OhioEPA

State of Ohio Environmental Protection Agency

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

September 24, 2009

RE: CUYAHOGA COUNTY
CUYAHOGA RIVER BASIN
CITY OF BEACHWOOD
AHUJA MEDICAL CENTER

Margaret Hewitt, Sr. VP Construction
University Hospital/Mgt. Services Center
3605 Warrensville Center Road
Shaker Heights, OH 44122

Robert Chaney, Project Director
Gilbane Building Company
The B.F. Keith Building
1621 Euclid Ave. Suite 1830
Cleveland, OH 44115

Dear Ms. Hewitt and Mr. Chaney:

On September 22, 2009, Ohio EPA met with Roger Newberry, project engineer for Michael Benza and Associates, to discuss the response letter dated August 27, 2009, regarding our Notice of Violation (NOV) issued on August 24, 2009, for non-compliance with the Ohio EPA General Storm Water National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities #3GC03234*AG (Phase 1) and #3GC03830*AG (Phase 2). We noted several instances where either the Storm Water Pollution Prevention Plan (SWP3) was not implemented as designed or where it was not designed to meet the requirements of the NPDES permit. It was anticipated that Ohio EPA would receive amendments to the SWP3 to address those issues. We did not receive the anticipated amendments.

After my meeting with Mr. Newberry, it was determined that amendments to the SWP3 will be required to address the following concerns. For clarity, I have divided these concerns into two categories: runoff generated during construction and runoff generated after construction is complete.

Construction Site Runoff Control Issues

- **The three retention basins are not modified to act as sediment basins as required by the NPDES permit and as intended by the SWP3.** Because the contractor did not install the temporary outlet structures shown in the SWP3, the plan must be modified to indicate how the permanent outlet structures will be modified to provide sediment basins that have (a) a sediment storage volume of at least 1000 cubic feet per acre of disturbed area, (b) a dewatering volume of at least 67 cubic yards per acre of total contributing drainage area, and (c) a dewatering structure that drains the dewatering volume in no less than 48 hours. Be sure that the plan provides the calculations and information required to review the design and ensure compliance with these regulatory requirements.

- **Due to unanticipated grading, the maximum allowable drainage area to silt fence located along the eastern perimeter between the South and Middle storm water retention basins has been exceeded.** In his response dated August 27, 2009, Mr. Newberry indicated that additional lines of silt fence or filter socks would be installed to address this issue. This is not acceptable. As noted in the NPDES permit, placing silt fence [or filter socks] in parallel series does not extend the size of the [permissible] drainage area. The only options available to you are to amend the SWP3 to provide (a) diversions to collect runoff from this drainage area and convey it to one of the storm water retention basins (assuming they are modified to be sediment basins), <u>or</u> (b) a sediment trap to serve this drainage area. Please amend the SWP3 in accordance with one of these options.

- **Construction has gone beyond the boundaries indicated on the SWP3.** You must amend the SWP3 to show the stockpiles located in the corner of Richmond and Harvard Roads and the sediment and erosion controls to address the runoff from these piles. Further, be aware that if any soil is taken off-site as spoils, the SWP3 must be updated to indicate the location that soils were taken and the sediment and erosion controls implemented there.

- **Runoff controls not originally indicated on the SWP3 have been or must be installed on the site.** This includes the diversion berm to the South retention basin and the rip-rap conveyance channel to address gully erosion into the North retention basin from the parking lot. The SWP3 must be amended to indicate these controls. As a reminder, the SWP3 must be amended any time there is a change in design, construction, operation or maintenance which has an effect on the potential to discharge pollutants from the site or if the SWP3 proves to be ineffective at achieving the objectives of the NPDES permit.

<u>**Post-Construction Runoff Control Issues**</u>

- **The NPDES permit does not allow concentrated storm water discharges to wetlands**. At a minimum, the NPDES permit requires the installation of level spreaders between the permanent outlet pipes of the storm water retention basins and the wetlands to which they discharge. These level spreaders will be permanent features of this site. Level spreaders act to diffuse concentrated flows and will minimize erosion into wetlands. The SWP3 does not currently call for level spreaders and must be amended to provide them. Other structural controls may be necessary to protect the hydrology, hydroperiod and wetland flora.

