

AUTOMOTIVE REPAIR SHOP

INTERIOR - BUILD OUT



1494 OLD SALEM ROAD, SE
CONYERS, GEORGIA 30013

DESIGNED BY:	GJB	DATE:	10/31/19
DRAWN BY:	FT	CD BY:	GJB
SOLIDATION NO.:	NONE		
SUBMITTED BY:	GJB		
CONTRACT NO.:	191018WAL_121		
FILE NAME:	ADSU		
CATEGORY CODE:	AUTOREPAIRSHOP04		
SIZE:	PLOT SCALE:	AS INDICATED	PLOT DATE:
D-24 x 36	10/31/2019 8:36:06 PM		

ADSU
ARCHITECTURAL DESIGN SERVICES UNLIMITED

2364 WATKINS STREET, SUITE 200, Kennesaw, GA 30046
CONYERS, GEORGIA 30013 (770) 638-2216

AUTOMOTIVE REPAIR SHOP
1494 OLD SALEM RD.
CONYERS, GEORGIA 30013

COVERSHEET

STATE OF GEORGIA
10/31/19
GARY J. BLANCHARD
REGISTERED ARCHITECT
Professional Certification

ISSUE FOR CONSTRUCTION	DATE	10/31/19	GJB
ISSUED FOR CONSTRUCTION	DATE	10/31/19	GJB
BY			

PROJECT INFORMATION

PROJECT ADDRESS:
1494 OLD SALEM ROAD
CONYERS, GEORGIA 30013

CODE OFFICIALS:
AUTHORITY HAVING JURISDICTION:
ROCKDALE COUNTY GOVERNMENT
958 MILSTEAD AVENUE
CONYERS, GA 30012
PHONE: 770.278.7100

CONTRACTOR SHALL ADHERE TO ALL LOCAL AND STATE ORDINANCES AS WELL AS FEDERAL LAWS INCLUDING THE AMERICAS WITH DISABILITY ACT COMMONLY REFERRED TO AS ADA.

VICINITY MAP

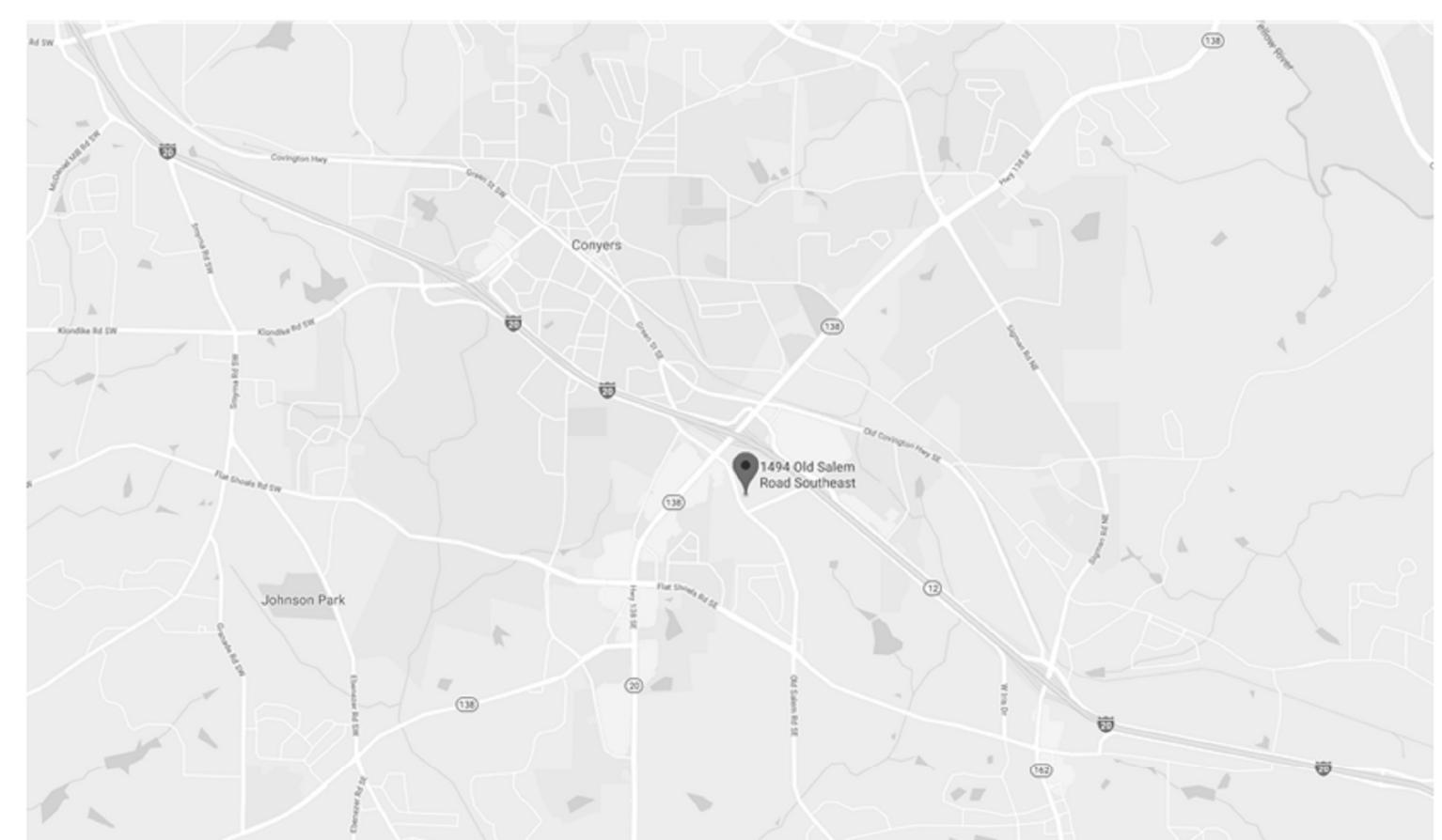


IMAGE: COURTESY OF GOOGLE MAP

BUILDING CODES

INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION, W/ GA AMENDMENTS
INTERNATIONAL RESIDENTIAL CODE (IRC), 2012 EDITION, W/ GA AMENDMENTS
INTERNATIONAL FIRE CODE (IFC), 2012 EDITION, W/ GA AMENDMENTS
INTERNATIONAL PLUMBING CODE (IPC), 2012 EDITION, W/ GA AMENDMENTS
INTERNATIONAL MECHANICAL CODE (IMC), 2012 EDITION, W/ GA AMENDMENTS
INTERNATIONAL FUEL GAS CODE (IFGC), 2012 EDITION, W/ GA AMENDMENTS
NATIONAL ELECTRICAL CODE (NEC), 2017 EDITION
INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2009 EDITION, W/ GA AMENDMENTS
NATIONAL FIRE PROTECTION ASSOCIATION LIFE SAFETY CODE (NFPA 101), 2012 EDITION
AMERICAN WITH DISABILITY ACT (ADA), 2010

LOCATION MAP

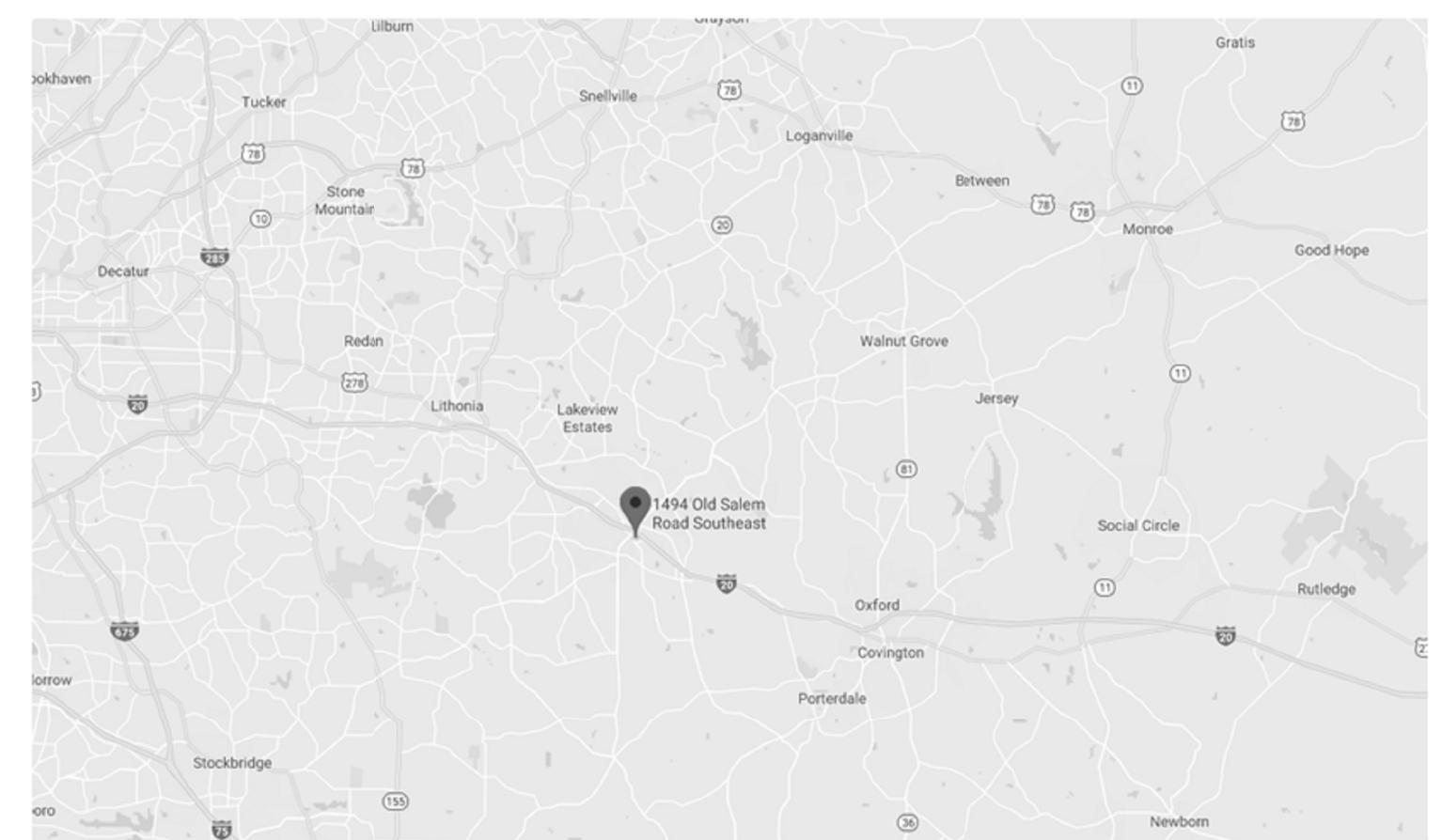


IMAGE: COURTESY OF GOOGLE MAP

BUILDING INFORMATION

BUILDING OCCUPANCY: SPECIAL PURPOSE INDUSTRIAL, ORDINARY HAZARD
BUILDING CONSTRUCTION TYPE: TYPE IIB, (UNPROTECTED & NON-SPRINKLED)

IT IS THE ARCHITECT'S INTENT TO PROVIDE DRAWINGS IN FULL COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES, ORDINANCES, REQUIREMENTS, AND THE AMERICANS WITH DISABILITY ACT AS ENACTED ON JULY 26, 1990 INCLUDING CHANGES MADE BY THE ADA AMENDMENTS ACT OF 2008, WHICH BECAME EFFECTIVE ON JANUARY 1, 2009. THE CONTRACTOR SHALL ALERT THE ARCHITECT AND OWNER OF ANY DISCREPANCIES CONFLICTING WITH THE REFERENCED CODES NOTED IN THE DRAWINGS PRIOR TO FABRICATION OR INSTALLATION OF MATERIALS OR ASSEMBLIES.

