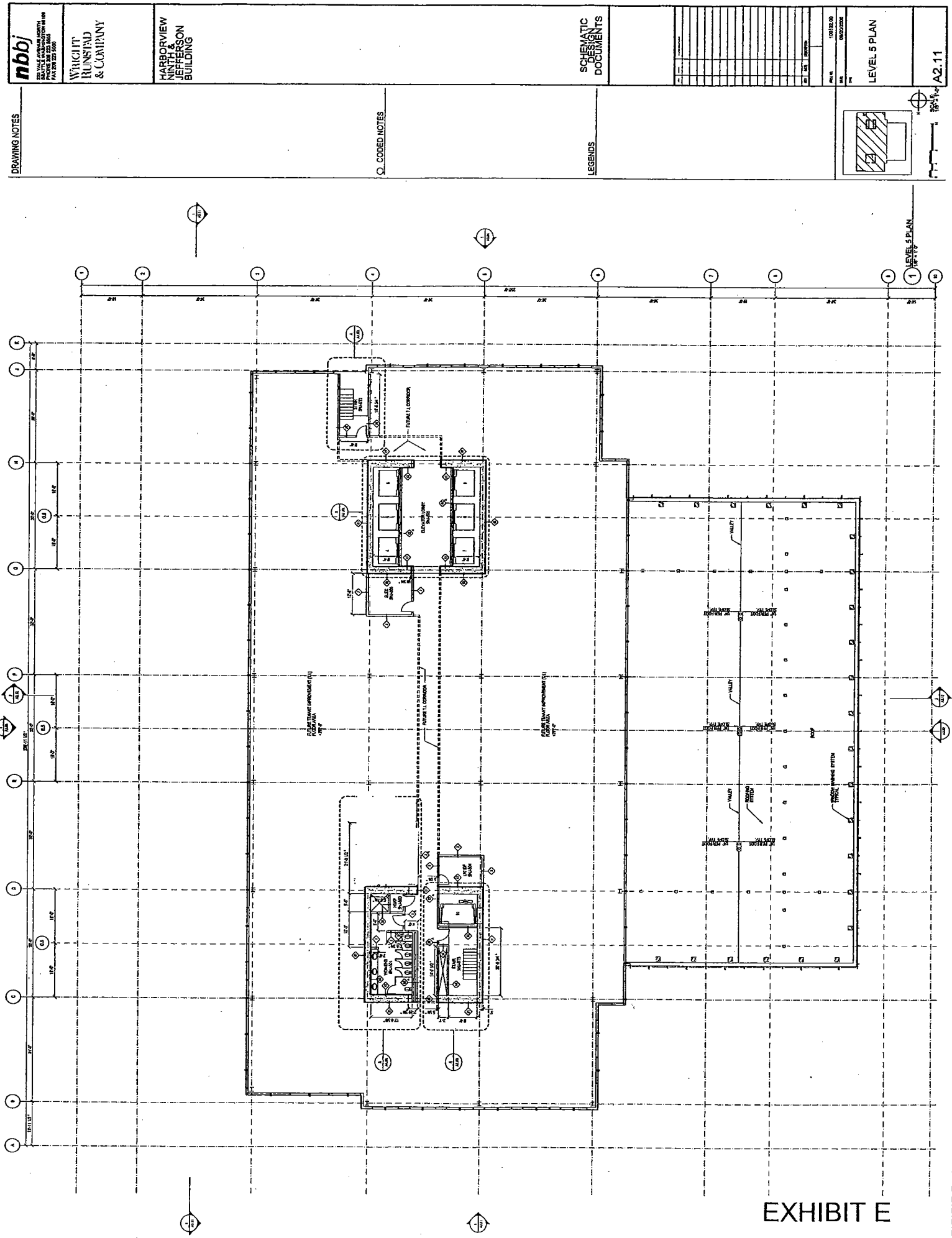
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 4 PLAN
A2.10
LEVEL 4 PLAN
EXHIBIT E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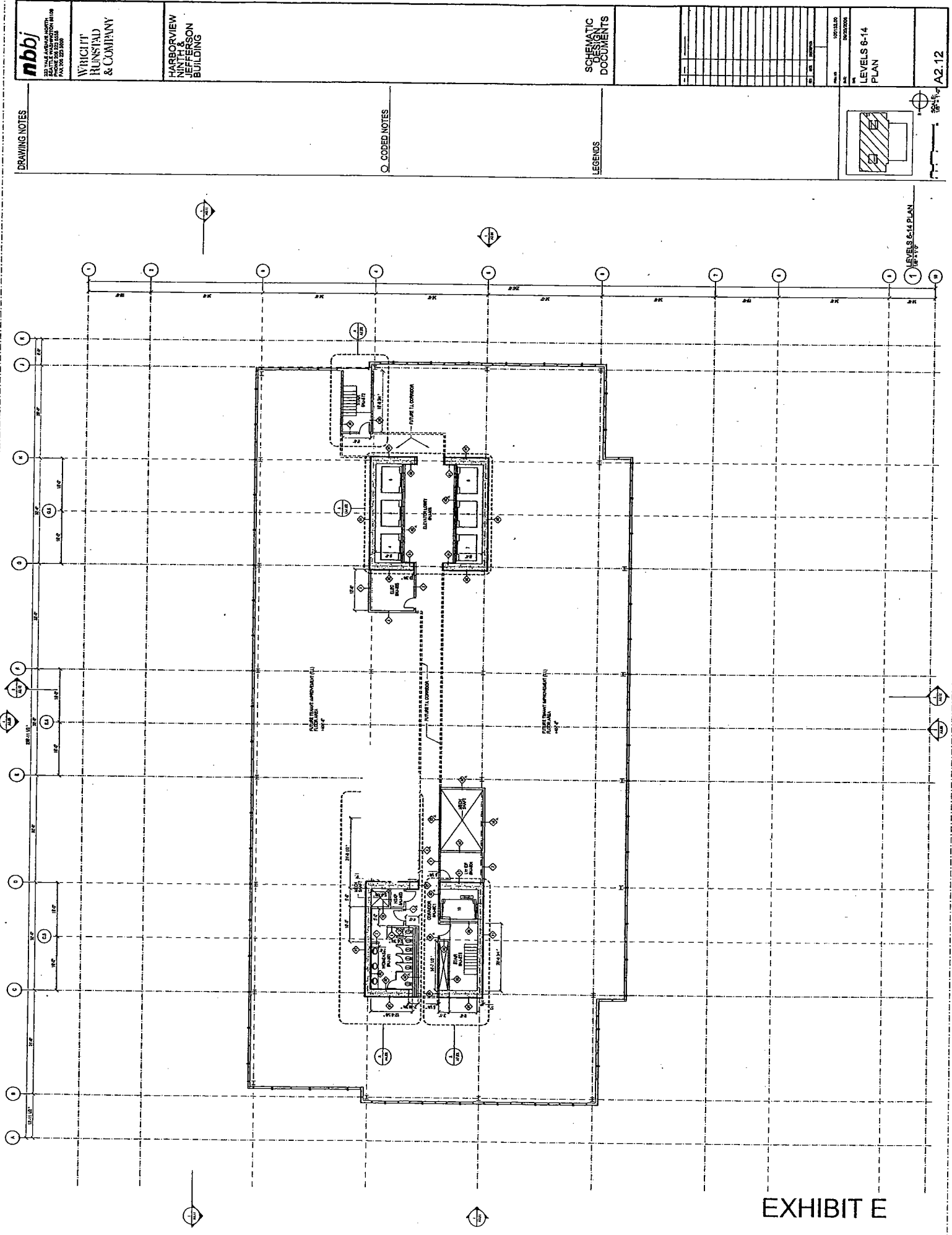
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
LEVEL 5 PLAN
A2.11
DRAWING NOTES
CODED NOTES
LEGENDS
1 LEVEL 5 PLAN
SCALE: 1/8" = 1'-0"
FUTURE T.I. CORRIDOR
ELEVATOR LOBBY
ELEC. RM.
STAIR
VALLEY
ROOF
EXHIBIT E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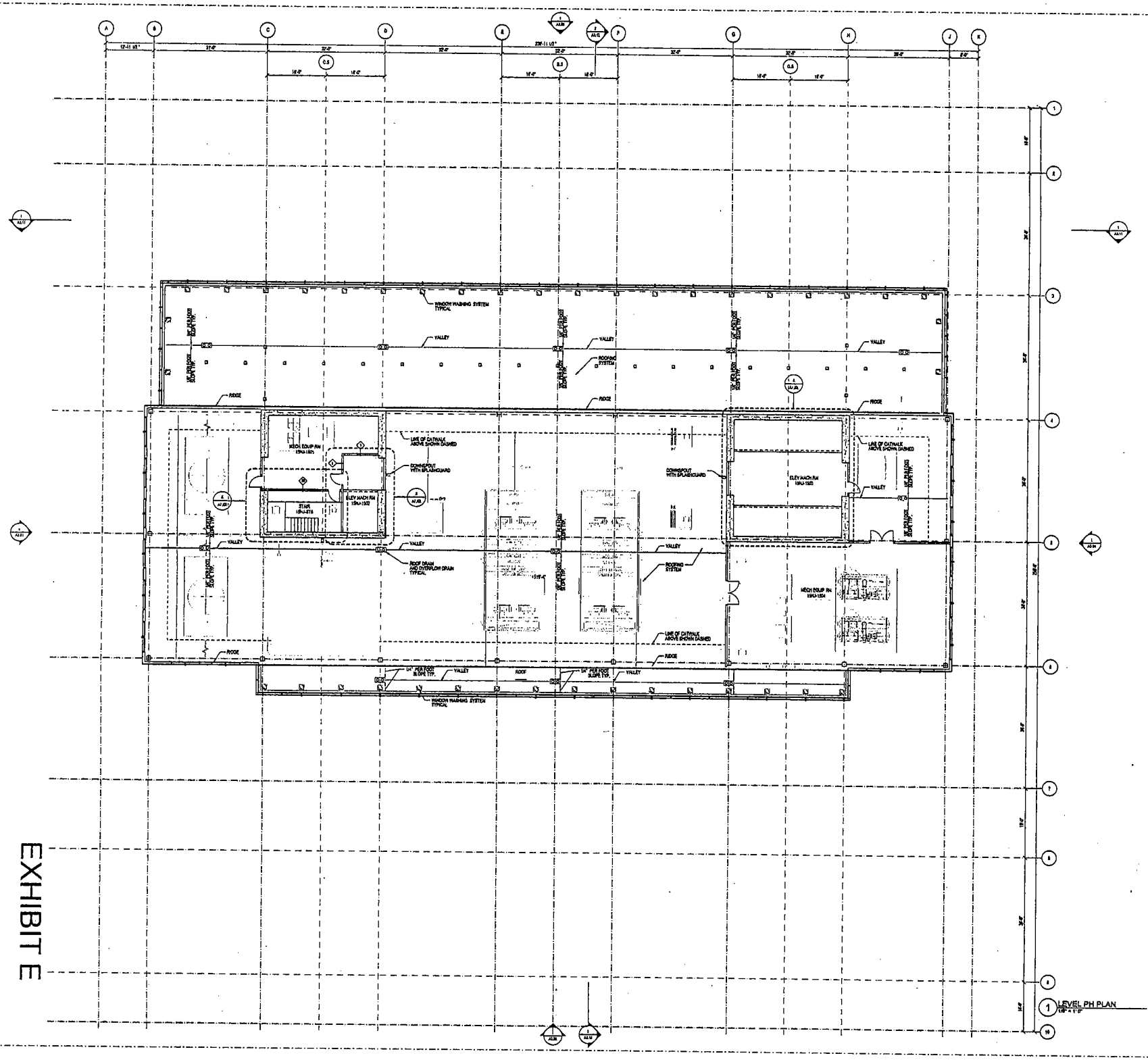
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NORTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVELS 6-14 PLAN
A2.12
1 LEVELS 6-14 PLAN
FUTURE TI CORRIDOR
EXHAUST DUCT
ELEC. ROOM
FUTURE TENANT IMPROVEMENT (TI) FLOOR AREA
MEN'S TOILET ROOM
WOMEN'S TOILET ROOM
STAIR
ELEV. MACH. ROOM

EXHIBIT E



1 LEVEL PH PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
220 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

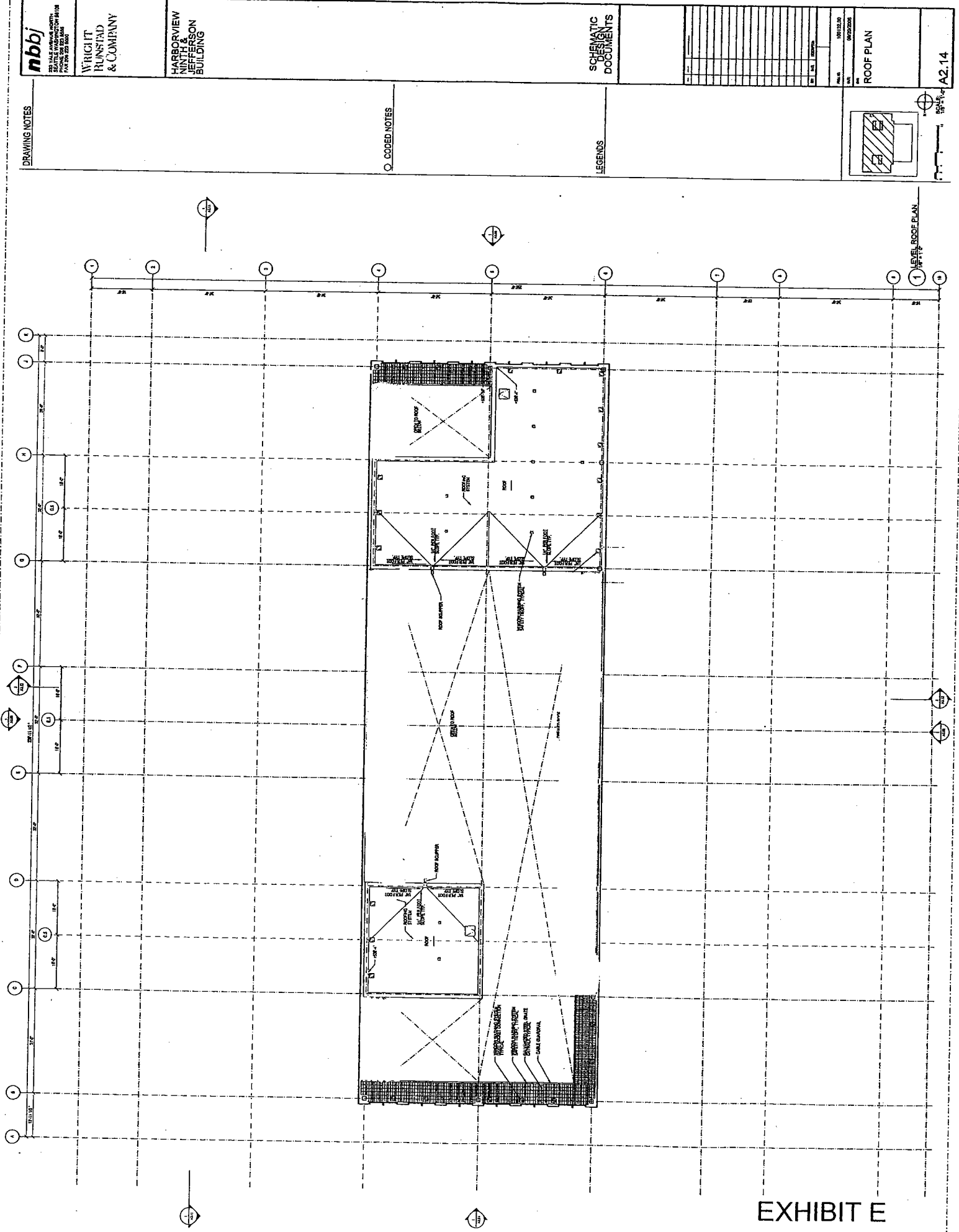
REV	DATE	DESCRIPTION

PROJECT NO: 100132.00
DATE: 09/20/2006

LEVEL PH PLAN

SCALE: 1/8" = 1'-0"

A2.13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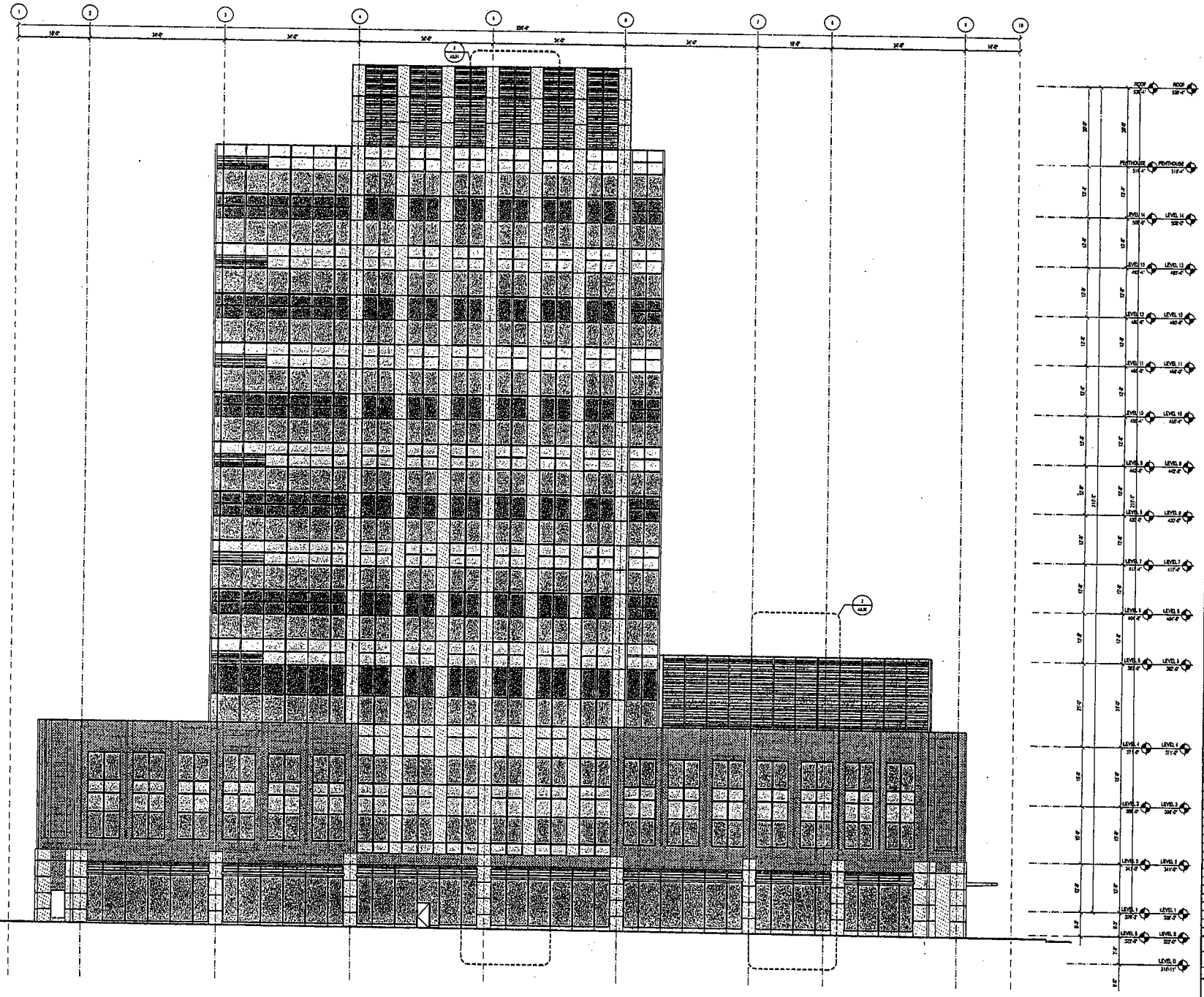
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
ROOF PLAN
A2.14
DRAWING NOTES
CODED NOTES
LEGENDS
1 LEVEL ROOF PLAN

EXHIBIT E



1 NORTH ELEVATION
1/8" = 1'-0"

EXHIBIT E

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FAX 206 223 5000

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HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

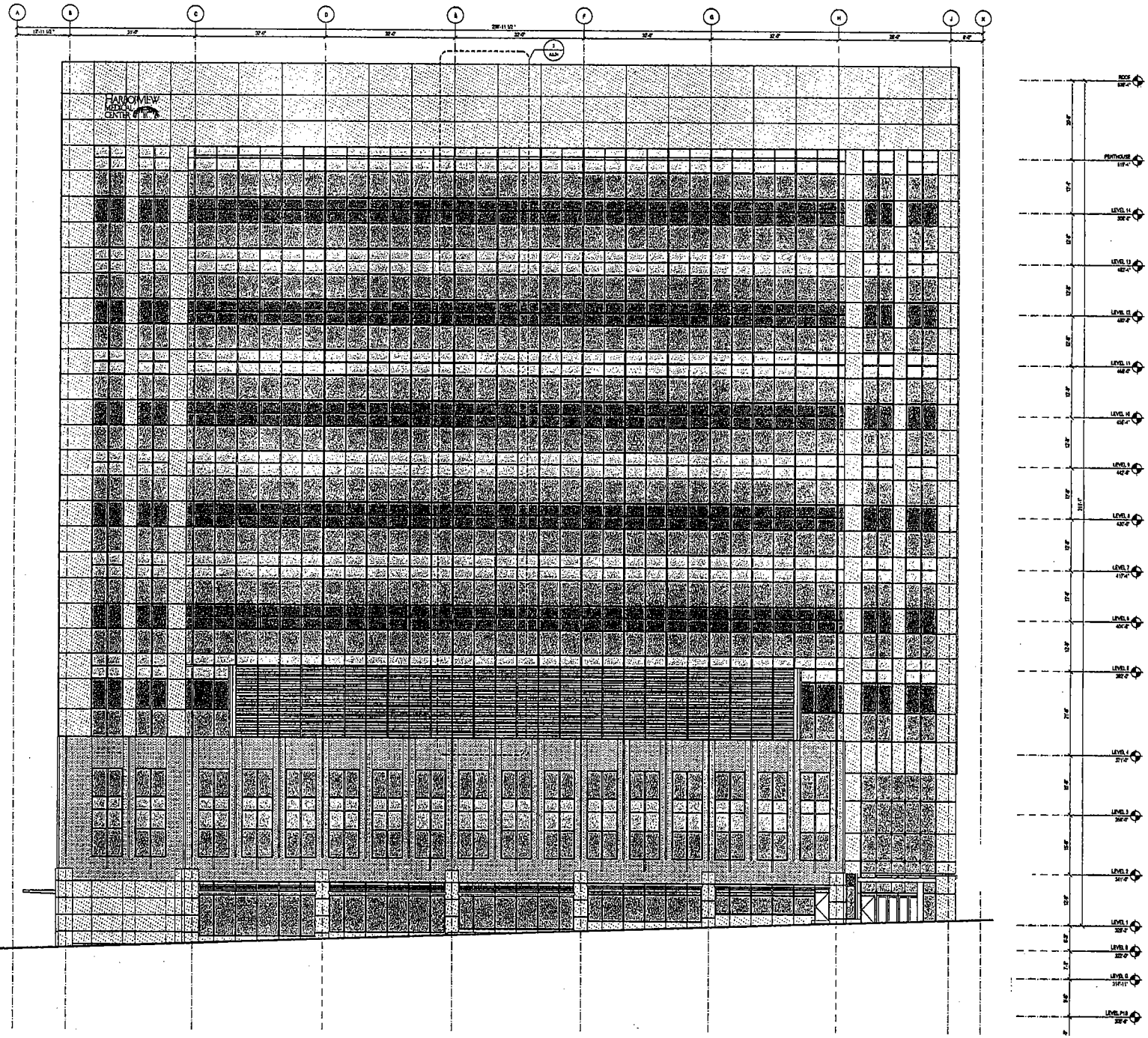
REV	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 08/20/2008

EXT. ELEVATION NORTH

A3.01

EXHIBIT E



1 WEST ELEVATION
1/8" = 1'-0"

nbbj
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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

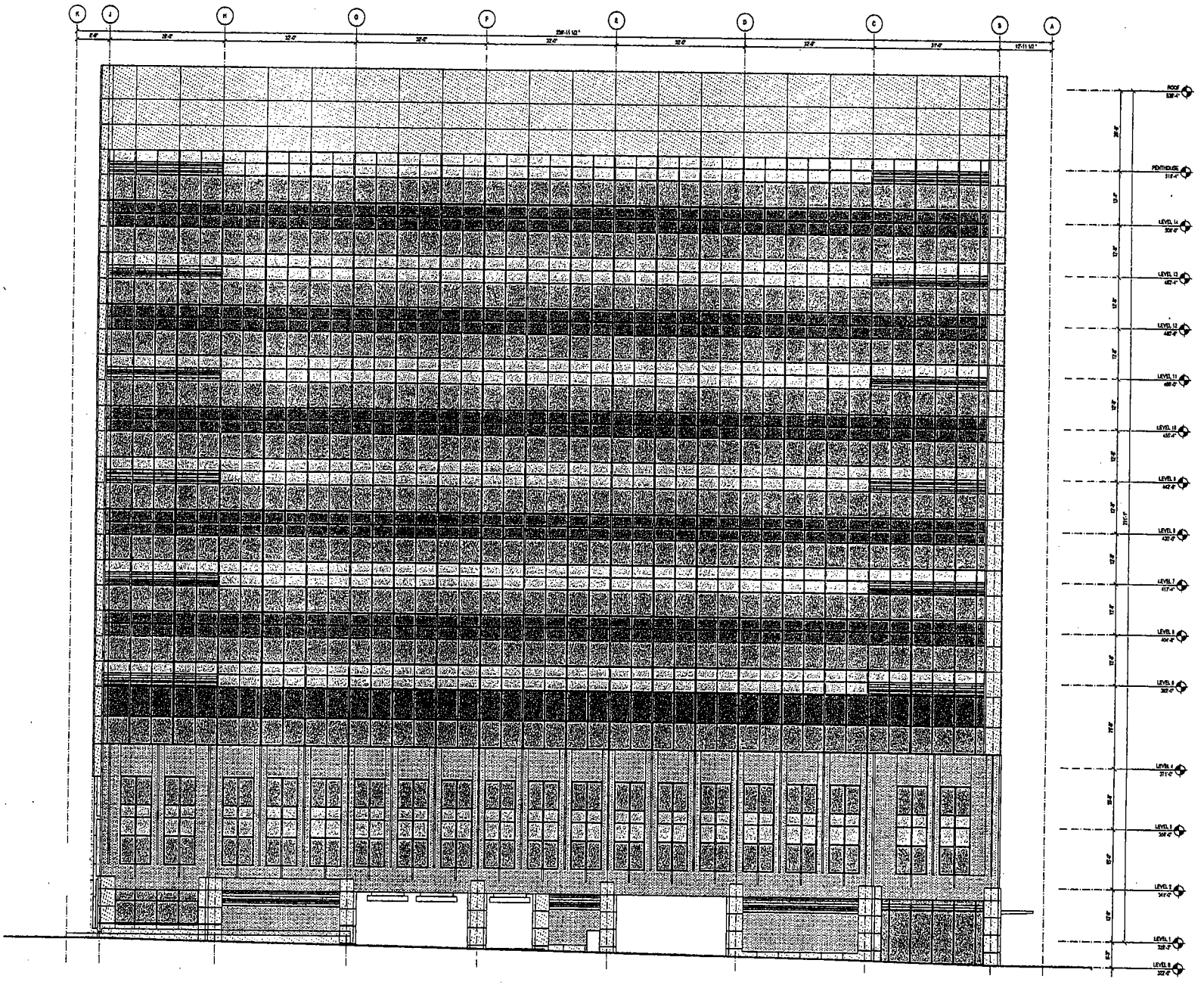
NO	DATE	DESCRIPTION

PROJECT NO: 100132.00
DATE: 09/20/2006

EXT. ELEVATION WEST

A3.02

EXHIBIT E



1 EAST ELEVATION
1/8" = 1'-0"

nbbj
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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

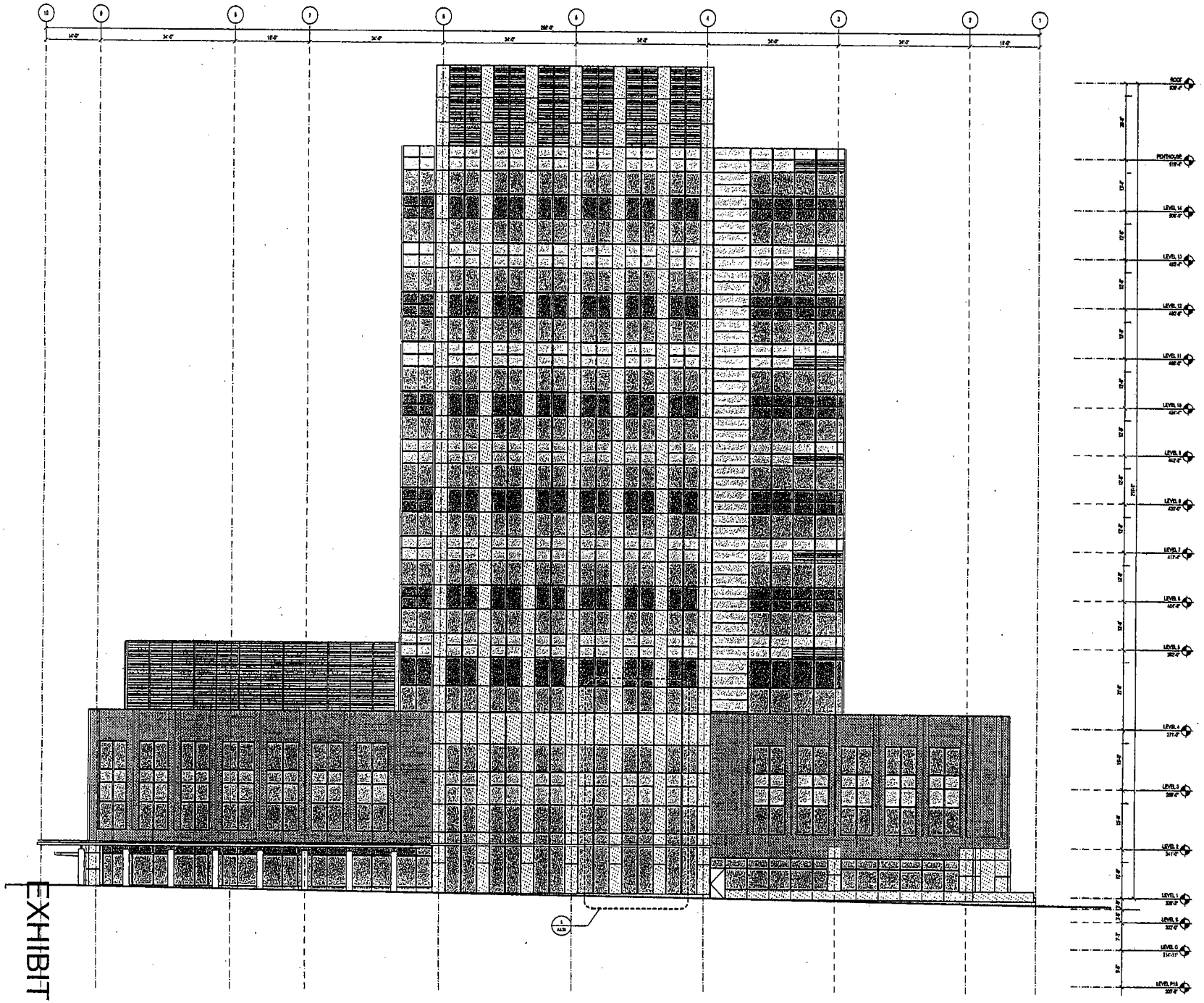
SCHEMATIC DESIGN DOCUMENTS

1	04/21	ADDENDUM

PROJECT NO. 100132.00
DATE 09/20/2006

EXT. ELEVATION EAST

A3.03



1 SOUTH ELEVATION
1/8" = 1'-0"

EXHIBIT E

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SEATTLE WASHINGTON 98109
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FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

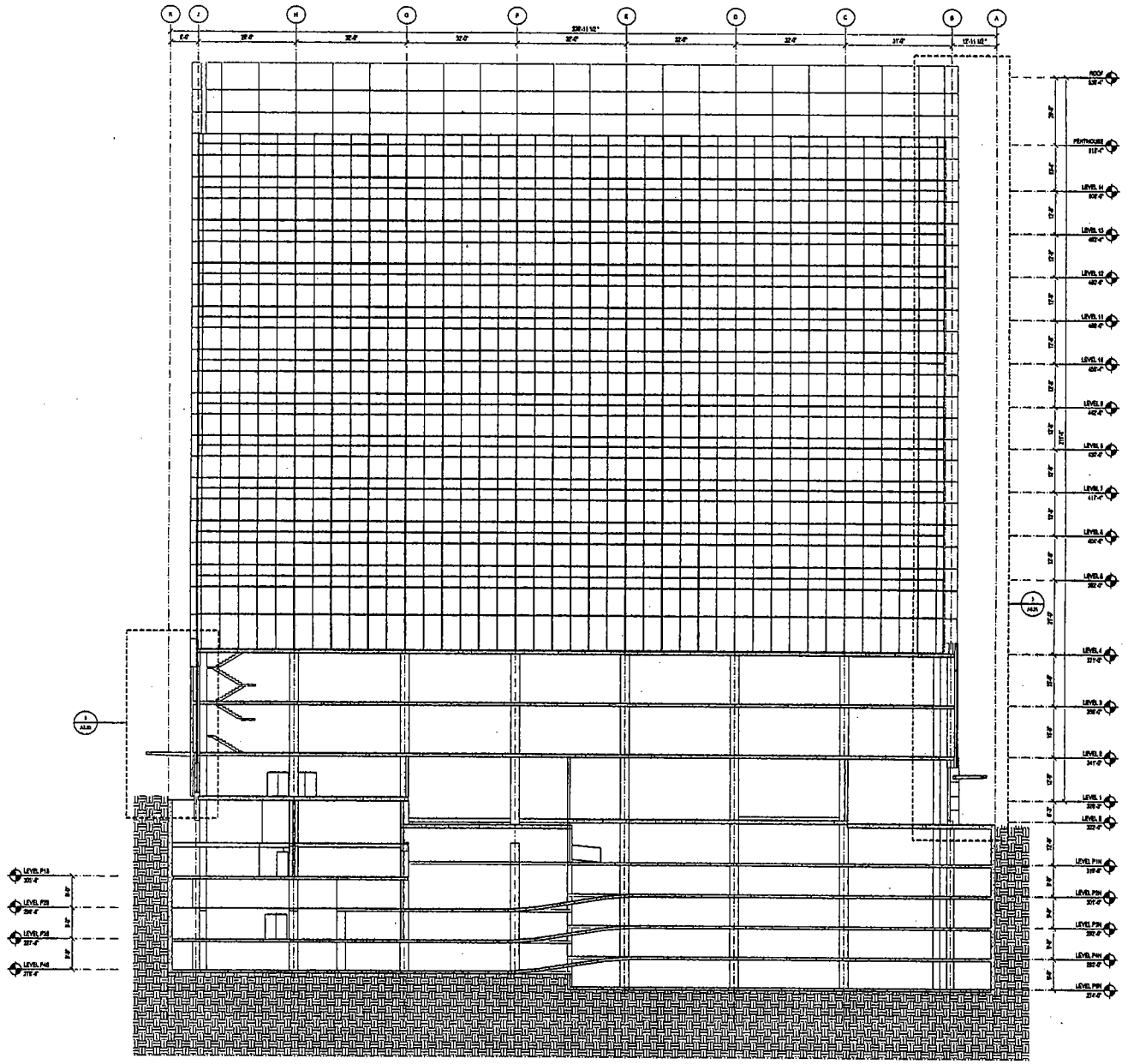
SCHEMATIC DESIGN DOCUMENTS

JOB NO.	100132.00
DATE	09/20/2006

EXT. ELEVATION SOUTH

A3.04

EXHIBIT E



1 SECTION N-S
3/32" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

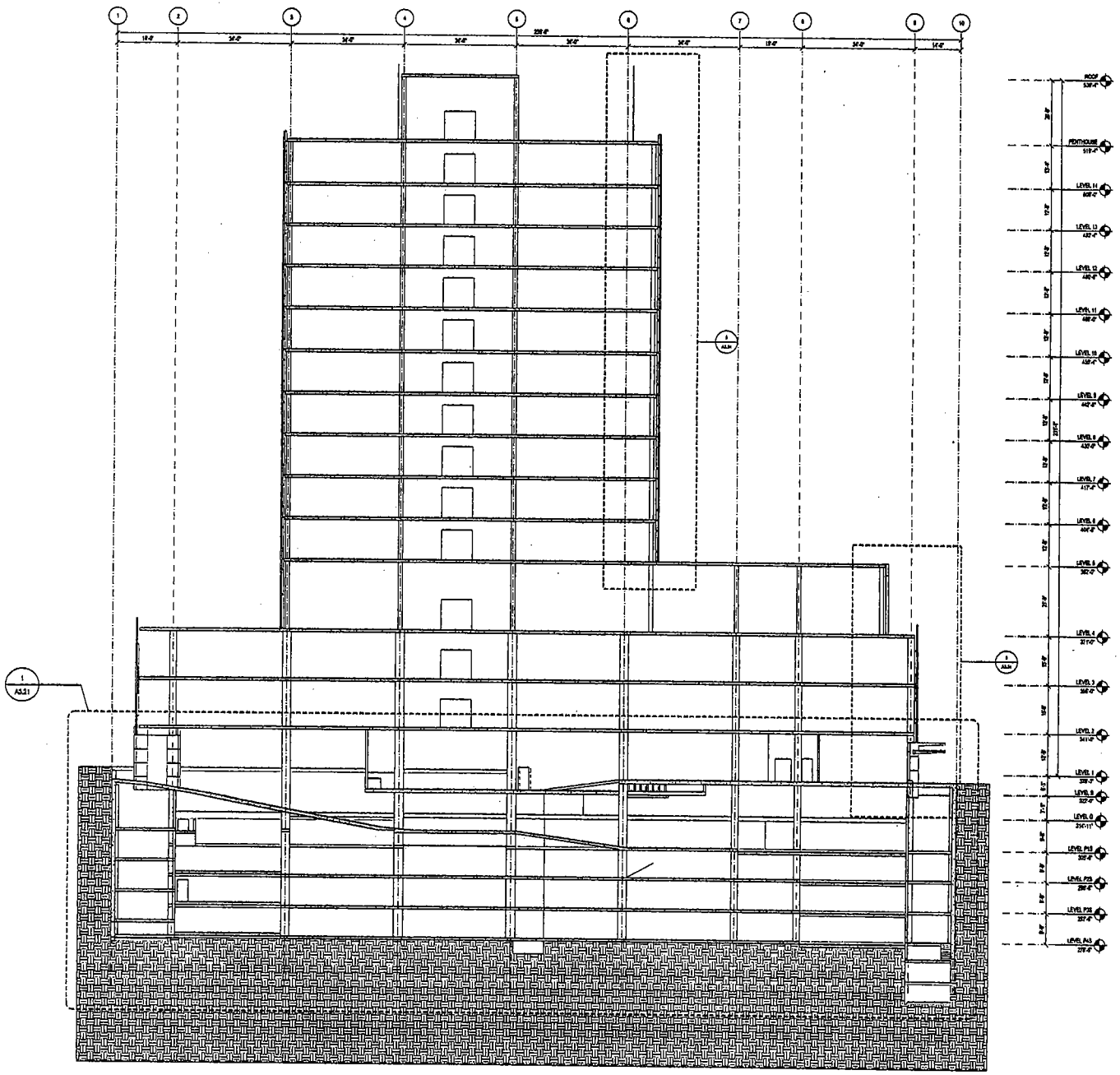
BY	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 09/20/2006

BLDG SECTION N-S

A3.11

EXHIBIT E



1 SECTION E-W
3/32" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

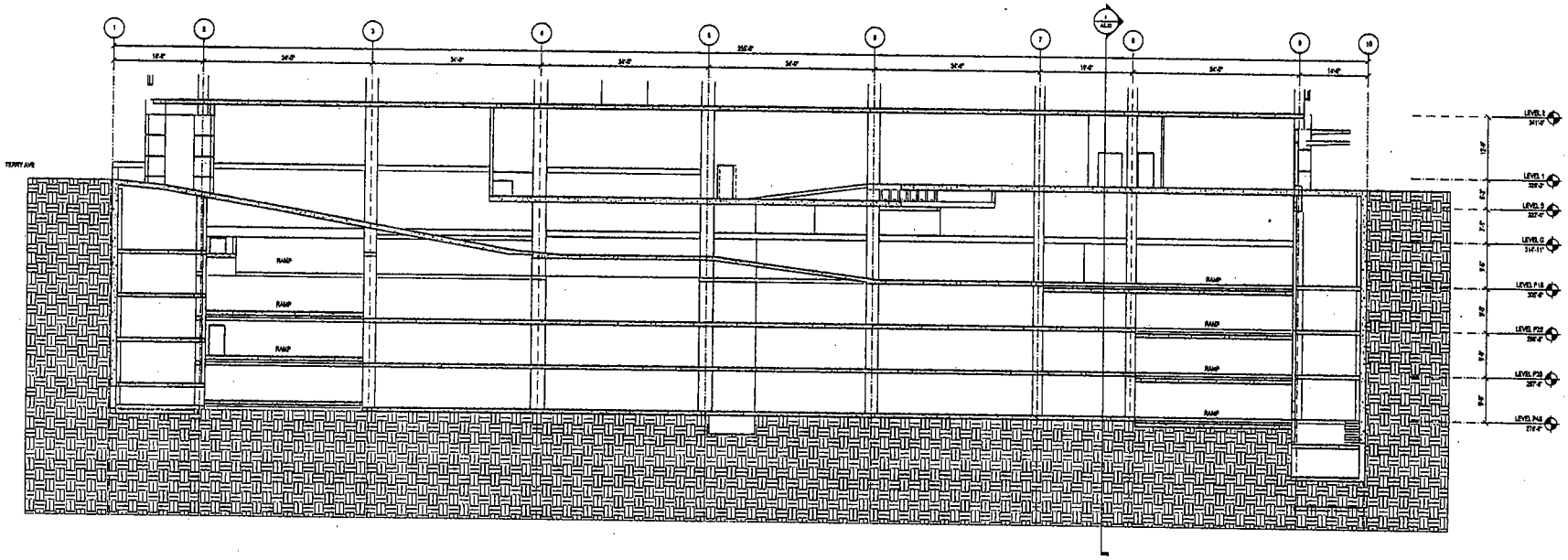
SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

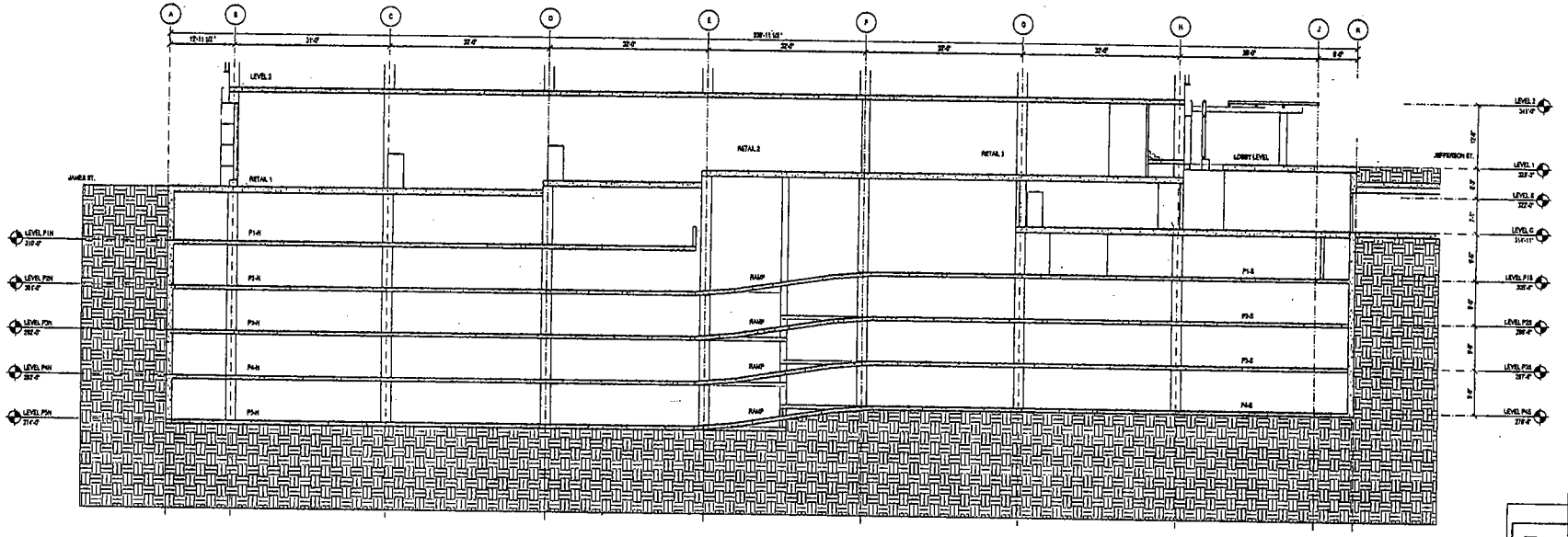
PROJECT NO 100132.00
DATE 09/20/2006

BLDG SECTION E-W

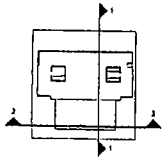
A3.12



1 SECTION THROUGH GARAGE ENTRY
1/8" = 1'-0"



2 SECTION
1/8" = 1'-0"



SCALE: 1/8" = 1'-0"

EXHIBIT E

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 225 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

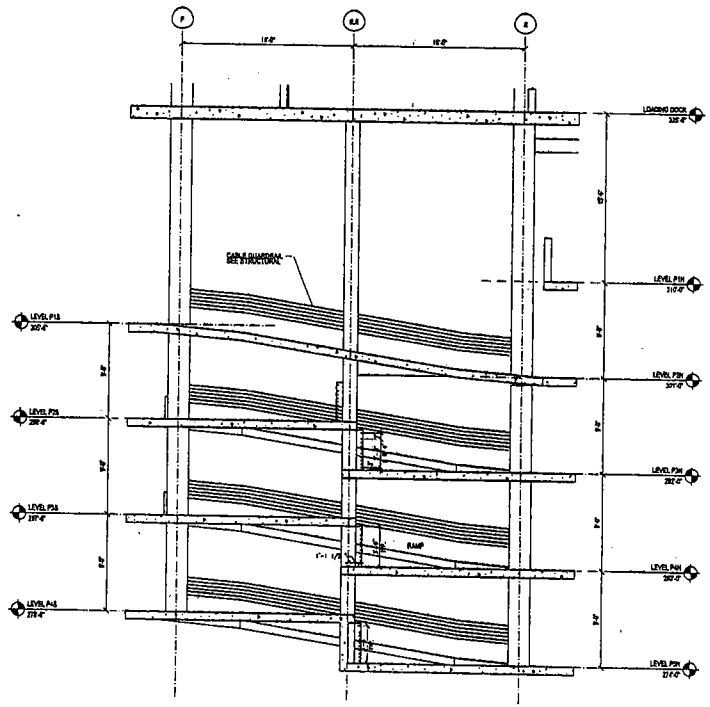
NO.	DATE	DESCRIPTION

PROJECT NO. 100132.00
DATE 09/20/2006

GARAGE SECTIONS

A3.21

EXHIBIT E



1 SECTION VIEW AT GARAGE RAMP
1/8" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

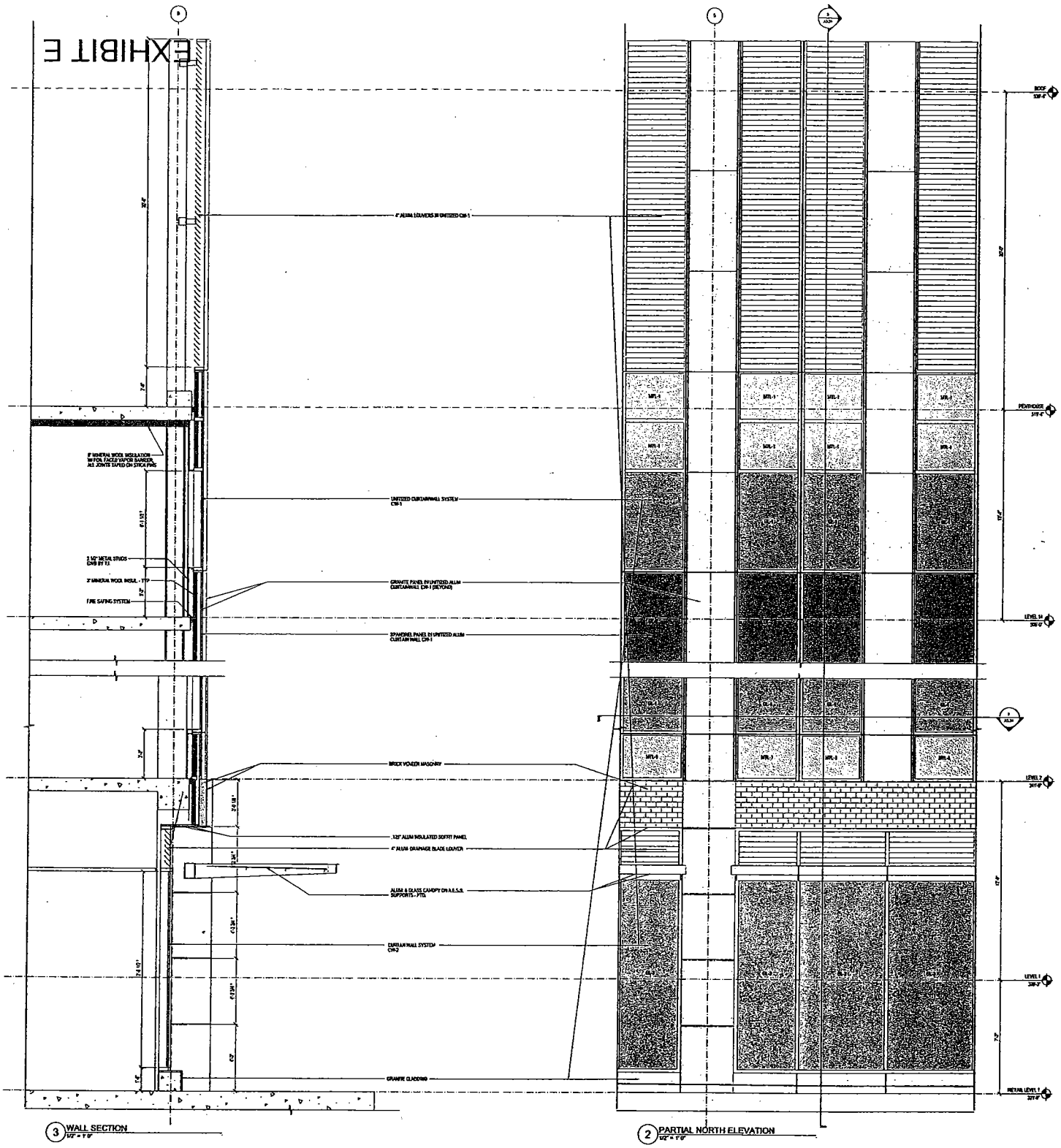
NO	DATE	DESCRIPTION

PROJECT NO. 100122.00
DATE 06/20/2008

GARAGE SECTIONS

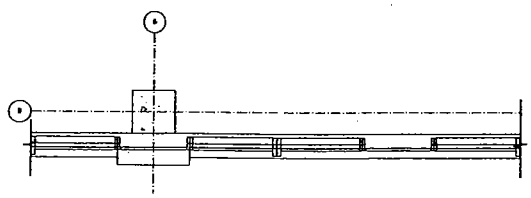
A3.22

EXHIBIT E



3 WALL SECTION
1/2" = 1'-0"

2 PARTIAL NORTH ELEVATION
1/2" = 1'-0"



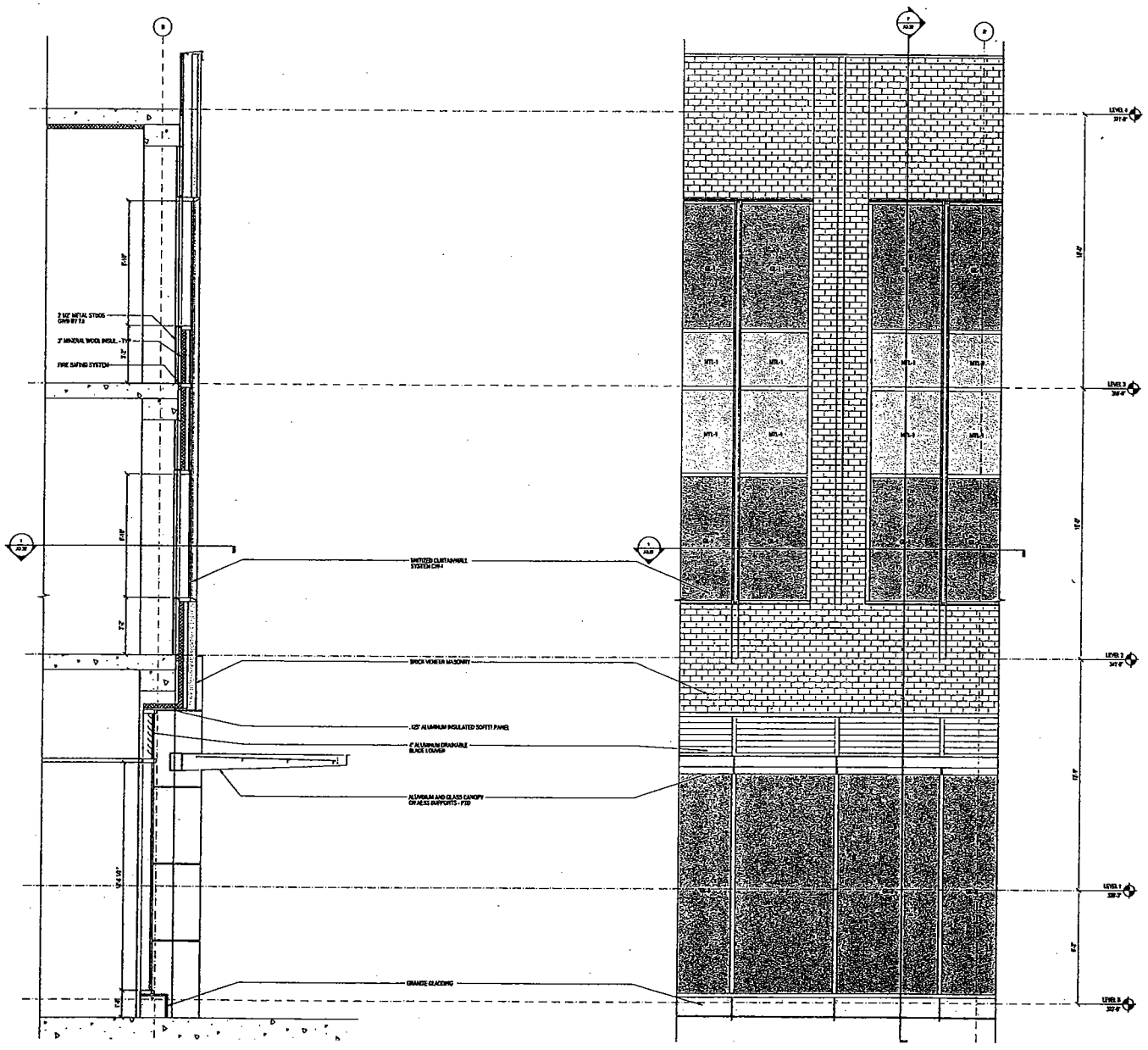
1 PARTIAL PLAN LEVEL 2
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU), CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE
GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE
GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING

A3.31	EXTERIOR WALL SECTIONS
	SCHEMATIC DESIGN DOCUMENTS
	HARBORVIEW NINTH & JEFFERSON BUILDING
	WRIGHT RUNSTAD & COMPANY
	nbbj 223 YALE AVENUE NORTH SEATTLE, WASHINGTON 98109 PHONE 206.223.5027 FAX 206.223.5000

EXHIBIT E



7 WALL SECTION
1/2" = 1'-0"

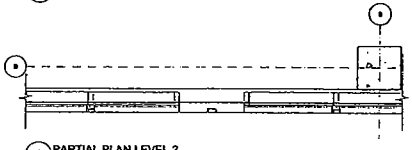
3 PARTIAL NORTH ELEVATION
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (DUAL CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE

GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE

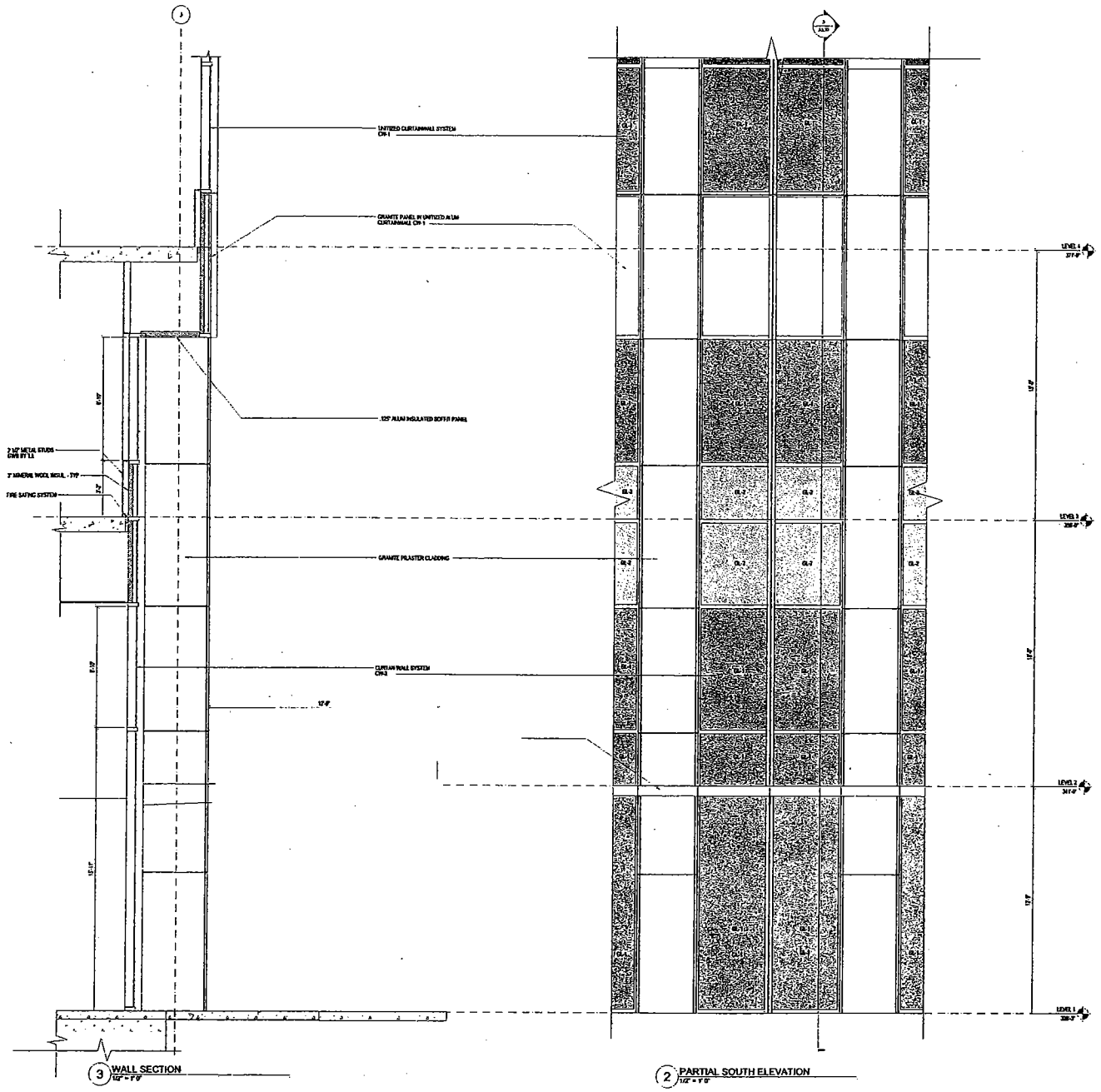
GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING



1 PARTIAL PLAN LEVEL 2
1/2" = 1'-0"

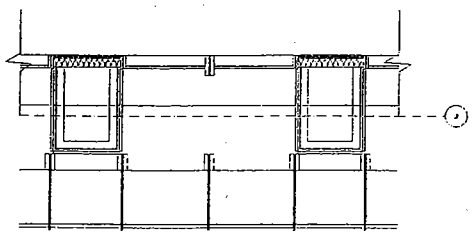
A3.32	EXTERIOR WALL SECTION						SCHEMATIC DESIGN DOCUMENTS	HARBORVIEW NINTH & JEFFERSON BUILDING	WRIGHT RUNSTAD & COMPANY	nbbj 223 YALE AVENUE NORTH SEATTLE WA 98109 PHONE 206 223 5555 FAX 206 223 5500

EXHIBIT E



3 WALL SECTION
1/2" = 1'-0"

2 PARTIAL SOUTH ELEVATION
1/2" = 1'-0"



1 PARTIAL PLAN LEVEL 1
1/2" = 1'-0"

GLAZING TYPE LEGEND

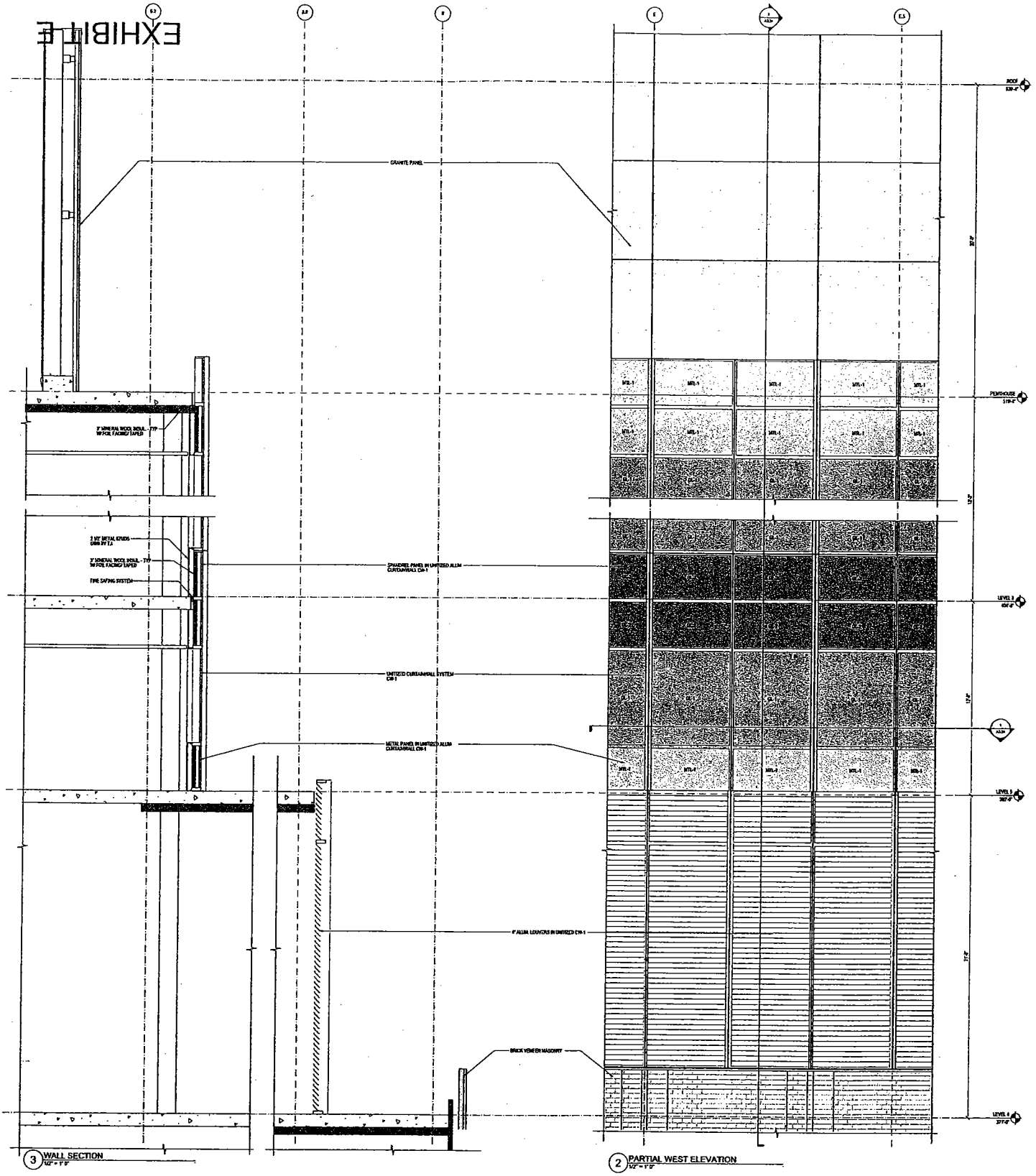
GL-1 1" INSULATING GLASS UNIT (IGU). CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE

GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE

GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING

A3.33	EXTERIOR WALL SECTIONS	SCHEMATIC DESIGN DOCUMENTS	HARBORVIEW NINTH & JEFFERSON BUILDING	WRIGHT RUNSTAD & COMPANY	nbbj 223 YALE AVENUE NORTH SEATTLE WASHINGTON 98109 TEL 206 223 5555 FAX 206 223 5565

EXHIBIT E



3 WALL SECTION
1/2" = 1'-0"

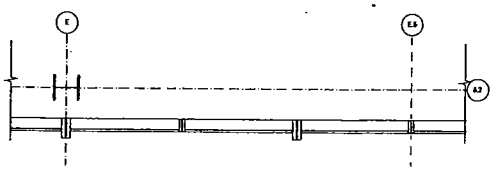
2 PARTIAL WEST ELEVATION
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU). CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE

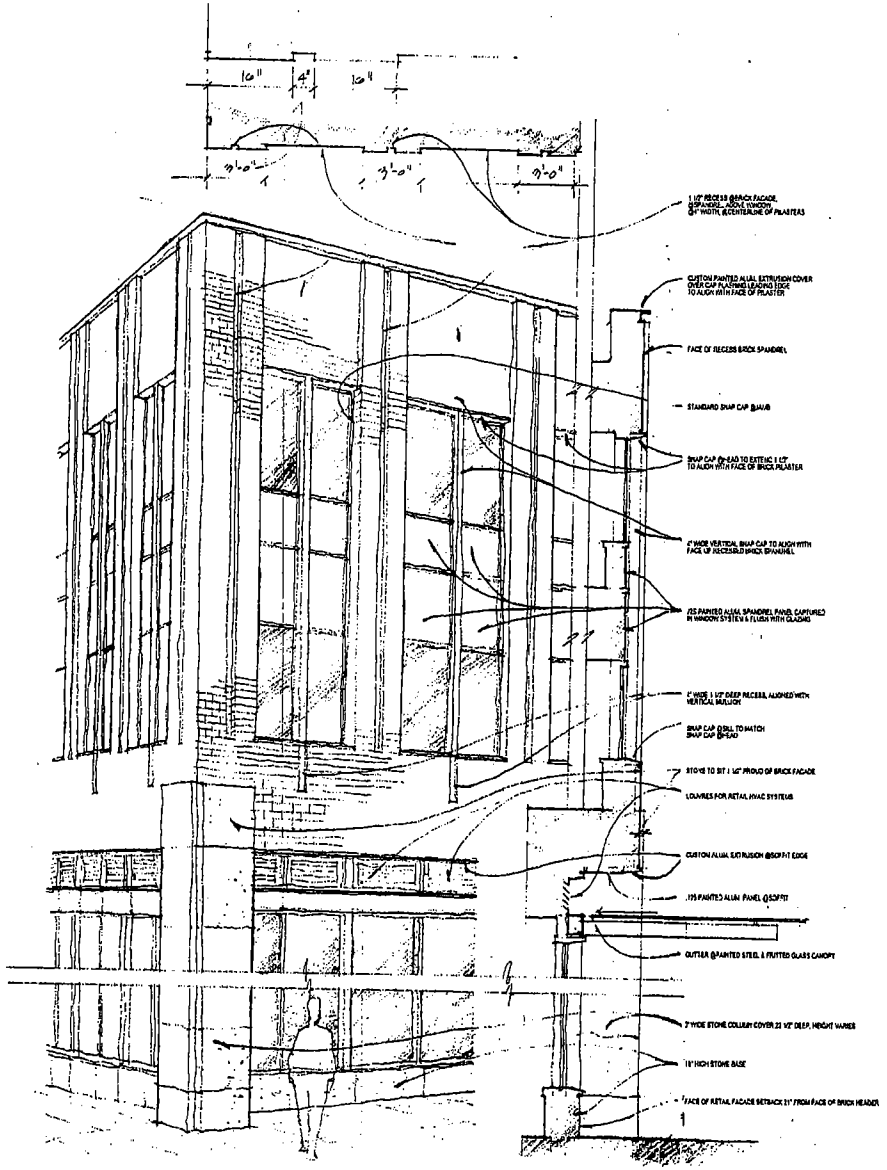
GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE

GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING



1 PARTIAL PLAN LEVEL 5
1/2" = 1'-0"

A3.34	EXTERIOR WALL SECTIONS	10/13/2006	10/13/2006	SCHEMATIC DESIGN DOCUMENTS	HARBORVIEW NINTH & JEFFERSON BUILDING	WRIGHT RUNSTAD & COMPANY	nbbj 223 YALE AVENUE NORTH SEATTLE, WASHINGTON 98109 206.223.5555 FAX 206.223.8300



1 TYPICAL CORNER CONDITION
1/8"=1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
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FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

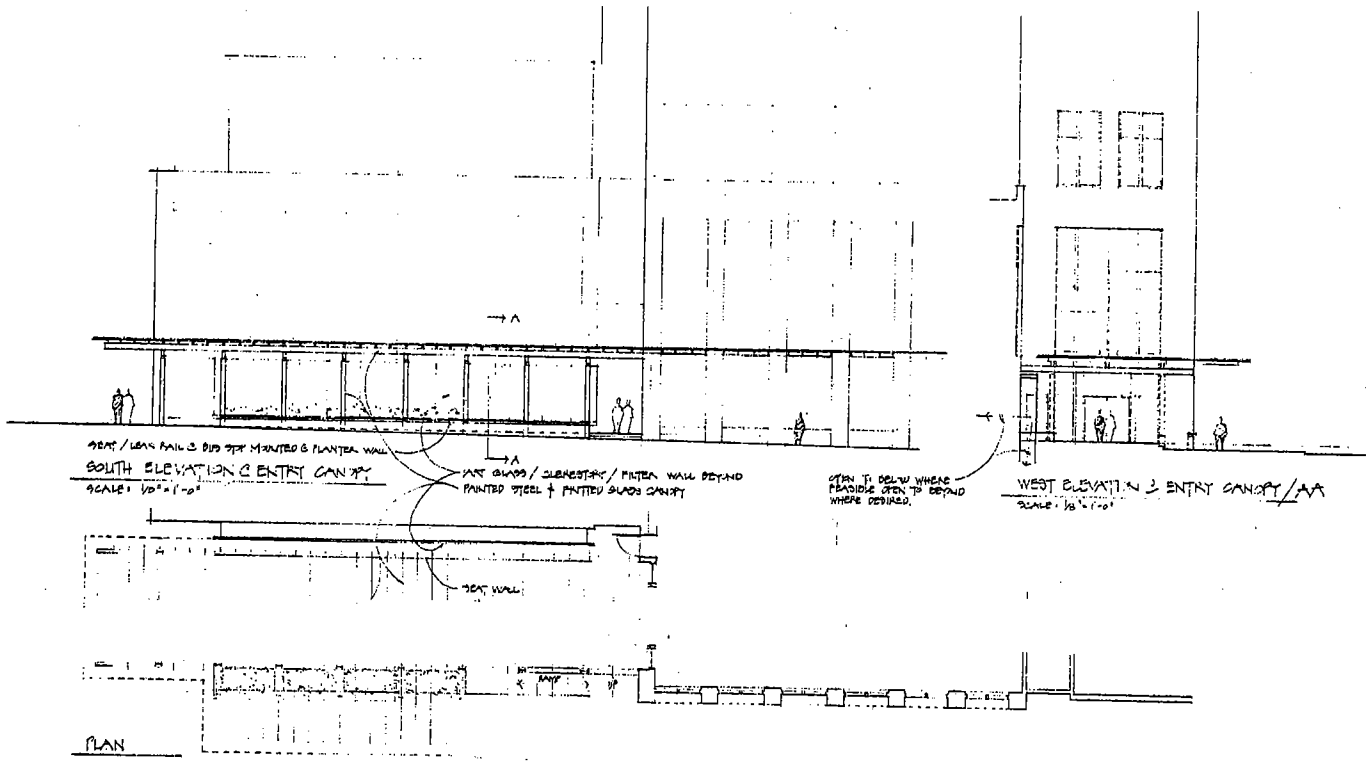
NO.	BY	REMARKS

PROJECT NO: 100132.00
DATE: 09/20/2006

EXTERIOR WALL SECTIONS

A3.35

EXHIBIT E



DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 TAIS AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 3000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	BY	REVISION

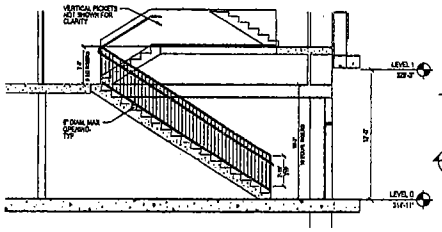
PROJ NO 100132.00

DATE 09/20/2006

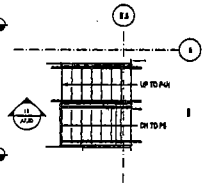
ENTRY CANOPY

SCALE: 1/8" = 1'-0"

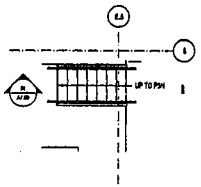
A3.36



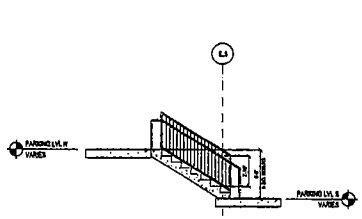
34 STAIR 4 SECTION
1/4" = 1'-0"



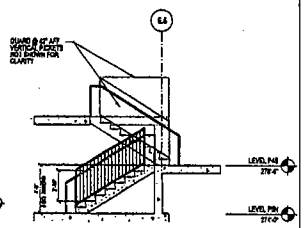
26 TRANSVERSE STAIR LEVEL P4 PLAN
1/4" = 1'-0"



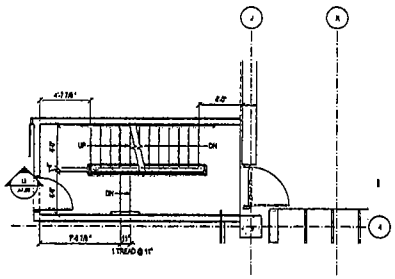
18 TRANSVERSE STAIR LEVELS P1-3 PLAN
1/4" = 1'-0"



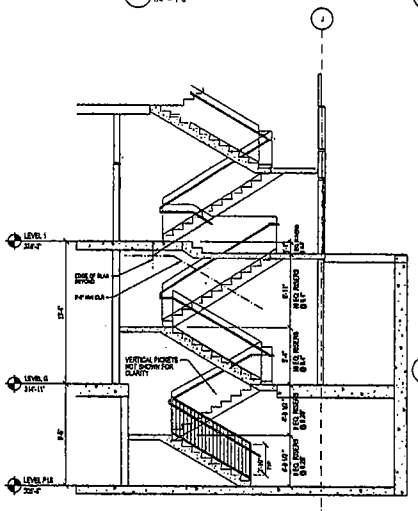
10 TRANSVERSE STAIR LEVELS P1-3 SECTION
1/4" = 1'-0"



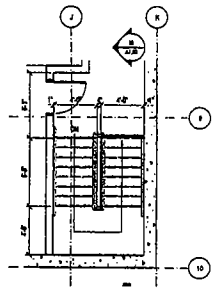
2 TRANSVERSE STAIR LEVEL P4 SECTION
1/4" = 1'-0"



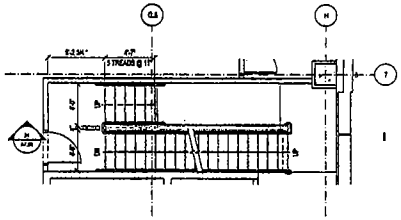
28 STAIR 2 LEVEL 1 PLAN
1/4" = 1'-0"



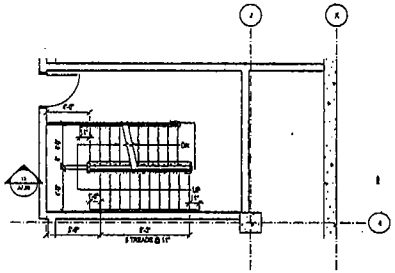
13 STAIR 2 PARKING LEVEL SECTION
1/4" = 1'-0"



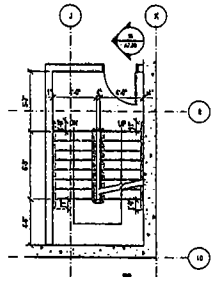
4 STAIR 1 LEVEL P1 PLAN
1/4" = 1'-0"



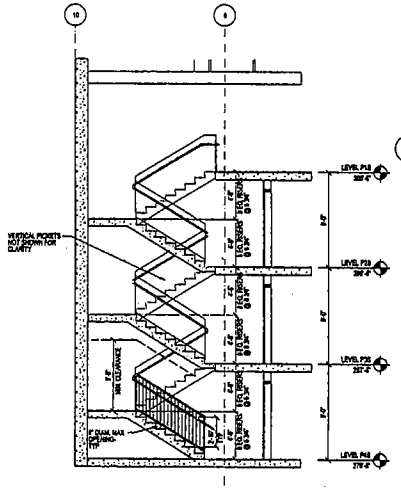
38 STAIR 4 LEVEL 1 PLAN
1/4" = 1'-0"



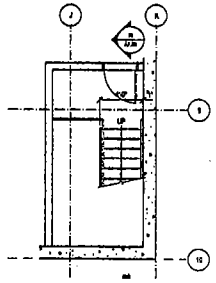
30 STAIR 2 LEVEL G PLAN
1/4" = 1'-0"



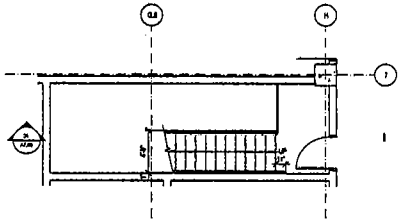
6 STAIR 1 LEVELS P2-3 PLAN
1/4" = 1'-0"



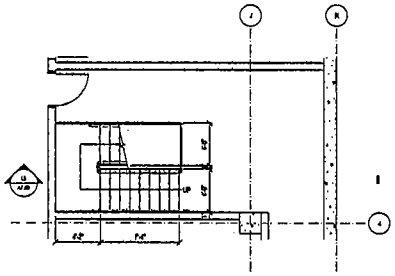
16 STAIR 1 PARKING LEVEL SECTION
1/4" = 1'-0"



8 STAIR 1 LEVEL P4 PLAN
1/4" = 1'-0"



40 STAIR 4 LEVEL G PLAN
1/4" = 1'-0"



32 STAIR 2 LEVEL P1 PLAN
1/4" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

SCALE: 1/4" = 1'-0"

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

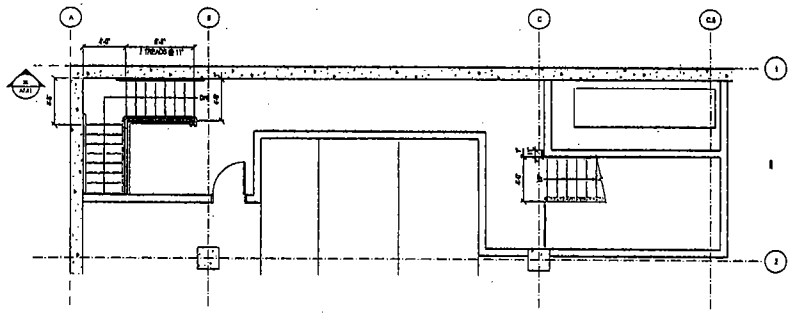
PROJ. NO. 100132.00

DATE: 09/20/2006

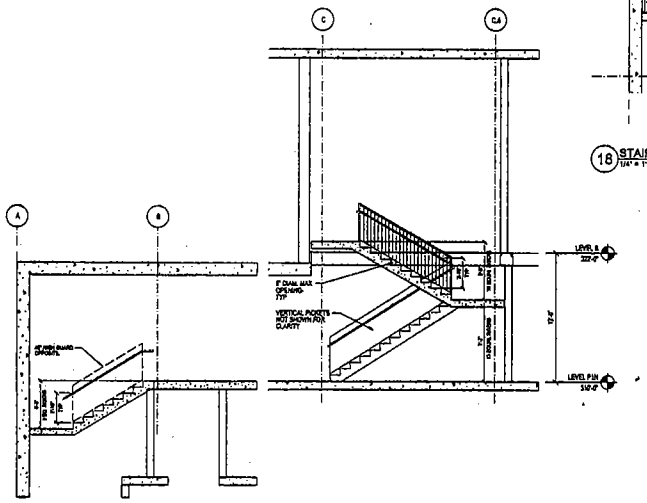
STAIR PLANS & SECTIONS

A7.00

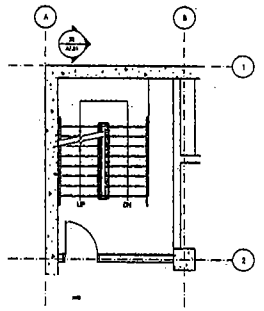
EXHIBIT E



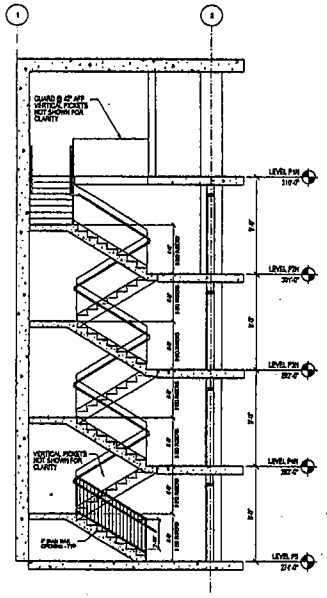
18 STAIR 3 LEVEL P1 PLAN
1/4" = 1'-0"



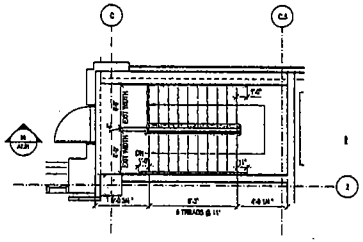
36 STAIR 3 SECTION
1/4" = 1'-0"



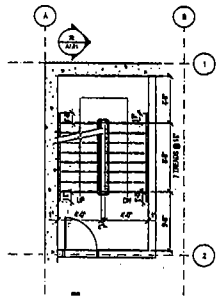
4 STAIR 3 LEVEL P2 PLAN
1/4" = 1'-0"



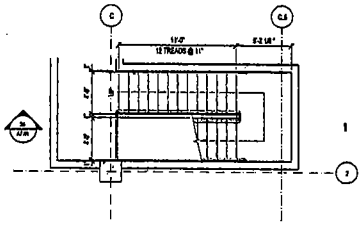
32 STAIR 3 SECTION
1/4" = 1'-0"



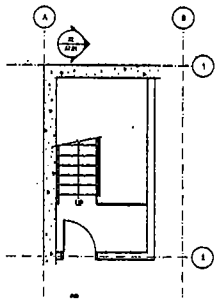
14 STAIR 3 LEVEL S PLAN
1/4" = 1'-0"



6 STAIR 3 LEVELS P3-4 PLAN
1/4" = 1'-0"



16 STAIR 3 LEVEL P1 PLAN
1/4" = 1'-0"



8 STAIR 3 LEVEL P5 PLAN
1/4" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

SCALE: 1/4" = 1'-0"

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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

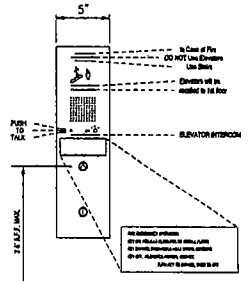
JOB NO. 109132.00

DATE 09/20/2006

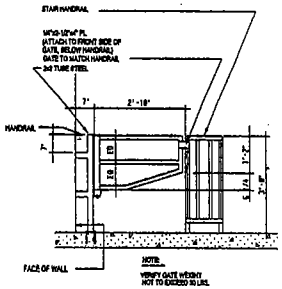
STAIR PLANS & SECTIONS

A7.01

EXHIBIT E

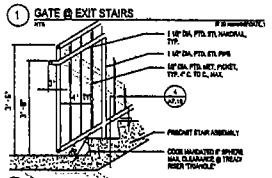


8 COVERPLATE @ ENTRY LOBBY

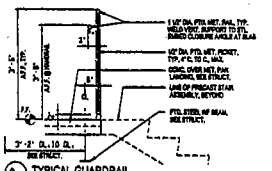


1 GATE @ EXIT STAIRS

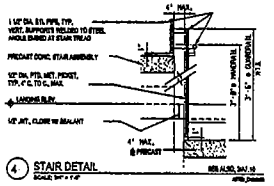
10 COVERPLATE @ TYPICAL FLOORS



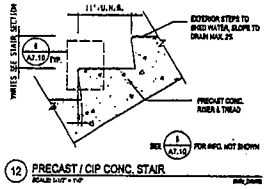
2 GUARDRAIL @ STAIR LANDING



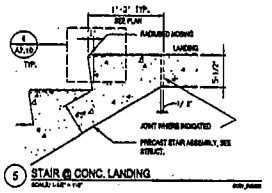
3 TYPICAL GUARDRAIL



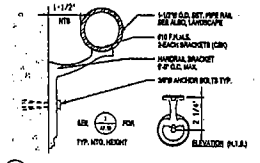
4 STAIR DETAIL



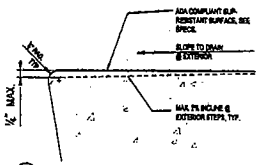
12 PRECAST / CIP CONC. STAIR



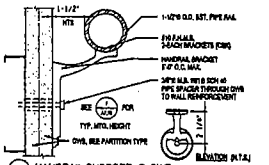
5 STAIR @ CONC. LANDING



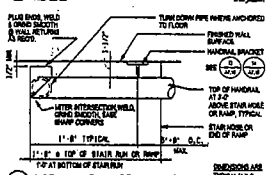
13 HANDRAIL SUPPORT: @ CONC. / CMU



6 CONC. STAIR NOSING DETAIL



14 HANDRAIL SUPPORT: @ GWB



7 METAL HANDRAIL TERMINATION

nbbj
225 YALE AVENUE NORTH
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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

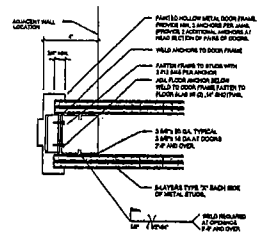
SCHEMATIC DESIGN DOCUMENTS

PROJ. ID: 100132.00

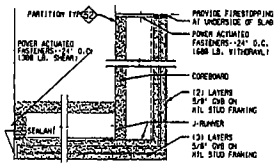
DATE: 09/20/2006

STAIR & ELEVATOR DETAILS

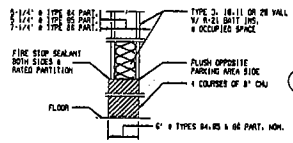
A7.10



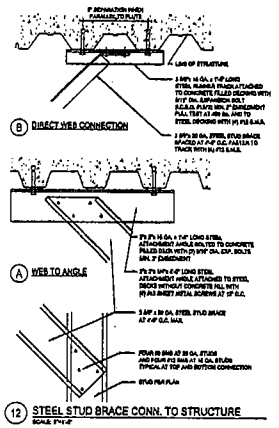
08 DOOR JAMB @ 2 HOUR RATED WALL



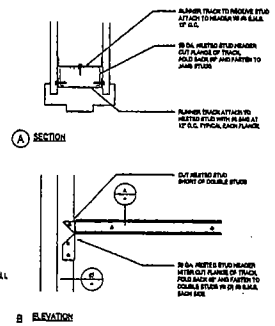
09 HORIZONTAL SHAFT TRANSITION



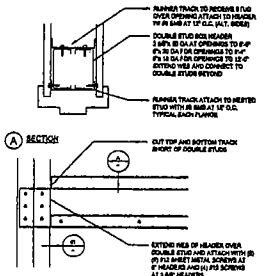
10 CMU TO GWB WALL



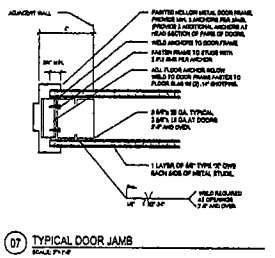
12 STEEL STUD BRACE CONN. TO STRUCTURE



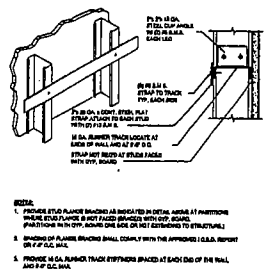
05 HEADER FOR OPENINGS TO 3'-4"



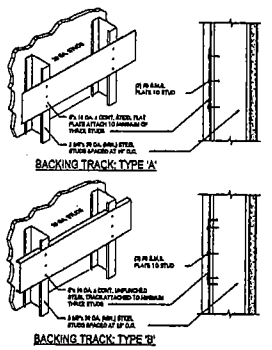
06 HEADER FOR OPENINGS OVER 3'-4"



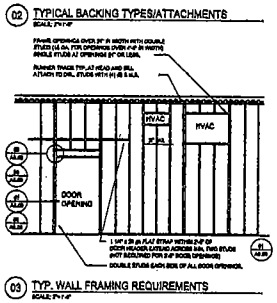
07 TYPICAL DOOR JAMB



01 TYPICAL STEEL STUD FLANGE BRACING

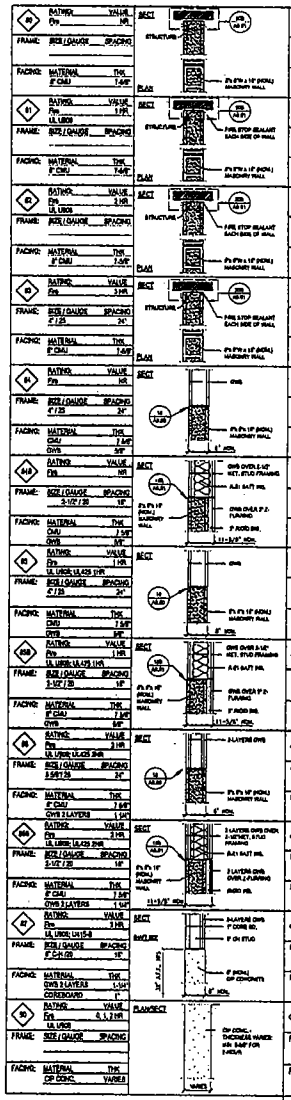


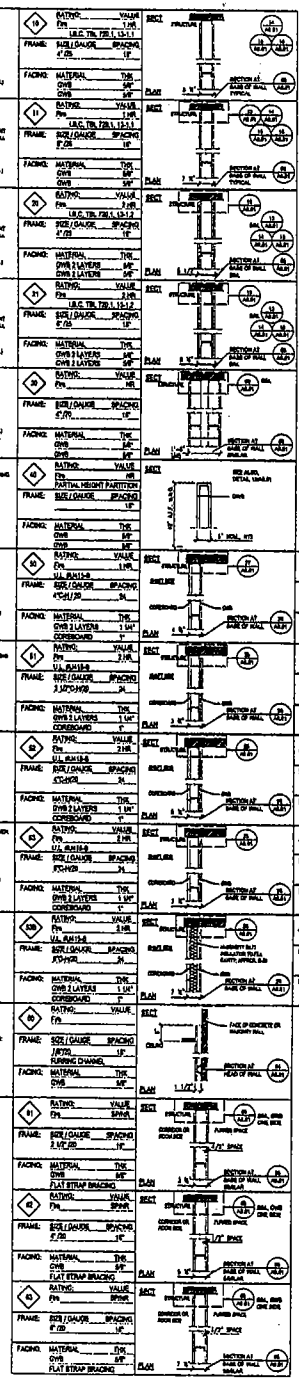
BACKING TRACK: TYPE 'A' / 'B' / 'C'



02 TYPICAL BACKING TYPES/ATTACHMENTS

03 TYP. WALL FRAMING REQUIREMENTS





GENERAL NOTES FOR PARTITIONS:

1. ALL GYP BOARD SHALL BE FIRE RATED, TYPE 'X' U.N.O. PROVIDE WP TYPE 'X' MOISTURE RESISTANT GYPSUM BOARD AT THE FOLLOWING ROOMS: (N.A. GYPSUM BOARD IS NOT ALLOWED AT CEILINGS).
   - TOILET AND SHOWER ROOMS.
   - JANITOR CLOSETS.
   - EXTERIOR AIR SHAFTS.
   - MECHANICAL ROOMS.
2. REFER TO THE FLOOR PLANS FOR PARTITION TYPE SYMBOLS. A PARTITION TYPE IS INDICATED BY A SYMBOL CONTAINING THE PARTITION IDENTIFICATION NUMBER. THE NUMBER REFERS TO A SPECIFIC ASSEMBLY INDICATED ON THIS SHEET.
3. THE CONSTRUCTION OF EXTERIOR WALLS ARE SHOWN ON WALL SECTIONS AND CONSTRUCTION DETAILS. PARTITION SYMBOLS ARE USED ONLY TO SHOW INTERIOR CONDITIONS.
4. A UNIQUE PARTITION TYPE HAS BEEN ESTABLISHED FOR EACH OF THE VARIOUS CONDITIONS SHOWN AND NOTED ON THIS PROJECT, EXCEPTIONS TO THE BASE PARTITION TYPE IS INDICATED BY LETTER OR NUMBER SUBSCRIPT ADJACENT TO THE SYMBOL. THE FOLLOWING IS SUBSCRIPT 1 SHALL BE USED...
   - 'L' USE LEAD LINED GYP. BOARD, WEIGHT PER SHIELDING REPORT. X-RAY/RAP ALL WITH LEAD SHEETS.
   - 'A' ACOUSTICAL PARTITION SPELL STUD CAVITY WITH "SOUND INSULATION" SEAL ALL PARTITIONS WITH CLEAR ACOUSTICAL SEALANT.
   - 'S' STUD USE 16 TERMINATE STUD BOX.
   - 'B' INSULATED WALL ASSEMBLY, SEE PARTITION SCHEDULE.

   ALL OTHER REQUIREMENTS OF THE BASE PARTITION TYPE SHALL REMAIN UNCHANGED.

   THE PARTITION TYPE ABOVE OR BELOW ANY OPENING IS TO BE THE SAME AS THAT SCHEDULED FOR EITHER SIDE OF THE OPENING.
5. DIFFERING PARTITION TYPES SHALL ALIGN SO THAT WALL FINISHES CONTINUE UNBROKEN WITHIN ADJOINING ROOMS AND/OR SPACES.
6. IN CASES WHERE TWO DIFFERENT CEILING HEIGHTS ABUT PARTITIONS, THE PARTITION SHALL EXTEND ABOVE THE HIGHEST CEILING INDICATED.
7. PLAN DIMENSIONS RELATE TO FACE OF GYPSUM BOARD WALL OR FACE OF CONCRETE, CRITICAL CLEARANCES ARE DESIGNATED AS "CLEAR".
8. DOORS ARE LOCATED BY PLAN DIMENSION ARE LOCATED BY TYPICAL DIMENSIONS SHOWN ON JAMB DETAILS.
9. PARTITIONS INDICATED AS FIRE OR SMOKE RATED FORM A SEPARATION THAT SHALL BE CONTINUOUS FROM FLOOR TO FLOOR ABOVE WITH NO BREAKS AT CEILINGS, WALL TRANSITIONS OR OTHER OBSTRUCTIONS.
10. ALL PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED W/ UL LISTED FIRE/SMOKE STOP ASSEMBLY.
11. SUBSTITUTE FOR WALL MATERIALS SHALL BE PROVIDED TO SUBMIT/APPROVE THAT PROPOSED MATERIALS HAVE BEEN TESTED BY A RECOGNIZED TESTING AGENCY TO MEET THE REQUIRED RATINGS AND PERFORMANCE LEVELS OF THE SPECIFIED MATERIALS.
12. PENETRATIONS IN RATED WALLS OVER 12 SQ. INCHES SHALL BE BACKPACKED WITH MP TYPE 'K' PUTTY, UL OR U.L. LISTED FIRE STOP PUTTY PACK.
13. UNPROTECTED PENETRATIONS UNDER 12 SQ. INCHES SHALL NOT EXCEED 155 SQ. INCHES IN ANY 100 SQ. FT. AREA OR 465 SQ. FEET OF WALL AREA. WHERE SUCH UNPROTECTED OPENINGS OCCUR ON OPPOSITE SIDES OF THE WALL, SEPARATE THESE OPENINGS BY MIN. 24 INCHES.
14. DOOR OPENINGS SHALL BE PROTECTED BY A U.L. LISTED (OR EQUAL) DOOR AND DOOR FRAME. ALL RATED DOORS SHALL BE PROVIDE LATCHING & CLOSING AND DARETED TO PREVENT THE PASSAGE OF SMOKE. DOORS EQUIPPED WITH A HOLD OPEN DEVICE SHALL BE INTERCONNECTED TO ITS THE FIRE ALARM WHICH SHALL CLOSE THE DOOR UPON ACTIVATION.
15. COMPLY WITH THE FOLLOWING (OR EQUAL) U.S.G. REPORTS:
    - "BARRA / LIGHT-WEIGHT STUDS AND TRACKS"
    - "THE MASTER FORMAT" U.S.G. PUBS (POWDER DRIVEN PINS)
16. ALL OPENINGS OVER 3'-4" SHALL BE DOUBLE STUDDED W/ (N) 25 GA. STUDS. ALL DOOR JAMBS 3'-4" AND OVER SHALL BE TRIPLE STUDDED WITH 16 GA. STUDS.
17. PROVIDE 3 MIN. 20 GA. UNPUNCHED STEEL TRACK BACKING AT ALL WALL MOUNTED DOOR STOPS.
18. PARTITIONS SUPPORTING WALL HUNG CABINETS SHALL BE 16 GA. STUDS SPACED AT 16" O.C. MAX. REFER TO ARCHITECTURAL DETAILS FOR REQUIRED BACKING.

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

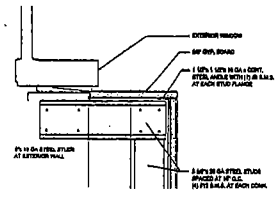
REV	DATE	DESCRIPTION

PROJ NO. 100132.00
DATE 09/20/2006
DWG

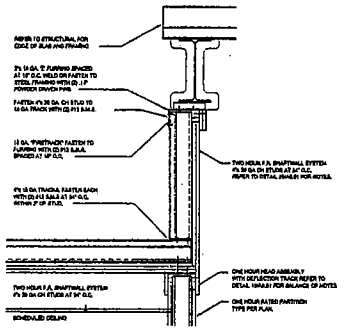
PARTITION SCHEDULE

A9.00

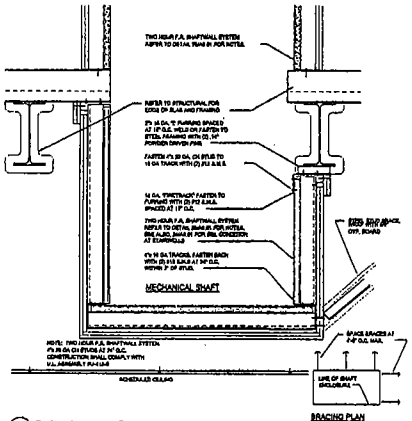
EXHIBIT E



31 PARTIAL HEIGHT PARTITION
SCALE: 3"=1'-0"

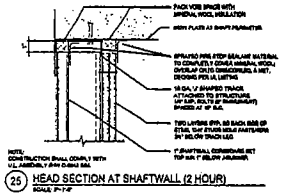


32 TWO HOUR SHAFT ENCLOSURE
SCALE: 1 1/2"=1'-0"

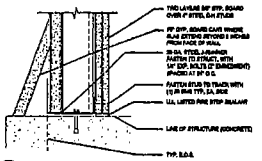


34 TWO HOUR SHAFT ENCLOSURE
SCALE: 1 1/2"=1'-0"

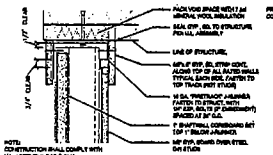
EXHIBIT E



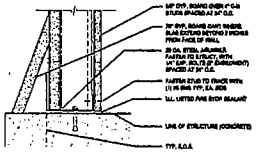
25 HEAD SECTION AT SHAFTWALL (2 HOUR)
SCALE: 3"=1'-0"



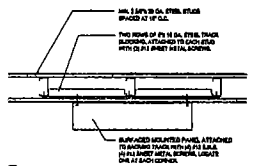
28 SECTION AT BASE OF SHAFTWALL (2 HR)
SCALE: 3"=1'-0"



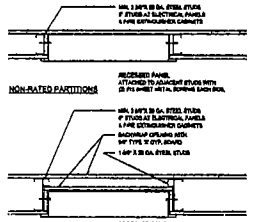
27 HEAD SECTION AT SHAFTWALL (1 HOUR)
SCALE: 3"=1'-0"



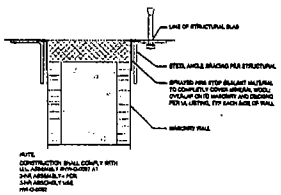
28 SECTION AT BASE OF SHAFTWALL (1 HR)
SCALE: 3"=1'-0"



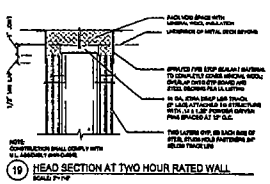
29 SURFACE MOUNTED ELECTRICAL PANEL
SCALE: 1 1/2"=1'-0"



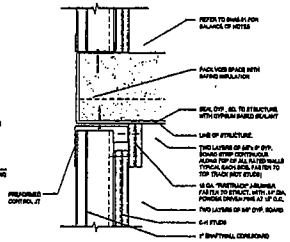
30 FIRE PARTITION WITH RECESSED PANEL
SCALE: 1 1/2"=1'-0"



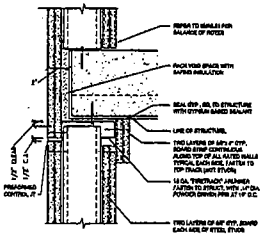
30B HEAD SECTION AT MASONRY WALL
SCALE: 3"=1'-0"



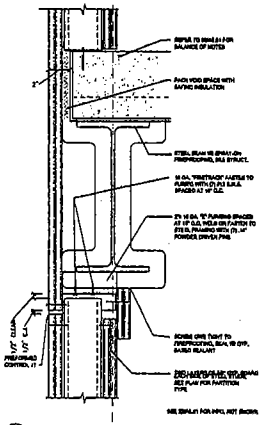
19 HEAD SECTION AT TWO HOUR RATED WALL
SCALE: 3"=1'-0"



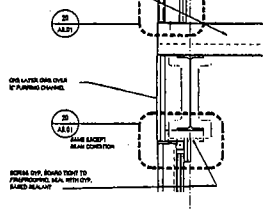
20 SECTION @ ELEVATOR SHAFT
SCALE: 3"=1'-0"



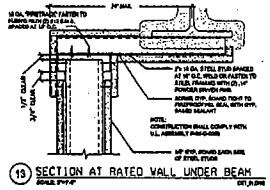
22 HEAD SECTION AT STAIR WALL
SCALE: 3"=1'-0"



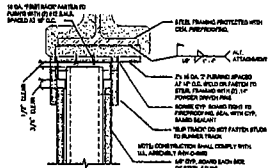
24 HEAD SECTION @ STAIR WALL
SCALE: 3"=1'-0"



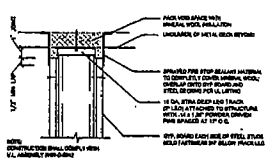
24B SECTION @ ELEV. SHAFT/BEAM
SCALE: 1 1/2"=1'-0"



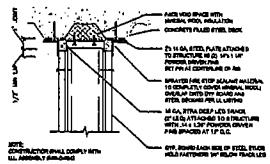
13 SECTION AT RATED WALL UNDER BEAM
SCALE: 3"=1'-0"



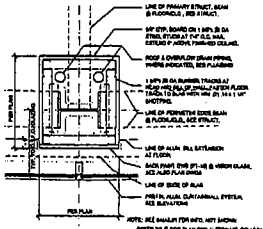
14 SECTION AT RATED WALL UNDER BEAM
SCALE: 3"=1'-0"



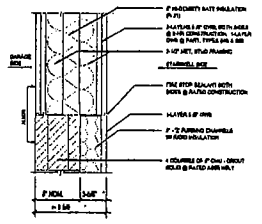
15 HEAD SECTION AT ONE HOUR RATED WALL
SCALE: 3"=1'-0"



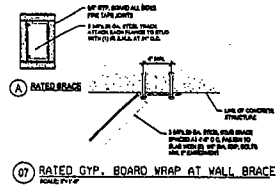
16 HEAD SECTION AT ONE HOUR RATED WALL
SCALE: 3"=1'-0"



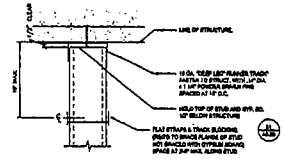
18 TYP. PLAN COL. FURRING @ PERIMETER
NTS



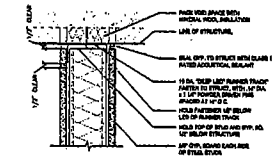
18B CMU TO GWB DETAIL
NTS



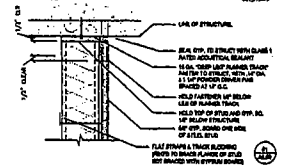
07 RATED GYP. BOARD WRAP AT WALL BRACE
SCALE: 3"=1'-0"



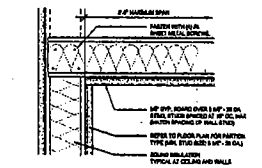
08 HEAD SECTION: STUD FRAMING TO STRUCT.
SCALE: 3"=1'-0"



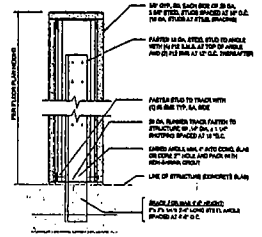
09 HEAD SECT AT SMOKE/ACOUST. PARTITION
SCALE: 3"=1'-0"



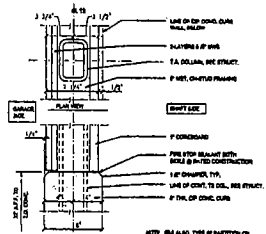
10 HEAD SECTION AT SHOKE PARTITION
SCALE: 3"=1'-0"



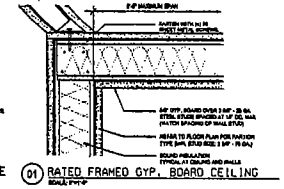
11 NON-RATED FRAMED GYP. BOARD CEILING
SCALE: 3"=1'-0"



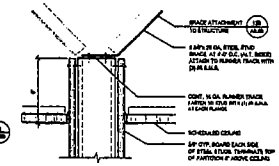
12 PARTIAL HEIGHT PARTITION
SCALE: 3"=1'-0"



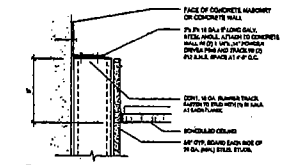
12B GARAGE ELEVATOR FRAMING DETAIL
NTS



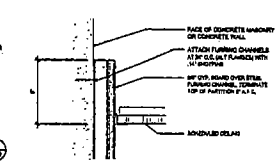
01 RATED FRAMED GYP. BOARD CEILING
SCALE: 3"=1'-0"



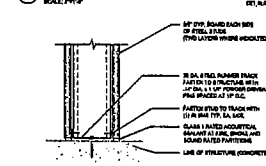
02 HEAD SECTION AT TYPICAL PARTITION
SCALE: 3"=1'-0"



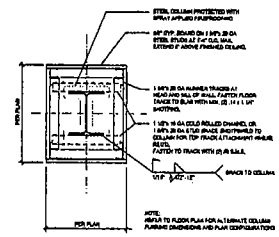
03 HEAD SECTION AT FURRED PARTITION
SCALE: 3"=1'-0"



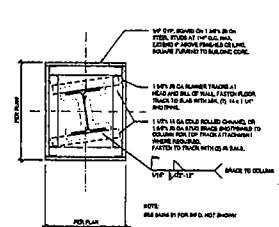
04 HEAD SECTION AT FURRED PARTITION
SCALE: 3"=1'-0"



05 SECTION AT BASE OF WALL
SCALE: 3"=1'-0"



8A PLAN AT TYPICAL COLUMN FURRING
NTS



8B PLAN AT COLUMN FURRING
NTS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5500

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

100132.00

09/30/2009

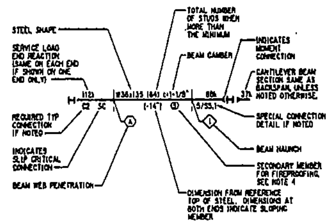
DETAILS

A9.01

ABBREVIATIONS (16)

&	AND	L	ANGLE
@	AT	LAB	LABORATORY
°, DEG	DEGREE	LB, #	POUND
#, LB	NUMBER, POUND	LF	LINEAL FOOT
Ø, DIA	DIAMETER	LIN	LINEAL; LINEAR
AB	ANCHOR BOLT	LL	LIVE LOAD
ACI	AMERICAN CONCRETE INSTITUTE	LLH	LONG LEGS HORIZONTAL
ADDL	ADDITIONAL	LLV	LONG LEGS VERTICAL
ADJ	ADJACENT	LLBB	LONG LEGS BACK-TO-BACK
AGGR	AGGREGATE	LOC	LOCATION, LOCATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LONGIT	LONGITUDINAL
ALT	ALTERNATE	LP	LOW POINT
ALUM	ALUMINUM	LSL	LONG SLOTTED (HOLES)
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LSW	LIGHT GAGE SHEARWALL
APA	AMERICAN PLYWOOD ASSOCIATION	LTWT	LIGHTWEIGHT
APPD	APPROVED	LVL	LEVEL
APPROX	APPROXIMATE	MAS	MASONRY
AR	ANCHOR ROD	MATL	MATERIAL
ARCH	ARCHITECTURAL; ARCHITECT	MAX	MAXIMUM
ASSY	ASSEMBLY	MB	MACHINE BOLT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MC	MISCELLANEOUS CHANNEL
AWS	AMERICAN WELDING SOCIETY	MECH	MECHANICAL
BAL	BALANCE	MEMB	MEMBRANE
BD	BOARD	MEP	MECHANICAL/ ELECTRICAL/ PLUMBING
BF	BRACED FRAME	MF	MOMENT FRAME
BLDG	BUILDING	MFB	MOMENT FRAME BEAM
BLK	BLOCK; BLOCKING	MFC	MOMENT FRAME COLUMN
BM	BEAM	MFR	MANUFACTURE; MANUFACTURER
BMU	BRICK MASONRY UNIT	MFRG	MANUFACTURING
BOS	BOTTOM OF STEEL; BOSOM (HELO)	MIN	MINIMUM; MINUTE
BOT	BOTTOM	MISC	MISCELLANEOUS
BRCG	BRACING	ML	MATCH LINE
BRG	BEARING	MO	MASONRY OPENING
BRKT	BRACKET	MS	MECHANICAL SPLICE
BSMT	BASEMENT	N	NORTH
BTWN	BETWEEN	N-S	NORTH-SOUTH
BU	BUILT-UP	NF	NEAR FACE
C	CAMBER	NFPA	NATIONAL FOREST PRODUCTS ASSOCIATION
C	STANDARD CHANNEL	NIC	NOT IN CONTRACT
CANT	CANTILEVER	NS	NEAR SIDE
CC	CENTER TO CENTER	NTS	NOT TO SCALE
CG	CENTER OF GRAVITY	OC	ON CENTER
CIP	CAST-IN-PLACE	OD	OUTSIDE DIAMETER
CJ	CONSTRUCTION JOINT	OPNG	OPENING
CL	CENTERLINE	OPP	OPPOSITE (HAND)
CLR	CLEARANCE; CLEAR	OPT	OPTION; OPTIONAL
CMU	CONCRETE MASONRY UNIT	OVS	OVERSIZED (HOLES)
COL	COLUMN	OWJ	OPEN WEB JOIST
COMP	COMPRESSION	P	PIPE
CONC	CONCRETE	PC	PRECAST
CONFIG	CONFIGURATION	PCF	POUNDS PER CUBIC FOOT
CONN	CONNECTION; CONNECT	PCP	PRECAST CONCRETE PANEL
CONST	CONSTRUCTION	PEN	PENETRATION
CONT	CONTINUE; CONTINUOUS	PERP	PERPENDICULAR
CONTR	CONTRACTOR	PL	PLATE
COORD	COORDINATE; COORDINATION	PLC	PLACE
CORR	CORRUGATED	PLF	POUNDS PER LINEAL FOOT
CP	COMPLETE PENETRATION	PLYWD	PLYWOOD
CP	WELD-ULTRASONIC TEST	PP	PARTIAL PENETRATION
CTR	CENTER	PREFAB	PREFABRICATED
CTSK	COUNTERSINK; COUNTERSUNK	PS	PRESTRESSED
CU	CUBIC	PSF	POUNDS PER SQUARE FOOT
d	PENNY (NAIL)	PSI	POUNDS PER SQUARE INCH
db	BAR DIAMETERS	PT	POST-TENSION
DBL	DOUBLE	PVC	POLYVINYL CHLORIDE
DEG, °	DEGREE	R	RADIUS
DEMO	DEMOLISH; DEMOLITION	RB	RISER BAR
DEPT	DEPARTMENT	RCMD	RECOMMEND
DET	DETAIL	REF	REFERENCE
DIA, Ø	DIAMETER	REINF	REINFORCE; REINFORCING; REINFORCEMENT
DIAG	DIAGONAL	REQD	REQUIRED
DIAPH	DIAPHRAGM	REQT	REQUIREMENT
DICA	DRILLED-IN CONCRETE ANCHOR	S1S	SURFACED ONE SIDE
DIM	DIMENSION	S2S	SURFACED TWO SIDES
DISC	DISCONTINUED; DISCONTINUOUS	S4S	SURFACED FOUR SIDES
DL	DEAD LOAD	S	AMERICAN STANDARD SHAPE; SOUTH
DN	DOWN	SB	SPACER BAR; SUPPORT BAR
DO	DITTO	SC	SLIP CRITICAL
DWG	DRAWING	SCC	STRUCTURAL CONSULTANT TO THE CONTRACTOR (MKA)
DWL	DOWEL	SCHED	SCHEDULE; SCHEDULED
(E)	EXISTING	SDQ	SPECIAL DUCTILE QUALITY
E	EAST	SECT	SECTION
E-W	EAST-WEST	SEOR	STRUCTURAL ENGINEER OF RECORD
EA	EACH	SHT	SHEET
EF	EACH FACE	SHTG	SHEATHING
EJ	EXPANSION JOINT	SIM	SIMILAR
EL	ELEVATION	SLBB	SHORT LEGS BACK-TO-BACK
ELEC	ELECTRICAL	SOG	SLAB ON GRADE
ELEV	ELEVATOR	SP	SPIRAL
EMBD	EMBEDDED	SPC	SPACE
ENGR	ENGINEER	SPCG	SPACING
EQ	EQUAL; EARTHQUAKE	SPECS	SPECIFICATIONS
EQUIP	EQUIPMENT	SQ	SQUARE
ES	EACH SIDE	SSL	SHORT SLOTTED (HOLES)
ETC	ET CETERA	STD	STANDARD
EW	EACH WAY	STIFF	STIFFENER
EXIST	EXISTING	STIRR	STIRRUP
EXP	EXPANSION	STL	STEEL
EXT	EXTERIOR	STR	STRAIGHT
EXTD	EXTEND; EXTENDED	STRUC	STRUCTURAL
FD	FLOOR DRAIN	SUPT	SUPPORT
FDN	FOUNDATION	SW	SHEAR WALL
FF	FAR FACE	SYM	SYMMETRICAL
FG	FRICTION GRIP BOLT	T&B	TOP AND BOTTOM
FIN	FINISH	T&G	TONGUE AND GROOVE
FL	FLOOR; FLOOR LINE	TEMP	TEMPERATURE; TEMPORARY
FLG	FLANGE	THICK	THICKNESS
FOS	FACE OF STUD	TOC	TOP OF CONCRETE; TOP OF CURB
FP	FIREPROOF; FULL PENETRATION	TOF	TOP OF FOOTING
FRMG	FRAMING	TOS	TOP OF STEEL
FS	FULL SIZE; FAR SIDE	TOW	TOP OF WALL
FT	FOOT; FEET	TRANS	TRANSVERSE
FTG	FOOTING	TYP	TYPICAL
GA	GAGE, GAUGE	UB	UNIVERSAL BEAM
GALV	GALVANIZED	UBC	UNIFORM BUILDING CODE
GB	GRADE BEAM	UC	UNIVERSAL COLUMN
GL	GLUE LAMINATED (BEAM)	UL	UNDERWRITERS' LABORATORY, INCORPORATED
GRND	GROUND	UNO	UNLESS NOTED OTHERWISE
H	HORIZONTAL	UT	ULTRASONIC TEST
HEF	HORIZONTAL EACH FACE	V, VERT	VERTICAL
HGR	HANGER	VEF	VERTICAL EACH FACE
HIF	HORIZONTAL INSIDE FACE	VG	VERTICAL GRAIN
HOF	HORIZONTAL OUTSIDE FACE	VIF	VERTICAL INSIDE FACE
HORIZ	HORIZONTAL	VOF	VERTICAL OUTSIDE FACE
HP	HP SHAPES; HIGH POINT	W	WIDE FLANGE, WIDE, WEST
HS	HIGH STRENGTH	W/	WITH
HSS	HOLLOW STRUCTURAL SECTION	W/O	WITHOUT
HT	HEIGHT	WD	WOOD
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	WF	WIDE FLANGE
ID	INSIDE DIAMETER	WH	WEEP HOLE
INCL	INCLUDE	WL	WORK LINE
INFO	INFORMATION	WP	WORK POINT
INSUL	INSULATION	WPJ	WEAKENED PLANE JOINT
INT	INTERIOR	WT	WEIGHT; STRUCTURAL TEE CUT FROM W SHAPE
JST	JOIST	WWF	WELDED WIRE FABRIC
JT	JOINT	YD	YARD
K	KIP (1,000 POUNDS)		
KO	KNOCK-OUT		
KSI	KIPS PER SQUARE INCH		

TYPICAL BEAM CALLOUT KEY (12)



NOTES:

1. NO REACTION AT EITHER END INDICATES MINIMUM CONNECTION FOR BEAM DEPTH. SEE "GENERAL NOTES" FOR STEEL CONNECTIONS.
2. SPACE STUDS PER "TYPICAL SHEAR STUD PLACEMENT" DETAIL.
3. "H" IN PLACE OF STEEL SHAPE INDICATES W10x12 WITH MINIMUM CONNECTION.
4. BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY. SEE "GENERAL NOTES" FOR CRITERIA.
5. WHERE NO BEAM SIZE IS CALLED OUT ADJACENT TO FLOOR OR ROOF OPENING, REFER TO "TYPICAL STEEL DETAILS" FOR SIZES AND CONNECTIONS.
6. ○ INDICATES BEAM PENETRATION PER "TYPICAL BEAM PENETRATION" DETAIL.
7. ◇ INDICATES BEAM HAUNCH PER "TYPICAL HAUNCHED BEAM" DETAIL.

REINF BAR DEVELOPMENT AND SPLICE LENGTHS (17)

f'c = 3,000 PSI

BAR SIZE	L_d	L_t	L_{sb}	L_{st}
#3	17	23	23	30
#4	22	29	29	38
#5	28	37	37	49
#6	33	43	43	56
#7	48	63	63	82
#8	55	72	72	94
#9	62	81	81	106
#10	70	91	91	119
#11	78	102	102	133
#14	93	121	-	-
#18	124	162	-	-

f'c = 4,000 PSI

BAR SIZE	L_d	L_t	L_{sb}	L_{st}
#3	15	20	20	26
#4	19	25	25	33
#5	24	32	32	42
#6	29	38	38	50
#7	42	55	55	72
#8	48	63	63	82
#9	54	71	71	93
#10	61	80	80	104
#11	67	88	88	115
#14	81	106	-	-
#18	108	141	-	-

f'c = 5,000 PSI

BAR SIZE	L_d	L_t	L_{sb}	L_{st}
#3	13	17	17	23
#4	17	23	23	30
#5	22	29	29	38
#6	26	34	34	45
#7	38	50	50	65
#8	43	56	56	73
#9	48	63	63	82
#10	54	71	71	93
#11	60	78	78	102
#14	72	94	-	-
#18	96	125	-	-

f'c = 6,000 PSI

BAR SIZE	L_d	L_t	L_{sb}	L_{st}
#3	12	16	16	21
#4	16	21	21	28
#5	20	26	26	34
#6	24	32	32	42
#7	34	45	45	59
#8	39	51	51	67
#9	44	58	58	76
#10	50	65	65	85
#11	55	72	72	94
#14	66	86	-	-
#18	88	115	-	-

f'c = 8,000 PSI

BAR SIZE	L_d	L_t	L_{sb}	L_{st}
#3	12	16	16	21
#4	14	19	19	25
#5	17	23	23	30
#6	21	28	28	37
#7	30	39	39	51
#8	34	45	45	59
#9	38	50	50	65
#10	43	56	56	73
#11	48	63	63	82
#14	57	75	-	-
#18	76	99	-	-

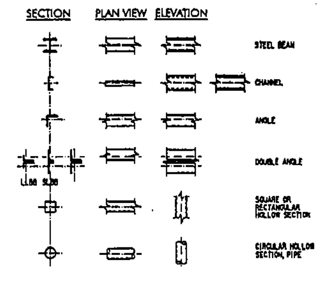
ALL CONCRETE STRENGTHS

BAR SIZE	L_d	L_c	L_{sc}
#3	8	12	12
#4	10	15	12
#5	12	19	14
#6	15	23	17
#7	17	26	20
#8	19	30	23
#9	22	34	26
#10	24	38	29
#11	27	42	32
#14	33	-	-
#18	43	-	-

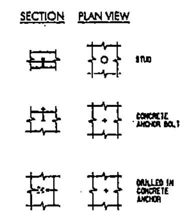
NOTES:

1. NOTATIONS:
   - db = NOMINAL BAR DIAMETER (INCHES)
   - L_d = TENSION DEVELOPMENT LENGTH (INCHES) FOR REINFORCEMENT SATISFYING THE FOLLOWING REQUIREMENTS:
     - SLABS AND WALLS: CLEAR SPACING ≥ 2db, AND CONCRETE CLEAR COVER ≥ db
     - BEAMS AND COLUMNS: CLEAR SPACING ≥ db, AND CONCRETE CLEAR COVER ≥ db
   - L_t = DEVELOPMENT LENGTH OF TOP BARS IN TENSION = 1.3 x L_d (INCHES)
   - L_d = DEVELOPMENT LENGTH OF BARS OR DOWELS IN COMPRESSION = 18 x db (INCHES)
   - L_c = TIED COLUMN LAP SPLICE IN COMPRESSION = 30 x db (INCHES)
   - L_{sc} = SPIRAL COLUMN LAP SPLICE IN COMPRESSION = 22.5 x db (INCHES)
   - L_{sb} = TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS = 1.3 x L_d (INCHES)
   - L_{st} = TENSION LAP SPLICE LENGTH OF TOP BARS = 1.69 x L_d (INCHES)
2. MULTIPLY VALUES IN THE TABLE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET THE REQUIREMENTS FOR L_d IN NOTE 1.
3. TOP BARS: HORIZONTAL BEAM REINFORCING WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW.
4. THE DEVELOPMENT AND SPLICE LENGTHS ARE BASED ON REINFORCEMENT STRENGTH f_y = 60 KSI.
5. #14 AND #18 BARS SHALL NOT BE LAP SPLICED. SEE GENERAL NOTES.
6. MULTIPLY VALUES IN THE TABLE BY 1.3 FOR USE WITH LIGHTWEIGHT AGGREGATE CONCRETE.

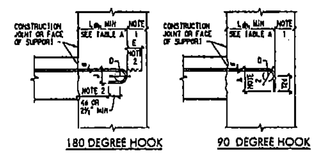
STEEL MEMBERS (3)



CONNECTORS (8)



TYP STANDARD HOOKS AND EMBEDMENT (18)



END HOOK
ALL GRADES
(D) FINISHED BEND DIAMETER

BAR SIZE	D	180° HOOKS E	180° HOOKS J	90° HOOKS A
#3	2¼"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	12"
#7	5¼	10"	7"	14"
#8	6"	11"	8"	16"
#9	9½"	15"	11¾"	19"
#10	10¾"	17"	13¼"	22"
#11	12"	19"	14¾"	24"
#14	18¼"	27"	21¾"	31"
#18	24"	36"	28½"	41"

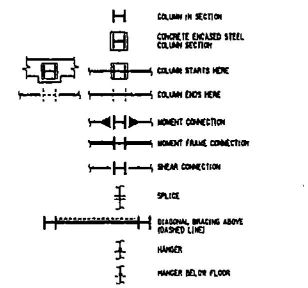
TABLE A
MINIMUM TENSION EMBEDMENT LENGTHS (L_{dh}) FOR STANDARD END HOOKS ON GRADE 60 BARS

BAR SIZE	NORMAL WEIGHT CONCRETE, f'c (psi) 3,000	4,000	5,000	6,000	7,000	8,000
#3	6"	6"	6"	6"	6"	6"
#4	8"	7"	7"	7"	7"	7"
#5	10"	9"	8"	7"	7"	7"
#6	12"	10"	9"	8"	8"	6"
#7	14"	12"	11"	10"	9"	9"
#8	16"	14"	12"	11"	10"	10"
#9	18"	15"	14"	13"	12"	11"
#10	20"	17"	15"	14"	14"	14"
#11	22"	19"	17"	16"	15"	15"
#14	37"	32"	29"	27"	25"	35"
#18	50"	43"	39"	35"	33"	31"

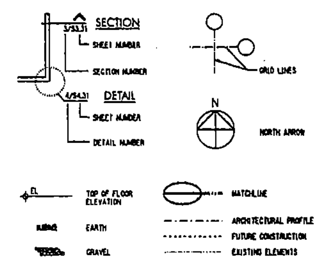
NOTES:

1. ABOVE VALUES VALID FOR ALL CASES IF: SIDE COVER ≥ 2½" AND END COVER ≥ 2"
2. BAR DIMENSION REQUIRED TO MANUFACTURE HOOK.
3. FOR EPOXY COATED HOOKS, INCREASE THE ABOVE EMBEDMENT LENGTHS BY 20%.

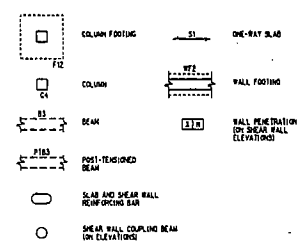
STEEL SYMBOLS (4)



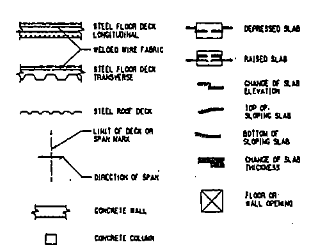
MISCELLANEOUS SYMBOLS (9)



TYPICAL CONCRETE SCHEDULE MARKS (14)



CONCRETE SYMBOLS (19)



DRAWING LIST (15)

DWG NO	DRAWING TITLE
S0.01	ABBREVIATIONS, LEGENDS AND DRAWING LIST
S0.02	GENERAL STRUCTURAL NOTES
S0.03	GENERAL STRUCTURAL NOTES
S1.01	LOAD DIAGRAMS
S1.02	LOAD DIAGRAMS
S1.03	LOAD DIAGRAMS
S1.04	LOAD DIAGRAMS
S2.00	LEVEL P5 - FOUNDATION AND FRAMING PLAN
S2.01	LEVEL P4 - FOUNDATION AND FRAMING PLAN
S2.01R	LEVEL P4 - REINFORCING PLAN
S2.02	LEVEL P3 - FRAMING PLAN
S2.02R	LEVEL P3 - REINFORCING PLAN
S2.03	LEVEL P2 - FRAMING PLAN
S2.03R	LEVEL P2 - REINFORCING PLAN
S2.04	LEVEL P1 - FRAMING PLAN
S2.04R	LEVEL P1 - REINFORCING PLAN
S2.05	LEVEL G - FRAMING PLAN
S2.05R	LEVEL G - REINFORCING PLAN
S2.06	LEVEL S & 01 - FRAMING PLAN
S2.06R	LEVEL S & 01 - REINFORCING PLAN
S2.07	NOT USED
S2.08	LEVEL 02 - FRAMING PLAN
S2.09	LEVEL 03 - FRAMING PLAN
S2.10	LEVEL 04 - FRAMING PLAN
S2.11	LEVEL 05 - FRAMING PLAN
S2.12	LEVEL 06 - 14 FRAMING PLAN
S2.21	PENTHOUSE LEVEL - FRAMING PLAN
S2.22	NOT USED
S3.01	SHEAR WALL ELEVATIONS
S3.02	SHEAR WALL ELEVATIONS
S3.11	SHEAR WALL SECTIONS
S3.21	BASEMENT WALL SECTIONS
S3.22	BASEMENT WALL SECTIONS
S3.31	MISCELLANEOUS WALL ELEVATIONS
S4.01	TYPICAL CONCRETE DETAILS AND SCHEDULES
S4.02	TYPICAL CONCRETE DETAILS
S4.03	TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE
S4.04	TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE
S4.05	TYPICAL CONCRETE BEAM DETAILS AND SCHEDULE
S4.08	TYPICAL POST-TENSIONING DETAILS
S4.11	TYPICAL CMU DETAILS
S5.01	CONCRETE SECTIONS AND DETAILS

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GARAGE PERMIT SET

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ABBREVATIONS, LEGENDS AND DRAWING LIST

S0.01 (20)

EXHIBIT E

GENERAL

ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE. EDITIAL DETAILS MAY NOT BE NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

BUILDING CODE

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE. THE PUBLICATIONS LISTED BELOW ARE THE GOVERNING CODES AND STANDARDS AND ARE REFERENCED BY THEIR BASIC DESIGNATION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE BUILDING CODE SHALL GOVERN.

APPLICABLE CODES AND STANDARDS

BUILDING CODE	INTERNATIONAL BUILDING CODE (IBC), 2003 EDITION (INCLUDING THE CITY OF SEATTLE BUILDING CODE AMENDMENTS)
ACI	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318), 2002 EDITION
ACI	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530), 2002 EDITION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," DECEMBER 27, 1999
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS," JUNE 23, 2000
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 341), 2002 EDITION
AISI	AMERICAN IRON AND STEEL INSTITUTE, "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS," 2001 EDITION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ASCE 7), 2002 EDITION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM INTERNATIONAL)
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (ANS D1.1), 2000 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - SHEET STEEL" (ANS D1.3), 1998 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - REINFORCING STEEL" (ANS D1.4), 1999 EDITION
AWS	AMERICAN WELDING SOCIETY, "SYMBOLS FOR WELDING AND NONDESTRUCTIVE TESTING" (ANS A2.4), 1998 EDITION
ICC	INTERNATIONAL CODE COUNCIL, INTERNATIONAL CODE COUNCIL - EVALUATION SERVICES (ICC-ES)

CONCRETE

MIXING, BATCHING, TRANSPORTING, PLACING, AND CURING OF ALL CONCRETE, AND SELECTION OF CONCRETE MATERIALS, SHALL CONFORM TO ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BELOW. PROPORTIONS OF AGGREGATE TO CEMENTITIOUS ASSE SHALL BE SUCH AS TO PRODUCE A DENSE, WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER.

ALL CONCRETE USED IN HORIZONTAL SURFACES EXPOSED TO THE WEATHER SHALL CONTAIN AN ACCEPTABLE ADMIXTURE TO PRODUCE AIR-ENTRAINED CONCRETE WITH TOTAL AIR CONTENT AS NOTED IN THE CONCRETE MIX SPECIFICATION TABLE, TOLERANCE FOR AIR CONTENT SHALL BE +/- 1 PERCENT. AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE END OF THE PUMP LINE. TESTS FOR AIR CONTENT SHALL MEET ASTM C172 REQUIREMENTS.

MIX DESIGNS LISTED BELOW SHALL BE PRE-APPROVED BY THE CITY OF SEATTLE AND SUBMITTED TO THE ARCHITECT AND APPROVED PRIOR TO USE. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE IN ACCORDANCE WITH ACI 301. MIX PROPORTIONS SHALL MEET OR EXCEED THE REQUIREMENTS LISTED BELOW FOR THE LOCATIONS NOTED. THE MORE STRINGENT OF THE REQUIREMENTS LISTED SHALL GOVERN.

MAXIMUM SIZE OF AGGREGATE SHALL BE AS LISTED BELOW. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 30 PERCENT. FLY ASH SHALL BE CLASS C OR CLASS F, MEETING ASTM C618 REQUIREMENTS. WATER/CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH AND OTHER POZZOLANIC MATERIALS.

THE CONTRACTOR SHALL DETERMINE SLUMP. EACH CONCRETE MIX SUBMITTED SHALL HAVE THE SLUMP SPECIFIED. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE PUMP LINE. SLUMPS SHALL BE WITHIN +1 INCH AND -2 INCHES OF THE SPECIFIED SLUMP.

THE USE OF SUPER PLASTICIZERS AND WATER REDUCERS IS ALLOWED, BUT NOT REQUIRED. ALL ADMIXTURES SHALL BE CHLORIDE FREE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONCRETE MIX SPECIFICATION TABLE

LOCATION	f'c MIN (PSI)	TEST AGE (DAYS)	MAX W/C RATIO	AIR CONTENT PERCENT	MAX AGGREGATE SIZE
MISCELLANEOUS CONCRETE, CURBS, SIDEWALKS	3,000	28	0.50	4.5	1"
EXTERIOR EXPOSED SLABS ON GRADE	4,000	28	0.45	4.5	1"
INTERIOR SLABS ON GRADE	4,000	28	0.50	-	1"
CONCRETE SHALS, SPREAD FOOTINGS	4,000	28	0.44	-	1"
CONCRETE ON STEEL DECK	4,000	28	0.44	-	¾"
REINFORCED BEAMS AND SLABS	5,000	28	0.44	-	¾"
COLUMNS, SHEAR WALLS (AS NOTED)	8,000	56	0.44	-	¾"
	6,000	56	0.44	-	¾"
INTERIOR POST-TENSIONED BEAMS AND SLABS	5,500	28	0.40	-	¾"

SHOTCRETE

STRUCTURAL SHOTCRETE MAY BE USED FOR WALLS IN LIEU OF CAST-IN-PLACE CONCRETE WHEN APPROVED BY THE ARCHITECT/ENGINEER ON SHOWN ON THE DRAWINGS. SHOTCRETE SHALL CONFORM STRICTLY TO THE REQUIREMENTS OF THE BUILDING CODE, SECTION 1914, AND CITY OF SEATTLE DR 35-98. NON-CONTACT LAP SPLICES SHALL BE DETAILED IN ACCORDANCE WITH THE CODE AND SUBMITTED ON SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS. TEST PANELS ARE REQUIRED FOR HEAVILY REINFORCED AREAS SUCH AS PILASTERS, WALL COLUMNS, ETC. THE CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS FOR SHOTCRETING.

REINFORCING STEEL

ALL REINFORCING SHALL BE NEW BILLET STOCK ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. EDITIAL DETAILS MAY NOT BE NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

NO REINFORCING BARS SHALL BE SPLICED BY WELDING, AT THE CONTRACTOR'S OPTION, MECHANICAL BUTT SPLICING USING AN EXOTHERMIC WELDING PROCESS AND HIGH-STRENGTH SLEEVES OR MECHANICAL CONNECTION SPLICING MAY BE USED, PROVIDED THAT THE MECHANICAL SPLICES SHALL HAVE A CURRENT ICC-ES REPORT DEMONSTRATING THAT THE PRODUCT CAN ACHIEVE A MINIMUM TENSILE STRENGTH OF 125 PERCENT OF THE SPECIFIED YIELD STRENGTH OF THE BAR, FOR REINFORCING WITHIN THE LATERAL SYSTEM (SHEAR WALLS) AND DEFORMATION OF THAT CONNECTS IS LESS THAN 0.04 INCH. WITHIN THE LATERAL SYSTEM, MECHANICAL SPLICES (NOT WELDED SPLICES) MAY BE USED IF THE MECHANICAL SPLICE STRENGTH IS INCREASED TO EQUAL 140 PERCENT OF THE SPECIFIED TENSILE STRENGTH OF THE SPLICED BAR. SPLICE DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REINFORCING BARS SHALL BE LAP SPLICED FOR TENSION (LSB) UNLESS NOTED OTHERWISE ON THE DRAWINGS. #14 AND #18 BARS SHALL BE SPLICED USING MECHANICAL COUPLINGS TO SPLICED BARS REGARDLESS OF SIZE, USE ONLY MECHANICAL COUPLERS LISTED IN REINFORCING STEEL COUPLERS (ICC-ES ER-3967). #14 AND #18 BARS SHALL NOT BE LAP SPLICED.

WELDING OR TACK WELDING OF REINFORCING BARS TO OTHER BARS OR TO PLATES, ANGLES, ETC. IS PROHIBITED EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. WHERE WELDING IS APPROVED, IT SHALL BE DONE BY ANY/AWO (NONPRESSURE) ASSOCIATION OF BUILDING OFFICIALS) CERTIFIED WELDERS USING E90XX OR APPROVED ELECTRODES. WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF ANS D1.4.

MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:

   ALL SIZES: 3 INCHES

2. CONCRETE EXPOSED TO EARTH OR WEATHER:

   #5 BAR OR SMALLER: 1½ INCHES
   #6 BAR OR LARGER: 2 INCHES

3. OTHER CONCRETE:

   WALLS - INTERIOR FACE:
   #14 AND #18 BARS: 1½ INCHES
   #11 BARS AND SMALLER: ¾ INCH

   SLABS:
   #14 AND #18 BARS: 1½ INCHES
   #11 BARS AND SMALLER: ¾ INCH

   BEAMS AND COLUMNS - TIES, STIRRUPS, SPIRALS:
   INSERTION FRAMES: ½ INCHES
   INSERTION FRAMES: 2 INCHES

REINFORCING STEEL IN DUCTILE CONCRETE

(Special Ductile Elements)

ALL LONGITUDINAL REINFORCING IN DUCTILE COLUMNS, DUCTILE BEAMS, ALL VERTICAL REINFORCING IN SHEAR WALLS, AND ALL REINFORCING MARKED "SDE" SHALL BE LOW-ALLOY STEEL DEFORMED BARS MEETING ASTM A706. BILLET STEEL ASTM A615, GRADE 60 REINFORCEMENT MAY BE USED PROVIDED THAT (1) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI AND (2) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRENGTH TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25. WELDING OF REINFORCING BARS WHERE SHOWN ON DRAWINGS SHALL COMPLY WITH ANS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL. IF MILL REPORTS ARE NOT AVAILABLE, THE REINFORCING SHALL BE TESTED PER THE SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

WELDED WIRE FABRIC

WELDED WIRE FABRIC (WWF) SHALL BE ELECTRICALLY WELDED AND CONFORM TO ASTM A185. ONE 6-INCH MINIMUM LAP SHALL BE PROVIDED FOR SIDE AND END LAPS. WELDED WIRE FABRIC SHALL BE SUPPORTED ON APPROVED CHAIRS.

POST-TENSIONED PRESTRESSED CONCRETE

POST-TENSIONING SHOP DRAWINGS, INCLUDING PLANS AND DETAILS, SHALL BE SUBMITTED TO AND REVIEWED BY THE ARCHITECT BEFORE STARTING FABRICATION.

ALL POST-TENSIONED CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI AT TIME OF INITIAL STRESS, IN ADDITION TO THE REQUIREMENTS IN THE CONCRETE MIX SPECIFICATION TABLE ABOVE. THE CONTRACTOR SHALL SUBSTANTIATE CONCRETE STRENGTH BEFORE POST-TENSIONING.

POST-TENSIONING REINFORCEMENT SHALL BE ½-INCH-DIAMETER, UNBONDED, LOW RELAXATION, 270-KSI HIGH-TENSILE WIRE STRAND CONFORMING TO ASTM A416.

POST-TENSIONING TENDONS SHALL BE ENCASED IN WATERPROOF POLYETHYLENE PLASTIC SHEATHING OF 40 MILS MINIMUM THICKNESS. SHEATHING SHALL BE OF SUFFICIENT STRENGTH TO WITHSTAND NORMAL FABRICATION, TRANSPORTATION, INSTALLATION, STORAGE, CONCRETE PLACEMENT, AND TENSIONING. AN ENCAPSULATED TENDON SYSTEM SHALL BE USED.

THE MINIMUM NUMBER OF TENDONS REQUIRED FOR INSTALLATION IS SHOWN ON THE DRAWINGS AND IS BASED ON A TENDON JACKING FORCE OF 26.0 KIPS PER TENDON. IF THE FINAL EFFECTIVE PRESTRESS FORCE, CONSIDERING ALL LOSSES NOTED BELOW, IS LESS THAN 20.0 KIPS PER TENDON, THE CONTRACTOR SHALL PROVIDE ADDITIONAL TENDONS. TENDONS SHALL BE INSTALLED WITH A PARABOLIC DRAPE UNLESS NOTED OTHERWISE AND HELD IN THEIR DESIGNED POSITIONS AS SHOWN ON THE DRAWINGS. AT LEAST TWO TENDONS SHALL PASS THROUGH EACH COLUMN IN EACH DIRECTION AT SLABS WITHOUT BEAMS.

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION STAMPED BY AN ENGINEER LICENSED IN THE STATE OF WASHINGTON: (1) THE DETAILED DESIGN OF TENDON END ANCHORAGES; (2) THE CALCULATION OF STRESS LOSSES DUE TO CREEP, SHRINKAGE, TENDON RELAXATION, ANCHORAGE SLIP, AND FRICTION; (3) POST-TENSIONING SHOP DRAWINGS. THIS INFORMATION SHALL CONFORM TO ACI 318.

NO CONCRETE SHALL BE PLACED UNTIL THE POST-TENSIONING TENDONS AND REINFORCEMENT LOCATION HAVE BEEN INSPECTED AND APPROVED BY THE TESTING AGENCY. CONTINUOUS INSPECTION AND RECORDING OF ELONGATION IS REQUIRED DURING ALL STRESSING OPERATIONS. DO NOT CUT TENDON ENDS UNTIL THE ENTIRE SLAB HAS BEEN SATISFACTORILY STRESSED AND THE ENGINEER HAS REVIEWED ELONGATIONS.

AT POST-TENSIONED SLABS, ALL INSERTS AND SLEEVES SHALL BE CAST-IN-PLACE. DRILLED AND POWER-DRIVEN FASTENERS ARE PROHIBITED EXCEPT AS NOTED BELOW.

IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, THE POSITION OF TENDONS SHALL BE CHECKED WITH A PARABOLIC TEMPLATE HAVING POINTS AT 10 FEET ON CENTER TO LEAVE A PHYSICAL IMPRESSION ON THE UNDERSIDE OF THE SLAB. CONCRETE AREAS SHALL BE ENTIRELY MARKED OFF.

DRILLED-IN CONCRETE ANCHORS AND POWER-DRIVEN FASTENERS SHALL BE PLACED A MINIMUM DISTANCE EQUAL TO THE SLAB THICKNESS AWAY FROM MARKED TENDON LOCATIONS. NO ANCHORS OR FASTENERS SHALL BE PLACED WITHIN A DISTANCE OF FOUR TIMES THE SLAB THICKNESS FROM THE FACE OF ANY EQUAL. EXCEPTION: POWER ACTUATED FASTENERS WITH EMBEDMENT OF ½ INCH OR LESS MAY BE INSTALLED AT ANY LOCATION ON THE SLAB, NO REBAR OR POST-TENSIONING TENDONS SHALL BE DAMAGED BY ANCHORS AND FASTENERS.

THE POST-TENSIONED SLABS ARE DESIGNED BASED ON TENDONS BEING CONTINUOUS BETWEEN EDGES OF SLABS AS SHOWN ON THE DRAWINGS. ANY ADDITIONAL INTERMEDIATE STRESSING JOINTS OR CLOSURE STRIPS REQUIRED BY THE CONTRACTOR MAY BE USED AT THE CONTRACTOR'S OPTION AND SHALL BE SUBMITTED AND REVIEWED BY THE STRUCTURAL ENGINEER BEFORE STARTING CONSTRUCTION.

PRECAST CONCRETE

REFER TO ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS, REVEALS, OPENINGS, DETAILS, AND OTHER ITEMS NOT SHOWN OR NOTED HERE. PRECAST MEMBERS SHALL BE CAST, STRESSED, TRANSPORTED, AND ERECTED IN A HORIZONTAL, UPRIGHT POSITION. SUPPORTS DURING TRANSPORTATION AND ERECTION SHALL DUPLICATE, APPROXIMATE THOSE IN THE FINAL STRUCTURE, WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL REINFORCING (STEEL STIFFENERS, BRACING, LIFTING INSERTS, ETC.) TO RESIST ERECTION AND TRANSPORTATION STRESSES. LIFTING INSERTS SHALL BE INSTALLED AT LOCATIONS WHERE THEY SHALL BE LOCATED IN CONSTRUCTION OR OTHERWISE COVERED. SUBMIT DETAILED SHOP DRAWINGS OF ALL PRECAST CONCRETE WORK TO THE ARCHITECT FOR REVIEW BEFORE STARTING FABRICATION. ALL PRECAST CONCRETE CONNECTIONS (PLATES, ANGLES, ETC) SHALL BE GALVANIZED STEEL. REMOVE GALVANIZING WHERE FIELD WELDING IS REQUIRED, AND PAINT FIELD WELDS WITH ONE COAT OF GALVACON, OR APPROVED EQUAL. SEE SHEAR STUD CONNECTORS NOTE FOR STUDS WELDED TO CONNECTIONS. FIELD WELDING SHALL BE DONE BY AWS-CERTIFIED WELDERS IN ACCORDANCE WITH ANS D1.1.

FOAM CANNED

CONCRETE FORMWORK SHALL HAVE BUILT-IN CAMBER TO COMPENSATE FOR FORM SAG UNDER CONCRETE LOAD, IN ADDITION TO STRUCTURAL CAMBER NOTED. ONE-WAY SLABS SHALL BE CAMBERED 1/1000 OF THE SPAN, UNLESS NOTED OTHERWISE ON THE DRAWINGS. BEAM AND JOIST STRUCTURAL CAMBERS ARE NOTED ON THE DRAWINGS. CAMBERS OF LESS THAN ¼ INCH MAY BE NEGLECTED.

CONSTRUCTION JOINTS

ALL CONSTRUCTION JOINTS IN WALLS SHALL BE KEYED IN ACCORDANCE WITH THE TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL DRAWINGS OR, AT THE CONTRACTOR'S OPTION AND SUBJECT TO ENGINEER'S APPROVAL, IN ACCORDANCE WITH THE FOLLOWING. THE SURFACE OF ROUGHENED JOINTS SHALL BE SAND BLASTED OR ROUGHENED WITH A CHIPPING HAMMER TO EXPOSE THE AGGREGATE CONTENT. THE ROUGHENED SURFACE SHALL BE CLEAN AND SHALL PROTRUDE A MINIMUM OF ¼ INCH. ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED AND LAITANCE REMOVED. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE RETIED AND STANDING WATER REMOVED. CONSTRUCTION JOINTS WITHIN THE MIDDLE THIRD OF THE SPANS OF SLABS, BEAMS, AND GIRDERS, ALL CONSTRUCTION JOINTS IN SLABS, BEAMS, AND GIRDERS SHALL BE SUBSTITED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE STARTING CONSTRUCTION.

ALL CONSTRUCTION JOINTS FOR SLABS ON DECK SHALL BE IN ACCORDANCE WITH THE TYPICAL SLAB ON DECK CONSTRUCTION JOINT DETAIL SHOWN ON THE STRUCTURAL DRAWINGS. IDEALLY, CONSTRUCTION JOINTS SHALL BE LOCATED DURING THE CONSTRUCTION JOINTS IN DE LOCATED IN THE MIDDLE THIRD OF THE BEAM, GIRDER, OR SLAB SPAN. ALL CONSTRUCTION, CONTROL, AND ISOLATION JOINTS FOR SLABS ON GRADE SHALL BE IN ACCORDANCE WITH THE TYPICAL SLAB ON GRADE DETAILS. THE CONTRACTOR SHALL SUBMIT THE PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO THE ENGINEER FOR ACCEPTANCE BEFORE STARTING CONSTRUCTION.

SLEEVES

EXCEPT AS DETAILED ON STRUCTURAL DRAWINGS, NO CONCRETE FOOTINGS, BEAMS, OR GIRDERS SHALL BE SLEEVED FOR PIPING OR DUCTS, UNLESS APPROVED BY THE ENGINEER.

DRILLED-IN CONCRETE ANCHORS (HILTI)

ACCEPTABLE DRILLED-IN CONCRETE ANCHORS, OF SIZE, NUMBER, AND SPACING AS SHOWN ON THE DRAWINGS, SHALL BE AS FOLLOWS: HILTI "KWIK-BOLT-3" CARBON STEEL WEDGE ANCHORS (ICC-ES ER-1021) OR "HY-11" ANCHOR BOLT (ICC-ES ER-1021) OR "ITP RANGE/HRD HEAD TURBOLT CARBON STEEL WEDGE ANCHORS" (ICC-ES ER-1372), OR AN APPROVED ALTERNATIVE ANCHOR WITH A CURRENT ICC-ES EVALUATION REPORT. MINIMUM EMBEDMENT DEPTH SHALL BE 4.5 DOLT DIAMETERS UNLESS NOTED OTHERWISE ON DRAWINGS.

ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE APPROVED ICC-ES REPORT. NO ANCHORS SHALL BE INSTALLED UNTIL IT IS THE ACTUAL DEFECTIVE HOLES SHALL BE DRILLED WITH EPOXY ADHESIVE.

NONSHRINK GROUT (FOR BASE PLATES, SLEEVES, AND HARDENED SSTEL

GROUT SHALL BE AN APPROVED NONSHRINK CEMENTITIOUS GROUT CONTAINING NATURAL AGGREGATES DELIVERED TO THE JOB SITE IN FACTORY PREPACKAGED CONTAINERS REQUIRING ONLY THE ADDITION OF WATER. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE AT LEAST 1,000 PSI HIGHER THAN THE SUPPORTING CONCRETE STRENGTH, UNLESS NOTED OTHERWISE. GROUT SHALL BE MIXED, APPLIED, AND CURED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. FOR GROUTING UNDER BASE PLATES, GROUT SHALL BE PROPORTIONED AS A FLOWABLE MIX. WHEN A FLOWABLE MIX DOES NOT PROVIDE THE REQUIRED STRENGTH, A DRY PACK MIX WITH A MINIMUM STRENGTH OF 10,000 PSI IS REQUIRED. AN EPOXY GROUT SHALL BE USED.

EPOXY/ADHESIVE USED FOR BONDING STEEL TO HARDENED CONCRETE

EPOXY/ADHESIVE SHALL CONFORM TO ASTM C881, C882, AND D695 FOR BONDING STEEL TO HARDENED CONCRETE AND MASONRY FOR REINFORCING BARS AND BOLTS. PRE-APPROVED EPOXIES SHALL BE "HIT 150" (ICC-ES ER-5193) AS MANUFACTURED BY HILTI, INCORPORATED, FOR CONCRETE; "HIT RE 500" (ICC-ES ER-5193) AS MANUFACTURED BY HILTI, INCORPORATED, FOR MASONRY AND "SET" (ICC-ES ER-3272) AS MANUFACTURED BY SIMPSON STRONG TIE, INCORPORATED, FOR CONCRETE OR MASONRY. SUBMIT CURRENT PRODUCT DATA AND ICC-ES EVALUATION REPORTS AS WELL AS A LETTER FROM THE MANUFACTURER INDICATING WHERE THE PRODUCT IS TO BE USED ON THE PROJECT FOR REVIEW.

DRILL HOLES AND MIX, APPLY, AND INSTALL EPOXY/ADHESIVE IN STRICT ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS IN THE ICC-ES EVALUATION REPORT. NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF REINFORCING BARS OR BOLTS. ANY REINFORCING BARS OR BOLTS WHICH THE CONTRACTOR MUST INSTALL IN HARDENED CONCRETE OR MASONRY THAT IS NOT SHOWN IN THE DRAWINGS TO BE "DRILLED AND EPOXIED," OR SIMILAR NOTATION, MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. THE MINIMUM EMBEDMENT LENGTH FOR SUCH REINFORCING BARS OR BOLTS ALSO MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

ELECTRICAL CONDUIT

ELECTRICAL CONDUIT SHALL BE RIGID STEEL CONDUIT OR FLEXIBLE PLASTIC CONDUIT. ALUMINUM CONDUIT IS PROHIBITED. CONDUIT WITH A MAXIMUM OUTSIDE DIAMETER OF 1/6 TIMES THE SLAB THICKNESS MAY BE EMBEDDED AT THE MIDDLE THIRD OF THE SLAB DEPTH. MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE DIAMETERS.

CONDUIT SHALL BE ROUTED TO MAINTAIN MINIMUM CLEAR DISTANCE FROM PRESTRESSING TENDONS OF 1'-0" HORIZONTAL AND 1 INCH VERTICAL. CONDUIT SHALL BE FIRMLY CHAINED AND SECURED TO PREVENT DISPLACEMENT DURING POURING. PLACE #4 AT 12 INCHES ADDITIONAL REINFORCING ABOVE AND BELOW PERPENDICULAR TO THE CONDUIT. THE ADDED REINFORCING SHALL EXTEND 1'-0" PAST THE CONDUIT ON BOTH SIDES. SEE THE TYPICAL CONDUIT PLACEMENT CRITERIA DETAIL.

CONDUIT SHALL NOT BE EMBEDDED IN CONCRETE COLUMNS OR WALLS, NOR IN CONCRETE SLABS ABOVE LEVEL P1, NOR IN SLABS SUPPORTING EQUIPMENT BELOW LEVEL S.

STRUCTURAL STEEL

ALL STEEL SHALL CONFORM TO THE FOLLOWING:

W-SHAPES	ASTM A992, Fy=50 KSI ASTM A913, Fy=50 KSI
ALL ANGLES AND CHANNELS UNLESS NOTED OTHERWISE	ASTM A36, Fy=36 KSI
SQUARE OR RECTANGULAR STRUCTURAL TUBE (HSS)	ASTM A500, GRADE B, Fy=46 KSI
ROUND STRUCTURAL TUBE (HSS)	ASTM A500, GRADE B, Fy=42 KSI
STEEL PIPE DIAMETER LESS THAN OR EQUAL TO 8 INCHES	ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI
MATERIAL CALLED OUT ON PLANS AS (A36)	ASTM A36, Fy=36 KSI
MATERIAL CALLED OUT ON PLANS AS (Fy=65 KSI)	ASTM A813, Fy=65 KSI
ALL OTHER STEEL UNLESS NOTED OTHERWISE	ASTM A572, Fy=50 KSI ASTM A568, Fy=50 KSI ASTM A41, Fy=50 KSI

GENERAL NOTES FOR STEEL CONNECTIONS SHALL APPLY TO ALL STEEL CONNECTIONS UNLESS NOTED OTHERWISE.

ALL WORK SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATION. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY ARCHITECT/ENGINEER BEFORE COMMENCING FABRICATION. FOLLOWING ARCHITECT/ENGINEER REVIEW, SHOP DRAWINGS SHALL BE SUBMITTED TO THE CITY OF SEATTLE DEPARTMENT OF PLANNING AND DEVELOPMENT. ALL STEEL ANCHORS AND THEIR OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. DIMENSIONAL TOLERANCE FOR BUILT-UP MEMBERS SHALL BE PER ANS D1.1.

FOR ASTM A6 GROUP 4 SHAPES WITH A FLANGE THICKNESS OF 1½ INCHES OR GREATER, GROUP 4 AND 5 SHAPES, AND BUILT-UP MEMBERS WITH A PLATE THICKNESS OF 2 INCHES OR GREATER, CHARPY V-NOTCH TESTING SHALL BE PROVIDED IN ACCORDANCE WITH ASTM AS SUPPLEMENTARY REQUIREMENT S3 AND PER THE AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, WITH A MINIMUM VALUE OF 20 FOOT-POUNDS AT 70 DEGREES FAHRENHEIT. EXCEPTIONS SHOWN IN AISC SPECIFICATION SECTION A3.1.C MAY BE USED FOR MEMBERS THAT ARE NOT PART OF THE SEISMIC FORCE-RESISTING SYSTEM.

THE SEISMIC FORCE-RESISTING SYSTEM INCLUDES ALL STRUCTURAL STEEL FRAMING MEMBERS CALLED OUT IN ELEVATIONS AND MEMBERS CALLED OUT IN PLAN THAT ARE CO-PLANAR WITH AND CONNECT DIRECTLY TO THE LATERAL FRAME.

STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS AT THE MAXIMUM DECK SPAN LOCATION UNLESS NOTED OTHERWISE. MINIMUM CONNECTIONS SHALL BE A END-BOLT CONNECTION USING ¾-INCH-DIAMETER A325 BOLTS IN STANDARD HOLES, UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL WELDING SHALL BE SHOP-APPLIED AND INSPECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. THE CRITERIA FOR SLIP-CRITICAL CONNECTIONS SHALL APPLY TO ALL CONNECTIONS UNLESS NOTED OTHERWISE AS SNUG-TIGHT. BOLTS IN CONNECTIONS OF BEAM-TO-BEAM/GIRDER MAY BE SNUG TIGHT, UNLESS SPECIFICALLY CALLED OUT AS SLIP CRITICAL (SC). WHERE CONNECTIONS ARE NOTED AS SNUG-TIGHT, THE CONTRACTOR MAY INSTALL PER THE SPECIFICATION FOR SNUG-TIGHT BOLTS. ALL CRITICAL CONNECTIONS SHALL USE LOAD INDICATOR WASHERS TO TENSION CONNECTION BOLTS. ALL ASTM A325 BOLTS SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF-LOCKING NUTS. ALL BOLT HEADS AND NUTS SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SELECTION OF OPTIONAL DETAILS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ERECTION AIDS THAT INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY ANGLES, LIFT HOLES, AND OTHER AIDS.

STRUCTURAL STEEL WELDING

STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. ALL WELDING SHALL BE DONE BY WELDERS QUALIFIED BY ANY/AWO (NONPRESSURE) ASSOCIATION OF BUILDING OFFICIALS) CERTIFIED WELDERS AND IN ACCORDANCE WITH ANS D1.1. WELDS SHOWN ON THE DRAWINGS ARE THE MINIMUM SIZES. INCREASE WELD SIZE TO ANS MINIMUM SIZES, BASED ON PLATE THICKNESS. THE DRAWINGS SHALL BE THE GOVERNING FACTOR. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE SHOWN, PROPER FIELD WELDING PER ANS D1.1 SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS. ALL PARTIAL PENETRATION GROOVE WELD SI

STRUCTURAL DESIGN DATA

LIVE LOADS: LIVE LOADS SHALL BE IN ACCORDANCE WITH THE LOAD DIAGRAMS.

SNOW LOADS: SNOW LOADING AND SNOW DRIFT LOADING SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1608).

GROUND SNOW LOAD: P_g = 20 PSF

IMPORTANCE FACTOR: I_s = 1.0

SNOW EXPOSURE FACTOR: C_e = 1.0

THERMAL FACTOR: C_t = 1.2

FLAT-ROOF SNOW LOAD: P_f = 25 PSF

WIND LOADS: WIND PRESSURE SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1609).

BASIC WIND SPEED (3-SECOND GUST): V = 85 MPH

EXPOSURE: B

IMPORTANCE FACTOR: I_w = 1.0

ENCLOSURE CLASSIFICATION: ENCLOSED

INTERNAL PRESSURE COEFFICIENT: (GC_{pi}) = 0.18

SEISMIC LOADS: SEISMIC LOADING SHALL BE IN ACCORDANCE WITH THE BUILDING CODE.

BUILDING LOCATION: LATITUDE: 47.604°N
LONGITUDE: 122.329°W

SEISMIC USE GROUP: I

IMPORTANCE FACTOR: I_E = 1.0

MAPPED SPECTRAL ACCELERATION PARAMETERS: S_s = 1.450, S_1 = 0.489

SITE CLASS: C

SITE COEFFICIENTS: F_a = 1.00, F_v = 1.33

SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 0.967, S_{D1} = 0.428

SEISMIC DESIGN CATEGORY: D

LATERAL SYSTEM: SPECIAL REINFORCED SHEAR WALLS

RESPONSE MODIFICATION COEFFICIENT: R = 6.0

SEISMIC RESPONSE COEFFICIENT: C_s = 0.0484

DESIGN BASE SHEAR: V = 3,210 KIPS

ANALYSIS PROCEDURE USED: LINEAR DYNAMIC

LOAD PATH FOR LATERAL FORCES: LATERAL FORCES ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. MOMENTS, SHEARS, AND ROTATIONAL FORCES ARE DELIVERED TO THE FOUNDATION BY THE SHEAR WALLS, IN PROPORTION TO THEIR ABILITY TO RESIST LATERAL DEFORMATION.

LOAD COMBINATIONS: LOAD COMBINATIONS ARE IN ACCORDANCE WITH SECTION 1605 OF THE BUILDING CODE.

FOUNDATIONS

COLUMN DOWELS SHALL BE INSTALLED WITH A TEMPLATE TO HOLD BARS IN THE PROPER POSITION AND SHALL BE PLACED WITH A TOLERANCE OF +/- ½ INCH.

SPREAD FOOTINGS: DESIGN SOIL BEARING PRESSURE = 12,000 PSF PER GEOTECHNICAL REPORT 21-1-09818-004 ISSUED BY SHANNON AND WILSON ON SEPTEMBER 13, 2004. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AND SHALL BE LOWERED TO FIRM BEARING IF SUITABLE SOIL IS NOT FOUND AT ELEVATIONS DETERMINED BY TOP OF FOOTING ELEVATION AND FOOTING DEPTH. REFER TO THE GEOTECHNICAL REPORT FOR SOIL CONDITIONS.

CONCRETE PIERS: DESIGN BEARING PRESSURE = 45,000 PSF AND SIDE FRICTION = 4,500 PSF.

SOILS ENGINEER SHALL CONFIRM THAT THE BOTTOM OF THE PIERS ARE LOCATED ON PROPER BEARING MATERIAL. SHAFTS SHALL BE EXCAVATED TO DIMENSIONS SHOWN ON DRAWING, WITH AN OUT-OF-VERTICAL ALIGNMENT TOLERANCE OF 4 INCHES AT THE TOP AND 8 INCHES AT THE BOTTOM. REINFORCING CAGES SHALL BE PLACED AND PIERS FILLED WITH CONCRETE AS SOON AS POSSIBLE AFTER SHAFTS HAVE BEEN EXCAVATED AND INSPECTED. PIER EXCAVATIONS SHALL BE CLEAN AND FREE OF WATER BEFORE PLACING CONCRETE. ADJACENT SHAFTS (WITHIN 20'-0") SHALL NOT BE EXCAVATED UNTIL CONCRETE HAS SET UP FOR 72 HOURS MINIMUM.

STRUCTURAL FILL

ALL FILL PLACED TO SUPPORT SLABS ON GRADE, BEHIND PERMANENT WALLS, AND AROUND ALL DRAINS SHALL MEET REQUIREMENTS OF CITY OF SEATTLE TYPE 17 FILL AND CONSIST OF WELL GRADED, GRANULAR MATERIAL PER THE SPECIFICATIONS. SOILS FOR STRUCTURAL FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. STRUCTURAL FILL SHALL BE PLACED ON SOUND NATIVE MATERIAL. PROOF-ROLL CUT AREAS WHICH PROVIDE SUPPORT FOR PERMANENT STRUCTURES. AREAS SHOWN ARE EXCESSIVELY YIELDING, AS DETERMINED BY THE CONTINUOUS OBSERVATION OF THE GEOTECHNICAL ENGINEER, SHALL BE OVEREXCAVATED AND REPLACED WITH STRUCTURAL FILL. STRUCTURAL FILL SHALL BE PLACED PER THE SPECIFICATION.

LATERAL PRESSURE ON SUBGRADE WALLS

THE DESIGN PRESSURES FOR SUBGRADE WALLS ARE BASED ON A "DRAINED" CONDITION. SEE CIVIL AND MECHANICAL DRAWINGS FOR SUBGRADE DRAINAGE SYSTEM. SEE GEOTECHNICAL REPORT FOR COMPACTION REQUIREMENTS AT SUBGRADE WALLS. SUBGRADE WALLS AND SUPPORTING SLABS SHALL HAVE ATTAINED THEIR FULL CONCRETE STRENGTH BEFORE PLACING ANY BACKFILL. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACES FOR WALLS IF BACKFILL IS PLACED BEFORE WALLS AND SLABS ACHIEVE FULL CONCRETE STRENGTH.

BACKFILLED, RESTRAINED BASEMENT WALLS ARE DESIGNED USING AN "APPARENT" EARTH PRESSURE EQUIVALENT TO A TRAPEZOIDAL DISTRIBUTION OF 18H WITH A SEISMIC INCREMENT OF 47 PERCENT PER THE GEOTECHNICAL REPORT.

BEAM DEFLECTION

FLOOR BEAMS, ESPECIALLY EDGE BEAMS, TRANSFER GIRDERS, AND CANTILEVERS WILL CONTINUE TO DEFLECT WHEN ADDITIONAL LOAD IS APPLIED. THESE MEMBERS HAVE BEEN CAMBERED TO COMPENSATE FOR THE THEORETICAL DEFLECTION. HOWEVER, THIS MAY NOT OCCUR UNTIL ALL THE DEAD LOAD IS APPLIED TO THE MEMBER. THE CONTRACTOR SHALL COORDINATE THE ATTACHMENT OF ANY ITEMS TO MEMBERS WHICH WILL CONTINUE TO SHORTEN OR DEFLECT DUE TO LATER STAGES OF CONSTRUCTION.

EXTERIOR CLADDING

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE CLADDING SYSTEMS, INCLUDING THEIR STRUCTURAL INTEGRITY, WATERPROOFING SYSTEMS, AND CONNECTION TO THE PRIMARY STRUCTURE.

STRUCTURAL ELEMENTS AT THE BUILDING PERIMETER HAVE BEEN DESIGNED FOR THE VERTICAL LOADS SHOWN ON THE LOAD MAPS. CLADDING ATTACHMENTS SHALL NOT APPLY MOMENTS TO SLAB EDGES OR LATERAL LOADS TO STEEL BEAMS OR (UNBRACED) TORSIONAL LOADS INTO STEEL BEAMS OR COLUMNS. BRACES, ADDED REINFORCING, AND/OR TIES SHALL BE DESIGNED AND SUPPLIED BY THE CONTRACTOR FOR LOAD ECCENTRICITIES AND LATERAL LOADS. THE CONTRACTOR SHALL SUPPLY ALL CONNECTION MATERIAL, BRACES, ETC. SUBMITTED DOCUMENTS SHALL INDICATE MAGNITUDE AND LOCATION OF ALL LOADS IMPOSED ON THE PRIMARY STRUCTURE.

EXTERIOR CLADDING CONNECTIONS SHALL ACCOUNT FOR STRUCTURAL DEFLECTION, COLUMN SHORTENING, AND CONSTRUCTION TOLERANCE DETERMINED FROM AISC 5041. IN ADDITION, THE CLADDING DESIGN SHALL ACCOMMODATE A TYPICAL VERTICAL MOVEMENT AT EACH FLOOR OF ½ INCH DUE TO VARIABLE LIVE LOADING. THIS DISPLACEMENT WILL OCCUR AT THE FREE END OF CANTILEVER BEAMS AND AT MIDSPAN OF EDGE SLABS AND BEAMS.

THE CLADDING SHALL ACCOMMODATE LATERAL MOVEMENTS BETWEEN ADJACENT FLOORS PERPENDICULAR AND/OR PARALLEL TO THE WALL AS FOLLOWS:

LEVELS	STORY DRIFT FOR WHICH CLADDING MUST REMAIN UNDAMAGED (INCHES)	STORY DRIFT FOR WHICH CLADDING ELEMENTS MUST NOT FALL FROM BUILDING (INCHES)
TBD	TBD	TBD

STAIRS, ELEVATORS, AND MISCELLANEOUS METALS

UNLESS SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS, ALL STAIRS ARE TO CONSIST OF A PAN-FABRICATED AND PRE-ENGINEERED STAIR, LANDING, AND RAILING SYSTEM DESIGNED BY THE CONTRACTOR OR STAIR SUPPLIER. SEE THE ARCHITECT FOR STAIR SYSTEM LAYOUT, DIMENSIONS, AND CONFIGURATION OF RISE AND RUN. THE CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN AND PROVIDE THE STAIR SYSTEM INCLUDING ALL CONNECTIONS AND SECONDARY SUPPORT FRAMING.

ALL ELEVATOR MACHINE BEAMS, HOIST BEAMS, SILLS, DOOR SUPPORTS, AND RAILS AND THEIR CONNECTIONS TO THE PRIMARY STRUCTURE ARE TO BE DESIGNED BY THE ELEVATOR MANUFACTURER. THE CONTRACTOR SHALL PROVIDE ADDITIONAL FRAMING AS NECESSARY FOR ADDITIONAL MACHINE ROOM FLOOR PENETRATIONS PER THE TYPICAL DETAILS. THE ELEVATOR MACHINE BEAMS SHALL BE DESIGNED TO BE FLUSH WITH THE BOTTOM OF CONCRETE AND SHALL BE DESIGNED FOR THE TRIBUTARY LOADS INDICATED IN THE LOAD MAPS IN ADDITION TO THE WEIGHT OF THE SUPPORTED EQUIPMENT AND SELF WEIGHT OF THE MACHINE ROOM FLOOR/ROOF STRUCTURE.

THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL MISCELLANEOUS METALS THAT ARE INDICATED IN THE ARCHITECTURAL DRAWINGS OR THOSE METALS WHICH ARE FOUND TO BE NECESSARY TO SUPPORT THE ARCHITECTURAL FINISHES OR OTHER BUILDING SYSTEMS.

ALL FRAMING AND CONNECTIONS DESIGNED BY THE CONTRACTOR SHALL NOT RESULT IN ECCENTRIC LOADS BEING APPLIED TO THE PRIMARY STRUCTURE NOR LATERAL LOADS BEING APPLIED TO THE BOTTOM FLANGE OF STEEL BEAMS. THE CONTRACTOR'S DESIGN SHALL VERIFY THAT THE CONNECTIONS DO NOT RESULT IN ADVERSE LOCAL CONDITION STRESSES OCCURRING WITHIN THE PRIMARY STRUCTURE. SUBMIT CALCULATIONS STAMPED BY A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED AND SHOP DRAWINGS INDICATING IMPOSED LOADS ON THE PRIMARY STRUCTURE.

MECHANICAL/ELECTRICAL/PLUMBING SYSTEM SUPPORTS

THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL MISCELLANEOUS METALS AND SYSTEM SUPPORT COMPONENTS THAT ARE NECESSARY TO SUPPORT ALL MECHANICAL, ELECTRICAL (TELECOM, AUDIO VISUAL, ETC), AND PLUMBING/FIRE-PROTECTION SYSTEMS. SUCH METALS AND SUPPORT COMPONENTS AND THEIR CONNECTIONS SHALL BE PROVIDED AS NECESSARY TO DIRECTLY AND CONCENTRICALLY IMPOSE LOADS ON THE PRIMARY STRUCTURE. STEEL ROOF DECK SHALL NOT DIRECTLY SUPPORT THESE SYSTEMS. THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE SUBJECT TO THE REQUIREMENTS OF THE MISCELLANEOUS METALS SECTION ABOVE.

INTERIOR METAL STUD FRAMING

INTERIOR PARTITIONS SHALL CONSIST OF METAL STUD TYPE FRAMING THAT HAS CURRENT ICC-ES EVALUATION REPORTS. CONNECTION OF STUDS, TRACK, AND OTHER ITEMS BY MEANS OF EITHER DRILLED-IN ANCHORAGE OR POWDER DRIVER FASTENERS SHALL OCCUR WITH FASTENERS AS INDICATED IN THE METAL STUD ICC-ES REPORTS. CONNECTIONS SHALL ALLOW FOR THE BUILDING MOVEMENTS CITED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF SOFFITS, SUSPENDED WALLS, CEILINGS, OR CONDITIONS WHERE THE STUD FRAMING IS USED TO SUPPORT CASEWORK OR SITEABLE DOOR/WINDOW HARDWARE. THE METAL STUD FRAMING AND ANY MISCELLANEOUS STEEL FRAMING THAT IS DETERMINED TO BE NECESSARY BASED ON THE CONTRACTOR'S DESIGN, SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING IMPOSED LOADS ON THE PRIMARY STRUCTURE FOR THESE CONDITIONS. SUBMITTED DOCUMENTS SHALL BEAR THE STAMP AND SIGNATURE OF AN ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED.

BUILDING TOLERANCES

STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117, STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.

SEQUENCING CONSTRUCTION AND LATERAL STABILITY

THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-SELF-SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS (SUCH AS SHEAR WALLS, ROOF AND FLOOR SLABS) ARE REQUIRED FOR OVERALL OR LOCAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS, AND WALLS). IF, DUE TO SEQUENCING OF CONSTRUCTION, THESE STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING/BRACING IS REQUIRED AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING/BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.

