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NOT FOR  
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BID SET  
04-10-18

NO DATE REVISIONS

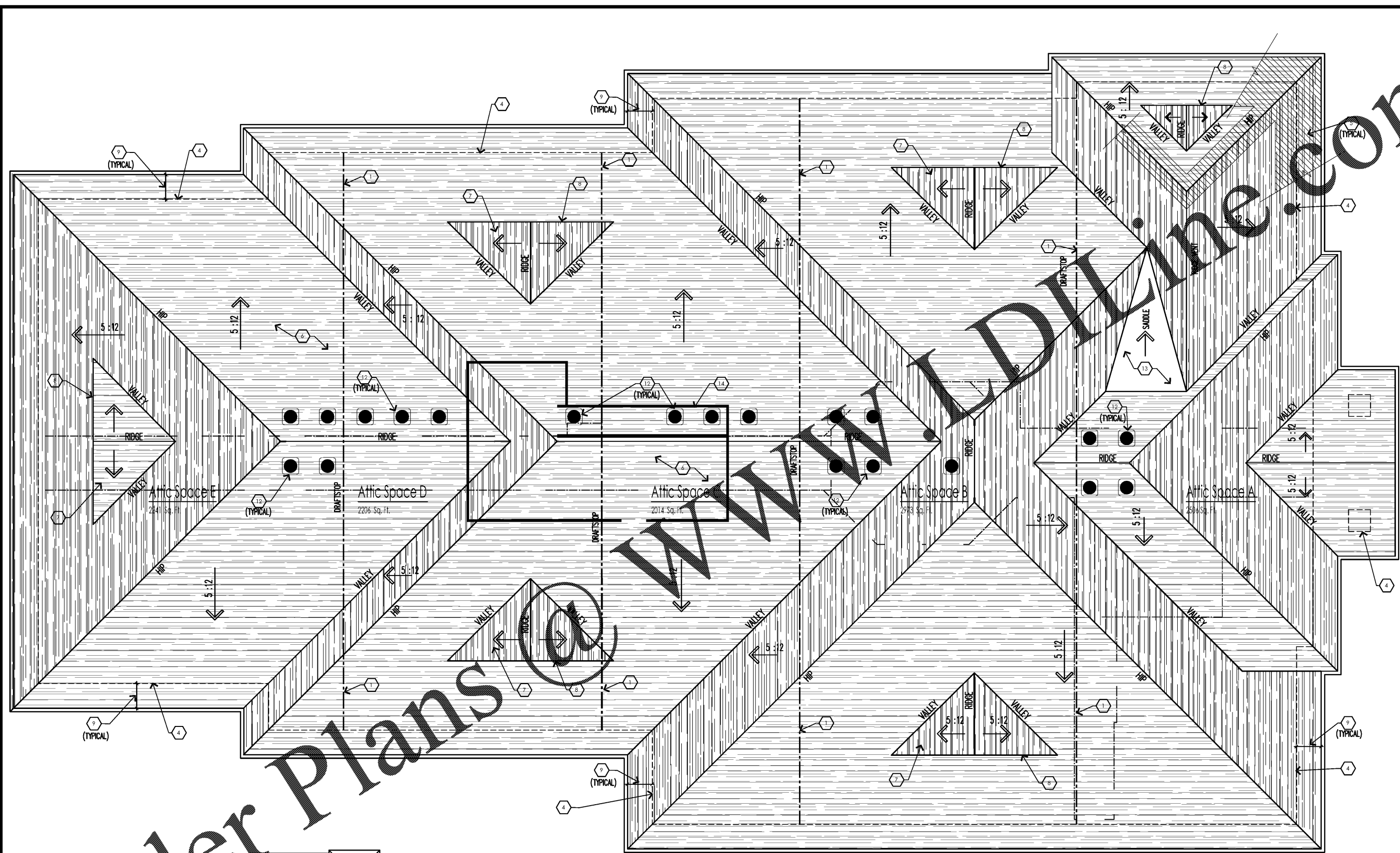


RAINBOW CHILD  
CARE CENTER  
C - PROTOTYPE  
2609 W. LAKE MARY BLVD.  
LAKE MARY, FL 32746

PROJECT NO: 2017.0250  
DATE: 12.22.17

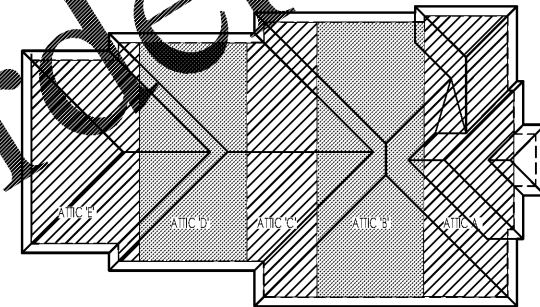
A.104  
ROOF PLAN

CHECKED: RC DRAWN: JC



ROOF PLAN

3/16"



VENTILATION DIAGRAM PLAN

Attic 'A' Ventilation Calculation:

