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JLG ARCHITECTS  
 BOTTINEAU RIDGE II APARTMENTS  
 MAPLE GROVE, MN

**UNIT MATRIX**

	SF	1ST FLR	2ND FLR	3RD FLR	4TH FLR	TOTAL
UNIT 1A	734		1	1	3	5
UNIT 1A, TYPE A	734	1				1
UNIT 2A	1033	3	1	2	2	8
UNIT 2A, TYPE A	1033		1			1
UNIT 2A*	1101		1	1	1	3
UNIT 2A**	1085	1	1	1	1	4
UNIT 2B	994	1	1	1	1	4
UNIT 2C	1124	1	1	1	1	4
UNIT 3A	1364	1	1		1	3
UNIT 3A, TYPE A	1364			1		1
UNIT 3B	1271	2	3	3	3	11
UNIT 3C	1474			1		1
UNIT 4A	1633	1	1	1	1	4
<b>TOTAL UNIT COUNT</b>		<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>50</b>

**INDEX OF DRAWINGS**

SHEET NUMBER	SHEET NAME
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G110	LIFE SAFETY PLANS
G111	LIFE SAFETY PLANS
G120	MOUNTING HEIGHTS
<b>CIVIL</b>	
C101	EXISTING CONDITIONS
C201	SITE PLAN
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C602	CIVIL DETAILS
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S101B	FOUNDATION PLAN "EAST"
S201A	FIRST FLOOR FRAMING PLAN "WEST"
S201B	FIRST FLOOR FRAMING PLAN "EAST"
S202A	SECOND FLOOR FRAMING PLAN "WEST"
S202B	SECOND FLOOR FRAMING PLAN "EAST"
S203A	THIRD FLOOR FRAMING PLAN "WEST"
S203B	THIRD FLOOR FRAMING PLAN "EAST"
S204A	FOURTH FLOOR FRAMING PLAN "WEST"
S204B	FOURTH FLOOR FRAMING PLAN "EAST"
S205A	ROOF FRAMING PLAN "WEST"
S205B	ROOF FRAMING PLAN "EAST"
S206	SHEAR WALL PLAN, & DETAILS

**INDEX OF DRAWINGS**

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A210B	GARAGE PLAN - EAST
A211A	FIRST FLOOR PLAN - WEST
A211B	FIRST FLOOR PLAN - EAST
A212A	SECOND FLOOR PLAN - WEST
A212B	SECOND FLOOR PLAN - EAST
A213A	THIRD FLOOR PLAN - WEST
A213B	THIRD FLOOR PLAN - EAST
A214A	FOURTH FLOOR PLAN - WEST
A214B	FOURTH FLOOR PLAN - EAST
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A302	EXTERIOR ELEVATIONS
A303	EXTERIOR ELEVATIONS
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**INDEX OF DRAWINGS**

SHEET NUMBER	SHEET NAME
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<b>FIRE PROTECTION</b>	
F100A	GARAGE FLOOR PLAN - WEST - FIRE PROTECTION
F100B	GARAGE FLOOR PLAN - EAST - FIRE PROTECTION
F101A	FIRST FLOOR PLAN - WEST - FIRE PROTECTION
F101B	FIRST FLOOR PLAN - EAST - FIRE PROTECTION
F102A	SECOND FLOOR PLAN - WEST - FIRE PROTECTION
F102B	SECOND FLOOR PLAN - EAST - FIRE PROTECTION
F103A	THIRD FLOOR PLAN - WEST - FIRE PROTECTION
F103B	THIRD FLOOR PLAN - EAST - FIRE PROTECTION
F104A	FOURTH FLOOR PLAN - WEST - FIRE PROTECTION
F104B	FOURTH FLOOR PLAN - EAST - FIRE PROTECTION
<b>PLUMBING</b>	
P100A	FOUNDATION PLAN - WEST - PLUMBING
P100B	FOUNDATION PLAN - EAST - PLUMBING
P101A	GARAGE FLOOR PLAN - WEST - PLUMBING
P101B	GARAGE FLOOR PLAN - EAST - PLUMBING
P102A	FIRST FLOOR PLAN - WEST - PLUMBING
P102B	FIRST FLOOR PLAN - EAST - PLUMBING
P103A	SECOND FLOOR PLAN - WEST - PLUMBING
P103B	SECOND FLOOR PLAN - EAST - PLUMBING
P104A	THIRD FLOOR PLAN - WEST - PLUMBING
P104B	THIRD FLOOR PLAN - EAST - PLUMBING
P105A	FOURTH FLOOR PLAN - WEST - PLUMBING
P105B	FOURTH FLOOR PLAN - EAST - PLUMBING
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P203	DOMESTIC WATER RISER DIAGRAMS

**INDEX OF DRAWINGS**

SHEET NUMBER	SHEET NAME
<b>MECHANICAL</b>	
M100A	GARAGE FLOOR PLAN - WEST - HVAC PIPING
M100B	GARAGE FLOOR PLAN - EAST - HVAC PIPING
M101A	FIRST FLOOR PLAN - WEST - HVAC PIPING
M101B	FIRST FLOOR PLAN - EAST - HVAC PIPING
M102A	SECOND FLOOR PLAN - WEST - HVAC PIPING
M102B	SECOND FLOOR PLAN - EAST - HVAC PIPING
M103A	THIRD FLOOR PLAN - WEST - HVAC PIPING
M103B	THIRD FLOOR PLAN - EAST - HVAC PIPING
M104A	FOURTH FLOOR PLAN - WEST - HVAC PIPING
M104B	FOURTH FLOOR PLAN - EAST - HVAC PIPING
M200A	GARAGE FLOOR PLAN - WEST - VENTILATION
M200B	GARAGE FLOOR PLAN - EAST - VENTILATION
M201A	FIRST FLOOR PLAN - WEST - VENTILATION
M201B	FIRST FLOOR PLAN - EAST - VENTILATION
M202A	SECOND FLOOR PLAN - WEST - VENTILATION
M202B	SECOND FLOOR PLAN - EAST - VENTILATION
M203A	THIRD FLOOR PLAN - WEST - VENTILATION
M203B	THIRD FLOOR PLAN - EAST - VENTILATION
M204A	FOURTH FLOOR PLAN - WEST - VENTILATION
M204B	FOURTH FLOOR PLAN - EAST - VENTILATION
M205	ROOF PLAN - MECHANICAL
M400	MECHANICAL DETAILS
M401	MECHANICAL DETAILS
M500	MECHANICAL SCHEDULES
M501	MECHANICAL SCHEDULES
M502	MECHANICAL SCHEDULES

**INDEX OF DRAWINGS**

SHEET NUMBER	SHEET NAME
<b>ELECTRICAL</b>	
E201	GARAGE FLOOR PLAN - EAST - POWER/SYSTEMS
E202	FIRST FLOOR PLAN - WEST - POWER/SYSTEMS
E203	FIRST FLOOR PLAN - EAST - POWER/SYSTEMS
E204	SECOND FLOOR PLAN - WEST - POWER/SYSTEMS
E205	SECOND FLOOR PLAN - EAST - POWER/SYSTEMS
E206	THIRD FLOOR PLAN - WEST - POWER/SYSTEMS
E207	THIRD FLOOR PLAN - EAST - POWER/SYSTEMS
E208	FOURTH FLOOR PLAN - WEST - POWER/SYSTEMS
E209	FOURTH FLOOR PLAN - EAST - POWER/SYSTEMS
E300	LARGE SCALE UNIT PLANS - ELECTRICAL
E301	LARGE SCALE UNIT PLANS - ELECTRICAL
E302	LARGE SCALE UNIT PLANS - ELECTRICAL
E303	LARGE SCALE UNIT PLANS - ELECTRICAL
E401	ELECTRICAL RISER AND DETAILS
E402	POWER DETAILS
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E520	MOTOR AND EQUIPMENT SCHEDULE
E521	PANEL SCHEDULES
E522	PANEL SCHEDULES
<b>ELECTRICAL TITLE SHEET</b>	
E000	SITE PLAN - ELECTRICAL
E100	GARAGE FLOOR PLAN - WEST - LIGHTING
E101	GARAGE FLOOR PLAN - EAST - LIGHTING
E102	FIRST FLOOR PLAN - WEST - LIGHTING
E103	FIRST FLOOR PLAN - EAST - LIGHTING
E104	SECOND FLOOR PLAN - WEST - LIGHTING
E105	SECOND FLOOR PLAN - EAST - LIGHTING
E106	THIRD FLOOR PLAN - WEST - LIGHTING
E107	THIRD FLOOR PLAN - EAST - LIGHTING
E108	FOURTH FLOOR PLAN - WEST - LIGHTING
E109	FOURTH FLOOR PLAN - EAST - LIGHTING
E200	GARAGE FLOOR PLAN - WEST - POWER/SYSTEMS

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## LIST OF ABBREVIATIONS

A/E	ARCHITECT/ENGINEER
AC	ALTERNATING CURRENT
ACI	AMERICAN CONCRETE INSTITUTE
ACM	ASBESTOS CONTAINING MATERIAL
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
AFB	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARCH	ARCHITECT
ASI	ARCHITECTURAL SUPPLEMENTAL INSTRUCTION
AWI	AMERICAN WOODWORKING INSTITUTE
BD	BOARD
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
BRG	BEARING
BTU	BRITISH THERMAL UNITS
BUR	BUILT UP ROOFING
CAB	CABINET
CB	CATCH BASIN
CG	CORNER GUARD
CI	CAST IRON
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMU	COMMON MASONRY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CPT	CARPET
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CUH	CABINET UNIT HEATER
CWT	CERAMIC WALL TILE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DOC	DOCUMENT
DR	DOOR
DTL	DETAIL
DW	DISHWASHER
DWG	DRAWING
EA	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
ELEC	ELECTRIC
ELEV	ELEVATOR/ELEVATION
EP	EPOXY PAINT
EQ	EQUAL
EQUIP	EQUIPMENT
EW	ELECTRIC WATER COOLER
EXIST	EXISTING
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FFE	FURNITURE, FIXTURE, AND EQUIPMENT
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR	FLOOR
FND	FOUNDATION
FTG	FOOTING
FWC	FABRIC WALL COVERING
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERAL
GL	GLASS OR GLAZING
GWB	GYPSPUM WALL BOARD
HB	HOSE BIB
HCP	HANDICAP
HDW	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORZ	HORIZONTAL
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
INSUL	INSULATION
JAN	JANITOR
LAM	LAMINATE
LAV	LAVATORY
MAS	MASONRY
MB	MARKERBOARD
MDF	MEDIUM DENSITY FIBERBOARD
MECH	MECHANICAL
MH	MANHOLE
ML	MATCHLINE
MTL	METAL
MTL	METAL STUD
STD	
NC	NON COMBUSTIBLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OH	OVERHEAD
OSB	ORIENTED STRAND BOARD
PB	PARTICLE BOARD
PC	PRECAST
PLAM	PLASTIC LAMINATE
PLAST	PLASTER
PLYWD	PLYWOOD
PREV	PREVIOUS
PT	PAINT
PTD	PAPER TOWEL DISPENSER
RAD	RADIUS

## LIST OF ABBREVIATIONS

REIN	REINFORCEMENT
REQ'D	REQUIRED
REV	REVERSE
RM	ROOM
RO	ROUGH OPENING
RTU	ROOF TOP UNIT
SD	SMOKE DETECTOR
SECTION	SECTION
SHT	SHEET
SIM	SIMILAR
SPD	SOAP DISPENSER
SPEC	SPECIFICATIONS
SQ	SQUARE
SUSP	SUSPEND
TC	THIN COAT
TEMP	TEMPORARY/TEMPERATURE
TO	TOP OF
TP	TOILET PARTITIONS
TRD	TOILET PAPER DISPENSER
TRT	TREATED
TS	TRANSITION STRIP
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
W/	WITH
WD	WOOD
WINDOW	WINDOW

## PROJECT MATERIAL ID LIST

MATERIAL ID	SPEC. SECTION & DESCRIPTION
ACT-1	09 5100 - ACOUSTICAL CEILING TILE SYSTEM
AIR BAR-1	07 2500 - AIR BARRIER; MECHANICALLY FASTENED
AIR BAR-3	07 2500 - AIR BARRIER; SELF-ADHERING OR LIQUID APPLIED
ALUM STOR-1	08 4313 - ALUMINUM FRAMED STOREFRONT
BRICK TIE	04 2000 - BRICK TIE
BRICK-1	04 2000 - FACE BRICK
BURN CMU-1	04 2000 - BURNISHED MASONRY UNIT
CAST STN-1	04 7200 - CAST STONE TRIM
CAST UNDLMT-1	03 5400 - GYPSUM BASED UNDERLAYMENT
CAST UNDLMT-11	03 5400 - GYPSUM BASED UNDERLAYMENT W/ SOUND CONTROL MEMBRANE
CAST UNDLMT-12	03 5400 - GYPSUM BASED UNDERLAYMENT W/ SOUND CONTROL MEMBRANE
CER TILE-10	09 3000 - CERAMIC WALL TILE
CMU-1	04 2000 - NORMAL WEIGHT CMU
CMU-2	04 2000 - LIGHT WEIGHT CMU
CONC FIN-2	03 3000 - HEAVY BROOM FINISH
CRTN ROD-2	10 2800 - SHOWER CURTAIN ROD, CURVED
DISHWASHER-1	11 3100 - DISHWASHER
DISHWASHER-2	11 3100 - DISHWASHER
DRAIN BRD-1	07 1300 - DRAINAGE BOARD
DRYER-1	11 3100 - CLOTHES DRYER
EPDM-2	07 5300 - FULLY ADHERED EPDM ROOFING SYSTEM
FIRE CAB-1	10 4400 - FIRE EXTINGUISHER CABINET
FIREPLACE-1	10 3100 - MANUFACTURED FIREPLACE
FR STOP	07 8400 - THROUGH PENETRATION FIRESTOPPING
FRIDGE-1	11 3100 - REFRIGERATOR
FRIDGE-2	11 3100 - REFRIGERATOR
GRAB BAR-18	10 2800 - STAINLESS STEEL GRAB BAR, 18"
GRAB BAR-30	10 2800 - STAINLESS STEEL GRAB BAR, 30"
GRAB BAR-36	10 2800 - STAINLESS STEEL GRAB BAR, 36"
GRAB BAR-42	10 2800 - STAINLESS STEEL GRAB BAR, 42"
GYP BD-1	09 2116 - 5/8" FIRE-RATED TYPE 'X' GYPSUM BOARD
GYP BD-2	09 2116 - 5/8" FIRE-RATED TYPE 'C' GYPSUM BOARD
GYP BD-2D	09 2116 - 1/2" FIRE-RATED TYPE 'X' GYPSUM SHAFT LINER
GYP SHTG-6	09 2116 - 5/8" FIRE-RATED TYPE 'X' GLASS-MAT-FACED SHEATHING
INSUL GL-1	08 8000 - 1" CLEAR INSULATED GLASS
INSUL TEMPL GL-1	08 8000 - 1" CLEAR INSULATED TEMPERED GLASS
INSUL-2	07 2100 - EXTRUDED POLYSTYRENE WALL INSULATION
INSUL-3	07 2100 - PERIMETER BELOW GRADE EXTRUDED POLYSTYRENE INSULATION W/ DRAINAGE CHANNELS
INSUL-5	07 2100 - HORIZONTAL PLAZA HIGH DENSITY EXTRUDED POLYSTYRENE
INSUL-20	07 2100 - FIBERGLASS BATT INSULATION, UNFACED
INSUL-34	07 2126 - BULK FIBERGLASS INSULATION FOR PNEUMATIC PLACEMENT
INSUL-36	07 2119 - CLOSED CELL SPRAY FOAM INSULATION
INSUL-53	07 5300 - TAPERED OVER FLAT EXPANDED POLYSTYRENE ROOF INSULATION
INSUL-80	09 2116 - ACOUSTICAL BATT INSULATION
MAIL BOX-1	10 5523 - MAIL BOXES
MAS ACC-2	04 2000 - POLYMER MESH HEAD JOINT WEEP
MAS ACC-5	04 2000 - CAVITY MORTAR CONTROL MESH
MET FAB-1	05 5000 - STEEL BOLLARD, 6" DIA WITH CONCRETE FILL
MET FAB-21	05 5000 - PRE-FINISHED METAL PANEL
MET FAB-22	05 5000 - STAINLESS STEEL METAL PANEL
MET FAB-50	05 5913 - METAL BALCONIES
MET FURG-4	09 2116 - RESILIENT FURRING CHANNELS
MET STUD-1	05 4000 - LOAD BEARING STEEL STUD FRAMING
MET STUD-5	09 2116 - C-H SHAFTWALL STUDS
MICROWAVE-3	11 3100 - MICROWAVE
MIRROR-50	10 2800 - FRAMELESS MIRROR
NPKN DISP-1	10 2800 - SANITARY NAPKIN DISPOSAL UNIT
PLAM CASE-1	06 4100 - PLASTIC-LAMINATE FACED CASEWORK
PLAM CTOP-1	12 3600 - PLASTIC-LAMINATE COUNTERTOP
PRECAST-15	03 4113 - PRECAST HOLLOW CORE PLANK
PT DISP-1	10 2800 - PAPER TOWEL DISPENSER, C-FOLD
RAIL-40	05 7000 - CUSTOM PICKET RAILING
RANGE HD-1	11 3100 - RANGE HOOD
RANGE-1	11 3100 - RANGE
RANGE-2	11 3100 - RANGE
RB BASE-2	09 6500 - 2-1/2" RUBBER COVE BASE
RB BASE-3	09 6500 - 6" RUBBER COVE BASE
RES CASE-1	12 3530 - RESIDENTIAL CASEWORK
RF UNDLMT-3	07 2500 - SYNTHETIC ROOFING UNDERLAYMENT
RF UNDLMT-5	07 2500 - SELF-ADHERING ICE/WATER SHIELD
RF VENT-1	07 3113 - SHINGLE-OVER RIDGE VENT
RF VENT-2	07 3113 - SOFFIT/LEAVE STRIP VENT
ROBE HOOK-1	10 2800 - SINGLE PRONG ROBE HOOK
ROCK CMU-1	04 2000 - ROCK FACED CMU
SEALANT-1	07 9005 - JOINT SEALANT OR CAULKING
SEALANT-2	07 9005 - JOINT SEALANT OR CAULKING WITH BACKER ROD
SHINGLE-1	07 3113 - LAMINATED FIBERGLASS SHINGLES

