Field Impact Sound Transmission Test
3/31/95

Test No. 900401E-04
From (source): Suite 402
To (receive): Suite 302
Region: Entryway

TESTED FOR: The Noble Company
614 Monroe Street
Grand Haven, MI 49417-0350

SUBJECT PROPERTY: SJRDA Housing - Block 4 / Paseo Plaza
201 South Fourth Street
San Jose, CA

Test Procedure

The test and analysis procedures utilized for this test conform explicitly with American Society for Testing Materials (ASTM) Designation E1007-90 - "Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures". The purpose of the field test was to determine the impact sound insulation of the floor-ceiling assembly between rooms 302 and 402.

Test Conditions and Measurement Equipment

The test equipment employed for these measurements consisted of a Hewlett-Packard 3569A Spectrum Analyzer (S/N 3222A00175), equipped with an ACO Pacific moddel 4012 Microphone Preamplifier (S/N 4012-1) and an ACO Pacific type 7046 Random Incidence Microphone Capsule (S/N 2064). The Tapping Machine utilized was Norwegian Electronics Type 211 (S/N 10632).

Reverb time measurements were performed using the Hewlett-Packard 3569A and a Yamaha MS10M Powered Loudspeaker. Reverb time was sampled a minimum of 15 times in each of the 1/3 octave bands under test and the results averaged. Room

temperature was approximately 65˚F at the time of testing.

Description of Tested Partition and Rooms

Described from top to bottom (floor of 402 to ceiling of 302), the tested partition was of the following construction.

a. 3/8" thick, 12"x12" Cream Marfill marble tile on Nobleseal Sound Isolation System as per The Noble Company. Refer to "wood" detail on Form #0894 NSSIS issued by The Noble Company.
b. 3/4" thick mortar bed
c. 2 layers, 5/8" plywood
d. 14" SSI joist
e. R-19 Batt Fiberglass insulation in cavity
f. Resilient channel
g. 1 layer, 5/8" gypsum board, Type X, screw applied to resilient channel.

The volume of the receiving area was 3248 cubic feet. The receiving room was unfurnished.

Plywood barriers were installed over doorways and windows in both rooms to eliminate flanking sound paths.

Summary of Test Results

The following table summarizes the measured and calculated values. "Ln" is the normalized impact sound pressure level. "RT_{60}" indicates the measured time of decay of the reverberant field in the receive room. Refer to the attached graphical depictions of these values for display of the limiting contours.

Freq. (Hz)	Ln	RT_{60}
100	55	0.85
125	56	1.02
160	58	0.88
200	56	1.04
250	53	1.19
315	52	1.37

400	52	1.37
500	52	1.41
630	52	1.50
800	52	1.53
1000	51	1.52
1250	51	1.46
1600	51	1.42
2000	52	1.35
2500	53	1.11
3150	50	1.16
4000	48	1.12
5000	47	1.04

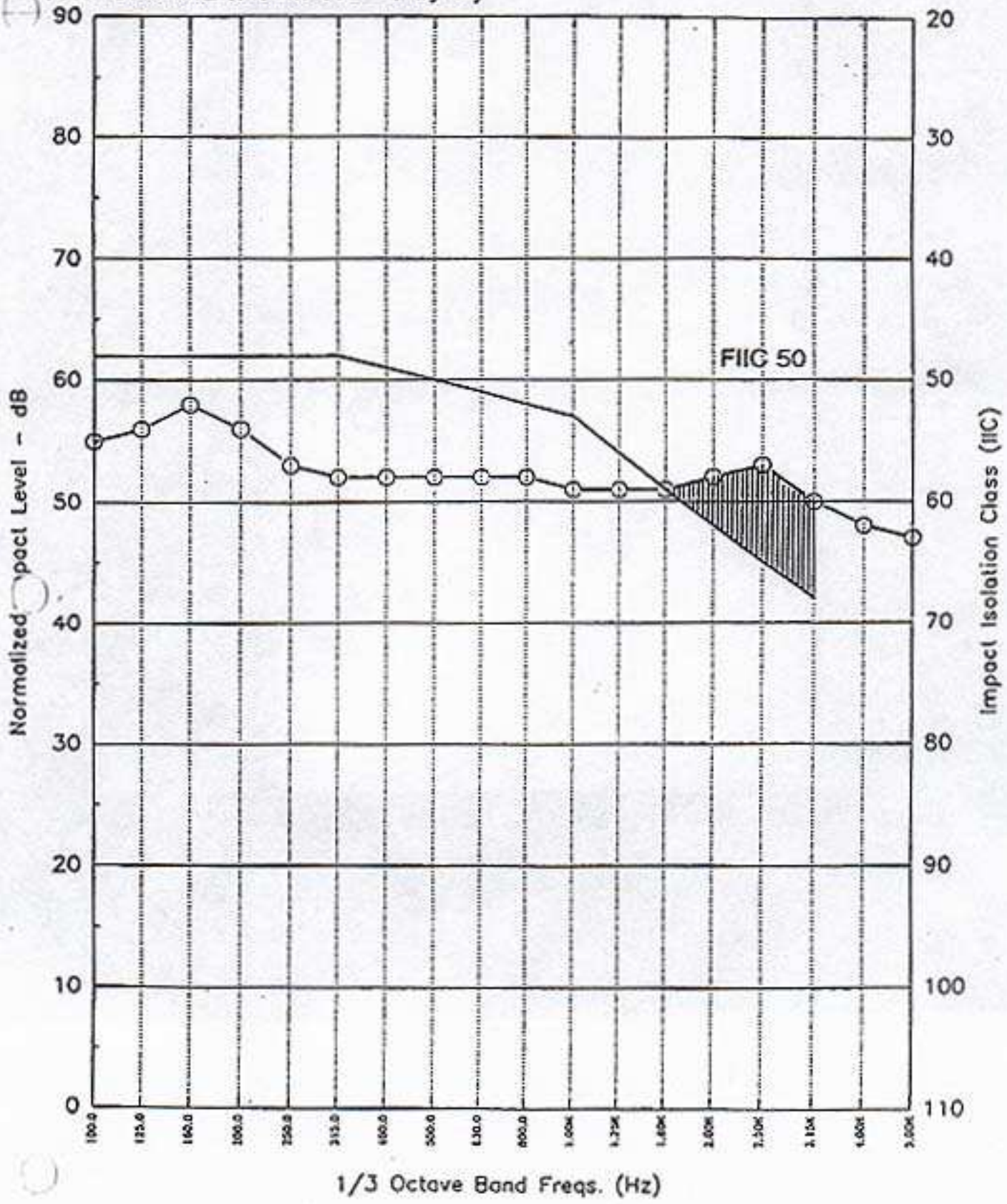
Test No. 900401E-04 FIIC = 50

Test Witnessed By: Gregg Butensky, B.S.E.E.

Test Report Performed By: Peter A. McDonald, M.S. Acoustical Engr.

San Jose Redevelopment Agency, Block 4 Housing
Paseo Plaza Condominiums
From Suite 402 to Suite 302 - Entryway

Normalized FIIC
March 31, 1995



Smith, Fause & McDonald, Inc.

Figure 900401E-04