



# WHITE PAPER

DOGTOPIA

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# OVERVIEW OF CHALLENGE IN THE PROJECT

Dogtopia was planning to open a new store in an existing commercial building in Garden City, New York. The place was a 1000 sq. ft. white box space with existing gas, electrical, domestic water, and sewer services provided by the base building.

Following were the challenges while designing the Dogtopia store-

- 1.The client was looking for a low-cost design by utilizing the existing services provided by the base building.
- 2.Design the MEP system by running the services from the existing service location to the new space, keeping the other existing commercial stores operational.
- 3.Design MEP system per Dogtopia design standards.

YOUR ONE STOP  
SHOP FOR ALL  
MEP DESIGN  
NEEDS

# OUR CUSTOM SOLUTION

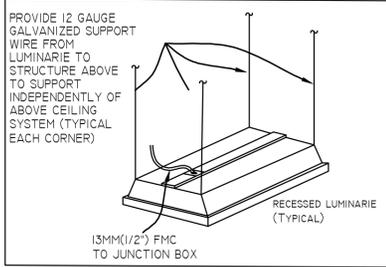
NY Engineers were focused to come up with the best possible solution which is not time-consuming and affordable to the client.

We routed the gas, sanitary and domestic water piping in the best possible manner without affecting the operations of other stores. A gas-fired tankless domestic hot water heater was provided to save cost.

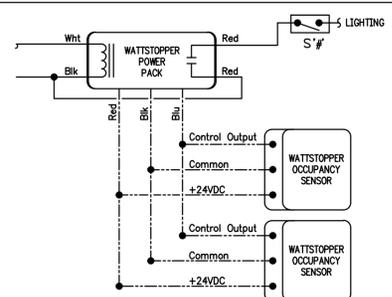
Domestic water, sanitary, and gas load were calculated and satisfied within the available existing load in compliance with all local and energy conservation requirements.

The whole MEP system for Dogtopia was designed within 2 weeks resulting in faster DOB approval and functioning before the planned timeline.

**Area** - 1,000 Sq. Ft.  
**Services Used** - Electrical,  
Plumbing



LUMINAIRE SUPPORT DETAIL  
N.T.S.



OCCUPANCY SENSOR DETAIL  
N.T.S.

