

CORRESPONDENCE - July 15, 2022

The Honorable Senator Guy Guzzone
Chair, Senate Budget and Taxation
3 West
Miller Senate Office Building
Annapolis, MD 21401

The Honorable Delegate Ben Barnes
Chair, House Appropriations
Room 121
House Office Building
Annapolis, MD 21401

Dear Chairs Guzzone and Barnes,

The 2022 Joint Chairmen's Report states:

.... provided that \$300,000 of this appropriation may not be expended until the Interagency Commission on School Construction (IAC) submits to the budget committees two reports on Chapter 14 of 2018 implementation requirements related to the Statewide Facilities Assessment, the Integrated Master Facility Asset Library (IMFAL), and recommendations from the Workgroup on the Assessment and Funding of School Facilities. The first report shall be submitted by July 15, 2022, and include:

- (1) detailed information on steps taken by IAC to resolve outstanding data and dataset issues with the Department of Legislative Services and local education agencies (LEA) including, but not limited to:
 - (a) receipt of requested datasets;*
 - (b) development of a data dictionary;*
 - (c) confirmation of the accuracy of the facility condition index at the school, system, and LEA level; and*
 - (d) calculations for, and confirmation of, the accuracy of the enrollment growth index;**
- (2) revisions to Maryland Educational Sufficiency Standards and details as to how those standards will be used in future school facility assessments starting in fiscal 2022;*
- (3) regulations adopted by IAC that support workgroup decisions involving the use of assessment data and revised sufficiency standards; and*
- (4) progress on IMFAL, including the implementation schedule for the business processing system; system costs for fiscal 2022, 2023 and 2024; and progress on other key system software and/or components needed to integrate school construction data for LEA use.*

As requested in the FY 2023 State Operating Budget (SB 290), the Interagency Commission on School Construction is providing the first report on Chapter 14 of 2018 implementation requirements related to the Statewide Facilities Assessment (SFA), the Integrated Master Facility Asset Library, and recommendations from the Workgroup on the Assessment and Funding of School Facilities.

Steps taken to resolve outstanding data and dataset issues with DLS and LEAs

A. Receipt of requested datasets;

- i. On Dec. 21, 2021, the IAC provided to DLS a set of SFA data files that included the following with regard to the complete set of 1,383 LEA schools assessed:



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1. The full data set, unweighted and with modulars/relocatables registering as space deficiencies at/upon 0 observed RUL, and with formulas and columns to validate the results calculated by Qlik;
 2. A "slim" and more easily filterable and usable version of the full data set (lacking validation formulas and columns);
 3. Condition and FCI data for each asset in each building, with rollups to system group, facility, LEA, and statewide levels;
 4. An example of the math used to cost-weight the assets in a facility (Stadium School); and
 5. Enrollments and growth factors.
- ii. On June 2, 2022, the IAC provided an updated data set that corrected minor variations in cost per unit figures for some assets as well as FCI figures recalculated accordingly.
 - iii. The IAC continues to meet with DLS, typically bi-weekly, to review in depth the data methodology and resulting information.
 - iv. Based upon DLS's statements in June 2022, IAC staff believe that all of DLS's issues with the data set have been resolved, although some work remains to be done so that formulas and outputs can be more easily verified by DLS in the future. That work is ongoing.
- B. Development of a data dictionary;**
- i. The development of the data dictionary is currently in process (see Attachment 1) and is under DLS review.
- C. Confirmation of the accuracy of the facility condition index at the school, system, and LEA level; and**
- i. After the contractor Bureau Veritas (BV) completed the baseline set of assessments in August 2021, it performed an internal quality-assurance/quality-control (QA/QC) review of the resulting data set. Between December 2021 and January 2022, the IAC performed its QA/QC review of the data set provided by the contractor and found adjustments that were required with regard to some unit costs, asset names, expected useful lifespans, and asset quantities. BV conducted a deep review and completed the needed adjustments in February, submitting the updated and final baseline data set to the IAC on 2/28/2022. IAC staff then conducted further QA/QC checks on that data set prior to sending updated data summaries to all LEAs on 3/8/2022 for review and questions. To date, the IAC has not received any inquiry or concerns from LEAs regarding the final dataset. Additionally, FCI calculations and data have been independently reviewed by data scientists at Johns Hopkins University, who provided confirmation that the method was sound. On June 23, 2022, DLS staff confirmed that they were able to validate the FCI calculations and figures submitted and had no further related questions.
- D. Calculations for, and confirmation of, the accuracy of the enrollment growth index.**

- i. The enrollment projections used in the SFA were provided by the Maryland State Department of Education (MSDE). The MSDE enrollment figures are vetted by the Maryland Department of Planning and confirmed by the LEAs (LEA enrollment projections have to be within 5% of MSDE figures). These figures were determined to be the best starting point for enrollment growth calculations. In the event that enrollment growth projections utilized in the SFA exceeded 120%, a member of the IAC staff would review the provided enrollment data and research the local situation through LEA provided documentation (Educational Facilities Master Plans) to make a determination on what the 5-year enrollment projection should be, and set the appropriate Growth Factor Override. On June 23, 2022, DLS staff confirmed that they were able to validate the growth factor and enrollment calculations and had no further related questions.

Revisions to Maryland Educational Facilities Sufficiency Standards (EFSS) and use in future Statewide Assessments starting in FY22.

HB 1290 contained the workgroup's recommendations including several items to be established in the EFSS and used in the SFA. The recommended items, listed below, currently are covered in the EFSS. However, some of them were not specifically captured in the prior year assessment methodology. The IAC and BV are implementing additional data collection tools as detailed for each item below to address this requirement.

1. Temperature: The EFSS state that building systems must be capable of maintaining the facility temperature between 68 and 75 degrees fahrenheit at full occupancy. As part of the pre-assessment questionnaire, LEAs are asked to identify persistent trouble spots where this is not the case. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
2. Humidity: The EFSS state that the facility's humidity must be between 30% and 60% relative humidity (RH) at full occupancy. As part of the pre-assessment questionnaire, LEAs are asked to identify persistent trouble spots where this is not the case. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
3. Carbon Dioxide: The EFSS state that the facility's CO2 level must be below 1,200ppm at full occupancy. As part of the pre-assessment questionnaire, LEAs are asked to identify persistent trouble spots where this is not the case. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
4. Acoustic Levels: The EFSS state that outside noise should not exceed 55db. As part of the pre-assessment questionnaire, LEAs are asked to identify persistent trouble spots where this is not the case. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
5. Lead Paint: The EFSS state that the facility must be free of exposed lead paint. As part of the pre-assessment questionnaire, LEAs are asked to identify areas in their facilities they believe contain exposed lead paint. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
6. Asbestos: The EFSS state that the facility must be free of exposed, friable asbestos. As part of the pre-assessment questionnaire, LEAs are asked to identify areas in their facilities they



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believe contain Asbestos. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.

