



October 4, 2011

Reinhard L. Gsellmeier, P.E., LEED AP
Monroe County Department of Environmental Services
7100 City Place
50 West Main Street
Rochester, New York 14614-1228

**RE: MONROE COUNTY PEDIATRICS AND VISITATION CENTER
LEED SUMMARY – FINAL
CPL PROJECT NO.: 11596**

Dear Reinhard:

In compliance with Monroe County's Green Building Policy, dated August 14, 2007, and the Green Building Project Implementation Guide, dated July 2, 2008, this letter documents the process and decisions made to date as we pursued and received LEED Gold certification for the Monroe County Pediatrics and Visitation Center Project. This project is comprised of a two story building of 22,226 square feet of new construction on the site of the Monroe Community Hospital.

The project was registered with the United States Green Building Council (USGBC) on February 10, 2009 in the LEED New Construction (NC) v2.2 rating system, and on February 27, 2009 a LEED Charrette took place which was attended by representatives of the County and Clark Patterson Lee. The initial straw-man LEED scorecard identified 29 credits that seemed reasonable to attain with another 24 credits as possible options. At this meeting the County indicated a desire to achieve LEED Silver and therefore the baseline scenario would be to identify the minimum for LEED Silver of 33 credits plus a contingency of 3 to 4 additional credits. The current documentation identifies 34 credits to achieve with 10 additional credits that are possible. Follow-up meetings to refine and update the initial LEED design strategies took place on March 24, 2009 and May 29, 2009.

Concurrent to these discussions Monroe County registered the project with the NYSERDA New Construction program – PON 1222. Science Applications International Corporation (SAIC) was assigned by NYSERDA to provide technical assistance by performing energy modeling to optimize the building's envelop and building systems and advise on the potential incentives that could be available through NYSERDA. An initial meeting took place on March 6, 2009 which was attended by representatives of Monroe County, Sustainable Performance Consulting, SAIC and Clark Patterson Lee. Conference calls took place on April 24, 2009 and then again on May 22, 2009 to clarify and refine the analysis.

The following documents the final LEED credits that the Design was awarded.



- **Sustainable Site (SS) Prerequisite 1 – Erosion and Sedimentation Control:** Requires the contractor to follow good construction practices which will be described in the Construction Documents. *This was accomplished with no added construction cost.*
- **SS c1 – Site Selection:** The project site complies with this credit which requires that the building not be constructed on prime farmland; is no lower than 5 feet above a 100 year flood; is not on land identified as habitat for threatened or endangered species; is not within 100 feet of a wetland; is not within 50 feet of a waterway; is not on land that was previously parkland.
- **SS c2 – Development Density and Community Connectivity:** Requires that the building be constructed within ½ mile of a dense residential zone and within ½ of 10 basic services. This project complies by nature of the community context of the project site. *This will be accomplished with no added construction cost.*
- **SS c3 – Brownfield Development:** The project site is not defined as a Brownfield site.
- **SS c4.1 – Alternative Transportation, Public Transportation Access:** The project complies as it is located within a ¼ mile of multiple bus stops for more than two public bus lines which will be used by the building occupants. *This was accomplished with no added construction cost.*
- **SS c4.2 – Alternative Transportation, Bicycle Storage and Changing Rooms:** Requires a secure bicycle rack as well as shower and changing facilities. The project will include such facilities to encourage bicycle use by building users. *Additional cost for this credit was \$5,600.*
- **SS c4.3 – Alternative Transportation, Low Emission & Fuel Efficient Vehicles:** The project will provide preferred parking for low emitting and fuel efficient vehicles for 3% of the FTE occupants of this building with the installation of signage reserving designated spaces. *Additional cost for this credit was \$1,400.*
- **SS c4.4 – Alternative Transportation, Parking Capacity:** The project complies since the number of additional parking places for this project will be less than required by zoning and designated vanpool spaces will be provided for 5% of the parking places provided for this project. *Additional cost for this credit was \$1,400.*
- **SS c5.1 – Reduced Site Disturbance, Protect or Restore Habitat:** This project will not comply as this credit requires that 50% of the site – which has been defined in this case by USGBC as the building site and entire parking lot – be protected or restored with native vegetation. The site does not have sufficient green space to accommodate this requirement.
- **SS c5.2 – Reduced Site Disturbance, Maximize Open Space:** The project will comply with this credit by defining open space adjacent to the building that is equivalent in size to the footprint of the building. *This will be accomplished with no added construction cost.*
- **SS c6.1 – Stormwater Management, Quantity Control:** Requires that a stormwater management plan be implemented resulting in a 25% reduction in the volume of stormwater from the two year, 24 hour design storm. As noted in SS c5.1 the site is defined as the entire parking lot plus building footprint. *The remediation to accomplish this requirement would be extensive and beyond the funding available for this project.*



