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Assessment of The Seismic Vulnerability of West Tennessee School Buildings

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ASSESSMENT OF THE SEISMIC VULNERABILITY OF WEST TENNESSEE SCHOOL BUILDINGS

by

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A Thesis

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ABSTRACT

West Tennessee is considered a Moderately High to Very High Region of Seismicity according to the Federal Emergency Management Agency (FEMA), and within the New Madrid Seismic Zone (NMSZ). However, West Tennessee has been building large structures long before strides in earthquake engineering were made. FEMA hired the Applied Technology Council (ATC) to develop a procedure entitled the "Rapid Visual Screening (RVS) Method" to quickly determine if a structure is likely to suffer major damage in an earthquake or not. This is done by documenting aspects of the structure and its site and then calculating a score for the building. The score is compared to a cut-off score. If the score of the building is less than the pre-determined cut-off score, then the building is likely to collapse in the event of an earthquake resulting in a high risk of loss of life. The procedure is relatively inexpensive due to the lack of qualification necessary from the screener and the short time it takes to complete the survey. A more sophisticated government software called Hazus-MH (Hazard United States- Multi-Hazard) was developed to produce results with five damage categories: None, Slight, Moderate, Extensive, and Complete. Since Hazus-MH requires a significant amount of time to input data and find additional information from the site, it costs more to run an investigative team using Hazus-MH as opposed to the RVS Method. The West Tennessee Seismic Safety Commission has funded a project for The University of Memphis to assess the seismic resistance of West Tennessee school buildings and to investigate the correlations between the RVS Method and the results of the Hazus-MH software if any. If there is a strong correlation in data, then perhaps RVS Method is a reliable method to investigate buildings for earthquake resistance quickly.

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B – lognormal standard deviation value

MCE_R - Maximum Considered Earthquake Response

N – Standard Blow Count

N.T.S. – Drawing is not to scale

PGA – Peak Ground Acceleration

PI – Plasticity Index of Soil

P_{L1} – Plan Irregularity Score Modifier

r – correlational coefficient

S_a – Spectral Acceleration

S_b – Basic Score

S_{co} – Cut-off Score

S_{L1} – Building Score, Level 1 Score

S_{pb} – Post-Benchmark Score Modifier

S_{pc} – Pre-Code Score Modifier

S_s – Short-Period Spectral Acceleration, or 0.2 seconds Spectral Acceleration

S_{soil} – Soil Type Score Modifier

S_u – Undrained Shear Strength of the upper 100ft

S_1 – Long-Period Spectral Acceleration, or 1.0 second Spectral Acceleration

V_{L1M} – Moderate Vertical Irregularity Score Modifier

V_{L1S} – Severe Vertical Irregularity Score Modifier

$V_s{}^{30}$ – Shear Wave Velocity

w – Moisture Content of Soil

1. INTRODUCTION

Study Region Characteristics

Earthquakes are of significant concern to residents of West Tennessee. In addition to the location of the infamous earthquakes of 1811 and 1812, West Tennessee is also in a highly seismically active area of the contiguous United States (see Figure 1, Figure A-1 of FEMA P-154 (2015)). This study focuses on 50 public schools, comprised of 85 public school buildings and/or significant additions in Tennessee, specifically in Dyer County, Gibson County, Lauderdale County, and Obion County. All four counties fall within the area of Figure 1 that is shaded in purple that is generally considered a "Very High" Region of Seismicity. The school sites and counties are shown in more detail in Figure 2.
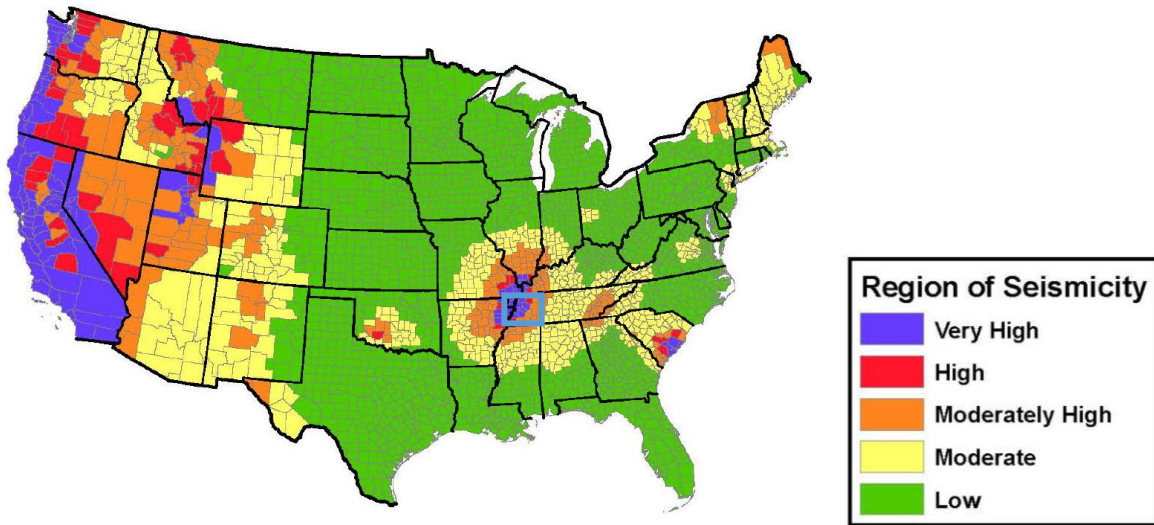
Figure 1. Seismicity Regions (Contiguous United States)
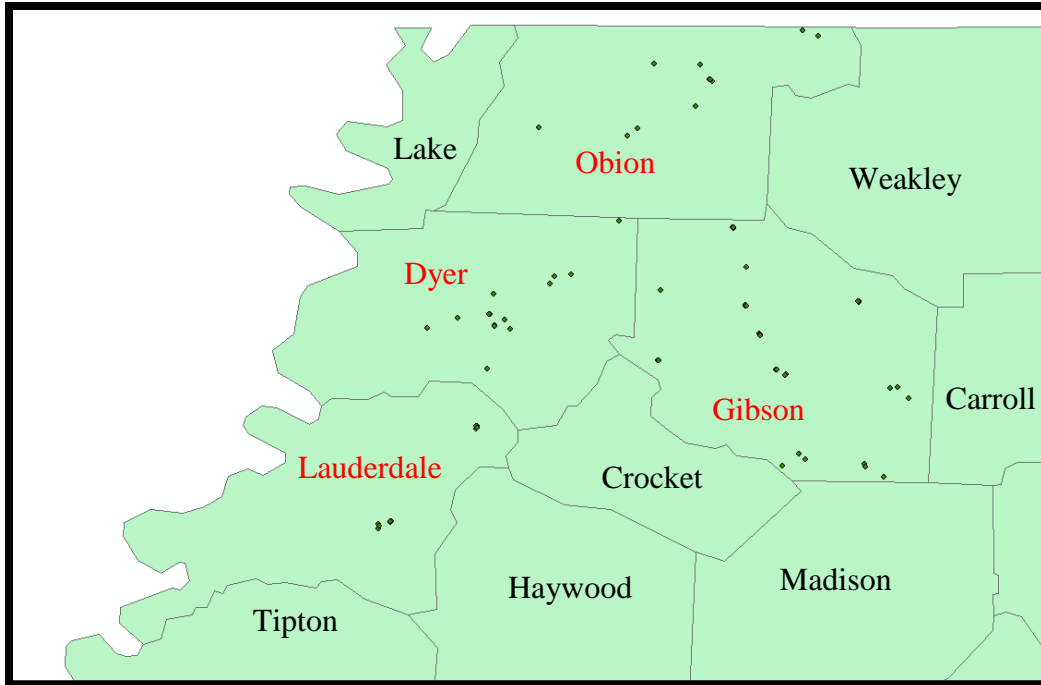
Figure 2. Study Site Locations

Dyer County

Dyer County contains 17 (20%) of the studied structures and/or significant additions. The median household income in Dyer County is $44,386. In 2018, Dyer County had an estimated population of 37,320, which is a 2.6% decrease from the 2010 Census estimates. 17.7% of the population, or 6,606 people are between 5 and 18 years of age (U.S. Census Bureau, 2018). According to the Tennessee Report Card, the schools studied account for 6,815 students and teachers occupying the school buildings during each school year. 1,279,945 square feet of school buildings were studied in Dyer County.

Gibson County

Gibson County contains 43 (50.6%) of the studied structures and/or significant additions. The median household income in Gibson County is $41,315. In 2018, Gibson County had an estimated population of 49,045, which is a 1.3% decrease from the 2010 Census estimates.

17.9% of the population, or 8,779 people are between 5 and 18 years of age (U.S. Census Bureau, 2018). According to the Tennessee Report Card, the schools studied account for 10,169 students and teachers occupying the school buildings during each year. 1,602,837 square feet of buildings were studied in Gibson County.

Lauderdale County

Lauderdale County contains 14 (16.5%) of the studied structures and/or significant additions. The median household income in Lauderdale County is $35,551. In 2018, Lauderdale County had an estimated population of 25,825, which is a 7.2% decrease from the 2010 Census estimates. 16.8% of the population, or 4,338.6 people are between 5 and 18 years of age (U.S. Census Bureau, 2018). According to the Tennessee Report Card, the schools studied account for 4,706 students and teachers occupying the school buildings during each year. 744,257 square feet of school buildings were studied in Lauderdale County.

Obion County

Obion County contains 11 (12.9%) of the studied structures and/or significant additions. The median household income in Lauderdale County is $38,063. In 2018, Obion County has an estimated population of 30,267, which is a 4.8% decrease from the 2010 Census estimates. 16.0% of the population, or 4,843 people are between 5 and 18 years of age (U.S. Census Bureau, 2018). According to the Tennessee Report Card, the schools studied account for 5,479 students and teachers occupying the school buildings each year. 911,366 square feet of school buildings were studied in Obion County.

Approach

Rapid Visual Screening (RVS) is a method of evaluating buildings based on simple characteristics to inexpensively determine if it is resistant or vulnerable to seismic forces. RVS

was developed by the Applied Technology Council (ATC) for the Federal Emergency Management Agency (FEMA). Some advantages of RVS is that anyone with a background related to construction or engineering can be trained to screen buildings, which makes the process extremely inexpensive as opposed to hiring private structural engineering firms to retrofit a building without knowing how seismically vulnerable or resistant the building is. One disadvantage of the RVS method is that it can only come to one of two conclusions: The building either "may be seismically hazardous and should receive a detailed structural evaluation" or not. The conclusion is arrived upon by calculating a score for the building, S_{L1}, and comparing it to a cut-off score for the region, S_{co}. If the building's score is above the cut-off score, the building is not considered potentially seismically hazardous. Another methodology used for this study is using Hazus-MH 4.2, which takes similar information collected from the RVS form, and computes probabilities that the surveyed building will fall into the following damage states: None, Slight, Moderate, Extensive, and Complete. A noticeable benefit in using Hazus-MH 4.2 over RVS for evaluating buildings is that there are clearly more detailed results. However, a major drawback of Hazus-MH 4.2 is that there are a much higher computation time and time used for data entry. The main objective of this study is to evaluate seismic vulnerability of the schools in the study and to develop a prioritized list of schools following both the RVS and Hazus-MH 4.2 approaches. Another objective of this study is to compare the RVS results with the Hazus-MH 4.2 results to see if using Hazus-MH 4.2 would be necessary for determining if a building needs a detailed structural evaluation. Many parties could benefit from this study in terms of prioritizing which school buildings should be considered for a more detailed structural engineering evaluation and retrofit versus which school buildings could be considered a storm

shelter location. A few of the school campuses have a tornado shelter that could also serve as a

shelter in the event of an earthquake, as those buildings have also been screened.

Literature Review

While conducting this research, documents and papers were referenced to help better

understand the problem and solutions. FEMA P-154 (2016) and its supporting documentation

FEMA P-155 (2016) explain how to develop a Rapid Visual Screening (RVS) program and

complete an RVS, as well as many resources for using RVS results for seismic advocacy.

Seismic Vulnerability Evaluation of Essential Facilities in Memphis and Shelby County,

Tennessee (Chang et al, 1995), *Assessment of the Seismic Vulnerability of the University of*

Memphis Main Campus Buildings (Mize, 2006), *Assessment of the Seismic Vulnerability of*

Shelby County Mass Emergency Shelters (Boling, 2009), and *Statistical Assessment of the*

Seismic Vulnerability of Mid-South Building Structures (Assadollahi, 2010) are all previous

projects including this type of research conducted in West Tennessee. They each serve unique

purposes in addition to comparing the RVS Method and Hazus-MH software output. The Hazus-

MH 2.1 Advanced Engineering Building Module (AEBM) Technical and User's Manual

(FEMA, 1999) and Earthquake Model: Hazus-MH 2.1 User Manual (FEMA, 1999) are tools

developed to help researchers properly use Hazus-MH for earthquake loss estimation. Currently,

those are the two most recent and relevant manuals available on FEMA's website, despite

Hazus-MH 4.1 being the most up-to-date version of the software.

FEMA P-154

FEMA 154 was first developed by the ATC for FEMA in 1988, then revised in 2002, and

again in 2015 when the document was re-named FEMA P-154. Since 1988, several

improvements have been made. One difference is the distinguishing of five regions of seismicity

is now recognized, as opposed to three in the first two editions. The first edition identified 12 Building Classifications, the second edition recognized 15 Building Classifications, and the most recent edition recognizes 17 FEMA Building Types, formerly called "Building Classifications." Due to these changes, comparing this study to previous versions done before 2015 is not an apples-to-apples comparison. One must consider that a building previously under one building classification is now under a different FEMA building type, resulting in a different score.

Previous Research

Reviewing similar studies in this region helped notice the numerous changes made by ATC and FEMA over the last 20 years. There is more differentiation in geological information and structural information, and that is noticeable in the previous research material compared to now. This is the first study in West TN since the third edition of FEMA P-154 in 2016.

Hazus Technical and User's Manuals

Hazus-MH 4.2 does not yet have a user or technical manual available for the earthquake hazard; nonetheless, the technical and user manuals for Hazus-MH 2.1 have proven to be helpful. FEMA also released a series of videos on Youtube.com in Summer 2019 that helped with selecting hazard maps, defining scenarios, and running analyses.

2. METHODOLOGIES

Rapid Visual Screening (RVS)

RVS is one of the two methodologies used in this study to assess the seismic vulnerability of structures. While FEMA P-154 details the gathering of the investigative team, the different ways of obtaining and collecting data, and how to use the results for seismic

advocacy, this section outlines the details of how this specific study was performed. For more details on alternative implementations of RVS, consult FEMA P-154.

To calculate the score for a building, S_{L1}, one must fill out the Level 1 Data Collection form. There are five versions of this form based on the level of seismicity. Once the form is selected, a basic score is determined from the FEMA building type; then, any score modifiers are added or subtracted from the basic score to result in the final Level 1 score or score for the building, S_{L1}. Appendix A shows the form for a building in a Very High region of seismicity, as well as the "Basic Score, Modifiers, and Final Level 1 Score, S_{L1}" section for each region of seismicity, and explains how the basic score and score modifiers change based on the region of seismicity of the building.

The RVS procedure is first begun by identifying which buildings to survey. It is ideal to know most or all the buildings at the beginning of the study so that preliminary research can be performed for all the buildings at once. Once most of the buildings are determined, pre-field planning may commence.

Pre-field Planning Activities: Location, Region of Seismicity, and Soil Type

Data collected during the pre-field planning activities are primarily found in the upper right portion of the Level 1 Data Collection Form shown in Appendix A, Figure A6. First, determine the Latitude and Longitude of each structure to at least six decimal places; this allows the user to distinguish between adjacent buildings.

While one can technically determine the level of seismicity by using the county-level maps shown in Figure 1, it is recommended to determine the region of seismicity by entering the following parameters into https://seismicmaps.org/: The design code reference is "2013 ASCE

41", the earthquake hazard level to "BSE-2N", and the soil site classification is the soil site class "B". The location can be determined by using the Latitude and Longitude of the site found previously. By inputting these various parameters, the maximum considered earthquake response, MCE_R, and spectral accelerations may be determined. The results from the USGS seismic maps may be interpreted using Table 1 (Table 2-2 FEMA P-154). This region determines which Level 1 Data Collection Form you choose. Once the form is selected, recording other identifying data such as the address, building name, and building use is helpful so that once site visits commence, one knows how to locate the building for the sidewalk survey. For the sites in this study, buildings were found to be in Moderately High, High, and Very High seismicity regions. If the original county-wide map were used, all buildings would have been in the Very High seismicity region. Taking extra measures, such as using the recommended procedure above, helps the screener avoid making overly conservative assumptions since the base score for each building significantly decreases with each higher level of seismicity on the Level 1 Data Collection forms.

Table 1. Seismicity Region from MCE_R Spectral Acceleration Response

Seismicity Region		Spectral Acceleration Response, S_s (short-period, or 0.2 seconds)	Spectral Acceleration Response, S_1, (long-period, or 1.0 second)
	Low	$S_s < 0.250g$	$S_1 < 0.250g$
	Moderate	$0.250g \leq S_s < 0.500g$	$0.250g \leq S_1 < 0.500g$
	Moderately High	$0.500g \leq S_s < 1.000g$	$0.500g \leq S_1 < 1.000g$
	High	$1.000g \leq S_s < 1.500g$	$1.000g \leq S_1 < 1.500g$
	Very High	$S_s \geq 1.500g$	$S_1 \geq 1.500g$

After the region of seismicity for each building site is determined, the soil type may be determined. Use the following link to determine the shear wave velocity, V_s^{30}, near each of the buildings:https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=8ac19bc334f747e486 550f32837578e1. If the data is no longer available at the link provided, find other sources to

obtain the average shear wave velocity, average standard blow count, or average undrained shear strength of the upper 100 feet of soil to help deduce the site class of the soil surrounding each structure using Table 2, (Table 2-5 FEMA P-154 (2015)). The soil type only influences the score of the building if the soil type is A, B, or E. Surprisingly if the soil type is F, a detailed structural evaluation is recommended, but the score of the building is not affected. Soil type F is considered an "other hazard" present (FEMA, 2015). All the buildings in this study fall within soil type C or D.

Table 2. Soil Type Definitions

Soil Type/Site Class	Shear Wave Velocity1, V_s^{30}	Standard Blow Count1, N	Undrained Shear Strength of the upper 100ft', S_u
A. Hard Rock	$V_s^{30} > 5000$ ft/s	N/A	N/A
B. Rock	2500 ft/s $< V_s^{30} < 5000$ ft/s	N/A	N/A
C. Very Dense Soil and Soft Rock	1200 ft/s $< V_s^{30} < 2500$ ft/s	$N > 50$	S > 2000 psf
D. Stiff Soil	600 ft/s $< V_s^{30} < 1200$ ft/s	$15 < N < 50$	1000 psf $< S_u < 2000$ psf
E. Soft Clay Soil	$V_s^{30} \leq 600$ ft/s	$N < 15$	$S_u < 1000$ psf
	More than 10 feet of soft soil with plasticity index, $PI > 20$, water content, $w > 40\%$, and $S_u < 500$ psf		
F. Poor Soil	Soils Requiring Site-Specific Evaluations ➢ Soils vulnerable to potential failure or collapse under seismic loadings, such as liquefiable soils, quick and highly sensitive clays, collapsible weakly-cemented soils. ➢ Thicker than 10 feet of peat or highly organic clay ➢ Very high plasticity clays (25 feet with $PI > 75$). More than 120 feet of soft or medium stiff clays		

During the pre-field planning activities, a few other decisions regarding RVS are made. Firstly, a cut-off score is determined. Chapter 2 of FEMA P-154 suggests a cut-off score of 2 to be used for most cases, so for this study, the cut-off score is 2.0 (FEMA, 2016). Additionally, the code year and benchmark year should be selected. In previous versions of FEMA P-154, the benchmark year is the only year of significance. However, the third edition of FEMA P-154

distinguishes between a code year and a benchmark year. The code year is the year that seismic

codes were initially adopted and enforced locally, and the benchmark year is the year that

seismic codes were significantly improved (FEMA, 2016). It was determined that West

Tennessee only has a code year, and that is 1991 (Mize, 2006).

Site Observations: FEMA Building Type and Score Modifiers

Once the pre-field planning activities for a site are complete, the site visit may begin. The

best department to contact at any facility is the maintenance office, or a plant manager if

applicable. The maintenance offices generally have floor plans, evacuation maps, and reliable

dates that buildings were constructed. The single most important characteristic of the building to

determine is the FEMA building type.

Briefly mentioned earlier, and described in Appendix B, the FEMA building type is

determined by the material the building is constructed with and the main seismic-resisting

system in place. Materials that buildings could be constructed with are wood, steel, concrete,

steel encased in concrete, and masonry. Seismic-resisting systems include moment frames,

braced frames, and shear walls. Appendix B describes each FEMA building type in detail as well

as the Hazus-MH 4.2 software-equivalent model building type. FEMA P-154 has guidance for

screeners on how to identify the FEMA building type in Section 3.14 (FEMA, 2016). Once the

FEMA building type is determined, the building has a basic score, S_b. For example, in Appendix

A: Figure A6, the basic score for a W1 building in a Very High region of seismicity is 2.1. Once

the basic score is determined, the building should be scoped for plan irregularities, vertical

irregularities, and other score modifiers.

The basic score has score modifiers that lower or raise the basic score underneath it. The

first score modifier addressed is the soil type score modifier, S_{soil}, since it can be determined

before the site visit. If the soil type is A or B, then it has a positive effect on the building's score. Soil type E reduces the building's score, and soil types C and D have no effect. The year the building was designed and/or constructed is extremely important; depending on how old or new the building is, the basic score can be lowered by 0.3 or raised by 2.0 in the Very High region of seismicity. The year the building was designed and/or constructed can be determined by the maintenance office, older staff members, or placards present at the entrance of the building or addition. If it is known when the building was constructed, a year is subtracted from that and is called the code year. The year the building was designed is that building's code year, and it is compared to the code year for the region. If the building was built before the code year for the region, the building is considered pre-code, S_{pc}, and it is a negative score modifier. If the building is younger than the code year (or benchmark year, if applicable), then it is considered "post-benchmark" and it is a positive score modifier. Vertical irregularities and plan irregularities are the last set of score modifiers to discuss.

Vertical irregularities and plan irregularities are found at the site and are basic characteristics of the shape of the building that cause it to perform worse in an earthquake event as opposed to buildings without an irregularity present. Vertical irregularities are further subdivided into moderate and severe; while both are negative score modifiers, moderate vertical irregularities have a lower magnitude than severe vertical irregularities. The seven vertical irregularities found in buildings from FEMA P-154 Chapter 3 (2016) are: sloping site, unbraced cripple wall, weak and/or soft story, out-of-plane setback, in-plane setback, short column/pier, and split levels. Plan irregularities mostly deal with the symmetry of the building in the plan dimension. A list of the five plan irregularities found in buildings from FEMA P-154 Chapter 3 (2016) is: torsion, non-parallel systems, reentrant corner, diaphragm openings, and beams that do

not align with columns. Descriptions and of the vertical and plan irregularities are found in FEMA P-154.

Post-Field Assessment

After the site visit has been completed, the score for the building, S_{L1}, may be calculated by using Equation 1a:

$$S_{L1} = S_b + S_m \tag{1a}$$

where S_b is the basic score, and S_m is the sum of the score modifiers. The sum of the score modifiers is calculated in Equation 1b:

$$S_m = V_{L1S} + V_{L1M} + P_{L1} + S_{pc} + S_{pb} + S_{soil} \tag{1b}$$

where V_{L1S} is the severe vertical irregularity score modifier, V_{L1M} is the moderate vertical irregularity score modifier, P_{L1} is the plan irregularity score modifier, S_{pc} is the pre-code score modifier, S_{pb} is the post-benchmark score modifier, and S_{soil} is the soil type score modifier. Once the Level 1 Score is known, it is compared to the benchmark score of 2.0 to determine if the building needs a detailed structural evaluation. Then, the RVS data may be entered into a Microsoft Excel spreadsheet, and slightly modified to enter information into Hazus-MH 4.2.

Hazus-MH 4.2 Analysis

Hazus-MH 4.2 is a software application within ArcGIS used for risk estimation in the event of several natural disasters: earthquake, flood, hurricane, and tsunami. Hazus-MH 4.2 estimates the physical, social, and economic losses due to an earthquake event. This study primarily focuses on the damage states of the buildings after an earthquake event. While Hazus-MH 4.2 is a very powerful tool, it also has many limitations. The detail of a study performed in Hazus software used to be measured by Level 1, Level 2, and Level 3 analyses. Level 1 was all

default information, Level 2 included some building survey data (custom inventory) and some

unique hazard information- such as soil type or local PGA, PGV, 0.3s spectral acceleration, and

1s spectral acceleration, and Level 3 included user-developed fragility curves (ESRI 2006). It

was generally recommended to use Level 2 analysis since user-developed fragility curves are

difficult to make and must be made individually for each building. So, even if a user-developed

fragility curve was developed correctly, it would only show results for one individual building,

yielding an insignificant sample size (number of observations less than 30). Since Level 3

analysis was not recommended, Hazus-MH 4.2 now splits analyses into two categories: Basic

and Advanced. A basic analysis is based mainly on default (Hazus-provided) data. Some new

information may be provided by the user, but the hazard is defined by Hazus. An advanced

analysis includes any custom inventory that is not provided by Hazus but generally focus is

given to hazard information collected by geologists and seismologists in the local area (FEMA

2019). It is also useful to have specific building inventory information collected by engineers for

a more accurate building type information. This study considers only local probabilistic ground

motion maps, so it is considered an advanced analysis. All the inventory in the study has been

surveyed, so user-developed information is being used for all the building types, the number of

stories, etcetera to be defined in Hazus-MH 4.2. For every piece of information desired, specific

data input is required. CDMS was developed to validate data entering Hazus-MH 4.2 to ensure

that all the necessary inputs are present.

Comprehensive Data Management System (CDMS)

CDMS is a tool that is downloaded and installed in conjunction with Hazus-MH 4.2 and

exists only to help import data into and export data from Hazus-MH 4.2. First, a state database is

downloaded from the FEMA website, and selected for the region. Then, data may be imported

into the repository from a Microsoft Excel spreadsheet, geodatabase, or shapefile file. Different

hazards, "Hazus-MH Inventory Categories." and "Hazus-MH Inventory Datasets (layers)" have

different required inputs. Once the proposed input file, hazard, inventory category, and inventory

dataset are selected, CDMS will display the required fields. The hazard for this study is

"Earthquake." The inventory category selected for this study is "Advanced Engineering Building

Module (AEBM)," and the only inventory dataset under that category is also "AEBM." There are

four required fields: area (square feet), earthquake building type, earthquake design level, and

occupancy type. Remember that the earthquake building type is not necessarily the FEMA

building type; the designation for low-rise, mid-rise, and high-rise described in Appendix B must

be used.

The earthquake design level is an indicator of how a building will perform based on the

codes of that region. There are three seismic design levels: High-Code, Moderate-Code, and

Low-Code. An additional category, Pre-Code, is applicable to all buildings constructed before

1941. While separating buildings into these categories may seem arbitrary, each of the categories

is associated with a damage function within Hazus-MH 4.2. The earthquake design level is

determined using Figure 3 and Table 3. Figure 3 is a map of the 1994 Uniform Building Code's

(UBC) seismic zones. Table 3 is a map within the Hazus-MH 2.1 User's Manual.
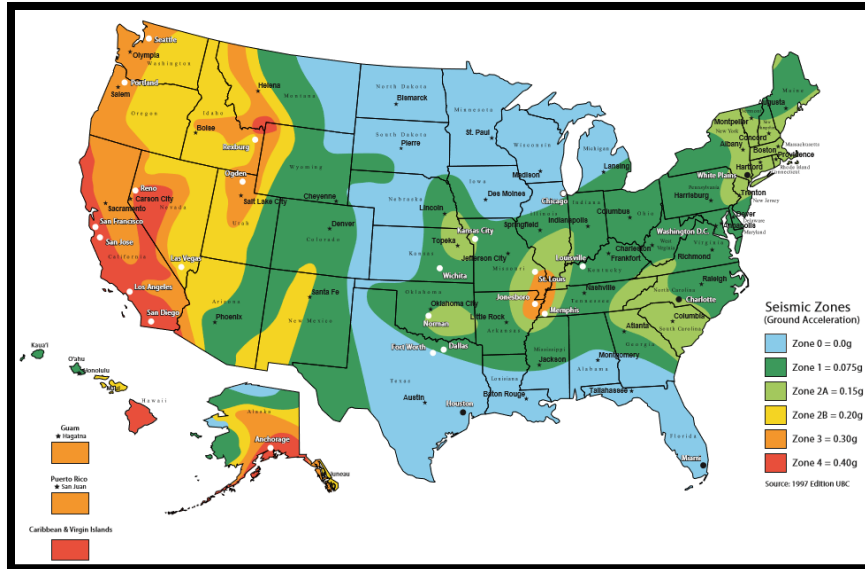
Figure 3. UBC Seismic Zones

From the figure above, the study region is within Zone 3. So, all buildings in this study are either Moderate-Code or Pre-Code according to Table 3, which is Table 2.2 in the Hazus-MH 2.1 AEBM Manual (FEMA 2012). Upon further inspection, 80 of the 85 buildings surveyed are considered Moderate-Code, and the 5 remaining are considered Pre-Code.

Table 3. Seismic Design Level

UBC Seismic Zone (NEHRP Map Area)	Design Vintage		
	Post-1975	1941-1975	Pre-1941
Zone 4 (MA 7)	High-Code	Moderate-Code	Pre-Code
Zone 3 (MA 6)	Moderate-Code	Moderate-Code	Pre-Code
Zone 2B (MA 5)	Moderate-Code	Low-Code	Pre-Code
Zone 2A (MA 4)	Low-Code	Low-Code	Pre-Code
Zone 1 (MA 2/3)	Low-Code	Pre-Code	Pre-Code
Zone 0 (MA 1)	Pre-Code	Pre-Code	Pre-Code

Finally, the occupancy type should be determined. While there are many occupancy types to choose from, all buildings within this study are considered EDU1, which are all primary, elementary, and high school buildings. There are other recommended economic data that Hazus-

MH 4.2 will estimate based on the required parameters. CDMS will validate the data and allow the user to transfer data into the CDMS repository. Then, the user can return to the home screen and transfer the data into the statewide data set. Based on previous experiences, it is recommended to "Replace" the data in the statewide data-set rather than "Append" the data. This helps avoid duplicate entries. Once the data regarding the buildings are transferred to the statewide dataset, the user will now see the data input in all Hazus-MH 4.2 study regions in that state. Appendix C has a complete procedure for updating a study region using CDMS. Appendices F and L contain data necessary to run a Hazus-MH 4.2 AEBM Module.

Generating a Study Region

To create a study region, applicable hazard(s) must be selected. Since this study is only considering losses from earthquakes, only the earthquake hazard is selected. Only selecting applicable hazards helps reduce time to complete the analysis.

Study regions can be aggregated at the state, county, or census tract level for an earthquake hazard analysis. The smaller the aggregation level, the more detailed analysis is. The reason for this is economic status, living conditions, and population characteristics are recorded at the aggregation level chosen, so the smaller the aggregation level, the more variation in the population is represented (Hazus-MH 2.1 2012). This study aggregates at the census- tract level. To create the study region, the appropriate level of aggregation is selected, and then the applicable state, county, and census tracts are selected. Then, the study region is generated. To open the region, select "Open a Region." The buildings should already be present in the inventory. In addition to seeing the usual ArcMap tabs, several tabs specific to Hazus-MH 4.2 will appear to be used for inventory validation, hazard selection, and viewing results.

Scenarios and Hazard Maps

When performing a seismic risk analysis, the user must create a scenario. A scenario includes options for indicating the seismic hazard map, liquefaction susceptibility map, landslide susceptibility map, fault rupture maps, then a soil type map, and water depth map. Once the scenario is created, the analysis can be run.

Hazus-MH 4.2 has five options for selecting hazard maps. There are two deterministic options: "Historical Epicenter Event" and "Arbitrary Event." A historical epicenter event is one that is based on an earthquake in the area that has happened in the past. While it may sound like a great idea to use this option, there is no probabilistic evidence that the same exact magnitude and location of an earthquake will happen again. An arbitrary event is just as it sounds; it is a list of arbitrary magnitudes and locations of earthquakes that have been created for Hazus users. The remaining three options are a probabilistic hazard, a user-supplied hazard, and a USGS ShakeMap. A probabilistic hazard asks for the user to specify a return period in years and a magnitude driving the probabilistic event. A user-supplied hazard requires PGA, PGV, 0.3s spectral acceleration, and 1.0s spectral acceleration maps for the area of interest; the user-supplied hazard was chosen for the study region, as there is currently one local study that covers the entire study region with the required ground motion data supplied by Dhar and Cramer (2017) that has a grid spacing of 0.1°. The maps resulting from this study will be referred to as the "coarse ground motion maps" throughout this document. A more detailed ground motion map has been generated that covers only Dyer County TN with a grid spacing of 0.005°, resulting in four hundred data points for every data point that the 2017 study covers. These more detailed maps will be referred to as the "finer Dyer County ground motion maps" throughout this

document. Appendix D shows the user how to create Hazus-compatible ground motion maps from a text file. From the local ground motion data above, three cases are studied:

1. For Dyer, Gibson, Lauderdale, and Obion Counties, ground motion values with 2% in 50-year exceedance using coarse ground motion maps.

2. For Dyer County, ground motion values with 2% in 50-year exceedance using coarse ground motion maps.

3. For Dyer County, ground motion values with 2% in 50-year exceedance using finer Dyer County ground motion maps

Appendix E shows the ground motion maps used in this study. It should be noted that the same maps are used in both the first and second cases, so the second case is just a subset of the first. More detailed maps are used in the third case, so the results should be more accurate for the third case.

Fragility Curves

A fragility curve is made up of two components: the damage median and the lognormal standard deviation value, β (FEMA-AEBM, 2012). The final fragility curve shows the probability of a structure falling into a damage state given a spectral displacement. First, the probability that a building will suffer slight, moderate, extensive, or complete damage given a spectral displacement is plotted; where each probability is equal to 0.5 is defined as the "damage state median". An example of the damage state median points is shown in FEMA's AEBM User and Technical Manual (2012), and Figure 4. After the damage state median is found, the slope is determined by the lognormal standard deviation value, β.
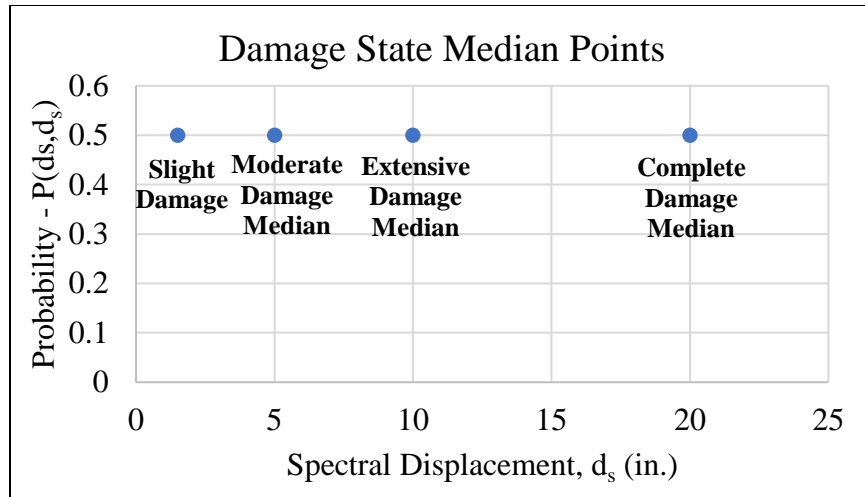
Figure 4. Example Calculation of Damage State Probability

The effect of the beta value is shown in Figure 5 (Figure 6.2 AEBM Manual) and reflected in Equation 2. Equation 2 calculates the vertical axis of a fragility curve, which is the probability of a damage state given a spectral displacement:

$$P(ds|d_s) = \varphi\left(\frac{1}{\beta}\ln\left(\frac{d_s}{\bar{d}_{s,ds}}\right)\right) \tag{2}$$

where φ is the standard normal cumulative distribution function (cdf), d_s is the spectral displacement, and $\bar{d}_{s,ds}$ is the median spectral displacement where the building reaches a particular damage state.
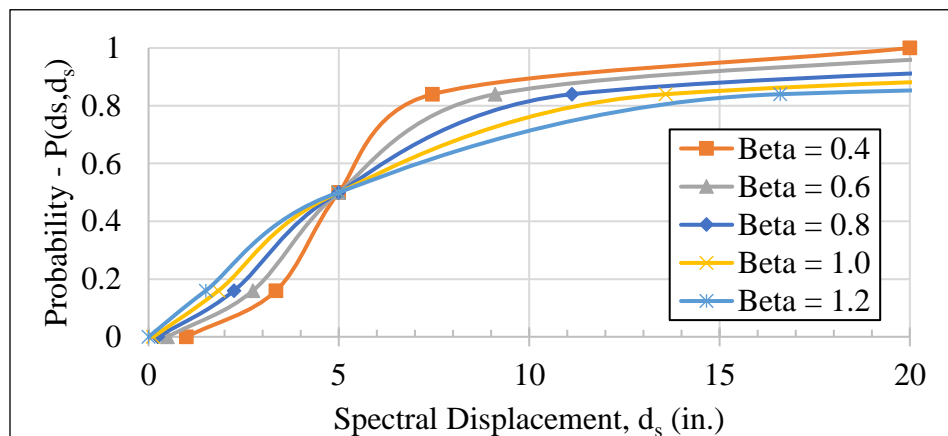
Figure 5. Example Fragility Curve with Various β values

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The process above is completed four times for each building type and earthquake design level combination to yield the slight, moderate, extensive, and complete thresholds. Then, the fragility curve for the component type, building type, and earthquake design level is developed, and together it looks like Figure 6.
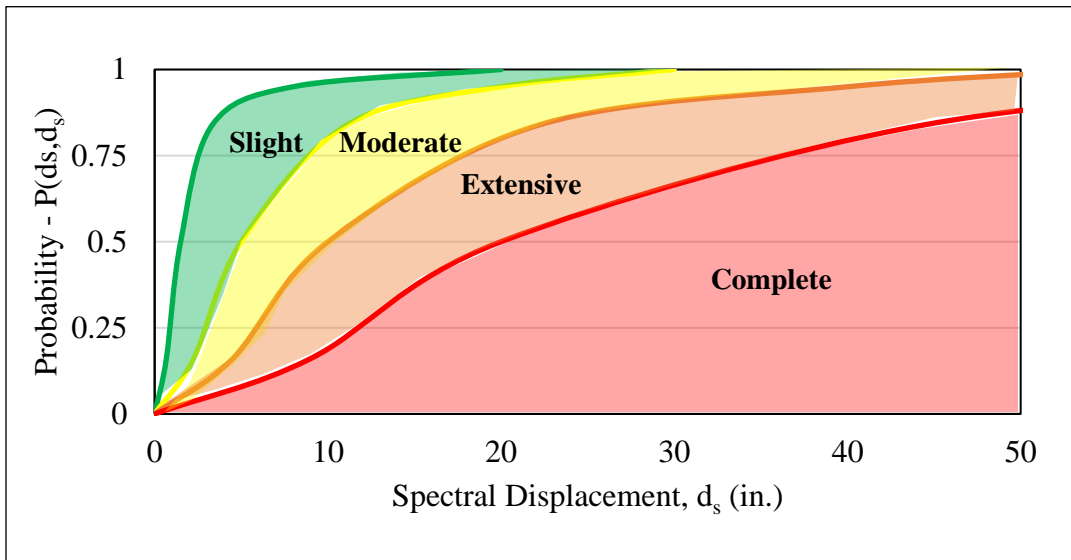
Figure 6. Example Fragility Curve

Fragility curves are automatically defined in Hazus according to the structure's building type and seismic design level.

3. RESULTS

RVS Results

The basic score of a building is dependent upon the region of seismicity and building type. While the four counties all generally fall within the "Very High" region of seismicity when looking at Figure 1, using the more detailed procedure in the Methodologies Section determined that all buildings in the study fall within the "Moderately High" to "Very High" Regions of Seismicity. Figure 7 shows what region of seismicity each building falls within. 40 buildings are

within the "Very High" region, 36 buildings are within the "High" region, and 9 are within the "Moderately High" region.
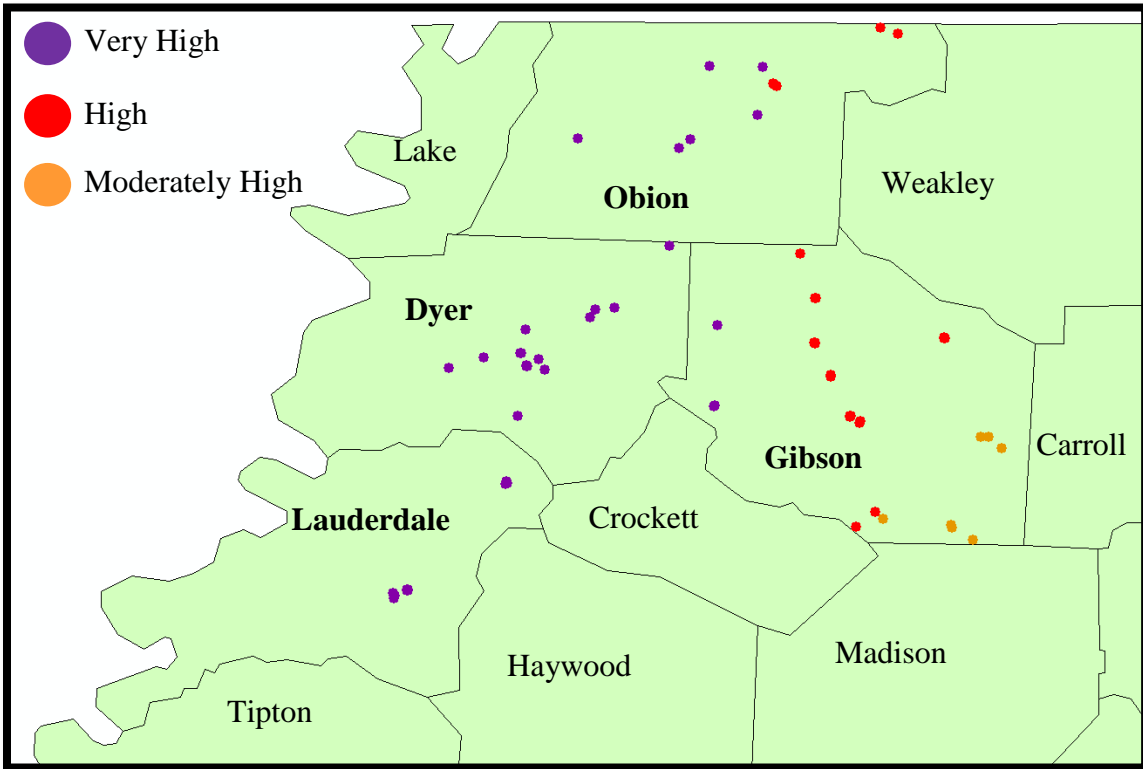
Figure 7. Level of Seismicity Across Study Region

The result in Figure 7 makes sense because the western-most parts of Tennessee are closer to the New Madrid fault line. The FEMA Building Type also helps determine the basic score, S_b, of each building. Table 4 shows the distribution of FEMA Building Types. It is evident from Table 4 that overwhelmingly the greatest number of structures in this region for primary, elementary, and secondary schools are RM1, or reinforced masonry with a flexible diaphragm. A possible reason for this is that once a school system finds an ideal architect to use, the same architect is hired for multiple projects, and the older school plans are referred to create new school plans. This situation was found to occur in several school districts during this study.

Table 4. FEMA Building Types

FEMA Building Type	Number of Structures	Percent of Structures
C3	9	10.59%
PC1	3	3.57%
PC2	2	2.38%
S3	3	3.57%
S5	15	17.86%
RM1	49	58.33%
RM2	1	1.19%
URM	3	3.57%

The basic score of an RM1 building in a "Very High" region of seismicity is only 1.1. Recall that 2.0 is the selected cut-off score. Of the RM1 structures observed, less than 30% had a score higher than the cut-off score. Of the S5 and S3 structures observed, none of them had a score above the cut-off score.

The number of most importance in the RVS procedure is the overall score for each building, S_{L1}, as this is the number that indicates which buildings are more likely or less likely to collapse in the event of an earthquake. Table 5 shows the distribution of building scores.

Table 5. S_{L1} Score Distribution

Range of S_{L1}	Number of Structures
0.2-0.5	39
0.6-0.9	7
1.0-1.5	11
1.6-1.9	7
2.0-2.5	7
2.6-2.9	3
3.0-3.5	5
3.6-3.9	6

From Table 5, approximately 64 of the buildings are more likely to suffer extensive damage in the event of an earthquake, and 21 of the buildings are not likely to suffer extensive damage. While Table 5 gives general information, what causes the buildings to have lower scores is more important. All buildings surveyed have an estimated design year found from either from a plaque in the building, older employees, or building plans. Table 6 shows the period structures were built, and the percentage of structures designed in that decade with a score above the cut-off score.

Table 6. Design Year of Buildings

Year Built	Number of Structures	Percent of Structures	Percent of Structures Above Cut-off Score
1910-1919	1	1.18%	0.00%
1920-1929	0	N/A	N/A
1930-1939	1	1.18%	0.00%
1940-1949	4	4.71%	0.00%
1950-1959	6	7.06%	0.00%
1960-1969	4	4.71%	0.00%
1970-1979	17	20.00%	0.00%
1980-1989	12	14.12%	0.00%
1990-1999	16	18.82%	37.50%
2000-2009	14	16.47%	46.15%
2010-2019	10	11.76%	90.00%

According to Table 5, no buildings built before 1990 have a score above the cut-off score of 2.0. Recall that 1991 is the code year and benchmark year for this region. So, clearly the post-benchmark score modifier seems to push many buildings over the threshold of 2.0. All building types in the "Very High" seismicity region have a basic score, S_b, below 2.0 (excluding W1 buildings), so it is impossible for the final building score, S_{L1}, to surpass 2.0 unless a positive score modifier is present. The only positive score modifiers are the post-benchmark score modifier, S_{pb}, and some soil type score modifiers, S_{soil}. Since no buildings are located on a site

with soil type A or B, the only applicable positive score modifier for the study region is S_{pb}.

Figure 8 further shows the relationship between the year built and the building score, S_{L1}. The correlational coefficient between S_{L1} and the year built is 0.64, which indicates a moderate correlation between the two variables. It can be deduced that the year built is the single-most deciding factor of which buildings are most likely to have a score above the cut-off score for this study region.
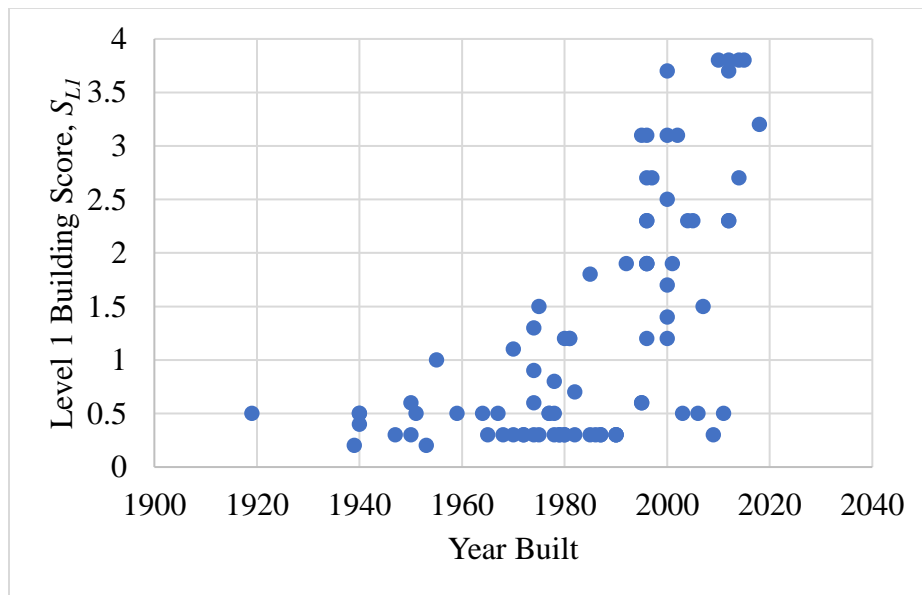
Figure 8. Building Score vs. Year Built

In addition to the year built, whether a building has irregularities has a significant impact on the score of the building. Table 7 shows the impact of the presence of irregularities on the overall score. From Table 7, approximately 45% of buildings surveyed had both a plan irregularity and a vertical irregularity. Of the 38 buildings, only one had a score above the cut-off. The one building that had both irregularities, but still had a score above the cut-off was a PC1 building in a "Moderately High" seismicity region designed post-benchmark with an S_{L1} of 2.5. If the same exact building were constructed in the "High" seismicity region, the score would

have been reduced to 2.3, and in a "Very High" seismicity region 1.8. So, there are very few

cases when a building with both irregularities could obtain a score above the cut-off score.

Table 7. Irregularities of Buildings

Irregularity Type	Number of Structures	Percent of Structures Above Cut-off Score
Vertical only	12	16.67%
Plan only	16	56.25%
None	19	47.37%
Both	38	2.63%

The most common plan irregularity observed was a reentrant corner. A building with a

reentrant corner is common even among modern buildings, so although strides have been made

in earthquake engineering, buildings are still being designed with awkward plan dimensions. The

most popular plan irregularity is a specific example of a reentrant corner, observed in the school

buildings and some hospitals, it resembles a spider-like plan view of four or more separate

hallways. Although this formation, shown in Figure 9, is convenient for hallway congestion, it is

not safe seismically as it causes buildings to be subject to torsion.
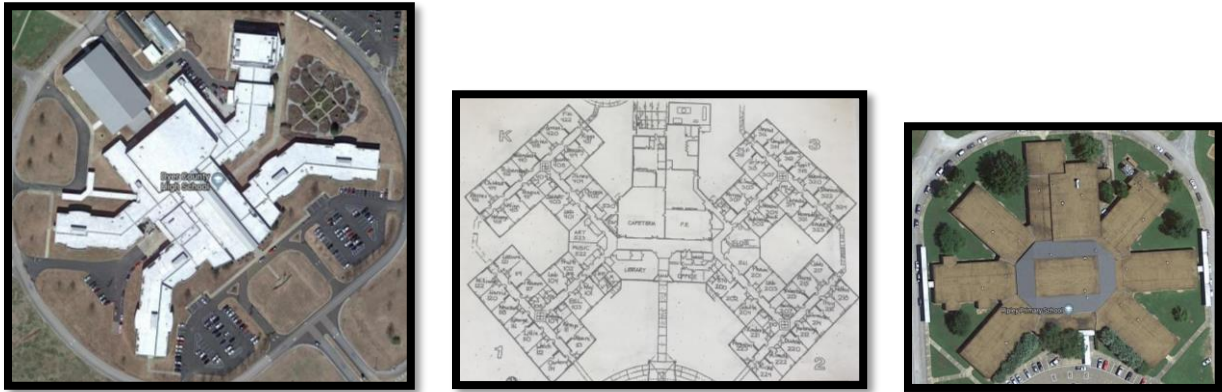
Figure 9. Examples of Buildings with a Reentrant Corner

Hazus-MH 4.2 Results

The Advanced Engineering Building Module (AEBM) within Hazus-MH 4.2 yields

damage state probabilities, predicted casualties, as well as predicted economic losses. The

damage state probabilities are calculated for three different components: structural components

(STR), nonstructural components sensitive to acceleration (NSA), and nonstructural components

sensitive to drift (NSD). Structural components of a building consist of materials and systems

resisting expected forces, such as beams and columns. Non-structural components sensitive to

drift include architectural elements that would be affected by inter-story drifts, such as sheetrock,

ceiling tiles, or glass panes inside windows and doors. Non-structural components sensitive to

acceleration are items or systems that could be ripped from the structure, including air

conditioning units, shelving units anchored to the wall, and sinks. Appendix G contains the

damage state probabilities determined for each structure for each case. Appendix H contains the

predicted casualties and economic losses. Table 8 shows an example of a building's damage state

probabilities for different components. One axiom in probability is that the probability of all

possibilities will sum to 1.0 or 100%. For instance, a building is either damaged to a certain

degree, completely damaged, or not damaged at all. So, if each different set of components will

fall into one of the five damage states described, then each row of Table 8 (and all damage state

probability tables) will sum to 1.0. Damage states have different descriptions for each structure

type, but generally slight damage, moderate damage, extensive damage, and complete damage all

have a clear connotation. If one is interested in knowing what damage states mean for different

building types, the damage state definitions by building type are described in FEMA's Hazus-

MH 2.1 Earthquake Technical Manual (2012).

Table 8. Damage State Probabilities for TN002548

Component	None	Slight	Moderate	Extensive	Complete
STR	0.012	0.084	0.527	0.359	0.018
NSA	0.068	0.299	0.426	0.183	0.024
NSD	0.022	0.148	0.585	0.207	0.038

The Damage state probabilities for structural components (STR) are used to compute the Immediate Occupancy Factor, *IO*, and Major Damage Factor, *MD*, both developed by Boling (2009). *IO* is the summation of the "None" and "Slight" damage state probabilities, and it represents the probability that a building may be occupied after an earthquake event. *MD*, or the probability that a building will suffer major damage, is the summation of the "Extensive" and "Complete" damage state probabilities for structural components.

One parameter based solely on occupancy type in Hazus-MH 4.2 is the "Percent Loss" of a structure according to damage state and component type. Since all the structures in this study have the same occupancy type, EDU1, all structures have the same Percent Loss Parameters shown in Table 9. The percent loss parameters are percentages of the building's worth that would be required to replace or repair portions of the building if the building fell into that damage state. For example, if the building in Table 9 suffered moderate damage, 1.9% of the building's cost would be required to repair structural components, an additional 3.2% of the building's cost would be required to repair the non-structural components sensitive to acceleration, and another 4.9% of the building's cost would be required to repair the non-structural components sensitive to drift. It should be noted that the percent loss parameter for the "None" damage state is intuitively zero (0) for all building types, because if a building suffers no damage, then zero money (or zero percent of the building's worth) is required to fix and/or replace damaged materials. The percent loss parameters are used in conjunction with the corresponding damage

state probabilities to calculate the Building Replacement Cost Factor, *BRC*, developed by

McKenzie Boling (2009). An example calculation of the IO factor, MD Factor, and BRC Factor

are shown below for Structure 1, HazusID = TN002548.

Table 9. Percent Loss Parameters: EDU1

EDU1 Repair Cost Ratios	Slight	Mod	Extensive	Complete
STR	0.4	1.9	9.5	18.9
NSA	0.7	3.2	9.7	32.4
NSD	0.9	4.9	24.3	48.7

The IO Factor is calculated using equation 3:

$$IO = P(N)_{STR} + P(S)_{STR} \qquad (3)$$

where $P(N)_{STR}$ is the probability that the building's structural components will suffer "None"

damage, and $P(S)_{STR}$ is the probability that the building's structural components will suffer

"Slight" Damage. For Structure 1, *IO* is calculated as:

$$IO = 0.012 + 0.084 \qquad (3a)$$

$$IO = 0.096 \qquad (3b)$$

Therefore, there is about a 9.6% chance that Structure 1 will be able to be occupied immediately

after the described earthquake event in Hazus-MH 4.2. *MD* is calculated in a similar manner

using Equation 4:

$$MD = P(E)_{STR} + P(C)_{STR} \qquad (4)$$

where $P(E)_{STR}$ is the probability that the building's structural components will suffer "Extensive"

damage, and $P(C)_{STR}$ is the probability that the building's structural components will suffer

"Complete" Damage. Alternatively, *MD* can be calculated using *IO* as:

$$MD = 1 - P(M)_{STR} - IO \qquad (5)$$

where $P(M)_{STR}$ is the probability that a building's structural components will suffer "Moderate" damage.

