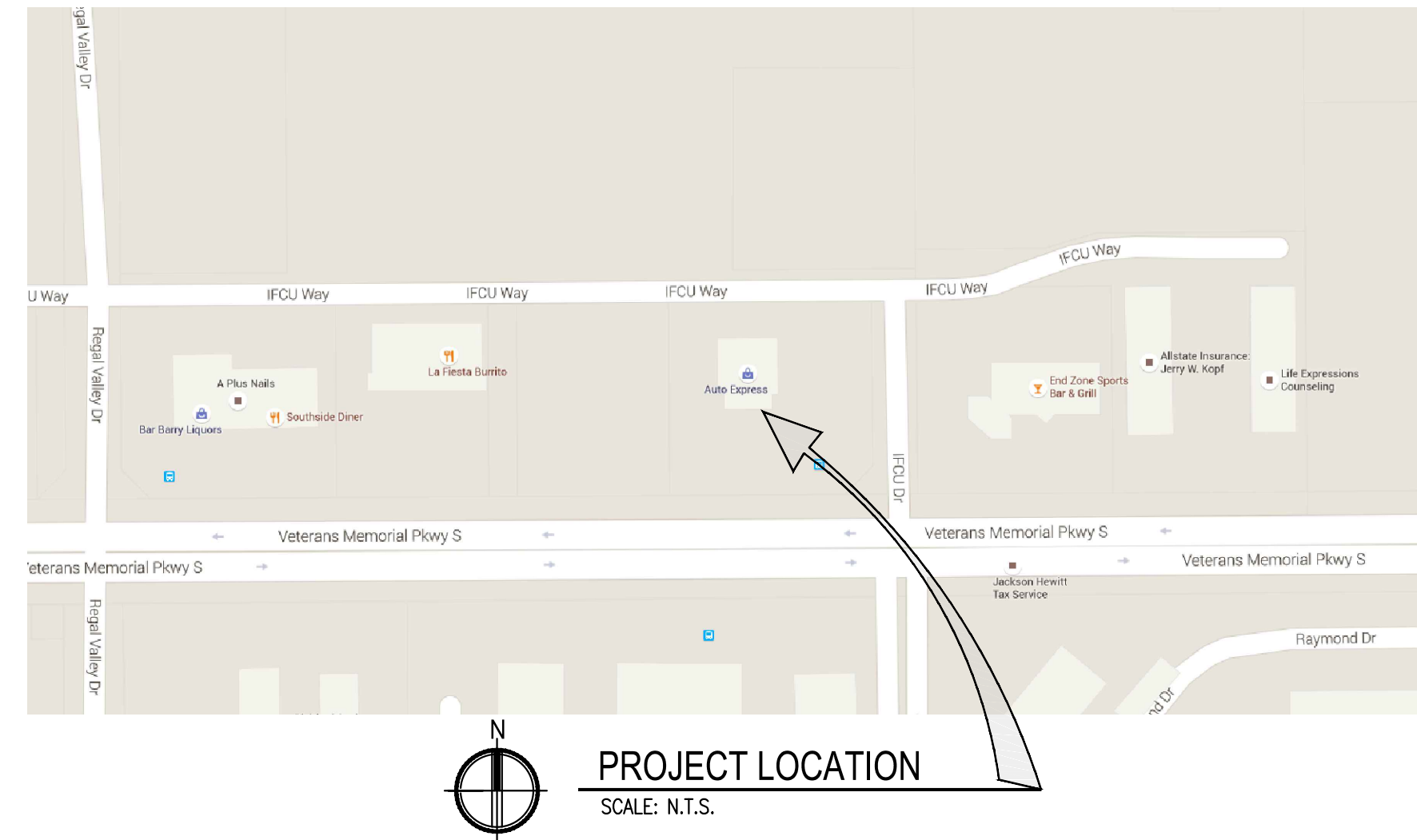


AUTO EXPRESS GARAGE EXPANSION

2216 IFCU WAY
LAFAYETTE, IN 47909



Owner:
NATHAN BUCHE
AUTO EXPRESS
2216 IFCU WAY
LAFAYETTE, IN 47909
(765) 477-7200
email: buche@autoexpresscars.com

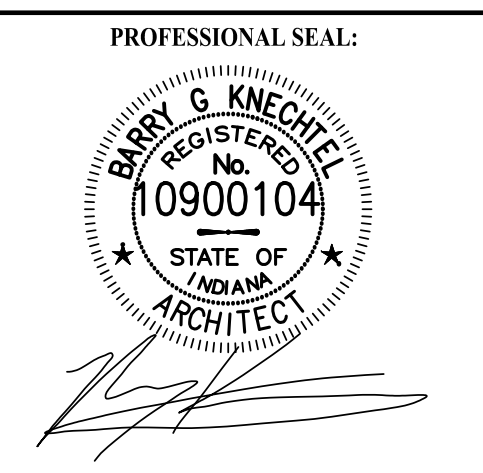
Architect & Engineer:



SHEET INDEX	
SHEET	TITLE
TITLE	SHEET INDEX & VICINITY MAP
ARCHITECTURAL	
A000	LIFE SAFETY AND CODE COMPLIANCE PLAN
A100	ARCHITECTURAL SITE PLAN
A105	DEMOLITION PLAN
A106	FLOOR PLAN AND WALL TYPES
A110	REFLECTED CEILING PLAN
A150	ROOF PLAN AND DETAILS
A200	EXTERIOR ELEVATIONS
A300	BUILDING SECTIONS
A305	WALL SECTIONS
A600	DOOR & ROOM FINISH SCHEDULES
STRUCTURAL	
S000	GENERAL STRUCTURAL NOTES
S100	FOUNDATION PLAN AND DETAILS
S110	FRAMING PLAN AND DETAILS
S200	SHEAR WALL PLAN AND DETAILS
MECHANICAL	
M100	MECHANICAL PLAN
ELECTRICAL	
E100	ELECTRICAL POWER AND LIGHTING PLAN
PLUMBING	
P100	PLUMBING PLAN

PROJECT TITLE:
**AUTO EXPRESS
GARAGE EXPANSION**
2216 IFCU WAY
LAFAYETTE, IN 47909

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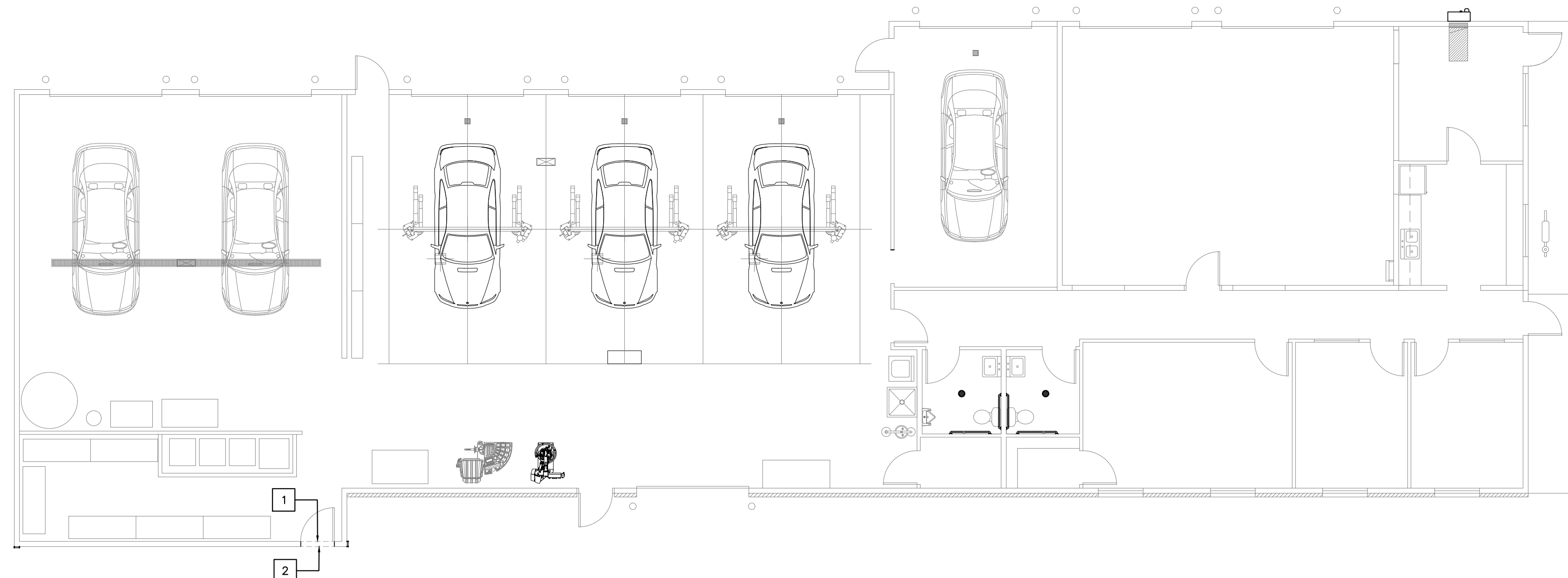
PROJECT DATE:
2/27/2017

No.	DESCRIPTION	DRAWN BY	DATE ISSUED

PROJECT NUMBER:
A2017.021

DRAWING TITLE:
SHEET INDEX AND VICINITY MAP

SHEET NUMBER:
TITLE



1
A001 DEMOLITION PLAN
SCALE: 1/8"=1'-0"



DEMOLITION GENERAL NOTES:

1. DEMOLITION WORK SHOWN ON THESE DRAWINGS IS SCHEMATIC IN NATURE. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY DEMOLITION OPERATIONS REQUIRED TO EFFECT ALL NEW CONSTRUCTION AND RENOVATION WORK AS SHOWN AND INDICATED ON THESE DRAWINGS.
2. ALL CONTRACTORS SHALL TOUR AND THOROUGHLY INSPECT WORK AREAS IN ORDER TO FAMILIARIZE THEMSELVES WITH ALL ITEMS TO BE REMOVED OR RELOCATED, SUCH AS ELECTRICAL OUTLETS, GAS SERVICES, LIGHT SWITCHES, THERMOSTATS, FURNACES, DUCTWORK, PLUMBING, PLUMBING FIXTURES, VALVES, SURFACE-RUN CONDUIT, ETC., WHETHER INDICATED OR NOT ON THE PLANS. NO ADDITIONAL COMPENSATION WILL BE APPROVED FOR REMOVING OR RELOCATING ITEMS THAT ARE VISIBLE AND OBVIOUS. ADDITIONAL COMPENSATION WILL BE ALLOWED ONLY FOR UNFORSEEN OR CONCEALED ITEMS THAT WOULD NOT BE ASSUMED OR FOUND UNTIL AFTER DEMOLITION WORK HAS BEGUN.
3. EXCEPT AS NOTED OTHERWISE, WALLS SHOWN TO BE REMOVED SHALL BE REMOVED ENTIRELY, AND ALL UTILITIES RE-ROUTED OR PROPERLY AND PERMANENTLY TERMINATED. ALL FLOORS, ADJACENT WALLS, ETC. SHALL BE PATCHED AFTER REMOVAL TO MATCH NEW SURROUNDING CONDITIONS.
4. ALL ITEMS TO BE REMOVED DURING DEMOLITION SHALL BE RETURNED TO THE OWNER OR STORED FOR RE-USE AS NOTED OR AS REQUESTED BY THE OWNER. THIS GENERALLY INCLUDES, BUT IS NOT LIMITED TO, LIGHT FIXTURES, BUILT-IN FURNITURE OR CABINETS, BOOKSHELVES, DOORS AND PLUMBING FIXTURES. ALL OTHER ITEMS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AS APPROVED BY THE OWNER. THE OWNER RESERVES THE RIGHT TO SALVAGE ITEMS WITH HIS OWN LABOR AND EQUIPMENT.
5. ALL MATERIALS NOT SALVAGED AS DIRECTED BY THE OWNER SHALL BE REMOVED FROM THE JOBSITE BY THE CONTRACTOR AND SHALL BE DISPOSED OF IN A SAFE AND PROPER DISPOSAL SITE AT CONTRACTOR'S EXPENSE.
6. ANY AND ALL STRUCTURAL MEMBERS TO BE REMOVED SHALL NOT BE WRECKED UNTIL PROPER TEMPORARY OR PERMANENT SHORING IS PROPERLY INSTALLED AND BRACED TO SUPPORT ALL SUPERIMPOSED LOADS (LIVE LOADS AND DEAD LOADS).
7. ALL STRUCTURAL ITEMS NOTED TO BE REMOVED OR REQUIRED TO BE REMOVED TO ACHIEVE THE DESIRED NEW CONSTRUCTION SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO REMOVAL.
8. ALL DEMOLITION WORK SHALL BE PERFORMED ACCORDING TO ACCEPTED INDUSTRY STANDARDS, WITH PROPER TOOLS AND TECHNIQUES AS REQUIRED TO CAUSE MINIMAL DAMAGE TO ADJACENT CONSTRUCTION THAT IS TO REMAIN. ALL DEMOLISHED AREAS OF THE PROJECT SHALL BE PROPERLY BARRICADED TO PROTECT OTHER WORKERS AND THE PUBLIC FROM INJURY.
9. NOTIFY THE OWNER A MINIMUM OF 24 HOURS PRIOR TO SHUT-DOWN OF ANY UTILITIES REQUIRED BY DEMOLITION WORK. ASSIST THE OWNER IN RE-CONNECTING AND RE-ESTABLISHING UTILITY SERVICES AND ITEMS SUCH AS RE-LIGHTING OF PILOT LIGHTS.
10. ALL UTILITIES TO BE REMOVED SHALL BE TERMINATED OR CAPPED TO ENSURE A SEALED AND SAFE SYSTEM AND SHALL BE RECORDED AS DISCONTINUED ON THE PROJECT RECORD AS-BUILT DRAWINGS.
11. ELECTRICAL DEVICES TO BE PERMANENTLY REMOVED SHALL HAVE THEIR FEED CONDUCTORS REMOVED ENTIRELY, BACK TO POINT OF ORIGIN (JUNCTION BOX OR PANELBOARD), AND EXISTING PANELBOARD CIRCUIT DIRECTORIES UPDATED ACCORDINGLY.
12. ALL EXISTING WINDOWS, DOORS, INTERIOR FINISHES, TRIM, AND FLOOR FINISHES IN LOCATIONS OCCUPIED BY ITEMS NOTED AS NEW ON THE WINDOW, DOOR AND ROOM FINISH SCHEDULES SHALL BE REMOVED AS REQUIRED.
13. CONTRACTOR SHALL REPAIR OR REPLACE ANY ADJACENT FINISHES, SURFACES OR MATERIALS DAMAGED BY DEMOLITION OPERATIONS AT NO COST TO THE OWNER.
14. WALLS AND CEILINGS PATCHED DUE TO DEMOLITION OPERATIONS SHALL BE RE-PAINTED IN ENTIRETY AFTER PATCHING.
15. SUSPENDED CEILINGS AFFECTED BY ADJACENT DEMOLITION AND CONSTRUCTION WORK SHALL BE REPAIRED OR REPLACED AS NEEDED TO MATCH ADJACENT CEILING GRID AND TILES TO REMAIN.
16. DO NOT SCALE DRAWINGS; USE ONLY WRITTEN DIMENSIONS. ALL DIMENSIONS MUST BE FIELD VERIFIED BY CONTRACTOR.
17. ARCHITECT MUST BE NOTIFIED OF ANY DISCREPANCIES IN DIMENSIONS AND ASSUMED BEARINGS AND JOIST CONDITIONS THAT ARE FOUND TO BE DIFFERENT THAN INDICATED BY THESE DOCUMENTS PRIOR TO PROCEEDING WITH THE WORK.
18. IF HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS, NOTIFY ARCHITECT AND OWNER IMMEDIATELY. COMPLY WITH ALL APPLICABLE REGULATIONS, LAWS, AND ORDINANCES CONCERNING REMOVAL, HANDLING, DISPOSAL AND PROTECTION AGAINST EXPOSURE OR ENVIRONMENTAL POLLUTION.

DEMOLITION KEYNOTES

1. REMOVE PORTION OF EXISTING WALL AT AREA FOR NEW MAN DOOR.
2. REMOVE EXISTING EXTERIOR VENEER AT AREA FOR NEW MAN DOOR.



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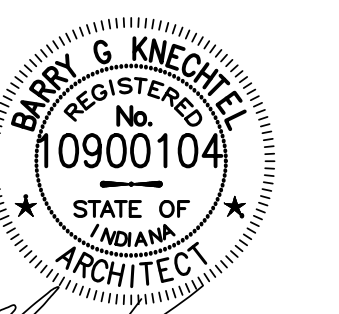
PROJECT TITLE:
**AUTO EXPRESS
GARAGE EXPANSION**

2216 IFCU WAY
LAFAYETTE, IN 47909

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PROJECT DATE:

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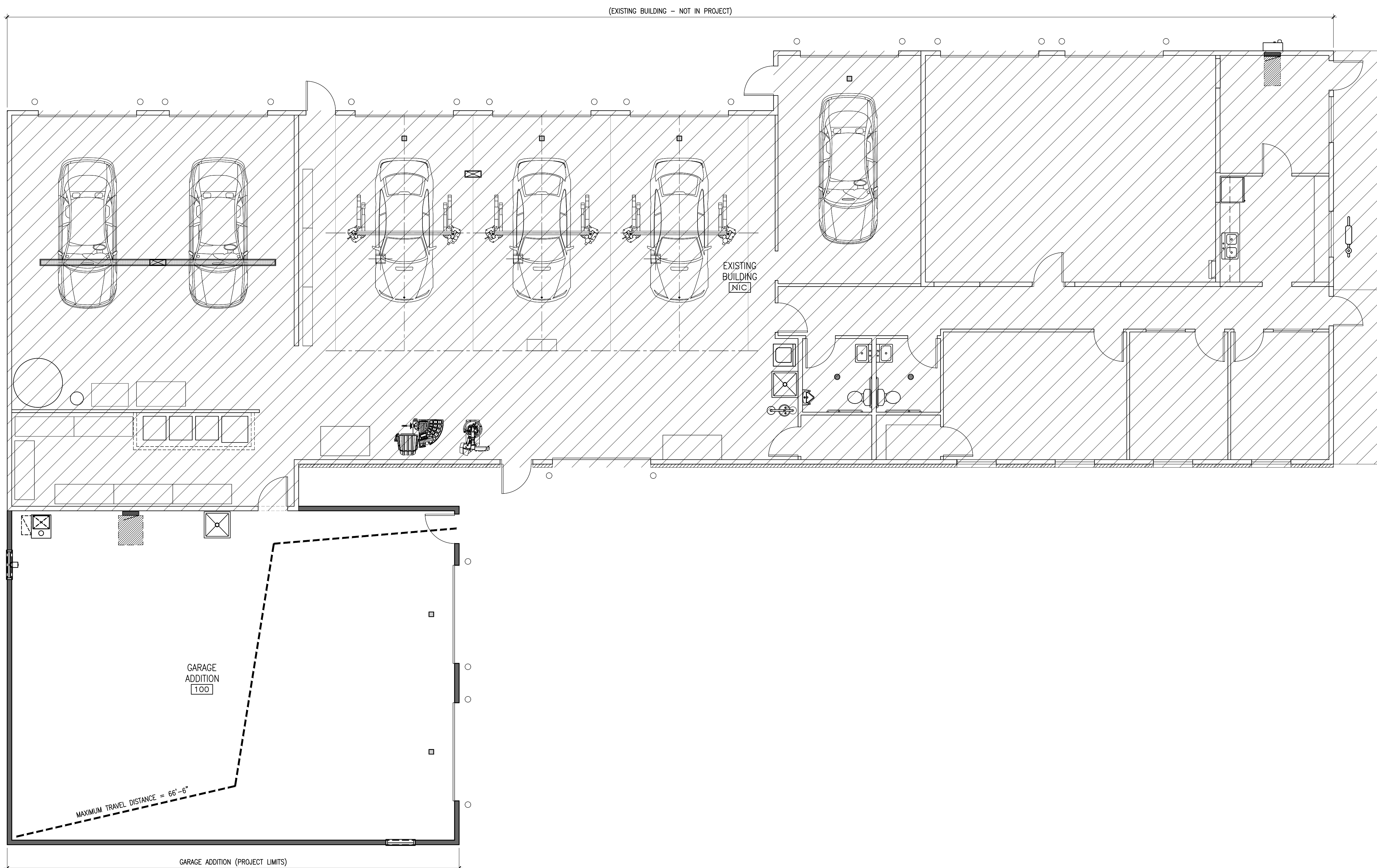
No.	DESCRIPTION:	DRAWN BY:	DATE ISSUED:

PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
DEMOLITION PLAN

SHEET NUMBER:

A001



(EXISTING BUILDING - NOT IN PROJECT)

EXISTING BUILDING
NIC

GARAGE ADDITION
100

MAXIMUM TRAVEL DISTANCE = 66'-6"

GARAGE ADDITION (PROJECT LIMITS)

1 LIFE SAFETY PLAN
A002 SCALE: 3/16"=1'-0"

CODE SUMMARY:

- 2012 INTERNATIONAL BUILDING CODE W/ 2014 INDIANA AMENDMENTS
- 2010 INDIANA ENERGY CONSERVATION CODE (ASHRAE 90.1-2007)
- 2006 INTERNATIONAL PLUMBING CODE W/ 2012 INDIANA AMENDMENTS
- 2008 NATIONAL ELECTRIC CODE W/ 2009 INDIANA AMENDMENTS
- 2012 INTERNATIONAL MECHANICAL CODE W/ 2014 INDIANA AMENDMENTS
- 2012 INTERNATIONAL FIRE CODE W/ 2014 INDIANA AMENDMENTS

LOCATION: LAFAYETTE, INDIANA

OCCUPANCY CLASSIFICATIONS:
OCCUPANCY GROUP S-1:
REPAIR GARAGE (TYPE 1)
[SECTION 311.2]

INCIDENTAL USE AREAS:
STOCK/STORAGE AND MECHANICAL AREAS PER
[SECTION 302.1.1 AND TABLE 302.1.1]

ACCESSORY USE AREAS:
RESTROOMS AND JANITORIAL AREAS PER
[SECTION 508.3.1]

INCIDENTAL STOCK/STORAGE AREAS AS OUTLINED ABOVE ARE NOT REQUIRED TO BE SEPARATED FROM OTHER AREAS WHEN LESS THAN 100 S.F. IN AREA PER TABLE 508.3.1.3.

ALLOWABLE AREA:
S-1 OCCUPANCY, V-B CONSTRUCTION TYPE ALLOWABLE AREA = 9,000 S.F. (PER TABLE 503) TOTAL ALLOWABLE AREA OF 9,000 IS GREATER THAN ACTUAL AREA OF 5,151 S.F. (FIRST FLOOR EXISTING /ADDITION) + 266 S.F. (EXISTING MEZZANINE) = 5,417 TOTAL PROJECT S.F.

CONSTRUCTION TYPE: REGEN

TYPE V-B PERMITTED BASED UPON THE PROVISIONS FOR GROUP S-1 OCCUPANCIES. [TABLE 503]

CORRIDORS:
THERE ARE NO CORRIDORS IN THIS PROJECT.

EXITING:
THE LENGTH OF A COMMON PATH OF TRAVEL SHALL NOT EXCEED 75' PER SECTION 1014.3.

TWO (2) EXITS ARE REQUIRED WHEN COMMON PATH OF EGRESS IS LESS THAN 75' AND OCCUPANT LOAD IS GREATER THAN 30 OCCUPANTS PER TABLE 1014.3

EXIT TRAVEL DISTANCE SHALL NOT EXCEED 200' [TABLE 1016.2]

SPRINKLER APPLICATION:
BUILDING SPRINKLER SYSTEM NOT REQUIRED IN THIS PROJECT SCOPE (PER SECTION 903.2.9.1)

FIRE BARRIERS:
FIRE BARRIERS NOT REQUIRED IN THIS PROJECT SCOPE

BUILDING ELEMENTS: FIRE-RESISTIVE ELEMENTS:
ALL WALLS, FLOORS, AND STRUCTURAL ELEMENTS SHALL BE UNRATED THROUGHOUT UNLESS NOTED OTHERWISE. [TABLE 601]

FIRE ALARM SYSTEM:
MANUAL FIRE ALARM SYSTEMS ARE NOT REQUIRED PER SECTION 907.2.7 AND 907.2.1 WHEN SERVING AN OCCUPANT LOAD LESS THAN 300.

SMOKE DETECTORS:
SMOKE DETECTORS ARE REQUIRED FOR AUTOMATIC HVAC SHUTDOWN FOR SYSTEMS DELIVERING IN EXCESS OF 2,000 CFM. [606.1, IMC]

PORTABLE FIRE EXTINGUISHERS:
PORTABLE FIRE EXTINGUISHERS ARE REQUIRED EVERY 75' PER INTERNATIONAL FIRE CODE SECTION 906 & TABLE 906.1.

ACCESSIBILITY:
AN ACCESSIBLE MEANS OF EGRESS IS REQUIRED [SECTION 1007.1.]

