

1 1ST FLOOR PLAN
SCALE: 1/8"=1'-0"

- DEMO NOTES:**
- EXISTING WORK TO REMAIN
 - ///// EXISTING WORK TO BE REMOVED
 - ① REMOVE ALL EXISTING DUCTWORK, DIFFUSERS, REGISTERS, INSULATION, HANGERS, ETC.
 - ② REMOVE EXISTING UNIT HEATER, FAN, ETC., INCLUDING ALL BRANCH PIPING, DUCTWORK, FLU, ETC.
 - ③ EXISTING HEATING AND VENTILATION EQUIPMENT TO REMAIN.
 - ④ EXISTING UH THERMOSTAT TO REMAIN.
 - ⑤ EXISTING UH THERMOSTAT TO BE RELOCATED.
 - ⑥ EXISTING VENTILATION MAKE UP AIR DUCT TO REMAIN.

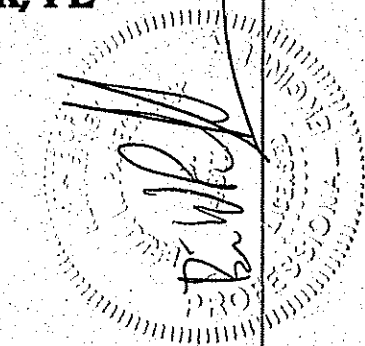
KEY PLAN - 1ST FL.

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Milton A. Azous, PE
 NJ #21057 NY #48388 PA #PE021148E
 CT #10684 FL #44942

Brian W. Pasechnick, PE
 NJ #48111



PLAN RELEASE	
BUILDING	Signature: <i>[Signature]</i> Date: 4/9/10
ELECTRICAL	Signature: _____ Date: _____
PLUMBING	Signature: _____ Date: _____
FIRE	Signature: _____ Date: _____
ZONING	Signature: _____ Date: _____

NO.	ISSUE DATE	ISSUE DESCRIPTION
1	03.12.10	ISSUED FOR BIDDING

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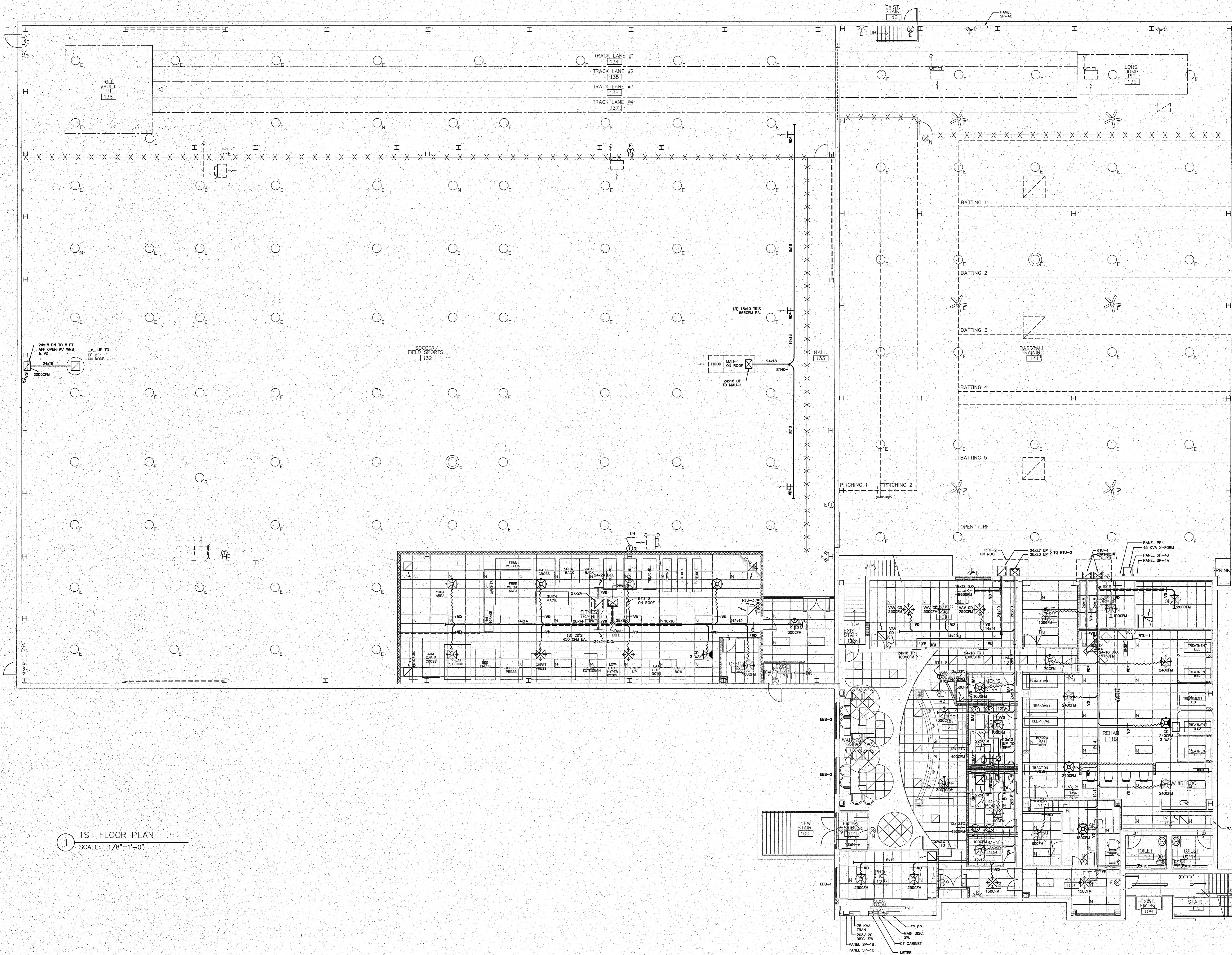
client:
Ultimate Sports
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drawing title:
MECHANICAL DEMOLITION PLAN

scale: AS NOTED
 job number: 0972
 drawn by: GB
 checked by: MA
 date: 03.12.10

drawing number:
MD-1
 dwg. of file #

NJ 05915
 NY 011938
 PA B 7813
 CT 4823
 AZ 12822



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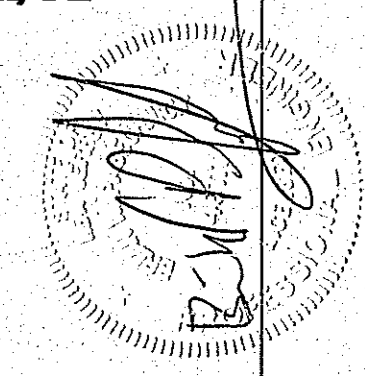
KEY PLAN - 1ST FL.

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GAS-ELECTRIC PACKAGED ROOFTOP UNIT SCHEDULE																																					
Unit No.	Service	Manuf.	Model	Orientation	Supply Air			Outdoor			Cooling System Conditions				Cooling Performance				Heating Performance				Electrical Data				See Notes										
					Flow (CFM)	ESP (in. WC)	Blower Motor (hp)	Flow (CFM)	Outdoor DB (°F)	Outdoor WB (°F)	Indoor DB (°F)	Indoor WB (°F)	System Total (BTU/hr)	System Sensible (BTU/hr)	System Latent (BTU/hr)	Discharge DB (°F)	Discharge WB (°F)	IX Cooling (BTU/hr)	Outdoor DB (°F)	Outdoor WB (°F)	Indoor DB (°F)	Indoor WB (°F)	System - First Stage (BTU/hr)	System - All Compressors (BTU/hr)	System Input (kW)	System Output (kW)		Mech Thermal Eff.	Volt/Ph/Hz	ICA	Max Fuse	Max Inleted (psi)					
RTU-1	REHAB ETC.	LENNOX	LGH060S4T	HORIZONTAL	2100	1.0	2	525	95	74	79.8	65.9	62,847	51,154	11.0	56.5	55.8	15.5	-	72	70	74.3	64.9	24.8	67.1	58.3	24.8	67.1	58.3	105,000	84,000	80	460/3/60	16	20	931	1,3,4,6,7,8,9,11,12,13,14,15
RTU-2	LOUNGE ETC.	LENNOX	LGH150S4B	DOWNFLOW	3650	1.0	3	1825	95	74	84.8	69.7	143,588	105,483	35.9	56.9	55.7	10.8	-	72	70	73.5	66.6	43.9	70.6	61.8	70.0	59.1	54.9	240,000	192,000	80	460/3/60	31	40	1531	1,2,3,4,5,7,8,9,10,11,12,13,14,15
RTU-3	FITNESS CTR.	LENNOX	LGH120H4B	DOWNFLOW	4000	1.0	5	600	95	74	78.0	64.8	120,929	84,354	25.1	55.4	54.3	12.0	-	72	70	74.6	64.1	31.2	69.4	59.7	45.9	59.9	180,000	144,000	80	460/3/60	30	35	1437	1,3,4,5,7,8,9,11,12,13,14,15	

1. HUMIDITROL - FACTORY INSTALLED
 2. STAINLESS STEEL HEAT EXCH. - FACTORY INSTALLED
 3. 2 IN MERV8 FILTER - FACTORY INSTALLED
 4. ECONOMIZER - FACTORY INSTALLED
 5. POWER EXHAUST - FACTORY INSTALLED
 6. POWER EXHAUST ON RETURN DUCT - FIELD INSTALLED
 7. SF BELT AUTO TENSIONER - FACTORY INSTALLED
 8. DISCONNECT - FACTORY INSTALLED
 9. STANDARD CAP - FACTORY INSTALLED
 10. FRESH AIR TEMPERING - FACTORY INSTALLED
 11. SEISMIC ROOF CURB - FIELD INSTALLED
 12. HUMIDITY SENSOR AND WALL MTC KIT - FIELD INSTALLED
 13. GFCI - FACTORY INSTALLED/FIELD WIRED
 14. TSTAT TOUCHSCREEN - FIELD INSTALLED
 15. CO2 SENSOR - FIELD INSTALLED
- SYSTEM STANDARD FEATURES:
 1. HIGH PRESSURE SWITCH (MANUAL RESET)
 2. CRANKCASE HEATER

SCHEDULE FOR DUCTED RETURN/EXHAUST AIR REGISTERS					
CFM RANGE	NECK SIZE W X H INCHES	MAXIMUM NECK VELOCITY FPM	OVERALL SIZE W X H INCHES	MANUFACTURER	MODEL No.
0-75	6"x6"	400	7-3/4" x 7-3/4"	TITUS	359L
76-140	8"x8"		9-3/4" x 9-3/4"		
141-300	12"x12"		13-3/4" x 13-3/4"		
301-500	16"x16"		17-3/4" x 17-3/4"		
501-800	18"x18"		19-3/4" x 19-3/4"		

NOTE: ALL SUPPLY REGISTERS TO BE TITUS MODEL 300 RL DOUBLE DEFLECTION ADJUSTABLE VERTICAL BLADES IN REAR

SCHEDULE FOR CEILING MOUNTED SUPPLY AIR DIFFUSERS					
CFM RANGE	NECK SIZE INCHES	MAXIMUM NECK VELOCITY FPM	OVERALL SIZE INCHES	MANUFACTURER	MODEL No.
0-95	6	500	24x24	TITUS	TMS
96-200	8	600	24x24	TITUS	TMS
201-325	10	600	24x24	TITUS	TMS
326-450	12	600	24x24	TITUS	TMS

NOTE: ALL DIFFUSERS TO HAVE EQUALIZING GRID; NO DAMPER 2 WAY AND 3 WAY DIFFUSERS TO HAVE 12" NECK REGARDLESS OF CFM.

SCHEDULE FOR CEILING MOUNTED RETURN AIR GRILLES					
CFM RANGE	NECK SIZE W X H INCHES	MAXIMUM DUCT VELOCITY FPM	NOMINAL LOUVERED AREA SIZE W X H INCHES	MANUFACTURER	MODEL No.
0 - 400	24 X 12	250	23-3/4 X 11-3/4	TITUS	355 RL
401 - 1000	24 X 24	250	23-3/4 X 23-3/4	TITUS	355 RL

FAN SCHEDULE														
UNIT No.	SERVICE	LOCATION	TOTAL AIR CAP. CFM	EXTERNAL S.F. IN INCHES OF W.G.	FAN RPM	MOTOR HP / WATT	BHP	TYPE OF FAN	TYPE OF DRIVE	INTERLOCK WITH	VOLTS/PH/Hz	MANUFACTURER	MODEL No.	SEE NOTES
EF-1	TOILET EXHAUST	ROOF	500	1/2	1170	1/4	.08	ROOF	BELT	RTU-2	120/1/60	GREENHECK	GB-091	1,2
EF-2	SOCCER FIELD	ROOF	2000	1/2	780	1/3	.28	ROOF	BELT	MAU-1 & @	120/1/60	GREENHECK	GB-180	1,2

- NOTES:
 1. MOTORIZED DAMPER
 2. PREFABRICATED ROOF CURB

ELECTRIC BASEBOARD RADIATION SCHEDULE								
SYMBOL	AREAS	HEIGHT	LENGTH	V-φ-C	B.T.U.H	WATTS	MANUFACTURER/MODEL	REMARKS
EBB-1	PRO SHOP	6 3/4"	6'-0"	277-1-60	5100	1500	QMARK/QMKC2576W	MULTIPLE UNITS
EBB-2	LOUNGE	6 3/4"	8'-0"	277-1-60	6800	2000	QMARK/QMKC2570B	SEE PLAN

NOTE: PROVIDE UNIT WITH INTEGRAL STAT. & DISCONNECT

GAS FIRED MAKE-UP AIR UNIT SCHEDULE									
NO.	AREA SERVED	TOT CFM (10000 A.)	S.P. (IN W.G.)	HP	V-φ-C	FUEL	BTUH INPUT	MFR/MODEL	SEE NOTES
MAU-1	INDOOR SOCCER FIELD	2000	1.0	1	460-3-60	GAS	150,000	REZOR R8H-150	

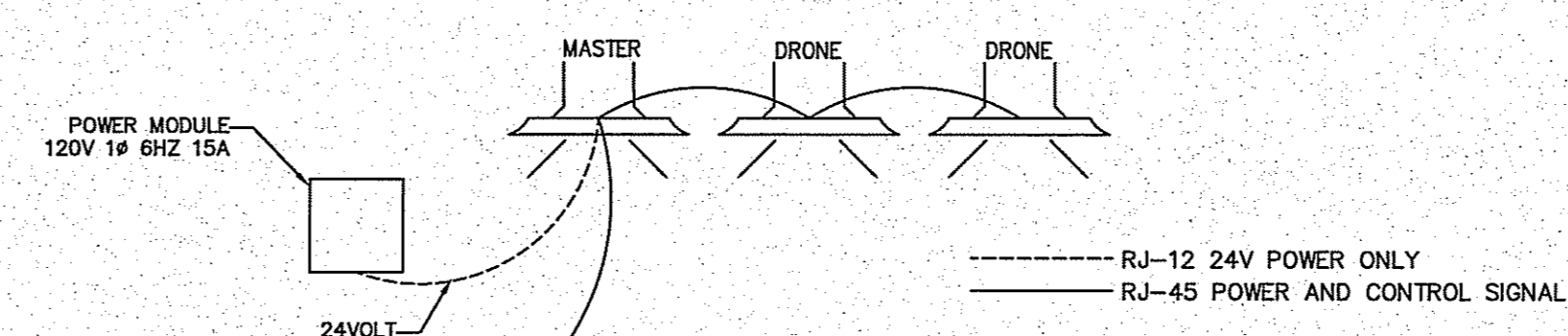
- NOTE: PROVIDE UNIT WITH:
 1. 409 STAINLESS STEEL HEAT EXCHANGER
 2. MOTOR CONTACTOR, 24V COIL
 3. DOWNTURN FLENUM
 4. 1000 O/A RAIN BAFFLED INTAKE HOOD
 5. FILTER RACK W/2" PLEATED FILTERS
 6. DOUBLE WALL INSULATED CABINET
 7. FLUSH MTD NONFUSED LOCKABLE DISCONNECT
 8. DISCHARGE TEMP LOW LIMIT (FREEZESTA)
 9. UNIT START RELAY
 10. RELAY CONTACTS TO START EXHAUST FAN
 11. 16" CURB BASE UNIT + 2 SECTIONS
 12. DIGITAL H/C MODUL DISCH TMP W/REMOTE
 13. 2 POS. MOTORIZED 1000 O.A. DAMPERS
 14. RUBBER-IN-SHEAR VIBRATION ISOLATION
 15. 5 YEAR HEAT EXCHANGER WARRANTY

ELECTRIC WALL HEATER SCHEDULE										
HTR. LD.	TYPE	KW	TOTAL BTU/HR	RATED AMPS	VOLT/PH	MOUNTING TYPE	CONTROLS	MANUFACTURER	UNIT MODEL & SIZE	REFER TO NOTES
EW-H-A	FAN FORCED	4	13852	14.5	277/1	RECESSED	INTEGRAL	QMARK	AWH 4407	
EW-H-B	FAN FORCED	2	6826	7.2	277/1	SURFACE	INTEGRAL	QMARK	AWH 4407	1

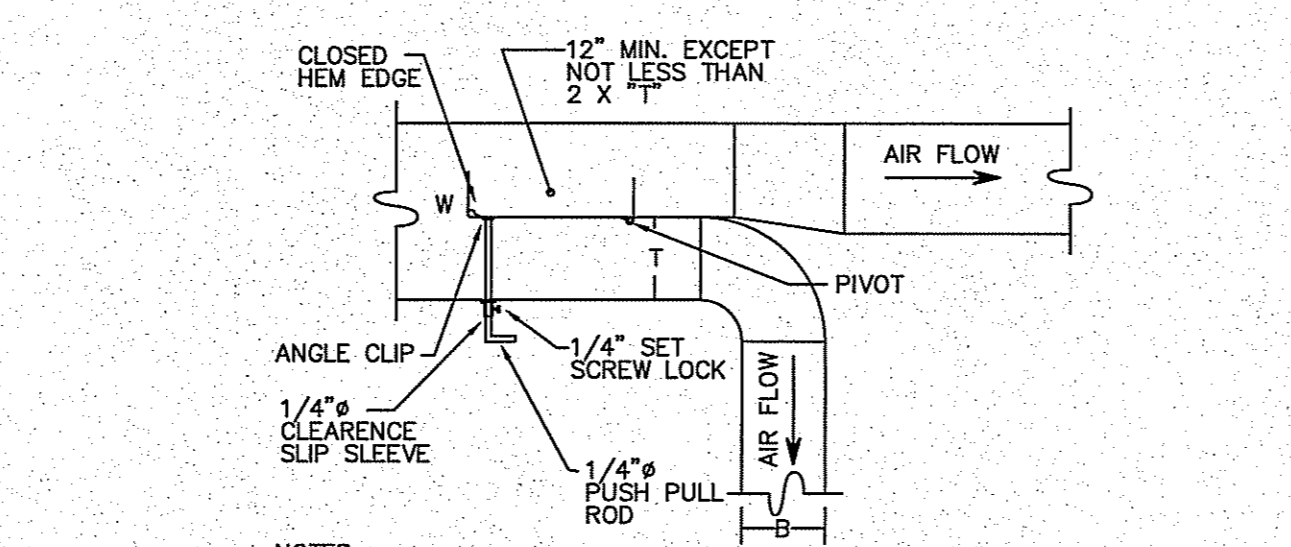
- NOTES:
 1. PROVIDE SURFACE MOUNTING FRAME WHERE REQUIRED

SCHEDULE FOR VARIABLE VOLUME SUPPLY AIR DIFFUSERS					
CFM RANGE	NECK SIZE INCHES	MAXIMUM NECK VELOCITY FPM	OVERALL SIZE INCHES	MANUFACTURER	MODEL No.
150-200	10"	600	24"x24"	TITUS	T, S, D
201-350	12"	600	24"x24"	TITUS	T, S, D