PROJECT SUMMARY

THE PROPOSED PROJECT CONSIST OF ADDING INTERIOR ROOMS TO THE EXISTING SPACE REQUIRING NO MODIFICATIONS TO THE EXISTING STRUCTURE. THE EXISTING BUILDING IS OF TYPE IIB CONSTRUCTION CONSISTING OF EXTERIOR BRICK AND METAL WALL PANELS WITH STRUCTURAL STEEL SUPPORTS AND A METAL ROOF. THE EXISTING STRUCTURE IS NON-SPRINKLED.

CLASSIFICATION OF OCCUPANCY: SPECIAL PURPOSE INDUSTRIAL, ORDINARY HAZARD
THE SOLE PURPOSE OF THE PROPOSED PROJECT IS TO SEPARATE 25% OF THE EXISTING INTERIOR SPACE FROM THE REMAINING 75% BY MEANS OF ADDING A 1HR FIRE BARRIER AND SUPPORT SPACES. THIS IS THE FULL INTENT OF THE OWNER.

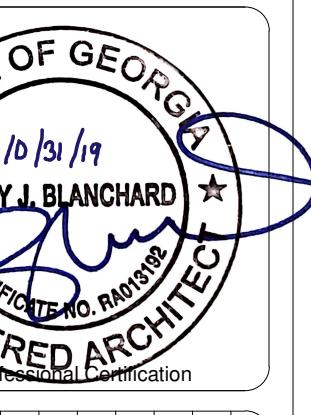
PROJECT TEAM

OWNER:
7K PROPERTIES, LLC
1494 OLD SALEM RD.
CONYERS, GA 30013
CONTACT: MR. ANDY WALKER
PHONE: 404.304.0406

ARCHITECT:
ARCHITECTURAL DESIGN SERVICES UNLIMITED, LLC
2365 WALL STREET, SE, EXECUTIVE SUITE 200, RM 06
CONYERS, GEORGIA 30013
CONTACT: MR. GARY J. BLANCHARD, RA, AIA, NCARB
PHONE: 678.522.5185

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STATE OF GEORGIA
10/13/19
GARY J. BLANCHARD
REGISTERED ARCHITECT
Professional Registration

DATE:	10/13/19
DESIGNED BY:	GJS
DRAWN BY:	PT
SOLICITATION NO.:	None
CONTRACT NO.:	191018WAL_121
FILE NAME:	ADSU
CATEGORY CODE:	AUTO REPAIR SHOP 04
PLOT DATE:	10/13/2019 8:36:19 PM
SIZE:	D-24 x 36
PLOT SCALE:	AS INDICATED
SUPERVISOR:	
SIGNATURE:	
ISSUED FOR CONSTRUCTION:	
DESCRIPTION:	

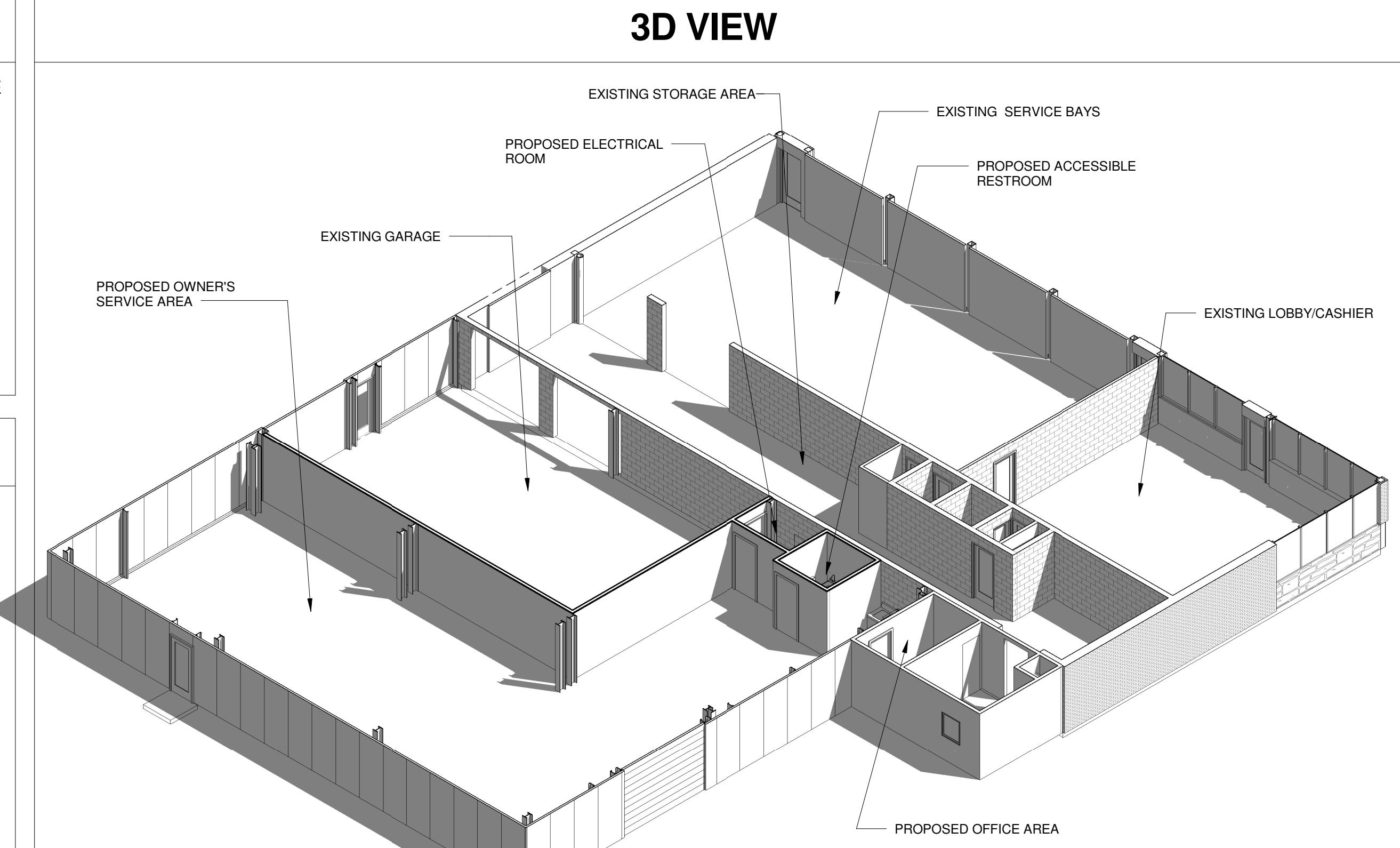
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ADSU
2365 WALL STREET, SE, SUITE 200, RM 06
CONYERS, GEORGIA 30013

