

Contingency Construction start
Accepted by

PERMIT NUMBER: B 22000352

DATE ACCEPTED:

DILP 2022 FEB 4 PM 3:40



COMMERCIAL BUILDING PERMIT APPLICATION

HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS

3430 COURT HOUSE DRIVE, ELLICOTT CITY, MD 21043 - PHONE: (410) 313-2455 OPTION #4
www.howardcountymd.gov

BUILDING SITE ADDRESS REQUIRED

Street Address: 3458 ELLICOTT CENTER DR		Unit: # 105
City: ELLICOTT CITY	State: MD	Zip Code: 21043
Subdivision/Village/Complex Name:		SDP/WP/BA #:
Lot:	Tax Map:	Parcel:
		Grading Permit #:

DESCRIPTION OF WORK REQUIRED

Existing Use: OFFICE	Proposed Use: DENTAL OFFICE	Estimated Cost: \$ 50,000
Trade Work to Be Completed (Separate Permits Required): <input checked="" type="checkbox"/> Mechanical (HVACR) <input checked="" type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> None		
NEW TENANT BUILDS-OUT PER DRAWINGS		

PROPERTY OWNER INFORMATION REQUIRED

Owner(s) Name(s) (As it appears on tax records): GREGORYAN PROPERTIES LLC		
Owner's Street Address: 3458 ELLICOTT CENTER DR		
City: ELLICOTT CITY	State: MD	Zip Code: 21043
Phone: 702-789-3534	Email: KEVIN@PROGRESS INC. COM	

TENANT INFORMATION REQUIRED

Business Name: PREFERRED GREGORYAN DENTAL		Contact Name:
Street Address: 3458 ELLICOTT CENTER DR		
City: ELLICOTT CITY	State: MD	Zip Code: 21043
Phone:	Email:	

APPLICANT NAME REQUIRED - INDIVIDUAL WHO SIGNS THIS APPLICATION

Business Name: AURORA ARCHITECTS LLC		Contact Name: THUY LE
Street Address: 22600 WELBORNE MANOR SQ		
City: ASHBURIN	State: VA	Zip Code: 20148
Phone: 571-247-5533	Email: AURORAARCHITECTS@YAHOO.COM	

CONTRACTOR INFORMATION REQUIRED

Business Name: K.M. PROGRESS, INC		
Licensee's Name: KEVIN SEARS	License #: 13643404	
Street Address: 19455 DEERFIELD AVE		
City: LANSDOLNE	State: VA	Zip Code: 20176
Phone: 719-220-0592	Email: KEVIN@PROGRESS INC. COM	

ARCHITECT/ENGINEER INFORMATION REQUIRED - INDIVIDUAL WHO SIGNED PLANS

Business Name: AURORA ARCHITECTS LLC		Name: OSCAR LOPEZ
Street Address: 22600 WELBORNE MANOR SQ		
City: ASHBURIN	State: VA	Zip Code: 20148
Phone: 571-247-5533	Email: AURORAARCHITECTS@YAHOO.COM	

BUILDING CHARACTERISTICS (PLEASE SELECT/COMPLETE ALL THAT APPLY)

Utilities: <input checked="" type="checkbox"/> Electric <input type="checkbox"/> Gas	Water Supply: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private (Well)	Sewage Disposal: <input type="checkbox"/> Public <input type="checkbox"/> Private (Septic)
Heating System: <input type="checkbox"/> Electric <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane <input type="checkbox"/> Other:		Roadside Tree Project: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes:#
Sprinkler System: <input type="checkbox"/> NFPA 13 <input type="checkbox"/> NFPA 13R <input checked="" type="checkbox"/> None		Fire Alarm System: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Voice Evac

ADDITIONAL COMMERCIAL INFORMATION (PLEASE SELECT/COMPLETE ALL THAT APPLY)

Area of Construction: 3520 sq ft	Gross Area: 3520 sq ft	Height: 46 ft	# of Stories: 2
Construction Classification(s): III-B		Use Group: B	
Was the tenant space previously occupied? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Shell Building Permit # (for interior completions):	

ADDITIONAL MULTI-FAMILY INFORMATION IF APPLICABLE

# of efficiency units (MF):	# of 1 BR (MF):	# of 2 BR (MF):	# of 3 BR (MF):
Energy Method: <input type="checkbox"/> Performance <input type="checkbox"/> UA Alternative <input type="checkbox"/> ERI <input type="checkbox"/> A 90.1		Gross Area: sq ft	Occupiable Area: sq ft

AGREEMENT/ DISCALIMER REQUIRED

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES

APPLICANT'S ORIGINAL SIGNATURE	DATE SIGNED: 01/31/2022
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FOR OFFICE USE ONLY

CHECKS PAYABLE TO: DIRECTOR OF FINANCE OF HOWARD COUNTY

AGENCIES REQUIRED/APPROVALS:

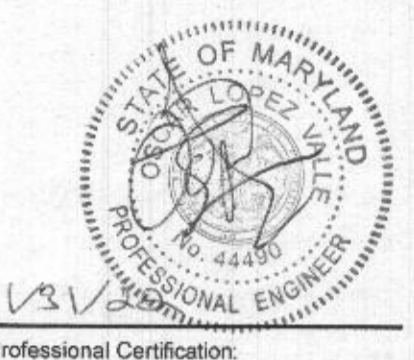
<input checked="" type="checkbox"/> PR	<input checked="" type="checkbox"/> DPZ	<input checked="" type="checkbox"/> DED	<input checked="" type="checkbox"/> Health 98 2/15/22	<input type="checkbox"/> SHA	<input type="checkbox"/> CID
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SUBMITTAL FEES: \$ 700	PAYMENT: CK # 1095	ACCEPTED BY: AYH
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NEW TENANT LAYOUT
PREFERRED DENTAL
PROJECT ADDRESS: 3458 ELLICOTT CENTER DR., ELLICOTT CITY MD 21043



AURORA
 ARCHITECTS L.L.C.
 ARCHITECTURE DESIGN & CONSULTING
 2268 WELBORN MANOR RD
 ANNAPOLIS, MARYLAND 21403
 PHONE: 410-271-5555
 707-544-1855
 FAX: 410-271-5556
 Email: auroraarchitects@auro.com



Professional Certification:
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License Number: 44490
 Expiration Date: 11/15/2023



19455 DEERFIELD AVE. SUITE 208
 LANSDOWNE, VA 20176
 PHONE: 571-291-9546
 kevin@kmprowessinc.com

PREFERRED DENTAL
 3458 ELLICOTT CENTER DRIVE
 ELLICOTT CITY, MD 21043
 OWNER: DR. ARMINE GRIGORYAN

ISSUE
 DATE DESCRIPTION

 PROJECT NUMBER 1.22.001
 DRAWN DN
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 DATE 1/11/2022
 SCALE AS INDICATED

RECEIVED
 FEB 04 2022
 LICENSES & PERMITS
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BUILDING INFORMATION
DOOR/WINDOW SCHEDULE
FINISH SCHEDULE
 DRAWING TITLE
A.001
 DRAWING NO.

DRAWING INDEX

A.001	DRAWING INDEX - BUILDING INFORMATION - KEY PLAN - SCOPE OF WORK DOOR/WINDOW FINISH SCHEDULE - ADA RESTROOMS
A.002	EXISTING FLOOR PLAN
A.003	NEW TENANT LAYOUT FLOOR PLAN TYP. PARTITIONS
E.001	ELECTRIC GENERAL NOTES - EXISTING POWER RISER DIAGRAM PANEL SCHEDULE - WIRE SIZE SCHEDULE
E.002	REFLECTED CEILING PLAN LIGHTING LAYOUT FLOOR PLAN - LIGHTING FIXTURE SCHEDULE
E.003	FIRE ALARM LAYOUT PLAN POWER LAYOUT FLOOR PLAN
P.001	PLUMBING GENERAL NOTES - HOT-COLD WATER RISER DIAGRAM SANITARY RISER DIAGRAM - WATER HEATER DETAIL - FLOOR CLEAN OUT DETAIL
P.002	HOT-COLD WATER LAYOUT FLOOR PLAN
P.003	SANITARY LAYOUT FLOOR PLAN
M.001	MECHANICAL GENERAL NOTE - FAN SCHEDULE HVAC UNIT SCHEDULE - OUT SIDE AIR CALCULATION
M.002	MECHANICAL LAYOUT FLOOR PLAN

DOOR / WINDOW SCHEDULE

DOOR TYPE	DOOR / WINDOW			FRAME MAT.	HARDWARE	REMARKS
	LOCATION	SIZE (WxH)	MATERIAL			
D1	ENTRANCE	36"x 84"	WOOD	METAL	ENTRANCE LOCK LEVER HANDLE	EXISTING DOOR TO REMAIN
D2	STAIR ENTRANCE	36"x 84"	WOOD	METAL	ENTRANCE LOCK LEVER HANDLE	EXISTING DOOR TO REMAIN
D3	SUITE ENTRANCE	36"x 84"	WOOD	METAL	ENTRANCE LOCK LEVER HANDLE	EXISTING DOOR TO REMAIN
D4	WAITING AREA	36"x 84"	WOOD	METAL	PASSAGE LEVER HANDLE	
D5	BUSINESS OFFICE	36"x 84"	WOOD	METAL	PASSAGE LEVER HANDLE	BARN DOOR
D6	PRIVATE OFFICE	36"x 84"	WOOD	METAL	OFFICE LEVER HANDLE	BARN DOOR
D7	PRIVATE TREATMENT, CONSULT OFFICE OWNER OFFICE, ACCOUNT OFFICE SHARED OFFICE, CALL CENTER	36"x 84"	WOOD	METAL	OFFICE LEVER HANDLE	
D8	LAB, MECH. CLOSET, CLOSET STAFF LOUNGE	36"x 84"	WOOD	METAL	PASSAGE LEVER HANDLE	
D9	ADA RESTROOMS, CHANGING ROOM	36"x 84"	WOOD	METAL	PRIVACY LEVER HANDLE	
D10	EXISTING RESTROOM (2ND FLOOR)	32"x 84"	WOOD	METAL	PRIVACY LEVER HANDLE	
D11	CLOSET	60"x 84"	WOOD	METAL	PASSAGE LEVER HANDLE	

NOTE: - ALL DOOR LEVERS & LOCKS SHALL BE INSTALLED 34" MIN. AND 48" MAX. ABOVE FINISHED FLOOR.
 - Egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort per 2018 IBC, Section 1010.1.9.

BUILDING INFORMATION

EXISTING SPACE	OFFICE
PROPOSED	DENTAL OFFICE
TENANT/SPACE USE GROUP CLASSIFICATION(S)	B
TENANT OCCUPANCY CLASSIFICATION	BUSINESS
CONSTRUCTION TYPE	III-B
BUILDING NUMBER OF STORIES ABOVE GRADE	2
NUMBER OF EXIT REQUIRED/PROVIDED	2/2
FULLY SPRINKLERED & MONITORED (Y/N)	NO
FIRE ALARM (Y/N)	NO
DISTANCE OF EXIT ACCESS TRAVEL:	75'
EGRESS WIDTH: CORRIDOR/DOORS:	42/36
EXIT LIGHTS:	YES
MEANS OF EGRESS LIGHTING:	YES
FLOOR AREA OF RENOVATION/TENANT SPACE	- FIRST FLOOR: 2,520 SQ.FT. - SECOND FLOOR: 900 SQ.FT. - TOTAL: 3,520 SQ.FT.
OCCUPANT LOAD	- BUSINESS USE: 100 SQ.FT. PER OCCUPANT 3,520 SQ.FT./100 = 35 - TOTAL: 35 PERSONS
CODE ANALYSIS:	- 2021 International Building Code - 2021 International Energy Conservation Code - 2021 International Mechanical Code - 2020 National Electrical Code - 2021 International Plumbing Code - Accessible and Useable Buildings and Facilities - ICC A117.1-2009 - 2021 International Existing Building Code - Fire Prevention Code 2020 NFPA 1 - Life Safety Code 2020 NFPA 101

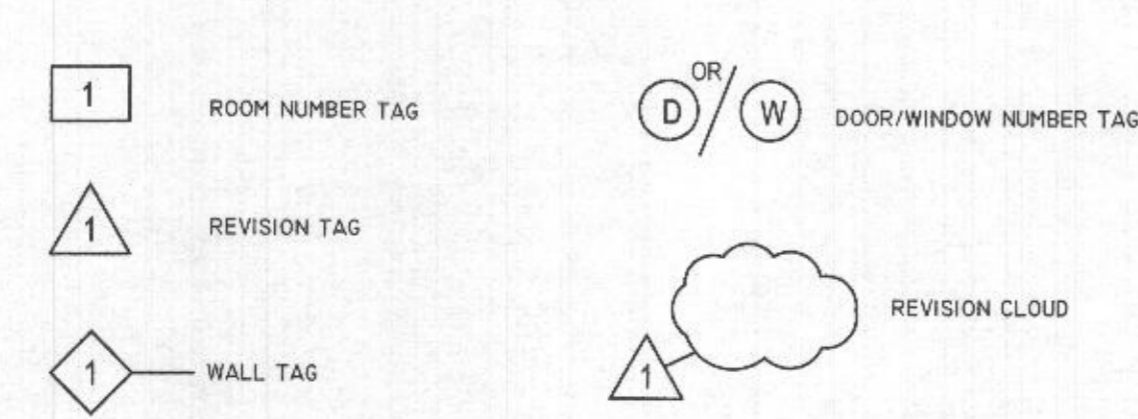
FINISH SCHEDULE

ROOM	DESCRIPTION	FLOOR			BASE			WALL			CEILING			REMARKS
		Concrete	Vinyl	Carpet	Concrete	Carpet	Wood	Concrete	CMU	Drywall	Block	Acoustic	Drywall	
1	WAITING/ RECEPTION AREA HALL WAY, BUSINESS OFFICE CONSULT OFFICE													Latex Semigloss painting
2	PRIVATE TREATMENT, PRIVATE OFFICE, TREATMENT ROOMS, HYGIENE ROOMS, STERILIZATION, LAB, IMAGING, MECH. ROOMS LOUNGE, CHANGING ROOMS, OFFICES													Latex Semigloss painting
3	ADA RESTROOMS EXISTING RESTROOM													Latex Semigloss painting

