FACILITY CONDITION ASSESSMENT

Prepared for

Ann Arbor Public Schools
2555 South State Street
Ann Arbor, Michigan 48104
Jim Vibbart

FACILITY CONDITION ASSESSMENT

OF

TRANSPORTATION AND 2 STORAGE BUILDINGS
2400 BROADWALK STREET
ANN ARBOR, MICHIGAN 48104

PREPARED BY:
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EMG PROJECT #:
129010.18R000-033.354

DATE OF REPORT:
July 2, 2018

ONSITE DATE:
March 5, 2018

Immediate Repairs Report
Transportation and 2 Storage Buildings
7/2/2018

EMG Renamed Item Number	Location Description	ID	Cost Description	Quantity	Unit	Unit Cost *	Subtotal	Deficiency Repair Estimate *
8	Storage Building	872721	Exterior Wall, Concrete, 1-2 Stories, Repair	600	SF	$29.91	$17,947	**$17,947**
8	Storage Building	872711	Exterior Wall, Textured Plywood (T1-11), Replace	450	SF	$13.33	$5,998	**$5,998**
8	Storage Building	872700	Roof, Asphalt Shingle, Replace	300	SF	$3.93	$1,180	**$1,180**
B20	Exterior Walls	872598	Exterior Wall, Concrete, 1-2 Stories, Repair	2500	SF	$29.91	$74,780	**$74,780**
B20	Shop Door to bus yard	872351	Exterior Door, Steel Insulated, Replace	5	EA	$1,814.16	$9,071	**$9,071**
G30	Bus Yard	872602	Fuel Storage Tank, 10,001 to 15,000 GAL, Replace	1	EA	$48,856.30	$48,856	**$48,856**
D40	Office Area	872923	Sprinkler System, Full Retrofit, Office (per SF), Renovate	4000	SF	$9.20	$36,794	**$36,794**
	Site	958688	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	23862.4	LS	$1.15	$27,442	**$27,442**
Immediate Repairs Total								**$222,069**

* Location Factor (1.0) included in totals.

Replacement Reserves Report

Transportation and 2 Storage Buildings

7/2/2018

Location	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total Escalated Estimate
Transportation and 2 Storage Buildings	$222,069	$718,908	$174,640	$36,706	$663,720	$38,612	$416,223	$182,763	$115,629	$959,240	$36,879	$50,235	$329,845	$54,695	$853,352	$42,753	$47,366	$195,703	$117,850	$252,661	**$5,509,850**
GrandTotal	**$222,069**	**$718,908**	**$174,640**	**$36,706**	**$663,720**	**$38,612**	**$416,223**	**$182,763**	**$115,629**	**$959,240**	**$36,879**	**$50,235**	**$329,845**	**$54,695**	**$853,352**	**$42,753**	**$47,366**	**$195,703**	**$117,850**	**$252,661**	**$5,509,850**

EMG Renamed Item Number	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	RRR_RowGrandTotalLabel
8	Storage Building	872721	Exterior Wall, Concrete, 1-2 Stories, Repair	0	36	0	600	SF	$26.01	$29.91	$17,947	$17,947																				**$17,947**
8	Storage Building	872711	Exterior Wall, Textured Plywood (T1-11), Replace	20	20	0	450	SF	$11.59	$13.33	$5,998	$5,998																				**$5,998**
8	Storage Building	872700	Roof, Asphalt Shingle, Replace	20	20	0	300	SF	$3.42	$3.93	$1,180	$1,180																				**$1,180**
8	Tire Storage	872668	Storage Container, 8' x 20' Length, Replace	20	11	9	2	EA	$5,771.00	$12,407.65	$24,815										$24,815											**$24,815**
B20	Exterior Walls	872598	Exterior Wall, Concrete, 1-2 Stories, Repair	0	36	0	2500	SF	$26.01	$29.91	$74,780	$74,780																				**$74,780**
B20	Throughout	873553	Exterior Wall, Joint Caulking 1/2" to 1", 1-2 Stories, Replace	10	9	1	1500	LF	$5.13	$5.90	$8,849		$8,849										$8,849									**$17,699**
B20	Exterior wall	873587	Exterior Wall, Metal/Insulated Sandwich Panels, 2" Thick, Replace	40	28	12	1220	SF	$19.96	$22.95	$27,999													$27,999								**$27,999**
B20	Office	873591	Window, Vinyl-Clad Double-Glazed 12 SF, 1-2 Stories, Replace	30	26	4	14	EA	$555.58	$638.92	$8,945					$8,945																**$8,945**
B20	Office	873590	Window, Vinyl-Clad Double-Glazed 24 SF, 1-2 Stories, Replace	30	21	9	7	EA	$813.20	$935.18	$6,546										$6,546											**$6,546**
B20	Shop Door to bus yard	872351	Exterior Door, Steel Insulated, Replace	25	36	0	5	EA	$1,577.53	$1,814.16	$9,071	$9,071																				**$9,071**
B20	exterior doors	873589	Exterior Door, Steel, Refinish	10	7	3	8	EA	$69.94	$69.94	$560				$560										$560							**$1,119**
B20	Front entrance	873593	Exterior Door, Steel w/ Safety Glass, Replace	25	21	4	2	EA	$1,352.72	$1,555.63	$3,111					$3,111																**$3,111**
B20	Shop Doors	873584	Overhead Door, Steel Insulated Roll-Up 288 SF, Replace	35	31	4	9	EA	$5,707.55	$6,563.68	$59,073					$59,073																**$59,073**
B20	exterior shop	873588	Overhead Door, Roll-Up, Refinish	10	6	4	9	EA	$405.01	$465.77	$4,192					$4,192										$4,192						**$8,384**
E10	Garage Doors	869195	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Garage Doors	869192	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Garage Doors	869199	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Garage Doors	869197	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Wash Bay Garage Doors	869198	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Garage Doors	869200	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Wash Bay Garage Doors	872287	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Body Shop Garage Door	869196	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
E10	Garage Doors	869194	Overhead Door, Automatic Opener, Replace	15	9	6	1	EA	$5,953.00	$6,845.95	$6,846							$6,846														**$6,846**
B20	Main roof	872468	Roof, Single-Ply EPDM Membrane, Replace	20	11	9	15762	SF	$10.52	$12.10	$190,689										$190,689											**$190,689**
B20	Patio Area	873586	Roof, Metal, Replace	40	27	13	266	SF	$12.45	$14.32	$3,808														$3,808							**$3,808**
C10	Throughout	873629	Interior Door, Steel w/ Safety Glass, Replace	20	11	9	16	EA	$1,352.72	$1,555.63	$24,890										$24,890											**$24,890**
C10	Restrooms	873556	Toilet Partitions, Metal Overhead-Braced, Replace	20	15	5	6	EA	$850.00	$977.50	$5,865						$5,865															**$5,865**
C10	Through	873585	Interior Wall Finish, Concrete/Masonry, Prep & Paint	8	7	1	22115	SF	$1.45	$1.67	$36,902		$36,902								$36,902								$36,902			**$110,707**
C10	Hallway	873554	Interior Wall Finish, Quarry Tile, Replace	40	37	3	200	SF	$24.30	$27.95	$5,590				$5,590																	**$5,590**
C10	Break Room	872552	Interior Floor Finish, Vinyl Tile (VCT), Replace	15	8	7	1750	SF	$4.80	$5.52	$9,661							$9,661														**$9,661**
C10	Restrooms	872553	Interior Floor Finish, Ceramic Tile, Replace	50	37	13	300	SF	$15.76	$18.12	$5,435														$5,435							**$5,435**
C10	Office	873555	Interior Floor Finish, Carpet Standard-Commercial Medium-Traffic, Replace	10	6	4	1750	SF	$7.26	$8.34	$14,603					$14,603										$14,603							**$29,207**
C10	Office areas	872550	Interior Ceiling Finish, Suspended Acoustical Tile (ACT), Replace	20	18	2	4000	SF	$3.11	$3.58	$14,311			$14,311																			**$14,311**
D20	restrooms	872488	Toilet, Tankless (Water Closet), Replace	20	11	9	7	EA	$842.97	$969.41	$6,786										$6,786											**$6,786**
D20	Mens Restroom	872484	Urinal, Vitreous China, Replace	20	11	9	2	EA	$1,193.44	$1,372.46	$2,745										$2,745											**$2,745**
D20	Restroom	872485	Sink, Vitreous China, Replace	20	11	9	6	EA	$861.51	$990.74	$5,944										$5,944											**$5,944**
D20	Break rooms	872568	Sink, Stainless Steel, Replace	20	11	9	3	EA	$1,054.05	$1,212.16	$3,636										$3,636											**$3,636**
D20	Hallway	872579	Drinking Fountain, Refrigerated, Replace	10	4	6	1	EA	$1,257.51	$2,074.89	$2,075							$2,075											$2,075			**$4,150**
D20	Shop Floor	872323	Emergency Eye Wash & Shower Station, Replace	15	8	7	1	EA	$2,114.70	$2,431.90	$2,432								$2,432													**$2,432**
E10	Wash Bay Hall	869303	Booster Pump, 10 HP, Replace	20	11	9	1	EA	$12,403.71	$14,264.26	$14,264										$14,264											**$14,264**
D30	Mezzanine	872355	Compressed Air Dryer, Replace	15	9	6	1	EA	$5,077.01	$5,838.57	$5,839							$5,839														**$5,839**
E10	compressor Room	872319	Compressed Air Dryer, Replace	15	8	7	1	EA	$5,077.01	$10,915.58	$10,916								$10,916													**$10,916**
E10	Compressor Room	872318	Air Compressor, 15 HP, Replace	20	11	9	1	EA	$16,154.71	$18,577.92	$18,578										$18,578											**$18,578**
E10	Compressor Room	872317	Air Compressor, 15 HP, Replace	20	11	9	1	EA	$16,154.71	$18,577.92	$18,578										$18,578											**$18,578**
D30	Mezzanine	872354	Air Compressor, 2 HP, Replace	20	11	9	1	EA	$6,611.73	$7,603.48	$7,603										$7,603											**$7,603**
G30	Bus Yard	872602	Fuel Storage Tank, 10,001 to 15,000 GAL, Replace	25	36	0	1	EA	$42,483.74	$48,856.30	$48,856	$48,856																				**$48,856**
G30	Bus Yard	872597	Fuel Storage Tank, 15,001 to 25,000 GAL, Replace	25	13	12	2	EA	$63,957.36	$73,550.97	$147,102													$147,102								**$147,102**
G30	Mezzanine	872297	Fuel Oil Tank Monitoring System, Replace	20	6	14	1	EA	$19,999.24	$22,999.12	$22,999															$22,999						**$22,999**
D30	Electrical room	872361	Air Separator, 1", Replace	15	1	14	1	EA	$1,788.39	$2,056.65	$2,057															$2,057						**$2,057**