## PROJECT MATERIAL ID LIST

MATERIAL ID	SPEC. SECTION & DESCRIPTION
SMF-1	07 6200 - PREFINISHED GALVANIZED STEEL FLASHING
SMF-2	07 6200 - PREFINISHED ALUMINUM FLASHING
SMF-3	07 6200 - GALVANIZED STEEL FLASHING
SOAP DISP-1	10 2800 - SOAP DISPENSER, WALL MOUNTED
SOLID SURF-20	12 3600 - 1/2" SOLID SURFACING
SSURF CTOP-21	12 3600 - 1/2" SOLID SURFACE COUNTERTOP
TEMP GL-1	08 8000 - CLEAR TEMPERED GLASS, 1/4" THICK
TILE TRIM-10	09 3000 - METAL TRIM
TOWEL BAR-1	10 2800 - TOWEL BAR, 1" DIAMETER, STAINLESS STEEL
TOWEL BAR-2	10 2800 - TOWEL BAR, 1" DIAMETER, STAINLESS STEEL
TP DISP-1	10 2800 - TOILET PAPER DISPENSER, SINGLE ROLL, SURFACE MOUNT
TWF-1	04 2000 - 40 MIL SELF-ADHERING MEMBRANE W/ STAINLESS STEEL DRIP
VINYL SIDING-1	07 4633 - VINYL LAP SIDING
VINYL SIDING-2	07 4633 - VINYL LAP SHINGLES
VINYL TRIM-1	07 4633 - VINYL TRIM
VPR RET-1	07 2500 - 6 MIL POLY VAPOR RETARDER SHEET
VPR RET-2	07 2500 - 10 MIL POLY REINFORCED VAPOR RETARDER
VPR RET-10	07 2500 - VAPOR RETARDER; SELF-ADHERED OR LIQUID APPLIED
WASHER-1	11 3100 - WASHING MACHINE
WASHER-2	11 3100 - WASHING MACHINE
WD BLKG	06 1000 - EXPOSED OR CONCEALED WOOD BLOCKING
WD BLKG-TR	06 1000 - PRESSURE PRESERVATIVE TREATED WOOD
WD COAT AND HAT RACK	06 4100 - WD COAT AND HAT RACK
WD PNLG-1	06 2000 - WOOD TRIM PANELING
WD SHTG-1	06 1000 - FLOOR SHEATHING, 3/4" OSB, EXPOSURE 1, T&G
WD SHTG-14	06 1000 - 1/2" CDX ROOF SHEATHING WITH H CLIPS
WD SHTG-20	06 1000 - 15/32" OSB WALL SHEATHING
WD SHTG-26	06 1000 - 3/4" PLYWOOD WALL SHEATHING
WD SHTG-34	06 1000 - 3/4" PLYWOOD; GRADE C-C
WD TRIM-1	06 2000 - WOOD TRIM
WD TRIM-2	06 2000 - WOOD TRIM
WIRE SHLV-1	10 5623 - WIRE STORAGE SHELVING
WTR PRF-2	07 1300 - SELF-ADHERING RUBBERIZED ASPHALT SHEETS
WTR PRF-7	07 1723 - PRE-APPLIED SHEET WATERPROOFING

## PROJECT GENERAL NOTES

- FIRST LEVEL ELEVATION OF 100'-0" NOTED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS EQUALS ELEVATION OF 911.50' NOTED ON CIVIL DRAWINGS. IT SHALL BE EACH TRADE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH ALL EXISTING CONDITIONS. EACH CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND OTHERWISE VERIFY ALL DIMENSIONS AND EXISTING CONSTRUCTION CONDITIONS INDICATED AND/OR SHOWN ON THE DRAWINGS. SHOULD ANY ERROR OR INCONSISTENCY EXIST, THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK AFFECTED THEREBY UNTIL REPORTING THE SAME TO THE ARCHITECT AND THE OWNERS REPRESENTATIVE FOR CLARIFICATION AND/OR CORRECTION.
- DIMENSIONS FOLLOWED BY +/- SHALL BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF WORK. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
- ALL EXISTING CONSTRUCTION AND SURFACES WHICH ARE TO REMAIN BUT ARE AFFECTED BY THE WORK UNDER THIS CONTRACT SHALL BE RESTORED AND REFINISHED TO MATCH THE CONSTRUCTION, FINISH AND ALIGNMENT OF THE EXISTING ADJACENT CONSTRUCTION AND FINISHES.
- VERIFY QUANTITY, SIZE AND LOCATION OF ALL FLOOR, ROOF AND WALL OPENINGS FOR MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR COMPLETION OF WORK. COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH APPROPRIATE TRADES. COORDINATE SIZE & LOCATION OF ALL HOUSE-KEEPING PADS AND/OR EQUIPMENT SUPPORTS WITH APPROPRIATE EQUIPMENT MANUFACTURER. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE CONDITION. PROVIDE FIRE WATCH DURING FIELD CUTTING AND WELDING OPERATIONS, MEETING OWNERS REQUIREMENTS.
- PROVIDE FIRE RETARDANT WOOD BLOCKING AND/OR 18 GA METAL PLATES BETWEEN STUDS AT ALL LOCATIONS REQUIRING BLOCKING IN WALL. THESE LOCATIONS INCLUDE BUT ARE NOT LIMITED TO GRAB BARS, CRASH RAILS, CABINETS, WALL HUNG SHELVES, ARTWORK, ETC.
- DO NOT SCALE DRAWINGS.
- THE EXTENT OF HATCHING ON DRAWINGS IS ONLY SUFFICIENT TO INDICATE THE NATURE OF THE CONSTRUCTION OR MATERIALS. TERMINATION OF THE HATCHING SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE OR TERMINATION OF MATERIAL.
- THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES IN WORK AREAS PRIOR TO PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES SHALL BE DOCUMENTED AND FORWARDED TO ARCHITECT AND OWNERS REPRESENTATIVE FOR ACTION.
- IT IS THE CONTRACTORS RESPONSIBILITY TO INVESTIGATE FIELD CONDITIONS AND PROVIDE AS NEEDED TEMPORARY SUPPORTS, SHORING AND/OR PROTECTION OF EXISTING STRUCTURES AND UNDERGROUND UTILITIES DURING EXECUTION OF WORK.
- ALL WORK TO CONFORM TO THE REQUIREMENTS OF THE LOCAL AND STATE CODES. RELEVANT DIMENSIONS AND ELEVATIONS FOR EQUIPMENT INSTALLATIONS SHALL BE VERIFIED AGAINST MANUFACTURERS CERTIFIED EQUIPMENT DRAWINGS. CONTRACTOR SHALL PROVIDE TEMPORARY DUST PROOF PARTITIONS AS REQUIRED, OR WHERE REQUESTED BY OWNERS' REPRESENTATIVE. PARTITIONS SHALL BE FIRE RATED WHERE REQUIRED BY CODE HAVING JURISDICTION. ALL TEMPORARY PARTITIONS SHALL BE CONSTRUCTED IN A MANNER AND OF MATERIALS OFFERING ADEQUATE PROTECTION TO OWNERS' EQUIPMENT AND PERSONNEL.
- DO NOT SCALE DRAWINGS TO DETERMINE SIZES AND DIMENSIONS. USE FIGURED DIMENSIONS ONLY. DIMENSIONS ARE TO CENTERLINE OF WALLS UNLESS OTHERWISE NOTED. ALL PERIMETER DIMENSIONS ARE FROM THE EXTERIOR FACE OF SHEATHING.
- ALL PENETRATIONS TO FLOORS, CEILINGS AND WALLS SHALL BE SEALED AND FIRE STOPPED TO A FIRE RATING EQUAL TO THE CONSTRUCTION BEING PENETRATED. NEW WORK SHALL ALIGN WITH AND MATCH EXISTING WORK UNLESS NOTED OTHERWISE.

## DEFERRED SUBMITTALS

- PRECAST CONCRETE SHOP DRAWINGS (03 4100)
- WOOD TRUSS SHOP DRAWINGS (06 1753)
- ALUMINUM DECK FRAMING SHOP DRAWINGS (05 5913)
- FIRE SPRINKLER SYSTEM (21 1313)

## DESIGN TEAM

### Architect

JLG Architects  
322 First Avenue, N.  
Minneapolis, MN 55401

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Contact: Nicole Washburn

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Contact: Nathan Benson

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Contact: Jon Wessling

### Electrical Engineer

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Minneapolis, MN 55413

P: 612.249.5586

Contact: Jeff Besel

## MATERIAL INDEX

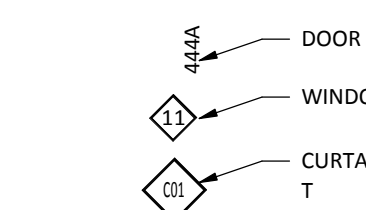
	CONCRETE; CUT/SURFACE PATTERN
	FILL; SEE STRUCTURAL
	BRICK; CUT PATTERN
	BRICK; SURFACE PATTERN
	CMU; CUT PATTERN
	CMU; SURFACE PATTERN
	BURNISHED CMU; SURFACE PATTERN
	GROUT; CUT PATTERN
	STONE; CUT PATTERN
	ALUMINUM; CUT PATTERN
	STEEL; CUT PATTERN
	MDF; CUT PATTERN
	PLYWOOD; CUT PATTERN
	SOLID SURFACE; CUT PATTERN
	WOOD; CUT PATTERN
	WOOD; SURFACE PATTERN
	METAL PANEL; SURFACE
	CORRUGATED METAL PANEL; SURFACE
	FLUSH METAL PANEL; SURFACE
	RIGID INSULATION; CUT PATTERN
	TAPERED INSULATION; SURFACE PATTERN
	SPANDREL GLAZING; SURFACE PATTERN
	GLAZING; SURFACE PATTERN
	A.C.T (1); SURFACE PATTERN
	A.C.T (2); SURFACE PATTERN
	A.C.T (3); SURFACE PATTERN
	A.C.T; CUT PATTERN
	CARPET TILE; SURFACE PATTERN
	ACCENT CARPET TILE; SURFACE PATTERN
	WELDING OPERATIONS; CUT PATTERN
	EXTERIOR GYPSUM SHEATHING; CUT PATTERN
	TILE; CUT PATTERN
	EARTH; CUT PATTERN
	PEA ROCK; CUT PATTERN
	SAND; CUT PATTERN
	SOLID FILL; BLACK
	SOLID FILL; EXISTING CONSTRUCTION
	SOLID FILL; GREY
	SOLID FILL; WHITE

## SYMBOLS LEGEND

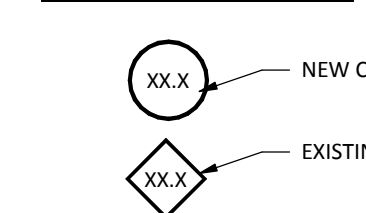
### ROOM IDENTIFICATION TAG



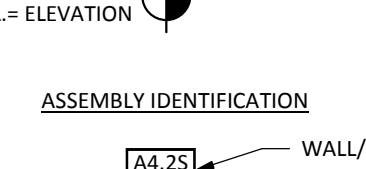
### OPENING IDENTIFICATION TAGS



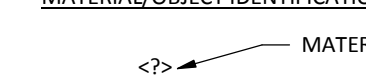
### COLUMN/GRID IDENTIFICATION



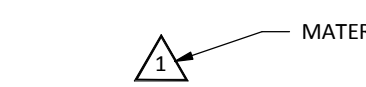
### ASSEMBLY IDENTIFICATION



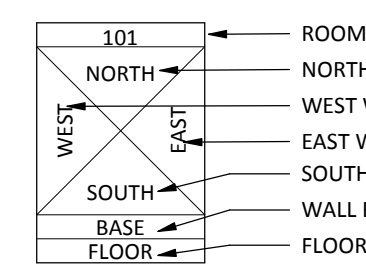
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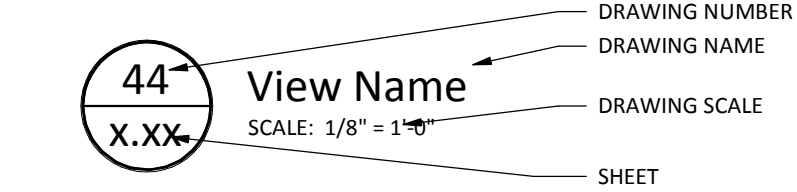
### REVISION DELTA