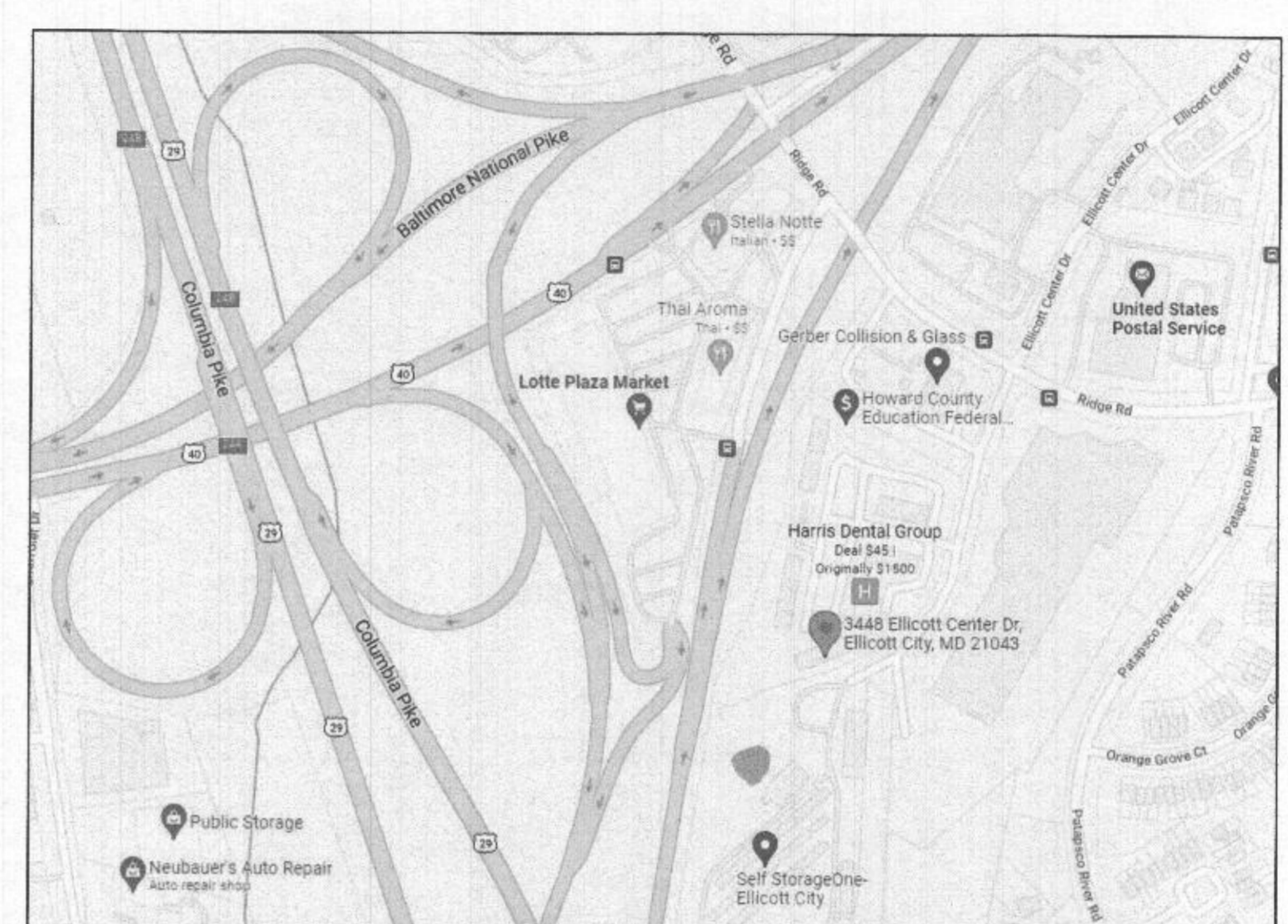
SCOPE OF WORK

- EXTERIOR ENVELOPE UNCHANGED.
- INTERIOR PARTITIONS - NEW TENANT PARTITIONS TO BE INSTALLED PER DRAWINGS.
- CEILING - EXISTING CEILING TO BE REPAIRED/ REPLACED PER NEW LAYOUT.
- STRUCTURAL - UNCHANGED.
- MECHANICAL - EXISTING HVAC UNITS, NEW EXHAUST FANS, DUCTWORKS TO BE INSTALLED PER DRAWINGS.
- PLUMBING - EXISTING RESTROOMS TO BE RELOCATED. NEW HAND SINKS, SERVICE SINKS, DRINKING FOUNTAIN TO BE INSTALLED PER DRAWINGS.
- ELECTRICAL - EXISTING ELECTRIC PANELS, NEW CIRCUITS AND FIXTURES TO BE INSTALLED PER DRAWINGS.
- FIRE EXTINGUISHERS - PROVIDE ONE UL LABELED PORTABLE FIRE EXTINGUISHERS (MINIMUM RATING 2A:10BC:C) IN ACCORDANCE WITH NFPA 10.
- INTERIOR FINISHES - ALL FINISHES SHALL BE IN ACCORDANCE WITH IBC 2018 SECTION 803 AND 38.3.3.3, CHAPTER 10 OF 2018 NFPA 101, LIFE SAFETY CODE.

DRAWING SYMBOLS & MATERIALS



VICINITY MAP
 NOT TO SCALE

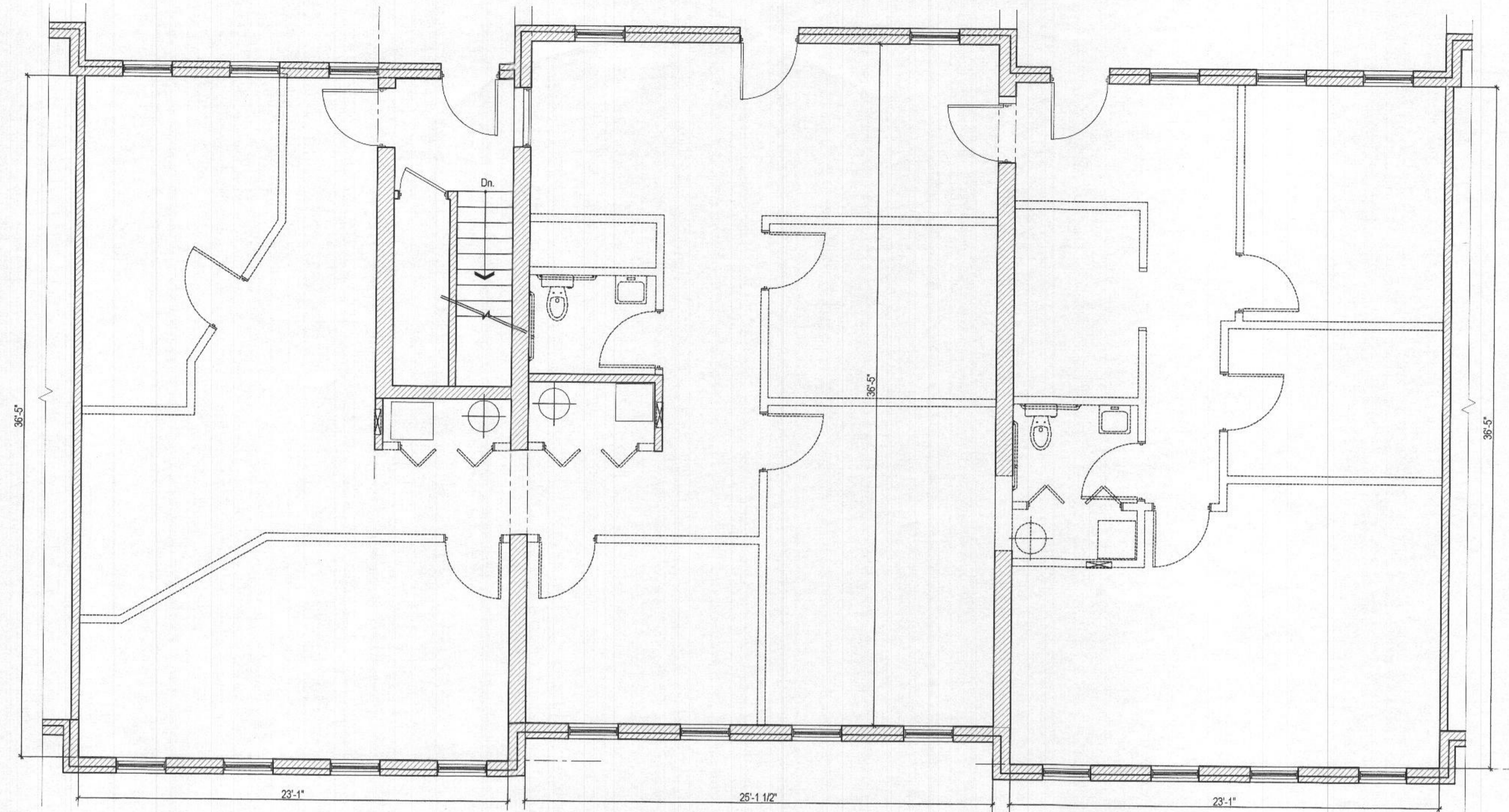


KEY PLAN
 NOT TO SCALE



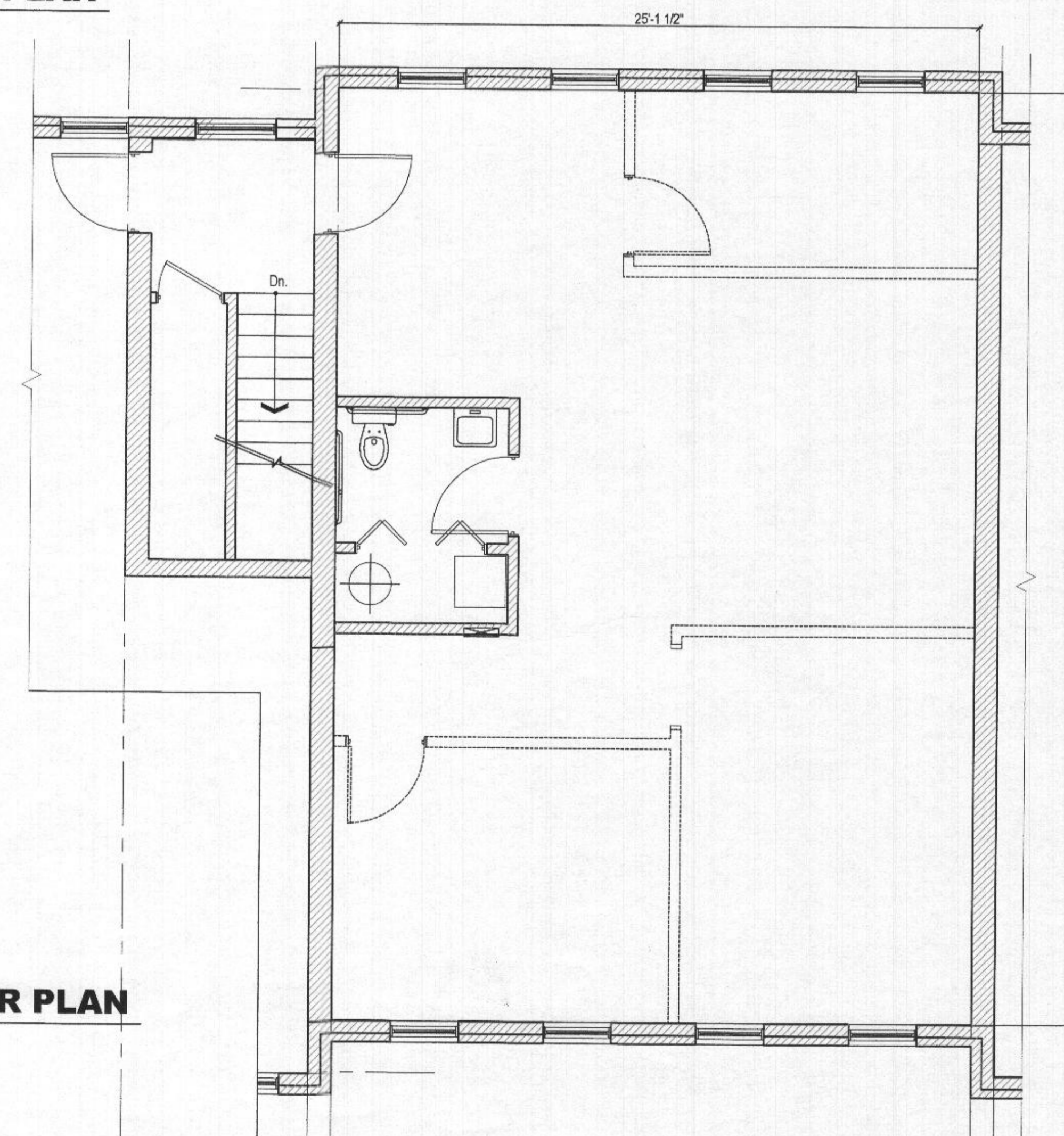
1- DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS AND/ OR SIZES. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD MEASURE EXISTING CONDITIONS PRIOR TO BE CORRECTED AT HIS EXPENSE. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN. LARGE SCALE DETAILS GOVERN OVER SMALL SCALE UNLESS NOTED OTHERWISE.
 2- ALL OTHER NEW AND EXISTING PARTITIONS WILL BE PAINTED WITH TWO COATS OF FLAT LATEX WALL PAINT.
 3- PROVIDE TWO COATS OF LATEX SEMI-GLOSS PAINT ON NEW DOOR.
 4- ALL WARRANTIES, GUARANTEES AND MANUFACTURERS INSTRUCTIONS ON EQUIPMENT AND MATERIALS
 5- PERFORM ALL WORK IN CONFORMANCE TO ALL APPLICABLE CODES AND REGULATIONS OF LOCAL AUTHORITIES.

CONCEALED INSULATION NOTE:
 INSULATING MATERIAL, WHERE CONCEALED AS INSTALLED IN BUILDINGS OF ANY TYPE OF CONSTRUCTION, SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE- DEVELOPED INDEX OF NOT MORE THAN 450.