DEFERRED STRUCTURAL SUBMITTALS

SOME STRUCTURAL SYSTEMS ARE DEFINED AS VENDOR-DESIGNED COMPONENTS PER THE STRUCTURAL DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT THE STAMPED COMPONENT SYSTEM DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL.

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

THE FOLLOWING LIST INCLUDES THE ITEMS THAT ARE DEFINED AS DEFERRED STRUCTURAL SUBMITTAL COMPONENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR ADDITIONAL DEFERRED SUBMITTAL COMPONENTS.

DEFERRED STRUCTURAL SUBMITTAL COMPONENTS:

EXTERIOR CLADDING

METAL STUD SYSTEMS

POST-TENSIONING SYSTEMS

METAL STAIRS AND LANDINGS

MISCELLANEOUS

REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, ELEVATOR, OR OTHER SPECIALTY ENGINEERING DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING BUT NOT LIMITED TO: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, SLOPES, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITECTURAL REVEALS, ETC. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.

WHERE SECTIONS ARE INDICATED ON THE PLAN BY A NUMBER AND A DRAWING NUMBER THUS, 1/S5.01, THE INDICATED SECTION (1) IS SHOWN ON STRUCTURAL DRAWING S5.01.

SPECIAL INSPECTION

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION AND TESTING PER IBC SECTION 1704. THE WORK SHALL BE PERFORMED BY A SPECIAL INSPECTOR CERTIFIED BY THE CITY OF SEATTLE TO PERFORM THE TYPES OF INSPECTIONS AND TESTS SPECIFIED. THE FREQUENCY OF INSPECTIONS AND TESTING SHALL BE AS OUTLINED IN THE IBC TABLE ITEMS LISTED BELOW. DEFICIENCIES SHALL BE REPORTED DAILY TO THE CONTRACTOR. SUMMARY REPORTS SHALL BE DISTRIBUTED WEEKLY TO THE OWNER, ARCHITECT, CONTRACTOR, BUILDING OFFICIAL, AND STRUCTURAL ENGINEER. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION AND TESTING.

ITEM	DESCRIPTION (REFER TO IBC SECTION 1704)		IBC TABLE REQUIREMENTS
CONCRETE	CONCRETE THAT IS PART OF THE STRUCTURE.		TABLE 1704.4, ITEMS 4, 5, 6, 7, 9, AND 10
BOLTS INSTALLED IN CONCRETE	ANCHOR BOLTS, HEADED STUDS (EXCEPT AT DEAD-TO-DECK INSTALLATION).		TABLE 1704.4, ITEM 3
BOUNDARY ELEMENTS IN SHEAR WALLS			TABLE 1704.3, ITEM 5A
REINFORCING STEEL AND PRESTRESSING STEEL TENDONS	A.	STRESSING AND GROUTING OF TENDONS.	TABLE 1704.4, ITEM 8
	B.	PLACEMENT OF REINFORCING STEEL AND PRESTRESSING TENDONS.	TABLE 1704.4, ITEM 1
	C.	SPLICING OF REINFORCING BY BUTT WELDING, EXOTHERMIC WELDING PROCESS, OR THREADED COUPLERS.	TABLE 1704.4, ITEM 1
STRUCTURAL STEEL AND WELDING	A.	STRUCTURAL STEEL THAT IS PART OF THE STRUCTURE.	TABLE 1704.3, ITEM 3
	B.	WELDING OF MEMBERS OR CONNECTIONS.	TABLE 1704.3, ITEM 4
	C.	WELDING OF REINFORCING STEEL.	TABLE 1704.4, ITEM 2
HIGH STRENGTH BOLTING	SEE SPECIFICATIONS FOR PROCEDURES FOR INSPECTION AND TESTING.		TABLE 1704.3, ITEM 2
STRUCTURAL MASONRY	ALL MASONRY SHOWN ON STRUCTURAL DRAWINGS INCLUDING MASONRY SHOWN IN TYPICAL DETAILS BUT LOCATED ON ARCHITECTURAL DRAWINGS.		TABLE 1704.5, ITEM 1
DRILLED PIERS			
SHOTCRETE			TABLE 1704.4, ITEMS 5 AND 6
SPECIAL GRADING, EXCAVATION AND FILLING	A.	FOUNDATION EXCAVATIONS AND BEARING STRATA.	TABLE 1704.4
	B.	BACKFILL BEHIND STRUCTURAL WALLS OR SUPPORTING SLAB-ON-GRADE.	
SPECIAL CASES	A.	DRILLED-IN CONCRETE ANCHORS: PERIODIC SPECIAL INSPECTION SHALL INCLUDE VISUAL OBSERVATION OF DRILLED HOLE SPACINGS, EDGE DISTANCES, AND TENSION TESTING OF 5 PERCENT OF ANCHORS SHOWN ON STRUCTURAL DRAWINGS. EACH TEST LOAD SHALL BE 2 TIMES THE MANUFACTURER'S ALLOWABLE LOAD OF THE ANCHOR IN TENSION.	
	B.	EPOXY OR CEMENT GROUTED DOWELS OR ANCHORS: OBSERVE DRILLED HOLES AFTER CLEANING AND PERIODIC INSTALLATION OF GROUT AND ANCHORS.	

SHOP DRAWINGS

SHOP DRAWINGS FOR REINFORCING STEEL AND STRUCTURAL STEEL SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

THE CONTRACTOR SHALL SUBMIT CONCRETE BALL ELEVATION DRAWINGS OF AT LEAST ⅛" = 1'-0" SCALE INDICATING LOCATIONS OF CONSTRUCTION JOINTS/PATTERNS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT DRAWINGS.

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD; THEREFORE, THEY SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE WORK AND FOR COORDINATION OF CONSTRUCTION SEQUENCE AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE ONE REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED, AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWINGS SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR SUBSEQUENT TO SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

SHOP DRAWINGS FOR DEFERRED SUBMITTALS THAT ARE DEFINED AS DESIGN-BUILD COMPONENTS IN THE CONSTRUCTION DOCUMENTS SHALL INCLUDE ONE DESIGNING PROFESSIONAL ENGINEER'S STAMP FOR THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL.

STRUCTURAL OBSERVATION

THE ENGINEER OF RECORD SHALL PROVIDE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY IBC SECTIONS 110, 1704, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE. STRUCTURAL OBSERVATION REPORTS SHALL BE ISSUED TO THE OWNER, ARCHITECT, CONTRACTOR, AND BUILDING OFFICIAL AT SIGNIFICANT CONSTRUCTION STAGES.

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION

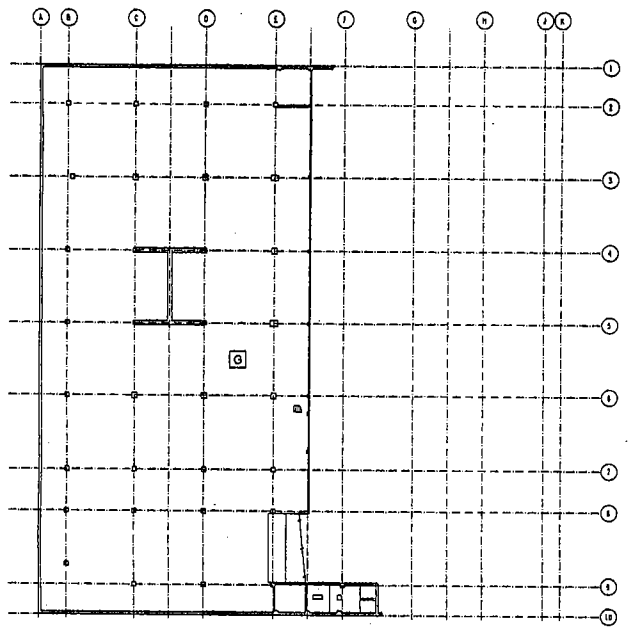
DRAWN BY: DLJ
PROJECT NO: 00000.00
DATE: YYYY/MM/DD

GENERAL NOTES

S0.03

EXHIBIT E

9/12/2005 4:25:44 PM User: DLM Ref: M:\A_HARBORVIEW\MODELS\DLM_S0.DGN Model: SHEET Version: V8



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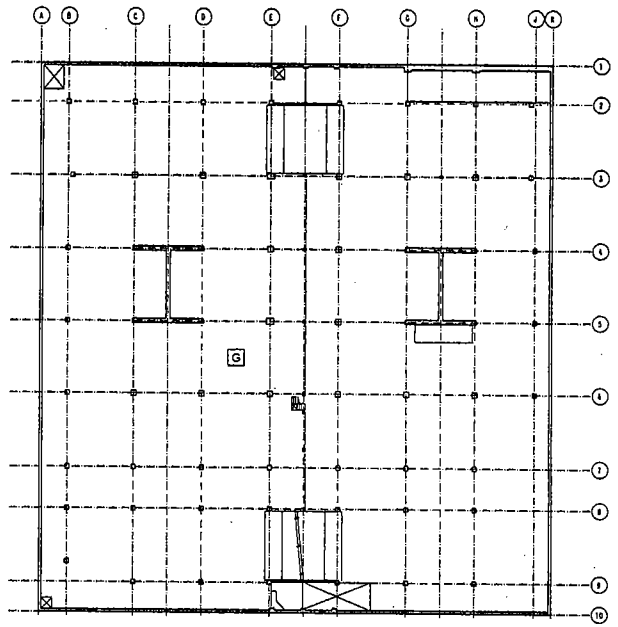

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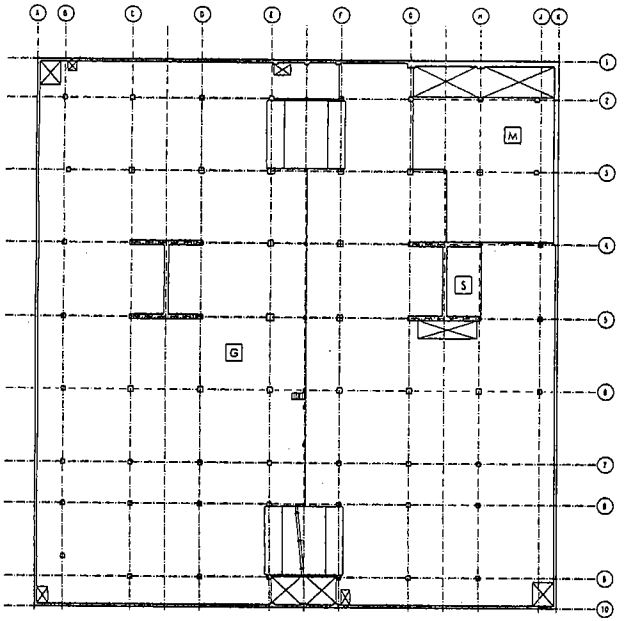

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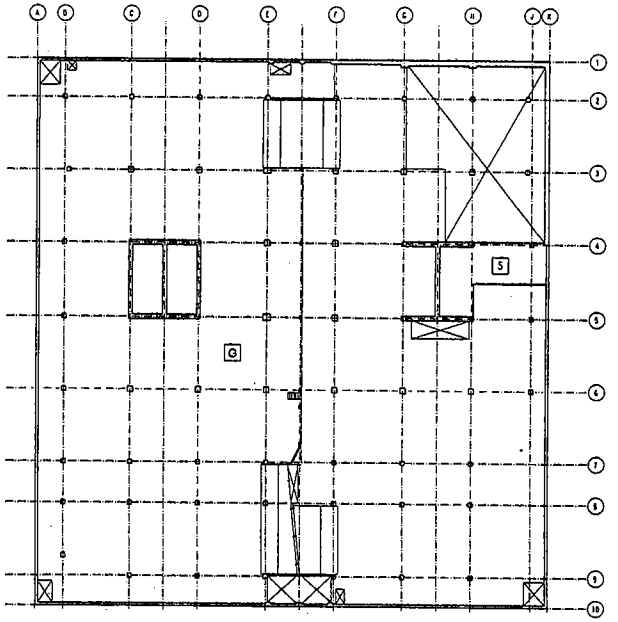

LEVEL P2 | 19

LOAD SCHEDULE

D LOADING DOCK
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 5 PSF
LL UNREDUCIBLE 250 PSF

G GARAGE
DL SELF WEIGHT OF STRUCTURE
SDL 5 PSF
LL (REDUCIBLE AT COLS ONLY) 40 PSF

I INTERIOR FLOOR
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 10 PSF
LL UNREDUCIBLE 100 PSF

L LOBBY
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 10 PSF
SDL FLOORING 37 PSF
LL UNREDUCIBLE 100 PSF

M MECHANICAL
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1 40 PSF

P PLAZA
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P PSF
SDL PAVERS PSF
LL UNREDUCIBLE 100 PSF

R ROOF
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 10 PSF
LL UNREDUCIBLE 25 PSF

S STORAGE
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 10 PSF
LL UNREDUCIBLE 125 PSF

W SIDEWALK
DL SELF WEIGHT OF STRUCTURE
SDL M/E/P 10 PSF
SDL STRUCT FILL 400 PSF
SDL 4" CONCRETE SIDEWALK 50 PSF
LL UNREDUCIBLE 250 PSF

NOTES:
1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20

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T 206 292 1200 F 206 292 1201

GARAGE PERMIT SET

NO	DATE	DESCRIPTION

DRAWN: DLJ
PROJ. NO.: 00000.00
DATE: YYYY/MM/DD

LOAD MAPS

S1.01

EXHIBIT E

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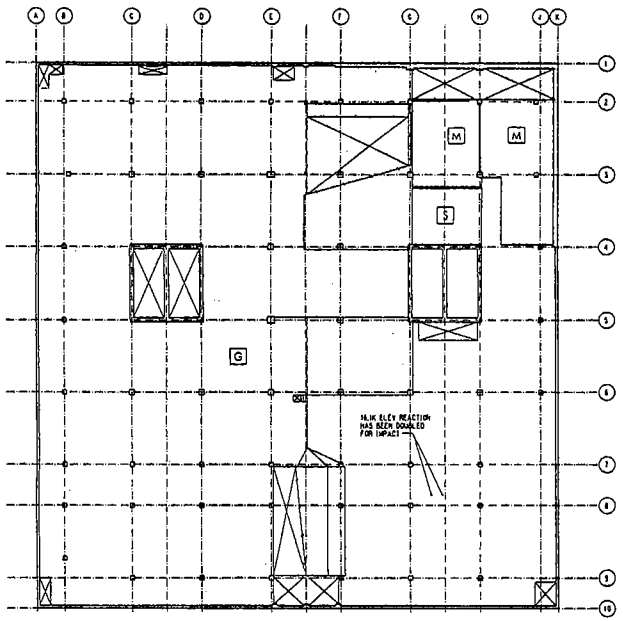
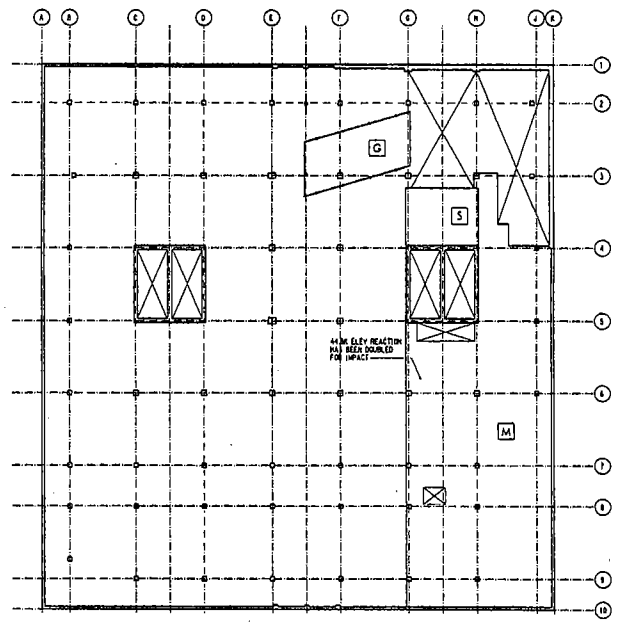


LEVEL P1 | 7



LEVEL G | 9

LOAD SCHEDULE

D LOADING DOCK

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 5 PSF
LL	UNREDUCIBLE 250 PSF

G GARAGE

DL	SELF WEIGHT OF STRUCTURE
SDL	5 PSF
LL (REDUCIBLE AT COLS ONLY)	40 PSF

I INTERIOR FLOOR

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 100 PSF

L LOBBY

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	FLOORING 37 PSF
LL	UNREDUCIBLE 100 PSF

M MECHNICAL

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1	40 PSF

P PLAZA

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 5 PSF
SDL	PAVERS 25 PSF
LL	UNREDUCIBLE 100 PSF

R ROOF

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 25 PSF

S STORAGE

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 125 PSF

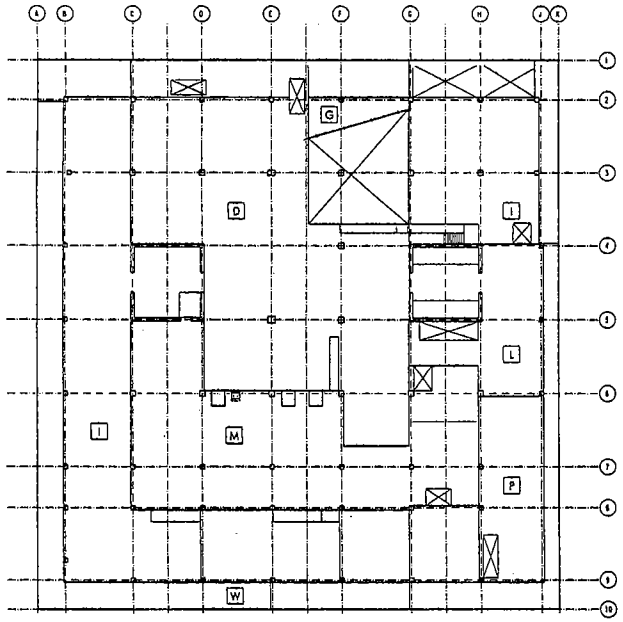
W SIDEWALK

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	STRUCT FILL 400 PSF
SDL	4" CONCRETE SIDEWALK 50 PSF
LL	UNREDUCIBLE 250 PSF

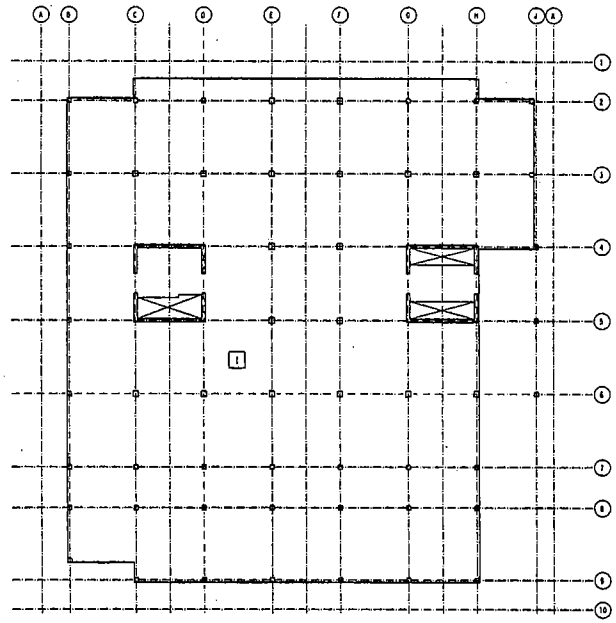
NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20



LEVEL S/01 | 17



LEVEL 02 | 19

EXHIBIT E

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PROJ. NO.: 00000.00
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LOAD MAPS

S1.02

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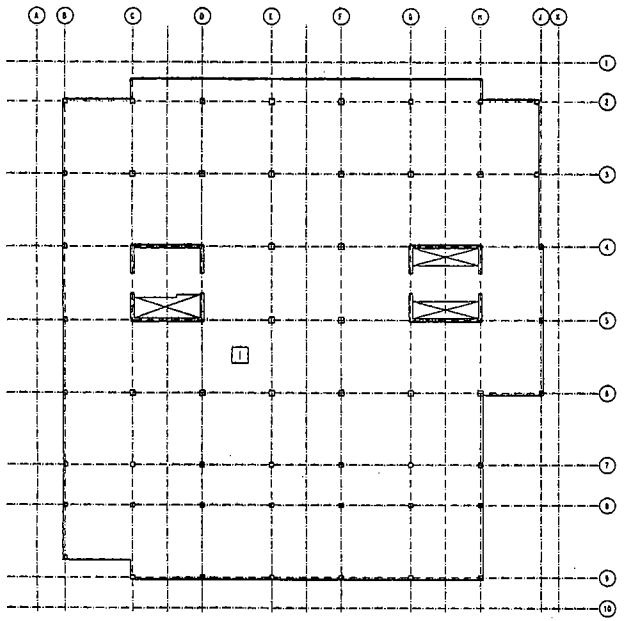
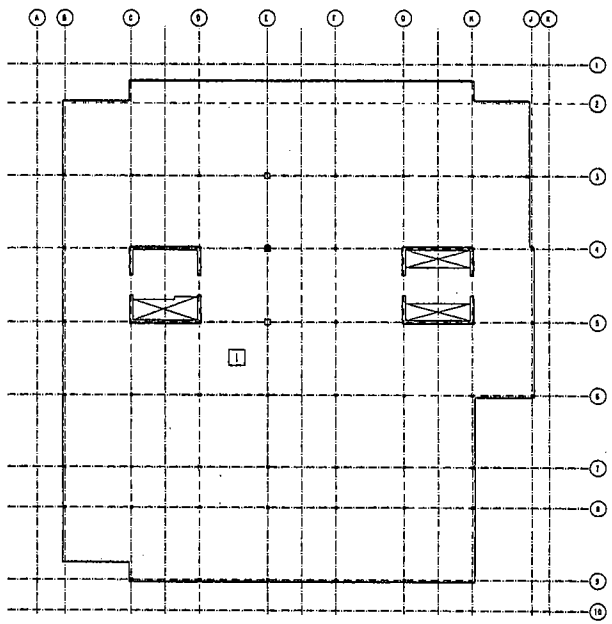


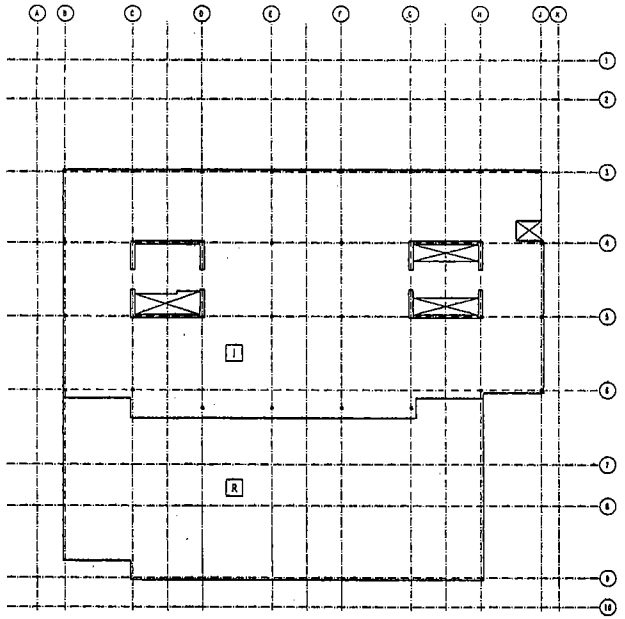
LEVEL 03 | 7



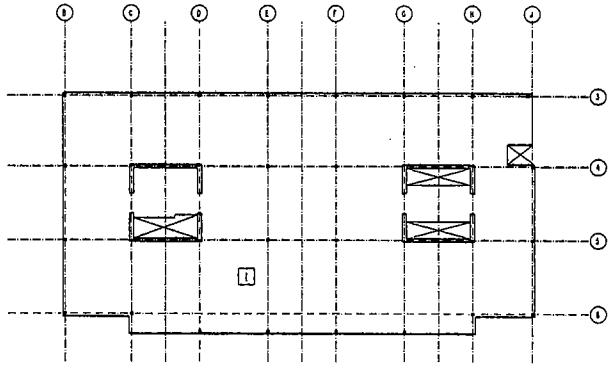
LEVEL 04 | 9

LOAD SCHEDULE

D	LOADING DOCK		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	5 PSF
	LL	UNREDUCIBLE	250 PSF
G	GARAGE		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL		5 PSF
	LL (REDUCIBLE AT COLS ONLY)		40 PSF
I	INTERIOR FLOOR		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	10 PSF
	LL	UNREDUCIBLE	100 PSF
L	LOBBY		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	10 PSF
	LL	FLOORING	37 PSF
		UNREDUCIBLE	100 PSF
M	MECHANICAL		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P, HOUSEKEEPING PADS	10 PSF
	LL NOTE 1		40 PSF
P	PLAZA		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	PSF
		PAVERS	PSF
	LL	UNREDUCIBLE	100 PSF
R	ROOF		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	10 PSF
	LL	UNREDUCIBLE	25 PSF
S	STORAGE		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	10 PSF
	LL	UNREDUCIBLE	125 PSF
W	SIDEWALK		
	SP	SELF WEIGHT OF STRUCTURE	
	SDL	M/E/P	10 PSF
		STRUCT FILL	400 PSF
	LL	4" CONCRETE SIDEWALK	50 PSF
		UNREDUCIBLE	250 PSF



LEVEL 05 | 17



LEVEL 06-14 | 19

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20

EXHIBIT E

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LOAD MAPS

S1.03

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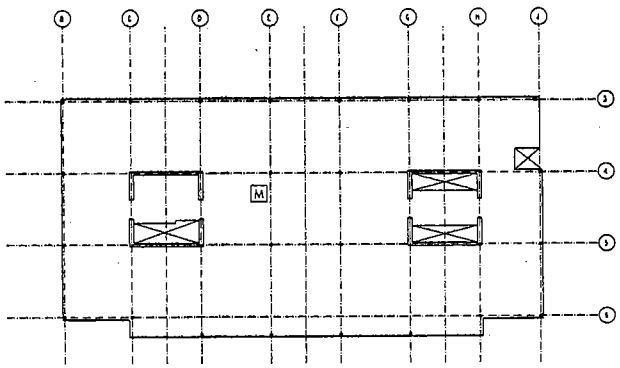

PENTHOUSE

LOAD SCHEDULE

D LOADING DOCK
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 5 PSF
LL UNREDUCIBLE 250 PSF

G GARAGE
DL SELF WEIGHT OF STRUCTURE
SDL 5 PSF
LL (REDUCIBLE AT COLS ONLY) 40 PSF

I INTERIOR FLOOR
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 10 PSF
LL UNREDUCIBLE 100 PSF

L LOBBY
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 10 PSF
FINISH FLOORING 37 PSF
LL UNREDUCIBLE 100 PSF

M MECHANICAL
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1 40 PSF

P PLAZA
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P PSF
FINISH PAVERS PSF
LL UNREDUCIBLE 100 PSF

R ROOF
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 10 PSF
LL UNREDUCIBLE 25 PSF

S STORAGE
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 10 PSF
LL UNREDUCIBLE 125 PSF.

W SIDEWALK
DL SELF WEIGHT OF STRUCTURE
SDL W/E/P 10 PSF
FINISH STRUCT FILL 400 PSF
SDL 4" CONCRETE SIDEWALK 50 PSF
LL UNREDUCIBLE 250 PSF

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION

drawn by: DMJ
proj. no. 00000.00
date: YYYY/MM/DD

LOAD MAPS

S1.04

EXHIBIT E

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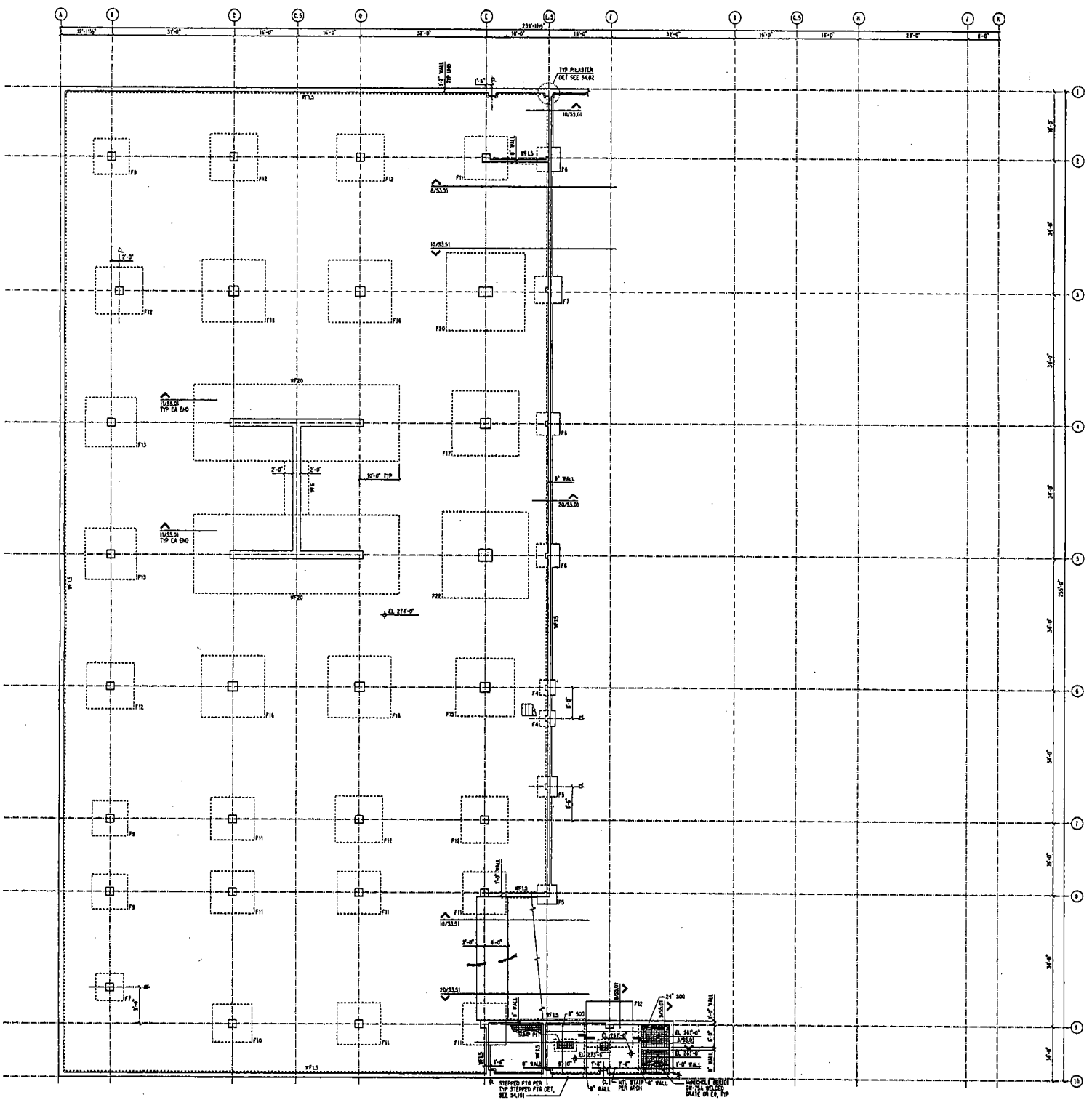

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

FOUNDATION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB ON GRADE IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. (OR SLAB ON GRADE SLOPES TO DRAIN - SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS)
2. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE. REINFORCED PER TYPICAL SLAB ON GRADE DETAILS. SLAB ON GRADE SHALL BE PLACED ATOP COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. ( ) INDICATES TOP OF FOOTING ELEVATION. TOP OF FOUNDATION COINCIDES WITH BOTTOM OF SLAB ON GRADE, UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, UNLESS NOTED OTHERWISE.
4. "FS" INDICATES FOOTING MARK. SEE COLUMN FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.
5. "C2" INDIATES CONCRETE COLUMN MARK. SEE TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE.
6. REFERENCE ALL CONSTRUCTION DOCUMENTS FOR SIZE, EXTENT, AND LOCATION OF CONCRETE CURBS, HOUSEKEEPING PADS, CMU WALLS, PLANTER WALLS, BOLLARDS, EDGE ANGLES, AND SLAB PENETRATIONS. REINFORCE PER TYPICAL DETAILS.
7. "WF1.5" INDICATES WALL FOOTING MARK. SEE WALL FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.

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NO	BY	DESCRIPTION

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PROJ. NO: 000000.00
DATE: YYYYMMMDD

LEVEL P5 FOUNDATION AND FRAMING PLAN

S2.00

SCALE: 1/8" = 1'-0"

EXHIBIT E

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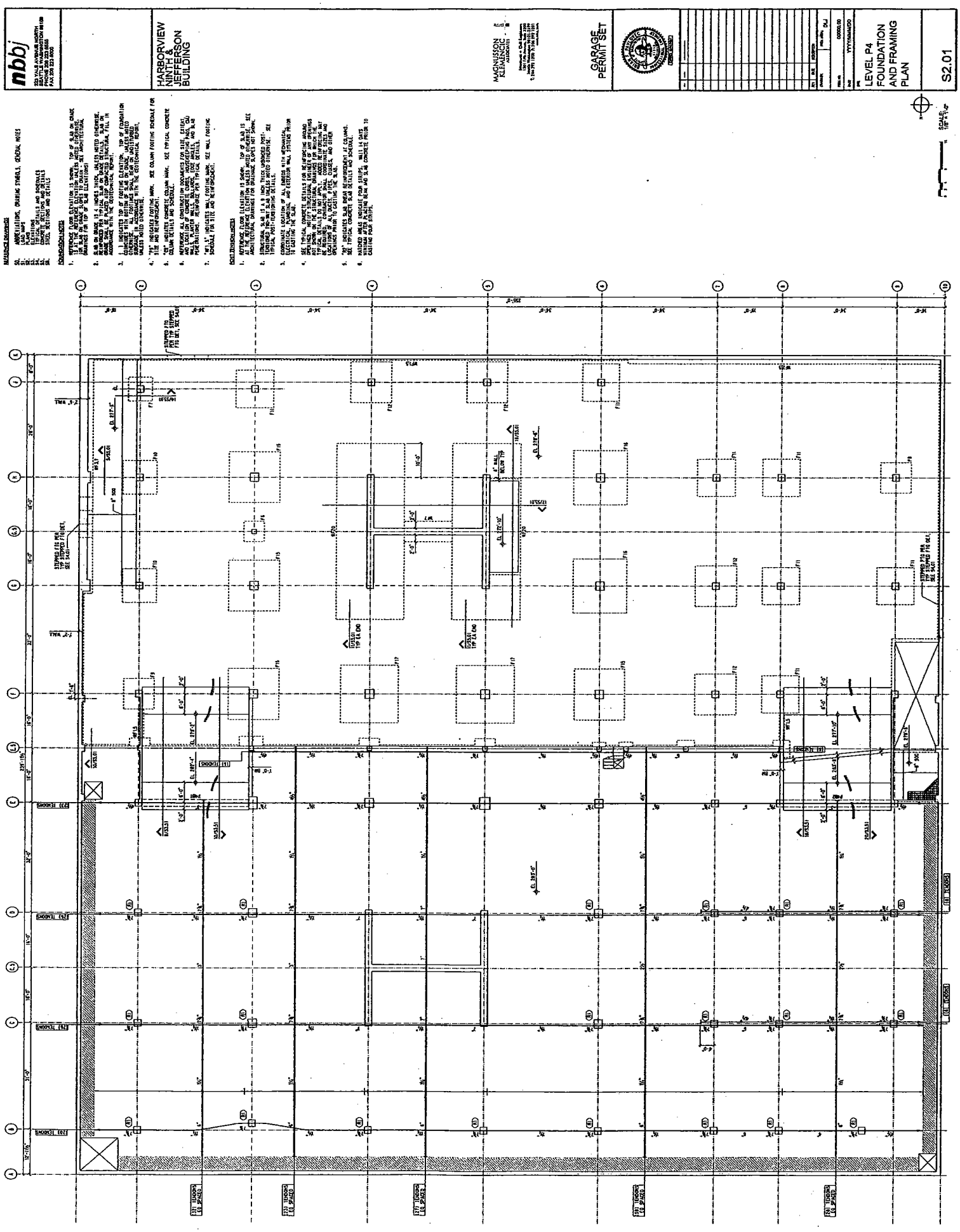
nbbj
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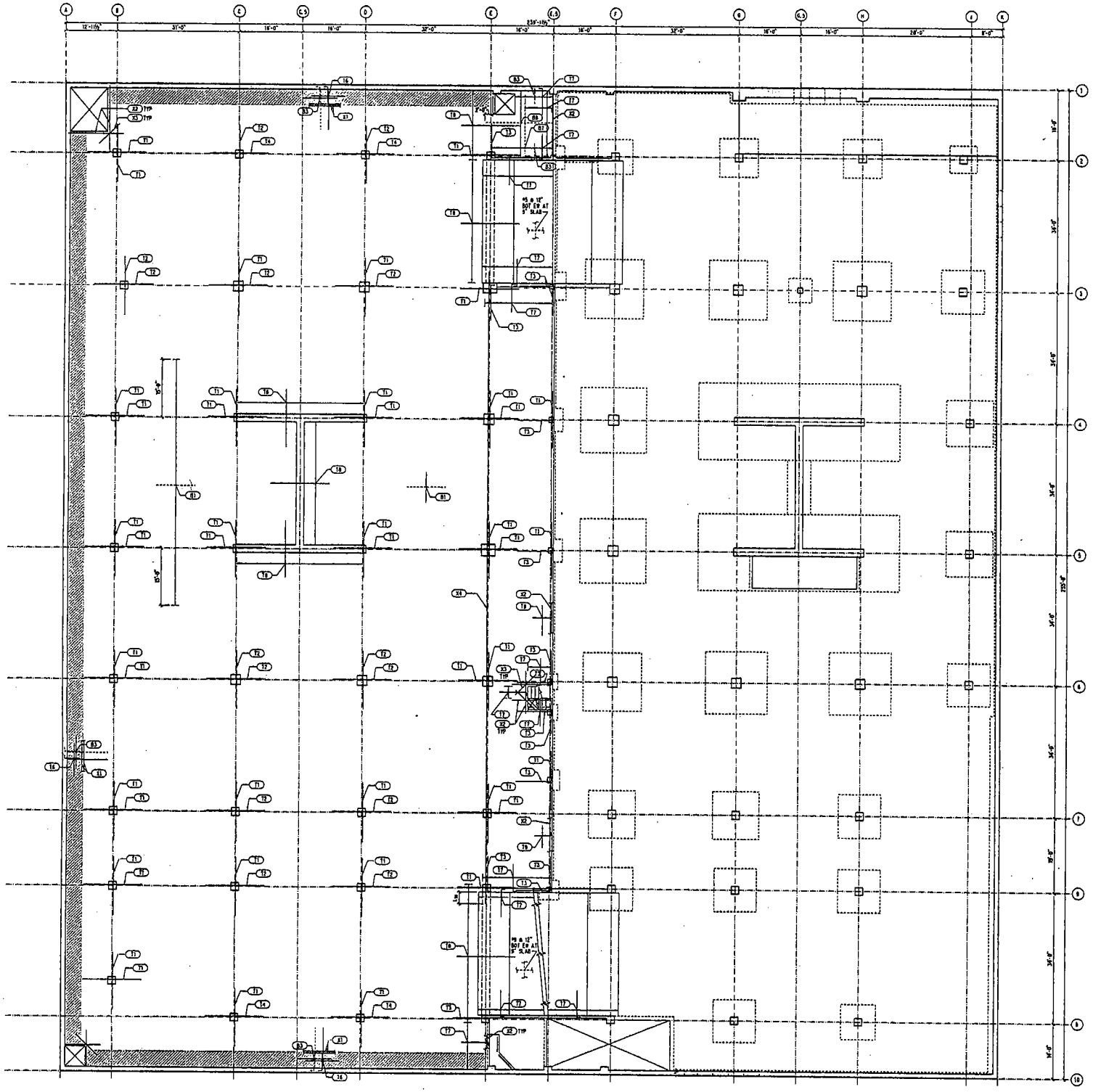
MAGNUSSON KLEMENCIC ASSOCIATES
GARAGE PERMIT SET
LEVEL P4 FOUNDATION AND FRAMING PLAN
S2.01
SCALE: 1/8"=1'-0"

EXHIBIT E



REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
T1	(5) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(8) #5x [illegible]	
T4	(17) #5x15'-0"	
T5	#5x [illegible] @ 12"	
T6	#5x [illegible] @ 12"	
T7	#5x [illegible] @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x [illegible] @ 12"	
T10	#5x15'-0" @ 16"	STAGGER 3'-0"
T11	(20) #5x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #5x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 3'-0"
T14	(8) #5x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x [illegible] @ 12"	
T16	(12) #5x15'-0" @ 8"	
T17	(24) #5x15'-0" @ 4"	STAGGER 3'-0"
T18	#5x [illegible] @ 6"	HOOK PER PLAN
T19	(4) #5x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #5x [illegible] @ 12"	
T22		

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 16"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x [illegible] @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x [illegible] @ 12"	
B6	#5x20'-0" @ 12"	STAGGER 3'-0"
B7	#5x15'-0" @ 8"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
S1	#4 CONT	TOP & BOT SPLICE L_{st}
S2	(2) #5 CONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
S3	(2) #5x3'-6"	CORNER BAR
S4	(4) #3	MID-DEPTH DRAG REINF SPLICE L_{st} AS REQD
S5	(2) #5x15'0"	CORNER BAR

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PROJ. NO:		00000.00
DATE:		YYYY/MM/DD

LEVEL P4 REINFORCING PLAN

S2.01R

SCALE: 1/8" = 1'-0"

EXHIBIT E

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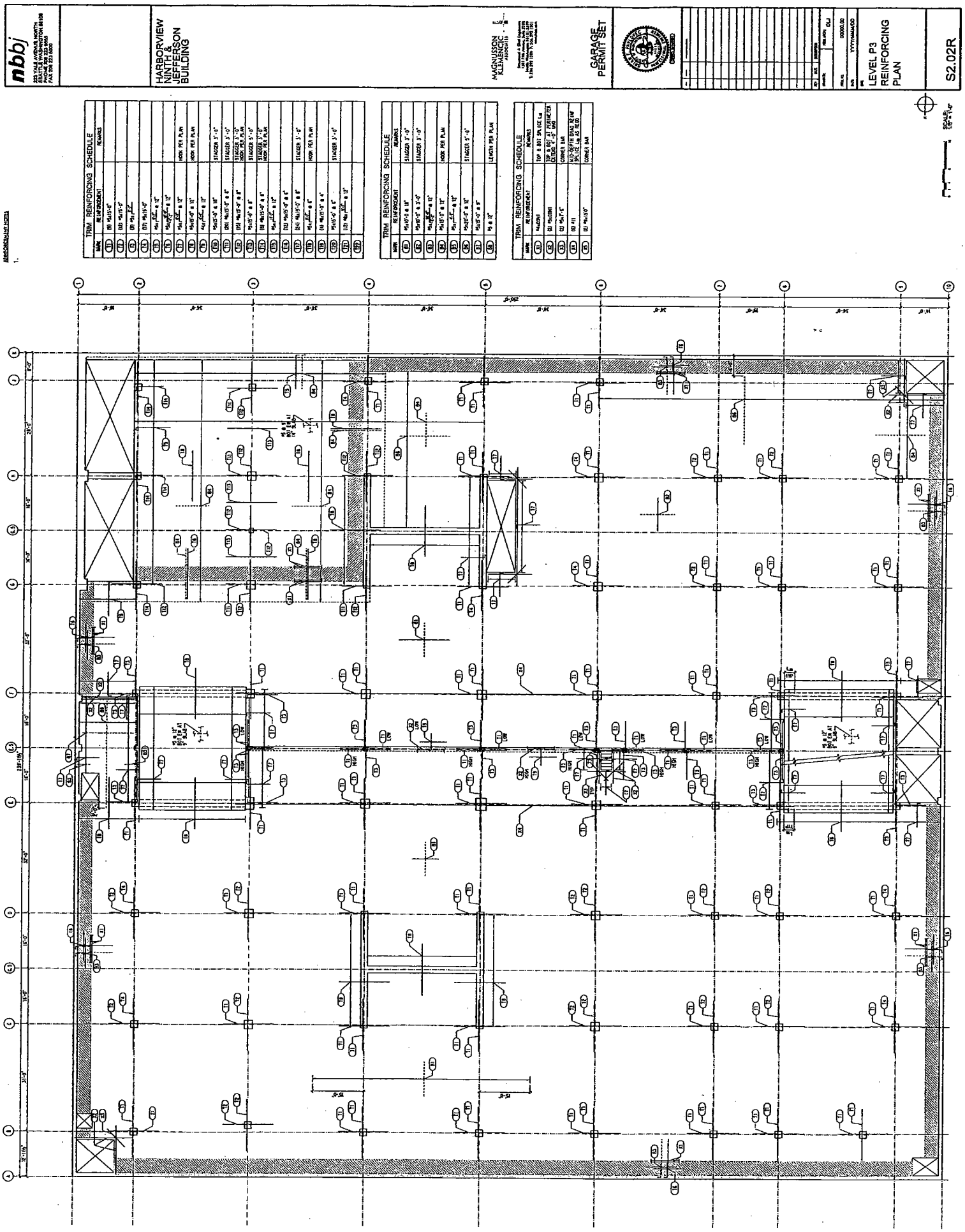
GARAGE PERMIT SET
LEVEL P3 FRAMING PLAN
S2.02
SCALE: 1/8"=1'-0"

EXHIBIT E


nbbj
HARBORVIEW
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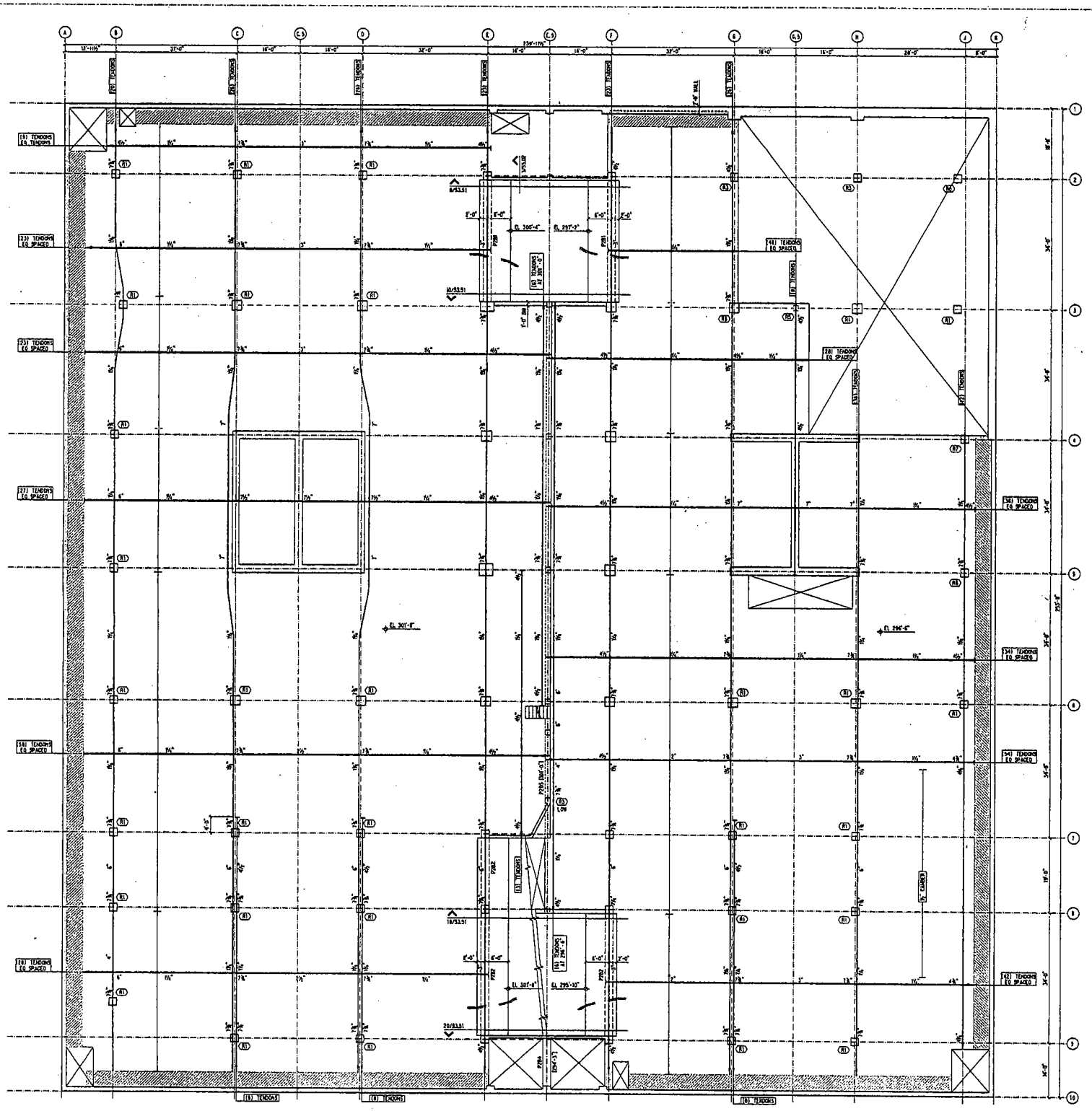
JEFFERSON
BUILDING
MAGNUSSON
KLEMENCIC
GARAGE
PERMIT SET
LEVEL P3
REINFORCING
PLAN
S2.02R
TRIM REINFORCING SCHEDULE
TRIM REINFORCING SCHEDULE
TRIM REINFORCING SCHEDULE
SCALE:
1/8"=1'-0"

EXHIBIT E



REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

POST-TENSION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 9 INCH THICK BONDED POST-TENSIONED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL POST-TENSIONING DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. "R#" INDICATES SLAB SHEAR REINFORCEMENT AT COLUMNS. SEE TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE.
6. HATCHED AREAS INDICATE POUR STRIPS. WAIT 14 DAYS MINIMUM AFTER PLACING BEAM AND SLAB CONCRETE PRIOR TO CASTING POUR STRIPS.

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION
DRAWN BY:		PROJ MGR: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MMM/DD

LEVEL P2 FRAMING PLAN

S2.03

SCALE: 1/8" = 1'-0"

EXHIBIT E

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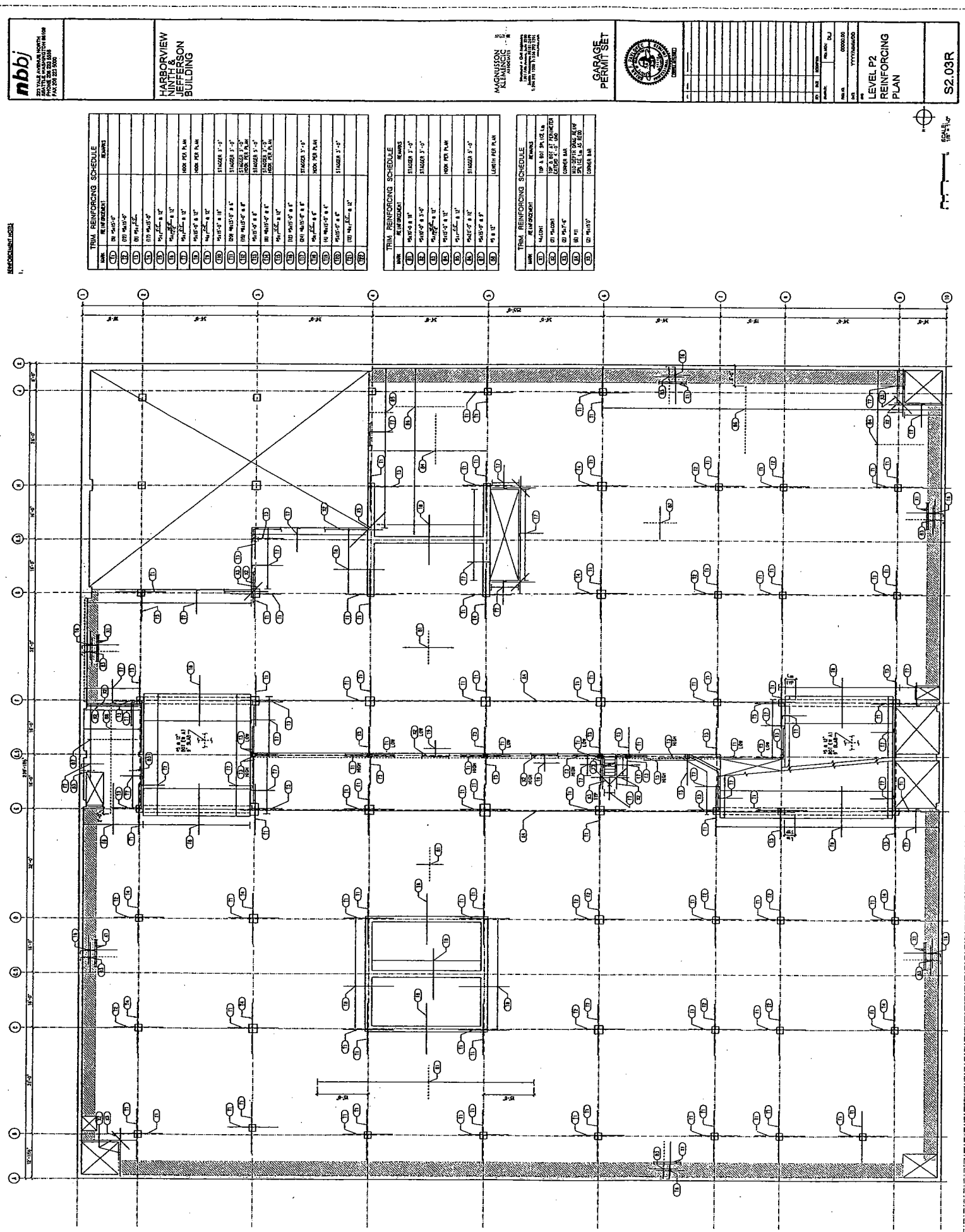
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KLEMENCIC
ASSOCIATES
GARAGE
PERMIT SET
LEVEL P2
REINFORCING
PLAN
S2.03R
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS

EXHIBIT E

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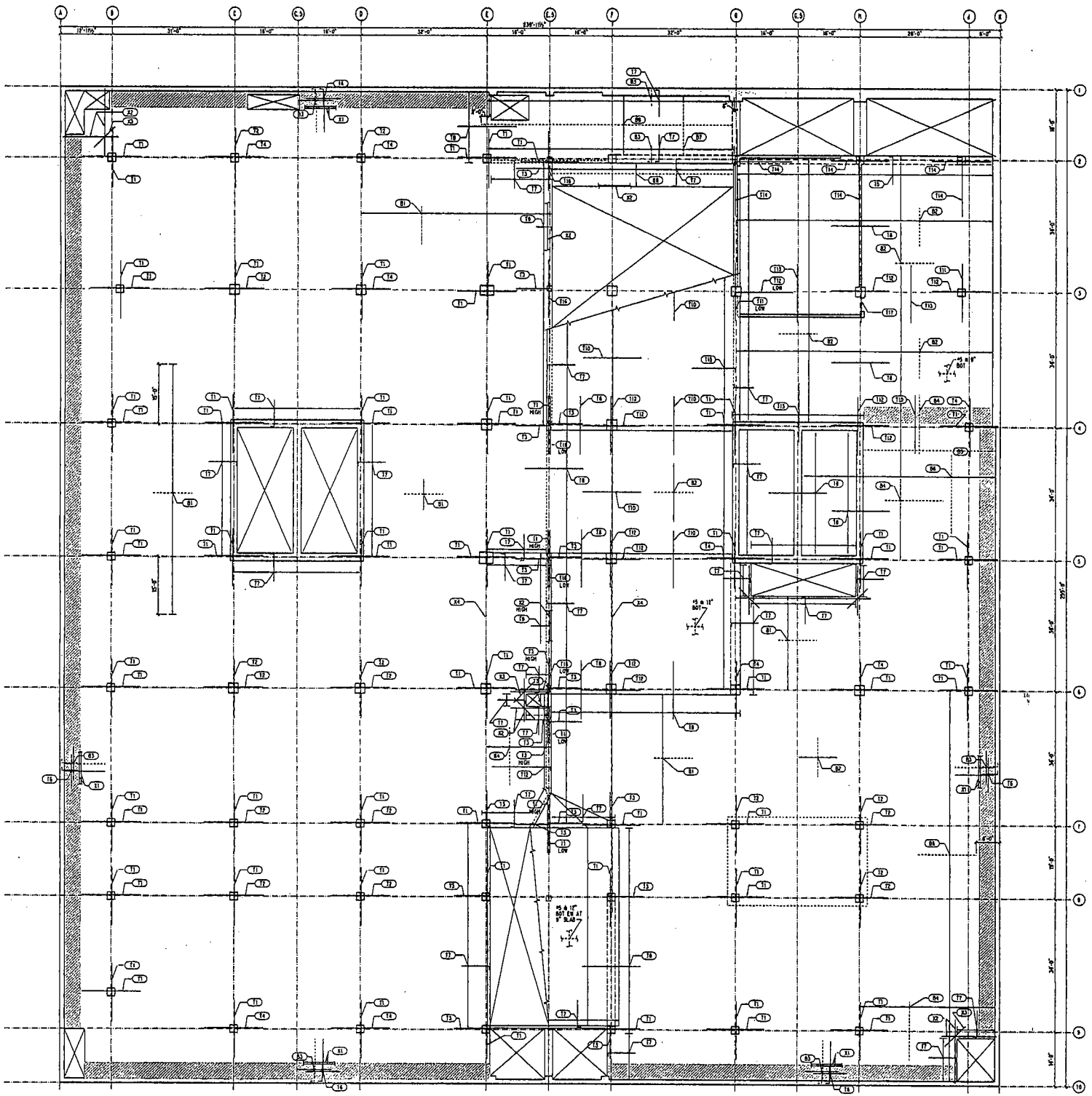
NINTH &
JEFFERSON
BUILDING
MAGNUSSON
KLEMENCIC
ASSOCIATES
GARAGE
PERMIT SET
LEVEL P1
FRAMING
PLAN
S2.04

EXHIBIT E



REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
T1	(3) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(8) #5x[illegible]	
T4	(17) #5x15'-0"	
T5	#5x[illegible] @ 12"	
T6	#5x[illegible] @ 12"	
T7	#5x[illegible] @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x[illegible] @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #8x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #8x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 3'-0"
T14	(8) #8x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x[illegible] @ 12"	
T16	(12) #5x15'-0" @ 8"	
T17	(24) #8x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x[illegible] @ 6"	HOOK PER PLAN
T19	(4) #8x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #8x[illegible] @ 12"	
T22		

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x[illegible] @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x[illegible] @ 12"	
B6	#5x20'-0" @ 18"	STAGGER 5'-0"
B7	#5x15'-0" @ 8"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
X1	#4xCONT	TOP & BOT SPLICE L38
X2	(2) #5xCONT	TOP & BOT AT PERIMETER EXTEND 4'-0" LMO
X3	(2) #5x7'-6"	CORNER BAR
X4	(6) #11	MID-DEPTH BRAG AT INF SPLICE Lst AS REQD
X5	(2) #8x15'0"	CORNER BAR

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJ. NO: 00000.00
DATE: YYYY/MM/DD

LEVEL P1 REINFORCING PLAN

SCALE: 1/8" = 1'-0"

S2.04R

EXHIBIT E

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PERMIT SET

1		
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NO.	DATE	DESCRIPTION	
PROJECT		0505.00	
DRAWN		YY/MM/DD	
CHECKED			

LEVEL G
FRAMING
PLAN

S2.05

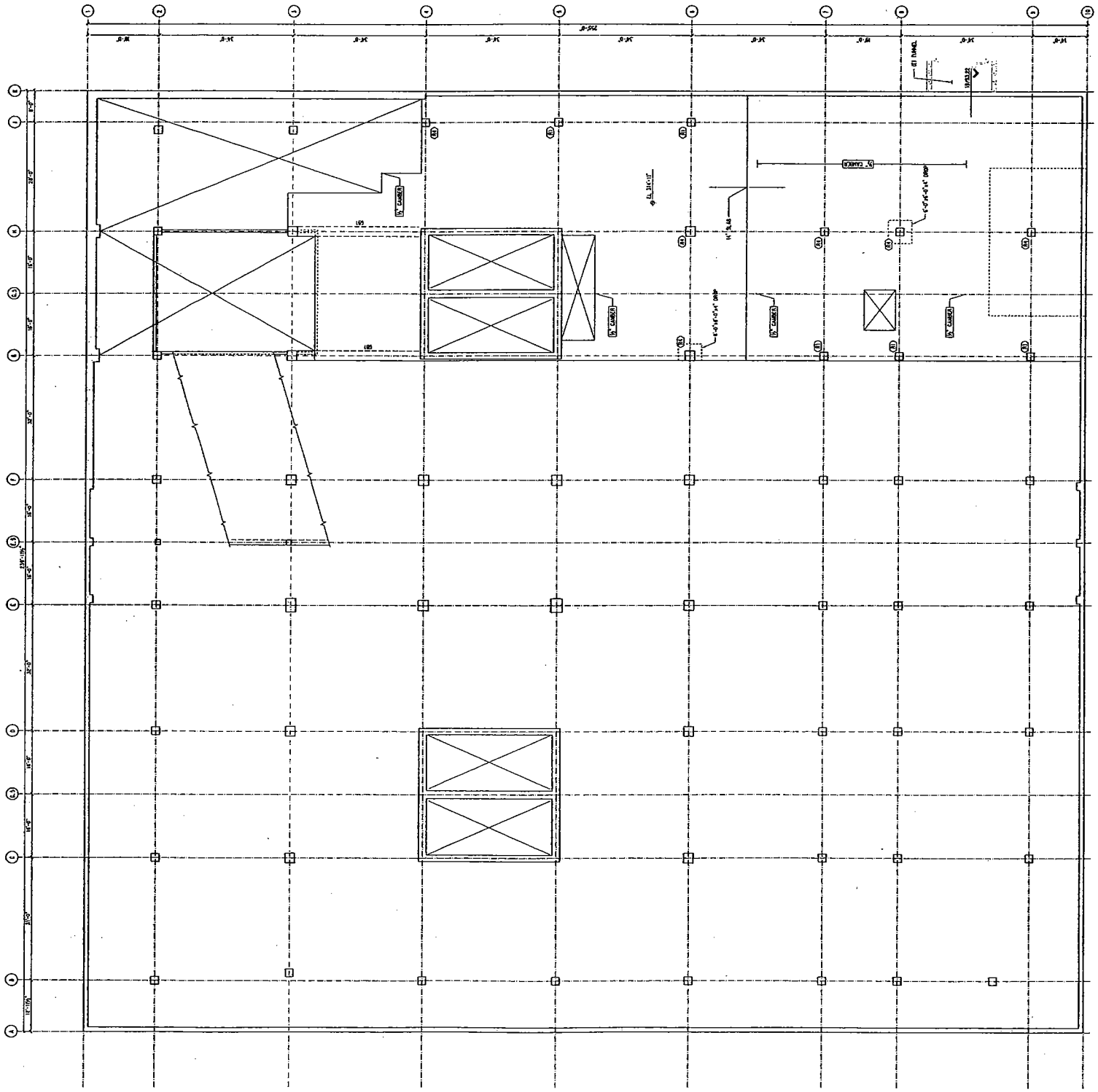
SCALE:
1/8"=1'-0"

REFERENCE DRAWINGS

S0. ARCHITECTURAL DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. ELEVATIONS
S3. CONCRETE DETAILS AND SCHEDULES
S4. TYPICAL DETAILS AND SCHEDULES
S5. STEEL SECTIONS AND DETAILS

NOTES

1. AT TOP OF SLAB ELEVATION IS SHOWN. TOP OF SLAB IS AT TOP OF CONCRETE. SEE ARCHITECTURAL DRAWINGS FOR FINISH MATERIALS AND ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A WELD REINFORCED TRU-WAY SLAB DETAILED AND SPECIFIED. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL CURBS WITH MECHANICAL, ELECTRICAL, FRAMING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. ADDITIONAL REINFORCING FOR OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE OPENINGS ARE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL OPENINGS WITH ALL TRADES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.



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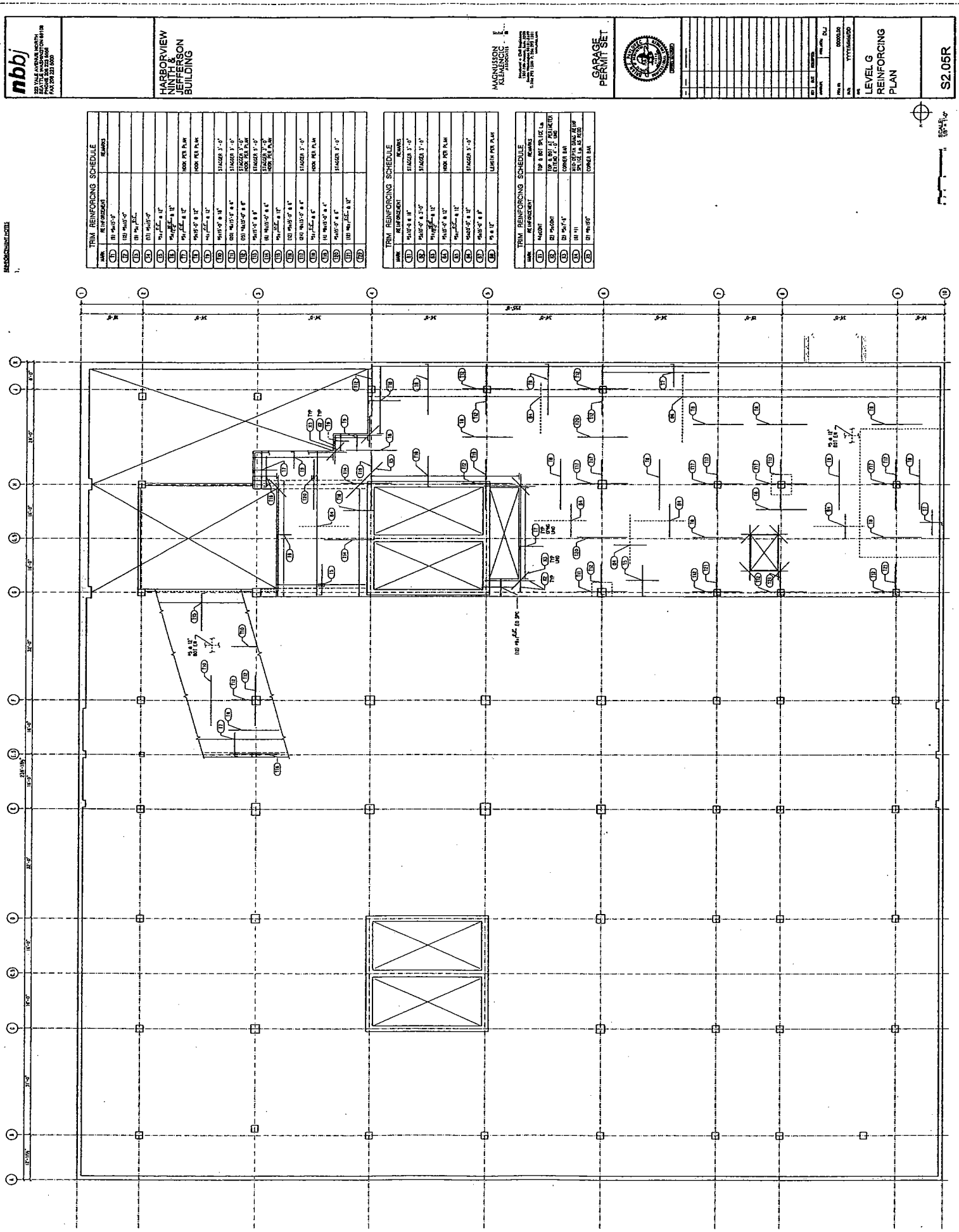
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BUILDING
MAGNUSSON
KLEMENCIC
ASSOCIATES
GARAGE
PERMIT SET
LEVEL G
REINFORCING
PLAN
S2.05R
SCALE
1/8"=1'-0"
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS
TRIM REINFORCING SCHEDULE
MARK
REINFORCEMENT
REMARKS
EXHIBIT E

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KLEMENCIC
GARAGE
PERMIT SET
LEVEL 01
FRAMING
PLAN
S2.06
REFERENCE DRAWINGS
GENERAL NOTES
1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT ELEVATION INDICATED FOR SLOPED AREAS. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB REINFORCEMENT IS SHOWN IN PLAN. SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS IN CONCRETE SLABS. SEE ARCHITECTURAL DRAWINGS FOR OPENINGS IN THE STRUCTURAL SLABS NOT SHOWN. TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED AROUND OPENINGS. COORDINATE SIZE AND LOCATION OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. FLIP THE SLAB. THE SLAB AND BEAM THICKNESS ARE CONSTANT AT THE FLIP. SEE ARCHITECTURAL DRAWINGS FOR TOPPING SLAB TO BE ADDED TO THE LOADING DOCK AREA.
6. BUILT-UP SLAB. 8" CONCRETE WALLS AROUND PERIMETER AND AT THE FLIP. SEE ARCHITECTURAL DRAWINGS AND TYPICAL SLAB DETAILS. SEE ALSO FOR REINFORCING AND INFORMATION NOT SHOWN.
7. SEE ARCHITECTURAL EDGE OF SLAB PLANS FOR ADDITIONAL DIMENSIONS.
SCALE: 1/8"=1'-0"
EXHIBIT E

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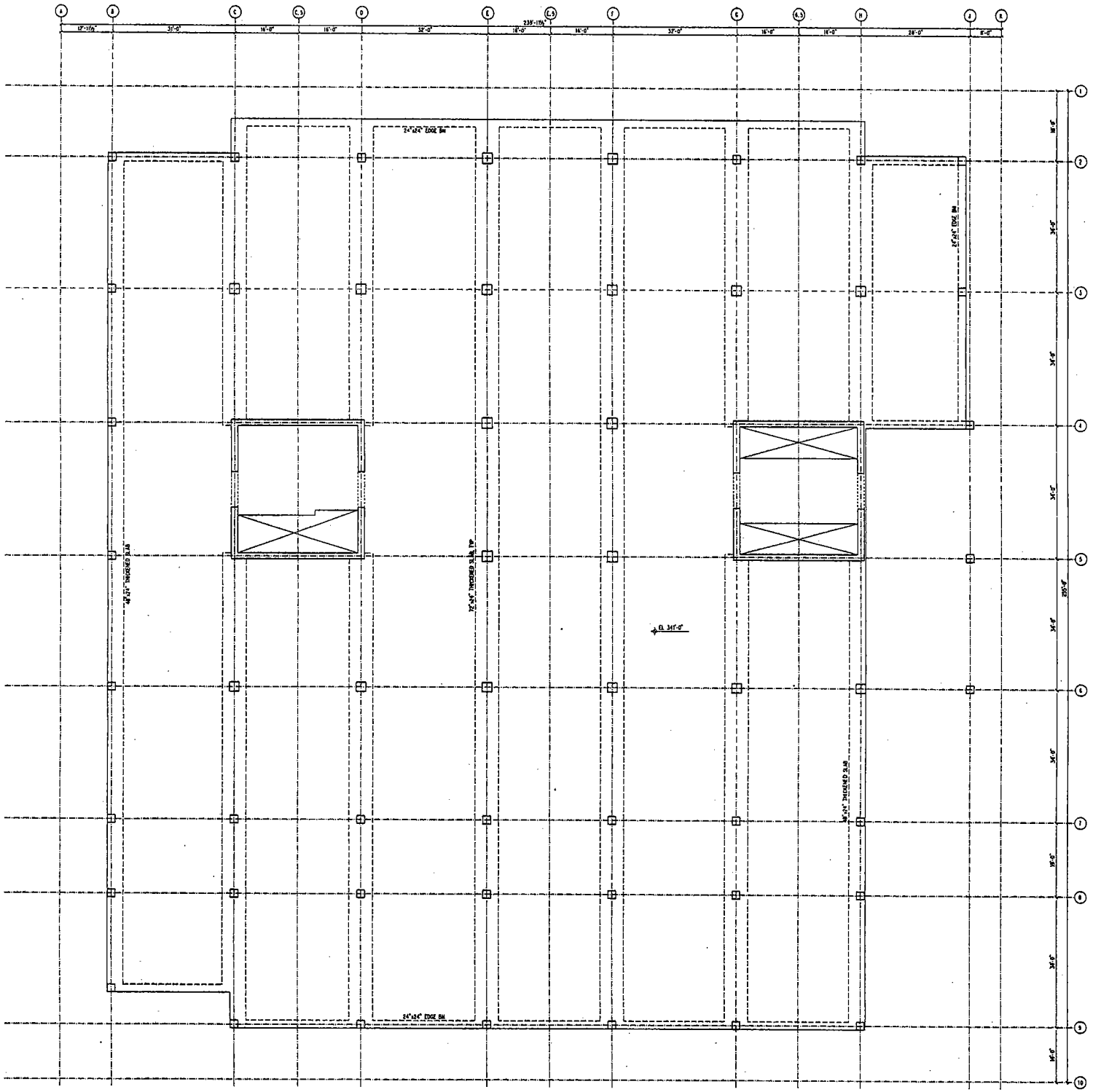
GARAGE PERMIT SET
LEVEL 01/S REINFORCING PLAN
S2.06R
TRIM. REINFORCING SCHEDULE
TRIM. REINFORCING SCHEDULE
TRIM. REINFORCING SCHEDULE

EXHIBIT E



REFERENCE DRAWINGS

G0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 10 INCH THICK N1LD REINFORCED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. BUMPS - SEE TYPICAL RAIL SUPPORT DETAIL ON S4.101. TYPICAL STEEL DETAILS, FOR ELEVATOR RAIL SUPPORTS. ADDITIONAL SUPPORT FOR ELEVATOR RAILS BEYOND WHAT IS SHOWN IS THE RESPONSIBILITY OF THE ELEVATOR SUPPLIER.
6. BUILT-UP SLAB: 8" CONCRETE WALLS AROUND PERIMETER METAL STUDS AT 8'-0" ON CENTER, INTERIOR. SEE TYPICAL SLAB DETAILS, S4.104, FOR REINFORCING AND INFORMATION NOT SHOWN.

ESTIMATED REBAR QUANTITIES ABOVE LEVELS S AND 01

ELEMENT *	ESTIMATED QUANTITY
COLUMNS	550 LB/CY
SHEAR WALLS	350 LB/CY
BEAMS	250 LB/CY
SLABS (INCLUDING THICKENED SLABS)	4.5 LB/SF

SCALE: 1/8" = 1'-0"

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PROJ. NO:		00000.00
DATE:		YYYY/MM/DD

LEVEL 02 FRAMING PLAN

S2.08

EXHIBIT E

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LEVEL 03 FRAMING PLAN
S2.09
NOTES
REFERENCE DRAWINGS
SCALE: 1/8"=1'-0"

EXHIBIT E

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KLEMENCIC
GARAGE
PERMIT SET
LEVEL 04
FRAMING
PLAN
S2.10
NOTES
REFERENCE DRAWINGS
SCALE
1/8"=1'-0"

EXHIBIT E

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GARAGE
PERMIT SET

LEVEL 05
FRAMING
PLAN

S2.11

SCALE:
1/8"=1'-0"

REFERENCE DRAWINGS

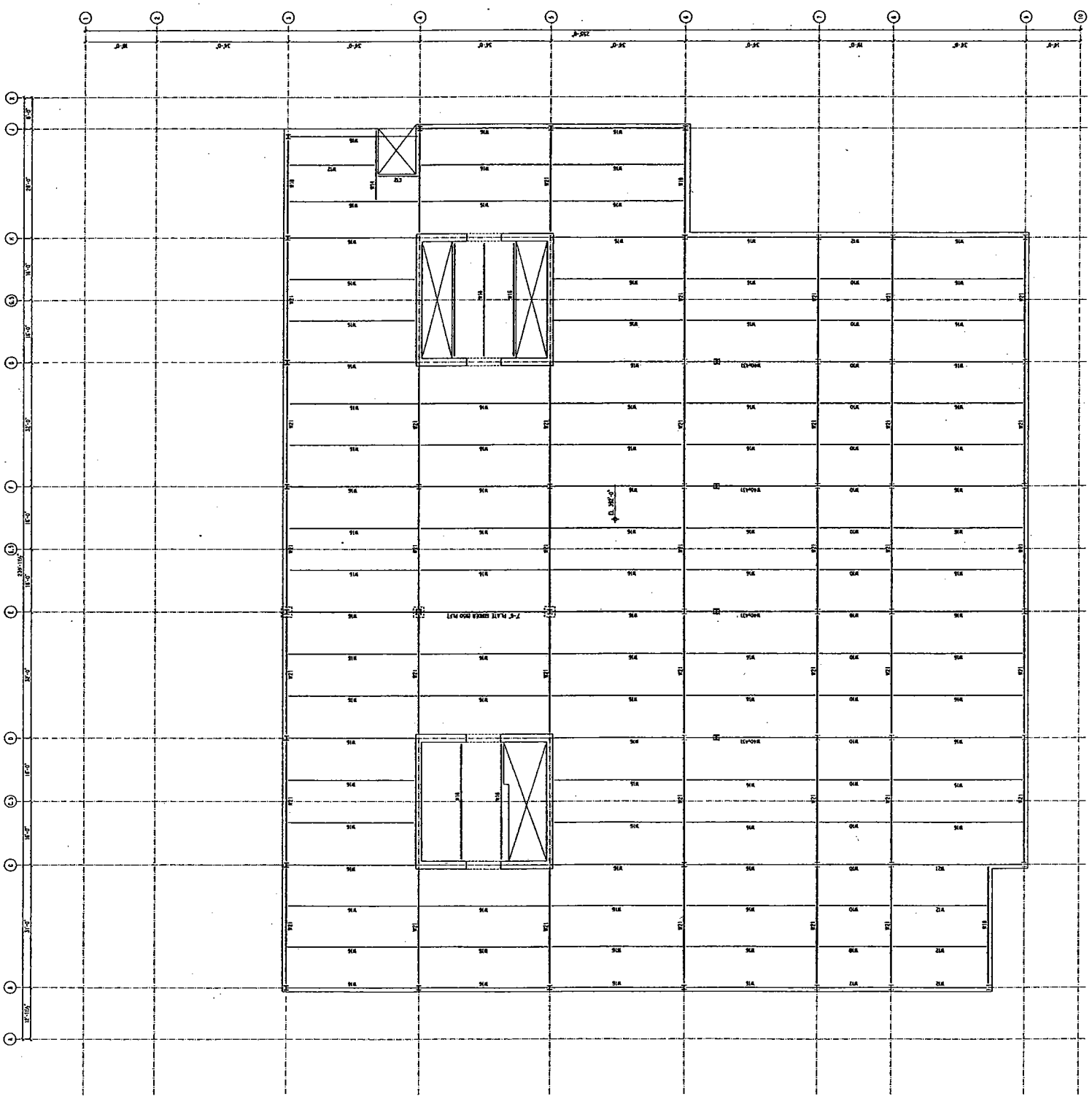
S0 ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1 FOUNDATION PLANS
S2 TYPICAL DETAILS AND SCHEDULES
S3 CONCRETE SECTIONS AND DETAILS
S4 STEEL FRAMING AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 2IN. THICKER OF CONCRETE ON 3 INCH DEEP METAL DECK. SLAB REINFORCING SHOWN ON PLAN IS IN ADDITION WITH WWR4.5XW4.5, REINFORCING SHOWN IN PLAN, THE REINFORCING SHOWN IN THE TYPICAL DETAILS IS IN ADDITION TO THIS REINFORCING.

ESTIMATED STRUCTURAL STEEL QUANTITIES ABOVE LEVEL 4

ELEMENT	ESTIMATED QUANTITY
COLUMNS	2 LB/SF
BEAMS AND BRACING TRANSFER GIRDERS	6 LB/SF



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GARAGE
PERMIT SET

06/15/2006	ADDENDUM
08/30/2006	ADDENDUM
PROJ. NO.	0000.00
DWG. NO.	YYYYMMDD

LEVELS 06-14
FRAMING
PLAN

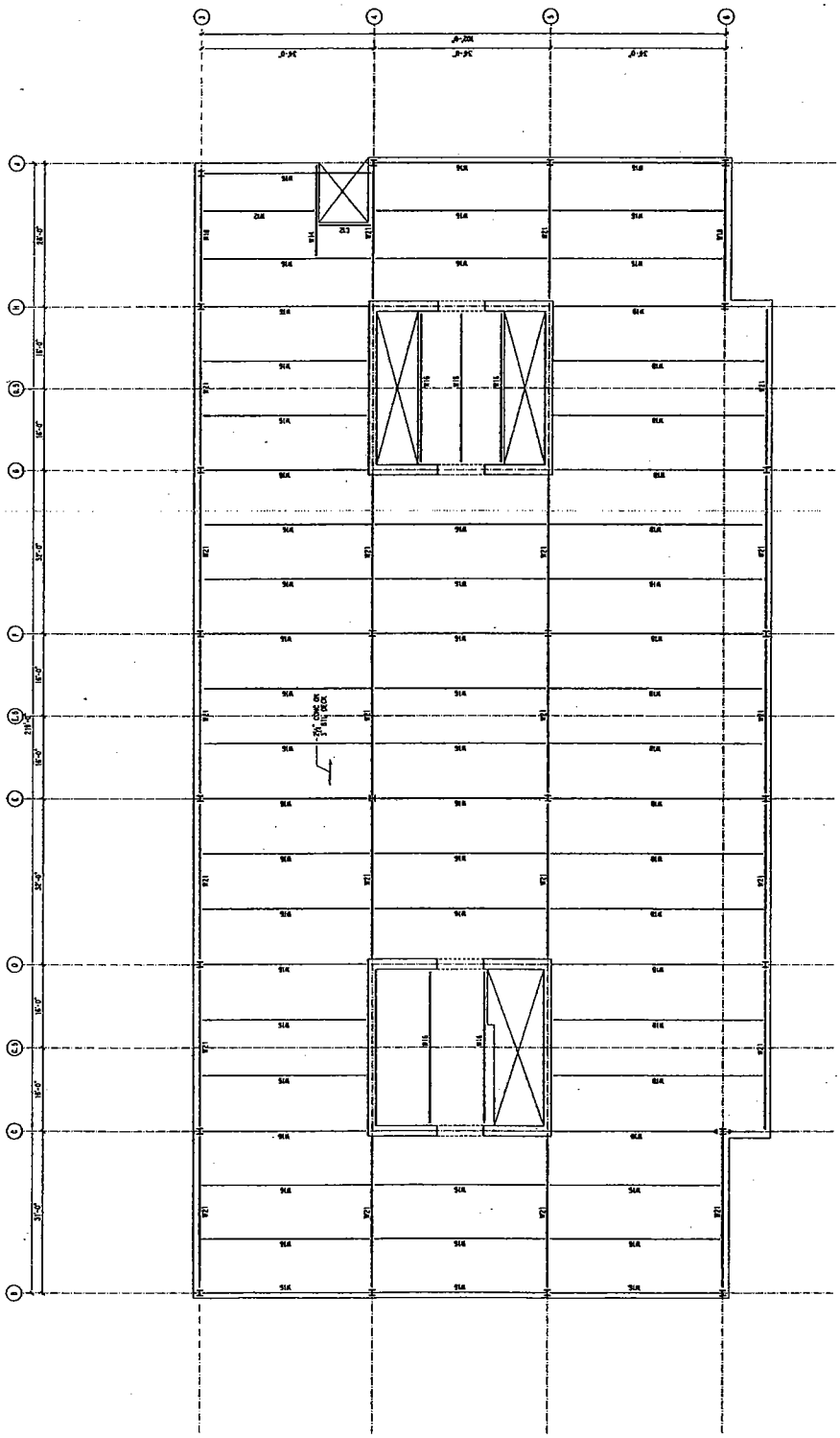
S2.12

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. FLOOR MAPS
S2. ELEVATIONS
S3. TYPICAL DETAILS AND SPECIFICS
S4. CONCRETE SECTIONS AND DETAILS
S5. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 2½ INCHES ON CONCRETE ON 3 INCH COMPOSITE STEEL DECK. WELDED WIRE REINFORCE DIAPHRAGM PLANE, AND IN THE TYPICAL DETAILS IS IN ADDITION TO THIS AS REQUIRED.



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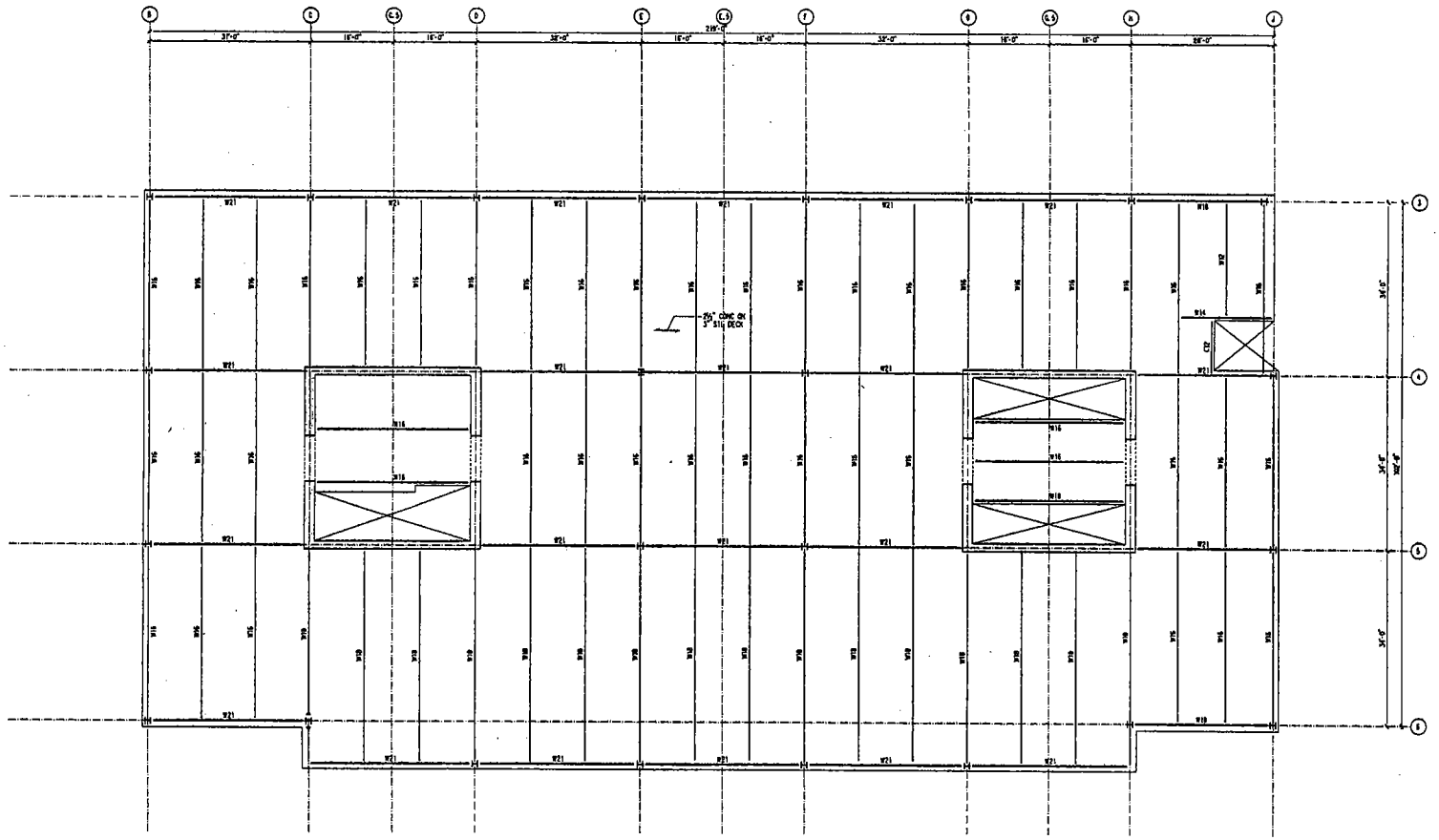

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 8½ INCHES ON CONCRETE ON 3 INCH COMPOSITE STEEL DECK, UNLESS NOTED OTHERWISE. REINFORCE WITH WWF6x6xW2.9xW2.9. REINFORCING SHOWN ON PLAN, THE DIAPHRAGM PLANS, AND IN THE TYPICAL DETAILS IS IN ADDITION TO THIS REINFORCING.

SCALE: 1/8" = 1'-0"

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION

drawn by: DLJ
proj. no: 00000.00
date: YYYY/MM/DD

PENTHOUSE LEVEL FRAMING PLAN

S2.21

EXHIBIT E

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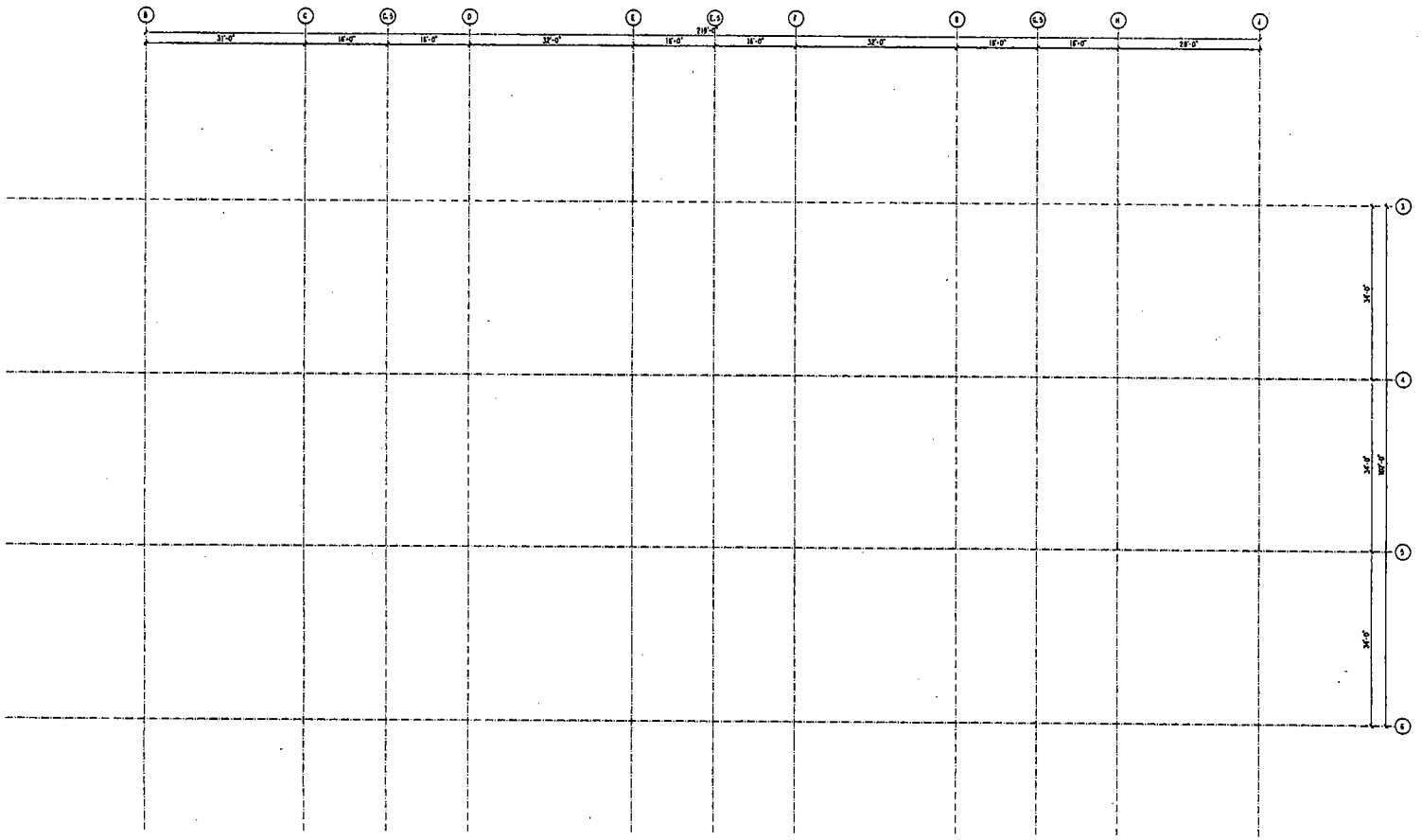

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

FOUNDATION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB ON GRADE IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. (ON SLAB ON GRADE SLOPES TO DRAIN - SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS)
2. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE. REINFORCED PER TYPICAL SLAB ON GRADE DETAILS. SLAB ON GRADE SHALL BE PLACED ATOP COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. [ ] INDICATES TOP OF FOOTING ELEVATION. TOP OF FOUNDATION COINCIDES WITH BOTTOM OF SLAB ON GRADE, UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, UNLESS NOTED OTHERWISE.
4. "F5" INDICATES FOOTING MARK. SEE COLUMN FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.
5. "C2" INDICATES CONCRETE COLUMN MARK. SEE TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE.
6. REFERENCE ALL CONSTRUCTION DOCUMENTS FOR SIZE, EXTENT, AND LOCATION OF CONCRETE CURBS, HOUSEKEEPING PADS, CMU WALLS, PLANTER WALLS, BOLLARDS, EDGE ANGLES, AND SLAB PENETRATIONS. REINFORCE PER TYPICAL DETAILS.
7. "WF1.5" INDICATES WALL FOOTING MARK. SEE WALL FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.

SCALE: 1/8" = 1'-0"

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www.mka.com

GARAGE PERMIT SET

NO.	DATE	DESCRIPTION

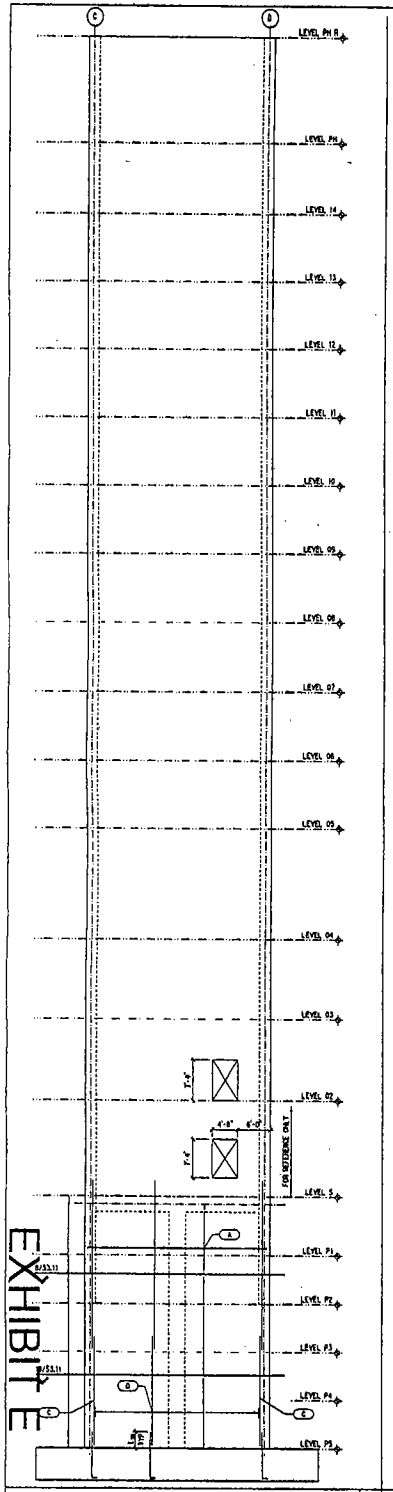
DRAWN BY: DLJ
PROJ. NO.: 00000.00
DATE: YYYY/MM/DD

PENTHOUSE ROOF FRAMING PLAN

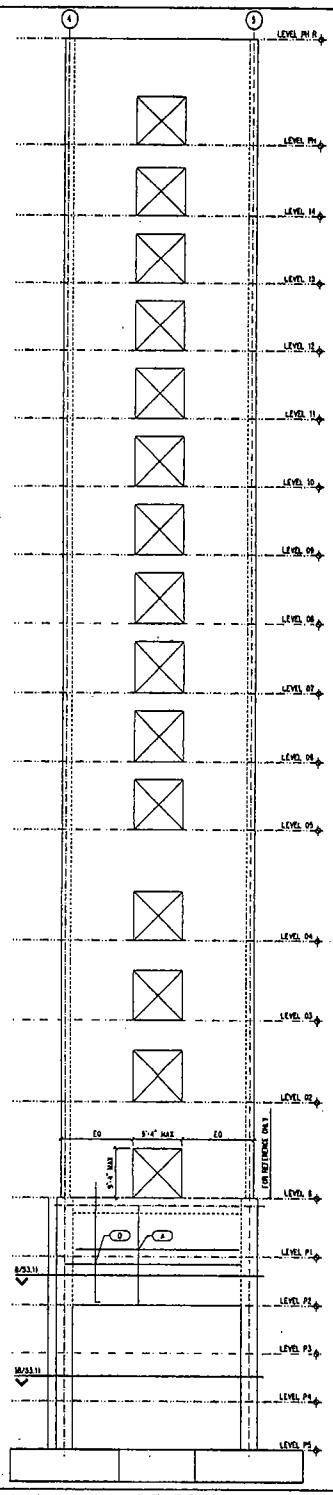
S2.22

EXHIBIT E

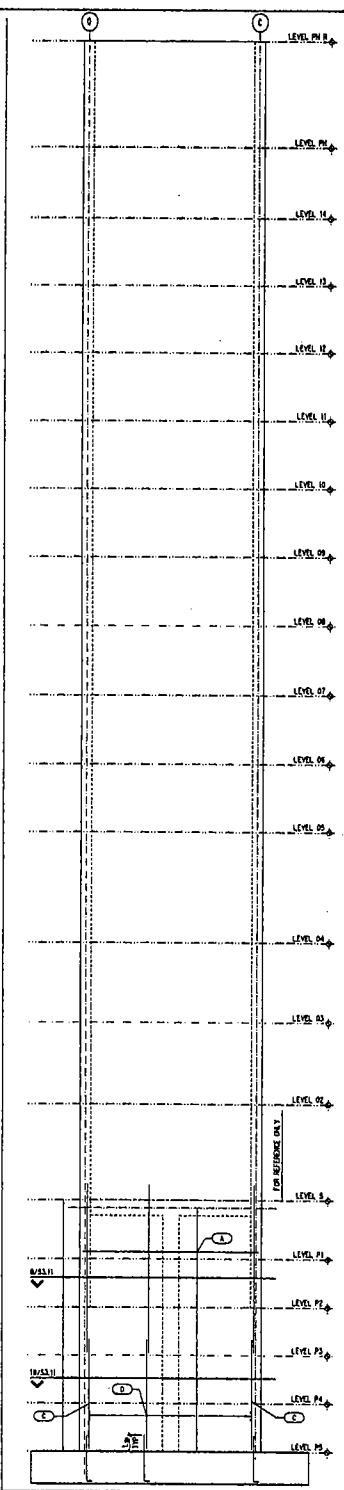
9/12/2006 4:30:14 PM user: DLM plot: LM3_ANDING_STAIR1 plt cfg: PDF 15 x 15.MOD.PLT file: J:\HARBORVIEW\M&J\S2_22.DGN model: SHEET variant: V8



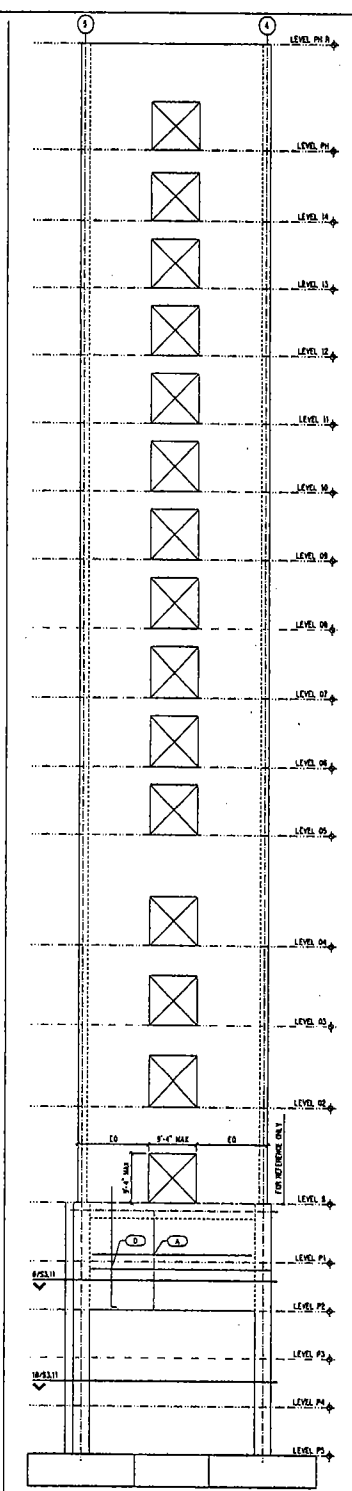
1/4" = 1'-0" ELEVATION 16



1/4" = 1'-0" ELEVATION 17



1/4" = 1'-0" ELEVATION 18

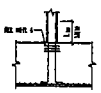


1/4" = 1'-0" ELEVATION 19

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
A	(3) #5 @ 4"	2 HOOPS & TIE, SEE SECT
B	#5 @ 12"	EF
C	(16) #11	PROVIDE IN LIEU OF TYP REINF
D	#5 @ 6"	EF
E	#5 @ 6"	EF

SHEAR WALL NOTES:

1. WALL OPENINGS NOT SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
2. ALL VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES FOR CRITERIA.
3. PROVIDE CONSTRUCTION JOINT AT FACE OF WALLS. FLOOR SLABS ARE NOT TO BE POURED THROUGH SHEAR WALLS.
4. COORDINATE ALL OPENING LOCATIONS, DIMENSIONS, AND EDGE CONDITIONS WITH ARCHITECTURAL DRAWINGS.
5. COORDINATE FINAL SIZES AND LOCATIONS OF ALL MECHANICAL OPENINGS WITH ALL DISCIPLINES AND NOTIFY ARCHITECT OF ANY INCREASES IN SIZE OR CHANGES IN SPECIFIED DIMENSIONS PRIOR TO CONSTRUCTION.
6. WHERE HOOPS AND TIES OCCUR IN WALL IMMEDIATELY ABOVE FOUNDATION, CONTINUE HOOPS AND TIES 12" MINIMUM INTO FOUNDATION.
7. PROVIDE FOUNDATION DOWELS TO MATCH VERTICAL STEEL. LAP DOWELS 1.3 TO WALL BARS, EXTEND DOWEL TO FOUNDATION BOTTOM REINFORCING AND PROVIDE A 90° HOOK.



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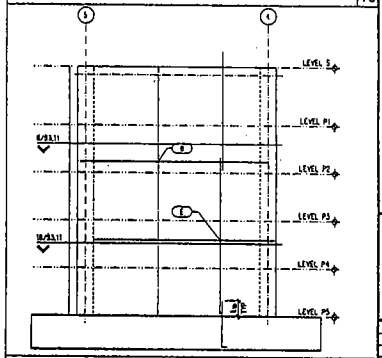

1/4" = 1'-0" ELEVATION 15

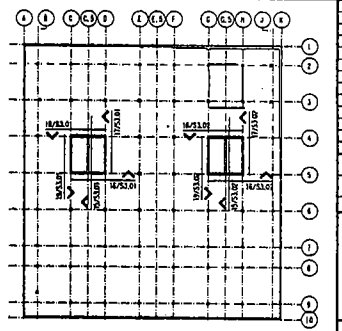

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EXHIBIT E

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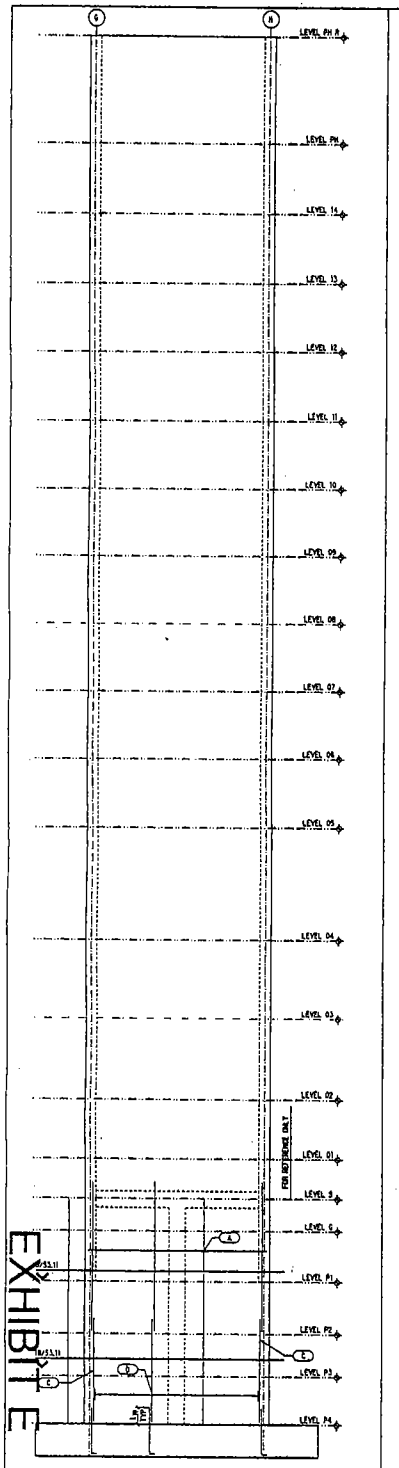
GARAGE PERMIT SET

NO	DATE	DESCRIPTION
DRAWN BY		MKA MGR: DLJ
PROJ NO:		000000.00
DATE:		YYYY/MM/DD

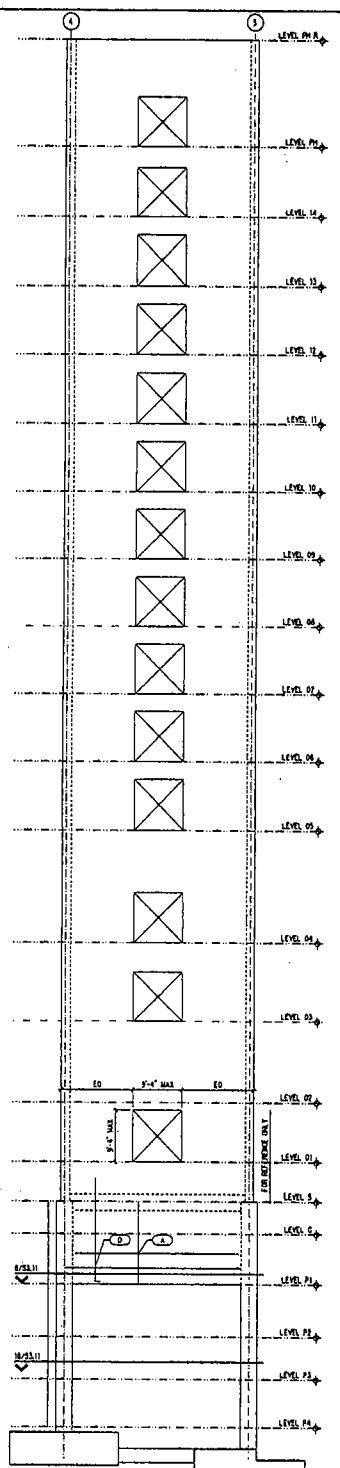
COREWALL ELEVATIONS

S3.01

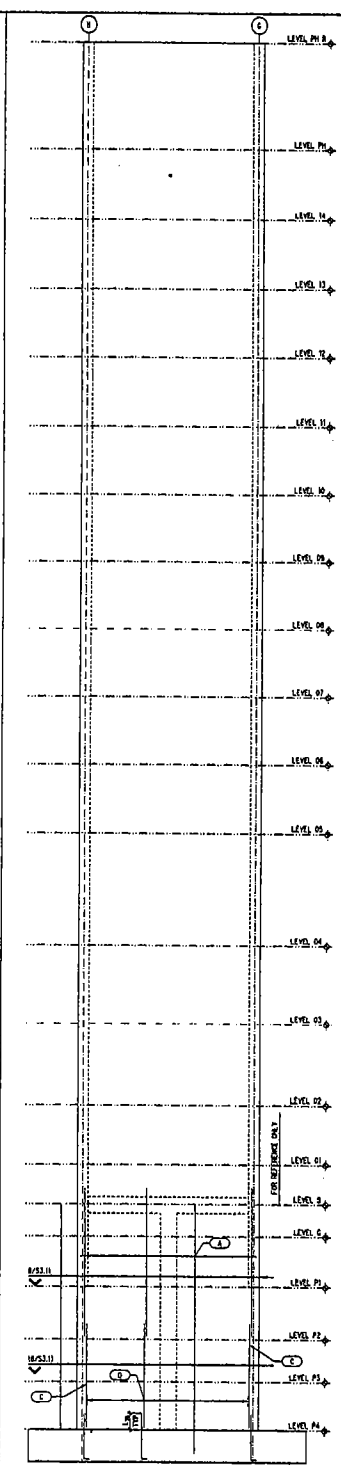
9/12/2006 4:20:23 PM user: DJM pct: MKA_NBBJD_STRUCT plt cfg: PDF FS PTS MONO.PLT file: J:\HARBORVIEW\NBBJ03.01.DGN model: SHEET version: V8



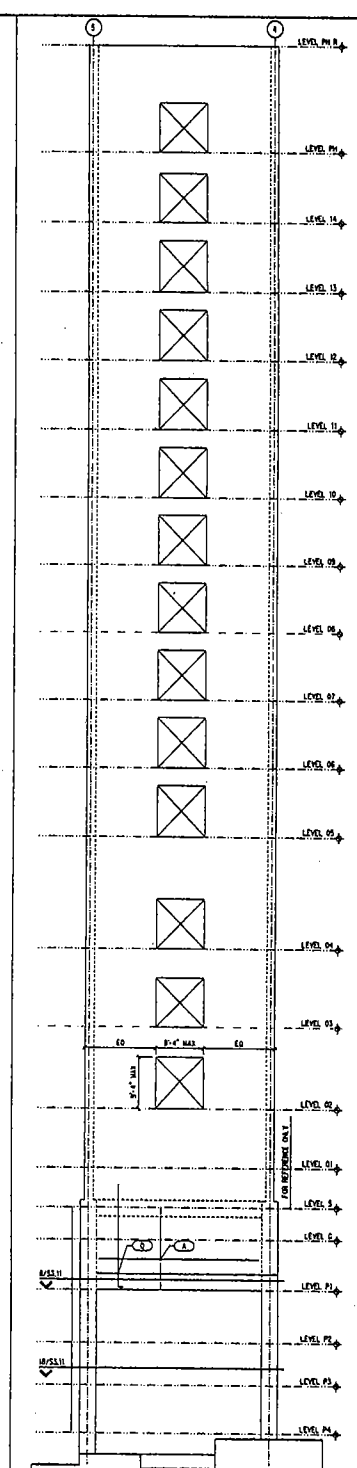
1/4" = 1'-0" ELEVATION 16



1/4" = 1'-0" ELEVATION 17



1/4" = 1'-0" ELEVATION 18

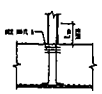


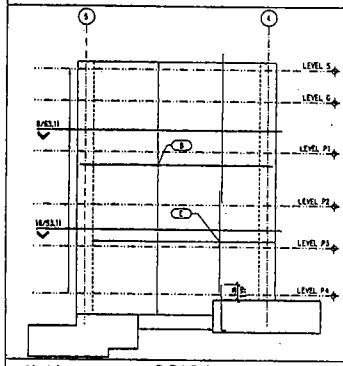
1/4" = 1'-0" ELEVATION 19

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
A	(3) #5 @ 4"	2 HOOPS & TIE, SEE SECT
B	#5 @ 16"	EF
C	(16) #11	PROVIDE IN LIEU OF TYP REINF
D	#6 @ 6"	EF
E	#6 @ 6"	EF

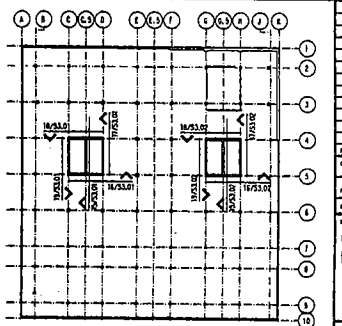
SHEAR WALL NOTES:

1. WALL OPENINGS NOT SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
2. ALL VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES FOR CRITERIA.
3. PROVIDE CONSTRUCTION JOINT AT FACE OF WALLS. FLOOR SLABS ARE NOT TO BE POURED THROUGH SHEAR WALLS.
4. COORDINATE ALL OPENING LOCATIONS, DIMENSIONS, AND EDGE CONDITIONS WITH ARCHITECTURAL DRAWINGS.
5. COORDINATE FINAL SIZES AND LOCATIONS OF ALL MECHANICAL OPENINGS WITH ALL DISCIPLINES AND NOTIFY ARCHITECT OF ANY INCREASES IN SIZE OR CHANGES IN SPECIFIED DIMENSIONS PRIOR TO CONSTRUCTION.
6. WHERE HOOPS AND TIES OCCUR IN WALL IMMEDIATELY ABOVE FOUNDATION, CONTINUE HOOPS AND TIES 12" MINIMUM INTO FOUNDATION.
7. PROVIDE FOUNDATION DOWELS TO MATCH VERTICAL STEEL. LAP DOWELS 1.3 TO WALL BARS. EXTEND DOWEL TO FOUNDATION BOTTOM REINFORCING AND PROVIDE A 90° HOOK.





1/4" = 1'-0" ELEVATION 15



10

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HARBORVIEW
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JEFFERSON
BUILDING

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KLEMENCIC
ASSOCIATES

GARAGE
PERMIT SET

REV	DATE	DESCRIPTION
DRAWN BY:		PROJ MGR: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MMM/DD

COREWALL
ELEVATIONS

S3.02

EXHIBIT E

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

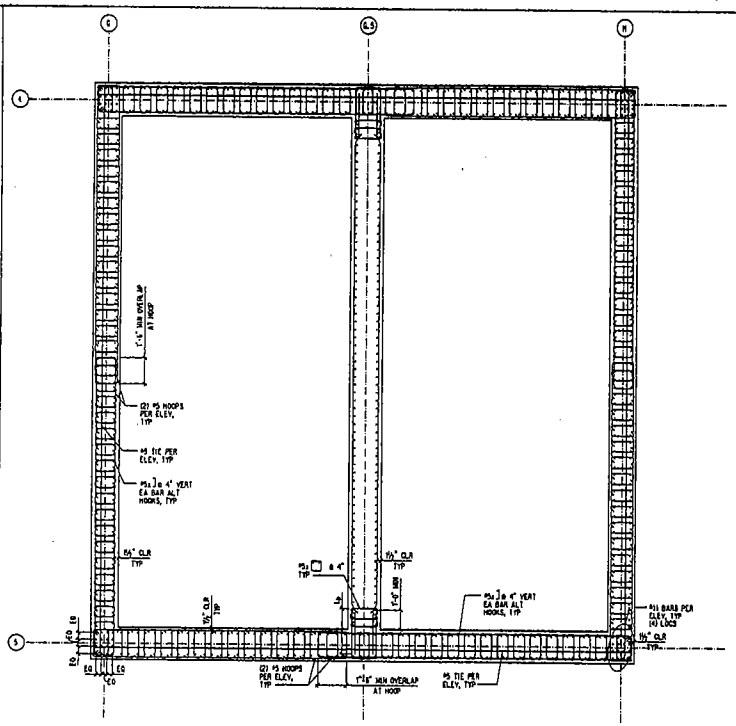
DRAWN: DLJ
PROJECT NO: 00000.00
DATE: YYYY/MM/DD

SHEARWALL SECTIONS

S3.11

EXHIBIT E

1 DETAIL
½" = 1'-0"

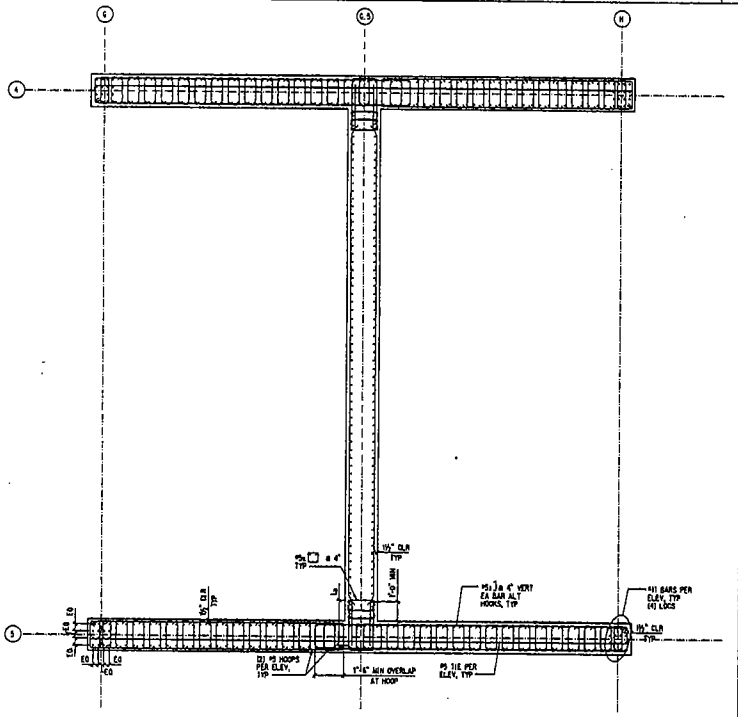


6 SHEARWALL SECTION
½" = 1'-0"

8 SHEARWALL SECTION
½" = 1'-0"

10 SHEARWALL SECTION
½" = 1'-0"

11



16 SHEARWALL SECTION
½" = 1'-0"

18 SHEARWALL SECTION
½" = 1'-0"

20 SHEARWALL SECTION
½" = 1'-0"

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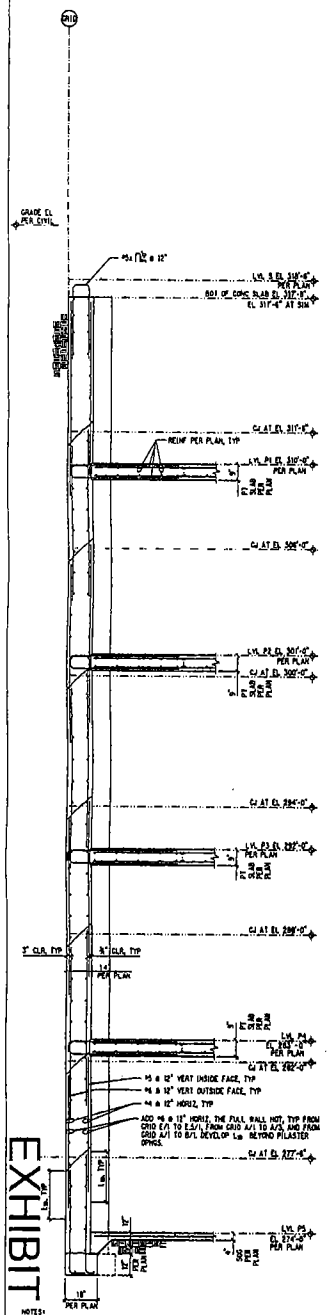
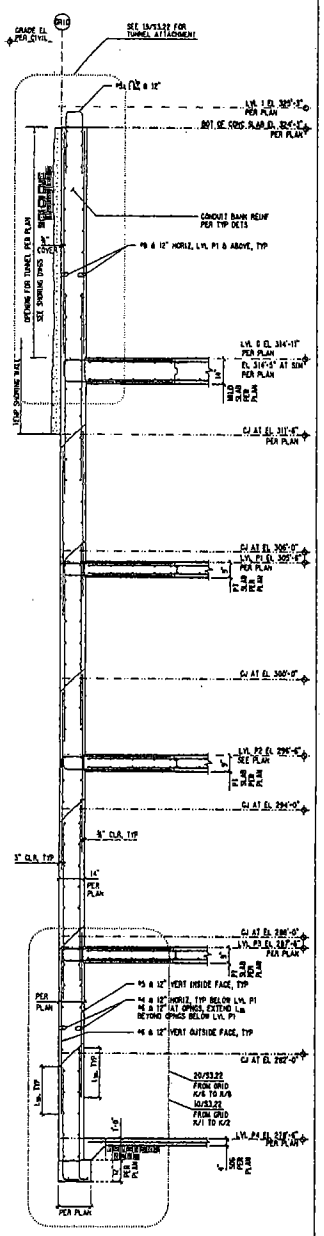


EXHIBIT E

NOTES:

1. OPENINGS IN SLABS ARE NOT SHOWN. REFER TO ARCHITECTURAL DRAWINGS FOR OPENING LOCATIONS. DOWELS ARE NOT REQUIRED AT OPENINGS.
2. CONSTRUCTION JOINTS ARE SHOWN FOR REFERENCE ONLY AND ARE DETERMINED BY THE CONTRACTOR.
3. SEE THE GEOTECHNICAL DRAWINGS FOR SHORING TYPE AND EXTENT.

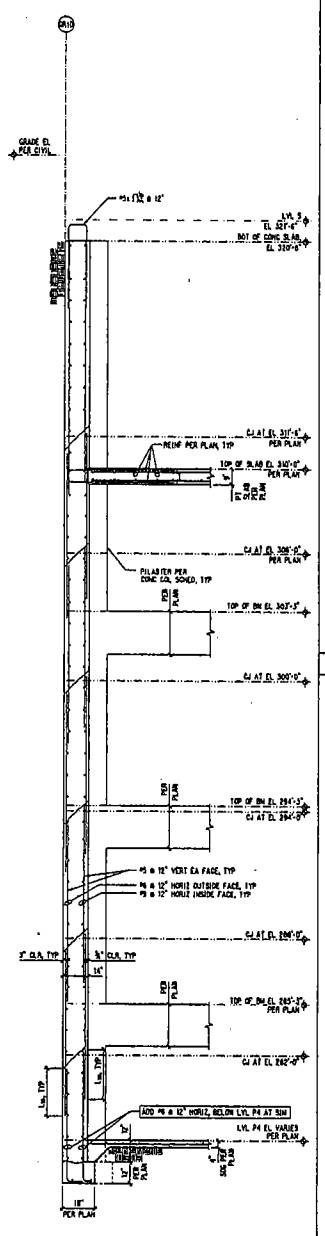
W" = 1'-0" DETAIL 16



NOTES:

1. SEE 18/S3.21 FOR INFORMATION NOT SHOWN.

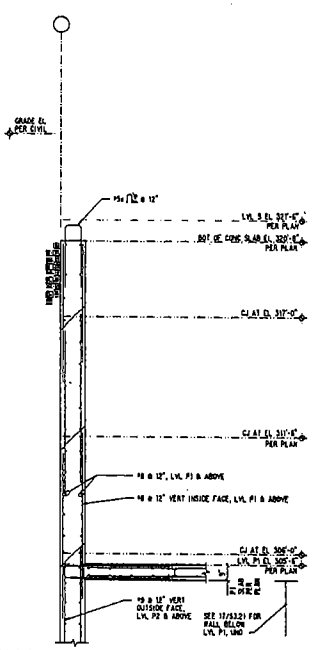
17



NOTES:

1. SEE 18/S3.21 FOR INFORMATION NOT SHOWN.

18



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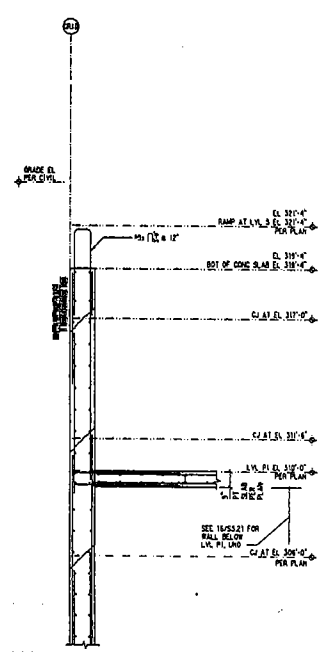

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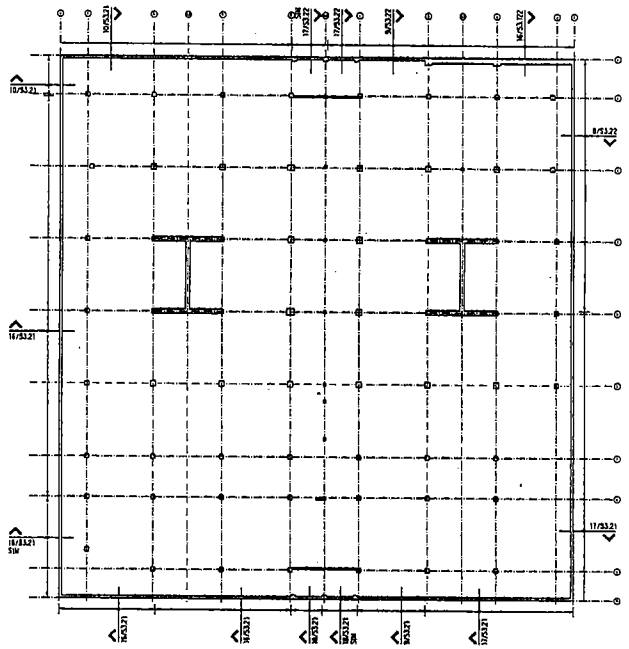

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GARAGE PERMIT SET

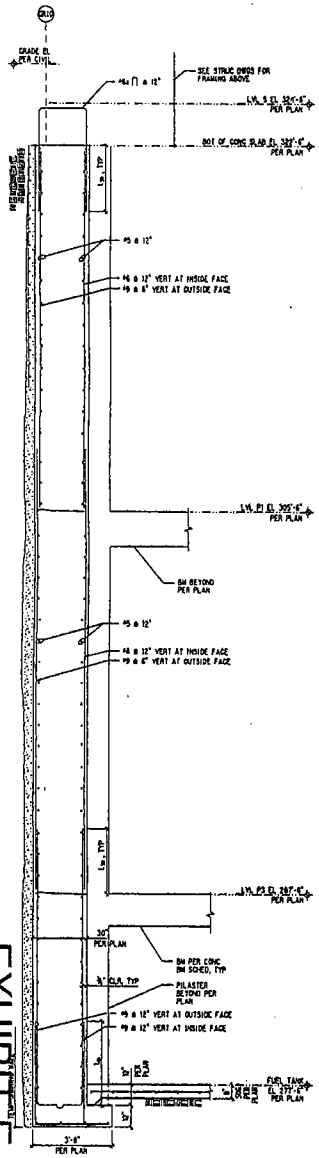
KEY	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJECT NO.: 00000.00
DATE: YYYY/MM/DD

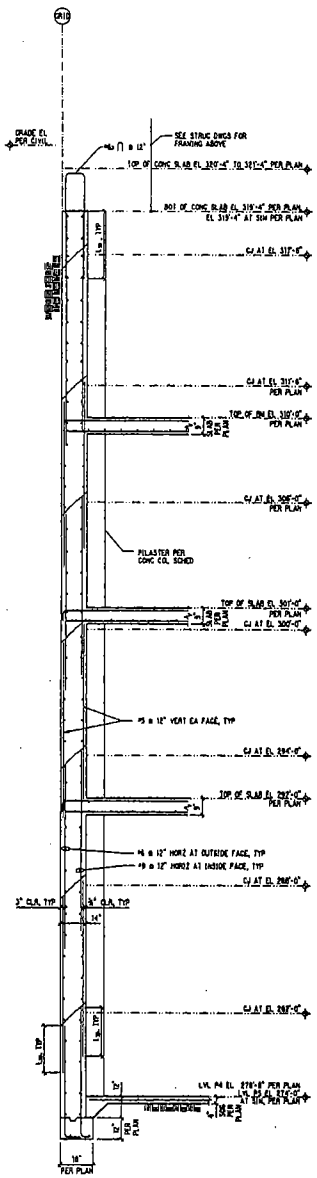
BASEMENT WALL SECTIONS

S3.21

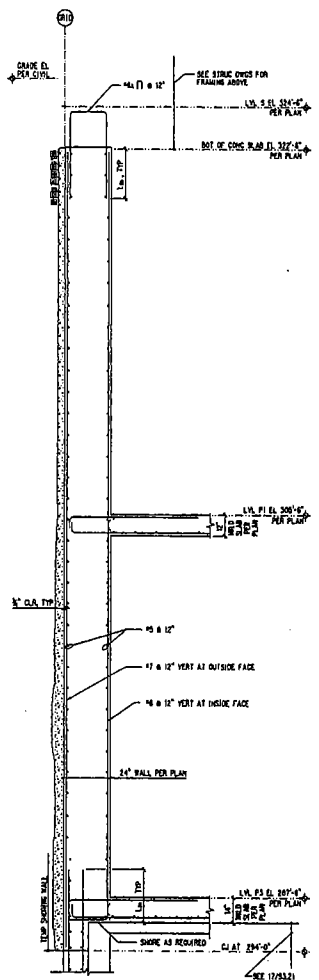
9/12/2006 4:20:58 PM user:DJM pref:MKA_HYBRID_STRUCT plotstyle:PDF FS VIS VGNO.PLT file:K:\ARCH\PROJECTS\2003\2003.21\DGN model:SHEET version:V8



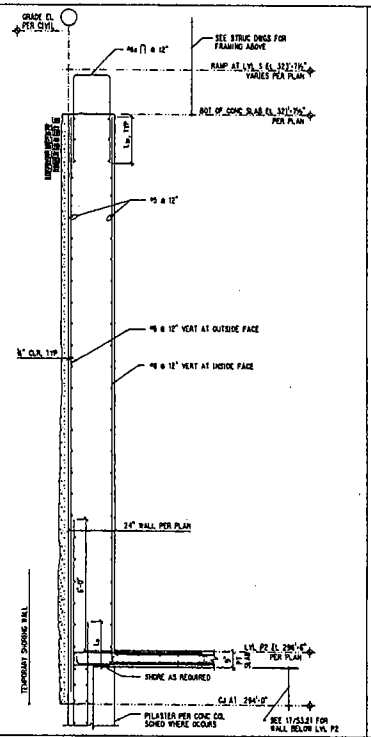
½" = 1'-0" SECTION 16



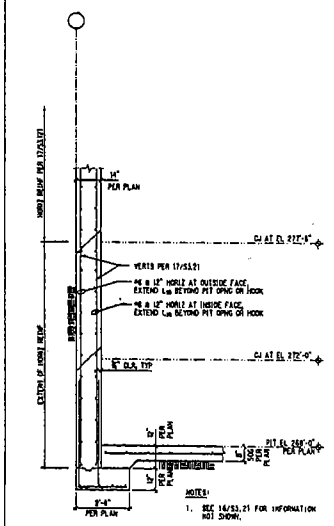
½" = 1'-0" SECTION 17



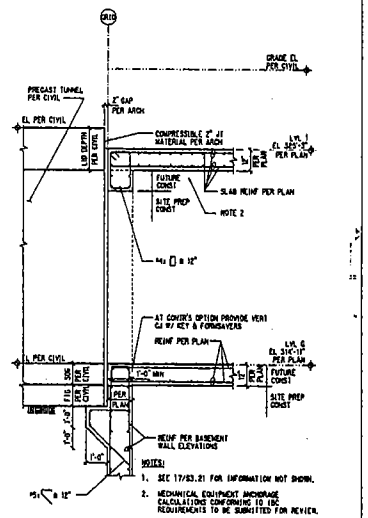
½" = 1'-0" SECTION 18



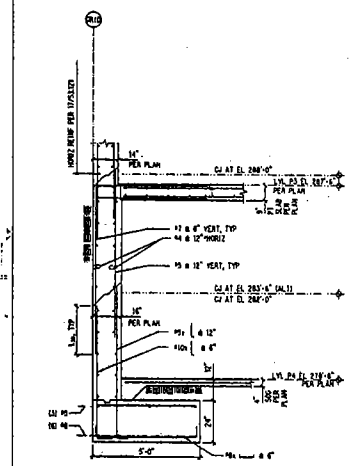
½" = 1'-0" SECTION 9



½" = 1'-0" SECTION 10



½" = 1'-0" SECTION 19



½" = 1'-0" SECTION 20

EXHIBIT E

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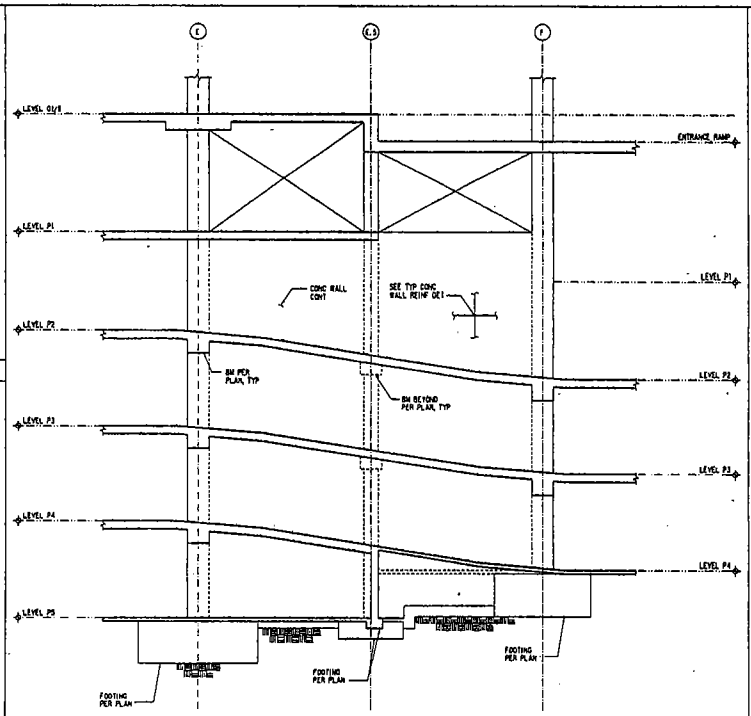
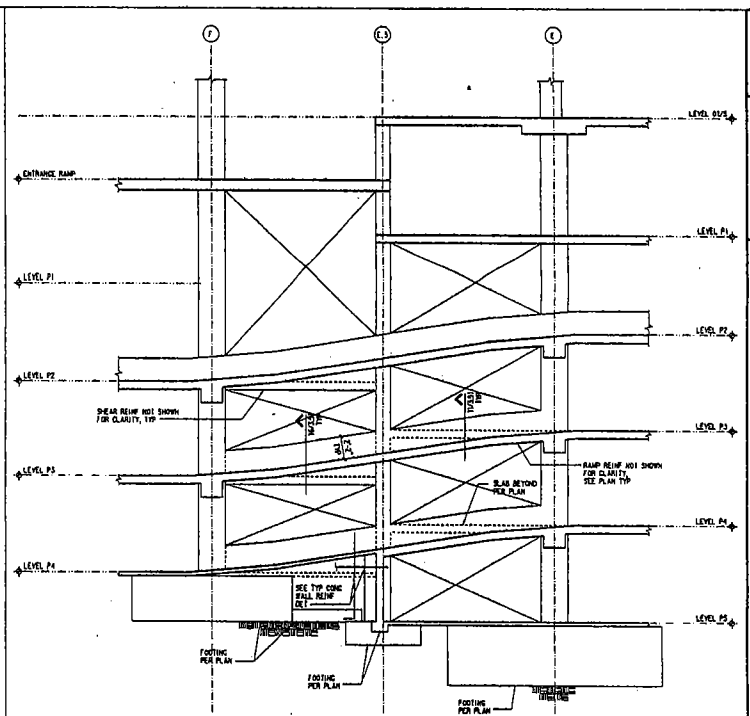
BASEMENT WALL SECTIONS

S3.22

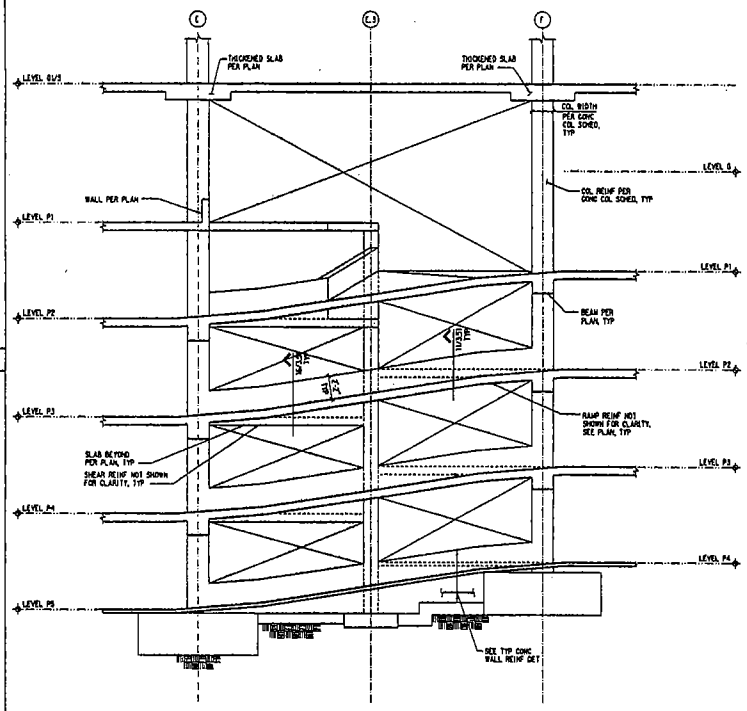
9/12/2006 4:31:12 PM user:DJM pctl:MKA_HYBRID_STRUCT pltcfg:PDF FS MTS MONO.PLT file:J:\HARBORVIEW\A0253_22.DGN model:SHEET version:V8



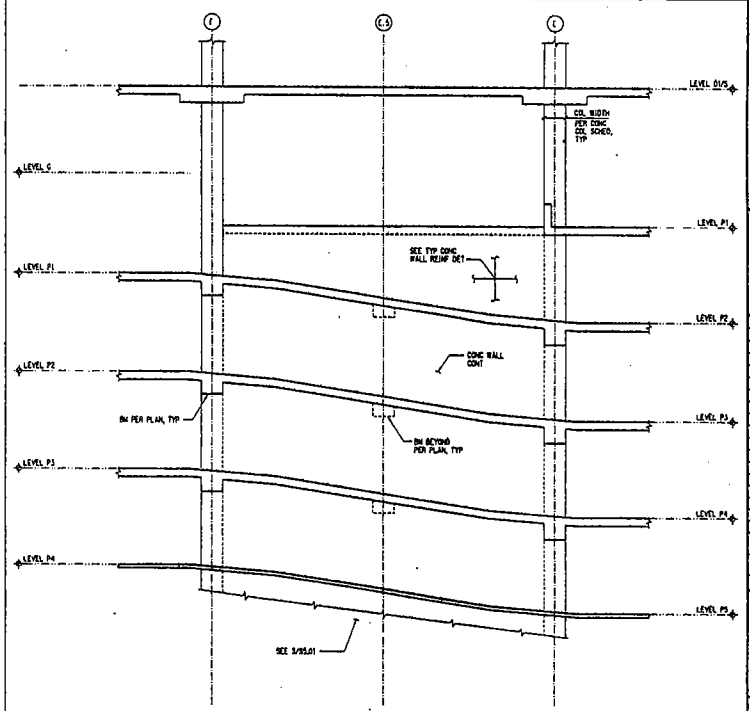
WALL ELEVATION NEAR GRID 2



WALL ELEVATION NEAR GRID 3

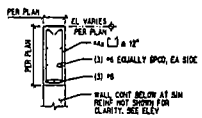


WALL ELEVATION NEAR GRID 8



WALL ELEVATION NEAR GRID 9

DETAIL



SECTION

SECTION

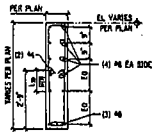


EXHIBIT E

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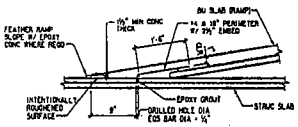
HARBORVIEW NINTH & JEFFERSON BUILDING

GARAGE PERMIT SET

ELEVATIONS

S3.51

5/12/2006 4:31:27 PM user:DJH pref:M4_HYBRID_STRUCT plttrdg:PDF FS 915 MONO.PLT file:J:\HARBORVIEW\82163_S3.DGN model:SHEET version:V8

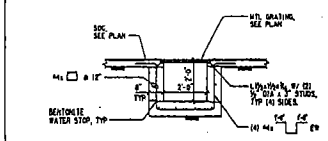


BUILT-UP RAMP TO STRUCTURAL SLAB

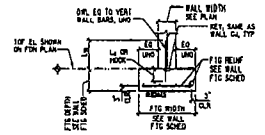
NOTES:

1. TYPICAL BUILT-UP SLAB IS 2 1/2 INCHES CONCRETE OVER 3 INCHES METAL DECK WITH #3 AT 12 INCHES.

TYPICAL BUILT-UP RAMP | 1



TYPICAL SUMP PIT | 2



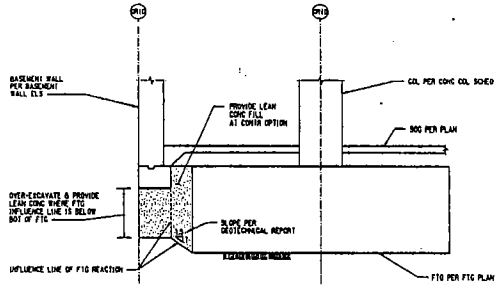
WALL FOOTING SCHEDULE

FOOTING MARK	FOOTING WIDTH	FOOTING DEPTH	LONGITUDINAL REINFORCING	TRANSVERSE REINFORCING	REMARKS
WF1.5	1'-6"	1'-0"	(3) #4	NONE	
WF2.5	2'-6"	1'-0"	(4) #4	#4 @ 24"	
WF3.7	3'-7"	1'-0"	(5) #4	#4 @ 24"	
WF5	5'-0"	2'-0"	NOTE 3	NOTE 3	
WF8	8'-0"	2'-6"	(7) #8	#5 @ 12"	
WF20	20'-0"	4'-0"	(20) #11 BOT (20) #6 TOP	#11 @ 12" BOT #6 @ 12" TOP	ADD (10) #11x15'-0" LONGIT BOT BARS AT EA END

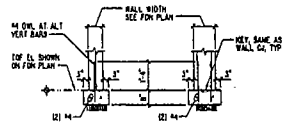
NOTES:

1. SEE TYPICAL COLUMN FOOTING DETAIL FOR EXCAVATION INFORMATION.
2. LAP SPLICE LONGITUDINAL REINFORCING Ld .
3. SEE BASEMENT WALL SECTIONS FOR REINFORCING.

TYPICAL WALL FOOTING | 3



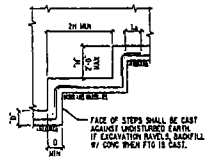
TYPICAL BUILT-UP RAMP | 5



NOTES:

1. USE ONLY WHERE NOTED ON PLANS.

TYP MINIMUM CONCRETE WALL FOOTING | 6



NOTES:

1. SEE TYPICAL WALL FOOTING DETAIL FOR ADDITIONAL INFORMATION.

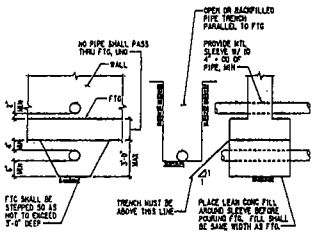
TYPICAL STEPPED WALL FOOTING | 7

COLUMN FOOTING SCHEDULE

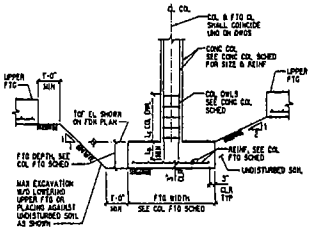
MARK	SIZE	DEPTH	REINFORCING EACH WAY BOTTOM	REMARKS
F4	4'-0"x4'-0"	1'-2"	(9) #4	
F5	5'-0"x5'-0"	1'-4"	(8) #4	
F6	6'-0"x6'-0"	1'-8"	(14) #4	
F7	7'-0"x7'-0"	2'-3"	(10) #6	
F9	9'-0"x9'-0"	2'-6"	(17) #6	
F10	10'-0"x10'-0"	2'-9"	(21) #6	
F11	11'-0"x11'-0"	3'-3"	(24) #6	
F12	12'-0"x12'-0"	3'-9"	(13) #9	
F13	13'-0"x13'-0"	4'-0"	(15) #9	
F15	15'-0"x15'-0"	4'-3"	(20) #9	
F16	16'-0"x16'-0"	4'-9"	(24) #9	
F17	17'-0"x17'-0"	5'-0"	(18) #11	
F20	20'-0"x20'-0"	5'-9"	(25) #11	
F22	22'-0"x22'-0"	6'-3"	(30) #11	

COLUMN FOOTING SCHEDULE | 9

10



TYP PIPE ENCASEMENT UNDER FOOTING | 11

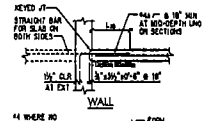


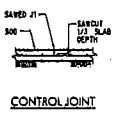
TYPICAL CONCRETE COLUM FOOTING | 12

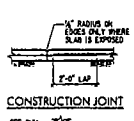
13

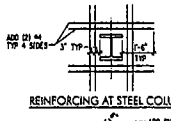
14

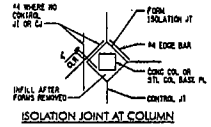
15

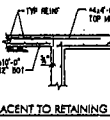


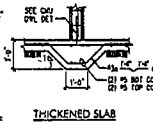


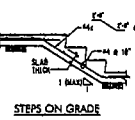


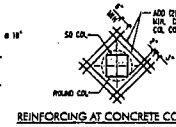












NOTES:

1. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE.
2. LOCATE CONSTRUCTION JOINTS UNDER PARTITIONS OR ON COLUMN LINES. PROVIDE CONTROL JOINTS ON ALL COLUMN LINES AND AT A MAXIMUM SPACING OF 30 x SLAB THICKNESS EACH WAY IN BETWEEN. PROVIDE CONTROL JOINTS AT ALL RE-ENTRANT CORNERS. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO ARCHITECT FOR REVIEW.
3. SAWED JOINTS SHALL BE MADE AS SOON AS THE JOINT CAN BE CUT WITHOUT EDGES RAVELING AND WITHIN 24 HOURS OF SLAB PLACEMENT. SAWED JOINTS SHALL BE FILLED WITH SEALANT AS COORDINATED WITH THE ARCHITECT.
4. LOCATE REINFORCING AT ONE-THIRD OF DEPTH FROM TOP OF SLAB.
5. TYPICAL SLAB REINFORCING:
   #4 @ 24" EACH WAY FOR 4" SLAB
   #4 @ 24" EACH WAY FOR 6" SLAB

TYPICAL SLAB ON GRADE | 18

19

20

EXHIBIT E

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MAGNUSSON KLEMENCIC ASSOCIATES
Structural + Civil Engineers
1301 Fifth Avenue, Suite 3200
Seattle, Washington 98101-2699
T: 206 292 1200 F: 206 292 1201
www.mka.com

GARAGE PERMIT SET

NO.	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJECT NO: 000000.00
DATE: YYYY/MM/DD

TYPICAL FOUNDATION DETAILS AND SCHEDULES

S4.01

5/12/2006 4:31:37 PM user:DLJM plt:NEA_ARCHIVE_STRUCT plt:tp:PW FS WTS 500KD.PLT file:J:\HARBORVIEW\DWGS\S4.01.DGN model:SHEET variant:V8

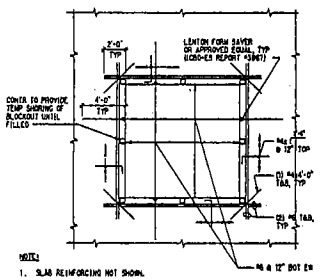
nbbj
220 VALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5055
FAX 206 223 5000

HARBORVIEW NINTH & JEFFERSON BUILDING

MAGNUSSON KLEMENCIC ASSOCIATES

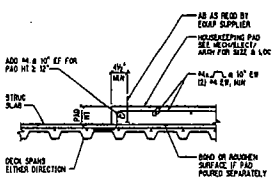
GARAGE PERMIT SET

EXHIBIT E

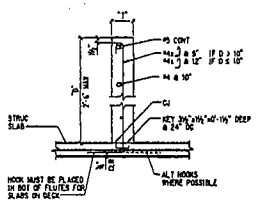


1/2" = 1'-0" DETAIL | 1

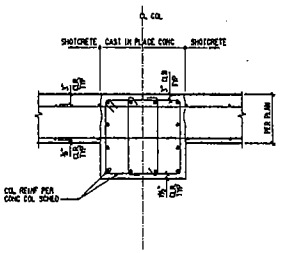
TOWER CRANE BLOCKOUT | 11



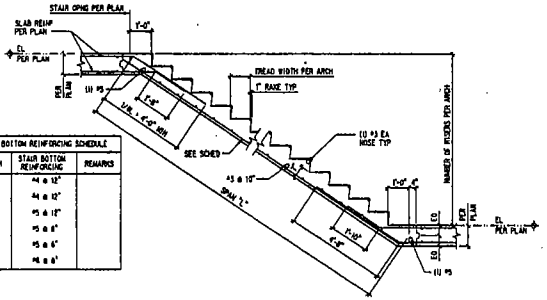
TYPICAL HOUSEKEEPING PAD | 3



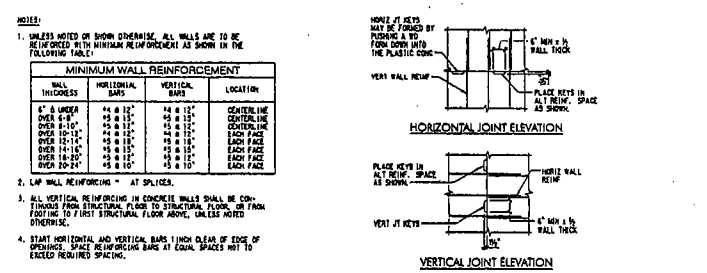
TYPICAL CONCRETE CURB | 7



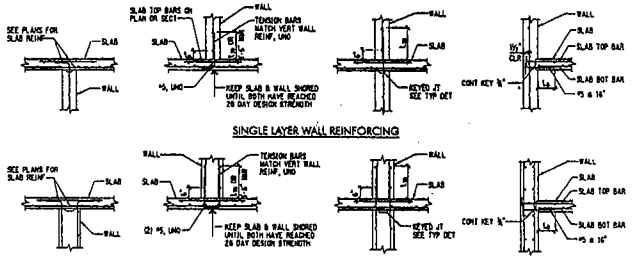
TYPICAL PILASTER | 8



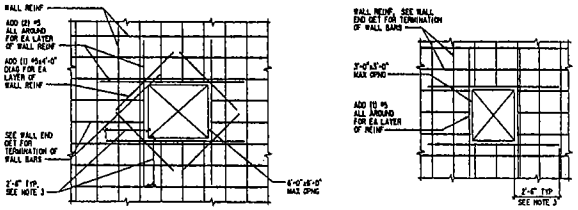
TYPICAL CAST-IN-PLACE STAIR | 13



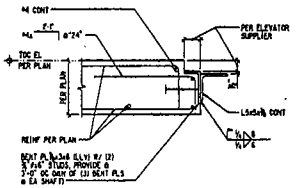
TYPICAL CONCRETE WALL REINFORCING | 5



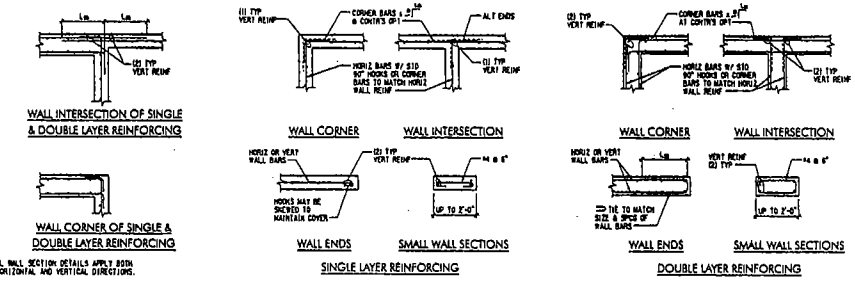
TYPICAL CONCRETE REINFORCING AT INTERSECTIONS OF SLABS AND WALLS | 10



TYPICAL CONCRETE WALL OPENING REINFORCEMENT | 15



TYPICAL ELEVATOR SILL DETAIL | 17



TYPICAL CONCRETE WALL REINFORCING | 20

DRAWN BY	DLJ
PROJ NO	00000.00
DATE	YYYY/MM/DD

TYPICAL CONCRETE DETAILS AND SCHEDULES

S4.02

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EXHIBIT E

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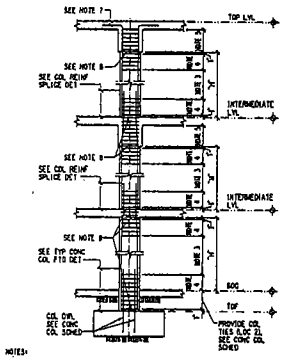
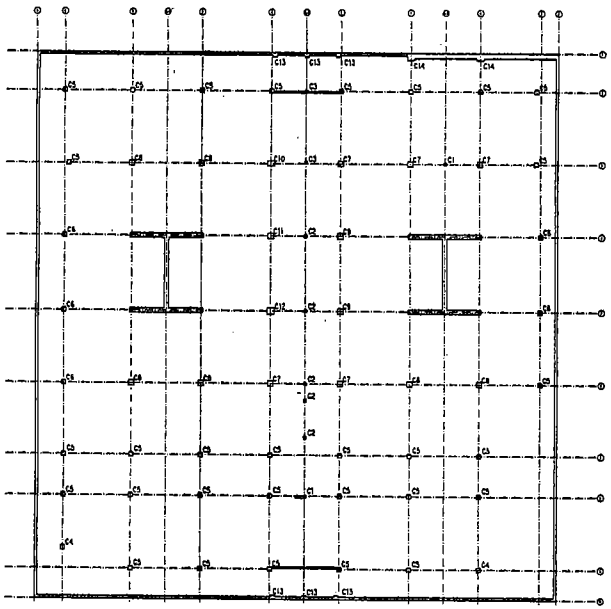
½" = 1'-0" DETAIL 1



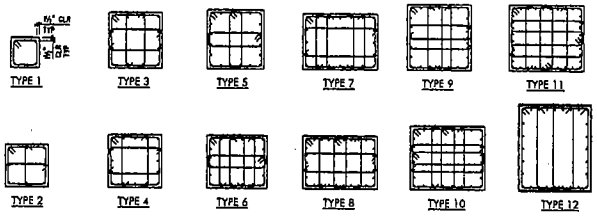
NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR COLUMN SIZE AND VERTICAL REINFORCING. FOR REINFORCING CONFIGURATION TYPE, SEE THE CONCRETE COLUMN SCHEDULE, AND THE TYPICAL CONCRETE COLUMN REINFORCING CONFIGURATION DETAIL.
2. COLUMN VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES.
3. SEE CONCRETE COLUMN SCHEDULE UNDER "TIES (LOC 1)" FOR THE SIZE, SPACING AND REINFORCING CONFIGURATION. REINFORCING CONFIGURATION TYPE IS NOTED IN ( ).
4. FOR N/A, MAXIMUM COLUMN DIMENSION OR 18 INCHES (WHICHEVER IS GREATER). SEE CONCRETE COLUMN SCHEDULE UNDER TIES (LOC 2) FOR TIE SIZE, SPACING, AND REINFORCING CONFIGURATION. REINFORCING CONFIGURATION TYPE IS NOTED IN ( ).
5. PROVIDE TIES (LOC 2) THROUGHOUT THE BEAM AND SLAB DEPTH, EXCEPT THAT THE TIE SPACING MAY BE INCREASED TO 6" WHERE BEAMS FRAME INTO FOUR SIDES OF COLUMN FOR THE DEPTH OF THE MOST SHALLOW BEAM.
6. AT CONTRACTOR'S OPTION, COLUMN VERTICAL BARS MAY BE EXTENDED UP ADDITIONAL FLOOR LEVELS WITHOUT SPLICES AT FLOORS.
7. PLACE HORIZONTAL HOOKS DIRECTLY BELOW TOP BARS OF BEAMS OR SLABS. SPLAY HOOKS AS NECESSARY TO RELIEVE BAR CONGESTION. AT CONTRACTOR'S OPTION, HOOKS MAY BE PLACED TOWARD THE INSIDE OF THE COLUMN.
8. UNLESS NOTED OTHERWISE, COLUMN CONSTRUCTION JOINTS SHALL BE AT THE UNDERSIDE OF FLOOR SLABS, BEAMS, OR GIRDERS, AND AT THE TOPS OF FOOTINGS OR FLOOR SLABS. BEAMS, GIRDERS, BRACKETS, COLUMNS CAPITALS, HAUNCHES, AND DROP PANELS SHALL BE PLACED AT THE SAME TIME AS SLABS.

6 TYP CONCRETE COLUMN 7



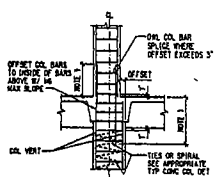
COLUNM KEY PLAN 17



NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR TYPE OF REINFORCING CONFIGURATION DENOTED WITH ( ) UNDER "TIES".
2. A TYPICAL CROSSTIE SHALL HAVE A 135 DEGREE HOOK AT ONE END AND A 90 DEGREE HOOK AT THE OTHER END. AT CONTRACTOR'S OPTION, THE 135 DEGREE HOOK MAY BE REPLACED WITH A 180 DEGREE HOOK, AND THE 90 DEGREE HOOK MAY BE REPLACED WITH A 135 OR A 180 DEGREE HOOK.
3. CROSSTIES WITH 90 DEGREE HOOKS SHALL HAVE THE CONSECUTIVE CROSSTIES ALTERNATED END FOR END ALONG THE LONGITUDINAL REINFORCEMENT.

CONC COL REINFORCING CONFIGURATION 4



#4 THRU #11 BARS

NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR SPLICE LENGTH.
2. CLEAR DISTANCE BETWEEN THE TWO LAP SPLICE BARS AND ADJACENT BARS SHALL BE NOT LESS THAN 1.5 TIMES THE BAR DIA, NOR 1 1/2 INCHES.
3. IF OFFSET IN VERTICAL BARS OCCURS OUTSIDE THE HORIZONTAL FRAMING, PROVIDE ADDITIONAL SET OF TIES AT OFFSET LOCATION.
4. WHERE WITH 3% OR GREATER COLUMN, SEE SCHEDULE FOR SPLICE. THE COLUMN VERTICAL BARS SHALL BE MECHANICALLY SPLICED OR WELDED TO DEVELOP 125% f_y IN TENSION.
5. SPLICE #14 AND #18 BARS BY ONE OF THE FOLLOWING:
   A. FULL PENETRATION BUTT WELDS, ADJACENT WELDS STAGGERED 6 INCHES OR GREATER.
   B. EXOTHERMIC WELD SPLICES STAGGERED 30 INCHES OR GREATER VERTICALLY BETWEEN ADJACENT BARS.
   C. MECHANICAL SPLICES STAGGERED 30 INCHES OR GREATER VERTICALLY, MAY BE USED.

TYP CONC COL REINFORCING SPLICE 5

CONCRETE COLUMN SCHEDULE (SEISMIC ZONES 3 & 4)

LEVEL	COLUMN MARK	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13 PILASTER	C14 PILASTER
LEVEL 5												CONC ENCASED STL COL			
	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL 4	SPLICE														
	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL 3	SPLICE														
	SIZE											32"x32"			
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL 2	SPLICE														
	SIZE										34"x30"	W/4 TEMP STL SHIMS	36"x36"		
	REINF										(20) #11		(24) #11		
	TIES (LOC 2)										#5 @ 4" (6)		#5 @ 4" (8)		
	TIES (LOC 1)										#5 @ 6" (6)		#5 @ 6" (8)		
LEVEL 1/S	SPLICE										5'-3"		5'-3"		
	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL G	SPLICE														
	SIZE			16"x16"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"		
	REINF			(4) #6	(8) #8	(8) #8	(8) #8	(12) #8	(12) #8	(12) #11	(20) #11	(12) #11	(28) #11		
	TIES (LOC 2)			#5 @ 4" (1)	#5 @ 4" (2)	#5 @ 4" (2)	#5 @ 4" (2)	#5 @ 4" (3)	#5 @ 4" (3)	#5 @ 4" (3)	#5 @ 4" (5)	#5 @ 4" (5)	#5 @ 4" (10)		
	TIES (LOC 1)			#5 @ 6" (1)	#5 @ 6" (2)	#5 @ 6" (2)	#5 @ 6" (2)	#5 @ 6" (3)	#5 @ 6" (3)	#5 @ 6" (3)	#5 @ 6" (7)	#5 @ 6" (5)	#5 @ 6" (10)		
LEVEL P1	SPLICE			3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	5'-3"	5'-3"	5'-3"	5'-3"		
	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL P2	SPLICE														
	SIZE	18"x18"	18"x18"	18"x18"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"	24"x24"	40"x48"
	REINF	(4) #8	(4) #8	(4) #8	(8) #8	(8) #8	(8) #8	(12) #8	(16) #11	(20) #11	(30) #11	(20) #11	(36) #11	(12) #8	(28) #11
	TIES (LOC 2)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (2)	#4 @ 4" (2)	#4 @ 4" (2)	#4 @ 4" (3)	#4 @ 4" (4)	#4 @ 4" (5)	#4 @ 4" (8)	#4 @ 4" (5)	#4 @ 4" (11)	#5 @ 4" (5)	#5 @ 4" (12)
	TIES (LOC 1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (3)	#4 @ 6" (4)	#4 @ 6" (5)	#4 @ 6" (8)	#4 @ 6" (5)	#4 @ 6" (11)	#5 @ 6" (5)	#5 @ 6" (12)
LEVEL P3	SPLICE	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	5'-3"	5'-3"	5'-3"	5'-3"	5'-3"	3'-9"	5'-3"
	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
LEVEL P4	SPLICE														
	SIZE	18"x18"	18"x18"	18"x18"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"	24"x24"	40"x48"
	REINF	(4) #8	(4) #8	(4) #8	(8) #8	(8) #8	(8) #8	(12) #11	(16) #11	(20) #11	(30) #11	(20) #11	(36) #11	(12) #8	(28) #11
	TIES (LOC 2)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (2)	#4 @ 4" (2)	#4 @ 4" (2)	#4 @ 4" (3)	#4 @ 4" (4)	#4 @ 4" (5)	#4 @ 4" (8)	#4 @ 4" (5)	#4 @ 4" (11)	#5 @ 4" (5)	#5 @ 4" (12)
LEVEL P5	TIES (LOC 1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (3)	#4 @ 6" (4)	#4 @ 6" (5)	#4 @ 6" (8)	#4 @ 6" (5)	#4 @ 6" (11)	#5 @ 6" (5)	#5 @ 6" (12)
FDN	COL. DWL	(4) #6	(4) #6	(4) #6	(8) #6	(8) #6	(12) #6	(12) #6	(12) #6	(12) #6	(16) #8	(12) #6	(20) #8	(12) #6	
LEVEL	COLUMN MARK	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13 PILASTER	C14 PILASTER

CONCRETE COLUMN SCHEDULE 20

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SEATTLE WASHINGTON 98109
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FAX 206 223 8300

HARBORVIEW NINTH & JEFFERSON BUILDING

MAGNUSSON KLEMENCIC ASSOCIATES

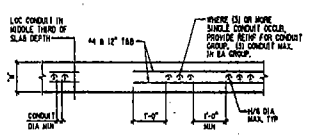
GARAGE PERMIT SET

KEY	DATE	DESCRIPTION

DRAWN BY: DLJ PROJ. MGR:
PROJ. NO. 00000.00
DATE YYYY/MM/DD

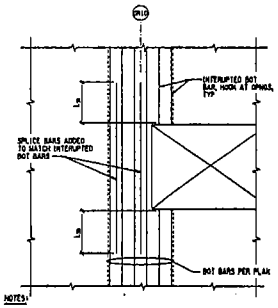
TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE

S4.03



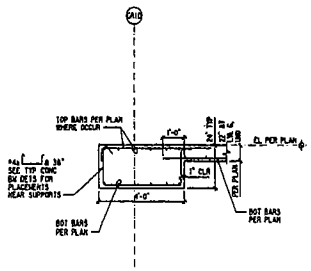
NOTES:
1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING PLACEMENT OF CONDUIT. SEE GENERAL NOTES.
2. CONDUIT PLACEMENT NOT MEETING THIS CRITERIA SHALL BE SUBMITTED TO ENGINEER FOR REINFORCING DESIGN.
3. DO NOT PLACE CONDUIT WITHIN 3'-0" OF COLUMN FACE.

TYPICAL CONDUIT PLACEMENT CRITERIA | 1

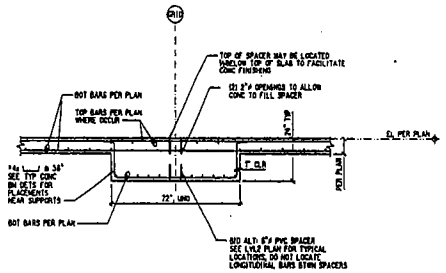


NOTES:
1. TRIM REINFORCING NOT SHOWN FOR CLARITY.

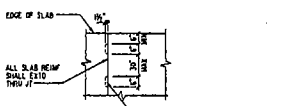
TYPICAL THICKENED SLAB AT OPENING | 2



TYPICAL THICKENED SLAB EDGE | 3

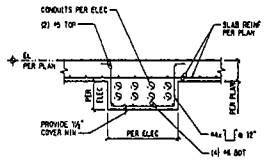


TYPICAL THICKENED SLAB | 5



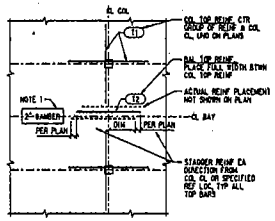
NOTES:
1. LOCATE ALL CONSTRUCTION JOINTS AT MID-SPAN. SUBMIT LOCATIONS OF ALL CONSTRUCTION JOINTS TO ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO FORMING.

TYPICAL SLAB CONTROL JOINT PLAN | 6



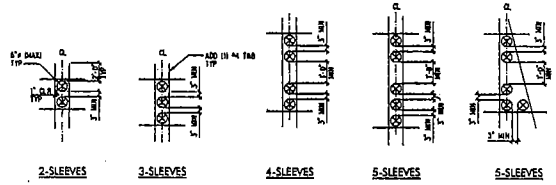
NOTES:
1. SEE PLAN FOR DIMENSIONS AND REINFORCING.

TYPICAL CONCRETE ENCASED DUCTBANK | 7

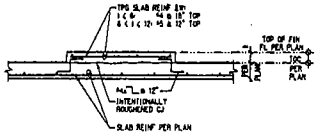


NOTES:
1. WHEN NO EXTENT LINES EXIST AT FLAT SLAB CHANGE, A SINGLE HIGH POINT AT MID-BAY IS INDICATED. THE SURROUNDING SLAB SLOPES AWAY TOWARD THE ADJACENT COLUMNS OR WALLS.
2. ALL BOTTOM BAR PLACEMENT AND STAGGERS ARE DETAILED ON THE PLANS AND ASSOCIATED SCHEDULE.

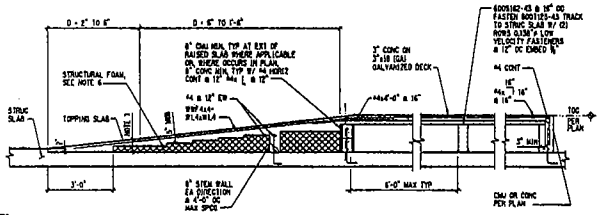
| 8 |



TYPICAL SLEEVE PENETRATION DETAIL | 10

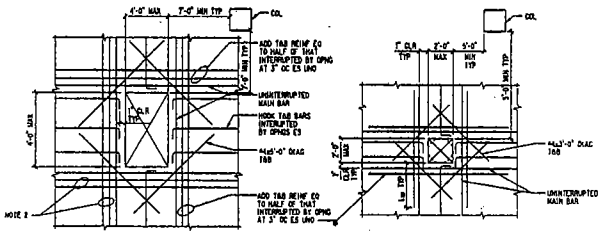


TYPICAL MECHANICAL PAD SLAB DETAIL | 11



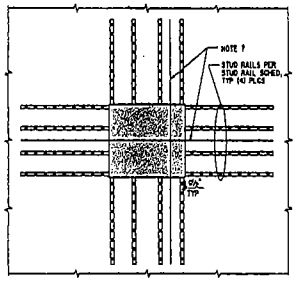
NOTES:
1. "D" REFERS TO THE DISTANCE BETWEEN STRUCTURAL SLAB AND REQUIRED CONCRETE ELEVATION.
2. MAXIMUM IMPOSED LOAD: 125 POUNDS PER SQUARE FOOT.
3. SUBMIT FINAL LAYOUT OF RAILS FOR REVIEW BY STRUCTURAL ENGINEER PRIOR TO FABRICATION.
4. REFER TO TYPICAL DETAILS FOR INFORMATION NOT SHOWN.
5. PROVIDE LEDGER ANGLES PER TYPICAL DETAILS WHERE METAL DECK ABUTS SUPER STRUCTURE.
6. STRUCTURAL FOAM SHALL BE POLYSTYRENE OF XPS QUALITY CAPABLE TO SUPPORT 60 PSI. GENERAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER OF RECORD AND TO ARCHITECT FOR APPROVAL.

TYPICAL BUILT - UP SLAB | 13

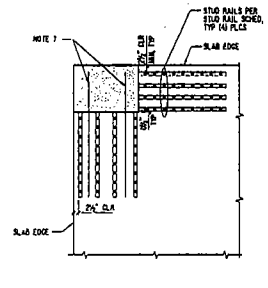


NOTES:
1. IT IS ACCEPTABLE TO ADD SHORTER HOOKED BARS OF THE SAME SIZE TO INTERRUPTED REINFORCING AND LAP SPLICE THEM La.
   ALL OTHER ADDED REINFORCING REQUIREMENTS REMAIN THE SAME.
2. EXTEND ADDED REINFORCING TO THE END OF INTERRUPTED REINFORCING OR 10'-0" PAST OPENING, WHICHEVER IS SHORTER, TYPICAL EACH SIDE.

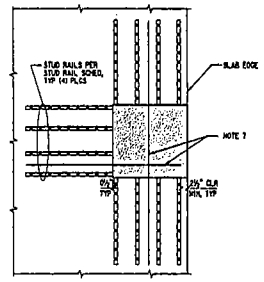
TYPICAL SLAB OPENING REINFORCEMENT | 15



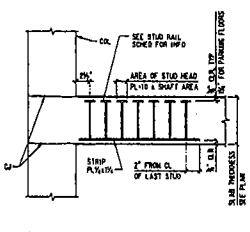
R1/R4/R6



R5



R3/R7



SECTION

STUD RAIL SCHEDULE

MARK	SLAB THICKNESS	STUD DIAMETER (INCH)	STUD SPACING (INCH)	NUMBER STUDS PER RAIL	NUMBER OF RAILS PER SIDE	REMARKS
R1	9 / 14	½	3½	9	4	USED AT BOTH 9" & 14" SLAB
R2						NOT USED
R3	9 / 14	½	3½	9	4	USED AT BOTH 9" & 14" SLAB
R4	14 / 14	½	3½	13	4	USED AT BOTH 9" & 14" SLAB
R5	9	½	3½	9	4	
R6	9	½	3½	13	4	
R7	9	½	3½	13	4	

NOTES:
1. SEE PLANS FOR LOCATIONS WHERE SLAB SHEAR REINFORCING IS REQUIRED.
2. SLAB SHEAR REINFORCEMENT SHALL BE DEGON STUD RAILS, OR APPROVED EQUAL. STUDS ARE LOW CARBON STEEL, G1015 IN ACCORDANCE WITH ASTM-A108:
   YIELD STRENGTH 50 KSI MINIMUM
   TENSILE STRENGTH 60 KSI MINIMUM
3. ALL STUD RAILS SHALL BE CLEARLY MARKED WITH BRIGHT PAINT TO INDICATE STUD RAIL TYPE.
4. COORDINATE PLACEMENT WITH POST-TENSIONED TENDONS AND ANCHORAGES. PROVIDE POSITIVE MEANS TO KEEP REINFORCEMENT IN PLACE DURING CONCRETE PLACEMENT.
5. NUMBER OF RAILS PER COLUMN SIDE IS BASED ON COLUMN DIMENSION. SEE STUD RAIL SCHEDULE, TYPICAL.
6. SEE PLANS FOR REINFORCING SHOWN THROUGH COLUMNS, TYPICAL.
7. SEE TYPICAL COLUMN / SLAB INTERSECTION DETAIL, S4.10A FOR ADDITIONAL REINFORCING.

| 20 |

EXHIBIT E

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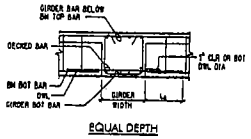
GARAGE PERMIT SET

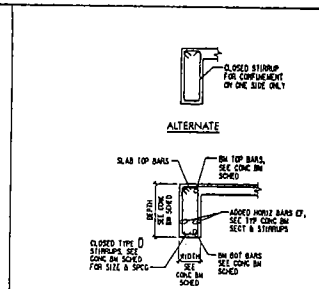
TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE

S4.04

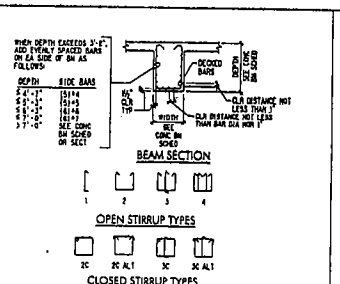
9/12/2006 4:32:20 PM user:DAN dgn:I:\M3_M3BIM\0_STRUCT plt:cfg:PDF FS:M1S MONO.PLT file:...s\HARBORVIEW-NBBJ\S4.04.DGN model:SHEET version:V8



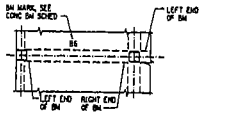
INTERSECTION OF CONC BM & GIRDER | 1



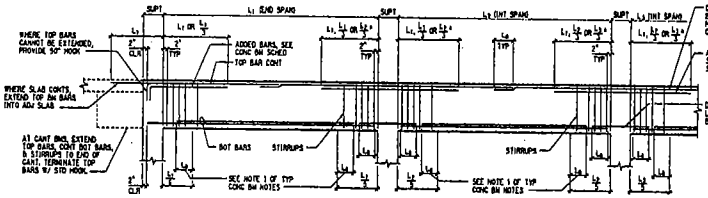
TYP CONC BEAM SECTION & STIRRUPS | 2



TYPICAL CONCRETE EDGE BEAM | 3



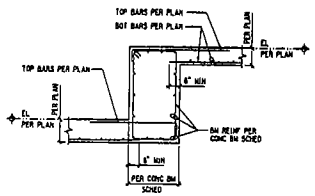
NOTES:
1. SEE NOTE 6 OF TYPICAL CONCRETE BEAM NOTES.