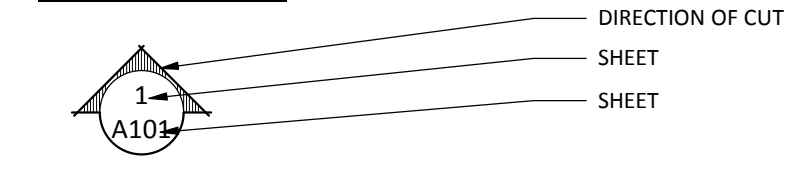
### ROOM FINISH PLAN TAG



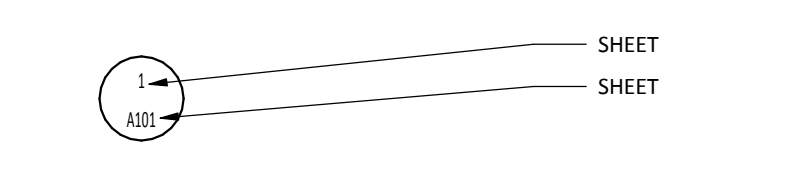
### DRAWING IDENTIFICATION



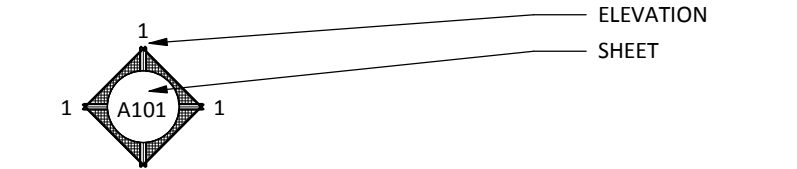
### SECTION IDENTIFICATION



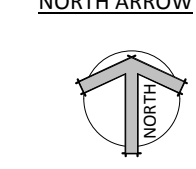
### DETAIL SECTION IDENTIFICATION



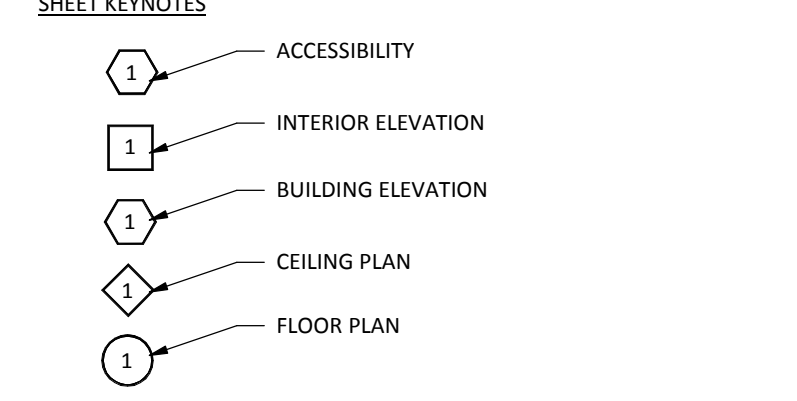
### ELEVATION IDENTIFICATION



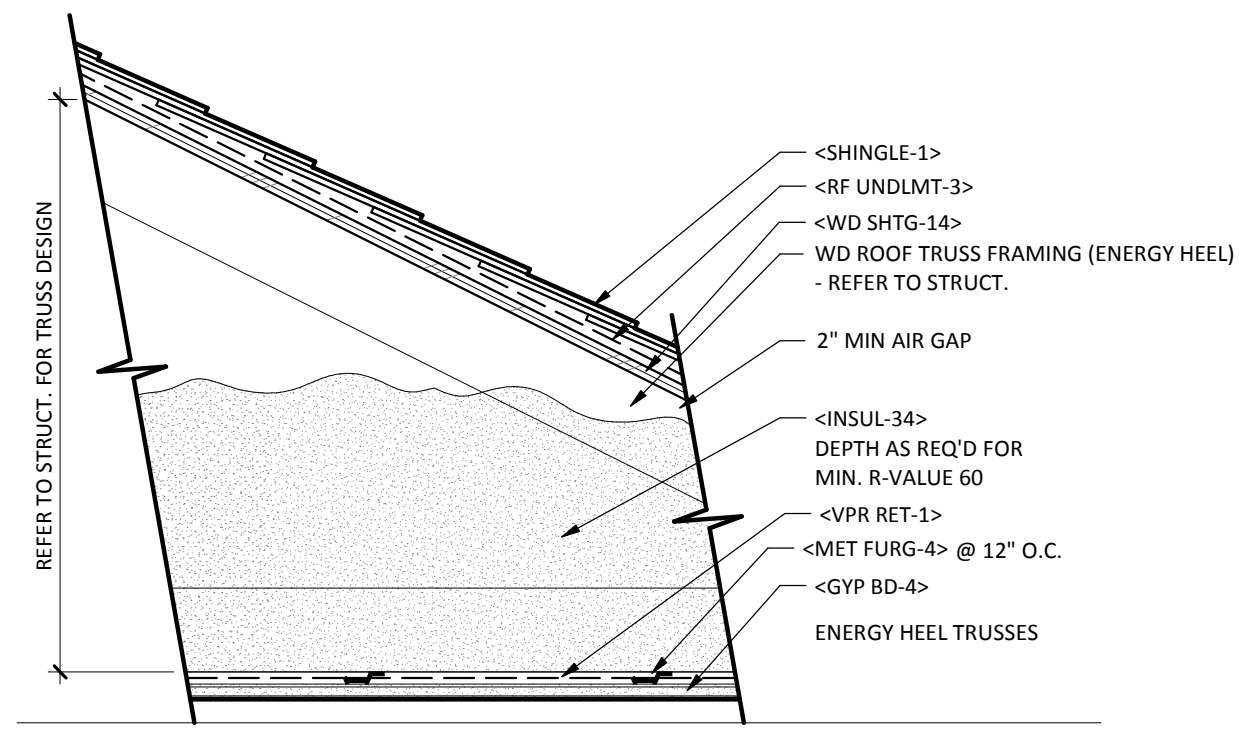
### NORTH ARROW



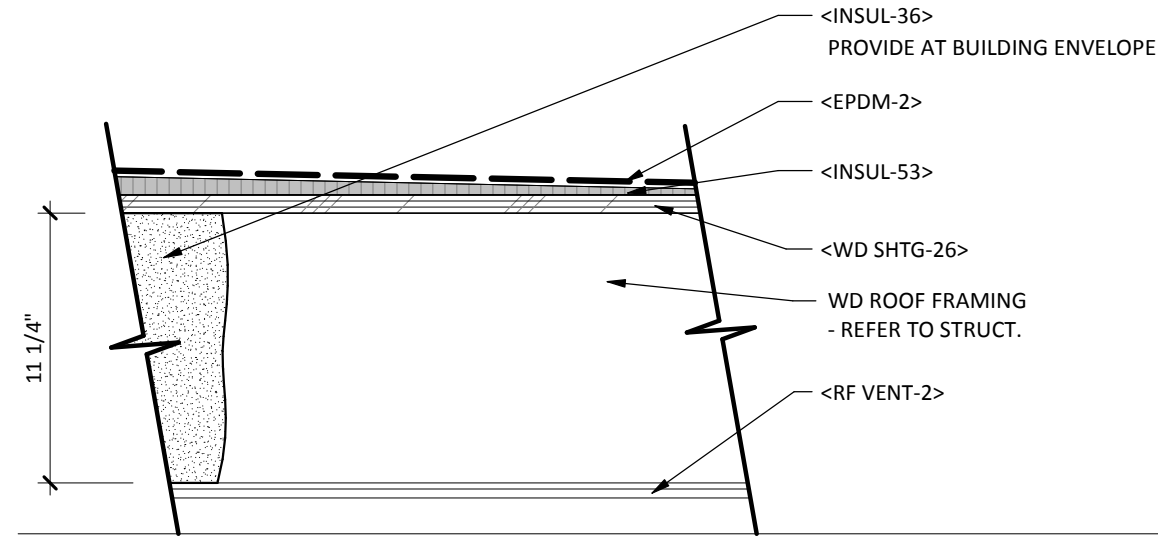
### SHEET KEYNOTES



## PROJECT VICINITY



**TYPE WR1.1**  
RATING: 1HR UL NO: P533



**TYPE WR2.0**

ROOF TYPE 'WR1.1'					
TYPE	INSUL THICK.	G.B. THICK	RATING	UL NO.	COMMENTS

**SHEET MATERIAL ID LIST**

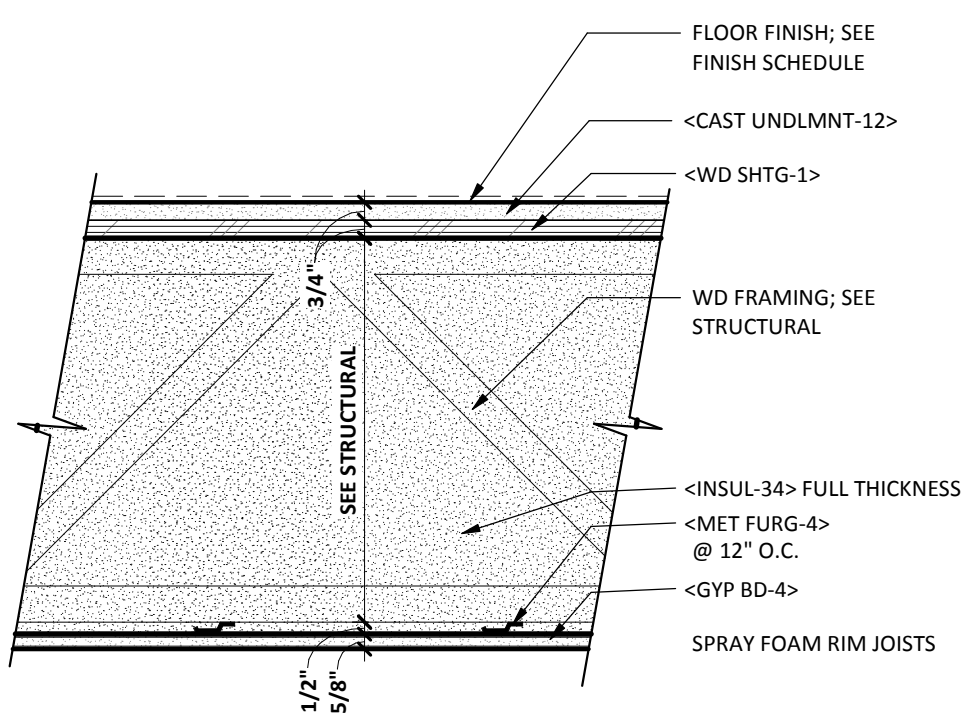
MATERIAL ID	SPEC SECTION & DESCRIPTION
AIR BAR-1	07 2500 - AIR BARRIER; MECHANICALLY FASTENED
BRICK TIE	04 2000 - BRICK TIE
BRICK-1	04 2000 - FACE BRICK
CAST UNDMNT-1	03 5400 - GYPSUM BASED UNDERLAYMENT
CAST UNDMNT-12	03 5400 - GYPSUM BASED UNDERLAYMENT W/ SOUND CONTROL MEMBRANE
CMU-1	04 2000 - NORMAL WEIGHT CMU
CONC FIN-2	03 3000 - HEAVY BROOM FINISH
EPDM-2	07 5300 - FULLY ADHERED EPDM ROOFING SYSTEM
GYP BD-1	09 2116 - 5/8" FIRE-RATED TYPE 'X' GYPSUM BOARD
GYP BD-4	09 2116 - 5/8" FIRE-RATED TYPE 'C' GYPSUM BOARD
INSUL-3	07 2100 - PERIMETER BELOW GRADE EXTRUDED POLYSTYRENE INSULATION W/ DRAINAGE CHANNELS
INSUL-20	07 2100 - FIBERGLASS BATT INSULATION, UNFACED
INSUL-34	07 2126 - BULK FIBERGLASS INSULATION FOR PNEUMATIC PLACEMENT
INSUL-36	07 2119 - CLOSED CELL SPRAY FOAM INSULATION
INSUL-53	07 5300 - TAPERED OVER FLAT EXPANDED POLYSTYRENE ROOF INSULATION
MET FURG-4	09 2116 - RESILIENT FURRING CHANNELS
PRECAST-15	03 4113 - PRECAST HOLLOW CORE PLANK
RF UNDMNT-3	07 2500 - SYNTHETIC ROOFING UNDERLAYMENT
RF VENT-2	07 3113 - SOFFIT/EAUSE STRIP VENT
SHINGLE-1	07 3113 - LAMINATED FIBERGLASS SHINGLES
VINYL SIDING-1	07 4633 - VINYL LAP SIDING
VPR RET-1	07 2500 - 6 MIL POLY VAPOR RETARDER SHEET
VPR RET-2	07 2500 - 10 MIL POLY REINFORCED VAPOR RETARDER
WD SHTG-1	06 1000 - FLOOR SHEATHING, 3/4" OSB, EXPOSURE 1, T&G
WD SHTG-14	06 1000 - 1/2" CDX ROOF SHEATHING WITH H CLIPS
WD SHTG-20	06 1000 - 15/32" OSB WALL SHEATHING
WD SHTG-26	06 1000 - 3/4" PLYWOOD WALL SHEATHING
WTR PRF-2	07 1300 - SELF-ADHERING RUBBERIZED ASPHALT SHEETS

322 1st Ave N, Suite #600  
Minneapolis, MN 55401  
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facsimile 612.746.4754  
www.jlgarchitects.com  
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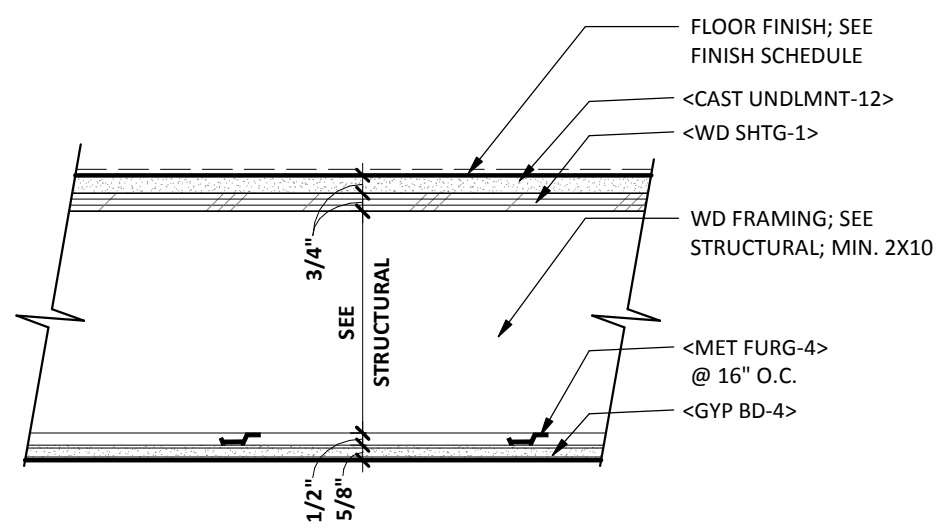
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.  
Noble/Washington, AN/LEED AP  
REG. NO. 48548 DATE

