			T							
ZONING ANALYSIS				° m ℃		CONTRACT DOCUMENTS:			GENERAL NOTES:	
	LOT DIMENSIONS: 50.00' X 100.00' AREA: 5,000 SF			100'-0"		Contractor shall maintain on site a complete set clarifications, and other pertinent correspondence		construction documents, submittals,	All work and materials furnished shall comply with the 2018 International Building Code(NJ edition), National Standard Plumbing Code/2018, NJ ed, national electrical code (NFPA 70)/2017 building code,	T
	PLAN: SECOND WARD BLOCK 2180, LOT 27 DATED	APRIL 1, 2020				Written dimensions on these drawings shall take construction are taken to face of framing; in mas		sions. Dimensions in frame	ASHRAE 90.1-2016, International Mechanical Code/2018, International Fuel Gas code/2018, the regulations of the National Board of Fire Underwriters, National Fire Protective Association requirements, and all federal, state, and municipal authorities having jurisdiction over the work.	Paterso Habit
FIRST FLOOR: 3,184 SF						Contractor shall verify and be responsible for all variations from the dimensions and conditions sl		e job. Notify architect's office of any	Before commencing work, all required permits shall be secured in timely manner, and shall be	for Huma Paterson Habitat I
SECOND FLOOR: 3,264 SF TOTAL SF: 6,448 SF			.00-00-0			All construction, dimensions and details shall co	ncur with and be determined fror	n these drawings only.	conspicuously posted. Required approvals and permits shall be obtained from the Department of Highways, the DEP and any	146 North 1s
		COMPUNIOS	4'-0' REAR YARD		R STR	Contract documents shall be taken as a whole: specification shall apply to all work of this project			other agencies having jurisdiction.	l'aterson, ive
SCHEDULE OF REQUIREMENTS PRINCIPAL PERMITTED USES:	REQUIREMENTS RESIDENTIAL UNITS: ANY FLOOR	COMPLIANCE RESIDENTIAL UNITS: SECOND FLOOR		21' - 5 1/2"——	MM MM	quality, higher cost provision shall apply. Each contractor will be held strictly responsible f	for its work. Any discrepancies w	rithin the contract documents shall be	The contractor shall check and verify all existing conditions, dimensions and clearances in field, before commencing work, and notify the architect if conflicting conditions or discrepancies exist.	PROJECT NAME
PRINCIPAL PERMITTED USES.	PLACES OF PUBLIC ASSEMBLY: ANY FLOOR	DI ACES OF DURI IC ASSEMBI V			· o	brought to the attention of the architect for resolution. No work additional to the contract shall be perfored.	·		Dimensions on drawings are for design only. Drawings shall not be scaled for dimensions. All dimensions are to the face of finishes unless otherwise noted.	
MIMIMUM LOT SIZE:	N/A	5,000 SF				owner. No additional cost for any such work cor			The contractor shall coordinate all work procedures with requirements of the local authorities.	VFW HALL / RES
MIMIMUM LOT DEPTH:	N/A	100'-0' DEEP				SITE SAFETY: All work shall be conducted in accordance with of	chanter 33 'Safeguards during co	nstruction and demolition " OSHA and	The contractor shall be responsible for the protection of all conditions and materials within the proposed construction area. The contractor shall design and install adequate bracing and shoring for all structural or	PASSAIC NJ
MIMIMUM FRONT YARD SETBACK	κ·	21'-6"		SDE YAR YARI 100'-0"	,	all other applicable codes and regulations.			removal tasks. The contractor shall have sole responsibility for any damage or injuries caused by or during the execution of work.	
MINIMUM SIDE YARD SETBACK:	0'-0"	3'-0" AT WEST PROPERTY LINE	ZONING SETBACK DIAGRAM		SCALE: 1/16" = 1'-0"	The contractor shall be responsible for the secur Contractor shall be responsible for adequately sl	•		The contractor shall provide all dimensions required for other trades - plumbing, electrical, etc.	
MINIMUM SIDE YARD SETBACK:	3'-0"	4'-0" AT EAST PROPERTY LINE				damage and breakage in accordance with applic	cable state and local codes, stand	dards, and good practice.	Mechanical, plumbng and electrical work shall be performed by persons licensed in their trades, who shall arrange for and obtain inspections and required sign-offs.	ECHEN O'NEIL AR
MINIMUM REAR YARD SETBACK:		4'-0"				Debris, dust, and dirt shall not be permitted to ac Construction operations shall be confined to nor	ccumulate and shall be confined	to the immediate construction Area.	No work shall be conducted beyond the property lines without the approval of Department of Transportation.	29 GANUNG
MAXIMUM NUMBER OF STORIES		2 STORIES				5pm Monday - Friday, except legal holidays. All exits shall be kept readily accessible and uno	phetructed at all times		Owner shall file permit applications required by the building department to obtain the initial construction permit approval for this project, by the DOT for sidewalk construction, by the DEP for sewer and storm	OSSINING, N 646-812-5
MAXIMUM BUILDING HEIGHT:	N/A	32'-8"				The construction site may not be occupied until t		Building Department and other	water service (site connection proposal). Contractor shall obtain the construction permit, file certificates of insurance and file all other documents and permit applications required to complete project work, including	
MAXIMUM LOT COVERAGE MAXIMUM RESIDENTIAL DENSITY	N/A Y 6 UNITS	65.28% 4 UNITS		2ND FLOOR		regulatory agencies have been obtained. Cutting and patching: contractor shall be respor	nsible for any cutting and Patchin	a required to complete the work. The	(but not limited to) the following: electrical permit, utility connections, all other DOT permits, such as street work street + sidewalk closing, sidewalk shed, construction fence, work beyond ordinarily permitted hours.	
	6.0 (30,000 SF)	1.29 (6,448 SF)		3264 SF		structural integrity of the Building shall not be conconstruction and finishes disturbed by such cutti	mpromised by any cutting and pa	atching, and any Fire-resistive	Sidewalks shall be constructed in accordance with the rules of the department of transportation	MEP/FP ENGINEER:
MAXIMUM FLOOR AREA RATIO						Construction methods and inspections:			Progress inspections and final: progress inspections shall be made on behalf of the owner by approved agencies, special inspectors, or by the City of Passaic Department of Building reports and certificates of inspection shall be filed with the building department. Contractor shall coordinate with inspection agency,	KEA
BUILDING FACADE, STREET SCHEDULE OF REQUIREMENTS	TSCAPE AND PARKING STANDARDS PER RE REQUIREMENTS	COMPLIANCE				The Architect of Record has not been retained for are the sole responsibility of the Contractor.	or any field supervision or Inspec	tion. Construction means and methods	providing adequate notice when construction will be ready for a required inspection. Inspections including but not limited to: Fire alarm test	Engineering Excellence 186 Wood Ave South
BUILDING MATERIALS:	ALL BUILDING FACADE TREATMENTS ON EACH S					Contractor shall arrange for and schedule all req	quired inspections.		Structural cold-formed steel Concrete - cast-in-place and Pre-cast	lselin, NJ 088 t: 732-635-00
BUILDING WATERIALS.	OF THE BUILDING SHALL BE TREATED WITH A MIX OF ARCHITECTURAL TREATMENTS AND		SECOND FLOOR PLAN - SQUARE FOOTAGE CALCULA	ATIONS	SCALE: 1/16" = 1'-0"	OODE COMMINITARY	DENTIAL R-2		Concrete test cylinders Concrete design mix Masonry	CIVIL ENGINEER:
	ENHANCEMENTS AND PROVIDE A CONSISTENT THEME				I	ASSE	EMBLY A-2 EV-A , FULLY SPRINKLERED		Soils - site preparation Soils - investigations (borings / test pits)	Golden & Moran Engine 22 Angelo Drive
FIRST FLOOR FACADES	FOR COMMERCIAL USES SHALL HAVE A CLEAR STOREFRONT GLASS AREA OF AT LEAST 50%	N/A	Γ			FLOOR AREA 6,448 NUMBER OF STORIES 2	3 SF		Smoke control systems Mechanical systems Structural safety - structural stability	Sparta, NJ 07871 t: (973) 714-2131
FIRST FLOOR USES	ACCESS SHALL BE FROM THE STREET SIDE OF THE BUILDING	COMPLIES				REQUIRED FIRE RESISTANCE OF	REQUIRED	PROPOSED(COMPLIES)	Excavation - sheeting, shoring + bracing Site storm drainage disposal and detention	STRUCTURAL ENGINE
STOREFRONTS AND ENTRANCE	ES EACH STREET LEVEL COMMERCIAL SPACE SHAL HAVE ITS OWN STOREFRONT AND ENTRANCE	L N/A				NEW BUILDING PER TABLE 601 AND 602 TYPE V-A (PROTECTED)	REQUIRED RATING	PROPOSED RATING	Sprinkler systems and Standpipe systems Firestop, draftstop, and fireblock systems Plumbing	Taher End
SIGNAGE DESIGN	SHALL BE CONSISTENT WITH AREA AND PLACEM WITHIN FACADE, INCLUDING TYPE, HEIGHTS, AND		FIRST	FLOOR		EXTERIOR WALLS PER FIRE SEPARATION <5'-0"	1 HOUR	1 HOUR	Framing Contractor shall coordinate work of all trades, and shall maintain a full-time supervisor on site responsible	PO BOX 2 Clifton, N.
	PLACEMENT AND AS REQUIRED BY THE PLANNIN BOARD		318	4 SF	STRE	BEARING WALLS:			for direct accordance with the latest edition of the applicable ASTM standards, and shall conform with the standards and recommendations of the various trade institutes (ACI, AISC, etc.), where applicable. All	t: (973) 25
ARCHITECTURAL FACADE ELEMENTS	HORIZONTAL FACADE TREATMENTS ARE REQUIF SUCH AS A ROOFLINE, CORNICES, OR OTHER	ARCHITECTURAL ELEMENTS			MM MER	EXTERIOR WALL INTERIOR WALL	1 HOUR 1 HOUR	1 HOUR 1 HOUR	material incorporated into the Work shall be new unless otherwise indicated.	APPLICANT:
	TREATMENTS APPROVED BY THE PLANNING BOATO SEPARATE COMMERCIALFIRST FLOOR USES FROM RESIDENTIAL FLOOR ABOVE				S	PRIMARY STRUCTURAL FRAMING	1 HOUR	1 HOUR		Paterson Habitat for Hull 146 North 1st Street Paterson, NJ 07522
SEPARATE RESIDENTIAL	UPPER FLOOR RESIDENTIAL UNITS SHALL HAVE					FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY FRAMING	1 HOUR	1 HOUR	CARBON MONOXIDE / SMOKE DETECTORS:	t: (973) 595-6868
ENTRANCE	SEPARATE EXTERIOR ENTRANCE. OTHER SECONDARY ENTRANCE A REQIRED BY CODE.	LOCATION OF SEPARATE RESIDENTIAL ENTRANCE				ROOF CONSTRUCTION AND ASSOCIATED FRAMING	1 HOUR	1 HOUR	Within each dwelling unit provide co / smoke alarms & detectors outside sleeping rooms within 15 feet from the door to such sleeping room and inside each room used for sleeping purposes.	
ROOFLINES	MAY BE FLAT AND COULD INCLUDED ARCHITECTURAL ELEMENTS SUCH AS PARAPETS OR CORNICES FOR INTEREST AND TO SCREEN A	SEE DRAWINGS A-400 AND A-401 S FOR SLOPED ROOFLINES	FIRST FLOOR PLAN - SQUARE FOOTAGE CALCULATION	ONS	SCALE: 1/16" = 1'-0"	SHAFT ENCLOSURES CONNECTING LESS THAN 3 STORIES	1 HOUR	1 HOUR	Such alarms & detectors shall be wall or ceiling mounted.	
OIDEWALKO	MECHANIAL EQUIPMENT				00,122, 7,10	MAXIMUM AREA OF EXTERIOR WALL OPENINGS			Required smoke alarms shall receive their primary power from a dedicated branch circuit or the unswitched portion of a branch circuit also used for power and lighting, and shall be equipped with a battery backup. Smoke alarms shall emit a signal when batteries are low. Wiring shall be permanent	
SIDEWALKS	SIDEWALKS SHALL BE INSTALLED FROM THE BUILDING TO THE CURBLINE, IF NEED. DECORATI PAVING AND PATTERNS ARE RECOMMENDED	SEE DRAWING A-200 FOR LOCATION OF SEPARATE RESIDENTIAL ENTRANCE		Щ		PER TABLE 705.8: FIRE SEPARATION DISTANCE GREATER	UNPROTECTED: NP		and without a disconnect switch other than as req'd for over-current protection.	
STREET FURNITURE	STREET FURNITURE CONSISTING OF A MINIMUM OF2 BENCHES AND (10)36" ROUND DECORATIVE		□ U U U U U U U U U U U U U U U U U U U	Ϋ́Υ LIN		THAN 3 AND NOT MORE THAN 5 FEET	PROTECTED: 15%	< 15% PROTECTED ; OK	Where more than one smoke alarm or detector is required within an individual dwelling unit, the smoke alarms or detectors shall be interconnected in such a manner that the activation of one alarm or detector will activate all of the alarms in the individual unit. The alarm or detector shall be clearly audible in all	
	PLANTERS MAY BE REQUIRED. THE PLACEMENT SHALL NOT IMPEDE PEDESTRIAN MOVEMENT		₩			FIRE SEPARATIONS BETWEEN OCCUPANCIE PER TABLE 508.4	ES 1 HOUR	1 HOUR ; OK	bedrooms over background noise levels with all intervening doors closed.	
PARKING STANDARDS FOR RESIDENTIAL UNITS	1 BEDROOM = .75 SPACES PER UNIT 2 BEDROOM = 1 SPACE PER UNIT	(3) 2 BEDROOM UNITS + (1) ONE BEDROOM UNIT = 3.75 REQUIRED		——————————————————————————————————————		BETWEEN A AND R OCCUPANCIES			When the installation of the alarm is complete, each detector and interconnecting wiring shall be tested in accordance with the household fire warning equipment provisions of NFPA 72.	6 ISSUE FOR FILIN
RESIDENTIAL UNITS	NON-RESIDENTIAL UNITS ARE EXCLUDED FROM THIS STANDARD	SPACES. 4 SPACES PROVIED FOR RESIDENTIAL		TO WALL		FIRE DOOR FIRE PROTECTION RATINGS			Smoke alarms shall be provided with the capability to support visible alarm notification appliances in accordance with ANSI a117.1.	5 90% CD SET 4 75% CD SET
DRAWING LIST				T.O. WALL 94' - 7 3/8"		PER TABLE 715.3: MIN. FIRE DOOR RATING FOR 2 HOUR ASSEMBLY RATING	1 1/2 HOURS	1 1/2 HOURS ; OK	Note: hardwired carbon monoxide detectors shall comply with BC 908.7.1.1.1, and installed in accordance with BC 908.7.1.1.1.	3 DESIGN DEVELOPMENT
			ALBERT LAWSON PO	2ND FLOO 85' - 4 3/4"	R	MIN. FIRE DOOR RATING FOR 1 HOUR	1 HOUR	1 HOUR ; OK		1 SITE PLAN SUBMISSION
A-000 TITLE SHEET A-001 GENERAL NOTES		NICAL COVER SHEET	I I I I I I I I I I I I I I I I I I I			ASSEMBLY RATING FIRE BARRIERS				ISSUE/REVISION
	RAMS, EGRESS NOTES M-102 MECHA	NICAL 2ND FLOOR RCP		1ST FLOOI 72' - 4 7/8"	R	PER TABLE 707.3.10 A AND R OCCUPANCIES	2 HOUR .5 HOUR	2 HOUR ; OK 2 HOUR; OK		DRAWING TITLE
A-101 ROOF LAYOUT PLAN A-200 FIRST FLOOR CONS	M-301 MECHA	NICAL SPECIFICATIONS INICAL DETAILS		, = , 0		PER TABLE 1020.1: CORRIDOR IN R-2	.5 HOUR	2 HOUR, OK		
PLANS	M-602 MECHA	NICAL SCHEDULES NICAL SCHEDULES	ZONING HEIGHT DIAGRAM - NORTH ELEVATION		SCALE: 1/16" = 1'-0"	EXIT AND ACCESS REQUIREMENTS			PROJECT CLOSEOUT:	TITLE SH
A-202 ROOF CONSTRUCTION A-300 1ST AND 2ND FLOOF A-400 NORTH AND SOUTH	R REFLECTED CEILING PLANS						ALLOWED	PROPOSED	An accurate and complete final survey made by a licensed surveyor under contract with the owner shall be submitted after completion of work showing the location and boundaries of the lot, the location	
A-400 NONTH AND SOUTH A-401 EAST AND WEST ELE A-402 EAST / WEST BUILDI	E-001 ELECTF	RICAL COVER SHEET RICAL 1ST FLOOR CONSTRUCTION PLAN				MAXIMUM TRAVEL DISTANCE PER TABLE 1006.3.3(1):			of the new building, the elevation of the first floor, finished grades of outdoor spaces, established curb level, and building height.	
A-403 NORTH / SOUTH BUI	ILDING SECTIONS E-102 ELECTR	RICAL 2ND FLOOR CONSTRUCTION PLAN RICAL ROOF PLAN	100' -	0"		SPRINKLERED RESIDENTIAL (R-2) SPRINKLERED ASSEMBLY	125'-0" (FOR ONE STAIR ONLY)	< 125'-0"; OK	Fire protection plan, if required, will be prepared and submitted by owner	
A-501 EXTERIOR PARTITIO A-600 NORTH WALL SECTION	ON TYPES, ASSEMBLY VALUES E-201 ELECTR	RIAL 1ST RCP RICAL 2ND FLOOR RCP			HP ROOF	EGRESS CAPACITY			Contractor shall obtain signoff of electrical work and any other required sign-offs of permits obtained by the contractor.	DRAWING NO.
A-601 SOUTH AND EAST W A-602 ROOF AND PLATFOR	RM SECTIONS E-401 ELECTR	RICAL SPECIFICATIONS RICAL DETAILS	LINE TO THE TOTAL PROPERTY OF THE TOTAL PROP	LINE LINE	105' - 0 5/8"	PER TABLE 1006.3.3(1):	36" STAIR =	3,264 S.F. IS MAXIMUM @	Contractor shall provide as-built drawings, operations manual, warrantees, and other material required for signoff by the project manual.	A 000
A-700 WALL SECTION DETA A-701 TYPICAL EXTERIOR A-702 TYPICAL ROOF DETA	WALL DETAILS E-501 ELECTF	RICAL DETAILS RICAL RISER DIAGRAMS	PERTY HEIGH		T.O. WALL 94' - 7 3/8"	ONE STAIR ALLOWED FOR LESS THAN 4 APARTMENTS	133 PERSONS	RESIDENTIAL FLOORS 6,264 S.F. / 200 = 17 OCCUPANTS	Subsequent to final inspection, contractor shall make any corrections required by the City of Passaic Department of Buildings for the certificate of occupancy or letter of completion. corrections resulting	A-000
A-702 TYPICAL ROOF DETA A-703 TYPICAL SECTION D A-704 EXTERIOR PLAN DETA	DETAILS E-601 ELECTR	LARM RISER DIAGRAM RICAL PANEL SCHEDULES	PROP PR	PROP				6,264 S.F. / 200 = 17 OCCUPANTS 17 < 133 ; 40" STAIR OK	from contractor's failure to conform to contract requirements or defects in construction shall be made at no cost to the owner.	
EN-001 COMCHEK - EXTERIOR PLAN DE EN-001 COMCHEK - EXTERIOR EN-002 ENERGY STAR NOTE	OR ENVELOPE		Bull 32		2ND FLOOR 85' - 4 3/4"	EXIT DOORWAYS	0011 00 00 00 00 00	FIDOT ELOCA	Service equipment permits: contractor shall obtain all required service equipment permits. the following types of equipment shall not be operated until the building department issues a certificate of	DATE: SCALE: As
S-0 STRUCTURFAL NOTE	ES P-001 PLUMBI	ING COVER SHEET ING FIRST FLOOR SUPPLY PLAN			1ST FLOOR	PER TABLE 1005.1: DOORS (OTHER COMPONENTS) 0.2 INCHES PER OCCUPANT	36" DOOR = 180 PERSONS (2)36" DOORS = 360	FIRST FLOOR: 3 < 360; OK 125 OCCUPANTS DOOR CAPACITY =	compliance after submission of a satisfactory report of inspection and testing and all required submittal documents a. air conditioning and ventilation systems	STAMP & SIGNATURE
S-2 2ND FLOOR FRAMIN	IG PLAN / DETAILS P-102 PLUMBI	ING SECOND FLOOR SUPPLY PLAN ING SECOND FLOOR SUPPY PLAN ING FIRST FLOOR WASTE PLAN			72' - 4 7/8"	MIN. DOOR WIDTH = 36" DOOR OR 32"	PERSONS	550 OCCUPUCANT SECOND FLOOR	b. elevatorsc. fuel burning and fuel oil storage equipment	WHITE OF NEW
DETAILS S-4 STRUCTURAL DETA	P-202 PLUMBI	ING SECOND FLOOR WASTE PLAN ING ROOF PLAN				CLEAR DOOR WIDTH (1008.1.1.1)		17 OCCUPANTS DOOR CAPACITY = 180 OCCUPANTS	d. refrigeration systems e. heating systems f. boilers	MARK OF NEW
	ILS P-301 PLUMBI TONS / FOOTING DETAILS P-401 PLUMBI	ING SPECIFICATIONS ING DETAILS				MINIMALINA CORRESCE VALIDATE :			Posted certificate of occupancy: All buildings shall be posted with a copy of the certificate of occupancy permanently affixed, placed in a conspicuous location in a public hall or corridor, or	The state of the s
S-7 STRUCTURAL / CONI S-8 STRUCTURAL DETAI		ING RISERS ING SCHEDULES				MINIMUM CORRIDOR WIDTH PER TABLE 1020.2: ASSEMBLY A-2	A-2 = 44"	MIN. 3'-8" OK	management office	AND ERED AS
			ZONING HEIGHT DIAGRAM - WEST ELEVATION		SCALE: 1/16" = 1'-0"	RESIDENTIAL(LESS THAN 36 OCCUPANTS)	R-2 = 36"			NJ LICENSE 20591

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ARCHITECTS, PLLC

JNG DRIVE G, NY 10562 312-5566

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FILING 01/14/2022 T 12/1/2021 T 11/15/2021 09/27/2021

SHEET

10/27/2020

01/14/22 _As indicated__

Drawings and specifications as instruments of service remain the property of architect and are protected under common law copyright provisions. They are not to be reused except by written agreement and with the agreed compensation to the architect. If reused without permission, the Architect shall be indemnified and held harmless from all liability, legal exposure, claims, damages, losses & expenses. Drawings shall not be used for issuance of a building permit unless signed & sealed by the architect. Drawings shall not be used for multiple or prototype development without written authorization from the Architect.

The Architect's administration of the construction work, by mutual consent is not part of this agreement. The owner and/ or general contractor shall appoint a person to be in charge of the work per NJUCC 5.23-2.21 construction control execution. The Architect shall not be responsible where construction deviates from these drawings or from written recommendations. Changes to the plan by the owner and/ or contractor shall be the responsibility of the persons making such changes. The owner and/ or contractor shall hold the architect harmless from & against all claims, damages, losses & expenses including, but not limited to, attorney's fees arising out of or resulting from the performance of the work by the contractor. The architect shall not have control or change of & shall not be responsible for construction means, methods, techniques, sequences, or procedures, for safety precautions & programs in connection with the work, for the acts or omissions of the contractor, subcontractor, for any other persons performing any of the work, or for the failure of any of them to carry out the work in accordance with the contract documents.

All work, materials and equipment shall meet the latest requirements of all applicable state & local building codes, regulations, the requirements of the authorities having jurisdiction & the specifications of the national board of underwriters. Where applicable, comply with all requirements of the NJUCC barrier free subcode and/ or the Americans with Disabilities act (ADA). Except where specified, requirements are more stringent;

Install all products in accordance with the manufacturer's instructions, recommendations & the standard of recognized agencies & associations. Provide all anchors, fasteners, & accessories required for a complete installation. Allow for thermal expansion/ contraction & building movement. Separate incompatible materials with suitable materials or spacing. Prevent cathodic corrosion. Protect aluminum surfaces from contact with masonry or other metals. Provide control joints at materials & isolation joints between materials/ structure as indicated & as required by manufacturer or recognized industry standards. Install products under appropriate environmental conditions (air temperature, surface temperature, relative humidity, etc.) To insure quality and durability, maintain proper protection during drying/curing.

The contractor shall, without delay & prior to fabrication or installation, bring to the attention of the architect any discrepancies between the manufacturer's specifications or recommendations, applicable code provisions, and the contract documents. Unauthorized changes to plans by the owner and/ or contractor shall be the responsibility of the persons making such changes.

Product options: it is the contractor's responsibility to select products which comply with the contract documents & which are compatible with one another, with existing work, & the products selected by other contractors. Provide manufacturer's information, samples, etc. When requested.

Submission of a substitution request by the contractor, where permitted on the contract documents. shall constitute a representation by the contractor that he/ she has investigated the proposed product or conditions & determined that it is equal to or better than the specified product or condition, including warranty coverage, & that he/ she will coordinate the installation & make other changes, including modification and coordination of other work affected by the Change, which may be required for their work to be complete in all aspects.

This is a 'Builder's Plan'. The term builder's plan refers to a certain level of development of the drawings. As the name implies, these plans require that the contractor possesses competence in residential construction with the understanding that the contractor possesses such skill, competence & knowledge of applicable codes & regulations, the architectural service Provided in these drawings is limited to room arrangement, dimension, structural design & construction details as indicated. The following, unless provided for in these drawings, shall be furnished & coordinated by the contractor or owner & shall not be part of the scope of work of these construction documents:

demolition of any or all existing structures, pavement or trees - site engineering including but not limited to: site grading, soil investigations, environmental investigations, site drainage, landscaping, driveways, retaining walls, utilities, septic, where applicable, and other improvements outside the building envelope.

Notify the Architect if the proposed use is not in accordance with local & state requirements & provide the architect with any necessary documentation including zoning, setbacks, environmental regulations, or any similar constraints which may affect the project. However, in no case shall any part of the dwelling be located within 3'-0" of a property line without approval of the architect.

Selection of approved interior finishes materials, cabinetry, hardware, furnishings, & other similar equipment. Standards of quality, performance & acceptable manufacturers for prefabricated systems

Do not scale drawings. Written dimension shall govern.

Contractor shall check verify & maintain all dimensions, grades, levels & other conditions before proceeding with fabrication & construction. Coordinate exact locations of equipment, fixtures & outlets with finished elements. Where necessary or where specifically indicated, the contractor shall provide shop drawings & detailed component design as required for the proper fabrication, installation, and coordination with other trades.

Shop drawings: contractor shall furnish shop drawings for all shop fabricated items & where customarily required & submit four sets of shop drawings for review. The contractor shall be responsible for checking the shop drawings for accuracy, coordination with other trades, & compliance with the contract documents before being submitted for approval. Architect's or engineer's approval of shop drawings shall constitute review & approval of the general arrangement of components to comply with the general intent of the construction documents & in no way relieves the contractor from his/ her responsibility for compliance with the contract documents, even if such items are not shown on the shop drawings. The Contractor shall check all dimensions & conditions to insure a proper fit under field conditions & shall make adjustments as required to make parts align. All revisions to shop drawings after the first submission must be properly identified on subsequent

Prior to performing any work, the contractor shall examine the applicable conditions & substrates & correct any unsatisfactory conditions before proceeding with the work. Verify that substrate & base plies/ coats are compatible with new work. Notify the architect promptly of any modifications required. Work performed over any surface constitutes acceptance of that surface for the specified quality of the work being performed thereon. Any changes to the plans by the Owner or Contractor shall be the responsibility of the persons making such changes.

Cutting and patching: include all cutting & patching for penetrations through floors, walls ceilings and roofs. Do not cut or notch any structural member to reduce its load carrying capacity.

Unforeseen conditions: should unforeseen conditions be encountered that affect design or function of the project, contractor shall investigate fully & submit an accurate, detailed report to the architect without delay. While awaiting a response, contractor shall reschedule operations as required to avoid delay of overall project.

Provide temporary facilities, service utilities, & protection as required to safely executing all work. Protect adjacent construction, and inhabitants. Comply with all applicable requirements of governing authorities including, but not limited to public utilities. Provide 24-hour notification of any discontinuity of utility services with owner.

Contractor shall be responsible to remove and legally dispose of all garbage and excess materials from the job site.

Record drawings: the contractor shall prepare & maintain a complete set of record construction drawings indicating all actual work, modification & revisions to the work delineated on the constructions drawings as well as any concealed construction work. Include any other information which would be helpful to the owner.

Insurance: All contractors & all sub-contractors shall take out & maintain workman's compensation insurance, and public liability & property damage insurance acceptable to the owner & the authorities having jurisdiction.

Substantial completion: contractor shall procure final certificate of occupancy upon completion of the project and forward same to the owner. Contractor shall clean the premises, test applicable systems, and leave ready for occupancy.

<u>Warranties</u>: unless otherwise indicated, contractor is to provide written warranty for a period of one year from the date of substantial completion. The warranty shall state all work has been completed in conformance with the contract documents, applicable codes, and enforcing authorities and that all work is free from defects of material and workmanship this is in addition to and not a limitation to any product manufacturer's product warranties.

- roofing - 2 year warranty by installer roofing - 25 year standard warranty by manufacturer

- home owners warranty - where applicable in accordance with the authorities having jurisdiction

All electrical work shall be carried out by a licensed electrician only. All work shall conform to the provisions of the national electric code of NFPA, latest edition.

All plumbing work shall be carried out by a licensed plumber. All equipment & fixtures to conform to the national standard plumbing code, latest edition.

OCCUPANCY CLASSIFICATION AND USE

303.1 Assembly Group A-2. Group A-2 occupancy includes assembly uses intended for food and/or drink consumption including, but not limited to: Banquet halls, Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens)

310.1 Residential Group R-2. Residential Group R-2 occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent, including: Apartment

SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

420.1 General. Occupancies in Group R-2 shall comply with the provisions of Sections 420.1 through 420.10 and other applicable provisions of the code.

420.2 Separation walls. Walls separating dwelling units in the same building, walls separating sleeping units in the same building and walls separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as fire partitions in accordance with Section 708.

420.3 Horizontal separation. Floor assemblies separating *dwelling units* in the same buildings, floor assemblies separating sleeping units in the same building and floor assemblies separating dwelling or sleeping units from other occupancies contiguous to them in the same building shall be constructed as horizontal assemblies in accordance with Section 711.

420.4 Automatic sprinkler system. Group R occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.8. Quick-response or residential automatic sprinklers shall be installed in accordance with Section 903.3.2.

420.5 Fire alarm systems and smoke alarms. Fire alarm systems and smoke alarms shall be provided in R-2 occupancies in accordance with Sections 907.2.6, 907.2.8 and 907.2.9, respectively. Single or multiple-station smoke alarms shall be provided in Group R-2 in accordance with Section 907.2.10.

420.6 Group R cooking facilities. In Group R occupancies, cooking appliances used for domestic cooking operations shall be in accordance with Section 917.2 of the International Mechanical Code.

GENERAL BUILDING HEIGHTS AND AREAS

504.3 Height in feet . The maximum height in feet of a building shall not exceed the limits in Table 504.3. Maximum building height for occupancy classifications A and R for Type V-A for a sprinklered building is 70'-0"

504.4 Height in stories. The maximum number of stories of a building shall not exceed the limits in Table 504.4.

2 stories 4 stories

504.4.1 Mixed-occupancy, multistory buildings. Each story of a mixed-occupancy building with more than one story above grade plane shall individually comply with the applicable requirements of Section 508.1.

506.2 Building Area Per Table 506.2 for Type V-A constructions, sprinklered building(SM) two or more stories in height

A-2: 34,000 sf R-2: 36,000 sf

508.3.1 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.4.

OCCUPANCY	A, E		1-12, 1	-3, 1-4	1	-2	,	? ^	F-2,	\$-2°	8*, F S	-1, M, -1	н	-1	н	-2	H-3.	, H-4	н	-5
	S	NS	s	NS	S	NS	s	NS	S	NS	s	NS	s	NS	S	NS	S	NS	S	NS
A. E	N	N	1	2	2	NP	1	2	N	3	ı	2	NP	NP	3	4	2	3	2	NP
I-1ª, I-3, I-4			N	N	2	NP	ŀ	NP	t	2	l	2	NP	NP	3	NP	2	NP	2	NP
1-2		1			N	N	2	NP	2	NP	2	NP	NP	NΡ	3	NΡ	2	NP	2	NP
Rª				1			N	N	1º	29	ì	2	NP	NP	3	NP	2	NP	2	NP
F-2, S-2 ⁶				<u></u>	-		1		N	N	l	2	NP	NΡ	3	4	2	3	2	NP
B ^c , F-1, M, S-1		<u> </u>	 	<u> </u>					1 —	···-	N	N	NP	NP	2	3	1	2	I	NP
H-1				<u> </u>									N	NP	NP	NΡ	NP	NP	NP	NP
H-2				-:=:											N	NP	1	NP	1	NP
H-3, H-4							i		 								Įq.	NP	1	NP
H-5	<u> </u>	 		<u> </u>			 		·							<u> </u>	<u> </u>		N	NP

S # Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but not to less than 1 hour. c. See Section 406.3.2.

d. Separation is not required between occupancies of the same classification.

e. See Section 422.2 for ambulatory care facilities. Occupancy separations that serve to define fire area limits established in Chapter 9 for requiring fire protection systems shalf also comply with Section

TYPES OF CONSTRUCTION

N = No separation requirement.