OCCUPANT LOAD:
GARAGE ADDITION: 1,512 S.F. @ 100/NET = 15 OCCUPANTS
6 OCCUPANTS (ANTICIPATED-WORK STAFF)
2 OCCUPANTS (ANTICIPATED-PUBLIC)
TOTAL = 8 OCCUPANTS (ANTICIPATED)

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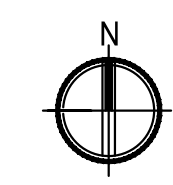
PROJECT DATE:
2/27/2017

No.	DESCRIPTION:	DRAWN BY:	DATE ISSUED:

PROJECT NUMBER: A2017.021 **DRAWN BY:**

DRAWING TITLE:
**LIFE SAFETY AND
CODE COMPLIANCE**

SHEET NUMBER:
A002



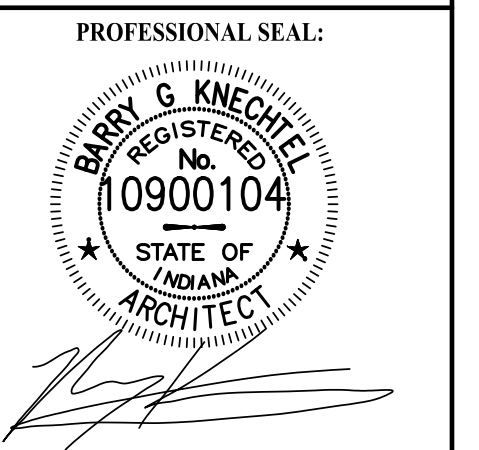


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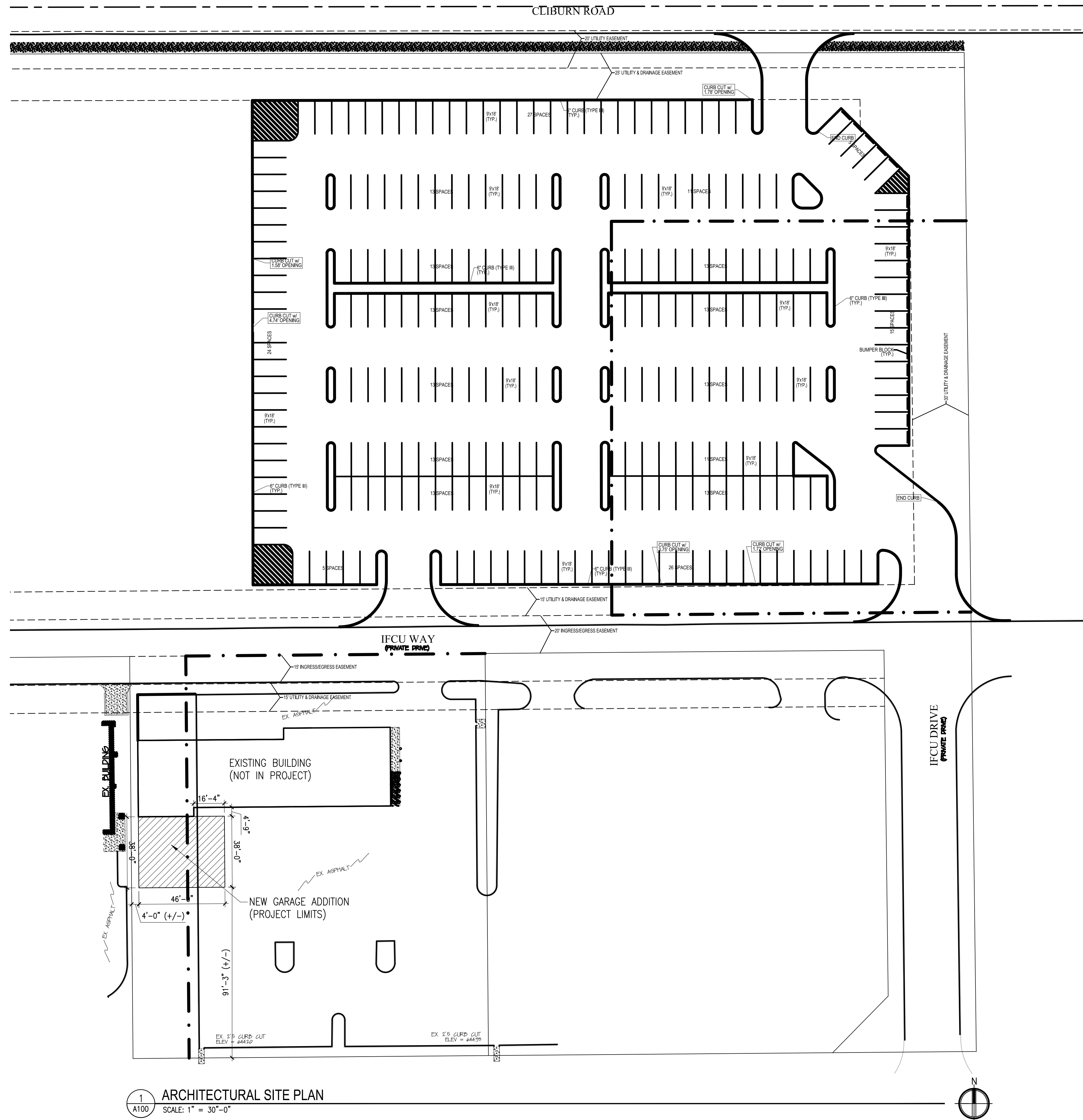
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PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
**ARCHITECTURAL
 SITE PLAN**

SHEET NUMBER:

A100





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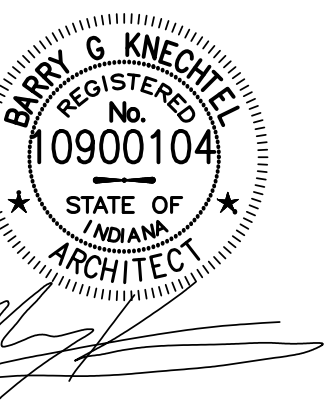
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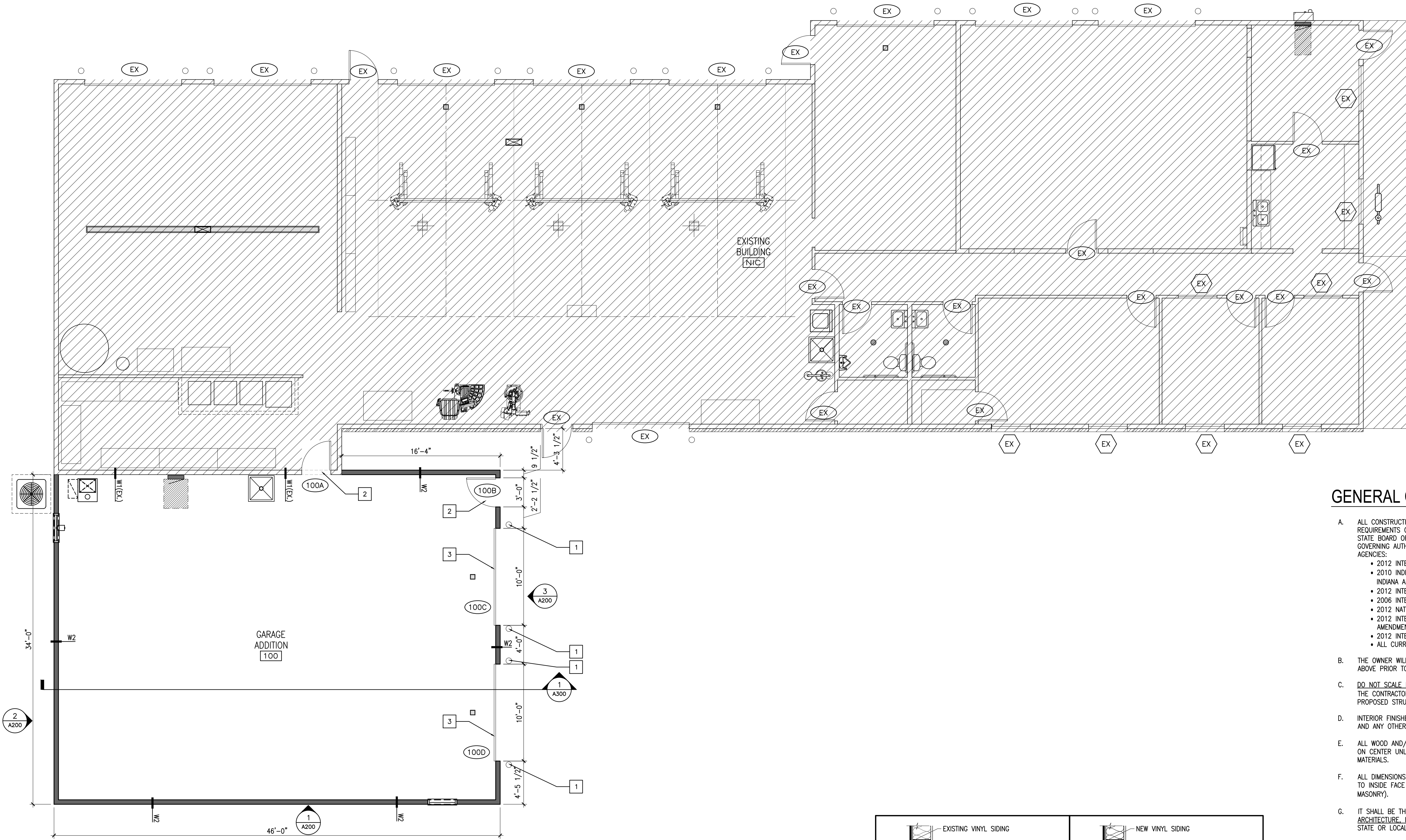
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PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
PROPOSED FLOOR PLAN

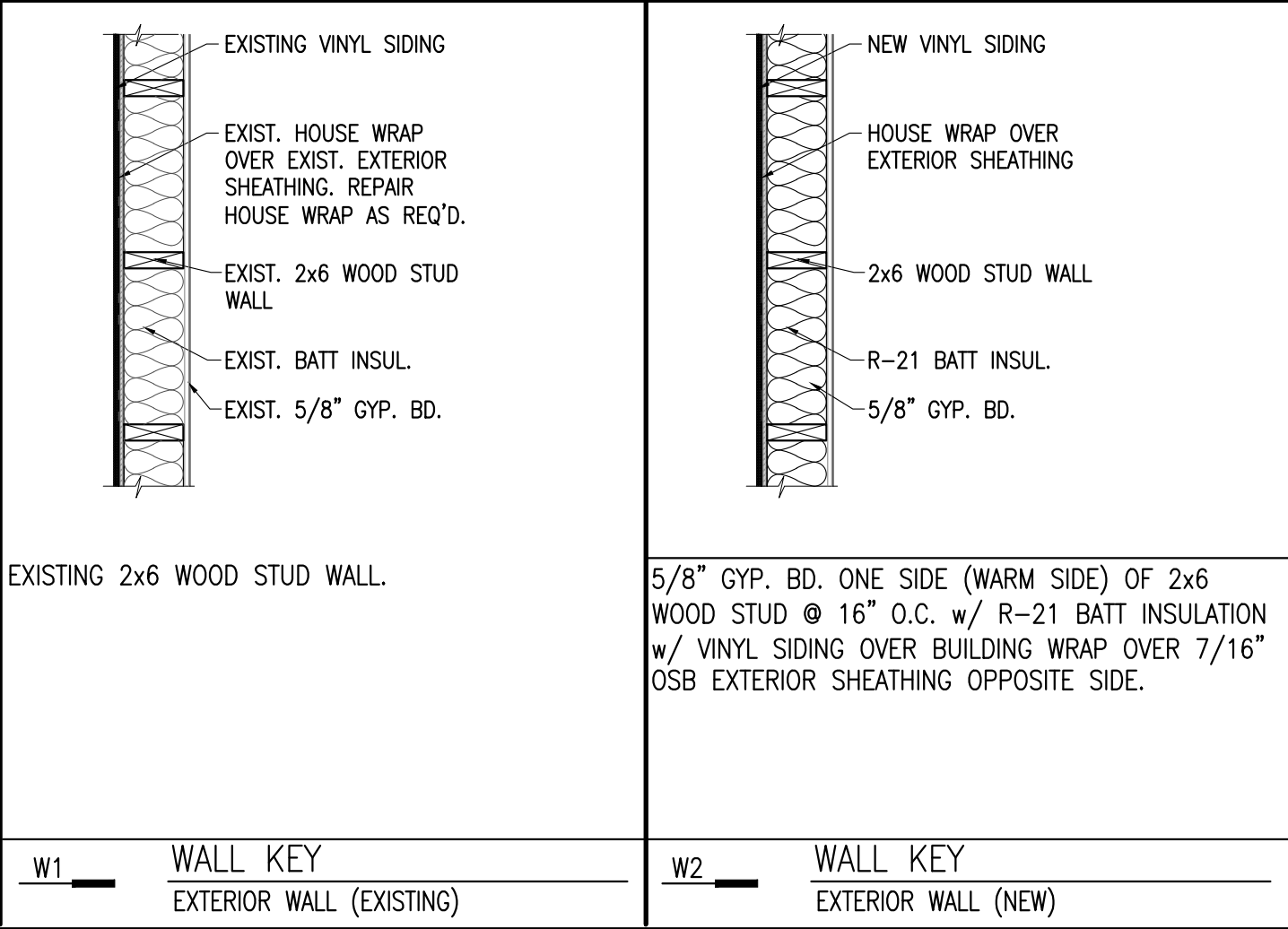
SHEET NUMBER:

A105



GENERAL CONSTRUCTION NOTES:

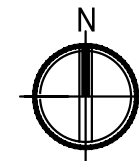
- A. ALL CONSTRUCTION MATERIALS AND INSTALLATION MUST COMPLY WITH CODE REQUIREMENTS OF THE INDIANA ADMINISTRATIVE BUILDING COUNCIL, THE STATE BOARD OF HEALTH, THE STATE FIRE MARSHALL, AND THE LOCAL GOVERNING AUTHORITY AS SET BY, BUT NOT LIMITED TO THE FOLLOWING AGENCIES:
 - 2012 INTERNATIONAL BUILDING CODE W/ 2014 INDIANA AMENDMENTS
 - 2010 INDIANA ENERGY CONSERVATION CODE (ASHRAE 90.1-2007 W/ INDIANA AMENDMENTS)
 - 2012 INTERNATIONAL FIRE CODE W/ 2014 INDIANA AMENDMENTS
 - 2006 INTERNATIONAL PLUMBING CODE W/ 2012 INDIANA AMENDMENTS
 - 2012 NATIONAL ELECTRICAL CODE W/ 2014 INDIANA AMENDMENTS
 - 2012 INTERNATIONAL MECHANICAL CODE W/ 2014 INDIANA AMENDMENTS
 - 2012 INTERNATIONAL FUEL GAS CODE W/ 2014 INDIANA AMENDMENTS
 - ALL CURRENT LOCAL CODES, ORDINANCES, AND REGULATIONS.
- B. THE OWNER WILL OBTAIN APPROVAL FROM THE APPLICABLE AGENCIES LISTED ABOVE PRIOR TO CONSTRUCTION.
- C. DO NOT SCALE DRAWINGS; USE ONLY WRITTEN DIMENSIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT ALL DIMENSIONS OF THE PROPOSED STRUCTURE ARE CORRECT BEFORE WORK STARTS.
- D. INTERIOR FINISHES SHALL BE IN ACCORDANCE WITH CHAPTER 8 OF THE IBC AND ANY OTHER APPLICABLE PART OF THE IBC.
- E. ALL WOOD AND/OR METAL STUD WALLS SHALL HAVE STUDS SPACED AT 16" ON CENTER UNLESS NOTED OTHERWISE. SEE WALL KEYS FOR WALL MATERIALS.
- F. ALL DIMENSIONS ARE ROUGH FRAMING DIMENSIONS. (INSIDE FACE OF STUD TO INSIDE FACE OF STUD OR INSIDE FACE OF MASONRY TO INSIDE FACE OF MASONRY).
- G. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INFORM KJG ARCHITECTURE, INC. OF ANY UNSAFE CONDITION OR CODE VIOLATION, EITHER STATE OR LOCAL, PRIOR TO THE START OF CONSTRUCTION.
- H. THE CONTRACTOR SHALL VERIFY ALL WORK WITH ALL TRADES (PLUMBING, ELECTRICAL, MECHANICAL AND OTHERS ON JOB) TO ENSURE THAT ALL REQUIRED CLEARANCES ARE MADE PRIOR TO PROCEEDING WITH THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY PROBLEMS PRIOR TO THE START OF CONSTRUCTION.
- I. IF FIELD CONDITIONS EXIST THAT REQUIRE ALTERATIONS TO THESE PLANS, KJG ARCHITECTURE, INC. MUST BE NOTIFIED AT ONCE AND BEFORE ANY FURTHER CONSTRUCTION TAKES PLACE.
- J. PROVIDE SOLID BLOCKING FOR ALL WALL-MOUNTED ITEMS SUCH AS, BUT NOT LIMITED TO, HANDRAILS, CABINETS, TOWEL BARS, GRAB BARS, TOILET ACCESSORIES AND SHELVING.
- K. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED MATERIAL.



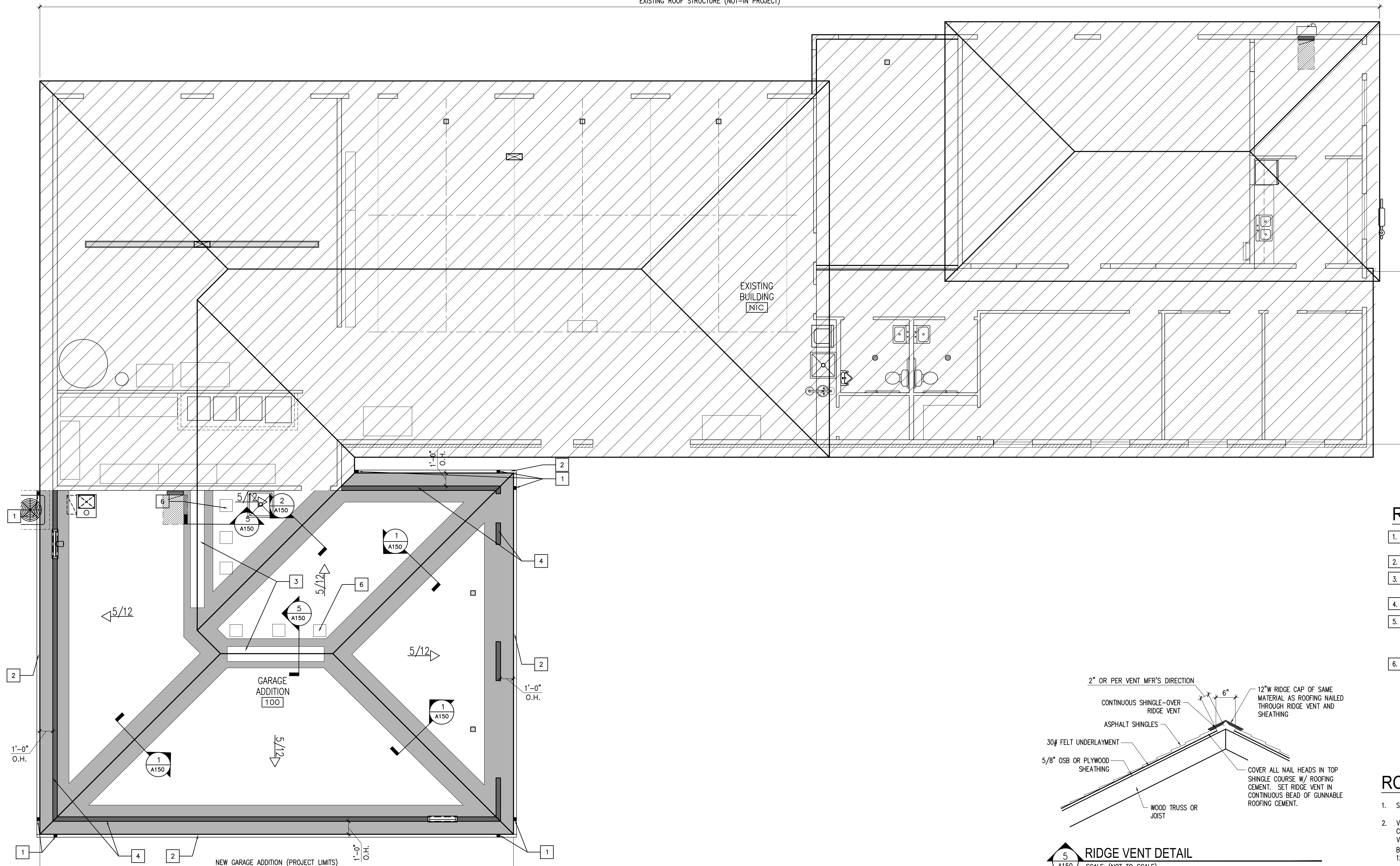
PLAN KEYNOTES

- 1. OPTIONAL PIPE BOLLARD (SEE DETAIL 1/S000).
- 2. MAN DOOR LOCATION (SEE DOOR SCHEDULE).
- 3. OVERHEAD DOOR LOCATION (SEE DOOR SCHEDULE).

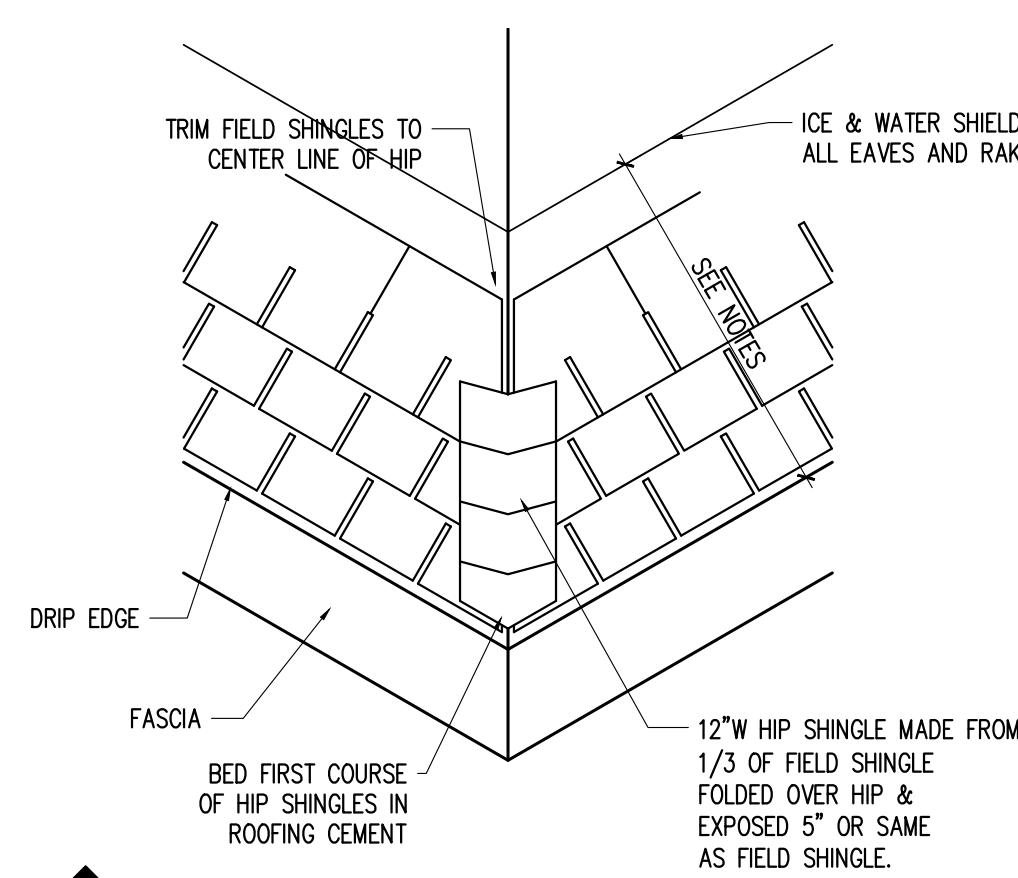
1 PROPOSED FLOOR PLAN
 SCALE: 3/16"=1'-0"



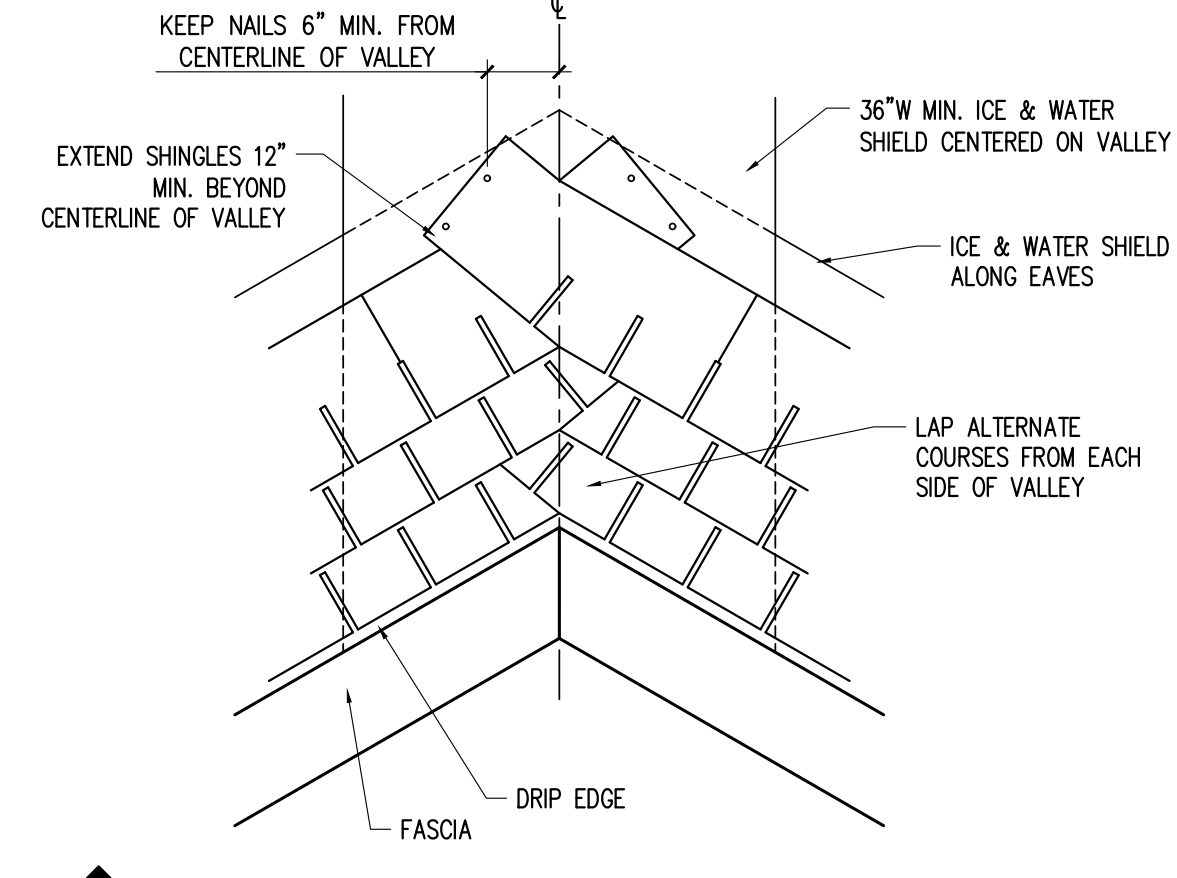
EXISTING ROOF STRUCTURE (NOT-IN PROJECT)



