U.S. Citizenship and Immigration Services

Homeland Security Data Network (HSDN) Room
Closed Storage Processing Area

Office of Security and Integrity

in collaboration with

Office of Facilities Project Management Branch

July 2025

Version 1.9

Table of Contents

1.0 Description 4

2.0 Design Philosophy 4

3.0 Security Objectives 4
- **3.1 Acoustic Protection:** 4
- **3.2 Access Control:** 4
- **3.3 Information Security:** 4

4.0 Standard Security Equipment 4
- **4.1 Physical Access Control** 4
- **4.2 Video Surveillance System** 4
- **4.3 Intrusion Detection System** 4

5.0 Structural Requirements / Specifications 5
- **5.1 Acoustic Protection** 5
- **5.2 AV Protection** 5
- **5.3 Demising Wall** 5
- **5.4 Floors** 5
- **5.5 Walls** 5
- **5.6 Ceilings** 6
- **5.7 Doors** 6
- **5.8 Penetrations** 7
- **5.9 HVAC and Ducting** 7
- **5.10 Cabling and Drop Standards** 8

6.0 Photographic Deliverables 10

7.0 Lessor / Developer Deliverables 10

8.0 References 10

9.0 Design Diagrams and Equipment Placement 11

1.0 Description

The Homeland Secure Data Network (HSDN) room is designed to house the classified HSDN system. The room allows the processing, handling, discussion, and storage of National Security Information (NSI) up to the SECRET level.

2.0 Design Philosophy

The HSDN room is engineered to protect classified information both acoustically and through the hardening of the room.

3.0 Security Objectives

3.1 Acoustic Protection:

- Achieve a Noise Isolation Class (NIC) of 45 or better. At this level in a quiet room, a person in an adjacent space might hear raised speech, but they should not understand the conversation.
- In this document references will be made to Sound Transmission Coefficient (STC). Should not, STC refers to the rating of a specific building element like a wall assembly, door assembly, floor or ceiling assembly.
- The NIC refers to the overall rating of the envelope the space is describing.

3.2 Access Control:

- Manage access to authorized personnel. Record and verify entry.

3.3 Information Security:

- Create a secure environment for classified processing.

4.0 Standard Security Equipment

4.1 Physical Access Control

- A Card Reader placed ingress side of the door
- A Request to Exit (REX) shall be installed above the egress side of the door
- Electric strike shall be programmed to fail secure

4.2 Video Surveillance System

- None (DHS 121-01-017, 01, Physical Security Construction and Equipment Specification Standard, 3/21/15)

4.3 Intrusion Detection System

- None (DHS 121-01-017, 01, Physical Security Construction and Equipment Specification Standard, 3/21/15)

5.0 Structural Requirements / Specifications

5.1 Acoustic Protection

- HSDN Room shall meet an NIC of 45 or better rating. This typically will require all envelope assembly components to meet an STC of 50 or better.
- The Lessor shall provide an approved sound test report prior to acceptance at substantial completion that shows the room assembly meets or exceeds the NIC of 45.

5.2 AV Protection

- HSDN Room shall not have PA system due to security vulnerabilities.

5.3 Demising Wall

- The HSDN Room shall not be built on demising wall.

5.4 Floors

- The floor assembly must meet or exceed STC 50 sound rating.
- Floors should be standard floor construction, but a minimum of 4” poured concrete.
- Floor finish will be determined by USCIS Project Manager.

5.5 Walls

- The Wall assemblies for the HSDN room shall meet or exceed STC 50 sound rating.
- The wall assembly should consist of one layer of 5/8 inch-thick QuietRock or equivalent on both sides. One layer of 5/8 inch-thick gypsum wallboard (GWB) placed over top the QuietRock/equivalent on both sides with acoustic adhesive between layers.
- Apply a bead of acoustical adhesive (typically referred to as green glue) between wall stud and GWB to increase acoustic protection.
- Wallboard shall be attached to 3 5/8 inch-wide 20-gauge metal studs placed no less than 24” on center (o.c.).
- 20-gauge continuous track (top & bottom) w/ anchors at 32” o.c. maximum) – bed in continuous bead of acoustical sealant. The top and bottom of each wall shall be sealed with an acoustic sealant where the wall track meets the slab.
- The layers of wallboard on both sides of wall shall be mounted so that the seams do not align (i.e., stagger joints).

