



**ACME TOWNSHIP PLANNING COMMISSION MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
October 12, 2015 7:00 p.m.**

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE at 6:59pm.

ROLL CALL:

Members Present: D. Rosa, D. White, S. Feringa, K. Wentzloff, M. Timmins, T. Forgette, and J. Jessup

Members Excused: B. Ballentine, J. DeMarsh

Staff Present: S. Winters, Zoning Administrator; J. Iacoangeli, Township Planner

A. LIMITED PUBLIC COMMENT: Opened at 7:01pm

Richard Baily, 2331 NW Bayshore Drive. Read the Grand Traverse Resort & Spa response to The Watershed Center Letter 8-25-15 that was included in the agenda packet.

B Kelley, Ridgecrest Road. Mr. Kelly commented on the township correspondence to the Watershed Center letter with respect to VGT and expressed concerns that the response ignored issues related to inlet pipe freezing, wetland swale slope between rip-rap and creek, vegetation planting percentages with respect to species, and replacement strategies for those plants that died. The use of subjective terms by Cardno to express the status of plantings on the site versus percentages as was used by Dr. Grobbel was also a concern as it was difficult to read and understand the progress of vegetative growth at the site.

A Reilly, Horizon Environmental, 4771 50th Street, Grand Rapids. Mr. Reilly, consultant for VGT, responded to questions and concerns raised by Mr. Kelly regarding the storm water system at the Grand Traverse Town Center. With respect to the submerged inlet, evaluations from both Horizon and Gosling Czubak speak to the issue concerning blockages from freezing as part of the final review package. He indicated Gosling, in their report, stated several other large basins in the area function with submerged inlets without blockage concerns. With regard to wetland plantings, the plantings have been reviewed by two independent consultants, Cardno and King & MacGregor. The current evaluations indicate the plants are thriving. Six diverse species were part of the initial plantings, and some mortality is expected due to actual site conditions versus a nursery. King & MacGregor reported that a natural recruitment of native species has occurred. With respect to the swale outlet, the slopes have been recorded by surveyors and basins and swale rip-rap and are below 10%. The area from the discharge outlets and creek is not part of the design and not engineered as it is off of the property. Any slopes there are pre-existing.

Public comment closed at 7:13pm.

B. APPROVAL OF AGENDA:

Wentzloff asked to add an email received from The Watershed Center into the correspondence section of the agenda (item number 4). Motion by Timmins to approve the agenda as amended with The Watershed Center correspondence; support by Forgette. Motion passed unanimously.

C. INQUIRY AS TO CONFLICTS OF INTEREST:

S. Feringa recused himself for two items due reasons recorded last month; correspondence from GTB that was read into the record as a response to the Watershed Center letter and under Old Business, item #2, Township response letter to the Watershed Center.

D. CONSENT CALENDAR: The purpose is to expedite business by grouping non-controversial items together for one Commission motion without discussion. A request to remove any item for discussion later in the agenda from any member of the Commission, staff or public shall be granted.

If you are planning to attend and are physically challenged, requiring any special assistance, please notify Cathy Dye, Clerk, within 24 hours of the meeting at 938-1350.

1. **RECEIVE AND FILE:**
 - a. **Approved Minutes of:**
 - i. Township Board minutes 09/01/15
2. **ACTION:**
 - a. **Approve Draft Minutes of:**
 - i. Planning Commission minutes: 09/14/15 – Wentzloff asked to remove from the consent calendar

E. ITEMS REMOVED FROM THE CONSENT CALENDAR:

- ii. 1. _____ Planning Commission minutes: 09/14/15 _____

Motion by Timmins to approve the consent calendar with Action Item 2 removed. Support by Rosa. Motion passed unanimously.

Wentzloff asked to review the Planning Commission minutes from the 9/14/15 meeting with respect to the motion by Timmons to request the Township Board provide a resolution of support for the three connections. She believed we identified the three connections specifically and this was not noted in the minutes. Wants to make sure it is clear what connections were named for the record. The three connections were the a) Shoreline, b) M72 and GTTC business district, and c) Lautner Trailhead.

Motion to approve the Planning Commission minutes 9/14/2015 with the amended changes made by White, supported by Timmins. Motion passed unanimously.

F. CORRESPONDENCE:

1. Grand Traverse Band Economic Development Corporation’s response to the Watershed Center
2. King and McGregor response to Cardno Review of VGT Wetland Basins
3. Steve Schooler, VGT response to Conceptual Plan Update
4. Watershed Center email regarding response to 10/5/2015 letter- K. Wentzloff read into record an email from The Watershed Center dated 10/9/2015 that was sent to J. Iacoangeli and K. Wentzloff. A copy was provided to each attending commissioner member and is attached to the minutes.

G. PUBLIC HEARINGS:

1. Amendment 036 – Medical Marihuana Dispensaries and Cultivation Operations in the B-4 Material Processing and Warehousing District

Opened at 7:22pm.

Brian Foster, 526 W. 14th Street, Traverse City. Here to learn more about the township process and is primarily interested in the dispensary portion of the ordinance.

Closed at 7:24pm

H. NEW BUSINESS:

1. Zoning Ordinance rewrite

Wentzloff discussed with commissioners the need for the rewrite and that there were monies set aside for counsel and staff to identify those items needed to review in a timely fashion. J. Iacoangeli indicated Shawn Winter, Zoning Administrator, is already taking this on and has started to recodify the ordinance. This is to make sure all of the numbering works based on the multitude of amendments that has occurred over the years. Once that is completed J. Iacoangeli and S. Winter will meet with counsel (J. Jocks) and put together an outline of what they think are the major articles that need planning commission revision to include checklist and a time frame and schedule. Areas of concern from counsel, planner, and counsel include a) Special Use Provisions are difficult for applicants to get through, b) Site Plan Review section needs housekeeping, and c) Township needs a Planned Unit Development (PUD) article in order to provide flexibility so everything is not done under special use permit. Wentzloff asked about the visual aspects of the ordinance in which J. Iacoangeli indicated that he and S. Winters

wished to make it a little more visually graphic to aid in enforcing some aspects. Before next meeting we will have a schedule, timeframe, and series of articles.

I. OLD BUSINESS:

1. Amendment 036 – Medical Marihuana Dispensaries and Cultivation Operations in the B-4 Material Processing and Warehousing District

S. Winter summarized the proposed changes to the ordinance with commissioners. Forgette asked about the definitions for measuring distances used in the ordinance. Timmins asked about clarification from parks. S. Winters explained the language as written. S. Winters also clarified the spelling of Marihuana used in the ordinance reflects how the state references it in statutes.

Motion by Timmins to send Amendment 036 Medical Marihuana Dispensaries and Cultivation Operations to Grand Traverse County Planning for review and comment, support by Feringa. Motion passed unanimously.

2. Township response letter to the Watershed Center – John Iacoangeli, Becket & Raeder

Township Planner, J. Iacoangeli, as directed last month by the planning commission, provided a summary of the response made to the Watershed Center with respect to the storm water system at GTTC. He distributed the letter to Gosling Czubak, Cardno, and Horizon Environmental for review and their responses were included in the meeting agenda packet. His response to the Watershed Center based on all review and response reaffirms that the VGT storm water design and construction has been in accordance with the intent of the SUP, the 2007 Township storm water control ordinance and MDEQ best management practices. He explained the process, the rationale and engineering support for deviations due to practical difficulties associated with complexities of the site. He was pleased the Watershed Center accepted the detail engineering that was provided in support of the decisions. He did emphasize that review of engineering is done through engineering protocols, best management practices, and science; not necessarily subject to public review to determine the necessary engineering to make a system work. The storm water system is unique in design and function. The system's natural look is one that you don't normally see on developments such as this and its integration to the site is performing well.