7. Kitchen Sanitary Equipment: The EFSS state that the facility's kitchen must contain the following equipment: a telephone, plumbing providing potable water, a sink suitable for use both in preparing food and washing utensils, and a separate hand-washing sink. As part of the pre-assessment questionnaire, LEAs are asked to identify Kitchen Equipment they feel is missing. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation. In compliance with HB 1290, the IAC has engaged in discussions with Maryland Department of Health and learned that as school cafeterias are considered to be retail food facilities, they are licensed by local health departments, and that retail food facilities equipment requirements are based entirely on the processes they need to complete. The IAC will continue to engage with the Department of Health to determine what, if any, equipment should be standardized.
8. Lighting: The EFSS state that lighting should be at least 50 foot candles (fc) at work surface height in the center of the room. As part of the pre-assessment questionnaire, LEAs are asked to identify persistent trouble spots where this is not the case. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
9. Emergency Communication System: The EFSS state that "[a] school facility shall have a fire alarm and emergency-notification system as required by applicable State fire codes and emergency procedures" and "[a] school facility shall have a two-way internal communication system between a central location and each classroom, isolated office space, library media center, physical education space, cafeteria, and other regularly occupied spaces." As part of the pre-assessment questionnaire, LEAs are asked to identify whether or not the facility has an emergency communication system that meets these requirements. If issues are identified, assessors will verify when onsite, and the SFA scores will appropriately reflect the need for remediation.
10. Health Room Attributes: The EFSS state that "[a] school facility shall have a dedicated health services space with areas for waiting, examination and treatment, resting, storage, and an accessible toilet room. There shall be a separate room for private consultations and for use as a health service professional's office. Provide lockable cabinets for medical records and medications and at least one sink in addition to the sink in the toilet room. All sinks must provide both hot and cold water. Provide a minimum of 500 net sf." As part of the pre-assessment questionnaire, LEAs are asked to identify Health Room Attributes they believe are missing. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.
11. Safety Equipment in Laboratory Space: Laboratory spaces can include science classrooms and career or technical education labs (i.e. diesel-engine repair, cosmetology, culinary). The EFSS state that "[t]he space shall have science fixtures and equipment, in accordance with the standard equipment necessary to meet the educational requirements of the Maryland Science Content Standards" with respect to Science Labs, and "spaces for programs requiring licensing, certification, or accreditation by a state board or agency shall meet all applicable health and safety standards. Cosmetology and barber programs shall comply with

the sanitation requirements of the State Board of Cosmetologists and the State Board of Barbers, respectively” with respect to CTE Labs. As part of the pre-assessment questionnaire, LEAs are asked to identify laboratory safety equipment they believe is missing. Assessors will verify the issue when onsite, and the SFA scores will appropriately reflect the need for remediation.

12. The functionality of HVAC, life/safety building systems, roofs, and any additional critical building systems identified by the IAC. The functionality of all these items is determined by assessors onsite and reflected in the observed remaining useful life (ORUL) metric of individual assets.

Additional revisions to the EFSS are in progress for the special school types listed below:

- Alternative Schools
- Career and Technical Education
- Special Education Facilities
- Outdoor Science Centers

Regulations adopted by IAC that support workgroup decisions involving the use of assessment data and revised sufficiency standards

At the July 14, 2022 IAC meeting, revisions to Code of Maryland Regulations (COMAR) 14.39.07 Public Schools Facilities Educational Sufficiency Standards chapter were presented to the IAC members for their review and approval. These revisions will codify the sufficiency standards that were approved by the IAC on May 31, 2018 into COMAR. The sufficiency standards shall be used to complete assessments of existing school facilities Statewide. They are to be used for assessment purposes only and are not requirements for school facility design or construction. The revision has been filed with the Division of State Documents (DSD) for publication in the Maryland Register and then will be open for public comment for a period of at least 30 days. Final action on the proposals is expected to be considered by the IAC during the October 13, 2022 IAC meeting.

IAC regulations adopted based on workgroup recommendations

The proposal to revise the COMAR 14.39.02.05 State Cost Share Percentage was submitted to the IAC at the June 8, 2022 meeting for IAC member review and approval. The proposal has been filed with the DSD with a desired date of publication in the July 15, 2022 issue for the Maryland Register for a period of at least 30 days. Final action on the proposal is expected to be considered by the IAC during the September 8, 2022 IAC meeting. The State Cost Share was revised to accord with changes made to Education Article §5-303 by 2022 MD Laws, Ch. 32 except for the Total Cost of Ownership increase that will be proposed once the new regulation regarding the repayment process is completed.

IAC staff anticipate proposing revisions to COMAR 14.39.02.06 Maximum State Construction Allocation to the IAC at the August 11, 2022 meeting for IAC member review and approval. The revisions will permit the IAC when calculating the maximum state construction allocation for a project approved for State funding to reduce the eligible projected enrollment for the project only if the sum of available seat counts in all adjacent schools is 15% or more of the project school’s enrollment.

Progress on IMFAL

The IAC reported on the progress of the [IMFAL procurement in August 2021](#). The IMFAL will be a cloud-based window to information from a variety of IAC data sets that will be output into portals for LEAs and the general public to access appropriate information.

The IMFAL will gather data from the following:

- Maintenance Database
- Facility Assessment Database
- Business Management System (BMS)
- Facility Inventory Database
- Other IAC data as necessary

Some of these data sources are already in place, such as the Facility Inventory and Maintenance databases. The Facility Assessment Database has been generated by BV and will be in use for the remainder of the three-year contract term, during which time the IAC expects to work with DoIT or a DoIT contractor to build an appropriate replacement.

The BMS, which is a primary component of the IMFAL, has completed the process of procurement. The contract was awarded to e-Builder, Inc. and was approved by the Board of Public Works (BPW) at its June 22, 2022 meeting. The contract term is for 5 years with two 1-year renewal options with a base amount of \$3,726,111 and additional \$1,620,975 for the optional renewals. It is anticipated to go live within 18 months of BPW approval.

Please contact me at Alex.Donahue@Maryland.gov or Cassandra Viscarra at Cassandra.Viscarra@maryland.gov with questions or concerns.

