G.	RECOMENDACIÓN AL SECRETARIO		
	Departamento de Educación Dr. Eligio Hernández Pérez Secretario de Educación		
	Hora: 9 am.	Código:	8697(AEP) 60095 (DE)
	Escuela: El Conquistodor	Fecha de Inspección:	111712020
	Municipio: TRUSIla Atto		
	Abrir Escuela (Verde)	÷	
	Abrir Parcialmente la Escuela (Amarillo)		
	No Abrir la Escuela (Rojo)		
	a que se observaron algunos daños estructurales, a que la estructura evidencia daños estructurales. It should be noted that, as requested, this report is the as-is facility for the purpose of assessing the presulting from the seismic event since January 07 condition compared to that prior to the seismic event design and construction building codes requireme recommendations for the rehabilitation of the facili investigation than that one requested to be conductions.	significate based so resence of 2020 whent. e existing nts as we to will req	ivos. blely on a visual inspection of brighticant structural damage nich may affect its structural facility to meet the applicable as developing uire a more extensive
	No SE apreciaron danas obvios a Cause	- del te	rremsto Sin embargo,
	se recomienda uno utilizar los sak	ones en	la esquina noveste
	Piso 1 4 2 hosta que no se evalue estruct	omlmen	Te aducional, 2) and
	Se proteja la entrada principal del Para protejer de fared agrietada a nivel su y Extractores de la cocina que estan anche	penior, 3)	Se and an los Condentes
	Jose R. Gaya Gil Nombre (Letra de Molde)		LICENCIADO
	1///	379 Licencia	Sello 679
NoTa:	: Se debe cotéjar la Condición potencial d	e column	in corta. ERTO RICO

H. DISCLAIMER

It should be noted that, as requested, this report is based solely on a visual inspection of the as-is facility for the purpose of assessing the presence of significant structural damage resulting from the seismic event since January 07, 2020 which may affect its structural condition compared to that prior to the seismic event.

The determination of the structural adequacy of the existing facility to meet the applicable design and construction building codes requirements as well as developing recommendations for the rehabilitation of the facility will require a more extensive investigation than that one requested to be conducted and reported herein.

Α.	GENERAL INFORMATION					
	Street Address of the School: Calle 11 esquina Calle 13 Urb. El Conquistador					
05.5	City: Trujillo Alto State: Puerto Rico Zip: 00976					
2.						
3.	Date of inspection: January 17, 2020					
4.	Inspector's Name: Carlos A. Sanchez / Jose Gaya - Supervisor					
W.SV	Revisado 3/Feb/2020					
asm w						
B.	BUILDING SITE INSPECTION					
5.	Utility Service Safety:					
IMF	PORTANT-Immediately following an earthquake, check the entire property, especially near appliances, for the smell of g	gas. If gas odd	oris			
	ected, turn off the gas at the meter where it enters the house. Locate and repair leaks before turning gas back on. If the gas has been shut off, vacate the building and contact the gas utility company immediately.	e gas odor per	rsists			
unc	a the gas has been shaton, vasate the standing and contact the gas talkly company immediately.					
	PORTANT-Before entering a damaged, vacant building verify that gas is off. Check the gas meter for damage and posi		as			
val	ve, either a manual valve or a seismically-activated gas shut-off valve. Do not enter the building if gas odor is detected. a. Odor of natural gas leakage? YES NO b. Downed powerlines? YES NO					
6.	Surrounding topography: (check one)	U				
0.	□ Flat					
	☐ Gently sloping (easily walkable)					
	 ☑ Steeply sloping (difficult or impossible to walk in some areas) – Combination of Flat. Gently and Steep 					
	Steeply sloping (difficult of impossible to walk in some areas) – Combination of Flat. Gently and Steep					
7.	Building pad: (check one)					
	□ Flat – Mostly flat					
	☐ Terraced or multilevel		Į.			
	☐ Gently sloping (easily walkable)					
	☐ Steeply sloping (difficult or impossible to walk in some areas)		75-4			
•		VE0				
8.	Geotechnical Issues: (if yes, provide description and photos) a. New cracks in the ground?	YES	NO			
	a. New diadks in the ground:		Δ			
	b. Signs of fresh cracking in or movement of hardscape		\boxtimes			
	•					
	c. Signs of fresh cracking in or movement of retaining walls?		\boxtimes			
			100000			
	d. Patterns of cracking that extend through the ground surface, hardscape, and improvements?		\boxtimes			
	e. Evidence of sand boils or other fresh-appearing deposits of sand or mud?		1521			
	e. Evidence of Sand boils of other fresh-appearing deposits of Sand of Indu.		\boxtimes			
	f. Unusual slumping, rising, or bulging of the ground surface?		\boxtimes			
			-			
	g. Evidence of rock falls or slope instability above site?		\boxtimes			
	h. Ground movement or wet areas indicating possible broken underground utility lines?		\boxtimes			
	i Other phonemone (o.g. contin tanks surfacing differential cottlement, ground concelidation)?		-			
	i. Other phenomena (e.g., septic tanks surfacing, differential settlement, ground consolidation)?		\boxtimes			

