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January 21, 2014

Via Hand Delivery

Board of Zoning Adjustment
for the District of Columbia
441 4th Street, N.W., Suite 210S
Washington, D.C. 20001

Re: BZA Application No. 18702 | View 14 Investments LLC
2303 14th Street, N.W. (Square 2868, Lot 155) | Prehearing Statement

Dear Board Members:

On behalf of View 14 Investments LLC, we are submitting herewith an original and ten copies of the prehearing statement in support of the above-referenced application, which is scheduled to be heard before the Board on February 4, 2014. Also for your convenience, we have enclosed one unbound copy of the filing.

Thank you for your considerate attention to this matter. We remain hopeful of the Board's favorable review of the application.

Respectfully Submitted,

HOLLAND & KNIGHT LLP

By: Leila James
Leila M. Jackson Batties

Enclosures

cc: Ms. Jennifer Steingasser, District Office of Planning (via Hand Delivery)
Mr. Joel Lawson, District Office of Planning (via email)
Mr. Stephen Gyor, District Office of Planning (via email)
ANC 1B c/o Chair James Turner (via U.S. Mail and email)
Commissioner Deborah Thomas, SMD for ANC 1B04 (via U.S. Mail)

#27234974_v1

BEFORE THE DISTRICT OF COLUMBIA
BOARD OF ZONING ADJUSTMENT

APPLICATION OF
VIEW 14 INVESTMENTS LLC
2303 14TH STREET, N.W.

BZA APPLICATION NO. 18702
HEARING DATE: FEBRUARY 4, 2014
ANC 1B04

STATEMENT OF THE APPLICANT

I.
NATURE OF RELIEF SOUGHT

This statement is submitted on behalf of View 14 Investments LLC (the "Applicant"), the owner of the property located at 2303 14th Street, N.W. (the "Property"), which is within the boundaries of Advisory Neighborhood Commission ("ANC") 1B04. The Applicant seeks special exception approval and certain variances in order to permit animal boarding, pet grooming, and animal shelter uses in the C-2-B District in the ground floor commercial space at the Property. Specifically, the Applicant asks the Board to grant approval of the following:

1. Special exception approval for animal boarding, pursuant to Section 735 of the Zoning Regulations.

2. Special exception approval for pet grooming, pursuant to Section 736 of the Zoning Regulations.

3. Special exception approval for an animal shelter, pursuant to Section 739 of the Zoning Regulations.

4. Variances from Section 736.4 and 739.5 of the Zoning Regulations to permit pet grooming and animal shelter uses in a location that abuts a residential use.

This prehearing statement is submitted in accordance with Section 3113.8 of the Zoning Regulations. The information in this prehearing statement, including the attached exhibits, supersedes the preliminary application statement filed with the Board on November 15, 2013.

II.
JURISDICTION OF THE BOARD

The Board of Zoning Adjustment (the "Board" or "BZA") has jurisdiction to grant the requested special exception and variance relief requested herein pursuant to Sections 3104.1 and 3103.2 of the Zoning Regulations.

III.
EXHIBITS IN SUPPORT OF THE APPLICATION

Exhibit A:	Z.C. Order No. 05-22 approving PUD on Property
Exhibit B:	Office of Surveyor Plat of Property
Exhibit C:	Portion of the Zoning Map showing the Property
Exhibit D:	Floor plans showing interior layout of the ground floor of the building
Exhibit E:	View 14 residents petition in support of the Application
Exhibit F:	Sound Transmission Analysis from Polysonics Acoustics & Technology
Exhibit G:	Outlines of testimonies
Exhibit H:	Resume of Steven E. Sher, Holland & Knight, expert witness in the area of land planning and zoning
Exhibit I:	Resume of Darshit Joshi, Senior Consultant, Polysonics

IV.
BACKGROUND & PROJECT DESCRIPTION

A. Overview of Subject Property and Surrounding Area

The Property is located the east side of 14th Street, N.W., between Florida Avenue and Belmont Street, on Lot 155 in Square 2868, in the C-2-A District. It is improved with a mixed-used building, View 14, that consists of approximately 32,000 square feet of commercial and service uses at or below grade and 185 apartment units on the upper nine floors. The project was approved as a PUD by the Zoning Commission pursuant to Z.C. Order No. 05-22, dated January 9, 2006, a copy of which is attached as Exhibit A. The Property fronts on three streets -- 14th Street on the west, Florida Avenue on the south, and Belmont Street on the north-- and View 14 is the only building on the east side of 14th Street between Florida Avenue and Belmont Street.

Like the Property, all of the immediately surrounding parcels on these streets are in the C-2-B or C-3-A District. To the rear of the Property are residences in the R-5-B District; however, they are separated from the Property by a public alley. A Comcast equipment building abuts the property to the east on Florida Avenue (Lot 156).

The ground floor plan of View 14 is attached as Exhibit D. There are four retail units in View 14, two of which are occupied. The unit with the address 1353 Florida Avenue is occupied by the Beta Martial Arts Academy and the unit with the address 2303 14th Street, Suite 100, is occupied by the YWCA National Capital Area. The unit with the address 2301 14th Street is the space for the dog day care center that is the subject of this application, and the unit with the address 2301 1/2 14th Street is vacant. On the second floor of View 14, above the retail space, are 24 apartment units. Of those units, five are situated directly above the space dedicated for the proposed dog day care center.

B. Description of Proposed Use

The Applicant proposes to lease approximately 4,300 square feet of the ground floor retail space for a dog day care center with pet grooming and overnight animal boarding. The entrance to the space will be at the corner of Florida Avenue and 14th Street, and the frontage will be along 14th Street, providing an opportunity to activate this section of the street.

The dog day care center will offer cage-free dog daycare in five "play parks," pet grooming, and overnight boarding. The facility will include an on-site retail store, lounge with free WiFi, music, and entertainment for dog owners who choose to wait at the facility while their dog is being groomed. The facility will be regularly cleaned with safe, organic materials, and will be furnished with state-of-the-art flooring, drains, wall-to-wall coverings, and high frequency air ventilation systems that protect against bacteria and odor.

C. **Procedural History and Community Outreach**

This Application was filed with the Board on November 15, 2013. On December 16, 2013, the Applicant presented the Application to the Design Review Committee for Advisory Neighborhood Commission ("ANC") 1B, which voted unanimously to recommend support of the application to the full ANC. There were no objections to the Application raised at the Design Review Committee meeting. On December 17, 2013, the Application was presented to the Meridian Hill Neighborhood Association ("MHNA"), which did not raise any objections to the proposed dog day care center at the meeting. The Application was considered by ANC 1B at its regularly scheduled meeting on January 2, 2014. At that meeting, ANC 1B effectively took no action on the Application.[1] The Applicant's representative is scheduled to present the Application a second time to MHNA on January 21, 2014, the date of this filing.

One hundred and five of the tenants in View 14, representing approximately 60% of the occupied units, signed a petition in support of the Application, a copy of which is attached as Exhibit E. Those signatures include tenants in three of the five residential units located directly above proposed dog day care center space.[2]

At the ANC meeting on January 2, 2014, the only objections to the Application were raised by the owners/operators of City Dogs, Inc., a dog day care center located at 1832 18th Street, N.W., approximately 0.8 miles from the Property. Their primary objection was the original name for the dog day care center proposed under this Application -- "Citydog! Club" -- is too similar to the name of its operation, and the similarity in name would adversely impact their business. After the ANC meeting, City Dogs, Inc. launched an aggressive campaign to

[1] The ANC vote was tied on the motion to recommend approval of the Application. There was no subsequent motion made on the Application.

[2] Of the five units located directly above the dog day care center space, only four units are occupied. Tenants in three of the units signed the petition, and the Applicant was unable to make contact with the tenant in one of the units.

generate opposition to the Application. Competition is not a consideration in the Board's review of a zoning application. However, in response to the concerns raised by City Dogs, Inc., the Applicant submitted a letter to the Board, dated January 17, 2014, amending the Application to remove CityDogs! Club as a co-applicant. In addition, the operator of the proposed dog day care center has committed to using a different name for the View 14 facility should the Board approve the Application.

V.
THE APPLICANT MEETS THE BURDEN OF PROOF FOR SPECIAL EXCEPTION APPROVAL

Relief granted through a special exception is presumed appropriate, reasonable and compatible with other uses in the same zoning classification, provided the specific regulatory requirements for the relief requested are met. In reviewing an application for special exception relief, "[t]he Board's discretion ... is limited to a determination of whether the exception sought meets the requirements of the regulations." *First Baptist Church of Washington v. District of Columbia Board of Zoning Adjustment*, 423 A.2d 695, 701 (D.C. 1981) (*quoting Stewart v. District of Columbia Board of Zoning Adjustment*, 305 A.2d 516, 518 (D.C. 1973)). If the applicant meets its burden, the Board must ordinarily grant the application. *Id.*

A. Special Exception for Animal Boarding

Pursuant to Section 735 of the Zoning Regulations, animal boarding may be permitted as a special exception if approved by the Board under Section 3104.1, subject to the provisions of Sections 735.2 through 735.6. The Application meets the special exception standards as follows:

1. Section 735.2 - The animal boarding use shall not abut[3] a Residence Zone.

The animal boarding use would not abut a Residence Zone. The Property is in the C-2-B District and abuts only one parcel -- the lot occupied by the Comcast equipment building on Florida Avenue. View 14 is the only building on the east side of 14th Street between Florida Avenue and Belmont Street. The residences in the R-5-B District to the rear of the Property are separated from the Property by a public alley.

2. Section 735.3 - The animal boarding use shall take place entirely within an enclosed and soundproof building in such a way so as to produce no noise or odor objectionable to nearby properties. The windows and doors of the premises shall be kept closed and no animals shall be permitted in an external yard on the premises.

The animal boarding will take place entirely within an enclosed and soundproof space in such a way as to produce no noise or odor objectionable to nearby properties. The windows and doors of the premises will be kept closed, and there are no external yards on the Property. As with its other facilities, the operator will take special care to mitigate noise in the establishment by playing music that calms dogs and by hiring handlers who are specially trained to minimize excessive barking. Dogs that bark excessively will be de-joined from the facility. Furthermore, as recommended in the report by Polysonics, attached as Exhibit F, the dog day care center space will include the following construction measures to attenuate noise transmission from the dog day care center to the apartment units above:

- Install an acoustical gypsum board ceiling comprised of two layers of high-density gypsum boards suspended at least 14 inches from the underside of the existing post-tensioned concrete slabs.

- Create minimum penetrations in the drywall ceiling by lights and electrical conduits, except for near isolations hangers supporting air handling units, HVAC

[3] Merriam-Webster Unabridged Dictionary defines "abut" as follows: intransitive verb - to touch (as of contiguous estates) along a border or with a projecting part; terminate at a point of contact (as with an adjacent structure); lean or rest for support (as upon another structure); transitive verb - 1. to border on: reach or touch with an end 2. to cause to abut.

ducts, plumbing and piping.

- Install a finished ceiling with acoustical ceiling panels rated for Noise Reduction Coefficient (NRC) 0.8 and Ceiling Attenuation Class (CAC) 35; suspend the panels below the gypsum board ceiling by attaching metal channels to the underside of the gypsum board ceiling.

- Use two-inch MBI ColorSonix wall panels mounted directed to the walls. These panels are abuse resistant and will be able to withstand the impact from dogs.

3. Section 735.4 - The animal boarding use shall place all animal waste in closed waste disposal containers and shall utilize a qualified waste disposal company to collect and dispose of all animal waste at least weekly. Odors shall be controlled by means of an air filtration system (for example, High Efficiency Particulate Air "HEPA" filtration) or an equivalently effective odor control system.

The dog day care center staff will double-bag all animal waste and dispose of the bags in closed waste disposal containers. The waste will be removed from the facility two to three times per day and placed in a separately designated trash enclosure space on the Property. A qualified waste disposal company will collect and dispose of all animal waste at least once per week. Odor will be controlled by means of an air filtration system, such as HEPA filtration, or an equivalently effective odor control system. The air filtration system will operate with the maximum allowable air turnover. To further control odor, custom "PooPee Patches" will attract dogs to specific areas within the facility; these patches will be washed and sanitized frequently and will drain directly into the sewer. The Applicant will also utilize state of the art mini scrubbers and Scent Air Tangerine Sparkle and Waxie Citirx Burst cleaning products to clean and disinfect surfaces.

4. Section 735.6 - External yards or other exterior facilities for the keeping of animals shall not be permitted.

The Property does not have an external yard. The Applicant will not use any exterior facilities on the Property for animal boarding.

B. Special Exception for Pet Grooming

Pursuant to Section 736 of the Zoning Regulations, a pet grooming establishment may be permitted as a special exception if approved by the Board under Section 3104.1, subject to the provisions of Sections 736.2 through 736.5. The Application meets the special exception standards as follows:

1. Section 736.2 - The pet grooming establishment shall be located and designed to create no objectionable condition to adjacent properties resulting from animal noise, odor, or waste.

View 14 is the only building on the east side of 14th Street between Florida Avenue and Belmont Street and has a public alley to the rear. The only abutting property is occupied by the Comcast equipment building to the east on Florida Avenue. Further, the establishment will be designed to create no objectionable condition to the nearby properties resulting from animal noise, odor, or waste.

2. Section 736.3 - All animal waste shall be placed in closed waste disposal containers and shall utilize a qualified waste disposal company to collect and dispose of all animal waste at least weekly. Odor shall be controlled by means of an air filtration system or an equivalently effective odor control system.

The dog day care center staff will double-bag all animal waste and dispose of the bags in closed waste disposal containers. The waste will be removed from the facility two to three times per day and placed in a separately designated trash enclosure space on the Property. A qualified waste disposal company will collect and dispose of all animal waste at least once per week. Odor will be controlled by means of an air filtration system, such as HEPA filtration, or an

equivalently effective odor control system. The air filtration system will operate with the maximum allowable air turnover. To further control odor, custom "PooPee Patches" will attract dogs to specific areas within the facility; these patches will be washed and sanitized frequently and will drain directly into the sewer. The Applicant will also utilize state of the art mini scrubbers and Scent Air Tangerine Sparkle and Waxie Citirx Burst cleaning products to clean and disinfect surfaces.

3. Section 736.4 - The pet grooming establishment shall not abut an existing residential use or Residence District.

The Property does not abut a Residence District. The Property is in the C-2-B District and is surrounded on three sides by properties zoned C-2-B or C-3-A. To the east of the Property are residences in the R-5-B District; however, they are separated from the Property by a public alley. The dog day care center use will be situated directly below five of the units in the apartment community above.

4. Section 736.5 - External yards or other exterior facilities for the keeping of animals shall not be permitted.

There are no external yards on the Property. The Applicant will not use any exterior facilities of the Property for animal grooming.

C. Special Exception for Animal Shelter

Pursuant to Section 739 of the Zoning Regulations, an animal shelter may be permitted as a special exception if approved by the Board of Zoning Adjustment under Section 3104.1, subject to the provisions of Sections 739.2 through 739.6 of the Zoning Regulations. The Application meets the special exception standards as follows:

1. Section 739.2 - The animal shelter shall be located and designed to create no objectionable condition to adjacent properties resulting from animal noise, odor, or waste.

View 14 is the only building on the east side of the 14th Street between Florida Avenue

and Belmont Street and has a public alley to the rear. The only adjacent property is the Comcast equipment building to the east on Florida Avenue. Further, the pet grooming activities will be located and designed within the premises to create no objectionable conditions to the nearby properties resulting from animal noise, odor, or waste.

2. Section 739.3 - The animal shelter shall utilize industry standard sound-absorbing materials, such as acoustical floor and ceiling panels, acoustical concrete and masonry, and acoustical landscaping.

The dog day care center operator will utilize industry standard sound-absorbing materials, such as acoustical floor and ceiling panels, acoustical concrete, and masonry, in connection with the animal shelter use. Specifically, as recommended in the report by Polysonics, attached as Exhibit F, the dog day care center space will include the following construction measures to attenuate noise transmission from the dog day care center to the residential apartment units above:

- Install an acoustical gypsum board ceiling comprised of two layers of high-density gypsum boards suspended at least 14 inches from the underside of the existing post-tensioned concrete slabs.

- Create minimum penetrations in the drywall ceiling by lights and electrical conduits, except for near isolations hangers supporting air handling units, HVAC ducts, plumbing, and piping.

- Install a finished ceiling with acoustical ceiling panels rated for Noise Reduction Coefficient (NRC) 0.8 and Ceiling Attenuation Class (CAC) 35; suspend the panels below the gypsum board ceiling by attaching metal channels to the underside of the gypsum board ceiling.

- Use two-inch MBI ColorSonix wall panels mounted directed to the walls. These panels are abuse resistant and will be able to withstand the impact from dogs.

3. Section 739.4 - All animal waste shall be placed in closed waste disposal containers and shall utilize a qualified waste disposal company to collect and dispose of all animal waste at least weekly. Odor shall be controlled by means of an air filtration system or an equivalently effective odor control system.

The dog day care center staff will double-bag all animal waste and dispose of the bags in closed waste disposal containers. The waste will be removed from the facility two to three times per day and placed in a separately designated trash enclosure space on the Property. A qualified waste disposal company will collect and dispose of all animal waste at least once per week. Odor will be controlled by means of an air filtration system, such as HEPA filtration, or an equivalently effective odor control system. The air filtration system will operate with the maximum allowable air turnover. To further control odor, custom "PooPee Patches" will attract dogs to specific areas in the facility; these patches will be washed and sanitized frequently and will drain directly into the sewer. The Applicant will also utilize state of the art mini scrubbers and Scent Air Tangerine Sparkle and Waxie Citirx Burst cleaning products to clean and disinfect surfaces.

4. Section 739.5 - The animal shelter use shall not abut an existing residential use or a Residence District.

The Property does not abut a Residence District. The Property is in the C-2-B District and is surrounded on three sides by properties zoned C-2-B or C-3-A. To the east of the Property are residences in the R-5-B District; however, they are separated from the Property by a public alley. The dog day care center use will be situated directly below five units in the apartment community above.

5. Section 739.6 - External yards or other external facilities for the keeping of animals shall not be permitted unless the entire yard is located a minimum of two hundred (200) feet from an existing residential use or Residence District.

There are no external yards on the Property. The Applicant will not use any other external facilities on the Property for the animal shelter use.

VI.
THE APPLICANT MEETS THE BURDEN OF PROOF FOR VARIANCES[4]

The Applicant seeks variances from Sections 736.4 and 739.5 of the Zoning Regulations, which prohibit pet grooming and animal shelter uses from abutting a residential use. However, given the similarities between View 14 and the building in BZA Case No. 18474 (Wagtime), the Board could determine that the proposed pet grooming and animal shelter uses do not "abut" the residential uses directly above the dog day care center space and, therefore, the requested variances are unnecessary.

In *Wagtime*, the Board concluded that that the subject property did not abut a residential use where the neighboring buildings, including those immediately abutting the subject property, are currently used for commercial purposes or are vacant and where the cellar, first and second floors of the building were being used a dog day care center with pet grooming and animal shelter uses and the third floor of the building contained an apartment unit.

In this case, the Property is in the C-2-B District and is surrounded on three sides by properties zoned C-2-B or C-3-A. The residences to the east are separated from the Property by a public alley. The only adjacent parcel to the Property is the Comcast equipment building on Florida Avenue, which is in the C-2-B District. Like in *Wagtime,* the pet grooming and animal

[4] This analysis is provided to the extent that the Board finds that a variance is necessary from Sections 736.4 and 739.5 of the Zoning Regulations.

shelter uses proposed under the Application would be situated directly below five residential units in the apartment community above.

A. Standard of Review for Area Variances - Animal Shelter Use

Under D.C. Code § 6-641.07(g)(3) and 11 DCMR § 3103.2, the Board is authorized to grant an area variance where it finds that three conditions exist:

> 1. the property is affected by exceptional size, shape or topography or other extraordinary or exceptional condition or situation;
>
> 2. the owner would encounter practical difficulties if the zoning regulations were strictly applied; and
>
> 3. the variance would not cause substantial detriment to the public good and would not substantially impair the intent, purpose and integrity of the zone plan as embodied in the Zoning Regulations and Map.[5]

The D.C. Court of Appeals has determined that, to satisfy the practical difficulty element of the area variance test, an applicant must demonstrate that "compliance with the area restriction would be unnecessarily burdensome" and that the practical difficulty is "unique to the particular property."[6] The Court has further stated that "the severity of the variance(s) requested;" "the weight of the burden of strict compliance;" "the effect the proposed variance(s) would have on the overall zone plan;" and the "increased expense and inconvenience to applicants for a variance are among the proper factors for BZA's consideration" in determining whether to grant an area variance.[7]

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[5] *See French v. District of Columbia Board of Zoning Adjustment*, 658 A.2d 1023, 1035 (D.C. 1995) (quoting *Roumel v. District of Columbia Board of Zoning Adjustment*, 417 A.2d 405, 408 (D.C. 1980)); *see also, Capitol Hill Restoration Society, Inc. v. District of Columbia Board of Zoning Adjustment*, 534 A.2d 939 (D.C. 1987).
[6] *Gilmartin v. District of Columbia Board of Zoning Adjustment*, 579 A.2d 1164, 1170 (D.C. 1990).
[7] *Id.* at 1171.

As discussed below, all three prongs of the area variance test are met in this Application.

1. The property is affected by exceptional size, shape or topography or other extraordinary or exceptional situation or condition.

The exceptional situation or condition affecting the Property results from a confluence of factors. View 14 is a mixed-use building with ground floor retail and an apartment community above. The Property is in the C-2-A District on a major commercial corridor. The only "abutting" residential use to the proposed dog day care center consists of the apartments on the second floor of the building, on the same property but on a different horizontal plane from the proposed pet grooming and animal shelter uses. The entire building is owned by the Applicant. There is no adverse impact to a neighboring residential property owner. Further, because the Applicant is the owner of the apartment community above, the Applicant has a vested interest in ensuring that noise, odor and other impacts from the proposed dog day care center do not interfere with the quiet use and enjoyment of the residential units above. Failing to adequately manage the impacts of the proposed use would have an adverse financial impact on the Applicant.

2. The owner would encounter practical difficulties if the zoning regulations were strictly applied.

The owner of the Property (the Applicant) would encounter a practical difficulty if Sections 736.4 and 739.5 of the Zoning Regulations were strictly applied. View 14 is designed such that there is a floor of apartment units directly above all of the ground floor retail space. It is impossible for the Applicant to locate or configure the dog day care center space in a manner where there are no residential units situated above. Therefore, if the Board denies the requested variances, the proposed dog day care center would be prohibited from the Property altogether, despite being an amenity for the View 14 tenants and the neighborhood generally and an appropriate use for the C-2-B District and a commercial corridor like 14th Street.

3. The variance would not cause substantial detriment to the public good and would not substantially impair the intent, purpose and integrity of the zone plan as embodied in the Zoning Regulations and Map.

There will be no substantial detriment to the public good and no substantial impairment to the intent, purpose and integrity of the zone plan by approving the requested variances. View 14 is a mixed-use building in the C-2-B District with primary frontage on 14th Street, a major commercial corridor. The use of the ground floor of View 14 as a dog day care center, with large windows opening into a play park, will activate this section of 14th Street and will contribute to the overall vibrancy of the area. View 14 is the only building on the east side of 14th Street between Florida Avenue and Belmont Street and the Comcast equipment building on Florida Avenue is the only adjacent property to the building, so there are no other immediately surrounding uses or property owners that would be adversely impacted by the proposed dog day care center.

A petition in support of the Application was signed by 105 tenants in View 14, representing approximately 60% of the occupied apartment units. Among them were the tenants in three of the five residential units located directly above the proposed dog day center space.[8] A copy of the petition is attached as Exhibit E. In addition, based on the merits of the Application, the Design Review Committee of ANC 1B unanimously recommended approval of the Application.

[8] Of the five units directly above the dog day care center space, only four units are occupied. Tenants in three of the units signed the petition, and the Applicant was unable to make contact with the tenant in one of the units.

VIII.
WITNESSES

1. William Licko
   Senior Director of Transactions
   UDR / View 14 Investments LLC
   5579 Harrington Falls Lane, Suite 1054
   Alexandria, VA 22312

2. Phillip Kasdorf
   Chief Sales & Marketing Officer, dog day care center
   1803 Pontius Avenue
   Los Angeles, CA 90025

3. Darshit Joshi
   Senior Consultant
   Polysonics Acoustics & Technology Consulting
   405 Belle Air Lane
   Warrenton, Virginia 20186

4. Steven E. Sher
   Director of Land Use and Zoning Services
   Holland & Knight, LLP
   800 17th Street, NW
   Washington, DC 20006

IX.
CONCLUSION

For the reasons stated above, the Application meets the applicable standards for approving the requested special exception and variances to permit the animal boarding, pet grooming and animal shelter uses at the Property. Accordingly, the Applicant respectfully requests that the Board approve this Application.

Respectfully submitted,

HOLLAND & KNIGHT, LLP

By: Leila Batties

Leila M. Jackson Batties
800 17th Street, N.W.
Suite 1100
Washington, DC 20006
(202) 955-3000

Exhibit A

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Zoning Commission

ZONING COMMISSION FOR THE DISTRICT OF COLUMBIA
ZONING COMMISSION ORDER NO. 05-22
Z.C. Case No. 05-22
Consolidated Planned Unit Development – Level 2 Development, LLC
14th Street, N.W. Between Florida Avenue and Belmont Street
January 9, 2006

Pursuant to notice, the Zoning Commission for the District of Columbia (the "Commission")held a public hearing on December 5, 2005, to consider an application from Level 2 Development, LLC (the "Applicant") for consolidated review and approval of a planned unit development ("PUD"). The application was filed on behalf and with the consent of L2CP, LLC and Comcast of Florida, LP, a District of Columbia limited partnership, formerly known as District Cablevision Limited Partnership, the owners of the property that is the subject of the application The Zoning Commission considered the application pursuant to Chapters 24 and 30 of the District of Columbia Zoning Regulations, Title 11 of the District of Columbia Municipal Regulations ("DCMR"). The public hearing was conducted in accordance with the provisions of 11 DCMR § 3022 For the reasons stated below, the Zoning Commission hereby approves the application.

FINDINGS OF FACT

The Applications, Parties and Hearing

1. On July 11, 2005, the Applicant filed an application with the Zoning Commission for consolidated review and approval of a PUD for the property located on Lot 119 and a portion of Lot 122 in Square 2868, on the east side of 14th Street, N.W , between Florida Avenue and Belmont Street in Washington, D.C. (the "PUD Site"). Subsequently, as part of the prehearing statement filed with the Zoning Commission on September 26, 2005, the PUD Site was amended to include all of Lots 119 and 122, for a total site area of 34,357 square feet.

2. At its public meeting held September 15, 2005, the Zoning Commission voted to schedule a public hearing on the application. At the meeting, the Zoning Commission requested that the Applicant provide additional information relating to the project's compliance with the Height Act of 1910, the proposed loading areas and alley improvements, the project's relationship to the surrounding residential development, and the building design.

3. On September 26, 2005, the Applicant filed a prehearing statement with the Zoning Commission that included the information requested by the Zoning Commission and additional information on the application requested by the Office of Planning pertaining to the proposed off-site affordable housing amenity, the monetary contributions to neighborhood organizations, the building design and roof plans, the removal of the satellite dishes from the southern portion of the PUD Site, and the incorporation of "green" building practices.