Forgette asked about the engineer deviations from SUP standards and whether that should fall under the zoning appeal process. J. Iacoangeli explained that the way the ordinance is setup, that provisions of the ordinance can be waived by the reviewer based on practical difficulty. Becket and Raeder were charged with that review. The review and the decisions to waive ordinance requirements (inlet pipe immersion and riser pipe diameter) based upon site difficulties were made only after careful scrutiny of the design and engineering reviews and multiple reiterations by Gosling to be sure the system would function. Wentzloff stated additionally that the storm water ordinance is a police power ordinance versus the zoning ordinance that ZBA has jurisdiction.

Wentzloff asked about the effect of future projects on the property and how the system works moving ahead. A. Reilly – As more proposals come in, reviews will still need to be done. Engineers will have to evaluate future projects, recalculate flows and demonstrate ability to manage storm water for review. Additionally, this may require to expansion of existing basins, construction of an additional basin, onsite filtration, underground tanks for slow release or other measures to control storm water flows. They did not want to speculate future projects and design accordingly; rather design based on projects as they come in so as to make better engineering decisions. J. Iacoangeli mentioned that since this project was proposed (10+ years) new technological developments have emerged that could change how we look at storm water control for this project and others as well. With respect to this site, storm water will be part of any proposed new project to evaluate whether the current system can handle or if modifications or supplemental technologies will be required.

S. Schooler and A. Reilly showed a video taken from a drone that showed an aerial fly through of the entire storm water system on the GTTC site that is now fully functional. As the drone moved through the property, a narrative was provided on the basin engineering and functionality, vegetative growth, control structures, swales, and current water quality sampling results. The system has been operating as designed since August. The discharge water quality parameters have been found to be better than the creek baseline results. Artificial sedimentation structures will be removed soon. Asked commissioners and public present for any information regarding

unauthorized access to the site over the weekend that was seen during the drone video and reminded everyone it is still considered a construction zone and the planting areas are still sensitive to disturbance.

J. Iacoangeli indicated they are finalizing checklist for occupancy and the township will be retaining an escrow for spring plantings.

J. PUBLIC COMMENT & OTHER PC BUSINESS

Public comment opened at 8:27pm

Brian Kelley, Ridgecrest Road – October 7th letter from Cardno indicated they had not returned to the site since July and asked J. Iacoangeli if they could return for a final “thumbs up”. Thought water quality information provided by Mr. Reilly during video was great though some water quality parameters are not visible. Understands there will be more testing in the future and looking forward to seeing those results. Site is greening up nicely as shown by video.

A.Reilly, Horizon Engineering – Additional parameters will be looked at based on the monitoring and maintenance plan that is required Additional buildouts will require monitoring requirements to be reviewed again.

J.Heffner, 4050 Bayberry Lane. Was, like many, concerned after seeing early Record Eagle reporting and Watershed Center reports. However, the before and after photos provided by King & MacGregor are impressive and look great and commended everyone involved. Felt reassured by responses.

Darryl Paquette, Attorney, Concerned Citizens of Acme, Watershed Center Board member. Inquired about ordinance waivers and the timeline in which they were granted and the Watershed’s request for a more open process. Told commissioners about grant monies available from the Watershed Center to assist townships review their storm water ordinances.

John Iacoangeli, Township Planner. Addressed question and indicated the waivers were granted through a collaborative process after it was determined there was practical difficulty and there was still functionality. They were identified internally during the preliminary review process and the reason for additional information needed and modeling. Commented that he has never seen a storm water design plan be the subject of such public review and public hearing and this is the most unusual storm water review he has done in 35 years. Typically these are done between the township/city and developing engineers in a very collaborative scientific and engineering framework. This was a very complex system that during collaboration involved engineers, hydrologists, and biologists at the table. We have all learned from the process involved.

Allen Reilly, Horizon Engineering. Commented on items in a storm water ordinance that are too prescriptive jeopardize the ability for engineers to adjust to site specific issues and constraints.

Ken Petterson, 4217 Timberwood Drive. The system is a hybrid system and you could not do what this system does according to the ordinance. If you want an innovative system such as this, you cannot follow the ordinance to the letter or it would not work.

Closed at 8:42pm.

1. Zoning Administrator update on projects: S. Winter read the monthly Zoning Administrator report
2. Planning Consultant: Presented K. Wentzloff and the Planning Commission the Master Plan Award that was handed out at the Michigan Association of Planning annual conference for comprehensive master plan. The township was one of four communities to receive the award.
3. P C Education etc.: Forgette, Ballentine, Jessup, and Winter attended a Planning, Zoning and Essentials Workshop at the County Planning Commission.

If you are planning to attend and are physically challenged, requiring any special assistance, please notify Cathy Dye, Clerk, within 24 hours of the meeting at 938-1350.

Public and commission members were encouraged to attend a Bayside Park Volunteer Park Clean Up Day, Sunday, October 25, Noon to 4pm.

Dan Rosa asked everyone if anyone knew the definition of “Acme”. It means pinnacle, the best, the finest.

Motion to adjourn made by Timmins, support by Forgette. Motion passed unanimously.

ADJOURN: 8:47pm



Memo

To: Acme Township Planning Commission
From: Shawn Winter, Zoning Administrator
CC: Jeff Jocks, John Iacoangeli
Date: October 7, 2015
Re: October 12, 2015 Planning Commission Packet Summary

Below is a summary of select items on the Planning Commission agenda. Where applicable, suggested actions have been provided.

I. Correspondence

a. Grand Traverse Band of Ottawa and Chippewa Indians' Economic Development Corporation response to The Watershed Center

- i. As invested partners in the VGT development, Richard Bailey of the GTB sent a response letter to the Watershed Center
- ii. Based on professional consultations and evaluations, the GTB disagrees with the Watershed Center's conclusions related to the VGT storm water system

b. King & MacGregor's Review of the VGT Wetlands/Swale Plantings

- i. September 3rd and 9th field review/inspection, follow up to Cardno's July 14th and 17th review/inspection.
- ii. Observed that water elevations were normal, plantings are progressing, discharge was clean and clear, sub-basins functioning properly, slopes stabilized
- iii. Concluded that initial plantings are successfully establishing as planned, noting that full establishment of vegetated wetlands takes numerous growing seasons

c. Steve Schooler, VGT Response to Conceptual Plan Update

- i. Working with an architect to update conceptual plan to reflect changing market demands
- ii. Current priority is opening Meijer, but will keep the Township updated on the plan's status

II. Public Hearings

a. Amendment 036 – Medical Marihuana Dispensaries and Cultivation Operations in the B-4 Material Processing and Warehousing District

- i. Proposed changes to the Zoning Ordinance through Amendment 036 are attached, reflecting changes requested at the September 14th Planning Commission Meeting

III. New Business

a. Zoning Ordinance Complete Rewrite

- i. Discuss the need for a Zoning Ordinance rewrite, scope of work and estimated time to complete the project, procedural requirements
- ii. Suggested Action:

1. *Establish procedures for a Zoning Ordinance rewrite by Counsel, select a date to begin the process, select a committee to identify necessary changes/improvements*