EMG Renamed Item Number	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	RRR_RowGrandTotalLabel
D30	South side	872757	Condenser, Air-Cooled, 20 Ton, Replace	15	9	6	1	EA	$13,111.70	$15,078.46	$15,078							$15,078														**$15,078**
D30	Dispatch	872564	Condensing Unit/Heat Pump, Split System, 2 Ton, Replace	15	6	9	1	EA	$3,122.18	$3,590.50	$3,591										$3,591												**$3,591**
D30	shop center mezzaine	872325	Air Handler, Exterior, 2,001 to 3,000 CFM, Replace	15	11	4	1	EA	$15,679.20	$18,031.08	$18,031					$18,031															$18,031	**$36,062**
D30	Drivers break room	872582	Fan Coil Unit, Hydronic, 401 to 800 CFM, Replace	15	9	6	1	EA	$2,198.58	$2,528.37	$2,528							$2,528														**$2,528**
D30	OFFICE Break room	872570	Fan Coil Unit, Hydronic, 401 to 800 CFM, Replace	15	9	6	1	EA	$2,198.58	$2,528.37	$2,528							$2,528														**$2,528**
D30	Drivers break room	872581	Fan Coil Unit, Hydronic, 401 to 800 CFM, Replace	15	9	6	1	EA	$2,198.58	$2,528.37	$2,528							$2,528														**$2,528**
D30	Electrical room	872389	Air Handler, Exterior, 4,001 to 6,000 CFM, Replace	15	9	6	1	EA	$27,804.57	$31,975.26	$31,975							$31,975														**$31,975**
D30	Office	872578	Fan Coil Unit, Hydronic, 401 to 800 CFM, Replace	15	9	6	1	EA	$2,198.58	$2,528.37	$2,528							$2,528														**$2,528**
D30	Office	872577	Fan Coil Unit, Hydronic, 401 to 800 CFM, Replace	15	9	6	1	EA	$2,198.58	$2,528.37	$2,528							$2,528														**$2,528**
D30	Dispatch	872556	Fan Coil Unit, 2 to 2.5 Ton, Replace	15	6	9	1	EA	$2,756.89	$3,170.42	$3,170										$3,170												**$3,170**
D30	SE Service Bays	869160	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872531	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Lower Main roof	872542	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872536	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Shop	872941	Garage Fume Hood/Exhaust, Upto 1,000 CFM, Replace	15	9	6	4	EA	$4,406.00	$5,066.90	$20,268							$20,268														**$20,268**
D30	Compressor Room	872321	Exhaust Fan, Propeller, 1,000 CFM, Replace	15	9	6	1	EA	$1,402.69	$1,613.09	$1,613							$1,613														**$1,613**
D30	Main roof	872493	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872494	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Lower Main roof	872540	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872490	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872538	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Lower Main roof	872541	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Main roof	872539	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	NW Service Bays	869244	Exhaust Fan, Centrifugal, 801 to 2,000 CFM, Replace	15	9	6	1	EA	$2,664.18	$3,063.80	$3,064							$3,064														**$3,064**
D30	Electrical room	872382	Distribution Pump, Heating Water, 2 HP, Replace	20	1	19	1	EA	$4,652.29	$5,350.13	$5,350																				$5,350	**$5,350**
D30	Wash Bay	869248	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	2	EA	$2,895.00	$3,329.25	$6,659													$6,659								**$6,659**
D30	NW side Service Bay	869247	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	1	EA	$2,895.00	$3,329.25	$3,329													$3,329								**$3,329**
D30	SE side Service Bay	869245	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	1	EA	$2,895.00	$3,329.25	$3,329													$3,329								**$3,329**
D30	SE side Service Bay	869169	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	1	EA	$2,895.00	$3,329.25	$3,329													$3,329								**$3,329**
D30	Storage Bay	873693	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	1	EA	$2,895.00	$3,329.25	$3,329													$3,329								**$3,329**
D30	NW side Service Bay	869246	Infrared Heater, Gas-Fired Tubular 20' to 80' Length, 40 to 80 MBH, Replace	25	13	12	1	EA	$2,895.00	$3,329.25	$3,329													$3,329								**$3,329**
D30	Throughout	872324	Building Automation System (HVAC Controls), Upgrade	20	18	2	19923	SF	$5.36	$6.17	$122,863			$122,863																		**$122,863**
D40	Office Area	872923	Sprinkler System, Full Retrofit, Office (per SF), Renovate	50	50	0	4000	SF	$8.00	$9.20	$36,794	$36,794																				**$36,794**
D50	Shop Floor	869225	Switchboard, 800 Amp, Replace	30	21	9	1	EA	$24,768.06	$28,483.27	$28,483										$28,483											**$28,483**
D50	Throughout	872580	Distribution Panel, 208 Y, 120 V, 200 Amp, Replace	30	16	14	4	EA	$7,906.20	$9,092.13	$36,369															$36,369						**$36,369**
D50	Mezzanine	872356	Secondary Transformer, Dry, 75 kVA, Replace	30	16	14	1	EA	$8,844.95	$10,171.69	$10,172															$10,172						**$10,172**
D50	Electrical room	872366	Building/Main Switchgear, 208 Y, 120 V, 1,200 Amp, Replace	30	16	14	1	EA	$212,265.31	$244,105.10	$244,105															$244,105						**$244,105**
G40	Bus Lot	874508	Electrical Outlet, Post Mounted, Exterior, Replace	20	6	14	120	EA	$255.00	$293.25	$35,190															$35,190						**$35,190**
D50	Throughout	872935	Lighting System, Interior, Office Building, Upgrade	25	21	4	19923	SF	$9.24	$10.63	$211,748					$211,748																**$211,748**
D60	Front Office	872569	Fire Alarm System, Office Building, Install	20	3	17	19923	SF	$2.36	$2.71	$54,060																		$54,060			**$54,060**
G40	Outside SE Doors	870325	Generator, Gas or Gasoline, 65 kW to 125 kW, Replace	25	11	14	1	EA	$71,929.70	$82,719.15	$82,719															$82,719						**$82,719**
E10	Bus Lot	872745	Fuel Dispenser, Twin, Double Access,Light and Diesel Fuels, 2 HP, 1,000 GPH, Replace	15	9	6	1	EA	$17,190.47	$19,769.04	$19,769							$19,769														**$19,769**
E10	Bus Lot	872749	Fuel Dispenser, Twin, Double Access,Light and Diesel Fuels, 2 HP, 1,000 GPH, Replace	15	9	6	1	EA	$17,190.47	$19,769.04	$19,769							$19,769														**$19,769**
E10	Bus Lot	872747	Fuel Dispenser, Twin, Double Access,Light and Diesel Fuels, 2 HP, 1,000 GPH, Replace	15	9	6	1	EA	$17,190.47	$19,769.04	$19,769							$19,769														**$19,769**
E10	Bus Lot	872751	Fuel Dispenser, Twin, Double Access,Light and Diesel Fuels, 2 HP, 1,000 GPH, Replace	15	9	6	1	EA	$17,190.47	$19,769.04	$19,769							$19,769														**$19,769**
E10	Wash Bay	872326	Automatic Washer, Commercial Vehicle, Replace	15	11	4	1	EA	$18,250.00	$20,987.50	$20,988					$20,988														$20,988		**$41,975**
E10	Shop	872290	Overhead Hoist, Trolley, Replace	15	9	6	1	EA	$39,500.00	$45,425.00	$45,425							$45,425														**$45,425**
E10	Shop Floor	872292	Filter Crusher, Commercial Vehicle, Replace	15	9	6	1	EA	$7,625.00	$8,768.75	$8,769							$8,769														**$8,769**
E10	NW Shop Floor	870334	Vehicle Lift, 2-Post, 36,000 LB, Replace	15	8	7	1	EA	$28,450.00	$32,717.50	$32,718								$32,718													**$32,718**
E10	NW Shop Floor	870335	Vehicle Lift, 2-Post, 36,000 LB, Replace	15	8	7	1	EA	$28,450.00	$32,717.50	$32,718								$32,718													**$32,718**
E10	NW Shop Floor	870333	Vehicle Lift, 2-Post, 36,000 LB, Replace	15	8	7	1	EA	$28,450.00	$32,717.50	$32,718								$32,718													**$32,718**
E10	Shop	872937	Enclosed Hose Reel, Water/Air, 3/8", Upto 100' Length, Replace	18	10	8	26	EA	$2,135.00	$2,455.25	$63,837									$63,837												**$63,837**
E10	SE Shop Floor	870327	Vehicle Lift, 1-Post, 18,000 LB, Replace	15	6	9	1	EA	$14,450.00	$16,617.50	$16,618										$16,618											**$16,618**
E10	Shop	872939	Waste Oil Tank, Aboveground, Vertical, 1,000 GAL, Replace	30	16	14	1	EA	$10,470.00	$12,040.50	$12,041															$12,041						**$12,041**
C10	Breakrooms	872335	Kitchen Cabinet, Base and Wall Section, Wood, Replace	20	16	4	75	LF	$467.63	$537.78	$40,333					$40,333																**$40,333**
	Site	958688	Davis Bacon Prevailing Wages, Surcharge for Prevailing Wages, 10% surcharge for prevailing wages	1	1	0	23862.4	LS	$1.00	$1.15	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	$27,442	**$548,835**
G20	Parking lots	872693	Parking Lots, Asphalt Pavement, Mill & Overlay	25	24	1	165615	SF	$3.28	$3.77	$624,776		$624,776																			**$624,776**
G20	Parking lot	873512	Parking Lots, Asphalt Pavement, Seal & Stripe	5	1	4	165615	SF	$0.38	$0.44	$72,279					$72,279					$72,279										$72,279	**$289,114**

