

Special Use Permit #2022-00102 700 South Patrick Street Liberty Service Station

Application	General Data	
Public hearing and consideration of	Planning Commission	February 7, 2023
a request for a Special Use Permit	Hearing:	
for the expansion of a	City Council	February 25, 2023
noncomplying automobile service	Hearing:	
station use		
Address:	Zone:	CL/Commercial Low
700 South Patrick Street		
Applicant:	Small Area Plan:	Southwest Quadrant and South
Adam Aldie, LLC		Patrick Housing Affordability
		Strategy Overlay

Staff Recommendation: approval subject to compliance with all applicable codes and ordinances and the recommended permit conditions found in Section III of this report.

Staff Reviewers: Mavis Stanfield, Urban Planner, mavis.stanfield@alexandriava.gov
Ann Horowitz, Principal Planner, ann.horowitz@alexandriava.gov

PLANNING COMMISSION ACTION, FEBRUARY 7, 2023: On a motion by Commissioner Lyle, seconded by Vice Chair McMahon, the Planning Commission moved to recommend approval of Special Use Permit #2022-00102 with all applicable codes, ordinances, staff recommendations, the staff issued amendment in the February 6, 2023 memorandum, which amended Condition 2 to allow the car vacuum to stay at its current location and the deletion of Condition 10. The motion carried on a vote 7-0.

<u>Reason:</u> The Planning Commission generally agreed with the staff recommendation but differed in opinion with the staff analysis as it related to support for the Franklin Road curb cut access closure condition, Condition 10.

Discussion:

Chair Macek expressed concern that the curb cut closure would mean that access to the property from anywhere in the City would require motorists to drive a mile out of their way into Fairfax County to access the service station from South Patrick Street/Route 1. He asked staff to comment on the reasoning behind recommending closure of the curb cut. Staff responded that the South Patrick Housing Affordability Strategy Plan called for improving pedestrian safety in this heavily trafficked area and the condition to close the curb cut complies with the plan goals. The strategy plan identified that residents on the east side of South Patrick Street/Route 1 felt they could not safely walk to the recreation amenities on the west side of Route 1 and reducing the number of curb

cuts would contribute to improving pedestrian safety. Staff mentioned that the applicant expressed no issue with complying with the condition. The chair noted that it is currently not possible for pedestrians to cross South Patrick Street/Route 1 from that location, on the south side of Franklin Street, as no crosswalk or signal for pedestrians exists.

Commissioner Brown supported Chair Macek's concern regarding the closure of the curb cut, stating it was problematic to close an access point to a business that was not requested by the business owner and provided no access within the City limits.

Commissioner Manor also supported Chair Macek, stating that the closure could create other safety issues with motorists who did not have time to slow down enough to use the South Patrick entrance and who would then turn onto Franklin Street, to use that curb cut to access the service station.

Commissioner Lyle stated her agreement with Chair Macek's position, as did Commissioner McMahon.

Speakers: There were no speakers for the application.



I. DISCUSSION

The applicant, Adam Aldie, LLC trading as Beltway Liberty, requests a SUP approval for the expansion of the legal noncomplying automobile service station at 700 South Patrick Street with an addition to allow space for retail sales of food and other items. The existing service station use is no longer permitted in the CL zone where it is located as of the 1992 Zoning Ordinance and is therefore a noncomplying use. Section 12-302(A) of the Zoning Ordinance requires a special use permit for the physical expansion, enlargement, or intensification of a noncomplying use.

SITE DESCRIPTION

The property consists of two lots for a total of 20,312 square feet of area with 207 feet of frontage along South Patrick Street and 52 feet of frontage on Franklin Street. The property is located approximately 1500 feet from the Capital Beltway, and, as such, is the first property on the east side of South Patrick Street that is not enclosed by a sound wall from the exit ramp. The existing service station building is located 44.1 feet from South Patrick Street and 3.8 feet from a public alley that is north of the parcel, as can be seen in Figure 1. Public alleys surround the property to the north and east. A concrete apron along Franklin Street serves both the service station and the abutting alley.



The existing service station is 1,336 square feet in area. Two gas pump islands are located on the property, one with a canopy and four gas pumps located along South Patrick Street in front of the building, and one with two pumps and no canopy located in the northern end of the property near Franklin Street.

The building is currently used for snack and gas sales and has two repair bays. With the exception of the entrances along South Patrick and Franklin Streets, the lot in completely enclosed by walls and fencing. A masonry wall extends from Franklin Street along the alley east of the property and then runs along the property line to the east. An eight-foot-high solid wood fence extends from the rear of the lot and along the property line to the south. Machines for air and vacuuming are located on the south side of the building and an ATM and ice machine are positioned near the wall on the northern end of the site. Although the property does not have striped parking spaces, parking for approximately 30 cars exists on the lots.

A mix of commercial and residential uses surrounds the property. Commercial uses are concentrated along South Patrick Street to the north. Directly across Franklin Street is a Speedway gas station and to the west of South Patrick are a window and door store and a marine supply store. The site is surrounded to the south and east by townhouse developments and the public alleys shown on the plat serve the townhouses. To the west are the Nannie J. Lee Memorial Recreation Center, the Alexandria Fire Department Professional Development Center, a public playground, tennis courts and a baseball field.

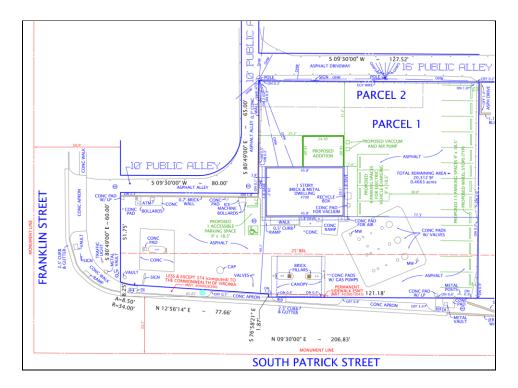


Figure 1

BACKGROUND

Special Use Permit 051 was approved prior to construction of the service station. Tax records indicate that the service station was constructed in 1960; however, aerial photography shows the building and surrounding development in place in 1957. Over the years, numerous permits were issued for pump inspections and replacements and interior work, such as replacement of a hydraulic lift. The service station has largely remained the same since it was first constructed; however, permit history indicates that the canopy located over the four pumps in the front of the building was replaced and received final approved in March of 1988.

When the Zoning Ordinance was rewritten in 1992, the zone where the subject properties are located changed from C-2 to CL/Commercial low. The CL zone did not allow the automobile service station use, rendering the use noncomplying.

In 2016, a zoning review for a business license to be issued to Beltway Liberty was approved by the Department of Planning and Zoning with the condition that any changes to the use would require a public hearing.

Several complaints were filed in 2015 and 2016 about the wood fence that separates the service station from the alleys to the east and the homes to the south. In 2020, the fence along the eastern portion of the site was replaced. No other property maintenance and no zoning violations have been reported since 2015.

Recent development approvals in the vicinity of the application property include the three-block Heritage residential development (DSUP #2020-10032). The closest block to 700 South Patrick Street is Block 4 at the 500 block of South Patrick Street. Demolition and construction have begun on Blocks 1 and 4.

PROPOSAL

The applicant proposes construction of a 438 square foot addition, noted in Figure 1, to the existing service station building on the east side of the structure. The interior of the building would be completely remodeled to eliminate the services bays and increase the retail component of the service station. The applicant describes the renovations as creating a "mini-mart" convenience store, which is considered a by-right retail use in the Zoning Ordinance. The addition would be used for an office and storage to support the larger retail area. The applicant anticipates approximately 150 customers a day, with two employees per shift during a 24-hour operation. Thirteen parking spaces are depicted on the plat on the south side of the site and four parking spaces are located along the south side of the building for electric vehicle (EV) charging. The proposal would also move the air for tires and the vacuum to the east of the EV charging stations. The proposed floorplan is shown in Figure 2; basic depictions of the addition exterior once the renovation is complete are outlined in red on the following page in Figures 3 and 4.

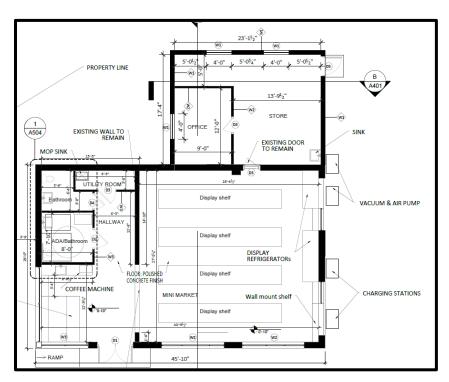


Figure 2



Figure 3



Figure 4

PARKING

Parking for this project is calculated for both the service station and the retail sales area in the building. The parking rate for the service station, as found in Sect 8-200(A)(12) of the zoning ordinance, is one space per gas pump, or six spaces, which are represented by the spaces next to the gas pumps. The rate for the retail sales is found in Sect. 8-200(A)(16)(b), as the business is located outside of the Enhanced Transit area. The minimum requirement is 0.75 per 1,000 square feet and the maximum is 4.0 spaces per 1,000 square feet of space. The area of the building is approximately 1,770 square feet and would have a minimum parking requirement of two and a maximum parking requirement of eight parking spaces plus one space per gas pump which is a minimum total of eight and a maximum total of 14 parking spaces. The applicant has provided a

parking space at each pump, one accessible parking space on the north side of the building, four spaces for electric vehicle charging on the south side of the building and 13 parking spaces for the retail component of the site along the south boundary of the property. This provides a total of 24 parking spaces (including the vehicle charging spaces) which is greater than the maximum permitted parking. However, in accordance with Section 8-100(A)(3) of the Zoning Ordinance, this property is exempt from maximum parking requirements because the property was developed prior to January 27, 1987 with approximately 30 parking spaces.

ZONING/MASTER PLAN DESIGNATION

The subject property is located in the CL/Commercial low zone and is found in the Southeast Quadrant Small Area Plan, as amended by the South Patrick Housing Affordability Strategy Area Overlay Plan. Automobile service station uses are no longer permitted in the CL zone as of the 1992 Zoning Ordinance and is therefore a noncomplying use. Section 12-302(A) of the Zoning Ordinance requires a special use permit for the physical expansion, enlargement, or intensification of a noncomplying use.

Regarding the small area plan, the property is designated to be used as commercial low to maintain the scale of existing types of land uses to provide a transition between the adjacent residential and Route 1. The small area plan was amended by the South Patrick Housing Affordability Strategy Area Overlay, which recommends enabling properties to redevelop as mixed-income communities serving a broad spectrum of incomes. The plan specifically depicts this property as "Additional Enhanced Gateway Open Space" and proposes redevelopment as predominantly residential with a floor area ratio of 2.0. The overlay notes that public and private investment can make the area safer and more attractive for people walking and biking, and otherwise moving on and across streets, improve the quality of public and open space, and create an enhanced gateway entrance to the city. While the proposal meets the recommendation of the Southeast Quadrant Area Plan for commercial low, it does not meet the long-term aspirations of the overlay plan.

II. STAFF ANALYSIS

Staff supports the applicant's request to expand the noncomplying service station use to support the additional retail space, which as a "mini-mart" would provide a walkable destination for neighboring residents to obtain retail products such as food and household supplies. The other site improvements, while not part of the SUP review but would take place at the same time as the addition construction, would enhance the appearance of the property and reduce the intensity of the noncomplying use by removing the two repair bays and the vehicles and supplies associated with this type of use. The replacement of repair bays with more retail is a less intense and more compatible use with the existing and future residential uses. Striped parking spaces would replace the area now used for repair vehicle storage, creating a more organized parking area with EV chargers, which would contribute to building the City's charging infrastructure. The relocation of the air and vacuum machines to the rear of building rather than near the sidewalk along Franklin Street separates cars from people, promoting safer pedestrian access.

Staff has included conditions to improve site aesthetics, pedestrian safety and environmental conditions as part of the recommended approval. Removal of a metal post, possibly associated

with a previous sign, on the southwest corner of the lot, would reduce visual clutter as recommended in Condition #18. The applicant would be required to remove the portion of the entrance apron on Franklin Street that accommodates its business and replace it with curb, gutter and sidewalk to match the adjacent streetscape prior to certificate of occupancy approval. A portion of the curb cut would remain for access to the public alley to the east, however. This will encourage safer pedestrian movement along the Franklin Street sidewalk, reducing the number of cars using the curb cut, and providing safer pedestrian access to the ice machine and ATM. Several standard SUP conditions have been included to address environmental concerns related to litter, air pollution sources and hazardous material disposal.

Two conditions, unique to this site, have been also included in the staff report. As the potential for artifacts related to historic African American settlements may exist at this site, Condition #17 was added to require the applicant's contractors to cease construction activities and immediately contact the City's Alexandria Archaeology department if any historical evidence is unearthed. Secondly, given that the proposal augments the existing noncomplying automobile service center, a use which does not conform with the long-term goals of the South Patrick Housing Affordability Strategy Area Overlay, SUP reviews for compatibility with the neighborhood and new development are scheduled in five years as an administrative review by the Director and in 10 years as a City Council docketed review, noted in Condition #21.

Until that time, staff considers the 438 square foot addition to represent a relatively minimal investment to improve the property, supporting a 60-year automobile service station that has successfully operated at this convenient location off the Beltway. Subject to the conditions stated in Section III of this report, staff recommends approval of the Special Use Permit request.

III. RECOMMENDED CONDITIONS

Staff recommends subject to compliance with all applicable codes and ordinances and the following conditions:

- 1. The special use permit shall be granted to the applicant only or to any business or entity in which the applicant has a controlling interest. (P&Z)
- 2. **CONDITION AMENDED BY PLANNING COMMISSION:** The redevelopment of the property shall be substantially consistent with the improvements depicted on the plat submitted on January 26, 2023, however the car vacuum shall remain at its current location. (P&Z) (PC)
- 3. The applicant shall conduct employee training sessions on an ongoing basis, including as part of any employee orientation, to discuss all SUP provisions and requirements. (P&Z)
- 4. All loudspeakers shall be prohibited from the exterior of the building, and no amplified sounds shall be audible at the property line. (T&ES)
- 5. Trash and garbage shall be placed in sealed containers which do not allow odors to escape and shall be stored inside or in closed containers which do not allow invasion by animals.

No trash or debris shall be allowed to accumulate on site outside of those containers. (P&Z)

- 6. No vehicles associated with the previous repair use shall remain on the property and all such vehicles shall be removed prior to certificate of occupancy approval. (P&Z)
- 7. The applicant shall comply with the City of Alexandria Best Management practices manual for automotive related industries. A copy can be obtained by contacting the Office of Environmental Quality at 703-746-4065. (T&ES)
- 8. Control odors, dusting and any other air pollution sources resulting from the demolition/construction activities at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Director of Transportation and Environmental Services. (T&ES)
- 9. Supply deliveries, loading, and unloading activities shall not occur between the hours of 11:00pm and 7:00am. (T&ES)
- 10. <u>CONDITION DELETED BY PLANNING COMMISSION:</u> The curb cut portion that is used to access this site along Franklin Street shall be removed and replaced with curb, gutter, and sidewalk to match the adjacent streetscape prior to certificate of occupancy approval. The redesign and closure shall not close the curb cut access to the adjacent alley. (P&Z) (PC)
- 11. The applicant shall require its employees who drive to use off-street parking. (T&ES)
- 12. The applicant shall encourage its employees to use public transportation to travel to and from work. The business shall contact Go Alex at goalex@alexandriava.gov for information on establishing an employee transportation benefits program. (T&ES)
- 13. The applicant shall provide information about alternative forms of transportation to access the site, including but not limited to printed and electronic business promotional material, posting on the business website, and other similar methods. Contact Go Alex at goalex@alexandriava.gov for more information about available resources. (T&ES)
- 14. The applicant shall encourage patrons to park off-street through the provision of information about nearby garages or lots in the business' advertising and website. (T&ES)
- 15. Litter on the site and on public rights-of-way and spaces adjacent to or within 75 feet of the premises shall be picked up at least twice a day and at the close of business, and more often if necessary, to prevent an unsightly or unsanitary accumulation, on each day that the business is open to the public. (T&ES)
- 16. All waste products including, but not limited to organic compounds (solvents), motor oil, compressor lubricant and antifreeze shall be disposed of in accordance with all local, state and federal ordinances or regulations and not be discharged to the sanitary or storm sewers, or be discharged onto the ground. (P&Z)

- 17. The statements in archaeology conditions below shall appear in the General Notes of all building permits that involve demolition or ground disturbance (including Basement/Foundation Plans, Demolition, Erosion and Sediment Control, Grading, Landscaping, Utilities, and Sheeting and Shoring) so that on-site contractors are aware of the requirements:
 - a. The applicant/developer shall call Alexandria Archaeology immediately (703-746-4399) if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts—particularly pieces of worked quartz, quartzite, or Indian pottery—are discovered during ground disturbing activities. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds.
 - b. The applicant/developer shall not allow any metal detection to be conducted on the property, unless authorized by Alexandria Archaeology. (Alexandria Archaeology)
- 18. The applicant shall remove the metal post located at the southwestern corner of the property prior to certificate of occupancy approval. (P&Z)
- 19. Parcels 1 and 2 of the subject property shall be consolidated prior to certificate of occupancy approval. (P&Z)
- 20. The Special Use Permit shall be reviewed by the Director of Planning and Zoning, with notice to the community, five years from approval (February 2028) in order to assess the redevelopment potential of the site and the compatibility of the use with other uses in the area. Notwithstanding the staff review, City Council shall review the Special Use Permit in February 2033 in order to assess the redevelopment potential of the site and the compatibility of the use with other uses in the area to take such action as they deem appropriate at the time. (P&Z)
- 21. The Director of Planning and Zoning shall review the Special Use Permit one year after approval and shall docket the matter for consideration by the Planning Commission and City Council if (a) there have been documented violations of the permit conditions which were not corrected immediately, constitute repeat violations or which create a direct and immediate adverse zoning impact on the surrounding community; (b) the Director has received a request from any person to docket the permit for review as a result of a complaint that rises to the level of a violation; or (c) the Director has determined that there are problems with the operation of the use and that new or revised conditions are needed. (P&Z)

STAFF: Tony LaColla, Division Chief, Land Use Services,
Department of Planning and Zoning
Ann Horowitz, Principal Planner
Mavis Stanfield, Urban Planner

Staff Note: In accordance with section 11-506(c) of the zoning ordinance, construction or

operation shall be commenced and diligently and substantially pursued within 18 months of the date of granting of a special use permit by City Council or the special use permit shall become void.

IV. CITY DEPARTMENT COMMENTS

Legend: C - code requirement R - recommendation S - suggestion F - finding

Transportation & Environmental Services:

Conditions:

- R-1 Control odors, dusting and any other air pollution sources resulting from the demolition/construction activities at the site and prevent them from leaving the property or becoming a nuisance to neighboring properties, as determined by the Director of Transportation and Environmental Services. (T&ES)
- R-2 Supply deliveries, loading, and unloading activities shall not occur between the hours of 11:00pm and 7:00am. (T&ES)
- R-3 The use must comply with the city's noise ordinance. (T&ES)
- R-4 The applicant shall require its employees who drive to use off-street parking. (T&ES)
- R-5 The applicant shall encourage its employees to use public transportation to travel to and from work. The business shall contact Go Alex at goalex@alexandriava.gov for information on establishing an employee transportation benefits program. (T&ES)
- R-6 The applicant shall provide information about alternative forms of transportation to access the site, including but not limited to printed and electronic business promotional material, posting on the business website, and other similar methods. Contact Go Alex at goalex@alexandriava.gov for more information about available resources. (T&ES)
- R-7 The applicant shall encourage patrons to park off-street through the provision of information about nearby garages or lots in the business' advertising and website. (T&ES)
- R-8 Litter on the site and on public rights-of-way and spaces adjacent to or within 75 feet of the premises shall be picked up at least twice a day and at the close of business, and more often if necessary, to prevent an unsightly or unsanitary accumulation, on each day that the business is open to the public. (T&ES)

Findings

F-1 Include parking space striping for the spaces provided as part of the application. These parking spaces should be the standard size and include wheel stops. Consider the location of these spaces to be adjacent to the south side of the building and along the southern fence of the building. If located on the south side of the building, space between the building and

- the wheel stop for the parking spot should be clear and adequate width to create a walking path along the building. (T&ES)
- F-2 Consider closing the curb cut along Franklin Street and completing the existing sidewalk connection. (T&ES)
- F-3 Consider relocating the vacuum and air pump along the east wall next to the ATM machine and the Ice Machine. This relocation would create more space for parking for the convenience store along the building. (T&ES)

City Code Requirements:

- C-1 The applicant shall comply with the City of Alexandria's Solid Waste Control, Title 5, Chapter 1, which sets forth the requirements for the recycling of materials (Sec. 5-1-99). In order to comply with this code requirement, the applicant shall provide a completed Recycling Implementation Plan (RIP) Form within 60 days of SUP approval. Contact the City's Recycling Program Coordinator at (703) 746-4410, or via e-mail at commercialrecycling@alexandriava.gov, for information about completing this form. (T&ES)
- C-2 The applicant shall comply with the City of Alexandria's Noise Control Code, Title 11, Chapter 5, which sets the maximum permissible noise level as measured at the property line. (T&ES)
- C-3 Section 5-1-42- Collection by Private collectors. (c) Time of collection. Solid waste shall be collected from all premises not serviced by the city at least once each week. No collections may be made between the hours of 11:00 p.m. and 7:00 a.m. (6:00 a.m. from May 1, through September 30) if the collection area is less than 500 feet from a residential area. (T&ES)

Archaeology

Archaeology Findings

- F-1 This property is located near the edge of what was an African American neighborhood in the late 18th and early 19th centuries. The lot therefore has the potential to yield archaeological resources that could provide insight into Alexandria's history, perhaps relating to African Americans. If the SUP is approved and moves to construction, the two archaeology conditions below will be attached to the project.
- R-1 The statements in archaeology conditions below shall appear in the General Notes of all building permits that involve demolition or ground disturbance (including Basement/Foundation Plans, Demolition, Erosion and Sediment Control, Grading, Landscaping, Utilities, and Sheeting and Shoring) so that on-site contractors are aware of the requirements:

- a. The applicant/developer shall call Alexandria Archaeology immediately (703-746-4399) if any buried structural remains (wall foundations, wells, privies, cisterns, etc.) or concentrations of artifacts—particularly pieces of worked quartz, quartzite, or Indian pottery—are discovered during ground disturbing activities. Work must cease in the area of the discovery until a City archaeologist comes to the site and records the finds.
- b. The applicant/developer shall not allow any metal detection to be conducted on the property, unless authorized by Alexandria Archaeology.

Code

C-1 All required archaeological preservation measures shall be completed in compliance with Section 11-411 of the Zoning Ordinance.

Code Enforcement:

C-1 Building permit will be required.

Fire:

No comments received.

Health:

No comments received.

Parks and Recreation:

No comments received.

Police Department:

No comments received.



APPLICATION SPECIAL USE PERMIT

	RGINI SI	PECIAL USE PERM	NIT #	
PRO	PERTY LOCATION	: 700 S Patrick	st Alexandria	Va 22314
	map reference:	80.01-07-13		zone: CL
	: Adam Aldie LL	С		
Addre	ess:	00 S Patrick st	Alexandria Va	22314
PRO	POSED USE: EXP	ansion for Min	i-mart	
V		D, hereby applies for a Spo 11-500 of the 1992 Zoning		dance with the provisions of Alexandria, Virginia.
~	permission to the (and Commission Memb	erty owner, hereby grants pers to visit, inspect, and ion.
~	permission to the City	y of Alexandria to post pla nt to Article IV, Section 4-	card notice on the prope	erty owner, hereby grants rty for which this application oning Ordinance of the City
V	including all surveys, accurate to the best of materials, drawings representations made the applicant unless illustrative of general	drawings, etc., required to their knowledge and be or illustrations submitted to the Director of Plannithose materials or representations.	o be furnished by the ap lief. The applicant is her in support of this applic ing and Zoning on this ap esentations are clearly subject to substantial revision	n provided and specifically plicant are true, correct and eby notified that any written ation and any specific oral oplication will be binding on tated to be non-binding or sion, pursuant to Article XI, andria, Virginia.
На	ger Cherif Be	enkahla	Hager Cherif-Be	nkahla 11/18/22
	Name of Applicant or Age		Signature	Date
700	OS Patrick S	t	7038365136	
	g/Street Address	-	Telephone #	Fax#
	exandria VA	22314		/@gmail.com
City a	nd State	Zip Code	Emai	l address

PROPERTY OWNER'S AUTHORIZATION	
As the property owner of Adam Aldie LLC	, I hereby
grant the applicant authorization to apply for the [Beltwa] (use)	ay LIberty LLC use as
described in this application.	
Name: Hager Cherif-Benkahla	Phone 7033037515
Please Print Address: 3004 Rose Creek Ct Oakton VA 22124	Email: beltwayliberty@gmail.com
Signature: Hager Cherif-Benkahla	Date: 11/18/2022
site plan with the parking layout of the proposed use	
The applicant is the (check one): [✓] Owner [] Contract Purchaser [] Lessee or [] Other:	ubject property.
State the name, address and percent of ownership of any punless the entity is a corporation or partnership, in which case See Ownership and Disclosure Statement	, ,
	

OWNERSHIP AND DISCLOSURE STATEMENT

Use additional sheets if necessary

<u>1. Applicant.</u> State the name, address and percent of ownership of any person or entity owning an interest in the applicant, unless the entity is a corporation or partnership, in which case identify each owner of more than three percent. The term ownership interest shall include any legal or equitable interest held at the time of the application in the real property which is the subject of the application.

Name	Address	Percent of Ownership
¹ Hager Cherif-Benkahla	7444 Patterson road Falls church va 22043	25%
2. Hichem Benkahla	7444 Patterson road Falls church va 22043	25%
3. Abbas Abutaa	3004 Rose Creek Ct Oakton Va 22124	50%

2. Property. State the name, address and percent of ownership of any person or entity own	ng an
interest in the property located at	(address),
unless the entity is a corporation or partnership, in which case identify each owner of more than	three
percent. The term ownership interest shall include any legal or equitable interest held at the tim	e of the
application in the real property which is the subject of the application.	

Name	Address	Percent of Ownership
¹ . Hager Cherif-Benkahla	7444 Patterson road Falls church va 22043	25%
Hichem Benkahla	7444 Patterson road Falls church va 22043	25%
3. Abbas Abutaa	3004 Rose Creek Ct Oakton VA 22124	50%

3. Business or Financial Relationships. Each person or entity indicated above in sections 1 and 2, with an ownership interest in the applicant or in the subject property are require to disclose **any** business or financial relationship, as defined by Section 11-350 of the Zoning Ordinance, existing at the time of this application, or within the12-month period prior to the submission of this application with any member of the Alexandria City Council, Planning Commission, Board of Zoning Appeals or either Boards of Architectural Review. All fields must be filled out completely. Do not leave blank. (If there are no relationships please indicated each person or entity and "None" in the corresponding fields).

For a list of current council, commission and board members, as well as the definition of business and financial relationship, click here.

Name of person or entity	Relationship as defined by Section 11-350 of the Zoning Ordinance	Member of the Approving Body (i.e. City Council, Planning Commission, etc.)
1. Hager Cherif-Benkahla	None	
2. Hichem Benkahla	None	
³ Abbas Abutaa	None	

NOTE: Business or financial relationships of the type described in Sec. 11-350 that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings.

As the applicant or the applicant's authorized agent, I hereby attest to the best of my ability that the information provided above is true and correct.

11/18/22	Hager Cherif-Benkahla	Hager Cherif-Benkahla
Date	Printed Name	Signature

which there is some form of compensation, does this agent or the business in which the agent is employed business license to operate in the City of Alexandria, Virginia?	
[] Yes. Provide proof of current City business license	
[] No. The agent shall obtain a business license prior to filing application, if required by the City Code.	
NARRATIVE DESCRIPTION	
3. The applicant shall describe below the nature of the request in detail so that the Planning Commouncil can understand the nature of the operation and the use. The description should fully discuss the activity. (Attach additional sheets if necessary.) The applicant is applying for a building permit to expand and remodel their existing gas station to include a mini-mart convenience store.	