602.1 General. Buildings and structures erected or to be erected, altered or extended in height or area shall be classified in one of the five construction types defined in Sections 602.2 through 602.5. The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602. Where required to have a fire-resistance rating by Table 601, building elements shall comply with the applicable provisions of Section 703.2. The protection of openings, ducts and air transfer openings in building elements shall not be required unless required by other provisions of this

602.5 Type V. Type V construction is that type of construction in which the structural elements, exterior walls and interior walls are of any materials permitted by this code.

DUIL ONLO EL EMENT	ŦΥ	TYPE I		TYPE II		E	TYPEIV	TYP£ V	
BUILDING ELEMENT	A	6	A	В	A	В	HT	A	8
Primary structural frame! (see Section 202)	30.0	29.5	11.	0	11.	-0	HT	L ^b	1)
Bearing walls Exterior ^{c, f} Interior	3 3>	2 2°	J 1	0	<u></u>]	2 0	2 1/HT	1	υ 0
Nonbearing walls and partitions Exterior	See Table 602								
Nonbearing walls and partitions Interior ^d	0	Ð	ŧ	o	o	θ	Sec Section 2304.11.2	0	0
Floor construction and associated secondary members (see Section 202)	2	2	ı	o	1	o	HT	1	()
Roof construction and associated secondary members (see Section 202)	11/25	154	15,r	Ú.	1hc	0	нт	1 11.€	0

Roof supports: Fire-resistance ratings of primary structural frame and hearing walls are permitted to be reduced by Uhour where supporting a roof only. b. Except in Group F-1, 11, M and S-1 occupancies. Fire protection of structural members, in roof construction shall not be required, including protection of primary structural frame members, roof framing and decking where every part of the roof construction is 20 feet or more above any floor immediately below. Fire-restricts structural frame wood members shall be allowed to be used for such unprotected members.

e. In all occupancies, heavy timber complying with Section 2304.11 shall be allowed where a 1-hour or less fire-resistance rating is required.

 Not less than the fire-resistance rating required by other sections of this code. Not less than the fire-resistance rating based on fire separation distance (see Table 602). Not less than the fire-resistance rating as referenced in Section 704.10.

FIRE-RESISTANCE RAT	TING REQUIREMENTS FO	TABLE 602 OR EXTERIOR WALLS &	IASED ON FIRE SEPAR	ATION DISTANCE 4.4.9
RE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP Hs	OCCUPANCY GROUP F-1, M, S-1	OCCUPANCY GROUP A, B, E, F-2, I, R!, S-2
X × 5 ⁶	ΑU	3	2	ı
5 ≤ X ~ 10	IA Others	3 2	2	l t
10 ≤ X ≤ 30	fA, IB IB, VB Others	2 t 1	E () }	1s 0 1s
X > 30	All	ρ	9	0

 Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601. See Section 706.1.3 for party walls.

For special requirements for Group S aircraft hangars, see Section 412.3.1.

 Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.

The fire-resistance rating of an exterior wall is determined based upon the fire-separation distance of the exterior wall and the story to which the wall is For special requirements for Group H occupancies, see Section 415.6.

g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is For a Group R-3 building of Type II-B or Type V-B construction, the exterior wall shall not be required to have a fire-resistance rating where the fire-separation distance is 5 Feu (1523 mm) or greater.

FIRE AND SMOKE PROTECTION FEATURES

703.3 Methods for determining fire resistance. The application of any of the methods listed in this section shall be based on the fire exposure and acceptance criteria specified in ASTM E119 or UL 263. The required fire resistance of a building element, component or assembly shall be permitted to be established by any of the following methods or procedures: Fire-resistance designs documented in approved sources. Prescriptive designs of fire-resistance-rated building elements, components or assemblies as prescribed in Section 721. Engineering analysis based on a comparison of building element, component or assemblies designs having *fire-resistance ratings* as determined by the test procedures set forth in ASTM E119 or UL 263, Alternative protection methods as allowed by *N.J.A.C.* 5:23-3.7. *Fire-resistance* designs certified by an approved agency.

703.4 Automatic sprinklers. Under the prescriptive fire-resistance requirements of the code, the fire-resistance rating of a building element, component or assembly shall be established without the use of *automatic sprinklers* or any other fire suppression system being incorporated as part of the assembly tested in accordance with the fire exposure, procedures and acceptance criteria specified in ASTM E119 or UL 263.

703.7 Marking and identification. Where there is an accessible concealed floor, floor-ceiling or attic space, fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions or any other wall required to have protected openings or penetrations shall be effectively and permanently identified with signs or stenciling in the concealed space.

> **TABLE 707.3.10** FIRE-RESISTANCE RATING REQUIREMENTS FOR FIRE BARRIERS, FIRE WALLS OR HORIZONTAL FIRE-RESISTANCE RATING OCCUPANCY GROUP F-1, H-3, S-1 A, B, E, F-2, H-4, H-5, I, M, R, S-2

704.1 Requirements. The fire-resistance ratings of structural members and assemblies shall comply with this section and the requirements for the type of construction as specified in Table 601. The *fire-resistance ratings* shall be not less than the ratings required for the fire-resistance-rated assemblies supported by the structural members.

704.2 Column protection. Where columns are required to have protection to achieve a fireresistance rating, the entire column shall be provided individual encasement protection by protecting it on all sides for the full column height, including connections to other structural members, with materials having the required fire-resistance rating. Where the column extends through a ceiling, the encasement protection shall be continuous from the top of the foundation or floor/ceiling assembly below through the ceiling space to the top of the column.

704.1 Protection of the primary structural frame other than columns. Members of the primary structural frame other than columns that are required to have protection to achieve a *fire-resistance* rating and support more than two floors or one floor and roof, or support a load-bearing wall or a nonload-bearing wall more than two stories high, shall be provided individual encasement protection by protecting them on all sides for the full length, including connections to other structural members, with materials having the required *fire-resistance rating*.

704.1 Protection of secondary members. Secondary mem- bers that are required to have protection to achieve a fire- resistance rating shall be protected by individual encasement protection.

704.1.1 Light-frame construction. Studs, columns and boundary elements that are integral elements in walls of light-frame construction and are located entirely between the top and bottom plates or tracks shall be permitted to have required *fire-resistance ratings* provided by the membrane protection provided for the wall.

704.1.2 Horizontal assemblies. Horizontal assemblies are permitted to be protected with a membrane or ceiling where the membrane or ceiling provides the required *fire-resistance rating* and is installed in accordance with Section 711.

704. Truss protection. The required thickness and construction of fire-resistance-rated assemblies enclosing trusses shall be based on the results of full-scale tests or combinations of tests on truss components or on approved calculations based on such tests that satisfactorily demonstrate that the assembly has the required *fire resistance*.

705.1 Projections. Cornices, eave overhangs, exterior balconies and similar projections extending beyond the exterior wall shall conform to the requirements of this section and Section 1405. Exterior egress balconies and exterior exit stairways and ramps shall comply with Sections 1021 and 1027. respectively. Projections shall not extend any closer to the line used to determine the fire separation distance than shown in Table 705.2. Projections from walls of V construction shall be of any

TABLE 705.2 MINIMUM DISTANCE OF PROJECTION								
FIRE SEPARATION MINIMUM DISTANCE FROM LIN DISTANCE-FSD (feet) USED TO DETERMINE FSD								
0 to less than 2	Projections not permitted							
2 to less than 3	24 inches							
3 to less than 5	24 inches plus 8 inches for every foot of FSD beyond 3 feet or fraction thereof							
5 or greater	40 inches							

705. Materials. *Exterior walls* shall be of materials permitted by the building type of construction.

705.5 Fire-resistance ratings. Exterior walls shall be fire-resistance rated in accordance with Tables 601 and 602 and this section. The required fire-resistance rating of exterior walls with a fire separation distance of greater than 5 feet shall be rated for exposure to fire from the inside. The required fire-resistance rating of exterior walls with a fire separation distance of less than or equal to 5 feet shall be rated for exposure to fire from both sides.

705.6 Structural stability. Exterior walls shall extend to the height required by Section 705.11. Interior structural elements that brace the exterior wall but that are not located within the plane of the exterior wall shall have the minimum *fire-resistance rating* required in Table 601 for that structural element. Structural elements that brace the exterior wall but are located outside of the exterior wall or within the plane of the exterior wall shall have the minimum *fire-resistance rating* required in Tables 601 and 602 for the exterior wall.

705.8.1 Allowable area of openings. The maximum area of unprotected and protected openings permitted in an exterior wall in any story of a building shall not exceed the percentages specified in Table 705.8 based on the *fire separation distance* of each individual story.

TABLE 705.8
MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON

	ARATION DISTANCE AND DEGREE OF DPENING PROTE	
FIRE SEPARATION DISTANCE (feet)	DEGREE OF OPENING PROTECTION	ALLOWABLE AREA*
	Unprotected, Nonsprinklered (UP, NS)	Not Permitted ^k
less than 3b, c, k	Unprotected, Sprinklered (UP, S) ^a	Not Permitted ^k
	Protected (P)	Not Permitted ^k
	Unprotected, Nonsprinklered (UP, NS)	Not Permitted
less than 5 ^{d. e}	Unprotected, Sprinklered (UP, S)'	15%
	Protected (P)	15%
	Unprotected, Nonsprinklered (UP, NS)	10%):
less than 10°, 1	Unprotected, Sprinklered (UP, S)	25%
	Protected (P)	25%

705.11 Parapets. Parapets shall be provided on exterior walls of buildings. **Exceptions:** A parapet need not be provided on an exterior wall where any of the following conditions exist: Onehour fire-resistance-rated exterior walls that terminate at the underside of the roof sheathing, deck or slab, provided that:

1. Where the roof/ceiling framing elements are parallel to the walls, such framing and elements supporting such framing shall not be of less than 1-hour fire-resistance-rated construction for a width of 4 feet for Groups R occupancies, measured from the interior side of the wall. 2. Where roof/ceiling framing elements are not parallel to the wall, the entire span of such framing and elements supporting such framing shall not be of less than 1-hour fire-resistance-rated

3. Openings in the roof shall not be located within 5 feet of the 1-hour fire- resistance-rated exterior wall for Groups R occupancies, measured from the interior side of the wall. 4. The entire building shall be provided with not less than a Class B roof covering. 5. In Groups R-2 where the entire building is provided with a Class C roof covering, the exterior wall shall be permitted to terminate at the underside of the roof sheathing or deck in Types III, IV and V construction, provided that one or both of the following criteria is met: 6. The roof sheathing or deck is constructed of approved noncombustible materials or of fireretardant-treated wood for a distance of 4 feet.

7. The roof is protected with 0.625-inch Type X gypsum board directly beneath the underside of the roof sheathing or deck, supported by not less than nominal 2-inch ledgers attached to the sides of the roof framing members for a minimum distance of 4 feet

707.3.1 Shaft enclosures. The *fire-resistance rating* of the *fire barrier* separating building areas

from a shaft shall comply with Section 713.4.

707.3.2 Interior exit stairway and ramp construction. The fire-resistance rating of the fire barrier separating building areas from an interior exit stairway or ramp shall comply with Section 707.3.3 Enclosures for exit access stairways. The fire- resistance rating of the fire barrier separating building areas from an exit access

707.3.4 Exit passageway. The fire-resistance rating of the fire barrier separating building areas from an exit passageway shall comply with Section 1024.3.

707.3.9 Separated occupancies. Where the provisions of Section 508.4 are applicable, the *fire* barrier separating mixed occupancies shall have a fire-resistance rating of not less than that indicated in Table 508.4 based on the occupancies being separated.

707.3.10 Fire areas. The fire barriers, fire walls or horizontal assemblies, or combination thereof, separating a single occupancy into different fire areas shall have a fire- resistance rating of not less than that indicated in Table 707.3.10. The fire barriers, fire walls or horizontal assemblies, or combination thereof, separating fire areas of mixed occupancies shall have a fire-resistance rating of not less than the highest value indicated in Table 707.3.10 for the occupancies under consideration.

707.1 Exterior walls. Where exterior walls serve as a part of a required fire-resistance-rated shaft or stairway or ramp enclosure, or separation, such walls shall comply with the requirements of Section 705 for exterior walls and the fire resistance-rated enclosure or separation requirements shall not apply.

707.2 Continuity. Fire barriers shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above and shall be securely attached thereto. Such *fire barriers* shall be continuous through concealed space, such

Sections 707.8 and 707.9 Exceptions: 1. Shaft enclosures shall be permitted to terminate at a top enclosure complying with 2.Interior exit stairway required by Section 1023 and exit access stairway and ramp

as the space above a suspended ceiling. Joints and voids at intersections shall comply with

complying with Section 713.12. **707.5.1 Supporting construction.** The supporting construction for a *fire barrier* shall be protected to afford the required fire-resistance rating of the fire barrier sup- ported. Hollow vertical

enclosures required by Section 1019 shall be permitted to terminate at a top enclosure

707.6 Fire-resistance rating. Fire partitions shall have a fire-resistance rating of not less than 1 hour. Exceptions: Corridor walls permitted to have a 1/2-hour fire- resistance rating by Table

spaces within a *fire barrier* shall be fireblocked in accordance with Section 718.2 at every floor

708.1 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below and be securely attached to one of the following: 1. The underside of the floor or roof sheathing, deck or slab above. 2. The underside of a floor/ceiling or roof/ceiling assembly having a fire-resistance rating that is

not less than the fire-resistance rating of the fire partition. **Exceptions:** Fire partitions serving as a corridor wall shall not be required to extend above the lower membrane of a corridor ceiling provided that the corridor ceiling membrane is equivalent to

corridor wall membrane, and either of the following conditions is met: 1. The room-side membrane of the corridor wall extends to the underside of the floor or roof sheathing, deck or slab of a fire-resis- tance-rated floor or roof above. 2. The building is equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2, including automatic sprinklers installed in the space between

the top of the *fire partition* and underside of the floor or roof sheathing, deck or slab above.

the corridor ceiling assembly where the corridor ceiling is constructed as required for the corridor **708.4.1 Supporting construction.** The supporting construction for a *fire partition* shall have a

fire-resistance rating that is equal to or greater than the required fire- resistance rating of the

supported fire partition.

interior exit stairways.

Fire partitions serving as a corridor wall shall be permitted to terminate at the upper membrane of

708.4.2 Fireblocks and draftstops in combustible construction. In combustible construction where fire part tions do not extend to the underside of the floor or roof sheathing, deck or slab above, the space above and along the line of the *fire partition* shall be provided with one of the following: 1. Fireblocking up to the underside of the floor or roof sheathing, deck or slab above using materials complying with Section 718.2.1.2.

2. Draftstopping up to the underside of the floor or roof sheathing, deck or slab above using materials complying with Section 718.3.1 for floors or Section718.4.1 for attics Exceptions

1. Buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, or in accordance with Section 903.3.1.2 provided that protection is provided in the space between the top of the *fire partition* and underside of the floor or roof sheathing, deck or slab above as required for systems complying with Section 903.3.1.1. 2. Where corridor walls provide a sleeping unit or dwelling unit separation, draftstopping shall only be required above one of the corridor walls.

3. In Group R-2 occupancies with fewer than four dwelling units, fireblocking and draftstopping shall not be required. 4. In Group R-2 occupancies up to and including four stories in height in buildings not exceeding 60 feet in height above grade plane, the attic space shall be subdivided by draftstops into areas

not exceeding 3,000 square feet or above every two dwelling units, whichever is smaller. 708.5 Exterior walls. Where exterior walls serve as a part of a required fire-resistance-rated separation, such walls shall comply with the requirements of Section 705 for exterior walls, and the fire-resistance-rated separation requirements shall not apply. **Exception:** Section 1023.7 for

709.1 Smoke Barriers. Vertical and horizontal *smoke barriers* shall comply with this section.

709.2 Materials. *Smoke barriers* shall be of materials permit- ted by the building type of **709.3 Fire-resistance rating.** A 1-hour *fire-resistance rating* is required for *smoke barriers*.

709.4 Continuity. Smoke barriers shall form an effective membrane continuous from the top of the foundation or floor/ ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceilings, and interstitial structural and mechanical spaces.

710.2 Fire-resistance rating. Unless required elsewhere in the code, smoke partitions are not required to have a *fire resistance rating*. **710.3** Continuity. Smoke partitions shall extend from the top of the foundation or floor below to

710.1 Smoke Partitions. Smoke partitions installed as required else- where in the code shall

the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where the ceiling membrane is constructed to limit the transfer of smoke. 711.1 Horizontal Assemblies. Horizontal assemblies shall comply with Section 711.2. Non fire-

resistance-rated floor and roof assemblies shall comply with Section 711.3. **711.1.1 Materials.** Assemblies shall be of materials per- mitted by the building type of

711.1.2 Continuity. Assemblies shall be continuous with- out vertical openings, except as permitted by this section and Section 712.

711.2.3 Supporting construction. The supporting construction shall be protected to afford the required *fire- resistance rating* of the *horizontal assembly* supported.

711.2.4 Fire-resistance rating. The fire-resistance rating of horizontal assemblies shall comply with Sections 711.2.4.1 through 711.2.4.6 but shall be not less than that required by the building type of construction.

711.2.4.1 Separating mixed occupancies. Where the horizontal assembly separates mixed

occupancies, the assembly shall have a fire-resistance rating of not less than that required by

Section 508.4 based on the occupancies being separated. 711.2.4.3 Dwelling units and sleeping units. Horizontal assemblies serving as dwelling or

sleeping unit separations in accordance with Section 420.3 shall be not less than 1-hour fireresistance-rated construction. 712.1.1 Shaft enclosures. Vertical openings contained entirely within a shaft enclosure

complying with Section 713 shall be permitted. 712.1.3 Ducts and air transfer openings. Penetrations by ducts and air transfer openings shall be protected in accordance with Section 717. Grease ducts shall be protected in accordance with

the International Mechanical Code. 713.2 Fire-resistance rating. Shaft enclosures shall have a fire-resistance rating of not less, and not less than 1 hour where connecting less than four stories.. Shaft enclosures shall have a

fire- resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

713.5 Continuity. Shaft enclosures shall be constructed as *fire barriers* in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, and shall have continuity in accordance with Section 707.5 for fire barriers or Section 711.2.2 for horizontal assemblies, as applicable.

Shaft enclosures shall meet the requirements of Section 703.2.1.

713.6 Exterior walls. Where exterior walls serve as a part of a required shaft enclosure, such walls shall comply with the requirements of Section 705 for exterior walls and the fire-resistancerated enclosure requirements shall not apply.

713.11 Enclosure at the bottom. Shafts that do not extend to the bottom of the building or structure shall comply with one of the following:

They shall be enclosed at the lowest level with construction of the same fire-resistance rating as the lowest floor through which the shaft passes, but not less than the rating

required for the shaft enclosure They shall terminate in a room having a use related to the purpose of the shaft. The room shall be separated from the remainder of the building by fire barriers con- structed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. The fire-resistance rating and opening protectives shall be not less

than the protection required for the shaft enclosure. They shall be protected by approved fire dampers installed in accordance with their listing at the lowest floor level within the shaft enclosure.

713.12 Enclosure at top. A shaft enclosure that does not extend to the underside of the roof sheathing, deck or slab of the building shall be enclosed at the top with construction of the same fire-resistance rating as the topmost floor penetrated by the shaft, but not less than the fireresistance rating required for the shaft enclosure.

714.4.1.1 Fire-resistance-rated assemblies. Through penetrations shall be protected using systems installed as tested in the approved fire-resistance-rated assembly.

714.4.1.2 Through-penetration firestop system. *Through penetrations* shall be protected by an approved penetration firestop system installed as tested in accordance with ASTM E814 or UL 1479, and shall have an *F rating* of not less than the required *fire-resistance rating* of the wall

floor or floor/ceiling assemblies and roofs or roof/ceiling assemblies shall be protected by an approved *fire-resistant joint system* designed to resist the passage of fire for a time period not less than the required fire-resistance rating of the wall, floor or roof in or between which the system is installed. Fire-resistant joint systems shall be tested in accordance with Section 715.3.

715.1 Fire Resistant Joint Systems Joints installed in or between fire-resistance- rated walls,

715.2 Installation. A *fire-resistant joint system* shall be securely installed in accordance with the manufacturer's installation instructions and the listing criteria in or on the joint for its entire length so as not to impair its ability to accommodate expected building movements and to resist the passage

715.3 Fire test criteria. Fire-resistant joint systems shall be tested in accordance with the requirements of either ASTM E1966 or UL 2079.

716.1 Fire door assemblies. Fire door assemblies required by other sections of this code shall comply with the provisions of this section. Fire door frames with transom lights, sidelights or both shall be permitted in accordance with Section 716.2.5.4.

716.2.1 Side-hinged swinging doors. *Fire door* assemblies with side-hinged and pivoted swinging doors shall be tested in accordance with NFPA 252 or UL 10C. For tests conducted in accordance with NFPA 252, the fire test shall be conducted using the positive pressure method specified in the

716.1.4 Fire door frames. Fire door frames installed as part of a fire door assembly shall meet the fire rating indicated in Table 716.1(2).

716.2.5 Fire door hardware and closures. Fire door hardware and closures shall be installed on *fire door assemblies* in accordance with the requirements of this section.

716.2.6.1 Door closing. Fire doors shall be latching and self or automatic-closing in accordance

doors and both leaves of pairs of side-hinged swinging fire doors shall be provided with an active latch bolt that will secure the door when it is closed. **716.2.6.9** Labeled protective assemblies. Fire door assemblies shall be labeled by an approved

716.2.6.2 Latch required. Unless otherwise specifically permitted, single side-hinged swinging fire

716.2.6.9.1 Fire door labeling requirements. Fire doors shall be labeled showing the name of the manufacturer or other identification readily traceable back to the manufacturer, the name or

agency. The labels shall comply with NFPA 80, and shall be permanently affixed to the door or

717.1.1 Ducts and air transfer openings. Ducts transitioning horizontally between shafts shall not require a shaft enclosure provided that the duct penetration into each associated shaft is protected with *dampers* complying with this section.

trademark of the testing agency

of flame and the products of combustion.

17.5.2 Fire barriers. Ducts and air transfer openings of fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively

717.5.3 Shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with *listed* fire and smoke *dampers* installed in accordance with their listing.

walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows: Vertically at the ceiling and floor levels. Horizontally at intervals not exceeding 10 feet. 718.2.2 Connections between horizontal and vertical spaces. Fireblocking shall be provided

at interconnections between concealed vertical stud wall or partition spaces and concealed

horizontal spaces created by an assembly of floor joists or trusses, and between concealed

718.2.1 Concealed wall spaces. *Fireblocking* shall be provided in concealed spaces of stud

vertical and horizontal spaces such as occur at soffits, drop ceilings, cove ceilings and similar **718.2.4 Stairways.** *Fireblocking* shall be provided in concealed spaces between *stair* stringers

at the top and bottom of the run. Enclosed spaces under *stairways* shall comply with Section

718.2.5 Ceiling and floor openings. Where required by Section 712.1.8, Exception 1 of Section 714.5.1.2 or Section 714.6, fireblocking of the annular space around vents, pipes, ducts at ceilings and floor levels shall be installed with a material specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and resist the free passage

718.2.6 Exterior wall coverings. Fireblocking shall be installed within concealed spaces of exterior wall cover- ings and other exterior architectural elements where permitted to be of combustible construction as specified in Section 1405 or where erected with combustible frames. Fireblocking shall be installed at maximum intervals of 20 feet in either dimension so that there will be no concealed space exceeding 100 square feet between fireblocking. Where wood furring strips are used, they shall be of approved wood of natural decay resistance or preservative-treated wood. If noncontinuous, such elements shall have closed ends, with not less than 4 inches of separation between sections

718.3 Draftstopping in floors. Draftstopping shall be installed to subdivide floor/ceiling assemblies where required by Section 708.4.2. In other than Group R occupancies, draftstopping shall be installed to subdivide combustible floor/ ceiling assemblies so that horizontal floor areas do not exceed 1,000 square feet. **Exception:** Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1

718.4 Draftstopping in attics. Draftstopping shall be installed to subdivide *attic* spaces where required by Section 708.4.2. In other than Group R, draftstopping shall be installed to subdivide combustible attic spaces and combustible concealed roof spaces such that any horizontal area does not exceed 3,000 square feet). Ventilation of concealed roof spaces shall be maintained in accordance with Section 1202.2.1. Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

720.1 Concealed installation. Insulating materials, where concealed as installed in buildings of any type of construc- tion, shall have a flame spread index of not more than 25 and a smokedeveloped index of not more than 450.

720.2 Exposed installation. Insulating materials, where exposed as installed in buildings of any type of construction, shall have a flame spread index of not more than 25 and a smokedeveloped index of not more than 450.

720.5 Roof insulation. The use of combustible roof insulation not complying with Sections 720.2 and 720.3 shall be permitted in any type of construction provided that insulation is covered with approved roof coverings directly applied thereto.

722.1 Caluculated Fire Resistance. The provisions of this section contain procedures by which the *fire resistance* of specific materials or combinations of materials is established by calculations. These procedures apply only to the information contained in this section and shall not be otherwise used. The calculated *fire resistance* of concrete, concrete masonry and clay masonry assemblies shall be permitted in accordance with ACI 216.1/TMS 0216. The calculated fire resistance of steel assemblies shall be permitted in accordance with Chapter 5 of ASCE 29. The calculated fire resistance of exposed wood members and wood decking shall be permitted in accordance with Chapter 16 of ANSI/AWC National Design Specification for Wood Construction (NDS).



Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL **135 SUMMER STREET** PASSAIC NJ 07055

ELCHEN O'NEIL ARCHITECTS, PLL

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET

12/1/2021

DATE

DRAWING TITLE

GENERAL NOTES

ISSUE/REVISION

DRAWING NO.

01/14/22 As indicated

STAMP & SIGNATURE

NJ LICENSE 20591

1003.2 Ceiling height. The *means of egress* shall have a ceiling height of not less than 7 feet

1003.3.3 Horizontal projections. Objects with leading edges more than 27 inches and not more than 80 inches above the finished floor shall not project horizontally more than 4 inches into the *circulation path* **Exception**: Handrails are permitted to protrude 4¹/2 inches from the wall or *guard*

1004.5 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.5. For areas without fixed seating, the occupant load shall be not less than that number determined by dividing the floor area under consideration by the occupant load factor assigned to the function of the space as set forth in Table 1004.5.

Assembly: Chairs(concentrated) Standing Tables and Chairs 15 net Kitchen 200 gross Conference 20 net Storage/Mech 300 gross

1004.9 Posting of occupant load. Every room or space that is an assembly occupancy shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space, for the intended configurations. Posted signs shall be of an approved legible permanent design and shall be maintained by the owner or the owner's authorized agent.

1005.3.1 Stairways. The capacity, in inches, of means of egress stairways shall be calculated by multiplying the *occupant load* served by such *stairways* by a means of egress capacity factor of 0.3 inch per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story. **Exceptions:** The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

1005.3.2 Other egress components. The capacity, in inches, of *means of egress* components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch per occupant.

1005.4 Continuity. The minimum width or required capacity of the means of egress required from any story of a building shall not be reduced along the path of egress travel until arrival at the public way.

1005.5 Distribution of minimum width and required capacity. Where more than one exit, or access to more than one *exit*, is required, the *means of egress* shall be configured such that the loss of any one exit, or access to one exit, shall not reduce the available capacity or width to less than 50 percent of the required capacity or width.

1005.7.1 Doors. Doors, when fully opened, shall not reduce the required width by more than 7 inches. Doors in any position shall not reduce the required width by more than one-half.

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel

distance exceeds the values listed in Table 1006.2.1. The cumulative *occupant load* from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

TABLE 1006.2.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY: Maximum occupancy for only one exit:

rescue openings in accordance with Section 1030.

as one *exit stairway*.

Maximum travel distance for only one exit(with sprinkler): 75'-0" **TABL**``s classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and

1007.1.1 Two exits or exit access doorways. Where two exits, exit access doorways, exit access stairways or ramps, or any combination thereof, are required from any portion of the exit access, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or scissor stairways shall be counted

1008.1 Means of egress illumination. Illumination shall be provided in the *means of egress* in accordance with Section 1008.2. Under emergency power, means of egress illumination shall comply with Section 1008.3.

1008.2 Illumination required. The *means of egress* serving a room or space shall be illuminated at all times that the room or space is occupied.

1008.2.1 Illumination level under normal power. The *means of egress* illumination level shall be not less than 1 footcandle (11 lux) at the walking surface. **Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances by one of the following methods provided that the required illumination is automatically restored upon activation of a premises' fire alarm system: Externally illuminated walking surfaces shall be permitted to be illuminated to not less than 0.2 footcandle (2.15 lux).

1008.3 Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

1008.3.1 General. In the event of power supply failure in rooms and spaces that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas: Aisles, Corridors. Exit access stairways.

1008.3.2 Buildings. In the event of power supply failure in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas: Interior exit access stairways and ramps, Exit passageways, Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.1, Exterior landings as required by Section 1010.1.6 for exit doorways that lead directly to the exit discharge.

1008.3.3 Rooms and spaces. In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas: Electrical equipment rooms, Fire command centers, Fire pump rooms, Generator rooms. Public restrooms with an area greater than 300 square feet.

1008.3.4 Duration. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

1008.3.5 Illumination level under emergency power. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be

1009.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by not less than two accessible means of egress.

1009.2 Continuity and components. Each required accessible means of egress shall be continuous to a *public way* and shall consist of one or more of the following components:

- Accessible routes complying with Section 1104.
- Interior exit stairways complying with Sections 1009.3 and 1023. Exit access stairways complying with Sections 1009.3 and 1019.3 or 1019.4.
- Exterior exit stairways complying with Sections 1009.3 and 1027 and serving levels other than the *level of exit discharge*.
- Elevators complying with Section 1009.4.
- Horizontal exits complying with Section 1026. Areas of refuge complying with Section 1009.6.

1009.3.2 Stairway width. *Stairways* shall have a clear width of 48 inches minimum between *handrails*. **Exceptions:** The clear width of 48 inches between *handrails* is not required in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

1010.1.1 Size of doors. The required capacity of each door opening shall be sufficient for the occupant load thereof and shall provide a minimum clear opening width of 32 inches. The clear opening width of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Where this section requires a minimum clear opening width of 32 inches and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 32 inches The maximum width of a swinging door leaf shall be 48 inches nominal. The minimum clear opening height of doors shall

1010.1.2.1 Direction of swing. Doors shall swing in the direction of egress travel where serving a room or area containing an occupant load of 50 or more persons.

1010.1.3 Door opening force. The force for pushing or pulling open interior swinging egress doors, other than fire doors, shall not exceed 5 pounds (22 N). These forces do not apply to the force required to retract latch bolts or dis- engage other devices that hold the door in a closed position. For other swinging doors, as well as sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full-open

1010.1.5 Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope).

1010.1.6 Landings at doors. Landings shall have a width not less than the width of the stairway or the door, which- ever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches. Where a landing serves an *occupant load* of 50 or more, doors have a length measured in the direction of travel of not less than 44 inches.

1010.1.8 Door arrangement. Space between two doors in a series shall be 48 inches minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors.

1010.1.9 Door operations. Except as specifically permit- ted by this section, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1010.1.9.1 Hardware. Door handles, pulls, latches, and other operating devices on doors required to be accessible by Chapter 11 shall not require tight grasping, tight pinching or twisting of the wrist to operate.

1010.1.9.2 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches minimum and 48 inches maximum above the finished floor. Locks used only for security purposes and not used for normal operation are permitted at any height.

1010.1.9.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. In buildings in occupancy Group A other than nightclubs having an *occupant load* of 300 or less, and in Groups B, F, M and S, the main door or doors are permitted to be equipped with keyoperated locking devices from the egress side provided:

1.1. The locking device is readily distinguish-able as locked. 1.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in | 1029.7 Travel distance. The exit access travel distance shall comply with Section 1017. Where letters 1 inch high on a contrasting background.

2. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be has a choice of two paths of egress travel to two exits. used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.

3. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

1010.1.9.6 Unlatching. The unlatching of any door or leaf shall not require more than one

1010.1.10 Panic and fire exit hardware. Swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A occupancy shall not be provided with a latch or lock other than *panic hardware* or *fire exit hardware*

Electrical rooms with equipment rated 800 amperes or more and over 6 feet wide, and that contain overcurrent devices, switching devices or control devices with exit or exit access doors, shall be equipped with panic hardware or fire exit hardware. The doors shall swing in the direction | ACCESSIBILITY

1011.2 Width and capacity. The required capacity of *stairways* shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches. See Section 1009.3 for accessible *means of egress stairways*. **Exception:** Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches.

1011.3 Headroom. Stairways shall have a headroom clearance of not less than 80 inches measured vertically from a line connecting the edge of the nosings. Such headroom shall be continuous above the stairway to the point where the line intersects the landing below, one tread depth beyond the bottom riser. The minimum clearance shall be maintained the full width of the *stairway* and landing.

1011.5.2 Riser height and tread depth. Stair riser heights shall be 7 inches maximum and 4 inches minimum. The riser height shall be measured vertically between the nosings of adjacent treads. Rectangular tread depths shall be 11 inches minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's *nosing*.

1011.5.5 Nosing and riser profile. *Nosings* shall have a curvature or bevel of not less than 1/16 inch but not more than 9/16 inch from the foremost projection of the tread. Risers shall be solid and vertical or sloped under the tread above from the underside of the *nosing* above at an angle not more

than 30 degrees (0.52 rad) from the vertical.

1011.6 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings, measured perpendicularly to the direction of travel, shall be not less than the width of stairways served. Every landing shall have a minimum depth, measured parallel to the direction of travel, equal to the width of the stairway or 48 inches,

whichever is less. Doors opening onto a landing shall not reduce the landing to less than one-

half the required width. When fully open, the door shall not project more than 7 inches into a

1011.7 Stairway construction. Stairways shall be built of materials consistent with the types permitted for the type of construction of the building, except that wood handrails shall be permitted for all types of construction.