EMG Renamed Item Number	Location Description	ID	Cost Description	Lifespan (EUL)	EAge	RUL	Quantity	Unit	Unit Cost	w/ Markup *	Subtotal	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	RRR_RowGrandTotalLabel
G20	Parking lot	872671	Parking Lots, Wheel Stop, Concrete, Replace	20	16	4	120	EA	$750.00	$862.50	$103,500					$103,500																**$103,500**
G20	Sidewalk	873515	Pedestrian Pavement, Sidewalk, Concrete Sections/Small Areas, Replace	30	26	4	250	SF	$19.00	$21.85	$5,463					$5,463																**$5,463**
G20	North Fence Gate	872698	Fences & Gates, Chain Link Sliding Gate, Electric, Replace	20	11	9	1	EA	$5,233.76	$6,018.82	$6,019										$6,019											**$6,019**
G20	Parking lot	872699	Fences & Gates, Chain Link, 8' High, Replace	30	21	9	2313	LF	$53.90	$88.94	$205,707										$205,707											**$205,707**
G20	Along facility	873552	Signage, Property, Monument/Pylon, Replace	20	11	9	1	EA	$8,602.00	$9,892.30	$9,892										$9,892											**$9,892**
G40	Bus Lot	874509	Charging Station, Electric Vehicle, Free Standing, Exterior Mounted, Single Connector, With RFID, Replace	15	3	12	1	EA	$4,782.50	$5,499.88	$5,500													$5,500								**$5,500**
G40	Parking lots	872929	Pole Light, Exterior, 105 to 200 W LED (Fixture & Bracket Arm Only), Replace	20	2	18	11	EA	$3,303.00	$3,798.45	$41,783																			$41,783		**$41,783**
Totals, Unescalated												**$222,069**	**$697,969**	**$164,615**	**$33,591**	**$589,707**	**$33,307**	**$348,581**	**$148,603**	**$91,278**	**$735,177**	**$27,442**	**$36,291**	**$231,347**	**$37,245**	**$564,166**	**$27,442**	**$29,517**	**$118,404**	**$69,225**	**$144,089**	**$4,350,063**
Totals, Escalated (3.0% inflation, compounded annually)												**$222,069**	**$718,908**	**$174,640**	**$36,706**	**$663,720**	**$38,612**	**$416,223**	**$182,763**	**$115,629**	**$959,240**	**$36,879**	**$50,235**	**$329,845**	**$54,695**	**$853,352**	**$42,753**	**$47,366**	**$195,703**	**$117,850**	**$252,661**	**$5,509,850**

* Markup/LocationFactor (1.0) has been included in unit costs. Markup includes a and 15% Ann Arbor Premium factors applied to the location adjusted unit cost.

TABLE OF CONTENTS

1. Executive Summary

1.1. Property Information and General Physical Condition

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	2400 Broadwalk Street, Ann Arbor, Washtenaw, Michigan 48104
Year Constructed/Renovated:	1982, Phase I / 1991 Phase II
Current Occupants:	Durham Schools Services, LP contractor for Bus Service
Percent Utilization:	Space is 100% utilized to support Bus operations
Management Point of Contact:	Ann Arbor Pubic Schools/Physical Properties, Jim Vibbart, 734-320-3613 phone
Property Type:	Bus Garage and Office
Site Area:	5.86 acres
Building Area:	19,923 SF
Number of Buildings:	3
Number of Stories:	1
Parking Type and Number of Spaces:	19 car spaces in open lot, and 129 bus spaces in 2 lots. Does not include gravel lot or parking at BALAS.
Building Construction:	Concrete tilt-up bearing walls, metal decking with EPDM roof.
Roof Construction:	Gabled roofs with asphalt shingles. Flat roofs with EPDM membrane. Flat Roof with concrete slab. Flat roof with corrugated metal panels.
Exterior Finishes:	Tilt-up panels with exposed aggregrate
Heating, Ventilation & Air Conditioning:	The facility has a new combi-boiler hot water heater for the raditors and fan coil units. Air conditioning is provided by anexterior condenser feeding AHU1. Supplemental components: include a mini-split system for use within the dispatch office. The garage/shop area is heated with natural gas fired infrared heating systems. There is also two exhaust systems for the bus exhaust.
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, strobes, extinguishers, pull stations, alarm panel, and exit signs.
ADA :	This building does not have any major ADA issues
All 19,923 square feet of the building are occupied by a single occupant, Durham Schools Services, LP contractor for Bus Services for the Ann Arbor Public Schools. The space is a combination of offices, service bays, mechanical and other support spaces.	
A representative sample of the interior spaces were observed in order to gain a clear understanding of the property's overall condition. Other areas accessed included the site within the property boundaries, exterior of the property and the roof. All areas of the property were available for observation during the site visit.	
Assessment Information	
Dates of Visit:	March 5, 2018
On-Site Point of Contact (POC):	Jim Vibbart
Assessment and Report Prepared by:	Randall Patzke

Property Information	
Reviewed by:	Al Diefert Technical Report Reviewer For Andrew Hupp Program Manager ahupp@emgcorp.com 800.733.0660 x6632

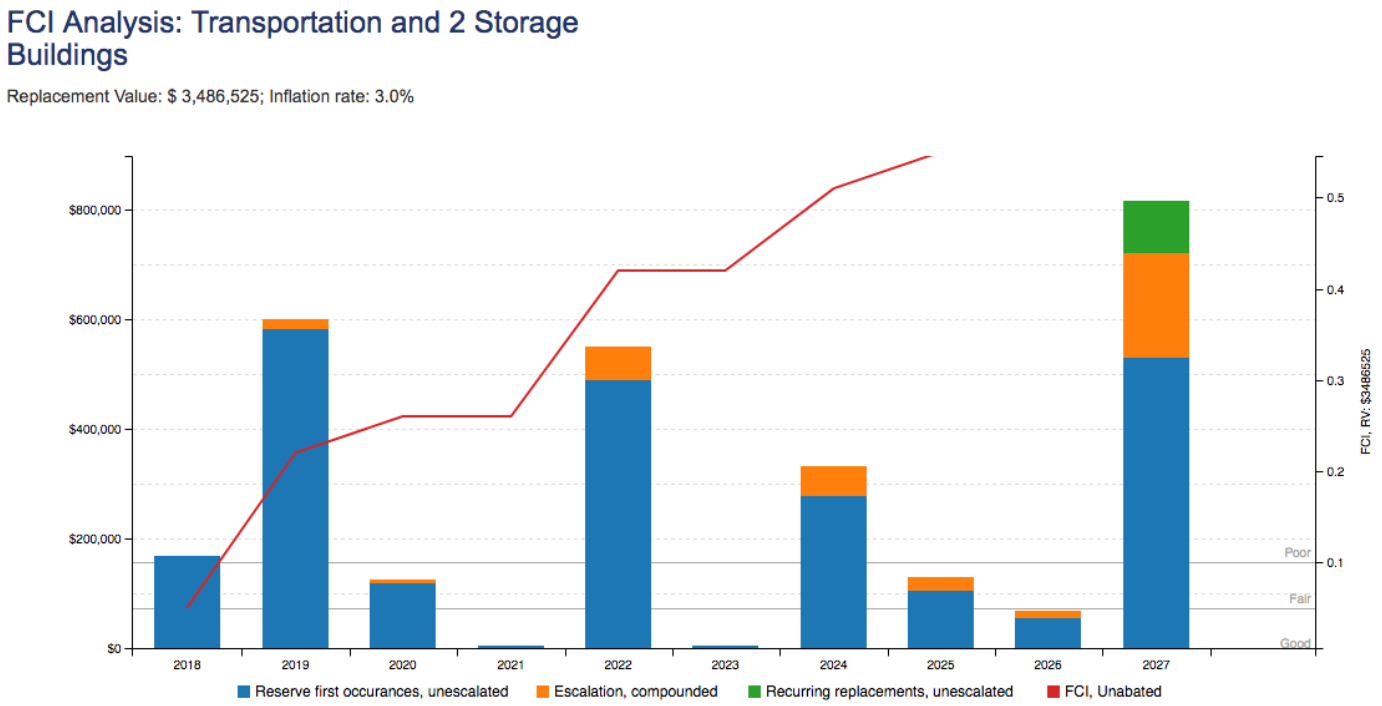
1.2. Key Findings

Site : The paving requires a milling and overlay. A program for seal coating shoud be implemented to preserve the asphalt paving. There are areas with depressions and larger areas alligator cracking of the parking lot. With no curbs on the west side of the property, runoff water from adjacent properties can enter the bus parking area.