EXISTING/ DEMOLITION FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



EXISTING/ DEMOLITION SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

LEGEND:

- EXISTING PARTITION TO REMAIN
- EXISTING PARTITION TO BE REMOVED



AURORA

AURORA ARCHITECTS LLC.
ARCHITECTURE DESIGN & CONSULTING
22205 WELBORN PARKWAY SUITE 200
ARLINGTON, VIRGINIA 22204
PHONE: 571-267-5555
170-267-5555
FAX: 703-540-1800
Email: auroraarchitects@aurora.com

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SEAL & SIGNATURE



Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License Number: 44490
Expiration Date: 11/15/2023



19455 DEERFIELD AVE.
SUITE 208
LANSODOWNE, VA 20176
PHONE: 571-291-6546
kevin@kmproless.com

K.M. PROLESS, INC.

PREFERRED DENTAL
3458 ELLICOTT CENTER DRIVE
ELLICOTT CITY, MD 21043

OWNER: DR. ARMINE GRIGORYAN

ISSUE	DATE	DESCRIPTION

PROJECT NUMBER: I.22.001
DRAWN: DN
CHECKED: OL

DATE: 1/11/2022

SCALE: AS INDICATED

RECEIVED
FEB 04 2022
LICENSES & PERMITS
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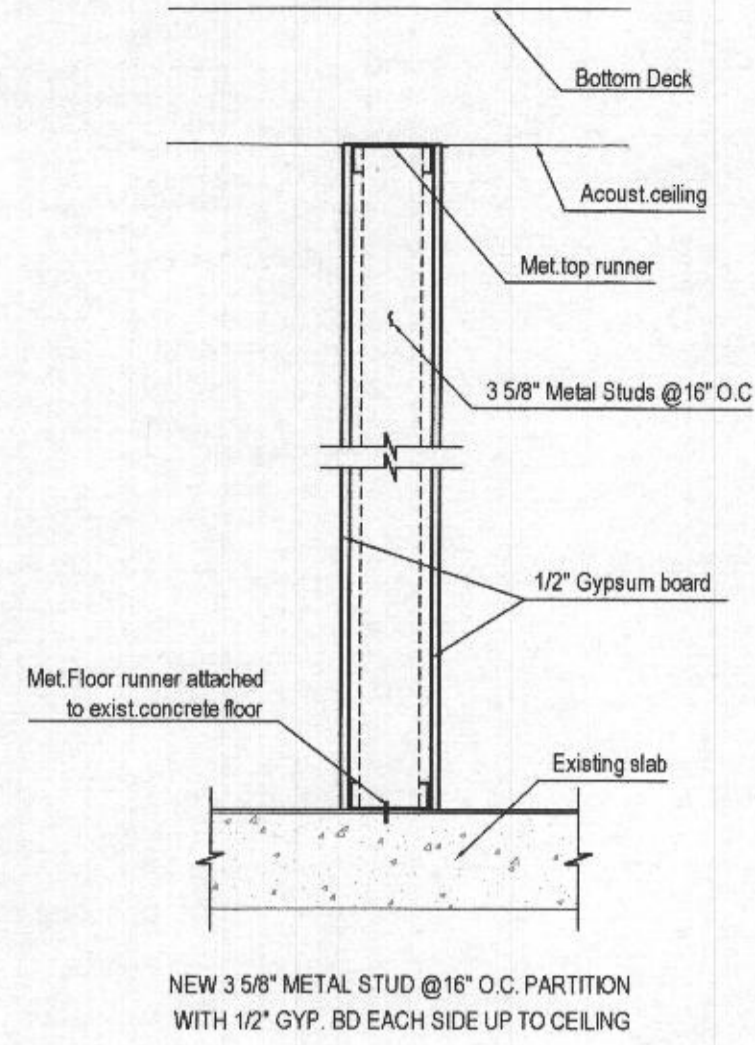
EXISTING FLOOR PLANS

DRAWING TITLE

A.002
DRAWING NO.

TYP. INTERIOR PARTITION 1

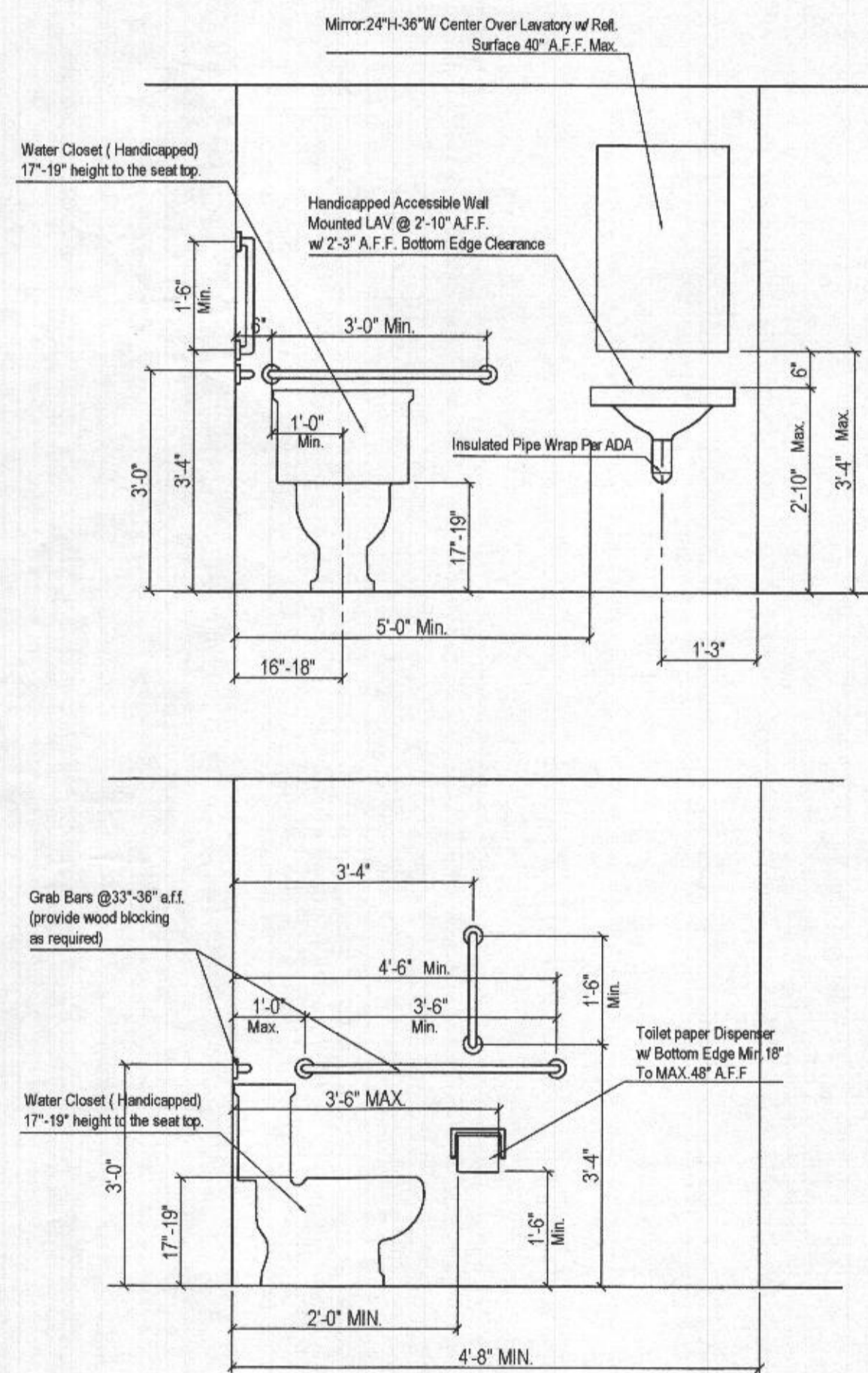
NOT TO SCALE



NEW 3 5/8" METAL STUD @ 16" O.C. PARTITION WITH 1/2" GYP. BD EACH SIDE UP TO CEILING

ADA RESTROOM DETAIL

NOTE: EACH RESTROOM SHALL HAVE HAND SOAP DISPENSER, PAPER TOWEL DISPENSER AND TRASH CAN. NOT TO SCALE



CARPENTRY SYMBOLS

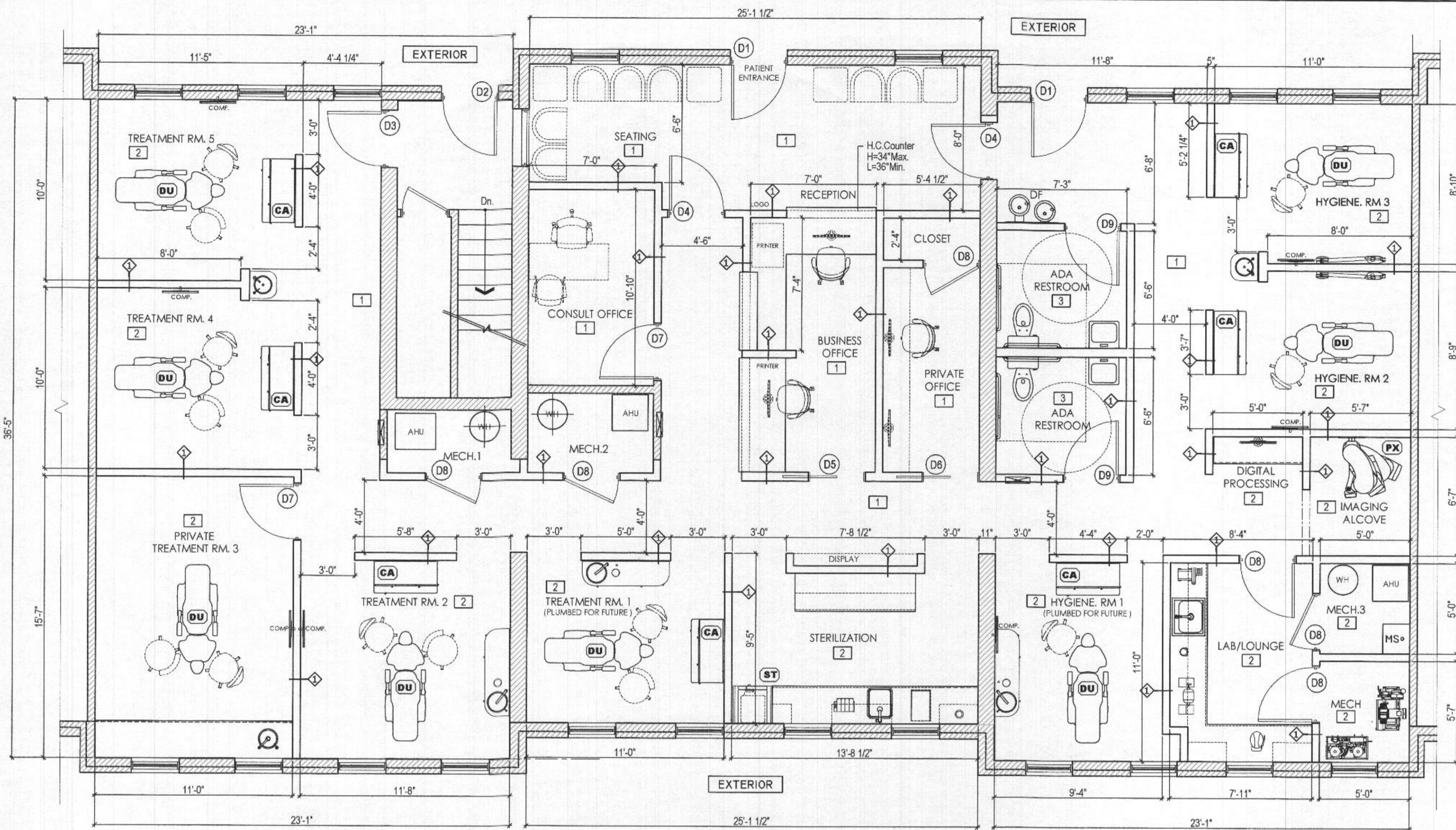
- DU** DENTAL UNIT
- PX** PANORAMIC X-RAY
- XR** X-RAY (SELF-CONTAINED)
- ST** STERILIZER - AUTO CLAVE
- MT** MODEL TRIMMER
- CA** 12 O'CLOCK CABINET UNIT

NOTES FOR CONTRACTOR:

1. ALL EQUIPMENTS SHOULD BE PROVIDED BY DENTAL EQUIPMENT COMPANY. CONTRACTOR SHALL HAVE TO CHECK ALL DRAWINGS FROM DENTAL EQUIPMENT COMPANY FOR INSTRUCTIONS, REQUIREMENTS, DETAILS... AND EXISTING CONDITION BEFORE INSTALL EQUIPMENTS.