4. After proper notice, the Zoning Commission held a hearing on the application on December 5, 2005. The parties to the case were the Applicant; Advisory Neighborhood Commission ("ANC") 1B, the ANC within which the PUD Site is located, and the Sankofa Tenants' Association (the "Association"), the beneficiary of the off-site affordable housing amenity proposed by the Applicant

5. The record contains the following letters in support of the project: a letter dated June 6, 2005, from ANC 1B; a letter dated June 30, 2005, from Jim Graham, Councilmember for Ward 1; a letter dated June 30, 2005, from the Meridian Hill Neighborhood Association ("MHNA"); a letter dated September 20, 2005 from the Cardozo Shaw Neighborhood Association ("CSNA"); a letter dated November 14, 2005, from the South Columbia Heights Neighborhood Association

6. There were no parties or persons in opposition to the PUD.

7. At its duly noticed meeting held June 2, 2005, ANC 1B voted unanimously for a resolution in support of the PUD application and negotiations with Comcast for the removal of the satellite dishes and antennas on the southern portion of the PUD Site.

8. At its duly noticed meeting held November 3, 2005, ANC 1B voted unanimously to support the PUD provided that the public amenity package not be changed due to economic forces placed on the developer

9. At its June meeting, the MHNA voted unanimously to support the proposal for the PUD.

10. ANC 1B submitted a report and testified as a party in support of the application at the hearing, and noted that the application has twice been considered by the ANC.

11. At the hearing, the Applicant submitted into the record modified sheets A05, A06, A08, A09, and A12 to the PUD plan, dated December 5, 2005, providing additional details of the Roof Plan.

12. At the hearing, Ms. Sheila Royster, President of the Sankofa Tenants' Association, testified as a party in support of the PUD. Ms. Royster stated that the $1 million contribution to the Association proposed by the Applicant would assist the Association in acquiring the Cresthill Apartment building. She emphasized that the ultimate objective of the members of the Association is ownership of their respective units.

13. At its meeting held December 5, 2005, the Zoning Commission took proposed action by a vote of 5-0-0 (moved by Chairman Carol J. Mitten, seconded by Commissioner Gregory N Jeffries) to approve the application, subject to the Applicant providing the Zoning Commission with the following:

    a. detailed information on the equipment that will be attached to the rooftop antenna tower and where the equipment will be located on the tower;

    b revised drawings of sheets S03.1, S03.2, S03.3, and S03.4 of the PUD plan, depicting truck and automobile circulation; and

    c. availability of signage from the Department of Transportation directing drivers on Florida Avenue not to block alley on the east side of the PUD Site.

    Additionally, the Applicant agreed that no logos or advertising would be permitted on the antenna tower or satellite dishes proposed on the building rooftop.

14. The information requested by the Zoning Commission in Paragraph 13 above was submitted by the Applicant, and is marked as Exhibit 34 of the record.

15 The proposed action of the Zoning Commission was referred to the National Capital Planning Commission ("NCPC") pursuant to § 492 of the District Charter. NCPC, by action dated December 30, 2005, found the proposed PUD would not affect the federal establishment or other federal interests in the National Capital, nor be inconsistent with the Comprehensive Plan for the National Capital.

16. The Zoning Commission took final action to approve the application on January 9, 2006 by a vote of 5-0-0.

The PUD Project

Overview

17 The PUD is a mixed-use development of residential, retail, and service uses. It will consist of a nine-story building containing 160 to 195 condominium units, a portion of which will be devoted to affordable housing, 33,517 square feet of retail and service uses, of which 13,903 square feet will be counted toward gross floor area; and an underground parking garage with 151 parking spaces The development will have an aggregate floor area ratio ("FAR") of 6.0. The PUD development plan includes the removal of the satellite dishes and antenna tower existing on the Comcast site located at 14th Street and Florida Avenue, N.W. and replacing them with less obtrusive equipment on the roof of the new building. The Applicant requested the Commission's approval of the PUD pursuant to § 2405.3 of 11 DCMR.

Site Description

18. The PUD Site is located on the east side of 14th Street between Florida Avenue and Belmont Street, a public alley abuts the site on the east. The PUD Site consists of approximately 34,357 square feet of land area in Lots 119 and 122 in Square 2868. Lot 119 is currently improved with an automobile repair shop and warehouse, and Lot 122 is currently improved with a Comcast equipment building, an antenna tower, and satellite dishes. The PUD Site is located in the C-2-B District.

19. The area surrounding the PUD Site is primarily designated medium-density residential on the District of Columbia Comprehensive Plan Generalized Land Use Map, with moderate-density residential to the east along 13th Street. The area is characterized by a mix of residential and commercial uses as well as a mix of newly constructed, refurbished, and older structures. On the west side of 14th Street, across from the PUD Site, are a private parking lot and a strip shopping center. The Wardman Court Apartments (formerly known as Clifton Towers) are located immediately north of the PUD Site, and rowhouses are located to the east. South of the PUD Site, across Florida Avenue, is the Greater U Street Historic District, which contains a mix of residential, retail, and commercial uses.

20. The Flats at Union Row, a comparable mixed-use PUD is under construction to the south of the PUD Site on the east side of 14th Street between V and W Streets. It will have approximately 280 apartment units and 24,000 square feet of retail. The Ellington, on U Street between 13th Street, N.W. and 14th Street, N.W has approximately 186 dwelling units and 24,000 square feet of retail. The PUD Site and the surrounding area are well-served by public transportation, including Metrobus lines and the U Street-Cardozo Metrorail Station.

Project Design and Components

21. The PUD is envisioned as a future anchor of the U Street Corridor. The design of the building is informed by its 14th Street location – by both the physical characteristics of 14th Street (the north, northeast bend of the axis, and the elevation change) and its historical heritage (automotive dealerships and services and a vibrant commercial corridor). As such, the PUD is designed to act, symbolically speaking, as a portal, facilitating several transitions: a transition between the past commercial vibrancy and the future urban active life, a transition between downtown and uptown, and a transition between the abandonment and disillusions of the 1960's and 1970's to the new urban renaissance. Through its strong presence, the PUD will help invigorate the pedestrian traffic in the area and correct the visual deficiencies of the Comcast site.

22. At the street level, the base of the building is designed to ground the project and to connect it to the commercial past of the area. It will have a robust look, featuring large masonry piers and beams and glass storefront infills The masonry piers will establish a relation to the predominantly brick buildings in the neighborhood.

23. To help the building integrate into its surroundings, the residential mass will be subdivided into several volumes, each clad in ceramic panels or brick, with metal panels and window walls. Also, the upper two (2) floors of the building will be set back on the east, west, and south façades and will be treated with more glass than the lower floors. The residential feel of the project will be enhanced by the multitude of bay windows on the west and east façade and the availability of balconies for most of the condominium units.

24. Due to the elevation and directional change of 14th Street near the PUD Site, the site is exposed to distinctive vistas from downtown and upper 14th Street. The building design emphasizes these vistas by setting the subdivided building planes at different angles; thus, offering a variety of unique facades depending on the position of the viewer. This design element offers a dynamic viewing experience.

25. Extending nine stories, the PUD will include residential, retail, and service uses. The retail program is proposed to include 13,903 square feet on the ground floor of the building and between 15,000 and 19,000 square feet for a health club on the first and second levels of the underground parking garage. The parking garage will consist of, at a minimum, two and one-half (2.5) levels of parking. The top eight (8) stories of the building will house approximately 160 to 195 condominium units totaling approximately 173,765 square feet. (The number of condominium units will depend on market demands within the specified range. However, regardless of the number of units, the overall square footage of residential use will remain at approximately 173,765 square feet.) Also, in the alternative to the retail program described above, as noted on the plan for the project, there will be approximately 11,400 square feet of retail on the ground floor and approximately 3,021 square feet of retail on the first floor. In this case, the building would not include a health club and the parking garage would be limited to two (2) levels. The ground floor of the building will be accessible from 14th Street near Florida Avenue, and the first floor will be accessible from 14th Street near Belmont Street. The service area for the PUD will have one loading berth that is fifty-five (55) feet deep, two (2) loading platforms that are thirty (30) feet deep, and one service/delivery loading space that is twenty (20) feet deep. The service area and underground parking garage will be accessible from the public alley on the eastern boundary of the PUD Site. Most of the alley will be widened from fifteen (15) feet to twenty (20) feet in order to better accommodate this vehicular traffic

Matter of Right Development Under Existing Zoning

26. The PUD Site is located in the C-2-B District, which is designated to serve commercial and residential functions, but with high-density residential and mixed uses.

27. The maximum building height permitted in the C-2-B District is sixty-five (65) feet. The maximum permitted FAR is 3 5, of which up to 1.5 FAR may be for commercial use.

Development Incentives and Flexibility

28. The Applicant requested the following areas of flexibility from the Zoning Regulations:

a. Roof Structure Requirements: Section 411.5 of the Zoning Regulations requires that the enclosing walls from the roof level be of equal height. The Applicant proposed to have a roof that varies in height in order to minimize the bulk and visual appearance of the extensive rooftop mechanical/equipment penthouse enclosure.

b. Residential Recreation Space: Pursuant to § 773.3 of the Zoning Regulations, buildings located in the C-2-B District containing a residential use, other than a one-family dwelling, flat, or hotel, must have an area equal to fifteen percent (15%) of the gross floor area dedicated for residential use as residential recreation space. The recreation space for the PUD is approximately six and one-half percent (6 5%) of the gross floor area, augmented by additional outdoor recreation space in the form of private terraces and balconies.

c. Roof Top Antenna: The Applicant proposed an antenna tower on the roof of the building, which is not permitted in the project as a matter of right under the Zoning Regulations The antenna and the attached dishes and equipment would be as shown on the plans marked as Exhibit 28 and would replace the existing 140-foot tower and cable dishes located on the southern portion of the PUD Site at 14th Street and Florida Avenue. While not meeting the normal requirements of the Regulations, the proposed antenna and equipment would be less visibly intrusive than the existing condition.

Public Benefits and Amenities

29. The following benefits and amenities will be created as a result of the PUD·

a Housing and Affordable Housing. The single greatest benefit to the area, and the District as a whole, is the creation of new housing and home-ownership opportunities consistent with the goals of the Zoning Regulations, the Comprehensive Plan and the Mayor's housing initiative. The Applicant proposes to devote an area equal to fifteen percent (15%) of the density gained through the PUD process (versus the development permitted as a matter of right in the C-2-B District), or approximately 11,729 square feet, as affordable housing Of that, approximately 6,000 square feet will create units in the project available to those persons whose income does not exceed eighty percent (80%) of the "area median income" as that term is defined by the U S Department of Housing and Urban Development. Those units will reflect the market-rate units within the project in terms of size and distribution throughout the building. In lieu of constructing the additional 5,729 square feet of affordable housing on site, the Applicant will contribute $1 million to the Sankofa Tenants' Association for the acquisition of the Cresthill Apartments, a 48-unit apartment house with over 50,000 square feet of gross floor area, located within one-half block of the PUD Site at 1430 Belmont Street. The Association is working with Jubilee Housing, Inc., the management agent for the Cresthill Apartments, and Reuben McCornack, an affordable housing development consultant, on a strategy to acquire the apartment

building, convert it to a cooperative, and rehabilitate and maintain the 48 apartment units within the building as affordable housing.

b. Building Design and Site Planning. The high quality of design in the development of the architecture for the project exceeds that of most matter-of-right projects. The base of the building, with its neighborhood-oriented retail and service uses, will stimulate pedestrian traffic while reflecting on the historical heritage of 14th Street. In addition, the elimination of the satellite dishes and antenna tower from the Comcast site and the screening of the remaining Comcast equipment building through a solid screen wall will significantly improve the urban landscape and create an environment that complements the character of 14th Street and the U Street Corridor. The provision of rooftop private and publicly accessible terrace space will be a positive amenity to residents.

c. "Green" Building Practices. The PUD will include an irrigation system for on-site rainwater, and will include approximately 2,000 square feet of "green" roof on the mechanical penthouse roof

d. Transportation Features. The PUD incorporates several measures that mitigate adverse traffic impacts. First, it will contain ground-floor retail and service uses, reducing the need for residents to drive for basic neighborhood services. Second, residents will be within walking distance of the 14th and U Street Corridor, which offers a number of services and commercial uses, including stores, restaurants, and entertainment establishments. Third, the PUD Site is well served by public transportation, including Metrobus lines and the U Street-Cardozo Metrorail Station. Fourth, in order to improve traffic circulation to and from the PUD Site, the project has been designed to eliminate the existing curb cuts on 14th Street and Belmont Street and to limit vehicular ingress and egress to the public alley east of the PUD Site. Fifth, in order to better accommodate this vehicular traffic and improve circulation, most of the abutting alley will be widened from fifteen (15 feet to twenty (20) feet. Finally, the PUD will include an underground parking garage that contains a minimum of 151 parking spaces, in excess of the number required under the Zoning Regulations, so that residents and users of the project will not have to compete for on-street parking spaces. Of those parking spaces, at least two (2) will be reserved for a "Zip Car" or "Flex Car" car sharing programs for residents

e. Employment and Training Opportunities. In order to further the District of Columbia's policies relating to the creation of employment opportunities, the Applicant will enter into a Memorandum of Understanding with the Office of Local Business Development. Under the terms of the Memorandum, the Applicant shall commit to make a bona-fide effort to utilize local, small, or disadvantaged business enterprises certified by the District of Columbia Local Business Opportunity Commission in order to achieve, at a minimum, the goal of thirty-five percent (35%) participation in the contracted development costs in connection with the development of the Project. The Applicant will also enter

into a First Source Agreement with the Department of Employment Services ("DOES") ensuring cooperation with DOES for employee recruitment for jobs created by the PUD with the objective that fifty-one percent (51%) of the employees hired in connection with the development of the project are District of Columbia residents

f. Monetary Contributions to Neighborhood Organizations. As part of the amenities and benefits package offered in connection with the application, the Applicant committed $40,000 to assist the following neighborhood programs and initiatives:

Parent Association of the Boys & Girls Club of Greater Washington ($20,000) Education, field trips, educational materials, and supplies for high school members at the Mary and Daniel Loughram Clubhouse #10.

The Children's Studio School at 13 Street and V Street, N.W. . ($10,000) Full day School of Arts as Education, Early Light and After 4 Studios, City as Studio, Urban Arts Complex, Evening Studios, Weekend Studios, Honoring and Transforming the Intimate Cultural Traditions of Washington Families, Epicenter Stories, and internships at the Children's Studio School.

Meridian Hill Neighborhood Association. ($5,000) Scholarship fund for students at Cardozo High School, neighborhood clean-up, social events, welcome packages for new neighbors, and education forums

Cardozo Shaw Neighborhood Association. ($5,000) Initiatives resolving historic district boundaries, renovation of the Harrison Recreation Center, and on-going neighborhood outreach.

Compliance with the Comprehensive Plan

30. The project is not inconsistent with the Comprehensive Plan as follows:

a The Generalized Land Use Map for the District of Columbia. The proposed development is consistent with the Generalized Land Use Map, which designates the PUD Site as mixed-use medium-density commercial and medium-density residential.

b Stabilizing and Improving the District's Neighborhoods. The PUD will assist in stabilizing and improving the Columbia Heights neighborhood by replacing the existing uses on the PUD Site with a well-designed mixed-use project that will bring new residents into the area and provide new retail services for the new and existing residents.

c. Reaffirming and Strengthening the District's Role as an Economic Hub. The Comprehensive Plan encourages making maximum use of the District's location

at the center of the region's radial Metrorail and commuter rail system. The PUD furthers this objective, because it brings residential, retail, and service uses in close proximity to the U Street-Cardozo Metrorail Station. Additional commuter services are available through the Metrobus lines that serve the PUD Site and the surrounding area.

31. The PUD furthers the objectives and policies of many of the Comprehensive Plan's major elements as follows:

a. Economic Development. The District places a high priority on the generation of new and productive uses of currently underused commercially and industrially zoned lands. 10 DCMR § 200 10. The policies in support of the economic development objectives for Ward 1 include: (a) supporting the development of the U Street Corridor and U Street-Cardozo Metrorail Station areas; (b) promoting compliance by private sector employers with equal employment opportunity and affirmative action requirements as well as maximize involvement of private sector employees in the training and job placement programs, and (c) ensuring commercial and service establishments necessary to neighborhood residents 10 DCMR § 1202.1 (a), (b), (i), (m), (n)

The PUD supports the foregoing. First, the development would be a significant improvement over the automobile repair shop, antenna tower, and satellite dishes that are currently on the PUD Site and dramatically improve the aesthetics of the area while creating new housing opportunities and neighborhood retail uses to serve the residents, businesses, and offices in the area. Second, it will support the continued development of the U Street Corridor and U Street-Cardozo Metrorail Station areas by generating new residents that will utilize the businesses, services, and public amenities in these areas. Third, the Applicant will enter into a Memorandum of Understanding with the Office of Local Business Development to utilize local, small, or disadvantaged business enterprises certified by the District of Columbia Local Business Opportunity Commission in order to achieve, at a minimum, the goal of thirty-five percent (35%) participation in the contracted development costs in connection with the development of the Project, and the Applicant will enter into a First Source Agreement with DOES ensuring cooperation with DOES for employee recruitment for jobs created by the PUD and ensuring that fifty-one percent (51%) of the employees hired in connection with the development of the project are District of Columbia residents.

b. Housing. Housing is viewed as a key part of a total urban living system that includes access to transportation and shopping centers, the availability of employment and training for suitable employment, neighborhood schools, libraries, recreational facilities, playgrounds, and other public amenities. 10 DCMR § 300.4. The Ward 1 Housing element emphasizes the necessity for housing located close to services needed for urban living. 10 DCMR § 1204.1. The first principle is supported by the PUD's proximity to the U Street-Cardozo

Metrorail Station and the 14th and U Street corridor, which includes a myriad of neighborhood uses and public amenities. The latter principle is supported by the Applicant's commitment to reserve a portion of the project as affordable housing and its $1 million contribution to the Association for the acquisition of the Cresthill Apartments.

c. Transportation. A major policy for transportation in Ward 1 is supporting land-use arrangements that simplify and economize transportation services in the ward, including mixed-use zones that permit the co-development of residential and non-residential uses. Additional development is specifically encouraged in the area of the U Street-Cardozo Metrorail Station. 10 DCMR § 1214.1(a). Also, the Comprehensive Plan recognizes that the existing supply of parking spaces is inadequate in commercial and residential areas and encourages the development of parking facilities that will not adversely impact residential communities or parkland. 10 DCMR § 1215.1(g). The PUD supports these objectives by including a mix of residential, retail, and service uses intended to serve the building residents and positively impacts the area around the U Street-Cardozo Metrorail Station, while providing hundreds of potential new users for the station. Also, it will provide an underground parking garage that exceeds the requirements of the Zoning Regulations

Office of Planning Report

32. By report dated November 25, 2005, the Office of Planning ("OP") recommended approval of the PUD application This recommendation was based on its findings that the Application was supported by the ANC and numerous community groups and would generally be consistent with or further important Comprehensive Plan objectives related to housing, urban design, and land use within Ward 1. The report states that the PUD is generally consistent with zoning for the area, and the proposed amenity package is appropriate to the amount of density being gained through the PUD process.

Other Government Agency Reports

33. By email, the Metropolitan Police Department noted that "With sufficient underground parking in the building, (MPD) foresees no adverse public safety issues with this proposed building plan "

34. Also by email, the Department of Parks and Recreation noted that there is no District park property in the immediate vicinity of this development that will be impacted. Provision of some public green space as part of the package would be supported, as this area and areas due east and north have very little open space. OP noted that the Applicant is providing private and publicly accessible open space on the rooftop for residents, as well as green roof and streetscape landscaping.

35. By letter, the Department of Employment Services noted that the Applicant has agreed to enter into a First Source Agreement with DOES to ensure that District residents receive fifty-one percent (51%) of the new jobs created by this project, and recommended that

the Applicant execute this agreement prior to the Zoning Commission taking proposed actions

36. By email, the Watershed Protection Division (WPD) of the Department of Health noted among its comments that "the WPD concurs with one of the OP's suggestions requesting the Applicant to further investigate the feasibility of incorporating 'green building' practices in their design."

37. By report dated November 29, 2005, the District Department of Transportation ("DDOT") concluded that the transportation network can accommodate the proposed project without creating dangerous or objectionable traffic conditions. As such, DDOT had no objections to the project.

CONCLUSIONS OF LAW

1. Pursuant to the Zoning Regulations, the PUD process is designed to encourage high-quality development that provides public benefits. 11 DCMR § 2400.1. The overall goal of the PUD process is to permit flexibility of development and other incentives, provided that the PUD project "offers a commendable number or quality of public benefits, and that it protects and advances the public health, safety, welfare, and convenience." 11 DCMR § 2400.2.

2. Under the PUD process of the Zoning Regulations, the Zoning Commission has the authority to consider this application as a consolidated PUD. The Commission may impose development conditions, guidelines, and standards that exceed or be less than the matter-of-right standards identified for height, FAR, lot occupancy, parking, loading, yards, and courts The Zoning Commission may also approve uses that are permitted as special exceptions and would otherwise require approval by the Board of Zoning Adjustment.

3. The development of this PUD project will carry out the purposes of Chapter 24 of the Zoning Regulations to encourage the development of well-planned developments that offer a variety of building types with more attractive and efficient overall planning and design, not achievable under matter-of-right development.

4. The PUD meets the minimum area requirements of § 2401.1 of the Zoning Regulations.

5. The PUD, as approved by the Commission, including its approval pursuant to § 2405.3, complies with the applicable height, bulk, and density standards of the Zoning Regulations. The residential and neighborhood-serving retail uses for this project are appropriate for the PUD Site. Accordingly, the project should be approved. The impact of the project on the surrounding area is not unacceptable.

6. The application can be approved with conditions to ensure that any potential adverse effects on the surrounding area from the development will be mitigated.

7. The project benefits and amenities, particularly the provision of housing, affordable housing, and neighborhood-serving retail, are reasonable for the development proposed on the PUD Site.

8. Approval of the PUD is appropriate, because the proposed development is consistent with the present character of the area.

9. Approval of this PUD is not inconsistent with the Comprehensive Plan.

10. The Commission is required under D.C. Code Ann. § 1-309.10(d)(3)(A) (2001) to give great weight to the affected ANC's recommendation The Commission has carefully considered the ANC's recommendation for approval and concurs in its recommendation.

11. The application for a PUD will promote the orderly development of the site in conformity with the entirety of the District of Columbia zone plan as embodied in the Zoning Regulations and Map of the District of Columbia.

12. The application for a PUD is subject to compliance with D.C. Law 2-38, the Human Rights Act of 1977

DECISION

In consideration of the Findings of Fact and Conclusions of Law contained in this Order, the Zoning Commission for the District of Columbia orders **APPROVAL** of the application for consolidated review of a Planned Unit Development for the PUD Site located on the east side of 14th Street, N.W., between Florida Avenue and Belmont Street, in Square 2868, Lot 119 and Lot 122. This approval is subject to the following guidelines, conditions, and standards:

1. The PUD shall be developed in accordance with the plans prepared by SK&I Architects, entitled "14th Street & Florida Avenue, NW – A Planned Unit Development," dated December 21, 2005, marked as Exhibit 34 in the record (the "Plans"), except as modified by the guidelines, conditions, and standards herein.

2. The project shall be a residential and retail development constructed to a maximum height of ninety (90) feet and a density of 6.0 FAR. Approximately 173,765 square feet of the gross floor area of the project shall be devoted to residential use, with 160 to 195 condominium units, and approximately 13,903 square feet of the gross floor area shall be devoted to retail use.

3. Of the residential gross floor area for the project, a minimum of approximately 6,000 square feet shall be devoted to affordable housing for residents with an income that is no greater than eighty percent (80%) of the area median income.

4. The PUD shall include a minimum of 151 parking spaces with a minimum of 15 spaces devoted to the retail uses. Further, at least two (2) of the parking spaces shall be reserved for use by a car-sharing service, such as Zip Car or Flex Car

5. Prior to the issuance of certificate of occupancy for any unit within the PUD, the Applicant shall make a monetary contribution of $1 million to the Sankofa Tenants' Association, and shall cause the recordation of a covenant in the land records of the District of Columbia that limits the use of the Cresthill Apartment building at 1430 Belmont Street, N W., to affordable housing for not fewer than 25 years from the date that the property is acquired by the Association. In the event that said covenant is not recorded at the time the Applicant requests issuance of a certificate of occupancy, in addition to the provision in Condition No. 3 above, the Applicant shall reserve a minimum of 5,729 square feet of the residential area on the PUD Site for persons whose income does not exceed eighty percent (80%) of the area median income.

6. Prior to the issuance of a building permit for the PUD, the Applicant shall make a monetary contribution of $20,000 to the Parent Association of the Boys & Girls Club of Greater Washington.

7. Prior to this issuance of a building permit for the PUD, the Applicant shall make a monetary contribution of $10,000 to The Children's Studio.

8. Prior to this issuance of a building permit for the PUD, the Applicant shall make a monetary contribution of $5,000 to the Meridian Hill Neighborhood Association.

9. Prior to this issuance of a building permit for the PUD, the Applicant shall make a monetary contribution of $5,000 to the Cardozo Shaw Neighborhood Association.

10. The Applicant shall enter into a Memorandum of Understanding with the Office of Local Business Development. The Applicant shall abide by the terms of the Memorandum of Understanding in order to achieve, at a minimum, the goal of thirty-five percent (35%) participation by local, small, and disadvantaged businesses in the contracted development costs in connection with the design, development, construction, maintenance, and security for the project to be created as a result of the PUD project.

11. No logos, advertisements, or similar markings shall be permitted on the antenna tower, satellite dishes, or any cable equipment located on the rooftop of the building.

12. The Applicant shall enter into a First Source Employment Agreement with the Department of Employment Services The Applicant shall abide by the terms of the agreement in order to achieve the goal of utilizing District of Columbia residents for at least fifty-one percent (51%) of the jobs created by the PUD

13. No building permit shall be issued for the PUD until the Applicant has recorded a covenant in the land records of the District of Columbia, between the owner(s) and the District of Columbia, that is satisfactory to the Office of the Attorney General for the District of Columbia and the Zoning Division of the Department of Consumer and Regulatory Affairs (DCRA) Such covenant shall bind the Applicant and all successors in title to construct on and use the PUD Site in accordance with this Order or amendment thereof by the Zoning Commission.

14. The Office of Zoning shall not release the record of this case to the Zoning Division of DCRA until the Applicant has filed a copy of the covenant with the records of the Zoning Commission.

15 The PUD approved by the Zoning Commission shall be valid for a period of two (2) years from the effective date of this Order. Within such time, an application must be filed for a building permit as specified in 11 DCMR § 2409.1.

16. Pursuant to the Human Rights Act of 1977, D.C. Code § 1-2531 (1991), the Applicant is required to comply fully with the provisions of the Act, and this Order is conditioned upon full compliance with those provisions. Nothing in this Order shall be understood to require the Zoning Division of DCRA to approve permits if the applicants fail to comply with any provision of the Human Rights Act.

On December 5, 2005, the Zoning Commission approved the application by a vote of 5-0-0 (Carol J Mitten, Anthony J. Hood, Gregory N. Jeffries, John G. Parsons, and Michael G. Turnbull to approve)

The Order was adopted by the Zoning Commission at its public meeting on January 9, 2006, by a vote of 5-0-0 (John G. Parsons, Carol J. Mitten, Anthony J. Hood, Gregory N. Jeffries, and Michael G. Turnbull to approve).