USE CHARACTERISTICS

	n expansion or change to an existing n expansion or change to an existing	· · · · · · · · · · · · · · · · · · ·
		· ·
⊃leas	se describe the capacity of the propo	osed use:
Α.	Specify time period (i.e., day, ho	s and other such users do you expect? ur, or shift).
3.	How many employees, staff and Specify time period (i.e., day, how 2 personnel per shift 3 sh	ur, or shift).
Pleas	se describe the proposed hours and	days of operation of the proposed use:
Day:		Hours:
Day:	se describe the proposed hours and	
Day: Mon-	Friday	Hours:
Day: Mon-	Friday	Hours: 24 hrs
Day: Mon-	Friday	Hours: 24 hrs
Day: Mon-	Friday	Hours: 24 hrs
Day: Mon- Sat-S	Friday	Hours: 24 hrs 24 hrs
Day: Mon- Sat-S	Friday	Hours: 24 hrs 24 hrs
Day: Mon- Sat-S	Friday Sun se describe any potential noise ema	Hours: 24 hrs 24 hrs
Day: Mon- Sat-S	Friday Sun See describe any potential noise ema Describe the noise levels anticipa	Hours: 24 hrs 24 hrs nating from the proposed use.
Day: Mon- Sat-S	Friday Sun se describe any potential noise ema	Hours: 24 hrs 24 hrs nating from the proposed use.

Pleas	e provide information regarding trash and litter generated by the use.
A.	What type of trash and garbage will be generated by the use? (i.e. office paper, food wrappers) Food wrappers / Boxes
В.	How much trash and garbage will be generated by the use? (i.e. # of bags or pounds per day or pweek) 8 cy/week
C.	How often will trash be collected? 2 times a week
D.	How will you prevent littering on the property, streets and nearby properties? workers maintaining the station as usual
	ny hazardous materials, as defined by the state or federal government, be handled, stored, or gener operty?

handl	led, stored	, or generated on the property?	
[] Y	es.	[r] No.	
If yes	, provide t	he name, monthly quantity, and specific disposal method below:	
			-
What Exis	methods a	are proposed to ensure the safety of nearby residents, employees and patrons? ety policies to remain	-
			_
			- - -
	L SALE		-
DHOI			-
		\$ e proposed use include the sale of beer, wine, or mixed drinks?	-
	Will the ✓ Yes	S proposed use include the sale of beer, wine, or mixed drinks?	- - ABC licer
	Will the ✓ Yes	S proposed use include the sale of beer, wine, or mixed drinks? [] No describe existing (if applicable) and proposed alcohol sales below, including if the	- - -ABC licer
	Will the ✓ Yes	S proposed use include the sale of beer, wine, or mixed drinks? [] No describe existing (if applicable) and proposed alcohol sales below, including if the	- - -ABC licer

PARKING AND ACCESS REQUIREMENTS

14.	A.	How many parking spaces of each type are provided for the proposed use:			
		10	Standard spaces		
			Compact spaces		
		1	Handicapped accessible spaces.		
			Other.		
			Planning and Zoning Staff Only		
	Req	uired number of	spaces for use per Zoning Ordinance Section 8-200A		
	Doe	s the application	meet the requirement? [] Yes [] No		
	B.	Where is r [] on-site [] off-site	equired parking located? (check one)		
		If the requi	ired parking will be located off-site, where will it be located?		
	NA	•			
site pa	arking ν ustrial ι	vithin 500 feet uses. All othe	to Section 8-200 (C) of the Zoning Ordinance, commercial and industrial uses may provide off- of the proposed use, provided that the off-site parking is located on land zoned for commercial or uses must provide parking on-site, except that off-street parking may be provided within 300 al use permit.		
	C.		ion in the required parking is requested, pursuant to Section 8-100 (A) (4) or (5) of the Zoning , complete the PARKING REDUCTION SUPPLEMENTAL APPLICATION.		
		[] Parkir	ng reduction requested; see attached supplemental form		
15.	Pleas	se provide info	ormation regarding loading and unloading facilities for the use:		
	A. How many loading spaces are available for the use? 1				
			Planning and Zoning Staff Only		
	R	equired number	of loading spaces for use per Zoning Ordinance Section 8-200		
	D	logs the applicati	on meet the requirement?		

[]Yes []No

	B.	Where are off-street loading facilities located? on the side of the new building					
	C. During what hours of the day do you expect loading/unloading operations to occur? 8am to 5pm						
	D.	How frequently are loading/unloading operations expected to occur, per day or per week, as appropriate? 1 time a week					
16.		Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?					
	Acce	ss to property is adequate					
SITE	СНА	RACTERISTICS					
17.	Will th	e proposed uses be located in an existing building? [/] Yes [] No					
	Do yo	u propose to construct an addition to the building? [/] Yes [] No					
	How la	arge will the addition be? 435 square feet.					
18.	What	will the total area occupied by the proposed use be?					
	1332	sq. ft. (existing) + $\frac{435}{}$ sq. ft. (addition if any) = $\frac{1767.8}{}$ sq. ft. (total)					
19.	[r] as [] ah [] aw [] as [] an	roposed use is located in: (check one) tand alone building ouse located in a residential zone varehouse hopping center. Please provide name of the center: office building. Please provide name of the building: er. Please describe:					

End of Application

Supplemental application for the following uses:

Automobile Oriented		
Parking Reduction		

Signs

Substandard Lot

Lot modifications requested with SUP use

Interior Floor Plan

✓ Include labels to indicate the use of the space (doors, windows, seats, tables, counters, equipment)

If Applicable

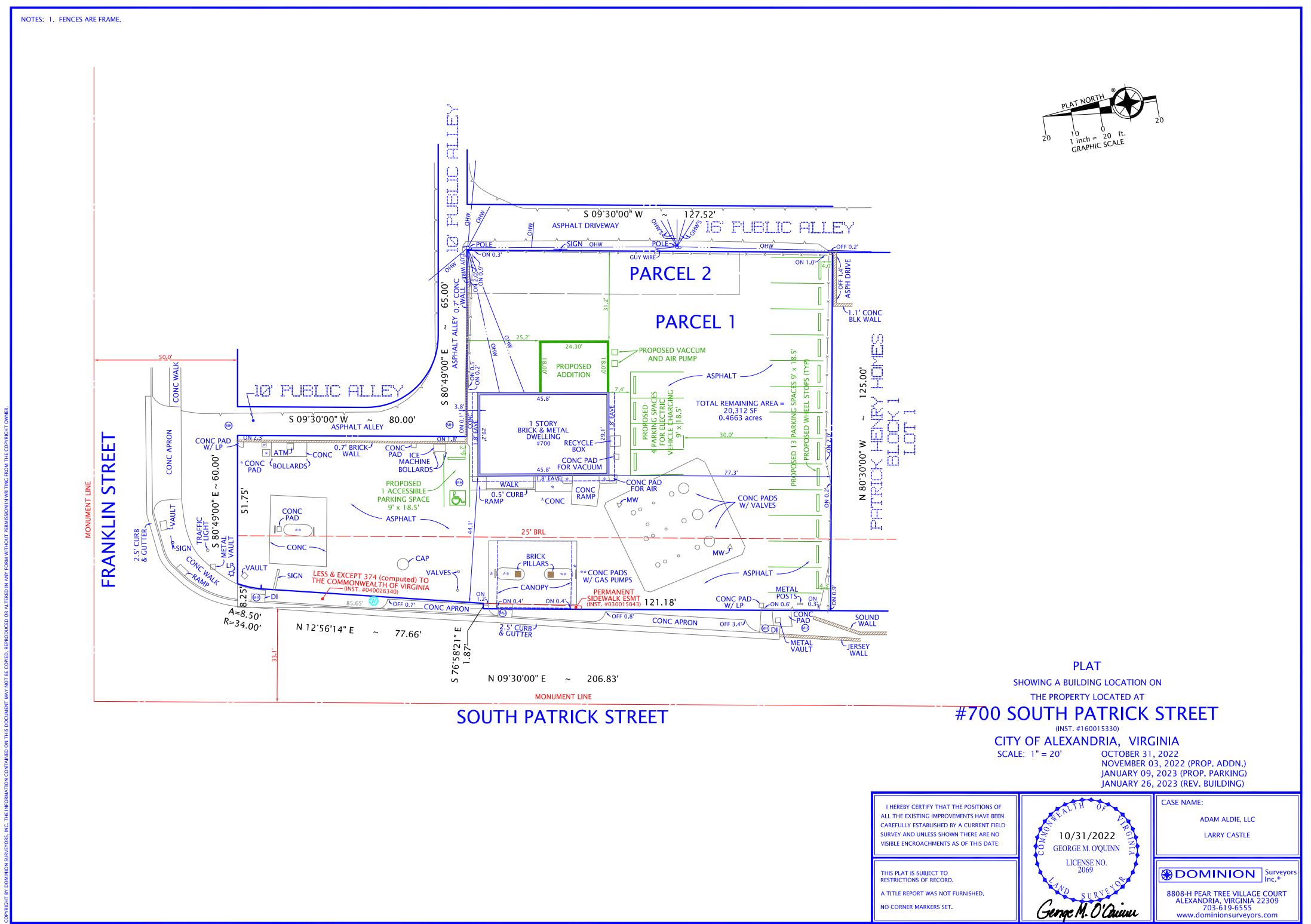
Plan for outdoor uses

Contextual site image

Show subject site, on-site parking area, surrounding buildings, cross streets

700 S PATRICK ST, ALEXANDRIA, VA 22314

Zoning				
Data	Existing	Allowable	Proposed	
FLOOR AREA RATIO (F.A.R)	0.08	0.5	0.1	







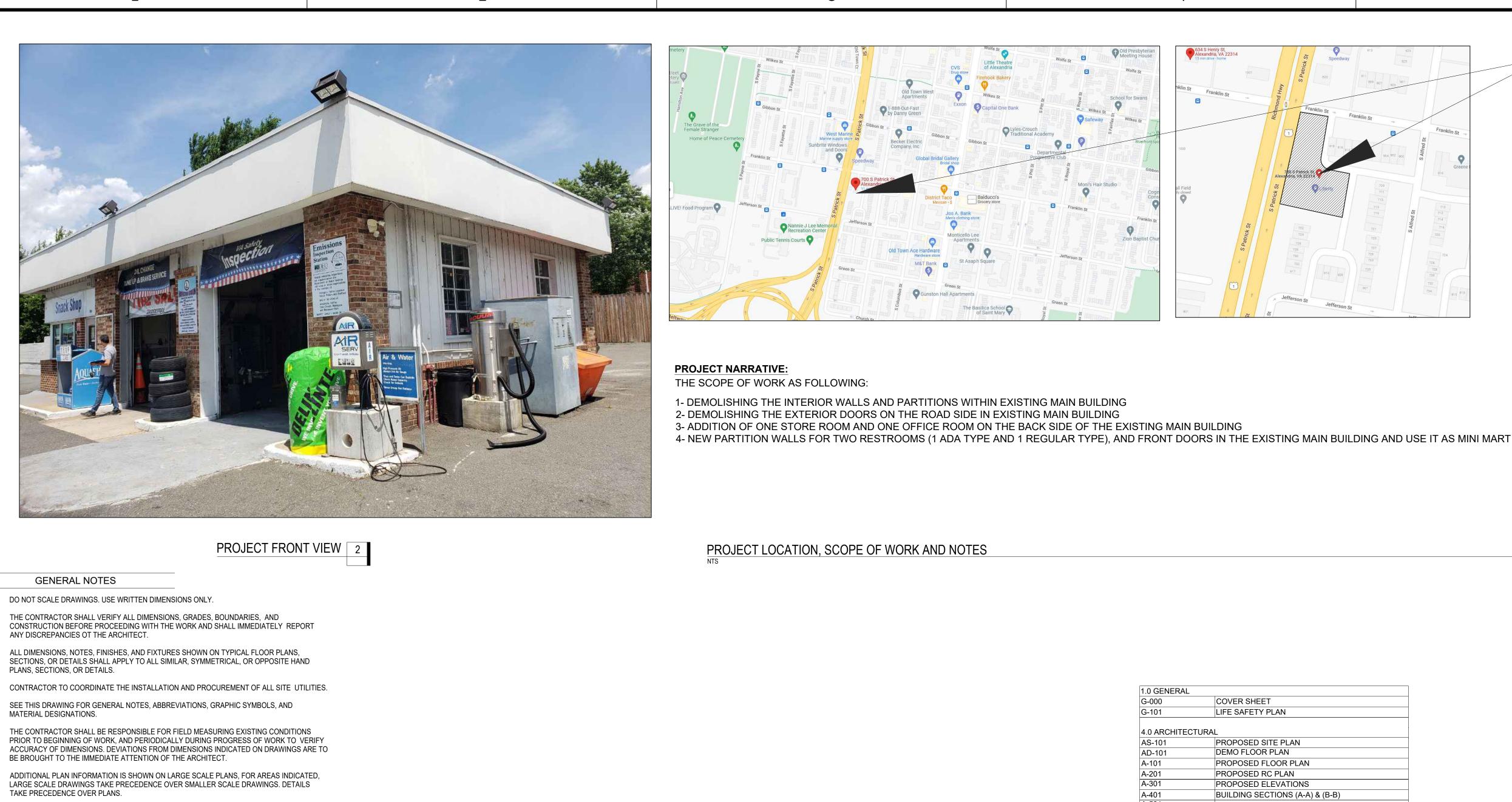


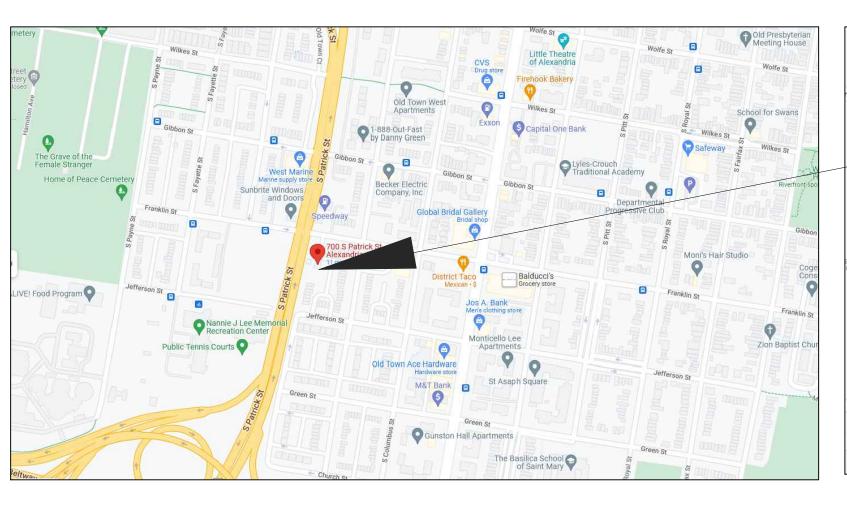


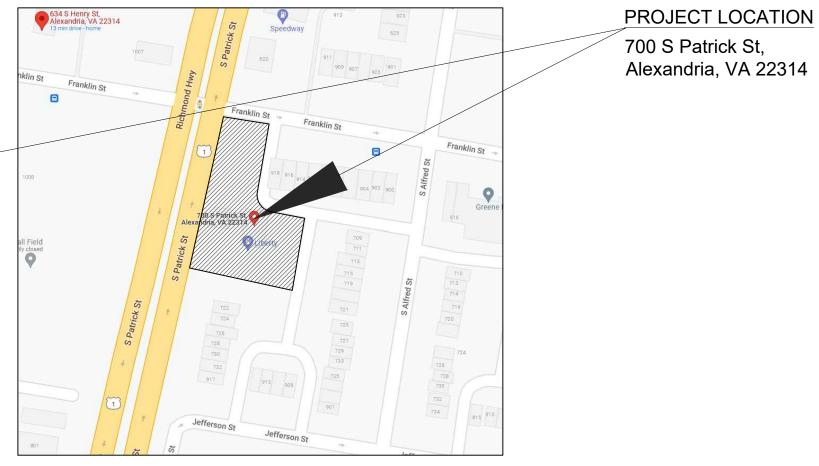












ARCHITECTS

1212 PENNSYLVANIA AVE SE WASHINGTON D.C., 20003 MAIN:(202) 723-0100 HTTPS://CITADELARCHITECTS.COM/

STRUCTURAL:

Design America Engineering Inc.

Design America Engineering Inc.

EMAIIL: DAENG2000@AOL.COM, DAENGMEP@GMAIL.COM

CIVIL:

1408 RED RIVER DR. CENREVILL, VA 20121

PHONE: 571-220-3239

WWW.DAENG2000.COM

EMAIL: INFO@CITADELDBD.COM

Ø

اللا

PROJECT LOCATION, SCOPE OF WORK AND NOTES

- DO NOT SCALE DRAWINGS. USE WRITTEN DIMENSIONS ONLY.
- CONSTRUCTION BEFORE PROCEEDING WITH THE WORK AND SHALL IMMEDIATELY REPORT
- ALL DIMENSIONS, NOTES, FINISHES, AND FIXTURES SHOWN ON TYPICAL FLOOR PLANS, SECTIONS, OR DETAILS SHALL APPLY TO ALL SIMILAR, SYMMETRICAL, OR OPPOSITE HAND
- SEE THIS DRAWING FOR GENERAL NOTES, ABBREVIATIONS, GRAPHIC SYMBOLS, AND
- PRIOR TO BEGINNING OF WORK, AND PERIODICALLY DURING PROGRESS OF WORK TO VERIFY BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
- ADDITIONAL PLAN INFORMATION IS SHOWN ON LARGE SCALE PLANS, FOR AREAS INDICATED, LARGE SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS. DETAILS
- SEE MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZES OF CONCRETE PADS, DRAINS, FLOOR OPENINGS, ETC. COORDINATE WITH STRUCTURAL.
- 10. G.C. TO COORDINATE OWNER PROVIDED MECHANICAL, PLUMBING, AND ELECTRICAL
- LOCATIONS OF ACCESS PANELS MUST BE APROVED BY THE ARCHITECT. ACCESS PANELS
- 12. THE CONTRACTOR SHALL PROVIDE AND INSTALL FIRE EXTINGUISHER CABINETS AS REQUIRED

LOCATED IN WALLS OR CEILINGS MUST BE FINISHED TO MATCH THE ADJACENT SURFACES.

- TO MEET APPLICABLE CODES.
- 13. INTERIOR PLAN DIMENSIONS ARE TO FACE OF WALL FINISH UNLESS NOTED OTHERWISE.
- MAINTAIN A CONTINUOUS AIR BARRIER AT THE INSIDE FACE OF THE EXTERIOR WALL. THIS REQUIRES SEALING AND TAPING ALL JOINTS IN THE INSULATION AND PROVIDING SEALANT AT
- 15. FLOOR TO CEILING DIMENSIONS ARE FROM TOP OF SUBFLOOR TO CEILING.
- IF MATERIAL SUSPECTED OF BEING HAZARDOUS IS ENCOUNTERED DURING THE COURSE OF THE WORK, THE CONTRACTOR IS TO NOTFY THE OWNER IMMEDIATELY.
- 17. CONTRACTOR SHALL CARRY ALL NECESSARY LIABILITY AND WORKMAN'S COMPENSATION
- THESE DRAWINGS NEITHER APPROVE OR IMPLY THE STRUCTURAL INTEGRITY OF THE EXISTING CONDITIONS, SUCH BEING THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE THE STRUCTURAL INTEGRITY OF THE EXISTING WALL BEFORE PROCEEDING FORWARD WITH
- CONTRACTOR SHALL PATCH/REPAIR ALL DAMAGED SURFACES AT DEMOLISHED WORK AREAS WITH THE SAME MATERIAL.
- 20. ALL DEMOLISHED ITEMS TO BE DISPOSED OF BY G.C., UNLESS NOTED TO BE RELOCATED, REINSTALLED OR SALVAGED & TURNED OVER TO OWNER.
- WHERE IT IS THE CLEAR INTENT OF THE DRAWING THAT NEW CONSTRUCTION ALIGN WITH EXISTING CONDITIONS, CONFLICTING DIMENSIONS SHALL BE SUBOORDINATED TO THE
- PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, AND MISCELLANEOUS ITEMS INCLUDING BUT NOT LIMITED TO CLIPS, INSERTS, TIES, ANCHOR STRAPS, HANGERS, BOLTS, AND OTHER FASTENERS REQUIRED TO COMPLETE THE WORK. VERIFY ALL FLOOR AND ROOF OPENINGS WITH THE DESIGN DRAWINGS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SAFETY, AND THE STABILITY OF ALL NEW, TEMPORARY, AND EXISTING STRUCTURES, WALLS, SLABS, ETC.
- 23. CONTRACTOR SHALL PROVIDE SMOKE DETECTORS PER CODE.

DURING CONSTRUCTION PHASE.

24. CONTRACTOR SHALL PROVIDE FIRESTOPPING/DRAFTSTOP PER CODE.

GENERAL NOTES

1 A-2 SH	ETAIL NUMBER — BUILDING SECTION HEET WHERE HEAT APPEARS		WALL OR PARTITION/ ELEMENT TYPICAL TO BE REMOVED
1 A-3 SH	ETAIL NUMBER EXTERIOR ELEVATION JEET WHERE ETAIL APPEARS		EXISTING FULL HEIGHT WALL TO REMAIN
1 B SHE	TAIL NUMBER INTERIOR ELEVATION EET WHERE AIL APPEARS		NEW FULL HEIGHT WALL
1 A-4	WALL SECTION		DIMENSION INDICATOR
1 A-5	DETAIL MARK		BEAM OR LINTEL MARK
1 A-4	DETAIL SECTION	1	NEW WORK KEYED NOTE
<u> </u>	REVISION NUMBER	0	DEMOLITION WORK KEYED NOTE
		W 1	WALL, FLOOR AND ROOF TYPES
W-1	WINDOW NUMBER	DOOR TYPE DOOR DIMENSION3080 DOOR NUMBER 103	DOOR INDICATOR

SYMBOL INDEX

G-000	COVER SHEET
G-101	LIFE SAFETY PLAN
4.0 ARCHITEC	CTURAL
AS-101	PROPOSED SITE PLAN
AD-101	DEMO FLOOR PLAN
4-101	PROPOSED FLOOR PLAN
4-201	PROPOSED RC PLAN
A-301	PROPOSED ELEVATIONS
A-401	BUILDING SECTIONS (A-A) & (B-B)
A-501	WALL ASSEMBLY
4-504	ENLARGED PLAN
A-601	PROPOSED DOORS SCHEDULE & DETAILS
A-602	PROPOSED WINDOWS SCHEDULE & DETAILS
	·
5.0 STRUCTU	RAL
S-01	STRUCTURAL NOTES
	STRUCTURAL NOTES EXISTING AND PROPOSED PLANS
S-02	
S-02 S-03	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS
S-01 S-02 S-03 S.0 MECHANIO	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL
S-02 S-03 S.0 MECHANIO M-100	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET
S-02 S-03 S.0 MECHANIO M-100 M-200	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN
S-02 S-03 S.0 MECHANIO M-100 M-200 M-300	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN MECHANICAL SCHEDULE AND DETAILS
S-02 S-03 S.0 MECHANIO M-100 M-200 M-300	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN
S-02 S-03 S.0 MECHANIO M-100 M-200 M-300 M-400	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN MECHANICAL SCHEDULE AND DETAILS MECHANICAL CALCULATIONS
S-02 S-03	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN MECHANICAL SCHEDULE AND DETAILS MECHANICAL CALCULATIONS
S-02 S-03 S.0 MECHANIO M-100 M-200 M-300 M-400 7.0 PLUMBINO	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN MECHANICAL SCHEDULE AND DETAILS MECHANICAL CALCULATIONS G
S-02 S-03 S.0 MECHANIO M-100 M-200 M-300 M-400 7.0 PLUMBINO	EXISTING AND PROPOSED PLANS SECTIONS AND DETAILS CAL MECHANICAL COVER SHEET MECHANICAL FLOOR PLAN MECHANICAL SCHEDULE AND DETAILS MECHANICAL CALCULATIONS PLUMBING COVER SHEET

1.0 GENERAL



NO	DATE	ВҮ	SUBMISSION INFO	í.
Α	10-21-2022		PERMIT SUBMISSION	
В				i
С				
D				
E				
F				
G				
PROJECT MANAGER: AA				

MF **DESIGNED BY: DRAWN BY:** MSC-2022-004

PROJECT LOCAL NO: CAD FILE: CAD FILE NAME

SHEET TITLE:

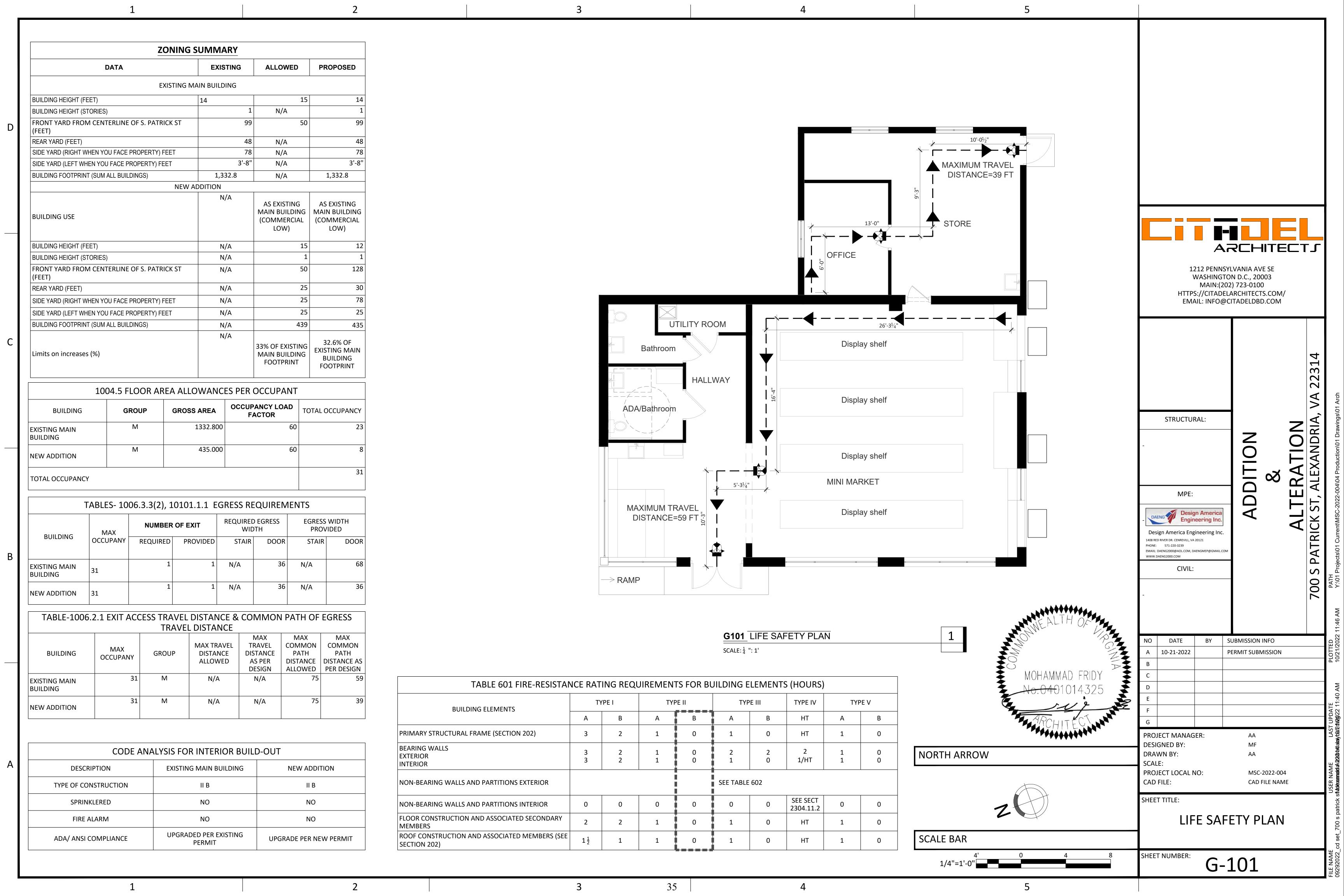
COVER SHEET

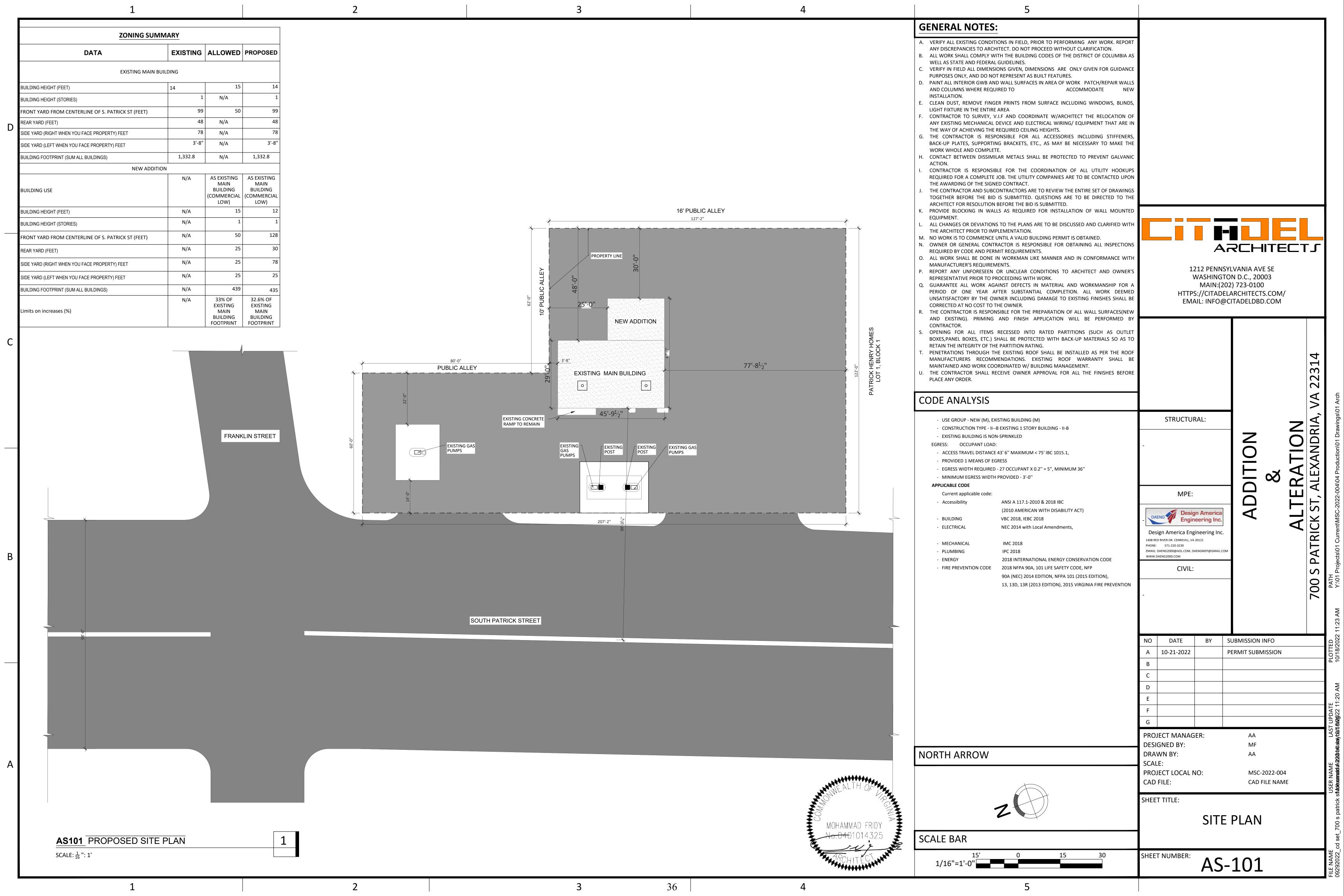
SHEET NUMBER:

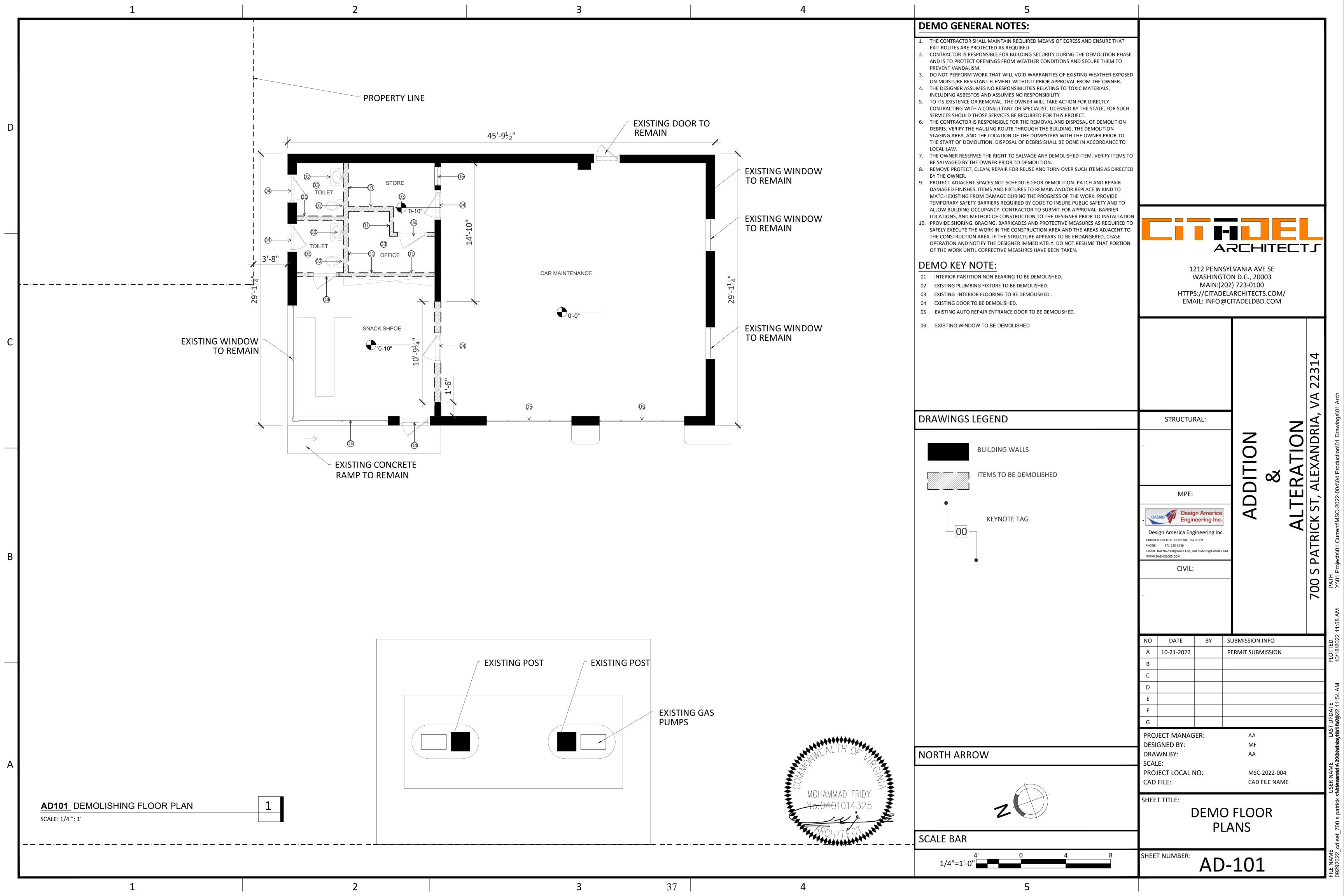
G-000

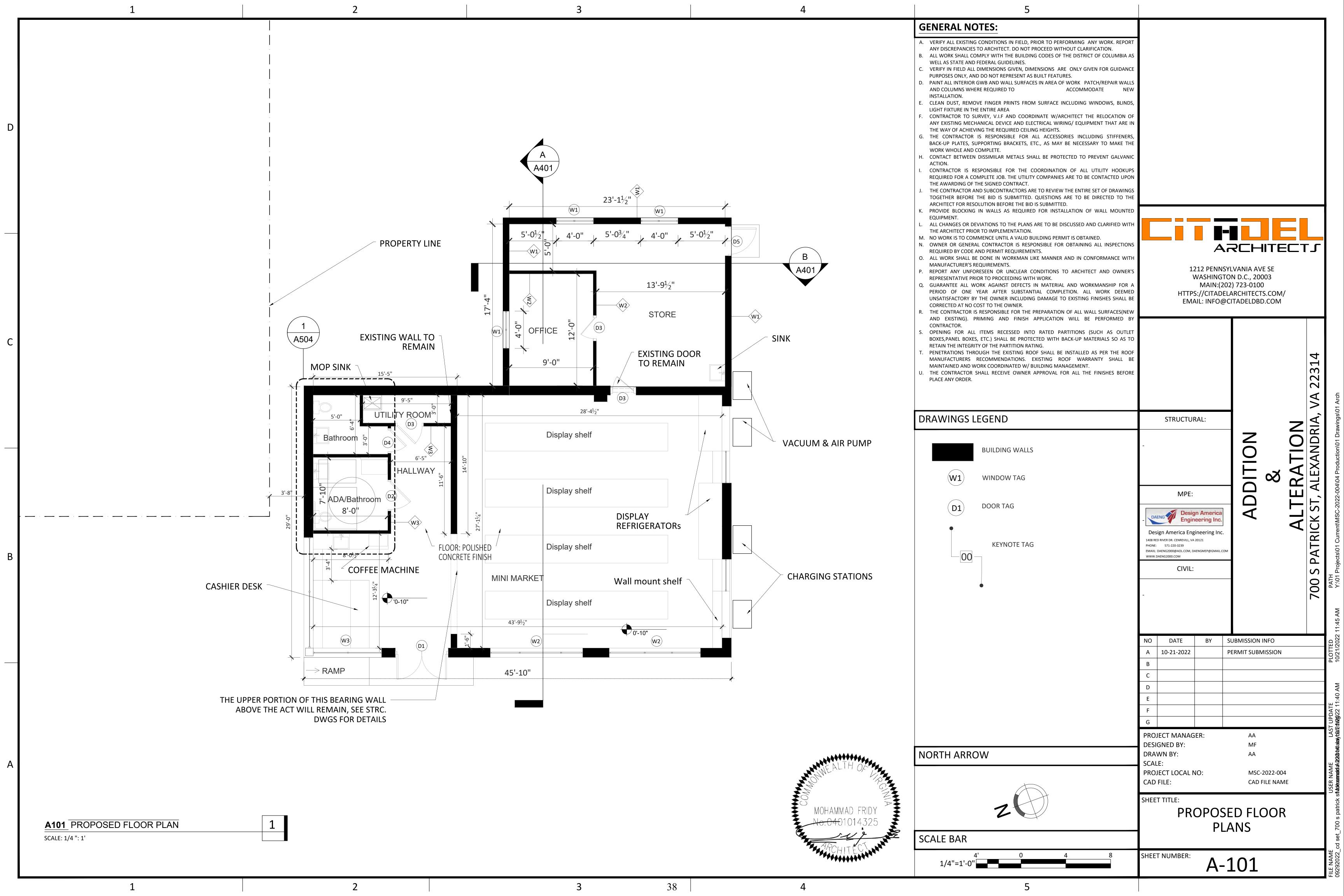
34

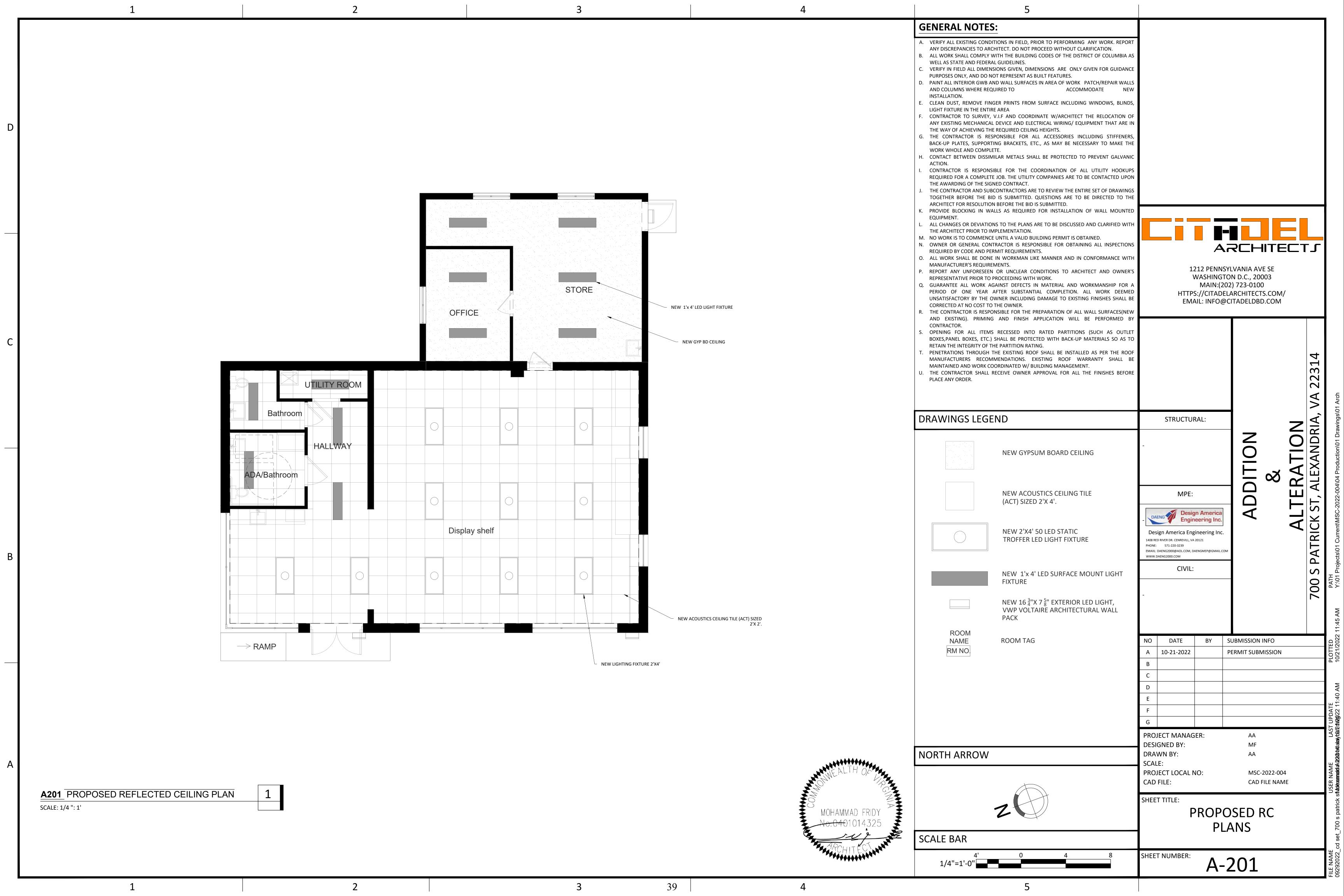
SHEET INDEX

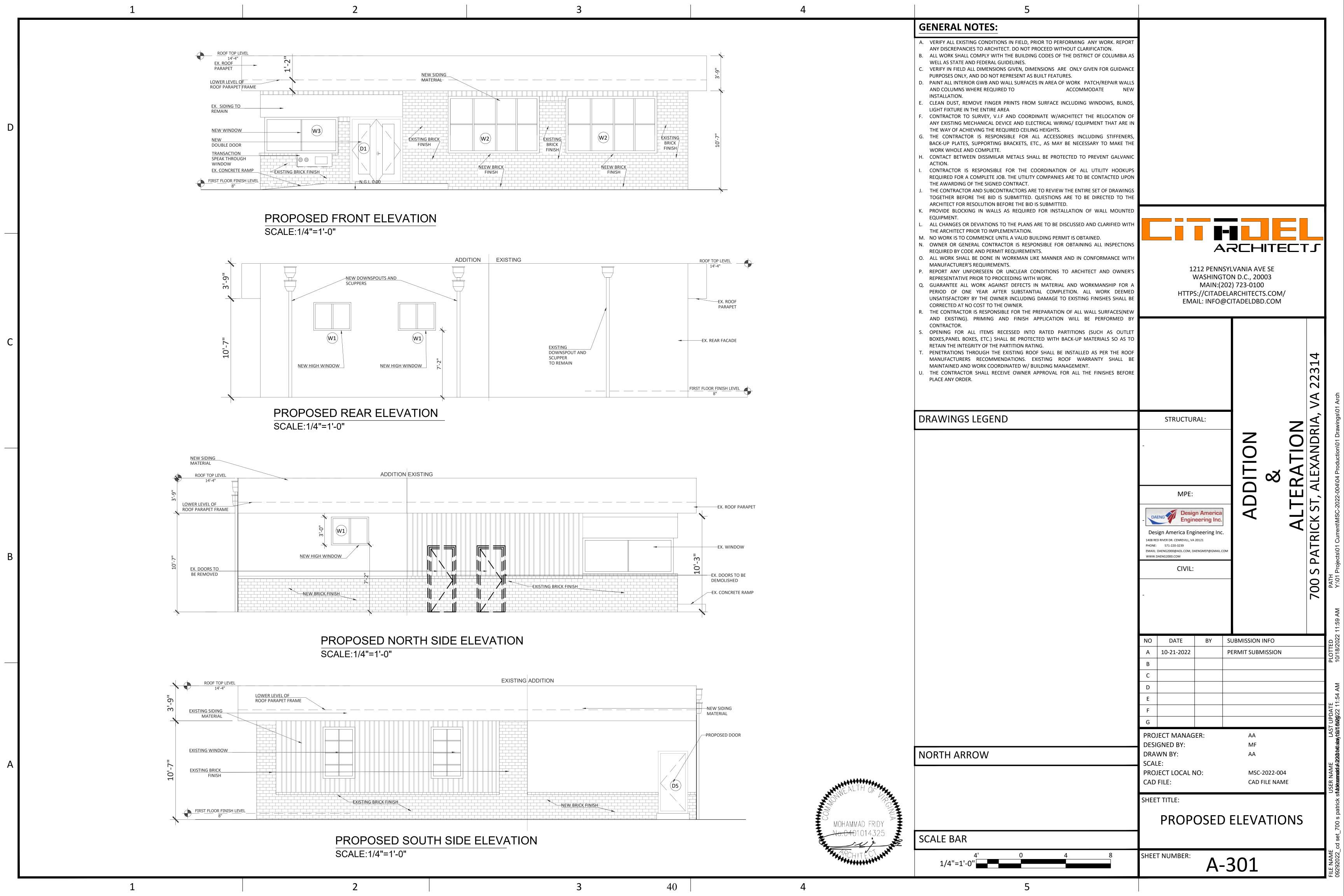


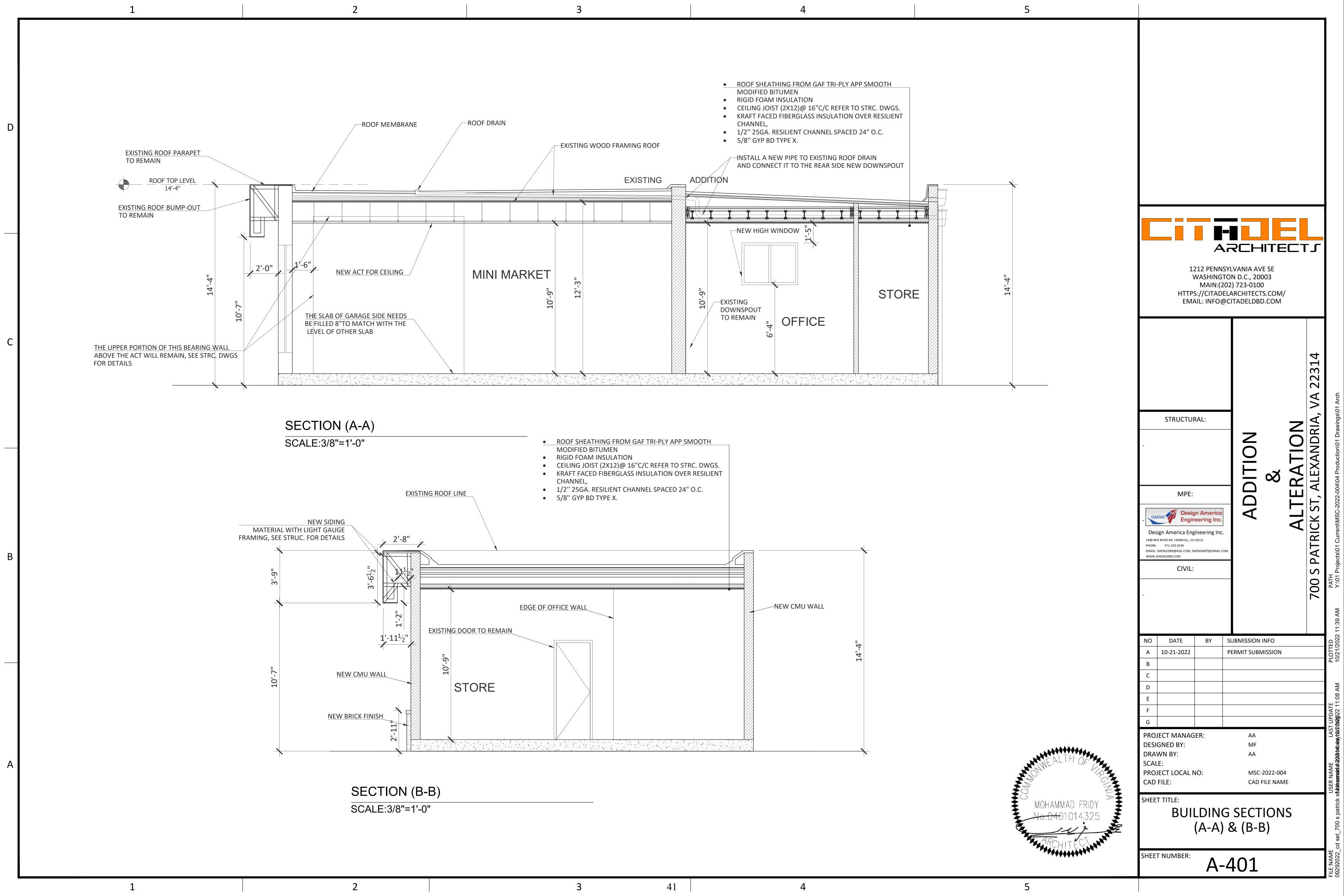


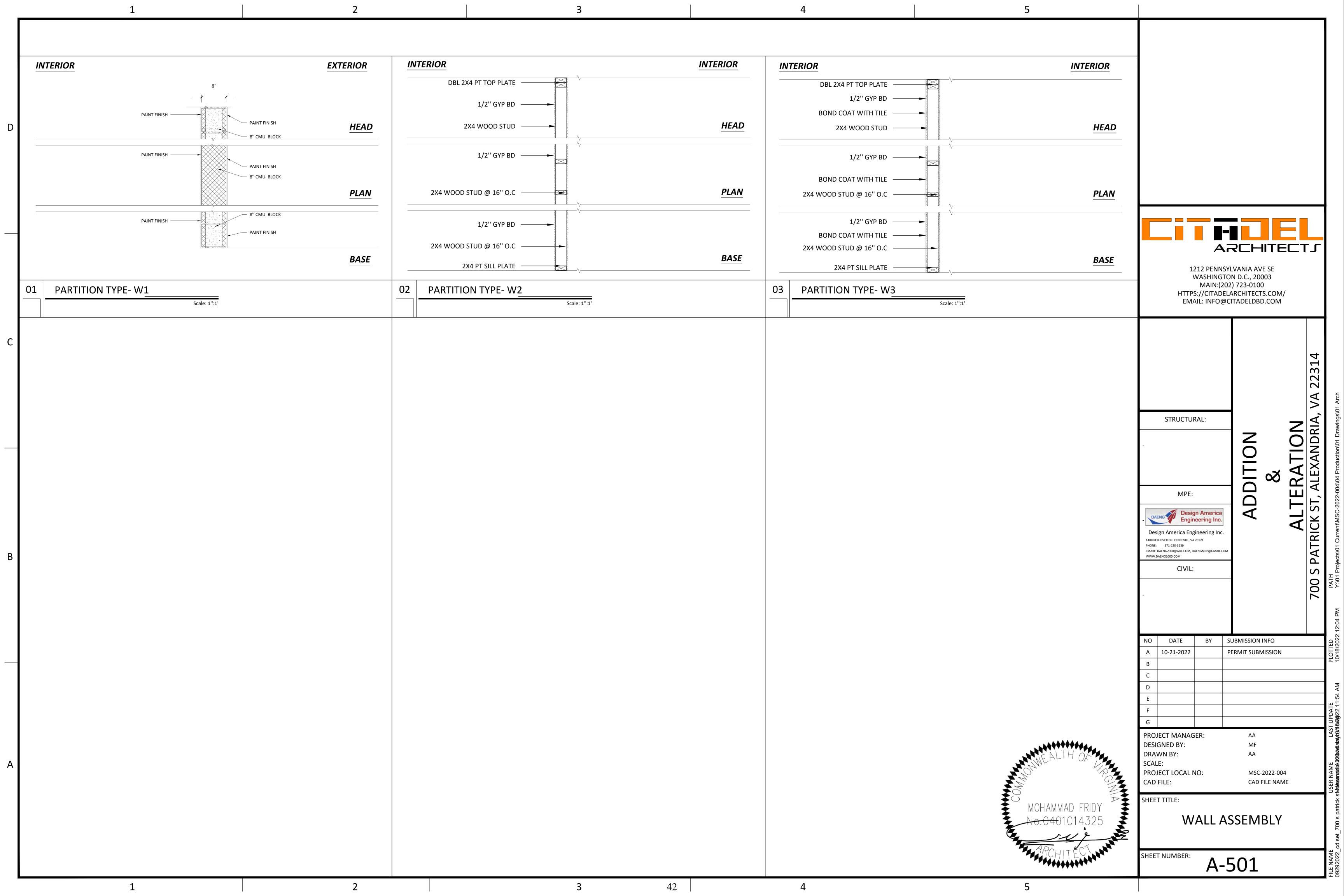


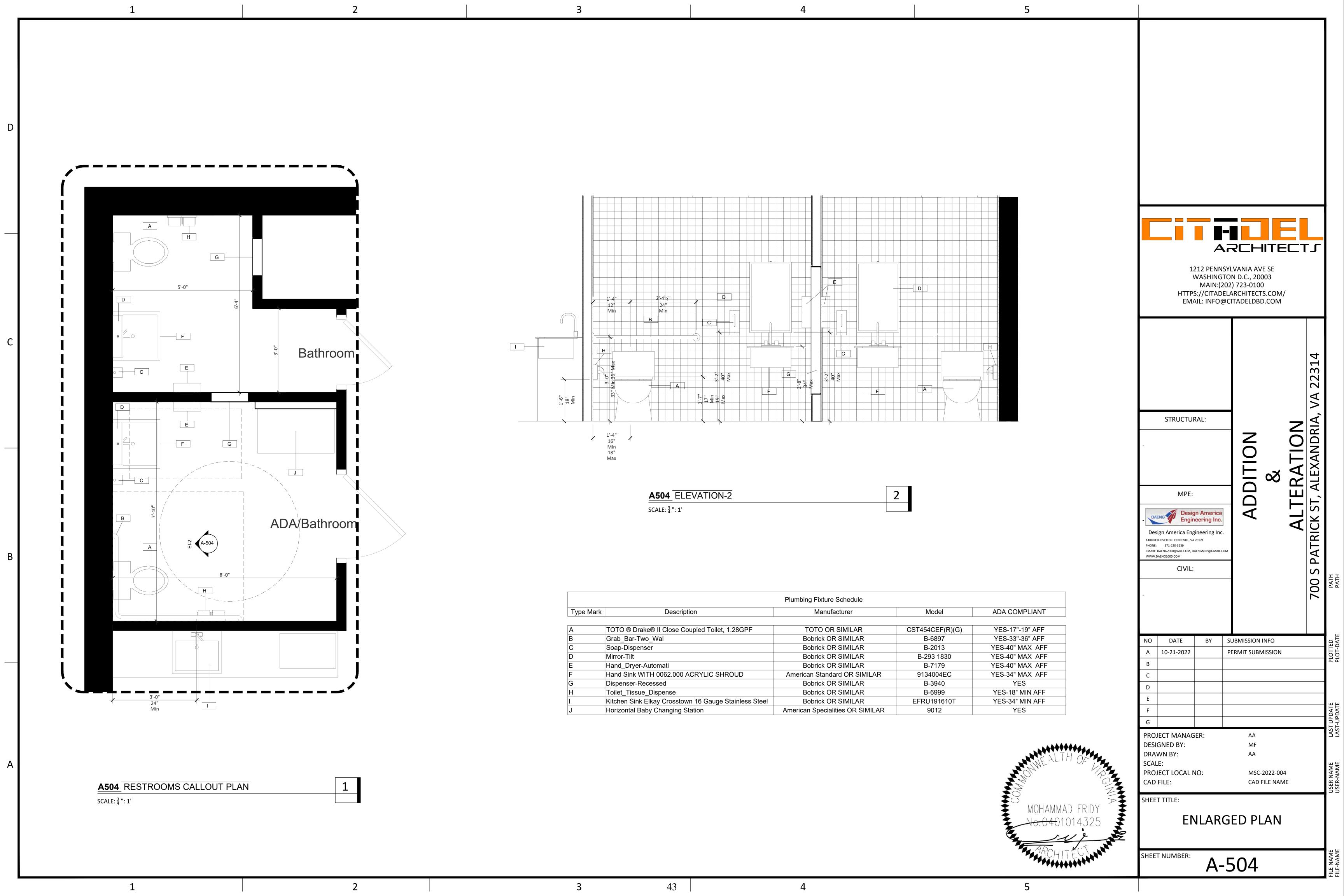


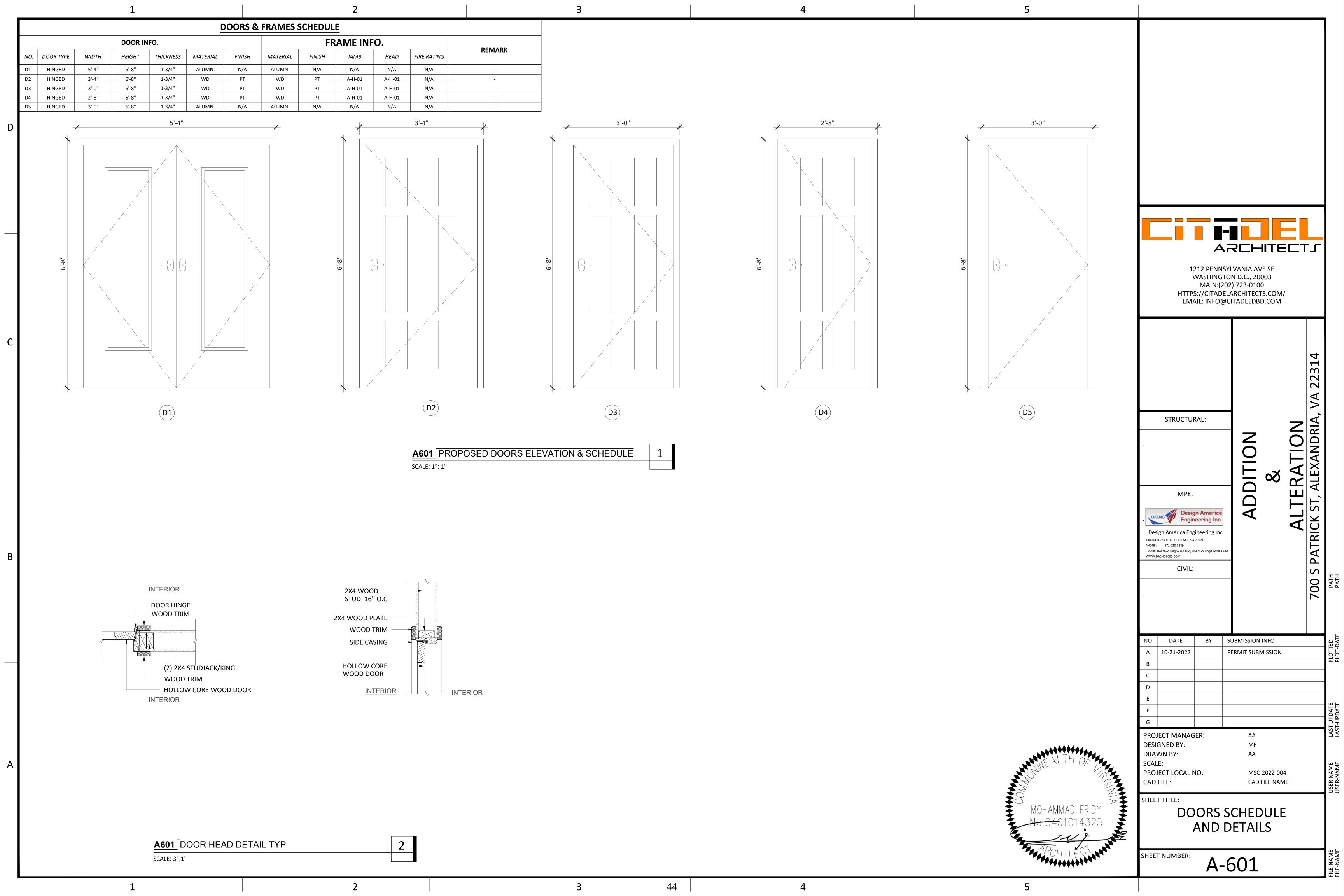


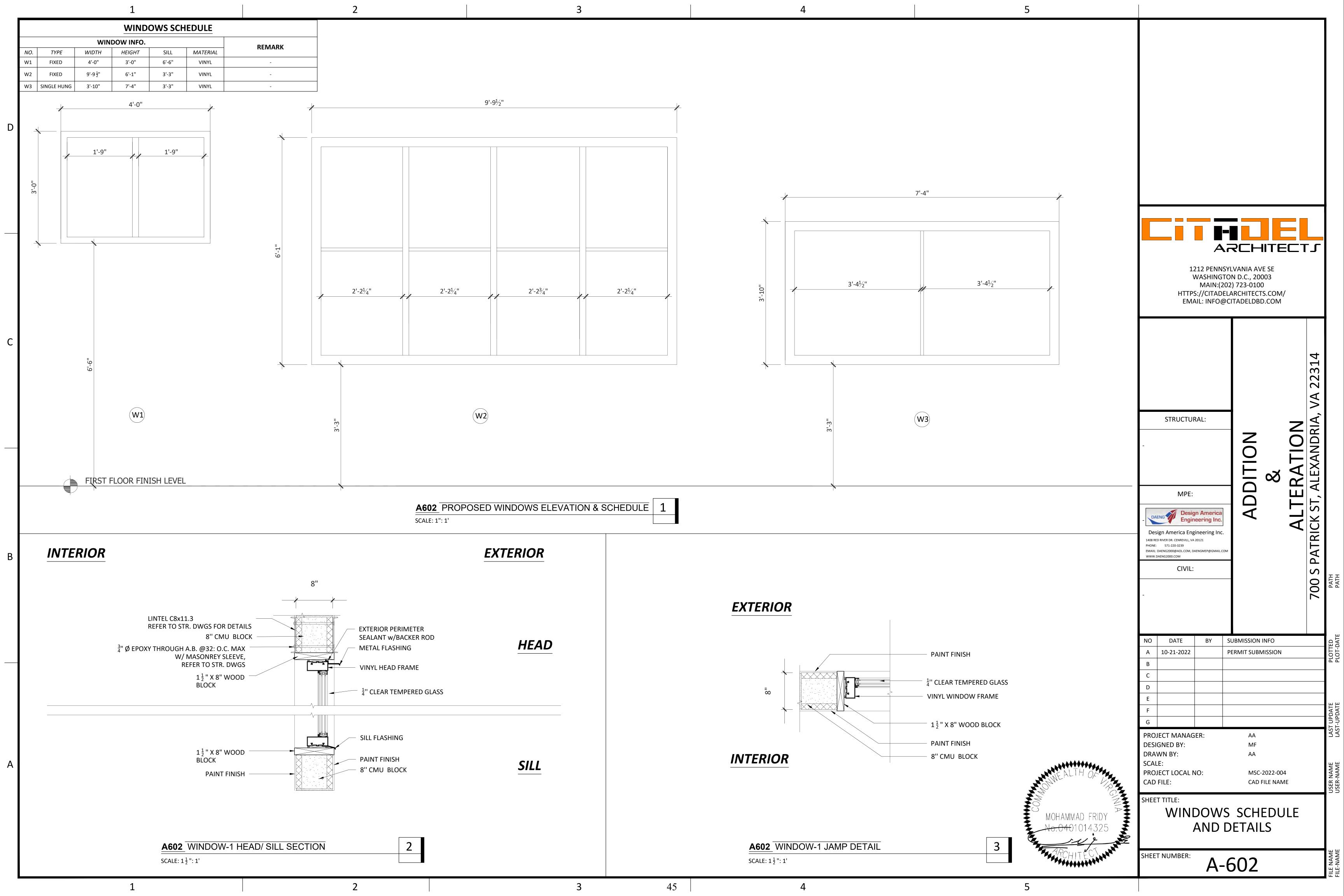


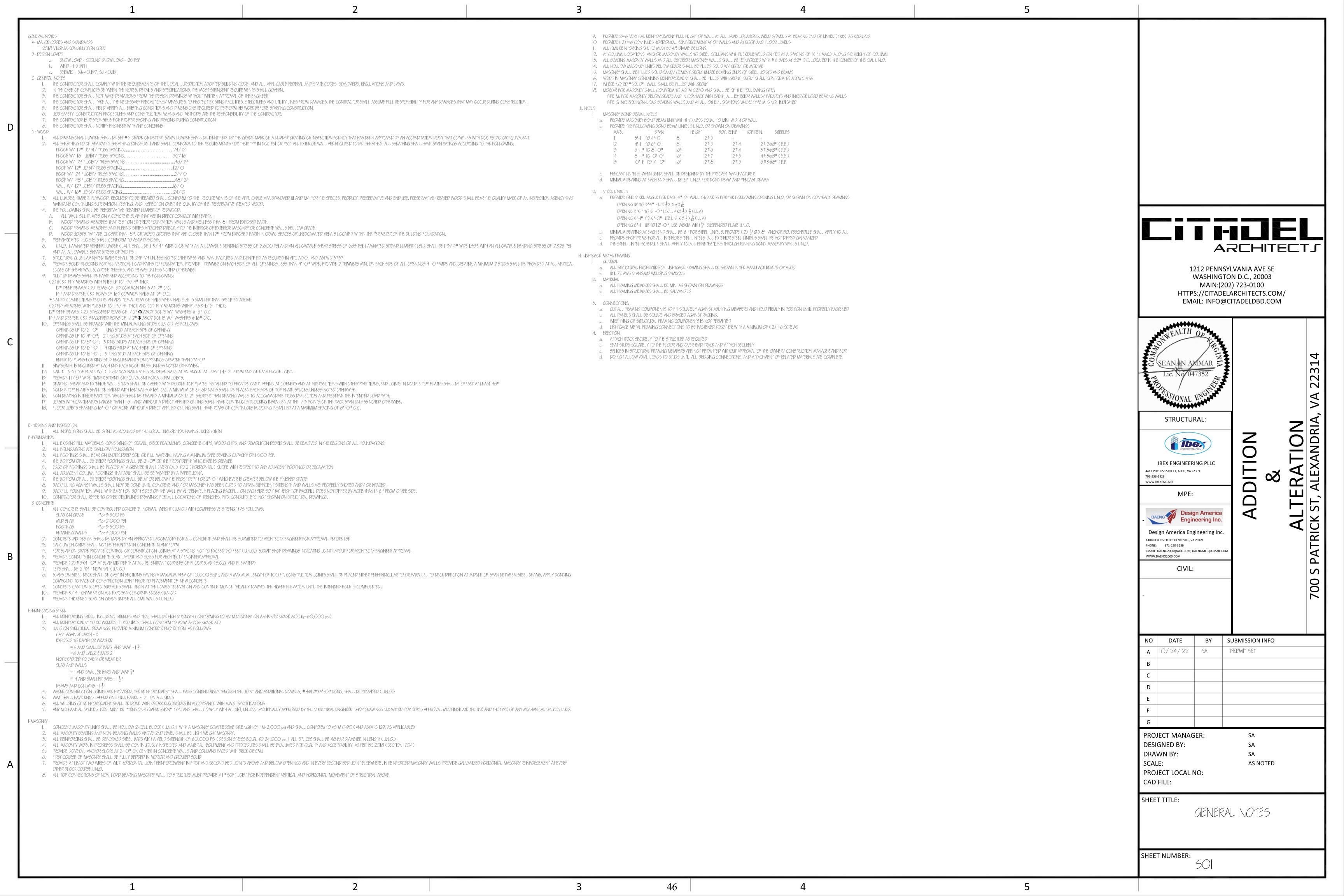


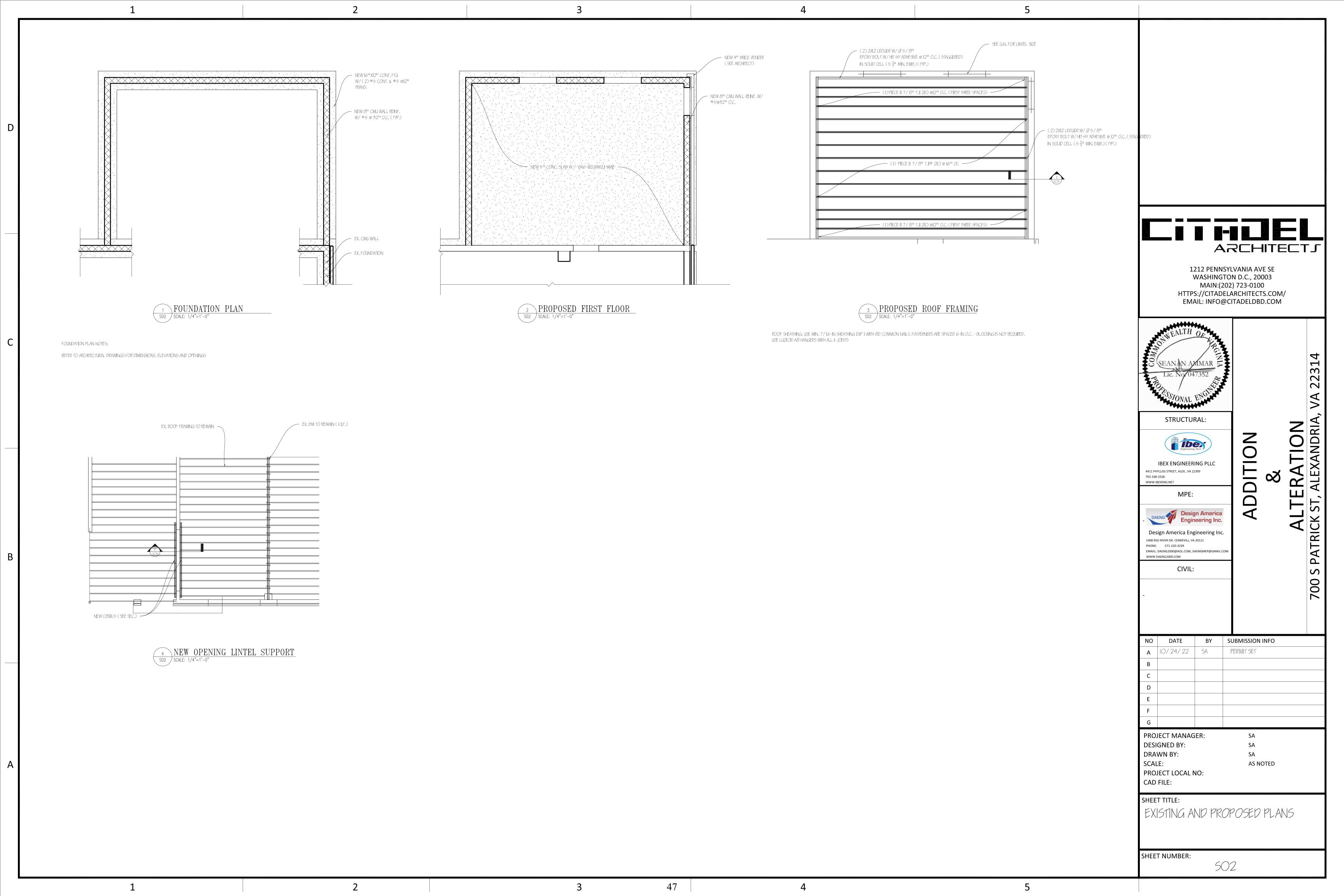


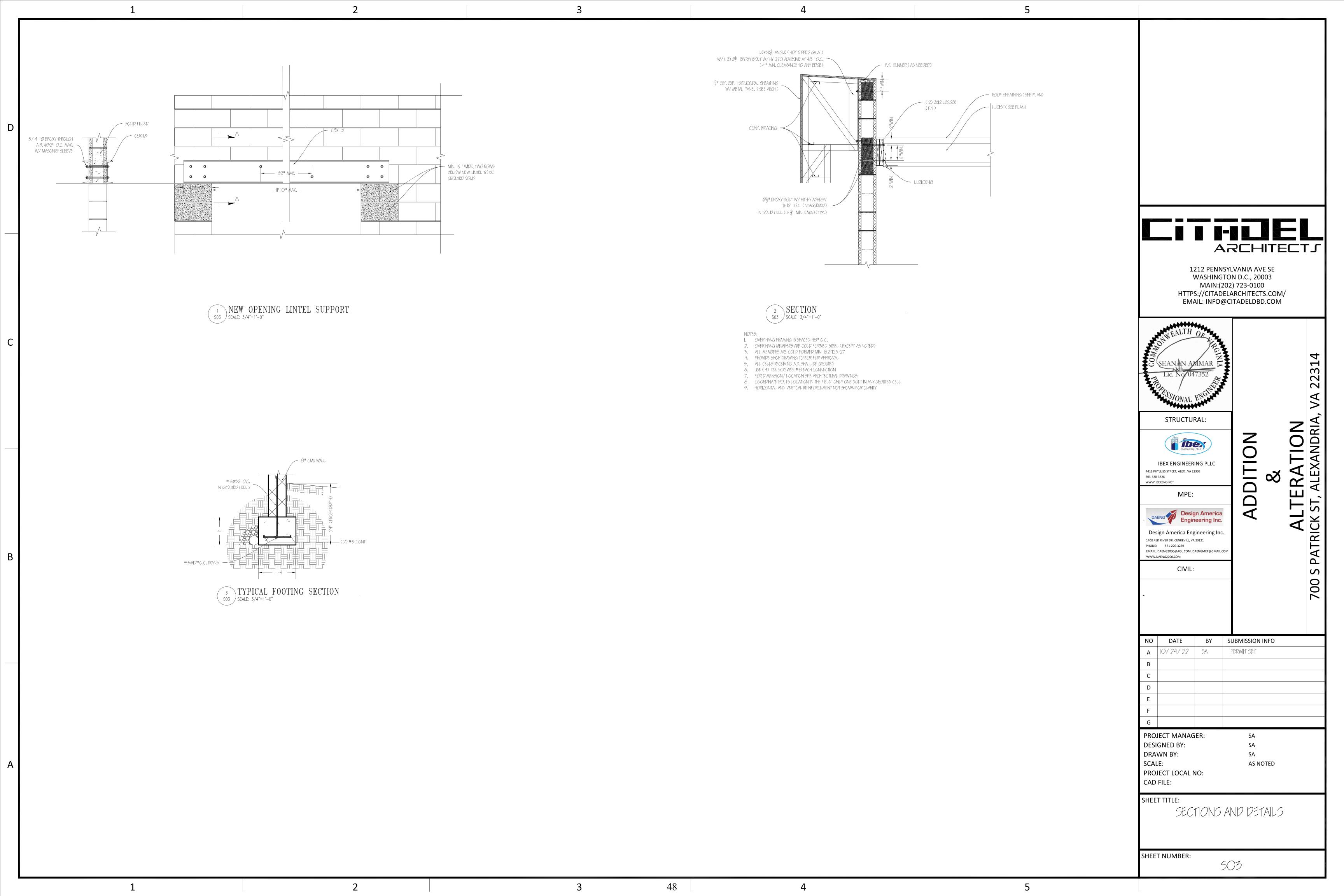












ELECTRICAL GENERAL NOTES

- IT IS THE INTENT OF THESE DRAWINGS AND OTHER RELATED DOCUMENTS TO PRODUCE A COMPLETE AND FUNCTIONING ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TESTS, AND OTHER SERVICES AS MAY BE NECESSARY TO ACHIEVE THIS PRODUCT. THE CONTRACTOR SHALL ACKNOWLEDGE ACCEPTANCE OF THE PLANS AS AN ADEQUATE DEFINITION OF THE SCOPE OF WORK AND EXTRA COST CLAIMS BASED ON DISCREPANCIES ON THE PLANS WILL NOT BE CONSIDERED.
- 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL CODES HAVING JURISDICTION. ALL EQUIPMENT, DEVICES, AND MATERIAL SHALL BE LISTED WITH UNDERWRITERS LABORATORIES FOR ITS APPLICATION AS INSTALLED AND SHALL BEAR THE UL LABEL.
- THE ELECTRICAL CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY SUCH FEES AS MAY BE NECESSARY FOR INSPECTIONS, TESTS, AND OTHER SERVICES WHICH ARE REQUIRED FOR THE COMPLETION OF HIS WORK
- THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE CONDITIONS OF THE PREMISES AND THE CHARACTER AND EXTENT OF WORK REQUIRED PRIOR TO SUBMISSION OF BIDS. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF ARCHITECT BEFORE BIDDING.
- 5. ELECTRICAL PLANS ARE DIAGRAMMATIC. DO NOT SCALE DRAWINGS.
- 6. CONSULT PLANS OF ALL OTHER TRADES FOR COORDINATION AND FOR RELATED AND ADJOINING WORK.
- CONSULT ARCHITECTURAL AND STRUCTURAL PLANS AND DETAILS FOR CONSTRUCTION TYPE, HEADROOM, ROOM FINISHES, CEILINGS, ETC.
- 8. SEE REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHT
- FIXTURES.

 9. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY.
 CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY SPACING THE
 CIRCUITS IN THE PANEL AND BALANCE THE LOAD ON THE PHASES
 UNDER NORMAL OPERATING CONDITIONS.
- O. SHOP DRAWINGS FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, DEVICES AND MATERIALS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL BEFORE DELIVERY TO THE JOB SITE. EQUIPMENT, FIXTURES, DEVICES, AND MATERIAL DELIVERED TO THE JOB SITE OR INSTALLED PRIOR TO APPROVAL OF THE SHOP DRAWINGS, AND FOR WHICH THE SHOP DRAWINGS ARE SUBSEQUENTLY REJECTED, SHALL BE REPLACED WITH AN APPROVED ITEM AT NO ADDITIONAL COST TO THE OWNER.
- 11. CONTRACTOR SHALL VERIFY WIRE SIZES, C/B AND FUSE RATINGS FOR ALL HVAC EQUIPMENT, AND BRING TO THE ATTENTION OF THE ARCHITECT ANY DISCREPANCIES AFFECTING THE WORK PRIOR TO PROCEEDING.
- 12. ALL WORK SHALL BE DONE AT SUCH TIMES AND IN SUCH A MANNER AS WILL LEAST INTERFERE WITH THE MAINTENANCE AND OPERATION OF ALL RELATED OR AFFECTED SYSTEM. ALL POWER OUTAGES, FIRE ALARM SHUT DOWNS. ETC. SHALL BE COORDINATED WITH OWNER.
- 13. CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
- 14. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SIZING OF ALL MOTOR OVERLOAD DEVICES (HEATERS) IN STARTERS BASED ON ACTUAL NAMEPLATE RATINGS ON THE MOTORS BEING INSTALLED.
- 15. HORSEPOWER RATINGS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.
- 16. CONTRACTOR SHALL NOTE U.L. LABELS ON PACKAGED TYPE MECHANICAL EQUIPMENT. IF U.L. LABEL ON MECHANICAL EQUIPMENT OT ACTUALLY BE INSTALLED CALLS FOR THE OVERCURRENT PROTECTIVE DEVICE TO BE FUSES, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A FUSED DISCONNECT SWITCH WITH PROPER SIZE FUSES AT THE SWITCH LOCATION INDICATED ON DRAWINGS AT NO ADDITIONAL CHARGE TO THE
- 17. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR OR CEILING CONTRACTOR TO INSURE THAT ALL RECESSED LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.
- 18. LIGHTING FIXTURES INSTALLED IN SUSPENDED CEILINGS SHALL BE SUPPORTED DIRECTLY FROM THE BUILDING STRUCTURE.
- 19. THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWNGS OF NOT.
- 20. ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OF FISH TAPE/CORD.
- 21. ALL CONDUCTORS, RACEWAYS AND CABLES SHALL BE CONCEALED IN CEILING OR WALL UNLESS INDICATED OTHERWISE.
- 22. OPENINGS OR CORE DRILLS IN EXISTING BUILDING STRUCTURE FOR PASSAGE OF CONDUITS/CABLES SHALL NOT BE CUT UNTIL THE CONTRACTOR HAS ASKED FOR AND RECEIVED WRITTEN APPROVAL FROM THE ARCHITECT AND OWNER.
- 23. THE LIGHTING FIXTURES SHALL BE FURNISHED AND INSTALLED COMPLETE WITH ALL ACCESSORIES (INCLUDING LAMPS) BY THE ELECTRICAL CONTRACTOR.
- 24. SYMBOLS SHOWN ON THIS SHEET ARE STANDARD SYMBOLS AND MAY NOT NECESSARILY ALL BE APPLICABLE TO THIS PROJECT.
- 25. THE CONTRACTOR SHALL GUARANTEE ALL HIS WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE BY OWNER.
- 26. ALL PENETRATIONS OF FLOOR AND WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH IBC, NEC, AND NFPA.

- 27. CONDUCTORS SHALL BE INSTALLED CONTINUOUS BETWEEN DEVICES, WITH SPLICES LOCATED ONLY IN JUNCTION BOXES OR IN CABINETS. CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO REACH THE FARTHEST TERMINAL IN PANELS. A MINIMUM OF 6" LOOPS SHALL REMAIN WHERE CONNECTIONS OF TAPS ARE TO BE MADE IN BRACH CIRCUIT WIRING.
- 28. PROVIDE AN UPDATED TYPEWRITTEN PANEL DIRECTORY IN EACH PANEL AFTER COMPLETION OF WORK.
- 29. ELECTRICAL CONTRACTOR SHALL PROVIDE AS BUILT DRAWINGS AND ALL MANUFACTURERS DATA AND WARRANTY LITERATURE AT THE COMPLETION OF THE CONTRACT.

WIRING DEVICES

- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS FOR SWITCHES, RECEPTACLES, WALL MOUNTED LIGHT FIXTURES, AND TELEPHONE OUTLETS BY THE USE OF THE ARCHITECTURAL AND ENGINEERING DRAWINGS. SHOULD ANY CONFLICTS BECOME APPARENT THE CONTRACTOR SHALL REQUEST CLARIFICATION PRIOR TO INSTALLATION. IN THE WORK IS NOT COORDINATED ANY REMEDIAL WORK SHALL BE REDONE AT NO ADDITIONAL COST TO THE OWNER.
- 2. PROVIDE DUPLEX, SPECIFICATION GRADE RECEPTACLES 2 POLE, 3 WIRE GROUNDING WITH GREEN HEXAGONAL EQUIPMENT GROUND SCREWS, GROUND TERMINALS AND POLES INTERNALLY CONNECTED TO MOUNTING YOKE, 20 AMPERES, 125 VOLTS, WITH METAL PLASTER EARS, SIDE WIRING. NEMA CONFIGURATION 5–20R.
- 3. SWITCHES, 20 AMPS, 120/277 VOLTS, WITH MOUNTING YOKE INSULATED FROM MECHANISM, EQUIPPED WITH PLASTER EARS, SWITCH HANDLE, AND SIDE WRED SCREW TERMINALS.
- 4. ALL SWITCHES, RECEPTACLES AND ASSOCIATED FACE PLATES SHALL BE OF WHITE COLOR. PREFERRED MANUFACTURER IS LUTRON.
- 5. ALL DEVICES INSTALLED IN THE LOCATION EXPOSED TO AMBIENT CONDITIONS SHALL BE WEATHERPROOFED.