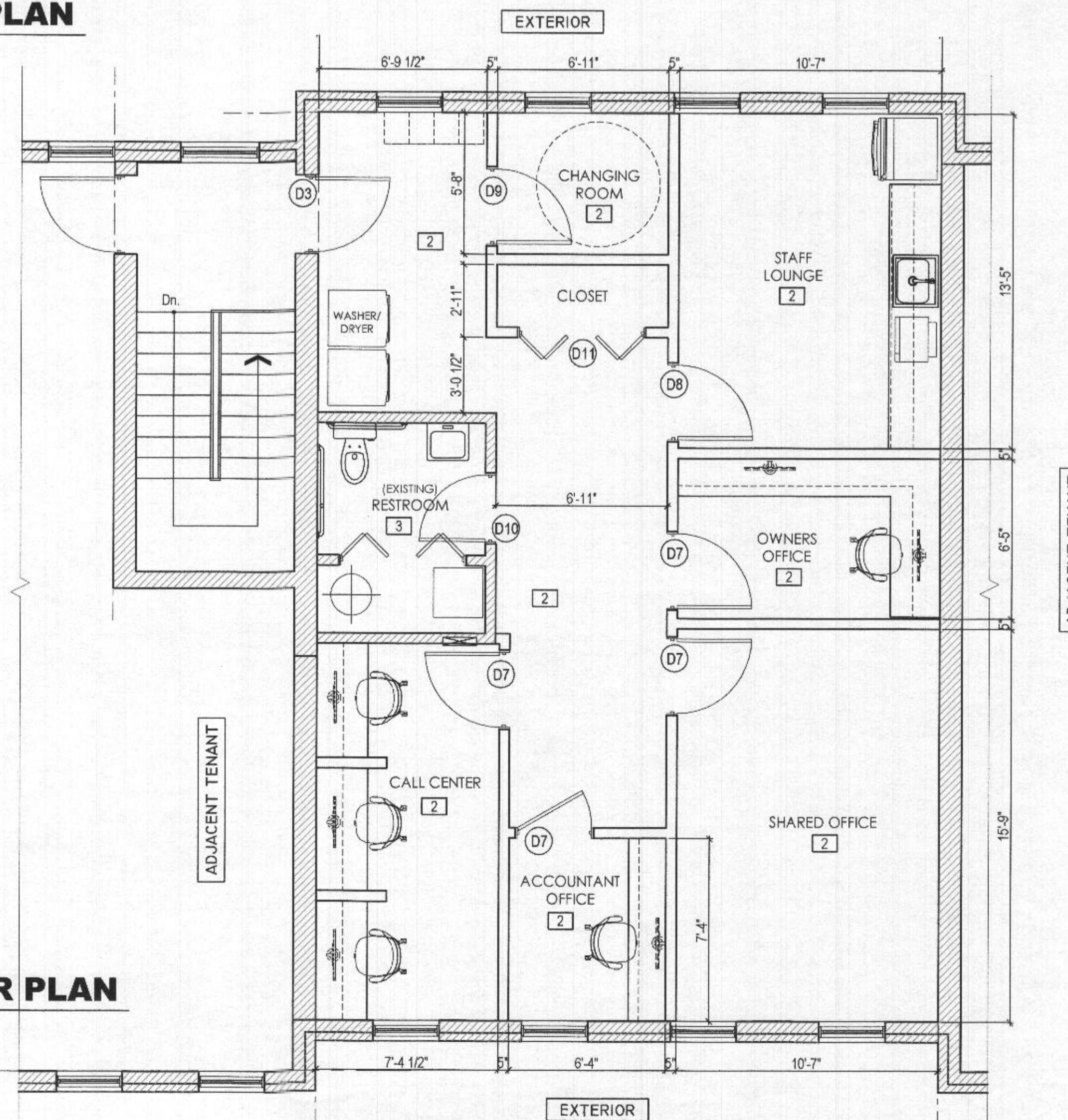
NEW TENANT FIRST LAYOUT FLOOR PLAN

SCALE: 1/4" = 1'-0"



NEW TENANT SECOND LAYOUT FLOOR PLAN

SCALE: 1/4" = 1'-0"



LEGEND:

- EXISTING PARTITION TO REMAIN
- NEW PARTITION TYP.1



AURORA ARCHITECTS LLC.
ARCHITECTURE DESIGN & CONSULTING
2200 WILSON ROAD SUITE 202
ASHBURN, VIRGINIA 20148
PHONE: 571-657-9333
375-247-9336
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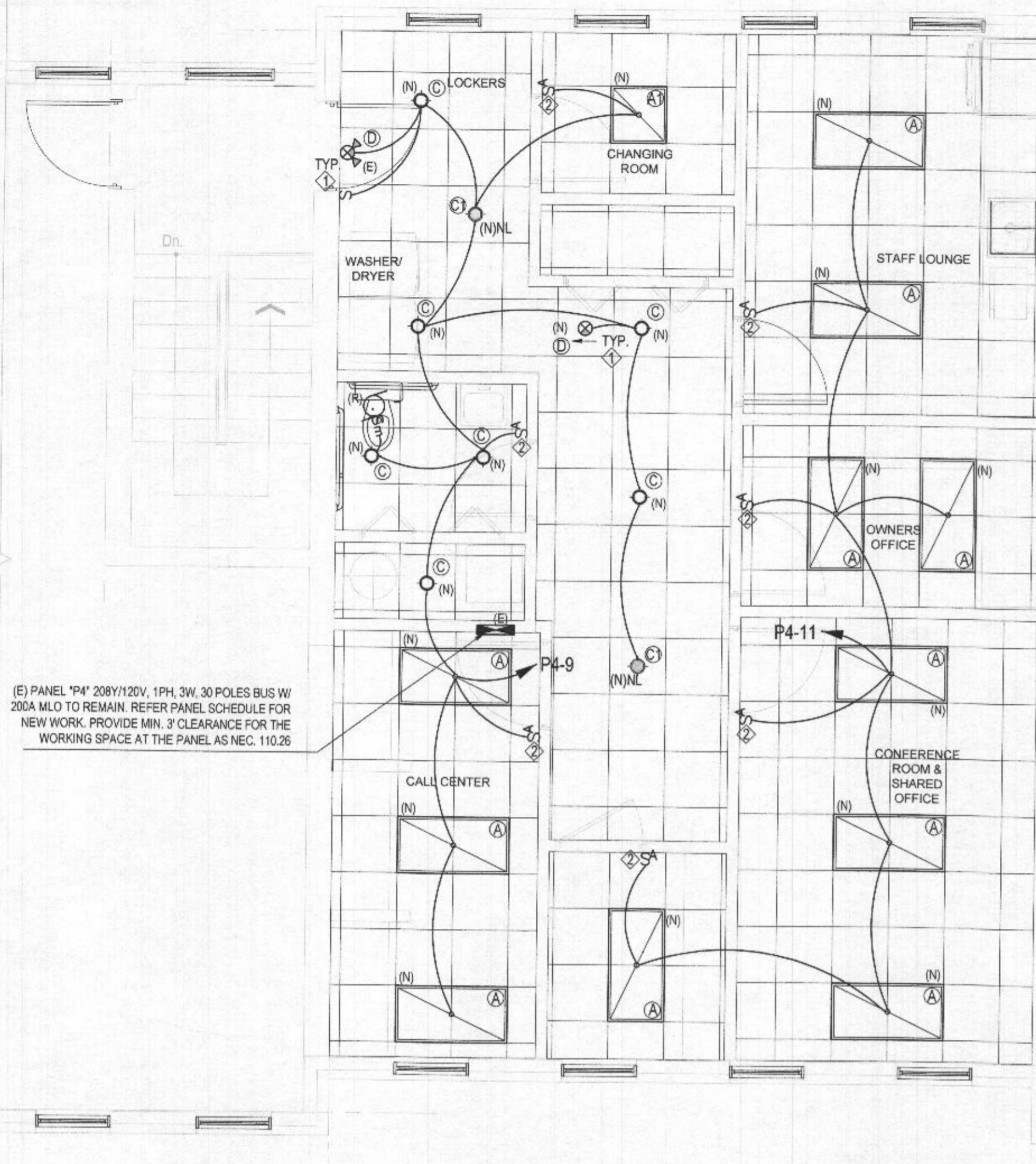
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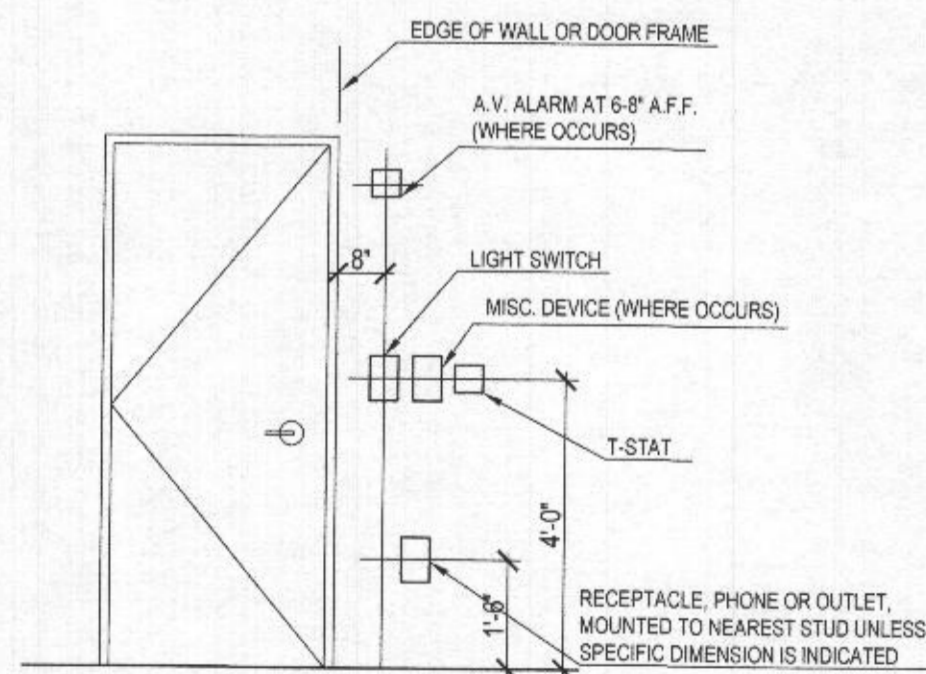
NEW TENANT FLOOR PLANS
ADA RESTROOM DETAILS
TYP.PARTITONS

DRAWING TITLE
A.003
DRAWING NO.



**REFLECTED CEILING PLAN/
2ND FLOOR LIGHTING LAYOUT PLAN**

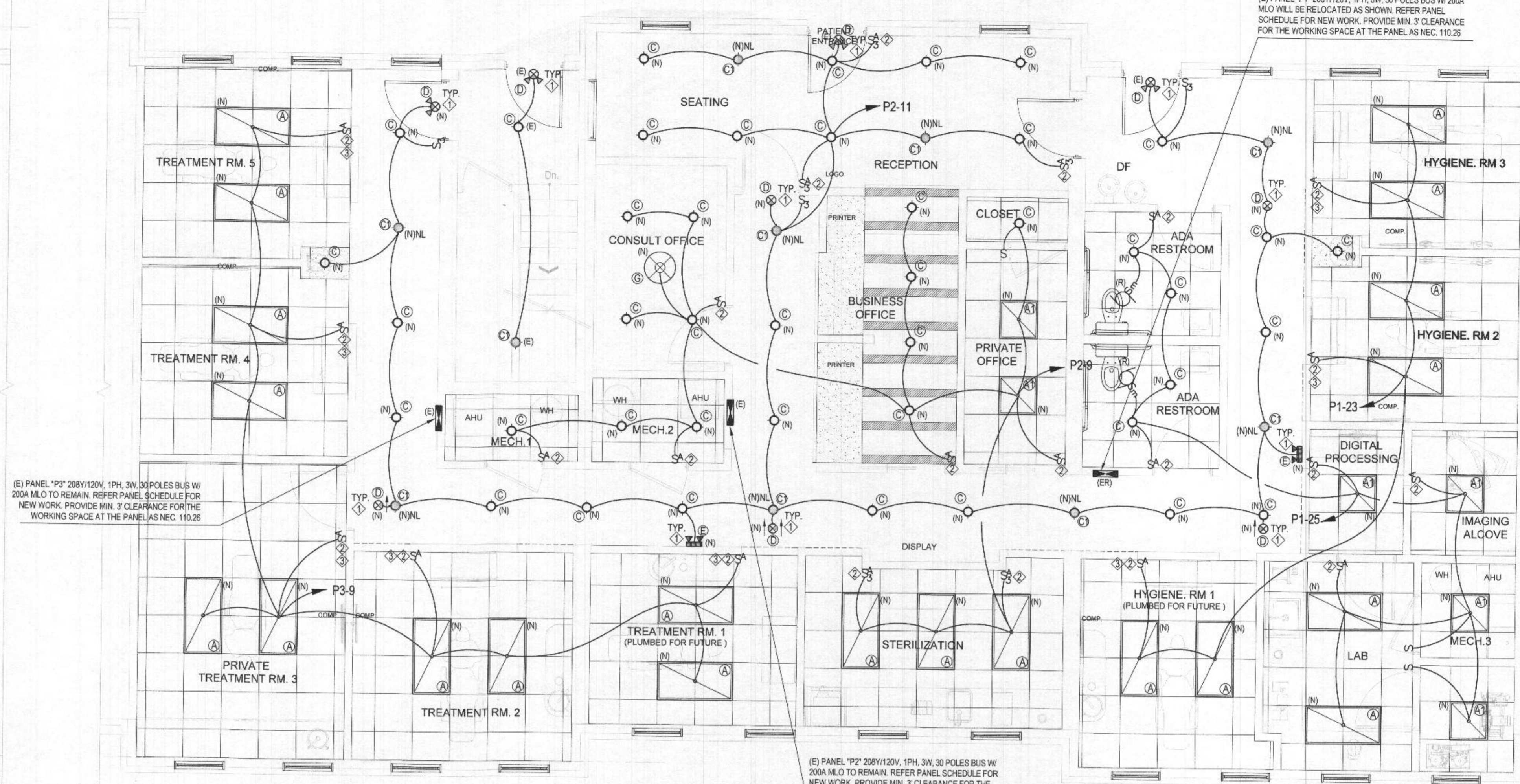
SCALE: 1/4" = 1'-0"



ELEVATION OF DEVICE LOCATION
NOT TO SCALE

REFLECTED CEILING PLAN NOTES:

- COORDINATE WITH ELECTRICAL AND MECHANICAL DRAWINGS FOR LOCATION OF AIR DIFFUSERS, SPRINKLER HEADS AND EMERGENCY LIGHTING, ECT. NOTIFY ARCHITECT IF CONFLICT OCCURS.
- IF THIS TENANT'S SPACE HAS SPRINKLER SYSTEM, THE FIRE SPRINKLER CONTRACTORS RESPONSIBILITY TO SUBMIT PLANS FOR MODIFICATION OF THE FIRE SPRINKLER SYSTEM AS REQUIRED TO ACCOMMODATE THE NEW TENANT SPACE. SPRINKLER CONTRACTOR SHALL CONTACT THE LOCAL FIRE MARSHAL'S OFFICE FOR THIS REVIEW AND APPROVAL AND THE ARCHITECT PRIOR TO INSTALLATION.
- ALL FINISHING AND PAINTING REQUIREMENTS SHALL BE DIRECTED TO FINISH SCHEDULES & SPECIFICATION FOR INSTRUCTIONS.
- ALL FINISHING AND PAINTING REQUIREMENTS SHALL BE DIRECTED TO FINISH INFORMATION FOR INSTRUCTIONS.
- CEILING HEIGHT ARE AS SHOWN ON PLAN.
- IN THE EVENT OF DISCREPANCIES BETWEEN QUANTITY, LOCATIONS, AND/OR TYPE OF LIGHTING FIXTURES BETWEEN ARCHITECTURAL AND ENGINEERING DRAWINGS NOTIFY ARCHITECT FOR REVIEW ARCHITECTURAL DRAWINGS GOVERN.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR THE QUANTITY OF MATERIALS ON THIS PLAN NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN QUANTITY REQUIRED AND QUANTITY SHOWN.



