

JIM ROBBINS, AIA LEED AP

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GARFIELD MIDDLE SCHOOL

Garfield, NJ

Type: Grades 7-8 Public Middle School.
Size: 180,000 GSF.
Capacity: 1,150 Students (functional).
Cost: \$42M (approximately).
Status: Construction nearly complete.
Role: **Architect, Sustainable Design Coordinator.**

Summary:

The new Garfield Middle School was designed to comply with the New Jersey Schools Construction Corporation's (NJSCC) requirement that projects be eligible for 26 points under LEED-NC. Due to its time line, this project was evaluated under LEED-NC 2.1.

I was brought onto MRM Architecture's team for this project as a LEED Consultant, a few months after construction began. The project architect during design was himself a LEED Accredited Professional and handled these responsibilities until he departed the firm.

As the LEED Consultant I evaluated the design for the targeted LEED credits and determined eligibility. I also reviewed contractor LEED submittals and assembled data from them to monitor the contractor's progress towards the targeted credits. Finally I held occasional LEED meetings and regularly published a project LEED Status Study and Report, which brought everyone up-to-date with the level of success and what more was required.



Date	Time	Hauler	Receiver	Ticket	Notes	Material Quantities (Tons)						Total Tons	Diverted	
						Wd.	Mtl.	Ppr.	Msnry.	Other	Resid.			
12/20/2004	n/a	n/a	Sid Harvey	AF220574	R-22 refrigerant	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.02	100%
12/20/2004	n/a	n/a	Sid Harvey	3273959	R-22 refrigerant	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	100%
01/04/2005	09:31	Red Ball	MTLM-NE	TOKN50		0.00	0.00	0.00	0.00	4.49	0.75	5.24	4.49	86%
01/05/2005	08:26	Red Ball	MTLM-NE	TOKQ37		0.00	0.00	0.00	0.00	4.39	0.00	4.39	4.39	100%
01/05/2005	12:21	Red Ball	MTLM-NE	TOKR65		0.00	0.00	0.00	0.00	5.23	0.00	5.23	5.23	100%
01/06/2005	08:44	Red Ball	MTLM-NE	TOKT59	dirt/mud adjustment =/ residual	0.00	0.00	0.00	0.00	8.11	0.00	8.11	8.11	100%
01/20/2005	10:13	Red Ball	Rail-Tech	3024592		0.00	0.00	0.00	0.00	0.00	9.77	9.77	0.00	0%
01/20/2005	15:23	Red Ball	Rail-Tech	3024602		0.00	0.00	0.00	0.00	0.00	21.84	21.84	0.00	0%
01/26/2005	07:31	Rovic	Rail-Tech	3024768		0.00	0.00	0.00	0.00	0.00	18.28	18.28	0.00	0%