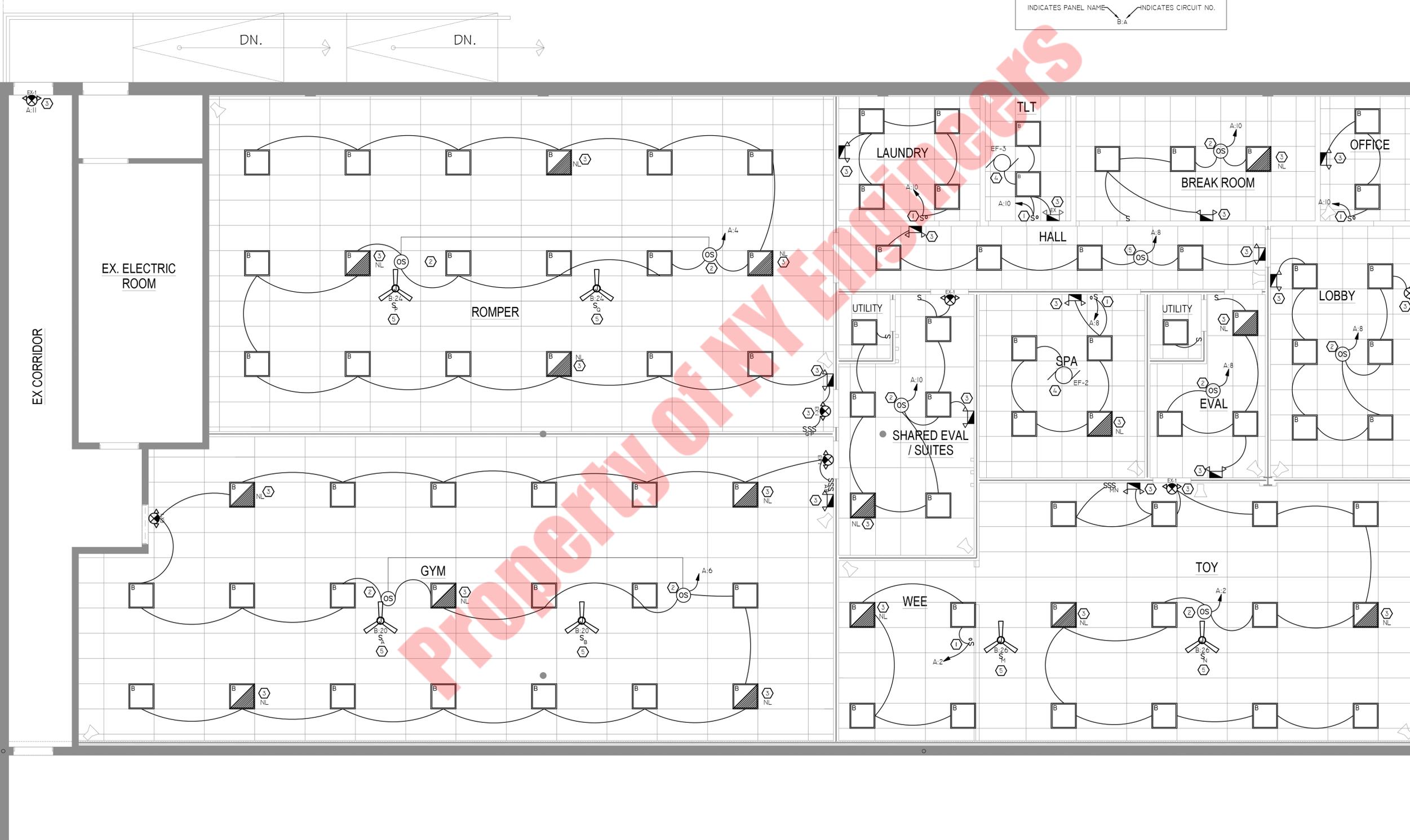
FLOOR PLAN - LIGHTING KEYED WORK NOTES

1. WALL MOUNTED OCCUPANCY SENSOR EQUAL TO WATTSTOPPER WS-250. SET OFF TIME TO 15 MINUTES FOR RESTROOM, OFFICE APPLICATIONS. SET DIP SWITCH TO AUTOMATIC ON.
2. LOW VOLTAGE OCCUPANCY SENSOR EQUAL TO WATTSTOPPER DT-305. PROVIDE LOW VOLTAGE OCCUPANCY SENSOR EQUAL TO WATTSTOPPER DT-305. PROVIDE WATTSTOPPER BZ POWER PACK(S) AS REQUIRED. INTERCONNECT OCCUPANCY SENSORS SO THAT ANY SENSOR WILL TRIGGER ALL LIGHTS. SET OFF TIME FOR 20 MINUTES.
3. WIRE ALL EMERGENCY EXIT AND NIGHT LIGHT AHEAD OF SWITCHING FOR CONTINUOUS OPERATIONS.
4. EXHAUST FANS SHALL BE CIRCUITED AND CONTROLLED THROUGH ROOM LIGHTS.
5. CEILING MOUNTED FANS TO BE CONTROLLED BY WALL SWITCH AS INDICATED.

LIGHTING PLAN GENERAL NOTES

- A. REFER SHEET A-1.4 FOR LIGHT FIXTURE SCHEDULE, MOUNTING AND FIXTURE LOCATION.
- B. CONTRACTOR IS ADVISED THAT ADJUSTMENTS TO EMERGENCY AND EXIT LIGHT FIXTURE LOCATIONS/QUANTITIES MAY BE REQUIRED BY AHJ UPON FINAL INSPECTION.
- C. ALL NIGHT LIGHT, EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE CONNECTED AHEAD OF SWITCHED LIGHTING CIRCUIT.
- D. FIXTURE TYPE 'B' PRODUCT NUMBER C-TR-B-FP22-40L-40K-WH.
- E. MANUAL SWITCHES SHALL BE WIRED ON LOAD SIDE OF OCCUPANCY SENSOR SUCH THAT OCCUPANCY SENSOR IS ENERGIZED AT ALL TIME.

INDICATES PANEL NAME  
INDICATES CIRCUIT NO.