IV. Old Business

- a. **Amendment 036 – Medical Marihuana Dispensaries and Cultivation Operations in the B-4 Material Processing and Warehousing District**
 - i. Recommended changes to the proposed Amendment language from the September 14th, 2015 meeting have been incorporated.
 - ii. The draft language is included, along with the original Zoning Ordinance language
 - iii. Suggested Action:
 1. *Suggest revisions based on public hearing comments and review, if necessary*
 2. *Motion to send the proposed Amendment to Grand Traverse County Planning Commission for review*
- b. **Township Response Letter to the Watershed Center, John Iacoangeli, Beckett & Raeder**
 - i. John Iacoangeli distributed the Watershed Center’s letter to the Gosling Czubak, Cardno, and Horizon Environmental for review and responses which are included
 - ii. John Iacoangeli’s response reaffirms that the VGT storm water design and construction has been in accordance with the intent of the property’s Special Use Permit (SUP), Ordinance No. 2007-01 Acme Township Storm Water Control Ordinance, and MDEQ Best Management Practices
 - iii. Any deviations were the result of practical difficulties associated with the complexities of the site, and were conducted within strict engineering standards that were determined not to negatively affect the operational integrity of the storm water system
 - iv. **Gosling Czubak (GC) response letter enclosed:**
 1. GC responded to each of the individual items presented in the Watershed Center’s letter
 - a. The outlet riser orifices conduct the intended function of controlling runoff release and the removal of sediment, nutrients and pollution regardless of pipe diameter;
 - b. Current diameter does not diminish ability to effectively clean the outlet riser;
 - c. The observed low water levels are believed to be due to the pumping of water at the time;
 - d. The submerged inlets are the result of site constraints, however, extensively hydraulic calculations show that the inlet pipe elevations will not be negatively affected;
 - e. The outlet riser is the primary provision for overflow during a high water event, and the spillway is a secondary provision. The basin capacity meets the Acme Township Storm Water and Control Ordinance capacity requirements for a 25-year storm event with no outflow, as well as a 100-year storm event with outflow;
 - f. The actual slopes of the riprap at the upper and lower ends of the swales are well below the 10% maximum slope criteria that was referenced
 2. GC concludes that the VGT storm water system is compliant with the Acme Township Storm Water Control Ordinance and meets the requirements of the SUP
 - v. **Cardno response letter enclosed:**
 1. Cardno’s response focused on item 3 of the Watershed Center’s letter, “Lack of Base Flow Supply for Wet Detention Basins”
 - a. stated that the final plan includes more impermeable surfaces which will lead to more water retention in the basins;
 - b. plant mortality rates associated with drought events should be addressed through a wet detention basin maintenance plan to include re-plantings and watering as necessary;

- c. the low base flow volumes and plantings observed during their July site visit occurred early in the construction phase when water was being drawn down for sprinkling
- vi. **Horizon Environmental** response letter enclosed:
 - 1. Horizon addressed each of the six items from the Watershed Center letter as well
 - a. Horizon clarified misunderstandings in the intended function of wet retention basins;
 - b. reiterated the adequate capacity of the outlet riser pipe along with the performance-based standards related to its maintenance;
 - c. stated now that water is no longer being drawn down for sprinkling the vegetation is thriving under appropriate soil saturation levels;
 - d. the submerged inlet pipes are able to work properly due to the maximum water level in the basin being below the water's origin elevation, per the Bernoulli equation, even when accounting for frictional loss through the system;
 - e. the overflow spillways are compliant with the Acme Township Storm Water and Control Ordinance (No. 2007-01) in dimensions, location, function and flow;
 - f. clarified the actual slopes of the riprap aprons exiting the swales to be significantly lower than ten percent with no observable erosion occurring
 - 2. Continued monitoring has revealed that the storm water entering the creek is cleaner after a rain event than the creek itself
 - 3. Cardno invites the Planning Commissioners to tour the site for observation and confirmation.
- vii. Suggested Action:
 - 1. *Accept, place on file*

V. Other PC Business

a. Zoning Administrator Report

- i. Land Use Permits – seven (7) issued since the September 14th PC Meeting
 - 1. New Home – 1
 - 2. Accessory/Addition – 4
 - 3. Commercial – 2
 - a. Grand Traverse Resort Health Spa entryway, Acme Fall Festival
- ii. Township Board approved Zoning Ordinance Amendment 035 – US-31/M-72 Business District Architectural Standards at their October 6th, 2015 meeting
- iii. Trae Forgette, Beth Balentine, John Jessup and myself attended the Planning and Zoning Essentials Workshop presented by the Grand Traverse County Planning Commission on Wednesday, September 30th
- iv. Master Planning for Resilient Waterfront Communities Workshop conducted by the MI APA on Thursday, October 29th from 6:00 – 9:00 pm at the Bear Creek Township Hall (Petoskey)
- v. Bayside Park Volunteer Clean-Up Day on Sunday, October 25th from 12:00 – 4:00 pm
- vi. LochenVest LLC has applied for an SUP to open a Bed and Breakfast Inn
- vii. Karin Flint is eager to amend her permit to allow for the seven weeks of shows next summer as soon as possible



**ACME TOWNSHIP BOARD MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
Tuesday, September 1, 2015, 7:00 p.m.**

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE AT 7:00 p.m.

Henkel, Parks Supervisor, was present to report clean up progress from the recent storm damage. Report attached to minutes.

Members present: J. Aukerman, C. Dye, A. Jenema, G. LaPointe, D. White, J. Zollinger
Members excused: P. Scott (working)
Staff present: J. Jocks, Legal Counsel
N. Edwardson, Recording Secretary

A. LIMITED PUBLIC COMMENT:

W. Kladder, 4301 Deerwood, thanked the Board and Henkel for the great job cleaning up after the recent storm. He was surprised to see Bayside opened so shortly after. Kladder also gave his support for the acquisition of the additional property at Sayler Park.

Lindsey from Republic Services, a local waste hauling company was present. They currently service other communities Benzie, Ludington, Manistee and Frankfort. Republic Services would like to be able to bid on the next Township waste hauler contract.

D. Hoxsie, 6259 M7 E, thanked Trustee, Aukerman, for all her hard work on grants for the Sayler Park Boat launch. Hoxsie also commented that the 6th annual Acme Fall festival is Saturday, September 26, 2015 at Flintfields Horse Park.

P. Anderson, 10108 Kay Ray Road, G. Trill, 7174 Deepwater Pt Rd, L. Wikle, 7174 Deepwater Pt. Rd, J. Zaloudek, 10351 Kay Ray Rd, all gave support for the Sayler Park acquisition.

B. APPROVAL OF AGENDA:

Motion by LaPointe, seconded by Aukerman, approve the agenda with the addition of Item #5 RFP legal services as under New Business. Motion carried by unanimous vote.

C. INQUIRY AS TO CONFLICTS OF INTEREST: None

D. CONSENT CALENDAR: The purpose is to expedite business by grouping non-controversial items together for one Board motion (roll call vote) without discussion. A request to remove any item for discussion later in the agenda from any member of the Board, staff or public shall be granted.

1. RECEIVE AND FILE:

- a. Treasurer's Report
- b. Clerk's Revenue/Expenditure Report and Balance Sheet
- c. Draft Unapproved Meeting Minutes:
 - a. Planning Commission 08/10/15
 - b. Notes from 08/11/15 Shoreline Stakeholders meeting
- d. Metro Fire Newsletter

2. APPROVAL:

- a. Regular meeting minutes of 08/11/15
- b. Accounts Payable Prepaid of \$4,009.89 and Current to be approved of \$76,192.94 (Recommend approval: Cathy Dye, Clerk)

Motion by LaPointe, seconded by Dye to approve the consent calendar with the removal of Shoreline Stakeholders 8/11/15 meeting notes and the Treasurer's report. Motion carried by unanimous roll call vote.

E. ITEMS REMOVED FROM THE CONSENT CALENDAR:

LaPointe commented that the opening statement that "the GTRLC is committed to a one to one match" is incorrect. It should read 25% with funds allocated by the township for the Bayside Parks.

Motion by LaPointe, seconded by Jenema to approve the Shoreline Stakeholders 8/11/15 meeting notes with the one correction. Motion carried unanimously.

Jenema commented on the Modified Treasurer's report showing the \$191,000 that will be created by a motion. Additional discussion.

Motion by Jenema, seconded by White to approve the Treasurer's report as presented. Motion carried by unanimous vote.