BEAM REINFORCING ELEVATION
* WHICHEVER IS GREATER

NOTES:
1. ALL BARS IN SAME LAYER, UNLESS NOTED OTHERWISE.

TYPICAL CONCRETE BEAM | 8



TYPICAL BEAM AT SLAB STEP | 12

NOTES:
1. AT CONTRACTOR'S OPTION, WHERE REQUIRED TO RELIEVE BAR CONGESTION, NOT MORE THAN 50 PERCENT OF THE AREA OF THE STRAIGHT BOTTOM BARS MAY BE TERMINATED AS SHOWN, UNLESS NOTED OTHERWISE.
2. BEAM SCHEDULES DO NOT INDICATE REQUIREMENTS FOR ARRANGING BARS. THE CONTRACTOR SHALL DETAIL AND PLACE REINFORCING STEEL IN A SINGLE LAYER WHENEVER POSSIBLE. A SECOND LAYER MAY BE USED ONLY WHERE REQUIRED TO PROVIDE PROPER CLEARANCES BETWEEN BARS IN A LAYER AND WHERE REQUIRED IN ORDER TO PROPERLY CLEAR COLUMN VERTICALS AND SIMILAR REINFORCING.
3. REFER TO REINFORCING BAR DEVELOPMENT AND SPLICE LENGTH TABLE FOR L_1, L_2, AND L_3.
4. EITHER 90 OR 180 DEGREE STANDARD HOOK BARS MAY BE USED FOR LONGITUDINAL BARS.
5. WHERE TOP BARS ARE INDICATED AS CONTINUOUS AND RUN OVER 60 FEET IN LENGTH, BARS MAY BE LAPPED L_2 IN THE MIDDLE THIRD OF THE BEAM SPAN, UNLESS NOTED OTHERWISE. CONTINUOUS TOP BARS SHALL NOT BE LAPPED IN THE SPAN ADJACENT TO A CANTILEVER, UNLESS NOTED OTHERWISE. WHERE BOTTOM BARS ARE SHOWN AS CONTINUOUS AND RUN IN EXCESS OF 60 FEET, A LAP SPLICE MAY BE USED EQUAL TO L_{2B} AND SHALL BE OUTSIDE THE MIDDLE THIRD OF THE BEAM SPAN. SIDE BAR SPLICES MAY BE MADE WHERE CONVENIENT.
6. LOCATE ALL CONSTRUCTION JOINTS WITHIN THE MIDDLE THIRD OF SPANS. JOINTS SHALL BE OFFSET AT A MINIMUM DISTANCE OF TWO TIMES THE WIDTH OF INTERSECTING BEAMS. SUBMIT LOCATION OF ALL CONSTRUCTION JOINTS TO ENGINEER FOR REVIEW AND ACCEPTANCE BEFORE FORMING.
7. STANDARD HOOKS FOR STIRRUPS MAY BE 135 DEGREES BEND PLUS 6db EXTENSION, BUT NOT LESS THAN 3 INCHES.

TYPICAL CONCRETE BEAM NOTES | 13

EXHIBIT E

CONCRETE BEAM SCHEDULE

LEVEL	MARK	SIZE WIDTH (INCHES)	SIZE DEPTH (INCHES)	CAMBER	BOTTOM BARS NUMBER	BOTTOM BARS SIZE	TOP BARS NUMBER	TOP BARS SIZE	TOP BARS LOCATION	STIRRUPS LOCATION	STIRRUPS SIZE	STIRRUPS TYPE*	STIRRUPS SPACING	REMARKS
LEVEL P4	P481	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P482	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
LEVEL P3	P381	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P382	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P383	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P384	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	9"	
LEVEL P2	P281	24	20	-	4	#11	4 4	#11 #11	CONT CONT LEFT	CONT	#4	2	8"	
	P282	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P283	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P284	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	9"	
	P285	16	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
LEVEL P1	P181	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P182	32	24	-	6	#11	3	#11	CONT	CONT	#5	2	8"	
	P183	32	66	-	5	#10	2	#10	CONT	CONT	#4	2C	16"	
	P184	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	8"	
	P185	16	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P186	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P187	24	24	-	6	#8	4 4	- -	CONT BT + LT	CONT	#4	2	8"	
	P188	24	VARIES	-	4	#10	4	#10	CONT	CONT	#4	2	8"	
LEVEL G	G81	24	24	-	4	#8	4 2	#8	CONT BT + LT	CONT	#4	2	8"	
LEVEL 5	SB1	24	13	-	4	#8	4 2	#8	CONT BT + LT	CONT	#4	2	6"	
	SB2	24	18	-	4	#8	4	#8	CONT	CONT	#4	2	8"	
	SB3	24	24	-	6	#8	4 4	#8	CONT BT + LT	CONT	#4	2	8"	
	SB4	24	28	-	8	#8	8	#8	CONT	CONT	#4	2	8"	
	SB5													NOT USED
	SB6	24	34	-	8	#8	4 2	#8	CONT BT + LT	CONT	#4	2	12"	
	SB7	24	36	PER PLAN	10	#8	10	#8	CONT	CONT	#4	2	6"	
	SB8	24	40	PER PLAN	8	#8	4 4	#8 #8	CONT BT + LT	CONT	#4	2	3"	
	SB9	24	43	-	6	#8	4 2	#8 #8	CONT BT + LT	CONT	#4	2	8"	
	SB10	24	46	-	8	#8	2 2	#8 #8	CONT BT + LT	CONT	#4	2	8"	
	SB11	24	52	-	8	#8	2 2	#8 #8	CONT BT + LT	CONT	#4	2	12"	
	SB12	24	64	-	4	#8	2 2	#8 #8	CONT BT + LT	CONT	#4	2	12"	
	SB13	24	88	-	5	#8	5	#8	CONT	CONT	#4	2	12"	
	SB14	12	55	-	3	#8	3	#8	CONT	CONT	#4	2	12"	
	SB15	12	88	-	3	#8	3	#8	CONT	CONT	#4	2	12"	
	SB16	24	38	-	4	#8	4	#8	CONT	CONT	#4	2	12"	
	SB17	24	58	-	8	#8	4 2	#8 #8	CONT BT + LT	CONT	#4	2	12"	

* 'C' ON THE STIRRUP TYPE INDICATES CLOSED STIRRUPS PER TYPICAL CONCRETE BEAM SECTION AND STIRRUPS DETAIL.

NOTES:
1. EXTEND HORIZONTAL BARS L_{dh} INTO SUPPORTS OR HOOK WHERE NOT POSSIBLE.
2. DEPTH VARIES, TOP BARS AND STIRRUPS MAY BE PLACED RELATIVE TO THE SHALLOWEST SECTION FOR THE ENTIRE BEAM LENGTH.

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NO	DATE	DESCRIPTION

DRAWN: DLJ
PROJ. NO: 00000.00
DATE: YYYY/MMM/DD

TYPICAL CONCRETE BEAM DETAILS AND SCHEDULE

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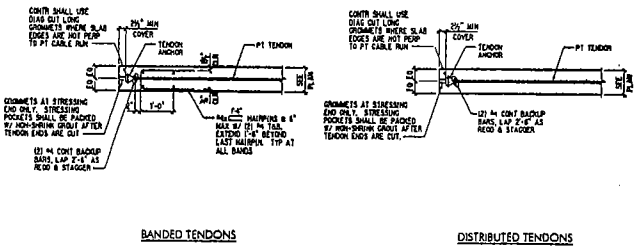
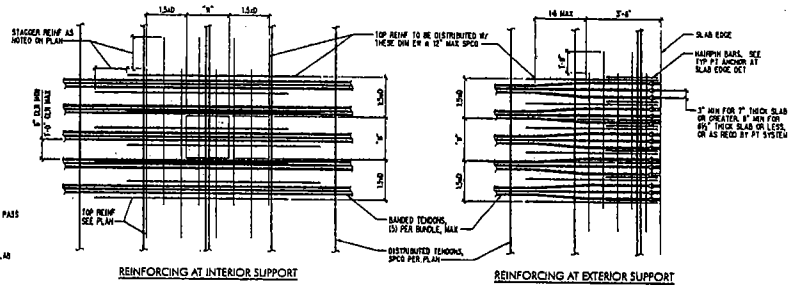


TYPICAL POST-TENSION ANCHOR AT SLAB EDGE | 2

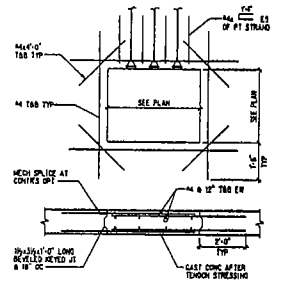


NOTES:
1. A MINIMUM OF TWO TENDONS ARE TO PASS DIRECTLY OVER COLUMN EACH WAY.
2. LEGEND:
   B = COLUMN WIDTH
   D = DEPTH OF SLAB OR DEPTH OF SLAB PLUS DROP PANEL.

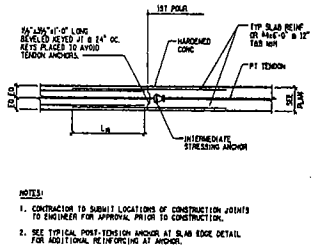
REINFORCING AT INTERIOR SUPPORT

REINFORCING AT EXTERIOR SUPPORT

TYPICAL POST-TENSION REINFORCING AT SUPPORT FOR TWO-WAY SLABS | 5

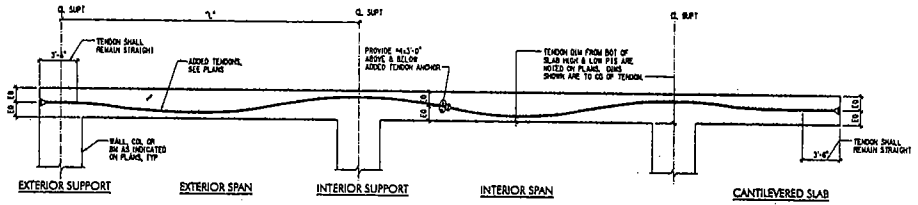


TYPICAL STRESSING BLOCKOUT | 6



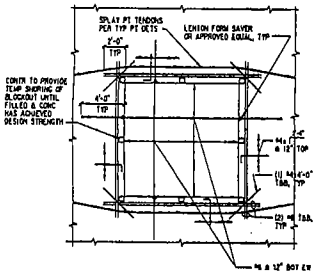
NOTES:
1. CONTRACTOR TO SUBMIT LOCATIONS OF CONSTRUCTION JOINTS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. SEE TYPICAL POST-TENSION ANCHOR AT SLAB EDGE DETAIL FOR ADDITIONAL REINFORCING AT ANCHOR.

TYP POST-TENSION SLAB CONST JOINT | 7



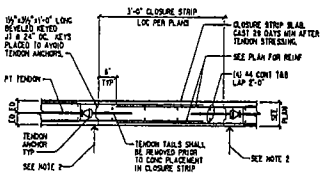
NOTES:
1. SEE PLANS FOR TENDON LAYOUT.
2. TENDON LOW POINTS ARE LOCATED MIDWAY BETWEEN HIGH POINTS, UNLESS NOTED OTHERWISE.
3. TENDON LOW POINTS AT EXTERIOR SPANS ARE LOCATED 0.4xL FROM CENTERLINE OF EXTERIOR SUPPORTS.
4. DRAPE TENDON IN PARABOLIC PROFILE BETWEEN LOW AND HIGH POINTS.
5. DROP PANELS, WHERE THEY OCCUR, ARE NOT SHOWN FOR CLARITY.

TYPICAL POST-TENSION TENDON PROFILE | 10



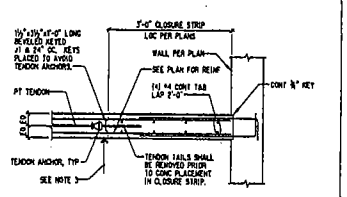
NOTES:
1. SLAB REINFORCING NOT SHOWN, SEE PLAN.

TOWER CRANE BLOCKOUT | 11



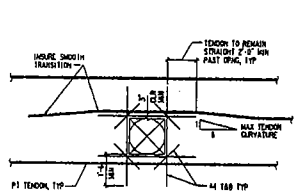
NOTES:
1. SEE TYPICAL POST-TENSION ANCHOR AT SLAB EDGE DETAIL FOR ADDITIONAL REINFORCING AT ANCHOR.
2. SHORE SLAB UNTIL CLOSURE STRIP HAS REACHED 28 DAY DESIGN STRENGTH.

TYP POST-TENSION CLOSURE STRIP | 12



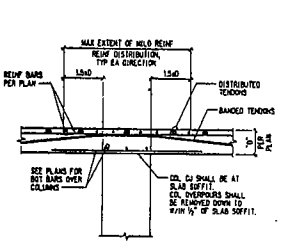
NOTES:
1. SEE TYPICAL POST-TENSION ANCHOR AT SLAB EDGE DETAIL FOR ADDITIONAL REINFORCING AT ANCHOR.
2. SHORE SLAB UNTIL CLOSURE STRIP HAS REACHED 28 DAY DESIGN STRENGTH.

TYP POST-TENSION CLOSURE STRIP | 13



NOTES:
1. ALL SLAB OPENINGS FROM 10" TO 2'-6" SHALL BE REINFORCED AS NOTED. SEE PLANS FOR LARGE SLAB OPENINGS.

TYP TENDON CURVATURE AT OPENING | 14



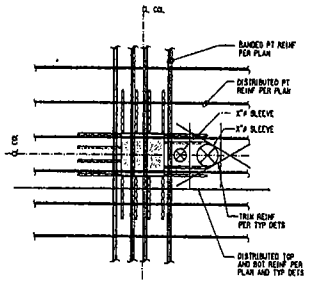
NOTES:
1. SLAB SHEAR REINFORCING NOT SHOWN.

TYPICAL COLUMN / SLAB INTERSECTION | 15

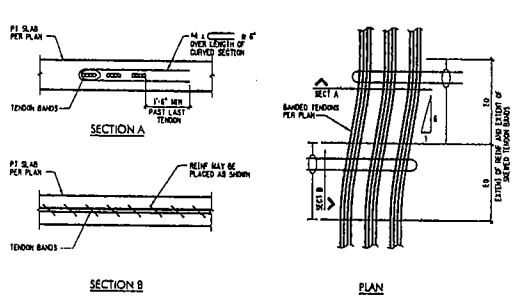
EXHIBIT E

16

17



TYPICAL PT WITH SLEEVE LAYOUT | 18



TYPICAL REINFORCING AT SKEWED BANDED TENDONS | 20

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drawn by: DLJ
PROJECT NO: 00000.00
DATE: YYYY/MM/DD

TYPICAL POST-TENSION DETAILS

S4.06

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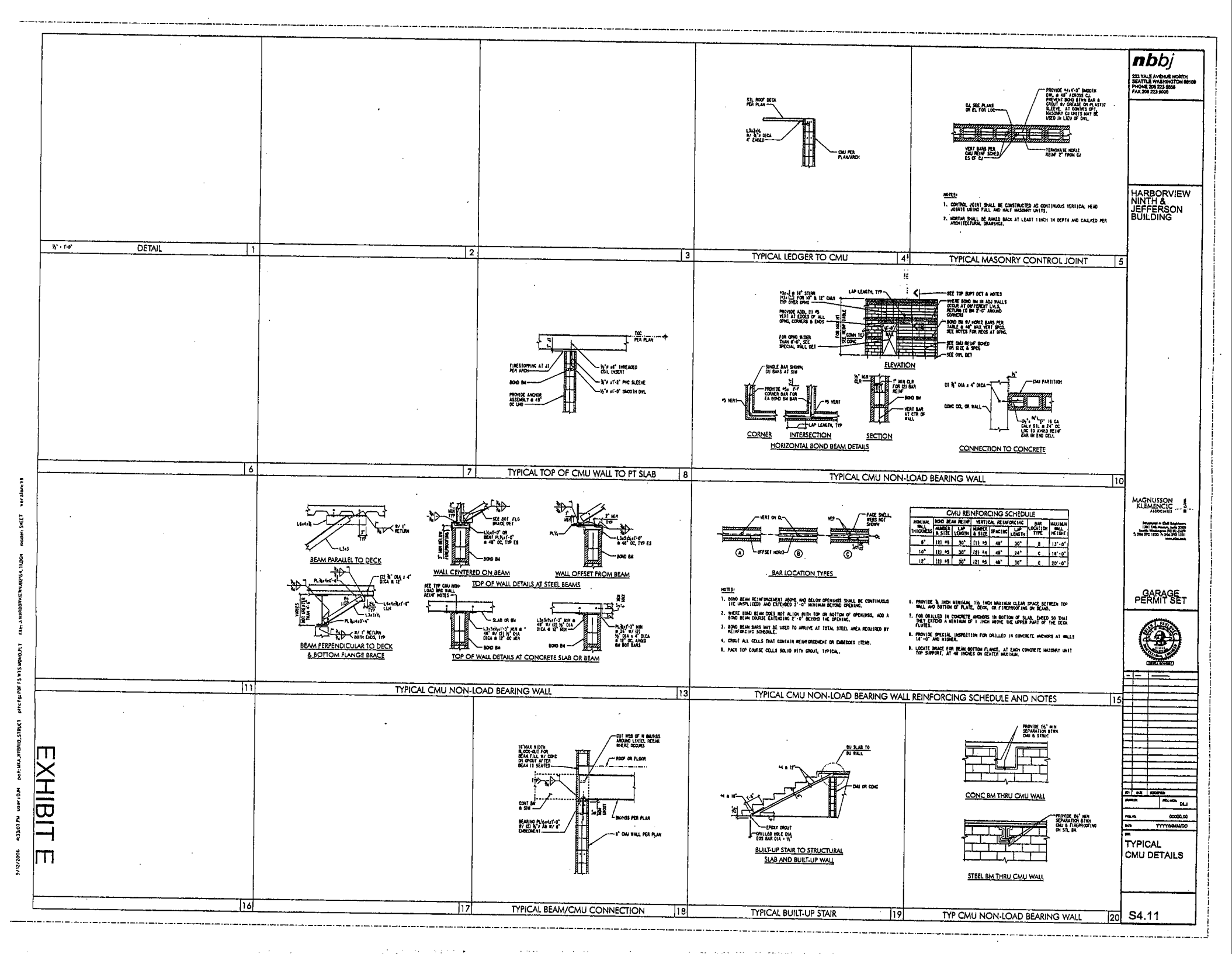
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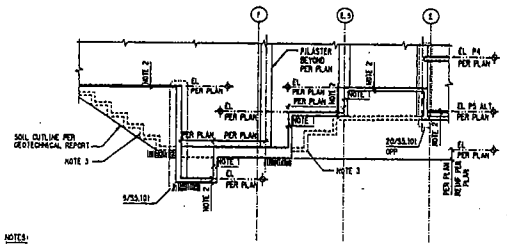
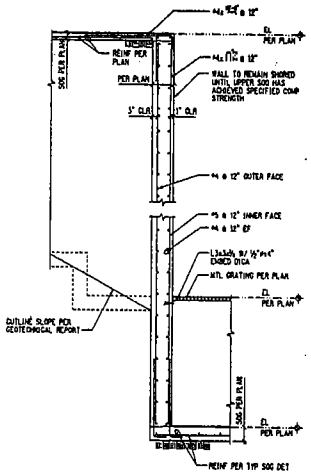
TYPICAL CMU DETAILS
S4.11
DETAIL
TYPICAL LEDGER TO CMU
TYPICAL MASONRY CONTROL JOINT
ELEVATION
HORIZONTAL BOND BEAM DETAILS
CORNER
INTERSECTION
SECTION
CONNECTION TO CONCRETE
TYPICAL TOP OF CMU WALL TO PT SLAB
TYPICAL CMU NON-LOAD BEARING WALL
BEAM PARALLEL TO DECK
WALL CENTERED ON BEAM
WALL OFFSET FROM BEAM
TOP OF WALL DETAILS AT STEEL BEAMS
BEAM PERPENDICULAR TO DECK & BOTTOM FLANGE BRACE
TOP OF WALL DETAILS AT CONCRETE SLAB OR BEAM
TYPICAL CMU NON-LOAD BEARING WALL
BAR LOCATION TYPES
CMU REINFORCING SCHEDULE
TYPICAL CMU NON-LOAD BEARING WALL REINFORCING SCHEDULE AND NOTES
TYPICAL BEAM/CMU CONNECTION
BUILT-UP STAIR TO STRUCTURAL SLAB AND BUILT-UP WALL
TYPICAL BUILT-UP STAIR
CONC BM THRU CMU WALL
STEEL BM THRU CMU WALL
TYP CMU NON-LOAD BEARING WALL



½" = 1'-0" DETAIL 1

½" = 1'-0" ELEVATION 3



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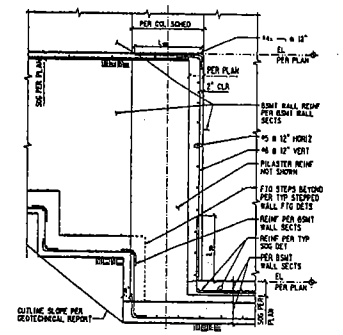

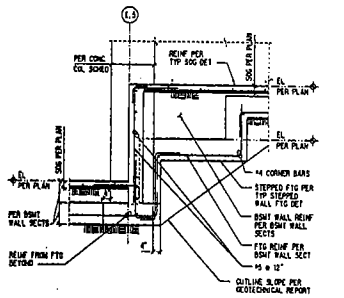

OPPOSITE HAND AT SIMILAR

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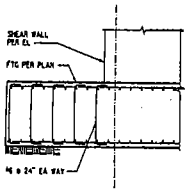
8

½" = 1'-0" SECTION 9

½" = 1'-0" SECTION 10



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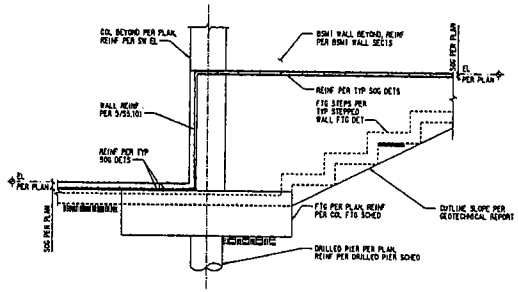
12



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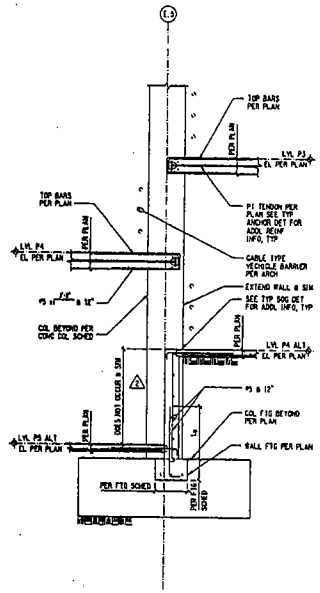

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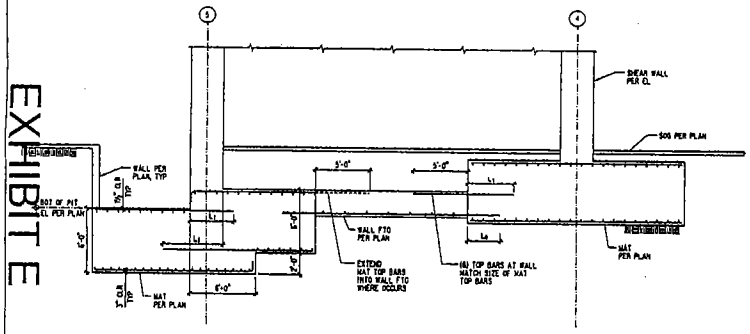

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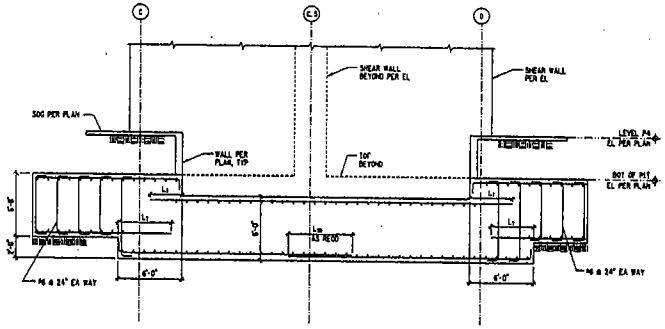

½" = 1'-0" SECTION 19

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FOUNDATION SECTIONS AND DETAILS

S5.01

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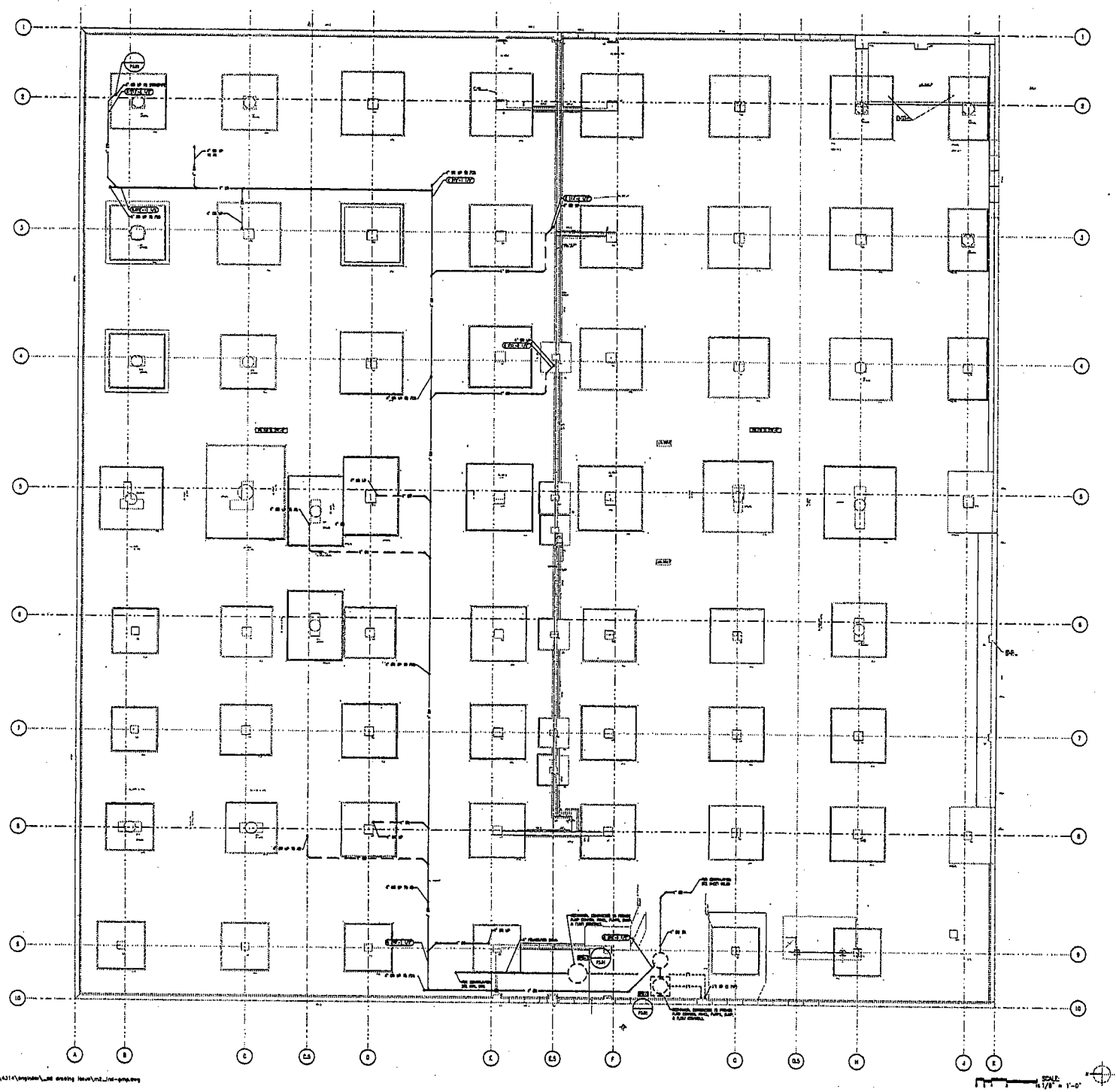

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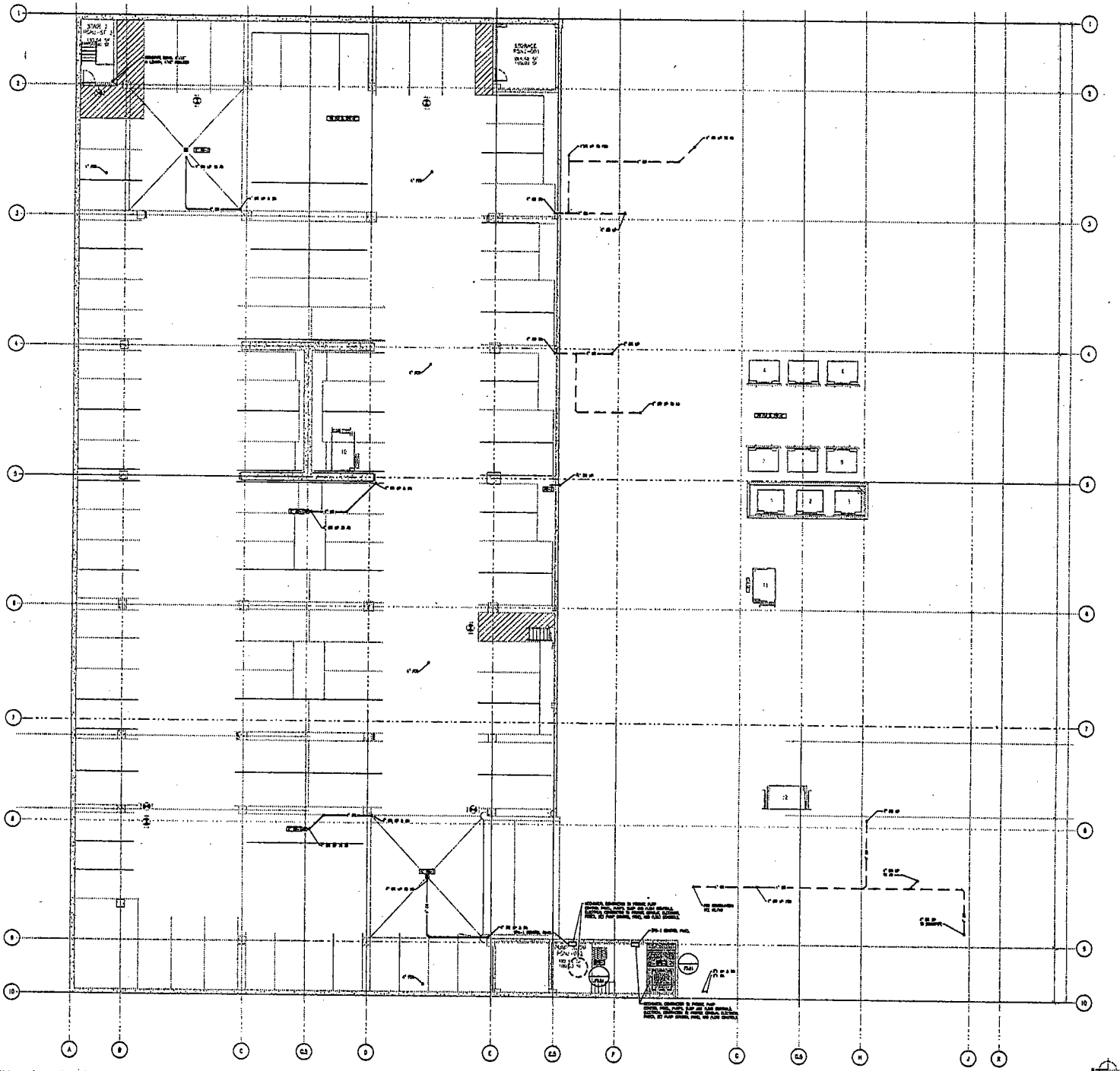
FOUNDATION PLAN– PLUMBING

M2.FND



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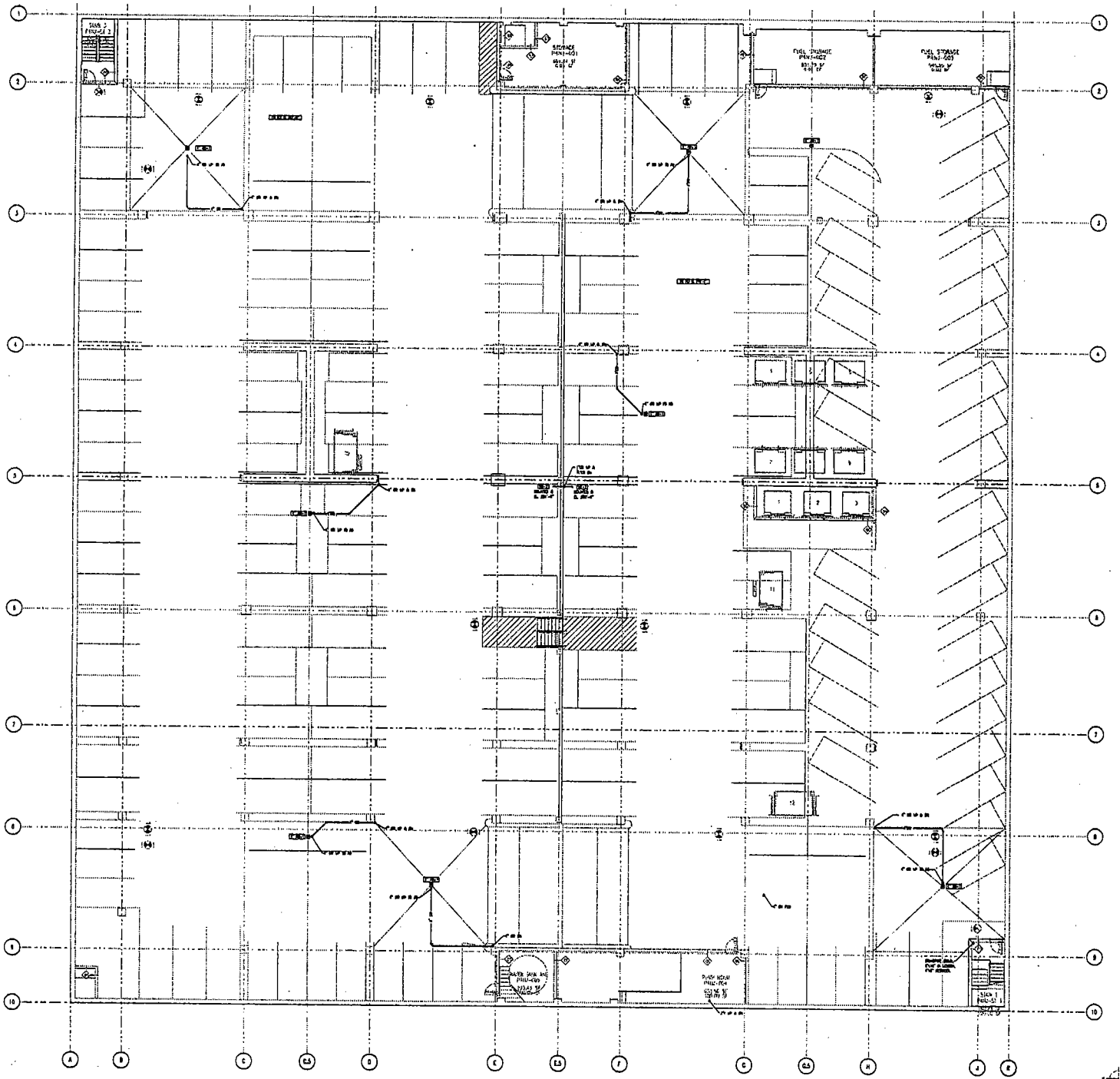

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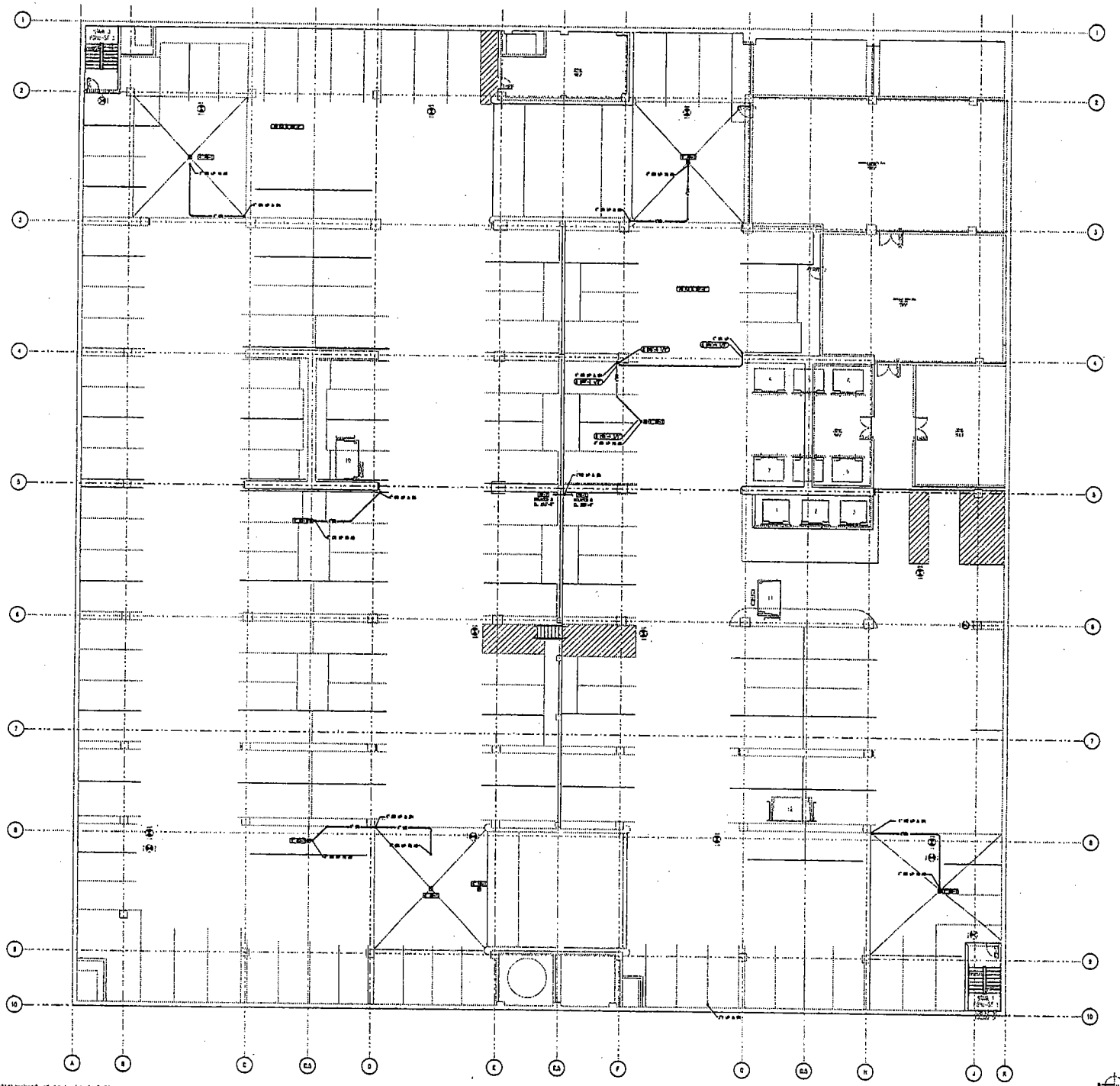

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NJB PARKING LEVEL 3 PLAN - PLUMBING

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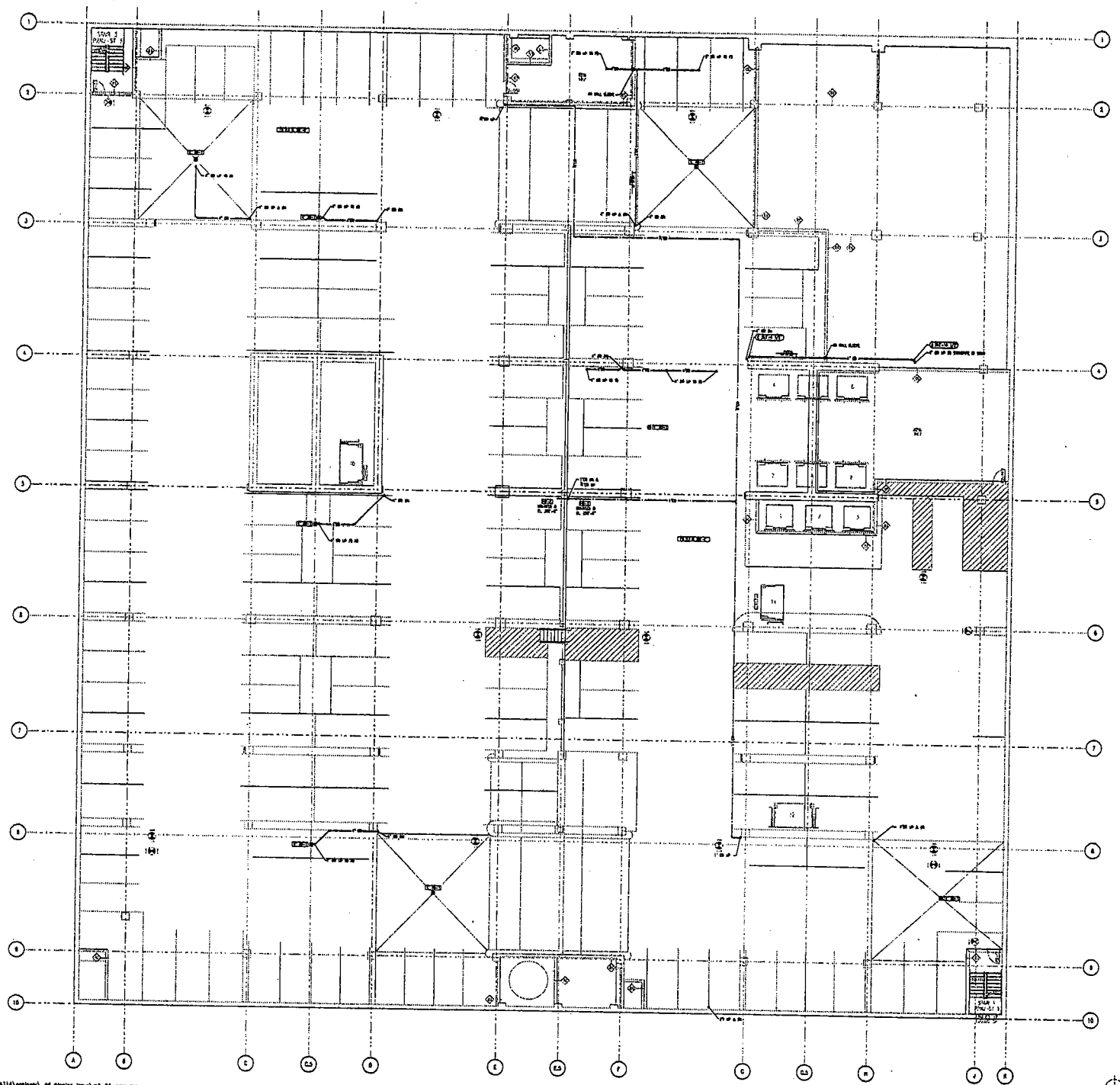

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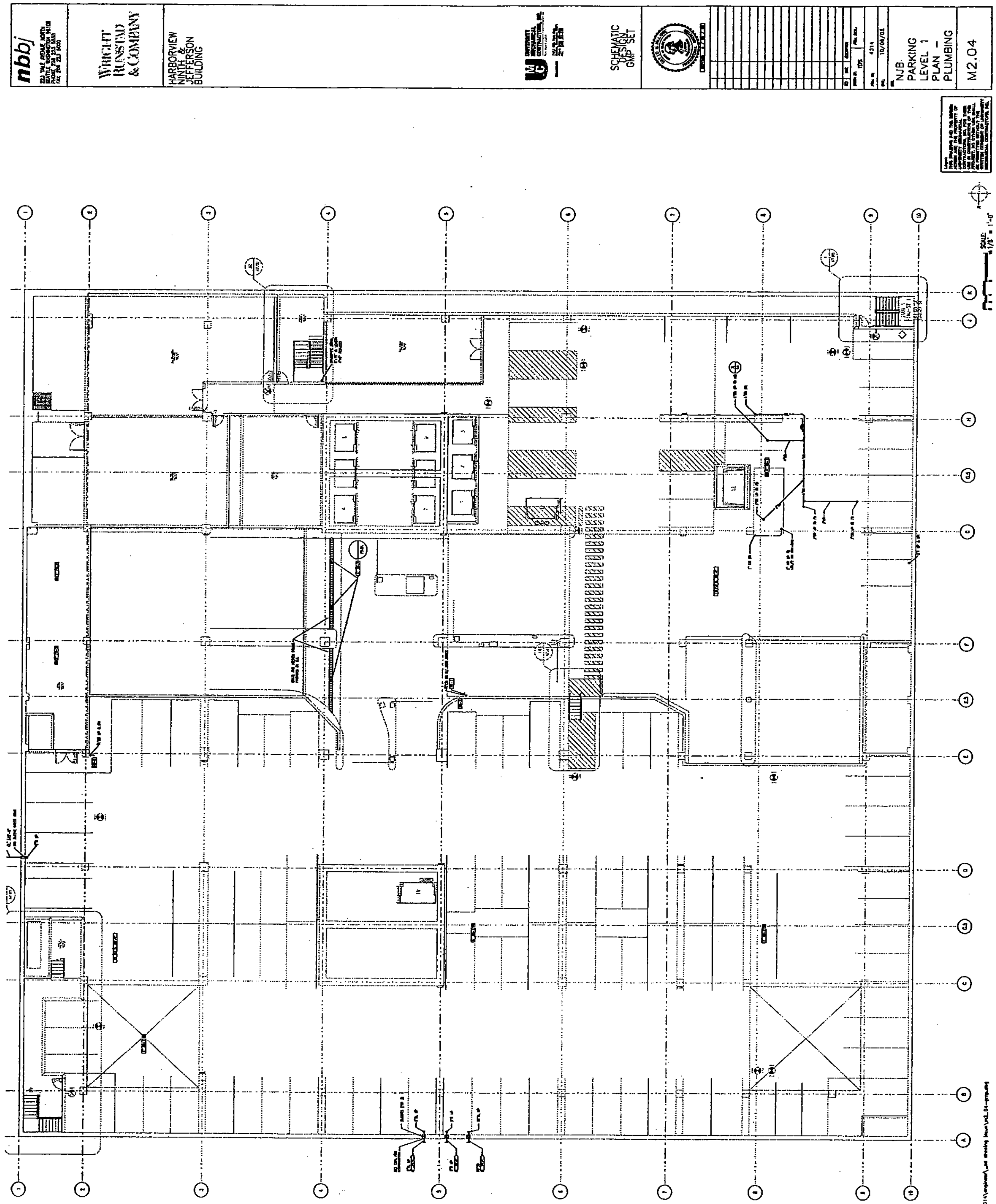
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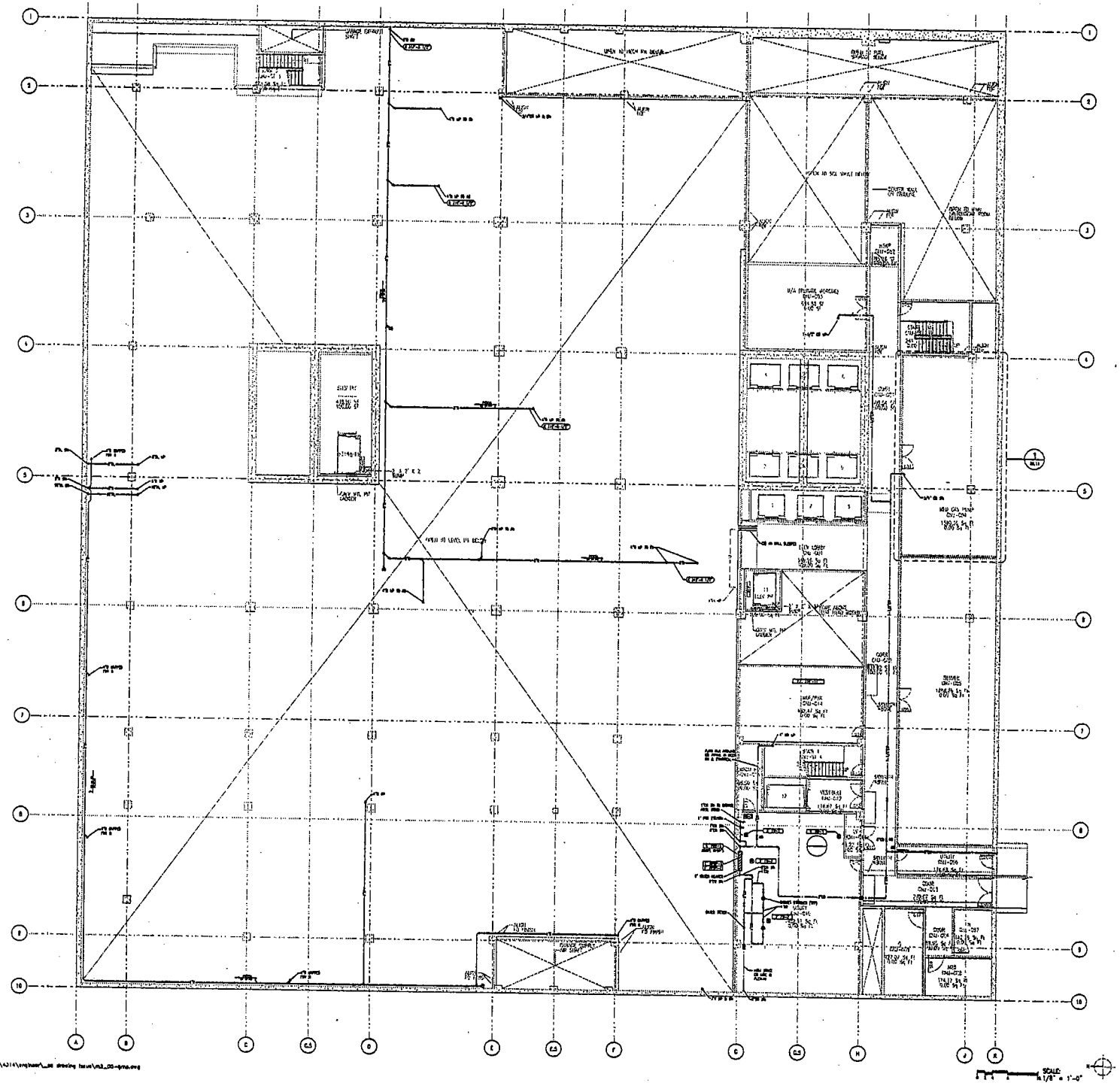

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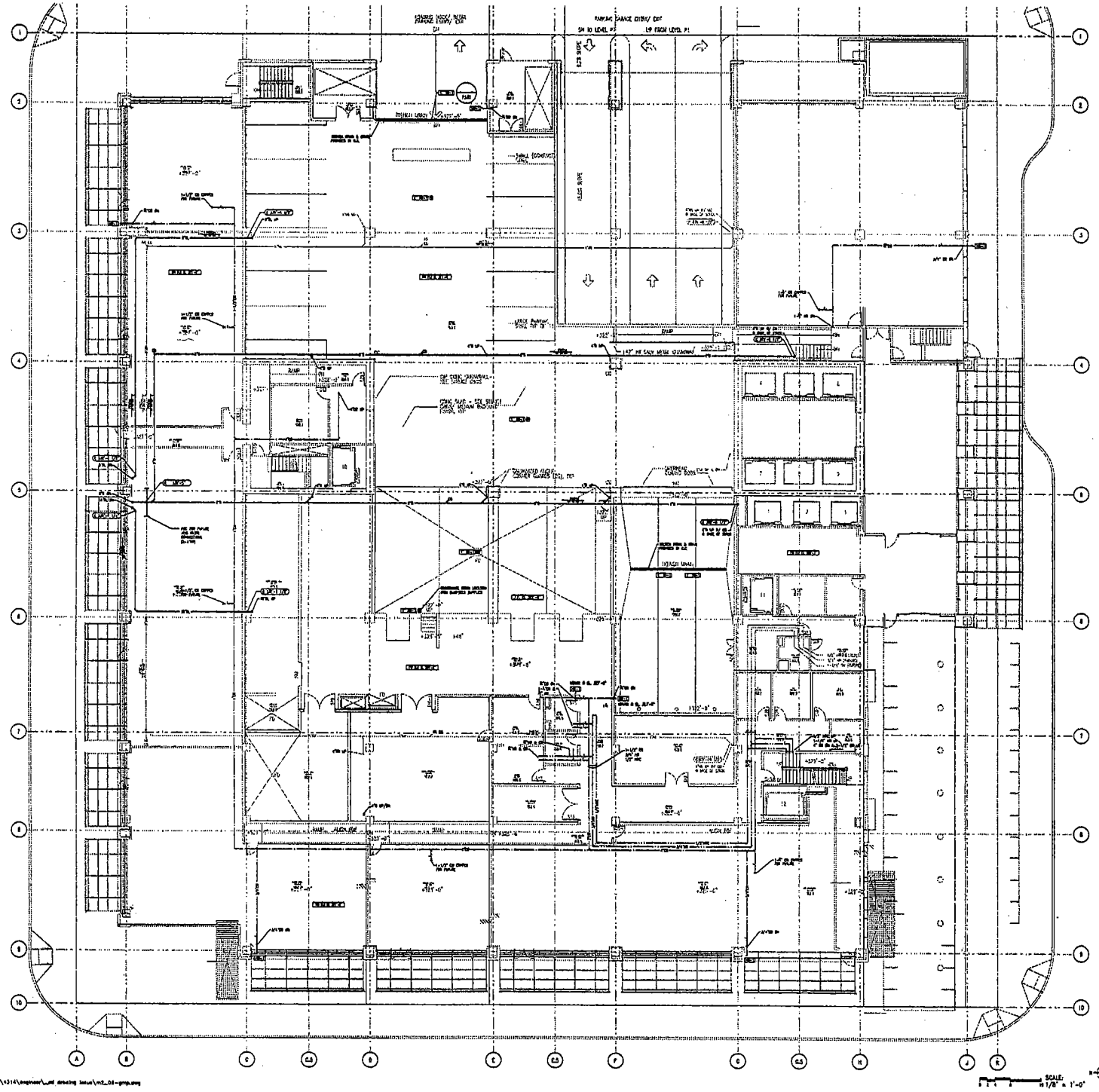

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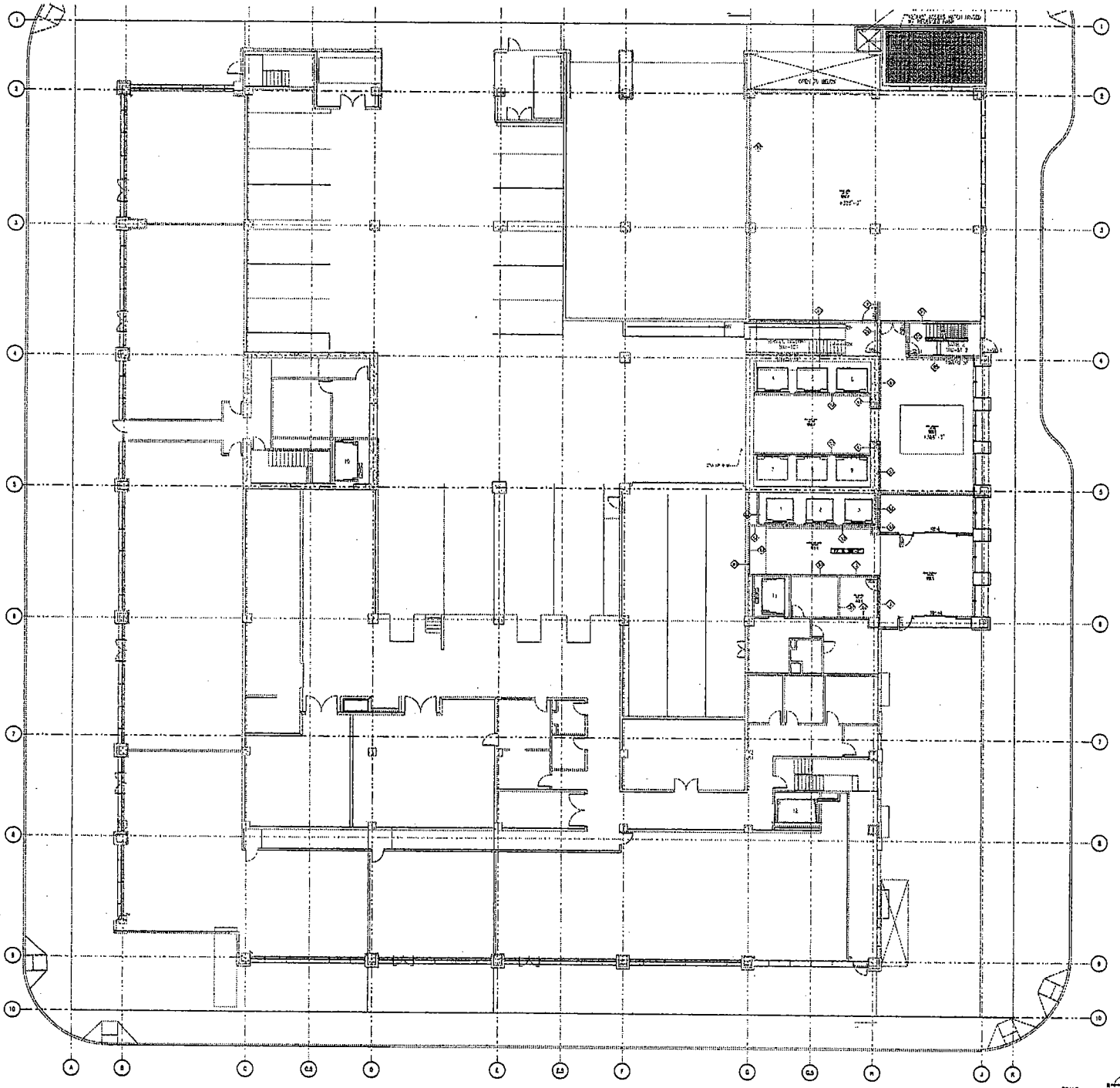

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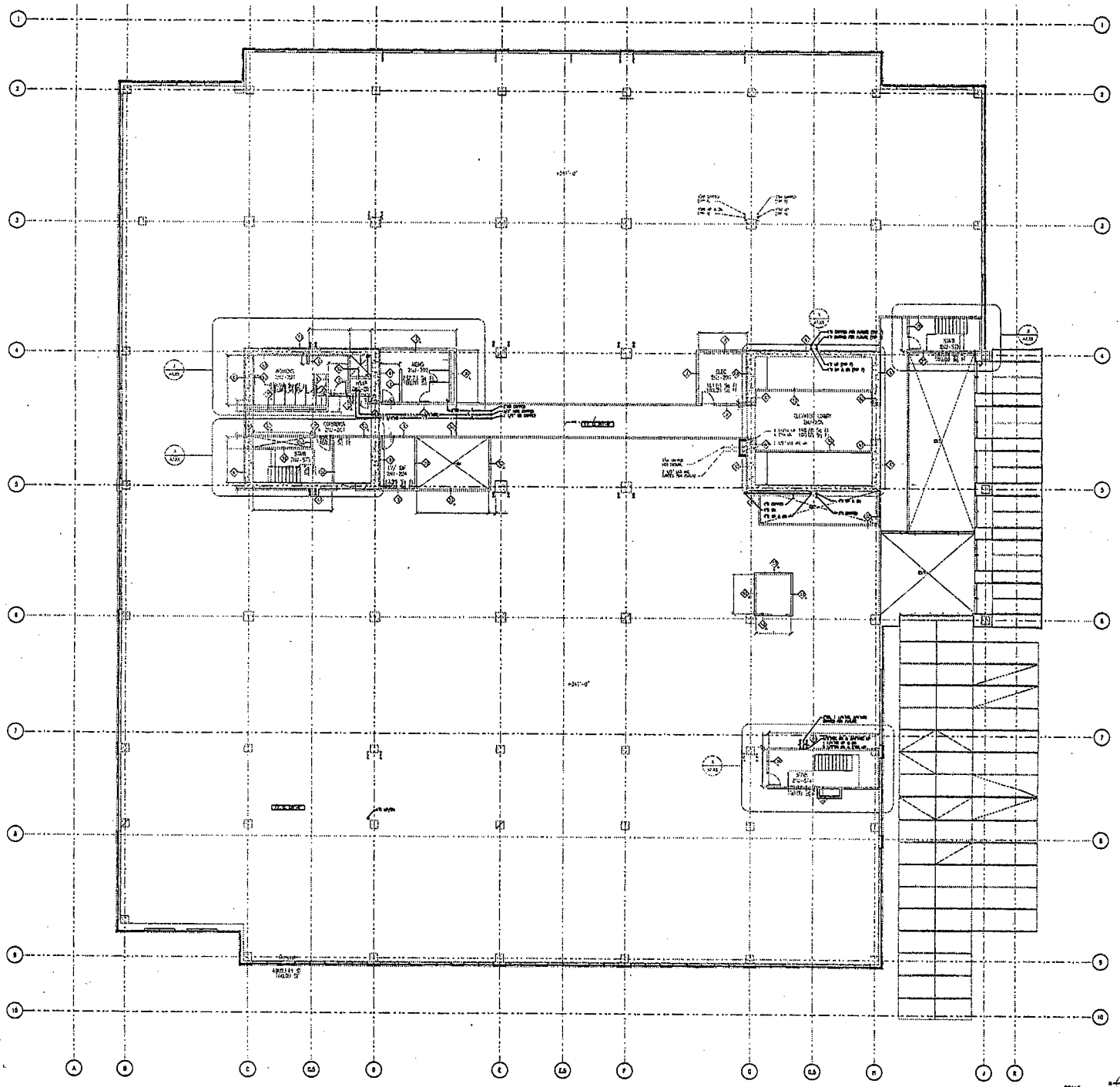

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LEVEL 2 PLAN – PLUMBING

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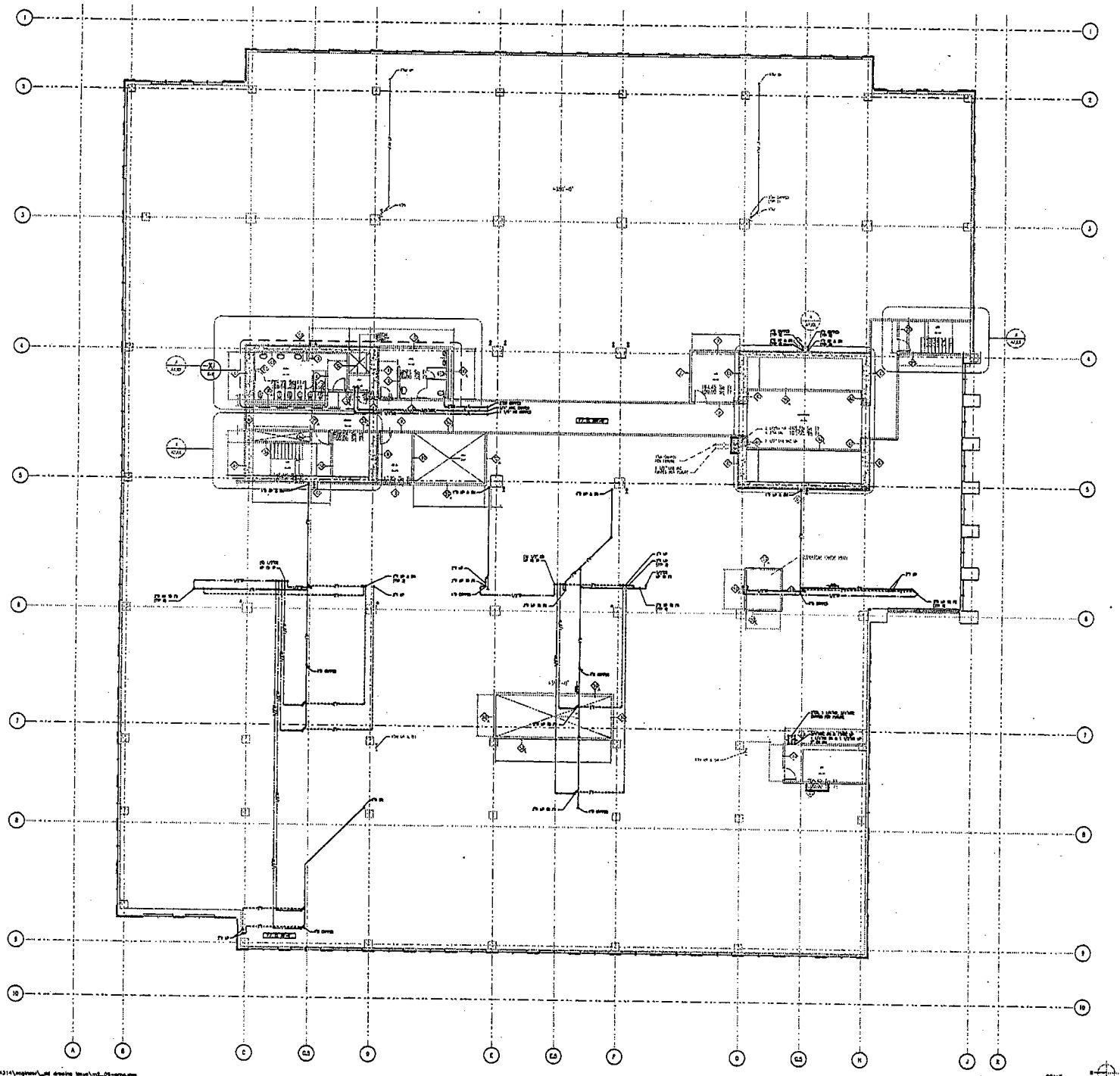

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LEVEL 3
PLAN -
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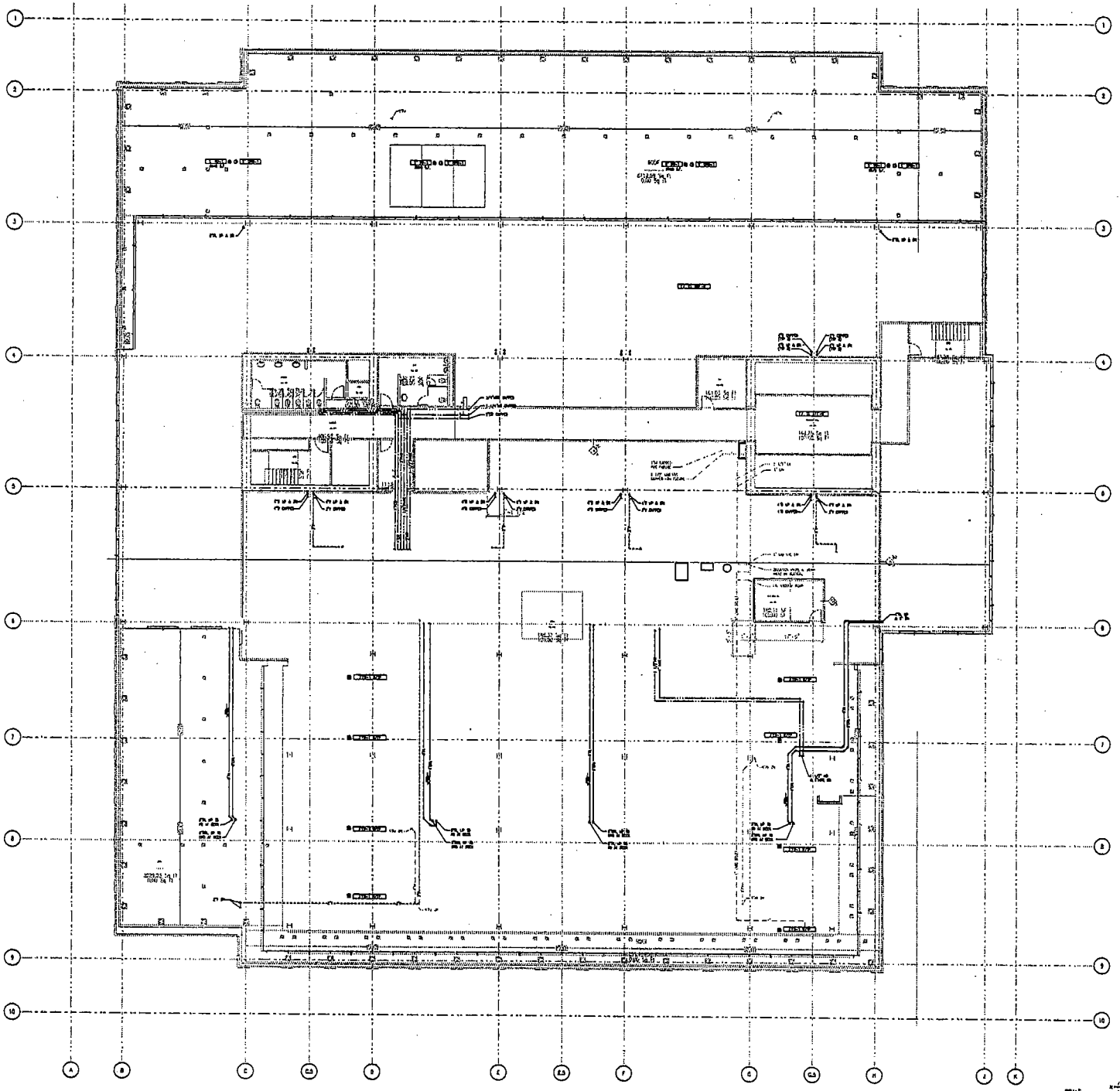

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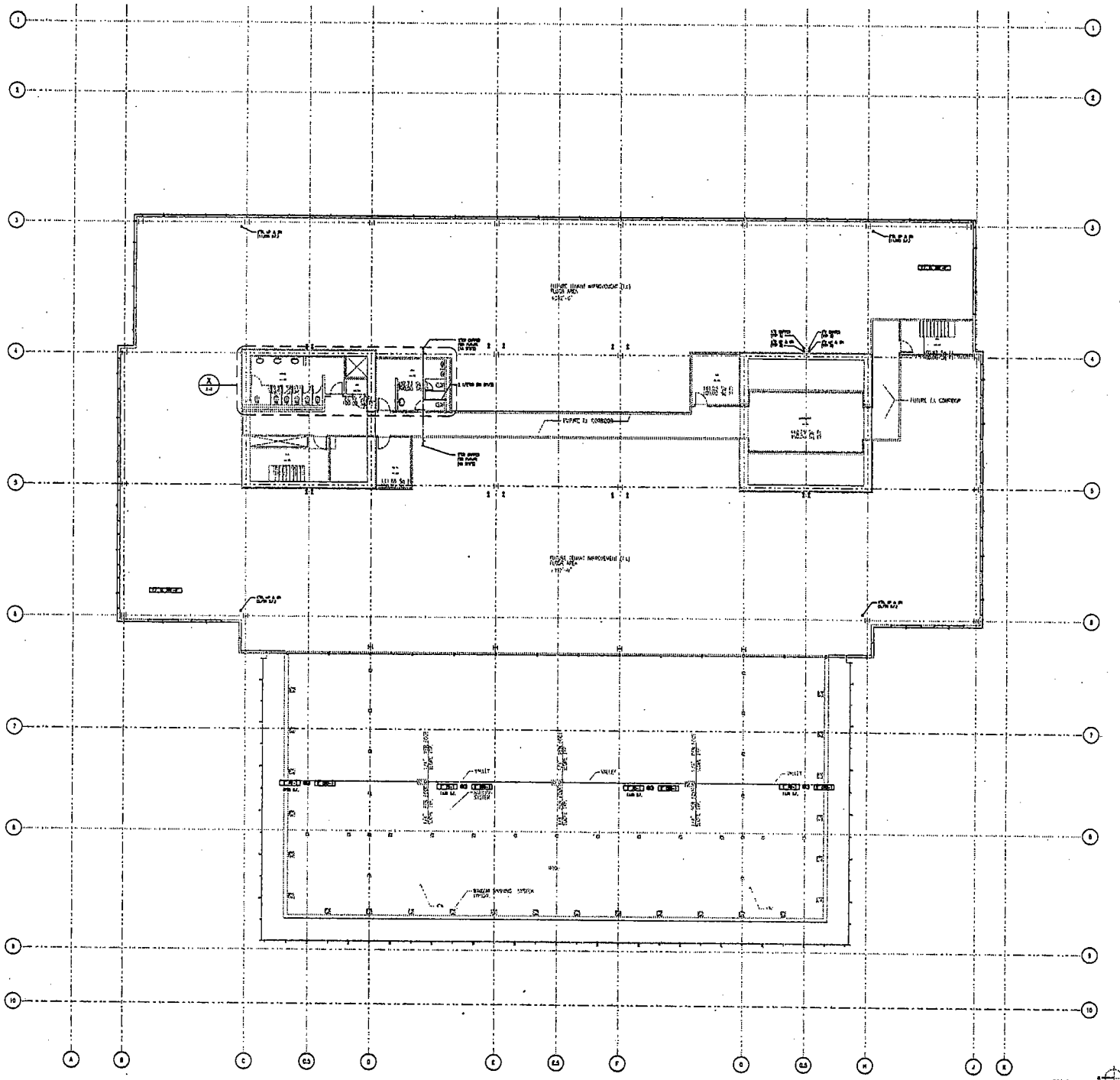

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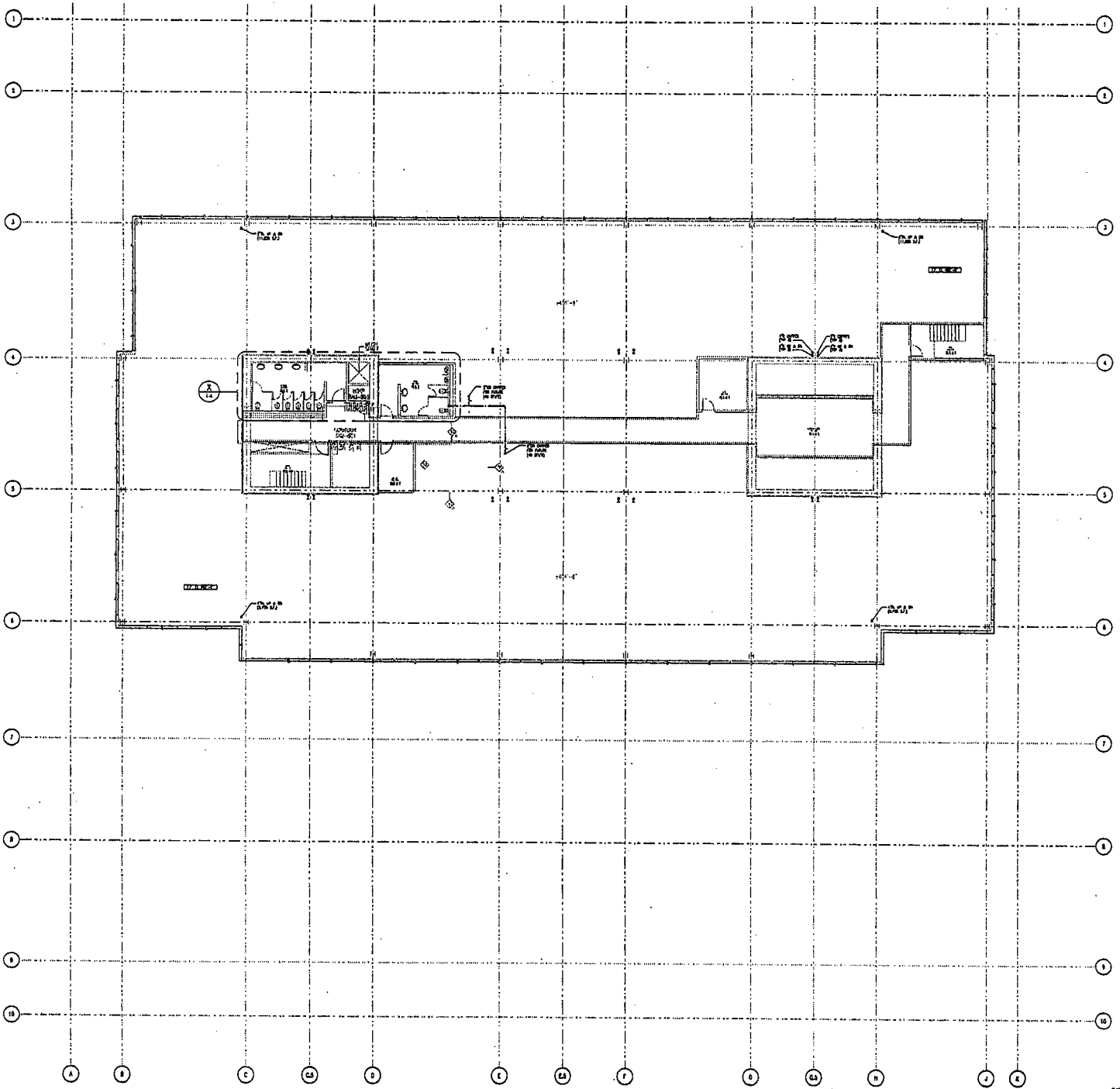
NJB LEVEL 5 PLAN – PLUMBING

M2.11



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LEVEL 6 PLAN - PLUMBING

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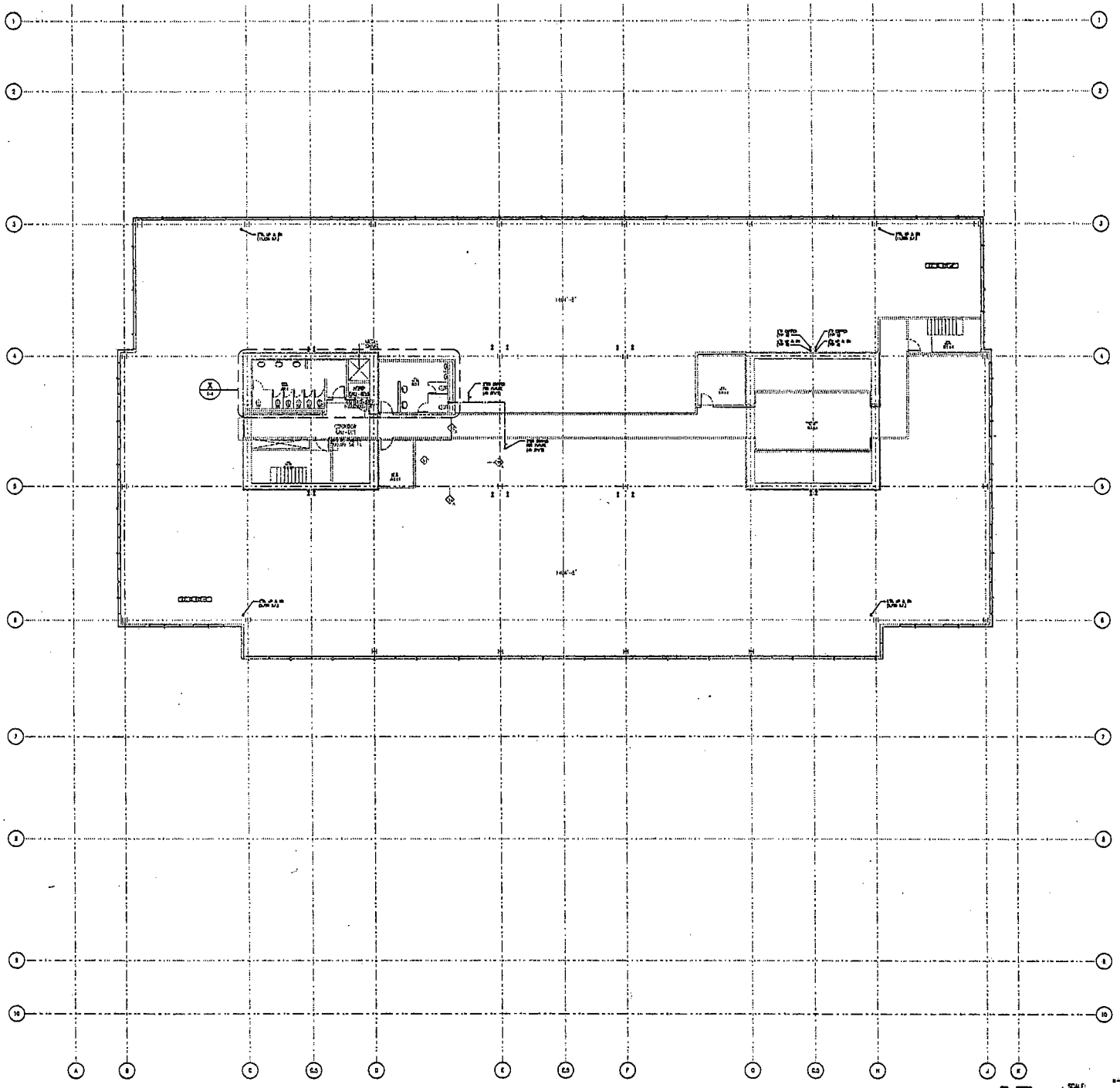

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NJB LEVEL 7 PLAN - PLUMBING

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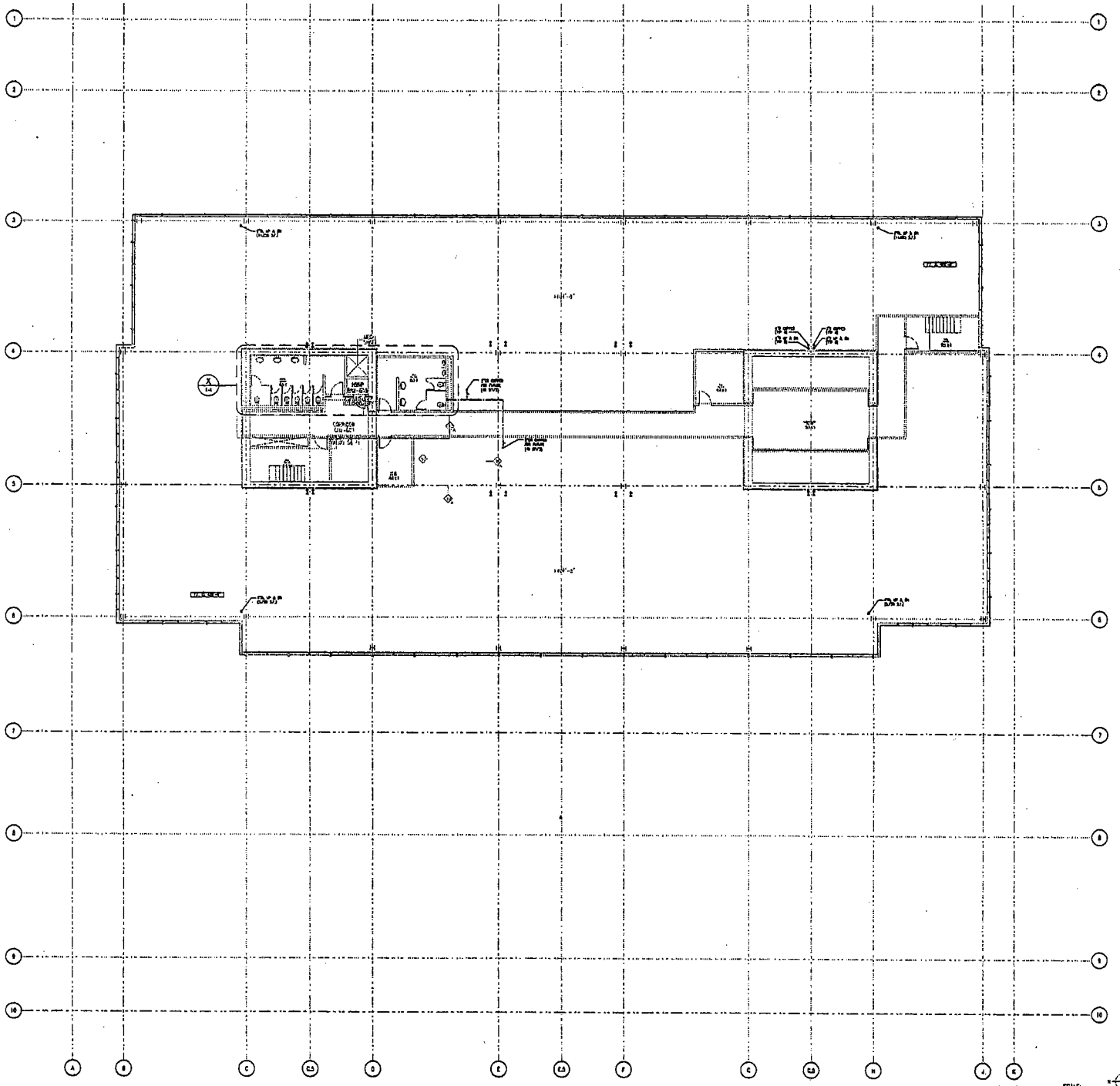

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LEVEL 8 PLAN - PLUMBING

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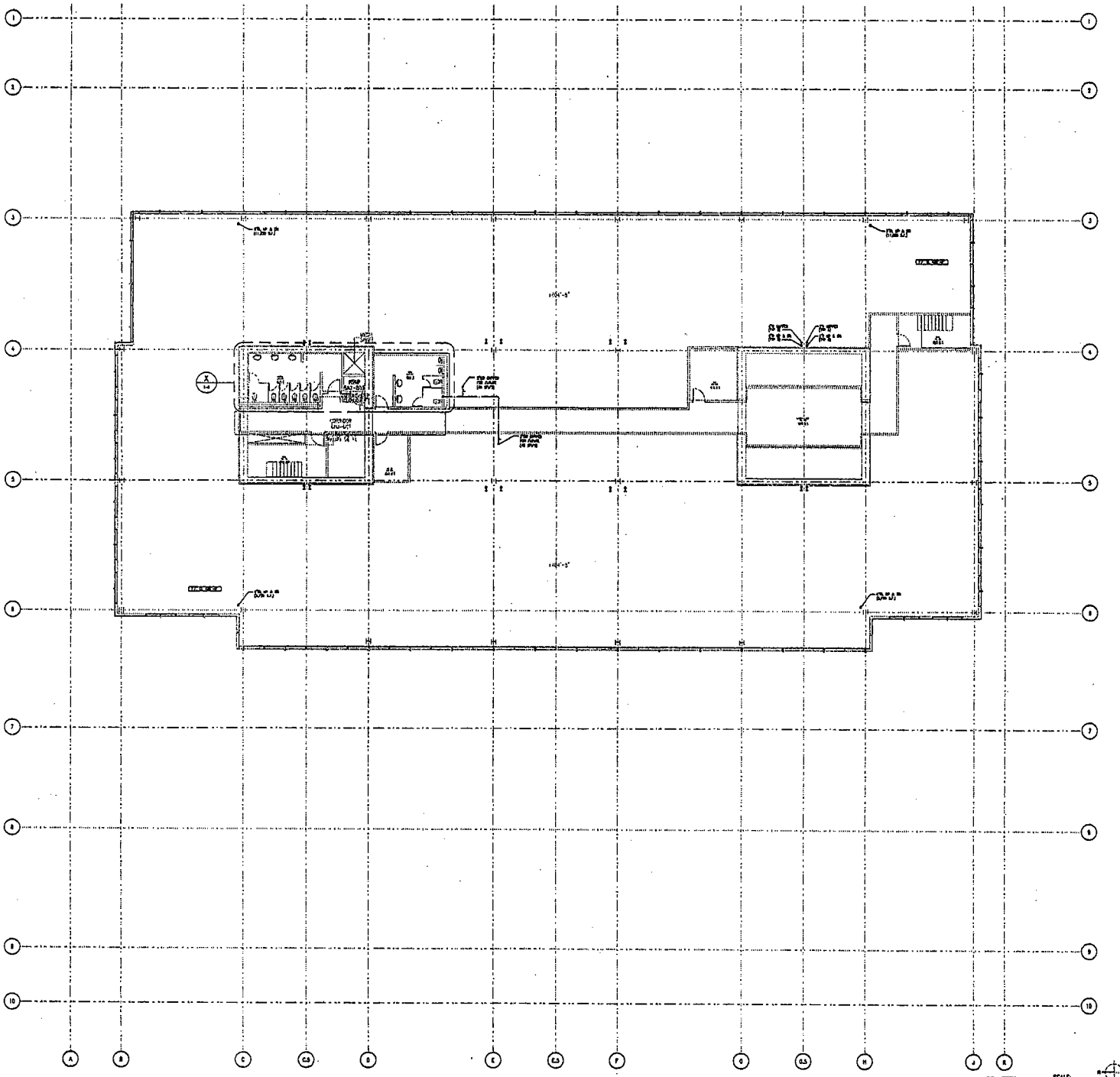

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NJB LEVEL 9 PLAN - PLUMBING

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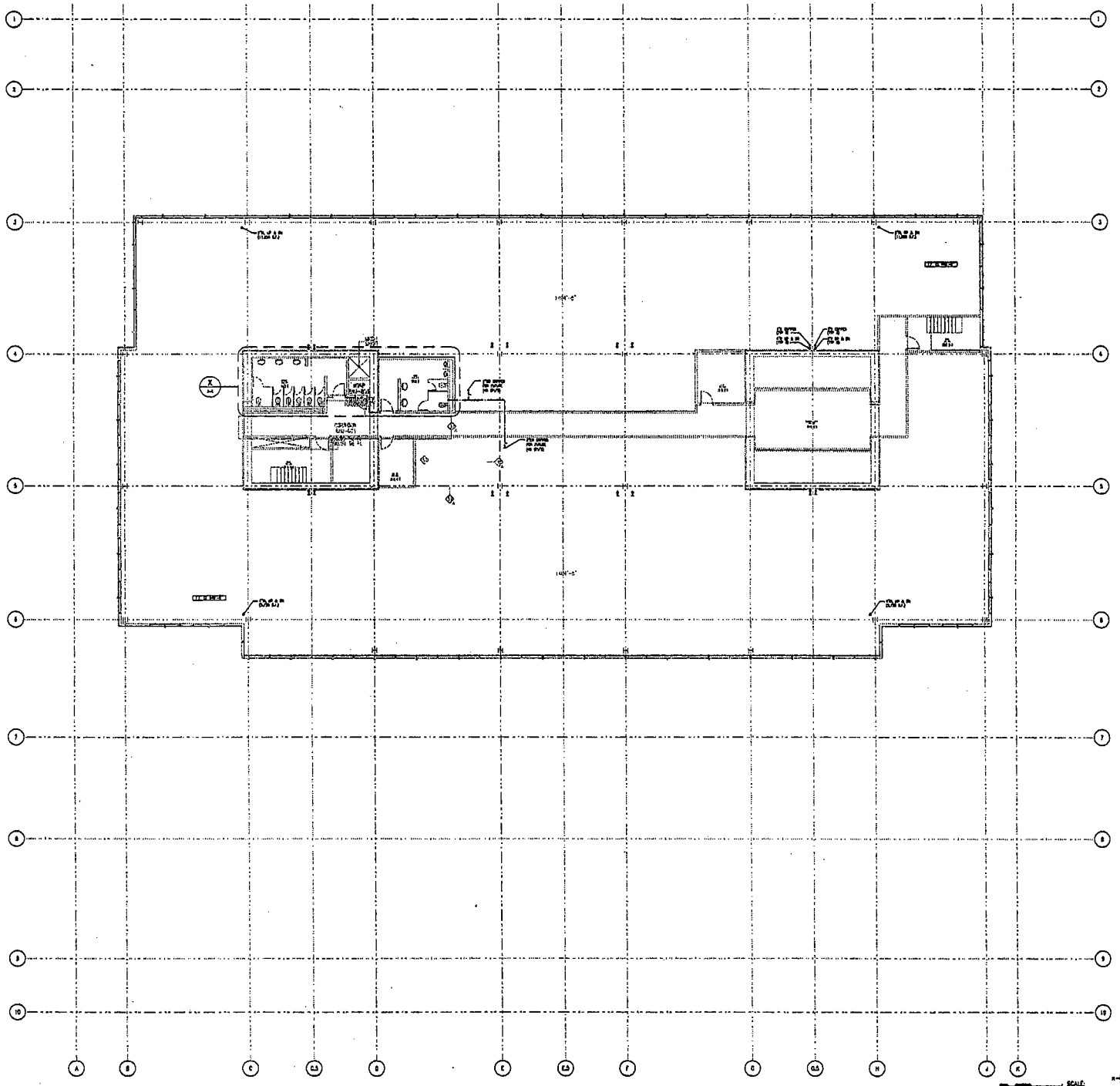

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NJ8
LEVEL 10
PLAN -
PLUMBING

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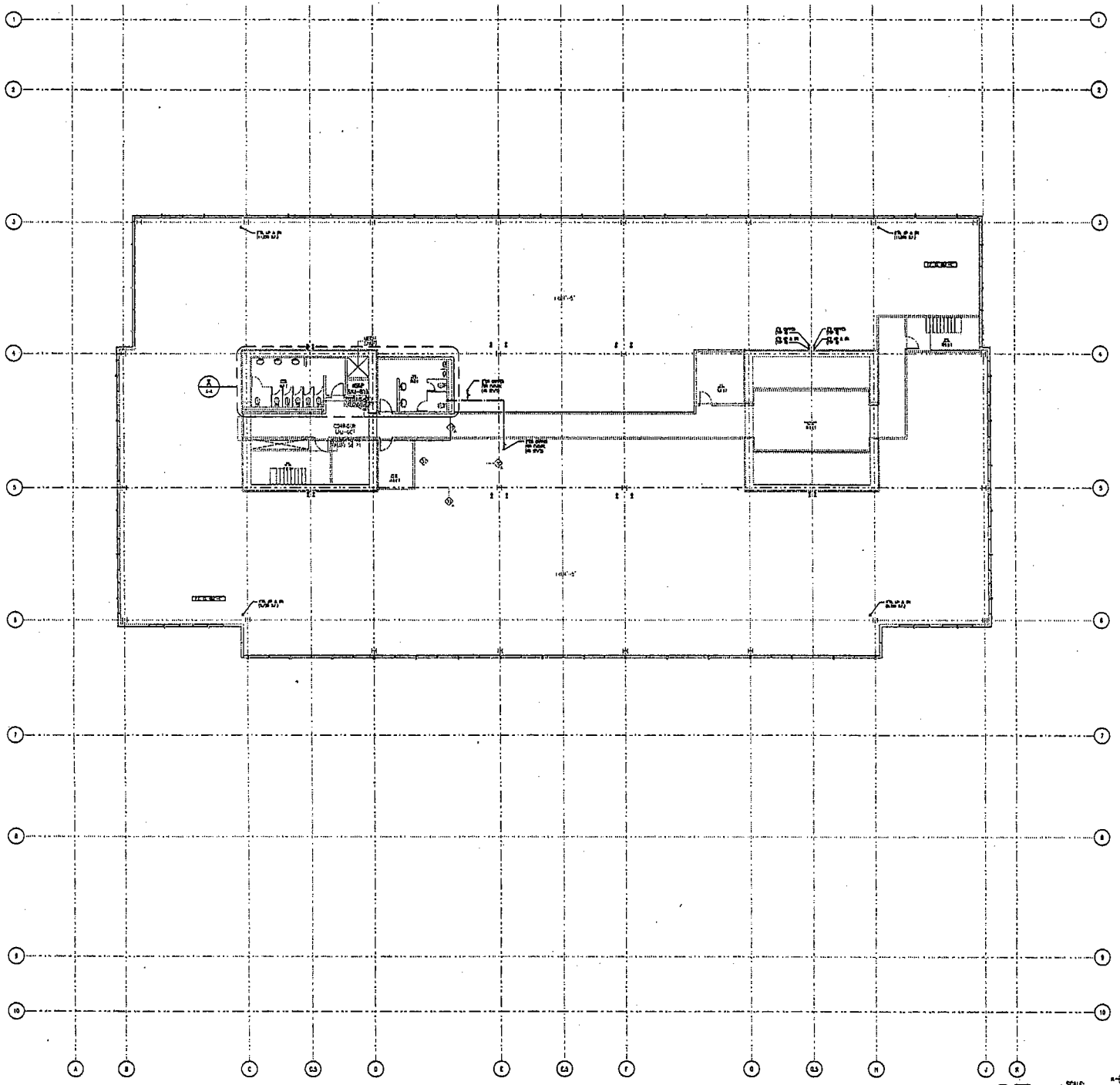

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NJB LEVEL 11 PLAN – PLUMBING

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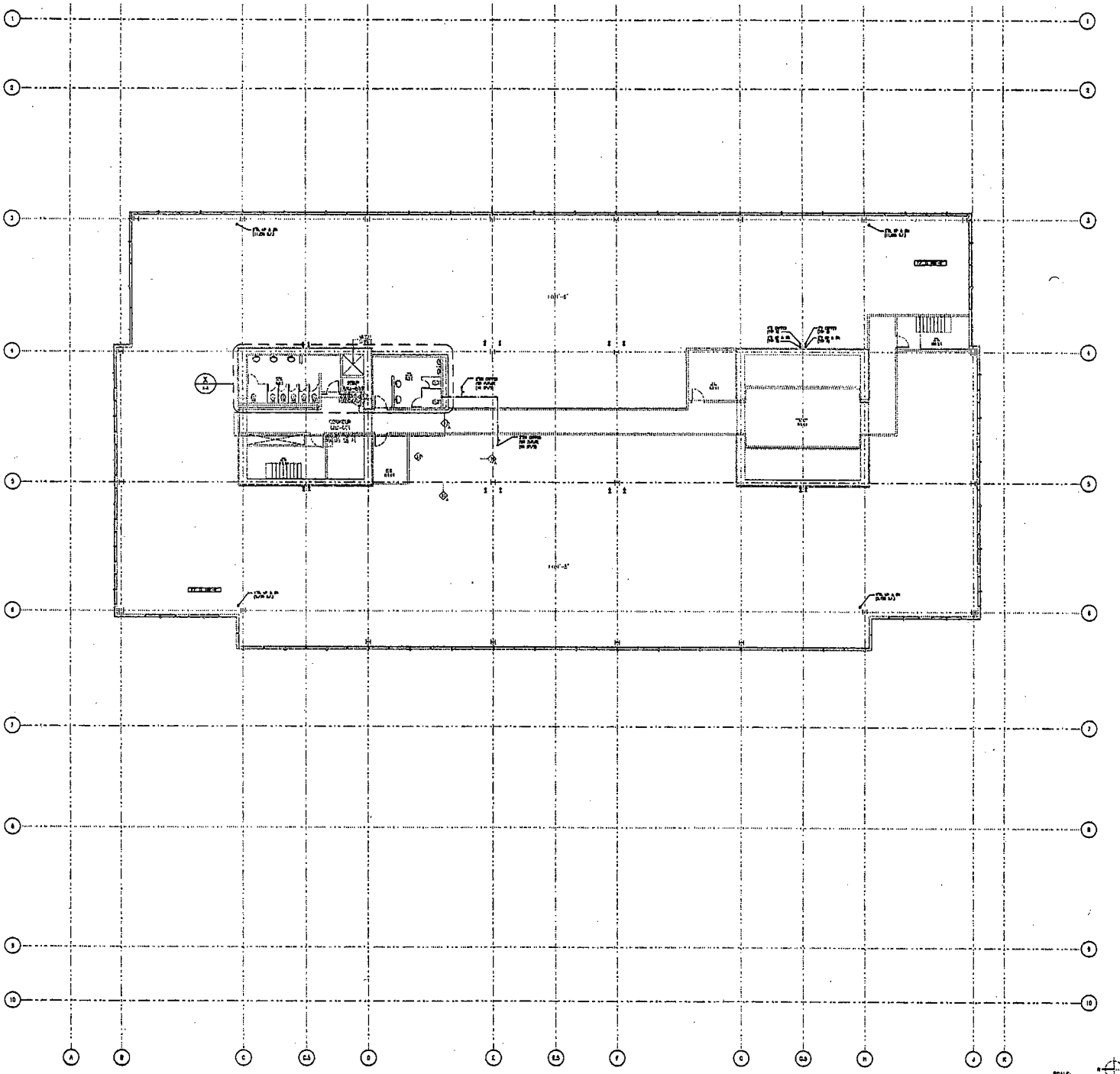

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LEVEL 12
PLAN -
PLUMBING

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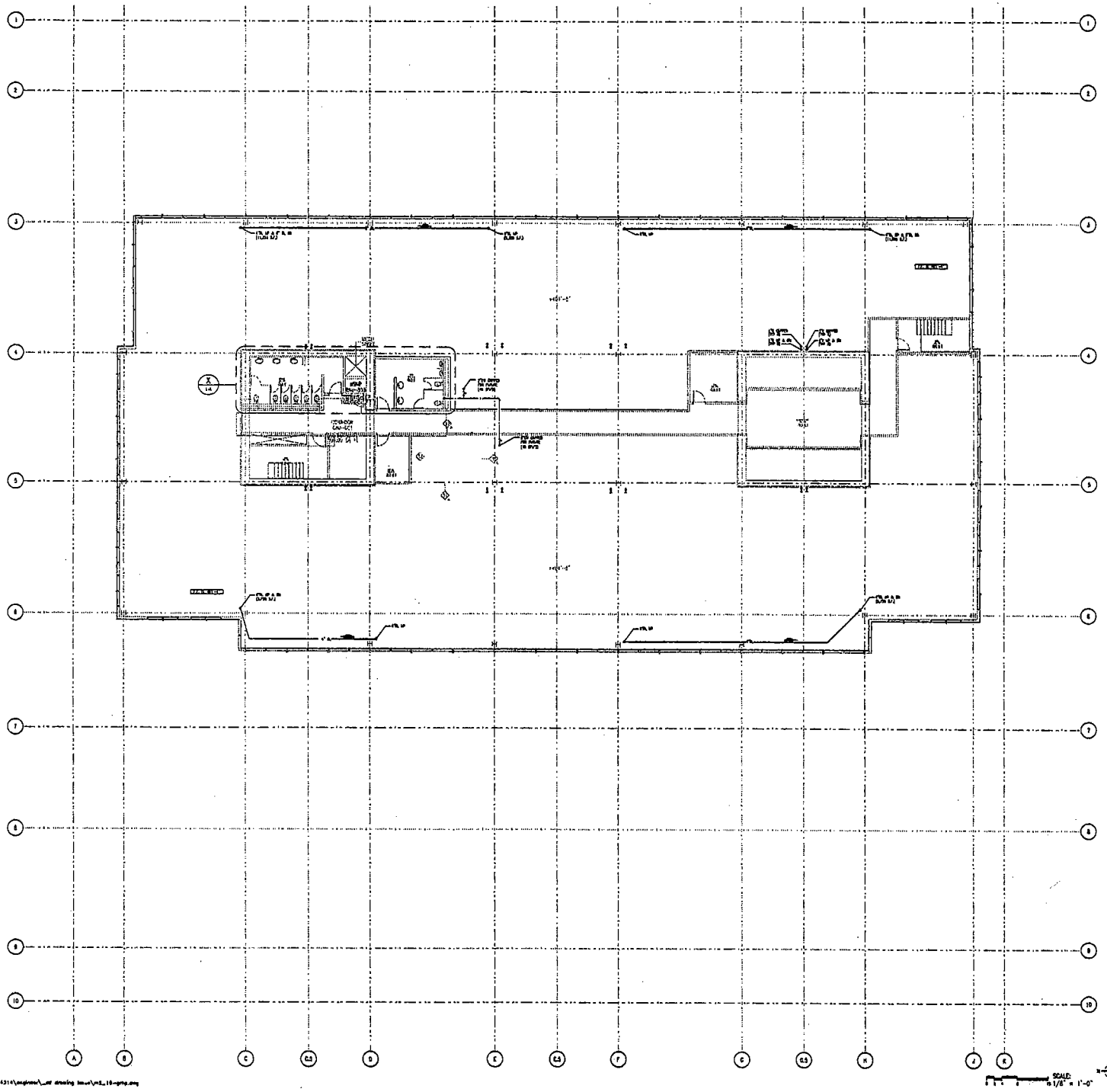

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NJB LEVEL 13 PLAN – PLUMBING

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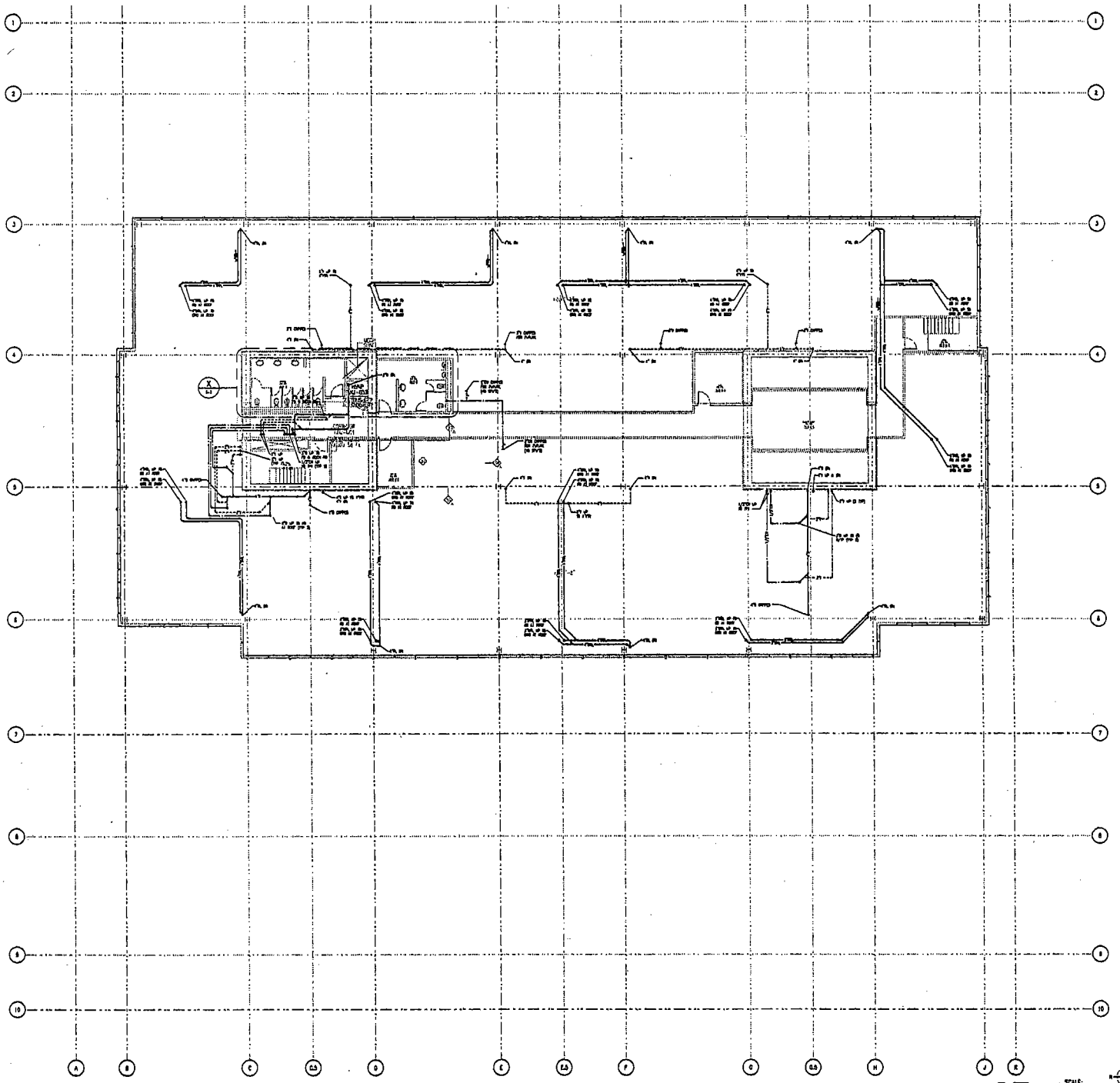

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NJB LEVEL 14 PLAN – PLUMBING

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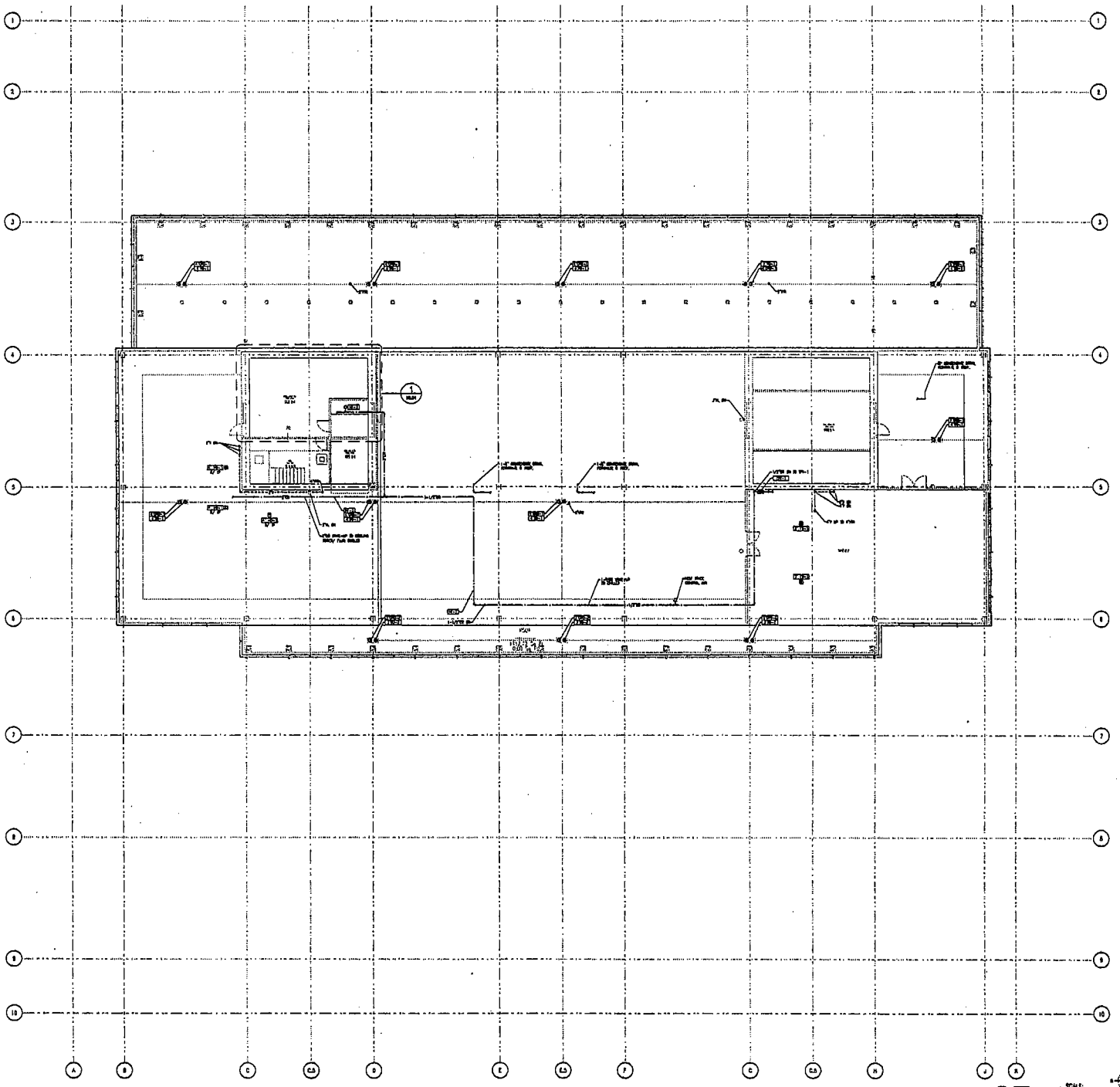

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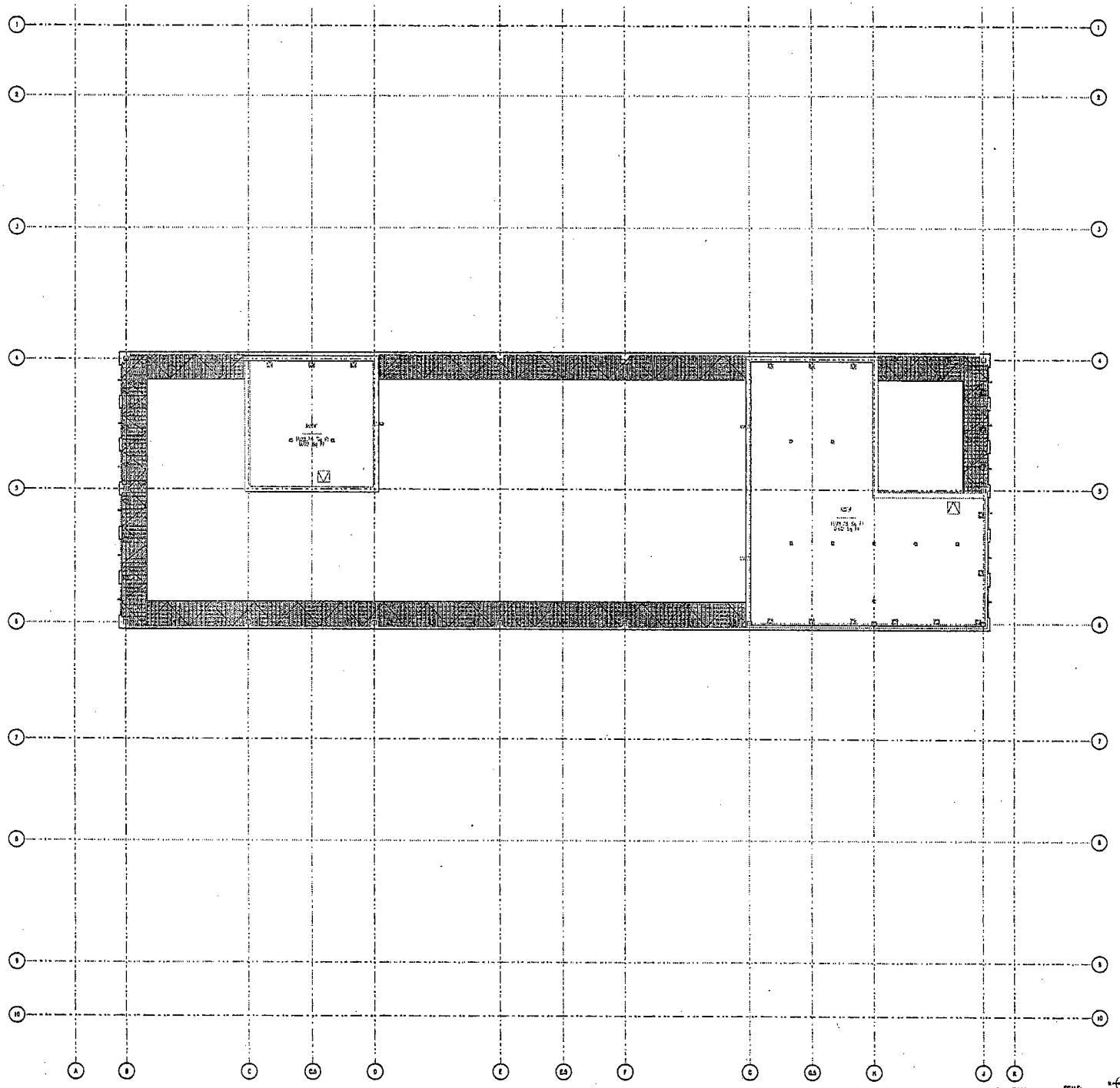

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ROOF PLAN
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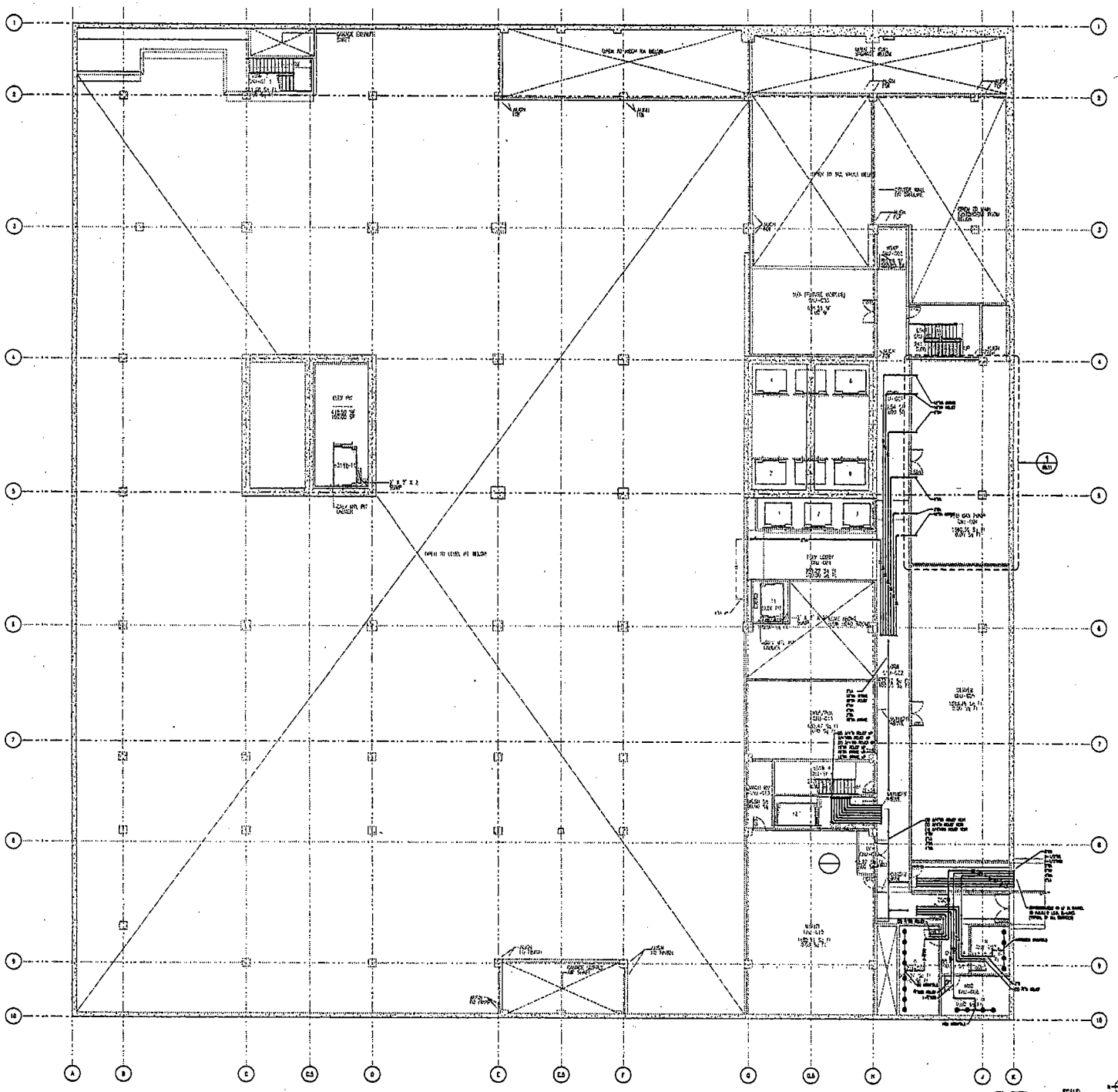

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NJB LEVEL G PLAN – MEDICAL & LAB GAS

M3.05

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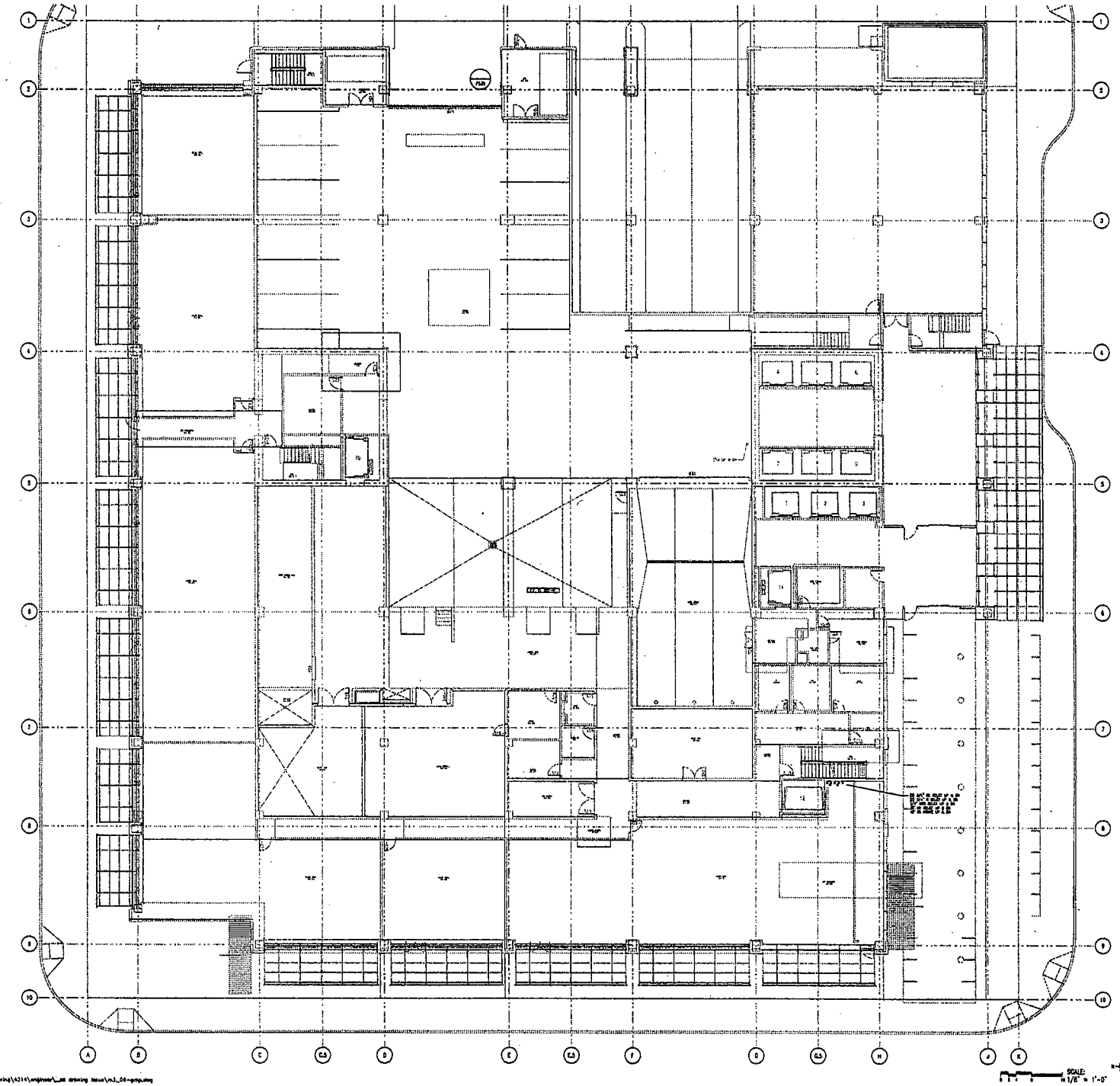

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NJB LEVEL S PLAN – MEDICAL & LAB GAS

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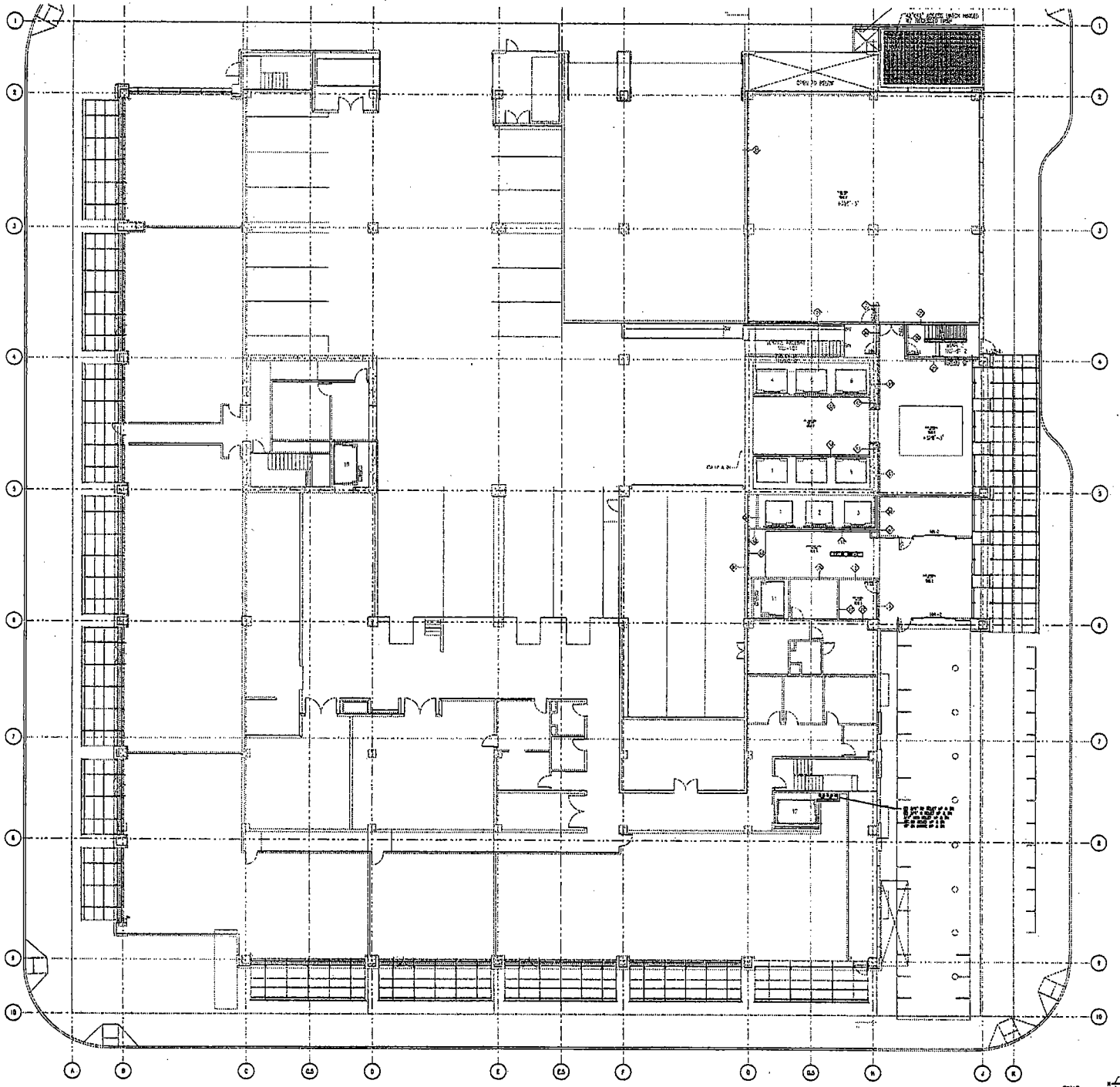

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NJB LEVEL 1 PLAN – MEDICAL & LAB GAS

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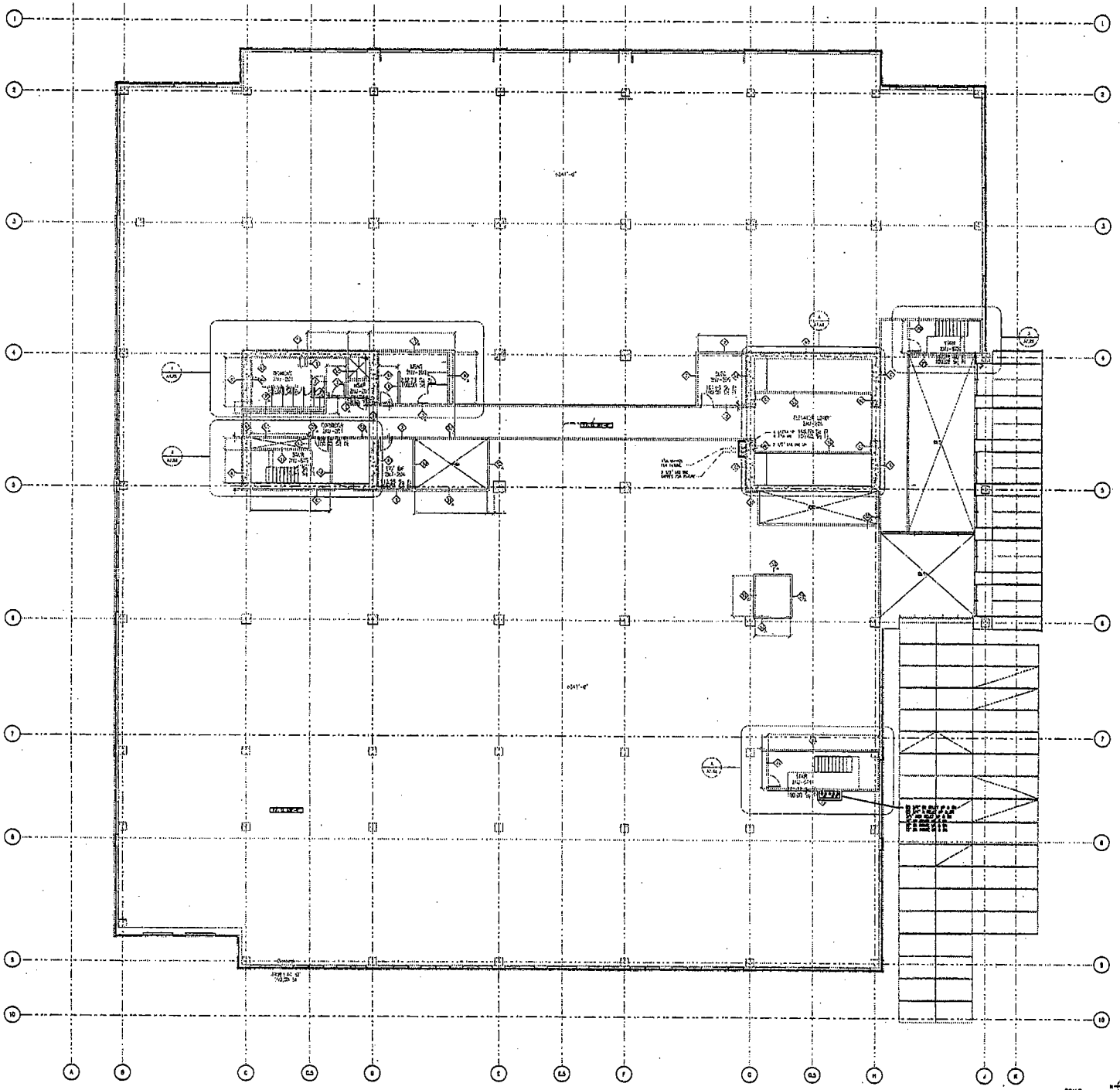

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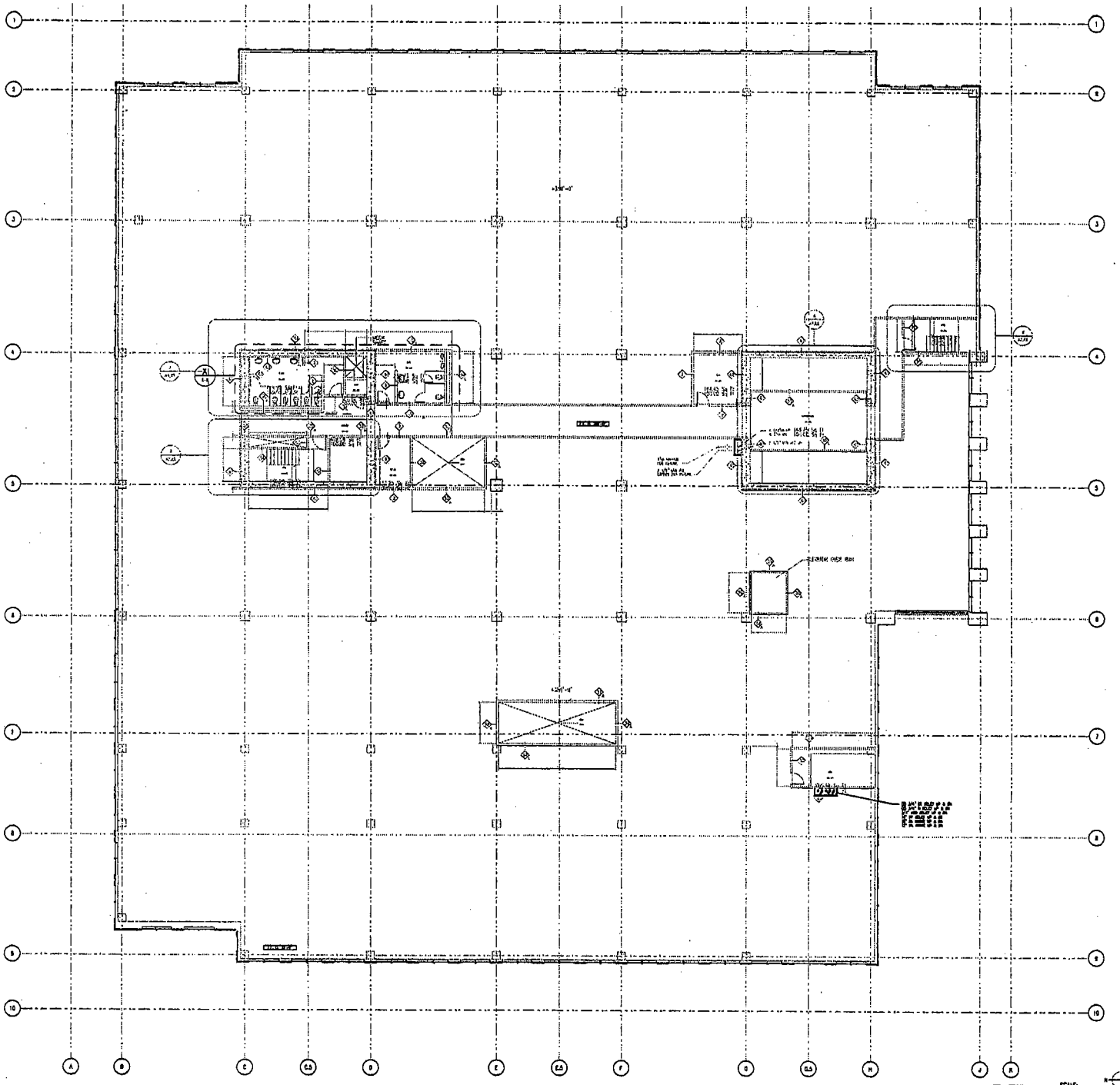

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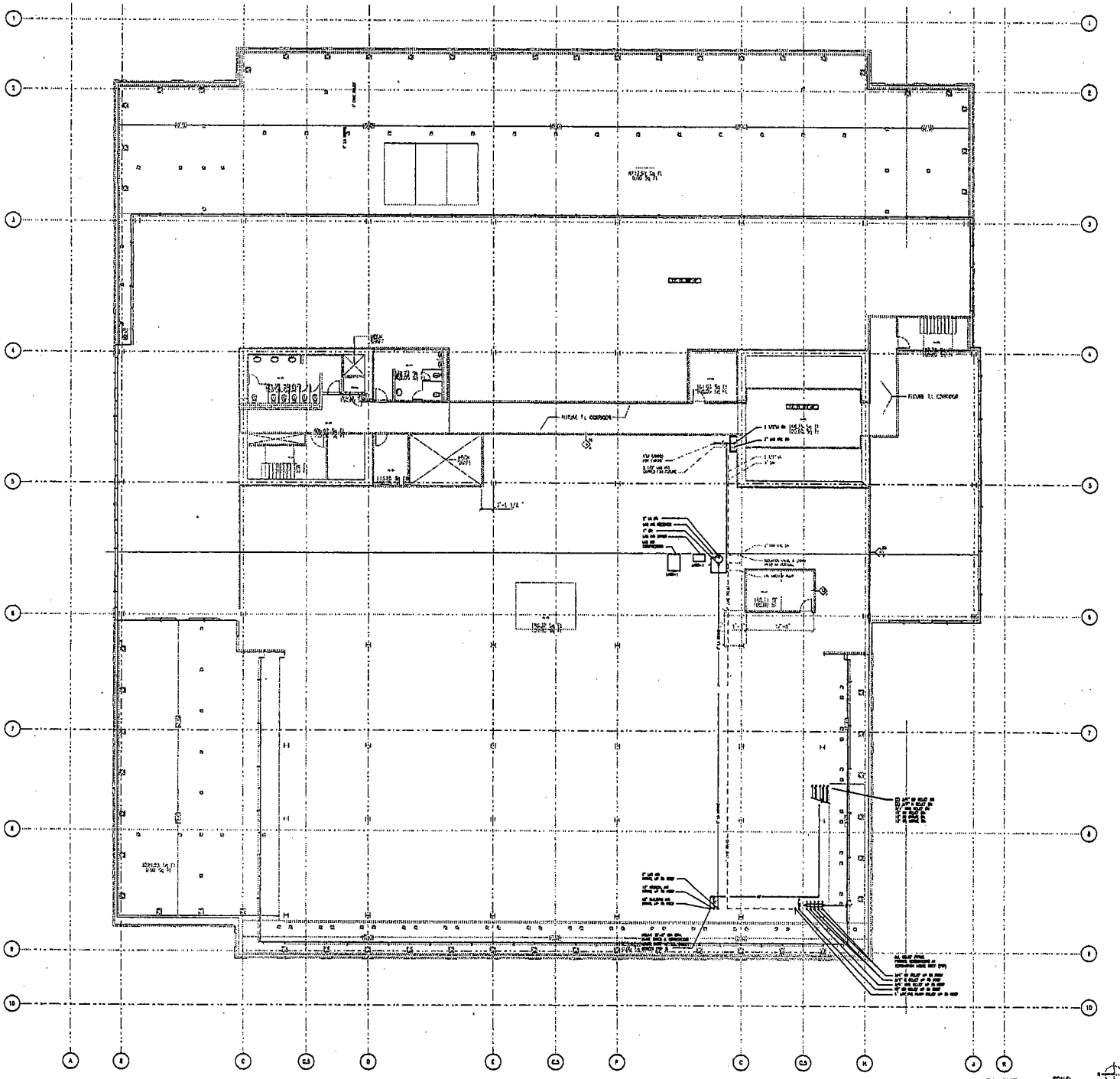

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NJB LEVEL 4 PLAN – MEDICAL & LAB GAS

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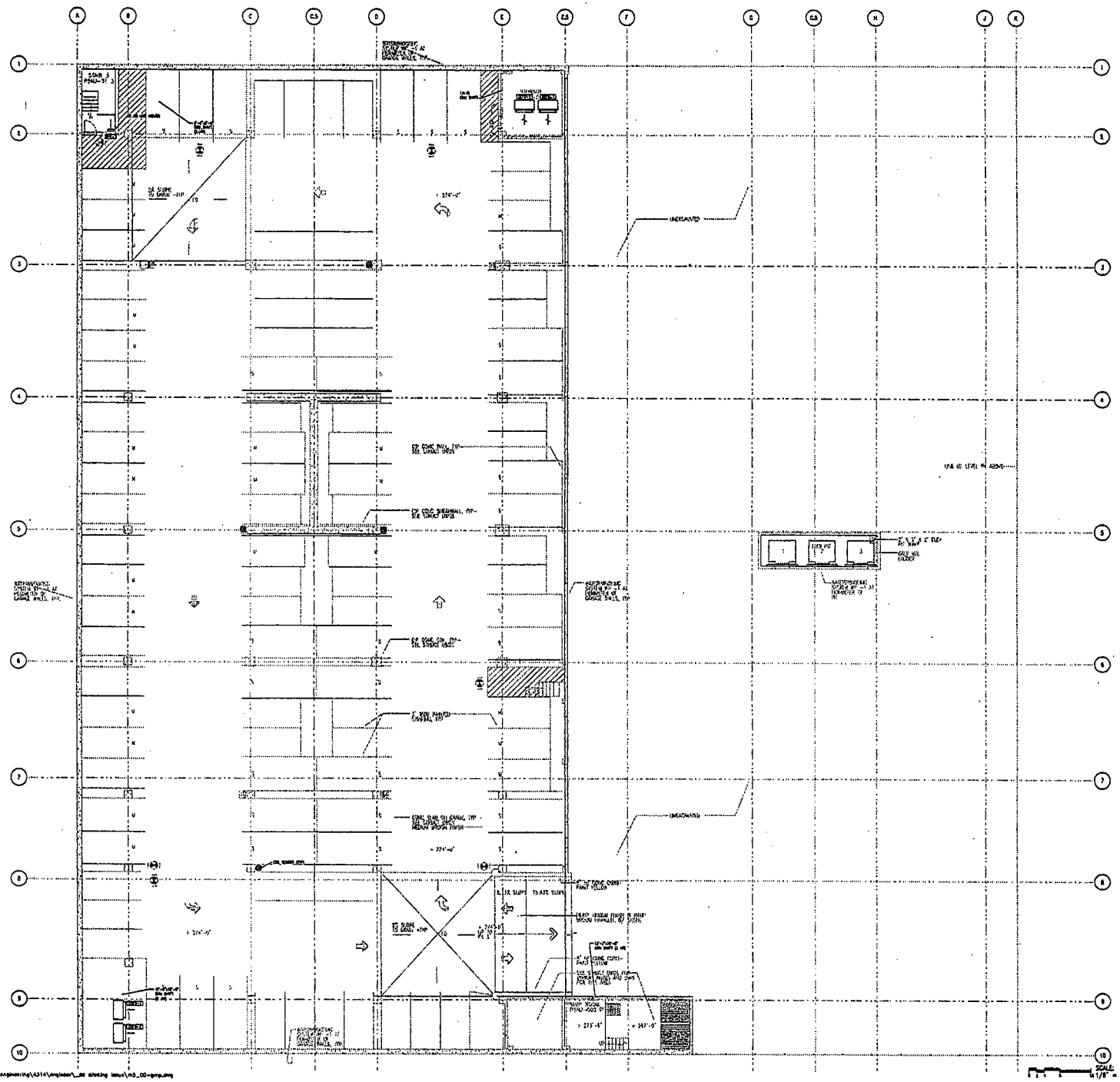

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NJB PARKING LEVEL 5 PLAN – AIR DISTRIBUTION

M5.00

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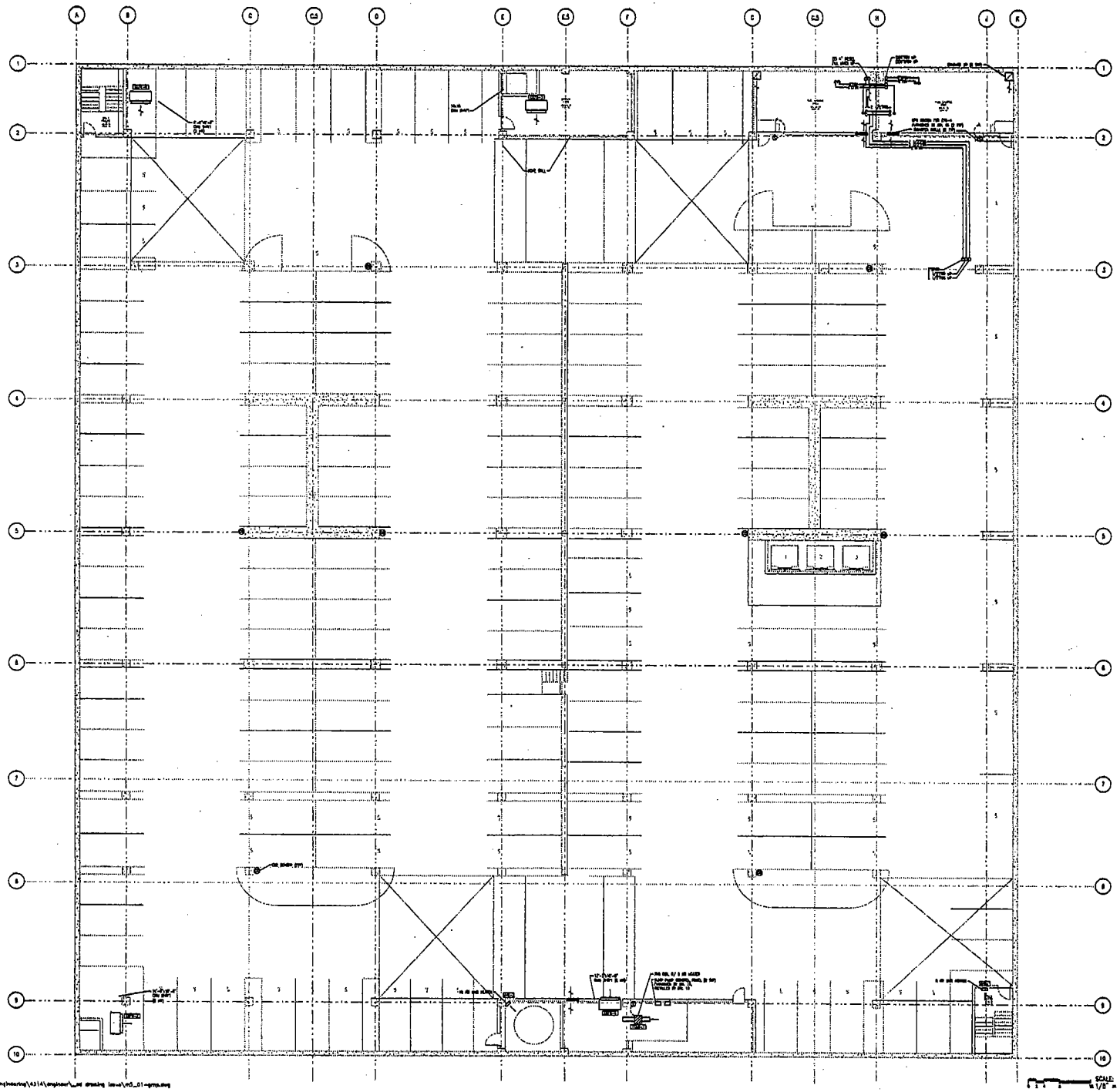

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NJB PARKING LEVEL 4 PLAN – AIR DISTRIBUTION

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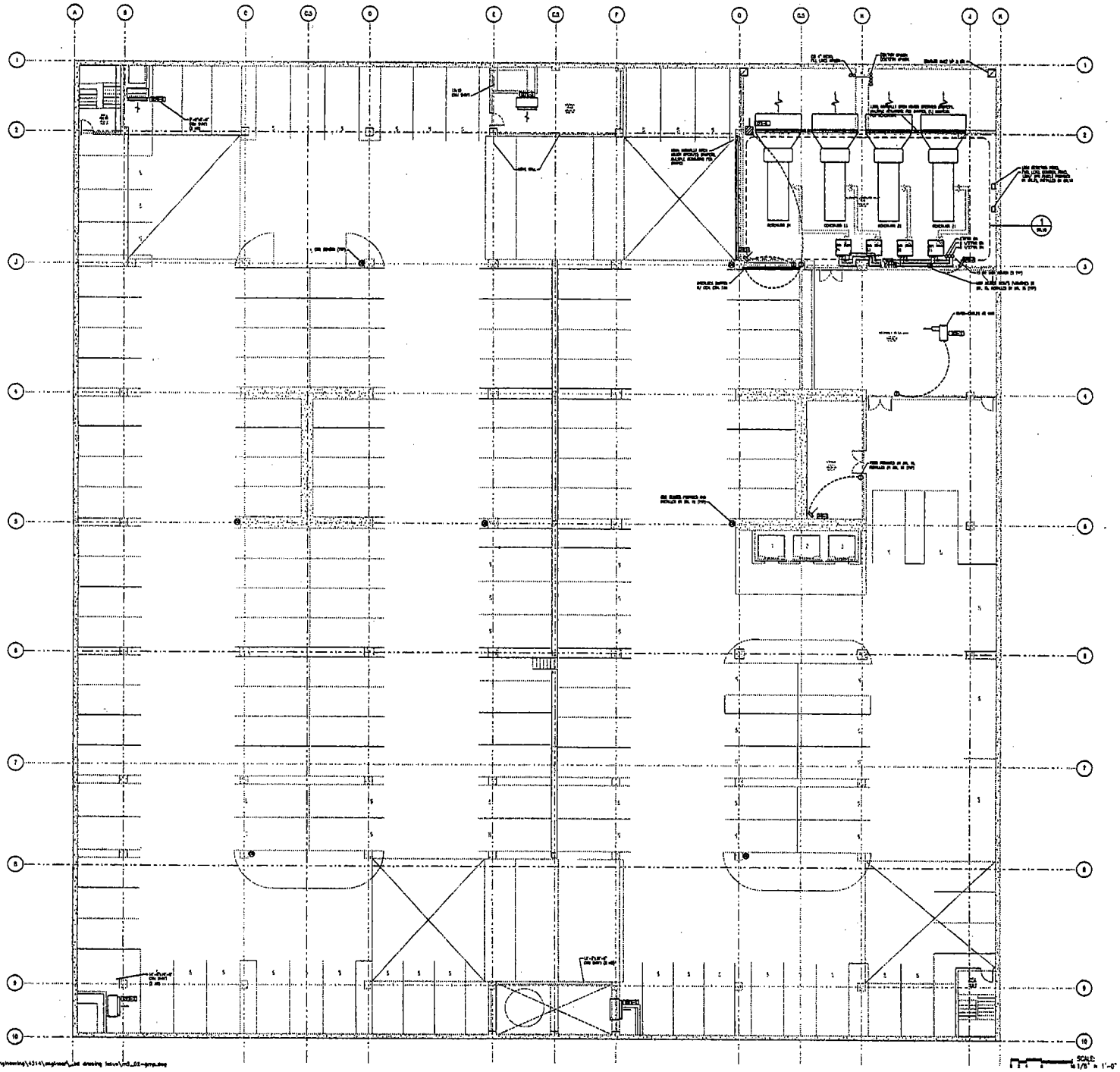

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NJB PARKING LEVEL 3 PLAN - AIR DISTRIBUTION

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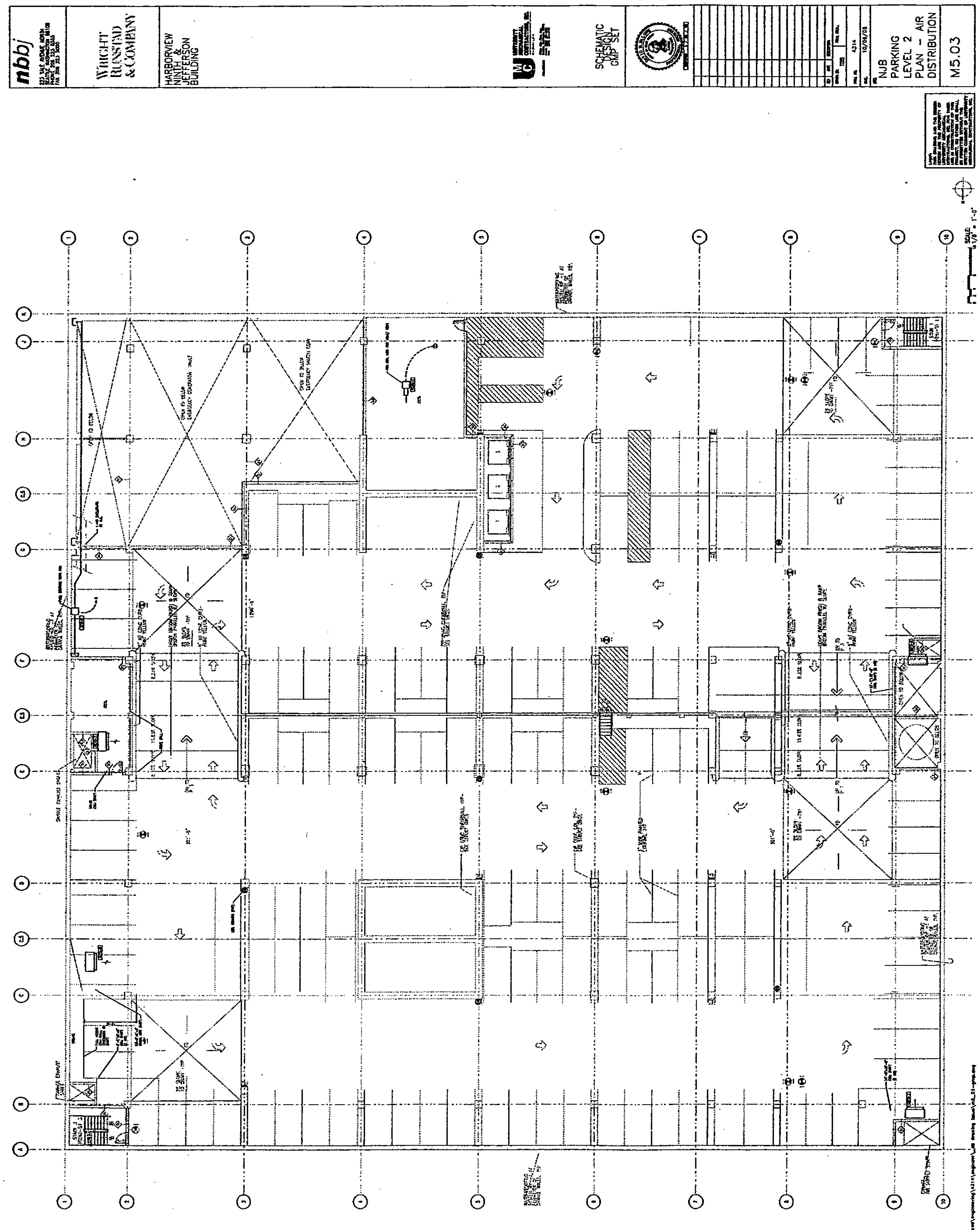
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M5.03

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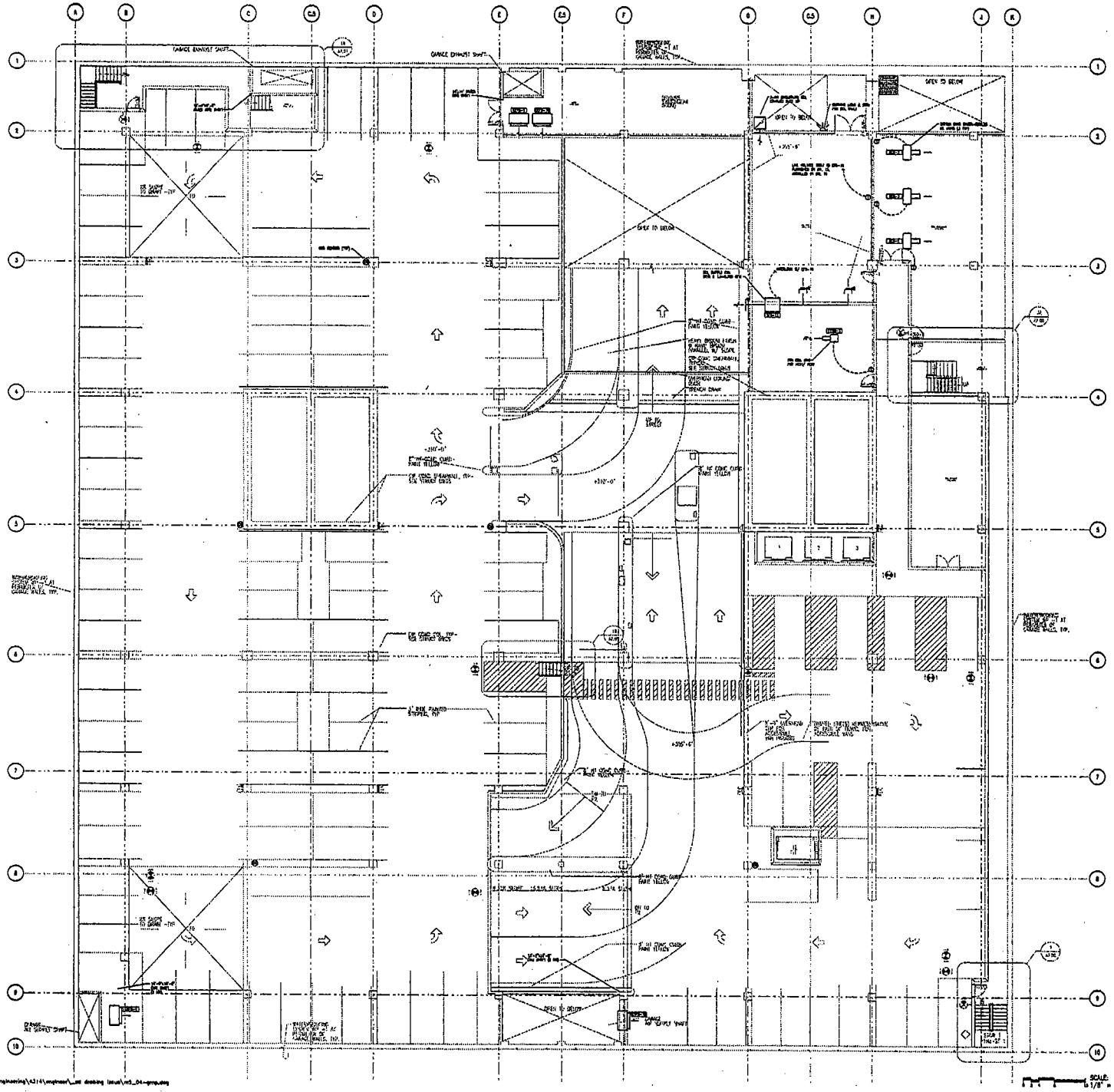

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NJB PARKING LEVEL 1 PLAN – AIR DISTRIBUTION

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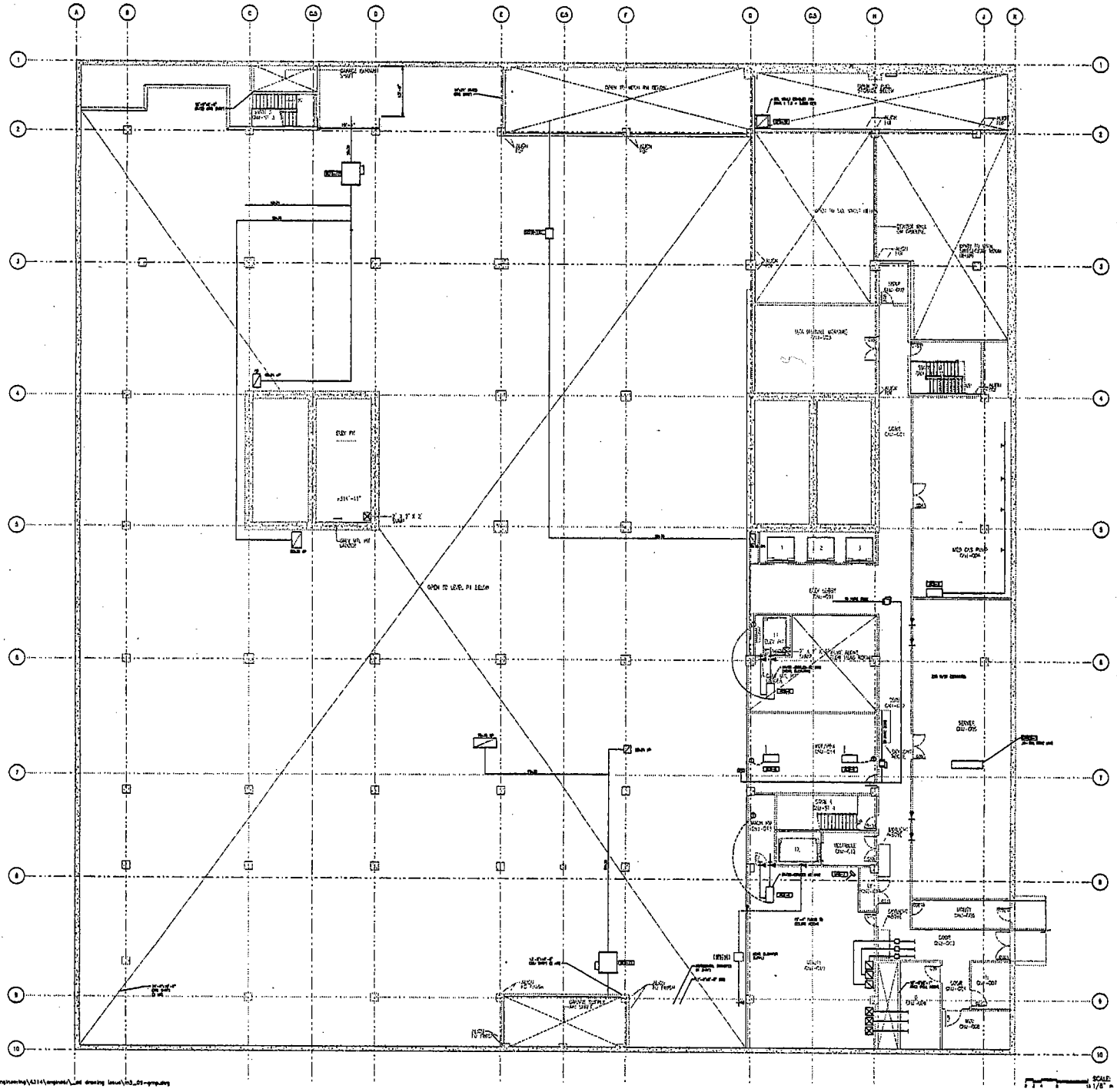

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223 YALE AVENUE NORTH
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FAX 206 223 5500

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UNIVERSITY MECHANICAL CONTRACTORS, INC.