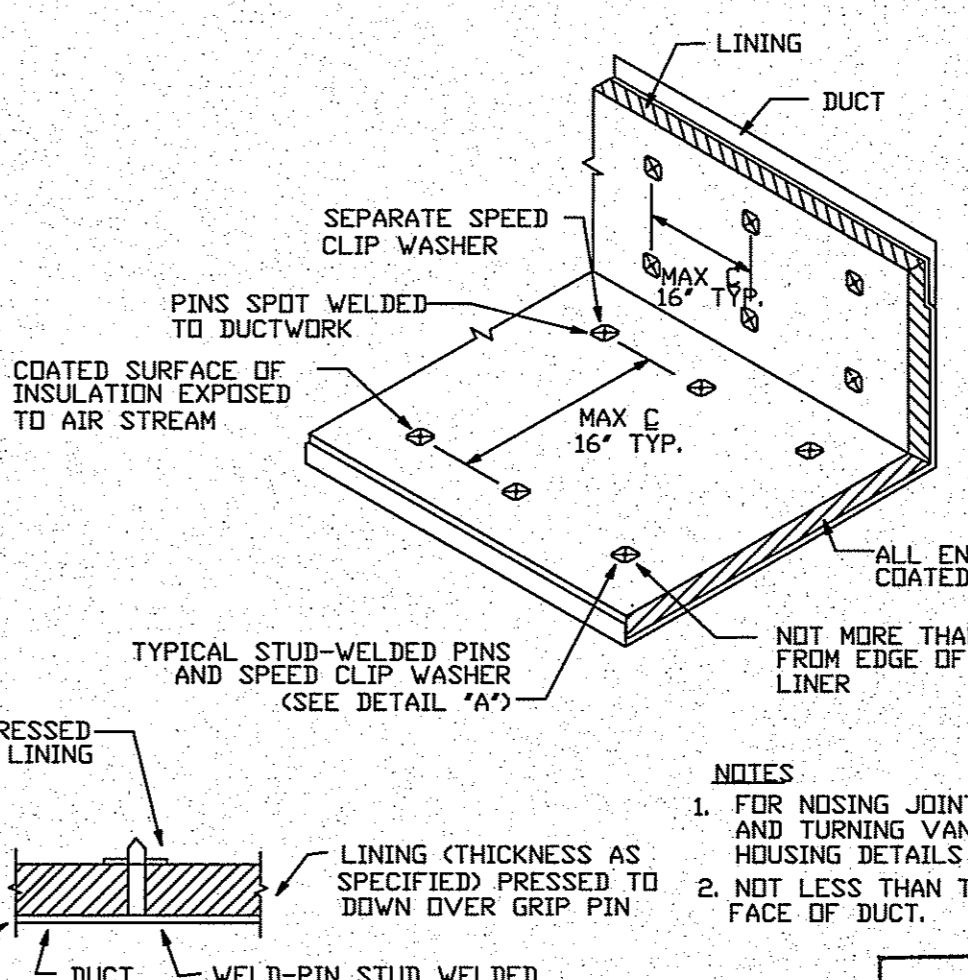
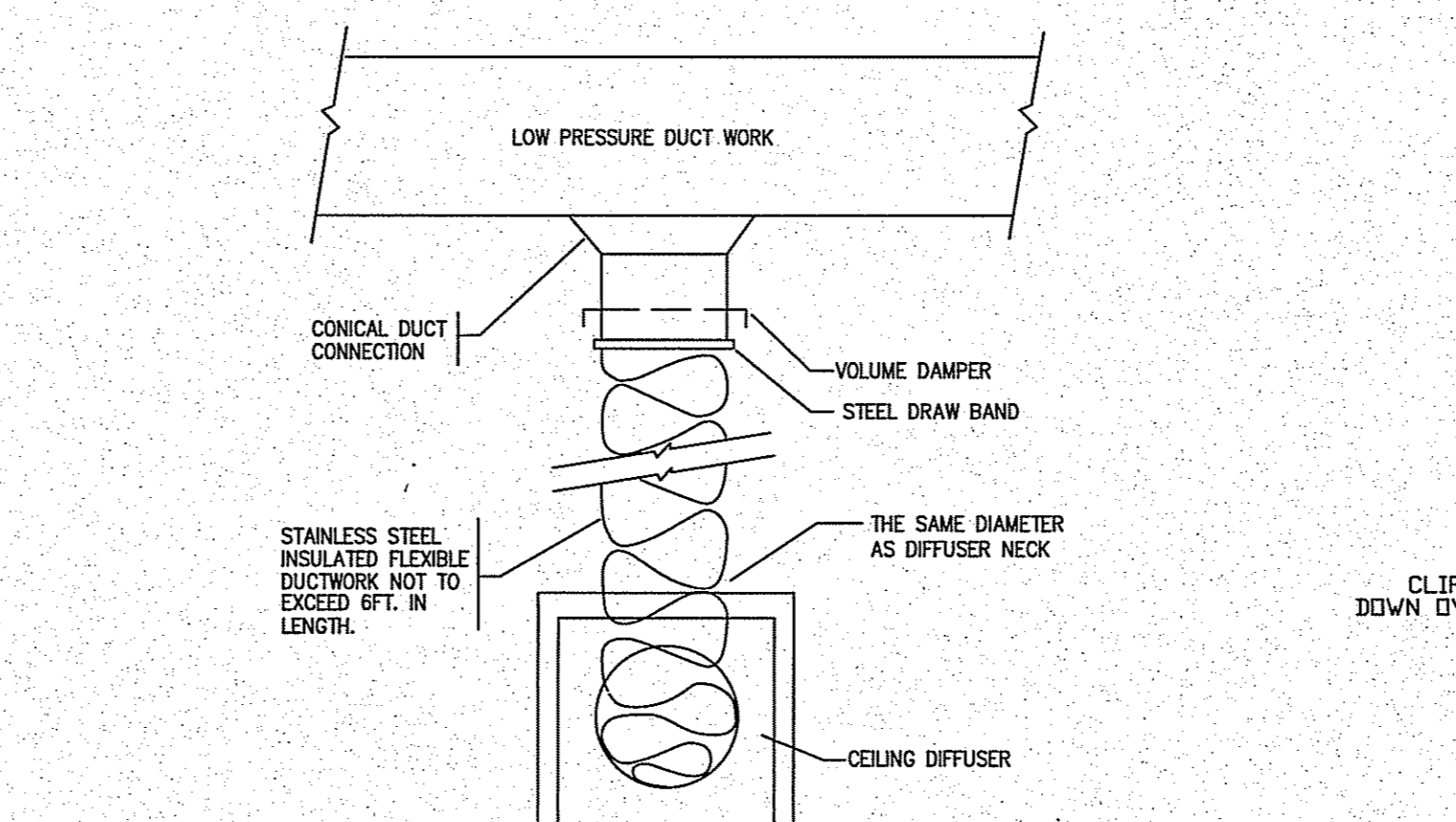
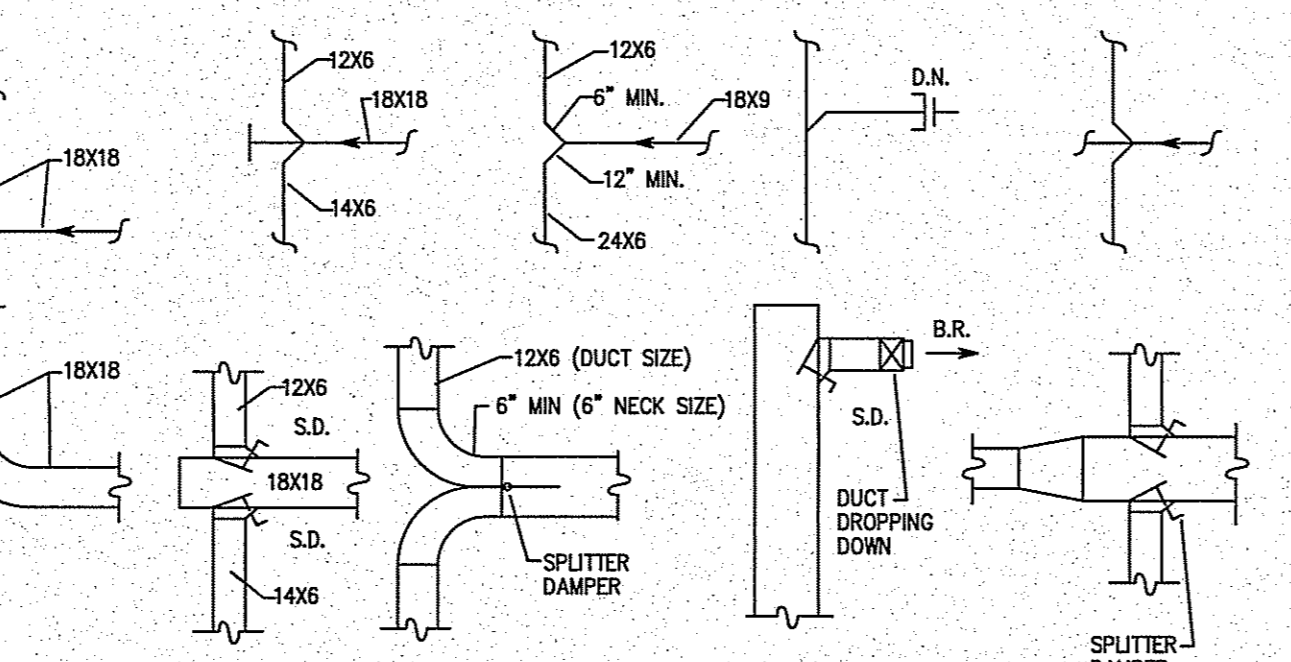
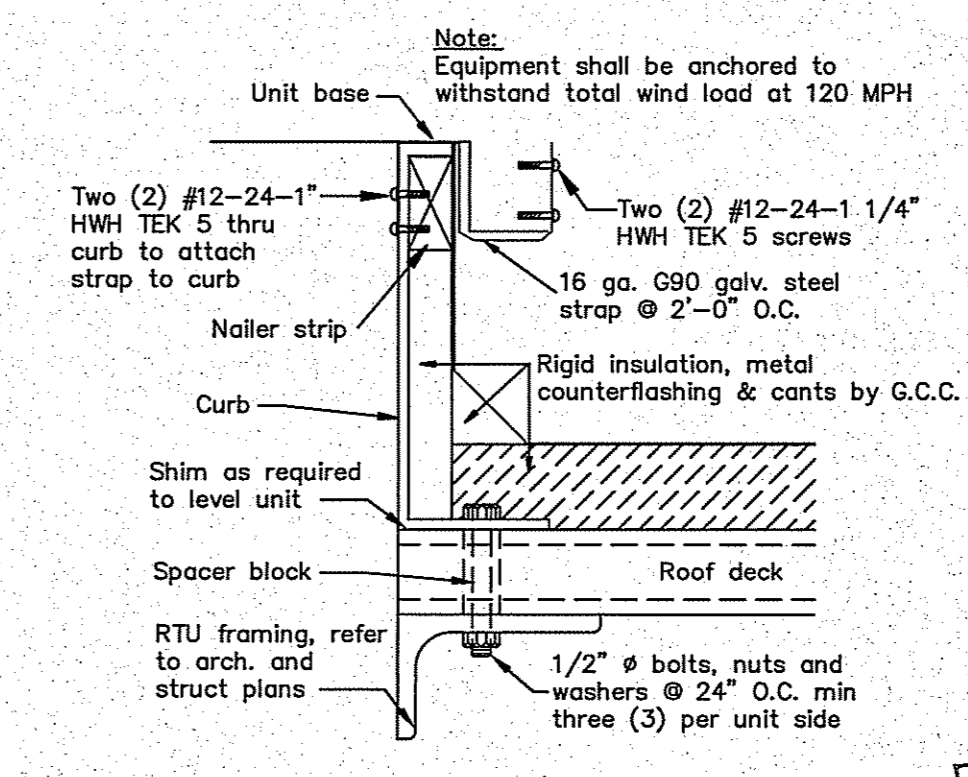
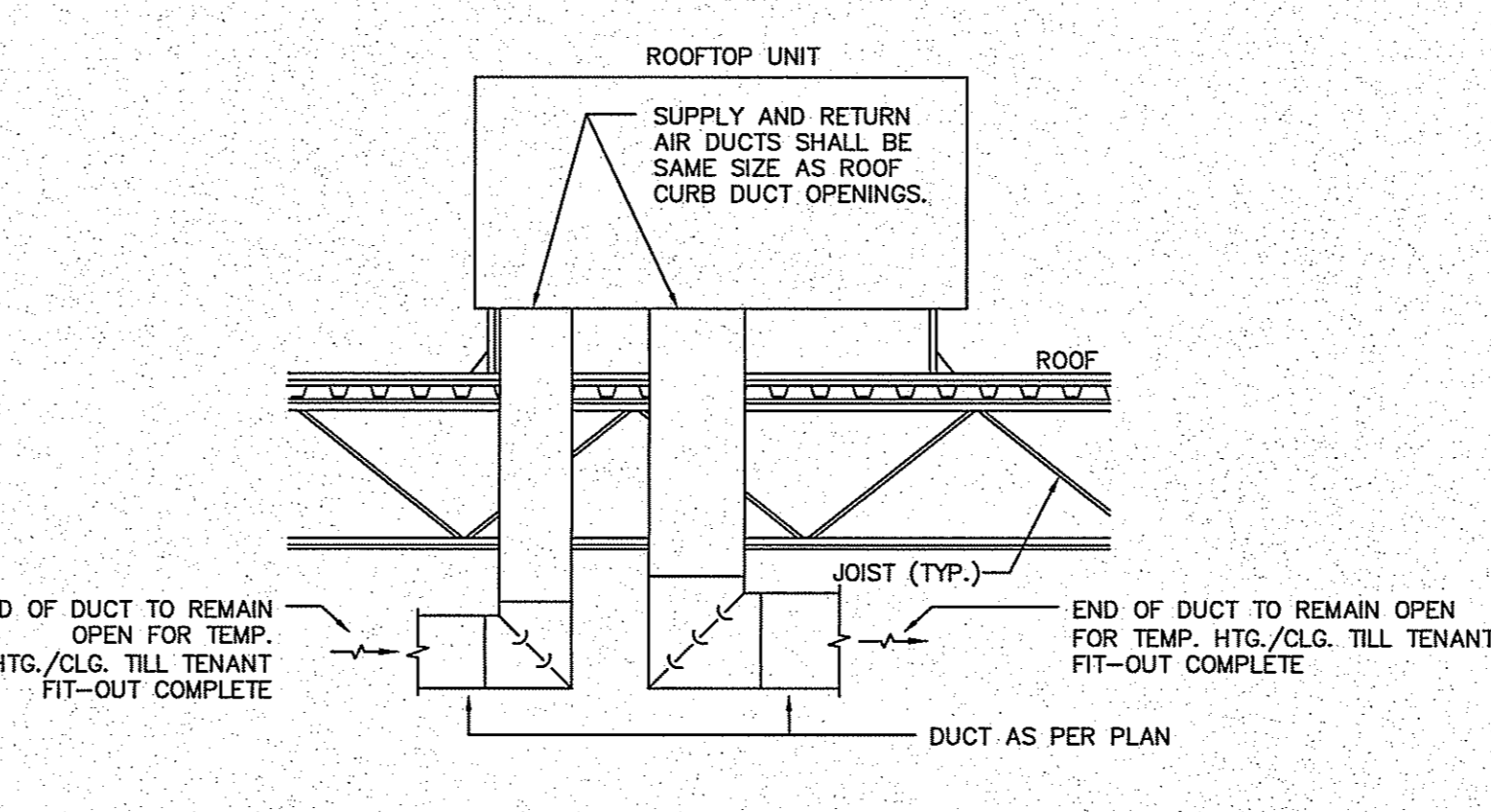
NOTES:
 VAV DIFFUSERS TO HAVE RELIEF RINGS. * NECK VELOCITY WITH RELIEF RING PROVIDE POWER MODULE AND THERMOSTAT.



- SYMBOL LIST
- CEILING DIFFUSER
 - CEILING REGISTER
 - CEILING EXHAUST FAN
 - VOLUME CONTROL DAMPER
 - THERMOSTAT
 - TEMPERATURE SENSOR
 - HUMIDISTAT
 - CARBONMONOXIDE SENSOR
 - ACOUSTICALLY LINED DUCTWORK
 - DUCTWORK
 - FLEXIBLE DUCTWORK



- NOTES:
 1. FURNISH THIS TYPE CONNECTION WHERE NOTED & WHEN SINGLE LINE DUCTWORK IS INDICATED AS THIS IS FOR LOW PRESSURE BRANCHES WITH MORE THAN 700 CFM AND MEDIUM PRESSURE BRANCHES WITH MORE THAN 1000 CFM.
 2. ONE ROD UP TO 24" DEPTH.
 3. TWO RODS UP TO 36"
 4. OVER 36" USE DUCT BRANCH WITH THROAT AND VOLUME DAMPER.
 S. T = CFMB - x W, MINIMUM 4 INCHES.



PLAN RELEASE

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drawing title:
 HVAC DETAILS & SCHEDULES

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 job number: 0972
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SPECIAL REQUIREMENTS FOR SECTIONS 15000 MECHANICAL WORK

1.1 GENERAL CONDITIONS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification sections apply to work specified in these Sections; consult them in detail for applicable instructions.
B. Manufacturers referenced in the technical specifications are for the purpose of establishing a standard of quality. Alternate manufacturers providing the same quality equipment will be given consideration by the Engineer and Architect if they are notified in writing of the time of bid.

1.2 CODES AND STANDARDS

A. All workmanship and material shall conform to the rules and regulations of the current editions of the regulating agencies listed below and regulations of the local utility companies. These rules, regulations and codes shall govern as a minimum standard. In the event of conflict with the Contract drawings or specifications requiring workmanship or material of a higher quality than required by the above mentioned rules, regulations and codes, the most stringent shall apply.

- UCC - New Jersey Uniform Construction Code.
ADA - Americans with Disabilities Act
SBCCI
2006 International Fuel Gas Code
2006 International Mechanical Code
National Standard Plumbing Code
NFPA - National Fire Protection Association
AMCA - Air Movement and Control Association, Inc.
SMACNA - Sheet Metal and Air Conditioning Contractors National Association, Inc.
ASHRAE - American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.
IPCEA - Insulated Power Cables Engineers Association
NEC - National Electrical Code of the NFPA
NEMA - National Electric Manufacturers Association
National Board of Fire Underwriters
AABC - Associated Air Balance Council
ARI - Air Conditioning and Refrigeration Institute
UL - Underwriter's Labs.
Local Utility Requirements
PDI - Plumbing and Drainage Institute
ASSE - American Society of Sanitary Engineering
ASTM - American Society for Testing Materials
The Owner's Insurance Underwriter

During this work, this Contractor shall be responsible for maintaining safety among persons in his employ in accordance with the standards set by the OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. The Engineer shall be held harmless for any accident, injury, or any other incident resulting from non conformance with these or any other standards.

1.3 QUALITY ASSURANCE

A. The Contractor shall use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of these Sections.
B. Without additional cost to the Owner, the Contractor shall provide such other labor and materials as are required to complete the work of this Section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these Contract Documents.
C. Engineering Drawings are symbolic and diagrammatic in nature and are intended to show only the general scheme, equipment involved, and the approximate locations and dimensions of the equipment. For exact locations and dimensions, the Contractor shall review all Drawings provided, including, Architectural and Structural Drawings, Reflected Ceiling Plans, Plumbing, Fire Protection, Electrical and HVAC Drawings to confirm all requirements. It is the Contractor's responsibility to confirm that all equipment will fit. Any discrepancies or inconsistencies are to be reported immediately to the Architect and the Engineer for clarification. No extras or allowances will be made for such items after bid submission.
D. Prior to bid, an examination of the site shall be made by the Contractor, who shall compare it with the Drawings and Specifications and who shall satisfy himself as to the conditions under which the Work is to be performed. No allowance shall subsequently be made for any extra expense incurred due to failure or neglect to make such examination.
E. During the execution of work under this Contract, the Contractor shall be responsible for protecting any equipment or structures in the work areas.
F. All Work shall be guaranteed to be free from leaks or defects. Any defective materials or workmanship as well as damage to the work of all trades resulting from the same shall be replaced or repaired as directed for the duration of stipulated guarantee periods.