Best Regards,



Alex Donahue
Acting Executive Director
Interagency Commission on School Construction

Cc: Cassandra Viscarra, Deputy Director for Administration, IAC
Sarah Albert, Department of Legislative Services (5 copies)

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
1.00	Basic Variables						This section of the Data Dictionary defines Basic SFA Variables.	
1.01	Local Education Agency	Fixed					Local Education Agency of an asset or school	
1.02	PSC Number	Fixed				IAC Facility Inventory Database	Unique identifier for school facilities in the format ##.###. The first two digits before the decimal indicate the LEA that owns the facility.	
1.03	LCF Building Type	Fixed			Elementary School, Middle School, High School, Combination School, Other	IAC Facility Inventory Database	Describes whether the building is an Elementary School, Middle School, High School, Combination School, or Other school type.	
1.04	State Rated Capacity (SRC)	Fixed				IAC Facility Inventory Database	The number of students a facility can support based on State guidelines. This calculation is based upon the number of teaching stations in the school times the number of students a teaching station for that grade band can accommodate based upon class sizes listed in Appendix 102A of the IAC's Administrative Procedures Guide (APG).	IAC APG
1.05	Gross Square Footage					IAC Facilities Database	The Gross Square Footage of a facility is described as the sum of all areas on all floors of a building included within the outside faces of its exterior walls. This data is taken from the IAC's Facility Inventory Database.	
2.00	Asset Variables						This section of the Data Dictionary defines variables relating to Assets.	
2.01	Asset					SFA Master Asset List	The base component of a facility included in the SFA. There are 162 assets in the Master Asset List available for inclusion in the SFA. For a full list of assets in the SFA please see the IAC's SFA FAQ.	IAC - SFA FAQ
2.02	Asset Name	Fixed				SFA Master Asset List	Descriptive name for the type of asset.	IAC - SFA FAQ
2.03	System Group	Fixed				SFA Master Asset List	Broad class to which an asset belongs (ceilings, HVAC, plumbing, etc.) The 162 Assets are are grouped together by the major facility system they belong to (i.e. HVAC System Group Includes: Boiler, Chiller, and Split System Assets). There are 17 different System Groups used in the SFA. Please see the SFA FAQ for a table containing a full listing of assets, their system groups, expected useful life, and unit costs.	IAC - SFA FAQ
2.04	Expected Useful Life (EUL)	Fixed				SFA Master Asset List	The number of years an Asset is expected to be functional based upon manufacturer's specifications, BOMA recommendations, and observations made by facilities professionals. For a complete listing of assets and their EULs, please see the IAC SFA FAQ.	IAC - SFA FAQ
2.05	Unit of Measure (UoM)	Fixed				SFA Master Asset List	The standard of measurement for any of the 162 Assets in the SFA Master Asset List. The Unit of Measure varies by asset type and includes assets measured in units including but not limited to: square footage, individual quantities, and capacity. For a full list of Assets and their Units of Measure, please see the IAC SFA FAQ.	IAC - SFA FAQ
2.06	Number of units	Fixed			Varies - Should be less than or equal to GSF (except site elements)		The number of units used to determine the asset replacement value of an asset. This value is a Quantity Takeoff. Depending on the asset, it is based on actual capacity (HVAC Tons of Cooling or Boiler MBH), measured spaces (square footage of flooring tiles), or building Gross Square Footage (plumbing distribution).	
2.07	Cost Per Unit	Fixed				SFA Master Asset List & BV Cost Library	IAC-adopted current replacement value for a single unit of an Asset; is based upon factors including the type and data from RSMMeans and other industry sources. For a complete listing of assets and their costs per unit, please see the IAC SFA FAQ.	IAC - SFA FAQ
2.08	Observed Remaining Useful Life (ORUL)	Fixed			0 <= ORUL <= EUL	Assessor determined	The number of years past the assessment date for which, based upon the assessor's observation and professional judgment, an Asset is expected to remain functional given reasonable properly scheduled routine maintenance.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
2.09	Year in Service (YIS)	Fixed			Varies by System, generally expect average YIS to be less than 2x EUL. There are extreme outliers, for example the Booker T Washington School in Baltimore City has some structural elements that date to the original construction in 1895.	Supplied by LEA or assessor	The averaged estimated year an asset was physically installed. Some assets (i.e. Boilers) may include multiple pieces of equipment installed at different times. Assessors estimate the Year in Service by averaging the install dates of individual pieces of equipment, taking into account the size/capacity of each piece of equipment relative to the rest of the asset.	
2.10	Calendar Year Observed	Fixed			2020--present year	Generated by software on day of assessment	The calendar year in which the assessment of the Asset was conducted.	
2.11	Fiscal Year Observed	Fixed			2021--present	Generated by software on day of assessment	The fiscal year in which the assessment of the Asset was conducted.	
2.12	Calculated RUL	Calculated	Expected Useful Lifespan - (Calendar Year Observed - Year in Service)				The calculated RUL based upon the Year in Service and the actual age.	
2.13	Actual Age vs EUL	Calculated	(Calendar Year Observed - Year in Service) / Expected Useful Life				The ratio of the Actual Age of an Asset to its Expected Useful Life expressed as a percentage.	
2.14	Asset Replacement Value (FCI)	Calculated	RS Means-based cost per unit measure x number of units	SFA Coldstream/Stadium School Model			As used to calculate the FCI, the current replacement value of an asset without regard to condition or weighting; derived by multiplying the IAC-adopted Cost Per Unit for the Asset by the Quantity of the Asset.	
2.15	Asset Replacement Value (MDCI)	Calculated	RS Means-based cost per unit measure x number of units, excluding aged out relocatable and modulators	SFA Coldstream/Stadium School Model			As used to calculate the MDCI, the current replacement value of an asset without regard to condition or weighting; derived by multiplying the IAC-adopted Cost Per Unit for the Asset by the Quantity of the Asset. This value will only be different from the FCI-based Asset Replacement value in the event of "aged-out" Modulators/Relocatables in Scenarios A&D. It is included here for consistency only.	
2.16	Minimum Year In Service	Calculated	The oldest YIS in a group of Assets				The oldest Year in Service of an asset in a grouping of assets (i.e. the oldest asset in a School, System Group, or LEA).	
2.17	Average Year In Service	Fixed	Sum of all YIS / # of YIS in the numerator				The average Year in Service of an asset in a grouping of assets (i.e. the average asset YIS in a School, System Group, or LEA).	
3.00	FCI Variables						This Section of the Data Dictionary defines variables related to calculating Facility Condition Index (FCI).	
3.01	Percent Degraded (Facility condition Index, FCI)	Calculated	(Expected Useful Life - Observed Remaining Useful life) / Expected Useful Life	SFA Coldstre	0.00-1.00		The Percent Degraded (or Asset FCI) represents the percent of the expected life of the asset that has been consumed by use and age.	
3.02	FCI per Asset	Calculated	Percent degraded x asset replacement value (FCI)	SFA Coldstre	<= Asset Replacement Value		FCI per Asset is the Asset's Percent Degraded multiplied by the Asset's Replacement Value. This item is used as a weighting factor for calculating the FCI ensuring that more significant pieces of equipment have a larger impact on the calculated FCI. This field contains the Depleted Value of an asset, not FCI. It is the product of the asset's FCI x its CRV. The field in the System Group file was misnamed.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
3.03	FCI per System Group	Calculated	Weighted average: Sum of FCIs per asset in a system group divided by the sum of all asset replacement values in a system group	SFA Coldstre	0.00-1.00		The weighted FCI for a System Group.	
3.04	FCI per School	Calculated	Weighted average: Sum of FCIs per asset in a School divided by the sum of all asset replacement values in a School	SFA Coldstre	0.00-1.00		The weighted FCI for a School.	
3.05	FCI per LEA	Calculated	Weighted average: Sum of FCIs per asset in an LEA divided by the sum of all asset replacement values in an LEA		0.00-1.00		The weighted FCI for an LEA.	
3.06	FCI by System Group LEA Level	Calculated	Weighted average: Sum of FCIs per asset in a System Group in an LEA divided by the sum of all asset replacement values in a System Group in an LEA		0.00-1.00		The Weighted FCI for a System Group in an LEA (e.g., the FCI for the ceiling assets in Washington County).	
3.07	FCI by System Group School Level	Calculated	Weighted average: Sum of FCIs per asset in a System Group in a School divided by the sum of all asset replacement values in a System Group in a School		0.00-1.00		The Weighted FCI for a System Group in a school (e.g., the FCI for the HVAC assets in Calvert Elementary).	
3.08	FCI by System Group Building Level	Calculated	Weighted average: Sum of FCIs per asset in a System Group in a Building divided by the sum of all asset replacement values in a System Group in a Building		0.00-1.00		The Weighted FCI for a specific building.	
4.00	Space Types						This section of the Data Dictionary defines variables relating to inventoried facility Space Types.	
4.01	Space Types / Requirements (& variations per school type)						There are 18 different space types inventoried as part of the SFA. All space types except Auditoriums have requirements set by Educational Sufficiency Standards. The standards, and the calculations for determining space needs are listed below. Some space types have different requirements for Elementary Schools (ES), Middle Schools (MS), and High Schools (HS).	
4.02	Administrative (Space Type)		150 + CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			Standard - A school facility shall have space to be used for the administration of the school. The space shall consist of a minimum of 150 net sf, plus 1 net sf/student of the planned school program capacity.	IAC Sufficiency Standards
4.03	Auditorium (Space Type)		No Requirement				Square footage figures for auditorium-type spaces were captured for information purposes but are not used in any calculations because there is no minimum space requirements for auditoriums in the Sufficiency Standards.	IAC Sufficiency Standards
4.04	Career Development (Space Type)		Minimum 650 SF per program Lab (MS & HS only, no ES requirement)	SFA Coldstream/Stadium School Demonstration Model			Middle school. Space shall be provided for career-development and career-exploration activities. Each program lab or classroom space shall be no smaller than 650 net sf. High school. Career and technology education programs space shall be provided with no less than 4 net sf/student of the specialty program capacity of the school for career education. Each program lab or classroom space shall be no smaller than 650 net sf. Spaces for programs requiring licensing, certification, or accreditation by a state board or agency shall meet all applicable health and safety standards. Cosmetology and barber programs shall comply with the sanitation requirements of the State Board of Cosmetologists and the State Board of Barbers, respectively.	IAC Sufficiency Standards
4.05	Dining (Space Type)		15/3 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			Dining. A school facility shall have a space to permit students to eat within the school outside of general classrooms. This space may have more than one function and may fulfill more than one sufficiency standards requirement. Schools are encouraged to provide sufficient lunch periods that are long enough to give all students enough time to be served and to eat their lunches. The dining area shall be sized to accommodate no less than one third of the planned school program capacity of the school. The dining area shall have no less than 15 net sf/seated student.	IAC Sufficiency Standards