**REFLECTED CEILING PLAN/
1ST FLOOR LIGHTING LAYOUT PLAN**

SCALE: 1/4" = 1'-0"

LIGHTING PLAN NOTES:

- ALL EXIT SIGNS AND ALL EMERGENCY LIGHTING UNITS SHALL BE PROVIDED WITH EMERGENCY BATTERY BALLAST. PROVIDE EXTRA CONDUCTOR AND CONNECT AHEAD OF ANY LOCAL LIGHTING CIRCUIT SWITCH AS PER NEC. SECTION 700.12 (F).
- PROVIDE NEW AUTOMATIC WALL SWITCH OCCUPANCY SENSOR FOR EACH ROOM BY WATTSTOPPER MODEL # DSW-302 AS EICC 0405.2.1. EXCEPTION FOR FULL AUTOMATIC-ON CONTROLS.
- CONTRACTOR SHALL COMPLY WITH NEC SECTION 517.13 (A) TO PROVIDE REDUNDANT GROUNDS FOR LIGHTING BRANCH CIRCUITS IN PATIENT CARE AREAS (TREATMENT AREAS, SURGERY ROOM, HYGIENE AREAS). THIS INCLUDES WIRING TO SWITCHES LOCATED IN THE ROOMS.
- PROVIDE NEW LOW-VOLTAGE POWER PACK CONTROLLER WATTSTOPPER BZ-150 TO CONTROL LIGHTS; 24V OCCUPANCY SENSOR LMOC-100; AND LIGHTSAVER DIMMING PHOTOSENSOR WATTSTOPPER LS-301 FOR DAYLIGHT-RESPONSIBLE CONTROLS.

SHEET NOTES:

- EXISTING CONDITIONS ARE BASED ON STANDARD DRAWINGS PROVIDED BY THE OWNER AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH ALL EXISTING AS REQUIRED FOR INSTALLATION/CONSTRUCTION OF NEW WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONS COMPENSATION WILL BE MADE FOR ANY EXTRAS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOBSITE AND/OR PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENT AND LOCAL CODES.
- PROVIDE CORROSION PROTECTION FOR ALL EQUIPMENT EXPOSED TO OUTDOOR.

NOTICE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFER FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLIGENCE TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION/LOCATION	LAMPS		MANUFACTURER	CATALOG No.	REMARKS
		No.	WATTS			
A	2'x4' EDGE LIT PANEL RECESSED METALUX 24FP LED SERIES 24FP LIGHTING BY COOPER LIGHTING	1	30	COOPER OR EQUAL	24FP3140C-080063858903	OR EQUAL APPROVED. AS BUILDING STANDARD DIRECT/INDIRECT LIGHTING
A1	2'x2' EDGE LIT PANEL RECESSED METALUX 22FP LED SERIES 24FP LIGHTING BY COOPER LIGHTING	1	21	COOPER OR EQUAL	24FP2140C-080083824038	OR EQUAL APPROVED. AS BUILDING STANDARD DIRECT/INDIRECT LIGHTING
B	UPTOWN LIGHT SCENCE-1 LED LIGHT BY LITHONIA LIGHTING	1	10	LITHONIA OR EQUAL	BS-0610-BZ	NEW FIXTURE/ OR EQUAL APPROVED
C	6 INCH LED LENS DOWNLIGHT HALO SERIES HL86 CEILING MOUNTING	1	14	COOPER OR EQUAL	HL86099FS-1EMWR-3000K	NEW FIXTURE/ OR EQUAL APPROVED
C1	8 INCH LED LENS DOWNLIGHT HALO SERIES HL86 NIGHTLIGHT CEILING MOUNTING	1	14	COOPER OR EQUAL	LDN6-350.7-106AR-LSS-MVOL-E21-ELR	PROVIDE EMERGENCY BATTERY BALLASTS OPERATIONAL FOR MIN. 90 MINUTES AND CONNECT AHEAD OF ANY LOCAL SWITCH.
D	EDGE-LIT EXITS FIXTURE, 1 FACE LED W/ BATTERY WALL/CEILING MOUNTED. EDGE-LIT EXITS FIXTURE, 2 FACE W/ BATTERY WALL/CEILING MOUNTED.	1	5	LITHONIA OR EQUAL	EDGC-1RW-H3-EL	BUILDING STANDARD. EDGE-LIT FIXTURE, LAMP SHALL BE LISTED FOR WET LOCATIONS. PROVIDE AND CONNECT TO REMOTE EMERGENCY BALLAST.
E	QUANTUM CONTEMPORARY COMMERCIAL LED EMERGENCY LIGHT ELM6L WALL MOUNTING	2	10	LITHONIA OR EQUAL	ELM6LJLVLTLP-SORT-USPOM	FIXTURE SHALL BE EQUIPPED WITH BATTERY BALLASTS OPERATIONAL FOR MIN. 90 MINUTES AND CONNECT AHEAD OF ANY LOCAL SWITCH.
G	20" DIA. LED CHANDELIER LIGHTING LITHONIA SERIES COLLECTION	1	80	LITHONIA OR EQUAL	DFMADDL-11-F01	NEW FIXTURE/ OR EQUAL APPROVED

1/ ALL ANY EQUAL APPROVED FIXTURES MUST HAVE EQUAL OR LESS WATTS TO SPECIFIED FIXTURE



**COMcheck Software Version 4.1.5.3
Interior Lighting Compliance Certificate**

Project Information

Energy Code: 2018 IECC
Project Title: PREFERRED DENTAL
Project Type: New Construction

Construction Site:

3458 ELLICOTT CENTER DRIVE
ELLICOTT CITY, MD 21043

Owner/Agent:

PREFERRED DENTAL
3458 ELLICOTT CENTER DRIVE
ELLICOTT CITY, MD 21043

Designer/Contractor:

DIUNG NGUYEN
AURORA ARCHITECTS, LLC.
22606 WELBORNE MANOR SQ.
ASHBURN, VA 20148
571-247-5533
AURORAARCHITECTS@YAHOO.COM

Credits: 1.0 Required 1.0 Proposed
Enhanced Interior Lighting Controls, 1.0 credit

Allowed Interior Lighting Power

A	B	C	D
Area Category	Floor Area (ft ²)	Allowed Watts / ft ²	Allowed Watts (B X C)
1-Dental Office (Health Care-Clinic)	3520	0.82	2886
Total Allowed Watts =			2886

Proposed Interior Lighting Power

A	B	C	D	E
Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	Lamps/ Fixture	# of Fixtures	Fixture Watt.	(C X D)
1-Dental Office (Health Care-Clinic)				
6" LED LENS DOWNLIGHT RECESSED: C: RBERDR DIMMING CEILING MOUNT: LED PAR 15W:	1	46	14	644
6" LED LENS DOWNLIGHT RECESSED: C1: RBERDR DIMMING CEILING MOUNT: LED PAR 15W:	1	12	14	168
20" LED CHANDELIER LED LIGHTING: G: 4600K LITHONIA LIGHTING: LED A Lamp 8W:	8	1	80	80
2'x4' LED EDGE LIT PANEL 24FP: A: METALUX COOPER LIGHTING: LED Panel 33W:	1	32	30	960
2'x2' LED EDGE LIT PANEL 22FP: A1: METALUX COOPER LIGHTING: LED Panel 19W:	1	7	20	140
Total Proposed Watts =				1992

Interior Lighting PASSES: Design 31% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

Project Title: PREFERRED DENTAL
Data filename: Z:\Projects 2022\KEVIN KM PROWESS\Dr.Grigoryan-ElliccottDr. Grigoryan-MD.cck

Report date: 01/16/22
Page 1 of 6



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Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

License Number: 44490
Expiration Date: 11/15/2023



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K.M. PROWESS, INC.

PREFERRED DENTAL
3458 ELLICOTT CENTER DRIVE
ELLICOTT CITY, MD 21043

OWNER: DR. ARMINE GRIGORYAN

ISSUE

DATE	DESCRIPTION

PROJECT NUMBER: 1.22.001
DRAWN: DN
CHECKED: OL

DATE: 1/11/2022

SCALE: AS INDICATED

RECEIVED
FEB 04 2022
LICENSES & PERMITS
DIVISION

**REFLECTED CEILING PLAN
LIGHTING LAYOUT PLAN
LIGHTING SCHEDULE
LIGHTING IECC**

DRAWING TITLE

E.002
DRAWING No.



AURORA

AURORA ARCHITECTS LLC.

ARCHITECTURE DESIGN & CONSULTING

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CONSENT OF AURORA ARCHITECTS, LLC.

SEAL & SIGNATURE



Professional Certification:
I hereby certify that these documents were
prepared or approved by me, and that I am
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under the laws of the State of Maryland

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Expiration Date: 11/15/2023



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OWNER: DR. ARMINE GRIGORYAN

PREFERRED DENTAL

3456 ELLICOTT CENTER DRIVE
ELLICOTT CITY, MD 21043

ISSUE

DATE DESCRIPTION

PROJECT NUMBER 1.22.001

DRAWN DL

CHECKED OL

DATE 1/1/2022

SCALE AS INDICATED

POWER LAYOUT PLAN

DRAWING TITLE

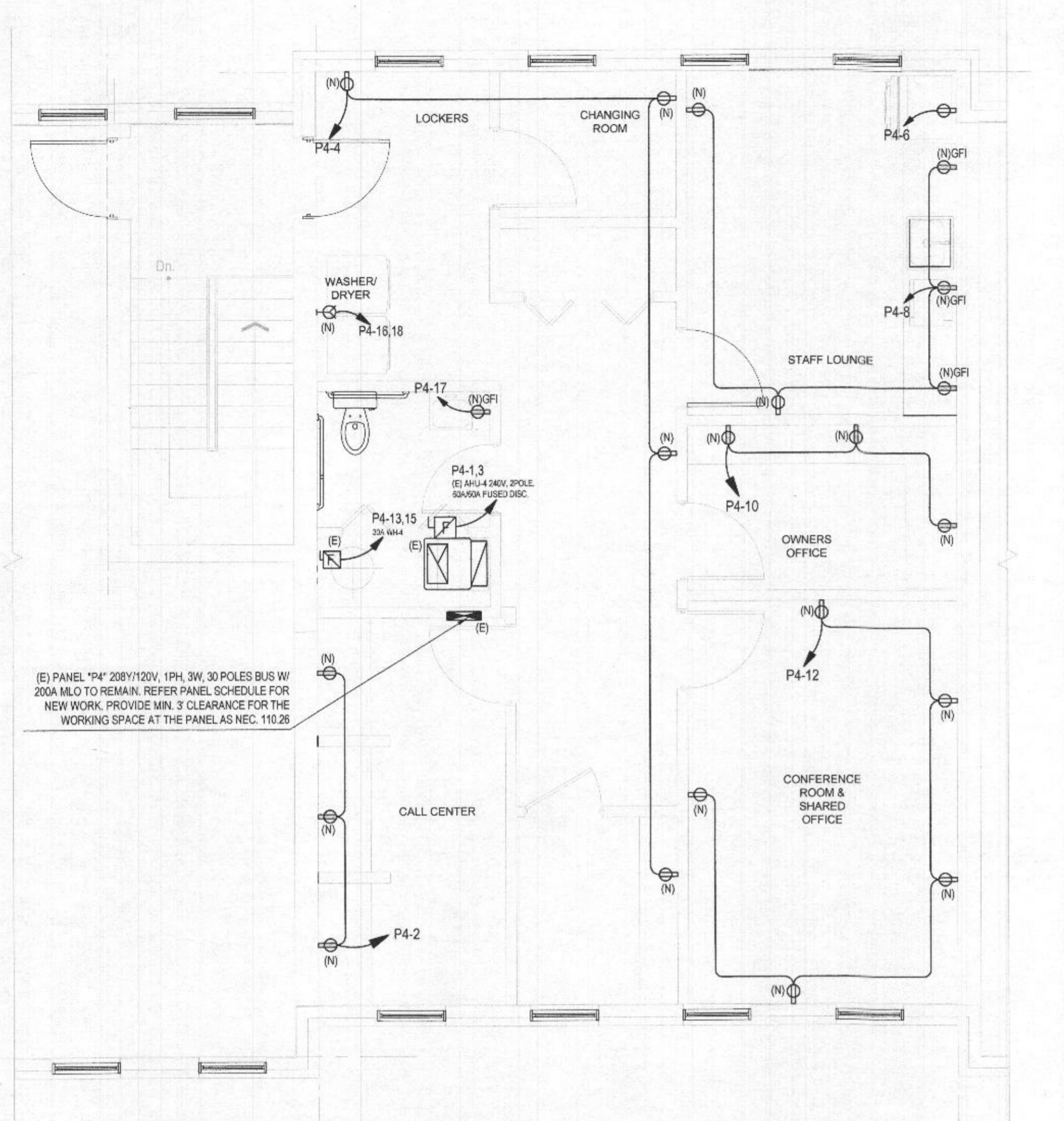
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DRAWING NO.