**REVISION SCHEDULE**

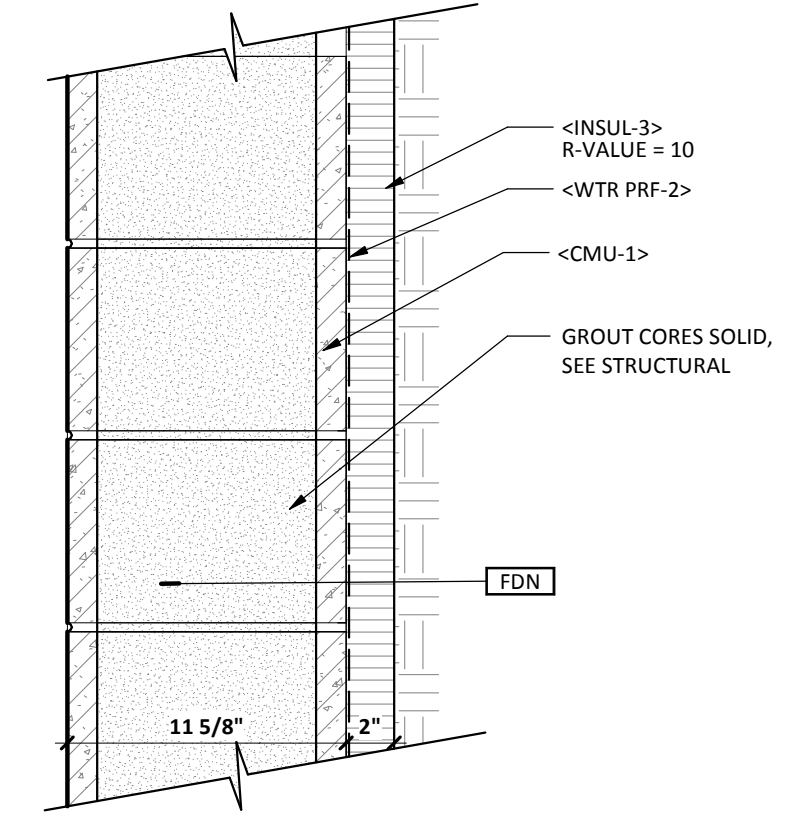
NO.	DESCRIPTION	DATE
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**TYPE WFL1.0**  
RATING: 1HR UL NO: L563



**TYPE WFL2.0**  
RATING: 1HR UL NO: L514

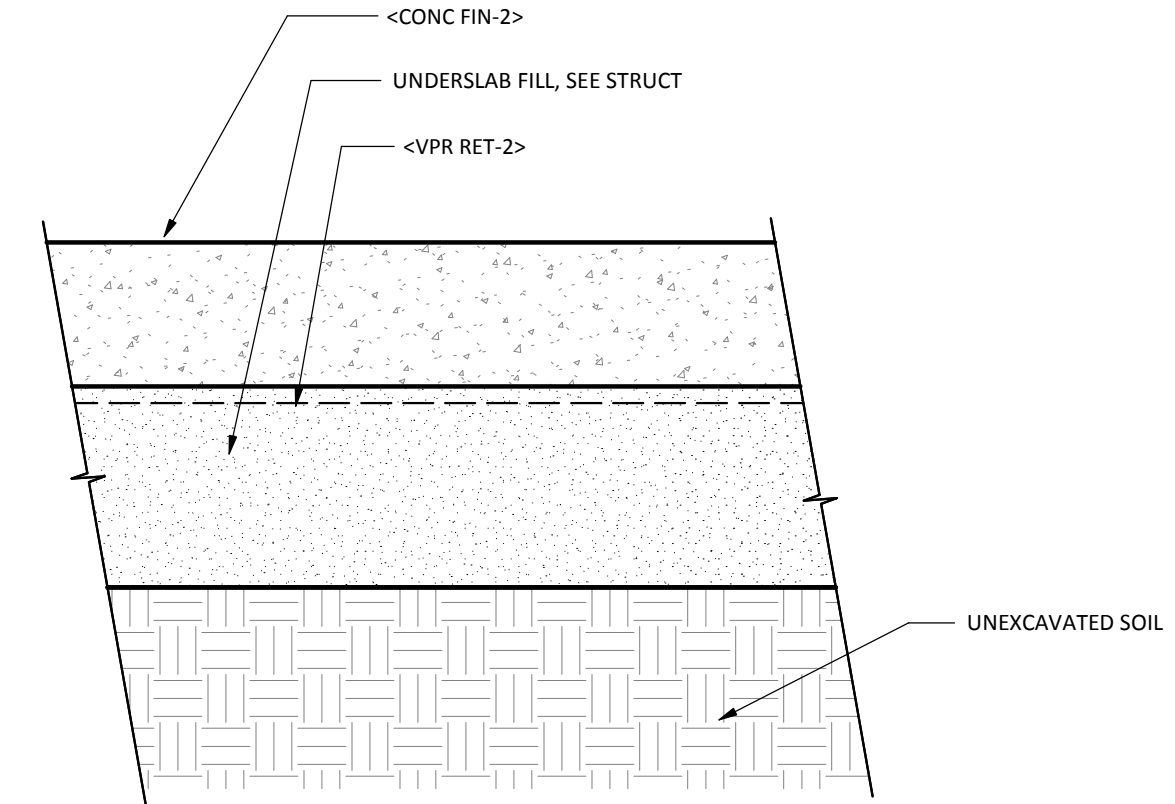


**2C FOUNDATION WALL TYPE**  
SCALE: 1 1/2" = 1'-0"

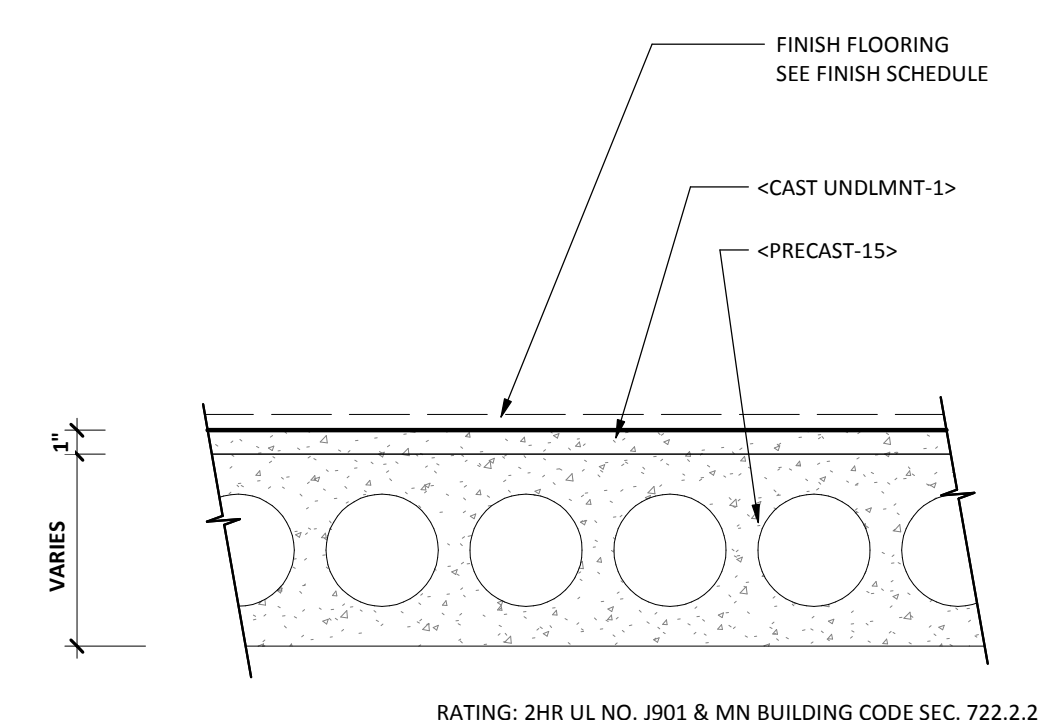
**FOUNDATION WALL TYPE**

WALL TAG	Wall structure	Insulation Thickness	U-VALUE (REQ)	U-VALUE (PROVIDED)	RATING	UL NO.	COMMENTS
FDN							

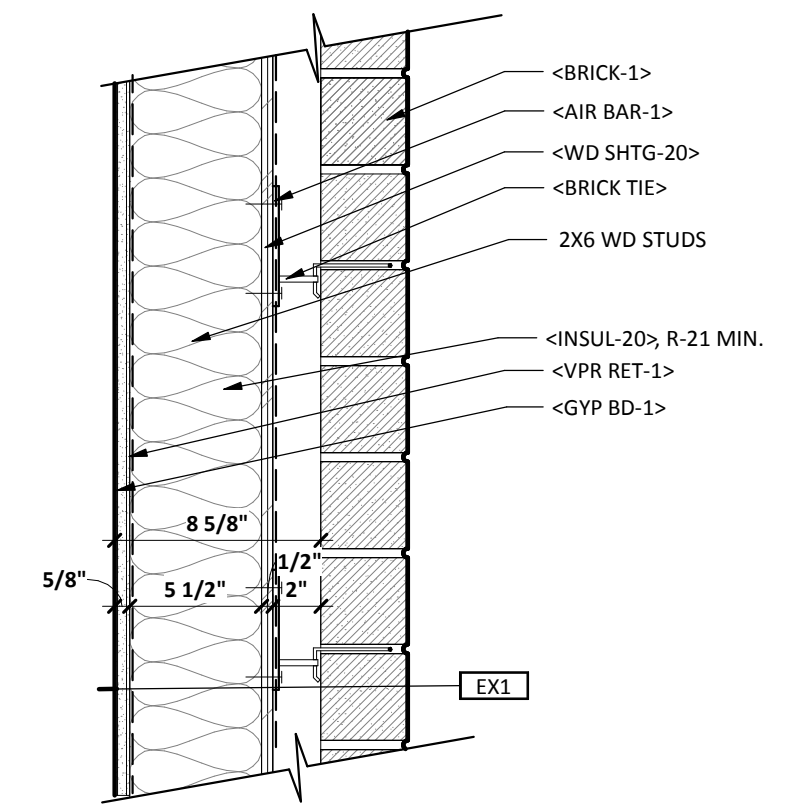
**6B FLOOR TYPE WFL1.0**  
SCALE: 1 1/2" = 1'-0"



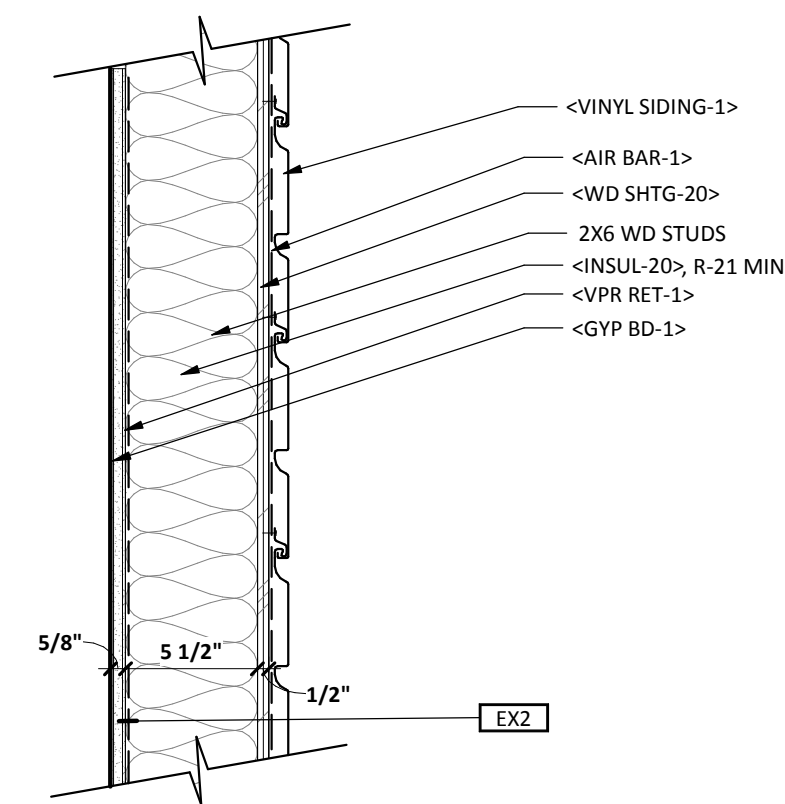
**6A CONCS.O.G.**  
SCALE: 1 1/2" = 1'-0"



**5A PRECAST CONC FLOOR**  
SCALE: 1 1/2" = 1'-0"



**2A EX 1**  
SCALE: 1 1/2" = 1'-0"



**3A EX 2**  
SCALE: 1 1/2" = 1'-0"

**EXTERIOR WALL TYPES**

WALL TAG	Stud Size & Spacing	Width	U-VALUE (REQ)	U-VALUE (PROVIDED)	RATING	UL NO.	COMMENTS
EX1		1' - 0 5/8"	.044		1 HR	U356	
EX2		0' - 8 3/8"	0.45		1 HR	U356	

JLG ARCHITECTS  
**BOTTINEAU RIDGE II APARTMENTS**  
MAPLE GROVE, MN

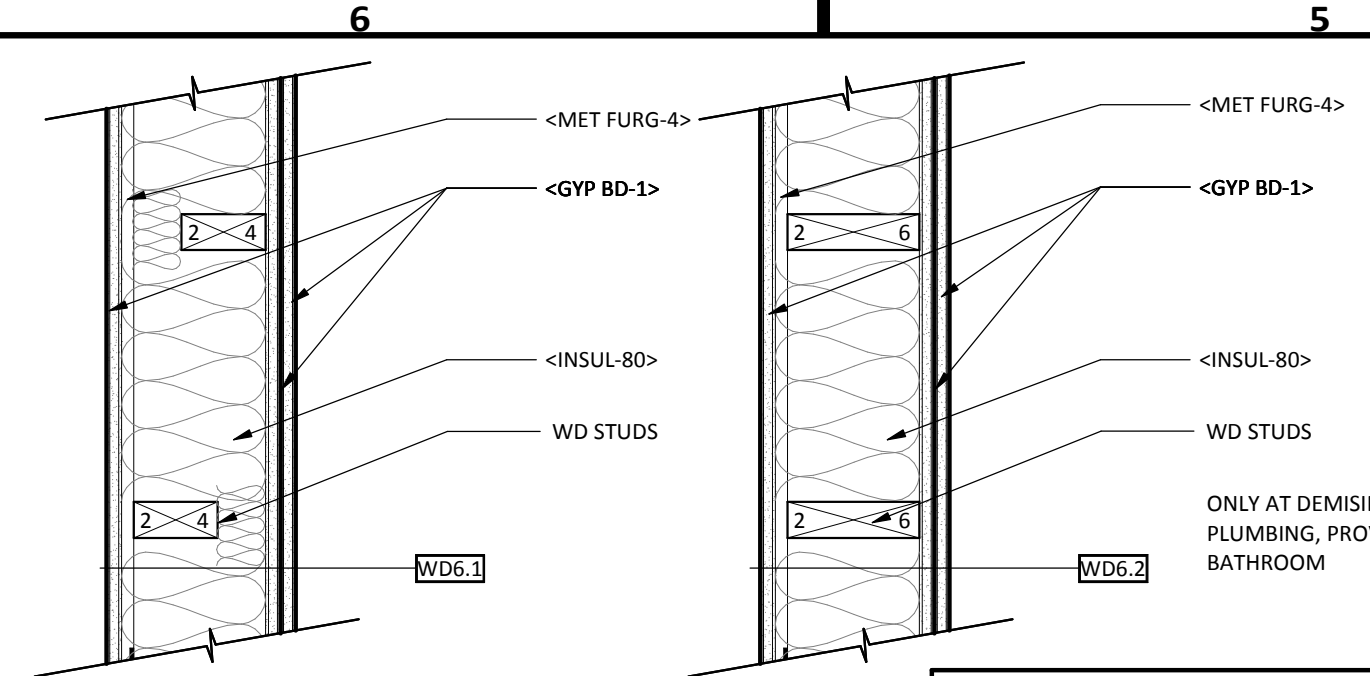
DATE  
**12/04/2017**  
PHASE  
**100% CDs**  
PROJECT  
**16098**  
SHEET  
**G106**  
TYPICAL ASSEMBLIES