EQUIPMENT SPECIFICATIONS

RACEWAY

- 1. MINIMUM SIZE OF THE CONDUIT SHALL BE 1/2".
- 2. PROVIDE FLEXIBLE CONDUIT FOR MOTOR CONNECTION, AND FOR OTHER ELECTRICAL EQUIPMENT CONDITION, WHERE SUBJECT TO MOVEMENT AND VIBRATION.
- 3. PROVIDE LIQUID TIGHT FLEXIBLE CONDUIT FOR CONNECTION OF MOTOR AND FOR OTHER ELECTRICAL EQUIPMENT WHERE SUBJECT TO MOVEMENT AND VIBRATION, AND ALSO WHERE SUBJECT TO ONE OR MORE OF THE FOLLOWING CONDITIONS, UNLESS NOTES OTHERWISE:
- A. MOIST AND HUMID ATMOSPHERE WHERE CONDENSATE CAN BE EXPECTED TO ACCUMULATE.
- B. CORROSIVE ATMOSPHERE
- C. SUBJECT TO DRIPPING OIL, GREASE OR WATER.
- 4. ALL CONDUITS SHALL BE GROUNDED PER NEC. CONDUITS ENTERING THE OUTLET BOXES, PANEL CABINETS, ETC. MUST BE FITTED WITH A DOUBLE LOCKNUT AND BUSHING.
- 5. PROVIDE RIGID STEEL, THREADED, THICK WALL CONDUIT, GALVANIZED OR EMT FOR ALL PANEL FEEDERS, AND ALL EXPOSED WIRING IN UNFINISHED AREAS.
- 6. ALL WIRE RACEWAYS IN OR PASSING THROUGH CONCRETE WALLS, SLABS, OR UNDERGROUND SHALL BE GALVANIZED RIGID STEEL THREADED CONDUIT.

WIRES AND CABLES

- 1. ALL WRE AND CABLE SHALL BE COPPER WITH THHN/THWN INSULATION AND ALL WRE SIZES ARE BASED ON COPPER CONDUCTORS WITH 75°C INSULATION UNLESS INDICATED OTHERWISE. ALL CONNECTORS, LUGS, ETC. SHALL BE LISTED FOR 75°C.
- 2. PROVIDE WIRING NOT SMALLER THAN #12 AWG FOR THE POWER DISTRIBUTION, AND NOT SMALLER THAN #14 AWG FOR THE FIRE ALARM
- 3. ALL CIRCUITS 120/208 VOLT OVER 100 FEET AND ALL 277/480 VOLT CIRCUITS OVER 200 FEET FROM PANEL TO FIRST OUTLET SHALL HAVE CONDUCTORS ONE SIZE LARGER THAN NORMALLY REQUIRED WHETHER INDICATED ON PANEL SCHEDULE OR NOT.
- 4. CONDUCTORS INSTALLED UNDERGROUND OR IN THE WET LOCATIONS SHALL BE U.L. LISTED PER NEC, AND SHALL BE SUITABLE FOR WET LOCATIONS.

ELECTRICAL BOXES AND FITTINGS

- 1. ALL BOXES AND FITTINGS SHALL BE OF CODE-GAUGE STEEL.
- 2. JUNCTION AND PULL BOXES: PROVIDE GALVANIZED CODE—GUAGE STEET STEEL JUNCTION AND PULL BOXES WITH SCREW—ON COVER OF TYPES, SHAPES AND SIZES TO SUIT EACH RESPECTIVE LOCATION AND INSTALLATION, WITH WELDED SEAMS AND EQUIPPED WITH STAINLESS STEEL NUTS, SCREWS, AND WASHERS.
- 3. PROVIDE WEATHERPROOF OUTLETS FOR INTERIOR AND EXTERIOR LOCATIONS EXPOSED TO WEATHER OR MOISTURE.
- 4. ALL PULL BOXES SHALL BE FABRICATED FROM #12 OR HEAVIER GAUGE GALVANIZED STEEL AS REQUIRED BY THE NEC, AND SHALL BE EQUIPPED WITH SCREW FASTENED COVER.

FIRE ALARM NOTES:

- 1. ALL DEVICES AND EQUIPMENT FOR THIS SYSTEM SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC. (U.L.), BEAR THE U.L. LABEL AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 72 AND 90A.
- 2. THE INSTALLATION SHALL BE IN ACCORDANCE WITH ALL REQUIREMENTS OF NFPA, THE NATIONAL ELECTRIC CODE (NEC), ALL STATE AND LOCAL CODES AND ADA REQUIREMENTS.
- 3. UPON COMPLETION, THE SYSTEM SHALL BE THOROUGHLY TESTED BY THE CONTRACTOR TO ASSURE PROPER INTERFACING OF ALL COMPONENTS.

- 4. ALL WIRING FOR THE FIRE DETECTION AND ALARM SYSTEM SHALL BE RUN IN CONDUIT BY THE CONTRACTOR. ALL FIRE ALARM JUNCTION BOX COVERS SHALL BE PAINTED RED BY THE CONTRACTOR OR STENCILED FOR DISTINCT IDENTIFICATION. ALL CONDUIT, DEVICE MOUNTING BOXES, JUNCTION BOXES, AND PANELS SHALL BE SECURELY FASTENED BY THE CONTRACTOR WITH APPROPRIATE FITTINGS TO INSURE A POSITIVE GROUND THROUGHOUT THE ENTIRE SYSTEM.
- 5. ALL CONNECTIONS TO PANELS, DEVICES, AND DETECTORS SHALL BE MADE WITH CRIMP TYPE SPADE TERMINAL CONNECTORS. SPLICES IN STATION CIRCUITS SHALL BE MADE ONLY IN JUNCTION BOXES AND SHALL BE CRIMP CONNECTED.
- 6. ALL WIRING SHALL BE CHECKED AND TESTED BY THE CONTRACTOR TO INSURE THE SYSTEM IS FREE FROM GROUNDS, OPENS, AND SHORTS.
- 7. THE INSTALLATION AND FINAL CONNECTIONS BY THE CONTRACTOR OF ALL COMPONENTS AND DEVICES SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF THE SYSTEM MANUFACTURER'S TECHNICAL STAFF.

ELECTRICAL SYMBOLS

- LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE FOR TYPE AND MOUNTING.
- WALL MOUNTED DUAL HEAD BATTERY POWERED EMERGENCY LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE.
- SINGLE FACE EXIT LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE.
- DOUBLE FACE EXIT LIGHTING FIXTURE. SEE LIGHTING FIXTURE SCHEDULE.
- \$ SINGLE POLE TOGGLE SWITCH 20 AMP, 120 VOLT, M.H. 48" AFF, UNLESS NOTED OTHERWISE.
- \$3 THREE WAY TOGGLE SWITCH 20 AMP, 120 VOLT, M.H. 48" AFF, UNLESS NOTED OTHERWISE.
- \$M MOTOR RATED SWITCH WITH THERMAL OVERLOAD PROTECTION, MOUNT ADJACENT TO OR ON THE MOTOR BEING CONTROLLED.
- \$0 LIGHT SWITCH WITH BUILT-IN OCCUPANCY SENSOR.
- OS CEILING MOUNTED OCCUPANCY SENSOR.
- OD CEILING MOUNTED DAYLIGHT SENSOR
- JUNCTION BOX, CEILING OR WALL MOUNTED.
- SDD DUCT SMOKE DETECTOR IN SUPPLY AND RETURN AIR DUCTS
- DUPLEX GROUNDING TYPE RECEPTALCE 20 AMP, 120 VOLT, NEMA 5—20R, M.H. 18" AFF, UNLESS NOTED OTHERWISE.
- DOUBLE DUPLEX GROUNDING TYPE RECEPTACLE 20 AMP, 120 VOLT, NEMA 5-20R, M.H. 18" AFF, UNLESS NOTED OTHERWISE.
- CEILING MOUNTED RECEPTACLE
- FLOOR MOUNTED RECEPTACLE
- DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER PROTECTION 20 AMP, 120 VOLT, NEMA 5—20R, M.H. 42" AFF, UNLESS NOTED OTHERWISE.
- DATA OUTLET
- TELEPHONE/DATA OUTLET WALL MOUNTED, M.H. 18" AFF, UNLESS NOTED OTHERWISE. PROVIDE 1" EC FROM THE OUTLET TO 6" ABOVE FINISHED CEILING AND TERMINATE WITH 90° BEND AND INSULATED BUSHING
- PANELBOARD
- DISCONNECT SWITCH, AMP, VOLT, POLES AND FUSING AS NOTED ON
- ELECTRIC MOTOR CONNECTION HORSEPOWER AS NOTED.
- POWER COMPANY METER, RATING AS INDICATED ON DRAWING.
- HOMERUN WIRING WITH A DEDICATED EQUIPMENT GROUND WIRE TO THE REFERENCED PANELBOARD. ARROW HEADS AND NUMERALS INDICATE THE CIRCUIT NUMBERS.

DRY TYPE TRANSFORMER, RATING AS INDICATED ON DRAWING.

(SP) CEILING MOUNTED SPEAKER

HORSE POWER

KILOVOLT AMPS

ISOLATED GROUND

ELECTRICAL ABBREVIATIONS

Α	AMP	KW	KILOWATTS
AFF	ABOVE FINISHED FLOOR	N	NEW
AHU	AIR HANDLING UNIT	NEC	NATIONAL ELECTRICAL CODE
AIC	AMPS INTERRUPTING CAPACITY	NEMA	NATIONAL ELECTRICAL
AL	ALUMINUM		MANUFACTURERS ASSOCIATI
ATS CB	AUTOMATIC TRANSFER SWITCH CIRCUIT BREAKER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
		NFSS	NON-FUSED SAFETY SWITCH
CH	CABINET HEATER	Р	POLE
CKT	CIRCUIT	PH	PHASE
CU	COPPER, COMPRESSOR UNIT	R	REMOVE
DN	DOWN	RE	RELOCATE
Ε	EXISTING		
EC	EMPTY CONDUIT	RTU	ROOF TOP UNIT
ER	EXISTING RELOCATED	UL	UNDERWRITERS LABORATORY
EF	EXHAUST FAN	UON	UNLESS OTHERWISE NOTED
FSS	FUSED SAFETY SWITCH	V	VOLT
		VA	VOLTAMPS
GFI	GROUND FAULT INTERRUPTER	W	WATTS
GND	GROUND	WL	WATED LIEATED

OMINAL MPERE RATING	FEEDER T & MODII		LOAD DESCRIPTION	MINIMUM RACEWAY SIZE (INCHES	
		-	3-12 AWG; 1-12 AWG GND.	7 /40	
20	20*	Y	3-12 AWG; 1-12 AWG N; 1-12 AWG GND.	3/4"	
20		K	CHANGE NEUTRAL TO 1-8 AWG	3/4"	
		G	ADD 1-12 AWG IG	3/4	
		_	3-10 AWG; 1-10 AWG GND.	3/4"	
30	(30*)	Y	3-10 AWG; 1-10 AWG N; 1-10 AWG GND.	3/4	
30		K	CHANGE NEUTRAL TO 1-4 AWG	1"	
		G	ADD 1-10 AWG IG	•	
		-	3-8 AWG; 1-10 AWG GND.	1"	
40	40*	Y	3-8 AWG; 1-8 AWG N; 1-10 AWG GND.	•	
70		K	CHANGE NEUTRAL TO 1-4 AWG	1*	
		G	ADD 1-10 AWG IG	<u>'</u>	
			3-6 AWG; 1-10 AWG GND.	1*	
55	(55*)	Υ	3-6 AWG; 1-6 AWG N; 1-10 AWG GND.	•	
•		K	CHANGE NEUTRAL TO 1-4 AWG	1.25*	
		G	ADD 1-10 AWG IG	1.20	
		-	3-4 AWG; 1-8 AWG GND.	1.25"	
70	70*	Υ	3-4 AWG; 1-4 AWG N; 1-8 AWG GND.	1.20	
/0		K	CHANGE NEUTRAL TO 1-1/0 AWG	1.5*	
		G	ADD 1-8 AWG IG	1.0	
		-	3-2 AWG; 1-6 AWG GND.	1.5"	
100	(100*)	Y	3-2 AWG; 1-2 AWG N; 1-6 AWG GND.	1.0	
100		K	CHANGE NEUTRAL TO 1-3/0 AWG	2*	
		G	ADD 1-6 AWG IG	2	
		-	3-1 AWG; 1-6 AWG GND.	2*	
470	(1704)	Y	3-1 AWG; 1-1 AWG N; 1-6 AWG GND.	2	
130	130*	K	CHANGE NEUTRAL TO 250 KCM	2.5*	
		G	ADD 1-6 AWG IG	2.5	
	(150°)	-	3-1/0 AWG; 1-6 AWG GND.	2*	
450		Y	3-1/0 AWG; 1-1/0 AWG N; 1-6 AWG GND.	2	
150		K	CHANGE NEUTRAL TO 2-1/0 AWG	٥٥	
		G	ADD 1-6 AWG IG	2.5*	
		-	3-2/0 AWG; 1-4 AWG GND.		
476	175*	Y	3-2/0 AWG; 1-2/0 AWG N; 1-4 AWG GND.	2*	
175		K	CHANGE NEUTRAL TO 2-2/0 AWG	A 58	
		G	ADD 1-4 AWG IG	2.5*	
		-	3-3/0 AWG; 1-4 AWG GND.	2*	
000	200*	Y	3-3/0 AWG; 1-3/0 AWG N; 1-4 AWG GND.	2	
200		K	CHANGE NEUTRAL TO 2-3/0 AWG	0.58	
		G	ADD 1-4 AWG IG	2.5*	
		-	3-4/0 AWG; 1-2 AWG GND.		
		Y	3-4/0 AWG; 1-4/0 AWG N; 1-2 AWG GND.	2.5*	
225	225*	K	CHANGE NEUTRAL TO 2-4/0 AWG		
		G	ADD 1-4 AWG IG	2.5	
		-	3–250 KCMIL; 1–2 AWG GND.		
		Y	3-250 KCMIL; 1-250 KCMIL N; 1-2 AWG GND.	2*	
250	250*	K	CHANGE NEUTRAL TO 2-250 KCMIL		
		G	ADD 1-2 AWG IG	2.5*	
			3–350 KCMIL; 1–1 AWG GND.		
		Y	3-350 KCMIL; 1-350 KCMIL N; 1-1 AWG GND.	3*	
300	300*	K	CHANGE NEUTRAL TO 2-350 KCMIL		
	1	G	ADD 1-1 AWG IG	3*	
		<u> </u>	3-500 KCMIL; 1-1/0 AWG GND.		
		_			
		- Y	•	4"	
380	380*)	- Ү К	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND.	· 	
380	380*	K	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL	4*	
380	(380°)	\vdash	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG	4*	
380		K G	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND.	· 	
380	(380°)	K G - Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND.	4*	
		K G - Y K	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL	4*	
420	(420*)	K G - Y K G	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG	4° 4°	
420	(420°)	K G - Y K G	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND.	4" 4" 4" (2)-3"	
420 500 600	(420°) (500°) (600°)	K G - Y K G Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND. (2 SETS OF) 3-350 KCMIL; 1-350 KCMIL N; 2/0 AWG GND.	4° 4° 4° (2)-3° (2)-3.5°	
420 500 600 800	(420°) (500°) (600°) (800°)	K G - Y K G Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND. (2 SETS OF) 3-350 KCMIL; 1-350 KCMIL N; 2/0 AWG GND. (2 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 2/0 AWG GND.	4° 4° (2)-3° (2)-3.5° (2)-4°	
420 500 600 800 1000	(420°) (500°) (800°) (1000°)	K G - Y K G Y Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS 0F) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND. (2 SETS 0F) 3-350 KCMIL; 1-350 KCMIL N; 2/0 AWG GND. (2 SETS 0F) 3-600 KCMIL; 1-600 KCMIL N; 2/0 AWG GND. (3 SETS 0F) 3-500 KCMIL; 1-500 KCMIL N; 1-2/0 AWG GND.	4° 4° (2)-3° (2)-3.5° (2)-4° (3)-3.5°	
420 500 600 800 1000	(420°) (500°) (600°) (800°) (1200°)	K G - Y K G Y Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS OF) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND. (2 SETS OF) 3-350 KCMIL; 1-350 KCMIL N; 2/0 AWG GND. (2 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 2/0 AWG GND. (3 SETS OF) 3-500 KCMIL; 1-500 KCMIL N; 1-2/0 AWG GND. (3 SETS OF) 3-600 KCMIL; 1-600 KCMIL N; 1-3/0 AWG GND.	4° 4° (2)-3° (2)-3.5° (2)-4° (3)-3.5°	
420 500 600 800 1000 1200 1600	(420°) (500°) (800°) (1000°)	K G - Y K G Y Y Y	3-500 KCMIL; 1-500 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-500 KCMIL ADD 1-1/0 AWG IG 3-600 KCMIL; 1-1/0 AWG GND. 3-600 KCMIL; 1-600 KCMIL N; 1-1/0 AWG GND. CHANGE NEUTRAL TO 2-600 KCMIL ADD 1-1/0 AWG IG (2 SETS 0F) 3-250 KCMIL; 1-250 KCMIL N; 1/0 AWG GND. (2 SETS 0F) 3-350 KCMIL; 1-350 KCMIL N; 2/0 AWG GND. (2 SETS 0F) 3-600 KCMIL; 1-600 KCMIL N; 2/0 AWG GND. (3 SETS 0F) 3-500 KCMIL; 1-500 KCMIL N; 1-2/0 AWG GND.	4° 4° (2)-3° (2)-3.5° (2)-4° (3)-3.5°	

- THE ASTERISK ABOVE IS FILLED IN WITH ONE OR MORE OF THE FOLLOWING DESIGNATIONS ON THE RISER.
- Y THREE PHASE FOUR WIRE FEEDER.
 K THREE PHASE FEEDER WITH OVERSIZED NEUTRAL DOUBLE 200% NEUTRAL.
- G THREE PHASE FEEDER WITH ISOLATED GROUND. VD - FEEDER SIZED FOR VOLTAGE DROP.

FEEDER SCHEDULE

<u>notes:</u>

- ALL AMPACITIES ARE BASED ON 75° C TEMPERATURE RATING OF COPPER CONDUCTOR AS LISTED IN THE NATIONAL ELECTRIC CODE.
- 2. FEEDERS MAY HAVE A COMBINATION OF OVERSIZED NEUTRAL AND ISOLATED GROUND (DESIGNATION K AND G). REFER TO RISER FOR FEEDER DESIGNATIONS.

APPLICABLE CODES:

2018 VIRGINIA CONSTRUCTION CODE

2017 NEC 2018 IECC

ELECTRICAL DRAWINGS LIST:

E100 ELECTRICAL COVER SHEET

E200 ELECTRICAL DEMOLITION PLAN
E300 ELECTRICAL POWER AND LIGHTING PLANS

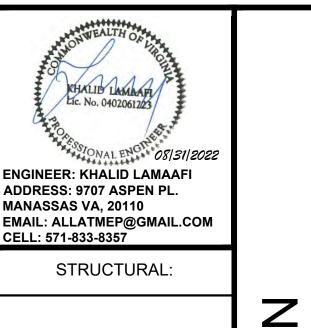
E400 PANEL SCHEDULES AND RISER DIAGRAM E500 COMCHECK

SCOPE OF WORK:

RENOVATION OF AN EXISTING SERVICE STATION BUILDING.

LIHIEL

1212 PENNSYLVANIA AVE SE
WASHINGTON D.C., 20003
MAIN: (202) 723-0100
HTTPS://CITADELARCHITECTS.COM/
EMAIL: INFO@CITADELDBD.COM



Design America Engineering, Inc MEP Consulting Engineers 14080 Red River Drive Centerville, VA 20121 Sam: 571-220-3239 www.daeng2000.com DAENGMEP@GMAIL.COM DAENG2000@AOL.COM WWW.DAENG2000.COM

CIVIL:

MPE:

ALT ALT ALT ALT AND S PATRICK S

 \sim

PROJECT MANAGER: DESIGNED BY: DRAWN BY:

SCALE:
PROJECT LOCAL NO:
CAD FILE:

SHEET TITLE:

ELECTRICAL COVER SHEET

SHEET NUMBER:

E100

AA

SO

MR

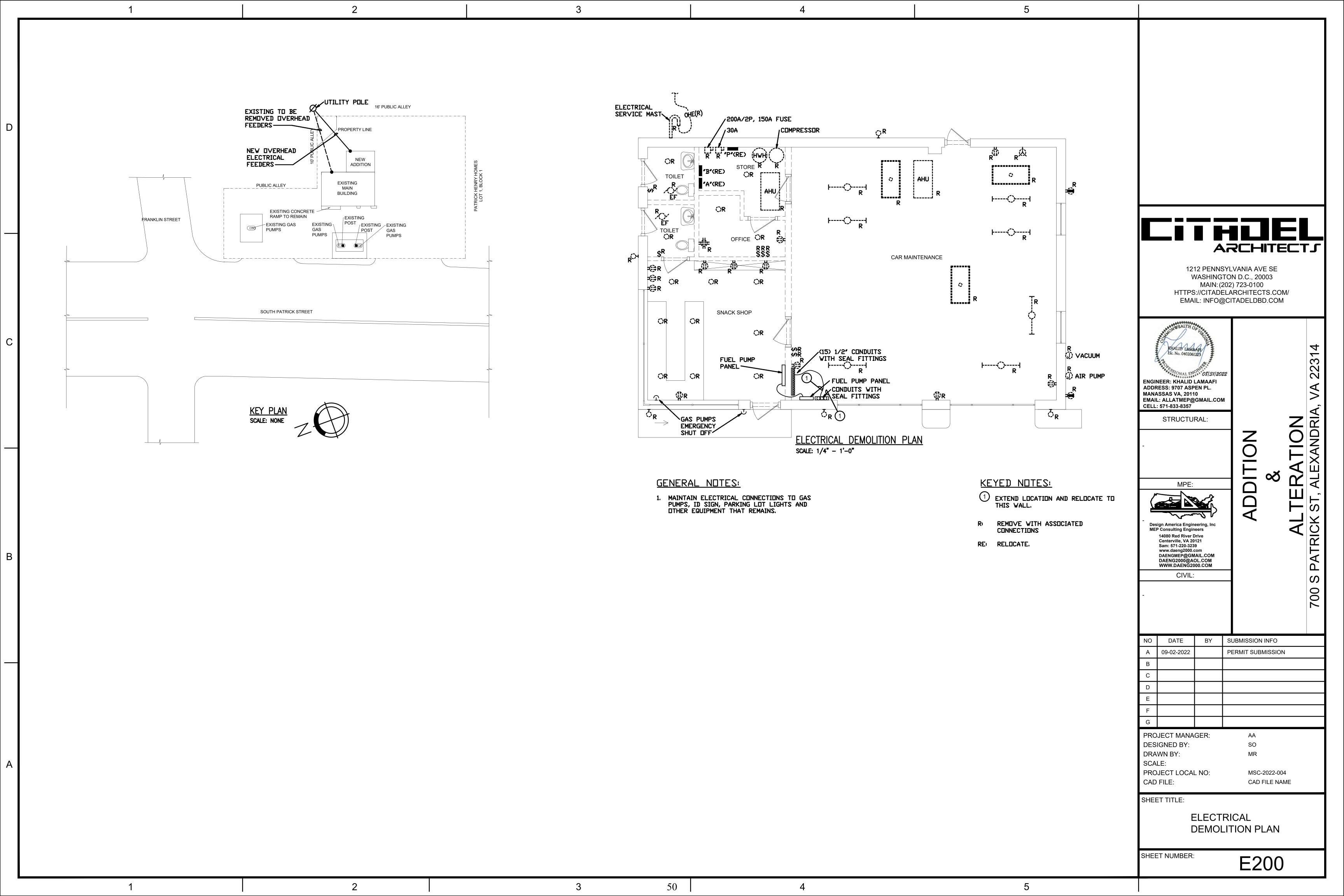
MSC-2022-004

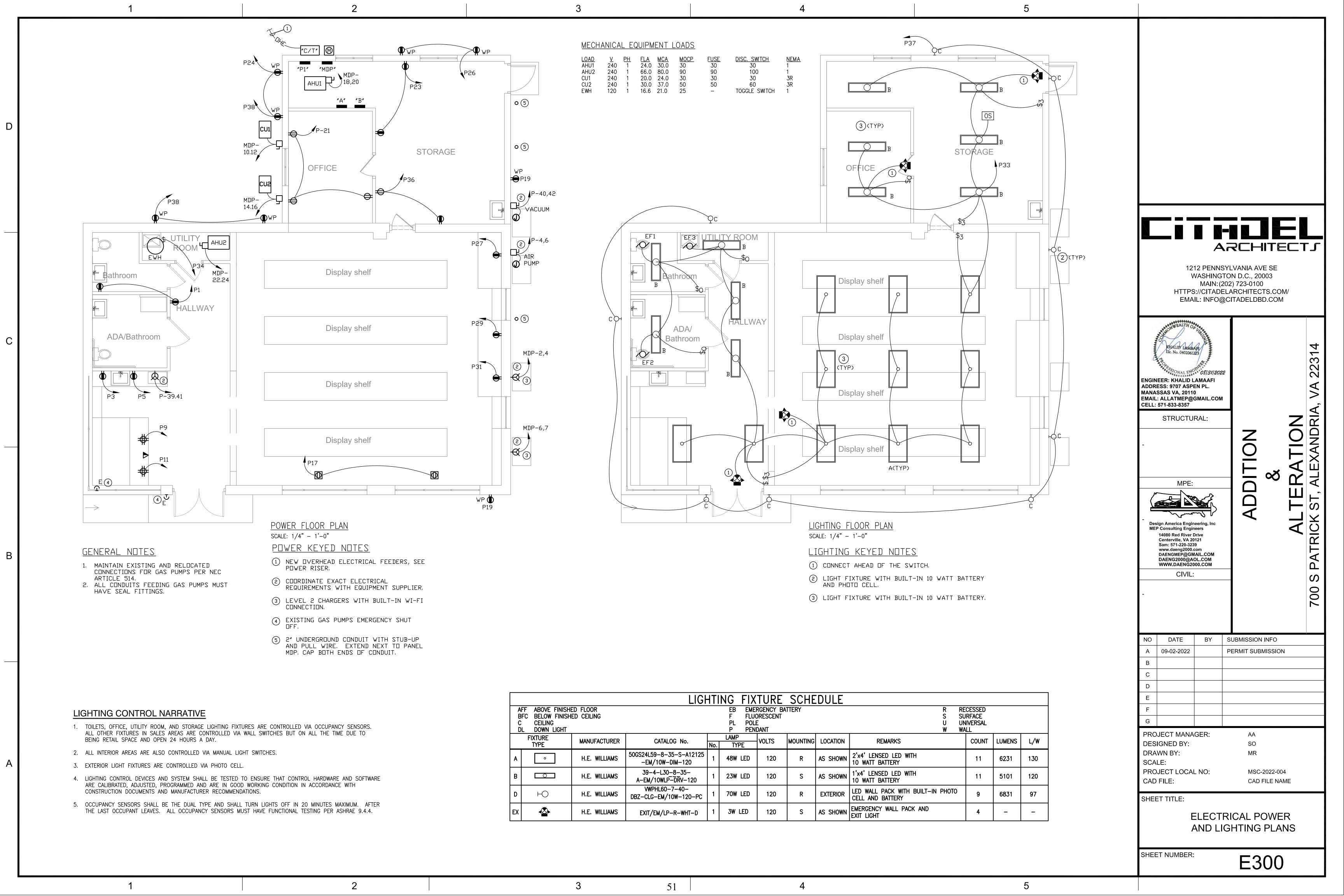
CAD FILE NAME

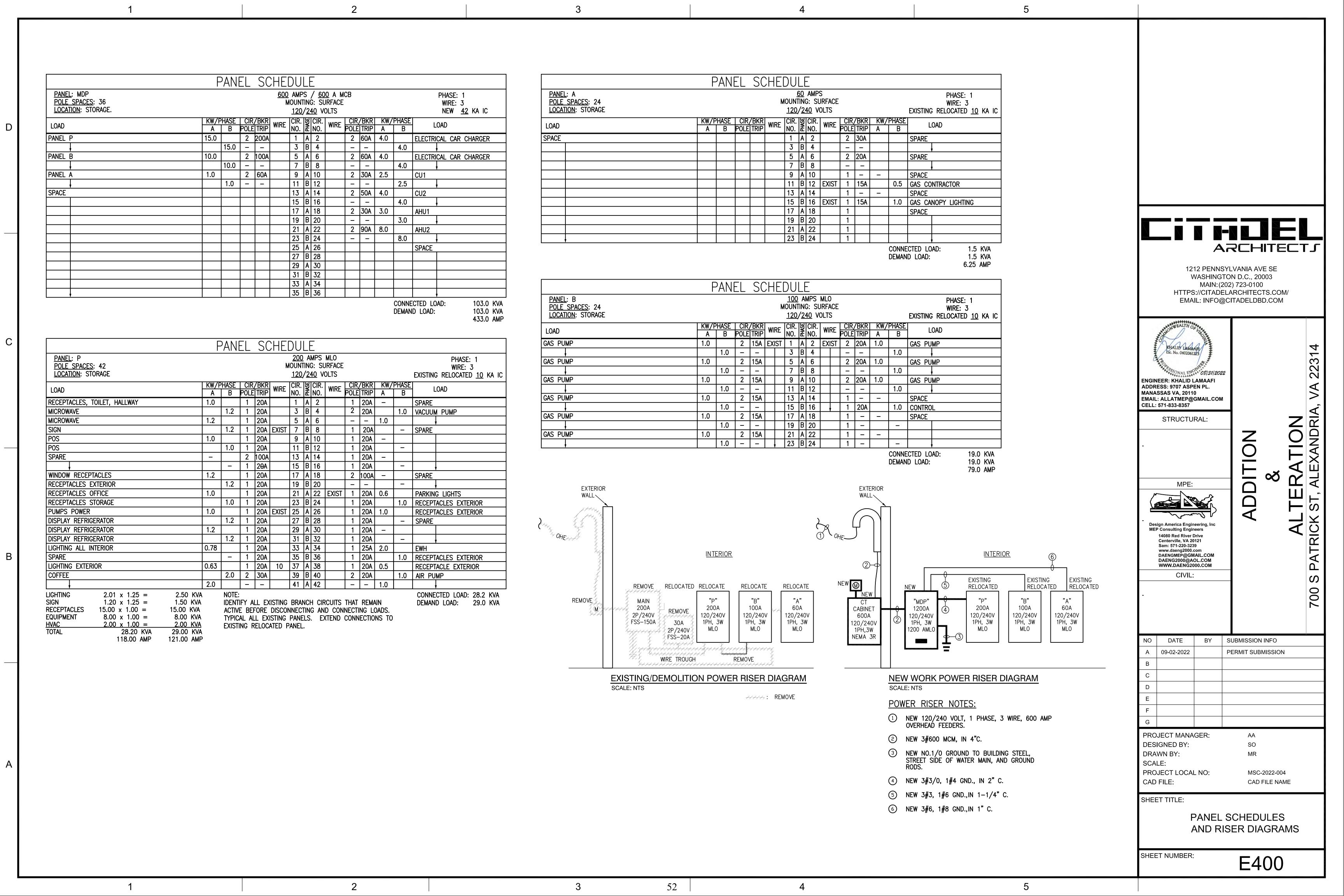
XFMR TRANSFORMER

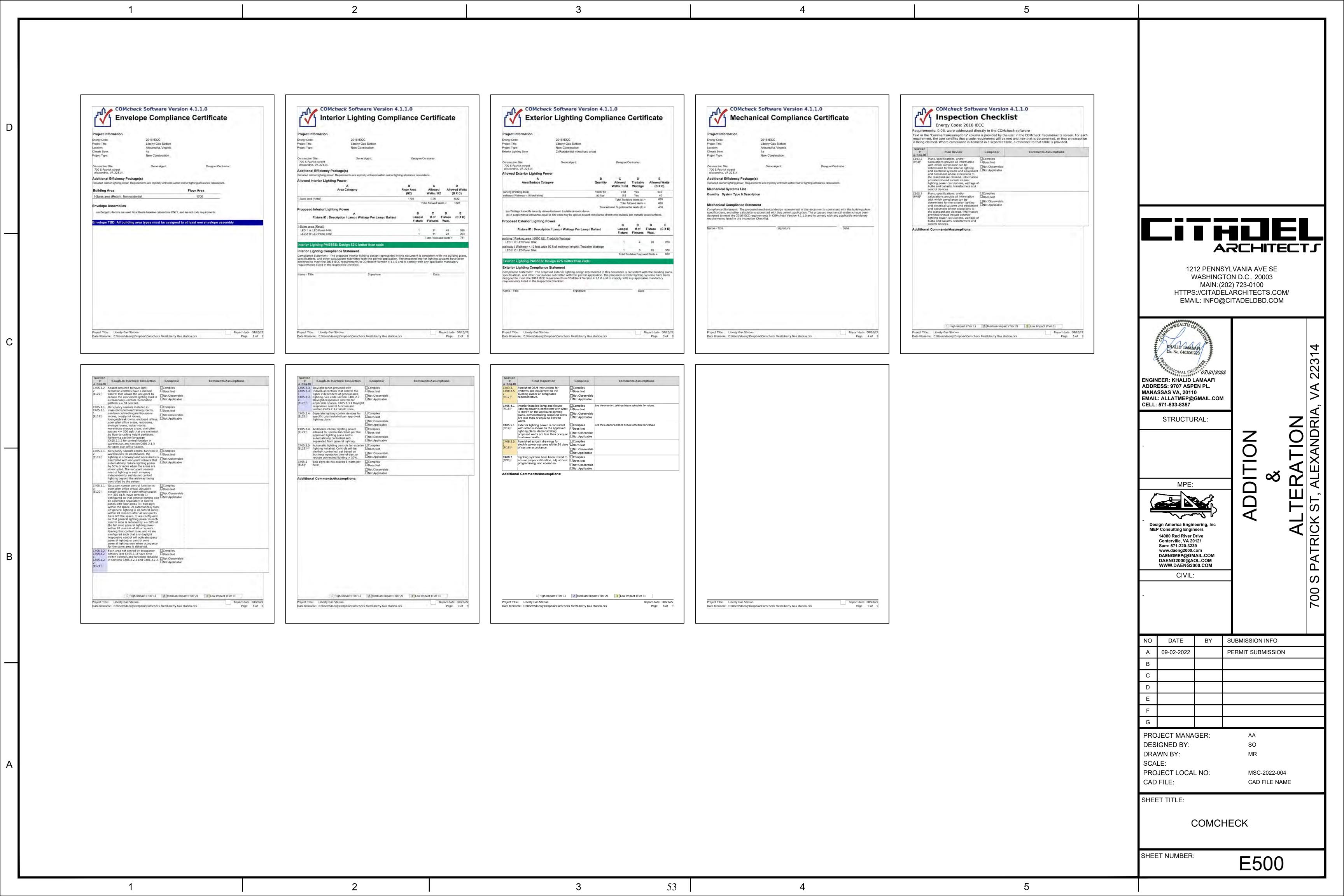
WATER HEATER

WEATHER PROOF

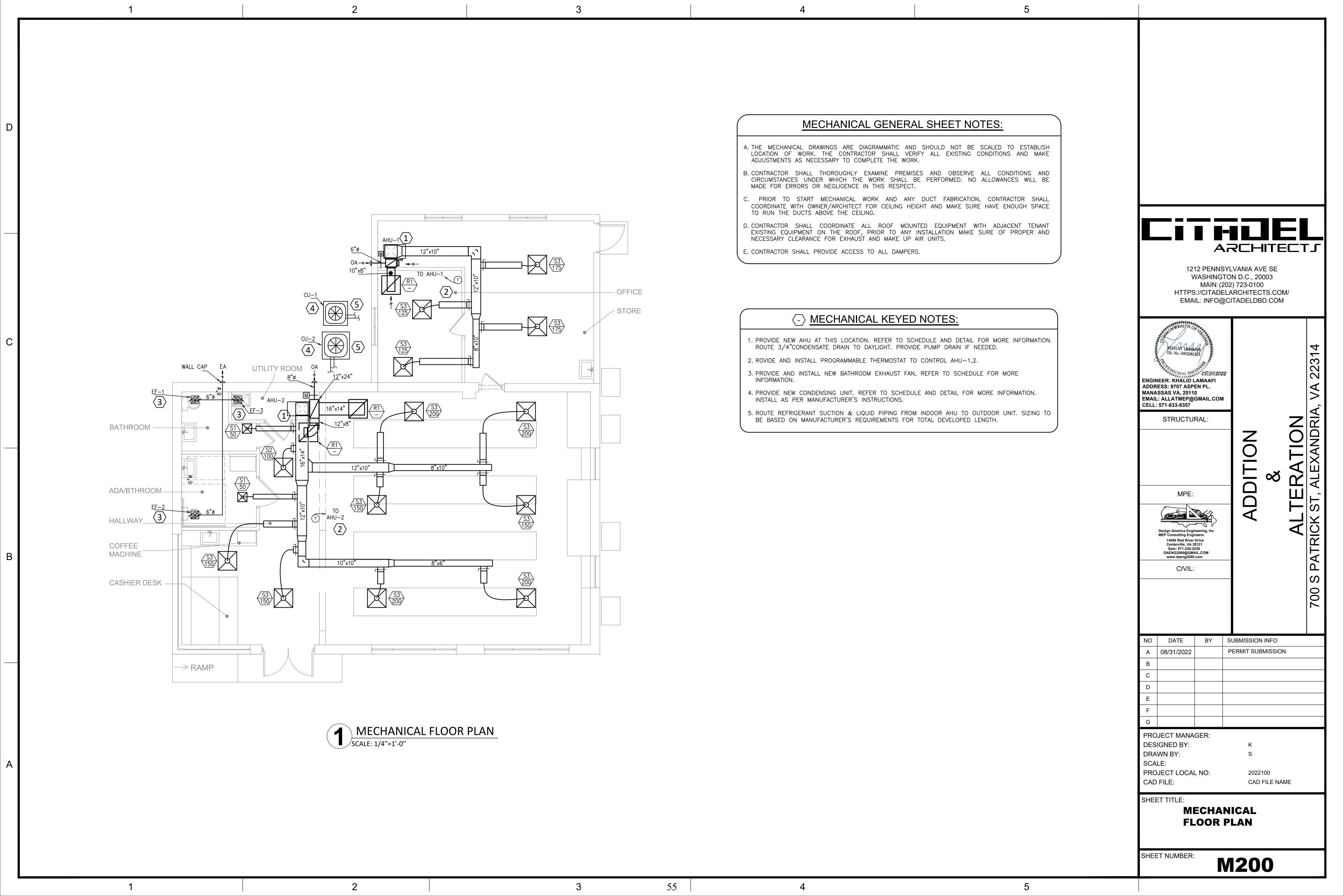


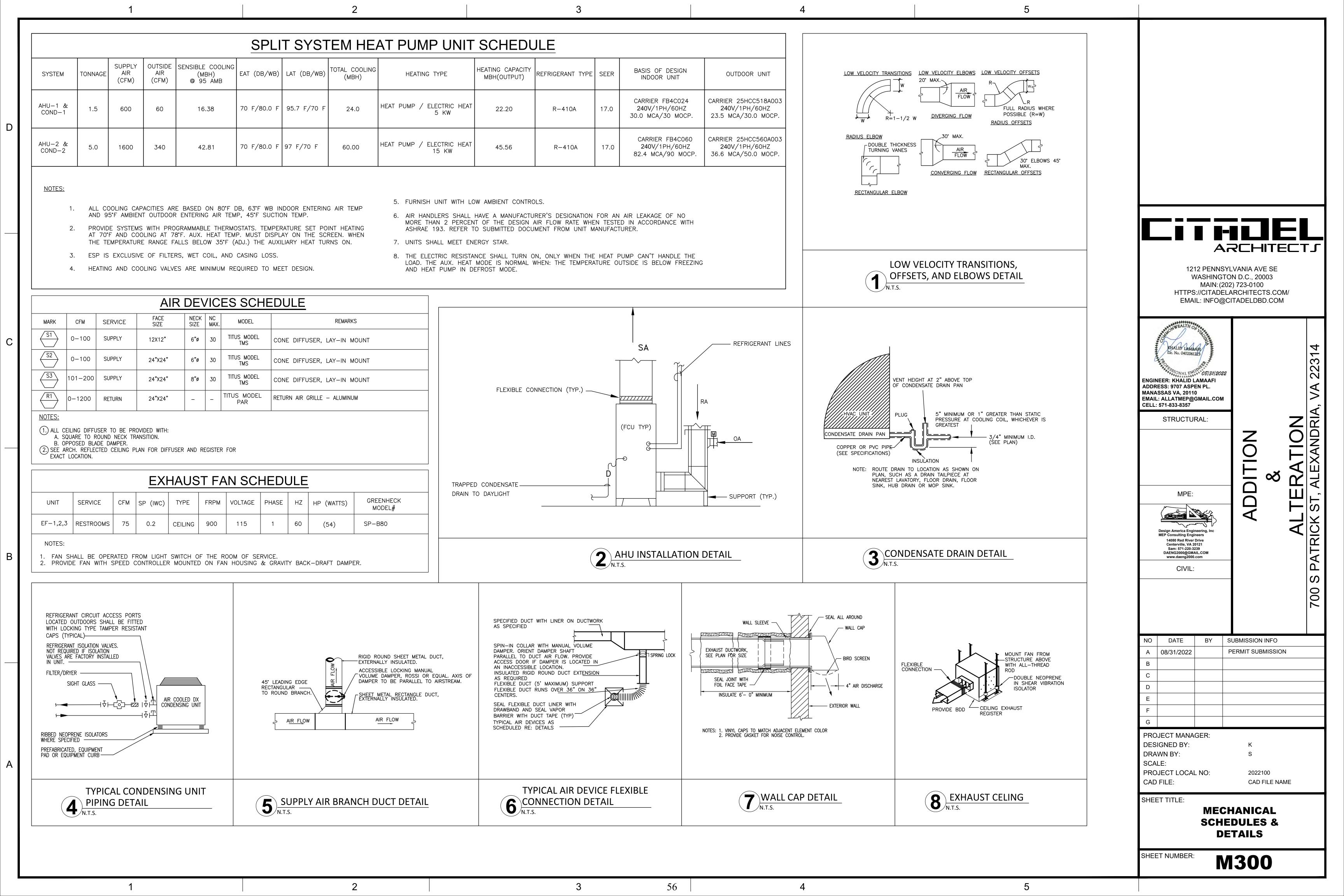


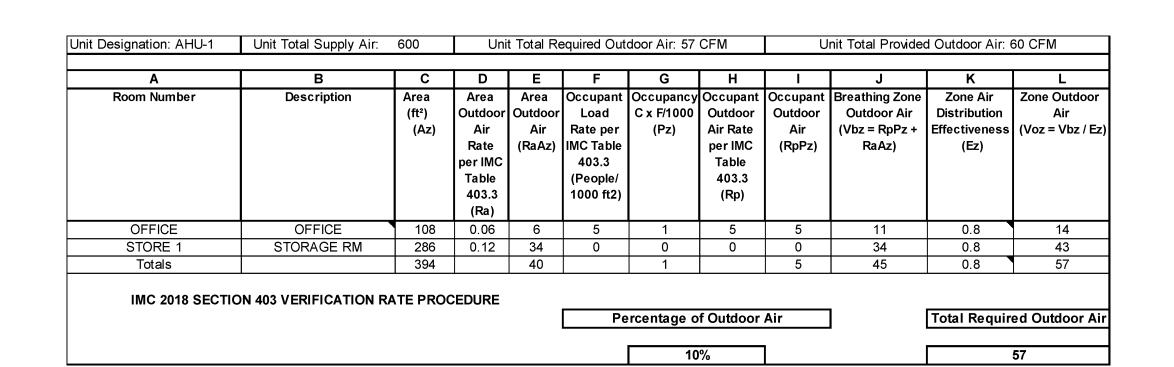




MECHANICAL SYMBOL LEGEND MECHANICAL ABBREVIATIONS MECHANICAL NOTES AND SPECIFICATIONS PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS OUTSIDE AIR___ AMPERE_______A(AMP)
ABOVE FINISHED FLOOR____AFF. AND SEALED VAPOR TIGHT. a. SIZE FLEXIBLE DUCTWORK TO MATCH THE NECK SIZE OF THE DEVICE FINISH FLOOR SUPPLY AIR GRILLE ABOVE FINISHED GRADE_ T SUPPLIES UNLESS OTHERWISE SCHEDULED. **FLEXIBLE** INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE b. USE RIGID SPIRAL DUCT TO MAINTAIN FLEXIBLE DUCT LENGTHS UNDER ADDENDUM POLYVINYL CHLORIDE_ A. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER 2. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF ALL NATIONAL, ADJUSTABLI 14 FEET (ROUND DUCT SIZE SHALL MATCH FLEXIBLE DUCT SIZE). FOOT/FEET SUPPLY ROUND DIFFUSER POUND(S) SECTIONS IN AMPLE TIME FOR PROPER INSTALLATION AND CONNECTION STATE AND LOCAL CODES, RULES AND REGULATIONS. c. CONNECT FLEXIBLE, OR RIGID ROUND DUCTWORK, TO THE LOW AIR CONDITIONING POUNDS PER SQUARE INCH_PSI GALLONS PER MINUTE PRESSURE DUCT USING SPIN-IN COLLARS OR "AIR-TITE" ADHESIVE AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND AIR HANDI FR UNI THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES AND PRESSURE DROP____ _APPROX. GALVANIZED BACKED FITTINGS SECURED TO THE MAIN DUCT WITH SHEET METAL APPROXIMATE(LY)_ RETURN AIR GRILLE _ARCH('L). GAS HEATER_ SCREWS. AT CONNECTIONS TO AIR DEVICES OR RIGID DUCT WORK, ARCHITECT(URAL) B. VERIFY AND BECOME THOROUGHLY FAMILIAR WITH THE BUILDING GAUGE MECHANICALLY FASTEN AND SEAL SEASON. FLEXIBLE DUCT AIRTIGHT AUTOMATIC_ TYPE/CFM SYSTEMS IN ORDER TO PROVIDE FOR PROPER DUCTWORK AND CEILING GENERAL CONTRACTOR 4. MAKE NO CHANGES WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. d. SEAL INSULATION JACKET USING INSULATION TAPE OR CEMENT TO AUXILIARY_ EXHAUST AIR GRILLE INTERCONNECTIONS WHERE APPLICABLE. MAINTAIN THE VAPOR BARRIER. REFRIGERATION_ MAKE AN ON-SITE INSPECTION PRIOR TO BID TO FULLY DETERMINE THE SYPSUM BOARD e. DO NOT ROUTE FLEXIBLE DUCT THROUGH SLAB TO SLAB PARTITIONS RECESSED . VERIFY THE HEIGHT OF NEW DUCTWORK TO ASCERTAIN THAT IT DOES EXISTING CONDITIONS AND THE EXTENT OF DEMOLITION. PROVIDE ROUND RIGID DUCT WHERE FLEXIBLE DUCTS ARE SHOWN TO T) • THERMOSTAT REINFORCE(ING)(ED)(MENT)__REINF. NOT CONFLICT WITH THE INSTALLATION OF LIGHT FIXTURES. CEILING PASS THAN 16 GAGE. THROUGH SLAB TO SLAB PARTITIONS. BOTTOM OF DUCT HORSEPOWER_ SIZES AND LOCATIONS OF EXISTING DUCTWORK AND PIPING SHOWN ON RETURN AIR SYSTEMS OR OTHER NEW TENANT CONSTRUCTION. PROMPTLY NOTIFY BOTTOM OF PIPE f. PROVIDE TRANSITIONS AND ACCESSORIES TO CONNECT FLEXIBLE DUCT HEATING, VENTILATION & AIR HVAC RELOCATED THE DRAWINGS ARE TAKEN FROM THE AVAILABLE DRAWINGS OF THE THE ARCHITECT, IN WRITING, OF ANY POTENTIAL CONFLICTS. SMOKE DETECTOR BRITISH THERMAL UNI CONDITIONING ROOF TOP UNIT BUILDING, VERIFY SIZES AND LOCATIONS OF EXISTING DUCTWORK AND ROOM_). CAREFULLY CHECK THE DOCUMENTS OF OTHER SECTIONS TO ASCERTAIN CAPACITY PIPING BEFORE PURCHASING MATERIALS AND EQUIPMENT, OR FABRICATING INSTALL DUCTWORK TIGHT TO THE UNDERSIDE OF THE BUILDING MANUAL DAMPER THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED CARBON DIOXIDE STRUCTURE. ADJUST THE DUCT ELEVATION TO MAINTAIN DUCT TIGHT TO SANITARY SEWER_ IOT WATER OR FURNISHED AND INSTALLED BY THAT SECTION AND PROVIDE THE BOTTOM OF STRUCTURE WHERE STRUCTURE ELEVATIONS CHANGE. HOT WATER RETURN_ CHEDULE FURNISH ALL SCAFFOLDING, RIGGING, HOISTING, AND SERVICES NECESSARY PROPER INSTALLATION OR CONNECTIONS INCLUDING CONTROLS. • DUCT TAKE-OFF SEASONAL ENERGY EFFICIENCY_SEER FOR THE ERECTION AND DELIVERY OF ALL EQUIPMENT AND APPARATUS CONDENSATE DRAIN PROVIDE ALL NECESSARY TRANSITIONS IN DUCTWORK FOR CONNECTION TO FURNISHED, AND REMOVAL OF SAME FROM PREMISES WHEN NO LONGER CONDENSING UNIT_ REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF SUPPLY EQUIPMENT AND ACCESSORIES. REDUCE DUCTWORK SIZES ONLY AT THE CONSTRUCTION AND RETURN AIR DEVICES AND THERMOSTATS. REFER TO THE NFORMATION SENSIBLE CONTINUATION_ ARCHITECTURAL DRAWINGS FOR EQUIPMENT FINISHES AND MATERIALS NOT SMOKE DETECTOR CUTTING AND PATCHING SHALL BE DONE BY THE APPROPRIATE TRADE UNLESS OTHERWISE REQUIRED BY TRADE CUSTOM OR SPECIFIED UNDER **INCHES** SUSPEND DUCTWORK FROM THE BUILDING STRUCTURE IN ACCORDANCE MECHANICAL EQUIPMENT WITH INSULATION_ CUBIC FOOT PER MINUTE___CFM WITH THE SMACNA DUCT CONSTRUCTION STANDARDS. SECURELY ATTACH CLEARANCES, SEE SCHEDULES SPECIFICATION(S)_ NTERIOR_ _SPEC.('S) PROVIDE REQUIRED SUPPORTS AND HANGERS FOR DUCTWORK, PIPING ANOTHER SECTION OF THE SPECIFICATIONS. CONTRACTOR SHALL FURNISH DUCTWORK SUPPORTS TO THE BUILDING STRUCTURE. AND EQUIPMENT, SUCH THAT LOADING WILL NOT EXCEED ALLOWABLE SKETCHES SHOWING THE LOCATIONS AND SIZES OF ALL OPENINGS. CHASES. ARCHITECTS TRANSITION RECTANGULAR TO ROUND DUCT DEGREE FAHRENHEIT ETC. REQUIRED. CONTRACTOR IS LIABLE FOR CUTTING OR PATCHING MADE LOADING OF STRUCTURE. SUBMITTAL OF A BID SHALL BE DEEMED A COORDINATE THE INSTALLATION OF THE DUCTWORK SYSTEM WITH THE __DEMO. NECESSARY BY HIS FAILURE TO MAKE PROPER ARRANGEMENTS IN THIS REPRESENTATION THAT THE CONTRACTOR SUBMITTING SUCH BID HAS DEMOLISH(ITION)__ BUILDING STRUCTURE AND THE WORK OF ALL OTHER CONTRACTORS. EAVING AIR TEMPERATURE__LAT. SQUARE FEET • TURNINGVANE, 90 DEGREE ELBOW ASCERTAINED ALLOWABLE LOADINGS AND HAS INCLUDED IN HIS ADJUST DUCTWORK SIZES, LOCATION AND CONFIGURATION, INCLUDING STAINLESS STEEL_ ESTIMATES. THE COSTS ASSOCIATED IN FURNISHING REQUIRED SUPPORTS. DIRECT EXPANSION_ DIFFUSER PLENUMS. AS REQUIRED TO COORDINATE WITH WORK OF THIS SQUARE FEET ALL DUCTWORK, PIPING AND EQUIPMENT SUPPORTS SHALL BE LOCATION OF EQUIPMENT, PIPING AND OTHER MECHANICAL WORK IS DIVISION_ AND ALL OTHER TRADES. WHERE NECESSARY TO AVOID OBSTRUCTIONS. ONG RADIUS ELBOW___ 1212 PENNSYLVANIA AVE SE STATIC PRESSURE • RADIUS ELBOW DOWN_ INDICATED DIAGRAMMATICALLY BY THE DRAWINGS. DETERMINE EXACT INDEPENDENT OF THE CEILING SUPPORT SYSTEM. RE-SIZE, OFFSET, RAISE, OR LOWER THE DUCTWORK. DO NOT EXCEED THE SUCTION DOUBLE LOCATIONS ON THE JOB SITE, SUBJECT TO STRUCTURAL CONDITIONS AND DESIGN VELOCITIES IN ANY DUCT SECTIONS REQUIRING SIZING REVISIONS. WASHINGTON D.C., 20003 SUPPLY AIR S. SCHEDULE ALL WORK CONNECTING WITH EXISTING SYSTEMS TO ENSURE DRAWING(S) THE WORK OF OTHER TRADES. INDICATE ALL COORDINATION ISSUES ON THE SHOP DRAWINGS ANUFACTURE(R)_ MAIN: (202) 723-0100 A MINIMUM OF SERVICE INTERRUPTION. ALL INTERRUPTIONS OF SERVICES *##/## • SIZE OF RECTANGULAR DUCT WHERE FIRST MAKEUP AIR_ EMPERATURE 10. ALL MATERIAL AND EQUIPMENT INDICATED ON THE PLANS AND DESCRIBED DUCTLESS SPI (POWER, WATER, HVAC, ETC.) AND ALL WORK IN OCCUPIED TENANT PROVIDE TURNING VANES IN ALL 90° RECTANGULAR ELBOWS AND SPLITTER NUMBER INDICATES MUMIXAN HTTPS://CITADELARCHITECTS.COM/ IN THE SPECIFICATIONS SHALL BE PROVIDED BY THE CONTRACTOR NEW VANES IN ALL 90° RECTANGULAR RADIUS ELBOWS. SPACES (E.G. PLUMBING OR ELECTRICAL WORK IN AN OCCUPIED WIDTH AND SECOND NUMBER INDICATES .000 BTU/HR AND THE BEST PRODUCTS OF REPUTABLE MANUFACTURERS AND SHALL BE TENANT'S SPACE BELOW A SPACE UNDER CONSTRUCTION) MUST BE EMAIL: INFO@CITADELDBD.COM VERTICAL DIMENSION MAXIMUM OVERCURRENT____MOCF ENTERING AIR TEMPERATURE_EAT. IN NEW CONDITION AT THE ACCEPTANCE OF THE WORK. O. ELBOWS CONSTRUCTED USNG A SHARP 90° ANGLE ON THE INSIDE OF THE SCHEDULED THROUGH THE BUILDING MANAGER. INDERGROUND PROTECTION **EFFICIENCY** ELBOW AND RADIUS BEND ON THE OUTSIDE OF THE ELBOW (HARD RADIUS UNDERWRITER LABORATORIES_U.L. I. INSTALL ALL WORK IN A NEAT AND WORKMANLIKE MANNER, USING ONLY ELECTRIC(AL)_ ##Ø • DIAMETER OF ROUND DUCT H. FURNISH ACCESS DOORS TO THE GENERAL CONTRACTOR, FOR HEEL OR "SLED-BOOT" FITTING) WILL NOT BE ACCEPTED. WORKMEN THOROUGHLY QUALIFIED IN THE TRADE OF DUTIES THEY ARE TO INSTALLATION BY THE APPROPRIATE TRADES, IN LOCATIONS WHERE UNIT HEATER ENERGY EFFICIENCY RATIO___EER. PERFORM, ROUGH WORK WILL BE REJECTED. UNLESS NOTED OTHERWISE_U.N.O. ACCESS IS REQUIRED TO MECHANICAL AND PLUMBING EQUIPMENT WHICH INSTALL VOLUME DAMPERS IN ALL BRANCH DUCTWORK CONNECTIONS AT MIXED AIR TEMPERATURE___MAT —cd— • CONDENSATE PIPING FNGINFFR WOULD BE OTHERWISE INACCESSIBLE. CARE SHOULD BE TAKEN IN TAKE-OFF FROM MAIN TRUNK DUCT LEADING TO DIFFUSERS. INTAKE MISCELLANEOUS ENTERING 12. INSTALL EACH PIECE OF EQUIPMENT IN STRICT ACCORDANCE WITH THE MOTORIZED VOLUME DAMPERMVD LOCATING MECHANICAL AND PLUMBING SYSTEMS TO MINIMIZE TH $\frac{s}{(u)}$ • UNDER CUT DOOR,'S' DONATE SIZE MANUFACTURER'S RECOMMENDATIONS NUMBER OF ACCESS DOORS REQUIRED. FINAL LOCATIONS OF ACCESS MANUAL VOLUME DAMPER___VD EQUIPMENT IMULTIPLE MANUAL VOLUME DAMPER___VD. DOORS IN FINISHED AREAS SHALL BE APPROVED BY THE ARCHITECT /OLTAGE_ PROVIDE THE AIR DISTRIBUTION DEVICES WITH APPROPRIATE FRAMES FOR FTCFTFRA 13. THE CONTRACTOR ASSUMES THE RESPONSIBILITY FOR PROPER ACCESS DOORS SHALL BE AS SPECIFIED BY THE ARCHITECT. WHERE NO INSTALLATION IN THE SELECTED CEILING CONSTRUCTION. COORDINATE COLOR /OLUME KHALID LAMBAR EXHAUST FAN SELECTION WITH THE ARCHITECT AND MAINTAIN A NC LEVEL OF 25 OR POINT OF REMOVAL ARRANGEMENT OF PIPES, DUCTS, ETC, TO CONNECT APPROVED EQUIPMENT ARCHITECTURAL ACCESS DOOR SPECIFICATIONS EXISTS, THEN ACCESS Lic. No. 0402061223 IN A PROPER AND APPROVED MANNER, FOLLOW THE EQUIPMENT LESS IN ALL AIR DISTRIBUTION DEVICE SELECTIONS. DOORS SHALL BE AS FOLLOWS: DRYWALL PARTITIONS - INRYCO/MILCON NOT APPLICABLE EXPOSED MANUFACTURER'S DETAILED INSTRUCTIONS AND THE CONTRACT DOCUMENTS STYLE DW; DRYWALL CEILINGS - INRYCO/MILCON STYLE DW OR STYLE INOISE CRITERIA **EXHAUST** CONNECT TO EXISTING NOTIFY THE ARCHITECT BEFORE PROCEEDING OTHERWISE. NO EQUIPMENT WB-PL DIRECTED BY ARCHITECT; PLASTER WALLS OR CEILINGS EXHAUST AIR NATURAL WET BULB_ INSTALLATION OR CONNECTIONS SHALL BE MADE IN A MANNER THAT VOIDS NOM. NOMINAL -INRYCO/MILCON STYLE WB-PL. THE MANUFACTURER'S WARRANTY. COORDINATE INSTALLATION OF WORK TO 3. INSULATE ALL CONCEALED SUPPLY AND RETURN AIR DUCTS WITH MINIMUM EXTERNAL STATIC PRESSURE_ESP NOTE: NOT ALL SYMBOLS ON THIS LIST PROVIDE PROPER CLEARANCES FOR SERVICE AND OPERATION OF ALL NOT IN CONTRACT WITHOUT ENGINEER: KHALID LAMAAFI R-6 INSULATION WITH INTEGRAL VAPOR BARRIER WRAP. SUBMITTALS AND APPROVALS MAY BE APPLICABLE TO THIS PROJECT. EQUIPMENT AND ACCESSORIES. NOT TO SCALE_ FARENHEIT_ ADDRESS: 9707 ASPEN PL. NUMBER F. INSULATE EXPOSED SPIRAL DUCT WITH 1" INTERNAL SOUND LINING. A. APPROVALS FOR EQUIPMENT WILL NOT BE GIVEN UPON SUBMISSION OF _NO./; MANASSAS VA, 20110 14. UNLESS OTHERWISE NOTED, ALL SPECIFIED EQUIPMENT IS LESS THAN 200 MANUFACTURERS' NAMES. APPROVALS FOR EQUIPMENT WILL BE GIVEN **EMAIL: ALLATMEP@GMAIL.COM** 5. INSTALL ALL INSULATION IN ACCORDANCE WITH ASTM E84. PROVIDE ONLY AFTER RECEIPT OF COMPLETE AND SATISFACTORY SUBMITTALS. INSULATION WITH A FLAME SPREAD RATING OF LESS THAN 25 AND A CELL: 571-833-8357 APPROVALS FOR EQUIPMENT WILL BE GRANTED IF SUCH EQUIPMENT 15. DO NOT CUT STRUCTURAL MEMBERS WITHOUT THE APPROVAL OF THE SMOKE DEVELOPED RATING OF LESS THAN 50 WHEN TESTED IN CONFORMS TO THE PERFORMANCE REQUIREMENTS, SPACE CONDITIONS, ARCHITECT AND ALL SUCH CUTTING SHALL BE DONE IN A MANNER AS ACCORDANCE WITH ASTM E84. WEIGHT REQUIREMENTS AND QUALITY REQUIREMENTS. DIRECTED BY THEM. STRUCTURAL: 6. MAINTAIN VAPOR BARRIER ON ALL INSULATION APPLIED TO ALL EQUIPMENT, 3. NOTIFY THE ARCHITECT. IN WRITING, WITHIN 5 DAYS OF AWARD OF 16. X-RAY SLAB/ROOF BEFORE CORE DRILLING. PIPING, OR DUCTWORK WHICH CONVEYS LIQUID OR AIR AT A TEMPERATURE CONTRACT, OF THE PROPOSED DELIVERY SCHEDULE, FOR ANY EQUIPMENT OF LESS THAN 70 DEGREES F. OR MATERIAL, WHICH WILL PREVENT THE INSTALLATION FROM BEING 17. ANY AND ALL MATERIALS AND INSTALLATION METHODS USED IN THE COMPLETED AT THE TIME OF THE SCHEDULED PROJECT COMPLETION. MODIFICATION OF THE EXISTING ROOF SYSTEM SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE ROOF WARRANTY. COORDINATE WITH . INSULATE ALL REFRIGERANT PIPING WITH 0.75" THICK CLOSED-CELL ELASTOMERIC PIPE INSULATION. C. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE FOLLOWING BUILDING MANAGEMENT. MATERIALS AND EQUIPMENT: **VIRGINIA CODES:** 18. INCLUDE THE SERVICES OF A CERTIFIED INDEPENDENT BALANCING **DRAFTING SYMBOLS** 18. ALL MATERIALS INSTALLED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR MANUFACTURER EQUIVALENT CONTRACTOR IN THE SCOPE OF THIS CONTRACT TO PERFORM ALL SYSTEM FLEXIBLE DUCT SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN TEMPERATURE CONTROLS ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE **∞** ACCORDANCE WITH ASTM E 84 OR UL 723. PLAN/DETAIL - DAIKIN TESTING AND BALANCING REPORTS 9. PROVIDE ALL NECESSARY ACCESSORIES FOR DUCTWORK TO ALLOW PROPER REQUIREMENTS OF THE APPLICABLE VIRGINIA STATE CODES (AS <u>DESIGNATION</u> SPLIT SYSTEM - TRANE 19. MAINTAIN A CLEAN WORK AREA AT ALL TIMES DURING CONSTRUCTION. AIR BALANCING. BALANCE AIR SYSTEMS TO QUANTITIES INDICATED ON THE). DUCTWORK, PIPING AND EQUIPMENT INSTALLED WITHOUT APPROVAL STATED BELOW) OR ALL THE APPLICABLE CODES IN FORCE BY - CARRIER PLANS UNDER THE SUPERVISION OF A REGISTERED ENGINEER. SUBMIT THEREOF SHALL BE DONE AT THE RISK OF THIS CONTRACTOR AND THE PLAN NAME/DETAIL TITLE LOCAL AUTHORITIES HAVING JURISDICTION. 