F. SPECIAL PRESENTATIONS/DISCUSSIONS: None

G. REPORTS: Received and filed

- 1. Sheriff's Report – Deputy: Ken Chubb**
- 2. County Commissioner's Report – Crawford**
- 3. Road commission report – McKellar**

H. CORRESPONDENCE:

1. Letter dated 8/28/15 from Rick Conley, 4082 Circle View Dr, regarding the creation of a SAD in Springbrook Hills No 2
2. Zollinger read an email dated 8/28/15 from Beckett & Raeder regarding a recent Excellence Awards Results. Beckett & Raeder was awarded the 2015 Planning Excellence Award for the Daniel Burnham Award for the Acme Township Master Plan.

I. PUBLIC HEARING:

Metro Fire 2016 Budget presentation – Chief Parker

Chief Parker stated that the preliminary Metro Fire Budget was presented in the August meeting. He has also presented at East Bay and Garfield townships. Garfield had some issues with no land or building plans for a new fire station in Acme. Garfield made a motion to reduce to 2.35 mills and passed 0 to 7. Discussion followed.

LaPointe wanted to discuss fire, ambulance and police separately.

Zollinger discussed his memo showing we are looking at a Metro Budget of 2.35 mills. The memo shows various tax rates we can assess our citizens and what the additional amount Acme could owe Metro if we assess less than the 2.35 budget needs for Metro.

Public Hearing on Fire opened at 7:55 pm/Closed 7:56 pm there being no comments

Motion by LaPointe, seconded by Aukerman to levy the Fire at 2.2 mills. Motion carried by unanimous roll call vote.

Zollinger suggested .35 for ambulance. Discussion.

Public Hearing on Ambulance opened at 8:02 pm/Closed at 8:03 pm there being no comments

Motion by Jenema, seconded by Aukerman to levy the ambulance at .325 mills Motion carried by unanimous roll call vote.

Public Hearing on Police opened at 8:07 pm/Closed at 8:08 pm there being no comments.

Motion by White, seconded by Jenema to levy the Police at 0.15 mills. Motion carried by unanimous roll call vote.

Motion by Jenema, seconded by Dye to approve Resolution R-2015-#33 establishing Emergency Services Special Assessment levy for 2015 at 2.675 mills. Motion carried by unanimous roll call vote.

J. NEW BUSINESS:

1 Resolution to support opening new bank account – Treasurer

Motion by Jenema, seconded by White to approve Resolution R-2015-#34 adopting an Investment Policy and authorizing the Township Treasurer to open a new account in First Community Bank. Motion carried unanimously.

2. Resolution to move money from General accounts to new Park accounts

Motion by LaPointe, seconded by Jenema to approve Resolution R-2015-#35 approving fund balance moves to new accounts 208 Parks and Recreation and 401 budget corrections to bring the budget in balance improve our 2015-16 audit. Motion carried by unanimous roll call vote.

3. Resolution to establish new budget for new Park accounts

Motion by White, seconded by Dye to approve Resolution R-2015-#36 approving establishing new Budgets for accounts 208 Parks and Recreation fund and 401 Saylor Park Boat Launch Capital Fund. Motion carried by unanimous roll call vote.

4. Single hauler contract extension of existing service

Zollinger stated that we currently have a contract with American Waste through June 2016. American Waste, General Manager, Mark Bevelhymmer, was present. They would like to offer a 5 year contract extension to the existing waste & recycling hauler contract. American Waste is proposing the same rates that are currently used. The rates would be frozen for the five year extension. Discussion followed.

Motion by LaPointe, seconded by White to approve Staff putting out a RFP for hauling services. Motion carried by a vote of 5 in favor (Zollinger, Dye, Aukerman, White, LaPointe) 1 against (Jenema)

5. RFP Legal services

White, LaPointe and Jenema met prior to the Board meeting to review the three proposals received for legal services. After review and discussion the committee suggested to the Board to remain with Olson, Bzdok and Howard.

Motion by White, seconded by LaPointe to approve continuation of legal services with the firm of Olson, Bzdok & Howard. Motion carried by unanimous vote.

K. OLD BUSINESS:

1. Westridge/Circle View/Springbrook SAD funds discussion

Motion by LaPointe to allocate up to \$500 per parcel for the proposed Springbrook/Westridge/ Circle View SAD. Seconded by Aukerman. Motion carried by unanimous roll call vote.

2. GTRLC – Camp ground/land opportunity Yuba area

Motion by Jenema, seconded by Aukerman to approve Resolution R-2015-#37 expressing Township commitment to accept land donation from Grand Traverse Regional Land Conservancy. Motion carried by unanimous roll call vote.

3. Verbal report on storm damage/Clean up parks and Cemeteries

Henkel addressed in opening remarks. Report attached to minutes.

4. Status on GTTC Part 41 sewer permit letter to DEQ

Zollinger stated that all the required paperwork has been submitted to DEQ.

PUBLIC COMMENT & OTHER BUSINESS THAT MAY COME BEFORE THE BOARD:

ADJOURN AT 9:20 pm



ACME TOWNSHIP PLANNING COMMISSION MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
September 14, 2015 7:00 p.m.

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE at 7:00pm.

ROLL CALL:

Members Present: D. Rosa, B. Ballentine, J. DeMarsh, D. White, S. Feringa, K. Wentzloff, M. Timmins, T. Forgette, and J. Jessup

Staff Present: S. Winter, Zoning Administrator; J. Jocks, Legal Counsel; J. Iacoangeli, Township Planner

A. LIMITED PUBLIC COMMENT: Opened at 7:01pm

C Abernathy, 4312 Westridge Drive. Request for updated information on the condition of the GTTC Storm water Basin plantings and plans to replace any of those that have perished.

Public comment closed at 7:02pm

B. APPROVAL OF AGENDA: Motion by Timmins to approve agenda as presented, supported by Forgette. Motion passed unanimously

C. INQUIRY AS TO CONFLICTS OF INTEREST: S. Feringa and counsel discussed potential conflict of interest with respect to discussions pertaining to the Watershed Center correspondence on the GTTC project based on his employer's affiliation with the project. He was advised to recuse himself from any decision making discussion.

D. CONSENT CALENDAR: Motion by White to approve consent calendar as presented, support by Timmins. Motion passed unanimously.

1. RECEIVE AND FILE:

a. Approved Minutes of:

i. Township Board minutes 08/11/15

2. ACTION:

a. Approve Draft Minutes of:

i. Planning Commission minutes: 08/10/15

E. ITEMS REMOVED FROM THE CONSENT CALENDAR:

1. None

F. CORRESPONDENCE:

1. The Watershed Center Grand Travers Bay re: GTTC Storm Water System – John Iacoangeli
 John I. explained process for official correspondence to the report and advised commission members that he would need a directive from them in order to officially respond.

K. Wentzloff - Asked who would be responding and asked if necessary.

Planning commissioners polled and all agreed that the Township should formerly respond to the report.

Motion by Timmins to have Becket and Raeder officially respond to the Watershed Center correspondence regarding the GTTC storm water system; support by Forgette. Motion carried unanimously.

G. PUBLIC HEARINGS:

1. None

H. NEW BUSINESS:

If you are planning to attend and are physically challenged, requiring any special assistance, please notify Cathy Dye, Clerk, within 24 hours of the meeting at 938-1350.

1. TART Trail – Julie Clark

An update to recent TART Trail activity was provided by J. Clark. Wayfinding and signage is currently underway. TC to Charlevoix trail update identified a preferred alignment, concept plan has been developed, and the master plan should be completed by October. The Trail is identified as an asset and promotes economic development. Criteria used in selection process used the Choosing by Advantages technique.

A draft preferred route between Acme and Yuba was presented with a US31 crossing to north; somewhere between Bracket and Kesner Road but has not been officially determined yet. Rough estimates for 46.2 miles of trail at an estimated cost of \$11 million.

Update provided on other Trails in Acme. Would like connection of Bunker Hill at parking area to Lautner Road where Trail picks up again. Looking to work with GTTC and Mount Hope to make further connections as well as looking to get to the Acme shoreline parks. Need to know/identify who will allow and who will maintain.

DeMarsh - Asked what are the current obstacles to overcome for projects.