- **SS c6.2 – Stormwater Management, Quality Control:** Requires a stormwater management plan that captures and treats the stormwater runoff from 90% of the average annual rainfall. As noted in SS c5.1 the site is defined as the entire parking lot plus building footprint. *The remediation to accomplish this requirement would be extensive and beyond the funding available for this project.*
- **SS c7.1 – Heat Island Effect, Non-Roof:** Requires 50% of the hardscape of the entire site to be shaded, paved with materials that have a Solar Reflectance Index of at least 29 and/ or use an open grid pavement system. As noted in SS c5.1 the site is defined as the entire parking lot plus building footprint. The remediation to accomplish this requirement would be extensive and unless additional funding becomes available the project budget can not accommodate this requirement.
- **SS c7.2 – Heat Island Effect, Roof:** Requires 75% of the roofing materials to have a Solar Reflectance Index of at least 29 on the steep sloped surface and 78 on low sloped surfaces. *An alternate was bid for the roof shingles and FSC cabinets at a total of \$33,948. However, minimal cost for associated with the roof, \$6,000 for freight allocation.*
- **SS c8 – Light Pollution Reduction:** Requires all non-emergency interior lighting to be automatically turned off during non-business hours and exterior to not exceed 80% of the power densities (50% on building facades and landscaping) as defined in ASHRAE/IESNA Standard 90.1-2004. *This was accomplished for \$3,000 for photocells.*
- **Water Efficiency (WE) c1.1 – Water Efficient Landscaping:** The project will meet the criteria set forth by this credit, which requires a 50% reduction in potable water use for irrigation—calculated from a mid-summer baseline—by using no irrigation. *This will be accomplished with no added construction cost.*
- **WE c1.2 – Water Efficient Landscaping:** The project will comply with this credit by employing no irrigation, and therefore reducing the potable water use for irrigation by 100%. *This will be accomplished with no added construction cost.*
- **WE c2 – Innovative Waste Water Technologies:** This credit requires a 50% reduction in potable water use for sewage conveyance through the use of water-conserving fixtures, non-potable water, or on-site water treatment. The Project Team explored options to collect rain water for waste water flushing but the cost made this option unrealistic.
- **WE c3.1, 3.2 – Water Use Reduction:** The project will reduce total potable water usage by 30% below the calculated baseline for water closets, urinals, showers, lavatory faucets, and kitchen sinks. Aerators will remain on the exam room sinks. *This will be achieved for an added construction cost of \$7200.*
- **Energy & Atmosphere (EA) Prerequisite 1 – Fundamental Building Commissioning:** The project will comply with this required prerequisite by having the building commissioned by a third party authority to ensure that all building systems are performing as required by the owner and basis of design. *Since this is considered good construction practice by the County for new buildings we are not considering this as an added cost.*
- **EApr2 – Minimum Energy Performance:** The project will comply with this required prerequisite by ensuring that the building complies with the energy performance standard ASHRAE 90.1-2004. *Since this is essentially code minimum this will be accomplished with no added construction cost.*