B. BUILDING SITE INSPECTION (c 9. Evidence of earthquake-induced permanent		on in the immedi	ate vicinity of the p	roperty?	YES	NO ⊠
C. GENERAL BUILDING INFORMA 10. Safety Assessment Tag: (check one)		☐ Green ☐ Red	☐ Yellow	□ Red		
11. a) Year of original construction (best estimate): 33,	500 SF / Court: N/A	7			YES	NO
12. Have any repairs, modifications, or demoliti If yes, describe			quake?			⊠
13. Building configuration: □ a. Single story □ b. Combination one and two story □ c. Full two story □ d. Three story □ e. Split level □ f. Typical □ g. Other, describe Comb. of 2ea 3 Stories and 1 story with semi basement area		□b. St	Sill bolting: tructure bolted to fou tructure not bolted to on't know			
14. Exterior wall finish: ☑a. Stucco ☐b. Panel siding ☐c. Metal siding ☐d. Masonry veneer ☐e. Other, describe		□d. S	ip at or very low slope hed	ion:		
15. Foundation configuration: ☑a. Slab-on-grade ☐b. Crawlspace without cripple walls ☐c. Crawlspace with cripple walls ☐d. Exposed piers or posts ☐e. Typical ☐f. Metal ☑g. Other, describe Specific foundation type is unkown		□b. W □c. C □d. M □e. E	Roof covering: sphaltic membrane lood shingle or shak oncrete letal lastometric ther, describe	е		

I	D. EXTERIOR BUILDING INSPECTION 19. General: (if yes, provide description and photos)	YES	NO	N/A
	a. Collapse, partial collapse, or building off foundation?		\boxtimes	
	b. Obvious lean in any story?		\boxtimes	
	20. Exterior walls: (if yes, provide description and photos) a. Fresh cracking at corners of door and window openings?		\boxtimes	
	b. Fresh cracking at building corners?		\boxtimes	
	c. Door or window openings racked out of square?		\boxtimes	
	d. Broken glass in windows or doors?		\boxtimes	
	e. Wall leaning?		\boxtimes	
	f. Bulging or delamination of stucco?		\boxtimes	
	g. Pattern of cracking that extends from the ground surface, through foundation, and wall?		\boxtimes	
	h. Evidence of recent relative movement at mudsill line?		\boxtimes	
	i. At locations where the exterior stucco is continuous from the framing down over the foundation, is there cracking of stucco along the mudsill level accompanied by indications of permanent displacement (sliding) of the building relative to the foundation?			
	j. Collapse, partial collapse, or separation of masonry veneer?		\boxtimes	
	k. Severe cracking, separations, or offsets at building irregularities – Preexisting (See Notes)		\boxtimes	
	21. Foundation: (if yes, provide description and photos) a. Fresh cracking of exposed perimeter foundation?		\boxtimes	
	b. Relative movement between slab and footing in "two-pour" slab-on-grade foundations?		\boxtimes	
	c. Ask homeowner if any earthquake retrofits have been done to the home?		\boxtimes	
	If Y describe:	<u></u>		
	d. If the answer to c is Y, were bolts added to connect the home to the foundation?			\boxtimes
	e. If the answer to c is Y, were plywood or sheathing added to any cripple walls under the home?			\boxtimes
				1.5