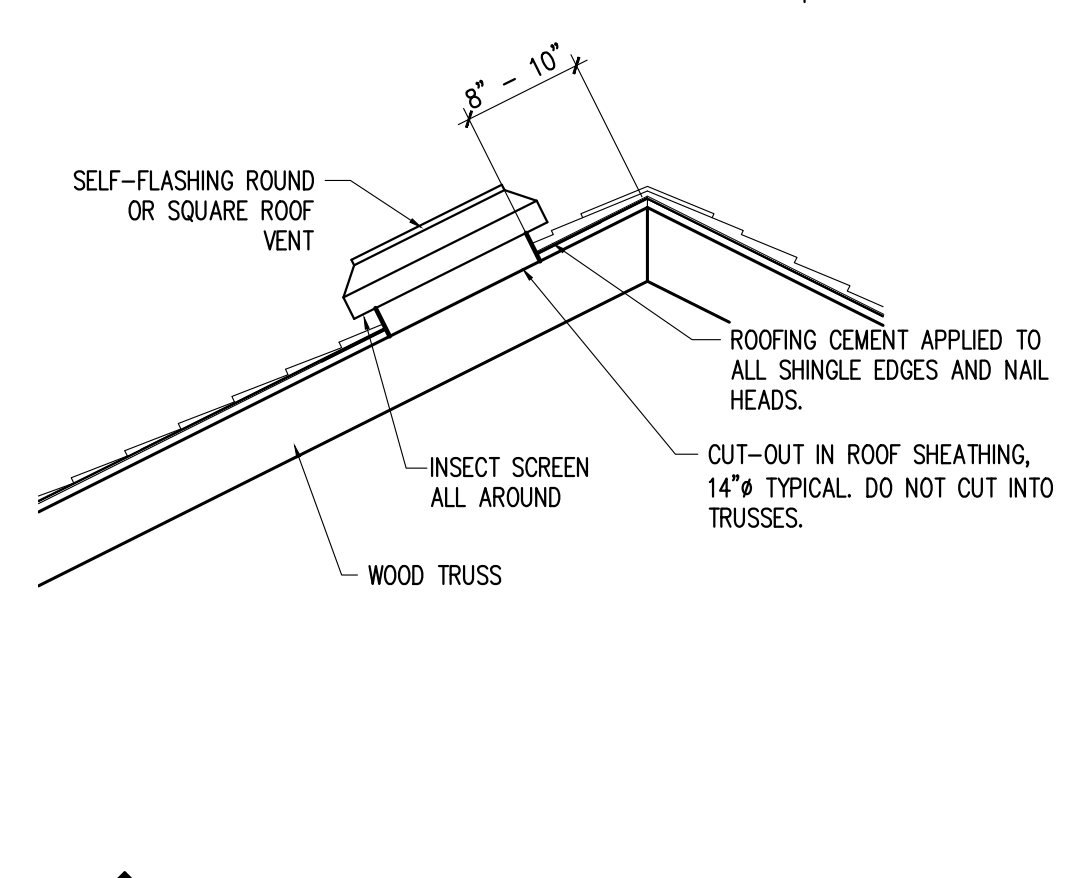
1 ROOF PLAN
SCALE: 3/16"=1'-0"



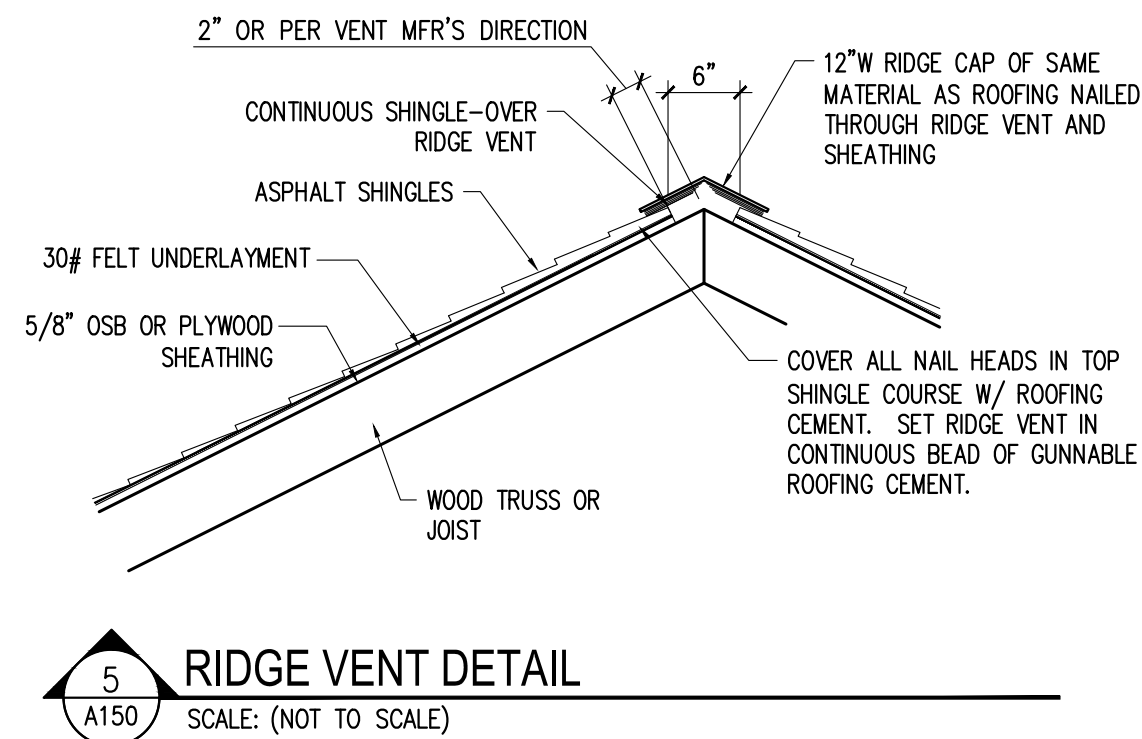
1 HIP RIDGE DETAIL
SCALE: (NOT TO SCALE)



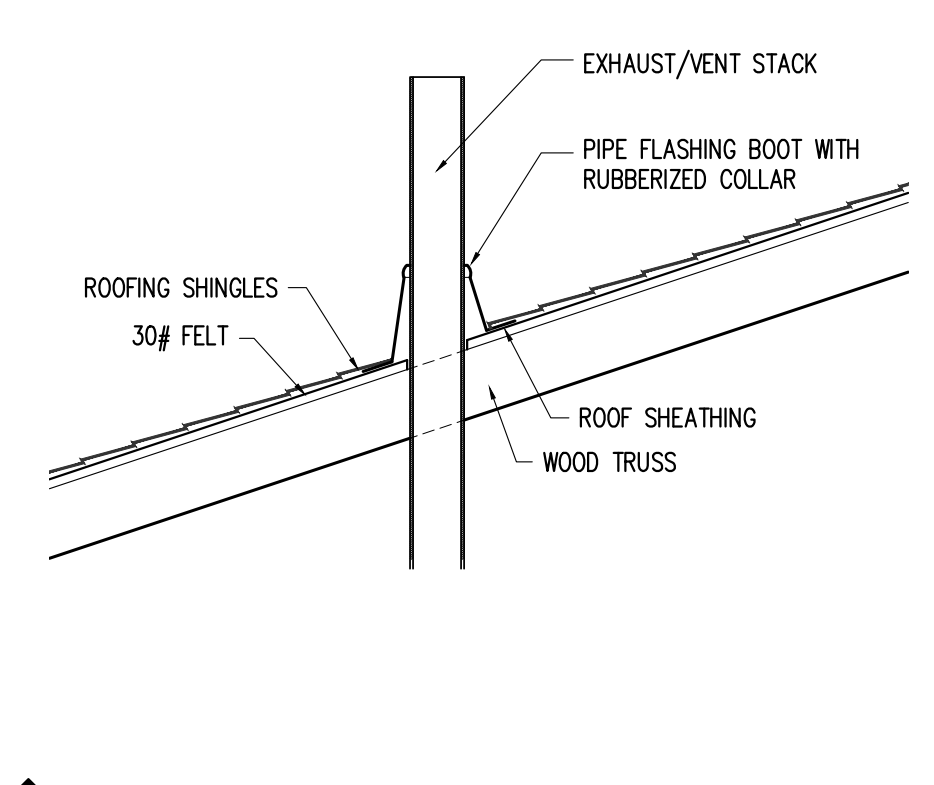
2 HIP VALLEY DETAIL
SCALE: (NOT TO SCALE)



3 OFF RIDGE VENT DETAIL
SCALE: (NOT TO SCALE)



5 RIDGE VENT DETAIL
SCALE: (NOT TO SCALE)



4 VENT STACK DETAIL (IF APPLICABLE)
SCALE: (NOT TO SCALE)

ROOF PLAN KEY NOTES:

1. DOWNSPOUT TO GRADE. CONTRACTOR TO COORDINATE UNDERGROUND PIPING LOCATIONS FOR DRAINAGE.
2. CONT. ALUM. GUTTER (MATCH EXISTING).
3. CONTINUOUS RIDGE VENT. INSTALL AND FLASH PER MANUFACTURER'S SPECIFICATIONS. (SEE DETAIL 5/A150).
4. LINE OF STUD WALL BELOW.
5. ASPHALT SHINGLE ROOFING OVER ROOFING FELT (OVER ICE AND WATER SHIELD PER SPECIFICATIONS & WHERE INDICATED) OVER STRUCTURAL SHEATHING. INSTALL ALL MATERIALS PER MANUFACTURER'S SPECIFICATIONS.
6. BOX VENT, 50 SQ. IN. MIN. FREE AIR. (SEE DETAIL 3/A150).

ROOF PLAN SHEET NOTES:

1. SEE SHEET A105 FOR GENERAL CONSTRUCTION NOTES
2. VENTING REQUIREMENTS ARE 1/3 OF ATTIC AREA PER IBC SECTION 1203.2. CONTRACTOR TO VERIFY RIDGE VENTS SELECTED WILL PROVIDE ADEQUATE VENTING. OTHERWISE, ADD ADDITIONAL BOX VENTS AS REQ'D. ON BACKSIDE OF BUILDING, IN UPPER 1/4 OF AIRSPACE PER IBC SECTION 1203.2.

ATTIC VENTILATION:

PER IBC 2006 SEC. 1203.2, ATTIC SHALL BE VENTILATED BY NATURAL OPENINGS WITH A TOTAL NET FREE AREA NOT LESS THAN 1/300 OF THE AREA OF THE (ATTIC) SPACE VENTILATED, AND WITH 50% OF THE OPENINGS IN THE UPPER PORTION OF THE ROOF, WITH THE BALANCE BEING EAVE OR CORNICE VENTS. A VAPOR RETARDER HAVING A TRANSMISSION RATE NOT EXCEEDING 1 PERM IN ACCORDANCE WITH ASTM E96 IS TO BE INSTALLED ON THE WARM SIDE OF THE ATTIC INSULATION.

TOTAL BUILDING (EXISTING/ADDITIONS):
ATTIC AREA = 5,183 SQ. FT.
5183/300 = 17.27 SQ. FT. = 3.34 SQ. FT. (EXISTING) + 13.93 SQ. FT. (ADDITIONS)
17.27 SQ. FT. X 144 SQ. IN./SQ. FT. = 2,487 SQ. IN. REQUIRED/EACH (EXISTING & ADDITIONS)

RIDGE VENT FREE AREA = 18 SQ. IN./LIN. FT.
2487 SQ. IN./18 SQ. IN./LIN. FT. = 138 LIN. FT.
TO BE PROVIDED PER PLAN: 30' x 16" = 48 LIN. FT.
46 LIN. FT. X 18 SQ. IN./LIN. FT. = 828 SQ. IN.
REMAINDER VENTILATION REQUIRED TO BE MADE UP THROUGH THE USE OF OFF-RIDGE VENTS.

LOWER PORTION OF THE BUILDING ROOF SHALL BE VENTILATED BY VENTILATED SOFFIT PANELS PROVIDING A TOTAL FREE AREA EQUAL TO THE TOTAL OF THE RIDGE VENTS (2487 SQ. IN.).

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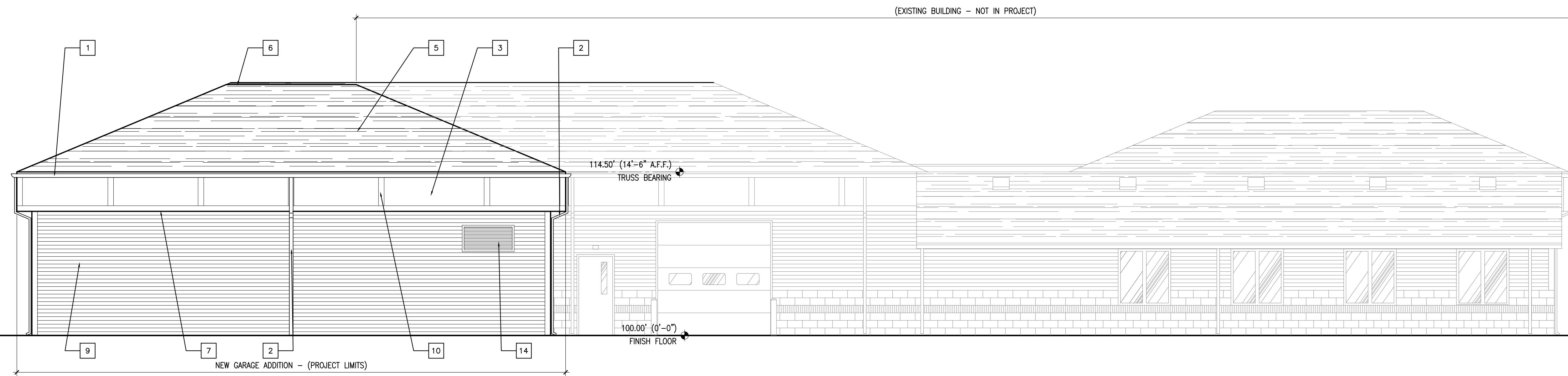
PROJECT DATE:
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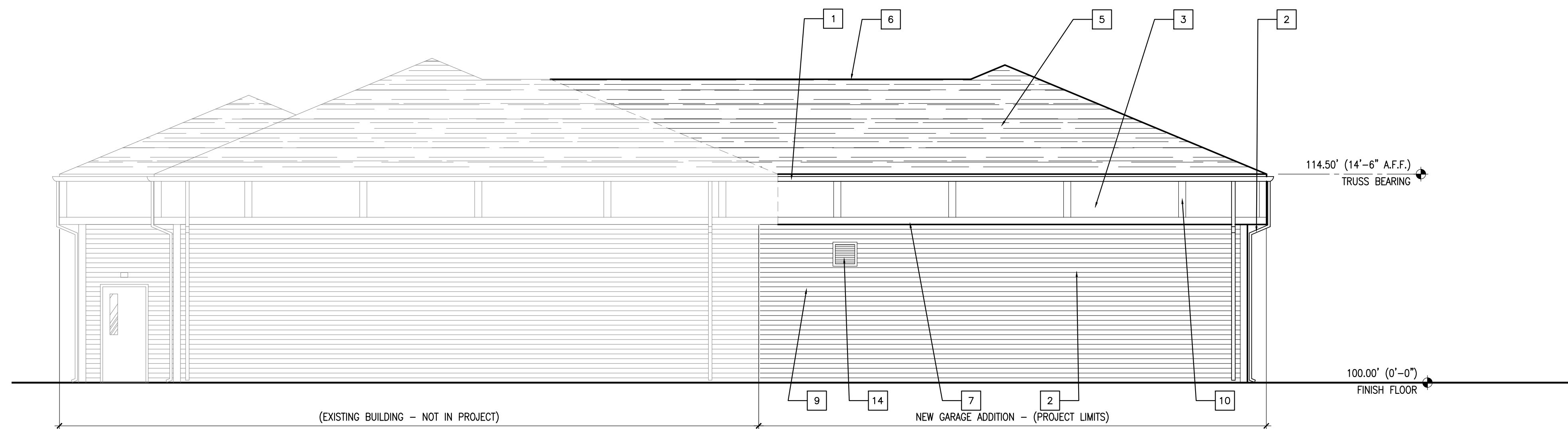
PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
ROOF PLAN

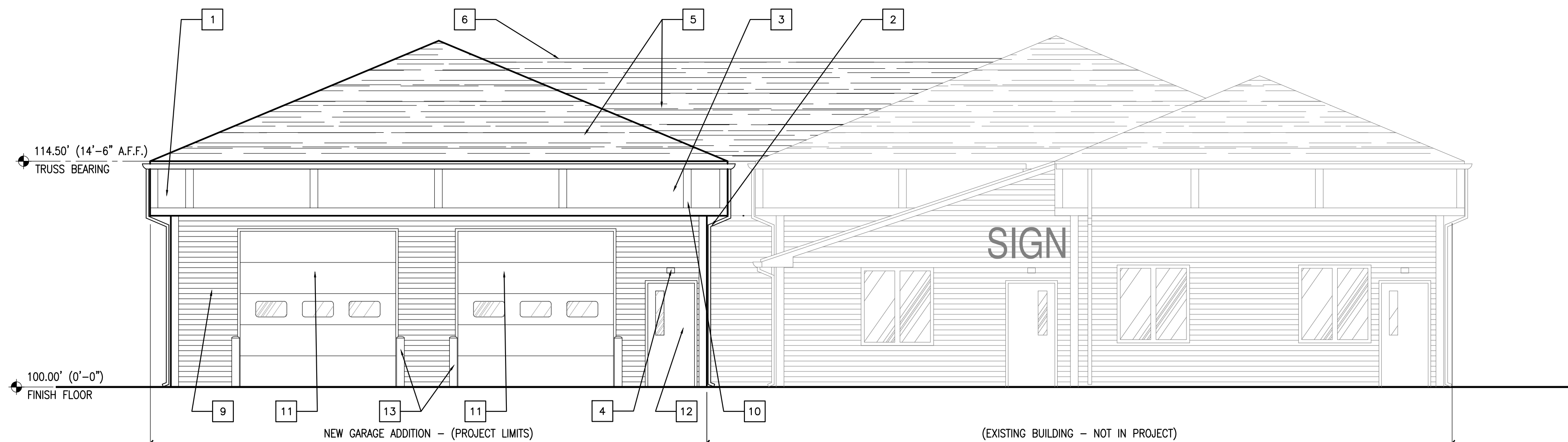
SHEET NUMBER:
A150



1 SOUTH ELEVATION
SCALE: 3/16"=1'-0"



2 WEST ELEVATION
SCALE: 3/16"=1'-0"



3 EAST ELEVATION
SCALE: 3/16"=1'-0"

ELEVATION GENERAL NOTES:

- 1 COLOR AND TEXTURE OF MATERIAL, IF NOT INDICATED, SHALL BE APPROVED BY THE OWNER AND THE ARCHITECT PRIOR TO INSTALLATION.
- 2 ALL VENTS AND ROOF EQUIPMENT THAT ARE VISIBLE FROM THE GROUND SHALL BE PAINTED A COLOR TO MATCH THE ADJACENT SURFACE, UNLESS OTHERWISE NOTED. EXISTING ROOF EQUIPMENT TO BE CLEANED AND REPAINTED AS REQ'D.
- 3 COORDINATE FINAL GRADE LINES WITH THE CIVIL ENGINEERS SITE FINISHED GRADES FOR ELEVATIONS AND LOCATIONS OF BRICK LEDGES, VENTS, BOTTOM OF FOOTERS, STEPS AND RAMPS, ETC..

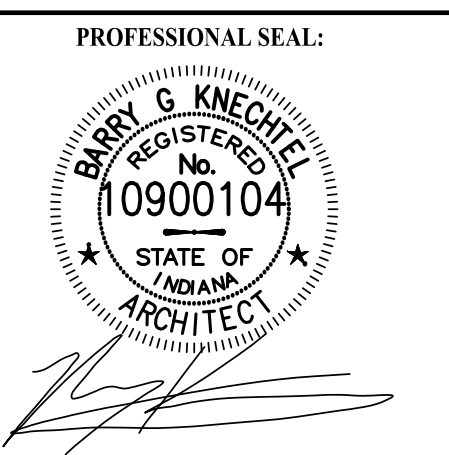
KEYNOTES:

1. PREFINISHED METAL GUTTER, COLOR TO MATCH EXISTING
2. PREFINISHED METAL DOWNSPOUTS, COLOR TO MATCH EXISTING
3. BOARD AND BATTEN PANELING, COLOR TO MATCH EXISTING
4. LIGHT FIXTURE, SEE ELECTRICAL
5. ARCHITECTURAL SHINGLE, COLOR TO MATCH EXISTING
6. CONTINUOUS RIDGE VENT
7. VENTED VINYL SOFFIT, COLOR TO MATCH EXISTING
8. ALUMINUM WRAPPED FASCIA
9. VINYL SIDING, PROFILE / COLOR TO MATCH EXISTING
10. BATTEN STRIP
11. INSULATED O.H. DOOR (SEE DOOR SCHEDULE)
12. INSULATED MAN DOOR (SEE DOOR SCHEDULE)
13. OPTIONAL CONC. FILLED METAL BOLLARDS (PAINTED SAFETY YELLOW) SEE DETAIL 1/S000.
14. LOUVER VENT (SEE MECHANICAL).

PROJECT TITLE:
**AUTO EXPRESS
GARAGE EXPANSION**

2216 IFCU WAY
LAFAYETTE, IN 47909

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PROJECT DATE:
2/27/2017

No.	DESCRIPTION	DRAWN BY	DATE FINISHED

PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
**BUILDING
ELEVATIONS**

SHEET NUMBER:
A200



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 www.kjgarchitecture.com

GENERAL NOTES:

- COLOR AND TEXTURE OF MATERIAL, IF NOT INDICATED, SHALL BE APPROVED BY THE OWNER AND THE ARCHITECT PRIOR TO INSTALLATION.
- ALL VENTS AND ROOF EQUIPMENT THAT ARE VISIBLE FROM THE GROUND SHALL BE PAINTED A COLOR TO MATCH THE ADJACENT SURFACE, UNLESS OTHERWISE NOTED.
- UTILITY ENTRANCE EQUIPMENT SHALL BE PAINTED A COLOR TO MATCH ADJACENT SURFACE UNLESS PAINT WOULD INTERFERE WITH EQUIPMENT OPERATION AS DIRECTED BY THE UTILITY COMPANY. VERIFY WITH ARCHITECT.
- COORDINATE FINAL GRADE LINES WITH THE CIVIL ENGINEERS SITE FINISHED GRADES FOR ELEVATIONS AND LOCATIONS OF VENTS, BOTTOM OF FOOTERS, STEPS AND RAMPS, ETC..

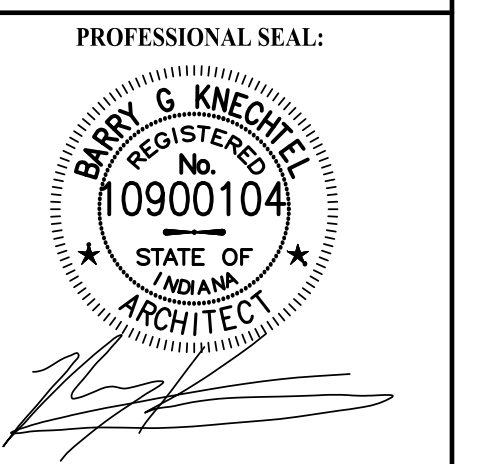
SECTION KEY NOTES:

- HORIZONTAL VINYL SIDING - SEE EXTERIOR ELEVATIONS.
- OVERHEAD DOOR LOCATION - SEE DOOR SCHEDULE.
- CONC. FOUNDATION WALL - SEE FOUNDATION PLAN.
- CONC. FLOOR SLAB - SEE FOUNDATION PLAN.
- ROOF TRUSS - SEE FRAMING PLAN.
- GRADE LINE.
- FIBERGLASS/ASPHALT ROOF SHINGLE. - SEE ROOF PLAN
- R-38 ATTIC INSULATION.
- THICKENED FLOOR SLAB LOCATION - SEE STRUCTURAL.
- ALUM. CONT. GUTTER - SEE BUILDING ELEVATIONS.
- 2" RIGID INSULATION - SEE FOUNDATION DETAILS.
- EXTERIOR WALL - SEE WALL TYPES.

PROJECT TITLE:
**AUTO EXPRESS
 GARAGE EXPANSION**

2216 IFCU WAY
 LAFAYETTE, IN 47909

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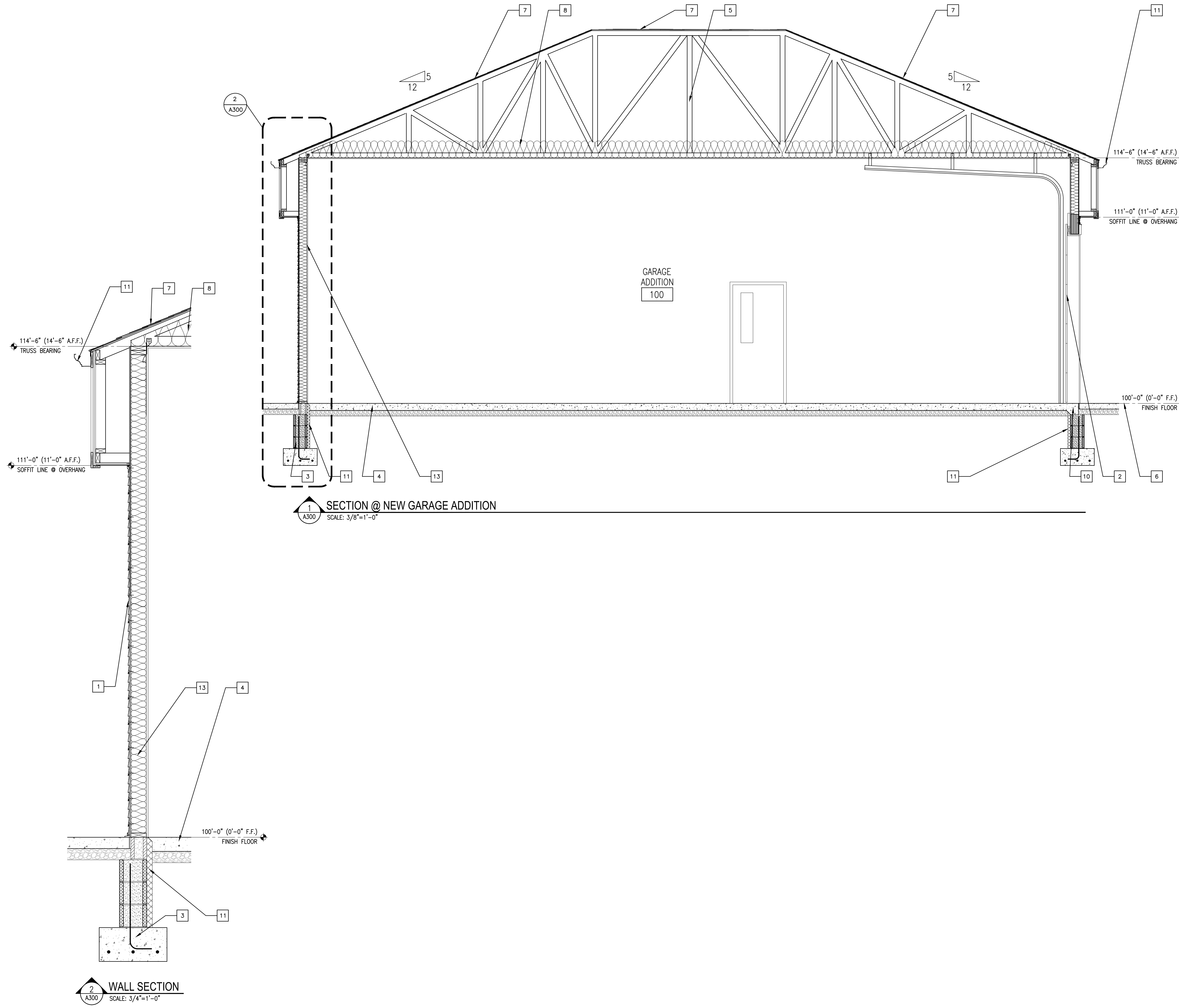
PROJECT DATE:
2/27/2017

No.	DESCRIPTION:	DRAWN BY:	DATE ISSUED:

PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
BUILDING AND WALL SECTIONS

SHEET NUMBER:
A300



DOOR AND FRAME SCHEDULE

MARK	ROOM	DOOR					FRAME						HEADER HEIGHT	HARDWARE SET NUMBER	REMARKS	FIRE RATING
		ELEV.	SIZE		TYPE	FINISH	ELEV.	TYPE	FINISH	DETAIL						
			WIDTH	HEIGHT						HEAD	JAMB	SILL				
100A	GARAGE	D1	3'-0"	7'-0"	HM1	PT	DF1	DF1	PT	3/A600	--	4/A600	7'-2"	SEE NOTE		
100B	GARAGE	D1	3'-0"	7'-0"	HM1	PT	DF1	DF1	PT	1/A600	--	2/A600	7'-2"	SEE NOTE		
100C	GARAGE	D2	10'-0"	10'-0"	OHD1	PRE	DF2	DF2	--	--	--	--	10'-2"	PER DOOR MANUF.		
100D	GARAGE	D2	10'-0"	10'-0"	OHD1	PRE	DF2	DF2	--	--	--	--	10'-2"	PER DOOR MANUF.		