Architectural : The exterior of the facility has numerous panel edges that are failing and require recaulking and painting of the exposed metal. Joints that have opened should be repaired. There are multiple exterior doors that the frames have rusted out and required major repairs or replacement. The storage sheds are in failed to poor condition. Old semi-trailers are used for storage of tires.

MEPF : There is an open Red Tag on the new boiler installed on the mezzanine mechanical room. This form is dated 1-17. Plumbing in the restrooms should be investigated for leaks and clogs. The fire sprinkler system should be expandd into the office areas. The building controls should be upgraded to a network based digital system.

1.3. Facility Condition Index (FCI)



One of the major goals of the FCA is to calculate the FCI, which gives an indication of a building's overall condition. Two FCI ratios are calculated and presented, the Current Year and Ten-Year. The Current Year FCI is the ratio of Immediate Repair Costs to the building's Current Replacement Value. Similarly, the Ten-Year FCI is the ratio of anticipated Capital Reserve Needs over the next ten years to the Current Replacement Value.

FCI Condition Rating	Definition	Percentage Value
Good	In new or well-maintained condition, with no visual evidence of wear, soiling or other deficiencies.	0 to .05
Fair	Subjected to wear and soiling but is still in a serviceable and functioning condition.	> than .05 to .10
Poor	Subjected to hard or long-term wear. Nearing the end of its useful or serviceable life.	> than .10 to .60
Very Poor	Has reached the end of its useful or serviceable life. Renewal is now necessary.	> than .60

The graphs above and tables below represent summary-level findings for the FCA. The deficiencies identified in this assessment can be combined with potential new construction requirements to develop an overall strategy that can serve as the basis for a portfolio-wide capital improvement funding strategy. Key findings from the assessment include:

KEY FINDING	METRIC
Current Year Facility Condition Index (FCI) FCI = (IR)/(CRV):	4.85%
Current Year FCI Rating:	2018
10-Year Facility Condition Index (FCI) FCI = (RR)/(CRV):	80.55%
10-Year FCI Rating	0.77
Current Replacement Value (CRV):	$3,486,525
Year 0 (Current Year) - Immediate Repairs (IR):	$169,241
Years 1-10 - Replacement Reserves (RR):	$2,639,037
Total Capital Needs:	$2,808,278

Further detail on the specific costs that make up the Immediate Repair Costs can be found in the cost tables at the beginning of this report.

2. Building Structure

A10 Foundations

Building Foundation		
Item	Description	Condition
Foundation	Concrete spread footings	Fair
Basement and Crawl Space	None	--

Anticipated Lifecycle Replacements

- No components of significance

Actions/Comments:

- Isolated areas of the foundation systems are exposed, which allows for limited observation. There are no significant signs of settlement, deflection, or movement.

B10 Superstructure

B1010 Floor Construction & B1020 Roof Construction		
Item	Description	Condition
Framing / Load-Bearing Walls	Tilt-up concrete walls	Poor
Ground Floor	Concrete slab	Fair
Upper Floor Framing	Masonary Walls-	Fair
Upper Floor Decking	Concrete, precast planks	Fair
Balcony Framing	None	--
Balcony Decking	None	--
Balcony Deck Toppings	None	--
Balcony Guardrails	None	--
Roof Framing	Metal	Fair
Roof Decking	Concrete	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Caulk minor cracking	☒	Monitor cracking for growth	☐
Panels are cracking	☒	Panels delamined at openings	☒

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.

B1080 Stairs					
Type	Description	Riser	Handrail	Balusters	Condition
Building Exterior Stairs	None	--	--	--	--
Building Interior Stairs	Closed steel threads & risers	Closed	Metal	None	Good

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

3. Building Envelope

B20 Exterior Vertical Enclosures

B2010 Exterior Walls		
Type	Location	Condition
Primary Finish	Exposed aggregate Concrete tilt-up panels	Poor
Secondary Finish	None	--
Accented with	None	--
Soffits	Not Applicable	--
Building sealants	Between dissimilar materials, at joints, around windows and doors	Poor

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Graffiti	☐	Efflorescence	☐
Cracking & Delamination	☒	Other	☐

Anticipated Lifecycle Replacements:

- Exterior paint
- Caulking

Actions/Comments:

- There are significant areas of brittle and deteriorated sealant.The damaged sealant must be replaced.
- The wall panels are damaged and cracking at the panel joints. The wall panels require repairs.

B2020 Exterior Windows				
Window Framing	Glazing	Location	Window Screen	Condition
Vinyl framed, fixed	Single glaze	Offices	☐	Fair
Aluminum framed, operable	Single glaze	Offices	☒	Fair

B2050 Exterior Doors		
Main Entrance Doors	Door Type	Condition
	Fully glazed, metal framed	Fair
Secondary Entrance Doors	None	--
Service Doors	Metal, hollow	Poor

B2050 Exterior Doors		
Overhead Doors	Aluminium	Fair

Anticipated Lifecycle Replacements:

- Windows
- Exterior doors
- Window sealants

Actions/Comments:

- The windows are antiquated, energy-inefficient units with single-pane glazing. Window operation not tested.
- Exterior man doors have rusted out frames and require replacement.

B30 Roof

B3010 Primary Roof			
Location	Whole building	Finish	Single-ply membrane
Type / Geometry	Flat	Roof Age	10 Years
Flashing	Membrane	Warranties	Unknown
Parapet Copings	Parapet with sheet metal coping	Roof Drains	Internal drains
Fascia	Metal Panel	Insulation	Rigid Board
Soffits	None	Skylights	No
Attics	Steel beams	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

B3010 Secondary Roof			
Location	Patio	Finish	Metal
Type / Geometry	Flat	Roof Age	25 Years
Flashing	Sheet metal	Warranties	Unknown
Parapet Copings	None	Roof Drains	Edge drainage to ground
Fascia	Metal Panel	Insulation	Rigid Board
Soffits	Concealed Soffits	Skylights	No
Attics	None	Ventilation Source-1	None
Roof Condition	Fair	Ventilation Source-2	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Drainage components broken/missing	☐	Vegetation/fungal growth	☐
Blocked Drains	☐	Debris	☐
Other	☐	Other	☐

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Evidence of roof leaks	☒	Significant ponding	☐
Excessive patching or repairs	☐	Blistering or ridging	☐
Other	☐	Other	☐

Anticipated Lifecycle Replacements:

- EPDM roof membrane
- Metal roof
- Roof flashings (included as part of overall membrane replacement)
- Parapet wall copings (included as part of overall membrane replacement)

Actions/Comments:

- The roof finishes appear to be more than 10 years old. Information regarding roof warranties or bonds was not available. The roofs are maintained by an outside contractor.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance and operations program.
- The asphalt shingles are broken and missing. The Ice Dam material is not visable at the missing shingles. The OSB underlayment is has holes.

4. Interiors

C10 Interior Construction

C1030 Interior Doors		
Item	Type	Condition
Interior Doors	Metal	Fair
Door Framing	Metal	Fair
Fire Doors	Yes	--
Closet Doors	Metal	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly adjusted door closures	☒	Damaged/loose door hardware	☒
Other	☐	Other	☐

The following table generally describes the locations and typical conditions of the interior finishes within the facility:

Interior Finishes - Transportation Building

Location	Finish	Master_Cost	Quantity (SF)	Condition	Action	RUL	Est. Cost
Break Room	Floor	Vinyl Tile (VCT)	1750	Fair	Replace	7	8,401
Hallway	Wall	Quarry Tile	200	Fair	Replace	3	4,861
Office	Floor	Carpet Standard-Commercial Medium-Traffic	1750	Fair	Replace	4	12,699
Office areas	Ceiling	Suspended Acoustical Tile (ACT)	4000	Fair	Replace	2	12,444
Restrooms	Floor	Ceramic Tile	300	Fair	Replace	13	4,727
Through	Wall	Concrete/Masonry	22115	Poor	Prep & Paint	1	32,089

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Loose carpeting/flooring	☐	Minor areas of stained ceiling tiles	☒
Minor paint touch-up	☒	Areas of damaged/missing baseboard	☒
Other	☐	Other	☐

Anticipated Lifecycle Replacements:

- Carpet
- Vinyl tile
- Ceramic tile
- Interior paint

- Suspended acoustic ceiling tile
- Interior doors

Actions/Comments:

- The interior areas of the office area appear to be refreshed within the last 10 years.
- The interior finishes are worn and failing in some areas. Partial interior renovations that include comprehensive updating of the interior finishes are recommended as part of the overall facility rehabilitation.
- The ceiling tiles have isolated areas of damaged ceiling tiles. The damaged ceiling tiles need to be replaced. The cost to replace the damaged finishes is relatively insignificant and the work can be performed as part of the property management's routine maintenance program.

5. Services (MEPF)

See the Mechanical Equipment List in the Appendices for the quantity, manufacturer's name, model number, capacity and year of manufacturer of the major mechanical equipment, if available.

D10 Conveying Systems

Not applicable. There are no elevators or conveying systems.