In accordance with the provisions of 11 DCMR § 3028, this order shall become final and effective upon publication in the *D.C Register*; that is on FEB - 3 2006.

CAROL J. MITTEN
CHAIRMAN
ZONING COMMISSION

JERRILY R. KRESS, FAIA
DIRECTOR
OFFICE OF ZONING

Exhibit B

DISTRICT OF COLUMBIA GOVERNMENT
OFFICE OF THE SURVEYOR

Washington, D C , November 14, 2013

Plat for Building Permit of SQUARE 2868 LOT 155

Scale 1 inch = 40 feet Recorded in Book 201 Page 68

Receipt No 14-01039

Furnished to HOLLAND & KNIGHT / FREDA HOBAR

Surveyor, D C

By A S

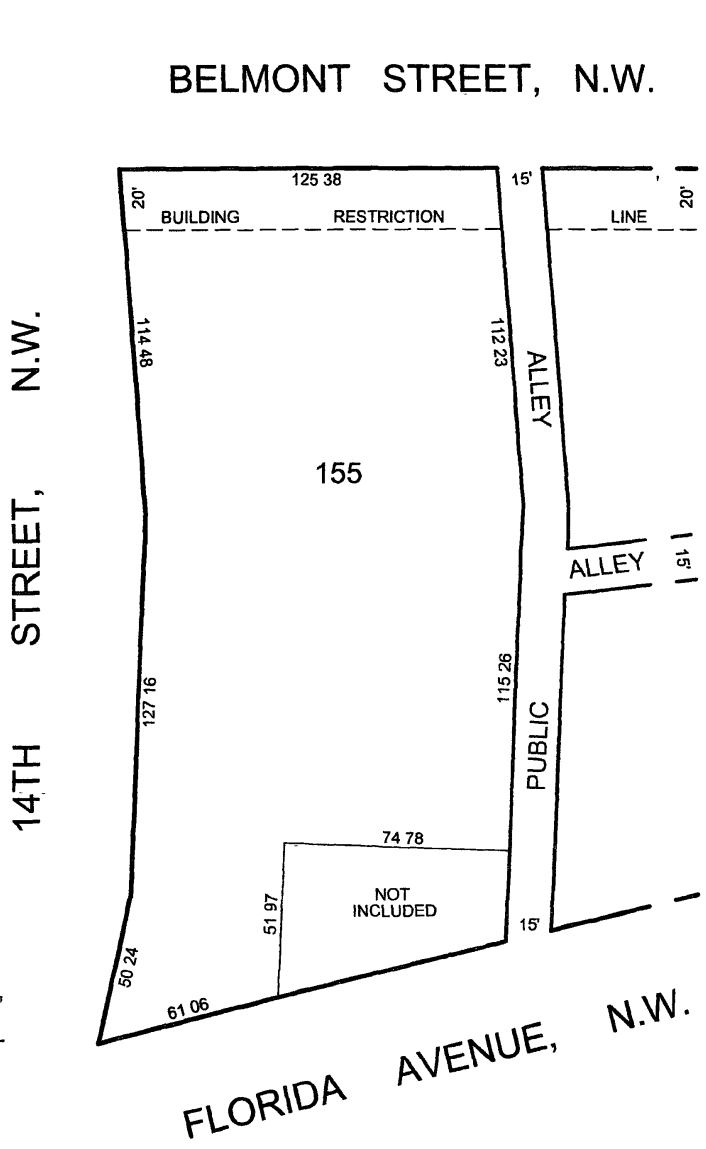
I hereby certify that all existing improvements shown hereon, are completely dimensione and are correctly platted, that all proposed buildings or construction, or parts thereof, includi covered porches, are correctly dimensioned and platted and agree with plans accompanyi the application, that the foundation plans as shown hereon is drawn, and dimensione accurately to the same scale as the property lines shown on this plat,and that by reason of t proposed improvements to be erected as shown hereon the size of any adjoining lot premises is not decreased to an area less than is required by the Zoning Regulations for lig and ventilation, and it is further certified and agreed that accessible parking area whe required by the Zoning Regulations will be reserved in accordance with the Zoni Regulations, and that this area has been correctly drawn and dimensioned hereon It further agreed that the elevation of the accessible parking area with respect to the Highw Department approved curb and alley grade will not result in a rate of grade along centerli of driveway at any point on private property in excess of 20% for single-family dwellings or fl or in excess of 12% at any point for other buildings (The policy of the Highway Departme permits a maximum driveway grade of 12% across the public parking and the priva restricted property)

Date _____

_____
(Signature of owner or his authorized agent)

NOTE Data shown for Assessment and Taxation Lots or Parcels are in accordance with the records of the Department of Finance and Revenue, Assessment Administration, and do not necessarily agree with deed description

2013 NOV 15 PM 2:11



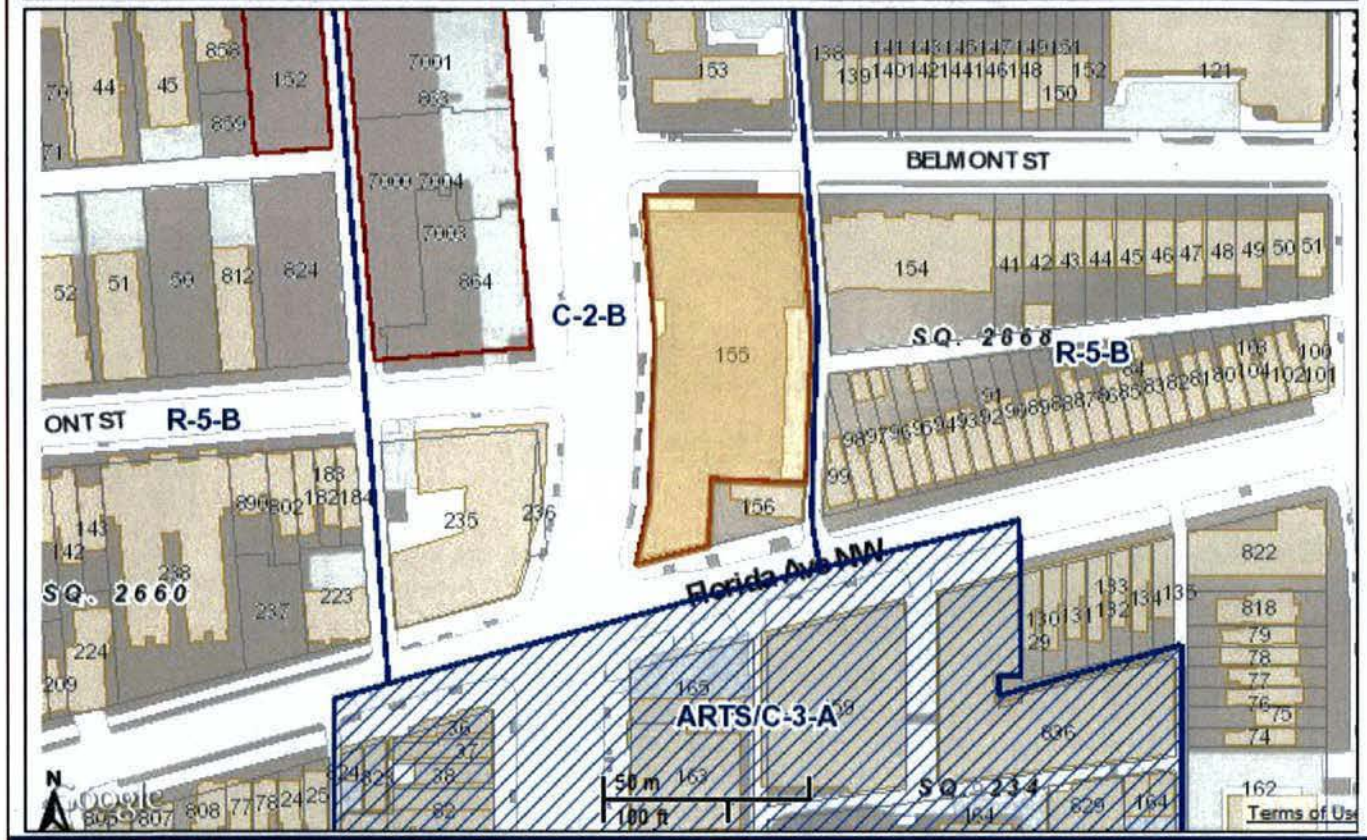
BOARD OF ZONING ADJUSTMENT
District of Columbia
CASE NO. 18702
EXHIBIT NO. 3

SR-14-01039(2013)

Exhibit C

Zoning Report for Square: 2868 Lot: 0155

January 20, 2014



Zoning Data Summary*	
Square/Suffix/Lot	2868 / n/a / 0155
Premises Address	2305 14TH ST
Zoning District (s)	C-2-B
Overlay District (s)	
Pending Zoning District(s)	
Pending Overlay District(s)	
PUD 1	05-22 : Level 2 Development, LLC
PUD 1 Zoning**	C-2-B
Pending PUDs	None
Ward	1
Council Member	Jim Graham
ANC	1B
ANC Chairperson	Tony Norman
SMD	1B04
Commissioner	Deborah R. Thomas

* For a detailed explanation of zoning related terms, pleaserefer to the DC Zoning Map Glossary available at http://maps.dcoz.dc.gov/css/Map_App_User_Guide/Glossary.pdf.

** To the extent an active PUD exists on a particular site,the PUD zoning depicts the zoning in effect for that site.

Zoning Layers

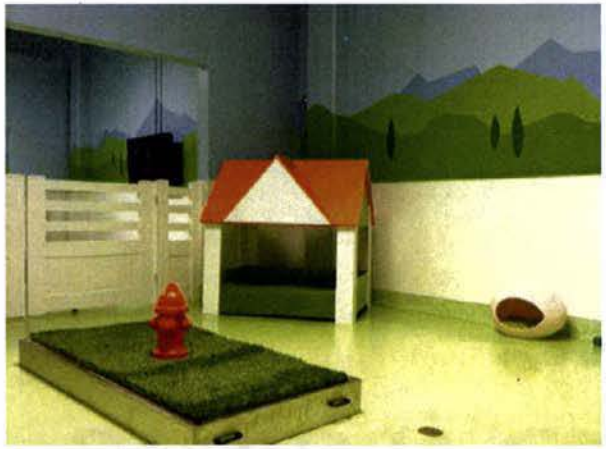
- Zone Districts
- Pending Zones
- Overlays
- Pending Overlays
- Baist Index
- Historic Districts
- Active PUDs
- Pending
- TDRs
- Campus Plans
- CEA

Latitude: -77.031546, Longitude: 38.920528

Exhibit D

Interior Design

- Sparkling Clean
- Modern
- Fresh



Dog Day Care Center

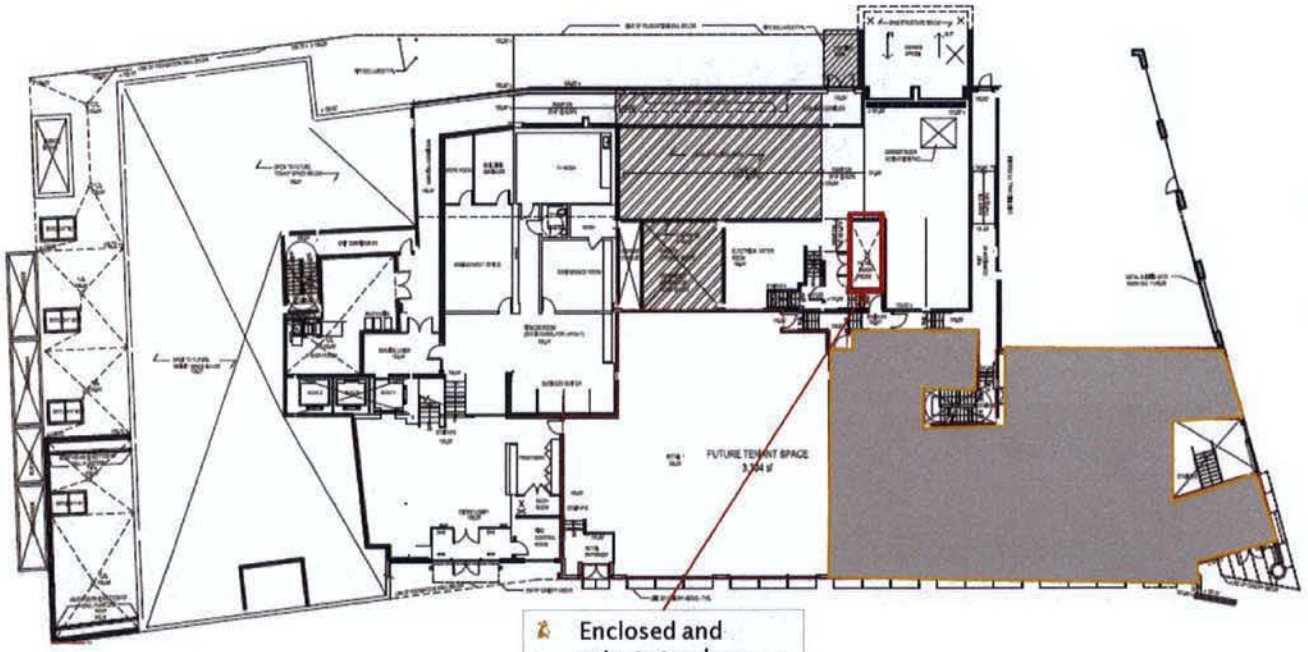
- Dog Day Care Center would be located on ground floor retail space at View 14, a mixed use project located at 2301 14th Street NW.

- The Center would represent over 4,300 square feet of ground floor retail space on 14th Street.
- The owner and residents of View 14 are excited about this use, and view this concept as an amenity to the building and community.

Architectural Drawing

- Each of the 5 Play Parks have individual Service Stations which hold our disposal receptacles, cleaning supplies and equipment.
- Play Parks have PooPee Patches which are sanitized throughout the day and drain direct to the sewer.

Architectural Drawing



Enclosed and private trash room located behind the premise.

Exhibit E

citydog! CLUB

Dear Members of the Board of Zoning Adjustment:

I urge your approval of BZA Application No. 18702, which seeks approval to permit dog daycare, boarding, grooming and retail shop uses on the ground floor of the View 14 building located at 2303 14th Street, NW. It is my understanding that Citydog! Club proposes to operate a full-service club for dogs offering dog daycare, boarding, grooming and a retail shop at the premise. Further, it is my understanding that Citydog! Club operates a transparent environment with a substantial effort focused on noise mitigation, waste management, odor control and overall cleanliness. Given these measures to control noise and odor, I believe that the proposed use will not be a nuisance, but instead the proposed establishment will be a welcomed amenity for the View 14 residents and the people who live and work in the area. Based on the foregoing, I encourage the Board's support of BZA Application No. 18702.

Count	Apartment Unit #	Address	Print Name	Signature	Date
1	895	2303 14th St	David Ferro		12/11/13
2	809	2303 14th St.	AARA GALA		12/11/13
3	105	2303 14th St	Desiree Bryant		12/11/13
4	105	2303 14th St	Cortni Grange		12/11/13
5	920	2303 14th St	Scott Cooper		12/11/13
6	906	2303 14th St	Van Fenwick		12/11/13
7	422	2303 14th St	CHRIS BROWN		12/11/13
8	505	2303 14th St	Britton Wight		12/11/13
9	601	2303 14th St	MICHAEL CARNOCHAN		12/11/13
10	601	2303 14th St NW	Sarah Lucas		12/11/13

Count	Apartment Unit #	Address	Print Name	Signature	Date
11	409	2305 14th St NW	Sarah Faros		12-11-13
12	409	"	James Thornett		12-11-13
13	411	"	DARREN VIGIL		12 Dec 13
14	311	"	Kristin Moreno		12/11/13
15	311	"	LISA ABRAMS		12/11/13
16	324	"	Nili Yossinger		12/11/13
17	326	"	Arun Vemury		12/11/13
18	521	"	Emmanuel		12/11/13
19	626	"	Ester Baeza		12/11/13
20	826	2420 14th St NW, 20009	FAITH HOLMES		12/11/13
21	914	" "	James Trieu		12/13
22	802	"	Jonathan Kidd		12/13
23	223	"	Danielle Dorne		12/13
24	223	" "	Travis Brown		12/13
25	619	"	MARLENE SHIGEKAWA		12/11/13
26	817	"	Jennifer DeFazio		12/11/13
27	817	"	Michael DeFazio		12/11/13
~~28~~	525	"	Jeff Chang		12/11/13
29	525	"	Allison Haddad		12/11/13

Count	Apartment Unit #	Address	Print Name	Signature	Date
30	307	2303 14th St NW	Elizabeth McDonnell		12/12
31	217	2303 14th St NW	Anchal Lidder		12/11
32	608	11	ROSARIO LI Rodri		12/1
33	507	2303 14th St NW	Chris Scan		12/11
34	423	2303 14th St NW	Hanna Navarro		12/11
35	423	↓	Adriana Hidalgo		12/11
36	625	2303 14th St. NW	Kelley Lloyd		12/11
37	804	2303 14th St NW	Ackerd Erod		12/11
38	511	2303 14th St	Hanna Koch		12/11
39	906	11	Camilla McCarthy		12/11
40	208	11 11	Allie Boris		12/11
41	Office	11 11	Nolan Cowan		12.12
42	801	2303 14th St	Peter Wilhelm		12/12
43	519	2302 14th St	Ariel Diaz		12/12
44	408	2303 14th St NW	Ann Mellenmyer		12/12
45	305	2303 14th St	John Hartnett		12/12
46	909	2303 14th	Phil Ayer		12/12
47	917	2303 14TH	GREG EVANS		12/12
48	707	2303 14th St	Laurie Watkins		12/12

Count	Apartment Unit #	Address	Print Name	Signature	Date
49	804	2303 St. NW 14th St	Kerri Hunter	Kerri Hunter	12/12
50	709	2303 14th St NW	Stacy Plitnowsky	Stacy	12/12
51	320	"	R. Anderson		12/12
52	319	2303 14TH ST NW	MARK WALTON		12/12
53	509	2303 14th St	Liz Bingham		12/12
54	526	2303 14th St NW	Nick Bronssard		12/12
55	304	" "	Alan Richard		12/12
56	706	" " #706	Bobby Jasak	R.S.	12/12
57	510	"	MARCIA DELEON		12/12
58	203	" #203	Tim Kuspa		12/12
59	222	# 222	Brent Plath		12/12
60	803	2303 14th St NW WDC 20009	Faith Hunter		12/12
61	910	2303 14th St. WDC 20009	Cameron Crossno		12/12
62	617	9100 Springfield Lane	Kyle Jackson		12/12
63	925	2303 14th St NW	Melanie Frank		12/12
64	209	2303 14th St NW	Matthew Fox		12/12
65	325	2303 14th St NW	Sarah O'Connor		12/12
66	425	2303 14th St	Conway Richter		12/12
67	—	5112 Southern Dr Ave NE	Sam DeFrimio		12/12

Count	Apartment Unit #	Address	Print Name	Signature	Date
68	315	2303 14th St NW DC 20009	MARK NELSON	[signature]	12/12
69	602	" "	Tom Howei	[signature]	12/12
70	921	"	Todd Christman	[signature]	12/12
71	715	#715 2303 14 St NW	FRANK QUESADA	[signature]	12/12
72	911	2303 14th St NW	Beckie Zosser	[signature]	12/12
73	625	2303 14th NW	~~Kelley Hand~~ Chase William	[signature]	12/12
74	522	2303 14th NW	Peter Bondi	[signature]	12/12
75	320	2303 14th N	NIELS METHLAGL	[signature]	12/12
76	910	2303 14th NW	[illegible]	[signature]	12/12
77	511	2303 14th St NW Apt 511	Emily Black	[signature]	12/12
78	106	" " APT 106	Kristen Larsen	[signature]	12/12
79	721	2303 14th St Apt 721	Andrew Kurtzman	[signature]	12/12
80	424	" #424	Ted Stein	[signature]	12/12
81	607	2303 14th St NW	Paul Elliott	[signature]	12/12
82	520	2420 14th St NW	Alex Garcia	[signature]	12/12
83	325	~~2303 14th St~~	Ashley Tate	[signature]	12/12
84	907	2303 14th St NW	Bryan Sawney	[signature]	12/12
85	Trinidad	2307 14th St NW	Carlos Hicks	[signature]	12/12
86	608	2303 14th St NW	Madeline Braden	[signature]	12/12

#26485874_v1

Count	Apartment Unit #	Address	Print Name	Signature	Date
87	526	2303 14th St	Rebecca [illegible]	[signature]	12/12
88	207	" "	Jennifer Breeds	[signature]	12/13
89	701	" "	Zoe Dosken	[signature]	12/13
90	915	" "	[illegible]	[signature]	12/13
91	945	2414 unitss 15 Place NW [illegible]	Sean Hanuel	[signature]	12/12
92	209	2303 14th St	Michael [illegible]	[signature]	12/12
93	226	2303 14th St	Bob Koch	[signature]	12/12
94	516	2303 14th ST	Reid Walker	[signature]	12/12
95	603	2303 14th ST.	CHRISTOPHER EDSLEY	[signature]	12/12
96	105	2303 14 St	Gibson B	[signature]	12/12
97	515	1441 Rhode Island	Koby Kendra	[signature]	12/12
98	106	2303 14th St NW Apt 106	Brandon Chase	[signature]	12/12
99	308	2303 14th NW	Mana Baltimore	[signature]	12/12
100	411	2303 14 NW	GARY T	[signature]	12/12
101	616	2303 14th	Thomas Clarke	[signature]	12/12
102	904	2303 14th	Bolesbchenski	[signature]	12/12
103	726	"	Jason W. Dye	[signature]	"
104	225	2303 14th street NW	Jess Larkin	[signature]	12/12
105	225	2303 14th St NW	AUSTIN HILL	[signature]	12/12

#26485874_v1

Exhibit F

POLYSONICS

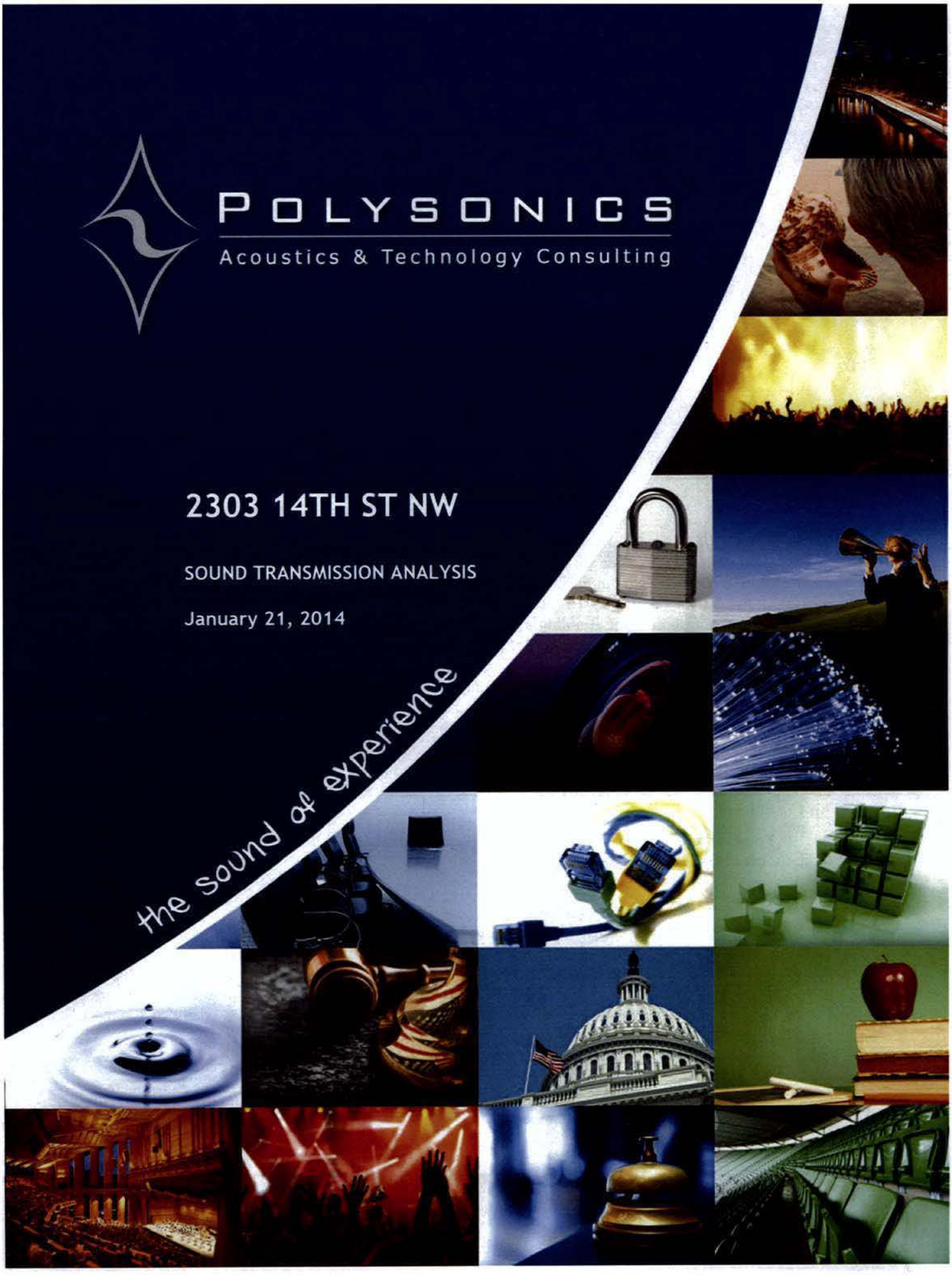
Acoustics & Technology Consulting

2303 14TH ST NW

SOUND TRANSMISSION ANALYSIS

January 21, 2014

the sound of experience



POLYSONICS

Acoustics & Technology Consulting

January 21, 2014

Mr. John Cooney
JCA Architects
1801 Robert Fulton Drive, Suite 410
Reston, VA 20191
Phone Number: (703) 827-4067

2303 14th Street NW
Sound Transmission Analysis

Dear Mr. Cooney:

Polysonics has prepared this sound transmission analysis for the View 14 building located at 2303 14th St NW, in Washington, DC (the "Building"). The Building is a mixed-use project that includes ground floor retail with a 9-story apartment community above. The owner of the Building intends to lease a portion of the Building's ground floor retail space ("Retail Space 2") to the operator of a dog day care center that will include pet grooming and overnight animal boarding (the "Dog Day Care Center"). The purpose of this analysis is to determine the sound impact of the proposed Dog Day Care Center on the five apartment units directly above Retail Space 2, and base recommendations that would attenuate sound transmission from the Dog Day Care Center to the five apartment units above. As detailed below, even in the highly unlikely, worst case scenario, certain construction measures would reduce the sound levels emanating from the Dog Day Care Center such that the level of sound in the residential apartment units above continues to meet the background interior sound level standards recommended by the American Society of Heating, Refrigerating and Air Conditioning Engineers ("ASHRAE").

For your reference a list of definitions of the acoustical terms used in this report are contained in the Appendix.

PROJECT DESCRIPTION

The Dog Day Care Center is proposed to be located at the southwest corner of the Building near the intersection of Florida Avenue and 14th Street. The proposed Dog Day Care Center will consist of approximately 4,300 square feet of floor area, and is designed to include multiple "play parks" for dogs as well as rooms for pet grooming and animal boarding. There will also be a lounge for clients. The hours of operation for the facility will be 7:00 a.m. to 9:00 p.m. daily including weekends. The facility will also board dogs overnight.