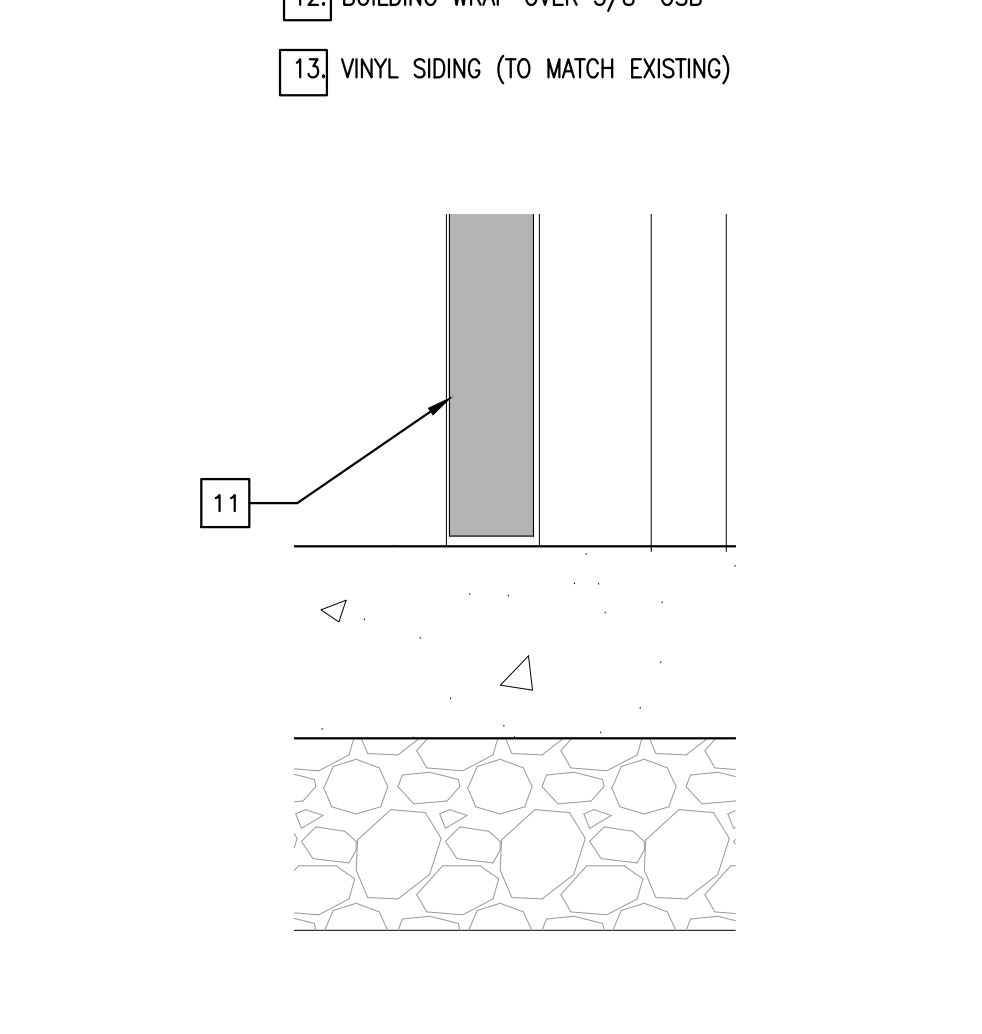
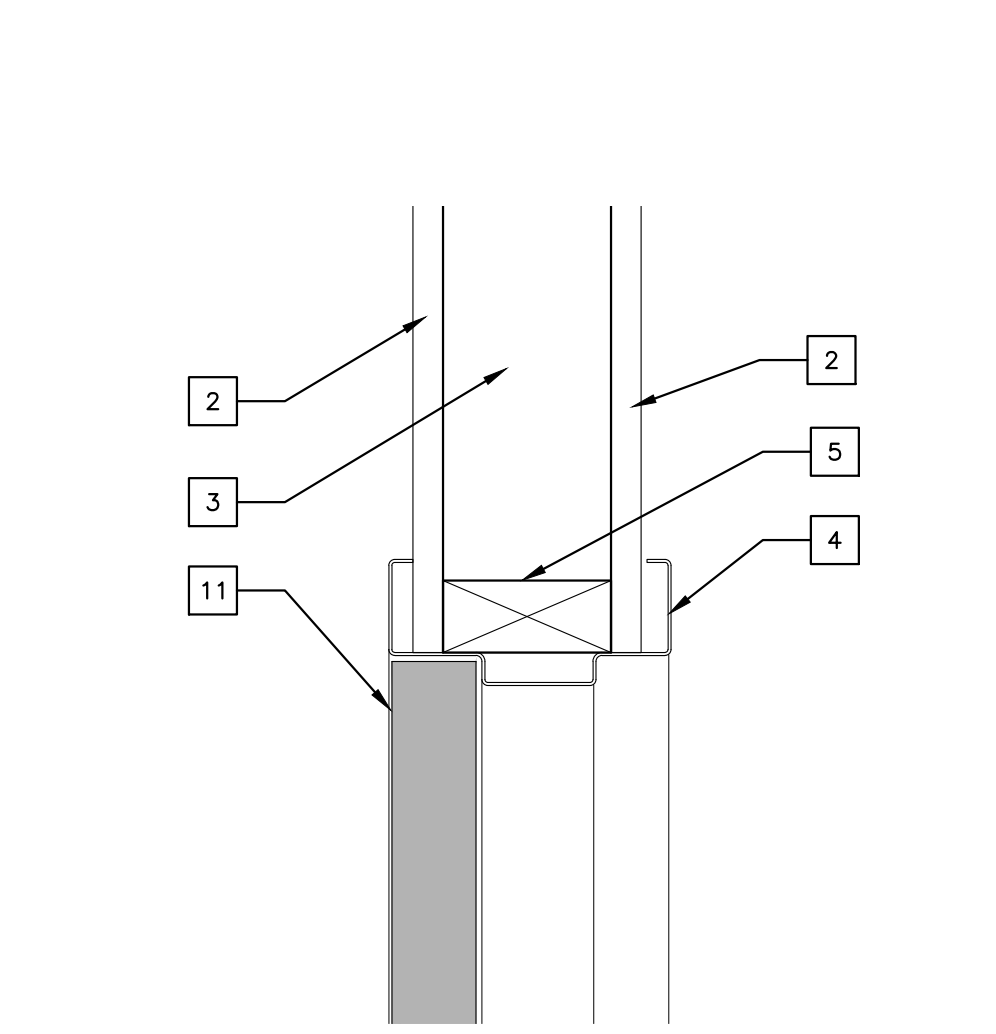
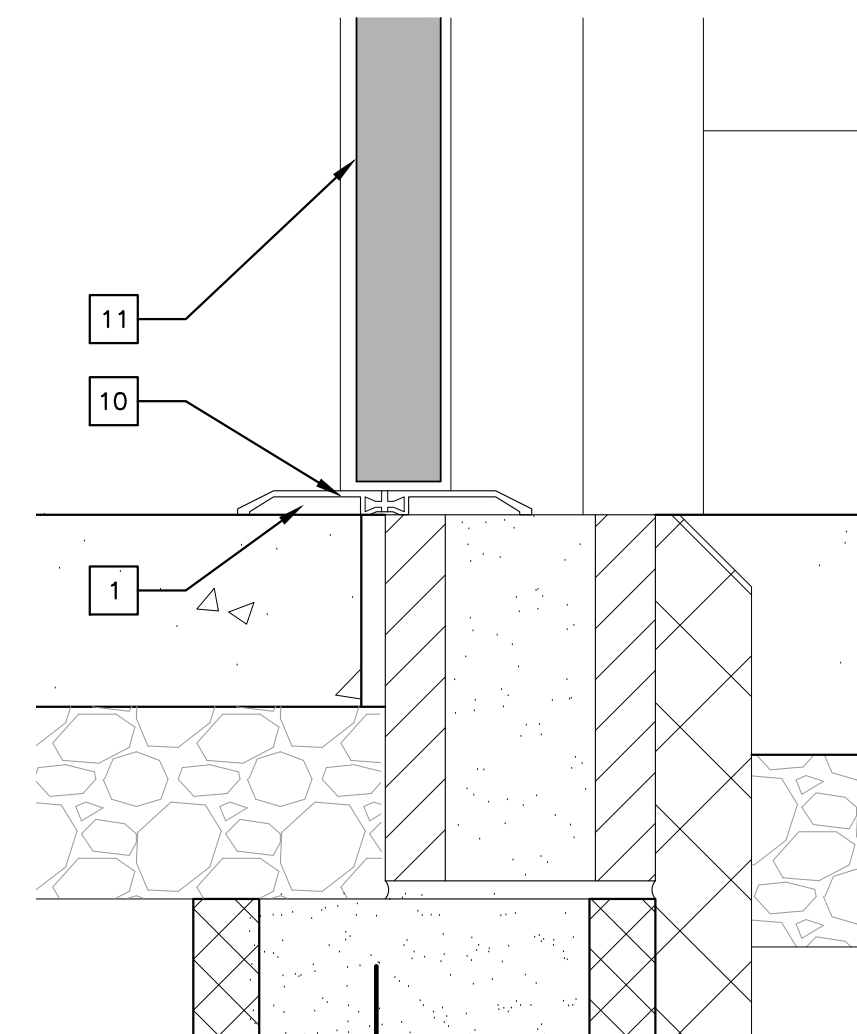
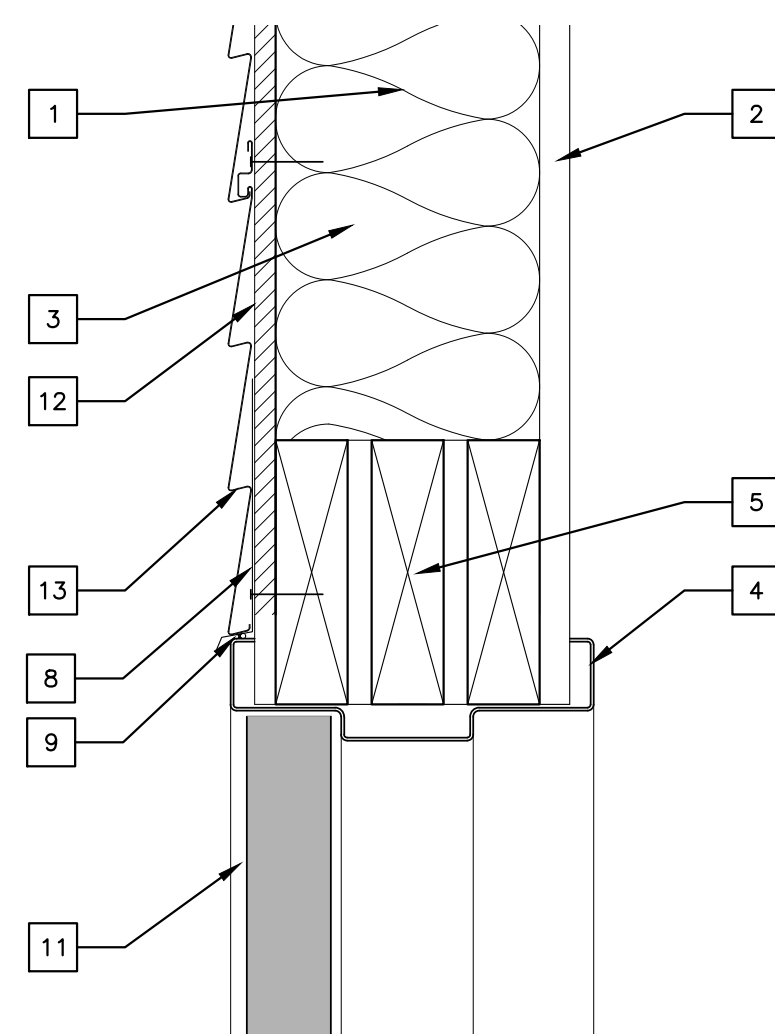
DOOR ELEVATIONS

DOOR FRAME ELEVATIONS



DOOR DETAIL KEYNOTES:

1. BATT INSULATION (SEE WALL TYPE)
2. 5/8" GYP. BD. (SEE WALL TYPE)
3. 2X6 WOOD STUD WALL (SEE WALL TYPES)
4. HOLLOW METAL DOOR FRAME
5. HEADER (SEE STRUCTURAL)
6. CONC. FLOOR W/ FLOOR FINISH (SEE FINISH SCHEDULE)
7. DOOR SWEEP (EXT. DOORS ONLY)
8. CONT. METAL FLASHING
9. BACKER ROD AND CAULK
10. ALUM. THRESHOLD IN A CONTINUOUS BED OF SEALANT
11. HOLLOW METAL DOOR (SEE SCHEDULE)
12. BUILDING WRAP OVER 5/8" OSB
13. VINYL SIDING (TO MATCH EXISTING)



1 H.M. EXTERIOR DOOR FRAME HEAD DETAIL
SCALE: 3/8"=1'-0"

2 H.M. EXTERIOR DOOR FRAME SILL DETAIL
SCALE: 3/8"=1'-0"

3 H.M. INTERIOR DOOR FRAME HEAD DETAIL
SCALE: 3/8"=1'-0"

4 H.M. INTERIOR DOOR FRAME SILL DETAIL
SCALE: 3/8"=1'-0"

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR		WALLS								CEILING		REMARKS
		FINISH	BASE	NORTH		EAST		SOUTH		WEST		MTL.	FIN.	
				MTL.	FIN.	MTL.	FIN.	MTL.	FIN.	MTL.	FIN.			
100	GARAGE	SC	VCB1	GYP	LP1	GYP	LP1	GYP	LP1	GYP	LP1	GYP	P2	VERIFY ALL FINISHES WITH OWNER

GENERAL NOTES:

1. OWNER SHALL FURNISH AND INSTALL ALL KEYED CYLINDERS PRIOR TO SUBSTANTIAL COMPLETION.
2. ALL HARDWARE SHALL BE INSTALLED AND FIELD ADJUSTED PER MANUFACTURER'S REQUIREMENTS.
3. SEE ELEVATIONS FOR GLAZING TYPE.

DOOR & FRAME LEGEND:

DOORS/WINDOWS:

HM1 INSULATED HOLLOW METAL FLUSH WITH VISION GLASS, 1-3/4" TOTAL DOOR THICKNESS, HEAVY DUTY STANDARD. CECCO OR APPROVED EQUAL.

OHD1 SECTIONAL METAL INSULATED OVERHEAD DOOR, CLOPAY OR APPROVED EQUAL.

FRAMES:

DF1 GALVANIZED HOLLOW METAL FRAME, WELDED, 16 GA. MINIMUM COLD ROLLED STEEL, FACTORY PRIMED, CURRIES CM SERIES OR APPROVED EQUAL.

OHD1 METAL DOOR FRAME AS SUPPLIED BY OVERHEAD DOOR MANUF.

DOOR & FRAME FINISH AND GLAZING LEGEND:

GLAZING:

G1 STANDARD EXTERIOR GLAZING: 1" INSULATING CLEAR/CLEAR GLASS ASSEMBLY USING (2) 1/4" THICK GLASS PANELES W/ 1/2" AIR SPACE BETWEEN AND SPUTTERED LOW-E COATING ON #2 SURFACE. PPG SOLARBAN 60 OR EQUAL, VLT 70%, U-VALUE 0.35, SHGC 0.44, SC 0.44, UV TRANS. 19%, EXTERIOR VISIBLE REFLECTANCE 11%. PROVIDE TEMPERED GLASS WHEN NOTED ON THE WINDOW ELEVATIONS.

FINISH:

PT PAINT, ONE PRIMER COAT AND TWO FINISH COATS MANUFACTURER/COLOR: VERIFY ALL FINISHES WITH OWNER.

PRE PREFINISHED PER DOOR MANUFACTURER.

DOOR HARDWARE

HARDWARE STANDARDS:

LEVER HARDWARE: SCHLAGE AL SERIES, FINISH US26D
CLOSERS: LCN 4040 SERIES W/ HOLD OPEN
EXIT DEVICES: VON DUPRIN 35A SERIES
BUTT HINGES: MCKINNEY #MPB79, PLAIN STEEL
OVERHEAD STOP: GLYNN-JOHNSON #100 SERIES, CONCEALED

VERIFY ALL FINISHES WITH OWNER PRIOR TO ORDERING MATERIALS.

ALL LOCKS SHALL BE KEYED TO THE EXISTING MASTER SYSTEM --- COORDINATE MASTERING AND SUBMASTERING W/ OWNER.

VERIFY ALL HARDWARE SETS WITH OWNER PRIOR TO FINAL ORDERING.

INTERIOR FINISHES

FLOOR FINISH

SC = SEALED CONCRETE

FLOOR BASE

VCB1 = COMMERCIAL GRADE, 4" VINYL COVE WALL BASE
MANUFACTURER: JOHNESONITE
COLOR: AS SELECTED BY OWNER

WALL MATERIAL

GYP = 5/8" GYP BOARD
PLY = 5/8" O.S.B. SHEATHING

WALL FINISH

P1 = WALL PAINT, ONE COAT PRIMER COAT AND TWO FINISH COATS
MANUFACTURER: SELECTED BY OWNER
COLOR: AS SELECTED BY OWNER
FINISH: SELECTED BY OWNER

LP1 = ALUM. FULL HT. WALL LINER PANEL

CEILING MATERIAL

GB = 5/8" GYP. BOARD

CEILING FINISH

P2 = CEILING PAINT, 1 PRIMER COAT & 2 FINISH COATS
MANUFACTURER:
FINISH:



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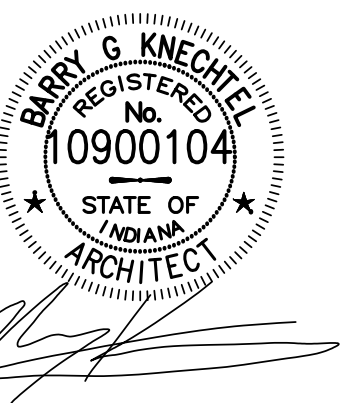
PROJECT TITLE:
**AUTO EXPRESS
GARAGE EXPANSION**

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PROFESSIONAL SEAL:



PROJECT DATE:

2/27/2017

No.	DESCRIPTION:	DRAWN BY:	DATE ISSUED:

PROJECT NUMBER:

A2017.021

DRAWN BY:

DRAWING TITLE:
**DOOR AND ROOM
FINISH SCHEDULES**

SHEET NUMBER:

A600

GENERAL STRUCTURAL NOTES

- 1.0 GENERAL.....
- 1.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL APPLICABLE SAFETY PRECAUTIONS OR REGULATIONS DURING CONSTRUCTION. THE STRUCTURAL ENGINEER WILL NOT ADVISE NOR ISSUE DIRECTION ON SAFETY PRECAUTIONS.
- 1.2 THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR PROCEDURES REQUIRED TO PERFORM WORK ON THIS PROJECT. SUPERVISION OF ALL WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 1.3 NO STRUCTURAL MEMBER SHALL BE NOTCHED, CUT, OR OTHERWISE REDUCED IN STRENGTH WITHOUT WRITTEN AUTHORIZATION BY THE STRUCTURAL ENGINEER.
- 1.4 DRAWINGS INDICATE TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR CONSTRUCTION TYPE AND STYLE SHALL BE USED AND SHALL BE SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER.
- 1.5 STRUCTURAL ELEMENTS ARE NON-SELF SUPPORTING AND REQUIRE INTERACTION WITH OTHER ELEMENTS FOR STABILITY AND RESISTANCE TO LATERAL FORCES. FRAMING AND WALLS SHALL BE TEMPORARILY BRACED BY THE CONTRACTOR UNTIL PERMANENT BRACING, FLOOR AND ROOF DECKS, OR WALLS HAVE BEEN INSTALLED AND PERMANENT CONNECTIONS BETWEEN THESE ELEMENTS HAVE BEEN MADE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE SUPPORT AND STABILITY OF STRUCTURE DURING ALL PHASES OF CONSTRUCTION.
- 1.6 THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS, SHALL VERIFY EXISTING TOPOGRAPHY, AND GRADE ELEVATIONS, AND SHALL NOTIFY KJG ENGINEERING OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE PROJECT.
- 1.7 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INFORM KJG ENGINEERING OF ANY UNSAFE ITEMS OR CODE VIOLATIONS, BOTH STATE AND LOCAL, PRIOR TO THE START OF CONSTRUCTION.
- 1.8 THESE PLANS ADDRESS STRUCTURAL ENGINEERING PORTIONS OF THIS PROJECT ONLY. SEE ARCHITECTURAL DRAWINGS FOR INFORMATION REGARDING FINISHES NOT SHOWN.
- 1.9 IF FIELD CONDITIONS EXIST THAT REQUIRE ALTERATIONS TO THESE PLANS, KJG ENGINEERING MUST BE NOTIFIED AT ONCE AND BEFORE ANY FURTHER CONSTRUCTION TAKES PLACE.
- 1.10 DO NOT SCALE DRAWINGS, USE ONLY WRITTEN DIMENSIONS.
- 1.11 ALL CONSTRUCTION MATERIALS AND INSTALLATION MUST COMPLY WITH CODE REQUIREMENTS OF THE INDIANA ADMINISTRATIVE BUILDING COUNCIL, THE STATE FIRE MARSHALL, AND THE LOCAL GOVERNING AUTHORITY.
- 2.0 EXISTING CONDITIONS.....
- 2.1 EXISTING BUILDING DIMENSIONS AND MATERIAL SIZES SHOWN ON THESE PLANS ARE BASED ON LIMITED FIELD MEASUREMENTS BY KJG ENGINEERING AND/OR INFORMATION OBTAINED FROM ORIGINAL CONSTRUCTION DRAWINGS. PRIOR TO FABRICATING NEW STRUCTURAL MEMBERS, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL DIMENSIONS AND ANY AS-BUILT CONDITIONS THAT MAY HAVE CHANGED SINCE THESE DRAWINGS WERE ISSUED.
- 2.2 PORTIONS OF WORK PROPOSED IN THESE PLANS CONSISTS OF REPLACING AND/OR MODIFYING COMPONENTS OF AN EXISTING STRUCTURE. NO INCREASE IN DEAD AND LIVE LOADING TO THE REMAINING EXISTING STRUCTURAL MEMBERS IS ANTICIPATED.
- 2.3 KJG ENGINEERING WAS UNABLE TO INSPECT ALL EXISTING COMPONENTS OF THE BUILDING DUE TO LIMITED ACCESS. IF ANY STRUCTURAL DAMAGE IS DISCOVERED DURING CONSTRUCTION OR DEMOLITION THAT IS NOT SHOWN ON THESE PLANS, CONTACT KJG ENGINEERING FOR AN INSPECTION.
- 2.4 THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, ETC. NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF WORK TO THE EXISTING COMPONENTS.
- 2.5 BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL BECOME FAMILIAR WITH EXISTING STRUCTURAL CONDITIONS AND ANY OTHER CONDITIONS WHICH MAY AFFECT THE NEW CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL NECESSARY SAFEGUARDS, TO MAINTAIN ALL PARTS OF THE WORK IN A SAFE CONDITION DURING DEMOLITION AND CONSTRUCTION, AND TO PROTECT PORTIONS OF THE EXISTING WORK WHICH ARE TO REMAIN FROM DAMAGE.
- 2.6 WHEN FIELD WELDING IS PERFORMED NEAR EXISTING COMBUSTIBLE MATERIALS, A FIRE WATCH MAN MUST BE UTILIZED, AND NO WELDING PERFORMED PRIOR TO 1 HOUR BEFORE WORKERS LEAVE THE JOB SITE. A FINAL OBSERVATION OF EACH WELD LOCATION MUST BE MADE PRIOR TO LEAVING THE JOB SITE. THIS SHOULD BE MADE WITH A MAN'S EYES/NOSE WITHIN 3' OF THE WELDED AREA FOR A THOROUGH EXAMINATION.
- 2.7 WELDING TO AND WITHIN AN EXISTING FACILITY PRESENTS POTENTIAL HAZARDS INCLUDING FIRE HAZARD TO EXISTING CONSTRUCTION AND BUILDING CONTENTS. DO NOT LEAVE THE SITE UNTIL SATISFIED THAT NO POTENTIAL HAZARDS EXIST.
- 3.0 COORDINATION WITH OTHER TRADES.....
- 3.1 THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF THE MECHANICAL, ELECTRICAL, PLUMBING, AND OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- 3.2 THERE SHALL BE NO VERTICAL OR HORIZONTAL HOLES CUT OR DRILLED IN ANY BEAM OR COLUMN UNLESS IT IS EXPLICITLY SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- 3.3 ANY OPENINGS THROUGH SUPPORTED SLABS AND WALLS THAT ARE 8" IN DIAMETER OR LARGER AND NOT SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
- 3.4 THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL PLUMBING, MECHANICAL AND ELECTRICAL REQUIREMENTS AND CLEARANCES PRIOR TO PROCEEDING WITH THE PROJECT AND SHALL NOTIFY KJG ENGINEERING OF ANY STRUCTURAL INTERFERENCE PRIOR TO THE START OF CONSTRUCTION. PENETRATIONS THROUGH THE STRUCTURE SHALL BE SUBJECT TO APPROVAL BY KJG. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENING LOCATIONS NOT SHOWN ON STRUCTURAL DRAWINGS.
- 3.5 PROVIDE SLEEVES FOR ALL OPENINGS, SUCH AS BUT NOT LIMITED TO GAS, WATER, SEWER, ELECTRIC, ETC. IN EXTERIOR WALLS OR FOUNDATION TO SEPARATE PIPE FROM MATERIAL.
- 3.6 DO NOT INSTALL CONDUIT IN SUPPORTED SLABS, SLABS ON GRADE, OR CONCRETE WALLS UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.
- 3.7 DO NOT SUSPEND ANY ITEMS, SUCH AS DUCTWORK, MECHANICAL OR ELECTRICAL FIXTURES, CEILINGS, ETC. DIRECTLY FROM STEEL DECK, UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