	EXTERIOR BUILDING INSPECTION (continued) Kitchen Hook: (if yes, provide description and photos) - See Notes for external kitchen ductwork/Fan a.Present on external wall?	YES	NO	N/A ⊠
	b. Present at internal location?			⊠
	c. Collapse or partial collapse?			⊠
	d. Visible damage or cracking?			
	e. Visible tilting or separation from building?			\boxtimes
	f. Shifted or loose and displaced?			\boxtimes
	g. Deterioration or deformation?			\boxtimes
23.	Roof: (if yes, provide description and photos) a. Shifted or dislodged or concrete damage?		\boxtimes	
	b. Impact damage to roof from falling object?		\boxtimes	
	c. Displaced rooftop HVAC units? (existing by H. Maria)		\boxtimes	
	d. Significantly sagging roof ridgelines?			⊠
	e. Signs of movement between rafter tails and wall finishes at eaves?			\boxtimes
	f. Buckled/dislodged flashing or tearing of roof membrane, roof/wall intersections in split level buildings, additions, or other building irregularities?			
	g. Tearing of roof membrane or deck waterproofing at re-entrant corners?		\boxtimes	
	h. Toppling, shifting, or damage/leakage at refrigerant and electrical lines of rooftop mechanical equipment? Leakages not checked			
	i. Shifting of or damage to solar panels?			\boxtimes

	EXTERIOR BUILDING INSPECTION (continued) Attached or abutting improvements: (if yes, provide description a a. Collapse, partial collapse, or separation of attached porches, carpet	nd photos)	YES	NO ⊠	N/A □
	 b. Evidence of recent settlement or displacement of exterior steps, particularly building? - Evidence of preexisting condition 	atios, or walkways relative to the		\boxtimes	
	c. Signs of movement between building floor and/ or exterior hardsca uphill side of hon steeply sloping sites?	pe or retaining wall along the		\boxtimes	
	d. Toppling, shifting, or damage/leakage at refrigerant and electrical li unit(s)? Leakages not checked	nes of air conditioning condenser		\boxtimes	
25.	Independent exterior improvements: (if yes, provide description a a.Damaged detached gazebo?	and photos)			⊠
	b. Damage to fences / privacy walls? Preexisting			\boxtimes	
	c. Damage to retaining walls? Preexisting – See Notes			\boxtimes	
	d. Damage to walkway?			— ⊠	
	e. Evidence of leakage from water supply lines?			⊠	
	f. Toppling, shifting, or damage/leakage at fuel connection of propane	e tanks?		⊠	
	Propane Gas Tanks and piping was verified for odor and visible recent shifting from will and other damages might need to be check with the gas company. A thorough insp. Q. Cherdamage?	nat it might be the original position. Look	8-0-10 3-10-10 3-10-10	1.0000	-
	g, or a carriego.			⊠	
	NTERIOR INSPECTION				
26.	General Information a. If interior access not possible, identify reason	b. Typical wall and ceiling finish			
	☐ i. Red tag	☐ i. Drywall			
	☐ ii. Hazardous materials	☐ ii. Plaster on gypsum lath			
	☐ iii. Other hazardous condition, describe	☐ iii. Plaster on wood lath			
		⊠ iv. Other describe Masonry + o	ement plas	ter +	
	☐ iv. Other, describe	Exposed 2ble T Slab Beams	S		