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

REG. NO. 48548  
 DATE  
 N. Washburn, AIA/LEED AP

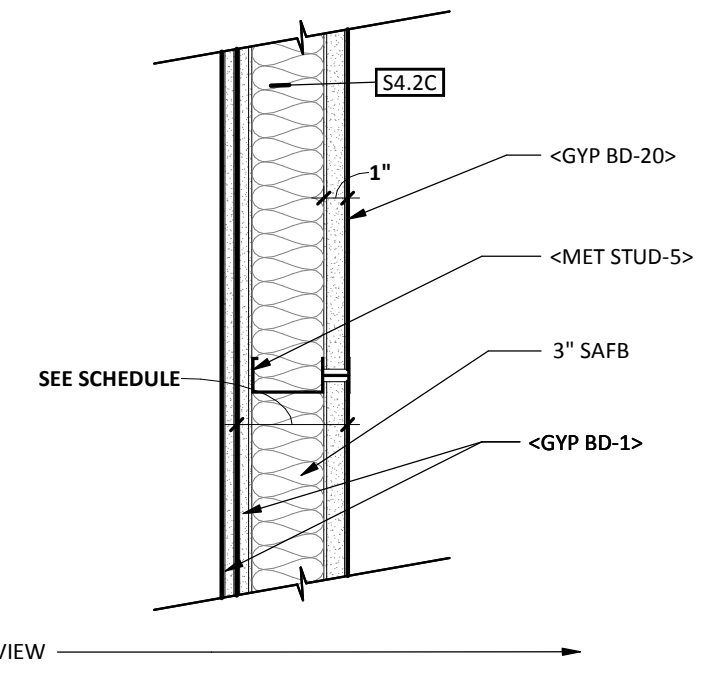
REVISION SCHEDULE		
NO.	DESCRIPTION	DATE

SHEET MATERIAL ID LIST	
MATERIAL ID	SPEC SECTION & DESCRIPTION
CMU-1	04 2000 - NORMAL WEIGHT CMU
FR STOP	07 8400 - THROUGH PENETRATION FIRESTOPPING
GYP BD-1	09 2116 - 5/8" FIRE-RATED TYPE 'X' GYPSUM BOARD
GYP BD-20	09 2116 - 1" FIRE-RATED TYPE 'X' GYPSUM SHAFT LINER
INSUL-80	09 2116 - ACOUSTICAL BATT INSULATION
MET FURG-4	09 2116 - RESILIENT FURRING CHANNELS
MET STUD-5	09 2116 - C-H SHAFTWALL STUDS



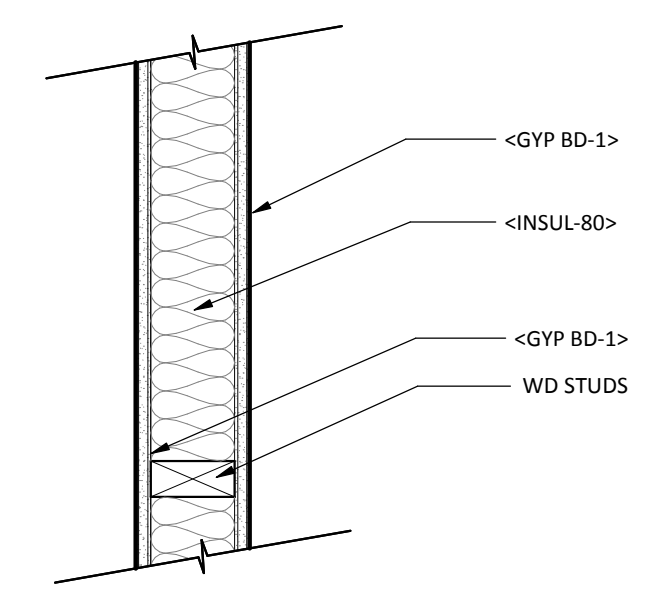
UNIT DEMISING WALL TYPE							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WD6.1	2x6 W.S. @ 16" O.C. MAX	0' - 7 7/8"	5/8"	FILL CAVITY	1 HR	U311	C4.1 2X6 TOP AND BOTTOM PLATES WITH 2X4 STAGGARD STUDS STC: BBN 760903, 9-17-76
WD6.2	2x6 W.S. @ 16" O.C. MAX	0' - 7 7/8"	5/8"	FILL CAVITY	1 HR	U311	C4.1 2X6 TOP AND BOTTOM PLATES WITH 2X6 STUDS STC: BBN 760903, 9-17-76, AT PLUMBING DEMISING WALLS ONLY

**6D**  
**G107**  
 UNIT DEMISING WALL TYP  
 SCALE: 1 1/2" = 1'-0"



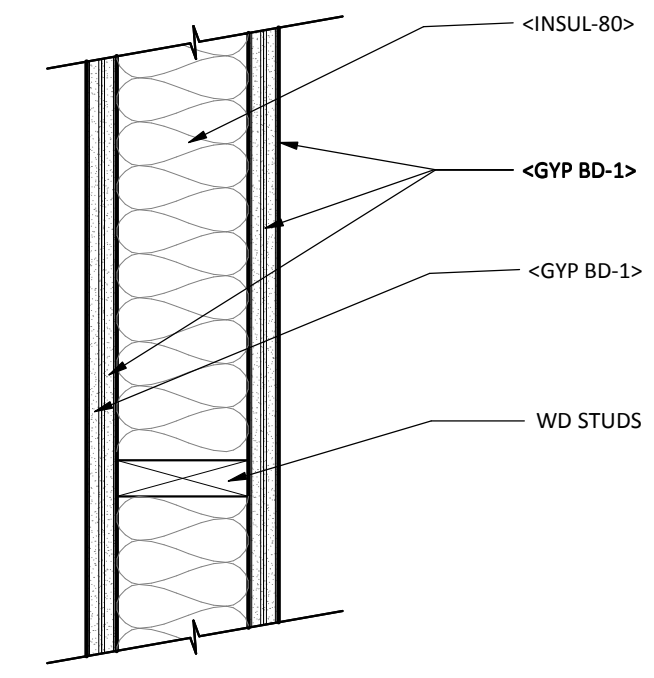
PARTITION TYPE 'S'							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THK (EA. SIDE)	INSUL THICK.	RATING	UL NO.	COMMENTS
S4.2C	4" CH STUD @ 24" O.C.	5 5/8"	5/8" 1" SHAFT LINER	3" SAFB INSULATION	2HR	U415 SYSTEM 'C'	STC 52; SA-910913 FOR ACOUSTICALLY SENSITIVE APPLICATIONS - NON-LOAD-BEARING

**3D**  
**G107**  
 PARTITION TYPE 'S'  
 SCALE: 1 1/2" = 1'-0"



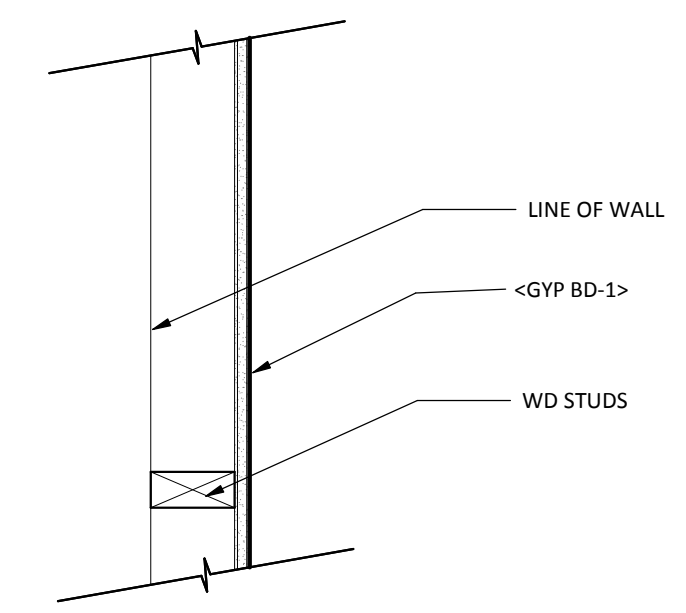
INTERIOR UNIT WALL TYPE							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WA4	3 1/2" W.S. @ 16" O.C.	0' - 4 3/4"	5/8"	FILL CAVITY	0HR	--	--
WA6	5 1/2" W.S. @ 16" O.C.	0' - 6 3/4"	5/8"	FILL CAVITY	0HR	--	--

**6C**  
**G107**  
 INTERIOR UNIT WALL TYPE  
 SCALE: 1 1/2" = 1'-0"



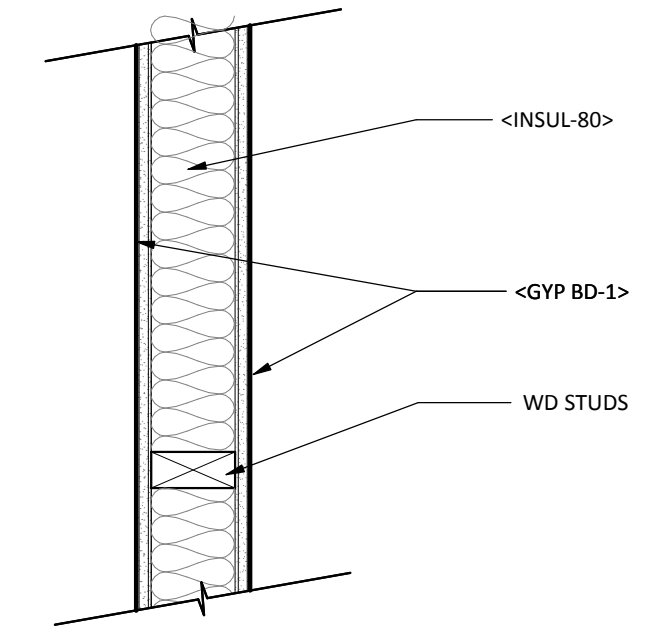
PARTITION TYPE 'WS'							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WS6.2	5 1/2" W.S. @ 16" O.C.	0' - 8"	(2) 5/8"	FILL CAVITY	2HR	U301	STC - 51 (ESTIMATED)

**3C**  
**G107**  
 SHAFT WALL TYPE 'WS'  
 SCALE: 1 1/2" = 1'-0"



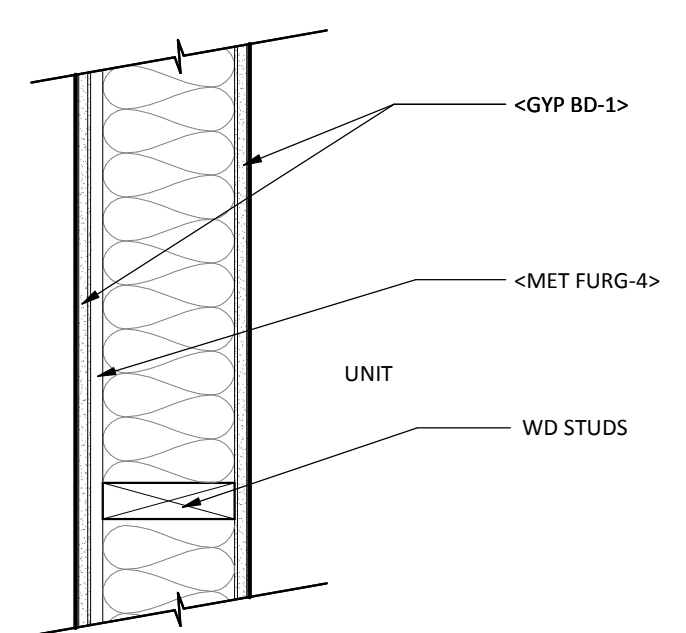
INTERIOR UNIT FURRING WALL TYPE							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WF2	3 1/2" W.S. @ 16" O.C.	0' - 2 1/8"	5/8"	N/A	0HR	--	--
WF4	3 1/2" W.S. @ 16" O.C.	0' - 4 1/8"	5/8"	N/A	0HR	--	--
WF6	5 1/2" W.S. @ 16" O.C.	0' - 6 1/8"	5/8"	N/A	0HR	--	--

**6B**  
**G107**  
 INTERIOR UNIT FURRING WALL TYPE  
 SCALE: 1 1/2" = 1'-0"



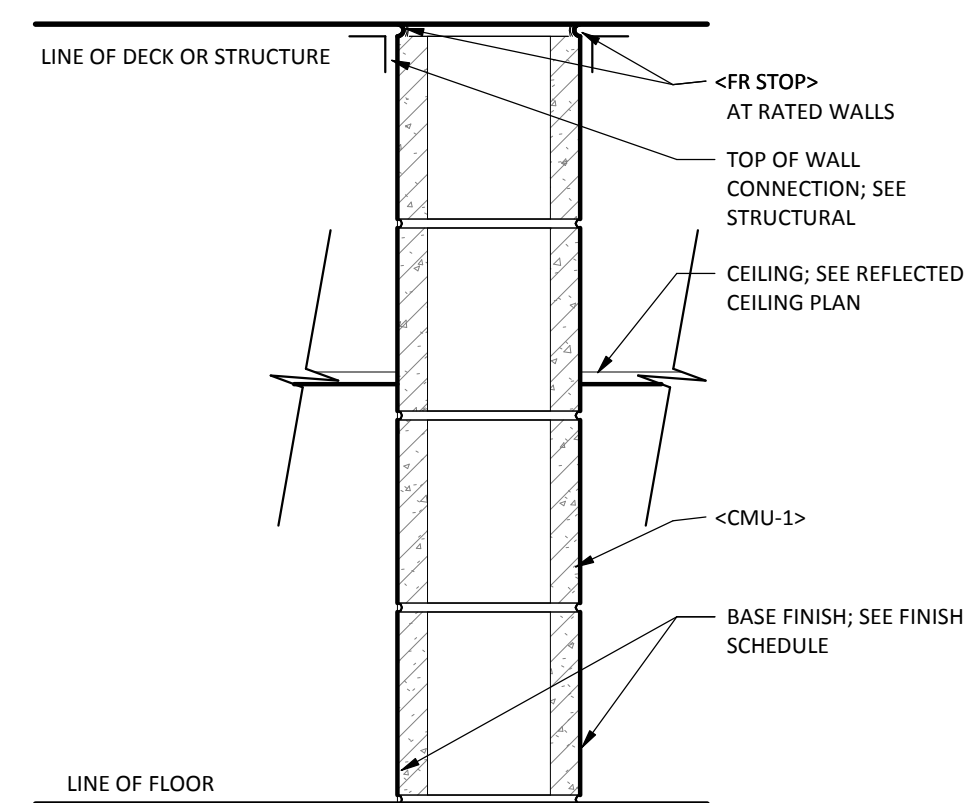
PARTITION TYPE 'WP'							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WP4	3 1/2" W.S. @ 16" O.C.	0' - 4 3/4"	5/8"	--	0HR	--	PROVIDE INSUL-80 AT TOILET ROOM WALLS
WP6	5 1/2" W.S. @ 16" O.C.	0' - 6 3/4"	5/8"	FILL CAVITY	0HR	--	--