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
4.06	Fine Arts (Space Type)		Elementary / Middle School 4 * CYPop * GF High School 5 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			A school facility shall have classroom space to deliver fine-arts education programs. Fine arts subjects include art, music, dance, and theater. Classroom space(s) for fine-arts education shall not be smaller than the average classroom at the facility. Fine-arts education classroom space(s) may be included in the academic-classroom requirement and may be used for other instruction. 1. Elementary school. Fine-arts education programs may be accommodated within a general use or dedicated arts classroom. Provide one dedicated classroom for each fine-arts subject area staffed with greater than 0.5 full time fine-arts teacher. Provide additional dedicated fine-arts program storage of at least 60 net sf for each subject area per facility. 2. Middle school. Classroom space(s) for fine-arts education programs shall have no less than 4 net sf/student of the specialty program capacity for fine-arts subjects. Provide one dedicated classroom for each fine-arts subject area staffed with greater than 0.5 full time fine-arts teacher. Provide additional 60 net sf of storage for each fine-arts program subject. 3. High school. Classroom space(s) for fine-arts education programs shall have no less than 5 net sf/student of the specialty program capacity for fine-arts subjects	IAC Sufficiency Standards
4.07	General Classroom (Space Type)		(CYPop1-8 * 32 + CYPop9-12 * 25 + CYPopK * 50 + CYPopPreK * 50) * GF	SFA Coldstream/Stadium School Demonstration Model			General Use Classrooms (i.e. English/Language Arts, Math, Social Studies, World Languages) Cumulative classroom net square foot (sf) requirements, excluding in-classroom storage space and any in-classroom toilet rooms, shall be at least: 1. Kindergarten 50 net sf/student 2. Kindergarten 50 net sf/student 3. Grades 1 – 8 32 net sf/student 4. Grades 9 – 12 25 net sf/student	IAC Sufficiency Standards
4.08	Gymnasium (Space Type)		Elementary School 2200 Middle School 5200 + 0.4 * 4 * CYPop * GF High School 6500 + 0.4 * 4 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			1. Elementary school. Provide a gymnasium with at least 2,200 net sf. This space may have multi-purpose use in accommodating other educational program activities such as art program performances. 2. Middle school. Provide a gymnasium with a minimum of 5,200 net sf plus an additional 4 net sf times 40% of the enrollment of the school devoted to bleacher seating. 3. High school. Provide a gymnasium with at least 6,500 net sf plus an additional 4 net sf times 40% of the enrollment of the school devoted to bleacher seating.	IAC Sufficiency Standards
4.09	Health Services (Space Type)		500NSF Minimum	SFA Coldstream/Stadium School Demonstration Model			A school facility shall have a dedicated health services space with areas for waiting, examination and treatment, resting, storage, and an accessible toilet room. There shall be a separate room for private consultations and for use as a health service professional's office. Provide lockable cabinets for medical records and medications and at least one sink in addition to the sink in the toilet room. All sinks must provide both hot and cold water. Provide a minimum of 500 net sf.	IAC Sufficiency Standards
4.10	Kitchen (Space Type)		200NSF minimum	SFA Coldstream/Stadium School Demonstration Model			A kitchen shall have a telephone, plumbing providing potable water, a sink suitable for use both in preparing food and washing utensils, and a separate hand-washing sink. Kitchen and equipment shall comply with either the food preparation kitchen or the serving kitchen standards defined as follows: 1. Food preparation kitchen. Provide at least the greater of 1) a minimum of 2 net sf/meal served during the single largest serving period or 2) no fewer than 2 sf per enrolled student eligible for free or reduced-price meals. 2. Serving kitchen. Where food is not prepared, there shall be a minimum of 200 net sf.	IAC Sufficiency Standards
4.11	Library/Media Center (Space Type)		3 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			A school facility shall have a unified school library/media program for the use of all students which shall include an organized and centrally managed collection of instructional materials and technologies and direct instruction. Provide space for collections, reference, circulation, instruction, workroom for staff, and storage. A. Elementary school. The area for stacks and seating space shall be at least 3 net sf/student of the planned school program capacity. The instructional space shall not be smaller than the average classroom at the facility. In addition, office/workroom space and secure storage shall be provided. B. Middle or high school. The area for stacks and seating shall be at least 3 net sf/student of the planned school program capacity. The space shall not be smaller than the average classroom at the facility. In addition, office/workroom space and secure storage shall be provided.	IAC Sufficiency Standards
4.12	Locker Room (Space Type)		None	SFA Coldstream/Stadium School Demonstration Model			High school only. Two dressing rooms shall be provided, with lockers, showers and restroom fixtures. Two offices shall be provided. Separate physical education equipment storage space shall be provided.	IAC Sufficiency Standards
4.13	Maintenance / Janitorial Space (Space Type)		0.5 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			Each school shall designate 0.5 net sf per student of the planned school program capacity for maintenance and janitorial space. Janitorial space shall include a janitorial sink.	IAC Sufficiency Standards
4.14	Pupil Services (Space Type)		360NSF minimum	SFA Coldstream/Stadium School Demonstration Model			A school shall provide a coordinated program of pupil services for all students which shall include, but not be limited to, school counseling, pupil personnel , school psychology , and health services. The school facility shall provide a minimum of 120 net sf for each discipline, except school health services, staffed with greater than a 0.5 full time professional.	IAC Sufficiency Standards