1011.7.3 Enclosures under interior stairways. The walls and soffits within enclosed usable spaces under enclosed and unenclosed stairways shall be protected by 1-hour fire-resistancerated construction or the fire-resistance rating of the stairway enclosure, whichever is greater. Access to the enclosed space shall not be directly from within the stairway enclosure.

1011.8 Vertical rise. A flight of stairs shall not have a vertical rise greater than 12 feet between floor levels or landings.

1013.1 Where required. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening *means of egress* doors within exits shall be marked by exit signs. Exit sign placement shall be such that any point in an exit access corridor or exit passageway is within 100 feet or the *listed* viewing distance of the sign, whichever is less, from the nearest visible exit sign.

1013.6.1 Graphics. Every exit sign and directional exit sign shall have plainly legible letters not less than 6 inches high with the principal strokes of the letters not less than ³/4 inch wide. The word "EXIT" shall have letters having a width not less than 2 inches wide, except the letter "I," and the minimum spacing between letters shall be not less than 3/8 inch. The word "EXIT" shall be in high contrast with the background and shall be clearly discernible when the means of exit sign illumination is or is not energized. If a chevron directional indicator is provided as part of the exit sign, the construction shall be such that the direction of the chevron directional indicator cannot be readily changed

1013.6.2 Exit sign illumination. The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 footcandles (54 lux).

1013.6.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. Exception: Approved exit sign illumination types that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.

1014.2 Height. Handrail height, measured above stair tread nosings, or finish surface of ramp slope, shall be uniform, not less than 34 inches and not more than 38 inches. **1014.7 Clearance.** Clear space between a handrail and a wall or other surface shall be not less than 11/2 inches. A handrail and a wall or other surface adjacent to the handrail shall be free of any

1015.3 Height. Required *guards* shall be not less than 42 inches high,

1017.1 General. Travel distance within the *exit access* portion of the *means of egress* system shall be in accordance with this section. TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE Assembly, Residential in sprinklered building = 250'-0"

1018.2 Aisles in assembly spaces. Aisles and aisle access- ways serving a room or space used or assembly purposes shall comply with Section 1029.

1020.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions. Residential Corridor(with sprinklers): 0.5 hr fire rating

020.2 Width and capacity. The required capacity of *corridors* shall be determined as specified in Section 1005.1, but the minimum width shall be not less than that specified in Table 1020.2. Residential minimum corridor = 36"(occupant load of less than 50)

1020.6 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms.

1023.2 Construction. Enclosures for *interior exit stairways* and *ramps* shall be constructed as *fire* barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with in any position shall not reduce the landing to less than one-half its required width. Landings shall | Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 1 hour where connecting less than four stories. *Interior exit stairways* and *ramps* shall have a *fire-resistance rating* not less than the floor assembly penetrated, but need not exceed 2

> **1023.9 Stairway identification signs.** A sign shall be provided at each floor landing in an *interior* exit stairway and ramp connecting more than three stories designating the floor level, the terminus of the top and bottom of the *interior exit stairway* and *ramp* and the identification of the *stairway* or ramp. The signage shall state the story of and direction to the exit discharge. In addition to the stairway identification sign, a floor-level sign in visual characters, raised characters and braille complying with ICC A117.1 shall be located at each floor-level landing adjacent to the door leading from the interior exit stairway into the corridor to identify the floor level.

1028.5 Access to a public way. The exit discharge shall provide a direct and unobstructed access

to a public way. **ASSEMBLY**

1029.2 Assembly main exit. Where the building is classified as a Group A occupancy, the main exit shall front on not less than one street or an unoccupied space of not less than 10 feet in width that adjoins a street or public way.

1029.6 Capacity of aisle for assembly. The required capacity of aisles shall be not less than that determined in accordance with Section 1029.6.1 where smoke-protected assembly seating is not

aisles are provided for seating, the distance shall be measured along the aisles and aisle 1.3. The use of the key-operated locking device is revocable by the *building official* for due cause. | accessways without travel over or on the seats. 1029.8 Common path of egress travel. The common path of egress travel shall not exceed 30 feet from any seat to a point where an occupant

> 1029.9 Assembly aisles are required. Every occupied portion of any building, room or space used for assembly purposes that contains seats, tables, displays, similar fixtures or equipment shall be provided with aisles leading to exits or exit access doorways in accordance with this section. Minimum aisle width. The minimum clear width for aisles shall comply with the following: Thirtysix inches for level *aisles* having seating on only one side.

> 1029.13.2 Clear width of aisle accessways serving seating in rows. Where seating rows have 14 or fewer seats, the minimum clear aisle accessway width shall be not less than 12 inches measured as the clear horizontal distance from the back of the row ahead and the nearest projection of the row behind. **Dual access.** For rows of seating served by *aisles* or doorways at both ends, there shall be not more than 100 seats per row. The minimum clear width of 12 inches between rows shall be increased by 0.3 inch for every additional seat beyond 14 seats where seats have backrests The minimum clear width is not required to exceed 22 inches

1103.1 Where required. Sites, buildings, structures, facilities, elements and spaces, temporary or permanent, shall be accessible to individuals with disabilities.

1103.2.3.2 Buildings of Group R-2 with more than three dwelling units in a single structure shall comply with accessibility requirements for R-2

1103.2.9 Equipment spaces. Spaces frequented only by service personnel for maintenance,

repair or occasional monitoring of equipment are not required to comply with this chapter. **1104.3 Connected spaces.** Where a building or portion of a building is required to be accessible, at least one accessible route shall be provided to each portion of the building, to

accessible building entrances connecting accessible pedestrian walkways and to the public

1104.4.5 Limited use limited access elevators. The use of a Limited Use Limited Access Elevator shall be permitted in accordance with the provisions of Section 1109.7

1104.5 Location. Accessible routes shall coincide with or be located in the same area as a general *circulation path*. Where the *circulation path* is interior, the *accessible route* shall be interior. Where only one *accessible route* is provided, the *accessible route* shall not pass through kitchens, storage rooms, restrooms, closets or similar spaces.

105.1 Public entrances. In addition to *accessible* entrances required by Sections 1105.1.1 through 1105.1.7, at least 60 percent of all *public entrances* shall be *accessible*. The primary

entrance(s) used by the general public shall be accessible. **1105.1.7 Dwelling units and sleeping units.** At least one *accessible* entrance shall be

provided to each dwelling unit and sleeping unit in a facility.

space provided shall be accessible.

1106.1 Required. Where parking is provided, accessible parking spaces shall be provided in compliance with Table 1106.1, Total parking spaces provided: 1 to 25, Required Number of

1106.2 Group R-2 In Group R-2 occupancies that are required to have *Accessible* or *Type A* dwelling units or sleeping units, at least 2 percent, but not less than one, of each type of parking

1107.2 Design. Dwelling units and sleeping units that are required to be Accessible units and Type A units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be Type A units are permitted to be designed and constructed as Accessible units.

1107.4 Accessible route. Not fewer than one accessible route shall connect accessible building or facility entrances with the primary entrance of each Accessible unit and Type A unit within the building or facility and with those exterior and interior spaces and facilities that serve

1107.6.2 Group R-2. Accessible units and Type A units shall be provided in Group R-2 occupancies in accordance with Sections 1107.6.2.1 through 1107.6.2.3.

1107.6.2.2 Apartment houses. Type A units shall be provided in apartment houses in accordance with Section 1107.6.2.2.1.

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be accessible. Except as provided for in Sections 1109.2.2 and 1109.2.3, at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible. Exceptions: Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be accessible.

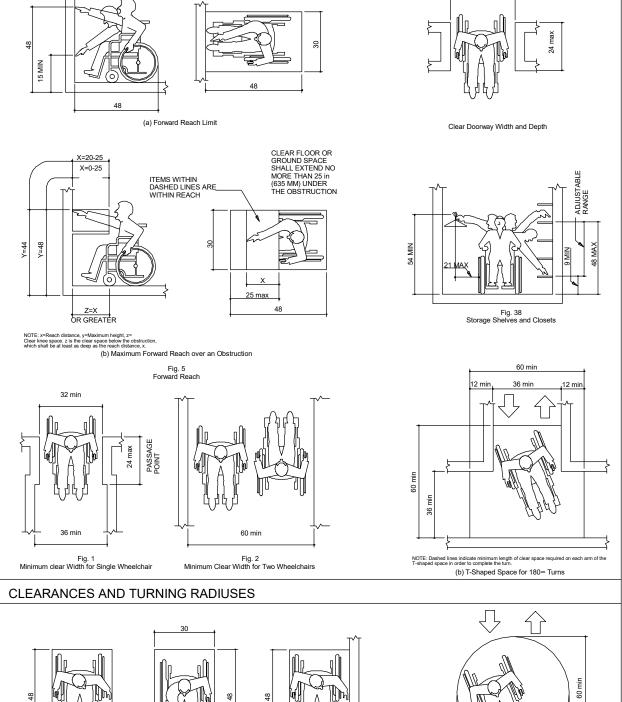
1109.3 Sinks. Where sinks are provided, at least 5 percent but not less than one provided in accessible spaces shall be accessible. Exception: Mop or service sinks are not required to be

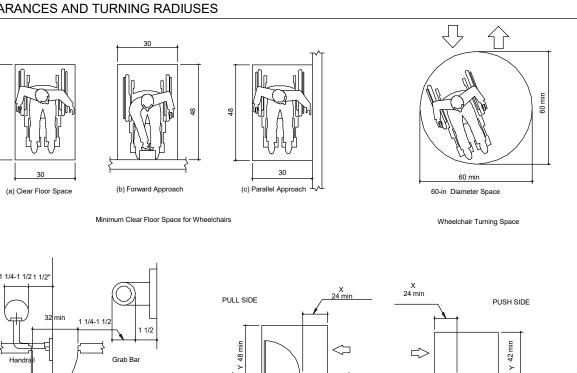
1109.7 Elevators. Passenger elevators on an accessible route shall be accessible and comply with Chapter 30. Exceptions: A limited use/limited application elevator that complies with ANSI/ASME A17.1 adopted by reference in the building subcode shall be allowed to provide a vertical accessible route in the following buildings or tenancies, provided that the travel distance of the device does not exceed 25 feet: In small buildings as defined in Section 1104.4.1;

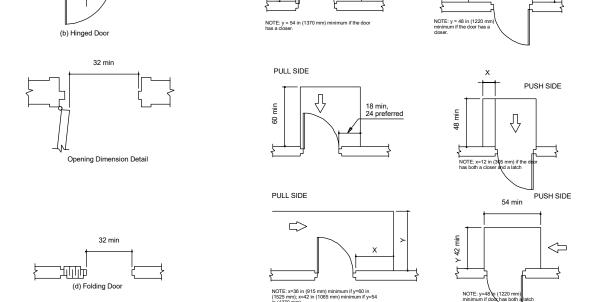
1109.11 Seating at tables, counters and work surfaces. Where seating or standing space at

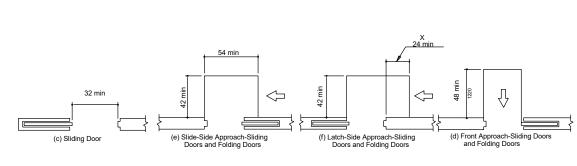
fixed or built-in tables, counters or work surfaces is provided in *accessible* spaces, at least 5

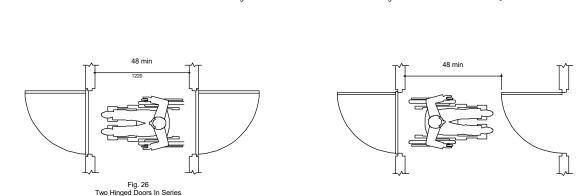
percent of the seating and standing spaces, but not less than one, shall be accessible.







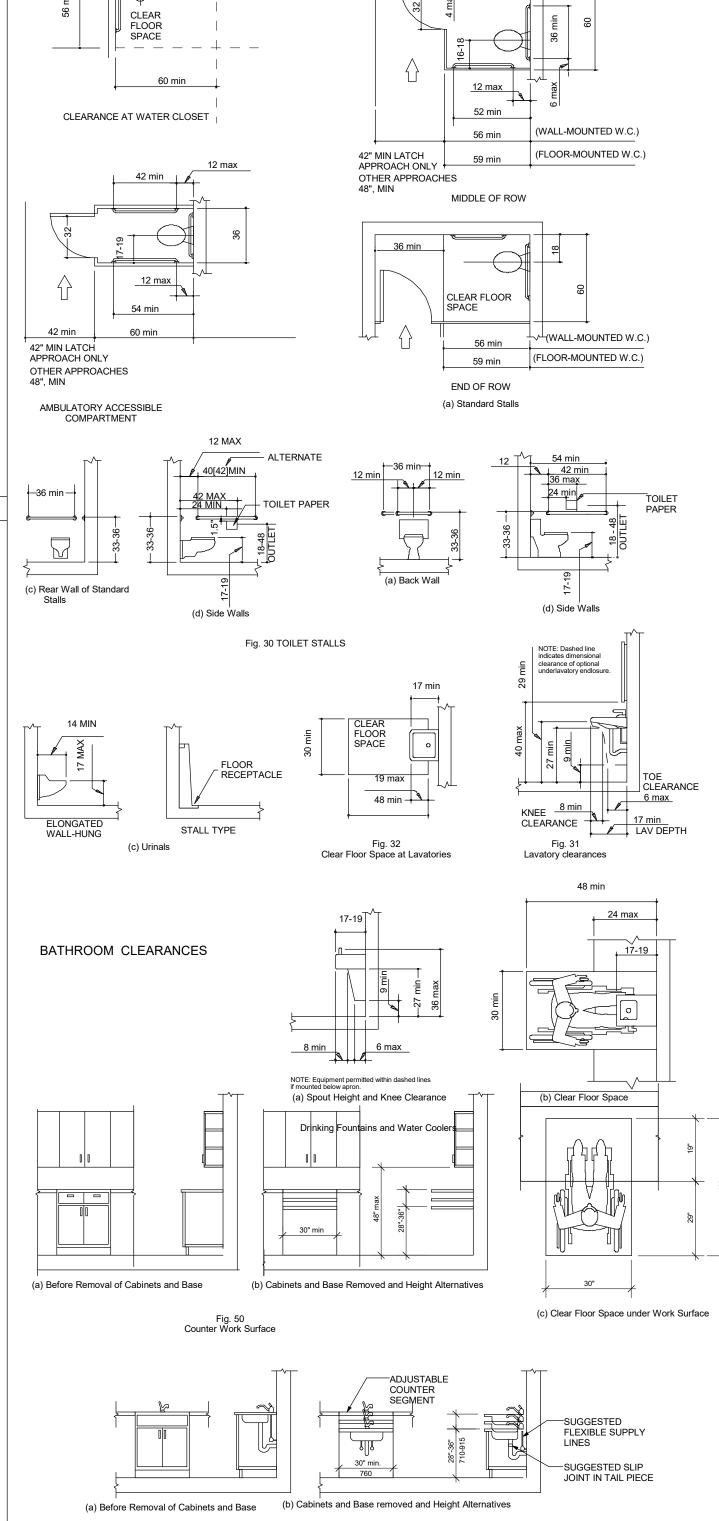


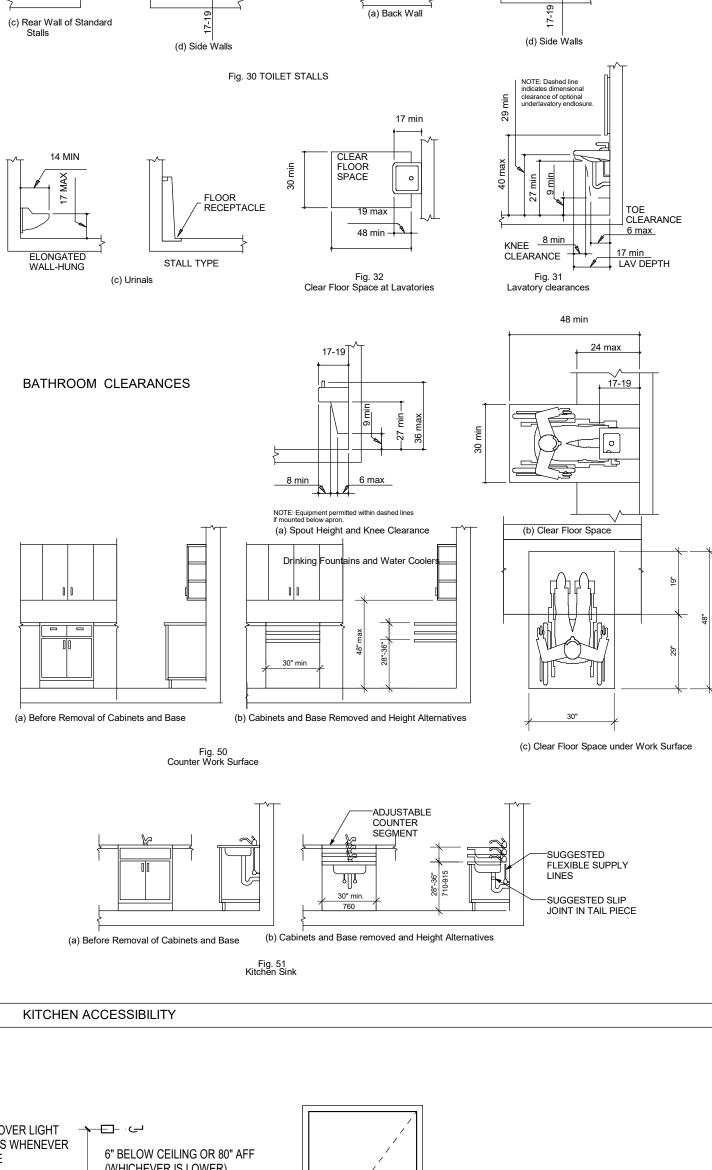


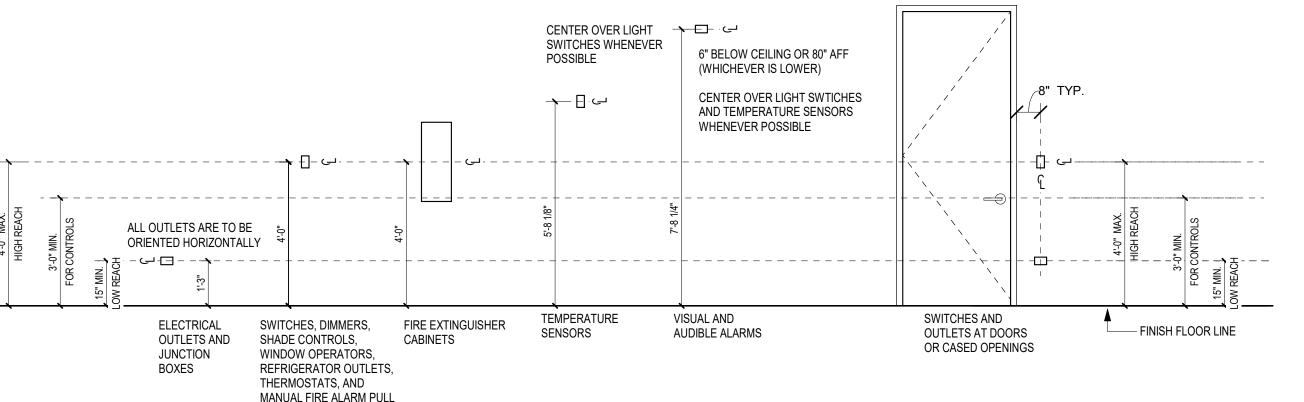


STATIONS

MOUNTING HEIGHTS









Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL **135 SUMMER STREET** PASSAIC NJ 07055

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021

DEVELOPMENT

ISSUE/REVISION

DRAWING TITLE

3 DESIGN

ACESSIBILITY DIAGRAMS,

EGRESS NOTES

09/27/2021

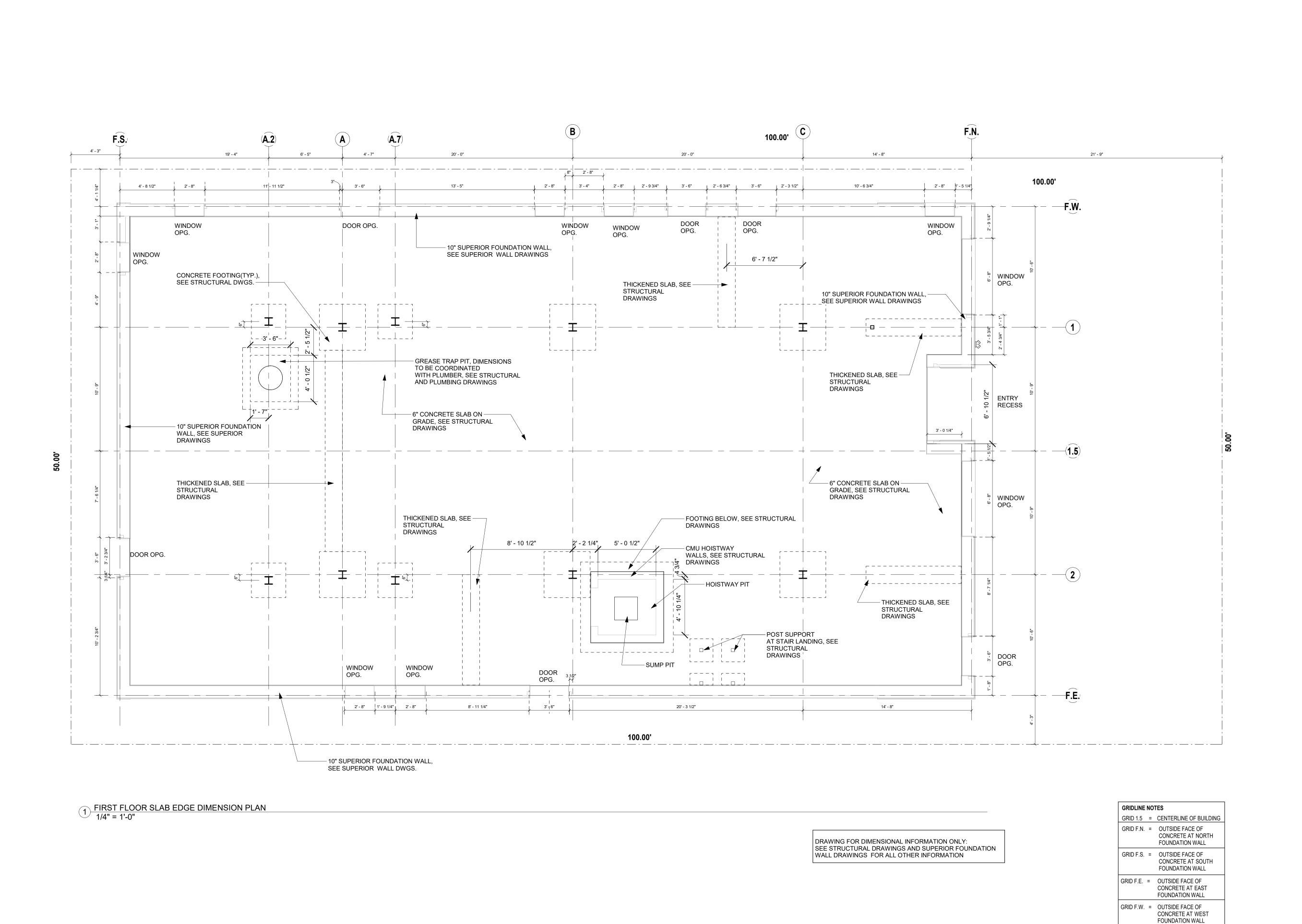
DATE

DRAWING NO.

01/14/22 As indicated



NJ LICENSE 20591



Habitat Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING **VFW HALL / RESIDENTIAL 135 SUMMER STREET** PASSAIC NJ 07055

THE CHEN O'NEIL ARCHITECTS, PLL

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

MEP/FP ENGINEER: 186 Wood Ave South, 1ST Floor Iselin, NJ 08830 t: 732-635-0044

CIVIL ENGINEER:

Golden & Moran Engineering 22 Angelo Drive Sparta, NJ 07871 t: (973) 714-2131

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Paterson, NJ 07522

146 North 1st Street

t: (973) 595-6868

6 ISSUE FOR FILING 01/14/2022

11/15/2021 09/27/2021

DATE

DEVELOPMENT ISSUE/REVISION

4 75% CD SET

3 DESIGN

DRAWING TITLE

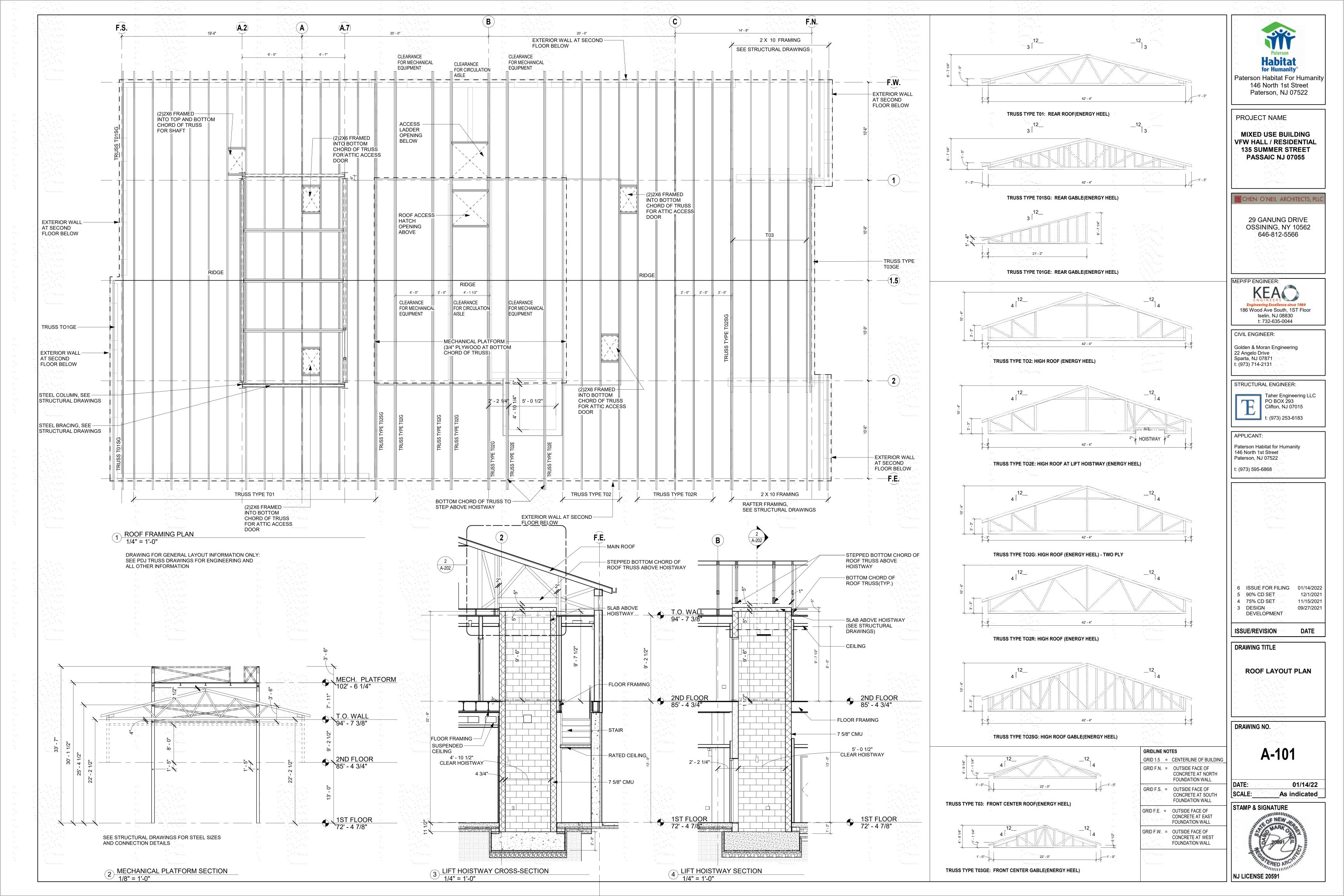
FIRST FLOOR SLAB EDGE PLAN

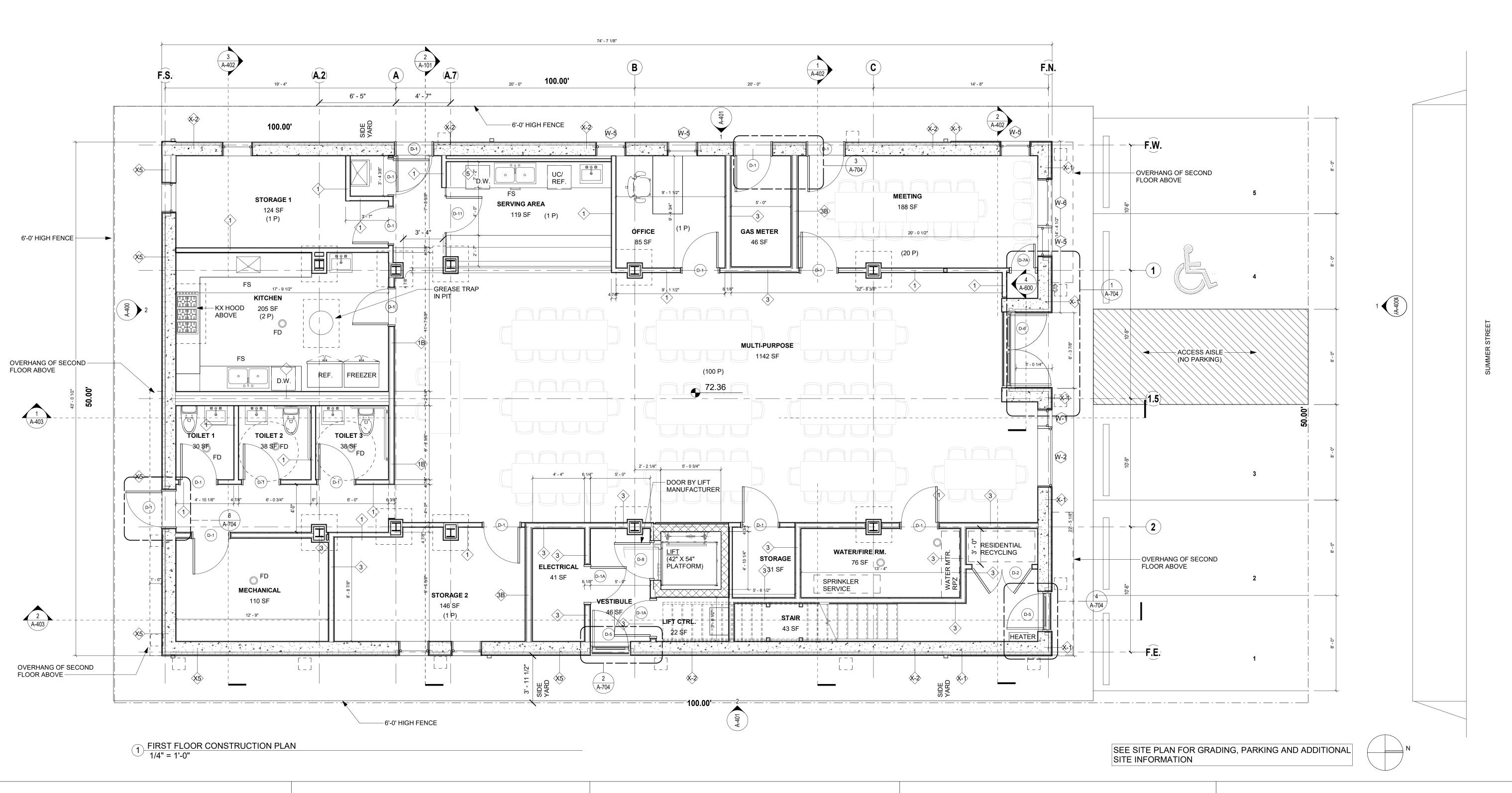
DRAWING NO.

A-100

01/14/22 1/4" = 1'-0"







INTERIOR FINISHES

803.1.1 Interior wall and ceiling finish materials tested in accordance with ASTM E84 or UL 723. Interior wall and ceiling finish materials shall be classified in accordance with ASTM E84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indices.

Class A = Flame spread index $0 \square 25$; smoke-developed index $0 \square 450$. Class B = Flame spread index $26 \square 75$; smoke- developed index $0 \square 450$. Class C = Flame spread index $76 \square 200$; smoke- developed index $0 \square 450$.

803.13 Interior finish requirements based on occupancy. Interior wall and ceiling finish shall have a flame spread index not greater than that specified in Table 803.13 for the group and location designated. Interior wall and ceiling finish materials tested in accordance with NFPA 286 and meeting the acceptance criteria of Section 803.1.1.1, shall be permitted to be used where a Class A classification in accordance with ASTM E84 or UL 723 is required.

	:	SPRINKLERED'		NONSPRINKLERED					
GROUP	interior exit stairways and ramps and exit passageways ^{a, h}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces*	Interior exit stairways and ramps and exit passageways	Corridors and enclosure for exit access statrways and ramps	Rooms and enclosed spaces"			
A-I & A-2	В	В	C	A	A ^d	H ^c			
R-2	C	С	С	В	В	C			

- a. Class C interior finish materials shall be permitted for wainscotting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.15.1.
 b. In other than Group F-3 occupancies in buildings less than three stories above grade plane. Class B interior finish for nonsprinklered buildings and Class C
- interior (taush for sprinklered buildings shall be permitted in interior exit stairways and ramps.

 v. Requirements for rooms and enclosed spaces shall be based on spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered to be enclosing spaces and the rooms or spaces on both sides shall be considered to be one room or space. In determining the applicable requirements for morns and enclosed spaces, the specific occupancy thereof shall be ensured a factor regardless of the group classification of the building or structure.
- specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.

 d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall be not less than Class B materials.

 e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.