Within the building, the adjacent retail space to the north is currently unoccupied. The retail space on the east of this facility is a martial arts academy. There are five (5) apartment units located directly above the proposed Retail Space 2. All other common walls are shared with a stair well and public corridors.

APPLICABLE NOISE STANDARDS

Although minimum sound transmission ratings of interior common wall and floor/ceiling assemblies are required to be implemented in residential buildings by the International Building Code (IBC), Washington DC does not regulate any noise transfer between units within the same property. The IBC states that ratings of 50 or above for both the Sound Transmission Class (STC) and Impact Insulation Class (IIC) sound tests will satisfy the minimum requirements of the IBC. The existing 7-inch post-tensioned concrete slab exceeds the IBC requirement of STC 50. IIC is not applicable to this project.

According to the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), the background interior sound levels for the apartment units on the second floor of the Building shall not exceed the overall sound pressure level of 35-40 dBA, which is equivalent to a quiet bedroom at night. This recommendation is adopted as the basis of design for this analysis.

ACOUSTICAL SURVEY

A site visit was performed on December 4, 2013, from approximately 10:30 a.m. to 11:30 a.m. The purpose of the visit was to understand the layout of this space, identify construction limitations and measure ambient noise from adjacent streets.

Polysonics measured ambient sound levels (mostly traffic and street noise) approximately 5 feet from the building facades at the intersection of Florida Avenue and 14th Street. Each second the sound level meter logged the sound level in each frequency band, as well as the A-weighted sound level. The average A-weighted sound level was measured to be 68 dBA. A total of 10 minutes of data was collected.

In addition, Polysonics performed a site visit on January 17, 2014, from approximately 10:30 a.m. to 11:00 a.m. The purpose of the visit was to measure the existing background sound levels in the apartment units 221 and 226, which are located directly over the proposed Dog Day Care Center. Sound levels were measured in the bedrooms and living rooms as a baseline. The primary existing sound source was traffic from 14th Street and Florida Avenue. The measurements were performed with the heat pump and bathroom exhaust turned off (to represent a common condition). Each second the sound level meter logged the sound level in each frequency band for a total of one minute per space, as well as the A-weighted sound level. In unit 221, the A-weighted sound level was measured to be 35 dBA in the bedroom and 37 dBA in the living room. Similarly, in unit 226, the A-weighted sound level was measured to be 45 dBA in the bedroom, 41 dBA in the living room. Unit 226 measured louder relative to unit 221 as a result of the unit's larger window line and location within the Building, as it is closer to the corner of 14th and Florida Avenue, which at the time of measurement had noises associated with traffic and construction.

EXISTING FLOOR-CEILING ASSEMBLY EVALUATION

The floor to ceiling height of Retail Space 2 is 14 feet. The ceiling of the proposed Dog Day Care Center and the floor of the residential apartment units above are currently separated by an existing 7-inch thick post-tensioned concrete slab[1]. The field test showed that the concrete slab is performing as it should with no sound leaks, except that there may be minor sound leaks at the pipe penetrations. To minimize any sound leaks resulting from slab penetrations we have included architectural details with this report.

[1] The floor-ceiling assembly performance was previously measured and documented by HUSH Acoustics LLC in their acoustical report UDR-View-12-619-1 dated November 2, 2012. In addition, we used a computer program to verify the accuracy of the measured Transmission Loss (TL) values for a 7-inch thick post tensioned concrete slab. Refer to enclosed INSUL calculation. The results were generally similar to the Apparent Transmission Loss (ATL) values measured at the site. See Figure 1 in the Appendix of this report.

NOISE LEVEL FROM DOGS

The projected noise generated from dogs barking is based on the average noise level, which was collected from several measurements on different projects, the noise source being mixed breeds of dogs of varying types (small, medium and large). This information suggests that a single dog bark measures approximately 78.0 dBA at five feet. Assuming a mixed breed of dogs barking at the same level (identical sources), a group of five dogs barking at the same time will generate approximately 85.0 dBA at five feet. Based on this value, it was calculated that a worst case noise level at a partition exposed to noise from five Play Parks, each containing 10 dogs would be approximately 95.0 dBA if all 50 dogs were barking simultaneously 100 percent of the time. Refer to Figure 2 showing noise levels used for this analysis. Although a highly unlikely scenario, this assumption was used to present a conservative analysis of worst-case noise levels.

SOUND TRANSMISSION ANALYSIS

The existing 7-inch post-tensioned concrete slab was analyzed to determine the applicable STC rating. Without any modification, the existing slab is capable of attenuating 78 dBA of sound. To attenuate our worst case sound level scenario of 95 dBA to 35 dBA, the owner/tenant must install an acoustical gypsum board ceiling isolated from the building structure on spring hangers with fiberglass insulation in the ceiling space, which is described in greater detail on the following page.

Using the recommended construction approach mentioned above, the sound transmission from the Dog Day Care Center space to units 221 and 226 were calculated. The results of this analysis are presented in Table 1 below.

Table 1– Calculated Noise Impact based on worst-case scenario

Frequency, Hz	Predicted Noise Source Level, dB	Transmission Loss values calculated using the proposed floor-ceiling assembly, dB	Predicted Receiver Level, dB
63	68.6	24.9	43.7
125	68.1	34.1	34.0
250	69.2	41.5	27.7
500	93.4	55.8	37.6
1000	91.9	70.8	21.1
2000	85.4	75.5	9.9
4000	74.6	75.8	0.0
8000	65.5	74.0	0.0
dB(A)	**95.1**	-	**34.9**

As shown in Table 1, the noise levels in the apartment units above the Dog Day Care Center are projected to be at 35 dBA, which is the existing interior background sound level measured in residential units 221 and 226 and also the recommended ASHRAE standard. As the calculated noise level in the Dog Day Care Center are assumed to be an excessive, worst-case scenario, the noise level for the adjacent spaces shown in Table 1 is rarely expected to be exceeded.

ENHANCED NOISE REDUCTION FOR FLOOR CEILING ASSEMBLY

To attenuate sound transmission from the Dog Day Care center to the residential apartment units above, we recommend the following:

- The installation of an acoustical gypsum board ceiling comprised of two layers of high-density gypsum boards suspended at least 16" from the underside of the existing PT concrete slab with the help of Kinetics ICC isolation hangers and 6" fiberglass insulation in the ceiling space.[2] Refer to enclosed details for gypsum board noise control ceiling.
- To address flanking noise concerns, minimize penetrations in the drywall ceiling by lights, electrical conduits, except for isolations hangers supporting AHUs, HVAC ducts, plumbing and piping. Penetrations made by any piping in the concrete slab shall be properly packed, caulked and sealed to prevent sound leaks.[3] Refer to enclosed architectural details to minimize any sound leaks resulting from slab penetrations.
- Install a finished ceiling with acoustical ceiling panels rated for Noise Reduction Coefficient (NRC) 0.80 and Ceiling Attenuation Class (CAC) 35; suspend it below the gypsum board ceiling by attaching metal channels to the underside of the gypsum board ceiling. The plenum between the acoustical drywall ceiling and acoustical ceiling tile can be used for return air.
- Use wall panels such as 2" MBI ColorSonix or equal mounted directly to the walls. Cover at least 50% of the available wall surface in each room for sound absorption. The panels are abuse resistant and will able to withstand the impact from dogs.

Feel free to contact me directly for any questions at 540-341-4988 Ext: 2116.

Sincerely,

Darshit Joshi
Senior Consultant

[2] The hanger spacing is dependent upon the limitations of the drywall framing. Usually a framing system of 1-1/2" CRC can be supported on 4-ft centers. That needs to be confirmed by the installer and his metal supplier. At 4-ft on centers the maximum area a hanger would see is 16-SF. In our experience the actual average area/hanger is approximately 12-SF due to edge spacing limitations, etc. If the rooms are smaller and penetrated by walls that number may go down and hanger quantity may go up. Do not frame the acoustical drywall ceiling to perimeter walls or beams; provide a ½" sponge elastomer at all edges and columns etc. The finished acoustical ceiling shall be installed below the noise control gypsum board ceiling. Do not frame the acoustical gypsum board ceiling to perimeter walls or beams; provide a ½" sponge elastomer at all edges and columns etc.

[3] Due to flanking noise concerns, we recommend minimum penetrations in the drywall ceiling by lights, electrical conduits, except for isolations hangers supporting AHUs, HVAC ducts, plumbing and piping. Penetrations made by any piping in the concrete slab shall be properly packed, caulked and sealed to prevent sound leaks. Do not penetrate this ceiling with lighting fixtures or return air. If a return air plenum is used, make it the space below this gypsum board ceiling, not above it. The ceiling height shall be adjusted to clear existing piping. Polysonics has provided CAD details to address this issue. We have also included a test report from NRC-CNRC for Kinetics Noise Control as a supporting document to our analysis.

APPENDIX

NOISE AND SOUND LEVEL DESCRIPTORS

Noise level or sound level values presented herein are expressed In terms of decibels (dB), or dBA for A-weighting, to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, for a specified duration.

METHODOLOGY

I) Decibel Addition

To determine the combined logarithmic noise level of two or more known noise source levels, the values are converted to the base values, added together, and then converted back to the final logarithmic value, using the following formula:

$$L_c=10\log(10^{L1/10}+10^{L2/10}+\ldots 10^{Ln/10})$$

where L_c = the combined noise level (dBA), and L_n = the individual noise sources (dBA).

To approximate this equation please refer to Table 1. This procedure is also valid when used successively for each added noise source beyond the first two. The reverse procedure can be used to estimate the contribution of one source when the contribution of another concurrent source is known and the combined noise level is known. These methods can be used for L_{EQ} or other metrics (such as L_{DN}), as long as the same metric is used for all components.

Table 1 – Decibel Addition for Two Noise Sources	
Decibels Value Difference	Add to Higher Value
0-1 dB	3 dB
2-3 dB	2 dB
4-9 dB	1 dB
10 or more dB	0 dB

II) Attenuation Due To Distance

Attenuation due to distance is calculated by the equation:

$$SPL_1=SPL_2-20\log(D_2/D_1)$$

where SPL_1=Calculated sound pressure level at distance,
SPL_2=Known sound pressure level at known distance,
D_1 =Distance from source to known sound pressure level, and
D_2=Distance from source to location of calculated sound pressure level.

This is identical to the more commonly used reference of 6 dB reduction for every doubling of distance. This equation does not take into account reduction in noise due to atmospheric absorption.

III) Sound Transmission Class (STC) Ratings

Sound Transmission Class (STC) is a single number rating calculated in accordance with ASTM E413, using third-octave values of sound transmission loss. It provides an estimate of the sound performance of a partition, window, or door in sound insulation problems. Further information can be provided upon request.

Modeling of wall and floor/ceiling assemblies is accomplished using INSUL Version 6.3, which is a model-based computer program, developed by Marshall Day Acoustics for predicting the sound insulation of walls, floors, ceilings and windows. It is acoustically based on theoretical models that require only minimal material information that can make reasonable estimates of the sound transmission loss (TL) for use in sound insulation calculations; such as the design of common party walls and multiple family floor-ceiling assemblies, etc. INSUL can be used to quickly evaluate new materials or systems or investigate the effects of changes to existing designs. It models individual materials using the simple mass law and coincidence frequency approach and can model more complex assembly partitions, as well. It has evolved over several versions into an easy to use tool and has refined the theoretical models by continued comparison with laboratory tests to provide acceptable accuracy for a wide range of constructions. INSUL model performance comparisons with laboratory test data show that the model generally predicts the performance of a given assembly within 3 STC points.

IV) Interior-to-Interior Noise Transmission

According to the Handbook of Acoustical Measurements and Noise Control by Cyril M. Harris, sound transmission between rooms, through a common partition, can be calculated using the equation:

$$L_R = L_S - TL - 10\log(S - A_R)$$

Where L_R=Calculated sound pressure level in receiving room,
L_s=Known sound pressure level in the source room,
TL=The frequency specific transmission loss of the partition,
S=The surface area of the common partition, and
A_R=The frequency specific absorption value in the receiving room.

This equation is applied to each octave band level. The octave bands are then A-weighted and summed together to provide a broadband noise level. Further information is available upon request.

DEFINITION OF ACOUSTICAL NOISE TERMS

* Acoustics – The science of sound.
* Noise - a sound, especially one that is loud or unpleasant or that causes disturbance.
* Ambient Noise – the composite of airborne sound from many sources near and far associated with a given environment.
* Direct Sound – Sound that is emitted from the noise source, not including any reflected sound.
* Reflected Sound – Sound that has been bounced off of sound-reflecting surfaces.
* Decibel (dB) – A logarithmic scale of sound level.
* A-Weighted Sound Level (dBA) – The sound level in decibels using a frequency filter similar to human hearing. Sound levels measured with this filter are designated dB(A).
* Sound power level (L_w) – of airborne sound, ten times the common logarithm of the ratio of the sound power under consideration to the standard reference power of 1 pW. It is expressed in decibels.
* Sound Pressure Level (SPL) or (L_p) – The average (RMS) pressure level of sound waves at a particular point equal to 20 times the log of the of the measured RMS pressure divided by the reference pressure which is 20 micropascals.

$$SPL = 20 \log \frac{SPL}{SPL\ (reference)}$$

* Leq – Leq is the preferred method to describe sound levels that vary over time, resulting in a single decibel value which takes into account the total sound energy over the period of time of interest
* Lpeak – The peak level of the sound pressure wave measured during some specified time period with no time constant applied.
* L_{max} – The maximum RMS sound pressure level measured during some given time period with a time constant applied (Fast or Slow).
* L_{min} – The minimum RMS sound pressure level measured during some given time period with a time constant applied (Fast or Slow).
* L_{10} – The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
* L_{90} – The noise level exceeded 90% of the time period measured. Generally considered the ambient or background noise level of a location.
* Sound Transmission Class (STC) – A rating system for noise reduction through partitions. It is a unit less rating.
* Apparent Transmission Loss (ATL) – The difference in sound levels in a single frequency band between the retail space and residence above is called the Noise Reduction (NR). When the NR values are adjusted considering the floor area of the upper room, and the amount of sound absorbing materials in that upper room, the adjusted difference in sound levels between the two rooms is called the Apparent Transmission Loss (ATL). ATL values are essentially a property of the floor-ceiling assembly, and can be compared to Transmission Loss (TL) values measured in a laboratory or predicted with a computer model.

Sound Insulation Prediction (v6.3)

MARSHALL DAY Acoustics

Margin of error is generally within +/- 3STC

Job Name:2303 14th Street NW

Notes:

Job No.:

Page No.:

7-thick concrete slab (Normal weight)

Date: 16 Jan 14

Initials:DJ

File Name: 7-inch thick concrete slab.ins

STC 57

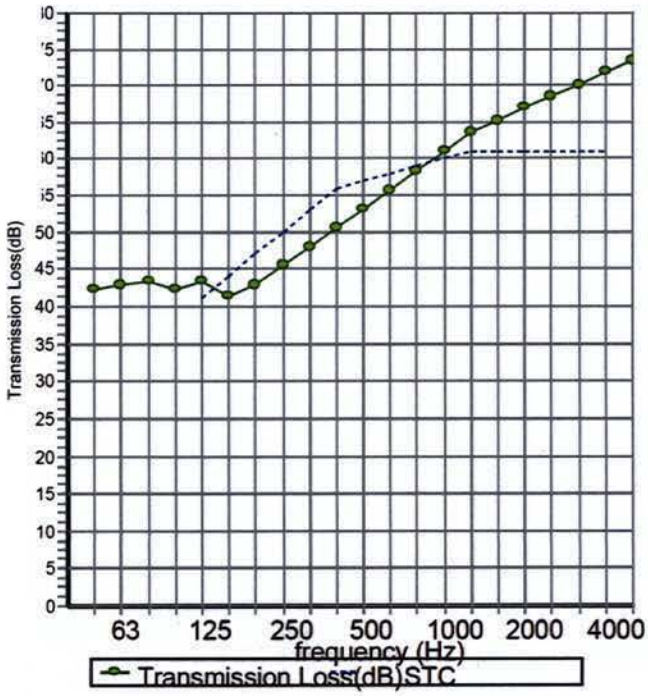
OITC 50

System description

Panel 1 Outer layer: 1 x 7.00 in Concrete (m=85.21 lb/ft2, fc=168 Hz, damping=0.01)

Panel Size 8.9x13 ft

frequency (Hz)	TL(dB)	TL(dB)
50	42	
63	43	43
80	43	
100	42	
125	43	42
160	41	
200	43	
250	45	45
315	48	
400	51	
500	53	53
630	56	
800	58	
1000	61	60
1250	64	
1600	65	
2000	67	67
2500	68	
3150	70	
4000	72	72
5000	73	



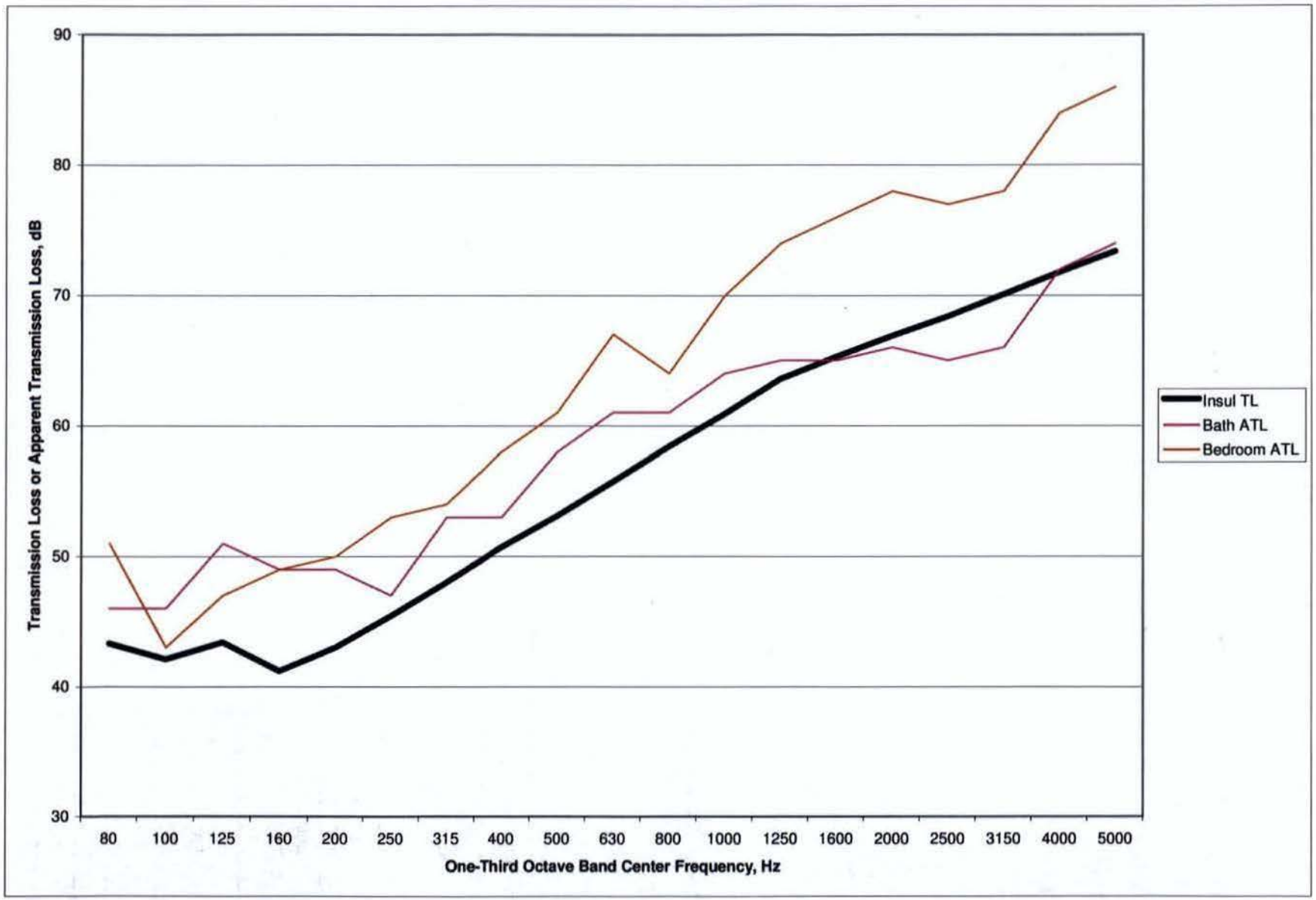


Figure 1: Measured and Calculated TL comparison
(HUSH Acoustics)

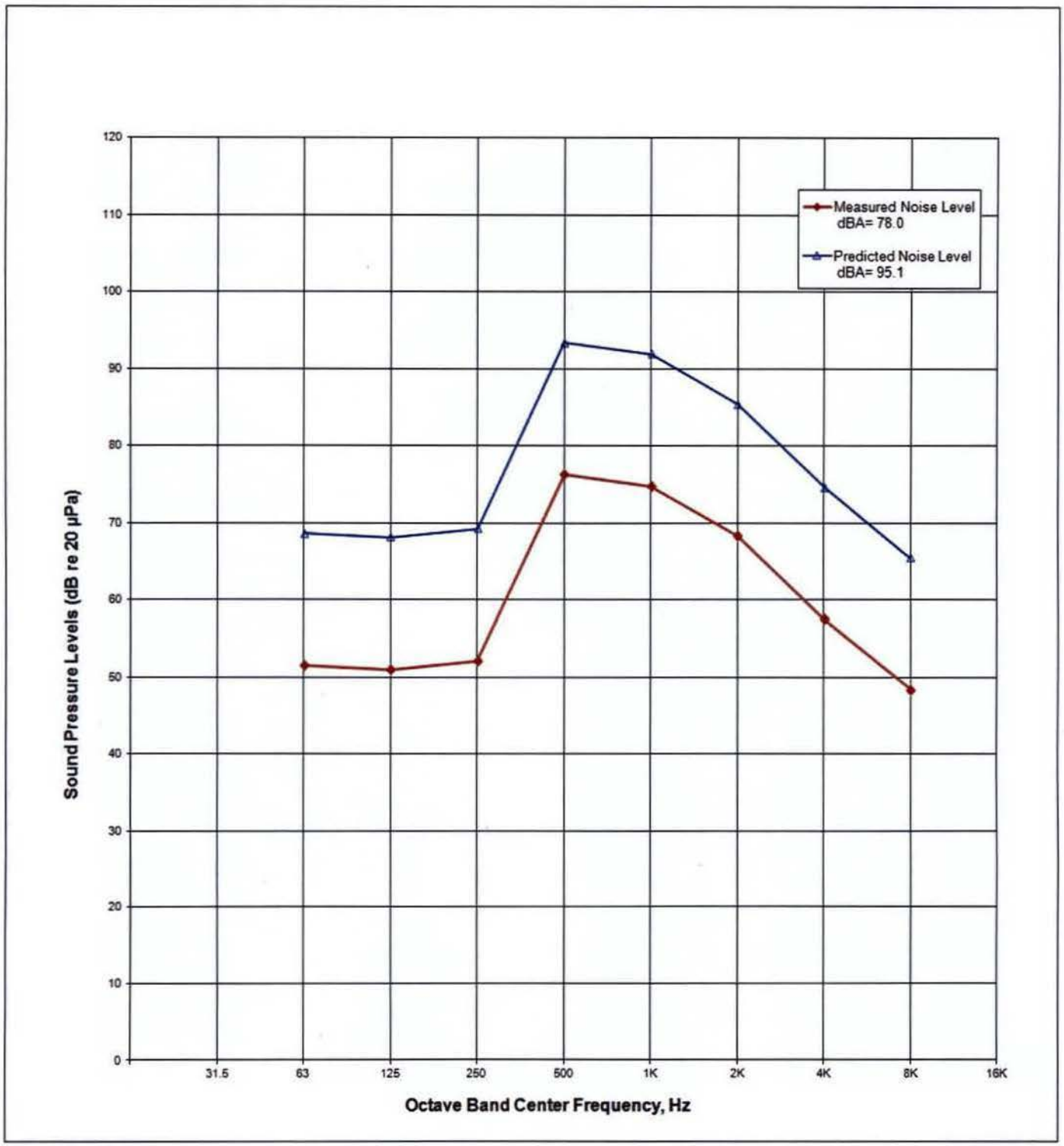
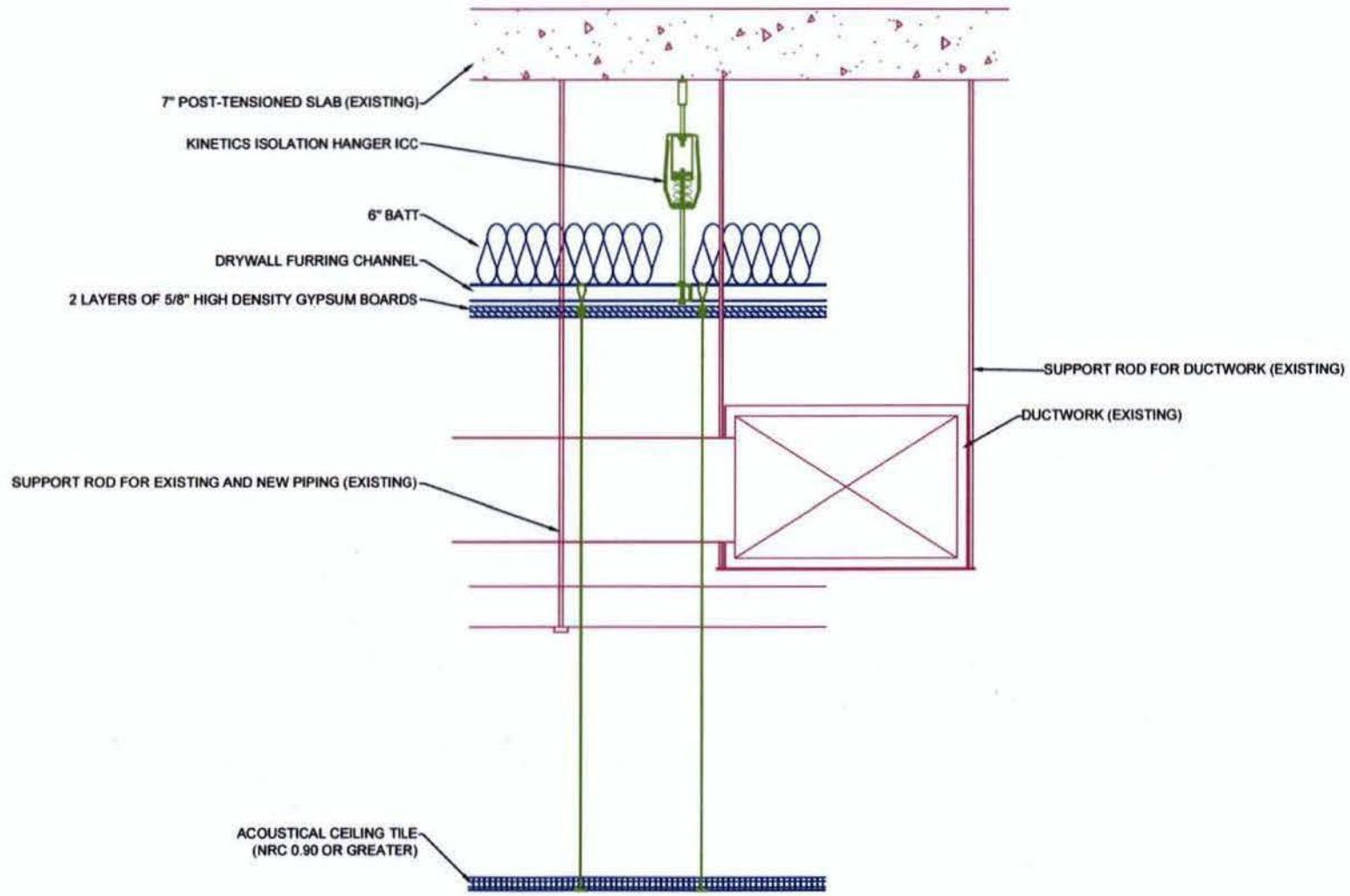
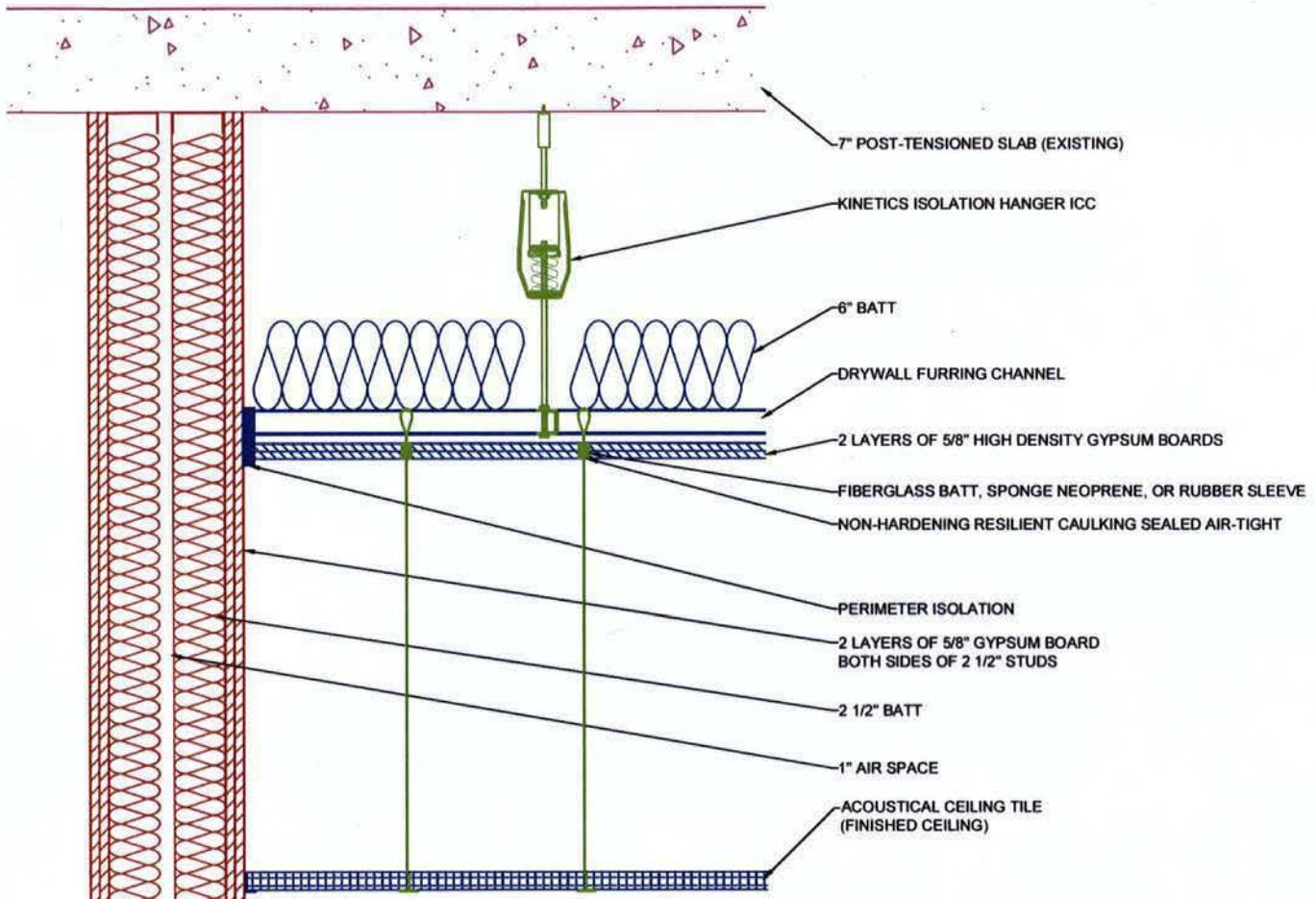