1.4 SUBMITTALS

A. Comply with pertinent provisions of General Documents.
B. PRODUCT DATA: Within the designated time period after the Contractor has received the Owner's Notice to Proceed, submit:
1. Materials list of items proposed to be provided under this Section with sources of supply and manufacture.
2. Manufacturer's specifications, catalog cuts, and other data needed to prove compliance with the specified requirements.
3. Product substitutions are to be requested in writing, and only in conformance with General Conditions procedures. At the time of submission of cuts for review for all substitutions, clearly indicate Specification Section, provide complete information on the original product and the proposed product for review, and all deviations.
a. Any substitutions requested by a contractor are to include all costs for related changes by other contractors. It is the responsibility of the contractor requesting the change to coordinate with any other trade impacted by the substitution.
C. SAMPLES
1. When so requested by the Engineer, promptly provide samples of items scheduled to be exposed in the final structure.
2. When specifically so requested by the Contractor and authorized by the Engineer, authorized samples will be returned to the Contractor for installation on the Work.
D. SHOP DRAWINGS
1. Prepare and submit Shop Drawings, showing at a scale not smaller than 3/8" = 1' 0" all details of items to be shop fabricated, field coordinated or which interfere with existing conditions, under this Contract.
2. Clearly identify by circle and by note "DEVIATION" and by note "INTERFERENCE", in large, bold lettering, any deviations from Drawings and Specifications and any potential or unresolved interference condition and assume full responsibility for failure to do so.
3. Submittal shall confirm fabrication and installation is in accordance with recommendations and applicable codes.
E. Corrections or comments made on shop drawings and submittals during review do not relieve the Contractor from compliance with requirements of the drawings and specifications. This check will only be for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor shall be responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of all other trades, and performing his work in a safe and satisfactory manner.
F. STERILIZATION CERTIFICATE: Upon completion of water line sterilization, deliver two copies of an acceptable "Certificate of Performance" to the Engineer.

G. MANUALS: Upon completion of the work of this Section, the Contractor shall deliver to the Architect four copies of an operation and maintenance manual compiled in accordance with the provisions of General Conditions, and these Specifications.
1. Include within each manual a copy of the Project Record Documents showing all work of the Section.
2. Include detailed operating and maintenance instructions.
H. AS-BUILT DRAWINGS: concurrent with the progress of the work, the Contractor shall maintain a set of as built record sepa drawings noting in red all changes in the work. Upon completion of the work this sepa set is to be turned over to the Owner for his records.

I. All required permits, fees and inspections shall be arranged and paid for by the Contractor. The Contractor shall present to the Owner, properly signed, all required certificates of final inspection and approval before the work will be accepted as complete.

J. COORDINATION: Each Contractor shall be responsible for coordinating their work with that of all other trades. No installation shall take place without approval of onsite entity (General Contractor, Construction Manager, etc.) responsible for coordination. Any work installed without approval and which interferes with the work of other trades that have been approved shall be removed and replaced at the Contractor's expense.

1.5 INSTRUCTION

A. After all work is completed, the Contractor shall instruct employees designated by the Owner in the proper operation and maintenance of the equipment and systems installed under this Contract.

1.6 GUARANTEE

A. The Contractor shall guarantee his work for a period of one year after date of completion as witnessed by receipt of final payment. The Contractor shall promptly repair and make good any damage to the work of any other Contractor, during that period, that may be caused by defective materials or workmanship. Any defects in materials and workmanship shall be corrected by the Contractor without further expense to the Owner. He shall deliver to the Architect or Owner said written guarantee upon receipt of final payment.

1.7 DEBRIS REMOVAL

A. Routinely remove, in an orderly and efficient manner (and cart away and dispose of, by legal means, off the site and premises), all debris related to work of this Section; work site and staging areas shall be kept clear of all debris on a daily basis; permit no debris accumulation which poses any threat to life, safety or property. Non-conformance with the foregoing Contract requirements will be subject to all remedies established by the Owner and Architect.

SECTIONS 15600 HVAC SPECIFICATIONS

1. GENERAL

A. It is not intended that the plans or specifications show or state every detailed requirement of the work, but rather that they relate to work of this Section; work site and staging areas shall be kept clear of all debris on a daily basis; permit no debris accumulation which poses any threat to life, safety or property. Non-conformance with the foregoing Contract requirements will be subject to all remedies established by the Owner and Architect.
B. Before submitting proposal, examine all plans relating to this work, verify all governing conditions of the site, become fully informed as to the extent and character of the work required and its relation to existing conditions and work of others. No consideration or additional payments will be granted for any alleged misunderstanding of the materials to be furnished or work to be done, it being understood that the submission of a proposal is an agreement to all conditions referred to herein or indicated on the plans. All work shall be carefully coordinated and scheduled to prevent undue inconveniences. All work which will not be permitted during normal working hours due to scheduling, etc., shall be scheduled to be performed on overtime at no additional cost.
C. Proposal must include everything required to provide a complete installation as contemplated in the specifications and plans, whether specifically shown and specified or not. Included are all labor, equipment, materials, light, tools, scaffolding, transportation, insurance, sales tax, permits, certificates, inspections, testing equipment, etc., necessary for the complete installation of every thing described, shown or reasonably implied.
D. Review all plans and specifications relative to this work, and become familiar with work called for therein. At the conclusion of the work, be responsible for the proper mechanical installation furnished and/or installed under this contract. It is the intention of these specifications and plans to furnish enough information for the Contractor to provide and place in service a complete HVAC system and installation.
E. Bidders, before submitting proposals, shall visit and carefully examine those portions of the site and/or present buildings affected by this work so as to familiarize themselves with existing conditions and difficulties that will attend the execution of the work. These difficulties include availability of the equipment and materials.
F. Submission of a proposal will be construed as evidence that such examination and/or tests for labor, equipment or materials required because of difficulties encountered, which could have been foreseen had such examination been made, will not be recognized.

2. SCOPE OF WORK

A. The work shall include but not be limited to the following -
1. Furnish and install constant volume Rooftop units with gas heat and DX cooling.
2. Furnish and install Gas Fired Makeup Air unit to provide ventilation air to the indoor Soccer field.
3. Furnish and install all ductwork, duct insulation, acoustic lining, and air outlets as shown on the drawings or as specified.
4. Furnish & install Soccer Field exhaust fan and toilet exhaust fan.
5. Furnish and install volume dampers as shown on the drawings and/or as required to balance system.
6. Provide fire dampers where indicated or required by code whether or not shown on drawings (in 2 hour rated walls)
7. Furnish and install all necessary hangers and supports.
8. Furnish & install all new roof curbs on roof.
9. Furnish & install electric baseboard heaters.
10. Furnish and install a complete electronic automatic temperature control system including all wiring as specified.
11. Engage the services of an approved air balancing company to balance the systems and issue a water and air balancing report.
12. Alterations, removals and disposals.
13. Cutting and rough patching.
14. Obtaining and paying for all necessary permits, inspections and certificates required in connection with this work.
15. Guarantee all work for a period of one year from the final date of acceptance.
16. Controlled inspection if required by Local or State authorities.
17. Provide req'd. vibration isolation and seismic restraints for all mech. equipment & systems specified and as required by the International Building Code.
18. As built drawings.

3. WORK NOT INCLUDED

A. The following items of work shall be provided under other contracts:
1. Finished patching and painting.

4. SHOP DRAWINGS

A. Submit shop drawings covering the following items:
1. Air outlets.
2. Hangers and supports.
3. Sheetmetal ductwork, dampers, fire dampers.
4. Air balancing report.
5. All HVAC equipment specified on the schedules.
6. Roof Curbs
7. Insulation
8. Vibration Isolation and Seismic Restraints.
9. Automatic Temperature controls.

5. INSTALLATION

A. All work and materials shall be provided as shown and herein specified and shall be in accordance with the latest applicable edition of the New Jersey 2006 International Building Code, 2006 International Mechanical Code and all authorities having jurisdiction.
B. This Contractor shall provide proof of adequate insurance to hold Owner, Architect, and Engineer harmless for any liability claims arising from performance of his work.
C. This Contractor shall take all necessary precautions to prevent unnecessary damage to building structure and protect building contents and occupants.
D. For exact location of partitions, soffits, etc., refer to the architectural drawings.
E. The work under this contract shall be performed simultaneously with work of other trades, so as not to delay the overall progress of work. The work of all trades shall be phased in accordance with phasing notes on the drawings.
F. The systems shall be left in perfect working order upon completion of work.
G. All ductwork gauges, and installation shall conform to the latest edition of SMACNA standards.
H. This Contractor shall not interrupt any of the services of the existing building nor interfere with the services in any way without the expressed permission of the Owner. Such interruptions and interferences shall be made as brief as possible and only at the time stated by the Landlord.
I. Unnecessary noise shall be avoided at all times and necessary noise shall be reduced to a minimum.
J. This Contractor shall arrange the work continuously including over-time, if required, to assure that service will be shut-down only during the time actually required to make the necessary connections to existing work.
K. This Contractor shall give ample written notice in advance to the Owner of any requested shutdowns.
L. The breaking into existing work shall be done only after approval has been received from the Owner.
6. TESTS AND BALANCING
A. The work of this Contractor shall include the furnishing of all testing instruments, gauges, and other equipment required for necessary tests, required by law, rules and regulations and as specified.
B. Hotwater piping shall be tested hydrostatically at 100 psi for 4 hours. No visible leaks shall occur during test period.
C. Provide all other test required by Building Department, Fire Department and all other public agencies having jurisdiction.
D. Tests shall be performed in the presence and to the satisfaction of the Architect and such other parties that may have legal jurisdiction.
E. Operate the installation after completion for period necessary to make all required adjustments for automatic controls, air outlets and fans, until all performance characteristics are met.
F. Engage the services of approved air balancing company to balance all existing & new systems and issue an air balancing report for engineer's approval. The report should be certified by a New Jersey State registered professional engineer and the test should be performed by a person having a minimum of 5 years experience in testing and balancing air systems.
G. Upon completion of the installation, the air balance and testing subcontractor shall make the necessary adjustments to balance the system. Provide any extra manual volume damper required for proper air balance.
H. At the completion of the test, the Contractor shall furnish the Architect seven copies of the final test report, these copies shall be complete with single line diagrams and all required traverse airflow readings at main ducts and branches.

7. INTERNAL ACOUSTIC LINING

A. Furnish and install sound absorptive lining in ductwork for locations and lengths as indicated and/or hereinafter specified. All soundproof material, installation and arrangement, shall be as authorized. Where ducts are acoustically lined, insulation shall be omitted for extend of acoustic lining. Dimensions noted for lined ducts are inside clear dimensions. Duct sizes shall be increased for liner.
B. Sound Absorbent Duct Lining for low pressure ductwork - Furnish and install as herein specified and/or shown on the drawings (except where otherwise noted) 2" or 1" thick as indicated herein or on the drawings 1-1/2 lb. density, fibrous glass duct lining meeting the requirements of NFPA 90A.
C. Liner shall be adhered to all interior sides of duct with minimum 100% coverage of fire-retardant adhesive similar to Benjamin Foster 4 and with weld pins and washers or equivalent mechanical fastening starting 3" from edges and sides, 12" on center all sides. Minimum one row per side for duct size of 12" or less. Mechanical fasteners shall be toward air stream. Before installing liner, seal all butting edges and find edges with heavy coat of adhesive to seal off air between lining and duct. All exposed edges of lining shall be installed with sheet metal nosing 1-1/2" wide, two gauges heavier than duct. Installation shall be suitable for duct velocities up to 3,500 fpm. Low pressure duct lining shall be provided where specified and/or where shown and noted on the drawings.
D. Duct sizes indicated on drawings are clear inside dimensions. Increase sheet metal sizes as required to accommodate thickness of acoustic lining.
E. The following ductwork shall be acoustically lined whether or not shown on drawings.
1. All supply and return ductwork from all rooftop units not less than 20 ft. from supply fan discharge and 20 ft. from return fan inlets shall have 1" thick lining.
8. SHEET METAL WORK
A. All rectangular ductwork, unless otherwise noted, shall be built from galvanized sheet steel and thoroughly braced and stiffened. All ductwork shall be constructed as low pressure ductwork (2" w.g.).
B. The construction for sheet metal ducts shall be made in accordance with recommendations of ASHRAE Guide, Latest Edition, or as per SMACNA Manual. All branches and take-offs shall have volume dampers.
C. The first 15 ft. of supply and return ductwork from rooftop HVAC units shall be 18GA.
D. Contractor shall seal all the ductwork at joints with SM EC-800.
E. Provide volume dampers at all branch take offs.

9. DUCTWORK INSULATION

A. Insulation for Concealed Duct
1. The following ductwork shall be insulated (except where acoustically lined) SERVICE THICKNESS Supply air 1-1/2" with vapor barrier
2. Except where otherwise noted, all concealed rectangular and round ductwork shall be covered with flexible duct insulation with vapor barrier and of the thickness indicated below.
3. Flexible duct insulation with vapor barrier shall be 1 lb. per cu. ft. density glass fiber with a maximum K factor of 0.29 at 75 Deg. F. mean temperature, with reinforced foil-faced, flame resistant kraft vapor barrier.
4. Insulation with vapor barrier shall be duct wrap insulation FRK-25, type 100 as made by Owens-Corning or Manville Microtite with FRK vapor barrier facing or standard duct insulation as made by CGG with FRK facing.
5. Adhere insulation to duct with Foster fire resistant vapor barrier adhesive or approved equal and joints without tabs shall be firmly sealed with aluminum foil tape adhered with some adhesive. Secure insulation with 18 gauge corrosion resistant wire spaced not more than 18 inches on center.
6. Additionally, secure insulation to bottom of rectangular ducts over 24" wide with welded pins or stick clips on 18" centers.
7. All ductwork exposed on roof shall be insulated and weather proofed with .016 smooth aluminum facing by Childers with baked enamel finish.

10. CONTROLLED INSPECTION

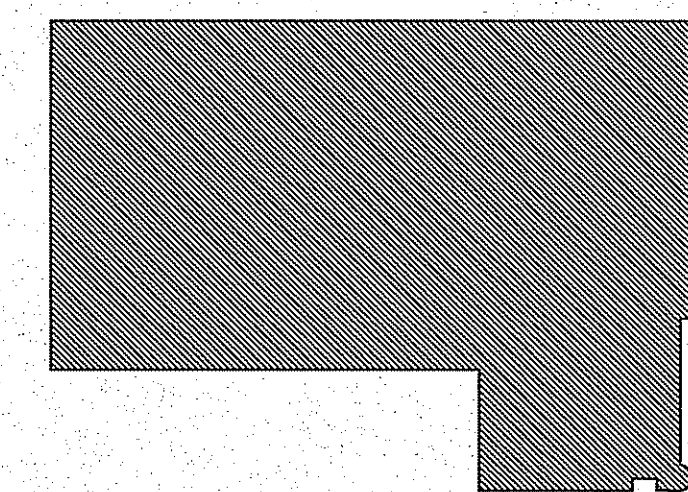
A. HVAC Contractor shall engage and pay for the services of a Virginia State registered professional engineer to perform controlled inspection of the mechanical installation and ventilation system, if required by the Borough of Oakland, N.J. File and pay for all required forms.
11. NOISE CONTROL
A. All installation shall be in a manner that the N.C. level in the space shall not exceed 35 dBA. Noise levels above this limit will not be acceptable and should be corrected by this Contractor at no expense to the owner.
12. RECORD DRAWINGS
A. Maintain a careful and complete record of all items installed and upon completion of work, deliver to the owner a complete set of (producible) as-built drawings.
13. GUARANTEE
A. The Contractor guarantees by his acceptance of the contract that all work installed will be free from any and all defects for a period of one year from date of completion and acceptance of work.
14. AUTOMATIC TEMPERATURE CONTROLS (All wiring by HVAC contractor)

A. SEQUENCE OF OPERATIONS BASED ON LENNOX "L-Series" UNITS

RTU-1 THRU 3 are gas fired rooftop units.
1. Units are to operate off programmable thermostats. Units shall be automatically started/stopped by means of a Lennox Touchscreen Commercial Thermostat.
2. The thermostats shall be operated in the Auto Changeover mode
3. Humiditrol Units shall maintain a space humidity level of 50%. The remote humidity sensor shall be located in the space. The L-Series Unit's Integrated Modular Controller (IMC) shall control the units dehumidification function.
4. During "Occupied" period the fan shall operate constantly and the Outdoor Air Damper shall go to minimum position. In the "Unoccupied" periods the fan shall cycle with cooling and heating demands. Outdoor Air Damper on recirculating units shall remain closed. During occupied periods the Outdoor Air damper on RTU's to be set to 700 cfm each. The CO2 sensors located in the space shall override minimum position. Minimum position override shall start at 500 ppm CO2 and shall have the Outdoor Air Damper at the scheduled ventilation rate when the CO2 levels reach 1000 ppm
5. When the unit is in "Cool" mode the compressors will cycle to meet occupied cooling set point of 74°F and an unoccupied cooling set point of 78°F
6. When the unit is in "Heat" mode the integral Gas Furnaces will cycle to meet occupied heating set point of 70°F and an unoccupied heating set point of 60°F
7. When the thermostat is not calling for heating or cooling (Ventilation Mode) the gas heat in the RTU shall temper outside air and meet discharge air heating set point of 62-70°F. The unit will maintain a fresh air cooling setpoint of 73-80°F via the internal unit controller using a field installed discharge air probe.
8. Units must be programmed for morning warm up a minimum of 1 hour prior to occupy mode.
9. The factory installed comparative enthalpy sensors shall provide inputs for economizer control on units with economizer cycle based upon comparison of the enthalpies of the return and outdoor air streams.
10. The Enthalpy Control will enable economizer mode for free cooling.
11. MAU-1 (100% O.A.) shall be interlocked with EF-2 and manually started and stopped via "occupied/unoccupied" switch. Unit shall be provided with it's own controls, this unit shall be single zone unit and duct t'stat shall modulate the units gas heating to achieve set point. Upon unit shut down the outside air damper shall close completely.

B. EXHAUST FAN EF-1 (Toilet Exhaust)

1. Fan shall be on same schedule as RTU-2.
D. ELECTRICAL WIRING AND MATERIALS
1. Install, connect and wire the items included under this Section. This work includes providing required conduit, wire, fittings, and related wiring accessories. All wiring shall be installed in conduit in accordance with the Division 16 specifications.
B.B. Provide wiring between thermostats, aquastats and unit heater motors, all control and alarm wiring for all control and alarm devices for all Sections of Specifications.
D.D. Provide status function conduit and wiring for equipment covered under this Section.
E.E. Provide conduit and wiring between the BMS panels and the temperature, humidity, or pressure sensing elements, including low voltage control wiring in conduit.
3. All wiring to be compliant to local building code, the NEC and Division 16 specifications.
4. Provide electrical wall box and conduit sleeve for all wall mounted devices.
5. All exposed wiring not installed above accessible hung ceilings shall be installed in conduit.



KEY PLAN - IST FL.



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MA #14827 CT #14788 PA #P070588 OH #0561620
Minn #0187499 Mass #35615-HV, #33609-E
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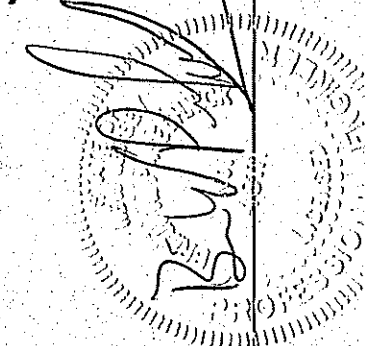


Table with 2 columns: NO, ISSUE DATE. Row 1: 1, 03.12.10, ISSUED FOR BIDDING

Poskanzer Skott Architects logo and contact information: 550 North Maple Ave, Ridgewood, NJ 07450. Tel: 201-445-2322, Fax: 201-445-3053, E-mail: poskott@psaia.com

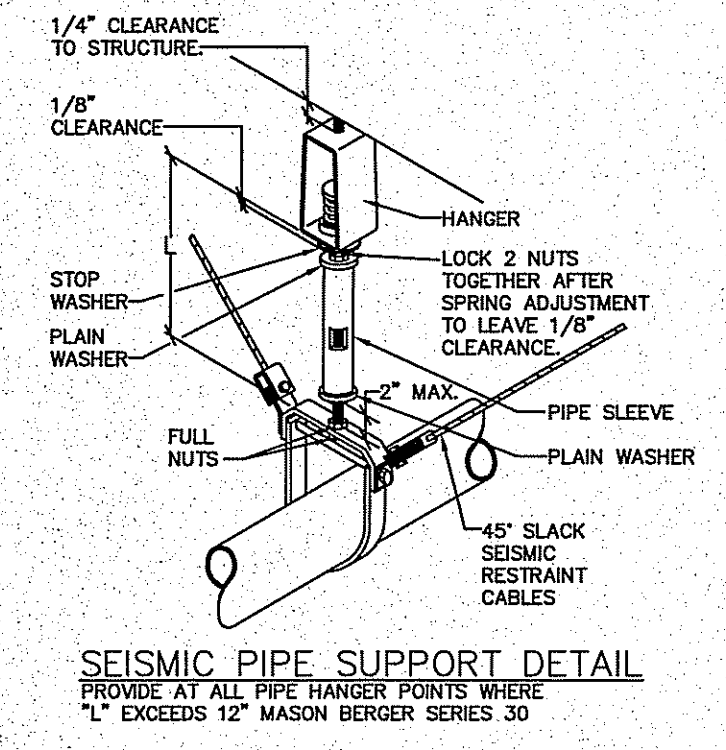
Ultimate Sports logo and contact information: 12 WRIGHT WAY, OAKLAND, NEW JERSEY 07436. TEL: 201-447-9998, FAX: 201-447-9998

drawing title: HVAC SPECIFICATIONS

PLAN RELEASE stamp with fields for BUILDING, ELECTRICAL, PLUMBING, FIRE, and WIRING, each with a signature line and date field.