- 4.0 SPECIALTY ENGINEERING.....
- 4.1 A SPECIALTY ENGINEER IS DEFINED AS A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF INDIANA, WHO IS NOT THE STRUCTURAL ENGINEER OF RECORD, AND WHO PERFORMS STRUCTURAL ENGINEERING FUNCTIONS NECESSARY FOR THE STRUCTURAL INTEGRITY OF THE PROPOSED WORK. CONTRACTORS ARE REFERRED TO THE STRUCTURAL DRAWINGS FOR ELEMENTS REQUIRING SPECIALTY ENGINEERING, AND EXAMPLES OF THESE COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO:
 - SHORING AND BRACING SYSTEMS
 - TEMPORARY RETAINING SYSTEMS
 - WOOD TRUSS SYSTEMS
- 4.2 IT IS THE SPECIALTY ENGINEER'S RESPONSIBILITY TO REVIEW THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS TO DETERMINE THE APPROPRIATE SCOPE OF ENGINEERING.
- 4.3 IT IS THE INTENT OF THE STRUCTURAL DRAWINGS TO PROVIDE SUFFICIENT INFORMATION FOR THE SPECIALTY ENGINEER TO PERFORM HIS OR HER DESIGN AND ANALYSIS. IF THE SPECIALTY ENGINEER DETERMINES THAT THERE ARE CONFLICTS WITH THE PROJECT AS INDICATED IN THE PROJECT DOCUMENTS, THE SPECIALTY ENGINEER SHALL CONTACT KJG ENGINEERING FOR THE RESOLUTION OF CONFLICTS.
- 4.4 THE SPECIALTY ENGINEER SHALL SUPPLY THE STRUCTURAL ENGINEER DOCUMENTS FOR REVIEW THAT SHALL BEAR THE STAMP OF THE SPECIALTY ENGINEER AND INCLUDE:
 - A. DRAWINGS INDICATING THE CONFIGURATION OF STRUCTURAL COMPONENTS AND/OR THEIR ASSEMBLY INTO STRUCTURAL SYSTEMS.
 - B. CALCULATIONS, EITHER MANUAL OR COMPUTER GENERATED, THAT ARE ACCOMPANIED BY SUFFICIENT DESIGN ASSUMPTIONS AS WELL AS INPUT AND OUTPUT INFORMATION.
- 4.5 ANY MODIFICATIONS PROPOSED TO ELEMENTS DESIGNED BY THE SPECIALTY ENGINEER SHALL BE SUBJECT TO THE APPROVAL OF THE SPECIALTY ENGINEER, AND SHALL ALSO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PERFORMING THE PROPOSED MODIFICATIONS.
- 5.0 FOUNDATIONS.....
- 5.1 ALL EXTERIOR FOOTINGS OR PIERS SHALL BEAR ON UNDISTURBED SOIL AT OR BELOW LOCAL FROST LINE MINIMUM. LOCAL FROST LINE IS 30" BELOW GRADE. WHERE FOOTINGS ARE REQUIRED TO BE STEPPED, STEP DOWN IN VERTICAL INCREMENTS OF 2'-0" FOR EVERY 6'-0" MINIMUM OF HORIZONTAL DISTANCE. INTERIOR FOOTINGS SHALL BEAR ON UNDISTURBED SOIL AT THE ELEVATIONS INDICATED ON THE FOUNDATION PLAN.
- 5.2 COLUMN AND WALL FOOTINGS ARE TO BEAR ON FIRM NATURAL SOILS OR WELL COMPACTED ENGINEERED FILL WITH AN ASSUMED NET ALLOWABLE BEARING PRESSURE OF 2000 PSF FOR SPREAD FOOTINGS, AND 1500 PSF FOR CONTINUOUS WALL FOOTINGS. CONTRACTOR SHALL PROVIDE ON-SITE TESTING TO CONFIRM ADEQUATE SOIL BEARING CAPACITY.
- 5.3 FOUNDATION WALLS SHALL HAVE ADEQUATE TEMPORARY BRACING INSTALLED BY THE CONTRACTOR BEFORE BACKFILL IS PLACED AGAINST THEM. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL WALL IS PERMANENTLY BRACED.
- 5.4 THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING EXACT QUANTITIES OF CUT AND FILL FOR ESTIMATING AND CONSTRUCTION.
- 5.5 ALL ENGINEERED FILL BENEATH SLABS AND OVER FOOTINGS SHOULD BE COMPACTED TO A DRY DENSITY OF AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557). ALL FILL WHICH WILL BE STRESSED BY FOUNDATION LOADS SHALL BE APPROVED GRANULAR MATERIALS COMPACTED TO A DRY DENSITY OF AT LEAST 98% (ASTM D-1557). COORDINATE ALL FILL AND COMPACTION OPERATIONS WITH THE SPECIFICATIONS AND THE SUBSURFACE INVESTIGATION.
- 5.6 COMPACTION SHALL BE ACCOMPLISHED BY PLACING FILL IN APPROXIMATELY 8" LIFTS AND MECHANICALLY COMPACTING EACH LIFT TO AT LEAST THE SPECIFIED MINIMUM DRY DENSITY. FOR LARGE AREAS OF FILL, FIELD DENSITY TESTS SHALL BE PERFORMED FOR EACH 3000 SQUARE FEET OF BUILDING AREA FOR EACH LIFT AS NECESSARY TO INSURE ADEQUATE COMPACTION IS BEING ACHIEVED.
- 5.7 RAKE EXCAVATED MATERIALS BACK 12" MINIMUM FROM EDGES OF ALL EXCAVATIONS TO PREVENT LOOSE SOIL FROM FALLING BACK INTO TRENCH.
- 5.8 PLACE FOOTINGS THE SAME DAY THAT THE EXCAVATION IS PERFORMED. IF THIS IS NOT POSSIBLE, THE FOOTINGS SHALL BE ADEQUATELY PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION SUCH AS FROM DISTURBANCES, RAIN, OR FREEZING.
- 6.0 CONCRETE.....
- 6.1 ALL EXTERIOR CONCRETE WORK SHALL BE 6 BAG, LIMESTONE AGGREGATE, 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. ALL INTERIOR FLAT WORK CONCRETE SHALL BE 6 BAG, GRAVEL AGGREGATE, 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI. ALL FOOTINGS AND FOUNDATION WALLS SHALL BE GRAVEL AGGREGATE, 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- 6.2 CONCRETE FLOOR SLABS SHALL HAVE A FLAT FLOOR FINISH AS FOLLOWS: HARD CLOSED SMOOTH SURFACE WITH A MAXIMUM 1/8" GAP UNDER A 10'-0" STRAIGHT EDGE.
- 6.3 PROVIDE DEFORMED REINFORCING BARS PER ASTM A-615, GRADE 60, AND WELDED WIRE FABRIC PER ASTM A-185, UNLESS OTHERWISE NOTED. SUPPORT REINFORCING BARS WITH CONCRETE BRICKS OR METAL CHAIRS AS REQUIRED TO ACHIEVE CLEARANCES SHOWN ON DRAWINGS.
- 6.4 MINIMUM CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:
 - CONCRETE CAST AGAINST EARTH 3"
 - FORMED CONCRETE EXPOSED TO EARTH OR WEATHER 2"
 - INTERIOR CONCRETE SLABS 3/4"
 - INTERIOR BEAMS AND COLUMNS MAIN REINFORCEMENT 1 1/2"
- 6.5 ALL CONCRETE WORK AND MATERIALS SHALL COMPLY WITH APPLICABLE PROVISIONS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND "CONCRETE REINFORCING STEEL INSTITUTE (CRSI), MANUAL OF STANDARD PRACTICE."
- 6.6 COLD WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-306 AND HOT WEATHER CONCRETING SHALL BE IN ACCORDANCE WITH ACI-305.
- 6.7 ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED.
- 6.8 FINISH ANY SURFACES EXPOSED TO PUBLIC VIEW WITH A SMOOTH FORM FINISH. ALL OTHER FORM FINISH MAY BE ROUGH.
- 6.9 SEE ARCHITECTURAL DRAWINGS FOR CHAMFER REQUIREMENTS FOR CORNERS OF CONCRETE. WHERE NOT INDICATED, PROVIDE 3/4" CHAMFER ON EXPOSED CORNERS OF CONCRETE EXCEPT THOSE ABUTTING MASONRY.
- 6.10 PROVIDE CONTROL JOINTS AND CONSTRUCTION JOINTS IN CONCRETE SLABS AS INDICATED ON PLANS. "C.J." INDICATES CONTROL JOINTS WHICH SHALL BE SAW CUT WITHIN 24 HOURS MAXIMUM AFTER CONCRETE IS PLACED. "CONST. JT." INDICATES CONSTRUCTION JOINTS WHICH SHALL BE DOWELED JOINTS (1/2" DIAMETER SMOOTH BARS AT 24" OC) BETWEEN SEPARATE SLAB POURS. NO FILLER SHALL BE PLACED IN INTERIOR CONTROL JOINTS, EXCEPT IN AREAS RECEIVING VCT. ALL EXTERIOR CONTROL JOINTS SHALL HAVE SEALANT APPLIED TO JOINT. EXTERIOR SIDEWALKS SHALL HAVE CONTROL JOINTS AS SHOWN ON PLANS OR A MAXIMUM OF 10'-0" O.C.
- 6.11 CONCRETE SLABS-ON-GRADE SHALL HAVE A 10 MIL, CLASS A, NON-PERMEABLE VAPOR BARRIER OVER 6" MINIMUM GRANULAR FILL PER GEOTECHNICAL REPORT.

- 7.0 WOOD.....
- 7.1 DIMENSIONAL LUMBER, WITH THE EXCEPTION OF NON-BEARING WALL STUDS, SHALL MEET THE MINIMUM PROPERTIES OF SPRUCE-PINE-FIR #2 UNLESS A HIGHER RATING IS INDICATED ON THE DRAWINGS. NON-LOAD BEARING WALL STUDS SHALL BE SPRUCE-PINE-FIR STUD GRADE.
- 7.2 PROVIDE SIMPSON WOOD CONNECTORS (OR EQUIVALENT APPROVED BY ENGINEER) AS INDICATED ON DRAWINGS OR OF AN APPROPRIATE SIZE AND CAPACITY FOR EACH PARTICULAR CONNECTION. CONTRACTOR SHALL INSTALL CONNECTORS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND COORDINATE CONNECTOR FINISH WITH PRESERVATIVES USED IN PRESSURE TREATED WOOD.
- 7.3 CONTRACTOR SHALL COORDINATE NAIL AND FASTENER FINISH WITH PRESERVATIVES USED IN PRESSURE TREATED WOOD. FOR PRESSURE-TREATED WOOD WITHOUT AMMONIA, USE ZMAX/HDS GALVANIZED CONNECTORS WITH GALVANIZED FASTENERS PER ASTM A153. FOR ALL OTHER PRESSURE-TREATED WOOD, USE STAINLESS STEEL CONNECTORS AND FASTENERS.
- 7.4 ROOF SHEATHING SHALL BE APA RATED EXTERIOR O.S.B. SHEATHING WITH A SPAN RATING OF AT LEAST 32/16. REFER TO DRAWINGS FOR FASTENER SIZE AND SPACING. ORIENT LONG DIRECTION OF ROOF SHEATHING PERPENDICULAR TO TRUSS SPAN.
- 7.5 EXTERIOR WALL SHEATHING SHALL BE APA RATED EXTERIOR O.S.B. SHEATHING WITH A SPAN RATING OF AT LEAST 24/0. REFER TO DRAWINGS FOR FASTENER SIZE AND SPACING. SPLICES IN CONTINUOUS DOUBLE 2x TOP PLATE PERMITTED ONLY ABOVE WALL STUDS, AND ONLY AT ONE PLATE AT ANY LOCATION.
- 7.6 FLOOR SHEATHING SHALL BE APA RATED EXPOSURE 1 TONGUE AND GROOVE WITH A SPAN RATING OF AT LEAST 32/16.
- 8.0 PRE-ENGINEERED WOOD TRUSSES.....
- 8.1 PREFABRICATED WOOD TRUSSES SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE TIMBER CONSTRUCTION MANUAL BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) AND THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION BY THE AMERICAN FOREST & PAPER ASSOCIATION (ANSI/NFOPA NDS) AND THE LATEST CRITERIA ESTABLISHED BY THE TRUSS PLATE INSTITUTE (TPI) AND THE WOOD TRUSS COUNCIL OF AMERICA.
- 8.2 TEMPORARY AND PERMANENT BRACING OF WOOD TRUSSES SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE COMMENTARY AND RECOMMENDATIONS FOR HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES.
- 8.3 WOOD FLOOR AND ROOF TRUSSES SHALL BE DESIGNED TO SUPPORT THE SUPERIMPOSED LOADS PROVIDED IN THE DESIGN INFORMATION IN ADDITION TO THE SELF-WEIGHT OF THE TRUSSES.
- 8.4 TRUSS PLATES SHALL BE GALVANIZED STEEL AND SHALL BE APPLIED TO BOTH FACES OF THE MEMBERS BEING CONNECTED.
- 8.5 TRUSSES SHALL CONFORM TO THE GEOMETRY SHOWN. MINIMUM LUMBER SIZE FOR TOP AND BOTTOM CHORD MEMBERS SHALL BE 2" X 4" (NOMINAL). WEB MEMBER SIZE AND CONFIGURATION SHALL BE THE OPTION OF THE FABRICATOR.
- 8.6 THE TRUSS MANUFACTURER SHALL PROVIDE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. THESE DRAWINGS SHALL SHOW THE DESIGN FORCES IN THE TRUSS MEMBERS, THE SIZE OF THE TRUSS PLATES, THE LUMBER SPECIES, AND COMMERCIAL GRADE OF LUMBER USED. THE TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND ACCURACY OF TRUSSES FABRICATED. TRUSS DESIGN SHALL BE CERTIFIED BY THE FABRICATOR AND THE TRUSS DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF INDIANA.
- 8.7 THE CONTRACTOR SHALL INSTALL ALL PERMANENT TRUSS BRACING AS SHOWN ON THE TRUSS MANUFACTURER'S SHOP DRAWINGS.
- 9.0 DRILLED IN DOWELS & ANCHOR RODS.....
- 9.1 ALL REINFORCING STEEL AND THREADED ROD ANCHORS TO BE INSTALLED IN A TWO PART CHEMICAL ANCHORING SYSTEM SHALL BE SUBJECT TO THE SPECIFIC INSTALLATION RECOMMENDATIONS AND REQUIREMENTS OF THE MANUFACTURER.
- 9.2 WHEN REINFORCING STEEL IS ENCOUNTERED DURING DRILLING FOR THE INSTALLATION OF ANCHORS; STOP DRILLING, USE A SENSOR TO LOCATE REINFORCEMENT IN THE SURROUNDING AREA, AND INSTALL ANCHOR(S) AS CLOSE AS POSSIBLE TO INTENDED LOCATION. CONTACT THE STRUCTURAL ENGINEER IF THE REVISED LOCATION IS GREATER THAN 2" FROM THE ORIGINAL LOCATION, OR IF THE ORIGINAL FUNCTION OF THE ANCHOR IS SIGNIFICANTLY ALTERED.

DESIGN PARAMETERS

1. BUILDING CODE	2014 INDIANA BUILDING CODE (BASED ON 2012 IBC)
2. RISK CATEGORY	II
3. DEAD LOADS	20 PSF
4. LIVE LOADS	20 PSF
5. SNOW LOADS	20 PSF
GROUND SNOW LOAD	1.0
SNOW IMPORTANCE FACTOR	1.0
SNOW DRIFT (FLAT ROOF)	25 PSF
6. WIND LOADS	115 MPH (3-SECOND GUST)
DESIGN WIND SPEED	"C"
EXPOSURE CATEGORY	
7. SEISMIC LOADS	0.173
SPECTRAL ACCELERATION (SHORT PERIOD)	0.086
SPECTRAL ACCELERATION (1-SEC PERIOD)	1.0
SEISMIC IMPORTANCE FACTOR	"D" (ASSUMED)
SOIL SITE CLASS	"C"
SEISMIC DESIGN CATEGORY	

ROOF TRUSS NOTES:

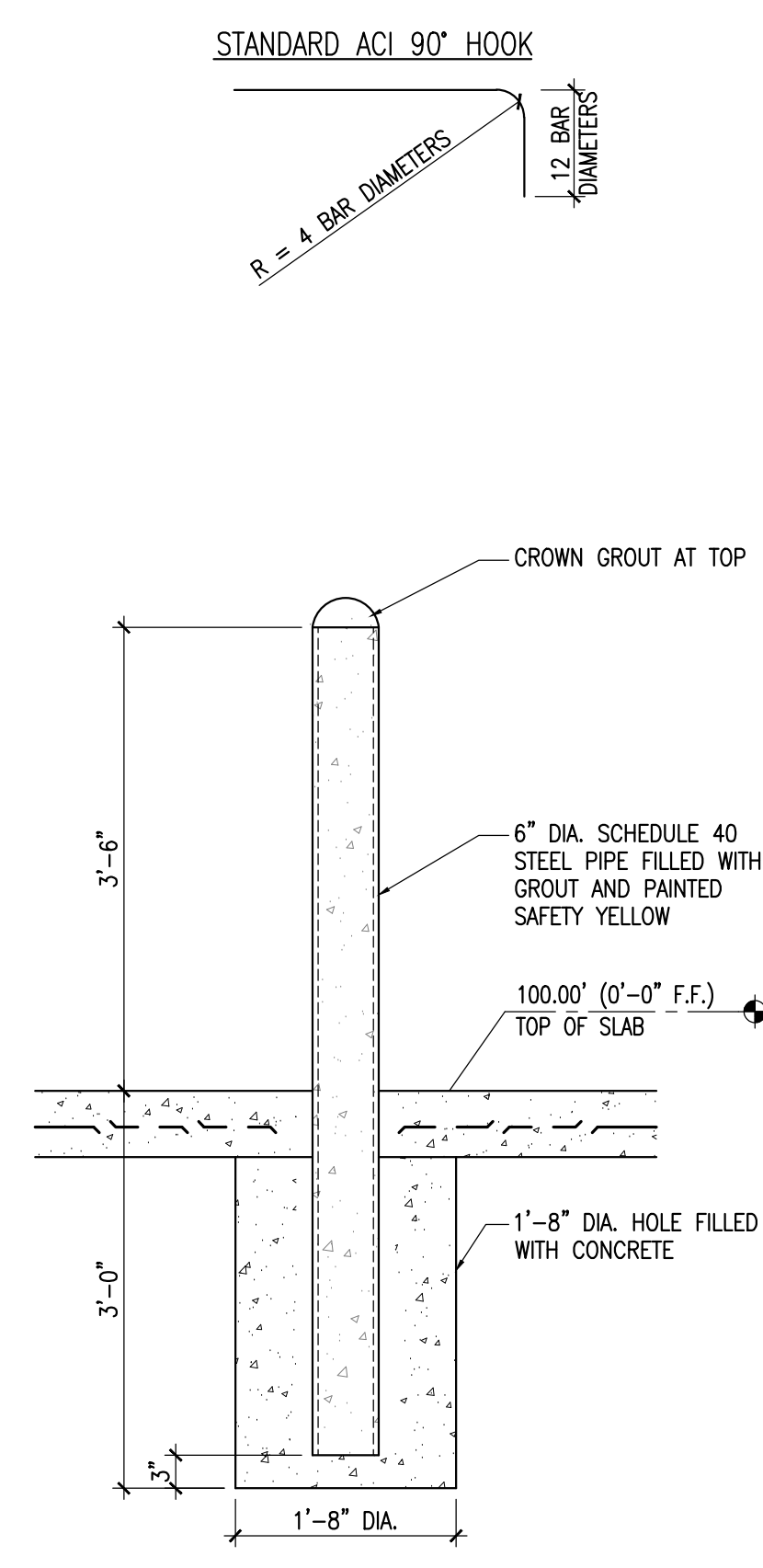
WOOD ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED FOR THE LOADS SHOWN IN THE LOAD SUMMARY BELOW. TRUSS DESIGN SHALL BE CERTIFIED BY THE FABRICATOR AND THE TRUSS DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF INDIANA.

ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD	20 PSF
ROOF TOTAL	40 PSF

LIMIT ROOF LIVE LOAD DEFLECTION TO L/240.
LIMIT ROOF TOTAL LOAD DEFLECTION TO L/180.

CONCRETE LAP SCHEDULE

BAR SIZE	LAP LENGTH	
	TOP REINF.	OTHER
#3	28"	22"
#4	37"	29"
#5	47"	36"
#6	56"	43"
#7	81"	63"
#8	93"	72"



OPTIONAL PIPE BOLLARD
SCALE: 3/4"=1'-0"

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PROJECT TITLE:
AUTO EXPRESS GARAGE EXPANSION

2216 IFCU WAY
LAFAYETTE, IN 47909

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PROJECT DATE:
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No.	DESCRIPTION	DRAWN BY	DATE ISSUED

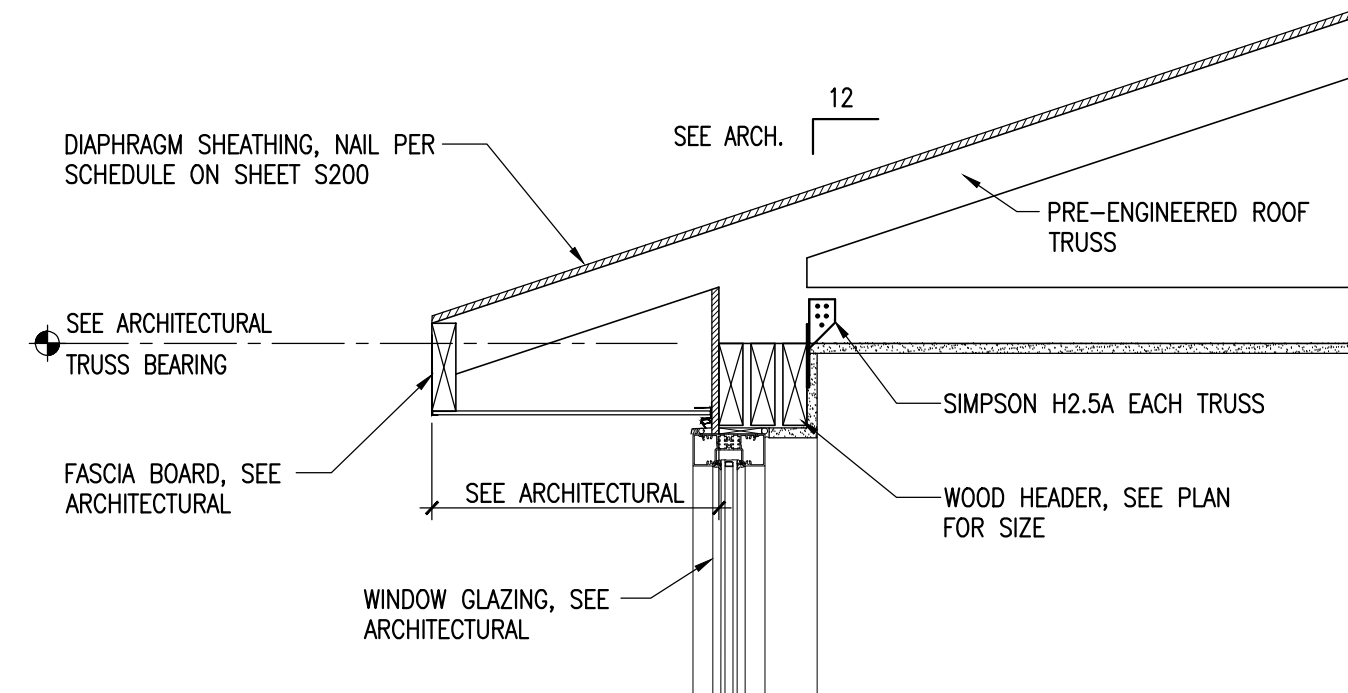
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GENERAL STRUCTURAL NOTES