20. ALL HVAC SUPPLY AND RETURN DUCT AND EQUIPMENT OPENINGS SHALL BALANCING REPORTS ON NEBB OR AABC FORMS APPROVED AND STAMPED COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS MPE: BE PROTECTED DURING ALL PHASES OF CONSTRUCTION, INCLUDING BY THE REGISTERED ENGINEER WHO SUPERVISED THE TESTING. JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE DIFFUSER & GRILLE METAL-AIRE DEMOLITION. WHERE HVAC SYSTEMS ARE UTILIZED DURING ANY PHASE OF ^{_}SCALE VIRGINIA CONSTRUCTION CODE (USBC) OF THIS CONTRACTOR. TITUS CONSTRUCTION, ALL ASSOCIATED DUCT AND EQUIPMENT OPENINGS SHALL . PERFORM A PRELIMINARY AIR SYSTEM BALANCE ON ALL DEVICES IN AREAS - VIEW NUMBER VIRGINIA STATEWIDE FIRE PREVENTION CODE - 2018 BE PROTECTED BY FILTER MEDIA WITH A MINIMUM RATING OF MERV-8 IN KRUEGER WHERE FINAL CLOSE-IN WOULD MAKE BALANCING MECHANISMS VIBRATION ISOLATORS - 2017 NATIONAL ELECTRICAL CODE ACCORDANCE WITH ASHRAE 52.2. FILTER MEDIA SHALL BE ROUTINELY INACCESSIBLE. PRELIMINARY AIR BALANCING IS REQUIRED TO PREVENT THE SHOEMAKER VIRGINIA MECHANICAL CODE - 2018 REPLACED AS REQUIRED TO LIMIT ANY ACCUMULATED PRESSURE DROP GENERATION OF OBJECTIONABLE NOISE AT THE AIR DEVICES. SCHEDULE THE A. PROVIDE DOUBLE DEFLECTION NEOPRENE ISOLATION HANGERS FOR VIRGINIA ENERGY CONSERVATION CODE FROM ADVERSELY AFFECTING THE HVAC SYSTEM. - 2018 WORK SUCH THAT THE FAN SYSTEMS ARE FULLY OPERATIONAL FOR THE SUSPENDED FANS AND EQUIPMENT LESS THAN 100 LBS. PRELIMINARY AIR BALANCE PRIOR TO APPLICATION OF THE FINAL FINISHES. - 2018 VIRGINIA PLUMBING CODE Design America Engineering, Inc COORDINATE SPACE AND CLEARANCE 21. REPLACE ALL INLET FILTERS AFTER CONSTRUCTION IS COMPLETE, PRIOR TO PERFORM THE FINAL BALANCING AT THE AIR DEVICE WITH AN INTEGRAL MEP Consulting Engineers 3. QUANTITY AND LOCATION OF ISOLATORS SHALL BE AS RECOMMENDED BY - 2018 VIRGINIA FUEL GAS CODE ANY FLUSH OUT, TESTING & BALANCING, COMMISSIONING AND/OR OPPOSED BLADE DAMPER OR OTHER APPROVED BALANCING MECHANISM. REQUIREMENTS WITH SCHEDULED THE FOUIPMENT MANUFACTURER. 14080 Red River Drive - 2018 VIRGINIA MAINTENANCE CODE OCCUPANCY. ELIMINATE ANY OBJECTIONABLE NOISE CREATED BY THE BALANCING UNIT BEFORE PURCHASING APPROVED - 2018 VIRGINIA EXISTING BUILDING CODE Sam: 571-220-3239 C. AFTER INSTALLATION AND START-UP, CONTRACTOR SHALL THOROUGHLY SUBSTITUTION UNIT. 22. AFTER INSTALLATION AND START-UP, THOROUGHLY CHECK EACH ITEM OF DAENG2000@GMAIL.COM www.daeng2000.com CHECK EACH ITEM OF EQUIPMENT FOR VIBRATION TRANSMISSION TO THE FOUIPMENT FOR VIBRATION TRANSMISSION TO THE STRUCTURE OR . PERFORM A FINAL SYSTEM BALANCE ONLY WHEN THE SYSTEM IS COMPLETE STRUCTURE OR EXCESSIVE NOISE, AND IF EITHER OCCURS, THE EXCESSIVE NOISE. AND IF EITHER OCCURS, THE CONTRACTOR SHALL BE AND CAPABLE OF OPERATING IN ACCORDANCE WITH THE DESIGN CONTROL CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING THE FAULTY RESPONSIBLE FOR CORRECTING THE FAULTY SITUATION IMMEDIATELY. SEQUENCES. COORDINATE THE SCHEDULE FOR THE SYSTEM BALANCE WITH SITUATION IMMEDIATELY. CIVIL: FLEXIBLE DUCT SCHEDULE ALL APPROPRIATE TRADES TO IDENTIFY AND CORRECT ANY DEFICIENCIES 23. TEST ALL SYSTEMS. SYSTEMS SHALL OPERATE SATISFACTORILY AS DESIGNED WHICH COULD RESULT IN AN INCOMPLETE BALANCE REPORT. INCOMPLETE <u>LEAKAGE</u> AND INTENDED. REPORT ANY DEFICIENCIES TO THE ARCHITECT & THE BALANCE REPORTS WILL NOT BE ACCEPTED FOR REVIEW. BALANCING WILL ONLY BE CONSIDERED TO BE COMPLETE UPON RECEIPT OF AN APPROVED A. ALL DUCT JOINTS SHALL BE SEALED WITH HARDCAST 601. 00 BALANCE REPORT FROM THE ENGINEER. AIRFLOW (CFM) NECK SIZE (IN.) SHEET INDEX: 24. THE CONTRACTOR IS RESPONSIBLE FOR ALL MEANS, METHODS. B. CONTRACTOR SHALL INSPECT ALL DUCTWORK, FITTINGS, INSULATION AND TECHNIQUES. SEQUENCES AND PROCEDURES OF CONSTRUCTION, AND FOR VAPOR BARRIER FOR DEFECTS OR LEAKAGE AND SEAL, CAP, ALL SAFETY PROGRAMS AND PRECAUTIONS DURING CONSTRUCTION. RE-INSULATE, AND TAPE OVER AS REQUIRED TO PROVIDE REASONABLY 0 TO 100 22. FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND DESIGN SERVICES MECHANICAL COVER SHEET WELL SEALED DUCT SYSTEM WITH APPROPRIATE INSULATION AND VAPOR 25. MAINTAIN A MINIMUM OF ONE (1) COPY OF ALL DRAWINGS, ADDENDA, REQUIRED TO PROVIDE A COMPLETE CONTROL SYSTEM. THIS WORK SHALL 101 TO 200 8 INCLUDE WORK REQUIRED BY ELECTRICAL CONTRACTOR AS WELL. PROVIDE C. ALL PRESSURIZED PIPING SHALL BE LEAK TESTED PRIOR TO ENCLOSURE APPROVED SUBMITTALS, REVISIONS AND OTHER MODIFICATIONS IN GOOD MECHANICAL FLOOR PLAN ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING INITIAL SETUP AND PROGRAMMING OF ALL CONTROLS. OR COVER-UP. PIPING SHALL BE LEAK TESTED FOR 24 HOURS 201 TO 275 10 M300 MECHANICAL SCHEDULES & DETAILS CONSTRUCTION. THE COPY SHALL BE DELIVERED TO THE OWNER UPON THE UNDER A HYDROSTATIC PRESSURE OF 150% OF THE SYSTEM DESIGN COMPLETION OF WORK. 3. MOTORIZED DAMPERS/FANS SHALL BE CLOSED/OFF DURING UNOCCUPIED WORKING PRESSURE. CARE SHALL BE TAKEN TO PROTECT ANY 276 TO 375 12 MECHANICAL CALCULATIONS EQUIPMENT WHICH MAY BE DAMAGED BY HYDROSTATIC TESTTING. BY SUBMISSION INFO DATE 26. THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS, LABOR AND 376 TO 475 EQUIPMENT FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE **EXISTING CONDITIONS** D. LEAKAGE TESTING FOR ALL DUCTWORK SHALL BE BY PHYSICAL THE CONTRACTOR SHALL PAY FOR ANY REPAIRS OR REPLACEMENTS CAUSED SENSATION AND SHALL BE PERFORMED IN THE PRESENCE OF THE PERMIT SUBMISSION 08/31/2022 16 476 TO 600 BY DEFECTIVE WORKMANSHIP OR FAULTY MATERIALS AS CONSTRUED HEREIN A. BEFORE SUBMITTING BID, THE CONTRACTOR SHALL BECOME THOROUGHLY OWNER'S REPRESENTATIVE. WITHIN THE PERIOD COVERED BY THE GUARANTEE. FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING OF THE PRESENT INSTALLATIONS TO WHICH CONNECTIONS MUST BE MADE OR PERFORM ALL TESTING AFTER THE SEALS HAVE CURED COMPLETELY AND METAL DUCTWORK: WHICH MUST BE CHANGED OR ALTERED. THE INTENT OF THE WORK IS BEFORE COVERING WITH INSULATION OR CONCEALING IN MASONRY. SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER, AND NO A. CONSTRUCT ALL DUCTWORK AND ACCESSORIES IN ACCORDANCE WITH CONSIDERATION WILL BE GRANTED BY REASON OF LACK OF FAMILIARITY AIR DEVICES: THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS ON THE PART OF THE CONTRACTOR WITH ACTUAL PHYSICAL CONDITIONS - METAL AND FLEXIBLE" FOR MAXIMUM 2" OPERATING PRESSURE AND A. ALL AIR DEVICES SHALL BE SELECTED TO PROVIDE A NC OF 25 OR LESS AT INDICATED CFM AND SHALL INCLUDE BALANCING DAMPERS AND SEAL CLASS A. B. WHERE SPECIFICALLY CALLED FOR ON THE DRAWINGS OR WHEN OTHER TYPICAL ACCESSORIES AS REQUIRED. PERMISSION IS SPECIFICALLY GIVEN BY THE OWNER, EXISTING EQUIPMENT B. UNLESS OTHERWISE NOTED, FABRICATE ALL DUCTWORK, HOUSING, DAMPERS, AND ALL OTHER DUCT-RELATED ACCESSORIES FROM 3. ALL CEILING AND WALL-MOUNTED AIR DEVICES SHALL BE PAINTED WHITE GALVANIZED STEEL SHEETS. OR OFF WHITE, UNLESS SPECIFIED OTHERWISE, AND ALL AIR DEVICES C. THIS CONTRACTOR SHALL REPAIR ANY FIREPROOFING DAMAGED BY THIS SHALL BE THE SAME COLOR. CONTRACTOR, TO THE INTEGRITY OF THE ORIGINAL CONSTRUCTION. 1. GALVANIZED STEEL SHEETS: a. COMPLY WITH ASTM A 653/A 653M; LOCK-FORMING QUALITY. **DEMOLITION** D. PROVIDE MILL-PHOSPHATIZED FINISH FOR DUCTS WITH SURFACES PROJECT MANAGER: GEXPOSED TO VIEW. DESIGNED BY A. CUTTING AND PATCHING OF NEW OR EXISTING BUILDING FINISHES FOR C. ALL EXPOSED ROUND DUCTWORK SHALL BE LOCKED SPIRAL SEAM TYPE. INSTALLATION OF WORK OF THIS SECTION SHALL BE COORDINATED THROUGH THE GENERAL CONTRACTOR AND APPROVED BY THE ARCHITECT DRAWN BY: 2. SEAL AND/OR REPAIR ANY DUCTWORK WITH VISUAL OR AUDIBLE SIGNS WHERE CUTTING AND PATCHING IS APPROVED, IT SHALL BE PERFORMED SCALE: BY THE TRADES WHO NORMALLY INSTALL THE WORK WHICH IS BEING REMOVED AND THE COST OF CUTTING AND PATCHING SHALL BE BORNE 3. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. PROJECT LOCAL NO: 2022100 BY THIS CONTRACTOR. 4. USE THERMAFLEX G-KM (U.L. 181 CLASS 1) FACTORY-INSULATED TWO CAD FILE: CAD FILE NAME B. BLANK-OFF ALL UNUSED DUCT OPENINGS WITH SAME GAUGE METAL AS PLY BONDED ALUMINUM FLEXIBLE DUCTWORK. THE INSULATION SHALL EXISTING DUCT AND SEAL AIR TIGHT. INSULATED DUCTS SHALL BE INCLUDE A VAPOR BARRIER JACKET. LIMIT FLEXIBLE DUCT TO A MAXIMUM INSULATED WITH SAME INSULATION MATERIAL AND THICKNESS AS EXISTING SHEET TITLE: **MECHANICAL COVER SHEET** SHEET NUMBER **M100** 54







Air Handler Description:	AHU-1 - Total Load S AHU-1 Constant Volume - Sum o	f Peaks					
Supply Air Fan:	Draw-Thru with program estimate	nated horsepower of 0.06 HP					
Fan Input: Sensible Heat Ratio:	0% motor and fan efficiency with 0.95		curs 1 time(s) in the building				
		3,3.6	iano i anno (o) ini ano bamamigi				
Air System Peak Time: Outdoor Conditions:	2pm in August. Clg: 92° DB, 76° WB, 110.73 grai	ns. Hta: 20° DB					
ndoor Conditions:	Clg: 75° DB, 50% RH, Htg: 75° DI						
Summer: Ventilation contro	ls outside air, Winter: Ventilatio	on controls outside air.					
Zone Space sensible loss:	6,070 Btuh						
nfiltration sensible loss:	0 Btuh	0 CFM					
Outside Air sensible loss:	3,556 Btuh	60 CFM					
Supply Duct sensible loss:	0 Btuh						
Return Duct sensible loss:	0 Btuh						
Return Plenum sensible los							
Total System sensible loss			9,625 Btuh				
Heating Supply Air: 6,070 /	(.998 X 1.08 X 9) =	600 CFM					
Winter Vent Outside Air (10		60 CFM					
Zone space sensible gain:	6,846 Btuh						
nfiltration sensible gain:	0 Btuh						
Draw-thru fan sensible gair	: 143 Btuh						
Supply duct sensible gain:	0 Btuh						
Reserve sensible gain:	6,172 Btuh						
Гotal sensible gain on supբ	oly side of coil:		13,161 Btuh				
Cooling Supply Air: 13,161	/ (.998 X 1.1 X 20) =	600 CFM					
Summer Vent Outside Air (10.0% of supply) =	60 CFM					
Return duct sensible gain:	0 Btuh						
Return plenum sensible gai	n: 0 Btuh						
Outside air sensible gain:	1,053 Btuh	60 CFM					
Blow-thru fan sensible gain							
Total sensible gain on retur			1,053 Btuh				
Гotal sensible gain on air h	andling system:		14,215 Btuh				
Zone space latent gain:	675 Btuh						
nfiltration latent gain:	0 Btuh						
Outside air latent gain:	1,836 Btuh		0 E44 Dtyl				
Total latent gain on air han Total system sensible and l			2,511 Btuh 16,726 Btuh				
-	ateni gani.		10,720 Bluii				
<u>Check Figures</u> Fotal Air Handler Supply Ai	r (based on a 20° TD):	600 CFM					
Total Air Handler Vent. Air		60 CFM					
Total Conditioned Air Spac	e:	394 Sq.ft					
Supply Air Per Unit Area:		1.5220 CFM/Sq.ft					
Area Per Cooling Capacity:		282.7 Sq.ft/Ton					
Cooling Capacity Per Area:		0.0035 Tons/Sq.ft					
Heating Capacity Per Area:		24.43 Btuh/Sq.ft					
Total Heating Required Wit		9,625 Btuh					
Total Cooling Required Wit	h Outside Air:	1.39 Tons					

A Room Number	B Description	C Area (ft²) (Az)	D Area Outdoor Air Rate per IMC Table 403.3 (Ra)	Outdoor Air (RaAz)	_	G Occupancy C x F/1000 (Pz)	· ·	Occupant Outdoor Air (RpPz)	J Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	K Zone Air Distribution Effectiveness (Ez)	Zone Outdo Air (Voz = Vbz /
HALLWAY	HALLWAY	150	0.06	9	0	0	0	0	9	0.8	12
COFFE MACHINE	COFFE	111	0.18	20	70	8	7.5	60	80	0.8	100
SALES AREA	SALES AREA	768	0.12	92	15	12	7.5	90	182	0.8	228
Totals		1029		121		20		150	271	0.8	339
IMC 2018 SECT	ION 403 VERIFICATION RA	ATE PROG	CEDURE		Pe	ercentage o	f Outdoor %	Air	l	Total Require	ed Outdooi

Air Handler #2 - A	AHU-2 - Total Load S	ummary	
Air Handler Description: Supply Air Fan: Fan Input: Sensible Heat Ratio:	AHU-2 Constant Volume - Sum of Draw-Thru with program estimated 0% motor and fan efficiency with 0 0.94	horsepower of 0.15 HP in. water across the fan	curs 1 time(s) in the building
Air System Peak Time: Outdoor Conditions: Indoor Conditions:	1pm in August. Clg: 90° DB, 76° WB, 112.90 grain: Clg: 75° DB, 50% RH, Htg: 75° DB	s, Htg: 20° DB	
Summer: Ventilation controls	s outside air, Winter: Ventilation	n controls outside air.	
Zone Space sensible loss: Infiltration sensible loss: Outside Air sensible loss: Supply Duct sensible loss:	13,339 Btuh 0 Btuh 20,148 Btuh 0 Btuh	0 CFM 340 CFM	
Return Duct sensible loss: Return Plenum sensible loss Total System sensible loss:	0 Btuh s: 0 Btuh		33,487 Btuh
Heating Supply Air: 13,339 / Winter Vent Outside Air (21.		1,600 CFM 340 CFM	
Zone space sensible gain: Infiltration sensible gain: Draw-thru fan sensible gain: Supply duct sensible gain: Reserve sensible gain: Total sensible gain on suppl	0 Btuh 14,256 Btuh		34,874 Btuh
Cooling Supply Air: 35,100 / Summer Vent Outside Air (2		1,599 CFM 340 CFM	
Return duct sensible gain: Return plenum sensible gair Outside air sensible gain: Blow-thru fan sensible gain: Total sensible gain on returr Total sensible gain on air ha	5,597 Btuh 0 Btuh 1 side of coil:	340 CFM	5,597 Btuh 40,471 Btuh
Zone space latent gain: Infiltration latent gain: Outside air latent gain: Total latent gain on air hand Total system sensible and la	2,250 Btuh 0 Btuh 11,160 Btuh ling system:		13,410 Btuh 53,881 Btuh
Check Figures	ment gant.		33,001 Bluit
Total Air Handler Supply Air Total Air Handler Vent. Air (1,599 CFM 340 CFM	
Total Conditioned Air Space Supply Air Per Unit Area: Area Per Cooling Capacity: Cooling Capacity Per Area: Heating Capacity Per Area:	:	1,159 Sq.ft 1.3798 CFM/Sq.ft 258.1 Sq.ft/Ton 0.0039 Tons/Sq.ft 28.89 Btuh/Sq.ft	
Total Heating Required With Total Cooling Required With		33,487 Btuh 4.49 Tons	



1212 PENNSYLVANIA AVE SE
WASHINGTON D.C., 20003
MAIN: (202) 723-0100
HTTPS://CITADELARCHITECTS.COM/
EMAIL: INFO@CITADELDBD.COM



STRUCTURAL:

Design America Engineering, Inc
MEP Consulting Engineers
14080 Red River Drive
Centerville, VA 20121
Sam: 571-220-3239
DAENG2000@GMAIL.COM
www.daeng2000.com

CIVIL:

 NO
 DATE
 BY
 SUBMISSION INFO

 A
 08/31/2022
 PERMIT SUBMISSION

 B
 C
 C

 D
 D
 C

 F
 C
 C

 G
 C
 C

8
ALTERATION
700 S PATRICK ST, ALEXANDRIA,

PROJECT MANAGER: DESIGNED BY:

DRAWN BY: SCALE:

PROJECT LOCAL NO: CAD FILE:

SHEET TITLE:

MECHANICAL CALCULATIONS

SHEET NUMBER:

M400

2022100

CAD FILE NAME

3 57

PLUMBING SPECIFICATIONS

- A. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL CODES, ORDINANCES AND STANDARDS OF THE LOCAL JURISDICTION.IN CASE OF A CONFLICT BETWEEN DRAWINGS OR SPECIFICATIONS AND THE REQUIREMENTS OF THE LOCAL JURISDICTION, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
- ALL WORK SHALL BE GUARANTEED AGAINST DEFECTS, LEAKS, LACK OF PROPER SYSTEM PERFORMANCE OR NON-OPERATION FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.
- C. ALL WORK SHALL BE COORDINATED WITH ALL TRADES, PRIOR TO INSTALLATION.
- D. IN GENERAL, DRAWINGS FOR THE WORK ARE DIAGRAMMATIC AND SHOW THE LOCATION, TYPE AND SIZE OF PIPING, EQUIPMENT, AND ACCESSORY EQUIPMENT. THE CONTRACTOR SHALL FURNISH ALL ITEMS NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE WORK, WHETHER CALLED FOR OR NOT. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS BEFORE INSTALLING ANY OF THE WORK AND SHALL CHECK HIS LAYOUTS TO ALLOW CLEARANCE REQUIRED FOR OTHER WORK. THE SCOPE OF WORK CONSISTS GENERALLY OF PROVIDING AND INSTALLING COMPLETE PLUMBING AND GAS SYSTEMS AND FINAL TESTING OF ALL SYSTEMS AND EQUIPMENT AS REQUIRED.