Scale: AS NOTED, Job number: 0372, drawing number: H-3, date: 03.12.10, dwg. of file #

NJ 05915
NY 011938
PA B 7813
CT 4823
AZ 12822



SEISMIC PIPE SUPPORT DETAIL
PROVIDE AT ALL PIPE HANGER POINTS WHERE
"L" EXCEEDS 12" MASON HANGER SERIES 30

WITH INCOMPRESSIBLE INSULATING BLOCK AT HANGER

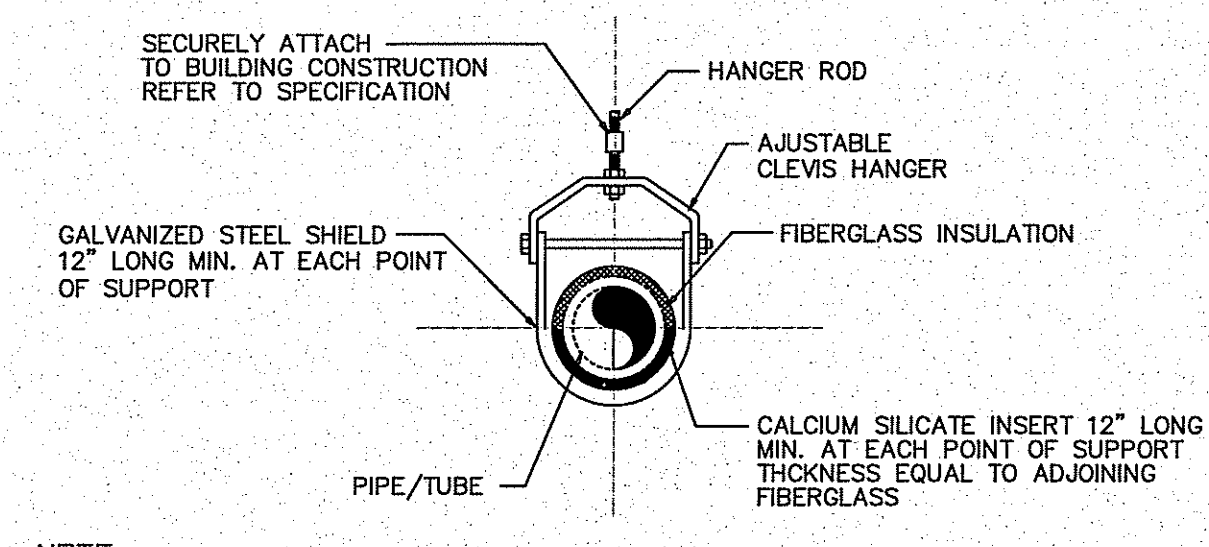
PIPE DIAMETER	SHIELD LENGTH	SHIELD THICKNESS USG
UP TO 3"	6"	18
4" TO 6"	8"	16
8" & LARGER	12"	16

WITHOUT INCOMPRESSIBLE INSULATING BLOCK AT HANGER

PIPE DIAMETER	SHIELD LENGTH	SHIELD THICKNESS USG
UP TO 3"	12"	18
4"	15"	16
5"	18"	16
6"	21"	16
8" & LARGER	24"	14

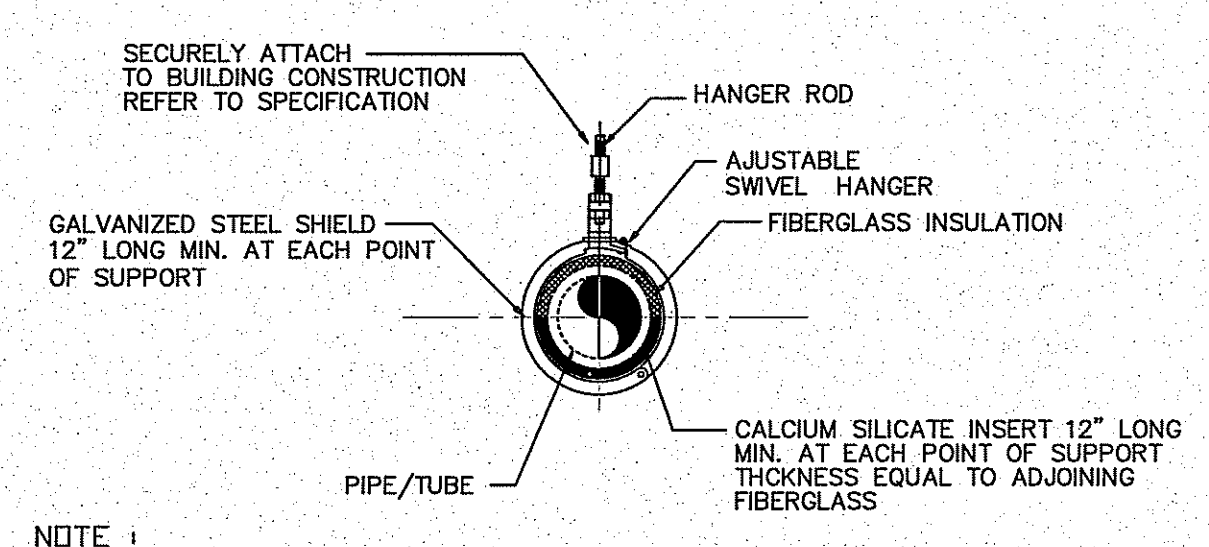
NOTES:
HANGER ROD & INSERT SHALL BE DIPPED IN ZINC CHROMATE PRIMER PRIOR TO INSTALLATION

TYPICAL INSULATED PIPE SUPPORT
NOT TO SCALE



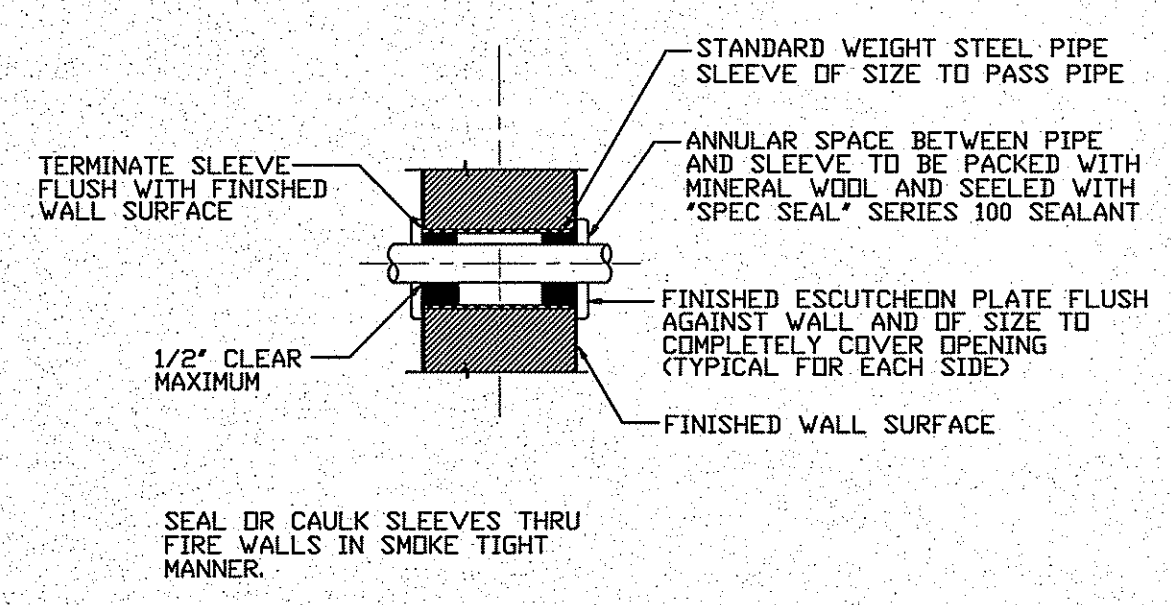
NOTE 1:
1- USE THIS DETAIL WHEN SUPPORTING INSULATED PIPING AND TUBING LARGER THAN ONE (1) INCH

ADJUSTABLE CLEVIS PIPE SUPPORT
NOT TO SCALE

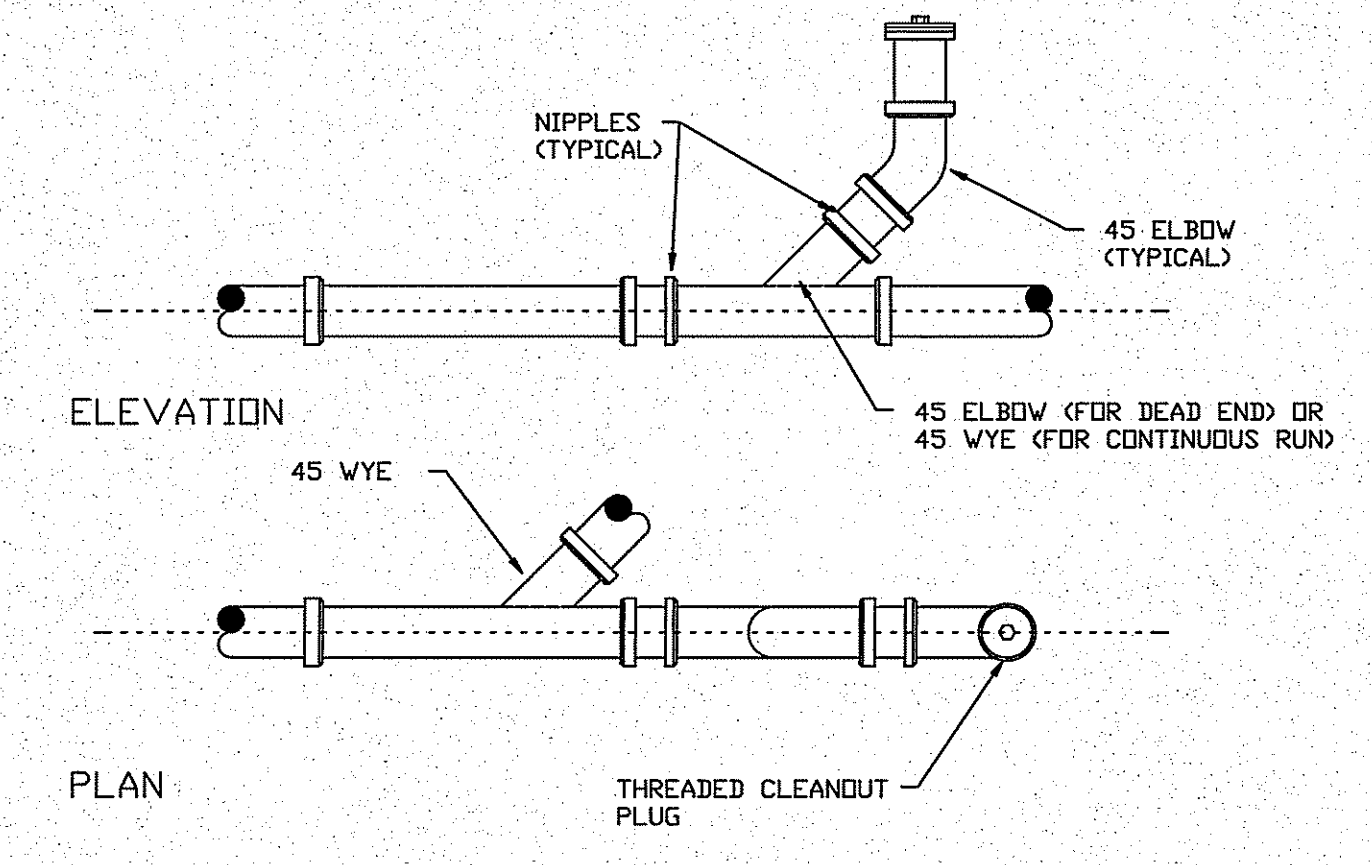


NOTE 1:
1- USE THIS DETAIL WHEN SUPPORTING INSULATED PIPING AND TUBING ONE (1) INCH SMALLER

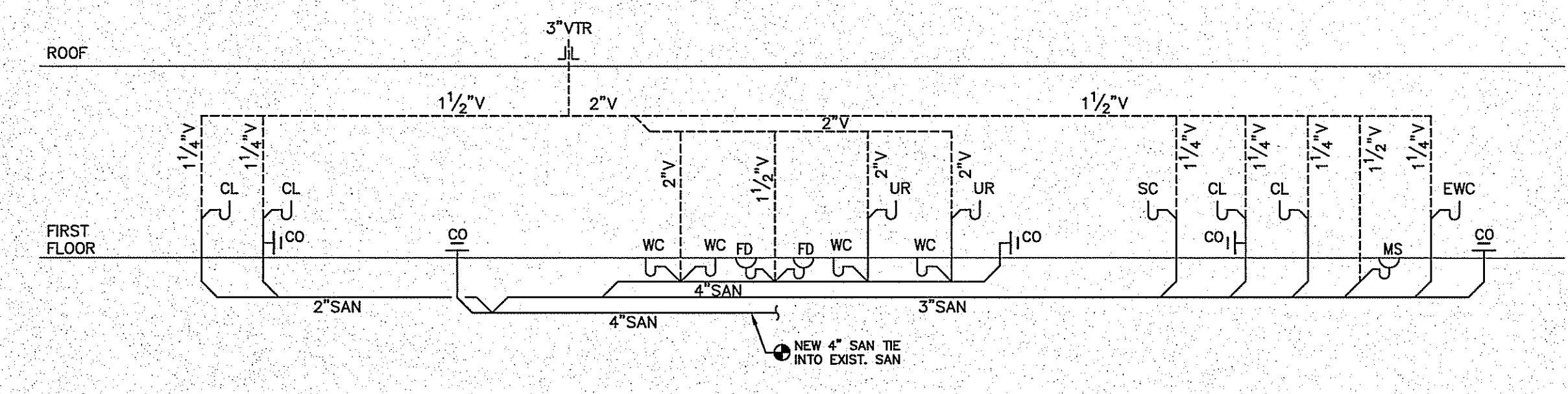
ADJUSTABLE SWIVEL PIPE SUPPORT
NOT TO SCALE



DETAIL OF PIPE PENETRATING THRU FIRE RATED WALL/FLOOR/CEILING
NOT TO SCALE



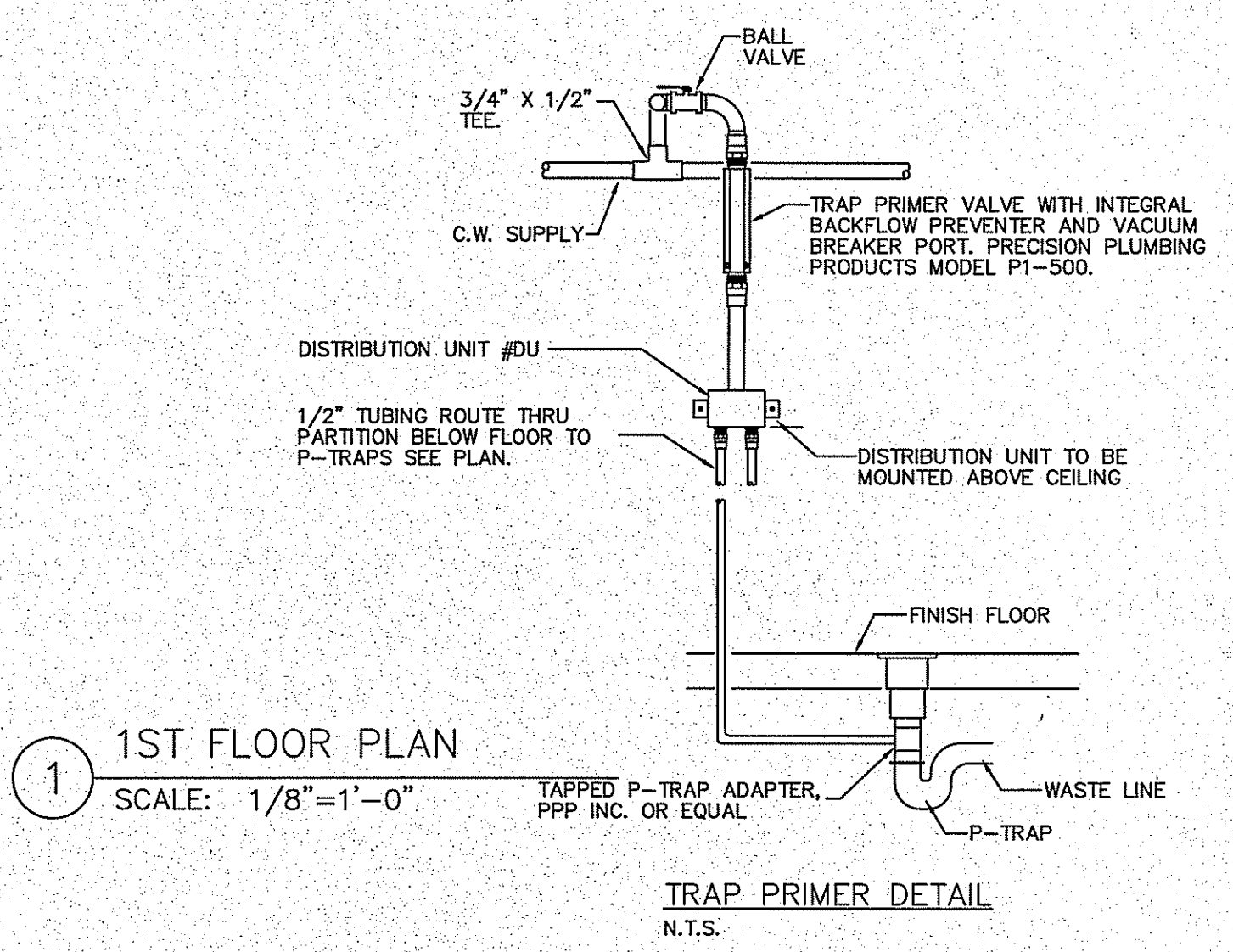
SEWER AND ROOF DRAIN CLEANOUT
NOT TO SCALE



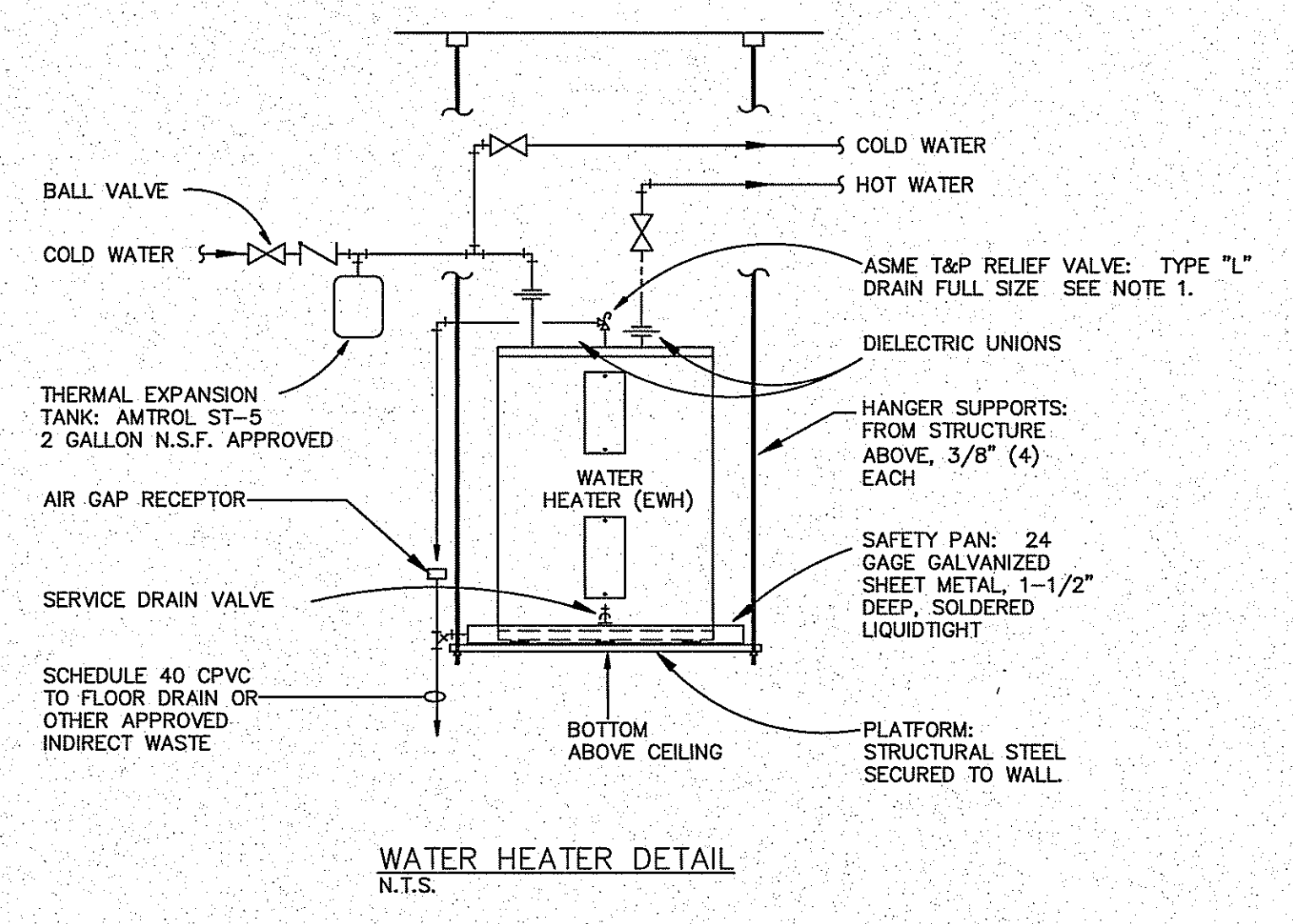
SANITARY RISER DIAGRAM
N.T.S.