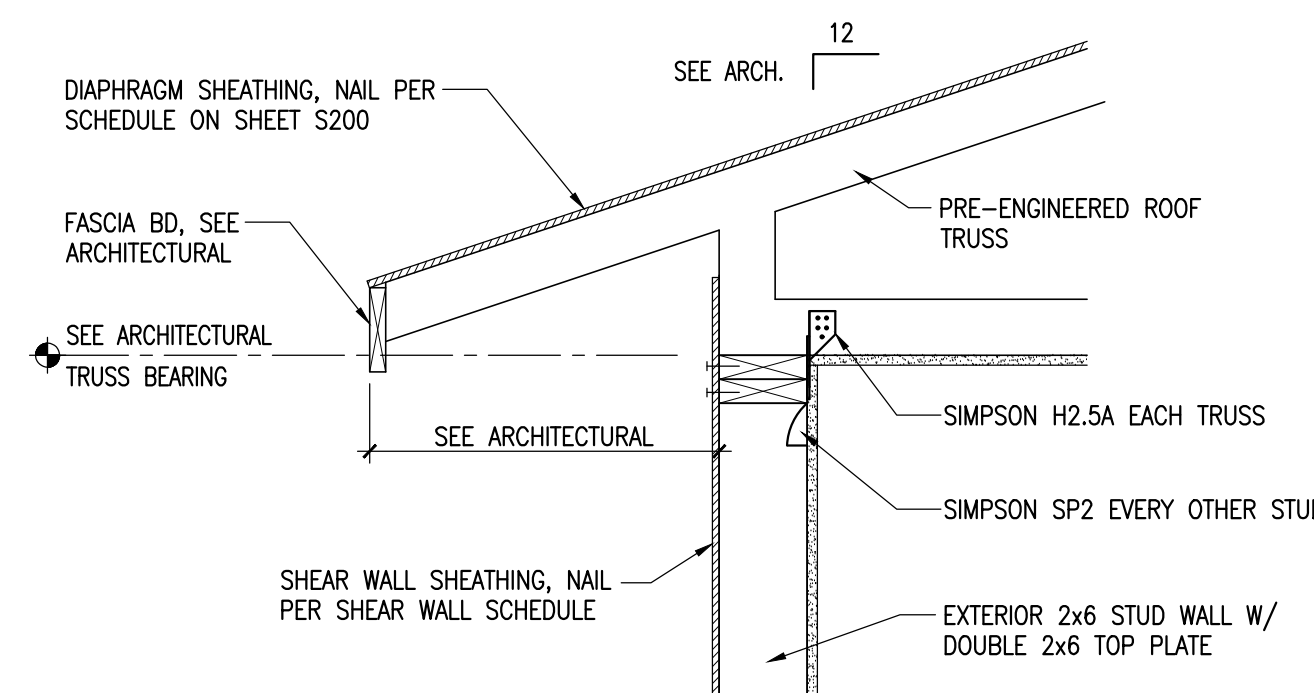
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S000

SHEET NOTES:

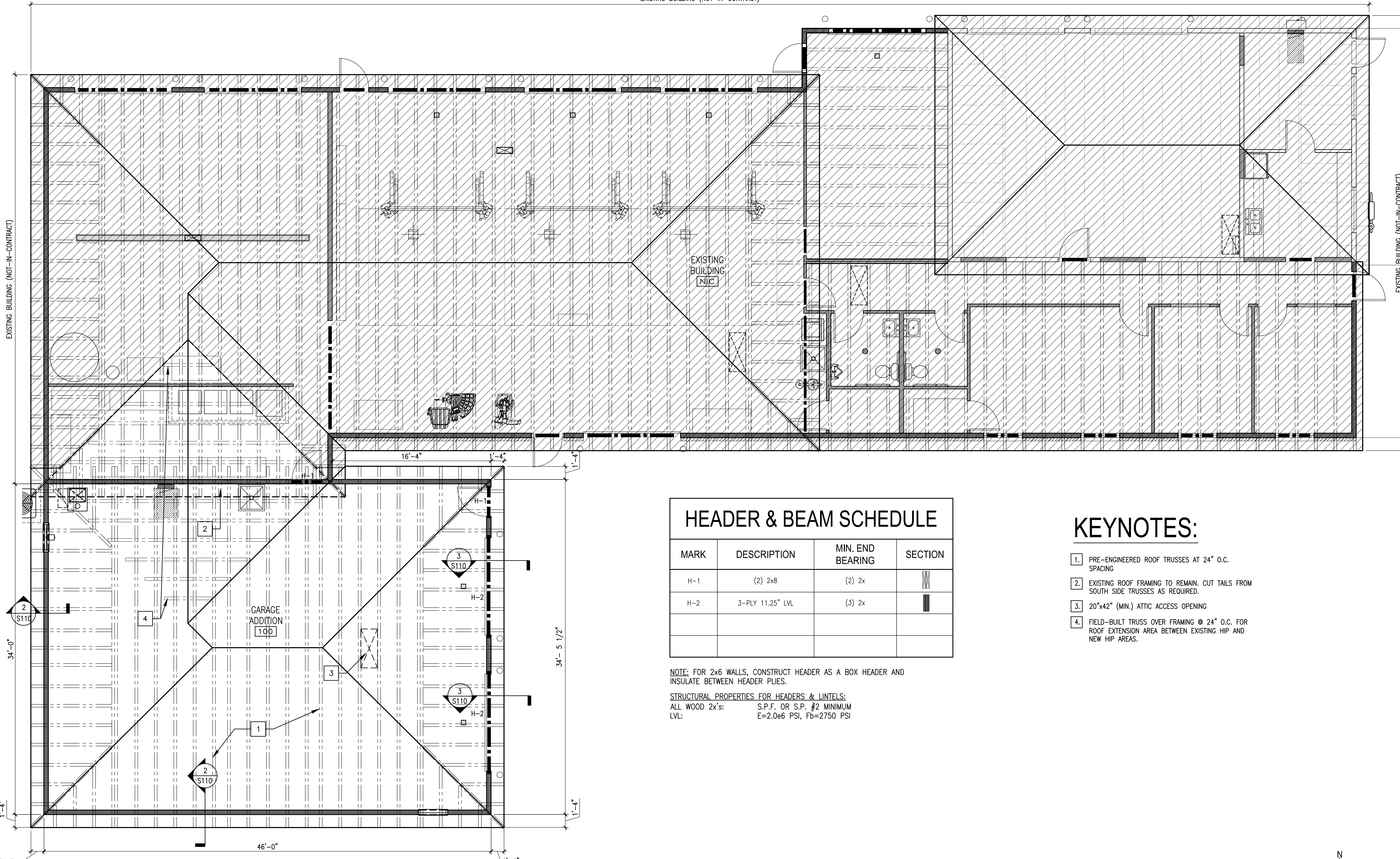
- A. DO NOT SCALE DRAWINGS, USE ONLY WRITTEN DIMENSIONS.
- B. ALL DIMENSIONS ARE TAKEN FROM OUT TO OUT OF WOOD STUD WALLS OR TO CENTER OF BEAM UNLESS OTHERWISE NOTED. DIMENSIONS WITH +/- ARE TO BE FIELD VERIFIED BY CONTRACTOR.
- C. REFER TO ARCHITECTURAL FOR WINDOW AND DOOR SIZES AND LOCATIONS.
- D. THIS SHEET DEPICTS ONLY WOOD STUD BEARING WALLS. REFER TO ARCHITECTURAL FOR DIMENSIONS OF ALL WALLS AND LOCATIONS OF ALL NON-LOADING BEARING WALLS.
- E. REFER TO ARCHITECTURAL FOR TRUSS BEARING HEIGHTS.



3 TRUSS BEARING AT HEADER
SCALE: 1"=1'-0"



2 TYPICAL TRUSS BEARING DETAIL
SCALE: 1"=1'-0"



1 FRAMING PLAN
SCALE: 3/16"=1'-0"

HEADER & BEAM SCHEDULE

MARK	DESCRIPTION	MIN. END BEARING	SECTION
H-1	(2) 2x8	(2) 2x	
H-2	3-PLY 11.25" LVL	(3) 2x	

NOTE: FOR 2x6 WALLS, CONSTRUCT HEADER AS A BOX HEADER AND INSULATE BETWEEN HEADER PLIES.
 STRUCTURAL PROPERTIES FOR HEADERS & LINTELS:
 ALL WOOD 2x's: S.P.F. OR S.P. #2 MINIMUM
 LVL: E=2.0e6 PSI, Fb=2750 PSI

KEYNOTES:

- 1. PRE-ENGINEERED ROOF TRUSSES AT 24" O.C. SPACING
- 2. EXISTING ROOF FRAMING TO REMAIN. CUT TAILS FROM SOUTH SIDE TRUSSES AS REQUIRED.
- 3. 20"x42" (MIN.) ATTIC ACCESS OPENING
- 4. FIELD-BUILT TRUSS OVER FRAMING @ 24" O.C. FOR ROOF EXTENSION AREA BETWEEN EXISTING HIP AND NEW HIP AREAS.

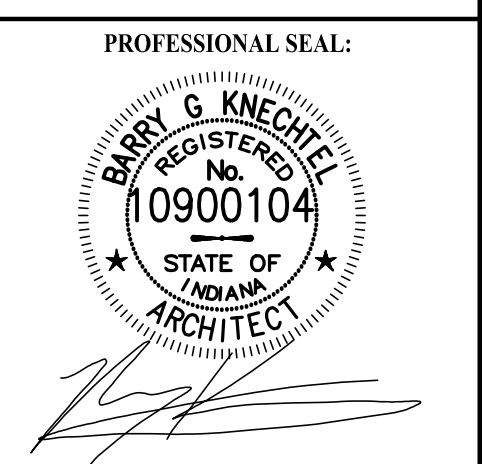
LINE KEY:

- = PRE-ENGINEERED ROOF TRUSS
- = WOOD STUD BEARING WALL
- = MASONRY VENEER
- = BEAM/HEADER/LINTEL
- = ROOF LINE

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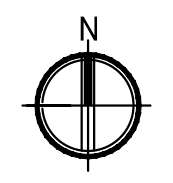
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2/27/2017

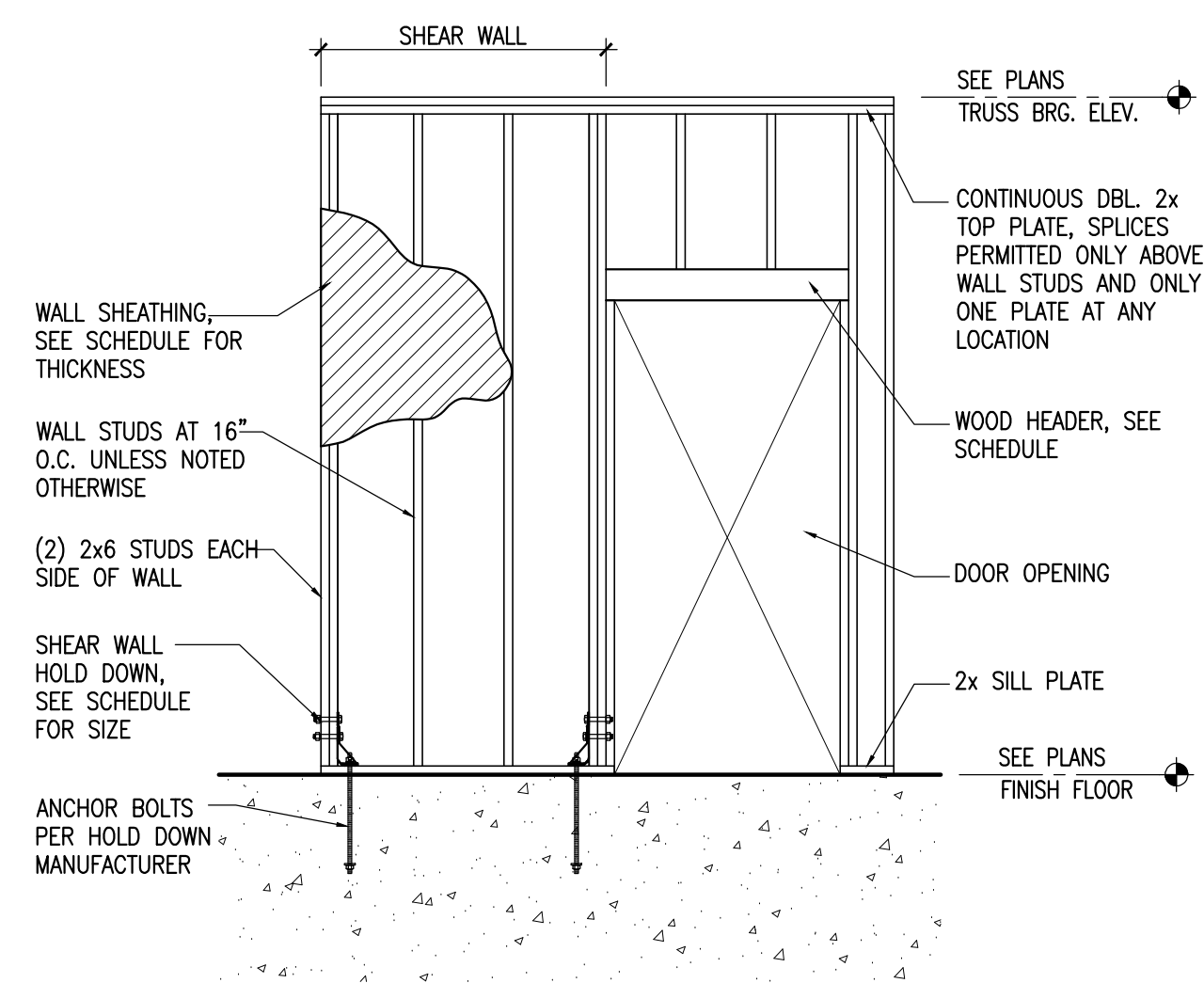
No.	DESCRIPTION	DRAWN BY	DATE ISSUED

PROJECT NUMBER:
A2017.021

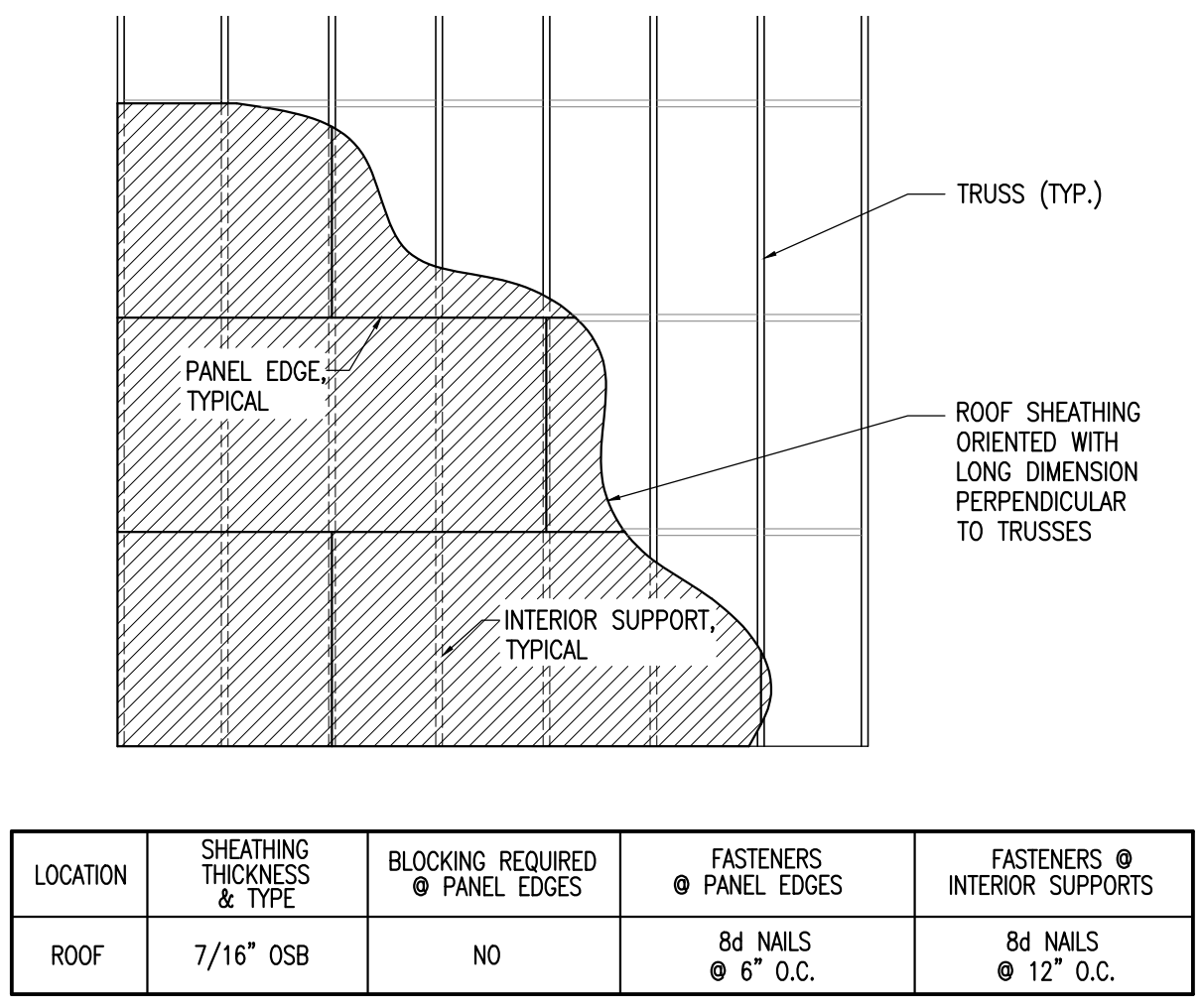
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FRAMING PLAN AND DETAILS

SHEET NUMBER:
S110



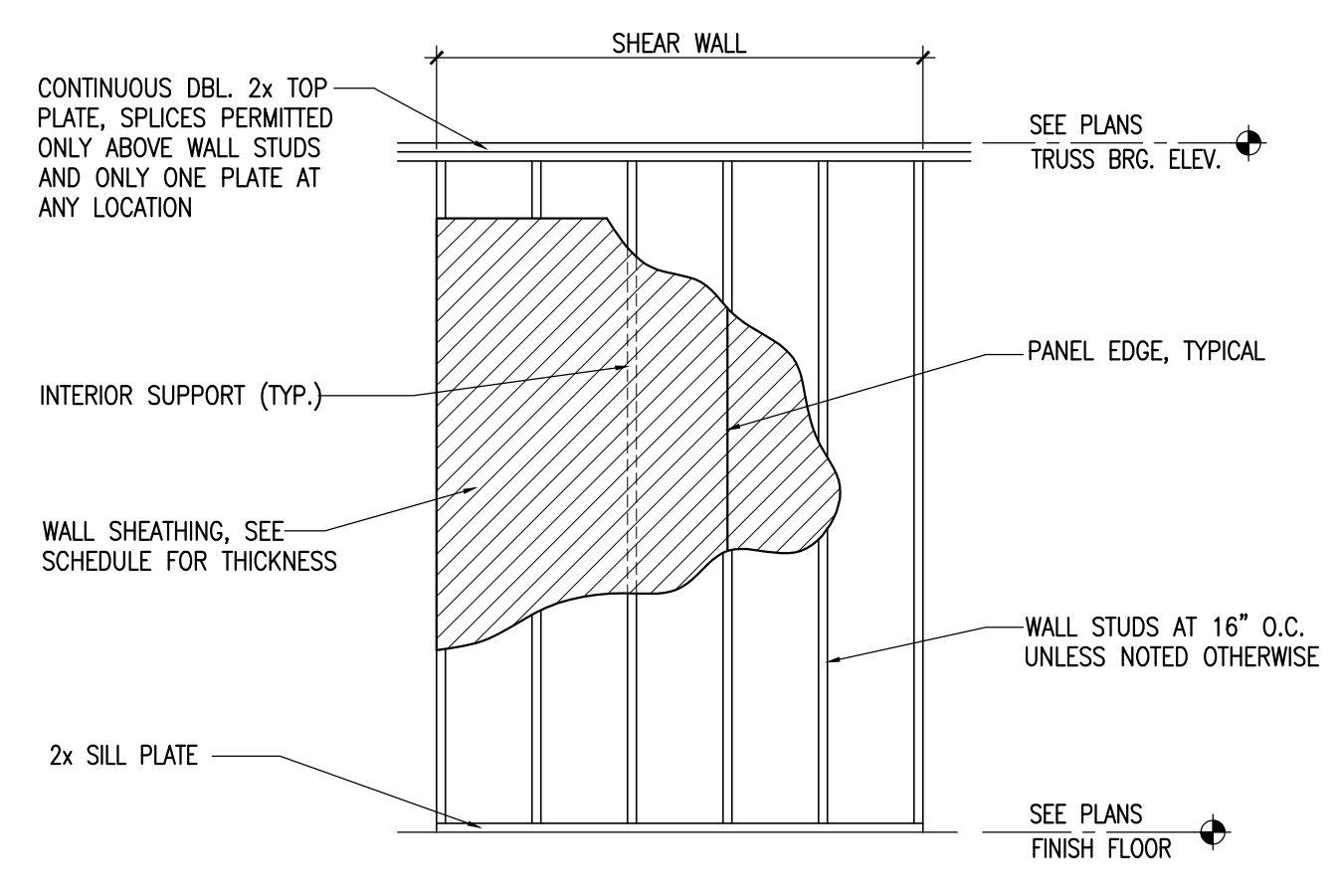


5 SHEAR WALL HOLD DOWN DETAIL
SCALE: N.T.S.

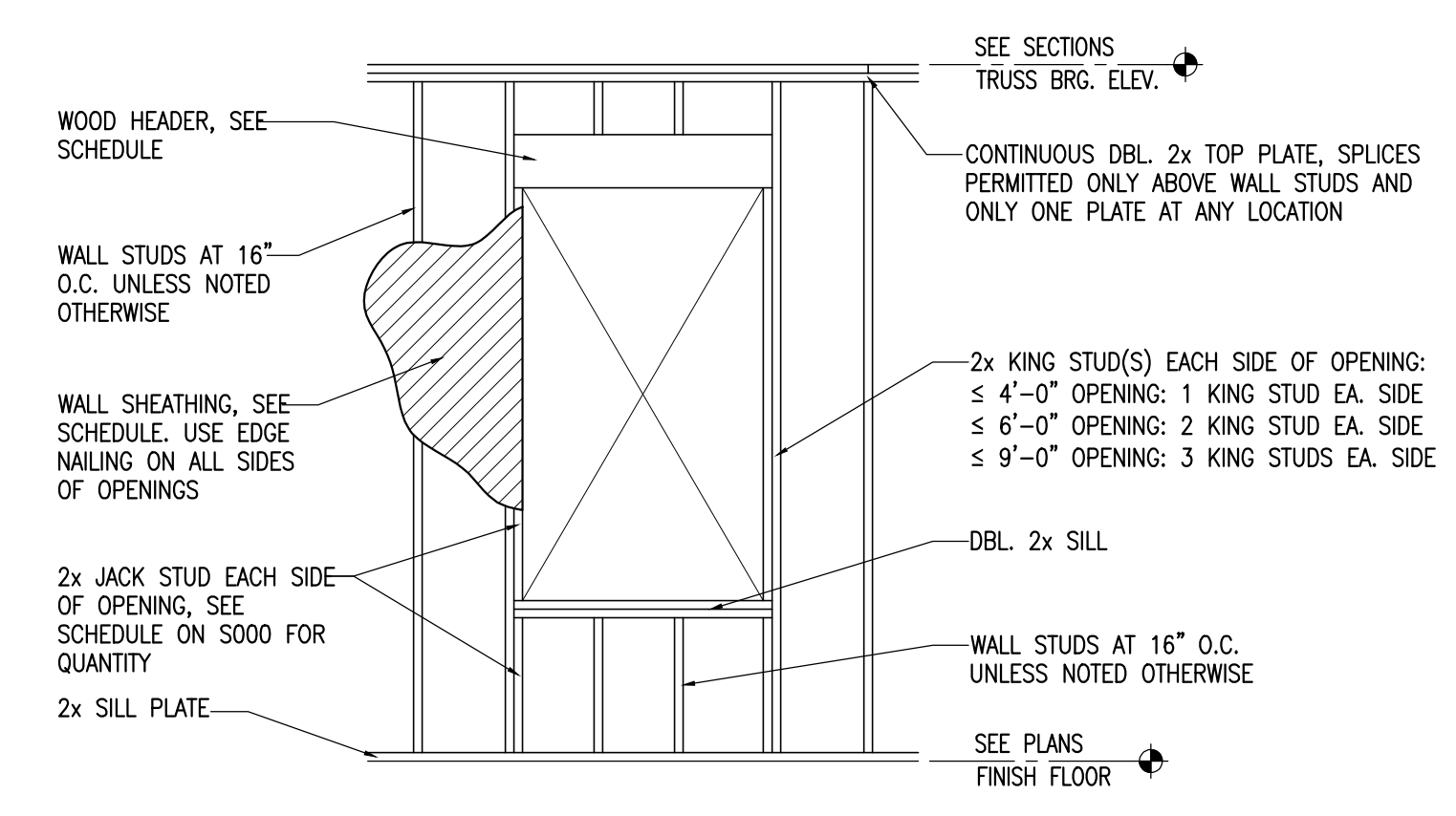


LOCATION	SHEATHING THICKNESS & TYPE	BLOCKING REQUIRED @ PANEL EDGES	FASTENERS @ PANEL EDGES	FASTENERS @ INTERIOR SUPPORTS
ROOF	7/16" OSB	NO	8d NAILS @ 6" O.C.	8d NAILS @ 12" O.C.