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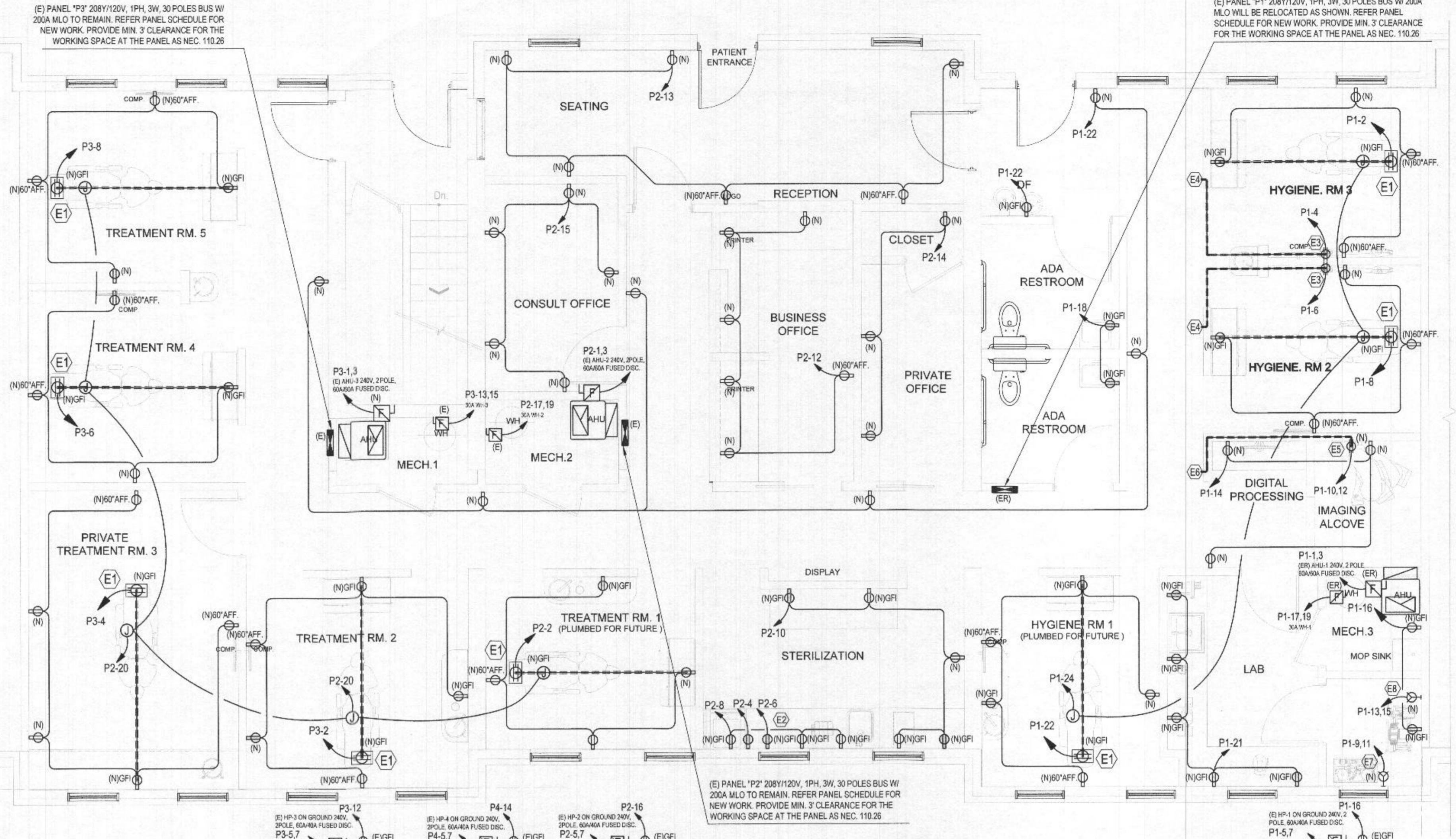
FEB 04 2022

LICENSES & PERMITS
DIVISION



2ND FLOOR POWER LAYOUT PLAN

SCALE: 1/4" = 1'-0"



1ST FLOOR POWER LAYOUT PLAN

SCALE: 1/4" = 1'-0"

POWER PLAN NOTES :

- 1 CONTRACTOR SHALL COMPLY WITH NEC SECTION 917.13(A) TO PROVIDE REDUNDANT GROUNDS FOR ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS (EXAM ROOMS)
 - A) WIRING METHODS: ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS (EXAM ROOMS) SHALL BE PROVIDED WITH A GROUND PATH FOR FAULT CURRENT BY INSTALLATION IN A MEAL RACEWAY SYSTEM, OR A CABLE ARMOR OR SHEATH ASSEMBLY.
 - B) INSULATED EQUIPMENT GROUNDING CONDUCTOR: IN AN AREA USED FOR PATIENT CARE AREAS (EXAM ROOMS), THE GROUNDING TERMINALS OF ALL RECEPTACLES AND ALL NON-CURRENT-CARRYING CONDUCTIVE SURFACES OF FIXED ELECTRIC EQUIPMENT LIKELY TO BECOME ENERGIZED SHALL BE GROUNDED BY AN INSULATED COPPER CONDUCTOR.
- 2 PLUG LOAD CONTROLLER LMP-101 BY WATTSTOPPER AS ASHRAE 90.1 SECTION 8.4.2 FOR ROOM AUTOMATIC RECEPTACLE CONTROLLER (OFFICES, LOUNGE). SEE THE DETAIL ON SHEET E01 FOR DIAGRAM CONNECTION TO CEILING SENSOR AND ROOM CONTROLLER LMR-102

POWER PLAN NOTES :

- 1 CONTRACTOR SHALL COMPLY WITH NEC SECTION 917.13(A) TO PROVIDE REDUNDANT GROUNDS FOR ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS (EXAM ROOMS)
 - A) WIRING METHODS: ALL BRANCH CIRCUITS SERVING PATIENT CARE AREAS (EXAM ROOMS) SHALL BE PROVIDED WITH A GROUND PATH FOR FAULT CURRENT BY INSTALLATION IN A MEAL RACEWAY SYSTEM, OR A CABLE ARMOR OR SHEATH ASSEMBLY.
 - B) INSULATED EQUIPMENT GROUNDING CONDUCTOR: IN AN AREA USED FOR PATIENT CARE AREAS (EXAM ROOMS), THE GROUNDING TERMINALS OF ALL RECEPTACLES AND ALL NON-CURRENT-CARRYING CONDUCTIVE SURFACES OF FIXED ELECTRIC EQUIPMENT LIKELY TO BECOME ENERGIZED SHALL BE GROUNDED BY AN INSULATED COPPER CONDUCTOR.
- 2 PLUG LOAD CONTROLLER LMP-101 BY WATTSTOPPER AS ASHRAE 90.1 SECTION 8.4.2 FOR ROOM AUTOMATIC RECEPTACLE CONTROLLER (OFFICES, LOUNGE). SEE THE DETAIL ON SHEET E01 FOR DIAGRAM CONNECTION TO CEILING SENSOR AND ROOM CONTROLLER LMR-102

POWER PLAN NOTES:

- E1 DENTAL UTILITY- PROVIDE A GROUNDED 115 VOLT, 20 AMP. SEPARATE CIRCUITS (ONE CIRCUIT FOR ALL E1'S PER OPERATORY DOUBLE DUPLEX RECEPTACLE.
- E2 X-RAY HEAD: IN CABINET. PROVIDE 110 VOLT, 20 AMPS. SEPARATE CIRCUITS AND SEPARATE GROUND. SEE MANUFACTURE SPECIFICATIONS FOR EXACT POSITION OF BOX.
- E3 X-RAY REMOTE EXPOSURE BUTTON. 60" AFF. RUN 3#18 WIRES FROM BOX AT X-RAY PT. E3 TO A JUNCTION BOX AT X-RAY REMOTE. MOMENTARY CONTACT BUTTON PROVIDED BY DOCTOR. LEAVE 18" OF EXTRA WIRE AT EACH END. EXISTING FIRE ALARM SUPPRESSION TANK TO REMAIN.
- E4 X-RAY REMOTE EXPOSURE BUTTON. 60" AFF. RUN 3#18 WIRES FROM BOX AT X-RAY PT. E3 TO A JUNCTION BOX AT X-RAY REMOTE. MOMENTARY CONTACT BUTTON PROVIDED BY DOCTOR. LEAVE 18" OF EXTRA WIRE AT EACH END. EXISTING FIRE ALARM SUPPRESSION TANK TO REMAIN.
- E5 PANORAMIC X-RAY: PROVIDE 220 VOLTS, 20 AMPS. SEPARATE CIRCUITS SEE MANUFACTURE FOR DETAIL AND EXACT LOCATION RECEPTACLE AT 36" AFF. (NEMA 6-15)
- E6 PANORAMIC EXPOSURE BUTTON: 60" AFF. RUN 3#18 WIRES FROM BOX AT PANORAMIC X-RAY PT. E5 TO A JUNCTION BOX AT X-RAY REMOTE. MOMENTARY CONTACT BUTTON PROVIDED BY DOCTOR. LEAVE 18" OF EXTRA WIRE OUT AT EACH END.
- E7 AIR COMPRESSOR: 220 VOLTS, 20AMP. SEPARATE CIRCUITS. AIR COMPRESSOR LOCATED IN MECHANICAL CLOSET. BUCK BOOST TRANSFORMER (B&BT) BY ACME ELECTRIC CORPORATION IF VOLTAGE IS 208 OR LESS.
- E8 VACUUM PUMP UNIT: 220 VOLTS, 20AMP. SEPARATE CIRCUITS. VACUUM PUMP TO BE LOCATED IN MECHANICAL CLOSET. BUCK BOOST TRANSFORMER (B&BT) BY ACME ELECTRIC CORPORATION IF VOLTAGE IS 208 OR LESS.
- E9 MASTER CONTROL PANEL. 60" AFF. TO CONTROL THE CENTRAL DENTAL VACUUM PUMP, AIR COMPRESSOR, AND WATER SOLENOID VALVE. RUN (3) #184 WIRES FROM MASTER PANEL TO VACUUM PUMP, AIR COMPRESSOR, AND WATER SOLENOID VALVE. CONNECT CONTRACTORS ON FINISH TIE INTO SYSTEM.

SHEET NOTES:

- EXISTING CONDITIONS ARE BASED ON STANDARD DRAWINGS PROVIDED BY THE OWNER AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH ALL EXISTING AS REQUIRED FOR INSTALLATION/CONSTRUCTION OF NEW WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONS COMPENSATION WILL BE MADE FOR ANY EXTRAS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOBSITE AND/OR PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENT AND LOCAL CODES.
- PROVIDE CORROSION PROTECTION FOR ALL EQUIPMENT EXPOSED TO OUTDOOR.

NOTICE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS. ANY CONDITIONS THAT DIFFER FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT/ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.



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Professional Certification:
I hereby certify that these documents were
prepared or approved by me, and that I am
a duly licensed professional engineer
under the laws of the State of Maryland.

License Number: 44450
Expiration Date: 11/15/2023



K.M. PROSS, INC.

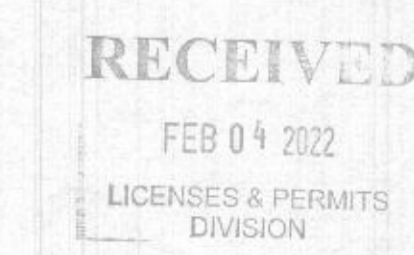
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ISSUE	DATE	DESCRIPTION

PROJECT NUMBER 1.22.001
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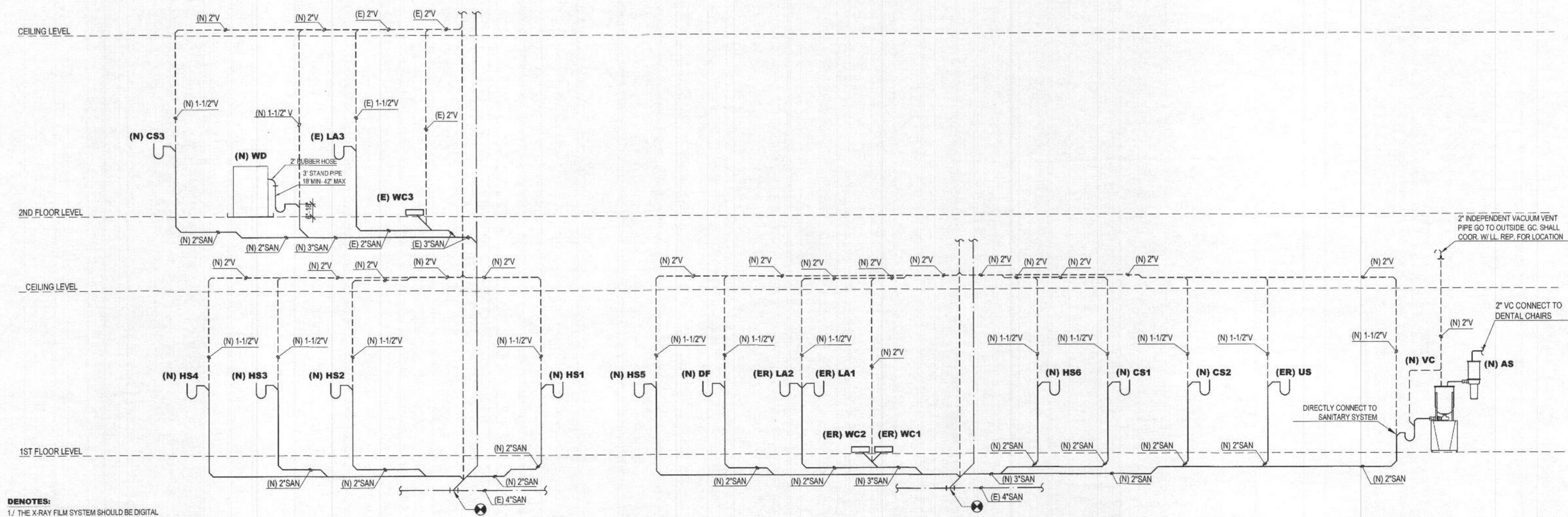
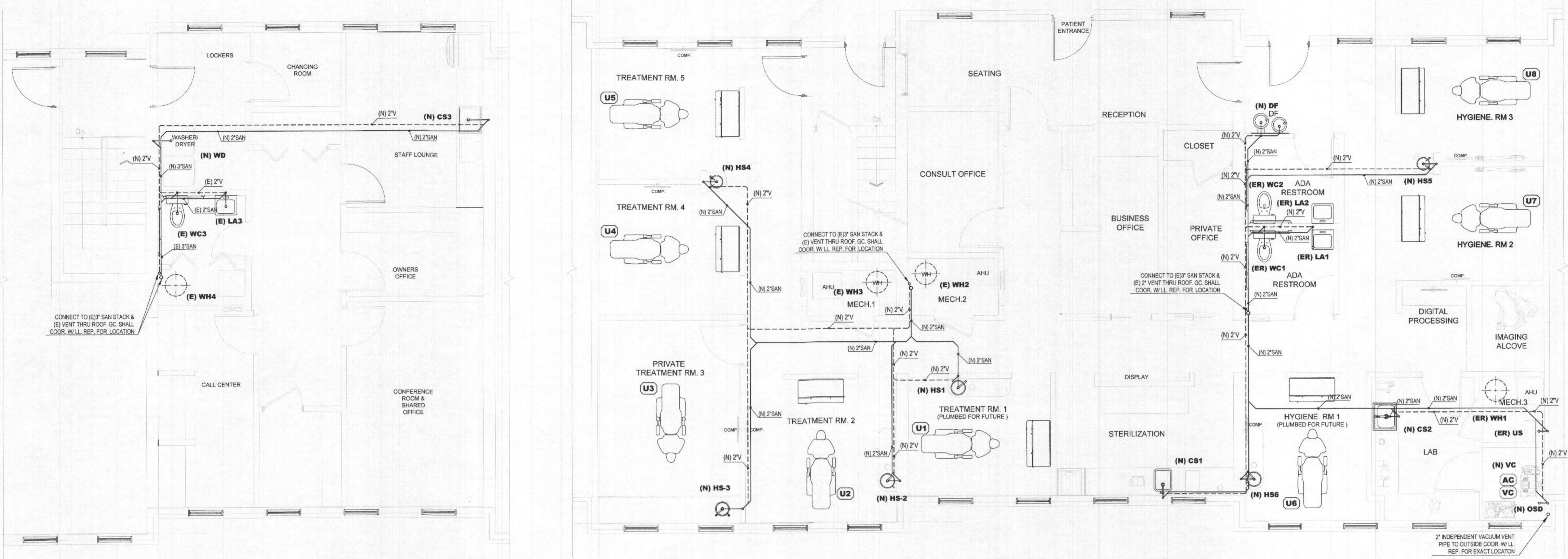
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SCALE AS INDICATED