SYMBOL	FIXTURE/ITEM	MODEL	VALVE/FAUCET	FIXTURE CONNECTIONS			COMMENTS	
				HOT WTR	COLD WTR	DRAIN		
FHWC	FLOOR MOUNTED HANDICAPPED WATER CLOSET	KOHLER HIGHCREST K-4302 W/ K-4670 SEAT	SLOAN 111-SMO BATTERY POWERED FLUSHOMETER	-	1"	3"	2"	
FWC	FLOOR MOUNTED STD WATER CLOSET	KOHLER WELLCOME K-4350 W/K-4670 SEAT	SLOAN 111-SMO BATTERY POWERED FLUSHOMETER	-	1"	3"	2"	
UR	URINAL	KOHLER BARDON K-4960 ET	SLOAN 186-1.0-SMO BATTERY POWERED FLUSHOMETER	-	3/4"	2"	1 1/2"	REFER TO ARCH. FOR MOUNTING HTS.
CL	COUNTER-MOUNTED LAVATORY	KOHLER PENNINGTON K-2196-1	SLOAN OPTIMA EBF-165-4-BOT BATTERY POWERED HAND WASHING FAUCET	1/2"	1/2"	1 1/2"	1 1/4"	W/ THERMOSTATIC MIXING VALVE & ET-460-A STRAINER, REFER TO ARCH. FOR MOUNTING HTS.
FD	FLOOR DRAIN	JR SMITH 2005-A	PRECISION PLUMBING PRODUCTS MODEL P1-500	-	1/2"	2"	1 1/2"	
MFD	FLOOR DRAIN	JR SMITH 2210 MEDIUM DUTY W/ SEDIMENT BUCKET	PRECISION PLUMBING PRODUCTS MODEL P1-500	-	1/2"	4"	1 1/2"	
SC	SINGLE COMPARTMENT SS SINK	ELKAY L8AD2522 8" DEEP BOWL	LUTEF100 SINGLE HANDLE 1.5 GPM, NO SPRAY	1/2"	1/2"	1 1/2"	1 1/4"	
MS	MOP SINK	FLORESTONE MSR-24x24	SPEAKMAN MR371 WALL MOUNT & MR-370 HOSE & CLAMP	1/2"	1/2"	3"	1 1/2"	
WF	WALL MOUNT FAUCET	-	SPEAKMAN SC-5814 WALL MOUNT	1/2"	1/2"	-	-	
EW	ELECTRIC WATER COOLER	ELKAY COOLER/BOTTLE FILLING STATION LZ8WSVRSK	-	-	1/2"	1 1/2"	1 1/4"	
EMH	CEILING ELECTRIC WATER HEATER	RUUD EGSP20, 20 GAL 3 KW, 277V	-	3/4"	3/4"	-	-	

NOTES:
1. COORDINATE ALL COLORS & FINISHES WITH ARCHITECT
2. PROVIDE McGUIRE PRO-WRAP INSULATING KIT ON TRAPS AND DOMESTIC WATER SUPPLIES TO ALL LAVATORIES.



TRAP PRIMER DETAIL
N.T.S.



NOTE:
1. T & P RELIEF VALVE PIPING SHALL BE ROUTED TO INDIRECT WASTE. PROVIDE AIR GAP NOT LESS THAN TWICE THE DIAMETER OF DRAIN SERVED.

WATER HEATER DETAIL
N.T.S.

- PLUMBING GENERAL NOTES:
1. RUN HOT AND COLD WATER LINES DOWN IN WALLS OR CHASES - BRANCH TO FIXTURES AS REQUIRED.
 2. ALL DOMESTIC WATER LINES ABOVE GROUND, TYPE "L" COPPER UNLESS NOTED OTHERWISE.
 3. INSULATE ALL HOT AND COLD WATER LINES ABOVE GROUND AND CEILINGS WITH 1" THICK GLASS FIBER INSULATION WITH A FACTORY APPLIED VAPOR BARRIER UNLESS NOTED OTHERWISE.
 4. INSTALL STOPS ON EACH WATER LINE AT EACH FIXTURE.
 5. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE LOCAL CODE OFFICIAL PRIOR TO EXECUTION OF ANY WORK OR PURCHASE OF ANY EQUIPMENT.
 6. INSTALL PIPING AFTER DUCTWORK HAS BEEN PLACED.
 7. COORDINATE ALL WORK WITH THAT OF OTHER TRADES; ELECTRICAL, ETC.
 8. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL ARRANGEMENT OF PIPING AND EQUIPMENT.
 9. PROVIDE PRESSURE REDUCING VALVES ON DOMESTIC WATER LINES AS REQUIRED COORDINATE WITH LOCAL UTILITIES.
 10. PROVIDE WATER HAMMER ARRESTORS IF NECESSARY. NO SITE BUILT ARRESTORS ARE ALLOWED.
 11. PROVIDE ALL REQUIRED CUTTING AND TRENCHING OF EXISTING FLOOR, BACKFILL AND PATCH FLOOR TO MATCH EXISTING.
 12. EXACT LOCATIONS OF ITEMS NOTED AS BEING EXISTING SHALL BE VERIFIED IN THE FIELD.
 13. APPROXIMATE LOCATIONS OF EXISTING HW, CW, HWR, VENTS, WASTE, GAS, AND STORM WATER PIPING IN CEILING, WHERE REQUIRED IN ORDER TO ACCOMMODATE NEW WORK, RAISE OR LOWER OR RELOCATE PIPING TO SUIT NEW CONDITIONS.
 14. OFFSET VTR AT LEAST 5'-0" FROM EXTERIOR WALL BEFORE PENETRATING ROOF.
 15. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER CONSTRUCTION OF ANY PART OF THE WORK SHALL BE INCLUDED AS IF THEY WERE INDICATED ON THE DRAWINGS.

PLUMBING LEGEND

---	4" SAN ROUGHING IN FLOOR
—	COLD WATER PIPING
—	EXISTING COLD WATER PIPING
—	HOT WATER PIPING
—	NEW SAN PIPING
—	EXISTING SAN PIPING
—	VENT PIPING
—	EXISTING VENT PIPING
—	NEW GAS PIPING
—	EXISTING GAS PIPING
⊘	VALVE
⊘	CLEAN OUT (FLOOR MOUNTED)
⊘	CLEAN OUT (WALL MOUNTED)
—	NEW CONNECTION TO EXISTING
—	ELBOW UP
—	ELBOW DOWN

PLAN RELEASE

BUILDING	SIGNATURE	DATE
ELECTRICAL	SIGNATURE	DATE
PLUMBING	SIGNATURE	DATE
FIRE	SIGNATURE	DATE
ZONING	SIGNATURE	DATE

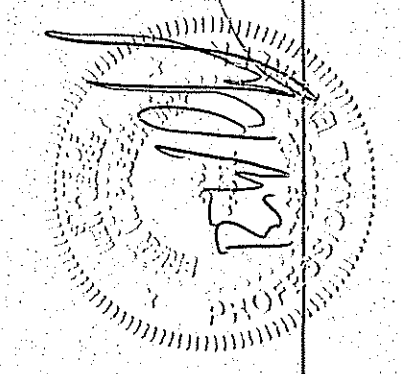
KEY PLAN - 1ST FL.

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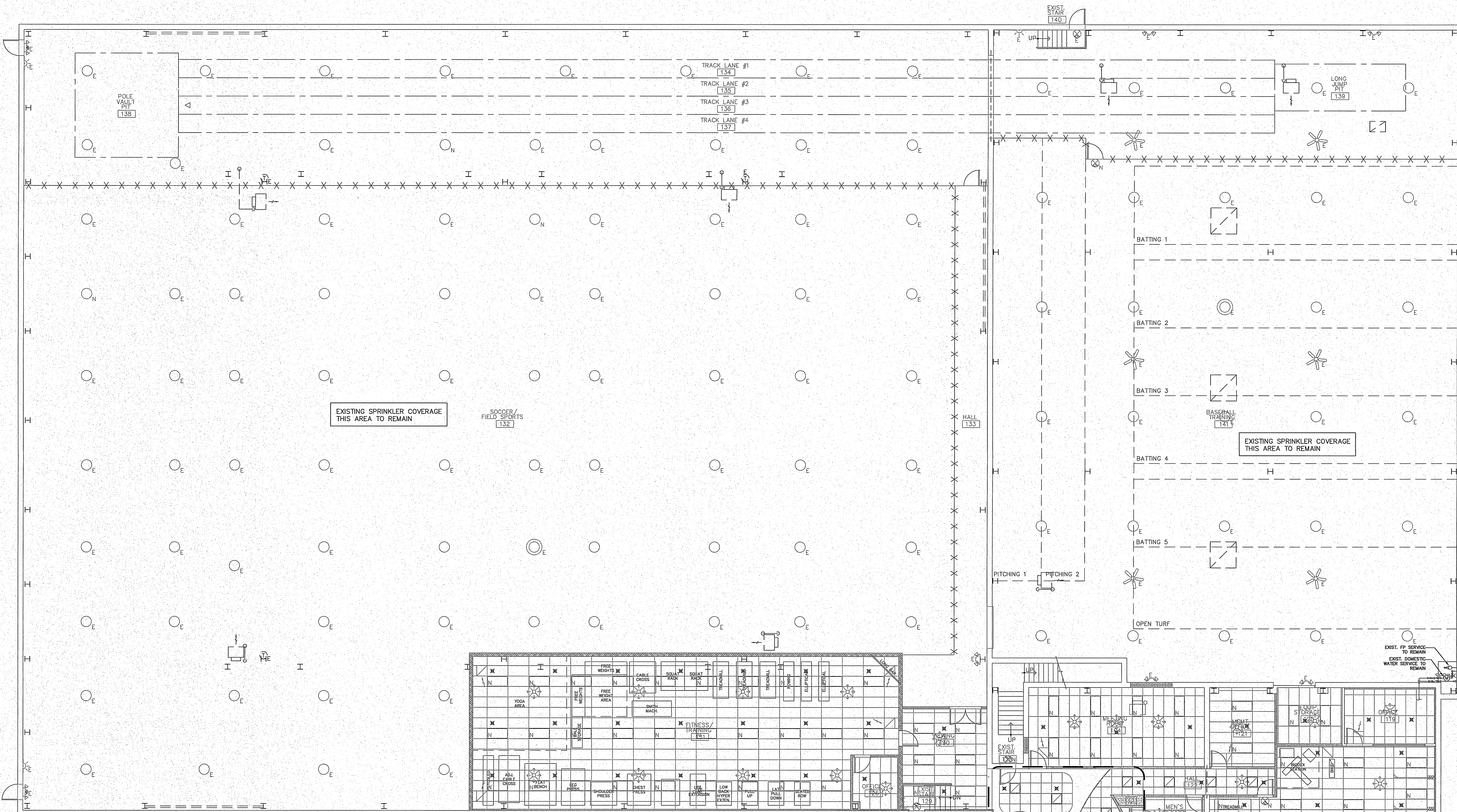
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client:
Ultimate Sports
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 OAKLAND, NEW JERSEY 07436
 TEL 201-447-9999
 FAX 201-447-9998

drawing title:
PLUMBING DETAILS

scale:
 AS NOTED
 job number:
 0972
 drawn by:
 GB
 checked by:
 MA
 date:
 03.12.10
 drawing number:
P-2
 dwg. of
 file #
 NJ 05915
 NY 011938
 PA B 7813
 CT 4823
 AZ 12822



1 1ST FLOOR PLAN
SCALE: 1/8"=1'-0"

FIRE PROTECTION SPECIFICATIONS

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Work includes: Provide design, labor, materials, equipment, plant, tools and management services for proper and complete installation of an automatic wet pipe fire protection system, for all areas, as specified herein. All work shall be as required for a complete and proper installation in accordance with requirements of the Fire Rating Bureau, the Owner's Insurance Underwriter, and governmental agencies having jurisdiction. Without restricting the generality of the foregoing, the following items of work are included:

1. Prior to design of system, coordinate with local water company and fire marshal to determine pressure, flow, location of service to building, and capacity of service.
2. Redesign of existing sprinkler system including new drops and rearrangement of sprinkler heads and addition of new sprinkler heads as required, based on light hazard.
3. Securing or fabrication of all system components as required for a complete installation; including piping, valves, fittings, hangers and supports, sprinkler heads, and guards connected to building alarm system and testing stations.
4. All installation and testing as required.
5. Secure and pay for all required approvals, (including insurance underwriter), and permits.
6. Scaled and sealed drawings for final approval.
7. Access doors where required for easy access to all equipment.
8. Removal of debris related to this work.
9. Coordinate with all other trades.

PART 2 - PRODUCTS

2.1 DESIGN

A. Provide all Fire Protection Sprinkler work required to provide a complete wet pipe fire protection system, including drawings signed and sealed by a New Jersey Licensed Professional Engineer.

B. Contractor is responsible to ensure that the system design is within the water supply limitations.

C. The Fire Protection Contractor shall obtain, provide and pay for all permits required to make the installation.

2.2 MISCELLANEOUS INSTRUCTIONS:

1. Provide sprinkler head guards on all pendant sprinkler heads located within 7'-6" of any floor. Install sprinkler head guards in all areas where sprinklers are susceptible to accidental damage.
2. Sprinkler heads and cover pipes, wrench and collars shall be provided by Contractor, in the quantities and locations as required by applicable NFPA Standards.
3. Tests of underground and inside piping, including alarm devices and detection systems, must be completed. A Contractor's materials and test certificate must be completed and forwarded to the serving Factory Mutual District Office. Refer to NFPA No. 24 for proper testing of underground joints, especially when the system is to be installed. Hydrostatic and flush testing should include riser laterals and hydrant leads.
4. Sprinkler heads should be tested on a recent water test (preferably in the year which the system is to be installed).
5. Inspector test connections and riser drops should be installed on each sprinkler system and piped to discharge out of building.
6. Product data: Within 14 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - a. Material list of items proposed to be provided under this Section.
 - b. Design drawings, stamped as having been approved by the Fire Rating Bureau having jurisdiction, and Owner's insurance carrier, showing hydraulic calculations, the complete overhead sprinkler system and indicating coordination with HVAC equipment, lighting fixtures, and beams.
 - c. Details and sections as required to clarify the design.
7. Details of hanger assemblies.
8. Details E/O bracing where required.
9. Seismic design compliance.

2.3 RECORD DRAWINGS:

1. Provide a final as-built record drawing in addition to end/or in coordination with pertinent provisions of the General and Supplementary Condition.
2. Include a copy of the Record Drawings in each copy of the operation and maintenance manual described below.

F. Upon completion of this portion of the Work, and as condition of its acceptance, deliver to the Architect two copies of an operation and maintenance manual compiled in accordance with the provisions of the General and Supplementary Conditions Specifications and these Specifications.

1. Provide a copy of record drawings as detailed above.
2. Provide detailed operating and maintenance instructions.
3. Provide copies of all approvals.

SPRINKLER LEGEND:

- X EXISTING SPRINKLER HEAD
- X EXPOSED UPRIGHT HEAD
- X NEW FLUSH MOUNTED SPRINKLER HEAD

SPRINKLER NOTES:

1. THIS SPRINKLER DRAWING IS ISSUED FOR DESIGN BUILD PURPOSES, AND IS INTENDED TO BE SCHEMATIC IN NATURE. THE CONTRACTOR IS RESPONSIBLE TO DESIGN THE SYSTEM IN COMPLETE COMPLIANCE WITH ALL CODES AND REGULATIONS AND SUBMIT SIGNED & SEALED SHOP DRAWINGS AND HYDRAULIC CALCULATIONS. SEE SPECIFICATIONS FOR DETAILS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVED BY THE AUTHORITY HAVING JURISDICTION. PRIOR TO THE INSTALLING OF ANY SPRINKLER HEADS.
2. THE NUMBER OF HEADS IS INDICATIVE OF THE COVERAGE REQUIRED AND IS A MAXIMUM NUMBER. THE ACTUAL NUMBER OF HEADS SHALL BE DETERMINED BY THE FINAL DETAIL DESIGNER OF THE SYSTEM. THE FINAL DESIGN SHALL BE BY A LICENSED PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED FOR APPROVAL BY THE AUTHORITY HAVING JURISDICTION.
3. PROVIDE CONCEALED PENDENT HEADS IN AREAS WITH CEILINGS, VIKING MODEL M OR EQUAL.
4. PROVIDE UPRIGHT HEADS IN AREAS WITHOUT CEILINGS, VIKING MODEL M OR EQUAL.
5. CONTRACTOR SHALL HIGHLIGHT ANY EXPOSED PIPING ON SHOP DRAWINGS AND CONFIRM WITH ARCHITECT BEFORE INSTALLATION.
6. EXACT LOCATIONS OF ITEMS NOTED AS BEING EXISTING SHALL BE VERIFIED IN THE FIELD.

PLAN RELEASE

BUILDING	SIGNATURE	DATE
ELECTRICAL		
PLUMBING		
FIRE		
ZONING		

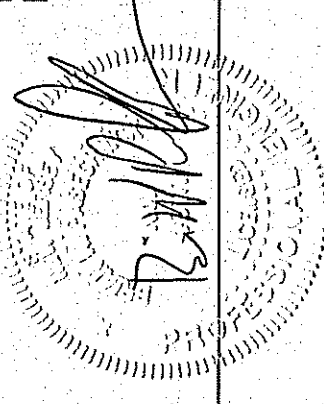
KEY PLAN - 1ST FL.