PRODUCTS

- A. PLUMBING FIXTURES: ALL FIXTURES SHALL BE SELECTED BY OWNER. PROVIDE ALL FIXTURES WITH TRIM, CARRIER SUPPLIES, AND TRAPS AS REQUIRED FOR COMPLETE INSTALLATION.
- B. PIPING AND FITTING:
- DOMESTIC WATER: ABOVE GRADE SHALL BE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS, AND ALL JOINT SOLDERED WITH 95/5 OR SILVER SOLDER. BELOW GRADE SHALL BE TYPE "K" SOFT DRAWN COPPER TUBING WITH 125 PSI WROUGHT COPPER SWEAT FITTINGS SOLDERED WITH SILVER SOLDER.
- 2. SOIL, WASTE AND VENT: ABOVE GRADE SHALL BE: SERVICE WEIGHT CAST IRON BELL AND SPIGOT.SCHEDULE 40 GALVANIZED STEEL PIPE WITH SWEAT. CAST IRON DRAINAGE PATTERN FITTINGS. CAST IRON NO-HUB PIPING AND FITTINGS.DWV COPPER TUBING AND COPPER DRAINAGE PATTERN FITTINGS.SCHEDULE 40 PVC PLASTIC PIPE AND PVC-DWV FITTING. (SHALL NOT BE USED IN PLENUM SPACES.) BELOW GRADE SHALL BE: SERVICE WEIGHT CAST IRON BELL AND SPIGOT. SOIL, WASTE AND VENT STACKS SHALL BE SERVICE WEIGHT CAST IRON BELL AND SPIGOT
- C. INSULATION:

DOMESTIC WATER PIPING:

COVER ALL WITH 1/2" FIBERGLASS INSULATION (R3 SECURED WITH ALL PURPOSE JACKET. PIPING IN EXTERIOR WALLS AND PLUMBING CHASES SHALL BE COVERED WITH 1" THICK INSULATION.

2. STORM WATER PIPING: THE HORIZONTAL SECTION OF THE RAIN LEADERS, RISER TO AND INCLUDING THE INTERIOR PART OF THE ROOF DRAIN SHALL BE COVERED WITH 1" THICK INSULATION.

D. VALVES:

DOMESTIC WATER:

ALL VALVES SHALL BE SWEATED BRONZE GATE VALVE WITH SCREW-IN BONNET, RISING STEM MINIMUM RATING OF 125 PSI. TWO PIECES BALL VALVES WITH EXTENDED HANDLE MAY BE USED IN LIEU OF THE GATE VALVES.

HANGERS:

SHALL BE ADJUSTABLE CLEVIS HANGERS, PROPERLY SIZED AND SPACED FOR PIPING, INCLUDING INSULATION.

EXECUTION

- . INSTALL FIXTURES LEVEL, PLUMB AND PARALLEL TO WALLS. ALL EXPOSED METAL PARTS SHALL BE CHROME PLATED AND SHOW NO TOOL MARKS. GROUT BETWEEN WALL HUNG FIXTURES AND WALL. PROVIDE ACCESS PANELS TO ALL CONCEALED SUPPLY STOPS AND
- B. FIXTURES DESIGNATED FOR USE B PHYSICALLY HANDICAPPED PEOPLE SHALL BE IN ACCORDANCE WITH ANSI A 117.1.
- C. INSTALL DIELECTRIC CONNECTION BETWEEN DISSIMILAR METALS, PIPE TO PIPE, PIPE TO EQUIPMENT, PIPE TO SUPPORT.
- 5. FURNISH AND INSTALL JOSAM 75000 SERIES SHOCK ARRESTERS AT THE ENDS OF ALL HOT AND COLD WATER BRANCHES TO FIXTURES. SIZES SHALL BE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.1

- BUILDING CODE, LOCAL REQUIREMENTS AND THE PROJECT SPECIFICATIONS.
- 2. ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES.
- PER FOOT UNLESS SPECIFICALLY SHOWN OTHERWISE ON

- . PROVIDE AND INSTALL CLEAN-OUTS IN DRAINAGE PIPING AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45
- . EXPOSED UTILITY SERVICE LINES AND PIPES SHALL BE INSTALLED SO THAT THEY DO NOT OBSTRUCT OR PREVENT CLEANING OF THE FLOORS, WALLS, OR CEILINGS. EXPOSED HORIZONTAL UTILITY SERVICE LINES AND PIPES SHALL NOT BE
- 8. CONTRACTOR TO VERIFY SIZE AND LOCATION OF SANITARY,
- 9. EXISTING UTILITIES AND EQUIPMENT NOT SHOWN OR NOT SHOWN TO BE REPLACED SHALL REMAIN IN SERVICE DURING CONSTRUCTION.
- 10. CONTRACTOR SHALL REMOVE AND DISPOSE ALL PLUMBING MATERIAL, FIXTURES AND EQUIPMENT FROM TENANT SPACE AS SHOWN ON DRAWING. COORDINATE DEMOLITION WITH NEW CONSTRUCTION PLAN.

SANITARY PIPE

CLEAN OUT

PIPE UNION

FLOOR DRAIN

REGULATOR

PLUMBING ABBREVIATIONS

CLEANOUT

DOWN

COLD WATER

FLOOR DRAIN

GALLONS PER HOUR

GALLONS PER MINUTE

POUND PER SQUARE INCH

OPEN SITE DRAIN

VENT THRU ROOF

WATER CLOSET

GALLONS

HOSE BIBB

HOT WATER

LAVATORY

SANITARY

TYPICAL

VENT

SHUT-OFF VALVE

 \longrightarrow

CO

CW

GAL

GPH

HB

PSI

OSD

SAN

TYP

VTR

WC

DOMESTIC COLD WATER PIPE

DOMESTIC HOT WATER PIPE

PLUMBING LEGEND

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE
- 3. ALL DRAINAGE PIPING SHALL BE RUN AT A SLOPE OF 1/4" DRAWINGS.
- 4. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMISSION OF BID

PLUMBING NOTES:

- TO BECOME FAMILIAR WITH EXISTING CONDITIONS.
- 5. ALL HOT AND COLD WATER SUPPLY PIPING SHALL BE INSULATED.
- DEGREES, EVERY 50 FEET, AND AS SHOWN.
- INSTALLED ON THE FLOOR.
- AND COLD/HOT WATER PIPES PRIOR TO STARTING WORK.

(MS) | MOP SINK EM) COFFEE MACHINE

MARK

(LAV)

FIXTURE

(WC) WATER CLOSET

HS) HAND SINK

LAVATORY

- I. COORDINATE WITH ARCH./OWNER PRIOR TO PURCHASE.
- 2. SET TEMPERING VALVE AT 105° F. VALVES SHALL MEET ASSE 1070.

COLD WATER

1/2"

1/2"

1/2"

1/2"

1/2"

- 3. PROVIDE CARRIER AND FITTINGS AS RECOMMENDED BY MANUFACTURER.
- 4. COMPLY WITH ANSI A117,1 FOR ACCESSIBLE FIXTURE'S MOUNTING HEIGHTS

EXISTING WA				ER I	HEATER	SCHED)ULE	<u> (EWH)</u>
	ADEA CEDVED	F	RECOVERY		CAPACITY	ELECTRIC DATA		
MARK	AREA SERVED	GPH EWT LWT (GALLONS)			VOLT/PH/HZ	KW	REMARKS	
EWH(E)	SEE PLAN	_	40	120	10	120/1/60	2 KW	GE, MODEL: XE10P06

PLUMBING CONNECTION FIXTURE SCHEDULE:

FLOW RATE

1.28 GPF

0.5 GPM

1.8 GPM

2.2 GPM

VENT

2"

2"

CONNECTIONS

HOT WATER

_

1/2"

1/2"

1/2"

WASTE

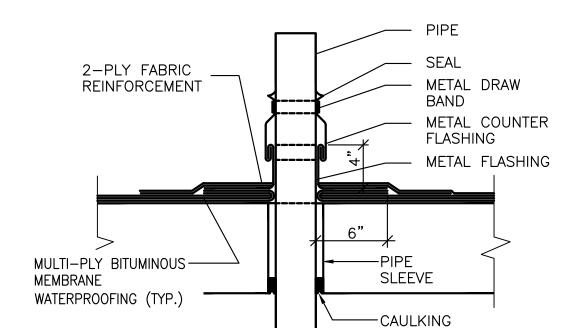
SHEET INDEX:

- P100 PLUMBING COVER SHEET
- PLUMBING DEMO FLOOR PLANS
- PLUMBING SANITARY FLOOR PLAN AND RISER DIAGRAM
- P400
- PLUMBING DOMESTIC WATER FLOOR PLAN AND RISER DIAGRAM

VIRGINIA CODES:

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE VIRGINIA STATE CODES (AS

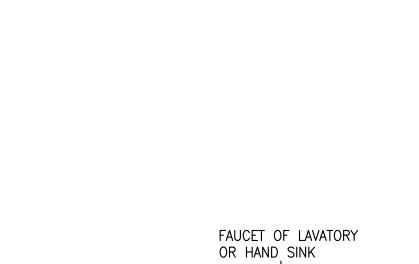
- LOCAL AUTHORITIES HAVING JURISDICTION. VIRGINIA CONSTRUCTION CODE (USBC) - 2018
- VIRGINIA STATEWIDE FIRE PREVENTION CODE - 2018 NATIONAL ELECTRICAL CODE - 2017
- VIRGINIA MECHANICAL CODE - 2018 VIRGINIA ENERGY CONSERVATION CODE - 2018
- VIRGINIA PLUMBING CODE - 2018
- 2018 VIRGINIA FUEL GAS CODE - 2018 VIRGINIA MAINTENANCE CODE
- 2018 VIRGINIA EXISTING BUILDING CODE



TYPICAL PIPE ROOF PENETRATION DETAIL

(N) = NEW(R) = REMOVE(E) = EXISTING(ER)= EXISTING RELOCATE

(RR)= REMOVE AND RELOCATE



REMARKS

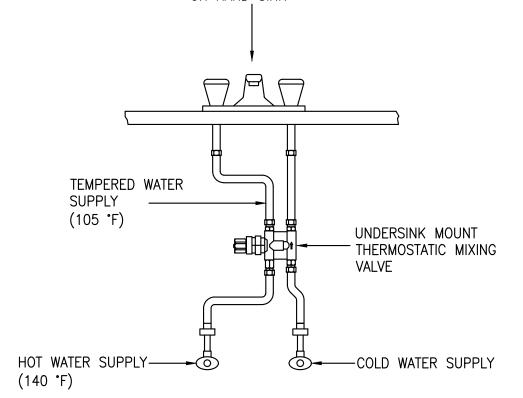
PROVIDE BY OWNER

PROVIDE BY OWNER

PROVIDE BY OWNER

PROVIDE BY OWNER

E.L. MUSTEE, 24"X24", MOP SINK WITH FAUCETS AND HANDLES.



UNDERSINK MOUNT THERMOSTATIC N.T.S.

CITADEL ARCHITECTS

1212 PENNSYLVANIA AVE SE WASHINGTON D.C., 20003 MAIN: (202) 723-0100 HTTPS://CITADELARCHITECTS.COM/ EMAIL: INFO@CITADELDBD.COM

22

KHALID LAMBAFL Lic. No. 0402061223/

CELL: 571-833-8357 STRUCTURAL:

MANASSAS VA, 20110

ENGINEER: KHALID LAMAAFI

EMAIL: ALLATMEP@GMAIL.COM

ADDRESS: 9707 ASPEN PL.

MPE: Design America Engineering, Inc MEP Consulting Engineers 14080 Red River Drive

∞

 \mathbf{A}

4 5

DAENG2000@GMAIL.COM www.daeng2000.com CIVIL:

Sam: 571-220-3239

BY SUBMISSION INFO DATE PERMIT SUBMISSION A 08/31/2022

PROJECT MANAGER: **DESIGNED BY:**

DRAWN BY: SCALE:

PROJECT LOCAL NO: CAD FILE:

SHEET TITLE:

PLUMBING COVER SHEET

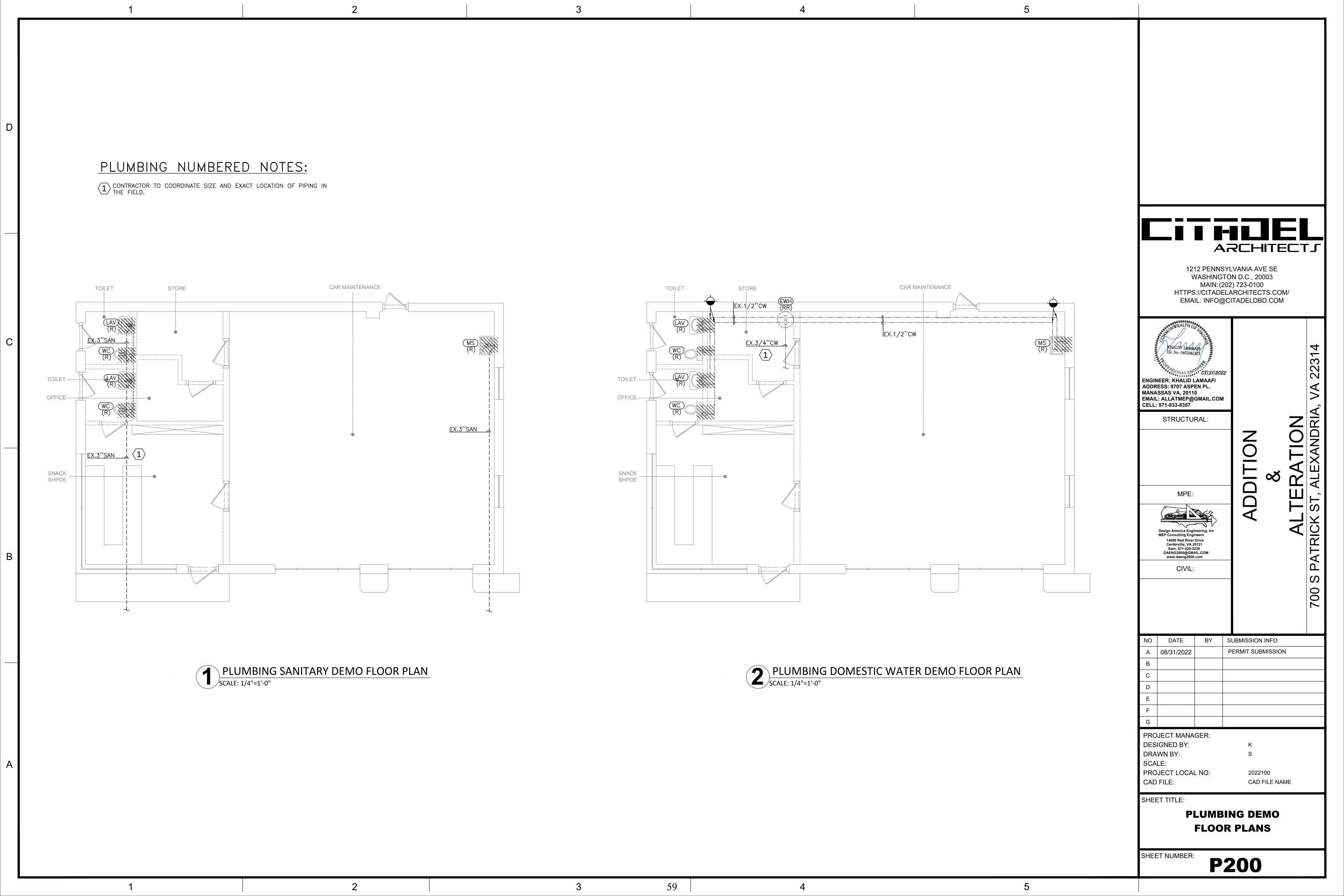
2022100

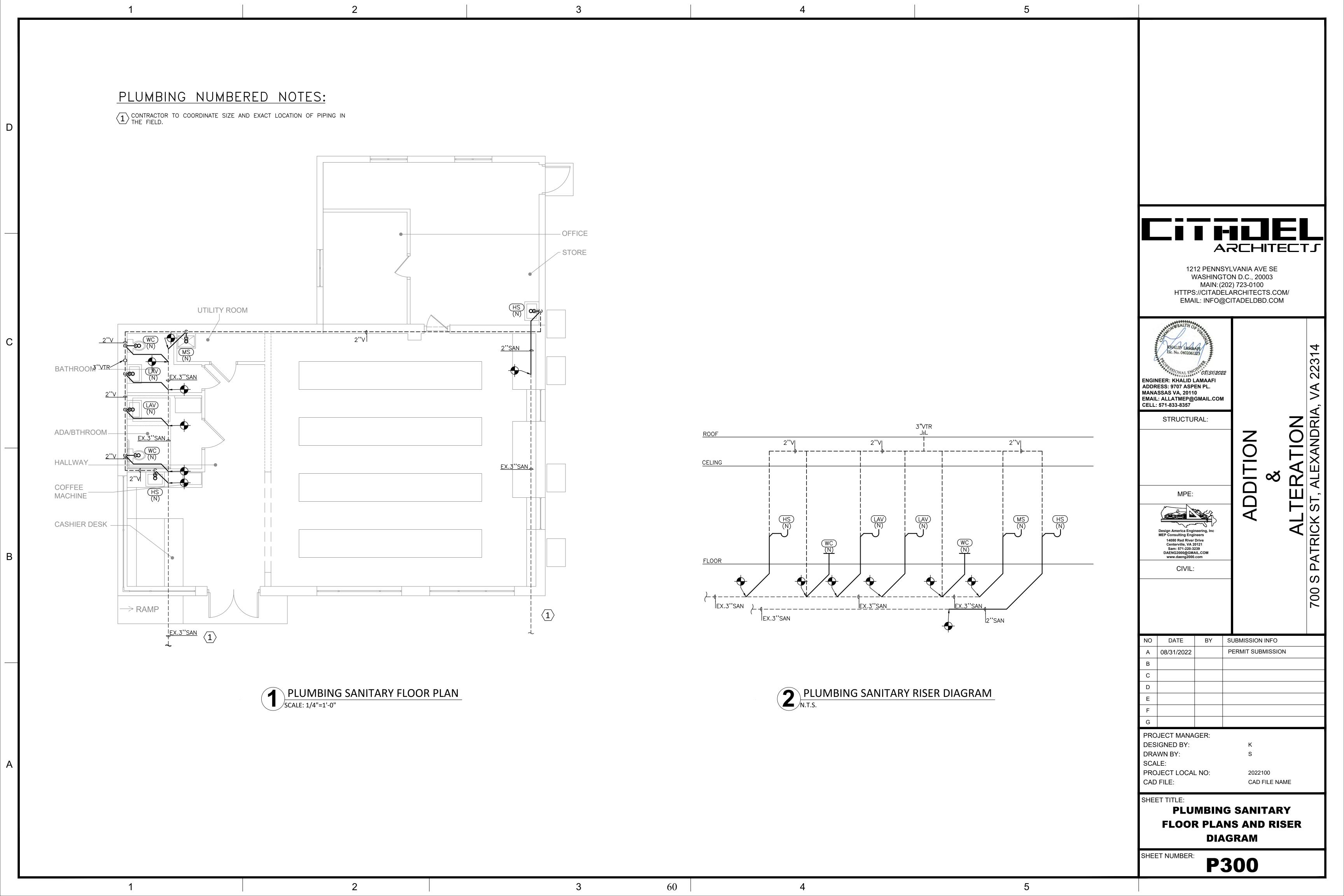
CAD FILE NAME

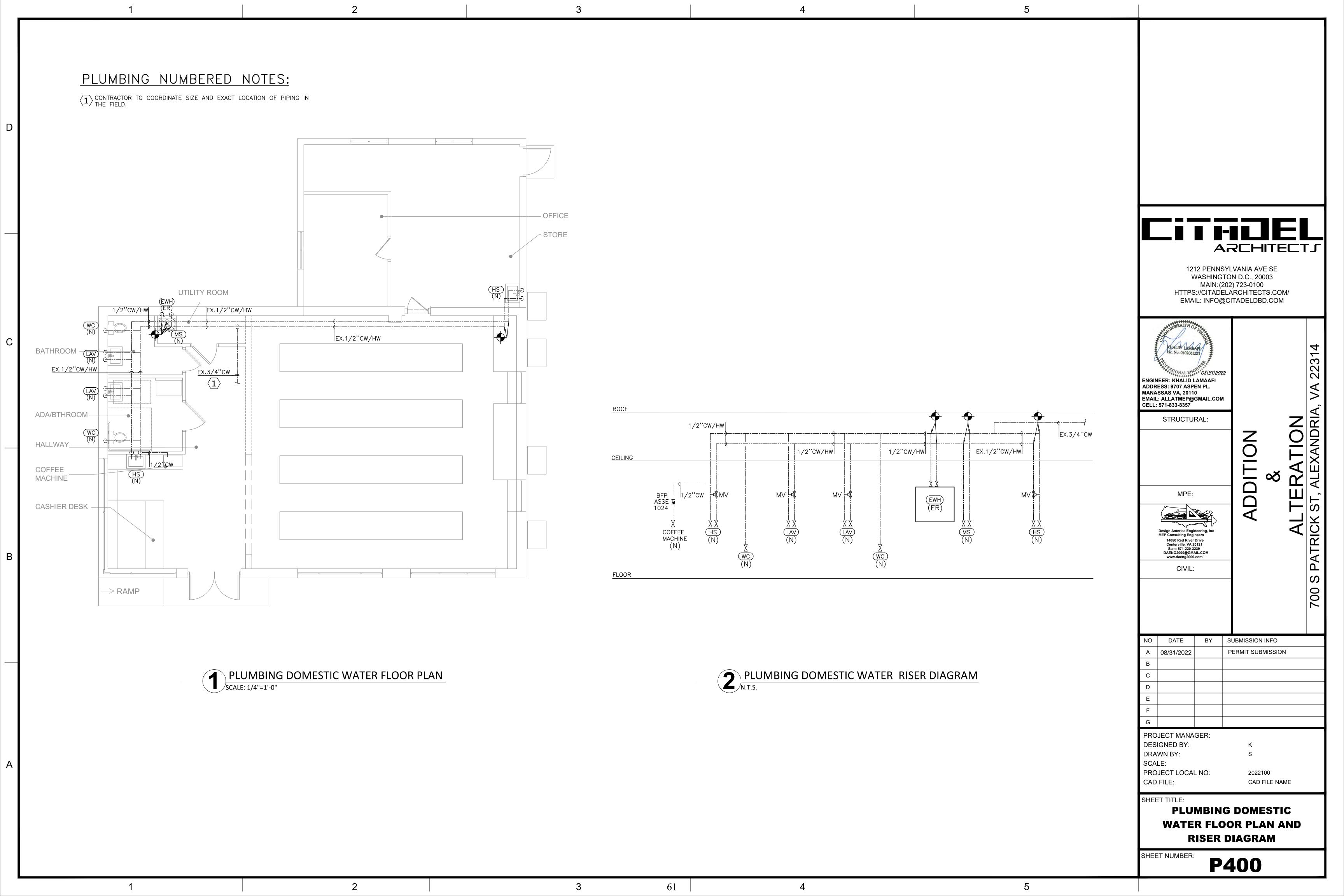
SHEET NUMBER:

P100

58







City of Alexandria, Virginia

MEMORANDUM

DATE: FEBRUARY 6, 2023

TO: CHAIR NATHAN MACEK

AND MEMBERS OF THE PLANNING COMMISSION

FROM: KARL W. MORITZ, DIRECTOR

DEPARTMENT OF PLANNING & ZONING

SUBJECT: DOCKET ITEM #3 – SUP #2022-00102 –

700 SOUTH PATRICK STREET, ADAM ALDIE, LLC

The purpose of this memorandum is to address questions raised by Chair Macek at his briefing regarding SUP #2022-00102 for the Liberty Gas Station. During his briefing, Chairman Macek raised two issues. The proposed SUP approval requires, in Condition #10, closure of the curb cut portion that is used to access the site along Franklin Street. Chair Macek, raised a question as to whether the closure of the curb cut would negatively impact the operation of the service station, which is on the northbound side of S. Patrick Street/Route 1. Staff reconfirms that the applicant still does not object to this condition. Additionally, further discussion and analysis with T&ES staff indicate that this entrance provides limited access to the property as there is no left turn from S. Patrick Street/Route 1 South travelling southbound onto Franklin Street, which is one-way heading eastbound. Presently, drivers travelling southbound must drive to Fairfax County and make a U-turn to reverse direction to Route 1 North to access the service station and this would continue to be the case should the curb cut remain open. Further, T&ES staff have received numerous complaints that motorists now create a traffic hazard by turning left the wrong way onto Franklin Street and into oncoming traffic when using the curb cut. Accordingly, staff continues to recommend the partial closure of the curb cut.

Secondly, Chair Macek raised a question regarding the relocation of the vacuum cleaner currently on the southwest corner of the existing service station building. The proposed expansion of the service station building includes the relocation of the vacuum and air pump to the southeast corner of the building, or approximately 33 feet further east than the current location and closer to residents. Upon further research, staff found that the car vacuum noise level would hover around 65 dBA at the property line that abuts the public alley and residential properties, which is the upper limit of what is permitted by the noise ordinance. After conferring with the applicant, he decided to keep the car vacuum at its current location, 69 feet from the property line, where the dBA would

easily comply with noise ordinance requirements. To address this change, staff is recommending amending Condition #2 as follows:

2. **CONDITION AMENDED BY PLANNING COMMISSION:** The redevelopment of the property shall be substantially consistent with the improvements depicted on the plat submitted on January 26, 2023, with the exception of the car vacuum which shall remain at its current location. (P&Z) (PC)

With this proposed condition change, staff continues to recommend approval of SUP #2023-00102

This image illustrates the staff discussion in this memo.