For building 1, MD is calculated as:

$$MD = 0.359 + 0.018 \tag{4a}$$

$$MD = 0.377 \tag{4b}$$

Therefore, there is a 37.7% chance that Structure 1 will suffer major damage. Finally, BRC for Structure 1 is calculated as:

$$BRC = \sum_{i=1}^{3} BRC_i \tag{6}$$

where i represents the systems STR, NSA, and NSD, and BRC for each group, i is calculated as:

$$BRC_i = \sum_{j=1}^{5} P(j)_i * PL_{ij} \tag{7}$$

where j represents the five damage states "None", "Slight"," Moderate"," Extensive", and "Complete", also known as N, S, M, E, and C. So, $P(j)_i$ is the probability of the jth damage state in the ith component group, and PL_{ij} is the percent loss parameter associated with the ith component group and j^{th} damage state. So, BRC_1, BRC_2, and BRC_3 are calculated as follows:

$$BRC_{STR} = P(N)_{STR} * PL_{STR,N} + P(S)_{STR} * PL_{STR,S} + P(M)_{STR} * PL_{STR,M} + P(E)_{STR} * PL_{STR,E} + P(C)_{STR} * PL_{STR,C} \tag{7a}$$

$$BRC_{STR} = (0.012)0 + (0.084)0.4 + (0.527)1.9 + (0.359)9.5 + (0.018)18.9 \tag{7b}$$

$$BRC_{STR} = 4.786 \tag{7c}$$

Similarly, $BRC_{NSA} = 4.125$ and $BRC_{NSD} = 9.880$, and BRC for structure one is:

$$BRC = BRC_{STR} + BRC_{NSA} + BRC_{NSD} \tag{6a}$$

$$BRC = 4.786 + 4.125 + 9.880 \tag{6b}$$

$$BRC = 18.791 \tag{6c}$$

So, based on the *BRC* calculated for Structure 1, after the earthquake event it was subjected to in Hazus-MH 4.2, it will cost an estimated 18.791% of the structure's cost to repair it.

The Pearson correlational coefficient, *r*, shows how closely two variables *x* and *y* are linearly related, and *r* is calculated using:

$$r = \frac{\sum_{i=1}^{n}(z_{x_i} z_{y_i})}{n-1} \tag{8}$$

where *n* is the number of (x,y) pairs. z_{xi} is the z-value for x_i and z_{yi} is the z-value for y_i from statistics, and the z-value is calculated using the formula:

$$z_a = \frac{a-\mu}{\sigma} \tag{9}$$

Where *a* is the x_i or y_i of interest, μ is the mean of all *a*, and σ is the standard deviation of all *a*. r ranges from -1 to +1. About 68% of all values of a dataset fall within one standard deviation of the mean, 95% fall within two standard deviations of the mean, and 99% fall within three standard deviations of the mean. A negative correlational coefficient indicates an inverse relationship between two variables, and a positive correlational coefficient indicates a positive correlation between to variables. If the magnitude (or absolute value) of r is between 0 and 0.3, then there is no significant correlation between the two variables. If the absolute value of r falls between 0.3 and 0.7, then there is a moderate correlation between the two variables. Then, it is

deduced that if r falls between 0.7 and 1, then there is a strong correlation between the two variables. The correlational coefficient is commutative, so it does not differentiate between the dependent and independent variables. The correlational coefficient will be used to help identify relationships, if any, between resultant variables.

The results from this study are divided into the three separate cases discussed earlier: All four counties with the coarse ground motion maps, Dyer County TN with the coarse ground motion maps, and Dyer County TN with the finer Dyer County TN ground motion maps. *IO*, *MD*, and *BRC* values will be presented and discussed for each case below. Then, the resultant variables are used to sort the structures from safest to least safe in Appendices F-H.

Dyer, Gibson, Lauderdale and Obion County: Coarse Map Results

Dyer, Gibson, Lauderdale, and Obion counties encompass the entire study region, so all 85 structures were analyzed in this case. The ground motion maps used for this case were the coarse maps developed on a 0.1° grid with PGA values ranging from 0.447g-1.600g. This dataset recorded many buildings with high Moderate, Extensive, and Complete damage state probabilities. Table 10 gives a summary of the variables calculated for this case.

Table 10. Case 1: Summary of Result Variables

	S_{L1}	*BRC* (%)	*IO*	*MD*
Average, μ	1.275	50.235	0.117	0.696
Standard Deviation, σ	1.124	31.228	0.238	0.351
Unique Values	24	45	22	38

From Table 10, The average *BRC* and *MD* are high, and the average *IO* and S_{L1} are low. This generally makes sense, because if there is more likely to be a lot of damage and almost half the cost of a structure is required to repair it, then it is likely that the structure will not be immediately occupied, thus a score below the cut-off score of 2.0 is also expected. While the

averages make sense, the standard deviations are high. For instance, $\sigma = 31.228$ for *BRC*, meaning

only 68% fall within 20% and 80%, indicating *BRC* is highly varied. The unique values are

recorded to rank the structures later. Table 11 lists the correlational coefficient matrix which is

used to analyze the relationships between the variables.

Table 11. Case 1: Correlational Coefficient Matrix

	S_{L1}	*BRC* (%)	*IO*	*MD*
S_{L1}	1	-0.287	-0.113	-0.124
BRC (%)	-0.287	1	-0.673	0.910
IO	-0.113	-0.673	1	-0.871
MD	-0.124	0.910	-0.871	1

From Table 11, there is a strong positive relationship between BRC and MD. There is also a

strong negative relationship between MD and IO, which is guaranteed since each has a direct

influence over the other in Equation 5. There is a moderate inverse relationship between BRC

and IO. All relationships involving SL1 are considered insignificant. However, the relationship

between S_{L1} and *BRC* is very close to the threshold of a moderate inverse correlation. These

relationships described are shown graphically in Figures 10-12.
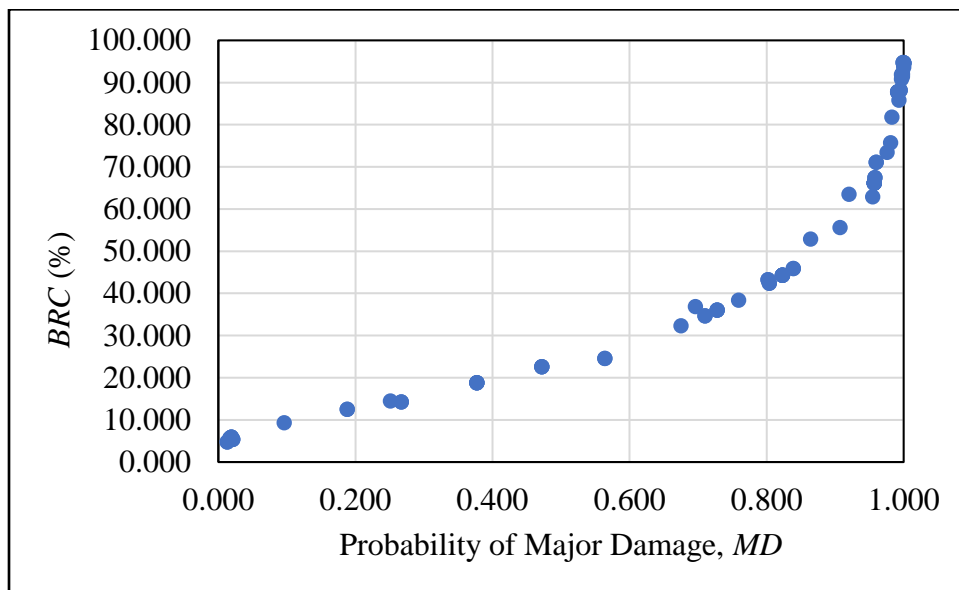
Figure 10. Case 1: *BRC* vs. *MD*

From Figure 10, as the probability of major damage increases, the estimated cost to repair the structure also increases. The strong correlation between BRC and MD is clearly visible in Figure 10. Intuitively, a BRC and IO should be inversely correlated.
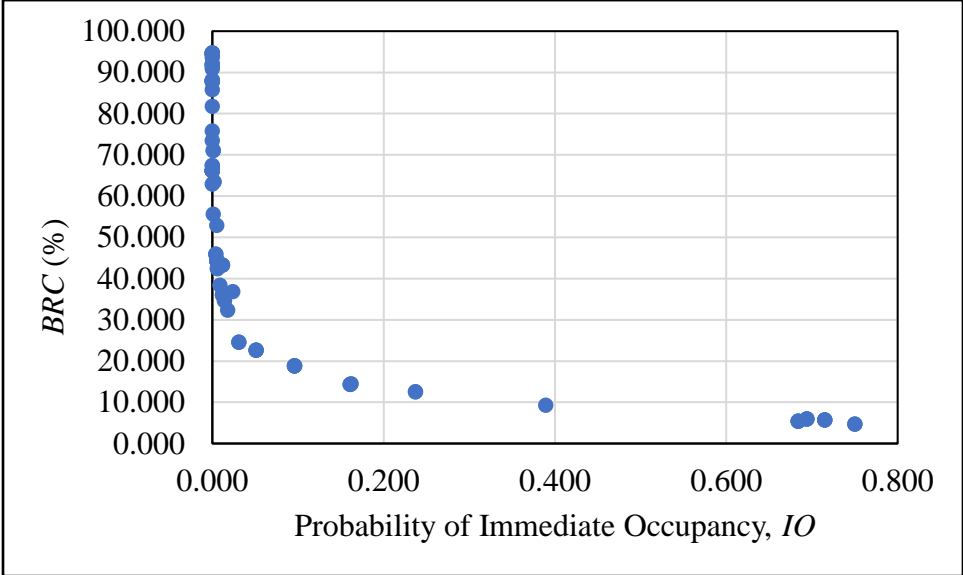
Figure 11. Case 1: *BRC* vs. *IO*

From Figure 11, as the probability of immediate occupancy increases, the cost to repair the building decreases. Though the graph above shows a seemingly strong inverse correlation exists, the correlational coefficient, *r*, is -0.673, indicating a moderate inverse correlation. The primary reason for this is the large variation in *BRC* when *IO* is zero. For an $IO = 0$, *BRC* ranges anywhere from 55%-95%.
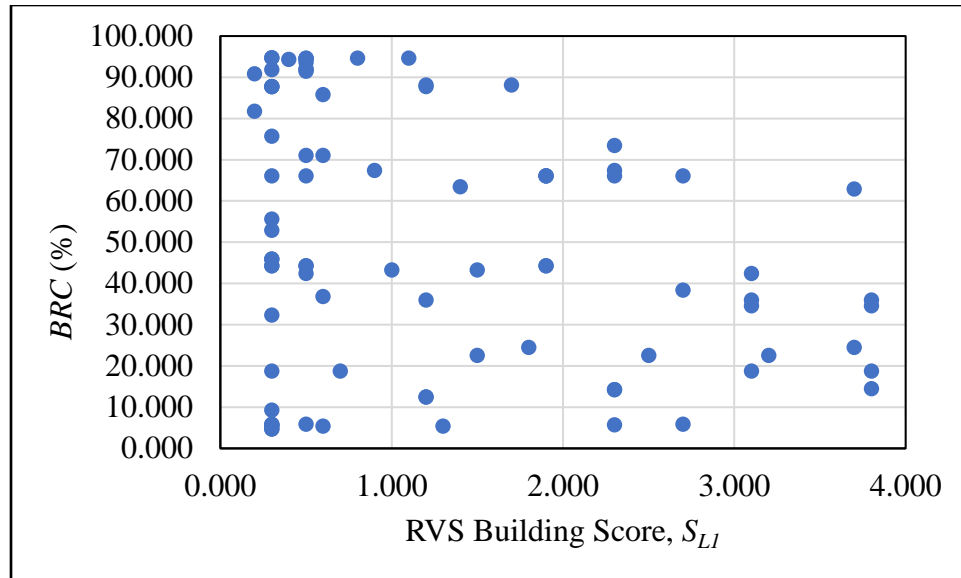
Figure 12. Case 1: *BRC* vs. S_{L1}

Since S_{L1} represents the resistance to earthquakes, all scores above 2.0 should have a lower *BRC*, and scores below 2.0 should have a higher *BRC*. However, S_{L1} was determined using a different methodology (RVS) that is based on different, more basic assumptions related to the age of the building, the shape of the building, and general site conditions. So, it makes sense that there is not a strong correlation between two variables developed using different methods. However, it should be noted that the weaker correlation that does exist is negative, showing that generally a lower S_{L1} results in a higher *BRC*. Appendix I shows the structures sorted using the variable with the largest number of unique values first, which is *BRC*. Any ties are broken with the variable with the second-most unique values, *MD*, followed by S_{L1} and *IO*.

After the structures in this case were ranked, they were plotted over a map displaying the PGA values in Figure 13 to see if there is a relationship between the higher PGA values and the final rank of the structures.

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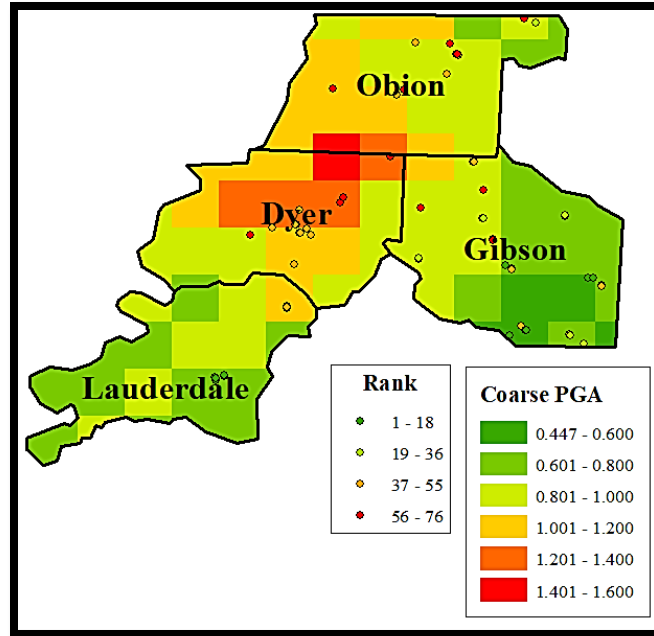
Figure 13. Rank and Coarse Map PGA Values

Clearly, from Figure 13, there is a correlation between the PGA values and the rank of the building, even though the PGA value for the structure was not directly a sorting mechanism. The PGA values correspond very well to the level of seismicity shown in Figure 7 that helps determine S_{L1}, and the PGA values help directly calculated the probability that a building's various components will fall into a certain damage state.

Dyer County: Coarse Map Results

Dyer County encompasses 17 of the structures surveyed. The ground motion maps used for this case were the coarse maps developed on a 0.1° grid with PGA values ranging from 0.69g-1.69g. This dataset is a subset of case 1, and thus the results are a subset of case 1. All structures in this area recorded "Complete" as the highest damage state probability for all components. Compared to the other three counties, Dyer county was subjected to the highest ground motions (most of the county was subjected to 1g-1.6g PGA values). Table 12 gives a summary of the variables calculated for this case.

Table 12. Case 2: Summary of Result Variables

	S_{L1}	BRC (%)	IO	MD
Average, μ	1.235	78.432	0	0.976
Standard Deviation, σ	0.865	14.069	0	0.021
Unique Values	8	5	1	5

There is significantly less variation in BRC, IO, and MD than in case 1. One possible reason for

that is the fact that all the buildings are subjected to significantly higher ground motions than the

remaining three counties. Since $IO = 0$ for all the Dyer County results, it is impossible to

calculate a correlational coefficient between it and any other variable. Since these results are a

subset of case 1, it is hypothesized that the correlations will be weaker. The correlational

coefficient matrix is shown in Table 13.

Table 13. Case 2: Correlational Coefficient Matrix

	S_{L1}	BRC (%)	IO	MD
S_{L1}	1	-0.636	-	-0.606
BRC (%)	-0.636	1	-	0.995
IO	-	-	1	-
MD	-0.606	0.995	-	1

Although r was unable to be calculated for IO and any other variable, the existing correlational

coefficients for this subset are higher than for case 1. There is a strong positive correlation

between MD and BRC. There is a moderate inverse correlation between S_{L1} and BRC. There is

also a moderate inverse correlation between S_{L1} and MD. These results are shown in Figures 14-

16.
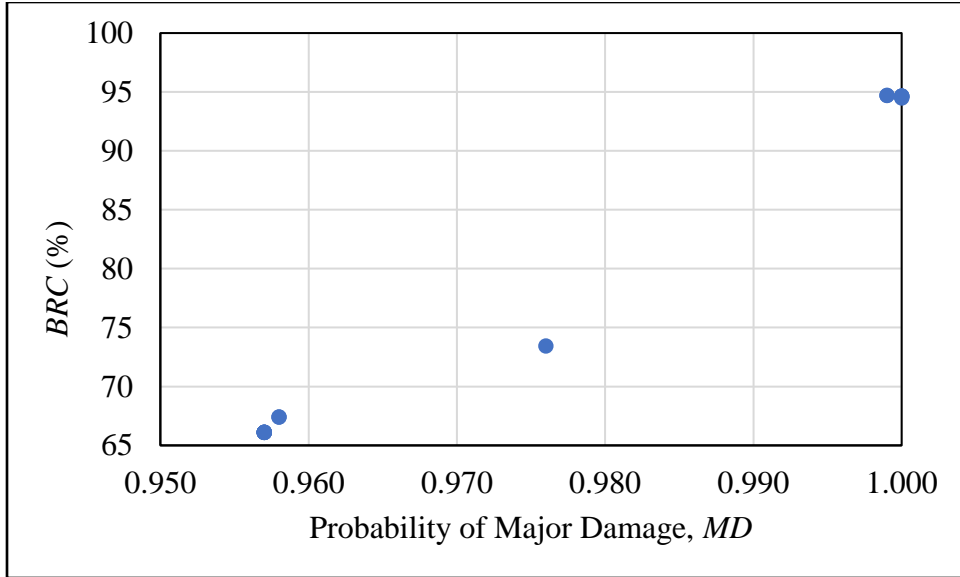
Figure 14. Case 2: *BRC* vs. *MD*

Although there is clearly a strong positive correlation between *BRC* and *MD*, as $r = 0.995$ for the

pair, shown in Figure 14, recall that each variable only has 5 unique values.
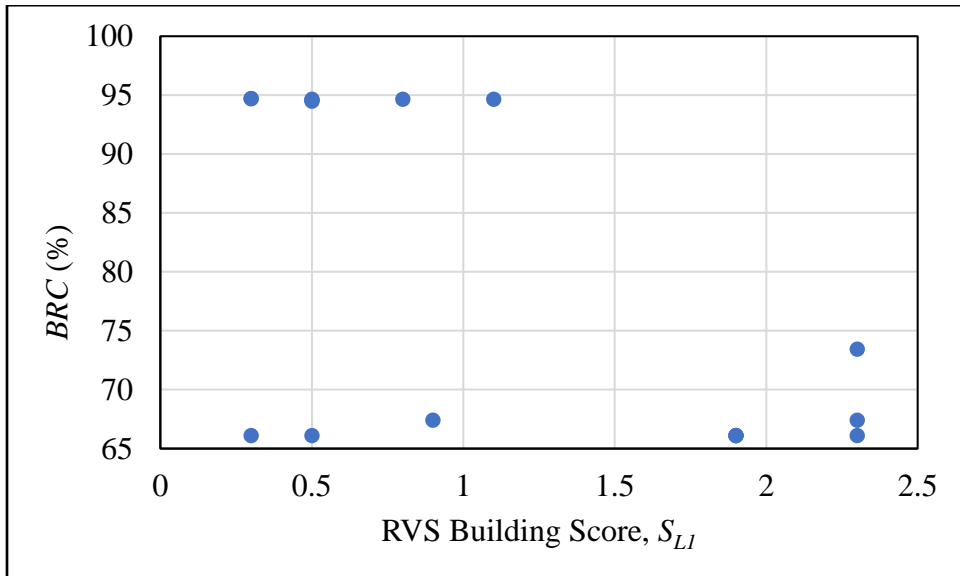
Figure 15. Case 2: *BRC* vs. S_{L1}

While Figure 15 does not appear to display much of a correlation, it does show that the higher scoring buildings have relatively lower *BRC* values compared to the lower scoring buildings.
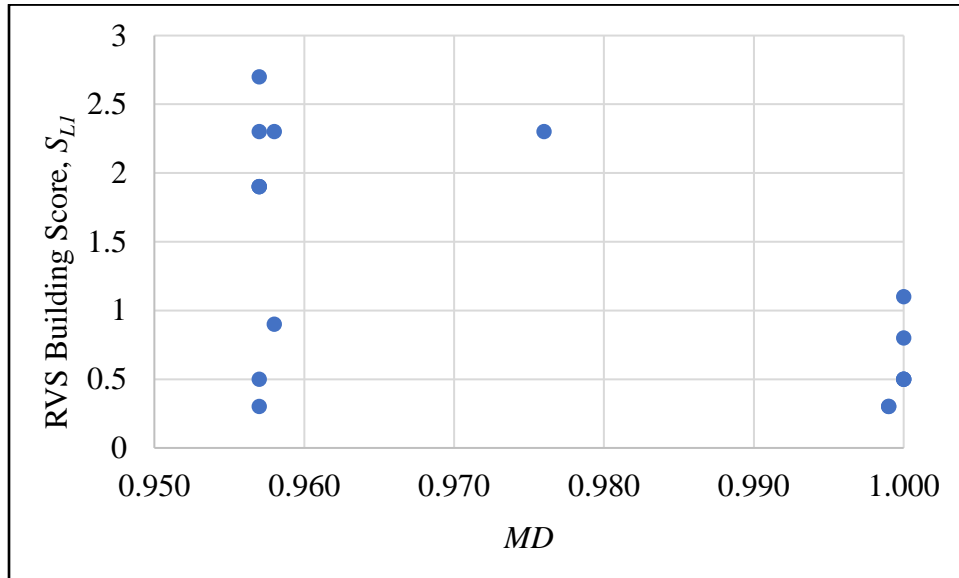
Figure 16. Case 2: S_{L1} vs. *MD*

Again, although there does not seem to graphically be a significant relationship between S_{L1} and *MD*, the probability of major damage is generally lower for buildings with higher scores. The problematic part of the correlational coefficient for these specific pairs (S_{L1}, *BRC*, and S_{L1},*MD*) is that even the buildings scoring above the benchmark of 2.0 still record *BRC*s upwards of 60% and *MD*s higher than 95%. So, although there is a correlation, S_{L1} operates on different assumptions than the Hazus-MH software. Appendix J shows the structures sorted using the variable with the most unique values first, which is *BRC*. Any ties are broken with the variable with the second-most unique values, *MD*, followed by S_{L1}. Since all *IO* are zero for this case, it does not affect the ranking.

<center>*Dyer County: Finer Map Results*</center>

Dyer County encompasses 17 of the structures surveyed. The ground motion maps used for this case were the finer maps developed on a 0.005° grid with PGA values ranging from 0.690g-

1.800g. All structures in this area recorded "Complete" as the highest damage state probability

for all components. This is likely due to the higher ground motions. Table 14 gives a summary of

the variables calculated for this case.

Table 14. Case 3: Summary of Result Variables

	S_{L1}	BRC (%)	IO	MD
Average, μ	1.235	81.434	0.000118	0.983
Standard Deviation, σ	0.865	11.921	0.000332	0.017
Unique Values	8	14	2	9

The *BRC* and *MD* values are slightly higher for this case than for case 2. This makes sense

because the ground motion values are higher for the finer maps than the coarse maps. The *IO*

value is still relatively zero. The average S_{L1} is the same for this case as case 2, because S_{L1} does

not change according to earthquake event. So, if the buildings surveyed are the same sample, S_{L1}

will not change due to what earthquake event is considered. The correlational coefficient matrix

for this case is shown in Table 15:

Table 15. Case 3: Correlational Coefficient Matrix

	S_{L1}	BRC (%)	IO	MD
S_{L1}	1	-0.579	-0.059	-0.443
BRC (%)	-0.579	1	-0.533	0.965
IO	-0.059	-0.533	1	-0.719
MD	-0.443	0.965	-0.719	1

From Table 15, there is a strong positive correlation between *BRC* and *MD*, and *MD* and *IO*.

There is a moderate inverse correlation between S_{L1} and *BRC*, *BRC* and *IO*, and *MD* and S_{L1}.

Since there is very little variation in *IO* and *BRC*, while S_{L1} is incredibly varied, a similar

situation to case 2 occurs in which the structures with S_{L1} greater than 2 still have *BRC* greater

than 60% and *MD* probabilities higher than 98%. So, while the correlations are in the right

direction, there is clearly a disconnect between the RVS methodology and Hazus-MH 4.2

software. Appendix K shows the ranking structures according to the number of unique values. So, the structures are first ranked by *BRC*, then *MD*, S_{L1}, and *IO*.

Discussion and Conclusions

This study was initially funded to locate the most seismically vulnerable buildings utilizing the RVS Method and the most up-to-date available local seismic data. After surveying each building, recording data, and running three Hazus-MH 4.2 advanced analyses, the buildings have been sorted from least seismically vulnerable to most seismically vulnerable. Appendix L gives the individual structure Level 1 Data Collection Forms for the 85 structures surveyed. Individual school building names have been removed. Table 16 gives results from Case 1 showing the distribution of structures that fall into the highest, upper, lower, and lowest quadrants of the total ranking from 1-76. Recall that although there are 85 structures, there are also ties that result in 76 ranks.

Table 16. Percent of Structures in Each County Ranking

Rank	Dyer	Gibson	Lauderdale	Obion
1-18	0.00%	25.58%	57.14%	0.00%
19-36	0.00%	34.88%	0.00%	27.27%
37-55	58.82%	13.95%	42.86%	27.27%
56-76	41.18%	25.58%	0.00%	45.45%
Total	100.00%	100.00%	100.00%	100.00%

Table 16 indicates that Obion County contains the highest percentage of seismically vulnerable schools, followed by Dyer County, Gibson County, and Lauderdale County. Hopefully, this table sheds some light on which counties need more immediate attention in terms of which school buildings to retro-fit first.

After utilizing both methods and calculating correlational coefficients between resultant variables from both methods, it has been determined that there is little correlation between the RVS method and Hazus-MH 4.2 software. Some reasons include that the underlying assumptions and required variables are different. Additionally, in the RVS method, there is no distinguishable difference between a structure with S_{L1} = 0.2 and a structure with S_{L1} = 1.9. According to RVS, both need "a more detailed structural evaluation," so the RVS method was not initially developed to rank structures. However, there is a slight correlation between SL1 and the final ranking of the structures in Case 1:
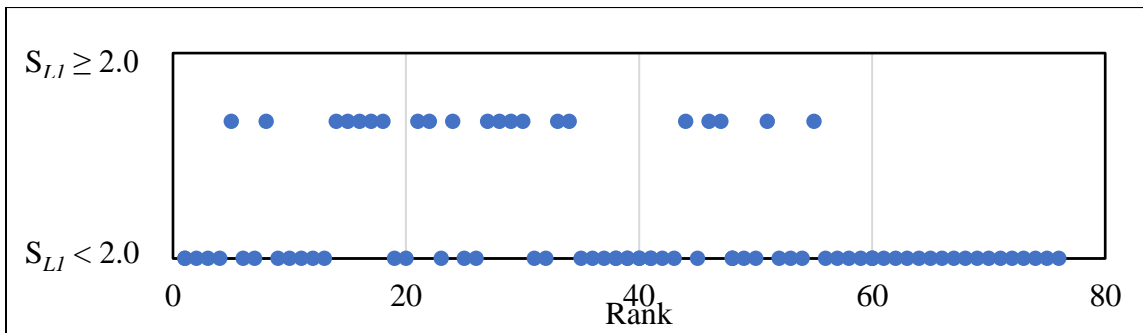
Figure 17. Case 1: S_{L1} Versus Rank

Although not a perfect correlation, the structures with a score of 2.0 or higher generally ranked better than structures with a score below 2.0.

After utilizing both methods, it is recommended that screeners use Hazus-MH 4.2 to rank structures from least seismically vulnerable to most seismically vulnerable, as RVS is not an extremely reliable indicator of seismic vulnerability for comparison of structures. The primary reason that RVS does not perform well for comparing structures is that it uses a "yes" or "no" approach for all parameters except for building type, soil type, and region of seismicity. In contrast, Hazus-MH 4.2 uses all categorical variables.

4. APPENDICES

Appendix A: Region of Seismicity's Effect on Level 1 Data Collection Form

Figures A1-A5 show the "Basic Score, Modifiers, and Final Level 1 Score, S_{L1}" section of the Level 1 Data Collection form for the Low, Moderate, Moderately High, High, and Very High seismicity regions, respectively. Figure A6 shows the entire Level 1 Data Collection form for the "Very High" region of seismicity.

The top row of each table indicates the FEMA Building Type that describes the materials and construction methods used in the building that result in a basic score for the building against a collapse in the event of an arbitrary earthquake. For instance, the first FEMA building type on the form in Figure A1 is "W1", which is a "light wood frame single- or multiple-family dwelling." For more information on what each building type is, see Appendix B. As shown in Figure A1, the basic score for W1 is 6.2. (For a reference point, the generally accepted cut-off score is 2.0). When looking at Figure A2, the score for the W1 building decreases to 5.1. In Figures A3-A5, the basic score for a W1 structure continues the downward trend with 4.1, 3.6, and 2.1, respectively. Upon closer inspection of the Very High seismicity region represented in Figure A5, W1 is the only FEMA building type with a basic score above the cut-off score. The reason for the basic score of each building decreasing with each higher seismicity region is that intuitively, a building built in the same manner in a place subjected to higher seismic forces is more likely to collapse.

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		6.2	5.9	5.7	3.8	3.9	4.4	4.1	4.5	3.3	4.2	3.5	3.8	3.3	3.7	3.7	3.2	4.6
Severe Vertical Irregularity, V_{L1}		-1.5	-1.5	-1.5	-1.4	-1.3	-1.6	-1.2	-1.3	-1.3	-1.2	-1.1	-1.3	-1.1	-1.1	-1.1	-1.2	NA
Moderate Vertical Irregularity, V_{L1}		-1.0	-0.9	-0.9	-0.9	-0.8	-1.0	-0.7	-0.7	-0.7	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.7	NA
Plan Irregularity, P_{L1}		-1.6	-1.4	-1.3	-1.2	-1.1	-1.4	-1.0	-1.1	-1.0	-1.0	-0.9	-1.2	-0.9	-0.9	-0.9	-1.0	NA
Pre-Code		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Post-Benchmark		2.2	2.4	2.5	2.0	1.6	1.4	2.1	NA	2.3	2.2	NA	1.9	2.6	2.3	2.3	NA	1.8
Soil Type A or B		0.9	1.1	1.3	1.0	1.2	0.8	1.3	1.4	0.9	1.2	1.2	1.3	1.3	1.4	1.4	1.3	0.9
Soil Type E (1-3 stories)		-1.2	-1.7	-2.3	-1.2	-1.4	-1.0	-1.7	-2.0	-1.4	-2.0	-1.6	-1.7	-1.6	-1.7	-1.7	-1.5	-2.1
Soil Type E (> 3 stories)		-1.7	-2.0	-2.2	-1.2	-1.4	NA	-1.7	-1.9	-1.3	-1.9	-1.6	NA	-1.6	-1.6	-1.7	-1.4	NA
Minimum Score, S_{MIN}		2.7	2.1	1.5	0.9	0.8	1.2	0.8	0.9	0.5	0.6	0.5	0.6	0.4	0.6	0.5	0.4	2.5

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:

Figure A1. Basic Score and Modifiers for Low Seismicity Region

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		5.1	4.5	3.8	2.7	2.6	3.5	2.5	2.7	2.1	2.5	2.0	2.1	1.9	2.1	2.1	1.7	2.9
Severe Vertical Irregularity, V_{L1}		-1.4	-1.4	-1.4	-1.2	-1.2	-1.4	-1.1	-1.2	-1.1	-1.2	-1.0	-1.1	-1.0	-1.1	-1.1	-1.0	NA
Moderate Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.9	-0.7	-0.7	-0.7	-0.7	-0.6	-0.7	-0.6	-0.7	-0.7	-0.6	NA
Plan Irregularity, P_{L1}		-1.4	-1.3	-1.2	-1.0	-0.9	-1.2	-0.9	-0.9	-0.8	-1.0	-0.8	-0.9	-0.8	-0.8	-0.8	-0.6	NA
Pre-Code		-0.3	-0.5	-0.6	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.3	-0.2	-0.2	-0.2	-0.2	-0.1	-0.5
Post-Benchmark		1.4	2.0	2.5	1.5	1.5	0.8	2.1	NA	2.0	2.3	NA	2.1	2.5	2.3	2.3	NA	1.2
Soil Type A or B		0.7	1.2	1.8	1.1	1.4	0.6	1.5	1.6	1.1	1.5	1.3	1.6	1.3	1.4	1.4	1.3	1.6
Soil Type E (1-3 stories)		-1.2	-1.3	-1.4	-0.9	-0.9	-1.0	-0.9	-0.9	-0.7	-1.0	-0.7	-0.8	-0.7	-0.8	-0.8	-0.6	-0.9
Soil Type E (> 3 stories)		-1.8	-1.6	-1.3	-0.9	-0.9	NA	-0.9	-1.0	-0.8	-1.0	-0.8	NA	-0.7	-0.7	-0.8	-0.6	NA
Minimum Score, S_{MIN}		1.6	1.2	0.9	0.6	0.6	0.8	0.6	0.6	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.5

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:

Figure A2. Basic Score and Modifiers for Moderate Seismicity Region

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:

Figure A3. Basic Score and Modifiers for Moderately High Seismicity Region

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}																		
FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0
FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:																		

Figure A4. Basic Score and Modifiers for High Seismicity Region

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}																		
FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0
FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:																		

Figure A5. Basic Score and Modifiers for Very High Seismicity Region

Figure A6 shows the entire Level 1 Data Collection form for the "Very High" region of seismicity. How to fill out this form is described in the Methodologies section under "RVS."

PHOTOGRAPH

Address: _____
Zip: _____
Other Identifiers: _____
Building Name: _____
Use: _____
Latitude: _____ Longitude: _____
S_S: _____ S_1: _____
Screener(s): _____ Date/Time: _____

No. Stories: Above Grade: _____ Below Grade: _____ Year Built: _____ ☐ EST
Total Floor Area (sq. ft.): _____ Code Year: _____
Additions: ☐ None ☐ Yes, Year(s) Built: _____

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office School ☐ Government
Utility Warehouse Residential, # Units: _____

Soil Type: ☐A Hard Rock ☐B Avg Rock ☐C Dense Soil ☐D Stiff Soil ☐E Soft Soil ☐F Poor Soil DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other: _____

COMMENTS:

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:

EXTENT OF REVIEW
Exterior: ☐ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☐ Entered
Drawings Reviewed: ☐ Yes ☐ No
Soil Type Source: _____
Geologic Hazards Source: _____
Contact Person: _____

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☐ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☐ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data **OR** DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Figure A6. Level 1 Data Collection Form

Appendix B: FEMA Building Type Descriptions and Compatible Hazus-MH 4.2 Types

FEMA over the years has continuously refined the number of recognized building types primarily from the original ATC-14 document (FEMA, 2015). Each of the 17 FEMA building types listed below also has a comparable Hazus-MH 4.2 building type, which is based on FEMA-178 (FEMA 2012). This is important in the screening process to ensure that each structure may be evaluated through both RVS and Hazus-MH 4.2. Otherwise, each site visit would require two separate on-site evaluations.

The only difference between Hazus-MH 4.2 and the Level 1 Data Collection form in terms of building type is that Hazus-MH 4.2 also distinguishes between low, medium, and high-rise buildings and the MH building type for Hazus does not include non-residential buildings, such as school portables. For instance, a 1-3 story S1 is an S1L in Hazus-MH 4.2. similarly, 4-7 story buildings are denoted by adding an "M," and any building over 7 stories is denoted with an "H" after the conventional FEMA building type designation. Some buildings that are only developed at certain heights (for instance, all W1 buildings are 1-3 stories in height), do not include any height designation. So, there is no W1L, W1M, or W1H, only W1. All buildings in this study were 3 stories or less, so they are all classified as low-rise buildings. There is one MH building that was initially screened and subsequently removed from the study due to the inconsistency between RVS and the Hazus-MH 4.2 software. The following list of FEMA building types is directly from FEMA P-154 and the Hazus-MH 4.2 model building types, and descriptions are from Earthquake Model Hazus-MH 2.1 User Manual, published in 2016 and 2012, respectively:

1. **RVS:** W1 buildings are Light wood frame single- or multiple-family dwellings of one or more stories in height.
   Hazus: W1 are typically single- or multiple-family dwellings. The essential structural feature of these buildings is repetitive framing by wood rafters or joists on wood stud walls. Loads

are light and spans are small. These buildings may have relatively heavy masonry chimneys and may be partially or fully covered with masonry veneer. Most of these buildings, especially the single-family residences, are not engineered but constructed in accordance with "conventional construction" provisions of building codes. Hence, they usually have the components of a lateral force-resisting system even though it may be incomplete. Lateral loads are transferred by diaphragms to shear walls. The diaphragms are roof panels and floors which may be sheathed with wood, plywood or fiberboard sheathing. Shear walls are exterior walls sheathed with boards, stucco, plaster, plywood, gypsum board, particle board, or fiberboard, or interior partition walls sheathed with plaster or gypsum board.

2. **RVS:** W1A buildings are light wood frame multi-unit, multi-story residential buildings with plan areas on each floor of greater than 3,000 square feet.
Hazus: Hazus does not recognize the difference between W1 and W1A buildings, so if the RVS screener/Hazus user encounters a W1A building in the field, consider it a W1 building in Hazus software.

3. **RVS:** W2 buildings are wood frame commercial and industrial buildings with a floor area larger than 5,000 square feet.
Hazus: These buildings usually are commercial or industrial buildings with a floor area of 5,000 square feet or more and with few, if any, interior walls. The essential structural character of these buildings is framing by beams or major horizontally spanning members over columns. These horizontal members may be glued-laminated wood, solid-sawn wood beams, or wood trusses, or steel beams, or trusses. Lateral loads usually are resisted by wood diaphragms and exterior walls sheathed with plywood, stucco, plaster, or other paneling. The walls may have diagonal rod bracing. Large openings for storefronts and garages often require post-and-beam framing. Lateral load resistance on those lines may be achieved with steel rigid frames (moment frames) or diagonal bracing.

4. **RVS:** S1 buildings are steel moment-resisting frame buildings.
Hazus: S1L, S1M, and S1H buildings have a frame of steel columns and beams. In some cases, the beam-column connections have very small moment resisting capacity but, in other cases, some of the beams and columns are fully developed as moment frames to resist lateral forces. Usually the structure is concealed on the outside by exterior walls, which can be of almost any material (curtain walls, brick masonry, or precast concrete panels), and on the inside by ceilings and column furring. Lateral loads are transferred by diaphragms to moment resisting frames. The diaphragms can be almost any material. The frames develop their stiffness by full or partial moment connections. The frames can be located almost anywhere in the building. Usually the columns have their strong directions oriented so that some columns act primarily in one direction while the others act in the other direction. Steel moment frame buildings are typically more flexible than shear wall buildings. This low stiffness can result in large inter-story drifts that may lead to relatively greater nonstructural damage.

5. **RVS:** S2 buildings are braced steel frame buildings.

Hazus: S2L, S2M, and S2H buildings are like steel moment frame buildings except that the vertical components of the lateral-force-resisting system are braced frames rather than moment frames.

6. **RVS:** S3 buildings are light metal buildings.
   Hazus: S3 buildings are These buildings are pre-engineered and prefabricated with transverse rigid frames. The roof and walls consist of lightweight panels, usually corrugated metal. The frames are designed for maximum efficiency, often with tapered beam and column sections built up of light steel plates. The frames are built in segments and assembled in the field with bolted joints. Lateral loads in the transverse direction are resisted by the rigid frames with loads distributed to them by diaphragm elements, typically rod-braced steel roof framing bays. Loads in the longitudinal direction are resisted entirely by shear elements which can be either the roof and wall sheathing panels, an independent system of tension-only rod bracing, or a combination of panels and bracing.

7. **RVS:** S4 buildings are steel frame buildings with cast-in-place concrete shear walls.
   Hazus: S4L, S4M, and S4H buildings have shear walls that are cast-in-place concrete and may be bearing walls. The steel frame is designed for vertical loads only. Lateral loads are transferred by diaphragms of almost any material to the shear walls. The steel frame may provide a secondary lateral-force-resisting system depending on the stiffness of the frame and the moment capacity of the beam-column connections. In modern "dual" systems, the steel moment frames are designed to work together with the concrete shear walls in proportion to their relative rigidities.

8. **RVS:** S5 buildings are steel frame buildings with unreinforced masonry infill walls.
   Hazus: S5L, S5M, and S5H buildings are This is one of the older types of buildings. The infill walls usually are offset from the exterior frame members, wrap around them, and present a smooth masonry exterior with no indication of the frame. Solidly infilled masonry panels, when they fully engage the surrounding frame members (i.e. lie in the same plane), provide stiffness and lateral load resistance to the structure.

9. **RVS:** C1 buildings are concrete moment-resisting frame buildings.
   Hazus: C1L, C1M, and C1H buildings are like steel moment frame buildings except that the frames are reinforced concrete. There is a large variety of frame systems. Some older concrete frames may be proportioned and detailed such that brittle failure of the frame members can occur in earthquakes, leading to partial or full collapse of the buildings. Modern frames in zones of high seismicity are proportioned and detailed for ductile behavior and are likely to undergo large deformations during an earthquake without brittle failure of frame members and collapse.

10. **RVS:** C2 buildings are concrete shear-wall buildings.
    Hazus: C2L, C2M, and C2H buildings have vertical components of the lateral-force-resisting system that are concrete shear walls that are usually bearing walls. In older buildings, the walls often are quite extensive, and the wall stresses are low, but reinforcing is light. In newer buildings, the shear walls often are limited in extent, thus generation concerns about boundary members and overturning forces.

11. **RVS:** C3 buildings are concrete frame buildings with unreinforced masonry infill walls.
    Hazus: C3L, C3M, and C3H buildings are like steel frame buildings with unreinforced masonry infill walls except that the frame is of reinforced concrete. In these buildings, the shear strength of the columns, after cracking of the infill, may limit the semi ductile behavior of the system.

12. **RVS:** PC1 buildings are tilt-up buildings
    Hazus: PC1 buildings have a wood or metal deck roof diaphragm, which often is very large, that distributes lateral forces to precast concrete shear walls. The walls are thin but relatively heavy while the roofs are relatively light. Older buildings often have inadequate connections for anchorage of the walls to the roof for out-of-plane forces, and the panel connections often are brittle. Tilt-up buildings usually are one or two stories in height. Walls can have numerous openings for doors and windows of such size that the wall looks more like a frame than a shear wall.

13. **RVS:** PC2 buildings are precast concrete frame buildings
    Hazus: PC2L, PC2M, and PC2H buildings contain floor and roof diaphragms typically composed of precast concrete elements with or without cast-in-place concrete topping slabs. The diaphragms are supported by precast concrete girders and columns. The girders often bear on column corbels. Closure strips between precast floor elements and beam-column joints usually are cast-in-place concrete. Welded steel inserts often are used to interconnect precast elements. Lateral loads are resisted by precast or cast-in-place concrete shear walls. For buildings with precast frames and concrete shear walls to perform well, the details used to connect the structural elements must have sufficient strength and displacement capacity; however, in some cases, the connection details between the precast elements have negligible ductility.

14. **RVS:** RM1 buildings are reinforced masonry buildings with flexible floor and roof diaphragms.
    Hazus: RM1L and RM1M buildings have perimeter bearing walls of reinforced brick or concrete-block masonry. These walls are the vertical elements in the lateral-force-resisting system. The floors and roofs are framed either with wood joists and beams with plywood or straight or diagonal sheathing, or with steel beams with metal deck with or without a concrete fill. Wood floor framing is supported by interior wood posts or steel columns; steel beams are supported by steel columns.

15. **RVS:** RM2 buildings are reinforced masonry buildings with rigid floor and roof diaphragms.
    Hazus: RM2L, RM2M, and RM2H buildings have bearing walls similar to those of reinforced masonry bearing wall structures with wood or metal deck diaphragms, but the roof and floors are composed of precast concrete elements such as planks or tee-beams and the precast roof and floor elements are supported on interior beams and columns of steel or concrete (cast-in-place or precast). The precast horizontal elements often have a cast-in-place topping.

16. **RVS:** URM buildings are unreinforced masonry bearing-wall buildings

Hazus: URML and URMM buildings are These buildings include structural elements that vary depending on the building's age and, to a lesser extent, its geographic location. In buildings built before 1900, the majority of floor and roof construction consists of wood sheathing supported by wood sub-framing. In large multistory buildings, the floors are cast-in-place concrete supported by the unreinforced masonry walls and/or steel or concrete interior framing. In unreinforced masonry constructed after 1950 wood floors usually have plywood rather than board sheathing. In regions of lower seismicity, buildings of this type constructed more recently can include floor and roof framing that consists of metal deck and concrete fill supported by steel framing elements. The perimeter walls, and possibly some interior walls, are unreinforced masonry. The walls may or may not be anchored to the diaphragms. Ties between the walls and diaphragms are more common for the bearing walls than for walls that are parallel to the floor framing. Roof ties usually are less common and more erratically spaced than those at the floor levels. Interior partitions that interconnect the floors and roof can have the effect of reducing diaphragm displacements.

17. **RVS:** MH buildings are manufactured housing. FEMA also includes non-residential buildings, such as school portables.
    Hazus: MH buildings are prefabricated housing units that are trucked to the site and then placed on isolated piers, jack stands, or masonry block foundations (usually without any positive anchorage). Floors and roofs of mobile homes usually are constructed with plywood and outside surfaces are covered with sheet metal. Hazus software does not include non-residential buildings, such as school portables.

Appendix C. Procedure for CDMS Data Entry

Data entry into CDMS is briefly described in the Methodologies Section of this document. However, below is a more thorough guide complete with screen captures and specific references. First, one needs to select the state to update or replace inventory. State databases are found on FEMA's website at https://msc.fema.gov/portal/resources/hazus. The state databases are shown alongside downloading different versions of Hazus, but it is acceptable to just download a state database by itself. Save a copy of the statewide dataset separately from the one being modified. Once the database is saved, Open CDMS. CDMS is downloaded with Hazus, however it has its own icon and is opened separately from Hazus. The CDMS home screen is shown in Figure C1.

Figure C1. CDMS Home Screen

The home screen will have "Select a State" where "Tennessee" is shown in red in Figure C1. All of the following is useful for users seeking to run an AEBM module, and currently has a Microsoft Excel Spreadsheet to enter data into Hazus-MH 4.2. First, select the button that says "Import into CDMS Repository from File" as shown in Figure C1. Figure C2 will appear.
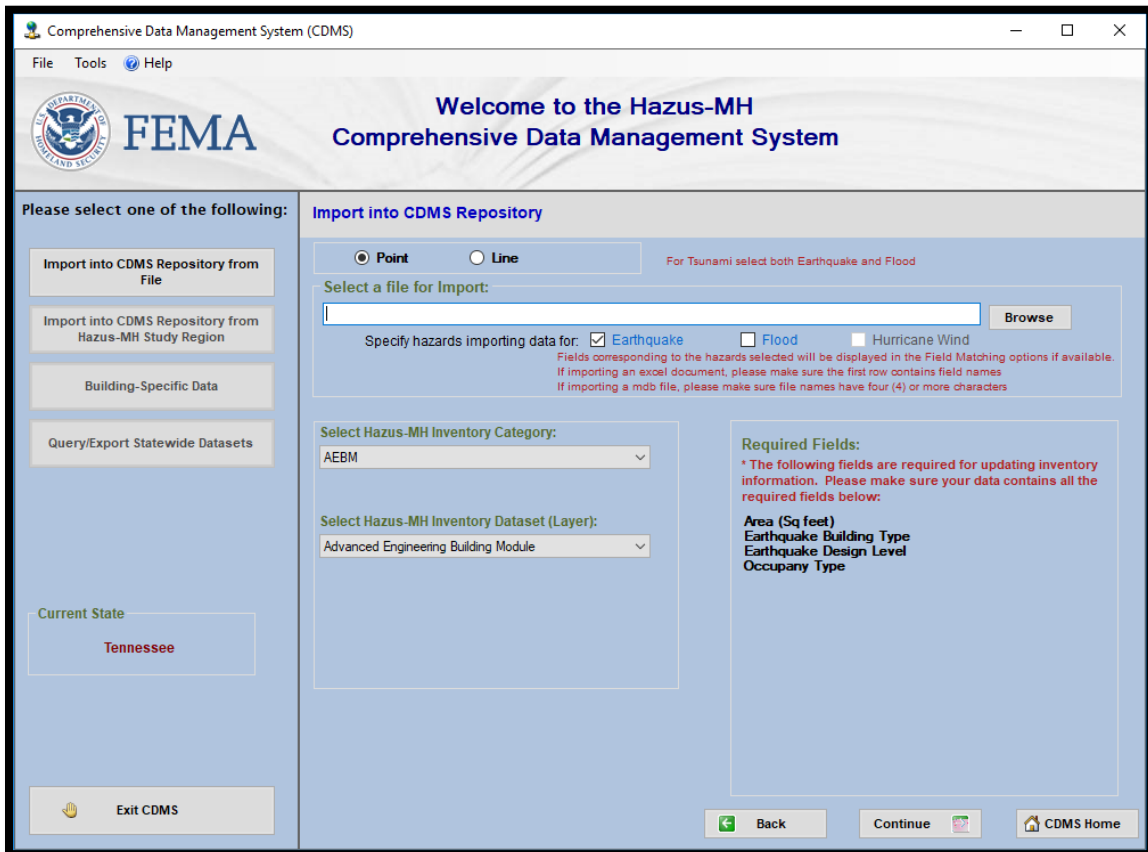
Figure C2. Import into CDMS Repository from File Page

Choose the options shown in Figure C2. The required fields for the AEBM module will appear in the right pane. As shown in Figure C2, the required fields to run the AEBM module are the area of the structure in square feet, the earthquake building type (learn more in Appendix B), earthquake design level, and the Occupancy type. All of the required fields are discussed in detail in the Methodologies Section. Select the Microsoft Excel file that includes at least all four of the required fields, the latitiude of the structure, and the longitude of the structure. If one is

updating previous inventory, be sure to include the Hazus ID to avoid having duplicate

structures. Ensure only "Earthquake" is selected as the specified hazard. Figure C3 will appear.
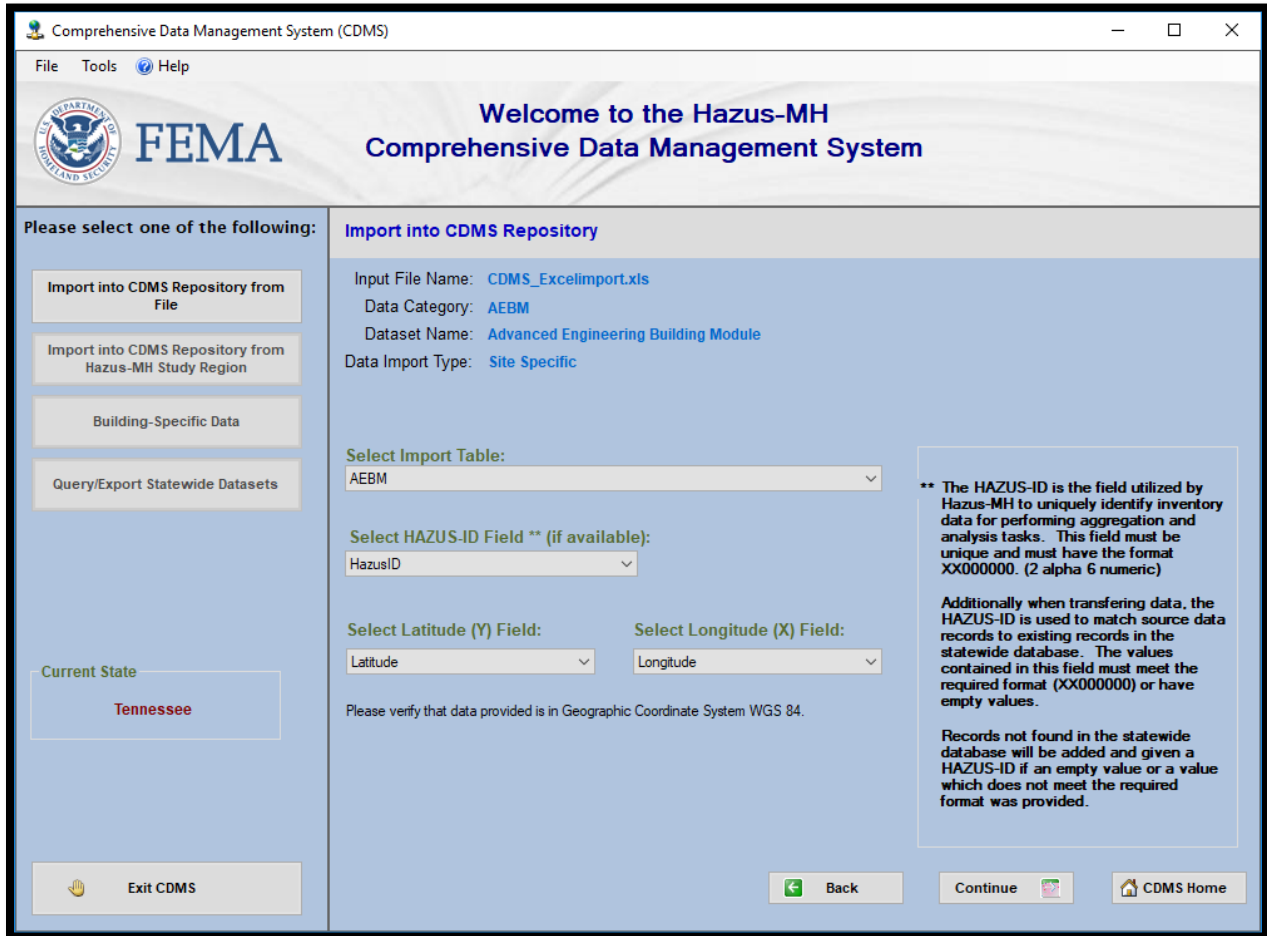
Figure C3. Import into CDMS Repository Screen

Choose the options shown in Figure C3. Then select "Continue". CDMS will then begin to

validate the data. This process appears different for each file imported. However, there is a

uniform process applied to each file. Refer to Figure C4 below.
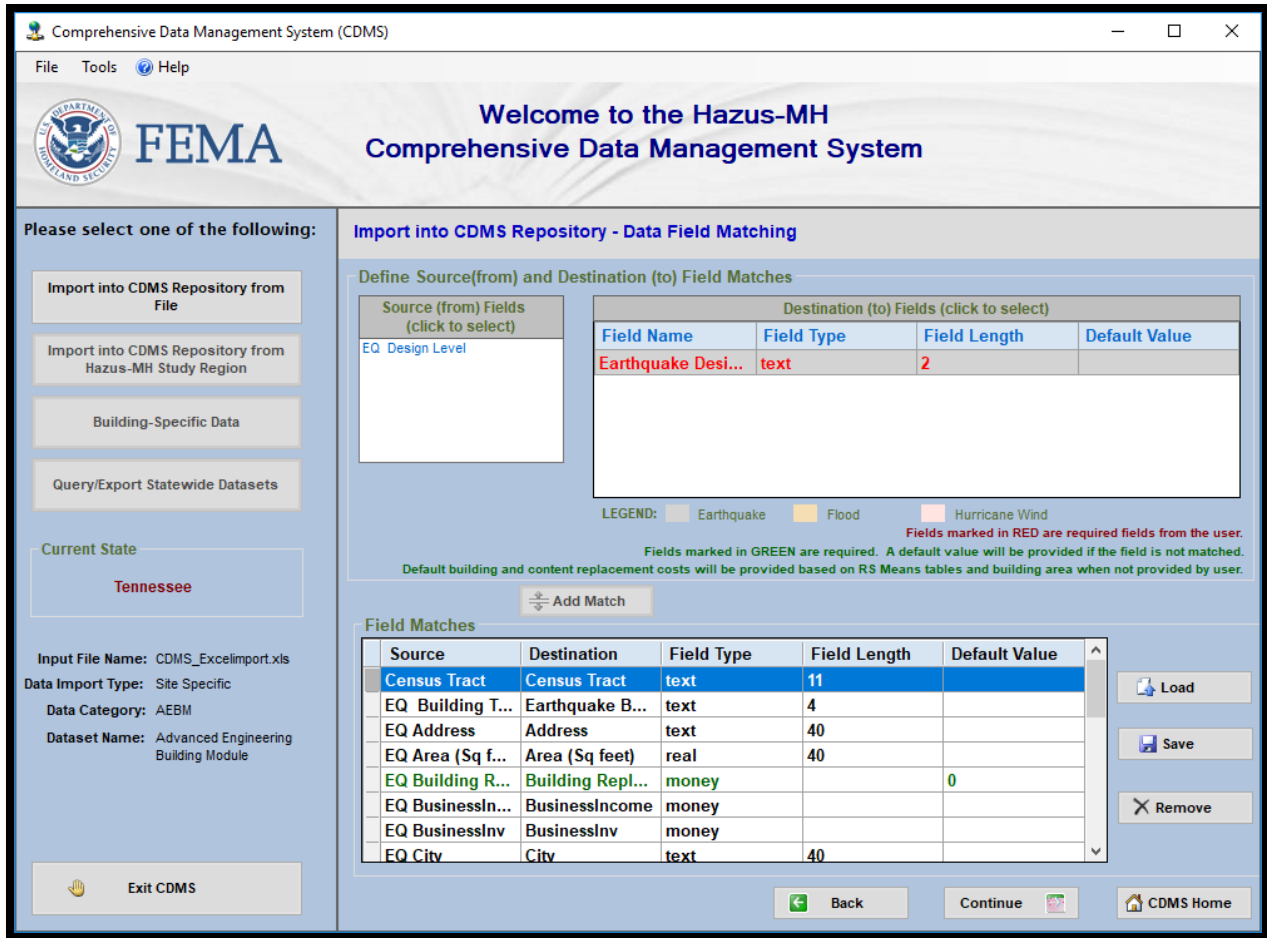
Figure C4. Data Field Matching Window

As Figure C4 shows, CDMS automatically matches as many fields as it can detect. The fields in

black are not required but are recognized by CDMS and Hazus as useful fields for plotting or

other purposes. The fields marked in green are required to be present, but the user may leave

them all empty (such is the case for this study). Hazus uses RS Means to estimate the economic

parameters. The fields marked in red are required, and default values will not be estimated by

Hazus. As one can see in Figure C4, although the user has specified an "EQ Design Level",

CDMS did not automatically detect the field as the "Earthquake Design Level" shown in red. So,

the user must first click the source field in the left pane, the destination field in the right pane,

and finally click the "Add Match" button. Click "Continue." The "Category Value Matching" window will appear for applicable fields, as shown in Figure C5.
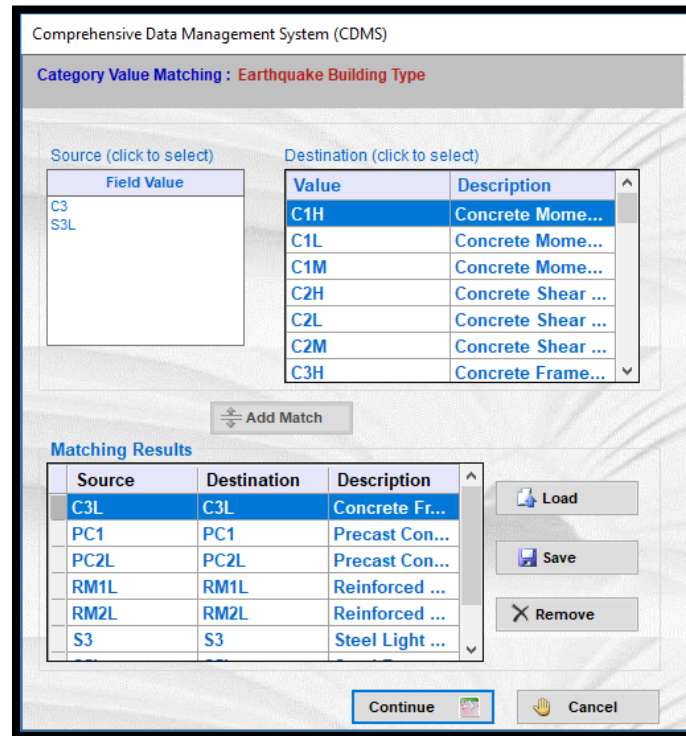
Figure C5. Category Value Matching Window

The user is to match the source fields (specified in the excel spreadsheet) to the destination fields (CDMS Data Dictionary definitions). In the example above, "S3L" is not recognized, because according to Hazus all "S3" buildings are low-rise, so the official designation is "S3." If CDMS did not go through the process in Figure C5, the user would have to detect and re-type all the "S3L" buildings as "S3". However, using CDMS the user can match the "S3L" in the left pane to the S3 designation in the right pane, and CDMS will correct the designation for calculations in Hazus. This feature is what makes CDMS such a powerful tool for data entry. Continue for all fields. Finally, CDMS will notify the user that data has been imported into the CDMS repository. Select "OK." The user is then returned to the home screen, and the data will be displayed in the top pane. The user may view, edit, or remove the data in the top pane. To use the data in Hazus,

the data must be transferred to the statewide dataset by pushing the appropriate button on the home screen. The user will specify to either "update" or "replace" the statewide inventory. Once the data has been transferred to the statewide dataset, it can only be removed if it is replaced. For example, if the dataset given contains 10 buildings, the user adds 6, but only wanted to add 5. The only way to remove the 6th building is by replacing all 16 buildings with the 5 buildings by importing 5 buildings and specifying to "replace" the statewide database. However, the original 10 buildings the dataset started with will be lost unless the user keeps a copy of the dataset saved separately.