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NJB
LEVEL G
PLAN – AIR DISTRIBUTION

M5.05

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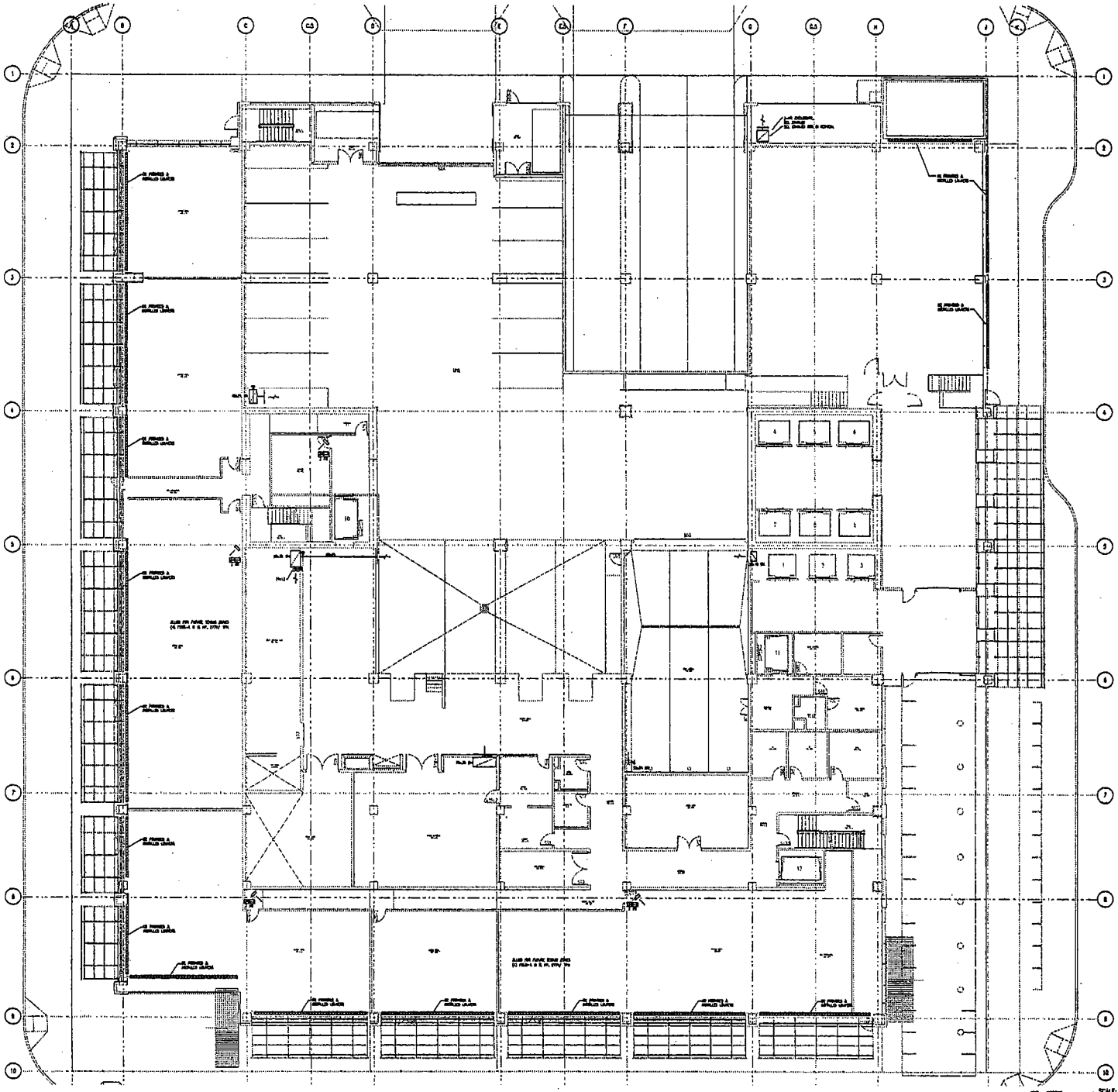

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NJB LEVEL 5 PLAN – AIR DISTRIBUTION

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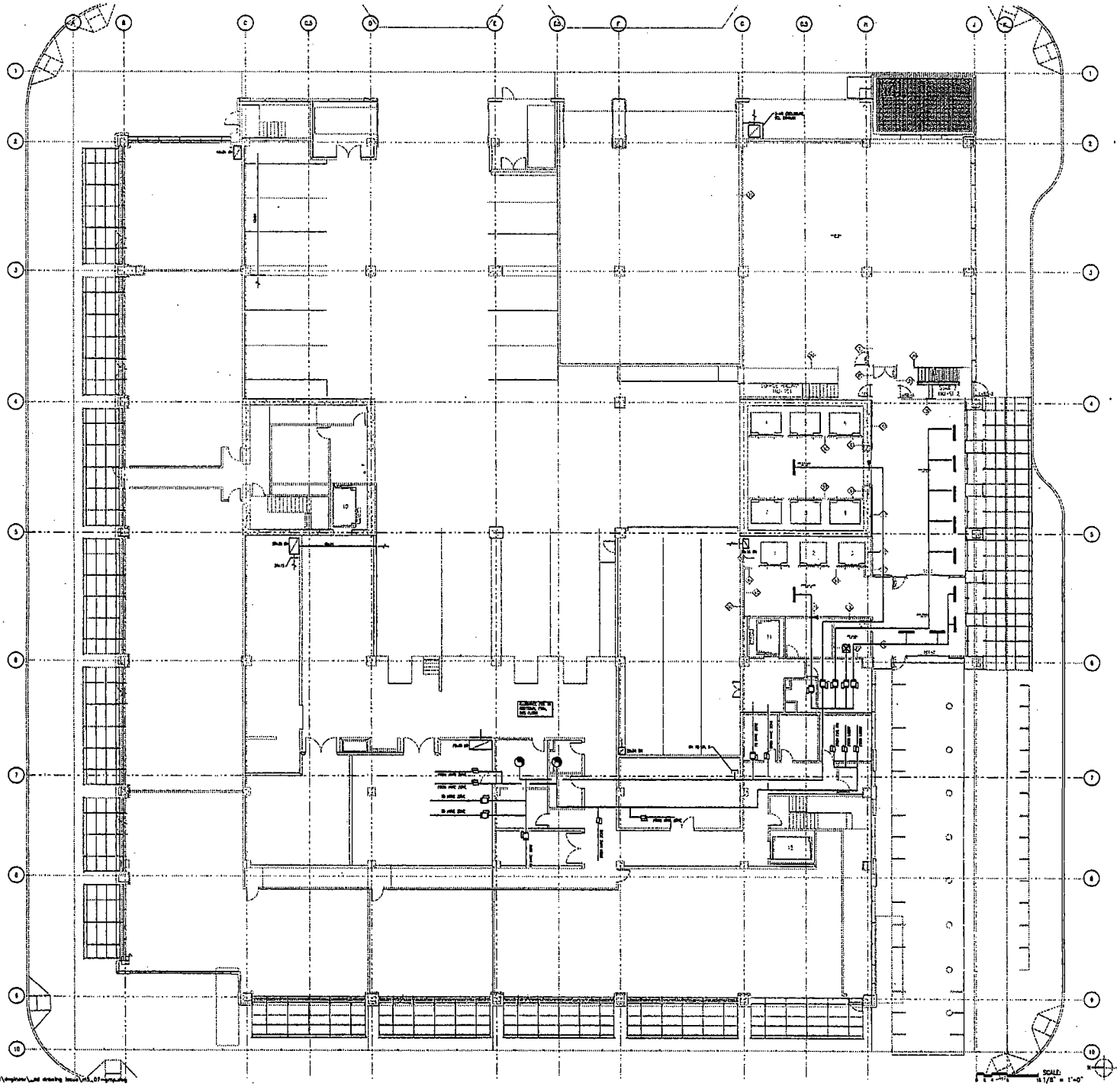

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LEVEL 1
PLAN – AIR DISTRIBUTION

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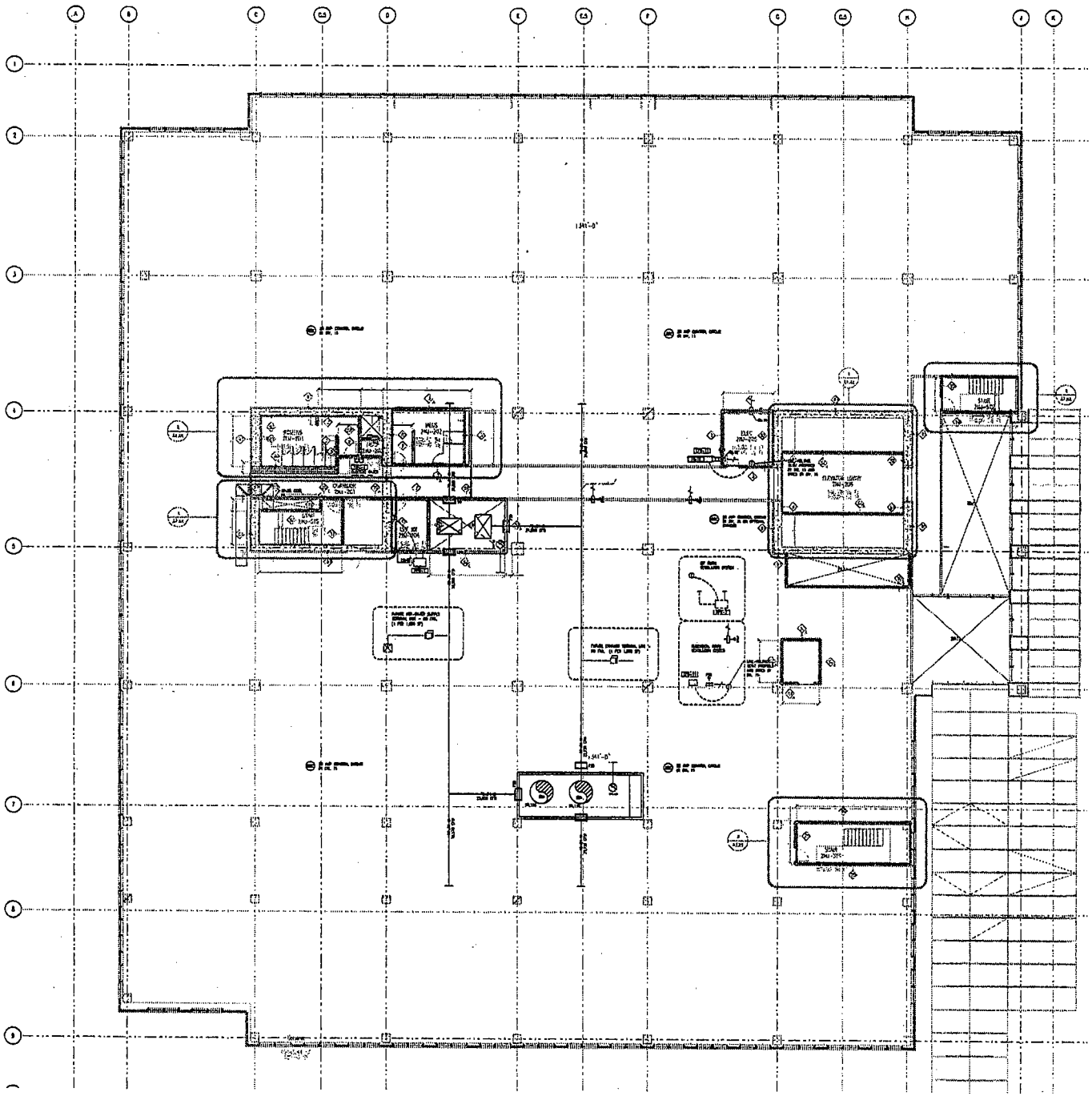

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NJ8
LEVEL 2
PLAN – AIR DISTRIBUTION

M5.08

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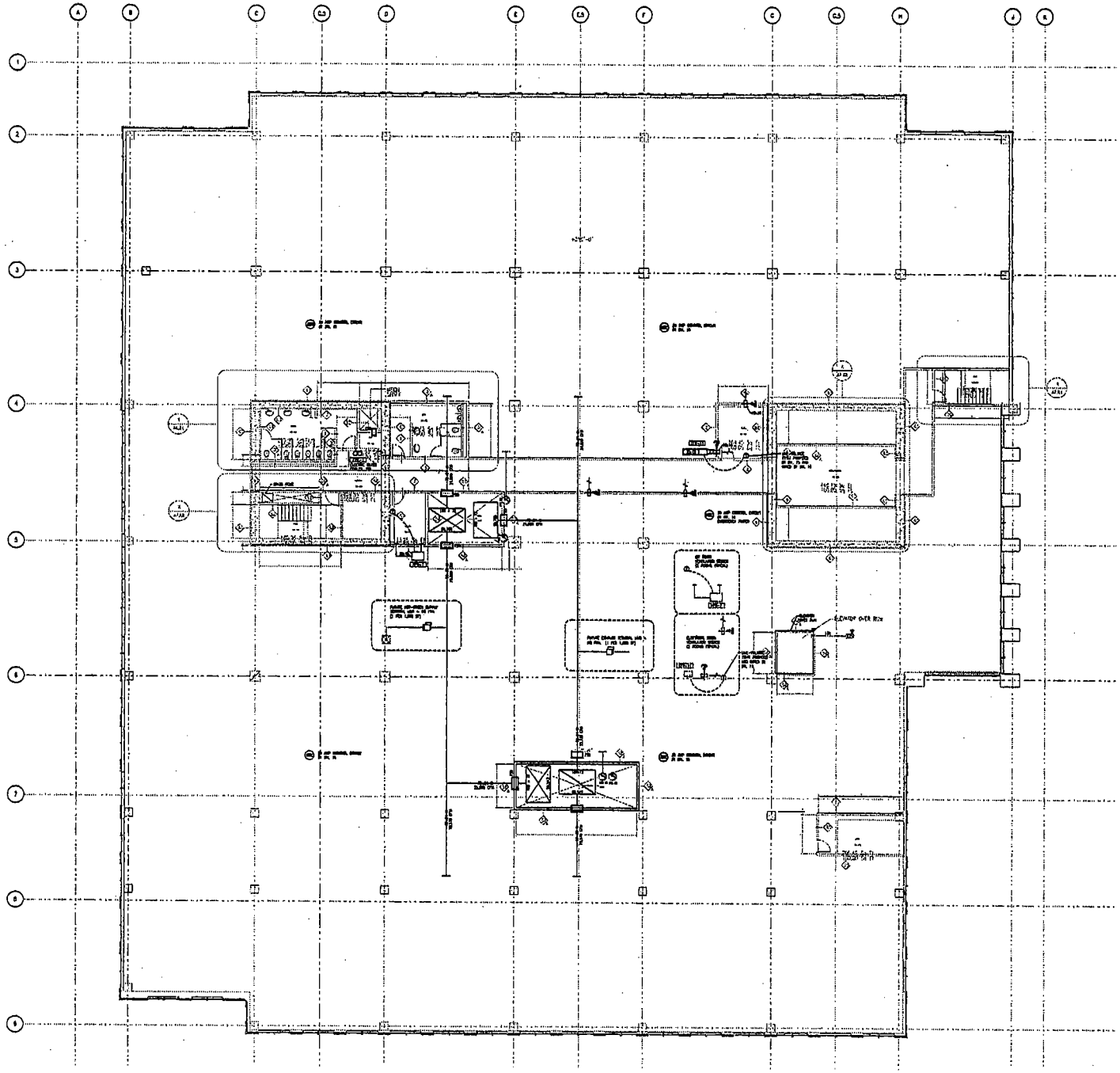

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NJ8
LEVEL 3
PLAN - AIR DISTRIBUTION

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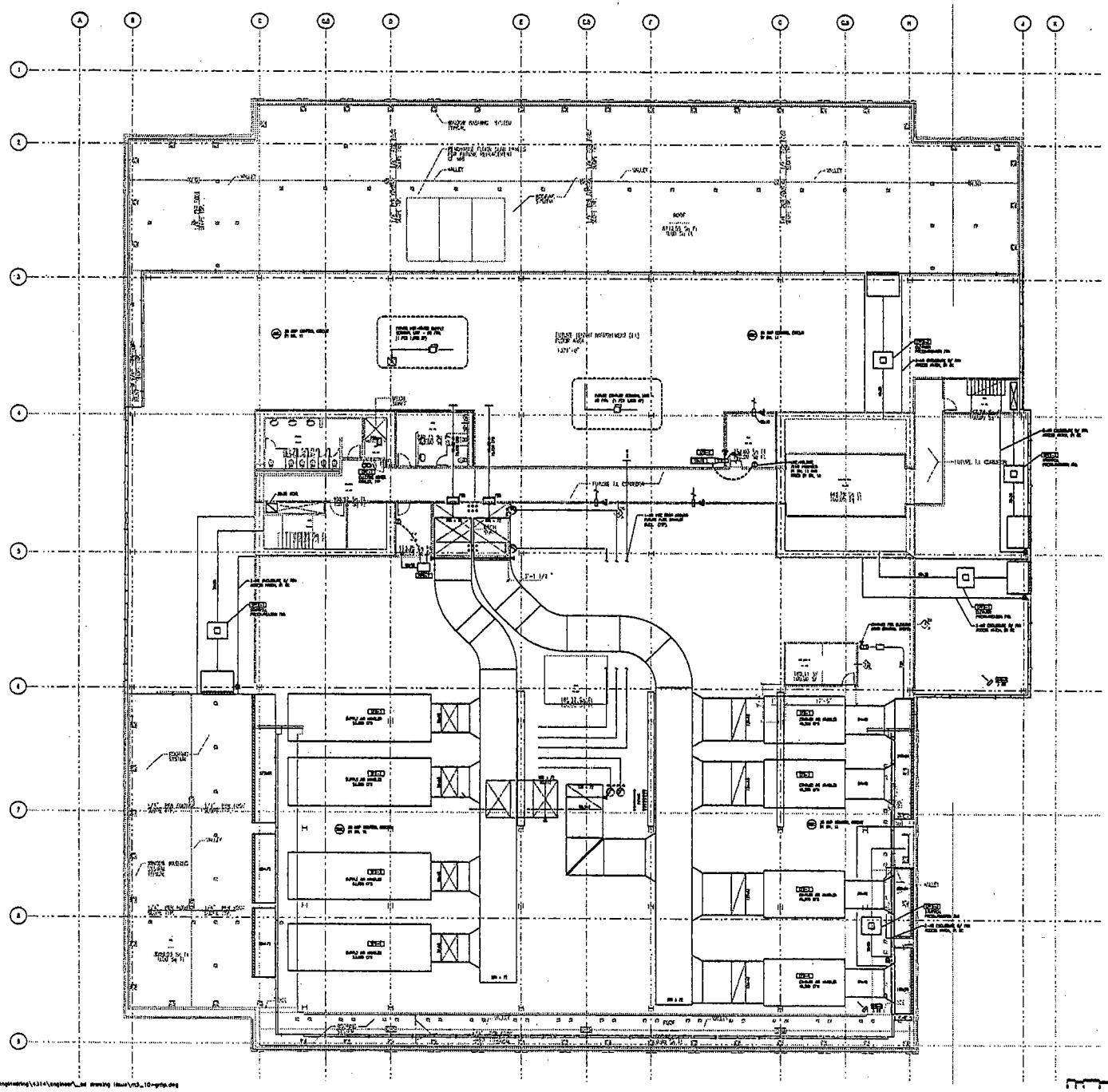

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FAX 206 223 5000

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LEVEL 4 PLAN – AIR DISTRIBUTION

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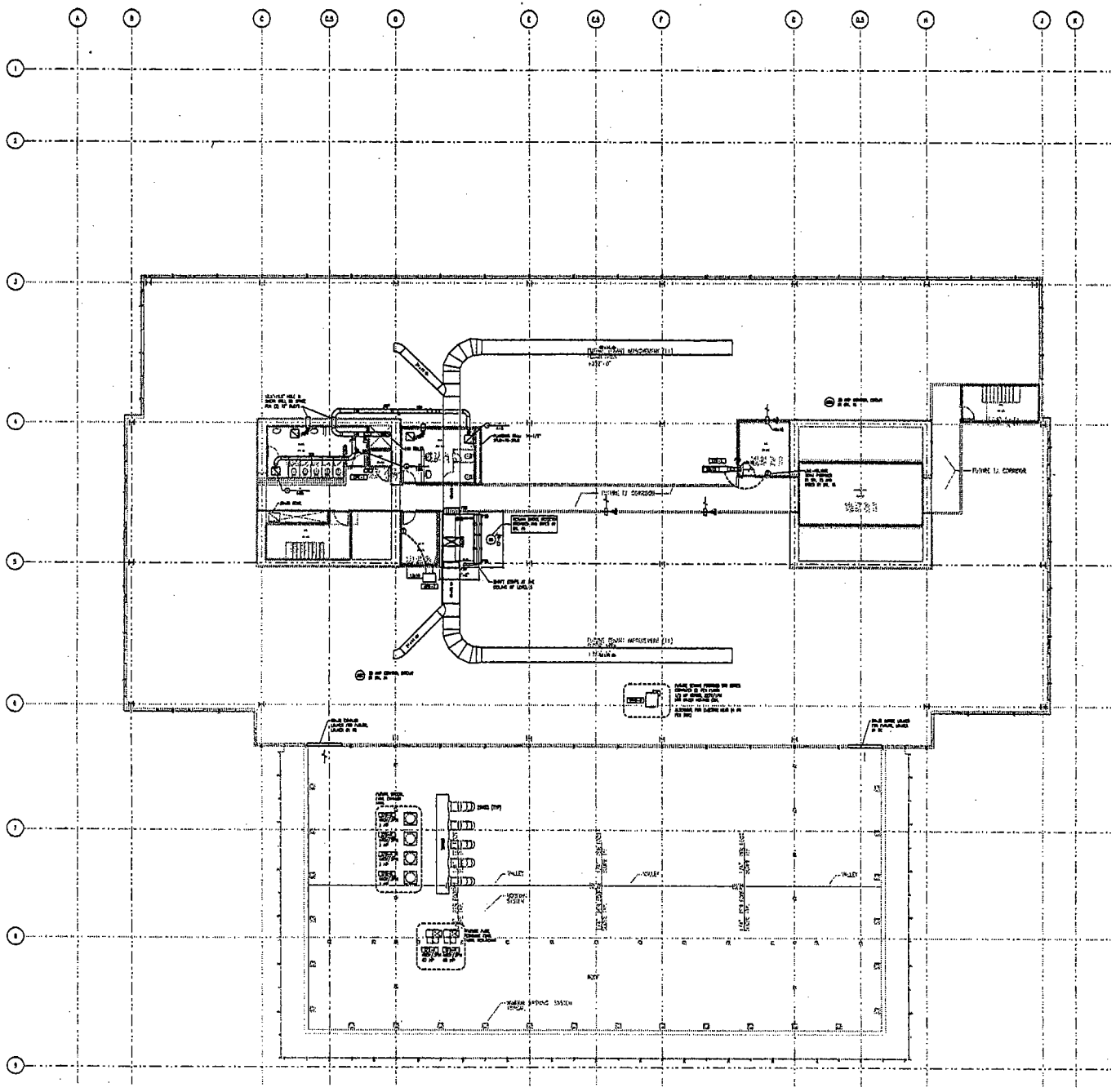

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DATE	10/06/08	

NJB
LEVEL 5
PLAN – AIR DISTRIBUTION

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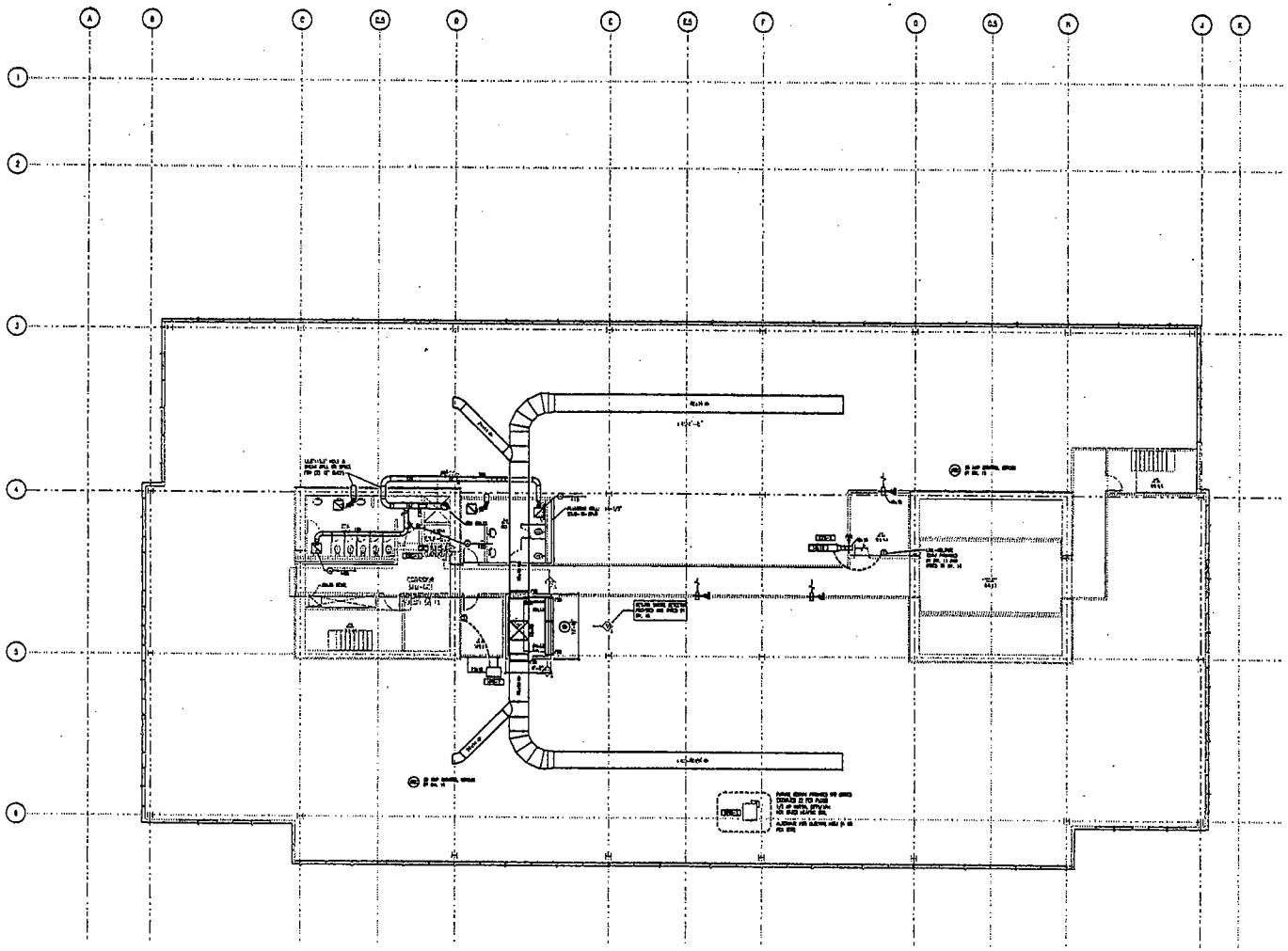

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LEVEL 6
PLAN – AIR DISTRIBUTION

M5.12

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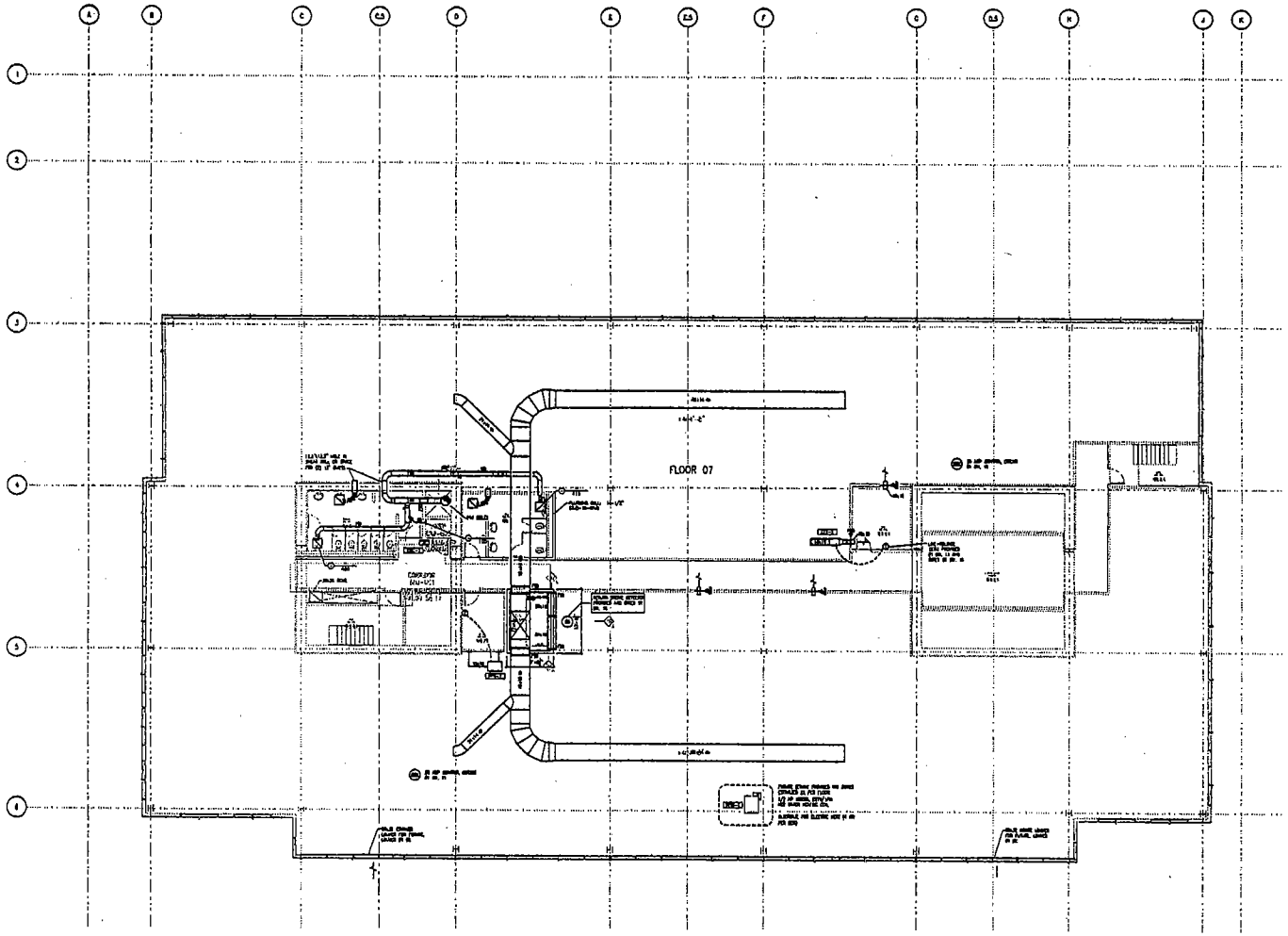

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NJB LEVEL 7 PLAN – AIR DISTRIBUTION

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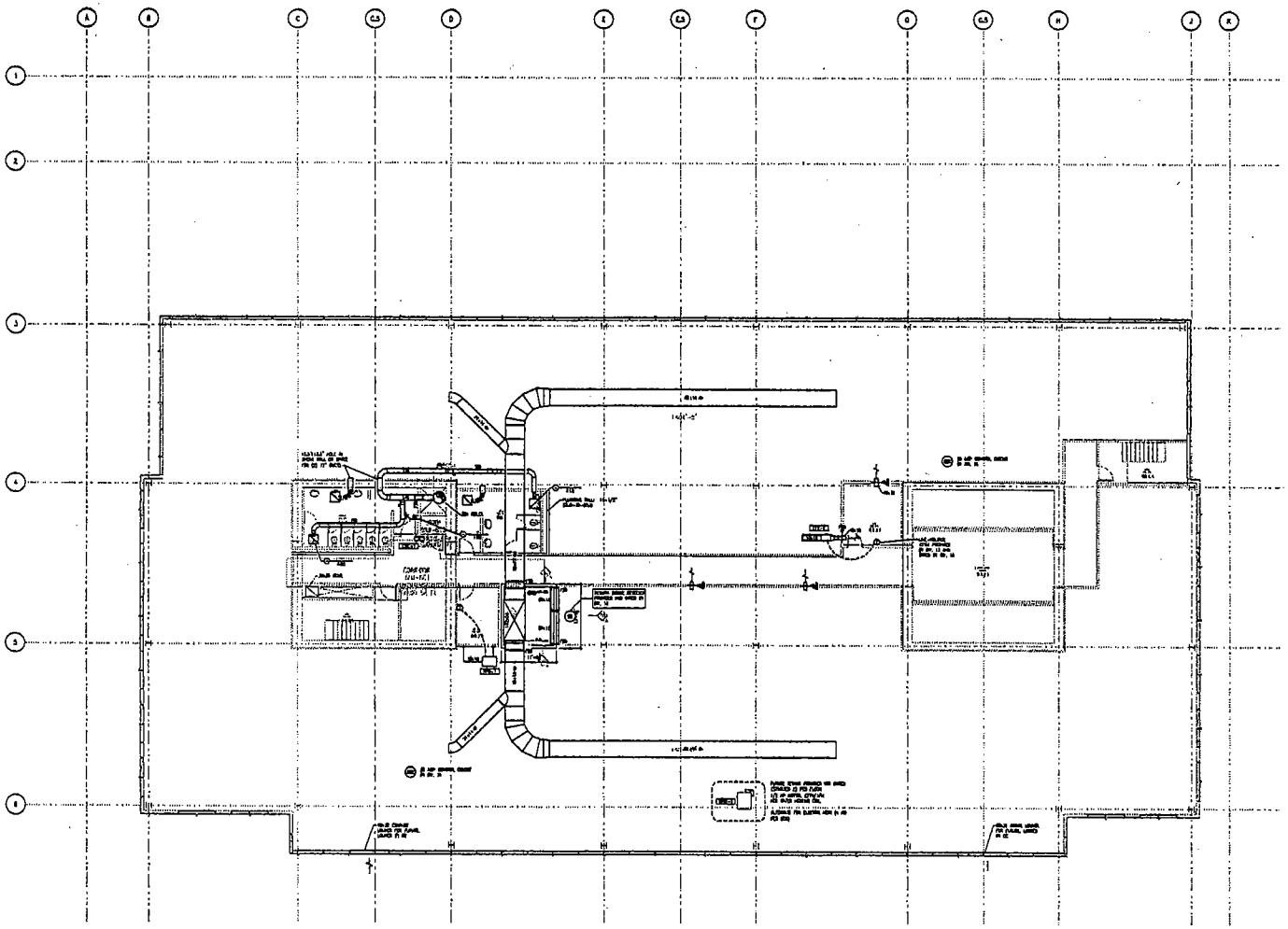

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NJB
LEVEL 9
PLAN - AIR DISTRIBUTION

M5.15

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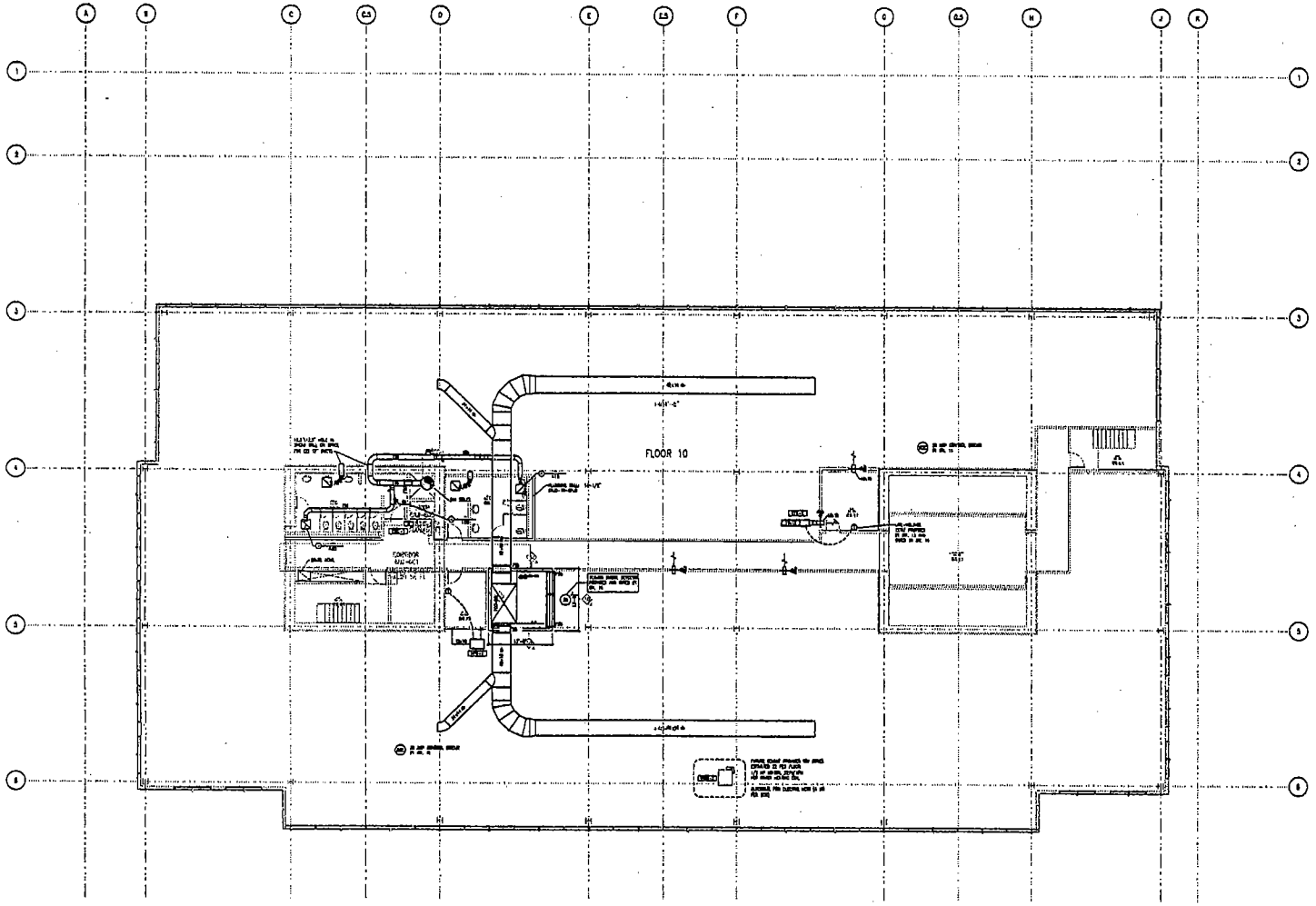

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FAX 206.223.5000

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date: 10/08/08

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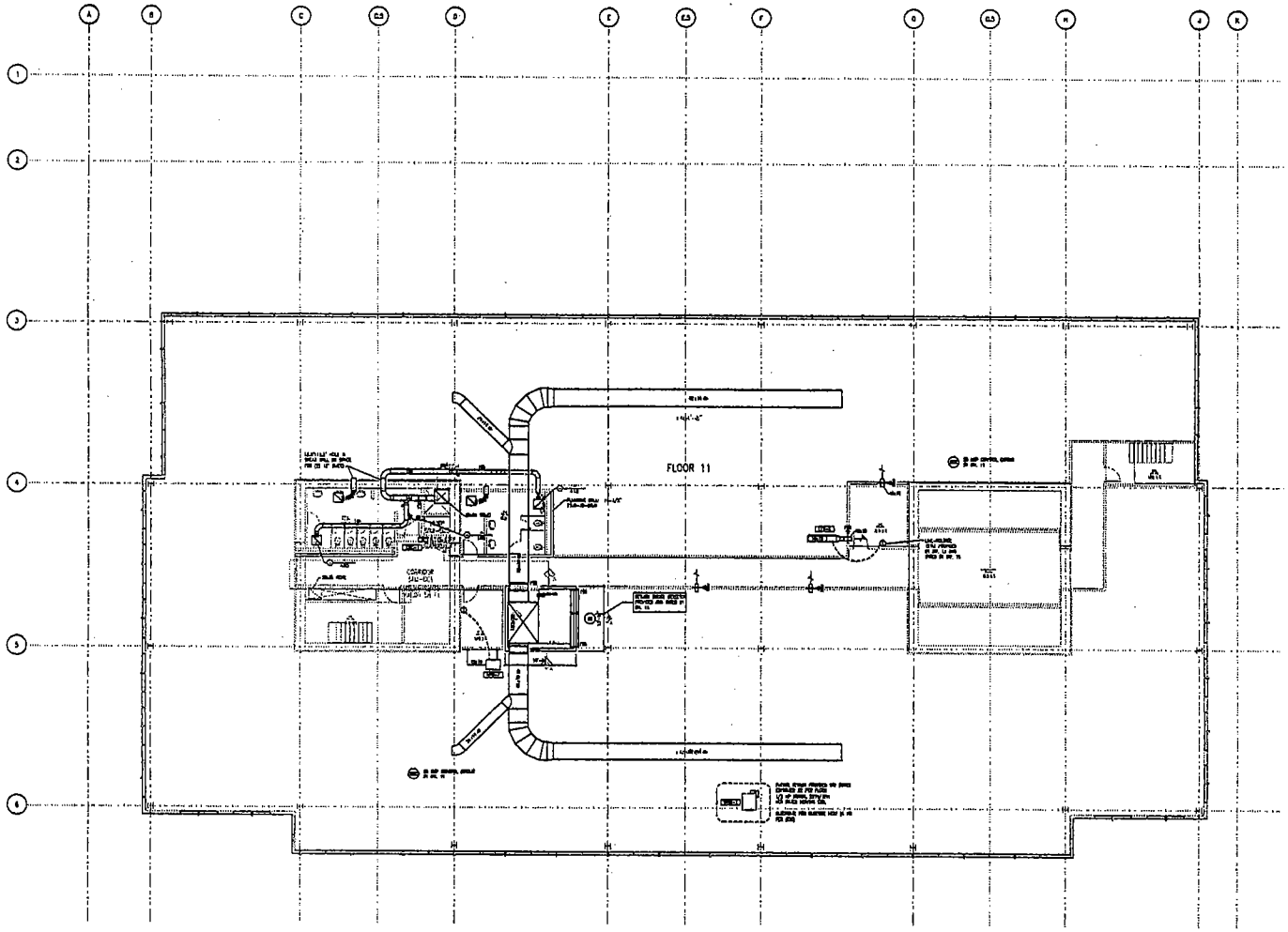

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NJ8
LEVEL 11
PLAN – AIR DISTRIBUTION

M5.17

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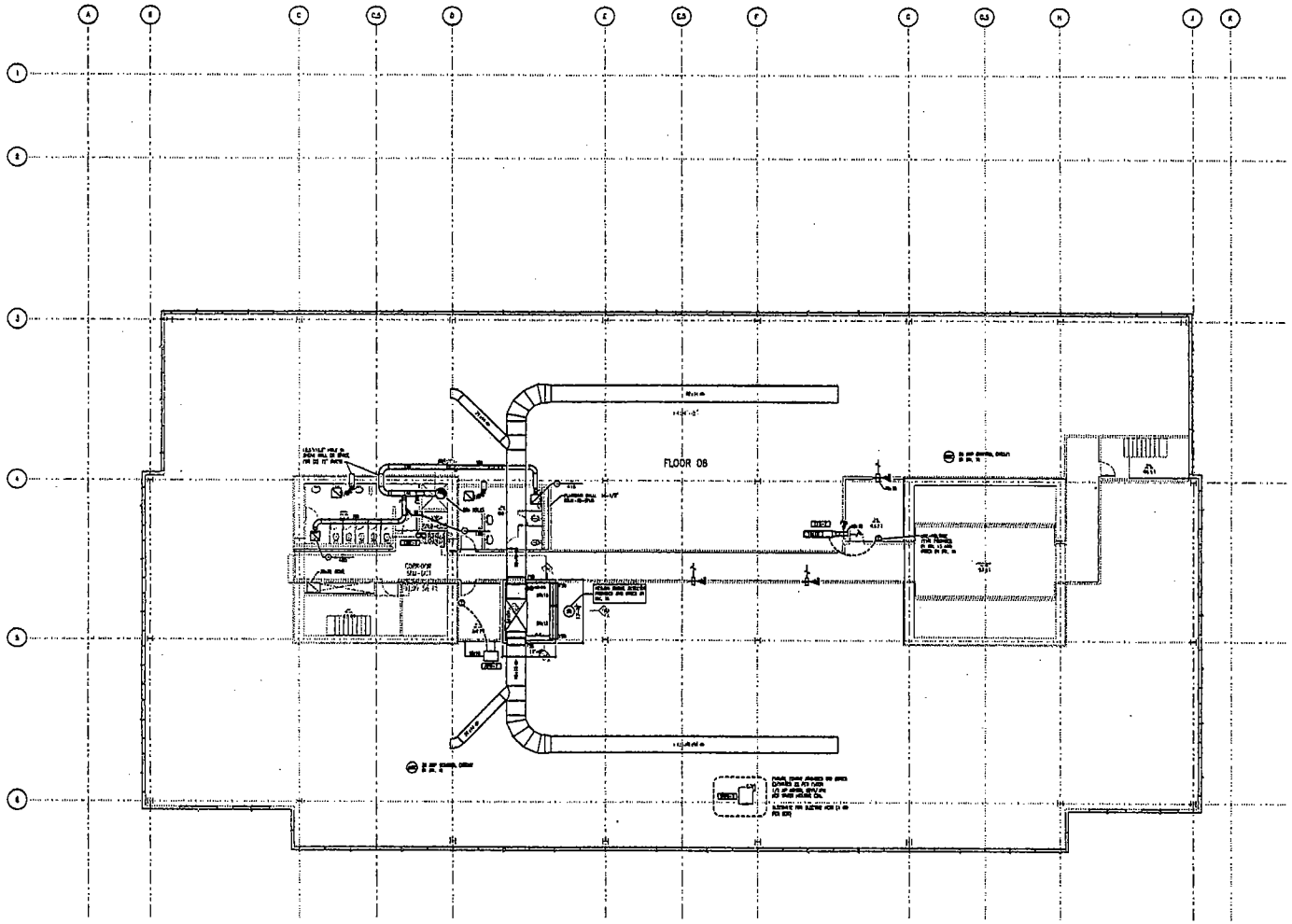

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LEVEL 8
PLAN – AIR DISTRIBUTION

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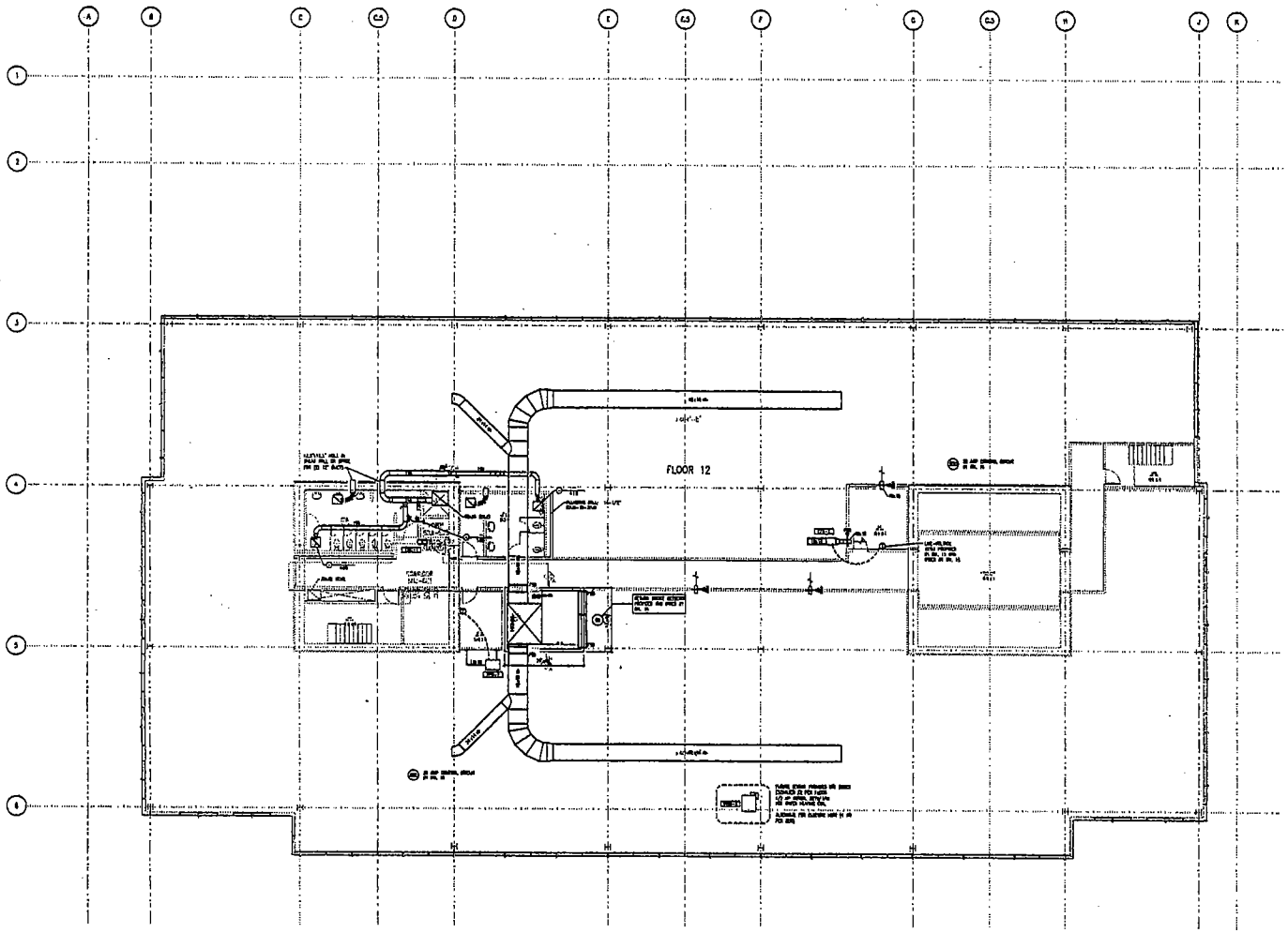

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LEVEL 12
PLAN – AIR
DISTRIBUTION

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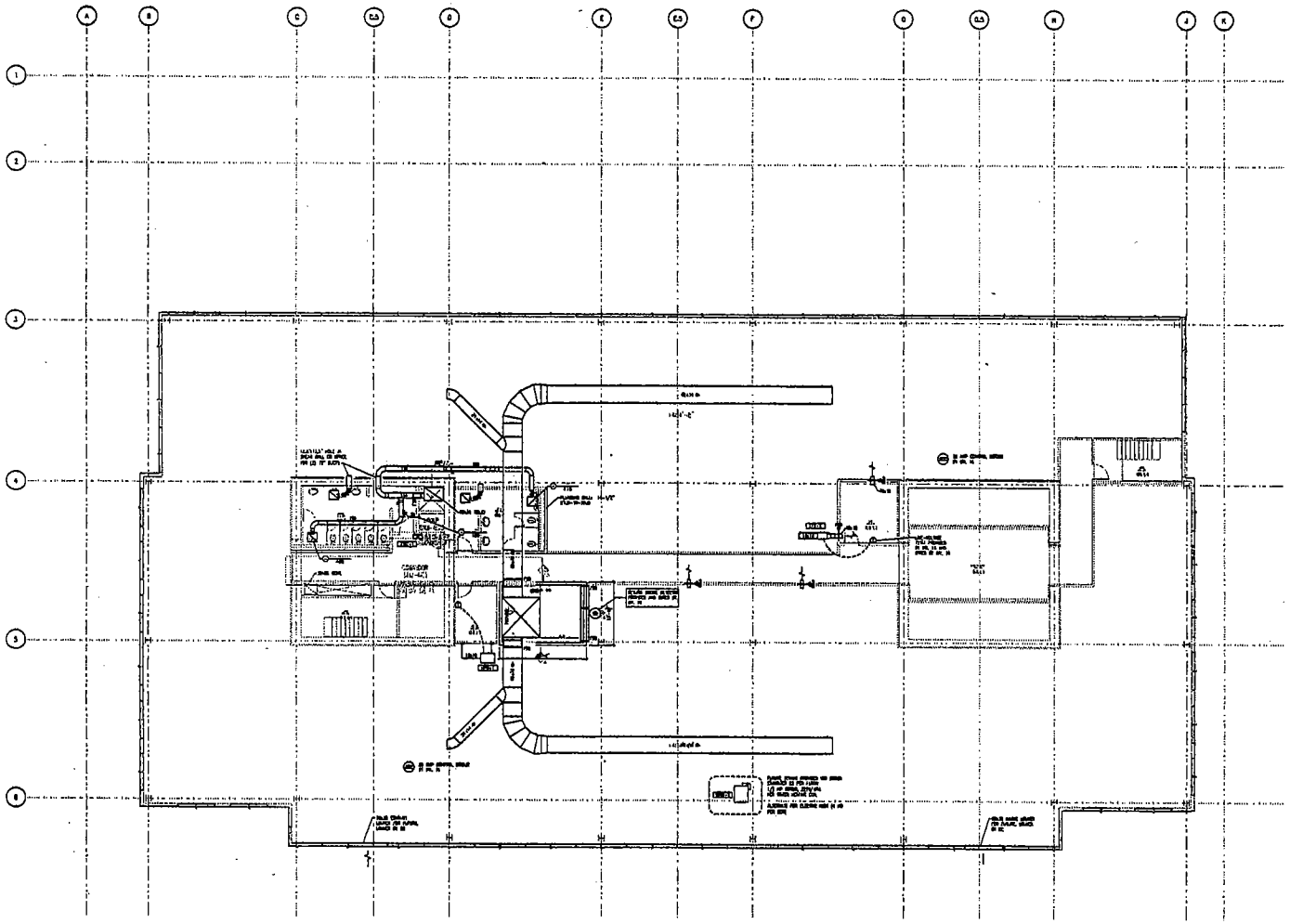

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NJB LEVEL 13 PLAN – AIR DISTRIBUTION

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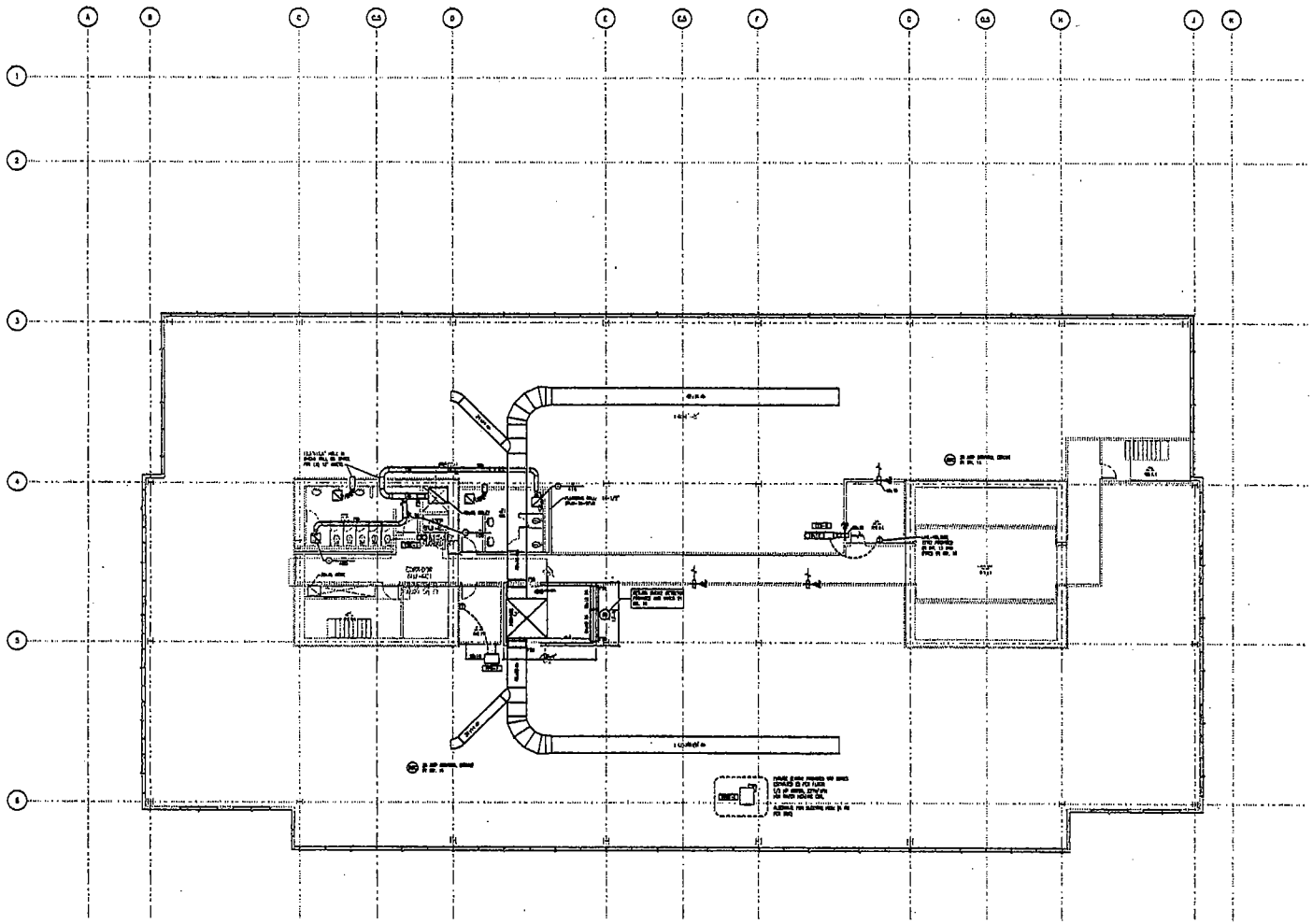

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LEVEL 14
PLAN – AIR DISTRIBUTION

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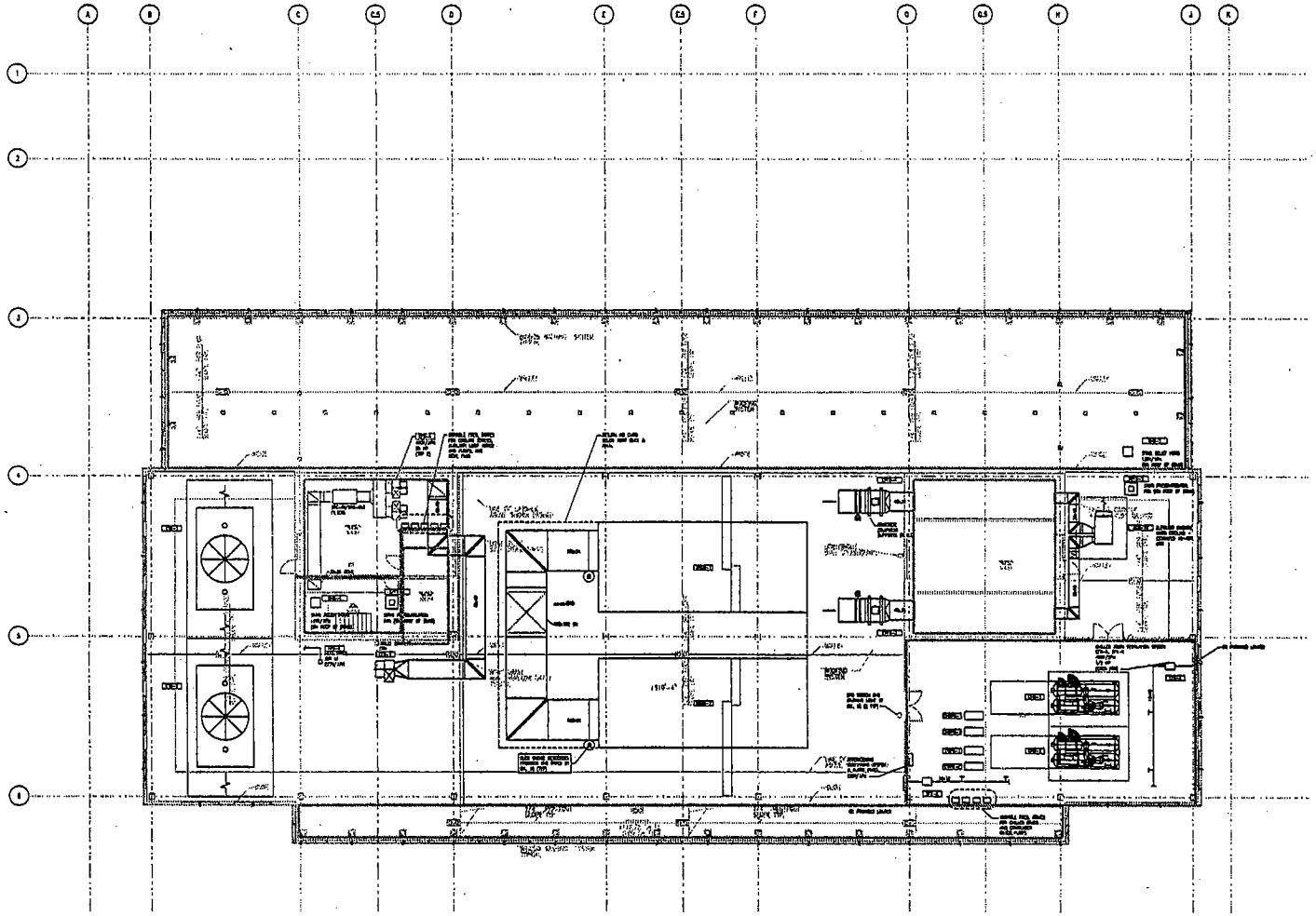

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DATE: 10/08/08		

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LEVEL PH
PLAN – AIR DISTRIBUTION

M5.21

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EXHIBIT C

PROJECT SCHEDULE

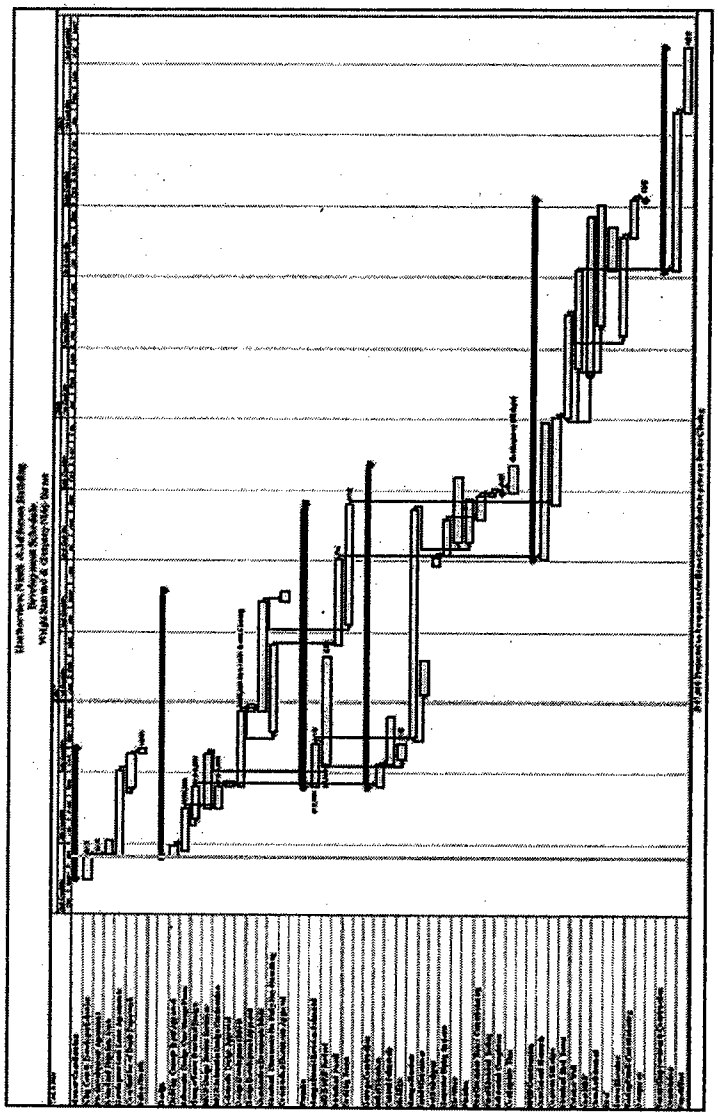

EXHIBIT D

LAND

LOTS 1 THROUGH 8, BLOCK 81, TERRY'S SECOND ADDITION TO THE TOWN OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 87, IN KING COUNTY, WASHINGTON.

EXHIBIT E

CONFIRMATION OF COMMENCEMENT AND EXPIRATION DATES

In accordance with the provisions of Section 3 of the Lease as of this _____ day of _____, 2006, Landlord and Tenant acknowledge, agree and confirm the following:

The Commencement Date of the Lease is: _____.

The Expiration Date of the Lease is: _____.

The foregoing agreement and confirmation shall be binding upon Landlord and Tenant and shall supersede and control over any other provision in the Lease regarding the Commencement Date and Expiration Date which might be construed other than as set forth in this Confirmation.

AGREED the day and year first above written.

LANDLORD:

NJB PROPERTIES,
a Washington nonprofit corporation

By_____
John Finke
Vice President

Date: _____, 2006

TENANT:

KING COUNTY,
a political subdivision of the
State of Washington

By_____
Kathy Brown
Director, King County
Facilities Management Division

Date: _____, 2006

EXHIBIT F

RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:

HILLIS CLARK MARTIN & PETERSON, P.S.
Attn: Steven R. Rovig
500 Galland Building
1221 Second Avenue
Seattle, WA 98101-2925

MEMORANDUM OF PROJECT LEASE

GRANTOR: **NJB PROPERTIES**

GRANTEE: **KING COUNTY**

Legal Description: LOTS 1-8, TERRY'S 2D ADDITION, VOL. 1, PG. 87.

(Abbreviated):

Additional legal on page **Exhibit A** of document

Assessor's Tax Parcel ID No(s): 859090018507
859090018606
859090022004
859090021600

Reference number(s) of Related Document(s): N/A

MEMORANDUM OF PROJECT LEASE

THIS MEMORANDUM OF LEASE (the "Memorandum") is dated for reference purposes _____, 2006 between **NJB PROPERTIES**, a Washington nonprofit corporation ("Landlord"), and **KING COUNTY**, a political subdivision of the State of Washington ("Tenant").

1. **Lease.** Landlord has leased to Tenant the Premises described in **Exhibit A** attached hereto and by this reference incorporated herein (the "Premises") at a rent and on the terms and conditions set forth in that certain Project Lease Agreement dated November 1, 2006 by and between Landlord and Tenant (the "Lease"). The Lease is for a term expiring December 31, 2036 unless sooner terminated pursuant to the terms of the Lease; provided, however, that the Tenant's duty to pay Monthly Rent shall not commence until the Commencement Date.

2. **Definition of Terms.** All capitalized terms not otherwise defined herein shall have the same meaning as set forth in the Lease.

3. **Tax Exemption.** In accordance with RCW 35.42.090, the Lease shall be exempt from any taxes imposed under the authority of RCW ch. 82.45, RCW 82.04.040 or RCW 82.08.090.

4. **Lien Notice.** Notice is hereby given that Tenant will not be liable for any labor, services, materials or equipment furnished or to be furnished to Landlord, Developer or anyone holding an interest in the Premises (or any part thereof) through or under Landlord or Developer, and that no construction or other liens for any such labor, services, materials or equipment shall attach to or affect the interest of Tenant in the Premises.

5. **Purpose of Memorandum.** This Memorandum is prepared for purposes of recordation only and does not set forth all of the terms and conditions set forth in the Lease. In the event there is any conflict between the terms and conditions of the Lease and this Memorandum, the Lease shall control.

DATED the date first above written.

LANDLORD:

NJB PROPERTIES,
a Washington nonprofit corporation

By_____
John Finke
Vice President

Date: _____, 2006

TENANT:

KING COUNTY,
a political subdivision of the
State of Washington

APPROVED AS TO FORM:

By_____
Senior Deputy Prosecuting Attorney

Date: _____, 2006

By_____
Kathy Brown
Director, King County
Facilities Management Division

Date: _____, 2006

STATE OF WASHINGTON }
ss.
COUNTY OF KING }

I certify that I know or have satisfactory evidence that John Finke is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the Vice President of **NJB PROPERTIES**, a Washington nonprofit corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this _____ day of _____, 2006.

_____
Printed Name _____
NOTARY PUBLIC in and for the State of Washington,
residing at _____
My Commission Expires _____

STATE OF WASHINGTON }
ss.
COUNTY OF KING }

I certify that I know or have satisfactory evidence that Kathy Brown is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that she was authorized to execute the instrument and acknowledged it as the Director, Facilities Management Division of **KING COUNTY**, a political subdivision of the State of Washington, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

GIVEN UNDER MY HAND AND OFFICIAL SEAL this _____ day of _____, 2006.

_____
Printed Name _____
NOTARY PUBLIC in and for the State of Washington,
residing at _____
My Commission Expires _____

EXHIBIT A

LAND

LOTS 1 THROUGH 8, BLOCK 81, TERRY'S SECOND ADDITION TO THE TOWN OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 1 OF PLATS, PAGE 87, IN KING COUNTY, WASHINGTON.

EXHIBIT G

DISPUTE RESOLUTION PROCEDURE

Landlord and Tenant shall act in good faith and deal fairly in performing their respective duties under the Lease in order to accomplish their mutual objectives and avoid disputes. If a dispute arises with respect to design or construction of the Project, the parties agree to utilize the dispute resolution process contained herein, which will be non-binding but a condition precedent to having said dispute decided in court by a judge or jury.

1. **Mediation.** Pursuant to Section 9.7 of the Lease, in the event a dispute arises between Tenant and Landlord with respect to design and/or construction of the Project the parties shall proceed in good faith to resolve such dispute as expeditiously as possible and shall cooperate so that the progress of the design and construction of the Project is not delayed. If, however, the parties are unable to resolve the dispute within three (3) business days, either party may refer the dispute to the Mediator named below.

1.1 ***Mediator.*** For any dispute which cannot be resolved by the parties, the mediator hereunder ("Mediator") shall be John Beyer of Badger Consulting Services, or in the event he is unable or unwilling to act as such independent mediator, a mediator whom Landlord and Tenant have mutually designated to resolve such dispute. The Mediator is to act impartially and independently in the consideration of facts and conditions surrounding any dispute presented by Tenant and Landlord; however, the Mediator's recommendations concerning any such dispute are advisory only. The Mediator's recommendations shall be based on the pertinent Lease provisions, and the facts and circumstances involved in the dispute. The Mediator's recommendations shall be furnished in writing to the parties.

1.2 ***Tenant Responsibility.*** Tenant shall furnish the Mediator one copy of all documents it might have, other than those furnished by Landlord, which are pertinent to the performance of the Mediator's duties hereunder.

1.3 ***Landlord Responsibility.*** Landlord shall furnish the Mediator one copy of all Contract Documents, including but not limited to the Preliminary Plans and Outline Specifications, applicable contracts, interpretative reports, progress schedule and updates, monthly progress reports, and other documents pertinent to the performance of the Lease and necessary to the performance of the Mediator's duties hereunder.

1.4 ***Term.*** Following execution of the Lease, the Mediator shall have authority to act hereunder upon written request from either Landlord or Tenant and such authority shall terminate upon Final Acceptance, after Final Payment has been made.

1.5 ***Payment.*** The fees charged by the Mediator shall be shared equally by the parties. The Mediator's compensation shall include compensation for all materials, supplies, travel, office assistance and support and incidentals necessary to provide the services described herein. Payment for services rendered by the Mediator will be at the Mediator's standard hourly rate as approved by Landlord and Tenant prior to commencement of the dispute resolution proceeding.

1.6 ***Legal Relationship.*** The Mediator, in the performance of the duties described herein, is acting in the capacity of an independent agent and not as an employee of either Tenant or Landlord. The Mediator is absolved of any personal or professional liability arising from the recommendations made hereunder, unless due to gross negligence or willful malfeasance.

EXHIBIT H

FORM OF NOTICE OF ELECTION OF OPTION TO PURCHASE

[date]

To: Landlord

You are hereby notified that King County has elected to exercise on [date of payment] its option to purchase the NJB Medical Office Building ("Premises") currently leased by King County pursuant to the Project Lease Agreement ("Lease") by and between King County and Landlord dated November 1, 2006. This purchase option is being exercised pursuant to Section 35.2 of the Lease. King County is now, and on the date set forth above for payment will be, in full compliance with all terms and conditions of the Lease. In accordance with Section 35.2 of the Lease, King County shall purchase the Premises for an amount equal to the principal amount of the Bonds outstanding plus accrued interest. On or prior to the date set forth above, King County shall also pay any Additional Rent then due and owing under the Lease.

APPROVED AS TO FORM:

By_____
Name: _____
Title: _____
Date: _____

TENANT:

KING COUNTY,
a political subdivision of the
State of Washington

By_____
Name: _____
Title: _____
Date: _____

EXHIBIT I

FORM OF NOTICE OF ELECTION TO PARTIALLY PREPAY MONTHLY RENT

[date]

To: Landlord

You are hereby notified that King County has elected to exercise its option to prepay a portion of the Monthly Rent due under that certain Project Lease Agreement ("Lease") by and between the County and Landlord dated November 1, 2006. In accordance with Section 30.4 of the Lease, the date of prepayment shall be _____, and the principal portion of Monthly Rent to be prepaid on such date is _____, representing the maturities (or portions thereof) set forth below. By 10:00 a.m. Seattle time on such date, King County shall pay to Landlord in cash or same-day available funds, an amount equal to the principal portion of Monthly Rent to be prepaid, together with interest thereon accruing to such date, together with any other amounts payable under the Lease on such date. In accordance with that certain Indenture of Trust dated November 1, 2006, by Landlord and The Bank of New York Trust Company, as Trustee, Landlord shall direct Trustee to cause an optional redemption of the Bonds in principal amounts and maturities corresponding to the principal portion of Monthly Rent set forth below.

APPROVED AS TO FORM:

By_____
Name: _____
Title: _____
Date: _____

TENANT:

KING COUNTY,
a political subdivision of the
State of Washington

By_____
Name: _____
Title: _____
Date: _____

SCHEDULE OF PRINCIPAL COMPONENT OF MONTHLY RENT TO BE PREPAID AND BONDS TO BE REDEEMED

Date Principal Component (of Monthly Rent) Due	Amount of Principal Component to be Prepaid*

*Principal may be prepaid only in increments of $5,000.

EXHIBIT J

MINIMUM INSURANCE REQUIREMENTS FOR DEVELOPER

Coverage:

Coverage shall be at least as broad as:

(i) General Liability: Insurance Services Office form number (CG00 001) covering Commercial General Liability, with a limit of not less than; $5,000,000 combined single limit per occurrence, $5,000,000 aggregate.

(ii) Automobile Liability: Insurance Services Office form number (CA 00 01) covering Business Automobile Coverage, symbol 1 "any auto"; or the combination of symbols 2, 8, and 9, with a limit of not less than; $1,000,000 combined single limit per occurrence.

(iii) Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, statutory limits.

(iv) Employer's Liability or "Stop Gap": The protection provided by the Workers' Compensation Policy, Part 2 (Employer's Liability) or, in states with monopolistic state funds, the protection provided by the "Stop Gap" endorsement to the General Liability Policy in the amount of at least $1,000,000.

(v) Builder's Risk Insurance: Builder's All Risk Coverage Form, including earth movement, covering 100% of the replacement value of the Project. Developer shall keep the Builder's Risk Insurance in place from the commencement of construction of the Project until the Commencement Date defined in the Lease.

Deductibles and Self-Insured Retentions:

Any deductibles or self-insured retentions must be declared to and approved by Landlord. The deductible and/or self-insured retention of the policies shall be the sole responsibility of Developer.

Other Insurance Provisions:

The insurance policies required by the Development Agreement are to contain or be endorsed to contain the following provisions where applicable:

(A) Liability Policies:

(i) Landlord and Tenant, their officers, officials, employees and agents are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of Developer in connection with the Development Agreement.

(ii) Developer's insurance coverage shall be primary insurance as respects Landlord and Tenant their officers, officials, employees and agents. Any insurance and/or self-insurance maintained by Landlord and/or Tenant their officers, officials, employees and/agents shall not contribute with Developer's insurance or benefit Developer in any way.

(iii) Developer's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(B) All Policies.

Coverage shall not be canceled until after forty-five (45) days' (10 days for non-payment) prior written notice has been given to Landlord.

(C) Acceptability of Insurers.

Unless otherwise approved by Landlord and Tenant, insurance is to be placed with insurers with a Best's rating of no less than A:VIII, or, if not rated by Best's, with minimum surpluses the equivalent of Best's surplus size VIII.

If, at anytime, any of the foregoing policies shall fail to meet the above minimum standards, Developer shall, upon notice to that effect from Landlord, promptly obtain a new policy, and shall submit the same to Landlord, with certificates and endorsements, for approval.

(D) Verification of Coverage.

Developer shall furnish Landlord with certificates of insurance and endorsements required by the Development Agreement. The certificates and endorsements for each policy are to be signed by a person authorized by that insurer. The certificates are to be on standard insurance industry ACORD form 25-S with required endorsements attached and are to be received and approved by Landlord prior to the commencement of activities associated with the Development Agreement. Landlord and Tenant reserve the right to require Developer to request and deliver complete certified copies of all required policies at any time.

(E) Subcontractors.

Developer shall include all subcontractors as insureds under its policies, or shall furnish separate certificates of insurance and policy endorsements from each subcontractor. Insurance coverages provided by subcontractors as evidence of compliance with the insurance requirements of the Development Agreement shall be subject to all of the requirements stated herein.

For All Coverages:

Each insurance policy shall be written on an "occurrence" form, excepting that insurance for professional liability, errors and omissions, when required, may be acceptable on a "claims made" form.

If coverage is approved (if such approval is required above) and purchased on a "claims made" basis, Developer warrants continuation of coverage, either through policy renewals or the purchase of an extended discovery period, if such extended coverage is available, for not less than three years from the date of completion of the work which is subject to said insurance.

By requiring such minimum insurance, Landlord and/or Tenant shall not be deemed to, or construed to, have assessed the risks that may be applicable to Developer associated with the Development Agreement. Developer shall assess its own risks and, if it deems appropriate and/or prudent, maintain greater limits or broader coverage.

Nothing contained within these insurance requirements shall be deemed to limit the scope, application and/or limits of coverage afforded, which coverage will apply to each insured to the full extent provided by the terms and conditions of the policy(ies). Nothing contained within this provision shall affect and/or alter the application of any other provision contained within the Lease Agreement.

EXHIBIT K

MINIMUM INSURANCE REQUIREMENTS FOR GENERAL CONTRACTOR

Nothing contained within these insurance requirements shall be deemed to limit the scope, application and/or limits of coverage afforded, which coverage will apply to each insured to the full extent provided by the terms and conditions of the policy(ies). Nothing contained within these provisions shall affect and/or alter the application of any other provision contained within the General Construction Contract.

Scope and Limits of Insurance:

Coverage shall be at least as broad as:

(i) General Liability: Insurance Services Office form number (CG00 001) covering Commercial General Liability, with a limit of not less than: $10,000,000 combined single, project limit (project specific), per occurrence, $10,000,000 aggregate.

The policy shall include but not be limited to:

(a) coverage for premises and operations;

(b) contractual liability (including specifically liability assumed in the General Construction Contract);

(c) products and completed operations and

(d) Employers Liability or "Stop-Gap" coverage.

The policy shall not exclude:

(a) coverage for lateral support, underground, explosion or collapse hazards

(ii) Automobile Liability: Insurance Services Office form number (CA 00 01) Covering Business Automobile Coverage, symbol 1 "any auto"; or the combination of symbols 2, 8, and 9, for a limit of not less than $10,000,000 combined single limit per occurrence.

(iii) Workers' Compensation: Workers' Compensation coverage, as required by the Industrial Insurance Act of the State of Washington, statutory limits.

Deductibles and Self-Insured Retentions:

Any deductibles or self-insured retentions must be declared to and approved by Landlord. The deductible and/or self-insured retention of the policies shall not limit or apply to Landlord, Tenant or Developer and shall be the sole responsibility of the General Contractor.

Other Insurance Provisions:

The insurance policies required by the General Construction Contract are to contain or be endorsed to contain the following provisions where applicable:

(A) Liability Policies:

(i) Landlord, Tenant and Developer, their officers, officials , employees and agents are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of the General Contractor in connection with the General Construction Contract.

(ii) General Contractor's insurance coverage shall be primary insurance as respects Landlord, Tenant and Developer, their officers, officials, employees and agents. Any insurance and/or self-insurance maintained by Landlord, Tenant and Developer, their officers, officials, employees and/agents shall not contribute with the General Contractor's insurance or benefit the General Contractor in any way.

(iii) General Contractor's insurance shall apply separately to each insured against whom a claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

(B) Builder's Risk Policy.

The Builder's Risk policy shall include Landlord and Tenant as an additional insured in the amount equal to their interest, as such interest may appear.

(C) All Policies.

Coverage shall not be suspended, voided, canceled, reduced in coverage or in limits except by the reduction of the applicable aggregate limit by claims paid, until after forty-five (45) days' prior written notice has been given to Landlord.

(D) Acceptability of Insurers.

Unless otherwise approved by Landlord:

Insurance is to be placed with insurers with a Best's rating of no less than A: VIII, or, if not rated by Best's, with minimum surpluses the equivalent of Best's surplus size VIII.

If at any time any of the foregoing policies fail to meet the above minimum standards, the General Contractor shall, upon notice to that effect from Landlord, promptly obtain a new policy, and shall submit the same to Landlord, with certificates and endorsements, for approval.

(E) Verification of Coverage.

Contractor shall furnish Landlord with certificates of insurance and endorsements required by the Construction Contract. The certificates and endorsements for each policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms approved by Landlord and are to be received and approved by Landlord prior to the commencement of activities associated with the General Construction Contract. Landlord reserves the right to require complete certified copies of all required policies at any time.

(F) Subcontractors.

Contractor may include all subcontractors as insureds under its policies, or may furnish separate certificates of insurance and policy endorsements from each subcontractor. The limits of liability required to be carried by any subcontractor shall be determined by the General Contractor, subject to the approval of Landlord and Developer.

Contractors Indemnification:

Within the General Construction Contract between Landlord and the General Contractor, Landlord shall include the following the General Contractor's indemnification provision:

Contractor shall protect, defend, indemnify and save harmless Landlord, Tenant and Developer, their officers, officials, employees and agents, from any and all claims, demands, suits, penalties, losses, damages, judgments or costs of any kind whatsoever, (hereinafter "claims"), arising out of or in any way resulting from the General Contractor, its officers, employees agents and/or subcontractors of all tiers, acts or omissions, performance or failure to perform the General Construction Contract, to the maximum extent permitted by law or as defined by RCW 4.24.115, now enacted or as hereinafter amended.

Contractor agrees that it is fully responsible for the acts and omissions of its own subcontractors, their employees and agents, acting within the scope of their employment as such, as it is for the acts and omissions of its own employees and agents. The General Contractor's obligations under this section shall include, but not be limited to:

(a) the duty to promptly accept tender of defense and provide defense to Landlord, Tenant and Developer at the General Contractor's own expense.

(b) the duty to indemnify and defend Landlord, Tenant and Developer from any claim, demand, and/or cause of action brought by or on behalf of any of its employees, or agents. The foregoing duty is specifically and expressly intended to constitute a waiver of the General Contractor's immunity under Washington's Industrial Insurance act, RCW Title 51, as respects Landlord, Tenant and Developer only, and only to the extent necessary to provide Landlord, Tenant and Developer with a full and complete indemnity and defense of claims made by the General Contractor's employees. The parties acknowledge that these provisions were mutually negotiated and agreed upon by them.

(c) To the maximum extent permitted by law, the General Contractor shall indemnify and defend Landlord, Tenant and Developer from and be liable for all damages and injury which shall be caused to owners of property on or in the vicinity of the work or which shall occur to any person or persons or property whatsoever arising out of the performance of the General Construction Contract, whether or not such injury or damage is caused by negligence of the General Contractor or caused by the inherent nature of the work specified.

In case any suit or legal proceedings is brought against Landlord, Tenant and/or Developer or any of their officers, officials, employees or agents, on account of loss or damage sustained by any person or property as a result of the performance of the General Construction Contract, whether or not such injury or damage is due to the negligence of the General Contractor and whether or not such injury or damage is caused by the inherent nature of the work specified, the General Contractor agrees to assume the defense thereof and to pay all expenses connected therewith on behalf of Landlord, tenant and/or Developer, their officers, officials, employees and agents.

Landlord may, in its sole discretion, (1) withhold amounts sufficient to pay the amount of any property damage or bodily injury claim (claim for injury) and/or (2) pay any property damage claim (for injury) of which Landlord may have knowledge, regardless of the formalities of notice of such claim, arising out of the performance of the General Construction Contract.

An amount withheld will be held until the General Contractor secures a written release from the claimant, obtains a court decision that such claim is without merit, or satisfies any judgment on such claim. In addition, the General Contractor shall reimburse and otherwise be liable for claims costs incurred by Landlord, Tenant and/or Developer including without limitation costs for claims adjusting services, attorneys, engineering and administration.

In the event Landlord, Tenant or Developer incurs any judgment, award and/or costs arising therefrom, including attorney's fees to enforce the provisions of this article, all such fees, expenses and costs shall be recoverable from Developer.

EXHIBIT C

Base Shell and Core Building

TENANT OFFICE SPACE

Walls

- Core walls with GWB fire taped
- Window walls insulated, framed, w/ GWB, screwed to framing

MECHANICAL

- Mechanical systems (cooling plant, heating plant, air handlers with medium velocity duct distribution ready to be extended by future Tenants) per Exhibit E, Attachment B
- Direct Digital Controls (DDC)
- Fire/smoke dampers installed at shaft
- Main building restroom exhaust and shafts
- Building standard drinking fountains installed

Sprinklers

- 12'X12' grid as required by code

ELECTRICAL

Power Distribution

- Building power distribution, emergency power systems, lighting and grounding per Exhibit E, Attachment D.
- All finished public areas to have code compliant receptacles and lighting

Security

- Card readers will be installed in each elevator car, garage and loading dock entries, and one exterior door and two interior doors on the lobby level.
- Raceways only will be installed at the stairwell doors

Life Safety

- One (1) 1250 kW life safety diesel generator with paralleling switch gear and power distribution providing emergency power to the fire pump, egress lighting, elevator recall, smoke control, and fire alarm systems
- Generator fuel storage includes tanks, fuel pumps, day tanks, piping and fill station.
- Fire alarm system – Visual and audible annunciation complying with code and the local jurisdiction

Phone/Data

- Telephone access provided per floor
- All specialty systems as described in Exhibit E, Attachment D

LOBBY AND MAIN ENTRY

Ceilings

- Finished gypsum wallboard, painted
- Specialty lighting, downlights and accent lighting

Walls

- Finishes complete with class A finishes consisting of wood paneling, stone and gypsum.

Floors

- Walk off mats at entries
- Carpet at elevator lobbies
- Terrazzo tile throughout remaining lobby floor area

ELEVATORS

- Interior cabs complete with all lighting and finishes
- Hooks and pads for wall protection provided in one passenger elevator car and one garage passenger car.
- Freight elevators include stainless finishes throughout

MECHANICAL ROOMS, BUILDING STORAGE, ELECTRICAL ROOMS, ELEVATOR MACHINE ROOMS, AND SERVICE AREAS

- Ceilings are exposed construction, unpainted, or gypsum wallboard taped and primed, floors are sealed concrete

JANITOR'S CLOSET

- Walls are painted gypsum wallboard
- Floor is sealed concrete with rubber base
- Shelf and hooks for supplies

RESTROOMS

Ceilings

- 2X2 tegular lay in ceiling
- Fluorescent lighting

Walls

- Ceramic tile at wet walls and floor, with painted gypsum wallboard above the 72" ceramic tile

Lavatory

- Sinks mounted in granite counter with mirror above
- Electronic faucets with soap dispensers by each sink

Miscellaneous

- Toilet accessories (coat hooks, toilet paper dispensers, sanitary napkin disposals, seat cover

dispensers, paper towel dispensers and waste receptacles)
- Stainless steel ceiling mounted toilet partitions with coat hooks

EXIT STAIRS
- Ceilings are painted, exposed construction
- Walls are painted
- Floors are sealed concrete
- All other surfaces are painted (handrails, standpipes etc.)

ITEMS TO BE DONE EARLY DURING SHELL AND CORE FOR TENANT IMPROVEMENTS WITH TENANT ALLOWANCE
- Columns are framed with GWB, fire taped
- KCME mechanical infrastructure and fixtures
- Lab waste and vent
- Medical gas systems
- Pneumatic tube station

EXHIBIT D

Project Budget

ARCHITECTURAL & ENGINEERING			
Basic A & E			**3,140,000**
Additional Services			**150,000**
Engineering			**602,000**
Other Consultants			**221,000**
Reimbursables			**100,000**
Testing Inspection Soils Survey			**259,000**
	TOTAL A & E		**4,472,000**
CONSTRUCTION COSTS			
	Office Shell Costs	70,976,000	
	Site Costs		
	Garage Costs	17,250,000	
Shell & Core			**88,226,000**
Change Order Allowance		1,700,000	**1,700,000**
Owner Contingency		1,320,000	**1,320,000**
Tunnel Change Order Allowance			
Permits		400,000	**400,000**
MUP		25,000	**25,000**
Landscaping		75,000	**75,000**
Utility Hook-ups		50,000	**50,000**
F F & E		75,000	**75,000**
Sales Tax		7,927,000	**7,927,000**
	TOTAL CONSTRUCTION COSTS	**99,798,000**	**99,798,000**
TENANT COSTS			
Tenant Improvements		**22,339,000**	
T. I. Future		**21,494,000**	
Tenant Construction Costs			**43,833,000**
Tenant Design & Eng.			**2,694,000**
Total Tenant Construction			**46,527,000**
Tenant Design Contingency		11,500,000	**11,500,000**
Retail Tenant Allowance		896,000	**896,000**
	TOTAL TENANT COSTS		**58,923,000**
MISCELLANEOUS			
Legal & Accounting		220,000	
Builder's Risk Ins.		650,000	
Building Start up		100,000	
Ground Rent dur const			
R E Taxes dur const		164,000	
Tunnel Costs			
Disadvantaged Program		400,000	
Other		100,000	
	TOTAL MISCELLANEOUS		**1,634,000**
PROJECT ADMINISTRATION			
Developer's Fee		5,014,000	
Developer's Overhead		1,691,000	
	TOTAL PROJECT ADMIN		**6,705,000**
PROJECT CONTINGENCY		**5,103,000**	**5,103,000**
	FIXED PRICE		**176,635,000**
Other Costs			
Art Costs		897,000	
KC Administration		705,000	
	TOTAL OTHER COSTS		**1,602,000**
	TOTAL PROJECT COSTS		**178,237,000**

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

EXHIBIT E

Architectural Drawing Index - Schematic Design Set		Architect	Dated
A0.01	Drawing Index, Project Info & Abbreviations	NBBJ	9/20/06
A0.02	Vicinity Map, Architectural Site Plan	NBBJ	9/20/06
A1.00	Code Analysis	NBBJ	9/20/06
A1.01	Parking Level P4 & P5 Life Safety Plan	NBBJ	9/20/06
A1.02	Parking Level P2 & P3 Life Safety Plan	NBBJ	9/20/06
A1.03	Parking Level P1 & G Life Safety Plan	NBBJ	9/20/06
A1.04	Loading Levels & Lobby Life Safety Plan	NBBJ	9/20/06
A2.00	Parking Level P5 Plan	NBBJ	9/20/06
A2.01	Parking Level P4 Plan	NBBJ	9/20/06
A2.02	Parking Level P3 Plan	NBBJ	9/20/06
A2.03	Parking Level P2 Plan	NBBJ	9/20/06
A2.04	Parking Level P1 Plan	NBBJ	9/20/06
A2.05	Level G Plan	NBBJ	9/20/06
A2.06	Level S Plan	NBBJ	9/20/06
A2.07	Level 1 Plan	NBBJ	9/20/06
A2.08	Level 2 Plan	NBBJ	9/20/06
A2.09	Level 3 Plan	NBBJ	9/20/06
A2.10	Level 4 Plan	NBBJ	9/20/06
A2.11	Level 5 Plan	NBBJ	9/20/06
A2.12	Levels 6 - 14 Plan	NBBJ	9/20/06
A2.13	Level PH Plan	NBBJ	9/20/06
A2.14	Roof Plan	NBBJ	9/20/06
A3.01	Exterior Elevation - North	NBBJ	9/20/06
A3.02	Exterior Elevation - West	NBBJ	9/20/06
A3.03	Exterior Elevation - East	NBBJ	9/20/06
A3.04	Exterior Elevation - South	NBBJ	9/20/06
A3.11	Bldg Section - N-S	NBBJ	9/20/06
A3.12	Bldg Section - E-W	NBBJ	9/20/06
A3.21	Garage Sections	NBBJ	9/20/06
A3.22	Garage Sections	NBBJ	9/20/06
A3.31	Exterior Wall Sections	NBBJ	9/20/06
A3.32	Exterior Wall Section	NBBJ	9/20/06
A3.33	Exterior Wall Sections	NBBJ	9/20/06
A3.34	Exterior Wall Sections	NBBJ	9/20/06
A3.35	Exterior Wall Sections	NBBJ	9/20/06
A3.36	Entry Canopy	NBBJ	9/20/06
A7.00	Stair Plans & Sections	NBBJ	9/20/06
A7.01	Stair Plans & Sections	NBBJ	9/20/06
A7.10	Stair & Elevator Details	NBBJ	9/20/06
A9.00	Partition Schedule	NBBJ	9/20/06
A9.01	Details	NBBJ	9/20/06

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

Structural Drawing Index - Garage Permit Set		Engineer	Dated
S0.01	Abbreviations, Legends, & Drawing List	Magnusson Klemencic Assoc.	
S0.02	General Notes	Magnusson Klemencic Assoc.	
S0.03	General Notes	Magnusson Klemencic Assoc.	
S1.01	Load Maps	Magnusson Klemencic Assoc.	
S1.02	Load Maps	Magnusson Klemencic Assoc.	
S1.03	Load Maps	Magnusson Klemencic Assoc.	
S1.04	Load Maps	Magnusson Klemencic Assoc.	
S2.00	Level P5 Foundation & Framing Plan	Magnusson Klemencic Assoc.	
S2.01	Level P4 Foundation & Framing Plan	Magnusson Klemencic Assoc.	
S2.01R	Level P4 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.02	Level P3 Framing Plan	Magnusson Klemencic Assoc.	
S2.02R	Level P3 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.03	Level P2 Framing Plan	Magnusson Klemencic Assoc.	
S2.03R	Level P2 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.04	Level P1 Framing Plan	Magnusson Klemencic Assoc.	
S2.04R	Level P1 Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.05	Level G Framing Plan	Magnusson Klemencic Assoc.	
S2.05R	Level G Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.06	Level 01 Framing Plan	Magnusson Klemencic Assoc.	
S2.06R	Level 01/S Reinforcing Plan	Magnusson Klemencic Assoc.	
S2.08	Level 02 Framing Plan	Magnusson Klemencic Assoc.	
S2.09	Level 03 Framing Plan	Magnusson Klemencic Assoc.	
S2.10	Level 04 Framing Plan	Magnusson Klemencic Assoc.	
S2.11	Level 05 Framing Plan	Magnusson Klemencic Assoc.	
S2.12	Level 06-14 Framing Plan	Magnusson Klemencic Assoc.	
S2.21	Penthouse Level Framing Plan	Magnusson Klemencic Assoc.	
S2.22	Penthouse Roof Framing Plan	Magnusson Klemencic Assoc.	
S3.01	Corewall Elevations	Magnusson Klemencic Assoc.	
S3.02	Corewall Elevations	Magnusson Klemencic Assoc.	
S3.11	Shearwall Sections	Magnusson Klemencic Assoc.	
S3.21	Basement Wall Sections	Magnusson Klemencic Assoc.	
S3.22	Basement Wall Sections	Magnusson Klemencic Assoc.	
S3.51	Elevations	Magnusson Klemencic Assoc.	
S4.01	Typical Foundation Details& Schedules	Magnusson Klemencic Assoc.	
S4.02	Typical Concrete Details& Schedules	Magnusson Klemencic Assoc.	
S4.03	Typical Concrete Column Details& Schedule	Magnusson Klemencic Assoc.	
S4.04	Typical Concrete Slab Details & Schedule	Magnusson Klemencic Assoc.	
S4.05	Typical Concrete Beam Details & Schedule	Magnusson Klemencic Assoc.	
S4.06	Typical Post-Tension Details	Magnusson Klemencic Assoc.	
S4.11	Typical CMU Details	Magnusson Klemencic Assoc.	
S5.01	Foundation Sections and Details	Magnusson Klemencic Assoc.	

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

Mechanical Drawing Index – SD GMP Set	Engineer	Dated
M2.FND NJB Foundation Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.00 NJB Parking Level 5 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.01 NJB Parking Level 4 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.02 NJB Parking Level 3 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.03 NJB Parking Level 2 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.04 NJB Parking Level 1 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.05 NJB Level G Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.06 NJB Level S Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.07 NJB Level 1 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.08 NJB Level 2 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.09 NJB Level 3 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.10 NJB Level 4 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.11 NJB Level 5 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.12 NJB Level 6 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.13 NJB Level 7 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.14 NJB Level 8 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.15 NJB Level 9 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.16 NJB Level 10 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.17 NJB Level 11 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.18 NJB Level 12 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.19 NJB Level 13 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.20 NJB Level 14 Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.21 NJB Level PH Plan-Plumbing	University Mechanical Contractors	10/06/06
M2.22 NJB Roof Plan Plumbing	University Mechanical Contractors	10/06/06
M3.05 NJB Level G Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.06 NJB Level S Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.07 NJB Level 1 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.08 NJB Level 2 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.09 NJB Level 3 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M3.10 NJB Level 4 Plan-Medical & Lab Gas	University Mechanical Contractors	10/06/06
M5.00 NJB Prkg Level 5 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.01 NJB Prkg Level 4 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.02 NJB Prkg Level 3 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.03 NJB Prkg Level 2 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.04 NJB Prkg Level 1 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.05 NJB Level G Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.06 NJB Level S Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.07 NJB Level 1 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.08 NJB Level 2 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.09 NJB Level 3 Plan- Air Distribution	University Mechanical Contractors	10/06/06
M5.10 NJB Level 4 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.11 NJB Level 5 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.12 NJB Level 6 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.13 NJB Level 7 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.14 NJB Level 8 Plan-Air Distribution	University Mechanical Contractors	10/06/06

Mechanical Drawing Index – SD GMP Set (cont.)		Engineer	Dated
M5.15	NJB Level 9 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.16	NJB Level 10 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.17	NJB Level 11 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.18	NJB Level 12 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.19	NJB Level 13 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.20	NJB Level 14 Plan-Air Distribution	University Mechanical Contractors	10/06/06
M5.21	NJB Level PH Plan-Air Distribution	University Mechanical Contractors	10/06/06

PART I

The following Preliminary outline specifications are included with respect to the Base Shell and Core Building and Structured Parking Garage:

CATEGORY 00 – SITE GOALS
Project Description:

A. Location: The Harborview Ninth and Jefferson Building project is located in the City of Seattle, King County, between Ninth and Terry Avenues and James and Jefferson Streets. The total estimated site area is 61,346 sf. The site has high transit access and is located on the Harborview Campus (Land Use Zone MIO-240-HR)

B. Site Design Goals:

a. The site and building will attempt to meet the LEED "certified" standard for shell and core. Outline and criteria to follow.
b. The entire development should fit with the surroundings and reinforce the Harborview Medical Center campus master plan.
c. The use of recycled materials in the design and construction of the site improvements will be considered.
d. Design to emphasize pedestrian access and minimize difficulties of people with disabilities in accessing the site. Focus on site development program for private vehicle parking, transit access, bicycle and motorcycle facilities, encouraging the use of alternate transportation other than single occupancy vehicles.
e. Where practical, the building will be oriented to take advantage of daylighting and views.
f. Parking garage should minimize the environmental impact to the site. Parking stalls will be as prescribed by governing codes. All parking areas will be well lit to insure the security of pedestrians. A minimum of one "van accessible" parking space per 6 accessible parking stalls will be provided per chapter 11 of the Seattle Building Code. Bicycle parking for staff to be considered near employee entrances, (secure).
g. Areas for building waste and collection of recyclable materials will be part of the loading facility and will be screened and secured away from public view.
h. The building will be a non-smoking facility.
i. The base structure at the corner of Ninth and Jefferson will be setback creating connections with the rest of the campus, allowing the streetscape to be the primary interface with the community, reducing building scale at the street level and creating a safe and active public space.
j. Retail spaces will be created all along James Street to the north, Ninth Avenue to the west and at the corner of Terry and Jefferson Streets, accessible just off the lobby located on Jefferson.

C. Building Design Goals:

a. The building will have a 50 year life expectancy and will express stewardship and public trust.
b. The architecture will be appropriate to the Harborview campus plan and will be designed with a structural module appropriate for medical and lab facilities.
c. The building design should serve as a model of conservation of resources and the County's responsibility to the environment. The building will attempt to be a LEED "certified," standard certification, building for shell & core.
d. For the tower, there will be a minimum 8'-6" floor to ceiling height in office spaces with a 12'8" floor to floor height. The podium (levels 2 and 3) will have a floor to floor height of 15'-0" to accommodate the required services for lab and research functions with a minimum ceiling height of 9'-0".
e. Materials will denote quality and permanence, resource conservation and practicality. Materials will be low maintenance and sustainable under the weather conditions that exist in the Northwest.
f. Windows will be non-operable.
g. The exterior closure system will be energy efficient, requiring minimal maintenance beyond window washing.
h. The safety of staff and visitors is a primary concern. An overview of safety and security considerations will be applied to all aspects of site, planning, facility design and operations. King County will be made aware of all reasonable options related to safety and personal security.

PART II

The following Outline Specifications are included with respect to the Base Shell and Core Building:

OUTLINE SPECIFICATIONS

CATEGORY 01 – GENERAL DESIGN CRITERIA

Structural and Building Envelope Criteria

A. Live Loads
1. Roof: 25 psf snow/live load for concrete and concrete/metal deck roofs (reducible per IBC)
2. Floors:
a. 100 psf. Typical office floor –(reducible), based on 80 psf plus 20 psf partition load.
b. 125 psf. Mechanical rooms and penthouse (or use actual equipment weight and housekeeping pads plus 40 psf at open areas around equipment where 125 psf LL is exceeded) (no reduction)
c. 100 psf. Exit corridors and stairways (reducible)
d. 100 psf. Assembly areas lobby (no reduction)
e. 100 psf. Retail spaces (reducible)

f. 125 psf. Storage (no reduction)
g. 40 psf. Parking levels (reducible)
h. 250 psf. Sidewalks, Loading dock

B. Seismic:
1. Seismic Use Group I
2. Importance Factors, Ie, Is, =1.0
3. Seismic Design Category D
4. Response Modification Coefficient R=6 for special reinforced concrete shearwalls in Parking Structure and Office Building.
5. Allowable Story Drift: 0.025 x story height, based on IBC code level forces

C. Wind:
1. Basic Wind Speed = 85 mph
2. Exposure Category B
3. Importance Factor, Iw = 1.0
4. Enclosure classification: Enclosed
5. Internal pressure coefficient: GCpi = 0.18
6. Allowable Story Drift = 0.0025 x story height

CATEGORY 02 – DEMOLITION

A. Site Demolition and Relocations:
1. The site has been previously cleared and excavated. Remaining site demolition to include sidewalk, curb and gutter, asphalt and concrete pavement
2. Disposal of all removed items shall be off-site at an approved location.
   a. Comply with City of Seattle and King County recycling guidelines for demolished materials.
3. Relocations shall include any effected utilities; i.e., gas, TV, power, phone, water, sanitary sewer, fiber optics/telecomunications and storm sewer.

CATEGORY 03 – SITE

A. Plaza Paving:
1. Steps and accents: Concrete; quality finish and stone accents.
2. Typical pedestrian paving: City of Seattle standard specification; concrete with lampblack added, light broom finish, and scored joints.
3. Treat concrete paving with curing compound.

B. Roadways: Improvements with be in conformance with the City of Seattle Standard Specifications for Street Construction, latest edition.
1. Street improvements will be conducted on James and Jefferson Streets and Ninth and Terry Avenues, as required.
2. Improvements to include sidewalk, curbwalk, curb and gutter, base course and pavement (asphalt or concrete), street lights, street trees, planters and signage.

C. Utilities: Provide the following in conformance with code, City of Seattle Standards, and utility owner requirements:
1. Domestic and fire protection water supply.

2. Electrical power.
3. Storm and sanitary sewer.
4. Telephone and data access pathway only (wiring to be provided under Tenant Improvements).

CATEGORY 04 – STRUCTURE

Standard Foundations

A. Foundation: Reinforced concrete spread footings.

Description of Structural Systems

A. Roof: 2½-inch normal weight concrete on 3-inch composite type metal deck. Composite designed steel beams and girders. Steel columns.
B. Typical floors:
   1. Parking Garage: 9-inch thick unbonded post-tensioned two-way concrete slab
   2. Office Building:
      a. Levels "G" through 4; 10 to 14-inch thick mild-reinforced two way concrete slab.
      b. Level 5 through Penthouse; 2 ½-inches normal weight concrete on 3-inch composite type metal deck. Composite designed steel beams and girders. Steel columns.
      c. Sprayed fireproofing on steel frame.
C. Structural slab on grade: 4-inch concrete slab at parking structure. Concrete grade beams.
D. Lateral force-resisting system: Special reinforced concrete shearwalls in Parking Structure and Office Building.

04 – EXTERIOR WALLS

A. General Performance Criteria: See Category 01, above.
B. Typical Walls: Unitized curtain wall with vision glass, spandrel glass, stone and metal panel at the tower, brick veneer masonry and stone over lightgage steel stud framing with fiberglass-faced exterior gypsum sheathing (G-P Dens-Glass) and moisture barrier ("BluSkin") at the base.
   1. Batt insulation in stud space to meet energy code.
   2. Through-wall flashing: Stainless steel with self-adhesive rubberized asphalt (Grace "Perm-a-Barrier") in cavity.
C. Exterior Walls at Parapet, Elevator Penthouse and Mechanical Equipment Screen: Smooth-textured, pre-finished aluminum composite panels or metal siding.
   1. Premium system with 10-year warranty.
D. Exterior Metalwork.
   1. Typical: Steel fabrications.
      a. Shop prime: Zinc-rich urethane.
      b. Intermediate coat: Polyamide epoxy.
      c. Finish coat: Acrylic-aliphatic urethane; satin.

F. Aluminum Curtainwall: Thermally-broken unitized and stick frame.
   1. Design to withstand wind loads.
   2. Air infiltration: 0.05 cfm per minute at 12 psf.
   3. No uncontrolled water penetration at 12 psf.
   4. Finish: AAMA 605.2 fluoropolymer.
   5. Vision Glass: 1-inch insulated, clear or tinted, Low-E.
      a. Glass tint or clear to be determined by Energy Code analysis.
   6. Stone panels in curtainwall: 25mm granite (color to be determined).
   7. Metal panels in curtainwall: .125" aluminum panels.
   8. 3" mineral wool batts at spandrel canditions: min 40 lbs density.

G. Hollow Metal Doors: Non-public exterior doors.
   1. Insulated; U-Value 0.10 or better.
   2. 16 gage faces, 14 gage frames.
   3. Doors and frames: Galvanized, field painted.

H. Louvers: High-performance, drainable blade; minimum 50 percent free area.
   1. Finish: AAMA 605.2 fluoropolymer.

I. Overhead Doors at Garage and Loading Area:
   1. Coiling grilles.
   2. Operators: Electric.

J. Sealants:
   1. Traffic Bearing Joints: 2-component urethane.
   2. Concealed metal-to-metal joints: Non-skinning polyisobutylene.
   3. Joints at edges of roofing and waterproofing: Single component urethane.
   4. Other exterior joints: Ultra-low modulus silicone.

CATEGORY 05 - ROOFING

A. Design Criteria:
   1. External Fire Hazard Classification: Class A per IBC or UL.
   2. Uplift: Comply with SPRI or FM for design wind speed and building height.
   3. Energy-star compliant

B. Insulation: R-30 minimum, rigid insulation with appropriate facing materials at underside of roof deck.

C. Membrane Roofing, Typical:
   1. Concrete topping slab.
   2. "Derbi-Gum GP" set in adhesive – 2 ply
   3. "Derbi-Brite" – 1 ply

D. Terraces: Hot-rubberized asphalt membrane with protection course.
   1. Cover with cast-in place concrete paving.

CATEGORY 06 - INTERIORS

Interior Construction

A. Partitions: Gypsum board on metal studs typical:
   1. Provide sound insulation and sealed acoustical partitions:
      a. Mechanical rooms: STC 48.

b. Toilet rooms: STC 42.
c. Other: STC 38.

B. Shaftwall: Gypsum shaftwall system on metal framing.
   1. Elevators and mechanical shafts: 2-hour; STC 45.

C. Interior Doors:
   1. Non-rated and 20-minute rated door: Solid core flush wood, custom grade, transparent finish veneer faces.
   2. Fire doors: Composition core wood doors with faces to match non-rated doors.
   3. Fire door Frames: Hollow metal, 16 gage typical.
   4. Door Hardware:
      a. Mortise looks: Corbin, Sargent or equal.
      b. Cylinders: Bilock 12 pin or alternates as approved by King County
      c. Closers: Surface mounted with plated cover.

D. Interior Specialties:
   1. Code required signage.
   2. Fire extinguishers and cabinets.
   3. Toilet partitions: Stainless steel.
   4. Toilet accessories.

Interior Stairways

A. Stairs:
   1. Treads and risers:
      a. Cast-in-place or
      b. Precast concrete with non-slip treads or
   2. Landing: Cast-in-place concrete, or precast.
   3. Railings: Tubular steel.
   4. 1 duplex receptacle at landing.

Interior Finishes

A. Finish Schedule Criteria:
   1. Building Operation Spaces:
      a. Floor: VCT.
      b. Base: Rubber base.
      c. Typical Wall: Painted gypsum board.
      d. Ceiling: 2' by 4' acoustical lay-in.
   2. Toilet Rooms:
      a. Floor: Ceramic tile.
      b. Base: Ceramic tile.
      c. Typical Wall: gypsum board, water-base epoxy paint.
      d. Ceiling: 2' by 2' acoustical lay-in.
   3. Entry Lobby:
      a. Floor: Combination of stone and carpet.
      b. Base: Stone or wood.
      c. Wall Features: Wood and GWB.
      d. Wall: Painted gypsum board.

e. Ceiling: Painted gypsum board with features.

4. Janitor Closets:
   a. Floor: Sealed concrete.
   b. Base: Rubber base.
   c. Walls: Gypsum board, water-based epoxy paint.
   d. Ceiling: Exposed structure.
5. Utility Rooms (Data closets, Telephone, Electrical, Etc.):
   a. Floor: Sealed concrete.
   b. Base: Rubber base.
   c. Typical Wall: Painted gypsum board.
   d. Mounting panels: ¾-inch thick fire-retardant treated (FRT) plywood.
   e. Ceiling: Exposed structure.

B. Resilient Flooring and Accessories:
   1. VCT: Commercial quality vinyl composition tile, 12 by 12 by 1/8 inch.
   2. RB: Rubber base, solid color. 4-inch height typical. Toe base typical, straight base at carpet (exception – carpet tile). Field-formed corners.

C. CPT – Carpet: 32 ox. 4th generation nylon; low static generation.
   1. Installation: Direct glue typical and/or over pad.

D. CT – Ceramic Tile:
   1. Toilet Room Floors: 2 by 2 by ¼ inch, unglazed ceramic mosaic, cushion edge, 7½ percent slip resistant. Latex thinset; latex grout.
   2. Other Floors: 8 by 8 by 3/8 inch, unglazed paver. Latex thinset; latex grout.
   3. Toilet Room Wet Walls: 2 by 1 by ¼ inch, glazed ceramic mosaic, cushion edge. Latex thinset on backer unit; latex grout to 5'.
   4. Backer Board: Cementitious backer or Georgia Pacific "Dens'Shield" fiberglass-faced gypsum units.

E. Paint: Water-based, Low VOC, typical:
   1. Typical: Latex eggshell.
   2. Epoxy: Water-based epoxy, satin.
   3. Metal: Doors & frames, handrails, etc.: Acrylic, semi-gloss.

F. Transparent Finish Wood Paneling:
   1. AWI Premium Grade, Wood veneer over particle board.
   2. Finish: AWI System TR-4, Conversion Varnish, Premium Grade.

G. Ceilings:
   1. Acoustical lay-in ceilings:
      a. Utility spaces: 24 by 48 by 5/8 inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid, or open to structure.
      b. Public spaces: 24 by 24 inch by ¾ inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid.
      b. Toilet rooms: 24 by 24 inch by 5/8 inch thick acoustical panels; 15/16-inch wide, heavy-duty classification painted steel grid vinyl or mylar faced in shower rooms.
   2. Gypsum board ceiling: 5/8 inch gypsum board on conventional furring with option to use direct-hung grid suspension.

Furnishings

A. Typical Casework: AWI Custom Grade, Plastic Laminate (HPL) over particle board.
   1. Edges: PVC edge band.
   2. Tops: HPL
B. Lavatory Counters: Polished stone.
C. Entrance Mat: Polypropylene carpet; recessed.

CATEGORY 07 – VERTICAL TRANSPORTATION:

See Attachment A, attached

CATEGORY 08 – HVAC

See Attachment B, attached.

CATEGORY 09 – PLUMBING

See Attachment C, attached.

CATEGORY 10 – FIRE SPRINKLERS

See Attachment D, attached.

CATEGORY 11 – ELECTRICAL

See Attachment E, attached.

BRIGHT LINE SCOPE MATRIX

See Attachment F, attached.

HARBORVIEW NINTH & JEFFERSON BUILDING
LIST OF PRELIMINARY PLANS AND SPECIFICATIONS

The following clarifies the bid response dated 5/26/06:

A. Finish Schedule Criteria:
   1. Retail spaces include the following:
      a. Individual utility meters for each possible tenant space.
      b. 1-hour separation between tenant spaces and the rest of the building.
      c. Mechanical, electrical and plumbing stubbed to each tenant space.

   2. Loading Dock and support spaces include the following:
      a. Wall protection and bollards through out dock and retail parking area.
      b. 1 scissors lift.
      c. 2 dock levelers.
      d. Trash compactors.
      e. Receiving area.
      f. Holding areas for hazardous medical waste, card board, recycling, soiled linen.
      g. Six mechanical air changes minimum to ventilate enclosed loading dock.
      h. Sealed concrete floor.
      i. Corner guards.
      j. Cart wash.
      k. Three (3) 35' truck bays.
      l. Dock ambient lighting and specialty lighting without any specialty lighting included at dock. Lighting will meet code requirements and be typical of a functioning loading dock.
      m. Emergency eye wash.
      n. Floor drains.
      o. Security gate for enclosure. (remote controlled add $25,000)
      p. Proximity card system, parking system card reader, pin pad, intercom. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware
      q. Security Cameras. A total of seven (7) security cameras are included in shell and core package.

   3. Tenant Office/Clinic Space:
      a. Core walls with gypsum wall board fire taped structure to structure.
      b. Window walls insulated, framed with gypsum wall board.
      c. Columns are framed with gypsum wall board screwed to 9'-6" above floor.
      d. Horizontal blinds at all exterior windows.

   4. IDF Rooms:
      a. Telephone access per floor.
      b. Cooling 12 months 24/7 and on emergency power.
      c. Sealed concrete floor.
      d. Fire retardant plywood at walls.

5. Electrical Rooms:
   a. Wall phone: Rough-in only is included.
   b. Sealed concrete floor.

6. Exit Stairs:
   a. Ceiling painted with exposed construction excluded. Optional, please add $15,000.
   b. Walls finished and painted.
   c. Floors sealed concrete.
   e. 1 duplex electrical receptacle at intermediate landings.

7. Public Elevators:
   a. Finished interior cabs including lighting.
   b. Proximity card readers at each elevator, pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement for this allowance.
   c. 10 extra pair of copper cabling.

8. Service Elevators:
   a. Finished interior cabs including lighting.
   b. Key card readers at each elevator, pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement for this allowance.
   c. 10 extra pair of capper cabling.

9. Elevator Lobby and Building Lobby Consistent with a Class A Office Building:
   a. Reception desk – without security is included.

10. Fire Command Center:
    a. Per Seattle Building Code.

11. Multi-fixture Toilet Rooms Consistent with Class A Office Building:
    Toilets are consistent with standard Class A MOB shell and core in 60% of the building, 40% includes more dense fixtures consistent with a Class A office building.
    a. Stainless steel ceiling mounted toilet partitions.

12. Janitor's closet:
    a. Plastic sheet wall protection wainscot or plywood painted with finished gypsum board above, top set rubber coved base.
    b. Sealed concrete floors.
    c. Shelf and hooks for supplies.
    d. Floor mop sink.

13. Mechanical rooms, building storage, elevator machine rooms:
    a. Sealed concrete floors.
    b. Fluorescent strip lighting.

14. Mechanical Systems:
    a. Chilled water system with rooftop VAV air handling units to economically support 25% - 50% of building 24/7.
    b. Medium velocity duct distribution system with supply/return shaft, plenum return in non-clinical (must maintain AIA guideline standards for health care acoustics).
    c. Main building restroom exhaust and shafts to meet type A office building standards.
    d. Plumbing loops and multiple plumbing chases to support future clinic tenant improvements.
    e. 100% ducted exhaust at patient care areas excluded as T.I. allowance would need to cover this requirement, shell systems sized to meet the need.
    f. Future 100% exhaust and future 100% clinical fresh air requirements to meet Department of Health standards with louvers for 60% of added area.

15. Electrical:
    a. See original building drawings for conceptual electrical system distribution.
    b. Original phase I calculated load: 4,300 amperes.
    c. Original phase II calculated load: 5,400 amperes.
    d. Total phase I and phase II load: 9,700 amperes.
    e. Generators provided by previous project, installed per the bright line attached.
    f. All lobbies to include tamperproof receptacles.
    g. Any receptacle within five feet of water will be GFCI.

16. Pneumatic tube system:
    a. Provide connection to existing central system. Optional, please add $350,000 under tenant improvements.
    b. Assume 10 new stations. Optional, costs could be as high as $350,000 depending on location in tenant improvements.

17. Security:
    a. Proximity card readers at each elevator; pin pads at half. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    b. Card readers at all egress stairs. An overall allowance if $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    c. Card readers at (3) exterior doors. An overall allowance of $50,000, for the complete shell core package, has been included for specialty hardware. It is intended to buy this specific requirement from this allowance.
    d. Cameras at exterior perimeter, and interior lobby. Included (A total of seven (7) on the project).

18. Doors & Builders' Hardware: This section is included to help develop the proposers understanding for spaces and systems included in the shell and core. It is meant only as a reference of quality and basis of design. In no way should it be assumed that this is a closed specification. Potential add to Shell & Core - $81,000 and potential add to TI - $823,000 (assumes approx. 1,900 doors) to be reviewed in detail with owner prior to proceeding with any hardware purchase.
    a. Hinges/Pivot: Hagar, Bommer, McKinney
    b. Lock & Latchsets: Corbin/Russin or Schlage
    c. Exit Devices and accessory power supplies: VonDuprin
    d. 10" stainless steel kick plates, 4" mop plates.
    e. Solid core wood doors faced w/stiles particleboard grade 1-LD-2 25-32 pcf bonded to stiles (min 5") and rails (2 ¼" & 7").
    f. Automatic door operators: Keene – Monroe.
    g. Cylinder cores: BiLock 12 pin interchangeable core cylinders, match existing master key system.
    h. Electric hardware: 24 VDC, strikes Folger Adams.
    i. Coordinators: Door controls international, Glyyn Johnson.
    j. Closers: LCN.
    k. All finish floor "unprotected edges" to receive a reducing strip.

Access panels provided at all MEP concealed spaces (ie. Ceilings/chases).

Addendum 1

19. Parking garage and related facilities include the following:
    a. Maximize ambient lighting in garage within energy code with increased lighting levels at pedestrian paths, elevator lobby areas, and egress stair entrances.
    b. If post tensioning is chosen as the structural slab system, then the tendons will be fully grouted. Excluded, option was rejected during design phase by Owner and Tenant.
    c. Floor drains at sprinkler legs.
    d. Sump pump.
    e. All handicap parking and patient parking is on flat slabs.
    f. Electric and low voltage closets as required by program.
    g. Water tank.
    h. Bollards, wall protection and visible paint to protect partitions within the garage is included. Staff by-pass for exiting is included with separation of parking type by card access system.
    i. McGann parking system (or approved equal that can communicate with McGann).
    j. Garage to meet ADA requirements including van requirements.
    k. Private ITA Court van drop-off area with access to service elevators.
    l. Attendant booth(s) for visitor parking.
    m. 600 parking spaces. Actual is 654 or greater provided.

20. Generator Plant includes the following:
    a. Two (2) 15,000 gal tanks.

b. Required fire suppression systems is not included – Add $175,000.
c. Ability to replace generator from street.
d. Generator plant includes generators four (4), switchgear, BUS to IEB, exhaust system.
e. We have included one (1) generator and installation of three (3) generators provided by others. Switchgear for NJB is included ref. bright line scope matrix, see Attachment F.

21. Required Building Infrastructure.
    a. Seattle City Light transformers and switch gear is included.
    b. Manifolded gas cylinder cylinder rooms – oxygen, nitrogen, and nitrous oxide. Rooms only included.
    c. Utility entrance. Rough in by others.
    d. Main data room, PBX. Rooms only included

ATTACHMENT A

CATEGORY 07 – VERTICAL TRANSPORTATION

SECTION 14210

TRACTION ELEVATORS

PART 1 GENERAL

1.01 QUALITY ASSURANCE

A. All work shall be performed in accordance with the latest edition of the "American Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks" (ASME A17.1), including published supplements; "National Electrical Code," "OSHA," "NFPA," "IBC," Accessibility Codes, and such state and local codes as may be applicable.

PART 2 PRODUCTS

2.01 SUMMARY – TRACTION ELEVATOR EQUIPENT

A. Three Garage Elevators:

Garage Cars 1-3	
Number:	Cars 1-3
Capacity:	3500 #
Class Loading:	Passenger Class A
Contract Speed:	350 fpm
Roping:	1:1
Machine:	Gearless, Machine-Room-Less
Machine Location:	Overhead
Supervisory Control:	Group Automatic Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz

Garage Cars 1-3

Stops and Openings:	6, All Front
Floors Served:	P4, P3, P2, P1, G, 01
Travel:	49'-9" ±
Platform Size:	7'-0" Wide X 6'-2" Deep
Minimum Clear Inside Car:	6'-8" Wide X 5'-4" Deep
Entrance Size:	3'-6" Wide X 7'-0" High
Entrance Type:	Single Speed, Center Opening
Door Operation:	High-Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide
Car Enclosure:	Steel Shell as Specified Plus $25,000 Allowance and 1,000# Weight Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment. Illuminate Portion of Normal Car Lighting
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Risers Dual Car Operating Panels

Garage Cars 1-3

	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Dual Digital with Car Direction Arrows
	Firefighters' Control Panel
Hall Lanterns:	At All Floors with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction with Predictive Function
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Cars 1-3:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Swing Car Return Panels Arranged for Integral Car Operating Panels

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Garage Cars 1-3

Independent Service Feature

Card Reader Provisions

CCTV Provisions

Digital Video Display Provisions

Firefighters' Control Panel and Remote Wiring

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Firefighters' Telephone Jack

Emergency Paging Speaker Installation

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

System Diagnostic Means and Instructions

Non-Proprietary Control System and Diagnostics Provisions

B. Six Passenger Elevators:

Passenger Cars 4-9

Number:	Cars 4-9
Capacity:	4000 #

Passenger Cars 4-9

Class Loading:	Passenger, Class A
Contract Speed:	500 fpm
Roping:	2:1
Machine:	Gearless
Machine Location:	Overhead
Supervisory Control:	Group Automatic Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	14, All Front
Floors Served:	01-14
Travel:	177'-9" ±
Platform Size:	8'-0" Wide X 6'-2" Deep
Minimum Clear Inside Car:	7'-8" Wide X 5'-4" Deep
Entrance Size:	4'-0" Wide X 7'-0" High
Entrance Type:	Single Speed, Center Opening
Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide

Passenger Cars 4-9

Car Enclosure:	Steel Shell as Specified Plus $25,000 Allowance and 1,000# Weight Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment. Illuminate Portion of Normal Car Lighting
Signal Fixtures:	LED Illumination. Standard Design
Hall and Car Pushbutton Stations:	Dual Hall Pushbutton Risers Dual Car Operating Panels
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Dual Digital with Car Direction Arrows
	Firefighters' Control Panel
Hall Lanterns:	At All Floors with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction with Predictive Function
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid
Additional Features – Cars 1-6:	
	Car and Counterweight Roller Guides
	Car Top Inspection Station
	Firefighters' Service, Phase I and II, Including Alternate Floor Return
	Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Passenger Cars 4-9

Accessibility Signage

Swing Car Return Panels Arranged for Integral Car Operating Panels

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Independent Service Feature

Card Reader Provisions, All Cars

CCTV Provisions, All Cars

Digital Video Display Provisions, All Cars

Firefighters' Control Panel and Remote Wiring and Conduit

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Firefighters' Telephone Jack

Emergency Paging Speaker Installation

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

Passenger Cars 4-9

System Diagnostic Means and Instructions

Non-Proprietary Control System and Diagnostics Provisions

C. One Service Elevator:

Service Car 10

Number:	Car 10
Capacity:	5000 #
Class Loading:	Service Class C3
Contract Speed:	500 fpm
Roping:	2:1
Machine:	Gearless
Machine Location:	Overhead
Operational Control:	Selective Collective Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	14, Front; 2 Rear
Floors Served:	Front: S, 01, 02-14 Rear: S, Loading Dock
Travel:	184'-0" ±
Platform Size:	6'-0" Wide X 10'-1½" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-7½" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening

Service Car 10

Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Compensation:	Encapsulated Chain with Pit Guide
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	10'-0" Clear Height Under Canopy
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Riser Dual Car Operating Panels, Front and Side walls
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows
	Firefighters' Control Panel
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction. Vandal Resistant Assembly
Hall Car Position Indicator:	Digital with Car Direction Arrows at All Floors. Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication

Service Car 10

Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Car 10:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Stationary Car Return Panel Arranged for Integral Car Operating Fixtures

Recessed Side Wall Panel Arranged for Recessed Applied Car Operating Panel

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Independent Service Feature

Attendant Operation

Card Reader Provisions

CCTV Provisions

Firefighters' Control Panel and Remote Wiring

Machine, Power Conversion Unit, and Controller Sound Isolation

Tamper Resistant Fasteners for All Fastenings Exposed to the Public

Service Car 10

	One Year Warranty Maintenance with 24-Hour Call-Back Service
	Sill Support Angles
	Firefighters' Telephone Jack
	Emergency Paging Speaker Installation
	Seismic Devices
	Signage Engraving Filled with Black Paint or Approved Etching Process
	No Visible Company Name or Logo
	Wiring Diagrams, Operating Instructions, and Parts Ordering Information
	Non-Proprietary Control System and Diagnostics Provisions

D. One Service Elevator:

Service Car 11

Number:	Car 11
Capacity:	4500 #
Class Loading:	Service Class C3
Contract Speed:	350 fpm
Roping:	Basement Traction
Machine:	Geared
Machine Location:	Bottom Landing, Rear
Operational Control:	Selective Collective Microprocessor-Based System
Motor Control:	AC Variable Voltage Variable Frequency Microprocessor-Based with Digital Closed-Loop Feedback
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz

Service Car 11

Stops and Openings:	2: 1 Front at 2; 1 Rear at S
Floors Served:	S, 02
Travel:	19'-0" ±
Platform Size:	6'-0" Wide X 9'-8" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-1" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening
Door Operation:	High -Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 2-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Safety:	Flexible Guide Clamp-Type B, Car and Counterweight
Guide Rails:	Planed Steel Tees
Buffers:	Oil
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	8'-0" Clear Height Under Canopy
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment.
Signal Fixtures:	LED Illumination. Contractor's Standard Design. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Single Hall Pushbutton Riser Dual Car Operating Panels, Front and Side Walls
	Vandal Resistant Car and Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows

Service Car 11

	Firefighters' Control Panel
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction. Vandal Resistant Assembly
Hall Car Position Indicator:	Digital with Car Direction Arrows at All Floors. Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal
	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Bid

Additional Features – Car 11:

Car and Counterweight Roller Guides

Car Top Inspection Station

Firefighters' Service, Phase I and II, Including Alternate Floor Return

Standby Power Transfer (Automatic to Main Floor) with Manual Override in Firefighters' Control Panel

Accessibility Signage

Stationary Car Return Panel Arranged for Integral Car Operating Fixtures

Recessed Side Wall Panel Arranged for Recessed Applied Car Operating Panel

Hoistway Access Switches, Top and Bottom Floors

Hoistway Door Unlocking Device, All Floors

Platform Isolation

Load-Weighing Device

Anti-Nuisance Feature

Service Car 11	
	Independent Service Feature
	Attendant Operation
	Card Reader Provisions
	CCTV Provisions
	Firefighters' Control Panel and Remote Wiring
	Machine, Power Conversion Unit, and Controller Sound Isolation
	Tamper Resistant Fasteners for All Fastenings Exposed to the Public
	One Year Warranty Maintenance with 24-Hour Call-Back Service
	Sill Support Angles
	Firefighters' Telephone Jack
	Emergency Paging Speaker Installation
	Seismic Devices
	Signage Engraving Filled with Black Paint or Approved Etching Process
	No Visible Company Name or Logo
	Wiring Diagrams, Operating Instructions, and Parts Ordering Information
	Non-Proprietary Control System and Diagnostics Provisions
Alternates:	Provide Stop at G Level

PART 3 EXECUTION

3.01 INSTALLATION

A. Comply with applicable codes, manufacturer's instructions, shop drawings and recommendations. Comply with National Electrical Code (ASME C1 by NFPA) for electrical work required during construction.

3.02 Final Inspection and Test

A. Comply with ASME A17.2-latest edition Inspectors' Manual.

SECTION 14240

HYDRAULIC ELEVATORS

PART 1 GENERAL

1.01 QUALITY ASSURANCE

A. "American Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks" (ASME A17.1), including published supplements; "National Electrical Code," "OSHA," "NFPA," "IBC," Accessibility Codes, and such state and local codes as may be applicable.

PART 2 PRODUCTS

2.01 SUMMARY - HYDRAULIC ELEVATOR EQUIPMENT

A. One Service Elevator:

Service Car 12	
Number:	Car 12
Capacity:	5000 #
Class Loading:	Service, Class C3, for 2000# Single Piece Load
Contract Speed:	100 fpm
Machine:	Hydraulic Pump
Machine Location:	Adjacent at Bottom Landing
Operational Control:	Two-Stop Selective Collective Microprocessor-Based System
Motor Control:	Single Speed AC with SCR Soft Start with Closed Transition
Power Characteristics:	480 Volts, 3 Phase, 60 Hertz
Stops and Openings:	1 Front; 1 Rear
Floors Served:	S Front; G Rear

Service Car 12

Travel:	7'-1" ±
Platform Size:	6'-0" Wide X 10'-3½" Deep
Minimum Clear Inside Car:	5'-8" Wide X 8'-9" Deep
Entrance Size:	4'-6" Wide X 7'-0" High
Entrance Type:	Two Speed, Side Opening
Door Operation:	Medium Speed, Heavy-Duty, Door Operator, Minimum Opening Speed 1-1/2 F.P.S.
Door Protection:	3-Dimensional Infrared, Full Screen Device, with Differential Timing, Nudging, and Interrupted Beam Time
Hydraulic Type:	Dual Jack Holeless
Guide Rails:	Planed Steel Tees
Buffers:	Spring
Car Enclosure:	Steel Shell as Specified Plus $5,000 Allowance for Interior Finishes
	10'-0" Clear Height Under Canopy
	Pad Buttons or Hooks and Vinyl-Covered Pads
	Battery Powered Emergency Car Lighting. Provide Separate Constant Pressure Test Button in Car Service Compartment
Signal Fixtures:	LED Illumination. Vandal Resistant Assembly
Hall and Car Pushbutton Stations:	Dual Hall Pushbutton Risers, Front and Rear Dual Car Operating Panels, One Front, One Side Wall
	Vandal Resistant Car And Hall Pushbuttons
Car Position Indicators:	Single Digital with Car Direction Arrows
In Car Lanterns:	All Car Entrance Columns with Volume Adjustable Electronic Chime or Tone. Sound Twice for Down Direction Vandal Resistant Assembly
Communication System:	Intercom with Distress Signal

Service Car 12

	Self-Dialing, Vandal Resistant, Push to Call, Two-Way Communication System with Recall, Tracking, and Voiceless Communication
Fixture Submittal:	Submit Brochure Depicting Provider's Proposed Designs with Pricing
Additional Features – Car 12:	
	Car Solid Slide Type Guides
	Car Top Inspection Station
	Firefighters' Service, Phase I and II, Including Alternate Floor Return
	Battery Lowering Device
	Accessibility Signage
	Stationary Car Return Panels Arranged for Surface Applied Car Operating Panel
	Recessed Side Wall Panels Arranged for Recessed Applied Car Operating Panel
	Hoistway Door Unlocking Device, All Floors
	Platform Isolation, Jack to Platen Connection(s)
	Independent Service Feature
	Selective Door Operation
	Card Reader Provisions
	CCTV Provisions
	Firefighters' Control Panel and Remote Wiring
	Hydraulic Pump Unit and Controller Sound Isolation
	Tamper Resistant Fasteners for All Fastenings Exposed to the Public

Service Car 12

One Year Warranty Maintenance with 24-Hour Call-Back Service

Sill Support Angles

Emergency Paging Speaker Installation

Seismic Safety Valve

Seismic Devices

Signage Engraving Filled with Black Paint or Approved Etching Process

No Visible Company Name or Logo

Wiring Diagrams, Operating Instructions, and Parts Ordering Information

Non-Proprietary Control System and Diagnostics Provisions

PART 3 EXECUTION

3.01 INSTALLATION

A. Comply with applicable codes, manufacturer's instructions, shop drawings and recommendations. Comply with National Electrical Code (ASME C1 by NFPA) for electrical work required during construction.

3.02 FINAL INSPECTION AND TEST

A. Comply with ASME A17.2-latest edition Inspectors' Manual.

ATTACHMENT B

CATEGORY 08 – HVAC

SECTION 15010

BASIC MECHANICAL REQUIREMENTS

PART 1 GENERAL

1.00 SYSTEM DESCRIPTION

A. Cooling Plant - The HVAC system selected for the new Ninth and Jefferson Building is a chilled water system with custom air handling units. This system includes a central chilled water plant comprised of chillers, chilled water pumps, chilled water piping, condenser water pumps, condenser water piping, and rooftop cooling towers.

Water is cooled at the chiller and delivered to the chilled water air handlers via chilled water piping. A modulating control valve at each air handler allows chilled water to enter the coil to cool the supply air.

B. Heating Plant - Heat for the building is provided by steam-to-hydronic converters located in the Level 4 mechanical room. This system includes a central heating water plant comprised of steam converters, heating water pumps and piping, pre-heat water pumps and piping, steam piping, and controls. Distribution piping is routed through the building to provide hot water to the hydronic coils in the shell and core air handling units and VAV zone boxes. Provisions are made for future Tenant Improvement connections to the heating water system.

Water is heated at the converters and delivered to the air handler via heating water piping. A modulating control valve at each air handler allows heating water to enter the coil to cool the supply air.

C. Air Delivery System - The air systems for NJB are divided into two distinct types - Tower (Levels 5 through Level 14) and Podium (Levels G through Level 4). Separate air-handling systems have been designed to accommodate the specific requirements of the Tower and the Podium.

The Tower air delivery system is designed for general medical office use. The air handlers are complete with a chilled water coil, hot water pre-heat coil, pre-filters, final filters, dual VAV supply fans, dual VAV return/exhaust fans, and economizer dampers. The Tower system is a re-circulating system that varies the amount of ventilation air. The percent of outside air to total supply air in the Tower will range from 25% to 100% depending on internal load (demand) and ambient temperature.

Conditioned air is supplied to the Tower through a medium-velocity duct distribution system. The duct mains will be installed and ready to be extended by future Tenants.

Each shell and core temperature control zone has a series VAV fan terminal unit. The VAV damper unit precisely controls the quantity of cooling required to satisfy the zone. The series VAV fan terminal unit has a fan that runs continuously during occupied hours. The fan draws air from the medium velocity cooling duct and from the ceiling return plenum as required to satisfy the zone temperature. When heat is required, the hydronic control valve modulates as required to maintain the space temperature at the minimum setpoint. The occupants perceive the system to be a constant air volume system. Comfort and indoor air quality is increased through constant air motion

The Podium air delivery system is designed for laboratory or similar use and delivers 100% outside air with matched 100% exhaust (non-recirculated) air. The system is intended to supply a constant air volume. Pressure relationships are maintained by supply/exhaust airflow differentials ("CFM offset"). The Supply air handlers are complete with a chilled water coil, heat recovery coil, hot water pre-heat coil, pre-filters, final filters, sound attenuators, and a supply fan. The Exhaust air handlers are complete with a heat recovery coil, pre-filters, sound attenuators, and an exhaust fan.

Conditioned air is supplied to the Podium through a medium-velocity duct distribution system. The duct mains will be installed and ready to be extended by future Tenants. Each shell and core temperature control zone has a single duct terminal unit. The terminal unit damper precisely controls the quantity of air required to maintain pressure relationships and satisfy the zone. When heat is required, the hydronic control valve modulates as required to maintain the space temperature at the minimum setpoint.

D. Tower Auxiliary Cooling System -The Tower shall use the chilled water system for auxiliary cooling needs. The allocated capacity for each floor is ten (10) tons.

E. Podium Auxiliary Cooling Loop -The Podium will be supplied with auxiliary cooling water from the IEB auxiliary cooling system. Floors "G" through 1 will be served by this system.

F. Garage Ventilation System - The garage ventilation system consists of wall mounted; propeller-type supply fans and exhaust fans. The supply and exhaust fans are located at opposite ends of the garage in order to promote good cross ventilation. Fans are located on each floor in architectural shafts; ductwork is not provided inside the shafts. The exhaust fans discharge to louvers located along Terry Avenue, and the supply fans draw air from intake wells located along 9th Avenue. A grid of carbon monoxide sensors (multiple sensors on each floor) controls the amount of ventilation air in the garage.

G. Toilet Exhaust System - The shell and core toilet exhaust system consists of a roof exhaust fan and associated ductwork. The system operates as scheduled by the DDC system.

H. Stairwell Pressurization System - High-Rise stairwells are provided with pressurization fans and relief dampers. Low-rise stairwells not pressurized will be provided with relief dampers as required by IBC.

I. Elevator Pressurization System – High-rise elevator shafts are provided with pressurization. Low-rise elevator shafts not provided with fire/smoke doors will be pressurized.

J. Control System - Complete DDC control system including low-voltage wiring, thermostats to terminal units, night setback zones, building static pressure control, duct static pressure control, economizer control, garage carbon monoxide monitoring, and building time clock.

K. Domestic Water System - Complete domestic cold water and hot water systems are provided. Provisions for future tenant connections have been made. The domestic cold and hot water systems are comprised of a duplex booster pump, instantaneous steam hot water generators for the Podium and an electric hot water tank for the upper zone in the tower, hot water circulation pumps, piping, and controls.

L. Storm System A complete rain leader and overflow system is provided.

M. Sanitary Waste and Vent System- A complete sanitary waste and vent system is provided. Provisions for future tenant connections have been made.

N. Garage Drainage System - A complete garage drainage system is provided. This system is comprised of sand-oil interceptor, sump pump, area drains, and piping.

O. Foundation Wall Drain System- A portion of the foundation wall drainage system was installed under a previous contract. This project will connect to and complete the installation. This system is comprised of a sump pump, existing and new piping, and drain connections.

P. NJB Mechanical Systems to Support IEB – The following mechanical systems in NJB are necessary to support the IEB. These systems will need to be functional in order for the IEB to be occupied.

1. Emergency Generator Ventilation System - The generator ventilation system consists of radiator intake ductwork, exhaust ductwork, and diesel generator exhaust pipe.
2. Generator Fuel Oil Storage and Delivery System – The fuel oil system consists of fuel storage tanks, fuel pumps, day tanks, fuel piping, fill station with alarms, and fuel storage room ventilation.
3. SCL Vault Ventilation – The SCL ventilation system consists of a supply fan, an exhaust fan, and associated ductwork. The exhaust ductwork will terminate at 10 feet above grade along Terry Avenue.
4. Main Electrical Room & Emergency Switchgear Room – The air conditioning units for the main electrical rooms will need to be functional. The cooling source for the A/C units comes from the IEB's auxiliary cooling loop.
5. Medical Gas Systems – The Nitrogen, Nitrous Oxide, and Oxygen systems consist of manifolds, manifold relief vents, gas piping, and associated alarms. Gas cylinders are provided by others. Each medical gas room has a ventilation system consisting of a dedicated exhaust fan and supply/exhaust ductwork. The ductwork routes from each gas room to the exterior in 1-hour enclosures.

6. Medical Air and Medical Vac Systems – The medical air and medical vacuum systems consist of air compressors, vacuum pumps, piping, intake/exhaust vents, and associated alarms. The Med Air / Vac room air conditioning unit will need to be functional. The cooling source for the A/C unit comes from the IEB's auxiliary cooling loop.
7. Medical Gas Alarms – Wiring for source alarms for the medical gases in the NJB will be terminated at the Utility tunnel leading to the IEB. A j-box is provided for this purpose.
8. Lab Air and Building Air - The lab air and building air systems consist of air compressors, piping, intake vents, and associated alarms. The lab air and building air compressors are located in the Med Air / Vac room.
9. MDF/PBX - The air conditioning units for the MDF/PBX Room will need to be functional. The cooling source for the A/C units comes from the IEB's auxiliary cooling loop.
10. Pathways and corridors form NJB to IEB will need to be functional. Temporary ventilation in the corridors will be provided using fan coil unit(s) with electric heat.
11. DDC controls for systems mentioned above where applicable.
12. The NJB provides a backup source for domestic water and steam to the IEB. These systems will be functional as well.

1.01 ALTERNATES

A. Option excluded in the GMP are listed below as alternates:
   a. Additional cooling capacity to support a 2,000 square foot server room with 150 watts/sf of critical load. Mechanical costs only add $825,000.
   b. Rough-in only for red bag medical waste disposal unit add $12,000.

1.02 DESIGN PARAMETERS

A. The following criteria shall apply to the Tower (levels 5 through 14) portion of the project:

   1) The building will be steel and concrete construction
   2) The lighting and equipment load will be no greater than 3.6 watts per square foot.
   3) The building occupancy will not exceed 1 person per 143 square feet.
   4) The ventilation rate is based at 25 cfm per person.

B. The following criteria shall apply to the Podium (levels "G" through 4) portion of the project:

   1) The building will be concrete construction
   2) The lighting and equipment load will be no greater than 5.0 watts per square foot average.
   3) The building occupancy will not exceed 1 person per 143 square feet average.
   4) The ventilation rate is based on 10 air changes per hour with a 9'-0" ceiling height in lab areas and at 25 cfm per person in non-lab areas.

1.03 Not Used

1.04 Not Used

1.05 Not Used

1.06 Not Used

1.07 QUALITY ASSURANCE

A. All work shall comply with the governing ordinances of the local jurisdiction and applicable Codes of the State of Washington.

B. Comply with the most recently published versions of the following codes as amended by the City of Seattle:

International Building Code 2003
International Mechanical Code 2003
International Fire Code 2003
Washington State Energy Code 2004
Uniform Plumbing Code 2003
Washington State Ventilation & Indoor Air Quality Code 2003
National Electric Code

1.08 BALANCING AND TESTING

A. Balancing of air conditioning and ventilating systems will be done after the systems are substantially completed and shall be performed by the Mechanical Contractor.

1.09 INSTRUCTION FOR OWNER'S REPRESENTATIVES

A. Following initial operation of all mechanical equipment and prior to acceptance of the mechanical work, the Contractor shall conduct demonstrations of equipment operation and instruction periods for the Owner's representatives.

B. Duration of instruction periods:

Plumbing	½ day
Heating Systems	½ day
AC Systems	1 day
Temperature Control/EMS System	2 days

ATTACHMENT C

CATEGORY 09 – PLUMBING

SECTION 15140 & 15150

PLUMBING/PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe and fittings for domestic or potable water, sanitary sewer, and storm water drainage service.

B. This section covers service within the building and to 5 feet outside the building.

C. Miscellaneous piping for instruments, testing, and temporary services. Make same as for the connecting service if not otherwise specified.

D. Services covered under this section:

SYMBOL	SERVICE	DESIGN PRESSURE (PSIG)	DESIGN TEMP. (°F)
CW	Domestic Cold Water	175	50
HW	Domestic Hot Water	175	120
HWC	Domestic Hot Water Circulating	175	120
SS (W)	Sanitary Sewer (Waste)	10' of Head	120
RL	Rainwater Leader	10' of Head	32
SD	Storm Drain	10' of Head	40
V, VTR	Vents for Sanitary Sewer	10' of Head	Ambient

PART 2 PRODUCTS

2.01 DOMESTIC COLD AND HOT WATER (CW, HW, HWC) - ABOVE GRADE

A. Copper pipe, fittings, and joints: Anaconda, American Brass Co., Nibco, Inc., Mueller Brass Co.

1. Pipe: Type L hard-drawn seamless copper, water tube, ASTM B 88.

2. Fittings: Wrought-copper solder joints fittings, ANSI B16.22 and ASTM B 75. Cast bronze may be used for fittings not available in wrought copper.

3. Unions: Wrought-copper and solder joint unions with copper seats, ANSI B16.22 and ASTM B 75.

4. Flanges: Class 125 cast-bronze solder joint flanges, flat faced, ASTM B 584, 175 lb WOG @ 150° F. Furnish flanges factory-faced, drilled, and spot-faced.

5. Joints: Soldered. Flanged at flanged equipment connections and flanged valves.

6. Solder: 95-5 tin antimony, 95.5/4 tin/copper, 91.5/5/3.5 tin/antimony/copper per ASTM B 32-89, Grade 50A, Alpha Metals, Inc., Anchor Alloys Inc., Kester Solder Co., Harris, Engelhard, or approved.

7. Gaskets: Full face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1450 lb @ 750° F, Richard Klinger, Inc., Crane Packing Co., Garlock Co., or approved.

8. Bolting: Silicon bronze hex-head cap screws with regular hex nuts.

2.02 SANITARY SEWER, STORM DRAIN, AND ASSOCIATED VENT PIPING (SS (W), SD, V) - BELOW GRADE

A. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

B. Provide factory fabricated transition coupling or adapter gasket at interface between building cast-iron piping and site piping.

2.03 SANITARY SEWER AND VENT PIPING (SS (W), V, VTR) - ABOVE GRADE

A. Use either B or C consistently throughout project for a given size range of piping.

B. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

C. Copper pipe system:

1. Pipe: 1-1/2" maximum: Type DWV copper tubing, ASTM B306.

2. Fittings: Wrought copper solder joint drainage fittings, ANSI B16.29 or cast bronze solder joint drainage fittings, ANSI B16.23. Solder per domestic water specification.

2.04 STORM DRAIN AND RAINWATER LEADER PIPING (SD, RL) - ABOVE GRADE

A. Cast-iron soil pipe and fittings.

1. Pipe: CISPI 301, service weight, cast-iron soil pipe, bituminous coated, hubless type.

2. Fittings: CISPI 301, service weight, hubless type; bituminous coated.

3. Joints: Neoprene gaskets and stainless steel clamp-and-shield assemblies, ASTM C-564, CISPI 310.

PART 3 EXECUTION

3.01 TESTING

A. Hydrostatic test as specified in Contract Documents, before disinfection.

3.02 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

A. Sterilize all water piping, using 50 ppm chlorine concentration; per Seattle-King County Health Department regulations; 8 hour contact time; open all valves several times during contact period; followed by flushing with clean water until residual chlorine is less than 0.2 ppm.

END OF SECTION

SECTION 15181

HYDRONIC PIPING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Water piping for heating, cooling, and other nonpotable water services as identified below.

B. Miscellaneous piping for drains, vents, instrument connections and temporary services. Make the same as for the connecting service if not otherwise specified.

C. Services covered under this section:

SYMBOL	SERVICE	DESIGN PRESSURE (PSIG)	DESIGN TEMP. (°F)
CHS	Chilled Water Supply	175	42
CHR	Chilled Water Return	175	56
CS	Condenser Water Supply	175	75
CR	Condenser Water Return	175	90
HWS	Heating Water Supply	175	160
HWR	Heating Water Return	175	135
HGS	Preheat Supply	175	125
HGR	Preheat Return	175	100
ACS	Aux Cooling Supply	172	85
ACR	Aux Cooling Return	175	95
COND	Condensate	10' of Head	Ambient

1.02 QUALITY ASSURANCE

A. Welding materials and procedures: Section 15060 - General Piping Requirements.

B. Welder's certification: Section 15060.

PART 2 PRODUCTS

2.01 CHILLED AND CONDENSER WATER PIPING (CHWS,CHWR,CWS,CWR)

A. Black Steel pipe, fittings, and joints, 2 1/2 inches & larger:

1. Pipe material: Black steel, ASTM A 53, Grade A or B, electric resistance welded or ASTM A106 seamless.

2. Weight and ends: 2 1/2 inch through 10 inches, Schedule 40. 12 inches and larger, Schedule 40S (0.375" thickness. Thin wall pipe acceptable for roll-grooved-end pipe: 2 inch to 6 inch: Schedule 10.

3. Fittings: 2-1/2 inches and larger, Standard weight seamless steel butt welding, ASTM A 234 Grade WPB; dimensions to ANSI B16.9 and B16.10. Weldolets, Threadolets, Sockolets, or as approved may be used where branch pipe size is less than or equal to half the main line size or Grooved end type, ductile iron, ASTM A 536 or malleable iron, ASTM A 47, with EPDM gasket. Victaulic or approved.

4. Unions: Class 150 malleable iron, brass seat, threaded, ASTM A 197, ANSI B16.3, 150-lb. SWP @ 366°F., 300-lb WOG @ 150°F.

5. Flanges: Class 150 slip-on or welding neck forged steel flanges with raised face, ASTM A 181-1 or A 105-1, ANSI B16.5, 150-lb WP @ 500°F, 255-lb. WP @ 150°F. Use flat-faced flanges when mating steel flanges to cast iron flanges. Slip-on flanges: Double fillet weld.

6. Joints: 2 1/2 inches and larger: welded, flanged, or grooved.

7. Thread lubricant: Teflon tape or pipe dope.

8. Gaskets: Ring type for raised face flanges and full-face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1000-lb. @ 700°F., Garlock Co., or approved.

9. Bolting: Carbon steel hex-head machine bolts and hex nuts, ASTM A 307, Grade A bolt, ASTM A563 nut or continuous thread stud bolts and hex nuts, ASTM A193B7 stud, ASTM A1942H nut.

B. Copper pipe, fittings, and joints: Anaconda, American Brass Co., Nibco, Inc., Mueller Brass Co.

1. Pipe: 2 inches & smaller: Type L hard-drawn seamless copper, water tube, ASTM B 88.

2. Fittings: Wrought-copper solder joints fittings, ANSI B16.22 and ASTM B 75. Cast bronze may be used for fittings not available in wrought copper.

3. Unions: Wrought-copper and solder joint unions with copper seats, ANSI B16.22 and ASTM B 75.

4. Flanges: Class 125 cast-bronze solder joint flanges, flat-faced, ASTM B 584, 175-lb WOG @ 150° F. Furnish flanges factory-faced, drilled, and spot-faced.

5. Joints: Soldered, sweat, or threaded. Flanged at flanged equipment connections and flanged valves. Grooved end or Victaulic joint connections also may be approved by mechanical engineer.

6. Solder: 95-5 tin antimony, 95.5/4 tin/copper, 91.5/5/3.5 tin/antimony/copper per ASTM B 32-89, Grade 50A, Alpha Metals, Inc., Anchor Alloys Inc., Kester Solder Co., Harris, Engelhard, or approved.

7. Gaskets: Full-face type for flat face flanges. Furnish gaskets factory cut and punched of 1/16 inch thick compressed nitrile bonded asbestos-free fiber, 1000 lb @ 700° F, Richard Klinger, Inc., Crane Packing Co., Garlock Co., or approved.

8. Bolting: Silicon bronze hex-head cap screws with regular hex nuts.

2.02 CONDENSATE PIPING

A. Copper pipe and fittings.

1. Pipe material: Type DWV copper tubing, ASTM B306.

2. Fittings: Wrought copper solder joint drainage fittings, ANSI B16.29 or cast bronze solder joint drainage fittings, ANSI B16.23.

3. Joints: Soldered per domestic water specification.

PART 3 EXECUTION

3.01 TESTING

A. Hydrostatically test piping in accordance with Contract Documents.

3.02 CLEANING

A. Flush system to remove oil and pipe cuttings with a mixture of water and trisodium phosphate, 1 lb for each 50 gallons of water, circulate for 2 hours, then drain and flush with clean water under pressure to remove traces of detergent. Remove strainer baskets and screens, clean thoroughly, and replace.

END OF SECTION

ATTACHMENT D

CATEGORY 10 – FIRE SPRINKLERS

SECTION 15310

FIRE PROTECTION SPRINKLER AND STANDPIPE SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Provide design and construction of a complete design-build automatic fire protection sprinkler system. The sprinkler system shall extend throughout the building (including combustible overhangs where required by code) and meet code requirements for high rise buildings. The parking garage shall be fully protected per Seattle's requirements. It is the contractor's responsibility to verify and comply with all applicable city codes and ordinances. In case of any conflict with drawings or specifications, the codes and ordinances shall govern.

2. Shop drawings, hydraulic calculations, material submittals, test reports and certificates, operation and maintenance manuals, as-built drawings.

1.2 REFERENCES

A. National Fire Protection Association, NFPA 13, Installation of Sprinkler Systems

B. National Fire Protection Association, NFPA 14, Standpipe and Hose Systems

C. 2004 Seattle Building Code (SBC)

D. Underwriters Laboratories (UL)

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials and equipment to be new UL listed, pressure rated for system pressures, and shall be in accordance with NFPA 13 and the City of Seattle requirements.

2.2 PIPE AND FITTINGS

A. Pipe: Provide pipe in accordance with NFPA 13, as applicable for the type of system or application.

B. Fittings: Provide sizes and types matching pipe, valves, and equipment connections. Fittings shall be threaded, fit socket, grooved, or flanged.

C. Pipe used for dry pipe sprinkler systems shall be schedule 10 or schedule 40.

2.3 PIPE HANGERS AND SUPPORTS

A. Support and seismically restrain the fire protection piping with UL listed hangers and support devices. The design, selection, spacing, restraining, and anchors shall be in accordance with NFPA 13.

2.4 VALVES

A. All fire protection valves shall be UL listed for fire protection use. Valves shall be threaded, grooved, or flanged, and shall be provided for the correct application and pressure rating as required.

2.5 CHECK VALVES

A. All check valves shall be UL listed swing type check valves with replaceable seat. Valves shall be threaded, grooved, wafer, or flanged, and shall be provided for the correct application and pressure rating as required.

2.6 SPRINKLER HEADS

A. All sprinkler heads shall be quick response type. Temperature rating shall be in accordance with NFPA 13.

B. Sprinkler heads in unfinished areas to be upright or pendent with brass finish.

C. Sprinkler heads in finished ceiling areas to be recessed with chrome finish and or painted escutcheon.

D. Provide a metal cabinet containing a stock of spare sprinklers and head wrenches in accordance with NFPA 13. Locate the cabinet in the fire sprinkler riser room.

2.7 VALVE SUPERVISORY SWITCHES

A. All control valves in the fire protection piping shall be supervised. Supervisory switches shall be furnished and installed by this contractor and wired by the Electrical Contractor. Valves without built in supervisory switches shall be provided with Potter Electric supervisory switches.

2.8 WATERFLOW SWITCHES

A. All waterflow and pressure alarm switches shall be furnished and installed by this contractor and wired by the Electrical Contractor.

B. Wet pipe waterflow alarm switches to be Potter VSR-F.

C. Dry pipe pressure alarm switches to be Potter PS 10-2.

D. Dry pipe high/low air alarm switches to be Potter PS 40-2.

2.9 ACCESS DOORS

A. Provide wall or ceiling access doors in finished areas for the access to concealed equipment. Coordinate locations with the architect before installation.

B. All access doors provided shall be compatible with the type of construction to be installed in. Access doors in fire rated assemblies shall be rated to maintain the rated assembly.

2.10 SLEEVES

A. Provide sleeves around all piping passing through masonry, CMU, concrete walls and floors.

B. This contractor is responsible for the timely placement of sleeves in construction. If sleeves are not placed during construction, permission shall be obtained before any core drilling is performed.

C. Sleeves shall be sized in accordance with NFPA 13.

2.11 FIRESTOPPING

A. Provide a classified UL firestopping system of all pipe penetrations through fire rated assemblies in accordance with the City of Seattle building inspector.

2.12 FIRE HOSE VALVES

A. Standard Hose Valves: 2 ½ inch, cast brass finish, angle pattern, with hose threads, cap with 1/8 inch hole, and chain.

2.13 DRY PIPE VALVES

A. The dry valve is to be Reliable Model D or equal. Include pressure alarm switch, high/low air switch, and other all necessary trim and devices.

2.14 AIR COMPRESSOR

A. Provide a tank mounted fire sprinkler system air compressor sized in accordance with NFPA 13. Coordinate electrical wiring requirements with the electrical contractor.

2.15 ELEVATOR MACHINE ROOMS

A. Elevator machine rooms, shafts, and pits are to be protected in accordance with the state elevator inspector's guidelines.

END OF SECTION 15550

ATTACHMENT D

CATEGORY 11 – ELECTRICAL

SECTION 16000

SHELL AND CORE SCHEMATIC DESIGN ELECTRICAL OUTLINE

1.00 BASIS OF DESIGN NARRATIVE

PROJECT DESCRIPTION

A) The Harborview Medical Center (HMC) Ninth and Jefferson Building (NJB) from hereon consists of 5 levels of below grade parking, retail at grade and 14 floors of clinics/labs/office space. The building is 726,103 GSF. This narrative describes the scope of electrical work for Shell and Core only.

B) The project is located in Seattle, Washington.

CODES

A) The facility will be designed and built to current and applicable codes as follows (with Seattle Supplements and standards):
   1) 2002 National Electrical Code, NFPA 70, with City of Seattle amendments.
   2) 2003 International Building Code with City of Seattle amendments.
   3) 2003 International Fire Code with City of Seattle amendments.
   4) Applicable Illuminating Engineering Society (IES) recommendations.
   5) Applicable American National Standards Institute (ANSI) standards.
   6) Applicable National Electrical Manufacturer's Association (NEMA) standards.
   7) 2004 Washington State Energy Code with City of Seattle amendments.

SCOPE OF WORK

A) GENERAL:
   1) Generally, the electrical system for this project will be based on an industry standard medical office building with specialty spaces defined in the RFP dated April 20, 2006. The final electrical "Design and Specifications" for this project will be reflective of this type of project and not a hospital facility.

   2) All electrical equipment installation shall meet the International Building Code seismic zone 3 requirements or the local codes whichever is more comprehensive.

   3) All ceiling mounted equipment shall be independently supported from structure and clipped to the ceiling grid where appropriate.

4) Transient voltage surge suppression protection will be provided for panelboards serving computer workstations, network equipment and other sensitive electronic equipment that are being served under the core and shell. Additional TVSS devices will be provided under a separate T.I. contract. This includes all 208Y/120 volt normal and emergency panels.

B) UTILITY SERVICES:

1) Power:

The local power utility company is Seattle City Light (SCL). SCL will provide new service to the site at 12.47 KV, 3 phase from the South Service District which is not on the spot network. This means that the NJB project would not have the reliability and back-up of the SCL spot network system, so if a building service transformer or transformers have a problem, the entire building will be without power, until SCL can repair the problem.

a) The Owner will construct a primary switch room and transformer vault to SCL's requirements. The Owner will also provide provisions for an additional future transformer vault for the building. The transformer vault will be sized accordingly for four. Sequoyah will lead the effort for SCL approval of the primary switch room and transformer vault design and obtain a "Service Agreement Letter" from SCL for the Owners.

b) The primary switch room and transformer vault will be constructed to accommodate a future spot network connection.

c) Incoming service voltage will be 480Y/277 volts, 3 phase, 4 wire.

d) The Electrical Contractor will provide the underground power duct bank system to the property line only. Extension to the nearest SCL vault as is designated by SCL is by others. Seattle City Light will install, own, operate and maintain the primary distribution system around the site.

e) All utility charges shall be paid directly by the Owner.

f) The SCL contact is: Bob Risch @ (206) 684-3269.

2) Telephone:

a) The local telephone utility company will provide telephone service to the NJB project.

b) The Electrical Contractor shall provide (7) 4" raceways from the main point of entry (MPOE) in the MDF/PBX room (demarc room) on Level G to a manhole and utility pole as designated by the local telephone utility company located on Jefferson Street. The Electrical Contractor shall also provide (7) 4" sleeves through the east wall for an alternate route for an alternate telephone utility company.

c) All utility charges excluded by electrical contractor.

3) Cable TV (CATV) System:

a) The local cable TV utility company will provide CATV service to the project, if required during the tenant improvement phase of the project.

b) The Electrical Contractor shall provide (2) 2" raceways from the main point of entry (MPOE) in the MDF/PBX room (demarc room) on Level G to the property line. The local CATV utility company shall provide the infrastructure (raceways, duct banks, vaults, etc.) to the intercept point at the property line.

c) All utility charges excluded by electrical contractor.

C) EMERGENCY POWER SYSTEM:

1) Four 1,250 KW emergency generators with paralleling switchgear will be located in NJB on Level P3 and will serve the NJB project, Inpatient Expansion Building (IEB) project and various loads in the existing Hospital.

a) One 1,250 KW generator will be provided under the NJB contract.

b) Fuel storage tanks will be provided by others and consists of two 15,000 gallon tanks located in NJB Fuel Storage Rooms on Level 4.

2) The emergency generators will provide power to the following branches of emergency loads via automatic transfer switches with bypass/isolation.

a) Life Safety Branch (Priority 1).

b) Critical Branch (Priority 1).

c) Fire Pumps (Priority 2).

d) Essential Equipment or Legally Required Branch (Priority 3).

e) Optional Standby Branch (Priority 4).

D) BUILDING POWER DISTRIBUTION:

1) The NBJ project is designed to provide 480Y/277 volt, 3 phase, 4 wire power to retail spaces, clinic/labs/office areas and below grade parking. The local power utility company will install and maintain transformers located in the transformer vault as previously described in section B.

2) The following distribution system is anticipated for the building:

a) The 480Y/277 volt, 3 phase, 4 wire, 60 hertz system will consist of two main switchboards rated at 4,000 amps, one main switchboard rated at 5,000 amps and one main switchboard (retail tenant meter center) rated at 600 amps. The RFP required a 9,400 Amp service at 277/480 volt, 3 phase, 4 wire. The current design is about 13,000 Amps.

b) This system will power mechanical equipment, plumbing equipment, fire protection equipment, elevators and building lighting. Each switchboard will incorporate the six disconnect arrangement and allow for future expansion. A Multifunction Digital Power/Energy/Demand Meter will be provided in three of the main switchboards. The Digital Meter will provide the following information:

i) Voltage (phase to phase; phase to neutral)

ii) Frequency

iii) Amps (phase to phase; phase to neutral)

iv) Total Harmonic Distortion (THD)

v) KW Demand

vi) KVAR
vii) KVAR/HR
viii) Power Factor (PF)

c) With the exception of the retail spaces, all other loads will be on the house utility meter.
d) No other owner check metering will be provided.
e) The 208Y/120 volts, 3 phase, 4 wire, 60 hertz system will consist of dry type transformers located in most of the electrical rooms throughout the building. This system will power receptacles, computer equipment, small equipment, etc.

3) Each floor will have a minimum of one electrical room with a couple of floors requiring two. Each electrical room will be dedicated to electrical equipment only per the NEC with no mechanical, plumbing, architectural appurtenances or other equipment not specifically related to the electrical space shall be installed in the electrical spaces. The electrical rooms will be stacked from floor to floor to minimize riser impacts. Electrical rooms are sized for the initial electrical installation and allow for future addition of tenant improvement panels and transformer. No other tenant equipment can be located in these spaces.

4) A Retail Tenant Meter Center will be located in the Main Electrical Room on Level P1. It will be rated at 600 amps at 480Y/277 volts with seven 200A meters and space for one more. Retail tenants will need to provide space for their own transformers and panelboards as needed. Conduit only will be provided to the ceiling space on Level S for future extension by the tenants.

5) No special electrical services such as 400Hz or "clean" power will be provided. All lighting shall be powered at 277 volts, except incandescent lighting shall be powered at 120 volts, wherever possible.

6) Provide convenience receptacles in each mechanical room, electrical room, storage room, telephone room, utility service entrance location and support areas. GFI receptacles will be provided near sinks, in exterior locations, and where required by the NEC.

7) Provide full size neutral conductors and busses throughout in all 4 wire systems. Switchboards and panelboard buses as well as the transformer windings will be aluminum.

8) Feeders and Branch Circuits:
a) Main feeders and branch circuits will be MC copper or aluminum cable wherever practical and allowed by the NEC.
b) A grounding conductor will be provided in feeders with sensitive loads only.
c) Branch circuiting for power and lighting in the garage will be based on using PVC coated MC Cable in the slabs.

9) Wiring will be routed in the slab for Level G and below to minimize surface conduits whenever and wherever practical and will be coordinated with the Structural Engineer. Conduit and cables will be surface mounted for all levels from Level 1 and above to allow for ease of identification of drilling through the concrete slabs.

10) Mechanical Equipment:
   a) Provide power and disconnects for all mechanical equipment. Each piece of equipment shall have a single point connection with one disconnect switch.
   b) Provide all standard FVNR starters for mechanical equipment except where equipment requires a VFD, two-speed starter or is a packaged unit and a starter is provided as part of the package such as fire pumps, duplex sewage pumps, duplex or triplex domestic water pumps or chiller starters. Control system and wiring shall be part of the Division 15 scope of work.
   c) Provide control system panels power.

11) Code required receptacles for mechanical and conveyance systems will be provided.

12) Mount all disconnects to structure and connect with flexible raceway.

E) LIGHTING:

1) General: All lighting will meet Washington State Non-Residential Energy Code and Seattle supplements that apply. Light sources will be energy efficient metal halide and/or fluorescent lamps. The design will keep the number of different lamps required to a minimum. Lighting levels will be per IESNA standards. Refer to the lighting fixture schedule for fixture types and the drawings for the lighting layout.
   a) Back of House Spaces – Lighting shall consist primarily of fluorescent strip light fixtures.
   b) Parking Garage and Ramps – Lighting shall consist primarily of fluorescent strip light fixtures.
   c) Stair Landings – Wall mounted fluorescent light fixtures shall be provided on emergency circuits in accordance with the International Building Code with Seattle amendments for accessible means of egress.
   d) Public Lobbies, Corridors and Spaces – Lighting control to meet energy code.
   e) Emergency Egress Lighting – Will be provided throughout all public areas and parking garage as required and circuited to the emergency power system.

2) Lighting Control:
   a) Programmable low voltage lighting control with daylight controls and centralized on-off master control will be provided in accordance with the Washington State Non-Residential Energy Code and Seattle supplements that apply. Control will be as follows:
      i) Public Lobbies, Corridors and Spaces – Low voltage relay controlled by time clock and daylighting controls.
      ii) Back of House Spaces – Occupancy sensors and local controls.
      iii) Parking Garage – Entries controlled for dual levels to compensate for daylight; all other parking garage lights are on 24/7 via a time clock.
      iv) Outdoor – Photocell and time clock control.
      v) Exterior Signage – Photocell and time clock control.

F) GROUNDING:
1) Provide all grounding per the NEC.

2) Provide ground ring electrode for the building. Provide exothermic connections for all below grade connections. Provide 3/4 inch diameter copper clad ground rods minimum 8'-0" in length. Connect grounding to concrete column rebar.

3) All LV/IDF rooms will have a separate ground bus tied together and extended to the building ground.

G) BUILDING TELECOMMUNICATIONS DISTRIBUTION:
1) Telecommunications General:
   a) The Electrical Contractor shall provide the following raceway and pathway systems:
      i) Cable tray and conduit sleeves from the MDF/PBX Room (demarc room) on Level G to the north end of the tunnel to the IEB project will be provided for telecommunications cabling infrastructure connected to the IEB project and existing Hospital.
      ii) (10) 4" riser raceways from the main point of entry (MPOE) in the MDF/PBX Room (demarc room) on Level G to the first LV/IDF Room on Level 2 via the IDF Room on Level S.
      iii) (10) 4" riser sleeves in each LV/IDF Room floor starting from Level 3 through Level 8. (6) 4" riser sleeves in each LV/IDF Room floor starting from Level 9 through Level 14. A floor opening provided between floors in lieu of sleeves is preferred.
      iv) (1) 2" riser raceway from the main point of entry (MPOE) in the MDF/PBX Room (demarc room) on Level G to the ceiling space of each of the (7) retail tenants on Level S.

   b) The Telecommunications Contractor's work is part of the Tenant Improvement scope of work.

2) Main Point of Entry (MPOE):
   a) The MPOE shall be in the MDF/PBX Room (demarc room) located on Level G.
      i) Emergency Optional Standby power will be provided as required to equipment.
      ii) Telephone MPOE backboard will be provided by the General Contractor, which shall consist of the walls within the main telephone room being lined with ¾ inch fireproof "AC" plywood from 3 inches above the finished floor.
      iii) Additional space for alternate providers has not been provided.

3) LV/IDF Rooms (Telecommunications Infrastructure):
   a) LV/IDF Rooms shall be located on each floor, stacked vertically above each other, starting from Level 2 through Level 14. Rooms shall be located so that maximum cable length does not exceed 295ft from terminal to terminal. These rooms shall not be accessible to the public.
   b) Emergency Optional Standby power will be provided as required to equipment.
   c) Telephone terminal backboard will be provided by the General Contractor, which shall consist of the room being lined with ¾ inch fireproof "AC" plywood from 3 inches above the finished floor.

4) Telecommunications Grounding:
   a) Provide a telecommunications grounding system at the MDF/PBX Room and LV/IDF Rooms. Provide a separate copper conductor in conduit bonded to wall mounted copper bus bars in the MDF/PBX Room and LV/IDF Rooms. Bond conductors to the building's main electrical ground, and to the cold water risers and sanitary drains at each floor.

H) CABLE PLANT:
The system will be designed and installed by the tenant improvement's Telecommunications Contractor.

I) FIRE DETECTION, ALARM AND COMMUNICATION SYSTEM:
1) The system will be a stand alone microprocessor based addressable class B system for a high rise building that will monitor all fire alarm devices and provide visual and audible annunciation that will comply with FDI Standards and as required by code and the local jurisdiction. The system will be connected to the NJB fire alarm control panel (FACP) in the NJB fire command center (FCC) and designed to meet the governing accessibility requirements, ADA requirements and shall be UL listed for ADA compliance. The fire alarm system will be connected by a data loop to inter-tie the NJB project, IEB project and existing Hospital FCC's. We are assuming that a pathway will be provided to run the fire alarm cable to the IEB project FCC.
2) Features will include:

a) Addressable devices with each having its own digital address.
b) Geographic zoning by floor and wing with separate annunciation for smoke detectors, manual pull stations and water flow devices.
c) LED lights for modules for remote contacts.
d) Power supplies will be contained within the fire alarm panel.
e) Higher speaker density with lower volume for each.
f) Strobes in public spaces only.
g) Speaker volume bypass access numbers for telephone operators and security paging.
h) Fire Command Center inter-tied with IEB project and existing Hospital Fire Command Centers.

J) SECURITY MANAGEMENT SYSTEMS:

1) Card Access Control System:
   a) The head-end equipment will be located in the LV Room on Level S.
   b) The system will be inter-tied with the systems in the IEB project and the existing Hospital.
   c) The core and shell electrical budget includes card readers in the following locations at this time:
      i) Each elevator.
      ii) Egress stairs – Rough-in only.
      iii) One (1) exterior pedestrian door and two (2) interior doors at lobby level.
      iv) Garage and loading dock entries.

2) CCTV Camera System:
   a) The head-end equipment will be located in the LV Room on Level S.
   b) The electrical contractor shall provide the raceway from the NJB project to the East Hospital Center Wing 8th Floor monitoring station.
   c) The core and shell electrical budget includes (7) CCTV cameras in the following locations at this time:
      i) Exterior perimeter.
      ii) Interior lobbies.
      iii) Loading dock.

K) HOSPITAL TV SYSTEM:

1) Hospital TV Services General:
   a) The Electrical Contractor shall provide the following raceway systems:
      i) (3) 2" riser sleeves from the LV Room on Level S to the MDF/PBX Room on Level G for future extension to the IEB project and existing Hospital systems during the tenant improvement phase.
      ii) (3) 2" riser raceways from the LV Room on Level S to the first LV/IDF Room on Level 2.
      iii) (3) 2" riser sleeves in each LV/IDF Room floor starting from Level 3 through Level 8. (2) 2" riser sleeves in each LV/IDF Room floor starting from Level 9 through Level 14. A floor opening provided between floors in lieu of sleeves is preferred.

iv) Cabling to be provided during the tenant improvement phase.

L) PARKING EQUIPMENT:

1) Parking equipment system shall be provided, coordinated and installed by others.
2) The Electrical Contractor shall only provide the power connection, control raceway, security raceway and telecommunications raceway from the parking equipment system devices to a location to be determined at a later date. The electrical budget includes the following at this time:
   a) Parking equipment system device locations at the car entrance to the parking garage.
   b) Parking equipment system device locations at the car exit to the parking garage.
   c) Card key entry system and interface with parking equipment.

M) PARKING PANIC ALARM SYSTEM (ALTERNATE BID):
Not included, please add $274,000 for this work.

N) NURSE CALL:
Tenant Improvement scope of work.

O) CLINIC ROOM STATUS SYSTEM:
Tenant Improvement scope of work.

P) AUDIO-VIDEO SYSTEM:
Tenant Improvement scope of work.

Q) CRITICAL ALARM SYSTEM:
Tenant Improvement scope of work.

R) RADIO PAGING SYSTEM:
Tenant Improvement scope of work.

S) ENGINEERING RADIO 800MHz SYSTEM:
Tenant Improvement scope of work.

T) IN-HOUSE PAGER SYSTEM:
Tenant Improvement scope of work.

U) METROCALL PAGER SYSTEM:
Tenant Improvement scope of work.

V) PNEUMATIC TUBE SYSTEM:
Tenant Improvement scope of work.

1.01 GENERAL PROVISIONS

GENERAL SHELL AND CORE:

A) Project Design: Provide complete electrical design, including (where applicable):
   1) Power and Lighting device layout and circuiting.
   2) Mechanical device coordination and circuiting.
   3) Complete load calculations.
   4) Fault current calculations.
   5) Energy Calculations.

B) CODES: Comply with:
   1) City of Seattle Electrical Code Supplement.
   2) Seattle Energy Code.
   3) National Electrical Code, latest edition.
   4) The City of Seattle Plan Review Requirements.
   5) NFPA 110-Standard for emergency and standby power systems.

C) PERMITS: The Electrical Contractor shall obtain and pay for permits.

END SECTION 16000

Turner

ATTACHMENT F

Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix **HVAC/PLUMBING**

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstad & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Plumbing Systems							
Domestic Cold Water		Piping to 5-feet south of 'K' line	Connect 8" CW feed downstream of meter & RPBP to 5-feet south of 'K' line				6" for shared redundancy
Domestic Hot Water		services not shared	n/a				
Lab Cold Water		services not shared	n/a				
Lab Hot Water		services not shared	n/a				
Sanitary Waste/Vent		services not shared	n/a				
Lab Waste/Vent		services not shared	n/a				
Storm Drainage		services not shared	n/a				
Medical Gases							
O2		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for O2 supply line to IEB & pathway for two manifold inlets to exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.			Primary service to IEB from Hospital, backup from NJB.
Nitrogen		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for nitrogen supply line to IEB & pathway for two manifold inlets to exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.			Primary service to IEB from NJB, backup from Hospital
Nitrous (N20)		Piping to South doorway near 'L' line. Certify piping to termination point.	Provide make-up air & exhaust air for cylinder room with direct path to exterior. Pathway for nitrous supply line to IEB & pathway for manifold inlets to exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.			Primary service to IEB from NJB, backup from Hospital
Medical Air		Piping to South doorway near 'L' line. Certify piping to termination point.	Pathway for medical air supply line to IEB & pathway for compressed air intake at exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.			Primary service to IEB from NJB, backup from Hospital
Medical Vac		Piping to South doorway near 'L' line. Certify piping to termination point.	Pathway for medical vacuum supply line to IEB & pathway for vacuum pump discharge at inlet to at exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line.Certify plant equipment and piping to connection point. Make final connection.			Primary service to IEB from NJB, backup from Hospital
Lab Air		Piping to South doorway near 'L' line. Lab air system NOT certified.	Pathway for medical air supply line to IEB & pathway for compressed air intake at exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line. Lab air system NOT certified.			Primary service to IEB from NJB, no backup
Lab Vacuum		services not shared	Pathway for medical vacuum supply line to IEB & pathway for vacuum pump discharge at outlet to at exterior of bldg.	Plant equipment & piping through NJB			
Medical Gas Certification		IEB Team to certify the systems/piping in the IEB building and participate in final connection. IEB/NJB teams will collaborate for final certification of the new systems serving IEB.		NJB Team to certify the systems/piping in the NJB building and participate in final connection. IEB/NJB teams will collaborate for final certification of the new systems serving IEB.			
Controls for Medical Gas		Provided by IEB to 8th floor Safety Command Center East Hospital	Pathway for control wiring to IEB 8th floor Safety Command Center East Hospital	Connect to Allerton box @ Utility Master alarm panel in NJB. NJB plant personnel to call 8th floor Safety Command Center East Hospital			
HVAC Systems							
Building Compressed Air (100psi)		Piping to South doorway near 'L' line. Compressed air NOT certified	Pathway for building air line to IEB & pathway for compressed air intake at exterior of bldg.	Plant equipment & piping through NJB to utilidor entrance at South doorway near 'L' line. Compressed air is not certified.			Primary service to IEB from NJB, no backup. Serves fire sprinkler dry system, pneumatic controls, etc.
Chilled Water		services not shared	n/a				
Heating Water		services not shared	n/a				
Steam		Piping to 5-feet south of 'K' line. Test piping to termination point. Provide high pressure condensate return piping to 5-feet south of 'K' line.	Provide 6" (Opal) backup steam line to 5-feet south of 'K' line. Test system to point of connection. Make final connection.				6" steam line for shared redundancy.
Condenser Water		services not shared	n/a				
Supply Air		services not shared	n/a				
Exhaust Air		services not shared	n/a				
Garage Ventilation		services not shared	n/a				
Fume Exhaust		services not shared	n/a				
Biosafety Hood Exhaust		services not shared	n/a				
Auxiliary Cooling Loop		Piping to 5-feet south of 'K' line. Test piping to termination point. Plant equipment & piping through IEB to utilidor to connection point.	Connect to pipe 5-feet south of 'K' line and extend Auxiliary cooling loop into NJB. Make final connection. Auxiliary Cooling loop shall support the cooling needs of space in NJB deemed to serve IEB (example: Medical Airlyer Room)				Coffman to research how much cooling is available.
Emergency Generator / Fuel Fill							
Emergency Generators	Provided & installed by old NJB		Provided & installed by NJB				
Mufflers	Provided by old NJB		Installed by NJB				
Fuel Fill Station		n/a	Provided & installed by NJB				
Diesel Generator Exhaust Stacks		n/a	Provided & installed by NJB				
Radiator Ventilation		n/a	Provided & installed by NJB				
Fuel Day Tanks		n/a	Provided, installed by NJB				
Fuel Storage Tanks		n/a	Provided & installed by NJB				
Fuel Delivery System		n/a	Fuel pumping system from storage tanks to day tanks				

Turner

Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix **ELECTRICAL**

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstand & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Emergency Generator Plant							
IEB Emergency Generators	3(ea) Furnished old NJB		Installed and connected by NJB				Testing, commissioning, warranty included in purchase. Both NJB & IEB electrical contractors involved in the testing and commissioning.
NJB Emergency Generator					1(ea)Designed, furnished, installed and connected by NJB		Testing, commissioning, warranty included in purchase. The NJB electrical contractor involved in the testing and commissioning. The IEB electrical contractor may be involved depending on installation completion of this generator. IEB electrical contractor paid by NJB project if required.
Finalize design of emergency generator load calculations.	Sparling to finalize design of load calcs for IEB and new NJB (pd by NJB)		Sequoyah to qualify revised loads for NJB and forward to Sparling				
NJB Emergency Generator Distribution Switchboard	Furnished by old NJB		Installed and connected by NJB. NJB add breakers to paralleling gear to support NJB revised loads according to Spalings final design				Testing, commissioning, warranty included in purchase. Both NJB & IEB electrical contractors involved in the testing and commissioning.
IEB Emergency Power Busways		Design of extension by Sparling (pd by NJB) Furnished Installed, connected by IEB	NJB to coordinate route through NJB				
IEB Emergency Power Conduits and Conductors		Design of extension by Sparling (pd by NJB) Furnished Installed, connected by IEB	NJB to coordinate route through NJB				
IEB Emergency Control Conduits and Conductors		Design of extension by Sparling (pd by NJB) Furnished Installed, connected by IEB	NJB to coordinate route through NJB				
Medical Gas Pump Room							
Power to Medical Gas Pump Room equipment from the NJB electrical distribution system.			Furnished, installed and connected by NJB				
Lighting and lighting control in room powered from the NJB electrical distribution system.			Furnished, installed and connected by NJB				
General convenience power devices in room powered from the NJB electrical distribution			Furnished, installed and connected by NJB				
Telecommunications devices in room.			Furnished, installed and connected by NJB				
Fire alarm system devices in room connected to the NJB main fire alarm system panel.			Furnished, installed and connected by NJB				
Power to remote med gas alarm panel in fire control room IEB-rm 117		Furnished by division 15 IEB installed connected by Div. 16 IEB					
Fire Alarm System Connection between the NJB and IEB Projects							
Necessary equipment in the IEB project fire alarm control panel (FACP) so that NJB project fire alarm system can connect to it.		Furnished & installed by IEB			Connected by NJB		
Necessary equipment in the Hospital Center Wing fire alarm control panel (FACP) so that NJB project fire alarm system can connect to it.					Furnished, installed & connected by NJB		
Connect the NJB project fire alarm system to the IEB project main fire alarm system panel.		2" conduit per current design, furnished & installed by IEB			Cabling furnished, installed and connected by NJB		
Connect the NJB project fire alarm system to the Hospital Center Wing main fire alarm system panel.		Conduit per current design, furnished & installed by IEB			Cabling furnished, installed and connected by NJB		
Provide a second NJB project fire alarm system annunciator in the Safety Command Center Room #8EH-74 in the East Hospital. Also provide the connection between the NJB fire alarm system and second NJB project fire alarm system					Furnished, installed and connected by NJB. Include conduit and wiring from Generator to 8th floor East Hospital Security Command Center Room #8EH-74		
Telecommunications System Connection between the NJB and IEB Projects							
Telecommunications cable between the IEB project MDF Room and the NJB project MDF Room.		Furnished Installed Connected by IEB. Pending outcome of Telecommunications meeting.	NJB to coordinate route through NJB				

Turner

Wright Runstad and Company
Ninth and Jefferson Building

Bright Line Scope Matrix **ELECTRICAL**

Date 09/25/06

Design Element	UW Capital Projects		Wright Runstand & Company - NJB Scope to support IEB			Immediate Occupancy Standards Apply	Comments
	Old NJB Scope	IEB Scope	NJB Shell/Core Scope to support IEB	NJB Tenant Scope to support IEB	NJB Scope		
Cable tray and conduits between the north end of the tunnel (gridline "K") and the NJB project MDF Room.					Furnished, installed and connected by NJB		
Inside Re-Radiating System (IRS) Connection between the NJB and IEB Projects							
sus cable between the south end of the tunnel in the IEB project and the IEB project system.		Furnished installed Connected by IEB. Previously deleted by Change order.					IEB has changed system there is no longer a system for NJB to connect to
sus cable from the NJB project level G LV Room to the south end of the tunnel in the IEB project and connect to IEB project shielded riser cable.					Delete IRS. Add Firefighter phone jacks to the fire alarm system as required. Add riser pathway (raceway & sleeves) to each floor for future Johnson Controls Wireless Infrastructure System.		
Security System Backbone Connection between the NJB and IEB Projects							
Necessary equipment in the IEB project Main Security Room on level 1 so that NJB project security system can connect to		Furnished and installed by IEB. Pending outcome of Security meeting					Might not be enough capacity because equipment may be sized per IEB drawings which conflict with NJB
(2) 300 pair CAT 3 UTP cables from the NJB project level G LV Room to the IEB project Main Security Room on level 1.					Furnished, installed and connected by NJB. Pending outcome of security meeting		
Hospital Entertainment TV Coaxial System Backbone Connection between the NJB and IEB Projects							
Hospital Entertainment TV coaxial backbone cable from the IEB project system to the south end of the tunnel in the		Furnished, installed & connected by IEB					
Hospital Entertainment TV coaxial backbone cable from the NJB project level G LV Room to the south end of the tunnel in the IEB project and connect to the IEB Hospital Entertainment TV coaxial backbone system on level G.					Furnished, installed and connected by NJB		Provide Hospital Entertainment TV pathway (raceways & sleeves) only through the 14th floor. Provide Hospital Entertainment TV cabling to two floors of T.I., spaces in pedestal TBD. Provide CATV service & distribution pathways (raceways & sleeves) into and through the building and up to the 14th floor. CATV cabling to be provided by the CATV utility company.

EXHIBIT E

Harborview

Ninth and Jefferson Building

Schematic Design

September 20, 2006

nbbj

WRIGHT RUNSTAD & COMPANY

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

DRAWING INDEX, PROJECT INFO AND ABBREVIATIONS

A0.01

PROJ NO 100132.00
DATE 09/20/2006

ABBREVIATIONS

GRAPHICS

SYMBOLS

DRAWING CONVENTIONS

SYMBOLS FOR FLOOR PLANS

REQUIREMENTS FOR ACCESSIBILITY

GENERAL REQUIREMENTS:

HAZARDOUS MATERIALS:

CONSTRUCTION NOTES:

APPLICABLE CODES AND REGULATIONS:

APPLICABLE CODES

PROJECT DESCRIPTION:

SCOPE OF WORK THIS PERMIT: CONSTRUCT A 5 STORY BELOW GRADE GARAGE, WITH AT-GRADE ENTRY, LOADING AND SERVICE AREAS, AND RETAIL SPACES. 14-STORY OFFICE BUILDING (SHELL AND CORE ONLY) ABOVE GRADE, WITH PENTHOUSE.