- Acoustic sound batt 3 ½ “(89mm) material that meets noise coefficient reduction (NRC) rating of 1, fastened to prevent sliding down and leaving void at the top.
- Entire wall assembly must be finished from true floor to true ceiling to show evidence of unauthorized penetration.
- Wall must be painted with a low VOC water-based eggshell finish from slab to finished ceiling.
- Ceiling and walls above grid to be painted matte black to show evidence of any unauthorized penetrations.
- Provide 4” vinyl rubber base around perimeter of room

5.6 Ceilings

- The Ceiling assembly for the HSDN room shall meet or exceed STC 50 rating.
- Minimum ceiling height 8’-0”. 2’ X 2’ Acoustical Ceiling Tile (ACT) with tegular edges with a minimum 25% recycled content and minimum NRC rating of (.90).

5.7 Doors

- The Door and frame assembly shall meet or exceed a Sound Transmission Class (STC) 50 rating.
- Preference to a package door assembly specifically designed for a sound rated assembly.
- Double Doors are not permitted.
- Door frames shall be packed with acoustic fill that meets noise coefficient reduction (NRC) rating of 1.
- Doors shall be constructed of wood, metal, or other solid materials.
- Solid core wood, minimum 1 3/4" thick, or 16-gauge metal cladding over wood or composition material, installed in welded steel frame assembly mounted to 20-gauge or greater metal studs. Knock-down [collapsible jam and header] frame or aluminum frame is not permitted.
- Hinges are preferred to be on the secure side of the door. Hinge pins that are exposed to the outer perimeter of the area shall be pinned, brazed, have set screws installed, or be spot-welded to preclude removal.
- Doors shall have adjustable acoustic gasket around the door with an automatic threshold seal installed in these instances, designed to meet the NIC Rating.
- After installation of door and seal. Allow 24hrs for seal to compress before using door. Allowing the seal to compress will reduce some door closing issues and provide for an even acoustic seal.
- No sidelites or vision panels shall be allowed in the HSDN room door and wall assembly.
- All door hardware shall meet Grade 1 standards.

- Doors shall be equipped with an industrial Grade 1 automatic door closer.
- Door shall be equipped with grade 1 storeroom function lockset that that matches Office Master Key System Core but is not set to Master Key in USCIS space.
- Door and hardware must be commercial grade mortise hardware (storeroom function lockset).
- HSDN entrance door must be equipped with acoustically rated automatic door bottom sweep

5.8 Penetrations

- All floor, ceiling, and wall penetrations shall be kept to a minimum.
- All gaps/holes around or near the air vent/pipe penetrations to the closed storage area perimeter are sealed with dual acoustic and fire rated sealant.
- Seal both sides of perimeter penetrations with an acoustic foam or sealant finished to match adjacent wall, floor, or ceiling. A fire Stop System may be required for fire rated assemblies.
- Any penetration of 96 sqin or larger shall be hardened with a prefabricated grate or field welded grate of #3 rebar to create a secure barrier without impeding the airflow.

5.9 HVAC and Ducting

- General Requirements
    - All HVAC components and installation must maintain the room's overall NIC of 45.
    - Minimize wall and ceiling penetrations to maintain acoustic integrity
    - All penetrations must be properly sealed with acoustic rated caulking, if a fire rated partition, confirm acoustic caulking is appropriately rated, sela both sides of penetration.
    - Ductwork should not be directly routed over doorways or door frames.
    - Ductwork should maintain minimum of 3-ft clearance from all door openings.
    - No ductwork (supply or returns) not associated with the HSDN Room shall be routed above the room.
    - Any existing, or new, SA/RA ductwork not directly servicing the HSDN Room will need to be (re)routed to avoid the ceiling space above the HSDN Room.
    - Install acoustic lagging at all bends.
    - Apply duct silencers on both supply and return.
    - Use acoustic grade expanding foam for all duct penetrations