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
4.15	Science (Space Type)		(CYPop1-8 + CYPop9-12) * 4 * GF	SFA Coldstream/Stadium School Demonstration Model			<p>Elementary School For grades PK through 5, no additional space is required beyond the classroom requirement.</p> <p>Middle School / High School For grades 6 through 12, 4 net sf/student of the specialty program capacity for science is required. The space shall not be smaller than the average classroom at the facility. This space is included in the academic classroom requirement and may be used for other instruction. The space shall have science fixtures and equipment, in accordance with the standard equipment necessary to meet the educational requirements of the Maryland Science Content Standards.</p>	IAC Sufficiency Standards
4.16	Special Education (Space Type)		450SF minimum where required	SFA Coldstream/Stadium School Demonstration Model			<p>Special education (COMAR 13A.05.01, 13A.05.02) Maryland assures a free appropriate public education for all students with disabilities, birth through the end of the school year in which the student turns 21 years old, in accordance with the student's Individualized Education Program. To the maximum extent appropriate, students with disabilities are educated in the least restrictive environment with students who are not disabled. A continuum of alternative placements shall be provided.</p> <p>If a special-education space for pull-out purposes other than calming is provided and the space is required to support educational programs, services, and curricula, the space shall not be smaller than 450 net sf.</p>	IAC Sufficiency Standards
4.17	Storage (Non-Classroom) (Space Type)		CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			For storage, at least 1 net sf/student of the planned school program capacity may be distributed in or throughout any type of room or space, but may not count toward required room square footages. General storage must be securable and include textbook storage.	IAC Sufficiency Standards
4.18	Technology and Computer Science (Space Type)		Middle School 3 * CYPop * GF High School 4 * CYPop * GF	SFA Coldstream/Stadium School Demonstration Model			<p>For grades K through 5, no additional space is required beyond the classroom requirement.</p> <p>For grades 6 through 8, 3 net sf/student, and 4 net sf/student for grades 9 through 12.</p>	IAC Sufficiency Standards
4.19	Workspace/Lounge (Space Type)		150NSF OR CYPop * GF Whichever is larger	SFA Coldstream/Stadium School Demonstration Model			A school facility shall have workspace/lounge available to the faculty. This space is in addition to any workspace/lounge available to a teacher in or near a classroom. The space shall consist of 1 net sf/student of the planned school program capacity with no less than 150 net sf. The space may consist of more than one room and may have more than one function. This space shall include a break area with a sink.	IAC Sufficiency Standards
5.00	Enrollment Variables						This Section of the Data Dictionary describes the SFA variables relating to Enrollment and the calculation of Growth Factors.	
5.01	CY -# Population	Fixed				MSDE Report Card - Enrollments	<p>The total FTE enrollment of the school as counted on Sept. 30, 2021 and as audited and published by MSDE in spring of the following calendar year. There are variations of this format used in the SFA calculations that make distinctions on past total enrollment, or current enrollment broken down by grade bands for the purpose of sufficiency calculations.</p> <p>Past enrollment years are indicated as follows: The variable designated "CY-1" indicates the enrollment data is from the previous year; "CY-2" indicates two years prior to the Current Year; "CY-3" indicates three years prior to the Current Year; "CY-4" indicates four years prior to the Current Year.</p> <p>Current Year Enrollments are broken down as follows: "CY Pop 1-8" Indicates the Current Year's enrollment for 1st through 8th grades; "CY Pop 9-12" Indicates the Current Year's enrollment for 9th through 12th grades; "CY Pop K" Indicates the Current Year's enrollment for Kindergarten; and "CY Pop PreK" Indicates the Current Year's enrollment for PreKindergarten.</p>	
5.02	Growth Factor	Calculated	<p>Growth Factor = (1+ average yearly change of growth rate) ^5</p> <p>Avg yearly Change of growth rate = sum (yearly % data change) /4</p> <p>Yearly % Data Change = (Current Year enrollment - Previous year enrollment) /Previous year Enrollment</p>	For an example of the calculation in use, please see the Coldstream/Stadium School Model's "Enrollment" Tab			<p>The growth factor used to project growth into future years.</p> <p>This is a multipart formula used to calculate the straight-line projection used to project school enrollment growth five-years into the future.</p> <p>Note: The RFP contained an error that did not fully define the yearly change in enrollment as a percentage, instead of the number of students difference. The formulas to the left are the calculations that are used.</p>	SFA Coldstream/Stadium School Demonstration Model