Figure 2: Noise Levels from Dogs



POLYSONICS
Acoustics & Technology Consulting
405 Belle Air Lane
Warrenton, VA 20186
540-341-4988

CONTRACT: -	2303 14th Street NW	TYPE: AX
TASK ORDER: -	TITLE: POLYSONICS PROPOSED ACOUSTICAL DRYWALL CEILING	DATE: 01/17/2014
DRAWN BY: AD	NOTE: FOR INFORMATION ONLY	1
CHECKED BY: DJ		SHEET #



RETAIL SPACE 1

RETAIL SPACE 2 (PROPOSED DOGS DAY CARE)

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CONTRACT: -	2303 14th Street NW	TYPE: AX
TASK ORDER: -	TITLE: TYPICAL WALL AND CEILING ISOLATION- CONDITION 1	DATE: 01/17/2014
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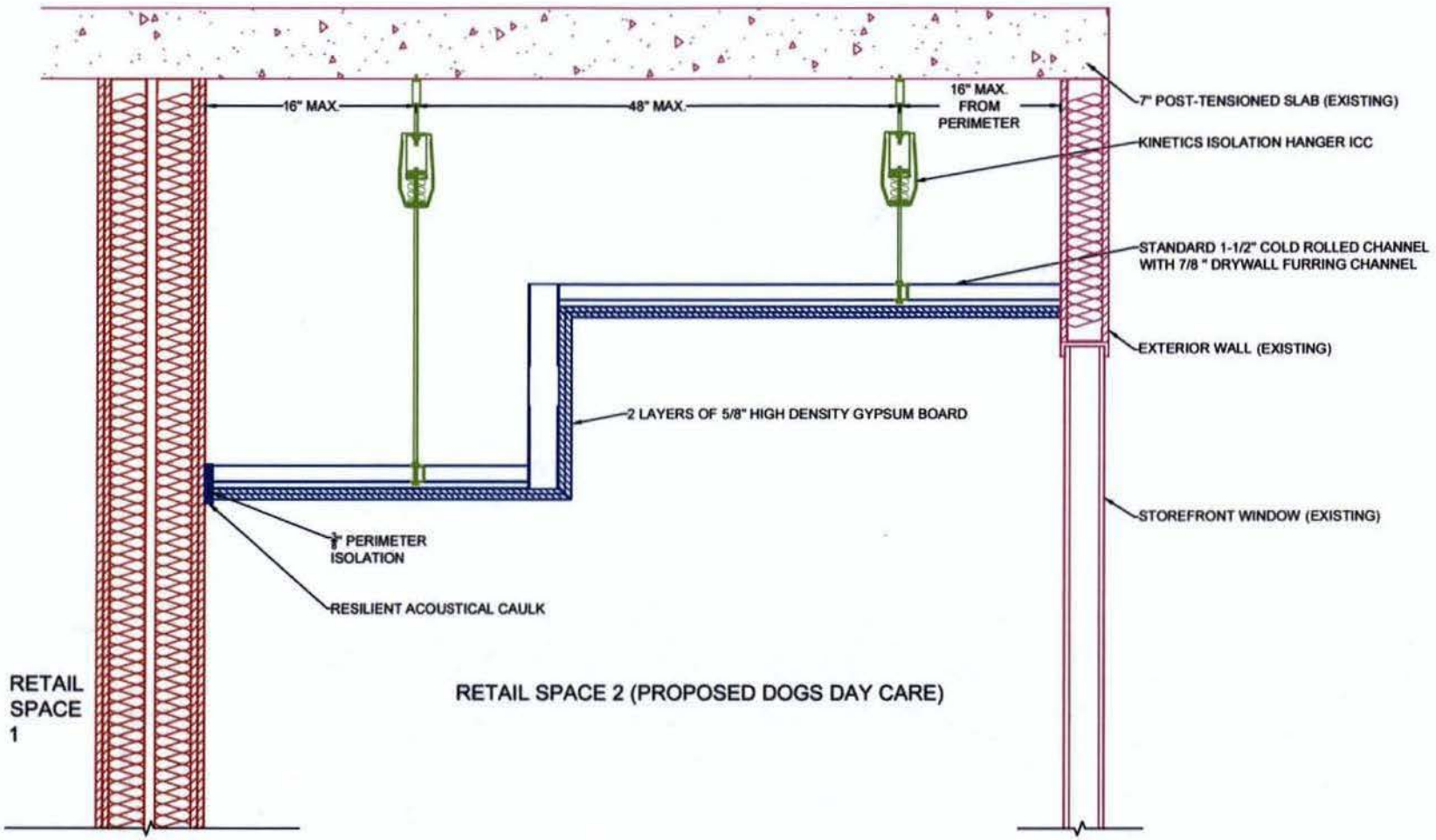
CHECKED BY: DJ		SHEET #



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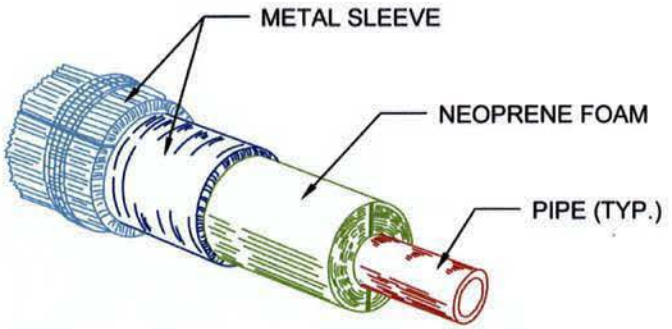
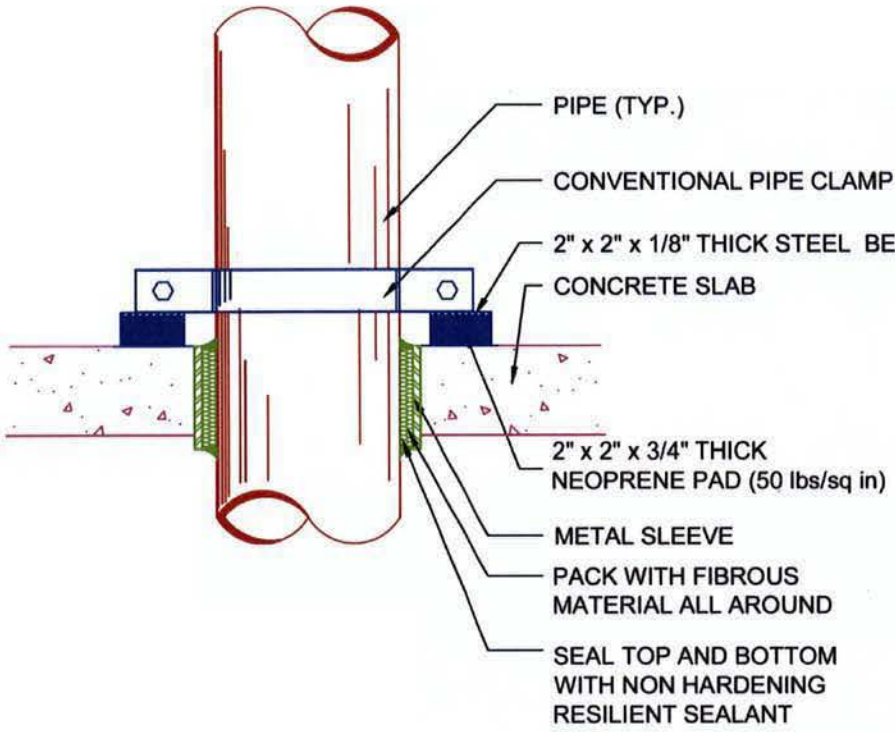
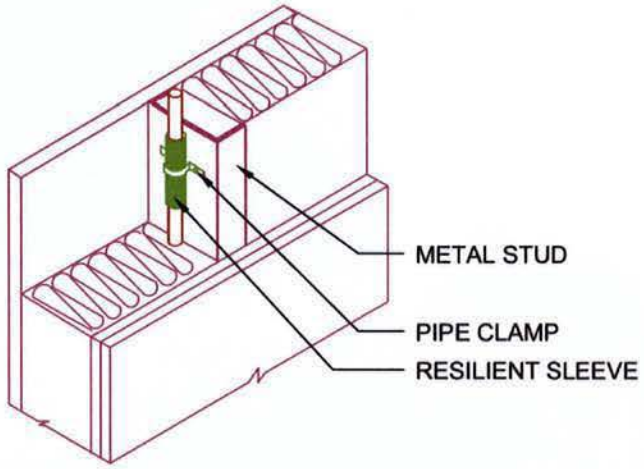


PLUMBING NOISE CONTROL DETAIL-1



PLUMBING NOISE CONTROL DETAIL -2



PLUMBING NOISE CONTROL DETAIL -3

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CONTRACT: -	2303 14th Street NW	TYPE: AX
TASK ORDER: -	TITLE: TYPICAL WALL AND SLAB PIPING ISOLATION	DATE: 01/17/2014
DRAWN BY: AD	NOTE: FOR INFORMATION ONLY	4
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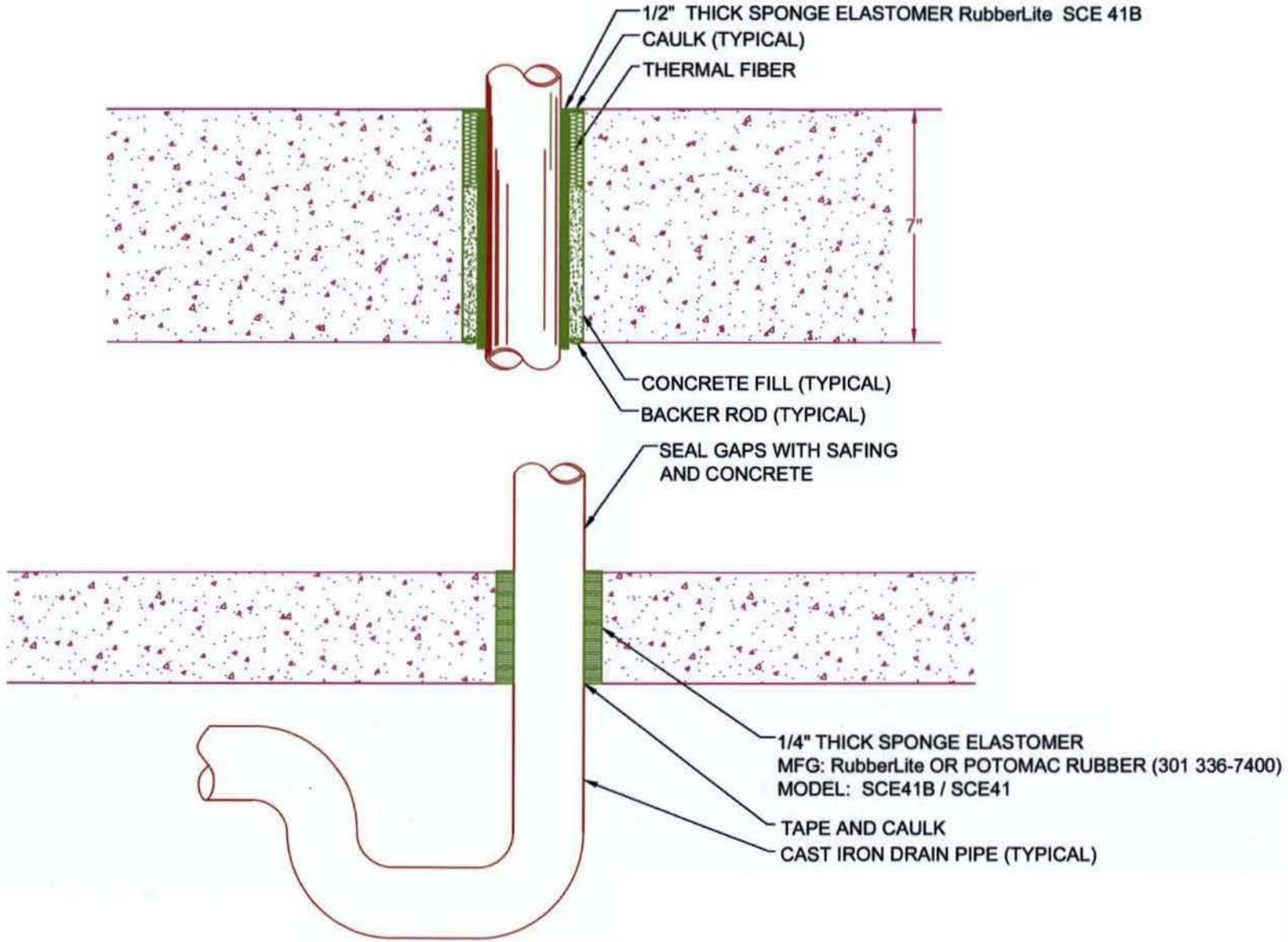

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CONTRACT: -	2303 14th Street NW	TYPE: AX
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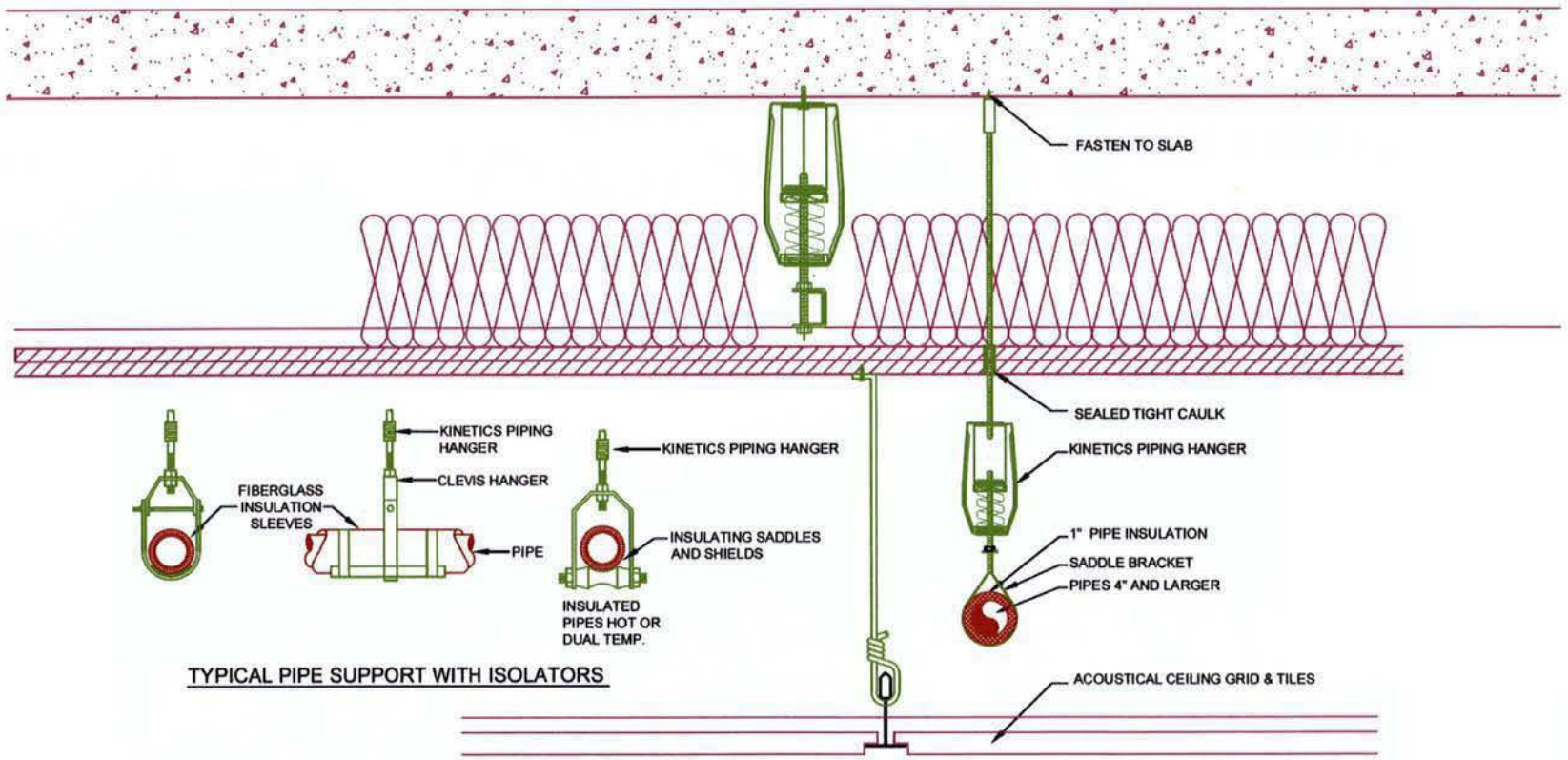

TYPICAL PIPE SUPPORT WITH ISOLATORS

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CONTRACT: -	2303 14th Street NW	TYPE: AX
TASK ORDER: -	TITLE: TYPICAL CEILING PIPING ISOLATION	DATE: 01/17/2014
DRAWN BY: AD	NOTE: FOR INFORMATION ONLY	6
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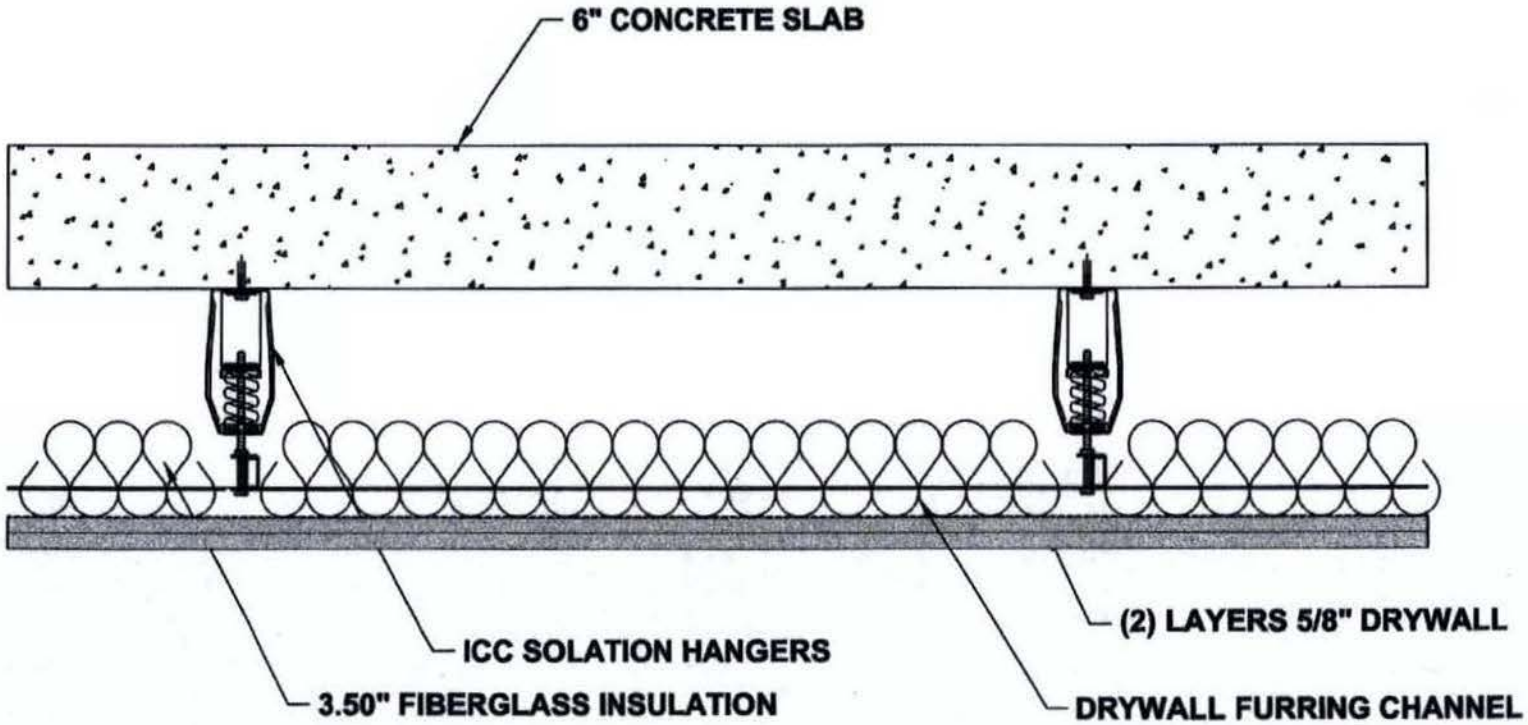
STC 84
IIC 70



KINETICS Noise Control	TITLE	LAST DATE REVISED	REVISED BY	DRAWING NO.
	TEST A13-d	11-8-04	JAE	A13-d

NRC·CNRC
Institute for Research in Construction

Bringing quality to the built environment

National Research Council of Canada

Client Report

B-3448.12

Airborne Sound Transmission Loss, Impact Sound Transmission and Special Impact Tests Measurements Performed on One (1) Floor Assembly

for

Kinetics Noise Control
6300 Ireland Place
Dublin, OH, USA
43017-0655

01 May 2007

Airborne Sound Transmission Loss, Impact Sound Transmission and Special Impact Tests Measurements Performed on One Floor Assembly for Kinetics Noise Control

Author

N.L. Brunette

Quality Assurance

J.D. Quirt, Ph.D.
Group Leader

Approved

M.R. Atif, Ph.D.
Director, Indoor Environment

Report No: B3448.12
Report Date: May 1, 2007
Contract No: B3448
Reference: Agreement dated June 28, 2006
Program: Indoor Environment

18 pages
Copy No. 1 of 4 copies

Special Impact Test (Tire, Walker, Ball)

There is no standard test specifying how to measure the sound pressure levels generated by a person walking on a floor Several years ago in ASTM committee E33, a single microphone measurement technique was proposed and was adopted for use in this laboratory. A single microphone is placed 1 m below the mid-point of the ceiling and the room below is made much less reverberant by placing sound absorbing material in it. The same microphone technique is used for measuring walker, ball and tire levels.

The Japanese measurement standard JIS 1418 specifies a heavy impactor source for evaluating floor constructions It consists of an automobile tire mounted on an arm attached to motor The motor lifts the tire and then utilizes cams to drop the tire freely on the floor. The cam system prevents the tire from striking the floor again until it has been lifted to the correct drop height. JIS 1418 specifies many drop positions for the tire and several microphone positions Earlier research with this machine showed that only a few positions of the tire were necessary The single microphone position is also considered adequate for comparison of floors tested within a single laboratory.

For the walker tests, a male member of the laboratory walks for about 3 minutes while the computer collects maximum sound levels for each 100 footsteps using a 35 ms time constant

The ball used in these measurements was developed by H. Tachibana as part of his research The ball is 180 mm in diameter and weighs 2 5 kg It is dropped from a height of 900 mm. The force generated is sufficiently repeatable that only 15 impulses need be averaged

Airborne sound transmission loss tests were performed in the forward (receiving room is the lower room) and reverse (receiving room is the upper room) directions Results presented in this report are the average of the tests in these two directions.