Appendix D: Procedure for Creating Ground Motion Maps from Text File Compatible with Hazus-MH 4.2

A procedure for converting ground motion point data into a Hazus compatible map was first developed in 2009 for ArcMap v. 9.2 and Hazus-MH MR3 (Boling, 2009). This procedure shown below is revised for ArcMap v. 10.5.1 and Hazus-MH 4.2.

The data supplied for this study was in a text file with a grid spacing of 500 meters. The text file contained longitude, latitude, and a parametric value such as the spectral acceleration (S_a) or peak ground acceleration (*PGA*). The procedure can be broken down into three sections: Importing points into ArcMap, creating a fishnet, joining the points with the fishnet to create a useable map.

Importing Points into ArcMap

1. Start Microsoft Excel, navigate to the "Data" tab, and select "from Text/CSV" button.

2. When browsing for the file, select "All Files" (see Figure D1). Some text files, such as the one used in this example are 004 files, will not be found when searching for .txt files only.
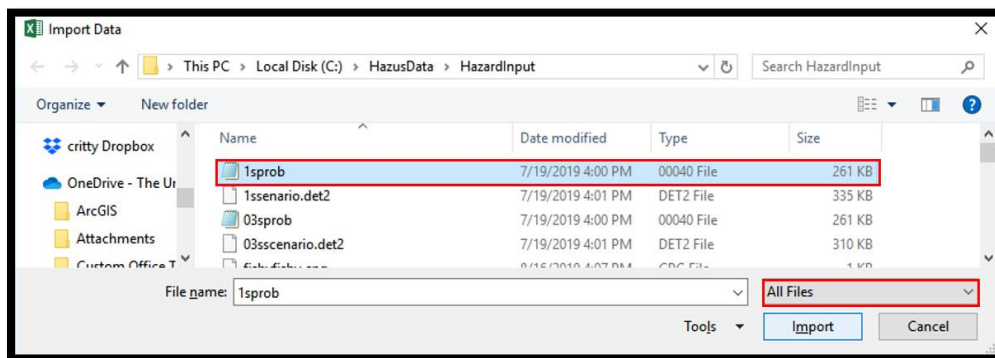
Figure D1. Importing Data into Microsoft Excel

3. Once the file is selected, another window will come up asking how the data should be displayed and what sheet to use. After selecting appropriate options, the data will look

like Figure D2. Label the top row of data if not already done. The parametric value

(spectral acceleration, PGA, PGV, etcetera) **must** be labeled "ParamValue" for Hazus-

MH to accept the map. The data does not have to have an ID column, as shown in Figure

D2.

	ID	LONG	LAT	ParamValue
2	1	-89.75	35.875	0.797
3	2	-89.75	35.88	0.803
4	3	-89.75	35.885	0.808

Figure D2. Imported Text Data in Microsoft Excel

4. Save a Microsoft Excel file.

5. Open ArcMap. Select the "Add Data" button.

6. Search for the file created in Step 4 and select it. Select the appropriate sheet to import.

7. Right-click on the Layer added in step 2 in the Table of Contents in ArcMap. Select
   "Display XY Data."

8. The Display XY Data window will appear as shown in Figure D3. Ensure the "X Field"
   is the longitude, the "Y Field" is the Latitude, and the "Z Field" is the parametric value
   that must be called "ParamValue" in Excel, so that the field will be called "ParamValue"
   in ArcMap. Select "Edit" underneath the "Coordinate System of Input Coordinates"
   section. Select the appropriate coordinate system. For this project, all coordinates are in
   WGS 1984. Select "OK.' There may be a warning that there is not an Object ID Field.
   Select "OK" anyways.
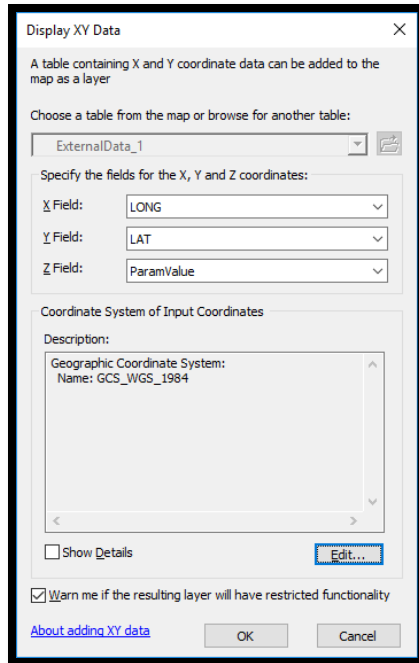
Figure D3. Display XY Data Window

9. Now, the XY data is visible, and an Object ID Field is to be assigned. Right-click on the "Event Theme" created in Step 8. Go to "Data" then "Export Data." The Export Data window will appear. Select the options shown in Figure D4. The Output shapefile or feature class location is not important if it can be located and used in a later step. Select "OK."
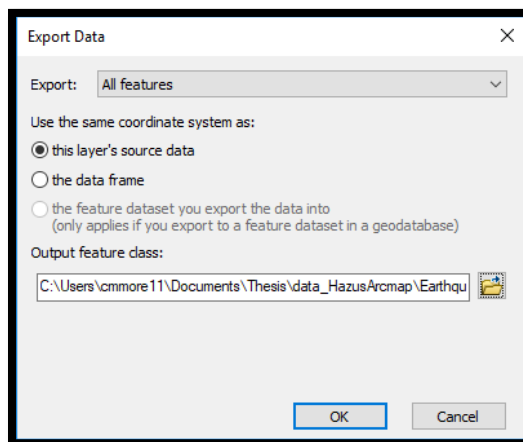
Figure C4. Export Data Window

10. Another window will appear, asking, "Do you want to add the exported data to the map as a layer?" select "Yes." Another layer automatically labeled "Export_Output_#" will show up in the Table of Contents. This shapefile will be the one that is eventually joined with the fishnet created in the next section.

Creating a Fishnet in ArcMap

1. Under "Data Management Tools" in ArcMap, find "Create Fishnet." Select it.

2. The Create Fishnet window will appear as shown in Figure D5. The location of the output feature class is not important if it may be located for a later step. Under Template Extent, choose the Export_Output_# file created in Step 10 under Importing Points into ArcMap. Then, to the Top and Bottom boxes, extend the point half of the grid spacing up and down, respectively. For instance, the top extent of the point data layer in this example is 36.245. the grid spacing is 500 meters (0.005° grid), and the extents in ArcMap go by the degree (or grid spacing). So, in order to create a map where the points from the point data fall in the middle of the box, half of 0.005 is added to the top extent location and subtracted from the bottom extent location. For example, $36.245 + (1/2)0.005 = 36.2475$ is the new location of the top extent. Repeat to extend the left extent further left, right extent further right, and bottom extent further down. The origin coordinate boxes will automatically populate when the extents are populated. The cell width and height are the same as the grid spacing. The number of rows is calculated by subtracting the bottom extent from the top extent and dividing it by the grid height (0.005 for this example). The number of columns is calculated in a similar manner using the left and right extents and the cell width. Under geometry type, select polygon. Select "OK."
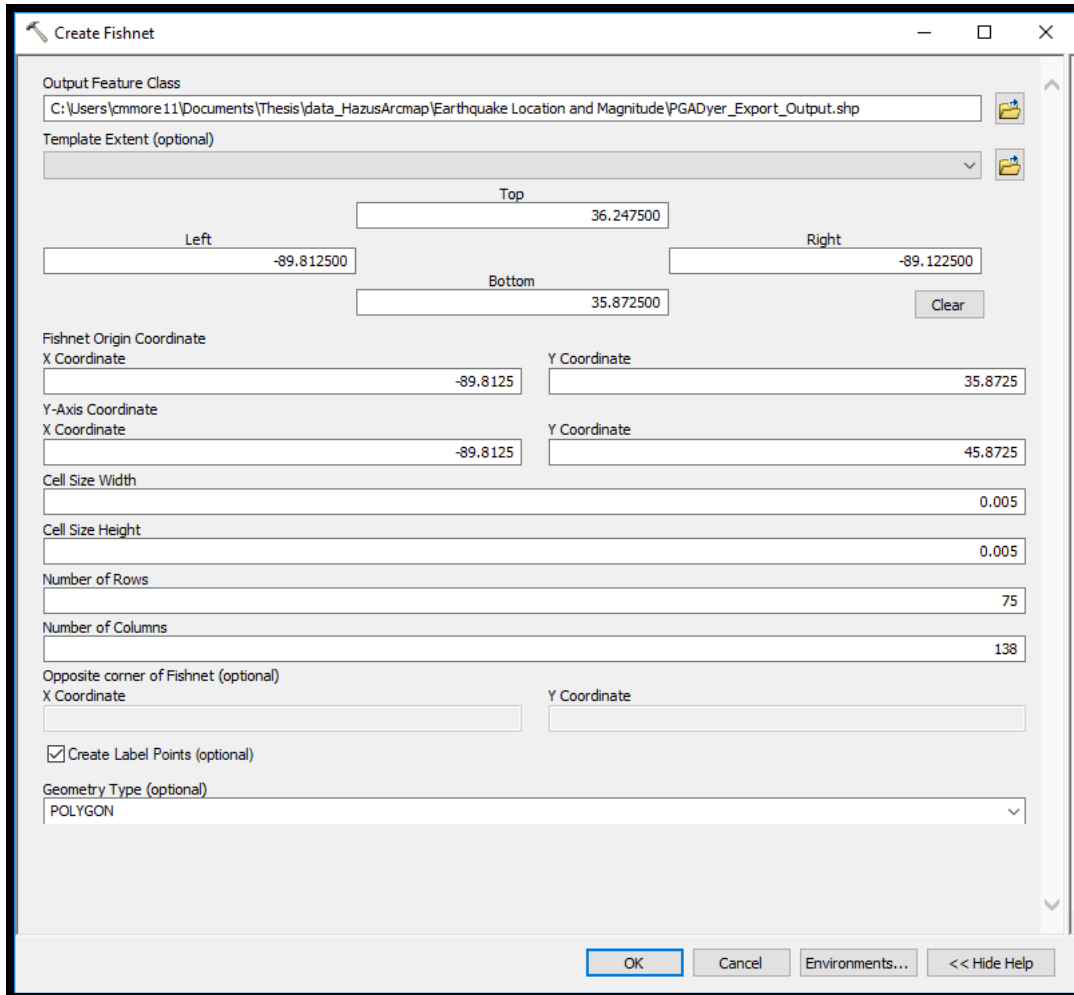
Figure D5. Create Fishnet Window

3. The result of the previous step is shown in Figure D6. The newly created fishnet is a rectangular grid around the points that were imported. Now, right-click the file created in step 2. Go to data, then click export data. The familiar Export Data window will appear. Choose to export all features and use the same coordinate system as this layer's source data. The output feature class location does not matter. A question will appear asking, "Do you want to add the exported data to the map as a layer?" select "Yes." Export_output_##.shp" has now been created.

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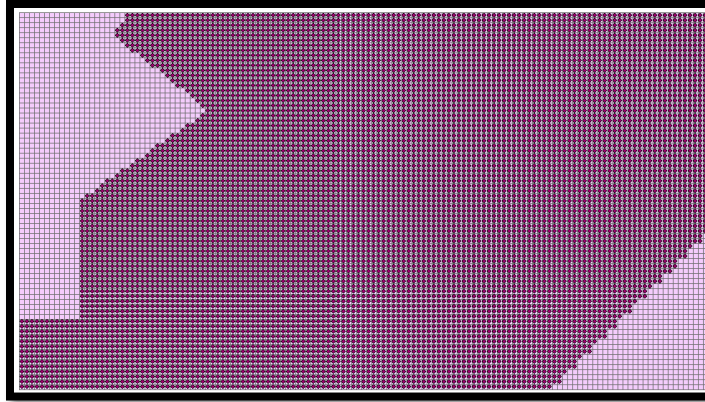
Figure D6. Fishnet Over Point Data

4. Finally, a projection must be added to the fishnet layer. Search for the "Define Projection" tool under Data Management Tools. Select it. Select the file created in step 3. The projection should be the same coordinate system used for the point data. There are now two files created from exporting the point layer and exporting the fishnet layer. Now, the point data and fishnet can be joined together.

Joining the Point Data with the Fishnet to Create a Useable Map

1. Right-click on the fishnet layer created in Step 4 of Creating a Fishnet in ArcMap. Go to Joins and Relates and Join…

2. The Join Data window will appear as shown in Figure D7. Choose the exported point data layer entitled "Export_output_#." Under section 2, select the option "Each polygon will be given all the attributes of the point that is closest…" as shown in Figure D7. Select "OK." The file created is "Join_output.shp", and it will show up in the Table of Contents.
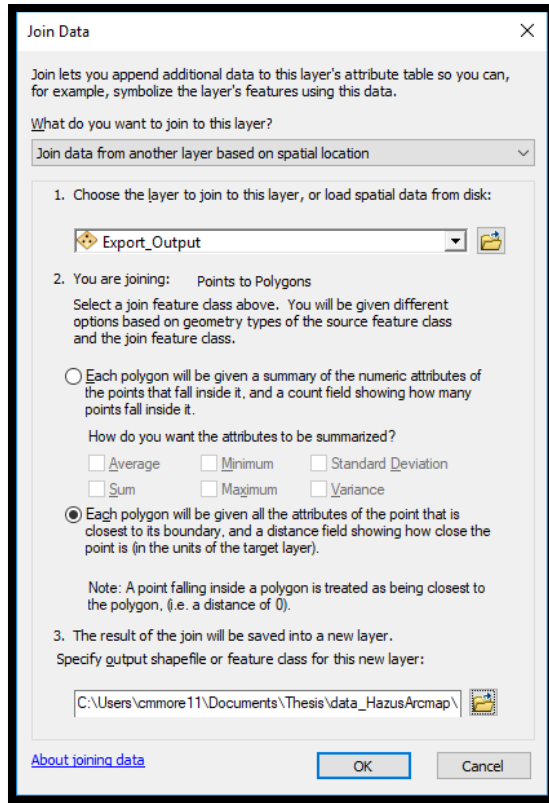
Figure D7. Join Data Window

3. Search for the "Dissolve" tool under Data Management Tools. This command aggregates
   polygons that are adjacent and have the same attributes (for this example, the same
   ground motion data value). The Dissolve window is shown in Figure D8. For this
   example, the dissolve field is ParamValue, since that is what the user is dissolving with
   respect to. Select "OK."
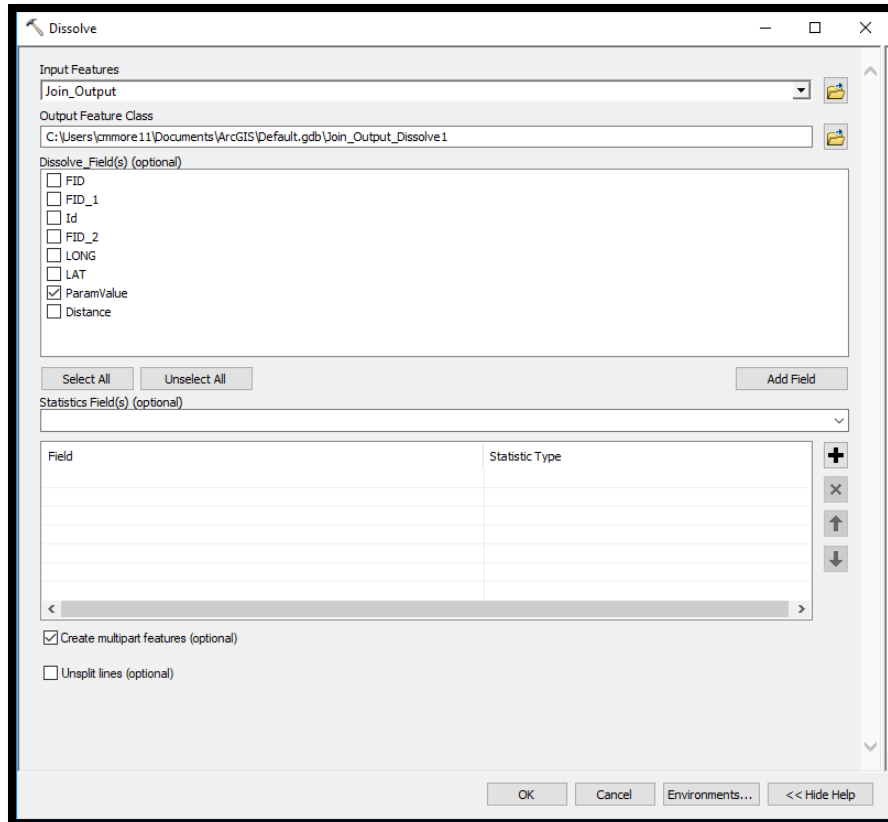
Figure D8. Dissolve Window

4. Open ArcCatalog. Find the desired location for a geodatabase. Right-click the location and create a "Personal Geodatabase."

5. Find the dissolved file in ArcCatalog (NOT in the Table of Contents pane) created in step 3. Right-click, go to "Export," then "To Geodatabase (single)." The Feature Class to Feature Class window shown in Figure D9 will appear. The "Input Features" is the dissolved file created in step 3. Select the new personal geodatabase created in step 4 as the "Output Location." The "Output Feature Class" is the name of the new useable map being created.
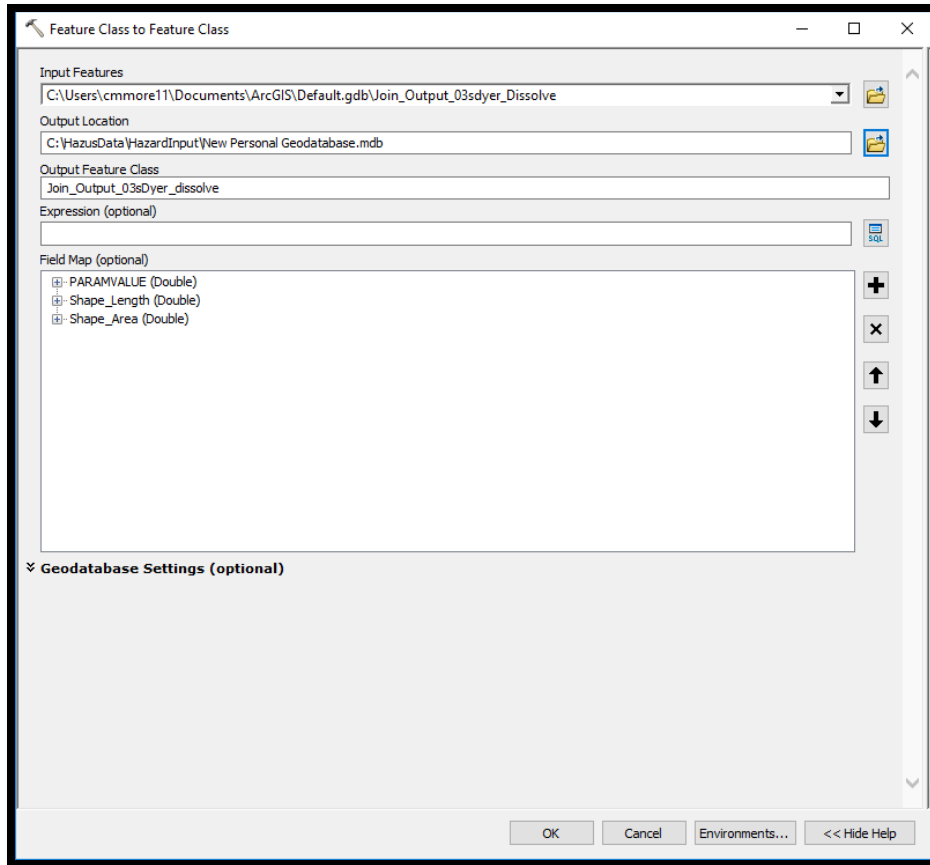
Figure D9. Feature Class to Feature Class Window

Appendix E: Seismic Hazard Maps Used

This section includes seismic hazard maps used for this study. Each case used PGA, PGV, 0.3s spectral acceleration, and 1.0s spectral acceleration for a 2% in 50-year probability of exceedance. Figures E1-E4 show the maps used in case 1, which are the coarse ground motion maps. Figures E5-E8 show the ground motion maps used for case 2, which are the same maps used in case 1 but only considering structures within Dyer County. Figures E9-E12 show the ground motion maps used in case 3, which are the finer ground motion maps that were solely developed for Dyer County.
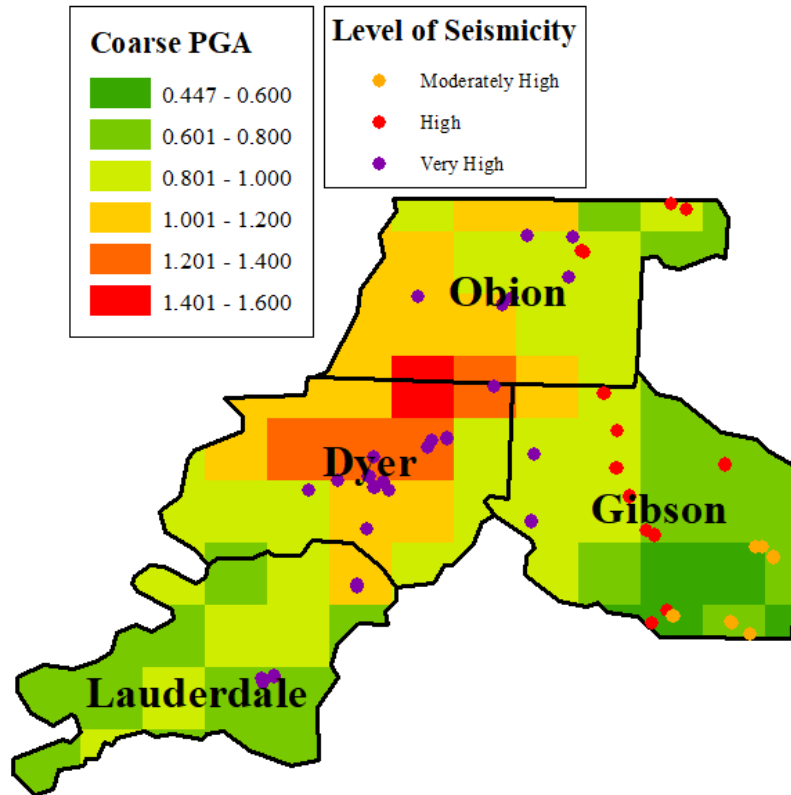
Figure E1. PGA Values (g), Coarse Ground Motion Maps, Entire Study Region
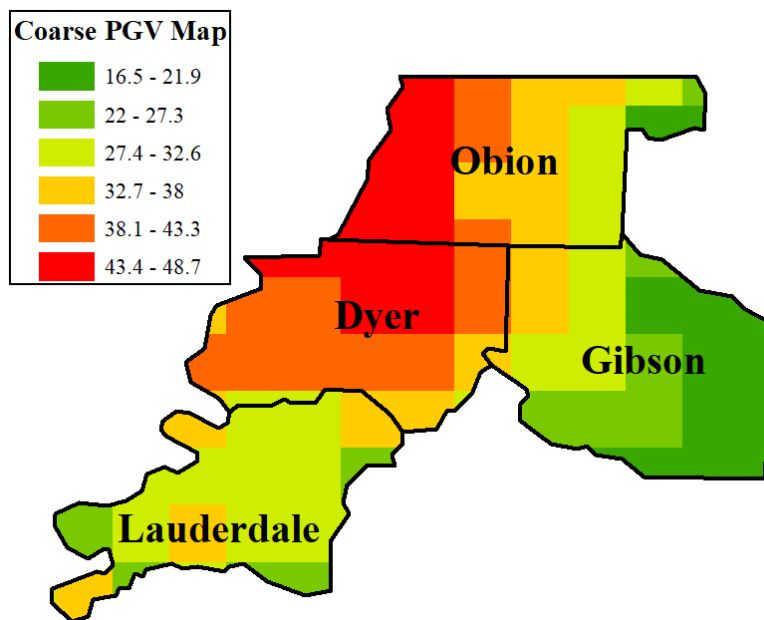
Figure E2. PGV Values (in/s), Coarse Ground Motion Maps, Entire Study Region
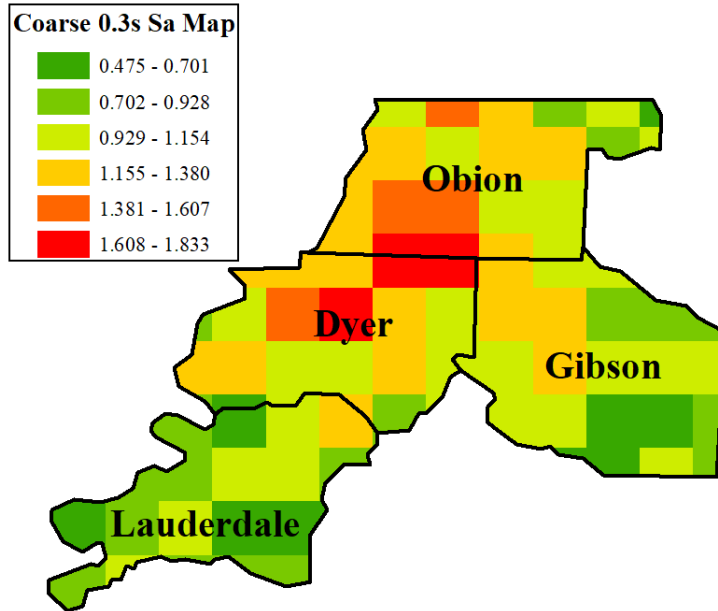
Figure E3. 0.3s S_a Values (g), Coarse Ground Motion Maps, Entire Study Region
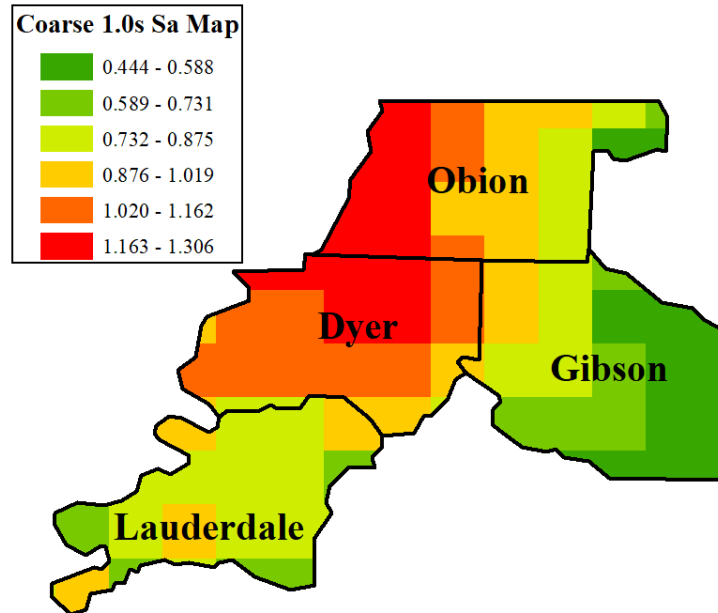
Figure E4. 1.0s S_a Values (g), Coarse Ground Motion Maps, Entire Study Region
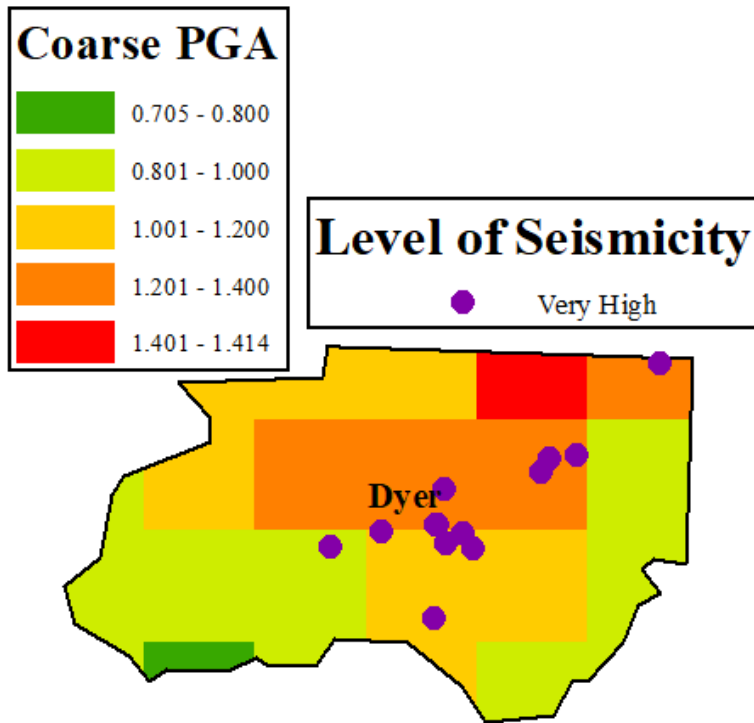
Figure E5. PGA Values (g), Coarse Ground Motion Maps, Dyer County
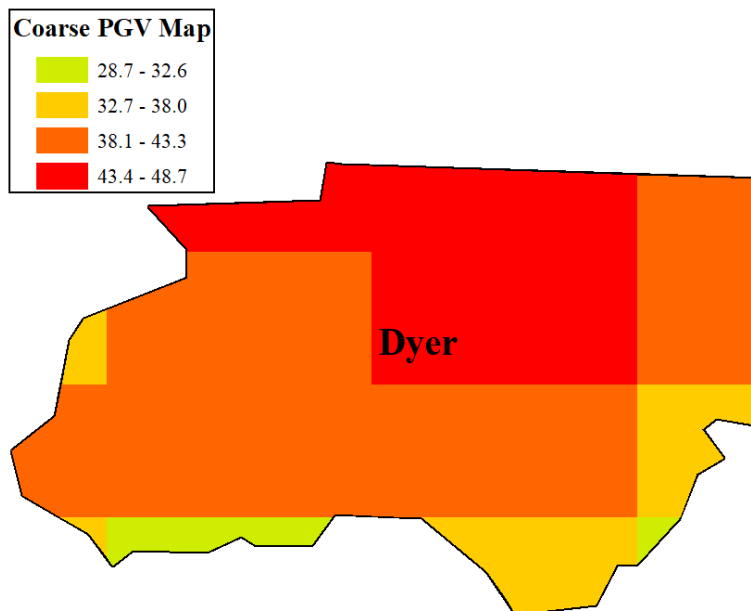
Figure E6. PGV Values (in/s), Coarse Ground Motion Maps, Dyer County
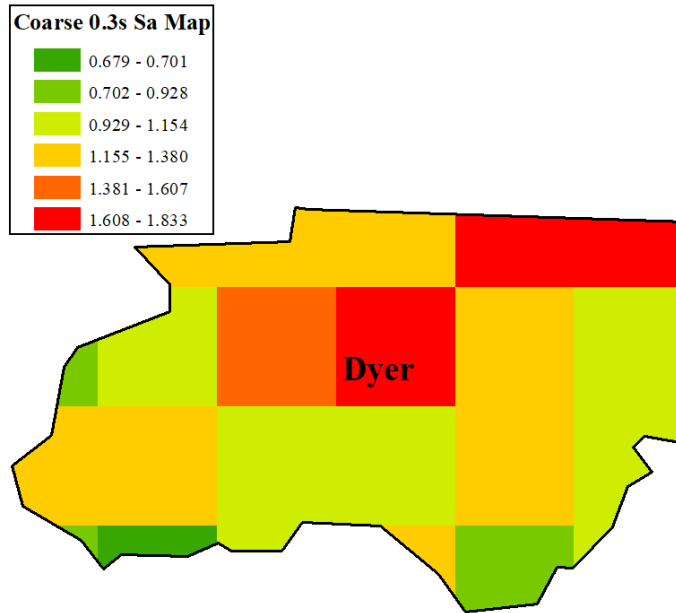
Figure E7. 0.3s S_a Values (g), Coarse Ground Motion Maps, Dyer County
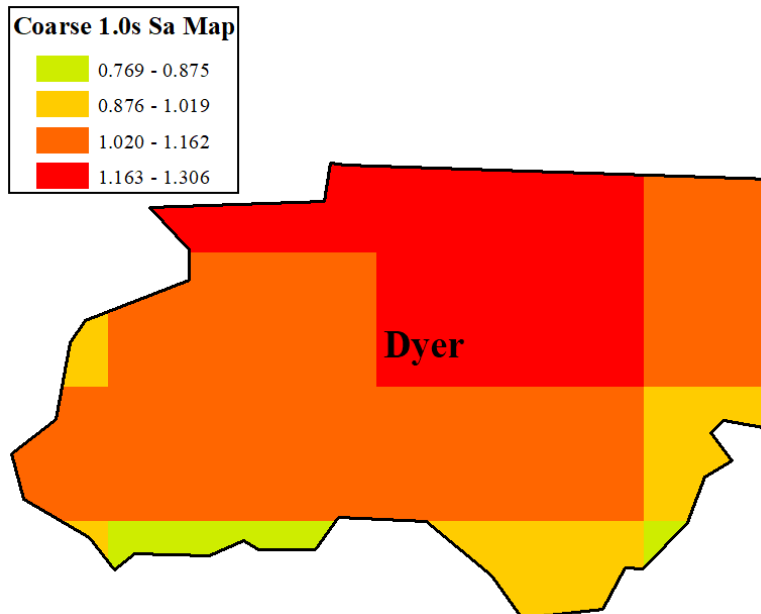
Figure E8. 1.0s S_a Values (g), Coarse Ground Motion Maps, Dyer County
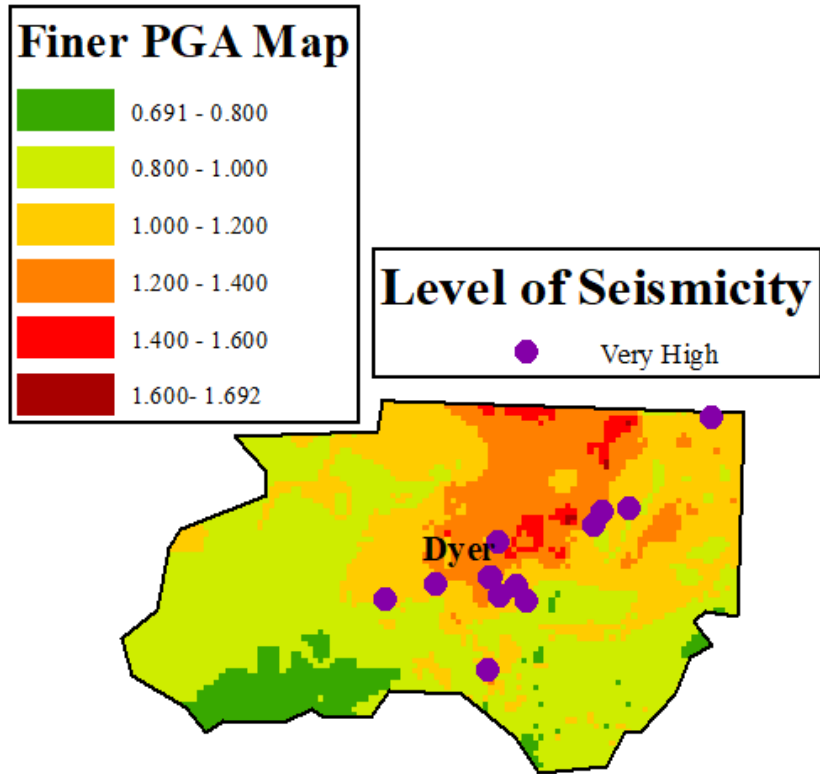
Figure E9. PGA Values (g), Fine Ground Motion Maps, Dyer County
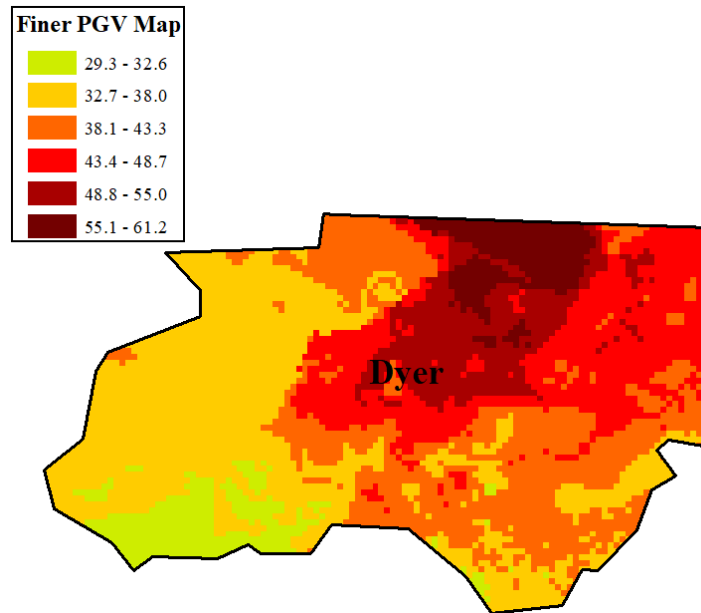
Figure E10. PGV Values (in/s), Fine Ground Motion Maps, Dyer County
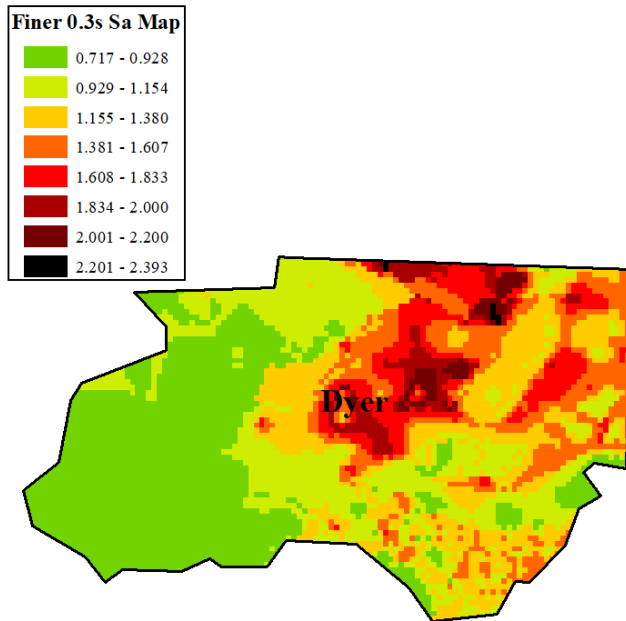
Figure E11. 0.3s S_a Values (g), Fine Ground Motion Maps, Dyer County
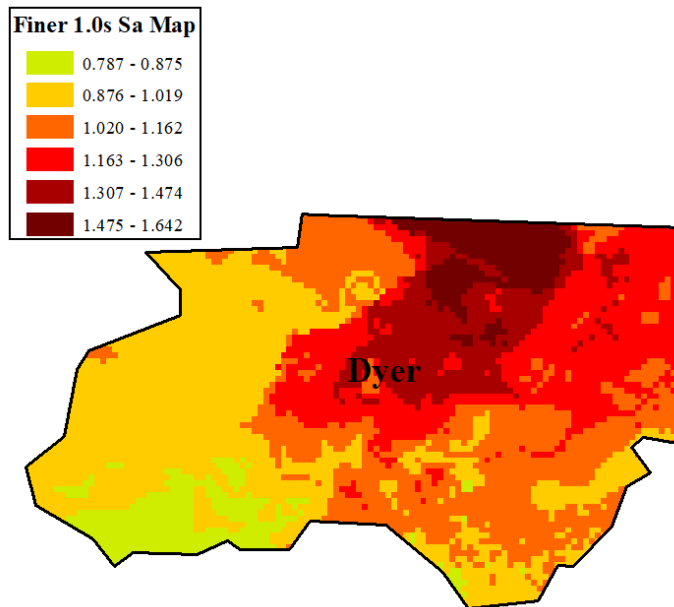
Figure E12. 1.0s S_a Values (g), Fine Ground Motion Maps, Dyer County

Appendix F: Ancillary Data from RVS

Similar data are used in both the development of SL1 and the Hazus-MH 4.2 output. Table F1 includes the two primary

identifiers of each structure: the Hazus ID and the Structure Number. Table F1 also includes the location and other recorded aspects of

each structure that are used in calculating a score for the building in RVS and for calculating damage losses in Hazus-MH 4.2.

Since this project is funded by the West Tennessee Seismic Safety Commission, in addition to the data collected to determine a

score or damage state for each structure, additional information was also documented: the kitchen square footage and gymnasium

square footage. Table F1 gives these ancillary data for each structure identified, and Table F2 gives these data for each school

analyzed. It should be noted that some of the structures below are additions that, when added together, comprise one building. A result

of that is that some buildings below have a "0" for the kitchen area or gym area. A "0" means that there is not a kitchen in that area of

the building or no gym in that area of the building.

Table F1. Ancillary Building Data

Hazus ID	Struc. No.	Latitude	Longitude	Design Level	Hazus Building Type	Day Occ.	Night Occ.	Total Area (sf)	Kitchen Area (sf)	Gym Area (sf)	RVS Score
TN002548	1	35.969973	-88.940351	MC	RM1L	77	2	12250	-	-	0.7
TN002549	2	35.969550	-88.940584	MC	RM1L	314	8	49797	-	-	0.3
TN002550	3	35.969889	-88.941194	MC	RM1L	67	2	10700	-	-	3.1
TN002551	4	35.970259	-88.940874	MC	RM1L	81	3	12800	-	-	3.8
TN002552	5	35.963381	-88.926478	MC	S5L	413	21	81905	-	-	0.6
TN002553	6	35.961408	-88.927692	MC	S5L	424	22	84104	-	-	0.5
TN002554	7	35.971109	-89.388834	MC	RM1L	214	6	41782	1,250	2,400	0.3
TN002555	8	36.034741	-89.481789	PC	S5L	302	8	51170	375	4,800	0.5

Hazus ID	Struc. No.	Latitude	Longitude	Design Level	Hazus Building Type	Day Occ.	Night Occ.	Total Area (sf)	Kitchen Area (sf)	Gym Area (sf)	RVS Score
TN002556	9	36.049700	-89.434919	MC	RM1L	498	25	119080	2,800	6,400	1.9
TN002557	10	36.087096	-89.379055	MC	RM1L	565	15	71175	1,600	3,200	2.3
TN002558	11	36.103397	-89.292079	MC	S5L	1273	64	194800	4,800	14,400	0.5
TN002559	12	36.114491	-89.284392	MC	C3L	469	24	99614	600	3,000	0.3
TN002560	13	36.200490	-89.184100	MC	S5L	154	4	27969	875	2,000	0.5
TN002561	14	36.117453	-89.259485	MC	RM1L	361	10	40000	0	0	2.3
TN002562	15	36.11721	-89.260402	MC	S5L	143	4	15800	1750	0	0.8
TN002563	16	36.117892	-89.25993	MC	S5L	113	3	12530	0	4,000	1.1
TN002564	17	36.074899	-88.813244	MC	URML	83	3	13420	0	0	0.6
TN002565	18	36.075303	-88.813324	MC	S5L	48	2	7800	600	0	1
TN002566	19	36.074980	-88.813344	MC	S5L	48	2	7800	0	0	1.5
TN002567	20	36.075038	-88.813780	MC	RM2L	84	3	13600	0	0	3.8
TN002568	21	36.075200	-88.813335	MC	S3L	27	1	4500	0	4,500	1.8
TN002569	22	36.075435	-88.813311	MC	RM1L	176	9	27200	0	6,400	1.2
TN002570	23	36.075907	-88.814487	MC	RM1L	64	4	9775	0	0	1.2
TN002571	24	36.076203	-88.814458	MC	S3L	28	2	4200	0	0	3.7
TN002572	25	36.415586	-89.039859	MC	RM1L	865	22	101000	800	4,800	3.1
TN002573	26	36.418647	-89.044852	MC	RM1L	385	10	53800	700	4,200	0.5
TN002574	27	36.417909	-89.043467	MC	C3L	486	25	107000	1,584	-	0.3
TN002575	28	35.824070	-88.804151	MC	PC1L	1229	62	105850	1,500	4,500	2.5
TN002576	29	35.803856	-88.775062	MC	PC1L	566	15	113350	1,350	10,000	3.2
TN002577	30	35.820230	-88.803833	MC	PC1L	805	41	160800	2,000	8,000	1.5
TN002578	31	35.983928	-89.124160	PC	RM1L	70	2	17225	800	3,600	0.5
TN002579	32	35.984219	-89.123791	MC	RM1L	59	2	14400	0	0	2.7
TN002580	33	36.092742	-89.119842	PC	S5L	137	4	32550	400	-	0.4
TN002581	34	36.129099	-88.986899	PC	RM1L	116	3	21400	0	0	0.5
TN002582	35	36.128848	-88.987620	MC	RM1L	78	2	14400	400	0	1.2
TN002583	36	36.12915	-88.987566	MC	S5L			1500	0	0	1.7
TN002584	37	36.129346	-88.987883	MC	S5L	70	2	12800	0	7,200	1.2

Hazus ID	Struc. No.	Latitude	Longitude	Design Level	Hazus Building Type	Day Occ.	Night Occ.	Total Area (sf)	Kitchen Area (sf)	Gym Area (sf)	RVS Score
TN002585	38	36.069692	-88.988583	PC	URML	128	4	22850	0	5,000	0.2
TN002586	39	36.069408	-88.988728	MC	RM1L	154	4	27300	0	0	3.1
TN002587	40	36.068942	-88.988267	MC	URML	134	4	23900	832	0	0.2
TN002588	41	36.068762	-88.988134	MC	RM1L	17	1	3000	0	0	3.8
TN002589	42	36.024991	-88.966588	MC	C3L	275	14	86500	4,914	17,400	0.3
TN002590	43	36.025544	-88.966840	MC	C3L	11	1	3536	0	0	1.2
TN002591	44	36.024101	-88.966583	MC	C3L	90	5	28300	0	0	0.3
TN002592	45	36.023394	-88.966441	MC	C3L	145	8	45600	0	0	0.3
TN002593	46	36.189252	-89.008097	MC	RM1L	56	2	17700	800	0	3.1
TN002594	47	36.189552	-89.008474	MC	RM1L	15	1	4875	0	0	3.8
TN002595	48	36.189498	-89.007514	MC	S3L	13	1	4000	0	4,000	3.7
TN002596	49	36.038613	-89.376964	MC	RM1L	132	4	21700	0	0	2.3
TN002597	50	36.038177	-89.377060	MC	RM1L	378	10	62125	1,250	4,900	0.5
TN002598	51	36.037744	-89.376773	MC	RM1L	136	4	22400	0	0	2.7
TN002599	52	36.033128	-89.353330	MC	RM1L	626	32	180000	3,840	14,400	1.9
TN002600	53	36.046834	-89.361546	MC	RM1L	668	17	74800	2,888	5,400	1.9
TN002601	54	36.055558	-89.384794	MC	C3L	719	36	225000	2,800	13,000	0.3
TN002602	55	36.055205	-89.385937	MC	RM1L	64	4	20000	0	0	0.9
TN002603	56	35.724526	-89.556411	MC	RM1L	647	17	98374	2,640	7,200	0.3
TN002604	57	35.731775	-89.557356	MC	RM1L	675	17	108948	3,264	7,140	2.3
TN002605	58	35.735006	-89.538585	MC	RM1L	352	18	79400	2,688	0	0.3
TN002606	59	35.734807	-89.537884	MC	PC2L	162	9	36400	0	0	2.3
TN002607	60	35.735626	-89.537495	MC	RM1L	58	3	13000	0	0	2.7
TN002608	61	35.736034	-89.537530	MC	RM1L	151	8	34000	0	0	0.5
TN002609	62	35.736074	-89.538663	MC	PC2L	177	9	39975	0	25,600	2.3
TN002610	63	35.728695	-89.555585	MC	RM1L	677	34	106426	2288	7,000	0.3
TN002611	64	35.882508	-89.404275	MC	RM1L	494	13	61949	1,300	0	0.3
TN002612	65	35.882721	-89.405093	MC	RM1L	216	6	27125	0	4,116	1.9
TN002613	66	35.879895	-89.403827	MC	RM1L	197	10	39900	0	8,640	0.30

Hazus ID	Struc. No.	Latitude	Longitude	Design Level	Hazus Building Type	Day Occ.	Night Occ.	Total Area (sf)	Kitchen Area (sf)	Gym Area (sf)	RVS Score
TN002614	67	35.879962	-89.404695	MC	RM1L	425	22	46598	2,880	0	0.5
TN002615	68	35.879373	-89.405175	MC	RM1L	358	18	39247	0	13,200	1.9
TN002616	69	35.880824	-89.404591	MC	RM1L	117	6	12915	0	0	0.5
TN002617	70	36.343188	-89.155814	MC	S5L	932	47	188000	5,600	11,200	0.5
TN002618	71	36.441321	-89.058616	MC	S5L	260	13	37638	0	0	0.5
TN002619	72	36.376722	-89.065628	MC	RM1L	373	10	57081	1,200	9,000	0.3
TN002620	73	36.494358	-88.899980	MC	S5L	399	20	112000	1,500	22,000	0.6
TN002621	74	36.485660	-88.876498	MC	RM1L	335	9	56000	1,200	8,000	0.3
TN002622	75	36.442604	-89.130471	MC	RM1L	573	15	72000	2,600	12,960	0.3
TN002623	76	36.344829	-89.307989	MC	RM1L	298	8	56000	1,500	8,000	0.3
TN002624	77	36.331675	-89.171331	MC	RM1L	573	15	70847	2,600	9,000	0.3
TN002625	78	35.840583	-88.906732	MC	C3L	1213	61	76100	1,944	16,800	0.3
TN002626	79	35.831765	-88.897299	MC	RM1L	133	4	20300	0	0	1.3
TN002627	80	35.831838	-88.896639	MC	RM1L	369	10	56200	1,800	9,775	0.6
TN002628	81	35.821615	-88.932404	MC	RM1L	248	7	54875	2,600	11,250	0.3
TN002629	82	35.941951	-88.764254	MC	RM1L	748	19	108500	3,200	8,292	0.3
TN002630	83	35.942686	-88.753493	MC	RM1L	655	33	92375	2,200	10,000	0.3
TN002631	84	35.926588	-88.736201	MC	RM1L	641	33	84800	1,440	18,225	0.3
TN002631	85	35.925469	-88.737142	MC	C3L	60	3	8000	0	0	1.4

Table F2. Ancillary School Data

School Number	Kitchen Area (sf)	Gym Area (sf)	Score of Building with Most Facilities
1	-	-	3.8
2	-	-	0.6
3	-	-	0.5
4	1250	2400	0.3

5	375	4800	0.5
6	2800	6400	1.9
7	1600	3200	2.3
8	4800	14400	0.5
9	600	3000	0.3
10	875	2000	0.5
11	1750	4000	1.1
12	600	4500	1.8
13	0	16175	1.2
14	800	4800	3.1
15	700	4200	0.5
16	1584	1	0.3
17	1500	4500	2.5
18	1350	10000	3.2
19	2000	8000	1.5
20	800	3600	0.5
21	400	1	0.4
22	400	7200	1.2
23	832	5000	0.2
24	4914	17400	0.3
25	800	4000	3.7
26	1250	4900	0.5
27	3840	14400	1.9
28	2888	5400	1.9
29	2800	13000	0.3
30	2640	7200	0.3
31	3264	7140	2.3
32	2688	25600	2.3
33	2288	7000	0.3
34	1300	4116	1.9
35	-	8640	0.30
36	2880	13200	1.9

37	5600	11200	0.5
38	0	0	0.5
39	1200	9000	0.3
40	1500	22000	0.6
41	1200	8000	0.3
42	2600	12960	0.3
43	1500	8000	0.3
44	2600	9000	0.3
45	1944	16800	0.3
46	1800	9775	0.6
47	2600	11250	0.3
48	3200	8292	0.3
49	2200	10000	0.3
50	1440	18225	0.3

Appendix G. Hazus-MH 4.2 Results: Damage State Probabilities

This appendix contains the damage state probabilities of each structure under each case.