- **EApr3 – Fundamental Refrigerant Management:** The project will comply with this required prerequisite, which requires that all HVAC systems installed in the building use no CFC's. *Equipment is no longer manufactured with this refrigerant so this will be achieved with no added construction cost.*
- **EAc1.1 – Optimize Energy Performance:** This credit requires an increase in energy performance above the baseline set out in ASHRAE 90.1-2004. Projects can earn up to 10 points for varying increments of energy performance above the baseline, beginning with 10.5% for new construction. *We received 3 credits for this option with no extra cost.*
- **EAc2.1, 2.2, 2.3 – On-site Renewable Energy:** This credit requires the use of on-site renewable energy sources for 2.5% (for 1 point), 7.5% (for 2 points), or 12.5% (for 3 points) of the total energy cost of the building. *The County was presented with options for a third party photovoltaic installation but this is likely not feasible at this time.*
- **EAc3 – Enhanced Commissioning:** The project will comply with this credit by having the third party commissioning authority review construction documents, create a systems manual, and return to review building systems 10 months post-occupancy to ensure all systems are functioning as anticipated. *This was achieved with an additional consulting fee of \$7000.*
- **EAc4 – Enhanced Refrigerant Management:** The project will meet the requirements of this credit by ensuring that all HVAC equipment installed in building either use no refrigerants, or only use refrigerants with no CFC's, HCFC's or halons. *The HVAC equipment that has been specified for this project complies with no added construction cost.*
- **EAc5 – Measurement and Verification:** Requires that the project provide panels and meters for all systems to measure power use by source. *The construction measures required to accomplish this requirement are extensive and therefore it was decided to not pursue this credit.*
- **EAc6 – Green Power:** Requires that the project purchase power from renewable sources for 35% of the building's energy with a 2-year contract or 70% of the building's energy for a 1-year contract. *The County purchased green power for this project.*
- **Materials & Resources (MR) Prerequisite 1 - Storage and Collection of Recyclables:** Requires accessible recycling bins to collect paper, glass, plastic, metal, and corrugated cardboard. The project will provide bins in several locations to facilitate recycling. *This will be achieved with no additional cost to the project.*
- **MRc1.1, 1.2, 1.3 – Building Reuse:** This credit pertains only to reusing elements of existing buildings. *As this project is new construction, and therefore does not reuse any existing building structure or interior partitions, this credit is not feasible to obtain.*
- **MRc2.1, 2.2 – Construction Waste Management:** This credit requires that 50% (for 1 point) or 75% (for 2 points) of non-hazardous construction waste be diverted from a landfill to recycle, salvage, or reuse. *1,147.98 tons of total construction waste was generated, and 99.271% of that was diverted from a landfill. Total cost was \$14,766.11. This cost was increase because of the allowance of only 1 dumpster on site and off site sorting. Therefore cost would be \$10,500. Normal allowance would be \$3,500 with a cost of this credit totaling \$7,000.*



- **MRC3.1, 3.2 – Resource Reuse:** Requires project to use salvaged, refurbished, or reused materials (excluding MEP) for at least 5% (for 1 point) or 10% (for 2 points) of construction cost. *This project will not comply since these materials are neither suitable or readily available for the project.*
- **MRC4.1, 4.2 – Recycled Content:** This project will use recycled materials for at least 10% (for 1 point) with the potential for 20% (for 2 points) of total materials cost (excluding HVAC and elevator). Recycled content cost is determined using total post-consumer content value plus one-half pre-consumer content value. *No additional construction cost was needed for this credit.*
- **MRC5.1, 5.2 – Regional Materials:** This project will use local materials for at least 10% (for 1 point) with the potential of 20% (for 2 points) of the total materials cost of the project. Regional materials must be extracted and manufactured within 500 miles of the project site to qualify for this credit. *No additional construction cost was needed for this credit.*
- **MRC6 – Rapidly Renewable Materials:** This project will attempt to comply by using rapidly renewable materials, defined as materials with a harvest cycle of 10 years or less, for at least 2.5% of total materials cost for the project. The team determined that there was not enough appropriate materials for this credit.
- **MRC7 – Certified Wood:** This credit requires that 50% of wood materials and products used in the project be certified by the Forest Stewardship Council's (FSC) Principles and Criteria for proper forest management. This requirement will be satisfied with the use of FSC wood for the casework, trim and doors. *Total cost for FSC wood was \$110,223.00, in which \$27,000 would be additional cost for FSC products.*
- **Indoor Environmental Quality (EQ) Prerequisite 1 - Minimum IAQ Performance:** This project complies with this prerequisite by providing ventilation systems designed to meet or exceed the requirements of ASHRAE 62.1-2004, for Indoor Air Ventilation Quality. *This will be accomplished with no added construction cost.*
- **EQ Prerequisite 2 – Environmental Tobacco Control:** Since this is a State law, this project complies with this required prerequisite by prohibiting smoking inside the building and within 25 feet of all doorways, operable windows, and outdoor air intakes. *This will be accomplished with no added construction cost.*
- **EQ c1 - Outdoor Air Delivery:** The project will install a system to monitor outdoor air flow and carbon dioxide concentrations to maintain occupant comfort and well-being in densely occupied areas. *There is the potential for the visitation rooms to be occupied by more than the standard number occupants in a room of such a size and therefore it was decided that satisfying the criteria for this credit was integral for this program. This was accomplished at a construction cost of \$9,000 for sensors and the air station.*
- **EQ c2 – Increased Ventilation:** This credit requires that the project increase the breathing zone outdoor air ventilation rates to 30% above the rates set down by ASHRAE 62.1-2004. Since the Department of Health has stringent guidelines on outdoor ventilation we did not foresee any additional project cost for this credit.