1 SQ. FT. OF ATTIC VENT PER 300 SQ. FT. OF ATTIC FLOOR SPACE (COVER ALL PERIMETER OF ROOF)  
TOTAL ATTIC SPACE: 2,908 SQ. FT.  
2,908 SQ. FT. / 300 SQ. FT. = 9.7 SQ. FT.  
8.4 SQ. FT. / 2 (INTAKE/EXHAUST) = 4.2 SQ. FT.  
4.1 SQ. FT. X 144 IN. = 590.4 SQ. IN. (NET FREE AREA REQUIRED)  
VENTILATION EXHAUST OPTIONS:  
ROOF LOUVER: 8-14 ROUND METAL DOME VENT BY AIR VENT EQUALS 144 NFA PER PIECE: 590.4 SQ. IN. / 144 NFA = 4.1 STATIC VENTS REQ'D.  
PROPOSED VENTILATION EXHAUST:  
4 STATIC ROOF VENTS PROVIDED  
VENTILATION INTAKE CALCULATIONS:  
590.4 SQ. IN. (NET FREE AREA REQUIRED) - SEE ABOVE  
AIR VENT UNDER EAVE VENT 18"x6" EQUALS 42 SQ. IN. NFA PER PIECE: 590.4 SQ. IN. / 42 NFA = 14.1 = 14 VENTS REQ'D.  
PROPOSED VENTILATION INTAKE:  
17 VENTS PROVIDED

Attic 'B' Ventilation Calculation:

1 SQ. FT. OF ATTIC VENT PER 300 SQ. FT. OF ATTIC FLOOR SPACE (COVER ALL PERIMETER OF ROOF)  
TOTAL ATTIC SPACE: 2,979 SQ. FT.  
2,979 SQ. FT. / 300 SQ. FT. = 9.9 SQ. FT.  
10.0 SQ. FT. / 2 (INTAKE/EXHAUST) = 5.0 SQ. FT.  
5.0 SQ. FT. X 144 IN. = 720.0 SQ. IN. (NET FREE AREA REQUIRED)  
VENTILATION EXHAUST OPTIONS:  
ROOF LOUVER: 8-14 ROUND METAL DOME VENT BY AIR VENT EQUALS 144 NFA PER PIECE: 720.0 SQ. IN. / 144 NFA = 5.0 STATIC VENTS REQ'D.  
PROPOSED VENTILATION EXHAUST:  
5 STATIC ROOF VENTS PROVIDED  
VENTILATION INTAKE CALCULATIONS:  
720.0 SQ. IN. (NET FREE AREA REQUIRED) - SEE ABOVE  
AIR VENT UNDER EAVE VENT 18"x6" EQUALS 42 SQ. IN. NFA PER PIECE: 720.0 SQ. IN. / 42 NFA = 17.1 = 17 VENTS REQ'D.  
PROPOSED VENTILATION INTAKE:  
17 VENTS PROVIDED

Attic 'C' Ventilation Calculation:

1 SQ. FT. OF ATTIC VENT PER 300 SQ. FT. OF ATTIC FLOOR SPACE (COVER ALL PERIMETER OF ROOF)  
TOTAL ATTIC SPACE: 12,142 SQ. FT.  
12,142 SQ. FT. / 300 SQ. FT. = 40.5 SQ. FT.  
40.5 SQ. FT. / 2 (INTAKE/EXHAUST) = 20.25 SQ. FT.  
20.25 SQ. FT. X 144 IN. = 2916.0 SQ. IN. (NET FREE AREA REQUIRED)  
VENTILATION EXHAUST OPTIONS:  
ROOF LOUVER: 8-14 ROUND METAL DOME VENT BY AIR VENT EQUALS 144 NFA PER PIECE: 2916.0 SQ. IN. / 144 NFA = 20.25 STATIC VENTS REQ'D.  
PROPOSED VENTILATION EXHAUST:  
20 STATIC ROOF VENTS PROVIDED  
VENTILATION INTAKE CALCULATIONS:  
2916.0 SQ. IN. (NET FREE AREA REQUIRED) - SEE ABOVE  
AIR VENT UNDER EAVE VENT 18"x6" EQUALS 42 SQ. IN. NFA PER PIECE: 2916.0 SQ. IN. / 42 NFA = 69.4 = 69 VENTS REQ'D.  
PROPOSED VENTILATION INTAKE:  
11 VENTS PROVIDED

Attic 'D' Ventilation Calculation:

1 SQ. FT. OF ATTIC VENT PER 300 SQ. FT. OF ATTIC FLOOR SPACE (COVER ALL PERIMETER OF ROOF)  
TOTAL ATTIC SPACE: 8,770 SQ. FT.  
8,770 SQ. FT. / 300 SQ. FT. = 29.2 SQ. FT.  
29.2 SQ. FT. / 2 (INTAKE/EXHAUST) = 14.6 SQ. FT.  
14.6 SQ. FT. X 144 IN. = 2102.4 SQ. IN. (NET FREE AREA REQUIRED)  
VENTILATION EXHAUST OPTIONS:  
ROOF LOUVER: 8-14 ROUND METAL DOME VENT BY AIR VENT EQUALS 144 NFA PER PIECE: 2102.4 SQ. IN. / 144 NFA = 14.6 STATIC VENTS REQ'D.  
PROPOSED VENTILATION EXHAUST:  
14 STATIC ROOF VENTS PROVIDED  
VENTILATION INTAKE CALCULATIONS:  
2102.4 SQ. IN. (NET FREE AREA REQUIRED) - SEE ABOVE  
AIR VENT UNDER EAVE VENT 18"x6" EQUALS 42 SQ. IN. NFA PER PIECE: 2102.4 SQ. IN. / 42 NFA = 50.1 = 50 VENTS REQ'D.  
PROPOSED VENTILATION INTAKE:  
13 VENTS PROVIDED