The damage state probabilities are used to calculated *BRC*, *IO*, and *MD*.

Table G1. Damage State Probabilities: Case 1

Structure No.	Component	*P(N)*	*P(S)*	*P(M)*	*P(E)*	*P(C)*
1	STR	0.012	0.084	0.527	0.359	0.018
	NSA	0.068	0.299	0.426	0.183	0.024
	NSD	0.022	0.148	0.585	0.207	0.038
2	STR	0.012	0.084	0.527	0.359	0.018
	NSA	0.068	0.299	0.426	0.183	0.024
	NSD	0.022	0.148	0.585	0.207	0.038
3	STR	0.012	0.084	0.527	0.359	0.018
	NSA	0.068	0.299	0.426	0.183	0.024
	NSD	0.022	0.148	0.585	0.207	0.038
4	STR	0.012	0.084	0.527	0.359	0.018
	NSA	0.068	0.299	0.426	0.183	0.024
	NSD	0.022	0.148	0.585	0.207	0.038
5	STR	0.000	0.001	0.039	0.320	0.640
	NSA	0.032	0.121	0.150	0.212	0.485
	NSD	0.000	0.004	0.119	0.236	0.640
6	STR	0.000	0.001	0.039	0.320	0.640
	NSA	0.032	0.121	0.150	0.212	0.485
	NSD	0.000	0.004	0.119	0.236	0.640
7	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
8	STR	0.000	0.000	0.000	0.001	0.999
	NSA	0.000	0.000	0.000	0.240	0.759
	NSD	0.000	0.000	0.000	0.001	0.999
9	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
10	STR	0.000	0.000	0.041	0.416	0.542
	NSA	0.007	0.070	0.203	0.288	0.432
	NSD	0.000	0.002	0.124	0.307	0.566
11	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
12	STR	0.000	0.000	0.000	0.001	0.998

Structure No.	Component	*P(N)*	*P(S)*	*P(M)*	*P(E)*	*P(C)*
12	NSA	0.000	0.000	0.001	0.228	0.771
	NSD	0.000	0.000	0.000	0.001	0.998
13	STR	0.000	0.000	0.000	0.007	0.993
	NSA	0.000	0.001	0.003	0.224	0.772
	NSD	0.000	0.000	0.000	0.007	0.993
14	STR	0.000	0.000	0.024	0.332	0.644
	NSA	0.007	0.062	0.161	0.266	0.504
	NSD	0.000	0.001	0.086	0.258	0.655
15	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
16	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
17	STR	0.001	0.023	0.280	0.485	0.211
	NSA	0.047	0.228	0.350	0.208	0.166
	NSD	0.007	0.069	0.444	0.268	0.211
18	STR	0.001	0.011	0.186	0.517	0.285
	NSA	0.082	0.264	0.279	0.157	0.217
	NSD	0.004	0.034	0.380	0.296	0.285
19	STR	0.001	0.011	0.186	0.517	0.285
	NSA	0.082	0.264	0.279	0.157	0.217
	NSD	0.004	0.034	0.380	0.296	0.285
20	STR	0.024	0.138	0.586	0.245	0.006
	NSA	0.088	0.333	0.409	0.152	0.017
	NSD	0.040	0.216	0.585	0.141	0.017
21	STR	0.002	0.029	0.404	0.516	0.048
	NSA	0.114	0.357	0.367	0.123	0.039
	NSD	0.005	0.069	0.542	0.302	0.082
22	STR	0.048	0.189	0.575	0.185	0.003
	NSA	0.091	0.338	0.406	0.148	0.017
	NSD	0.069	0.265	0.551	0.105	0.010
23	STR	0.048	0.189	0.575	0.185	0.003
	NSA	0.091	0.338	0.406	0.148	0.017
	NSD	0.069	0.265	0.551	0.105	0.010
24	STR	0.002	0.029	0.404	0.516	0.048
	NSA	0.114	0.357	0.367	0.123	0.039
	NSD	0.005	0.069	0.542	0.302	0.082
25	STR	0.000	0.006	0.189	0.604	0.200
	NSA	0.028	0.180	0.366	0.262	0.163
	NSD	0.001	0.020	0.340	0.386	0.253
26	STR	0.000	0.006	0.189	0.604	0.200
	NSA	0.028	0.180	0.366	0.262	0.163

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
26	NSD	0.001	0.020	0.340	0.386	0.253
27	STR	0.000	0.000	0.002	0.043	0.954
	NSA	0.002	0.010	0.021	0.239	0.728
	NSD	0.000	0.000	0.005	0.040	0.954
28	STR	0.004	0.047	0.477	0.429	0.043
	NSA	0.065	0.291	0.419	0.187	0.038
	NSD	0.010	0.101	0.579	0.242	0.069
29	STR	0.004	0.047	0.477	0.429	0.043
	NSA	0.065	0.291	0.419	0.187	0.038
	NSD	0.010	0.101	0.579	0.242	0.069
30	STR	0.004	0.047	0.477	0.429	0.043
	NSA	0.065	0.291	0.419	0.187	0.038
	NSD	0.010	0.101	0.579	0.242	0.069
31	STR	0.000	0.000	0.002	0.041	0.957
	NSA	0.002	0.010	0.020	0.239	0.730
	NSD	0.000	0.000	0.006	0.037	0.957
32	STR	0.000	0.009	0.232	0.602	0.157
	NSA	0.034	0.204	0.385	0.248	0.129
	NSD	0.002	0.028	0.384	0.378	0.209
33	STR	0.000	0.000	0.000	0.005	0.995
	NSA	0.000	0.001	0.003	0.238	0.758
	NSD	0.000	0.000	0.000	0.005	0.995
34	STR	0.000	0.000	0.002	0.051	0.947
	NSA	0.002	0.013	0.024	0.239	0.722
	NSD	0.000	0.000	0.008	0.045	0.947
35	STR	0.001	0.011	0.260	0.595	0.133
	NSA	0.036	0.212	0.396	0.246	0.111
	NSD	0.002	0.034	0.412	0.369	0.183
36	STR	0.000	0.000	0.004	0.101	0.894
	NSA	0.005	0.028	0.048	0.239	0.680
	NSD	0.000	0.000	0.019	0.087	0.894
37	STR	0.000	0.000	0.004	0.101	0.894
	NSA	0.005	0.028	0.048	0.239	0.680
	NSD	0.000	0.000	0.019	0.087	0.894
38	STR	0.000	0.000	0.003	0.060	0.937
	NSA	0.002	0.012	0.029	0.238	0.719
	NSD	0.000	0.000	0.015	0.047	0.937
39	STR	0.001	0.011	0.260	0.595	0.133
	NSA	0.036	0.212	0.396	0.246	0.111
	NSD	0.002	0.034	0.412	0.369	0.183
40	STR	0.000	0.000	0.017	0.191	0.792
	NSA	0.005	0.041	0.095	0.248	0.611
	NSD	0.000	0.001	0.061	0.146	0.792

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
41	STR	0.001	0.011	0.260	0.595	0.133
	NSA	0.036	0.212	0.396	0.246	0.111
	NSD	0.002	0.034	0.412	0.369	0.183
42	STR	0.000	0.000	0.008	0.104	0.887
	NSA	0.005	0.027	0.051	0.240	0.677
	NSD	0.000	0.000	0.020	0.093	0.887
43	STR	0.000	0.000	0.008	0.104	0.887
	NSA	0.005	0.027	0.051	0.240	0.677
	NSD	0.000	0.000	0.020	0.093	0.887
44	STR	0.000	0.000	0.008	0.104	0.887
	NSA	0.005	0.027	0.051	0.240	0.677
	NSD	0.000	0.000	0.020	0.093	0.887
45	STR	0.000	0.000	0.008	0.104	0.887
	NSA	0.005	0.027	0.051	0.240	0.677
	NSD	0.000	0.000	0.020	0.093	0.887
46	STR	0.001	0.013	0.276	0.589	0.121
	NSA	0.040	0.226	0.399	0.234	0.101
	NSD	0.002	0.038	0.427	0.363	0.170
47	STR	0.001	0.013	0.276	0.589	0.121
	NSA	0.040	0.226	0.399	0.234	0.101
	NSD	0.002	0.038	0.427	0.363	0.170
48	STR	0.000	0.000	0.044	0.470	0.485
	NSA	0.033	0.153	0.227	0.217	0.371
	NSD	0.000	0.002	0.137	0.343	0.518
49	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
50	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
51	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
52	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
53	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
54	STR	0.000	0.000	0.000	0.003	0.996
	NSA	0.000	0.000	0.002	0.223	0.775
	NSD	0.000	0.000	0.000	0.003	0.996
55	STR	0.000	0.000	0.041	0.416	0.542

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
55	NSA	0.007	0.070	0.203	0.288	0.432
	NSD	0.000	0.002	0.124	0.307	0.566
56	STR	0.364	0.351	0.268	0.017	0.000
	NSA	0.108	0.359	0.391	0.129	0.013
	NSD	0.379	0.383	0.228	0.010	0.000
57	STR	0.364	0.351	0.268	0.017	0.000
	NSA	0.108	0.359	0.391	0.129	0.013
	NSD	0.379	0.383	0.228	0.010	0.000
58	STR	0.341	0.353	0.286	0.019	0.000
	NSA	0.106	0.357	0.393	0.131	0.013
	NSD	0.358	0.387	0.243	0.012	0.000
59	STR	0.026	0.135	0.572	0.261	0.006
	NSA	0.109	0.360	0.390	0.128	0.013
	NSD	0.041	0.210	0.588	0.147	0.015
60	STR	0.341	0.353	0.286	0.019	0.000
	NSA	0.106	0.357	0.393	0.131	0.013
	NSD	0.358	0.387	0.243	0.012	0.000
61	STR	0.341	0.353	0.286	0.019	0.000
	NSA	0.106	0.357	0.393	0.131	0.013
	NSD	0.358	0.387	0.243	0.012	0.000
62	STR	0.026	0.135	0.572	0.261	0.006
	NSA	0.109	0.360	0.390	0.128	0.013
	NSD	0.041	0.210	0.588	0.147	0.015
63	STR	0.364	0.351	0.268	0.017	0.000
	NSA	0.108	0.359	0.391	0.129	0.013
	NSD	0.379	0.383	0.228	0.010	0.000
64	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180
	NSD	0.001	0.017	0.320	0.388	0.274
65	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180
	NSD	0.001	0.017	0.320	0.388	0.274
66	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180
	NSD	0.001	0.017	0.320	0.388	0.274
67	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180
	NSD	0.001	0.017	0.320	0.388	0.274
68	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180
	NSD	0.001	0.017	0.320	0.388	0.274
69	STR	0.000	0.005	0.173	0.602	0.221
	NSA	0.024	0.167	0.357	0.272	0.180

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
69	NSD	0.001	0.017	0.320	0.388	0.274
70	STR	0.000	0.000	0.000	0.020	0.980
	NSA	0.000	0.004	0.009	0.233	0.754
	NSD	0.000	0.000	0.002	0.018	0.980
71	STR	0.000	0.000	0.001	0.045	0.953
	NSA	0.002	0.011	0.021	0.239	0.727
	NSD	0.000	0.000	0.006	0.041	0.953
72	STR	0.000	0.004	0.157	0.597	0.242
	NSA	0.027	0.172	0.347	0.260	0.195
	NSD	0.001	0.015	0.302	0.388	0.295
73	STR	0.000	0.000	0.007	0.135	0.858
	NSA	0.009	0.042	0.063	0.236	0.650
	NSD	0.000	0.000	0.029	0.113	0.858
74	STR	0.001	0.017	0.307	0.574	0.101
	NSA	0.046	0.243	0.405	0.221	0.085
	NSD	0.003	0.045	0.453	0.351	0.148
75	STR	0.000	0.004	0.157	0.597	0.242
	NSA	0.027	0.172	0.347	0.260	0.195
	NSD	0.001	0.015	0.302	0.388	0.295
76	STR	0.000	0.000	0.019	0.298	0.683
	NSA	0.007	0.057	0.144	0.260	0.532
	NSD	0.000	0.001	0.073	0.238	0.689
77	STR	0.000	0.001	0.092	0.540	0.367
	NSA	0.015	0.117	0.288	0.287	0.294
	NSD	0.000	0.007	0.213	0.369	0.411
78	STR	0.000	0.005	0.130	0.461	0.403
	NSA	0.085	0.235	0.216	0.159	0.305
	NSD	0.002	0.019	0.272	0.304	0.403
79	STR	0.330	0.354	0.295	0.021	0.000
	NSA	0.146	0.394	0.356	0.097	0.008
	NSD	0.348	0.389	0.251	0.012	0.000
80	STR	0.330	0.354	0.295	0.021	0.000
	NSA	0.146	0.394	0.356	0.097	0.008
	NSD	0.348	0.389	0.251	0.012	0.000
81	STR	0.330	0.354	0.295	0.021	0.000
	NSA	0.146	0.394	0.356	0.097	0.008
	NSD	0.348	0.389	0.251	0.012	0.000
82	STR	0.406	0.344	0.237	0.013	0.000
	NSA	0.155	0.401	0.346	0.090	0.007
	NSD	0.417	0.374	0.201	0.008	0.000
83	STR	0.406	0.344	0.237	0.013	0.000
	NSA	0.155	0.401	0.346	0.090	0.007
	NSD	0.417	0.374	0.201	0.008	0.000

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
84	STR	0.111	0.278	0.514	0.095	0.001
	NSA	0.104	0.354	0.395	0.133	0.014
	NSD	0.139	0.344	0.459	0.054	0.003
85	STR	0.000	0.002	0.078	0.382	0.538
	NSA	0.052	0.170	0.182	0.190	0.406
	NSD	0.001	0.009	0.176	0.277	0.538

Table G2. Damage State Probabilities: Case 2

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
7	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
8	STR	0.000	0.000	0.000	0.001	0.999
	NSA	0.000	0.000	0.000	0.240	0.759
	NSD	0.000	0.000	0.000	0.001	0.999
9	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
10	STR	0.000	0.000	0.041	0.416	0.542
	NSA	0.007	0.070	0.203	0.288	0.432
	NSD	0.000	0.002	0.124	0.307	0.566
11	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
12	STR	0.000	0.000	0.000	0.001	0.998
	NSA	0.000	0.000	0.001	0.228	0.771
	NSD	0.000	0.000	0.000	0.001	0.998
13	STR	0.000	0.000	0.000	0.007	0.993
	NSA	0.000	0.001	0.003	0.224	0.772
	NSD	0.000	0.000	0.000	0.007	0.993
14	STR	0.000	0.000	0.024	0.332	0.644
	NSA	0.007	0.062	0.161	0.266	0.504
	NSD	0.000	0.001	0.086	0.258	0.655
15	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
16	STR	0.000	0.000	0.000	0.003	0.997
	NSA	0.000	0.000	0.001	0.229	0.769
	NSD	0.000	0.000	0.000	0.003	0.997
49	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413

Structure No.	Component	*P(N)*	*P(S)*	*P(M)*	*P(E)*	*P(C)*
49	NSD	0.000	0.002	0.129	0.312	0.556
50	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
51	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
52	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
53	STR	0.000	0.000	0.043	0.426	0.531
	NSA	0.014	0.099	0.215	0.259	0.413
	NSD	0.000	0.002	0.129	0.312	0.556
54	STR	0.000	0.000	0.000	0.003	0.996
	NSA	0.000	0.000	0.002	0.223	0.775
	NSD	0.000	0.000	0.000	0.003	0.996
55	STR	0.000	0.000	0.041	0.416	0.542
	NSA	0.007	0.070	0.203	0.288	0.432
	NSD	0.000	0.002	0.124	0.307	0.566

Table G3. Damage State Probabilities: Case 3

Structure No.	Component	*P(N)*	*P(S)*	*P(M)*	*P(E)*	*P(C)*
7	STR	0	0.001	0.048	0.441	0.511
	NSA	0.015	0.104	0.224	0.259	0.398
	NSD	0	0.003	0.138	0.32	0.539
8	STR	0	0	0	0	1
	NSA	0	0	0	0.234	0.766
	NSD	0	0	0	0	1
9	STR	0	0	0.021	0.313	0.666
	NSA	0.008	0.061	0.151	0.262	0.519
	NSD	0	0.001	0.078	0.247	0.674
10	STR	0	0	0.013	0.255	0.732
	NSA	0.005	0.046	0.121	0.258	0.57
	NSD	0	0.001	0.058	0.21	0.732
11	STR	0	0	0	0.004	0.996
	NSA	0	0.001	0.002	0.235	0.762
	NSD	0	0	0	0.004	0.996
12	STR	0	0	0	0.001	0.998
	NSA	0	0	0.001	0.233	0.766
	NSD	0	0	0	0.001	0.998
13	STR	0	0	0	0.003	0.997

Structure No.	Component	P(N)	P(S)	P(M)	P(E)	P(C)
	NSA	0	0.001	0.001	0.234	0.764
	NSD	0	0	0	0.003	0.997
14	STR	0	0	0.025	0.339	0.635
	NSA	0.011	0.076	0.167	0.255	0.492
	NSD	0	0.001	0.089	0.263	0.647
15	STR	0	0	0	0.003	0.997
	NSA	0	0.001	0.001	0.236	0.762
	NSD	0	0	0	0.003	0.997
16	STR	0	0	0	0.003	0.997
	NSA	0	0.001	0.001	0.236	0.762
	NSD	0	0	0	0.003	0.997
49	STR	0	0	0.024	0.332	0.644
	NSA	0.008	0.064	0.161	0.264	0.503
49	NSD	0	0.001	0.086	0.258	0.655
50	STR	0	0	0.024	0.332	0.644
	NSA	0.008	0.064	0.161	0.264	0.503
	NSD	0	0.001	0.086	0.258	0.655
51	STR	0	0	0.024	0.332	0.644
	NSA	0.008	0.064	0.161	0.264	0.503
	NSD	0	0.001	0.086	0.258	0.655
52	STR	0	0.001	0.049	0.446	0.504
	NSA	0.018	0.113	0.227	0.251	0.391
	NSD	0	0.003	0.141	0.323	0.533
53	STR	0	0	0.035	0.391	0.574
	NSA	0.011	0.083	0.194	0.264	0.448
	NSD	0	0.002	0.111	0.293	0.594
54	STR	0	0	0	0.001	0.999
	NSA	0	0	0	0.222	0.778
	NSD	0	0	0	0.001	0.999
55	STR	0	0	0.015	0.267	0.718
	NSA	0.005	0.043	0.125	0.264	0.564
	NSD	0	0.001	0.062	0.218	0.719

Appendix H. Hazus-MH 4.2 Results: Ancillary Data

Table H1. Case 1: Predicted Casualties

Hazus ID	Struc. No.	Day Occ.	Day Casualties			
			Level 1	Level 2	Level 3	Level 4
TN002548	1	77	0.49	0.09	0.01	0.02
TN002549	2	314	2.01	0.35	0.04	0.07
TN002550	3	67	0.43	0.07	0.01	0.02
TN002551	4	81	0.52	0.09	0.01	0.02
TN002552	5	413	21.98	6.8	1.08	2.14
TN002553	6	424	22.56	6.98	1.11	2.2
TN002554	7	214	11.77	4.03	0.75	1.49
TN002555	8	302	23.54	7.6	1.23	2.44
TN002556	9	498	27.4	9.39	1.74	3.46
TN002557	10	565	31.66	10.87	2.02	4.01
TN002558	11	1273	99.05	31.99	5.19	10.27
TN002559	12	469	48	18.03	3.55	7.06
TN002560	13	154	11.94	3.85	0.63	1.24
TN002561	14	361	23.42	8.19	1.53	3.04
TN002562	15	143	11.13	3.59	0.58	1.15
TN002563	16	113	8.79	2.84	0.46	0.91
TN002564	17	83	3.43	0.91	0.14	0.27
TN002565	18	48	1.33	0.37	0.06	0.11
TN002566	19	48	1.33	0.37	0.06	0.11
TN002567	20	84	0.36	0.05	0	0.01
TN002568	21	27	0.24	0.04	0	0
TN002569	22	176	0.6	0.08	0	0.01
TN002570	23	64	0.22	0.03	0	0
TN002571	24	28	0.25	0.04	0	0
TN002572	25	865	22.09	6.57	1.15	2.27
TN002573	26	385	9.83	2.92	0.51	1.01
TN002574	27	486	47.75	17.88	3.52	7
TN002575	28	1229	12.13	2.71	0.24	0.4
TN002576	29	566	5.58	1.25	0.11	0.18
TN002577	30	805	7.94	1.78	0.16	0.26
TN002578	31	70	6.43	2.33	0.44	0.88
TN002579	32	59	1.27	0.36	0.06	0.12
TN002580	33	137	10.63	3.43	0.56	1.1
TN002581	34	116	10.55	3.82	0.72	1.44
TN002582	35	78	1.5	0.41	0.07	0.14
TN002583	36		0.57	0.18	0.03	0.06
TN002584	37	70	4.95	1.58	0.26	0.51
TN002585	38	128	17.54	5.65	0.92	1.82
TN002586	39	154	2.95	0.81	0.14	0.27

TN002587	40	134	15.9	5.04	0.81	1.61
TN002588	41	17	0.33	0.09	0.01	0.03
TN002589	42	275	25.3	9.42	1.85	3.68
TN002590	43	11	1.01	0.38	0.07	0.15
TN002591	44	90	8.28	3.08	0.61	1.2
TN002592	45	145	13.34	4.97	0.98	1.94
TN002593	46	56	1.01	0.27	0.04	0.09
TN002594	47	15	0.27	0.07	0.01	0.02
TN002595	48	13	0.44	0.11	0.01	0.01
TN002596	49	132	7.26	2.49	0.46	0.92
TN002597	50	378	20.8	7.12	1.32	2.63
TN002598	51	136	7.48	2.56	0.48	0.94
TN002599	52	626	34.44	11.8	2.19	4.35
TN002600	53	668	36.75	12.59	2.34	4.64
TN002601	54	719	73.46	27.58	5.43	10.81
TN002602	55	64	3.59	1.23	0.23	0.45
TN002603	56	647	0.57	0.05	0	0
TN002604	57	675	0.59	0.06	0	0
TN002605	58	352	0.33	0.03	0	0
TN002606	59	162	0.76	0.11	0.01	0.01
TN002607	60	58	0.06	0.01	0	0
TN002608	61	151	0.14	0.01	0	0
TN002609	62	177	0.83	0.12	0.01	0.02
TN002610	63	677	0.6	0.06	0	0
TN002611	64	494	13.56	4.11	0.72	1.43
TN002612	65	216	5.93	1.79	0.32	0.63
TN002613	66	197	5.41	1.64	0.29	0.57
TN002614	67	425	11.67	3.53	0.62	1.23
TN002615	68	358	9.83	2.97	0.52	1.04
TN002616	69	117	3.21	0.97	0.17	0.34
TN002617	70	932	71.41	23.03	3.74	7.39
TN002618	71	260	19.45	6.26	1.01	2.01
TN002619	72	373	10.98	3.37	0.6	1.19
TN002620	73	399	27.23	8.68	1.4	2.77
TN002621	74	335	5.37	1.39	0.23	0.45
TN002622	75	573	16.86	5.18	0.92	1.82
TN002623	76	298	20.34	7.15	1.34	2.67
TN002624	77	573	23.26	7.61	1.39	2.75
TN002625	78	1213	56.06	19.43	3.72	7.39
TN002626	79	133	0.13	0.01	0	0
TN002627	80	369	0.36	0.04	0	0
TN002628	81	248	0.24	0.02	0	0
TN002629	82	748	0.58	0.05	0	0
TN002630	83	655	0.51	0.05	0	0
TN002631	84	641	1.41	0.16	0	0.01

TN002631	85	60	3.55	1.27	0.24	0.49

Table H2. Case 1: Predicted Economic Losses

Hazus ID	Struc. No.	Economic Losses (Thousands)				
		STR	NSA	NSD	Contents	Total
TN002548	1	$95,726	$82,765	$197,729	$164,493	$540,713
TN002549	2	$389,134	$336,443	$803,780	$668,676	$2,198,033
TN002550	3	$83,614	$72,292	$172,710	$143,680	$472,297
TN002551	4	$100,024	$86,481	$206,607	$171,879	$564,990
TN002552	5	$2,034,915	$2,451,521	$5,017,695	$4,067,616	$13,571,747
TN002553	6	$2,089,549	$2,517,340	$5,152,411	$4,176,823	$13,936,123
TN002554	7	$1,025,521	$1,205,977	$2,556,938	$2,049,834	$6,838,271
TN002555	8	$1,676,073	$2,388,463	$4,318,756	$3,899,866	$12,283,158
TN002556	9	$2,922,766	$3,437,073	$7,287,353	$5,842,091	$19,489,283
TN002557	10	$1,762,876	$2,156,761	$4,399,272	$3,685,728	$12,004,637
TN002558	11	$6,374,958	$9,168,204	$16,425,660	$14,924,735	$46,893,556
TN002559	12	$3,261,751	$4,697,522	$8,404,489	$7,643,965	$24,007,726
TN002560	13	$913,306	$1,319,200	$2,353,111	$2,144,537	$6,730,155
TN002561	14	$1,066,293	$1,349,467	$2,675,837	$2,268,061	$7,359,659
TN002562	15	$517,065	$743,622	$1,332,266	$1,210,528	$3,803,481
TN002563	16	$410,052	$589,721	$1,056,538	$959,995	$3,016,305
TN002564	17	$200,364	$190,086	$417,613	$339,210	$1,147,272
TN002565	18	$135,843	$122,789	$292,769	$209,551	$760,951
TN002566	19	$135,843	$122,789	$292,769	$209,551	$760,951
TN002567	20	$80,359	$79,536	$162,518	$156,574	$478,987
TN002568	21	$48,494	$28,563	$103,300	$53,125	$233,482
TN002569	22	$132,703	$155,607	$265,887	$305,813	$860,010
TN002570	23	$47,690	$55,921	$95,553	$109,902	$309,066
TN002571	24	$45,261	$26,659	$96,413	$49,584	$217,917
TN002572	25	$1,590,432	$1,468,232	$3,761,890	$2,690,229	$9,510,782
TN002573	26	$847,180	$782,088	$2,003,858	$1,433,013	$5,066,139
TN002574	27	$3,144,466	$4,429,299	$8,091,172	$7,243,165	$22,908,102
TN002575	28	$1,003,927	$794,378	$2,102,396	$1,550,425	$5,451,127
TN002576	29	$1,075,061	$850,663	$2,251,362	$1,660,281	$5,837,367
TN002577	30	$1,525,097	$1,206,763	$3,193,815	$2,355,299	$8,280,974
TN002578	31	$520,006	$732,492	$1,337,358	$1,197,787	$3,787,643
TN002579	32	$214,690	$187,008	$499,579	$347,224	$1,248,500
TN002580	33	$1,001,859	$1,428,490	$2,581,253	$2,331,429	$7,343,030
TN002581	34	$642,404	$901,337	$1,650,876	$1,474,794	$4,669,412
TN002582	35	$203,734	$173,730	$468,869	$326,309	$1,172,642
TN002583	36	$43,773	$60,084	$112,062	$98,605	$314,524
TN002584	37	$373,533	$512,717	$956,262	$841,426	$2,683,938
TN002585	38	$682,210	$959,617	$1,748,366	$1,569,863	$4,960,056

TN002586	39	$386,246	$329,363	$888,897	$618,628	$2,223,133
TN002587	40	$656,184	$879,139	$1,655,465	$1,453,820	$4,644,608
TN002588	41	$42,445	$36,194	$97,681	$67,981	$244,300
TN002589	42	$2,511,422	$3,452,072	$6,435,868	$5,667,369	$18,066,731
TN002590	43	$102,663	$141,116	$263,089	$231,674	$738,543
TN002591	44	$821,656	$1,129,406	$2,105,608	$1,854,180	$5,910,849
TN002592	45	$1,323,940	$1,819,820	$3,392,781	$2,987,653	$9,524,195
TN002593	46	$243,052	$201,180	$555,881	$378,445	$1,378,558
TN002594	47	$66,942	$55,410	$153,103	$104,233	$379,688
TN002595	48	$89,650	$97,650	$223,529	$164,899	$575,728
TN002596	49	$532,617	$626,339	$1,327,977	$1,064,607	$3,551,540
TN002597	50	$1,524,831	$1,793,149	$3,801,871	$3,047,866	$10,167,717
TN002598	51	$549,798	$646,544	$1,370,816	$1,098,949	$3,666,107
TN002599	52	$4,418,020	$5,195,441	$11,015,481	$8,830,840	$29,459,783
TN002600	53	$1,835,933	$2,158,994	$4,577,545	$3,669,705	$12,242,177
TN002601	54	$7,359,671	$10,644,593	$18,963,580	$17,297,637	$54,265,481
TN002602	55	$495,364	$606,044	$1,236,185	$1,035,680	$3,373,273
TN002603	56	$138,003	$541,157	$293,414	$1,054,540	$2,027,113
TN002604	57	$152,836	$599,325	$324,952	$1,167,890	$2,245,003
TN002605	58	$119,641	$441,213	$252,645	$860,644	$1,674,142
TN002606	59	$235,453	$199,067	$465,635	$387,748	$1,287,903
TN002607	60	$19,589	$72,239	$41,365	$140,912	$274,104
TN002608	61	$51,232	$188,932	$108,185	$368,538	$716,887
TN002609	62	$258,578	$218,618	$511,367	$425,831	$1,414,394
TN002610	63	$149,298	$585,451	$317,430	$1,140,855	$2,193,034
TN002611	64	$1,097,716	$1,045,192	$2,613,659	$1,906,749	$6,663,317
TN002612	65	$480,646	$457,648	$1,144,417	$834,890	$2,917,601
TN002613	66	$707,015	$673,186	$1,683,401	$1,228,096	$4,291,697
TN002614	67	$825,701	$786,193	$1,965,993	$1,434,256	$5,012,143
TN002615	68	$695,444	$662,168	$1,655,851	$1,207,997	$4,221,460
TN002616	69	$228,850	$217,900	$544,890	$397,515	$1,389,155
TN002617	70	$5,601,473	$7,997,845	$14,423,503	$13,042,030	$41,064,852
TN002618	71	$1,106,082	$1,554,743	$2,844,344	$2,543,050	$8,048,220
TN002619	72	$959,015	$914,019	$2,296,756	$1,647,889	$5,817,679
TN002620	73	$3,122,738	$4,206,703	$7,966,087	$6,914,246	$22,209,774
TN002621	74	$709,658	$565,972	$1,603,693	$1,071,377	$3,950,700
TN002622	75	$1,209,668	$1,152,912	$2,897,049	$2,078,590	$7,338,219
TN002623	76	$1,407,390	$1,806,346	$3,537,993	$3,020,769	$9,772,497
TN002624	77	$1,380,839	$1,500,554	$3,387,340	$2,641,267	$8,910,001
TN002625	78	$1,523,009	$1,524,023	$3,525,888	$2,548,798	$9,121,718
TN002626	79	$29,832	$86,581	$62,939	$165,485	$344,838
TN002627	80	$82,589	$239,698	$174,246	$458,141	$954,674
TN002628	81	$80,642	$234,047	$170,138	$447,339	$932,166
TN002629	82	$125,732	$442,464	$270,232	$841,234	$1,679,662
TN002630	83	$107,046	$376,706	$230,071	$716,212	$1,430,035

| TN002631 | 84 | $277,711 | $449,467 | $558,927 | $877,827 | $2,163,932 |
| TN002631 | 85 | $182,162 | $205,265 | $441,318 | $341,637 | $1,170,383 |

Table H3. Case 2: Predicted Casualties

Hazus ID	Struc. No.	Day Occ.	Day Casualties			
			Level 1	Level 2	Level 3	Level 4
TN002554	7	214	11.77	4.03	0.75	1.49
TN002555	8	302	23.54	7.6	1.23	2.44
TN002556	9	498	27.4	9.39	1.74	3.46
TN002557	10	565	31.66	10.87	2.02	4.01
TN002558	11	1273	99.05	31.99	5.19	10.27
TN002559	12	469	48	18.03	3.55	7.06
TN002560	13	154	11.94	3.85	0.63	1.24
TN002561	14	361	23.42	8.19	1.53	3.04
TN002562	15	143	11.13	3.59	0.58	1.15
TN002563	16	113	8.79	2.84	0.46	0.91
TN002596	49	132	7.26	2.49	0.46	0.92
TN002597	50	378	20.8	7.12	1.32	2.63
TN002598	51	136	7.48	2.56	0.48	0.94
TN002599	52	626	34.44	11.8	2.19	4.35
TN002600	53	668	36.75	12.59	2.34	4.64
TN002601	54	719	73.46	27.58	5.43	10.81
TN002602	55	64	3.59	1.23	0.23	0.45

Table H4. Case 2: Predicted Economic Losses

Hazus ID	Struc. No.	Economic Losses (Thousands)				
		STR	NSA	NSD	Contents	Total
TN002554	7	$1,025,521	$1,205,977	$2,556,938	$2,049,834	$6,838,271
TN002555	8	$1,676,073	$2,388,463	$4,318,756	$3,899,866	$12,283,158
TN002556	9	$2,922,766	$3,437,073	$7,287,353	$5,842,091	$19,489,283
TN002557	10	$1,762,876	$2,156,761	$4,399,272	$3,685,728	$12,004,637
TN002558	11	$6,374,958	$9,168,204	$16,425,660	$14,924,735	$46,893,556
TN002559	12	$3,261,751	$4,697,522	$8,404,489	$7,643,965	$24,007,726
TN002560	13	$913,306	$1,319,200	$2,353,111	$2,144,537	$6,730,155
TN002561	14	$1,066,293	$1,349,467	$2,675,837	$2,268,061	$7,359,659
TN002562	15	$517,065	$743,622	$1,332,266	$1,210,528	$3,803,481
TN002563	16	$410,052	$589,721	$1,056,538	$959,995	$3,016,305
TN002596	49	$532,617	$626,339	$1,327,977	$1,064,607	$3,551,540
TN002597	50	$1,524,831	$1,793,149	$3,801,871	$3,047,866	$10,167,717
TN002598	51	$549,798	$646,544	$1,370,816	$1,098,949	$3,666,107

TN002599	52	$4,418,020	$5,195,441	$11,015,481	$8,830,840	$29,459,783
TN002600	53	$1,835,933	$2,158,994	$4,577,545	$3,669,705	$12,242,177
TN002601	54	$7,359,671	$10,644,593	$18,963,580	$17,297,637	$54,265,481
TN002602	55	$495,364	$606,044	$1,236,185	$1,035,680	$3,373,273

Table H5. Case 3: Predicted Casualties

Hazus ID	Struc. No.	Day Occ.	Day Casualties			
			Level 1	Level 2	Level 3	Level 4
TN002554	7	214	11.4	3.89	0.72	1.43
TN002555	8	302	23.55	7.61	1.24	2.44
TN002556	9	498	33.26	11.67	2.19	4.34
TN002557	10	565	40.94	14.49	2.72	5.41
TN002558	11	1273	98.91	31.94	5.19	10.26
TN002559	12	469	48	18.03	3.55	7.06
TN002560	13	154	11.98	3.87	0.63	1.24
TN002561	14	361	23.15	8.08	1.51	3
TN002562	15	143	11.12	3.59	0.58	1.15
TN002563	16	113	8.79	2.84	0.46	0.91
TN002596	49	132	8.57	3	0.56	1.11
TN002597	50	378	24.53	8.58	1.61	3.19
TN002598	51	136	8.82	3.09	0.58	1.15
TN002599	52	626	33	11.24	2.08	4.13
TN002600	53	668	39.29	13.58	2.53	5.02
TN002601	54	719	73.64	27.66	5.45	10.84
TN002602	55	64	4.56	1.61	0.3	0.6

Table H6. Case 3: Predicted Economic Losses

Hazus ID	Struc. No.	Economic Losses (Thousands)				
		STR	NSA	NSD	Contents	Total
TN002554	7	$1,009,534	$1,172,835	$2,513,795	$1,998,626	$6,694,790
TN002555	8	$1,676,573	$2,402,608	$4,320,055	$3,915,908	$12,315,144
TN002556	9	$3,221,600	$4,104,228	$8,092,827	$6,876,446	$22,295,101
TN002557	10	$2,008,644	$2,639,169	$5,062,106	$4,392,411	$14,102,330
TN002558	11	$6,369,300	$9,108,405	$16,410,996	$14,853,462	$46,742,163
TN002559	12	$3,261,587	$4,679,093	$8,404,489	$7,623,669	$23,968,837
TN002560	13	$915,349	$1,311,072	$2,358,482	$2,137,049	$6,721,952
TN002561	14	$1,059,871	$1,317,280	$2,658,810	$2,210,339	$7,246,300
TN002562	15	$516,988	$739,326	$1,331,999	$1,205,684	$3,793,997
TN002563	16	$409,991	$586,314	$1,056,326	$956,153	$3,008,784
TN002596	49	$578,464	$730,439	$1,451,642	$1,227,198	$3,987,743

TN002597	50	$1,656,087	$2,091,177	$4,155,910	$3,513,350	$11,416,524
TN002598	51	$597,124	$754,002	$1,498,469	$1,266,785	$4,116,381
TN002599	52	$4,326,284	$4,963,768	$10,766,398	$8,447,834	$28,504,283
TN002600	53	$1,897,563	$2,300,701	$4,744,996	$3,893,977	$12,837,237
TN002601	54	$7,370,241	$10,669,438	$18,990,040	$17,333,219	$54,362,938
TN002602	55	$559,589	$737,119	$1,408,782	$1,229,551	$3,935,040

Appendix I: Case 1 Ranking

Table I1. Case 1 Structures Ranked by Predicted Performance

Hazus ID	Structure Number	BRC	MD	S_{L1}	IO	Rank
TN002629	82	4.715	0.013	0.300	0.750	1
TN002630	83	4.715	0.013	0.300	0.750	1
TN002626	79	5.388	0.021	1.300	0.684	2
TN002627	80	5.388	0.021	0.600	0.684	3
TN002628	81	5.388	0.021	0.300	0.684	4
TN002604	57	5.691	0.017	2.300	0.715	5
TN002603	56	5.691	0.017	0.300	0.715	6
TN002610	63	5.691	0.017	0.300	0.715	7
TN002607	60	5.895	0.019	2.700	0.694	8
TN002608	61	5.895	0.019	0.500	0.694	9
TN002605	58	5.895	0.019	0.300	0.694	10
TN002631	84	9.282	0.096	0.300	0.389	11
TN002569	22	12.481	0.188	1.200	0.237	12
TN002570	23	12.481	0.188	1.200	0.237	13
TN002606	59	14.269	0.267	2.300	0.161	14
TN002609	62	14.269	0.267	2.300	0.161	15
TN002567	20	14.492	0.251	3.800	0.162	16
TN002551	4	18.791	0.377	3.800	0.096	17
TN002550	3	18.791	0.377	3.100	0.096	18
TN002548	1	18.791	0.377	0.700	0.096	19
TN002549	2	18.791	0.377	0.300	0.096	20
TN002576	29	22.572	0.472	3.200	0.051	21
TN002575	28	22.572	0.472	2.500	0.051	22
TN002577	30	22.572	0.472	1.500	0.051	23
TN002571	24	24.519	0.564	3.700	0.031	24
TN002568	21	24.519	0.564	1.800	0.031	25
TN002621	74	32.313	0.675	0.300	0.018	26
TN002594	47	34.616	0.710	3.800	0.014	27
TN002593	46	34.616	0.710	3.100	0.014	28
TN002588	41	35.991	0.728	3.800	0.012	29
TN002586	39	35.991	0.728	3.100	0.012	30
TN002582	35	35.991	0.728	1.200	0.012	31
TN002564	17	36.838	0.696	0.600	0.024	32
TN002579	32	38.361	0.759	2.700	0.009	33
TN002572	25	42.384	0.804	3.100	0.006	34
TN002573	26	42.384	0.804	0.500	0.006	35
TN002566	19	43.252	0.802	1.500	0.012	36

TN002565	18	43.252	0.802	1.000	0.012	37
TN002612	65	44.312	0.823	1.900	0.005	38
TN002615	68	44.312	0.823	1.900	0.005	38
TN002614	67	44.312	0.823	0.500	0.005	39
TN002616	69	44.312	0.823	0.500	0.005	39
TN002611	64	44.312	0.823	0.300	0.005	40
TN002613	66	44.312	0.823	0.300	0.005	40
TN002619	72	45.904	0.839	0.300	0.004	41
TN002622	75	45.904	0.839	0.300	0.004	41
TN002625	78	52.888	0.864	0.300	0.005	42
TN002624	77	55.587	0.907	0.300	0.001	43
TN002595	48	62.909	0.955	3.700	0.000	44
TN002632	85	63.447	0.920	1.400	0.002	45
TN002598	51	66.108	0.957	2.700	0.000	46
TN002596	49	66.108	0.957	2.300	0.000	47
TN002556	9	66.108	0.957	1.900	0.000	48
TN002599	52	66.108	0.957	1.900	0.000	48
TN002600	53	66.108	0.957	1.900	0.000	48
TN002597	50	66.108	0.957	0.500	0.000	49
TN002554	7	66.108	0.957	0.300	0.000	50
TN002557	10	67.396	0.958	2.300	0.000	51
TN002602	55	67.396	0.958	0.900	0.000	52
TN002552	5	71.035	0.960	0.600	0.001	53
TN002553	6	71.035	0.960	0.500	0.001	54
TN002561	14	73.430	0.976	2.300	0.000	55
TN002623	76	75.732	0.981	0.300	0.000	56
TN002587	40	81.768	0.983	0.200	0.000	57
TN002620	73	85.765	0.993	0.600	0.000	58
TN002590	43	87.767	0.991	1.200	0.000	59
TN002589	42	87.767	0.991	0.300	0.000	60
TN002591	44	87.767	0.991	0.300	0.000	60
TN002592	45	87.767	0.991	0.300	0.000	60
TN002583	36	88.132	0.995	1.700	0.000	61
TN002584	37	88.132	0.995	1.200	0.000	62
TN002585	38	90.838	0.997	0.200	0.000	63
TN002581	34	91.435	0.998	0.500	0.000	64
TN002618	71	91.826	0.998	0.500	0.000	65
TN002574	27	91.879	0.997	0.300	0.000	66
TN002578	31	92.056	0.998	0.500	0.000	67
TN002617	70	93.607	1.000	0.500	0.000	68
TN002580	33	94.309	1.000	0.400	0.000	69

TN002555	8	94.486	1.000	0.500	0.000	70
TN002560	13	94.559	1.000	0.500	0.000	71
TN002563	16	94.639	1.000	1.100	0.000	72
TN002562	15	94.639	1.000	0.800	0.000	73
TN002558	11	94.639	1.000	0.500	0.000	74
TN002559	12	94.694	0.999	0.300	0.000	75
TN002601	54	94.711	0.999	0.300	0.000	76

Appendix J: Case 2 Ranking

Table J1. Case 2 Structures Ranked by Predicted Performance

Hazus ID	Structure Number	S_{L1}	BRC	MD	IO	Rank
TN002598	51	2.7	66.108	0.957	0	1
TN002596	49	2.3	66.108	0.957	0	2
TN002557	10	2.3	67.396	0.958	0	3
TN002561	14	2.3	73.430	0.976	0	4
TN002556	9	1.9	66.108	0.957	0	5
TN002599	52	1.9	66.108	0.957	0	5
TN002600	53	1.9	66.108	0.957	0	5
TN002563	16	1.1	94.639	1.000	0	6
TN002602	55	0.9	67.396	0.958	0	7
TN002562	15	0.8	94.639	1.000	0	8
TN002597	50	0.5	66.108	0.957	0	9
TN002555	8	0.5	94.486	1.000	0	10
TN002560	13	0.5	94.559	1.000	0	11
TN002558	11	0.5	94.639	1.000	0	12
TN002554	7	0.3	66.108	0.957	0	13
TN002559	12	0.3	94.694	0.999	0	14
TN002601	54	0.3	94.711	0.999	0	15

Appendix K: Case 3 Ranking

Table K1. Case 3 Structures Ranked by Predicted Performance

Hazus ID	Structure Number	*BRC*	*MD*	S_{L1}	*IO*	Rank
TN002599	52	64.264	0.95	1.9	0.001	1
TN002554	7	64.840	0.952	0.3	0.001	2
TN002600	53	68.978	0.965	1.9	0	3
TN002561	14	72.608	0.974	2.3	0	4
TN002598	51	73.379	0.976	2.7	0	5
TN002596	49	73.379	0.976	2.3	0	6
TN002597	50	73.379	0.976	0.5	0	7
TN002556	9	74.693	0.979	1.9	0	8
TN002602	55	78.017	0.985	0.9	0	9
TN002557	10	78.709	0.987	2.3	0	10
TN002558	11	94.440	1	0.5	0	11
TN002563	16	94.481	1	1.1	0	12
TN002562	15	94.481	1	0.8	0	13
TN002560	13	94.526	1	0.5	0	14
TN002559	12	94.580	0.999	0.3	0	15
TN002555	8	94.688	1	0.5	0	16
TN002601	54	94.927	1	0.3	0	17

Appendix L. Level 1 Data Collection Form Results

Below are the Level 1 Data Collection forms for each structure studied and a few photographs of each structure studied in order of structure number. The Hazus ID and structure number are paired in Appendices F and H.

PHOTOGRAPH

Address: 811 S. College St.
Trenton, TN   Zip: 38382
Other Identifiers: 1
Building Name: ~~Trenton~~
Use: Elementary school
Latitude: 35.969973   Longitude: -88.940351
S_S: 1.187 S_1: 0.413
Screener(s): CM   Date/Time: 3/15 @ 10:15AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1982 ☒ EST
Total Floor Area (sq. ft.): 12,250   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1987, 1995, 2010

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A   ☐ B   ☒ C   ☐ D   ☐ E   ☐ F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)

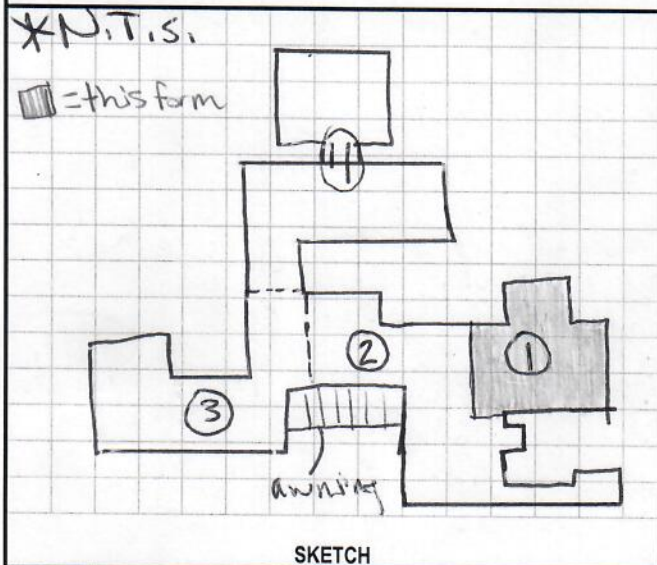Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level, mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

*N.T.S.

▭ = this form

SKETCH

COMMENTS:
• This portion has no plan irregularities
• Potential for pounding
- Pre 1987, estimate 1982

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	(-0.5)	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(-0.5)	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.1	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.7 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides ☒ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Tony Kash

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data   **OR**   **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 1, Building 1 Photographs

Joint between Structures 1 (Left) and 2 (Right)

Interior, Reinforced Masonry

Exterior

PHOTOGRAPH	

Address: 811 S. college St.
Trenton, TN **Zip:** 38382
Other Identifiers: 2
Building Name:
Use: Elementary School
Latitude: 35.969550 **Longitude:** -88.940584
Ss: 1.186 **S1:** 0.413
Screener(s): CM **Date/Time:** 3/15 @ 10:15AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1987 ☐ EST
Total Floor Area (sq. ft.): 49,797 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1982, 1995, 2010

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office ⊙School ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/⊙DNK Landslide: Yes/⊙No/DNK Surf. Rupt.: Yes/No/⊙DNK
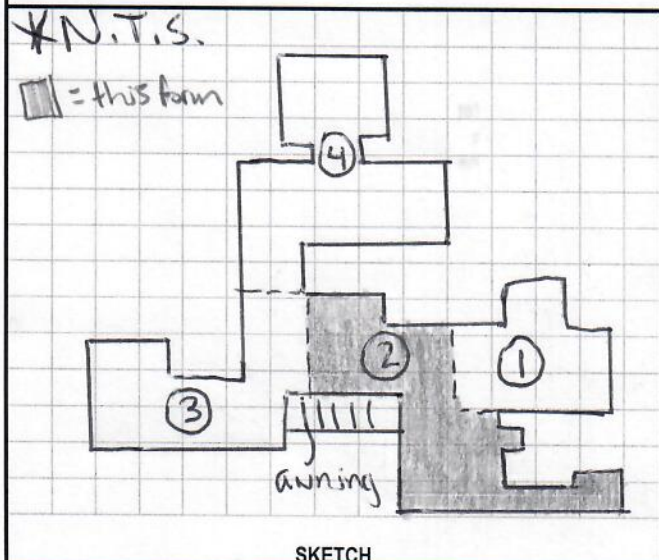
Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level, mod.
☒ Plan (type) re-entrant corner

Exterior Falling ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets ☐ Appendages
☐ Other:

SKETCH

*N.T.S.
▯ = this form

(4) (2) (1) (3)
awning

COMMENTS:
• L-shaped (Plan irregularity)
• Would have pounding potential, but it isn't an end building

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	(-0.5)	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(-0.5)	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Tony Kash

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame | RC = Reinforced concrete | URM INF = Unreinforced masonry infill | MH = Manufactured Housing | FD = Flexible diaphragm
BR = Braced frame | SW = Shear wall | TU = Tilt up | LM = Light metal | RD = Rigid diaphragm

Structure 2, Building 1 Photographs

Joint between Structures 1 (Left) and 2 (Right)

Exterior

PHOTOGRAPH

*N.T.S

☐ = this form

SKETCH

Awning

② ③ ① ④
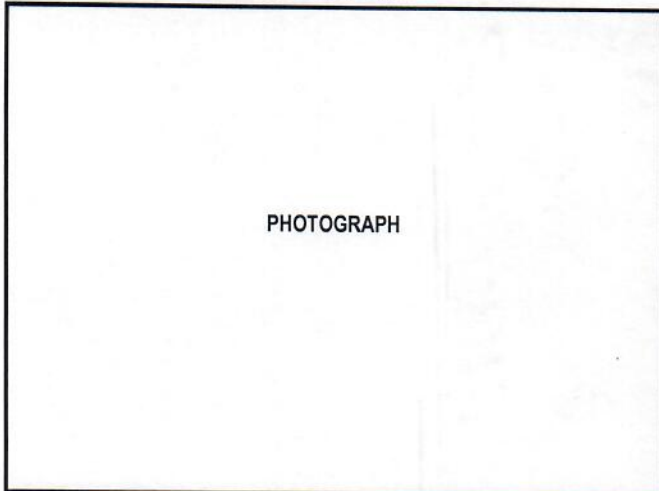
Address: 811 S. College St.
Trenton, TN **Zip:** 38382
Other Identifiers: 3
Building Name:
Use: Elementary School
Latitude: 35.969889 **Longitude:** -88.941194
Ss: 1.187 **S1:** 0.413
Screener(s): CM **Date/Time:** 3/15, 10:15 AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1995 ☐ EST
Total Floor Area (sq. ft.): 10,700 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1982, 1987, 2010

Occupancy:
Assembly · Commercial · Emer. Services · ☐ Historic · ☐ Shelter
Industrial · Office · School (circled) · ☐ Government
Utility · Warehouse · Residential, # Units:

Soil Type: ☐A Hard Rock · ☐B Avg Rock · ☒C Dense Soil · ☐D Stiff Soil · ☐E Soft Soil · ☐F Poor Soil · DNK If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Pounding potential

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.1) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Tony Kash

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame · RC = Reinforced concrete · URM INF = Unreinforced masonry infill · MH = Manufactured Housing · FD = Flexible diaphragm
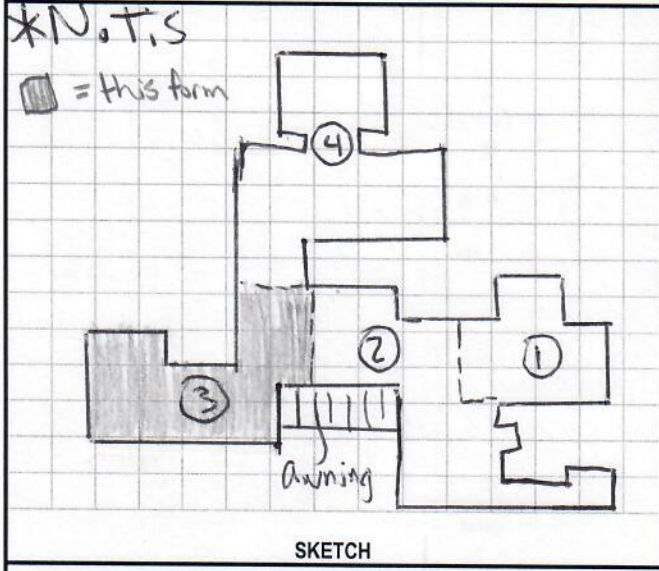BR = Braced frame · SW = Shear wall · TU = Tilt up · LM = Light metal · RD = Rigid diaphragm

Structure 3, Building 1 Photographs

Exterior, Structure 3 (Right) and Structure 4 (Left), Connected Behind Tree

PHOTOGRAPH
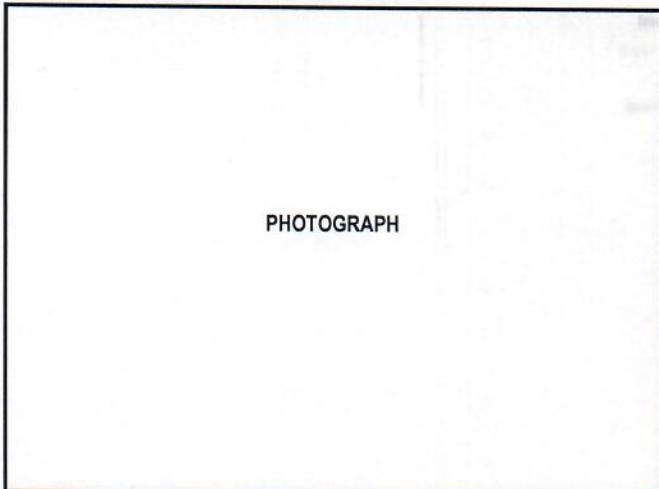
Address: 811 S. College St.
Trenton, TN   **Zip:** 38382
Other Identifiers: 4
Building Name:
Use: Elementary School
Latitude: 35.970254   **Longitude:** -88.940844
S_s: 1.187   **S_1:** 0.413
Screener(s): CM   **Date/Time:** 3/15 @ 10:15AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2010 ☐ EST
Total Floor Area (sq. ft.): 12,800   **Code Year:** ——
Additions: ☐ None   ☒ Yes, Year(s) Built: 1982, 1987, 1995

Occupancy:
Assembly ☐   Commercial ☐   Emer. Services ☐   Historic ☐   Shelter ☐
Industrial ☐   Office ☐   (School)   Government ☐
Utility ☐   Warehouse ☐   Residential, # Units: ___

Soil Type: ☐ A Hard Rock   ☐ B Avg Rock   ☒ C Dense Soil   ☐ D Stiff Soil   ☐ E Soft Soil   ☐ F Poor Soil   DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/(DNK)   Landslide: Yes/(No)/DNK   Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ___
   ☐ Plan (type) ___

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
   ☐ Parapets   ☐ Appendages
   ☐ Other: ___

*N.T.S.
▱ = this form

SKETCH

COMMENTS:
potential for pounding

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.5	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.8) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☒ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source: ___
Geologic Hazards Source: ___
Contact Person: Tony Kash

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} ___   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
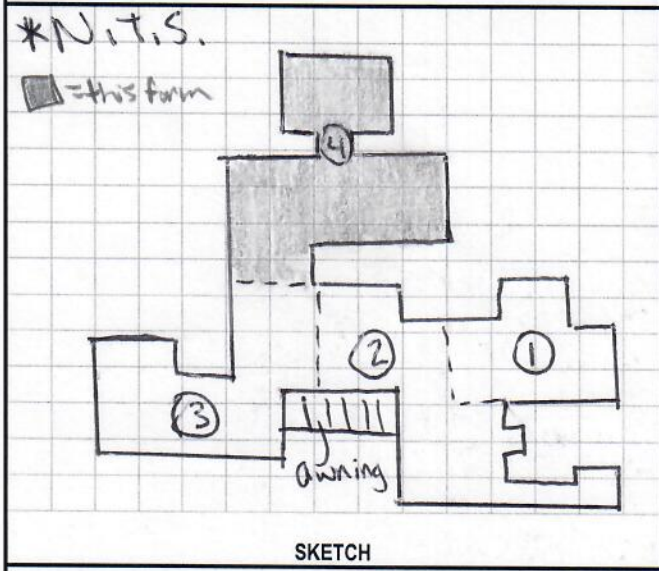☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data **OR** DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 4, Building 1 Photographs

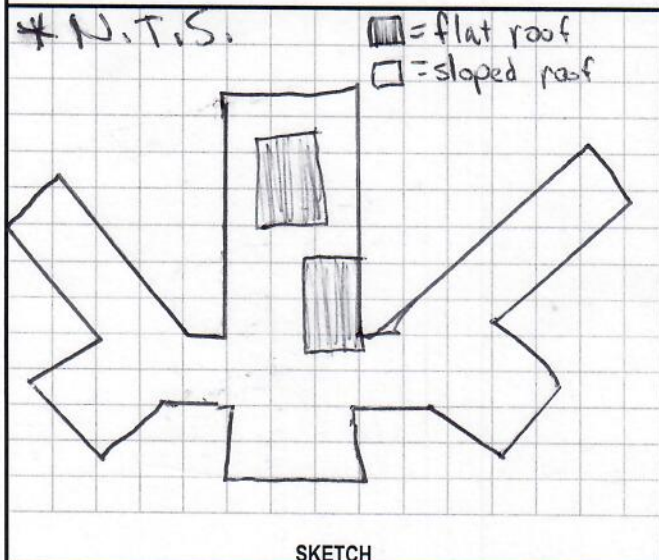Exterior, Structure 3 (Right) and Structure 4 (Left), Connected Behind Tree

Exterior

Exterior

PHOTOGRAPH	

Address: 2065 US Hwy 45 Byp. S,
Trenton, TN   Zip: 38382
Other Identifiers: 5
Building Name:
Use: Middle School
Latitude: 35.963381   Longitude: -88.926478
S_S: 1.16 S_1: 0.403
Screener(s): CM   Date/Time: 3/15 @ 10:45AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1995 ☐ EST
Total Floor Area (sq. ft.): 81,905   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy:
Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

* N.T.S.