OCCUPANCY TYPE: GROUP B, M, S-2, H-3

TYPE OF CONSTRUCTION: TYPE IA FULLY SPRINKLERED

NUMBER OF STORIES: 5 BELOW-GRADE, 14 ABOVE-GRADE, 1 PENTHOUSE

PROJECT DIRECTORY:

PROJECT ADDRESS
325 9TH AVE.
SEATTLE, WASHINGTON 98104

PROPERTY INFORMATION
[illegible]

OWNER
WRIGHT RUNSTAD & CO.
1201 3RD AVE., SUITE 2700
SEATTLE, WASHINGTON 98101

ARCHITECT
NBBJ
223 YALE AVE. N
SEATTLE, WASHINGTON 98109

STRUCTURAL ENGINEER
MAGNUSSON KLEMENCIC ASSOCIATES
1301 5TH AVE., SUITE 3200
SEATTLE, WASHINGTON 98101

MECHANICAL ENGINEER
UNIVERSITY MECHANICAL CONTRACTORS
[illegible]

ELECTRICAL ENGINEER
[illegible]

FIRE PROTECTION
DESIGN-BUILD BY OTHERS

REVIEWING AGENCY:

CITY OF SEATTLE
DEPARTMENT OF PLANNING AND DEVELOPMENT
700 5TH AVE., SUITE 2000
SEATTLE, WASHINGTON 98124

DPD PERMIT #
[illegible]

INDEX OF DRAWINGS:

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3 of 8 UTILITY SURVEY (FOR REFERENCE ONLY)
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A1.01 PARKING LEVEL P4 & P5 LIFE SAFETY PLAN
A1.02 PARKING LEVEL P2 & P3 LIFE SAFETY PLAN
A1.03 PARKING LEVEL P1 & Q LIFE SAFETY PLAN
A1.04 LOADING LEVEL S & LOBBY LIFE SAFETY PLAN
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A3.22 GARAGE SECTIONS
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A3.35 EXTERIOR WALL SECTIONS
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S0.03 GENERAL STRUCTURAL NOTES
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S1.02 LOAD DIAGRAMS
S1.03 LOAD DIAGRAMS
S1.04 LOAD DIAGRAMS
S2.00 LEVEL P5 - FOUNDATION AND FRAMING PLAN
S2.01 LEVEL P4 - FOUNDATION AND FRAMING PLAN
S2.01R LEVEL P4 - REINFORCING PLAN
S2.02 LEVEL P3 - FRAMING PLAN
S2.02R LEVEL P3 - REINFORCING PLAN
S2.03 LEVEL P2 - FRAMING PLAN
S2.03R LEVEL P2 - REINFORCING PLAN
S2.04 LEVEL P1 - FRAMING PLAN
S2.04R LEVEL P1 - REINFORCING PLAN
S2.05 LEVEL Q - FRAMING PLAN
S2.05R LEVEL Q - REINFORCING PLAN
S2.06 LEVEL S & 01 - FRAMING PLAN
S2.06R LEVEL S & 01 - REINFORCING PLAN
S2.07 NOT USED
S2.08 LEVEL 02 - FRAMING PLAN
S2.09 LEVEL 03 - FRAMING PLAN
S2.10 LEVEL 04 - FRAMING PLAN
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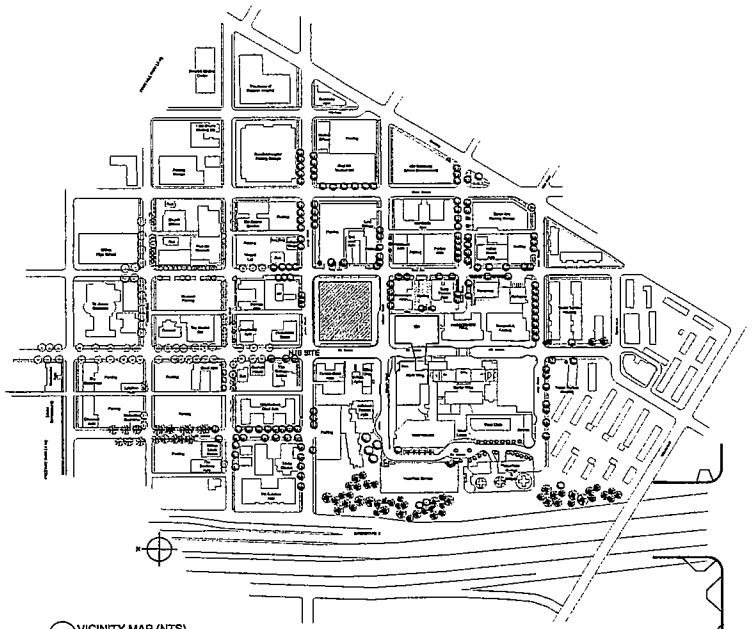
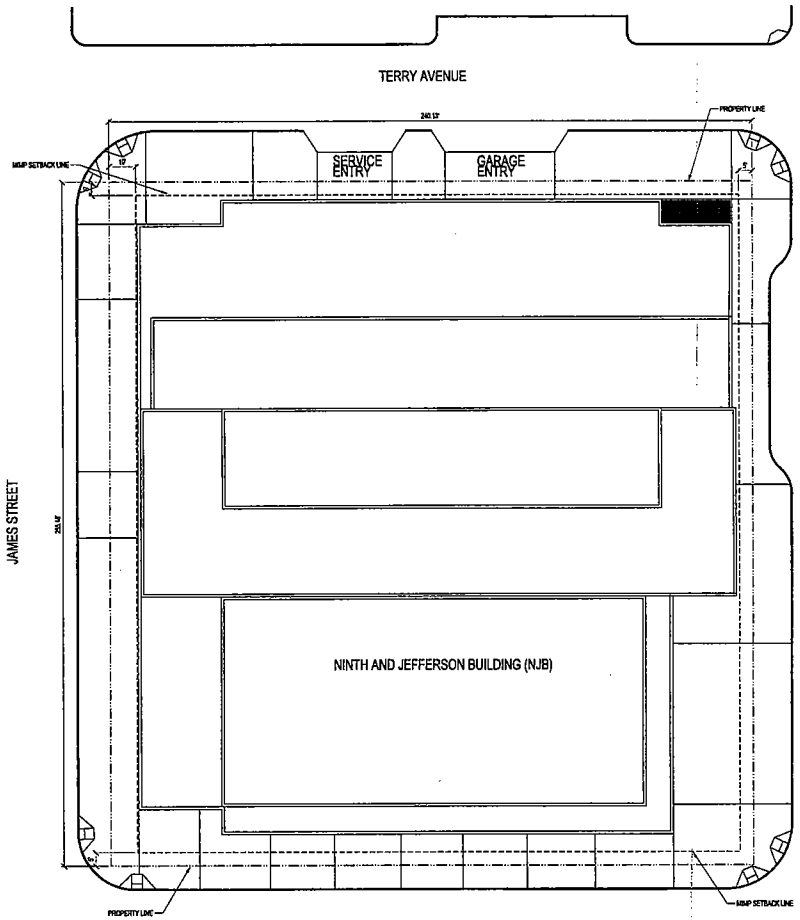
EXHIBIT E



1 VICINITY MAP (NTS)



2 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

SCALE: 1/16" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006

VICINITY MAP, ARCHITECTURAL SITE PLAN

A0.02

HARBORVIEW NINTH AND JEFFERSON BUILDING
CODE REFERENCE INFORMATION

I. APPLICABLE CODES

A. ACCESSIBILITY CODE
2003 Seattle Building Code - Chapter 11

B. BOILER CODE
Seattle Boiler and Pressure Vessel Code

C. BUILDING CODE
2003 SEATTLE BUILDING CODE

2003 Seattle Building Code (Ch. 30)

D. ELECTRICAL CODES
2002 Seattle Electrical Code Supplement
2002 National Electrical Code

E. ENERGY CODES
2003 Washington State Energy Code (WSEC)
2003 Seattle Supplement to WSEC

F. FIRE CODE
Seattle Fire Code is comprised of :
2003 International Fire Code
2003 Seattle Supplements to the 2003 International Fire Code (2003 Seattle Fire Code).

G. LAND USE CODE
City of Seattle Title 23

H. MECHANICAL CODE
2003 International Mechanical Code with Washington Amendments
2004 Seattle Amendments to IMC
2003 International Fuel Gas Code
2003 Uniform Plumbing Code with Washington Amendments

II. FLOOR AREA (gross)

Floor Levels	Grp	Occupancy/ Use	Floor Area	Location
Level 15		Mech (NOT PART OF PERMIT		Elevated
Level 14		Office (NOT PART OF PERMI		Elevated
Level 13		Office (NOT PART OF PERMI		Elevated
Level 12		Office (NOT PART OF PERMI		Elevated
Level 11		Office (NOT PART OF PERMI		Elevated
Level 10		Office (NOT PART OF PERMI		Elevated
Level 9		Office (NOT PART OF PERMI		Elevated
Level 8		Office (NOT PART OF PERMI		Elevated
Level 7		Office (NOT PART OF PERMI		Elevated
Level 6		Office (NOT PART OF PERMI		Elevated
Level 5		Office (NOT PART OF PERMI		Elevated
Level 4		Office (NOT PART OF PERMI		Elevated
Level 3		Office (NOT PART OF PERMI		Elevated
Level 2		Office (NOT PART OF PERMI		Elevated
Level 1 and Level S	B, M, S-3	Retail/Office/Parking /Loading	35,360	At Grade
Level G	S-2		12,000	Below Grade
Parking P1	S-2	Garage, Parking	60,000	Below Grade
Parking P2	S-2	Garage, Parking	60,000	Below Grade
Parking P3	S-2	Garage, Parking	60,000	Below Grade
Parking P4	S-2	Garage, Parking	60,000	Below Grade
Parking P5	S-2	Garage, Parking	31,425	Below Grade

Total Area	318,785
Total Area Above Grade	35,360

III. OCCUPANCY & GROUP

A. TYPES INCLUDED

Group B (Business) Occupancy -Office (Section 304)
Group M (Mercantile) Occupancy -Retail (Section 309)
Group S-2 (Storage) Occupancy - Enclosed Parking Garage (Section 311)

B. REQUIRED SEPARATION OF MIXED OCCUPANCIES (Table 302.3.2 exception 1)

Group B to Group M: N (No requirements for fire resistance)
Group B to Group S-2: 1 hour fire resistance
Group M to Group S-2: 1 hour fire resistance

IV. TYPE OF CONSTRUCTION

Type I-A Fully Sprinkled (Section 602)

A. TYPE 1A (FULLY SPRINKLED) REQUIREMENTS FOR BUILDING ELEMENTS

FIRE RESISTIVE REQUIREMENTS (TABLE 601)	
Building Element	Construction
1. Bearing Walls -Exterior	3 hrs (see table 602)
2. Bearing Walls -Interior	3 hrs.
3. Nonbearing Walls -Exterior	Table 602
4. Structural Frame	3 hrs.
5. Shaft Enclosures	2 hrs.
6. Floors & Floor-ceilings	2 hrs.
7. Roofs & Roof-ceilings	1 1/2 hrs

NOTES:
NOTE #1. SEE PARTITION TYPES SCHEDULE (A9.00) FOR CONSTRUCTION ASSEMBLY RATING.

NOTE #2. SEE DOOR TYPES SCHEDULE (A9.10) FOR CONSTRUCTION ASSEMBLY RATING.

V. GENERAL BUILDING LIMITATIONS

A. LOCATION ON PROPERTY (Section 503)

EXTERIOR WALL & OPENING PROTECTION BASED ON LOCATION - SEE TABLE 602
Fire separation distance greater than 30 feet on all sides - no requirements for fire-resistance rating for exterior walls.

B. SBC ALLOWABLE BUILDING HEIGHT & FLOOR AREA (table 503)

BASIC ALLOWABLE BUILDING HEIGHT & FLOOR AREA (TABLE 503)			
Use Groups	Type	Height	Area
B, M, S-2	I-F.R.	Unlimited Stories	Unlimited Sq. Ft.

VI. MEANS OF EGRESS

A. EGRESS REQUIREMENTS

MINIMUM EGRESS REQUIREMENTS (TABLE 1014.1)		
Use	Min. 2 egress where max. # of occupants is	Occup. Load Factor
B (Office)	50	130 /Sq. Ft.
M (Retail -ground floor)	50	30/ Sq. Ft
S-2 (Parking, Storage)	30	200/ Sq. Ft.

EGRESS WIDTH PER PERSON SERVED (TABLE 1005.1)		
Use	Stairways	Other Egress
H-1,H-2,H-3,H-7	0.3 inch/person	0.2 inch/person
All other except I-2&3	0.2 inch/person	0.15 inch/person

NOTES:
NOTE #1. STAIR WIDTH SHALL GENERALLY NOT BE LESS THAN 44" (1009.1)

NOTE #2. STAIRWAYS SERVING OCCUPANT LOAD LESS THAN 50 SHALL NOT BE LESS THAN 36" WIDE (1009.1 exception 1)

NOTE #3. HANDRAILS MAY PROJECT INTO REQUIRED WIDTH UP TO 4 1/2" FROM EACH SIDE OF STAIRWAY (1009.11.7)

NOTE #4. REQUIRED EXIT DOORS SHALL BE NOT LESS THAN 32" WIDE (1008.1.1)

NOTE #5. SEPARATION OF EXITS -WHERE 2 OR MORE REQUIRED, SHALL BE PLACED A DISTANCE APART EQUAL TO NOT LESS THAN ONE THIRD OF THE LENGTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE AREA SERVED MEASURED IN A STRAIGHT LINE BETWEEN THE CENTER OF EXIT DOORS OR EXIT ACCESS DOORWAYS. (1014.2.1 EXCEPTION 2)

B. OCCUPANT LOAD (1003.2.2)

Floor Levels	Grp	Occupancy/ Use	Occup Load Area	SF/ Occup	Occup	# Exit Stairs/ Exits	Occ/ Exit/ Stair/ Exit	Stair Exit Width (44" min)	Other Exit Width
Level 1									
	B	Pharmacy	3,839	130	30	2	15	3	2
	B	Lobby	3,905	130	31	2	16	3	2
Level S									
Retail SNJ-S36	M	Retail	930	30	31	2	16	3	2
Retail SNJ-S35	M	Retail	1,438	30	48	1	48	10	7
Retail SNJ-S34	M	Retail	2,255	30	76	2	38	8	6
Retail SNJ-S33	M	Retail	2,027	30	68	2	34	7	5
Retail SNJ-S32	M	Retail	830	30	28	2	14	3	2
Retail SNJ-2755	M	Retail	2,755	30	92	2	46	9	7
Parking/Loading	S-2	Parking/Loading	3,600	200	18	2	9	2	1
Level G	S-2	Storage, Mechanical	10,012	300	34	2	17	3	3
Parking P1									
	S-2	Garage, Parking	50,929	200	255	2	128	26	19
Accessory Storage	S-2	Storage, Mechanical	4,967	300	17	2	9	2	1
Parking P2									
	S-2	Garage, Parking	52,050	200	261	2	131	26	20
Accessory Storage	S-2	Storage, Mechanical	1,925	300	7	2	4	1	1
Parking P3									
	S-2	Garage, Parking	52,577	200	263	2	132	26	20
Accessory Storage	S-2	Storage, Mechanical	5,380	300	18	2	9	2	1
Parking P4									
	S-2	Garage, Parking	57,385	200	287	2	144	29	22
Accessory Storage	S-2	Storage, Mechanical	2,621	300	9	2	5	1	1
Parking P5									
	S-2	Garage, Parking	30,478	200	153	2	77	15	12
Accessory Storage	S-2	Storage, Mechanical	913	300	3	2	2	0	0

NOTES:

C. EXIT WIDTHS
A. STAIRWAYS (1003.3)

STAIRWAY CONSTRUCTION
NOTE #1. STAIRWAYS SHALL BE BUILT OF MATERIALS CONSISTENT WITH THE TYPES PERMITTED FOR THE TYPE OF CONSTRUCTION OF THE BUILDING, EXCEPT THAT WOOD HANDRAILS SHALL BE PERMITTE FOR ALL TYPES OF CONSTRUCTION. (1009.5)

NOTE #2. INTERIOR EXIT STAIRWAYS AND INTERIOR RAMPS SHALL BE ENCLOSED WITH FIRE BARRIERS. EXIT ENCLOSURES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 2 HOURS WHERE CONNECTING MORE THAN FOUR STORIES AND NOT LESS THAN 1 HOUR WHERE CONNECTIONS FOUR AND FEWER STORIES. (1019.1)

VII. FIRE PROTECTION SYSTEMS

A. FIRE-EXTINGUISHING SYSTEMS (SECTION 903)

1. AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (903)
AN AUTOMATIC SPRINKLER SYSTEM WILL BE INSTALLED ON ALL FLOORS.

2. STANDPIPES (905)

EXHIBIT E

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

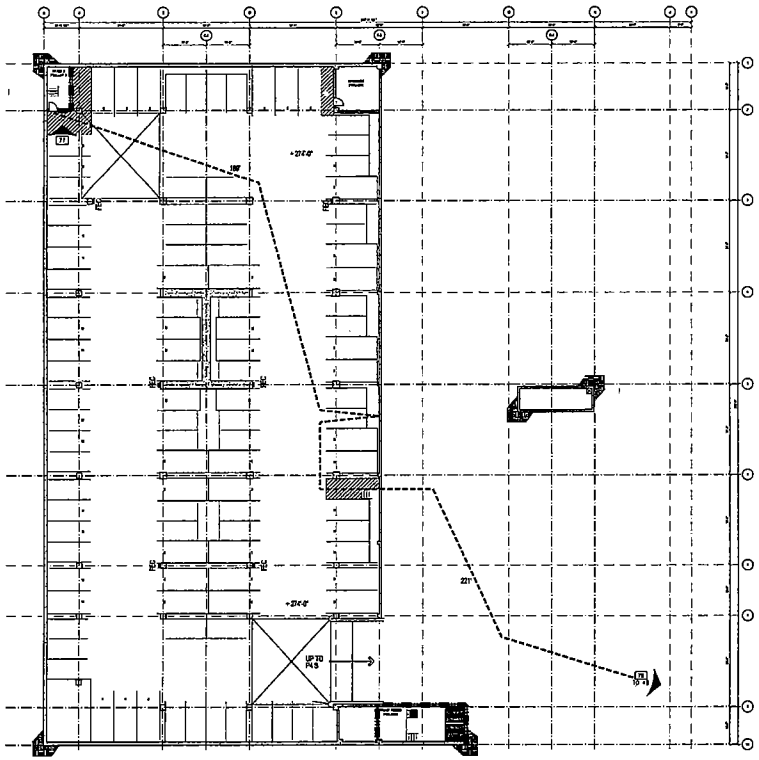
SCHEMATIC DESIGN DOCUMENTS

REV	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006
DRL

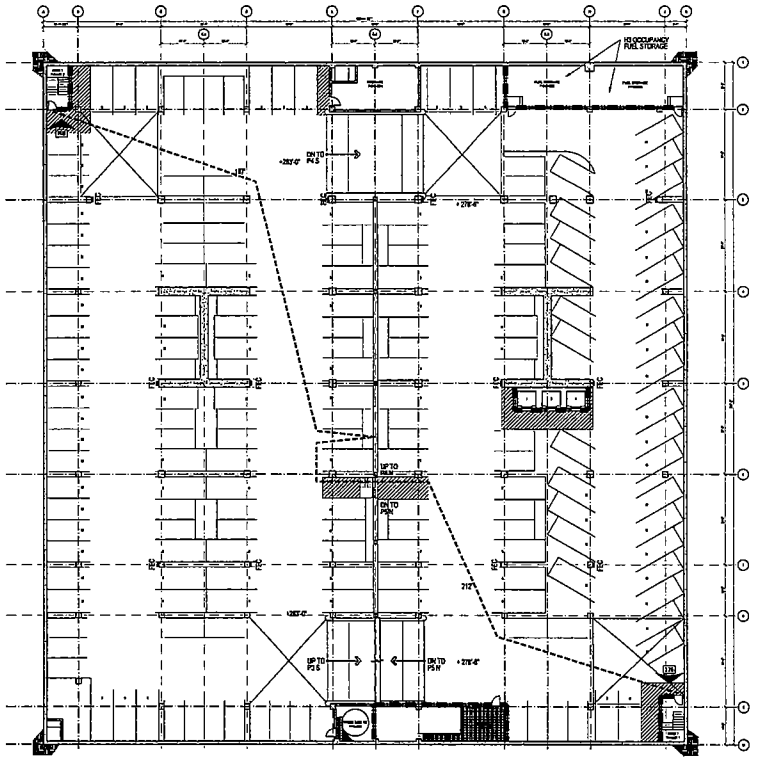
CODE ANALYSIS

A1.00



2 LIFE SAFETY PARKING LEVEL P5 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY



1 LIFE SAFETY PARKING LEVEL P4 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

H2 - OCCUPANCY (FUEL STORAGE)

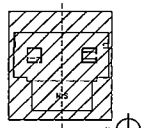
EXHIBIT E

LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

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SCHEMATIC DESIGN DOCUMENTS

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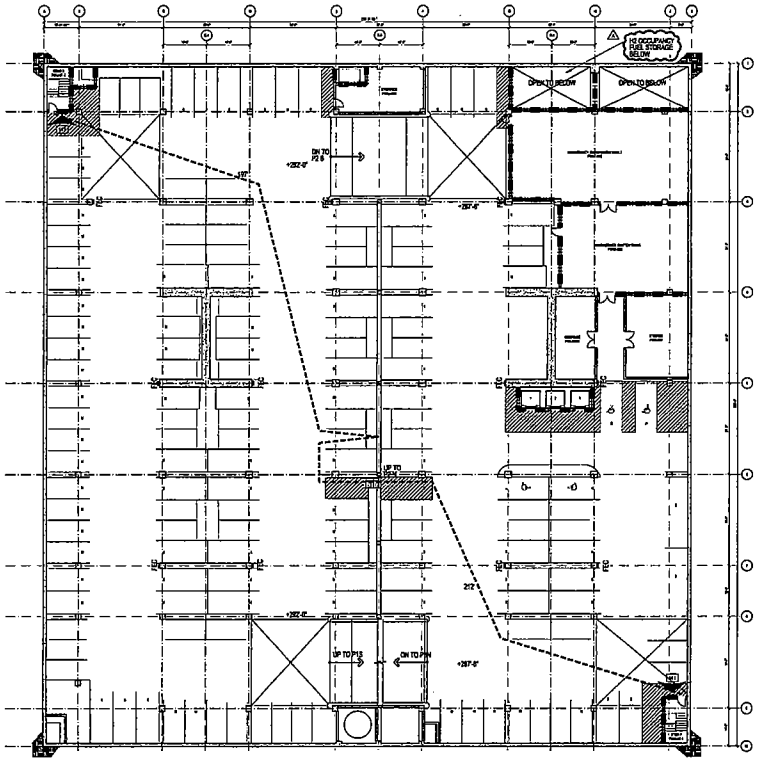
PROJ NO 100132.00

DATE 09/20/2006

PARKING LEVEL P4 & P5 LIFE SAFETY PLAN

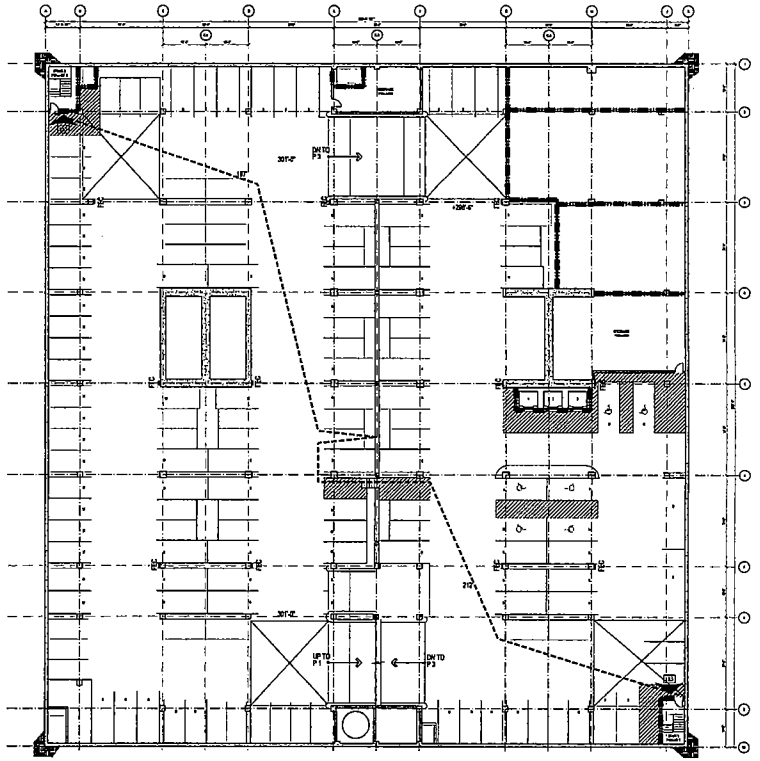
A1.01



2 LIFE SAFETY PARKING LEVEL P3 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

H2 - OCCUPANCY (FUEL STORAGE)



1 LIFE SAFETY PARKING LEVEL P2 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

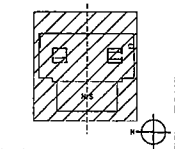
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	DOOR	RELITE	SYMBOL
Fire Barrier	1-HR.	1-HR.	3/4-HR.	
Fire Barrier	2-HR.	1 1/2-HR.	18"	
Fire Barrier	3-HR.	3-HR.	18"	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

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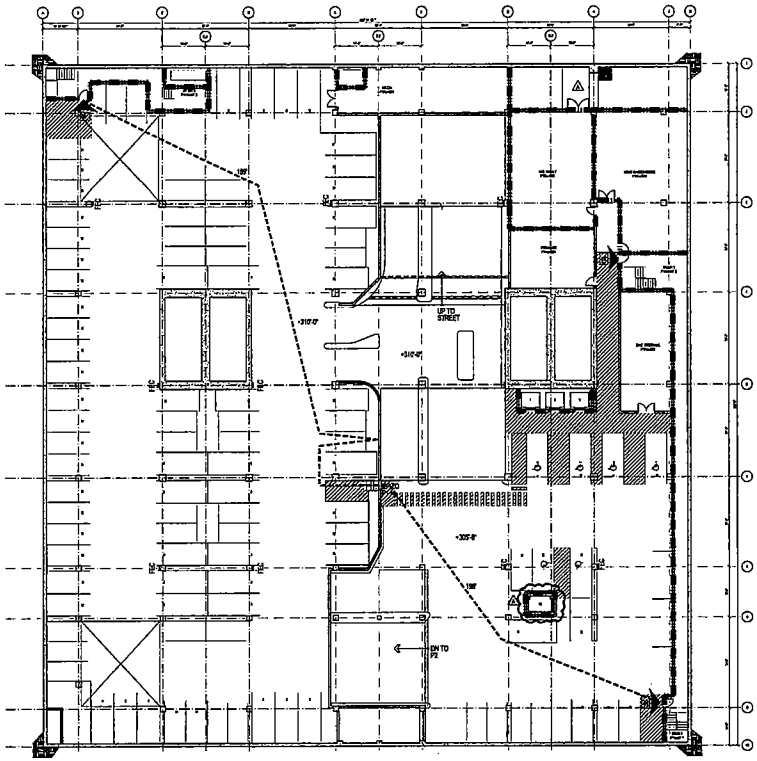
DATE: 09/20/2006

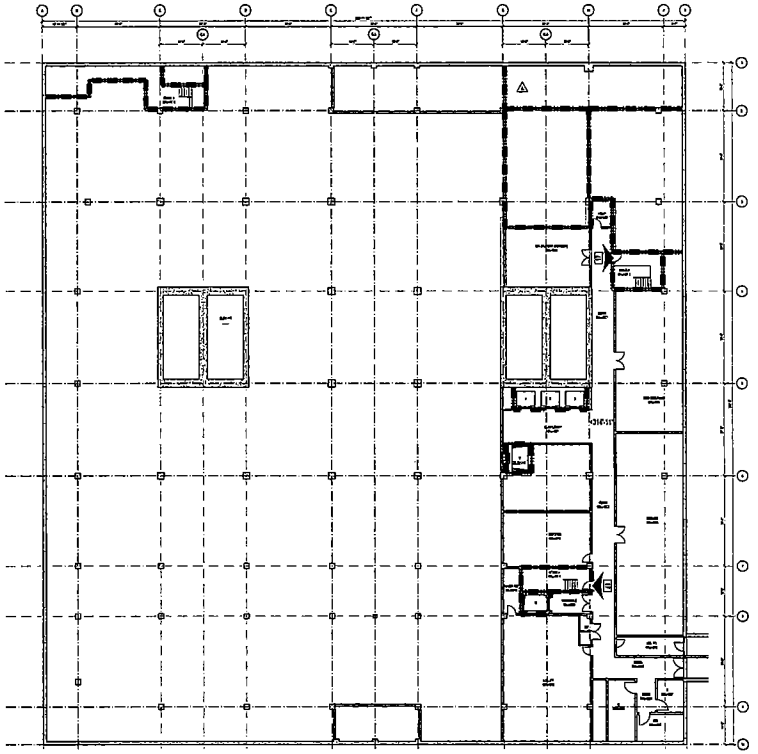
DWG: PARKING LEVEL P2 & P3 LIFE SAFETY PLAN

A1.02



2 LIFE SAFETY PARKING LEVEL P1 PLAN
1/16" = 1'-0"

S2 - OCCUPANCY



1 LIFE SAFETY PARKING LEVEL G PLAN
1/16" = 1'-0"

S2 - OCCUPANCY

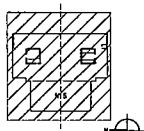
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	DOOR	RELITE	REMARKS
Fire Barrier	1-HR	1-HR	3/4-HR	
Fire Barrier	2-HR	1 1/2-HR	1/2"	
Fire Barrier	3-HR	3-HR	1/2"	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

EXHIBIT E

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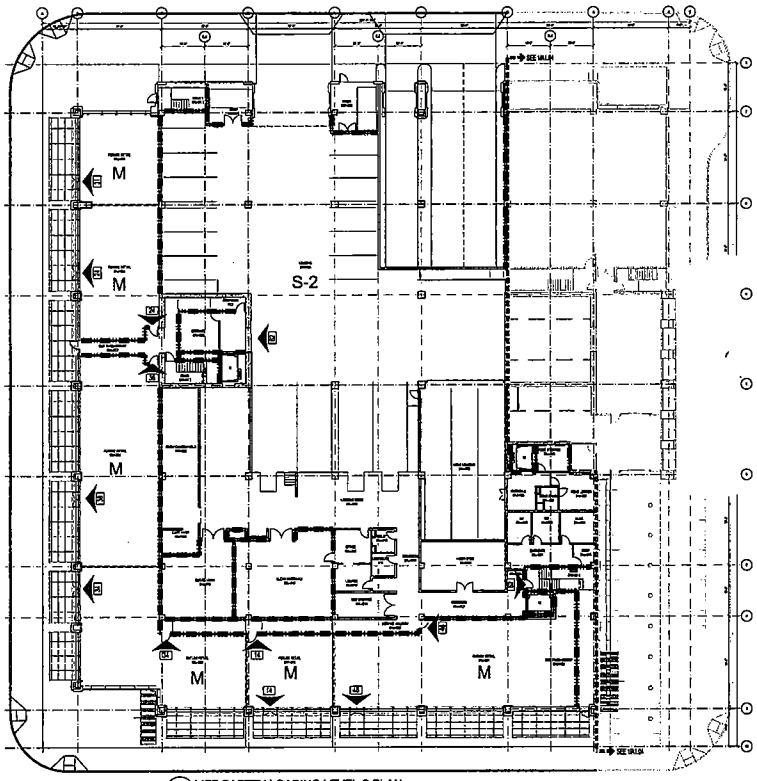
PROJ NO. 100132.00
DATE 09/20/2006

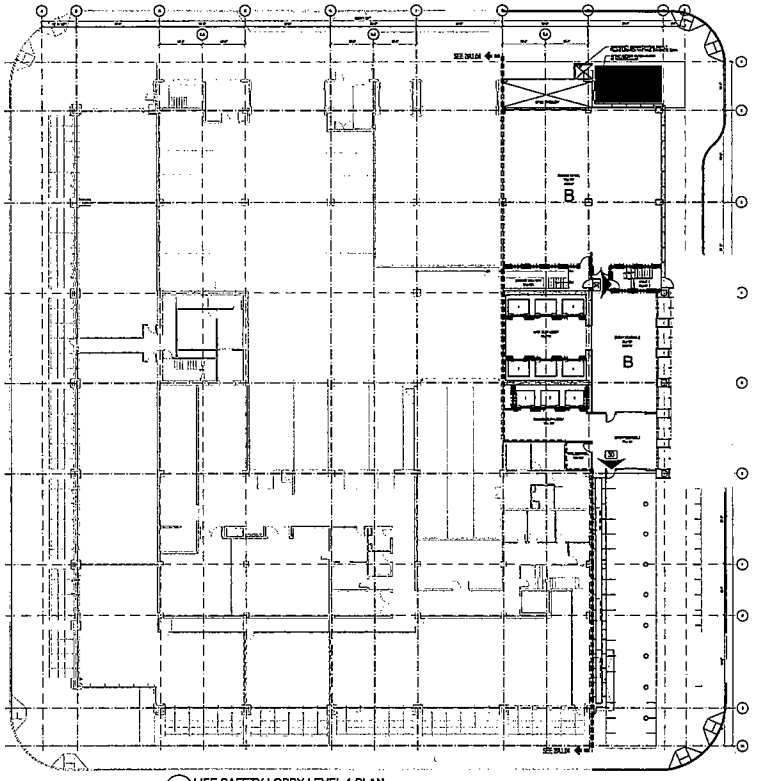
PARKING LEVEL P1 & G LIFE SAFETY PLAN

A1.03



2 LIFE SAFETY LOADING LEVEL S PLAN
1/16" = 1'-0"

M - OCCUPANCY (RETAIL)
S2 - OCCUPANCY (PARKING, LOADING, KCME)



1 LIFE SAFETY LOBBY LEVEL 1 PLAN
1/16" = 1'-0"

B - OFFICE (PHARMACY, LOBBY)

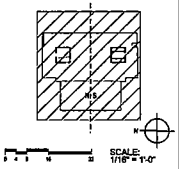
LIFE SAFETY PLAN SHEET LEGEND

FIRE-RATED PARTITION TYPES

PARTITION	RATING	DOOR	RATE	SYMBOL
Fire Barrier	1HR	1HR	3ft-0in	
Fire Barrier	2HR	1 1/2HR	5ft	
Fire Barrier	3HR	3HR	8ft	

EXIT TAG

EXIT ACCESS TAG



SCALE: 1/16" = 1'-0"

EXHIBIT E

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NO	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 09/20/2006

LOADING LEVEL S & LOBBY LIFE SAFETY PLAN

A1.04

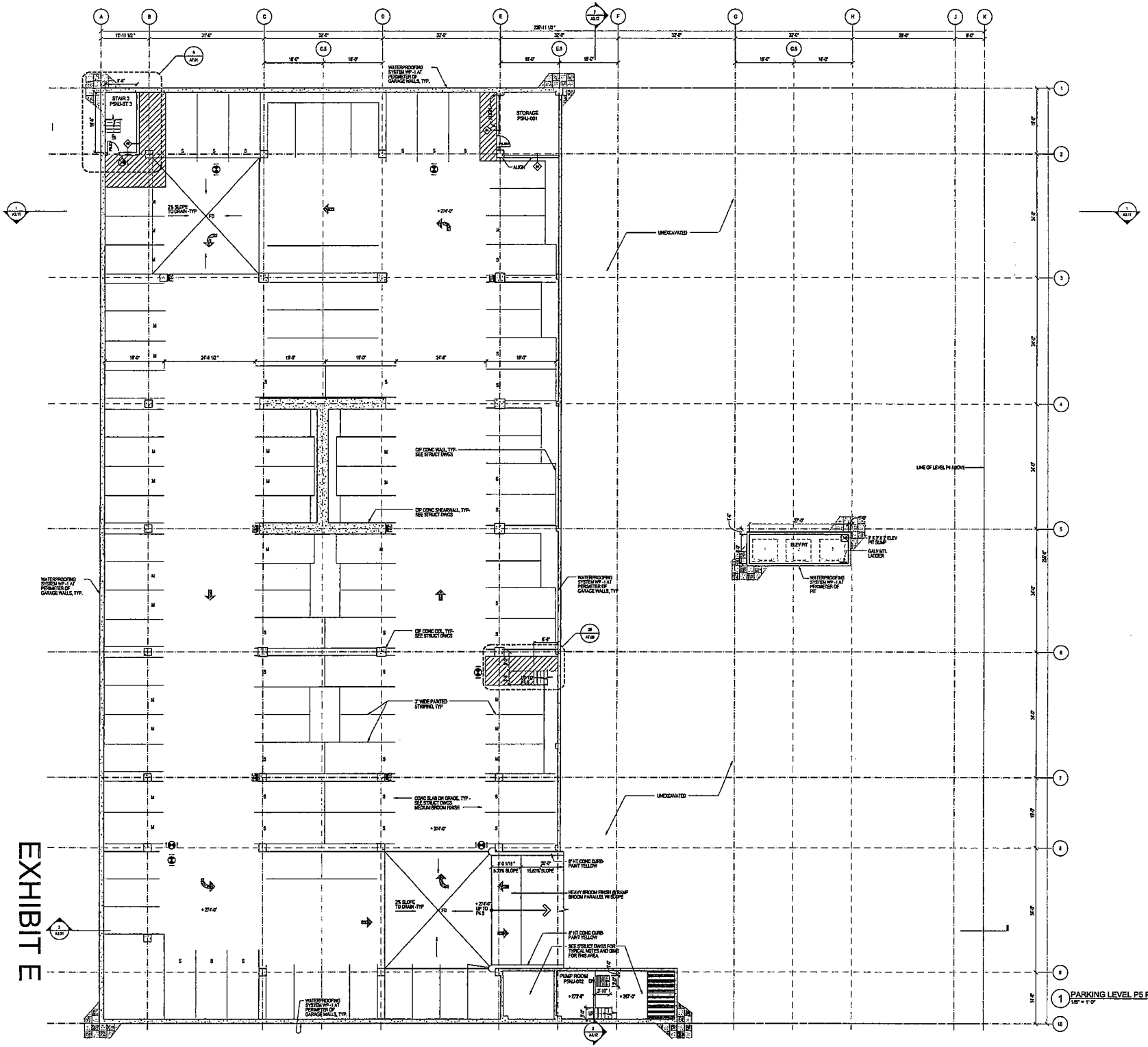

EXHIBIT E

1 PARKING LEVEL P5 PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-0" (W) X 18'-0" (L)
COMPACT (C):	7'-6" (W) X 15'-0" (L)
HANDICAP (VR):	8'-0" (W) X 18'-0" (L)
HANDICAP VAN (VV):	8'-0" (W) X 23'-0" (L)

NOTE: ALL SPACES ARE COMPACT, U.N.O.

PARKING COUNT

	CAP	MED	STD	HCP	HC-V	TOTAL
P1	37	35	29	3	3	106
P2	52	34	50	6		142
P3	60	38	52	4		155
P4	75	55	48			178
P5	53	23	30			105
	270	155	209	13	3	686

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SCHEMATIC DESIGN DOCUMENTS

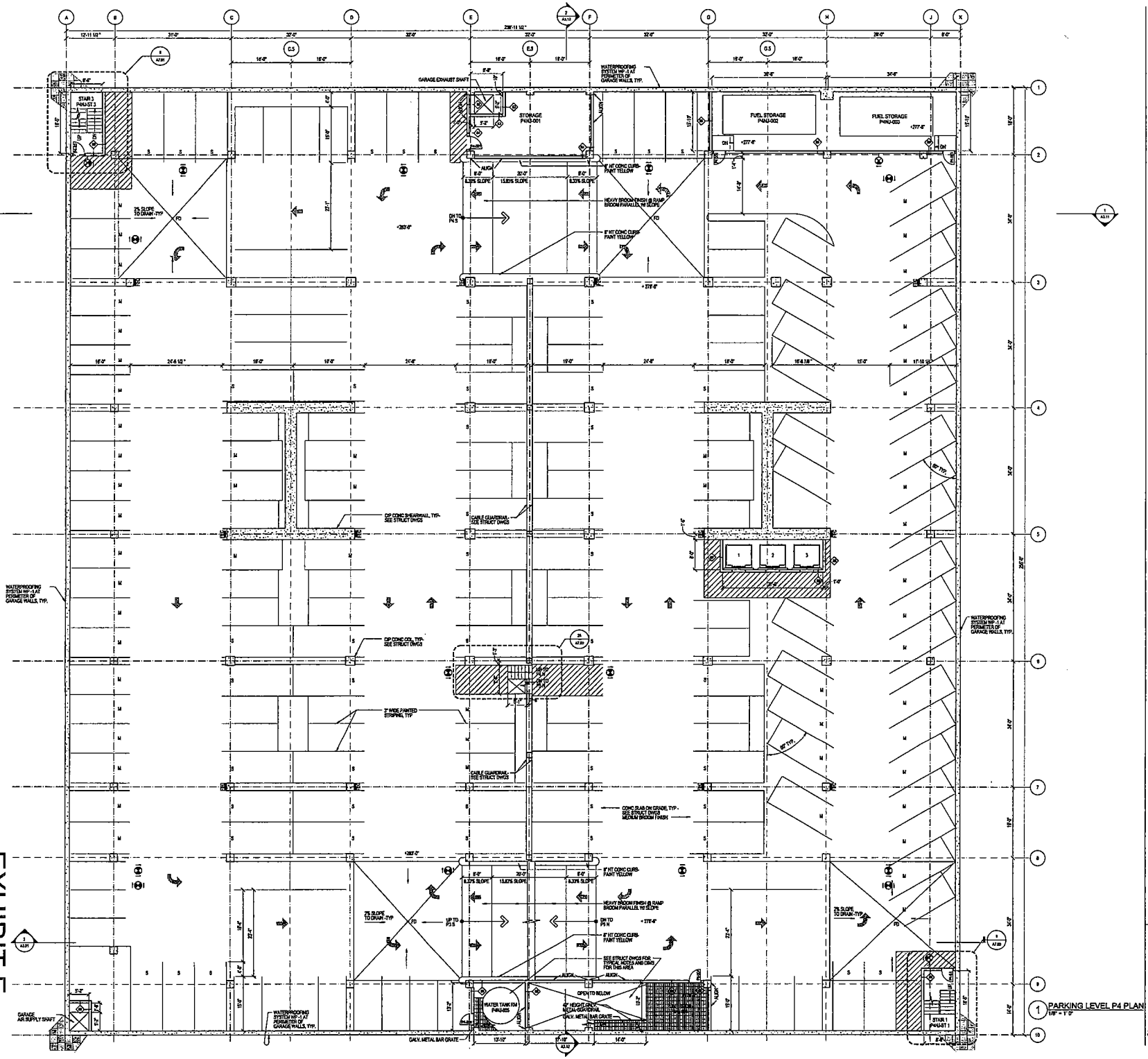
NO	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006

PARKING LEVEL P5 PLAN

SCALE: 1/8" = 1'-0"

A2.00



1 PARKING LEVEL P4 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-6" (90°) X 18'-0" (L)	
COMPACT:	7'-6" (90°) X 15'-0" (L)	
HANDICAP VAN:	8'-6" (90°) X 18'-0" (L)	
HANDICAP VAN (H):	8'-6" (90°) X 18'-0" (L)	
NOTE: ALL SPACES ARE COMPACT, U.N.O.		

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	37	35	28	3	3	106
P2	52	34	50	6		142
P3	60	38	53	4		155
P4	75	55	48			178
P5	52	23	30			105
	276	185	209	13	3	686

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SCHEMATIC DESIGN DOCUMENTS

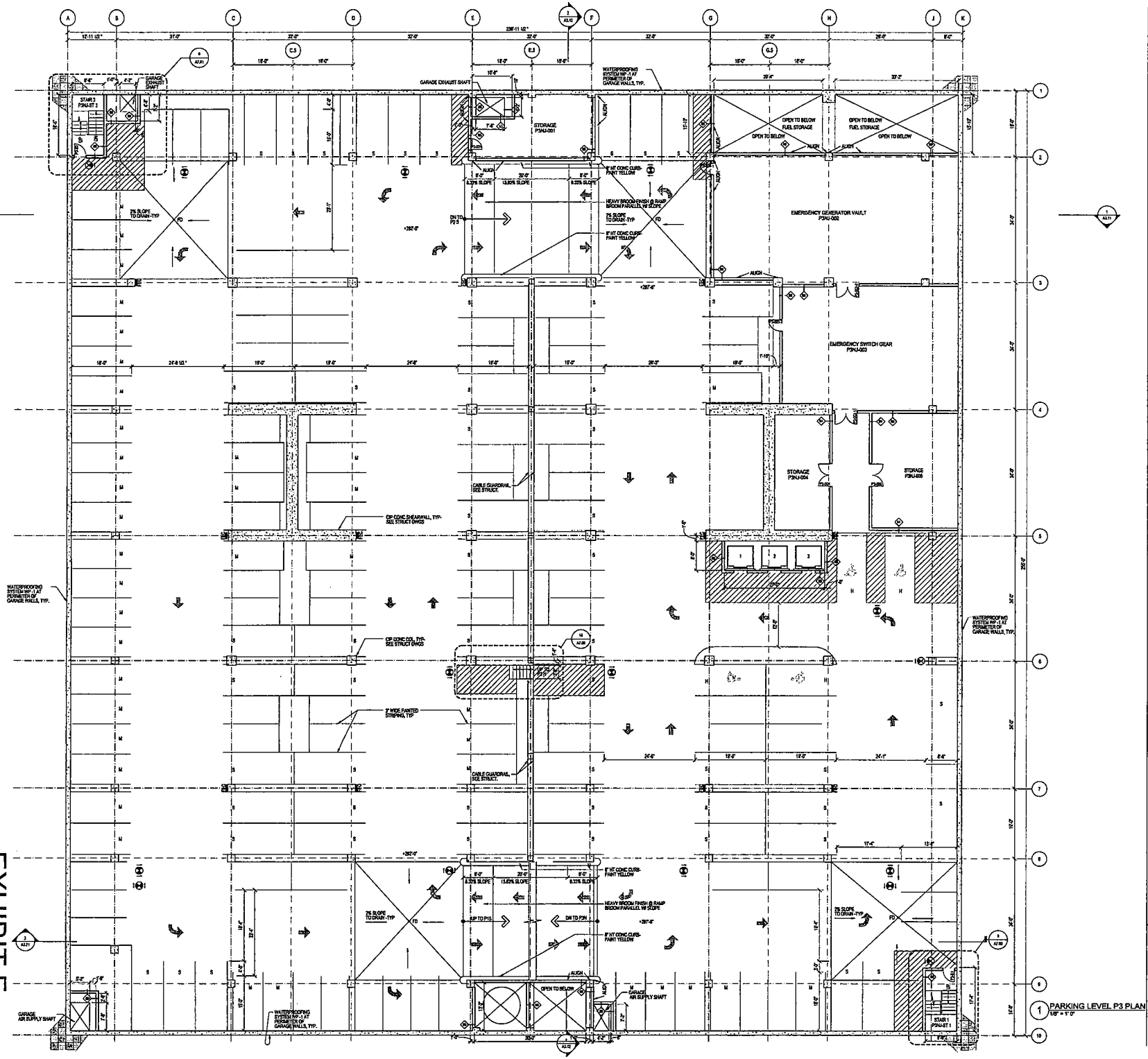
NO	DATE	DESCRIPTION

PROJ NO: 100132.00
DATE: 06/20/2005

PARKING LEVEL P4 PLAN

SCALE: 1/8" = 1'-0"

A2.01



1 PARKING LEVEL P3 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-6" (W) X 18'-0" (L)
COMPACT:	7'-6" (W) X 15'-0" (L)
HANDICAP (H):	8'-6" (W) X 18'-0" (L)
HANDICAP VAN (V):	8'-6" (W) X 18'-0" (L)

NOTE: ALL SPACES ARE COMPACT, U.N.O.

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	37	35	28	3	3	106
P2	52	34	50	6		142
P3	60	38	53	4		155
P4	75	55	48			178
P5	52	23	30			105
	276	185	209	13	3	686

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SCHEMATIC DESIGN DOCUMENTS

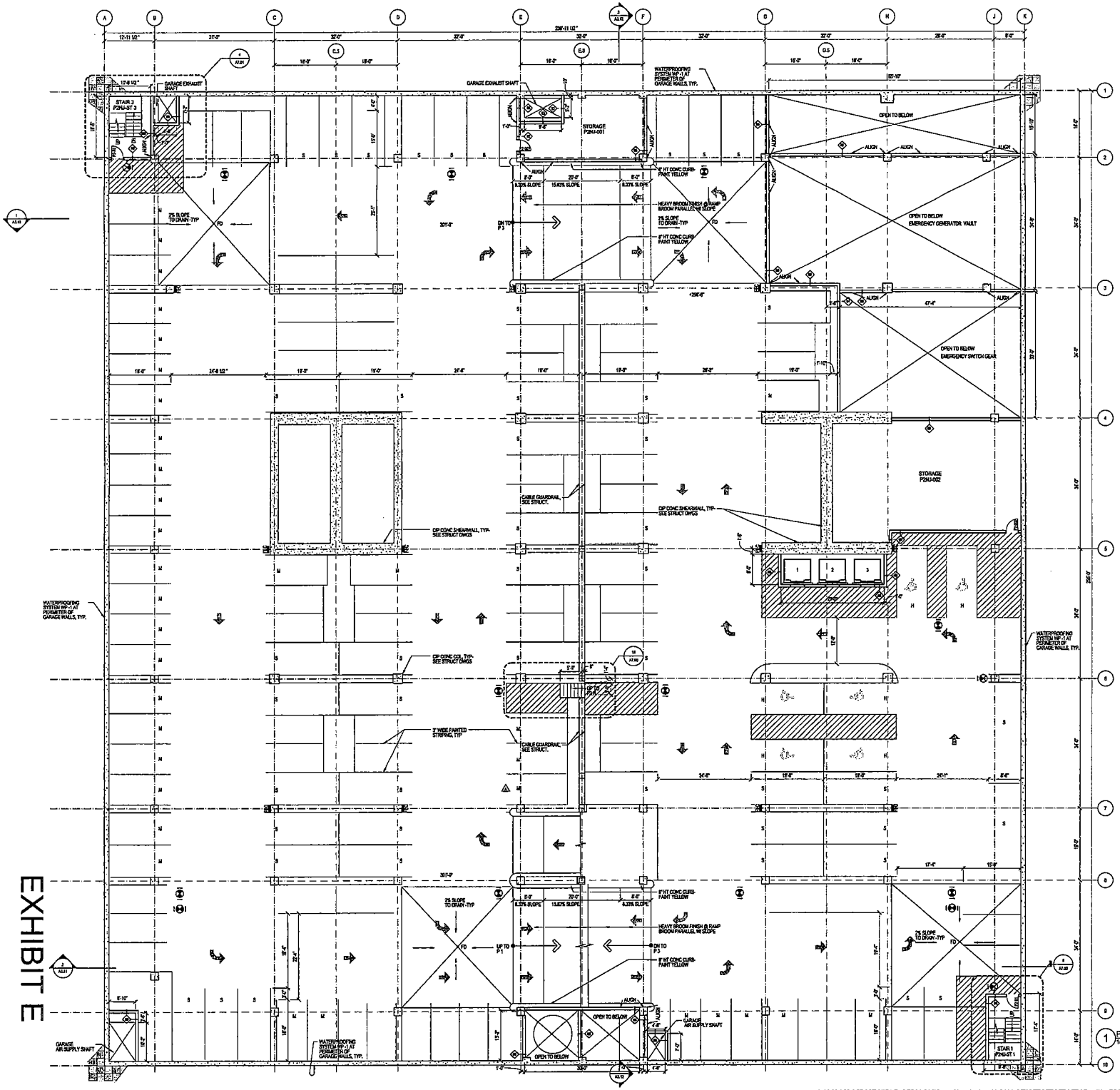
REV	DATE	DESCRIPTION

PROJ NO: 100132.00
DATE: 09/20/2006

PARKING LEVEL P3 PLAN

SCALE: 1/8" = 1'-0"

A2.02



1 PARKING LEVEL P2 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-0" (W) X 18'-0" (L)
COMPACT (C):	7'-6" (W) X 15'-0" (L)
HANDICAP (VA):	8'-0" (W) X 18'-0" (L)
HANDICAP (VAN):	8'-0" (W) X 18'-0" (L)

NOTE: ALL SPACES ARE COMPACT, U.N.O.

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	37	35	29	3	3	106
P2	52	34	50	6		142
P3	60	38	53	4		155
P4	75	55	48			178
P5	52	33	30			105
	276	165	209	13	3	686

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HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJ NO: 100132.00
DATE: 09/20/2006

PARKING LEVEL P2 PLAN

SCALE: 1/8" = 1'-0"

A2.03

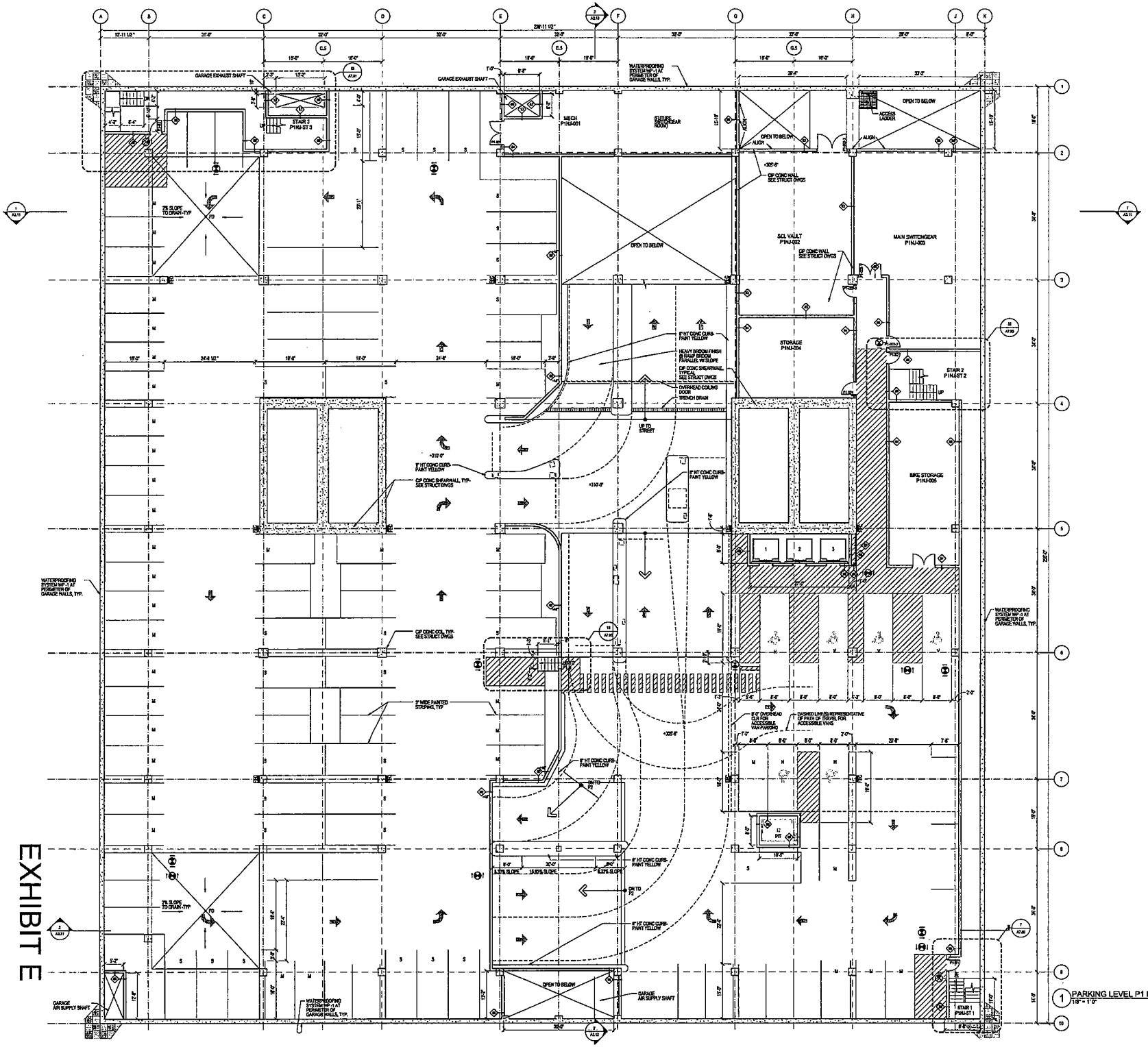

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

PARKING LEGEND

STANDARD (S):	8'-0" (W) X 16'-0" (L)
COMPACT (C):	7'-6" (W) X 15'-0" (L)
HANDICAP (H):	8'-0" (W) X 16'-0" (L)
HANDICAP VAN (HV):	8'-0" (W) X 20'-0" (L)
NOTE: ALL SPACES ARE COMPACT, U.N.O.	

PARKING COUNT

	CMP	MED	STD	HCP	HC-V	TOTAL
P1	37	35	28	3	3	106
P2	52	34	50	6		142
P3	60	38	53	4		155
P4	78	55	48			178
P5	62	23	30			105
	278	185	209	13	3	686

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

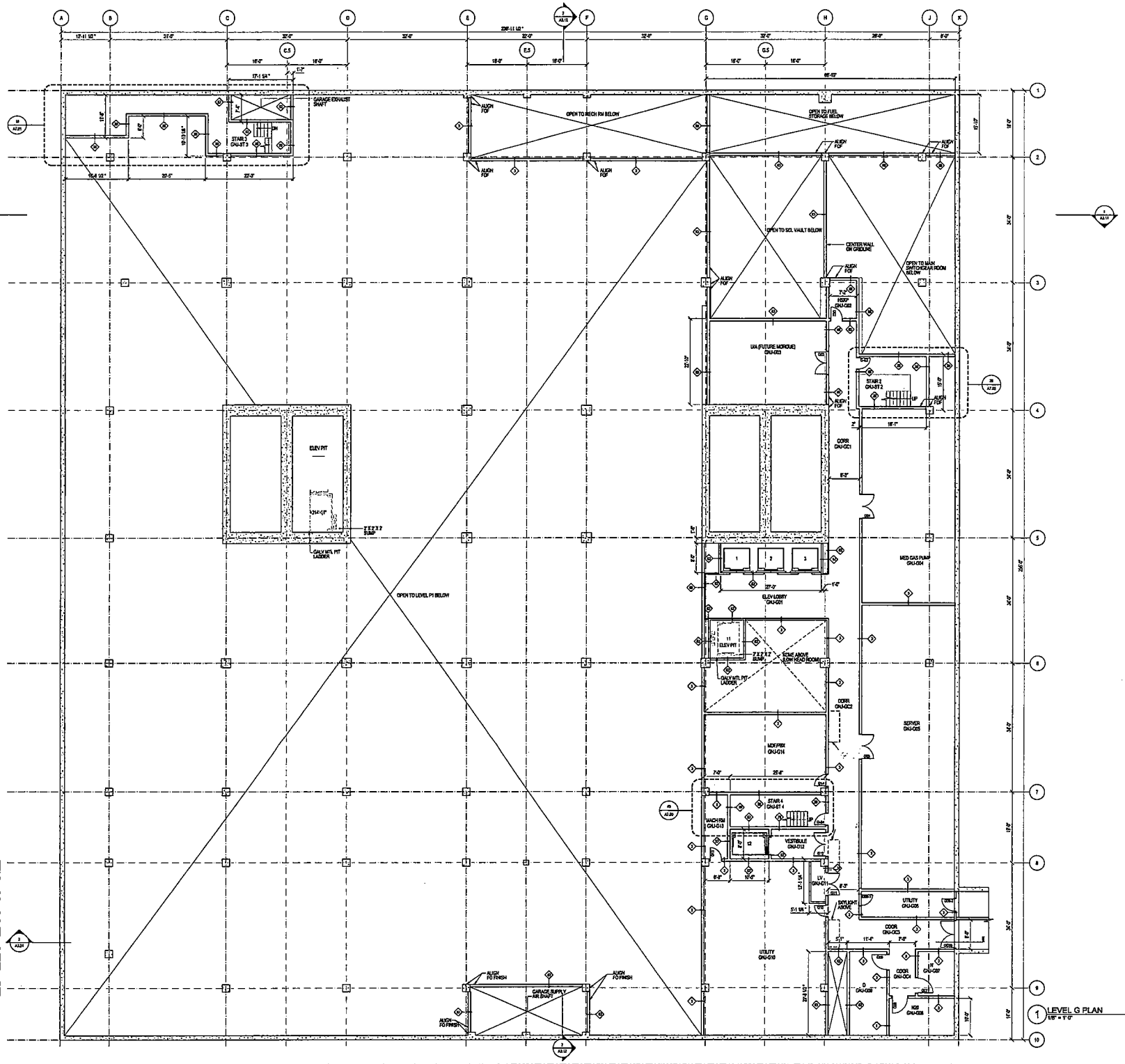
KEY	DATE	DESCRIPTION

PROJ NO. 10013200
DATE 09/20/2006

PARKING LEVEL P1 PLAN

SCALE: 1/8" = 1'-0"

A2.04



1 LEVEL G PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

REV	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006
DRN

LEVEL G PLAN

SCALE: 1/8" = 1'-0"

A2.05

nbbj
220 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5500

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HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

JOB NO. 10010.00
DATE 05/20/2008

DRAWING NOTES

CODED NOTES

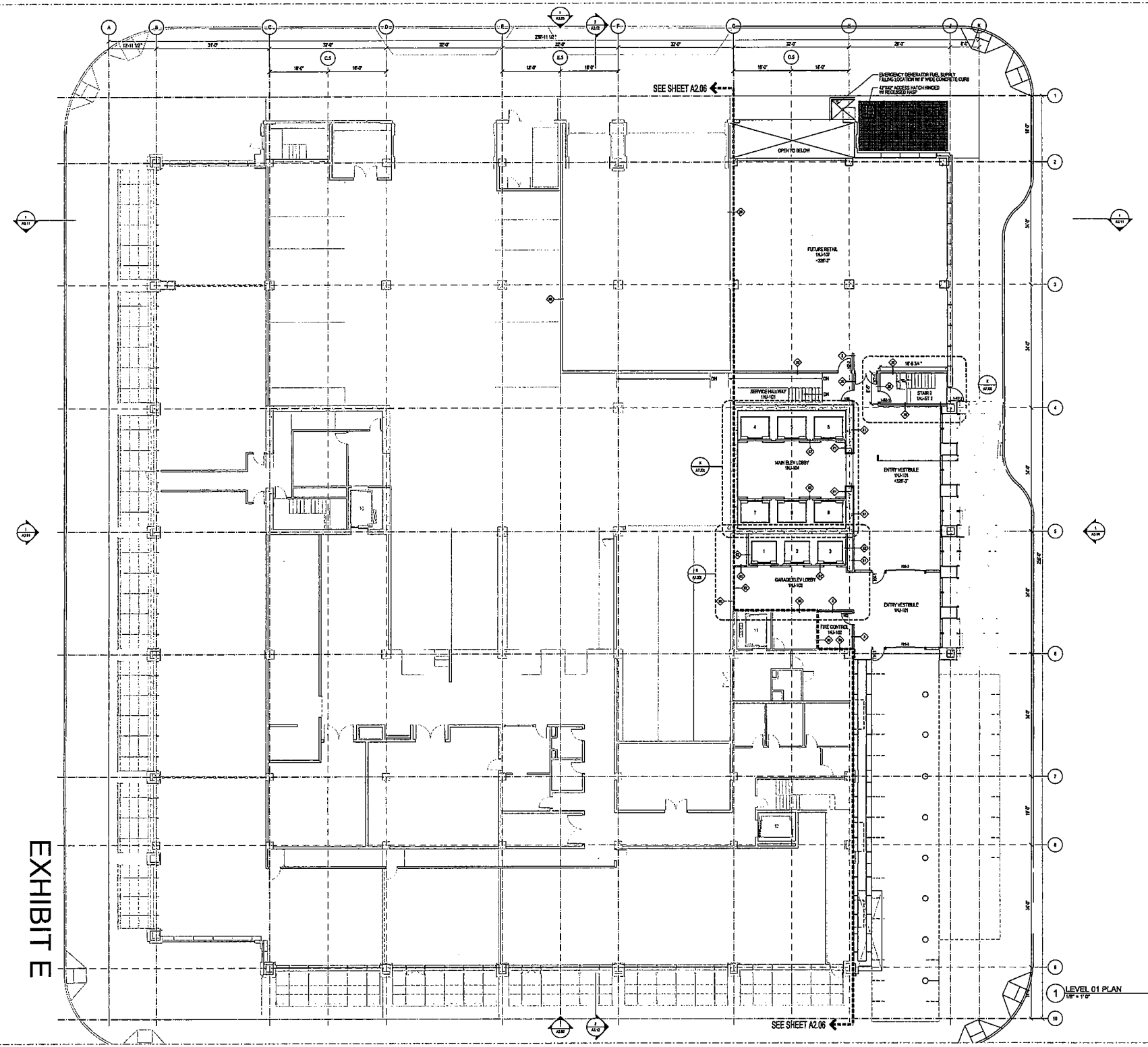
LEGENDS

LEVEL S PLAN

SCALE: 1/8"=1'-0"

A2.06

EXHIBIT E



1 LEVEL 01 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

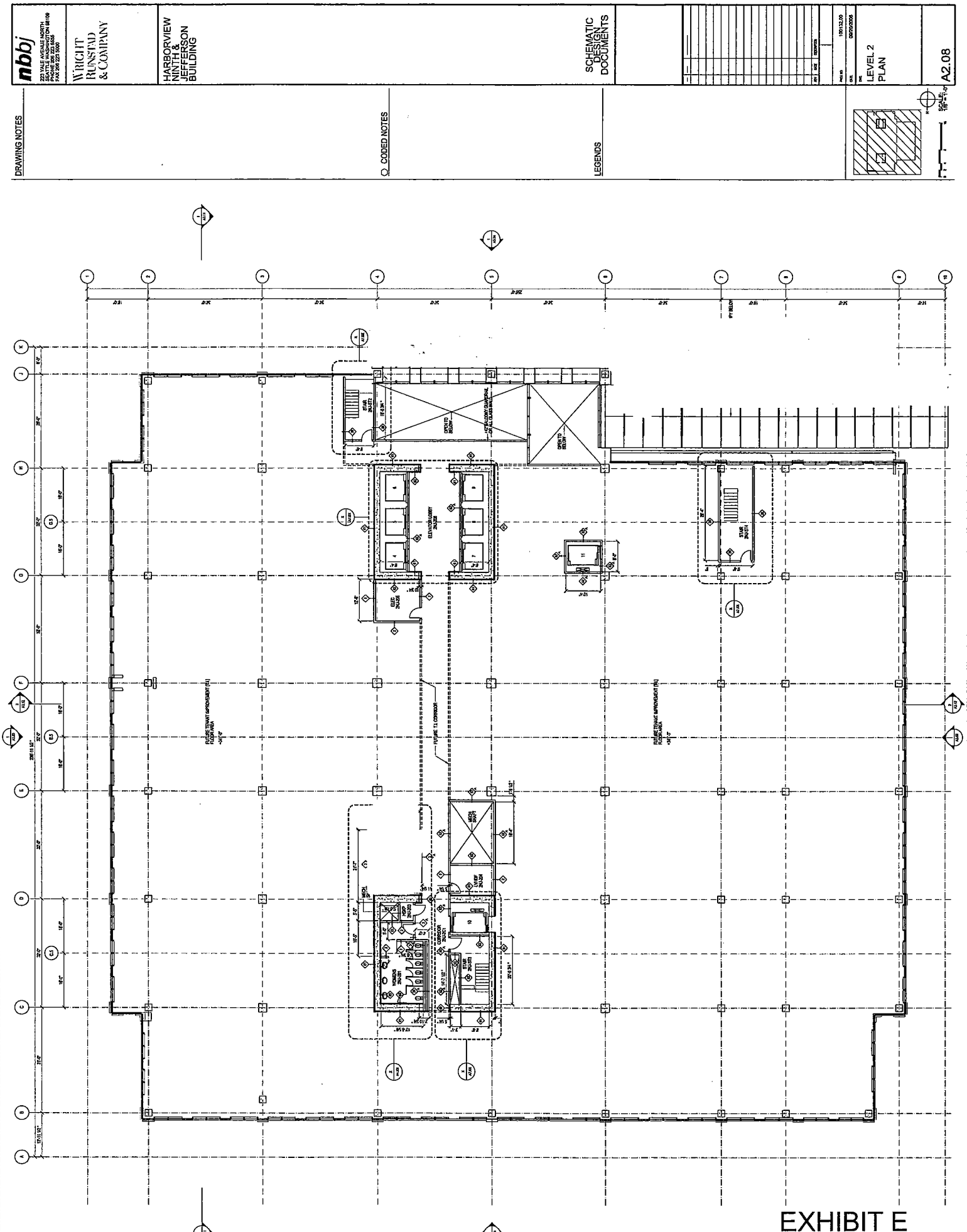
REV	DATE	DESCRIPTION

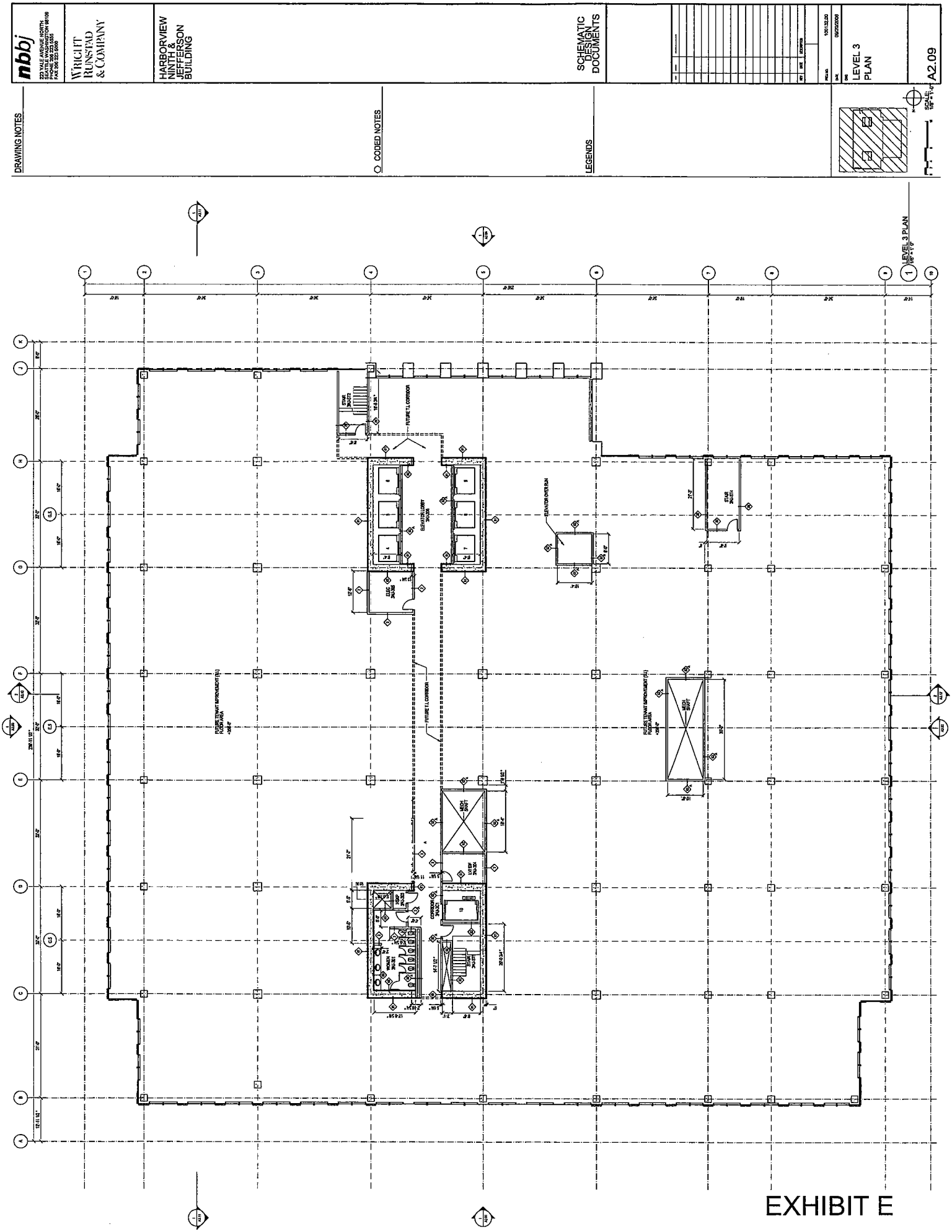
PROJ NO. 100132.00
DATE 09/20/2006

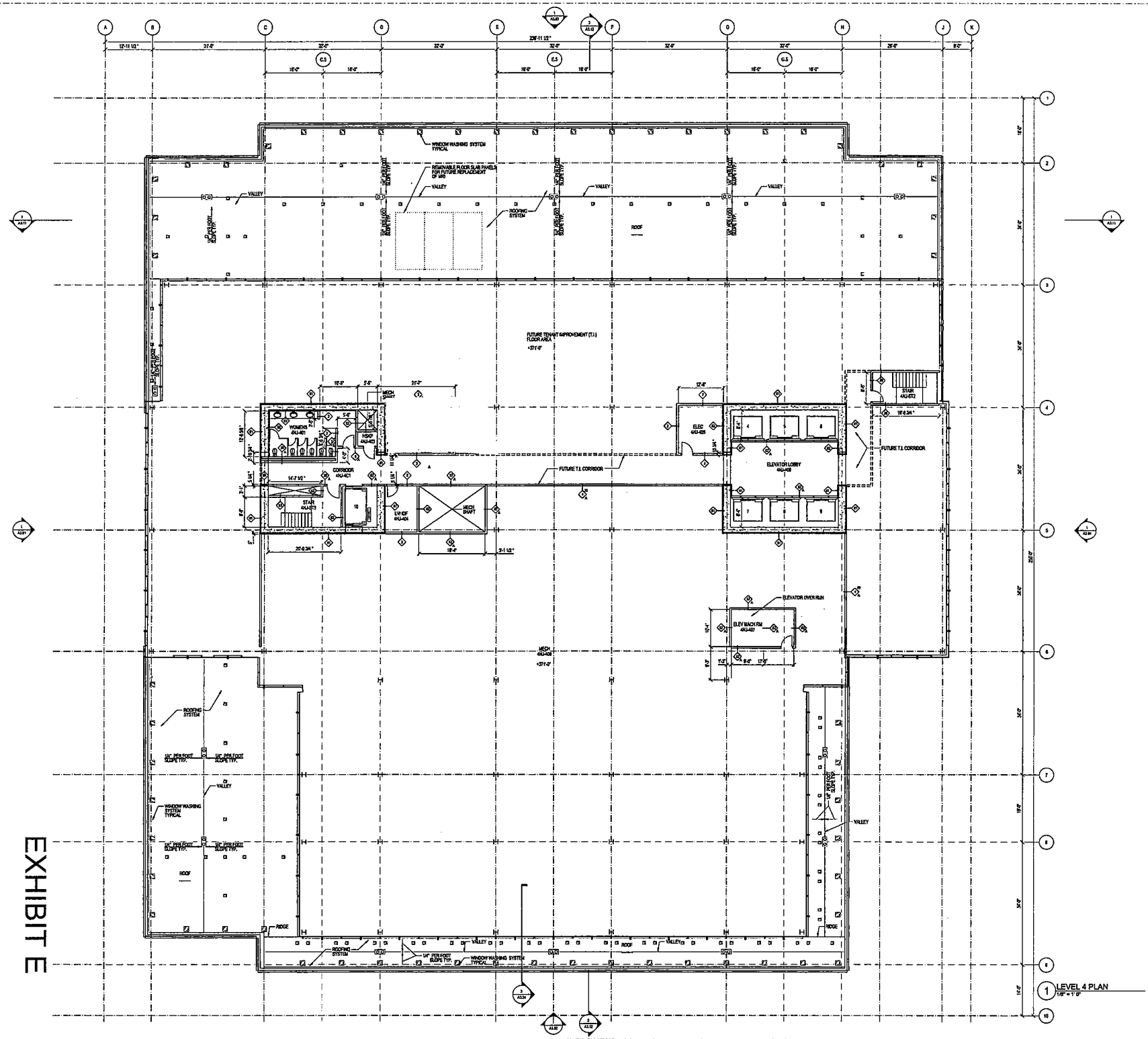
LEVEL 1 PLAN

SCALE: 1/8" = 1'-0"

A2.07


nbbj
225 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5560
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 2 PLAN
A2.08
SCALE: 1/8" = 1'-0"
EXHIBIT E


nbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206.223.5555
FAX 206.223.5500
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 3 PLAN
A2.09
SCALE: 1/8" = 1'-0"
1 LEVEL 3 PLAN
1/8" = 1'-0"
FUTURE TENANT IMPROVEMENT (TI) FLOOR AREA
FUTURE TENANT IMPROVEMENT (TI) FLOOR AREA
FUTURE T.I. CORRIDOR
FUTURE T.I. CORRIDOR
ELEVATOR OVERRUN
MECH SHAFT
MECH SHAFT
STAIR 3A1071
STAIR 3A1072
ELEVATOR LOBBY 3A1026
ELEC 3A1056
CORRIDOR 3A1421
MENS 3A1361
WOMENS 3A1381
JANITOR 3A1401
EXHIBIT E



1 LEVEL 4 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

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SCHEMATIC DESIGN DOCUMENTS

REV	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006

LEVEL 4 PLAN

SCALE: 1/8" = 1'-0"

A2.10

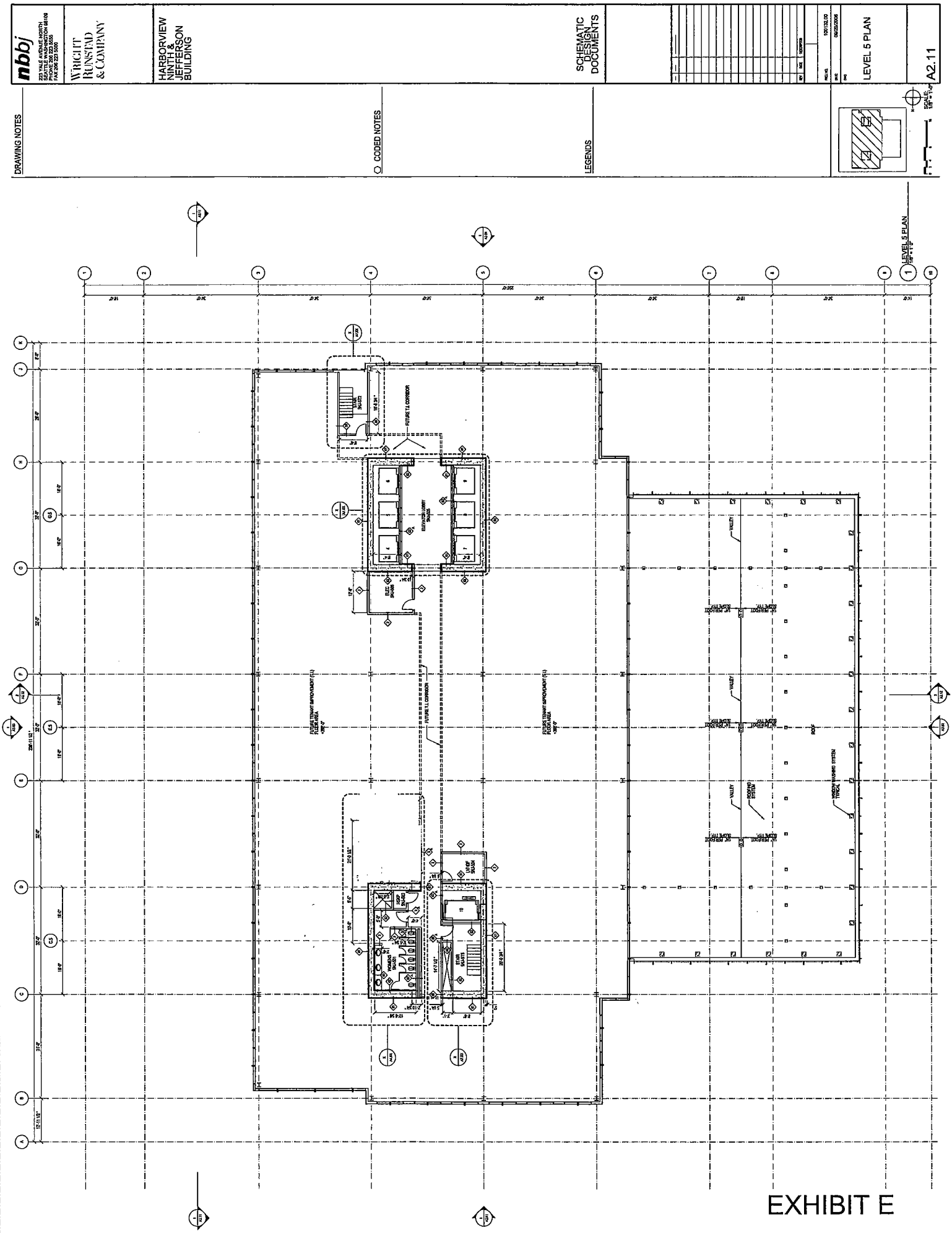
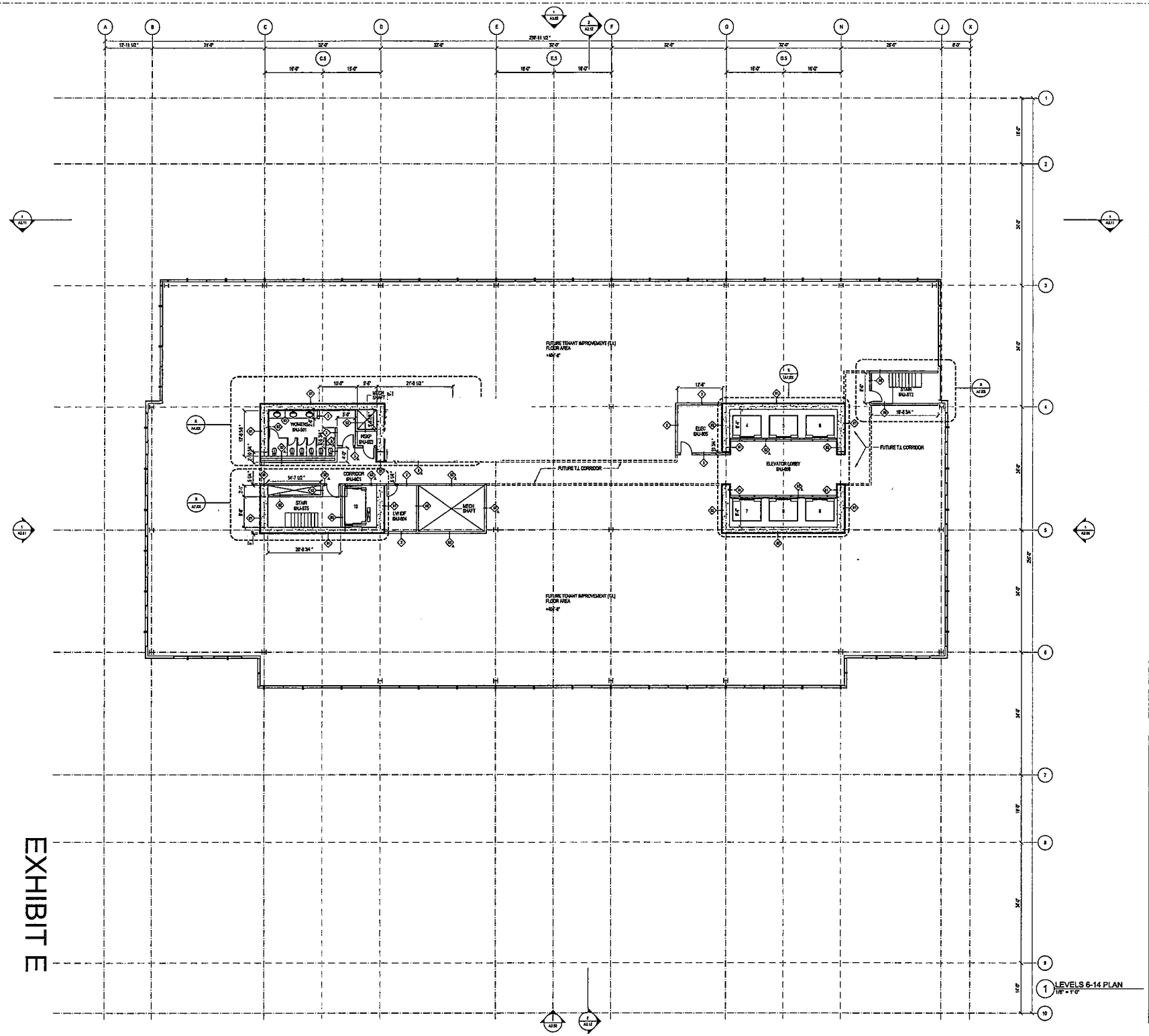

mbbj
223 YALE AVENUE NORTH
SEATTLE, WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5500
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
LEVEL 5 PLAN
A2.11
SCALE: 1/8" = 1'-0"
1 LEVEL 5 PLAN
1/8" = 1'-0"
FUTURE T.I. CORRIDOR
ELEVATOR LOBBY
ELEC
FUTURE TENANT IMPROVEMENT (T.I.)
FLOOR AREA
VALLEY
ROOF
MEMBRANE SYSTEM

EXHIBIT E



1 LEVELS 6-14 PLAN
1/8" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

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SCHEMATIC DESIGN DOCUMENTS

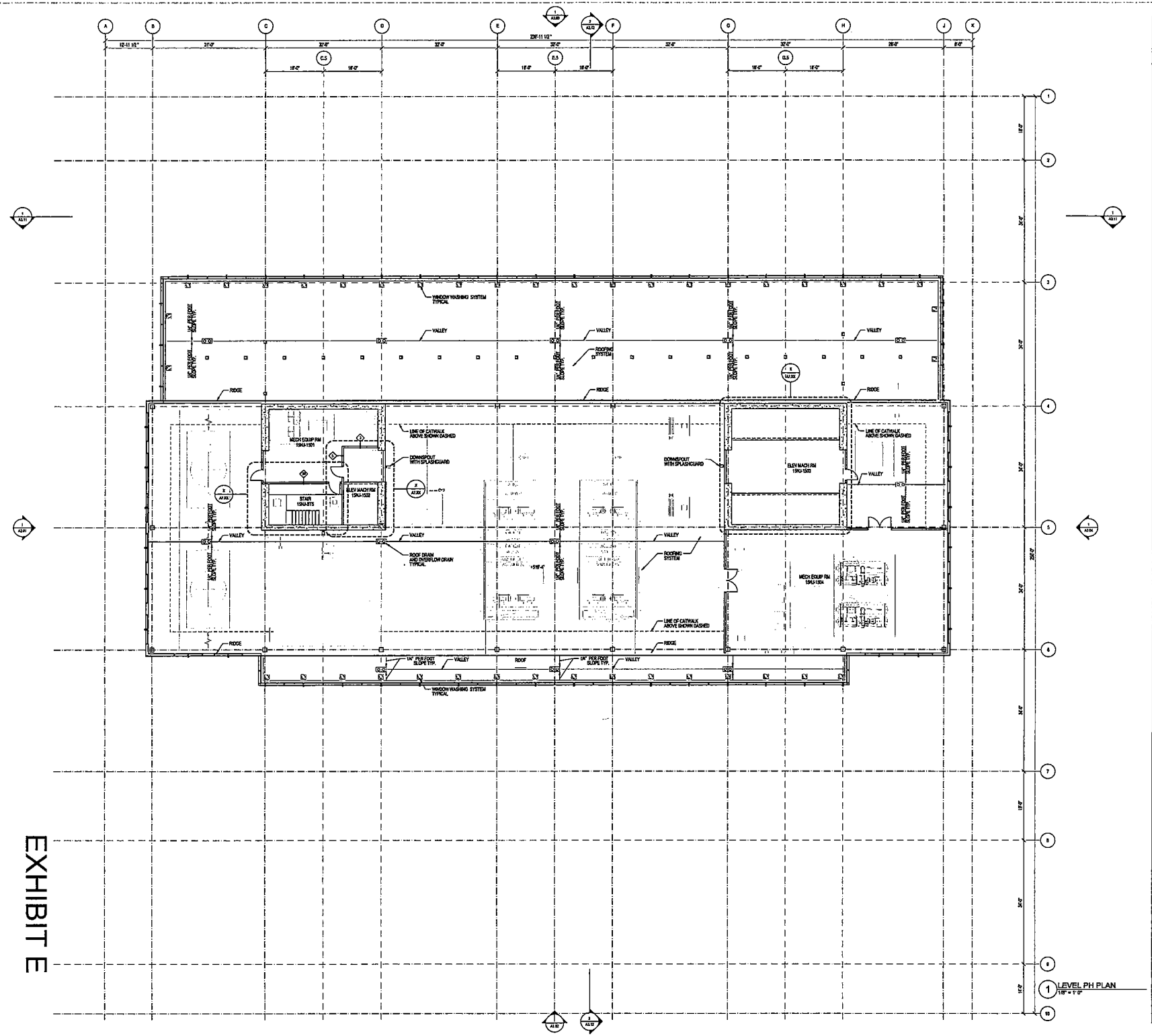
NO.	DATE	DESCRIPTION

PROJ NO. 100132.00
DATE 06/20/2006

LEVELS 6-14 PLAN

SCALE: 1/8" = 1'-0"

A2.12



1 LEVEL PH PLAN
1/8" = 1'-0"

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
220 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJECT NO: 100122.00
DATE: 08/20/2008
DWG

LEVEL PH PLAN

SCALE: 1/8" = 1'-0"

A2.13

EXHIBIT E

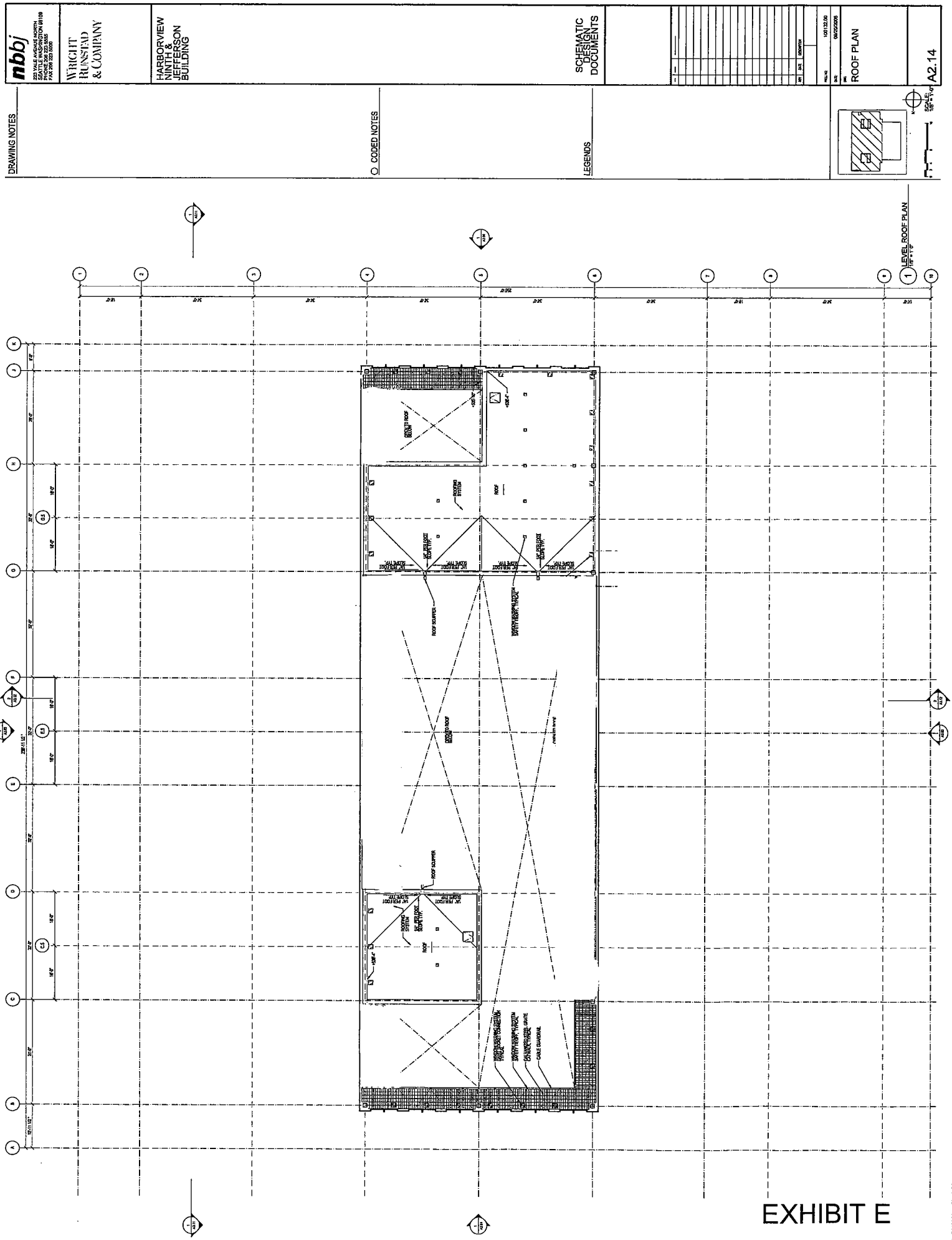
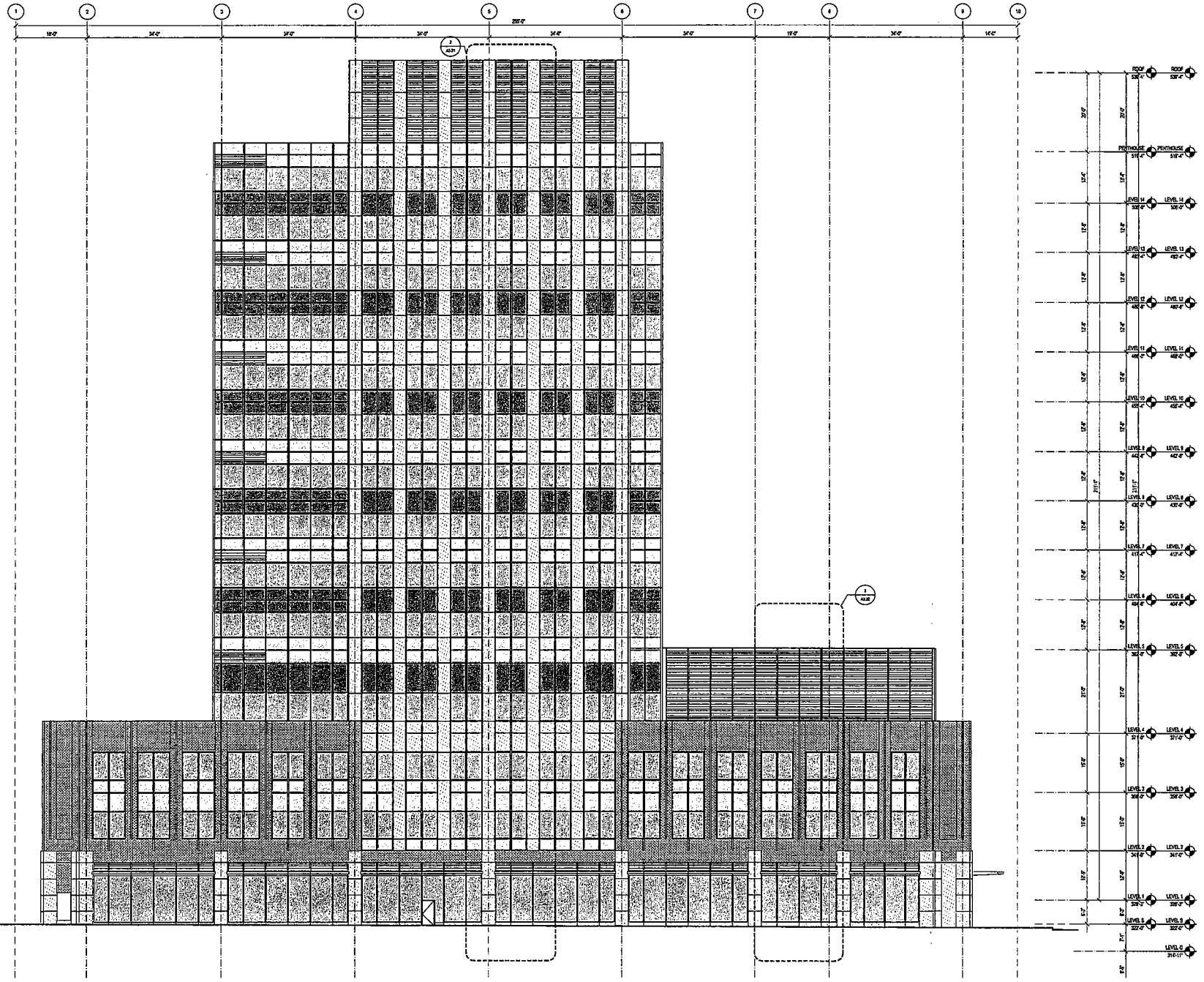

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5500
WRIGHT RUNSTAD & COMPANY
HARBORVIEW NINTH & JEFFERSON BUILDING
SCHEMATIC DESIGN DOCUMENTS
DRAWING NOTES
CODED NOTES
LEGENDS
ROOF PLAN
A2.14
SCALE: 1/8" = 1'-0"
1 LEVEL ROOF PLAN
1/8" = 1'-0"
ROOF SCUPPER
ROOFING SYSTEM
ROOF
EXHIBIT E

EXHIBIT E



1 NORTH ELEVATION
1/8" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
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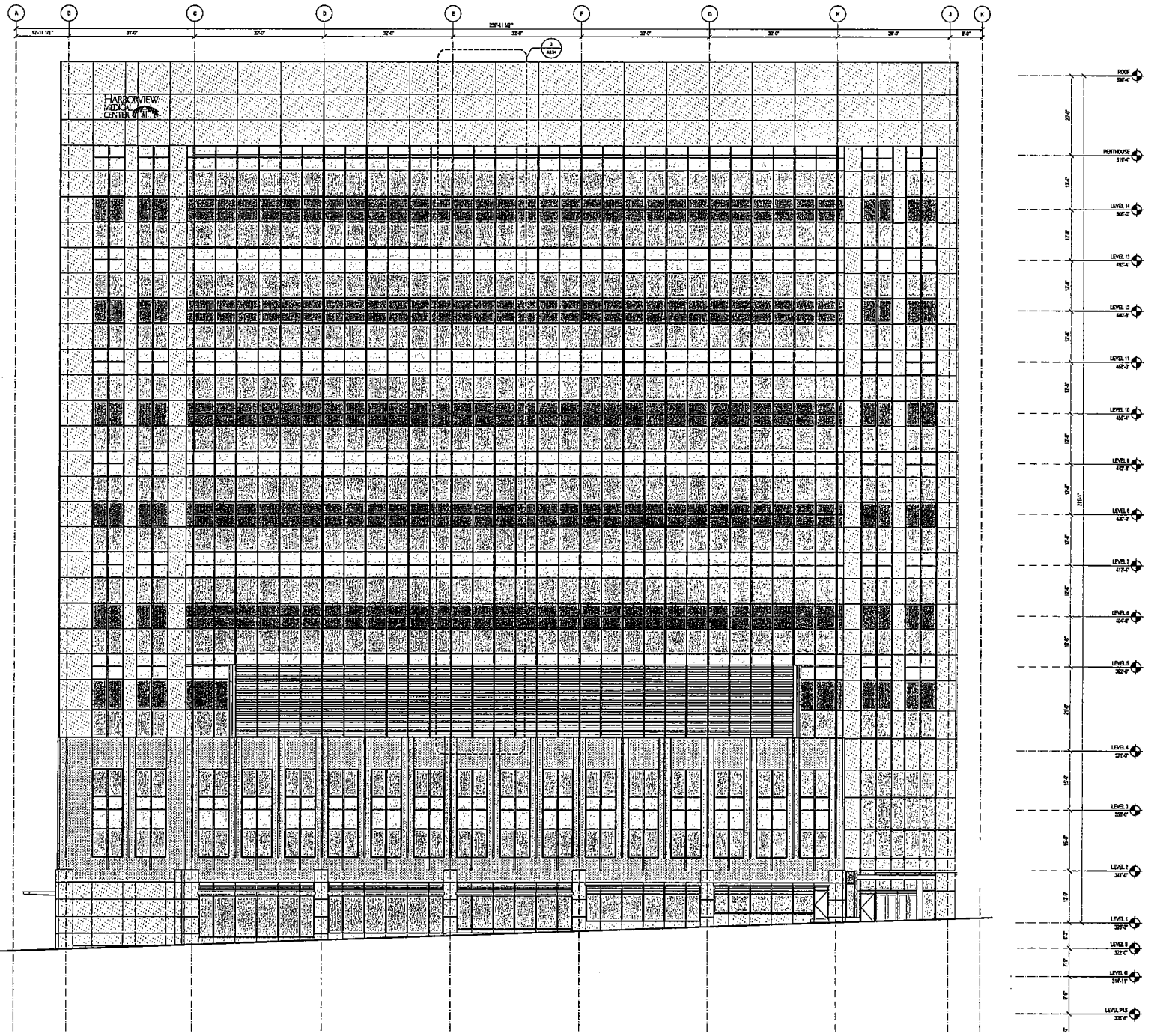
SCHEMATIC DESIGN DOCUMENTS

REV	DATE	DESCRIPTION

PROJ NO. 100132.00
DATE 09/20/2006

EXT. ELEVATION NORTH

A3.01



1 WEST ELEVATION
1/8" = 1'-0"

EXHIBIT E

nbbj
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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
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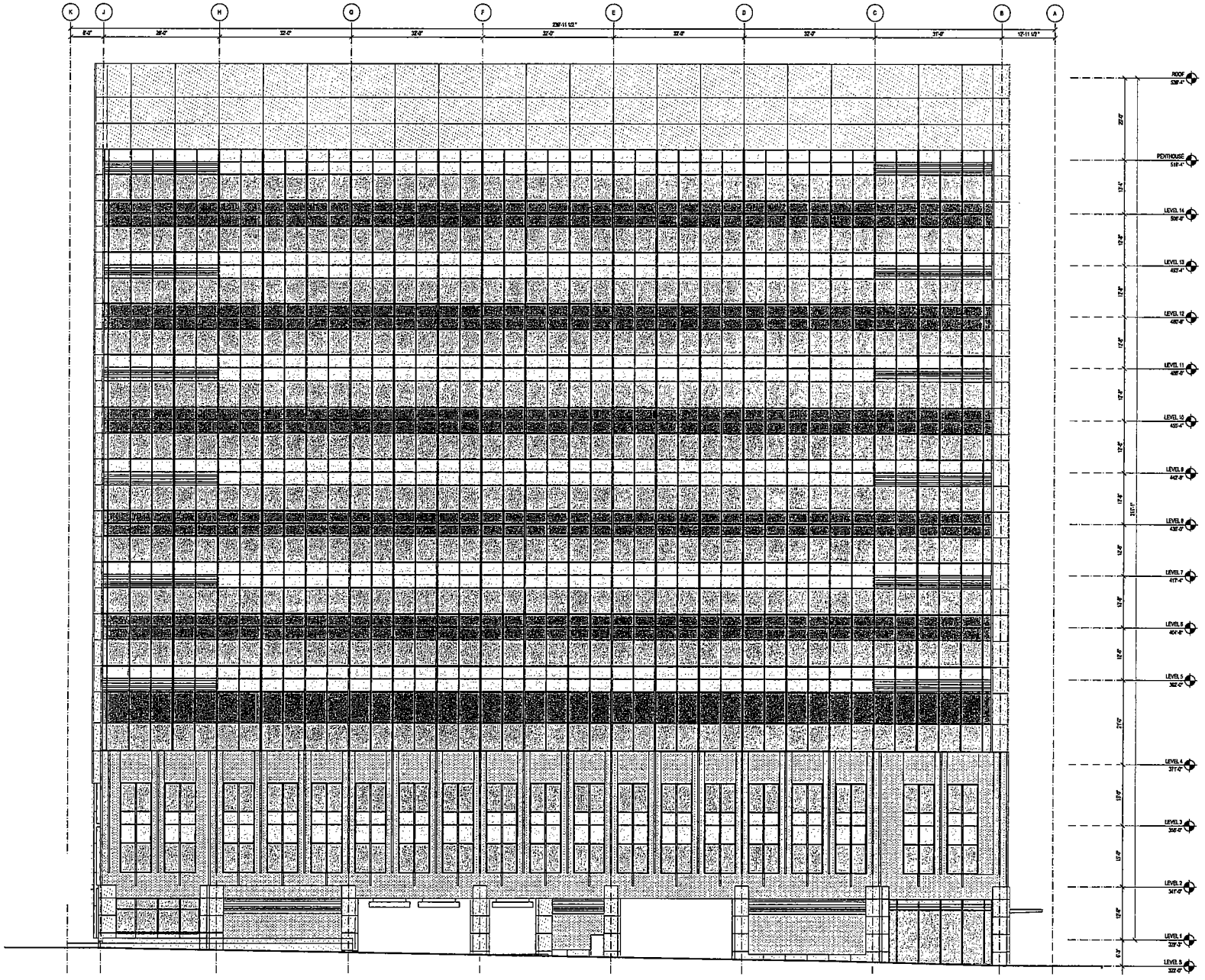
SCHEMATIC DESIGN DOCUMENTS

PROJ NO. 100132.00
DATE 09/20/2006

EXT. ELEVATION WEST

A3.02

EXHIBIT E



1 EAST ELEVATION
1/8" = 1'-0"

nbbj
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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

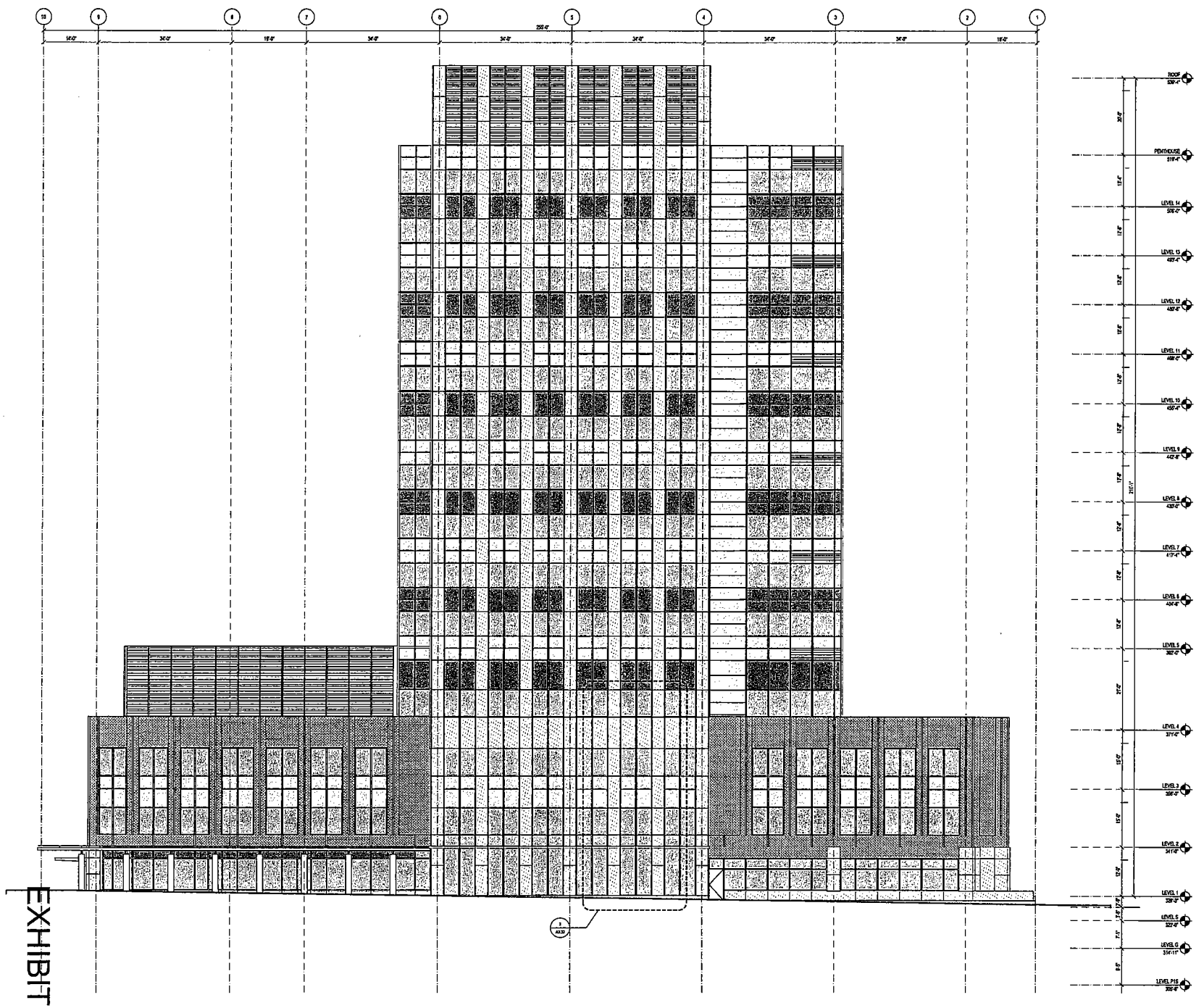
SCHEMATIC DESIGN DOCUMENTS

REV	DATE	DESCRIPTION

PROJECT NO: 100132.00
DATE: 09/25/2006

EXT. ELEVATION EAST

A3.03



1 SOUTH ELEVATION
1/8" = 1'-0"

EXHIBIT E

nbbj
233 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

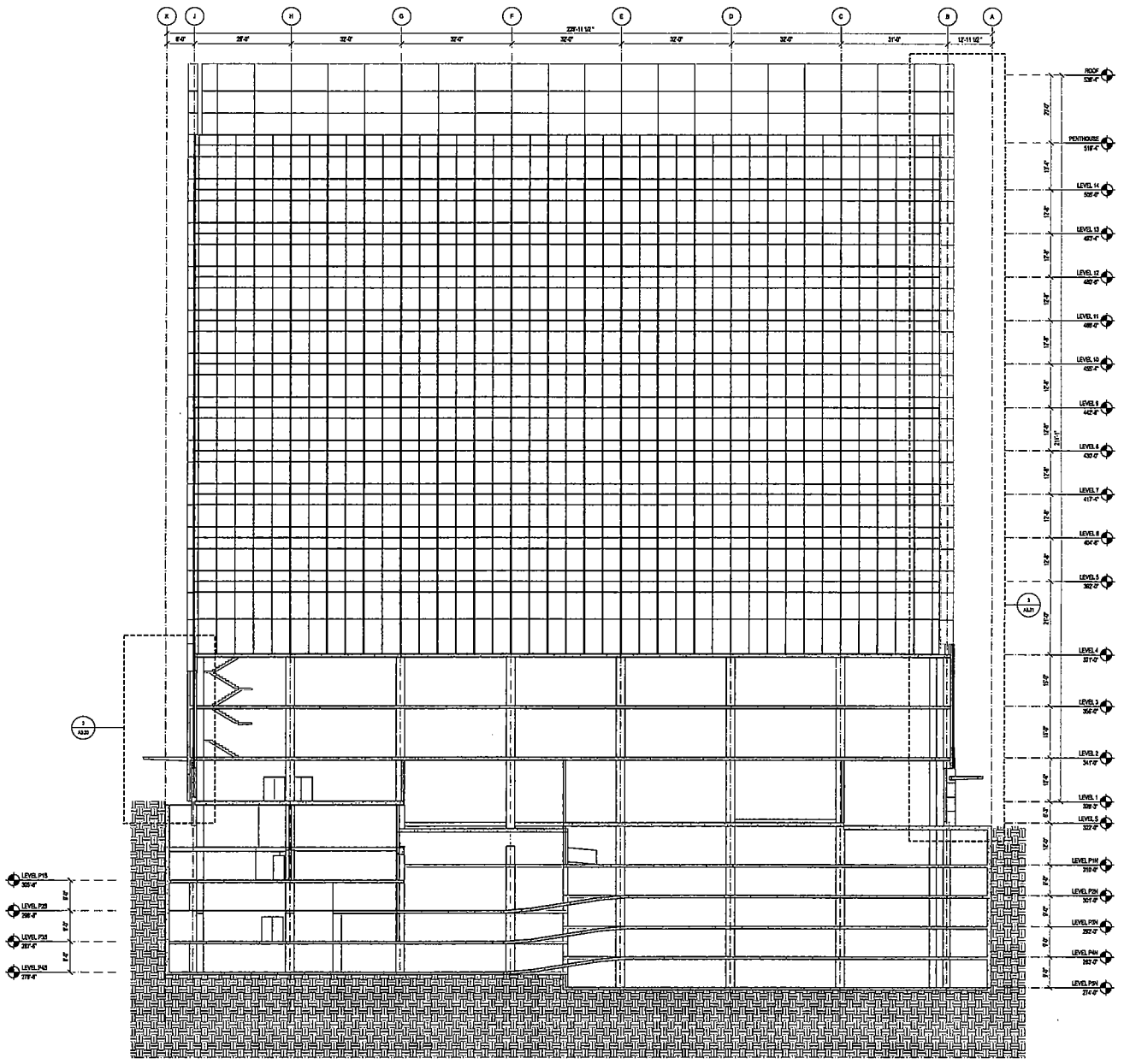
REV	DATE	DESCRIPTION

PROJ NO. 100132.00
DATE 09/20/2006

EXT. ELEVATION SOUTH

A3.04

EXHIBIT E



1 SECTION N-S
3/32" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

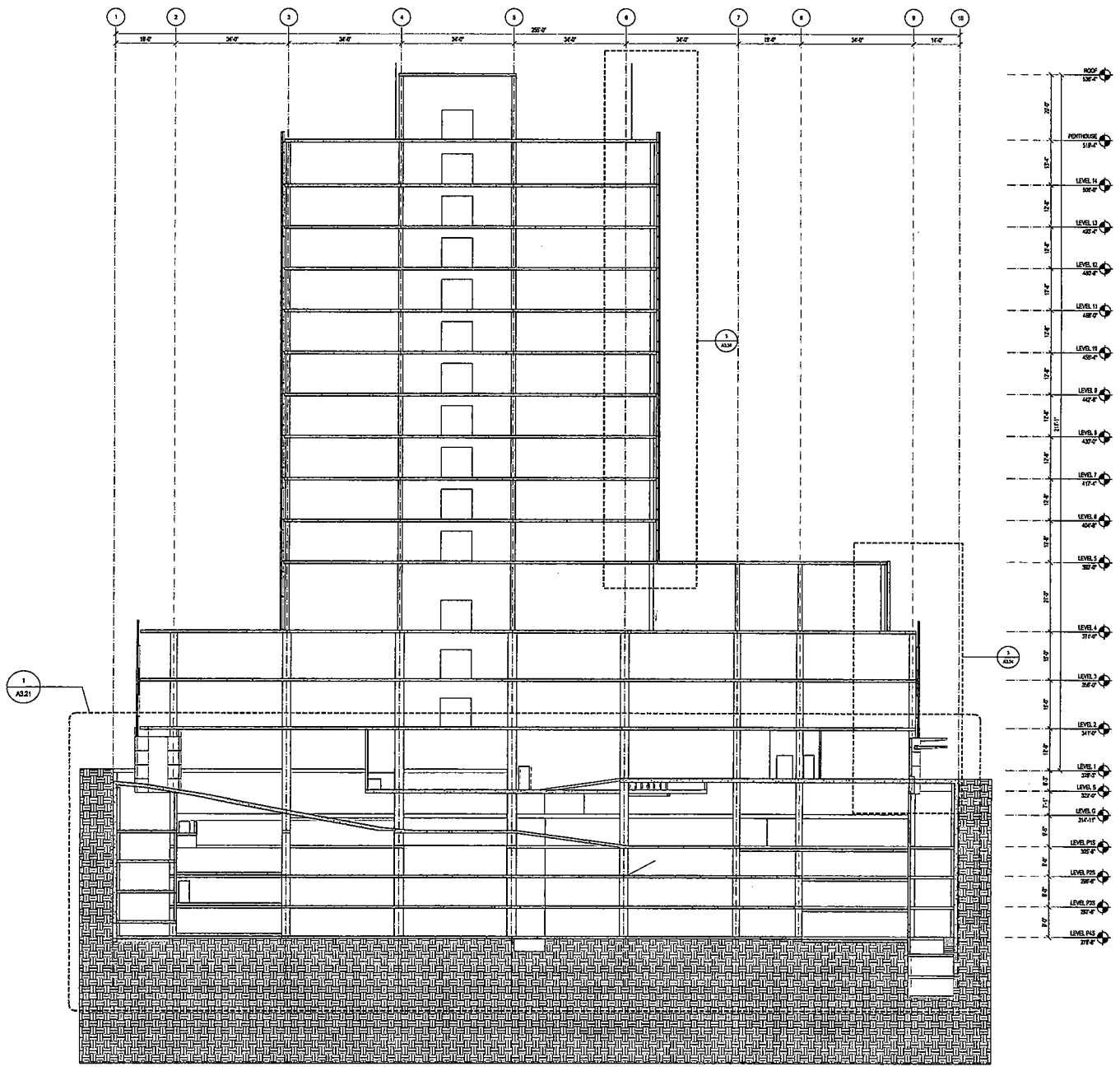
PROJ NO: 100132.00
DATE: 09/20/2006

BLDG SECTION N-S

A3.11

SCALE: 3/32" = 1'-0"

EXHIBIT E



1 SECTION E-W
3/32" = 1'-0"

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

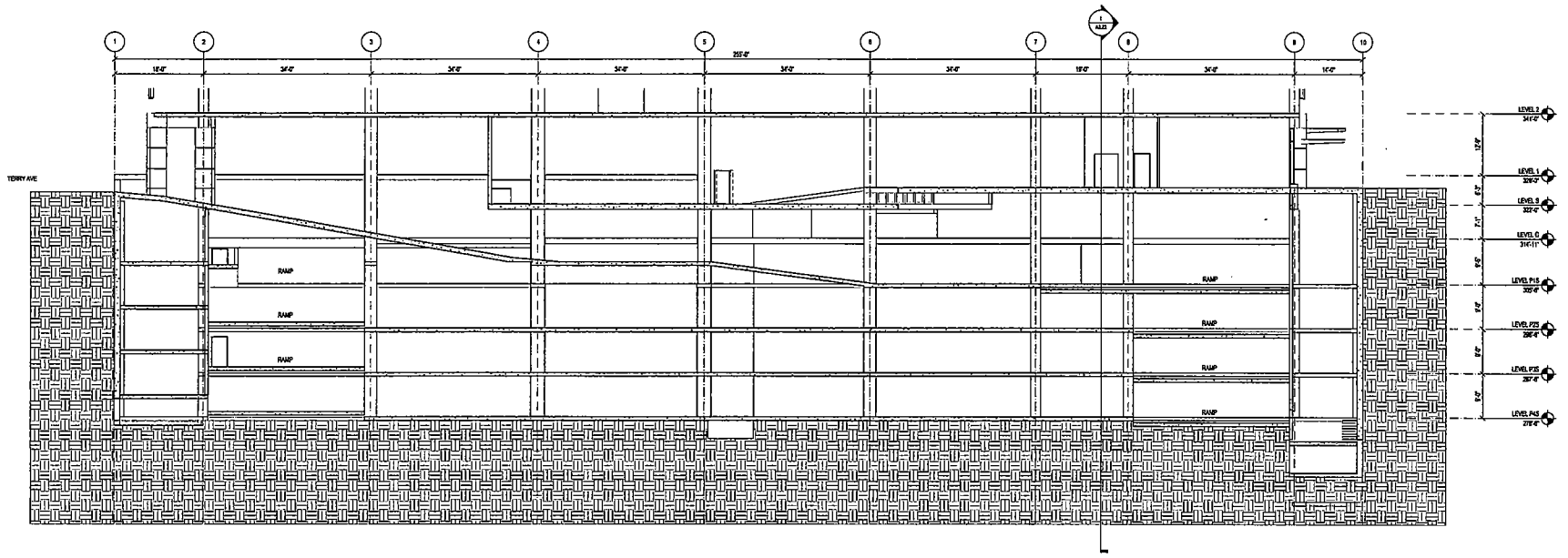
NO	DATE	DESCRIPTION

PROJ NO 100132.00
DATE 09/20/2006

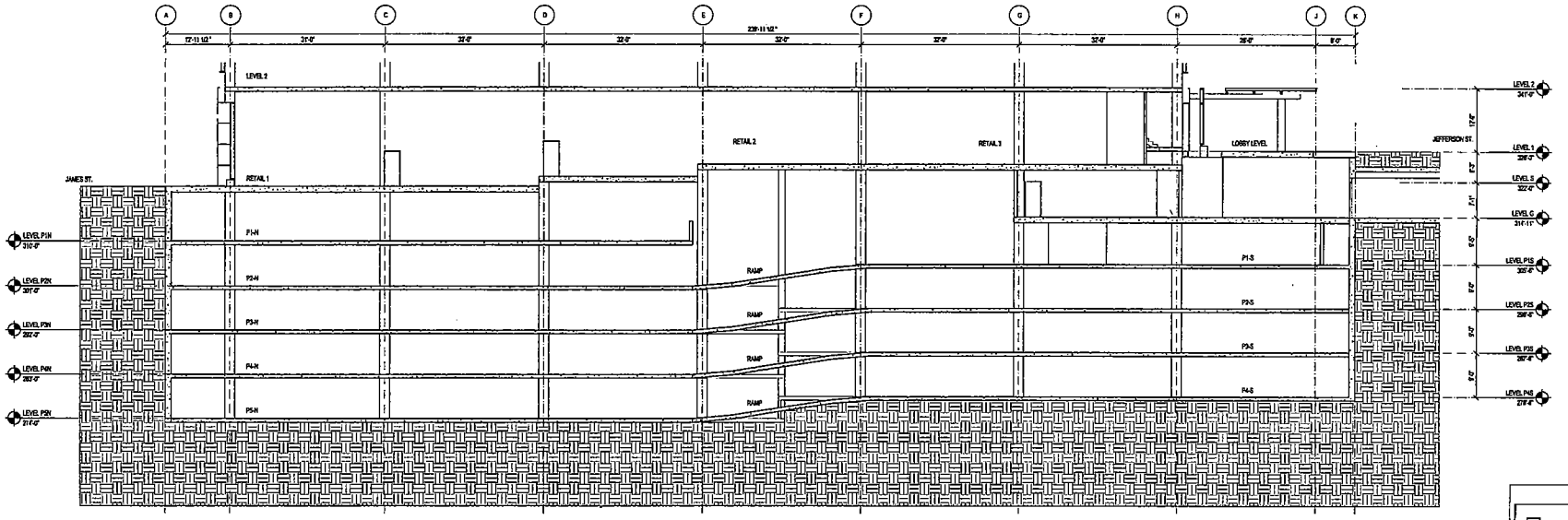
BLDG SECTION E-W

SCALE: 3/32" = 1'-0"

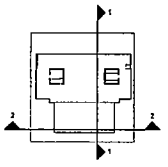
A3.12



1 SECTION THROUGH GARAGE ENTRY
1/8" = 1'-0"



2 SECTION
1/8" = 1'-0"



SCALE: 1/8" = 1'-0"

EXHIBIT E

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

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SCHEMATIC DESIGN DOCUMENTS

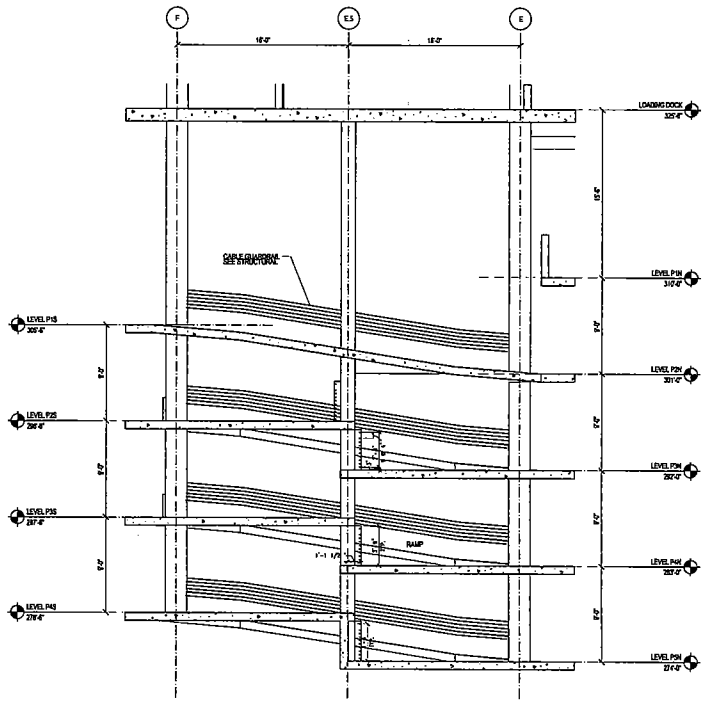
NO	DATE	DESCRIPTION

PROJ NO: 100132.00
DATE: 09/20/2006

GARAGE SECTIONS

A3.21

EXHIBIT E



1 SECTION VIEW AT GARAGE RAMP
1/8" = 1'-0"

nbbj
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SEATTLE WASHINGTON 98109
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FAX 206 223 5000

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SCHEMATIC DESIGN DOCUMENTS

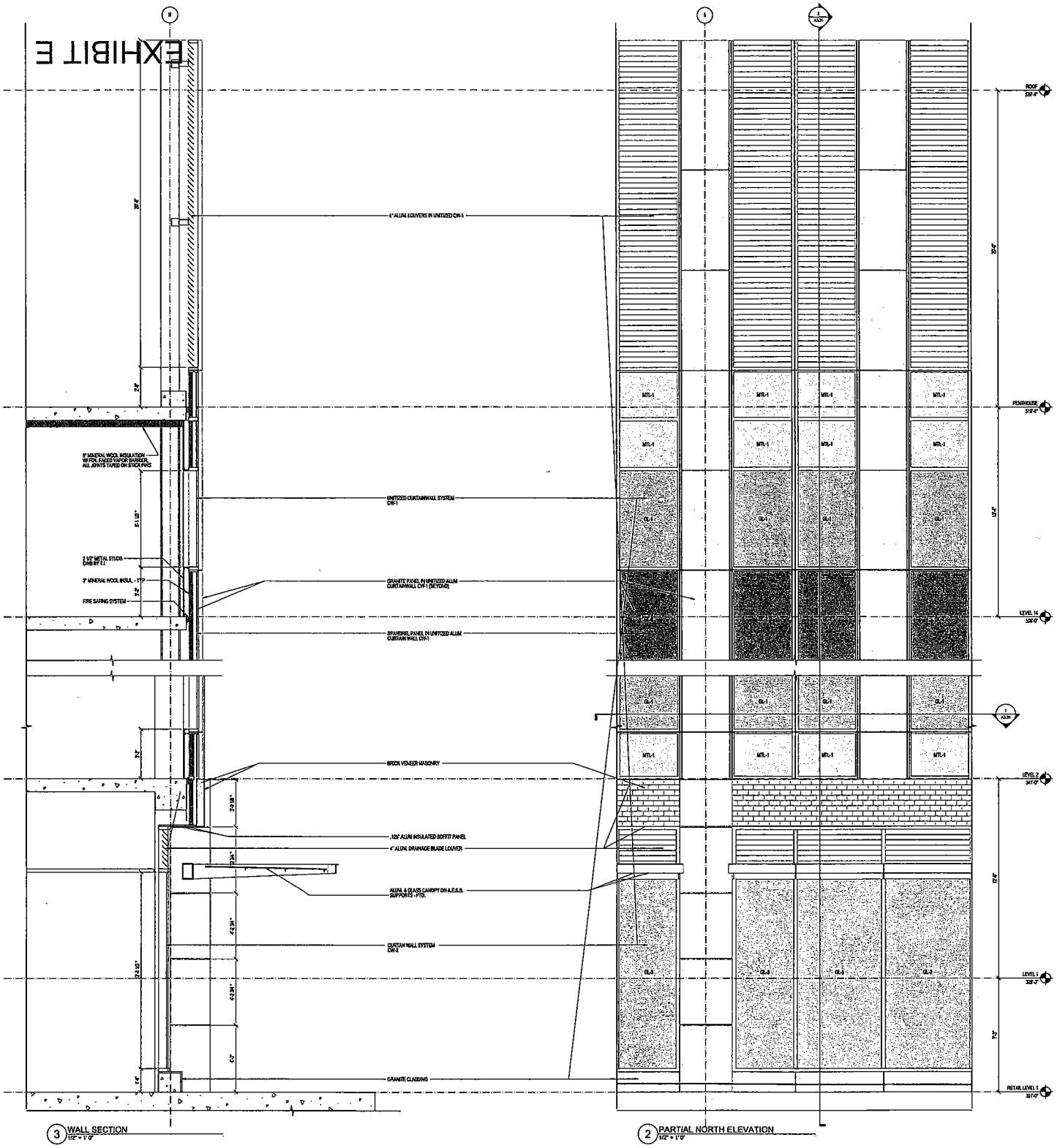
REV	DATE	DESCRIPTION

PROJ NO. 100132.00
DATE 09/20/2006

GARAGE SECTIONS

A3.22

EXHIBIT E

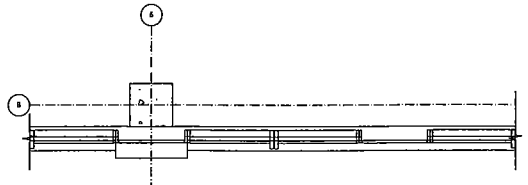


3 WALL SECTION
1/2" = 1'-0"

2 PARTIAL NORTH ELEVATION
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU), CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE
GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE
GL-3 1" IGU, CLEAR GLASS; NO LOW-E COATING



1 PARTIAL PLAN LEVEL 2
1/2" = 1'-0"

A3.31

EXTERIOR WALL SECTIONS

NO	DATE	DESCRIPTION

PROJECT NO: 1001.02.00
DATE: 08/20/2009

SCHEMATIC DESIGN DOCUMENTS

HARBORVIEW NINTH & JEFFERSON BUILDING

WRIGHT RUNSTAD & COMPANY

mbbj
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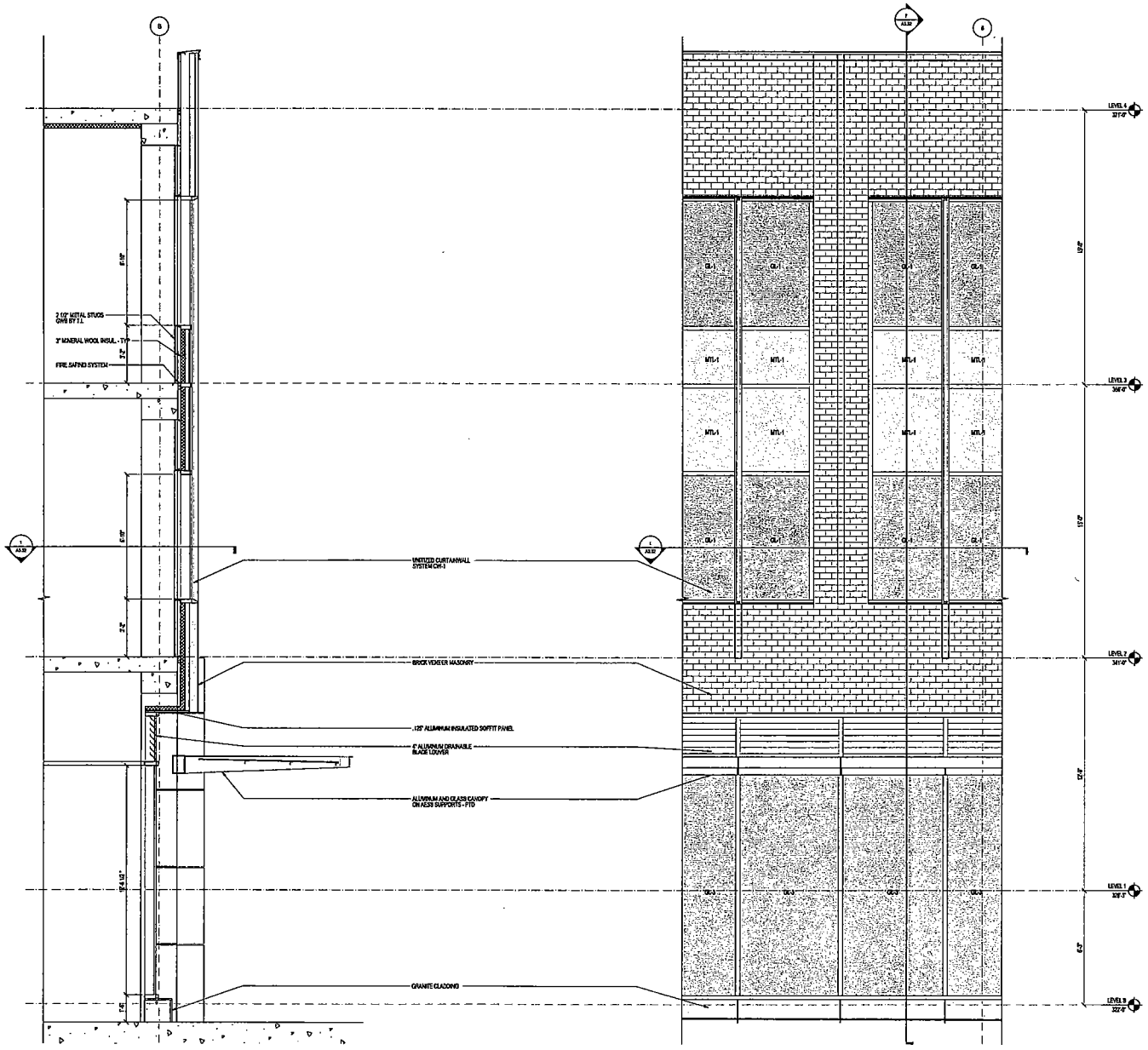
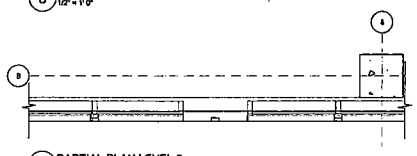
SEATTLE, WASHINGTON 98109
PHONE 206.223.5555
FAX 206.223.5500

EXHIBIT E



7 WALL SECTION
1/2" = 1'-0"

3 PARTIAL NORTH ELEVATION
1/2" = 1'-0"



1 PARTIAL PLAN LEVEL 2
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU), CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE
GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE
GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING

A3.32

EXTERIOR WALL SECTION

DATE 09/20/2006
PROJ NO. 1001122.00

NO	DESCRIPTION

SCHEMATIC DESIGN DOCUMENTS

HARBORVIEW NINTH & JEFFERSON BUILDING

WRIGHT RUNSTAD & COMPANY

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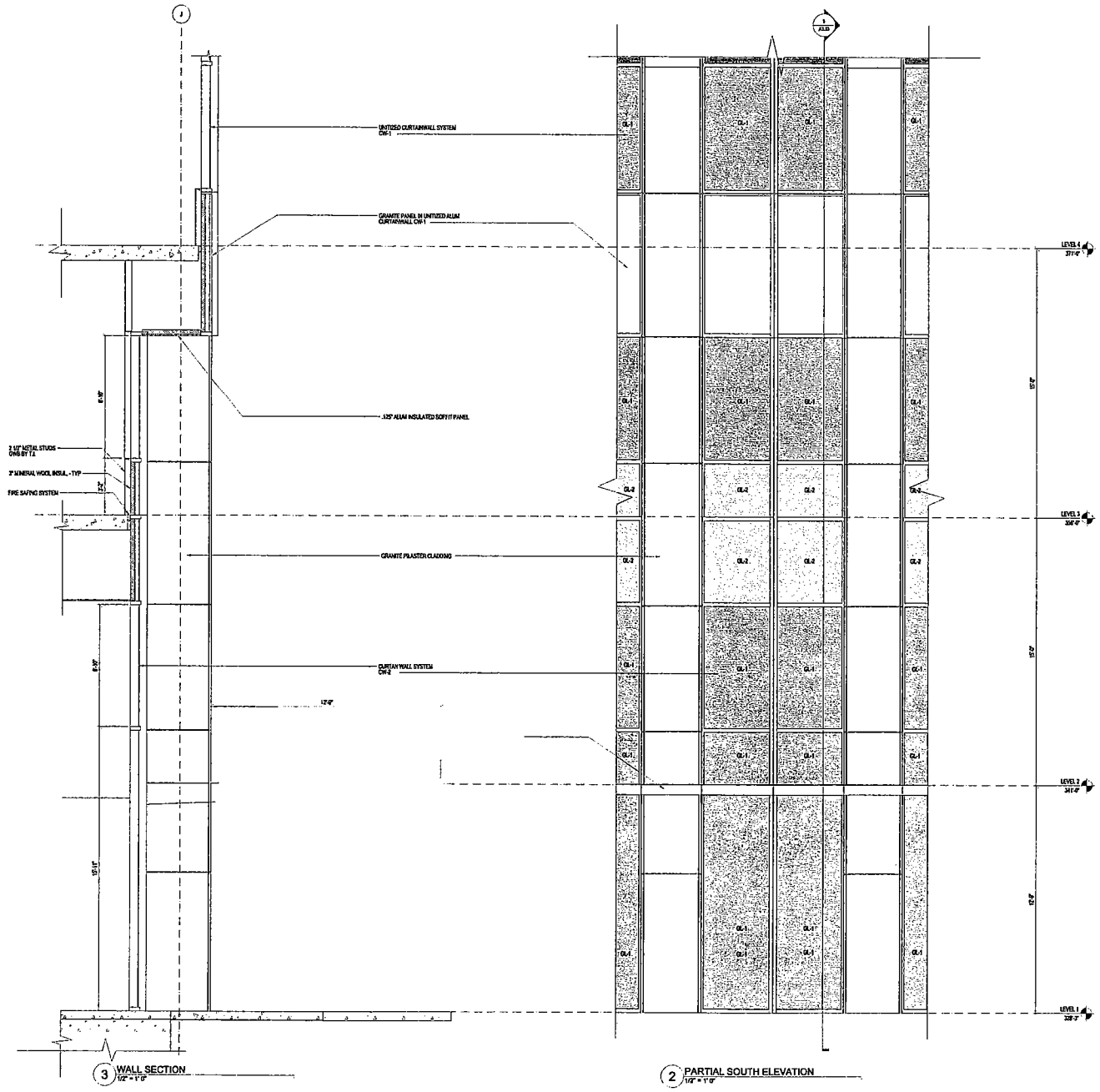
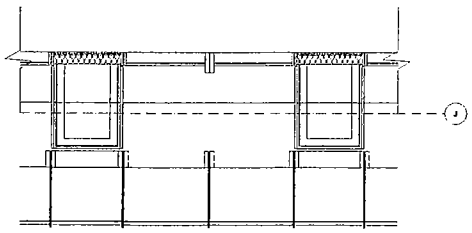
SEATTLE, WASHINGTON 98109
FAX 206 223 5300

EXHIBIT E



3 WALL SECTION
1/2" = 1'-0"

2 PARTIAL SOUTH ELEVATION
1/2" = 1'-0"



1 PARTIAL PLAN LEVEL 1
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU). CLEAR GLASS WITH LOW-E COATING ON #2 SURFACE

GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE

GL-3 1" IGU, CLEAR GLASS, NO LOW-E COATING

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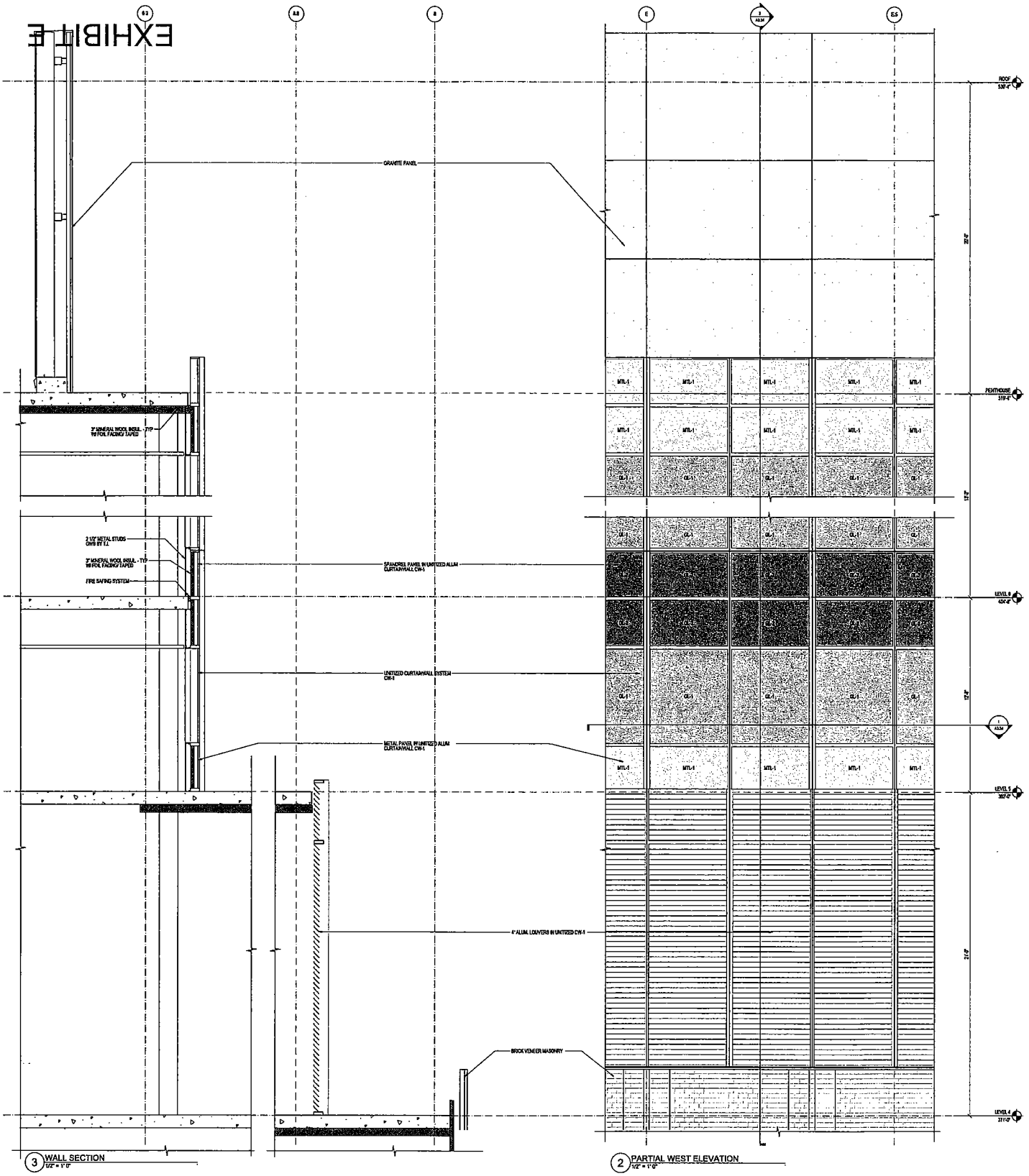
SCHEMATIC DESIGN DOCUMENTS

EXTERIOR WALL SECTIONS

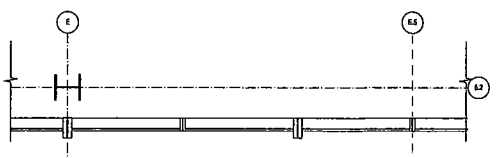
A3.33

EXHIBIT E



3 WALL SECTION
1/2" = 1'-0"

2 PARTIAL WEST ELEVATION
1/2" = 1'-0"



1 PARTIAL PLAN LEVEL 5
1/2" = 1'-0"

GLAZING TYPE LEGEND

GL-1 1" INSULATING GLASS UNIT (IGU), CLEAR GLASS WITH LOW-E COATING ON #3 SURFACE

GL-2 1" IGU, CLEAR GLASS WITH OPAQUE CERAMIC FRIT ON #2 OR #3 SURFACE

GL-3 1" IGU, CLEAR GLASS; NO LOW-E COATING

A3.34

EXTERIOR WALL SECTIONS

PROJECT NO: 1001.32.00

DATE: 09/22/2009

NO	DATE	DESCRIPTION
1		

SCHEMATIC DESIGN DOCUMENTS

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WRIGHT RUNSTAD & COMPANY

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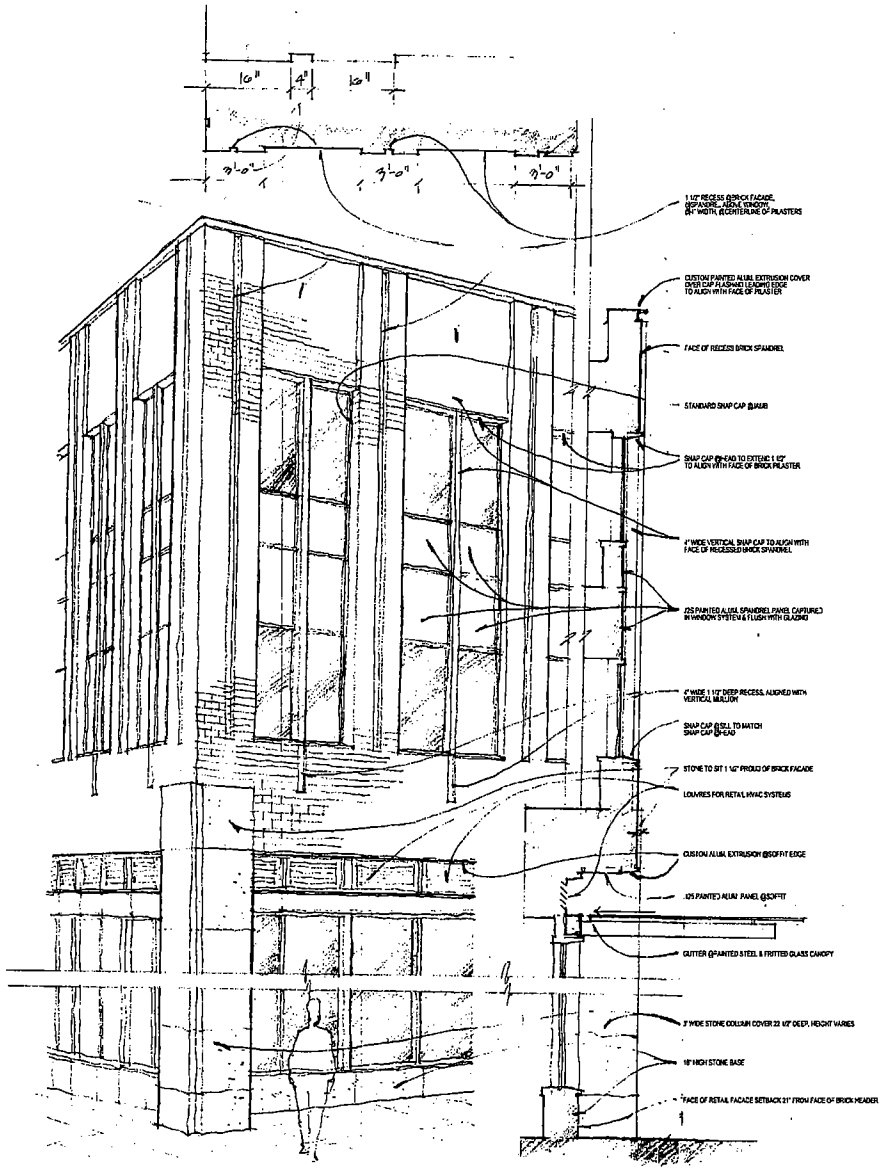
SEATTLE, WASHINGTON 98109
206 223 5555
FAX 206 223 8300



1 TYPICAL CORNER CONDITION
NTS

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
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WRIGHT RUNSTAD & COMPANY

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SCHEMATIC DESIGN DOCUMENTS

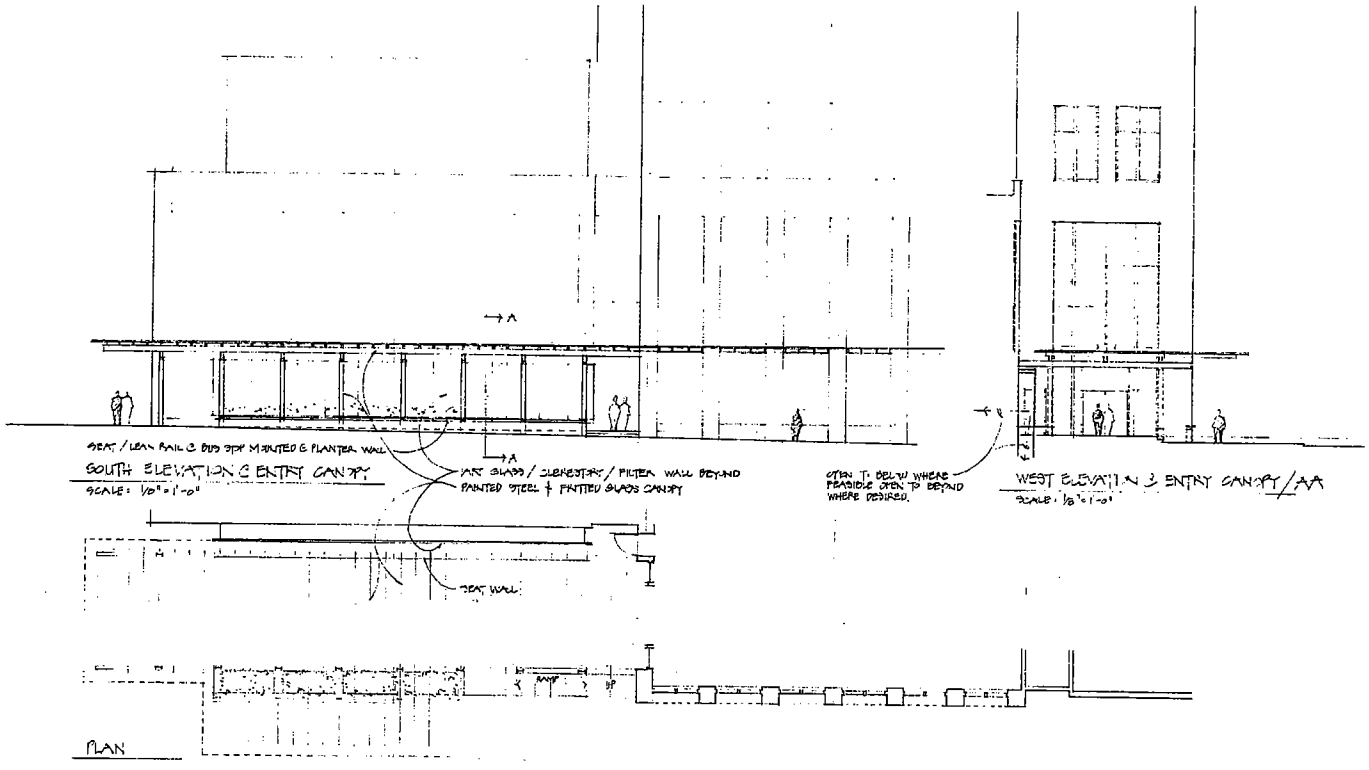
NO.	DATE	DESCRIPTION

PROJECT NO 100132.00
DATE 09/20/2006

EXTERIOR WALL SECTIONS

A3.35

EXHIBIT E



DRAWING NOTES

CODED NOTES

LEGENDS

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO.	DATE	DESCRIPTION

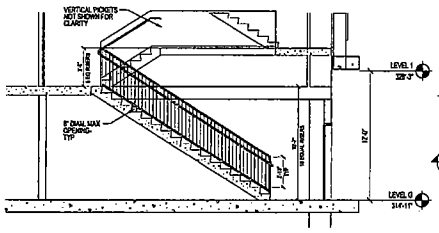
PROJECT NO: 10013200

DATE: 09/20/2006

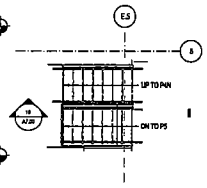
ENTRY CANOPY

SCALE: 1/8" = 1'-0"

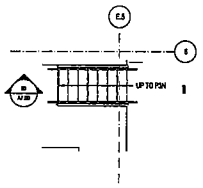
A3.36



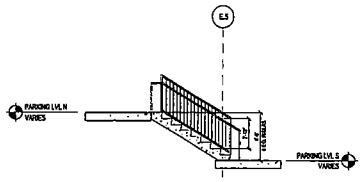
34 STAIR 4 SECTION
1/4" = 1'-0"



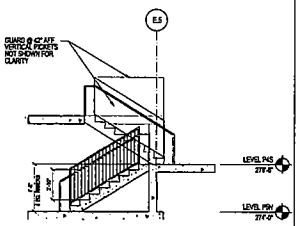
26 TRANSVERSE STAIR LEVEL P4 PLAN
1/4" = 1'-0"



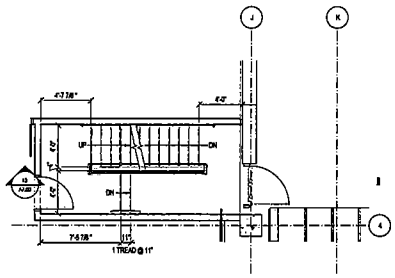
18 TRANSVERSE STAIR LEVELS P1-3 PLAN
1/4" = 1'-0"



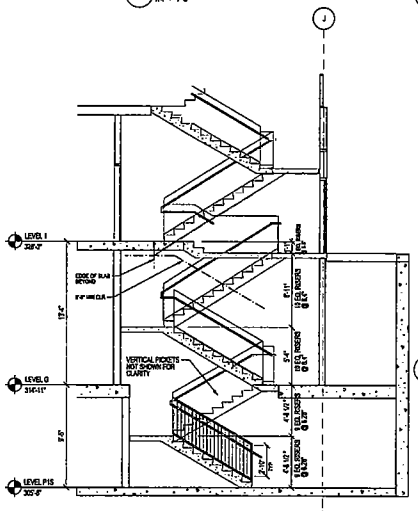
10 TRANSVERSE STAIR LEVELS P1-3 SECTION
1/4" = 1'-0"



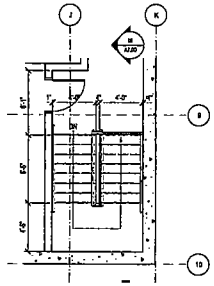
2 TRANSVERSE STAIR LEVEL P4 SECTION
1/4" = 1'-0"



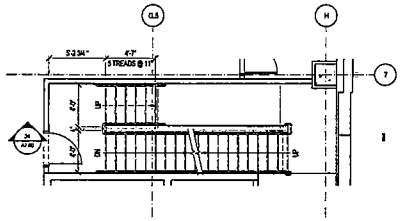
28 STAIR 2 LEVEL 1 PLAN
1/4" = 1'-0"



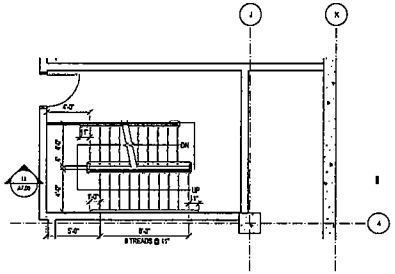
13 STAIR 2 PARKING LEVEL SECTION
1/4" = 1'-0"



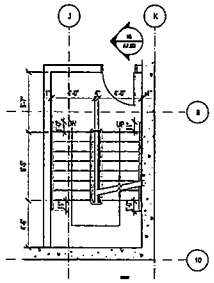
4 STAIR 1 LEVEL P1 PLAN
1/4" = 1'-0"



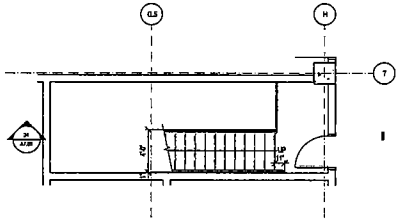
38 STAIR 4 LEVEL 1 PLAN
1/4" = 1'-0"



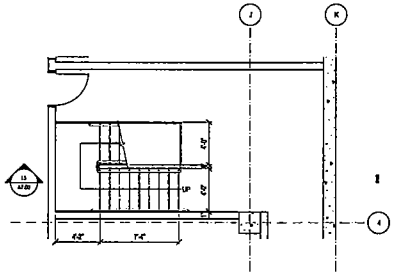
30 STAIR 2 LEVEL G PLAN
1/4" = 1'-0"



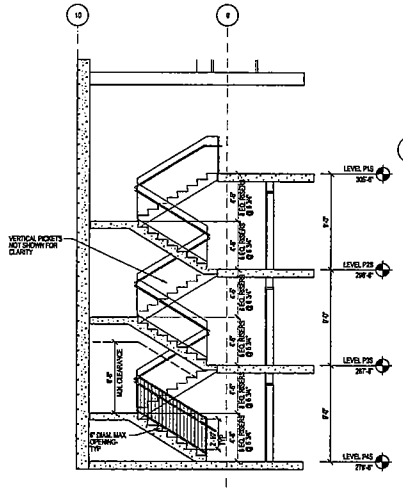
6 STAIR 1 LEVELS P2-3 PLAN
1/4" = 1'-0"



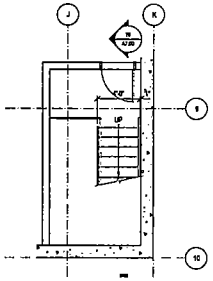
40 STAIR 4 LEVEL G PLAN
1/4" = 1'-0"



32 STAIR 2 LEVEL P1 PLAN
1/4" = 1'-0"



16 STAIR 1 PARKING LEVEL SECTION
1/4" = 1'-0"



8 STAIR 1 LEVEL P4 PLAN
1/4" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

SCALE: 1/4" = 1'-0"

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SEATTLE WASHINGTON 98109
PHONE 206 223 5555
FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

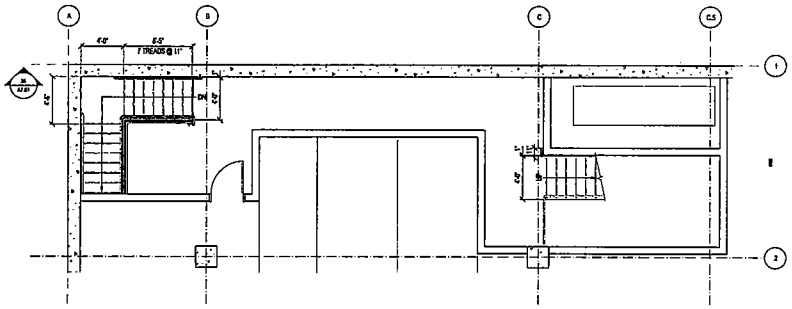
SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

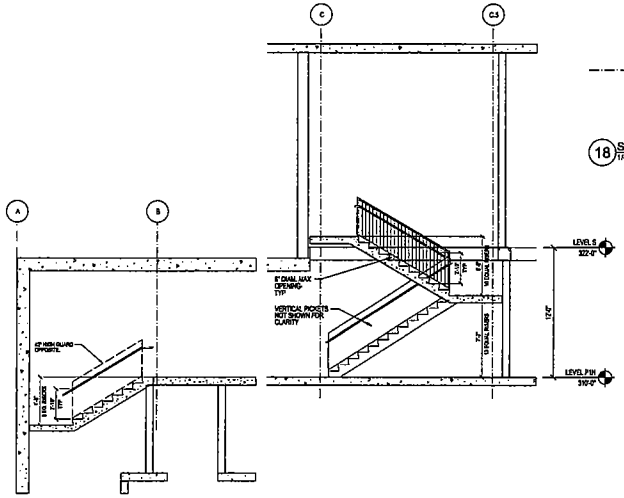
PROJECT NO: 100132.00
DATE: 09/20/2006

STAIR PLANS & SECTIONS

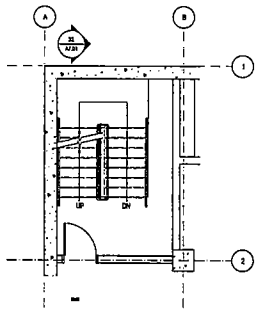
A7.00



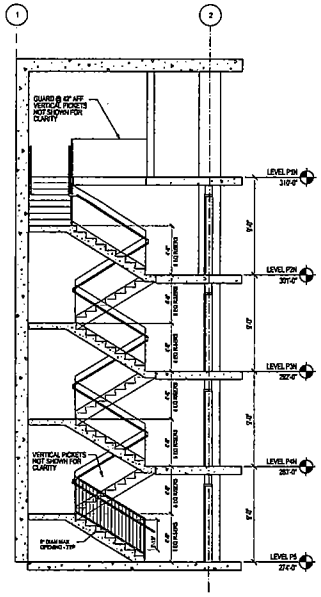
18 STAIR 3 LEVEL P1 PLAN
1/4" = 1'-0"



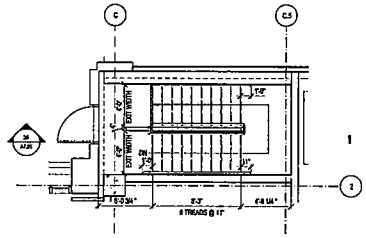
36 STAIR 3 SECTION
1/4" = 1'-0"



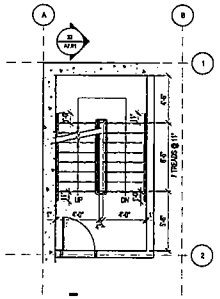
4 STAIR 3 LEVEL P2 PLAN
1/4" = 1'-0"



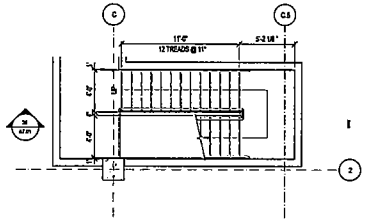
32 STAIR 3 SECTION
1/4" = 1'-0"



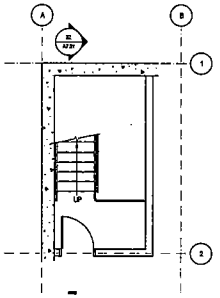
14 STAIR 3 LEVEL S PLAN
1/4" = 1'-0"



6 STAIR 3 LEVELS P3-4 PLAN
1/4" = 1'-0"



16 STAIR 3 LEVEL P1 PLAN
1/4" = 1'-0"



8 STAIR 3 LEVEL P5 PLAN
1/4" = 1'-0"

EXHIBIT E

DRAWING NOTES

CODED NOTES

LEGENDS

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

KEY	DATE	DESCRIPTION

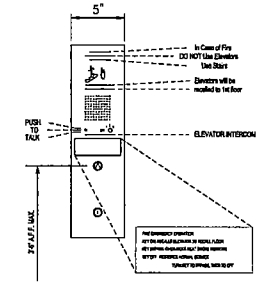
PROJ NO. 100132.00
DATE 09/20/2006

STAIR PLANS & SECTIONS

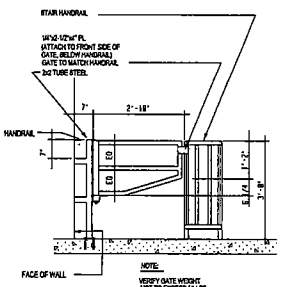
SCALE: 1/4" = 1'-0"

A7.01

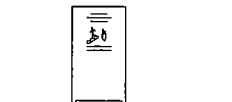
EXHIBIT E



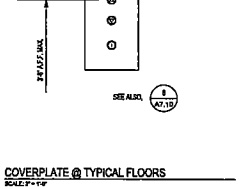
8 COVERPLATE @ ENTRY LOBBY
SCALE: 3" = 1'-0"



1 GATE @ EXIT STAIRS
NTS

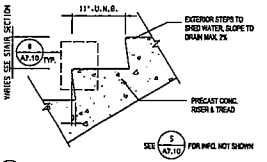


2 GUARDRAIL @ STAIR LANDING
SCALE: 3/4" = 1'-0"

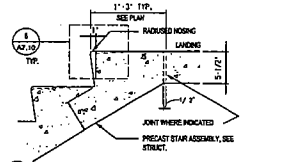


3 TYPICAL GUARDRAIL
SCALE: 3/4" = 1'-0"

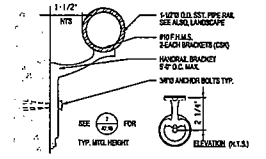
4 STAIR DETAIL
SCALE: 3/4" = 1'-0"



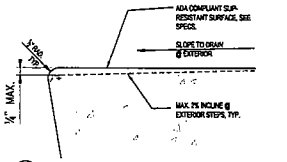
12 PRECAST / CIP CONC. STAIR
SCALE: 1-1/2" = 1'-0"



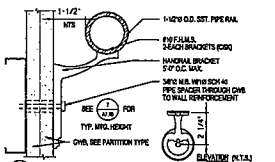
5 STAIR @ CONC. LANDING
SCALE: 1-1/2" = 1'-0"



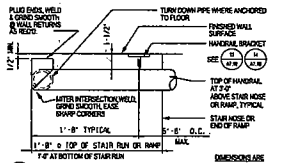
13 HANDRAIL SUPPORT: @ CONC. / CMU
HALF SIZE 6"=1'-0"



6 CONC. STAIR NOSING DETAIL
HALF SCALE



14 HANDRAIL SUPPORT: @ GWB
HALF SIZE 6"=1'-0"



7 METAL HANDRAIL TERMINATION
1-1/2" = 1'-0"

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SEATTLE WASHINGTON 98109
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FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

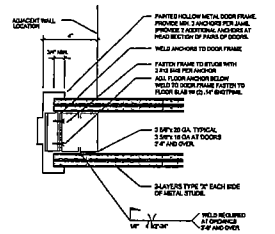
SCHEMATIC DESIGN DOCUMENTS

KEY	DATE	DESCRIPTION

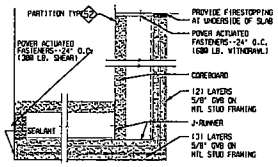
PROJ. NO. 100132.00
DATE 09/20/2006

DWG. STAIR & ELEVATOR DETAILS

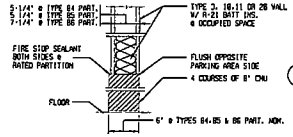
A7.10



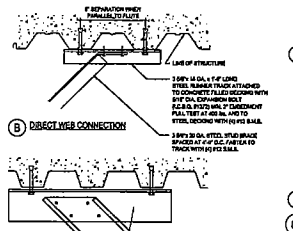
08 DOOR JAMB @ 2 HOUR RATED WALL
SCALE: 3"=1'-0"



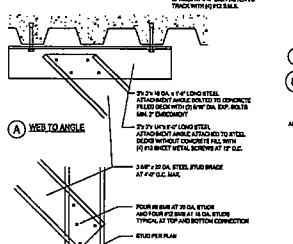
09 HORIZONTAL SHAFT TRANSITION
SCALE: 3"=1'-0"



10 CMU TO GWB WALL
SCALE: 3"=1'-0"

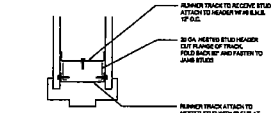


B DIRECT WEB CONNECTION

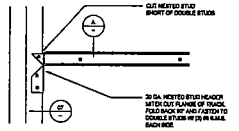


A WEB TO ANGLE

12 STEEL STUD BRACE CONN. TO STRUCTURE
SCALE: 3"=1'-0"

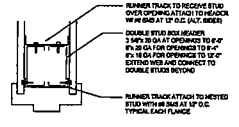


A SECTION

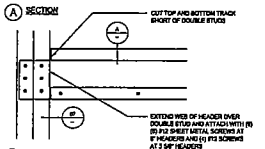


B ELEVATION

05 HEADER FOR OPENINGS TO 3'-4"
SCALE: 3"=1'-0"

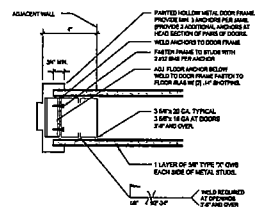


A SECTION

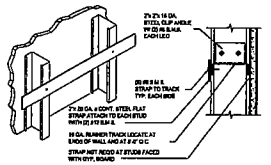


B ELEVATION

06 HEADER FOR OPENINGS OVER 3'-4"
SCALE: 3"=1'-0"

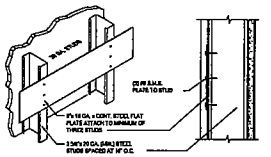


07 TYPICAL DOOR JAMB
SCALE: 3"=1'-0"

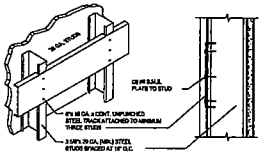


NOTES:
1. PROVIDE STUD FLANGE BRACING AS INDICATED IN DETAIL ABOVE AT PARTITIONS WHERE STUD FLANGE IS NOT FACED (BRACED) WITH GYP. BOARD (PARTITIONS WITH GYP. BOARD ONE SIDE OR NOT EXTENDING TO STRUCTURE.)
2. SPACING OF FLANGE BRACING SHALL COMPLY WITH THE APPROVED I.C.B.O. REPORT OR 4'-0" O.C. MAX.
3. PROVIDE 16 GA. RUNNER TRACK STIFFENERS SPACED AT EACH END OF THE WALL AND 6'-0" O.C. MAX.

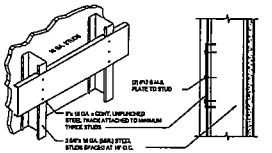
01 TYPICAL STEEL STUD FLANGE BRACING
SCALE: 3"=1'-0"



BACKING TRACK; TYPE 'A'

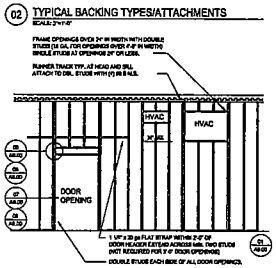


BACKING TRACK; TYPE 'B'

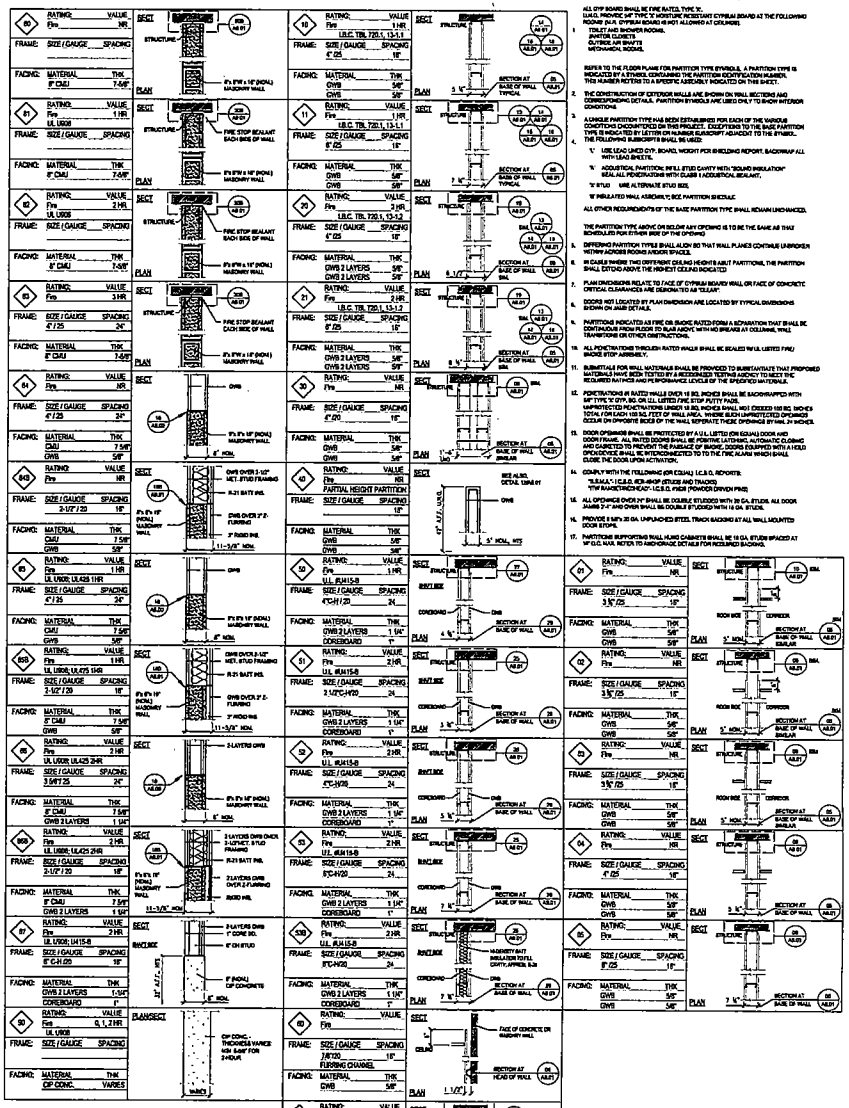


BACKING TRACK (HEAVY-DUTY); TYPE 'C'

02 TYPICAL BACKING TYPES/ATTACHMENTS
SCALE: 3"=1'-0"



03 TYP. WALL FRAMING REQUIREMENTS
SCALE: 3"=1'-0"



GENERAL NOTES FOR PARTITIONS:

ALL GYP BOARD SHALL BE FIRE RATED, TYPE 'X'.
LOCATIONS OF 5/8" TYPE 'C' MOISTURE RESISTANT GYPSUM BOARD AS THE FOLLOWING:
1. TOILET AND SHOWER ROOMS.
2. JANITOR ROOMS.
3. OUTSIDE AIR SHAFTS.
4. MECHANICAL ROOMS.

REFER TO THE FLOOR PLANS FOR PARTITION TYPE SYMBOLS. A PARTITION TYPE IS INDICATED BY A SYMBOL CONTAINING THE PARTITION IDENTIFICATION NUMBER. THIS NUMBER REFERS TO A SPECIFIC ASSEMBLY INDICATED ON THIS SHEET.