**SANITARY FLOOR PLAN
O2, N20 FLOOR PLAN
PLUMBING DETAIL**

DRAWING TITLE

P.003
DRAWING No.



SANITARY RISER DIAGRAM
NOT TO SCALE

NOTES FOR NFPA 99C:

- 1. THE TENANT ONLY USES THE VACUUM SYSTEM AND AIR COMPRESSOR SYSTEM. THESE SYSTEMS ARE LOCATED IN MECHANICAL ROOM AT BASEMENT. NO ANY MEDICAL GASES AS OXYGEN, NITROUS OXIDE...
- 2. THE VACUUM SYSTEM SHALL BE LEVEL I AS SECTION 5.1.3 NFPA 99C. FOR LEVEL I SOURCES AND SHALL BE REQUIRED AS SECTION 13.3.5.1 (1) FOR LEVEL I.
- 3. THE LEVEL I MEDICAL GASES SYSTEM ONLY FOR VACUUM AND AIR COMPRESSOR SHALL BE PERMITTED THE NATURAL VENTILATION AS SECTION 5.1.3.3.3.1 (D) & (E) NFPA 99C. PROVIDE EXHAUST FAN IN MECHANICAL ROOM FOR MORE SAFETY. PLEASE SEE MECHANICAL DRAWING FOR MORE INFORMATION.

NOTICE TO CONTRACTORS

ALL CONTRACTORS PRIOR TO BID SUBMISSION PROCESS SHALL VISIT PROPOSED WORK SITE AND FIELD VERIFY ALL EXISTING CONDITIONS, ANY CONDITIONS THAT DIFFER FROM THAT SHOWN ON THIS PLAN SHALL BE REPORTED TO ARCHITECT ENGINEER SO THAT NEW AND REVISED BID DRAWINGS OR INFORMATION MAY BE ISSUED. MODIFICATIONS TO SCOPE OF WORK WHICH RESULTS FROM CONTRACTORS NEGLECT TO VISIT THE SITE PRIOR TO SUBMITTING BID, SHALL BE THE CONTRACTORS SOLE RESPONSIBILITY.

DENOTES:
1/ THE X-RAY FILM SYSTEM SHOULD BE DIGITAL SYSTEM. PROVIDE BY DENTAL SUPPLY COMPANY
2/ SEWER LINES SHOWN ON THE PLAN AND RISER DIAGRAM ARE APPROXIMATE. CONTRACTOR SHALL SITE VERIFY ALL INFORMATION PRIOR TO BIDDING.

MECHANICAL GENERAL NOTES:

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE INTERNATIONAL MECHANICAL CODES, HEALTH CODES, AND OTHER REGULATIONS.
- NO WORK SHALL BE INSTALLED IN VIOLATION OF ANY GOVERNING CODES. ANY WORK SHOWN ON THE DRAWINGS WHICH IS IN VIOLATION OF SUCH CODES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER'S REPRESENTATIVE AND SHALL BE RESOLVED PRIOR TO THE INSTALLATIONS OF THE WORK.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONAL SPACES AND UTILITY REQUIREMENTS BEFORE START ANY WORK AND SHALL NOTIFY ENGINEERS ANY BIG CONFLICTS BETWEEN CONTRACT DRAWINGS AND FIELD CONDITIONS.
- PROVIDE VIBRATION ISOLATORS, HANGERS, CONNECTORS, ECT. WHERE REQUIRED TO ELIMINATE VIBRATION.
- ALL NEW DUCTWORK SHALL BE GALVANIZED. DUCTWORK SHALL BE FABRICATED AND INSTALLED PER LATEST SMACNA AND ASHRAE GUIDELINES.
- PROVIDE STANDARD TURNING VANES IN DUCT ELBOWS.
- DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. ALLOWANCE SHALL BE MADE FOR THICKNESS OF SOUNDING OR INSULATION.
- ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE BOUND COPIES OF INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT TO OWNER.
- PROVIDE COMPLETE TECHNICIANS TO INSTRUCT OWNER IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT.
- CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF ALL OTHER TRADES AND SHALL PROVIDE ALL REQUIRED OFF-SETS IN PIPING AND DUCTWORK TO ACCOMPLISH THE WORK.
- FURNISH AND INSTALL VOLUME DAMPERS IN SUPPLY, RETURN AND OUTSIDE AIR DUCTS WHEREVER NEEDED TO BALANCE THE ENTIRE AIR DISTRIBUTION SYSTEM IN ADDITION TO DAMPERS WHERE SHOWN ON DRAWINGS.
- FOR ANY EXISTING EQUIPMENT WHICH WAS DECIDED TO BE RE-USED, CONTRACTOR SHALL REPLACE THEM WITH NEW UNITS OF SAME CAPACITIES OF THE EXISTING ONES CAN NOT PERFORM PROPERLY.
- GC SHALL FOLLOW ALL REQUIRED FOR SPACE CEILINGS ARE CONSIDERED RETURN AIR PLENUMS AND ALL MATERIALS WITHIN CEILING CAVITY SHALL BE PLENUM RATED. PROVIDE WRAP MATERIAL ALLOWED BY CODE FOR ALL EXISTING PVC PIPING IN CEILING OR USE CAST IRON, COPPER PIPING.
- ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL BE LISTED AND LABELED AS HAVING A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 ACCORDANCE WITH ASTM E84 OR UL 723 AS IBC 602.2.1.

ABBREVIATIONS:

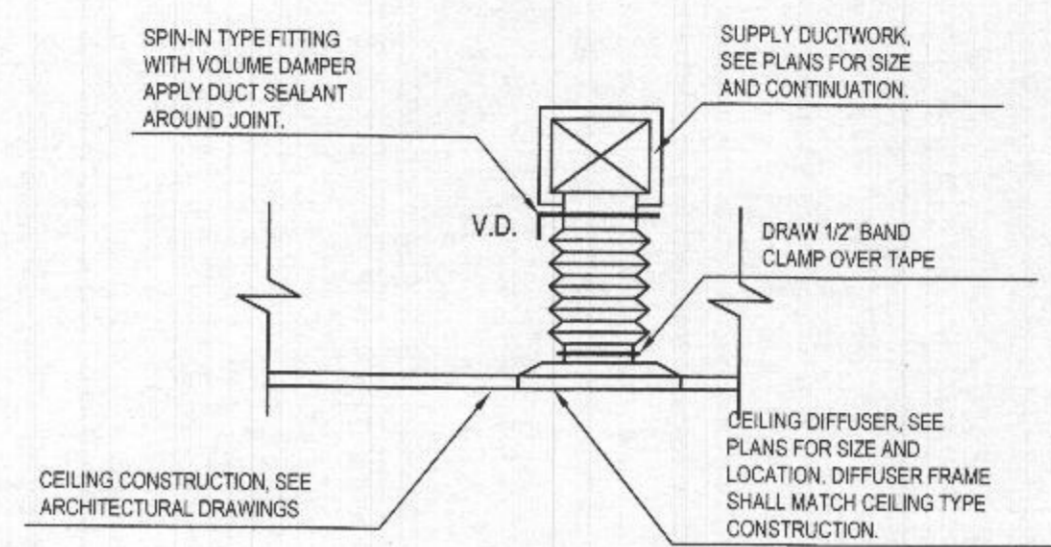
- AABC ASSOCIATED AIR BALANCE CONTROL
- AFF ABOVE FINISHED FLOOR
- AHU AIR HANDLING UNIT
- APD AIR PRESSURE DROP
- ASHRAE AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS
- ATC AUTOMATIC TEMPERATURE CONTROLS
- BD BLADE DAMPER
- BFP BACK FLOW PREVENTOR
- BTUH BRITISH THERMAL UNIT PER HOUR
- CD CEILING DIFFUSER
- CFM CUBIC FEET PER MINUTE
- CG CEILING GRILL
- CLG CEILING
- CO CLEAN OUT
- CS DRY BULB
- EA EACH
- EAT ENTERING AIR TEMPERATURE
- EER ENERGY EFFICIENCY RATIO
- ESP EXTERNAL STATIC PRESSURE
- EWT ENTERING WATER TEMPERATURE
- °F DEGREES FAHRENHEIT
- FD FIRE DAMPER
- FL FULL LOAD AMPS
- FPM FEET PER MINUTE
- FT FEET
- GPM GALLONS PER MINUTE
- HP HORSEPOWER
- HVAC HEATING VENTILATING AND AIR CONDITIONING UNIT
- HZ HERTZ
- IN INCHES
- KW KILOWATTS
- LAT LEAVING AIR TEMPERATURE
- LBS POUNDS
- LF LINEAR FEET
- MBH THOUSAND BRITISH THERMAL UNITS PER HOUR
- MCA MINIMUM CIRCUIT AMPS
- MAU MAKE-UP AIR UNIT
- MM MINIMUM
- MU HUMIDIFIER MAKE-UP
- NFPA NATIONAL FIRE PROTECTION ASSOCIATION
- OA OUTSIDE AIR
- OPD OPPOSED BLADE DAMPER
- PD PRESSURE DROP
- PH PHASE
- PSIG POUNDS PER SQUARE INCH GAUGE PRESSURE
- RPM ROUND PER MINUTE
- SA SUPPLY AIR
- SD SMOKE DETECTOR
- SF SUPPLY FAN
- SL SOUND LINING
- SP STATIC PRESSURE
- SQ SQUARE
- TPY TYPICAL
- UL UNDERWRITERS LABORATORIES
- V VOLT
- VAV VARIABLE AIR VOLUME
- W WITH
- WB WET BULB
- WG WATER GAUGE
- WPD WATER PRESSURE DROP

SYMBOLS:

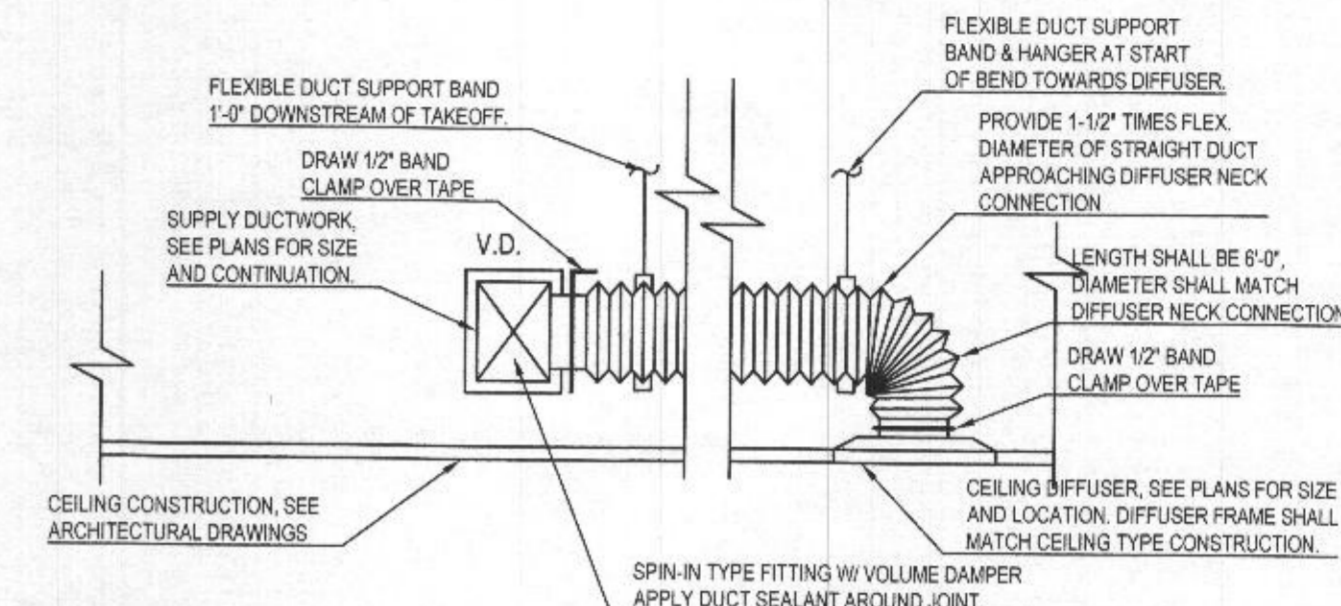
- CD CEILING SUPPLY AIR DIFFUSER
- RA CEILING RETURN AIR GRILL
- EF CEILING EXHAUST AIR REGISTER
- EF EXHAUST FAN
- CD ROUND CEILING SUPPLY AIR DIFFUSER TITUS TMR-26-D75
- 4' LINEAR DIFFUSER
- UNDER CUT DOOR
- LOUVER DOOR
- SUPPLY AIR DUCT
- RETURN AIR DUCT
- ENTERING AIR TEMPERATURE
- IN-LINE EXHAUST FAN
- FLEXIBLE DUCTWORK
- AIR OUT OF TERMINAL
- AIR INTO AIR TERMINAL
- PIPE TURNING UP
- PIPE TURNING DOWN
- THERMOSTAT
- POINT OF CONNECTION
- UNION
- THERMOMETER
- GATE VALVE
- CHECK VALVE
- CONDENSATE DRAIN
- CONDENSATE WATER SUPPLY
- CONDENSATE WATER RETURN
- SMOKE DAMPER
- FIRE DAMPER
- VOLUME DAMPER