AUTOMOTIVE REPAIR SHOP
1494 OLD SALEM RD.
CONYERS, GEORGIA 30013

PROJECT
INFORMATION

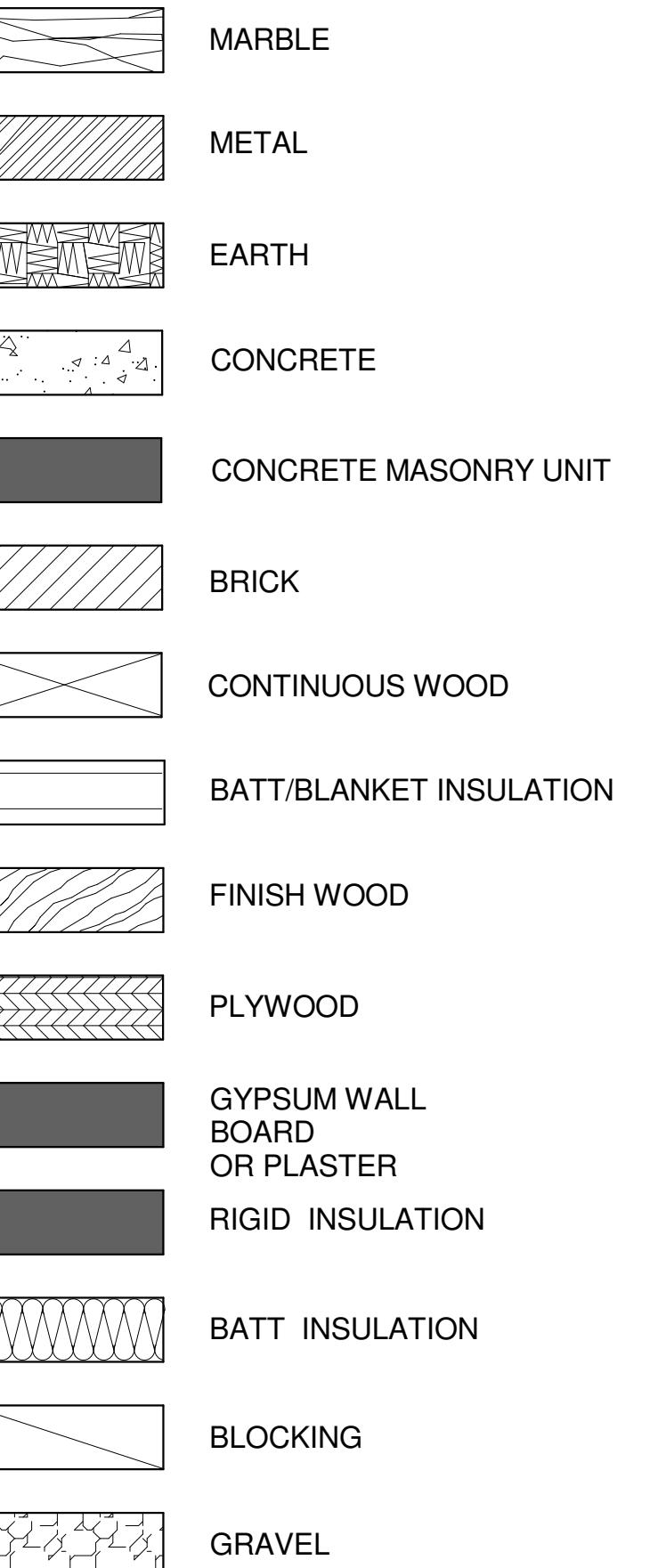
SHEET NO.
A002



ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	MFR	MANUFACTURER
ACOUST	ACOUSTICAL	MO	MASONRY OPENING
ADJ	ADJUSTABLE	MATL	MATERIAL
A/C	AIR CONDITIONING	MAX	MAXIMUM
ALT	ALTERNATE	MECH	MECHANICAL
ALUM	ALUMINUM	MEP	MECHANICAL, ELECTRICAL, PLUMBING
ANCH	ANCHOR	MTL	METAL
APPROX	APPROXIMATE	MIN	MINIMUM
ARCH	ARCHITECT/ARCHITECTURAL	MIR	MIRROR
@	AT	MISC	MISCELLANEOUS
ASPH	ASPHALT	NAT	NATURAL
AUTO	AUTOMATIC	NIC	NOT IN CONTRACT
AVG	AVERAGE	NTS	NOT TO SCALE
BM	BEAM	NO	NUMBER
BLK	BLOCK	OFF	OFFICE
BD	BOARD	OC	ON CENTER
BLDG	BUILDING	OPNG	OPENING
CAB	CABINET	OPP	OPPOSITE
CPT	CARPET	OH	OPPOSITE HAND
CLG	CEILING	OD	OUTSIDE DIAMETER
CEM	CEMENT	PTD	PAINTED
CL	CENTER LINE	PERF	PERFORATED
CT	CERAMIC TILE	PERIM	PERIMETER
CLO	CLOSET	PLAS	PLASTER
COL	COLUMN	P LAM	PLASTIC LAMINATE
CMU	CONCRETE MASONRY UNIT	PLYWD	PLYWOOD
CONST	CONSTRUCTION	PT	POINT
CJ	CONTROL JOINT	LB OR #	POUND
CONT	CONTINUOUS	PSF	POUND PER SQUARE FOOT
CORR	CORRIDOR	PSI	POUND PER SQUARE INCH
CF	CUBIC FEET	PL	PROPERTY LINE
CY	CUBIC YARD	PREFAB	PREFABRICATED
DEG	DEGREE	PREFIN	PREFINISHED
DTL	DETAIL	QTY	QUANTITY
DIAG	DIAGONAL	QT	QUARRY TILE
DIA	DIAMETER	R	RADIUS
DIM	DIMENSION	RE	REFERENCE
DS	DOWNSPOUT	REBAR	REINFORCING BAR
DWG	DRAWING	RESIL	RESILIENT
EA	EACH	REQD	REQUIRED
EWC	ELECTRIC WATER COOLER	RA	RETURN AIR
ELECT	ELECTRICAL	RD	ROOF DRAIN
ELEV	ELEVATOR	RM	ROOM
ELEV	ELEVATION	RO	ROUGH OPENING
EQ	EQUAL	SCHED	SCHEDULE
EQUIP	EQUIPMENT	SECT	SECTION
EXIST	EXISTING	SHT	SHEET
EXP	EXPANSION	SIM	SIMILAR
EJ	EXPANSION JOINT	SC	SOLID CORE
EXT	EXTERIOR	SCON	SEALED CONCRETE
FT	FEET	S STL	STAINLESS STEEL
FIN	FINISH	SPEC	SPECIFICATIONS
FF	FLOOR	SQ	SQUARE
FEC	FIRE EXTINGUISHER CABINET	STD	STANDARD
FIXT	FIXTURE	STL	STEEL
FLEX	FLEXIBLE	STOR	STORAGE
FLR	FLOOR	STRUCT	STRUCTURAL
FD	FLOOR DRAIN	SCT	STRUCTURAL CLAY TILE
FLOUR	FLOURESCENT	SGT	STRUCTURAL GLAZED TILE
FRP	FIBERGLASS REINFORCED PANELS	SUSP	SUSPENDED
FURN	FURNITURE/FURNISHINGS	SYS	SYSTEM
GAL	GALLON		
GALV	GALVANIZED	TERR	TERRAZZO
GA	GAUGE	THK	THICK
GC	GENERAL CONTRACTOR	TLT	TOILET
GL	GLASS/GLAZING	T&G	TONGUE AND GROOVE
GOVT	GOVERNMENT	TD	TOWEL DISPENSER
GYP	GYPSUM	TDR	TOWEL DISPENSER/RECEPTACLE
GWB	GYPSUM WALL BOARD	TR	TOWEL RECEPTACLE
HC	HOLLOW CORE	TYP	TYPICAL
HDW	HARDWARE	UNFIN	UNFINISHED
HD WD	HARDWOOD	UL	UNDERWRITERS LABORATORIES
HD	HEAD	UNO	UNLESS NOTED OTHERWISE
HVAC	HEATING, VENTING, AIR CONDITIONING	VAR	VARIABLE
HT	HEIGHT	VERT	VERTICAL
HORIZ	HORIZONTAL	VEST	VESTIBULE
INCL	INCLUDED	VCT	VINYL COMPOSITION TILE
INFO	INFORMATION	VIF	VERIFY IN FIELD
ID	INSIDE DIMENSION	VWC	VINYL WALL COVERING
INSUL	INSULATION	WT	WEIGHT
INT	INTERIOR	W/	WITH
JT	JOINT	W/O	WITHOUT
JST	JOIST	WD	WOOD
LAB	LABORATORY	YD	YARD
LAM	LAMINATE		
LAV	LAVATORY		
LT	LIGHT		
LF	LINEAR FOOT		
LVR	LOUVER		

MATERIAL LEGEND



GENERAL PROJECT NOTES

THERMAL PROTECTION REQUIREMENTS (NOT REQUIRED IN NON CONDITIONED BUILDINGS):

1. THERMAL RESISTANT VALUES (R-VALUES) FOR THIS PROJECT ARE AS FOLLOWS:

ROOF: R-19 + 11LS
WALLS: R-13 + 6.5ci

WALL AND PARTITION NOTES

1. GENERAL CONTRACTOR SHALL FURNISH AND INSTALL METAL OR WOOD BLOCKING IN STUD PARTITIONS FOR WALL ATTACHED ITEMS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING; GRAB BARS, VANITY UNIT, TOILET ACCESSORIES, HANDRAIL BRACKETS, WALL CABINETS, WALL MOUNTED FIXTURES, MARKER BOARD, TACK BOARD, ETC.
2. SCRIBE GYPSUM BOARD OF WALL AND PARTITION EXTENSIONS TO IRRREGULARITIES OF DECK ABOVE. SEAL TIGHTLY AROUND ANY PENETRATIONS.

MILLWORK NOTES

1. FIELD VERIFY ALL MILLWORK AND CASEWORK DIMENSIONS PRIOR TO SHOP DRAWING SUBMITTAL AND FINAL INSTALLATION.
2. BASE CABINETS TO BE 24" DEEP, WALL CABINETS TO BE 16" DEEP UNLESS NOTED OTHERWISE REFER TO THE MILLWORK, CASEWORK AND DISPLAY CASE DRAWINGS.
3. SCRIBES, CLOSURE PANELS, AND NAILERS TO BE PROVIDED BY CASEWORK MANUF.
4. BACK SPLASHED TO BE 4" HIGH WITH RETURNS ALONG ALL ADJACENT WALLS, U.N.O.

FINISH NOTES

1. WHERE FLOOR FINISH CHANGES, SET JOINT UNDER THE CENTER OF DOOR.
2. PAINT WITH FINISH COAT ALL STEEL WHICH IS NOT TO BE CONCEALED, GALVANIZED OR OTHERWISE FACTORY FINISHED WITH A FINISH COAT (PRIMER IS NOT A FINISH COAT); THIS INCLUDES EXPOSED STRUCTURAL STEEL, DOORS AND FRAMES, BOLLARDS, LADDERS, MOUNTING BRACKETS, BRACES ETC.

DIMENSION NOTES:

1. DIMENSIONS FOR DOOR AND WINDOW OPENING ARE SHOWN NOMINAL. OPENING SHALL ALLOW FOR 1/4" SHIMMING AND SEALANT BEAD AROUND EXTERIOR FRAMES.
2. ALL OTHER DIMENSIONS ARE ACTUAL AND ARE FACE OF METAL STUDS, FACE OF MASONRY WALLS, OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE.

CODE ANALYSIS

Code Analysis

- 1.1 Project Name: Automotive Repair Shop
- 1.2 Applicable Codes and Standards
 - 1.2.1 International Building Code (IBC) 2012
 - 1.2.2 National Fire Protection Association Life Safety Code (NFPA 101) 2012
 - 1.2.3 International Energy Conservation Code (IECC) 2009
 - 1.2.4 GA State Amendments (2014, 15, 17 & 18)
 - 1.2.5 ADA and ABA Accessibility Guidelines for Buildings and Facilities
- 1.3 Occupancy Classification 2012 LSC Chap 6
 - 1.3.1 Chapter 6 Occupancy Classification - Industrial, Special Purpose Industrial
- 1.4 Construction Type - 2012 IBC Chap. 6
 - 1.4.1 Type II-B
- 1.5 Area Limitations - IBC Chapter 5, Table 503
 - 1.5.1 Type II-B = 15,500 SF - 2 stories.
- 1.6 Maximum Height of Buildings - 2012 IBC Sec.504
 - 1.6.1 Type II-B = 55 Feet
- 1.7 Occupant Load, LSC Chapter 7, Table 7.3.1.2
 - 1.7.1 Building Gross Net SF- Refer to Sheet A-004 Life Safety Plan for Occupant Load
- 1.8 Fire Resistive Requirements - 2012 IBC Chap. 6 Table 601, Type II-B
 - 1.8.1 Type II-B
 - Exterior Walls - 0 hour rating
 - Interior Bearing walls - 0 hour rating
 - Structural Frame - 0 hour rating
 - Permanent Partitions - 0 hour rating
 - Floors & Ceilings - 0 hour rating
 - Roofs and Roof Ceilings - 0 hour rating
- 1.9 Interior Finishes Requirements - 2012 LSC Chap. 10
 - 1.9.1 Class A interior wall and ceiling finish:
 - Flame spread index, 0 - 25
 - Smoke developed index, 0 - 450
 - 1.9.2 Class B interior wall and ceiling finish:
 - Flame spread index, 26 - 75
 - Smoke developed index, 0 - 450
 - 1.9.3 Class C interior wall and ceiling finish:
 - Flame spread index, 76 - 200
 - Smoke developed index, 0 - 450
- 1.10 Detection, Alarm and Communications Systems, 2012 LSC Chapter 40, Sect. 40.3.4.1
 - 1.10.1 Fire alarm system in accordance with Section 9.6 shall be provided, unless total occupant load is less than 100 persons and fewer than 25 persons are above or below the level of exit discharge.
 - 1.10.2 Initiation - not required.
 - 1.10.3 Occupant notification - not required
- 1.11 Means of Egress, Table 7.3.3.1
 - 1.11.1 Egress Capacity

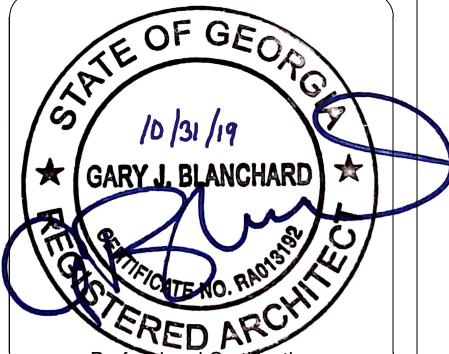
Total number of occupants = 8 occ
Door Exit Capacity:
8 Occupants x 0.2
Req'd door width = 1.6 inches
Provided = 36(5) = 180 inches
Door Exit Capacity: 180/0.2 = 900 occ