▨ = flat roof
☐ = sloped roof

COMMENTS:

• split level (roofing heights)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	(1.2)	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	(-0.5)	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	(-0.6)	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	(NA)	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.6 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Tony Losh

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 5, Building 2 Photographs
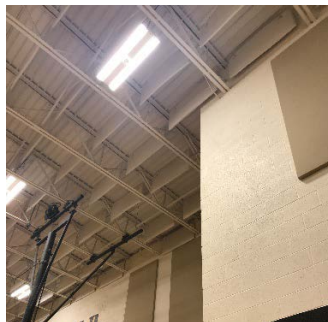

Re-entrant Corner (1 Wing of Structure)

Exterior of Structure

Interior of Structure

Interior of Structure

Gymnasium, Exposed View of Roof

PHOTOGRAPH	

Address: 2069 US Hwy 45 Bypass
Trenton TN   **Zip:** 38382
Other Identifiers: 6
Building Name:
Use: High School
Latitude: 35.961408   **Longitude:** -88.927692
S_S: 1.16 S_1: 0.403
Screener(s): CM   **Date/Time:** 3/15 @ 11AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1978 ☐ EST
Total Floor Area (sq. ft.): 84,104   **Code Year:**
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   ⓢchool   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:

SKETCH

25'

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	(1.7)	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	(-0.5)	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	(-0.6)	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	(-0.2)	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Tony Kash

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ___   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm
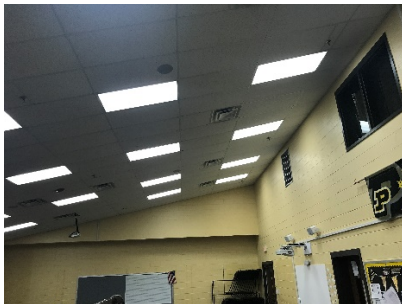
Structure 6, Building 3 Photographs

Exterior, Left of Foyer

Exterior, Right of Foyer

Vertical Irregularity
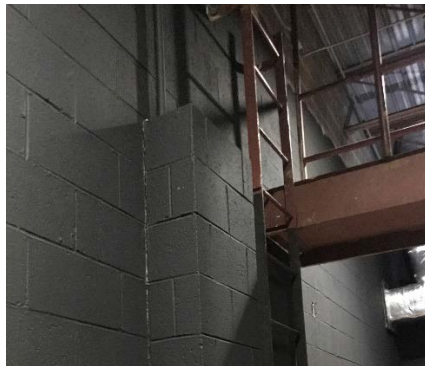
Masonry Covering Pipes

Exposed Roof

PHOTOGRAPH	
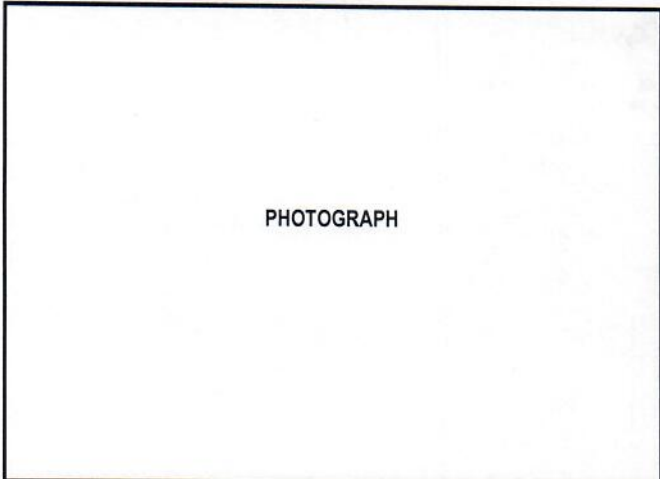
Address: 988 TN-210
Dyersburg, TN   Zip: 38024
Other Identifiers: 7
Building Name:
Use: Elementary school
Latitude: 35.971109   Longitude: -89.388834
S_s: 2.032 S_1: 0.735
Screener(s): CM   Date/Time: 5/3 @ 9AM
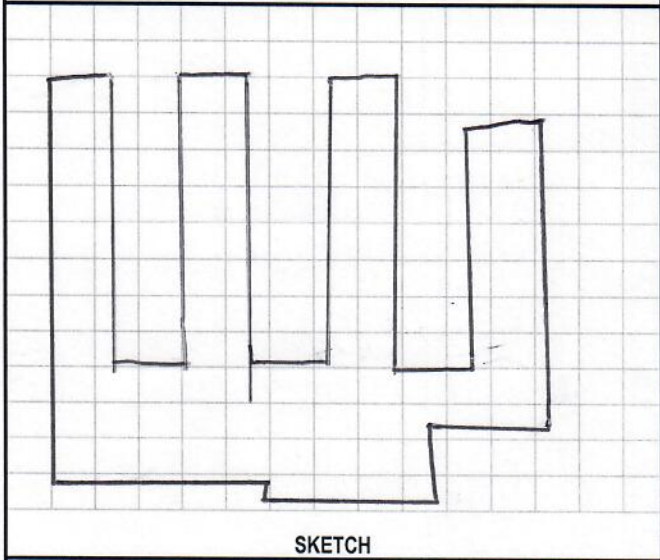
No. Stories: Above Grade: 2   Below Grade: Year Built: 1950 ☐ EST
Total Floor Area (sq. ft.): 41,782   Code Year:
Additions: ☐ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level, mod
☒ Plan (type) re-entrant corner

Exterior Falling ☒ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

COMMENTS:
• Steel columns here + there
• Steel reinforcements added about 10 yrs ago around windows

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.3 (circled)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 7, Building 3 Photographs

Added Reinforcement (1 of 2)

Added Reinforcement (2 of 2)

Gymnasium, Exposed Roof

Exposed Columns

PHOTOGRAPH	

Address: 72 Poplar St. Finley, TN **Zip:** 38030
Other Identifiers: 8
Building Name:
Use: Elementary School
Latitude: 36.034741 **Longitude:** -89.481789
Ss: 2.49 **S₁:** 0.933
Screener(s): CM **Date/Time:** 5/3 @ 9:30AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1919 ☒ EST
Total Floor Area (sq. ft.): 51,170 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: Unknown

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Masonry + steel members

*N.T.S.

gym

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_L1

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_L1		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_L1		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	(-0.3)	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_L1		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	(-0.4)	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	(-0.1)	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_MIN		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, S_L1 ≥ S_MIN: 0.4 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_L2 _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_L2 > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame | RC = Reinforced concrete | URM INF = Unreinforced masonry infill | MH = Manufactured Housing | FD = Flexible diaphragm
BR = Braced frame | SW = Shear wall | TU = Tilt up | LM = Light metal | RD = Rigid diaphragm

Structure 8, Building 4 Photographs

Exterior views, Split Level

Steel Columns in Gym
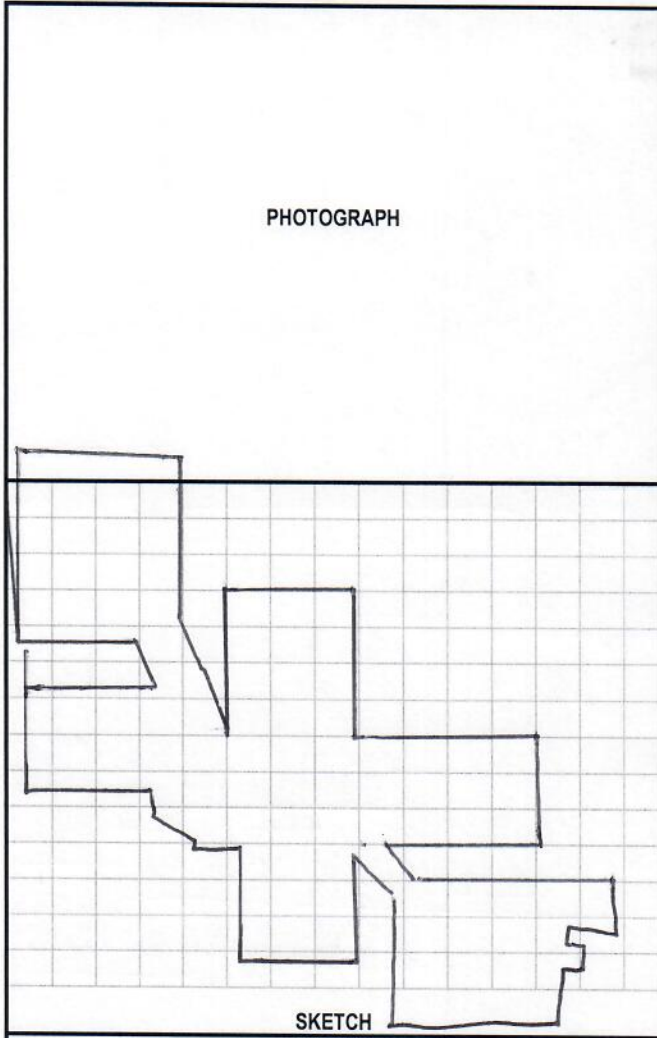
PHOTOGRAPH	

Address: 3200 Upper Finley Rd, Dyersburg, TN **Zip:** 38024
Other Identifiers: 9
Building Name:
Use: Middle School
Latitude: 36.034741 **Longitude:** -89.434919
Ss: 2.453 **S1:** 0.917
Screener(s): CM **Date/Time:** 5/3 @ 10AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1966 ✗ EST
Total Floor Area (sq. ft.): 119,080 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) non // sys. + re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.9) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: *EST = Estimated or unreliable data* *OR* *DNK = Do Not Know*

Structure 9, Building 5 Photographs

Exterior, 1 Wing Shown
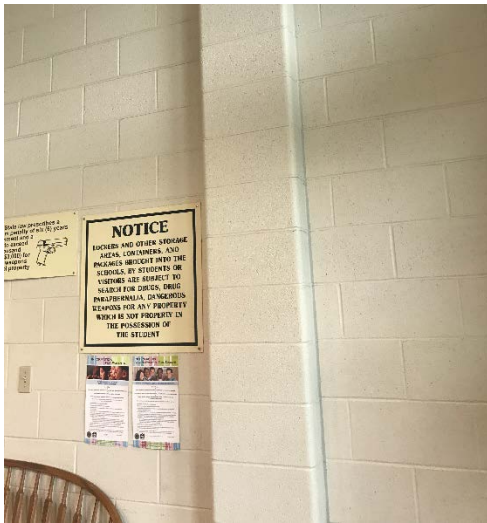
Interior, Masonry

Interior, Masonry and Possibly Steel

PHOTOGRAPH	

Address: 2372 Millsfield HWy Dyersburg TN   Zip: 38024
Other Identifiers: 10
Building Name:
Use: Elementary school
Latitude: 36.087098   Longitude: -89.379055
S_S: 2.474 S_1: 0.925
Screener(s): CM   Date/Time: 5/3 @ 1030 AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 2012 ☐ EST
Total Floor Area (sq. ft.): 71,175   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) non // sys, + Re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

*N.T.S.

COMMENTS:
• Actual storm shelter
• masonry everywhere, columns sparse

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.3 ≥ 0.3)

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data   OR   DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 10, Building 6 Photographs

Left Front Exterior, 1 Wing Shown

Interior, Masonry

PHOTOGRAPH	

Address: 1000 N. Main St, Newbern, TN   **Zip:** 38059

Other Identifiers: 11

Building Name:

Use: High school

Latitude: 36.103397   **Longitude:** -89.292079

S_s: 2.261   **S_1:** 0.829

Screener(s): CM   **Date/Time:** 5/6 @ 9AM

No. Stories: Above Grade: 2   Below Grade: 1   **Year Built:** 2003 ☐ EST

Total Floor Area (sq. ft.): 194,800   **Code Year:**

Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F   DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) OOP setback/severe
☒ Plan (type) non ll sys. + re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
· Steel columns present throughout

*N.T.S.

gym   Auditorium

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	(-0.7)	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	(-0.4)	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
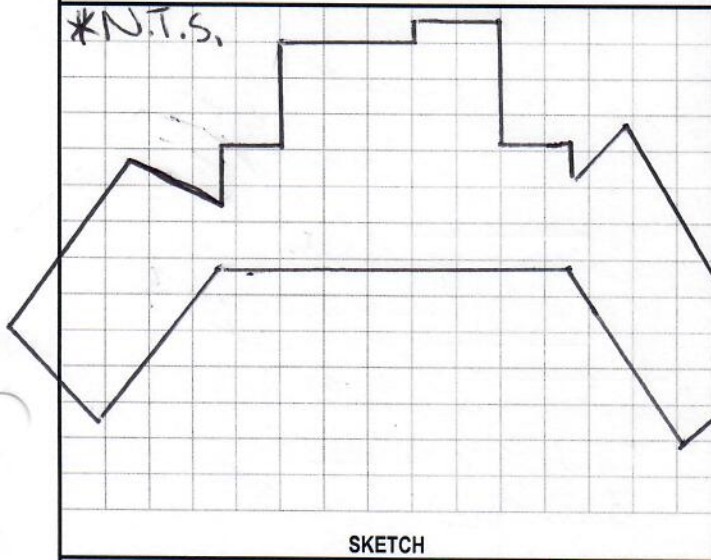☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data   **OR**   **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 11, Building 7 Photographs

Exterior, 1 Wing Shown
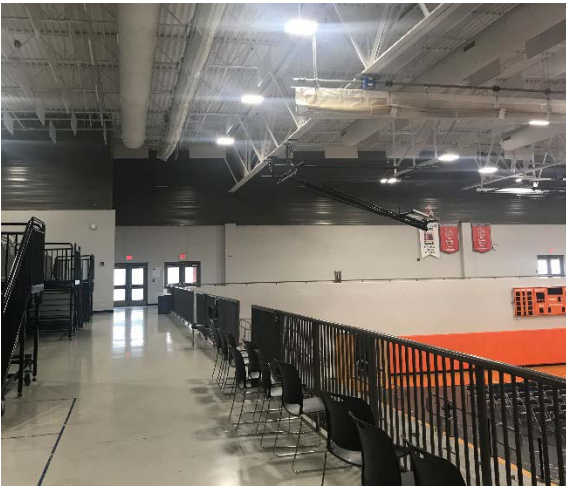
Interior, Gymnasium, Arena-Style, Roof Exposed

Interior Column (Steel Encased)

PHOTOGRAPH	
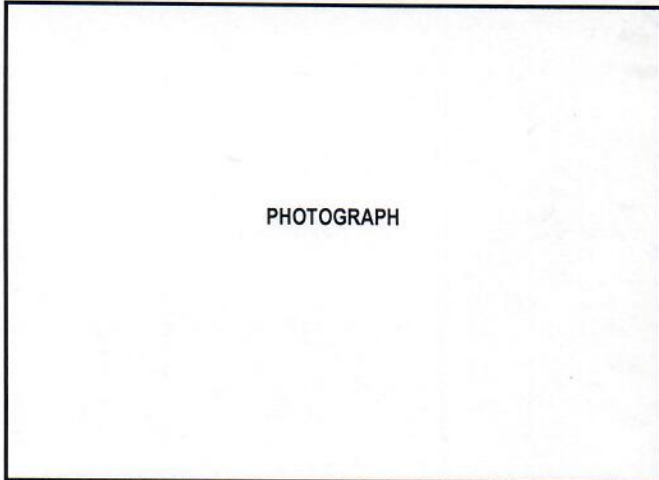
Address: 820 Williams St. Newbern, TN   **Zip:** 38059
Other Identifiers: 12
Building Name:
Use: Middle school
Latitude: 36.114491   **Longitude:** -89.284392
S_S: 2.25   **S_1:** 0.826
Screener(s): CM   **Date/Time:** 5/6 930AM

No. Stories: Above Grade: 2   Below Grade: 1   **Year Built:** 1920 ☐ EST
Total Floor Area (sq. ft.): 9964   **Code Year:**
Additions: ☐ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F   DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/(DNK)   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/(DNK)
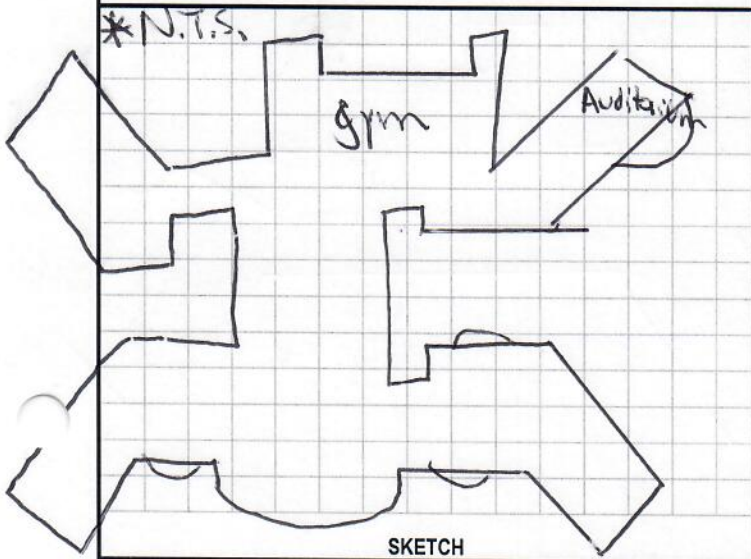
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) OOP setback/save   ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• conc. members present
• masonry throughout

☐ Additional sketches or comments on separate page

SKETCH

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	(0.9)	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	(-0.6)	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	(0.0)	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.3) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 12, Building 8 Photographs

Interior, Gymnasium, Arena-Style
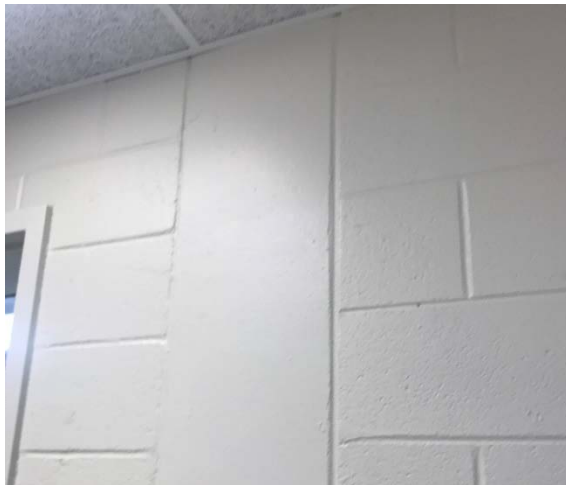
Interior, Exposed Concrete Column

PHOTOGRAPH	**Address:** 256 College St. Trimble, TN **Zip:** 38259

Other Identifiers: 13

Building Name:

Use: Elementary School

Latitude: 36.200490 **Longitude:** -89.184100

Ss: 1.992 **S₁:** 0.72

Screener(s): CM **Date/Time:** 5/16 @ 10AM

No. Stories: Above Grade: 1 Below Grade: 1 **Year Built:** 1959 ☑ EST
Total Floor Area (sq. ft.): 27,969 **Code Year:** ___
Additions: ☑ None ☐ Yes, Year(s) Built: ___

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☑D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☑ Vertical (type/severity) Soft Story /severe
☑ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other: ___

SKETCH

*N.T.S.

COMMENTS:
- Cripple wall present → soft story
- Concrete pillars in basement only
- Steel beams on ground floor

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	(-0.7)	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	(-0.4)	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	(-0.1)	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☑ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☑ Entered
Drawings Reviewed: ☐ Yes ☑ No
Soil Type Source: ___
Geologic Hazards Source: ___
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} ___ ☑ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☑ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
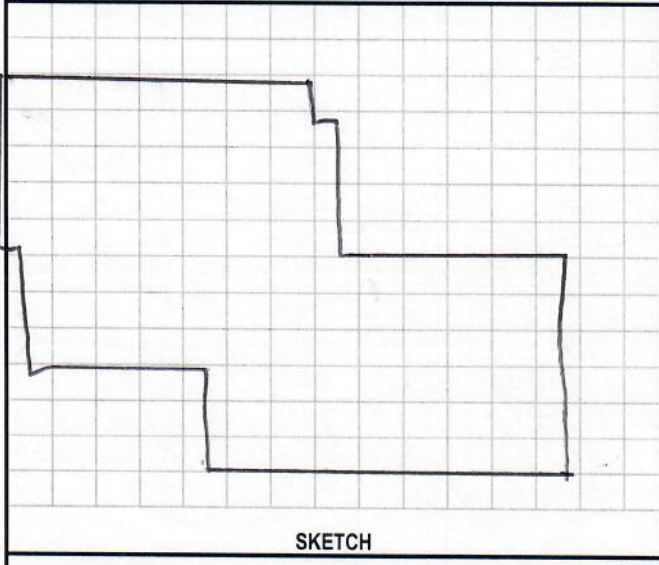☐ No, no nonstructural hazards identified ☑ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 13, Building 9 Photographs

Exterior, Cripple Wall

Interior, Exposed Steel Column

Interior, Encased Steel Column

Encased Steel Members

PHOTOGRAPH

middle

old

new

☐ = other forms
▨ = this form

SKETCH
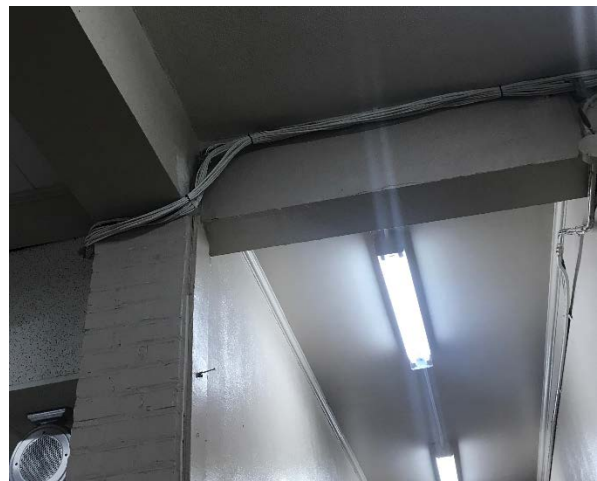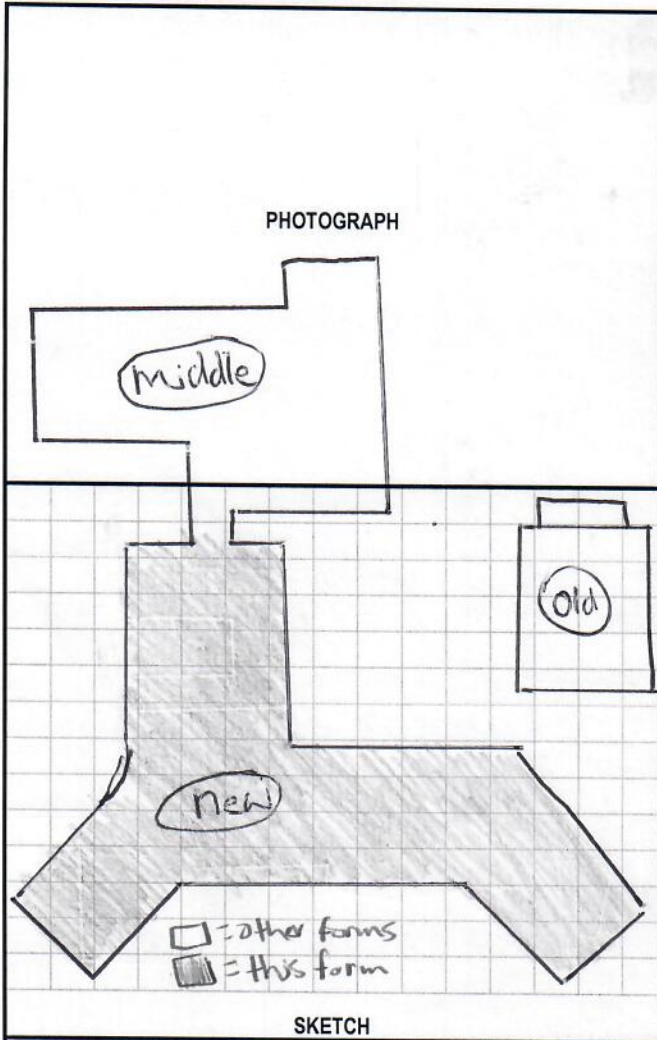
Address: 401 N. York St.
Newbern, TN Zip: 38059
Other Identifiers: 14
Building Name:
Use: Elementary school
Latitude: ~~(illegible)~~ Longitude: ~~(illegible)~~
S_S: 2.165 S_1: 0.794
Screener(s): CM Date/Time: 5/6 10:30AM

No. Stories: Above Grade: 1 Below Grade: 0 Year Built: 2012 ☐ EST
Total Floor Area (sq. ft.): 40,000 Code Year:
Additions: ☐ None ☒ Yes, Year(s) Built: 1978 (est.)

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Reinf. Masonry
• connected by walkway to "middle"
  – no pounding issues
Lat: 36.117453 Long: -89.259485

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.3) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 14, Building 10 Photographs

Front Right Exterior, 1 Wing Shown

Interior Connection to Older Building

Masonry Walls

PHOTOGRAPH

middle (labeled in photograph)

SKETCH

old (labeled in sketch)
new (labeled in sketch)
□ =Other forms
▨ =this form

Address: 401 N. York St.
Newbern, TN   **Zip:** 38059
Other Identifiers: IS
Building Name:
Use: Elementary School
Latitude: ~~36.467970~~   **Longitude:** ~~-89.013800~~
Ss: 2.165   **S1:** 0.794
Screener(s): CM   **Date/Time:** 5/6 1030AM

No. Stories: Above Grade: 1   Below Grade: 1   **Year Built:** 1978 ☒EST
Total Floor Area (sq. ft.): 15800   **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 2012

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil / If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Sloping site/mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
· Connected by hallway to "new"
– no pounding issues
· Steel members throughout masonry
Lat: 36.117210   Long.: -89.260402

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	(-0.3)	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	(-0.1)	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.8 ≥ 0.5)

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
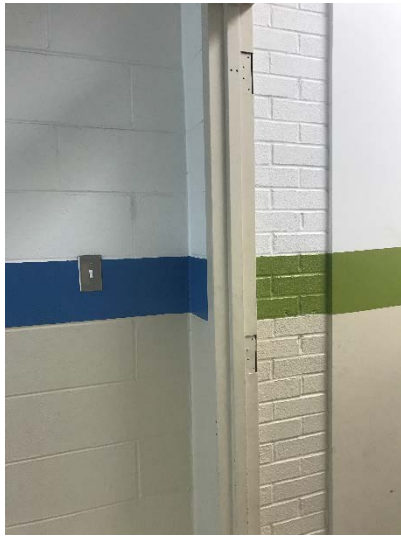☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 15, Building 11 Photographs

Exterior, Outside Cafeteria
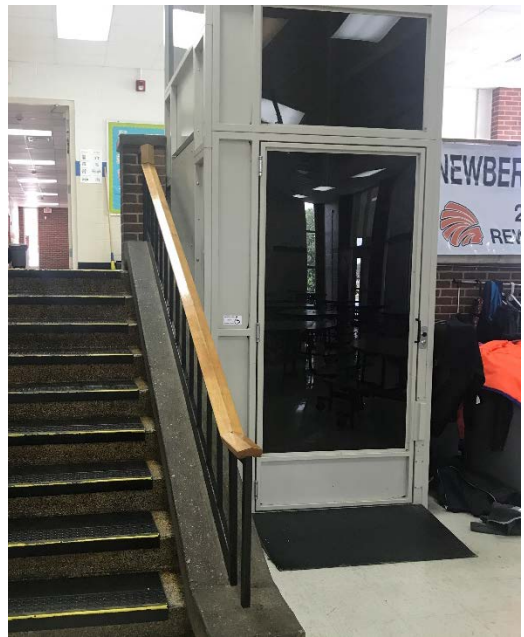
Interior, Split Level, Exiting Cafeteria

Interior, Cafeteria

Connection to New Hallway to Newer Building

PHOTOGRAPH

(sketch annotation: "middle")

SKETCH

(sketch annotations: "new", "old")

☐ = Other forms
▨ = this form

Address: 401 N. York St., Newbern, TN **Zip:** 38059
Other Identifiers: 16
Building Name:
Use: Elementary School Gymnasium
Latitude: ~~36.117900~~ **Longitude:** ~~-89.259930~~
Ss: 2.165 **S₁:** 0.794
Screener(s): CM **Date/Time:** 5/6 @ 10:30AM

No. Stories: Above Grade: 1 Below Grade: 1 **Year Built:** 1970 ☑ EST
Total Floor Area (sq. ft.): 13420 **Code Year:**
Additions: ☑ None ☐ Yes, Year(s) Built:

Occupancy: Assembly · Commercial · Emer. Services ☐ Historic ☐ Shelter
Industrial · Office · (School) ☐ Government
Utility · Warehouse · Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F **DNK**
Hard Rock · Avg Rock · Dense Soil · Stiff Soil · Soft Soil · Poor Soil · *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Steel col's w/ wood decking
• Concrete cols in basement
Lat: 36.117892 Long. -89.259930

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	(-0.1)	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.1 ≥ 0.5)

EXTENT OF REVIEW
Exterior: ☐ Partial ☒ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed? ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Miles Holland

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 16, Building 12 Photographs

Exterior, Ceiling Heights Consistent

Interior, Masonry and Steel Exposed

Interior, Concrete Pillars in Half-Basement Level

PHOTOGRAPH
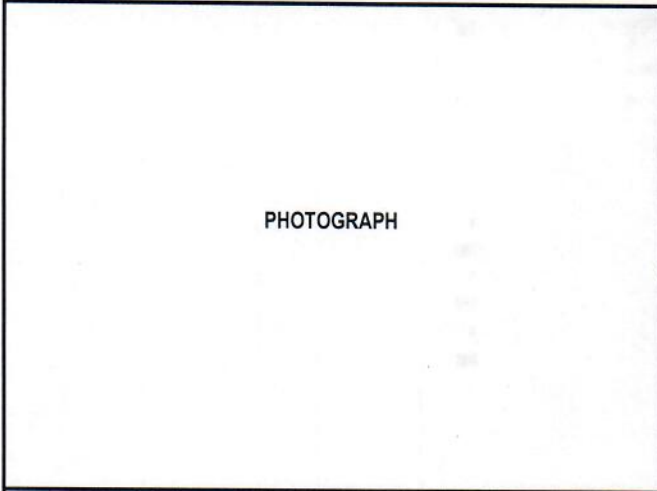
Address: 136 Hwy 45S
Bradford, TN   Zip: 38316
Other Identifiers: 17
Building Name:
Use: Elementary School
Latitude: 36.074899   Longitude: -88.813244
S_S: 1.097 S_1: 0.379
Screener(s): CM   Date/Time: 5/21 @ 9AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1950 ☒ EST
Total Floor Area (sq. ft.): 13420   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1955, 1975, 2014

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

gym

(3)   (2)   (1)

south (4)

COMMENTS:
- Plywood ceiling (flexible diaphragm)
- no beams or cols identified
- Likely URM
- pounding potential w/ building (2)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.6 ≥ 0.2

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

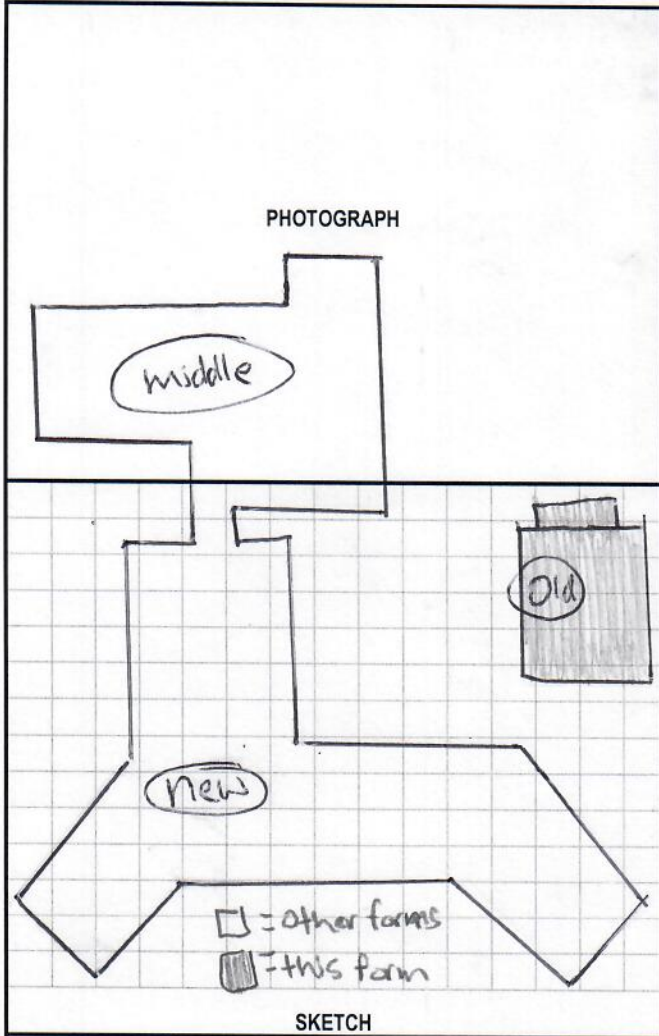Structure 17, Building 13 Photographs

Exterior, Numerous Filled-In Windows   Interior, Joint Between This and New Addition

Interior, Openings Filled in with Bricks

PHOTOGRAPH	

Address: 136 Hwy 45 S
Bradford, TN **Zip:** 38316
Other Identifiers: 18
Building Name:
Use: Elementary School
Latitude: 36.075303 **Longitude:** -88.813324
S_S: 1.097 **S_1:** 0.379
Screener(s): CM **Date/Time:** 5/21 @ 9AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1955 ☐ EST
Total Floor Area (sq. ft.): 7800 **Code Year:** ——
Additions: ☐ None ☒ Yes, Year(s) Built: 1950, 1975, 2014
Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office School⊘ ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*
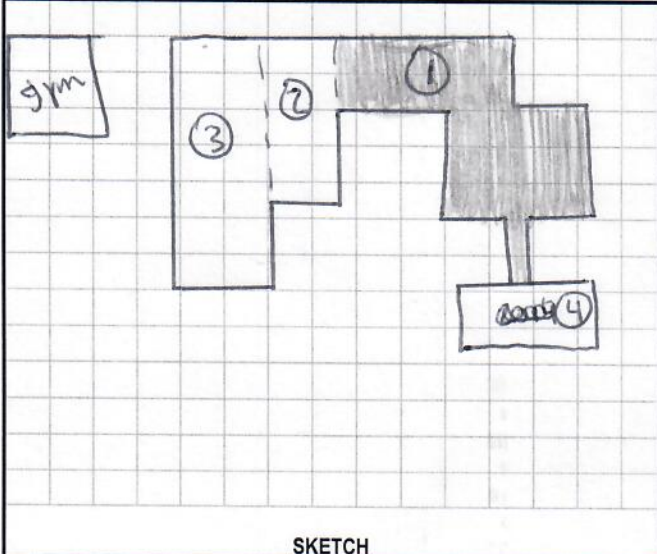
Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building
Irregularities: ☒ Vertical (type/severity) split level—mod
☐ Plan (type)
Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

gym ③ ④ ①
Sloped roof here
④
☐ = other forms
▨ = this form

COMMENTS:
- Cafeteria here
- Steel sloped ceiling over cafeteria
- Steel beams & cols, masonry
- Would consider pounding, but not an end building

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	(1.7)	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	(-0.5)	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	(-0.2)	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.0 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 18, Building 13 Photographs

Interior, Connection Between This Structure and Addition
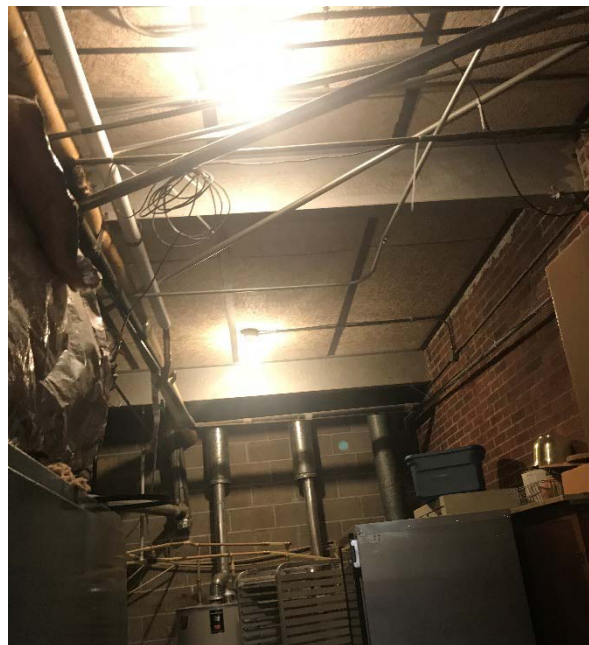
Interior, Mechanical Room, Exposed Ceiling

PHOTOGRAPH	

Address: 136 Hwy 45 S
Bradford, TN **Zip:** 38136
Other Identifiers: 19
Building Name:
Use: Elementary School
Latitude: 36.075498 **Longitude:** -88.813344
S_S: 1.097 **S_1:** 0.379
Screener(s): CM **Date/Time:** 5/21 @ 9AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1975 ☐ EST
Total Floor Area (sq. ft.): 7800 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1930, 1955, 2014

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office School (circled) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A Hard Rock ☐B Avg Rock ☒C Dense Soil ☐D Stiff Soil ☐E Soft Soil ☐F Poor Soil DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
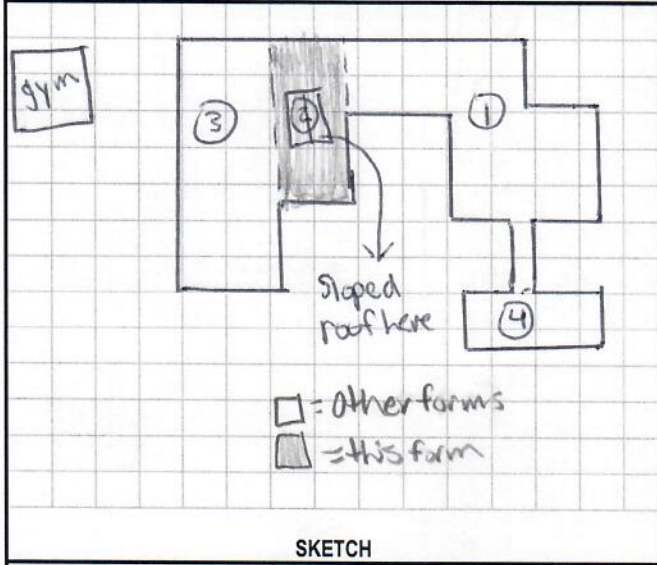
Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ___ ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other: ___

COMMENTS:
• pounding potential

SKETCH

gym

② ① ③ ④

☐ = other forms
▨ = this form

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.5 > 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ___ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 19, Building 13 Photographs

Connection Between this Portion (Left) and Older Portion, Visible Cracking

Exterior, Connection to Older Portion

PHOTOGRAPH	
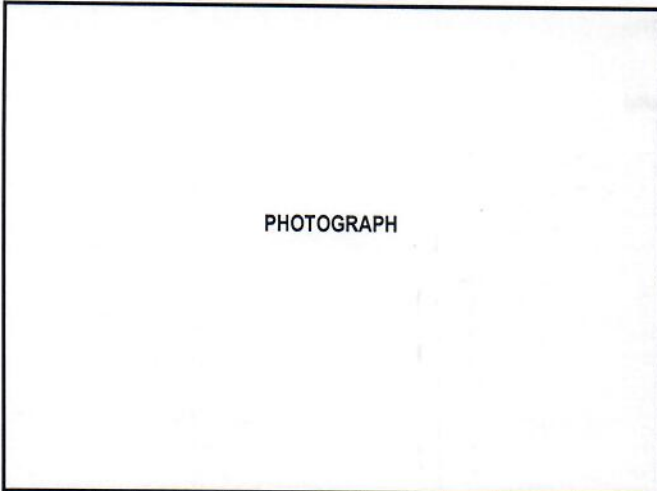
Address: 136 HWY 45 S, Bradford, TN   **Zip:** 38316
Other Identifiers: 20
Building Name:
Use: Elementary School
Latitude: 36.075038   **Longitude:** -88.815780
S_s: 1.097   **S_1:** 0.379
Screener(s): CM   **Date/Time:** 5/21 @ 9AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2014 ☐ EST
Total Floor Area (sq. ft.): 13,600   **Code Year:**
Additions: ☐ None   ☒ Yes, Year(s) Built: 1950, 1955, 2014

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock | Avg Rock | Dense Soil | Stiff Soil | Soft Soil | Poor Soil | If DNK, assume Type D.
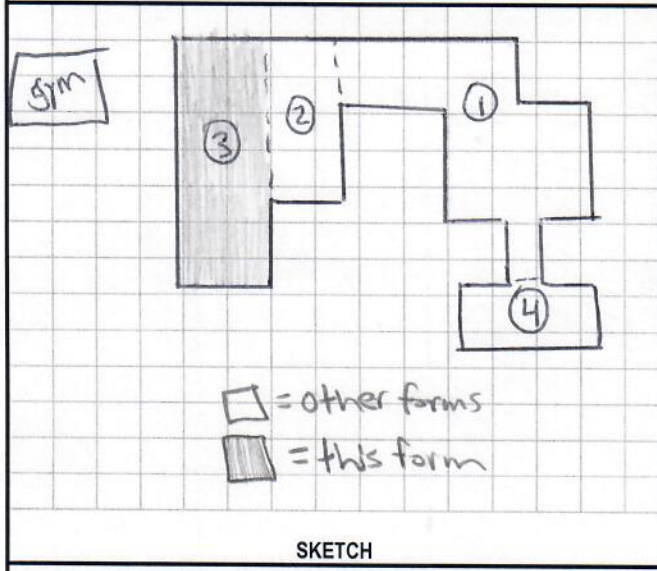
Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)   ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

(sketch with regions labeled: gym, 1, 2, 3, 4)
☐ = other forms
▨ = this form

COMMENTS:
• Reinf. walls
• conc. plank ceilings

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	(1.7)	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	(2.1)	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 3.8 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 20, Building 13 Photographs

Exterior

TORNADO SAFE ROOM

250 mph safe room design wind speed (3-second gust)
Missile Impact Resistance:
15 lbs. 2x4@ 100 mph (vertical)
15 lbs. 2x4@ 67 mph (horizontal)
Safe room manufacturer/builder Lashlee-Rich, Inc.

"Tornado Safe Room" Notice

Exterior of Addition

PHOTOGRAPH	

Address: 136 HWY 45 S.
Bradford, TN   Zip: 38136
Other Identifiers: 21
Building Name:
Use: Elementary school gym
Latitude: 36.0752   **Longitude:** -88.813335
S_s: 1.097   **S_1:** 0.379
Screener(s): CM   **Date/Time:** 5/21 @ 9AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1985 ☐ EST
Total Floor Area (sq. ft.): 4500 sf   **Code Year:**
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A   ☐ B   ☒ C   ☐ D   ☐ E   ☐ F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/(No)/DNK Surf. Rupt.: Yes/No/(DNK)
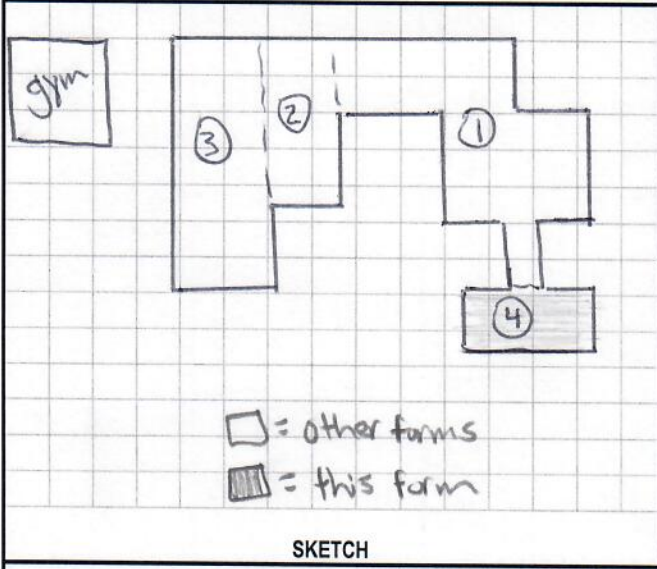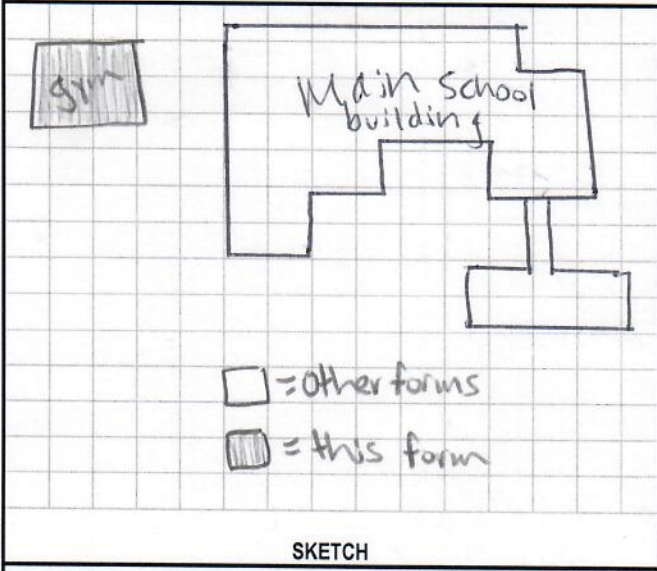
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

☐ = Other forms
▨ = this form

gym

Main school building

COMMENTS:
· Steel beams + cols exposed
· Masonry + metal wall:
exposed I-beam ⎫ steel
⎬ masonry

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	(2.6)	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.8 ≥ 0.6

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 21, Building 14 Photographs
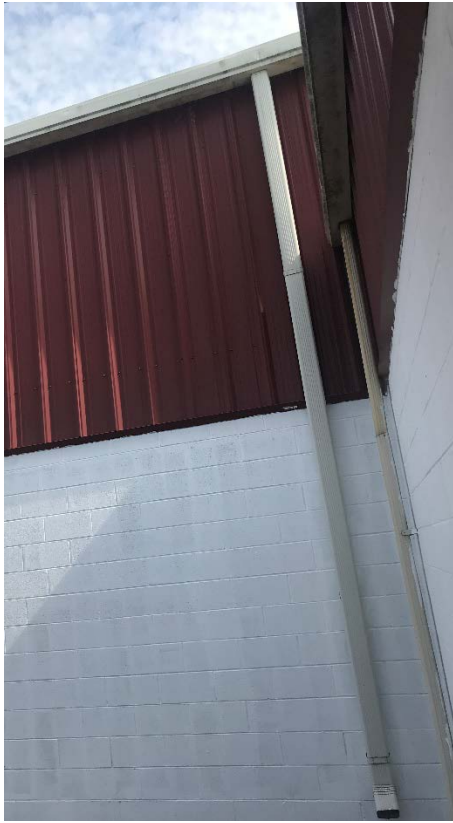
Exterior, Half Masonry Half Steel Wall

Interior, Exposed Wall

Interior Gym/Theater, Wall and Ceiling Exposed

PHOTOGRAPH	**Address:** 136 Old Hwy 45 South Bradford, TN **Zip:** 38316
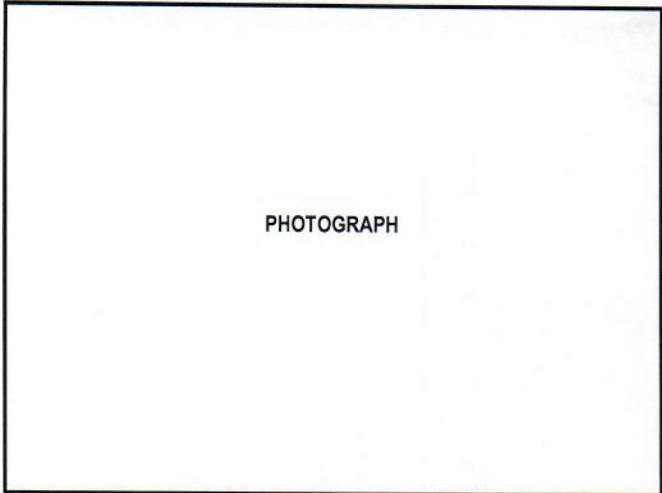
Address: 136 Old Hwy 45 South Bradford, TN   **Zip:** 38316
Other Identifiers: 22
Building Name:
Use: High School
Latitude: 36.075435   **Longitude:** -88.814458
S_S: 1.095   **S_1:** 0.379
Screener(s): CM   **Date/Time:** 5/21 @ 9:30AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1981 ☐ EST
Total Floor Area (sq. ft.): 27,200   **Code Year:** ———
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☒ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

N, +S   ▧ = this form   ☐ = other forms

gym

awning

COMMENTS:
- RM
- Flex. diaphragm
- Re-entrant corner w/ connected building

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.2 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm
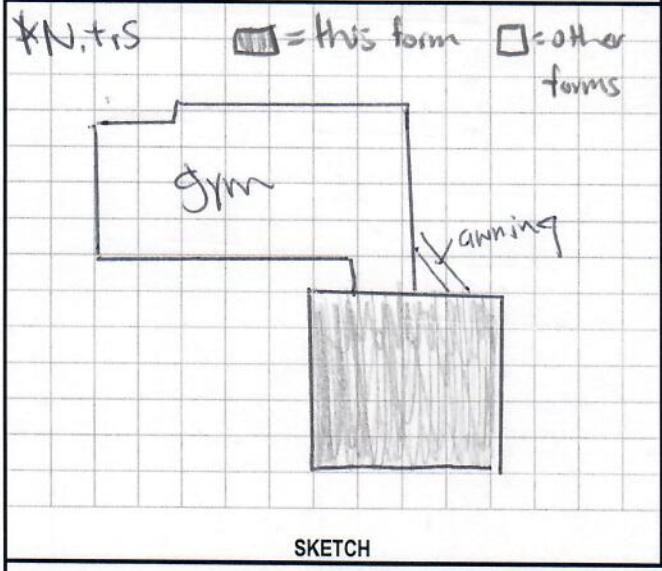
Structure 22, Building 16 Photographs

Exterior, Side of Building

Exterior, Canopy

Interior, Ceiling and Walls Exposed

PHOTOGRAPH	

Address: 136 Old Hwy 45 S
Bradford, TN   **Zip:** 38316
Other Identifiers: 23
Building Name:
Use: High school gym
Latitude: 36.075907   **Longitude:** -88.814987
S_S: 1.095 S_1: 0.379
Screener(s): CM   **Date/Time:** 5/21 @ 930AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1981 ☐ EST
Total Floor Area (sq. ft.): 9775   **Code Year:** —
Additions: ☐ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Avg Dense Stiff Soft Poor   If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
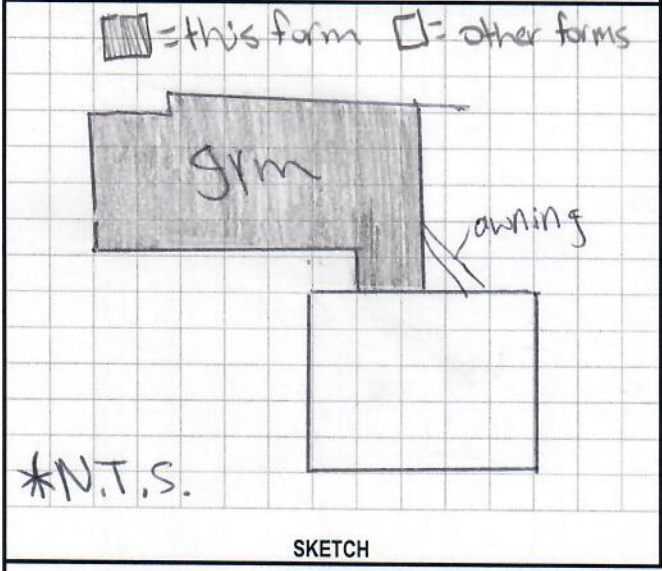
Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
*Re-entrant corner w/ other building

SKETCH

=this form ☐= other forms

gym

awning

*N.T.S.