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NO.	ISSUE DATE	ISSUE DESCRIPTION
1	03.12.10	ISSUED FOR BIDDING

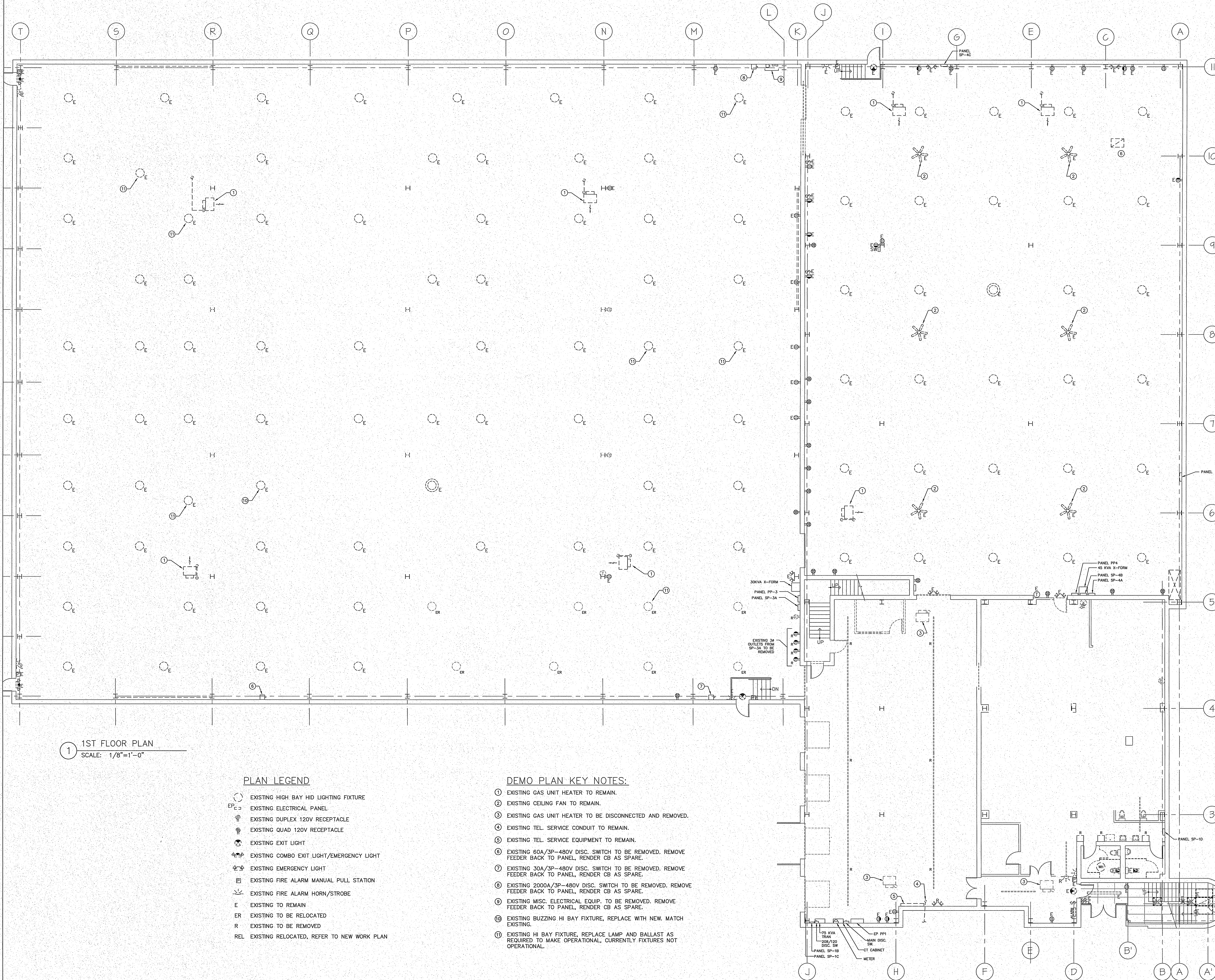
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drawing title:
FIRE PROTECTION PLAN

scale: AS NOTED
 job number: 0972
 drawn by: GB
 checked by: MA
 date: 03.12.10
 drawing number: **FP-1**
 file #
 NJ 05915
 NY 011938
 PA B 7813
 CT 4823
 AZ 12822



1 1ST FLOOR PLAN
SCALE: 1/8"=1'-0"

- PLAN LEGEND**
- ⊙ EXISTING HIGH BAY HID LIGHTING FIXTURE
 - EP ⊙ EXISTING ELECTRICAL PANEL
 - ⊕ EXISTING DUPLEX 120V RECEPTACLE
 - ⊕ EXISTING QUAD 120V RECEPTACLE
 - ⊕ EXISTING EXIT LIGHT
 - ⊕ EXISTING COMBO EXIT LIGHT/EMERGENCY LIGHT
 - ⊕ EXISTING EMERGENCY LIGHT
 - ⊕ EXISTING FIRE ALARM MANUAL PULL STATION
 - ⊕ EXISTING FIRE ALARM HORN/STROBE
 - E EXISTING TO REMAIN
 - ER EXISTING TO BE RELOCATED
 - R EXISTING TO BE REMOVED
 - REL EXISTING RELOCATED, REFER TO NEW WORK PLAN

- DEMO PLAN KEY NOTES:**
- ① EXISTING GAS UNIT HEATER TO REMAIN.
 - ② EXISTING CEILING FAN TO REMAIN.
 - ③ EXISTING GAS UNIT HEATER TO BE DISCONNECTED AND REMOVED.
 - ④ EXISTING TEL. SERVICE CONDUIT TO REMAIN.
 - ⑤ EXISTING TEL. SERVICE EQUIPMENT TO REMAIN.
 - ⑥ EXISTING 60A/3P-480V DISC. SWITCH TO BE REMOVED. REMOVE FEEDER BACK TO PANEL, RENDER CB AS SPARE.
 - ⑦ EXISTING 30A/3P-480V DISC. SWITCH TO BE REMOVED. REMOVE FEEDER BACK TO PANEL, RENDER CB AS SPARE.
 - ⑧ EXISTING 2000A/3P-480V DISC. SWITCH TO BE REMOVED. REMOVE FEEDER BACK TO PANEL, RENDER CB AS SPARE.
 - ⑨ EXISTING MISC. ELECTRICAL EQUIP. TO BE REMOVED. REMOVE FEEDER BACK TO PANEL, RENDER CB AS SPARE.
 - ⑩ EXISTING BUZZING HI BAY FIXTURE, REPLACE WITH NEW. MATCH EXISTING.
 - ⑪ EXISTING HI BAY FIXTURE, REPLACE LAMP AND BALLAST AS REQUIRED TO MAKE OPERATIONAL, CURRENTLY FIXTURES NOT OPERATIONAL.

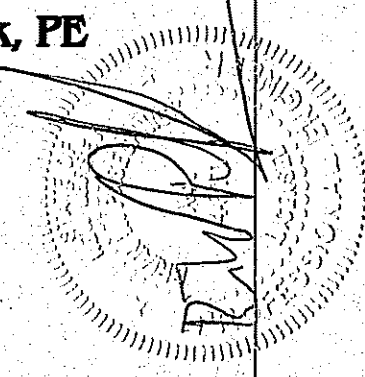
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PLAN RELEASE

BUILDING	SIGNATURE	DATE
ELECTRICAL	<i>EW</i>	3.31.10
PLUMBING	SIGNATURE	DATE
FIRE	SIGNATURE	DATE
ZONING	SIGNATURE	DATE

1	03.12.10	ISSUED FOR BIDDING
NO.	ISSUE DATE	ISSUE DESCRIPTION

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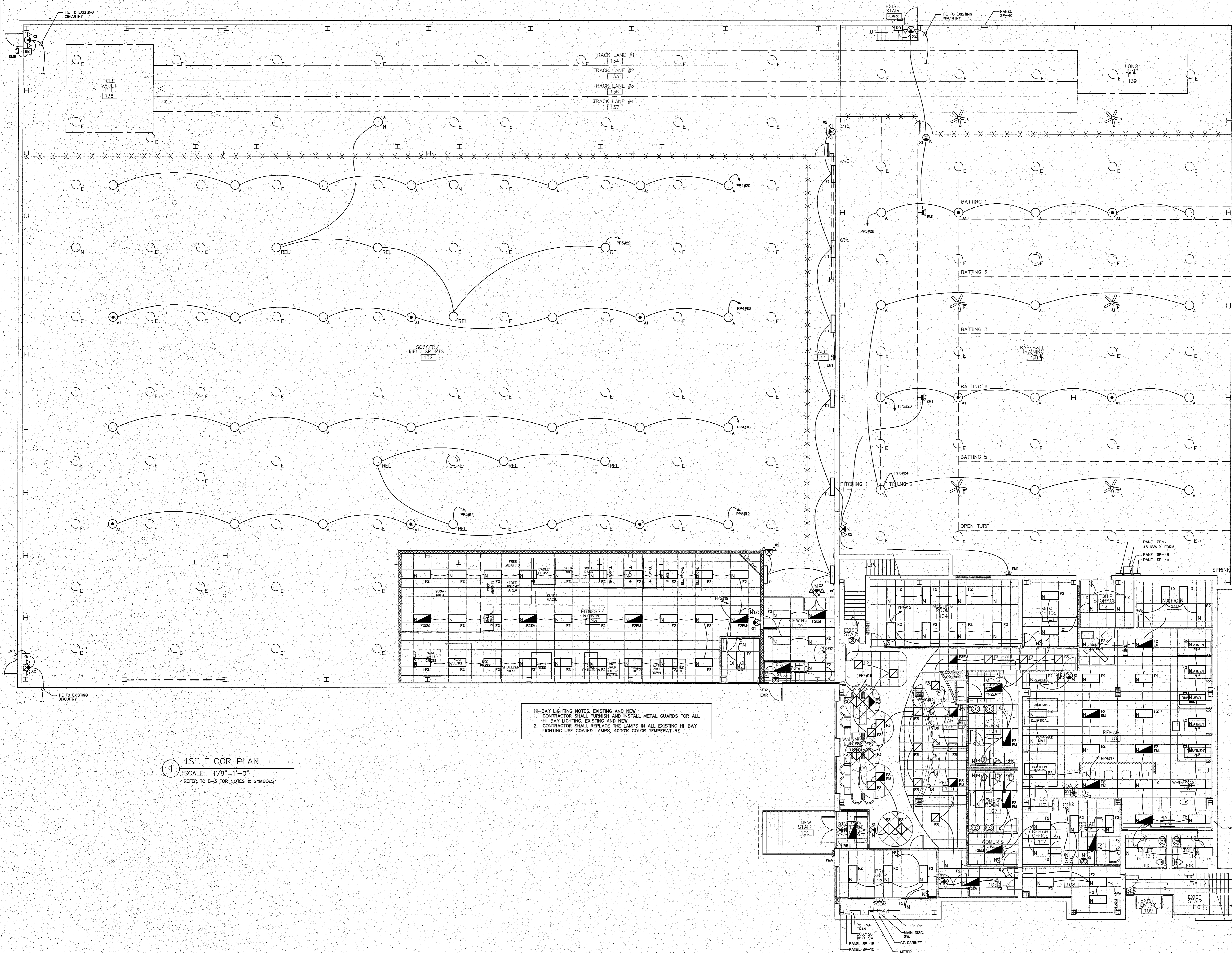
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drawing title:
ELECTRICAL DEMOLITION PLAN

scale:
 AS NOTED
 job number:
 0972
 drawn by:
 GB
 checked by:
 MA
 date:
 03.12.10
 drawing number:
DE-1
 dwg. of
 file #

NJ 05915
 NY 011938
 PA B 7813
 CT 4823
 AZ 12822



HI-BAY LIGHTING NOTES, EXISTING AND NEW
 1. CONTRACTOR SHALL FURNISH AND INSTALL METAL GUARDS FOR ALL HI-BAY LIGHTING, EXISTING AND NEW.
 2. CONTRACTOR SHALL REPLACE THE LAMPS IN ALL EXISTING HI-BAY LIGHTING USE COATED LAMPS, 4000K COLOR TEMPERATURE.

1 1ST FLOOR PLAN
 SCALE: 1/8"=1'-0"
 REFER TO E-3 FOR NOTES & SYMBOLS

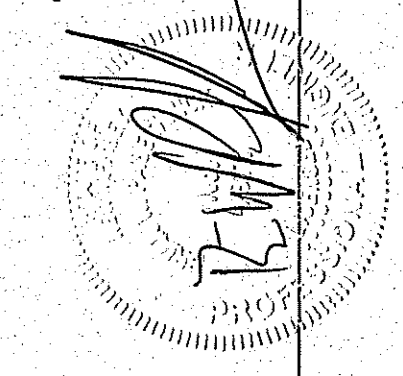
KEY PLAN - 1ST FL.

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PLAN RELEASE			
BUILDING	SIGNATURE	DATE	
ELECTRICAL	<i>[Signature]</i>	3-31-10	
PLUMBING	SIGNATURE	DATE	
FIRE	SIGNATURE	DATE	
ZONING	SIGNATURE	DATE	

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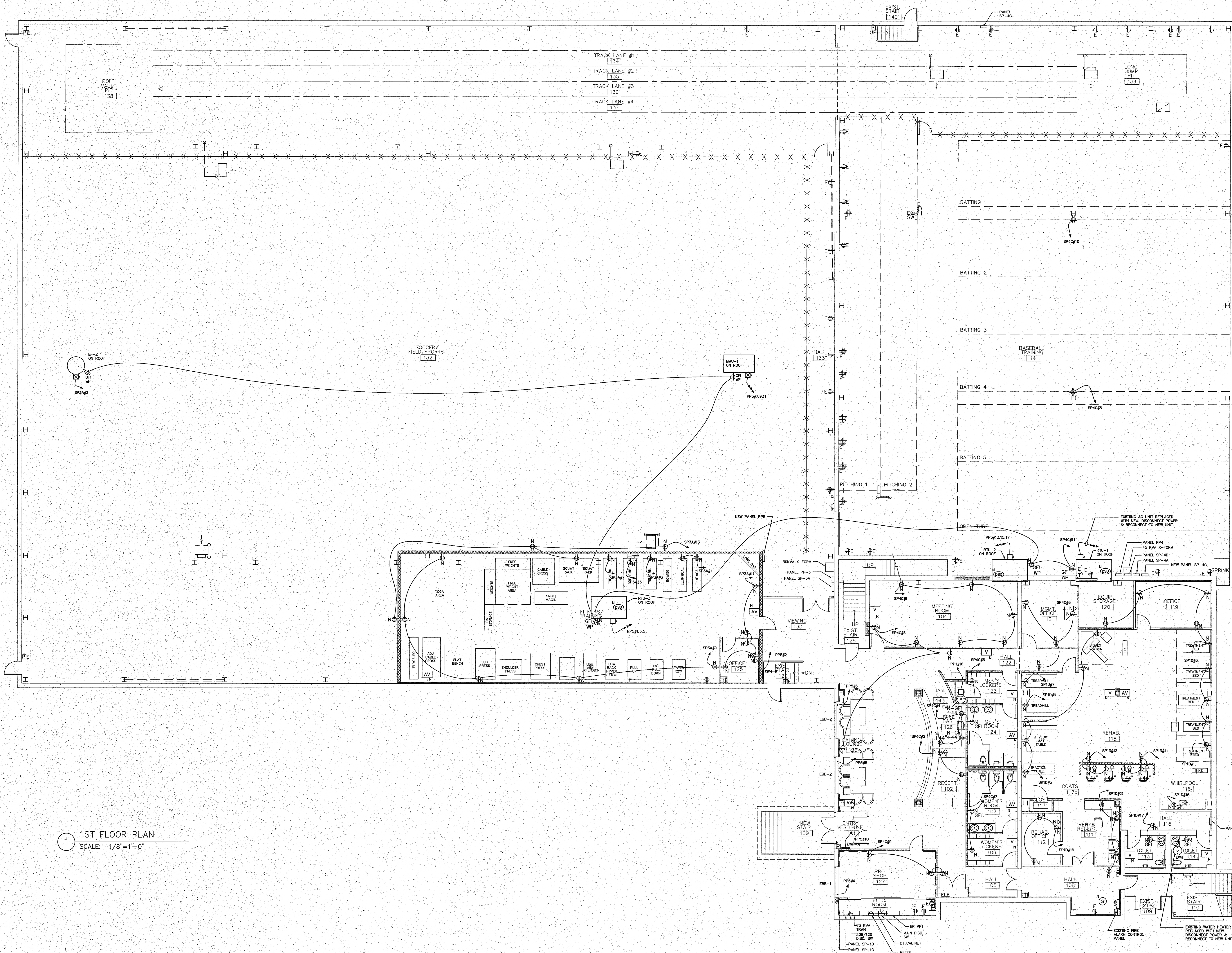
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drawing title:
ELECTRICAL LIGHTING PLAN

scale: AS NOTED
 job number: 0972
 drawn by: GB
 checked by: MA
 date: 03.12.10
 drawing number: **E-1**
 dwg. of file #

NJ 05915
 NY 011938
 PA B 7813
 CT 4823
 AZ 12822



1 1ST FLOOR PLAN
SCALE: 1/8"=1'-0"

KEY PLAN - 1ST FL.

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PLAN RELEASE

BUILDING	SIGNATURE	DATE
ELECTRICAL	<i>[Signature]</i>	3-31-10
PLUMBING	SIGNATURE	DATE
FIRE	SIGNATURE	DATE
ZONING	SIGNATURE	DATE

1 03.12.10 ISSUED FOR BIDDING
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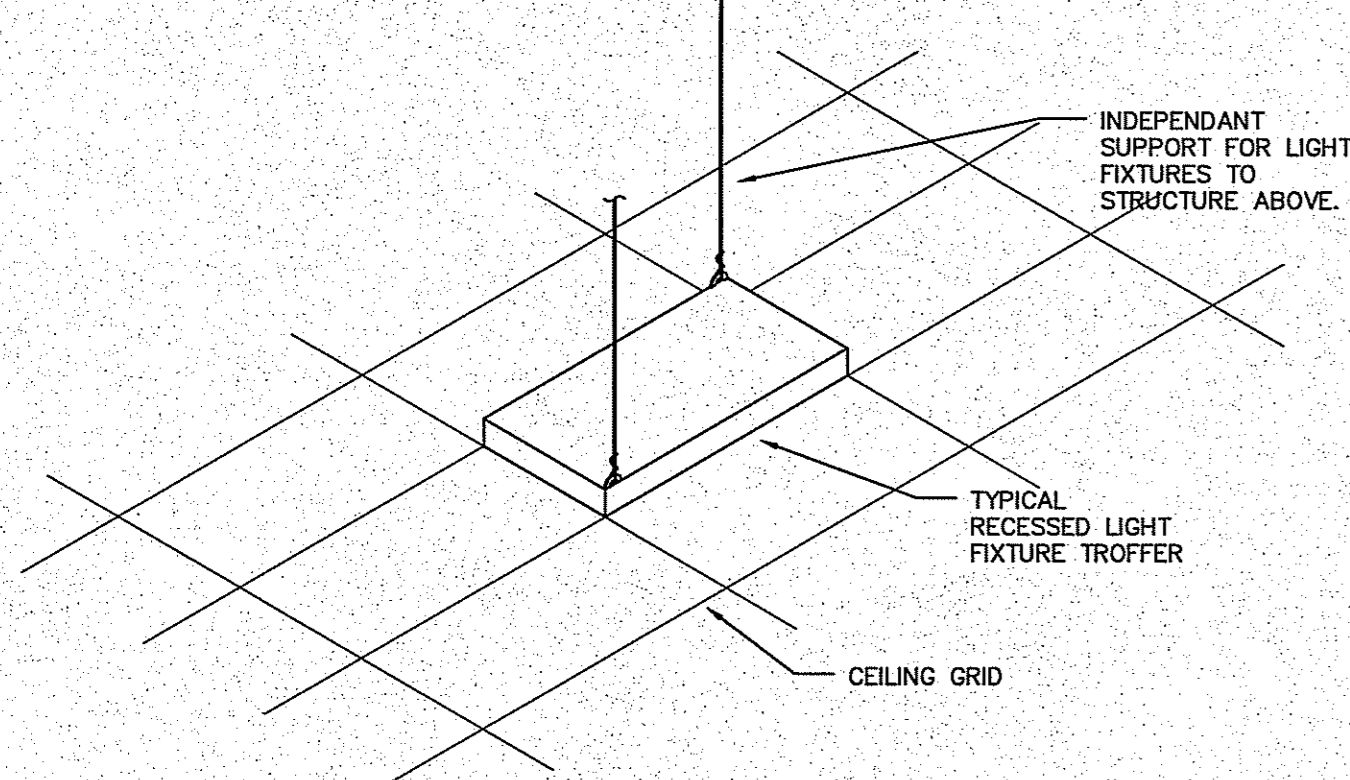
drawing title:
ELECTRICAL POWER PLAN

scale: AS NOTED
 job number: 0972
 drawn by: GB
 checked by: MA
 date: 03.12.10
 drawing number: **E-2**
 dwg. of file #