Attic 'E' Ventilation Calculation:

1 SQ. FT. OF ATTIC VENT PER 300 SQ. FT. OF ATTIC FLOOR SPACE (COVER ALL PERIMETER OF ROOF)  
TOTAL ATTIC SPACE: 2,341 SQ. FT.  
2,341 SQ. FT. / 300 SQ. FT. = 7.8 SQ. FT.  
7.8 SQ. FT. / 2 (INTAKE/EXHAUST) = 3.9 SQ. FT.  
3.9 SQ. FT. X 144 IN. = 561.6 SQ. IN. (NET FREE AREA REQUIRED)  
VENTILATION EXHAUST OPTIONS:  
ROOF LOUVER: 8-14 ROUND METAL DOME VENT BY AIR VENT EQUALS 144 NFA PER PIECE: 561.6 SQ. IN. / 144 NFA = 3.9 STATIC VENTS REQ'D.  
PROPOSED VENTILATION EXHAUST:  
4 STATIC ROOF VENTS PROVIDED  
VENTILATION INTAKE CALCULATIONS:  
561.6 SQ. IN. (NET FREE AREA REQUIRED) - SEE ABOVE  
AIR VENT UNDER EAVE VENT 18"x6" EQUALS 42 SQ. IN. NFA PER PIECE: 561.6 SQ. IN. / 42 NFA = 13.4 = 13 VENTS REQ'D.  
PROPOSED VENTILATION INTAKE:  
13 VENTS PROVIDED

General Roof Plan Notes:

- SEE CONSTRUCTION SPECIFICATIONS FOR FLASHING NOTES.
- FLASH ALL ROOF PENETRATIONS AS REQUIRED AND PER CODE.
- LOCATE ALL PLUMBING STACKS AT REAR ROOF PLANE. VERIFY THAT NO VENTS ARE VISIBLE FROM THE STREET.
- PROVIDE PRE-FIN. MTL. DRIP EDGE @ ALL ROOF EAVES AND RAKES.
- PROVIDE PRE-FIN. 4" ALUM. GUTTERS & DOWNSPOUTS (INCH. FASTENED) @ COORD. DOWNSPOUT LOCATIONS W/ OWNER & CIVIL ENGR. IN FIELD.

Keyed Roof Plan Notes:

- LOCATION OF DRAFTSTOPPING - VER. W/ REUS MANUF. NOTE: DO NOT EXCEED 3,000 SQ. FT. OF ATTIC SPACE WITHOUT DRAFTSTOPPING - SEE DETAIL ON SHEET A.305 FOR ADDITIONAL INFORMATION.
- IF ROOF ABOVE GYM IS NOT OPEN TO MAIN ROOF STRUCTURE (ROOF #3) PROVIDE RIDGE VENT OTHERWISE ALLOW VENTILATION TO PASS THROUGH TO MAIN ROOF ATTIC AND OUT THROUGH EXHAUST VENTS.
- A/C CONDENSING UNIT - VER. EXACT SIZE, LOCATION AND CLEARANCES W/ MECH. ENGINEER.
- LINE OF EXTERIOR WALL BELOW (TYP.)
- PROVIDE GRACE ICE & WATER SHIELD @ ALL EAVES & VALLEYS 36" PAST THE INTERIOR OF THE EXTERIOR WALL AND UP EACH VALLEY SIDE 18" (MIN).
- PROVIDE FULL GRACE ICE & WATER SHIELD @ ALL DORMERS (TYP.)
- EXTEND GRACE ICE & WATER SHIELD UP ADJACENT WALL 18" (MIN.)
- TYP. D.H. FOR ALL HIPS (L.N.D.) - SEE WALL SECTIONS
- TYP. RAKE PROJECTION (L.N.D.)
- TYP. D.H. FOR ALL DORMERS (L.N.D.)
- ASPHALT SHINGLES ROOF (TYP.)
- ASPHALT SHINGLES ROOF - INSTALL PER MANUF. SPECS. VENTS MUST BE INSTALLED PER IRC 1203.2 (TYP.) - PAINT TO MATCH ROOF
- SINGLES 1/2" MIL. EPDM W/ PREP. METAL EDGE FLASHING W/ DRIP EDGE - INSTALL IN STRICT COMPLIANCE W/ MANUF. INSTALLATION SPECS. MIN. SLOPE 1/4" PER FOOT
- OUTLINE OF MECHANICAL EQUIPMENT PLATFORM - RM. 201

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