2. THE CONSTRUCTION OF EXTERIOR WALLS ARE SHOWN ON WALL SECTIONS AND CORRESPONDING DETAILS. PARTITION SYMBOLS ARE USED ONLY TO SHOW INTERIOR CONDITIONS.

3. A SINGLE PARTITION TYPE HAS BEEN ESTABLISHED FOR EACH OF THE VARIOUS CONDITIONS ENCOUNTERED ON THIS PROJECT. EXCEPTIONS TO THE BASE PARTITION TYPE IS INDICATED BY LETTER ON PLANS (E.G. S2-ACOUST.) ADJACENT TO THE SYMBOL. THE FOLLOWING SUBSCRIPTS SHALL BE USED:

- "L" USE LEAD LINED GYP. BOARD, WEIGHT PER SHIELDING REPORT. BACKWRAP ALL WITH LEAD SHEETS.
- "A" ACOUSTICAL PARTITION: INFILL STUD CAVITY WITH "SOUND INSULATION" SEAL ALL PENETRATIONS WITH CAULK & ACOUSTICAL SEALANT.
- "S" STUD USE ALTERNATE STUD SIZE.
- "B" INSULATED WALL ASSEMBLY: BOE PARTITION SPECIALE

ALL OTHER REQUIREMENTS OF THE BASE PARTITION TYPE SHALL REMAIN UNCHANGED.

THE PARTITION TYPE ABOVE OR BELOW ANY OPENING IS TO BE THE SAME AS THAT SCHEDULED FOR EITHER SIDE OF THE OPENING.

4. DIFFERING PARTITION TYPES SHALL ALIGN SO THAT WALL PLANES CONTINUE UNBROKEN VERTICALLY ACROSS ROOMS WHERE SPACE.

5. IN CASES WHERE TWO DIFFERENT CEILING HEIGHTS ABUT PARTITIONS, THE PARTITION SHALL EXTEND ABOVE THE HIGHEST CEILING INDICATED.

6. PLAN DIMENSIONS RELATE TO FACE OF GYPSUM BOARD WALL OR FACE OF CONCRETE CRITICAL CLEARANCES ARE DESIGNATED AS "CLEAR".

7. DOORS NOT LOCATED BY PLAN DIMENSION ARE LOCATED BY TYPICAL DIMENSIONS SHOWN ON DOOR DETAILS.

8. PARTITIONS INDICATED AS FIRE OR SMOKE RATED FORM A SEPARATION THAT SHALL BE CONTINUOUS FROM FLOOR TO SLAB ABOVE WITH NO BREAKS AT CEILINGS, WALL TRANSITIONS OR OTHER OBSTRUCTIONS.

9. ALL PENETRATIONS THROUGH RATED WALLS SHALL BE SEALED W/UL LISTED FIRE/SMOKE STOP ASSEMBLY.

11. SUBMITTALS FOR WALL MATERIALS SHALL BE PROVIDED TO SUBSTANTIATE THAT PROPOSED MATERIALS HAVE BEEN TESTED BY A RECOGNIZED TESTING AGENCY TO MEET THE REQUIRED RATINGS AND PERFORMANCE LEVELS OF THE SPECIFIED MATERIALS.

12. PENETRATIONS IN RATED WALLS OVER 16 SQ. INCHES SHALL BE BACKWRAPPED WITH 5/8" TYPE 'X' GYP. BD. ON U.L. LISTED FIRE STOP PUTTY PADS.
UNPROTECTED PENETRATIONS LIMITED TO 80 SQ. INCHES SHALL NOT EXCEED 100 SQ. INCHES TOTAL OR EACH 100 SQ. FEET OF WALL AREA. WHERE SUCH UNPROTECTED OPENINGS OCCUR ON OPPOSITE SIDES OF THE WALL SEPARATE THEM BY A MINIMUM OF 24 INCHES.

13. DOOR OPENINGS SHALL BE PROTECTED BY A U.L. LISTED (OR EQUAL) DOOR AND DOOR FRAME. ALL RATED DOORS SHALL BE PERMITTING LATCHING, AUTOMATIC CLOSING AND GASKETED TO PREVENT THE PASSAGE OF SMOKE. DOORS EQUIPPED WITH A HOLD OPEN DEVICE SHALL BE INTERCONNECTED TO THE FIRE ALARM WHICH SHALL CLOSE THE DOOR UPON ACTIVATION.

14. COMPLY WITH THE FOLLOWING (OR EQUAL) I.C.B.O. REPORTS:
- TRACO #1 (C.E.S. #29-460P STEUER AND TRACO)
- "ITW RAMSET/REDHEAD" - I.C.B.O. #1626 (POWDER DRIVEN PINS)

15. ALL OPENINGS OVER 3'-0" SHALL BE DOUBLE STUDDED WITH 20 GA. STUDS. ALL DOOR JAMBS 3'-0" AND OVER SHALL BE DOUBLE STUDDED WITH 16 GA. STUDS.

16. PROVIDE A 5/8"= 20 GA. UNPUNCHED STEEL TRACK BACKING AT ALL WALL MOUNTED DOOR STOPS.

17. PARTITIONS SUPPORTING WALL HUNG CABINETS SHALL BE 16 GA. STUDS SPACED AT 16" O.C. MAX. REFER TO ANCHORAGE DETAILS FOR REQUIRED BACKING.

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WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

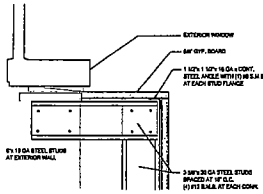
SCHEMATIC DESIGN DOCUMENTS

KEY	DATE	DESCRIPTION

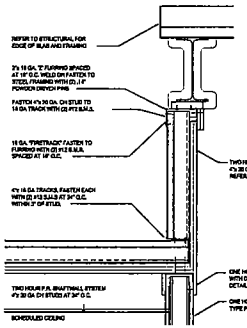
PROJ NO 100132.00
DATE 09/20/2006
DWG PARTITION SCHEDULE

A9.00

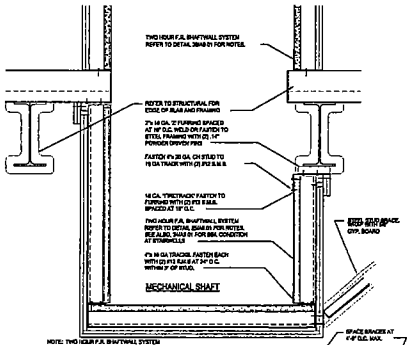
EXHIBIT E



31 PARTIAL HEIGHT PARTITION
SCALE: 3"=1'-0"

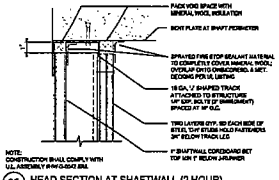


32 TWO HOUR SHAFT ENCLOSURE
SCALE: 1 1/2"=1'-0"

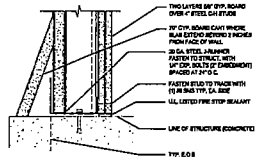


34 TWO HOUR SHAFT ENCLOSURE
SCALE: 1 1/2"=1'-0"

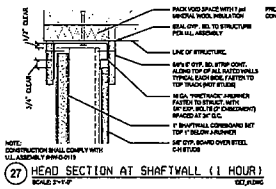
EXHIBIT E



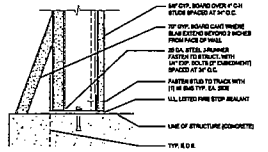
25 HEAD SECTION AT SHAFTWALL (2 HOUR)
SCALE: 3"=1'-0"



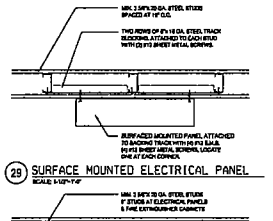
26 SECTION AT BASE OF SHAFTWALL (2 HR)
SCALE: 3"=1'-0"



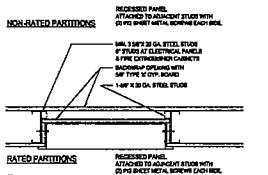
27 HEAD SECTION AT SHAFTWALL (1 HOUR)
SCALE: 3"=1'-0"



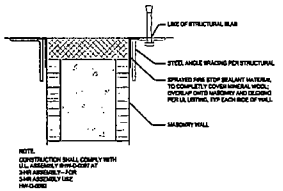
28 SECTION AT BASE OF SHAFTWALL (1 HR)
SCALE: 3"=1'-0"



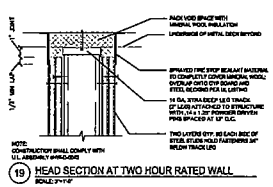
29 SURFACE MOUNTED ELECTRICAL PANEL
SCALE: 1-1/2"=1'-0"



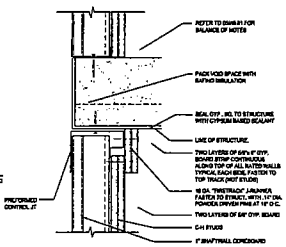
30 FIRE PARTITION WITH RECESSED PANEL
SCALE: 1-1/2"=1'-0"



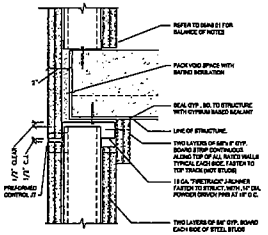
30B HEAD SECTION AT MASONRY WALL
SCALE: 3"=1'-0"



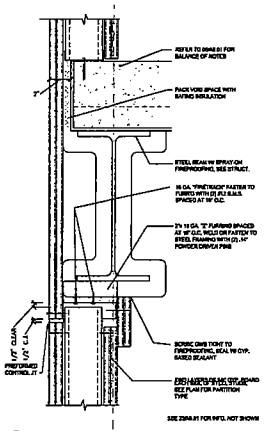
19 HEAD SECTION AT TWO HOUR RATED WALL
SCALE: 3"=1'-0"



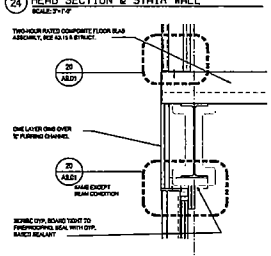
20 SECTION @ ELEVATOR SHAFT
SCALE: 3"=1'-0"



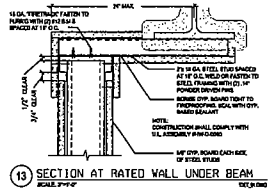
22 HEAD SECTION AT STAIR WALL
SCALE: 3"=1'-0"



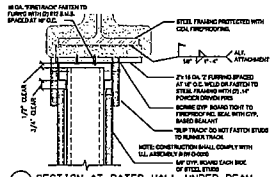
24 SECTION @ STAIR WALL
SCALE: 3"=1'-0"



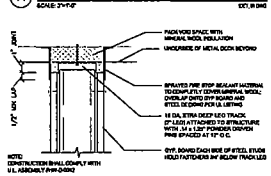
24B SECTION @ ELEV. SHAFT/BEAM
SCALE: 1-1/2"=1'-0"



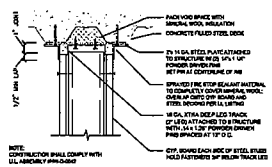
13 SECTION AT RATED WALL UNDER BEAM
SCALE: 3"=1'-0"



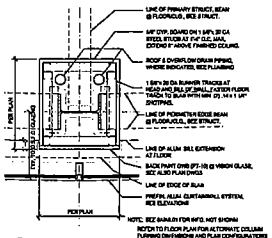
14 SECTION AT RATED WALL UNDER BEAM
SCALE: 3"=1'-0"



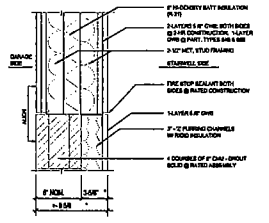
15 HEAD SECTION AT ONE HOUR RATED WALL
SCALE: 3"=1'-0"



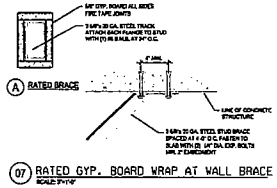
16 HEAD SECTION AT ONE HOUR RATED WALL
SCALE: 3"=1'-0"



18 TYP. PLAN COL. FURRING @ PERIMETER
NTS

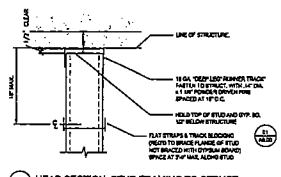


18B CMU TO GWB DETAIL
NTS

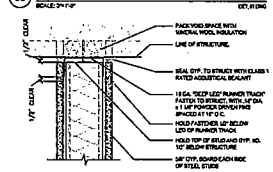


A RATED BRACE

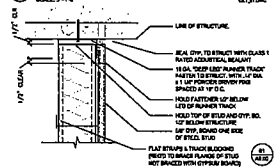
07 RATED GYP. BOARD WRAP AT WALL BRACE
SCALE: 3"=1'-0"



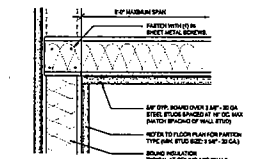
08 HEAD SECTION: STUD FRAMING TO STRUCT.
SCALE: 3"=1'-0"



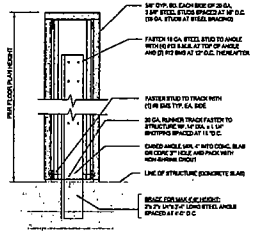
09 HEAD SECT AT SMOKE/ACOUST. PARTITION
SCALE: 3"=1'-0"



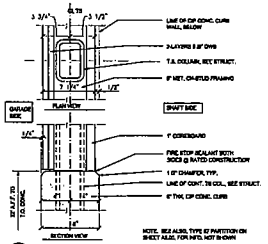
10 HEAD SECTION AT SMOKE PARTITION
SCALE: 3"=1'-0"



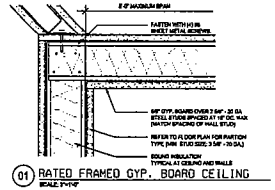
11 NON-RATED FRAMED GYP. BOARD CEILING
SCALE: 3"=1'-0"



12 PARTIAL HEIGHT PARTITION
SCALE: 3"=1'-0"



12B GARAGE ELEVATOR FRAMING DETAIL
NTS



01 RATED FRAMED GYP. BOARD CEILING
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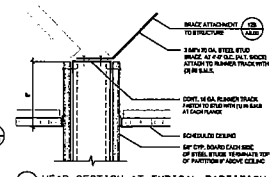

02 HEAD SECTION AT TYPICAL PARTITION
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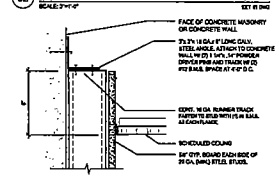

03 HEAD SECTION AT FURRED PARTITION
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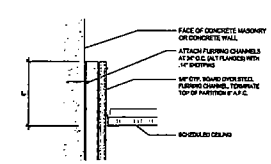

04 HEAD SECTION AT FURRED PARTITION
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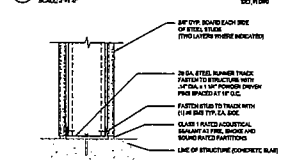
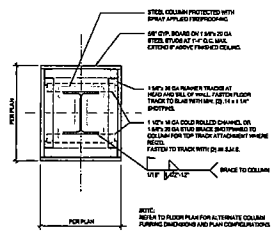
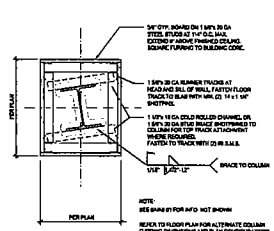


05 SECTION AT BASE OF WALL
SCALE: 3"=1'-0"



6A PLAN AT TYPICAL COLUMN FURRING
NTS



6B PLAN AT COLUMN FURRING
NTS

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SEATTLE WASHINGTON 98109
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FAX 206 223 5000

WRIGHT RUNSTAD & COMPANY

HARBORVIEW NINTH & JEFFERSON BUILDING

SCHEMATIC DESIGN DOCUMENTS

NO	DATE	DESCRIPTION

PROJ. NO 100132.00
DATE 09/20/2006
DWG DETAILS

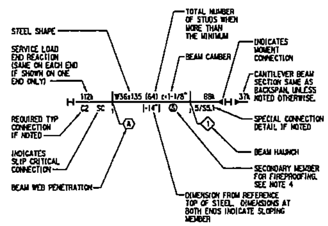
A9.01

ABBREVIATIONS, LEGENDS AND DRAWING LIST

ABBREVIATIONS (16)

Abbr.	Meaning	Abbr.	Meaning
&	AND	L	ANGLE
@	AT	LAB	LABORATORY
°, DEG	DEGREE	LB, #	POUND
#, LB	NUMBER, POUND	LF	LINEAL FOOT
Ø, DIA	DIAMETER	LIN	LINEAL; LINEAR
AB	ANCHOR BOLT	LL	LIVE LOAD
ACI	AMERICAN CONCRETE INSTITUTE	LLH	LONG LEGS HORIZONTAL
ADDL	ADDITIONAL	LLV	LONG LEGS VERTICAL
ADJ	ADJACENT	LLBB	LONG LEGS BACK-TO-BACK
AGGR	AGGREGATE	LOC	LOCATION, LOCATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LONGIT	LONGITUDINAL
ALT	ALTERNATE	LP	LOW POINT
ALUM	ALUMINUM	LSL	LONG SLOTTED (HOLES)
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LSW	LIGHT GAGE SHEARWALL
APA	AMERICAN PLYWOOD ASSOCIATION	LTWT	LIGHTWEIGHT
APPD	APPROVED	LVL	LEVEL
APPROX	APPROXIMATE	MAS	MASONRY
AR	ANCHOR ROD	MATL	MATERIAL
ARCH	ARCHITECTURAL; ARCHITECT	MAX	MAXIMUM
ASSY	ASSEMBLY	MB	MACHINE BOLT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MC	MISCELLANEOUS CHANNEL
AWS	AMERICAN WELDING SOCIETY	MECH	MECHANICAL
BAL	BALANCE	MEMB	MEMBRANE
BD	BOARD	MEP	MECHANICAL/ ELECTRICAL/ PLUMBING
BF	BRACED FRAME	MF	MOMENT FRAME
BLDG	BUILDING	MFB	MOMENT FRAME BEAM
BLK	BLOCK; BLOCKING	MFC	MOMENT FRAME COLUMN
BM	BEAM	MFR	MANUFACTURE; MANUFACTURER
BMU	BRICK MASONRY UNIT	MFRG	MANUFACTURING
BOS	BOTTOM OF STEEL; BOSON (WELD)	MIN	MINIMUM; MINUTE
BOT	BOTTOM	MISC	MISCELLANEOUS
BRCG	BRACING	ML	MATCH LINE
BRG	BEARING	MO	MASONRY OPENING
BRKT	BRACKET	MS	MECHANICAL SPLICE
BSMT	BASEMENT	N	NORTH
BTWN	BETWEEN	N-S	NORTH-SOUTH
BU	BUILT-UP	NF	NEAR FACE
C	CAMBER	NFPA	NATIONAL FOREST PRODUCTS ASSOCIATION
C	STANDARD CHANNEL	NIC	NOT IN CONTRACT
CANT	CANTILEVER	NS	NEAR SIDE
CC	CENTER TO CENTER	NTS	NOT TO SCALE
CG	CENTER OF GRAVITY	OC	ON CENTER
CIP	CAST-IN-PLACE	OD	OUTSIDE DIAMETER
CJ	CONSTRUCTION JOINT	OPNG	OPENING
CL	CENTERLINE	OPP	OPPOSITE (HAND)
CLR	CLEARANCE; CLEAR	OPT	OPTION; OPTIONAL
CMU	CONCRETE MASONRY UNIT	OVS	OVERSIZED (HOLES)
COL	COLUMN	OWJ	OPEN WEB JOIST
COMP	COMPRESSION	P	PIPE
CONC	CONCRETE	PC	PRECAST
CONFIG	CONFIGURATION	PCF	POUNDS PER CUBIC FOOT
CONN	CONNECTION; CONNECT	PCP	PRECAST CONCRETE PANEL
CONST	CONSTRUCTION	PEN	PENETRATION
CONT	CONTINUE; CONTINUOUS	PERP	PERPENDICULAR
CONTR	CONTRACTOR	PL	PLATE
COORD	COORDINATE; COORDINATION	PLC	PLACE
CORR	CORRUGATED	PLF	POUNDS PER LINEAL FOOT
CP	COMPLETE PENETRATION	PLYWD	PLYWOOD
CTR	CENTER	PP	PARTIAL PENETRATION
CTSK	COUNTERSINK; COUNTERSUNK	PREFAB	PREFABRICATED
CU	CUBIC	PS	PRESTRESSED
d	PENNY (NAIL)	PSF	POUNDS PER SQUARE FOOT
db	BAR DIAMETERS	PSI	POUNDS PER SQUARE INCH
DBL	DOUBLE	PT	POST-TENSION
DEG	DEGREE	PVC	POLYVINYL CHLORIDE
DEMO	DEMOLISH; DEMOLITION	R	RADIUS
DEPT	DEPARTMENT	RB	RISER BAR
DET	DETAIL	RCMD	RECOMMEND
DIA, Ø	DIAMETER	REF	REFERENCE
DIAG	DIAGONAL	REINF	REINFORCE; REINFORCING; REINFORCEMENT
DIAPH	DIAPHRAGM	REQD	REQUIRED
DICA	DRILLED-IN CONCRETE ANCHOR	REQT	REQUIREMENT
DIM	DIMENSION	S1S	SURFACED ONE SIDE
DISC	DISCONTINUED; DISCONTINUOUS	S2S	SURFACED TWO SIDES
DL	DEAD LOAD	S4S	SURFACED FOUR SIDES
DN	DOWN	S	AMERICAN STANDARD SHAPE; SOUTH
DO	DITTO	SB	SPACER BAR; SUPPORT BAR
DWG	DRAWING	SC	SLIP CRITICAL
DWL	DOWEL	SCC	STRUCTURAL CONSULTANT TO THE CONTRACTOR (AKA)
(E)	EXISTING	SCHED	SCHEDULE; SCHEDULED
E	EAST	SDQ	SPECIAL DUCTILE QUALITY
E-W	EAST-WEST	SECT	SECTION
EA	EACH	SEOR	STRUCTURAL ENGINEER OF RECORD
EF	EACH FACE	SHT	SHEET
EJ	EXPANSION JOINT	SHTG	SHEATHING
EL	ELEVATION	SIM	SIMILAR
ELEC	ELECTRICAL	SLBB	SHORT LEGS BACK-TO-BACK
ELEV	ELEVATOR	SOG	SLAB ON GRADE
EMBED	EMBEDDED	SP	SPIRAL
ENGR	ENGINEER	SPC	SPACE; SPACING
EQ	EQUAL; EARTHQUAKE	SPECS	SPECIFICATIONS
EQUIP	EQUIPMENT	SQ	SQUARE
ES	EACH SIDE	SSL	SHORT SLOTTED (HOLES)
ETC	ET CETERA	STD	STANDARD
EW	EACH WAY	STIFF	STIFFENER
EXIST	EXISTING	STIRR	STIRRUP
EXP	EXPANSION	STL	STEEL
EXT	EXTERIOR	STR	STRAIGHT
EXTD	EXTEND; EXTENDED	STRUC	STRUCTURAL
FD	FLOOR DRAIN	SUPT	SUPPORT
FDN	FOUNDATION	SW	SHEAR WALL
FF	FAR FACE	SYM	SYMMETRICAL
FG	FRICTION GRIP BOLT	T&B	TOP AND BOTTOM
FIN	FINISH	T&G	TONGUE AND GROOVE
FL	FLOOR; FLOOR LINE	TEMP	TEMPERATURE; TEMPORARY
FLG	FLANGE	THICK	THICKNESS
FOS	FACE OF STUD	TOC	TOP OF CONCRETE; TOP OF CURB
FP	FIREPROOF; FULL PENETRATION	TOF	TOP OF FOOTING
FRMG	FRAMING	TOS	TOP OF STEEL
FS	FULL SIZE; FAR SIDE	TOW	TOP OF WALL
FT	FOOT; FEET	TRANS	TRANSVERSE
FTG	FOOTING	TYP	TYPICAL
GA	GAGE, GAUGE	UB	UNIVERSAL BEAM
GALV	GALVANIZED	UBC	UNIFORM BUILDING CODE
GB	GRADE BEAM	UC	UNIVERSAL COLUMN
GL	GLUE LAMINATED (BEAM)	UL	UNDERWRITERS' LABORATORY, INCORPORATED
GRND	GROUND	UNO	UNLESS NOTED OTHERWISE
H	HORIZONTAL	UT	ULTRASONIC TEST
HEF	HORIZONTAL EACH FACE	V, VERT	VERTICAL
HGR	HANGER	VEF	VERTICAL EACH FACE
HIF	HORIZONTAL INSIDE FACE	VG	VERTICAL GRAIN
HOF	HORIZONTAL OUTSIDE FACE	VIF	VERTICAL INSIDE FACE
HORIZ	HORIZONTAL	VOF	VERTICAL OUTSIDE FACE
HP	HP SHAPES; HIGH POINT	W	WIDE FLANGE, WIDE, WEST
HS	HIGH STRENGTH	W/	WITH
HSS	HOLLOW STRUCTURAL SECTION	W/O	WITHOUT
HT	HEIGHT	WD	WOOD
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	WF	WIDE FLANGE
ID	INSIDE DIAMETER	WH	WEEP HOLE
IN	INCH	WL	WORK LINE
INCL	INCLUDE	WP	WORK POINT
INFO	INFORMATION	WPJ	WEAKENED PLANE JOINT
INSUL	INSULATION	WT	WEIGHT; STRUCTURAL TEE CUT FROM W SHAPE
INT	INTERIOR	WWF	WELDED WIRE FABRIC
JST	JOIST	YD	YARD
JT	JOINT		
K	KIP (1,000 POUNDS)		
KO	KNOCK-OUT		
KSI	KIPS PER SQUARE INCH		

TYPICAL BEAM CALLOUT KEY (12)



NOTES:

1. NO REACTION AT EITHER END INDICATES MINIMUM CONNECTION FOR BEAM DEPTH. SEE "GENERAL NOTES" FOR STEEL CONNECTIONS.
2. SPACE STUDS PER "TYPICAL SHEAR STUD PLACEMENT" DETAIL.
3. "W" IN PLACE OF STEEL SHAPE INDICATES W10x12 WITH MINIMUM CONNECTION.
4. BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY. SEE "GENERAL NOTES" FOR CRITERIA.
5. WHERE NO BEAM SIZE IS CALLED OUT ADJACENT TO FLOOR OR ROOF OPENING, REFER TO "TYPICAL STEEL DETAILS" FOR SIZES AND CONNECTIONS.
6. ⬡ INDICATES BEAM PENETRATION PER "TYPICAL BEAM PENETRATION" DETAIL.
7. ◇ INDICATES BEAM HAUNCH PER "TYPICAL HAUNCHED BEAM" DETAIL.

REINF BAR DEVELOPMENT AND SPLICE LENGTHS (17)

f'c = 3,000 PSI				
BAR SIZE	L_d	L_T	L_{sp}	L_{spt}
#3	17	23	23	30
#4	22	29	29	38
#5	28	37	37	49
#6	33	43	43	56
#7	48	63	63	82
#8	55	72	72	94
#9	62	81	81	106
#10	70	91	91	119
#11	78	102	102	133
#14	93	121	-	-
#18	124	162	-	-

f'c = 4,000 PSI				
BAR SIZE	L_d	L_T	L_{sp}	L_{spt}
#3	15	20	20	26
#4	19	25	25	33
#5	24	32	32	42
#6	29	38	38	50
#7	42	55	55	72
#8	48	63	63	82
#9	54	71	71	93
#10	61	80	80	104
#11	67	88	88	115
#14	81	106	-	-
#18	108	141	-	-

f'c = 5,000 PSI				
BAR SIZE	L_d	L_T	L_{sp}	L_{spt}
#3	13	17	17	23
#4	17	23	23	30
#5	22	29	29	38
#6	26	34	34	45
#7	38	50	50	65
#8	43	56	56	73
#9	48	63	63	82
#10	54	71	71	93
#11	60	78	78	102
#14	72	94	-	-
#18	96	125	-	-

f'c = 6,000 PSI				
BAR SIZE	L_d	L_T	L_{sp}	L_{spt}
#3	12	16	16	21
#4	16	21	21	28
#5	20	26	26	34
#6	24	32	32	42
#7	34	45	45	59
#8	39	51	51	67
#9	44	58	58	76
#10	50	65	65	85
#11	55	72	72	94
#14	66	86	-	-
#18	88	115	-	-

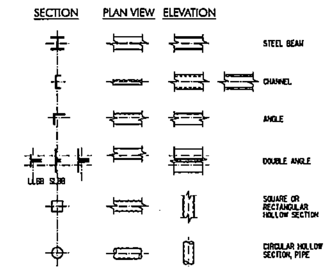
f'c = 8,000 PSI				
BAR SIZE	L_d	L_T	L_{sp}	L_{spt}
#3	12	16	16	21
#4	14	19	19	25
#5	17	23	23	30
#6	21	28	28	37
#7	30	39	39	51
#8	34	45	45	59
#9	38	50	50	65
#10	43	56	56	73
#11	48	63	63	82
#14	57	75	-	-
#18	76	99	-	-

ALL CONCRETE STRENGTHS			
BAR SIZE	L_d	L_c	L_{cs}
#3	8	12	12
#4	10	15	12
#5	12	19	14
#6	15	23	17
#7	17	26	20
#8	19	30	23
#9	22	34	26
#10	24	38	29
#11	27	42	32
#14	33	-	-
#18	43	-	-

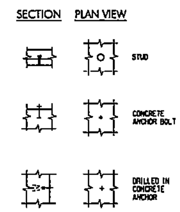
NOTES:

1. NOTATIONS:
   - db : NOMINAL BAR DIAMETER (INCHES)
   - L_d : TENSION DEVELOPMENT LENGTH (INCHES) FOR REINFORCEMENT SATISFYING THE FOLLOWING REQUIREMENTS:
     SLABS AND WALLS: CLEAR SPACING ≥ 2db, AND CONCRETE CLEAR COVER ≥ db
     BEAMS AND COLUMNS: CLEAR SPACING ≥ db, AND CONCRETE CLEAR COVER ≥ db
   - L_T : DEVELOPMENT LENGTH OF TOP BARS IN TENSION = 1.3 x L_d (INCHES)
   - L_d : DEVELOPMENT LENGTH OF BARS OR DOWELS IN COMPRESSION = 19 x db (INCHES)
   - L_c : TIED COLUMN LAP SPLICE IN COMPRESSION = 30 x db (INCHES)
   - L_{cs} : SPIRAL COLUMN LAP SPLICE IN COMPRESSION = 22.5 x db (INCHES)
   - L_{sp} : TENSION LAP SPLICE LENGTH FOR OTHER THAN TOP BARS = 1.3 x L_d (INCHES)
   - L_{spt} : TENSION LAP SPLICE LENGTH OF TOP BARS = 1.69 x L_d (INCHES)
2. MULTIPLY VALUES IN THE TABLE BY 1.5 IF CLEAR SPACING OR CONCRETE COVER DO NOT MEET THE REQUIREMENTS FOR L_d IN NOTE 1.
3. TOP BARS: HORIZONTAL BEAM REINFORCING WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW.
4. THE DEVELOPMENT AND SPLICE LENGTHS ARE BASED ON REINFORCEMENT STRENGTH Fy = 60 KSI.
5. #14 AND #18 BARS SHALL NOT BE LAP SPLICED. SEE GENERAL NOTES.
6. MULTIPLY VALUES IN THE TABLE BY 1.3 FOR USE WITH LIGHTWEIGHT AGGREGATE CONCRETE.

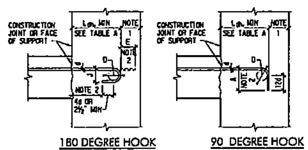
STEEL MEMBERS (3)



CONNECTORS (8)



TYP STANDARD HOOKS AND EMBEDMENT (18)



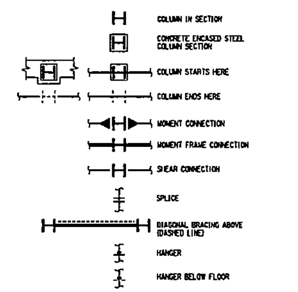
END HOOK ALL GRADES (D) FINISHED BEND DIAMETER				
BAR SIZE	D	180° HOOKS E	180° HOOKS J	90° HOOKS A
#3	2¼"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	12"
#7	5¼	10"	7"	14"
#8	6"	11"	8"	16"
#9	9½"	15"	11¾"	19"
#10	10¾"	17"	13¼"	22"
#11	12"	19"	14¾"	24"
#14	18¼"	27"	21¾"	31"
#18	24"	36"	28½"	41"

TABLE A MINIMUM TENSION EMBEDMENT LENGTHS, (L_{dh}) FOR STANDARD END HOOKS ON GRADE 60 BARS						
BAR SIZE	NORMAL WEIGHT CONCRETE, f'c (psi) 3,000	4,000	5,000	6,000	7,000	8,000
#3	6"	6"	6"	6"	6"	6"
#4	8"	7"	7"	7"	7"	7"
#5	10"	9"	8"	7"	7"	7"
#6	12"	10"	9"	8"	8"	8"
#7	14"	12"	11"	10"	9"	9"
#8	16"	14"	12"	11"	10"	10"
#9	18"	15"	14"	13"	12"	11"
#10	20"	17"	15"	14"	14"	14"
#11	22"	19"	17"	16"	15"	15"
#14	37"	32"	29"	27"	25"	35"
#18	50"	43"	39"	35"	33"	31"

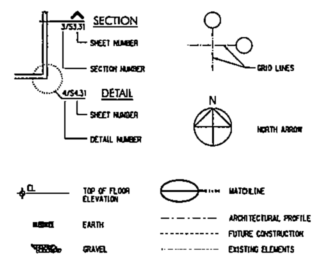
NOTES:

1. ABOVE VALUES VALID FOR ALL CASES IF: SIDE COVER ≥ 2½" AND END COVER ≥ 2"
2. BAR DIMENSION REQUIRED TO MANUFACTURE HOOK.
3. FOR EPOXY COATED HOOKS, INCREASE THE ABOVE EMBEDMENT LENGTHS BY 20%.

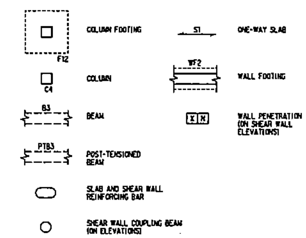
STEEL SYMBOLS (4)



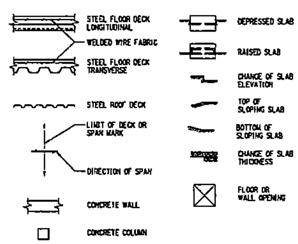
MISCELLANEOUS SYMBOLS (9)



TYPICAL CONCRETE SCHEDULE MARKS (14)



CONCRETE SYMBOLS (19)



DRAWING LIST (15)

DWG NO	DRAWING TITLE
S0.01	ABBREVIATIONS, LEGENDS AND DRAWING LIST
S0.02	GENERAL STRUCTURAL NOTES
S0.03	GENERAL STRUCTURAL NOTES
S1.01	LOAD DIAGRAMS
S1.02	LOAD DIAGRAMS
S1.03	LOAD DIAGRAMS
S1.04	LOAD DIAGRAMS
S2.00	LEVEL P5 - FOUNDATION AND FRAMING PLAN
S2.01	LEVEL P4 - FOUNDATION AND FRAMING PLAN
S2.01R	LEVEL P4 - REINFORCING PLAN
S2.02	LEVEL P3 - FRAMING PLAN
S2.02R	LEVEL P3 - REINFORCING PLAN
S2.03	LEVEL P2 - FRAMING PLAN
S2.03R	LEVEL P2 - REINFORCING PLAN
S2.04	LEVEL P1 - FRAMING PLAN
S2.04R	LEVEL P1 - REINFORCING PLAN
S2.05	LEVEL G - FRAMING PLAN
S2.05R	LEVEL G - REINFORCING PLAN
S2.06	LEVEL S & 01 - FRAMING PLAN
S2.06R	LEVEL S & 01 - REINFORCING PLAN
S2.07	NOT USED
S2.08	LEVEL 02 - FRAMING PLAN
S2.09	LEVEL 03 - FRAMING PLAN
S2.10	LEVEL 04 - FRAMING PLAN
S2.11	LEVEL 05 - FRAMING PLAN
S2.12	LEVEL 06 - 14 FRAMING PLAN
S2.21	PENTHOUSE LEVEL - FRAMING PLAN
S2.22	NOT USED
S3.01	SHEAR WALL ELEVATIONS
S3.02	SHEAR WALL ELEVATIONS
S3.11	SHEAR WALL SECTIONS
S3.21	BASEMENT WALL SECTIONS
S3.22	BASEMENT WALL SECTIONS
S3.51	MISCELLANEOUS WALL ELEVATIONS
S4.01	TYPICAL CONCRETE DETAILS AND SCHEDULES
S4.02	TYPICAL CONCRETE DETAILS
S4.03	TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE
S4.04	TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE
S4.05	TYPICAL CONCRETE BEAM DETAILS AND SCHEDULE
S4.06	TYPICAL POST-TENSIONING DETAILS
S4.11	TYPICAL CMU DETAILS
S5.01	CONCRETE SECTIONS AND DETAILS

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DATE: YYYY/MM/DD

ABBREVATIONS, LEGENDS AND DRAWING LIST

S0.01

EXHIBIT E

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GENERAL

ALL TYPICAL DETAILS AND NOTES SHOWN ON DRAWINGS SHALL APPLY UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE DRAWINGS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED WHERE THE DETAIL IS NOTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

BUILDING CODE

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE BUILDING CODE. THE PUBLICATIONS LISTED BELOW ARE THE GOVERNING CODES AND STANDARDS AND ARE REFERENCED BY THEIR BASIC DESIGNATION. IN THE CASE OF CONFLICTING REQUIREMENTS, THE BUILDING CODE SHALL GOVERN.

APPLICABLE CODES AND STANDARDS

BUILDING CODE	INTERNATIONAL BUILDING CODE (IBC), 2003 EDITION (INCLUDING THE CITY OF SEATTLE BUILDING CODE AMENDMENTS)
ACI	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318), 2002 EDITION
ACI	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530), 2002 EDITION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," DECEMBER 27, 1999
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS," JUNE 23, 2000
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" (ANSI/AISC 341), 2002 EDITION
AISI	AMERICAN IRON AND STEEL INSTITUTE, "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS," 2001 EDITION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ASCE 7), 2002 EDITION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM INTERNATIONAL)
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (ANSI D1.1), 2000 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - SHEET STEEL" (ANSI D1.3), 1998 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - REINFORCING STEEL" (ANSI D1.4), 1998 EDITION
AWS	AMERICAN WELDING SOCIETY, "SYMBOLS FOR WELDING AND NONDESTRUCTIVE TESTING" (ANSI A2.4), 1998 EDITION
ICC	INTERNATIONAL CODE COUNCIL, INTERNATIONAL CODE COUNCIL - EVALUATION SERVICES (ICC-ES)

CONCRETE

MIXING, BATCHING, TRANSPORTING, PLACING, AND CURING OF ALL CONCRETE, AND SELECTION OF CONCRETE MATERIALS, SHALL CONFORM TO ACI 301, "SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS," EXCEPT AS NOTED BELOW. PROPORTIONS OF CEMENTITIOUS PASTE SHALL BE SUCH AS TO PRODUCE A DENSE, WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER.

ALL CONCRETE USED IN HORIZONTAL SURFACES EXPOSED TO THE WEATHER SHALL CONTAIN AN ACCEPTABLE ADMIXTURE TO PRODUCE AIR-ENTRAINED CONCRETE WITH TOTAL AIR CONTENT AS NOTED IN THE CONCRETE MIX SPECIFICATION TABLE, TOLERANCE FOR AIR CONTENT SHALL BE +/- 1 PERCENT. AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, AIR CONTENT SHALL BE MEASURED AT THE DISCHARGE OF THE PUMP LINE. TESTS FOR AIR CONTENT SHALL MEET ASTM C172 REQUIREMENTS.

MIX DESIGNS LISTED BELOW SHALL BE PRE-APPROVED BY THE CITY OF SEATTLE AND SUBMITTED TO THE ARCHITECT AND APPROVED PRIOR TO USE. SELECTION OF CONCRETE MIX PROPORTIONS SHALL BE IN ACCORDANCE WITH ACI 301. MIX PROPORTIONS SHALL MEET OR EXCEED THE REQUIREMENTS LISTED BELOW FOR THE LOCATIONS NOTED. THE MORE STRINGENT OF THE REQUIREMENTS LISTED SHALL GOVERN.

MAXIMUM SIZE OF AGGREGATE SHALL BE AS LISTED BELOW. MAXIMUM FLY ASH AS A PERCENTAGE OF TOTAL WEIGHT OF CEMENTITIOUS MATERIAL SHALL BE 30 PERCENT. FLY ASH SHALL BE CLASS C OR CLASS F, MEETING ASTM C618 REQUIREMENTS. WATER/CEMENT RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING FLY ASH AND OTHER POZZOLANIC MATERIALS.

THE CONTRACTOR SHALL DETERMINE SLUMP. EACH CONCRETE MIX SUBMITTED SHALL HAVE THE SLUMP SPECIFIED. SLUMP SHALL BE MEASURED AT THE DISCHARGE OF THE TRUCK. IF CONCRETE IS PUMPED, SLUMP SHALL BE MEASURED AT THE DISCHARGE END OF THE PUMP LINE. SLUMPS SHALL BE WITHIN +1 INCH AND -2 INCHES OF THE SPECIFIED SLUMP.

THE USE OF SUPER PLASTICIZERS AND WATER REDUCERS IS ALLOWED, BUT NOT REQUIRED. ALL ADMIXTURES SHALL BE CHLORIDE FREE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

CONCRETE MIX SPECIFICATION TABLE

LOCATION	f'c MIN (PSI)	TEST AGE (DAYS)	MAX W/C RATIO	AIR CONTENT PERCENT	MAX AGGREGATE SIZE
MISCELLANEOUS CONCRETE, CURBS, SIDEWALKS	3,000	28	0.50	4.5	1"
EXTERIOR EXPOSED SLABS ON GRADE	4,000	28	0.45	4.5	1"
INTERIOR SLABS ON GRADE	4,000	28	0.50	-	1"
CONCRETE WALLS, SPREAD FOOTINGS	4,000	28	0.44	-	1"
CONCRETE ON STEEL DECK	4,000	28	0.44	-	¾"
REINFORCED BEAMS AND SLABS	5,000	28	0.44	-	¾"
COLUMNS, SHEAR WALLS (AS NOTED)	6,000	56	0.44	-	¾"
	5,000	28	0.44	-	¾"
INTERIOR POST-TENSIONED BEAMS AND SLABS	5,500	28	0.40	-	¾"

SHOTCRETE

STRUCTURAL SHOTCRETE MAY BE USED FOR WALLS IN LIEU OF CAST-IN-PLACE CONCRETE WHEN APPROVED BY THE ARCHITECT/ENGINEER OR SHOWN ON THE DRAWINGS. SHOTCRETE SHALL CONFORM STRICTLY TO THE REQUIREMENTS OF THE BUILDING CODE, SECTION 1914, AND CITY OF SEATTLE DR 35-96. MIX-CONTACT LAP SPLICES SHALL BE DETAILED IN ACCORDANCE WITH THE CODE AND SUBMITTED ON SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS. TEST PANELS ARE REQUIRED FOR HEAVILY REINFORCED AREAS SUCH AS PILASTERS, WALL COLUMNS, ETC. THE CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS FOR SHOTCRETING.

REINFORCING STEEL

ALL REINFORCING SHALL BE NEW BILLET STOCK ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE. BARS SHALL BE SECURELY TIED IN PLACE WITH #16 DOUBLE-ANNEALED IRON WIRE. BARS SHALL BE SUPPORTED ON ACCEPTABLE CHAIRS. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING OF REINFORCED CONCRETE STRUCTURES." THE CONTRACTOR SHALL COORDINATE REINFORCING STEEL PLACEMENT DETAILS AND PROVIDE TEMPLATES FOR PLACING STEEL IN CONGESTED AREAS AS NECESSARY. SHOP DRAWING (INCLUDING ALL BACHE PLANS AND ELEVATIONS) SHALL BE SUBMITTED TO, AND REVIEWED BY, THE ARCHITECT/ENGINEER BEFORE STARTING FABRICATION.

NO REINFORCING BARS SHALL BE SPLICED BY WELDING. AT THE CONTRACTOR'S OPTION, MECHANICAL BUTT SPLICING USING AN EXOTHERMIC WELDING PROCESS AND HIGH-STRENGTH SLEEVES OR MECHANICAL CONNECTION SPLICING MAY BE USED, PROVIDED THE CONNECTION METHOD AND SPLICES SHALL COMPLY WITH ICC-ES REPORT DEMONSTRATING THAT THE PRODUCT CAN ACHIEVE A MINIMUM TENSILE STRENGTH OF 125 PERCENT OF THE SPECIFIED TENSILE STRENGTH OF THE BAR. FOR REINFORCING WITHIN THE LATERAL SYSTEM (SHEAR WALLS) AND REINFORCING THAT CONNECTS WITH THE LATERAL SYSTEM, MECHANICAL SPLICES (NOT WELDED SPLICES) MAY BE USED IF THE MECHANICAL SPLICE STRENGTH IS INCREASED TO DEVELOP 100 PERCENT OF THE SPECIFIED TENSILE STRENGTH OF THE SPLICED BAR. SPLICE DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. REINFORCING BARS SHALL BE LAP SPLICED FOR TENSION (LSD) UNLESS NOTED OTHERWISE ON THE DRAWINGS. #14 AND #18 BARS SHALL BE SPLICED USING MECHANICAL COUPLINGS TO SPLICED BARS REGARDLESS OF SIZE. SUITABLE COUPLINGS ARE LISTED IN CURRENT ICC-ES REPORTS FOR MECHANICAL STEEL COUPLERS (ICC-ES ER-3967). #14 AND #18 BARS SHALL NOT BE LAP SPLICED.

WELDING OR TACK WELDING OF REINFORCING BARS TO OTHER BARS OR TO PLATES, ANGLES, ETC., IS PROHIBITED, EXCEPT WHERE SPECIFICALLY APPROVED BY THE ENGINEER. WHERE WELDING IS APPROVED, IT SHALL BE DONE BY AWS/WABO INSPECTION ASSOCIATE WELDING OPERATORS (CERTIFIED WELDERS USING E9018 OR APPROVED ELECTRODES). WELDING PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.4.

MINIMUM CAST-IN-PLACE CONCRETE COVER OVER REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:

   ALL SIZES: 3 INCHES

2. CONCRETE EXPOSED TO EARTH OR WEATHER:

   #5 BAR OR SMALLER: 1½ INCHES
   #6 BAR OR LARGER: 2 INCHES

3. OTHER CONCRETE:

   WALLS - INTERIOR FACE:
   #14 AND #18 BARS: 1½ INCHES
   #11 BARS AND SMALLER: ¾ INCH

   SLABS:
   #14 AND #18 BARS: 1½ INCHES
   #11 BARS AND SMALLER: ¾ INCH

   BEAMS AND COLUMNS - TIES, STIRRUPS, SPIRALS:
   INTERIOR FRAMES: 1½ INCHES
   EXTERIOR FRAMES: 2 INCHES

REINFORCING STEEL IN DUCTILE CONCRETE

(Special Ductile Elements)

ALL LONGITUDINAL REINFORCING IN DUCTILE COLUMNS, DUCTILE BEAMS, ALL REINFORCING IN SHEAR WALLS, AND ALL REINFORCING MARKED "SDE" SHALL BE LOW-ALLOY STEEL, DEFORMED ASTM A706. BILLET STEEL ASTM A615, GRADE 60 REINFORCEMENT MAY BE USED IN THESE MEMBERS IF (1) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI AND (2) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRENGTH TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25. WELDING OF REINFORCING BARS WHERE SHOWN ON DRAWINGS SHALL COMPLY WITH AWS D1.4 STRUCTURAL WELDING CODE - REINFORCING STEEL. IF MILL REPORTS ARE NOT AVAILABLE, THE REINFORCING SHALL BE TESTED PER THE SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

WELDED WIRE FABRIC

WELDED WIRE FABRIC (WWF) SHALL BE ELECTRICALLY WELDED AND CONFORM TO ASTM A185. AN 8-INCH MINIMUM LAP SHALL BE PROVIDED FOR SIDE AND END LAPS. WELDED WIRE FABRIC SHALL BE SUPPORTED ON APPROVED CHAIRS.

POST-TENSIONED PRESTRESSED CONCRETE

POST-TENSIONING SHOP DRAWINGS, INCLUDING PLANS AND DETAILS, SHALL BE SUBMITTED TO AND REVIEWED BY THE ARCHITECT BEFORE STARTING FABRICATION.

ALL POST-TENSIONED CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3,000 PSI AT TIME OF INITIAL STRESS, IN ADDITION TO THE REQUIREMENTS IN THE CONCRETE MIX SPECIFICATION TABLE ABOVE. THE CONTRACTOR SHALL SUBSTANTIATE CONCRETE STRENGTH BEFORE POST-TENSIONING.

POST-TENSIONING REINFORCEMENT SHALL BE ½-INCH-DIAMETER, UNBONDED, LOW RELAXATION, 270-KSI HIGH-TENSILE WIRE STRAND CONFORMING TO ASTM A416.

POST-TENSIONING TENDONS SHALL BE ENCASED IN WATERPROOF POLYETHYLENE PLASTIC SHEATHING OF 40 MILS MINIMUM THICKNESS. SHEATHING SHALL BE OF SUFFICIENT STRENGTH TO PREVENTS DAMAGE DURING FABRICATION, TRANSPORTATION, INSTALLATION, STORAGE, CONCRETE PLACEMENT, AND TENSIONING. AN ENCAPSULATED TENDON SYSTEM SHALL BE USED.

THE MINIMUM NUMBER OF TENDONS REQUIRED FOR INSTALLATION IS SHOWN ON THE DRAWINGS AND IS BASED ON A TENDON FINAL EFFECTIVE PRESTRESS FORCE OF 26.8 KIPS PER TENDON. IF THE FINAL EFFECTIVE PRESTRESS FORCE, CONSIDERING ALL APPLICABLE LOSSES, IS LESS THAN 26.8 KIPS PER TENDON, THE CONTRACTOR SHALL PROVIDE ADDITIONAL TENDONS. TENDONS SHALL BE INSTALLED WITH A PARABOLIC SHAPE UNLESS NOTED OTHERWISE AND HELD IN THEIR DESIGNED POSITIONS AS SHOWN ON THE DRAWINGS. AT LEAST TWO TENDONS SHALL PASS THROUGH EACH COLUMN IN EACH DIRECTION AT SLABS WITHOUT BEAMS.

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION STAMPED BY AN ENGINEER LICENSED IN THE STATE OF WASHINGTON: (1) THE DETAILED DESIGN OF TENDON END ANCHORAGES; (2) THE CALCULATION OF STRESS LOSSES DUE TO CREEP, SHRINKAGE, TENDON RELAXATION, ANCHORAGE SLIP, AND FRICTION; (3) POST-TENSIONING SHOP DRAWINGS. THIS INFORMATION SHALL CONFORM TO ACI 318.

NO CONCRETE SHALL BE PLACED UNTIL THE POST-TENSIONING TENDONS AND REINFORCEMENT LOCATION HAVE BEEN INSPECTED AND APPROVED BY THE TESTING AGENCY. CONTINUOUS INSPECTION AND RECORDING OF ELONGATION IS REQUIRED DURING ALL STRESSING OPERATIONS. DO NOT CUT TENDON ENDS UNTIL THE ENTIRE SLAB HAS BEEN SATISFACTORILY STRESSED AND THE ENGINEER HAS REVIEWED ELONGATIONS.

AT POST-TENSIONED SLABS, ALL INSERTS AND SLEEVES SHALL BE CAST-IN-PLACE. DRILLED AND POWER-DRIVEN FASTENERS ARE PROHIBITED EXCEPT AS NOTED BELOW.

IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, THE POSITION OF TENDONS SHALL BE MARKED ON THE FORMS WITH 1-FOOT-LONG CHAFER STRIPS AT 10 FEET ON CENTER, TO LEAVE A PHYSICAL IMPRESSION ON THE UNDERSIDE OF THE SLAB. CONCRETED AREAS SHALL BE ENTIRELY MARKED OFF.

DRILLED-IN CONCRETE ANCHORS AND POWER-DRIVEN FASTENERS SHALL BE PLACED A MINIMUM DISTANCE EQUAL TO THE SLAB THICKNESS FROM ANY TENDON LOCATIONS. NO ANCHORS OR FASTENERS SHALL BE PLACED WITHIN A DISTANCE OF FOUR TIMES THE SLAB THICKNESS FROM THE FACE OF ANY COLUMN. EXCEPTION: POWDER ACTUATED FASTENERS WITH EMBEDMENT OF ¾ INCH OR LESS MAY BE INSTALLED AT ANY LOCATION ON THE SLAB. NO REBAR OR POST-TENSIONING TENDONS SHALL BE DAMAGED BY ANCHORS AND FASTENERS.

THE POST-TENSIONED SLABS ARE DESIGNED BASED ON TENDONS BEING CONTINUOUS BETWEEN EDGES OF SLABS AS SHOWN ON THE DRAWINGS. ANY ADDITIONAL INTERMEDIATE STRESSING JOINTS OR CLOSURE STRIPS REQUIRED BY THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION SHALL BE SUBMITTED AND REVIEWED BY THE STRUCTURAL ENGINEER BEFORE STARTING CONSTRUCTION.

PRECAST CONCRETE

REFER TO ARCHITECTURAL DRAWINGS FOR FINISH REQUIREMENTS, REVEALS, OPENINGS, DETAILS OF CONNECTIONS, AND OTHER REQUIREMENTS. PRECAST MEMBERS SHALL BE CAST, STRESSED, TRANSPORTED, AND ERECTED IN A HORIZONTAL, UPRIGHT POSITION. SUPPORTS DURING TRANSPORTATION AND ERECTION SHALL APPROXIMATE THOSE IN THE FINAL STRUCTURE. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL REINFORCING (STEEL, STIFFENERS, BRACING, LIFTING INSERTS, ETC) TO RESIST ERECTION AND TRANSPORTATION STRESSES. LIFTING INSERTS SHALL BE INSTALLED AT LOCATIONS WHERE THEY WILL BE HIDDEN BY CONSTRUCTION OR OTHERWISE COVERED. SUBMIT DETAILED SHOP DRAWINGS OF ALL PRECAST CONCRETE WORK TO THE ARCHITECT FOR REVIEW BEFORE STARTING FABRICATION. ALL PRECAST CONCRETE CONNECTIONS (PLATES, ANGLES, ETC) SHALL BE GALVANIZED STEEL. REMOVE GALVANIZING WHERE FIELD WELDING IS REQUIRED, AND PAINT FIELD WELDS WITH ONE COAT OF "GALVAGUARD" OR APPROVED EQUAL. SEE SHEAR STUD CONNECTORS NOTE FOR STUDS WELDED TO CONNECTIONS. FIELD WELDING SHALL BE DONE BY AWS-CERTIFIED WELDERS IN ACCORDANCE WITH AWS D1.1.

FORM CAMBER

CONCRETE FORMWORK SHALL HAVE BUILT-IN CAMBER TO COMPENSATE FOR FORM SAG UNDER WET CONCRETE LOAD, IN ADDITION TO STRUCTURAL CAMBER NOTED. ONE-WAY SLABS SHALL BE CAMBERED 1/1000 OF THE SPAN, UNLESS OTHERWISE NOTED ON THE DRAWINGS. BEAM AND JOIST STRUCTURAL CAMBERS ARE NOTED ON THE DRAWINGS. CAMBERS OF LESS THAN ¾ INCH MAY BE NEGLECTED.

CONSTRUCTION JOINTS

ALL CONSTRUCTION JOINTS IN WALLS SHALL BE KEYED IN ACCORDANCE WITH THE TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL DRAWINGS OR, AT THE CONTRACTOR'S OPTION, SHALL BE INTENTIONALLY ROUGHENED IN ACCORDANCE WITH THE FOLLOWING: THE SURFACE OF ROUGHENED JOINTS SHALL BE SAND BLASTED OR ROUGHENED WITH A CHIPPING HAMMER TO EXPOSE THE AGGREGATE EVENLY OVER THE ENTIRE SURFACE. THE AGGREGATE SHALL SHALL PROTRUDE A MINIMUM OF ¼ INCH. ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED AND LAITANCE REMOVED. IMMEDIATELY BEFORE NEW CONCRETE IS PLACED, ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WATER REMOVED. LOCATE CONSTRUCTION JOINTS WITHIN THE MIDDLE THIRD OF THE SPANS OF SLABS, BEAMS, AND GIRDERS, UNLESS ALL CONSTRUCTION JOINTS IN SLABS, BEAMS, AND GIRDERS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW BEFORE STARTING CONSTRUCTION.

ALL CONSTRUCTION JOINTS FOR SLABS ON DECK SHALL BE IN ACCORDANCE WITH THE TYPICAL SLAB ON DECK CONSTRUCTION JOINT DETAILS SHOWN ON THE STRUCTURAL DRAWINGS. BEAMS AND GIRDERS HAVE BEEN DESIGNED ASSUMING THE CONSTRUCTION JOINTS TO BE LOCATED IN THE MIDDLE THIRD OF THE BEAM, GIRDER, OR SLAB SPAN. ALL CONSTRUCTION, CONTROL, AND ISOLATION JOINTS FOR SLABS ON GRADE SHALL BE IN ACCORDANCE WITH THE TYPICAL SLAB ON GRADE DETAILS. THE CONTRACTOR SHALL SUBMIT THE PROPOSED LOCATIONS OF CONSTRUCTION JOINTS TO THE ENGINEER FOR ACCEPTANCE BEFORE STARTING CONSTRUCTION.

SLEEVES

EXCEPT AS DETAILED ON STRUCTURAL DRAWINGS, NO CONCRETE FOOTINGS, BEAMS, OR GIRDERS SHALL BE SLEEVED FOR PIPING OR DUCTS, UNLESS APPROVED BY THE ENGINEER.

DRILLED-IN CONCRETE ANCHORS (HILTI)

ACCEPTABLE DRILLED-IN CONCRETE ANCHORS, OF SIZE, NUMBER, AND SPACING AS SHOWN ON THE DRAWINGS, SHALL BE AS FOLLOWS: HILTI "KWIK-BOLT-3" CARBON STEEL WEDGE ANCHORS (ICC-ES ER-5135), "HY-150" ADHESIVE BOLT (ICC-ES ER-1821) OR "HY" TUBULAR BRAND TRUBOLT CARBON STEEL WEDGE ANCHORS" (ICC-ES ER-1372), OR AN APPROVED ALTERNATIVE ANCHOR WITH A CURRENT ICC-ES EVALUATION REPORT. MINIMUM EMBEDMENT DEPTH SHALL BE 4.5 BOLT DIAMETERS UNLESS NOTED OTHERWISE ON DRAWINGS.

ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE APPROVED ICC-ES REPORT. NO REINFORCEMENT SHALL BE CUT TO INSTALL ANCHORS. DEFECTIVE HOLES SHALL BE GROUTED WITH EPOXY ADHESIVE.

NONSHRINK GROUT FOR BASE PLATES, SLEEVES, AND EMBEDDED STEEL

GROUT SHALL BE AN APPROVED NONSHRINK CEMENTITIOUS GROUT CONTAINING NATURAL AGGREGATES DELIVERED TO THE JOB SITE IN FACTORY PREPACKAGED CONTAINERS REQUIRING ONLY THE ADDITION OF WATER. THE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE AT LEAST 1,000 PSI HIGHER THAN THE SUPPORTING CONCRETE STRENGTH, UNLESS NOTED OTHERWISE. GROUT SHALL BE MIXED, APPLIED, AND CURED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FOR GROUTING BELOW MACHINE BASE PLATES, GROUT SHALL BE PROPORTIONED AS A FLOWABLE MIX. WHEN A FLOWABLE MIX DOES NOT PROVIDE THE REQUIRED STRENGTH OR WHEN A MINIMUM STRENGTH OF 10,000 PSI IS REQUIRED, AN EPOXY GROUT SHALL BE USED.

EPOXY ADHESIVE USED FOR BONDING STEEL TO HARDENED CONCRETE

EPOXY ADHESIVE SHALL CONFORM TO ASTM C881, C882, AND D695 FOR BONDING STEEL TO HARDENED CONCRETE AND MASONRY FOR REINFORCING BARS AND BOLTS. PRE-APPROVED PRODUCTS INCLUDE "HIT HY 150" (ICC-ES ER-5193) AS MANUFACTURED BY HILTI, INCORPORATED, FOR CONCRETE AND MASONRY; (ICC-ES ER-5193) AS MANUFACTURED BY HILTI, INCORPORATED, FOR MASONRY; AND "SET" (ICC-ES ES-5279) AS MANUFACTURED BY SIMPSON STRONG TIE, INCORPORATED, FOR CONCRETE OR MASONRY. SUBMIT CURRENT PRODUCT DATA AND ICC-ES EVALUATION REPORTS AS WELL AS A LOCATION PLAN INDICATING WHERE THE PRODUCT IS TO BE USED ON THE PROJECT FOR REVIEW.

DRILL HOLES AND MIX, APPLY, AND INSTALL EPOXY/ADHESIVE IN STRICT ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS IN THE ICC-ES EVALUATION REPORT. NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF REINFORCING BARS OR BOLTS. ANY REINFORCING BARS OR BOLTS WHICH THE CONTRACTOR WANTS TO INSTALL INTO PREVIOUSLY HARDENED CONCRETE THAT IS NOT SHOWN IN THE DRAWINGS TO BE DRILLED AND EPOXIED OR SIMILAR NOTATION, MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. THE REQUIRED EMBEDMENT LENGTH FOR THESE REINFORCING BARS OR BOLTS ALSO MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

ELECTRICAL CONDUIT

ELECTRICAL CONDUIT SHALL BE RIGID STEEL CONDUIT OR FLEXIBLE PLASTIC CONDUIT. ALUMINUM CONDUIT SHALL NOT BE USED. CONDUIT MAY BE PLACED OUTSIDE DIAMETER OF 1/3 TIMES THE SLAB THICKNESS MAY BE EMBEDDED AT THE MIDDLE THIRD OF THE SLAB DEPTH. MINIMUM CLEAR DISTANCE BETWEEN CONDUITS SHALL BE THREE TIMES THE CONDUIT DIAMETER.

CONDUIT SHALL BE ROUTED TO MAINTAIN MINIMUM CLEAR DISTANCE FROM PRESTRESSING TENDONS OF 1'-0" HORIZONTAL AND 1 INCH VERTICAL. CONDUIT SHALL BE FIRMLY CHAIRED AND TIED TO PREVENT DISPLACEMENT DURING POURING. PLACE #4 AT 12 INCHES ADDITIONAL REINFORCING ABOVE AND BELOW PERPENDICULAR TO CONDUIT. PLACE ADDED REINFORCING SHALL EXTEND 1'-0" PAST THE CONDUIT ON BOTH SIDES. SEE THE TYPICAL CONDUIT PLACEMENT CRITERIA DETAIL.

CONDUIT SHALL NOT BE EMBEDDED IN SLAB ON STEEL DECK OR IN CAST-IN-PLACE SLABS ABOVE LEVEL P1, ROR IN SLABS SUPPORTING EQUIPMENT BELOW LEVEL 5.

STRUCTURAL STEEL

ALL STEEL SHALL CONFORM TO THE FOLLOWING:

W-SHAPES	ASTM A992, Fy=50 KSI ASTM A913, Fy=50 KSI
ALL ANGLES AND CHANNELS UNLESS NOTED OTHERWISE	ASTM A36, Fy=36 KSI
SQUARE OR RECTANGULAR STRUCTURAL TUBE (HSS)	ASTM A500, GRADE B, Fy=46 KSI
ROUND STRUCTURAL TUBE (HSS)	ASTM A500, GRADE B, Fy=42 KSI
STEEL PIPE DIAMETER LESS THAN OR EQUAL TO 12 INCHES	ASTM A53, TYPE E OR S, GRADE B, Fy=35 KSI
MATERIAL CALLED OUT ON PLANS AS (A36)	ASTM A36, Fy=36 KSI
MATERIAL CALLED OUT ON PLANS AS (Fy=65 KSI)	ASTM A913, Fy=65 KSI
ALL OTHER STEEL UNLESS NOTED OTHERWISE	ASTM A572, Fy=50 KSI ASTM A588, Fy=50 KSI ASTM A441, Fy=50 KSI

GENERAL NOTES FOR STEEL CONNECTIONS SHALL APPLY TO ALL STEEL CONNECTIONS UNLESS NOTED OTHERWISE.

ALL WORK SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATION. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER BEFORE COMMENCING FABRICATION. FOLLOWING ARCHITECT/ENGINEER REVIEW, SHOP DRAWINGS SHALL BE SUBMITTED TO THE CITY OF SEATTLE DEPARTMENT OF PLANNING AND DEVELOPMENT. ALL STEEL ANCHORS AND TIES AND OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. DIMENSIONAL TOLERANCES FOR BUILT-UP MEMBERS SHALL CONFORM TO D1.1.

FOR ASTM A6 GROUP 3 SHAPES WITH A FLANGE THICKNESS OF 1½ INCHES OR GREATER, GROUP 4 AND 5 SHAPES, AND BUILT-UP MEMBERS WITH A PLATE THICKNESS OF 2 INCHES OR GREATER, CHARPY V-NOTCH TESTING SHALL BE PROVIDED IN ACCORDANCE WITH ASTM A6 SUPPLEMENTARY REQUIREMENT S5 AND PER THE AISC SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, WITH A MINIMUM VALUE OF 20 FOOT-POUNDS AT 70 DEGREES FAHRENHEIT. EXCEPTIONS SHOWN IN AISC SPECIFICATION SECTION A3.1.C MAY BE USED FOR MEMBERS THAT ARE NOT PART OF THE SEISMIC FORCE-RESISTING SYSTEM.

THE SEISMIC FORCE-RESISTING SYSTEM INCLUDES ALL STRUCTURAL STEEL FRAMING MEMBERS CALLED OUT IN ELEVATIONS AND MEMBERS CALLED OUT IN PLAN THAT ARE CO-PLANAR WITH AND CONNECT DIRECTLY TO THE LATERAL FRAME.

STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSION POINTS AT THE MAXIMUM DECK SPAN LOCATION UNLESS NOTED OTHERWISE. MINIMUM CONNECTIONS SHALL BE A TWO-BOLT CONNECTION USING ¾-INCH-DIAMETER A325 BOLTS IN SINGLE SHEAR. ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED, TIGHTENED, AND INSPECTED IN ACCORDANCE WITH THE AISC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. THE CRITERIA FOR SLIP-CRITICAL CONNECTIONS SHALL APPLY TO ALL CONNECTIONS NOTED OTHERWISE AS SNUG-TIGHT. BOLTS IN CONNECTIONS OF BEAM-TO-BEAM/GIRDER MAY BE SNUG TIGHT, UNLESS SPECIFICALLY CALLED OUT AS SLIP CRITICAL (SC). WHERE CONNECTIONS ARE NOTED AS SNUG-TIGHT, THE CONTRACTOR MAY INSTALL PER THE CRITERIA FOR SNUG-TIGHT BOLTS. SLIP-CRITICAL CONNECTIONS SHALL USE LOAD INDICATOR WASHERS OR TENSION CONTROL BOLTS. ALL ANCHOR ASD BOLTS SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF-LOCKING NUTS. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SELECTION OF OPTIONAL DETAILS SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL ERECTION AIDS THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES, AND OTHER AIDS.

STRUCTURAL STEEL WELDING

STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. ALL WELDING SHALL BE DONE BY AWS/WABO (WELDING ASSOCIATION OF BUILDING OFFICIALS) CERTIFIED WELDERS AND IN ACCORDANCE WITH AWS D1.1. WELDS SHOWN ON THE DRAWINGS ARE THE MINIMUM SIZES. INCREASE WELD SIZE TO MEET MINIMUM SIZES, BASED ON PLATE THICKNESS. THE MINIMUM WELD SIZE SHALL BE ¼ INCH. FIELD WELDING SYMBOLS HAVE NOT NECESSARILY BEEN INDICATED ON THE DRAWINGS. WHERE SHOWN, PROPER FIELD WELDING PER AWS D1.1 SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS. ALL PARTIAL PENETRATION GROOVE WELD SIZES SHOWN ON THE DRAWINGS REFER TO EFFECTIVE THROAT THICKNESS. ALL WELD

STRUCTURAL DESIGN DATA

LIVE LOADS: LIVE LOADS SHALL BE IN ACCORDANCE WITH THE LOAD DIAGRAMS.

SNOW LOADS: SNOW LOADING AND SNOW DRIFT LOADING SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1608).

GROUND SNOW LOAD: P_g = 20 PSF

IMPORTANCE FACTOR: I_s = 1.0

SNOW EXPOSURE FACTOR: C_e = 1.0

THERMAL FACTOR: C_t = 1.2

FLAT-ROOF SNOW LOAD: P_f = 25 PSF

WIND LOADS: WIND PRESSURE SHALL BE IN ACCORDANCE WITH THE BUILDING CODE (SECTION 1609).

BASIC WIND SPEED (3-SECOND GUST): V = 85 MPH

EXPOSURE: B

IMPORTANCE FACTOR: I_w = 1.0

ENCLOSURE CLASSIFICATION: ENCLOSED

INTERNAL PRESSURE COEFFICIENT: (GC_{pi}) = 0.18

SEISMIC LOADS: SEISMIC LOADING SHALL BE IN ACCORDANCE WITH THE BUILDING CODE.

BUILDING LOCATION: LATITUDE: 47.604°N
LONGITUDE: 122.323°W

SEISMIC USE GROUP: I

IMPORTANCE FACTOR: I_E = 1.0

MAPPED SPECTRAL ACCELERATION PARAMETERS: S_s = 1.450, S_1 = 0.489

SITE CLASS: C

SITE COEFFICIENTS: F_a = 1.00, F_v = 1.33

SPECTRAL RESPONSE COEFFICIENTS: S_{ds} = 0.967, S_{d1} = 0.428

SEISMIC DESIGN CATEGORY: D

LATERAL SYSTEM: SPECIAL REINFORCED SHEAR WALLS

RESPONSE MODIFICATION COEFFICIENT: R = 6.0

SEISMIC RESPONSE COEFFICIENT: C_s = 0.0494

DESIGN BASE SHEAR: V = 3,210 KIPS

ANALYSIS PROCEDURE USED: LINEAR DYNAMIC

LOAD PATH FOR LATERAL FORCES: LATERAL FORCES ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. BOUNDARY SHEARS, AND ROTATIONAL FORCES ARE DELIVERED TO THE FOUNDATION BY THE SHEAR WALLS, IN PROPORTION TO THEIR ABILITY TO RESIST LATERAL DEFORMATION.

LOAD COMBINATIONS: LOAD COMBINATIONS ARE IN ACCORDANCE WITH SECTION 1605 OF THE BUILDING CODE.

FOUNDATIONS

COLUMN DOWELS SHALL BE INSTALLED WITH A TEMPLATE TO HOLD BARS IN THE PROPER POSITION AND SHALL BE PLACED WITH A TOLERANCE OF +/-½ INCH.

SPREAD FOOTINGS: DESIGN SOIL BEARING PRESSURE = 12,000 PSF PER GEOTECHNICAL REPORT 21-1-09518-004 ISSUED BY SHANNON AND WILSON ON SEPTEMBER 13, 2004. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AND SHALL BE LOWERED TO FIRM BEARING IF SUITABLE SOIL IS NOT FOUND AT ELEVATIONS DETERMINED BY TOP OF FOOTING ELEVATION AND FOOTING DEPTH. REFER TO THE GEOTECHNICAL REPORT FOR SOIL CONDITIONS.

CONCRETE PIERS: DESIGN BEARING PRESSURE = 45,000 PSF AND SIDE FRICTION = 4,500 PSF.

SOILS ENGINEER SHALL CONFIRM THAT THE BOTTOM OF THE PIERS ARE LOCATED ON PROPER BEARING MATERIAL. SHAFTS SHALL BE EXCAVATED TO DIMENSIONS SHOWN ON DRAWING, WITH AN OUT-OF-VERTICAL ALIGNMENT TOLERANCE OF 4 INCHES AT THE TOP AND 8 INCHES AT THE BOTTOM. REINFORCING CAGES SHALL BE PLACED AND PIERS FILLED WITH CONCRETE AS SOON AS POSSIBLE AFTER SHAFTS HAVE BEEN EXCAVATED AND INSPECTED. PIER EXCAVATIONS SHALL BE CLEAN AND FREE OF WATER BEFORE PLACING CONCRETE. ADJACENT SHAFTS (WITHIN 20'-0") SHALL NOT BE EXCAVATED UNTIL CONCRETE HAS SET UP FOR 72 HOURS MINIMUM.

STRUCTURAL FILL

ALL FILL PLACED TO SUPPORT SLABS ON GRADE, BEHIND PERMANENT WALLS, AND AROUND ALL DRAINS SHALL MEET REQUIREMENTS OF CITY OF SEATTLE TYPE 17 FILL AND CONSIST OF WELL GRADED, GRANULAR MATERIAL PER THE SPECIFICATIONS. SOILS FOR STRUCTURAL FILL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER. STRUCTURAL FILL SHALL BE PLACED ON SOUND NATIVE MATERIAL. PROOF-ROLL CUT AREAS WHICH PROVIDE SUPPORT FOR PERMANENT STRUCTURES. AREAS WHICH ARE EXCESSIVELY YIELDING, AS DETERMINED BY THE CONTINUOUS OBSERVATION OF THE GEOTECHNICAL ENGINEER, SHALL BE OVEREXCAVATED AND REPLACED WITH STRUCTURAL FILL. STRUCTURAL FILL SHALL BE PLACED PER THE SPECIFICATION.

LATERAL PRESSURE ON SUBGRADE WALLS

THE DESIGN PRESSURES FOR SUBGRADE WALLS ARE BASED ON A "DRAINED" CONDITION. SEE CIVIL AND MECHANICAL DRAWINGS FOR SUBGRADE DRAINAGE SYSTEM. SEE GEOTECHNICAL REPORT FOR COMPACTION REQUIREMENTS AT SUBGRADE WALLS. SUBGRADE WALLS AND SUPPORTING SLABS SHALL HAVE ATTAINED THEIR FULL CONCRETE STRENGTH BEFORE PLACING ANY BACKFILL. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACES FOR WALLS IF BACKFILL IS PLACED BEFORE WALLS AND SLABS ACHIEVE FULL CONCRETE STRENGTH.

BACKFILLED, RESTRAINED BASEMENT WALLS ARE DESIGNED USING AN "APPARENT" EARTH PRESSURE EQUIVALENT TO A TRAPEZOIDAL DISTRIBUTION OF 10H WITH A SEISMIC INCREMENT OF 47 PERCENT PER THE GEOTECHNICAL REPORT.

BEAM DEFLECTION

FLOOR BEAMS, ESPECIALLY EDGE BEAMS, TRANSFER GIRDERS, AND CANTILEVERS WILL CONTINUE TO DEFLECT WHEN ADDITIONAL LOAD IS APPLIED. THESE MEMBERS HAVE BEEN CAMBERED TO COMPENSATE FOR THE THEORETICAL DEFLECTION. HOWEVER, THIS MAY NOT OCCUR UNTIL ALL THE DEAD LOAD IS APPLIED TO THE MEMBER. THE CONTRACTOR SHALL COORDINATE THE ATTACHMENT OF ANY ITEMS TO MEMBERS WHICH WILL CONTINUE TO SHORTEN OR DEFLECT DUE TO LATER STAGES OF CONSTRUCTION.

EXTERIOR CLADDING

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE CLADDING SYSTEMS, INCLUDING THEIR STRUCTURAL INTEGRITY, WATERPROOFING SYSTEMS, AND CONNECTION TO THE PRIMARY STRUCTURE.

STRUCTURAL ELEMENTS AT THE BUILDING PERIMETER HAVE BEEN DESIGNED FOR THE VERTICAL LOADS SHOWN ON THE LOAD MAPS. CLADDING ATTACHMENTS SHALL NOT APPLY MOMENTS TO SLAB EDGES OR LATERAL LOADS TO STEEL BEAMS OR IMPOSE TORSIONAL LOADS INTO STEEL BEAMS OR COLUMNS. BRACES, ADDED REINFORCING, AND/OR TIES SHALL BE DESIGNED AND SUPPLIED BY THE CONTRACTOR FOR LOAD ECCENTRICITIES AND LATERAL LOADS. THE CONTRACTOR SHALL SUPPLY ALL CONNECTION MATERIAL, BRACES, ETC. SUBMITTED DOCUMENTS SHALL INDICATE MAGNITUDE AND LOCATION OF ALL LOADS IMPOSED ON THE PRIMARY STRUCTURE.

EXTERIOR CLADDING CONNECTIONS SHALL ACCOUNT FOR STRUCTURAL DEFLECTION, COLUMN SHORTENING, AND CONSTRUCTION TOLERANCE DETERMINED FROM ACI 301. IN ADDITION, THE CLADDING DESIGN SHALL ACCOMMODATE A TYPICAL VERTICAL MOVEMENT AT EACH FLOOR OF ½ INCH DUE TO VARIABLE LIVE LOADING. THIS DISPLACEMENT WILL OCCUR AT THE FREE END OF CANTILEVER BEAMS AND AT MIDSPAN OF EDGE SLABS AND BEAMS.

THE CLADDING SHALL ACCOMMODATE LATERAL MOVEMENTS BETWEEN ADJACENT FLOORS PERPENDICULAR AND/OR PARALLEL TO THE WALL AS FOLLOWS:

LEVELS	STORY DRIFT FOR WHICH CLADDING MUST REMAIN UNDAMAGED (INCHES)	STORY DRIFT FOR WHICH CLADDING ELEMENTS MUST NOT FALL FROM BUILDING (INCHES)
TBD	TBD	TBD

STAIRS, ELEVATORS, AND MISCELLANEOUS METALS

UNLESS SHOWN AND DETAILED IN THE STRUCTURAL DRAWINGS, ALL STAIRS ARE TO CONSIST OF A PRE-FABRICATED AND PRE-ENGINEERED STAIR, LANDING, AND RAILING SYSTEM DESIGNED BY THE CONTRACTOR OR STAIR SUPPLIER. SEE THE ARCHITECT FOR STAIR SYSTEM LAYOUT, DIMENSIONS, AND CONFIGURATION OF RISE AND RUN. THE CONTRACTOR SHALL BE RESPONSIBLE TO DESIGN AND PROVIDE THE STAIR SYSTEM INCLUDING ALL CONNECTIONS AND SECONDARY SUPPORT FRAMING.

ALL ELEVATOR MACHINE BEAMS, HOIST BEAMS, SILLS, DOOR SUPPORTS, AND RAILS AND THEIR CONNECTIONS TO THE PRIMARY STRUCTURE ARE TO BE DESIGNED BY THE ELEVATOR MANUFACTURER. THE CONTRACTOR SHALL PROVIDE ADDITIONAL FRAMING AS NECESSARY FOR ADDITIONAL MACHINE ROOM FLOOR PENETRATIONS PER THE TYPICAL DETAILS. THE ELEVATOR MACHINE BEAMS SHALL BE DESIGNED TO BE FLUSH WITH THE BOTTOM OF CONCRETE AND SHALL BE DESIGNED FOR THE TRIBUTARY LOADS INDICATED IN THE LOAD MAPS IN ADDITION TO THE WEIGHT OF THE SUPPORTED EQUIPMENT AND SELF WEIGHT OF THE MACHINE ROOM FLOOR/ROOF STRUCTURE.

THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL MISCELLANEOUS METALS THAT ARE INDICATED IN THE ARCHITECTURAL DRAWINGS OR THOSE METALS WHICH ARE FOUND TO BE NECESSARY TO SUPPORT THE ARCHITECTURAL FINISHES OR OTHER BUILDING SYSTEMS.

ALL FRAMING AND CONNECTIONS DESIGNED BY THE CONTRACTOR SHALL NOT RESULT IN ECCENTRIC LOADS BEING APPLIED TO THE PRIMARY STRUCTURE NOR LATERAL LOADS BEING APPLIED TO THE BOTTOM FLANGE OF STEEL BEAMS. THE CONTRACTOR'S DESIGN SHALL VERIFY THAT THE CONNECTIONS DO NOT RESULT IN ADVERSE LOCAL CONNECTION STRESSES OCCURRING WITHIN THE PRIMARY STRUCTURE. SUBMIT CALCULATIONS STAMPED BY A STRUCTURAL ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED AND SHOP DRAWINGS INDICATING IMPOSED LOADS ON THE PRIMARY STRUCTURE.

MECHANICAL/ELECTRICAL/PLUMBING SYSTEM SUPPORTS

THE CONTRACTOR SHALL DESIGN AND SUPPLY ALL ADDITIONAL MISCELLANEOUS METALS AND SYSTEM SUPPORT COMPONENTS THAT ARE NECESSARY TO SUPPORT ALL MECHANICAL, ELECTRICAL (TELECOM, AUDIO VISUAL, ETC), AND PLUMBING/FIRE-PROTECTION SYSTEMS. SUCH METALS AND SUPPORT COMPONENTS AND THEIR CONNECTIONS SHALL BE PROVIDED AS NECESSARY TO DIRECTLY AND CONCENTRICALLY IMPOSE LOADS ON THE PRIMARY STRUCTURE. STEEL ROOF DECK SHALL NOT DIRECTLY SUPPORT THESE SYSTEMS. THE CONNECTIONS TO THE PRIMARY STRUCTURE ARE SUBJECT TO THE REQUIREMENTS OF THE MISCELLANEOUS METALS SECTION ABOVE.

INTERIOR METAL STUD FRAMING

INTERIOR PARTITIONS SHALL CONSIST OF METAL STUD TYPE FRAMING THAT HAS CURRENT ICC-ES EVALUATION REPORTS. CONNECTION OF STUDS, TRACK, AND OTHER ITEMS BY MEANS OF EITHER DRILLED-IN ANCHORAGE OR POWDER DRIVEN FASTENERS SHALL OCCUR WITH FASTENERS AS INDICATED IN THE METAL STUD ICC-ES REPORTS. CONNECTIONS SHALL ALLOW FOR THE BUILDING MOVEMENTS CITED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN OF SOFFITS, SUSPENDED WALLS, CEILINGS, OR CONDITIONS WHERE THE STUD FRAMING IS USED TO SUPPORT CASEWORK OR SIZEABLE DOOR/WINDOW HARDWARE. THE METAL STUD FRAMING AND ANY MISCELLANEOUS STEEL FRAMING THAT IS DETERMINED TO BE NECESSARY BASED ON THE CONTRACTOR'S DESIGN. SUBMIT DESIGN CALCULATIONS AND SHOP DRAWINGS INDICATING IMPOSED LOADS ON THE PRIMARY STRUCTURE FOR THESE CONDITIONS. SUBMITTED DOCUMENTS SHALL BEAR THE STAMP AND SIGNATURE OF AN ENGINEER LICENSED TO PERFORM THE WORK IN THE JURISDICTION WHERE THE PROJECT IS LOCATED.

BUILDING TOLERANCES

STANDARD TOLERANCES SHALL BE BASED ON THE REQUIREMENTS OF THE AISC CODE OF STANDARD PRACTICE AND ACI 117, STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS.

SEQUENCING CONSTRUCTION AND LATERAL STABILITY

THE STRUCTURAL COMPONENTS BY THEMSELVES ARE A NON-SELF-SUPPORTING STRUCTURE. LATERAL FORCES DUE TO WIND, EARTHQUAKE, OR SOIL ARE CARRIED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE LATERAL SYSTEM. CERTAIN ELEMENTS SHOWN ON THE STRUCTURAL DRAWINGS (SUCH AS SHEAR WALLS, ROOF AND FLOOR SLABS) ARE REQUIRED FOR OVERALL OR LOCAL STABILITY OF OTHER ELEMENTS (SUCH AS BEAMS, COLUMNS, AND WALLS). IF, DUE TO SEQUENCING OF CONSTRUCTION, THESE STABILITY ELEMENTS ARE NOT IN PLACE, THE CONTRACTOR SHALL RETAIN A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON WHO SHALL INVESTIGATE WHERE TEMPORARY SHORING/BRACING IS REQUIRED AND SHALL DESIGN THIS TEMPORARY SHORING/BRACING. THE CONTRACTOR SHALL PROVIDE THIS SHORING/BRACING UNTIL THE REQUIRED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS HAVE BEEN INSTALLED AND REACH THEIR FINAL DESIGN STRENGTHS.

DEFERRED STRUCTURAL SUBMITTALS

SOME STRUCTURAL SYSTEMS ARE DEFINED AS VENDOR-DESIGNED COMPONENTS PER THE STRUCTURAL DOCUMENTS. THESE ELEMENTS OF THE DESIGN ARE DEFERRED SUBMITTAL COMPONENTS AND HAVE NOT BEEN PERMITTED UNDER THE BASE BUILDING APPLICATION. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT THE STAMPED COMPONENT SYSTEM DOCUMENTS TO THE BUILDING OFFICIAL FOR APPROVAL.

DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

THE FOLLOWING LIST INCLUDES THE ITEMS THAT ARE DEFINED AS DEFERRED STRUCTURAL SUBMITTAL COMPONENTS. REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR ADDITIONAL DEFERRED SUBMITTAL COMPONENTS.

DEFERRED STRUCTURAL SUBMITTAL COMPONENTS:

- EXTERIOR CLADDING
- METAL STUD SYSTEMS
- POST-TENSIONING SYSTEMS
- METAL STAIRS AND LANDINGS

MISCELLANEOUS

REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, ELEVATOR, OR OTHER SPECIALTY ENGINEERING DRAWINGS FOR DIMENSIONS NOT SHOWN, INCLUDING BUT NOT LIMITED TO: SIZE AND LOCATION OF CURBS, EQUIPMENT HOUSEKEEPING PADS, WALL AND FLOOR OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, SLOPES, DRAINS, ANCHOR BOLTS, EMBEDDED ITEMS, ARCHITECTURAL TREATMENT, ETC. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND RESOLVE DISCREPANCIES OR CONFLICTS PRIOR TO CONSTRUCTION.

WHERE SECTIONS ARE INDICATED ON THE PLAN BY A NUMBER AND A DRAWING NUMBER THUS, 1/S5.01, THE INDICATED SECTION (1) IS SHOWN ON STRUCTURAL DRAWING S5.01.

SPECIAL INSPECTION

THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION AND TESTING PER IBC SECTION 1704. THIS WORK SHALL BE PERFORMED BY A SPECIAL INSPECTOR CERTIFIED BY THE CITY OF SEATTLE TO PERFORM THE TYPES OF INSPECTIONS AND TESTS SPECIFIED. THE FREQUENCY OF INSPECTIONS AND TESTING SHALL BE AS OUTLINED IN THE IBC TABLE ITEMS LISTED BELOW. DEFICIENCIES SHALL BE REPORTED DAILY TO THE CONTRACTOR. SUMMARY REPORTS SHALL BE DISTRIBUTED WEEKLY TO THE OWNER, ARCHITECT, CONTRACTOR, BUILDING OFFICIAL, AND STRUCTURAL ENGINEER. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION AND TESTING.

ITEM	DESCRIPTION (REFER TO IBC SECTION 1704)		IBC TABLE REQUIREMENTS
CONCRETE	CONCRETE THAT IS PART OF THE STRUCTURE.		TABLE 1704.4, ITEMS 4, 5, 6, 7, 9, AND 10
BOLTS INSTALLED IN CONCRETE	ANCHOR BOLTS, HEADED STUDS (EXCEPT AT BEAM-TO-DECK INSTALLATION).		TABLE 1704.4, ITEM 3
BOUNDARY ELEMENTS IN SHEAR WALLS			TABLE 1704.3, ITEM 5B
REINFORCING STEEL AND PRESTRESSING STEEL TENDONS	A.	STRESSING AND GROUTING OF TENDONS.	TABLE 1704.4, ITEM 8
	B.	PLACEMENT OF REINFORCING STEEL AND PRESTRESSING TENDONS.	TABLE 1704.4, ITEM 1
	C.	SPLICING OF REINFORCING BY BUTT WELDING, EXOTHERMIC WELDING PROCESS, OR THREADED COUPLERS.	TABLE 1704.4, ITEM 1
STRUCTURAL STEEL AND WELDING	A.	STRUCTURAL STEEL THAT IS PART OF THE STRUCTURE.	TABLE 1704.3, ITEM 3
	B.	WELDING OF MEMBERS OR CONNECTIONS.	TABLE 1704.3, ITEM 4
	C.	WELDING OF REINFORCING STEEL.	TABLE 1704.4, ITEM 2
HIGH STRENGTH BOLTING	SEE SPECIFICATIONS FOR PROCEDURES FOR INSPECTION AND TESTING.		TABLE 1704.3, ITEM 2
STRUCTURAL MASONRY	ALL MASONRY SHOWN ON STRUCTURAL DRAWINGS INCLUDING MASONRY SHOWN IN TYPICAL DETAILS BUT LOCATED ON ARCHITECTURAL DRAWINGS.		TABLE 1704.5, ITEM 1
DRILLED PIERS			
SHOTCRETE			TABLE 1704.4, ITEMS 5 AND 6
SPECIAL GRADING, EXCAVATION AND FILLING	A.	FOUNDATION EXCAVATIONS AND BEARING STRATA.	TABLE 1704.4
	B.	BACKFILL BEHIND STRUCTURAL WALLS OR SUPPORTING SLAB-ON-GRADE.	
SPECIAL CASES	A.	DRILLED-IN CONCRETE ANCHORS: PERIODIC SPECIAL INSPECTION SHALL INCLUDE VISUAL OBSERVATION OF DRILLED HOLE SPACINGS, EDGE DISTANCES, AND TENSION TESTING OF 5 PERCENT OF ANCHORS SHOWN ON STRUCTURAL DRAWINGS. TEST LOAD SHOULD BE 2 TIMES THE MANUFACTURER'S ALLOWABLE LOAD OF THE ANCHOR IN TENSION.	
	B.	EPOXY OR CEMENT GROUTED DOWELS OR ANCHORS: OBSERVE DRILLED HOLES AFTER CLEANING AND OBSERVE INSTALLATION OF GROUT AND ANCHORS.	

SHOP DRAWINGS

SHOP DRAWINGS FOR REINFORCING STEEL AND STRUCTURAL STEEL SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

THE CONTRACTOR SHALL SUBMIT CONCRETE WALL ELEVATION DRAWINGS OF AT LEAST ¼" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENTS AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH REINFORCEMENT DRAWINGS.

DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD; THEREFORE, THEY SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO. SUBMITTALS SHALL INCLUDE ONE REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED, AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWINGS SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

SHOP DRAWINGS FOR DEFERRED SUBMITTALS THAT ARE DEFINED AS DESIGN-BUILD COMPONENTS IN THE CONSTRUCTION DOCUMENTS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP FOR THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO SUBMITTAL FOR REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL.

STRUCTURAL OBSERVATION

THE ENGINEER OF RECORD SHALL PROVIDE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT THE COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY IBC SECTIONS 109, 1704, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE. STRUCTURAL OBSERVATION REPORTS SHALL BE ISSUED TO THE OWNER, ARCHITECT, CONTRACTOR, AND BUILDING OFFICIAL AT SIGNIFICANT CONSTRUCTION STAGES.

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

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PROJ NO: 00000.00
DATE: YYYY/MMM/DD

SHEET: GENERAL NOTES

SHEET NO: S0.03

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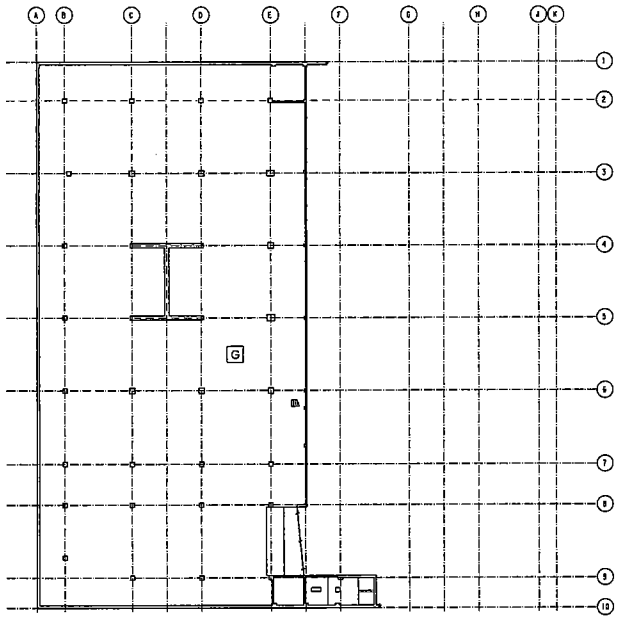
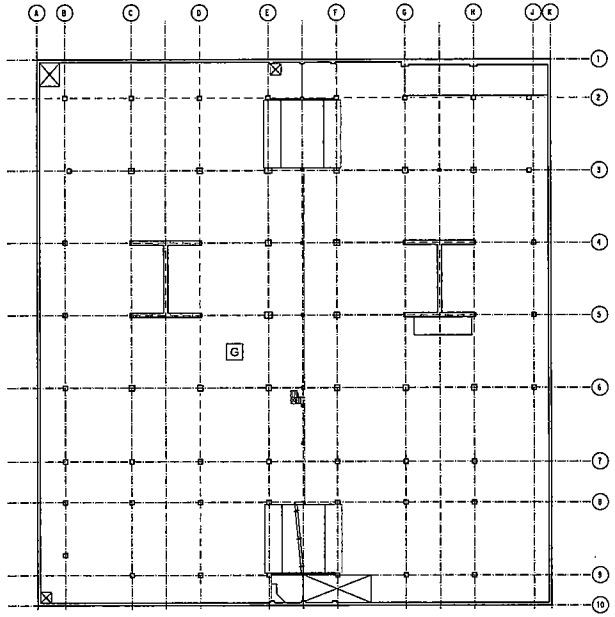


LEVEL P5 | 7



LEVEL P4 | 9

LOAD SCHEDULE

D LOADING DOCK
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 5 PSF
- LL: UNREDUCIBLE 250 PSF

G GARAGE
- DL: SELF WEIGHT OF STRUCTURE
- SDL: 5 PSF
- LL (REDUCIBLE AT COLS ONLY): 40 PSF

I INTERIOR FLOOR
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 10 PSF
- LL: UNREDUCIBLE 100 PSF

L LOBBY
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 10 PSF
- SDL: FLOORING 37 PSF
- LL: UNREDUCIBLE 100 PSF

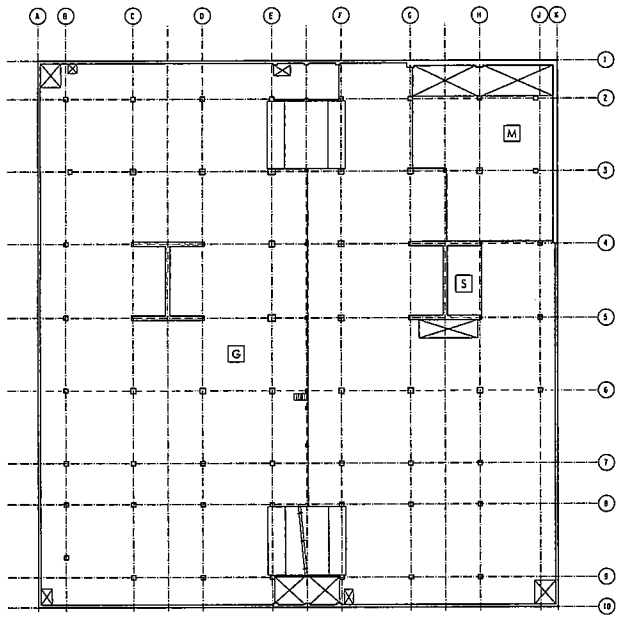
M MECHANICAL
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P, HOUSEKEEPING PADS 10 PSF
- LL NOTE 1: 40 PSF

P PLAZA
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P PSF
- SDL: PAVERS PSF
- LL: UNREDUCIBLE 100 PSF

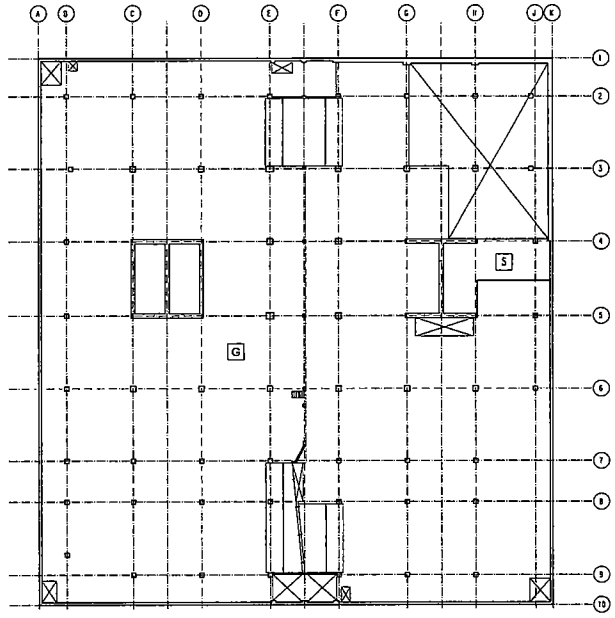
R ROOF
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 10 PSF
- LL: UNREDUCIBLE 25 PSF

S STORAGE
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 10 PSF
- LL: UNREDUCIBLE 125 PSF

W SIDEWALK
- DL: SELF WEIGHT OF STRUCTURE
- SDL: M/E/P 10 PSF
- SDL: STRUCT FILL 400 PSF
- SDL: 4" CONCRETE SIDEWALK 50 PSF
- LL: UNREDUCIBLE 250 PSF



LEVEL P3 | 17



LEVEL P2 | 19

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20

EXHIBIT E

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GARAGE PERMIT SET

KEY	DATE	DESCRIPTION
DRAWN BY:		PROJ MGR: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MM/DD

LOAD MAPS

S1.01

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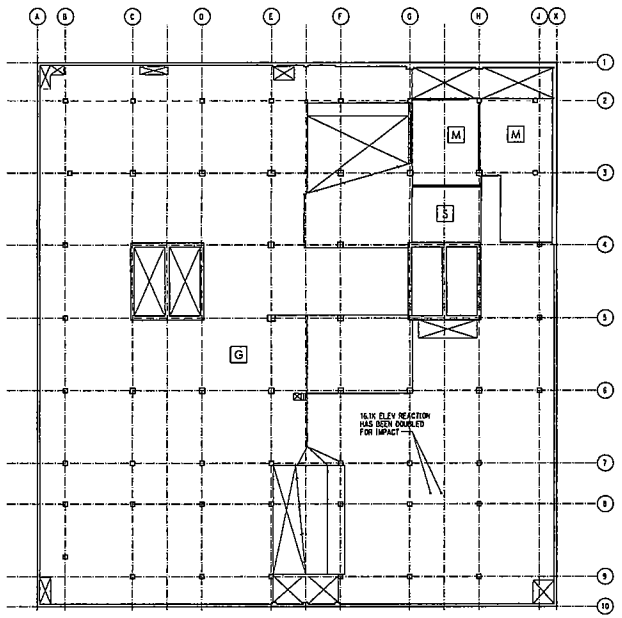
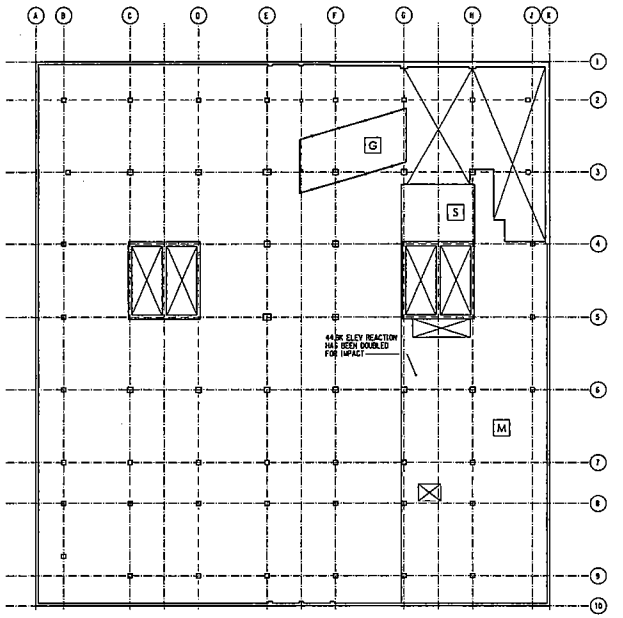


LEVEL P1 | 7



LEVEL G | 9

LOAD SCHEDULE

D LOADING DOCK

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 5 PSF
LL	UNREDUCIBLE 250 PSF

G GARAGE

DL	SELF WEIGHT OF STRUCTURE
SDL	5 PSF
LL (REDUCIBLE AT COLS ONLY)	40 PSF

I INTERIOR FLOOR

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 100 PSF

L LOBBY

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	FLOORING 37 PSF
LL	UNREDUCIBLE 100 PSF

M MECHANICAL

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1	40 PSF

P PLAZA

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P PSF
SDL	PAVERS PSF
LL	UNREDUCIBLE 100 PSF

R ROOF

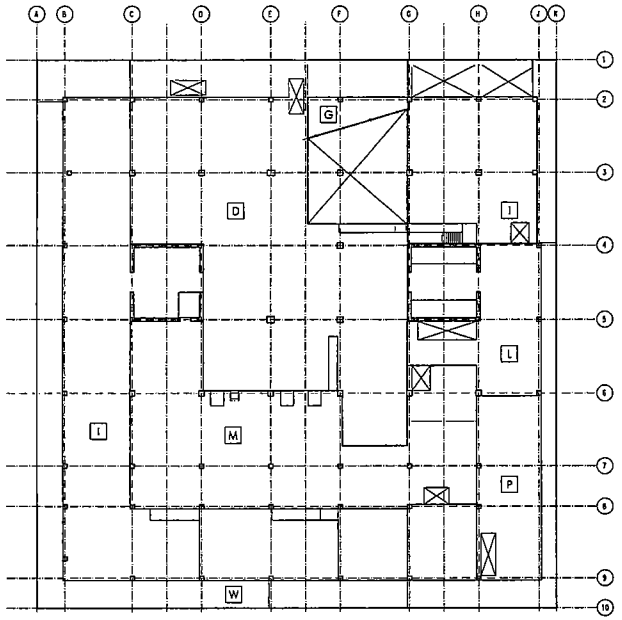
DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 25 PSF

S STORAGE

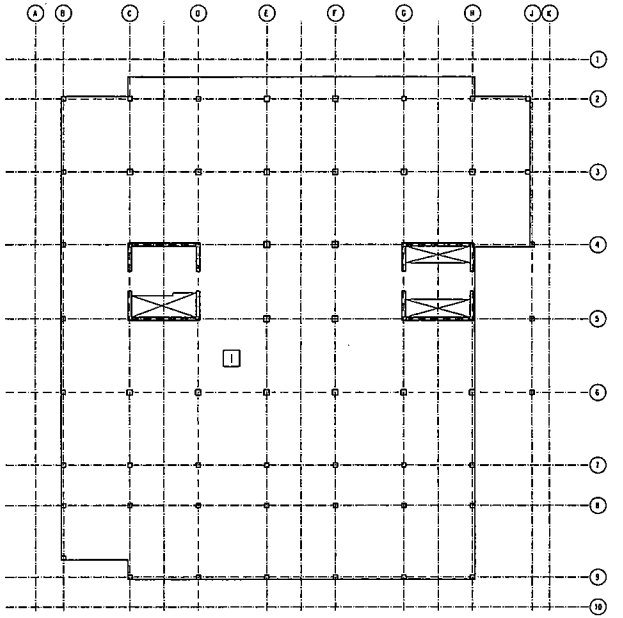
DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 125 PSF

W SIDEWALK

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	STRUCT FILL 400 PSF
SDL	4" CONCRETE SIDEWALK 50 PSF
LL	UNREDUCIBLE 250 PSF



LEVEL S/01 | 17



LEVEL 02 | 19

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20

EXHIBIT E

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GARAGE PERMIT SET

BY	DATE	DESCRIPTION
DRAWN BY:		PROJ MGR: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MM/DD

LOAD MAPS

S1.02

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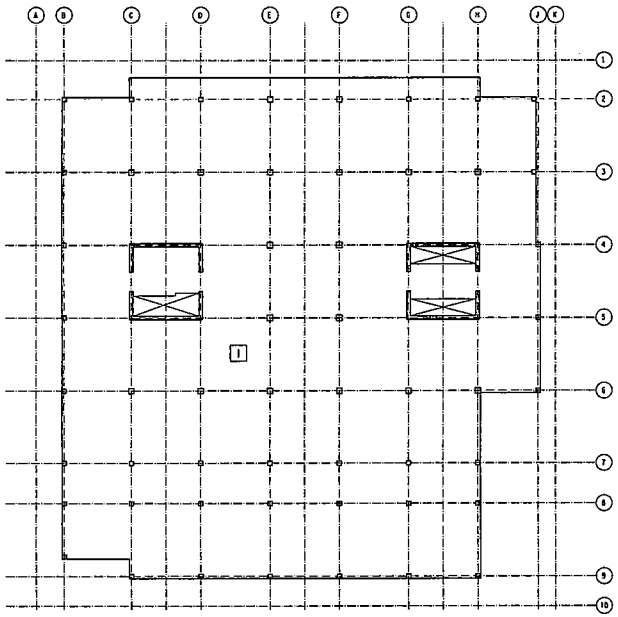
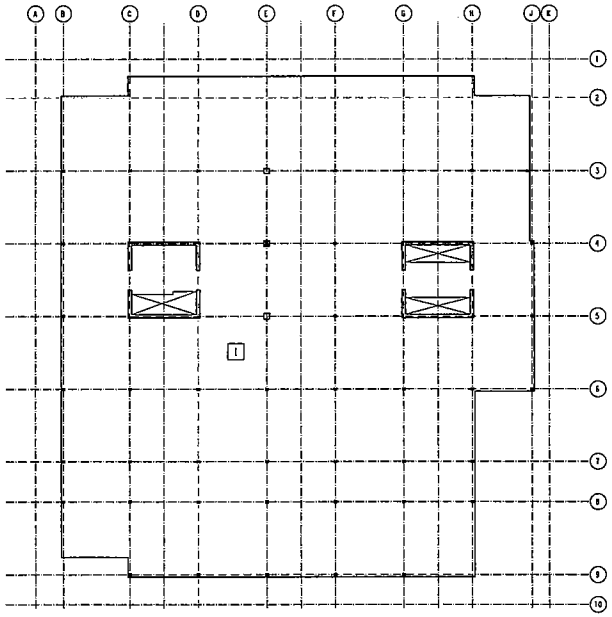


LEVEL 03 | 7



LEVEL 04 | 9

LOAD SCHEDULE

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SDL	M/E/P 5 PSF
LL	UNREDUCIBLE 250 PSF

G GARAGE

DL	SELF WEIGHT OF STRUCTURE
SDL	5 PSF
LL (REDUCIBLE AT COLS ONLY)	40 PSF

I INTERIOR FLOOR

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 100 PSF

L LOBBY

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	FLOORING 37 PSF
LL	UNREDUCIBLE 100 PSF

M MECHANICAL

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1	40 PSF

P PLAZA

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P PSF
SDL	PAVERS PSF
LL	UNREDUCIBLE 100 PSF

R ROOF

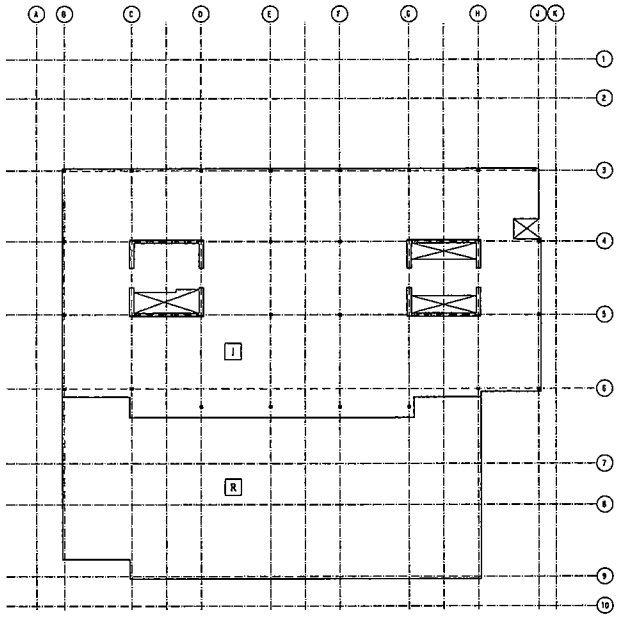
DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 25 PSF

S STORAGE

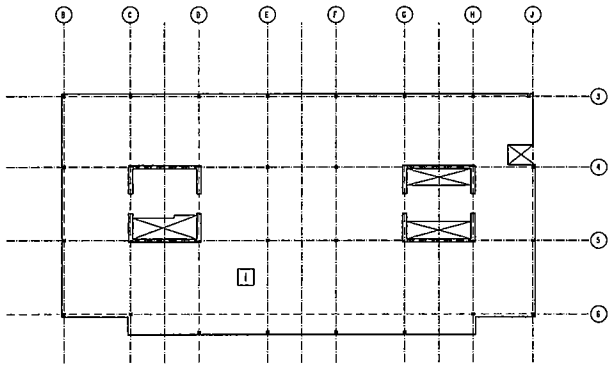
DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
LL	UNREDUCIBLE 125 PSF

W SIDEWALK

DL	SELF WEIGHT OF STRUCTURE
SDL	M/E/P 10 PSF
SDL	STRUCT FILL 400 PSF
SDL	4" CONCRETE SIDEWALK 50 PSF
LL	UNREDUCIBLE 250 PSF



LEVEL 05 | 17



LEVEL 06-14 | 19

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES | 20

EXHIBIT E

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DATE:		YYYY/MM/DD

LOAD MAPS

S1.03

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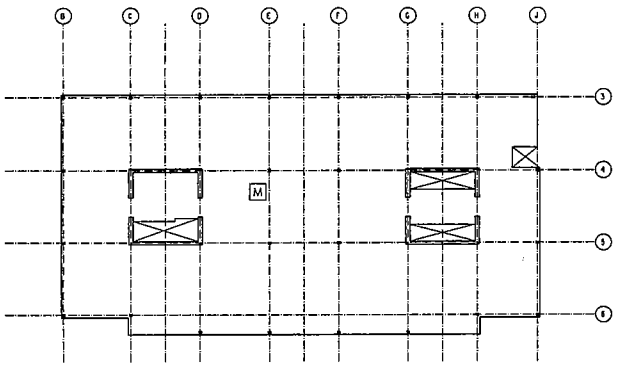

PENTHOUSE 2

4

12

14

17

19

EXHIBIT E

LOAD SCHEDULE

D LOADING DOCK
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 5 PSF
LL — UNREDUCIBLE 250 PSF

G GARAGE
DL — SELF WEIGHT OF STRUCTURE
SDL — 0 PSF
LL (REDUCIBLE AT COLS ONLY) — 40 PSF

I INTERIOR FLOOR
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
LL — UNREDUCIBLE 100 PSF

L LOBBY
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
SDL — FLOORING 37 PSF
LL — UNREDUCIBLE 100 PSF

M MECANICAL
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P, HOUSEKEEPING PADS 10 PSF
LL NOTE 1 — 40 PSF

P PLAZA
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
SDL — PAVERS 20 PSF
LL — UNREDUCIBLE 100 PSF

R ROOF
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
LL — UNREDUCIBLE 25 PSF

S STORAGE
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
LL — UNREDUCIBLE 125 PSF

W SIDEWALK
DL — SELF WEIGHT OF STRUCTURE
SDL — W/E/P 10 PSF
SDL — STRUCT FILL 400 PSF
SDL — 4" CONCRETE SIDEWALK 50 PSF
LL — UNREDUCIBLE 250 PSF

NOTES:

1. FOR MECHANICAL ROOMS, LOADS FOR ACTUALLY EQUIPMENT WILL BE USED WHERE THEY EXCEED 125 PSF

DESIGNATIONS AND NOTES 20

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LOAD MAPS

S1.04

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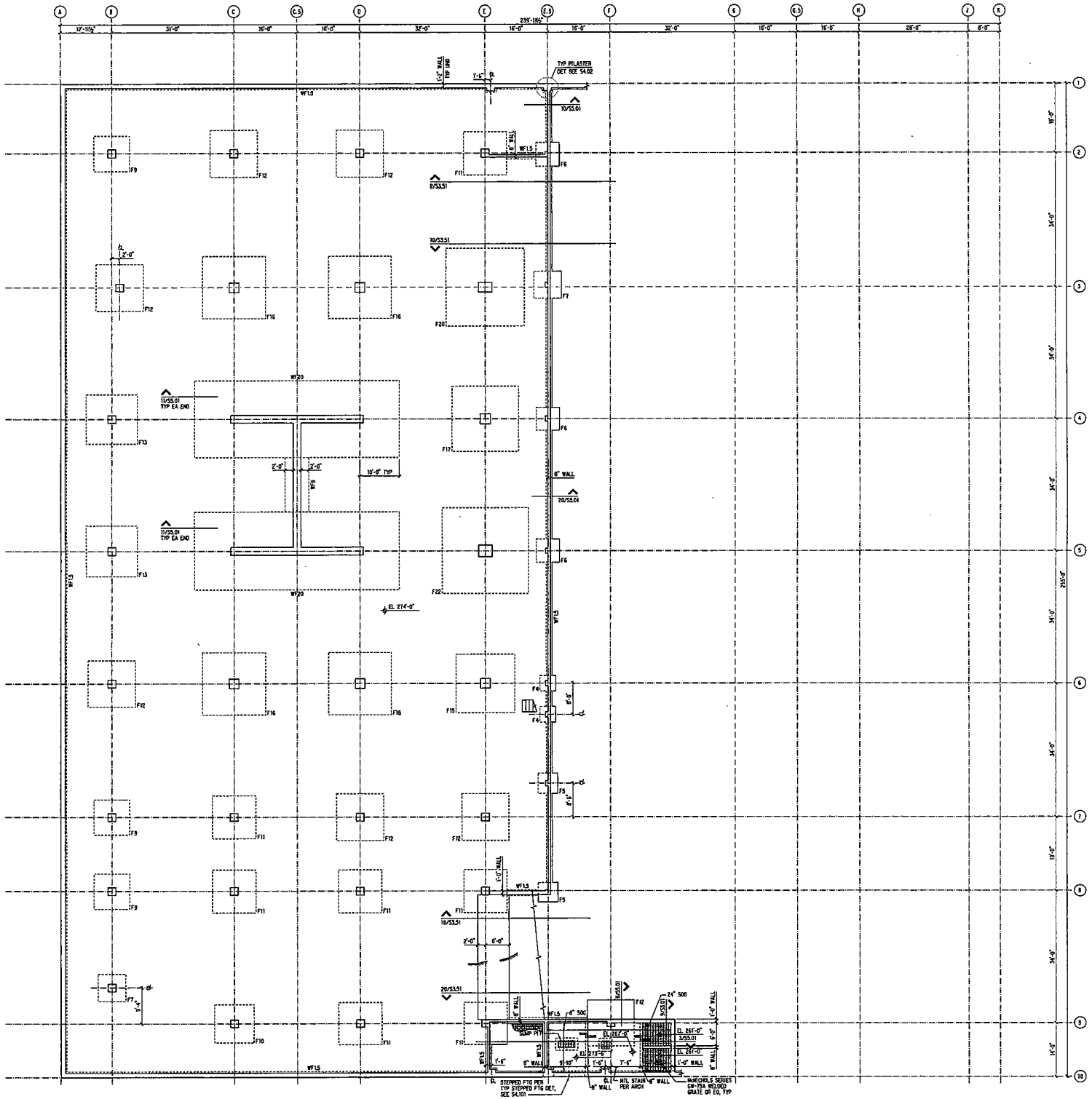

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

FOUNDATION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB ON GRADE IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. (FOR SLAB ON GRADE SLOPES TO DRAIN - SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS)
2. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE. REINFORCED PER TYPICAL SLAB ON GRADE DETAILS. SLAB ON GRADE SHALL BE PLACED ATOP COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. ( ) INDICATES TOP OF FOOTING ELEVATION. TOP OF FOUNDATION COINCIDES WITH BOTTOM OF SLAB ON GRADE, UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, UNLESS NOTED OTHERWISE.
4. "FS" INDICATES FOOTING MARK. SEE COLUMN FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.
5. "C2" INDICATES CONCRETE COLUMN MARK. SEE TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE.
6. REFERENCE ALL CONSTRUCTION DOCUMENTS FOR SIZE, EXTENT, AND LOCATION OF CONCRETE CURBS, HOUSEKEEPING PADS, CMU WALLS, PLANTER WALLS, BOLLARDS, EDGE ANGLES, AND SLAB PENETRATIONS. REINFORCE PER TYPICAL DETAILS.
7. "WF1.5" INDICATES WALL FOOTING MARK. SEE WALL FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.

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PROJ NO:		00000.00
DATE:		YYYY/MM/DD

LEVEL P5 FOUNDATION AND FRAMING PLAN

S2.00

SCALE: 1/8" = 1'-0"

EXHIBIT E

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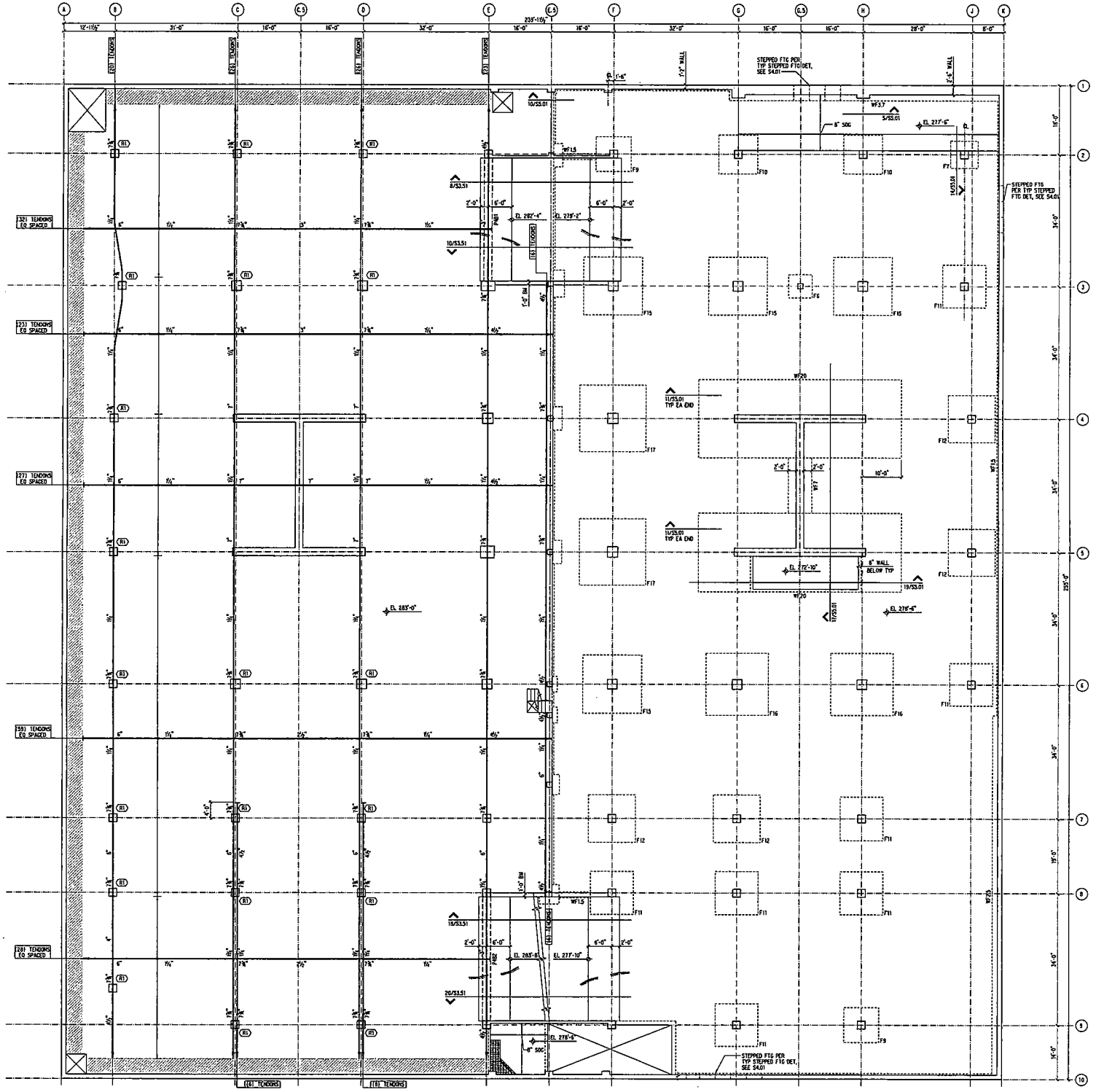

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

FOUNDATION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB ON GRADE IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. (OR SLAB ON GRADE SLOPES TO DRAIN - SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS)
2. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE. REINFORCED PER TYPICAL SLAB ON GRADE DETAILS. SLAB ON GRADE SHALL BE PLACED ATOP COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. ( ) INDICATES TOP OF FOOTING ELEVATION. TOP OF FOUNDATION COINCIDES WITH BOTTOM OF SLAB ON GRADE, UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, UNLESS NOTED OTHERWISE.
4. "FS" INDICATES FOOTING MARK. SEE COLUMN FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.
5. "CR" INDIATES CONCRETE COLUMN MARK. SEE TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE.
6. REFERENCE ALL CONSTRUCTION DOCUMENTS FOR SIZE, EXTENT, AND LOCATION OF CONCRETE CURBS, HOUSEKEEPING PADS, CMU WALLS, PLANTER WALLS, BOLLARDS, EDGE ANGLES, AND SLAB PENETRATIONS. REINFORCE PER TYPICAL DETAILS.
7. "WF1.5" INDICATES WALL FOOTING MARK. SEE WALL FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.

POST TENSION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 9 INCH THICK UNBONDED POST-TENSIONED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL POST-TENSIONING DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. "R2" INDICATES SLAB SHEAR REINFORCEMENT AT COLUMNS. SEE TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE.
6. HATCHED AREAS INDICATE POUR STRIPS. WAIT 14 DAYS MINIMUM AFTER PLACING BEAM AND SLAB CONCRETE PRIOR TO CASTING POUR STRIPS.

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LEVEL P4 FOUNDATION AND FRAMING PLAN

SCALE: 1/8" = 1'-0"

S2.01

EXHIBIT E

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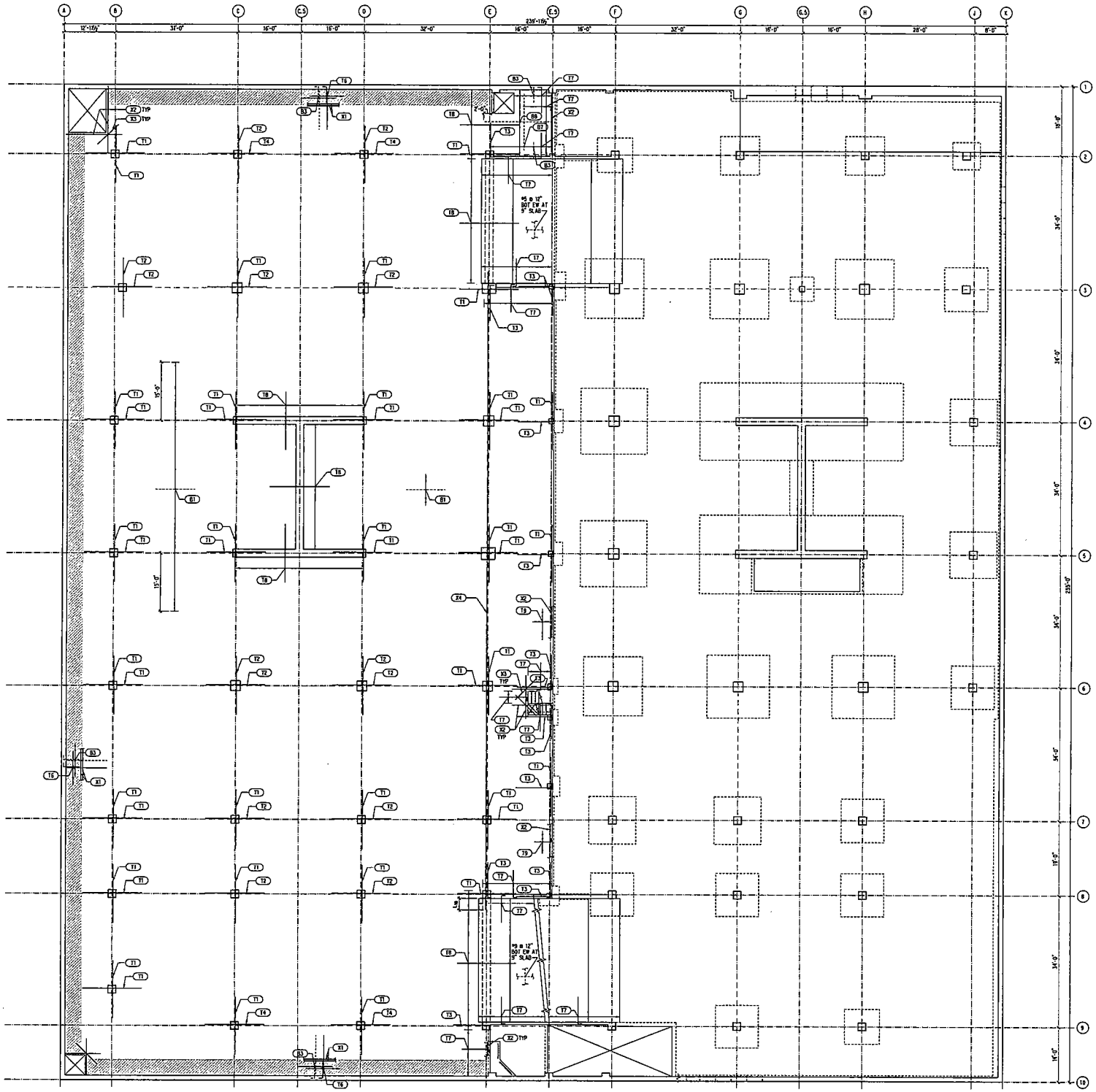

REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
T1	(9) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(9) #5x7'-6"	
T4	(17) #5x15'-0"	
T5	#5x4'-6" @ 12"	
T6	#5x3'-6" @ 12"	
T7	#5x5'-6" @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x5'-0" @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #8x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #8x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 5'-0"
T14	(8) #8x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x1'-0" @ 12"	
T16	(12) #5x15'-0" @ 6"	
T17	(24) #8x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x1'-6" @ 6"	HOOK PER PLAN
T19	(4) #8x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #8x2'-0" @ 12"	
T22		

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x2'-6" @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x1'-0" @ 12"	
B6	#5x20'-0" @ 12"	STAGGER 5'-0"
B7	#5x15'-0" @ 9"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
X1	#4xCONT	TOP & BOT SPLICE L_{st}
X2	(2) #5xCONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
X3	(2) #5x7'-6"	CORNER BAR
X4	(6) #11	MID-DEPTH DRAG REINF SPLICE L_{st} AS REQD
X5	(2) #8x15'0"	CORNER BAR

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LEVEL P4 REINFORCING PLAN

S2.01R

SCALE: 1/8" = 1'-0"

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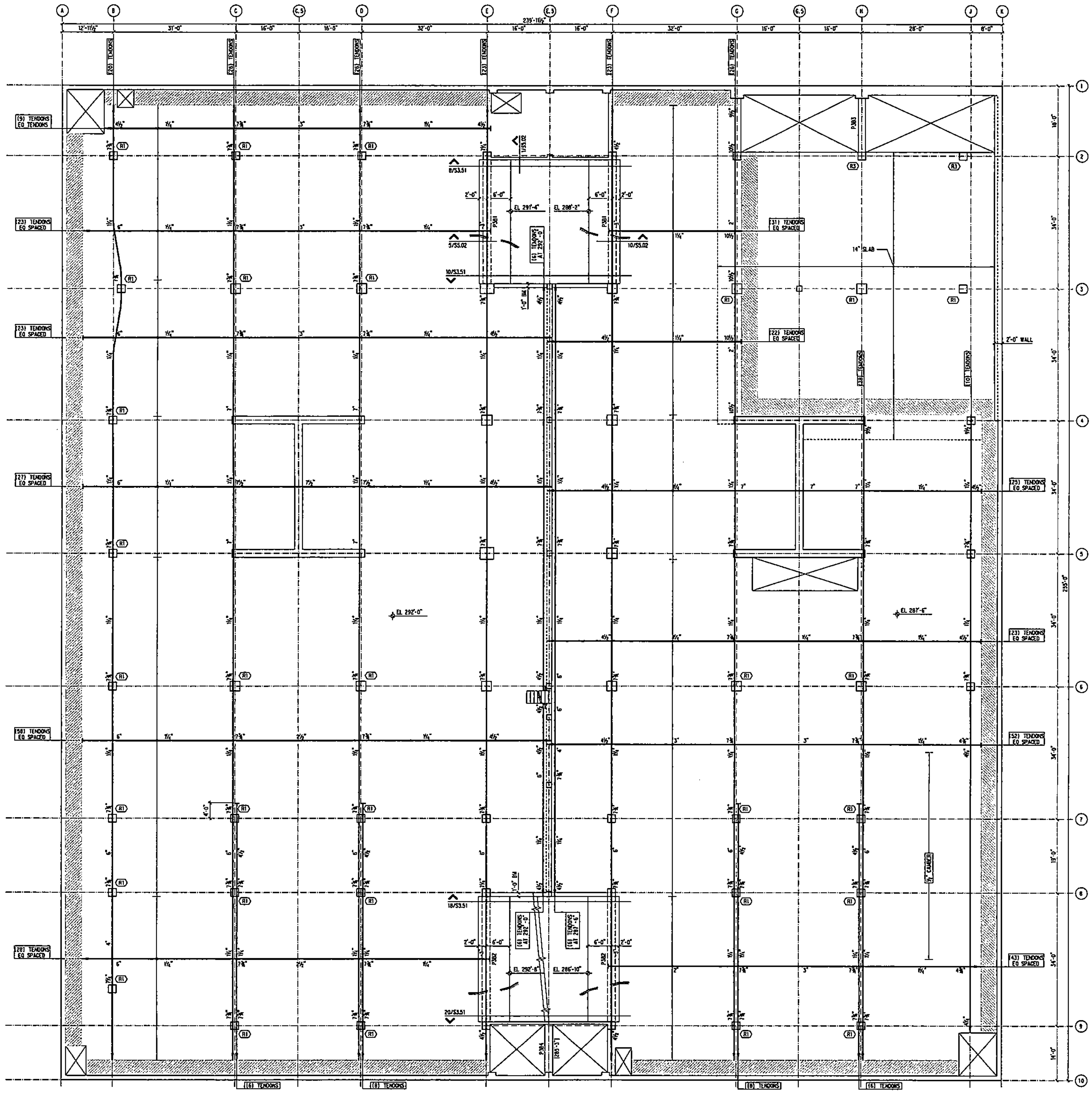

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

POST TENSION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 9 INCH THICK BONDED POST-TENSIONED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL POST-TENSIONING DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. "R2" INDICATES SLAB SHEAR REINFORCEMENT AT COLUMNS. SEE TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE.
6. HATCHED AREAS INDICATE POUR STRIPS. WAIT 14 DAYS MINIMUM AFTER PLACING BEAM AND SLAB CONCRETE PRIOR TO CASTING POUR STRIPS.

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PROJ NO.		00000.00
DATE		YYYY/MM/DD

LEVEL P3 FRAMING PLAN

S2.02

EXHIBIT E

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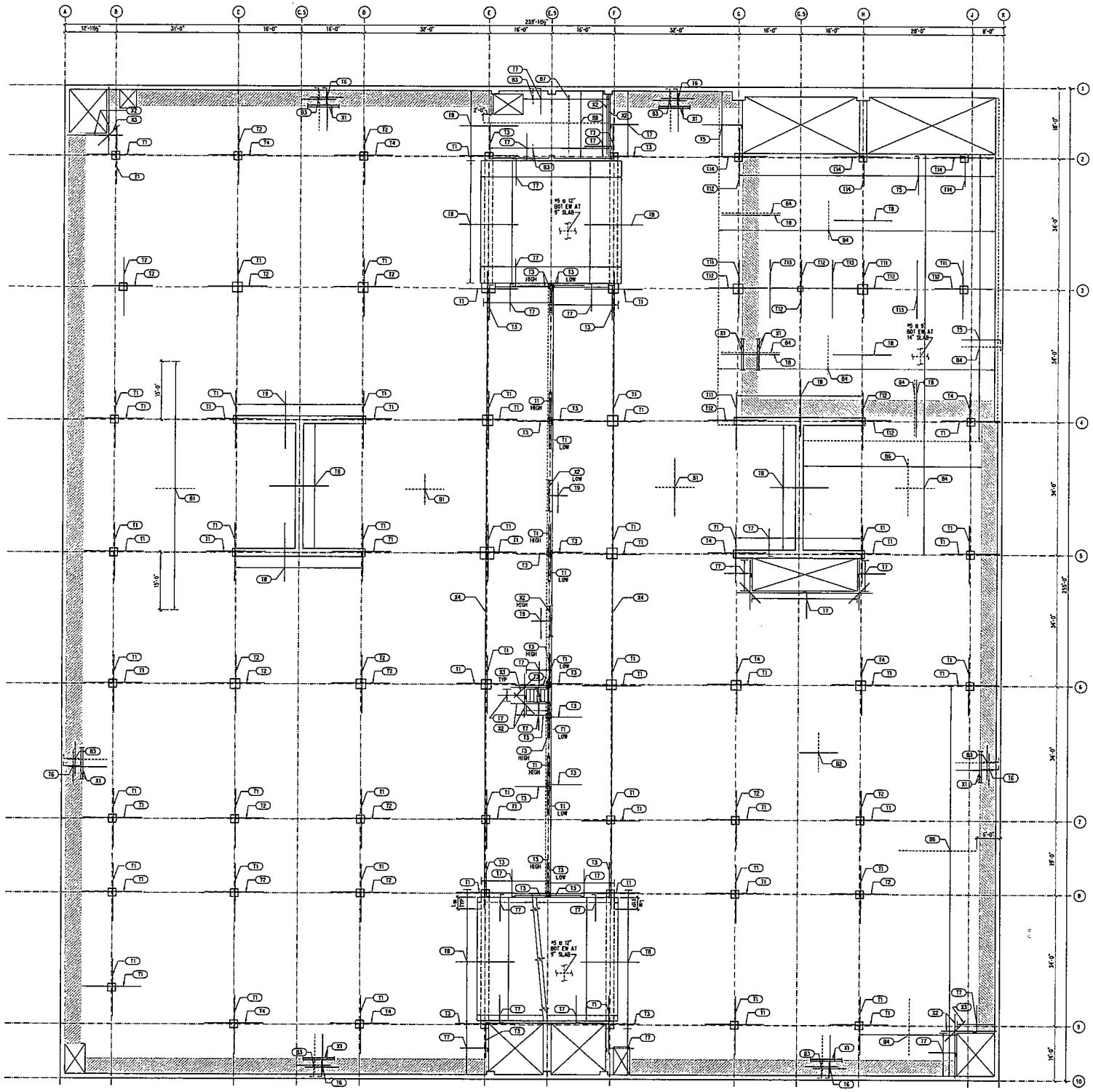

REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
T1	(9) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(9) #5x[illegible]	
T4	(17) #5x15'-0"	
T5	#5x[illegible] @ 12"	
T6	#5x[illegible] @ 12"	
T7	#5x[illegible] @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x[illegible] @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #5x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #5x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x35'-0" @ 8"	STAGGER 5'-0"
T14	(8) #5x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x[illegible] @ 12"	
T16	(12) #5x15'-0" @ 6"	
T17	(24) #5x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x[illegible] @ 6"	HOOK PER PLAN
T19	(4) #5x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #5x[illegible] @ 12"	
T22		

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x[illegible] @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x[illegible] @ 12"	
B6	#5x20'-0" @ 12"	STAGGER 5'-0"
B7	#5x15'-0" @ 9"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
X1	#4xCONT	TOP & BOT SPLICE Ls
X2	(2) #5xCONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
X3	(2) #5x7'-6"	CORNER BAR
X4	(6) #11	MID-DEPTH DRAG REINF SPLICE Ls AS REQD
X5	(2) #9x15'0"	CORNER BAR

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

DRAWN BY: DLJ
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DATE: YYYY/MMM/DD

LEVEL P3 REINFORCING PLAN

S2.02R

SCALE: 1/8" = 1'-0"

EXHIBIT E

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GARAGE
PERMIT SET

1			
2			
3			
4			
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6			
NO.	DATE	DESCRIPTION	
DRAWN:		PROJ. MGR:	DJJ
PROJ. NO.			00000.00
DATE:			YYYY/MM/DD

LEVEL P2
FRAMING
PLAN

S2.03

SCALE: 1/8"=1'-0"

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. PLANS
S2. ELEVATIONS
S3. TYPICAL DETAILS AND SCHEDULES
S4. CONCRETE SECTIONS AND DETAILS
S5. STEEL SECTIONS AND DETAILS
S6.

POST-TENSION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS 1/4" LOWER THAN REFERENCE FLOOR ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 9 INCH THICK BONDED POST-TENSIONED CONCRETE SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SECTIONS AND DETAILS.
3. COORDINATE LOCATIONS OF OPENINGS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. ADDITIONAL REINFORCING MAY BE REQUIRED AT OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE ARCHITECTURAL DRAWINGS DO NOT SHOW OPENINGS. SEE ARCHITECTURAL DRAWINGS FOR SIZES, LOCATIONS, AND DETAILS OF ALL DUCTS, PIPES, SHAFTS, AND OTHER OPENINGS PASSING THROUGH THE SLAB.
5. "ZIG" INDICATES SLAB EDGE DISCONTINUITY AT COLUMNS. SEE TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE.
6. HATCHED AREAS INDICATE POUR STRIPS. WAIT 14 DAYS MINIMUM AFTER PLACING BEAM AND SLAB CONCRETE PRIOR TO CASTING POUR STRIPS.

EXHIBIT E

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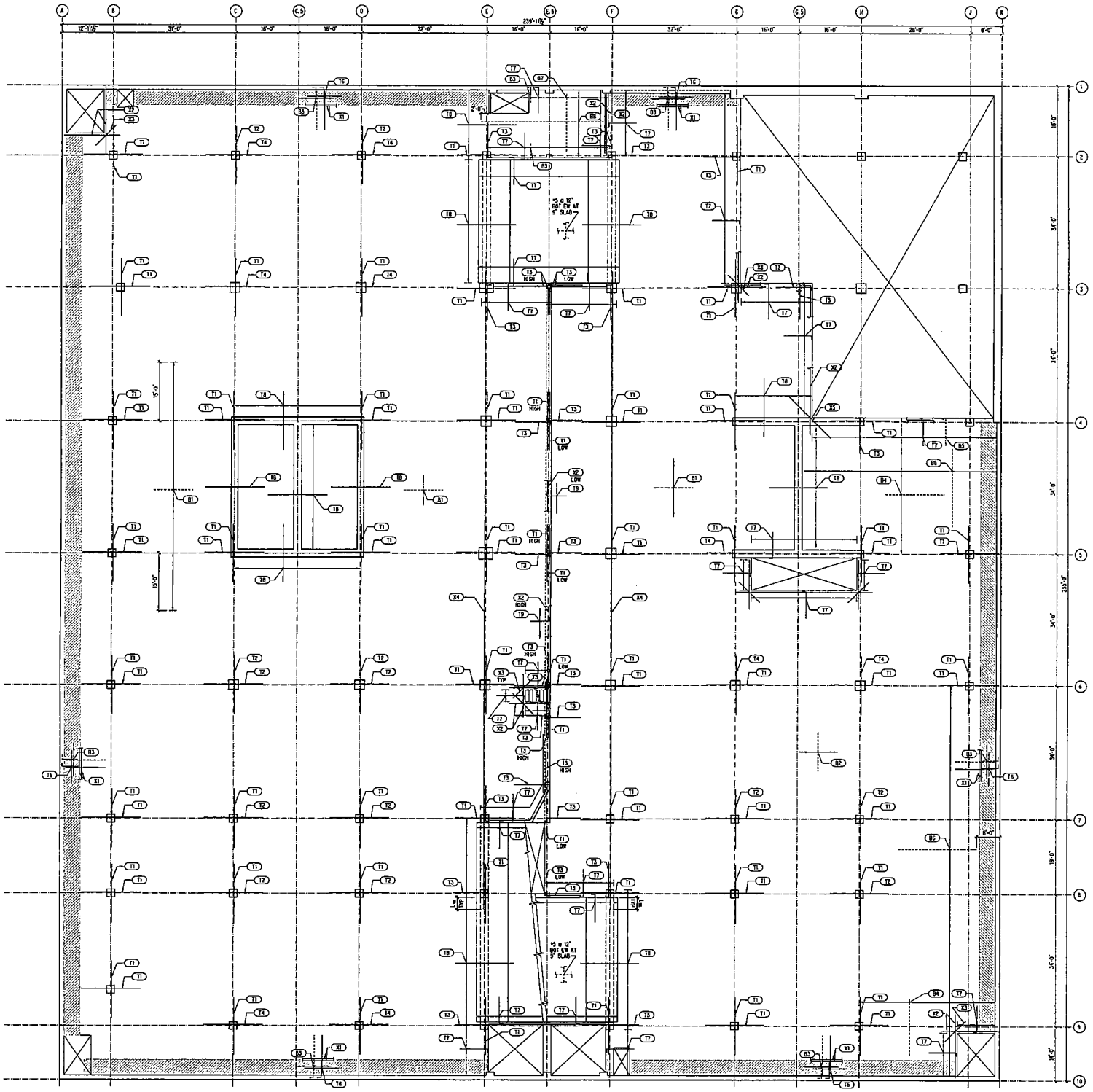

REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
T1	(3) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(3) #5@ 6'-0"	
T4	(17) #5x15'-0"	
T5	#5@ 6'-0" @ 12"	
T6	#5x(12'-0"/6'-0") @ 12"	
T7	#5x(6'-0"/4'-0") @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x(6'-0"/4'-0") @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #5x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #5x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 5'-0"
T14	(8) #5x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x(10'-0"/6'-0") @ 12"	
T16	(12) #5x15'-0" @ 6"	
T17	(24) #5x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x(6'-0"/4'-0") @ 6"	HOOK PER PLAN
T19	(4) #5x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #5x(6'-0"/4'-0") @ 12"	
T22		

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x(10'-0"/6'-0") @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5@ 6'-0" @ 12"	
B6	#5x20'-0" @ 12"	STAGGER 5'-0"
B7	#5x15'-0" @ 9"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
X1	#4@CONT	TOP & BOT SPLICE L_{ds}
X2	(2) #5@CONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
X3	(2) #5x7'-6"	CORNER BAR
X4	(5) #11	MID-DEPTH DRAG REINF SPLICE L_{ds} AS REQD
X5	(2) #8x15'0"	CORNER BAR

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJECT NO: 00000.00
DATE: YYYY/MM/DD

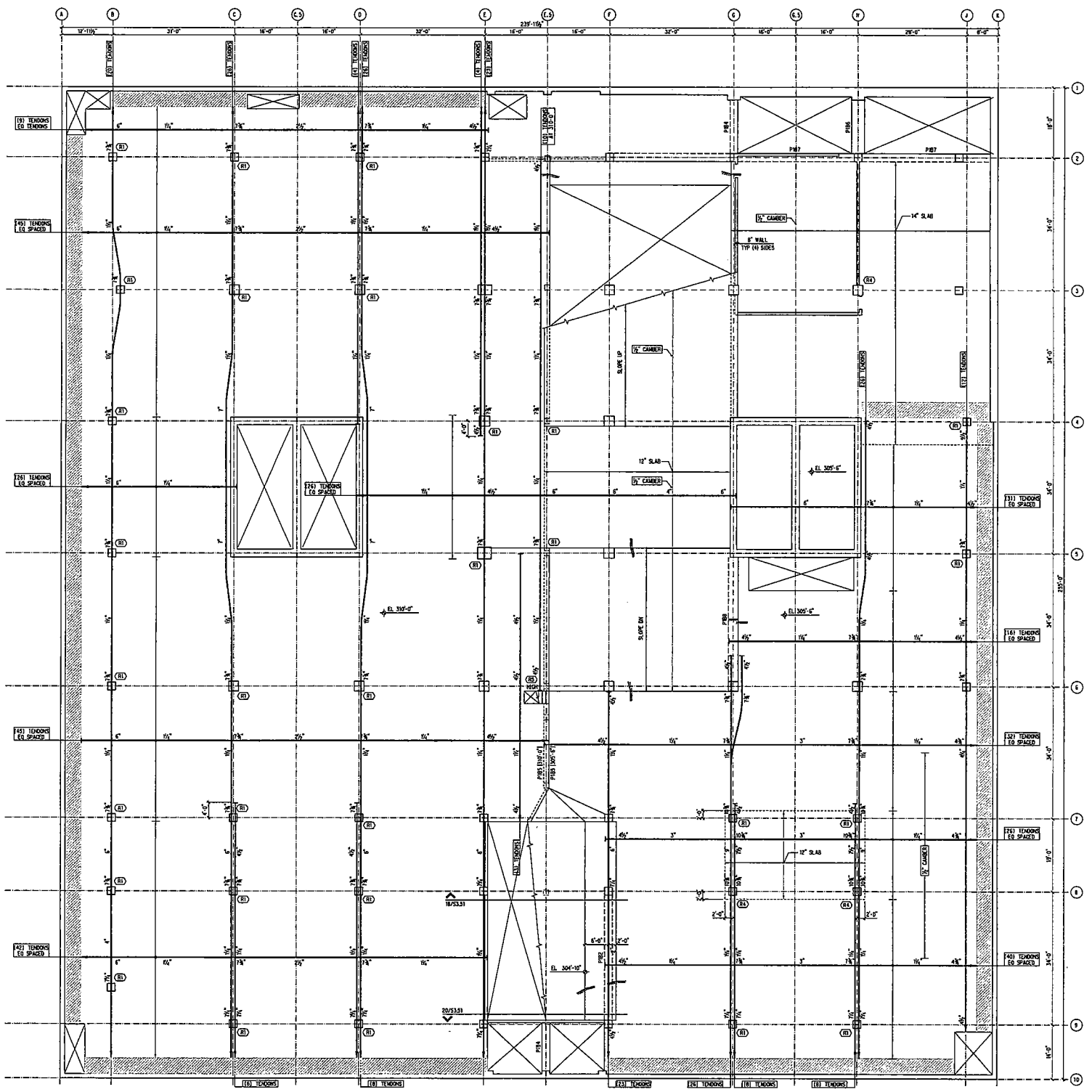
LEVEL P2 REINFORCING PLAN

S2.03R

SCALE: 1/8" = 1'-0"

EXHIBIT E

9/12/2006 4:28:00 PM user:DJN acct:MKA_HYBRID_STRUCT pltcfg:PDF FS WTS MONO.PLT file:G:\HARBORVIEW\ARCH\S2.03R.DGN model:SHEET version:V8



REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

POST TENSION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 9 INCH THICK BONDED POST-TENSIONED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL POST-TENSIONING DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. "R2" INDICATES SLAB SHEAR REINFORCEMENT AT COLUMNS. SEE TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE.
6. HATCHED AREAS INDICATE POUR STRIPS. WAIT 14 DAYS MINIMUM AFTER PLACING BEAM AND SLAB CONCRETE PRIOR TO CASTING POUR STRIPS.

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION
DRAWN BY:		PROJ MGR: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MMM/DD

LEVEL P1 FRAMING PLAN

S2.04

SCALE: 1/8" = 1'-0"

EXHIBIT E

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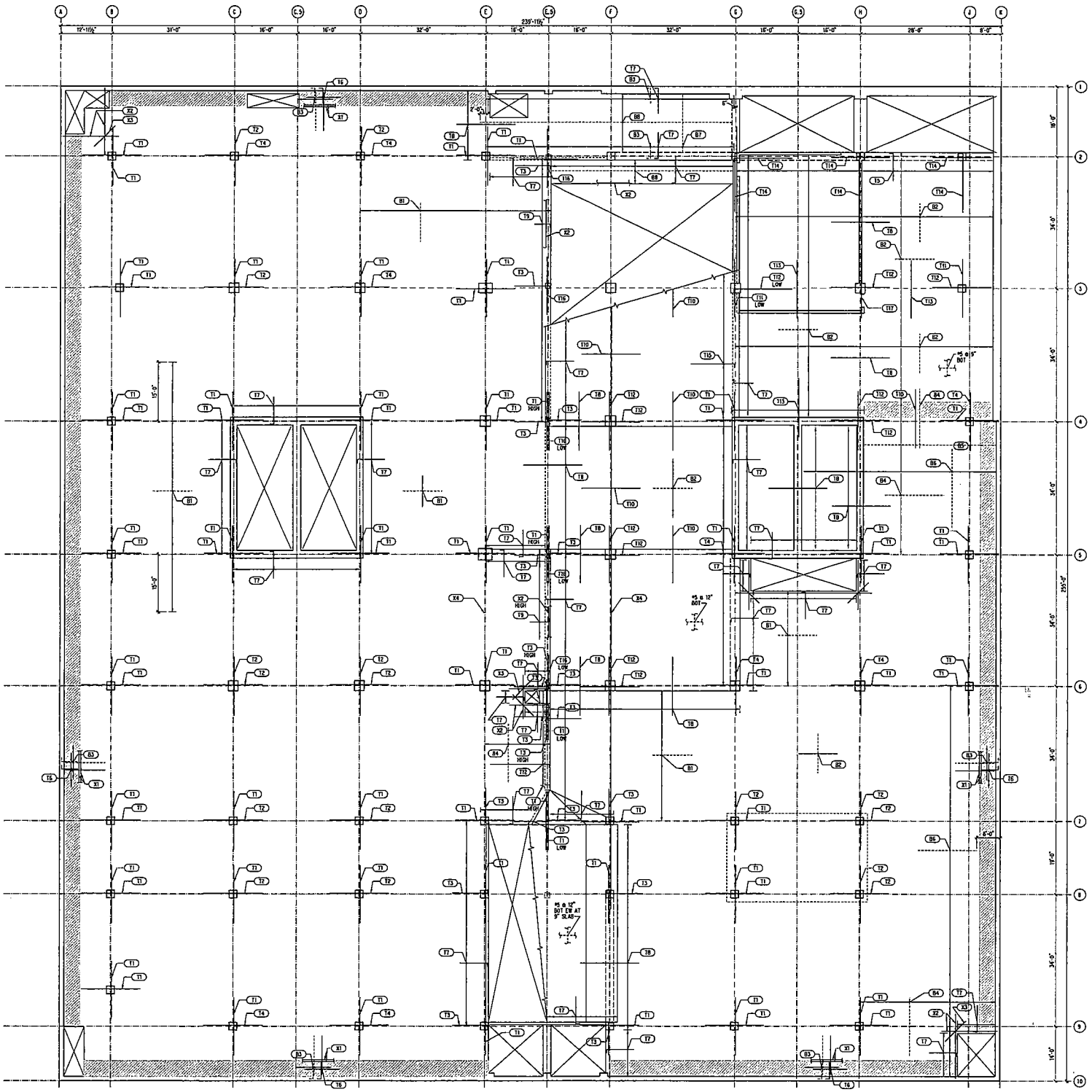

REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
T1	(9) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(9) #5x	
T4	(17) #5x15'-0"	
T5	#5x	
T6	#5x	
T7	#5x	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #8x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #8x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 3'-0"
T14	(8) #8x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x @ 12"	
T16	(12) #5x15'-0" @ 6"	
T17	(24) #8x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x @ 6"	HOOK PER PLAN
T19	(4) #8x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #8x @ 12"	
T22		

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x	
B6	#5x20'-0" @ 12"	STAGGER 5'-0"
B7	#5x15'-0" @ 9"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
X1	#4@CONT	TOP & BOT SPLICE L_{st}
X2	(2) #5@CONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
X3	(2) #5x7'-6"	CORNER BAR
X4	(6) #11	MID-DEPTH CRAG REINF SPLICE L_{st} AS REQD
X5	(2) #8x15'0"	CORNER BAR

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BY	DATE	DESCRIPTION

Drawn By: DLJ

PROJ NO: 00000.00

DATE: YYYY/MM/DD

LEVEL P1 REINFORCING PLAN

S2.04R

SCALE: 1/8" = 1'-0"

EXHIBIT E

9/12/2006 4:28:24 PM User:DLJ Pref:MKA_HYBRID_STRUCT plt:cfg:PDF FS WTS W:\NO.plt file:J:\HARBORVIEW\NJEFSO2_04R.dgn Model:SHEET Version:V8

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DATE: YYYY/MM/DD

LEVEL G
FRAMING
PLAN

S2.05

SCALE: 1/8"=1'-0"

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. FLOOR PLANS
S2. ELEVATIONS
S3. TYPICAL DETAILS AND SCHEDULES
S4. CONCRETE SECTIONS AND DETAILS
S5. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS HARD JOINTED. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING AND CURTAIN WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. WHERE STRUCTURAL DRAWINGS OR WALL OPENING TYPICAL DETAILS DO NOT APPLY, GOOD REINFORCING MAY REQUIRE ADDITIONAL BARS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL DUCTS, PIPES, SLEEVES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.

EXHIBIT E

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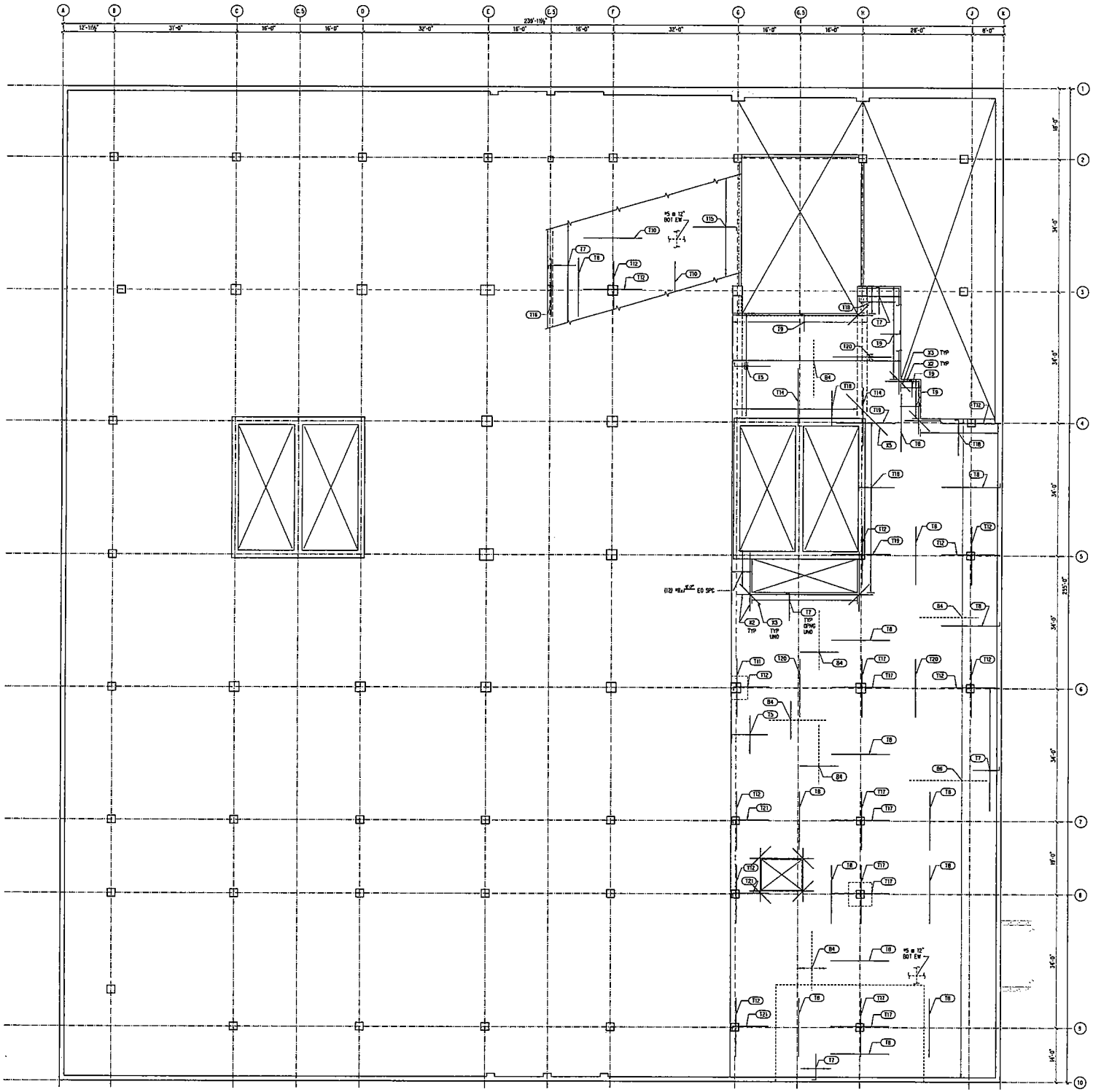

REINFORCEMENT NOTES

1.

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
T1	(3) #5x15'-0"	
T2	(12) #5x15'-0"	
T3	(3) #5x	
T4	(17) #5x15'-0"	
T5	#5x @ 12"	
T6	#5x @ 12"	
T7	#5x @ 12"	HOOK PER PLAN
T8	#5x15'-0" @ 12"	HOOK PER PLAN
T9	#4x @ 12"	
T10	#5x15'-0" @ 18"	STAGGER 3'-0"
T11	(20) #8x15'-0" @ 6"	STAGGER 3'-0"
T12	(15) #8x15'-0" @ 8"	STAGGER 3'-0" HOOK PER PLAN
T13	#5x15'-0" @ 8"	STAGGER 5'-0"
T14	(8) #8x15'-0" @ 6"	STAGGER 3'-0" HOOK PER PLAN
T15	#5x @ 12"	
T16	(12) #5x15'-0" @ 6"	
T17	(24) #8x15'-0" @ 6"	STAGGER 3'-0"
T18	#5x @ 6"	HOOK PER PLAN
T19	(4) #8x15'-0" @ 4"	
T20	#5x15'-0" @ 6"	STAGGER 3'-0"
T21	(12) #8x @ 12"	
T22		

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
B1	#5x10'-0 @ 18"	STAGGER 3'-0"
B2	#5x10'-0" @ 3'-0"	STAGGER 3'-0"
B3	#5x @ 12"	
B4	#5x15'-0" @ 12"	HOOK PER PLAN
B5	#5x @ 12"	
B6	#5x20'-0" @ 12"	STAGGER 5'-0"
B7	#5x15'-0" @ 9"	
B8	#5 @ 12"	LENGTH PER PLAN

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
X1	4#6CONT	TOP & BOT SPLICE L_{st}
X2	(2) #5CONT	TOP & BOT AT PERIMETER EXTEND 4'-0" UNO
X3	(2) #5x7'-6"	CORNER BAR
X4	(6) #11	MID-DEPTH DRAG REINF SPLICE L_{st} AS REQD
X5	(2) #8x15'0"	CORNER BAR

SCALE: 1/8" = 1'-0"

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GARAGE PERMIT SET

NO	DATE	DESCRIPTION

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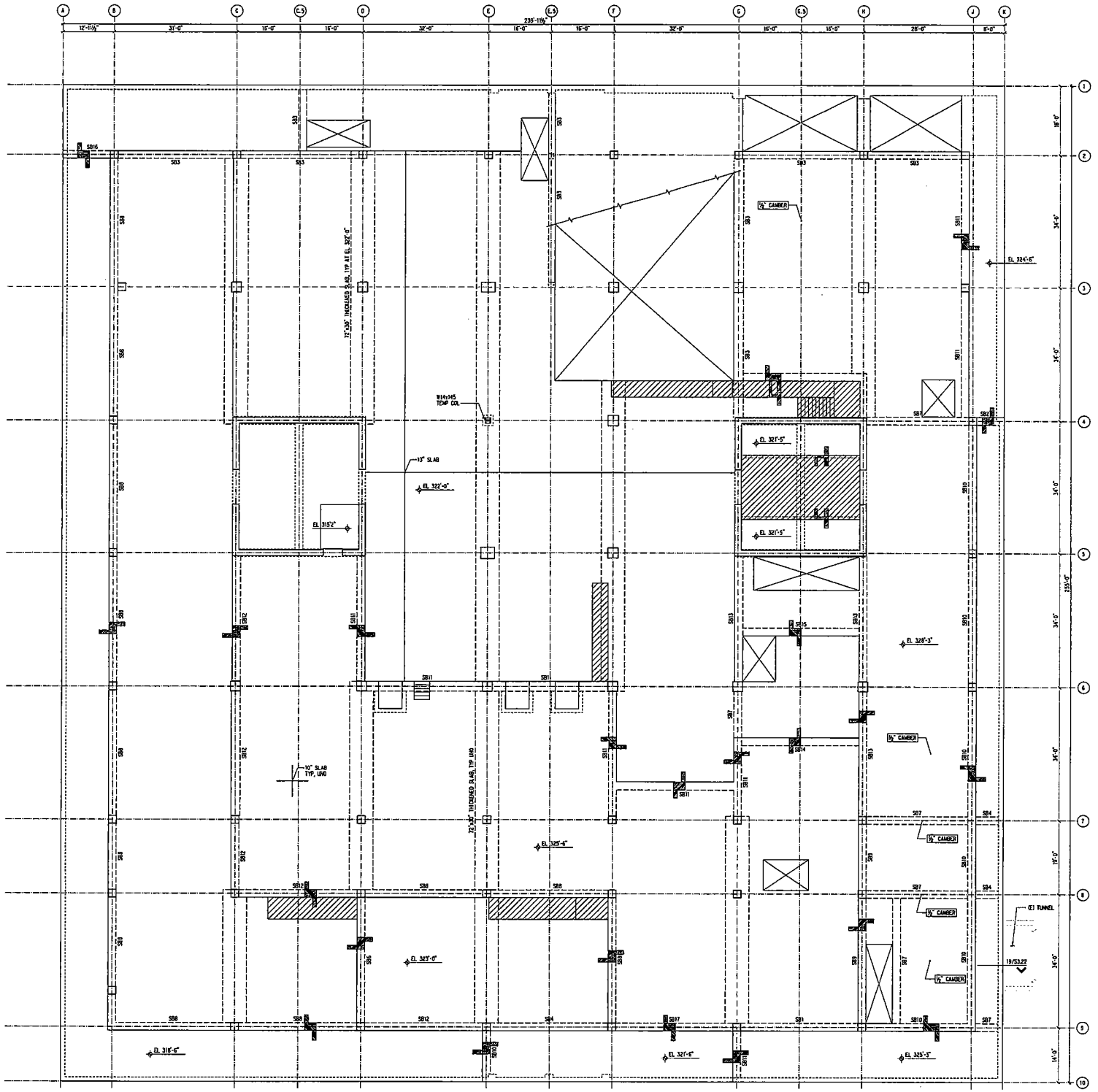
LEVEL G REINFORCING PLAN

S2.05R

EXHIBIT E

9/12/2006 4:28:41 PM user:DJN pref:MKA_HYBRID_STRUCT plt:cfg:PDF FS WTS ADHD.PLT file:c:\HARBORVIEW\ARCH\S2.05R.DGN model:SHEET ver:Rem V8



REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A WILD REINFORCED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. SLOPING SLAB: THE SLAB AND BEAM THICKNESS ARE CONSTANT PER THE PLAN AND THE CONCRETE BEAM SCHEDULE. NO TOPPING SLAB TO BE ADDED TO THE LOADING DOCK AREA.
6. BUILT-UP SLAB: 8" CONCRETE WALLS AROUND PERIMETER AND METAL STUDS AT 6'-0" ON CENTER FOR INTERIOR WALLS. SEE TYPICAL SLAB DETAILS, S4.1-04, FOR REINFORCING AND INFORMATION NOT SHOWN.
7. SEE ARCHITECTURAL EDGE OF SLAB PLANS FOR ADDITIONAL DIMENSIONS.

SCALE: 1/8" = 1'-0"

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LEVEL 01 FRAMING PLAN

S2.06

EXHIBIT E

9/12/2006 4:28:51 PM user: DJN path: K:\4_HYBRID_STRUCT plt cfg: PDF FS WTS MONO.PLT file: J:\HARBORVIEW\NJ2502_06.DGN model: SHEET version: V8

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DATE: YYYY/MM/DD
DRAWN: MS, ABC, DLJ
CHECKED: DLJ

LEVEL 01/S
REINFORCING
PLAN

S2.06R

SCALE: 1/8" = 1'-0"

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
(T1)	#5@15'-0" o 12"	STAGGER 3'-0" HOOK FOR PLAN
(T2)	#5@ 8"CRS o 12"	
(T3)	#5@ 8"CRS o 12"	HOOK FOR PLAN
(T4)	#6@ 8"CRS o 9"	
(T5)	(2) #5@ 8"CRS o 9"	
(T6)	#5@ 8"CRS o 9"	
(T7)	(2) #5@ 8"CRS o 6"	HOOK FOR PLAN
(T8)	#5@ 8"CRS o 6"	
(T9)	#5@ 8"CRS o 9"	
(T10)	#5@20'-0" o 9"	STAGGER 3'-0" HOOK FOR PLAN
(T11)	(2) #5@ 8"CRS o 6"	
(T12)	NOT USED	
(T13)	(3) #5@15'-0" o 9"	STAGGER 3'-0" HOOK FOR PLAN
(T14)	(2) #5@15'-0" o 6"	STAGGER 3'-0" HOOK FOR PLAN
(T15)	(2) #5@15'-0" o 12"	STAGGER 3'-0" HOOK FOR PLAN
(T16)	(4) #5@15'-0" o 6"	STAGGER 3'-0" HOOK FOR PLAN
(T17)	(4) #5@20'-0" o 9"	STAGGER 3'-0" HOOK FOR PLAN

TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
(B1)	#5@15'-0" o 18"	STAGGER 3'-0"
(B2)	#5@15'-0" o 18"	STAGGER 3'-0"
(B3)	(2) #5@20'-0"	EQ SPACED TOP & BOTTOMS
(B4)	#5@15'-0" o 9"	STAGGER 3'-0"
(B5)	#5@15'-0" o 6"	STAGGER 3'-0"
(B6)	#5@ 8"CRS o 12"	STAGGER 3'-0"

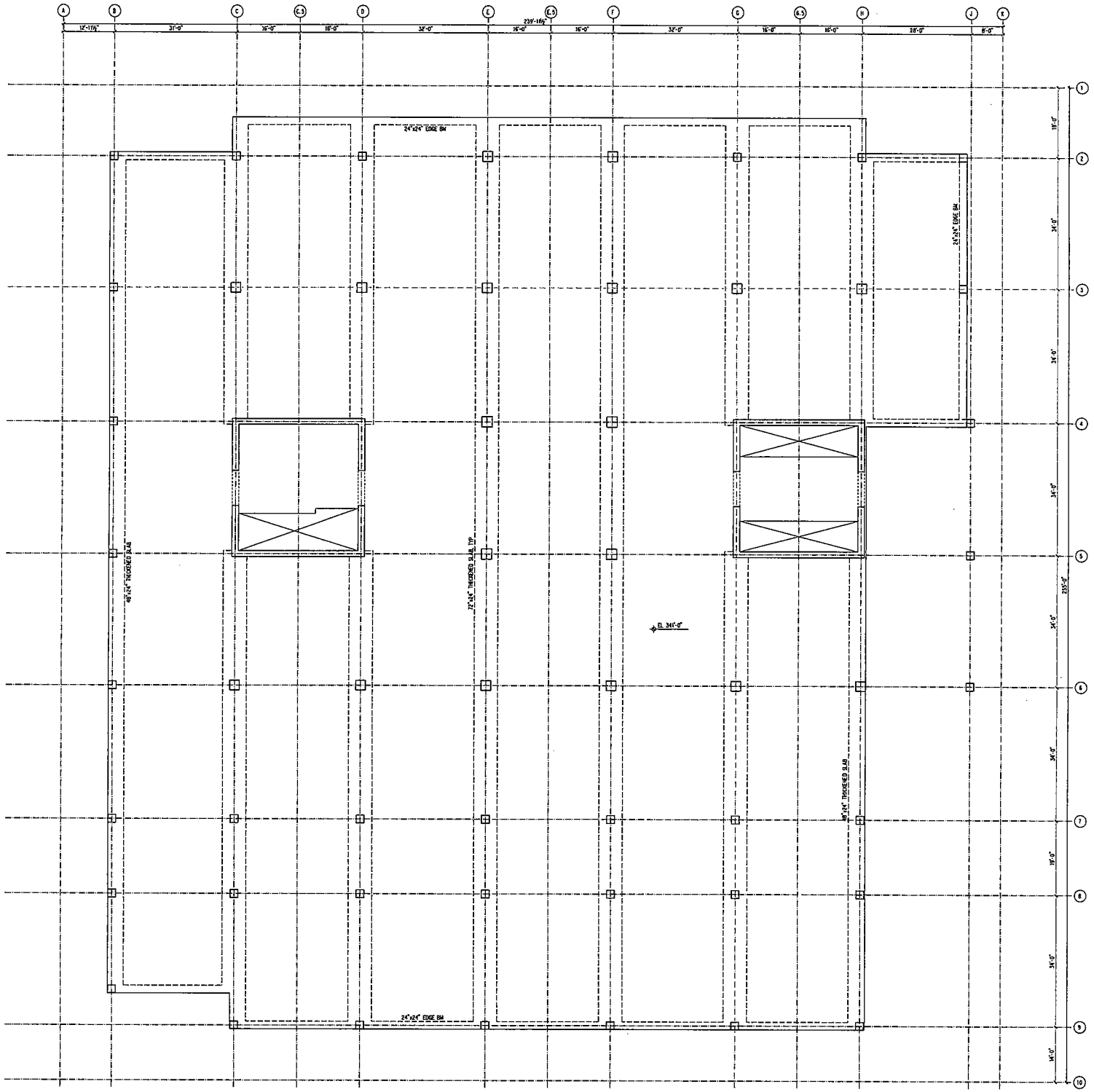
TRIM REINFORCING SCHEDULE

MARK	REINFORCEMENT	REMARKS
(X)	#4@CONT	TOP & BOT SPLICE 1.0
(X2)	(2) #5@CONT	TOP & BOT AT PENETRATION EXTEND 4'-0" BEYOND
(X3)	(2) #5@5'-0"	CORNER BAR
(X4)	(6) #5	MID-DEPTH SHRINKAGE REINF SPLICE 1.0 AS REQD
(X5)	(2) #5@15'-0"	CORNER BAR

SEISMIC/CONCRETE NOTES
1.

EXHIBIT E

9/12/2006 4:29:07 PM user:DLJ pctl:HA_HYBRID_STRUCT pltcfg:PDF FS MTS MONO.PLT file:J:\HARBORVIEW\NJ82\S2-06R.DGN model: SHEET version: V8



REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 10 INCH THICK WILD REINFORCED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. BUMPS - SEE TYPICAL RAIL SUPPORT DETAIL ON S4.121. TYPICAL STEEL DETAILS. FOR ELEVATOR RAIL SUPPORTS. ADDITIONAL SUPPORT FOR ELEVATOR RAILS BEYOND WHAT IS SHOWN IS THE RESPONSIBILITY OF THE ELEVATOR SUPPLIER.
6. BUILT-UP SLAB: 8" CONCRETE WALLS AROUND PERIMETER METAL STUDS AT 6'-0" ON CENTER, INTERIOR. SEE TYPICAL SLAB DETAILS, S4.104, FOR REINFORCING AND INFORMATION NOT SHOWN.