A complete description of the test procedure, information on the flanking limit of the facility and reference specimen test results are available on request

Impact Sound Transmission

Impact sound transmission measurements were made in accordance with ASTM E492, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine" This test used the standard tapping machine and the prescribed four impact positions on the floor. The Impact Insulation Class (IIC) was determined in accordance with ASTM E989, "Standard Classification for Determination of Impact Insulation Class (IIC)"

These measurements are also in accordance with ISO 140-6, "Laboratory Measurements of Impact Sound Insulation of Floors", except that the tapping machine positions are not randomly selected This difference is believed to be insignificant. The Weighted Normalized Impact Sound Pressure Level ($L_{n,w}$) was determined in accordance with ISO 717-2, "Acoustics — Rating of Sound Insulation in Buildings and of Building Elements - Part 2: Impact Sound Insulation"

One-third octave band sound pressure levels were measured for 30 seconds at each microphone position in the receiving room and then averaged to get the average sound pressure level in the room Five sound decays were averaged to get the reverberation time at each microphone position in the receiving room. These times were averaged to get the spatial average reverberation times for the room

The space average sound pressure levels and the spatial average reverberation times of the receiving room were used to calculate impact transmission values. For impact sound transmission, the lower room is the receiving room

A complete description of the test procedure is available on request

useful for expert evaluation of the specimen performance The precision of results outside the standard ranges has not been established, and is expected to depend on laboratory-specific factors such as room size and specimen dimensions

FACILITIES AND EQUIPMENT

The acoustics floor test facility comprises two reverberation rooms with a moveable test frame between the two rooms Both rooms have a volume of 175 m^3.

Measurements are controlled by a desktop PC-type computer interfaced to a Norwegian Electronics type 830 real time analyser Each room has a calibrated Bruel & Kjaer condenser microphone with a type 4166 cartridge that is moved under computer control to nine positions used for the acoustical measurements Each room has four loudspeakers driven by separate amplifiers and noise sources. To increase the randomness of the sound field, there are also fixed diffusing panels in each room

TEST PROCEDURE

Airborne Sound Transmission Loss

Airborne sound transmission measurements were conducted in accordance with the requirements of ASTM E90, "Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions", and of ISO 140-3, "Laboratory Measurement of Airborne Sound Insulation of Building Elements"

The Sound Transmission Class (STC) was determined in accordance with ASTM E413, "Classification for Rating Sound Insulation". The Weighted Sound Reduction Index (R_w) was determined in accordance with ISO 717-1, "Rating of Sound Insulation in Buildings and of Building Elements, Part 1 Airborne Sound Insulation"

One-third octave band sound pressure levels were measured for 30 seconds at each microphone position in each room and then averaged to get the average sound pressure level in the room. Five sound decays were averaged to get the reverberation time at each microphone position in the receiving room. These times were averaged to get the average reverberation times for the room

The average sound pressure levels of both the source and receiving rooms and the average reverberation times of the receiving room were used to calculate sound transmission loss values

NOTES ON THE SIGNIFICANCE OF TEST RESULTS

Sound Transmission Class And Weighted Sound Reduction Index

The Sound Transmission Class (STC) and Weighted Sound Reduction Index (R_w) are single-figure rating schemes intended to rate the acoustical performance of a partition element under typical conditions involving office or dwelling separation. The higher the value of either rating, the better the floor performance. Thus, the rating is intended to correlate with subjective impressions of the sound insulation provided against the sounds of speech, radio, television, music, office machines and similar sources of noise characteristic of offices and dwellings In applications involving noise spectra that differ markedly from those referred to above (for example, heavy machinery, power transformers, aircraft noise, motor vehicle noise), the STC and R_w are of limited use. Generally, in such applications it is desirable to consider explicitly the noise spectra and the insulation requirements

Impact Insulation Class And Weighted Normalized Impact Sound Pressure Level

The Impact Insulation Class (IIC) (ASTM E989) and the Weighted Normalized Impact Sound Pressure Level ($L_{n,w}$) (ISO 717-2) are single-figure rating schemes intended to rate the effectiveness of floor-ceiling assemblies at preventing the transmission of impact sound from the standard tapping machine. The higher the value of the rating, the better the floor performance.

The ASTM E989 and the ISO 717 rating curves are identical The major difference in the fitting procedure is that the ISO standard allows unfavorable deviations to exceed 8 dB, the ASTM E989 standard does not When this 8 dB requirement is not invoked, the two ratings are related by the equation

$$IIC = 110 - L_{n,w}$$

Extended Frequency Range

Standard test procedures require measurements in 1/3-octave bands over a specified frequency range (125 to 4000 Hz for ASTM E90 and 100 to 3150 Hz for ASTM E492) Within those ranges, reproducibility has been assessed by inter-laboratory round robin studies The standards recommend making measurements and reporting results over a larger frequency range, and this report presents such results, which may be

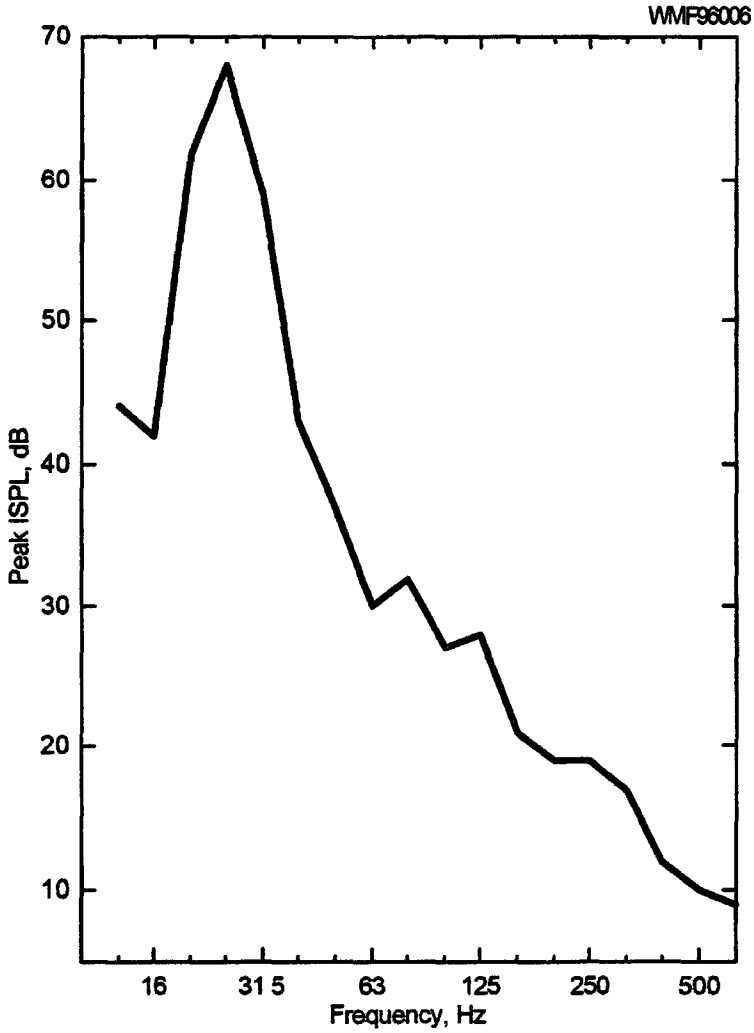


Figure 7 Peak impact insulation measurements, using the live walker, of Floor "D"

Table 6: Peak impact insulation measurements, using the live walker, of Floor "D", WMF-96-006

Frequency (Hz)	Impact Sound Pressure Level (dB)
12.5	44
16	42
20	62
25	68
31 5	59
40	43
50	37
63	30
80	32
100	27
125	28
160	21
200	19
250	19
315	17
400	12
500	10
630	9

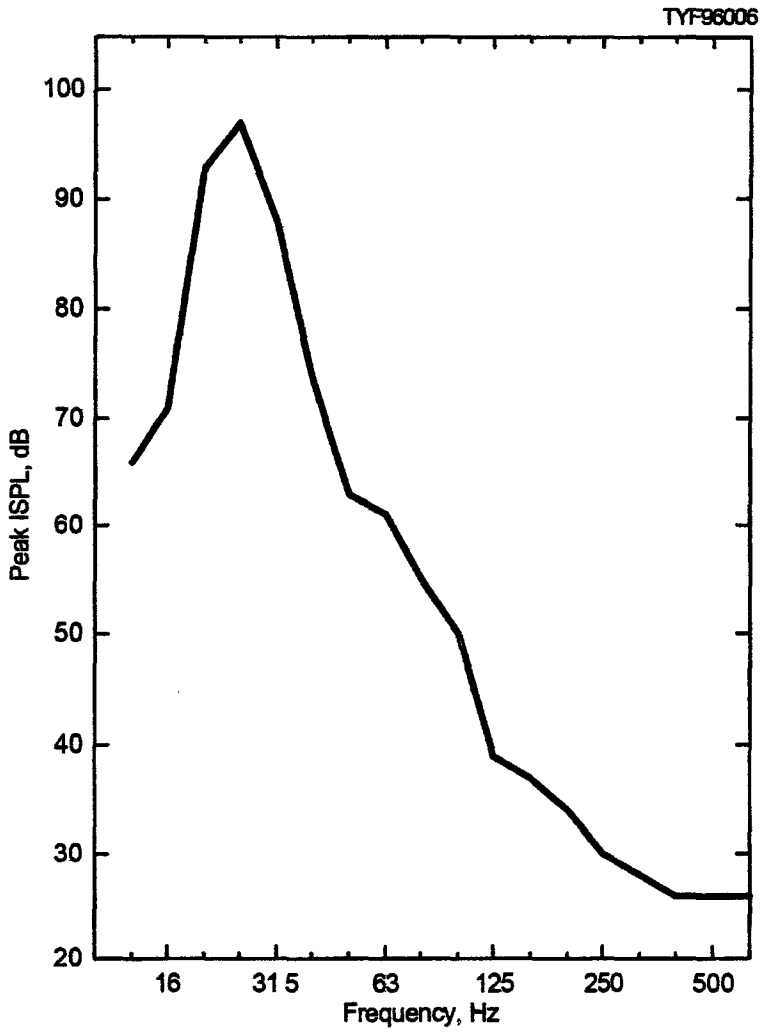


Figure 6. Peak impact insulation measurements, using the tire machine, of Floor "D"

Table 5. Peak impact insulation measurements, using the tire machine, of Floor "D", TYF-96-006

Frequency (Hz)	Impact Sound Pressure Level (dB)
12.5	66
16	71
20	93
25	97
31.5	88
40	74
50	63
63	61
80	55
100	50
125	39
160	37
200	34
250	30
315	28
400	26
500	26
630	26

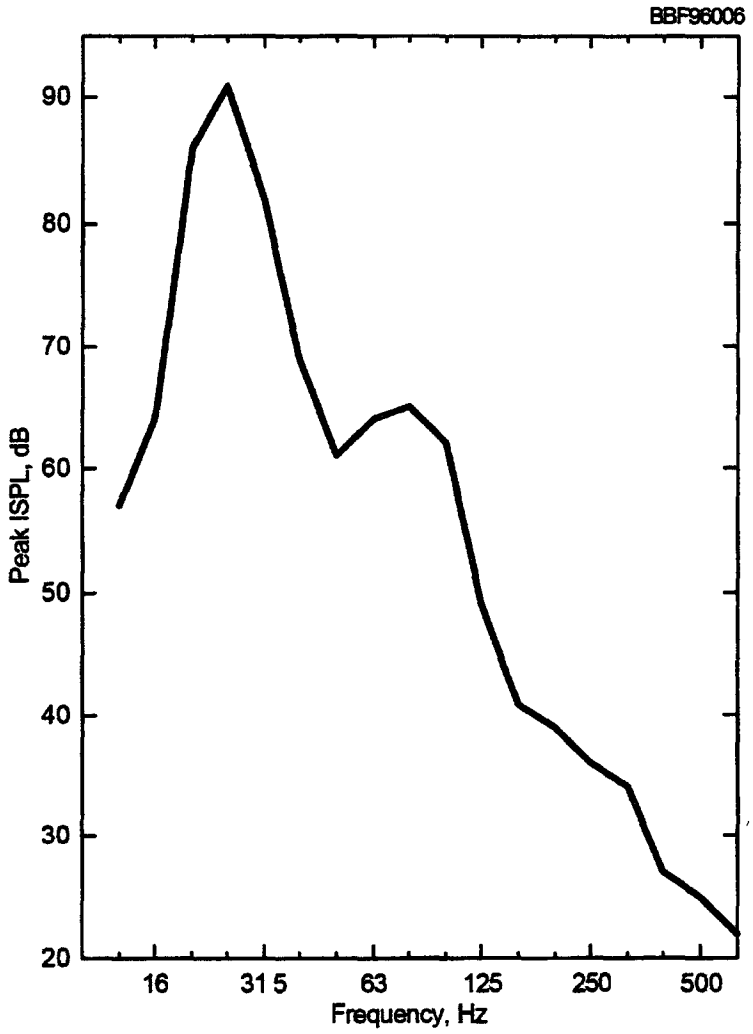


Figure 5· Peak impact insulation measurements, using Tachibana's ball, of Floor "D"

Table 4. Peak impact insulation measurements, using Tachibana's ball, of Floor "D", BBF-96-006

Frequency (Hz)	Impact Sound Pressure Level (dB)
12.5	57
16	64
20	86
25	91
31 5	82
40	69
50	61
63	64
80	65
100	62
125	49
160	41
200	39
250	36
315	34
400	27
500	25
630	22

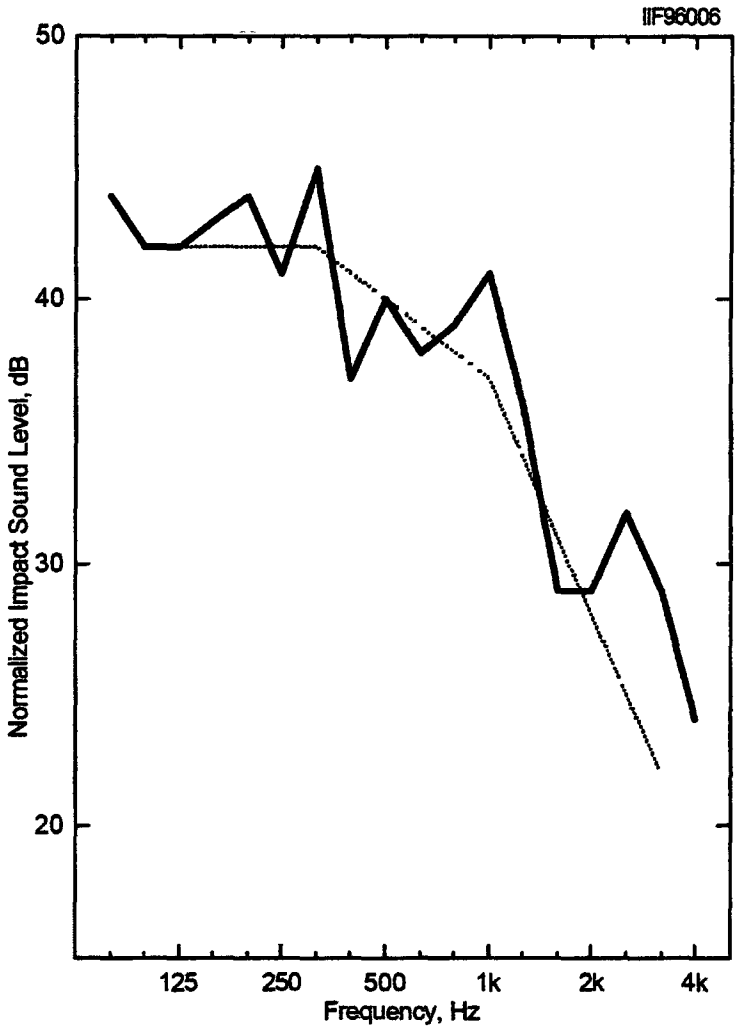


Figure 4 Impact sound transmission measurements of Floor "D" The solid line is the experimental data and the dotted line is the IIC 70 contour

Table 3. Impact sound transmission measurements of Floor "D", IIF-96-006.

Frequency (Hz)	Impact Sound Transmission Loss (dB)	95% Confidence Limits*	Deviation Below the IIC Contour
80	44	±0 9	
100	42	±0.6	
125	42c	±0.8	
160	43	±0.3	-1
200	44	±0 4	-2
250	41	±0 2	
315	45	±0.5	-3
400	37	±0 2	
500	40	±0.2	
630	38	±0 2	
800	39	±0.1	-1
1000	41	±0 2	-4
1250	36	±0.2	-2
1600	29	±0 1	
2000	29	±0 1	-1
2500	32	±0 1	-7
3150	29	±0.1	-7
4000	24	±0.2	
5000	19c	±0.2	
Impact Insulation Class (IIC)[3] = 70			
Weighted Normalized Impact Sound Pressure Level ($L_{n,w}$)[4] = 40			

[3] Impact Insulation Class (IIC) calculated according to ASTM E989

[4] Weighted Normalized Impact Sound Pressure Level ($L_{n,w}$) calculated according to ISO 717

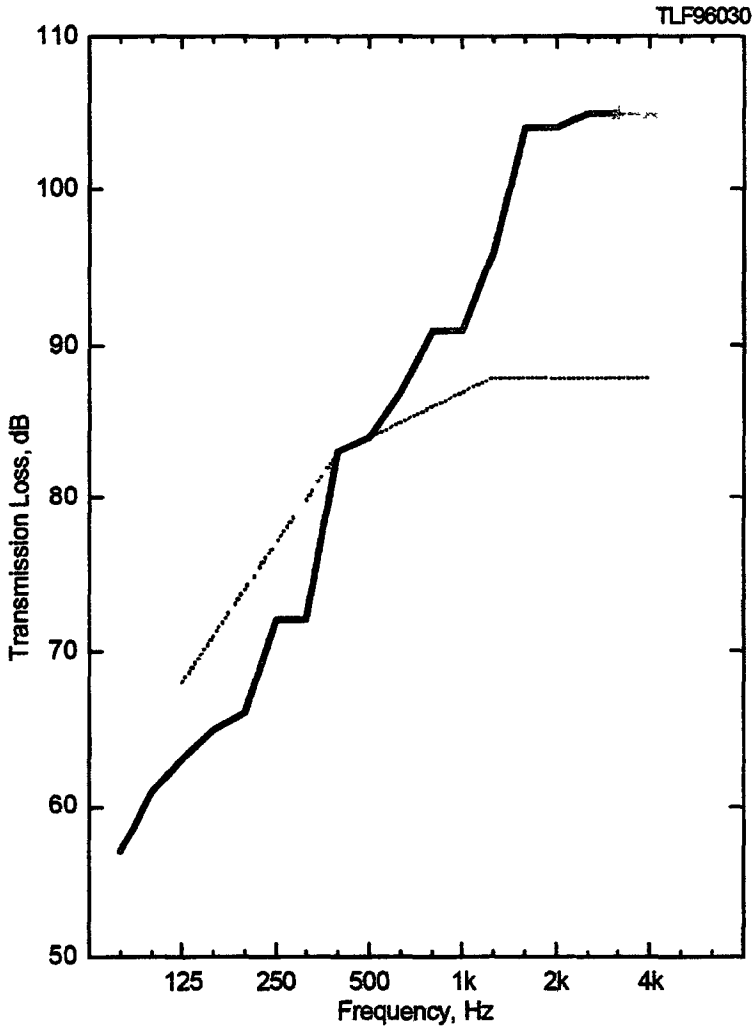


Figure 3. Airborne sound transmission loss measurements of Floor "D" The solid line is the experimental data, the dotted line is the STC 84 contour and the line with astersks is the lower limit of the airborne sound transmission loss.

Table 2. Airborne sound transmission loss measurements of Floor "D", TLF-96-030

Frequency (Hz)	Airborne Sound Transmission Loss (dB)	95% Confidence Limits*	Deviation Below the STC Contour
80	57	±2 7	
100	61	±1 3	
125	63	±1 5	-5
160	65	±0.8	-6
200	66	±0 7	-8
250	72	±0 6	-5
315	72	±0.8	-8
400	83	±0 7	
500	84	±0 6	
630	87	±0.9	
800	91	±0 4	
1000	91	±0 5	
1250	96	±0.9	
1600	104	±0 7	
2000	104	±0.6	
2500	105	±0 2	
3150	105**	±0.2	
4000	105**	±0.3	
5000	105**	±0.4	
Sound Transmission Class (STC)[1] = 84			
Weighted Sound Reduction (R_W)[2] = 84			

[1] Sound Transmission Class (STC) calculated according to ASTM E413

[2] Weighted Sound Reduction (R_w) calculated according to ISO 717

RESULTS

Results of the airborne sound transmission loss measurements of Floor "D" are given in Table 2 and Figure 3 Results of the impact sound transmission measurements of this floor construction are given in Table 3 and Figure 4. Results of the special measurements are given in Table 4, 5, 6 and Figure 5, 6 and 7.

Values marked "***" indicate that the measured background level was less than 5 dB below the combined receiving room level and background level The reported values provide an estimate of the lower limit of airborne sound transmission loss or impact transmission These values do not limit the sound transmission class

The Tables also give the 95% confidence limits Acoustical measurement in rooms is a sampling process and as such has associated with it a degree of uncertainty By using enough microphone and loudspeaker positions, the uncertainty can be reduced and upper and lower limits assigned to the probable error in the measurement. These limits are called 95% confidence limits They are calculated for each test according to the procedures in ASTM E90 and E492 and must be less than upper limits given in the standards These confidence limits do not relate directly to the variation expected when a nominally identical specimen is built, installed and tested (repeatability). Nor do they relate to the differences expected when nominally identical specimens are tested in different laboratories (reproducibility)

The following table gives the elements of the specimen, listed from top to bottom

Table 1 Element breakdown of Floor "D"

Element	Surface weight (kg/m^2)	Mass (kg)
150 mm concrete slab	356	7,030
Kinetics ICC ceiling isolation hangers		18
16 gauge steel rails (5 pieces used)		10
25 mm 20 gauge furring channels (10 pieces used)		22
90 mm R12 glass fibre batts	1 0	19
15 9 mm Type X gypsum board	11.3	202
15 9 mm Type X gypsum board	11 3	202
TOTAL	**379.6**	**7,503**

Measured total thickness 512 mm

The test specimen was mounted in the IRC acoustical floor test opening which measures 4.70 m x 3 78 m. The area used for the calculations of impact transmission and airborne sound transmission loss was 17 85 m^2

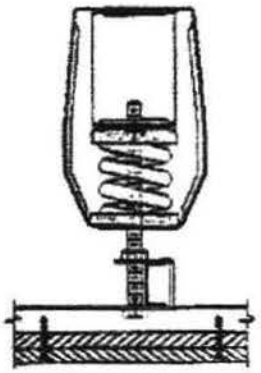


Figure 1: Sketch, provided by the client, of an ICC hanger.

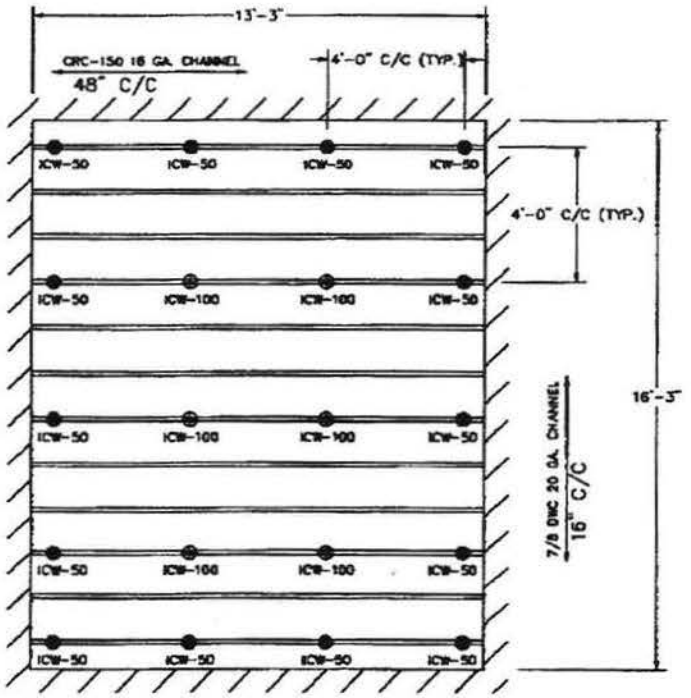


Figure 2: Diagram of the layout of the ICC hangers 16 gauge channel and 20 gauge channel. This drawing was provided by the client.

INTRODUCTION

Airborne and impact sound transmission measurements were performed on one floor assembly. Special impact tests (tire, walker and ball) were also performed For report purposes, the floor is identified as Floor "D" Please note that this floor assembly was tested under contract A1068, but an individual report for this specimen was not requested or issued as part of that contract.

SPECIMEN DESCRIPTION

Construction on the series of floor assemblies for this contract started in November 1995 and concluded in March 1996 The airborne and impact sound transmission loss tests for this floor assembly were performed on February 27th, 1996

Floor "D"

The top layer of Floor "D" comprised the 150 mm reference concrete slab, provided by NRC, which was installed in the floor test frame The perimeter of the reference concrete slab is sealed at the top with insulation and covered with metal tape and at the bottom with mortite then covered with metal tape. The density of the concrete slab is 2446 kg/m^3.

The bottom layer of Floor "D" had two layers of gypsum board hung on an ICC hanger system The system, provided by the client, comprised fourteen ICC-50 hanger brackets, six ICC-100 hanger brackets, 16 gauge steel rails (0 52 kg/m) and 20 gauge steel furring channels (0.46 kg/m). The ICC hanger brackets were on 1 20 m centers. The 20 gauge furring channels ran perpendicular to the 16 gauge steel rails. The base layer of gypsum board was attached perpendicular to the 20 gauge furring channels and was screwed to the furring channels on 300 mm centers The face layer of gypsum board was attached parallel to the furring channels and screwed 600 mm on center

Deck-Suspended Ceiling Hanger

Model ICC

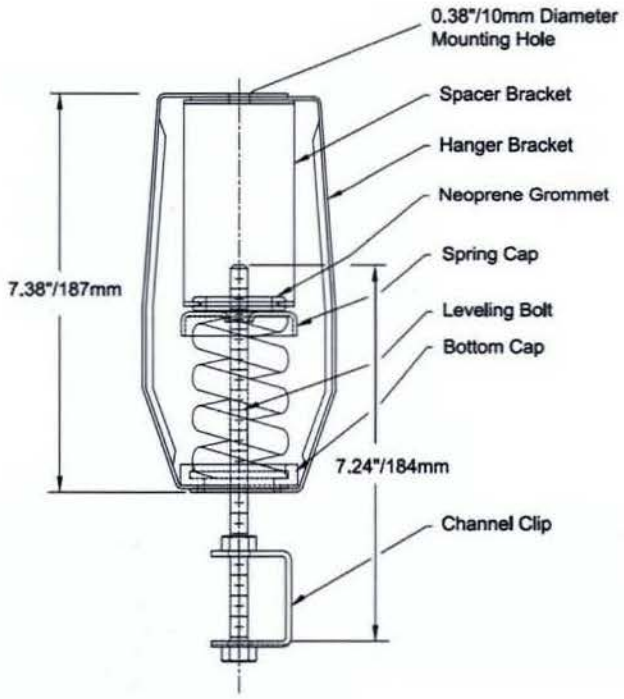
Application

Secured to concrete, metal deck, or structural framing, Model ICC incorporates a one-inch (1") rated deflection spring in series with a neoprene cup to resiliently support one or more layers of gypsum board. Attachment can be direct to concrete or metal deck, or it can be suspended from threaded rod that is properly anchored. A channel clip/leveling rod assembly is designed to carry a single piece of 1-1/2" x 1/2" 16-gage steel carrying channel. Drywall furring channel is attached to the carrying channel. The system provides the installer with a means for leveling the isolated ceiling framing. Gypsum board attaches quickly and easily thanks to a spacer bracket that holds the isolator rigid until the weight of the gypsum board compresses the spring. Incorporate Model ICC into any isolated ceiling design where one-inch (1") rated spring deflection and a ten-inch (10") airspace are needed for superior performance.