- Z-Ducts

  - Implement Z-ducts at all wall penetrations for both supply and return systems
  - Z-ducts for both supply and return systems require perimeter gasketing.
  - Z-ducts must be acoustically lined with minimum 1inch acoustic material
  - Install isolation hanger at each turn to minimize vibrations
  - Z-ducts should be used for both air supply and air return system
  - Include access panel to allow for maintenance/cleaning
- Supply Air System and Ductwork
  - Ductwork needs to be sealed with acoustic grade mastic
  - Supply diffusers must be installed with acoustical boot and flexible connector
  - Utilize heavy duty security grade diffusers with welded construction.
- Return Air System and Ductwork
  - Return duct should be acoustically lined
  - Return Grilles should be security grade with acoustic boot and perimeter gasketing.

5.10 Cabling and Drop Standards

- Provide and install the following in accordance with USCIS HSDN S.O.W.
- For additional specifications requirements reference USCIS Structured Cable Plant Standard - MARCH 2021 V2.3.
- All receptacles and drop locations must maintain an STC-50 rating.
- Limit receptacles to no more than (1) per stud bay opening.
- Standard 120v Electrical Receptables
  - Quantity: 3
  - Type: Duplex Electrical Receptacles
    - All outlets to be labeled per the USCIS Cable standard appendix (appendix 12.12)
    - Location: Reference Construction Drawings
- Standard Data/Voice Outlets
  - Quantity: 3
  - Type: Data/Voice Jacks (CAT 6 – standard colors blue, red & white)

- Termination: To the designated patch panels in Server/MDF – Computer / LAN Room
- Location: To be determined

- Dedicated Software Defined Wide Area Network (SDWAN) Data Outlet
  - Quantity: 1 **(NOTE – the horizontal routing MUST be 18" separate from all other cabling in the plenum)**
  - Type: Data Jacks (CAT 6 – black in color in 2-port faceplate)
  - Termination: To 2-port surface-mount box in the router rack in Server/MDF – Computer / LAN Room
  - Location: To be determined

- Dedicated Circuits
  - Circuit 1: HSDN Cabinet
    - Circuit Rating: 20amp dedicated circuit
    - Receptable Type: NEMA 5-20R duplex
    - Location: To be determined by
  - Circuit 2: NSA Approved Shredder
    - Circuit Rating: 20amp dedicated circuit
    - Receptable Type: NEMA 5-20R duplex
    - Location: To be determined by HSDN Dedicated SDWAN 2D drop

- Fiber Optic Installation
  - Quantity: 1
  - Cable Type: CMP Plenum rated armored fiber optic cable 12-strand LOMM
  - Rating: Plenum rated (CMP)
  - Protection: Armored construction
  - Termination: Lockable wall mounted enclosure 12"-18" below finished ceiling.
  - Termination: Dedicated 1U Fiber enclosure in the router rack in Server/MDF – Computer / LAN Room
  - Location: To be determined directly above the HSDN Dedicated SDWAN 2D drop

6.0 Photographic Deliverables

- USCIS Requires photographic documentation of construction for the following:
    - Assembly Stages
    - Acoustic fill with NRC Rating
    - Acoustic fill installation
    - Acoustic sealant/caulk application
    - Penetration treatments and sealing
    - Assembly stages