E. INTERIOR INSPECTIONN (continued) 27. Walls: (if yes, provide description and photos) a. Fresh cracking, buckling, spalling, or detachment of interior wall finish at corners of door and window openings?	YES	NO ⊠	N/A □
b. Fresh cracking of wall finishes at wall corners or wall/ceiling intersections?		\boxtimes	
c. Door or window openings racked out of square?		\boxtimes	
d. Wall leaning?		\boxtimes	
e. Pattern of cracking that extends from the floor slab through the wall?		\boxtimes	
f. Movement or sliding of walls relative to the floor?		\boxtimes	
g. Severe cracking, separations, or offsets at building irregularities?		\boxtimes	
h. Doors damaged, difficult to operate, or inoperable?			
i. Windows damaged, difficult to operate, or inoperable?		\boxtimes	
28. Ceilings: (if yes, provide description and photos) a. Collapse of ceiling finish?			
b. Fresh cracking of ceiling finishes, especially at re-entrant corners; cracks along corner bead at stairwell openings; cracking or tearing of finishes at ceiling/wall juncture; or multiple "nail pops"?			
c. Damage to ceiling finishes in vicinity of corridors or commons places?		\boxtimes	
d. Separations or cracks in ceiling finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?			
e. Water damage or evidence of recent leakage from plumbing lines or roofing?		\boxtimes	

E. INTERIOR INSPECTIONN (continued)			
29. Floors: (if yes, provide description and photos) a. Evidence of recent sloping, sagging, settlement or displacement of floors?	YES	NO ⊠	N/A □
b. In slab-on-grade locations, fresh cracking of floor slab or floor finishes?		\boxtimes	
c. Significant sagging or unusual bounciness of floors frames?		\boxtimes	
d. Separations or cracks in floor finishes at split-levels, re-entrant corners, additions, appendages, or other building discontinuities?			
e. Signs of movement between floor and exterior hardscape or retaining wall along the uphill side of homes on steeply sloping sites?			
f. A pattern of fresh cracks, gaps, or joint separations in floor finishes?		\boxtimes	
g. Impact damage to floor finishes from falling contents?		\boxtimes	
30. Mechanical systems: (if yes, provide description and photos) a. Displaced connection of appliance flues connected to chimneys?		⋈	
b. Toppling, shifting, leakage from tank, leakage from water connections displaced flue connection of damage/leakage at gas line or electrical connection of water heater?		\boxtimes	
c. Shifting, damage/leakage at gas line, flue connection, electrical connection, refrigerant line, and condensate drain connection of furnace or air conditioning fan-coil unit? Leakages not checked		\boxtimes	
d. Damage to gas line of gas stoves or gas fueled clothes dryers? Leakages not checked		\boxtimes	
e. Damage to toilets?		\boxtimes	
f. Decreased or restricted water pressure at appliances, faucets, or toilets?		\boxtimes	
g. Toppling or shifting of free-standing wood stove and/or flue?		\boxtimes	
h. Toppling, shifting, damage/leakage at fuel connection of fuel oil tank? Leakages not checked		\boxtimes	
i. Other Damage in the dining room?		\boxtimes	
j. Damage near the gas tank?		\boxtimes	

E. INTERIOR INSPECTIONN (continued) 31. Architectural woodwork and special finishes: (if yes, provide description and photos) a. Shifting of or damage to kitchen or bathroom cabinetry?	YES	NO ⊠	N/A □
b. Impact damage to countertops from falling objects?		\boxtimes	
c. Cracking of ceramic tile in showers or tub/shower enclosures consistent with earthquake damage to adjacent wall finishes?		⊠	
F. CONTINGENT INSPECTIONS 32. Retaining Tank Wall damage?	YES	NO	N/A ⊠
F. CONTINGENT INSPECTIONS 32. Retaining Tank Wall damage? 33. Water tank or other field subterranean structure?		10.50.50.50	0.0000000

Escuela El Conquistador – Trujillo Alto	Visit Date: Jan-17-2020
Constructed ~ Early 1980's (Approx.1982)	Const. Area ~33,500sf / Court: N/A
Damarys Maldonado	Director
	AEP Supervisor
Observations by: Carlos A. Sanchez Gallardo, P.E.	