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
5.03	Growth Factor Override (GFO)	Fixed		For an example of the calculation in use, please see the Coldstream /Stadium School Model's "Enrollment" Tab		IAC Staff determination based on published LEA data	<p>Growth Factor Override (GFO).</p> <p>There are generally two instances where a calculated Growth Factor may need a Growth Factor Override.</p> <p>1. If the Growth Factor is unable to be calculated due to missing/incomplete enrollment: Facilities in this category generally include:</p> <ul style="list-style-type: none"> - New Schools - which do not have 5 full years of enrollment - GFO would be set to 1 to normalize the sharp increase from 0 students to a full school year - Facilities with no enrollment and no SRC - these facilities are typically closed awaiting surplus, empty and under renovation, outdoor science centers (which have no SRC or enrollment) - GFO is set to 1 - Facilities with no enrollment but have an SRC - These are special facilities where students are counted in their home school enrollment figures (CTE, Special Ed, Alternative Programs). - All enrollment years are set to SRC making GFO 1, no sufficiency deficiencies are generated as standards for these school types do not exist yet. - Facilities Missing enrollment years - These are generally swing spaces used to house programs while their home schools are under renovation/construction. - All enrollment years are set to SRC making GFO 1, no sufficiency deficiencies are generated <p>2. If the Calculated Growth Factor is greater than 1.20. Facilities projecting a high rate of growth, defined by the IAC as having a calculated Growth Factor greater than or equal to 1.20, were flagged for review by IAC staff. A member of IAC staff would research and review documents relating to the facility (Educational Facilities Master Plans, LEA growth projections) to make a determination on the Growth Factor. Typically an LEA's Educational Facilities Master Plan contains future enrollment projections that would be used or taken into consideration. If the LEA projection is higher than the IAC calculated projection. The difference would be split. Ex: LEA projection is 300 and IAC projection is 100, use 200 for projection. If LEA projection is lower than the IAC projection, the LEA's projection would be used.</p>	SFA Coldstream /Stadium School Demonstration Model
5.04	Square Footage Per Student	Calculated	Gross Square Footage / Enrollment			IAC Facilities Database	The amount of space per enrolled student, calculated by dividing the Gross Square Footage, as indicated in the IAC's Facility Database, into the current enrollment.	
6.00	Plan Type Variables						This Section of the Data Dictionary defines Plan Type Variables used to determine weighting in several MDCI categories	
6.01	Plan Type	Fixed				Assessor determined	An assessor-selected indication of the determining factor of the Asset's state or nature of degradation. The Plan Type is used in the determination of several MDCI categories.	
6.02	1 Safety	Fixed				Assessor determined	Plan Type "Safety" is used when the assessor makes the determination that the system as a whole represents an issue significant enough to pose a risk to people or force closure of the school.	
6.03	2 Life Performance Integrity	Fixed				Assessor determined	Plan Type "Performance integrity" is selected when the system is significantly older than life expectancy posing risk of failure or where it has ceased to effectively serve the purpose for which it was designed.	
6.04	3 Life Cycle Renewal	Fixed				Assessor determined	Plan Type "Life Cycle renewal" is used to indicate when a system is performing properly and has some remaining useful life.	
6.05	4 Retrofit Adaptation	Fixed				System Assigned	Plan Type "Retrofit/Adaptation" is reserved for systems that, although functional, are outmoded and need to be replaced with modern systems.	
6.06	5 Sufficiency - facility, use, access	Fixed				System Assigned	Plan Type Category 5 "Sufficiency" is used to classify Sufficiency issues related to issues other than classroom capacity.	
6.07	5a - Sufficiency	Fixed				System Assigned	Plan Type 5a "Sufficiency" is used to signify a deficiency related to sufficiency standards for inherent parts of the facility. Examples: Parking Lots, playgrounds and other missing physical items (LDs) not assigned by assessor; these were calculated by the system (Qlik) based upon standards.	
6.08	5b - Space	Fixed				System Assigned	Plan Type 5b "Space" is used to signify a deficiency related to sufficiency standards for space based issues within the facility. Space-related deficiencies - classrooms (SDs) not assigned by assessor; these were calculated by the system (Qlik) based upon standards.	
6.09	5c - Equipment	Fixed				System Assigned	Plan Type 5c "Equipment" is used to signify a deficiency related to sufficiency standards for non fixed equipment. No assets were categorized here in Baseline Assessment.	
6.10	6 Sufficiency - space	Fixed				System Assigned	Plan Type 6 "Sufficiency - Space" is used to classify deficiencies in the amount of square footage in a Space Type within a school as compared with the amount required by the Sufficiency Standards.	
6.11	Asset Criticality	Fixed				Assessor determined	A statement by the assessor of how serious an issue is, particularly if Safety or Performance Integrity are selected as Plan Types. Criticality is used ONLY in determination of whether an asset is assigned to MDCI Cat 3 or 4. This field was used ONLY to allow the assessor flexibility in determining if an asset should be rated more important. Values were not created for irrelevant assets.	
7.00	MDCI Variables						This section of the Data Dictionary defines the variables relating to the calculation of the Maryland Condition Index (MDCI)	
7.01	Maryland Condition Index (MDCI)	Calculated	See each MDCI Category Below				<p>One of nine total MDCI categories expressed in the RFP. Refer to "wiring diagram" and MDCI Matrix for mapping rationale.</p> <p>Each category has its own corresponding weighting factor used in the MDCI calculations.</p>	
7.02	MDCI Category 1 - Immediate Code/Life/Health Threat	Calculated	If the Plan Type of "1 - Safety" is Selected the Asset is assigned to MDCI Cat 1.				Category is used to weight issues marked with Plan Type 1-Safety.	
7.03	MDCI Category 2 - Sufficiency Deficiency - Space (x3.00)	Calculated	If the Plan Type of "5B - Sufficiency - Space" is Selected the Asset is assigned to MDCI Cat 2.				Category is used to weight issues marked with Plan Type 5b for Space related deficiencies.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
7.04	MDCI Category 3 - Mitigate Additional Damage	Calculated	If the Plan type of "2 - Performance Integrity" is selected AND the Observed RUL is zero AND the Criticality is Greater than or Equal to 5, then the Asset is assigned to MDCI Cat 3.				Category is used to weight issues marked with Plan Type 2 - Performance Integrity.	
7.05	MDCI Category 4 - Degraded w/Potential Mission Impact	Calculated	[If the Plan type of "2 - Performance Integrity" is selected AND the Observed RUL is greater than zero AND the Criticality is less than or Equal to 4] OR [Plan Type is 3-LifeCycle Renewal and Actual Age vs. EUL is greater than 200%], the Asset is assigned to MDCI Cat 4.				Category is used to weight issues marked with Plan Type 2 - Performance Integrity.	
7.06	MDCI Category 5 - Beyond Expected Life	Calculated	If the Actual Age vs. EUL is greater than or equal to 100% AND less than or equal to 200%, the Asset is assigned to MDCI Cat 5.				Category is used to weight assets whose actual age vs EUL is greater than or equal to 100% and less than or equal to 200%. This category applies a sliding weight with upper and lower limits (RFP weight range 0.25 lower limit to 1.50 upper limit). The formula for determining the appropriate MDCI category multiplier is as follows: = Lower Limit + (Asset Age vs EUL % - 1)*(Upper Limit - Lower Limit)	
7.07	MDCI Category 6- Grandfathered or State/District Standards	Calculated	If the Plan Type "4 - Retrofit/Adaptation" is selected then the asset is assigned to MDCI Cat 6.				Category is used to weight issues marked with Plan Type 4 - Retrofit/Adaptation (systems that, although functional, are outmoded or obsolete and may not be fully serving their intended purpose and/or may not be maintainable).	
7.08	MDCI Category 7 - Sufficiency Deficiency - Facility	Calculated	If the Plan Type "5A - Sufficiency - Facility/Use/Access" is selected then the asset is assigned to MDCI Cat 7.				Category is used to weight issues marked with Plan Type 5a (deficiencies related to sufficiency standards for inherent parts of the facility).	
7.09	MDCI Category 8 - Sufficiency Equipment	Calculated	If Plan Type "5C - Sufficiency - Equipment" selected, then asset is assigned to MDCI Cat 8 (none such).				Category is used to weight issues marked with Plan Type 5c (none exist in Baseline Assessment).	
7.10	MDCI Category 9 - Normal/Within Life Cycle	Calculated	If none of the criteria in Categories 1 through 8 are met, the asset is assigned to MDCI Cat 9 (These are logically Plan Type "3 - Life Cycle Renewal" with Percent Useful Life less than 100%).				MDCI category is assigned if no other criteria are met. This category indicates the asset is functioning as expected within its lifecycle.	
7.11	MDCI Multiplier	Fixed				Set by Assessment and Funding of School Facilities Workgroup to appropriately weight MDCI categories	Relative weighting of different asset categories.	