804.1 Classification. Interior floor finish and floor covering materials required by Section 804.4.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm² or greater; Class II, 0.22 watts/cm² or

804.2 Testing and identification. *Interior floor finish* and floor covering materials shall be tested by an agency in accordance with ASTM E648 or NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the *interior floor finish* or floor covering classification in accordance with Section 804.2. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official upon request.

806.2 Combustible decorative materials. In Group A, , draperies, fabric hangings and similar combustible decorative materials suspended from walls or ceilings shall comply with Section 806.4 and shall not exceed 10 percent of the specific wall or ceiling area to which such materials are attached.

806.7 Interior trim. Material, other than foam plastic used as interior *trim*, shall have a minimum Class C flame spread and *smoke-developed index* when tested in accordance with ASTM E84 or UL 723, as described in Section 803.1.2. Combustible *trim*, excluding handrails and guardrails, shall not exceed 10 percent of the specific wall or ceiling area to which it is attached.

806.8 Interior floor-wall base. *Interior floor-wall base* that is 6 inches or less in height shall be tested in accordance with Section 804.2 and shall be not less than Class II. Where a Class I floor finish is required, the floor- wall base shall be Class I.

807.1 Insulation. Thermal and acoustical insulation shall comply with Section 720.

808.1 Acoustical ceiling systems. The quality, design, fabrication and erection of metal suspension systems for acoustical tile and lay-in panel ceilings in buildings or structures shall conform to generally accepted engineering practice, the provisions of this chapter and other applicable requirements of the code.

808.1.1 Materials and installation. Acoustical materials complying with the *interior finish* requirements of Section 803 shall be installed in accordance with the manufacturer's recommendations and applicable provisions for applying *interior finish*.

808.1.1.1 Suspended acoustical ceilings. Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636.

808.1.1.2 Fire-resistance-rated construction. Acoustical ceiling systems that are part of fire-resistance- rated construction shall be installed in the same manner used in the assembly tested and shall comply with the provisions of Chapter 7.

FIRST FLOOR OCCUPANT LOAD PER TABLE 1004.5 NO. OF OCCUPANTS ROOM **FUNCTION** OCCUPANT ROOM SIZE FACTOR | MULTI-PURPOSE | ASSEMBLY 1,148 SF (TABLES/CHAIRS) 100 OCC. MEETING ROOM | BUSINESS 150/SF 189 SF 20 OCC. OFFICE BUSINESS 150/SF 1 OCC. 200/SF 207 SF 2 OCC. KITCHEN STORAGE 1 STORAGE 1 OCC. 300/SF 124 SF 200/SF 120 SF KITCHEN KITCHEN 1 OCC. 300 /SF 149 SF STORAGE 2 STORAGE 1 OCC.

126 OCC.

TOTAL

FIXTURE TYPES	OCCUPANCY	М	F	PROVIDED
WATER CLOSETS	ASSEMBLY(1 PER 50	1	1	2 GENDER NEUTRAL
	BUSINESS LESS THAN 1,500 SF PER 7.21.4		1	1 GENDER NEUTRAL
LAVATORY	ASSEMBLY(1 PER 50	1	1	2 GENDER NEUTRAL
	BUSINESS LESS THAN 1,500 SF PER 7.21.4	1	1	1 GENDER NEUTRAL
DRINKING FOUNTAIN	ASSEMBLY/BUSINESS	-	-	POTABLE WATER/SINK
UTILITY SINK	1 PER FLOOR	-	-	1 PER FLOOR

INTERIOR NOTES

1209.2.1 Floors and wall bases. In other than *dwelling units*, toilet, bathing and shower room floor finish materials shall have a smooth, hard, nonabsorbent surface. The intersections of such floors with walls shall have a smooth, hard, nonabsorbent vertical base that extends upward onto the walls not less than 4 inches.

1209.2.2 Walls and partitions. Walls and partitions within 2 feet of service sinks, urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of not less than 4 feet above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

GRIDLINE NO	TES
GRID 1.5 =	CENTERLINE OF BUILDIN
GRID F.N. =	OUTSIDE FACE OF CONCRETE AT NORTH FOUNDATION WALL
GRID F.S. =	OUTSIDE FACE OF CONCRETE AT SOUTH

GRID F.S. = OUTSIDE FACE OF
CONCRETE AT SOUTH
FOUNDATION WALL

GRID F.E. = OUTSIDE FACE OF

GRID F.E. = OUTSIDE FACE OF
CONCRETE AT EAST
FOUNDATION WALL

GRID F.W. = OUTSIDE FACE OF
CONCRETE AT WEST
FOUNDATION WALL

N.

Paterson

Habitat
for Humanity

Paterson Habitat For Humanity

146 North 1st Street
Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL 135 SUMMER STREET PASSAIC NJ 07055

CHEN O'NEIL ARCHITECTS, PL

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MEP/FP ENGINEER:

KEA

Engineering Excellence since 1984

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021

09/27/2021

12/15/2020 10/27/2020

DATE

3 DESIGN
DEVELOPMENT
2 SITE PLAN REV. 1
1 SITE PLAN

ISSUE/REVISION

SUBMISSION

DRAWING TITLE

FIRST FLOOR
CONSTRUCTION PLAN

DRAWING NO.

A-200

DATE: 01/14/22
SCALE: As indicated



RESIDENTIAL WINDOWS

1030.1 General. In addition to the *means of egress* required by this chapter, *emergency escape and rescue openings* shall be provided in the following occupancies:

- 1. Group R-2 occupancies located in stories with only one *exit* or *access to* only one
- exit as permitted by Tables 1006.3.3(1) and 1006.3.3(2).
 Sleeping rooms below the fourth story above grade plane shall have not fewer than one exterior emergency escape and rescue opening in accordance with this section. Such openings shall open directly into a public way or to a yard or court that opens to a public way. Exception: Within individual dwelling and sleeping units in Groups R-2, where the building is equipped throughout with an automatic

1030.2 Minimum size. *Emergency escape and rescue openings* shall have a minimum net clear opening of 5.7 square feet.

sprinkler system installed in accordance with Section 903.3.1.1

1030.2.1 Minimum dimensions. The minimum net clear opening height dimension shall be 24 inches. The minimum net clear opening width dimension shall be 20 inches. The net clear opening dimensions shall be the result of normal operation of the opening.

1030.5 Bars, grilles, covers and screens. Bars, grilles, covers, screens or similar devices are permitted to be placed over *emergency escape and rescue openings*, bulkhead enclosures or window wells that serve such openings, provided that the minimum net clear opening size complies with Sections 1030.1.1 through 1030.4.2 and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the *emergency escape and rescue opening*.

INDOOR ENVIRONMENT

Residential R-2

1202.2 Roof ventilation. Roof assemblies shall be ventilated in accordance with this section or shall comply with Section 1202.3.

1202.2.1 Ventilated attics and rafter spaces. Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An airspace of not less than 1 inch shall be provided between the insulation and the roof sheathing. The net free ventilating area shall be not less than 1/150 of the area of the space ventilated. Ventilators shall be installed in accordance with manufacturer's installation instructions.

1202.2.2 Openings into attic. Exterior openings into the *attic* space of any building intended for human occupancy shall be protected to prevent the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of not less than ¹/16 inch and not more than ¹/4 inch shall be permitted. Openings for ventilation having a least dimension larger than ¹/4 inch shall be provided with corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material with openings having a least dimension of not less than ¹/16 inch and not more than ¹/4 inch.

1202.5 Natural ventilation. Natural *ventilation* of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants.

1202.5.1 Ventilation area required. The openable area of the openings to the outdoors shall be not less than 4 per- cent of the floor area being ventilated.

1202.5.1.1 Adjoining spaces. Where rooms and spaces without openings to the outdoors are ventilated through an adjoining room, the opening to the adjoining room shall be unobstructed and shall have an area of not less than 8 percent of the floor area of the interior room or space, but not less than 25 square feet. The openable area of the openings to the outdoors shall be based on the total floor area being ventilated.

1202.5.2.1 Bathrooms. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated in accordance with the *International Mechanical*

1204.1 General. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1204.2 or shall be provided with artificial light in accordance with Section 1204.3. Exterior glazed openings shall open directly onto a *public way* or onto a *yard* or *court* in accordance with Section 1205.

1204.2 Natural light. The minimum net glazed area shall be not less than 8 percent of the floor area of the room served.

1204.2.1 Adjoining spaces. For the purpose of natural lighting, any room is permitted to be considered as a portion of an adjoining room where one-half of the area of the common wall is open and unobstructed and provides an opening of not less than one-tenth of the floor area of the interior room or 25 square feet, whichever is greater.

1204.2.2 Exterior openings. Exterior openings required by Section 1204.2 for natural light shall open directly onto a *public way*, *yard* or *court*, as set forth in Section 1205.

1204.3 Artificial light. Artificial light shall be provided that is adequate to provide an average illumination of 10 foot candles (107 lux) over the area of the room at a height of 30 inches above the floor level.

1205.1 General. This section shall apply to *yards* and *courts* adjacent to exterior openings that provide natural light or ventilation. Such *yards* and *courts* shall be on the same *lot* as the building.

1205.2 Yards. Yards shall be not less than 3 feet in width for buildings two *stories* or less above *grade plane*. For buildings more than two *stories above grade plane*, the minimum width of the *yard* shall be increased at the rate of 1 foot for each additional *story*.

1206.2 Airborne sound. Walls, partitions and floor-ceiling assemblies separating *dwelling units* and *sleeping units* from each other or from public or service areas shall have a sound transmission class of not less than 50, or not less than 45 if field tested, for airborne noise where tested in accordance with ASTM E90. Alternatively, the sound transmission class of walls, partitions and floor-ceiling assemblies shall be established by engineering analysis based on a comparison of walls, partitions and floor-ceiling assemblies having sound transmission class ratings as determined by the test procedures set forth in ASTM E90. Penetrations or openings in construction assemblies for piping; electrical devices; recessed cabinets; bathtubs; soffits; or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings. This requirement shall not apply to entrance doors; however, such doors shall be tight fitting to the frame and sill

1206.3 Structure-borne sound. Floor-ceiling assemblies between *dwelling units* and *sleeping units* or between a *dwelling unit* or *sleeping unit* and a public or service area within the structure shall have an impact insulation class rating of not less than 50, or not less than 45 if field tested, where tested in accordance with ASTM E492. Alternatively, the impact insulation class of floor-ceiling assemblies shall be established by engineering analysis based on a comparison of floor-ceiling assemblies having impact insulation class ratings as determined by the test procedures in ASTM E492.

1207.1 Minimum room widths. *Habitable spaces*, other than a kitchen, shall be not less than 7 feet in any plan dimension. Kitchens shall have a clear passageway of not less than 3 feet between counter fronts and appliances or counter fronts and walls.

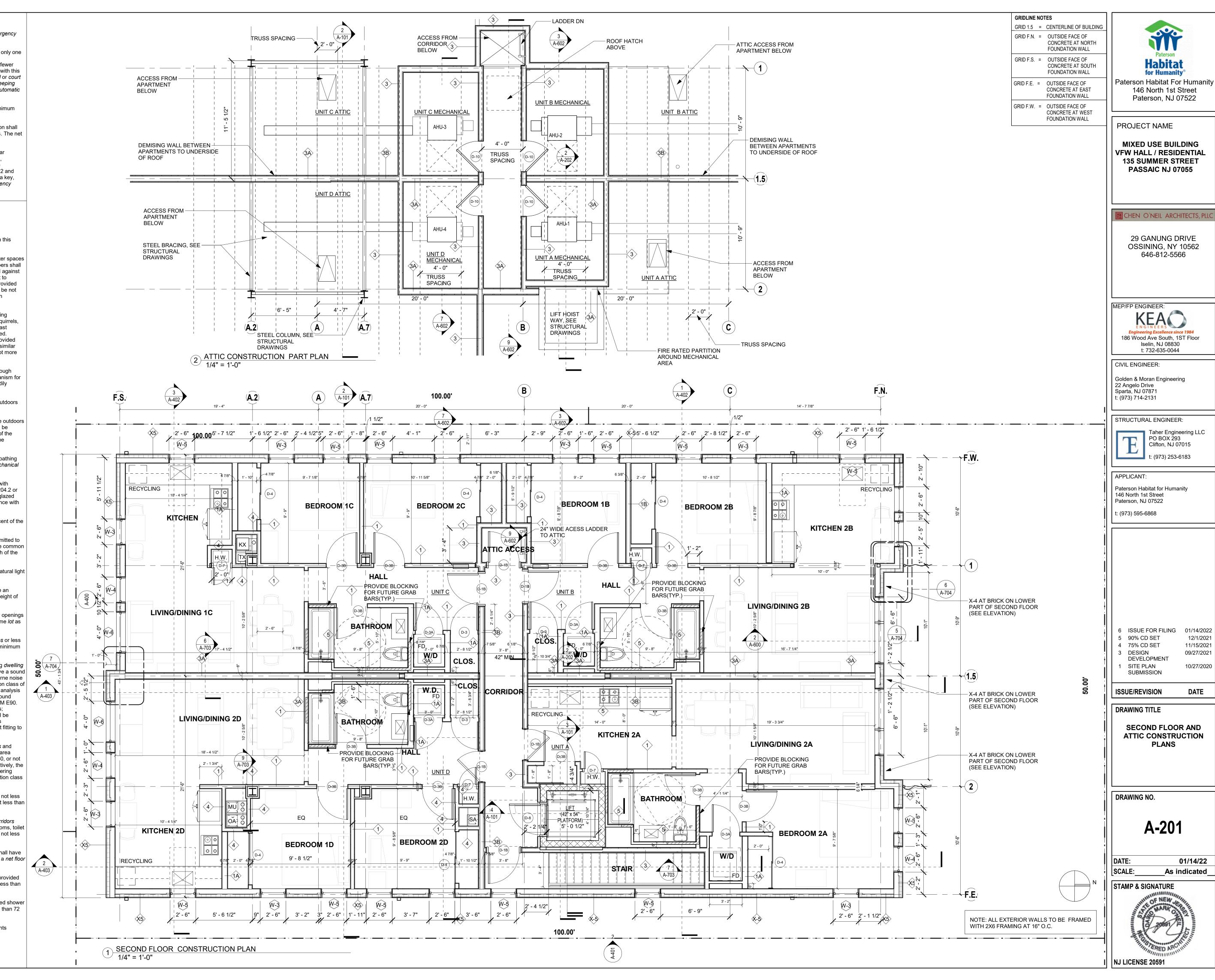
1207.2 Minimum ceiling heights. Occupiable spaces, *habitable spaces* and *corridors* shall have a ceiling height of not less than 7 feet above the finished floor. Bathrooms, toilet rooms, kitchens, storage rooms and laundry rooms shall have a ceiling height of not less than 7 feet above the finished floor.

1207.3 Room area. Every *dwelling unit* shall have not less than one room that shall have not less than 120 square feet of *net floor area*. Other habitable rooms shall have a *net floor area* of not less than 70 square feet.

1208.2 Attic spaces. An opening not less than 20 inches by 30 inches shall be provided to any *attic* area having a clear height of over 30 inches. Clear headroom of not less than 30 inches shall be provided in the *attic* space at or above the access opening.

1209.2.3 Showers. Shower compartments and walls above bathtubs with installed shower heads shall be finished with a smooth, nonabsorbent surface to a height not less than 72 inches above the drain inlet.

1209.2.4 Waterproof joints. Built-in tubs with showers shall have waterproof joints between the tub and adjacent wall.



1502.4 Gutters. Gutters and leaders placed on the outside of buildings, other than Group R-3, private garages and build- ings of Type V construction, shall be of noncombustible material or not less than Schedule 40 plastic pipe

1503.2 Flashing. Flashing shall be installed in such a manner so as to prevent water from entering the wall and roof through joints in copings, through moisture-permeable materials and at intersections with parapet walls and other penetrations through the

1503.2.1 Locations. Flashing shall be installed at wall and roof intersections, at gutters, wherever there is a change in roof slope or direction and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch) (No. 26 galvanized sheet).

1503.4 Attic and rafter ventilation. Intake and exhaust vents shall be provided in accordance with Section 1202.2 and the vent product manufacturer's installation

1503.5 Crickets and saddles. A cricket or saddle shall be installed on the ridge side of any chimney or penetration greater than 30 inches wide as measured perpendicular to the slope. Cricket or saddle coverings shall be sheet metal or of the same material as the roof covering

1504.1.1 Wind resistance of asphalt shingles. Asphalt shingles shall be tested in accordance with ASTM D7158. Asphalt shingles shall meet the classification requirements of Table 1504.1.1 for the appropriate maximum basic wind speed. Asphalt shingle packaging shall bear a label to indicate compliance with ASTM D7158 and the required classification in Table 1504.1.1.

TABLE 1504.1.1

CLASSIFICATION OF STEEP SLOPE ROOF SHINGLES TESTED IN ACCORDANCE WITH ASTM D316 OR D71581

1505.2 Class A roof assemblies. Class A roof assemblies are those that are effective against severe fire test exposure. Class A roof assemblies and roof coverings shall be *listed* and identified as Class A by an *approved* testing agency. Class A roof assemblies shall be permitted for use in buildings or structures of all types of construction.

[BF] 1505.3 Class B roof assemblies. Class B roof assemblies are those that are effective against moderate fire-test exposure. Class B roof assemblies and roof coverings shall be *listed* and identified as Class B by an *approved* testing agency.

1505.4 Class C roof assemblies. Class C roof assemblies are those that are effective against light fire-test expo- sure. Class C roof assemblies and roof coverings shall be *listed* and identified as Class C by an approved testing agency.

1507.1.1 Underlayment. Underlayment for asphalt shingles, clay and concrete tile, metal roof shingles, mineral- surfaced roll roofing, slate and slate-type shingles, wood shingles, wood shakes, metal roof panels and photovoltaic shingles shall conform to the applicable standards listed in this chapter. Underlayment materials required to comply with ASTM D226, D1970, D4869 and D6757 shall bear a label indicating compliance with the standard designation and, if applicable, type classification indicated in Table 1507.1.1(1). Underlayment shall be applied in accordance with Table 1507.1.1(2). Underlayment shall be attached in accordance with Table 1507.1.1(3).

> As an alternative, self-adhering polymer modified bitumen underlayment complying with ASTM D1970 and installed in accordance with the manufacturer's installation instructions for the deck material, roof ventilation configuration and climate exposure for the roof covering to be installed shall be permitted. As an alternative, a minimum 4-inch-wide strip of self-adhering polymer modified bitumen membrane complying with ASTM D1970 and installed in accordance with the manufacturer's installation instructions for the deck material shall be applied over all joints in the roof decking. An approved underlayment for the applicable roof covering for design wind speeds less than 120 mph shall be applied over the 4-inch-wide membrane strips. As an alternative, two layers of underlayment complying with ASTM D226 Type II or ASTM D4869 Type IV shall be permitted to be installed as follows: Apply a 19-inch strip of underlayment parallel with the eave. Starting at the eave, apply 36-inch-wide strips of underlayment felt, overlapping successive sheets 19 inches. The underlayment shall be attached with corrosionresistant fasteners in a grid pattern of 12 inches between side laps with a 6-inch spacing at side and end laps. End be attached using metal or plastic cap nails with a nominal cap diameter of not less than 1 inch. Metal caps shall have a thickness of not less than 32-gage sheet metal. Power-driven metal caps shall have a thickness of not less than 0.10 inch. Thickness of the outside edge of plastic caps shall be not less than 0.035 inch. The cap nail shank shall be not less than 0.083 inch for ring shank cap nails and 0.091 inch for smooth shank cap nails. The cap nail shank shall have a length sufficient to penetrate through the roof sheathing or not less than 3/4 inch into the roof sheathing

1507.1.2 Ice barriers. In areas where the average daily temperature in January is 25°F (-4°C) or less, an ice barrier shall be installed for asphalt shingles, metal roof shingles, mineral-surfaced roll roofing, slate and slate- type shingles, wood shingles, and wood shakes. The ice barrier shall consist of not less than two layers of underlayment cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place of normal underlayment and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the exterior wall line of the building.

1507.2 Asphalt shingles. The installation of asphalt shingles shall comply with the provisions of this section. **1507.2.1 Deck requirements.** Asphalt shingles shall be fastened to solidly

1507.2.2 Slope. Asphalt shingles shall only be used on roof slopes of two units vertical in 12 units horizontal (17- percent slope) or greater. For roof slopes from two units vertical in 12 units horizontal (17-percent slope) up to four units vertical in 12 units horizontal (33-percent slope), double underlayment application is required

1507.2.3 Underlayment. Underlayment shall comply with Section 1507.1.1. **1507.2.4 Asphalt shingles.** Asphalt shingles shall comply with ASTM D3462.

sheathed decks.

in accordance with Section 1507.2.8.

1507.2.5 Fasteners. Fasteners for asphalt shingles shall be galvanized, stainless steel, aluminum or copper roofing nails, minimum 12-gage [0.105 inch shank with a minimum ³/8-inch-diameter head, of a length to penetrate through the roofing materials and not less than ³/4 inch into the roof sheathing. Where the roof sheathing is less than ³/4 inch thick, the nails shall penetrate through the sheathing. Fasteners shall comply with ASTM F1667.

1507.2.6 Attachment. Asphalt shingles shall have the minimum number of fasteners required by the manufacturer, but not less than four fasteners per strip shingle or two fasteners per individual shingle.

1507.2.8 Flashings. Flashing for asphalt shingles shall comply with this section. Flashing shall be applied in accordance with this section and the asphalt shingle manufacturer's printed instructions.

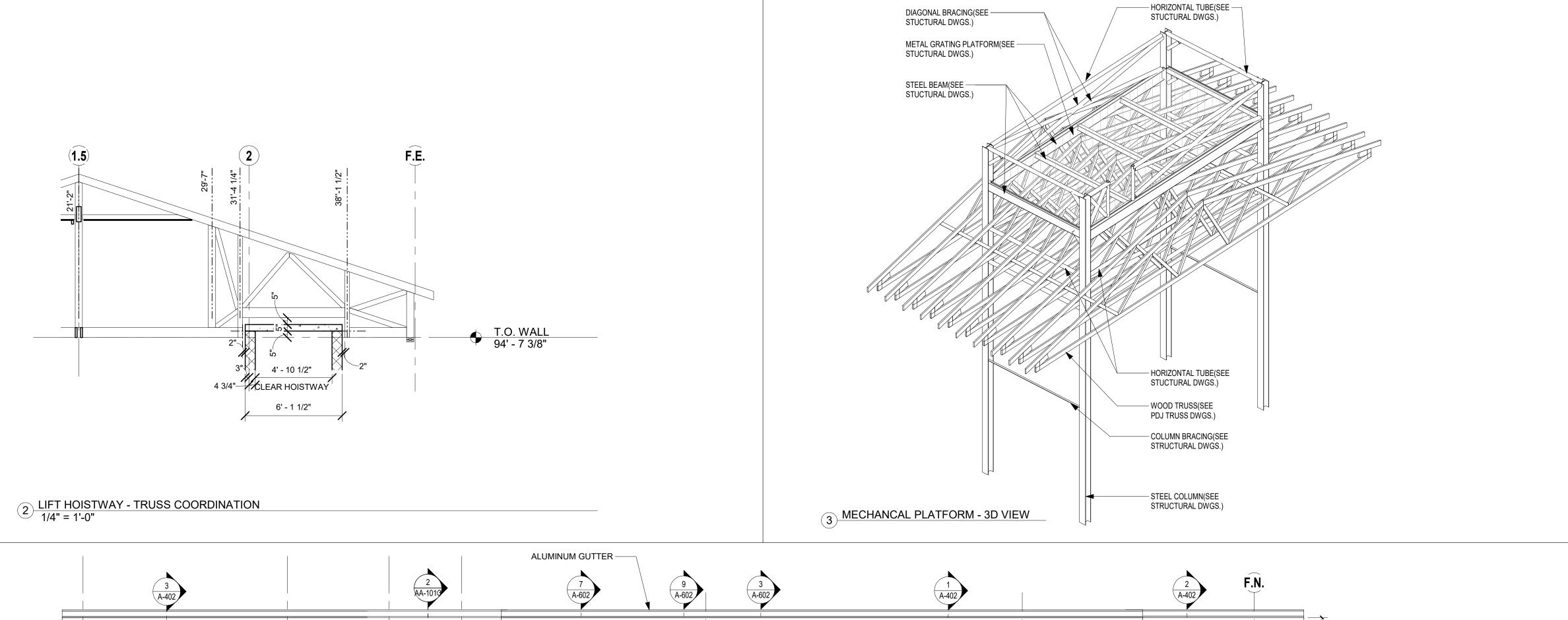
1507.2.8.1 Base and cap flashing. Base and cap flashing shall be installed in accordance with the manufacturer's instructions. Base flashing shall be of either corrosion-resistant metal of minimum nominal 0.019- inch thickness or mineralsurfaced roll roofing weighing not less than 77 pounds per 100 square feet (3.76 kg/m²). Cap flashing shall be corrosion-resistant metal of minimum nominal 0.019inch thickness.

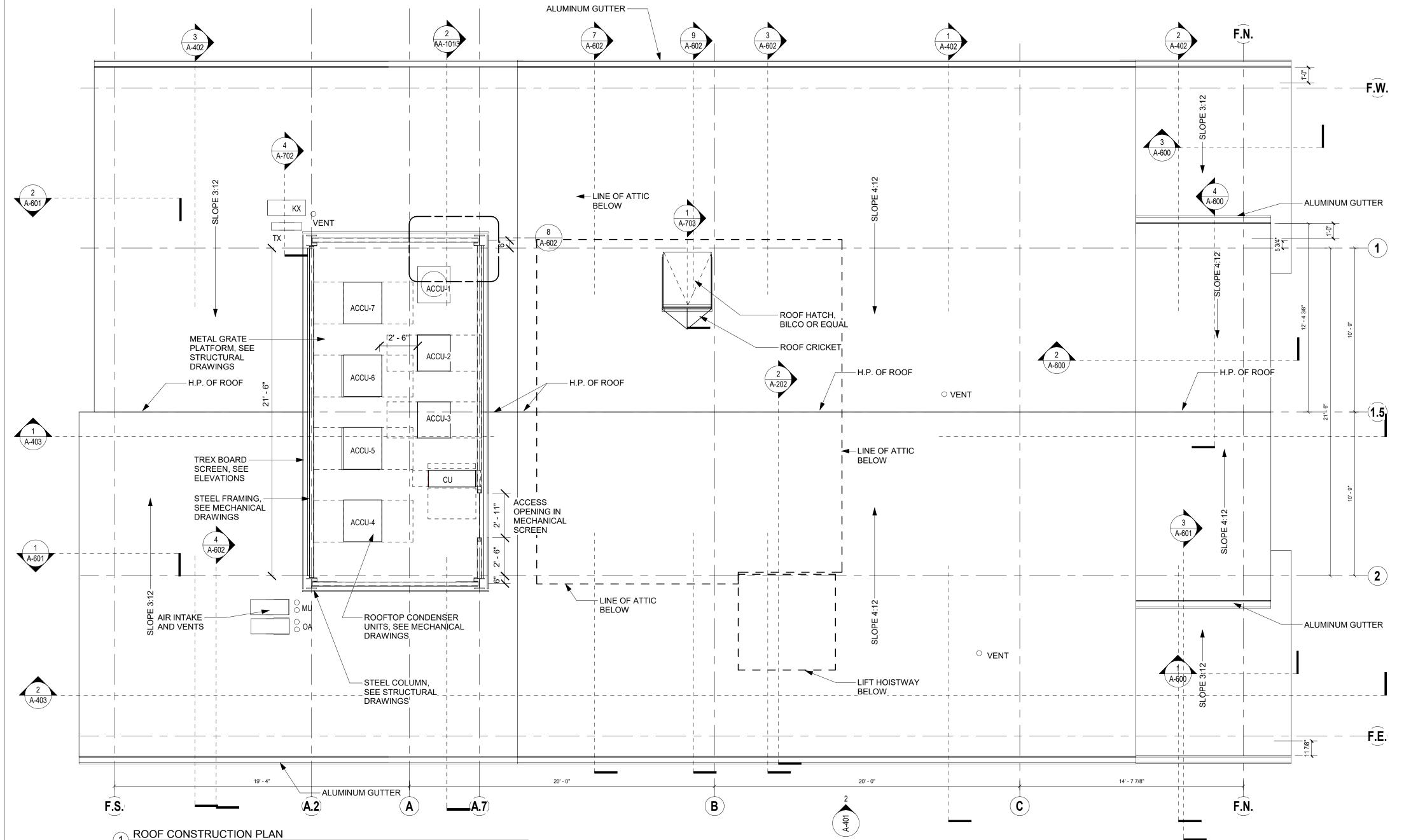
1507.2.8.2 Valleys. Valley linings shall be installed in accordance with the manufacturer's instructions before applying shingles. Valley linings of the following

For open valleys (valley lining exposed) lined with metal, the valley lining shall be not less than 24 inches (610 mm) wide and of any of the

corrosion-resistant metals in Table 1507.2.8.2. For open valleys, valley lining of two plies of mineral-surfaced roll roofing complying with ASTM D3909 or ASTM D6380 shall be permit-ted. The bottom layer shall be 18 inches and the top layer not less than 36 inches

For closed valleys (valleys covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D6380, and not less than 36 inches (914 mm) wide or types as described in Item 1 or 2 above shall be permitted. Self-adhering polymer modified bitumen underlayment bearing a label indicating compliance with ASTM D1970 shall be permitted in lieu of the lining material.







Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING **VFW HALL / RESIDENTIAL 135 SUMMER STREET** PASSAIC NJ 07055

CHEN O'NEIL ARCHITECTS, PLI

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

MEP/FP ENGINEER: 186 Wood Ave South, 1ST Floor Iselin, NJ 08830 t: 732-635-0044

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146 North 1st Street

6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021

11/15/2021

09/27/2021

12/15/2020

DATE

10/27/2020

4 75% CD SET 3 DESIGN DEVELOPMENT 2 SITE PLAN REV. 1

1 SITE PLAN

SUBMISSION

ISSUE/REVISION DRAWING TITLE

ROOF CONSTRUCTION

DRAWING NO.