School: **El Conquistador**City: Trujillo Alto
Date: Jan-17-2020

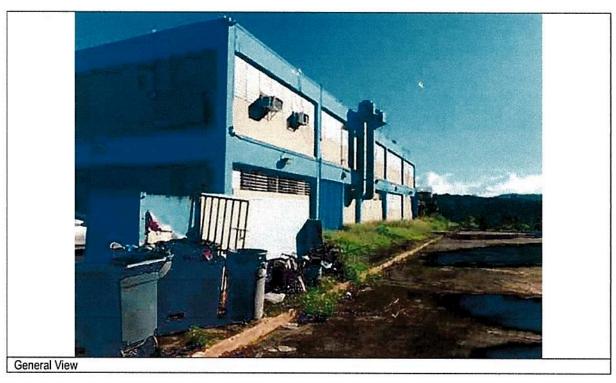
	Significant Conditions Notes	Remarks	Picture
1	Recommendation : Further evaluation of short column condition to establish risk and propose solution methods.		
2	Exterior CMU wall over main entrance beam has multiple horizontal and vertical cracks that go all the way through the wall section.	Threat of potential collapse of cement plaster or block units above main entrance	1/2
3	Kitchen Ventilation Ductwork and Fans 2ea (Exterior) - Supports at roof level are extremely corroded and they are temporarily attached to the building by a coated wire with eye bolts.	The temporary system does not provide proper support to the ductwork with the weight of the Exhaust Fans on top, making them swing considerably.	3/4/5
4	Wide cracks (horizontal and vertical) at wall under North-East part of the building. Cracks appear to be preexisting.	This part of the building appears to be constructed by poured concrete beams and columns different from the rest of the precast building. The North module and this section of the building are approx. 8' above ground above a wall. This wall appears to be settling by the look of the vertical cracks (increasing in width as they go up near this corner of the building. Refer to the conditions of the classrooms above this area in the next note.	6/7/8/9
5	Floor and roof slab cracks at the N-E building module	Perpendicular to the beams and diagonal at the N-E corner (2nd floor slab and roof slabs)	10/11/1 2
6	Noticeable diagonal and vertical fine cracks at various 2ble T Slab webs in Classrooms (typically at the exterior coupling end of the slab-beam). Fine cracks consistent with shear and bending stress.	Further evaluation of the condition is recommended to determine how extensive is the condition throughout the building, what are the risks and correction alternatives if required. Condition was more noticeable at exterior beam side of classrooms 5B (1web), 6B (4 webs), 7B (1 web) and 8B (1 web).	13/14
7	Diagonal cracks at masonry division walls	Crack goes all the way through. Wall between storage room (front of Classroom 3A) and classroom on the other side	15

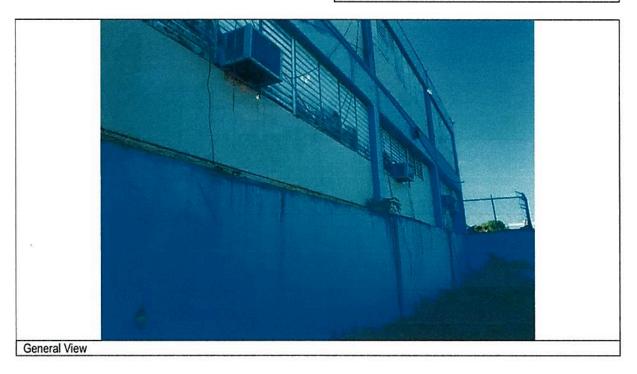
	General/Typical Conditions Notes	Remarks	Picture
1	Preexisting vertical cracks in exterior site CMU wall fence and building CMU walls		16
2	Hardscape walkways/slabs settling cracks or gaps	Preexisting Condition	
3	Concrete Delamination or Spalling at borders or local areas	Preexisting Condition	
4	Separations between 2ble T Beams' flanges and neighbor beams, walls and/or slabs.		17
5	Concrete Delamination or Spalling at borders or local areas		18
6	Cracks (Horz.) between CMU walls and same CMU wall sections between each 2ble T Beam webs (many cases)		19
7	Slab cracks random patterns in many of the classrooms (both levels)		
8	Separations at building expansion joints causing cement plaster finish to crack, break and fall.	Expansion joints between building modules	20/21
9	Horizontal separations or cracks at CMU division walls joint with the slab or bottom of the 2ble T web.	Some with some delamination of the 2ble T Slab flange	22/23/24