ESTIMATED REBAR QUANTITIES ABOVE LEVELS S AND 01

ELEMENT	ESTIMATED QUANTITY
COLUMNS	550 LB/CY
SHEAR WALLS	350 LB/CY
BEAMS	250 LB/CY
SLABS (INCLUDING THICKENED SLABS)	4.5 LB/SF

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION

DRAWN BY: OLJ
PROJ NO: 00000.00
DATE: YYYY/MMM/DD

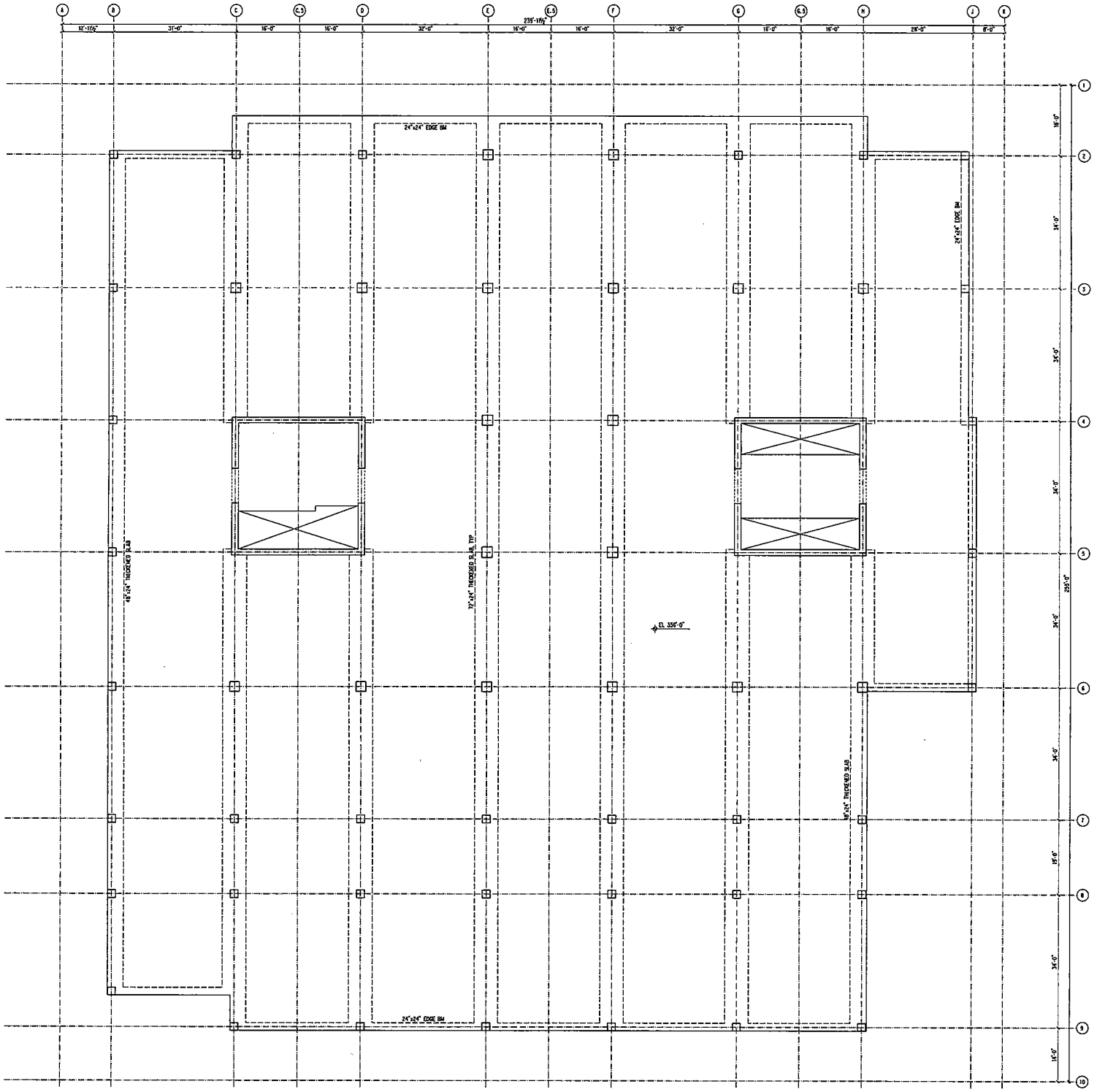
LEVEL 02 FRAMING PLAN

S2.08

SCALE: 1/8" = 1'-0"

EXHIBIT E

9/12/2005 4:29:22 PM user:DJN pstvMKA_HYBRID_STRUCT pltcfg:PDF FS YTS WORD.PLT file:J:\HARBORVIEWNINJEF02.08.DGN model:SHEET version:V8



REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS A 10 INCH THICK MILD REINFORCED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WITCH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. BMSS - SEE TYPICAL RAIL SUPPORT DETAIL ON S4.121, TYPICAL STEEL DETAILS. FOR ELEVATOR RAIL SUPPORTS. ADDITIONAL SUPPORT FOR ELEVATOR RAILS BEYOND WHAT IS SHOWN IS THE RESPONSIBILITY OF THE ELEVATOR SUPPLIER.
6. BUILT-UP SLAB: 8" CONCRETE WALLS AROUND PERIMETER METAL STUDS AT 6'-0" ON CENTER. INTERIOR. SEE TYPICAL SLAB DETAILS, S4.104, FOR REINFORCING AND INFORMATION NOT SHOWN.

SCALE: 1/8" = 1'-0"

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GARAGE PERMIT SET

REV	DATE	DESCRIPTION
DRAWN:		PROJ. MGR.: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MM/DD

DWG:
LEVEL 03 FRAMING PLAN

S2.09

EXHIBIT E

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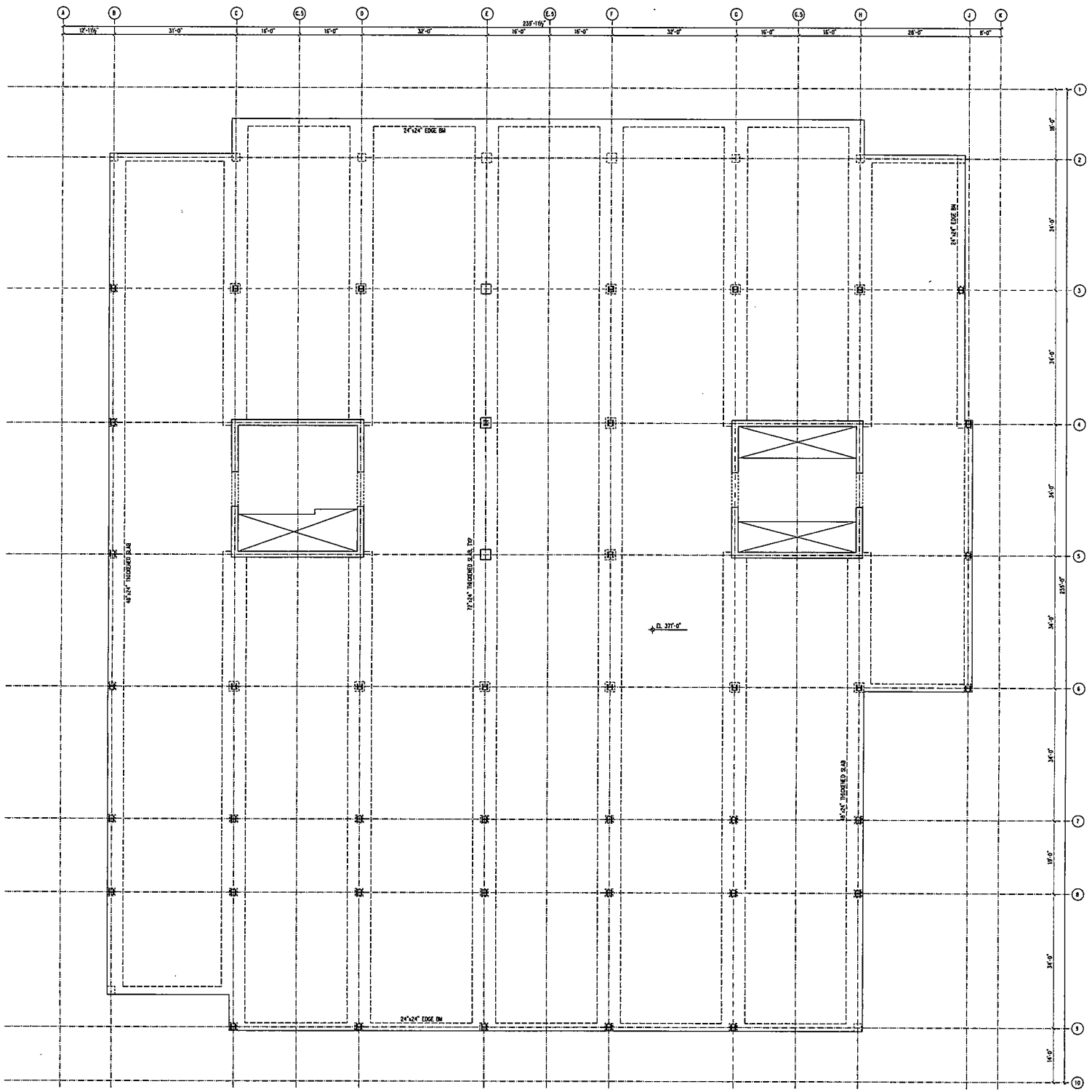

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR DRAINAGE SLOPES NOT SHOWN.
2. STRUCTURAL SLAB IS 8 1/2 INCH THICK WILO REINFORCED TWO-WAY SLAB UNLESS NOTED OTHERWISE. SEE TYPICAL CONCRETE SLAB DETAILS.
3. COORDINATE LOCATION OF ALL EMBEDS WITH MECHANICAL, ELECTRICAL, PLUMBING, AND EXTERIOR WALL SYSTEMS PRIOR TO CASTING THE SLAB.
4. SEE TYPICAL CONCRETE DETAILS FOR REINFORCING AROUND OPENINGS. NOTIFY STRUCTURAL ENGINEER OF ANY OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS FOR WHICH THE TYPICAL DETAILS DO NOT APPLY. ADDED REINFORCING MAY BE REQUIRED. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF ALL DUCTS, PIPES, CHASES, AND OTHER OPENINGS PRIOR TO CASTING THE SLAB.
5. BUMSS - SEE TYPICAL RAIL SUPPORT DETAIL ON S4.121, TYPICAL STEEL DETAILS. FOR ELEVATOR RAIL SUPPORTS. ADDITIONAL SUPPORT FOR ELEVATOR RAILS BEYOND WHAT IS SHOWN IS THE RESPONSIBILITY OF THE ELEVATOR SUPPLIER.
6. BUILT-UP SLAB: 8" CONCRETE WALLS AROUND PERIMETER METAL STUDS AT 6'-0" ON CENTER, INTERIOR. SEE TYPICAL SLAB DETAILS, S4.104, FOR REINFORCING AND INFORMATION NOT SHOWN.

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PROJ NO:		00000.00
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LEVEL 04 FRAMING PLAN

S2.10

SCALE: 1/8" = 1'-0"

EXHIBIT E

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DRAWN: DJ
PROJ. MGR.: DJ
PROJ. NO.: 00000.00
DATE: YY/MM/DD
SHT

LEVEL 05
FRAMING
PLAN

S2.11

SCALE: 1/8"=1'-0"

REFERENCE DRAWINGS

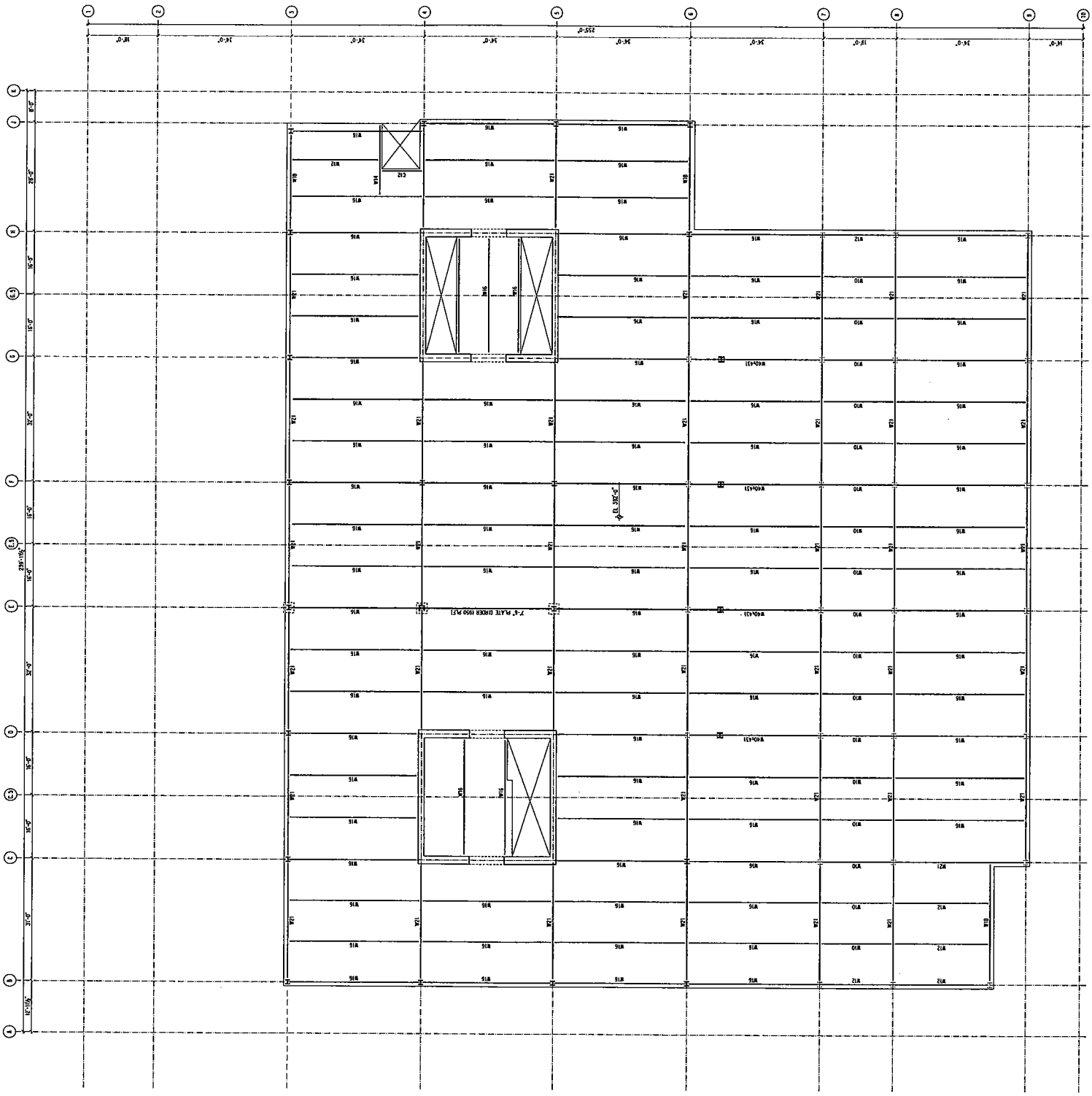
S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. FOUNDATION DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 2½ INCHES ON CONCRETE ON 3 INCH DEEP METAL DECK, NOTED AS 5½ SLAB ON METAL DECK. REINFORCE WITH WWF6x6-W2.9xW2.9 UNLESS NOTED OTHERWISE ON THE DIAPHRAGM PLANS. SEE DETAIL 1/S5.11 FOR ADDITIONAL INFORMATION. NO ADDITIONAL REINFORCING IS REQUIRED IN THE SLAB AT THE TOPPING SLAB OPENINGS UNLESS NOTED OTHERWISE ON THE DIAPHRAGM PLANS. AND IN THE TYPICAL DETAILS IN ADDITION TO THIS REINFORCING.

ESTIMATED STRUCTURAL STEEL QUANTITIES ABOVE LEVEL 4

	ESTIMATED QUANTITY
CLERGY	2 LB/SF
COLUMNS	
BEAMS- NOT INCLUDING TRANSFER GIRDERS	6 LB/SF



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NO.	DATE	DESCRIPTION
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DRAWN BY: TCS/CDC CHK'D: DLJ
PROJ. NO. 050030.00
DATE YYYYMMDD
SCALE: 1/8"=1'-0"

LEVELS 06-14 FRAMING PLAN

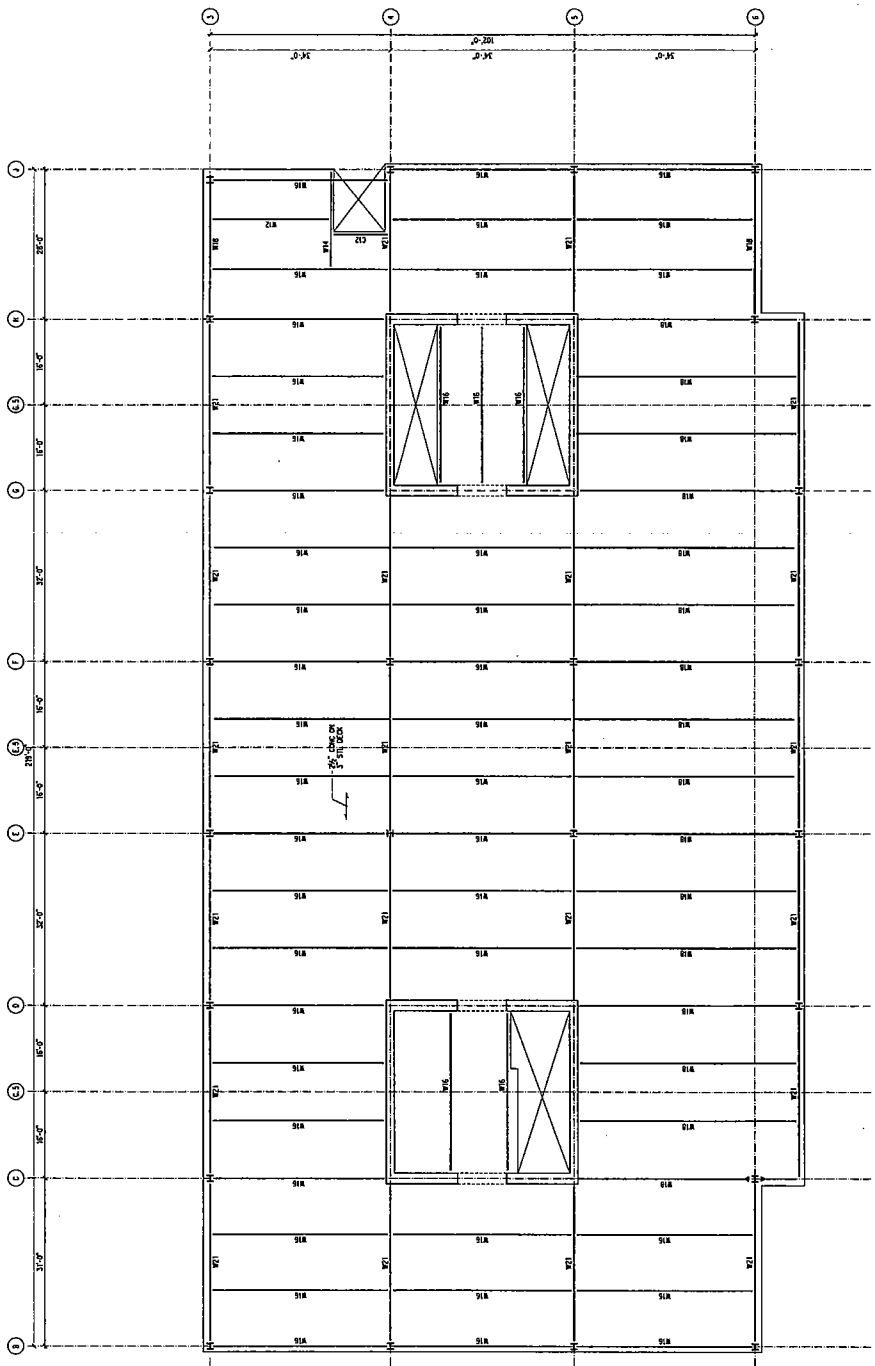
S2.12

REFERENCE DRAWINGS

S0.1 ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1.1 LEGEND
S2.1 PLANS
S3.1 TYPICAL DETAILS AND SCHEDULES
S4.1 TYPICAL CONCRETE WALL DETAILS
S5.1 STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 7¼" UNLESS OTHERWISE NOTED. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. REINFORCING SHOWN ON PLAN, THE TYPICAL DETAILS ARE TO BE USED IN THE TYPICAL DETAILS IS IN ADDITION TO THIS REINFORCING.



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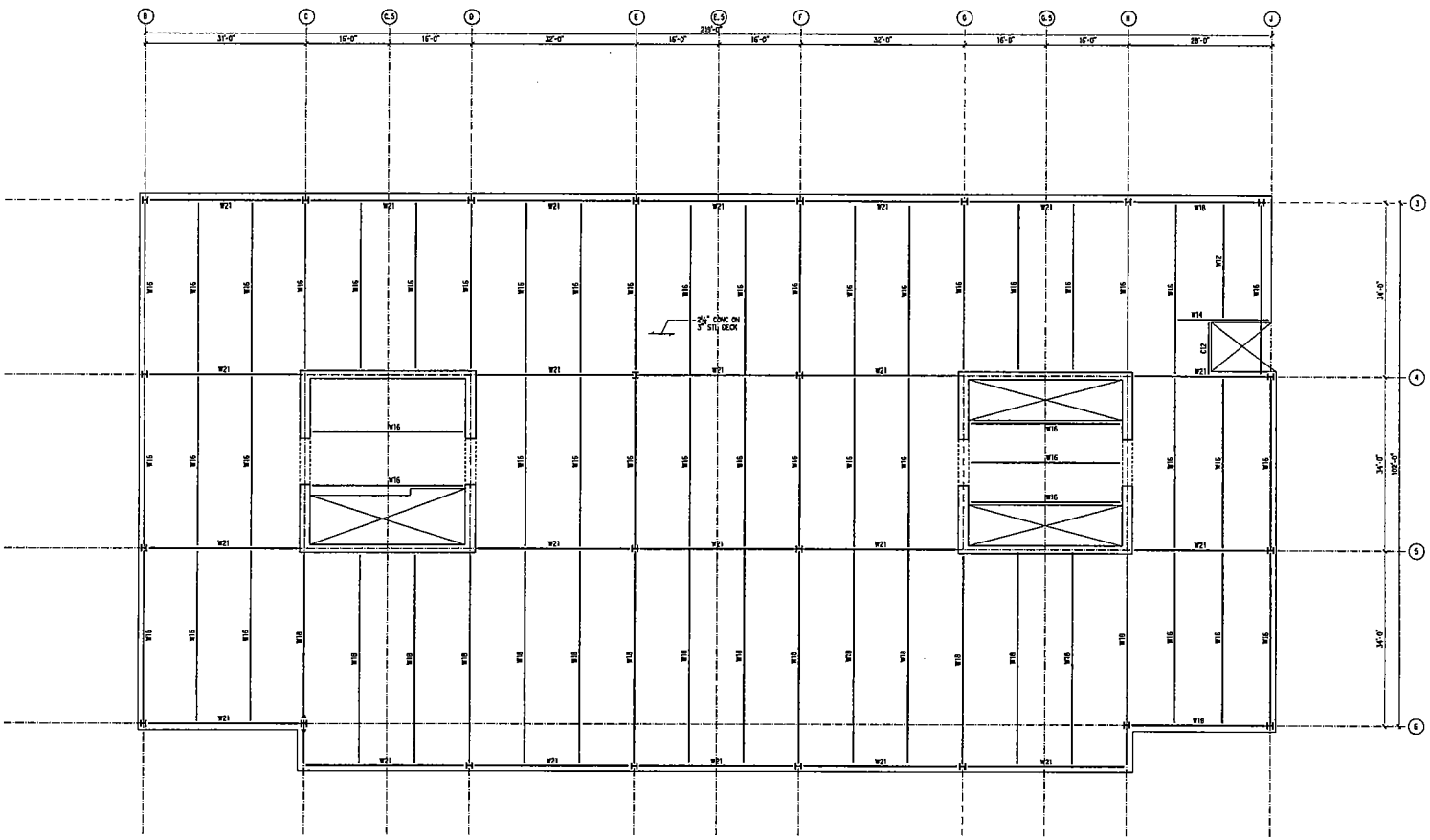

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

NOTES

1. REFERENCE ELEVATION ARE PER PLAN.
2. THE STRUCTURAL SLAB IS 2½ INCHES ON CONCRETE ON 3 INCH COMPOSITE STEEL DECK, UNLESS NOTED OTHERWISE. REINFORCE WITH WWF6x6xW2.9xW2.9. REINFORCING SHOWN ON PLAN, THE DIAPHRAGM PLANS, AND IN THE TYPICAL DETAILS IS IN ADDITION TO THIS REINFORCING.

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PENTHOUSE LEVEL FRAMING PLAN

S2.21

SCALE: 1/8" = 1'-0"

EXHIBIT E

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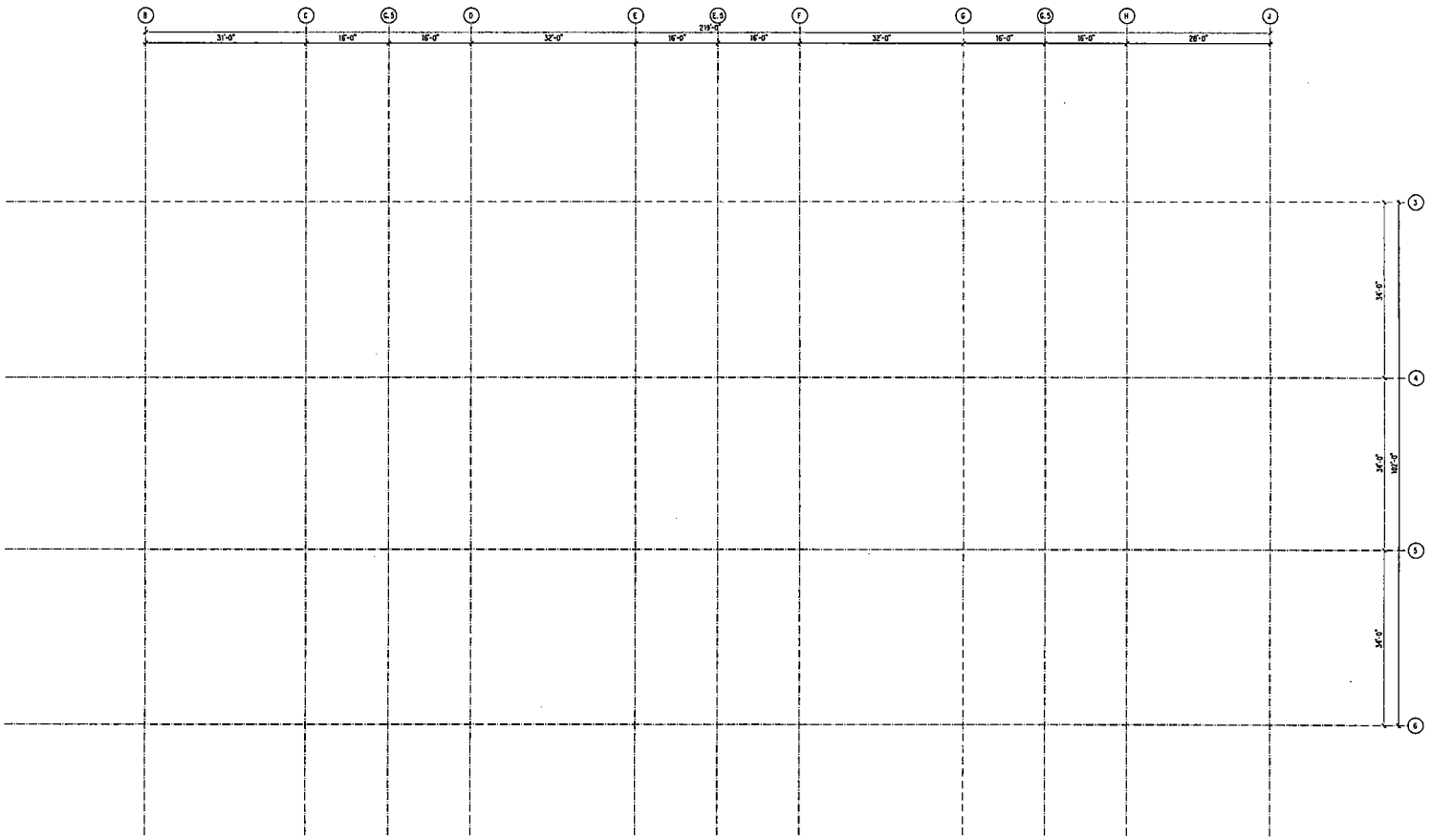

REFERENCE DRAWINGS

S0. ABBREVIATIONS, DRAWING SYMBOLS, GENERAL NOTES
S1. LOAD MAPS
S2. PLANS
S3. ELEVATIONS
S4. TYPICAL DETAILS AND SCHEDULES
S5. CONCRETE SECTIONS AND DETAILS
S6. STEEL SECTIONS AND DETAILS

FOUNDATION NOTES

1. REFERENCE FLOOR ELEVATION IS SHOWN. TOP OF SLAB ON GRADE IS AT THE REFERENCE ELEVATION UNLESS NOTED OTHERWISE. (OR SLAB ON GRADE SLOPES TO DRAIN - SEE ARCHITECTURAL DRAWINGS FOR TOP OF SLAB ELEVATIONS)
2. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE. REINFORCED PER TYPICAL SLAB ON GRADE DETAILS. SLAB ON GRADE SHALL BE PLACED ATOP COMPACTED STRUCTURAL FILL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
3. ( ) INDICATES TOP OF FOOTING ELEVATION. TOP OF FOUNDATION COINCIDES WITH BOTTOM OF SLAB ON GRADE, UNLESS NOTED OTHERWISE. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SUBGRADE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT, UNLESS NOTED OTHERWISE.
4. "FS" INDICATES FOOTING MARK. SEE COLUMN FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.
5. "C2" INDICATES CONCRETE COLUMN MARK. SEE TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE.
6. REFERENCE ALL CONSTRUCTION DOCUMENTS FOR SIZE, EXTENT, AND LOCATION OF CONCRETE CURBS, HOUSEKEEPING PADS, CMU WALLS, PLANTER WALLS, BOLLARDS, EDGE ANGLES, AND SLAB PENETRATIONS. REINFORCE PER TYPICAL DETAILS.
7. "WF1.5" INDICATES WALL FOOTING MARK. SEE WALL FOOTING SCHEDULE FOR SIZE AND REINFORCEMENT.

SCALE: 1/8" = 1'-0"

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PROJ NO: 00000.00
DATE: YYYY/MM/DD

PENTHOUSE ROOF FRAMING PLAN

S2.22

EXHIBIT E

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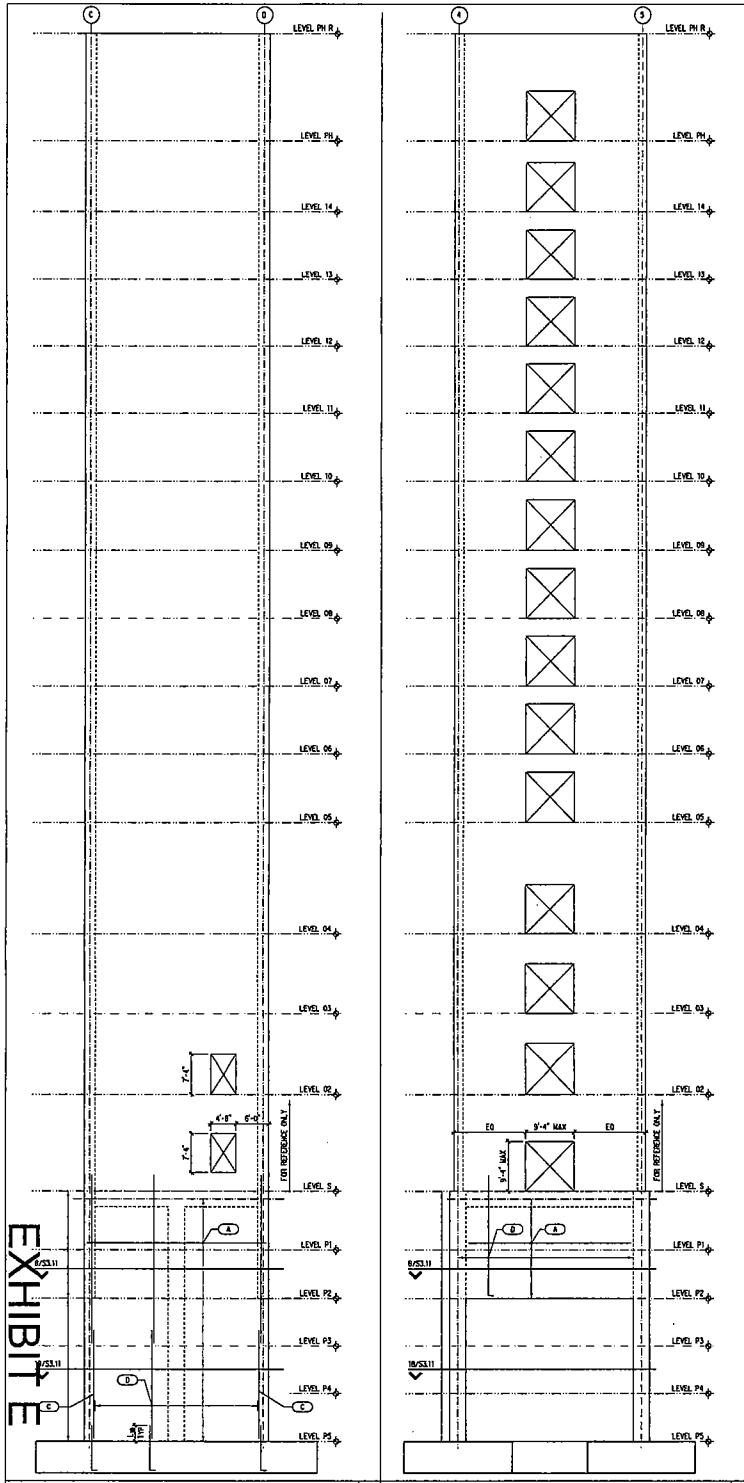
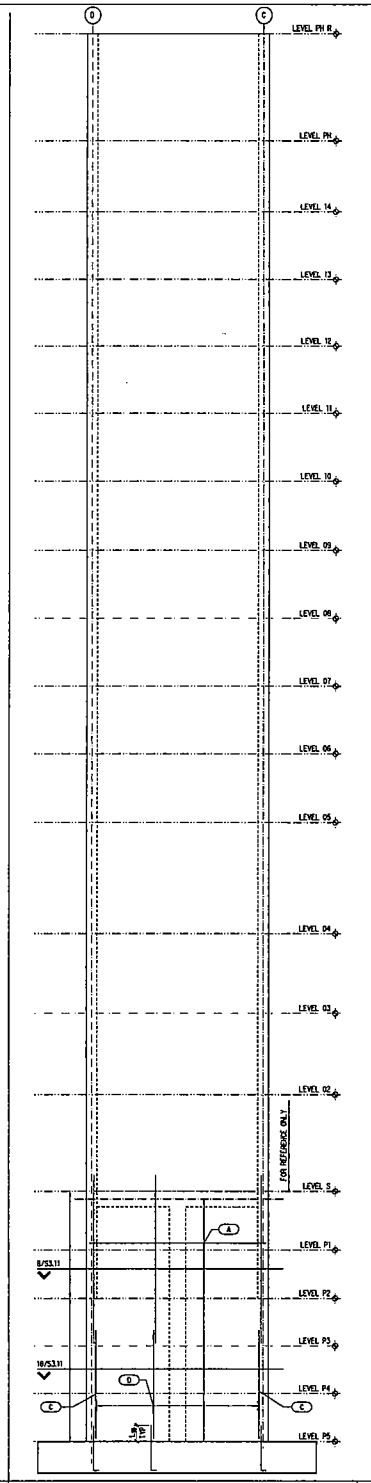
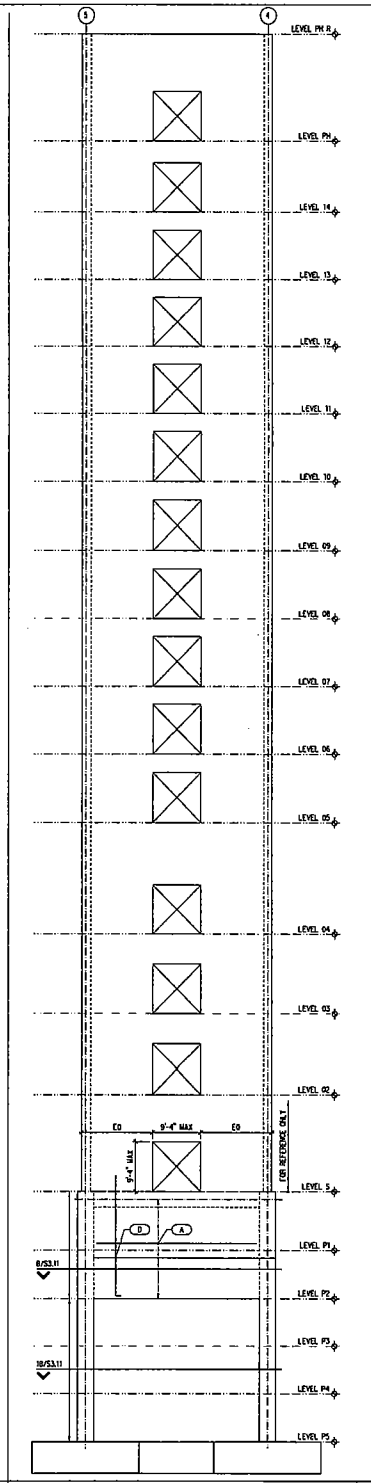


1/8" = 1'-0" ELEVATION 16

1/8" = 1'-0" ELEVATION 17



1/8" = 1'-0" ELEVATION 18

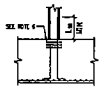


1/8" = 1'-0" ELEVATION 19

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
A	(3) #5 @ 4"	2 HOOPS & TIE, SEE SECT
B	#5 @ 10"	EF
C	(16) #11	PROVIDE IN LIEU OF TYP REINF
D	#9 @ 6"	EF
E	#8 @ 6"	EF

SHEAR WALL NOTES:

1. WALL OPENINGS NOT SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
2. ALL VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES FOR CRITERIA.
3. PROVIDE CONSTRUCTION JOINT AT FACE OF WALLS. FLOOR SLABS ARE NOT TO BE POURED THROUGH SHEAR WALLS.
4. COORDINATE ALL OPENING LOCATIONS, DIMENSIONS, AND EDGE CONDITIONS WITH ARCHITECTURAL DRAWINGS.
5. COORDINATE FINAL SIZES AND LOCATIONS OF ALL MECHANICAL OPENINGS WITH ALL DISCIPLINES AND NOTIFY ARCHITECT OF ANY INCREASES IN SIZE OR CHANGES IN SPECIFIED DIMENSIONS PRIOR TO CONSTRUCTION.
6. WHERE HOOPS AND TIES OCCUR IN WALL IMMEDIATELY ABOVE FOUNDATION, CONTINUE HOOPS AND TIES 12" MINIMUM INTO FOUNDATION.
7. PROVIDE FOUNDATION DOWELS TO MATCH VERTICAL STEEL. LAP DOWELS L_d TO WALL BARS. EXTEND DOWEL TO FOUNDATION BOTTOM REINFORCING AND PROVIDE A 90° HOOK.



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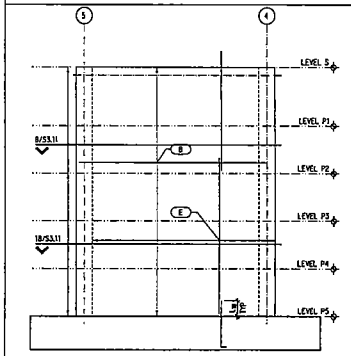
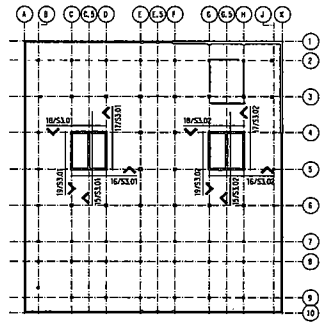


1/8" = 1'-0" ELEVATION 15



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NO	DATE	DESCRIPTION

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DATE: YYYY/MM/DD

COREWALL ELEVATIONS

S3.01

9/12/2006 4:39:23 PM user:DJH pcf:MAX_HYBRID_STRUCT plt:cfg:PDF FS NTS MONO.PLT file:J:\HARBORVIEW\BIM\S3.01.DGN mode:SHEET version:V8

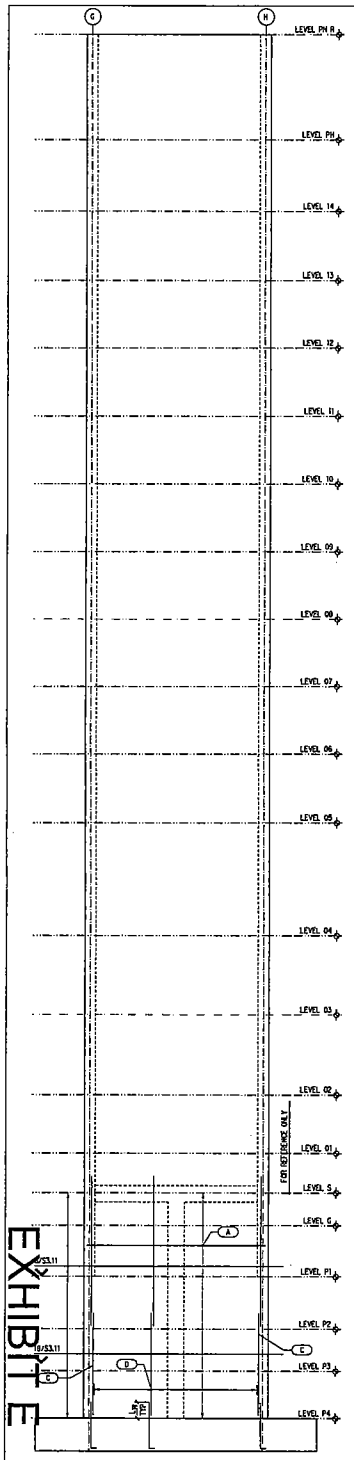
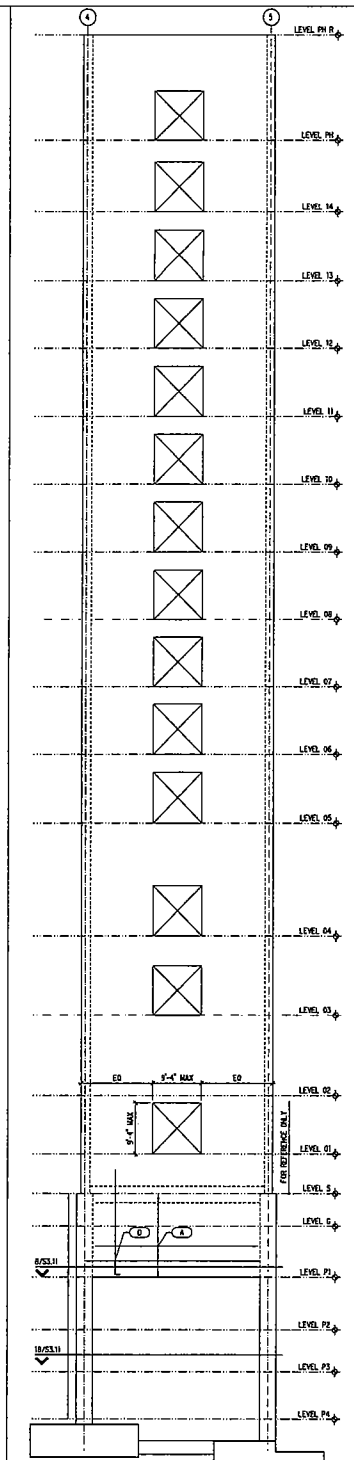
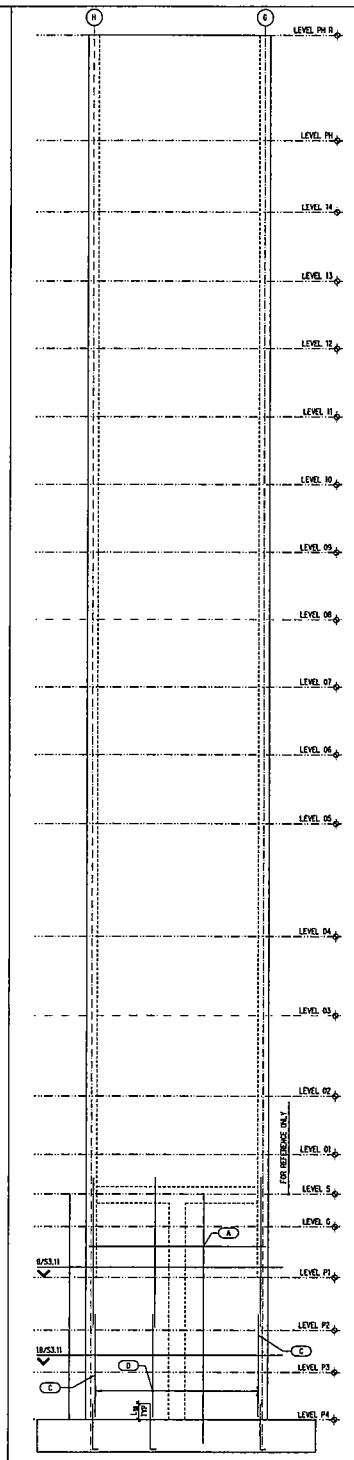


EXHIBIT E

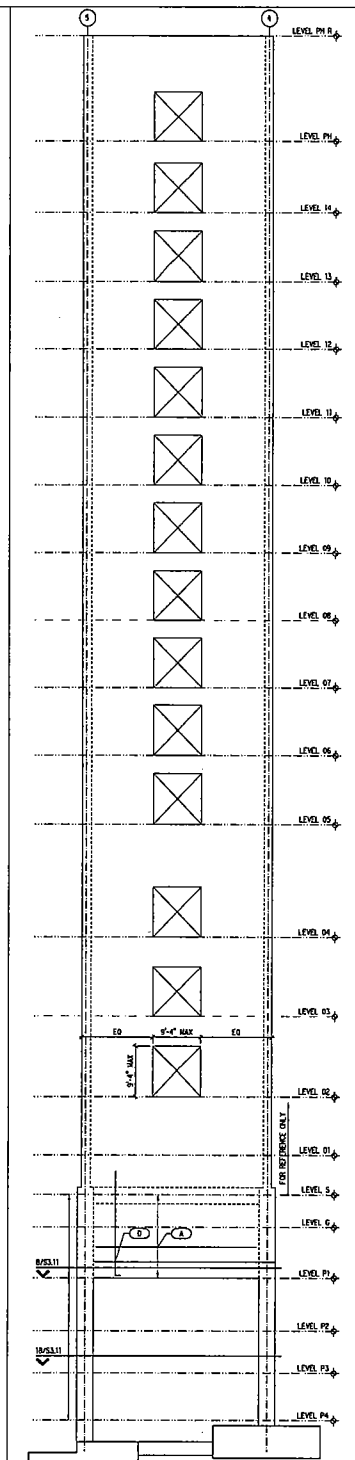
1/8" = 1'-0" ELEVATION 16



1/8" = 1'-0" ELEVATION 17



1/8" = 1'-0" ELEVATION 18

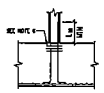


1/8" = 1'-0" ELEVATION 19

TRIM REINFORCING SCHEDULE		
MARK	REINFORCEMENT	REMARKS
A	(3) #5 @ 4"	2 HOOPS & TIE, SEE SECT
B	#5 @ 10"	EF
C	(16) #11	PROVIDE IN LIEU OF TYP REINF
D	#9 @ 6"	EF
E	#8 @ 6"	EF

SHEAR WALL NOTES:

1. WALL OPENINGS NOT SPECIFICALLY INDICATED ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.
2. ALL VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES FOR CRITERIA.
3. PROVIDE CONSTRUCTION JOINT AT FACE OF WALLS. FLOOR SLABS ARE NOT TO BE POURED THROUGH SHEAR WALLS.
4. COORDINATE ALL OPENING LOCATIONS, DIMENSIONS, AND EDGE CONDITIONS WITH ARCHITECTURAL DRAWINGS.
5. COORDINATE FINAL SIZES AND LOCATIONS OF ALL MECHANICAL OPENINGS WITH ALL DISCIPLINES AND NOTIFY ARCHITECT OF ANY INCREASES IN SIZE OR CHANGES IN SPECIFIED DIMENSIONS PRIOR TO CONSTRUCTION.
6. WHERE HOOPS AND TIES OCCUR IN WALL IMMEDIATELY ABOVE FOUNDATION, CONTINUE HOOPS AND TIES 12" MINIMUM INTO FOUNDATION.
7. PROVIDE FOUNDATION DOWELS TO MATCH VERTICAL STEEL. LAP DOWELS 1.4L TO WALL BARS. EXTEND DOWEL TO FOUNDATION BOTTOM REINFORCING AND PROVIDE A 90° HOOK.



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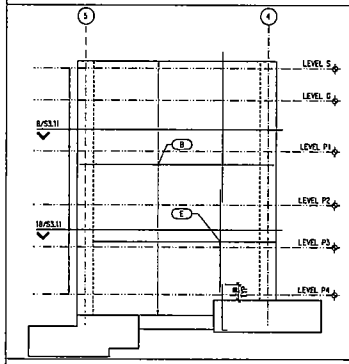
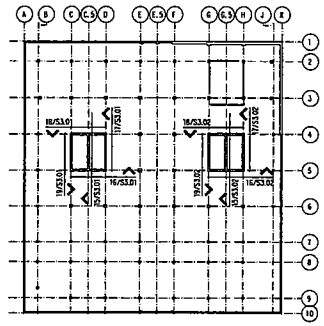


1/8" = 1'-0" ELEVATION 15



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DRAWN BY:		CHK'D BY: DLJ
PROJ NO:		00000.00
DATE:		YYYY/MM/DD

COREWALL ELEVATIONS

S3.02

9/12/2006 4:30:35 PM user:DJN pctable:KA_HYBRID_STRUCT pltcfg:PDF FS WTS MONO.PLT file:J:\HARBORVIEW\325\S3_02.DGN model:SHEET version:V8

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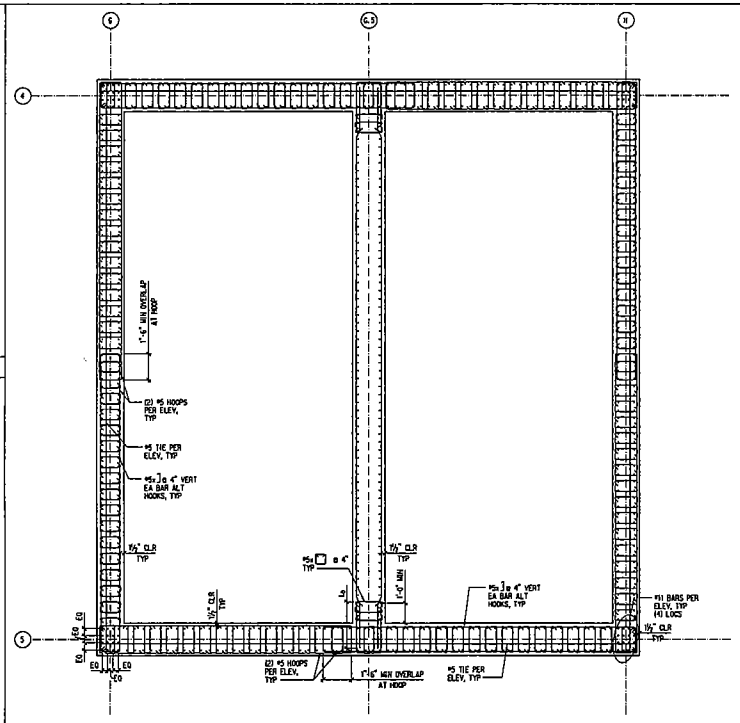
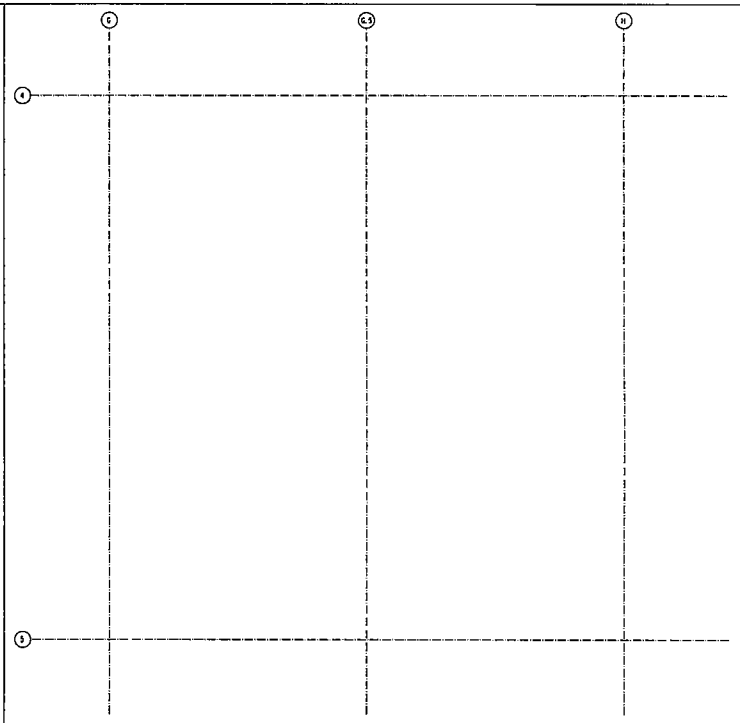
GARAGE PERMIT SET

EXHIBIT E

1/2" = 1'-0" DETAIL 1

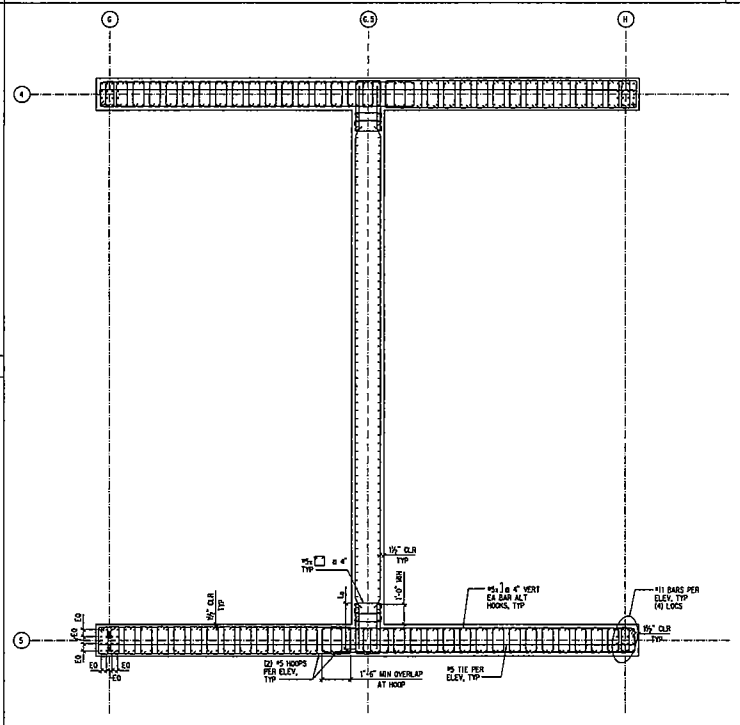


6 3/4" = 1'-0" SHEARWALL SECTION 8

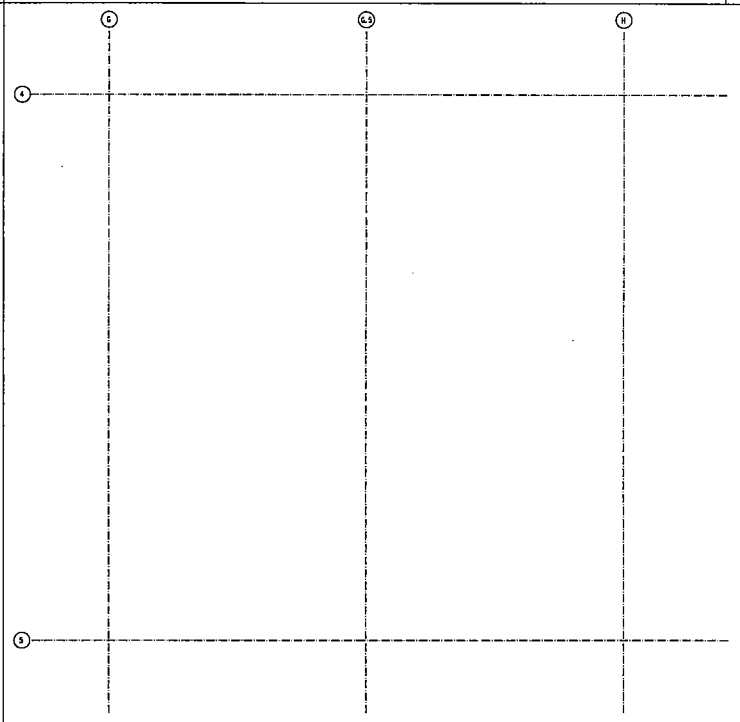


3/4" = 1'-0" SHEARWALL SECTION 10

11



16 3/4" = 1'-0" SHEARWALL SECTION 18



3/4" = 1'-0" SHEARWALL SECTION 20

NO	DATE	DESCRIPTION

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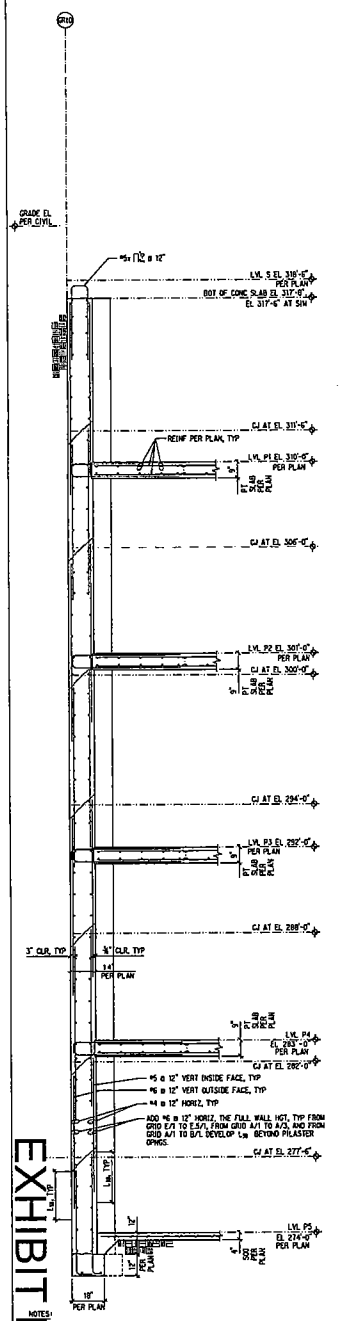
PROJ. NO.: 00000.00
DATE: YYYY/MM/DD

SHEARWALL SECTIONS

S3.11

9/12/2006 4:20:47 PM user:DJH pcf:MKA_HYBRID_STRUCT plt:fig/PDF FS WTS MONO.PLT file:...\HARBORVIEW\ENGR\GS_11.DGN model:SHEET variation:VB

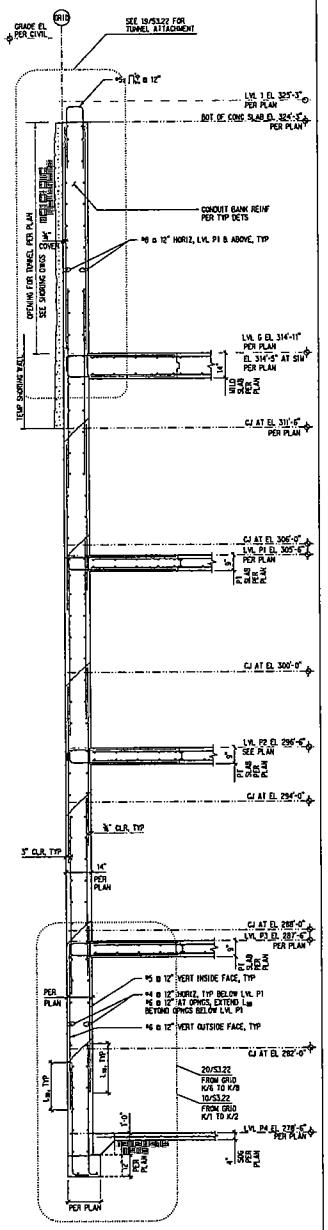


NOTES:

1. OPENINGS IN SLABS ARE NOT SHOWN. REFER TO ARCHITECTURAL DRAWINGS FOR OPENING LOCATIONS. DOWELS ARE NOT REQUIRED AT OPENINGS.
2. CONSTRUCTION JOINTS ARE SHOWN FOR REFERENCE ONLY AND ARE DETERMINED BY THE CONTRACTOR.
3. SEE THE GEOTECHNICAL DRAWINGS FOR SHORING TYPE AND EXTENT.

EXHIBIT E

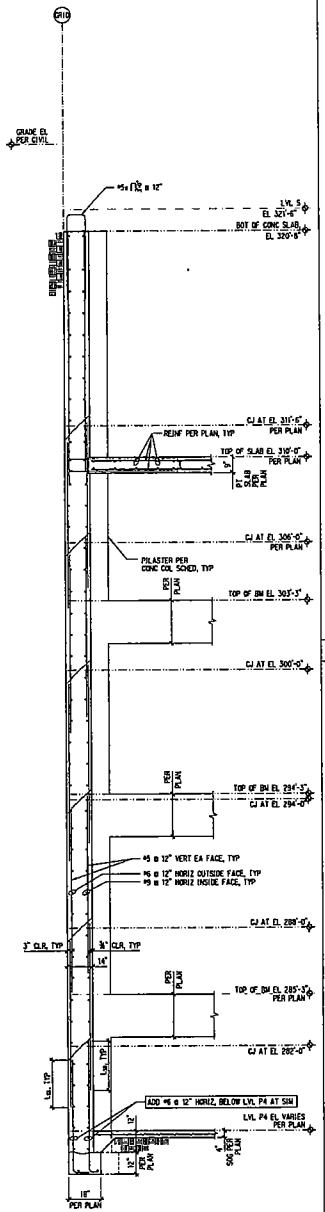
1/2" = 1'-0" DETAIL 16



NOTES:

1. SEE 16/S3.21 FOR INFORMATION NOT SHOWN.

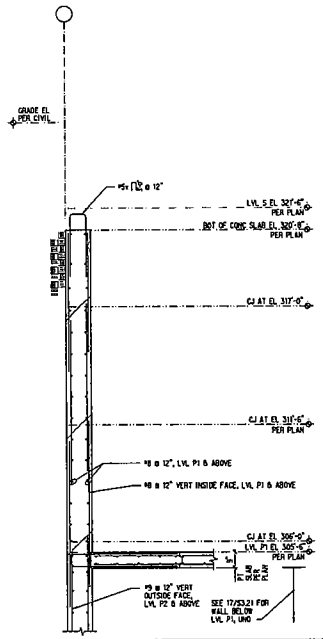
17



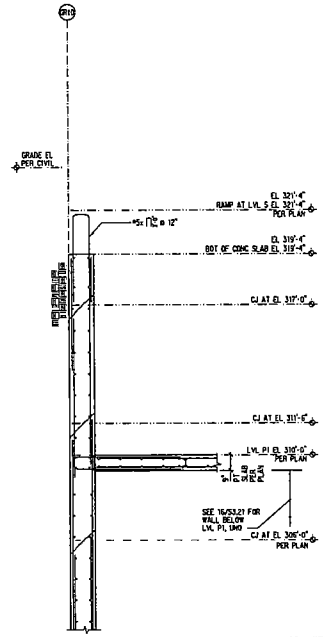
NOTES:

1. SEE 16/S3.21 FOR INFORMATION NOT SHOWN.

18



9



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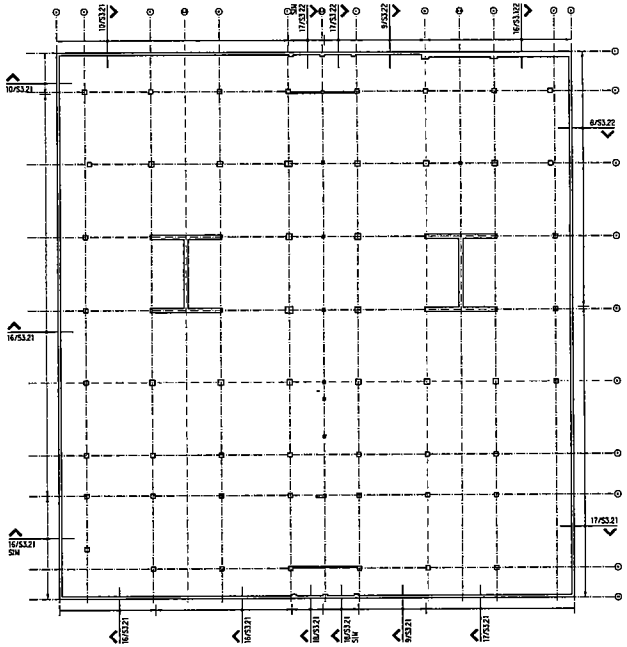

20

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PROJ. NO.: 00000.00
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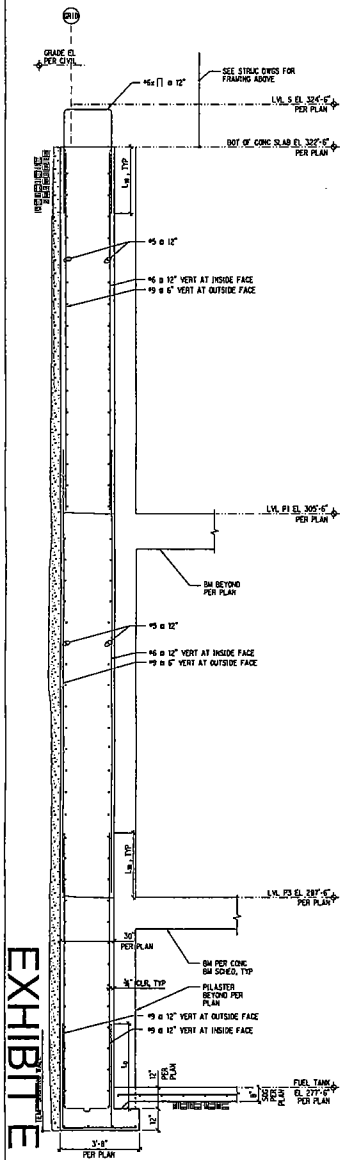
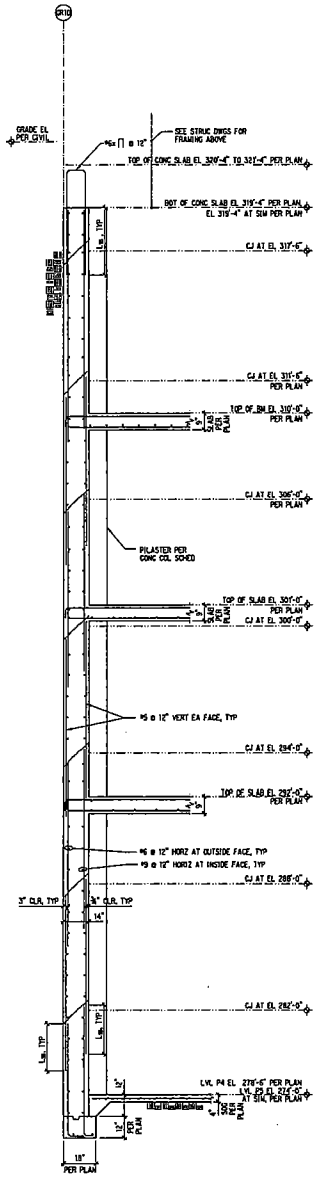
CHK'D:

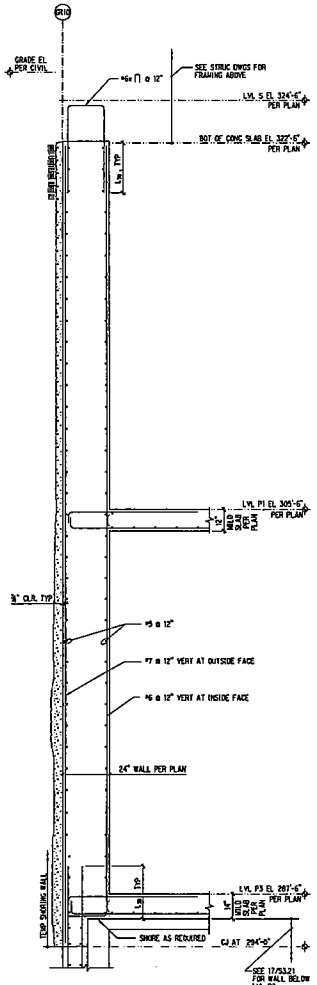
BASEMENT WALL SECTIONS

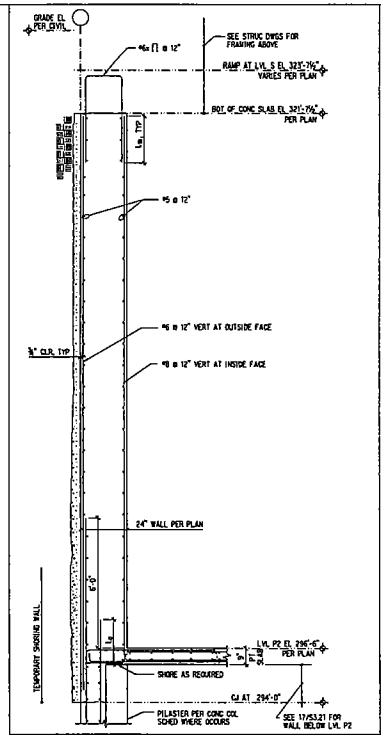
S3.21

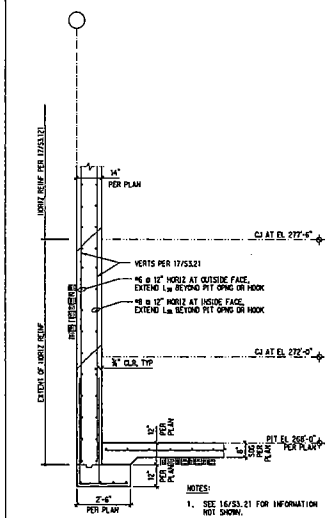
9/12/2006 4:30:58 PM user: DJN pref: MEA_HYBRID_STRUCT plotcfg: PDF FS WTS MONO.PLT file: J:\HARBORVIEW\A&B\S3_21.DGN model: SHEET version: V8

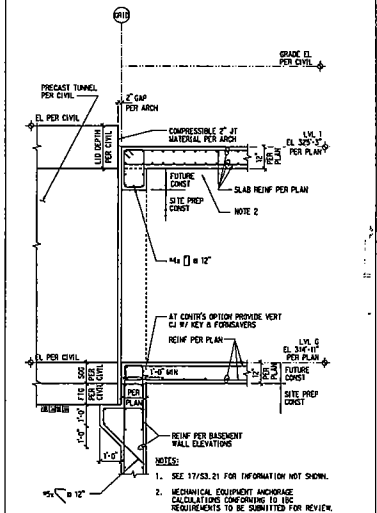


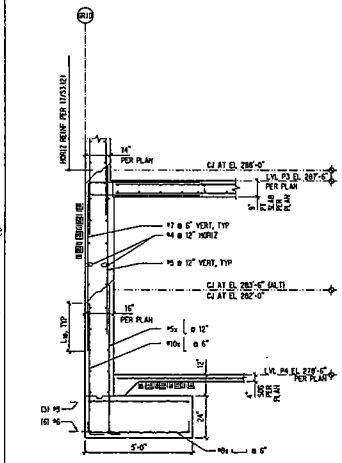












EXHIBIT

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BASEMENT WALL SECTIONS

S3.22

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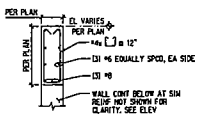
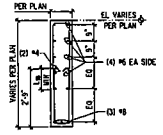
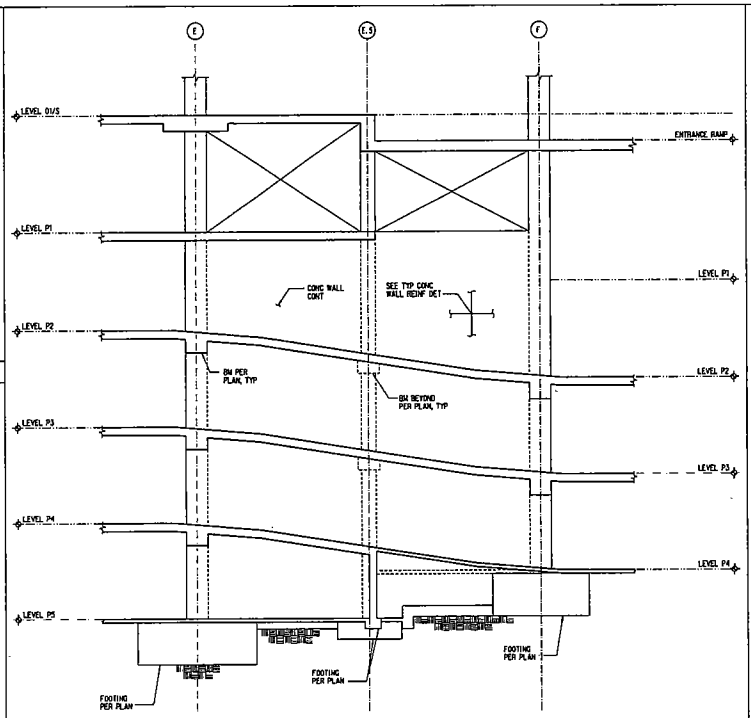


½" = 1'-0" SECTION 11

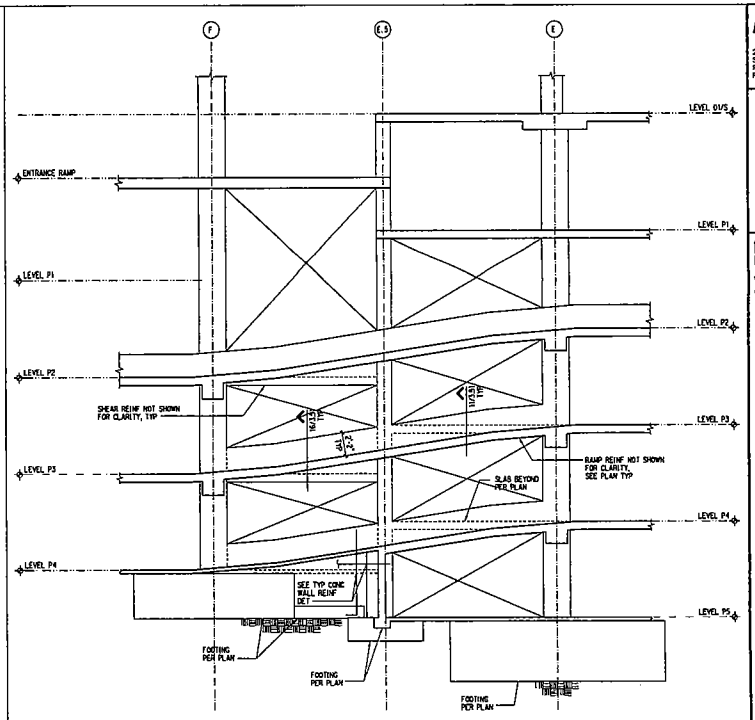


½" = 1'-0" SECTION 16

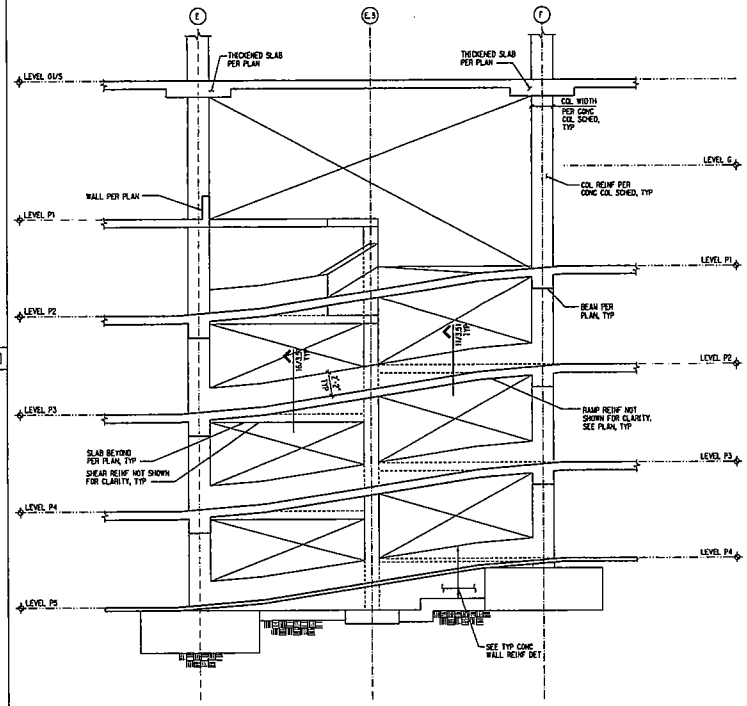
EXHIBIT E



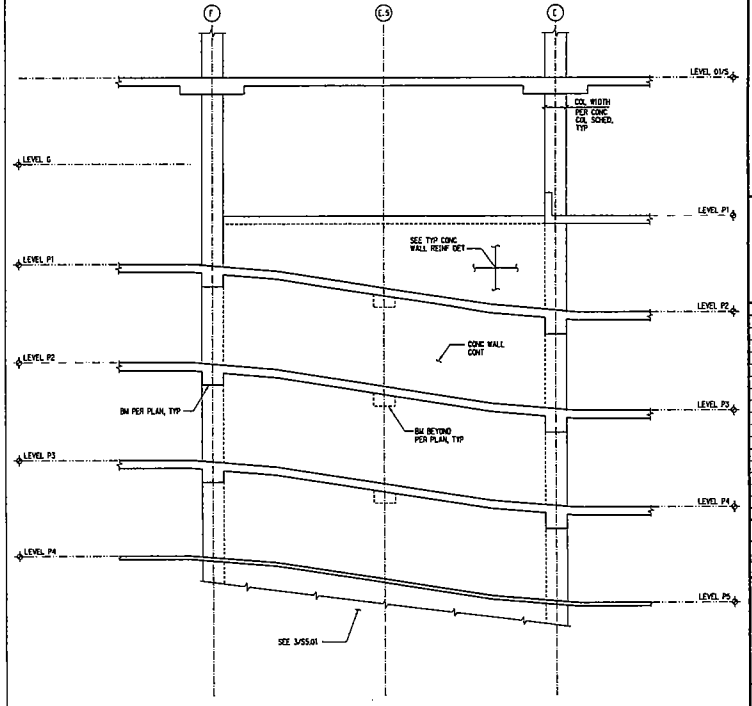
1/4" = 1'-0" WALL ELEVATION NEAR GRID 2 8



1/4" = 1'-0" WALL ELEVATION NEAR GRID 3 10



1/4" = 1'-0" WALL ELEVATION NEAR GRID 8 18



1/4" = 1'-0" WALL ELEVATION NEAR GRID 9 20

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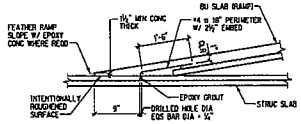
DATE: YYYY/MM/DD

ELEVATIONS

S3.51

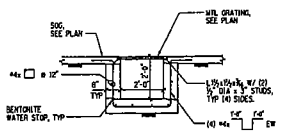
9/12/2006 4:31:27 PM user:DAN pctf:MKA_HYBRID_STRUCT pltcfg:PDF FS #TS MONO.PLT file:J:\HARBORVIEW\PUBS\S3.51.DGN model:SHEET version:V8



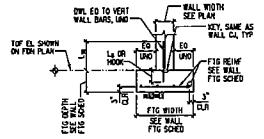
BUILT-UP RAMP TO STRUCTURAL SLAB

NOTES:
1. TYPICAL BUILT-UP SLAB IS 2 1/2 INCHES CONCRETE OVER 3 INCHES METAL DECK WITH #3 AT 12 INCHES.

TYPICAL BUILT-UP RAMP | 1



TYPICAL SUMP PIT | 2

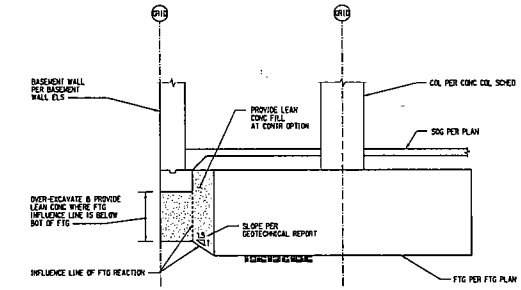


WALL FOOTING SCHEDULE

FOOTING MARK	FOOTING WIDTH	FOOTING DEPTH	LONGITUDINAL REINFORCING	TRANSVERSE REINFORCING	REMARKS
WF1.5	1'-6"	1'-0"	(3) #4	NONE	
WF2.5	2'-6"	1'-0"	(4) #4	#4 @ 24"	
WF3.7	3'-7"	1'-0"	(5) #4	#4 @ 24"	
WF5	5'-0"	2'-0"	NOTE 3	NOTE 3	
WF6	6'-0"	2'-6"	(7) #8	#8 @ 12"	
WF20	20'-0"	5'-0"	(20) #11 BOT (20) #6 TOP	#11 @ 12" BOT #6 @ 12" TOP	ADD (10) #11x15'-0" LONGIT BOT BARS AT EA END

NOTES:
1. SEE TYPICAL COLUMN FOOTING DETAIL FOR EXCAVATION INFORMATION.
2. LAP SPLICE LONGITUDINAL REINFORCING Lm .
3. SEE BASEMENT WALL SECTIONS FOR REINFORCING.

TYPICAL WALL FOOTING | 3



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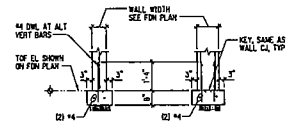
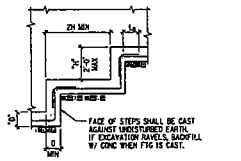


NOTES:
1. USE ONLY WHERE NOTED ON PLANS.

TYP MINIMUM CONCRETE WALL FOOTING | 6



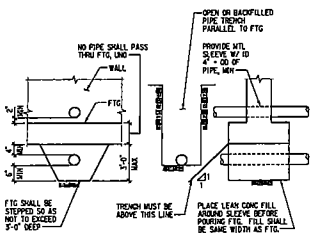
NOTES:
1. SEE TYPICAL WALL FOOTING DETAIL FOR ADDITIONAL INFORMATION.

TYPICAL STEPPED WALL FOOTING | 7

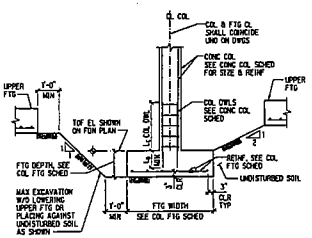
COLUMN FOOTING SCHEDULE

MARK	SIZE	DEPTH	REINFORCING EACH WAY BOTTOM	REMARKS
F4	4'-0"x4'-0"	1'-2"	(3) #4	
F5	5'-0"x5'-0"	1'-4"	(3) #4	
F6	6'-0"x6'-0"	1'-8"	(14) #4	
F7	7'-0"x7'-0"	2'-3"	(10) #6	
F9	9'-0"x9'-0"	2'-6"	(17) #6	
F10	10'-0"x10'-0"	2'-9"	(21) #6	
F11	11'-0"x11'-0"	3'-3"	(24) #6	
F12	12'-0"x12'-0"	3'-9"	(13) #8	
F13	13'-0"x13'-0"	4'-0"	(15) #8	
F15	15'-0"x15'-0"	4'-3"	(20) #8	
F16	16'-0"x16'-0"	4'-9"	(24) #8	
F17	17'-0"x17'-0"	5'-0"	(18) #11	
F20	20'-0"x20'-0"	5'-9"	(25) #11	
F22	22'-0"x22'-0"	6'-3"	(30) #11	

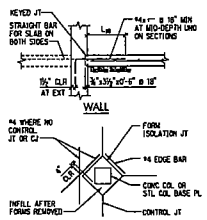
COLUMN FOOTING SCHEDULE | 9 | 10



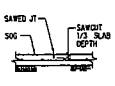
TYP PIPE ENCASEMENT UNDER FOOTING | 11



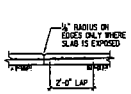
TYPICAL CONCRETE COLUM FOOTING | 12 | 13 | 14 | 15



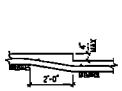
WALL



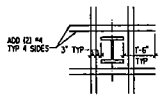
CONTROL JOINT



CONSTRUCTION JOINT

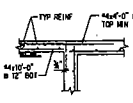


DEPRESSED SLAB

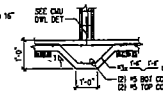


REINFORCING AT STEEL COLUMN

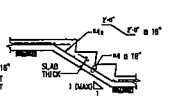
ISOLATION JOINT AT COLUMN



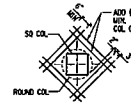
ADJACENT TO RETAINING WALL



THICKENED SLAB



STEPS ON GRADE



REINFORCING AT CONCRETE COLUMN

NOTES:
1. SLAB ON GRADE IS 4 INCHES THICK, UNLESS NOTED OTHERWISE.
2. LOCATE CONSTRUCTION JOINTS UNDER PARTITIONS OR ON COLUMN LINES. PROVIDE CONTROL JOINTS ON ALL COLUMN LINES AND AT A MAXIMUM SPACING OF 30 x SLAB THICKNESS EACH WAY IN BETWEEN. PROVIDE CONTROL JOINTS AT ALL RE-ENTRANT CORNERS. CONTRACTOR SHALL SUBMIT A JOINTING PLAN TO ARCHITECT FOR REVIEW.
3. SAWED JOINTS SHALL BE MADE AS SOON AS THE JOINT CAN BE CUT WITHOUT EDGES RAVELING AND WITHIN 24 HOURS OF SLAB PLACEMENT. SAWED JOINTS SHALL BE FILLED WITH SEALANT AS COORDINATED WITH THE ARCHITECT.
4. LOCATE REINFORCING AT ONE-THIRD OF DEPTH FROM TOP OF SLAB.
5. TYPICAL SLAB REINFORCING:
   #4 @ 24" EACH WAY FOR 4" SLAB
   #4 @ 24" EACH WAY FOR 5" SLAB

TYPICAL SLAB ON GRADE | 18 | 19 | 20

EXHIBIT E

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NO	DATE	DESCRIPTION

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PROJ. NO: 00000.00
DATE: YYYY/MM/DD

TYPICAL FOUNDATION DETAILS AND SCHEDULES

S4.01

9/12/2006 4:31:37 PM user:DJK pcf:MEA_HYBRID_STRUCT plt:fig1PDFFS NTS MONO.PLT file:J:\HARBORVIEW\J#2554.01.DGN model:SHEET version:V8

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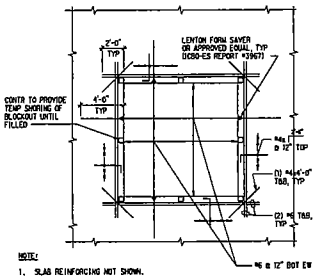
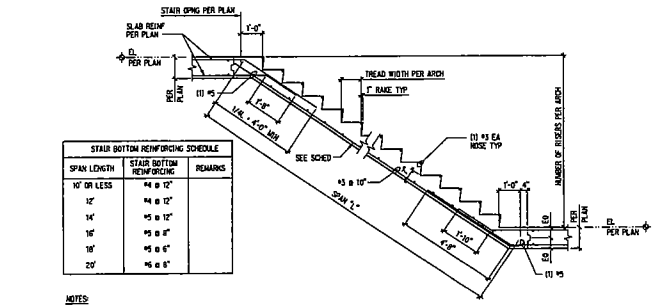
GARAGE PERMIT SET

EXHIBIT E



NOTE:
1. SLAB REINFORCING NOT SHOWN.

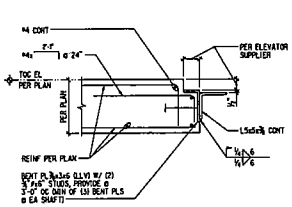
TOWER CRANE BLOCKOUT | 11



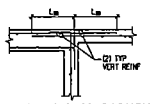
STAIR BOTTOM REINFORCING SCHEDULE		
SPAN LENGTH	STAIR BOTTOM REINFORCING	REMARKS
10' OR LESS	#4 @ 12"	
12'	#4 @ 12"	
14'	#5 @ 12"	
16'	#5 @ 8"	
18'	#5 @ 6"	
20'	#5 @ 8"	

NOTES:
1. SEE ARCHITECTURAL FOR EXACT LAYOUT OF TREADS AND RISERS.

TYPICAL CAST-IN-PLACE STAIR | 13



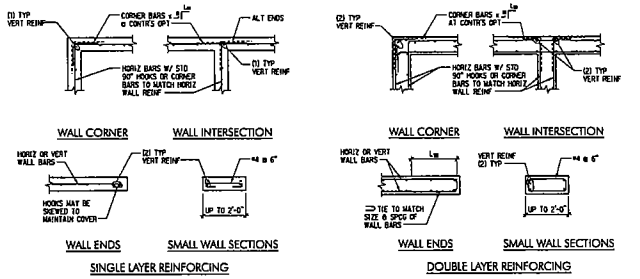
TYPICAL ELEVATOR SILL DETAIL | 17



WALL INTERSECTION OF SINGLE & DOUBLE LAYER REINFORCING

WALL CORNER OF SINGLE & DOUBLE LAYER REINFORCING

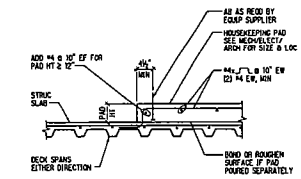
NOTES:
1. SHALL WALL SECTION DETAILS APPLY BOTH IN HORIZONTAL AND VERTICAL DIRECTIONS.



TYPICAL CONCRETE WALL REINFORCING | 20

DETAIL | 1

2		



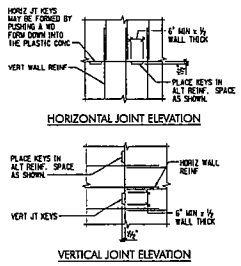
NOTES:
1. HOUSEKEEPING PAD ON SLAB ON GRADE AND FORMED SLABS SIMILAR.

TYPICAL HOUSEKEEPING PAD | 3

NOTES:
1. UNLESS NOTED OR SHOWN OTHERWISE, ALL WALLS ARE TO BE REINFORCED WITH MINIMUM REINFORCEMENT AS SHOWN IN THE FOLLOWING TABLE:

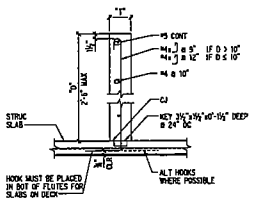
MINIMUM WALL REINFORCEMENT			
WALL THICKNESS	HORIZONTAL BARS	VERTICAL BARS	LOCATION
6" & UNDER	#4 @ 12"	#4 @ 12"	CENTERLINE
OVER 6-8"	#5 @ 15"	#5 @ 15"	CENTERLINE
OVER 8-10"	#5 @ 12"	#5 @ 12"	CENTERLINE
OVER 10-12"	#5 @ 12"	#5 @ 12"	EACH FACE
OVER 12-14"	#5 @ 15"	#5 @ 18"	EACH FACE
OVER 14-16"	#5 @ 15"	#5 @ 15"	EACH FACE
OVER 16-20"	#5 @ 12"	#5 @ 12"	EACH FACE
OVER 20-24"	#5 @ 10"	#5 @ 10"	EACH FACE

2. LAP WALL REINFORCING " AT SPLICES.
3. ALL VERTICAL REINFORCING IN CONCRETE WALLS SHALL BE CONTINUOUS FROM STRUCTURAL FLOOR TO STRUCTURAL FLOOR, OR FROM FOOTING TO FIRST STRUCTURAL FLOOR ABOVE, UNLESS NOTED OTHERWISE.
4. START HORIZONTAL AND VERTICAL BARS 1 INCH CLEAR OF EDGE OF OPENINGS. SPACE REINFORCING BARS AT EQUAL SPACES NOT TO EXCEED REQUIRED SPACING.



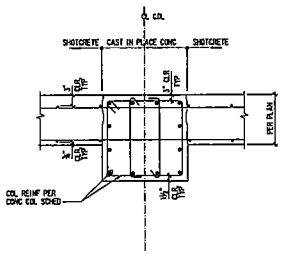
TYPICAL CONCRETE WALL REINFORCING | 5

6		



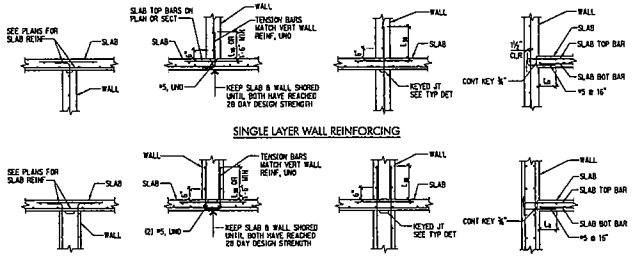
NOTES:
1. T = 6" MINIMUM OR 10" MAXIMUM. IF T > 10". SEE HOUSEKEEPING PAD DETAIL.
2. SEE ARCHITECTURAL FOR T AND D DIMENSIONS AND CURB LOCATIONS.

TYPICAL CONCRETE CURB | 7

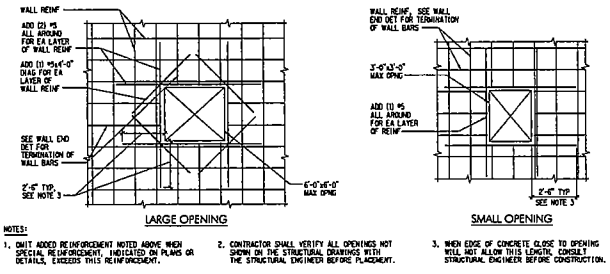


NOTES:
1. PILASTER CONCRETE STRENGTH TO MATCH BASEMENT WALLS.
2. SEE CONCRETE COLUMN SCHEDULE FOR PILASTER DIMENSIONS.

TYPICAL PILASTER | 8



TYPICAL CONCRETE REINFORCING AT INTERSECTIONS OF SLABS AND WALLS | 10



NOTES:
1. OMIT ADDED REINFORCEMENT NOTED ABOVE WHEN SPECIAL REINFORCEMENT, INDICATED ON PLANS OR DETAILS, EXCEEDS THIS REINFORCEMENT.
2. CONTRACTOR SHALL VERIFY ALL OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS WITH THE STRUCTURAL ENGINEER BEFORE PLACEMENT.
3. WHEN EDGE OF CONCRETE CLOSE TO OPENING WILL NOT ALLOW THIS LENGTH, CONSULT STRUCTURAL ENGINEER BEFORE CONSTRUCTION.

TYPICAL CONCRETE WALL OPENING REINFORCEMENT | 15

TYPICAL CONCRETE DETAILS AND SCHEDULES

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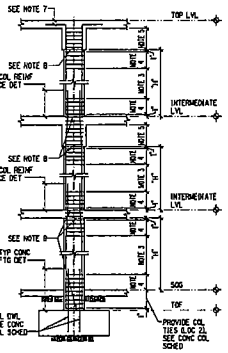
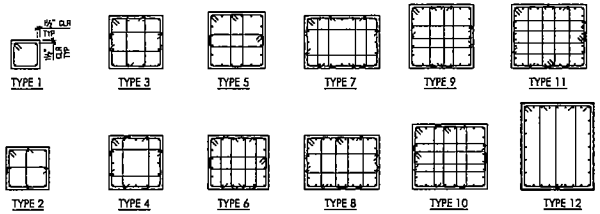


NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR COLUMN SIZE AND VERTICAL REINFORCING. FOR REINFORCING CONFIGURATION TYPE, SEE THE CONCRETE COLUMN SCHEDULE, AND THE TYPICAL CONCRETE COLUMN REINFORCING CONFIGURATION DETAIL.
2. COLUMN VERTICAL REINFORCING SHALL BE SPECIAL DUCTILE QUALITY. SEE GENERAL NOTES.
3. SEE CONCRETE COLUMN SCHEDULE UNDER "TIES (LOC 1)" FOR TIE SIZE, SPACING, AND REINFORCING CONFIGURATION. REINFORCING CONFIGURATION TYPE IS NOTED IN ( ).
4. FOR H/6, MAXIMUM COLUMN DIMENSION, OR 18 INCHES (WHICHEVER IS GREATER). SEE CONCRETE COLUMN SCHEDULE UNDER "TIES (LOC 2)" FOR TIE SIZE, SPACING, AND REINFORCING CONFIGURATION. REINFORCING CONFIGURATION TYPE IS NOTED IN ( ).
5. PROVIDE TIES (LOC 2) THROUGHOUT THE BEAM AND SLAB DEPTH, EXCEPT THAT THE TIE SPACING MAY BE INCREASED TO 6" WHERE BEAMS FRAME INTO FOUR SIDES OF COLUMN FOR THE DEPTH OF THE MOST SHALLOW BEAM.
6. AT CONTRACTOR'S OPTION, COLUMN VERTICAL BARS MAY BE EXTENDED UP ADDITIONAL FLOOR LEVELS WITHOUT SPLICES AT FLOORS.
7. PLACE HORIZONTAL HOOKS DIRECTLY BELOW TOP BARS OF BEAMS OR SLABS. SPLAY HOOKS AS NECESSARY TO RELIEVE BAR CONGESTION. AT CONTRACTOR'S OPTION, HOOKS MAY BE PLACED TOWARD THE INSIDE OF THE COLUMN.
8. UNLESS NOTED OTHERWISE, COLUMN CONSTRUCTION JOINTS SHALL BE AT THE UNDERSIDE OF FLOOR SLABS, BEAMS, OR GIRDERS, AND AT THE TOPS OF FOOTINGS OR FLOOR SLABS. BEAMS, GIRDERS, BRACKETS, COLUMNS CAPITALS, HAUNCHES, AND DROP PANELS SHALL BE PLACED AT THE SAME TIME AS SLABS.

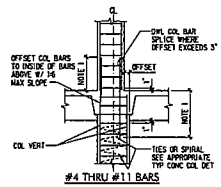
1/2" = 1'-0" DETAIL 1



NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR TYPE OF REINFORCING CONFIGURATION DENOTED WITH ( ) UNDER "TIES".
2. A TYPICAL CROSSTIE SHALL HAVE A 135 DEGREE HOOK AT ONE END AND A 90 DEGREE HOOK AT THE OTHER END. AT CONTRACTOR'S OPTION, THE 135 DEGREE HOOK MAY BE REPLACED WITH A 180 DEGREE HOOK, AND THE 90 DEGREE HOOK MAY BE REPLACED WITH A 135 OR A 180 DEGREE HOOK.
3. CROSSTIES WITH 90 DEGREE HOOKS SHALL HAVE THE CONSECUTIVE CROSSTIES ALTERNATED END FOR END ALONG THE LONGITUDINAL REINFORCEMENT.

CONC COL REINFORCING CONFIGURATION 4



#4 THRU #11 BARS

NOTES:

1. SEE CONCRETE COLUMN SCHEDULE FOR SPLICE LENGTH.
2. CLEAR DISTANCE BETWEEN THE TWO LAP SPLICE BARS AND ADJACENT BARS SHALL BE NOT LESS THAN 1.5 TIMES THE BAR DIA. NOR 1 1/2 INCHES.
3. IF OFFSET IN VERTICAL BARS OCCURS OUTSIDE THE HORIZONTAL FRAMING, PROVIDE ADDITIONAL SET OF TIES AT OFFSET LOCATION.
4. WHERE NOTED "ET" ON CONCRETE COLUMN, SEE SCHEDULE FOR SPLICE. THE COLUMN VERTICAL BARS SHALL BE MECHANICALLY SPLICED OR WELDED TO DEVELOP 125% F_y IN TENSION.
5. SPLICE #14 AND #18 BARS BY ONE OF THE FOLLOWING:
   A. FULL PENETRATION BUTT WELDS. ADJACENT WELDS STAGGERED 6 INCHES ON CENTER.
   B. ENDBEARING HEAD SPLICES STAGGERED 30 INCHES ON CENTER VERTICALLY BETWEEN ADJACENT BARS.
   C. MECHANICAL SPLICES STAGGERED 30 INCHES ON CENTER VERTICALLY, MAY BE USED.

TYP CONC COL REINFORCING SPLICE 5

6

TYP CONCRETE COLUMN 7

CONCRETE COLUMN SCHEDULE (SEISMIC ZONES 3 & 4)

LEVEL	COLUMN MARK	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13 PILASTER	C14 PILASTER
LEVEL 5												CONC ENCASED STL COL			
LEVEL 4	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE														
LEVEL 3	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE											32"x32"			
LEVEL 2	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE														
LEVEL 1/S	SIZE										34"x30"	W14 TUBE STL SHOE	36"x36"		
	REINF										(20) #11		(24) #11		
	TIES (LOC 2)										#5 @ 4" (6)		#5 @ 4" (9)		
	TIES (LOC 1)										#5 @ 6" (6)		#5 @ 6" (5)		
	SPLICE										5'-3"		5'-3"		
LEVEL G	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE														
LEVEL P1	SIZE			16"x16"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"		
	REINF			(4) #8	(8) #8	(8) #8	(8) #8	(12) #8	(12) #8	(12) #11	(20) #11	(20) #11	(28) #11		
	TIES (LOC 2)			#5 @ 4" (1)	#5 @ 4" (2)	#5 @ 4" (2)	#5 @ 4" (2)	#5 @ 4" (3)	#5 @ 4" (3)	#5 @ 4" (3)	#5 @ 4" (7)	#5 @ 4" (7)	#5 @ 4" (10)		
	TIES (LOC 1)			#5 @ 6" (1)	#5 @ 6" (2)	#5 @ 6" (2)	#5 @ 6" (2)	#5 @ 6" (3)	#5 @ 6" (3)	#5 @ 6" (3)	#5 @ 6" (7)	#5 @ 6" (7)	#5 @ 6" (10)		
	SPLICE			3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	5'-3"	5'-3"	5'-3"	5'-3"		
LEVEL P2	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE														
LEVEL P3	SIZE	16"x16"	16"x16"	16"x16"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"	24"x24"	40"X48"
	REINF	(4) #8	(4) #8	(4) #8	(8) #8	(8) #8	(12) #11	(12) #8	(16) #11	(20) #11	(30) #11	(20) #11	(36) #11	(12) #8	(28) #11
	TIES (LOC 2)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (2)	#4 @ 4" (3)	#4 @ 4" (3)	#4 @ 4" (3)	#4 @ 4" (4)	#4 @ 4" (5)	#4 @ 4" (8)	#4 @ 4" (5)	#4 @ 4" (11)	#4 @ 6" (3)	#5 @ 6" (12)
	TIES (LOC 1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (3)	#4 @ 6" (3)	#4 @ 6" (4)	#4 @ 6" (5)	#4 @ 6" (8)	#4 @ 6" (5)	#4 @ 6" (11)	#4 @ 6" (3)	#5 @ 6" (12)
	SPLICE	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	3'-9"	5'-3"	5'-3"	5'-3"	5'-3"	5'-3"	3'-9"	5'-3"
LEVEL P4	SIZE														
	REINF														
	TIES (LOC 2)														
	TIES (LOC 1)														
	SPLICE														
LEVEL P5	SIZE	16"x16"	16"x16"	16"x16"	24"x24"	24"x24"	24"x24"	30"x30"	30"x30"	32"x32"	42"x30"	32"x32"	42"x36"	24"x24"	40"X48"
	REINF	(4) #8	(4) #8	(4) #8	(8) #8	(8) #8	(12) #11	(12) #8	(16) #11	(20) #11	(30) #11	(20) #11	(36) #11	(12) #8	(28) #11
	TIES (LOC 2)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (1)	#4 @ 4" (2)	#4 @ 4" (2)	#4 @ 4" (3)	#4 @ 4" (3)	#4 @ 4" (4)	#4 @ 4" (5)	#4 @ 4" (8)	#4 @ 4" (5)	#4 @ 4" (11)	#4 @ 6" (3)	#5 @ 6" (12)
	TIES (LOC 1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (1)	#4 @ 6" (2)	#4 @ 6" (2)	#4 @ 6" (3)	#4 @ 6" (3)	#4 @ 6" (4)	#4 @ 6" (5)	#4 @ 6" (8)	#4 @ 6" (5)	#4 @ 6" (11)	#4 @ 6" (3)	#5 @ 6" (12)
FDN	COL DWL	(4) #6	(4) #6	(4) #6	(8) #6	(8) #6	(12) #6	(12) #6	(12) #6	(12) #6	(16) #8	(12) #6	(20) #8	(12) #6	
LEVEL	COLUMN MARK	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13 PILASTER	C14 PILASTER

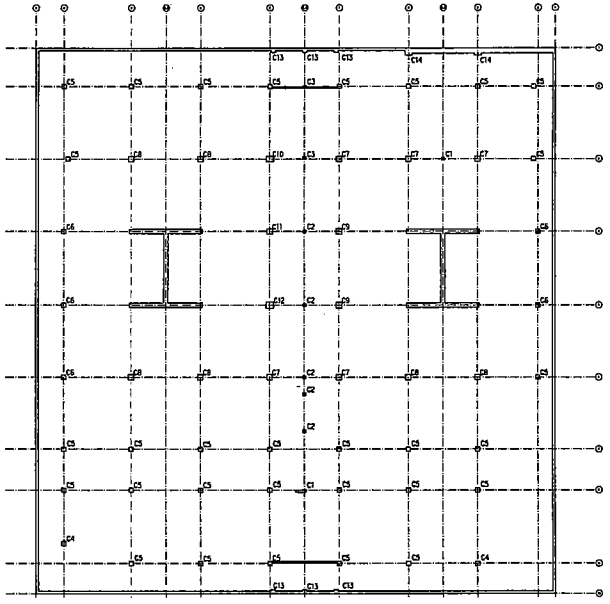


EXHIBIT E

COLUNM KEY PLAN 17

CONCRETE COLUMN SCHEDULE 20

nbbj
223 YALE AVENUE NORTH
SEATTLE WASHINGTON 98109
PHONE 206 223 5555
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NO	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJ NO: 00000.00
DATE: YYYY/MMM/DD
CHK'D:

TYPICAL CONCRETE COLUMN DETAILS AND SCHEDULE

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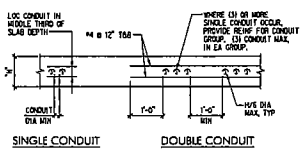
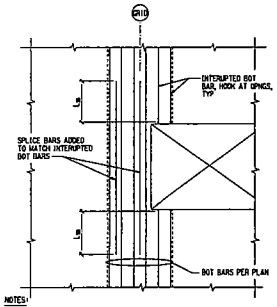
9/12/2006 4:32:06 PM user: DJH pref: MKA_HYBRID_STRUCT plotfig: PDF'S IN TS\HOKO.PLT file: J:\HARBORVIEW\BIDS\4.03.DGN model: SHEET version: V8



NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING PLACEMENT OF CONDUIT. SEE GENERAL NOTES.
2. CONDUIT PLACEMENT NOT MEETING THIS CRITERIA SHALL BE SUBMITTED TO ENGINEER FOR REINFORCING DESIGN.
3. DO NOT PLACE CONDUIT WITHIN 3'-0" OF COLUMN FACE.

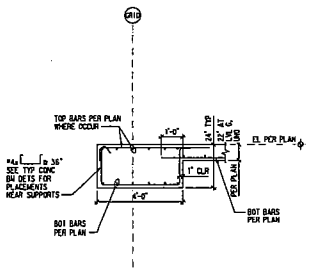
TYPICAL CONDUIT PLACEMENT CRITERIA | 1



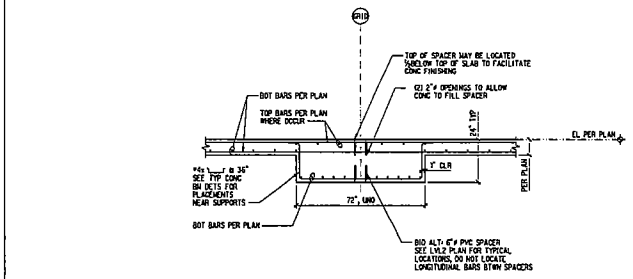
NOTES:

1. TRIM REINFORCING NOT SHOWN FOR CLARITY.

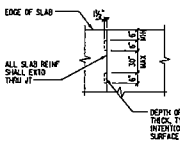
TYPICAL THICKENED SLAB AT OPENING | 2



TYPICAL THICKENED SLAB EDGE | 3



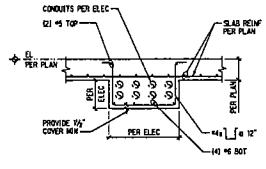
TYPICAL THICKENED SLAB | 5



NOTES:

1. LOCATE ALL CONSTRUCTION JOINTS AT MID-SPAN, SUBMIT LOCATIONS OF ALL CONSTRUCTION JOINTS TO ENGINEER FOR REVIEW AND ACCEPTANCE PRIOR TO FORMING.

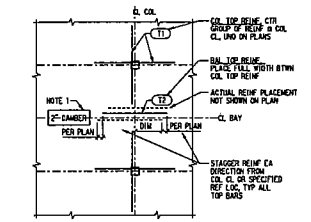
TYPICAL SLAB CONTROL JOINT PLAN | 6



NOTES:

1. SEE PLAN FOR DIMENSIONS AND REINFORCING.

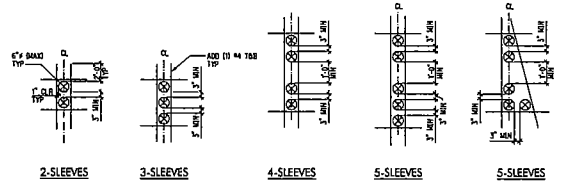
TYPICAL CONCRETE ENCASED DUCTBANK | 7

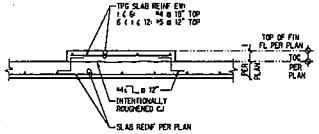


NOTES:

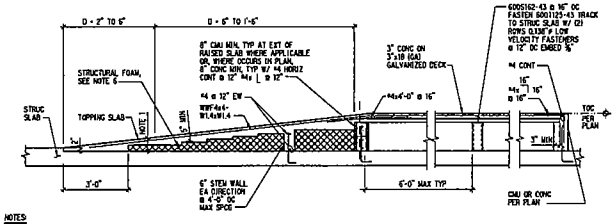
1. WHEN NO EXTENT LINES EXIST AT FLAT SLAB CAMBER, A SINGLE HIGH POINT AT MID-BAY IS INDICATED. THE SURROUNDING SLAB SLOPES AWAY TOWARD THE ADJACENT COLUMNS OR WALLS.
2. ALL BOTTOM BAR PLACEMENT AND STAGGERS ARE DETAILED ON THE PLANS AND ASSOCIATED SCHEDULE.

TYPICAL SLEEVE PENETRATION DETAIL | 10





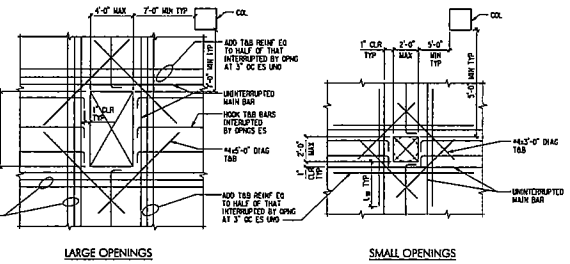
TYPICAL MECHANICAL PAD SLAB DETAIL | 11



NOTES:

1. "D" REFERS TO THE DISTANCE BETWEEN STRUCTURAL SLAB AND REQUIRED CONCRETE ELEVATION.
2. MAXIMUM IMPOSED LOAD: 125 POUNDS PER SQUARE FOOT.
3. SUBMIT FINAL LAYOUT OF WALLS FOR REVIEW BY STRUCTURAL ENGINEER PRIOR TO FABRICATION.
4. REFER TO TYPICAL DETAILS FOR INFORMATION NOT SHOWN.
5. PROVIDE LEDGER ANGLES PER TYPICAL DETAILS WHERE METAL DECK ABUTS SUPER STRUCTURE.
6. STRUCTURAL FOAM SHALL BE POLYSTYRENE OF 30% QUALITY CAPABLE TO SUPPORT 60 PSI. GENERAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE ENGINEER OF RECORD AND TO ARCHITECT FOR APPROVAL.

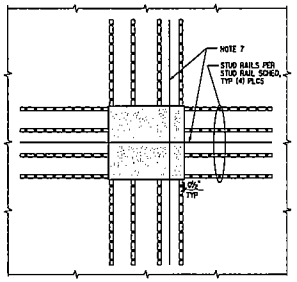
TYPICAL BUILT - UP SLAB | 13

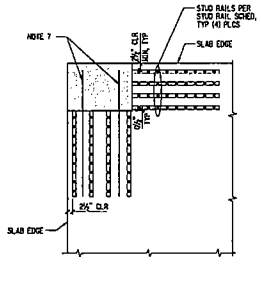


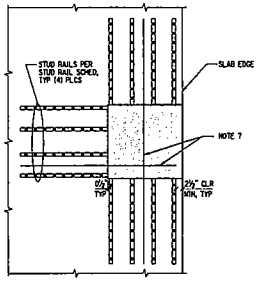
NOTES:

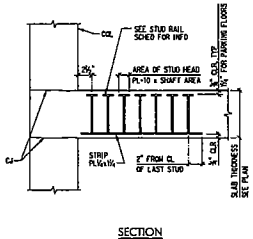
1. LT IS ACCEPTABLE TO ADD SHORTER HOOKED BARS OF THE SAME SIZE TO INTERRUPTED REINFORCING AND LAP SPLICE THEM L_m. ALL OTHER ADDED REINFORCING REQUIREMENTS REMAIN THE SAME.
2. EXTEND ADDED REINFORCING TO THE END OF INTERRUPTED REINFORCING OR 10'-0" PAST OPENING, WHICHEVER IS SHORTER, TYPICAL EACH SIDE.

TYPICAL SLAB OPENING REINFORCEMENT | 15









STUD RAIL SCHEDULE

MARK	SLAB THICKNESS	STUD DIAMETER (INCH)	STUD SPACING (INCH)	NUMBER STUDS PER RAIL	NUMBER OF RAILS PER SIDE	REMARKS
R1	9 / 14	½	3½	9	4	USED AT BOTH 9" & 14" SLAB
R2						NOT USED
R3	9 / 14	½	3½	9	4	USED AT BOTH 9" & 14" SLAB
R4	14 / 14	½	3½	15	4	USED AT BOTH 9" & 14" SLAB
R5	9	½	3½	9	4	
R6	9	½	3½	15	4	
R7	9	½	3½	15	4	

NOTES:

1. SEE PLANS FOR LOCATIONS WHERE SLAB SHEAR REINFORCING IS REQUIRED.
2. SLAB SHEAR REINFORCEMENT SHALL BE DEGON STUD RAILS, OR APPROVED EQUAL. STUDS ARE LOW CARBON STEEL, C1015 IN ACCORDANCE WITH ASTM-A108.

   YIELD STRENGTH 50 KSI MINIMUM
   TENSILE STRENGTH 60 KSI MINIMUM
3. ALL STUD RAILS SHALL BE CLEARLY MARKED WITH BRIGHT PAINT TO INDICATE STUD RAIL TYPE.
4. COORDINATE PLACEMENT WITH POST-TENSIONED TENDONS AND ANCHORAGES. PROVIDE POSITIVE MEANS TO KEEP REINFORCEMENT IN PLACE DURING CONCRETE PLACEMENT.
5. NUMBER OF RAILS PER COLUMN SIDE IS BASED ON COLUMN DIMENSION. SEE STUD RAIL SCHEDULE, TYPICAL.
6. SEE PLANS FOR REINFORCING SHOWN THROUGH COLUMNS, TYPICAL.
7. SEE TYPICAL COLUMN / SLAB INTERSECTION DETAIL, S4.106 FOR ADDITIONAL REINFORCING.

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EXHIBIT E

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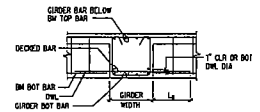
REV	DATE	DESCRIPTION

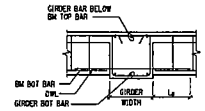
DRAWN BY: DCJ
PROJ NO: 00000.00
DATE: YYYY/MM/DD

TYPICAL CONCRETE SLAB DETAILS AND SCHEDULE

S4.04

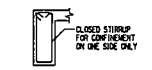


EQUAL DEPTH

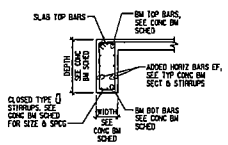


UNEQUAL DEPTH

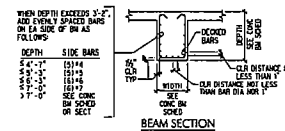
INTERSECTION OF CONC BM & GIRDER | 1



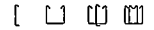
ALTERNATE



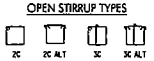
TYP CONC BEAM SECTION & STIRRUPS | 2



BEAM SECTION

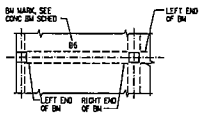


OPEN STIRRUP TYPES

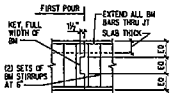


CLOSED STIRRUP TYPES

TYPICAL CONCRETE EDGE BEAM | 3



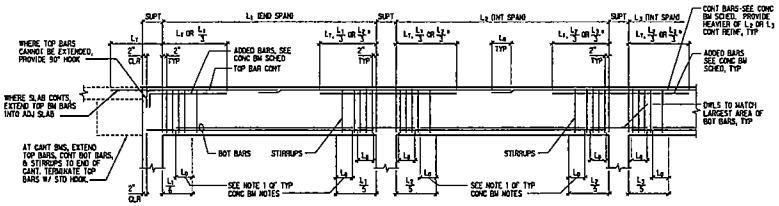
PLAN OF BEAM



BEAM CONSTRUCTION JOINT DETAIL

NOTES:

1. SEE NOTE 6 OF TYPICAL CONCRETE BEAM NOTES.



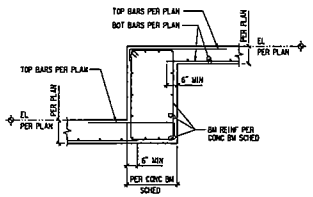
BEAM REINFORCING ELEVATION

* WHICHEVER IS GREATER

NOTES:

1. ALL BARS IN SAME LAYER, UNLESS NOTED OTHERWISE.

TYPICAL CONCRETE BEAM | 8



TYPICAL BEAM AT SLAB STEP | 12

NOTES:

1. AT CONTRACTOR'S OPTION, WHERE REQUIRED TO RELIEVE BAR CONGESTION, NOT MORE THAN 50 PERCENT OF THE AREA OF THE STRAIGHT BOTTOM BARS MAY BE TERMINATED AS SHOWN, UNLESS NOTED OTHERWISE.
2. BEAM SCHEDULES DO NOT INDICATE REQUIREMENTS FOR ARRANGING BARS. THE CONTRACTOR SHALL DETAIL AND PLACE REINFORCING STEEL IN A SINGLE LAYER WHENEVER POSSIBLE. A SECOND LAYER MAY BE USED ONLY WHERE REQUIRED TO PROVIDE PROPER CLEARANCES BETWEEN BARS IN A LAYER AND WHERE REQUIRED IN ORDER TO PROPERLY CLEAR COLUMN VERTICALS AND SIMILAR REINFORCING.
3. REFER TO REINFORCING BAR DEVELOPMENT AND SPLICE LENGTH TABLE FOR L_1, L_2, AND L_3.
4. EITHER 90 OR 180 DEGREE STANDARD HOOK BARS MAY BE USED FOR LONGITUDINAL BARS.
5. WHERE TOP BARS ARE INDICATED AS CONTINUOUS AND RUN OVER 60 FEET IN LENGTH, BARS MAY BE LAPPED L_d IN THE MIDDLE THIRD OF THE BEAM SPAN, UNLESS NOTED OTHERWISE. CONTINUOUS TOP BARS SHALL NOT BE LAPPED IN THE SPAN ADJACENT TO A CANTILEVER, UNLESS NOTED OTHERWISE. WHERE BOTTOM BARS ARE SHOWN AS CONTINUOUS AND RUN IN EXCESS OF 60 FEET, A LAP SPLICE MAY BE USED EQUAL TO L_d AND SHALL BE OUTSIDE THE MIDDLE THIRD OF THE BEAM SPAN. SIDE BAR SPLICES MAY BE MADE WHERE CONVENIENT.
6. LOCATE ALL CONSTRUCTION JOINTS WITHIN THE MIDDLE THIRD OF SPANS. JOINTS SHALL BE OFFSET AT A MINIMUM DISTANCE OF TWO TIMES THE WIDTH OF INTERSECTING BEAMS. SUBMIT LOCATION OF ALL CONSTRUCTION JOINTS TO ENGINEER FOR REVIEW AND ACCEPTANCE BEFORE FORMING.
7. STANDARD HOOKS FOR STIRRUPS MAY BE 135 DEGREES BEND PLUS 6db EXTENSION, BUT NOT LESS THAN 3 INCHES.

TYPICAL CONCRETE BEAM NOTES | 13

EXHIBIT E

16 | 17 | 18

CONCRETE BEAM SCHEDULE

LEVEL	MARK	SIZE WIDTH (INCHES)	SIZE DEPTH (INCHES)	CAMBER	BOTTOM BARS NUMBER	BOTTOM BARS SIZE	TOP BARS NUMBER	TOP BARS SIZE	TOP BARS LOCATION	STIRRUPS LOCATION	STIRRUPS SIZE	STIRRUPS TYPE*	STIRRUPS SPACING	REMARKS
LEVEL P4	P481	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P482	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
LEVEL P3	P381	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P382	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P383	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P384	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	9"	
LEVEL P2	P281	24	20	-	4	#11	4 4	#11 #11	CONT LEFT	CONT	#4	2	8"	
	P282	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P283	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P284	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	9"	
	P285	16	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
LEVEL P1	P181	24	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P182	32	24	-	6	#11	3	#11	CONT	CONT	#5	2	6"	
	P183	32	66	-	5	#10	2	#10	CONT	CONT	#4	2C	15"	
	P184	24	20	-	4	#9	4	#9	CONT	CONT	#4	2C	9"	
	P185	16	20	-	4	#11	4	#11	CONT	CONT	#4	2	8"	
	P186	40	20	-	5	#10	2	#10	CONT	CONT	#4	2C	8"	
	P187	24	24	-	6	#8	4 4	-	CONT RT + LT	CONT	#4	2	8"	
	P188	24	VARIES	-	4	#10	4	#10	CONT	CONT	#4	2	8"	
LEVEL G	G81	24	24	-	4	#8	4 2	#8	CONT RT + LT	CONT	#4	2	8"	
LEVEL S	S81	24	13	-	4	#8	4 2	#8	CONT RT + LT	CONT	#4	2	4"	
	S82	24	19	-	4	#8	4	#8	CONT	CONT	#4	2	8"	
	S83	24	24	-	6	#8	4 4	#8	CONT RT + LT	CONT	#4	2	8"	
	S84	24	28	-	8	#8	8	#8	CONT	CONT	#4	2	6"	
	S85													NOT USED
	S86	24	34	-	6	#8	4 2	#8	CONT RT + LT	CONT	#4	2	12"	
	S87	24	36	PER PLAN	10	#8	10	#8	CONT	CONT	#4	2	6"	
	S88	24	40	PER PLAN	6	#8	4 4	#8 #8	CONT RT + LT	CONT	#4	2	3"	
	S89	24	43	-	6	#8	2 4	#8 #8	CONT RT + LT	CONT	#4	2	8"	
	S810	24	46	-	8	#8	4 4	#8 #8	CONT RT + LT	CONT	#4	2	8"	
	S811	24	55	-	8	#8	4 2	#8 #8	CONT RT + LT	CONT	#4	2	12"	
	S812	24	64	-	4	#8	4 2	#8 #8	CONT RT + LT	CONT	#4	2	12"	
	S813	24	68	-	5	#8	5	#8	CONT	CONT	#4	2	12"	
	S814	12	55	-	3	#8	3	#8	CONT	CONT	#4	2	12"	
	S815	12	88	-	3	#8	3	#8	CONT	CONT	#4	2	12"	
	S816	24	38	-	4	#8	4	#8	CONT	CONT	#4	2	12"	
	S817	24	58	-	8	#8	4 2	#8 #8	CONT RT + LT	CONT	#4	2	12"	

* "C" ON THE STIRRUP TYPE INDICATES CLOSED STIRRUPS PER TYPICAL CONCRETE BEAM SECTION AND STIRRUPS DETAIL.

NOTES:

1. EXTEND HORIZONTAL BARS L_{dh} INTO SUPPORTS OR HOOK WHERE NOT POSSIBLE.
2. DEPTH VARIES, TOP BARS AND STIRRUPS MAY BE PLACED RELATIVE TO THE SHALLOWEST SECTION FOR THE ENTIRE BEAM LENGTH.

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REV	DATE	DESCRIPTION

Drawn By: DLJ | Proj Mgr.: DLJ
Proj No.: 00000.00
Date: YYYY/MM/DD

TYPICAL CONCRETE BEAM DETAILS AND SCHEDULE

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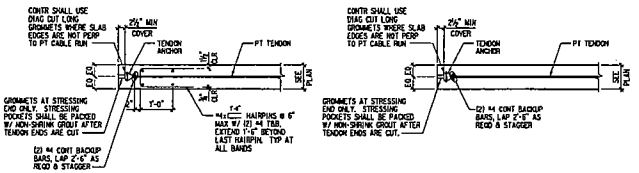
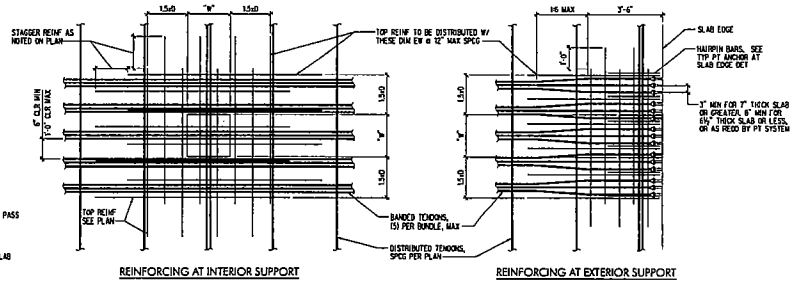
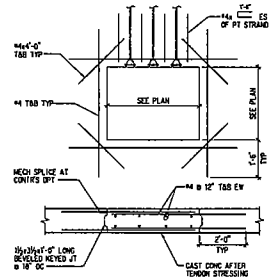


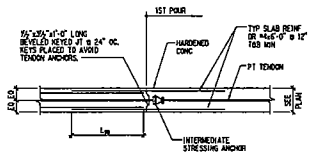
TYPICAL POST-TENSION ANCHOR AT SLAB EDGE | 2



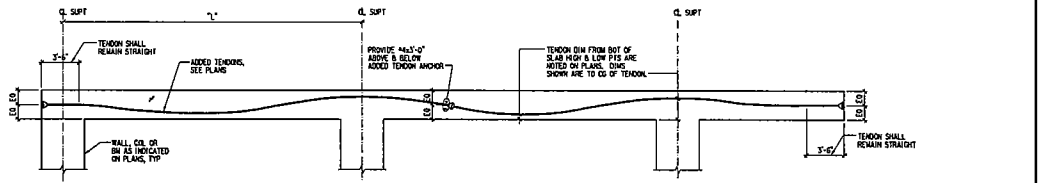
TYPICAL POST-TENSION REINFORCING AT SUPPORT FOR TWO-WAY SLABS | 5



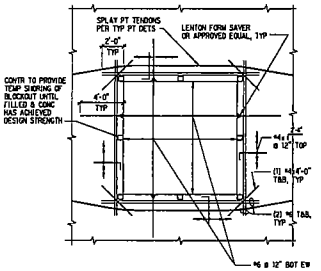
TYPICAL STRESSING BLOCKOUT | 6



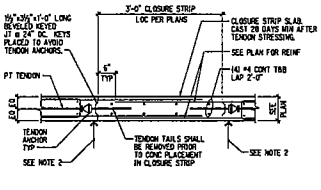
TYP POST-TENSION SLAB CONST JOINT | 7



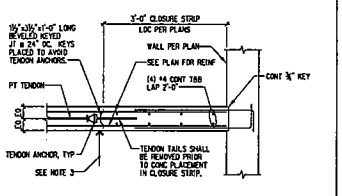
TYPICAL POST-TENSION TENDON PROFILE | 10



TOWER CRANE BLOCKOUT | 11



TYP POST-TENSION CLOSURE STRIP | 12



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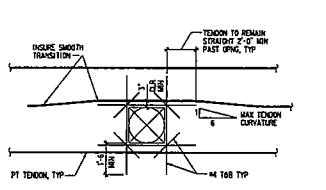
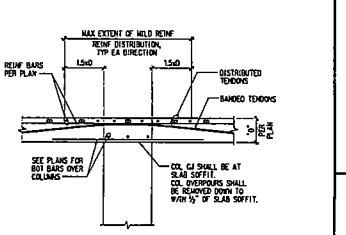
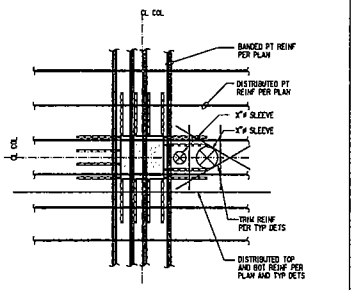


TYP TENDON CURVATURE AT OPENING | 14

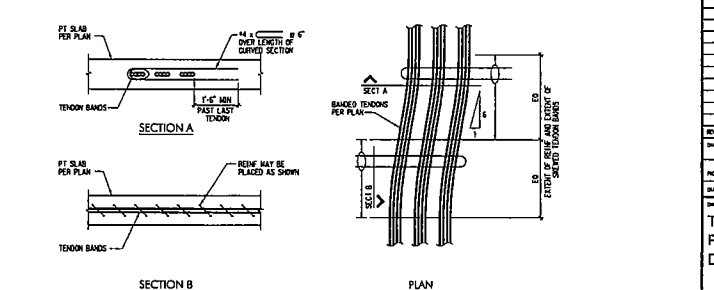


TYPICAL COLUMN / SLAB INTERSECTION | 15

16 | 17



TYPICAL PT WITH SLEEVE LAYOUT | 18



TYPICAL REINFORCING AT SKEWED BANDED TENDONS | 20

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TYPICAL POST-TENSION DETAILS

S4.06

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Structural + Civil Engineers
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Seattle Washington 98101-2689
T: 206 292 1200 F: 206 292 1201
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GARAGE PERMIT SET

BRIAN P. DAVALOS
STATE OF WASHINGTON
20111
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

NO	DATE	DESCRIPTION

DRAWN BY: DLJ
PROJ. MGR.:
PROJ. NO.: 00000.00
DATE: YYYY/MM/DD

TYPICAL CMU DETAILS

S4.11

EXHIBIT E

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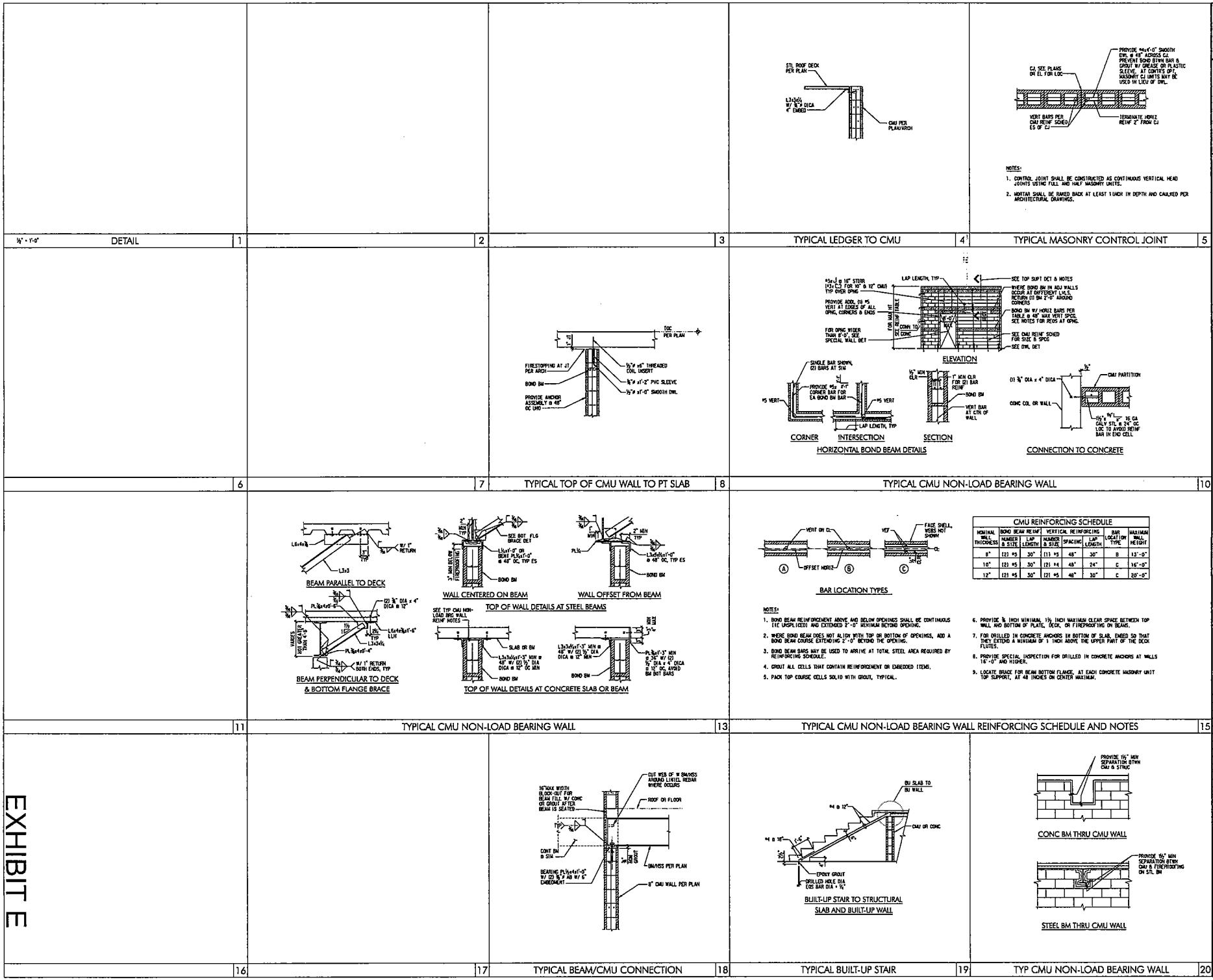
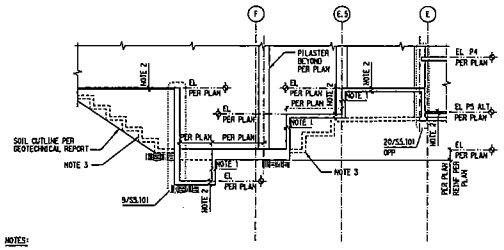
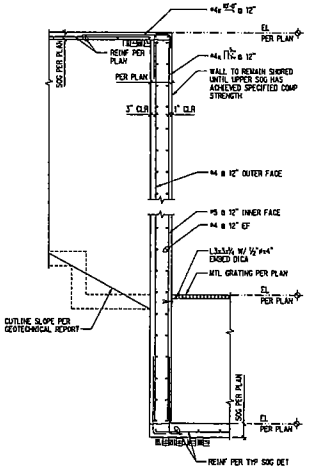




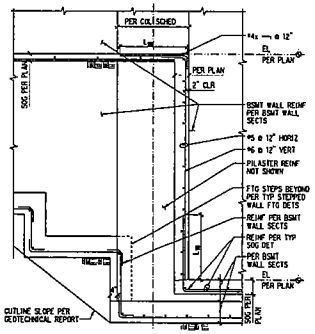
NOTES:
1. DIMENSION PER PLAN, REINFORCE PER TYPICAL CONCRETE WALL DETAIL.
2. DIMENSION PER PLAN, REINFORCE PER TYPICAL SOG DETAIL.
3. FOOTING STEPS PER TYPICAL STEPPED FOOTING DETAILS.

½" = 1'-0" DETAIL 1

½" = 1'-0" ELEVATION 3



½" = 1'-0" SECTION 9



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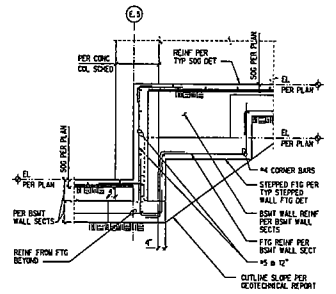
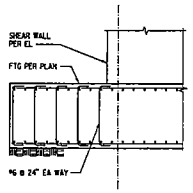


OPPOSITE HAND AT SIMILAR

½" = 1'-0" SECTION 10



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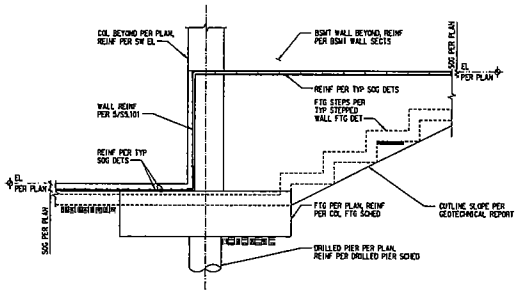

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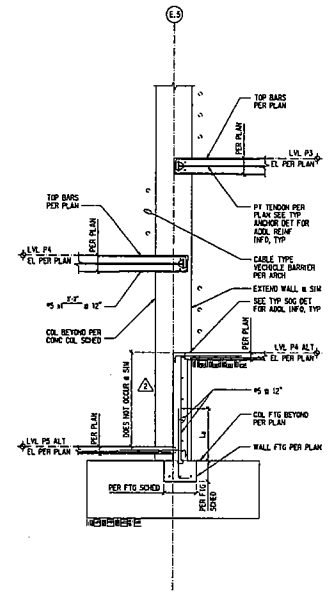

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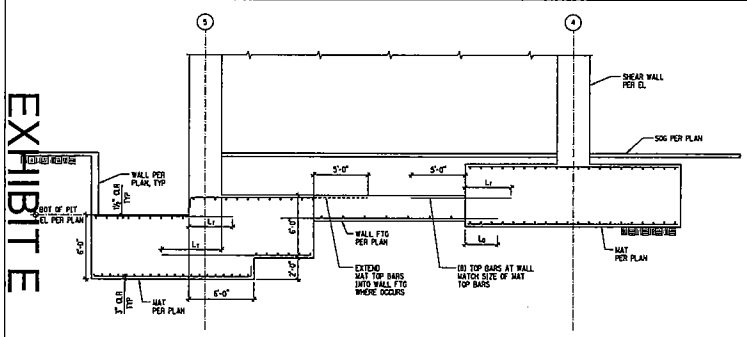

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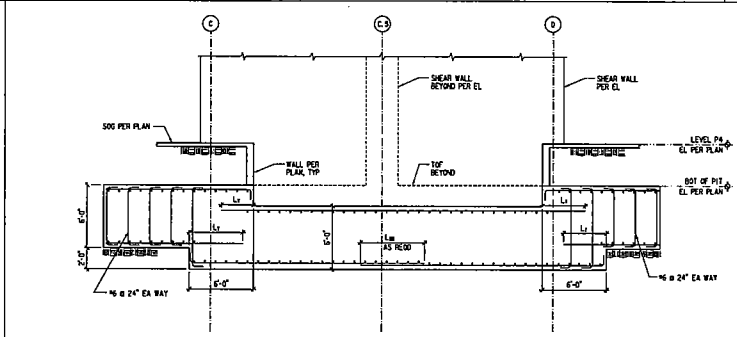

½" = 1'-0" SECTION 19

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NO	DATE	DESCRIPTION

DRAWN BY: MCL MGR: DKJ
PROJ NO: 00000.00
DATE: YYYY/MM/DD

FOUNDATION SECTIONS AND DETAILS

S5.01

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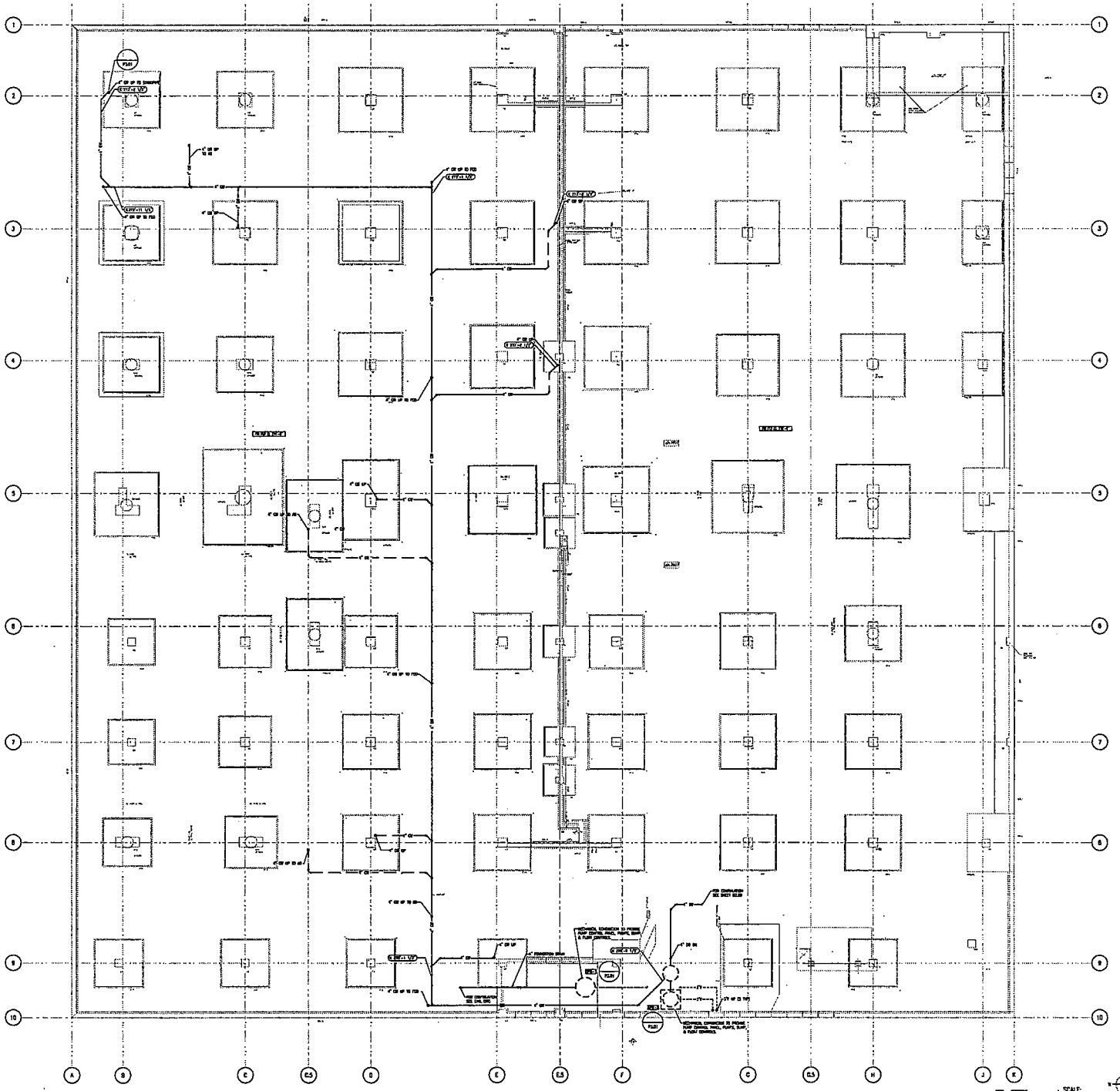

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SHT. NJB FOUNDATION PLAN– PLUMBING

M2.FND

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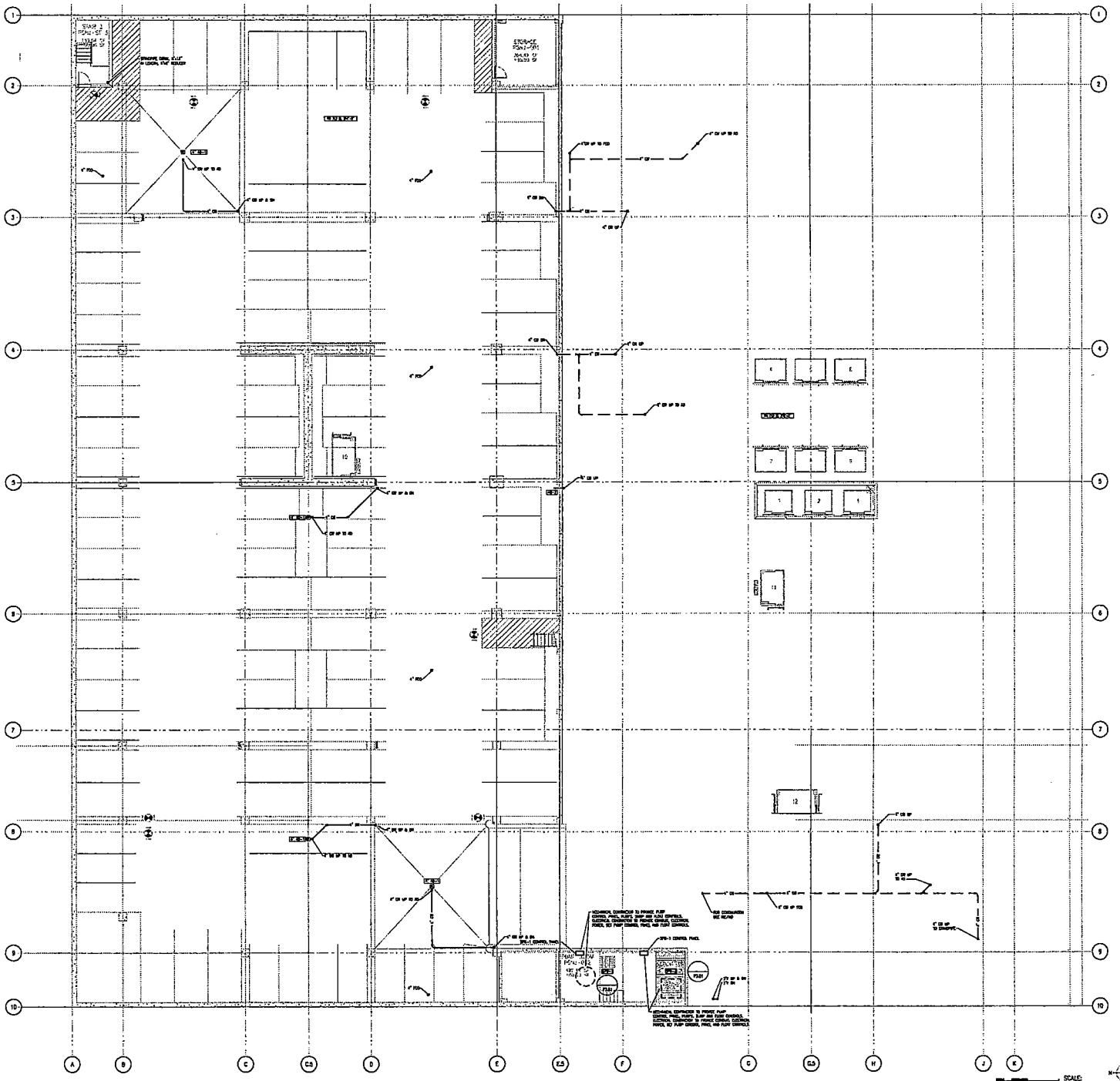

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NJB PARKING LEVEL 5 PLAN – PLUMBING

M2.00

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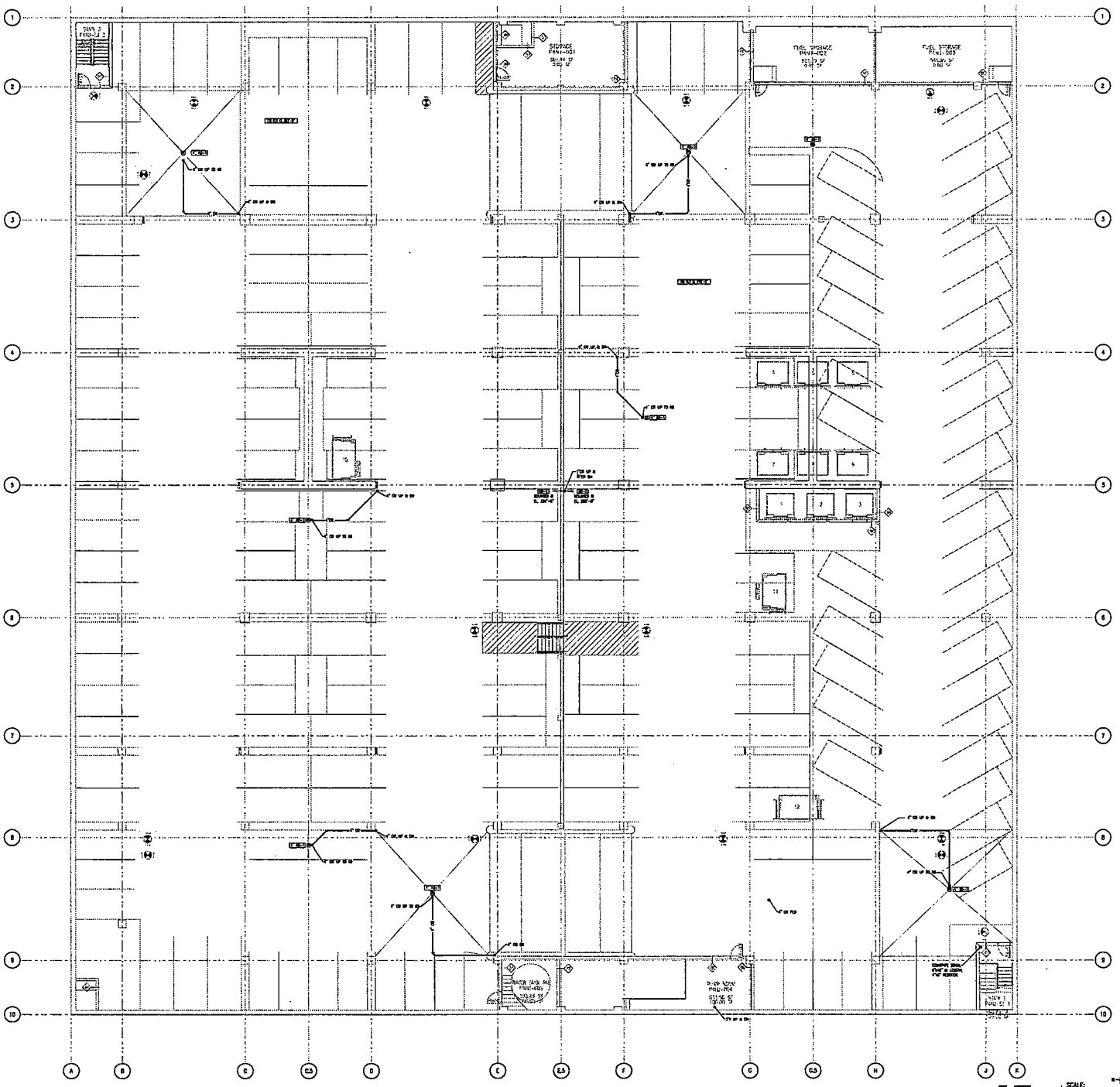

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NJB PARKING LEVEL 4 PLAN – PLUMBING

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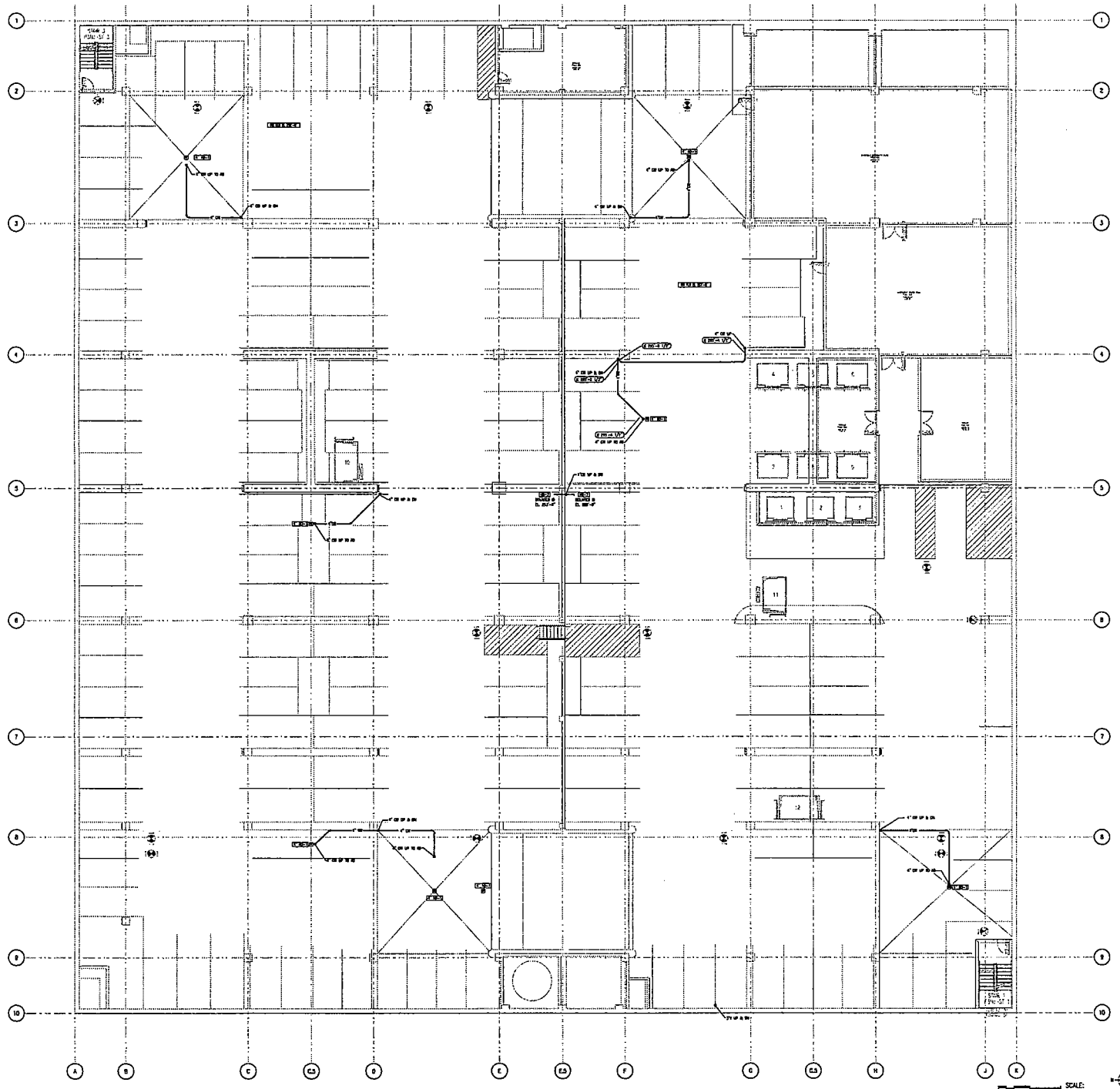

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NJB PARKING LEVEL 3 PLAN – PLUMBING

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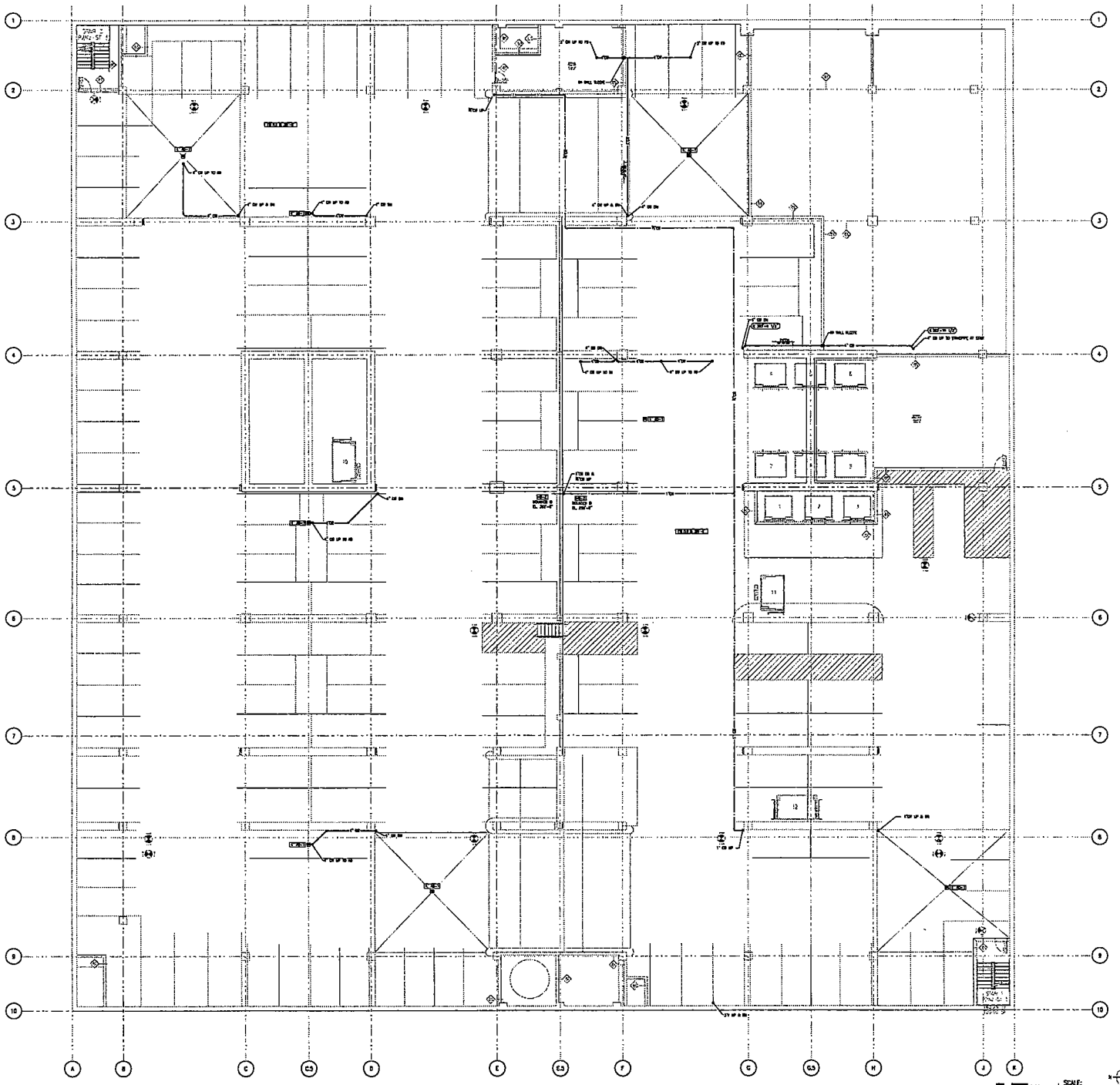

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NJB PARKING LEVEL 2 PLAN – PLUMBING

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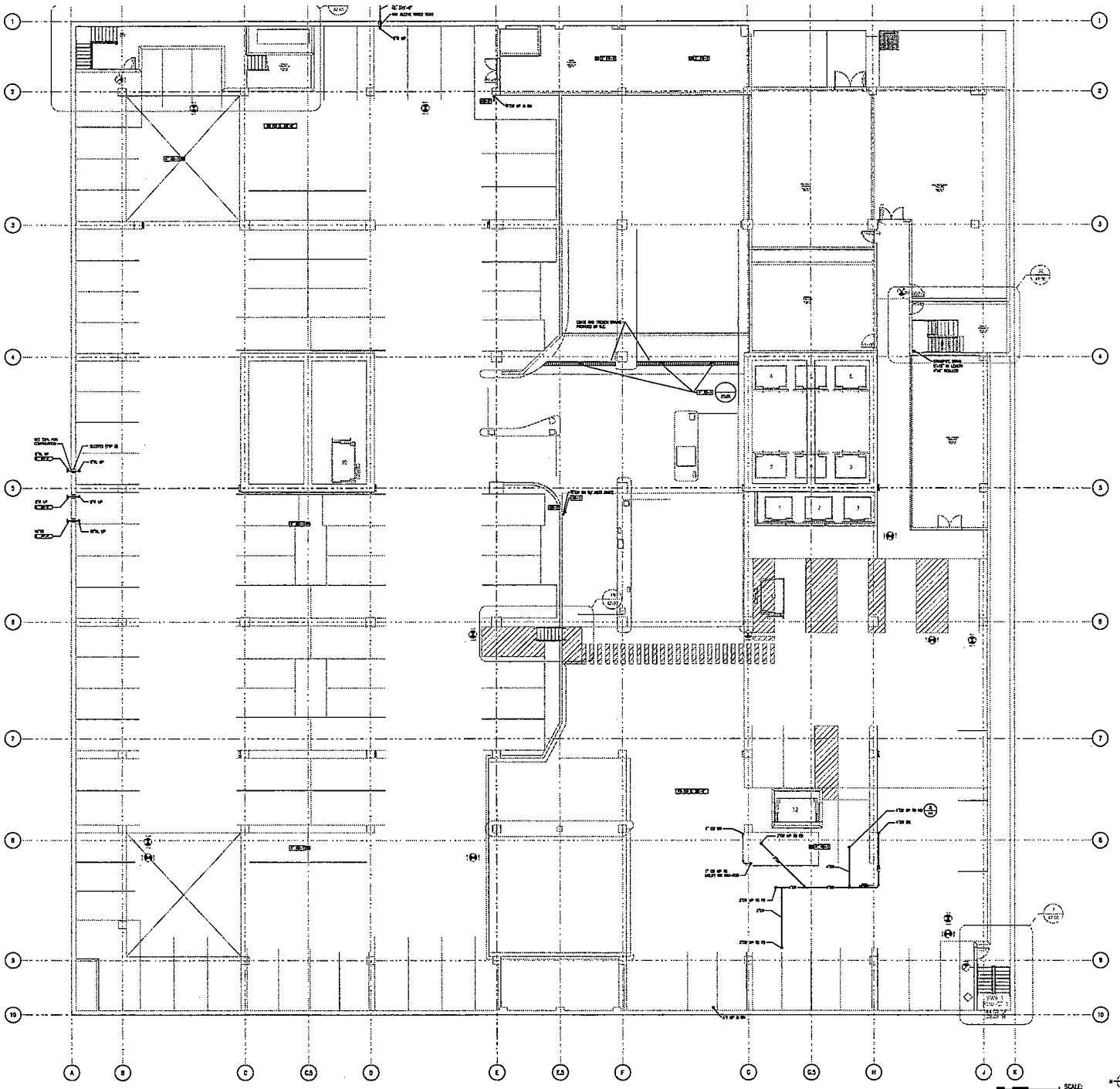

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NJB PARKING LEVEL 1 PLAN – PLUMBING

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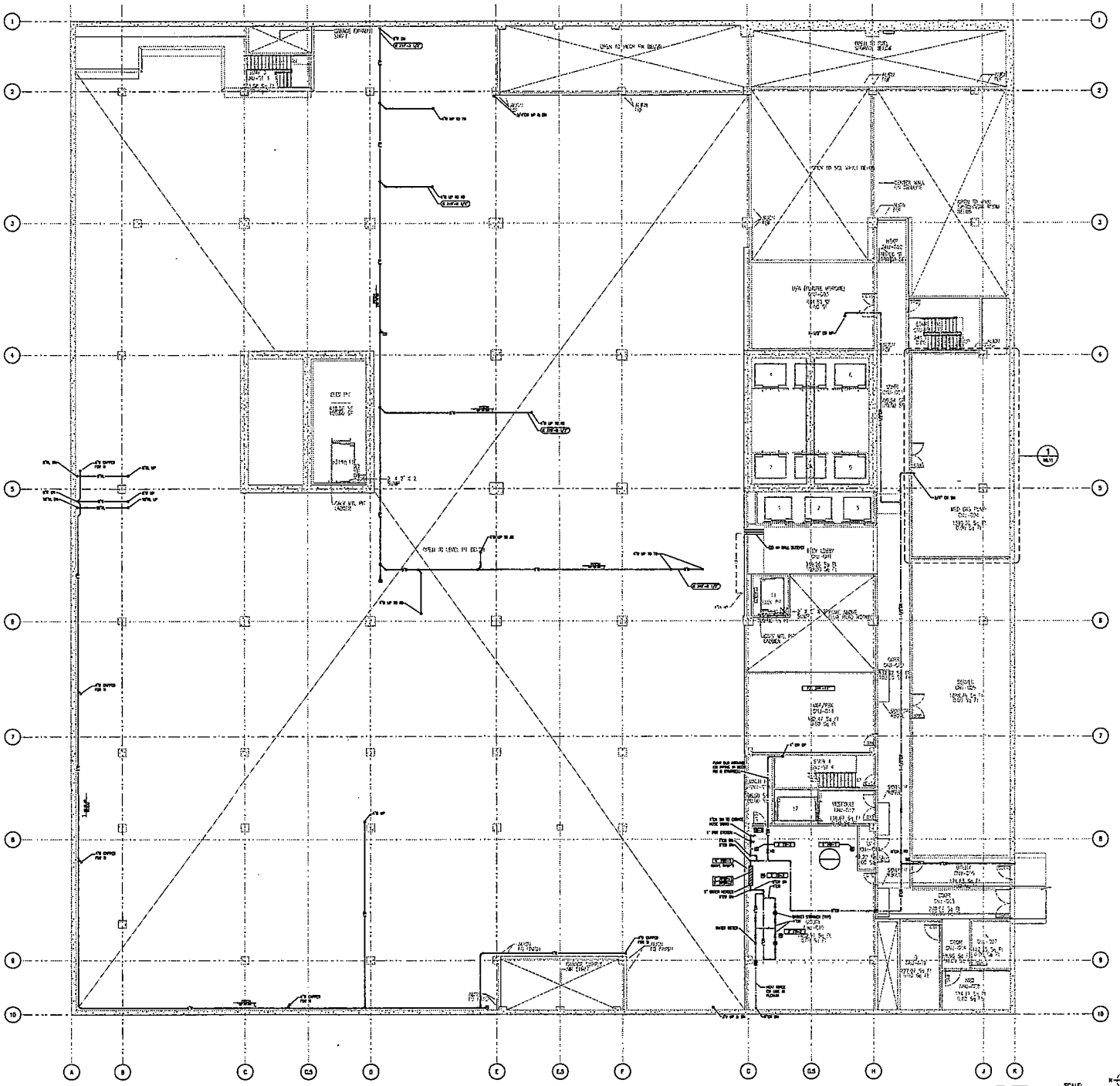

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NJB LEVEL G PLAN – PLUMBING

M2.05

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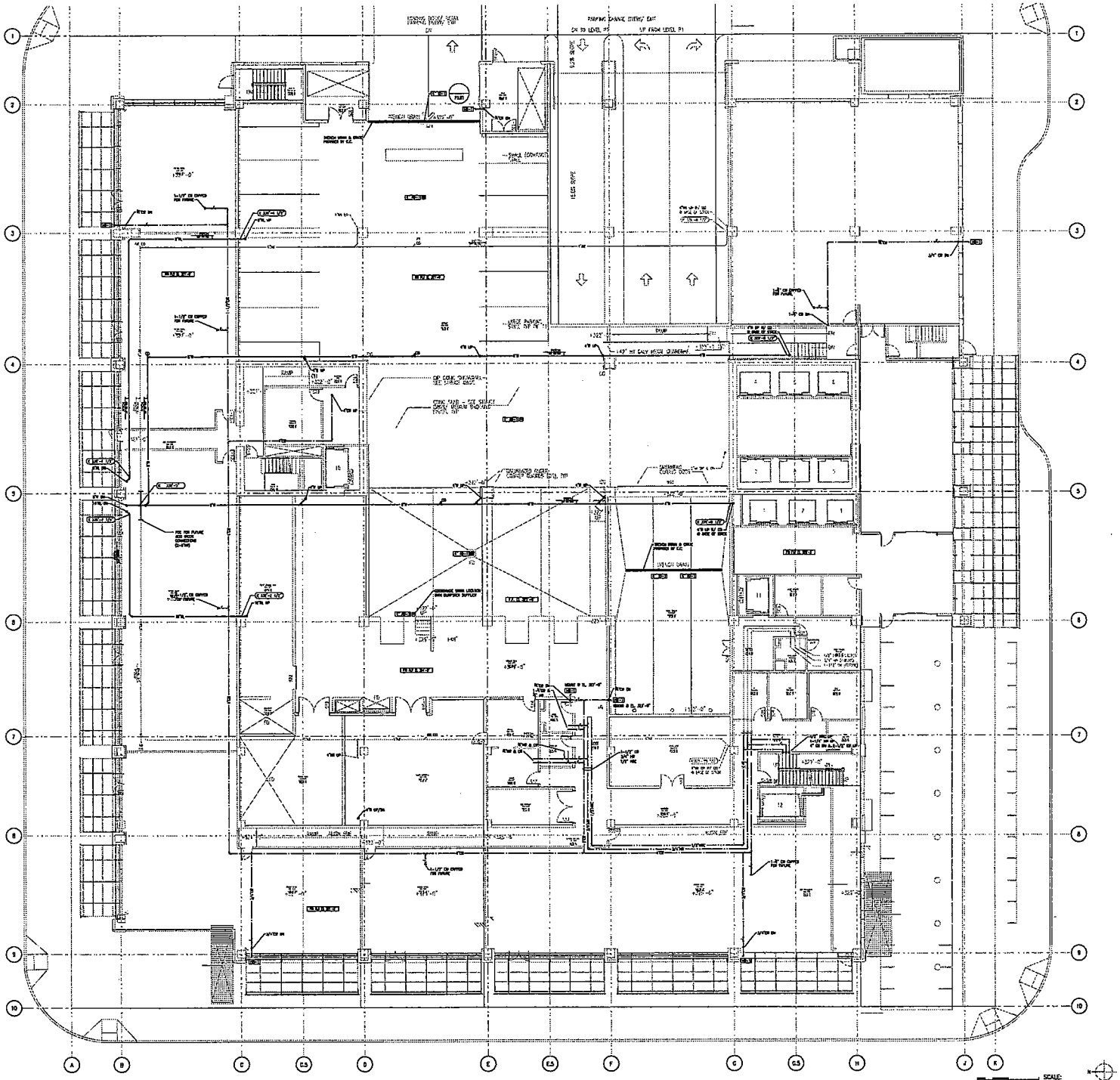

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NJB LEVEL 5 PLAN – PLUMBING

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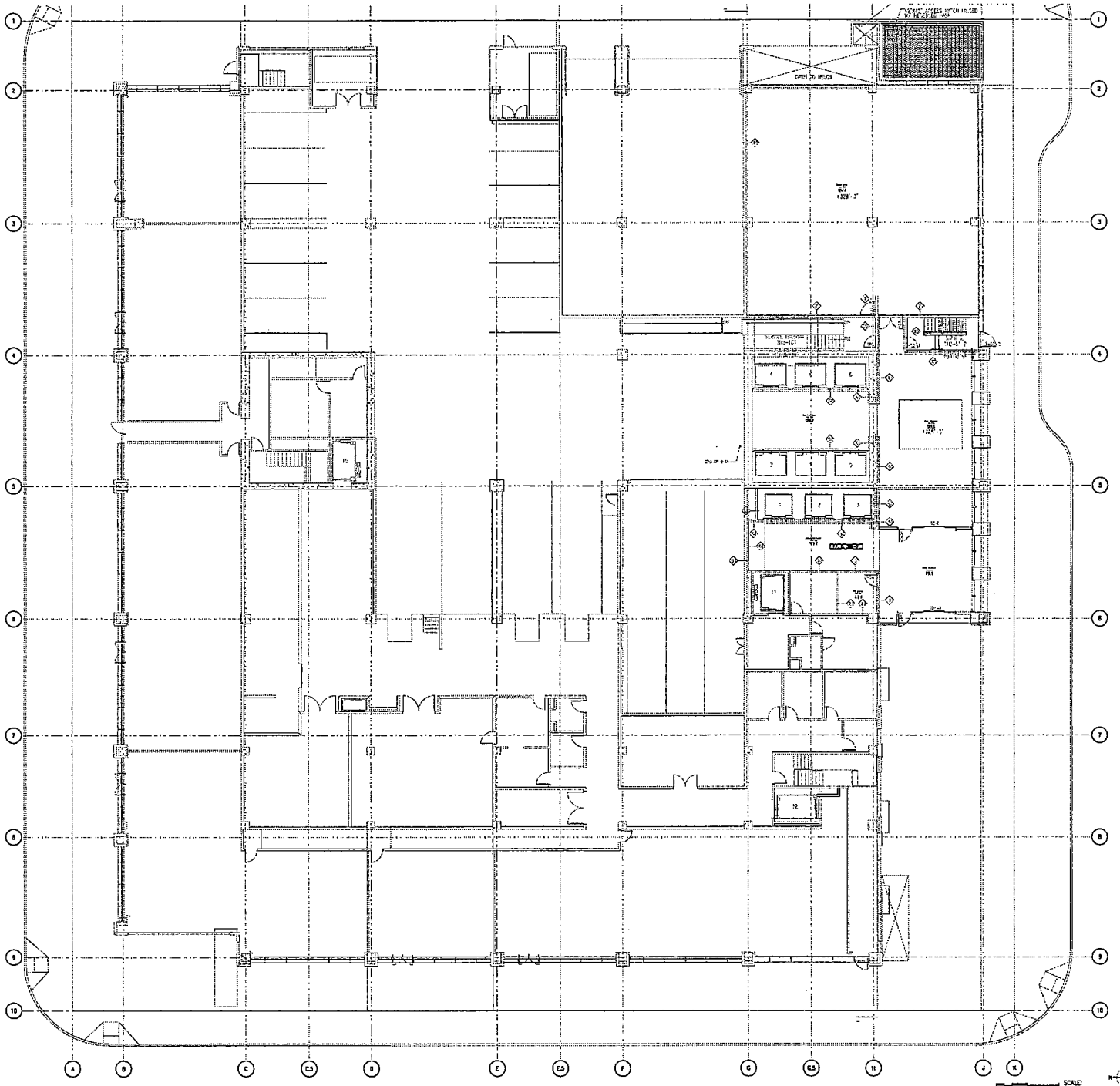