01/26/2005	07:36	Rovic	Rail-Tech	3024769		0.00	0.00	0.00	0.00	0.00	15.59	15.59	0.00	0%
01/26/2005	09:35	Rovic	Rail-Tech	3024776		0.00	0.00	0.00	0.00	0.00	11.30	11.30	0.00	0%
01/26/2005	09:59	Rovic	Rail-Tech	3024778		0.00	0.00	0.00	0.00	0.00	15.16	15.16	0.00	0%
01/26/2005	11:52	Rovic	Rail-Tech	3024787		0.00	0.00	0.00	0.00	0.00	17.16	17.16	0.00	0%
01/26/2005	11:55	Rovic	Rail-Tech	3024789		0.00	0.00	0.00	0.00	0.00	19.99	19.99	0.00	0%
01/26/2005	13:42	Rovic	Rail-Tech	3024795		0.00	0.00	0.00	0.00	0.00	21.63	21.63	0.00	0%
01/26/2005	14:37	Rovic	Rail-Tech	3024799		0.00	0.00	0.00	0.00	0.00	15.14	15.14	0.00	0%
01/26/2005	15:25	Rovic	Rail-Tech	3024806		0.00	0.00	0.00	0.00	0.00	14.02	14.02	0.00	0%
01/26/2005	16:00	Rovic	Rail-Tech	3024808		0.00	0.00	0.00	0.00	0.00	15.83	15.83	0.00	0%
01/26/2005	17:36	Rovic	Rail-Tech	3024814		0.00	0.00	0.00	0.00	0.00	19.04	19.04	0.00	0%
01/26/2005	18:02	Rovic	Rail-Tech	3024815		0.00	0.00	0.00	0.00	0.00	15.65	15.65	0.00	0%
01/31/2005	17:05	Rovic	Rail-Tech	3024994		0.00	0.00	0.00	0.00	0.00	18.09	18.09	0.00	0%
01/31/2005	18:12	Rovic	Rail-Tech	3024996		0.00	0.00	0.00	0.00	0.00	19.30	19.30	0.00	0%
02/01/2005	11:18	Red Ball	MTLM-NE	TOMW96		0.00	0.00	0.00	0.00	9.33	0.10	9.43	9.33	99%
02/01/2005	13:49	Red Ball	MTLM-NE	TOMX77		0.00	0.00	0.00	0.00	14.21	0.00	14.21	14.21	100%
02/02/2005	09:32	Rovic	Rail-Tech	3025091		0.00	0.00	0.00	0.00	0.00	17.91	17.91	0.00	0%
02/02/2005	09:48	Rovic	Rail-Tech	3025093		0.00	0.00	0.00	0.00	0.00	19.16	19.16	0.00	0%
02/02/2005	11:31	Rovic	Rail-Tech	3025097		0.00	0.00	0.00	0.00	0.00	20.28	20.28	0.00	0%
02/02/2005	12:31	Rovic	Rail-Tech	3025101		0.00	0.00	0.00	0.00	0.00	20.77	20.77	0.00	0%
02/02/2005	13:49	Rovic	Rail-Tech	3025105		0.00	0.00	0.00	0.00	0.00	22.49	22.49	0.00	0%
02/02/2005	15:25	Rovic	Rail-Tech	3025117		0.00	0.00	0.00	0.00	0.00	15.12	15.12	0.00	0%
02/07/2005	12:18	Rovic	Rail-Tech	3025229		0.00	0.00	0.00	0.00	0.00	19.50	19.50	0.00	0%
02/08/2005	09:17	Red Ball	MTLM-NE	TONM99		0.00	0.00	0.00	0.00	6.90	1.00	7.90	6.90	87%
02/08/2005	09:28	Rovic	Rail-Tech	3025284		0.00	0.00	0.00	0.00	0.00	16.00	16.00	0.00	0%
02/08/2005	10:36	Rovic	Rail-Tech	3025286		0.00	0.00	0.00	0.00	0.00	17.69	17.69	0.00	0%
02/08/2005	11:00	Rovic	Rail-Tech	3025291		0.00	0.00	0.00	0.00	0.00	17.07	17.07	0.00	0%