General Notes

- 1 Checklist answers are base on visible conditions. Conditions above ceilings and/or other enclosed or not accessible areas could not be verified.
- 2 Windows and doors operation was not verified, although they were observed for signs of related damages. Many are damaged by not related events
- Propane Gas Tanks and piping was verified for odor and visible recent shifting from what it might be the original position. Leak and other damages might need to be check with the gas company. A thorough inspection was not performed.
- 4 Existing or previous condition refers that the observation appears to be old or preexisting to the event



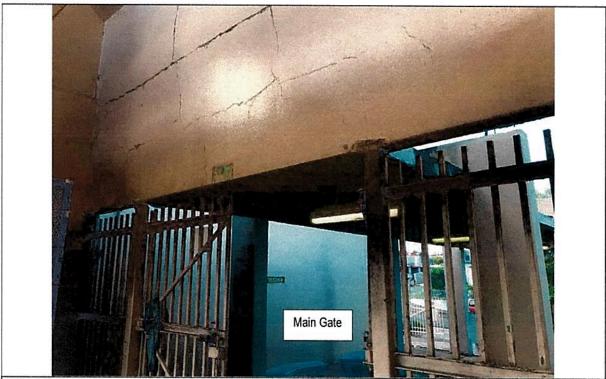








Picture 1 – Exterior CMU wall over main entrance beam has multiple horizontal and vertical cracks that go all the way through the wall section – Exterior View



Picture 2 – Exterior CMU wall over main entrance beam has multiple horizontal and vertical cracks that go all the way through the wall section – Interior View

School: El Conquistador

City: Trujillo Alto Date: Jan-17-2020



Picture 3 -Kitchen Ventilation Ductwork and Fans 2ea (Exterior) - Supports at roof level are extremely corroded and they are temporarily attached to the building by a coated wire with eye bolts.



Picture 4 – Kitchen Ventilation Ductwork and Fans 2ea (Exterior) - Supports at roof level are extremely corroded and they are temporarily attached to the building by a coated wire with eye bolts.



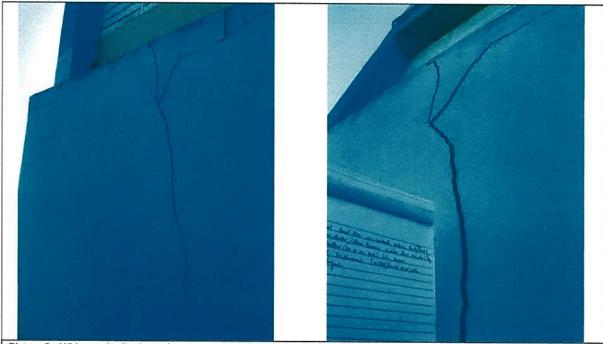
Picture 5 – Kitchen Ventilation Ductwork and Fans 2ea (Exterior) - Supports at roof level are extremely corroded and they are temporarily attached to the building by a coated wire with eye bolts. Both fan assemblies are wobbly.



Picture 6 - Wide cracks (horizontal and vertical) at CMU wall under North-East part of the building. East side of the N-E corner.



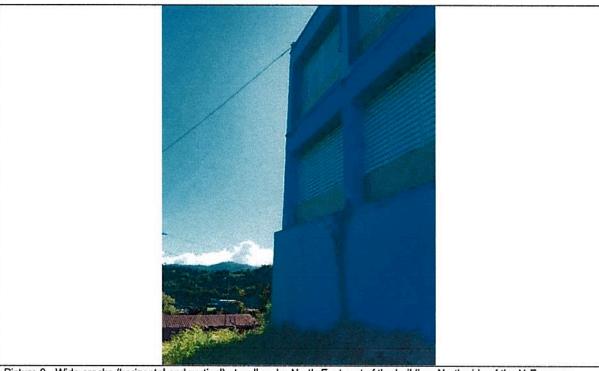
Picture 7 - Wide cracks (horizontal and vertical) at CMU wall under North-East part of the building. East side of the N-E corner.

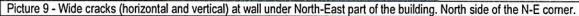


Picture 8 - Wide cracks (horizontal and vertical) at CMU wall under North-East part of the building. North side of the N-E corner.