Timmins – Spoke as chair of parks and recreation and indicate the TART Trail aligns with the Township Master Plan and the Township Parks and Recreation master plan. Biking trails are also second on the list of the community wants based on the master plan survey. The Trail allows for buffers and the State is highly interested in supporting and collaborating with projects that incorporate those components. It is good time to move forward.

Julie indicated to that she was prepared to come back in the future for a resolution of support, but would like some marching orders for TART to investigate connections to the Acme shoreline and connecting to the Town Center and Bates Road.

Wentzloff - We could encourage Board for a resolution of support

Timmins stated that everyone wants to get to all parts of the township and the connections to these key areas are piece of the puzzle for the big phase. Now is the time because it fits perfectly within the current master plans.

DeMarsh thought the grant cycle is hot for trail funding. J. Clark expressed that trail funding is extremely competitive and community support is key to scoring high points on grant applications.

DeMarsh asked if the action point to is to get from Bunker Hill to Mount Hope.

Timmins discussed the need to look at a Mount Hope connection from Bunker Hill.

Clark highlighted three options to look at consisting of the connection to the shoreline parks, connection to M-72 and the GTTC commerce areas, and connection to the Lautner Road trail head.

A motion by Timmins to request the Township Board provide a resolution of support for the three connections, supported by Ballentine, motion carried unanimously.

I. OLD BUSINESS:

1. US 31/M 72 Business District Architectural Standards amendment #35

Motion by S. Feringa to send to the Board the adoption of Amendment 35 to the US31/M72 Business District Architectural Standards, support by Timmins. Motion passed unanimously.

2. Medical marijuana draft zoning ordinance language.

S. Winter explained to members a draft zoning ordinance for review and comment. J. Jocks suggested that a dispensary and cultivation co-existence should be added. Other requested changes included adding a definition for private school property to read as private recreation, change the definition for dispensary to Operation, and provide a stipulation of no incineration of waste.

Motion by Timmins to set a public hearing for the Medical Marijuana dispensaries draft zoning ordinance incorporating discussed changes for adding the TC Bulldog facility to be recognized as private recreation/parks facility, changes to definition of medical marijuana cultivation, addition of dispensary and cultivation co-locating

If you are planning to attend and are physically challenged, requiring any special assistance, please notify Cathy Dye, Clerk, within 24 hours of the meeting at 938-1350.

under one ownership on property under Section 9.27 and 9.26, and the requirement of no incineration under section 9.2.7. Support by Rosa. Motion carried unanimously.

J. PUBLIC COMMENT & OTHER PC BUSINESS

Public comment opened at 8:24pm.

M. Goss, 4105 Bay Valley. Concerned about Phragmites along north shore and asked about the control plan. Timmins provided a contact to see treatment schedule coordination.

Wentzloff asked S. Feringa for a road construction project update. S. Feringa indicated contractors are trying to complete by September 20th. Street light delivery has been pushed back to October, however, they are working with MDOT to waive installation date or they may try to expedite delivery.

Public comment closed at 8:27pm

1. Zoning Administrator update on projects: S. Winter provided summary of current projects including Flint Fields request for extension of event duration, the need to look at temporary tents related to Special Event permits. Discussed dimensional requirements versus square footage requirements for residences; specifically related to a request for use of shipping container home.
2. Planning Consultant: Township received another significant award for the newly adopted Master Plan. Suggested a press release for this significant recognition.
3. P C Education etc.: Several members of PC going to a Planning Essentials workshop at the end of this month.

ADJOURN: Motion to adjourn by Timmins, support by Ballentine. Motion passed unanimously.

Adjourn time: 8:39pm

September 10, 2015

Christine Crissman, Executive Director

The Watershed Center
Grand Traverse Bay
13272 S. West Bay Shore Drive
Traverse City, Michigan 49684

**RE: The Watershed Center Letter 8-25-15
Village at Grand Traverse (VGT) Stormwater Collection & Treatment System**

I am writing in response to your letter regarding the above referenced development located in Acme Township that was sent to the Acme Township Supervisor and Planning Commission. Recently the Grand Traverse Band of Ottawa and Chippewa Indians' (GTB) Economic Development Corporation (EDC) invested in this development as a partner. We are very concerned that the development follows all applicable codes and ordinances while protecting the surrounding environment and natural resources which is vital for wildlife, local businesses and tourism. Before becoming a partner we thoroughly reviewed and analyzed the overall development especially how it would impact the surrounding properties. As a Tribal Nation we will do everything in our power to protect the environment as well as restoring a creek that has been in poor condition for decades.

The EDC Executive Staff consulted with our Corporate Architect, Steve Feringa, AIA, who is also an EDC Executive Staff member, a member of GTB's Natural Resources and Environmental Committee, and an Acme Township Planning Commissioner. Mr. Feringa has been involved with this development for over 10 years, is serving his second term as a commissioner for Acme's Planning Commission, and negotiated a water agreement between VGT and GTB (prior to becoming an Acme Township Planning Commissioner).

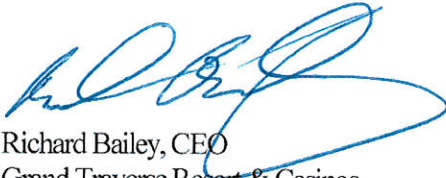
Mr. Feringa provided plans and a narrative on the innovative design utilizing constructed wetlands to naturally filter and process the stormwater onsite before the water returns to the aquifer. Constructing this stormwater management system is a complex process from schematic design, engineering and implementation. From all the information presented and what was explained all of the comments presented in your letter were previously adequately addressed by the Township's consultants and Planning Commission which I understand included several independent engineering and environmental firms that specialize in stormwater control measures.

Based on all the facts and data we reviewed leads us to disagree with most of your opinions in your letter with the exception of the importance of protecting the bay from stormwater run-off, protecting Acme Creek, and utilizing Best Management Practices and innovative designs in development of stormwater systems.



Throughout this development process there has been a great deal of political agendas in the Acme area; putting these agendas aside, if the main concern is stormwater reaching the creek and bay then the real focus should be with the direct run-off of the stormwater from other sources such as the adjacent road systems (M72, US31 along East Bay, and the Boardman River as examples). If you have any questions or comments please feel free to contact us. We would be more than willing to meet and discuss the stormwater system for this development and ways to protect the bay and restore Acme Creek.

Sincerely,



Richard Bailey, CEO
Grand Traverse Resort & Casinos
Grand Traverse Band of Ottawa and Chippewa Indians Economic Development Corporation

cc: Acme Township Supervisor
Acme Township Board of Directors
Acme Township Planning Commission
Beckett & Raeder, Inc.



King & MacGregor
Environmental
Inc.

September 16, 2015

Sent Via Email

Mr. John Iacoangelli
Beckett and Raeder
535 West Williams Street
Suite 101
Ann Arbor, MI 48013

Re: On-Site Review of Grand Traverse Town Center Wetland/Swale
Plantings

Dear Mr. Iacoangelli:

On September 3 and 9, 2015, King & MacGregor Environmental, Inc. (KME) visited the Grand Traverse Town Center for the purpose of reviewing the installed plantings in Basin 1 and Basin 2, and their associated sub-basins and swales.

The KME evaluations were conducted as a follow-up to similar efforts by Cardno on July 14 and 17, 2015 on behalf of Acme Township and as reported in a letter to you dated July 23, 2015. We observe the Cardno evaluations were approximately two weeks after plant installation was complete. As can be seen from the attached photo log, taken from similar vantage points as the photos in the Cardno report, the vegetative communities within the stormwater basins are progressing as anticipated for the initial growing season. Wetland vegetation is well established within much of the area of investigation. While the Cardno report documented stress and/or mortality in some of the installed plantings, it is our opinion that this inspection may have been conducted too soon after plant installation to draw definitive conclusions about the success of vegetation establishment for the 2015 growing season.