DESIGNED BY:	DATE: 10/31/19
DRAWN BY:	CIBD BY: FT
SUBMITTED BY:	ASDU
FILE NAME:	ADSU
CATEGORY CODE:	AUTO REPAIR SHOP 04
SIZE:	D-24 x 36
PLOT SCALE:	AS INDICATED
PLOT DATE:	10/31/2019 8:36:20 PM

ADSU
AUTOMOTIVE REPAIR SHOP
1484 OLD SALEM RD.
CONYERS, GEORGIA 30033

GENERAL NOTES, ABBREVIATIONS & CODE ANALYSIS

SHEET NO.
A003



DATE: 10/31/19	QAB
SOLICITATION NO.:	
CONTRACT NO.:	1918WAL_121
FILE NAME:	
CATEGORY CODE:	AUTO REPAIR SHOP 04
SIZE:	D-24 x 36
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PLOT DATE:	10/31/2019 8:36:20 PM

ISSUED FOR CONSTRUCTION

ISSUED FOR CONSTRUCTION

DESCRIPTION

SUPERVISOR SIGNATURE

DATE

ISSUED FOR CONSTRUCTION

ISSUE FOR CONSTRUCTION



10/31/19	10/31/19	10/31/19
DATE ISSUED	DATE APPROVED	DATE DRAWN
BY	BY	BY

DESIGNED BY:	DATE:
GUB	10/31/19
DRAWN BY:	CID QUB
FILE:	10/31/19
SUBMITTED BY:	ADSU
FILE NAME:	191018VAL_121
CATEGORY CODE:	AUTOREPAIRSHOP04
PLOT DATE:	10/31/2019 8:50:28 PM
SIZE:	D-24 x 36
PLOT SCALE:	AS INDICATED

2364 WATKIN STREET, SUITE 200, 16
CONYERS, GEORGIA 30033

ADSU
ARCHITECTURAL DESIGN SERVICES UNLIMITED

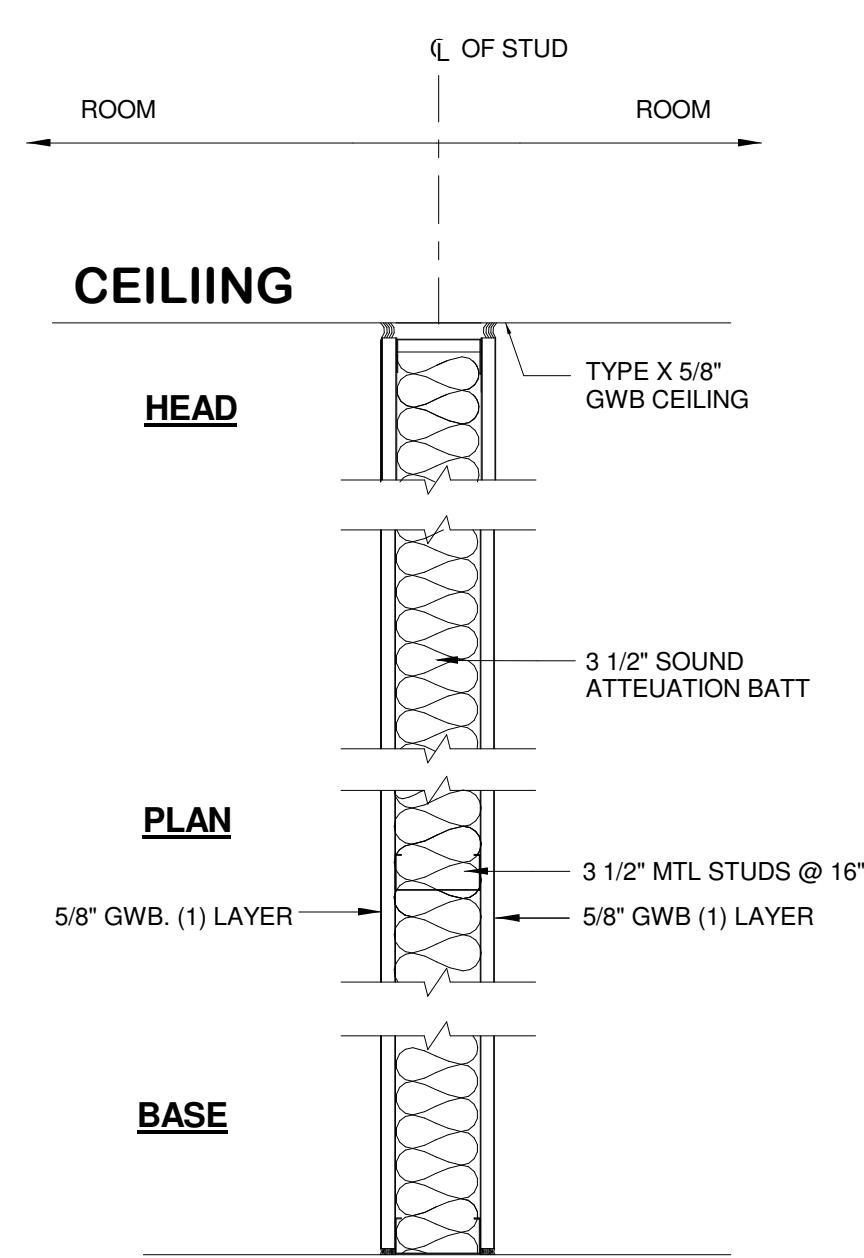
AUTOMOTIVE REPAIR SHOP 1494 OLD SALEM RD. CONYERS, GEORGIA 30033
LIFE SAFETY PLAN

SHEET NO.
A004

SHEET NOTES

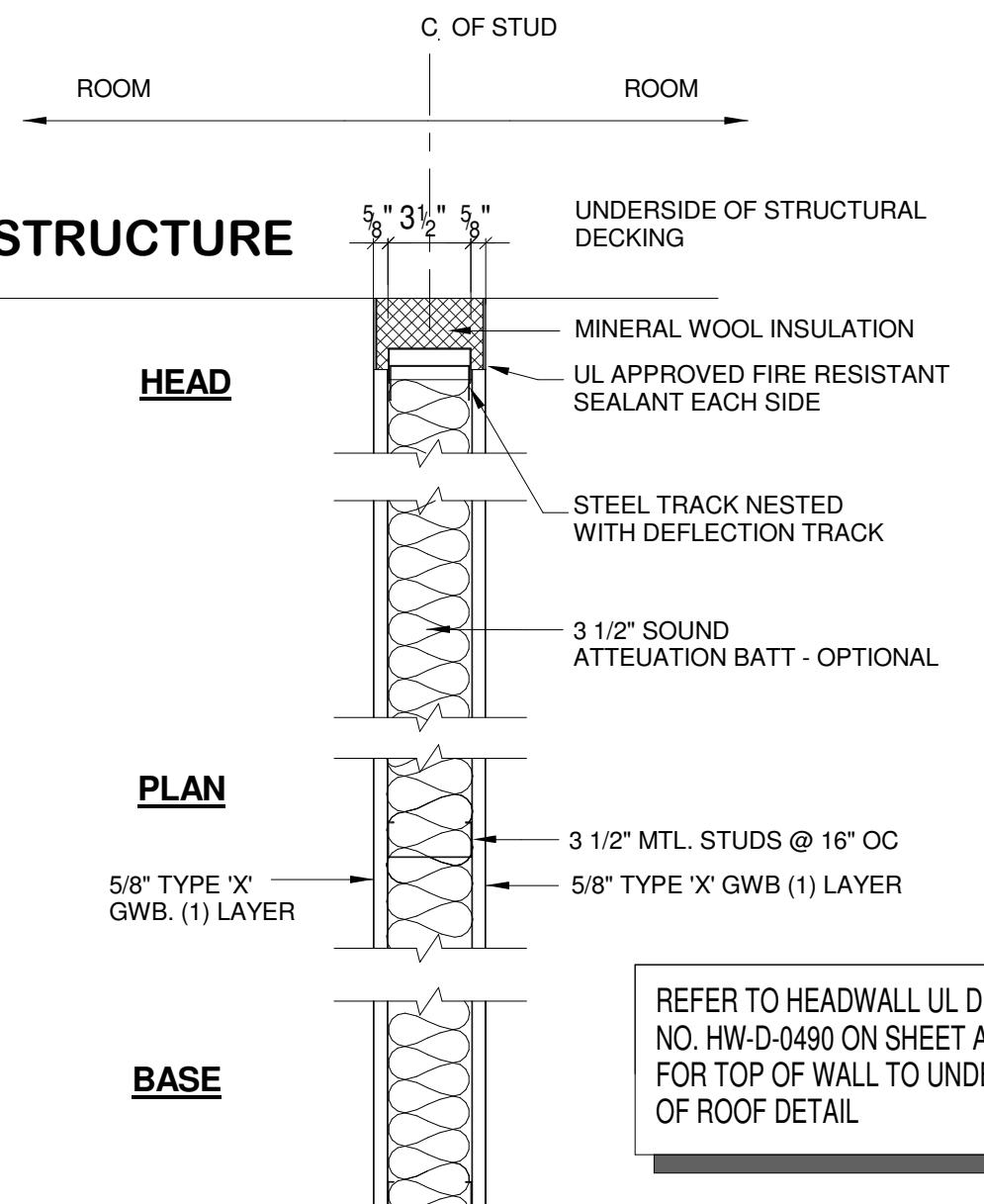
2012 NFPA 101 CHAPTER 7 - MEANS OF EGRESS

7.1.5.1 HEAD ROOM SHALL NOT BE LESS THAN 7'-6". PROJECTIONS FROM CEILING SHALL NOT REDUCE HEAD ROOM TO LESS THAN 6'-8".
7.1.6.2 CHANGE IN ELEVATION OF WALKING SURFACE SHALL NOT EXCEED 1/4", CHANGE IN ELEVATION EXCEEDING 1/4" SHALL NOT EXCEED 1/2" AND SHALL BE BEVELED WITH A SLOPE OF 1 IN 2.
7.2.1.4.2 DOOR SHALL SWING IN THE PATH OF EGRESS WHEN SERVING 50 OR MORE OCCUPANTS.