7.12	MDCI Cost Component Score	Calculated	Asset Replacement Value x Percent Degraded				The amount of cost assigned to the numerator of the FCI equation contributed by the individual asset.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
7.13	Total Square Footage (modulars and relocatables)	Fixed				Assessor determined	The amount of space within a modular or relocatable at a school.	
7.14	Net Classroom Square Footage	Calculated	Total Square Footage, unless remaining useful life = 0				The useable classroom space within a room, open plan space, modular or relocatable. Note that some spaces have circulation space deducted from the total Square Footage: open plan spaces (20%), modulars and relocatables (30%) . This variable was added to indicate the total usable classroom square footage of a modular or relocatable. When the ORUL = 0, this value will be zero. This variable is only used in the calculation of MDCI scenarios where Modulars and Relocatables are removed from facility square footage when their ORUL is 0.	
7.15	Total SF + Modulars & Relocatables						The total amount of space within all modulars and relocatables at a school, if applicable. Space in modulars is NOT included within the GSF of a school.	
8.00	Supplemental Data Points						This section of the Data Dictionary defines supplemental data points collected as the result of House Bill 1290	
8.01	HB 1290 Items					LEAs	House Bill 1290 required the IAC to collect additional data on School Facilities including information on Lead Paint, Asbestos, Temperature, Humidity, CO2, Acoustics, Lighting, Kitchen equipment, Emergency Communication Systems, Lab Space Safety Equipment, and Potable Water. The IAC staff developed a spreadsheet to solicit this information from the LEAs ahead of the assessment	
8.02	Lead Paint Issues		Add Standards (sort to MDCI cat 1)			LEAs	LEAs were asked to confirm whether Lead Paint existed in the facility, and whether it presented a concern or has resulted in a closure of part or all of the facility. In the event of a concern to students/staff or a closure, the LEA was asked to identify the locations of the issue and estimate the percentage of the facility affected. Educational Sufficiency Standards state schools must be "free of exposed lead paint"	
8.03	Lead Paint Notes					LEAs	In the event of Lead Paint concerns, LEAs were asked to identify the areas affected. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.04	Lead Paint - Percentage of the Facility		Affected Area / Gross Square Footage			LEA and verified by Assessor	LEAs were asked to estimate the percentage of the facility affected by Lead Paint by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.05	Asbestos Issues		Add Standards (sort to MDCI cat 1)			LEAs	LEAs were asked to confirm whether Asbestos existed in the facility, and whether it presented a concern or has resulted in a closure of part or all of the facility. In the event of a concern to students/staff or a closure, the LEA was asked to identify the locations of the issue and estimate the percentage of the facility affected. Educational Sufficiency Standards state schools must be "free of exposed friable asbestos"	
8.06	Asbestos Notes					LEAs	In the event of Asbestos concerns, LEAs were asked to identify the areas affected. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.07	Asbestos - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to estimate the percentage of the facility affected by Asbestos by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.08	Temperature Issues		Standard: 68-75 degrees Fahrenheit at full occupancy			LEAs	LEAs were asked if the facility has persistent trouble spots where the HVAC system was not able to keep temperature within the standard of 68-75 degrees Fahrenheit at full occupancy.	
8.09	Temperature Notes					LEAs	LEAs were asked to identify the areas within their facilities with persistent temperature issues. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.10	Temperature - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to quantify the percentage of the area of the facility that had persistent temperature issues by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.11	Humidity Issues		Standard: 30%-60% RH at full occupancy			LEAs	LEAs were asked if the facility has persistent trouble spots where the HVAC system was not able to keep humidity within the standard of 30%-60% Relative Humidity at full occupancy.	
8.12	Humidity Notes					LEAs	LEAs were asked to identify the areas within their facilities with persistent humidity issues. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.13	Humidity - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to quantify the percentage of the area of the facility that had persistent humidity issues by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.14	CO2 Issues		Standard: less than 1,200ppm			LEAs	LEAs were asked if the facility has persistent trouble spots where the HVAC system was not able to keep CO2 levels below the threshold of 1,200 ppm at full occupancy.	
8.15	CO2 Notes					LEAs	LEAs were asked to identify the areas within their facilities with persistent CO2 issues. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.16	CO2 - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to quantify the percentage of the area of the facility that had persistent CO2 issues by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.17	Acoustic Issues		Standard: sustained background sound level less than 55 decibels			LEAs	LEAs were asked if the facility has Acoustic issues where outside noise exceeded the standard of 55db.	
8.18	Acoustic Notes					LEAs	LEAs were asked to identify the areas within their facilities with acoustic issues. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.19	Acoustic - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to quantify the percentage of the area of the facility that had acoustic issues by dividing the square footage of the affected area into the Gross Square Footage of the facility.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
8.20	Lighting Issues		Standard: At least 50 foot-candles of well distributed light. Measured at work surface height from the center of the room.			LEAs	LEAs were asked if the facility has lighting issues where the system was unable to meet the standard of 50fc.	
8.21	Lighting Notes					LEAs	LEAs were asked to identify the areas within their facilities that do not meet lighting standards. (i.e. The West Science Annex, or Classrooms 101, 205, and 206.)	
8.22	Lighting - Percentage of the Facility Affected					LEA and verified by Assessor	LEAs were asked to quantify the percentage of the area of the facility that had lighting issues by dividing the square footage of the affected area into the Gross Square Footage of the facility.	
8.23	Kitchen Equipment - Missing		Current Standards: Kitchen must have a telephone, potable water, sink for hand washing, sink for prep/utensil washing.			LEAs	LEAs were asked if their kitchens had all the equipment necessary to meet standards. Current standards are defined as: Telephone, Potable water, sink for handwashing, and sink for utensil washing/food prep.	
8.24	Kitchen Equipment Notes					LEAs	LEAs were asked to describe the equipment that was missing.	
8.25	Kitchen Equipment - Percentage missing					LEA and verified by Assessor	LEAs were asked to quantify the percentage of kitchen equipment missing.	
8.26	Emergency Communication System - Missing		Standard: Has Fire alarm and emergency-notification system as required by applicable State fire codes and emergency procedures. Has two-way internal communication system between a central location and each classroom, isolated office space, and all other regularly occupied spaces.			LEA and verified by Assessor	LEAs were asked to confirm whether the facility has a functioning Emergency Communication System as defined by Educational Sufficiency Standards. The current standards defines the Emergency Comm System as having: Fire alarm and emergency-notification system as required by applicable State fire codes and emergency procedures. Two-way internal communication system between a central location and each classroom, isolated office space, and all other regularly occupied spaces.	
8.27	Emergency Communication System Notes					LEAs	A notes field was provided so LEAs could describe issues with the Emergency Communications System or expand on the current system in place.	
8.28	Health Room Attributes - Missing		Standard: Minimum 500SF. [A]reas for waiting, examination and treatment, resting, storage, and an accessible toilet room. Separate room for private consultations and as a health service professional's office. Provide lockable cabinets for medical records and medication and at least one sink in addition to the sink in the toilet room. All sinks must provide both hot and cold water.			LEAs	LEAs were asked if their Health Room had all the attributes necessary to meet standards. Current standards are defined as: [A]reas for waiting, examination and treatment, resting, storage, and an accessible toilet room. Separate room for private consultations and as a health service professional's office. Provide lockable cabinets for medical records and medication and at least one sink in addition to the sink in the toilet room. All sinks must provide both hot and cold water.	
8.29	Health Room Attributes Notes					LEAs	LEAs were asked to describe the missing attributes.	
8.30	Health Room Attributes - Percentage missing					LEA and verified by Assessor	LEAs were asked to quantify the percentage of Health Room Attributes missing.	