FLOOR PLAN - POWER KEYED WORK NOTES

- E.C. SHALL COORDINATE WITH MANUFACTURER SPECIFICATIONS FOR CONNECTION REQUIREMENTS TO LAUNDRY DRYER. VERIFY SCOPE OF WORK PRIOR TO ROUGH-IN.
- PROVIDE 4"x4"x3/4" FIRE RATED PLYWOOD FOR TELEPHONE/COMMUNICATIONS SYSTEMS. TERMINATE ALL CAT 6 CABLES ON WALL MOUNTED PATCH PANEL.
- ROUTE EMT CONDUITS FROM JOIST SPACE DOWN WALL CAVITY AND INTO MILLWORK. RUN MC CABLE IN MILLWORK FOR POWER AND 3/4" FLEXIBLE STEEL CONDUIT FOR DATA. RUN CONDUITS IN VOIDS OF FURNITURE. COORDINATE LOCATION OF RECEPTACLES WITH OWNER/GC PRIOR TO ROUGH-IN. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
- E.C. TO VERIFY CONNECTION MOUNTING HEIGHTS OF BREAK ROOM EQUIPMENT PRIOR TO ROUGH IN. COORDINATE WITH ARCHITECT/OWNER AS REQUIRED.
- PROVIDE WP JUNCTION BOX AND 120V 1P DISCONNECT FOR CONNECTION TO EXTERIOR SIGNS. COORDINATE LOCATIONS/MOUNTING PER ARCHITECTURAL PLANS. VERIFY LOCATIONS AND MOUNTING HEIGHTS PRIOR TO ROUGH-IN. WIRE THROUGH TIME CLOCK.
- E.C. SHALL INSTALL RECEPTACLE HORIZONTALLY AT 52" AFF.
- E.C. TO PROVIDE WALL MOUNTED DUPLEX RECEPTACLE FOR CONNECTION TO EXTENSION CORD REEL. PROVIDE & INSTALL WHITE 12AWG 3 OUTLET CORD REEL. WALL MOUNT TIGHT TO CEILING TO WOOD BLOCKING WITH 3" WOOD SCREWS & WASHERS. GLOBAL INDUSTRIAL #WGB790533.
- INSTALL FIXTURE POWER SUPPLY BELOW LOW COUNTER. INSTALL LED TAPE TO UPPER COUNTER FACING LOBBY. ROUTE 24V DC FIXTURE LEADS FROM TAPE & CONNECT TO POWER SUPPLY. CUT FIXTURE TO LENGTH OF COUNTER. PROVIDE (2) 96W POWER SUPPLIES / JUNCTION BOX & (2) 12" LENGTHS OF LED TAPE. MOUNT TAPE 2" FROM VERTICAL SURFACE OF DESK. DIODE LED #DI-24V-VLX7-35-12 FEET. POWER SUPPLY: #DI-0954-LPL. CONTROL FROM ROOM OCCUPANCY SENSOR.
- E.C. TO CHECK AVAILABLE SPACE IN LAUNDRY ROOM FOR LOCATING THE NEW ELECTRICAL PANELS A AND B. E.C. TO COORDINATE WITH OWNER/ARCHITECT FOR THE EXACT LOCATION.
- PROVIDE RECESSED TWO GANG TELEVISION BOX WITH DUPLEX RECEPTACLE AND (1) CAT 6 DATA JACK AT 84" AFF FOR WALL MOUNTED MENU BOARDS, LEGRAND PASS AND SEYMOUR #TV2MW.