NON-RATED INTERIOR PARTITION

1 LAYER 5/8" GWB ON EACH SIDE
3-1/2" METAL STUD SOUND ATTENUATION BATT. (OPTIONAL)



ONE HR RATED INTERIOR BEARING PARTITION

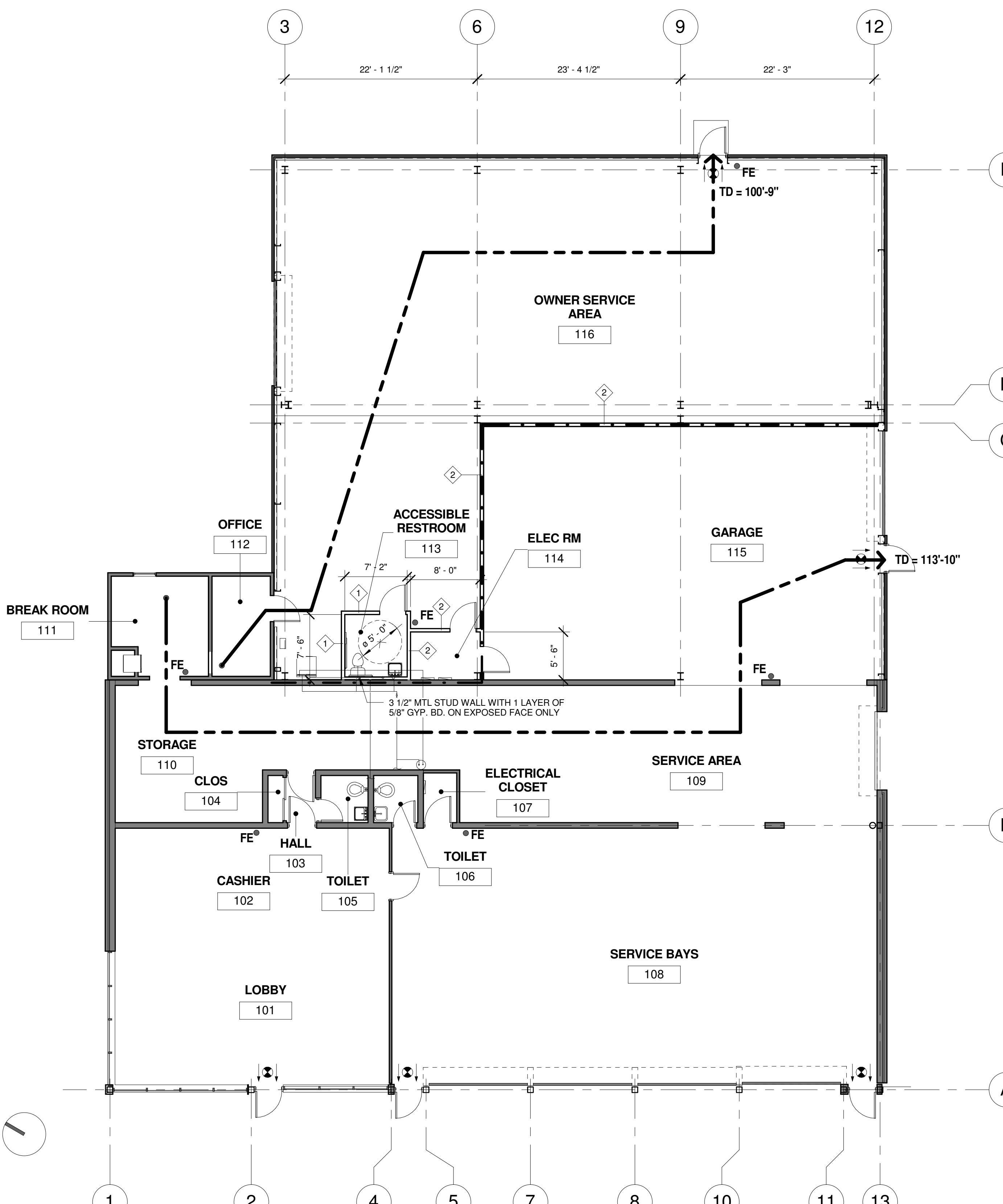
2 UL DESIGN NO. U419
1 LAYER 5/8" FIRE RATED GWB ON EACH SIDE
3-1/2" METAL STUD SOUND ATTENUATION BATT. (OPTIONAL)
APPROVED FIRE RESISTANT SEALANT ON EACH SIDE.

ATTENTION IS DRAWN TO THE FACT THAT THE SCALE OF THESE DRAWINGS MAY HAVE BEEN DISTORTED DURING REPRODUCTION

THIS DOCUMENT HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION TO THE BEST OF MY KNOWLEDGE. REQUIREMENTS OF THE APPLICABLE BUILDING CODES HAVE BEEN MET.

DOCUMENT OWNERSHIP: THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICES, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT HAS BEEN PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY ARCHITECTURAL DESIGN SERVICES UNLIMITED, LLC SHALL BE WITHOUT LIABILITY OF ARCHITECTURAL DESIGN SERVICES UNLIMITED, LLC.

ARCHITECTURAL SERVICES PROVIDED DO NOT GUARANTEE COMPETENCE OF THE CONTRACTOR BUILDING THE PROJECT. ARCHITECTURAL DESIGN SERVICES UNLIMITED, LLC ACCEPTS NO LIABILITY FOR METHODS OR APPLICATIONS USED BY THE CONTRACTOR, NOR ASSUMES RESPONSIBILITY FOR JOB SAFETY AS REQUIRED BY THE LAWS AND REGULATIONS.



1 LIFE SAFETY PLAN

SCALE: 1/8" = 1'-0"

OCCUPANCY LOAD LSC 2012, CHAPTER 7 (TABLE 7.3.1.2)

OCCUPANCY CATEGORY	NET SQ. FEET	FLOOR AREA IN SQFT. PER OCCUPANT	ACTUAL NO. OF OCCUPANTS
SPECIAL PURPOSE INDUSTRIAL	8,329 SF	SF/PERSON = N/A	
		TOTAL	8 OCC.

GENERAL NOTES

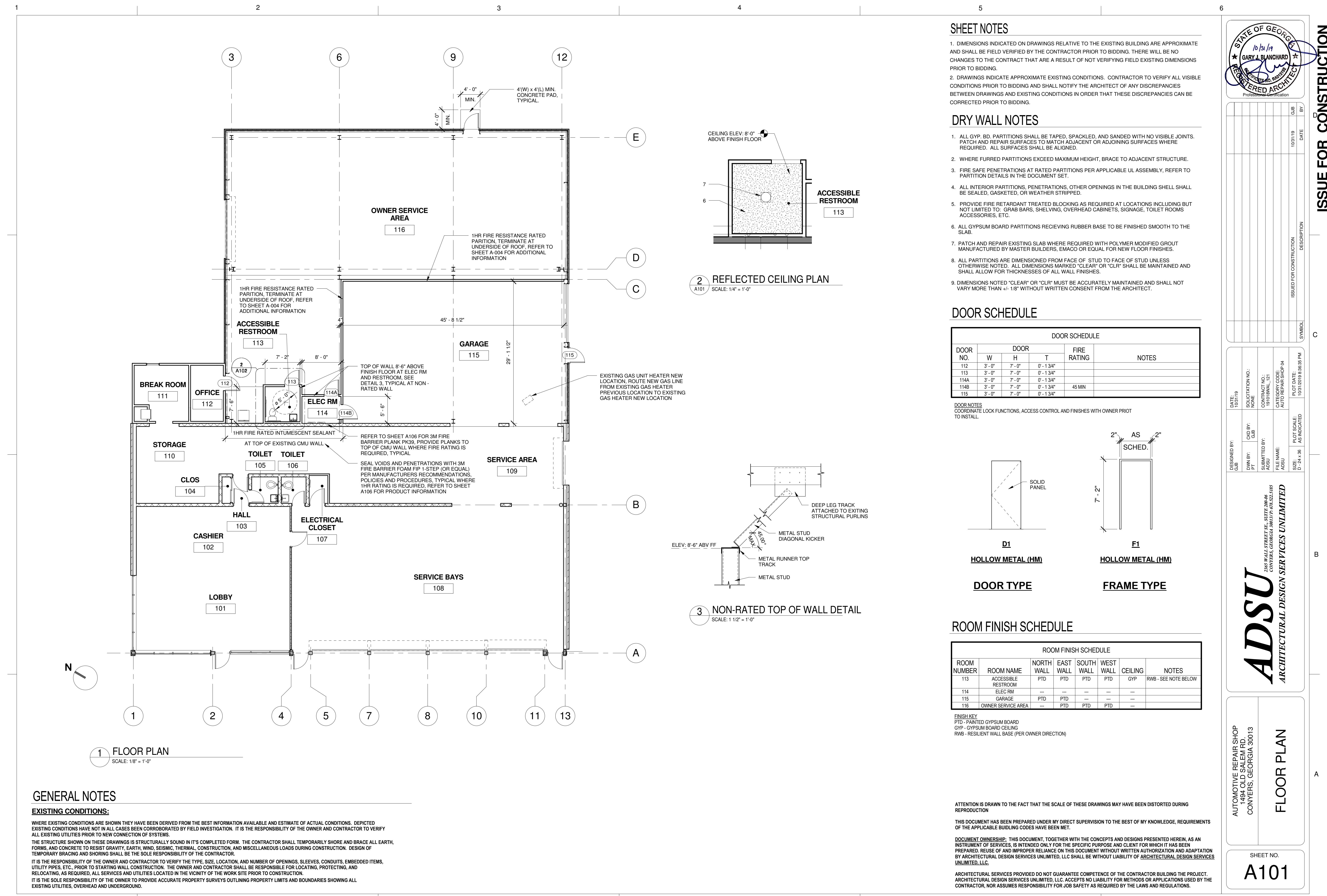
EXISTING CONDITIONS:

WHERE EXISTING CONDITIONS ARE SHOWN THEY HAVE BEEN DERIVED FROM THE BEST INFORMATION AVAILABLE AND ESTIMATE OF ACTUAL CONDITIONS. DEPICTED EXISTING CONDITIONS HAVE NOT IN ALL CASES BEEN CORROBORATED BY FIELD INVESTIGATION. IT IS THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO NEW CONNECTION OF SYSTEMS.