A-202

01/14/22 As indicated



GRID F.S. = OUTSIDE FACE OF CONCRETE AT SOUTH FOUNDATION WALL GRID F.E. = OUTSIDE FACE OF CONCRETE AT EAST FOUNDATION WALL GRID F.W. = OUTSIDE FACE OF CONCRETE AT WEST FOUNDATION WALL NJ LICENSE 20591

GRIDLINE NOTES

GRID 1.5 = CENTERLINE OF BUILDING

CONCRETE AT NORTH

FOUNDATION WALL

GRID F.N. = OUTSIDE FACE OF

	RESIDENTIAL LIGHT FIX	TORE THE	
FIXTURE TYPE	DESCRIPTION	MANUFACTURER	MODEL
		SEE ELECTRICAL	
		SPECS.	
LT-1	CEILING MOUNTED LED LIGHT FIXTURE - BEDROOM	TECH LIGHTING	CIRQUE LARGE FLUSH MOUNT (BRUSHED NICKEL)
LT-2	CEILING MOUNTED LED AT RESIDENTIAL CORRIDOR(BATTERY BACK-UP)	TECH LIGHTING	CIRQUE LARGE FLUSH MOUNT (ANTIQUE BRONZE)
LT-3	LIGHT/FAN DINING ROOM	HUNTER	48" AVIA LOW PROFILE LED(BRUSHED NICKEL)
LT-4	RECESSED LED DOWNLIGHT	COOPER LIGHTING	HALO PR4 (WHITE TRIM)
LT-4A	RECESSED LED DOWNLIGHT	COOPER LIGHTING	PORTFOLIO LDA4A 4L (WHITE TRIM)
LT-5	CEILING MOUNTED LED LIGHT FIXTURE	TECH LIGHITNG	CIRQUE LARGE (SATINNICKEL)
LT-6	BATHROOM WALL MOUNTED SCONCE	TECH LIGHTING	KICHLER LIGHTING 45495-CROSBY (BRUSHED NICKEL)
LT-7	BATHROOM EXHAUST FAN/CEILIING LIGHT		PANASONIC

SEE ELECTRICAL DRAWINGS FOR LIGHTING CONTROLS, LAMPING, AND POWER CIRCUITING

RCP LEGEND

AIR SUPPLY CEILING MOUNTED DEDICATED APPLIANCE OR EQUIPMENT OUTLET AIR RETURN, CEILING MOUNTD DUPLEX OUTLET @ 16" AFF WALL-MOUNTED SPRINKLER HEAD QUADPLEX OUTLET @ 16" AFF CEILING-MOUNTED SPRINKLER HEAD COMBINATION SMOKE DETECTOR & CARBON MONOXIDE DETECTOR GROUND FAULT INTERUPT AT CEILING @ DIM. AFF SHOWN CEILING-MOUNTED EXIT SIGN, HARDWIRED ELECTRICAL L-xxx ON LIGHTING SCHEDULE, FOR INTERIOR CONNECTION FOR EQUIPMENT, MOTOR 20 X 30" ATTIC ACCESS PANEL

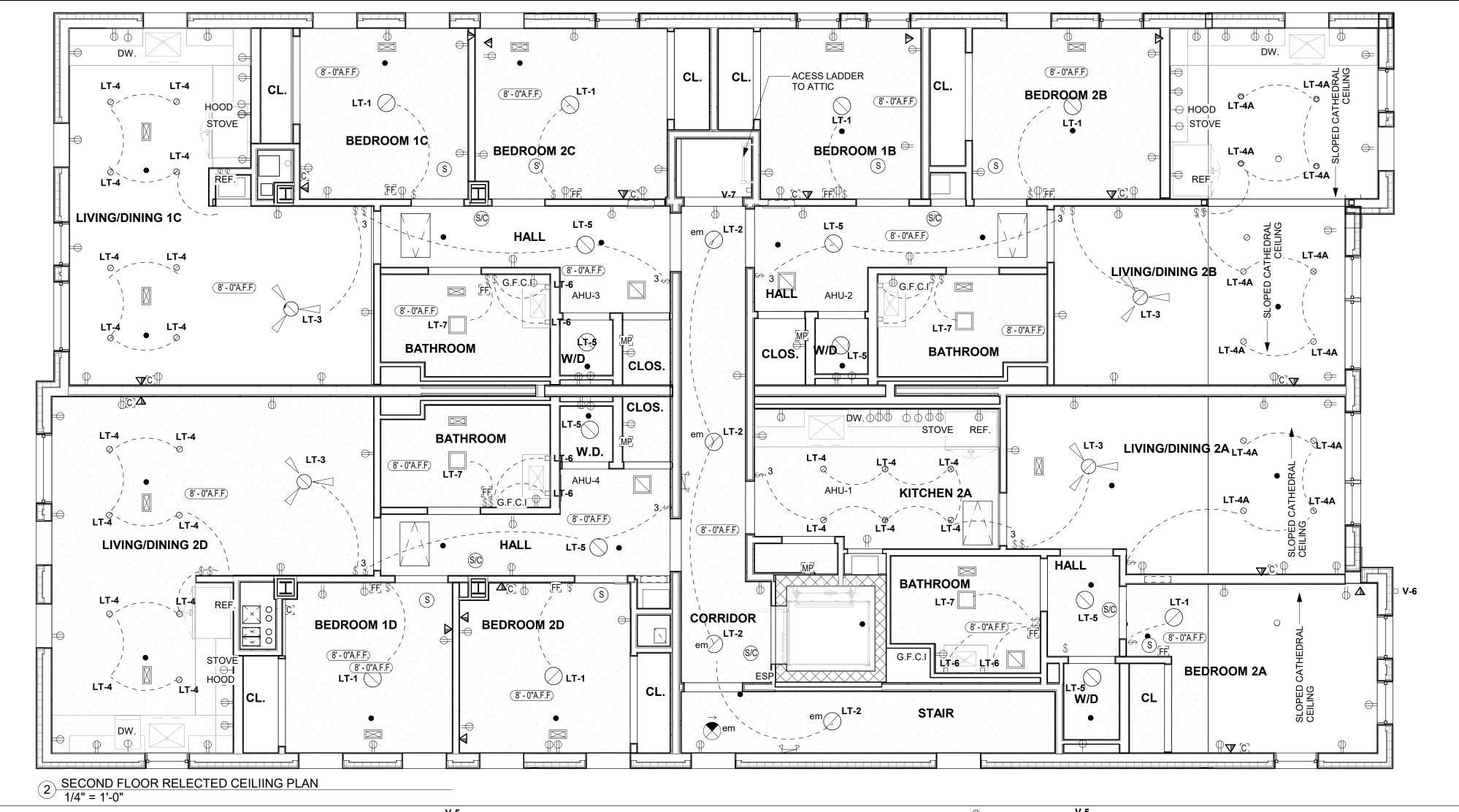
EMERGENCY POWER SOURCE FOR

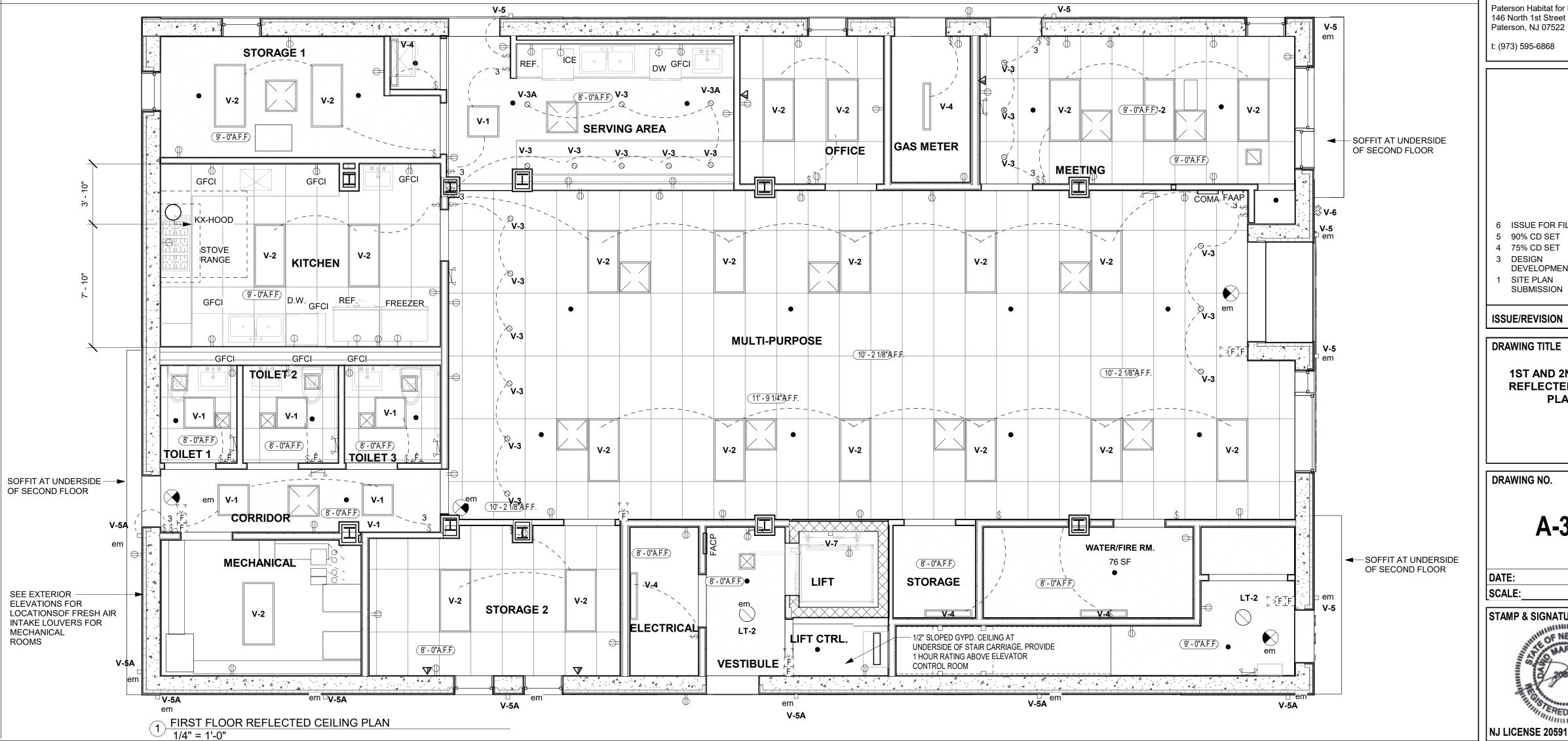
LIGHTING OR EXIT SIGN

ALL FIXTURES TO BE INSTALLED IN COMPLIANCE WITH 2018 ENERGY CODE, NJ EDITION.

		MANUFACTUE	
FIXTURE	DESCRIIOTION	R	MODEL
V-1	SURFACE MTD 2 X 2 LED FIXTUR	COOPER	METALUX
V-1	SURFACE MID 2 X 2 LED FIXTUR	LIGHTING	22FP LED
V-2	SURFACE MTD 2 X 4 LED FIXTURE	COOPER LIGHTING	METALUX 24FP LED
V-3	SURFACE MOUNTED 4" DIA LED FIXTGURE	COOPER LIGHTING	HALO MD4 SERIES
V-3A	SURFACE MOUNTED 4" DIA LED FIXTURE(BATTERY BACK-UP)	COOPER LIGHTING	HALO SMD4 SERIES
V-4	WALL MOUNTED LED LIGHT FIXTURE(STORAGE)	COOPER LIGHTING	METALUX MC
V-5	EXTERIOR WALL WALL MOUNTED LED FIXTURE	LUCIFER LIGHTING	SQUILINDER(B LACK)
V-5A	EXTERIOR WALL MOUNTED LED FIXTURE(BATTERY BACK-UP)	LUCIFER LIGHTING	SQUILINDER(B LACK)
V-6	EXTERIOR WALL WALL MOUNTED LED FIXTURE(FLAG SPOTLIGHT)	COOPER LIGHTING	INVUE VFS
V-7	BATHROOM EXHAUST FAN/CEILIING LIGHT	ELCAST	CVT-701 WM

SEE ELECTRICAL DRAWINGS FOR LIGHTING CONTROLS, LAMPING, AND POWER CIRCUITING







Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING **VFW HALL / RESIDENTIAL 135 SUMMER STREET** PASSAIC NJ 07055

CHEN O'NEIL ARCHITECTS, PLL

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

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STRUCTURAL ENGINEER:



t: (973) 253-6183

APPLICANT: Paterson Habitat for Humanity 146 North 1st Street Paterson, NJ 07522

t: (973) 595-6868

6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021

11/15/2021 4 75% CD SET 3 DESIGN 09/27/2021 DEVELOPMENT 10/27/2020 SITE PLAN SUBMISSION

DRAWING TITLE

1ST AND 2ND FLOOR REFLECTED CEILING **PLANS**

DATE

DRAWING NO.

A-300

01/14/22 1/4" = 1'-0"



EXTERIOR WALLS

1402.2 Weather protection. Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing, as described in Section 1404.4. The exterior wall envelope shall be designed and constructed in such a manner as to prevent the accumulation of water within the wall assembly by providing a water- resistive barrier behind the exterior veneer, as described in Section 1403.2, and a means for draining water that enters the assembly to the exterior. Protection against condensation in the exterior wall assembly shall be provided in accordance with Section 1404.3.

1402.3 Structural. *Exterior walls*, and the associated openings, shall be designed and constructed to resist safely the superimposed loads required by Chapter 16.

1402.3 Structural. Exterior walls, and the associated openings, shall be designed and constructed to resist safely the superimposed loads required by Chapter 16.

1403.2 Water-resistive barrier. Not fewer than one layer of No.15 asphalt felt, complying with ASTM D226 for Type 1 felt or other *approved* materials, shall be attached to the studs or sheathing, with flashing as described in Section 1404.4, in such a manner as to provide a continuous *water-resistive barrier* behind the *exterior wall* veneer.

1403.4 Masonry. Exterior walls of masonry construction shall be designed and constructed in accordance with this section and Chapter 21. Masonry units, mortar and metal accessories used in anchored and adhered veneer shall meet the physical requirements of Chapter 21. The backing of anchored and adhered veneer shall be of concrete, masonry, steel framing or wood framing. Continuous insulation meeting the applicable requirements of this code shall be permit- ted between the backing and the masonry veneer.

1403.5.1 Aluminum siding. Aluminum siding shall conform to the requirements of AAMA 1402.

1403.9 Vinyl siding. Vinyl siding shall be certified and labeled as conforming to the requirements of ASTM D3679 by an *approved* quality control agency.

1403.10 Fiber-cement siding. Fiber-cement siding shall conform to the requirements of ASTM C1186, Type A (or ISO 8336, Category A), and shall be so identified on labeling listing an *approved* quality control agency.

1403.11 Exterior insulation and finish systems. Exterior insulation and finish systems (EIFS) and exterior insulation and finish systems (EIFS) with drainage shall comply with Section 1407.

1404.4 Flashing. Flashing shall be installed in such a manner so as to prevent moisture from entering the wall or to redirect that moisture to the exterior. Flashing shall be installed at the perimeters of exterior door and window assemblies, penetrations and terminations of *exterior wall* assemblies, *exterior wall* intersections with roofs, chimneys, porches, decks, balconies and similar projections and at built-in gutters and similar locations where moisture could enter the wall. Flashing with projecting flanges shall be installed on both sides and the ends of copings, under sills and continuously above projecting *trim*. Where self-adhered membranes are used as flashings of *fenestration* in wall assemblies, those self-adhered flashings shall comply with AAMA 711. Where fluid applied membranes are used as flashing for *exterior wall* openings, those fluid applied membrane flashings shall comply with AAMA 714.

1404.4.2 Masonry. Flashing and weep holes in anchored veneer designed in accordance with Section 1404.6 shall be located not more than 10 inches (245 mm) above fin- ished ground level above the foundation wall or slab. At other points of support including structural floors, shelf angles and lintels, flashing and weep holes shall be located in the first course of masonry above the support 1404.13 Exterior windows and doors. Windows and doors installed in exterior walls shall conform to the testing and performance requirements of Section 1709.5 Installation. Windows and doors shall be installed in accordance with approved manufacturer's instructions. Fastener size and spacing shall be provided in such instructions and shall be calculated based on maxi- mum loads and spacing used in

1404.14 Vinyl siding. Vinyl siding conforming to the requirements of this section and complying with ASTM D3679. Vinyl siding shall be secured to the building so as to provide weather protection for the *exterior walls* of the building. **Application.** The siding shall be applied over sheathing or materials listed in Section 2304.6. Siding shall be applied to conform to the *water-resistive barrier* requirements in Section 1402. Siding and accessories shall be installed in accordance with *approved* manufacturer's instructions. Unless otherwise specified in the *approved* manufacturer's instructions, nails used to fasten the siding and accessories shall have a minimum 0.313-inch head diameter and ¹/8-inch shank diameter.

1404.15 Cement plaster. Cement plaster applied to *exterior walls* shall conform to the requirements specified in Chapter 25.

1404.16 Fiber-cement siding. *Fiber-cement siding* complying with Section 1403.10 shall be permitted on *exterior walls* of Type V construction for wind pressure resistance or wind speed exposures as indicated by the manufacturer's listing and *label* and *approved* installation instructions. Where specified, the siding shall be installed over sheathing or materials *listed* in Section 2304.6 and shall be installed to conform to the *water-resistive barrier* requirements in Section 1402. Siding and accessories shall be installed in accordance with *approved* manufacturer's instructions. Unless otherwise specified in the *approved* manufacturer's instructions, nails used to fasten the siding to wood studs shall be corrosion-resistant round head smooth shank and shall be long enough to penetrate the studs not less than 1 inch. For cold-formed steel light-frame construction, corrosion-resistant fasteners shall be used. Screw fasteners shall penetrate the cold-formed steel framing not fewer than three exposed full threads. Other fasteners shall be installed in accordance with the approved construction documents and manufacturer's instructions.

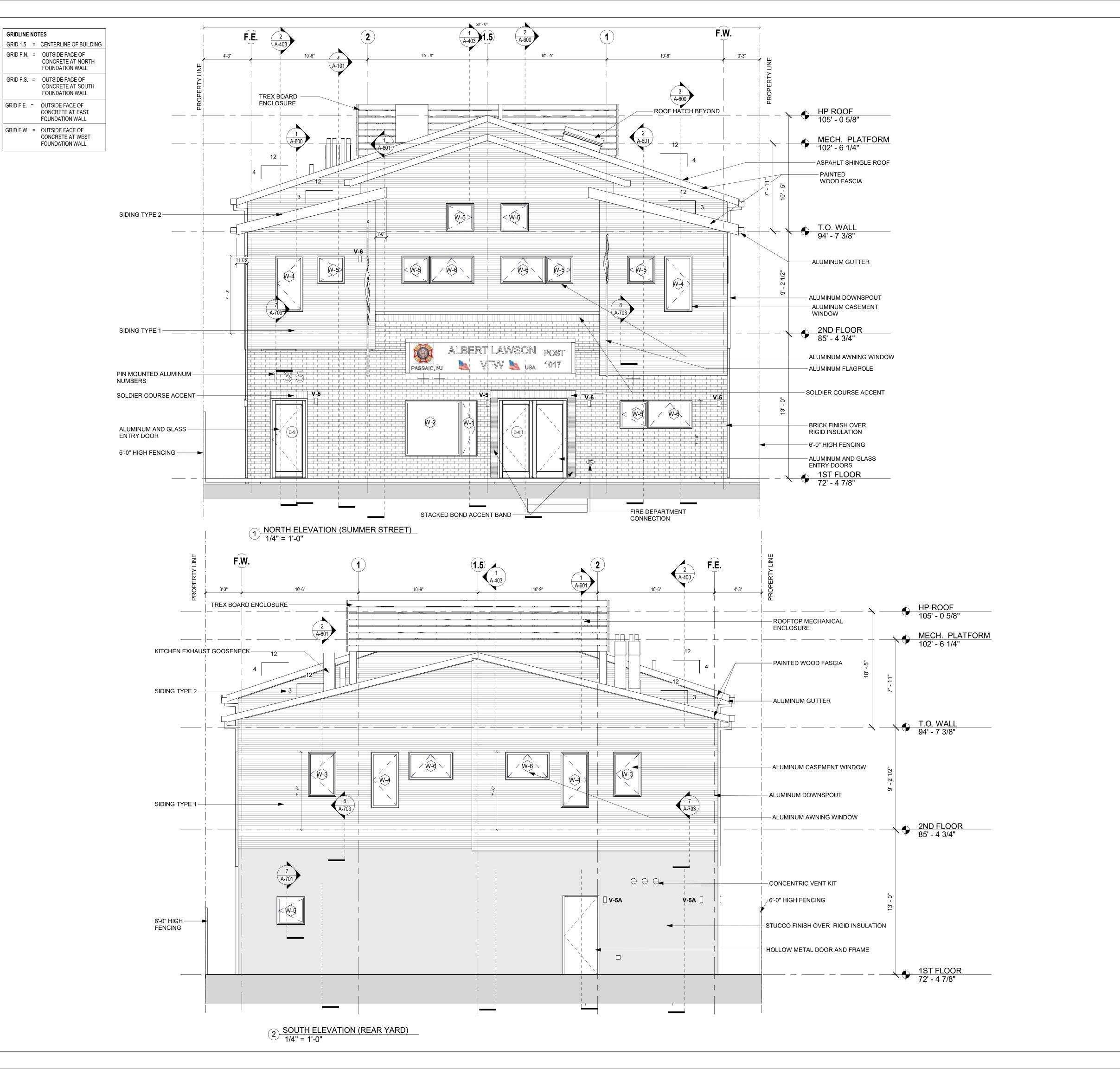
1405.1.1.1 Fire separation 5 feet or less. Where installed on *exterior walls* having a fire separation distance of 5 feet or less, combustible *exterior wall coverings* shall not exhibit sustained flaming as defined in NFPA 268.

1405.1.1.1.2 Fire separation greater than 5 feet. For fire separation distances greater than 5 feet, any *exterior wall covering* shall be permitted that has been exposed to a reduced level of incident radiant heat flux in accordance with the NFPA 268 test method without exhibiting sustained flaming. The minimum fire separation distance required for the *exterior wall covering* shall be determined from Table 1405.1.1.1.2 based on the maximum tolerable level of incident radiant heat flux that does not cause sustained flaming of the *exterior wall covering*.

1407.2 EIFS Performance characteristics. EIFS shall be constructed such that it meets the performance characteristics required in ASTM E2568.

1407.4.1.1 Water-resistive barrier. For EIFS with drainage, the *water-resistive barrier* shall comply with Section 1403.2 or ASTM E2570.

1409.1 Plastic composite decking. Exterior deck boards, stair treads, handrails and guards constructed of plastic composites, including plastic lumber, shall comply with Section 2612.





Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

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Engineering Excellence since 1984

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Paterson, NJ 07522

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021 3 DESIGN 09/27/2021 DEVELOPMENT

10/27/2020

DATE

ISSUE/REVISION

DRAWING TITLE

SITE PLAN

SUBMISSION

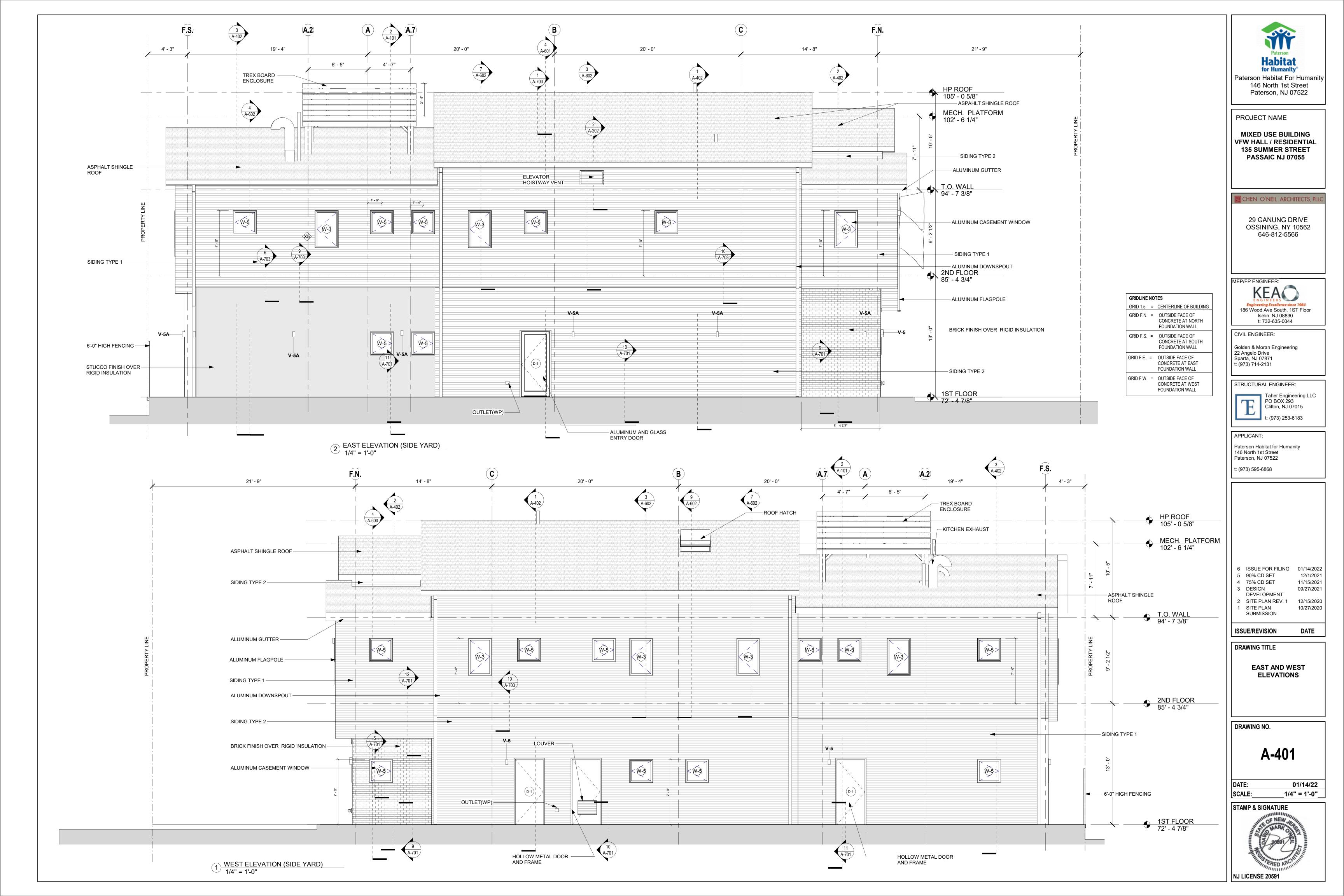
NORTH AND SOUTH ELEVATIONS

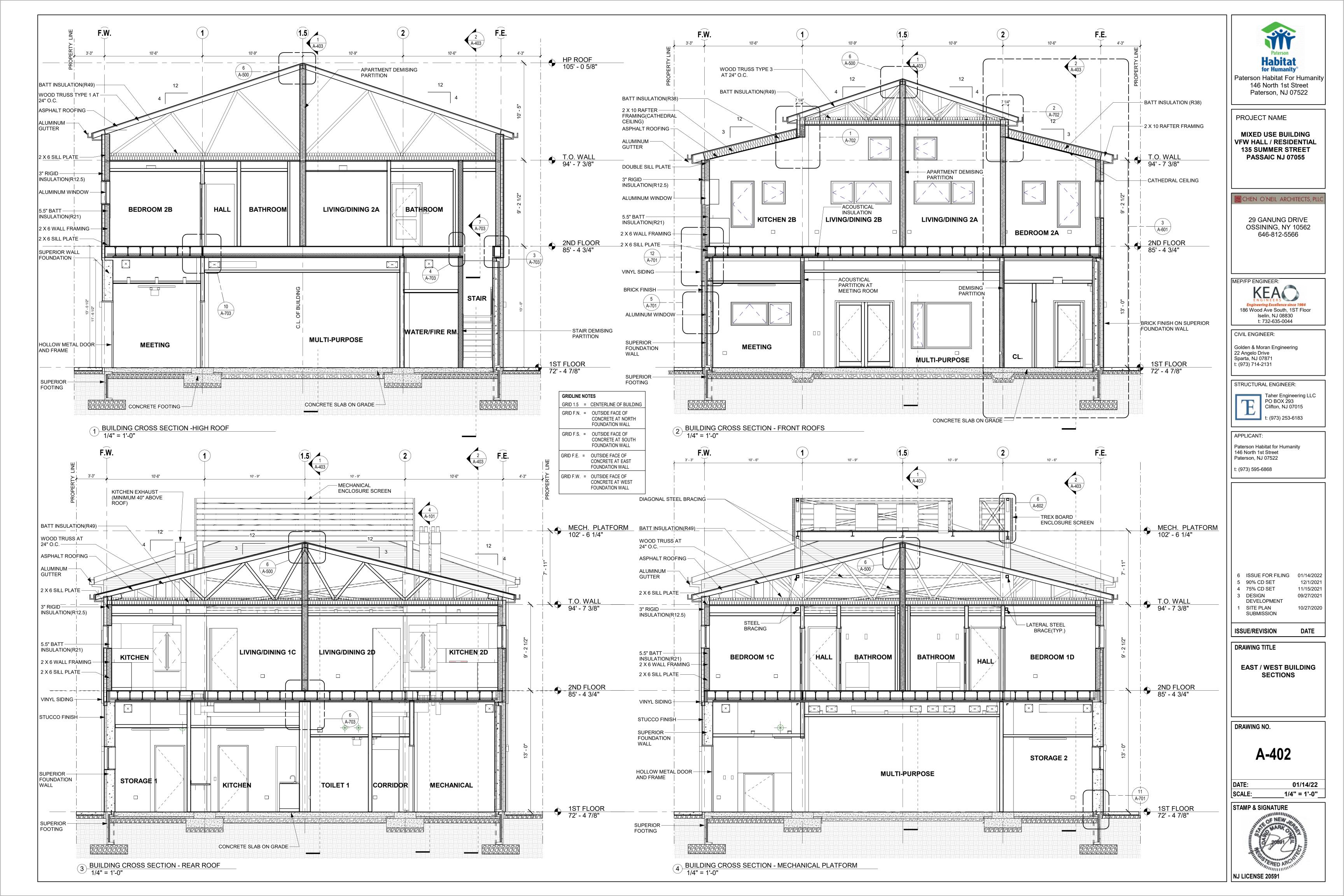
DRAWING NO.

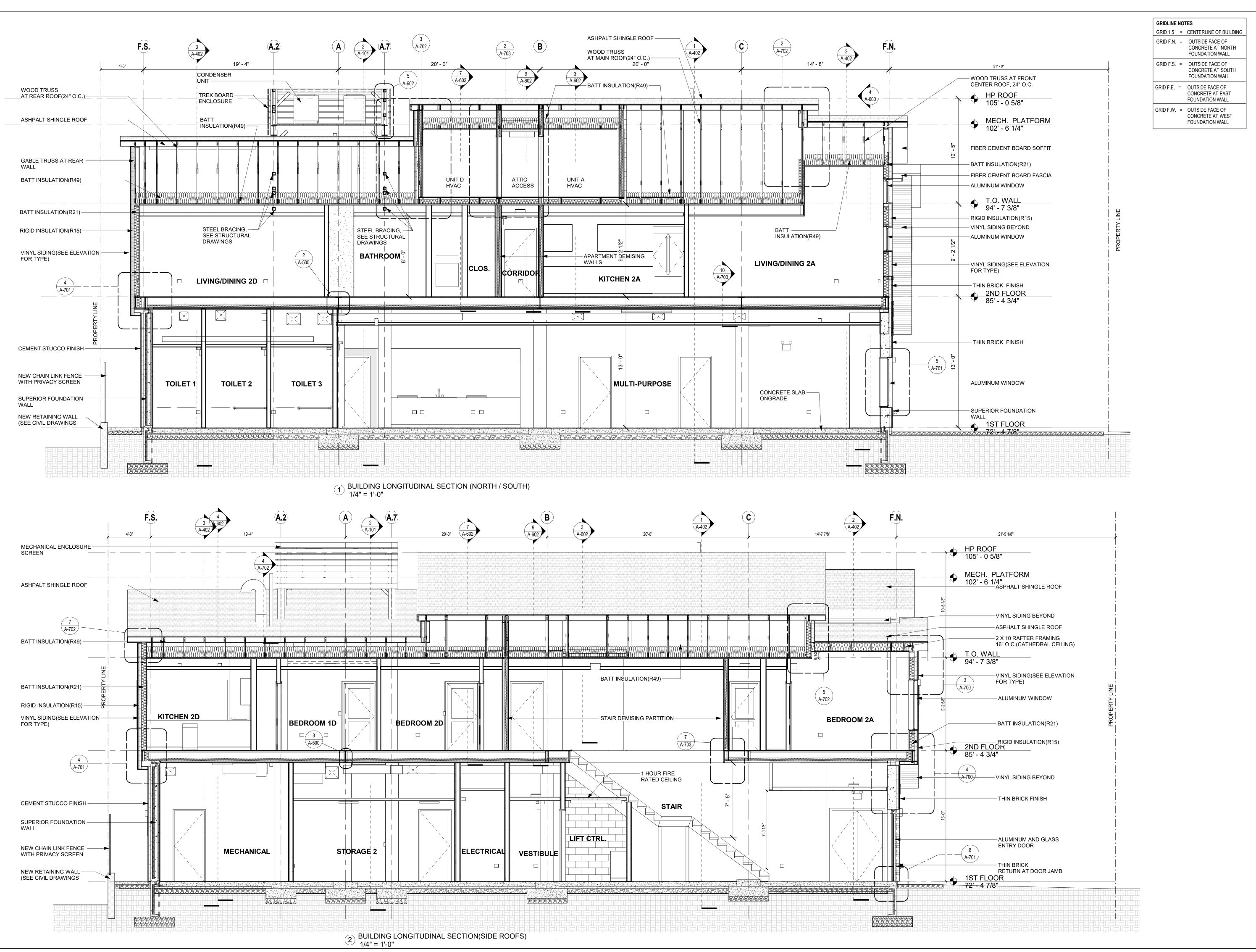
A-400

OATE: 01/14/22
CCALE: As indicated









Paterson
Habitat
for Humanity*

Paterson Habitat For Humanity
146 North 1st Street
Paterson, NJ 07522

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021

09/27/2021

10/27/2020

DATE

DEVELOPMENT 1 SITE PLAN SUBMISSION

DRAWING TITLE

3 DESIGN

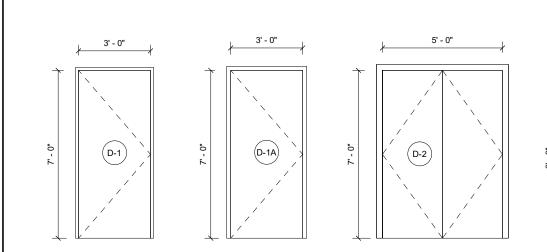
NORTH / SOUTH BUILDING SECTIONS

DRAWING NO.