Date	Time	Hauler	Receiver	Ticket	Notes	Material Quantities (Tons)						Total Tons	Diverted	
						Wd.	Mtl.	Ppr.	Msnry.	Other	Resid.			
10/25/2006	unk	Cardella	Cardella*	19041		3.06	0.00	0.00	9.19	0.00	3.06	15.31	12.25	80%
10/27/2006	unk	Cardella	Cardella*	11220		0.42	0.00	0.70	0.00	0.00	0.28	1.40	1.12	80%
10/27/2006	unk	Cardella	Cardella*	19242		2.83	0.00	0.00	0.00	0.00	0.71	3.54	2.83	80%
10/31/2006	unk	Cardella	Cardella*	28417		2.70	1.08	0.54	0.00	0.00	1.08	5.40	4.32	80%
11/03/2006	unk	Cardella	Cardella*	11238		3.59	0.55	0.28	0.00	0.00	1.11	5.53	4.42	80%
11/13/2006	unk	Cardella	Cardella*	34611		3.60	0.00	0.00	0.00	0.00	0.90	4.50	3.60	80%
11/16/2006	unk	Cardella	Cardella*	28474		2.42	0.00	0.81	0.00	0.00	0.81	4.04	3.23	80%
11/20/2006	unk	Cardella	Cardella*	36623		3.80	1.52	0.76	0.00	0.00	1.52	7.60	6.08	80%
11/21/2006	unk	Cardella	Cardella*	28494		2.98	0.00	0.00	0.00	0.00	0.53	3.51	2.98	85%
11/22/2006	unk	Cardella	Cardella*	28497		2.86	0.00	0.00	0.00	0.00	0.72	3.58	2.86	80%
11/27/2006	unk	Cardella	Cardella*	22804		0.72	0.00	1.58	0.00	0.00	0.57	2.87	2.30	80%
11/27/2006	unk	Cardella	Cardella*	22807		2.53	0.00	0.00	0.00	0.00	0.63	3.16	2.53	80%
12/04/2006	unk	Cardella	Cardella*	22831		4.24	0.65	0.33	0.00	0.00	1.31	6.53	5.22	80%
12/05/2006	unk	Cardella	Cardella*	22837		2.30	0.00	0.00	0.00	0.00	0.57	2.87	2.30	80%
12/07/2006	unk	Cardella	Cardella*	22846		2.46	0.00	0.00	0.00	0.00	0.43	2.89	2.46	85%
12/12/2006	unk	Cardella	Cardella*	21563		3.58	0.00	0.00	0.00	0.00	0.90	4.48	3.58	80%
12/18/2006	unk	Cardella	Cardella*	21059		1.70	0.00	0.57	0.00	0.00	0.57	2.84	2.27	80%
12/18/2006	unk	Cardella	Cardella*	21581		2.92	0.00	0.00	0.00	0.00	0.52	3.44	2.92	85%
12/20/2006	unk	Cardella	Cardella*	21595		1.88	0.00	0.40	0.00	0.00	0.40	2.68	2.28	85%
12/29/2006	unk	Cardella	Cardella*	21132		1.07	0.00	0.64	0.00	0.00	0.43	2.14	1.71	80%
Total						410.93	50.02	44.22	688.47	140.02	750.65	2,084.31	1,333.66	63.99%
* Cardella Trucking acts as transfer station where recyclables are separated. Cardella listed individual recycling facilities as A.B. Dauman Industries for wood; A&A Scrap and Cinelli for metals; Eagle, Bedrock Stone, and North Bergen Recycling for concrete (masonry); Galaxy and Atlantic Coast Fibers for paper products. Residual waste is reportedly transported to landfill by train.														
Confirm above is a complete accounting of all construction/demolition/land clearing waste removal under both contracts. Exclude material recycled and/or reused on-site, exclude soil and HazMats.														