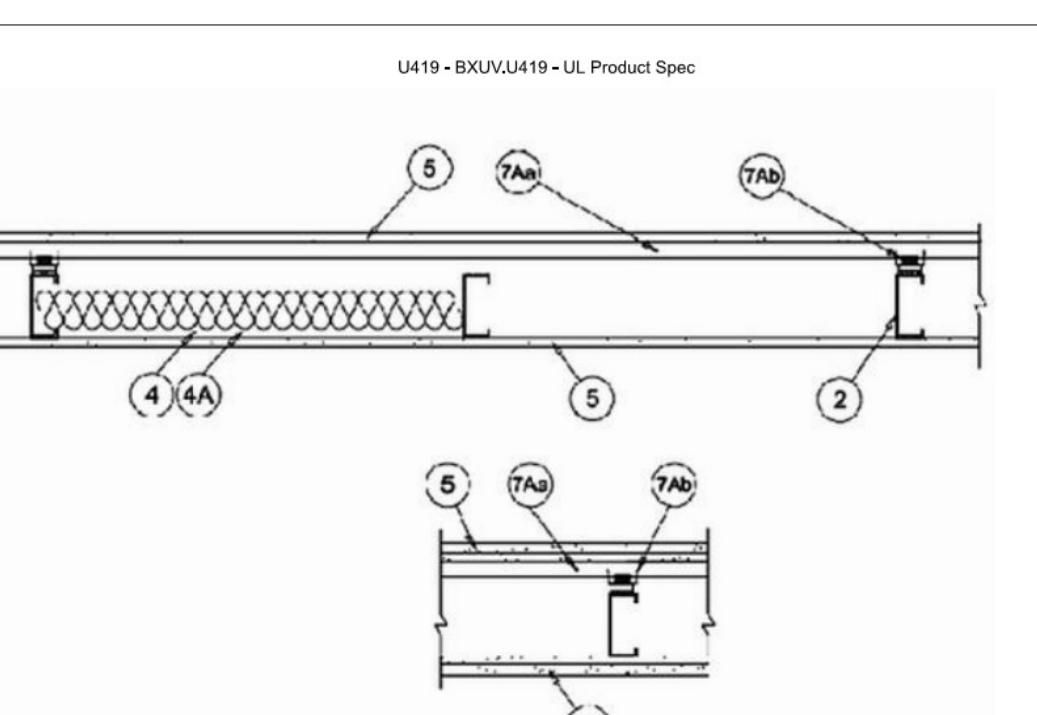
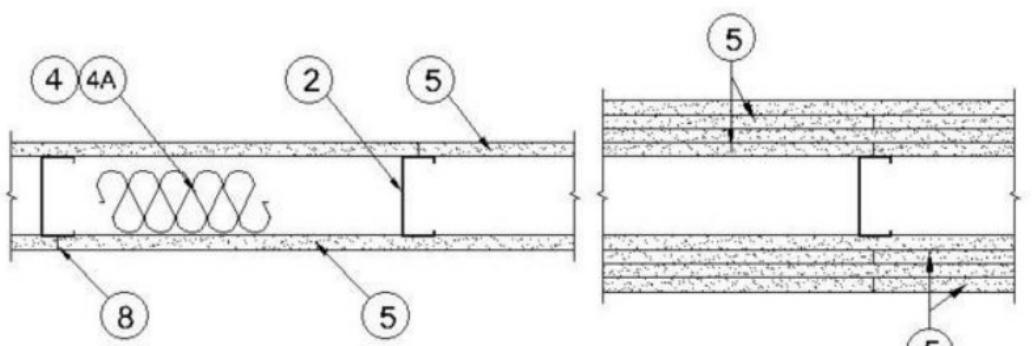
THE STRUCTURE SHOWN ON THESE DRAWINGS IS STRUCTURALLY SOUND IN ITS COMPLETED FORM. THE CONTRACTOR SHALL TEMPORARILY SHORE AND BRACE ALL EARTH, FORMS, AND CONCRETE TO RESIST GRAVITY, EARTH, WIND, SEISMIC, THERMAL, CONSTRUCTION, AND MISCELLANEOUS LOADS DURING CONSTRUCTION. DESIGN OF TEMPORARY BRACING AND SHORING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

IT IS THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR TO VERIFY THE TYPE, SIZE, LOCATION, AND NUMBER OF OPENINGS, SLEEVES, CONDUITS, EMBEDDED ITEMS, UTILITY PIPES, ETC., PRIOR TO STARTING WALL CONSTRUCTION. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, PROTECTING, AND RELOCATING, AS REQUIRED, ALL SERVICES AND UTILITIES LOCATED IN THE VICINITY OF THE WORK SITE PRIOR TO CONSTRUCTION.

IT IS THE SOLE RESPONSIBILITY OF THE OWNER TO PROVIDE ACCURATE PROPERTY SURVEYS OUTLINING PROPERTY LIMITS AND BOUNDARIES SHOWING ALL EXISTING UTILITIES, OVERHEAD AND UNDERGROUND.



UL DESIGN - FIRE RESISTANCE

<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>FIRE-RESISTANCE DESIGN</p> <p>Assembly Usage Disclaimer</p> <p>BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States</p> <p>BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada</p> <p>See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances</p> <p>See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances</p> <p>Design No. U419</p> <p>September 13, 2019</p> <p>Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5K)</p> <p>* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.</p>   <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>1/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>1. Floor and Ceiling Runners — (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.</p> <p>1A. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.</p> <p>CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track</p> <p>CRACO MFG INC — SmartTrack25™</p> <p>MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track</p> <p>FUSION BUILDING PRODUCTS — Viper25™ Track</p> <p>IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track</p> <p>1B. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>2/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track</p> <p>FUSION BUILDING PRODUCTS — Viper20™ Track</p> <p>IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track</p> <p>1C. Framing Members* — Floor and Ceiling Runners — (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.</p> <p>ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>1D. Floor and Ceiling Runners — (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced 24 in. OC.</p> <p>CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK</p> <p>DMFCWBS L L C — ProTRAK</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>3/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>MBA METAL FRAMING — ProTRAK</p> <p>RAM SALES L L C — Ram ProTRAK</p> <p>STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK</p> <p>1F. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1-1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>SUPER STUD BUILDING PRODUCTS — The Edge</p> <p>1G. Framing Members* — Floor and Ceiling Runner — For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.</p> <p>STUDCO BUILDING SYSTEMS — CROGSTUD Track</p> <p>1H. Floor and Ceiling Runners — (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.</p> <p>MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100</p> <p>FUSION BUILDING PRODUCTS — Viper20™ Track VT100</p> <p>IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100</p> <p>1I. Framing Members* — Floor and Ceiling Runners — (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.</p> <p>TELLING INDUSTRIES L L C — TRUE-TRACK™</p> <p>1J. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>4/21</p>
<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>TELLING INDUSTRIES L L C — Viper25™ Track</p> <p>1K. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>TELLING INDUSTRIES L L C — Viper20™ Track</p> <p>1L. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep, fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>STEEL INVESTMENT GROUP L L C — AlphaTRAK</p> <p>1M. Framing Members* — Floor and Ceiling Runners — Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>RONDOL BUILDING SERVICES PTY LTD — Rondo Wall Track</p> <p>1N. Framing Members* — Floor and Ceiling Runners — Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>OEG BUILDING MATERIALS — OEG Track</p> <p>1O. Framing Members* — Floor and Ceiling Runner — Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.</p> <p>CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track</p> <p>2. Steel Studs — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.</p> <p>2A. Steel Studs — (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J and 5K) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>5/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>2B. Framing Members* — Steel Studs — (As an alternate to Item 2, For use with Items 5C, 5I or 5K) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.</p> <p>CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™</p> <p>CRACO MFG INC — SmartStud25™</p> <p>MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™</p> <p>FUSION BUILDING PRODUCTS — Viper25™</p> <p>IMPERIAL MANUFACTURING GROUP INC — Viper25™</p> <p>2C. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.</p> <p>CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>6/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20</p> <p>2E. Framing Members* — Steel Studs — (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or 5K only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.</p> <p>CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD</p> <p>DMFCWBS L L C — ProSTUD</p> <p>MBA METAL FRAMING — ProSTUD</p> <p>RAM SALES L L C — Ram ProSTUD</p> <p>STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD</p> <p>2F. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.</p> <p>SUPER STUD BUILDING PRODUCTS — The Edge</p> <p>2G. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — Proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep, fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less than assembly height.</p> <p>STUDCO BUILDING SYSTEMS — CROGSTUD</p> <p>2H. Framing Members* — Steel Studs — (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel.</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>7/21</p>	<p>10/31/2019 U419 - BXUV.U419 - UL Product Spec</p> <p>2I. Framing Members* — Steel Studs — (As an alternate to Item 2 — For use with Items 5C or 5L or 5K) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.</p> <p>TELLING INDUSTRIES L L C — Viper25™</p> <p>2J. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — Proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.</p> <p>TELLING INDUSTRIES L L C — Viper20™</p> <p>2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.</p> <p>EB METAL INC — NITROSTUD</p> <p>2L. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.</p> <p>OLMAR SUPPLY INC — PRIMESTUD</p> <p>2M. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.</p> <p>MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™</p> <p>2N. Framing Members* — Steel Studs — As an alternate to Item 2 — Proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.</p> <p>STEEL INVESTMENT GROUP L L C — AlphaSTUD</p> <p>productspecul.com/document.php?id=BXUV.U419#</p> <p>8/21</p> </td