A-403

DATE: 01/14/22 SCALE: 1/4" = 1'-0"





TYPICAL DOOR TYPES

						DOOR	SCHEDULE					
Door Type	Location	DOOR WIDTH	DOOR HEIGHT	THICKNESS	DOOR MATERIAL	DOOR FINISH	FRAME MATERIAL	FRAME FINISH	JAMB/HEAD DTL	SADDLE DTL	RATING	COMMENTS
D-1	VFW Non-rated door	3' - 0"	7' - 0"	0' - 1 3/4"	Hollow Metal	Paint	Hollow Metal	Paint				Doors at exterior locations to have closers
D-1A	Rated Hollow Metal	3' - 0"	7' - 0"	0' - 1 3/4"	Hollow Metal	Paint	Hollow Metal	Paint			90 MIN.	
D-1B	Rated Apt. Entry	3' - 0"	6' - 8"	0' - 1 3/4"	Hollow Metal	Paint	Hollow Metal	Paint			45 MIN.	Surface mounted closer
D-2	Residential lobby closet	5' - 0"	7' - 0"	0' - 2"	Hollow Metal	Paint	Hollow Metal	Paint				
D-3	Apt. Closet doors	2' - 8"	6' - 8"	0' - 1 3/8"	Wood	Paint	Wood	Paint				
D-3A	Laundry closet door with louver	2' - 8"	6' - 8"	0' - 1 3/8"	Wood	Paint	Wood	Paint				
D-3B	3-0" wide apartment interior	3' - 0"	6' - 8"	0' - 1 3/8"	Wood	Paint	Wood	Paint				
D-4	Apt. Closet Sliding Doors	5' - 0"	6' - 8"	0' - 0 3/4"	Wood	Paint	Wood	Paint				
D-5	Exterior Entry Doors: Alum/Glass	3' - 0"	7' - 0"	0' - 1 3/4"	Alum/Glass	Paint	Aluminum	Paint				Door to have concealed closer
D-6	Exterior Entry Doors: Alum/Glass	3' - 0"	7' - 0"	0' - 1 3/4"	Alum/Glass	Paint	Aluminum	Paint				Door to have concealed closer
D-7	HW closet	1' - 8"	6' - 8"	0' - 1 3/8"		Paint		Paint				
D-7A	Meeting room closet	2' - 0"	7' - 0"	0' - 1 3/4"		Paint		Paint				
D-8	Rated Hoistway Door	3' - 0"	6' - 8"	0' - 1 3/4"	Alum/Glass	Paint	Aluminum	Paint			90 MIN.	Door to have concealed closer
D-10	RATED ACCESS DOOR 36" X 60"	3' - 0"	5'-0")"	0' - 1 3/4"		Paint		Paint			90 MIN.	Surface mounted closer
D-11	SERVING AREA MILLWORK DOOR	3' - 0"	4' - 0"	0' - 1 3/4"		Paint		Paint			·	

2' - 8"

ASSEMBLY:

SHEATHING:

WOOD STUDS:

SHEATHING:

INSULATION:

FIRE RATING:

SOUND TEST:

GYPBD. AT LVL BEAM

GYPSUM BOARD:

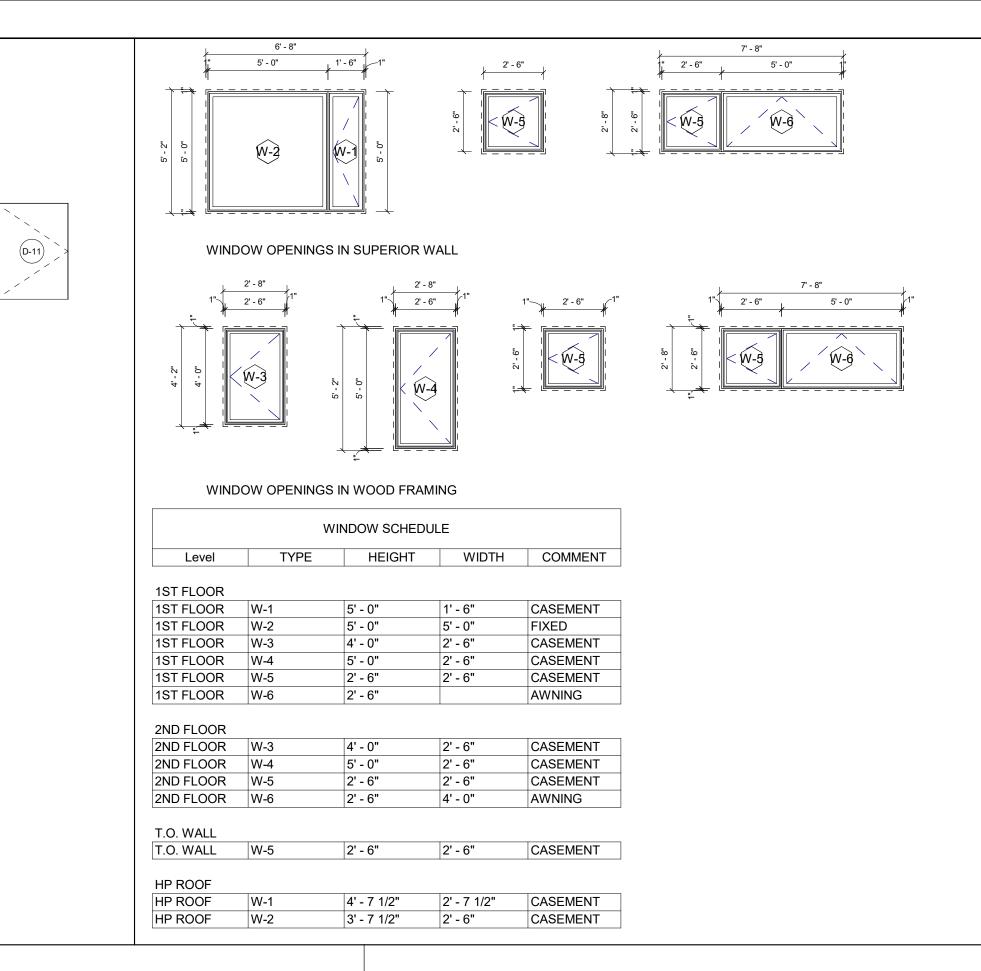
SYSTEM THICKNESS: 4 3/4"

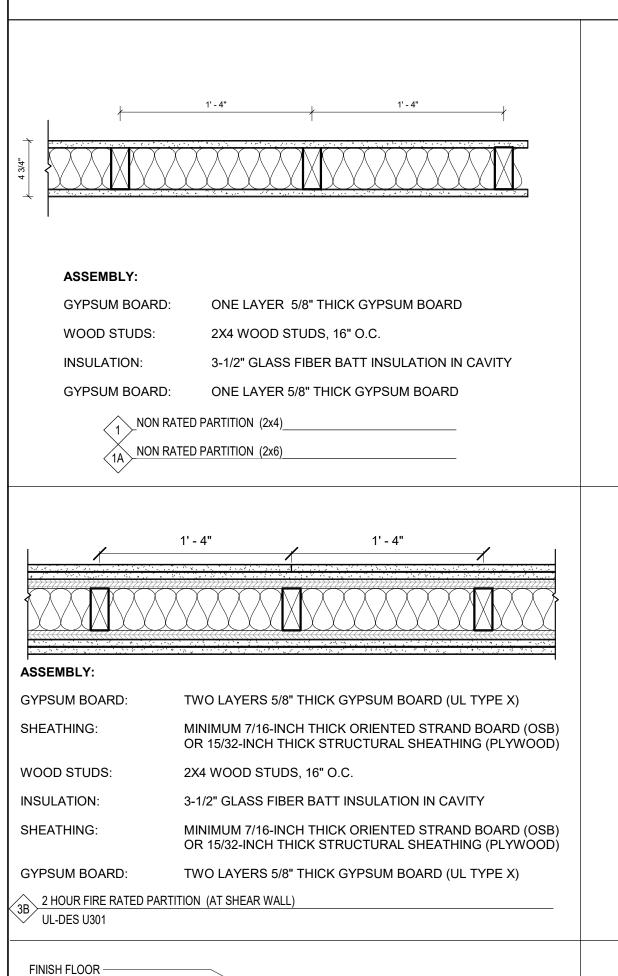
NON RATED PARTITION (2x4) AT SHEAR WALL

2 Hour

USG-040913

GYPSUM BOARD:





2 CEILING DETAIL AT STEEL BEAM
1 1/2" = 1' 0"

1 1/2" = 1'-0"

TOPPING SLAB -

ACOUSTICAL -

UNDERLAYMENT

3/4" SUBFLOOR -

CLADDING

ACOUSTICAL -

INSULATION

RESILIENT CHANNEL

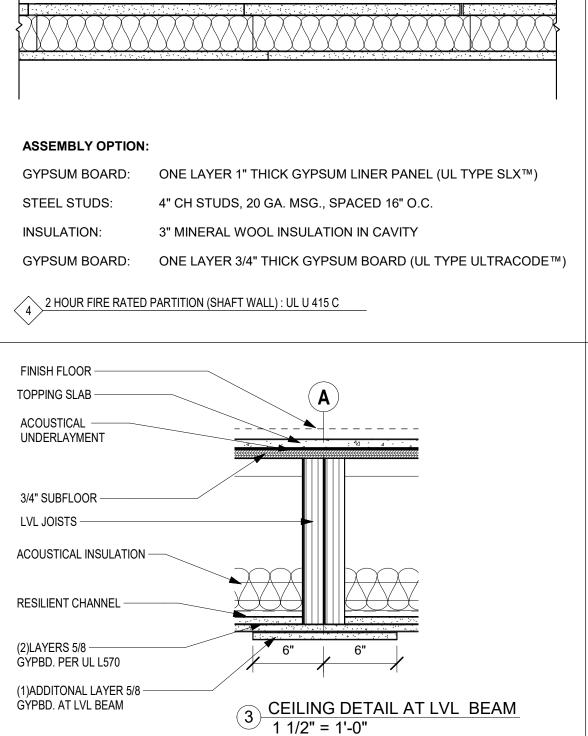
GYPBD. PER UL L570

(1)ADDITONAL LAYER 5/8

GYPBD. AT STEEL BEAM

(2)LAYERS 5/8 —

STEEL BEAM WITH WOOD



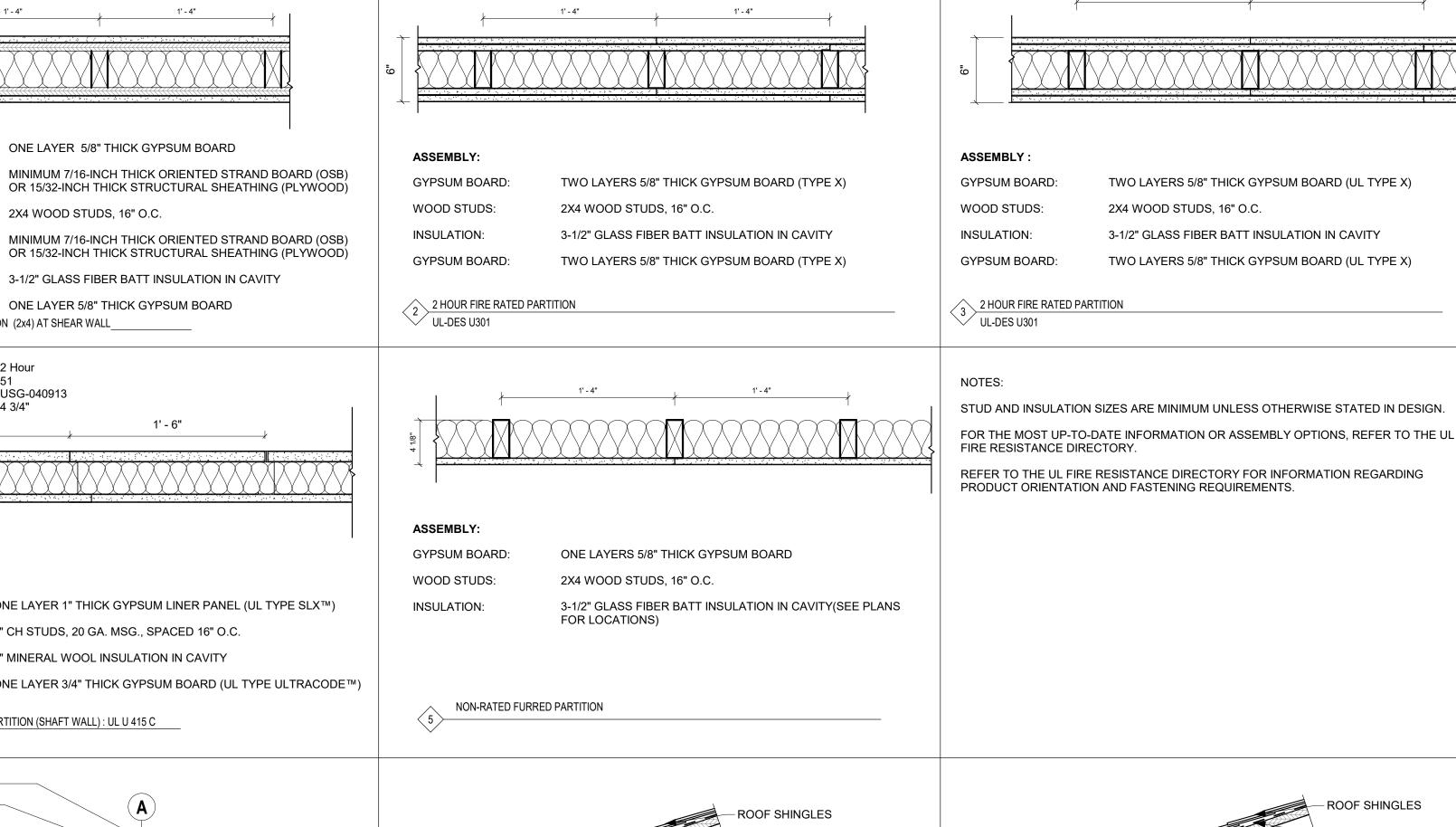
ONE LAYER 5/8" THICK GYPSUM BOARD

ONE LAYER 5/8" THICK GYPSUM BOARD

3-1/2" GLASS FIBER BATT INSULATION IN CAVITY

1' - 6"

2X4 WOOD STUDS, 16" O.C.



ROOF UNDERLAYMENT

- EXTEND PARTITION TO

BETWEEN RAFTER/TRUSS

PARTITION, SEE PARTITION

ROOF DECKING

- RAFTER FRAMING

- FIRE RATED SEALANT

- RATED INTERIOR

SCHEDULE

CHORD

FIRE RATING:

SOUND TEST:

FIRE RATED

SEALANT

RAFTER

DECKING

AT SIDE OF

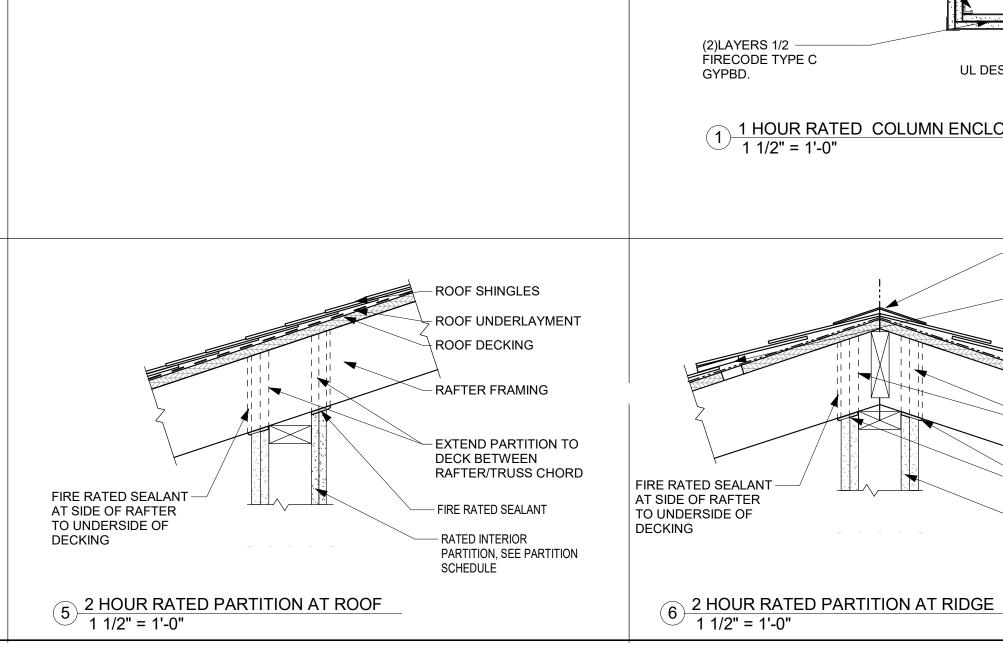
TO UNDERSIDE OF

4 1 HOUR RATED PARTITION AT ROOF 1 1/2" = 1'-0"

SYSTEM THICKNESS: 6" NOMINAL

2 HOUR

RAL-TL15-063



(D-10)

FIRE RATING:

SOUND TEST:

SYSTEM THICKNESS: 6" NOMINAL

2 HOUR

RAL-TL15-063

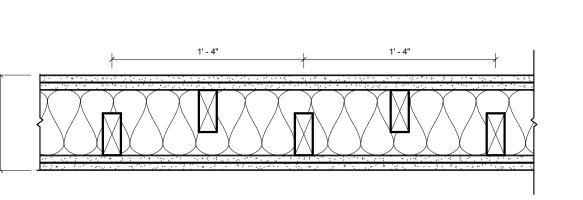
1' - 4"

2X4 WOOD STUDS, 16" O.C.

TWO LAYERS 5/8" THICK GYPSUM BOARD (UL TYPE X)

TWO LAYERS 5/8" THICK GYPSUM BOARD (UL TYPE X)

3-1/2" GLASS FIBER BATT INSULATION IN CAVITY



GYPSUM BOARD: TWO LAYERS 5/8" THICK GYPSUM BOARD (UL TYPE X)

WOOD STUDS: 2X4 WOOD STUDS, 16" O.C. INSULATION:

3-1/2" GLASS FIBER BATT INSULATION IN CAVITY GYPSUM BOARD: TWO LAYERS 5/8" THICK GYPSUM BOARD (UL TYPE X)

2 HOUR FIRE RATED PARTITION (STAGGERED STUDS)

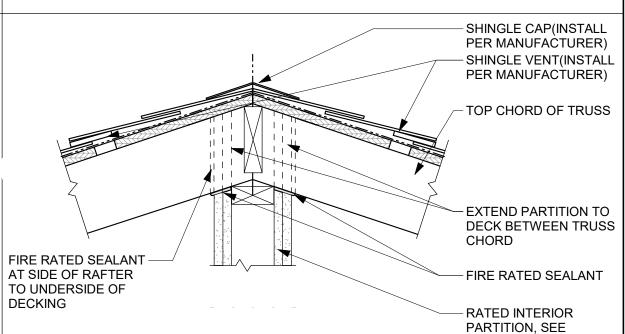
¹ 1 1/2" = 1'-0"

ASSEMBLY:

STEEL COLUMN, SEE STRUCTURAL DRAWINGS 15/8" STEEL STUD-(2)LAYERS 1/2 -FIRECODE TYPE C UL DES X528

GYPBD.

1 HOUR RATED COLUMN ENCLOSURE 1 1/2" = 1'-0"

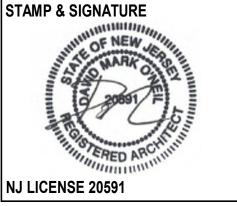


DRAWING NO.

PARTITION SCHEDULE

A-500

01/14/22 As indicated STAMP & SIGNATURE



Habitat Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522 PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL **135 SUMMER STREET** PASSAIC NJ 07055

> 29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

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6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021 09/27/2021 3 DESIGN

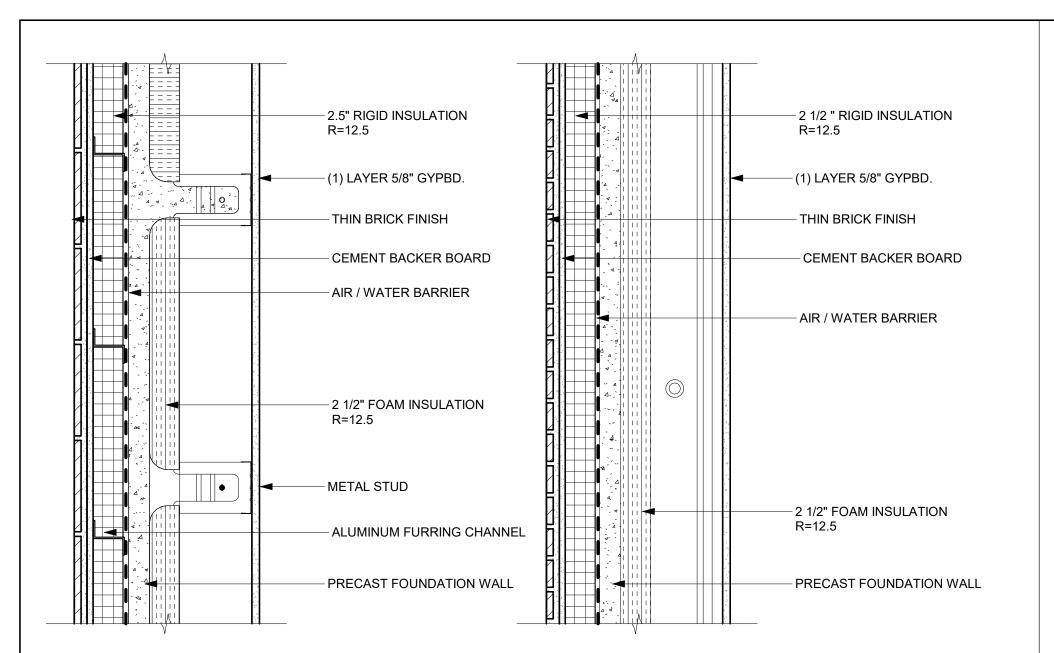
ISSUE/REVISION

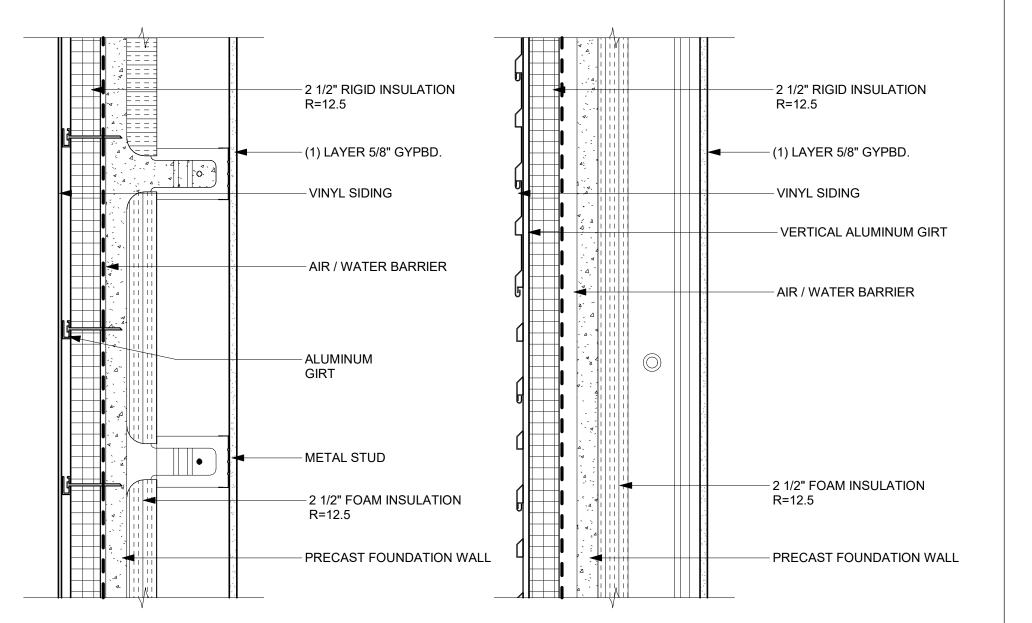
DEVELOPMENT

DRAWING TITLE

DOOR, WINDOW AND INTERIOR PARTITION **TYPES**

DATE





3" RIGID INSULATION

-(1) LAYER 5/8" GYPBD.

- VERTICAL ALUMINUM GIRT

- AIR / WATER BARRIER

-5.5" BATT INSULATION,

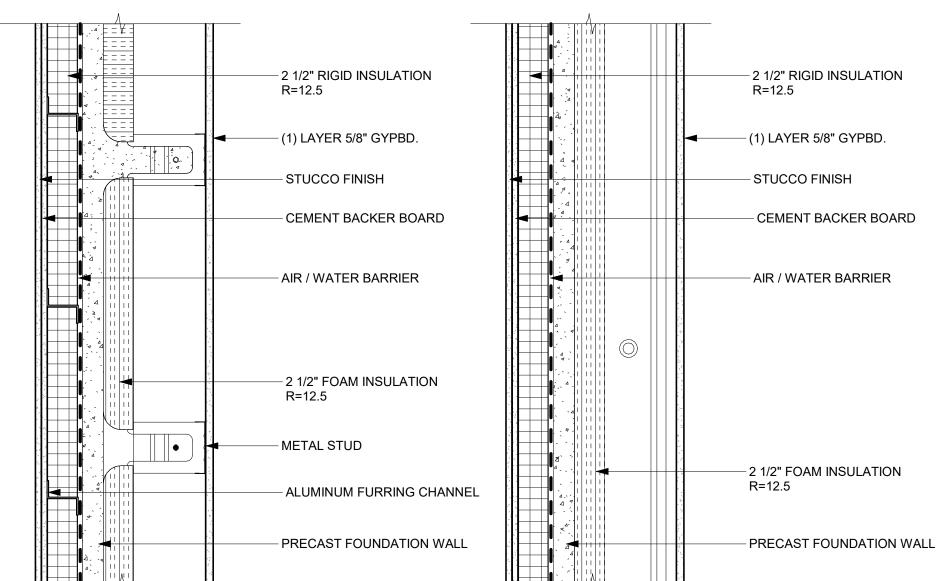
R = 21, BETWEEN 2X6

WOOD STUDS A6 16"

- 1/2" EXTERIOR SHEATHING

- VINYL SIDING

R=15.0



STUCCO CLAD FOUNDATION WALL

MINIMUM CONTINUOUS INSULATION = R-11.4 c.i. (COMMERCIAL)

BUILDING ENVELOPE REQUIREMENTS

ASHRAE 90. 1 2016 Edition Table 5.5-5 Building Envelope reqirements for Climate Zone 5(A,B,C)

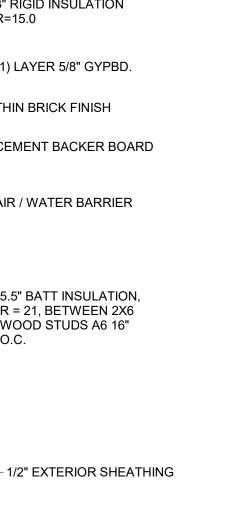
	Non-Reside	ential		Residential			Semi-Heated	d	
Opaque Elements	Assembly Maximum	Insulation Minimum R-\	/alue	Assembly Maximum	Insulation Minimum R-\	/alue	Assembly Maximum	Insulation Minimum R	-Value
Roofs									
Insulation entirely above deck	U-0.032	R-30 c.i.		U-0.032	R-30 c.i.		U-0.063	R-15 c.i.	
Metal Building	U-0.037	R-19 + R-11 R-25 + R-8 I		U-0.037	R-19 + R-11 R-25 + R-8 I		U-0.082	R-19	
Attics and Other	U-0.021	R-49		U-0.021	R-49		U-0.034	R-30	
Walls, above grade									
Mass	U-0.090	R-11.4 c.i.		U-0.080	R-13.3 c.i.		U-0.151 (b)	R-5.7. c.i.	(b)
Metal building	U-0.050	R-0 + R-19 c	:.i.	U-0.050	R-0 + R-19	c.l.	U-0.094	R-0 + R-9.	8 c.i.
Metal-framed	U-0.055	R-13+ R-10	c.i.	U-0.055	R-13+ R-10	c.i.	U-0.084	R-13 + R-3	3.8 c.i.
Wood-framed and other	U-0.051	R-13 + R-7.5 R-19 + R-5 c		U-0.051	R-13 + R-7.5 R-19 + R-5 c		U-0.089	R-13	
Walls, below grade									
Walls, below grade	C-0.119	R-7.5 c.i.		C-0.092	R-10 c.i.		C-1.140	NR	
Floors									
Mass	U-0.057	R-14.6 c.i.		U-0.051	R-16.7 c.i.		U-0.107	R-6.3 c.i.	
Steel joist	U-0.038	R-30		U-0.038	R-30		U-0.052	R-19	
Wood-framed and other	U-0.033	R-30		U-0.033	R-30		U-0.051	R-19	
Slab-on-Grade Floors									
Unheated	F-0.520	R-15 for 24	in.	F-0.510	R-15 for 24	in.	F-0.790	NR	
Heated	F-0.688	R-20 for 48	in.	F-0.688	R-20 for 48	in.	F-0.900	R-10 for 2	4 in.
Opaque									
Swinging	U-0.370			U-0.370			U-0.370		
Non-swinging	U-0.310			U-0.310			U-0.360		
<u>Fenestration</u>	Assembly Max. U	Assembly Max. SHGC	Assembly MIN. VT/SHGC	Assembly Max. U	Assembly Max. SHGC	Assembly MIN. VT/SHGC	Assembly Max. U	Assembly Max. SHGC	Assembly MIN. VT/SHG
Vertical Fenestration 0% to 40% of Wall		(for all frame	e types)		(for all frame	e types)		(for all fram	ne types)
Nonmetal framing, all	0.31	0.38	1.10	0.31	0.38	1.10	0.45	NR	NR
Metal framing, fixed	0.38			0.38			0.62		
Metal framing, operable	0.46			0.46			0.70		
Wood-framed and other	0.68			0.68			0.77		
Skylight, 0% to 3% of Roo	of								•
All types	0.50	0.40	NR	0.50	0.40	NR	0.98	NR	NR

c.i. = continuous insulation FC = filled cavity Ls= liner system

BRICK CLAD FOUNDATION WALL

MINIMUM CONTINUOUS INSULATION = R-11.4 c.i. (COMMERCIAL)

3" RIGID INSULATION 3" RIGID INSULATION R=15.0 R=15.0 -(1) LAYER 5/8" GYPBD. -(1) LAYER 5/8" GYPBD. - THIN BRICK FINISH THIN BRICK FINISH CEMENT BACKER BOARD - CEMENT BACKER BOARD - AIR / WATER BARRIER - AIR / WATER BARRIER - 2 X 6 WOOD STUD, 16" O.C. -5.5" BATT INSULATION, - 5.5" BATT INSULATION R = 21, BETWEEN 2X6 R = 21WOOD STUDS A6 16" **ALUMINUM FURRING CHANNEL**



MINIMUM INSULATION = R- 49

VINYL SIDING CLAD STUD WALL

R = 21

UL DESIGN NO. P522 FOR THE MOST UP-TO-DATE INFORMATION OR FIRE RATING: 1 HOUR ASSEMBLY OPTIONS, REFER TO THE UL FIRE RESISTANCE DIRECTORY. SOUND TEST: N/A SYSTEM THICKNESS: N/A REFER TO THE UL FIRE RESISTANCE DIRECTORY FOR INFORMATION REGARDING PRODUCT ORIENTATION AND FASTENING REQUIREMENTS. ¹² MIN. SLOPE

- 1/2" EXTERIOR SHEATHING

ROOFING SYSTEM: ANY UL CLASS A, B OR C ROOFING SYSTEM (TGFU) OR PREPARED ROOF COVERING (TFWZ)

ROOF SHEATHING: NOM. 15/32" THICK WOOD STRUCTURAL PANELS, MIN. GRADE "C-D" OR "SHEATHING"

PITCHED OR PARALLEL CHORD WOOD TRUSSES, SPACED 24" MAX. O.C., FABRICATED FROM NOM. 2x4 LUMBER, TRUSSES: ORIENTED VERTICALLY OR HORIZONTALLY. MIN. TRUSS DEPTH SHALL BE 5 1/4" WITH A MIN. ROOF SLOPE OF 3/12

AIR DUCT: ANY UL CLASS 0 OR CLASS 1 FLEXIBLE AIR DUCT

ASSEMBLY OPTIONS:

CEILING DAMPER:

X4 BRICK CLAD STUD WALL

MINIMUM INSULATION = R-13 + R-7.5 c.i.(RESIDENTIAL)

MAX. NOM. AREA, 324 SQ IN., MAX. SQUARE SIZE, 18" BY 18", RECTANGULAR SIZES NOT TO EXCEED 324 SQ IN. WITH WIDTH OF 18" MAX., DAMPER HEIGHT 14" MAX.

3-1/2" THICK MIN. BATTS AND BLANKETS DRAPED OVER RESILIENT CHANNEL AND GYPSUM BOARD CEILING MEMBRANE CAVITY INSULATION:

RESILIENT CHANNELS: 1/2" DEEP, 25 GA., INSTALLED PERPENDICULAR TO THE TRUSSES SPACED 16" MAX. O.C.

ONE LAYER 5/8" THICK GYPSUM BOARD (TYPE X) GYPSUM BOARD:

OL DESIGN NO. L	010 2			
FIRE RATING: STC: SOUND TEST: SYSTEM THICKNESS:	1 HOUR 59 H5048.06 1' 4 3/32"	IIC: SOUND TEST:	78 H5048.06	
	2' - 0"		2' - 0"	
1'-4 1/8"				

ASSEMBLY OPTIONS:

FINISH FLOORING:

GYPSUM BOARD:

CARPET & PAD (BY OTHERS)

FLOOR TOPPING MIXTURE: 3/4" USG LEVELROCK® BRAND 2500 SERIES UNDERLAYMENT

FLOOR MAT: 1/8" USG LEVELROCK® BRAND SAM-N12™ SOUND ATTENUATION MAT

SUBFLOORING: 23/32" PLYWOOD PANEL

STRUCTURAL WOOD MEMBERS: 11-7/8" WOOD I-JOISTS, SPACED 24" O.C. INSULATION: 3-1/2" UNFACED GLASS FIBER

RESILIENT CHANNELS: 25 GA. RESILIENT CHANNELS SPACED 16" O.C. (SOUND TESTED WITH RC DELUXE®) TWO LAYERS 5/8" USG SHEETROCK® BRAND ECOSMART PANELS FIRECODE® X (UL TYPE

MINIMUM INSULATION = R-13 + R-7.5 c.i. (RESIDENTIAL)

VINYL SIDING CLAD FOUNDATION WALL

3" RIGID INSULATION

-(1) LAYER 5/8" GYPBD.

THIN BRICK FINISH

CEMENT BACKER BOARD

- AIR / WATER BARRIER

-2 X 6 WOOD STUD, 16" O.C.