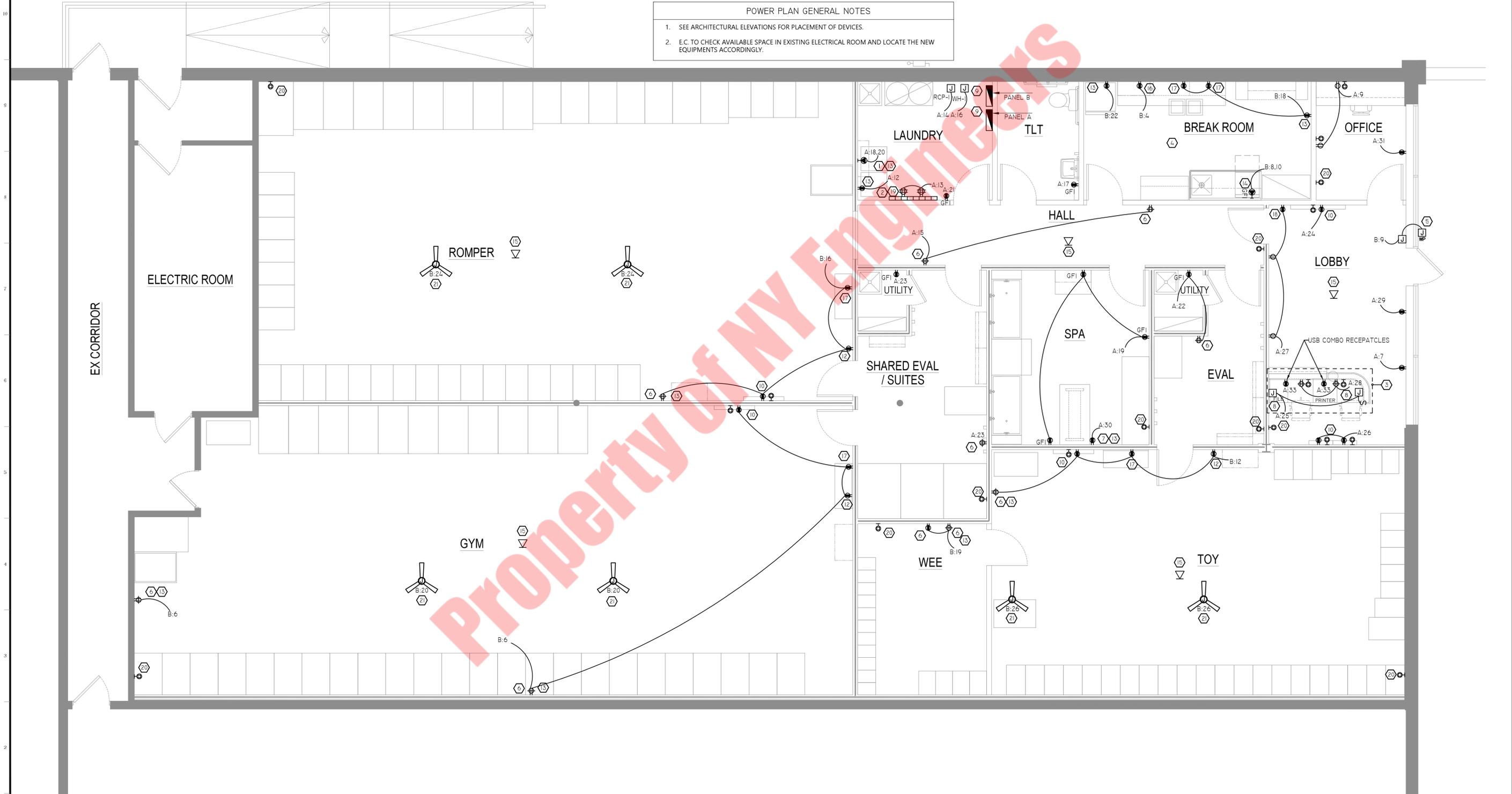
FLOOR PLAN - POWER KEYED WORK NOTES(CONTD')

- PROVIDE DUPLEX RECEPTACLE AND (1) CAT 5E DATA JACK AT 84" AFF. PROVIDE A QUAD RECEPTACLE AT 52" AFF MOUNTED HORIZONTAL.
- PROVIDE RECEPTACLE AT 96" AFF FOR CONNECTION TO NEST CAMERAS.
- RECEPTACLE IS PROTECTED BY A GFCI CIRCUIT BREAKER. PROVIDE LAMINATED TYPED LABEL "GFCI PROTECTED" ON COVER PLATE.
- SEE MECHANICAL/PLUMBING DRAWINGS FOR DISHWASHER ROUGH-IN REQUIREMENTS & LOCATIONS. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OF SCOPE BETWEEN THE MECHANICAL/PLUMBING & ELECTRICAL DRAWINGS PRIOR TO BID.
- E.C. TO PROVIDE 10" SLACK CATEGORY 6 CABLE & MALE JACK ABOVE E.C. TO WIRELESS ACCESS DEVICE. VERIFY OWNER/CONNECTION REQUIREMENTS.
- RECEPTACLE FOR MICROWAVE. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH MILLWORK VENDOR PRIOR TO ROUGH-IN.
- PROVIDE COMBINATION USB CHARGER/RECEPTACLE. HUBBELL #USB15X2W OR EQUAL TO MOUNTED AT 54" HORIZONTAL. E.C. TO COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.
- PROVIDE RECEPTACLE FOR SCENT AIR DIFFUSER AT 96" AFF.
- E.C. TO CHECK AVAILABLE SPACE IN LAUNDRY ROOM FOR LOCATING THE TELEPHONE BOARD. E.C. TO COORDINATE WITH OWNER/ARCHITECT FOR THE EXACT LOCATION.
- PROVIDE DATA RECEPTACLE AT 96" AFF FOR CONNECTION TO SECURITY PROVIDE DATA RECEPTACLE AT 96" AFF FOR CONNECTION TO SECURITY CAMERA.
- JUNCTION BOX FOR THE CEILING MOUNTED FANS CONTROLLED THROUGH WALL SWITCH. REFER TO LIGHTING PLAN ON SHEET E-1 FOR SWITCH LOCATIONS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER FOR EXACT POWER REQUIREMENTS AND CONTROLS PRIOR TO ROUGH-IN.