EQUIPMENT SCHEDULE:

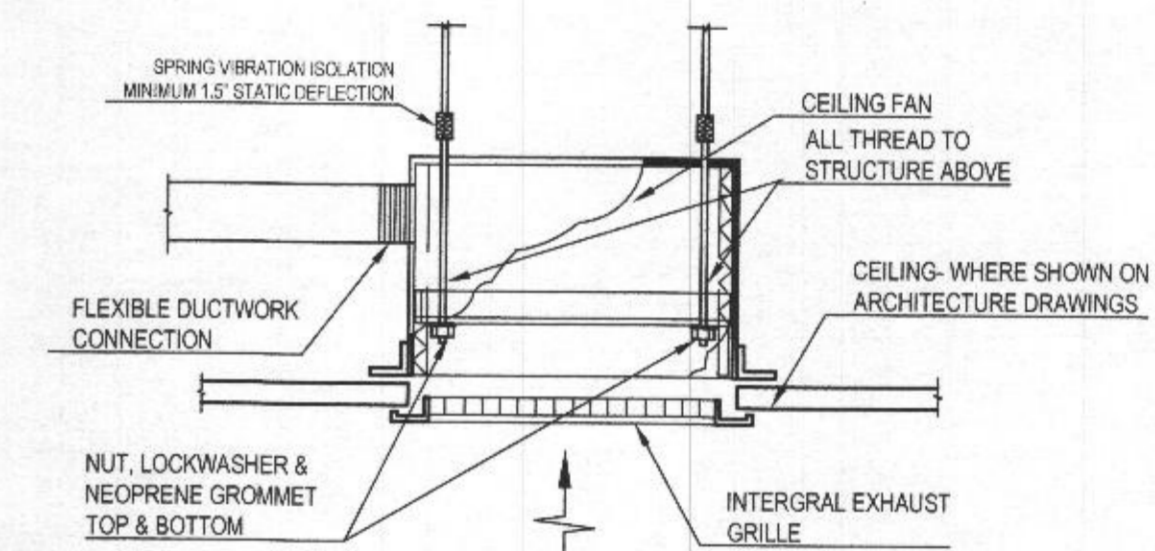
- (ER) EF-1, (E) EF-2, (E) EF-3:**
 (E) CEILING EXHAUST FAN VENTILATING SERVING RESTROOM SHALL EXHAUST 500 CFM AIR AT 0.125" STATIC PRESSURE LOSS WITH 129 WATT MOTOR, SPEED 1,050 RPM. ELECTRIC POWER 120V/1PH/60HZ. GREENHECK MODEL SP-B110 OR APPROVED EQUAL. PROVIDE MANUAL OVERRIDE SWITCH.
- (N) EF-4:**
 (N) CEILING EXHAUST FAN VENTILATING SERVING MECHANICAL CLOSET SHALL EXHAUST 200 CFM AIR AT 0.125" STATIC PRESSURE LOSS WITH 129 WATT MOTOR, SPEED 1,050 RPM. ELECTRIC POWER 120V/1PH/60HZ. GREENHECK MODEL SP-B110 OR APPROVED EQUAL. PROVIDE MANUAL OVERRIDE SWITCH.



CEILING DIFFUSER VERTICAL CONNECTION DETAIL
NOT TO SCALE



CEILING DIFFUSER HORIZONTAL CONNECTION DETAIL
NOT TO SCALE



EXHAUST FAN MOUNTING DETAIL
NOT TO SCALE

NOTICE TO CONTRACTORS

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SHEET NOTES:

- EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS PROVIDED BY THE OWNER AND LIMITED FIELD VERIFICATION. CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE OWNER.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE DEMOLITION WORK PRIOR TO BIDDING AND START OF WORK. CONTRACTOR IS RESPONSIBLE TO DEMOLISH ALL EXISTING AS REQUIRED FOR INSTALLATION/CONSTRUCTION OF NEW WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. NO ADDITIONS COMPENSATION WILL BE MADE FOR ANY EXTRAS DUE TO CONTRACTOR'S FAILURE TO VISIT THE JOBSITE AND/OR PREDETERMINE ALL EXISTING CONDITIONS BEFORE SUBMITTING HIS BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER FOR RESOLUTION.
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENT AND LOCAL CODES.
- PROVIDE CORROSION PROTECTION FOR ALL EQUIPMENT EXPOSED TO OUTDOOR.
- CONDENSATE PIPING TO BE INSULATED.

PERFORATED DIFFUSER/REGISTER SCHEDULE (SUPPLY & RETURN)

CFM RANGE	FACE VELOCITY (FPM)	FACE SIZE (IN)	MAX. S.P.	MANUFACTURER AND MODEL
75 - 125 (1)	500	06"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
125 - 220 (1)	500	08"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
221 - 245 (1)	500	010"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
246 - 500 (1)	500	012"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
501 - 680 (1)	500	014"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
681 - 890 (1)	500	015"	0.02	TITUS OMNI 24x24 PERFORATED FACE LAY-IN OR EQUAL APPROVED
0 - 250 (3)	500	08"	0.02	NALOR 4800P/08" LONG 23/02 LINEAR DIFFUSER W/3" SLOTS & INLET DAMPER EQUAL APPROVED
251 - 500 (3)	500	010"	0.02	NALOR 4800P/10" LONG 23/02 LINEAR DIFFUSER W/3" SLOTS & INLET DAMPER EQUAL APPROVED
1126 - 1680 (2)	500	22" x 22"	0.02	TITUS EGGGRATE 24x24 RETURN AIR GRILL OR EQUAL APPROVED

- DIFFUSER FACE SIZES SHALL BE 24"x24".
- FOR RETURN AIR ONLY.
- PLENUM LINEAR DIFFUSER SHALL BE 48"x24" BY NALOR MODEL 5310 WITH THE ROUND INLET DAMPER #4250 RADIAL SLIDING BLADE.

(E) AIR HANDLER UNIT SCHEDULE AHU-1

MARK	SERVING	NOM TONS	FAN			COOLING				HEATING DATA				ELECTRIC			WEIGHT (LBS)	MANUFACTURER			
			CFM	E.S.P. (IN.W.C.)	HP (WATT)	CFM (O.A.)	EAT DBWB (DEG)	AMB AIR (DEG)	SENS. CAP. (MBH)	TOT. CAP. (MBH)	MIN. EER	EAT (DEG)	AUXILIARY HEAT (KW)	V	AMPS	STAGES			MCA (AMPS)	MOCOP	W/PH
(ER) AHU-1	TENANT AREA	2.5	1,200	1.25"	1.5	170	80/67	95	72.7	94.8	11.3	55	9.60	208	48.1	2	52	60	208-1	155	TRANE TEC3F048SUB1F
(E) AHU-2	TENANT AREA	2.5	1,200	1.25"	1.5	170	80/67	95	72.7	94.8	11.3	55	9.60	208	48.1	2	52	60	208-1	155	TRANE TEC3F048SUB1F
(E) AHU-3	TENANT AREA	2.5	1,200	1.25"	1.5	170	80/67	95	72.7	94.8	11.3	55	9.60	208	48.1	2	52	60	208-1	155	TRANE TEC3F048SUB1F
(E) AHU-4	TENANT AREA	2.5	1,200	1.25"	1.5	170	80/67	95	72.7	94.8	11.3	55	9.60	208	48.1	2	52	60	208-1	155	TRANE TEC3F048SUB1F

(E) OUTDOOR UNIT SCHEDULE

MARK	ELECTRIC	WEIGHT (LBS)	MANUFACTURER
(E) HP-1	22.1 30 208-1	282	TRANE 4TWR3048A
(E) HP-2	22.1 30 208-1	282	TRANE 4TWR3048A
(E) HP-1	22.1 30 208-1	282	TRANE 4TWR3048A
(E) HP-2	22.1 30 208-1	282	TRANE 4TWR3048A

- NOTES:**
- COOLING CAPACITY BASED ON EAT 80°F DB/67°F WB INDOOR ENTERING AIR TEMPERATURE AND 95°F DB ENTERING OUTDOOR UNIT. TOTAL COOLING CAPACITY IS UNDER 54,000 Btu/Hr WILL NOT REQUIRED AIR SIDE ECONOMIZER AS IECC C403.3
 - HEATING CAPACITY BASED ON 55°F EWT.
 - EXISTING AIR HANDLER AND HEAT PUMP UNITS WILL BE REMAINED AS-IS.
 - RELOCATE THE (E) THERMOSTAT AS SHOWN ON PLAN.
 - GENERAL CONTRACTOR SHALL REFRUSH ALL EXISTING UNITS, INCLUDING CLEANING, VERIFY POWER OPERATION, VERIFY CAPACITY SUPPLY AIR, REPAIR, REPORT ANY DEFICIENCIES. TYPICAL.

SYSTEM OUTDOOR AIRFLOW BY IMC 2018

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
Room	Description	Area Ft. ² (Az)	Area Outdoor Air Rate Table 403.3 (Ra)	Area Outdoor Air (RaAz)	Default Occupant Density Table 403.3 (#/1000 Ft. ³)	Occupancy Az x #/1000 (Pz)	Occupant Outdoor Air Rate (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Exhaust Airflow Rate CFM/Ft. ²	Exhaust Air Required CFM	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz/Ez)	Supply Air Design (Vpz)	Outdoor Air Fraction (Zp = Voz/Vpz)	
1	BUSINESS AREA	60	0.06	4	5	1	5	5	9				0.8	11	100	0.11
2	DR. OFFICE AREAS	286	0.06	17	5	1	5	5	22				0.8	28	300	0.09
3	CONSULT OFFICE	58	0.06	3	5	1	5	5	8				0.8	10	100	0.1
4	TREATMENT AREA	925			20	19	15	285	285				0.8	356	1800	0.2
5	WAITING	89	0.06	5	50	4	7.5	30	35				0.8	44	300	0.15
6	RECEPTION AREA	101	0.06	6	30	3	5	15	21				0.8	26	200	0.13
7	STERILE-LAB ROOM	203	0.06	12	5	1	5	5	17				0.8	21	200	0.11
8	PAN AREA/CORRIDOOR	777	0.06	47					47							
9	STAFF LOUNGE	142	0.06	9	5	1	5	5	14				0.8	59	350	0.17
10	CONFERENCE ROOM	167	0.06	10	50	8	5	40	50				0.8	18	100	0.18
11	RESTROOMS	130								70	210					
12	MECH/ STORAGE	157	0.12	19			0	0	19				0.8	24	150	0.16
Total:		3,095				40			527		210			660	4,000	0.2

- THE O.A. FOR ENTIRE SPACE SERVING BY AHU-1,2,3, AND 4:

SYSTEM POPULATION: Ps = TOTAL NUMBER OF OCCUPANTS = 40 PEOPLE
 OCCUPANT DIVERSITY: D = Ps / Σ all zones Pz = 1
 UNCORRECTED O.A.: Vou = D Σ all zones RpPz + Σ all zones RaAz = 527 CFM
 - TOTAL REQUIRED OUTDOOR AIR: Vot = Vou/ Ev = 592 CFM
 - TOTAL OUTSIDE AIR PROVIDED FROM: AHU-1 = 170 CFM + AHU-2 = 170 CFM + AHU-3 = 170 CFM + AHU-4 = 170 CFM = 680 CFM WILL MET CODE
 - TOTAL EXHAUST AIR PROVIDED: EF-1 = 100 CFM + EF-2 = 100 CFM + EF-3 = 100 CFM + EF-4 = 200 CFM = 500 CFM
 EF-4 WILL BE INTERLOCKED WITH AHU-1 AND ALL UNITS WILL RUN TOGETHER WITH PROGRAMMABLE THERMOSTATS CONTROL DURING BUSINESS HOURS WITH TIMING SET-UP. THE OUTSIDE AIR RATED WILL BE: = 17 %



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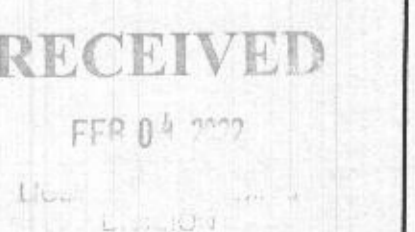


Professional Certification:
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License Number: 44490
 Expiration Date: 11/15/2023

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K.M. PROWSE, INC.

PREFERRED DENTAL
 3458 ELLICOTT CENTER DRIVE
 ELLICOTT CITY, MD 21043
 OWNER: DR. ARMINIE GRIGORYAN

ISSUE	DATE	DESCRIPTION
PROJECT NUMBER	1.22.001	
DRAWN	DN	
CHECKED	OL	
DATE	1/11/2022	
SCALE	AS INDICATED	



MECHANICAL NOTES
O.A. CALCULATION
MECHANICAL DETAILS
HVAC SCHEDULE

DRAWING TITLE
M.001
 DRAWING NO.