D20 Plumbing

D2010 Domestic Water Distribution		
Type	Description	Condition
Water Supply Piping	Copper	Fair
Water Meter Location	Boiler Room	

Domestic Water Heaters or Boilers	
Components	Supplied by HVAC Boiler
Fuel	Natural gas
Boiler or Water Heater Condition	Excellent
Supplementary Storage Tanks?	No
Adequacy of Hot Water	Adequate
Adequacy of Water Pressure	Adequate

D2020 Sanitary Drainage		
Type	Description	Condition
Waste/Sewer Piping	Cast iron	Fair
Vent Piping	Cast iron	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Hot water temperature too hot or cold	☐	Minor or isolated leaks	☐
Other	☐	Other	☐

Plumbing Systems - Transportation Building

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Break rooms	Sink	Stainless Steel	3	EA	Fair	Replace	9	3,162
Hallway	Drinking Fountain	Refrigerated	1	EA	Good	Replace	6	1,886
Restroom	Toilet	Tankless (Water Closet)	7	EA	Fair	Replace	9	5,901
Restroom	Urinal	Vitreous China	2	EA	Fair	Replace	9	2,387
Restroom	Sink	Vitreous China	6	EA	Fair	Replace	9	5,169
Shop Floor	Emergency Station	Eye Wash & Shower	1	EA	Fair	Replace	7	2,115
Wash Bay Hall	Booster Pump	10 HP	1	EA	Fair	Replace	9	12,404

Anticipated Lifecycle Replacements:

- Toilets
- Urinals
- Sinks
- Safety Shower Eyewash
- Booster pump

Actions/Comments:

- The water pressure appears to be sufficient. No significant repair actions or short term replacement costs are required. Routine and periodic maintenance is recommended. Future lifecycle replacements of the components or systems listed above will be required.

D30 Building Heating, Ventilating, and Air Conditioning (HVAC)

Building Central Heating System	
Primary Heating System Type	Hot water boilers
Heating Fuel	Natural gas
Location of Major Equipment	Mechanical rooms
Space Served by System	Entire building

Building Central Cooling System	
Primary Cooling System Type	None
Refrigerant	None
Cooling Towers	None
Location of Major Equipment	--
Space Served by System	--

Distribution System	
HVAC Water Distribution System	Two-pipe
Air Distribution System	Constant volume
Location of Air Handlers	Mechanical rooms

Distribution System	
Terminal Units	Radiators and/or cabinet units
Quantity and Capacity of Terminal Units	approximately 5 fan coil units and numerous radiators
Location of Terminal Units	Adjacent to windows

Packaged, Split & Individual Units	
Primary Components	Central AHU and condensing units
Cooling (if separate from above)	performed via components above
Heating Fuel	Natural gas
Location of Equipment	Mechanical rooms
Space Served by System	Entire building

Supplemental/Secondary Components	
Supplemental Component #1	Ductless mini-split systems
Location / Space Served	Dispatch office
Condition	Good
Supplemental Component #2	Infrared heaters
Location / Space Served	Shop areas
Condition	Fair

Controls and Ventilation	
HVAC Control System	BAS, hybrid pneumatic/electronic system
HVAC Control System Condition	Fair
Building Ventilation	Central AHU, with fresh air intake
Ventilation System Condition	Fair

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Ductwork/grills need cleaned	☒	Minor control adjustments needed	☐
Leaking condensate lines	☐	Poor mechanical area access	☐
Other	☐	Other	☐

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Heating, Cooling or Ventilation is not adequate	☐	Major system inefficiencies	☐
HVAC controls pneumatic or antiquated	☒	Obsolete refrigerants : R11, R12, R22, R123, R502	☐
Other	☐	Other	☐

Mechanical Systems - Transportation Building

Location	Component	Component Description	Quantity	Unit	Condition	Action	RUL	Est. Cost
Compressor Room	Exhaust Fan	Propeller, 1,000 CFM	1	EA	Fair	Replace	6	1,403
Dispatch	Condensing Unit/Heat Pump	2 Ton	1	EA	Good	Replace	9	3,122
Dispatch	Fan Coil Unit	2 to 2.5 Ton	1	EA	Good	Replace	9	2,757
Drivers break room	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
Drivers break room	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
Electrical Room	Boiler	Gas, Condensing Style, High Efficiency, 126 to 750 MBH	1	EA	Excellent	Replace	24	50,249
Electrical room	Air Separator	2"	1	EA	Excellent	Replace	14	1,788
Electrical room	Air Handler	Exterior, 4,001 to 6,000 CFM	1	EA	Fair	Replace	6	27,805
Electrical room	Distribution Pump	Heating Water, 3 HP	1	EA	Excellent	Replace	19	4,652
Lower Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Lower Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Lower Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
Main roof	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
NW Service Bays	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
NW side Service Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	1	EA	Fair	Replace	12	2,895
NW side Service Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	1	EA	Fair	Replace	12	2,895
Office	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
Office	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
OFFICE Break room	Fan Coil Unit	Hydronic, 401 to 800 CFM	1	EA	Fair	Replace	6	2,199
SE Service Bays	Exhaust Fan	Centrifugal, 801 to 2,000 CFM	1	EA	Fair	Replace	6	2,664
SE side Service Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	1	EA	Fair	Replace	12	2,895
SE side Service Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	1	EA	Fair	Replace	12	2,895
Shop	Garage Fume Hood/Exhaust	1,000 CFM	4	EA	Fair	Replace	6	17,624
shop center mezzaine	Air Handler	Exterior, 2,001 to 3,000 CFM	1	EA	Fair	Replace	4	15,679
South side	Condenser	Air-Cooled, 20 Ton	1	EA	Fair	Replace	6	13,112
Storage Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	1	EA	Fair	Replace	12	2,895
Throughout	Building Automation System	HVAC Controls	19923	SF	Fair	Upgrade	2	106,837
Wash Bay	Infrared Heater	Gas-Fired Tubular, 40 to 80 MBH	2	EA	Fair	Replace	12	5,790

Anticipated Lifecycle Replacements:

- Boiler
- Condensor
- Air handling units
- Fan coil units
- Split system heat pumps
- Rooftop exhaust fans

Actions/Comments:

- The HVAC systems are maintained by an outside contractor. Records of the installation, maintenance, upgrades, and replacement of the HVAC equipment at the property have not been maintained since the property was first occupied.
- Approximately 80 percent of the HVAC equipment is original. HVAC equipment is replaced on an "as needed" basis.

- The HVAC equipment appears to be functioning adequately overall. However, due to the inevitable failure of parts and components over time, some of the equipment will require replacement.
- The air handlers are original to the 1982 construction and appear to be functioning adequately. However, many of the fan motors are also original and as-needed replacements are anticipated. High-efficiency motor replacements are recommended.
- The facility HVAC is controlled using an outdated pneumatic system supplied by an air compressor. For modernization, reliability, and increased control, full conversion to a web-based direct digital control (DDC) platform is highly recommended.

D40 Fire Protection

Item	Description					
Type	Wet pipe					
Sprinkler System	None	☐	Standpipes	☐	Backflow Preventer	☐
	Hose Cabinets	☐	Fire Pumps	☐	Siamese Connections	☒
Sprinkler System Condition	Fair					
Fire Extinguishers	Last Service Date		Servicing Current?			
	August 2017		Yes			
Hydrant Location	South Garage entry drive					
Siamese Location	South end of facility					
Special Systems	Kitchen Suppression System	☐	Computer Room Suppression System	☐		

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Extinguisher tag expired	☒	Riser tag expired (5 year)	☐
Other	☐	Other	☐

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The office area of the building is not protected by fire suppression; sprinkler heads are currently limited to the shop area. Due to its construction date, the facility is most likely "grandfathered" by code and the installation of fire sprinklers not required until major renovations are performed. Regardless of when or if installation of facility-wide fire suppression is required by the governing municipality, EMG recommends a retrofit be performed.

D50 Electrical

Distribution & Lighting			
Electrical Lines	Underground	Transformer	Pad-mounted
Main Service Size	1200 Amps	Volts	120/208 Volt, three-phase
Meter & Panel Location	Boiler Room	Branch Wiring	Copper
Conduit	Metallic	Step-Down Transformers?	Yes
Security / Surveillance System?	Yes	Building Intercom System?	No
Lighting Fixtures	T-8, T-12, CFL		
Main Distribution Condition	Fair		
Secondary Panel and Transformer Condition	Fair		
Lighting Condition	Fair		

Building Emergency Systems			
Size	80 kVA	Fuel	Natural gas
Generator / UPS Serves	Emergency lights,	Tank Location	N/A
Testing Frequency	Unknown	Tank Type	None
Generator / UPS Condition	Fair		

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Improperly stored material	☐	Unsecured high voltage area	☐
Loose cables or impoper use of conduit	☐	Poor electrical room ventilation	☐
Electrical room door blocked open	☒	Other	☐

Anticipated Lifecycle Replacements:

- Circuit breaker panels
- Main switchgear
- Switchboards
- Step-down transformers
- Interior light fixtures
- Emergency generator

Actions/Comments:

- The onsite electrical systems up to the meter are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.

- Some light fixtures throughout the facility utilize older, inefficient T-12 lamps. Replacement with newer fixtures with electronic ballasts and T-8 lamps is highly recommended to save substantial amounts of energy.