Features

- Maximum natural frequency of 4.4 Hz under lightest typical load conditions.
- STC 84, IIC 70 with two (2) layers of gypsum board suspended under a 6-inch concrete slab (75 psf) with 3-1/2" fiberglass batt in airspace.
- Multiple features incorporated into the design ensure inexpensive installation.
- Spring/neoprene cup combination improves performance against low-frequency noise.
- Actual installed load can vary between 75% and 150% of rated load without significant impact to ceiling performance.

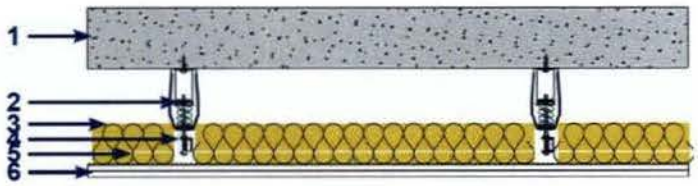
Product Detail



STC/IIC Sound Test Data

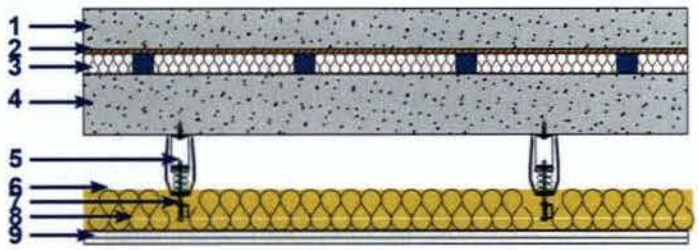
STC-53 IIC-27

1 - 6" Concrete Slab



STC-84 IIC-70

1 - 6" Concrete Slab
2 - **ICC Isolation Hanger**
3 - 3-1/2" Insulation
4 - CRC in Channel Clip
5 - Drywall Furring Channel
6 - 2 Layers 5/8" Gypsum Board



STC-94 IIC-82

1 - 4" Concrete Slab
2 - 1/2" Plywood
3 - **2" RIM-Q-2-16**
4 - 6" Concrete Slab
5 - **ICC Isolation Hanger**
6 - 3-1/2" Fiberglass Insulation
7 - Cold Rolled Channel (CRC)
8 - Drywall Furring Channel
9 - 2 Layers 5/8" Gypsum Board

*Visit **www.kineticsnoise.com/arch/tests/icc.aspx** for complete Model ICC STC/IIC Sound test data*

Standard Capacities

Model	Spring Color	Spring Rate (lb/in)
ICC-24	Blue	24
ICC-37	White	37
ICC-50	Green	50
ICC-75	Black	75
ICC-100	Gray	100
ICC-150	Red	150
ICC-210	Brown	210

Also Available

Muta Spring Wire-Tie Ceiling Hanger with same spring capacities is also available from Kinetics. Contact your local sales representative for more information.

KINETICS Noise Control

kineticsnoise.com/arch/isomax.html
sales@kineticsnoise.com
1-800-959-1229

Manufacturing facilities in Ohio, USA and Ontario, Canada. Sales offices worldwide.

Gold Bond® BRAND SoundBreak® XP® Gypsum Board

Gold Bond® BRAND Gypsum Board

National Gypsum®

Gold Bond® BRAND

SoundBreak® XP®

Gypsum Board

SoundBreak XP Gypsum Board allows for construction of higher STC area separation walls.

Market Trends Driving The Need For Higher Rated STC Wall Partitions

Increasing land costs have resulted in larger amounts of high density multi-family housing in a growing number of United States housing markets. The result of high density housing is individual living units positioned closer together than traditional single-family housing.

Home theatre systems are becoming more prevalent in use and sophistication, resulting in the potential for more noise being transmitted between wall partitions. Commercial buildings such as schools, hospitals, hotels and government/military facilities also have an increasing need to control sound between areas of a building.

All of these changing market dynamics have resulted in an increased need for higher rated Sound Transmission Class (STC) wall partitions, which reduce the transmission of airborne sound between living spaces within buildings.

Gold Bond® BRAND SoundBreak® XP® Gypsum Board

Gold Bond® BRAND SoundBreak XP Gypsum Board is an acoustically enhanced gypsum board used in the construction of high STC wall assemblies. This innovative gypsum board allows for construction of high STC wall assemblies that are thinner, cost effective and more reliable than traditional methods for constructing these types of assemblies.

Key Acoustical Terms and Concepts

Airborne Sound

Airborne sound consists of energy generated by a source, transmitted through a medium, and detected by a receiver. All three of these conditions must be in place or airborne sound cannot exist. The following chart describes what happens when a drumstick strikes a drumhead.

The level of airborne sound is determined by the intensity of the vibration. Frequencies between 20 Hz and 20,000 Hz are detectible by children. Most humans are sensitive to the range of 100 Hz to 5000 Hz. Speech and other traditional sounds within a building range from 125 Hz – 4,000 Hz, which is the frequency range considered when calculating STC.

SOUND TRANSMISSION

Energy Generated by a Source	►	Transmitted Through a Medium	►	Detected by a Receiver
Drumstick strikes drumhead, vibrating air	►	Vibrating air transmits the sound in waves of pressure changes	►	Ear receives and hears waves of pressure changes as sound

Sound Transmission Class

The Sound Transmission Class (STC) is a single number rating of the effectiveness of a material or construction assembly to retard the transmission of airborne sound. STC provides an indication of how loud transmitted sound is perceived by the listener. Higher STC values are more effective for reducing sound transmission.

STC values are derived by conducting a test according to a procedure outlined in ASTM E 90 *Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*. The test data collected would be analyzed using ASTM E 413 Classification for Rating Sound Insulation and result in a single-number acoustical rating. The rating assesses the airborne sound transmission performance at a range of frequencies from 125 Hz to 4000 Hz, which is consistent with the frequency range of speech.

What is an Acceptable STC Rating for a Wall Partition?

National Research Council of Canada Survey

- 600 multi-family residences (300 party walls between them)
- Residents with lower STC rated walls are more likely to:
  - Want to move
  - Be awakened by noises
  - Have trouble falling asleep due to noises
  - Think neighbors are less considerate

General survey conclusions

- STC ≥55 A realistic goal for acceptable sound insulation
- STC ≥60 More ideal, would practically eliminate negative effects of noises from neighbors
- Music related sounds may require the highest rated walls

J. S. Bradley, *Deriving Acceptable Values for Party Wall Sound Insulation* survey results

Decibel

Decibels (dB) are used in acoustics to provide relative measurement of sound level. Higher dB levels relate to loud sounds while lower dB levels relate to quiet sounds. A change of 3 dB would be barely noticeable to most human's ears, while a change of 5 dB would generally be noticeable to most people. An increase of 10 dB would sound twice as loud and a decrease of 10 dB would sound half as loud.

RATING	ACTIVITY	SOUND LEVEL (dB)
Painful	Jet Engine	120+
Very Loud	Industrial Machinery	100
Loud	Stock Trader Floor	80
Moderate	Normal Speech	65
Quiet	Suburban Home	45
Very Quiet	Barely Audible	25

HUMAN SENSITIVITY TO CHANGES IN SOUND INTENSITY LEVELS

1 dB	Generally not perceptible
3 dB	Just perceptible
5 dB	Clearly noticeable
10 dB	Twice or half as loud
20 dB	Four times as loud or 1/4 as loud

Design Considerations in Acoustical Wall Partitions

The goal of a high rated STC wall partition is to decrease the amount of sound transmission through the partition. The following five variables can have an impact on the ability of the partition to provide this loss.

Mass
Increasing the mass of a wall partition increases the amount of sound transmission loss. Increasing mass in a cost and space effective way can be a challenge.

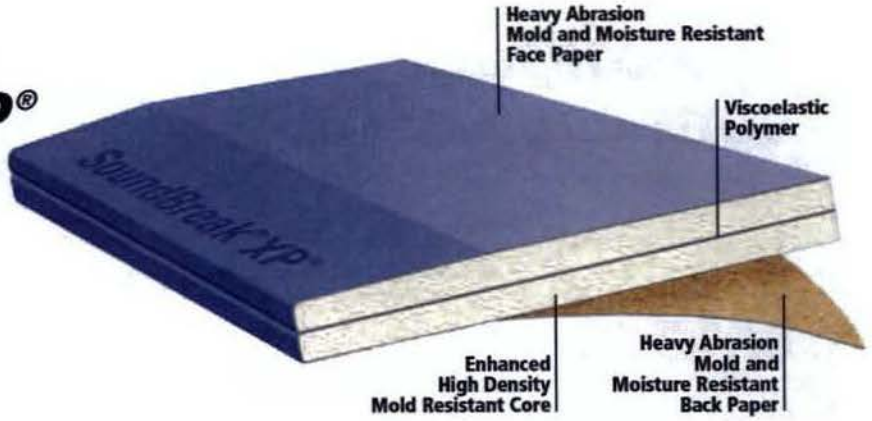
Stiffness
Increasing the stiffness of a wall partition will decrease the amount of sound transmission loss. For that reason metal studs outperform wood studs, and 24"o.c. framing spacing outperforms 16"o.c. framing spacing.

Damping
Introduction of damping will increase the amount of sound transmission loss. In particular, constrained layer damping can be effective for structure type applications.

Cavity Depth
Increasing the depth of the cavity of the partition can increase the amount of sound transmission loss, especially when the cavity is filled with acoustical insulation.

Cavity Absorption
Adding sound-absorbing material such as fiberglass or mineral fiber insulation to the cavity of a partition will increase the amount of sound transmission loss. The sound-absorbing material should completely fill the cavity but not be compacted or compressed in any way.

Gold Bond® BRAND SoundBreak® XP® Gypsum Board

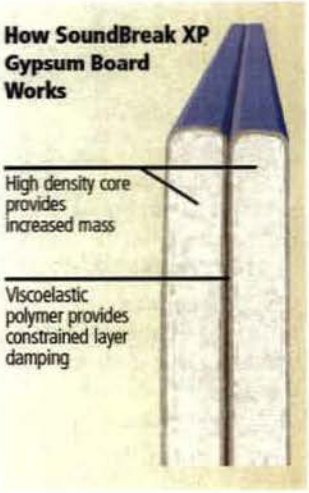


Description

Gold Bond® BRAND SoundBreak® XP® Gypsum Board has an acoustically enhanced, high density gypsum core encased in a heavy, abrasion and mold/mildew/ moisture resistant, 100% recycled, purple paper on both sides. Used in the construction of high rated STC wall assemblies, SoundBreak XP consists of a layer of viscoelastic damping polymer sandwiched between two pieces of high density mold resistant gypsum board, providing constrained layer damping.

Basic Uses

For use as single-layer application or as a component of multi-layered wall assemblies where sound transmission between rooms or dwelling units is a concern.



Features/Benefits

- Resists the growth of mold per ASTM G 21 with a score of 0, the best possible score.
- Resists the growth of mold per ASTM D 3273 with a score of 10, the best possible score.
- Use of SoundBreak XP Gypsum Board results in wall partitions with high rated STC values that are thinner than traditionally built high rated STC wall partitions providing increased usable floor space.
- Superior sound damping, cost-efficient material that is easily finished and decorated in the same manner as standard gypsum board.
- All SoundBreak XP Gypsum Board designs were tested by an independent third-party acoustical laboratory using the full-scale ASTM E90 test procedure.
- SoundBreak XP Gypsum Board is installed like traditional gypsum board, offering a more reliable and less complicated solution than alternative methods requiring clips and/or channels.
- SoundBreak XP Gypsum Board can be cut by scoring deeply from both sides of the board before snapping, or with the use of a hand or power saw.
- Heavy abrasion resistant paper and denser core provide greater resistance to surface abuse and indentation when tested in accordance with ASTM C 1629.
- Features a smooth, heavy face paper that is highly resistant to scuffing and provides a superior surface for decoration.
- 5/8" SoundBreak XP features a fire resistant Type X core and is UL Classified and approved for inclusion in specific UL fire-rated designs.
- SoundBreak XP Gypsum Board is GREENGUARD Children & Schools℠ Certified for indoor air quality.
- Approved for use on walls and ceilings.

Limitations

- Exposure to excessive or continuous moisture and extreme temperatures should be avoided. SoundBreak XP Gypsum Board is not recommended where it will be exposed to temperatures exceeding 125°F (52°C) for extended periods of time.
- Installing SoundBreak XP Gypsum Board panels over an insulating blanket, installed continuously across the face of the framing members, is not recommended. Blankets should be recessed and flanges attached to the sides of the studs.
- SoundBreak XP Gypsum Board must be stored off the ground and under cover. Sufficient risers must be used to ensure support for the entire length of the gypsum board to prevent sagging.
- SoundBreak XP Gypsum Board must be kept dry to minimize the potential for mold growth. Adequate care should be taken while transporting, storing, applying and maintaining SoundBreak XP Gypsum Board. For additional information, refer to the Gypsum Association publication, *"Guidelines for the Prevention of Mold Growth on Gypsum Board"* (GA-238-03), which is available at **gypsum.org** under the "Download Free Gypsum Association Publications" section.

Accessories

(See Installation Recommendations)

- Fasteners: Drywall Screws or Nails
- Joint Tape
- Joint Compound
- Cornerbead
- Trims
- Casing Beads
- Acoustical Sealant
- Acoustical Putty Pads

Installation

Applicable Standards and References

ASTM C 840

Gypsum Association GA-216

Gypsum Association GA-214

National Gypsum
Gypsum Construction Guide

Recommendations

Installation of SoundBreak XP Gypsum Board should be consistent with methods described in the standards and references noted.

Gold Bond® BRAND SoundBreak® XP® Gypsum Board

GUIDELINES FOR OPTIMUM PERFORMANCE AND SOUND REDUCTION

- Stagger SoundBreak XP Gypsum Board joints from one side of the wall to the other.
- Allow a 1/4" gap along all wall perimeter edges and completely seal 1/4" gap with acoustical sealant or caulk.
- Refrain from wall penetrations when possible.
- Limit necessary wall penetrations to one per stud cavity.
- Seal all penetrations with acoustical sealant and/or putty pads.
- The use of SoundBreak XP Gypsum Board in actual installations may not produce the same results as were achieved in controlled, laboratory conditions.

Cutting SoundBreak XP Gypsum Board

- SoundBreak XP Gypsum Board can be cut by scoring deeply from both sides of the board before snapping, or with the use of a hand or electric saw. Cutting across the 4' width may require use of a saw.

Acoustical Sealants and Putty Pads

- Use an acoustical sealant that is applied per ASTM C919, such as Grabber Acoustical Sealant GSCSF, STI SpecSeal Smoke N Sound Caulk, BOSS 824 Acoustical Sound Sealant or equivalent.
- Use a putty pad that has been tested per ASTM E90, such as STI SpecSeal SSP Putty Pads or BOSS 818 Fire-Rated Putty Pads or equivalent.

Decoration

For best painting results, all surfaces, including joint compound, should be clean, dust-free and not glossy. To improve fastener and joint concealment, a coat of a quality drywall primer is recommended to equalize the porosities between surface paper and joint compound.

The selection of a paint to give the specified or desired finished characteristics is the responsibility of the architect or contractor.

SoundBreak XP Gypsum Board that is to have a wall covering applied should be prepared and primed as described for painting.

Gypsum Association GA-214, *Recommended Specification for Levels of Gypsum Board Finish,* should be referred to in order to determine the level of finishing required to ensure a properly prepared surface that accepts the desired decoration.

Technical Data

Fire Resistance Ratings

Fire resistance ratings represent the results of tests on assemblies in a specific configuration. When selecting construction designs to meet certain fire resistance requirements, caution must be used to ensure that each component of the assembly is the one specified in the test. Further precautions should be taken that assembly procedures are in accordance with those of the tested assembly. For copies of specific tests, call 1-800-NATIONAL. For fire safety information, go to **nationalgypsum.com.**

5/8" SoundBreak XP can be used as a substitute for Type X gypsum board in some proprietary fire-rated assemblies.

As an option, 1/2" SoundBreak XP may be used as an additional layer on one or both sides of fire-rated wall assemblies. 1/2" SoundBreak XP cannot be used as a substitute for 5/8" Type X gypsum board in a fire-rated assembly.

SoundBreak XP shall be attached in accordance with manufacturer's recommendations. When SoundBreak XP is installed between the framing and the UL Classified gypsum board, the UL Classified gypsum board layer(s) required for the design is/are to be installed as indicated in the design as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 5/8".

Mold and Mildew Resistance*

SoundBreak XP Gypsum Board was designed to provide extra protection against mold and mildew compared to standard gypsum board products. When tested by an independent laboratory, SoundBreak XP received the highest possible ratings on ASTM G 21 and ASTM D 3273.

The use of SoundBreak XP in actual installations may not produce the same results as were achieved in controlled laboratory conditions.

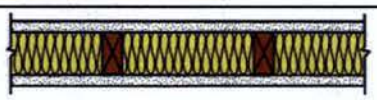
*No material can be considered "mold-proof," nor is it certain that any material will resist mold or mildew indefinitely. When used in conjunction with good design, handling, and construction practices, SoundBreak XP Gypsum Board can provide increased mold resistance versus standard gypsum board products. As with any building material, avoiding water exposure during handling, storage and installation, and after installation is complete, is the best way to avoid the formation of mold or mildew.

PHYSICAL PROPERTIES		
Thickness, nominal	**1/2" Regular** (12.7 mm)	**5/8" Type X** (15.9 mm)
Width, nominal	4' (1219 mm)	4' (1219 mm)
Length, standard	8' through 12' (2438 mm – 3657 mm)	8' through 12' (2438 mm – 3657 mm)
Weight, lbs./sq. ft., nominal	2.3	2.7
Edges	Tapered	Tapered
Surface Burning Characteristics (per ASTM E 84)	Flame spread: 15 Smoke developed: 0	Flame spread: 15 Smoke developed: 0
Surface Abrasion Resistance (per ASTM C 1629)	Level 3	Level 3
Indentation Resistance (per ASTM C 1629)	Level 1	Level 1
Soft Body Impact Resistance (per ASTM C 1629)	Level 1	Level 2
Hard Body Impact Resistance (per ASTM C 1629)	N/A	Level 1

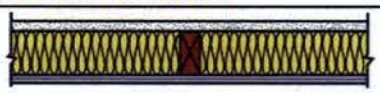
APPLICABLE STANDARDS AND REFERENCES
ASTM C 1396
ASTM C 1629
ASTM C 840
ASTM D 3273
ASTM G 21
Gypsum Association GA-216
Gypsum Association GA-214

SoundBreak® XP® Gypsum Board Acoustical Selector Guide

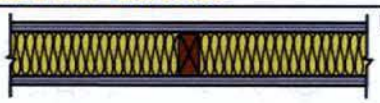
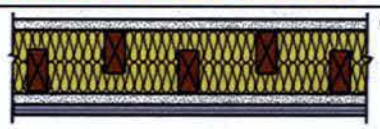
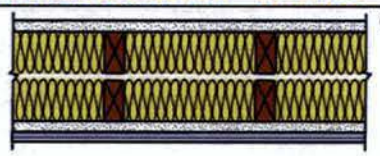
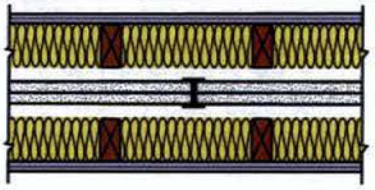
1/2" REGULAR GYPSUM BOARD PARTITIONS – WOOD FRAMING

			Description	Test No.	STC
SINGLE LAYER – 2X4 STUDS					
			1/2" Regular Gypsum Board vertically applied to each side of 2x4 studs 16" o.c. with 1-1/4" type W screws 12" o.c. Joints staggered on opposite side. 3" glass fiber insulation in stud cavity.	NBC-W1b	34

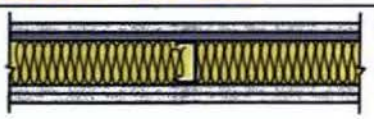
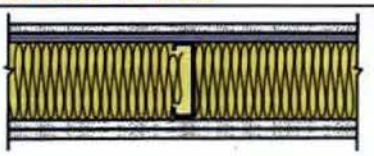
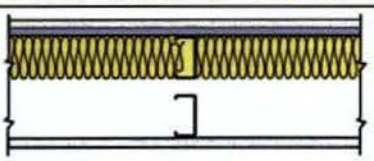
1/2" SOUNDBREAK® XP® GYPSUM BOARD PARTITIONS – WOOD FRAMING

			Description	Test No.	STC
SINGLE LAYER – 2X4 STUDS					
			1/2" SoundBreak XP Gypsum Board vertically applied to one side of 2x4 studs 24" o.c. with 1-1/4" type W screws 12" o.c. 1/2" Gold Bond Gypsum Board vertically applied to opposite side with 1-1/4" type W screws 12" o.c. Joints staggered on opposite side. 3" glass fiber insulation in stud cavity.	NGC 2009027	49
UNBALANCED – 2X4 STUDS					
			Base layer of 1/2" Gold Bond Gypsum Board vertically applied to one side of 2x4 studs 24" o.c. with 1-1/4" type W screws 24" o.c. Face layer of 1/2" SoundBreak XP Gypsum Board vertically applied with 1-5/8" type W screws 12" o.c. 1/2" Gold Bond Gypsum Board vertically to opposite side with 1-1/4" type W screws 12" o.c. Joints staggered each layer and opposite sides. 3" glass fiber insulation in stud cavity.	NGC 2009028	51

5/8" SOUNDBREAK® XP® GYPSUM BOARD PARTITIONS – WOOD FRAMING

Fire Rating		Ref.	Design No.	Description	Test No.	STC
SINGLE LAYER – 2X4 STUDS						
1 hr.		UL	U309	5/8" SoundBreak XP Gypsum Board vertically applied to each side of 2x4 studs spaced 24" o.c. with 1-1/4" type W screws 12" o.c. 3-1/2" glass fiber in stud cavity.	RAL TL-07-145	53
UNBALANCED STAGGERED – 2X4 STUDS						
1 hr.		GA	Based on WP3514	Base layer 5/8" Fire-Shield Gypsum Board vertically applied to staggered 2x4 studs spaced 16" o.c. on 2x6 plates with 1-1/4" type W screws 12" o.c. Face layer of 5/8" SoundBreak XP vertically applied with 2" type W screws 16" o.c. 5/8" Fire-Shield Gypsum Board vertically applied to opposite side with 1-1/4" type W screws 12" o.c. Vertical joints staggered 16" each layer and opposite sides. 2-1/2" glass fiber in stud cavity.	RAL TL-07-170	60
UNBALANCED DOUBLE ROW – 2X4 STUDS						
1 hr.		GA	Based on WP3514	Base layer 5/8" Fire-Shield Gypsum Board vertically applied to double row of 2x4 studs spaced 16" o.c. on separate plates with 1-1/4" type W screws 12" o.c. Face layer of 5/8" SoundBreak XP vertically applied with 2" type W screws 16" o.c. 5/8" Fire-Shield Gypsum Board vertically applied to opposite side with 1-1/4" type W screws 12" o.c. Vertical joints staggered 16" each layer and opposite sides. 3-1/2" glass fiber in stud cavity.	RAL TL-07-147	64
H-STUD AREA SEPARATION WALL						
2 hr.		UL	U347	Two layers of 1" Fire-Shield Shaftliner inserted in 2"H-studs spaced 24" o.c. Minimum 3/4" air space between shaftliner and adjacent construction. 5/8" SoundBreak XP Gypsum Board vertically applied to outside of 2x4 studs spaced 16" o.c. with 1-1/4" type W screws 12" o.c. 3-1/2" glass fiber in stud cavity.	NRCC B-3451.1	67

5/8" SOUNDBREAK® XP® GYPSUM BOARD PARTITIONS – STEEL FRAMING

Fire Rating	Ref.	Design No.	Description	Test No.	STC
SINGLE LAYER – 3-5/8" STUDS					
1 hr. 	UL	U465	5/8" SoundBreak XP Gypsum Board vertically applied to one side of 3-5/8" steel studs 24" o.c. with 1" type S screws 8" o.c. at perimeter and 12" o.c. in the field. 5/8" Fire-Shield Gypsum Board vertically applied to opposite side with 1" type S screws 8" o.c. at perimeter and 12" o.c. in the field. Joints staggered on opposite side. 3-1/2" glass fiber in stud cavity.	RAL TL-07-389	54
UNBALANCED – 3-5/8" STUDS					
1 hr. 	UL	U465	Base layer 5/8" SoundBreak XP Gypsum Board vertically applied to 3-5/8" steel studs spaced 24" o.c. with 1" type S screws 24" o.c. Face layer 5/8" Fire-Shield Gypsum Board vertically applied with 1-5/8" type S screws 12" o.c. 5/8" Fire-Shield Gypsum Board vertically applied to opposite side with 1" type S screws 12" o.c. Vertical joints staggered 24" each layer and opposite sides. 3-1/2" glass fiber in stud cavity.	RAL TL-06-334	57
DOUBLE LAYER – 3-5/8" STUDS					
2 hr. 	UL	V484	Base layer 5/8" SoundBreak XP Gypsum Board vertically applied to 3-5/8" steel studs spaced 24" o.c. with 1" type S screws 24" o.c. Face layer 5/8" Fire-Shield Gypsum Board vertically applied with 1-5/8" type S screws 12" o.c. Two layers 5/8" Fire-Shield Gypsum Board vertically applied to opposite side. Base layer attached with 1" type S screws 24" o.c. Face layer attached with 1-5/8" type S screws 12" o.c. Vertical joints staggered 24" each layer and opposite sides. 3-1/2" glass fiber in stud cavity.	RAL TL-07-168	60
DOUBLE LAYER – 6" STUDS					
2 hr. 	UL	V484	Base layer 5/8" SoundBreak XP Gypsum Board vertically applied to 6" steel studs spaced 24" o.c. with 1" type S screws 24" o.c. Face layer 5/8" Fire-Shield Gypsum Board vertically applied with 1-5/8" type S screws 12" o.c. Two layers 5/8" Fire- Shield Gypsum Board vertically applied to opposite side. Base layer attached with 1" type S screws 24" o.c. Face layer attached with 1-5/8" type S screws 12" o.c. Vertical joints staggered 24" each layer and opposite sides. 6" glass fiber in stud cavity.	NRCC B-3456.2	61
UNBALANCED DOUBLE ROW – 2-1/2" STUDS					
1 hr. 	UL	V488	Base layer 5/8" SoundBreak XP Gypsum Board applied vertically to double row of 2-1/2" steel studs 24" o.c. with 1" type S screws 8" o.c. at perimeter and 12" o.c. in the field. Face layer 5/8" Fire-Shield Gypsum Board applied vertically to opposite side with 1" type S screws 8" o.c. at perimeter and 12" o.c. in the field. Joints staggered on opposite side. 3" glass fiber or mineral wool insulation in stud cavity.	NGC 2008036	59

Note: In multi-layer systems, SoundBreak XP Gypsum Board can be used as either a face layer or a base layer without affecting the STC rating.