- **EQ c3.1 - Construction IAQ Management:** The project will comply with this credit by developing a Construction Indoor Air Quality Management Plan. This plan will ensure that all permanent AHUs used during construction are covered with MERV 8 filters, the SMACNA guidelines are met, and any absorptive materials on-site during construction are covered to protect from moisture damage. *Since this criteria is expected on any quality construction project we will accomplish this with no added construction cost.*
- **EQ c3.2 - Construction IAQ Management:** The project will comply with this credit by performing air quality testing for contaminants or flushing out the building post-construction and prior to occupancy thereby reducing indoor air quality problems resulting from construction materials. *This requirement did not require any additional project cost.*
- **EQ c4.1 - Low Emitting Materials, Adhesives & Sealants:** The project will use only sealants and adhesives on the interior of the building that meet South Coast Rule 1168 or Green Seal Standard 36 for VOC emissions. *This has become a referenced standard for products in New York State and therefore was achieved at no added construction cost.*
- **EQ c4.2 - Low Emitting Materials, Paints & Coatings:** The project will use only paints and coatings for the interior of the building that meet South Coast Rule 1113 or Green Seal Standards 3 or 11 for VOC emissions. *This has become a referenced standard for products in New York State and therefore was achieved at no added construction cost.*
- **EQ c4.3 - Low Emitting Materials, Carpet Systems:** The project will use only carpet systems that meet the Carpet and Rug Institute's Green Label Plus standards for air contaminants. Any associated sealants/adhesives must meet the standards for EQ c4.1. *This has become a general practice for carpet products and therefore will be achieved at no added construction cost.*
- **EQ c4.4 - Low Emitting Materials, Composite Wood & Agrifiber Products:** To meet this credit's criteria, the project will use only composite wood and agrifiber products on the interior of the building that contain no urea-formaldehyde resins. These materials can be found in solid core doors, cabinet materials and the substrate for counter tops. *This was accomplished with no additional construction cost.*
- **EQ c5 - Indoor Chemical and Pollutant Control:** The project will reduce indoor air contaminants by installing 6 foot long walk-off mats at building entryways and providing separate exhaust systems for janitor's closets containing hazardous chemicals. *This credit was denied because of misunderstanding of exit doors and the "lab" space.*
- **EQ c6.1 - Controllability of Systems, Lighting:** The project will meet the criteria of this credit by providing individual lighting controls to 90% of spaces, as well as accessible lighting controls in all common spaces. *This will be accomplished at an additional construction cost of approximately \$3500.*
- **EQ c6.1 - Controllability of Systems, Thermal:** This credit requires that at least 50% of building spaces be given individual thermal controls, and that thermal comfort controls be installed in all common spaces in the building. To achieve this credit would require additional VAV boxes or user controlled diffusers. *These measures are extensive and therefore unfeasible under the project's current budget.*



- **EQ c7.1 – Thermal Comfort, Design:** The building envelope and HVAC systems of the project will be designed to meet the requirements of ASHRAE 55-2004. *This is standard construction practice and therefore be accomplished with no added construction cost.*
- **EQ c7.1 – Thermal Comfort, Verification:** The project will conduct anonymous surveys concerning occupant thermal comfort within 6-18 months post-occupancy. If more than 20% of occupants are dissatisfied with thermal comfort, the building's systems will be adjusted using ASHRAE 55-2004 as a reference. *This will be accomplished with no added construction cost.*
- **EQ c8.1, 8.2 – Daylight & Views:** This credit requires that a minimum of 75% of the occupied spaces receive daylight at a level that would not require supplementary artificial light as well as views to the outdoors. The large percentage of interior spaces in this project makes this credit unfeasible.
- **Innovation in Design (ID):** These credits provide projects the opportunity to receive credit for exceptional performance beyond the previously stated requirements. This project will submit documentation to meet this criteria in the following areas:
 - **ID c1.1:** Exemplary performance for MRc2 total waste diverted is 95% greater. *See detail above.*
 - **ID c1.2:** Exemplary performance by developing and creating a green housekeeping program. This has become standard for the county therefore creating not additional project cost.
 - **ID c1.3:** Exemplary performance by providing green power over the required. The county provided this at their cost to the project.
 - **ID c2 – LEED Accredited Professional:** The project will comply with this credit by including a LEED Accredited Professional as a principal participant of the design team.

Attached is the updated USGBC Construction Application Review indicating the final status at 40 points LEED GOLD certification for the Pediatrics and Visitation Center Project. In total additional construction cost was \$109,700. From a professional fee, we have calculated a 2% fee increase needed for specifications, documentation, construction monitoring and LEED submissions.

Very truly yours,

CLARK PATTERSON LEE

Michelle Trott, AIA, ACHA, NCARB

Enclosures: LEED Project Checklist

MLT/dbv