NJ 05915
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 CT 4823
 AZ 12822

LIGHTING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	DESCRIPTION	CATALOG NUMBER	VOLTS	TYPE	#	WATTS	MODEL/COMMENTS	REMARKS
A	DAYBRITE	400 WATT HIBAY	HBD 400M-A17-WG17	277	HID	1	400	MS400/C/HOR/4000K	PROVIDE METAL CAGE
A1	DAYBRITE	400 WATT HIBAY WITH RESTRIKE	HBD 400M-Q-A17-WG17	277	HID	1	400	MS400/C/HOR/4000K	PROVIDE METAL CAGE
D1	TBD	SMALL PENDANT		120					
D2	CARR	6" RECESSED DOWNLIGHT	CFR165V260Z	277	FLUOR	1	26	CF26W/G240/835	
F1	DAYBRITE	4" WALL MOUNT WRAPAROUND	WB232-CP-277	277	FLUOR	2	32	F32T8/835	MOUNT AT 10'-0" AFF
F2	DAYBRITE	2"x4" RECESSED FIXTURE ACRYLIC LENS	2SPG332-F501-277	277	FLUOR	2	32	F32T8/835	
F2 EM	DAYBRITE	2"x4" RECESSED FIXTURE ACRYLIC LENS	2SPG332-F501-277-ESST	277	FLUOR	3	32	F32T8/835	INTEGRAL BATTERY BACK UP
F3	DAYBRITE	2"x2" RECESSED FIXTURE DIRECT/IND. PERF. LOUV.	2AVG2F55-PMW-277	277	FLUOR	2	55	FT5W/261/835	
F3 EM	DAYBRITE	2"x2" RECESSED FIXTURE DIRECT/IND. PERF. LOUV.	2AVG2F55-PMW-277-ESST	277	FLUOR	2	55	FT5W/261/835	INTEGRAL BATTERY BACK UP
F4	DAYBRITE	SURFACE STRIP	NI32-277	277	FLUOR	1	32	F32T8/835	
F5	DAYBRITE	8" PENDANT STRIP	TN132-277	277	FLUOR	2	32	F32T8/835	
X1	McPILBEN	LED EXIT LIGHT	CKXL3RW	277	LED				INTEGRAL BATTERY BACK UP
X2	McPILBEN	COMBO EXIT LIGHT EMERGENCY LIGHT	CCTXL3RW	277	LED				INTEGRAL BATTERY BACK UP
EMR	McPILBEN	BATTERY PACK WITH (2) EXTERIOR REMOTE HEADS	EC12L14/(2)PRWA	277	INC				INTEGRAL BATTERY BACK UP
EM	McPILBEN	(2) HEAD EMERGENCY HEAD	VU6	277	INC				INTEGRAL BATTERY BACK UP

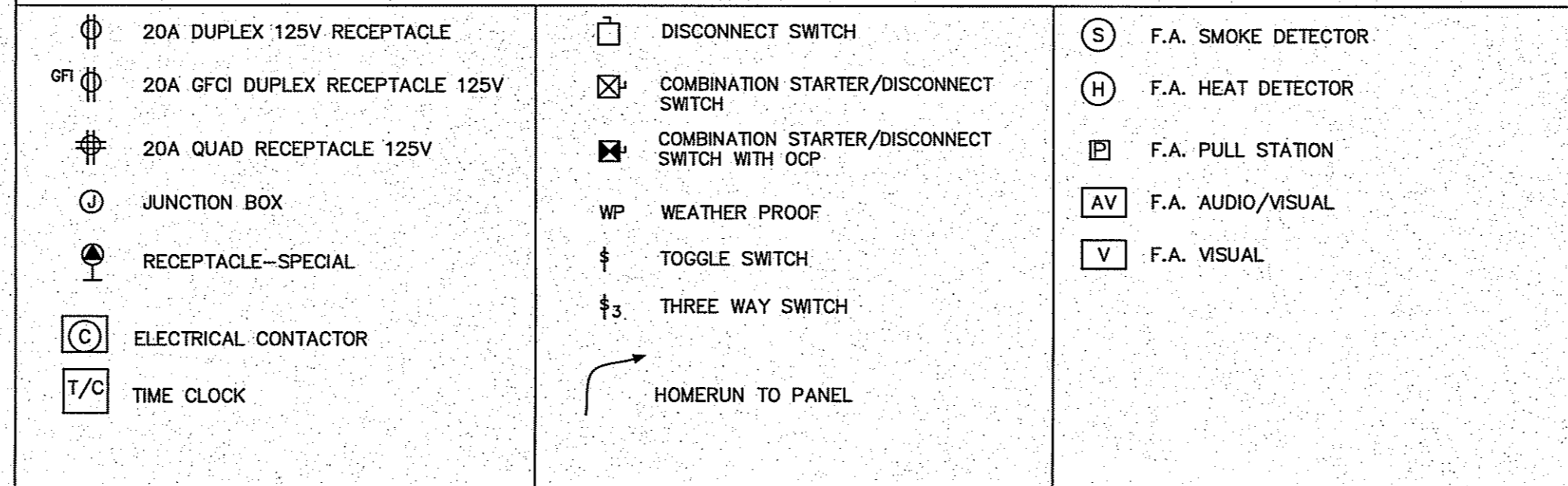


GRID MOUNTED LIGHT FIXTURES DETAIL
N.T.S.

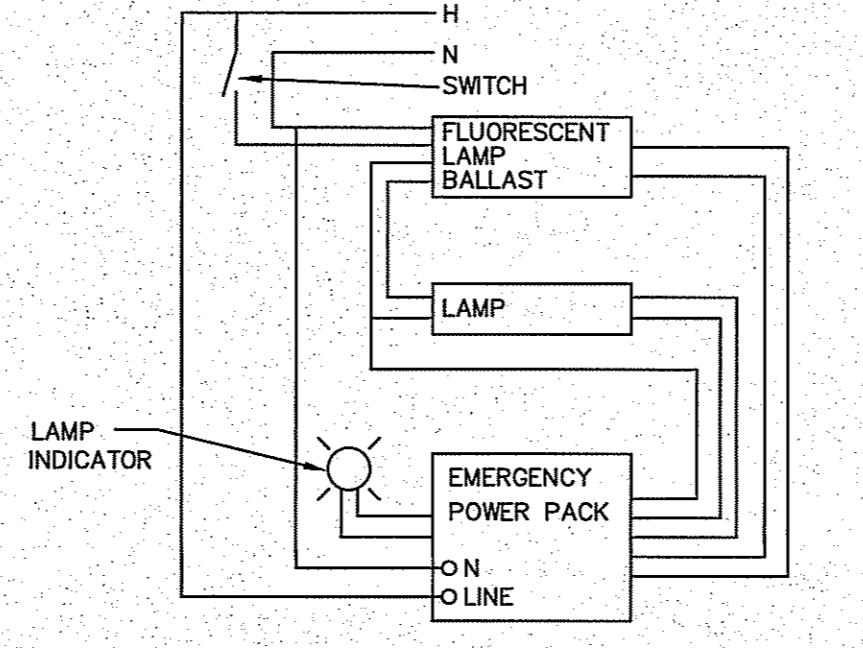
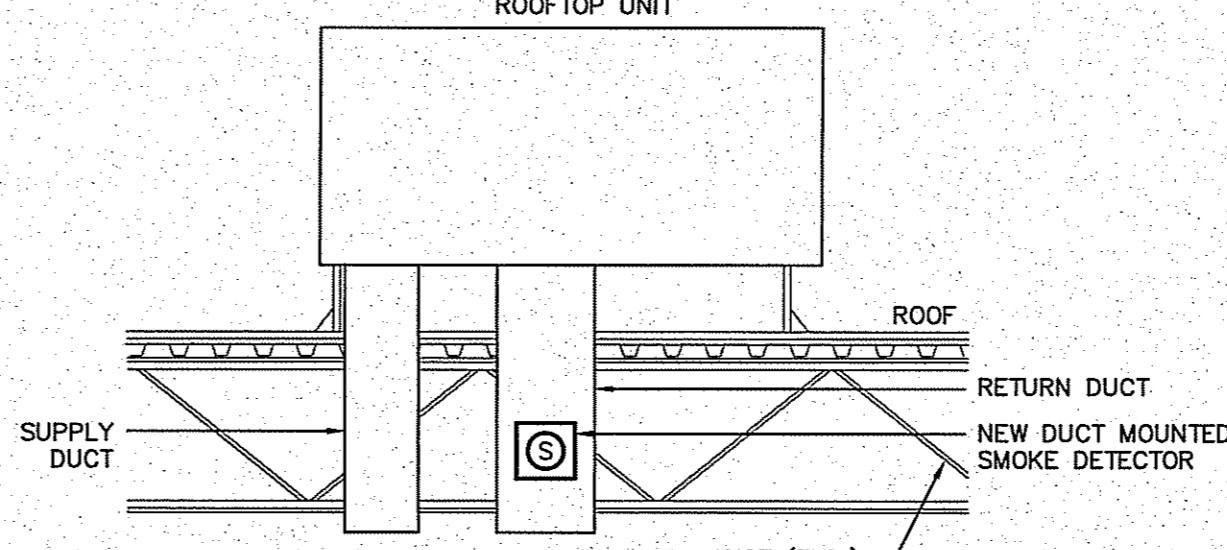
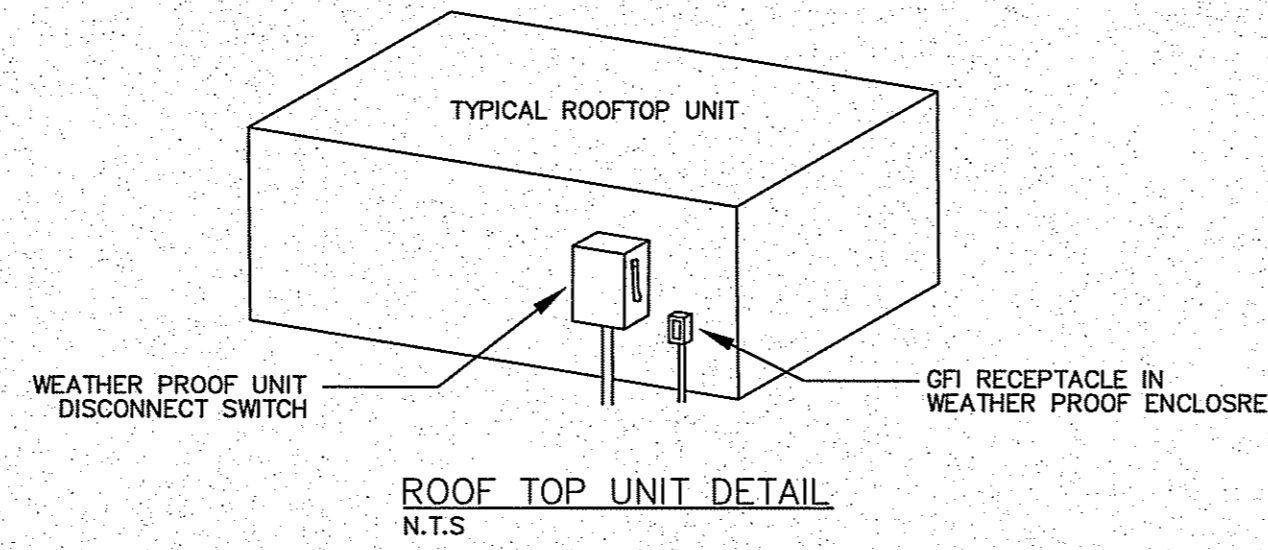
LIGHTING PLAN NOTES:

- COORDINATE EXACT LOCATION & MOUNTING OF ALL LIGHTING FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- PROVIDE SEPARATE HOT LEG TO ALL LIGHTING FIXTURES CONTAINING EMERGENCY BATTERY INVERTER. REFER TO DETAILS FOR SWITCHING THE SAME.
- EM DESIGNATES EMERGENCY LIGHTS EQUIPPED WITH 90 MINUTE EMERGENCY BATTERY BALLAST PACKS.
- ALL BULBS 3500K, 82 TO 85 CRI UNLESS OTHERWISE SPECIFIED.
- ALL FLUORESCENT FIXTURES TO HAVE ELECTRONIC BALLASTS MATCHED TO SELECTED BULB AND IN COMPLIANCE WITH ASHRAE/IES 90.1.
- N.A. PHILIPS BULB NUMBER UNLESS OTHERWISE NOTED.
- ELECTRICAL CONTRACTOR TO COORDINATE ALL LIGHTING FIXTURE TRIMS WITH CEILING TYPES. SEE ARCHITECTURAL DRAWINGS FOR CEILING INFORMATION.
- PROVIDE ALL SEISMIC CLIPS AND/OR BRACING AS REQUIRED.

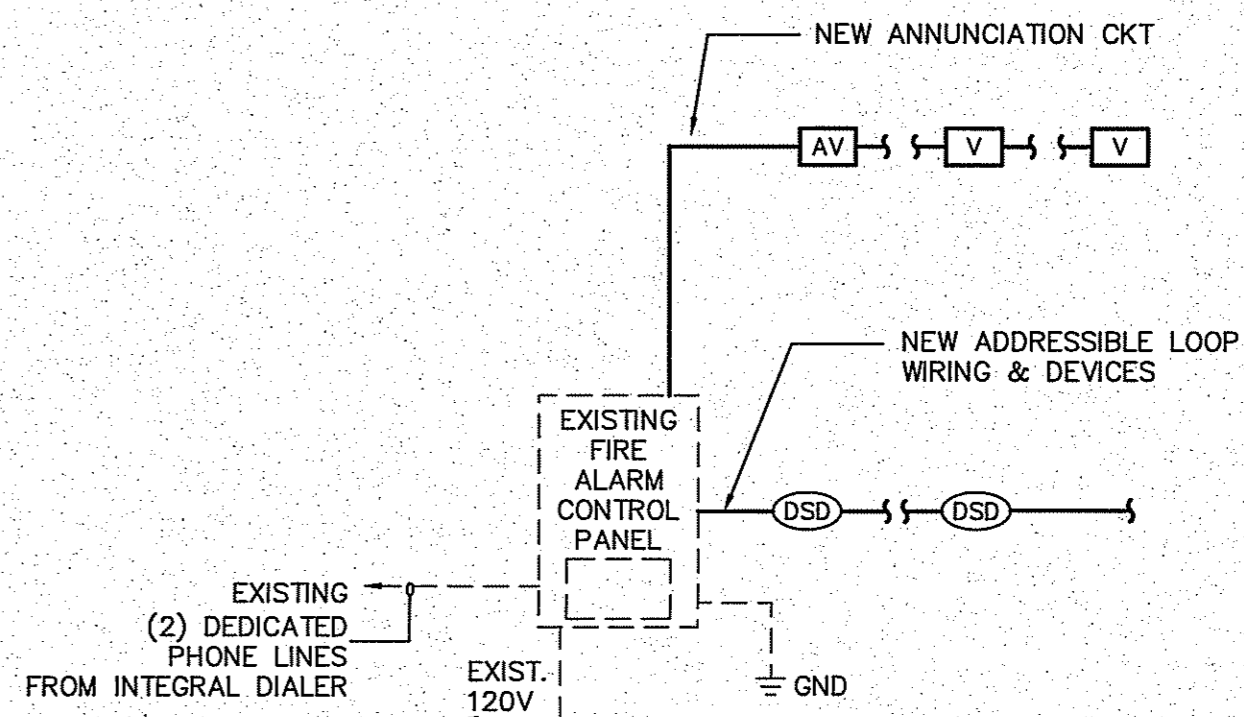
ELECTRICAL LEGEND



UNLESS SPECIFICALLY SHOWN ON PLANS, ALL RECEPTACLES SHALL BE MOUNTED AT 15" AFF FROM BOTTOM OF BOX AND ALL SWITCHES MOUNTED 44" AFF TO CENTERLINE OF BOX.



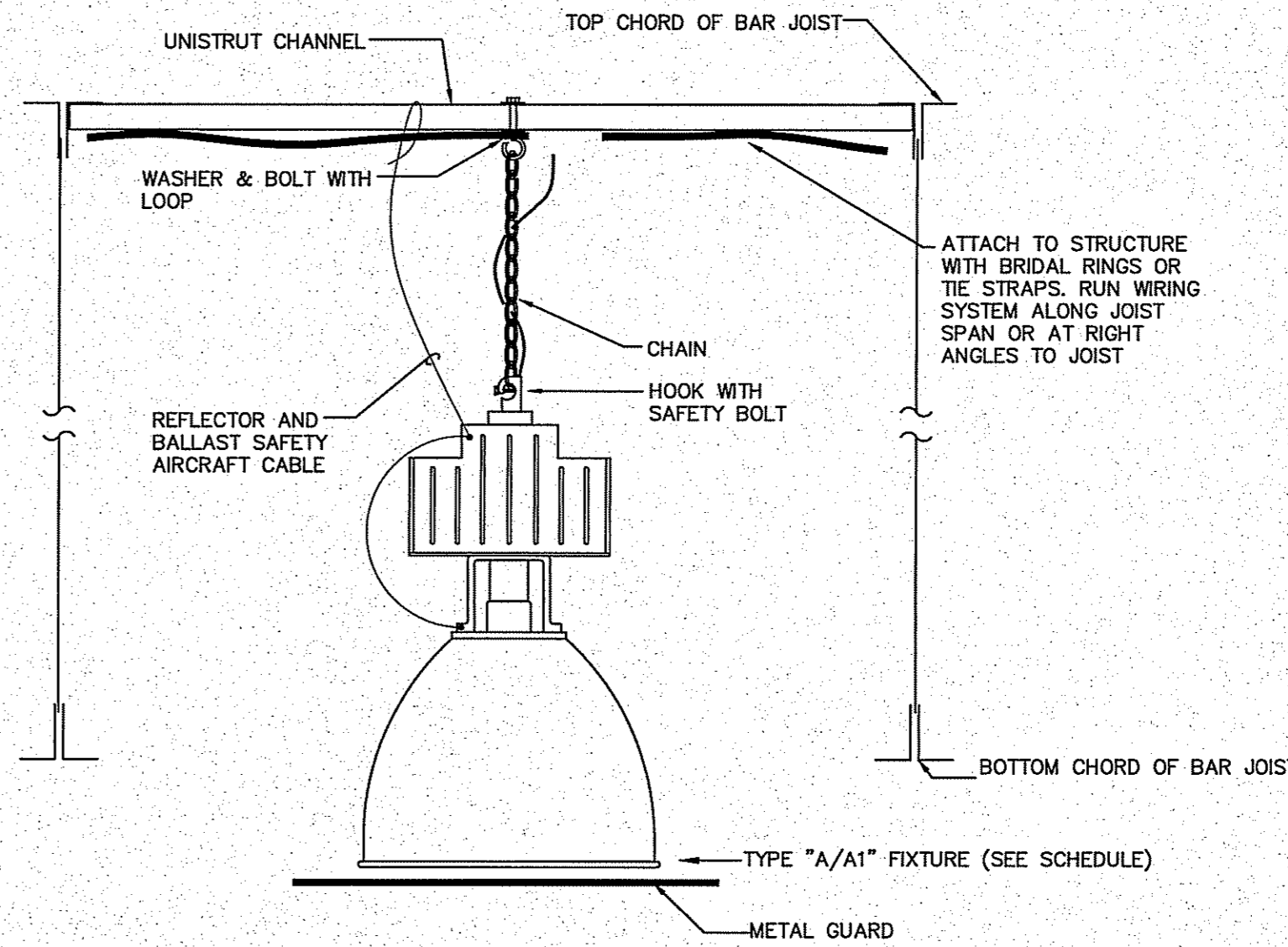
EMERGENCY FIXTURE WIRING SCHEMATIC
N.T.S.



FIRE ALARM SCHEMATIC DIAGRAM
SCALE - NONE

NOTES:

- FOR EXACT QUANTITY AND LOCATION OF ALL NEW DEVICES REFER TO FLOOR PLANS.
- EXACT WIRE SIZE & QUANTITY SHALL BE PER SYSTEM MANUFACTURERS RECOMMENDATIONS. ALL WIRING SHALL BE RUN CONCEALED ABOVE THE CEILING AND/OR IN WALLS. SHALL HAVE INSULATION TYPE FPLP AS A MINIMUM. WHERE RUN IN EXPOSED AREAS IE. MECHANICAL ROOMS, WIRING SHALL BE RUN IN EMT CONDUIT.
- ENTIRE INSTALLATION SHALL BE IN CONFORMANCE WITH NFPA, NEC.
- CONTRACTOR SHALL FURNISH AND INSTALL THE REQUIRED CONNECTIONS TO EXISTING FIRE ALARM SYSTEM AS SHOWN ON PLANS. FIRE ALARM WORK SHALL INCLUDE ALL DEVICES, WIRING, CONDUIT, BOXES, PROGRAMMING ETC.