UL DESIGN - FIRE RESISTANCE

10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec																																																	
20. Framing Members* — Steel Studs — As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max. RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud		Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.		CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE		5C. Gypsum Board* — (For Use With Item 2B) — Rating Limited to 1 Hour, 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory. CGC INC — Type SCX.																																																		
20. Framing Members* — Steel Studs — As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG (0.018 in. min. bare metal thickness). Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max. OEG BUILDING MATERIALS — OEG Stud		4C. Fiber, Sprayed — (Optional) and as an alternate to Batts and Blankets (Item 4B) where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See Fiber, Sprayed (CCAZ).		UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE		5D. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only. CGC INC — Type USGX																																																		
20. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 10, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights. CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X		5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:		USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE		UNITED STATES GYPSUM CO — Type SCX, SGX.																																																		
3. Wood Structural Panel Sheathing — (Optional. For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC, in the perimeter and 12 in. OC, in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.		Gypsum Board Protection on Each Side of Wall		5A. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6. CGC INC — Type SHX.		UNITED STATES GYPSUM CO — Type FRX-G, SHX.																																																		
4. Batts and Blankets — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.		<table border="1"> <thead> <tr> <th>Rating, Hr</th> <th>Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O</th> <th>No. of Layers & Thkns of Panel</th> <th>Min Thkns of Insulation (Item 4)</th> </tr> </thead> <tbody> <tr><td>1</td><td>3-1/2</td><td>1 layer, 5/8 in. thick</td><td>Optional</td></tr> <tr><td>1</td><td>2-1/2</td><td>1 layer, 1/2 in. thick</td><td>1-1/2 in.</td></tr> <tr><td>1</td><td>1-5/8</td><td>1 layer, 3/4 in. thick</td><td>Optional</td></tr> <tr><td>2</td><td>1-5/8</td><td>2 layers, 1/2 in. thick</td><td>Optional</td></tr> <tr><td>2</td><td>1-5/8</td><td>2 layers, 5/8 in. thick</td><td>Optional</td></tr> <tr><td>2</td><td>3-1/2</td><td>1 layer, 3/4 in. thick</td><td>3 in.</td></tr> <tr><td>3</td><td>1-5/8</td><td>3 layers, 1/2 in. thick</td><td>Optional</td></tr> <tr><td>3</td><td>1-5/8</td><td>2 layers, 3/4 in. thick</td><td>Optional</td></tr> <tr><td>3</td><td>1-5/8</td><td>3 layers, 5/8 in. thick</td><td>Optional</td></tr> <tr><td>4</td><td>1-5/8</td><td>4 layers, 5/8 in. thick</td><td>Optional</td></tr> <tr><td>4</td><td>1-5/8</td><td>4 layers, 1/2 in. thick</td><td>Optional</td></tr> <tr><td>4</td><td>2-1/2</td><td>2 layers, 3/4 in. thick</td><td>2 in.</td></tr> </tbody> </table>	Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)	1	3-1/2	1 layer, 5/8 in. thick	Optional	1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.	1	1-5/8	1 layer, 3/4 in. thick	Optional	2	1-5/8	2 layers, 1/2 in. thick	Optional	2	1-5/8	2 layers, 5/8 in. thick	Optional	2	3-1/2	1 layer, 3/4 in. thick	3 in.	3	1-5/8	3 layers, 1/2 in. thick	Optional	3	1-5/8	2 layers, 3/4 in. thick	Optional	3	1-5/8	3 layers, 5/8 in. thick	Optional	4	1-5/8	4 layers, 5/8 in. thick	Optional	4	1-5/8	4 layers, 1/2 in. thick	Optional	4	2-1/2	2 layers, 3/4 in. thick	2 in.		USG MEXICO S A DE C V — Type SHX.
Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)																																																					
1	3-1/2	1 layer, 5/8 in. thick	Optional																																																					
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.																																																					
1	1-5/8	1 layer, 3/4 in. thick	Optional																																																					
2	1-5/8	2 layers, 1/2 in. thick	Optional																																																					
2	1-5/8	2 layers, 5/8 in. thick	Optional																																																					
2	3-1/2	1 layer, 3/4 in. thick	3 in.																																																					
3	1-5/8	3 layers, 1/2 in. thick	Optional																																																					
3	1-5/8	2 layers, 3/4 in. thick	Optional																																																					
3	1-5/8	3 layers, 5/8 in. thick	Optional																																																					
4	1-5/8	4 layers, 5/8 in. thick	Optional																																																					
4	1-5/8	4 layers, 1/2 in. thick	Optional																																																					
4	2-1/2	2 layers, 3/4 in. thick	2 in.																																																					
See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.				5B. Gypsum Board* — (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5. Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12). RAY-BAR ENGINEERING CORP — Type RB-LBG		UNITED STATES GYPSUM CO — Type USGX.																																																		
4A. Batts and Blankets — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.						USG MEXICO S A DE C V — Type USGX.																																																		
See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.						5E. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified. For direct attachment only to steel studs Item 2A, not to be used with Item 3), Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12). RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall																																																		
4B. Batts and Blankets — For use with Item 5K. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to																																																								
productspecu.com/document.php?id=BXUVJU419#	9/21	productspecu.com/document.php?id=BXUVJU419#	10/21	productspecu.com/document.php?id=BXUVJU419#	11/21	productspecu.com/document.php?id=BXUVJU419#	12/21																																																	
10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec	10/31/2019	U419 - BXUVJU419 - UL Product Spec																																																	
edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (No. 6 by 1-1/4 in. long bugle head fine drywall) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco		UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, FRX-G, IP-AR, IP-X2, IPC-AR, ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE		Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-2011, Grade "C". RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall		7. Furring Channels — (Optional. Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.																																																		
5F. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only. Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in. UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX		USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE		5K. Gypsum Board* — (Not Shown) — (As an alternate to Item 5) — Non, 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows.		a. Furring Channels — Formed of No. 25 MSG galv steel, 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicularly to studs. Channels secured to studs as described in Item 6. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.																																																		
5G. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E only. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:		5H. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5. Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A). MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum		5I. Gypsum Board* — (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5. CGC INC — Type ULX		b. Steel Furring Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling. S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling. S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.																																																		
5J. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified. For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A). PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-2 (2.75), RSIC-V (2.75).		5L. Gypsum Board* — (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified. For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A). PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-2 (2.75), RSIC-V (2.75).		7B. Framing Members* — (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on one side of studs as described below:																																																				
productspecu.com/document.php?id=BXUVJU419#	13/21	productspecu.com/document.php?id=BXUVJU419#	14/21	productspecu.com/document.php?id=BXUVJU419#	15/21	productspecu.com/document.php?id=BXUVJU419#	16/21																																																	



DATE: 10/31/19	DESIGNER BY: UL	DRAWN BY: GJB	SUBMITTED BY: ADSU	FILE NAME: BXUVJU419#
STREET: 2361 WATSON ST, SUITE 200, Kennesaw, GA 30144	SPECIFICATION NO.: 10/31/19	CONTRACT NO.: 1918WAL_121	CATEGORY CODE: AUTOREPAIRSHOP04	PLOT DATE: 10/31/2019 8:37:19 PM
SIZE: D-24 x 36	PILOT SCALE: AS INDICATED	SYMBOL:		

2361 WATSON ST, SUITE 200, Kennesaw, GA 30144
CONTRACT NO.: 1918WAL_121
CATEGORY CODE: AUTOREPAIRSHOP04
PLOT DATE: 10/31/2019 8:37:19 PM

ADSU
ARCHITECTURAL DESIGN SERVICES UNLIMITED

AUTOMOTIVE REPAIR SHOP
1494 OLD SALEM RD.
CONYERS, GEORGIA 30013
PHONE: 770-381-1000
FAX: 770-381-1001
E-MAIL: info@adsu.com
WEBSITE: www.adsu.com

UL DESIGNS
A104
ISSUED FOR CONSTRUCTION
5

ISSUED FOR CONSTRUCTION
5

UL DESIGN - FIRE RESISTANCE

<p>10/31/2019 U419 - BXUV,U419 - UL Product Spec</p> <p>screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.</p> <p>KINETICS NOISE CONTROL INC — Type Isomax</p> <p>7C. Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:</p> <p>a. Furring Channels — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.</p> <p>REGUPOL AMERICA — Type SonusClip</p> <p>7D. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:</p> <p>a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.</p> <p>PLITEQ INC — Type GENIECLIP</p> <p>7E. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:</p> <p>a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC, and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.</p> <p>STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R</p> <p>7F. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below:</p> <p>a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with Item 5A and 5E.</p> <p>b. Steel Framing Members* — Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.</p> <p>KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip</p> <p>7G. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:</p> <p>a. Furring Channels — Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7G) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips.</p> <p>CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip</p>	<p>10/31/2019 U419 - BXUV,U419 - UL Product Spec</p> <p>and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.</p> <p>REGUPOL AMERICA — Type SonusClip</p> <p>7F. Steel Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below:</p> <p>a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with Item 5A and 5E.</p> <p>b. Steel Framing Members* — Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.</p> <p>KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip</p> <p>7G. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:</p> <p>a. Furring Channels — Formed of No. 25 MSG galv steel, 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.</p> <p>b. Steel Framing Members* — Used to attach furring channels (Item 7G) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips.</p> <p>CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip</p>	<p>10/31/2019 U419 - BXUV,U419 - UL Product Spec</p> <p>8. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.</p> <p>9. Siding, Brick or Stucco — (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.</p> <p>10. Caulking and Sealants* — (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.</p> <p>UNITED STATES GYPSUM CO — Type AS</p> <p>11. Lead Batten Strips — (Not Shown, For Use With Item 5B) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations.</p> <p>11A. Lead Batten Strips — (Not Shown, For Use With Item 5H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.</p> <p>12. Lead Discs or Tabs — (Not Shown, For Use With Item 5B) — Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".</p> <p>12A. Lead Discs — (Not Shown, for use with Item 5H) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".</p>	<p>10/31/2019 U419 - BXUV,U419 - UL Product Spec</p> <p>13. Lead Batten Strips — (Not Shown, For Use With Item 5E) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.</p> <p>14. Lead Tabs — (Not Shown, For Use With Item 5E) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.</p> <p>15. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 inch. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.</p> <p>CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips</p>
<p>productspec.ul.com/document.php?id=BXUV,U419#</p>	<p>productspec.ul.com/document.php?id=BXUV,U419#</p>		

The image shows a circular Georgia Registered Architect stamp and a logbook page. The stamp contains the text 'STATE OF GEORGIA', 'GARY J. BLANCHARD', '10/31/19', 'REGISTERED ARCHITECT', 'PROFESSIONAL CERTIFICATION', and 'CERTIFICATE NO. RA013192'. The logbook page has columns for 'SYMBOL', 'DESCRIPTION', 'ISSUED FOR CONSTRUCTION', 'DATE', and 'BY'.