During our September 9, 2015 site evaluation both stormwater basins were at designed normal water elevations (discharging at the base of the outlet structure) providing inundation for all of installed plantings. The stormwater discharge from both basins was clear and free from any significant suspended soil particles. The sub-basins were functioning as designed, providing vegetative filtration and slow release of stormwater over the rock check dams. All side slopes were stabilized with vegetation or erosion blanket. It is our experience, and the reporting of many trade resources, that the full establishment of native wetland vegetation takes several growing seasons. Given this perspective, it is our opinion that the first year of this multi-year project is successfully progressing as anticipated.

In addition to observations of the newly-installed plantings, the Cardo letter documents site conditions prior to establishment of the designed seasonal hydrology. It should be noted that the water levels were maintained at a low elevation and a temporary sprinkling system was installed to allow root establishment through July and August before full inundation was allowed to occur. This installation and watering strategy was recommended by the plant

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1321
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

email: kme@king-macgregor.com

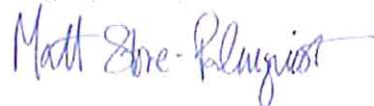
nursery (Cardno) and the plant installation contractor (G & J Landscaping) and is consistent with the ongoing storm water management plan for this site.

Although the Cardno July evaluation identified stress and mortality in some of the installed plants, the KME September visits documented robust vegetative cover over most of the planting areas. While some individual species have experienced mortality or stress, the goal of establishing vigorous vegetative cover within the basins and swales has been successful for the initial growing season. Loss of a significant number of one installed plant species, like lake sedge for instance, should not be considered a significant deficiency provided that other installed plants or native volunteer species are successfully established to provide the desired filtration and stabilization functions.

Based on the current condition of vegetation in the basins and swales, it is our opinion that the initial plantings are successfully establishing as planned. The stormwater management system is functioning as designed and providing the desired detention and filtration functions. Water discharging from the site is clear with no observable suspended sediments.

Sincerely,

King & MacGregor Environmental, Inc.



Matt Stone-Palmquist, LLA

Enclosures

CC: Jay Zollinger, Acme Township





Photograph No. 1. Basin #1 Plug installation area.

Photo From July 23, 2015 Cardno Letter.



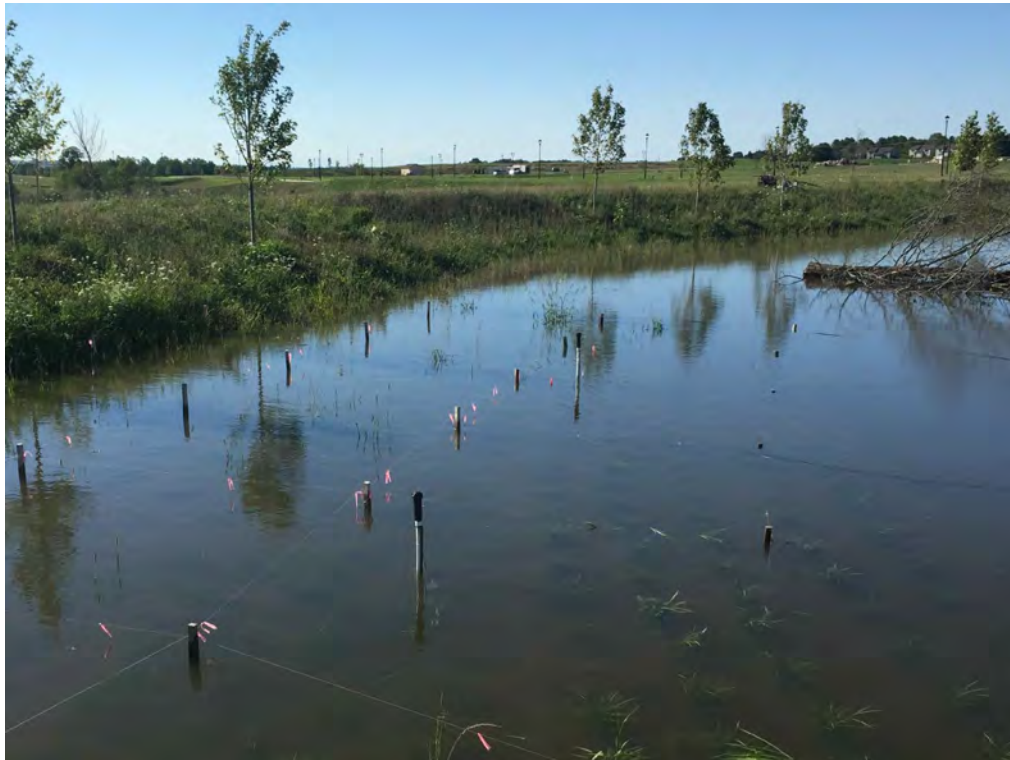
Similar view as Photo 1 on September 9, 2015





Photograph No. 2. Water level in Basin #1 below planting elevation.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 2 on September 9, 2015





Photograph No. 3. Basin #1A
Photo from July 23, 2015 Cardno Letter



Similar view as Photo 3 on September 9, 2015





Photograph No. 4. Basin #1B

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 4 on September 9, 2015



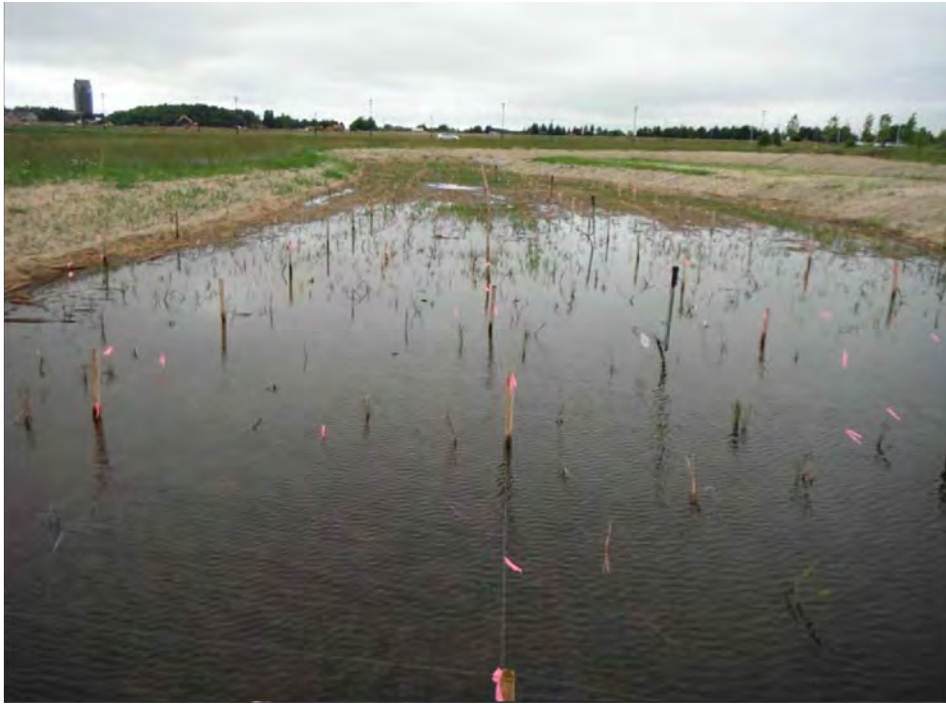
Photograph No. 5. Basin #1B facing east.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 5 on September 9, 2015





Photograph No. 6. Basin #1C facing north.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 3 on September 9, 2015





Photograph No. 7. Basin #1 Swale

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 7 on September 9, 2015





Photograph No. 8. Basin #1 Swale.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 8 on September 9, 2015





Photograph No. 9. Basin #2. Water level below planting elevation.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 9 on September 9, 2015





Photograph No. 10. Basin #2. Area that was seeded.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 10 on September 9, 2015





Photograph No. 11. Basin #2. Scattered arrowhead plant plugs.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 11 on September 9, 2015





Photograph No. 12. Basin #2. Dead River Bulrush plugs.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 12 on September 9, 2015





Photograph No. 13. Basin #2. Swale flowing towards Basin #2A.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 13 on September 9, 2015





Photograph No. 14. Basin #2A. Facing north.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 14 on September 3, 2015





Photograph No. 15. Basin #2A. Inundation.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 15 on September 9, 2015





Photograph No. 16. Basin #2A. Stressed/dead plants.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 16 on September 9, 2015





Photograph No. 17. Basin #2B. Facing NW.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 17 on September 9, 2015





Photograph No. 18. Basin #2B. Facing west.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 18 on September 9, 2015





Photograph No. 19. Basin #2. Discharge swale to stream.