School: El Conquistador

City: Date: Trujillo Alto Jan-17-2020





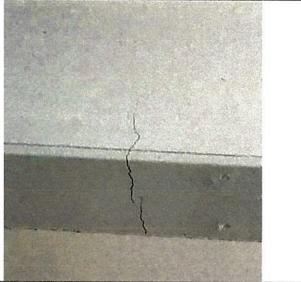




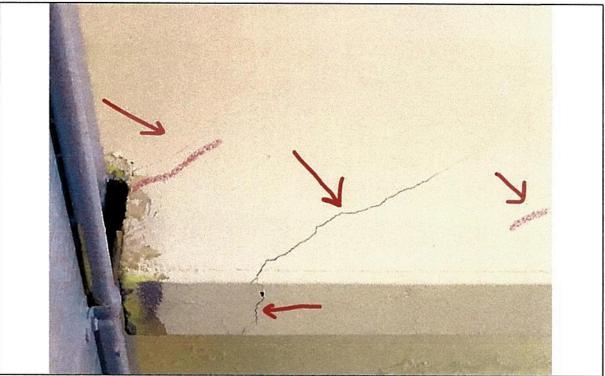


El Conquistador School: City:

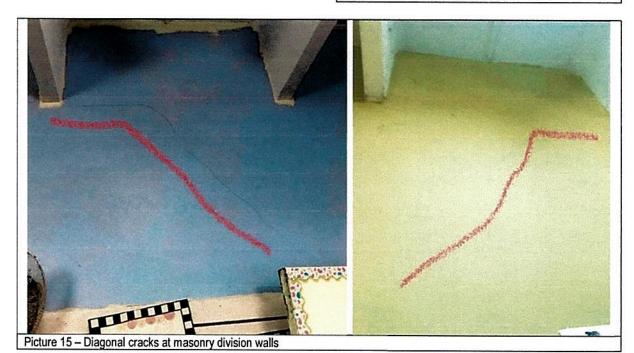
Trujillo Alto Jan-17-2020 Date:

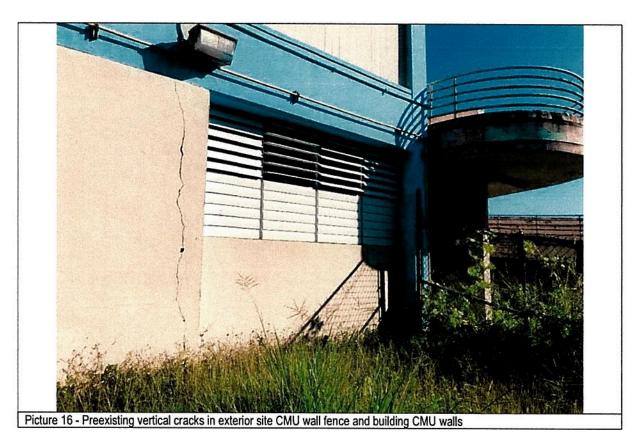


Picture 13 – Noticeable diagonal and vertical fine cracks at various 2ble T Slab webs in Classrooms (typically at the exterior coupling end of the slab-beam).



Picture 14 – Noticeable diagonal and vertical fine cracks at various 2ble T Slab webs in Classrooms (typically at the exterior coupling end of the slab-beam). Image shows one of 4 webs with fine cracks in Classroom 6B (Exterior beam side).







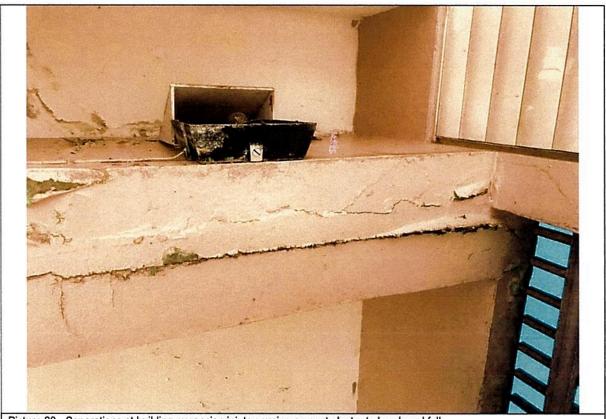
Picture 17 - Separations between 2ble T Beams' flanges and neighbor beams, walls and/or slabs. Delamination of finish plaster