D60 Communications

D6060 Public Address Systems						
Item	Description					
Communication Equipment	Public Address System	☐	Nurse Call System	☐	Clock	☐

D70 Electronic Safety and Security

D7010 Access Control and Intrusion Detection / D7050 Detection and Alarm						
Item	Description					
Access Control and Intrusion Detection	Exterior Camera	☒	Interior Camera	☒	Front Door Camera Only	☐
	Cameras monitored	☐	Security Personnel On-Site	☐	Intercom/Door Buzzer	☐
Fire Alarm System	Central Alarm Panel	☒	Battery-Operated Smoke Detectors	☐	Alarm Horns	☒
	Annunciator Panels	☐	Hard-Wired Smoke Detectors	☒	Strobe Light Alarms	☒
	Pull Stations	☒	Emergency Battery-Pack Lighting	☒	Illuminated EXIT Signs	☒
Fire Alarm System Condition	Excellent					
Central Alarm Panel System	Location of Alarm Panel		Installation Date of Alarm Panel			
	Front Office		May 2016			

Anticipated Lifecycle Replacements:

- Central alarm panel
- Alarm devices and system

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

6. Equipment & Furnishings

E10 Equipment

The bus garage area has a variety of specialty equipment. The equipment is owned by the School Distrist and maintained by outside contractors managed in part by Durham School Services, LP. Durham Schools Services, LP works with the State of Michigan inspectors on the in-ground tanks and Environmental run-off from the site. They look at the wet areas and ponds on at least a weekly basis looking for visible signs of Petroluem products on the surface.

Anticipated Lifecycle Replacements:

- Bus Lift above floor
- Bus Lifts in floor
- Fuel Dispensing Pumps
- Bus Washer
- Under carriage spray system
- Overhead hoist system
- Filter Crusher
- Waste oil Holding tank
- Enclosed hose reels
- Air Compressors
- Air Drier
- Garage Door Openers
- Electric Vehicle Charger

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

7. Sitework

G20 Site Improvements

G2020 Parking Lots & G2030 Pedestrian Walkways		
Item	Material	Condition
Entrance Driveway Apron	Asphalt	Fair
Parking Lot	Asphalt	Poor
Drive Aisles	Asphalt	Poor
Service Aisles	Asphalt	Poor
Sidewalks	Concrete	Fair
Curbs	None	--
Pedestrian Ramps	None	--
Ground Floor Patio or Terrace	Concrete	Fair

Parking Count				
Open Lot	Carport	Private Garage	Subterranean Garage	Freestanding Parking Structure
17	-	-	-	-
Total Number of ADA Compliant Spaces			2	
Number of ADA Compliant Spaces for Vans			0	
Total Parking Spaces			19	

Site Stairs			
Location	Material	Handrails	Condition
None	--	--	--

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Pavement oil stains	☒	Vegetation growth in joints	☒
Stair/ramp rails loose	☐	Stair/ramp rail needs scraped and painted	☐
CurbWheel Stops spalling	☒	Sealcoating and stripes not done	☒

Degradation Issues			
Observation	Exists At Site	Observation	Exists At Site
Potholes/depressions	☒	Alligator cracking	☒
Concrete spalling	☐	Trip hazards (settlement/heaving)	☒
Other	☐	Other	☐

Anticipated Lifecycle Replacements:

- Asphalt seal coating
- Asphalt pavement
- Concrete aprons
- Sidewalks
- Patios

Actions/Comments:

- On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.
- The asphalt pavement exhibits significant areas of failure and deterioration, such as alligator cracking, transverse cracking, extensive raveling, and localized depressions. Complete milling and overlay of the entire lot is also recommended.
- The patio slabs outside the drivers ispatch area has isolated signs of cracking. The affected patios must be repaired.

G2060 Site Development	
Property Signage	
Property Signage	Post mounted wood
Street Address Displayed?	Yes

Site Fencing		
Type	Location	Condition
Chain link with metal posts	Bus Yard	Fair
Chain link with metal posts	Remote Bus Yard	Fair

Refuse Disposal				
Refuse Disposal	Common area dumpsters			
Dumpster Locations	Mounting	Enclosure	Contracted?	Condition
Near Building	Concrete pad	None	Yes	Fair
Bus Yard	Asphalt paving	None	Yes	Fair

Other Site Amenities			
	Description	Location	Condition
Playground Equipment	None	--	--
Tennis Courts	None	--	--
Basketball Court	None	--	--
Swimming Pool	None	--	--

Anticipated Lifecycle Replacements:

- Signage
- Power Operated Gate
- Site fencing

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended. Future lifecycle replacements of the components listed above will be required.

G2080 Landscaping		
Drainage System and Erosion Control		
System	Exists At Site	Condition
Surface Flow	☒	Fair
Inlets	☒	Fair
Swales	☐	--
Detention pond	☒	Fair
Lagoons	☐	--
Ponds	☐	--
Underground Piping	☒	Fair
Pits	☐	--
Municipal System	☒	Good
Dry Well	☐	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- There is evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.
- There are no curbs along the road. Runoff water can cross under the fence onto the property. The northern collection area has an area of eroded soils.

Item	Description						
Site Topography	Slopes gently down from the northwest side of the property to the southeast property line.						
Landscaping	Trees	Grass	Flower Beds	Planters	Drought Tolerant Plants	Decorative Stone	None
	☒	☒	☐	☐	☐	☐	☐
Landscaping Condition	Fair						
Irrigation	Automatic Underground	Drip	Hand Watering	None			
	☐	☐	☐	☒			
Irrigation Condition	--						

Retaining Walls		
Type	Location	Condition
None	--	--

Anticipated Lifecycle Replacements:

- No components of significance

Actions/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property. There are is an area of significant areas of erosion.

G30 Liquid & Gas Site Utilities

G3060 Site Fuel Distribution	
Item	Description
Natural Gas	Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator are located along the exterior wall of the building. The gas distribution piping within the building is malleable steel (black iron).
Fuel Oil	Two 20,000 gallon steel underground tanks are in bus yard with 4 two head pumps on two aisles for fueling the buses in the yard.
Old Tank	One 10,000-gallon steel underground tank has been abandoned in place in the bus yard. The tank was filled.

Anticipated Lifecycle Replacements:

- Replace the fuel oil tanks
- Replacement the cathodic protection
- Replace the fuel oil monitoring system

Actions/Comments:

- The pressure and quantity of gas appear to be adequate.

- The gas meter and regulator appear to be functioning adequately and will require routine maintenance.
- Only limited observation of the gas distribution piping can be made due to hidden conditions.

G40 Electrical Site Improvements

G4050 Site Lighting					
Site Lighting	None	Pole Mounted	Bollard Lights	Ground Mounted	Parking Lot Pole Type
	☐	☒	☐	☐	☐
	Good				
Building Lighting	None	Wall Mounted	Recessed Soffit		
	☐	☒	☐		
	Fair				

Maintenance Issues			
Observation	Exists At Site	Observation	Exists At Site
Isolated bulb/lamp replacement	☐	Discolored/dirty lens cover	☐
LED Lightng	☒	Other	☐

Anticipated Lifecycle Replacements:

- Exterior lighting

Actions/Comments:

- No significant actions are identified at the present time. On-going periodic maintenance is highly recommended.

8. Ancillary Structures

Other Ancillary Structures			
Type	Storage Shed	Location	Bus Yard
Item	Material	Item	Material
Exterior Siding	Tilt-up Concrete Panels	Roof Finishes	Concrete
Interior Finishes	Floor : Unfinished Concrete, Ceiling : Exposed Walls : Tilt-up panel	MEPF	Electrical outlets and light. Not tested
Overall Building Condition			Poor
Exterior Siding	Wood	Roof Finishes	Asphalt Singles
Interior Finishes	Floor : Plywood Ceiling : Exposed Walls : Exterior siding	MEPF	Electrical outlet and light not tested.
Overall Building Condition			Failed

Anticipated Lifecycle Replacements:

- Storage sheds
- Storage units/trailers
- Asphalt shingles

Actions/Comments:

- The wooden shed has missing asphalt shingles, on the lowest course the Ice Dam/Felt paper is gone. The OSB has holes and has twisted. There is no drip edge material.
- The T1-11 sliding is not holding paint at the bottom and shows signs that the material is rotting and requires replacement.
- The bottom hinge on the right door is not secured to the door. The door has other areas of rot and requires replacement. The left door is in similar condition.
- The trim on the perimeter of the front elevation is missing in different areas and requires replacement.
- The shed requires painting.
- The concrete shed has cracks in the stiffening sections of some of the wall panel pieces. The expansion joint material is dry, cracked, and brittle. This material should be replaced. The top of the panels on the inside some are starting to delaminate, exposing the aggregate. The inside walls have a green growth on them. Starting at the roof and working down.

9. Opinions of Probable Costs

Cost estimates are attached at the front of this report (following the cover page).

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift,* EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the FCA.

9.1. Methodology

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in occupants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

9.2. Immediate Repairs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

9.3. Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repair Cost Estimate

10. Purpose and Scope

10.1. Purpose

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices, which affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

CONDITIONS:

The physical condition of building systems and related components are typically defined as being in one of five conditions: Excellent, Good, Fair, Poor, Failed or a combination thereof. For the purposes of this report, the following definitions are used:

Excellent	=	New or very close to new; component or system typically has been installed within the past year, sound and performing its function. Eventual repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Good	=	Satisfactory as-is. Component or system is sound and performing its function, typically within the first third of its lifecycle. However, it may show minor signs of normal wear and tear. Repair or replacement will be required when the component or system either reaches the end of its useful life or fails in service.
Fair	=	Showing signs of wear and use but still satisfactory as-is, typically near the median of its estimated useful life. Component or system is performing adequately at this time but may exhibit some signs of wear, deferred maintenance, or evidence of previous repairs. Repair or replacement will be required due to the component or system's condition and/or its estimated remaining useful life.
Poor	=	Component or system is significantly aged, flawed, functioning intermittently or unreliably; displays obvious signs of deferred maintenance; shows evidence of previous repair or workmanship not in compliance with commonly accepted standards; has become obsolete; or exhibits an inherent deficiency. The present condition could contribute to or cause the deterioration of contiguous elements or systems. Either full component replacement is needed or repairs are required to restore to good condition, prevent premature failure, and/or prolong useful life.
Failed	=	Component or system has ceased functioning or performing as intended. Replacement, repair, or other significant corrective action is recommended or required.
Not Applicable	=	Assigning a condition does not apply or make logical sense, most commonly due to the item in question not being present.