- 5.5" BATT INSULATION,

VERTICAL ALUMINUM

1/2" EXTERIOR SHEATHING

MINIMUM CONTINUOUS INSULATION = R-11.4 c.i. (COMMERCIAL)

R=15.0

UL DESIGN NO. L	.570 2		
FIRE RATING: STC: SOUND TEST: SYSTEM THICKNESS:	1 HOUR 59 H5048.06 1' 4 3/32"	IIC: SOUND TEST:	78 H5048.06
1'-4 1/8"			2' - 0"

Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522 PROJECT NAME MIXED USE BUILDING **VFW HALL / RESIDENTIAL 135 SUMMER STREET** PASSAIC NJ 07055

Habitat

CHEN O'NEIL ARCHITECTS, PL

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

MEP/FP ENGINEER: 186 Wood Ave South, 1ST Floor Iselin, NJ 08830

t: 732-635-0044 CIVIL ENGINEER:

Golden & Moran Engineering 22 Angelo Drive Sparta, NJ 07871

t: (973) 714-2131

STRUCTURAL ENGINEER:



APPLICANT: Paterson Habitat for Humanity 146 North 1st Street Paterson, NJ 07522

t: (973) 595-6868

6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021 4 75% CD SET 11/15/2021 3 DESIGN 09/27/2021 DEVELOPMENT

ISSUE/REVISION

DRAWING TITLE

SITE PLAN

SUBMISSION

EXTERIOR PARTITION TYPES, ASSEMBLY

VALUES

10/27/2020

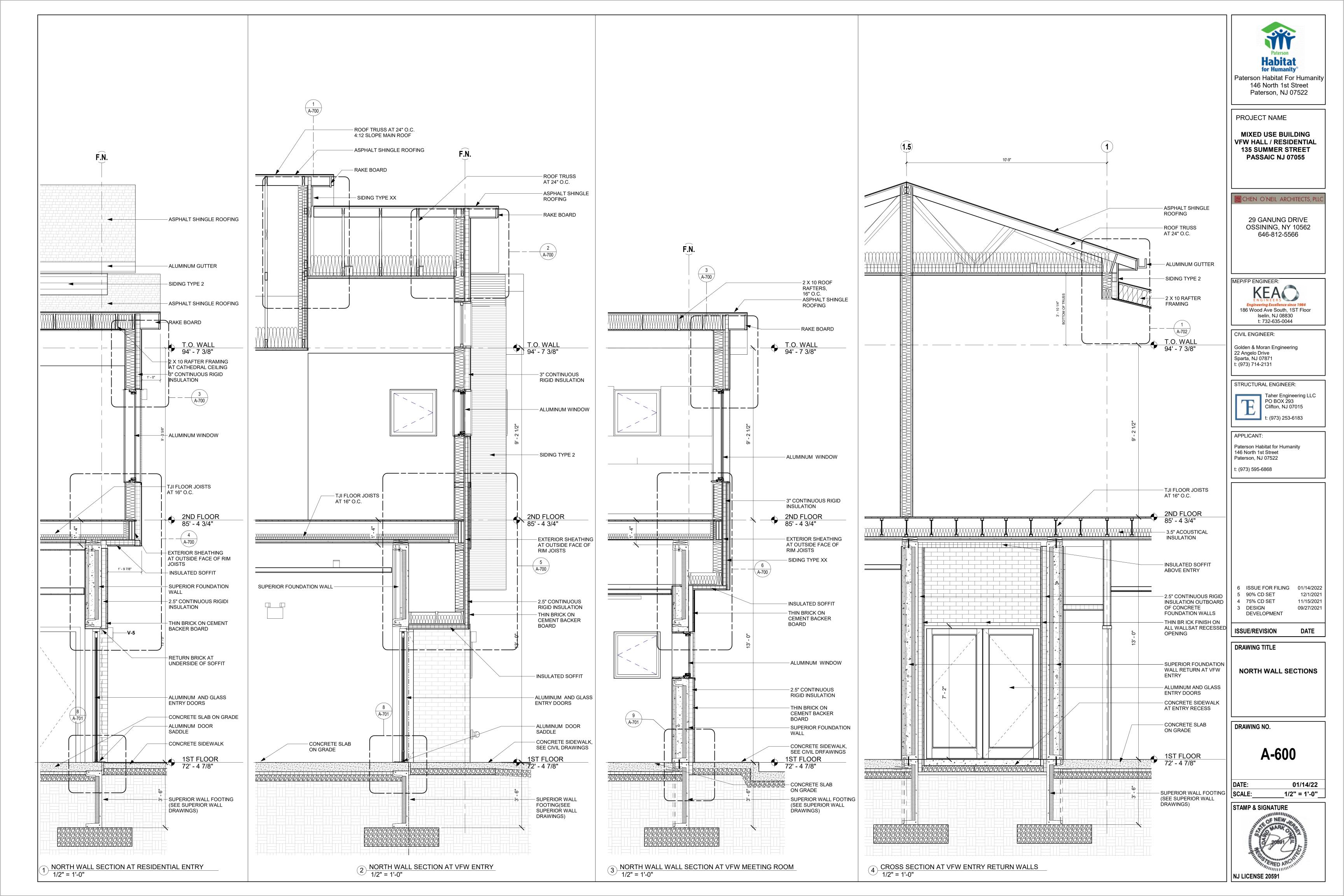
DATE

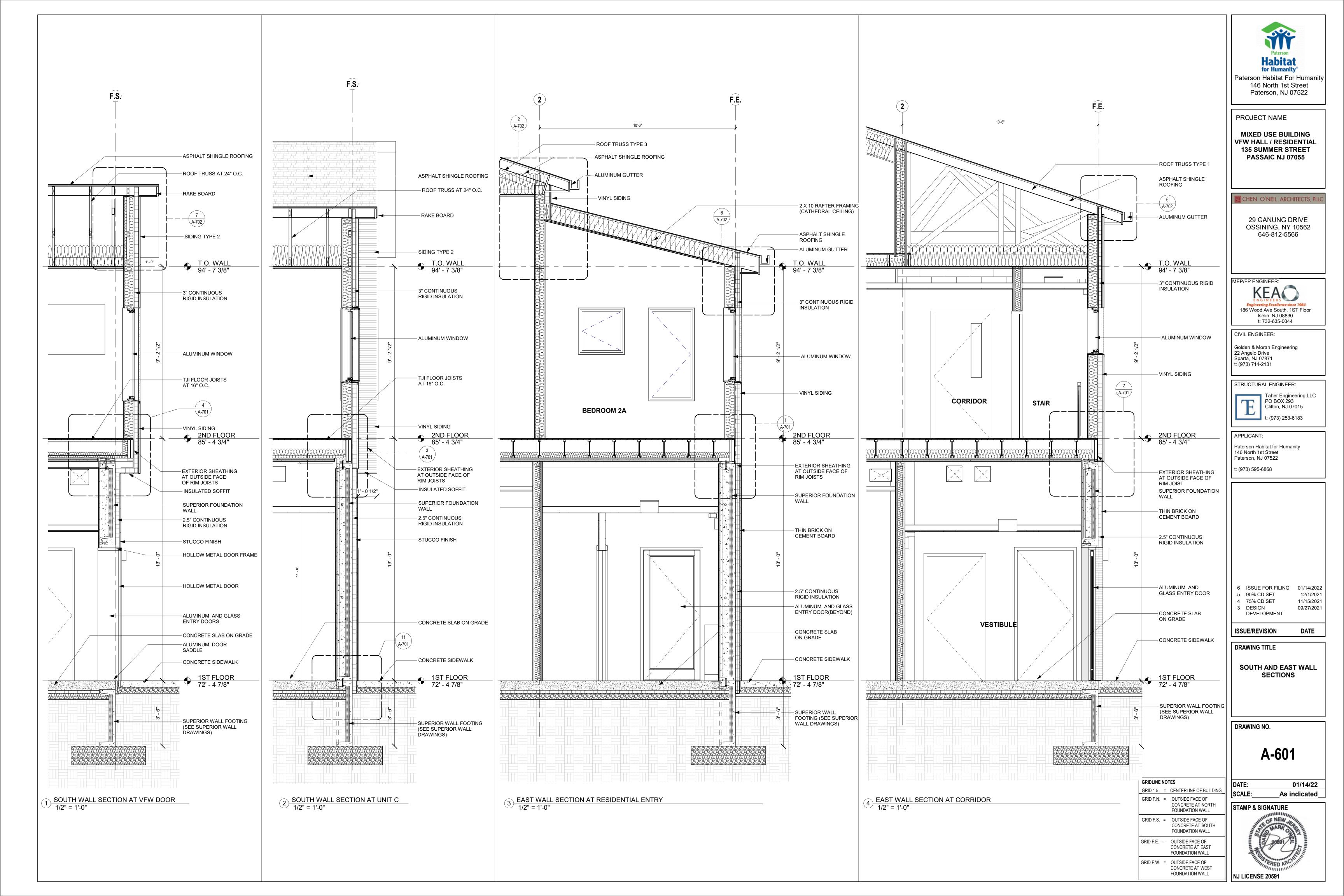
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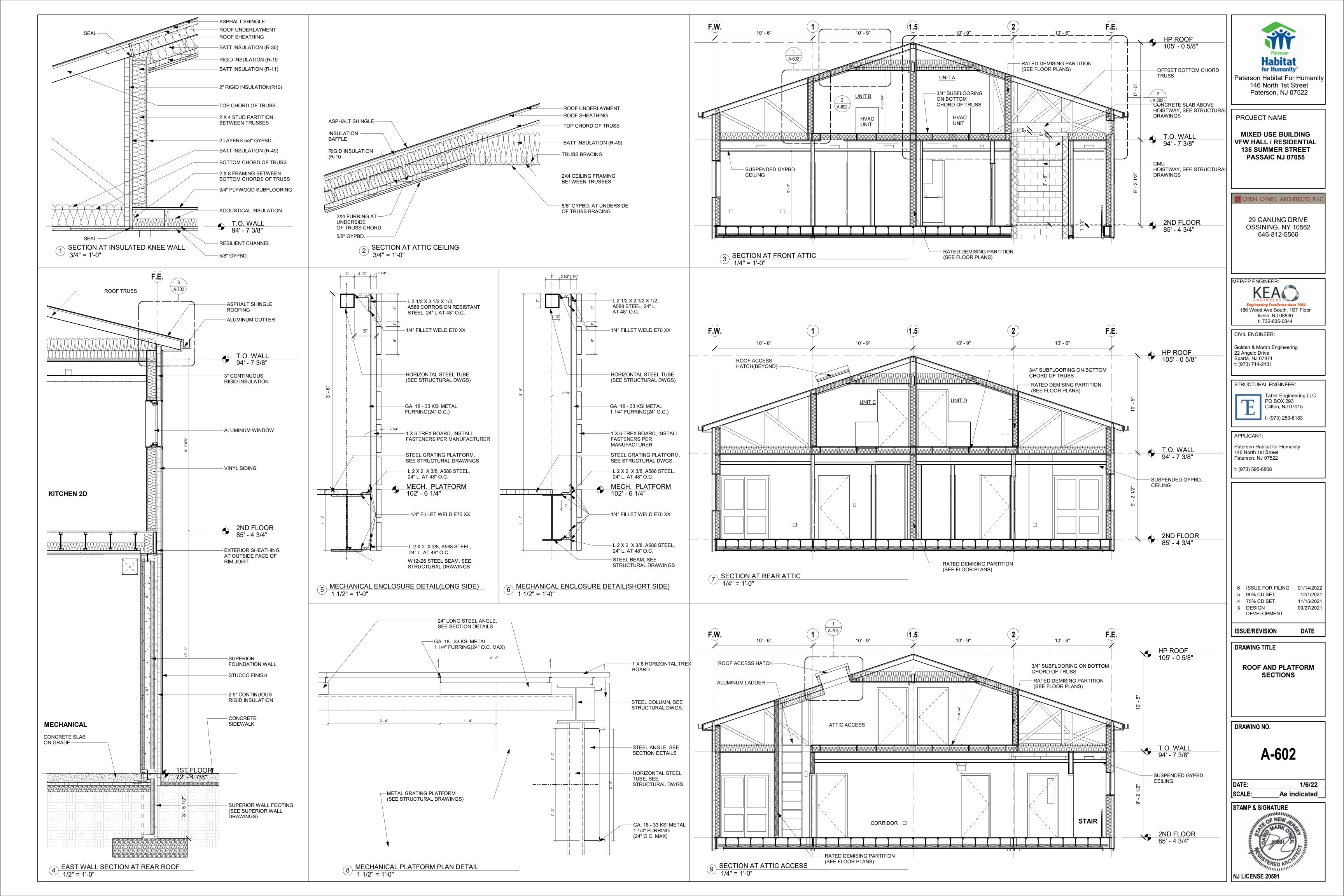
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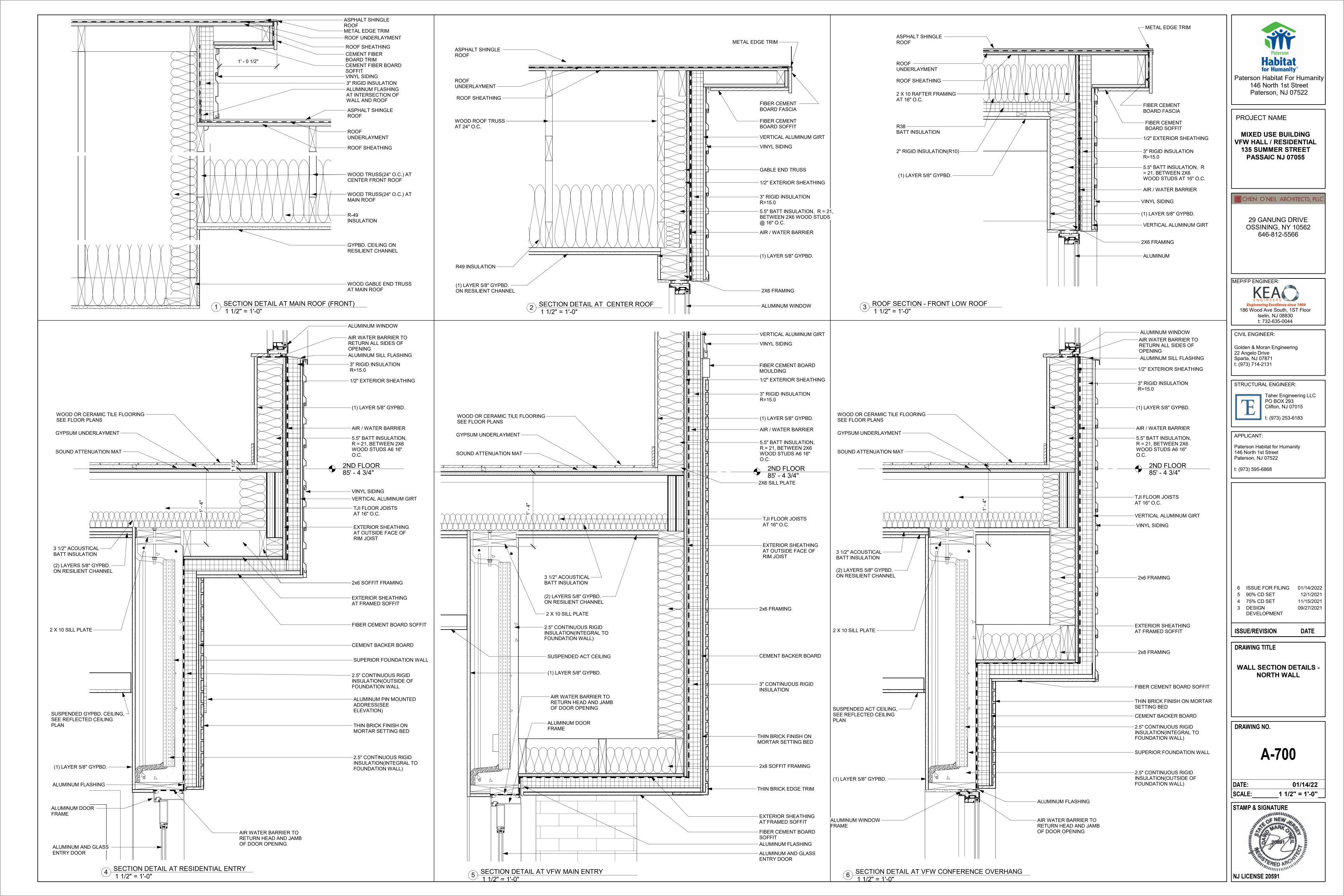
01/14/22 As indicated STAMP & SIGNATURE

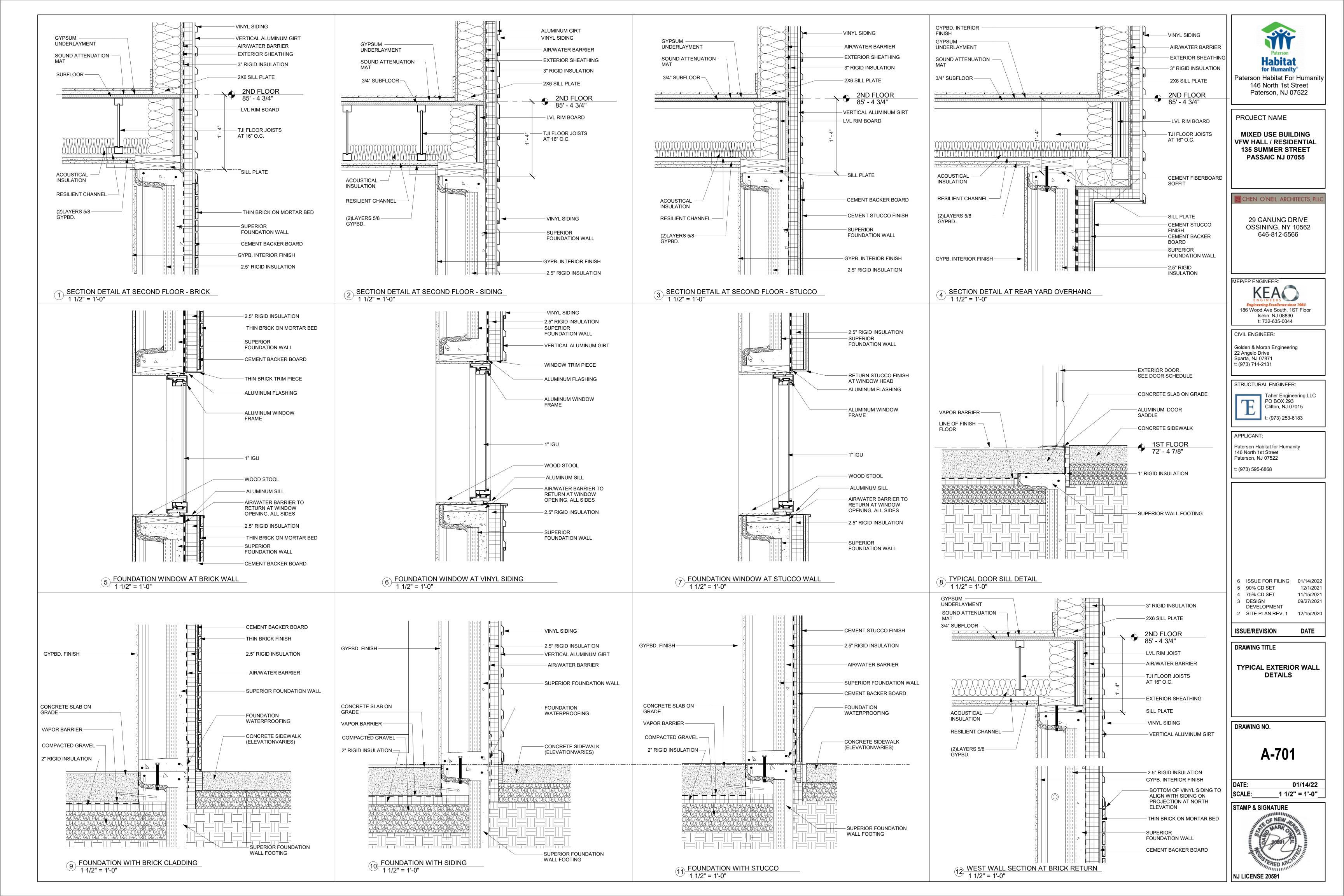


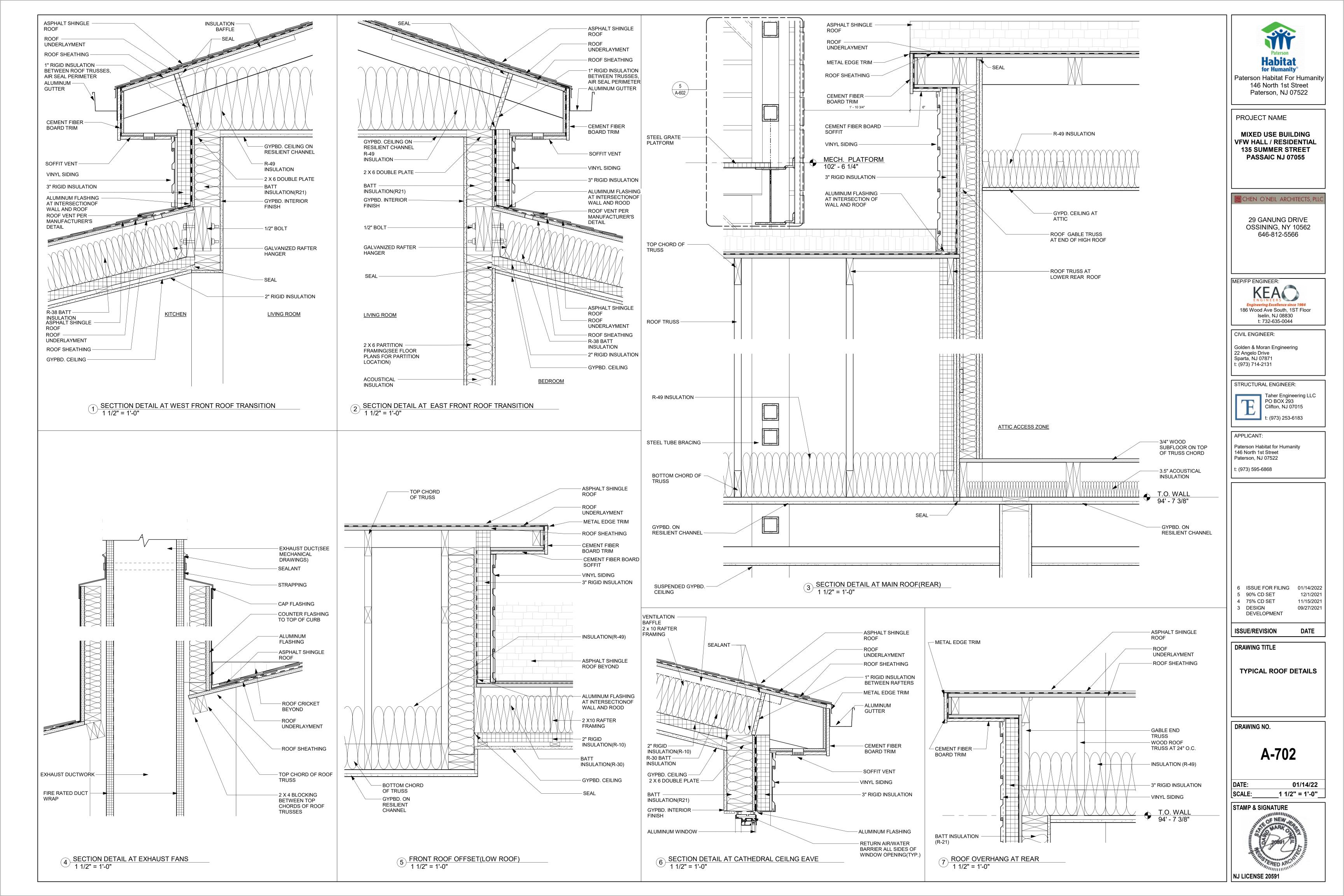


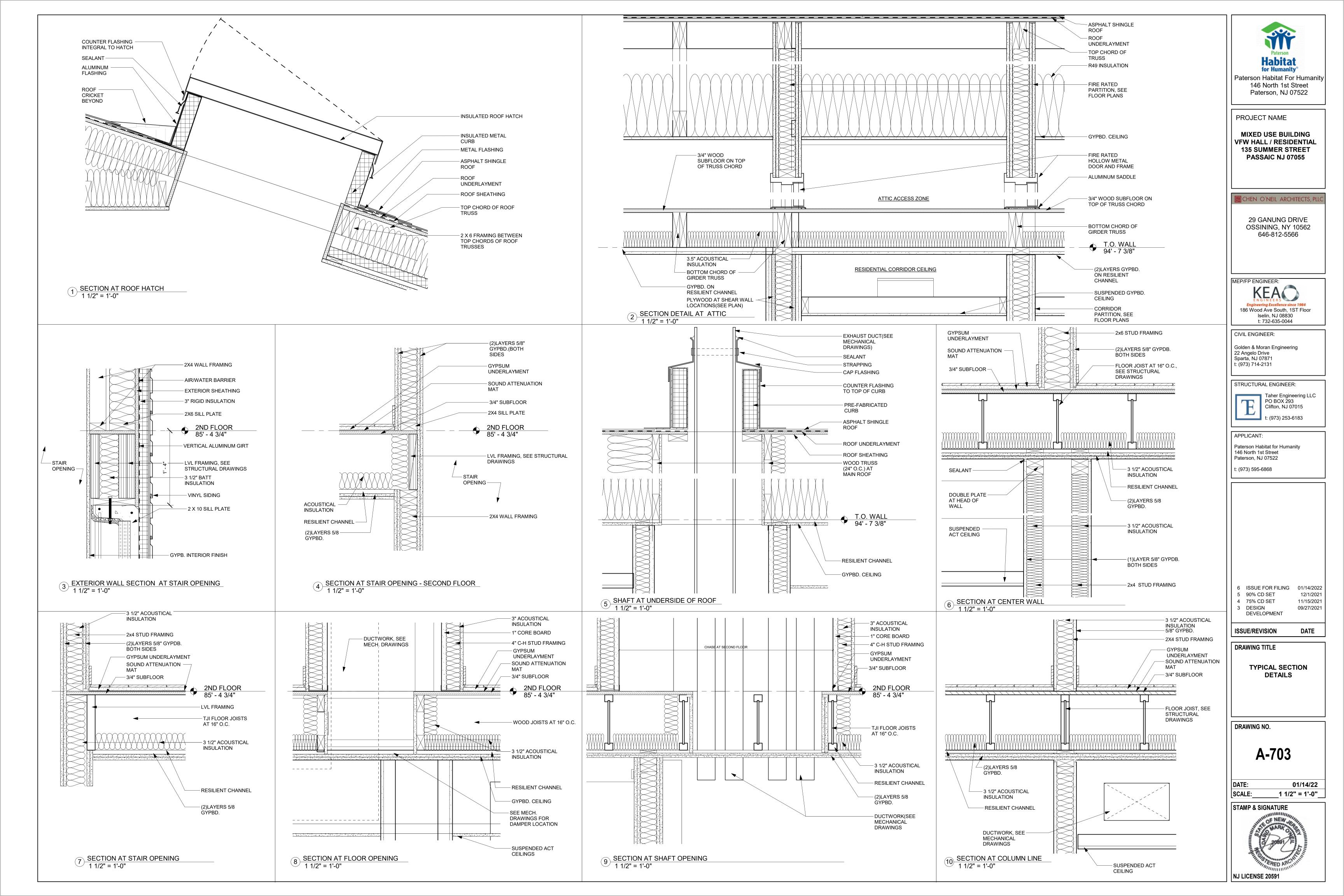


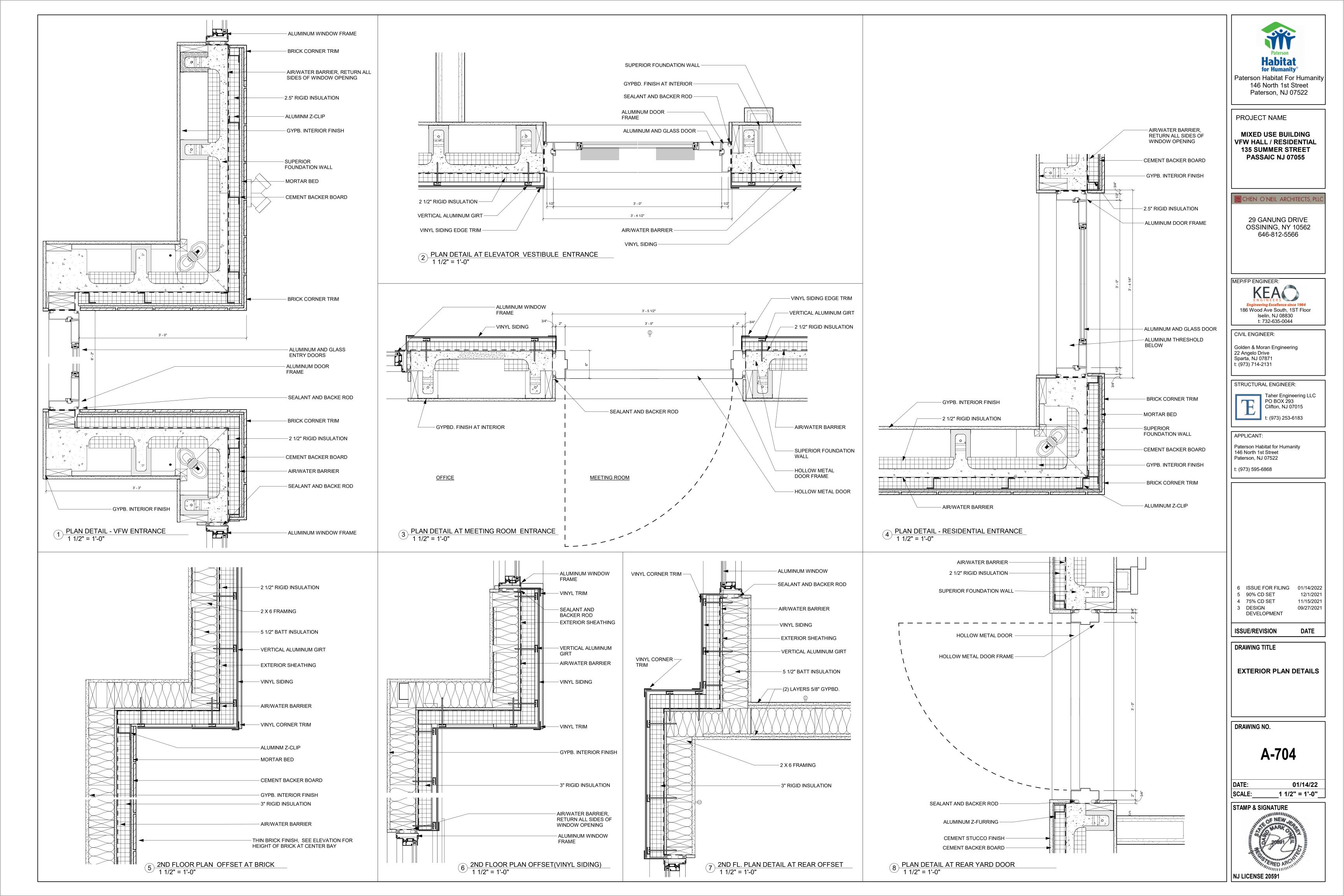












Project Information

Energy Code: Project Title: Commercial Building with Residential Units

Location: Passaic, New Jersey Climate Zone:

Project Type: New Construction Vertical Glazing / Wall Area:

Construction Site: Owner/Agent: Designer/Contractor: Chen O'Neil Architects 135 Summer Street Habitat For Humanity 146 North 1st Street 29 Ganun Drive Passaic, NJ 07055 Ossining, NY 10562 Paterson, NJ 07522

Additional Efficiency Package(s)

High efficiency HVAC. Systems that do not meet the performance requirement will be identified in the mechanical requirements checklist

Building Area	Floor Area
1-1st Floor (Retail) : Nonresidential	3184
2-2nd Floor (Multifamily) : Nonresidential	3264

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U Factor(n)
Roof 1: Attic Roof with Wood Joists, [Bldg. Use 2 - 2nd Floor]	3185	49.0	0.0	0.021	0.027
Roof 2: Attic Roof with Wood Joists, [Bldg. Use 2 - 2nd Floor]	330	38.0	0.0	0.027	0.027
Floor 1: Slab-On-Grade:Unheated Fully Insulated (user specified perimeter R-value + R-10.0 under slab), [Bldg. Use 2 - 2nd Floor] (c)	234		0.0	0.730	0.540
NORTH Exterior Wall 1: Solid Concrete:3" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - 1st Floor]	503	12.5	12.5	0.052	0.090
Window 1: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	20			0.380	0.380
Window 2: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	40			0.460	0.450
Door 1: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.37, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	75			0.680	0.770
Exterior Wall 2: Wood-Framed, 24" o .c., [Bldg. Use 1 - 1st Floor]	64	21.0	15.0	0.030	0.064
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 2 - 2nd Floor]	510	21.0	15.0	0.030	0.064
Window 3: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 2 - 2nd Floor] (b)	80			0.460	0.450
EAST					
Exterior Wall 7: Solid Concrete:3" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - 1st Floor]	920	12.5	12.5	0.052	0.090
Window 8: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bidg. Use 1 - 1st Floor] (b)	12			0.460	0.450

Project Title: Commercial Building with Residential Units Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 1 of 9 Summer Street_Exterior Envelope.cck

Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] ²	Fenestration products rated in accordance with NFRC.	□Complies □Does Not	
		□Not Observable □Not Applicable	
C303.1.3 [FR13] ¹	Fenestration products are certified as to performance labels or certificates	□Complies □Does Not	
	provided.	□Not Observable □Not Applicable	
C402.4.3 [FR10] ¹	Vertical fenestration SHGC value.	□Complies □Does Not	See the Envelope Assemblies table for values.
		□Not Observable □Not Applicable	
C402.4.3.	Vertical fenestration U-Factor.	□Complies □Does Not	See the Envelope Assemblies table for values.
4 [FR8] ¹		□Not Observable □Not Applicable	
C402.4.4 [FR14] ²	U-factor of opaque doors associated with the building thermal envelope	□Complies □Does Not	See the Envelope Assemblies table for values.
	meets requirements.	□Not Observable □Not Applicable	
C402.5.7 [FR17] ³	Vestibules are installed on all building entrances. Doors have self-closing	□Complies □Does Not	
	devices.	□Not Observable □Not Applicable	

Additional Comments/Assumptions:

Summer Street_Exterior Envelope.cck

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)		
Project Title: Commercial Building with Residential Units Report date: 01/30/21	1 High Impact (Tier 1) 2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 5 of 9	Project Title: Commercial Building with Residential Units	Report (

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
Exterior Wall 8: Wood-Framed, 16" o.c., [Bldg. Use 2 - 2nd Floor]	810	21.0	15.0	0.030	0.064
Window 6: Metal Frame with Thermal Break:Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 2 - 2nd Floor] (b)	60			0.460	0.450
Exterior Wall 11: Wood-Framed, 24" o .c., [Bldg. Use 2 - 2nd Floor]	125	12.5	12.5	0.040	0.064
SOUTH					
Exterior Wall 4: Solid Concrete:3" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - 1st Floor]	490	12.5	12.5	0.052	0.090
Window 4: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	6			0.460	0.450
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - 1st Floor]	25			0.370	0.370
Exterior Wall 5: Wood-Framed, 24" o .c., [Bidg. Use 1 - 1st Floor]	70	21.0	15.0	0.030	0.064
Exterior Wall 6: Wood-Framed, 16" o.c., [Bldg. Use 2 - 2nd Floor]	423	21.0	15.0	0.030	0.064
Window 5: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 2 - 2nd Floor] (b)	80			0.460	0.450
WEST					
Exterior Wall 9: Solid Concrete:3" Thickness, Normal Density, Furring: Metal, [Bldg. Use 1 - 1st Floor]	920	12.5	12.5	0.052	0.090
Window 7: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	12			0.460	0.450
Door 3: Glass (> 50% glazing):Metal Frame, Entrance Door, Perf. Specs.: Product ID NA, SHGC 0.38, VT 0.40, [Bldg. Use 1 - 1st Floor] (b)	25			0.680	0.770
Door 4: Insulated Metal, Swinging, [Bldg. Use 1 - 1st Floor]	25			0.370	0.370
Exterior Wall 10: Wood-Framed, 16" o.c., [Bldg. Use 2 - 2nd Floor]	810	21.0	15.0	0.030	0.064
Exterior Wall 12: Wood-Framed, 24" o .c., [Bldg. Use 1 - 1st Floor]	144	21.0	15.0	0.030	0.064

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements. (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation. (c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

nvelope PASSES: Design 19% better than code

Envelope Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

David O'Neil, AIA		01/14/2022
Name - Title	Signature	Date

Project Title:	Commercial Building with Residential Units	Repo	ort date:	01/30	/21
Data filename:	C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ COD Summer Street_Exterior Envelope.cck	E\1	Page	2 of	9

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5,	Stair and elevator shaft vents have	□Complies	
C403.2.4.	motorized dampers that automatically	□Does Not	
3	close. Refernece section C403.7.7 for	□Not Observable	
[ME3] ³	operational details.	□Not Applicable	

Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 6 of 9

Additional Comments/Assumptions:

Project Title: Commercial Building with Residential Units

Summer Street_Exterior Envelope.cck

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 [IN3] ¹	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <=3 in 12.	□Complies □Does Not □Not Observable □Not Applicable	
C402.2.1 [IN20] ¹	Insulation installed on a suspended ceiling having ceiling tiles is not being specified for roor/ceiling assemblies. Continuous insulation board installed in 2 or more layers with edge joints offset between layers.	□Complies □Does Not □Not Observable □Not Applicable	
C303.1 (IN10) ²	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	□Complies □Does Not □Not Observable □Not Applicable	
C303.2 (IN7) ¹	Above-grade wall insulation installed per manufacturer's instructions.	□Complies □Does Not □Not Observable □Not Applicable	
C303.2.1 [IN14] ²	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	□Complies □Does Not □Not Observable □Not Applicable	
C105 (IN6) ¹	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
C402.2.3 [IN8] ²	Installed floor insulation type and R- value consistent with insulation specifications reported in plans and COMcheck reports.	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
C402.2.6 [IN18] ³	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	□Complies □Does Not □Not Observable □Not Applicable	
C105 (IN2) ¹	Installed roof insulation type and R- value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	□Complies □Does Not □Not Observable □Not Applicable	See the Envelope Assemblies table for values.
C402.5.1. 1 [IN1] ¹	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor- permeable wrapping material to minimize air leakage.	□Complies □Does Not □Not Observable □Not Applicable	

COMcheck Software Version 4.1.5.1

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each

requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception

Comments/Assumptions

Report date: 01/30/21

is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Complies?