7.0 Lessor / Developer Deliverables

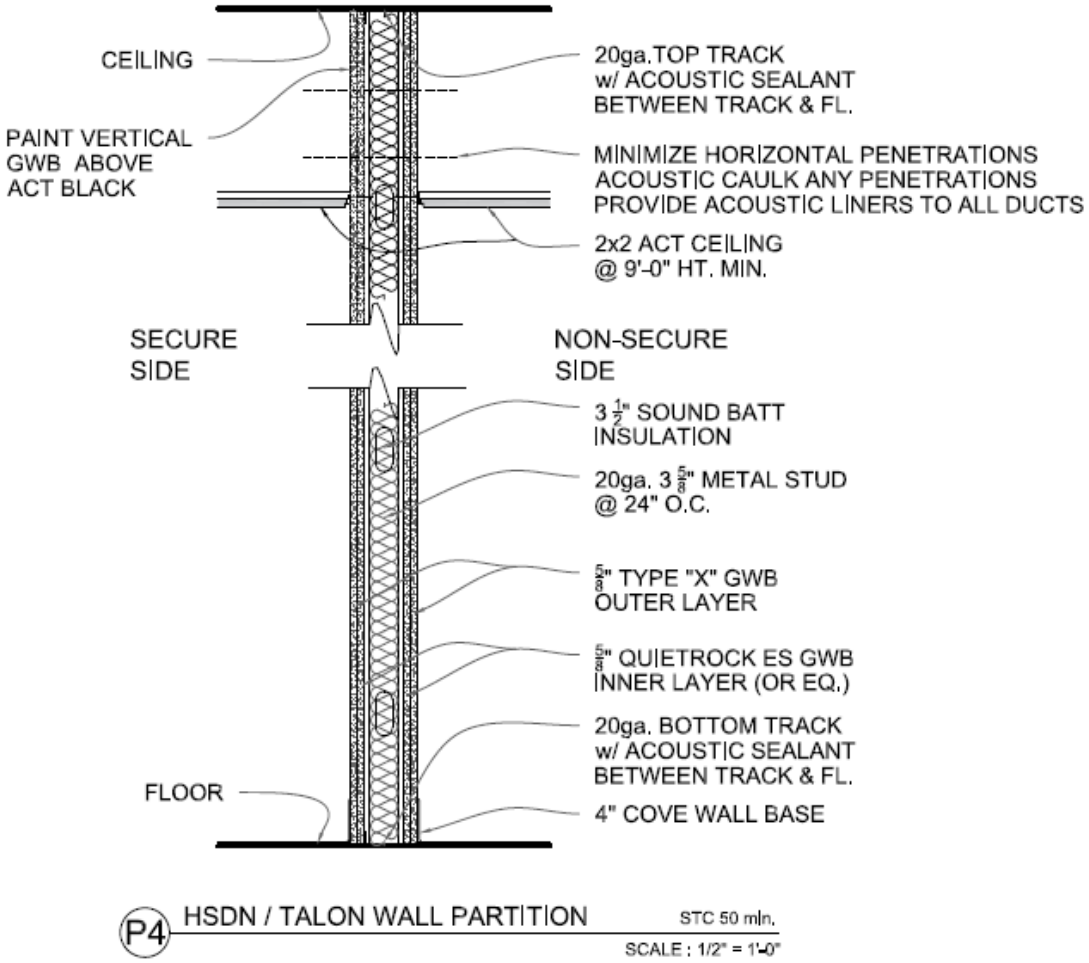
- Lessor / Developer to deliver structurally functional HSDN Room that meets NIC 45 or above rating while utilizing above criteria as baseline. To validate acoustic requirements are met:
    - Lessor to coordinate an acoustic assessment of the 35% construction drawing package. A report shall be generated summarizing overall expected performance and identifying areas of concern with recommendations to meet acoustic performance requirements.
    - Lessor to coordinate an acoustic test as part of the substantial completion acceptance to verify NIC of 45; test shall meet ASTM-E336-17A testing standards with typical field allowances. In the event the results do not meet the NIC requirement, remediations shall be made and the room retested using the same methodology as before. Written Report(s) with results of acoustic test must be delivered to GSA and USCIS project team within 30 days.
    - Acoustic Assessment and NIC 45 Testing to be performed by third party, and passing test provided to GSA and USCIS.