4 DIAPHRAGM SHEATHING DETAIL
SCALE: N.T.S.



3 TYPICAL WALL SECTION
SCALE: N.T.S.



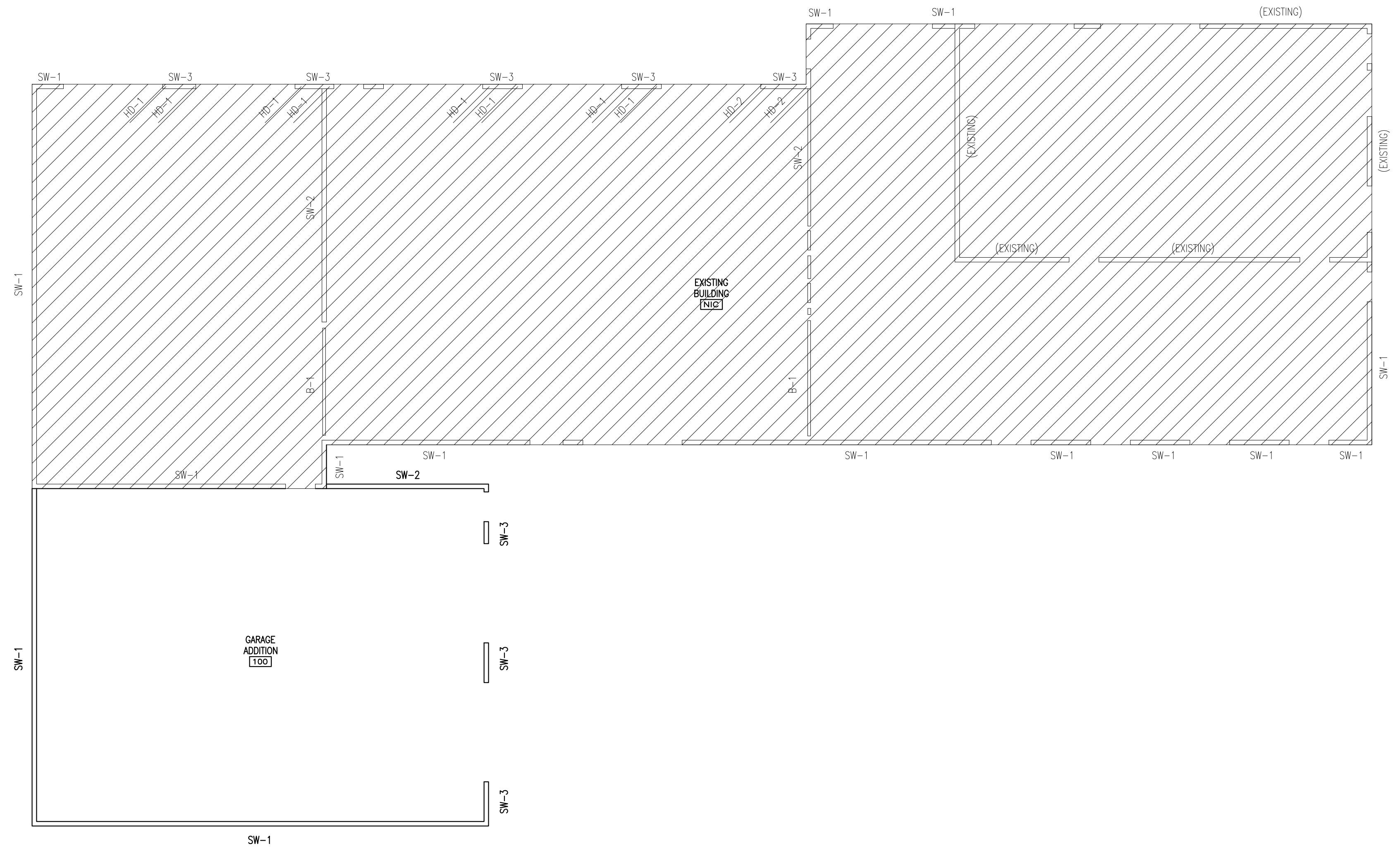
2 TYPICAL OPENING SECTION
SCALE: N.T.S.

SHEAR WALL SCHEDULE					
MARK	SHEAR WALL OR BRACE DESCRIPTION	FASTENER PATTERN		CONNECTIONS	
		PANEL EDGES	INTERIOR	AT FOUNDATION ^{1,2}	HOLD DOWN
SW-1	7/16" OSB EXTERIOR FACE OF WALL	8d @ 6" O.C.	8d @ 12" O.C.	1/2" DIA. x 16" A307 ANCHOR RODS AT 32" O.C. MAX.	N/A
SW-2	7/16" OSB EACH FACE OF WALL	8d @ 4" O.C.	8d @ 12" O.C.	1/2" DIA. x 16" A307 ANCHOR RODS AT 32" O.C. MAX.	HD-1 (SEE SCHEDULE)
SW-3	7/16" OSB EXTERIOR FACE OF WALL	8d @ 6" O.C.	8d @ 12" O.C.	1/2" DIA. x 16" A307 ANCHOR RODS AT 32" O.C. MAX.	HD-2 (SEE SCHEDULE)

- NOTES:**
- ANCHOR RODS SHALL BE USED FOR ALL EXTERIOR WALLS. POWDER ACTUATED FASTENERS ARE PERMITTED FOR INTERIOR WALLS BEARING ON THICKENED SLABS ONLY.
 - FOUNDATION ANCHORS SHALL BE INSTALLED AT SPACING INDICATED IN TABLE, (2) MIN. PER SECTION OF SILL PLATE, AND WITHIN 12" OF SILL PLATE TERMINATION NEAR OPENINGS OR CORNERS.
 - PERIMETER FOUNDATION ANCHORS SHALL BE EMBEDDED 12" MIN. INTO CONCRETE.

HOLD-DOWN SCHEDULE		
MARK	HOLD-DOWN CONNECTOR	HOLD-DOWN CHORD
HD-1	SIMPSON HDU2-SDS2.5	(2) 2x's
HD-2	SIMPSON HDU5-SDS2.5	(2) 2x's

- NOTES:**
- HOLD DOWNS REQUIRED AT FOUNDATIONS AND AT FLOOR. REFER TO SHEAR WALL PLANS FOR LOCATIONS.
 - REFER TO MANUFACTURER'S SPECIFICATIONS FOR ANCHOR ROD SIZE. ANCHORS SHALL BE EMBEDDED 12" MIN. AT PERIMETER LOCATIONS AND 8" MIN. AT INTERIOR LOCATIONS.



1 SHEAR WALL DIAGRAM
SCALE: 1/8"=1'-0"

PROJECT TITLE:
AUTO EXPRESS GARAGE ADDITION
2216 IFCU WAY
LAFAYETTE, IN 47909

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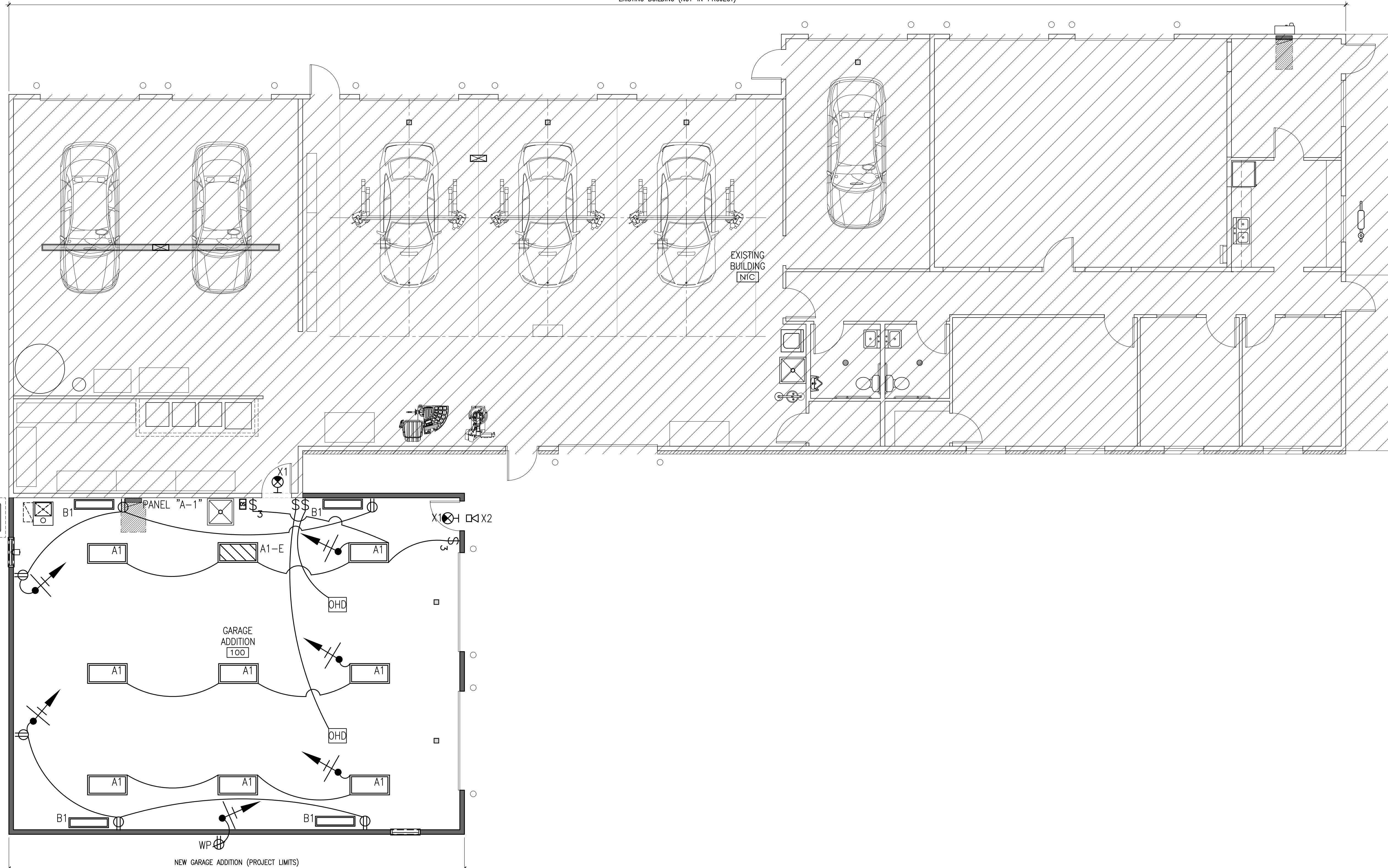
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PROJECT NUMBER: **A2017.021** DRAWN BY:

DRAWING TITLE:
SHEAR WALL PLAN

SHEET NUMBER:
S200

EXISTING BUILDING (NOT-IN-PROJECT)



1 ELECTRICAL POWER AND LIGHTING PLAN

E100 SCALE: 3/16"=1'-0"

LIGHTING SCHEDULE

MARK	MANUFACTURER NAME & NUMBER	MOUNT	REMARKS
A1	METALUX 2X4 HIGH BAY LED FIXTURE W/ CLEAR LENS DOOR	SURFACE	EATON METALUX HBLED-LD4-12-CL-UNV-L850-CD1-U
A1-E	METALUX 2X4 HIGH BAY LED FIXTURE W/ CLEAR LENS DOOR	SURFACE	EATON METALUX HBLED-LD4-12-CL-UNV-L850-CD1-U (WIRED AS EMERGENCY LIGHTING FIXTURE)
B1	METALUX LED STAIRWELL 7000 LM DBL ROW WITH WIDE OPAQUE LENS	SURFACE	EATON METALUX 4SWLED-LD4-72HL-LW-UNV-L850-CD1
X1	LITHONIA # LQM S W 3 R 120/277 EL N SD	UNIVERSAL	SINGLE OR DUAL FACE EXIT FIXTURE WITH WHITE HOUSING, RED LETTERING, NICKEL-CADMIUM BATTERY AND SELF-DIAGNOSTICS
X2	LITHONIA # AFN W EXT	WALL	ARCHITECTURAL EMERGENCY LIGHT, WHITE FINISH, NICKEL-CADMIUM BATTERY, SELF DIAGNOSTICS, COLD AND WET LOCATION RATED

GENERAL NOTES:

- OCCUPANCY SENSOR LOCATIONS MAY BE ADJUSTED FOR DUCTWORK AND OTHER OBSTRUCTIONS. COORDINATE WITH VENDOR AND OTHER DISCIPLINES.
- OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY AND CERTIFIED BY VENDOR TO BE APPROPRIATE FOR APPLICATION. TYPICAL.
- PROVIDE APPROPRIATE MOUNTING HARDWARE FOR SURFACE. TYPICAL.
- EMERGENCY LIGHTING TO BE CERTIFIED BY VENDOR TO BE APPROPRIATE FOR INSTALLATION.
- PROVIDE PROGRAMMED START BALLASTS FOR FLUORESCENT LAMPS CONTROLLED BY OCCUPANCY SENSOR.
- WALL MOUNT OCCUPANCY SENSORS TO BE MANUAL ON AND AUTO OFF.
- NIGHT LIGHTING TO BE WIRED TO BE ON AT ALL TIMES. PROVIDE SEPARATE UNSWITCHED HOT.
- EMERGENCY AND EXIT LIGHTING TO BE WIRED WITH LOCAL LIGHTING UNLESS OTHERWISE INDICATED.

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**AUTO EXPRESS
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No.	DESCRIPTION	DRAWN BY	DATE ISSUED

PROJECT NUMBER:
A2017.021

DRAWN BY:
**ELECTRICAL POWER
 AND LIGHTING PLAN**

SHEET NUMBER:
E100



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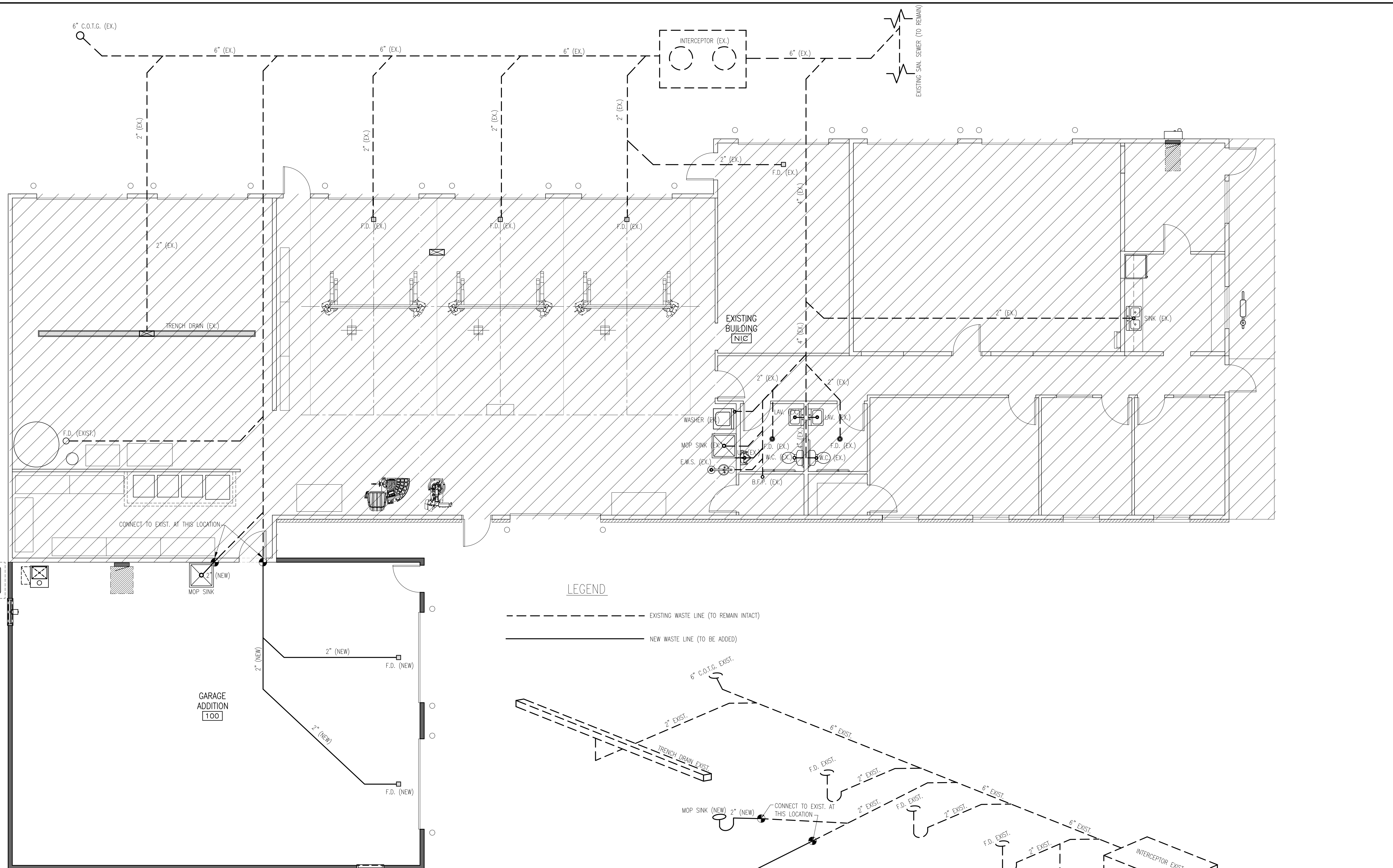
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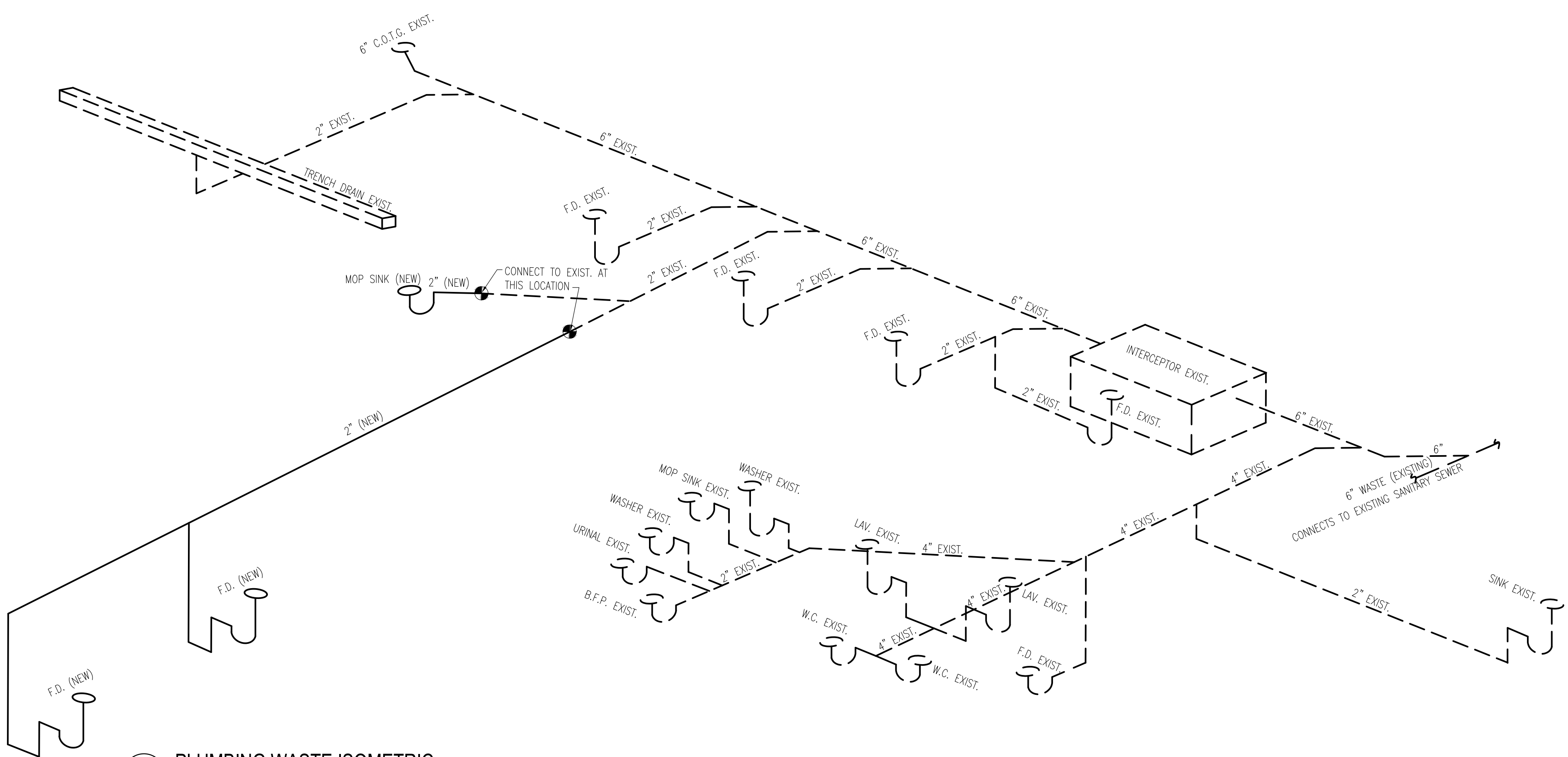
DRAWING TITLE:
PLUMBING PLAN

SHEET NUMBER:

P100



LEGEND
 - - - - - EXISTING WASTE LINE (TO REMAIN INTACT)
 _____ NEW WASTE LINE (TO BE ADDED)



1 PLUMBING PLAN
 SCALE: 3/16"=1'-0"

PLUMBING FIXTURES					
MARK	DESCRIPTION	CW	HW	WASTE	VENT
FD	ON-GRADE ADJUSTABLE FLOOR DRAIN, 2" SCHEDULE 40 HUB CONNECTION W/ 5" ROUND NICKEL BRONZE RING AND STRAINER. WATTS FD15-R (OR EQUAL.)	--	--	2"	--
MS	FLOOR-MOUNT MOLDED COMPOSITE MOP SERVICE BASIN, 24"x24"x10"D, W/ FRP WALL GUARDS, WALL-MOUNT SERVICE FAUCET W/ VACUUM BREAK, HOSE, HOSE HANGER, AND GRID DRAIN. FIAT #MSB-2424 OR EQUAL W/ CHICAGO FAUCET #540-LD897SWXFKCP OR EQUAL, 8" CENTERS, 3/4" THREADED SPOUT W/ VACUUM BREAKER, PAIL HOOK, WALL BRACE, AND LEVER HANDLES.	1/2"	1/2"	2"	1-1/2"

2 PLUMBING WASTE ISOMETRIC
 SCALE: (NOT TO SCALE)

MECHANICAL GENERAL NOTES

- CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, TOOLS, AND EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION OF THE HEATING, COOLING AND VENTILATING SYSTEMS. THE MECHANICAL CONTRACTOR SHALL FURNISH THE HEATING AND COOLING EQUIPMENT, TEMPERATURE CONTROLS, ELECTRICAL CONTROLS, STARTERS, RELAYS, EXHAUST FANS, ETC. ELECTRICAL ROUGH-IN AND FINAL ELECTRICAL POWER CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR.
- ALL MATERIALS SHALL BE NEW, FREE FROM DEFECTS, CLEAN, AND PROTECTED FROM WEATHER AND FROM DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER, AND SHALL BE AS SPECIFIED FOR EACH ITEM. ALL PRODUCT SUBSTITUTIONS MUST BE APPROVED BY ARCHITECT AND OWNER PRIOR TO PROCEEDING WITH THE WORK. ALL MANUFACTURED PRODUCTS SHALL CARRY APPROVALS OF PERTINENT STANDARDS AND TESTING AGENCIES.
- WORKMANSHIP SHALL BE OF FINEST QUALITY AND ALL EQUIPMENT, PIPING, DUCTS, ETC., SHALL BE INSTALLED IN A NEAT AND PROFESSIONAL MANNER, SECURED, SUPPORTED, LEVELED, AND WITHOUT SAG OR VIBRATION.
- THE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY HIS EMPLOYEES OR WORK. AT THE COMPLETION OF THE WORK HE SHALL REMOVE ALL OF HIS TOOLS, SCAFFOLDING, SURPLUS MATERIALS, AND ALL RUBBISH GENERATED BY HIS WORK FROM THE BUILDING AND PROPERTY.
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF THE HVAC SYSTEMS AND SHALL PERFORM ALL WORK TO THE SATISFACTION OF THE ARCHITECT.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL FUEL GAS PIPING AS NECESSARY FOR ALL OF HIS EQUIPMENT. ALL FUEL GAS MATERIALS AND WORK SHALL COMPLY WITH 2014 INDIANA FUEL GAS CODE 675 IAC 25-3-1 (2012 INTERNATIONAL FUEL GAS CODE W/ 2014 INDIANA AMENDMENTS) AND PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS. PIPING SHALL BE SCHEDULE 40 BLACK STEEL W/ STEEL FITTINGS. PIPING 2" IPS OR SMALLER SHALL HAVE THREADED FITTINGS. PIPING LARGER THAN 2" IPS SHALL BE WELDED ONLY. ALL PIPING SHALL BE SUPPORTED PER IFGC SEC. 404.7, 407, AND RELATED SECTIONS. ALL STEEL PIPING BELOW GRADE SHALL BE IN WATERTIGHT CONDUIT TO PREVENT CORROSION. CSST MAY BE USED WHERE ALLOWED BY CODES FOR CONNECTION TO EQUIPMENT AND APPLIANCES. ALL GAS PIPING SHALL BE PRESSURE TESTED AND SUPPLY LINES PURGED PRIOR TO PLACING THE SYSTEM INTO SERVICE PER IFGC 404.16, 406, AND RELATED SECTIONS. PROVIDE UNION, DIRT LEG, AND AQA-APPROVED FULL-PORT GAS COCK AT ALL APPLIANCES. GAS COCK SHALL BE IN AN EASILY ACCESSIBLE LOCATION AND VISIBLE FROM THE EQUIPMENT.