Photo from July 23, 2015 Cardno Letter



Similar view as Photo 19 on September 9, 2015



Shawn Winter

From: Steve Schooler <sschooler@anderson-realestate.com>
Sent: Friday, September 18, 2015 2:38 PM
To: 'Karly Wentzloff (karly.wentzloff@gmail.com)'
Cc: Shawn Winter; Jay Zollinger
Subject: FW: Planning Commission August 6th 2015 letter
Attachments: 20150918141756681.pdf

Karly,

We have recently engaged an Architect to review the conceptual site plan and come up with a more current site plan that works for today's changing retail markets. Our first priority this season has been the Meijer Store Opening where Acme Township and its consultants have been instrumental in this monstrous task. As soon as we get a site layout we are satisfied with we will share this with Acme Township. Thanks for the support as always.

Steve Schooler
Agent for the Owner
The Village at Grand Traverse, LLC
3825 Edwards Road, Suite 200
Cincinnati, Ohio 45209
513-366-3530 direct
513-520-0550 cell
Sschooler@anderson-realestate.com

Shawn Winter

From: Karly Wentzloff <karly.wentzloff@gmail.com>
Sent: Saturday, October 10, 2015 11:01 AM
To: Shawn Winter
Subject: Fwd: 10.05.2015 letter

Maybe print this and put it on the table on Monday

----- Forwarded message -----

From: **Christine Crissman** <ccrissman@gtbay.org>
Date: Friday, October 9, 2015
Subject: 10.05.2015 letter
To: John Iacoangeli <jri@bria2.com>, Karly Wentzloff <karly.wentzloff@gmail.com>
Cc: TJ Andrews <tjandrews@gtbay.org>

Dear John and Karly

We received John's letter and responses from Gosling Czubak, Cardno, and Horizon Environmental in response to our 8-25-2015 letter. We greatly appreciate your effort to respond to the concerns we raised. We recognize the efforts each firm put into the design and review process for the stormwater system. We raised our concerns because the vast majority of these decisions were not made in a public venue and we were hoping to better understand why final decisions did not comply with Acme Township's Storm Water Control Ordinance. As stated in John's letter, "deviations from a particular standard was made only when strict interpretation of the requirements caused a practical difficulty and only after a review by the Township's engineer confirmed that the design would function appropriately and meet the purpose and intent of the ordinance." If Acme Township is ever interested, we would love to work with you on updating your stormwater ordinance to bring in more flexibility and incorporate low impact development techniques, possibly preventing similar situations in the future.

We thank you again for your thorough response to our concerns. Enjoy the weekend!

Best,

Christine

Christine Crissman

Executive Director

The Watershed Center Grand Traverse Bay

13272 South West Bay Shore Drive

Traverse City, MI 49684

231.935.1514 x1 (phone)

231.935.3829 (fax)

www.gtbay.org

A business card for Karly Wentzloff. The card features a large, stylized black 'W' logo on the left. To the right of the logo, the name 'KARLY' is written in a light blue, sans-serif font, and 'entzloff' is written in a black, lowercase, serif font. The card is powered by Coldwell Banker, with the logo and 'SCHMIDT REALTORS' text visible. The address '402 e front st. traverse city, mi 49686' is listed. Contact information includes a cell phone number (231.944.9800), a fax number (231.946.1384), and an email address (karly.wentzloff@gmail.com). A black and white portrait of Karly Wentzloff is on the right side of the card.

powered by **COLDWELL BANKER**
SCHMIDT REALTORS
402 e front st. traverse city, mi 49686

c. 231.944.9800 | f. 231.946.1384 | karly.wentzloff@gmail.com



Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

AMENDMENT TO ACME TOWNSHIP ZONING ORDINANCE

AMENDMENT 036 – MEDICAL MARIHUANA DISPENSARIES AND CULTIVATION OPERATIONS

§§ 3.2, 6.11.3, 9.26, 9.27

The Acme Township Planning Commission has reviewed and considered changes to §§ 3.2, 6.11.3, 9.26 and the addition of § 9.27 pursuant to the following:

WHEREAS the Township adopted § 3.2 on November 18, 2008, § 6.11.3 on May 13, 2014, and § 9.26 on August 2, 2011

WHEREAS the implementation of § 9.26 has revealed that certain sections of §§ 3.2, 6.11.3 and 9.26 should be revised to better meet the Township's zoning goals.

WHEREAS activities associated with Medical Marihuana, as allowed under the Michigan Medical Marihuana Act, require amendment in order to meet those goals.

Now therefore, the following changes shall be made to §§ 3.2, 6.11.3, 9.26 and the addition of § 9.27 of the Acme Township Zoning Ordinance:

1. § **3.2 DEFINITIONS** will be amended to include the following:

“Medical Marihuana Cultivation Operation: A use where Medical Marihuana is grown by a Primary Caregiver to be provided to Qualifying Patients under his/her care. The maximum number of plants that shall be allowed on a single parcel used as a Medical Marihuana Cultivation Operation is sixty (60), unless the Primary Caregiver operating the Medical Marihuana Cultivation Operation is also a Qualifying Patient, in which case the maximum number of plants allowed on the parcel shall be seventy two (72).”

2. § **6.11.3 USES AUTHORIZED BY SPECIAL PERMIT** will be amended to add the following uses:

“h. Medical Marihuana Dispensary”

“g. Medical Marihuana Cultivation Operation”

3. § **9.26.2 REQUIRED STANDARDS** will be amended as follows:

§ **9.26.2(a)** will replace the word “marihuana” with “Medical Marihuana” and will read as:

“a. The acquisition, possession, delivery or transfer of **Medical Marihuana** or paraphernalia shall comply at all times with the Medical Marihuana Act and the General Rules of the Michigan Department of Community Health, as amended.”

§ **9.26.2(c)** will be amended to change the hours prohibiting operation from “10:00 pm to 7:00 am” to “8:00

pm to 8:00 am” and will read as:

- “ c. A Medical Marihuana Dispensary shall not operate between the hours of **8:00 p.m.** and **8:00 a.m.**”

§ 9.26.2(d) will be removed in its entirety and all subsequent subsections of § 9.26.2 will be renumbered accordingly:

- ~~d. — No Medical Marihuana Cultivation shall occur on the parcel.~~

§ 9.26.2(e) will add the language “who is under the age of eighteen (18)” and will read as:

- “d. Except for parents or guardians of a Qualifying Patient **who is under the age of eighteen (18)** and the Owner or staff of the facility, persons other than a Qualifying Patient or Primary Caregiver shall not be permitted within the facility when Medical Marihuana is being transferred.”

§ 9.26.2(j) will be amended to change the distance between Medical Marihuana Dispensaries from “1,000” feet to “500” feet and language will be added to include “Medical Marihuana Cultivation Operation” and will read as:

- “i. A Medical Marihuana Dispensary shall not be located within a **500** foot radius of another existing Medical Marihuana Dispensary or **Medical Marihuana Cultivation Operation.**”

§ 9.26.2(j)(1) will be amended to change the explanation on measuring distances between Medical Marihuana Dispensaries from “1,000” feet to “500” feet and language will be added to include “Medical Marihuana Cultivation Operations” and will read as:

- “1. For purposes of measuring the **500** foot radius in this section, the measurement shall be taken from the nearest point on the building where the existing Medical Marihuana Dispensary **or Medical Marihuana Cultivation Operation** exists to the nearest point on the building where the proposed Medical Marihuana Dispensary is proposed.”