**3B**  
**G107**  
 PARTITION TYPE 'WP'  
 SCALE: 1 1/2" = 1'-0"



CORRIDOR WALL TYPE							
WALL TAG	STUD SIZE & SPACING	WIDTH	G.B. THICK	INSUL THICK	RATING	UL NO.	COMMENTS
WC6.1	2x6 W.S. @ 16" O.C.	0' - 7 1/4"	5/8"	FILL CAVITY	1 HR	U311	50 TO 54 FSCTC: BBN 760903, 9-17-76

**6A**  
**G107**  
 CORRIDOR WALL TYPE  
 SCALE: 1 1/2" = 1'-0"



WALL TYPE 'M'					
WALL TAG	CMU SIZE	WIDTH	RATING	UL NO.	COMMENTS
M8	8" CMU	7 5/8"	0HR	--	--
M8.2	8" CMU	7 5/8"	2HR	0907	--
M12	8" CMU	11 5/8"	0HR	--	--

**3A**  
**G107**  
 WALL TYPE 'M'  
 SCALE: 1 1/2" = 1'-0"

See the end of this document for recommended process of completion [\[click to jump to\]](#).  
 The following review was completed by: Dave Mack

BUILDING STATISTICS:	
Site / Lot Area:	198,298 SF
<b>Building Areas:</b>	
Storage Level:	18,693 SF
First Level:	17,640 SF
Second Level:	17,014 SF
Third Level:	17,640 SF
Fourth Level:	17,640 SF
<b>TOTAL</b>	<b>88,627 SF</b>
Building Height:	4 stories, 50 ft.

ZONING / SITE REQUIREMENTS:	
Zoning District:	PUD
Building Use:	Residential Multi-Family
Density/FAR:	
Yard Requirements (setbacks):	
Front:	30 ft per PUD approval
Sides:	15 ft. per PUD approval
Rear:	50 ft. per PUD approval (fire access lane)
	SEE ALSO REQUIREMENTS BASED ON CONSTRUCTION TYPES
Site Coverage Restrictions:	
Height Restrictions:	Per Building Code
Parking Requirements:	50 surface stalls (3 accessible stalls), 50 garage stalls (2 accessible stalls)
Landscaping:	
Possible Variances:	
Other Notes / Requirements:	

**BUILDING CODE ANALYSIS - APPLICABLE GOVERNING CODES:**  
 Building Code: Minnesota Building Code 2015  
 Fire Code: 2015 International Fire Code (IFC) with MN Amendments and City Ordinance  
 Mechanical Code: 2015 Minnesota Mechanical Code 1346 and Fuel Gas Code  
 Energy Code: 2015 MN Energy Code & ASHRAE Standard 90.1-2004  
 Plumbing Code: 2015 MN Plumbing Code

JLG Architects | dave.mack  
 801 Washington Avenue North Unit 120 | Minneapolis, MN 55401 | p:612.746.4260 | f:612.746.4754 | dmack@jlgarchitects.com

120507\_100 CODE ZONING REVIEW

2\16098 maple grove bottineau ridge apts II-3 - project administration\1-a - agencies\city of maple grove - zoning code\100 code zoning review  
 171018 16098 maple grove bottineau ridge ii apts.docx Page 1 of 8

Electrical Code: 2014 National Electrical Code  
 Elevator Code: Minn. Rule 1307, Elevator and Related Devices  
 Accessibility Code: 2015 MN State accessibility Code Chapter 1341  
 Life Safety Code (NFPA).

BUILDING CLASSIFICATION AND LIMITATIONS:	
Occupancy Classification(s) by Code:	Storage Group S2 (Garage level) Residential Group R-2 (Floors 1 thru 4) Assembly Group A3 (Club Room)
Occupancy Separation(s): (Table 508.3.3)	Separation between types S2 and R is 1 hour (for NFPA 13 sprinkler system) Dwelling Unit separation walls to be 1-hour rated fire partitions. Dwelling Unit horizontal separation to be 1-hour rated horizontal assemblies. Club Room at 1493 sf. is an A-3 occupancy, which is less than 10% of the first floor area 19,871 sf., and therefore is an accessory occupancy 508.2. No separation is required between accessory occupancy and the main occupancy 508.2.4.
Non-Separated Uses:	
Incidental Use Areas (Table 508.2)	
Automatic Sprinkler System:	Section 903.3.1.1 NFPA 13 sprinkler system - City Maple Grove requirement. Standpipe System: Group R-2 occupancies small hose connections 905.3.10 Portable Fire Extinguishers:
Construction Type:	Type V-A
Buildings on the Same Lot:	No
Maximum Allowable Area: Basic Limit (Table 503)	12,000 sq ft
Allowable Area with Area Increase	44,196 sq ft
For Frontage	8,196 sq ft per story
For Sprinkler	24,000 sq ft per story
Area Increase Formula	Formula = A <sub>2</sub> = A <sub>1</sub> + [A <sub>1</sub> x I] + [A <sub>1</sub> x L] 12,000 + (12,000 x 0.683) + (12,000 x 2 = 44,196 sq ft per level Frontage Increase = I = [F/P - 0.25]W/30 = (827/886 - 0.25)30/30 = 0.683
Maximum Allowable Heights: Basic Limit	3 stories
Height Modifications:	4 stories - Section 504.2 allows Group R building increase height one story with Section 903.3.1.1 NFPA 13 sprinkler system. 70 ft. - Section 504.2 allows for building height increase of 20 feet with NFPA 13 sprinkler system.
Is this a High Rise Classification:	no
Mixed Occupancy Area Calculation:	
Special Requirements based on Occupancy:	Section 420. Walls and floor assemblies separating dwelling units and dwelling units from other occupancies to be 1-hour fire-rated fire partitions and horizontal assemblies respectively.

FIRE RESTRICTIVE REQUIREMENTS:	
Construction Type:	Type VA
Structural frame (Table 601)	1 hr - Type VA
Roof supports	1 hr - Type VA
Bearing Walls (Table 601)	
Exterior	1 hr - Type VA x HR MN - <b>Not less than that required by Fire Separation Distance.</b> Fire Separation Distance x Occupancy < 5 feet R - 1 hr. ≥ 5 feet, but < 10 feet R - 1 hr. ≥ 10 feet, but < 30 feet R - 1 hr. ≥ 30 feet R - 0 hr.
Interior	1 hr - Type VA (See also occupancy separations and other requirements for fire-resistance ratings)
Interior supporting Roof	1 hr (See also occupancy separations and other requirements for fire-resistance ratings)
Nonbearing walls and partitions (Table 601)	
Exterior	0 hr - Type VA (See also occupancy separations and other requirements for fire-resistance ratings)
Interior	0 hr - Type VA (See also occupancy separations and other requirements for fire-resistance ratings)
Floor Construction (Table 601)	1 hr - Type VA
Roof Construction (Table 601)	1 hr Table 1505.1. Type VA requires Class B roofing.
Exterior Walls (Section 705)	
Projections (Table 705.8)	705.2 Not rated - approved materials. Maximum area of openings at rated exterior wall Fire Separation Distance Unprotected Protected 0'-3' Not permitted 15% 3'-5' Not permitted 15% 5'-10' 10% 25% 10'-15' 15% 45% 15'-20' 25% 75% 20'-25' 45% No Limit 25'-30' 70% No Limit Greater than 30
Parapet	Required, review code to eliminate
Fire Walls (Section 706)	None
Fire Barriers (Section 706 & noted)	2 hrs - Table 706.4 a, R-2 & S-2 in Type V construction.
Shaft Enclosures (707)	2 hrs - 713.4
Elevator Lobby	Not required - 713.14.1.4
Exit enclosures (1022.1)	2 hrs - 1022.2
Exit passageway (1023.1)	2 hrs - 1023.3
Horizontal exit (1025.1)	None, 2 hrs minimum
Attiums (404.5)	NA (712.1.8 two-story openings is not permitted due to 712.1.8.5, is not open to a corridor in a Group R occupancy. But, Section 1009.3 Exception 1 allows for exit access stairways that serve, or atmospherically communicate between,

only two stories are not required to be enclosed.)	
Incidental use areas (508.2)	No separation required.
Central areas (414.2.3)	na
Separation of Mixed Occs	
Exterior walls (705)	705.2.2 Projections from walls of Type V construction shall be of any approved material. 705.5 The required fire-resistance rating of exterior walls with a fire separation distance of greater than 10 feet shall be rated for exposure to fire from the inside (only).

Fire Partitions (Section 706)	
Dwelling Unit Demising Walls	1 hr - 708.3
Corridor Walls (1018.1)	R occupancy 0.5 hrs with sprinkler system, A/B occupancy 0 hrs with sprinkler system, - Table 1018.1 / 708.3.1
Elevator Lobby Walls	Not required 713.14.1.4
Horizontal Assemblies	1 hr @ all floors - Table 601 (S - Section 903.3.1.1)

- Definitions:
- Fire Wall (Section 705): A fire-resistance-rated wall having protected openings, which restrict the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall. Used to create separate buildings. NOT USED.
  - Fire Barrier (Section 706): A fire-resistance-rated wall assembly of materials designed to restrict the spread of fire in which continuity is maintained.
  - Fire Partition: A vertical assembly of materials designed to restrict the spread of fire in which openings are protected.
  - Fire Separation Distance: The distance measured from the building face to one of the following:
    - To closest interior lot line
    - To the centerline of a street, alley or public way
    - To an imaginary line between two buildings on the property
  - Shaft: An enclosed space extending through one or more stories of a building, connecting vertical openings in successive floor, or floors and roof.

ADDITIONAL FIRE REQUIREMENTS:	
Penetrations (Section 714)	Section 714
Joint Systems (Section 715)	Section 715
Structural Members (Section 714)	See requirements above from Table 601. Shall not be less than the rating required for the fire-resistance-rated assemblies supported.
Opening Protectives (Section 716)	1 1/2 hrs @ 2 hr shafts, 1 hr @ 1 hr fire barriers for shafts, exit enclosures, 3/4 hr @ other 1 hr fire-rated fire barriers & fire partitions, 1/3 hr @ 0.5 hr corridor walls
Duct/Transfer Openings (717)	Section 717: 1.5 hours minimum damper rating for less than 3-hour fire-resistance-rated assemblies.
Concealed Spaces (Section 718)	
Fireblocking:	Section 718.2
Draftstopping Floor/Ceiling:	Section 718.2. Draftstopping shall be located above and in line with the dwelling unit separation.
Draftstopping in Attic:	Section 718.4.2 Groups R-1 and R-2, Exception 2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

EGRESS REQUIREMENTS (IBC CHAPTER 10)	
Occupancy:	
Occupant Load: (Section 1004)	Residential (200 gross); 215 occupants Garage (200 gross); 18,693 sq ft = 93 occupants Storage/Mechanical (300 gross); 4 occupants A-3 Assembly without fixed seats, unconcentrated - tables and chairs (15 net); 1176/15

Stair Min Width:	= 78 occupants 44 inches. Section 1009.4.
Accessible Means of Egress (Section 1007)	Where more than one means of egress is required (by Section 1015.1 or 1019.1) from an accessible space, not less than two accessible means of egress are required.
Exit Stairways	To be accessible means of egress, do not require area of refuge in Group R-2 occupancy. Section 1007.3, Exception 6. To be accessible means of egress, clear width of 48 inches is not required if fully NFPA 13 sprinklered. Section 1007.3, Exception 2.
Elevators	Elevator not required to be accessed from area of refuge if fully NFPA 13 sprinklered. Section 1007.4, Exception 2.
Two-way communication	Required at the elevator landing on each accessible floor that is one or more stories above or below the story of exit discharge. Section 1007.8.
Heights (Net Clear)	
Ceiling Height	1208.2, 7'-6"
Stair Clearance	1009.5, 6'-8"
Door Clearance	1008.1.1, 6'-8"
Stairways (Section 1009)	
Width	0.2 inch per occupant in NFPA 13 buildings.
Headroom	1009.5, 6'-8"
Max Ht between landings	1009.5, 6'-8"
Handrails	1009.15, 1012.
Stair Run/Risers	1009.7
Ramps (Section 1010)	
Handrails	1010.9, 1012.
Common Path of Egress:	Table 1014.3. S - 100 ft, R-2 - 125 ft. with 903.3.1.1 - NFPA 13
Exit Access:	1014.
Exit Access Travel Distance:	Table 1016.2. S-2 - 400 ft., R - 250 ft. with 903.3.1.1 - NFPA 13.

ACCESSIBILITY (MN ACCESSIBILITY CODE) ICC/ANSI A117.1-2003 REFERENCED UNO	
Building Entrances:	60% of building entrances must be accessible
Type A Accessible Dwelling Units:	2 required accessible units without roll-in showers and 0 accessible unit with roll-in shower (MFHA requires 5% of units = 3 total - 2 without roll-in shower and 1 with roll-in shower). Table 1007.6.1.1.
Accessible Parking Stalls:	2 required stalls (MFHA requires 3 stalls both garage parking and surface parking, 1 - per accessible unit). Table 1106.1.
Accessible Dwelling Units with Accessible Communication:	Not required for R2 occupancy (MFHA requires at least 2% of units with one Type A unit, but not more than 10%, to be an Accessible Communication unit.)
Type B Units:	All non-Type A units. Section 1107.6.2.1.2. All bathrooms shall be a Type B - Option A bathroom.

\*STANDARD HOUSING ACCESSIBILITY REVIEW AVAILABLE

INTERIOR ENVIRONMENT (IBC CHAPTER 12)	
Ventilation:	
Temperature Control:	System must provide 68 degree temp at a point 3ft above floor on the design heating day.
Lighting:	
Sound Transmission (DWELLING UNITS ONLY)	Common interior walls, partitions, and floor ceiling assemblies between adj dwelling units or between dwelling units and public spaces.
Omitted in ND (verify):	Air-borne sound: STC > 50 STC (45 Field IIC) - tested in accordance with ASTM E 90.

Treat openings, penetrations, etc. to maintain rating (except entry doors).	
Structure-borne sound: IIC > 50 STC (45 Field IIC) - per ASTM E 492	
Interior Space Dimensions:	Section 1208.3.
Access to Unoccupied Spaces:	Section 1209.
Surrounding Materials:	Section 1210.