ADSU
2365 WALL STREET SE, SUITE 200-06
CONYERS, GEORGIA 30013/P: 678.522.5185

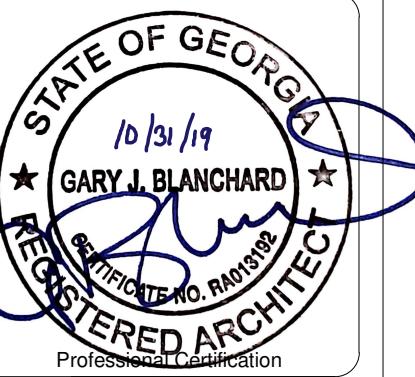
DECIOS

SHEET NO
A10

ISSUED FOR CONSTRUCTION

UL DESIGN - FIRE RESISTANCE

<p>10/31/2019 Joint Systems XHBN, XHBN.HWD-0490 - UL Product Spec</p> <p>flush with top of ceiling deflection channel. Screws securing gypsum board to steel studs of wall assembly to be located 2-1/4 in. to 2-1/2 in. (57 to 64 mm) below flange of ceiling deflection channel. Screws securing gypsum board of cripple wall to be driven into studs and runners of cripple wall. No screws are to be driven into flanges of ceiling deflection channel.</p> <p>F. Gypsum Board—Min 5/8 in. (16 mm) thick "rip strip" of gypsum board installed to cover first layer of gypsum board on cripple wall and to lap min 3 in. (76 mm) onto gypsum board of wall assembly on each side of wall. The "rip strip" of gypsum board is to be the same material used for the wall assembly and is to be secured to the studs and runners of the cripple wall. No screws are to be driven into flanges of ceiling deflection channel. Joints of "rip strip" to be offset from joints of gypsum board on wall assembly.</p> <p>Max separation between top of wall assembly gypsum board and bottom of cripple wall gypsum board (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 100 percent compression or extension from its installed width.</p> <p>3. Fill, Void or Cavity Material—Caulk—Min 5/8 in. (16 mm) thickness of fill material installed to fill any gap between top of cripple wall gypsum board and insulation (Item 1C) on each side of the wall. Additional caulk installed to fill annular space between lateral bracing and gypsum board "rip strip" (Item 2F) on both sides of wall. Additional nom 1/2 in. (13 mm) diam bead of caulk to be applied around perimeter of lateral brace at its interface with the "rip strip" on each side of the wall.</p> <p>3M COMPANY 3M FIRE PROTECTION PRODUCTS — CP 25WB+ caulk</p> <p><small>* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.</small></p> <p>Last Updated on 2008-02-11</p> <p>Design/System/Construction/Assembly Usage Disclaimer</p> <ul style="list-style-type: none"> Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials. Authorities Having Jurisdiction should be consulted before construction. Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field. When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and 	<p>10/31/2019 Joint Systems XHBN, XHBN.HWD-0490 - UL Product Spec</p> <p>each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.</p> <ul style="list-style-type: none"> Only products which bear UL's Mark are considered Certified. <p>The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.</p> <p>UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from UL" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: © 2019 UL LLC".</p> <p>UL and the UL logo are trademarks of UL LLC © 2019 All Rights Reserved.</p>	<p>5/5</p> <p>3M™ Fire Barrier Rated Foam FIP 1-Step</p> <p>Product Data Sheet</p> <p>1. Product Description</p> <p>3M™ Fire Barrier Rated Foam FIP 1-Step is a smoke, sound and firestopping foam for wall and floor penetrations. Premium two-part, easy-to-handle formulation. Expands up to five times during installation and bonds to most construction substrates, including, but not limited to, concrete, metal, wood, plastic and cable jacketing. Dries to a flexible solid. During a fire, product maintains a tight firestop against smoke and flame.</p> <ul style="list-style-type: none"> • Re-enterable/repairable • Self-assistant formulation • Excellent adhesion • Paintable with primer • Quick cure and eliminates the need for mineral wool and caulk <p>ATTENTION: CODE OFFICIALS</p> <p>FIP 1-Step</p> <ul style="list-style-type: none"> ✓ Is a Rated Firestop ✓ UL Listed ✓ Meets ASTM E 814 ✓ Meets the International Building Code for passive fire protection <p>2. Applications</p> <p>Typical applications include: blank openings, metal pipe, cables, cable tray, insulated pipe, combination penetrations through concrete floor/wall and gypsum wall board assemblies.</p> <p>3. Specifications</p> <p>FIP 1-Step is a two-component, ready-to-use, gun-grade, firestopping foam. FIP 1-Step shall be tested to the criteria of ASTM E 814-11, UL 1479 Standard Test Method for Fire Tests of Penetration Firestop Systems, ASTM E 84-11, UL 723 Standard Test Method for Surface Burning Characteristics of Building Materials, ASTM E 90-11 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements, and ASTM E 413 Classification and Rating Sound Insulation. FIP 1-Step shall meet the requirements of the IBC,IRC, IPC, IMC, NFPA 5000, NEC (NFPA 70), NFPA 101 and NBC.</p> <p>4. Storage and Shelf Life</p> <p>Storage: FIP 1-Step should be stored indoors in dry conditions between 40°F and 85°F (5°C and 30°C). Avoid freeze/thaw exposures of the FIP 1-Step while still in the packaging. If product freezes, then product must be fully thawed and brought to ideal application temperature prior to use (See Section 5).</p> <p>Shelf Life: FIP 1-Step shelf life is 16 months in original unopened containers from date of packaging when stored above 68°F (20°C) and below 90°F (32.2°C).</p> <p>Lot numbering: First to fourth digit = Date of Production (YYMM); Fifth digit = 4 (Production Code); Sixth and Seventh digit = (Batch #); (Note: Expiration Date marked on cartridge)</p> <p>5. Performance and Typical Physical Properties</p> <p>Colors Available: Maroon</p> <p>Application Temperature Range: 50° to 120°F (10° to 49°C)</p> <p>Surface Burning (ASTM E 84): Flame Spread 10, Smoke Development 50</p> <p>STC Acoustic Barrier (ASTM E 90 and ASTM E 413): STC 57 when tested in STC 57 rated wall assembly</p> <p>Unit Volume: 12.85 fl. oz. Cartridge (380mL) <25g/L</p> <p>VOC Less H2O and Exempt Solvents: Care: Foam becomes tack-free in about one minute. Full cure depends upon ambient conditions and volume of foam. Typical cure at 75°F (24°C) is approximately 2 minutes.</p> <p>Air Leakage (UL 1479 Section 6): <1 CFM/Sq Ft</p> <p>Yield: Up to 110 cubic inches</p> <p>Leed: Meets the intent of LEED® VOC regulations. <25g/L VOC contents (less H₂O and exempt solvents).</p> <p>Foam Expansion Start Time/Dry to Touch Time at various RP 1-Step temperatures</p> <p>Note: Expansion Start Time and Dry to Touch Times are NOT dependent on ambient air temperature. Expansion Start Time and Dry to Touch Times are dependent on FIP 1-Step temperature.</p> <p>6. Installation Techniques</p> <p>Preparatory Work: The surface of the opening and any penetrations should be cleaned to allow for the proper adhesion of the 3M™ Fire Barrier Rated Foam FIP 1-Step. Ensure that the surface of the substrates are not wet and are free from dust, debris and frost. Foam can be installed with either a manual or battery powered dispensers.</p> <p>Installation Details: Install the appropriate depth of the FIP 1-Step as detailed with the applicable 3M UL Listed system. Please reference FIP 1-Step for specific details for the use of the FIP 1-Step may be required after installation to be firestop for the substrate. Clean all tools immediately after use in water if needed.</p> <p>Limitations: Do not apply FIP 1-Step when the cartridge temperature is less than 50°F (10°C), damage may occur to cartridge or dispensing equipment. Do not apply FIP 1-Step to building materials that bleed oil, plasticizers or solvent (e.g. impregnated wood, sealed sealants, or green or partially-vulcanized rubber). Do not apply FIP 1-Step to wet or frost-coated surfaces or areas that are continuously damp or immersed in water. This product is not acceptable for use with chlorinated polyvinylchloride (CPVC) pipes.</p> <p>7. Maintenance</p> <p>3M maintenance is expected when installed in accordance with manufacturer's installation guidelines. Once installed, if any section of the FIP 1-Step is damaged, the following procedure will apply: remove and reinstall the damaged section in accordance with the applicable FIP 1-Step UL Listed system.</p> <p>8. Availability</p> <p>FIP 1-Step is available in 12.85 fl. oz. cartridges. For additional technical and purchasing information regarding this and other 3M™ Fire Protection Products, please call: 1-800-328-1687 or visit www.3M.com/firestop.</p> <p>9. Safe Handling Information</p> <p>Consult product Material Safety Data Sheet (MSDS) prior to handling and disposal.</p> <p>Important Notice to User:</p> <p>Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed. Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and experience affect the actual performance of any product in a particular application. Therefore, it is user's responsibility to evaluate the product and determine whether it is fit for a particular purpose and suitable for user's method of application. Warranty and Limitation of Liability: 3M makes no express or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price. Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted.</p> <p>Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.</p> <p>3M and 3M Science. Applied to Life. are trademarks of 3M Company. Used under license in Canada. © 3M 2010. All rights reserved. 78-9250-003-02</p> <p>For technical support relating to 3M™ Fire Protection Products and Systems, call 1-800-328-1687. For more information on 3M™ Fire Protection Products, visit: www.3M.com/firestop</p> <p>3M</p>
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ISSUE FOR CONSTRUCTION

DESIGNED BY:	DATE: 10/31/19
DRAWN BY:	COD BY: GJB
SOLIDATION NO.:	
CONTRACT NO.:	191018WAL_121
SUBMITTED BY:	
FILE NAME:	ADSU
CATEGORY CODE:	AUTO REPAIR SHOP 04
PLOT DATE:	10/31/2019 8:59:40 PM
SIZE:	D-24 x 36
PLOT SCALE:	AS INDICATED
SYMBOL:	
DESCRIPTION:	ISSUED FOR CONSTRUCTION
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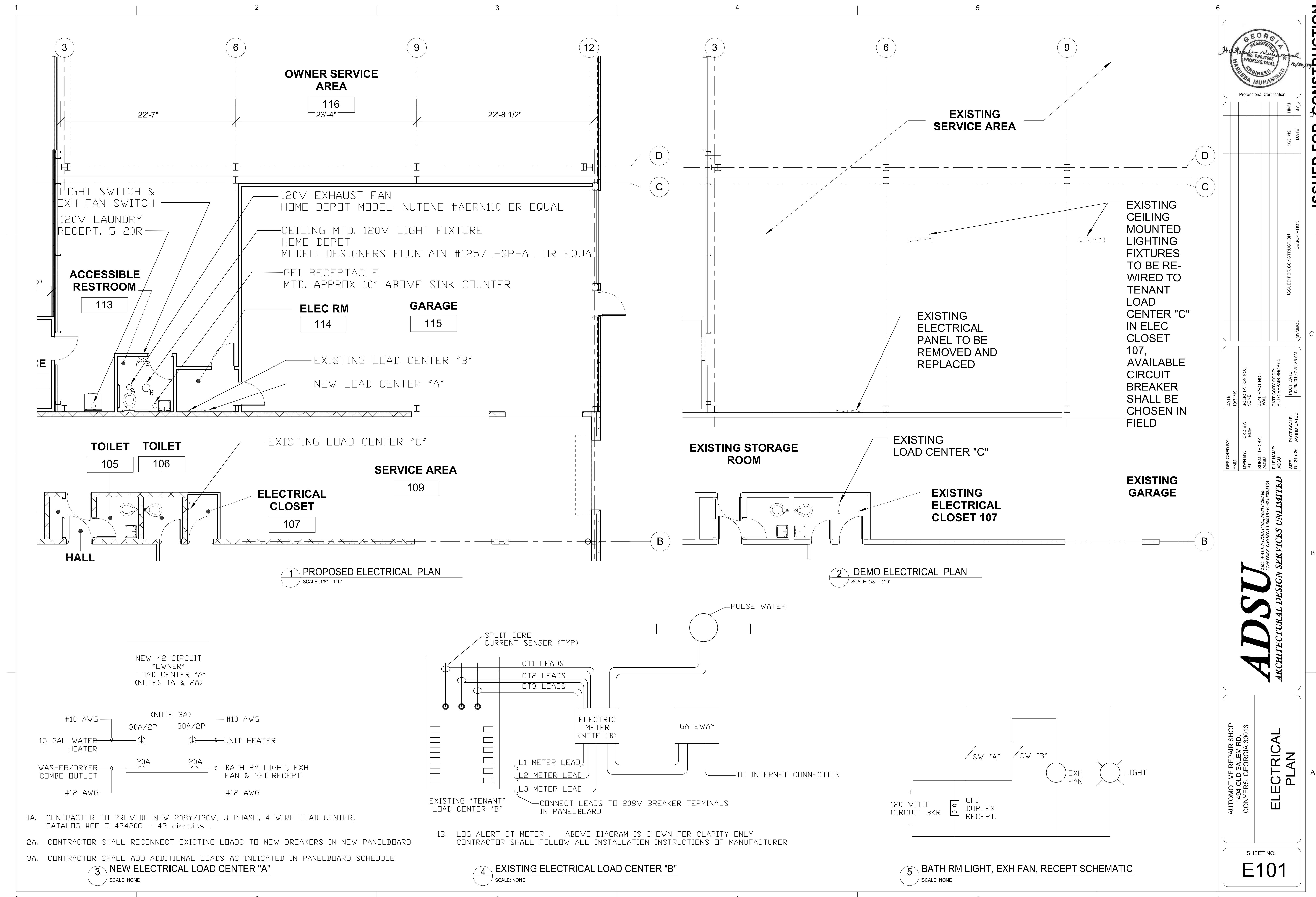
2361 WATSON STREET, SUITE 200, 16th FLOOR, CONYERS, GEORGIA 30030, 678.622.5165

UL DESIGNS

AUTOMOTIVE REPAIR SHOP 1494 OLD SALEM RD. CONYERS, GEORGIA 30033
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