8.0 References

- Note: References Marked FOUO are not releasable beyond the agency.
- DHS 121-01-017, 01, Physical Security Construction Equipment Specification Standard, 3/21/15
- ICD 705, Technical Specifications for Construction and Management of Sensitive Compartmented Information Facilities
- ASTM-E336-17A and ASTM-E336-20, Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings ASTM-C423-17, Standard Test Method for Sound Absorption and Sound Absorption Coefficients
- USCIS Structured Cable Plant Standard - MARCH 2021 V2.3 (appendix 12.12)

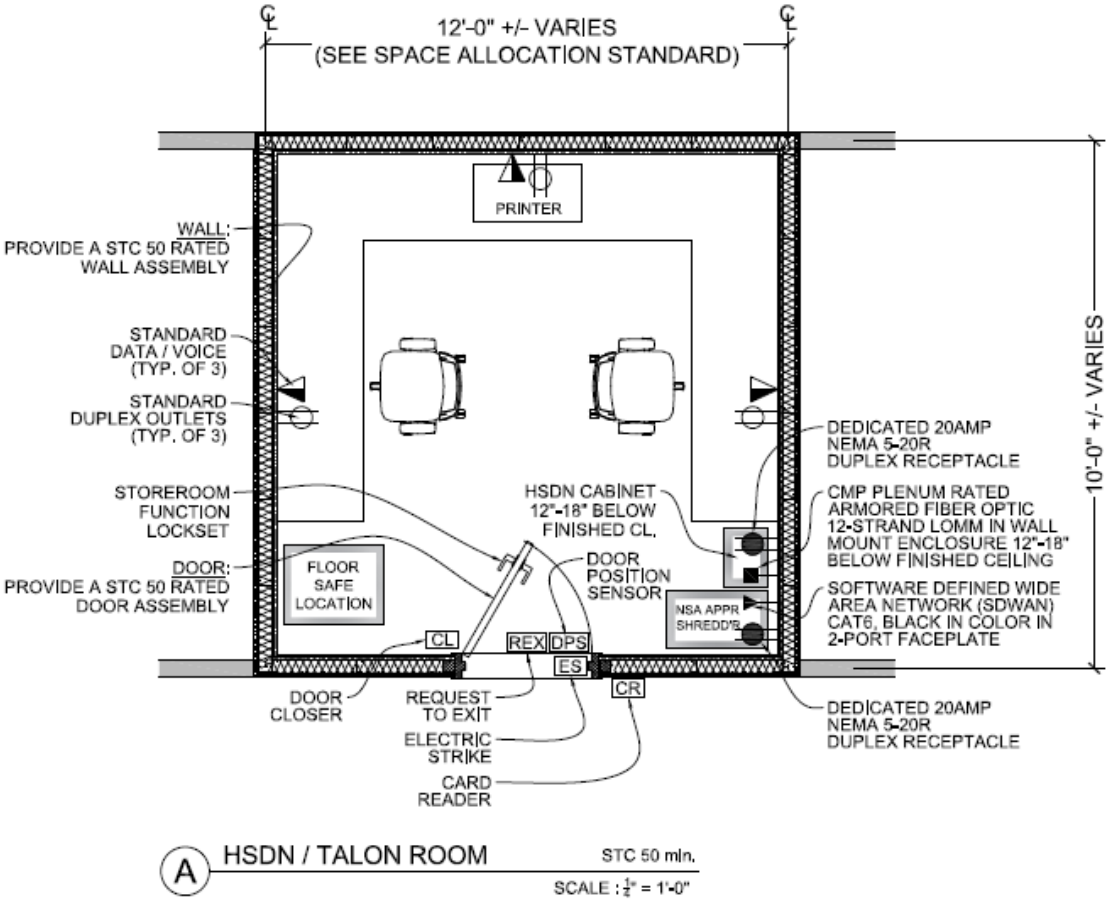
9.0 Design Diagrams and Equipment Placement

- Wall Diagram:



**for reference only, refer to Program of Requirements for HSDN Room size and facility specifics*

- HSDN Room Diagram:



**for reference only, refer to Program of Requirements for HSDN Room size and facility specifics*