Specification	G.C.	Item	Supplier/ Manuf.	Manuf. Location	Notes	Cost	MR-4			MR-5.1		MR-5.2		Wood		
							Pre	Post	Value	Dist.	Value	Cont.	Value	FSC?	FSC \$	Non \$
04810	Unit Masonry Assemblies	1	#220 Joint Reinf.	Hohmann & Barnard	Jessup, MD	\$26,000	99%	0%	\$64,350	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	#270 Joint Reinf.	Hohmann & Barnard	Jessup, MD	\$26,000	99%	0%	\$64,350	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	#341 Weep Holes	Hohmann & Barnard	Jessup, MD	\$26,000	0%	0%	\$0	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	#RS Control Joint	Hohmann & Barnard	Jessup, MD	\$26,000	50%	0%	\$32,500	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Ceramic Brick	CarolinaCeramics	Columbia, SC	\$400,000			\$0	607	\$0		\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Clay 119 Closure Brick	Taylor Clay Prod. Co.	Salisbury, NC	\$223,500	0%	0%	\$0	503	\$0		\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Corrugated Dovetails	Hohmann & Barnard	Jessup, MD	\$26,000	50%	0%	\$32,500	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Fleming CMC	Essroc	Front Royal, VA	\$22,000			\$0	255	\$22,000	85%	\$18,700	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Foamular	Owens Corning	Tallmadge, OH	\$28,500	0%	0%	\$0	382	\$28,500		\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Lightweight CMU	Anchor	Brick, NJ	\$400,000			\$0	54	\$400,000	100%	\$400,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Mason Sand	Pinnacle	S Barnegat, NJ	\$22,000	0%	0%	\$0	78	\$22,000	100%	\$22,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Mortar Break	Adv. Building Prod.	Springvale, ME	\$22,000	100%	0%	\$55,000	248	\$22,000	0%	\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Partition Anchors	Hohmann & Barnard	Jessup, MD	\$26,000	50%	0%	\$32,500	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Rebar	Gerdau		\$22,000	15%	85%	\$101,750		\$0		\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Seismic Interlock	Hohmann & Barnard	Jessup, MD	\$26,000	99%	0%	\$64,350	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Sure Clean Vana Trol	Prosoco	Lawrence, KS		0%	0%	\$0	1,122	\$0		\$0	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Textroflash	Hohmann & Barnard	Jessup, MD	\$26,000			\$0	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	Vee Wall Ties	Hohmann & Barnard	Jessup, MD	\$26,000	99%	0%	\$64,350	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
04810	Unit Masonry Assemblies	1	X-Seal w/ Byna-Tie	Hohmann & Barnard	Jessup, MD	\$26,000	50%	0%	\$32,500	186	\$26,000	100%	\$26,000	n/a	\$0	\$0
05120	Structural Steel	1	Miscellaneous Steel	Bull Moose		\$100,000	0%	25%	\$125,000		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel	Unytite		\$115,250	0%	25%	\$144,063		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel	North Star		\$115,250	0%	25%	\$144,063		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel	Chaparral		\$115,250	0%	25%	\$144,063		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel & Bolts	Nucor	Darlington, SC	\$115,250	15%	83%	\$521,506		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel Deck	Bouras / United Steel Deck		\$300,000	27%	30%	\$652,500		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Steel Joists	Bouras / New Columbia Joist Co		\$110,000	0%	25%	\$137,500		\$0		\$0	n/a	\$0	\$0
05120	Structural Steel	1	Tube Steel	Copperweld		\$5,000	0%	25%	\$6,250		\$0		\$0	n/a	\$0	\$0
05400	Cold-formed Metal Framing	1	Ext. Framing	Sloan / MarinoWARE	S. Plainfield, NJ	\$525,000	7%	25%	\$748,125	26	\$525,000	100%	\$525,000	n/a	\$0	\$0
05811	Exp. Jt. Cover Assemblies	1	Exp. Joint Covers	C/S Group	Muncy, PA		46%	30%	\$0	140	\$0		\$0	n/a	\$0	\$0
06402	Int. Arch. Woodwork	1	Particleboard	Sloan / Skyblend	Dillard, OR		100%	0%	\$0	2,503	\$0		\$0	n/a	\$0	\$0
07841	Through Penetration Firestop Systems	1	TREMstop IA	Midwest / Tremco	Toronto, Ontario		0%	0%	\$0	332	\$0		\$0	n/a	\$0	\$0
07920	Joint Sealants	1	Tremflex 834	Tremco	Toronto, Ontario	\$30,000			\$0	331	\$30,000		\$0	n/a	\$0	\$0
09260	Gypsum Board Assemblies	1	Gypsum Wallboard	National Gypsum	Burlington, NJ	\$375,000	6%	5%	\$150,000	70	\$375,000		\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	608 Ceramaguard	Armstrong	n/a		38%	0%	\$0	999	\$0		\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	860 Armatuff	Armstrong	n/a		35%	0%	\$0	999	\$0		\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	870 Clean Room VL	Armstrong	Marietta, PA		37%	0%	\$0	141	\$0	3%	\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	1761 Fine Fissured	Armstrong	Marietta, PA		27%	0%	\$0	141	\$0		\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	3155 Optima	Armstrong	Hilliard, OH		30%	0%	\$0	479	\$0	90%	\$0	n/a	\$0	\$0
09511	Acoustical Ceiling Panels	2	3159 Optima	Armstrong	Hilliard, OH		30%	0%	\$0	479	\$0	90%	\$0	n/a	\$0	\$0