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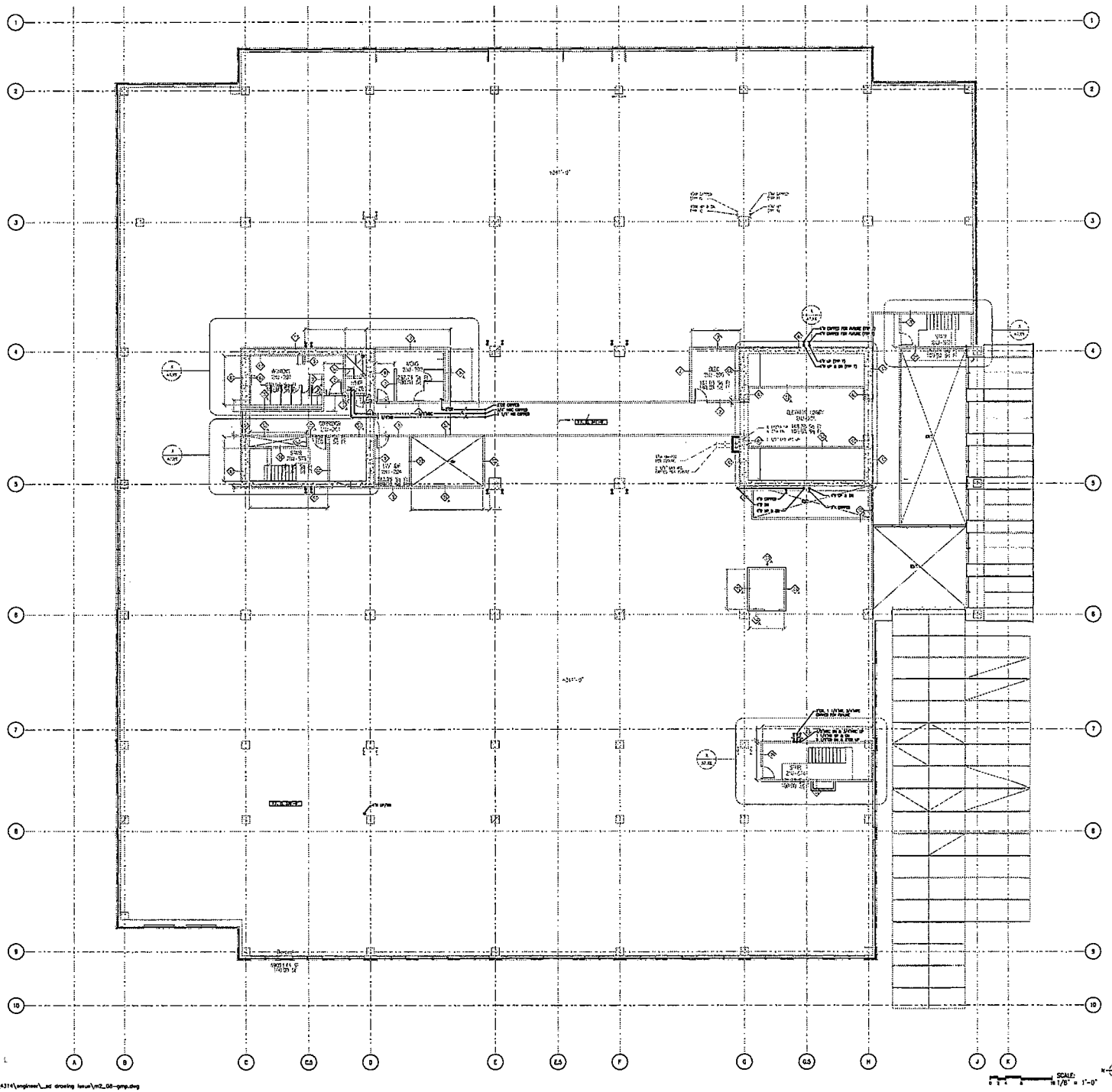

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SHT. NJB LEVEL 2 PLAN – PLUMBING

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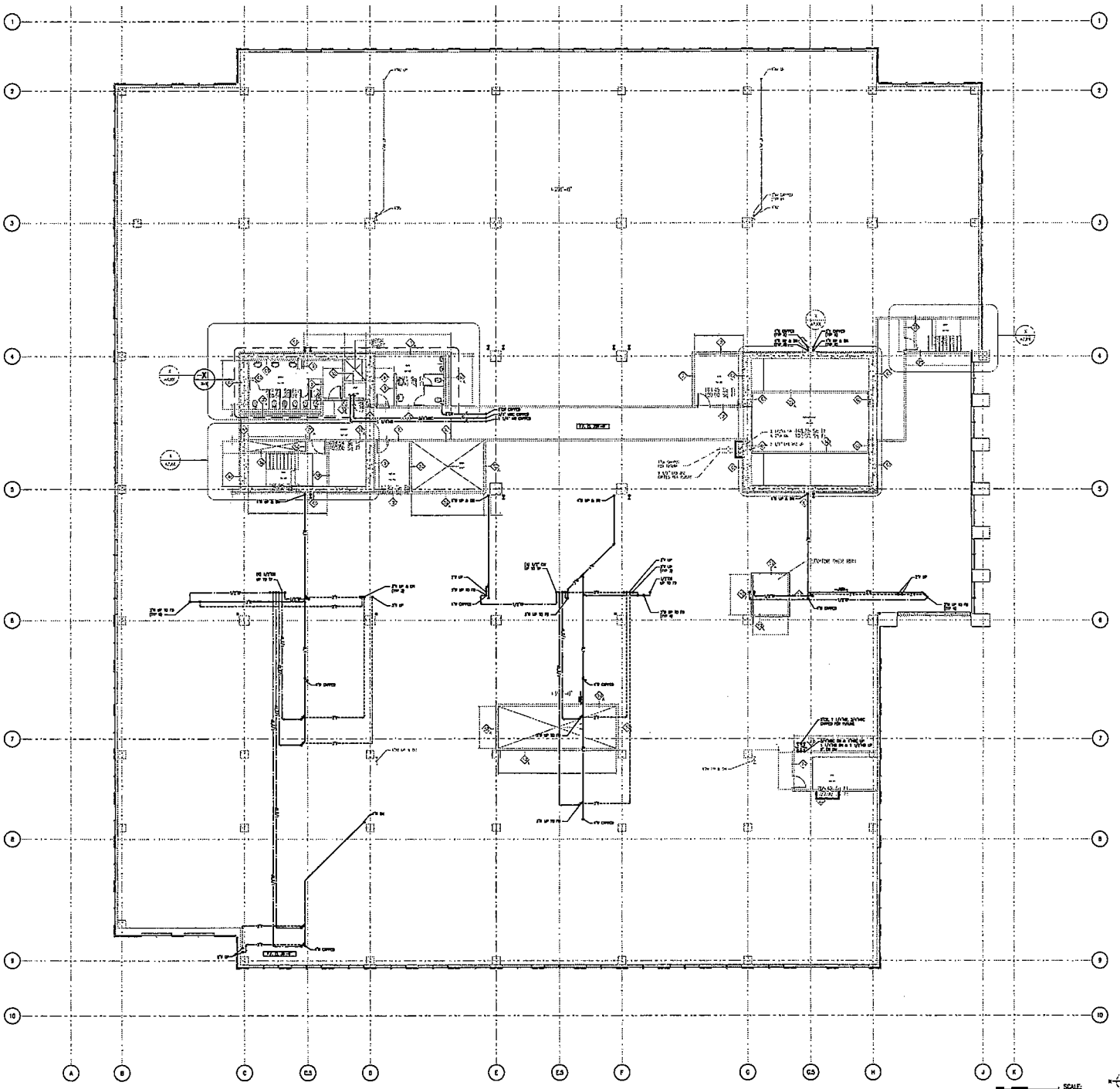

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NJB
LEVEL 3
PLAN –
PLUMBING

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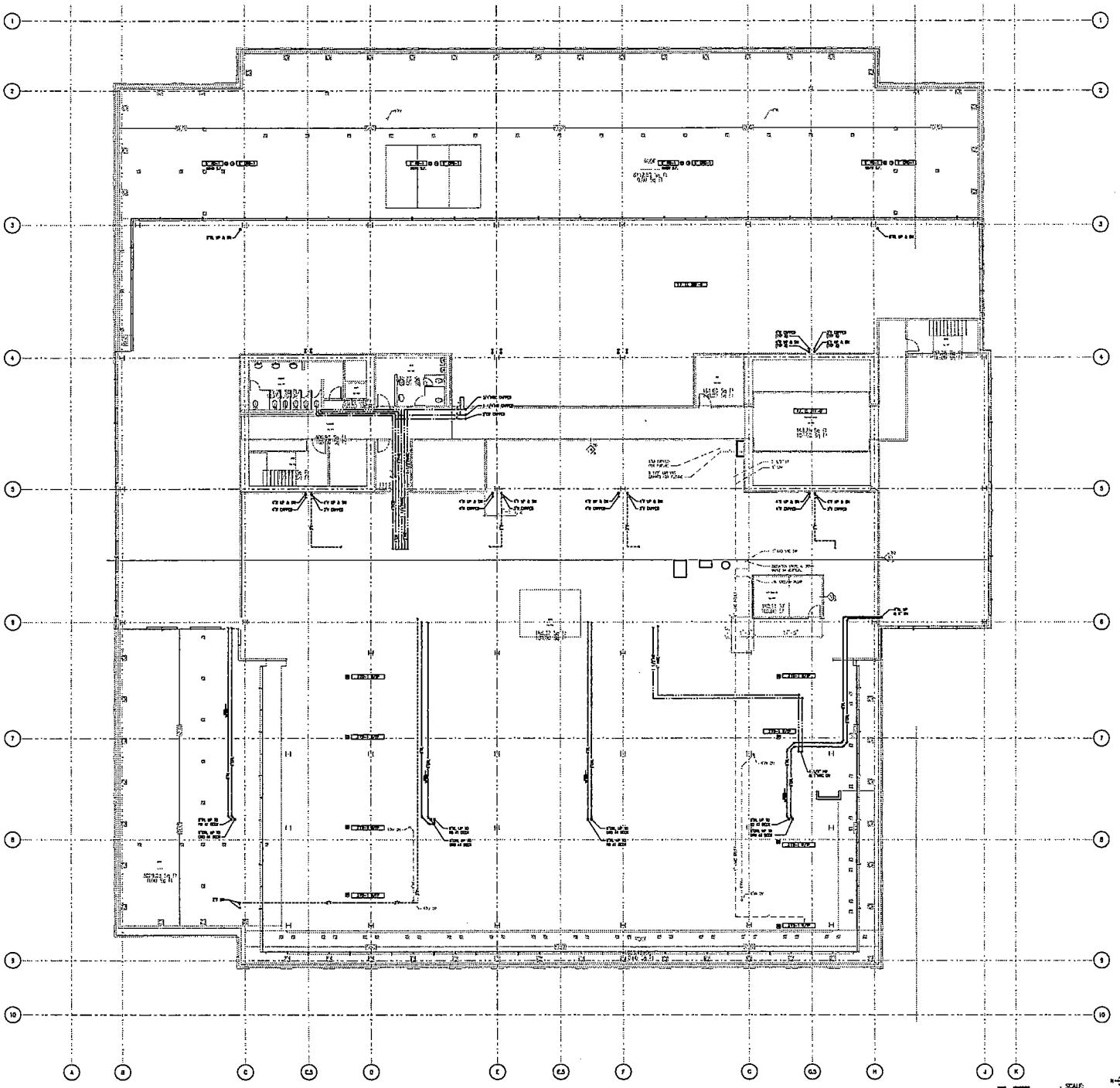

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NJB LEVEL 4 PLAN – PLUMBING

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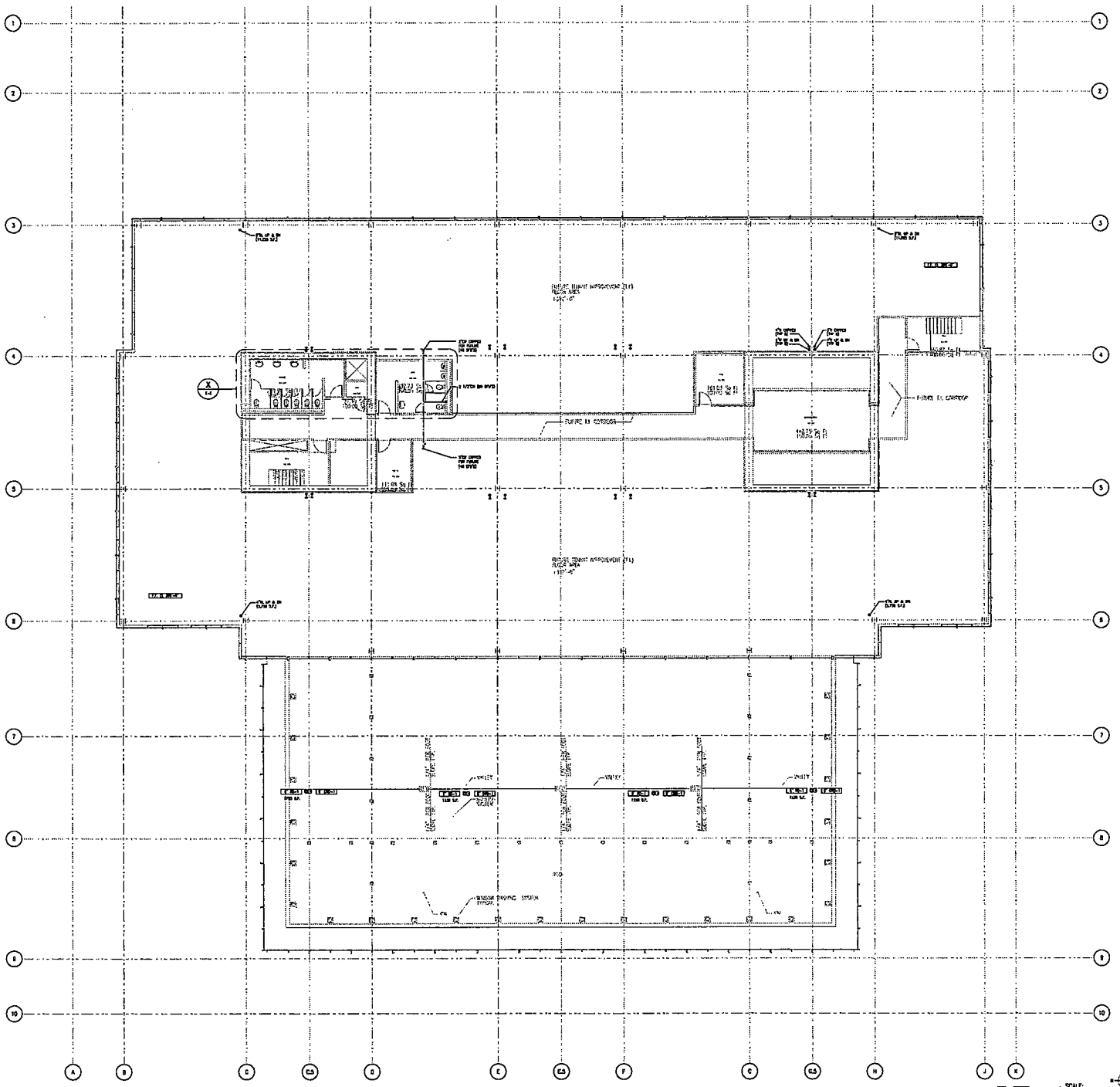

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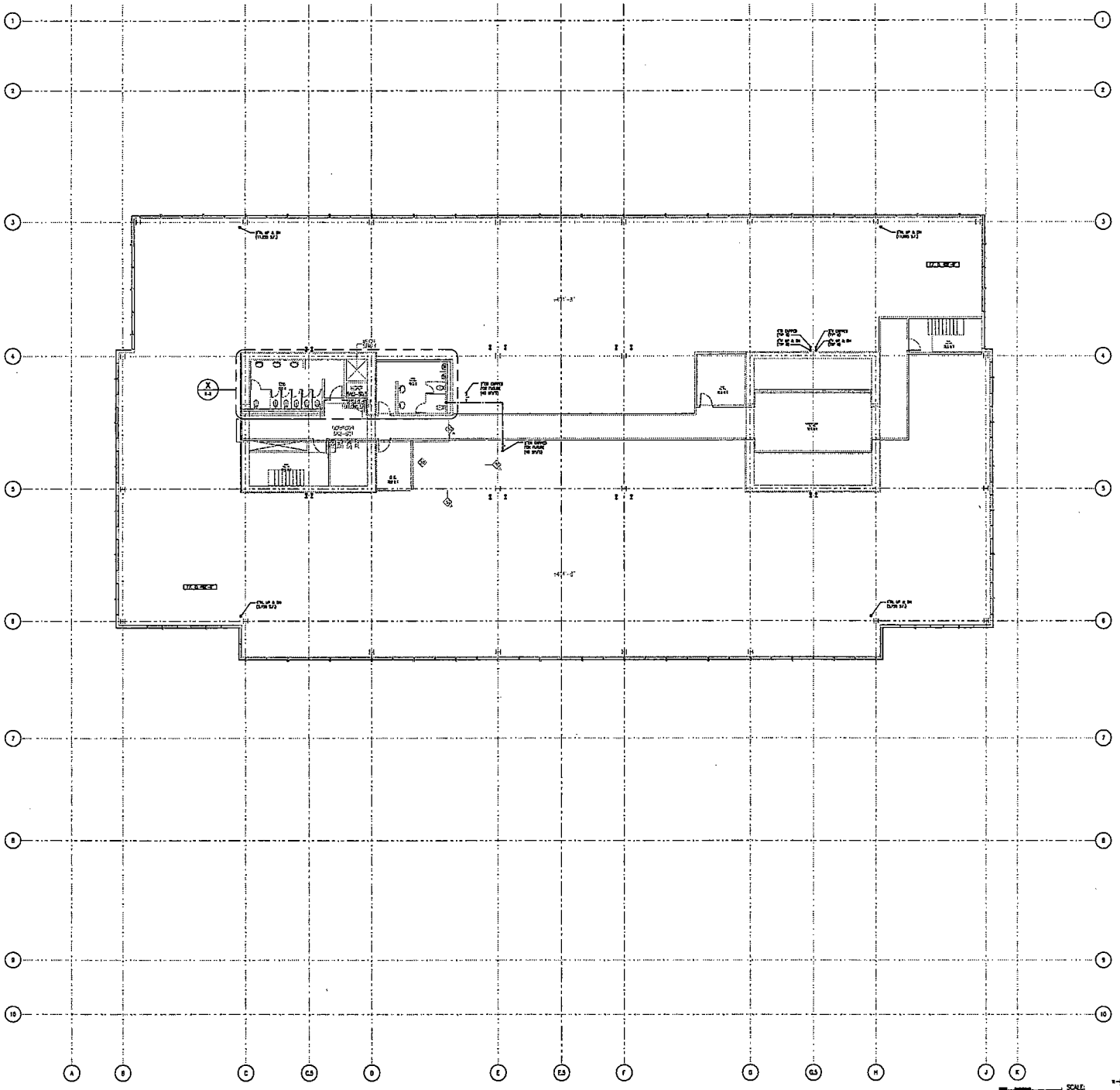

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NJB LEVEL 6 PLAN – PLUMBING

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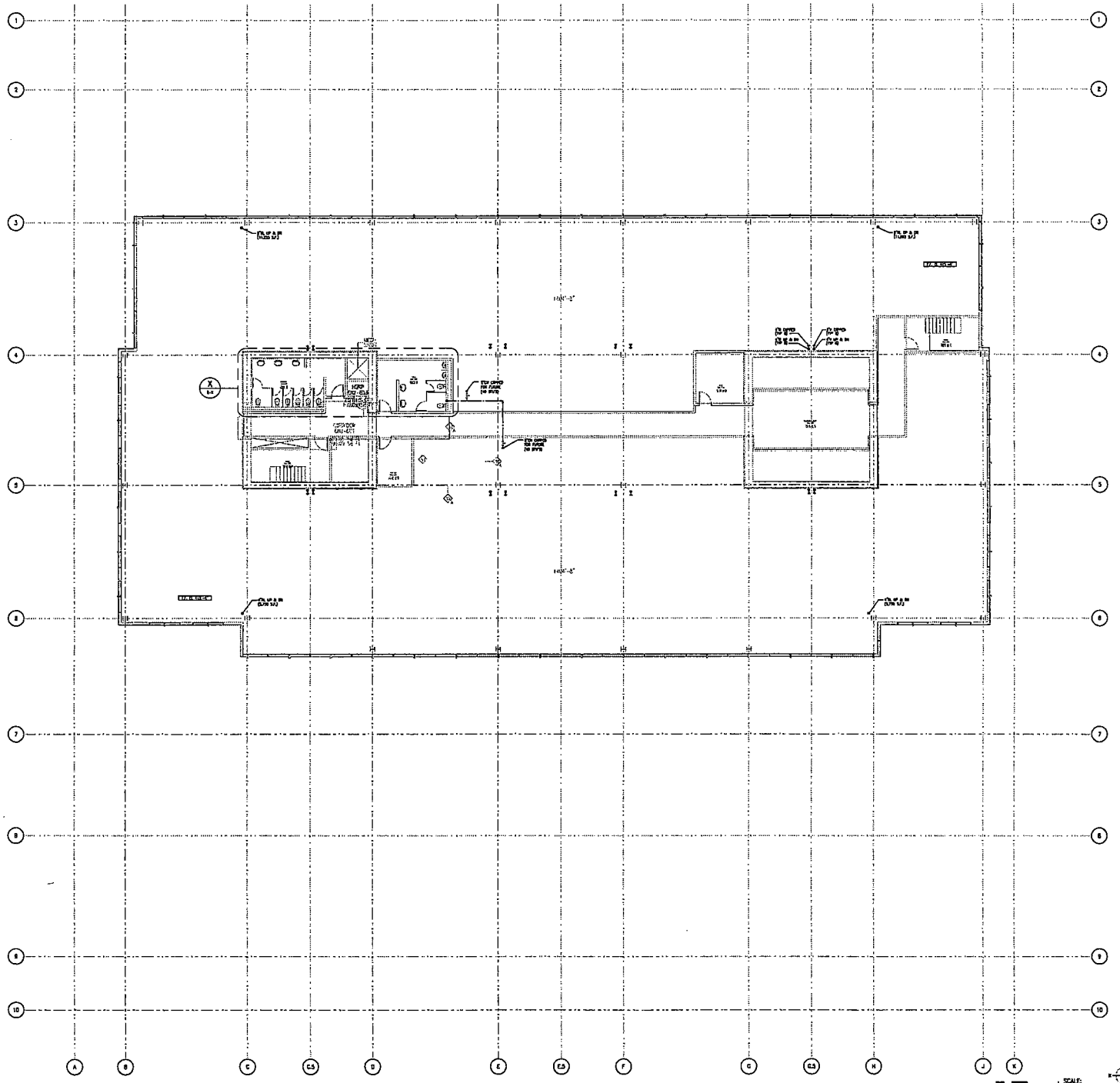

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NJB LEVEL 7 PLAN – PLUMBING

M2.13

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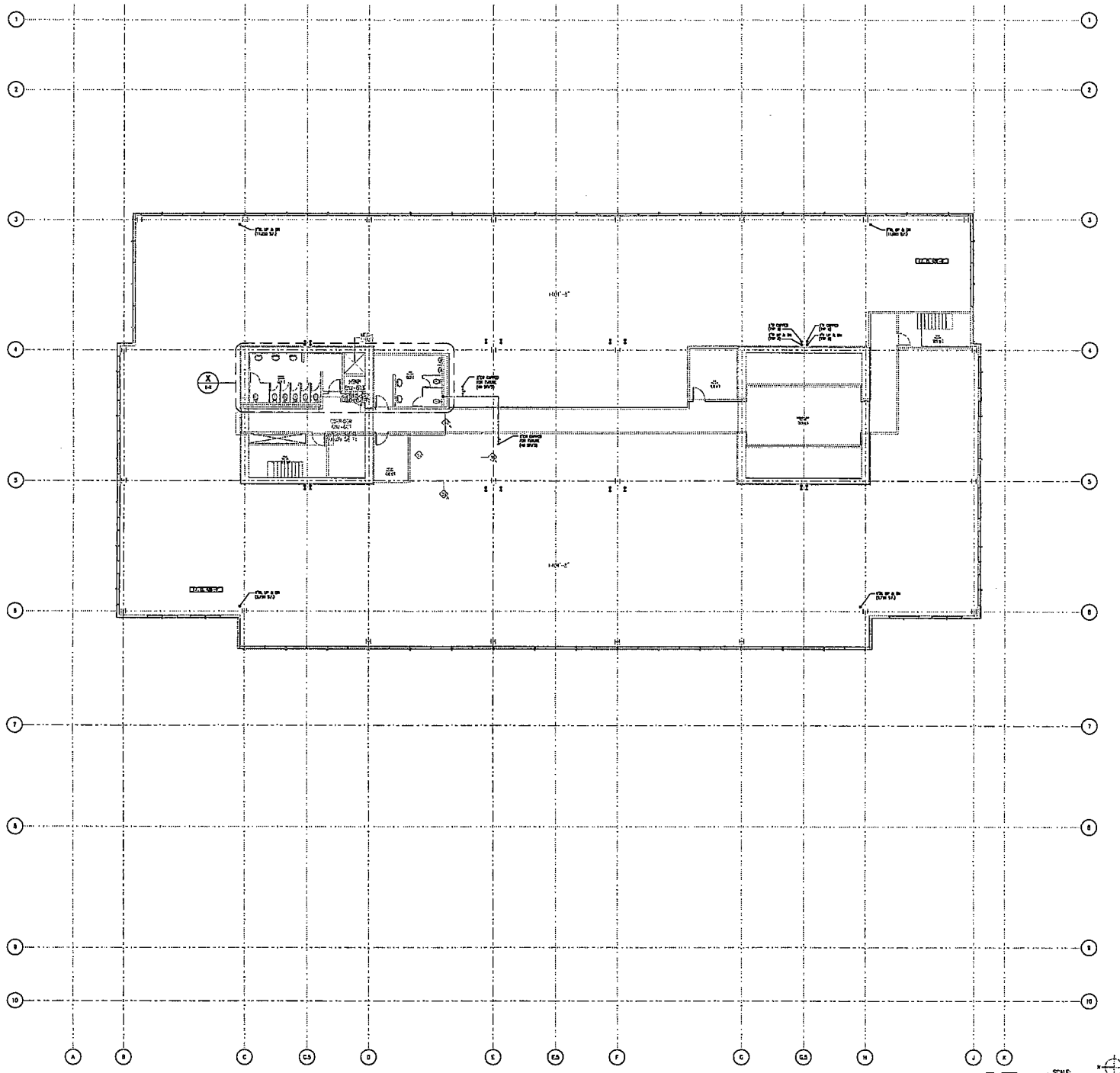

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SHT. NJB LEVEL 8 PLAN – PLUMBING

M2.14

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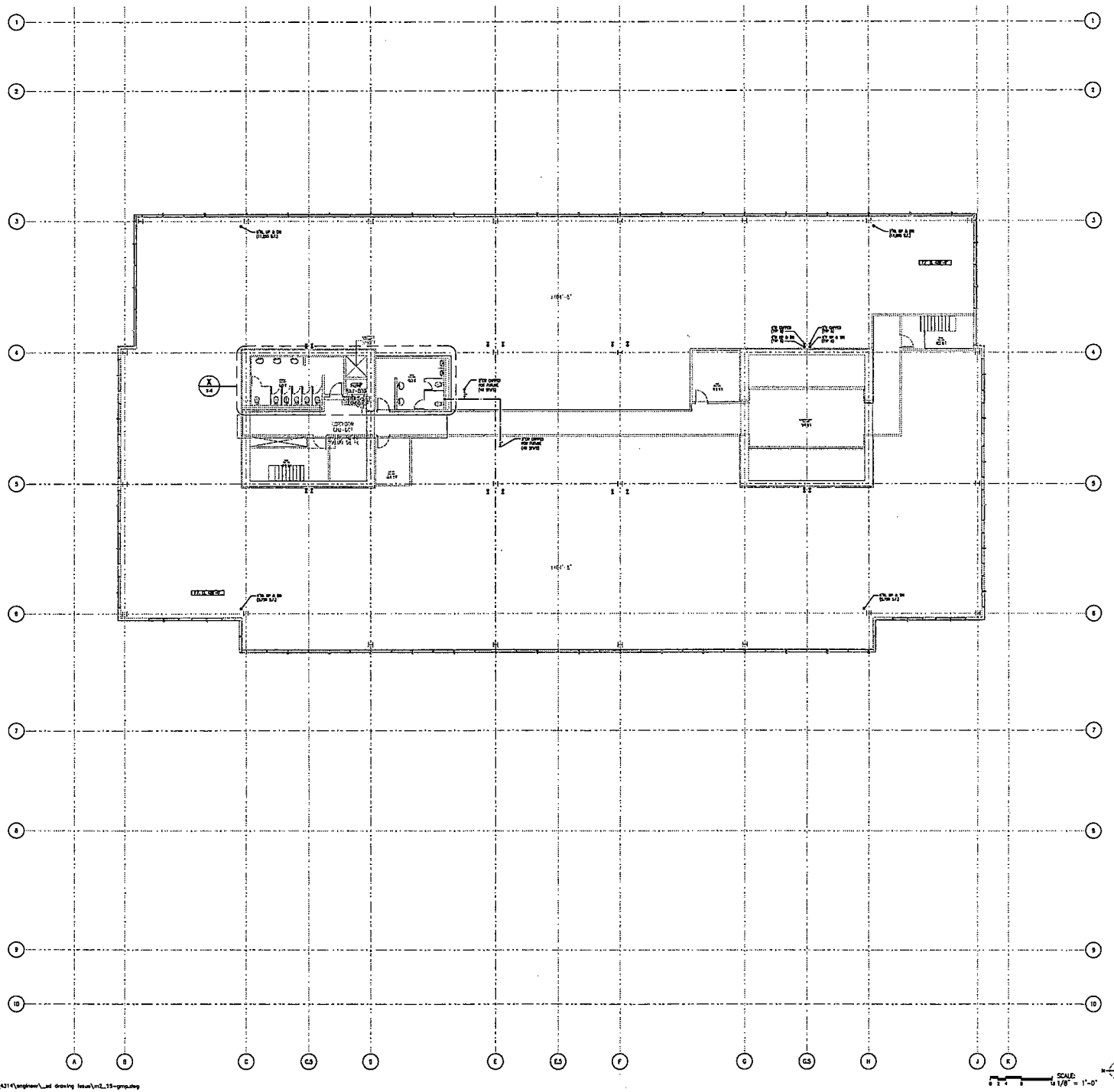

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NJB LEVEL 9 PLAN – PLUMBING

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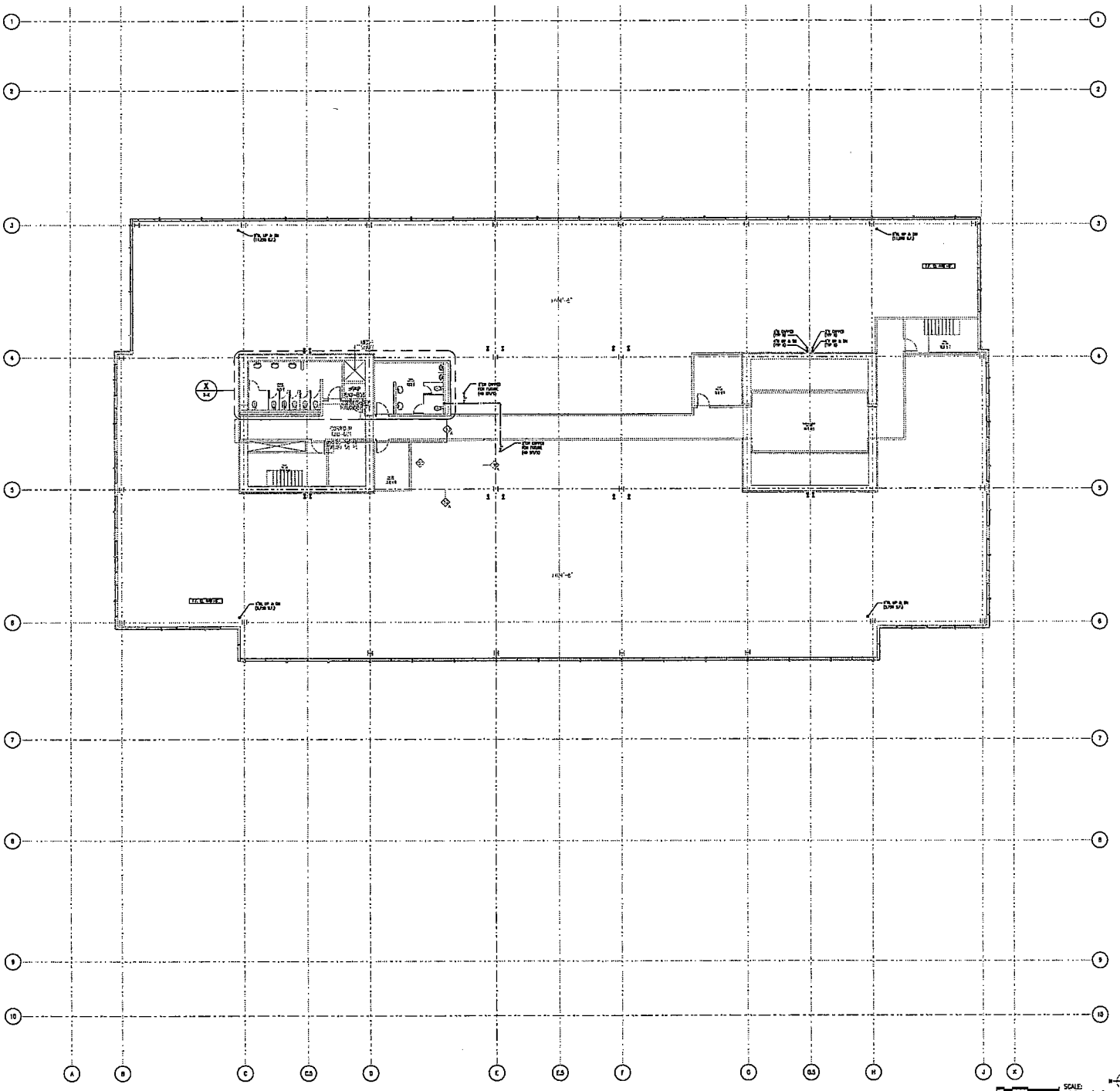

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NJB LEVEL 10 PLAN – PLUMBING

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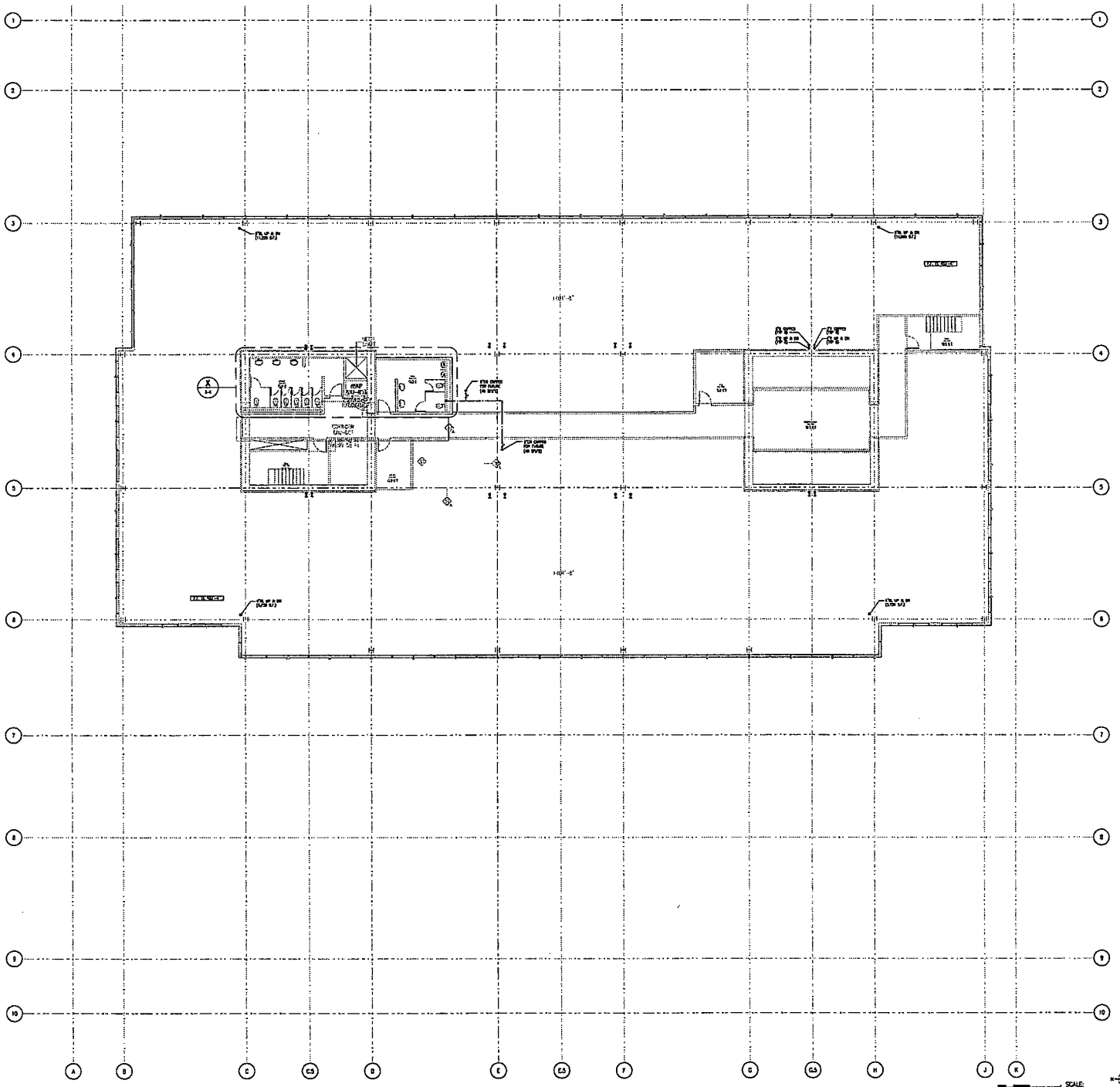

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NJB LEVEL 11 PLAN – PLUMBING

M2.17

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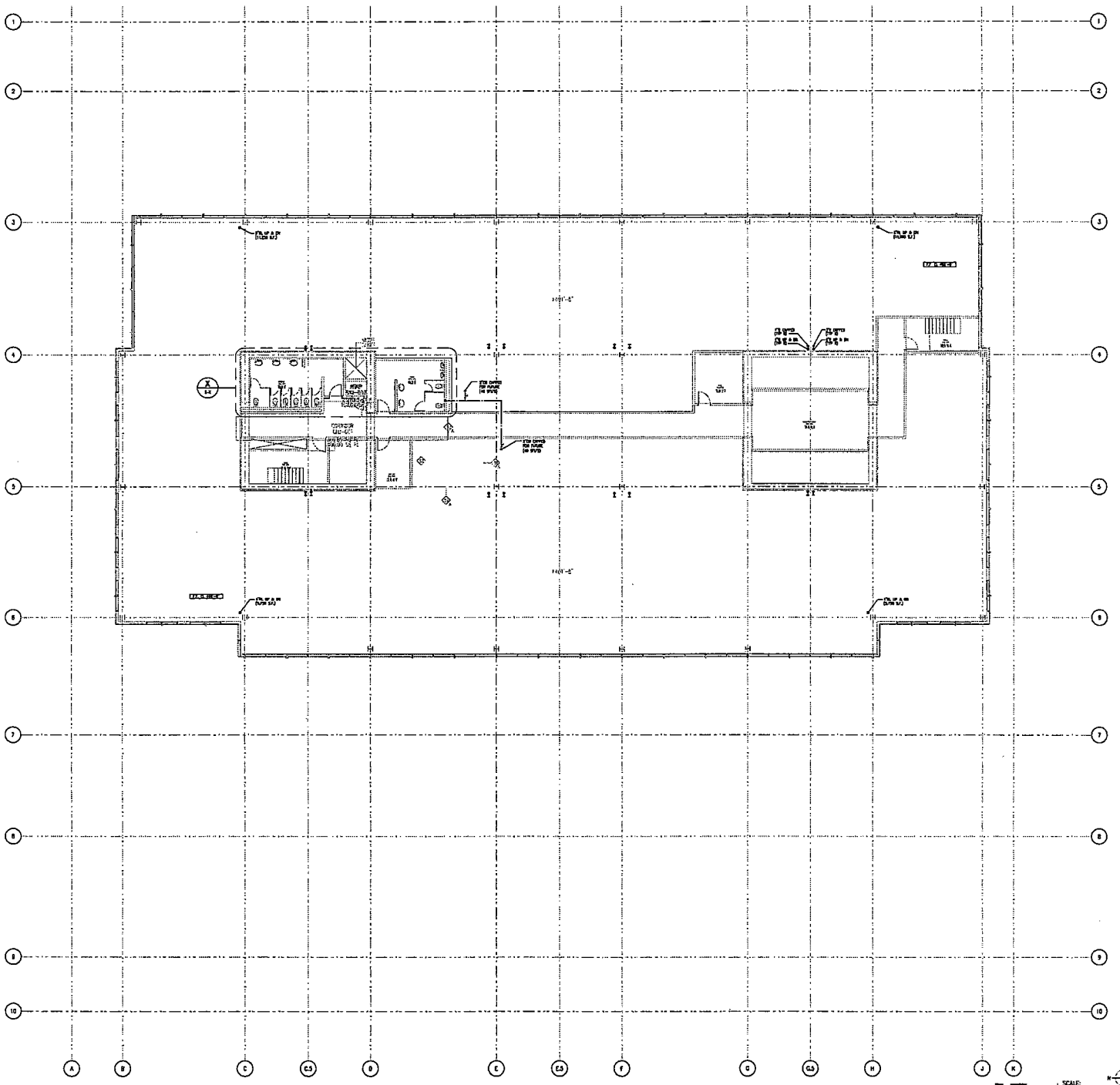

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NJB LEVEL 12 PLAN – PLUMBING

M2.18

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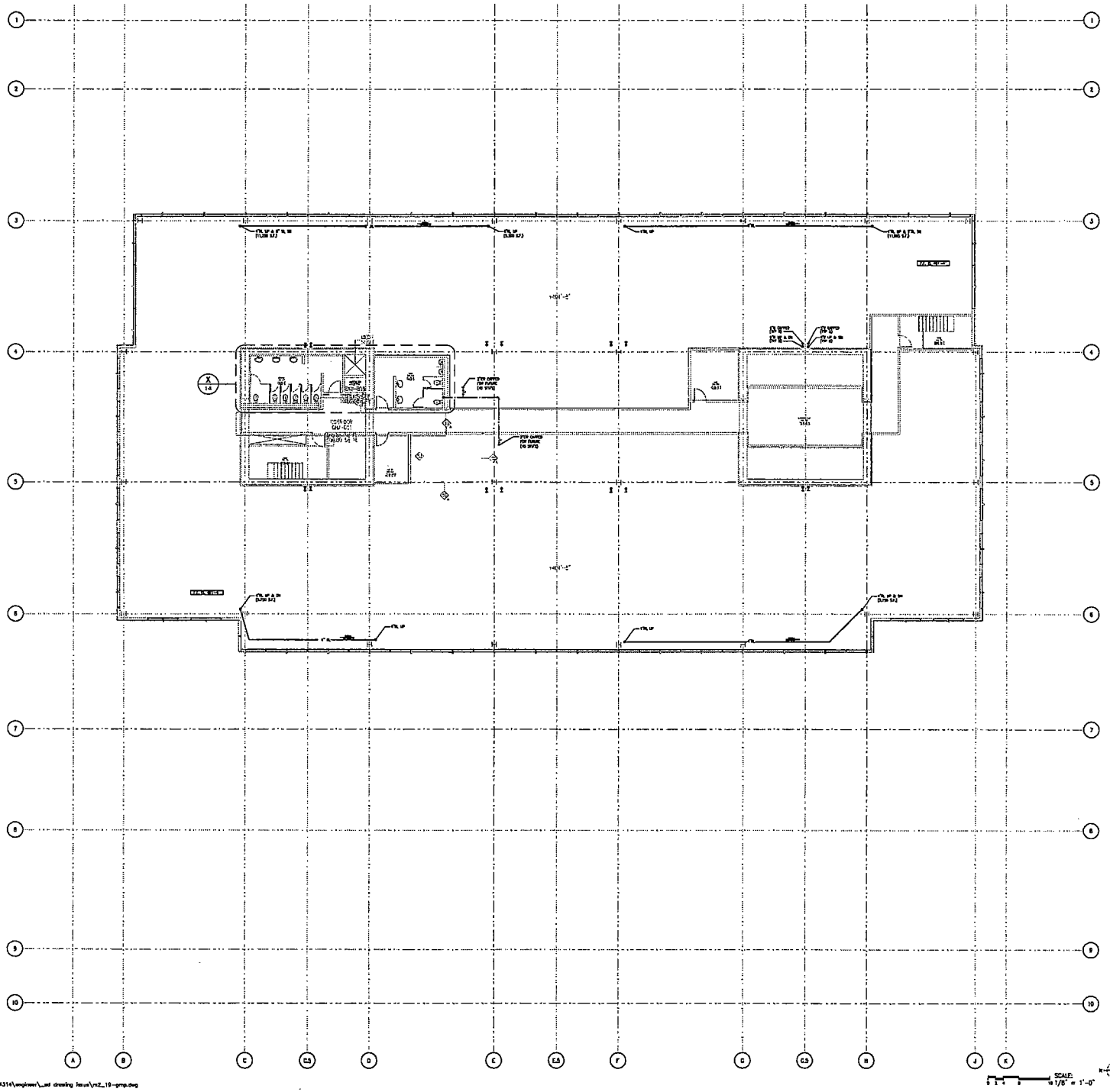

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NJB
LEVEL 13
PLAN -
PLUMBING

M2.19

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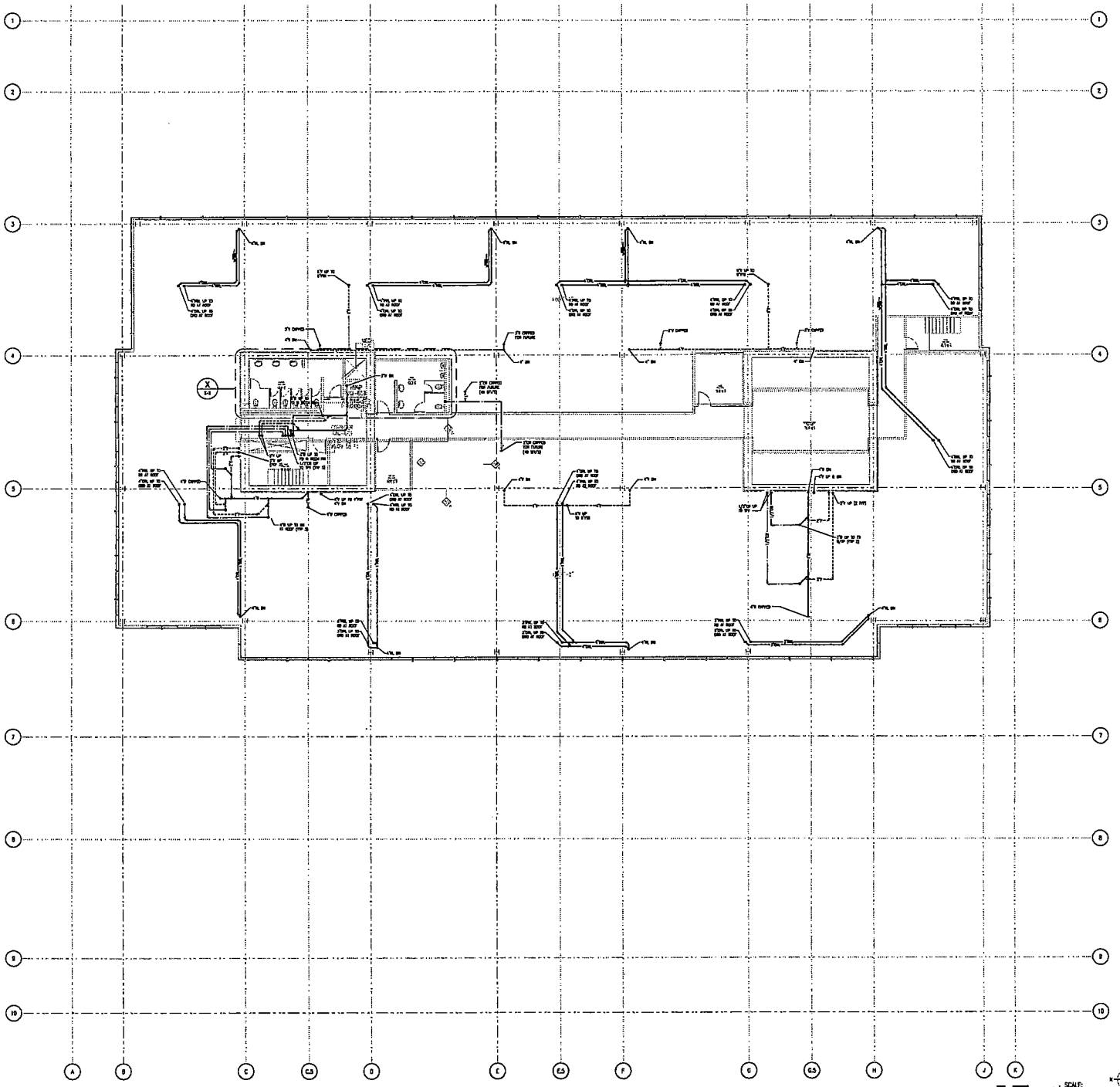

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SHT: NJB LEVEL 14 PLAN – PLUMBING

M2.20

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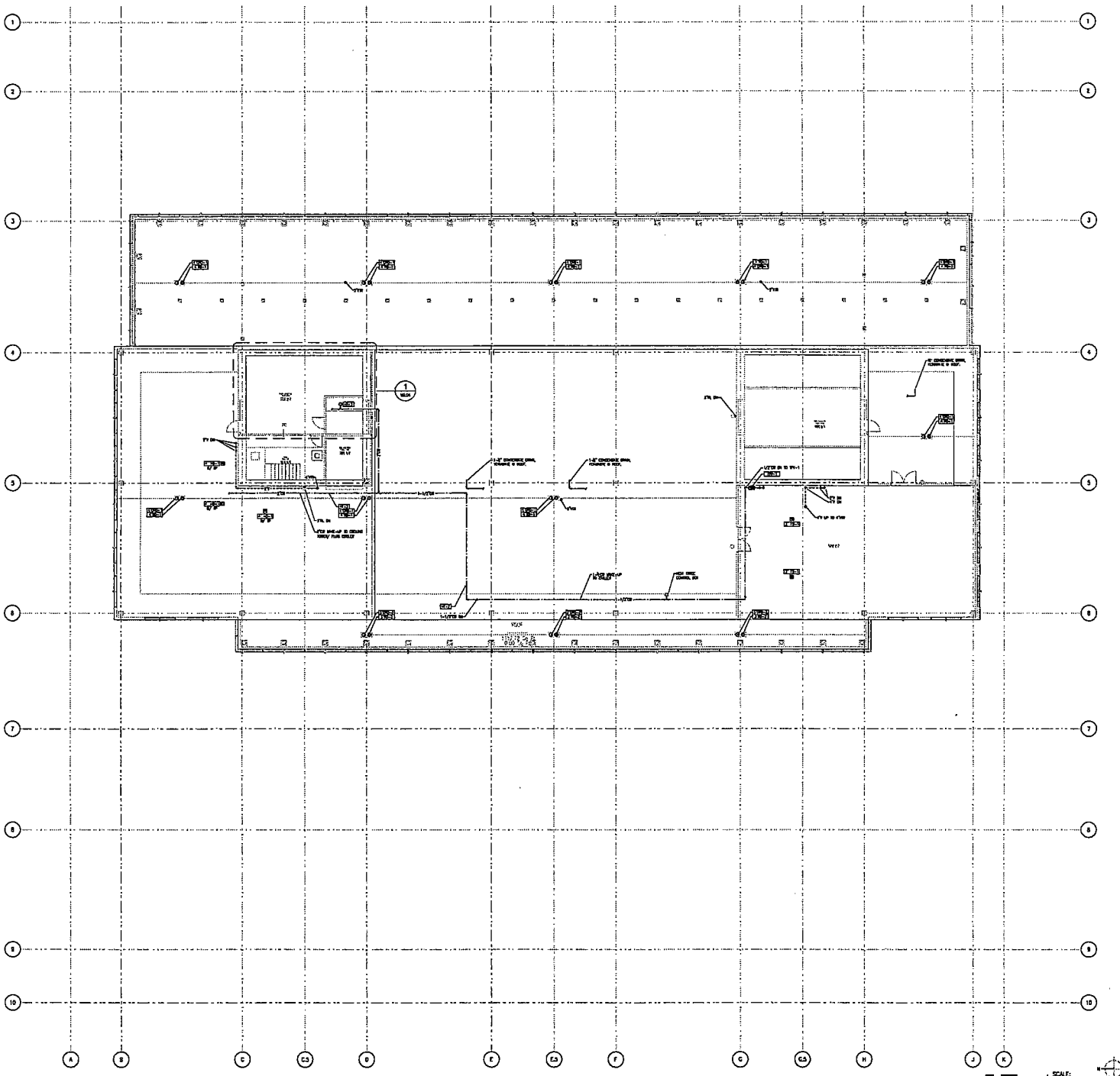

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SHT. NJB LEVEL PH PLAN – PLUMBING

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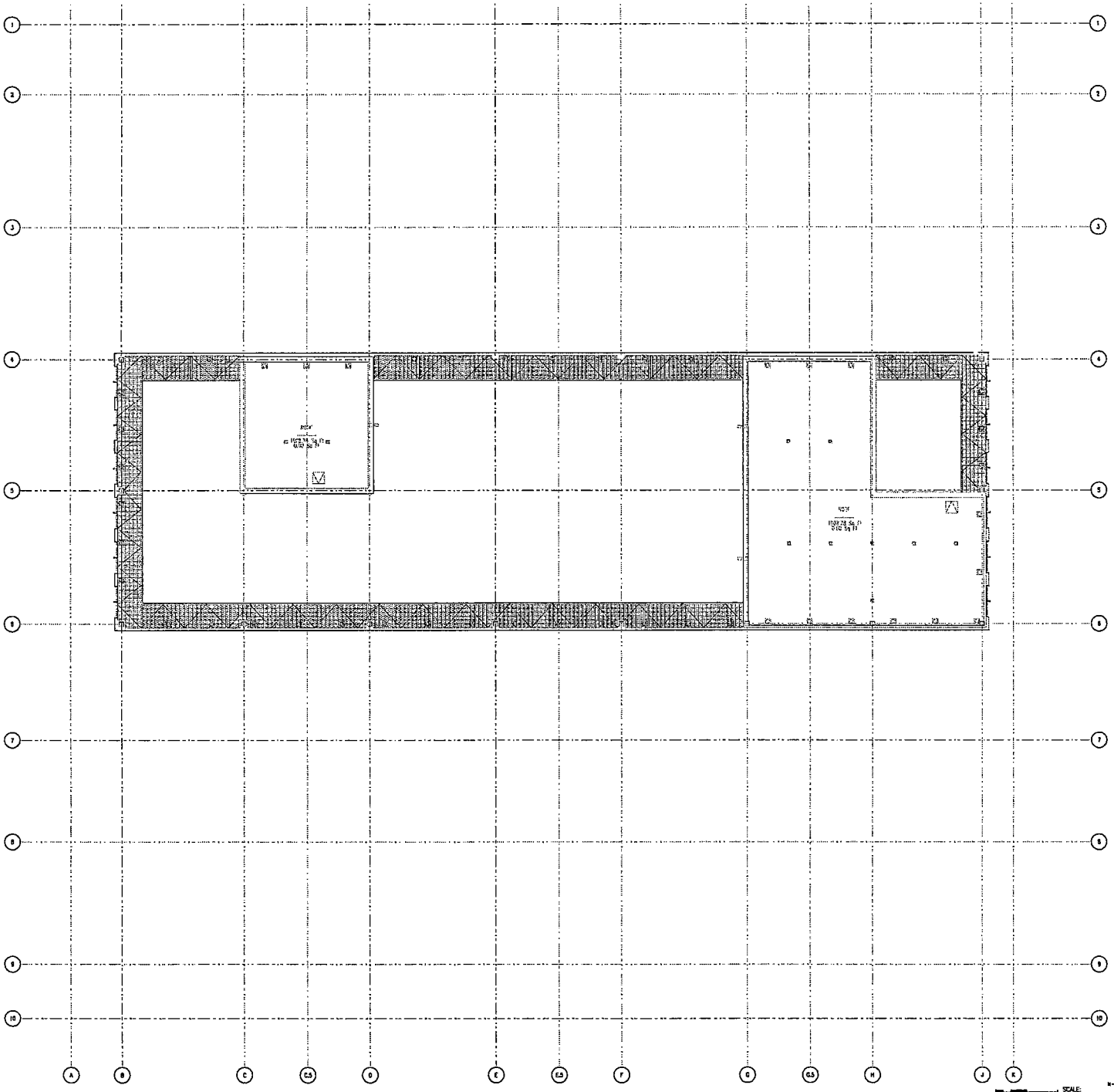

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ROOF PLAN
PLUMBING

SHEET NO.
M2.22

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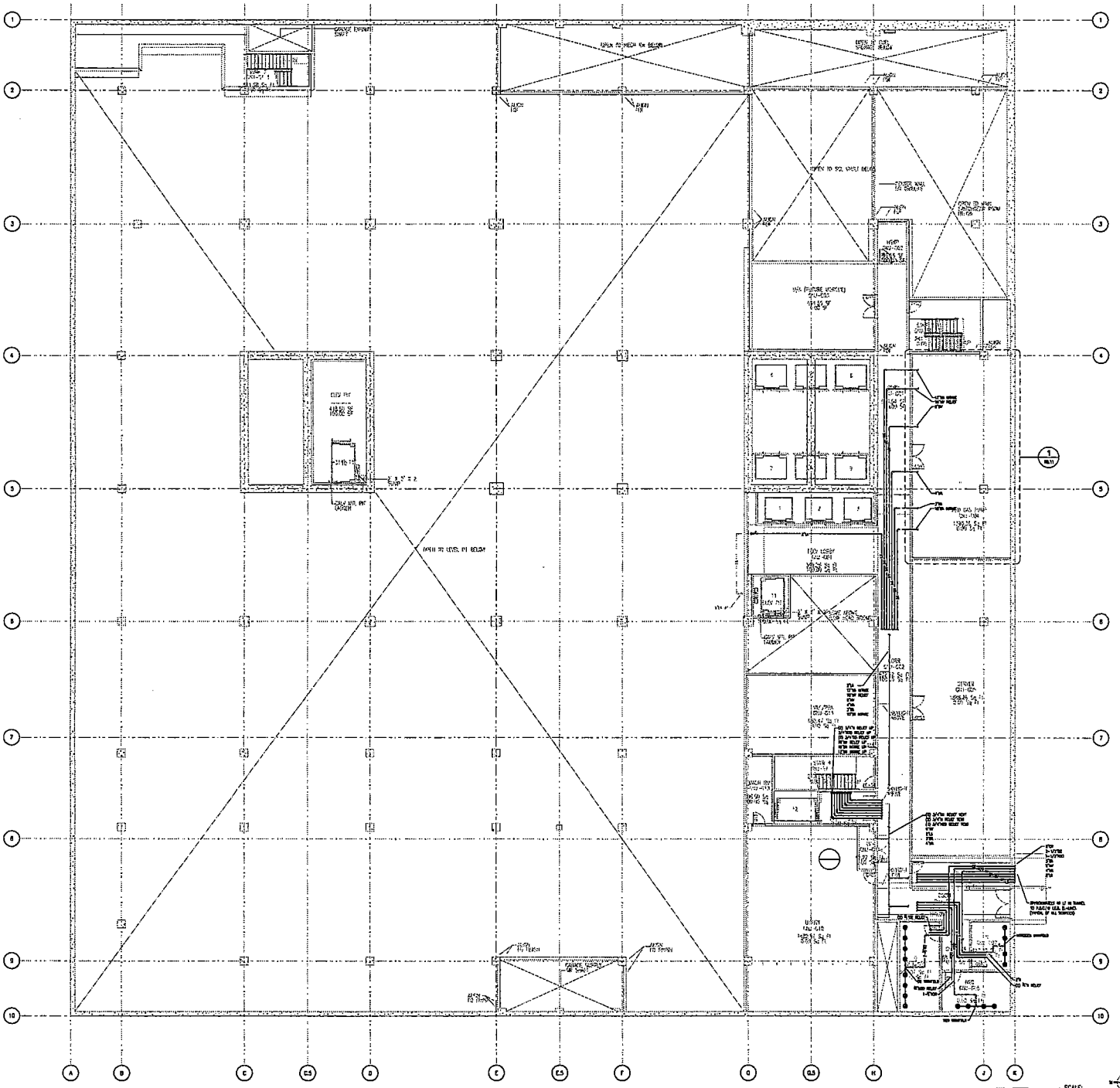

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NJB LEVEL G PLAN - MEDICAL & LAB GAS

M3.05

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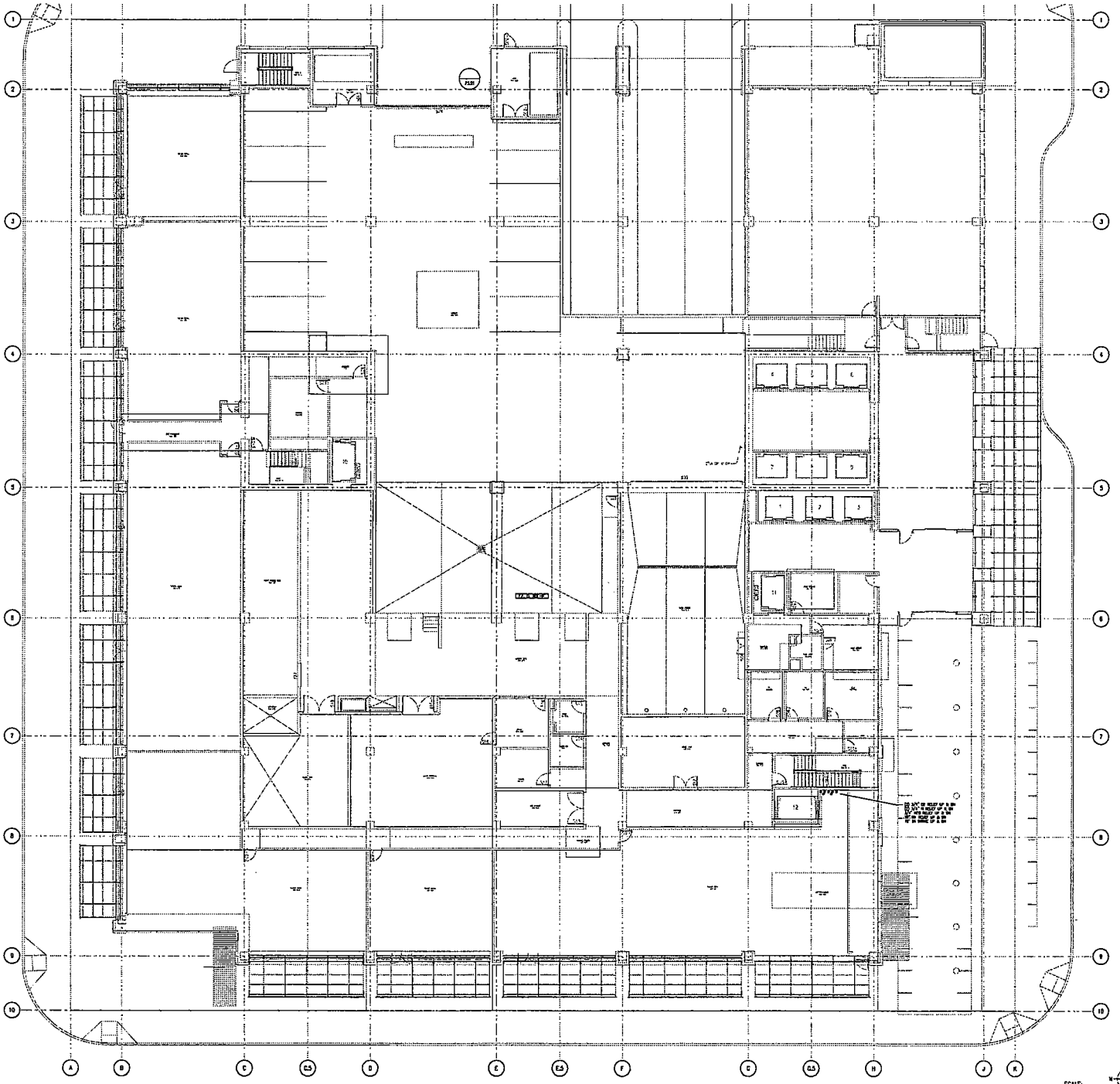

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SHT. NJB LEVEL S PLAN – MEDICAL & LAB GAS

M3.06

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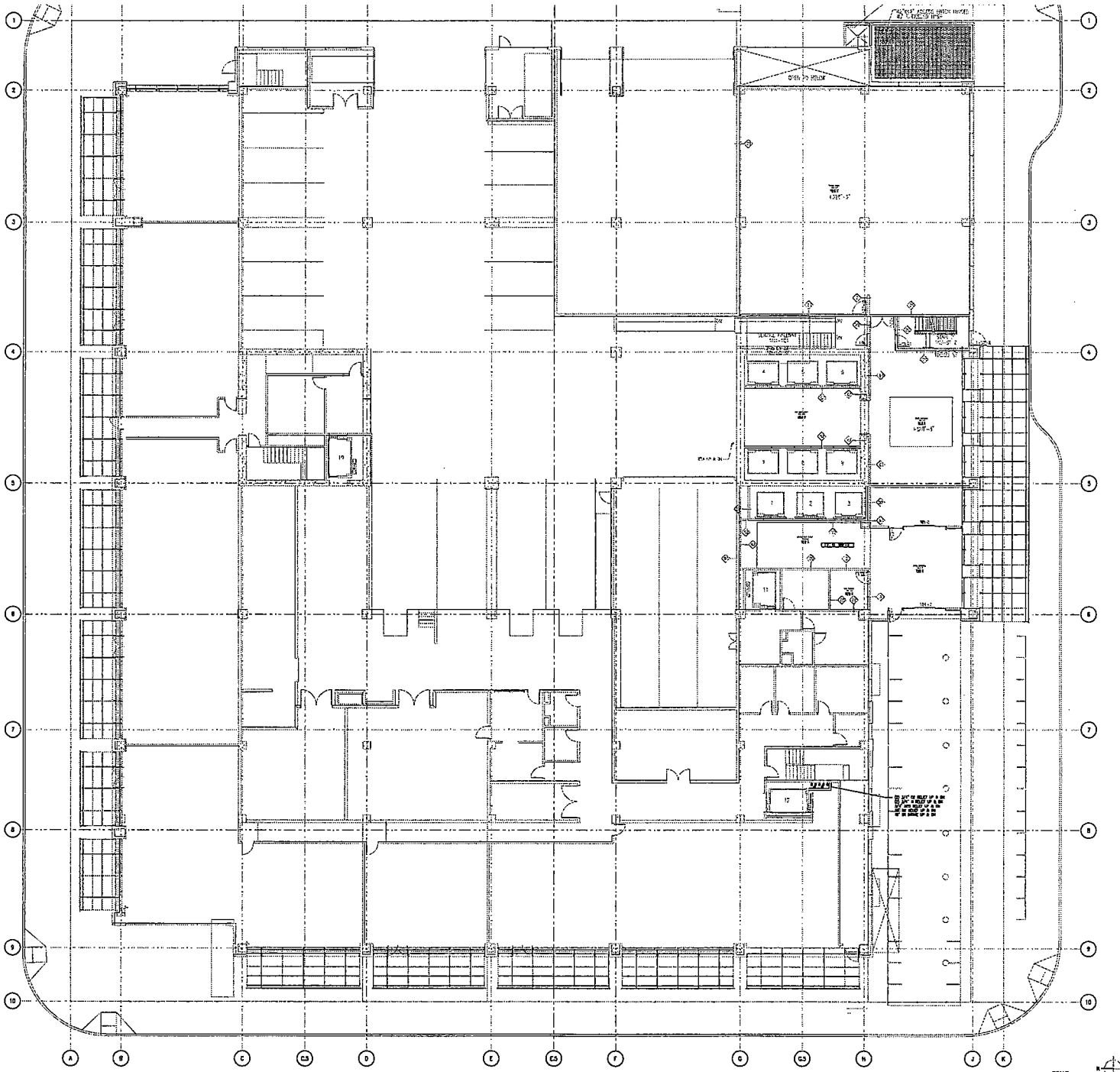

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PLAN –
MEDICAL &
LAB GAS

M3.07

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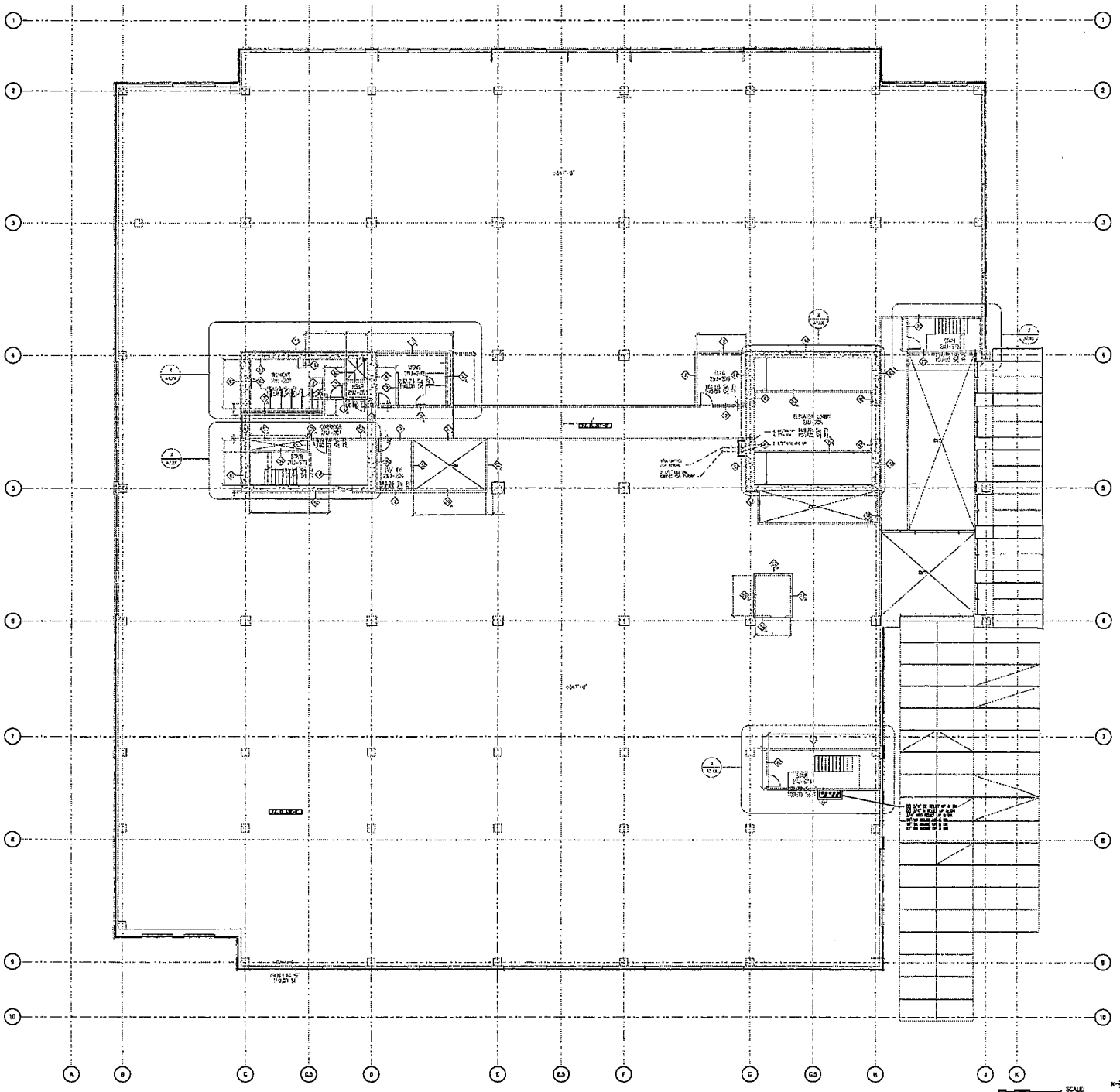

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NJB LEVEL 2 PLAN – MEDICAL & LAB GAS

M3.08

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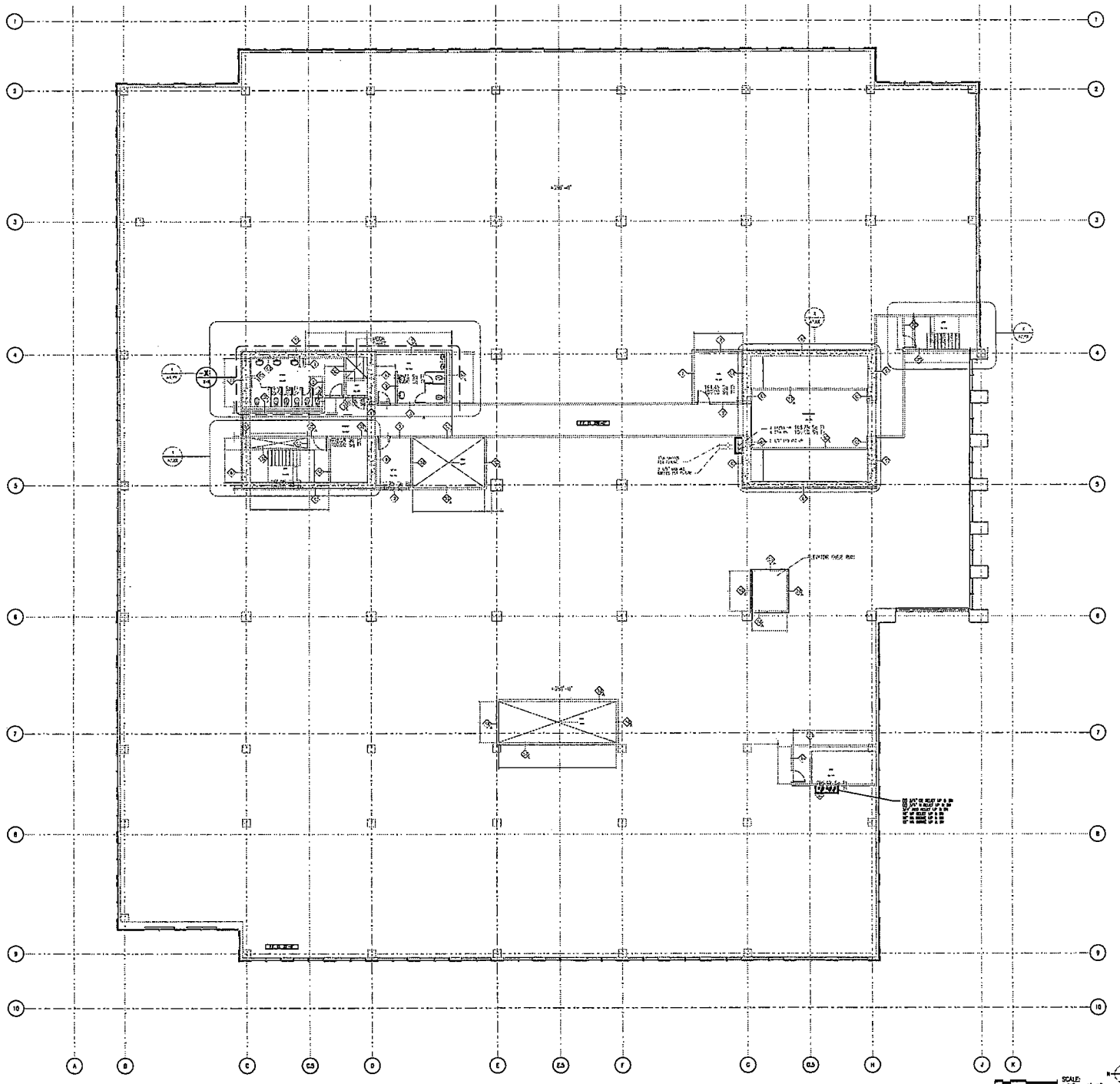

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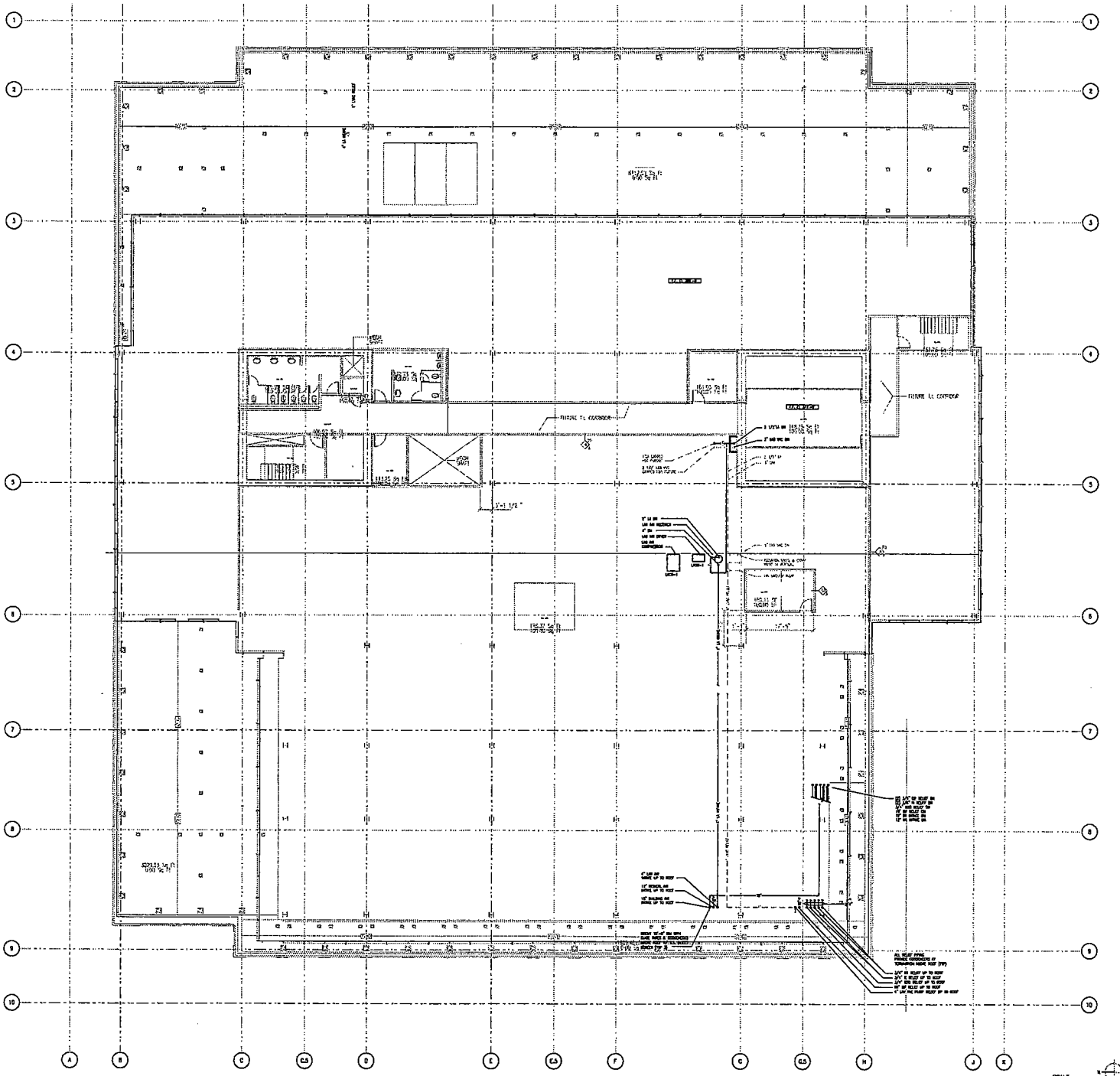

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NJB LEVEL 4 PLAN – MEDICAL & LAB GAS

M3.10

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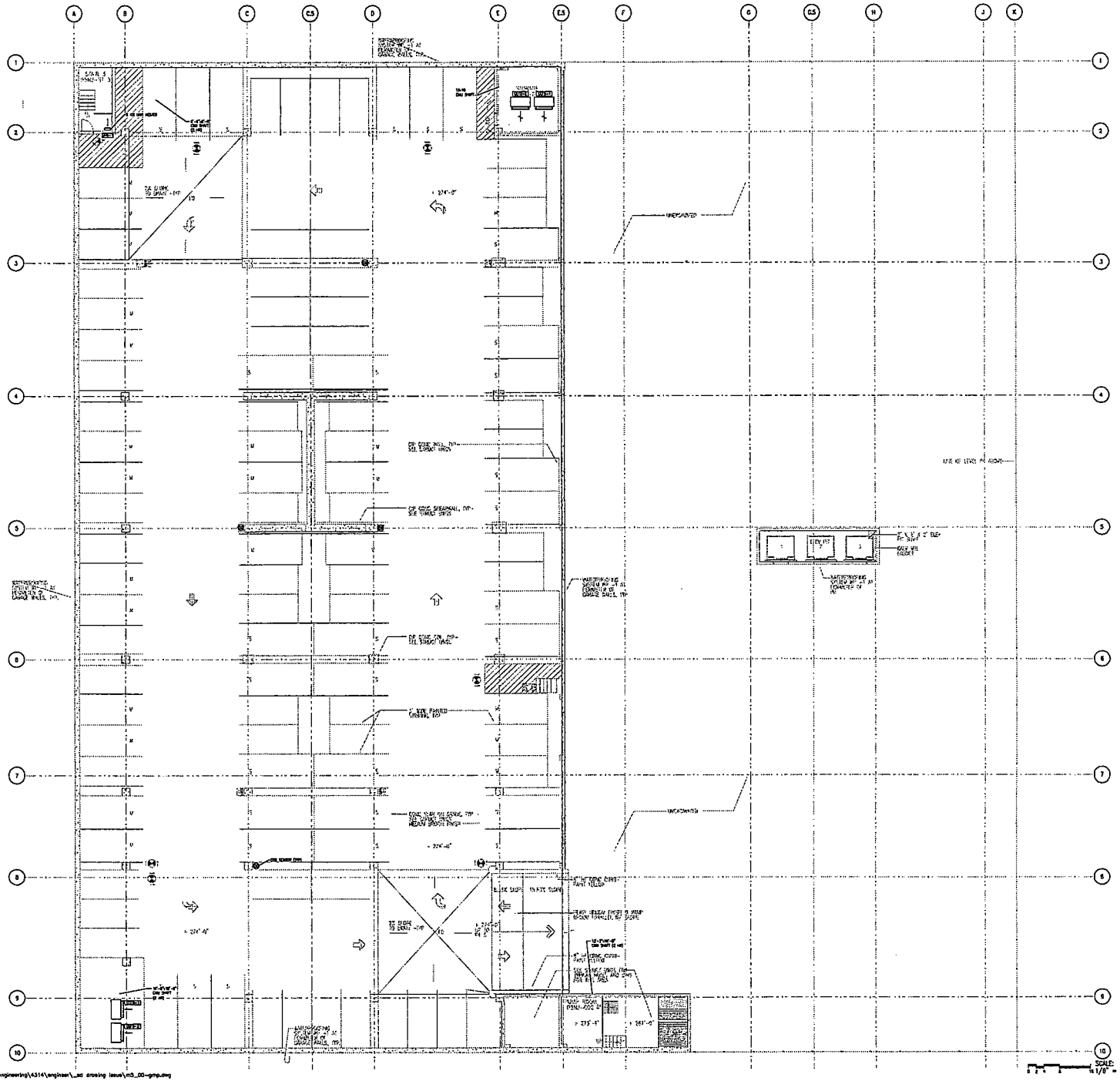

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NJB PARKING LEVEL 5 PLAN – AIR DISTRIBUTION

M5.00

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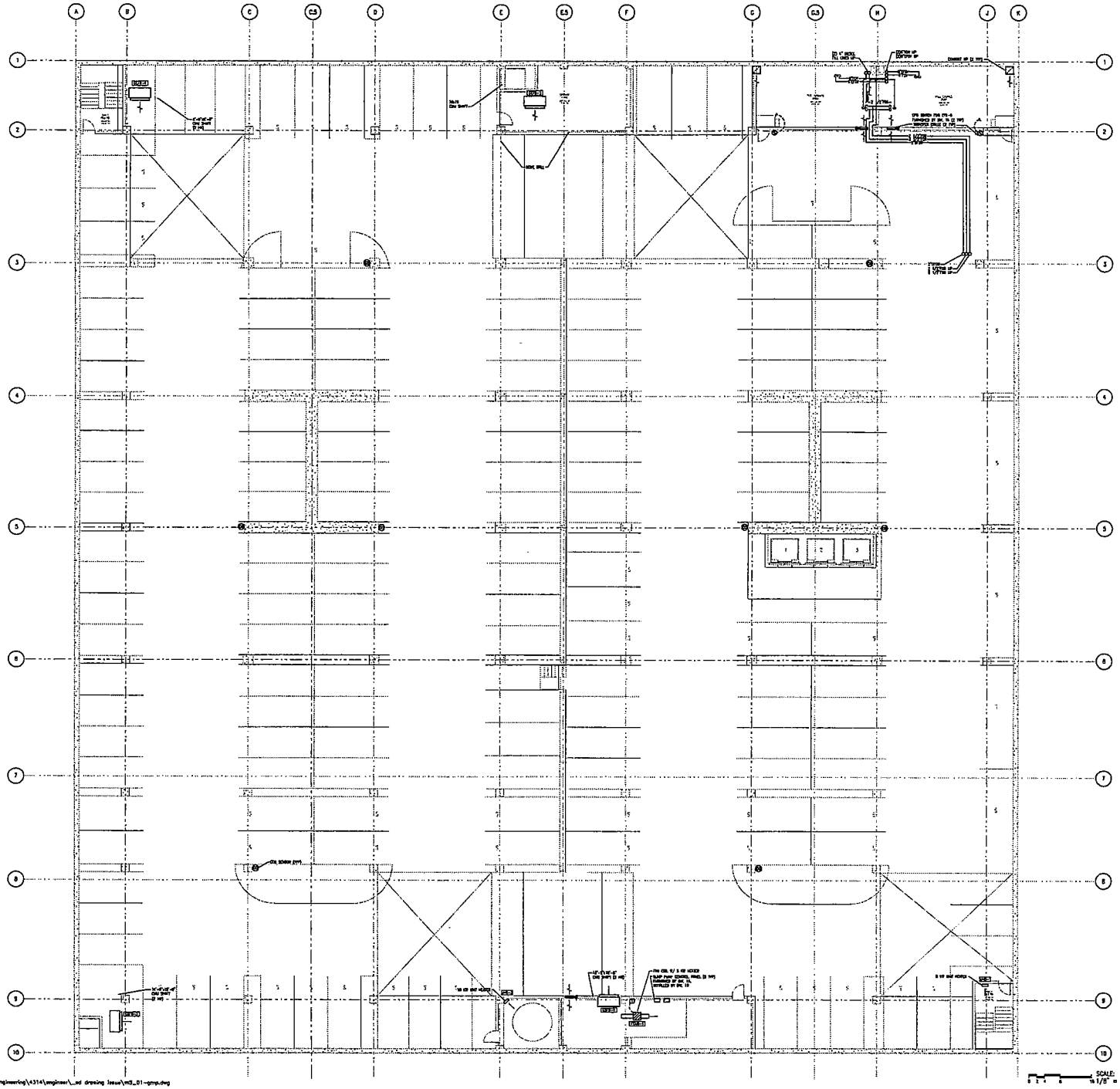

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NJB PARKING LEVEL 4 PLAN – AIR DISTRIBUTION

M5.01

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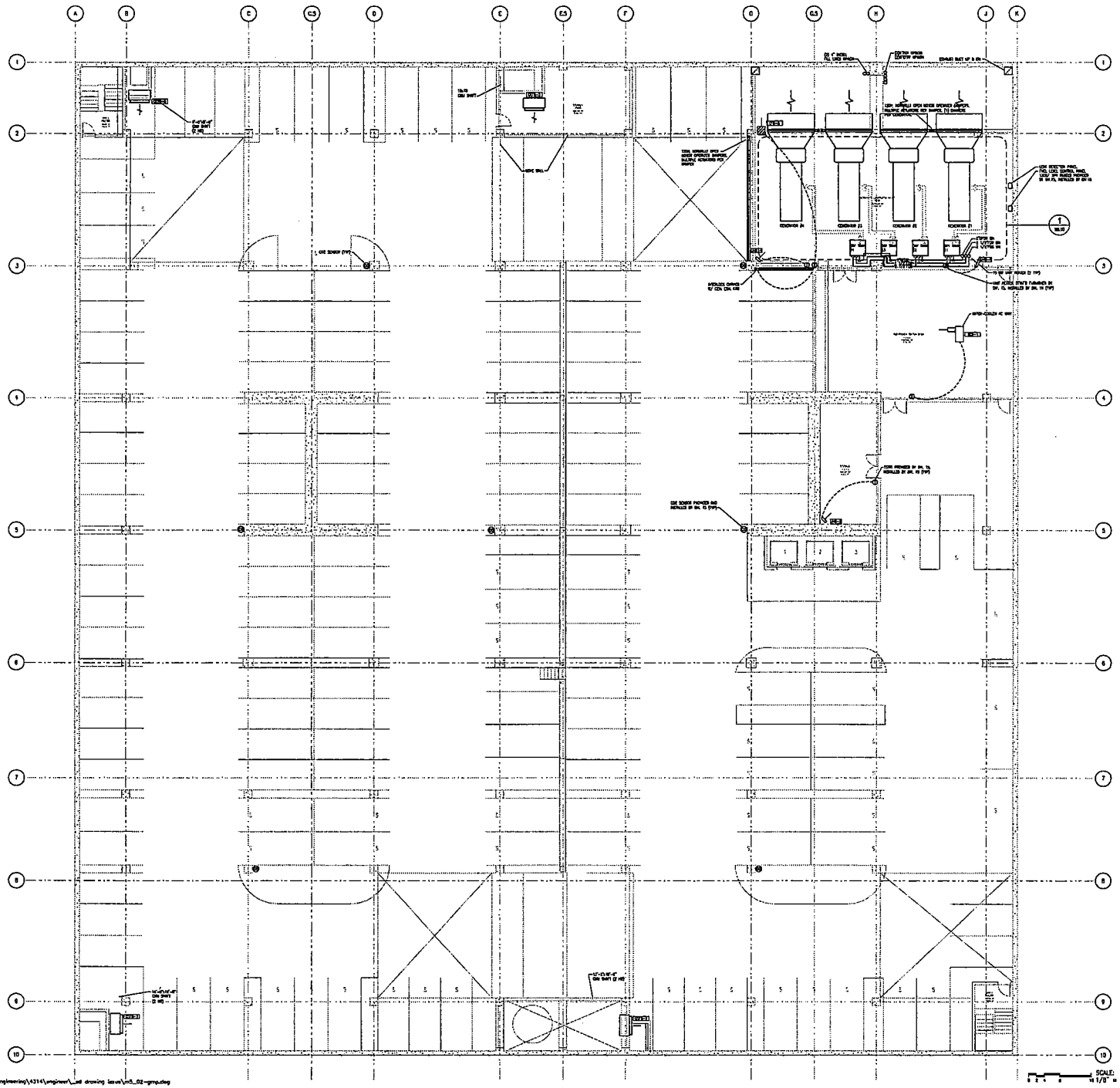

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NJB PARKING LEVEL 3 PLAN – AIR DISTRIBUTION

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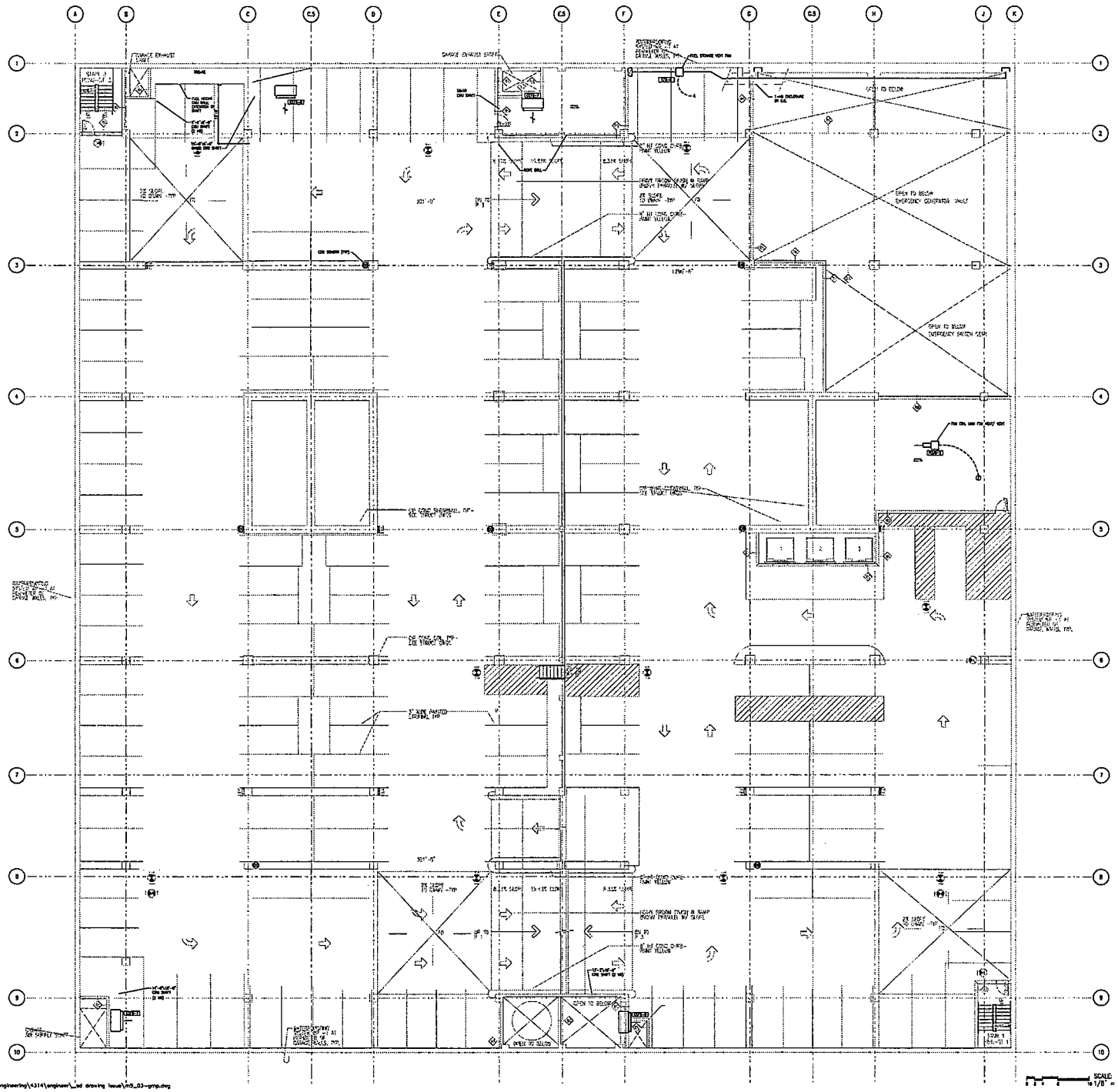

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NJB PARKING LEVEL 2 PLAN – AIR DISTRIBUTION

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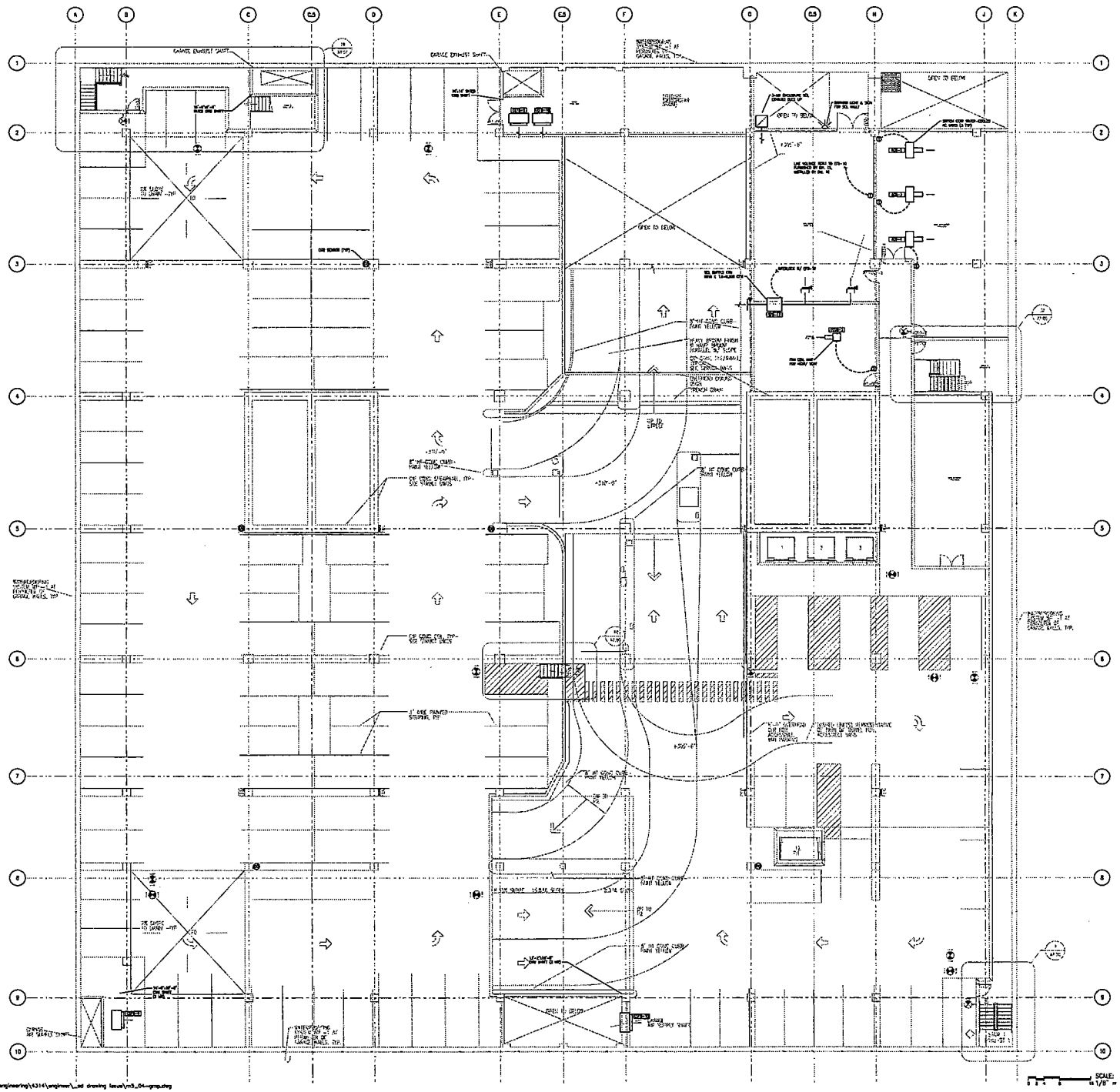

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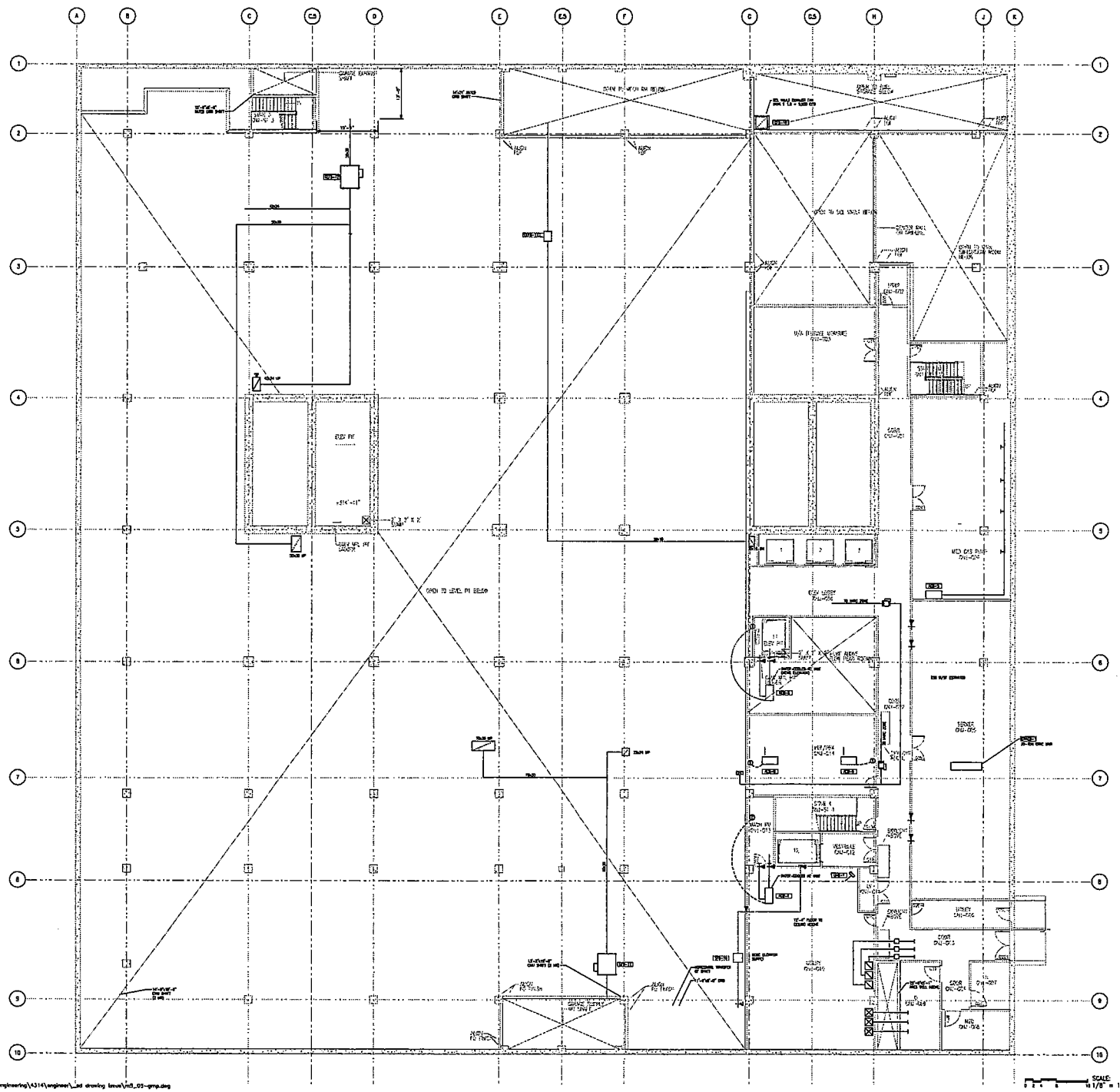

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LEVEL G
PLAN – AIR DISTRIBUTION

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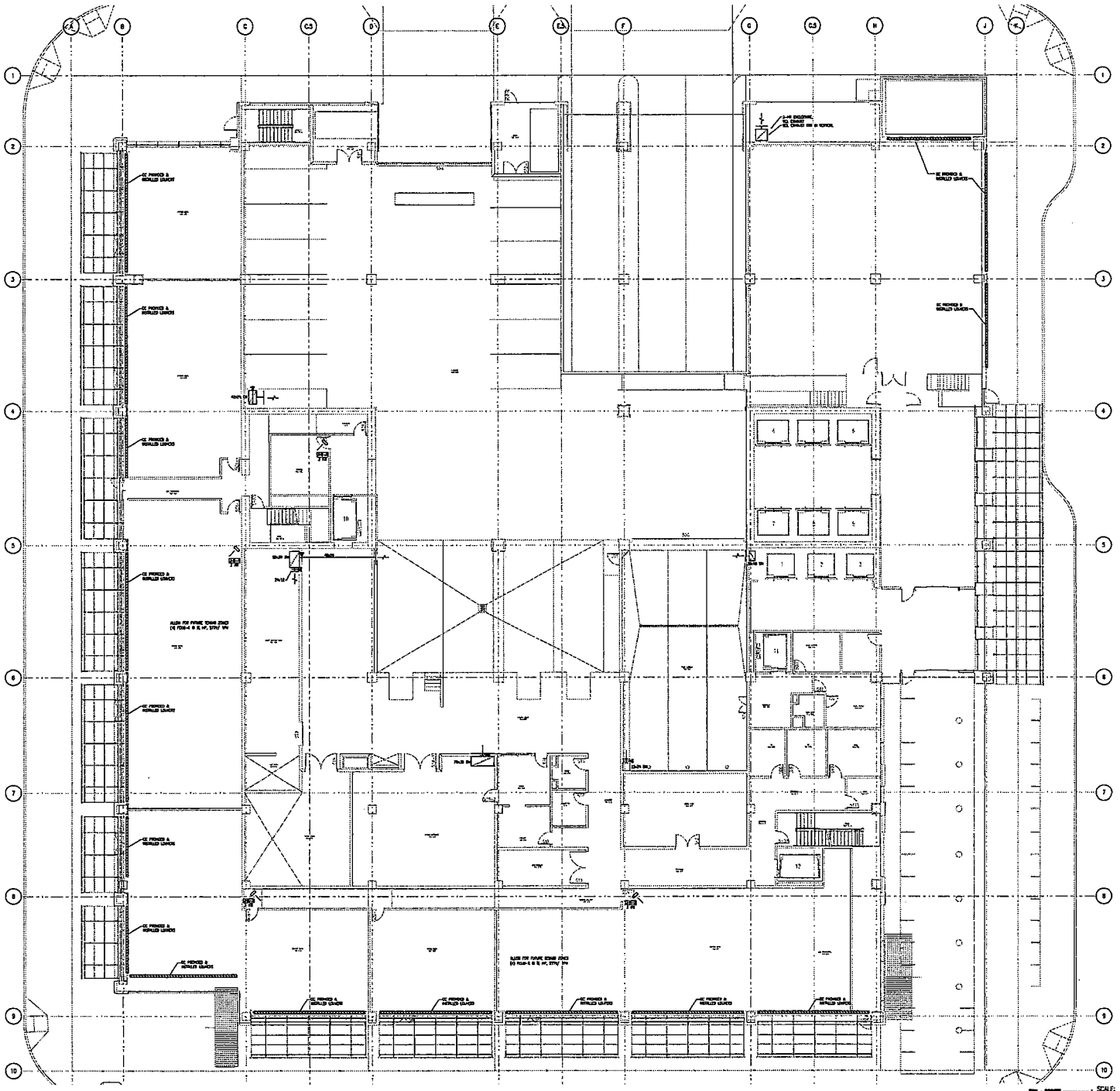

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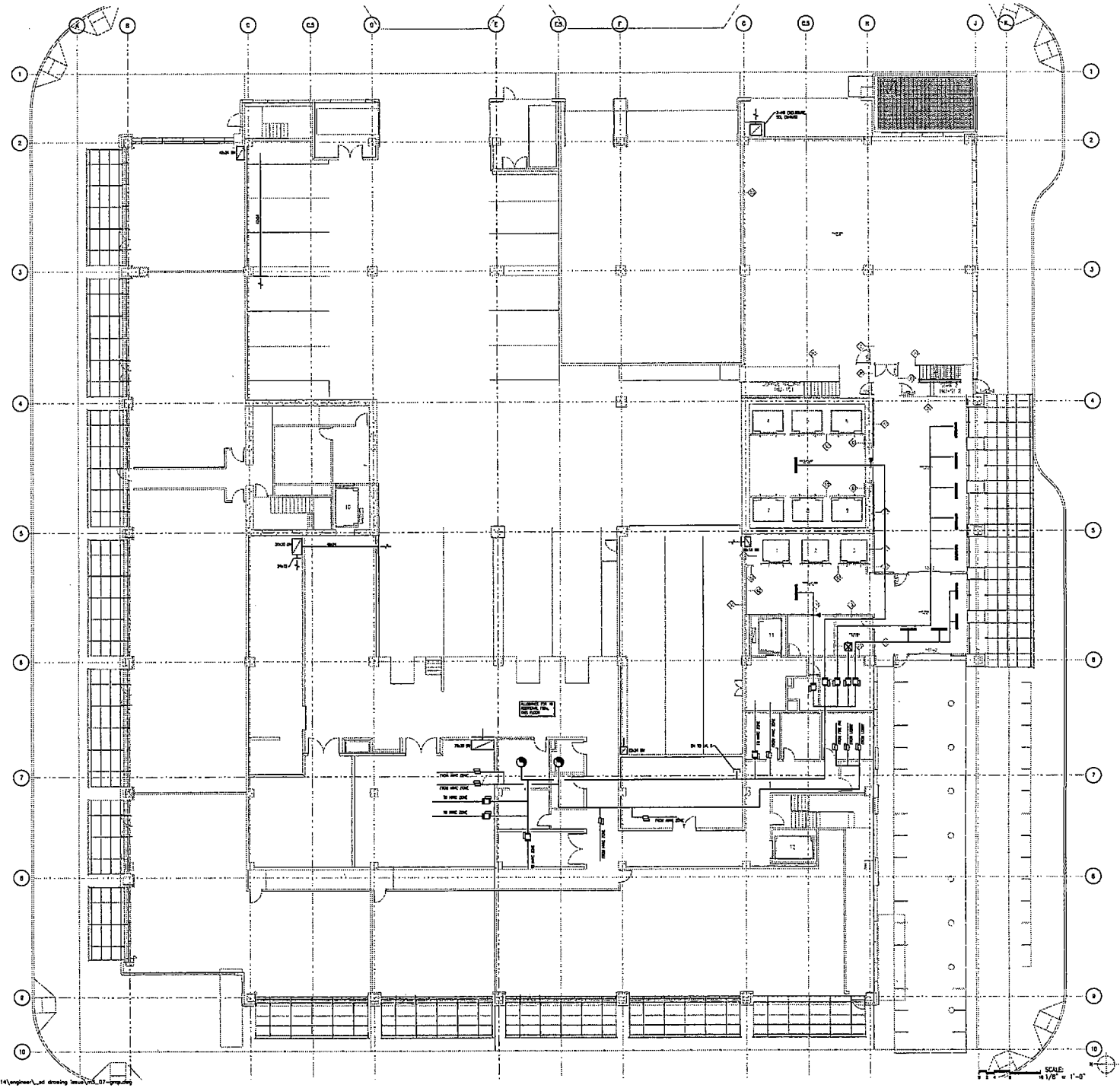

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LEVEL 1
PLAN – AIR
DISTRIBUTION

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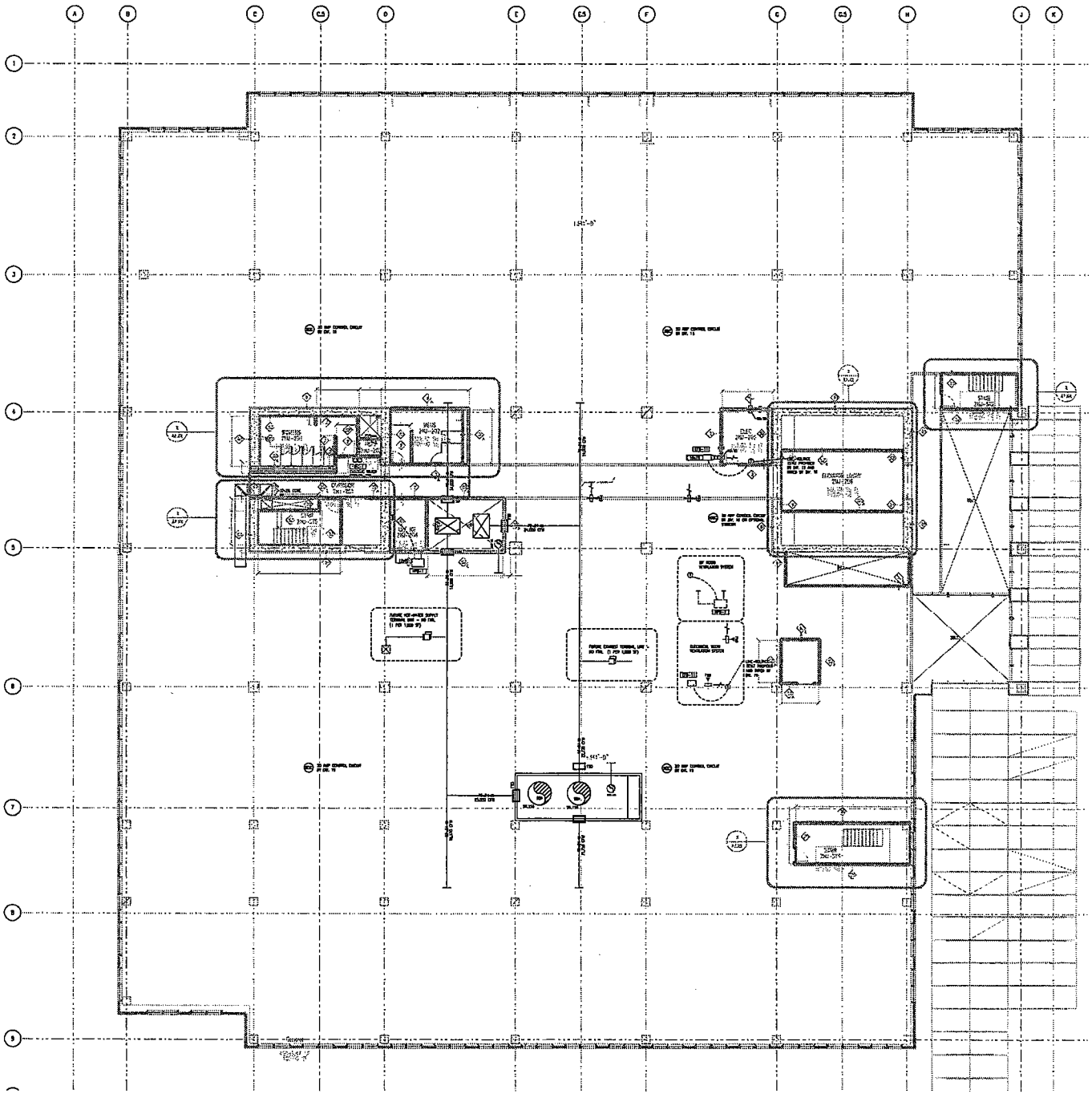

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LEVEL 2
PLAN -- AIR DISTRIBUTION

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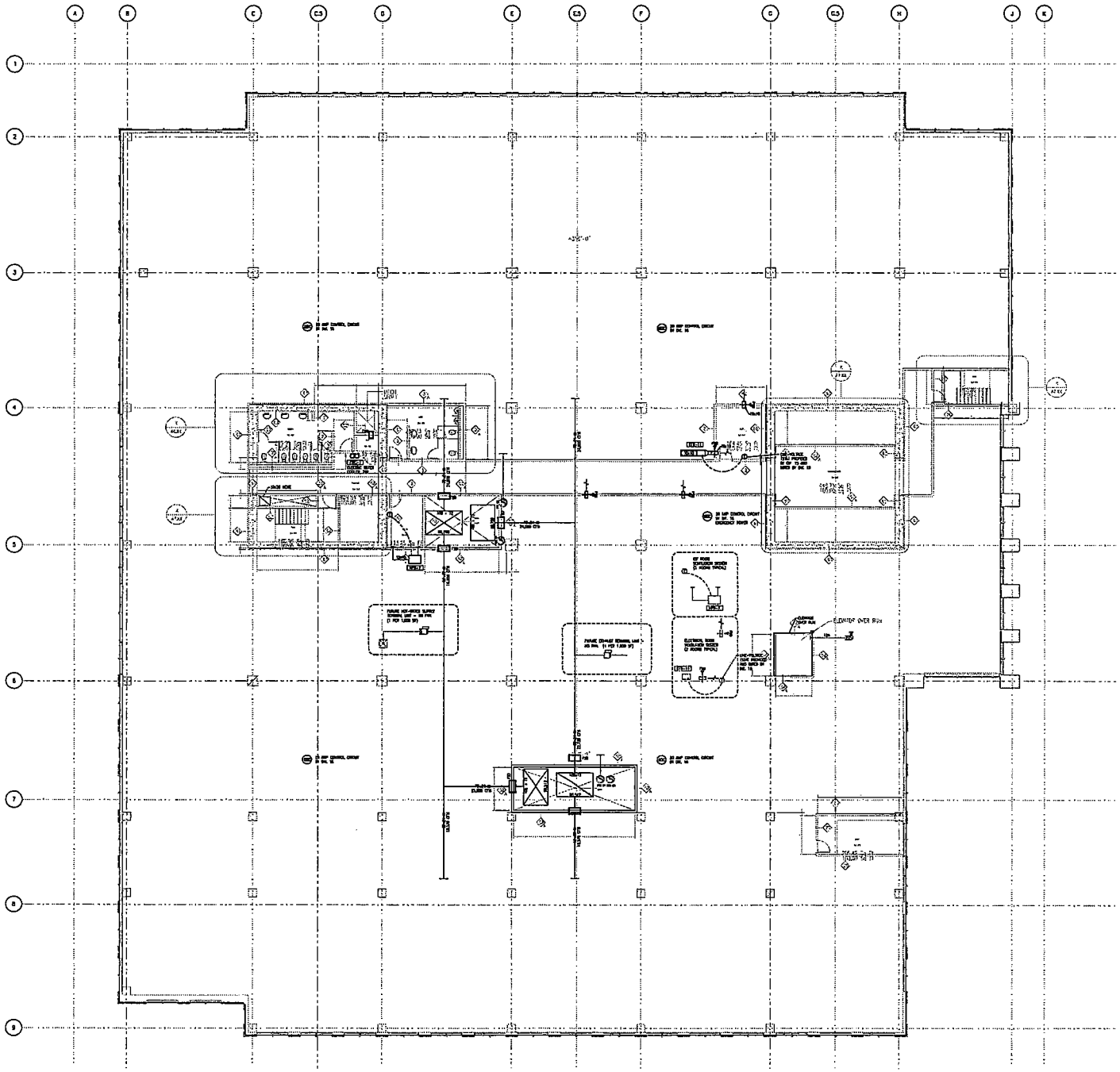

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DWG. NJB LEVEL 3 PLAN – AIR DISTRIBUTION

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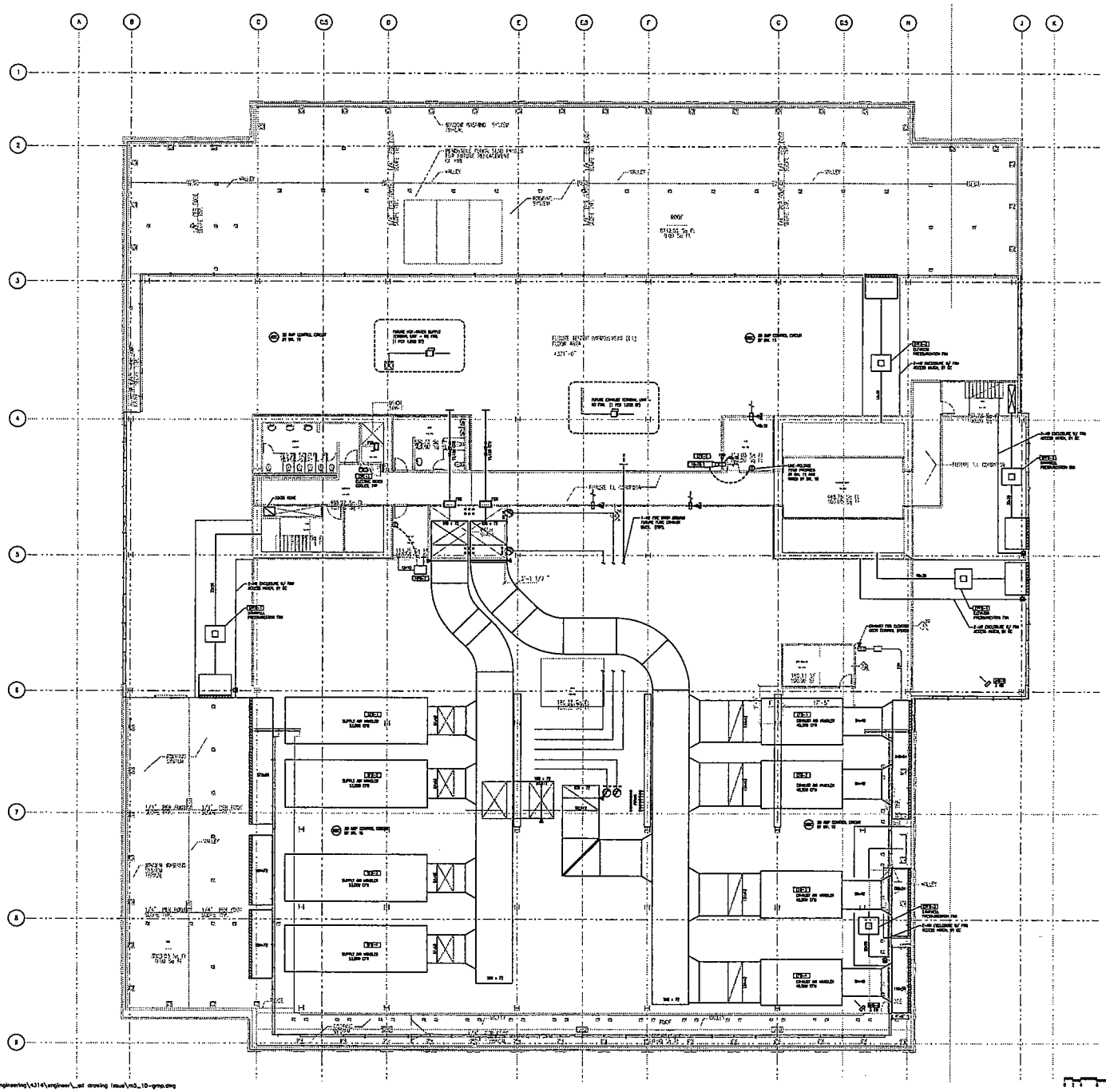

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PLAN – AIR
DISTRIBUTION

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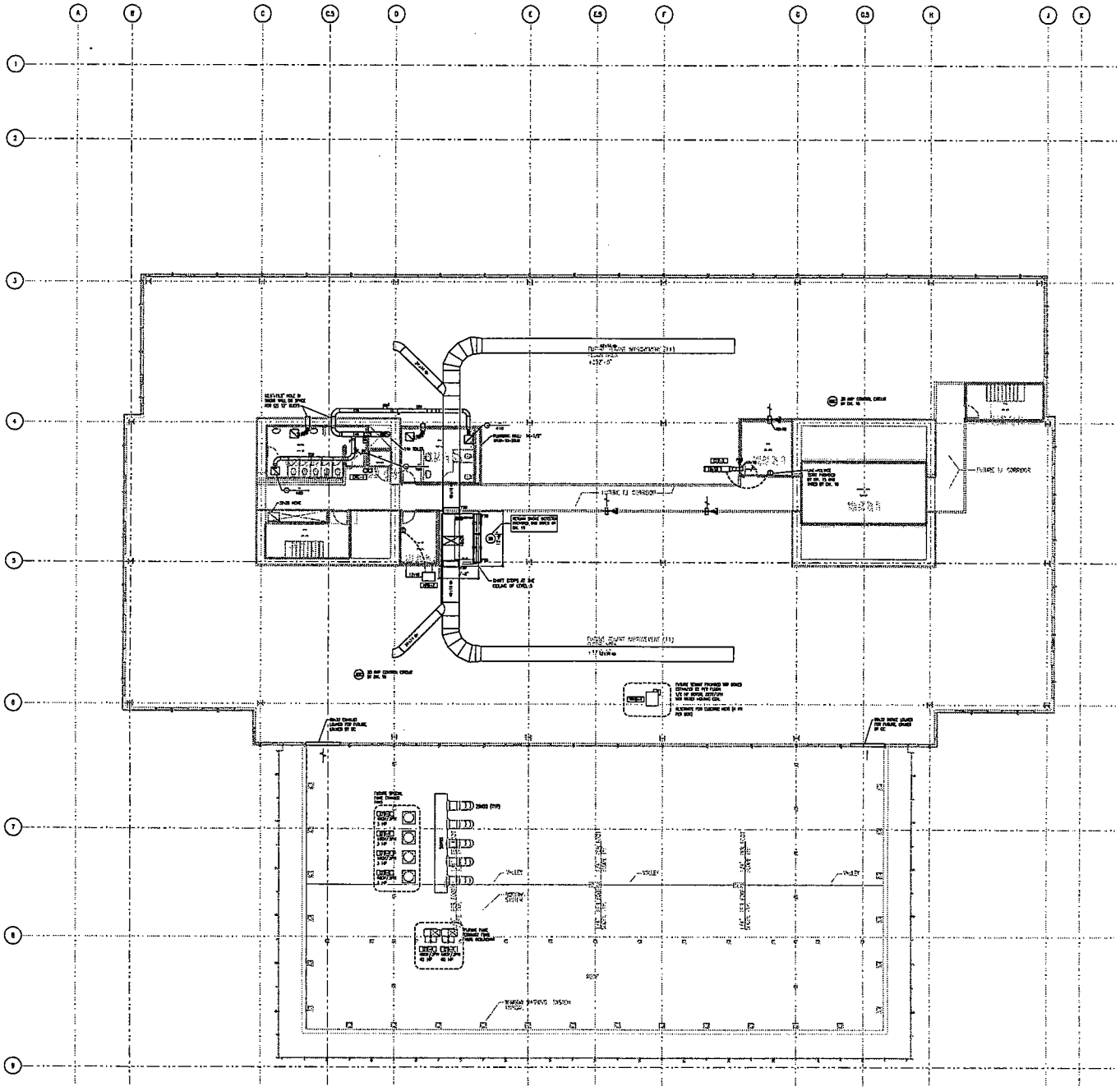

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LEVEL 5
PLAN – AIR DISTRIBUTION

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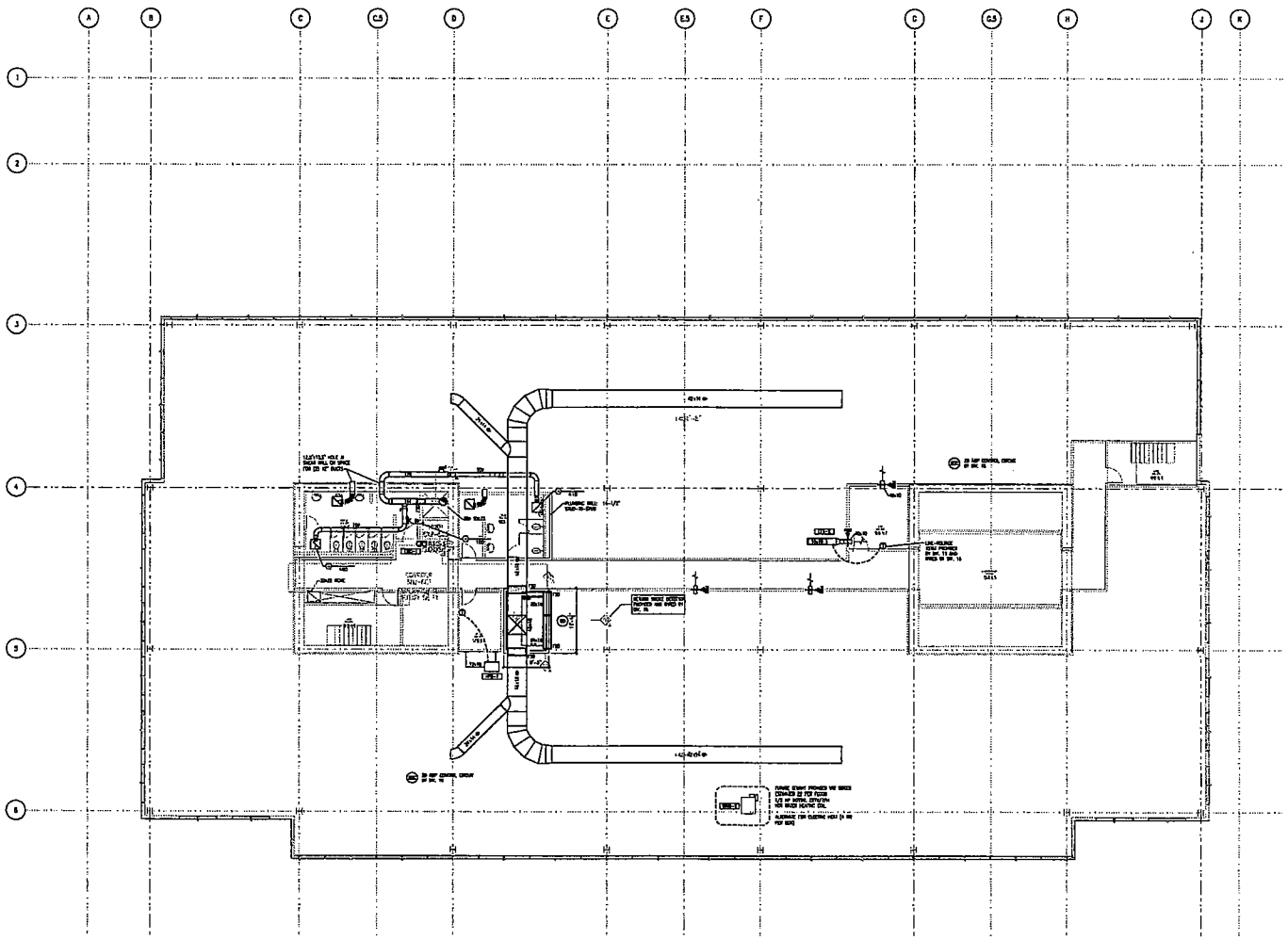

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LEVEL 6
PLAN – AIR DISTRIBUTION

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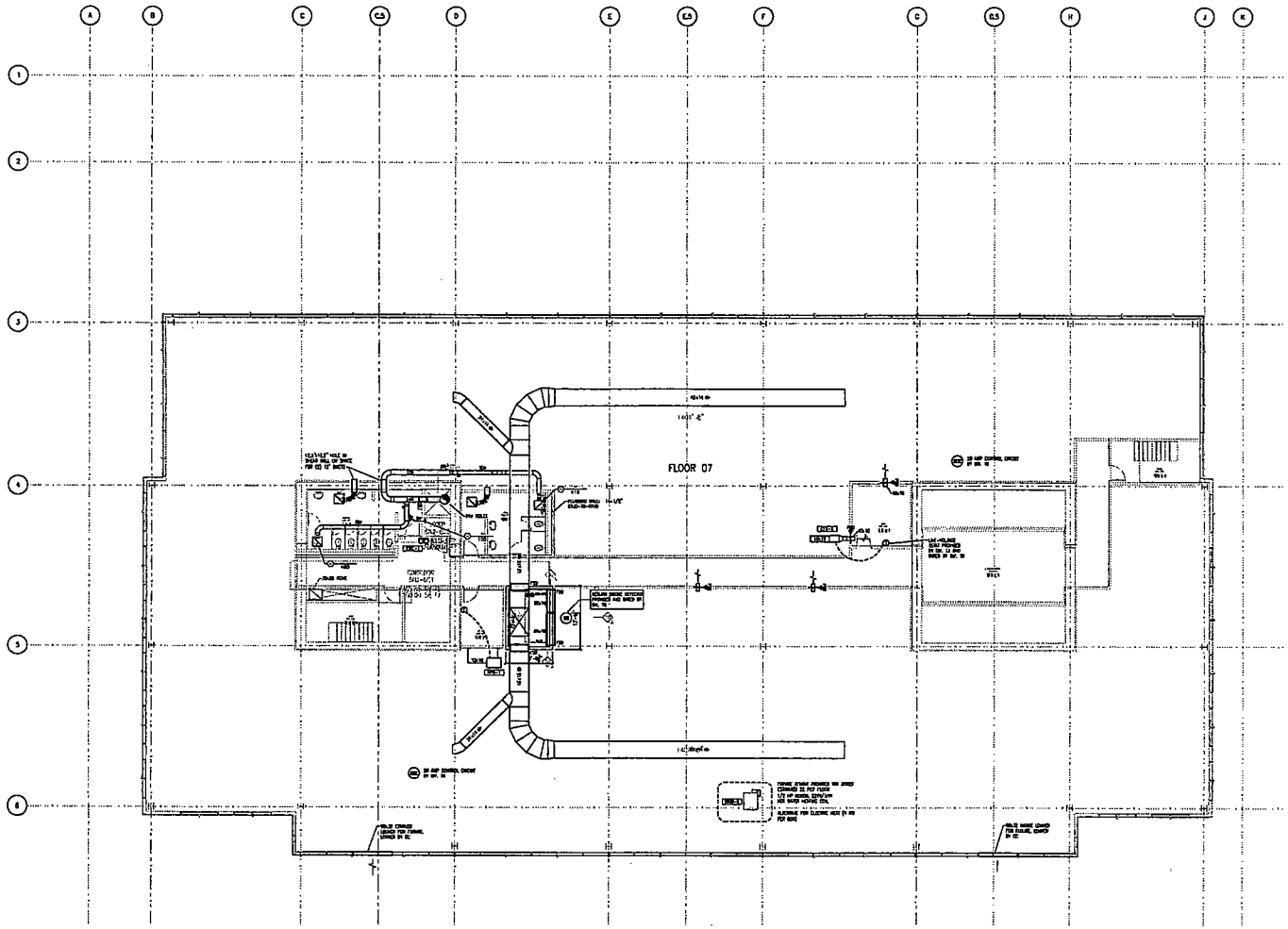

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NJB LEVEL 7 PLAN – AIR DISTRIBUTION

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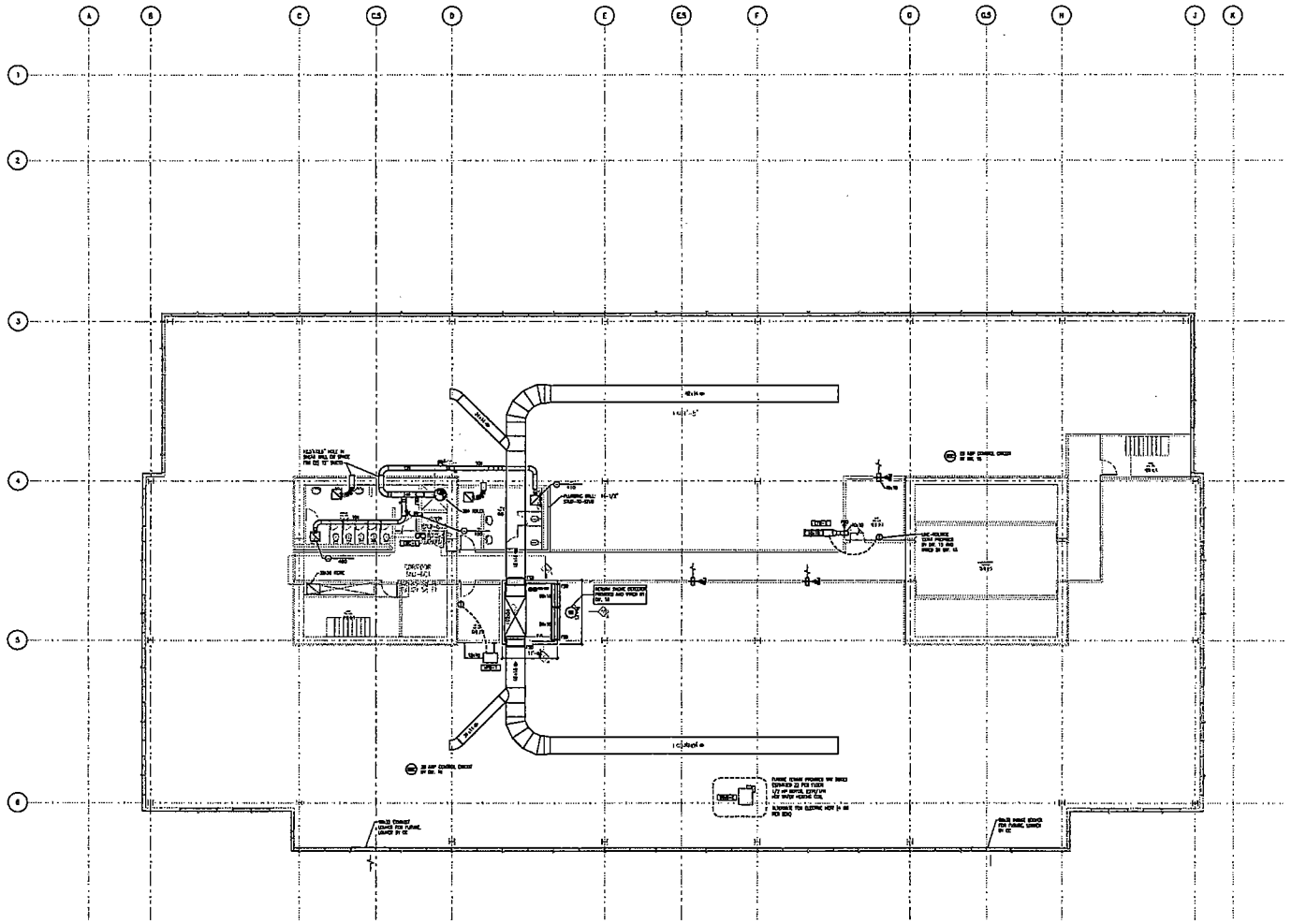

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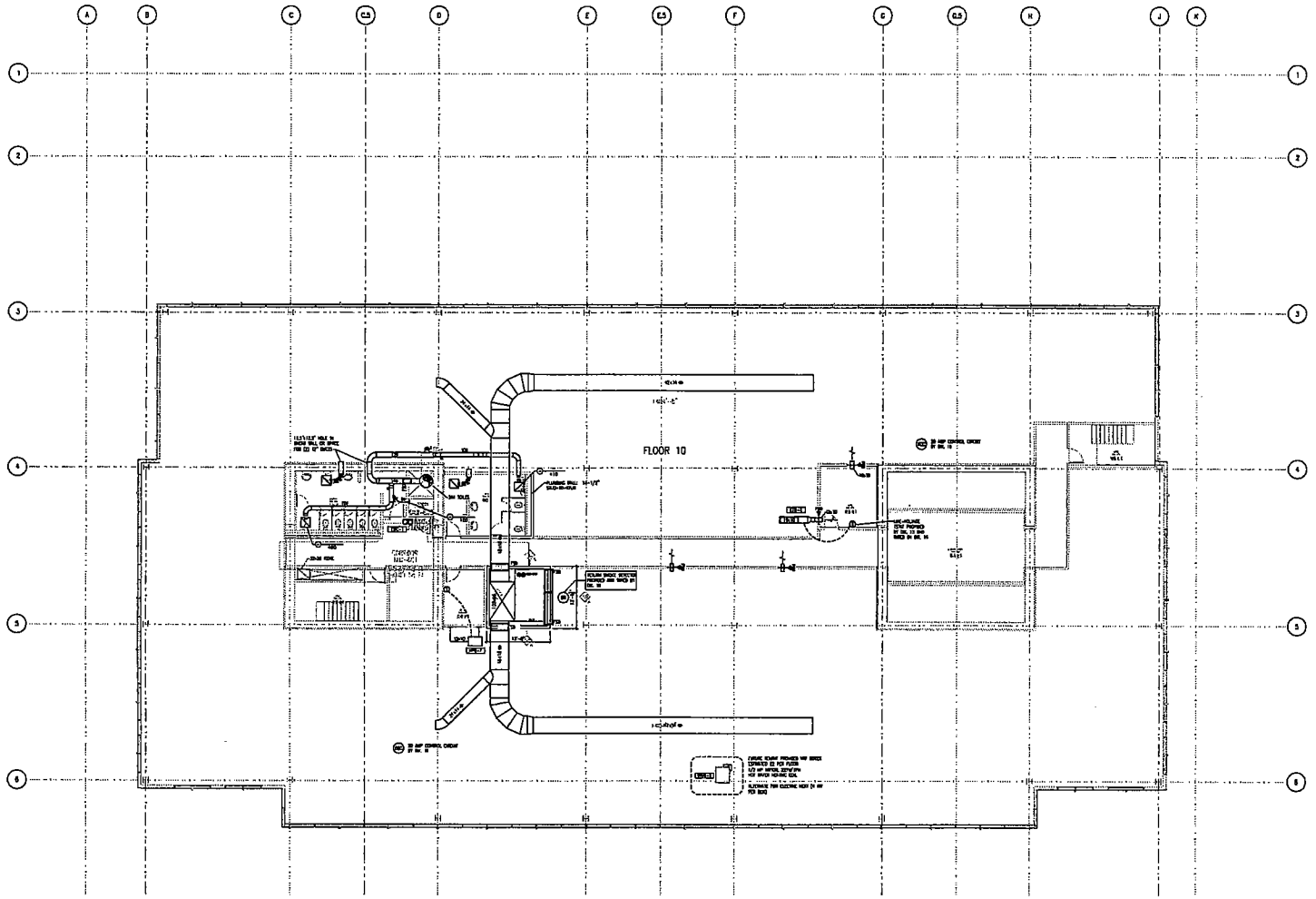

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LEVEL 10 PLAN – AIR DISTRIBUTION

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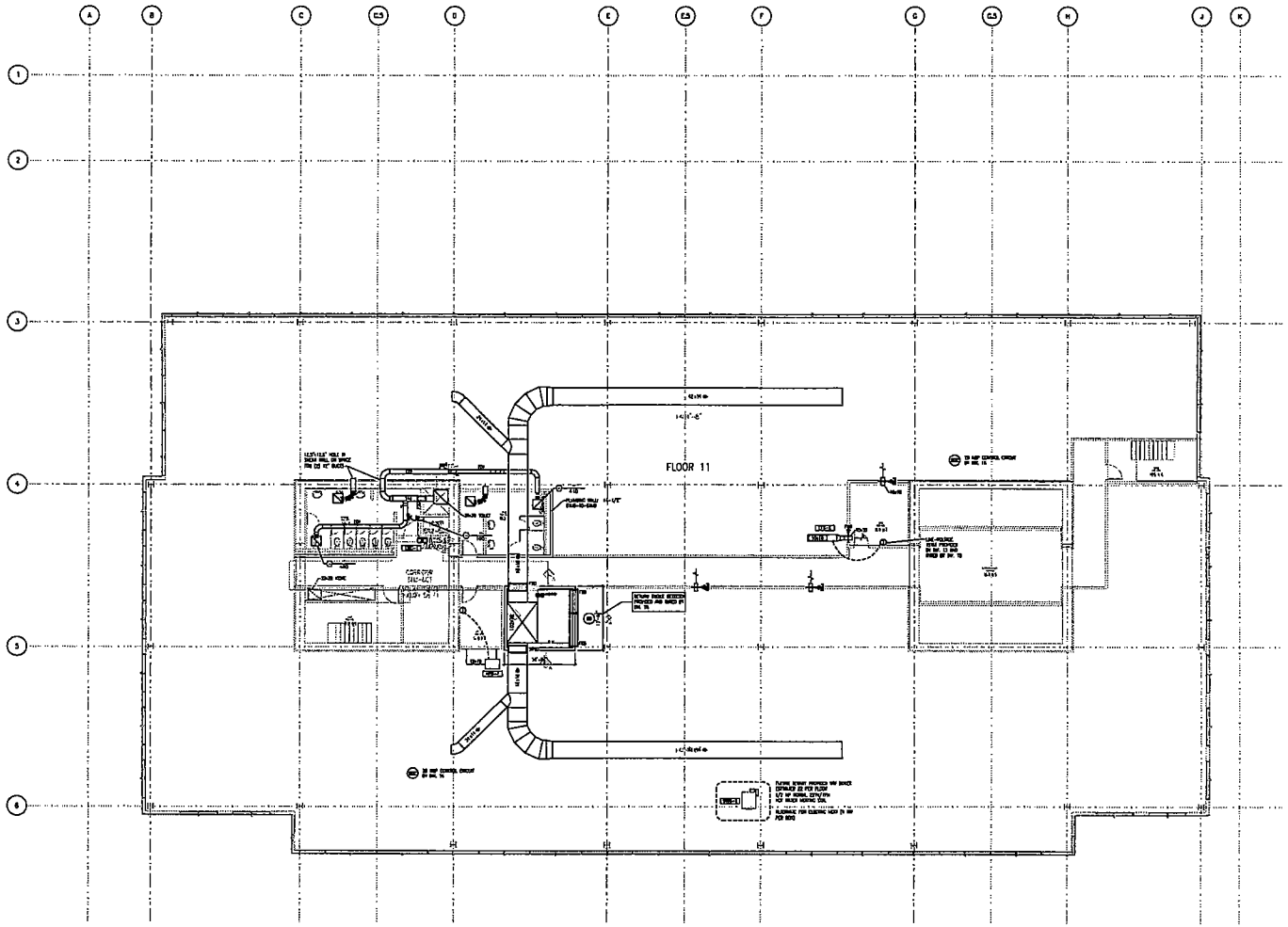

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LEVEL 11
PLAN – AIR DISTRIBUTION

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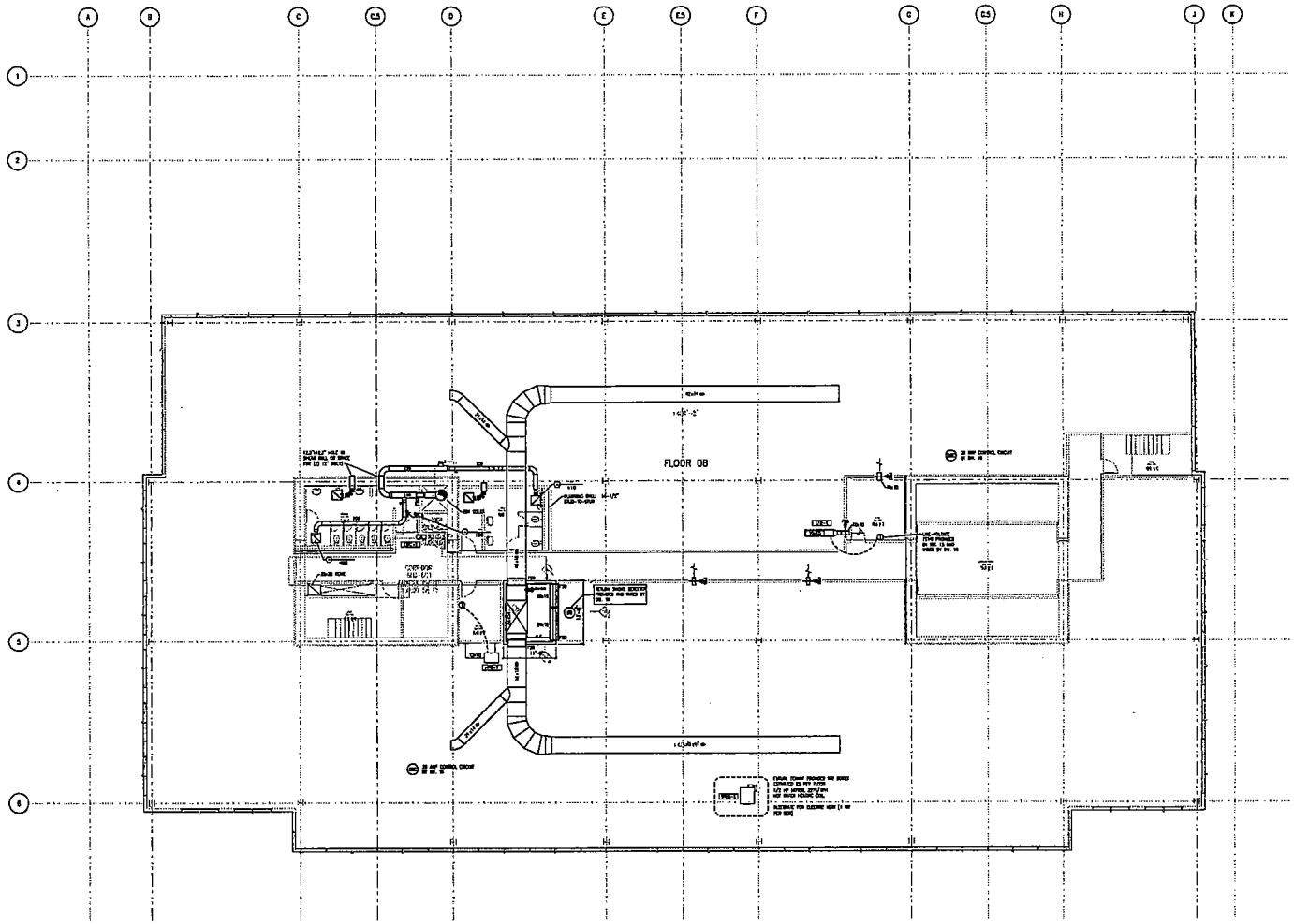

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LEVEL 8
PLAN – AIR DISTRIBUTION

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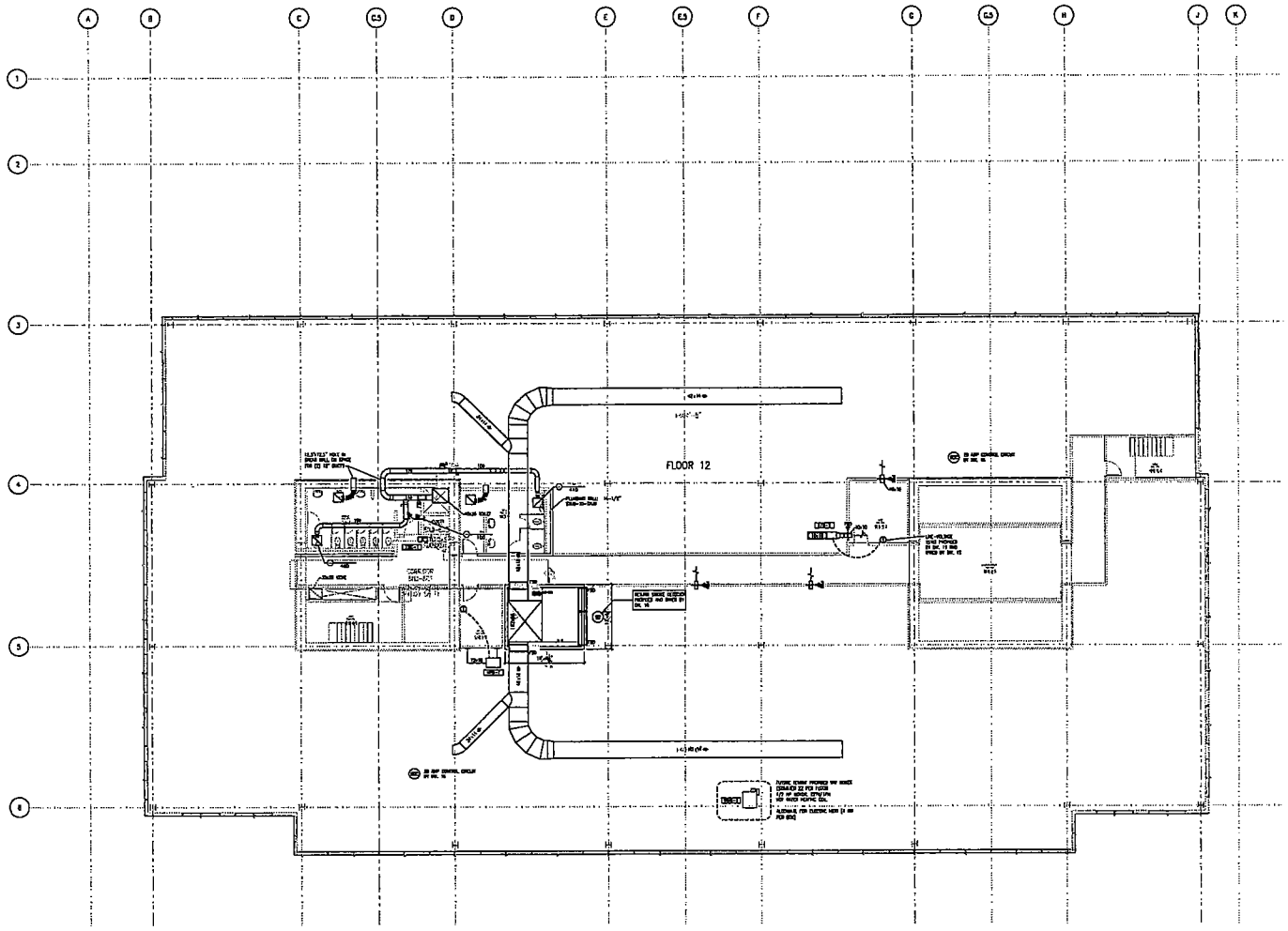

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LEVEL 12
PLAN – AIR DISTRIBUTION

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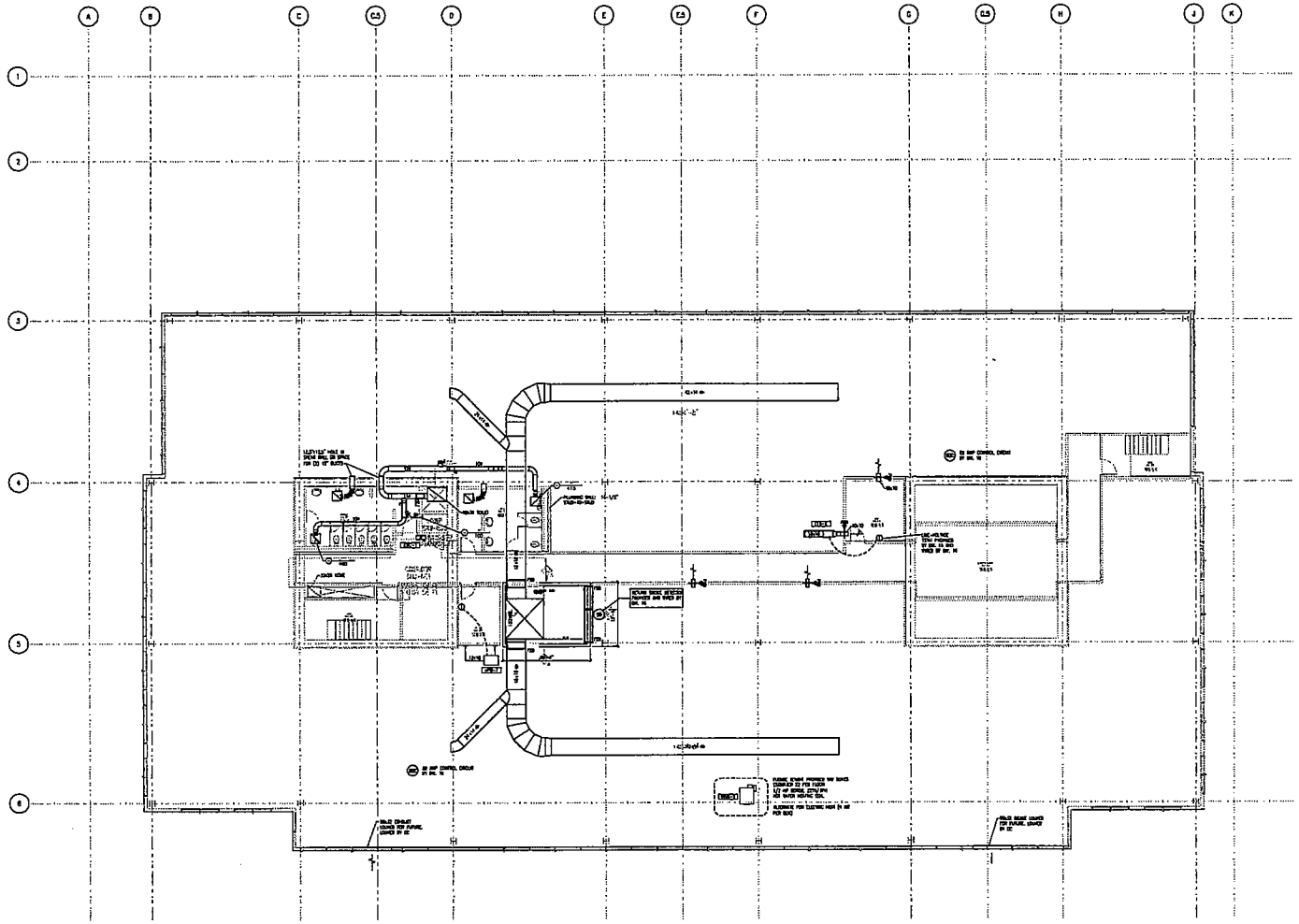

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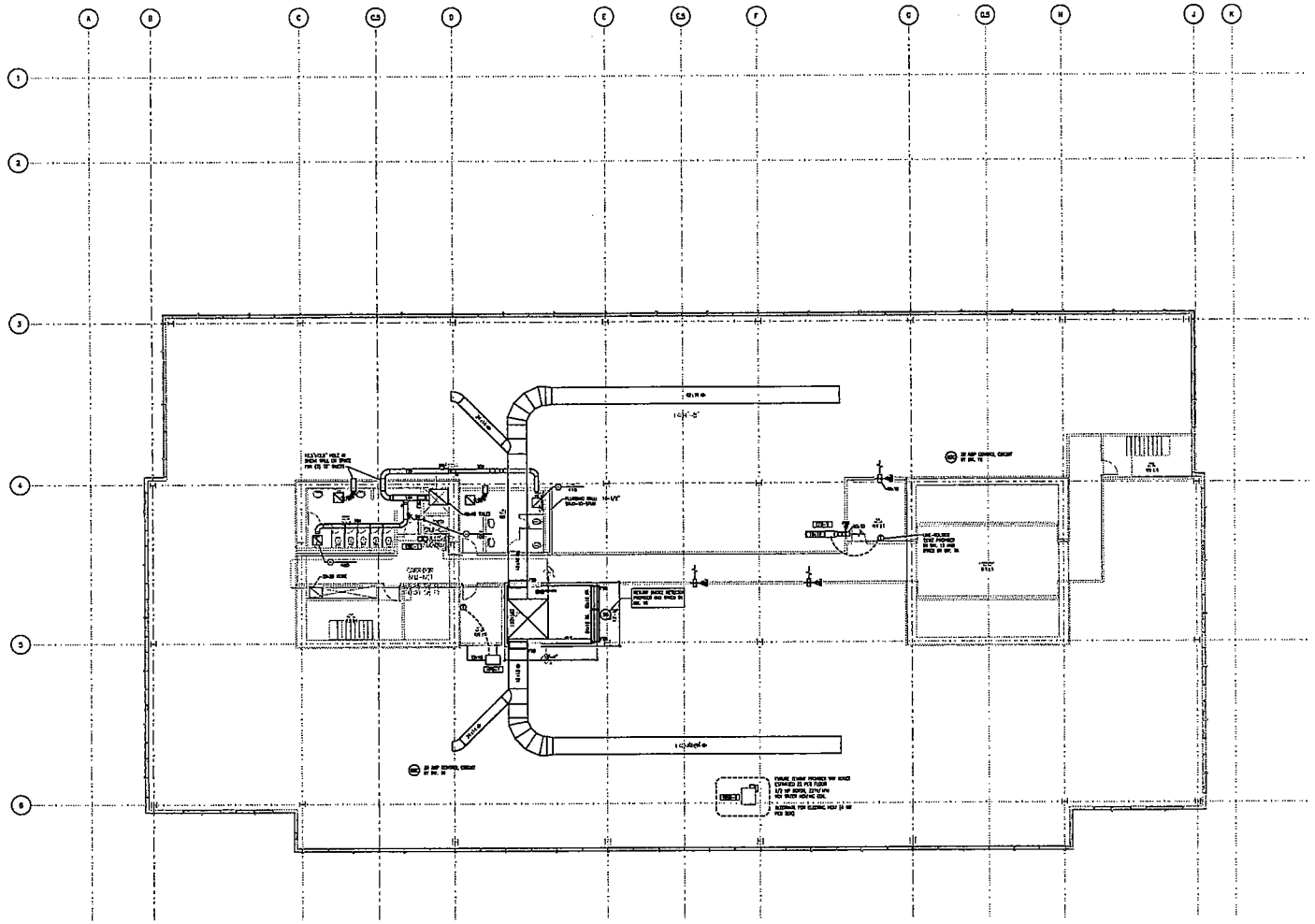

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NJB LEVEL 14 PLAN – AIR DISTRIBUTION

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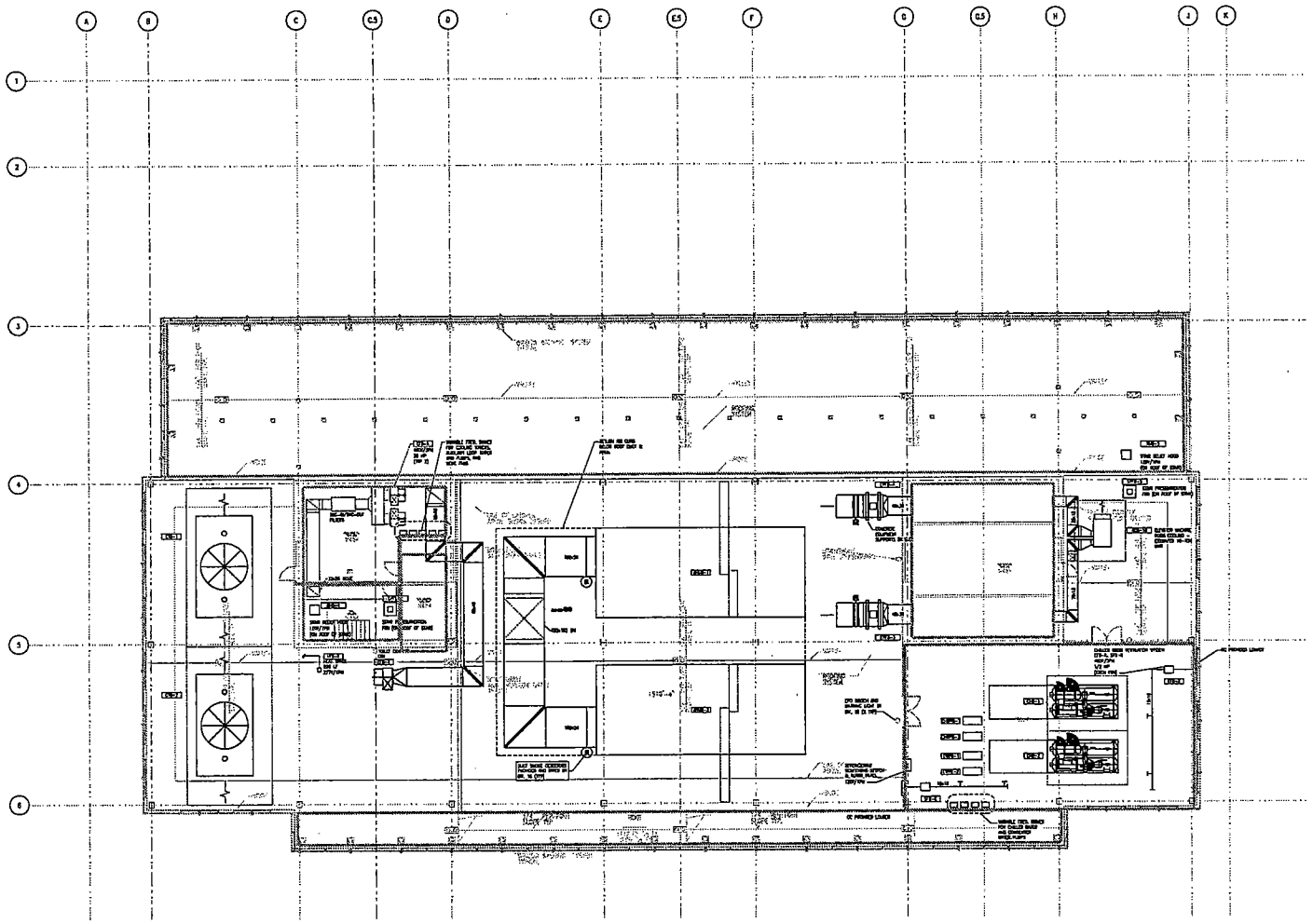

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SHEET NAME
NJB LEVEL PH PLAN – AIR DISTRIBUTION

SHEET NO.
M5.21

SCALE: 1/8" = 1'-0"

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STEVE BROOKS
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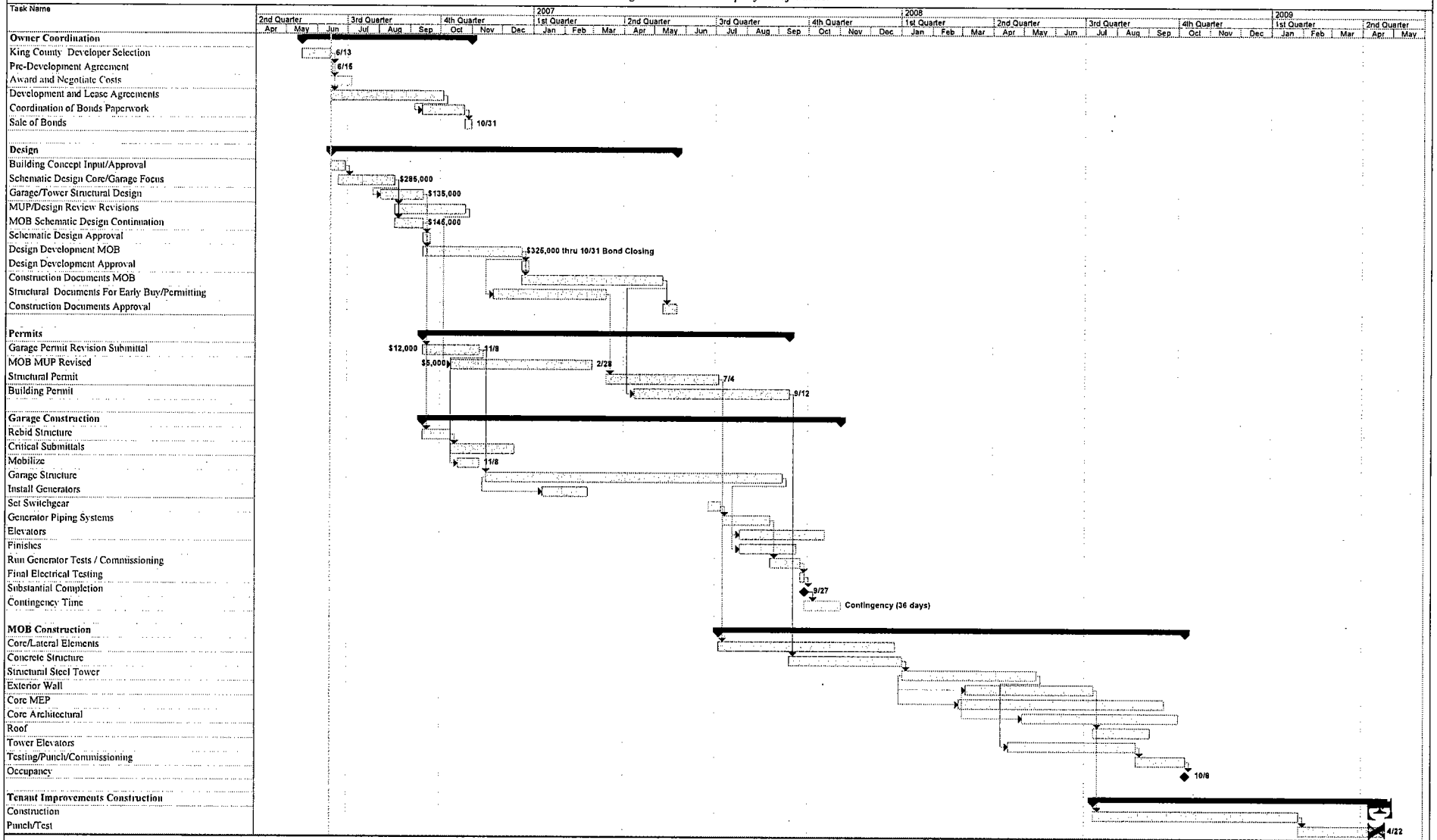
Harborview, Ninth & Jefferson Building
Development Schedule
Wright Runstad & Company-Nbbj-Turner



$907,000 Projected to be spent to facilitate Garage Schedule prior to Bonds Closing

Exhibit F

EXHIBIT G

DISPUTE RESOLUTION PROCEDURE

Owner and Developer shall act in good faith and deal fairly in performing their respective duties under this Agreement in order to accomplish their mutual objectives and avoid disputes. If a dispute arises with respect to design or construction of the Project, the parties agree to utilize the dispute resolution process contained herein, which will be non-binding but a condition precedent to having said dispute decided in court by a judge or jury.

1. **Mediation.** Pursuant to Section 24 of this Agreement, in the event a dispute arises between Developer and Owner with respect to design and/or construction of the Project the parties shall proceed in good faith to resolve such dispute as expeditiously as possible and shall cooperate so that the progress of the design and construction of the Project is not delayed. If, however, the parties are unable to resolve the dispute within three (3) business days, either party may refer the dispute to the Mediator named below.

1.1 ***Mediator.*** For any dispute which cannot be resolved by the parties, the mediator hereunder ("Mediator") shall be John Beyer of Badger Consulting Services, or in the event he is unable or unwilling to act as such independent mediator, a mediator whom Owner and Developer have mutually designated to resolve such dispute. The Mediator is to act impartially and independently in the consideration of facts and conditions surrounding any dispute presented by Developer and Owner; however, the Mediator's recommendations concerning any such dispute are advisory only. The Mediator's recommendations shall be based on the pertinent provisions of this Agreement, and the facts and circumstances involved in the dispute. The Mediator's recommendations shall be furnished in writing to the parties.

1.2 ***Developer Responsibility.*** Developer shall furnish the Mediator one copy of all documents it might have, other than those furnished by the Owner, which are pertinent to the performance of the Mediator's duties hereunder.

1.3 ***Owner Responsibility.*** Owner shall furnish the Mediator one copy of all Contract Documents, including but not limited to the Building Design Guidelines, applicable contracts, interpretative reports, progress schedule and updates, monthly progress reports, and other documents pertinent to the performance of this Agreement and necessary to the performance of the Mediator's duties hereunder.

1.4 ***Term.*** Following execution of this Agreement, the Mediator shall have authority to act hereunder upon written request from either Owner or Developer and such authority shall terminate upon Final Acceptance, after Final Payment has been made.

1.5 ***Payment.*** The fees charged by the Mediator shall be shared equally by the parties. The Mediator's compensation shall include compensation for all materials, supplies, travel, office assistance and support and incidentals necessary to provide the services described

herein. Payment for services rendered by the Mediator will be at the Mediator's standard hourly rate as approved by Owner and Developer prior to commencement of the dispute resolution proceeding.

1.6 ***Legal Relationship.*** The Mediator, in the performance of the duties described herein, is acting in the capacity of an independent agent and not as an employee of either Developer or Owner. The Mediator is absolved of any personal or professional liability arising from the recommendations made hereunder, unless due to gross negligence or willful malfeasance.

EXHIBIT H

Substantial Completion of IEB Generator

Structural/Architectural/Code Items in Building

1. Shell and core structure, framing and finishes from level P-5 through level G required for complete functional fire/life safety systems including, testing and acceptance by Seattle Fire Department . (Except completion of elevators 1-3; these shall remain in a secured construction zone on floors P-4 through G).

2. Shell and core structure and temporary roof assembly (at vertical shafts) at levels S/1 to complete enclosure for spaces referenced in item 1 above.

3. Finished Pathways and corridors form NJB to IEB (including egress corridors and stairs serving the spaces listed above) .

4. Permanent Power signed off by Seattle City Light, energized and operational.

5. Temporary occupancy permit for area described in 1 above ***if required by City of Seattle*** for functional use of IEB required equipment.

NJB shell and core systems required to support IEB equipment tested and operational including:

- **General**
  1. Fully functioning fire protection system serving floors P-5 through G.
  2. Fully functioning Fire Alarm System serving P-5 through G, including NJB project fire alarm system operating from a temporary Fire Command Center reporting to the IEB project and existing Hospital fire alarm system.
  3. Temporary ventilation in pathways and corridors form NJB to IEB using fan coil unit(s) with electric heat.
  4. DDC controls for systems mentioned above where applicable.

- **Emergency Generator Plant**
  1. Emergency Generators, three (3) total installed in the vault, generators provided by others.
  2. Emergency Generator Vault with lighting, receptacles, fire alarm system devices, ventilation System.
  3. Emergency Switchgear Room with, lighting, receptacles, fire alarm devices and. ventilation system.
  4. Emergency Generator Areaway with load bank, lighting and receptacles.

5. Generator derangement panels located in NJB project temporary Fire Command Center and the IEB project Fire Command Center.
6. Generator Fuel Oil Storage and Delivery System including fuel level control panel, leak detection panel.
7. Fuel Storage Rooms with ventilation, lighting, receptacles and fire alarm devices. Includes fuel transfer pump control panel and fuel transfer pumps.
8. Level S electrical connection to the exterior generator fuel filling station.
9. Emergency Generator Fuel storage foam fire suppression system.

- **Permanent Power System/Power Distribution**
  1. Seattle City Light Primary Switch Room and Transformer Vault fully operational. with ventilation system (There will be no primary switches installed in the Primary Switch Room at this time, just primary conduits and conductors that enter and exit this room to the Transformer Vault).
  2. Level P1 Main Electrical Room including the following:
     a. Lighting, receptacles and fire alarm devices.
     b. (2) Main Switchboards and electrical distribution system that supports the following rooms:
        i. Generator Plant.
        ii. MDF/PBX Room on Level G.
        iii. Med Gas Pump Room on Level G.
        iv. Nitrogen Room on Level G.
        v. Oxygen Room on Level G.
        vi. Nitrous Oxide Room on Level G.

- **Medical Gas Infrastructure**
  1. Level G Med Gas Pump Room including the following:
     a. The lighting, receptacles and fire alarm system devices
     b. Electrical connections to med gas equipment.
     c. Medical gas room ventilation.
  2. The Med Air / Vac room Air Conditioning Unit (The cooling source for this A/C unit comes from the IEB's auxiliary cooling loop).
  3. Level G Nitrogen, Oxygen and Nitrous Oxide Rooms fully operational, including the following:
     a. The lighting, receptacles and fire alarm system devices and ventilation systems.
  4. Electrical connections to gas manifold controllers by others.

- **MDF/PBX Infrastructure**
  1. MDF/PBX - Air Conditioning Units (The cooling source for these A/C units comes from the IEB's auxiliary cooling loop).
  2. Level G MDF/PBX Room partially operational, which includes the following:
     a. The lighting and fire alarm system devices.
  3. The power connections to the telephone PBX switch and data racks shall be fully operational, which support the IEB project.

4. The cable tray and raceways which support the IEB project.
5. Telecommunications cabling and equipment by others, which support the IEB project.

IEB Equipment housed in NJB tested, commissioned, certified (as applicable) and operational. Including

1. Medical Gas Systems –Nitrogen, Nitrous Oxide, and Oxygen systems. (Including manifolds, manifold relief vents, gas piping, and associated alarms).
2. Medical Air and Medical Vac Systems air compressors, vacuum pumps, piping, intake/exhaust vents, and associated alarms.
3. Medical Gas Alarms – Wiring for source alarms for the medical gases in the NJB will be terminated at the Utility tunnel leading to the IEB. A j-box is provided for this purpose.
4. Lab Air and Building Air System – Including air compressors, piping, intake vents, and associated alarms.