FORMAT OF THE BODY OF THE REPORT:

Throughout sections 5 through 9 of this report, each report section will typically contain three subsections organized in the following sequence:

- A descriptive table (and/or narrative), which identifies the components assessed, their condition, and other key data points.
- A simple bulleted list of Anticipated Lifecycle Replacements, which lists components and assets typically in Excellent, Good, or Fair condition at the time of the assessment but that will require replacement or some other attention once aged past their estimated useful life. These listed components are typically included in the associated inventory database with costs identified and budgeted beyond the first several years.
- A bulleted cluster of Actions/Comments, which include more detailed narratives describing deficiencies, recommended repairs, and short term replacements. The assets and components associated with these bullets are/were typically problematic and in Poor or Failed condition at the time of the assessment, with corresponding costs included within the first few years.

PLAN TYPES:

Each line item in the cost database is assigned a Plan Type, which is the primary reason or rationale for the recommended replacement, repair, or other corrective action. This is the "why" part of the equation. A cost or line item may commonly have more than one applicable Plan Type; however, only one Plan Type will be assigned based on the "best" fit, typically the one with the greatest significance. The following Plan Types are listed in general weighted order of importance:

Safety	=	An observed or reported unsafe condition that if left unaddressed could result in an injury; a system or component that presents a potential liability risk.
Performance/Integrity	=	Component or system has failed, is almost failing, performs unreliably, does not perform as intended, and/or poses a risk to overall system stability.
Accessibility	=	Does not meet ADA, UFAS, and/or other handicap accessibility requirements.
Environmental	=	Improvements to air or water quality, including removal of hazardous materials from the building or site.
Modernization/Adaptation	=	Conditions, systems, or spaces that need to be upgraded in appearance or function to meet current standards, facility usage, or client/occupant needs.
Lifecycle/Renewal	=	Any component or system in which future repair or replacement is anticipated beyond the next several years and/or is of minimal substantial early-term consequence.

10.2. Scope

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate Costs and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the subject Property's compliance to Title III of the Americans with Disabilities Act. This will not constitute a full ADA survey, but will help identify exposure to issues and the need for further review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of fungal growth, conditions conducive to fungal growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected fungal growth, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.
- Observe a representative sample of the interior spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property's overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and the significant mechanical, electrical and elevator equipment rooms.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Provide an Executive Summary at the beginning of this report.
- Prepare a mechanical inventory list.

11. Accessibility and Property Research

11.1. ADA Accessibility

Generally, Title III of the Americans with Disabilities Act (ADA) prohibits discrimination by entities to access and use of "areas of public accommodations" and "commercial facilities" on the basis of disability. Regardless of its age, these areas and facilities must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Buildings completed and occupied after January 26, 1992 are required to comply fully with the ADAAG. Existing facilities constructed prior to this date are held to the lesser standard of compliance to the extent allowed by structural feasibility and the financial resources available. As an alternative, a reasonable accommodation pertaining to the deficiency must be made.

During the FCA, a limited visual observation for ADA accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in *EMG's Abbreviated Accessibility Checklist* provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full ADA Compliance Survey, and that such a survey is beyond the scope of EMG's undertaking. Only a representative sample of areas was observed and, other than as shown on the Abbreviated Accessibility Checklist, actual measurements were not taken to verify compliance.

The facility does not appear to be accessible with Title III of the Americans with Disabilities Act. Elements as defined by the ADAAG that are not accessible as stated within the priorities of Title III, are as follows:

Accessibility Issues			
Component	Major Issue	Moderate Issue	Minor Issue
Parking	☐	☐	☒
Exterior Accessible Route	☐	☐	☐
Interior Accessible Route	☐	☐	☐
Restrooms	☐	☐	☐
Elevators	☐	☐	☐

A full ADA Compliance Survey may reveal aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such.

11.2. Flood Zone and Seismic Zone

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated April 3, 2012, the property is located in Zone X, defined as an area outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent. The lines on the East side, along the train tracks represent a Jurisdication Boundary.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 1, defined as an area of low probability of damaging ground motion.

12. Certification

Ann Arbor Public Schools retained EMG to perform this Facility Condition Assessment in connection with its continued operation of Transportation and 2 Storage Buildings, 2400 Broadwalk Street, Ann Arbor, Michigan, the "Property". It is our understanding that the primary interest of Ann Arbor Public Schools is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

This report has been prepared on behalf of and exclusively for the use of the client for the purpose stated within Section **Error! Reference source not found.** of this report. The report, or any excerpt thereof, shall not be used by any party other than the client or for any other purpose than that specifically stated in our agreement or within Section **Error! Reference source not found.** of this report without the express written consent of EMG.

Any reuse or distribution of this report without such consent shall be at Ann Arbor Public Schools and the recipient's sole risk, without liability to EMG.

Prepared by: Randall Patzke,
Project Manager

Reviewed by:

Al Diefert
Technical Report Reviewer
For
Andrew Hupp
Program Manager

13. Appendices

Appendix A: Photographic Record
Appendix B: Site Plan
Appendix C: Supporting Documentation
Appendix D: Pre-Survey Questionnaire

Appendix A:
Photographic Record

#1:	FRONT ELEVATION

#2:	LEFT ELEVATION

#3:	REAR ELEVATION

#4:	RIGHT ELEVATION

#5:	STORAGE BUILDING

#6:	STORAGE BUILDING

#7:	FUEL STORAGE TANKS

#8:	FUEL STORAGE TANK - OLD

#9:	AUTOMATIC GATE

#10:	STORAGE BLDG ROOF

#11:	ENCLOSED HOSE REEL

#12:	ASPHALT PAVEMENT

#13:	FAN COIL UNIT

#14:	DISTRIBUTION PANEL

#15:	DAMAGED WALL PANEL

#16:	WHEEL STOPS

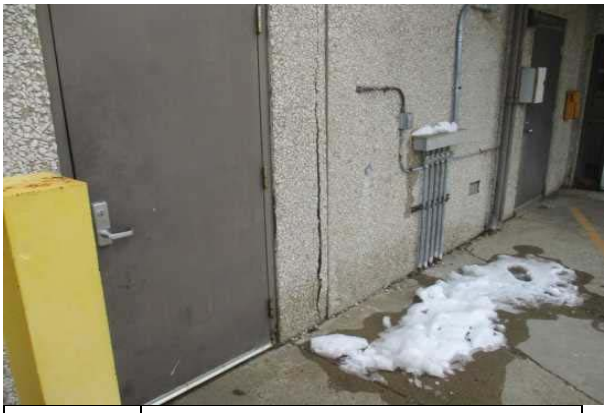
#17:	NON-COMPLIANT DOOR HARDWARE

#18:	FUEL DISPENSERS

#19:	KITCHEN CABINET

#20:	BATHROOM SINKS AND COUNTER MISSING PIPE WRAP

#21:	POLE LIGHTS



#22:	CRACKED EXTERIOR WALL PANEL

#23:	VEHICLE LIFT

#24:	FENCES

#25:	ADA PARKING

#26:	BUS WASHER

#27:	EMERGENCY GENERATOR

#28:	TOILET PARTITIONS

#29:	INTERIOR WALL

#30:	WASTE OIL TANK

#31:	GARAGE FUME HOOD/EXHAUST

#32:	SWITCHBOARD

#33:	EXTERIOR DOOR RUSTED OUT FRAME

#34:	DRINKING FOUNTAIN

#35:	TROLLEY & CHAIN HOIST

#36:	EXHAUST FANS

#37:	CONDENSER, AIR-COOLED

#38:	BUILDING/MAIN SWITCHGEAR

#39:	FIRE ALARM SYSTEM

#40:	FUEL OIL TANK MONITORING SYSTEM,

#41:	EXHAUST FAN

#42:	PARKING LOTS, ASPHALT PAVEMENT

#43:	BUILDING AUTOMATION SYSTEM (HVAC CONTROLS),

#44:	STORAGE SHED INSIDE WALL

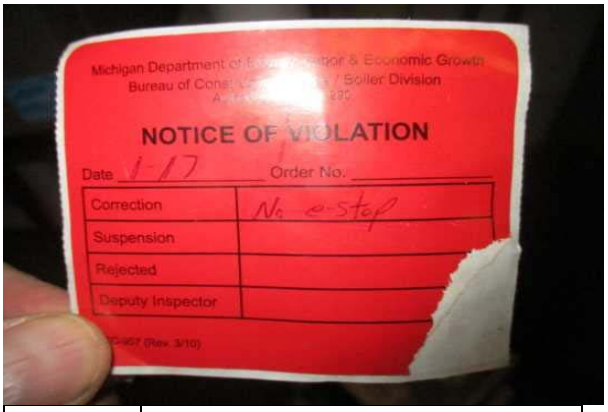
#45:	AIR HANDLER

#46:	OVERHEAD DOOR OPENER

#47:	SUSPENDED ACOUSTICAL TILE (ACT)