☐Not Observable

☐Not Applicable

☐Not Observable

☐Not Applicable

Does Not □Not Observable ☐Not Applicable

☐Complies

Does Not

□Not Applicable

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 3 of 9

Inspection Checklist

Requirements: 0.0% were addressed directly in the COMcheck software

Plan Review

C103.2 Plans and/or specifications provide all Complies

C402.4.1 The vertical fenestration area <= 30 ☐Complies

[PR10]¹ percent of the gross above-grade wall □Does Not

C402.4.1 The skylight area <= 3 percent of the Complies [PR11]1 gross roof area.

lobby, atrium, concourse, corridor,

refrigerated warehouse, retail store,

following requirements apply: (a) the

daylight zone under skylights is >=

area to daylight zone is >= 3 percent

half the floor area; (b) the skylight

with a skylight VT >= 0.40; or a minimum skylight effective aperture

Plans, specifications, and/or calculations provide all information

efficiency package options. Additional Comments/Assumptions:

Project Title: Commercial Building with Residential Units

Summer Street Exterior Envelope.cck

convention center, automotive service, manufacturing, non-

distribution/sorting area, transportation, or workshop, the

>= 1 percent.

can be determined for the building

envelope and document where

exceptions to the standard are

C402.4.2 In enclosed spaces > 2,500 ft2

[PR14]1 directly under a roof with ceiling

information with which compliance Does Not

heights >15 ft. and used as an office, Not Observable

storage, gymnasium/exercise center,

Not Applicable

determined for the additional energy

& Req.ID

	1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)	
Project Title:	Commercial Building with Residential Units Report date: 01/30	/21
	$\label{lem:code_phi} C:\Users\viruc\Desktop\Chen\O'Neil\Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ\ CODE\1 Page \qquad 7\ of \\ Summer\Street_Exterior\ Envelope.cck$	9

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4] ²	Slab edge insulation installed per manufacturer's instructions.	□Complies □Does Not	
		□Not Observable □Not Applicable	
C303.2.1 [FO6] ¹	damage, sunlight, moisture, wind,	□Complies □Does Not	
	landscaping and equipment maintenance activities.	□Not Observable □Not Applicable	
[FO3] ² and R-value consistent with insula	and R-value consistent with insulation	□Complies □Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.4 [FO7] ²	Slab edge insulation depth/length. Slab insulation extending away from	□Complies □Does Not	See the Envelope Assemblies table for values.
	building is covered by pavement or >= 10 inches of soil.	□Not Observable □Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 4 of 9

Complies?

☐Not Applicable

☐Complies

Additional Comments/Assumptions:

Project Title: Commercial Building with Residential Units

Final Inspection

C402.5.6 Weatherseals installed on all loading Complies [FI37]¹ dock cargo door openings and provide □Does Not

C402.5.6 Weatherseals installed on all loading Complies [FI37]¹ dock cargo door openings and provide □Does Not

C402.5.6 Weatherseals installed on all loading Complies [FI37]¹ dock cargo door openings and provide □Does Not

C402.5.6 Weatherseals installed on all loading Complies [FI37]¹ dock cargo door openings and provide □Does Not

Additional Comments/Assumptions:

continuous air barrier that has been Does Not tested and deemed to limit air leakage Not Observable

direct contact along the top and sides of vehicles parked in the doorway.

direct contact along the top and sides of vehicles parked in the doorway.

direct contact along the top and sides of vehicles parked in the doorway.

dock cargo door openings and sides direct contact along the top and sides of vehicles parked in the doorway.

C402.5 Building envelope contains a

<= 0.40 cfm/ft2.

& Req.ID

Summer Street_Exterior Envelope.cck

		TIP
1	Ш	Paterson
		Habitat for Humanity®
		Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522
١	Ι.	
		PROJECT NAME

| PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL **135 SUMMER STREET** PASSAIC NJ 07055

CHEN O'NEIL ARCHITECTS, PLI

29 GANUNG DRIVE OSSINING, NY 10562 646-812-5566

MEP/FP ENGINEER: 186 Wood Ave South, 1ST Floor Iselin, NJ 08830

t: 732-635-0044 CIVIL ENGINEER:

Golden & Moran Engineering 22 Angelo Drive Sparta, NJ 07871 t: (973) 714-2131

STRUCTURAL ENGINEER:

Report date: 01/30/21

Comments/Assumptions



APPLICANT: Paterson Habitat for Humanity

146 North 1st Street Paterson, NJ 07522

t: (973) 595-6868

5 90% CD SET 4 75% CD SET 11/15/2021 3 DESIGN DEVELOPMENT

12/1/2021

09/27/2021

DATE

1/6/22

ISSUE/REVISION

DRAWING TITLE

COMCHEK - EXTERIOR ENVELOPE

DRAWING NO.

EN-001

STAMP & SIGNATURE



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3) Project Title: Commercial Building with Residential Units Report date: 01/30/21 Data filename: C:\Users\yiruc\Desktop\Chen O'Neil Architects\COA_PHFH_Habitat\HH_VFW\HH_VFW_NJ CODE\1 Page 8 of 9 Summer Street_Exterior Envelope.cck

ENERGY STAR VERSION 3.1 CRITERIA

HOMES PERMITED ON OR AFTER OCTOBER 1, 2020 SHALL USE

VERSION 3.1 (REV 10. - 11/20/19) FOR COMPLIANCE WITH ENERGY STAR CRITERIA PROJECT IN CLIMATE ZONE 5, WOOD FRAME CONSTRUCTION **INSULATION QUALITY: GRADE 1** NOTE: IF ANY VALUES FOR ENERGY STAR CRITERIA ARE IN CONFLICT WITH PROVIONS OF THE ENERGY CODE,

ENERGY CODE SHALL GOVE	RN
ENVELOPE, WINDOWS AND DOORS	
Foundations:	Construction Type: Concrete Slab on Grade Gross Area: 790 sf Underslab Insulation = R10 at perimeter for entire depth of slab and underentire slab area Insulation Depth = 2"
Floors Over Unconditioned Spaces: Above Garage/Entry	Construction Type: Wood Frame Gross Area: 790 sf Floor Assembly U Factor = .033
Above-Grade Walls	Construction Type: Wood Frame Solar Absorptance: 0.75 Emittance: 0.90 Wall Assembly U-Factor: 0.057
Thermally Isolated Sunrooms	None
Doors. Opaque	U-factor 0.17 SHGC: Any
< 1/2 Lite	U-factor 0.25 SHGC: 0.25
> 1/2 Lite	U-factor 0.30 SHGC: 0.30
Glazing	Orientation: Equally Distributed to North, East, South, West Interior Shade Coefficient: Same as Energy Rating Reference Home, as defined by ANSI/RESNET/ICC Std. 301 Exterior Shading: None
	U-factor 0.27 SHGC: 0.40
Skylights	None
Ceilings	Construction Type: Wood Frame Ceiling Assembly U-Factor 0.026
Attics:	Vented with Aperture, 1sf per 300 sf ceiling area Radiant Barrier: None
Roofs	Construction Type: Composite shingle on wood sheathing Gross Area: Same as Rated Home Solar Absorptance = 0.92 Emittance = .90
Internal Mass:	Same as Energy Rating Reference Home, as defined by ANSI/ RESNET/ ICC Std. 301

Ouct Leakage to Outside	0 CFM25 per 100sf of conditioned floor area
Duct Insulation	
Duct Insulation Duct Surface Area	None, All ductwork to run within conditioned space Same as Rated Home
Supply and Return Ducts	Ductwork on Second and Third Floors
Locations	(within conditioned space)
Duct Insulation for Ducts in Unconditioned Space	N/A All ductwork to run within conditioned space
Thermostat Type	Programmable: Same as Energy Rating Reference Home, but with offsets for a programmable thermostat as defined by ANSI/ RESNET/ ICC Std. 301
HEATING SYSTEMS	
Heating Capacity	Heating capacity shall be selected in accordance with ACCA Manual S based on building heating and cooling loads calculated in Accordance with ACCA Manual J, 8th Edition, ASHRAE Handbook of Fundamental, or an equivalent computational procedure
Gas Furnace	95 AFUE
Gas Boiler	90 AFUE
COOLING SYSTEMS	
Cooling Capacity	Heating capacity shall be selected in accordance with ACCA Manual S based on building heating and cooling loads calculated in Accordance with ACCA Manual J, 8th Edition, ASHRAE Handbook of Fundamental, or an equivalent computational procedure
Air Conditioner	13 SEER
WATER HEATING EQUIPMENT	
Use(gallons per day)	Same as Energy Rating Reference Home, as defined by ANSI/ RESNET / ICC st. 301, except for reduced usage resulting from the dishwasher specified in the Lighting, Appliances and Internal Gains Section
Gas: Storage Tank Capacity	60 Gallons
Gas: DHW EF	0.57
LIGHTING AND APPLIANCES	
Lighting	Fraction of qualifying Tier 1 light fixtures to all fixtures in qualifyin light fixture locations: Interior: 90% Exterior and Garage: 0%
Refrigerators	ENERGY STAR, 423 kWh per year
Dishwashers	ENERGY STAR, 0,66 EF, Place Setting Capacity same as rated home
Ceiling Fans	ENERGY STAR, 122 CFM per watt, Quantity = Number of bedrooms +1 when ceiling fans present in the rated home, otherwise quantity = 0
Clothes Washer and Dryer	Same as Energy Rating Reference Home, as defined by ANSI/ RESNET/ ICC Std. 301
Internal Gains	Same as Energy Rating Reference Home, as defined by ANSI/ RESNET/ ICC Std. 301, except for adjustmens for the lighting, refrigerator, diswasher, and ceiling fans specified in this section

Mandatory Requirements for All Certified Homes

<u>*</u> <u>*</u>	
Party Responsible	Party Responsible
Requirements Applicable to F	Path A and B
Rater	Completion of National Rater Design Review Checklist, Version 3.1 Completion of National Rater Field Checklist, Version 3.1
Builder	Completion of National Water Management System Builder Requirement Version 3.1
Requirements Only Applicab	le to Path A - HVAC Grading
HVAC System Design	Completion of HVAC deign report compliant with ANSI / RESNET / ACCA Std. 310, plus the ENERGY STAR Supplement
HVAC Installing Contractor	None, while the HVAC contractor plays a critical role in properly installing and commisioning a system, the Rater is the party responsible for assessing its installation in accordance with ANSI / RESNET / ACCA Std. 310.
Requirements Only Applicab	le to Path B - HVAC Credential
HVAC System Design	Completion of National HVAC Design Report Version 3.1

HVAC Installing Contractor | Completion of National HVAC Commissioning Checklist Version 3.1

National Rater Field Checklist

ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10) Home Address: Must Builder Rater Correct Verified Verified N/A Thermal Enclosure System 1. High-Performance Fenestration & Insulation 1.1 Fenestration meets or exceeds specification in Item 2.1 of the National Rater Design Review Checklist. 1.2 Insulation meets or exceeds specification in Item 3.1 of the National Rater Design Review Checklist. 4 1.3 All insulation achieves Grade I install, per ANSI / RESNET / ICC Std. 301, Alternatives in Footnote 5, 5,6 2. Fully-Aligned Air Barriers 7 - At each insulated location below, a complete air barrier is provided that is fully aligned as follows: Ceilings: At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind washing in adjacent bays). 8 .1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings. Walls: At exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in Climate Zones 4-8.9 2.2 Walls behind showers, tubs, staircases, and fireplaces. 2.3 Attic knee walls and skylight shaft walls. 10 2.4 Walls adjoining porch roofs or garages. 2.5 Double-walls and all other exterior walls. Floors: At exterior vertical surface of floor insulation in all climate zones and, if over unconditioned space, also at interior horizontal surface including supports to ensure alignment. Alternatives in Footnotes 12 & 13. 11, 12, 13 2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floors. All other floors adjoining unconditioned space (e.g., rim / band joists at exterior wall or at porch roof). 3.1 For insulated ceilings with attic space above (i.e., non-cathedralized), Grade I insulation extends to the inside face of the exterior wall below and is ≥ R-21 in CZ 1-5; ≥ R-30 in CZ 6-8. 14 3.2 For slabs on grade in CZ 4-8, 100% of slab edge insulated to ≥ R-5 at the depth specified by the 2009 IECC and aligned with the thermal boundary of the walls. 15, 16 3 Insulation beneath attic platforms (e.g., HVAC platforms, walkways) ≥ R-21 in CZ 1-5; ≥ R-30 in CZ 6-8. 3.4 At above-grade walls separating conditioned from unconditioned space, one of the following options used (rim / band joists exempted): 1 3.4.1 Continuous rigid insulation, insulated siding, or combination of the two is: ≥ R-3 in CZ 1-4; ≥ R-5 in CZ 5-8 18, 19, 20, OR; 3.4.2 Structural Insulated Panels OR; Insulated Concrete Forms OR; Double-wall framing OR; 18,21 3.4.3 Advanced framing, including all of the Items below: 22 3.4.3a Corners insulated ≥ R-6 to edge ²³, AND; 3.4.3b Headers above windows & doors insulated ≥ R-3 for 2x4 framing or equivalent cavity width, and ≥ R-5 for all other assemblies (e.g., with 2x6 framing) 24, AND; 3.4.3c Framing limited at all windows & doors to one pair of king studs, plus one pair of jack studs per window opening to support the header and sill, AND; 3.4.3d Interior / exterior wall intersections insulated to same R-value as rest of exterior wall, ²⁵ AND; 3.4.3e Minimum stud spacing of 16 in. o.c. for 2x4 framing in all Climate Zones and, in CZ 6-8, 24 in. o.c. for 2x6 framing. 26 4. Air Sealing (Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material) 4.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed. 4.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to ≥ R-10 in CZ 4-8. 4.3 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor. Gasket also placed beneath above-grade sill plate if resting atop concrete / masonry & adjacent to cond. space. 27,28 4.4 Continuous top plate or blocking is at top of walls adjoining unconditioned space, and sealed. 4.5 Drywall sealed to top plate at all unconditioned attic / wall interfaces using caulk, foam, drywall adhesive (but not other construction adhesives), or equivalent material. Either apply sealant directly between drywall and top plate or to the seam between the two from the attic above. 4.6 Rough opening around windows & exterior doors sealed. 29 4.7 Walls that separate attached garages from occupiable space sealed and, also, an air barrier installed and sealed at floor cavities aligned with these walls.

National Water Management System Builder Requirements¹ ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10)

- It is the exclusive responsibility of builders to ensure that each certified home is constructed to meet these requirements. While builders are not required to maintain documentation demonstrating compliance for each individual certified home. builders are required to develop a process to ensure compliance for each certified home (e.g., incorporate these requirements into the Scope of Work for relevant sub-contractors, require the site supervisor to inspect each home for these requirements, and / or sub-contract the verification of these requirements to a Rater 2).
- In the event that the EPA determines that a certified home was constructed without meeting these requirements, the home may be decertified.

- 1. Water-Managed Site and Foundation .1 Patio slabs, porch slabs, walks, and driveways sloped ≥ 0.25 in. per ft. away from home to edge of surface or 10 ft., whichever is less. 3 1.2 Back-fill has been tamped and final grade sloped ≥ 0.5 in. per ft. away from home for ≥ 10 ft. Alternatives in Footnote. 3 1.3 Capillary break beneath all slabs (e.g., slab on grade, basement slab) except crawlspace slabs using either: ≥ 6 mil polyethylene sheeting, lapped 6-12 in., or ≥ 1 in. extruded polystyrene insulation with taped joints. 4.5.6 1.4 Capillary break at all crawlspace floors using ≥ 6 mil polyethylene sheeting, lapped 6-12 in., & installed using one of the following: 4.5.6
- 1.4.1 Placed beneath a concrete slab; OR, 1.4.2 Lapped up each wall or pier and fastened with furring strips or equivalent; OR,
- 1.4.3 Secured in the ground at the perimeter using stakes.
- 1.5 Exterior surface of below-grade walls of basements & unvented crawlspaces finished as follows: a) For poured concrete, masonry, & insulated concrete forms, finish with damp-proofing coating.

4.8 In multifamily buildings, the gap between the common wall (e.g. the drywall shaft wall) and the

4.9 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made

4.10 Attic access panels, drop-down stairs, & whole-house fans equipped with durable ≥ R-10 cover that is

gasketed (i.e., not caulked). Fan covers either installed on house side or mechanically operated. 30

structural framing between units sealed at all exterior boundaries.

substantially air-tight with weatherstripping or equivalent gasket.

- b) For wood framed walls, finish with polyethylene and adhesive or other equivalent waterproofing
- 1.6 Class 1 vapor retarder not installed on interior side of air permeable insulation in exterior below-grade walls. .7 Sump pump covers mechanically attached with full gasket seal or equivalent.
- 1.8 Drain tile installed at basement and crawlspace walls, with the top of the drain tile pipe below the bottom of the concrete slab or crawlspace floor. Drain tile surrounded with ≥ 6 in, of ½ to ¾ in, washed or clean gravel and with gravel layer fully wrapped with fabric cloth. Drain tile
- level or sloped to discharge to outside grade (daylight) or to a sump pump. If drain tile is on interior side of footing, then channel provided through footing to exterior side. 9 2. Water-Managed Wall Assembly
- 2.1 Flashing at bottom of exterior walls with weep holes included for masonry veneer and weep screed for stucco cladding systems, or equivalent drainage system. 10 2.2 Fully sealed continuous drainage plane behind exterior cladding that laps over flashing in Item 2.1 and fully sealed at all penetrations.
- Additional bond-break drainage plane layer provided behind all stucco and non-structural masonry cladding wall assemblies. 10, 11 2.3 Window and door openings fully flashed. ¹ 3. Water-Managed Roof Assembly
- 3.1 Step and kick-out flashing at all roof-wall intersections, extending ≥ 4" on wall surface above roof deck and integrated shingle-style with drainage plane above; boot / collar flashing at all roof penetrations. 13
- 3.2 For homes that don't have a slab-on-grade foundation and do have expansive or collapsible soils, gutters & downspouts provided that empty to lateral piping that discharges water on sloping final grade ≥ 5 ft. from foundation, or to underground catchment system not connected to the foundation drain system that discharges water ≥ 10 ft. from foundation. Alternatives & exemptions in Footnote. 4, 14, 15 3.3 Self-adhering polymer-modified bituminous membrane at all valleys & roof deck penetrations. 4, 16
- 3.4 In 2009 IECC Climate Zones 5 & higher, self-adhering polymer-modified bituminous membrane over sheathing at eaves from the edge of the roof line to > 2 ft. up roof deck from the interior plane of the exterior wall. 4, 16

4.3 In Warm-Humid climates, Class 1 vapor retarders not installed on the interior side of air permeable insulation in above-grade walls, except

4. Water-Managed Building Materials

- 4.1 Wall-to-wall carpet not installed within 2.5 ft. of toilets, tubs, and showers. 4.2 Cement board or equivalent moisture-resistant backing material installed on all walls behind tub and shower enclosures composed of tile or panel assemblies with caulked joints. Paper-faced backerboard shall not be used. 1
- at shower and tub walls. 8 4.4 Building materials with visible signs of water damage or mold not installed or allowed to remain. ¹⁸
- 4.5 Framing members & insulation products having high moisture content not enclosed (e.g., with drywall). 4.6 For each condensate-producing HVAC component, corrosion-resistant drain pan (e.g., galvanized steel, plastic) included that drains to a conspicuous point of disposal in case of blockage. Backflow prevention valve included if connected to a shared drainage system.

- These requirements are designed to improve moisture control in homes. However, these features alone cannot prevent all moisture problems. For example, leaky pipes or overflowing baths can lead to moisture issues and negatively impact the performance of the home.
- The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater, Approved Inspector, or an equivalent designation as determined by a Verification Oversight Organization such as RESNET; and, b) have attended and successfully completed an EPA-recognized training class. See www.energystar.gov/newhomestraining.

Revised 11/01/2019

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National Rater Field Checklist

ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10) HVAC System 31 (National HVAC Design Report Item # in parenthesis) Correct Verified 2 5. Heating & Cooling Equipment - Complete Path A - HVAC Grading 32 or Path B - HVAC Credential 5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA Std. 310. 5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA Std. 310. 5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA Std. 310. See Footnote 33 for exemptions.3 5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box):34 □ National HVAC Design Report (4.3, 4.4, & 4.17)
□ Written approval received from designer B 5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below:35 Return-Side External Static Pressure: _____IWC Supply-Side External Static Pressure: _____IWC 5b.3 Permitted, but not required: National HVAC Commissioning Checklist collected, with no items left blank. 6. Duct Quality Installation (Applies to Heating, Cooling, Ventilation, Exhaust, & Pressure Balancing Ducts, Unless Noted in Footnote) 6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. 36 6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential ≥ -3 Pa and ≤ +3 Pa with respect to the main body of the house when all air handlers are operating. Test configuration and an alternative compliance option in Footnote 37. 37 6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to ≥ R-6 ³⁶ 6.4 Rater-measured total duct leakage meets one of the following two options. Alternative in Footnote 40: 39, 40, 41 6.4.1 Rough-in: The greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25, with air handler & all ducts, building cavities used as ducts, & duct boots installed. In addition, all duct boots sealed to finished surface, 6.4.2 Final: The greater of ≤ 8 CFM25 per 100 sq. ft. of CFA or ≤ 80 CFM25, with the air handler & all ducts, bldg. cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. 4 6.5 Rater-measured duct leakage to outdoors the greater of ≤ 4 CFM25 per 100 sq. ft. of CFA or ≤ 40 CFM25. 39.44 . Whole-House Mechanical Ventilation System 1.1 Rater-measured ventilation rate is within either ± 15 CFM or ±15% of design value (2.3). 45 '.2 A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a standalone wall switch, but not for a switch that's on the ventilation equipment). 46 7.3 No outdoor air intakes connected to return side of the HVAC system, unless controls are installed to operate intermittently & automatically based on a timer and to restrict intake when not in use (e.g., motorized damper). 7.4 System fan rated ≤ 3 sones if intermittent and ≤ 1 sone if continuous, or exempted. 43 7.5 If system utilizes the HVAC fan, then the specified fan type is ECM / ICM (4.7), or the controls will reduce the standalone ventilation run-time by accounting for hours when the HVAC system is heating or cooling. 6 Bathroom fans are ENERGY STAR certified if used as part of the whole-house system. 40 7.7 Air inlet location (Complete if ventilation air inlet location was specified (2.12, 2.13); otherwise check "N/A"): 49, 50 7.7.1 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit. 7.7.2 Inlet is ≥ 2 ft. above grade or roof deck; ≥ 10 ft. of stretched-string distance from known contamination sources not exiting the roof, and ≥ 3 ft. distance from dryer exhausts and sources exiting the roof. 51 7.7.3 Inlet is provided with rodent / insect screen with ≤ 0.5 inch mesh. 8. Local Mechanical Exhaust - In each kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards: 45, 52 Intermittent Rate 53 Continuous Rate Location ≥ 100 CFM and, if not integrated with range, also ≥ 5 ACH based on kitchen volume ^{54, 55, 56} ≥ 5 ACH. Airflow 8.1 Kitchen

based on kitchen volume 54,55 Recommended: ≤ 1 sone Recommended: ≤ 3 sones ≥ 20 CFM ≥ 50 CFM 8.2 Bathroom Required: ≤ 1 sone Recommended: ≤ 3 sones 9. Filtration 9.1 MERV 6+ filter(s) installed in each ducted mech. system, located to facilitate occupant access & regular service. 57 9.2 Filter access panel includes gasket and fits snugly against exposed edge of filter when closed to prevent bypass. 58 9.3 All return air and mechanically supplied outdoor air passes through filter prior to conditioning. 10. Combustion Appliances

10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 61. 59, 69, 61 10,2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 62, 59, 60, 62 10.3 If unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary, the Rater has followed Section 802 of RESNET's Standards, encompassing ANSI/ACCA 12 QH-2014, Appendix A, Section A3 (Carbon Monoxide Test), and verified the equipment meets the limits defined within. 59, 63 Rater Pre-Drywall Inspection Date: Rater Name: Rater Initials: Rater Name:

Rater Final Inspection Date: Rater Initials: Builder Inspection Date: _ Builder Initials:

Hational Nator Design Notion Officialist ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10)

If pursuing Path A - HVAC Grading, complete this page, 1

ii pursuing Fatti A - HVAC Grading, complete this page.		
Home Address: City: State: Permit	t Date:	
1. Partnership Status	Must	Rater Verifie
1.1 Rater has verified and documented that builder has an ENERGY STAR partnership agreement using energystar.gov/partnerlocator. ³		
2. High-Performance Fenestration		
2.1 Specified fenestration meets or exceeds 2009 IECC requirements. 4		
3. High-Performance Insulation		
3.1 Specified ceiling, wall, floor, and slab insulation levels comply with one of the following options:		
3.1.1 Meets or exceeds 2009 IECC levels 5, 6, 7 OR;		
3.1.2 Achieves ≤ 133% of the total UA resulting from the U-factors in 2009 IECC Table 402.1.3, per guidance in Footnote 5d, AND specified home infiltration does not exceed the following: 6.7		
3 ACH50 in CZs 1, 2 2.5 ACH50 in CZs 3, 4 2 ACH50 in CZs 5, 6, 7 1.5 ACH50 in CZ 8		
4a. Review of ANSI / RESNET / ACCA Std. 310 HVAC Design Report with ENERGY STAR Supplement		
4a.1 HVAC design report compliant with ANSI / RESNET / ACCA Std. 310, with the ENERGY STAR supplement, collected for records, with no Items left blank.		
4a.2 ANSI / RESNET / ACCA Std. 310 Rater Design Review Checklist completed for applicable housing type, with all items marked, "Rater Verified".		
4a.3 Cooling sizing % is within the cooling sizing limit selected by the HVAC designer.		
Rater Name: Date of Review:		

Rater Name:

Rater Signature:

Builder Employee:

National Rater Design Review Checklist ENERGY STAR Certified Homes, Version 3 / 3.1 (Rev. 10)

Rater Company Name:_

If purs	uing Path B - HVAC Credential, complete	this page.			
Home Address:	City:	State:	Permit D	ate:	
1. Partnership Status				Must Correct	Rater ² Verified
 1.1 Rater has verified and documented that energystar.gov/partnerlocator. 	builder has an ENERGY STAR partnership agreem	nent using			
	at HVAC contractor holds credential required to com ipment to be installed in home to be certified is an e		h case		
HVAC Contractor Company Name:					
2. High-Performance Fenestration					
2.1 Specified fenestration meets or exceeds	s 2009 IECC requirements. 4				
3. High-Performance Insulation					
3.1 Specified ceiling, wall, floor, and slab in	sulation levels comply with one of the following opti	ons:			
3.1.1 Meets or exceeds 2009 IECC lev	rels 5,6,7 OR;				
Footnote 5d, AND specified home	resulting from the U-factors in 2009 IECC Table 400 in filtration does not exceed the following: 6,7 CH50 in CZs 3, 4 2 ACH50 in CZs 5, 6, 7	2.1.3, per guidance in			
4b. Review of ENERGY STAR Nationa	I HVAC Design Report 10				
4b.1 National HVAC Design Report collecte	d for records, with no Items left blank.				
4b.2 National HVAC Design Report reviewe	d by Rater for the following parameters (National H	VAC Design Report Ite	em # in pa	renthesi	s):
defined for the State and County, allowance from EPA to use altern	ason outdoor design temperatures used in loads (3.3 or US Territory, where the home will be built, or the ative values. All limits are published at energystar.g nits are required to be used for all HVAC Design Re	designer has provide ov/hvacdesigntemps.			
4b.2.2 Number of occupants used in lo	ads (3.4) is within ± 2 of the home to be certified. 12				
4b.2.3 Conditioned floor area used in lo be certified. ¹³	oads (3.5) is between 100 sq. ft. smaller and 300 sq	. ft. larger than the hor	me to		
) is between 15 sq. ft. smaller and 60 sq. ft. larger th > 500 sq. ft. of window area, between 3% smaller ar		rtified,		
4b.2.5 Predominant window SHGC use	ed in loads (3.7) is within 0.1 of predominant value in	n the home to be certif	ied. ¹⁶		
4b.2.6 Sensible, latent, & total heat gai	n are documented (3.10 - 3.12) for the orientation of	f the home to be certif	ied. 16		

Rater Company Name:

4b.2.7 The variation in total heat gain across orientations (3.13) is ≤ 6 kBtuh. 16

4b.2.8 Cooling sizing % (4.13) is within the cooling sizing limit (4.15) selected by the HVAC designer.



Paterson Habitat For Humanity 146 North 1st Street Paterson, NJ 07522

PROJECT NAME

MIXED USE BUILDING VFW HALL / RESIDENTIAL **135 SUMMER STREET** PASSAIC NJ 07055

CHEN O'NEIL ARCHITECTS, PL

29 GANUNG DRIVE OSSINING. NY 10562 646-812-5566



t: 732-635-0044

CIVIL ENGINEER:

22 Angelo Drive Sparta, NJ 07871 :: (973) 714-2131

Golden & Moran Engineering

STRUCTURAL ENGINEER: Taher Engineering LLC PO BOX 293 Clifton, NJ 07015

t: (973) 253-6183

APPLICANT: Paterson Habitat for Humanity 146 North 1st Street

Paterson, NJ 07522

:: (973) 595-6868

6 ISSUE FOR FILING 01/14/2022 5 90% CD SET 12/1/2021

ISSUE/REVISION DRAWING TITLE

ENERGY STAR NOTES

DATE

DRAWING NO.

Date of Review:

EN-002

As indicated