FIRE ALARM MODIFICATIONS TO BE MADE UNDER SEPARATE PERMIT & COVER. COORDINATE WITH LANDLORD AS NECESSARY.

POWER PLAN GENERAL NOTES

- SEE ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF DEVICES.
- E.C. TO CHECK AVAILABLE SPACE IN EXISTING ELECTRICAL ROOM AND LOCATE THE NEW EQUIPMENTS ACCORDINGLY.

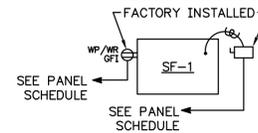


ROOF PLAN GENERAL NOTES

1. ALL ELECTRICAL CONDUIT AND WIRING FOR POWER AND CONTROL OF HVAC UNITS SHALL BE THROUGH PRE-MANUFACTURED PITCH POCKETS. COORDINATE LOCATION OF PITCH POCKETS AND ROUTING OF ELECTRICAL CONDUITS WITH MECHANICAL CONTRACTOR.

ROOF PLAN NOTES

1. HVAC EQUIPMENT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. HVAC EQUIPMENT SHALL BE CONTROLLED BY THERMOSTATS. E.C. SHALL PROVIDE ALL INTERCONNECTION WIRING REQUIRED. COORDINATE INSTALLATION AND WIRING REQUIREMENTS WITH MECHANICAL CONTRACTOR.
2. COORDINATE EXACT LOCATION OF HVAC EQUIPMENT ON ROOF WITH MECHANICAL CONTRACTOR.
3. DISCONNECT SWITCH SUPPLIED WITH EQUIPMENT.
4. EXHAUST FANS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. E.C. SHALL COORDINATE FOR SWITCHING AND CONTROLS AND PROVIDE ALL NECESSARY WIRING REQUIRED. REFER TO LIGHTING PLAN ON SHEET E-1 FOR CONTROL AND CIRCUIT DETAILS.



HVAC WIRING DETAILS

N.T.S.

NOTES:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT, CIRCUIT BREAKER, ASSOCIATED WIRING AND CONDUIT WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING ELECTRICAL EQUIPMENT. IF SIZE(S) OF ELECTRICAL EQUIPMENT REQUIRED DIFFERS FROM WHAT IS INDICATED ON ELECTRICAL PLANS, NOTIFY ELECTRICAL ENGINEER OF CHANGES.
2. DO NOT LOCATE DISCONNECT SWITCHES OVER UNIT ACCESS PANELS.
3. PROVIDE A 3/4" EMPTY CONDUIT THROUGH INACCESSIBLE LOCATIONS (I.E. WALLS, UNDER SLAB) FOR CONTROL WIRING. COORDINATE WITH MECHANICAL PLANS.
4. ELECTRICAL DESIGN IS BASED ON THE MANUFACTURER AND MODEL NUMBER LISTED ON THE MECHANICAL PLANS. IF THERE IS AN EQUAL OR ALTERNATE MANUFACTURER PROVIDED, THE MECHANICAL/GENERAL CONTRACTOR SHALL BEAR ANY AND ALL ADDITIONAL COST RELATED TO THE ELECTRICAL CHANGES ASSOCIATED WITH SUCH SUBSTITUTIONS.
5. ELECTRICAL CONTRACTOR SHALL INSTALL ALL STARTERS FURNISHED BY MECHANICAL CONTRACTOR UNLESS STARTERS ARE SPECIFICALLY NOTED ON MECHANICAL PLANS TO BE FACTORY INSTALLED (SEE NOTE 4). MAKE ALL FINAL CONNECTIONS.