Specification	G.C.	Item	Supplier/ Manuf.	Manuf. Location	Notes	Cost	MR-4			MR-5.1		MR-5.2		Wood			
							Pre	Post	Value	Dist.	Value	Cont.	Value	FSC?	FSC \$	Non \$	
09511	Acoustical Ceiling Panels	2	9683 MetalWorks	Armstrong	n/a		25%	0%	\$0	999	\$0		\$0	n/a	\$0	\$0	
09511	Acoustical Ceiling Panels	2	Prelude XL Grid	Armstrong	Aberdeen, MD		25%	0%	\$0	144	\$0	98%	\$0	n/a	\$0	\$0	
09511	Acoustical Ceiling Panels	2	AL Prelude Plus Grid	Armstrong	Aberdeen, MD		25%	0%	\$0	144	\$0	86%	\$0	n/a	\$0	\$0	
09644	Wood Athletic Flooring Assemblies	2	FSC wood in gym floor	Classic Sports Floors / Aacer / SmartWood	Peshtigo, WI	\$50,474	0%	0%	\$0	745	\$0	n/a	\$0	Yes	\$50,474	\$0	
09644	Wood Athletic Flooring Assemblies	2	non-FSC subfloor material	Classic Sports Floors / Aacer / SmartWood	Peshtigo, WI	\$20,557	0%	0%	\$0	745	\$0	n/a	\$0	No	\$0	\$20,557	
09651	Resilient Tile Flooring	2	Vinyl wall base	Roppe	Miami, FL		10%	0%	\$0	1,097	\$0		\$0	n/a	\$0	\$0	
09653	Resilient Wall Base & Acc.	2	Imperial Texture	Armstrong	Montreal	1,935 cartons	1%	0%	\$0	356	\$0		\$0	n/a	\$0	\$0	
09653	Resilient Wall Base & Acc.	2	Imperial Texture	Armstrong	Jackson, MS	92 cartons	1%	0%	\$0	1,182	\$0		\$0	n/a	\$0	\$0	
09653	Resilient Wall Base & Acc.	2	Imperial Texture	Armstrong	Kankakee, IL	38 cartons	1%	0%	\$0	801	\$0		\$0	n/a	\$0	\$0	
09653	Resilient Wall Base & Acc.	2	Safety Zone 57005	Armstrong	Lancaster, PA	6 cartons	1%	0%	\$0	149	\$0		\$0	n/a	\$0	\$0	
10265	Impact-Resistant Wall Prot.	1	Corner Guards	C/S Group	Muncy, PA				\$0	140	\$0	76%	\$0	n/a	\$0	\$0	
10651	Operable Partitions	1	Operable Partitions	Hufcor	n/a	\$113,000	0%	0%	\$0	n/a	\$0	n/a	\$0	n/a	\$0	\$0	
12345	Premanuf. Wood & Metal Sys. Fixtures & Equipment	1	Casework Particleboard	BSI / ATC Panels			50%	0%	\$0		\$0		\$0	n/a	\$0	\$0	
12760	Telescoping Stands	1	Telescoping Stands	Interkal	Kalamazoo, MI	\$40,300	0%	0%	\$0	602	\$0		\$0	n/a	\$0	\$0	
									\$0		\$0		\$0	n/a	\$0	\$0	
Total	Wood	1	Torcon											#VALUE!	\$0	\$0	
		2	Bluefin											71.1%	\$50,474	\$20,557	
		3	Promedia												#VALUE!	\$0	\$0
		All	Total			\$0									71.1%	\$50,474	\$20,557
	All (less mech. & elect.)	1	Torcon				\$9,000,000	35.1%		\$3,156,019	17.6%	\$1,580,500	12.5%	\$1,121,700			
		2	Bluefin				\$998,000	1.0%		\$9,600	0.0%	\$0	0.0%	\$0			
		3	Promedia				\$0	#VALUE!		\$0	#VALUE!	\$0	#VALUE!	\$0			
All	Total				\$9,998,000	31.7%		\$3,165,619	15.8%	\$1,580,500	11.2%	\$1,121,700					
Credit-Earning Threshold							25%=4.1; 50%=4.2%			20.0%		10.0%		50.0%			