#48:	EXTERIOR DOOR FRAME

#49:	BOILER, GAS, CONDENSING STYLE



#50:	RED TAG ON NEW BOILER

#51:	INTERIOR FLOOR FINISH PEELING

#52:	CONDENSING UNIT/HEAT PUMP, SPLIT SYSTEM

#53:	SINKS

#54:	ASPHALT PAVEMENT

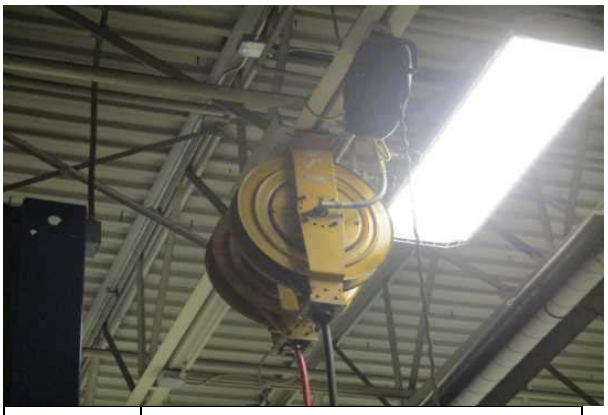
#55:	INFRARED HEATER

#56:	LIGHTING SYSTEM

#57:	DAMAGED ASPHALT PAVEMENT

#58:	TOILETS

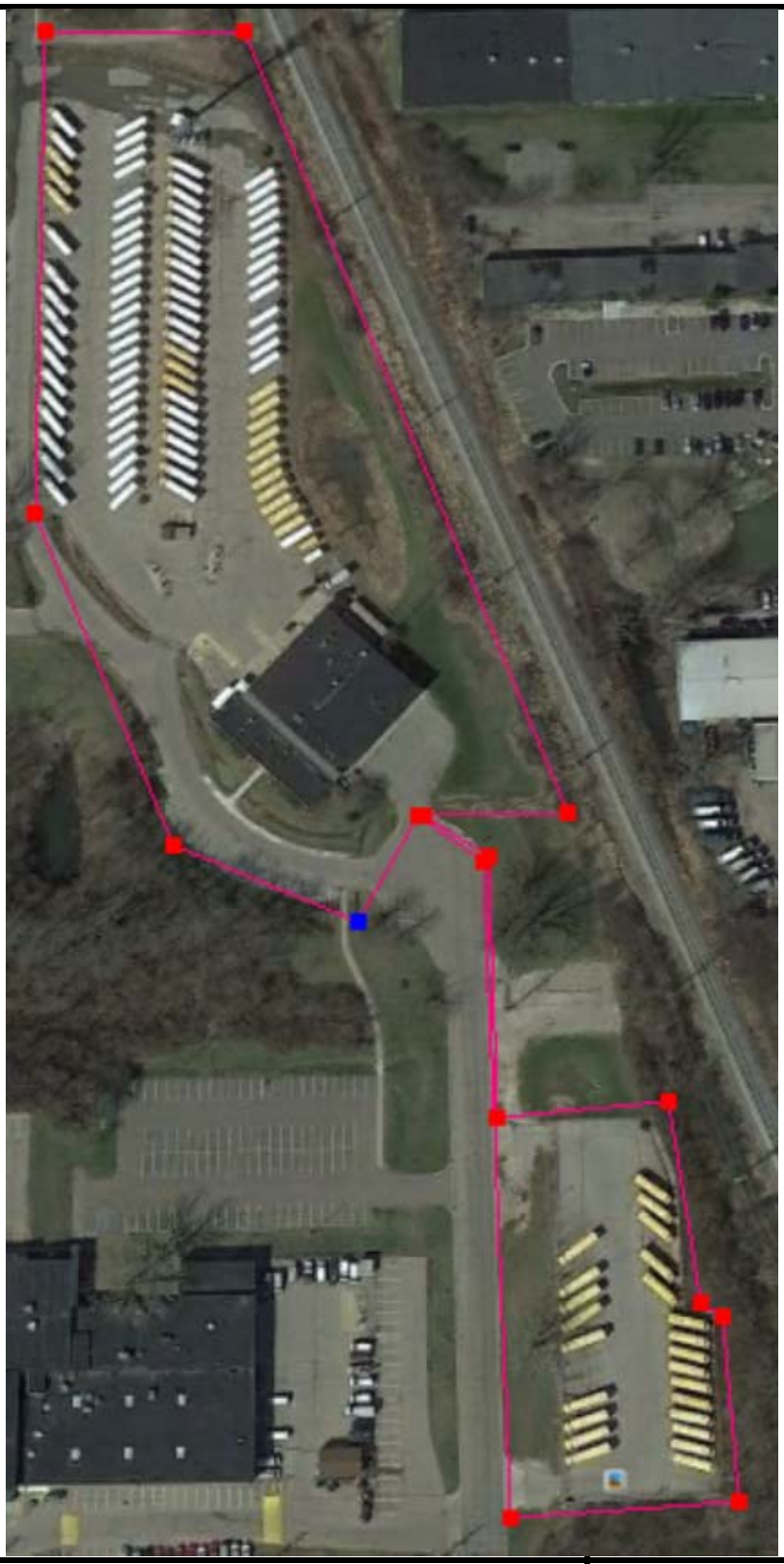
#59:	FILTER CRUSHER



#60:	LIGHTING SYSTEM

Appendix B:
Site Plan

Site Plan



	Project Name: Transportation and 2 Storage Buildings	**Project Number:** 129010.18R000-033.354
	Source: Google Earth Pro	**On-Site Date:** March 5, 2018

Appendix C:
Supporting Documentation

Flood Map

emg	**Project Name:** Transportation and 2 Storage Buildings	**Project Number:** 129010.18R000-033.354
	Source: FEMA Map Number: 26161C0263E Dated: April 3, 2012	**On-Site Date:** March 5, 2018

Appendix D:
Pre-Survey Questionnaire

EMG FACILITY CONDITION ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

Building / Facility Name: _____

Name of person completing form: _____

Title / Association with property: _____

Length of time associated w/ property: _____

Date Completed: _____

Phone Number: _____

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses.

DATA OVERVIEW		RESPONSE			
1	Year/s constructed				
2	Building size in SF				
3	Major Renovation Dates	Façade		HVAC	
		Roof		Electrical	
		Interiors		Site Pavement	
		Accessibility		other	

QUESTION		RESPONSE
4	Provide additional detail about the scope of the MAJOR additions, renovations, or systemic rehabilitations since construction (referenced above in Question 3).	
5	List other significant but somewhat lesser capital improvements, focusing on recent years (provide approximate year completed).	
6	List any major capital expenditures planned/requested for the next few years. Have they been budgeted?	
7	Describe any on-going extremely problematic, historically chronic, or immediate facility needs.	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any ***Yes*** responses. (**NA** indicates "*Not Applicable*", **Unk** indicates *"Unknown"*)						
QUESTION		RESPONSE				COMMENTS
		Yes	No	Unk	NA	
8	Are there any problems with foundations or structures, like excessive settlement?					
9	Has any part of the facility ever contained visible suspect mold growth, or have there been any indoor air quality or mold related complaints from occupants?					
10	Are there any wall, window, basement or roof leaks?					
11	Are there any plumbing leaks, water pressure, or clogging/back-up problems?					
12	Have there been any leaks or pressure problems with natural gas, HVAC supply/return lines, or steam service?					
13	Are any areas of the facility inadequately heated, cooled or ventilated? Any poorly insulated areas?					
14	Is the electrical service outdated, undersized, or otherwise problematic?					
15	Are there any problems or inadequacies with exterior building-mounted lighting?					
16	Is site/parking drainage inadequate, with excessive ponding or other problems?					
17	Are there any other unresolved construction defects or significant issues/hazards at the property that have not yet been identified above?					
18	ADA: Has an accessibility study been performed at the site? If so, indicate when.					
19	ADA: If a study has occurred, have the associated recommendations been addressed? In full or in part?					
20	ADA: Have there been regular complaints about accessibility issues, or associated previous or pending litigation?					

On the day of the site visit, provide EMG's Field Observer access to all of the available documents listed below. Provide copies if possible.

INFORMATION REQUIRED	
1. All available construction documents (blueprints) for the original construction of the building or for any tenant improvement work or other recent construction work. 2. A site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features. 3. For commercial properties, provide a tenant list which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s). 4. For apartment properties, provide a summary of the apartment unit types and apartment unit type quantities, including the floor area of each apartment unit as measured in square feet. 5. For hotel or nursing home properties, provide a summary of the room types and room type quantities. 6. Copies of Certificates of Occupancy, building permits, fire or health department inspection reports, elevator inspection certificates, roof or HVAC warranties, or any other similar, relevant documents. 7. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.	8. The company name, phone number, and contact person of all outside vendors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler or fire extinguisher testing contractors, and elevator contractors. 9. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the estimated cost of the improvements. Executed contracts or proposals for improvements. Historical costs for repairs, improvements, and replacements. 10. Records of system & material ages (roof, MEP, paving, finishes, furnishings). 11. Any brochures or marketing information. 12. Appraisal, either current or previously prepared. 13. Current occupancy percentage and typical turnover rate records (for commercial and apartment properties). 14. Previous reports pertaining to the physical condition of property. 15. ADA survey and status of improvements implemented. 16. Current / pending litigation related to property condition.

Your timely compliance with this request is greatly appreciated.