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(-0.5)	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.2) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 23, Building 15 Photographs

Interior Walls, Masonry

Interior, Mechanical Room, Exposed Ceiling and Walls

Interior, Connection to Addition

PHOTOGRAPH	

Address: 136 Old Hwy 45 S.
Bradford, TN **Zip:** 38316
Other Identifiers: 24
Building Name:
Use: High School Ag. Room
Latitude: 36.076203 **Longitude:** -88.814458
Ss: 1.095 **S1:** 0.379
Screener(s): CM **Date/Time:** 5/21 @ 930AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2000 ☐ EST
Total Floor Area (sq. ft.): 4200 **Code Year:** ——
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/No/(DNK) Surf. Rupt.: Yes/No/(DNK)
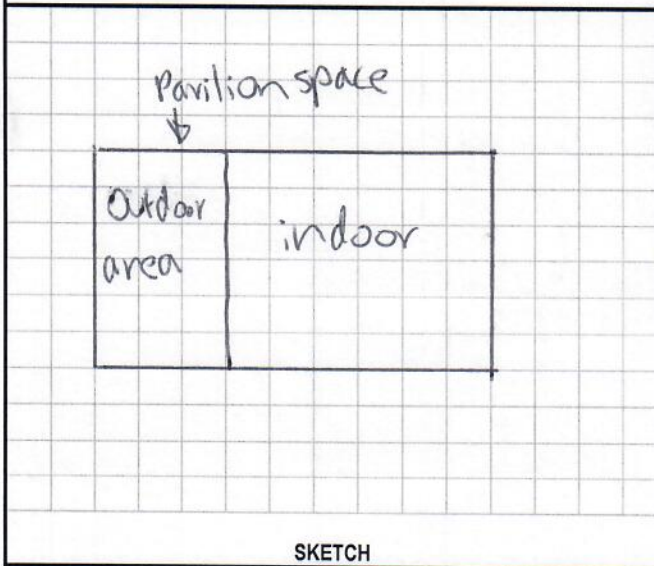
Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
* Manufactured building /garage

SKETCH

Pavilion space
↓
Outdoor area | indoor

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.6	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 3.7 ≥ 0.6

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source: _____
Geologic Hazards Source: _____
Contact Person: Larry

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = *Estimated or unreliable data* **OR** **DNK** = *Do Not Know*

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 24, Building 15 Photographs

Interior, Gymnasium, Walls and Ceiling Exposed

PHOTOGRAPH	**Address:** 1100 S. Miles Ave. Union City, TN **Zip:** 38261
	Other Identifiers: 25
	Building Name:
	Use: Elementary school
	Latitude: 36.415586 **Longitude:** -89.039859
	S_S: 1.484 S_1: 0.519
	Screener(s): CM **Date/Time:** 5/24 @ 11AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2000 ☐ EST

Total Floor Area (sq. ft.): 101,000 **Code Year:**

Additions: ☐ None ☒ Yes, Year(s) Built: re-built in 2000

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office School ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

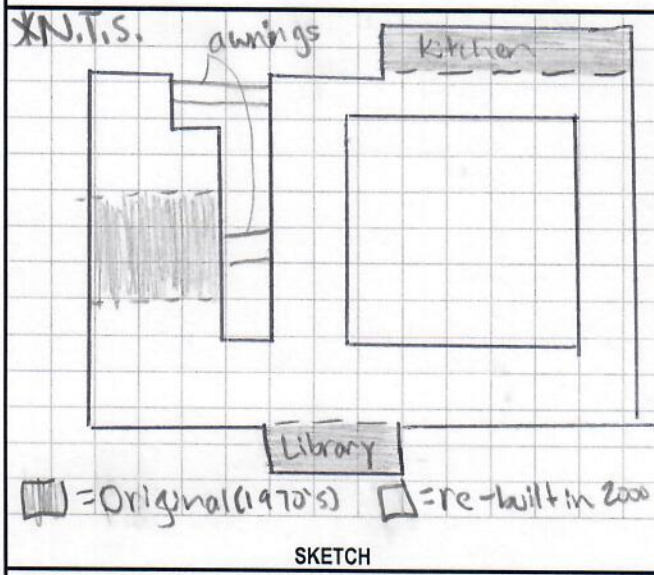**Geologic Hazards:** Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) Diaphragm opening

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

X N.T.S. awnings kitchen
Library
☐ = Original (1970's) ☐ = re-built in 2000

COMMENTS:
• RM

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	(2.1)	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.1) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chuck Reedy

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 25, Building 17 Photographs

Exterior, Courtyard

Interior, Masonry Walls

Interior, Gymnasium, Exposed Walls and Ceiling

PHOTOGRAPH

SKETCH

☐ Additional sketches or comments on separate page
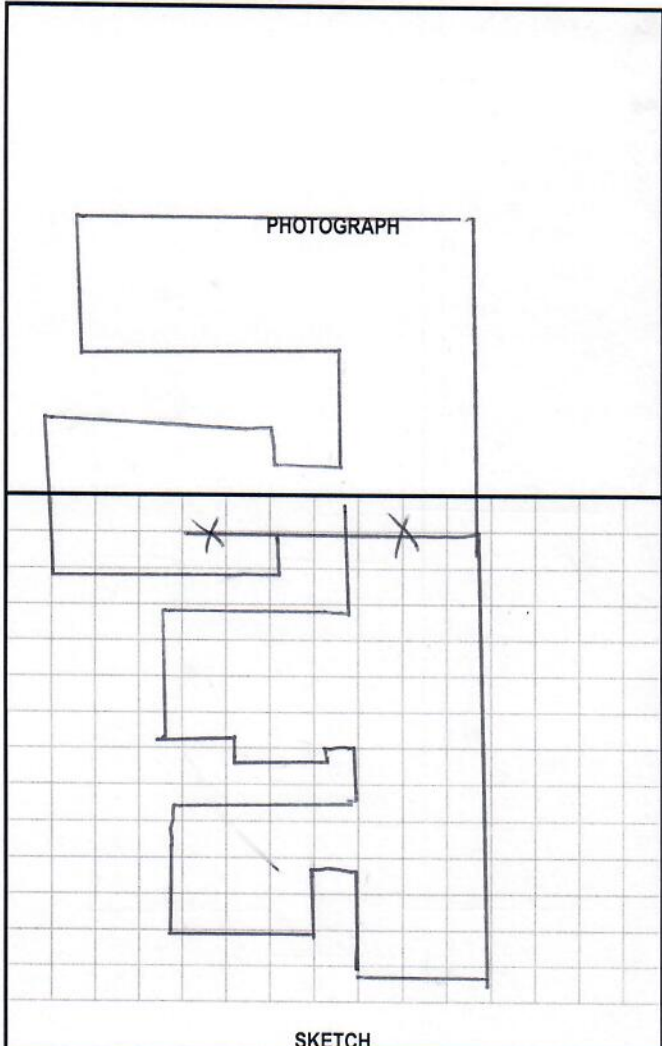
Address: 1111 High School Dr. Union City, TN **Zip:** 38261

Other Identifiers: 26

Building Name:

Use: Middle School

Latitude: 36.418647 **Longitude:** -89.044852

S$_S$: 1.444 **S$_1$:** 0.523

Screener(s): CM **Date/Time:** 5/24 @ 10AM

No. Stories: Above Grade: 1 Below Grade: 1 **Year Built:** 1951 ☐ EST

Total Floor Area (sq. ft.): 53,800 **Code Year:**

Additions: ☐ None ☒ Yes, Year(s) Built: Unknown

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/(DNK) Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/(DNK)

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Steel ceiling (flex. diaphragm)
• RM
• Wood ceiling in areas

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chuck Reedy

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
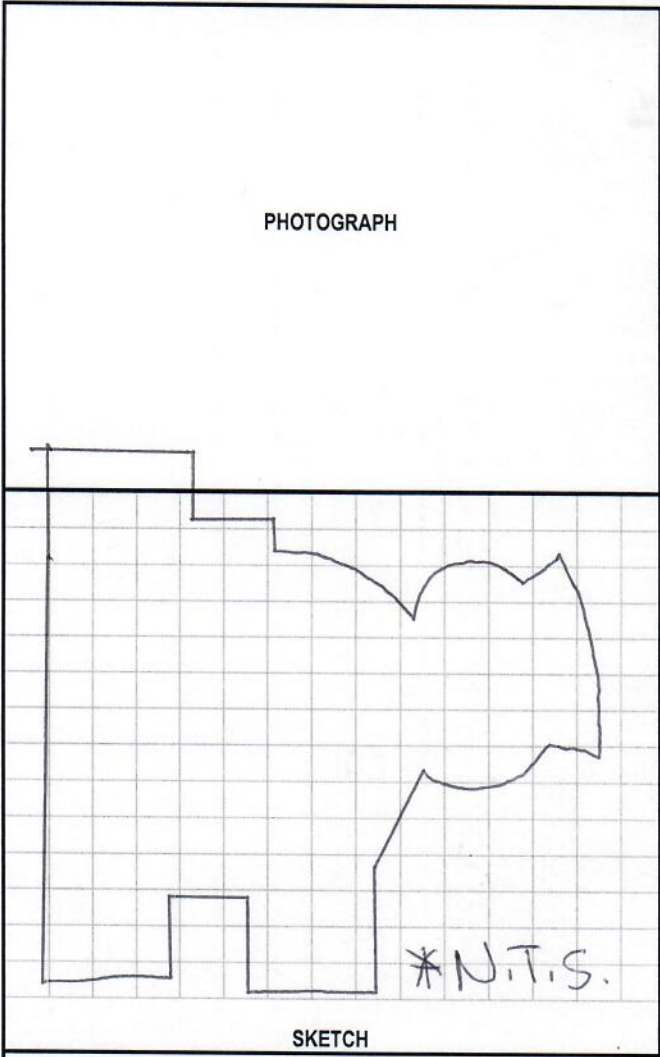BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 26, Building 18 Photographs

Front Left Exterior, Primary Hallway That Wings Come From, All Sides Similar

Front Right Exterior, Primary Hallway That Wings Come From, All Sides Similar

PHOTOGRAPH		

Address: 1305 E. High School Dr.
Zip: 38261
Other Identifiers: 27
Building Name:
Use: High School
Latitude: 36.417909 **Longitude:** -89.043467
S_S: 1.491 **S_1:** 0.522
Screener(s): CM **Date/Time:** 5/24 @ 1030 AM

No. Stories: Above Grade: 2 Below Grade: 1 **Year Built:** 1972 ☒ EST
Total Floor Area (sq. ft.): 107,000 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) OOP setback/severe
☒ Plan (type) re-entrant corner b non // sys.

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
- Also sloping site/severe
- Conc cols w/ masonry infill
- Arena-type gym

SKETCH

*N.T.S.

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chuck Reedy

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 27, Building 19 Photographs

Out-of-Plane Setback

Out-of-Plane Setback
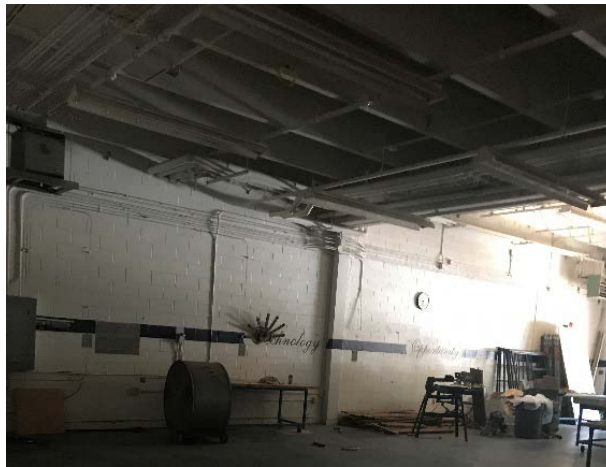
Concrete Columns Exposed

Split Level

PHOTOGRAPH

SKETCH
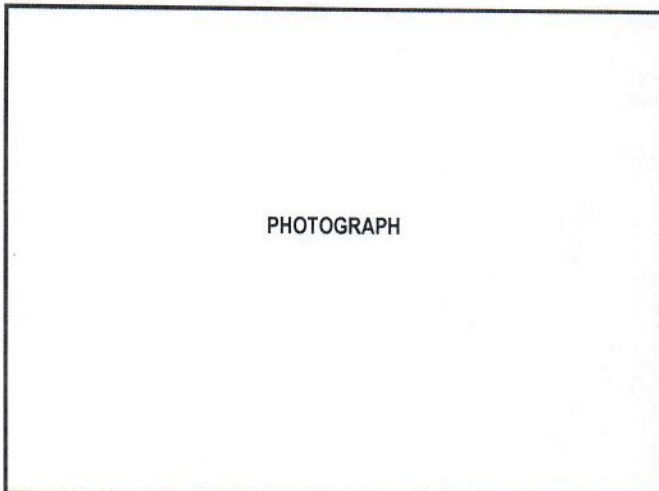
Address: 1300 Middle School St.
Medina, TN   Zip: 38355
Other Identifiers: 28
Building Name:
Use: Middle School
Latitude: 35.824070   Longitude: -88.804151
S_S: 0.924 S_1: 0.323
Screener(s): CM   Date/Time: 5/30 @ 9:30 AM

No. Stories: Above Grade: 1   Below Grade: 1   Year Built: 2000 ☐ EST
Total Floor Area (sq. ft.): 105,850   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• Tilt Wall Construction
• Reinf. conc.

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	(1.8)	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	(-0.6)	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	(-0.8)	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	(2.1)	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.5) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm
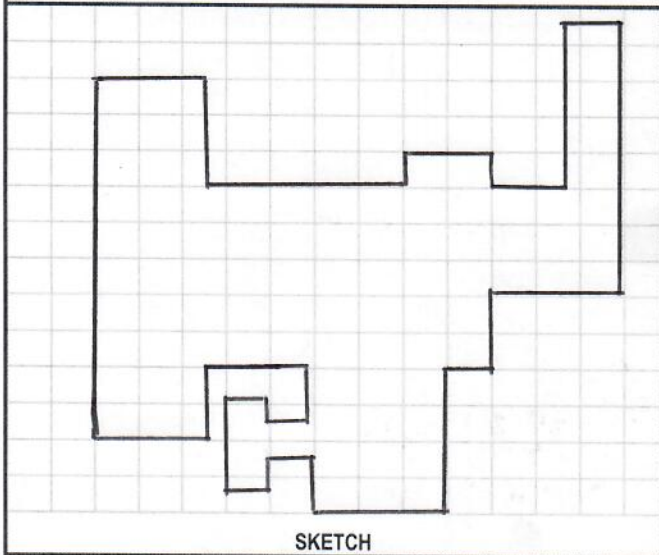
Structure 28, Building 20 Photographs

Exterior View

Tilt-Wall

PHOTOGRAPH	

Address: 227 N. 2nd St.
Medina, TN   **Zip:** 38355
Other Identifiers: 29
Building Name:
Use: Elementary School
Latitude: 35.803856   **Longitude:** -88.775062
Ss: 0.889   **S1:** 0.313
Screener(s): CM   **Date/Time:** 5/30 @ 10 AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2018 ☐ EST
Total Floor Area (sq. ft.): 13,350   **Code Year:**
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   **DNK**
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
- Reinforced Masonry

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	(-0.7)	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	(2.1)	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 3.0 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☐ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☒ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data   **OR**   **DNK** = Do Not Know

Legend:			
MRF = Moment-resisting frame	RC = Reinforced concrete	URM INF = Unreinforced masonry infill	MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame	SW = Shear wall	TU = Tilt up	LM = Light metal RD = Rigid diaphragm

Structure 29, Building 21 Photographs

Exterior View, Apparent Wall System

Interior, Reinforced Masonry

PHOTOGRAPH

SKETCH

☐ Additional sketches or comments on separate page
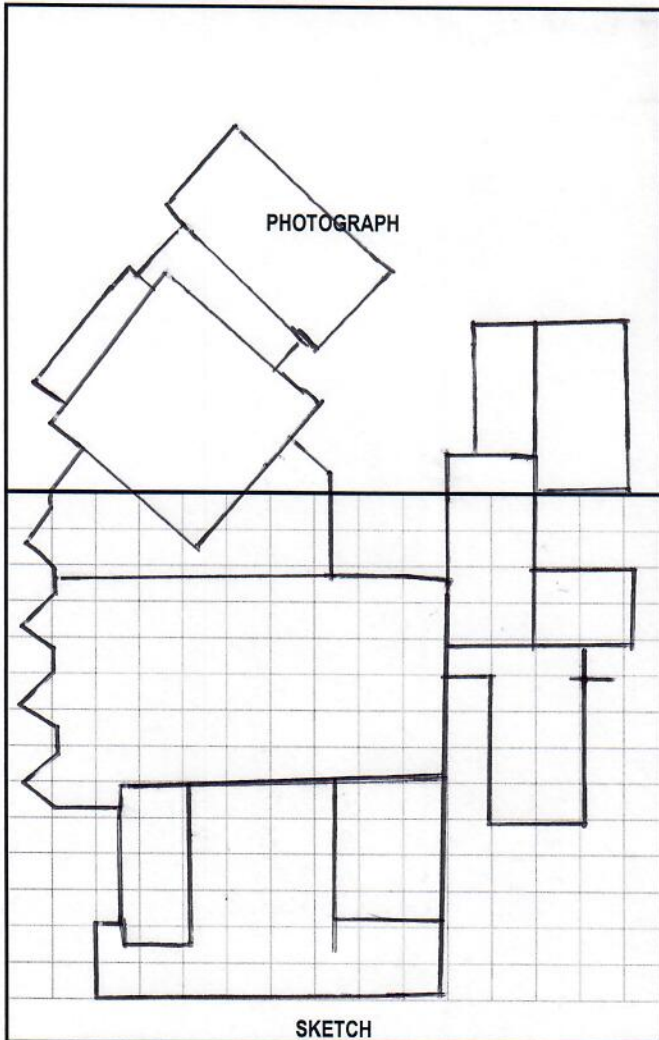
Address: 100 Hornet Dr.
Medina, TN   **Zip:** 38355
Other Identifiers: 30
Building Name:
Use: High School
Latitude: 35.820230   **Longitude:** -88.803833
Ss: 0.921   **S1:** 0.322
Screener(s): CM   **Date/Time:** 5/30@9AM

No. Stories: Above Grade: 2   Below Grade: 0   **Year Built:** 2007 ☐ EST
Total Floor Area (sq. ft.): 160,800   **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: Continuously

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F ☐ DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split-level/mod, OOS/severe
☒ Plan (type) re-entrant corner, non-parallel sys

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
° tilt-wall construction

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	(1.8)	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	(-1.0)	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	(-0.6)	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	(-0.8)	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	(2.1)	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.5 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 30, Building 22 Photographs

Exterior View

Interior, Exposed Ceiling in Gymnasium

Exterior, Split Level, Out-of-Plane Setback

PHOTOGRAPH	
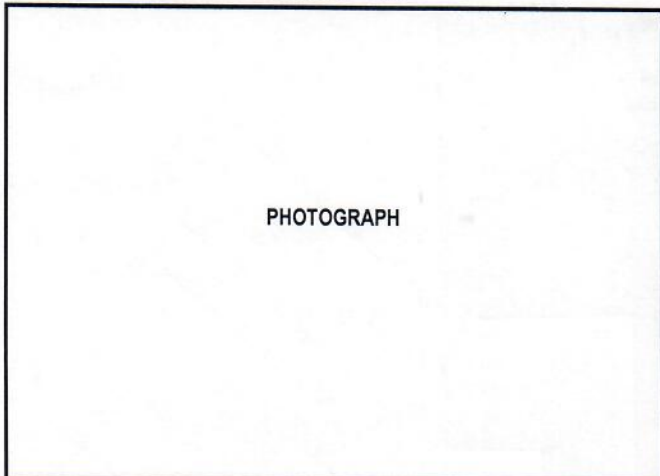
Address: 84 TN-188
Trenton, TN   Zip: 38382
Other Identifiers: 31
Building Name:
Use: Elementary School
Latitude: 35.983928   Longitude: -89.124160
S_s: 1.511 S_1: 0.532
Screener(s): CM   Date/Time: 5/30 @ 11:30 AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1940 ☐ EST
Total Floor Area (sq. ft.): 17,225   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1996

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

(sketch: "this form", "other form", "addition")

COMMENTS:
• Split level @ gym
• masonry; sparse HSS cols
• pounding w/ addition

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.5) 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☒ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm
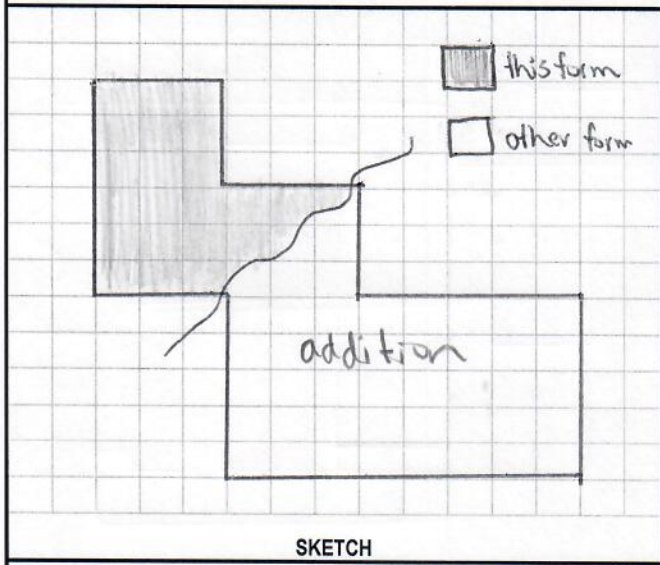
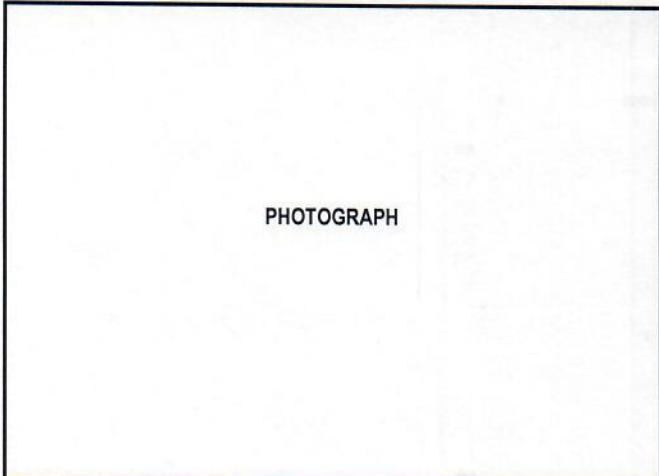Structure 31, Building 23 Photographs

Exterior, Joint between Structures 31 and 32

Gymnasium

Interior, Damage to Masonry

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
VERY HIGH Seismicity

Address: 84 TN -188
Trenton, TN   **Zip:** 38382
Other Identifiers: 32
Building Name:
Use: Elementary School
Latitude: 35.984219   **Longitude:** -89.123791
S_S: 1.511   **S_1:** 0.532
Screener(s): CM   **Date/Time:** 5/30 @ 1130 AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1996 ☐ EST
Total Floor Area (sq. ft.): 14,400   **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1940

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
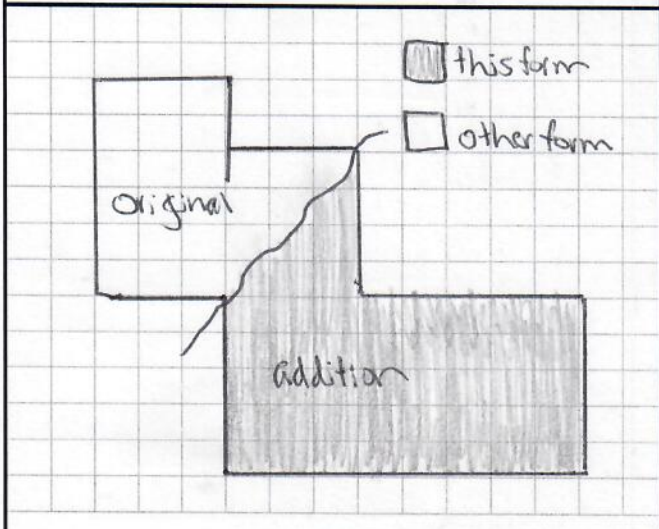
Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other: _____

COMMENTS:
'Reinf. Masonry

PHOTOGRAPH

SKETCH

this form
other form
Original
addition

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.7 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
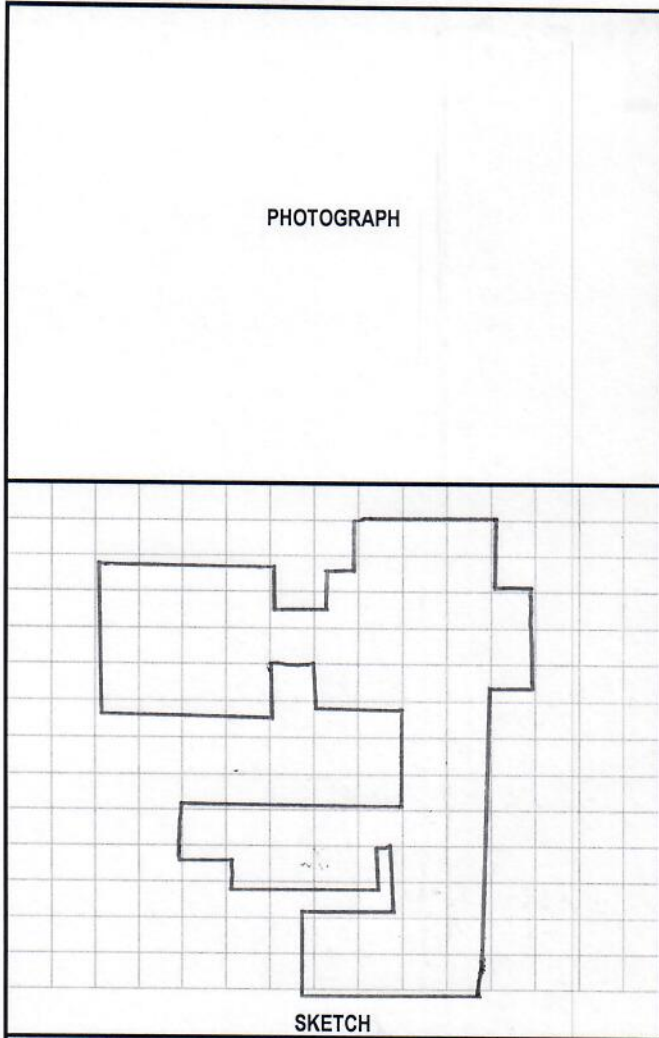FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 32, Building 23 Photographs

Exterior, Joint between Structures 31 and 32

Previous Exterior of Structure 31, Column Added to Support Addition of Structure 32

PHOTOGRAPH

Address: 56 Nebo Yorkville Rd.
Yorkville, TN   **Zip:** 38389
Other Identifiers: 33
Building Name:
Use: Elementary School
Latitude: 36.092742   **Longitude:** -89.119842
S$_S$: 1.706   **S$_1$:** 0.602
Screener(s): CM   **Date/Time:** 5/30 11AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1940 ☒ EST
Total Floor Area (sq. ft.): 32,550   **Code Year:**
Additions: ☐ None   ☒ Yes, Year(s) Built: 1980's

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F   **DNK**
Hard   Avg   Dense   Stiff   Soft   Poor   *If DNK, assume Type D.*
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: N/A   ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Sloping site/mod
☒ Plan (type) re-entrant corner

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
- masonry, wooden ceiling
- steel columns
- sloping site

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S$_{L1}$

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	(1.2)	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V$_{L1}$		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V$_{L1}$		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	(-0.3)	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P$_{L1}$		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	(-0.4)	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	(-0.1)	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S$_{MIN}$		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, S$_{L1}$ ≥ S$_{MIN}$: 0.4 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S$_{L2}$ _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A
Detailed Structural Evaluation?   N/A
☒ Pounding potential (unless S$_{L2}$ > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present N/A
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 33, Building 24 Photographs

Exterior

Interior, Encased Steel Columns

Interior, Sloping Site

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

PHOTOGRAPH	

Address: 108 W. Knox St.
Rutherford, TN **Zip:** 38369
Other Identifiers: 34
Building Name:
Use: Elementary School
Latitude: 36.129099 **Longitude:** -88.986899
Ss: 1.401 **S1:** 0.490
Screener(s): CM **Date/Time:** 5/30 10:30AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1940 ☐ EST
Total Floor Area (sq. ft.): 21,400 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Masonry, reinforced

SKETCH

addition

this form
other form

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(0.5)	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.5) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

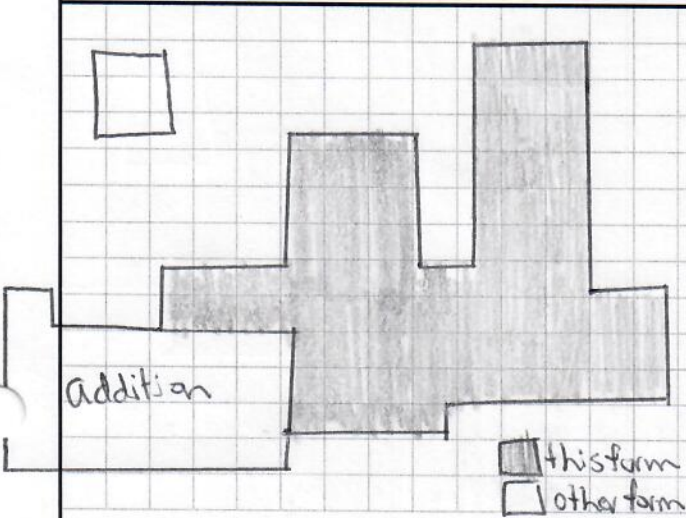Structure 34, Building 25 Photographs

Exterior

Exterior

PHOTOGRAPH	
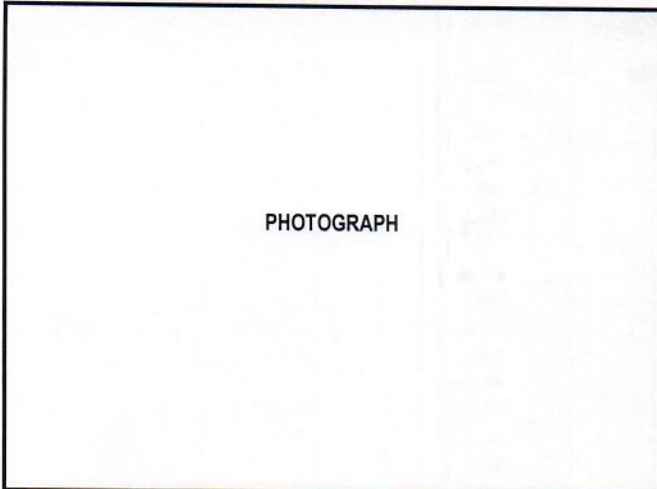
Address: 108 N. Knox St.
Rutherford, TN   **Zip:** 38369
Other Identifiers: 35
Building Name:
Use: Elementary School
Latitude: 36.128848   **Longitude:** -88.987626
Ss: 1.401   **S₁:** 0.490
Screener(s): CM   **Date/Time:** 5/30 @ 1030AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1980 ☒ EST
Total Floor Area (sq. ft.): 14,400   **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1940

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A   ☐ B   ☒ C   ☐ D   ☐ E   ☐ F   **DNK**
Hard   Avg   Dense   Stiff   Soft   Poor   *If DNK, assume Type D.*
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS: masonry

SKETCH

(sketch showing "Original" and "Addition" areas; legend: ▦ this form, ☐ other form)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_L1

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.5	-0.5	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(-0.5)	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.2) 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data   OR   DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 35, Building 25 Photographs

Masonry, Visibly Aged

Updated Section (Covered Older Large Window Opening)

PHOTOGRAPH

Address: 108 W. Knox St. Rutherford, TN	**Zip:** 38369

Other Identifiers: 36
Building Name:
Use: Elementary School
Latitude: 36.12915   **Longitude:** -88.987566
Ss: 1.401   **S₁:** 0.490
Screener(s): CM   **Date/Time:** 5/30 00 10:30 AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2000 ☐ EST
Total Floor Area (sq. ft.): 1,500   **Code Year:**
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   ⊙ School   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A   ☐ B   ☒ C   ☐ D   ☐ E   ☐ F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK
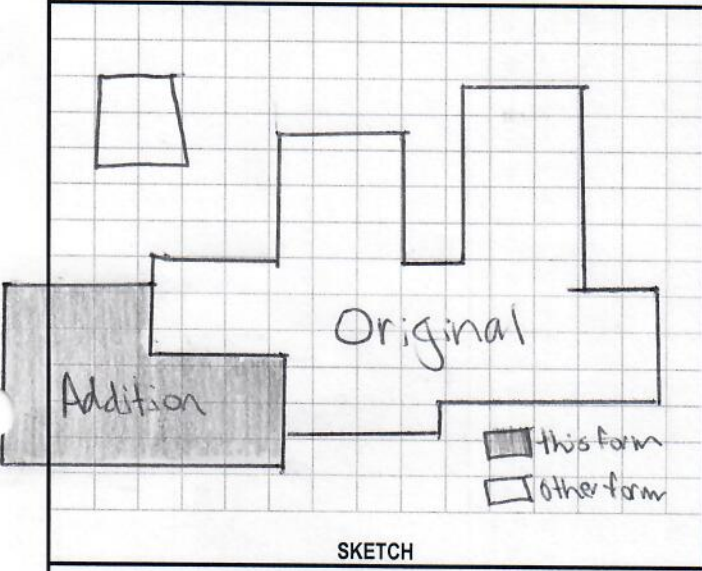
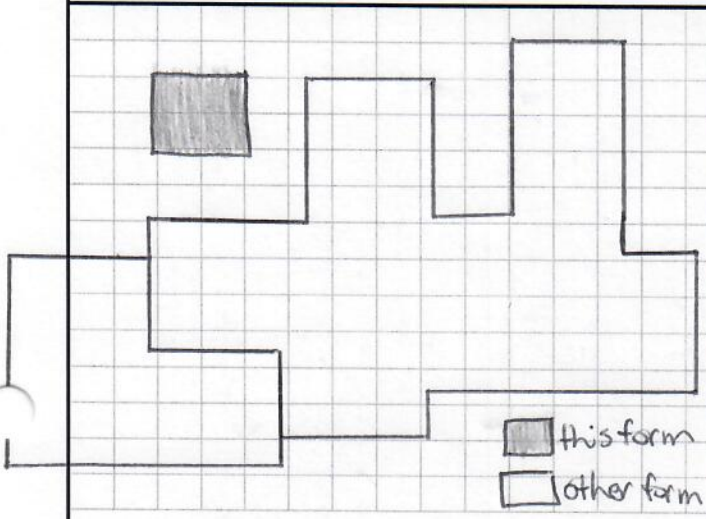**Adjacency:** ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
- Masonry inside
- Brick facade
- Pillars (Probably Steel)

☐ Additional sketches or comments on separate page

SKETCH

☒ this form
☐ other form

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.7 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 36, Building 26 Photographs

Interior, Steel Encased Columns (one-room building)

PHOTOGRAPH	

Address: 108 W. Knox St.
Rutherford, TN   Zip: 38369
Other Identifiers: 37
Building Name:
Use: Elementary School
Latitude: 36.129346   Longitude: -88.987883
S_S: 1.401 S_1: 0.490
Screener(s): CM   Date/Time: 5/30 10:30AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 2000 ☐ EST
Total Floor Area (sq. ft.): 12,800   Code Year:
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building
Irregularities: ☒ Vertical (type/severity) Split level, mod
☐ Plan (type)

Exterior Falling ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets ☐ Appendages
☐ Other:

SKETCH

COMMENTS:
· Gym
· steel frame, steel truss ceiling

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.2 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 37, Building 27 Photographs

Gymnasium, Steel Truss System at Roof

Steel Columns Exposed

PHOTOGRAPH	

Address: 322 E. College St. Dyer, TN **Zip:** 38330
Other Identifiers: 38
Building Name:
Use: Middle School
Latitude: 36069692 **Longitude:** -88.988583
S_S: 1.356 **S_1:** 0.475
Screener(s): CM **Date/Time:** 7/24 @ 10:30 AM

No. Stories: Above Grade: 1 Below Grade: 1 **Year Built:** 1939 ☐ EST
Total Floor Area (sq. ft.): 22,850 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1996

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level & mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

this form
grm
Another form
Addition (Foyer)

COMMENTS:
•Masonry, unreinforced

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

(URM column circled values: Basic Score 1.0, Moderate Vertical Irregularity -0.4, Plan Irregularity -0.4, Pre-Code 0.0)

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.2 = 0.2

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 38, Building 28 Photographs

Interior, Aged Masonry

Exterior, Structure 38 Right and 39 Left

PHOTOGRAPH	
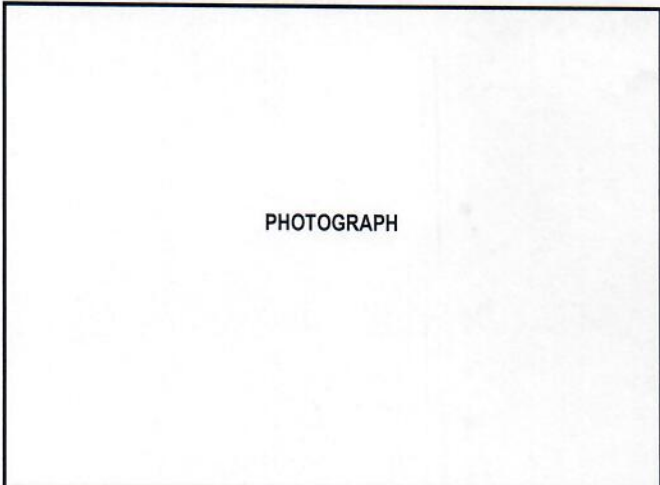
Address: 322 E. College St. Dyer, TN   Zip: 38330
Other Identifiers: 39
Building Name:
Use: Middle School
Latitude: 36.069408   Longitude: -88.988728
S_S: 1.356 S_1: 0.475
Screener(s): CM   Date/Time: 7/24 @ 10:30 AM

No. Stories: Above Grade: 1   Below Grade: 1   Year Built: 1996 ☐ EST
Total Floor Area (sq. ft.): 27,300   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1939

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

gym   ☐ this form
☐ other form

original

Addition (Foyer)

COMMENTS:
'Reinforced Masonry

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	(2.1)	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.1) = 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm
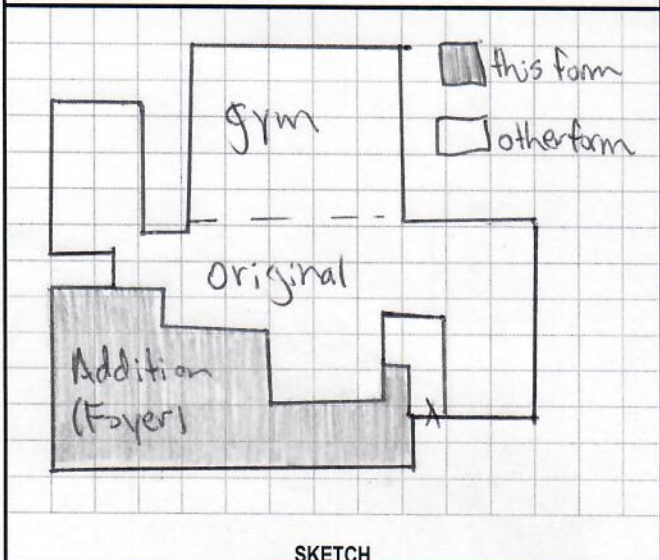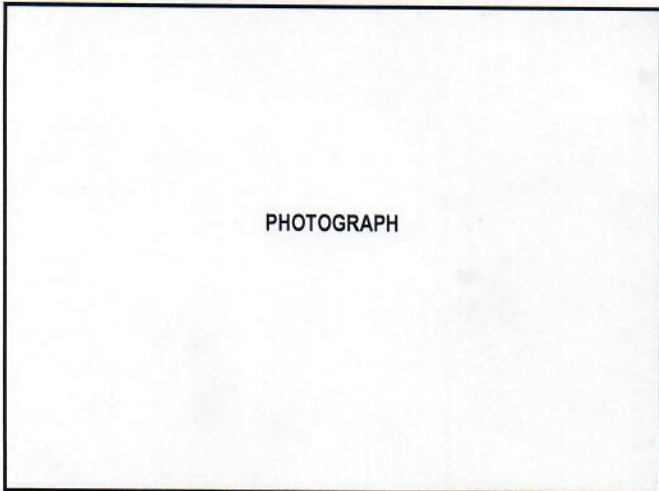
Structure 39, Building 28 Photographs

Interior, Joint between Structures 38 and 39

Exterior, Structure 38 Right and 39 Left

PHOTOGRAPH	

Address: 322 E. College St.
Dyer, TN   Zip: 38330
Other Identifiers: 40
Building Name:
Use: Elementary/Primary School
Latitude: 36.068942   Longitude: -88.988267
S_S: 1.356 S_1: 0.475
Screener(s): CM   Date/Time: 7/24 @ 10:30AM

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1953 ☐ EST
Total Floor Area (sq. ft.): 23,900   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 2015

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

Original
tornado shelter 2015
canopy only
☐ this form
☐ other form

COMMENTS:
• Masonry unreinforced

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	(1.0)	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	(-0.4)	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	(-0.4)	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	(0.0)	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.2 ≥ 0.2

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 40, Building 29 Photographs

Exterior, Gym @ Left End, Not Pictured

Exterior, Corner of Structure

Plan View, Structure 40 is L-shape and Green Roof Portion

Structure 41 has a Hallway and Breezeway Connection to Main Building

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

PHOTOGRAPH	

Address: 322 E. College St.
Dyer, TN   **Zip:** 38330
Other Identifiers: 41
Building Name:
Use: Primary/Elementary School
Latitude: 36.068°762   **Longitude:** -88.988134
S_S: 1.356   **S_1:** 0.475
Screener(s): CM   **Date/Time:** 7/24 @ 10:30AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2015 ☐ EST
Total Floor Area (sq. ft.): 3000   **Code Year:**
Additions: ☐ None   ☒ Yes; Year(s) Built: 1953

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☒ Shelter
Industrial   Office   School   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   **DNK**
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building
Irregularities: ☐ Vertical (type/severity)   ☐ Plan (type)
Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer   ☐ Parapets   ☐ Appendages   ☐ Other:

COMMENTS:
" Masonry

SKETCH
Original
Tornado Shelter
☒ this form
☐ Other form

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	(2.1)	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.8 ± 0.3)

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 41, Building 29 Photographs

Plan View, Structure 40 is L-shape and Green Roof Portion

Structure 41 has a Hallway and Breezeway Connection to Main Building

PHOTOGRAPH	

Address: 130 Trenton Hwy
Dyer, TN   Zip: 38330
Other Identifiers: 142
Building Name:
Use: High School
Latitude: 36.024991   Longitude: -88.966588
S_S: S_1:
Screener(s):   Date/Time:
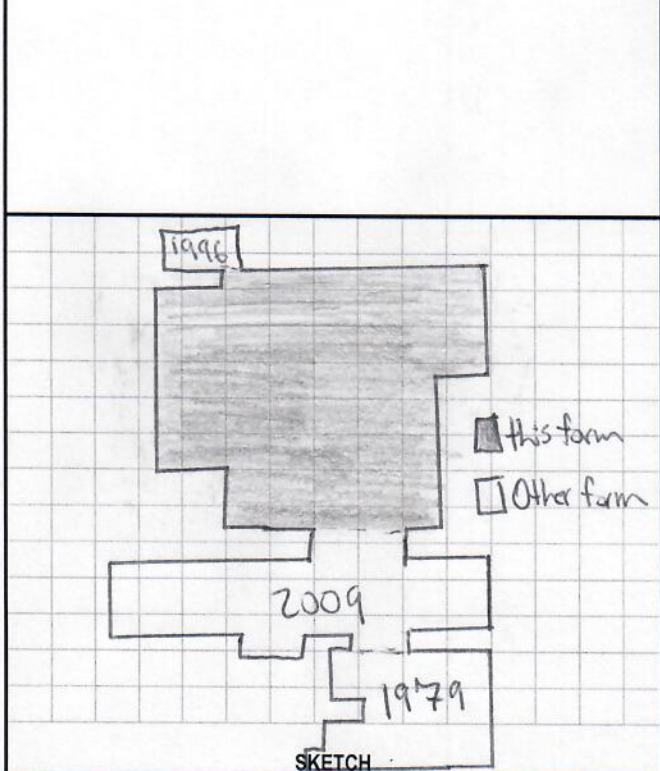
No. Stories: Above Grade: Below Grade: 1   Year Built: 1979 ☐ EST
Total Floor Area (sq. ft.): 86,500   Code Year:
Additions: ☐ None ☒ Yes, Year(s) Built: 1996, 2009

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH (handwritten: 1996, 2009, 1979, ☒ this form, ☐ Other form)

COMMENTS:
'Conc Columns through-out

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	(1.2)	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

(circled in C3 column: -0.4 and -0.5 bracketed, -0.1)

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.2 ≥ (0.3)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm
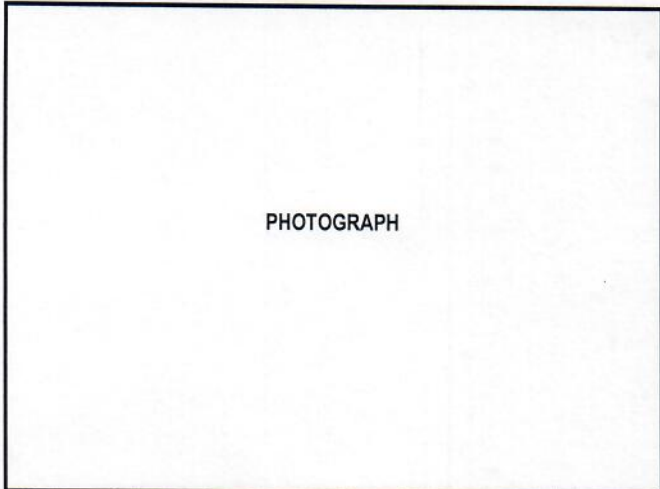
Structure 42, Building 30 Photographs

Interior, Ground-Level Entries at Both Gym Floor and at Top of Bleachers

(Split Level)

Joint Between Structure 42 (White Façade into Page) and Structure 44 (Stairs Out of Page)

PHOTOGRAPH	**Address:** 130 Trenton Hwy Dyer, TN **Zip:** 38330

Other Identifiers: 43

Building Name:

Use: High School

Latitude: 36.025544   **Longitude:** -88.966840

S_S: 1.276 S_1: 0.447

Screener(s): CM   **Date/Time:** 7/24@945 AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1996 ☐ EST

Total Floor Area (sq. ft.): 3536   **Code Year:**

Additions: ☐ None   ☒ Yes, Year(s) Built: 1979, 2009

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other: _____

COMMENTS:
"C3

SKETCH — 1996, Original 1979, 2009, 1979, ☐ This form ☐ Other form

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	(1.2)	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	(NA)	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.2 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 43, Building 30 Photographs

Structure 43 is a One Hallway Addition to Structure 42

Concrete Column Exposed

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

PHOTOGRAPH

SKETCH (hand-drawn)
- 1996
- Original 1979
- 2009
- 1979
- This form
- Other form

Address: 130 Trenton Hwy Dyer, TN **Zip:** 38330
Other Identifiers: 44
Building Name:
Use: High school
Latitude: 36.024101 **Longitude:** -88.966583
S_S: 1.276 **S_1:** 0.447
Screener(s): CM **Date/Time:** 7/24 @ 9:45AM

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2009 ☐ EST
Total Floor Area (sq. ft.): 28,300 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1979, 1996

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
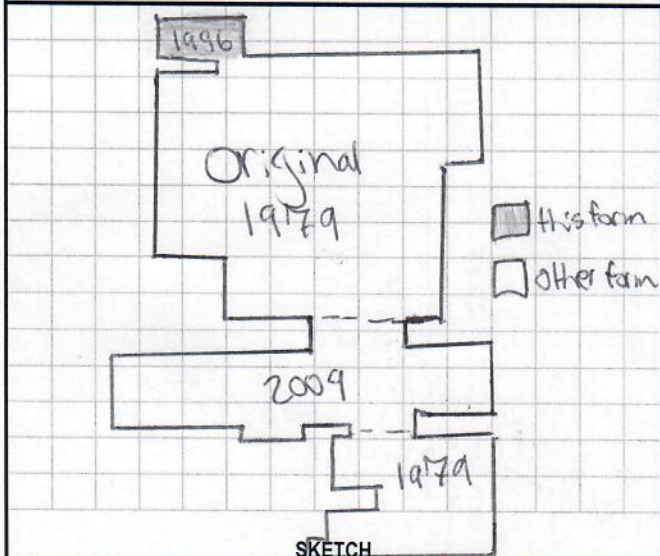Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entry corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
· C3 → Same as original

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	(1.2)	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	(-0.4)	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	(-0.5)	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	(-0.1)	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	(NA)	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.3 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 44, Building 30 Photographs

Joint Between Structure 42 (White Façade into Page) and Structure 44 (Stairs Out of Page)

Interior, Split Level

PHOTOGRAPH

SKETCH

Sketch annotations: 1996, 1979 Original, 2009, 1979, "This form", "Other form"
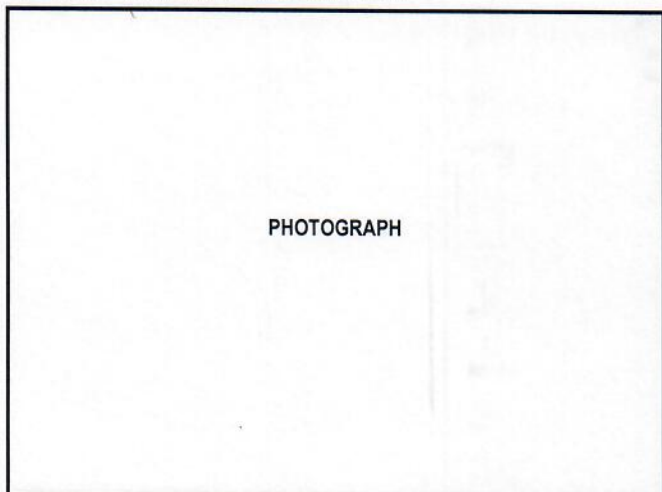
Address: 130 Trenton Hwy
Dyer, TN   Zip: 38330
Other Identifiers: 45
Building Name:
Use: High School
Latitude: 36.023394   Longitude: -88.966441
S_S: 1.276 S_1: 0.447
Screener(s): CM   Date/Time: 7/24 @ 945 AM

No. Stories: Above Grade: 2   Below Grade: 0   Year Built: 1979 ☐ EST
Total Floor Area (sq. ft.): 45,600   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1979, 1996, 2009

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK
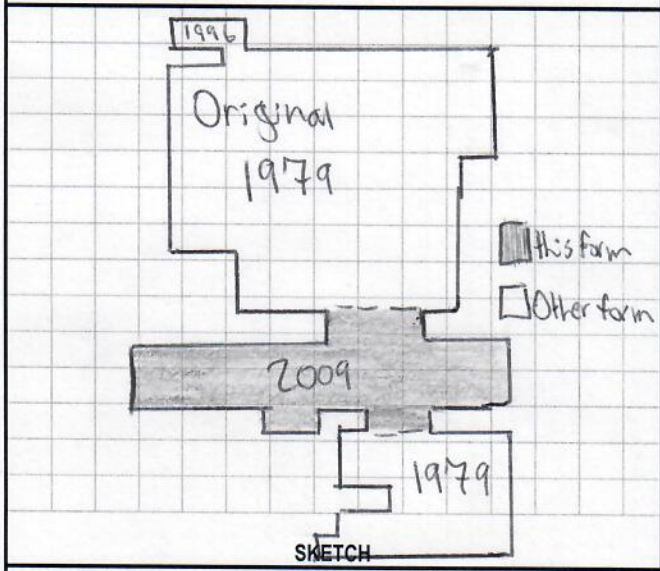
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building
Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• Masonry, conc, cols throughout

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	(1.2)	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	(-0.4)	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	(-0.1)	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: $0.2 \geq 0.3$

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data   OR   DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 45, Building 30 Photographs

Interior, Split Level, Concrete Columns Exposed
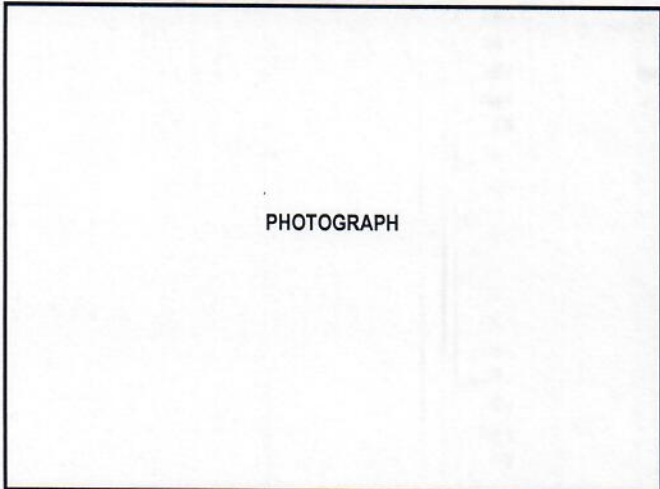
PHOTOGRAPH	Address: 101A Tommy Wade Dr. Kenton, TN Zip: 38233
	Other Identifiers: 46
	Building Name:
	Use: Elementary School
	Latitude: 36.189252 Longitude: -89.008097
	S_s: 1.475 S_1: 0.516
	Screener(s): CM Date/Time: 7/24 @ 11AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2002 ☐ EST

Total Floor Area (sq. ft.): 17,700   **Code Year:**

Additions: ☐ None   ☒ Yes, Year(s) Built: 2012

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A Hard Rock   ☐B Avg Rock   ☒C Dense Soil   ☐D Stiff Soil   ☐E Soft Soil   ☐F Poor Soil   **DNK** If DNK, assume Type D.
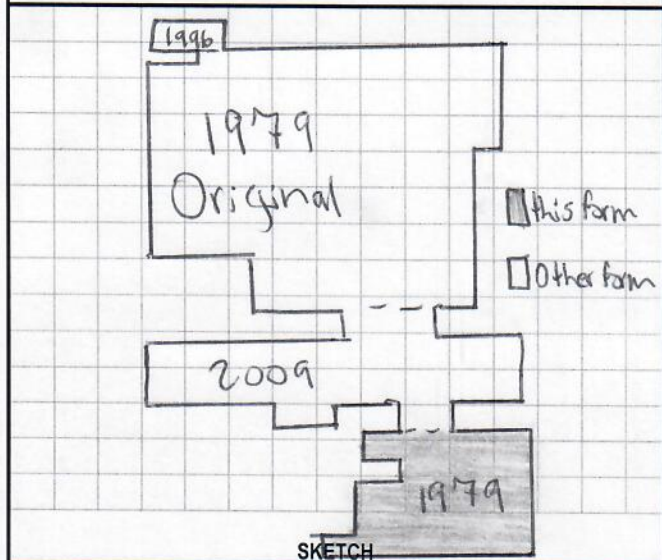
Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)   ☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer   ☐ Parapets   ☐ Appendages   ☐ Other:

SKETCH

2012

☒ this form   ☐ Other form

gym 2012

COMMENTS:
• Masonry, reinforced

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	(2.1)	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (3.1) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless $S_{L2} >$ cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data   **OR**   **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 46, Building 31 Photographs

Structure 46 Lower Roof, Structure 47 Higher Roof

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

PHOTOGRAPH

Address: 101 A Tommy Wade Dr, Kenton, TN **Zip:** 38233
Other Identifiers: 417
Building Name:
Use: Elementary School / Shelter
Latitude: 36.189552   **Longitude:** -89.008474
Ss: 1.475   **S1:** 0.516
Screener(s): CM   **Date/Time:** 7/24 @ 11 AM

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2012 ☐ EST
Total Floor Area (sq. ft.): 4,875   **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 2002
Occupancy: Assembly Commercial Emer. Services ☐ Historic ☒ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
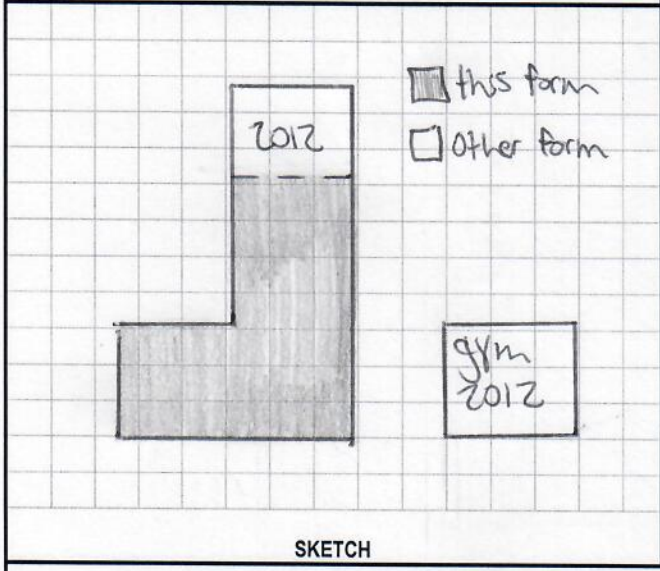**Adjacency:** ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building
Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____
Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other: _____

SKETCH

2012

Original 2002   Gym 2012

☐ Additional sketches or comments on separate page

COMMENTS:
• Masonry, reinforced

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	(1.7)	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	(2.1)	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 3.8 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK
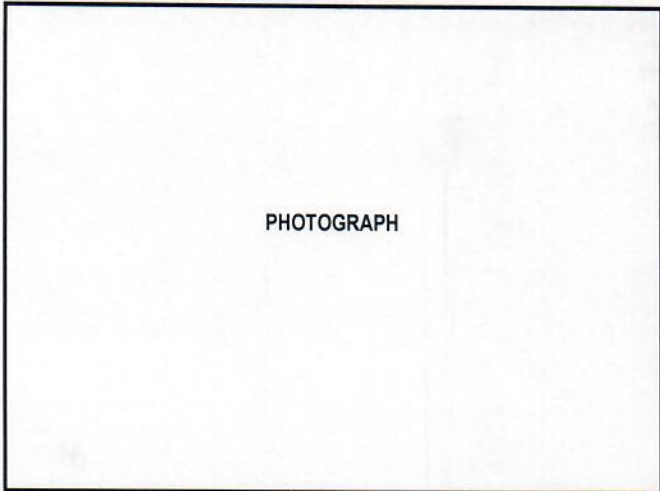

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 47, Building 31 Photographs

Structure 46 Lower Roof, Structure 47 Higher Roof

PHOTOGRAPH

SKETCH

(sketch: 2012 / 2002 L-shaped plan; "Gym 2012"; ☐ this form ☐ other form)
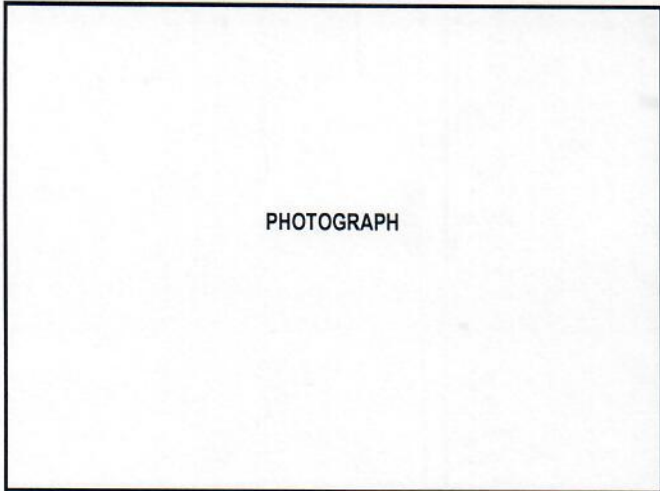
Address: 101 A Tommy Wade Dr.
Kenton, TN   Zip: 38233
Other Identifiers: 48
Building Name:
Use: Elementary School
Latitude: 36.189498   Longitude: −89.007514
S_S: 1.475 S_1: 0.516
Screener(s): CM   Date/Time: 7/24 @ 11AM
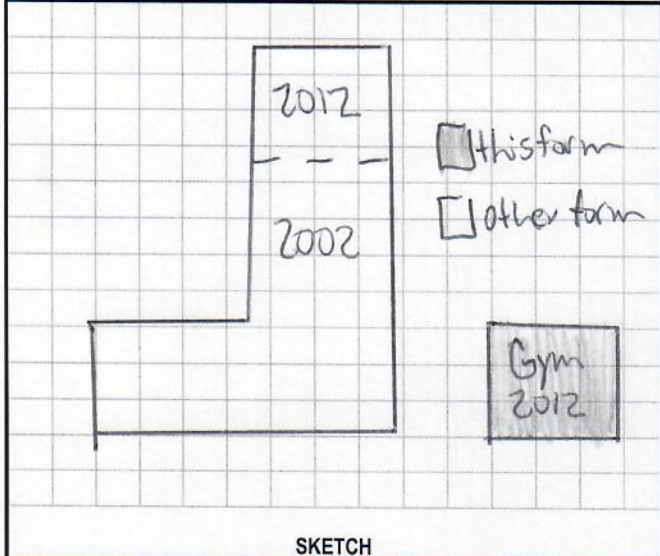
No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 2012 ☐ EST
Total Floor Area (sq. ft.): ~~60,000~~ 4,000   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   If DNK, assume Type D.