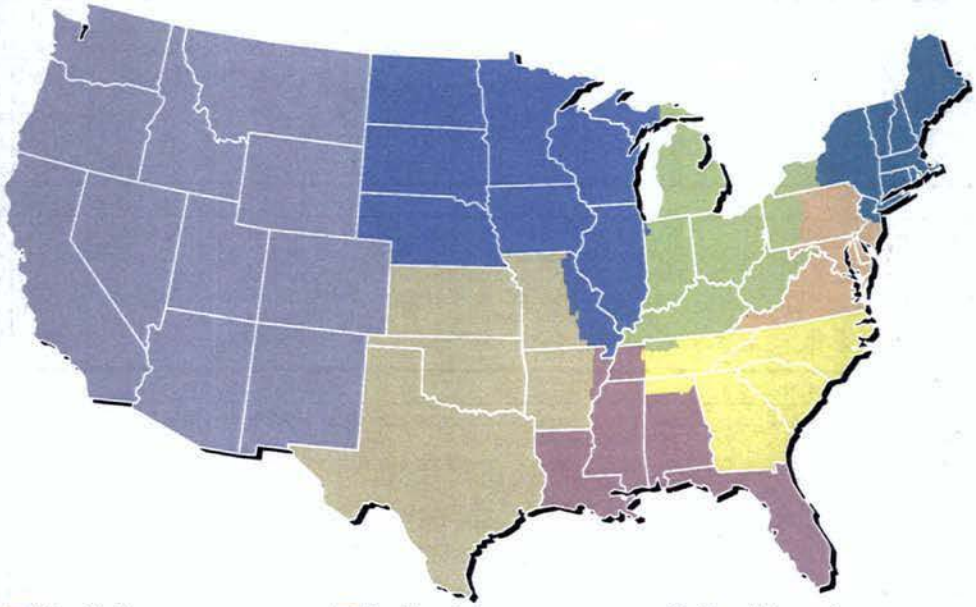
UL Listed Assemblies

The 5/8" SoundBreak XP Gypsum Board is tested in accordance with ASTM Standard E 119 and is classified as Type X for use in the following UL listings:
U017, U301, U302, U305, U309, U326, U330, U332, U338, U339, U341, U342, U351, U354, U355, U356, U357, U358, U360, U364, U368, U369, U371, U379, U392, U405, U411, U418, U420, U425, U428, U429, U434, U439, U449, U450, U460, U465, U466, U475, U487, U494, U499, U505, U524, U525, U531, U646, U647, U648, U649, U651, U652, U926, V408, V415, V419, V420, V421, V425, V430, V432, V433, V434, V435, V438, V449, V450, V486, V483, V484, V488

UL Core Designation

5/8" SoundBreak XP Gypsum Board: SoundBreak XP

CUSTOMER SERVICE SALES AREAS



Atlantic Area
Phone: (800) 237-9167
Fax: (877) 252-0430

Central Area
Phone: (800) 252-1065
Fax: (866) 232-0440

Gulf Area
Phone: (800) 343-4893
Fax: (866) 482-8940

Midwest Area
Phone: (800) 323-1447
Fax: (866) 692-8590

Northeast Area
Phone: (800) 253-3161
Fax: (866) 632-1480

Southeast Area
Phone: (800) 548-9394
Fax: (866) 732-1990

Southwest Area
Phone: (800) 548-9396
Fax: (866) 792-7520

Western Area
Phone: (800) 824-4227
Fax: (800) 438-6266

National Accounts
Phone: (800) 440-1230
Fax: (866) 622-3590

Manufactured Housing
Phone: (800) 455-3185
Fax: (800) 639-1714

Gold Bond® BRAND SoundBreak XP® Gypsum Board

soundbreakxp.info

LIMITED WARRANTY AND REMEDIES

Products manufactured and sold by National Gypsum are warranted by National Gypsum to its customers to be free from defects in materials and workmanship at the time of shipment. THIS EXPRESS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO SUCH PRODUCTS, AND IS IN LIEU OF AND EXCLUDES ALL OTHER EXPRESS ORAL OR WRITTEN WARRANTIES AND ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

National Gypsum will not be liable for any incidental, indirect or consequential losses, damages or expenses. The customer's exclusive remedy for any type of claim or action for defective products will be limited to the replacement of the products (in the form originally shipped) or, at National Gypsum's option, to a payment or credit not greater than the original purchase price of the products.

National Gypsum will not be liable for products claimed to be defective where the defect resulted from causes not within National Gypsum's control, or which arose or occurred after shipment, including but not limited to accidents, misuse, mishandling, improper installation, contamination or adulteration by other materials or goods, or abnormal conditions of temperature, moisture, dirt or corrosive matter.

Any claim that products sold by National Gypsum were defective or otherwise did not conform to the contract of sale is waived unless the customer submits it in writing to National Gypsum within thirty (30) days from the date the customer discovered or should have discovered the defect or nonconformance. No legal action or proceeding complaining of goods sold by National Gypsum may be brought by the customer more than one year after the date the customer discovered or should have discovered the defect or problem of which it complains.

Children & Schools GREENGUARD® Indoor Air Quality Certified

Corporate Headquarters

National Gypsum Company
2001 Rexford Road
Charlotte, NC 28211

Phone: (704) 365-7300
Web: nationalgypsum.com
nationalgypsum.com/espanol

Technical Information

Phone: (800) NATIONAL
(800) 628-4662
Fax: (800) FAX-NGC1
(800) 329-6421

National Gypsum®

ITEM	SPECIFICATION	PROPERTY
CELL STRUCTURE		CROSSLINKED EXPANDED POLYETHYLENE
DENSITY (LB/FT^3)	ASTM D3575-93	2.0 - 2.4
CELL SIZE (MM AVERAGE)	ASTM D3576 MODIFIED	.9
COMPRESSIVE STRENGTH VERTICAL DIRECTION (PSI)	ASTM D3575-93 SUFFIX D @ 25% @ 50%	 10.5 19.5
COMPRESSIVE SET (% ORIGINAL THICKNESS)	ASTM D3575-93 SUFFIX B	15%
COMPRESSIVE CREEP (% DEFLECTION)	ASTM D3575-93 SUFFIX BB (1000 HRS.)	<5% @ 2.0 PSI
TENSILE STRENGTH (PSI) (@ 1/2" THICKNESS)	ASTM D3575-93 SUFFIX T MD / CMD	42 PSI
TEAR RESISTANCE (LB/IN) (@ 1/2" THICKNESS)	ASTM D3575-93 SUFFIX G MD / CMD	13
WATER ABSORPTION (LB/FT^3)	ASTM D3575-93 SUFFIX L	<0.2
THERMAL RESISTANCE R-VALUE ($HR-FT^2-{}^0F/BTU$)	ASTM C518-91	2.09 - 2.48
THERMAL CONDUCTIVITY k-VALUE ($BTU-IN/HR-FT^2-{}^0F$)	ASTM C518-91	0.40 - 0.48
THERMAL STABILITY (% SHRINKAGE)	ASTM D3575-93 SUFFIX S	<5%

* STRONG, TOUGH AND LIGHTWEIGHT
* NOT WATER ABSORBANT
* CHEMICAL, SOLVENT AND WEATHER RESISTANT

DIMENSION FORMAT: IN (mm)

KINETICS Noise Control

TITLE ENGINEERING PROPERTIES FOR TYPE PIB/SRP PERIMETER ISOLATION

LAST DATE REVISED 5/5/09

DRAWN BY MDV

DRAWING NO. AA001908 AA

KINETICS
Noise Control

Address 6300 Irelan Place, Dublin, Ohio 43017
Phone 800 959 1229
Fax 614 889 0540
Web www KineticsNoise com
Email· ArchSales@KineticsNoise.com

LEED Analysis
Model PIB/SRP

Recycled Content

The Kinetics Model PIB/SRP does not contain significant recycled content.

Fabrication Location

The Kinetics Model PIB/SRP is manufactured in Dublin, OH 43017.

Material Source

The extraction points for the materials in the Kinetics Model PIB/SRP can not be verified. Assume they are outside of the 500 mile radius.

PERFORMANCE CRITERIA [MATERIAL AND CURING CONDITIONS @ 73°F (23°C) AND 50% R.H.]	
TENSILE PROPERTIES (ASTM D-412) AT 21 DAYS:	
TENSILE STRESS	175 psi min. (1.21 MPa)
ELONGATION AT BREAK	550%
MODULUS OF ELASTICITY	25% 35 psi (0.24 MPa) 50% 60 psi (0.41 MPa) 100% 85 psi (0.59 MPa)
SHORE A HARDNESS (ASTM D-2240) AT 21 DAYS	40 +/- 5
TEAR STRENGTH (ASTM D-624) AT 21 DAYS	55 lbs./inch
ADHESION IN PEEL (TT-S-00230C, ASTM C 794)	CONCRETE 20 lb. - 0% ADHESION LOSS
SERVICE RANGE	-40° TO 170° F (-40° TO 77° C)
INITIAL CURE / FINAL CURE	TACK FREE 3 -6 HOURS / 4 - 7 DAYS
COVERAGE (20 oz. UNI-PAC SAUSAGE)	24 LINEAR FEET (7.3M) x 1/2" (12) x 1/4" (6) JOINT
SHELF LIFE (20 oz. UNI-PAC SAUSAGE)	12 MONTHS

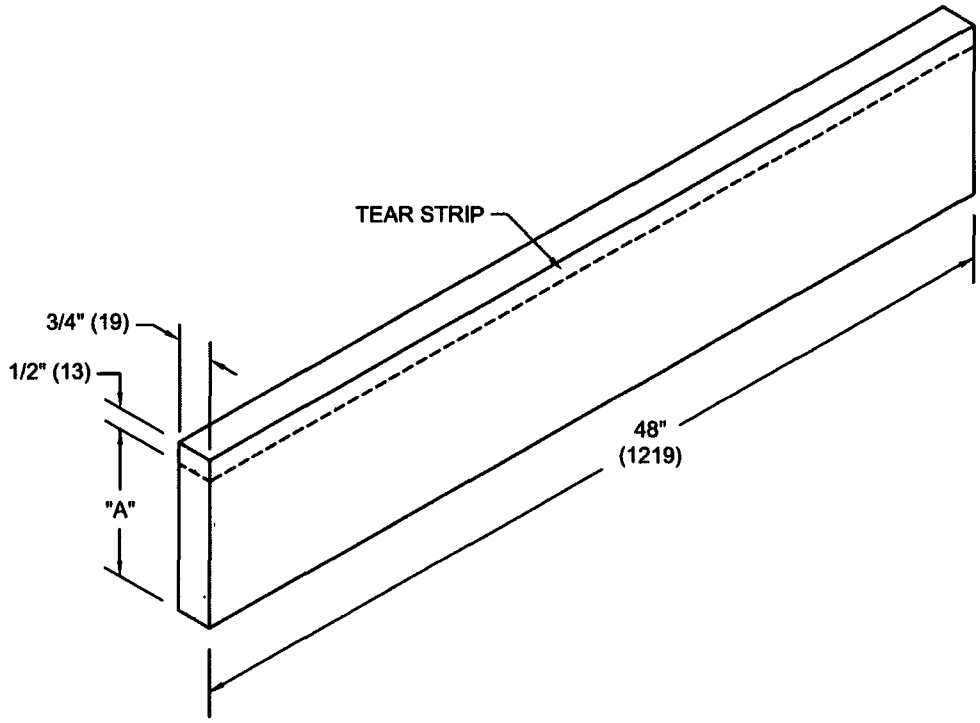
MEETS FEDERAL SPECIFICATION TT-S-0023OC, TYPE II, CLASS A.
MEETS ASTM C-920, TYPE S, GRADE NS, CLASS 35, USE T, NT, O, M, G, I.

* A SUPERIOR CUSHIONING MATERIAL
* SMOOTH, SOFT, AND ATTRACTIVE
* PAINTABLE WITH WATER, OIL AND RUBBER BASED PAINTS
* STRONG, TOUGH, AND LIGHT WEIGHT
* NON WATER - ABSORBANT
* CHEMICAL, SOLVENT, AND WEATHER RESISTANT

DIMENSION FORMAT: IN (mm)

KINETICS Noise Control	TITLE	LAST DATE REVISED	REVISED BY	DRAWING NO.
	ENGINEERING PROPERTIES FOR PERIMETER SEALANT	10/27/11	MDV	S-11.22-1A

DIMENSION "A"	
(In)	(mm)
4.00	102
6.00	152
8.00	203
10.00	254
12.00	305



PIB PERIMETER ISOLATION BOARD		
PROPERTY	VALUE	SPECIFICATION
COLOR	WHITE	
CELL STRUCTURE	CLOSED CELL, CROSSLINKED EXPANDED POLYETHYLENE	
DENSITY RANGE (LB/FT)	2 0 - 2 4	ASTM D3575-93
CELL SIZE (MM AVERAGE)	0 9	ASTM D3576 MODIFIED
COMPRESSIVE STRENGTH VERTICAL DIRECTION (PSI)	10 5 19 5	ASTM D3575-93 SUFFIX D @ 25% @ 50%
COMPRESSIVE SET (% ORIGINAL THICKNESS)	15%	ASTM D3575-93 SUFFIX B
COMPRESSIVE CREEP (% DEFLECTION)	<5% @ 2.0 PSI	ASTM D3575-93 SUFFIX BB (1000 HRS.)
TENSILE STRENGTH (PSI) (@ 1/2" THICKNESS)	42 35	ASTM D3575-93 SUFFIX T MD / CMD
TEAR RESISTANCE (LB/IN) (@ 1/2" THICKNESS)	13 11	ASTM D3575-93 SUFFIX G MD / CMD
WATER ABSORPTION (LB/FT)	<0 2	ASTM D3575-93 SUFFIX L
THERMAL RESISTANCE R-VALUE (HR-FT - F/BTU)	2 09 - 2 48	ASTM C518-91
THERMAL CONDUCTIVITY k-VALUE (BTU-IN/HR-FT - F)	0.40 - 0.48	ASTM C518-91
THERMAL STABILITY (% SHRINKAGE)	<5%	ASTM D3575-93 SUFFIX S

KINETICS Noise Control

Member VISCMA

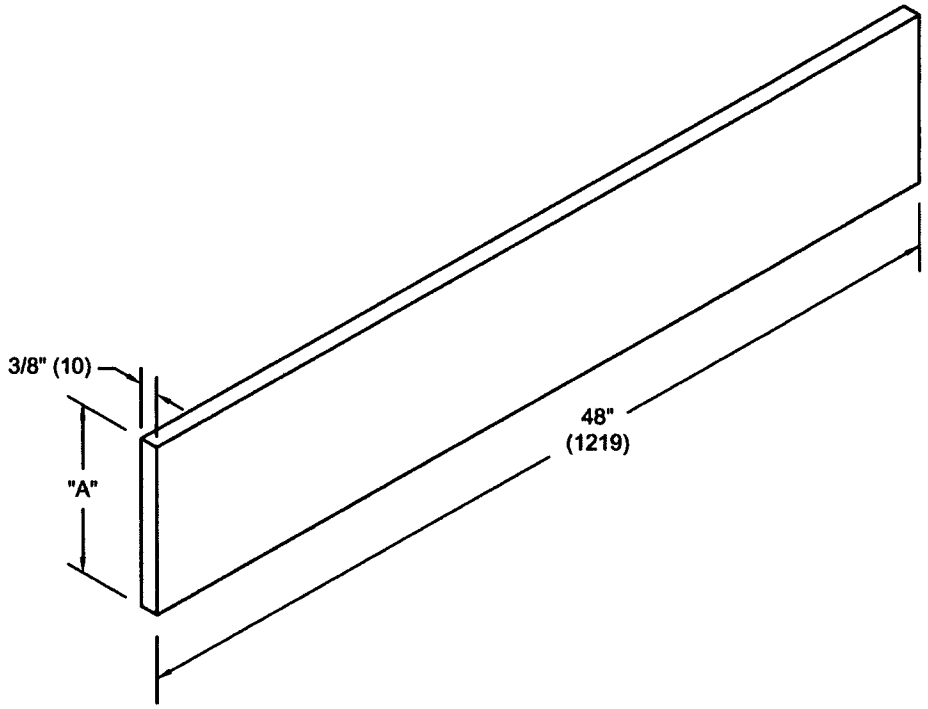
KINETICS NOISE CONTROL, INC
6300 IRELAN PL,
DUBLIN, OH 43017 USA
Ph: 614 889-0480, Fax: 614 889-0540
www.kineticsnoise.com

Model: PIB

By: BB
Date: 03/28/08
Revised: 05/15/12 / BB

Drawing No: S-11.21-1D

DIMENSION "A"	
(In)	(mm)
1.00	25
2.00	51
3.00	76
4.00	102
5.00	127



SRP PERIMETER ISOLATION BOARD		
PROPERTY	VALUE	SPECIFICATION
COLOR	WHITE	
CELL STRUCTURE	CLOSED CELL, CROSSLINKED EXPANDED POLYETHYLENE	
DENSITY RANGE (LB/FT)	2 0 - 2 4	ASTM D3575-93
CELL SIZE (MM AVERAGE)	0.9	ASTM D3576 MODIFIED
COMPRESSIVE STRENGTH VERTICAL DIRECTION (PSI)	10.5 19.5	ASTM D3575-93 SUFFIX D @ 25% @ 50%
COMPRESSIVE SET (% ORIGINAL THICKNESS)	15%	ASTM D3575-93 SUFFIX B
COMPRESSIVE CREEP (% DEFLECTION)	<5% @ 2.0 PSI	ASTM D3575-93 SUFFIX BB (1000 HRS.)
TENSILE STRENGTH (PSI) (@ 1/2" THICKNESS)	42 35	ASTM D3575-93 SUFFIX T MD / CMD
TEAR RESISTANCE (LB/IN) (@ 1/2" THICKNESS)	13 11	ASTM D3575-93 SUFFIX G MD / CMD
WATER ABSORPTION (LB/FT)	<0 2	ASTM D3575-93 SUFFIX L
THERMAL RESISTANCE R-VALUE (HR-FT - F/BTU)	2.09 - 2.48	ASTM C518-91
THERMAL CONDUCTIVITY k-VALUE (BTU-IN/HR-FT - F)	0.40 - 0.48	ASTM C518-91
THERMAL STABILITY (% SHRINKAGE)	<5%	ASTM D3575-93 SUFFIX S

KINETICS Noise Control

Member VISCMA Vibration Isolation and Seismic Control Manufacturers Association

KINETICS NOISE CONTROL, INC
6300 IRELAN PL,
DUBLIN, OH 43017 USA
Ph: 614 889-0480, Fax: 614 889-0540
www.kineticsnoise.com

Model: SRP

By: BB
Date: 03/28/08
Revised: 05/15/12 / BB

Drawing No: S-11.21-1E

POLYSONICS

Acoustics & Technology Consulting

405 Belle Air Lane
Warrenton, VA 20186
540.341.4988
www.polysonics.com

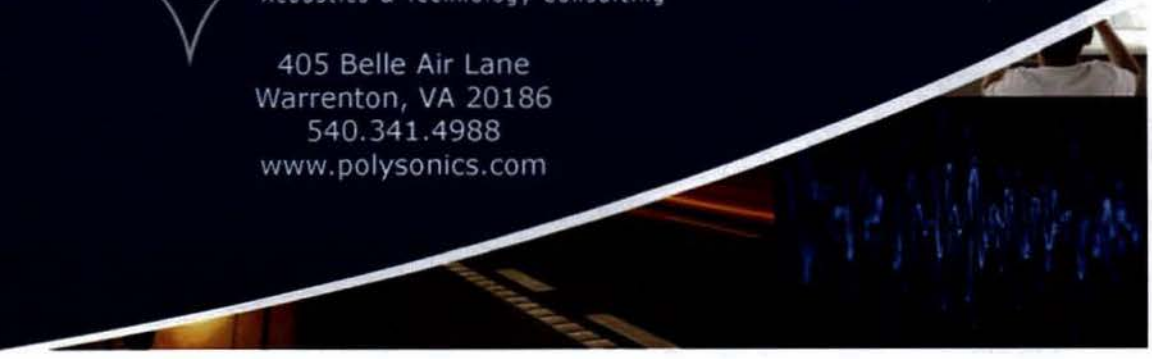


Exhibit G

OUTLINE OF TESTIMONY
WILLIAM LICKO
SENIOR DIRECTOR OF TRANSACTIONS
UDR / VIEW 14 INVESTMENTS LLC

I. Experience as developer/property owner in DC and other markets

II. Dog day care center as building/neighborhood amenity

III. Experience with dog day care center operator

OUTLINE OF TESTIMONY
PHILLIP KASDORF
REPRESENTATIVE OF DOG DAY CARE OPERATOR

I. Background and experience as dog day care center operator

II. Description of proposed operations

III. Mitigation of noise and odor

OUTLINE OF TESTIMONY
DARSHIT JOSHI
SENIOR CONSULTANT
POLYSONICS

I. Applicable Noise Standards

II. Acoustical Survey

III. Sound Transmission Analysis

IV. Noise Reduction Recommendations

OUTLINE OF TESTIMONY
STEVEN E. SHER
DIRECTOR OF ZONING AND LAND USE SERVICES
HOLLAND & KNIGHT, LLP

I. Site Location and Description

II. Description of Surrounding Uses

III. Analysis of Requested Areas of Relief

Exhibit H

PROFESSIONAL QUALIFICATIONS

STEVEN EDWARD SHER
DIRECTOR OF ZONING AND LAND USE SERVICES
HOLLAND & KNIGHT, LLP

EDUCATION:

Brooklyn College of the City University of New York, 1969, Bachelor of Arts (Urban Studies and Political Science)
Cornell University, 1971, Master of Regional Planning

PROFESSIONAL EXPERIENCE:

Director of Zoning and Land Use Services, Holland & Knight, LLP
2000 - present
Director of Zoning Services, Wilkes, Artis, Hedrick & Lane, Chartered
1985 - 2000
Executive Director, Zoning Secretariat, District of Columbia
1977 - 1985
Deputy Director, Zoning Division, Municipal Planning Office, District of Columbia
1975 - 1977
Acting Secretary to the Board of Zoning Adjustment, District of Columbia
1976
Urban Planner, D.C. Zoning Commission, D.C. Office of Planning and Management, D.C. Municipal Planning Office
1972 - 1975
Renewal Coordinator, District of Columbia Zoning Commission
1972 - 1973
Acting Secretary to the District of Columbia Zoning Commission
1972
Project Planner, District of Columbia Zoning Commission
1971 - 1972
Planning Intern, Frederick P. Clark Associates, Planning and Development Consultants
1970
Research Intern, Brooklyn Linear City Development Corporation
1969

APPEARED AS EXPERT WITNESS:

District of Columbia Zoning Commission
District of Columbia Board of Zoning Adjustment
District of Columbia Historic Preservation Review Board
District of Columbia Mayor's Agent for D.C. Law 2-144
Zoning Hearing Examiner, Montgomery County, Maryland
Montgomery County (Maryland) Planning Board
U.S. Bankruptcy Court for the District of Columbia
Superior Court of the District of Columbia

AREAS OF INTEREST AND/OR SPECIALIZATION:

Land use planning
Zoning, subdivision and other control of land use
Urban design
Urban transportation planning

ORGANIZATIONS:

American Planning Association (1971-present)
Greater Washington Board of Trade (1986-2000)
- Planning and Development Committee (Vice-Chairman for Zoning and Regulatory Affairs) (1987-8)
- Community Development Bureau Steering Committee (1987-9)
- PUD Task Force (Chairman) (1987)
- Comprehensive Plan Task Force (1987-8)
- Downtown Revitalization Committee Housing Team (1988)

Mayor's Commission on Downtown Housing (1988-89)
Downtown Partnership Downtown Development District Task Force (1989-90)
Lambda Alpha (honorary land economics society) (1990-present)
Metropolitan Washington Council of Governments Metropolitan Development Citizens Advisory Committee (1997-2004)
District of Columbia Comprehensive Plan Assessment Task Force (2002-2003)
District of Columbia Comprehensive Plan Revision Task Force (2004-2006)
District of Columbia Zoning Advisory Committee (2003-2008)
District of Columbia Zoning Review Task Force (2007-present)

LECTURES/SEMINAR PRESENTATIONS:

District of Columbia Association of Realtors
District of Columbia Building Industry Association

D.C. Bar/Georgetown University Law School Continuing Legal Education
Capitol Hill Realtors
American University Real Estate Alumni
District of Columbia Apartment and Office Building Association

Exhibit I

POLYSONICS
Acoustics & Technology Consulting

DARSHIT JOSHI, LEED AP BD+C
SENIOR ACOUSTICAL CONSULTANT

CAREER SUMMARY: Sr. Acoustical Consultant, Polysonics Corp., Warrenton, VA
April 2003 – Present

Sr. Design Engineer, TATA Chemicals Limited, Mithapur, India
October 1997 – July 2000

13 Years Total Experience

EDUCATION: B.S. Major: Mechanical Engineering; Minor: Heat Transfer/Machine Design
Nagpur University, India, 1997

M.S. Major: Mechanical Engineering; Minor: Advanced Acoustics
Wayne State University, Detroit, MI, 2003

EXPERT WITNESS: Maryland National Park and Planning Commission (MNCPPC)

AFFILIATIONS: Institute of Noise Control Engineering (INCE)
US Green Building Council, National Capital Region (USGBC-NCR)

PUBLICATIONS: Acoustical Benefits of Energy Efficient Elevator Systems – Noise Conference 2010
Construction noise impact on Elephant House at National Zoo in Washington, DC- Inter Noise 2009
Case study for the assessment and mitigation of community noise for proposed residential units atop a fire station - INCE Noise Conference 2007

AWARDS AND HONORS: Intra-College Technical Exhibition Model Award (Best working model)
General Secretary of MESA (Mechanical Engineering Students Association)
National Science Foundation Student Research Scholarship
Best New Engineer – Polysonics 2003

RECENT PROJECTS: Bozzuto Development – Siena Animal Hospital (Noise Control Ceiling Design)
Area Properties - Diamond Veterinary Hospital (Environmental Analysis)
Walsh Construction - Elephant House at National Zoo (construction noise analysis)
HOK – National Cancer Institute (Full Scope)
HOK – 5601 Fishers Lane (Full Scope)
T. Rowe Price Headquarters - Acoustical/Noise Control Design
Hines, Old Convention Center Site – Acoustical/Noise Control Design
Shalom Baranes, Pentagon – Noise Isolation Classification (NIC) Testing
Pulte Homes, Laurel Hill (SI Panel) – Outdoor Indoor Noise Analysis
Donatelli & Klein, Georgia Avenue – Acoustical/Noise Control Analysis
Higgins Development Partners, NIH Building #35 – Vibration Measurement
Cox Graae Spack, Washington International School – Acoustical Analysis
NAR, National Association of Realtors HQ – HVAC Analysis
Children's National Medical Center, MRI Room E2-423 – Acoustical Analysis
Rust, Orling & Neale Architects, Clyde's restaurant – Noise Control Ceiling Design