- BOLT HOOK TO UNISTRUT. DOUBLE NUT ALL THREADED CONNECTIONS. PROVIDE HOOK AND LOOP TO SUPPORT FIXTURE BY MEANS OF STEEL CHAIN. SUPPORT FIXTURE FROM UNISTRUT. COORDINATE METHOD OF FASTENING UNISTRUT TO TOP CHORD OF JOIST WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION. DO NOT DRILL OR WELD TO JOIST. ASSEMBLY SHALL SUPPORT FOUR TIMES THE FIXTURE WEIGHT.
- WHERE FIXTURES OCCUR DIRECTLY BELOW BAR JOIST I.E. MAIN CENTER AISLE, PROVIDE JOIST CLAMP WITH HOOK AND CHAIN FOR FIXTURE MOUNTING TO JOIST.
- CONTRACTOR SHALL PROVIDE ALL HID DOWN LIGHTING IN ACCORDANCE WITH N.E.C. ARTICLES 410.3 a, b, AND c.

TYPE 'A/A1' DETAIL
N.T.S.

EXISTING PANEL SP1D

120 / 208 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	100 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 10,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA
1	20A	1	NO. DCP	NO.	LOAD SERVED	NO.	LOAD SERVED	NO.	LOAD SERVED	KVA
7	RECEPS. TRI. BED	3	20A	2	ACTIVE EXIST.	2	ACTIVE EXIST.	2	ACTIVE EXIST.	1.0
9	RECEPS. OFFICE	3	20A	4	ACTIVE EXIST.	4	ACTIVE EXIST.	4	ACTIVE EXIST.	2.0
7	RECEPS. BIODEX	5	20A	6	ACTIVE EXIST.	6	ACTIVE EXIST.	6	ACTIVE EXIST.	1.5
1.0	RECEPS. TREADMILL	7	20A	8	ACTIVE EXIST.	8	ACTIVE EXIST.	8	ACTIVE EXIST.	2.0
1.0	RECEPS. TREADMILL	9	20A	10	ACTIVE EXIST.	10	ACTIVE EXIST.	10	ACTIVE EXIST.	2.0
.5	RECEPS. WORK STA.	11	20A	12	ACTIVE EXIST.	12	ACTIVE EXIST.	12	ACTIVE EXIST.	1.5
.5	RECEPS. WORK STA.	13	20A	14	ACTIVE EXIST.	14	ACTIVE EXIST.	14	ACTIVE EXIST.	1.5
1.0	RECEPS. WHIRLPOOL	15	20A	16	ACTIVE EXIST.	16	ACTIVE EXIST.	16	ACTIVE EXIST.	2.0
.5	RECEPS. TOILET	17	20A	18	ACTIVE EXIST.	18	ACTIVE EXIST.	18	ACTIVE EXIST.	1.5
.5	RECEPS. OFFICE	19	20A	20	ACTIVE EXIST.	20	ACTIVE EXIST.	20	ACTIVE EXIST.	1.5
.7	RECEPS. RECEPTION	21	20A	22	ACTIVE EXIST.	22	ACTIVE EXIST.	22	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	23	20A	24	ACTIVE EXIST.	24	ACTIVE EXIST.	24	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	25	20A	26	ACTIVE EXIST.	26	ACTIVE EXIST.	26	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	27	20A	28	ACTIVE EXIST.	28	ACTIVE EXIST.	28	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	29	20A	30	ACTIVE EXIST.	30	ACTIVE EXIST.	30	ACTIVE EXIST.	2.0

EXISTING PANEL SP3A

120 / 208 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	100 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 10,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA
8	RECEPS. ELLIP.	1	20A	2	ACTIVE EXIST.	2	ACTIVE EXIST.	2	ACTIVE EXIST.	1.0
1.0	RECEPS. TREADMILL	3	20A	4	ACTIVE EXIST.	4	ACTIVE EXIST.	4	ACTIVE EXIST.	2.0
1.0	RECEPS. TREADMILL	5	20A	6	ACTIVE EXIST.	6	ACTIVE EXIST.	6	ACTIVE EXIST.	2.0
1.0	RECEPS. TREADMILL	7	20A	8	ACTIVE EXIST.	8	ACTIVE EXIST.	8	ACTIVE EXIST.	2.0
.9	RECEPS. FITNESS	9	20A	10	ACTIVE EXIST.	10	ACTIVE EXIST.	10	ACTIVE EXIST.	1.5
.9	RECEPS. OFFICE	11	20A	12	ACTIVE EXIST.	12	ACTIVE EXIST.	12	ACTIVE EXIST.	1.5
.5	RECEPS. CONV.	13	20A	14	ACTIVE EXIST.	14	ACTIVE EXIST.	14	ACTIVE EXIST.	1.5
-	S.P.A.R.E.	15	20A	16	ACTIVE EXIST.	16	ACTIVE EXIST.	16	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	17	20A	18	ACTIVE EXIST.	18	ACTIVE EXIST.	18	ACTIVE EXIST.	2.0
-	S.P.A.R.E.	19	20A	20	ACTIVE EXIST.	20	ACTIVE EXIST.	20	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	21	20A	22	ACTIVE EXIST.	22	ACTIVE EXIST.	22	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	23	20A	24	ACTIVE EXIST.	24	ACTIVE EXIST.	24	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	25	20A	26	ACTIVE EXIST.	26	ACTIVE EXIST.	26	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	27	20A	28	ACTIVE EXIST.	28	ACTIVE EXIST.	28	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	29	20A	30	ACTIVE EXIST.	30	ACTIVE EXIST.	30	ACTIVE EXIST.	2.0

NEW PANEL PP5

480 / 277 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	200 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 44,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA
6.0	RTU-3	1	35A	2	WALL HEATER	2.0	WALL HEATER	2.0	WALL HEATER	2.0
6.0	3#8+1#10GND	3	3P	4	EBB	2.0	EBB	2.0	EBB	2.0
6.0	-	5	-	6	EBB	1.5	EBB	1.5	EBB	1.5
.4	MAU-1	7	20A	8	EBB	2.0	EBB	2.0	EBB	2.0
.4	3#12+1#12GND	9	3P	10	WALL HEATER	4.0	WALL HEATER	4.0	WALL HEATER	4.0
.4	-	11	-	12	LTG. SOCCER	3.2	LTG. SOCCER	3.2	LTG. SOCCER	3.2
7.5	RTU-2	13	40A	14	LTG. SOCCER	2.3	LTG. SOCCER	2.3	LTG. SOCCER	2.3
7.5	3#8+1#10GND	15	3P	16	LTG. SOCCER	3.2	LTG. SOCCER	3.2	LTG. SOCCER	3.2
7.5	-	17	-	18	LTG. SOCCER	3.2	LTG. SOCCER	3.2	LTG. SOCCER	3.2
1.2	LTG. FITNESS	19	20A	20	LTG. SOCCER	3.2	LTG. SOCCER	3.2	LTG. SOCCER	3.2
1.2	LTG. VIEWING	21	20A	22	LTG. SOCCER	2.3	LTG. SOCCER	2.3	LTG. SOCCER	2.3
-	S.P.A.R.E.	23	20A	24	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7
-	S.P.A.R.E.	25	20A	26	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7
-	S.P.A.R.E.	27	20A	28	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7	LTG. BASEBALL	2.7
-	S.P.A.R.E.	29	20A	30	SPARE	-	SPARE	-	SPARE	-

LIGHTING LOAD 29.7KVAx1.25=31.2KVA
ELECT. LOAD 11.5KVAx.8=9.2KVA
VENTILATION 8KVAx1.0=8.0KVA
AIR COND. 26.8KVAx1.0=26.8KVA
TOTAL 61.5KVA
@480V 3# 4W-98.0AMPS

EXISTING PANEL PP4

480 / 277 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	150 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 10,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA
1	20A	1	NO. DCP	NO.	LOAD SERVED	NO.	LOAD SERVED	NO.	LOAD SERVED	KVA
-	ACTIVE EXIST.	1	20A	2	ACTIVE EXIST.	2	ACTIVE EXIST.	2	ACTIVE EXIST.	1.0
-	ACTIVE EXIST.	3	20A	4	ACTIVE EXIST.	4	ACTIVE EXIST.	4	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	5	20A	6	ACTIVE EXIST.	6	ACTIVE EXIST.	6	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	7	20A	8	ACTIVE EXIST.	8	ACTIVE EXIST.	8	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	9	20A	10	ACTIVE EXIST.	10	ACTIVE EXIST.	10	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	11	20A	12	ACTIVE EXIST.	12	ACTIVE EXIST.	12	ACTIVE EXIST.	2.0
-	ACTIVE EXIST.	13	20A	14	ACTIVE EXIST.	14	ACTIVE EXIST.	14	ACTIVE EXIST.	2.0
2.5	LTG. MEETING	15	20A	16	SPARE	-	SPARE	-	SPARE	-
2.7	LTG. REHAB.	17	20A	18	SPARE	-	SPARE	-	SPARE	-
3.5	LTG. LOUNGE	19	20A	20	SPARE	-	SPARE	-	SPARE	-
-	S.P.A.R.E.	21	20A	22	SPARE	-	SPARE	-	SPARE	-
-	S.P.A.R.E.	23	20A	24	SPARE	-	SPARE	-	SPARE	-
-	S.P.A.R.E.	25	20A	26	SPARE	-	SPARE	-	SPARE	-
-	S.P.A.R.E.	27	20A	28	SPARE	-	SPARE	-	SPARE	-
-	S.P.A.R.E.	29	20A	30	SPARE	-	SPARE	-	SPARE	-

EXISTING PANEL PP1

480 / 277 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	400 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 10,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA	
1	100A	1	NO. DCP	NO.	LOAD SERVED	NO.	LOAD SERVED	NO.	LOAD SERVED	KVA	
TRANSFORMER	3	3P		25A	2	SPARE	-	25A	2	SPARE	-
-	5	-	-	6	-	-	-	6	-	-	-
LTG. BASEBALL	7	20A		20A	8	LTG. BASEBALL		20A	8	LTG. BASEBALL	
LTG. BASEBALL	9	20A		20A	10	LTG. BASEBALL		20A	10	LTG. BASEBALL	
LTG. BASEBALL	11	20A		20A	12	WT LOBBY		20A	12	WT LOBBY	
LTG. BASEBALL	13	20A		20A	14	TOILET HTL		20A	14	TOILET HTL	
LTG. BASEBALL	15	20A		20A	16	WATER HEATER		20A	16	WATER HEATER	
LTG. BASEBALL	17	20A		20A	18	STAIRWELL LTG.		20A	18	STAIRWELL LTG.	
SPARE	19	60A		150A	20	NEW PANEL PP5		150A	20	NEW PANEL PP5	
SPARE	21	3P		3P	22	-		3P	22	-	
EXIST.	23	-		24	-	-		24	-	-	
EXIST.	25	80A		150A	26	PP3		150A	26	PP3	
EXIST.	27	3P		3P	28	-		3P	28	-	
EXIST.	29	-		30	-	-		30	-	-	
EXIST.	31	100A		150A	32	PANEL PP4		150A	32	PANEL PP4	
-	33	3P		3P	34	-		3P	34	-	
-	35	-		36	-	-		36	-	-	

NEW PANEL SP4C

120 / 208 VOLTS 3 # 4 WIRE+GND	SURFACE MOUNTING	60 AMP 3 POLE M/CB MLO	INTEGRATED EQUIPMENT RATING 10,000 A. SYM.	NO.	DESCRIPTION	NO.	DESCRIPTION	NO.	DESCRIPTION	KVA
.9	RECEPS. MEETING ROOM	1	20A	2	RECEPS. RECEPTION	.7	RECEPS. RECEPTION	.7	RECEPS. RECEPTION	.7
.5	RECEPS. MNG. OFFICE	3	20A	4	RECEPS. JUICE	.5	RECEPS. JUICE	.5	RECEPS. JUICE	.5
.5	RECEPS. TOILET	5	20A	6	RECEPS. CONVEN.	.7	RECEPS. CONVEN.	.7	RECEPS. CONVEN.	.7
.5	RECEPS. TOILET	7	20A	8	RECEPS. BATING	.4	RECEPS. BATING	.4	RECEPS. BATING	.4
.5	RECEPS. PRO SHOP	9	20A	10	RECE					

ELECTRICAL SPECIFICATIONS

1. GENERAL CONDITIONS

A. It is not intended that the plans or specifications show or state every detailed requirement of the work, but rather that they furnish adequate information for an experienced Contractor to make a completely acceptable installation.

2. NOTICE TO BIDDERS (CONTRACTORS)

A. No Utility Company Involved: Before submitting proposal, examine all plans relating to this work, verify all governing conditions at the site, become fully informed as to the extent and character of the work required and its relation to existing conditions and work of others.

3. PROPOSAL

A. Proposal must include everything required to provide a complete installation as contemplated in the specifications and as specifically shown and specified or not.

4. SCOPE OF WORK

A. Review all plans and specifications relative to this work, particularly those sections describing electrically operated equipment and become familiar with work called upon therein to do. At the conclusion of the work, be responsible for the proper wiring up and functioning of all electrically operated equipment furnished and/or installed under this contract.

5. WORK NOT INCLUDED

A. The following items are related to this contract but are not part of the scope of work: Furnishing of all appliances, machines and other special equipment.

6. STAGING

A. The work of this Contractor will be performed in stages as determined by the Architect. Certain portions of the work and areas in which the work will progress may require the installation of circuits and outlets to be utilized to facilitate such staging.

7. LAWS, ORDINANCES AND REGULATIONS

A. Nothing contained in these specifications or plans shall be so construed as to conflict with any local, municipal, state, utility company and National Board of Fire Underwriters' regulations governing the installation of the work specified herein.

8. APPROVALS, SUBSTITUTIONS, ETC.

A. Any discrepancies between these specifications and the accompanying plans, or these specifications and plans and the specifications and plans of other trades, shall be brought to the attention of the Architect prior to the submitting of a bid.

9. COORDINATION OF WORK (AND TRADES)

A. The work called for in these plans and specifications shall be coordinated with work of all other trades, and shall be so arranged that there will be no delay in the proper installation and completion of any part or parts of each respective work wherein it may be interrelated with that of this contract so that generally all work can proceed in its natural sequence without unnecessary delay.

10. COOPERATION WITH OTHER CONTRACTORS

A. Confer with all other Contractors engaged in the construction of the project whose work might in any way affect this installation and arrange all parts of this installation in proper relation to the installation of other Contractors, with the building construction and with the Architectural finish so that it will harmonize in service and appearance and so that there will be no interference with the work of other Contractors.

11. INSPECTIONS, TESTS AND CERTIFICATES

A. After all wiring systems are complete and continuous, they shall be thoroughly tested and all defects shall be corrected prior to installation of lighting fixtures and/or apparatus.

12. RECORD DRAWINGS

A. Maintain a careful and complete record of all items installed including exact sizes, locations and circuits, and upon completion of work, deliver to the Owner, a complete set of (reproducible mylars) "as built" drawings.

13. MATERIALS

A. All materials and equipment shall be new and in good condition and have Underwriter's Laboratories labels.

14. WORKMANSHIP

A. Install conduits carefully and protect against damage, removing all crushed or damaged conduits. Cap or plug ends to protect against dirt or moisture before pulling wires.

15. ACCESSIBILITY

A. All equipment and devices shall be installed so that adequate space is provided for inspection, operation and maintenance.

16. GROUNDING

A. Grounding connections shall be made to the non-conductive carrying parts of all electrical equipment as required.

17. LOSS AND DISTURBANCE

A. Wiring when installed shall not have voltage drop in excess of limitations as established by the several agencies having jurisdiction over this work.

18. ELECTRIC SERVICE

A. Arrangements shall be made for the installation of service enough in advance so that delays in construction or occupancy will not be encountered.

19. TELEPHONE SERVICE

A. Provide all power supply outlets as noted and required by the telephone company for use with its equipment.

20. JOB CONDITIONS

A. Where existing wiring and circuiting which is to remain is left exposed by the demolition and removal of partitions and/or hung ceilings, reroute such wiring as required to maintain the circuit continuity.

21. CUTTING AND PATCHING

A. Do all the required cutting of the structure necessary for the installation of this work. No cutting likely to weaken the structure or any part thereof shall be done without the written approval of the Landlord.

22. DEMOLITION

A. Do all necessary demolition and removal of existing lighting and electrical equipment as required.

23. TEMPORARY LIGHT AND POWER

A. Provide and maintain all facilities for temporary light and power within the premises and in the construction area during the entire building period.

24. EXISTING PANELS

A. Make all modifications to existing panel bus, bus extensions, feeders, branches, circuits, wiring, connections, etc., as indicated on plans and/or required.

25. NEW PANELS

A. Furnish and install lighting and appliance panels as indicated in schedules on plans, of the circuit breaker type, constructed for a 3 phase, 4 wire, solid neutral, 120/208 OR 277/480 volt system.

26. EXISTING LIGHTING FIXTURES

A. Retain all existing lighting in areas where no new lighting is indicated.

27. NEW LIGHTING FIXTURES

A. All lighting fixtures, canopies, stems, lamps and accessories shall be furnished and installed under this contract in accordance with schedule on plans.

28. FEEDERS AND CIRCUITS

A. Provide any and all materials, equipment, labor, etc., necessary for the complete installation of all branch circuits to equipment's receptacles and lighting outlets, and wiring for control equipment furnished by others, etc.

29. CONDUITS

A. All conduits in slabs and outdoors in trenches shall be PVC Schedule 40.

30. CONDUCTORS

A. All conductors may be type THWN. All sizes indicated on plans are based upon THW copper wire.

31. PIPE SLEEVES, SUPPORTS AND INSERTS

A. Where pipes pass through masonry, concrete walls or floors, set such sleeves as are necessary for the passage of the pipes.

32. DEVICES

A. All devices shall be firmly screwed to the boxes and shall not depend on the cover to pull them tight.

33. OUTLET BOXES AND COVERS

A. All outlet boxes for interior use shall be galvanized stamped steel furnished with knockouts.

34. IDENTIFICATION AND TAGGING

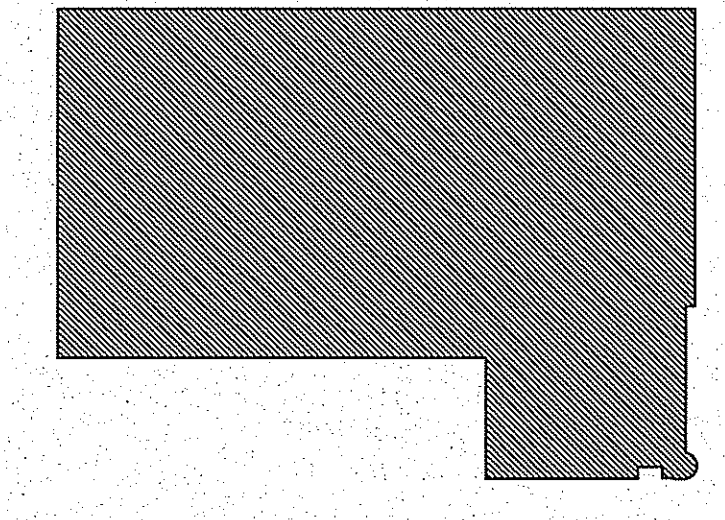
A. All safety switches, disconnect switches, panels, cabinets, etc., shall be properly identified with permanent name plates mechanically fastened to front of equipment.

35. CONTROL WIRING

A. All control wiring for various mechanical systems and trades, shall be furnished and installed by the trades affected.

36. GUARANTEE

Furnish to the Owner, a written guarantee covering all labor, equipment and materials for a period of one (1) year from date of final acceptance of this work, including an agreement to repair and make good any and all defects which may appear in this work or materials during that time which arise from defective, imperfect and inferior materials.



KEY PLAN - 1ST FL.

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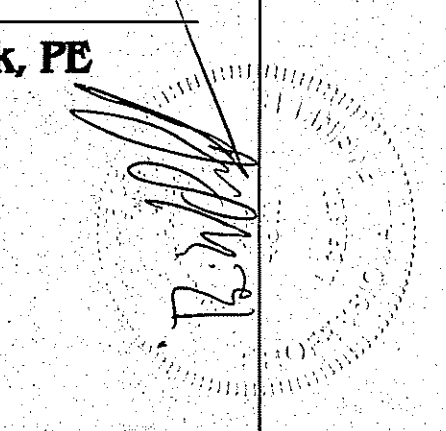


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