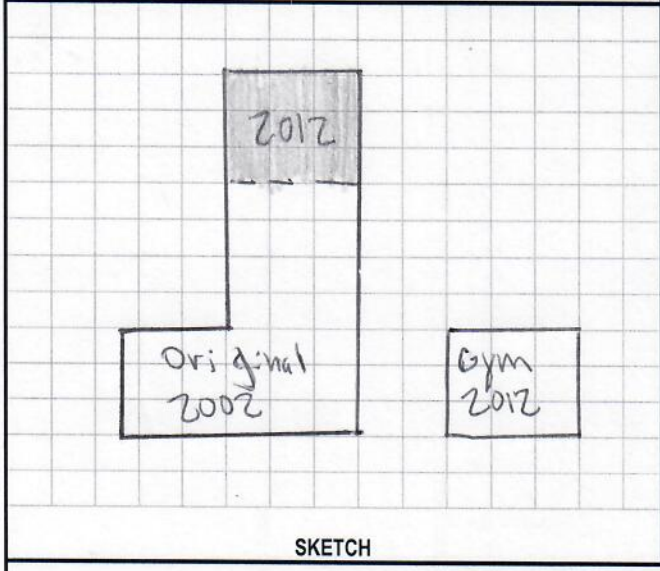Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☒ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
(scribbled line)
• Manufactured building
• Light Steel

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	(2.6)	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	(1.7)	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	(1.1)	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	(2.1)	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (scribbles) 3.7 ≥ 0.6

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Chad Jackson

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 48, Building 32 Photographs

Exterior Views, Single Rectangular Manufactured Building

PHOTOGRAPH

☑ this form
☐ Other form

SKETCH

1997

Library 1964   Gym

Foyer →

Address: 725 Tibbs St, Dyersburg, TN -19   Zip: 38024
Other Identifiers:
Building Name:
Use: Elementary School
Latitude: 36.038613   Longitude: -89.376964
S_S: 2.275 S_1: 0.836
Screener(s): CM   Date/Time: 6/10

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 2005 ☐ EST
Total Floor Area (sq. ft.): 21,700   Code Year:
Additions: ☐ None ☑ Yes, Year(s) Built: 1964, 1997

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod.
☐ Plan (type)

Exterior Falling ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Masonry, red Iron roof (flexible diaphragm)
• Solid concrete basement

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.3) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 49, Building 33 Photographs
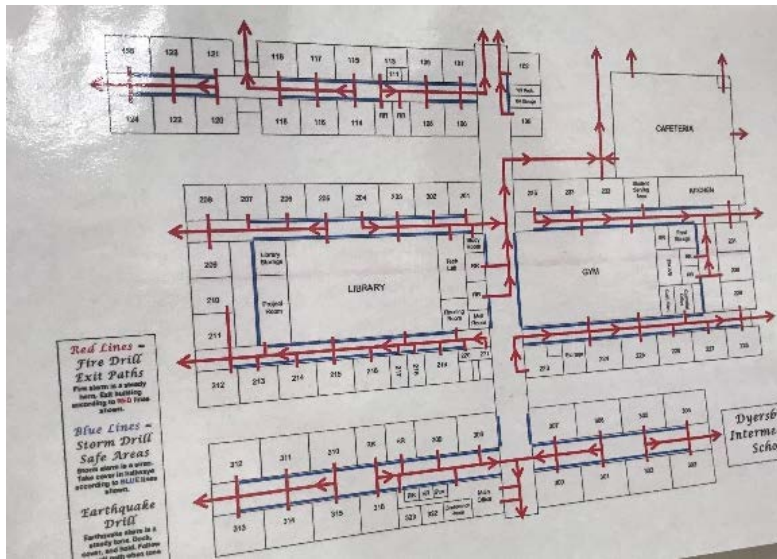
Plan View, Bottom Hallway is Structure 49

Exterior

Interior, Split Level

Connection from Structure 49 to 50

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
VERY HIGH Seismicity

Address: 725 Tibbs St. Dyersburg, TN **Zip:** 38024
Other Identifiers: 50
Building Name:
Use: Elementary school
Latitude: 36.038177 **Longitude:** -89.377060
S_S: 2.275 S_1: 0.836
Screener(s): C.M. **Date/Time:** 6/10

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1964 ☐ EST
Total Floor Area (sq. ft.): 62,125 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 2009, 1997

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A Hard Rock ☐B Avg Rock ☐C Dense Soil ☒D Stiff Soil ☐E Soft Soil ☐F Poor Soil DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod. ☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer ☐ Parapets ☐ Appendages ☐ Other:

COMMENTS:
☆ Split level (raised ceiling)
• masonry → reinf

PHOTOGRAPH

▥ this form
☐ other form

SKETCH
Add.
Library ☆
gym ☆
Foyer

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.5 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 50, Building 33 Photographs
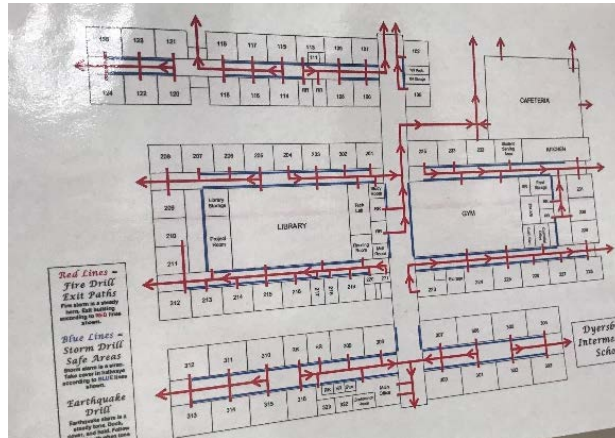
Plan View, Middle Hallways are Structure 50

Previous Courtyards Filled-in to Build Library and Gym

Connection from Structure 49 to 50

PHOTOGRAPH	

Address: 725 Tibbs St. Dyersburg, TN **Zip:** 38024
Other Identifiers: S1
Building Name:
Use: Elementary School
Latitude: 36.037744 **Longitude:** -89.376773
S_s: 2.275 **S_1:** 0.836
Screener(s): CM **Date/Time:** 6/10

☑ this form
☐ Other form

SKETCH

Add? Add.
Library gym

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1997 ☐ EST
Total Floor Area (sq. ft.): 72,400 **Code Year:**
Additions: ☐ None ☑ Yes, Year(s) Built: 1964, 2009, ?

Occupancy:
Assembly	Commercial	Emer. Services	☐ Historic	☐ Shelter
Industrial	Office	(School)	☐ Government	
Utility	Warehouse	Residential, # Units: ___		

Soil Type:
☐A	☐B	☐C	☒D	☐E	☐F	DNK
Hard Rock	Avg Rock	Dense Soil	Stiff Soil	Soft Soil	Poor Soil	If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) ☐ Plan (type)

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other: ___

COMMENTS:
• Masonry
• Flexible diaphragm

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.7 ≥ 0.3)

EXTENT OF REVIEW
Exterior: ☑ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☑ Entered
Drawings Reviewed: ☐ Yes ☑ No
Soil Type Source: ___
Geologic Hazards Source: ___
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ___ ☑ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☑ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☑ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 51, Building 33 Photographs

Plan View, Top Hallway is Structure 51

Interior, Reinforced Masonry

PHOTOGRAPH

Address: 400 Frank Maynard BLVD
Dyersburg, TN   Zip: 38024
Other Identifiers: 52
Building Name:
Use: Middle School
Latitude: 36.033128   Longitude: ~ 89.353330
S_S: 2.189 S_1: 0.801
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 2001 ☐ EST
Total Floor Area (sq. ft.): 180,000   Code Year:
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   ⬭School   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock | Avg Rock | Dense Soil | Stiff Soil | Soft Soil | Poor Soil | If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities:
☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• Split level @ gym (change in roof height)
• Masonry reinforced
• non-parallel systems

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	⬭1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	⬭-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	⬭-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	⬭1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.2	-0.1	-0.1	-0.2	0.0	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: ⬭1.9 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
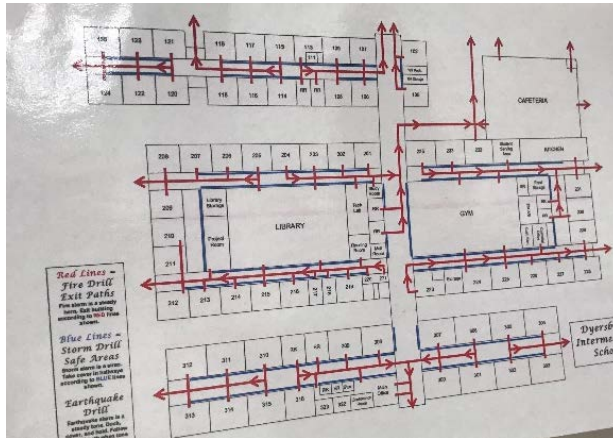☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 52, Building 34 Photographs

Reinf. Masonry, Non-parallel System
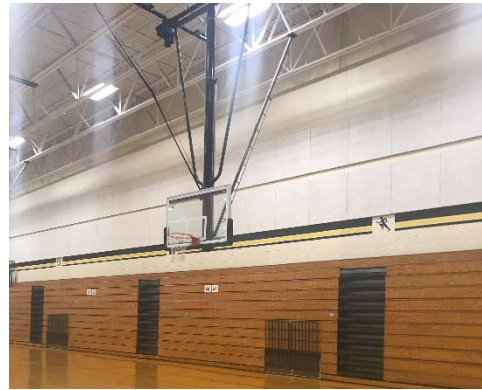
Gymnasium, Flexible Diaphragm Roof
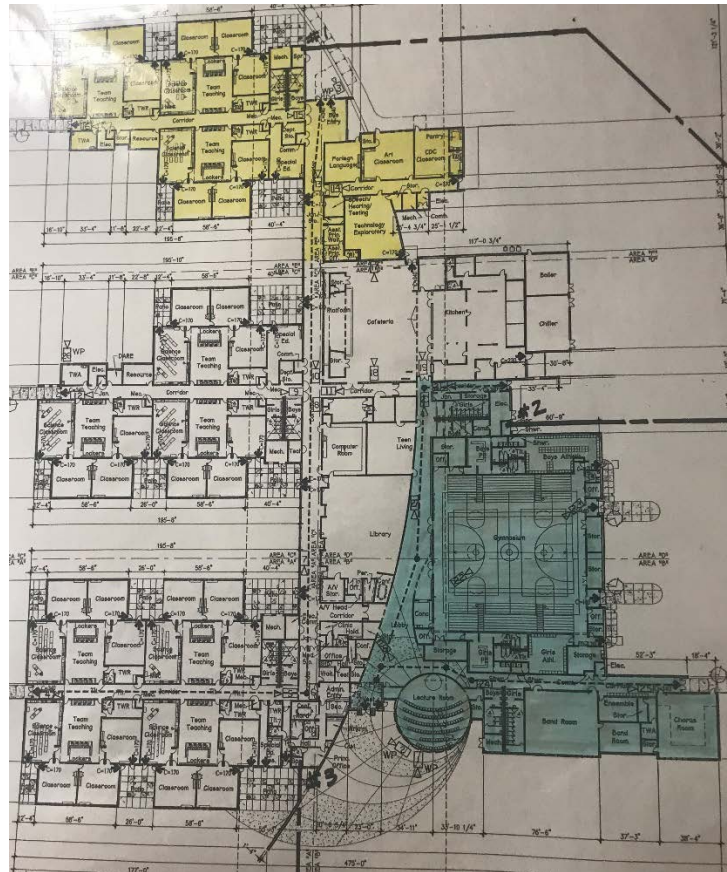
Plan View, Non-parallel Systems, Reentrant Corner

PHOTOGRAPH

SKETCH

Address: 1425 Frank Maynard Dr.
Dyersburg, TN   Zip: 38024
Other Identifiers: 53
Building Name:
Use: Primary School
Latitude: 36.046834   Longitude: -89.361546
S_s: 2.267 S_1: 0.834
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1992 ☐ EST
Total Floor Area (sq. ft.): 74,800   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level mod
☒ Plan (type) re-entrant corner

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• Masonry, reinforced
• Other plan irregularity: non-parallel systems

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.9) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A
Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 53, Building 35 Photographs

Plan View, Building Layout

Exterior Aerial View

PHOTOGRAPH	

SKETCH

☑ this form
☐ Other form

Vocational building

Walk way through building

Higher roof height

Address: 125 US-51
Dyersburg, TN   **Zip:** 38024
Other Identifiers: 54
Building Name:
Use: High School
Latitude: 36.055558   **Longitude:** -89.384794
Ss: 2.370   **S1:** 0.876
Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 2   Below Grade: 1   **Year Built:** 1972 ☐ EST
Total Floor Area (sq. ft.): 225,000   **Code Year:**
Additions: ☐ None   ☒ Yes, Year(s) Built: Unknown

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
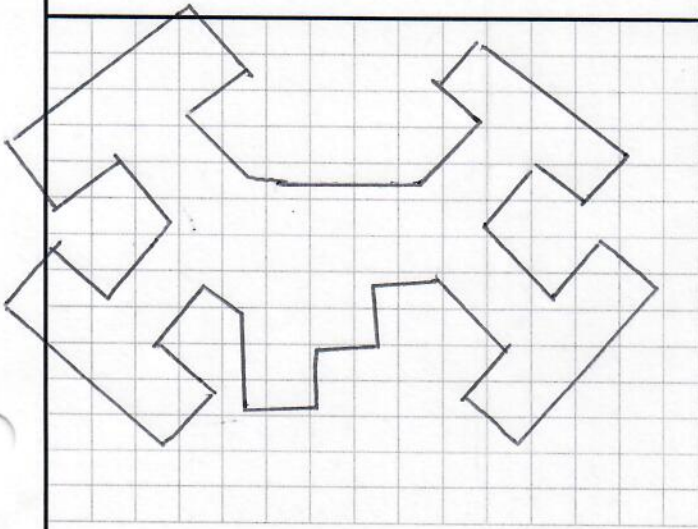Utility Warehouse Residential, # Units:

Soil Type: ☐ A   ☐ B   ☒ C   ☐ D   ☐ E   ☐ F   DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod,OOS/severe
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
* Conc. columns throughout
* XX or (C3)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
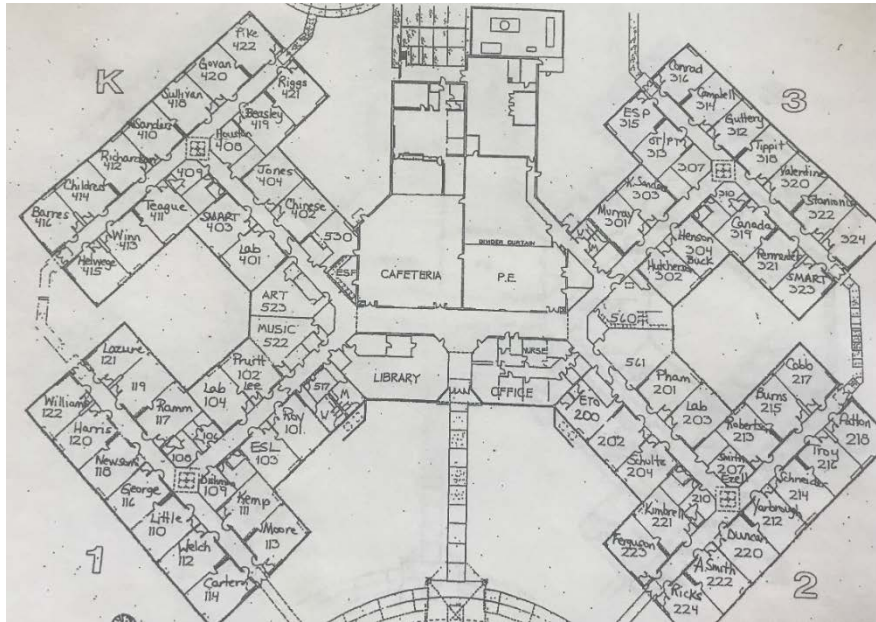☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 54, Building 36 Photographs
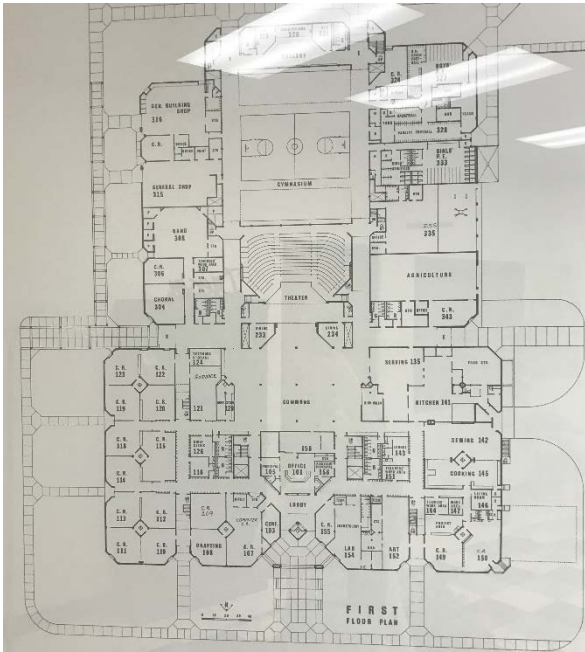
First Floor Plan View
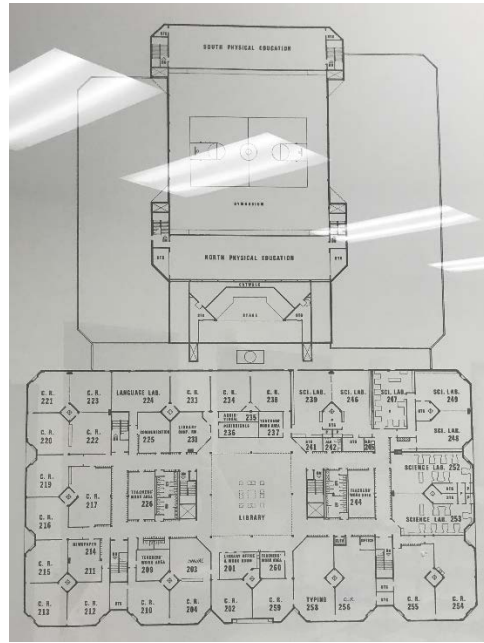
Second Floor Plan View
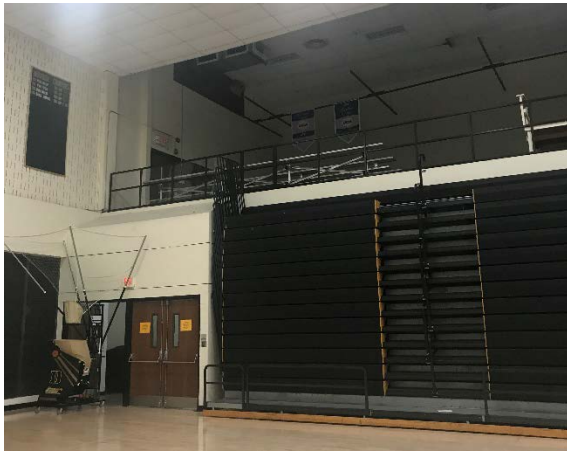
Interior, Split Level

Interior, Exposed Concrete System

Exterior, Out-of-Plane Setback

PHOTOGRAPH
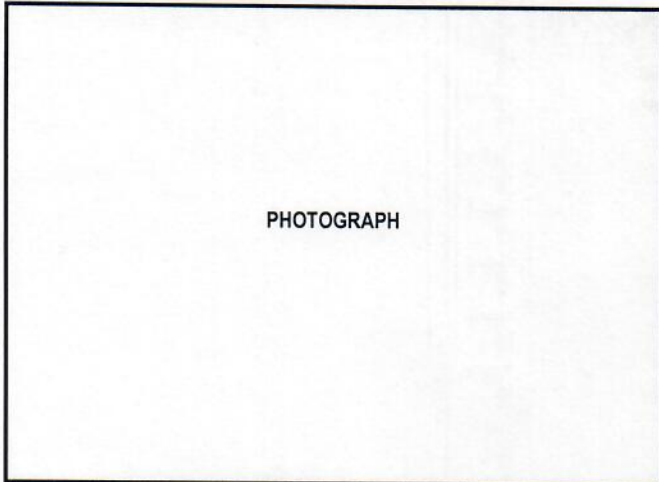
Address: 125 US-51
Dyersburg, TN   Zip: 38024
Other Identifiers: 55
Building Name:
Use: High School
Latitude: 36.055205   Longitude: -89.385937
S_S: 2.370 S_1: 0.876
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1974 ☑ EST
Total Floor Area (sq. ft.): 20,000   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services ☐ Historic ☐ Shelter
            Industrial   Office   (School)   ☐ Government
            Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
            Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
            Rock   Rock   Soil   Soil   Soil   Soil
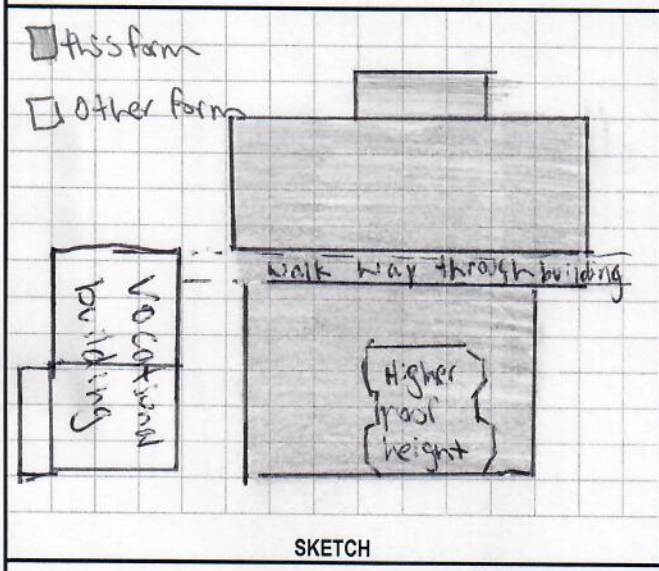
Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
                 ☐ Plan (type) _____

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
                    ☐ Other: _____

COMMENTS:
· Masonry reinforced
· Flexible diaphragm

☐ this form
☐ other form

Main Building
Walkway
Main Building

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.9 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Brad Baker

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
         BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 55, Building 37 Photographs

Exterior

Interior, Reinforced Masonry, Flexible Roof System

Interior, Flexible Roof System

PHOTOGRAPH	**Address:** 225 Volz Avenue Ripley, TN **Zip:** 38358
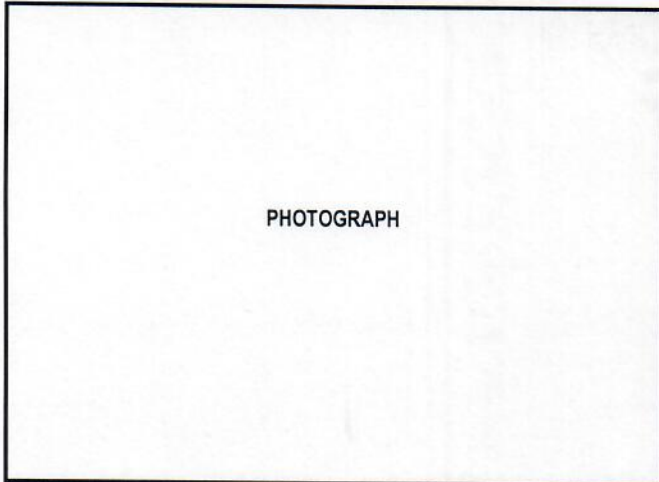
Address: 225 Volz Avenue
Ripley, TN **Zip:** 38358
Other Identifiers: S6
Building Name:
Use: Primary School
Latitude: 35.724526 **Longitude:** -89.556411
Ss: 1.533 **S1:** 0.536
Screener(s): CM **Date/Time:** 6/11

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1980 ☐ EST
Total Floor Area (sq. ft.): 98,374 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

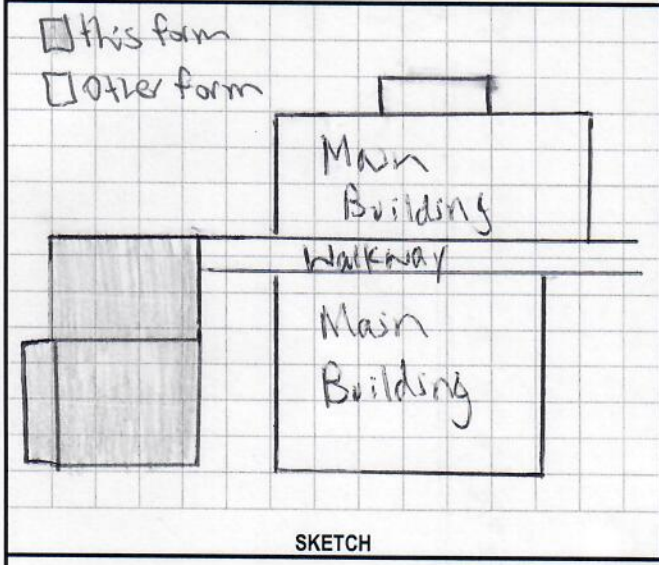**Adjacency:** ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• Steel decking w/ gravel roof
• Plan irreg. Non-parallel systems

Domed roof

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 56, Building 38 Photographs

Plan View

Interior, Split Level in Library

PHOTOGRAPH	**Address:** 100 TN-19 Ripley, TN **Zip:** 38063

Other Identifiers: 57

Building Name:

Use: Elementary School

Latitude: 35.731775   **Longitude:** -89.557356

Ss: 1.555   **S1:** 0.544

Screener(s): CM   **Date/Time:** 6/11

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1996 ☐ EST

Total Floor Area (sq. ft.): 108,948   **Code Year:**

Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐ A Hard Rock ☐ B Avg Rock ☒ C Dense Soil ☐ D Stiff Soil ☐ E Soft Soil ☐ F Poor Soil DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
· Masonry, reinforced
· Flexible diaphragm

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.3) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
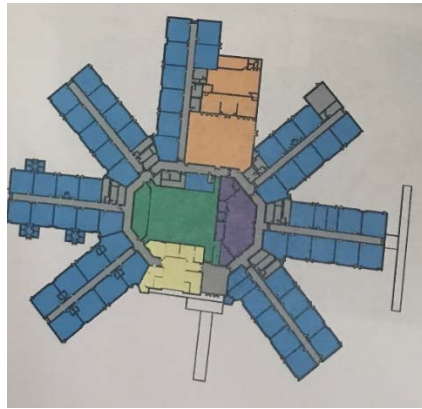☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Structure 57, Building 39 Photographs

Plan Views

Exterior, Split Level

Interior, Split Level

PHOTOGRAPH

Address: 254 S. Jefferson St.
Ripley, TN **Zip:** 38063
Other Identifiers: '58
Building Name:
Use: High School
Latitude: 35.735006 **Longitude:** -89.538585
Ss: 1.534 **S1:** 0.537
Screener(s): CM **Date/Time:** 6/11

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 1968 ☐ EST
Total Floor Area (sq. ft.): 79,400 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1996

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil
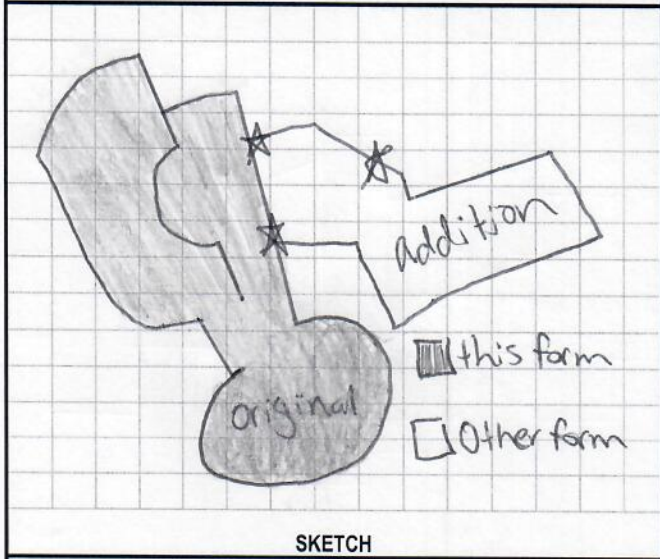
Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod. 005/severe
☒ Plan (type) non-parallel systems

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• TPO Flexible roof
• non-parallel system (plan irreg.)
• RM1
✶ Visible cracking

☐ Additional sketches or comments on separate page

SKETCH

(sketch: Addition / original, ☒ this form, ☐ Other form)

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	(-0.7)	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: -0.6 ≥ (0.3)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnis York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 58, Building 40 Photographs
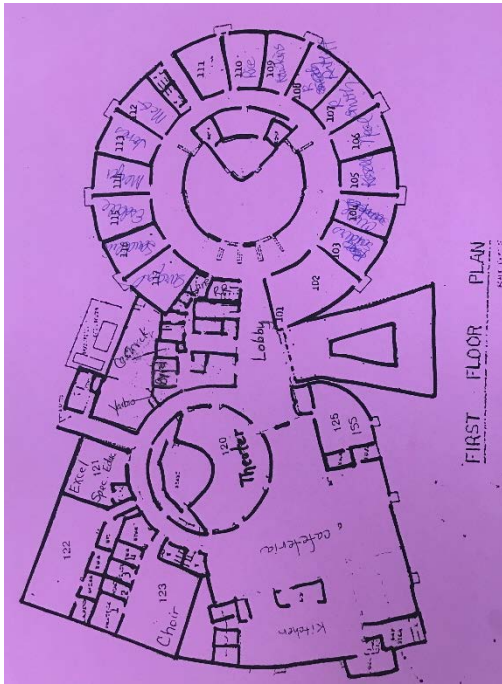
First Floor Plan View
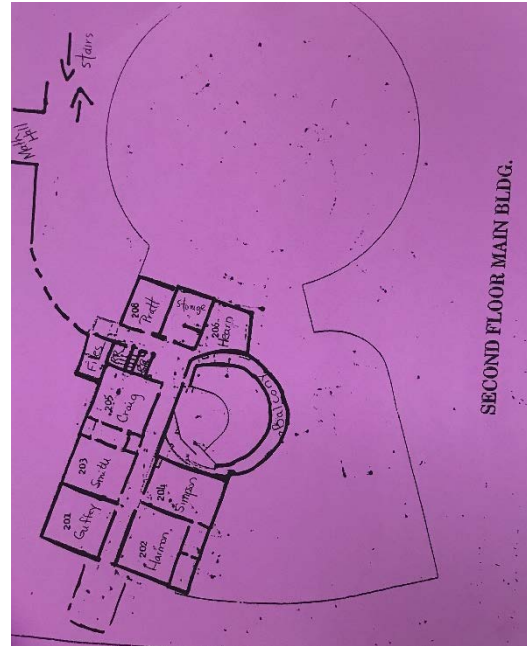
Second Floor Plan View

Exterior, Out-of-Plane Setback

Interior, Split Level

Exterior, Split Level

PHOTOGRAPH	
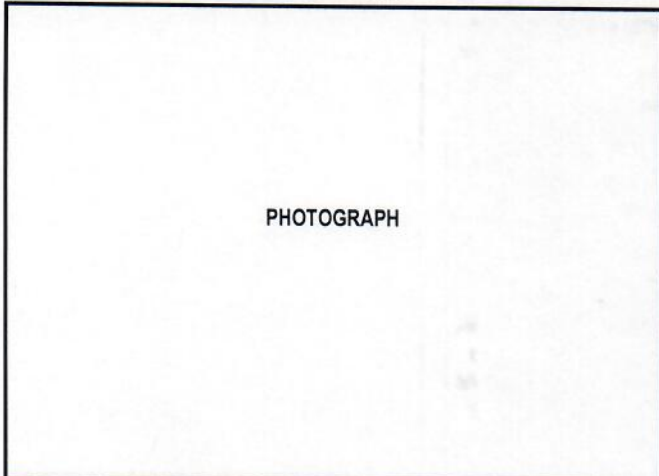
Address: 254 S Jefferson St.
Ripley, TN   Zip: 38063
Other Identifiers: 59
Building Name:
Use: High school
Latitude: 35.9734807   Longitude: -89.537884
S_S: 1.534 S_1: 0.537
Screener(s): CM   Date/Time: 6/11

No. Stories: Above Grade: 2   Below Grade: 0   Year Built: 1996 ☐ EST
Total Floor Area (sq. ft.): 36,400   Code Year:
Additions: ☒ None ☒ Yes, Year(s) Built: 1968

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

this form ☒
other form ☐
40'
addition
original
30'

COMMENTS:
• RM1

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (2.3) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☒ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:				
	MRF = Moment-resisting frame	RC = Reinforced concrete	URM INF = Unreinforced masonry infill	MH = Manufactured Housing FD = Flexible diaphragm
	BR = Braced frame	SW = Shear wall	TU = Tilt up	LM = Light metal RD = Rigid diaphragm

Structure 59, Building 40 Photographs

Joints Between Structure 58 and 59

Cracks in Structure, Evidence of Pounding and Deterioration/Settling

PHOTOGRAPH	
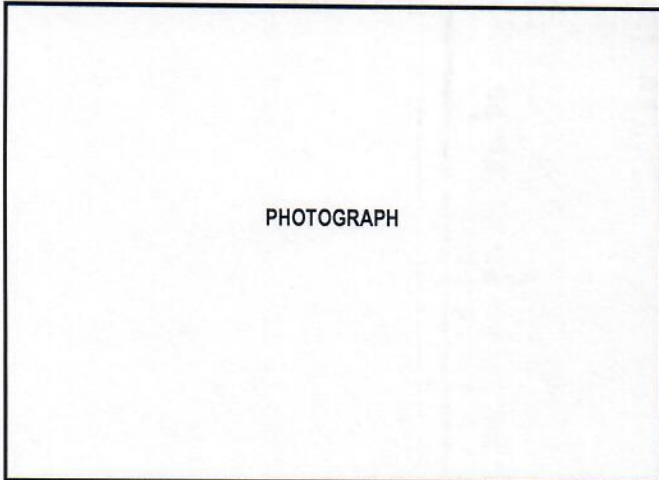
Address: 254 S. Jefferson St.
Ripley, TN   Zip: 38063
Other Identifiers: 60
Building Name:
Use: High School / Shelter
Latitude: 35.735626   Longitude: -89.537495
S_S: 1.534 S_1: 0.537
Screener(s): CM   Date/Time: 6/11

No. Stories: Above Grade: 2   Below Grade: 0   Year Built: 2014 ☐ EST
Total Floor Area (sq. ft.): 13,000   Code Year:
Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy:
Assembly   Commercial   Emer. Services   ☐ Historic   ☒ Shelter
Industrial   Office   School   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☒C   ☐D   ☐E   ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) _____
☐ Plan (type) _____

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
· Conc. (12" thick) + columns
· safety windows
· gutted + re-done
  older building (1980's?)

☐ Additional sketches or comments on separate page

SKETCH

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	(1.0)	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	(1.7)	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.7 ≥ 0.2

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
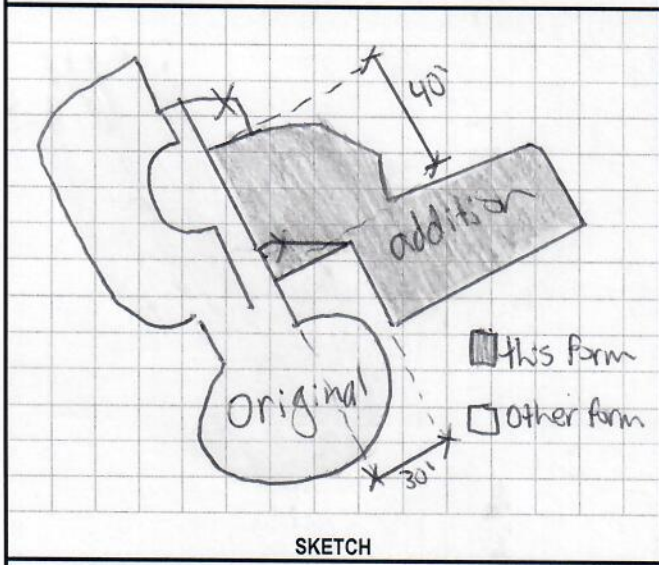☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 60, Building 41 Photographs

Plan View of Floors 1 and 2

12" Thick Concrete Walls and Exposed Concrete Columns, Safety Windows

PHOTOGRAPH	

Address: 254 Jefferson St. Ripley, N   Zip: 38063
Other Identifiers: 61
Building Name:
Use: High school
Latitude: 35.736034   Longitude: -89.537530
S_S: 1.534 S_1: 0.537
Screener(s): CM   Date/Time: 6/11

No. Stories: Above Grade: 2   Below Grade: 0   Year Built: 1970 ☐ EST
Total Floor Area (sq. ft.): 34,000   Code Year:
Additions: ☐ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

COMMENTS:
• Reinforced Masonry
• Flexible rubber TPO roof

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.5) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
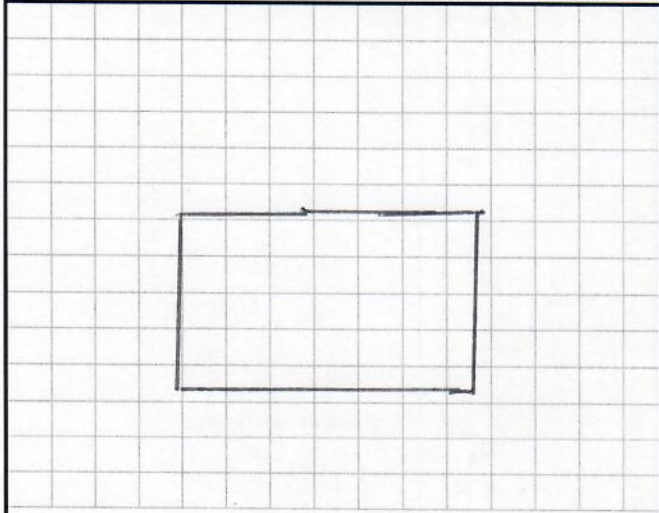BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 61, Building 42 Photographs

Exterior

Interior, Split Level

PHOTOGRAPH

Address: 254 Jefferson St. Ripley, TN **Zip:** 38063
Other Identifiers: 62
Building Name:
Use: High School
Latitude: 35.73604 **Longitude:** -89.538663
Ss: 1.534 **S1:** 0.537
Screener(s): CM **Date/Time:** 6/11

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 2004 ☐ EST
Total Floor Area (sq. ft.): 39,975 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock | Avg Rock | Dense Soil | Stiff Soil | Soft Soil | Poor Soil | If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

COMMENTS:
- Conc. frame /masonry interior
- conc. walls
- split level @ gym-to-lobby

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	(1.0)	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	(1.7)	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 2.3 ⊘ 0.2

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
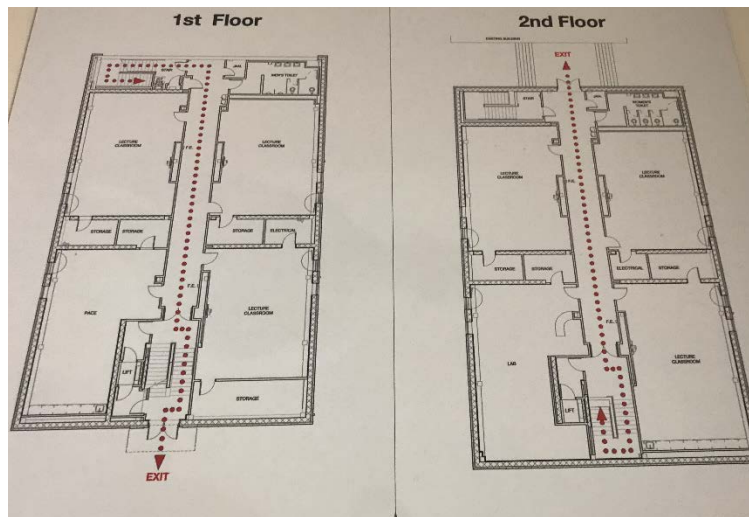☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☐ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 62, Building 43 Photographs

Exterior

Interior, Concrete in between Windows

Interior, Cracks

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
VERY HIGH Seismicity

PHOTOGRAPH

Address: 309 Charles Griggs St. Ripley, TN **Zip:** 38063
Other Identifiers: 63
Building Name:
Use: Middle School
Latitude: 35.728695 **Longitude:** -89.555585
S_S: 1.543 **S_1:** 1.540
Screener(s): CM **Date/Time:**

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1987 ☐ EST
Total Floor Area (sq. ft.): 106,426 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly | Commercial | Emer. Services | ☐ Historic | ☐ Shelter
Industrial | Office | (School) | ☐ Government
Utility | Warehouse | Residential, # Units:

Soil Type: ☐ A ☐ B ☐ C ☒ D ☐ E ☐ F ☐ DNK
Hard Rock | Avg Rock | Dense Soil | Stiff Soil | Soft Soil | Poor Soil | If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
* Masonry, reinforced
* flex. roof

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 63, Building 44 Photographs
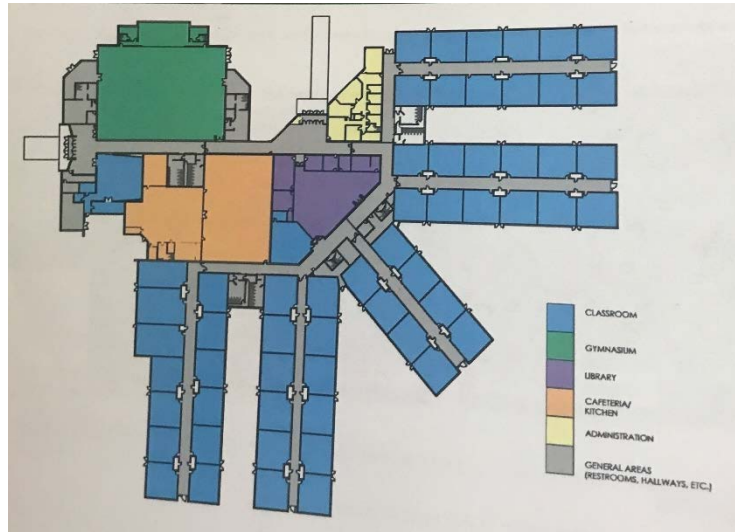
Plan View

Interior, Split Level

PHOTOGRAPH	
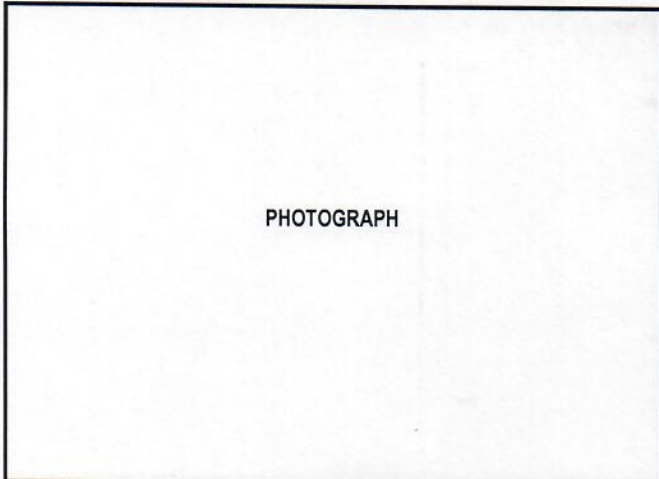
Address: 601 Carmen St. Halls, TN **Zip:** 38040

Other Identifiers: 64

Building Name:

Use: Elementary School

Latitude: 35.882508   **Longitude:** -89.404275

S_s: 1.743 S_1: 0.620

Screener(s): CM   **Date/Time:** 6/11

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1978 ☐ EST

Total Floor Area (sq. ft.): 61,949   **Code Year:**

Additions: ☐ None ☒ Yes, Year(s) Built: 1996

Occupancy:
Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐ A ☐ B ☒ C ☐ D ☐ E ☐ F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

this form ▨
other form ☐
addition
Original

COMMENTS:
• Tar & gravel roof

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
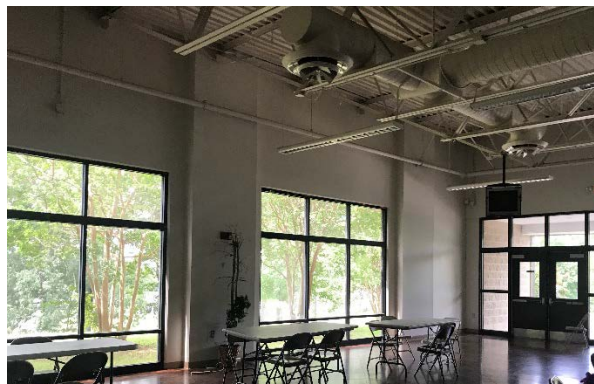☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 64, Building 45 Photographs

Plan View

Interior

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
VERY HIGH Seismicity

PHOTOGRAPH

Address: 601 Carmen St. Halls, TN **Zip:** 38040
Other Identifiers: 65
Building Name:
Use: Elementary School
Latitude: 35.882721 **Longitude:** -89.405093
Ss: 1.743 **S1:** 0.620
Screener(s): CM **Date/Time:** 6/11

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1996 ☐ EST
Total Floor Area (sq. ft.): 27,125 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1998

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Sloping site/mod.
☒ Plan (type) re.-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

☒ this farm
☐ other form
Addition
original

COMMENTS:
- Reinforced masonry
- Metal roof deck
- Split level/mod (vertical irregularity)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.9 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
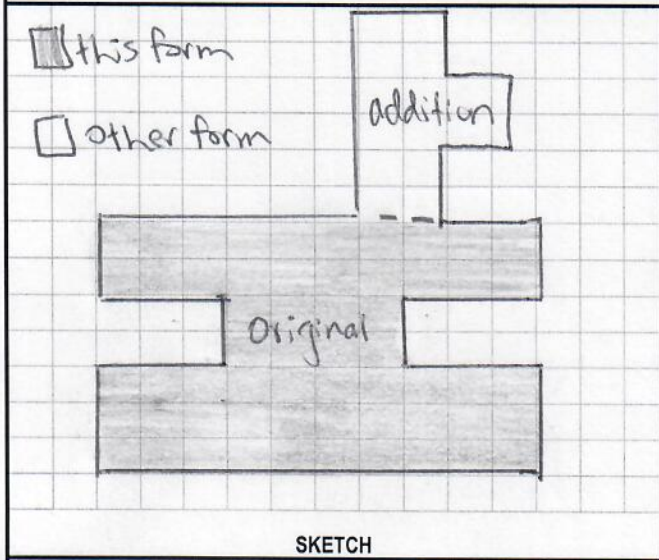☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 65, Building 45 Photographs

Interior, Sloping Site

Interior, Gymnasium, Flexible Diaphragm Roof

PHOTOGRAPH	

Address: 800 W. Tigrett St, Halls, TN   Zip: 38040
Other Identifiers: ~~666~~ 66
Building Name:
Use: Middle School
Latitude: 35.879895   Longitude: -89.403827
S_S: 1.734 S_1: 0.617
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 2   Below Grade: 0   Year Built: 1947 ☐ EST
Total Floor Area (sq. ft.): 39,900   Code Year:
Additions: ☐ None   ☒ Yes, Year(s) Built: 1967, 1985, 1996

Occupancy:
Assembly · Commercial · Emer. Services · ☐ Historic · ☐ Shelter
Industrial · Office · ~~School~~ · ☐ Government
Utility · Warehouse · Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock · Avg Rock · Dense Soil · Stiff Soil · Soft Soil · Poor Soil · If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities:
☒ Vertical (type/severity) Slope site/mod, split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

SKETCH

☐ this form
☐ Other form

COMMENTS:
· Reinforced Masonry
· TPO, Plastic flexible roof

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ (0.3)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Dennise york

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

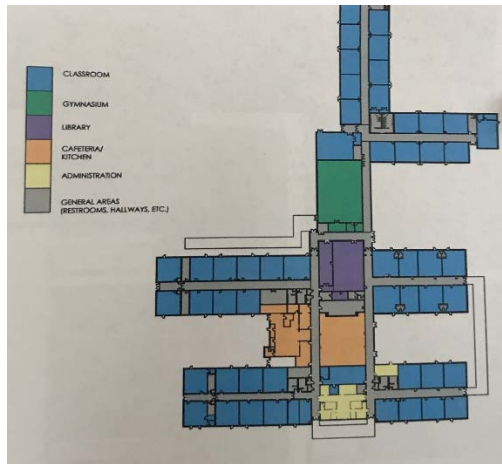**Where information cannot be verified, screener shall note the following:** EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm
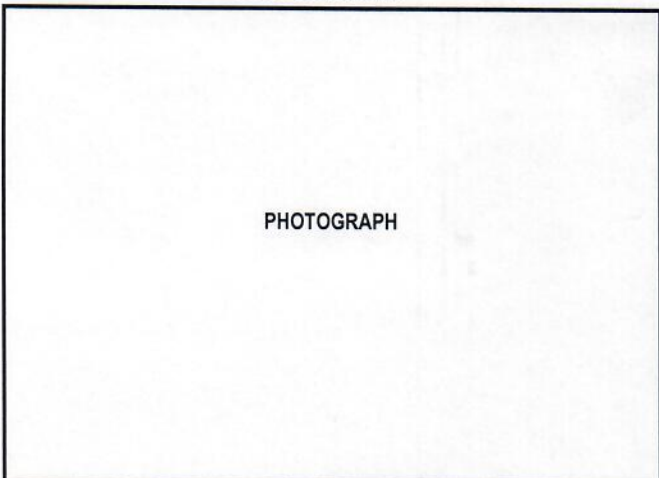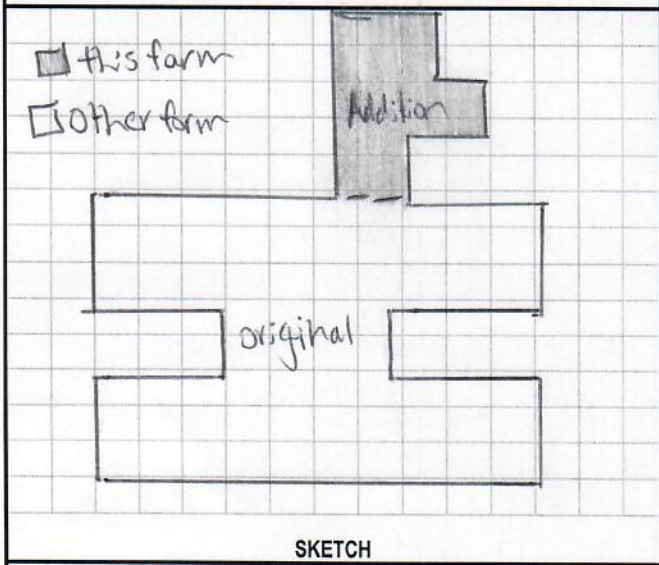
Structure 66, Building 46 Photographs