**ENERGY EFFICIENCY (IBC CHAPTER 13 - 2015 MINNESOTA ENERGY CODE)**  
 See International Energy Conservation Code and local amendments.  
 Complete necessary documentation.

Building Envelope (Prescriptive):	Tables C402.1.2 / C402.2 - Climate zone 6 - Group R Roofs: Attic and other - U-0.021 / R49 Walls, Above Grade: Wood framed and other - U-0.051 / R-13 + R-7.5ci or R-20 + R3.8ci Walls, Below Grade: Below-grade wall - C-0.119 / R-7.5ci Floors, Mass - U-0.057 / R-12.5ci Slab-on-Grade Floors: Unheated slabs - F-0.52 / R-15 for 24" below Opaque Doors: Swinging - U-0.37, Rollup - R-4.75
Fenestration (Prescriptive):	C402.3.1 Maximum Area. Vertical fenestration shall not exceed 30% of the gross above-grade wall area. Table C402.3 - Climate zone 6 Vertical fenestration U-factor: Fixed fenestration - 0.36, Operable fenestration - 0.43, Entrance doors - 0.77, & SHGC - 0.40.
Air Leakage:	C402.4.1 Air barriers. A continuous air barrier shall be provided throughout the building thermal envelope. C402.4.1.2 Air barrier compliance options. C402.4.1.2.1 Materials. Joints to be sealed and materials are installed as air barriers. Item 15. Precast concrete C402.4.1.2.2 Assemblies. Item 1. Concrete masonry walls coated with one application of block filler and two applications of a paint or sealer coating.
Air Leakage Fenestration:	Table C402.4.3. Maximum Air Infiltration Rate (CFM/FT <sup>2</sup> ): Windows - 0.20, Sliding doors - 0.20, Swinging doors - 0.20, Storefront glazing - 0.06, Commercial glazed swinging entrance doors - 1.00, Garage doors - 0.40.
Vestibules:	C402.4.7 Vestibules. All building entrances shall be protected with an enclosed vestibule. Exceptions: 3. Doors opening directly from dwelling unit 4. Doors that open directly form a space less than 3,000 sq. ft. in area. 6. Doors used primarily to facilitate vehicular movement of material handling and adjacent personnel doors.

**STRUCTURAL AND SPECIAL TESTING (IBC CHAPTER 17)**

REVIEW Chapter: Obtain input and approval from engineers.				
Fill in the following table format:				
Item Requiring Testing	Required Standard	Type of Inspector	Frequency	Responsible for Inspections

PLUMBING FIXTURE REQUIREMENTS (IBC CHAPTER 29 & LOCAL CODES)		
Plumbing Fixture Counts:	Men	Women
Lavs (Sinks)	A-3: 96 occupants (48 men & 48 women) 1 per 200	1 per 200

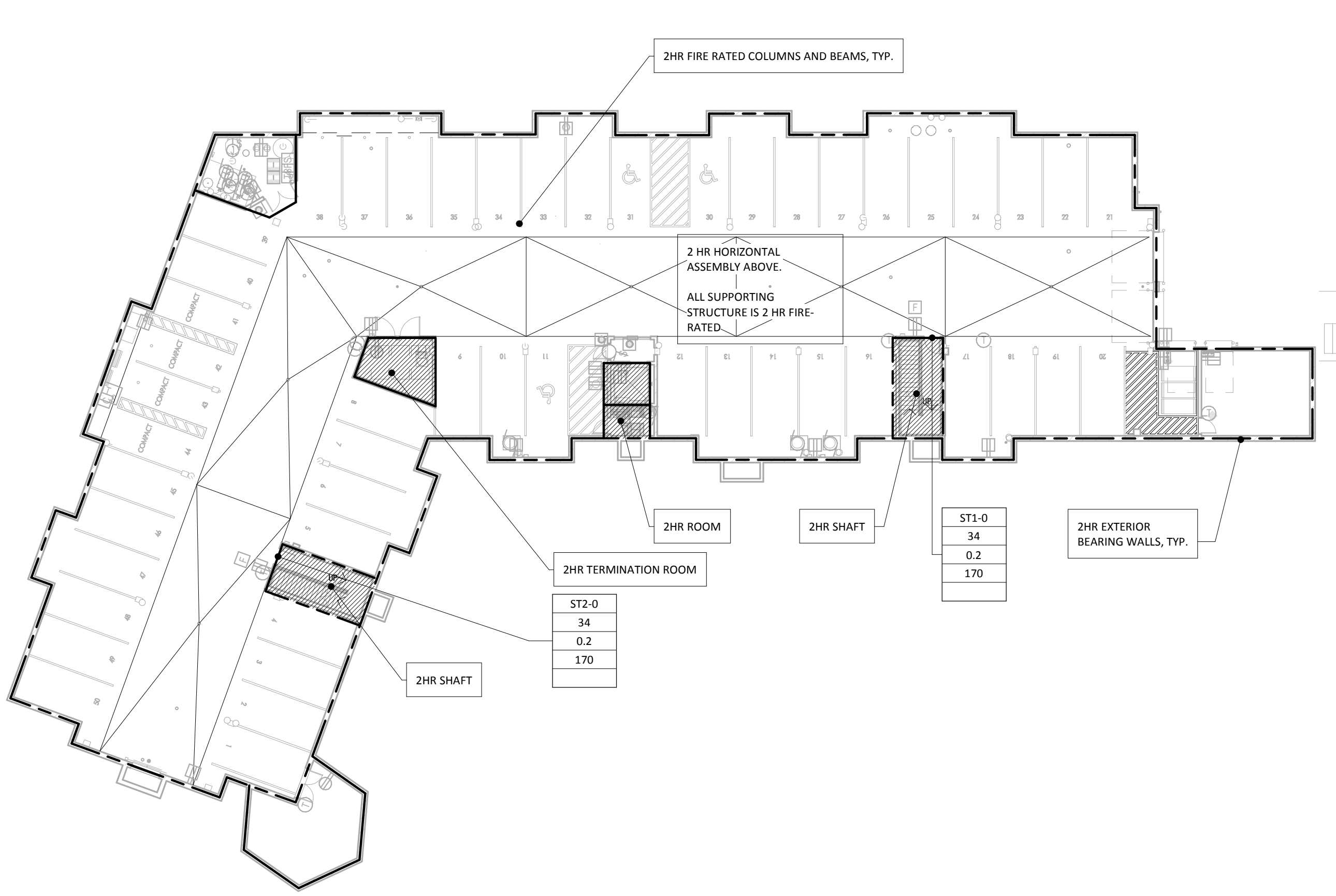
## FIRST FLOOR AREA SCHEDULE

NUMBER	NAME	AREA	OCCUPANCY CLASSIFICATION (IBC CHAPTER 3)	FUNCTION OF SPACE	IBC CHAPTER 10			REMARKS	Level
					FLOOR AREA PER OCCUPANT	SF PER OCC. MEASUREMENT	MAX. ALLOWABLE OCCUPANT LOAD		
	Area	225 SF	(none)	(none)					FIRST FL T.O. CAST UNDERLAYMENT
	Area	50 SF	(none)	(none)					FIRST FL T.O. CAST UNDERLAYMENT
101	CLUB ROOM	1,195 SF	A-3	ASSEMBLY - W/O FIXED SEATING - UNCONCENTRATED	15	NET	80		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 1A	Area	683 SF	R-3	RESIDENTIAL	200	GROSS	4		THIRD FLOOR
UNIT 1A	Area	683 SF	R-3	RESIDENTIAL	200	GROSS	4		SECOND FLOOR
UNIT 1A	Area	686 SF	R-3	RESIDENTIAL	200	GROSS	4		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2A	Area	977 SF	R-3	RESIDENTIAL	200	GROSS	5		THIRD FLOOR
UNIT 2A	Area	976 SF	R-3	RESIDENTIAL	200	GROSS	5		THIRD FLOOR
UNIT 2A	Area	1,030 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 2A	Area	978 SF	R-3	RESIDENTIAL	200	GROSS	5		SECOND FLOOR
UNIT 2A	Area	979 SF	R-3	RESIDENTIAL	200	GROSS	5		SECOND FLOOR
UNIT 2A	Area	1,028 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 2A	Area	978 SF	R-3	RESIDENTIAL	200	GROSS	5		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2A	Area	978 SF	R-3	RESIDENTIAL	200	GROSS	5		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2A	Area	1,028 SF	R-3	RESIDENTIAL	200	GROSS	6		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2A	Area	977 SF	R-3	RESIDENTIAL	200	GROSS	5		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2B	Area	940 SF	R-3	RESIDENTIAL	200	GROSS	5		THIRD FLOOR
UNIT 2B	Area	940 SF	R-3	RESIDENTIAL	200	GROSS	5		SECOND FLOOR
UNIT 2B	Area	941 SF	R-3	RESIDENTIAL	200	GROSS	5		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 2C	Area	1,068 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 2C	Area	1,056 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 2C	Area	1,062 SF	R-3	RESIDENTIAL	200	GROSS	6		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 3A	Area	1,301 SF	R-3	RESIDENTIAL	200	GROSS	7		THIRD FLOOR
UNIT 3A	Area	1,039 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 3A	Area	1,294 SF	R-3	RESIDENTIAL	200	GROSS	7		SECOND FLOOR
UNIT 3A	Area	1,013 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 3A	Area	1,298 SF	R-3	RESIDENTIAL	200	GROSS	7		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 3B	Area	1,200 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 3B	Area	1,193 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 3B	Area	1,194 SF	R-3	RESIDENTIAL	200	GROSS	6		THIRD FLOOR
UNIT 3B	Area	1,199 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 3B	Area	1,197 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 3B	Area	1,197 SF	R-3	RESIDENTIAL	200	GROSS	6		SECOND FLOOR
UNIT 3B	Area	1,192 SF	R-3	RESIDENTIAL	200	GROSS	6		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 3B	Area	1,189 SF	R-3	RESIDENTIAL	200	GROSS	6		FIRST FL T.O. CAST UNDERLAYMENT
UNIT 3C	Area	1,402 SF	R-3	RESIDENTIAL	200	GROSS	7		THIRD FLOOR
UNIT 4A	Area	1,540 SF	R-3	RESIDENTIAL	200	GROSS	8		THIRD FLOOR
UNIT 4A	Area	1,530 SF	R-3	RESIDENTIAL	200	GROSS	8		SECOND FLOOR
UNIT 4A	Area	1,546 SF	R-3	RESIDENTIAL	200	GROSS	8		FIRST FL T.O. CAST UNDERLAYMENT
		40,985 SF					295		

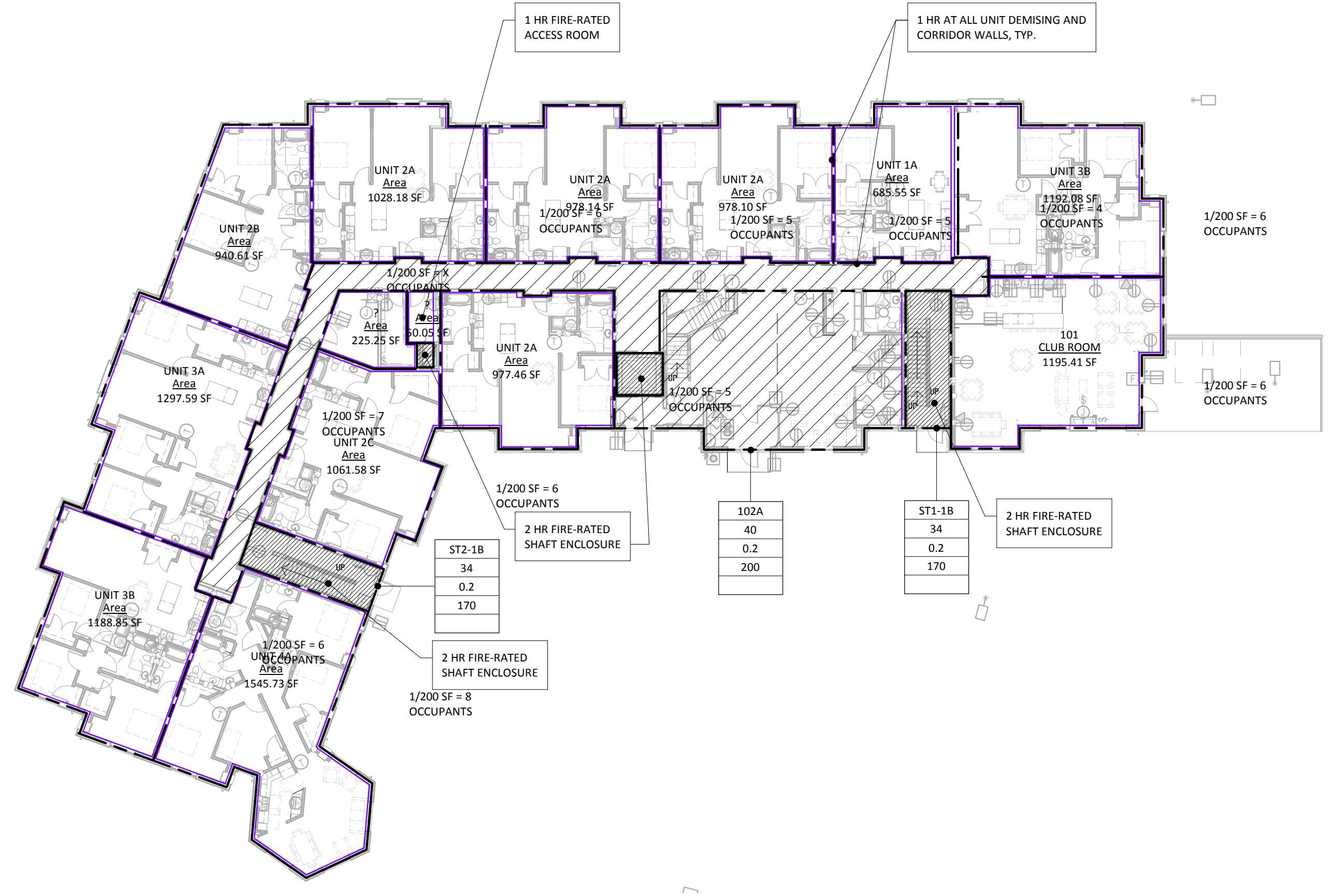
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