- EXPOSED FUEL GAS PIPING SHALL BE PAINTED W/ CORROSION-RESISTANT YELLOW PAINT FULL LENGTH, AND LABELED PER ANSI/ASME A13.1-2007, BLACK LETTERING READING "GAS" AT 5" INTERVALS. NOTE: THIS LABELING IS REQUIRED BY INDIANA FUEL GAS CODE SEC. 401.5 ONLY FOR EXPOSED PIPING OTHER THAN STEEL PIPING.
- IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO CONTACT ALL JURISDICTIONAL AUTHORITIES PERTINENT TO HIS WORK AND TO COMPLY WITH ALL OF THEIR INSPECTION REQUIREMENTS.
- DUCTWORK SHALL BE EXTERNALLY INSULATED RIGID DUCT, CONSTRUCTED, REINFORCED AND SUPPORTED PER CURRENT SMACNA HVAC DUCT CONSTRUCTION STANDARDS. UNLESS OTHERWISE NOTED OR APPROVED, ALL DUCTS SHALL BE METAL. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS AND SHALL NOT BE REDUCED.
 - DUCT PRESSURE CLASS: 1" w.g. (250 Pa) U.N.O., 2" w.g. (500Pa) FOR VAV SYSTEMS U.N.O.
 - DUCT SEALING CLASS: CLASS B MINIMUM U.N.O., ALL TRANSVERSE AND LONGITUDINAL JOINTS.
 - DUCT GAUGE AND REINFORCEMENT: EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, DUCT METAL GAUGE AND REINFORCEMENT SHALL BE AS SPECIFIED IN SMACNA STANDARDS FOR THE PRESSURE CLASS AND SEALING CLASS LIGHTER AND THE SIZE OF THE DUCT, IN NO CASE SHALL METALS LIGHTER THAN 26 GA BE USED.
- ALL DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH INDIANA ENERGY CONSERVATION CODE 6.4.4.2.1. APPROVED SEALANTS ARE FLEXIBLE RUBBER/ELASTOMER GASKETS, LIQUID DUCT SEALANTS, FIBER-REINFORCED MASTIC, OR MASTIC APPLIED WITH MESH TAPE, AND SHALL COMPLY WITH UL 181. PRESSURE-SENSITIVE ADHESIVE TAPES SHALL NOT BE USED EXCEPT AS A COSMETIC COVERING OR SECONDARY SEALING METHOD.
- DUCT INSULATION SHALL COMPLY WITH INDIANA ENERGY CONSERVATION CODE REQUIREMENTS AND SHALL BE R-8 MINIMUM, .75 PCF, W/ 0.05 PERM (MAX) VAPOR BARRIER FACE, OWENS-CORNING SOFTR 75 OR EQUAL.
- INSULATE ALL SUPPLY AND RETURN AIR DUCTS AS NOTED ON PLANS AND DETAILS - IF NOT NOTED OTHERWISE, INSULATE FULL LENGTH. INSULATE ALL SUPPLY AND RETURN AIR DUCTWORK WITHIN ATTICS, CRAWL SPACES, OR ANY OTHER UNCONDITIONED SPACES. PLENUMS WITHIN CONDITIONED SPACES DO NOT REQUIRE INSULATION UNLESS NOTED OTHERWISE ON THE DRAWINGS. INSULATE ALL FRESH AIR AND EXHAUST DUCTWORK FULL LENGTH. ANY DUCTWORK EXPOSED TO WEATHER SHALL HAVE WATERPROOF AND UV-RESISTANT JACKETING.
- ALL HVAC PIPING INCLUDING REFRIGERANT LINESETS, CHILLED WATER, DOMESTIC HOT WATER, HYDRONIC SUPPLY AND RETURN

- LOOPS, AND STEAM (SUPPLY AND CONDENSATE/RETURN) SHALL BE INSULATED PER INDIANA ENERGY CODE 6.4.4.1.3 AND TABLE 6.8.3. W/ ARMAFLEX AP OR EQUAL. RADIANT FLOOR OR CEILING HYDRONIC PIPING, INCLUDING MANIFOLDS, SHALL BE INSULATED FROM THE SOURCE (BOILER, CHILLER, COIL) TO THE POINT WHERE PIPING ENTERS THE FLOOR OR CEILING SYSTEM. AS APPLICABLE INSULATION THICKNESS SHALL BE PER IEC TABLE 6.8.3 UNLESS A GREATER THICKNESS IS SPECIFIED ON THE PLANS OR NOTES. 1/2" SHALL BE THE MINIMUM THICKNESS ALLOWED FOR ANY PIPING REQUIRING INSULATION.
- INSTALL VOLUME DAMPERS OR VOLUME EXTRACTORS AS APPLICABLE AT ALL BRANCH TAKE-OFFS AND WHERE INDICATED ON THE DRAWINGS.
- ALL DIFFUSERS SHALL HAVE INTEGRAL VOLUME DAMPERS UNLESS NOTED OTHERWISE ON DRAWINGS OR SCHEDULES.
- COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH LIGHT FIXTURES, SPRINKLER HEADS, AND OTHER CEILING-INSTALLED ITEMS.
- DRAWINGS INDICATE REQUIRED SIZES AND POINTS OF TERMINATION FOR DUCTWORK. DRAWINGS SHOW SUGGESTED ROUTING, BUT ALL NECESSARY OFFSETS MAY NOT BE SHOWN. CONTRACTOR SHALL INSTALL HIS WORK IN A MANNER THAT WILL CONFORM WITH STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND MAINTAIN MAXIMUM CLEARANCES.
- ALL DUCTWORK, PIPING, AND VALVES IN FINISHED AREAS SHALL BE CONCEALED BENEATH FLOORS, ABOVE CEILINGS, AND WITHIN WALLS UNLESS OTHERWISE NOTED OR APPROVED.
- ALL VALVES, COILS, DAMPERS, ETC. SHALL BE INSTALLED ALLOWING EASY ACCESS TO THEM. AREAS ADJACENT TO ACCESS PANELS SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ASPECTS OF HIS WORK WITH THE WORK OF OTHER TRADES PRIOR TO INSTALLATION. M.C. SHALL COORDINATE WIRING REQUIREMENTS AND OVERCURRENT PROTECTION FOR HIS EQUIPMENT WITH ELECTRICAL CONTRACTOR.
- ALL EQUIPMENT SHALL BE AND CONSIST OF NOT LESS THAN SIZES AND CAPACITIES SCHEDULED.
- THERMOSTATS, HUMIDISTATS, AND SIMILAR SYSTEM CONTROLS INSTALLED IN PUBLIC AREAS SHALL BE INSTALLED WITHIN LOCKABLE, TRANSPARENT ENCLOSURES. SENSORS AND CONTROLS IN NON-PUBLIC AREAS OR WITHOUT ADJUSTMENT FEATURES OR WHICH ARE PASSWORD OR OTHERWISE PROTECTED AGAINST CASUAL OR UNAUTHORIZED ADJUSTMENT DO NOT REQUIRE LOCKABLE ENCLOSURES. INSTALL THERMOSTATS AND HUMIDISTATS APPROXIMATELY 4'-8" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- UNLESS EXPRESSLY ALLOWED OTHERWISE, ALL THERMOSTATS SHALL

- 7-DAY PROGRAMMABLE UNITS W/ AUTOMATIC SETBACK. DUAL MODE THERMOSTATS SHALL BE MANUAL CHANGEOVER OR SHALL HAVE 5" DEAD BAND. WHEN SO INDICATED ON THE DRAWINGS, PROVIDE THERMOSTAT REMOTE TEMPERATURE SENSOR IN SYSTEM'S MAIN RETURN AIR TRUNK OR PLENUM.
- DUCT SMOKE DETECTORS SHALL BE INSTALLED IN RETURN AIR DUCTS FOR ALL AIR HANDLERS OR COMBINED SYSTEMS OF GREATER THAN 2,000 CFM CAPACITY PER IMC SEC. 606, AND FOR ALL SYSTEMS INSTALLED IN BUILDINGS WITH FULL FIRE DETECTION SYSTEMS. AN ALARM CONDITION BY DUCT DETECTOR SHALL AUTOMATICALLY SHUT DOWN THE AIR HANDLER OR SYSTEM. WHERE NO AUTOMATIC FIRE DETECTION SYSTEM IS TO BE INSTALLED, CONTRACTOR SHALL PROVIDE AND INSTALL AN APPROVED AND APPROPRIATELY LABELED STANDALONE AUDIO/VISUAL NOTIFICATION DEVICE WHICH WILL BE ACTIVATED BY THE DUCT SMOKE DETECTOR. M.C. SHALL COORDINATE REQUIREMENTS FOR DUCT SMOKE DETECTORS WITH OTHERS AS NEEDED.
- COORDINATE A/C CONDENSATE DRAINAGE WITH PLUMBING CONTRACTOR AS NEEDED. ALL CONDENSATE DRAINAGE FOR INDOOR COILS AND EQUIPMENT SHALL DISCHARGE TO SANITARY SEWER SYSTEM. OUTDOOR COILS AND EQUIPMENT MAY DISCHARGE TO DAYLIGHT WHERE ALLOWED OR NOT OTHERWISE SPECIFIED ON THE DRAWINGS.
- M.C. SHALL SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS FOR THE ACTUAL LINE LENGTHS AND VERTICAL LIFTS REQUIRED, AND SHALL PROVIDE LONG LINESETS AND ALL REQUIRED ASSOCIATED ITEMS AS NEEDED FOR PROPER OPERATION.
- ROUTE REFRIGERANT LINE SETS THROUGH WALLS, FLOORS, CHASES, AND ATTIC SPACES. LINE SETS MAY BE LEFT EXPOSED WITHIN UNFINISHED OR SEMI-FINISHED, NON-PUBLIC SPACES - HOLD TIGHT TO WALLS AND PROTECT FROM INCIDENTAL DAMAGE. PROVIDE LONG LINE SETS AND ALL ASSOCIATED EQUIPMENT AND ACCESSORIES WHERE RECOMMENDED OR REQUIRED BY MANUFACTURER. PROVIDE APPROVED PIPE SLEEVES FOR WALL PENETRATIONS. ALL REFRIGERANT LINESETS SHALL BE INSULATED. INSULATION EXPOSED TO WEATHER SHALL HAVE APPROVED WEATHER AND UV-RESISTANT PROTECTIVE COVERING.
- DO NOT ALTER, CUT, OR MODIFY FLOOR JOISTS, ROOF TRUSSES, OR OTHER STRUCTURAL COMPONENTS WITHOUT WRITTEN APPROVAL FROM ARCHITECT/ENGINEER AND JOIST/TRUSS FABRICATOR.
- CONTRACTOR SHALL, WITHIN 90 DAYS OF SUBSTANTIAL COMPLETION, PROVIDE THE OWNER WITH COMPLETE HVAC SYSTEM AS-BUILT DRAWINGS, SUBSTITUTIONS AND OPERATION & MAINTENANCE MANUALS FOR ALL HVAC EQUIPMENT. CONTRACTOR SHALL ALSO PROVIDE AIR AND/OR HYDRONIC SYSTEM BALANCING REPORTS FOR ANY HVAC SYSTEMS SERVING MORE THAN 5,000 SQUARE FEET.
- GUARANTEE: THIS CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER COMPLETION AND AFTER ACCEPTANCE BY THE OWNER. THE CONTRACTOR SHALL REPLACE OR CORRECT, WITHOUT COST TO THE OWNER, ANY DEFECTS FOUND OR OCCURRING DURING THIS PERIOD.

MECHANICAL EQUIPMENT - GAS FURNACES

MARK	MANUFACTURER	MODEL #	TYPE	STAGES	INPUT (BTUH)	AFUE	BLOWER CFM (NOMINAL, 0.20 inwg)		COOLING COIL	ELECTRICAL			
							HEATING	COOLING		NOM. TONS	VOLTAGE	MCA	MOC
F-1	TRANE/XRS5	TUH1C100A9601A	NATURAL GAS, CONDENSING, SINGLE-STAGE, MULTI-SPEED, MULTI-POISE, UPFLOW	1H/1C	97,000	95.0%	1999	-	5	120V/1Ø/60	12.9A	20A	3/4

DX COOLING COIL SHALL BE AS RECOMMENDED OR SELECTED BY SYSTEM SUPPLIER/MANUFACTURER. PROVIDE AND INSTALL FURNACE CONFIGURED FOR UPFLOW INSTALLATION WITH BOTTOM RETURN UNLESS NOTED OTHERWISE ON PLAN.

VERIFY ALL SPECIFICATIONS W/ MANUFACTURER AND COORDINATE ELECTRICAL REQUIREMENTS AND INSTALLATION W/ ELECTRICAL CONTRACTOR.

*SEE GENERAL MECHANICAL NOTES FOR REQUIRED DUCT SMOKE DETECTORS AND OTHER ADDITIONAL REQUIREMENTS.

FURNACE SHALL BE DIRECT-VENT AND SHALL BE INSTALLED W/ MANUFACTURER'S APPROVED CONCENTRIC VENT KIT (2-PIPE, DIRECT VENT) FOR COMBUSTION AIR SUPPLY AND FLUE EXHAUST. COORDINATE ROUTING OF VENT AND COMBUSTION AIR PIPING WITH BUILDING OWNER.

FURNACE TO BE SUPPLIED WITH EXTERNAL FILTER RACK FOR 1" DISPOSABLE MEDIA FILTERS IN RETURN AIR PLENUM.

INSTALL AIR HANDLER BLOWER W/ RELAY FROM BUILDING LIGHTING CIRCUIT SO THAT BLOWER RUNS CONTINUOUSLY WHENEVER THE BUILDING IS OCCUPIED.

COORDINATE CONDENSATE DRAIN PIPING TO SANITARY DRAIN W/ PLUMBING CONTRACTOR.

FURNACE IS TO BE MOUNTED ON UNI-STRUT FRAMING ABOVE THE FINISH FLOOR LINE (VERIFY HEIGHT ABOVE FLOOR WITH OWNER AND PER MANUFACTURER'S RECOMMENDATIONS).

MECHANICAL EQUIPMENT - A/C CONDENSING UNITS

MARK	MANUFACTURER	MODEL #	TYPE	NOM. TONS	SEER	STAGES	ELECTRICAL			COMMENTS	
							VOLTS	PH	MCA (A)		MOC (A)
RCU-1	TRANE/XR15	4TR5060E3	SPLIT-SYSTEM A/C, PURON R410A, AIR-AIR	5	15	1	208/230	3	23	40	

SUPPLY AND INSTALL ALL CONDENSING UNITS WITH LOW-AMBIENT CONTROLLER KIT, CRANKCASE HEATER, COMPRESSOR START ASSIST, EVAPORATOR FREEZESTAT, AND ALL OTHER REQUIRED ACCESSORIES FOR OPERATION TO -20°F. M.C. SHALL DETERMINE TOTAL INSTALLED LINESET LENGTHS AND SHALL PROVIDE AND INSTALL LONG LINE SETS AND ALL MANUFACTURER-RECOMMENDED ACCESSORIES WHERE APPLICABLE.

COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR. ALL ELECTRIC POWER FEEDS, DISCONNECTS, AND CONNECTIONS SHALL BE BY E.C.

THERMOSTATS:

ALL THERMOSTATS SHALL BE SEVEN-DAY PROGRAMMABLE THERMOSTATS WITH AUTO SETBACK AND AS RECOMMENDED BY HVAC EQUIPMENT MANUFACTURER. THERMOSTATS SHALL COMPLY W/ INDIANA ENERGY CONSERVATION CODE. DUAL-MODE (HEAT/COOL) THERMOSTATS SHALL BE MANUAL CHANGEOVER OR SHALL HAVE 5" DEAD BAND UNLESS OTHERWISE NOTED OR APPROVED. PROVIDE AND INSTALL REMOTE THERMOSTAT TEMPERATURE SENSORS IF INDICATED, PER THE DRAWINGS AND NOTES.

VENTILATION REQUIREMENTS

LOCATION	AREA		MECHANICAL VENTILATION				
	GROSS AREA (S.F.)	USE (IMC TABLE 403.3)	OCCUPANT DENSITY (IMC 403.3)	O/A REQ'D, CFM/SQ. FT. (IMC 403.3, 404.2)	EXHAUST REQ'D, CFM/SQ. FT. (IMC 403.3)	DETECTION/ EMERGENCY EXHAUST RATE (CFM)	
GARAGE ADDITION	1,572	MINOR REPAIR GARAGE	N/A	N/A	.75 CFM/SF	1179*	N/A

* PER IMC 403.3, THIS VENTILATION RATE SHALL BE ESTABLISHED AND MAINTAINED WHENEVER THE SPACE IS OCCUPIED.

UNLESS NOTED OTHERWISE, VENTILATION SYSTEMS REQUIRED TO OPERATE AUTOMATICALLY AND CONTINUOUSLY DURING OCCUPATION SHALL BE INTERLOCKED WITH BUILDING LIGHTING, TIMED CONTROLS, OCCUPANCY SENSORS, OR OTHER SIMILAR MEANS WHICH ENSURES THAT THE VENTILATION SYSTEM OPERATES AUTOMATICALLY WHENEVER THE ZONE SERVED IS OCCUPIED.

ALL LOUVERS AND VENTILATORS SHALL HAVE AUTOMATICALLY ACTUATED MOTORIZED DAMPERS CONTROLLED BY THE STATE OF THE ASSOCIATED FAN (OPEN ONLY WHILE THE ASSOCIATED FAN IS ENERGIZED).

EXHAUST FANS

MARK	MANUFACTURER	MODEL/SERIES	FUNCTION	TYPE	CFM @ S.P.	PANEL SIZE	SONES (F.A.)	ELECTRICAL		COMMENTS
								MOTOR HP	ELEC. FEED	
EF-1	GREENHECK	SE2-16-417-A4	OCCUPANCY-CONTROLLED EXHAUST	SIDEWALL-MOUNT AXIAL, DIRECT DRIVE	1869@ 0.375 inwg	16"x16"	18.7	1/4 HP	--	FAN SHALL RUN FOR 30-MINUTES MINIMUM WHENEVER THE SPACE IS OCCUPIED. FAN SHALL RUN CONTINUOUSLY WHEN INDOOR TEMPERATURE IS GREATER THAN 80°. WHEN INDOOR TEMPERATURE IS LESS THAN 55°, FAN SHALL NOT RUN. CONTROL BY RELAY FROM OCCUPANCY SENSORS AND THERMOSTAT. ASSOCIATED INTAKE LOUVER: LVR-1.

ALL FANS SHALL HAVE WALL-MOUNTED NON-FUSED NEMA 1 ELECTRICAL DISCONNECT INSTALLED 60" MAX A.F.F., AS NEAR TO FAN LOCATION AS POSSIBLE. COORDINATE AND VERIFY DISCONNECT LOCATION W/ OWNER PRIOR TO ROUGH-IN. PROVIDE RELAY FROM EACH FAN TO ITS ASSOCIATED INTAKE LOUVER AS NOTED ON LOUVER SCHEDULE.

ALL EXHAUST FANS SHALL BE SUPPLIED AND INSTALLED WITH FAN MANUFACTURER'S ACCESSORIES AS FOLLOWS:

- WALL HOUSING MOUNTING KIT SUITABLE FOR MOUNTING IN WALL OPENING PER DRAWINGS.
- MOTORIZED EXTERIOR-SIDE LOUVER/BACKDRAFT DAMPER, HEAVY-DUTY LOW LEAKAGE W/ INSULATED BLADES, GREENHECK #ECD-401.
- OSHA-APPROVED INTERIOR WIRE GUARD.
- DIRECT DRIVE MOTOR SPEED CONTROL.
- EXTERIOR WEATHERHOOD, 45-DEGREE TURNDOWN W/ BIRD SCREEN (OPTIONAL)

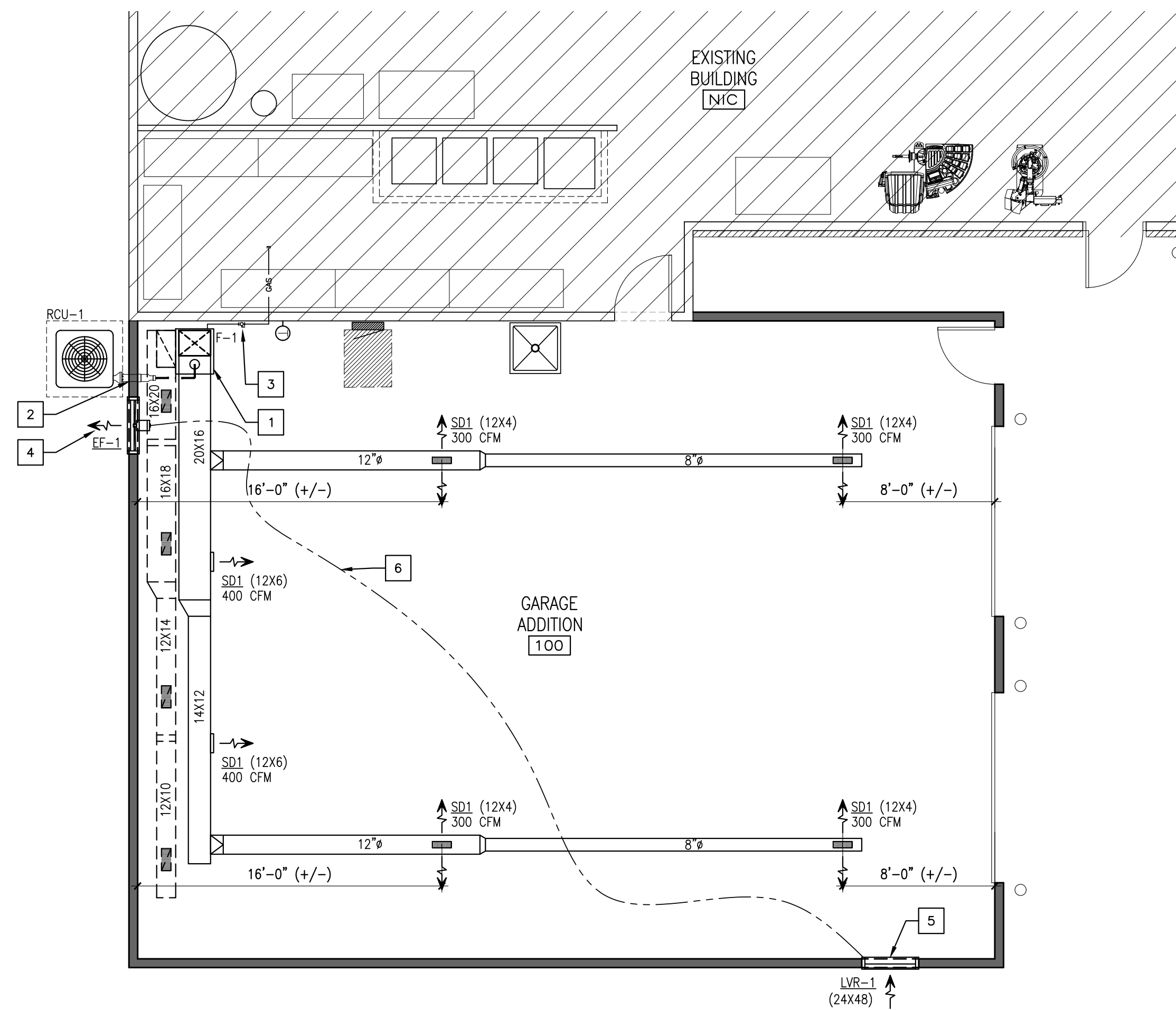
EXHAUST TERMINATIONS SHALL BE LOCATED 3' MINIMUM FROM BUILDING OPENINGS OR INTAKES PER IMC 501.3(3). SEE MECHANICAL GENERAL NOTES, MECHANICAL PLAN AND PLAN NOTES FOR ANY SPECIFIC TERMINATION REQUIREMENTS.

INTAKE LOUVERS

MARK	MANUFACTURER	MODEL/SERIES	FUNCTION	SIZE	THROAT SIZE	STYLE	MATERIAL	COMMENTS
LVR-1	GREENHECK	ECD-601	INTAKE	24Hx48W	--	DRAINABLE BLADE LOUVER/DAMPER	ALUMINUM	1, 2

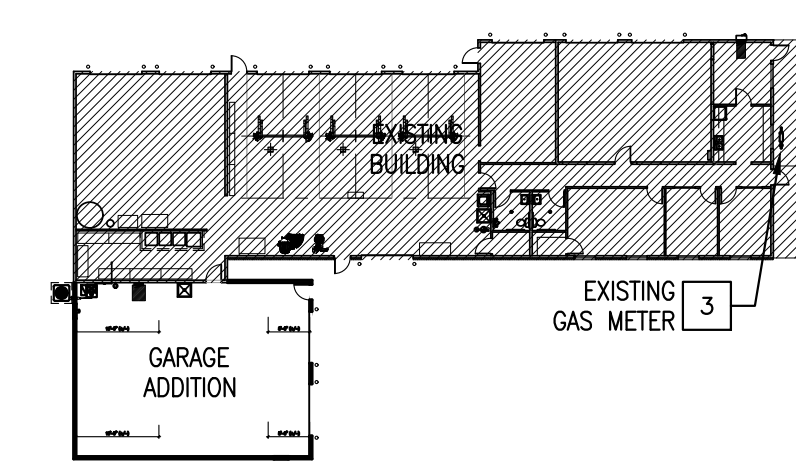
COMMENTS & NOTES:
ALL LOUVERS SHALL HAVE BIRD SCREENS, EXTENDED SILL AND ELECTRIC ACTUATOR. CONTRACTOR SHALL PROVIDE MOUNTING FLANGES AND ANY OTHER ACCESSORIES REQUIRED FOR COMPLETE INSTALLATION.

- CONTROL LOUVER BY RELAY FROM EXHAUST FAN EF-1 (OPEN ONLY WHEN FAN IS ENERGIZED).
- COLOR/FINISH AS SELECTED BY OWNER FROM MANUFACTURER'S STANDARD FINISHES.



MECHANICAL PLAN
SCALE: 3/16"=1'-0"

BUILDING KEY PLAN
SCALE: N.T.S.



GENERAL SHEET NOTES:

- ALL DIMENSIONS SHALL BE FIELD VERIFIED.
- ALL WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES.
- ALL ELECTRICAL POWER FEEDS AND CONNECTIONS SHALL BE BY ELECTRICAL CONTRACTOR. EXCEPT WHERE NOTED OR SCHEDULED OTHERWISE, EQUIPMENT DISCONNECTS SHALL BE BY ELECTRICAL CONTRACTOR. COORDINATE REQUIREMENTS W/ E.C.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EQUIPMENT CONDENSATE DRAINAGE. COORDINATE WITH PLUMBING CONTRACTOR AS NEEDED.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL FUEL GAS PIPING, VALVES, SUPPORTS, AND ACCESSORIES AS NEEDED TO SUPPLY ALL FUEL-BURNING EQUIPMENT AND APPLIANCES. SEE MECHANICAL GENERAL NOTES. CONTRACTOR SHALL COORDINATE GAS SERVICE SIZING AND LOCATION WITH THE LOCAL UTILITY.
- VERIFY ALL THERMOSTAT LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
- MANUFACTURER'S LISTED IN THE CONSTRUCTION DOCUMENTS ARE FOR "BASIS OF DESIGN." ANY SUBSTITUTIONS SHALL MEET AND/OR EXCEED ALL PERFORMANCE AND ASTM STANDARDS TO BE QUALIFIED AS EQUAL AND SHALL BE APPROVED BY THE OWNER AND ARCHITECT OF RECORD.

SHEET KEY NOTES:

- SHELF-MOUNTED NATURAL GAS FURNACE. COORDINATE CONDENSATE DRAINAGE TO PLUMBING FIXTURE BELOW OR ROUTE TO EXTERIOR.
- PROVIDE MANUFACTURER'S CONCENTRIC VENT KIT. ROUTE TO EXTERIOR WALL OR ROOF LOCATION AS NECESSARY. COORDINATE FLASHING W/ CONTRACTOR AS NECESSARY PER MANUFACTURER STANDARDS.
- PROVIDE 90° FULL-PORT SHUTOFF VALVE WHERE UTILITY ENTERS THE SPACE. MAKE CONNECTION TO EXISTING GAS SERVICE AT EXISTING BUILDING. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO INSTALLATION.
- WALL-MOUNTED AXIAL EXHAUST FAN & LOUVER. ROUGH OPENING SHALL BE SIZED TO ACCOMMODATE ALL MOUNTING ACCESSORIES AND FAN OPTIONS. SEE SCHEDULE FOR ADDITIONAL INFORMATION.
- WALL-MOUNTED INTAKE LOUVER. SEE SCHEDULE FOR ADDITIONAL INFORMATION.
- PROVIDE RELAY FROM BUILDING OCCUPANCY SENSOR AND/OR LIGHTING CIRCUIT. SEE EXHAUST FAN SCHEDULE FOR ADDITIONAL INSTALLATION NOTES.

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PROFESSIONAL SEAL:

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REGISTERED ARCHITECT
No. 10900104
STATE OF INDIANA

PROJECT DATE:
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SHEET NUMBER:
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