Structure 66 is Green Portion

Interior, Evidence of Split Level

Exterior

PHOTOGRAPH	

SKETCH

☐ this form
☐ other form

Address: 800 W. Tignett St.
Halls, TN   Zip: 38040
Other Identifiers: 67
Building Name:
Use: High School
Latitude: 35,879962   Longitude: -89,404695
S_S: 1.735 S_1: 0.617
Screener(s): CM   Date/Time: 6/11

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: ⊘⊘⊘ ☐ EST
Total Floor Area (sq. ft.): ~~80,2850~~ 46,518 Code Year: 1967
Additions: ☐ None ☒ Yes, Year(s) Built: 1977, ⊘⊘⊘ 1996

Occupancy: Assembly   Commercial   Emer. Services ☐ Historic ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: NA ☒ Vertical (type/severity) ⊘⊘⊘⊘⊘⊘⊘
☒ Plan (type) non-parallel sys, re-entral corner

Exterior Falling ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
• BUR, Asphalt, flexible roof
• Reinf. Masonry

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.5 ≥ 0.3)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A
Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
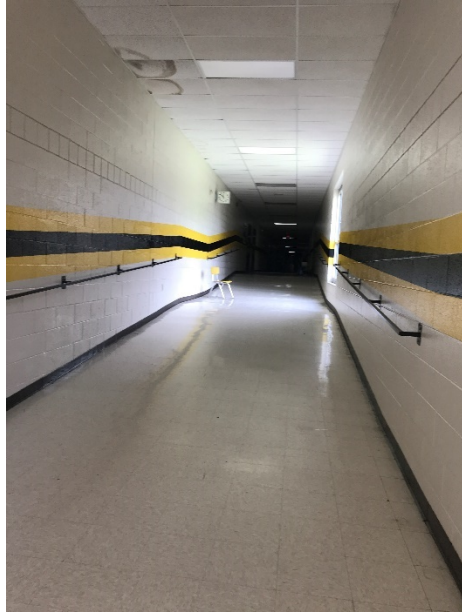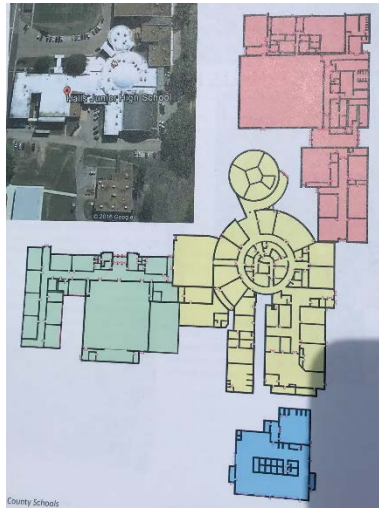☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 67, Building 46 Photographs

Structure 67 is Yellow Portion

Exterior

PHOTOGRAPH

SKETCH

- this form
- other form

Address: 800 W. Tigrett St.
Halls, TN   Zip: 38040
Other Identifiers: 68
Building Name:
Use: High School
Latitude: 35.879373   Longitude: -89.405175
S_S: 1.735 S_1: 0.617
Screener(s): CM   Date/Time: 6/11

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1996 ☐ EST
Total Floor Area (sq. ft.): 31,247   Code Year:
Additions: ☐ None ☒ Yes, Year(s) Built: 1947, 1967

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☒ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/wood
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
- Reinf masonry
- flexible gym

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	(1.6)	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 1.9 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie york

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☒ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☒ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
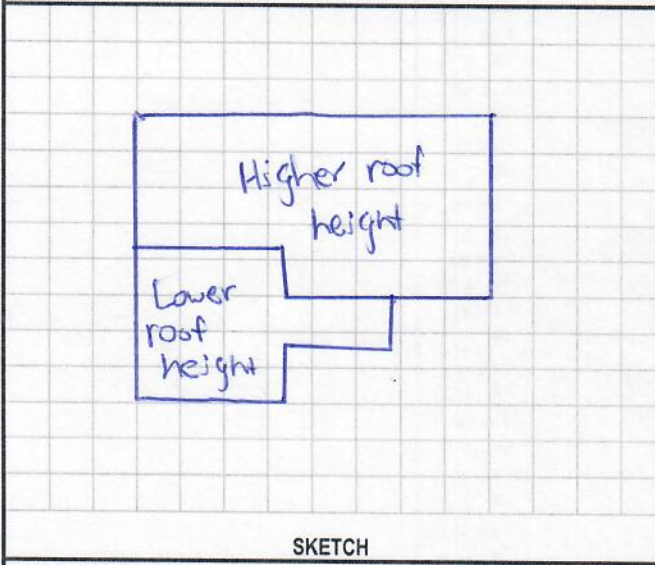☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 68, Building 46 Photographs
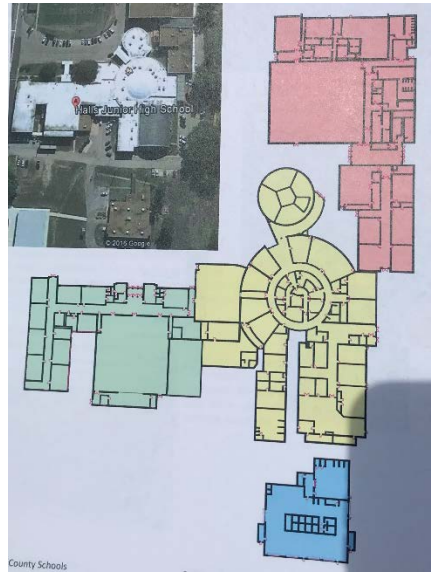
Structure 68 is Red Portion

PHOTOGRAPH	
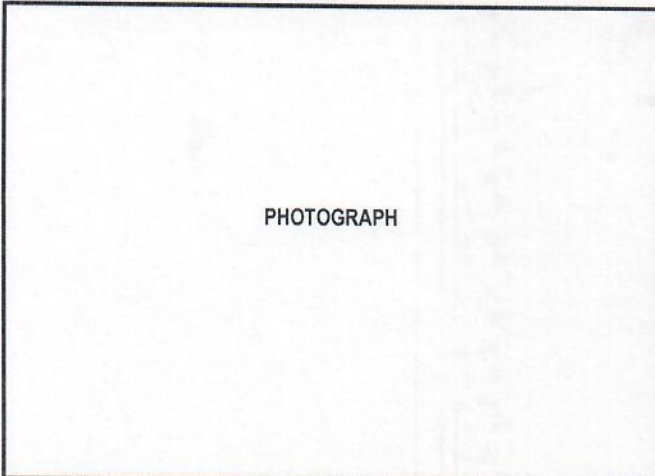
Address: 880 N. Tignett St.
Halls, TN **Zip:** 38040
Other Identifiers: 69
Building Name:
Use: High school
Latitude: 35.979373 **Longitude:** -89.405175
Ss: 1.735 **S1:** 0.617
Screener(s): CM **Date/Time:** 6/11

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 1977 ☐ EST
Total Floor Area (sq. ft.): 12,915 **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly, Commercial, Emer. Services ☐ Historic ☐ Shelter
Industrial, Office, (School) ☐ Government
Utility, Warehouse, Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil / *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod.
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

Higher roof height

Lower roof height

COMMENTS:
Lat: 35.880824 Long: -89.404591
· TPO (flexible) roof
· tar & gravel 3-ply roof
· RM1

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

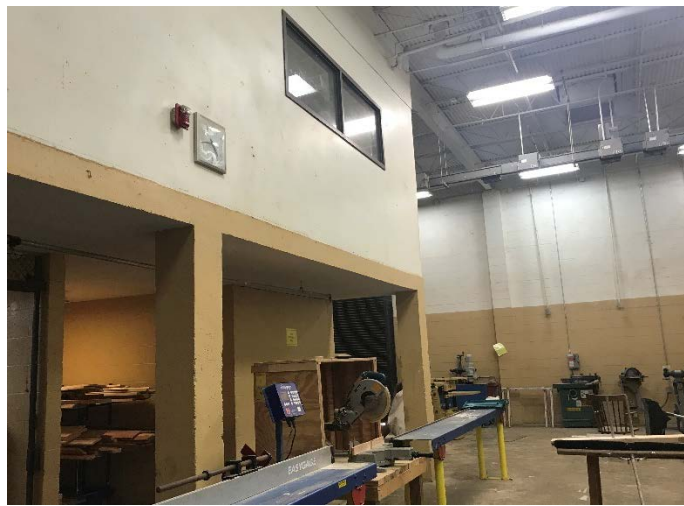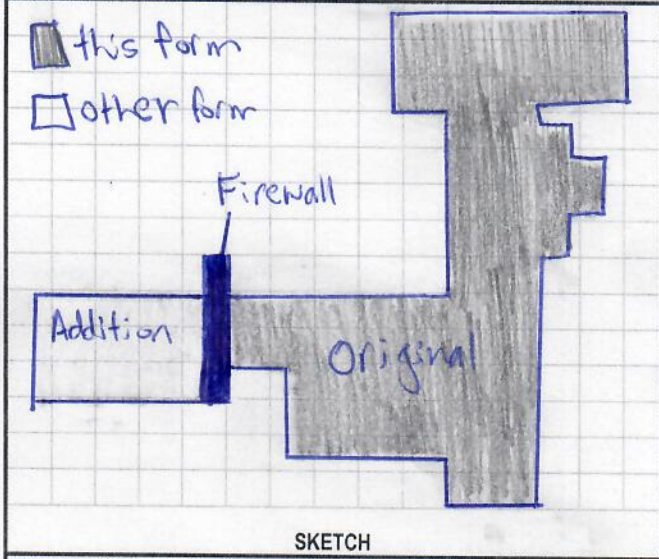| FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.5) ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Donnie York

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame / BR = Braced frame / RC = Reinforced concrete / SW = Shear wall / URM INF = Unreinforced masonry infill / TU = Tilt up / MH = Manufactured Housing / LM = Light metal / FD = Flexible diaphragm / RD = Rigid diaphragm

Structure 69, Building 47 Photographs
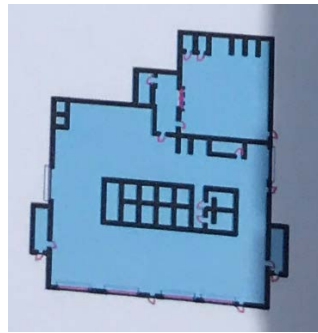
Plan View

Exterior

Interior, Split Level

PHOTOGRAPH	

Address: 528 US-51 N. Troy, TN **Zip:** 38260
Other Identifiers: 70
Building Name:
Use: High school
Latitude: 36.343188 **Longitude:** -89.155814
Ss: 1.821 **S1:** 0.652
Screener(s): CM **Date/Time:** 5/31

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 2006 ☐ EST
Total Floor Area (sq. ft.): 188,000 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 2011

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) OOS/severe, split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

☒ this form
☐ other form
Firewall
Addition | Original

COMMENTS:
• Steel Frame

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: -0.2 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: phil graham

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☒ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame | RC = Reinforced concrete | URM INF = Unreinforced masonry infill | MH = Manufactured Housing | FD = Flexible diaphragm
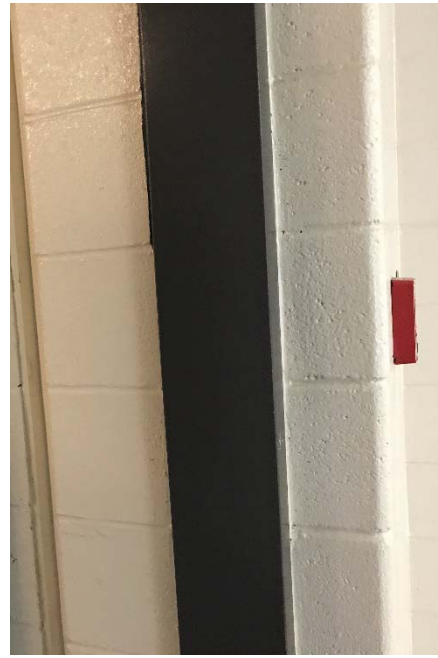BR = Braced frame | SW = Shear wall | TU = Tilt up | LM = Light metal | RD = Rigid diaphragm

Structure 70, Building 48 Photographs

Exterior, Split Level

Interior, Steel Framing Exposed

Firewall Between Structures 70 and 71

PHOTOGRAPH	

Address: 528 US-51 N, Troy, TN **Zip:** 38260

Other Identifiers: 71

Building Name:

Use: High School

Latitude: 36.441321 **Longitude:** -89.058616

S_S: 1.821 S_1: 0.652

Screener(s): CM **Date/Time:** 5/31

No. Stories: Above Grade: 2 Below Grade: 0 **Year Built:** 2011 ☐ EST

Total Floor Area (sq. ft.): 37,638 **Code Year:**

Additions: ☐ None ☒ Yes, Year(s) Built: 1977

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A Hard Rock ☐B Avg Rock ☐C Dense Soil ☒D Stiff Soil ☐E Soft Soil ☐F Poor Soil ☐ DNK *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) OOS/severe, split level/mod
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:

SKETCH — this form, other form, Firewall, Original

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	1.1	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.2 ≥ 0.5

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm
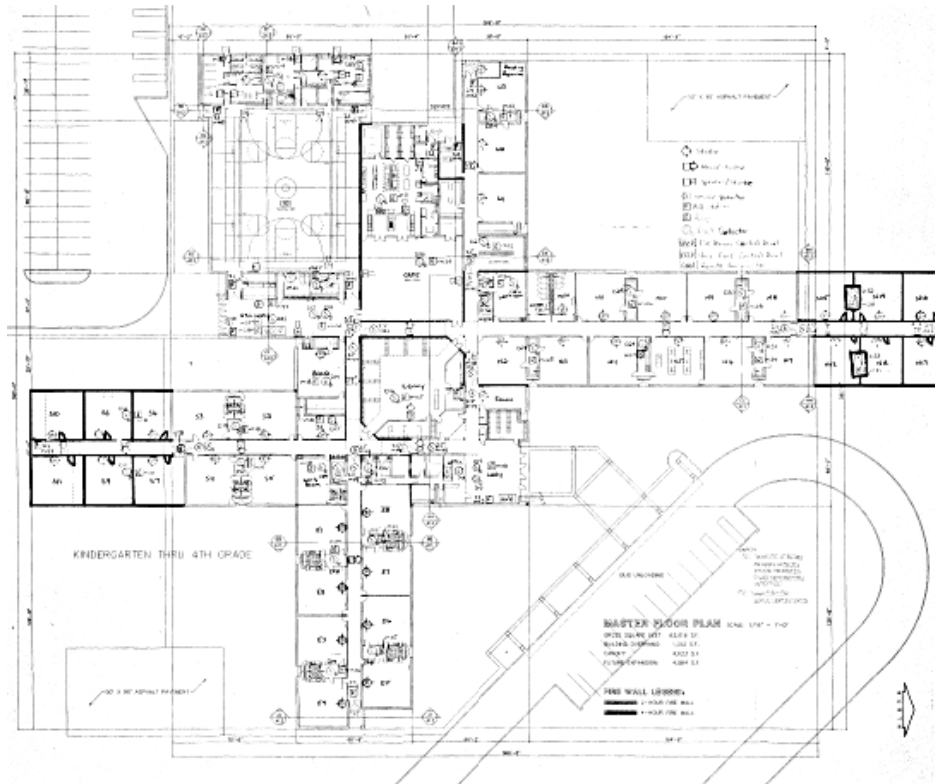
Structure 71, Building 48 Photographs

Interior, Steel Columns Encased (Left) and Exposed (Right)

Firewall Between Structures 70 and 71

PHOTOGRAPH

SKETCH

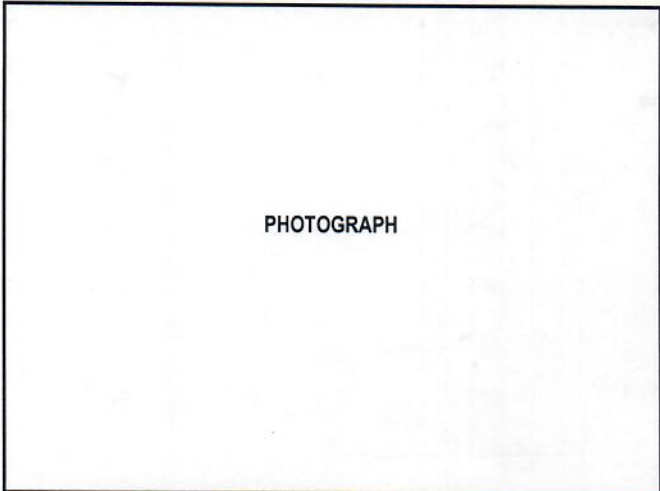Address: 1285 N. Highway 45 Bypass
Union City, TN   Zip: 38261

Other Identifiers: 72

Building Name: ~~XXXXXX~~

Use: Elementary School

Latitude: 36.376722   Longitude: -89.065628

S_S: 1.558 S_1: 0.547

Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1990 ☐ EST

Total Floor Area (sq. ft.): 57,081   Code Year:

Additions: ☐ None   ☒ Yes, Year(s) Built: 1994, 1996, 1999

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
            Industrial   Office   (School)   ☐ Government
            Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☐C   ☒D   ☐E   ☐F   DNK
           Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
           Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK
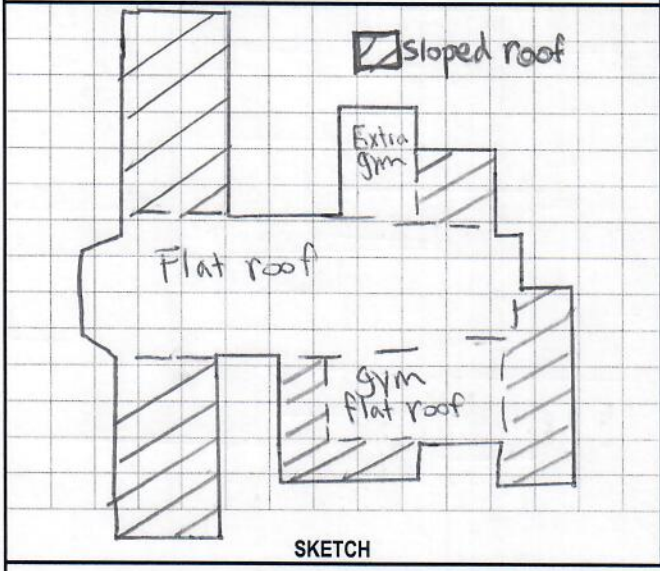
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
                ☒ Plan (type) re-entrant corner

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
                   ☐ Other:

COMMENTS:

•Reinforced Masonry

☐ Additional sketches or comments on separate page

Sketch labels: canopy, 1999, 1994, Cafe, Library, Gym, 1996, 1999

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: $0.1 \geq 0.3$

EXTENT OF REVIEW

Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☒ Yes   ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A
Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
        BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 72, Building 49 Photographs

Plan View

Flexible Diaphragm Roof

Small Hallway Addition

PHOTOGRAPH	Address: 1302 S. Fulton Dr. South Fulton, TN Zip: 38257

Other Identifiers: 73

Building Name:

Use: Middle/High school

Latitude: 36.494358   Longitude: -88.899980

S_s: 1.225 S_1: 0.419

Screener(s): CM   Date/Time: 5/31

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1995 ☐ EST

Total Floor Area (sq. ft.): 112,000   Code Year:

Additions: ☒ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corna

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
- Metal deck roof
- Steel members
- Masonry infill

SKETCH

Sloped roof
Extra gym
Flat roof
gym flat roof

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	(1.7)	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	(-0.5)	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	(-0.6)	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	(-0.2)	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	(NA)	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:   0.6 ≥ 0.5

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
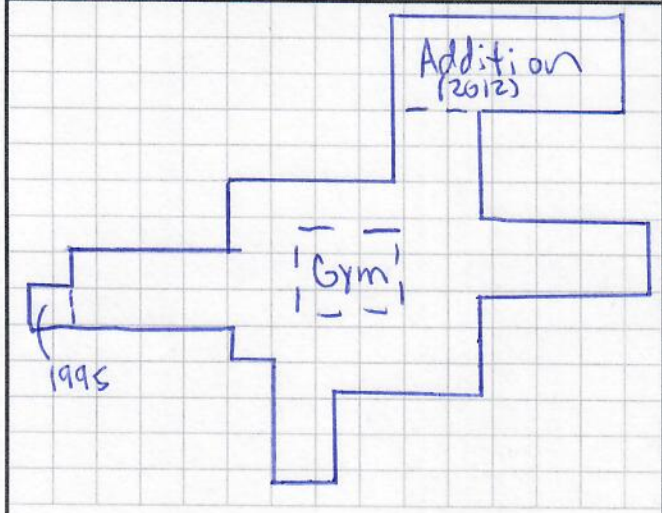☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 73, Building 50 Photographs

Plan View

Interior, Split Level

PHOTOGRAPH	

Address: 209 John C. Jones South Fulton, TN **Zip:** 38257

Other Identifiers: 74

Building Name:

Use: Elementary School

Latitude: 36.485660   **Longitude:** -88.876498

S_S: 1.199 S_1: 0.410

Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1980 ☐ EST
Total Floor Area (sq. ft.): 56,000   **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services ☐ Historic ☐ Shelter
Industrial   Office   (School) ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level (mod.
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH (hand-drawn building plan; labeled "canopy")

COMMENTS:
Reinforced Masonry

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	(1.7)	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	(-0.5)	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	(-0.7)	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	(-0.5)	-0.5	-0.4	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:   0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 74, Building 51 Photographs
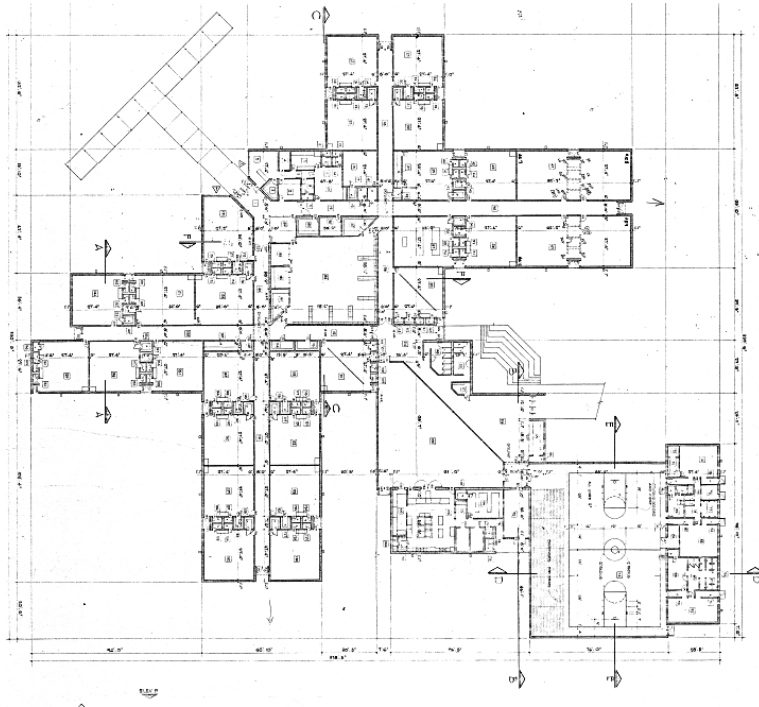
Plan View

Exterior, Split Level

PHOTOGRAPH	

Address: 1130 E. Hwy 22 Union City, TN **Zip:** 38261
Other Identifiers: 75
Building Name:
Use: Elementary School
Latitude: 36.442604 **Longitude:** -89.130471
Ss: 1.687 **S1:** 0.598
Screener(s): CM **Date/Time:**

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1982 ☐ EST
Total Floor Area (sq. ft.): 72,000 **Code Year:**
Additions: ☐ None ☒ Yes, Year(s) Built: 1995, 2012

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor If DNK, assume Type D.
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant Corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
· SBC
· 20' O.C. Steel cols under eves only

SKETCH: Addition (2012), Gym, 1995

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.1 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm

Structure 75, Building 52 Photographs

Plan View

Interior, Reinforced Masonry

PHOTOGRAPH

Opening
(courtyard)

SKETCH

Address: 365 N. Shawtown Rd.
Hornbeak, TN   Zip: 38232
Other Identifiers: 76
Building Name:
Use: Elementary School
Latitude: 36.344829   Longitude: -89.307989
S_S: 2.339 S_1: 0.862
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1985 ☐ EST
Total Floor Area (sq. ft.): 56,000   Code Year:
Additions: ☐ None ☒ Yes, Year(s) Built: 2014, 5000 sf

Occupancy: Assembly   Commercial   Emer. Services ☐ Historic ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A   ☐B   ☐C   ☒D   ☐E   ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   If DNK, assume Type D.
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod
☒ Plan (type) diaphragm opening

Exterior Falling   ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
Hazards: ☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• RM

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: $0.1 \geq 0.3$

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A
Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 76, Building 53 Photographs

Plan View

Interior, Reinforced Masonry

PHOTOGRAPH	

Address: 605 S. Main St.
Troy, TN   **Zip:** 38260
Other Identifiers: 7 7
Building Name:
Use: Elementary School
Latitude: 56.331675   **Longitude:** -89.171331
S_S: 1.875   **S_1:** 0.674
Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1986 ☐ EST
Total Floor Area (sq. ft.): 70,847   **Code Year:**
Additions: ☐ None   ☒ Yes, Year(s) Built: 2009, IBC

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   *If DNK, assume Type D.*

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level /mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
·SBC ·RM ·Metal pitch roof
·HSS cols under roof eves

SKETCH

Entrance
(addition)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		2.1	1.9	1.8	1.5	1.4	1.6	1.4	1.2	1.0	1.2	0.9	1.1	1.0	(1.1)	1.1	0.9	1.1
Severe Vertical Irregularity, V_{L1}		-0.9	-0.9	-0.9	-0.8	-0.7	-0.8	-0.7	-0.7	-0.7	-0.8	-0.6	-0.7	-0.7	-0.7	-0.7	-0.6	NA
Moderate Vertical Irregularity, V_{L1}		-0.6	-0.5	-0.5	-0.4	-0.4	-0.5	-0.4	-0.3	-0.4	-0.4	-0.3	-0.4	-0.4	(-0.4)	-0.4	-0.3	NA
Plan Irregularity, P_{L1}		-0.7	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	(-0.4)	-0.4	-0.3	NA
Pre-Code		-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	(-0.2)	-0.2	0.0	0.0
Post-Benchmark		1.9	1.9	2.0	1.0	1.1	1.1	1.5	NA	1.4	1.7	NA	1.5	1.7	1.6	1.6	NA	0.5
Soil Type A or B		0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.1	0.1
Soil Type E (1-3 stories)		0.0	-0.2	-0.4	-0.3	-0.2	-0.2	-0.2	-0.1	-0.1	-0.2	0.0	-0.2	-0.1	-0.2	-0.2	0.0	-0.1
Soil Type E (> 3 stories)		-0.4	-0.4	-0.4	-0.3	-0.3	NA	-0.3	-0.1	-0.1	-0.3	-0.1	NA	-0.1	-0.1	-0.2	-0.2	0.0	NA
Minimum Score, S_{MIN}		0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:   0.1 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☒ Yes ☐ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Phil Graham

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____   ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data   OR   DNK = Do Not Know

Legend: MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 77, Building 54 Photographs

Exterior, Two of 5 Wings

Interior, Reinforced Masonry

PHOTOGRAPH	

Address: 2600 Viking Dr.
Humboldt, TN   **Zip:** 38343
Other Identifiers: 78
Building Name:
Use: High School
Latitude: 35.840583   **Longitude:** -88.906732
S_s: 1.014   **S_1:** 0.352
Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1974 ☑ EST
Total Floor Area (sq. ft.): 76,100   **Code Year:**
Additions: ☑ None   ☐ Yes, Year(s) Built:

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐ A   ☐ B   ☐ C   ☒ D   ☐ E   ☐ F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) split level/mod.
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• raised roof @ gym + cafeteria
• conc. members
• rigid diaphragm

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	(1.2)	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	(-0.4)	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	(-0.5)	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	(-0.1)	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.1	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.2 ≥ (0.3)

EXTENT OF REVIEW
Exterior: ☒ Partial   ☐ All Sides   ☐ Aerial
Interior: ☐ None   ☐ Visible   ☒ Entered
Drawings Reviewed: ☐ Yes   ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: Charles/Versie Hamlett

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____   ☐ No
Nonstructural hazards?   ☐ Yes   ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
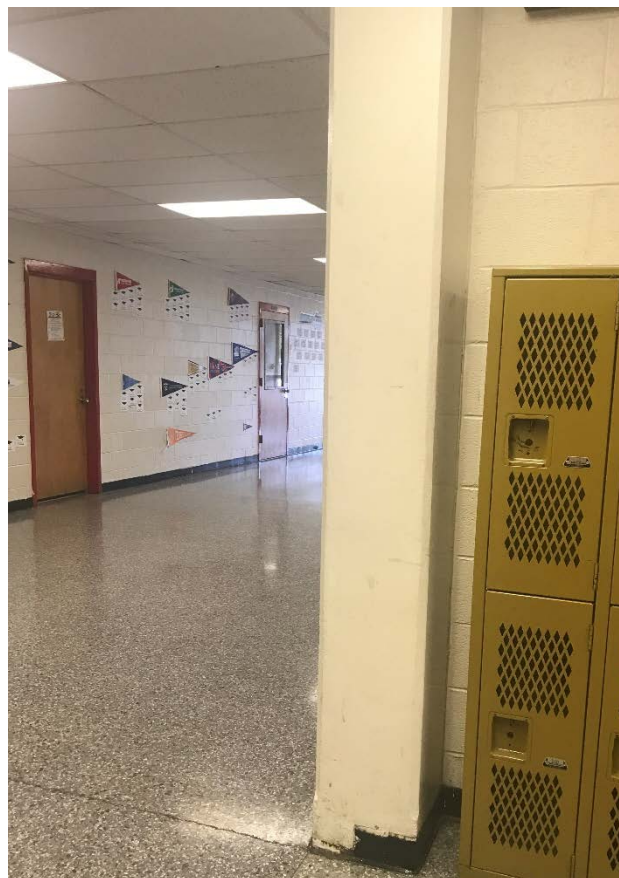☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

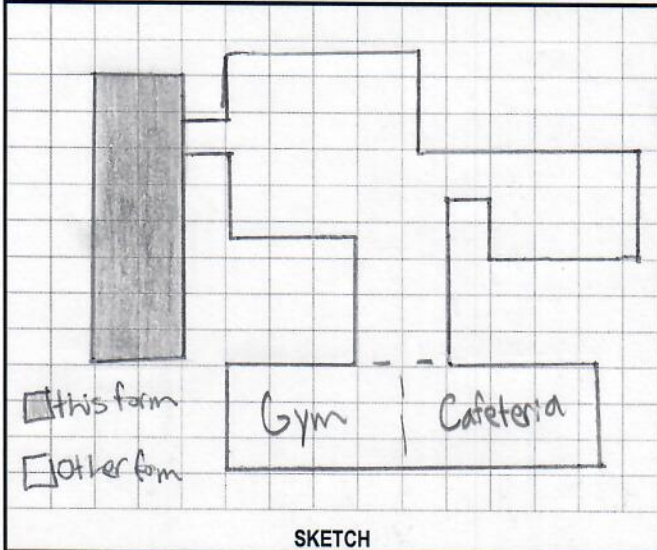Structure 78, Building 55 Photographs

Interior, Cafeteria

Interior, Exposed Concrete Column

PHOTOGRAPH

Address: 1560 N. 30th Avenue
Humboldt, TN   **Zip:** 38343
Other Identifiers: 79
Building Name:
Use: Elementary School
Latitude: 35.831765   **Longitude:** -88.897299
S_S: 0.999   **S_1:** 0.347
Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1974 ☒ EST
Total Floor Area (sq. ft.): 20,300   **Code Year:**
Additions: ☒ None   ☒ Yes, Year(s) Built: 1974

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☒C ☐D ☐E ☐F   DNK
Hard   Avg   Dense   Stiff   Soft   Poor   *If DNK, assume Type D.*
Rock   Rock   Soil   Soil   Soil   Soil

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity)
☐ Plan (type)

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
• RM1

SKETCH

☐ this form
☐ other form

Gym | Cafeteria

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	(-0.5)	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	0.7	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (1.3) ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☒ Aerial
Interior: ☒ None ☐ Visible ☐ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: N/A

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless $S_{L2} >$ cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 79, Building 56 Photographs

Exterior

Left is Structure 79, Right is Structure 80, Connected by Hallway

PHOTOGRAPH

Address: 1560 N. 30th Avenue
Humboldt, TN **Zip:** 38343
Other Identifiers: 80
Building Name:
Use: Elementary School
Latitude: 35.831866 **Longitude:** -88.896624
S_s: 0.999 S_1: 0.347
Screener(s): CM **Date/Time:**

No. Stories: Above Grade: 1 Below Grade: 0 **Year Built:** 1974 ☑ EST
Total Floor Area (sq. ft.): 56,200 **Code Year:**
Additions: ☐ None ☑ Yes, Year(s) Built: 1974

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office ⟨School⟩ ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☑C ☐D ☐E ☐F DNK
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☑ Vertical (type/severity) Split level/mod
☑ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:

SKETCH

☑ this form
☐ other form

Gym | Cafeteria

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	(0.7)	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	(-0.5)	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.6	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0.6 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☑ Partial ☐ All Sides ☐ Aerial
Interior: ☑ None ☐ Visible ☐ Entered
Drawings Reviewed: ☐ Yes ☑ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: N/A

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☑ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☑ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☑ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame
BR = Braced frame
RC = Reinforced concrete
SW = Shear wall
URM INF = Unreinforced masonry infill
TU = Tilt up
MH = Manufactured Housing
LM = Light metal
FD = Flexible diaphragm
RD = Rigid diaphragm

Structure 80, Building 56 Photographs

Left is Structure 79, Right is Structure 80, Connected by Hallway

Exterior

Rapid Visual Screening of Buildings for Potential Seismic Hazards
FEMA P-154 Data Collection Form

Level 1
HIGH Seismicity

PHOTOGRAPH

Address: 301 West Side Drive
Humboldt, TN   **Zip:** 38343
Other Identifiers: 81
Building Name:
Use: Primary School
Latitude: 35.821615   **Longitude:** -88.932404
Ss: 1.017   **S₁:** 0.354
Screener(s): CM   **Date/Time:**

No. Stories:	Above Grade: 1	Below Grade: 0	Year Built: 1965 ☒EST
Total Floor Area (sq. ft.): 54,875			Code Year:

Additions: ☐ None ☒ Yes, Year(s) Built: Unknown

Occupancy: Assembly   Commercial   Emer. Services ☐ Historic ☐ Shelter
Industrial   Office   (School) ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F **DNK**
Hard Avg Dense Stiff Soft Poor *If DNK, assume Type D.*
Rock Rock Soil Soil Soil Soil

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:

SKETCH

gym

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		3.6	3.2	2.9	2.1	2.0	2.6	2.0	1.7	1.5	2.0	1.2	1.6	1.4	1.7	1.7	1.0	1.5
Severe Vertical Irregularity, V_{L1}		-1.2	-1.2	-1.2	-1.0	-1.0	-1.1	-1.0	-0.8	-0.9	-1.0	-0.7	-1.0	-0.9	-0.9	-0.9	-0.7	NA
Moderate Vertical Irregularity, V_{L1}		-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	-0.4	-0.6	-0.5	-0.5	-0.5	-0.4	NA
Plan Irregularity, P_{L1}		-1.1	-1.0	-1.0	-0.8	-0.7	-0.9	-0.7	-0.6	-0.6	-0.8	-0.5	-0.7	-0.6	-0.7	-0.7	-0.4	NA
Pre-Code		-1.1	-1.0	-0.9	-0.6	-0.6	-0.8	-0.6	-0.2	-0.4	-0.7	-0.1	-0.5	-0.3	-0.5	-0.5	0.0	-0.1
Post-Benchmark		1.6	1.9	2.2	1.4	1.4	1.1	1.9	NA	1.9	2.1	NA	2.0	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.1	0.3	0.5	0.4	0.6	0.1	0.6	0.5	0.4	0.5	0.3	0.6	0.4	0.5	0.5	0.3	0.3
Soil Type E (1-3 stories)		0.2	0.2	0.1	-0.2	-0.4	0.2	-0.4	-0.4	0.0	0.0	-0.2	-0.3	-0.1	-0.1	-0.1	-0.2	-0.4
Soil Type E (> 3 stories)		-0.3	-0.6	-0.9	-0.6	-0.6	NA	-0.6	-0.4	-0.5	-0.7	-0.3	NA	-0.4	-0.5	-0.6	-0.2	NA
Minimum Score, S_{MIN}		1.1	0.9	0.7	0.5	0.5	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	1.0

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:   0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☒ None ☐ Visible ☐ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: N/A

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:	MRF = Moment-resisting frame	RC = Reinforced concrete	URM INF = Unreinforced masonry infill	MH = Manufactured Housing	FD = Flexible diaphragm
	BR = Braced frame	SW = Shear wall	TU = Tilt up	LM = Light metal	RD = Rigid diaphragm

Structure 81, Building 57 Photographs

Exterior

Exterior

PHOTOGRAPH	

Address: 1100 Middle Rd.
Milan, TN   Zip: 38358
Other Identifiers: 82
Building Name:
Use: Elementary school
Latitude: 35.941951   Longitude: -88.764254
S_s: 0.971 S_1: 0.337
Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1995 ☒ EST
Total Floor Area (sq. ft.): 108,500   Code Year:
Additions: ☐ None ☐ Yes, Year(s) Built:

Occupancy:
Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock / Avg Rock / Dense Soil / Stiff Soil / Soft Soil / Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK
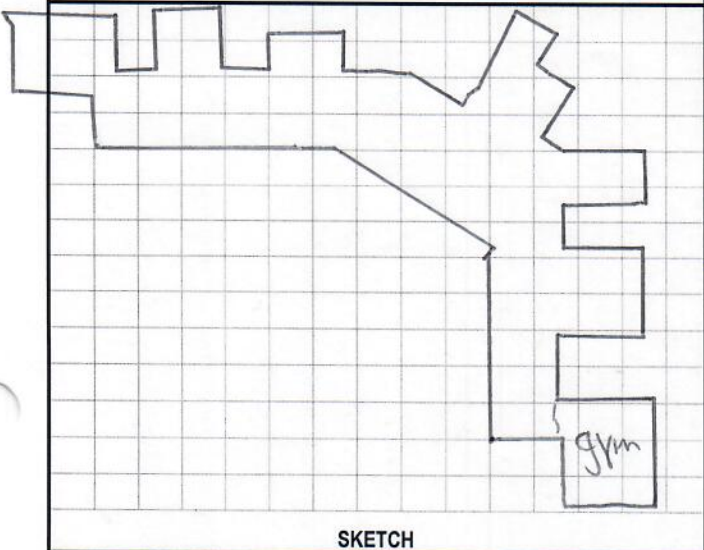
Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities:
☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

SKETCH

COMMENTS:
• RM1
• Change in ceiling height @ gym

gym

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	(-0.6)	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	(-0.7)	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	(-0.5)	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.3	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.3

EXTENT OF REVIEW

Exterior: ☐ Partial ☐ All Sides ☒ Aerial
Interior: ☒ None ☐ Visible ☐ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person: N/A

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☐ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☒ No

Detailed Nonstructural Evaluation Recommended? (check one)

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend:
MRF = Moment-resisting frame   RC = Reinforced concrete   URM INF = Unreinforced masonry infill   MH = Manufactured Housing   FD = Flexible diaphragm
BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 82, Building 58 Photographs

Exterior

PHOTOGRAPH	**Address:** 4040 Middle Rd. Milan, TN **Zip:** 38358

Other Identifiers: 83

Building Name:

Use: Middle School

Latitude: 35.942686   **Longitude:** -88.753493

S_s: 0.965 S_1: 0.334

Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 2003 ☒ EST
Total Floor Area (sq. ft.): 92,375   **Code Year:**
Additions: ☒ None ☐ Yes, Year(s) Built:

Occupancy: Assembly Commercial Emer. Services ☐ Historic ☐ Shelter
Industrial Office (School) ☐ Government
Utility Warehouse Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock Avg Rock Dense Soil Stiff Soil Soft Soil Poor Soil *If DNK, assume Type D.*
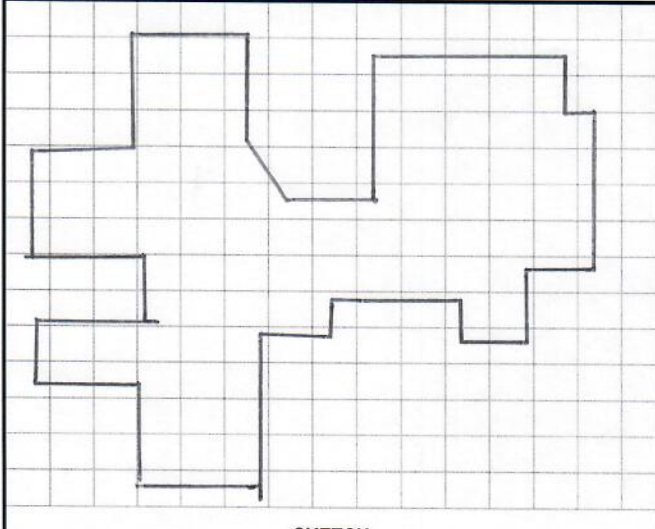
Geologic Hazards: Liquefaction: Yes/No/DNK Landslide: Yes/No/DNK Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☒ Vertical (type/severity) Split level/mod
☒ Plan (type) re-entrant corner

Exterior Falling Hazards: ☐ Unbraced Chimneys ☐ Heavy Cladding or Heavy Veneer
☐ Parapets ☐ Appendages
☐ Other:

COMMENTS:
· Change in ceiling height @ lobby

SKETCH

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	(-0.6)	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.5	-0.6	-0.7	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: (0.3)

EXTENT OF REVIEW

Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person:

LEVEL 2 SCREENING PERFORMED?

☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS

Are There Hazards That Trigger A Detailed Structural Evaluation?

☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED

Detailed Structural Evaluation Required?

☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? *(check one)*

☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified ☒ DNK

Where information cannot be verified, screener shall note the following: **EST** = Estimated or unreliable data **OR** **DNK** = Do Not Know

Legend: MRF = Moment-resisting frame RC = Reinforced concrete URM INF = Unreinforced masonry infill MH = Manufactured Housing FD = Flexible diaphragm
BR = Braced frame SW = Shear wall TU = Tilt up LM = Light metal RD = Rigid diaphragm
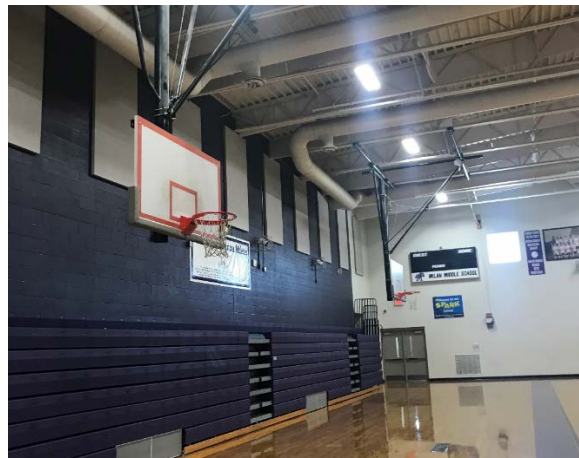
Structure 83, Building 59 Photographs
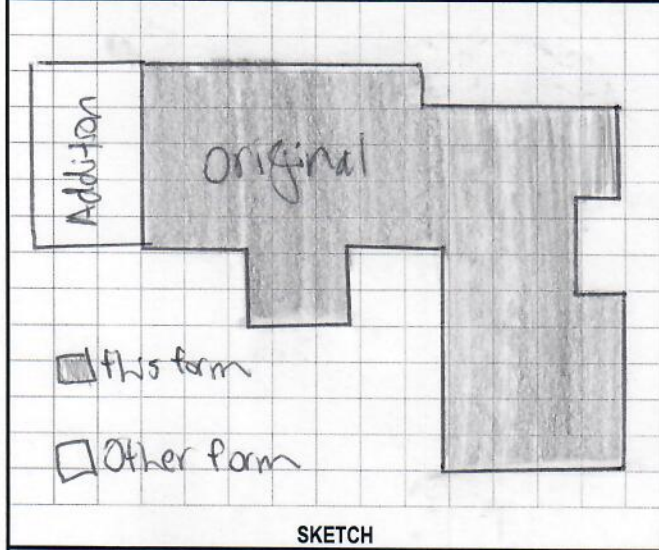

Exterior, Split Level

Interior, Split Level

Interior, Exposed Flexible Diaphragm Roof

PHOTOGRAPH

| Address: | 7060 E. Van Hook St |
| | Milan, TN | Zip: 38358 |

Other Identifiers: 84

Building Name:

Use: High School

Latitude: 35.926588   Longitude: -88.736201

S_S: 0.941 S_1: 0.327

Screener(s): CM   Date/Time:

No. Stories: Above Grade: 1   Below Grade: 0   Year Built: 1975 ☐ EST

Total Floor Area (sq. ft.): 84,800   Code Year:

Additions: ☒ None ☒ Yes, Year(s) Built: 2000

Occupancy:
Assembly ☐ | Commercial | Emer. Services | ☐ Historic | ☐ Shelter
Industrial | Office | (School) | ☐ Government
Utility | Warehouse | Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F DNK
Hard Rock | Avg Rock | Dense Soil | Stiff Soil | Soft Soil | Poor Soil | If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK

Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities:
☒ Vertical (type/severity) split level/mod.
☒ Plan (type) rc-entrant corner

Exterior Falling Hazards:
☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:
* Steel columns present

SKETCH

(Sketch labeled: Addition, original, ☒ this form, ☐ Other form)

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	1.4	1.8	1.5	(1.8)	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	(-0.6)	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	(-0.7)	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	(-0.5)	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$: 0 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person:

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☒ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
☐ Yes, nonstructural hazards identified that should be evaluated
☐ No, nonstructural hazards exist that may require mitigation, but a detailed evaluation is not necessary
☐ No, no nonstructural hazards identified   ☒ DNK

Where information cannot be verified, screener shall note the following: EST = Estimated or unreliable data OR DNK = Do Not Know

Legend:
MRF = Moment-resisting frame | RC = Reinforced concrete | URM INF = Unreinforced masonry infill | MH = Manufactured Housing | FD = Flexible diaphragm
BR = Braced frame | SW = Shear wall | TU = Tilt up | LM = Light metal | RD = Rigid diaphragm
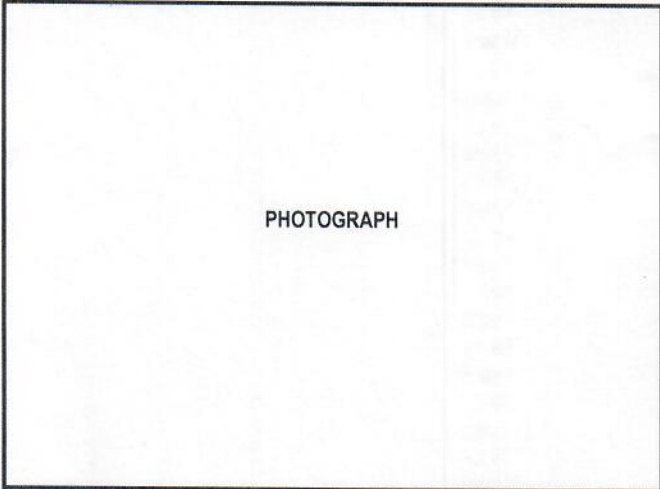
Structure 84, Building 60 Photographs

Joint Between Structures 84 (Right) and 85 (Left)
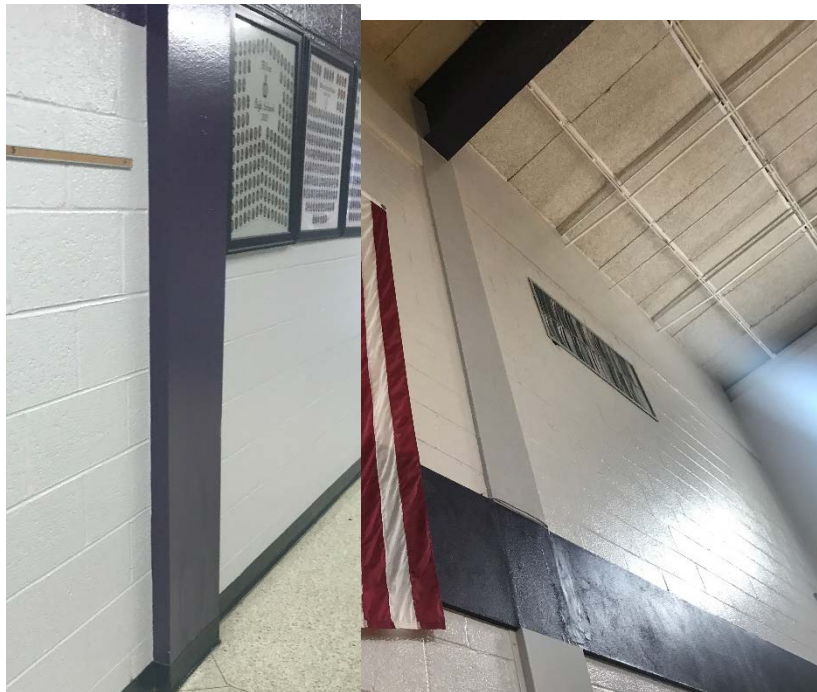
Exposed Concrete Members

PHOTOGRAPH

Address: 7060 E. Van Hook St.
Milan, TN   **Zip:** 38358
Other Identifiers: 85
Building Name:
Use: High School
Latitude: 35.925469   **Longitude:** -88.737142
S_S: 0.941 S_1: 0.327
Screener(s): CM   **Date/Time:**

No. Stories: Above Grade: 1   Below Grade: 0   **Year Built:** 1000 ☐ EST
Total Floor Area (sq. ft.): 8000 SF   **Code Year:**
Additions: ☐ None   ☒ Yes, Year(s) Built: 1975

Occupancy: Assembly   Commercial   Emer. Services   ☐ Historic   ☐ Shelter
Industrial   Office   (School)   ☐ Government
Utility   Warehouse   Residential, # Units:

Soil Type: ☐A ☐B ☐C ☒D ☐E ☐F   DNK
Hard Rock   Avg Rock   Dense Soil   Stiff Soil   Soft Soil   Poor Soil   If DNK, assume Type D.

Geologic Hazards: Liquefaction: Yes/No/DNK   Landslide: Yes/No/DNK   Surf. Rupt.: Yes/No/DNK
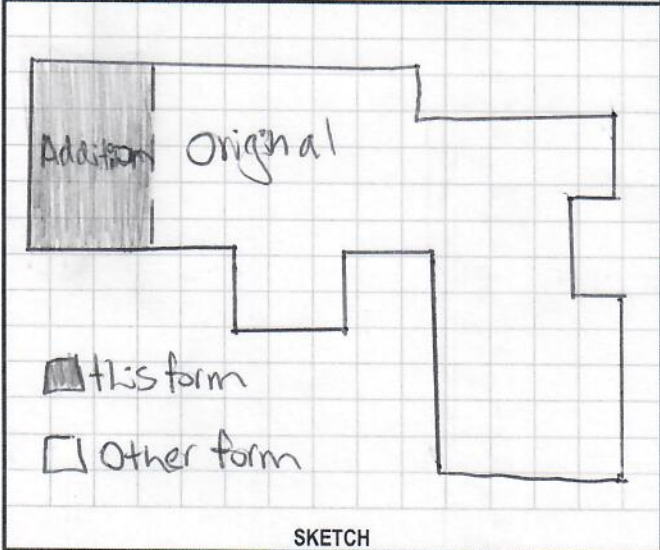
Adjacency: ☐ Pounding   ☐ Falling Hazards from Taller Adjacent Building

Irregularities: ☐ Vertical (type/severity) NA   ☐ Plan (type) NA

Exterior Falling Hazards: ☐ Unbraced Chimneys   ☐ Heavy Cladding or Heavy Veneer
☐ Parapets   ☐ Appendages
☐ Other:

COMMENTS:

• Reinforced conc.

SKETCH

Addition | Original

☒ this form
☐ Other form

☐ Additional sketches or comments on separate page

BASIC SCORE, MODIFIERS, AND FINAL LEVEL 1 SCORE, S_{L1}

FEMA BUILDING TYPE	Do Not Know	W1	W1A	W2	S1 (MRF)	S2 (BR)	S3 (LM)	S4 (RC SW)	S5 (URM INF)	C1 (MRF)	C2 (SW)	C3 (URM INF)	PC1 (TU)	PC2	RM1 (FD)	RM2 (RD)	URM	MH
Basic Score		4.1	3.7	3.2	2.3	2.2	2.9	2.2	2.0	1.7	2.1	(1.4)	1.8	1.5	1.8	1.8	1.2	2.2
Severe Vertical Irregularity, V_{L1}		-1.3	-1.3	-1.3	-1.1	-1.0	-1.2	-1.0	-0.9	-1.0	-1.1	-0.8	-1.0	-0.9	-1.0	-1.0	-0.8	NA
Moderate Vertical Irregularity, V_{L1}		-0.8	-0.8	-0.8	-0.7	-0.6	-0.8	-0.6	-0.6	-0.6	-0.6	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	NA
Plan Irregularity, P_{L1}		-1.3	-1.2	-1.1	-0.9	-0.8	-1.0	-0.8	-0.7	-0.7	-0.9	-0.6	-0.8	-0.7	-0.7	-0.7	-0.5	NA
Pre-Code		-0.8	-0.9	-0.9	-0.5	-0.5	-0.7	-0.6	-0.2	-0.4	-0.7	-0.1	-0.4	-0.3	-0.5	-0.5	-0.1	-0.3
Post-Benchmark		1.5	1.9	2.3	1.4	1.4	1.0	1.9	NA	1.9	2.1	NA	2.1	2.4	2.1	2.1	NA	1.2
Soil Type A or B		0.3	0.6	0.9	0.6	0.9	0.3	0.9	0.9	0.6	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.9
Soil Type E (1-3 stories)		0.0	-0.1	-0.3	-0.4	-0.5	0.0	-0.4	-0.5	-0.2	-0.2	-0.4	-0.5	-0.3	-0.4	-0.4	-0.3	-0.5
Soil Type E (> 3 stories)		-0.5	-0.8	-1.2	-0.7	-0.7	NA	-0.7	-0.6	-0.6	-0.8	-0.4	NA	-0.5	-0.6	-0.7	-0.3	NA
Minimum Score, S_{MIN}		1.6	1.2	0.8	0.5	0.5	0.9	0.5	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	1.4

FINAL LEVEL 1 SCORE, $S_{L1} \geq S_{MIN}$:   1.4 ≥ 0.3

EXTENT OF REVIEW
Exterior: ☒ Partial ☐ All Sides ☐ Aerial
Interior: ☐ None ☐ Visible ☒ Entered
Drawings Reviewed: ☐ Yes ☒ No
Soil Type Source:
Geologic Hazards Source:
Contact Person:

LEVEL 2 SCREENING PERFORMED?
☐ Yes, Final Level 2 Score, S_{L2} _____ ☐ No
Nonstructural hazards? ☐ Yes ☐ No

OTHER HAZARDS
Are There Hazards That Trigger A Detailed Structural Evaluation?
☐ Pounding potential (unless S_{L2} > cut-off, if known)
☐ Falling hazards from taller adjacent building
☐ Geologic hazards or Soil Type F
☐ Significant damage/deterioration to the structural system

ACTION REQUIRED
Detailed Structural Evaluation Required?
☐ Yes, unknown FEMA building type or other building
☒ Yes, score less than cut-off
☐ Yes, other hazards present
☐ No

Detailed Nonstructural Evaluation Recommended? (check one)
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BR = Braced frame   SW = Shear wall   TU = Tilt up   LM = Light metal   RD = Rigid diaphragm

Structure 85, Building 60 Photographs

Joint Between Structures 84 (Right) and 85 (Left)

Structure 85 is One Hallway Addition to Structure 84

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