North/Washington, AN/LEED AP  
REG. NO. 48548  
DATE

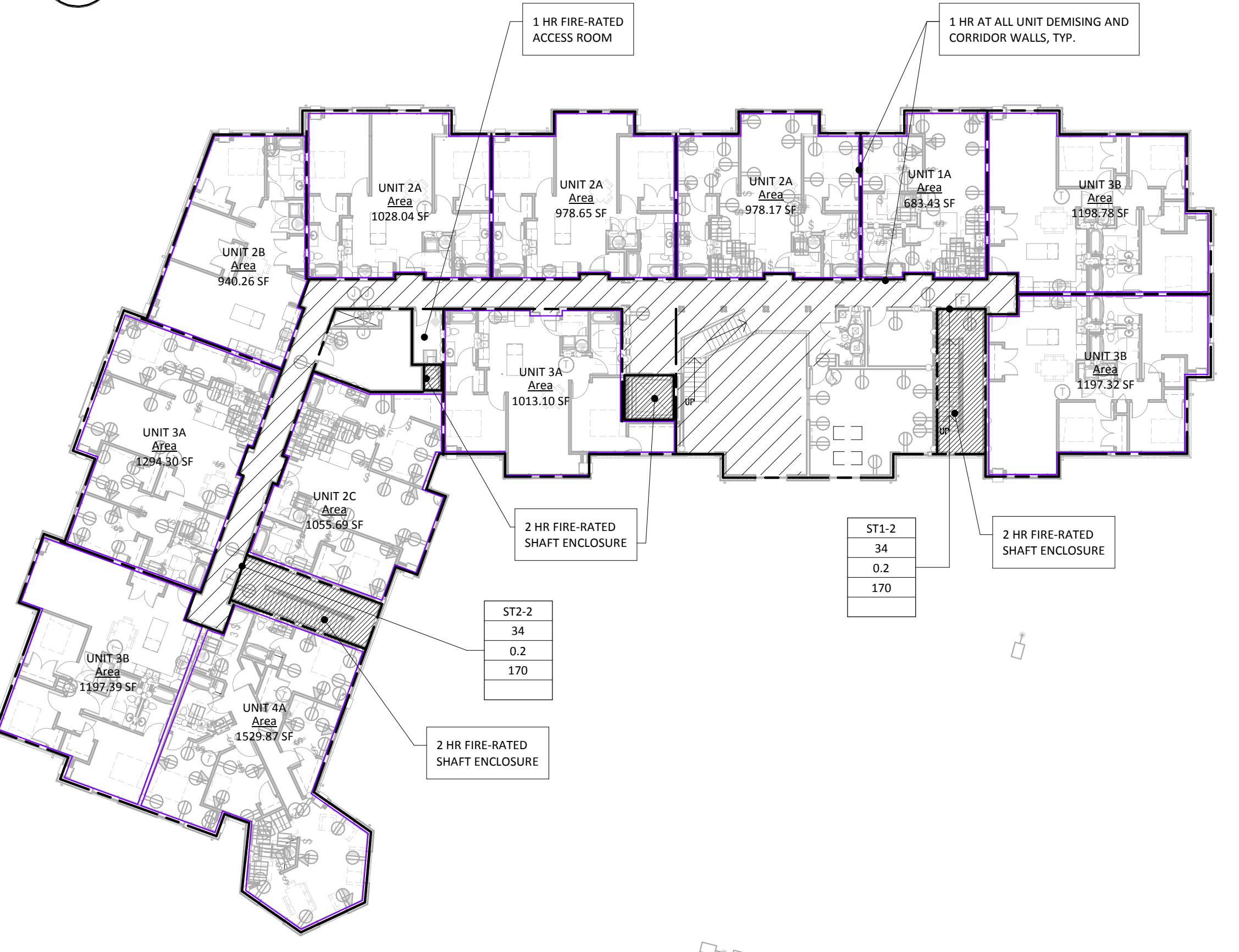
REVISION SCHEDULE		
NO.	DESCRIPTION	DATE



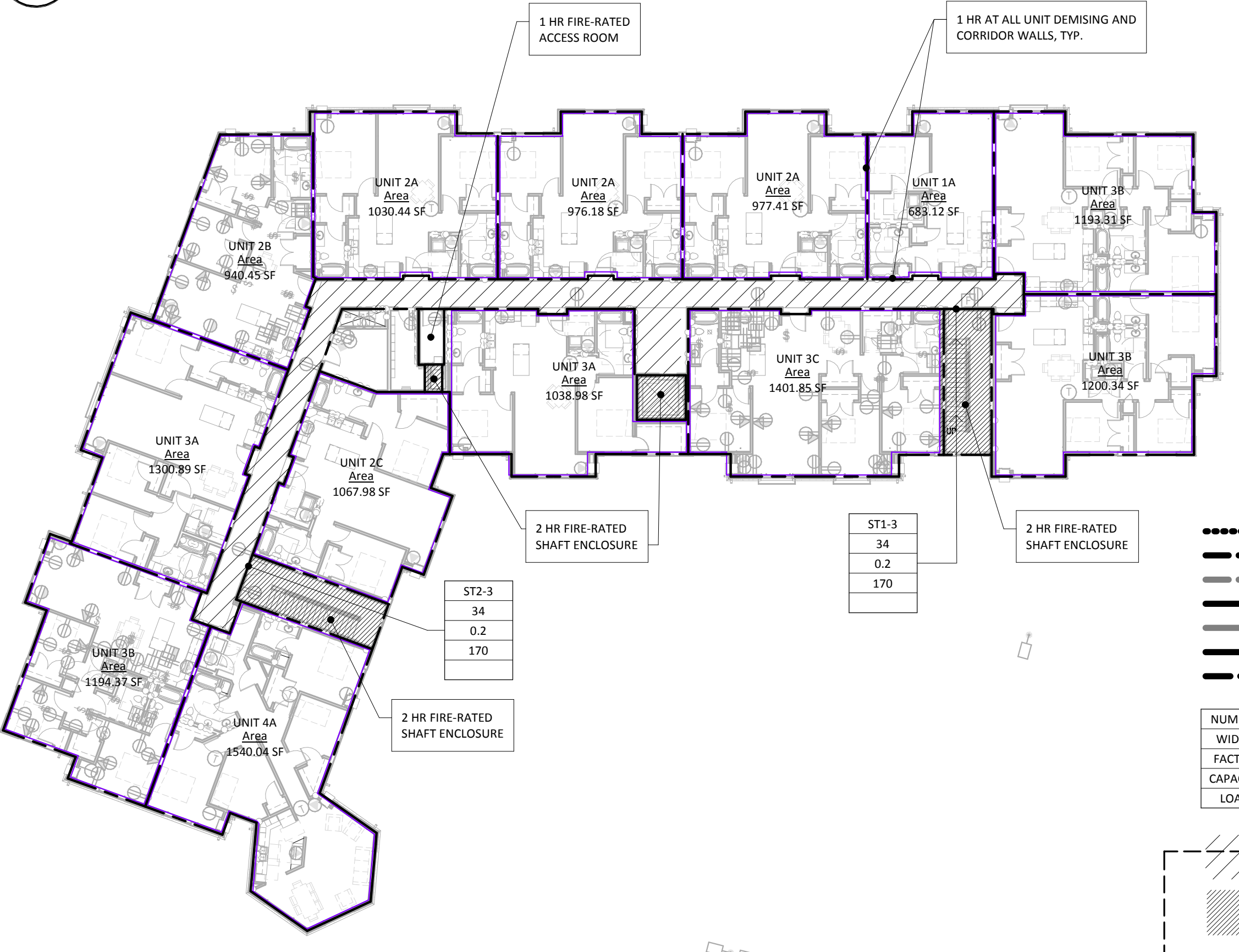
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G111 SCALE: 1" = 20'-0"



**2** FIRST FLOOR LIFE SAFETY  
G111 SCALE: 1" = 20'-0"



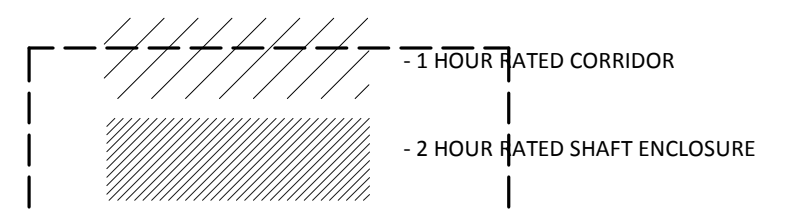
**3** SECOND FLOOR LIFE SAFETY  
G111 SCALE: 1" = 20'-0"



**4** THIRD AND FOURTH FLOOR LIFE SAFETY  
G111 SCALE: 1" = 20'-0"

- ..... - 0.5 HOUR RATED WALL
- - 1 HOUR RATED WALL
- - EXISTING 1 HOUR RATED WALL
- - 2 HOUR RATED WALL
- - EXISTING 2 HOUR RATED WALL
- - 3 HOUR RATED WALL
- - 4 HOUR RATED WALL

NUMBER	ELEMENT ID
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← FACTOR	← EGRESS
← CAPACITY	← EGRESS
← LOAD	← EGRESS



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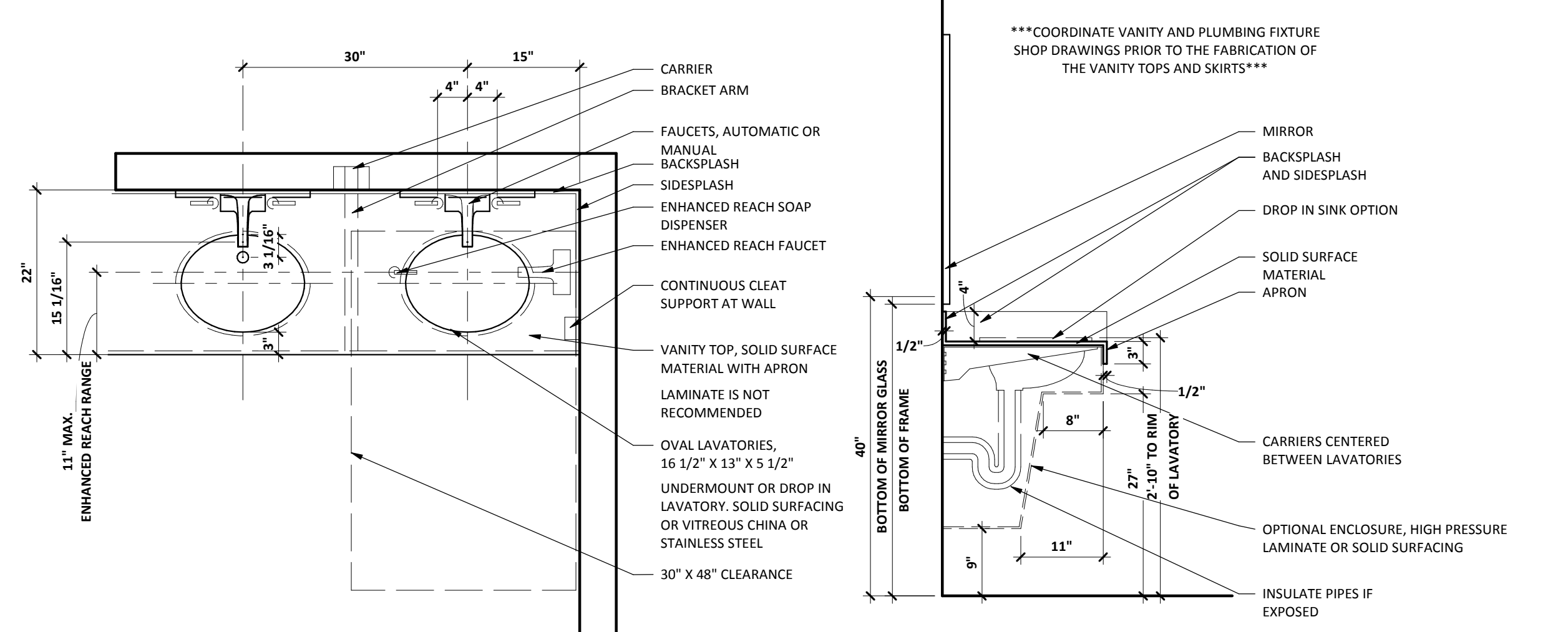
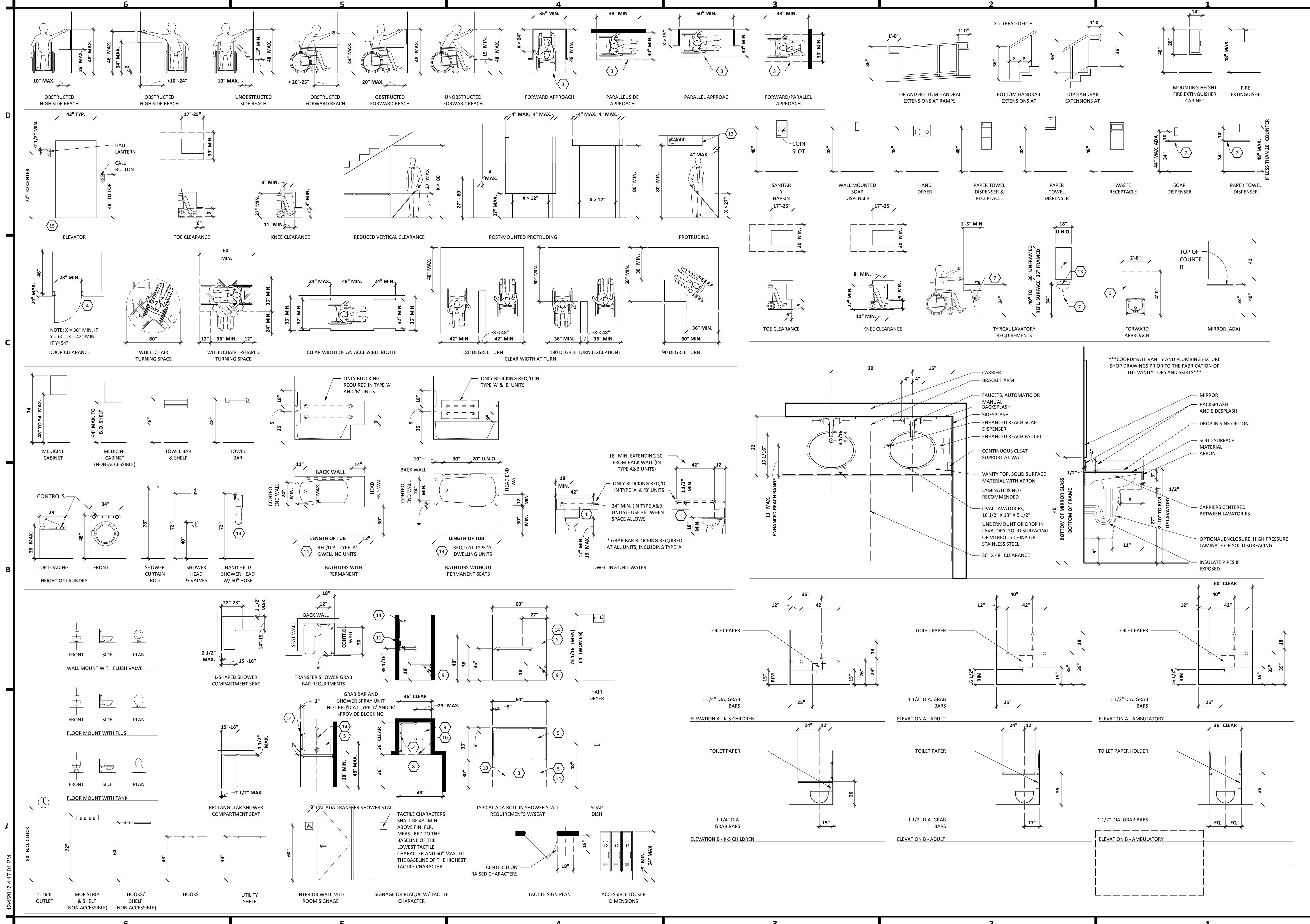
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**12/04/2017**

PHASE  
**100% CDs**

PROJECT  
**16098**

SHEET  
**G111**  
LIFE SAFETY PLANS

REVISION SCHEDULE		
NO.	DESCRIPTION	DATE



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