#	Variable Name	Field Type	Calculation (if calculated)	Example	Expected Data Range	Data Source (if fixed)	Description	Supporting Docs
8.31	Lab Space Safety Equipment - Missing		Standards: Spaces for programs requiring licensing, certification, or accreditation by a state board or agency shall meet all applicable health and safety standards. Cosmetology and barber programs shall comply with the sanitation requirements of the State Board of Cosmetologists and the State Board of Barbers, respectively. Science Class Standard: The space shall have science fixtures and equipment, in accordance with the standard equipment necessary to meet the educational requirements of the Maryland Science Content Standards.			LEAs	LEAs were asked if their Lab Spaces, including Science Labs and CTE, had all the safety equipment necessary to meet the program. The guidance provided by the IAC on this is: The Lab space has all safety equipment required for curriculum. Complies with state/federal regulations, LEA Safety Plan, follows industry standard guidelines including but not limited to Natl Institute for Occupational Health and Safety (NIOSH) and Natl Science Teaching Assoc (NSTA).	
8.32	Lab Space Safety Equipment Notes					LEAs	LEAs were asked to describe the missing equipment.	
8.33	Lab Space Safety Equipment - Percentage missing					LEA and verified by Assessor	LEAs were asked to quantify the missing safety equipment as a percentage.	
8.34	Potable Water Issues					LEA and verified by Assessor	LEAs were asked if the facility's water service was delivering potable water	
8.35	Potable Water Notes					LEAs	LEAs used this field to elaborate on potable water issues, and describe the system in place (i.e. bottled water)	