School: El Conquistador City: Trujillo Alto Date: Jan-17-2020



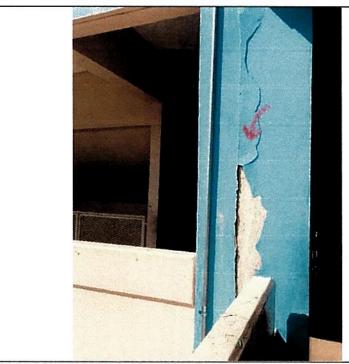
Picture 19 - Cracks (Horz.) between CMU walls and same CMU wall sections between each 2ble T Beam webs (many cases)



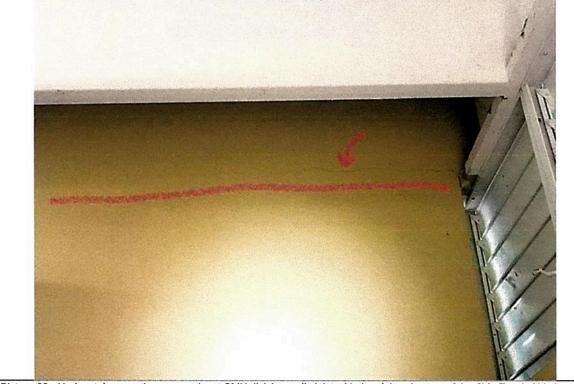
Picture 20 - Separations at building expansion joints causing cement plaster to break and fall.

School: El Conquistador

City: Trujillo Alto Date: Jan-17-2020

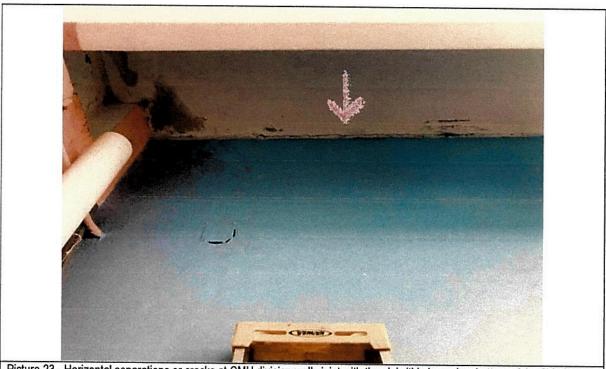


Picture 21 - Horizontal separations or cracks at CMU division walls joint with the slab or bottom of the 2ble T web (this image)



Picture 22 - Horizontal separations or cracks at CMU division walls joint with the slab or bottom of the 2ble T web (this image)

School: El Conquistador City: Trujillo Alto Date: Jan-17-2020



Picture 23 - Horizontal separations or cracks at CMU division walls joint with the slab (this image) or bottom of the 2ble T web



Picture 24 - Horizontal separations or cracks at CMU division walls joint with the slab or bottom of the 2ble T web - This image shows case where delamination of the 2ble T Flange occurred.



COLEGIO DE INGENIEROS Y AGRIMENSORES DE PUERTO RICO

PO Box 363845 * San Juan, Puerto Rico * 00936-3845 Tel. 787-758-2250 * Fax. 787-758-7639

ESTAMPILLA DIGITAL ESPECIAL (EDE)

Ing. José R. Gaya Gil, PE



Práctica de:

Ingenieria

Licencia:

19679

Renglón:

Documento

Descripción del Trabajo: Inspección y Verificación de Instalaciones

Fecha de Emisión:

2020-01-24

Monto Emitido:

Número de Serie:

4037-0508-7365-6522

Número de Caso:

Proyecto / Unidad:

Escuela El Conquistador

Rol del Profesional:

Consultor



Certificación:

El profesional certifica con la emisión de la estampilla digital especial del Colegio de Ingenieros y Agrimensores de Puerto Rico el haber cumplido con las disposiciones de la Sección 11 de la Ley 319 del 15 de mayo de 1938, según enmendada.

La colocación del sello profesional constituye la cancelación de la estampilla digital especial