- **A post-construction storm water best management practice (post-construction BMP) has not been provided for the drainage area between the South and Middle storm water retention basins.** Mr. Newberry indicated that a permeable pavement will be provided in this area (grass pavers). Ohio EPA may consider the use of permeable pavers to meet post-construction BMP requirements for this drainage area, however you must demonstrate that the permeable pavement system has been designed to either (a) fully infiltrate the Water Quality Volume (WQv) or (b) provide extended detention of the
- WQv. Site and soil conditions will determine which of these two approaches is feasible on this site. In either case, you must demonstrate that the permeable pavement system

has been designed per the requirements of the NPDES permit. If an infiltration approach is feasible, demonstrate that the WQv is captured in the storage reservoir beneath the pavement and will infiltrate into the underlying soil in a 24-to-48 hour timeframe. If an extended detention approach is taken, demonstrate that storage of the WQv is provided in the reservoir beneath the permeable pavement and control the discharge from the underdrain system such that the WQv drains in no less than 48 hours, with no more than ½ the WQv draining out in 16 hours, i.e., one-third the drain down time. In either situation, seasonal high ground water levels cannot intercept the storage reservoir where the WQv is stored and should be at least 2 feet below the reservoir for the infiltration option. If neither of these approaches can be demonstrated, you cannot rely on the permeable pavement system to meet post-construction requirements of the NPDES permit for this portion of the site and other practices must be proposed.

- Mr. Newberry indicated that the bioretention soil mix has been installed in the future bioretention cells located in the front (main) parking lot, yet the adjacent parking areas have not yet been paved. I cautioned Mr. McCready about this matter during my site inspection on July 30, 2009. The leading cause of bioretention cell failure is the introduction of construction site sediments to the bioretention soil mix. As such, bioretention soil mix should not be placed in the cells until the contributing drainage area has been permanently stabilized. Now that the soil has been placed, measures must be taken to prevent sediment-laden construction site runoff from entering the bioretention cells. If construction site runoff enters the cells, the bioretention soil mix must be removed and completely replaced.

In addition, during my meeting with Mr. Newbery, we discussed a potential non-storm water issue. Based on information provided by our Central Office, it appears that there may be unauthorized impacts to wetlands in and around the corner of Richmond and Harvard Roads and/or the wetlands constructed by ODOT and/or Jacobs Group as mitigation for past construction activities associated with the construction of the Harvard Road interchange with I-271 and the Chagrin Highlands project. As such, please provide me with any documentation you have that indicates the streams and wetlands delineated within the Ahuja Medical Center property and the permits issued by the United States Army Corps of Engineers and/or the Ohio EPA Section 401 Program to impact streams and wetlands located on the property. Please overlay the areas where construction has occurred. Construction is defined as any grading, grubbing, clearing, filling or excavating.

Please amend the SWP3 to address the violations noted in the NOV dated August 24, 2009, and reiterated above. The amended SWP3 must be submitted **no later than October 9, 2009**. Actions must be taken on site to bring it into compliance with the amended SWP3. Include a letter of response with the amended SWP3 stating the actions taken to bring the site into compliance with the amended SWP3. The letter must include the date the action was taken or will be taken.

Failure to comply with the NPDES permit is a violation of Ohio Revised Code 6111.04 and 6111.07 and is punishable by fines. I trust that University Hospitals and Gilbane Building Company will take the actions necessary to avoid escalated enforcement action by Ohio EPA.

Escalated enforcement may include the assessment of penalties of up to $10,000 per day of violation.

If you have any questions, please contact me at (330) 963-1145.

Sincerely,

Dan Bogoevski

Dan Bogoevski
District Engineer
Division of Surface Water

pc: Steven Standley, Sr., University Hospitals Management Services Center
Mark Hill, Gilbane Building Company
Brian McCready, Superintendent, Gilbane Building Company (see address above)
Joe Ciuni, Engineer, City of Beachwood
Tom Kreczko, Storm Water Program Manager, City of Beachwood
Merle Gorden, Mayor, City of Beachwood
Joe Loucek, Ohio EPA, Section 401 Program, DSW, NEDO
Todd Houser, Cuyahoga SWCD