§ 9.26.2(j)(2) will be added to allow exception to the distance between a Medical Marihuana Dispensary and a Medical Marihuana Cultivation Operation when they have been approved to operate on the same parcel and will read as:

- “2. Exception shall be made when the operator of a Medical Marihuana Dispensary is also approved to operate a Medical Marihuana Cultivation Operation on the same parcel as granted through a Special Use Permit.”

§ 9.26.2(k) will add language to include “public or private youth recreational facility” and will read as:

- “j. A Medical Marihuana Dispensary shall not be located within a 1,000 foot radius of any existing public or private elementary, vocational, or secondary school, or a public or private college, junior college, or university, or a library, or a playground or park, **or a public or private youth recreational facility.**”

§ 9.26.2(k)(4) will add language to include “public or private youth recreational facility” and will read as:

- “4. For purposes of measuring the 1,000 foot radius in this section, the measurement shall be taken from the nearest property line of the existing public or private elementary, vocational,

or secondary school, or public or private college, junior college, or university, library, or playground or park, **or a public or private youth recreational facility** to the nearest point on the building where the proposed Medical Marihuana Dispensary is proposed.”

§ 9.26.2(k) will be added that expressly prohibits all activities associated with a Medical Marihuana Cultivation Operation unless approved through a Special Use Permit and will read as:

“k. The planting, growing, harvesting, processing and packaging of Medical Marihuana shall not be allowed on the parcel unless approved through a Special Use Permit and pursuant to Section 9.1 and Section 9.27.”

4. § 9.27 **MEDICAL MARIHUANA CULTIVATION OPERATION** will be added to regulate the planting, growing, harvesting, processing, packaging and storage of Medical Marihuana as defined under Medical Marihuana Cultivation Operation in § 3.2 under a Special Use Permit, and will read as:

“9.27 MEDICAL MARIHUANA CULTIVATION OPERATION

9.27.1 STATEMENT OF INTENT

The purpose of a Medical Marihuana Cultivation Operation is to allow an establishment or place of business to undertake the following “Medical uses” of Medical Marihuana on the property: planting, growing, harvesting, processing, packaging or storing of Medical Marihuana to treat or alleviate a registered Qualifying Patient’s debilitating medical conditions or symptoms associated with the debilitating medical condition under the Medical Marihuana Act. Acme Township desires to allow all legal businesses to operate in the Township, but recognizes the need to zone for all uses to protect the health, safety and welfare of the general public. A Medical Marihuana Cultivation Operation must satisfy the general standards of Section 9.1, the specific requirements of this Section, and all other requirements of the Acme Township Zoning Ordinance.

9.27.2 REQUIRED STANDARDS

- a. The planting, growing, harvesting, processing, packaging or storing of Medical Marihuana shall comply at all times with the Medical Marihuana Act and the General Rules of the Michigan Department of Community Health.
- b. The cultivation of Medical Marihuana shall be only allowed by a Primary Caregiver for the Qualifying Patients registered under their care.
- c. Medical Marihuana Cultivation Operations shall be limited to growing a maximum of sixty (60) Medical Marihuana plants for Qualifying Patients. The maximum number of Medical Marihuana plants shall increase to seventy two (72) if the Primary Caregiver operating the Medical Marihuana Cultivation Operation is also a Qualifying Patient.
- d. Except for the Owner of the property, persons other than the Primary Caregiver shall not be permitted within the Operation when Medical Marihuana is being cultivated, harvested, processed, packaged or stored.
- e. No person under the age of eighteen (18) shall be permitted into a Medical Marihuana Cultivation Operation at any time

- f.** A Medical Marihuana Cultivation Operation shall not be owned or operated by, or employ, a person that has been convicted of a felony involving controlled substances.
- g.** No use by way of smoking, ingestion, consumption, or any other method of taking Medical Marihuana into the body shall occur at a Medical Marihuana Cultivation Operation.
- h.** No more than one (1) Primary Caregiver shall operate a Medical Marihuana Cultivation Operation on any one (1) parcel.
- i.** The cultivation of Medical Marihuana shall only be permitted inside a structure not visible from the outside that shall be at all times secured and locked, and shall be accessible only by the Primary Caregiver and Owner of the property.
- j.** Lighting utilized for cultivating Medical Marihuana shall not be visible from the exterior of the building.
- k.** No equipment or process shall be used in which creates noise, dust, vibration, glare, fumes, odors or electrical interference detectable to the normal senses beyond the parcel boundary.
- l.** A waste disposal plan shall be included with all applications for an operation detailing plans for chemical disposal and plans for Medical Marihuana plant disposal. Under no instance shall the incineration of Medical Marihuana plants or plant materials be allowed on the parcel.
- m.** A Medical Marihuana Cultivation Operation shall be considered an industrial or manufacturing use for purposes of determining Off-Street Parking and Loading requirements under the Zoning Ordinance.
- n.** A Medical Marihuana Cultivation Operation shall not be located within a 500 foot radius of another existing Medical Marihuana Cultivation Operation or Medical Marihuana Dispensary.

 - 1.** For purposes of measuring the 500 foot radius in this section, the measurement shall be taken from the nearest point on the building where the existing Medical Marihuana Cultivation Operation or Medical Marihuana Dispensary exists to the nearest point on the building where the proposed Medical Marihuana Cultivation Operation is proposed
 - 2.** Exception shall be made when the operator of a Medical Marihuana Cultivation Operation is also approved to operate a Medical Marihuana Dispensary on the same parcel as granted through a Special Use Permit.
- o.** A Medical Marihuana Cultivation Operation shall not be located within a 1,000 foot radius of any existing public or private elementary, vocational, or secondary school, or a public or private college, junior college, or university, or a library, or a playground or park, or a public or private youth recreational facility.

1. For purposes of this section the term “library” means a library that is established by the state; a county, city township, village, school district, or other local unit of government or authority or combination of local units of government and authorities; a community college district; a college or university; or any private library open to the public.
 2. For purposes of this section the term “playground” means any outdoor facility (including any parking lot appurtenant thereto) intended for recreation, open to the public, and with any portion thereof containing three or more separate apparatus intended for the recreation of children including, but not limited to, sliding boards, swing set, and teeterboards.
 3. For purposes of this section the term “park” means any land or facility of any size or shape, including but not limited to linear ways, road ends, and submerged lands, that are open to the public and used for recreation or held for future recreational use.
 4. For purposes of measuring the 1,000 foot radius in this section, the measurement shall be taken from the nearest property line of the existing public or private elementary, vocational, or secondary school, or public park or private college, junior college, or university, or a library, or a playground or park, or a public or private youth recreational facility to the nearest point on the building where the proposed Medical Marijuana Cultivation Operation is proposed.
- p. The acquisition, possession, delivery or transfer of Medical Marijuana of paraphernalia shall not be allowed on the parcel unless approved through a Special Use Permit and pursuant to Section 9.1 and Section 9.26.”

9.26 MEDICAL MARIHUANA DISPENSARY

9.26.1 STATEMENT OF INTENT:

The purpose of a Medical Marihuana Dispensary is to allow an establishment or place of business to undertake the following “Medical uses” of Medical Marihuana on the property: acquisition, possession, delivery or transfer of marihuana or paraphernalia relating to the administration of marihuana to treat or alleviate a registered qualifying patient’s debilitating medical conditions or symptoms associated with the debilitating medical condition under the Medical Marihuana Act. Acme Township desires to allow all legal businesses to operate in the Township, but recognizes the need to zone for all uses to protect the health, safety and welfare of the general public. A Medical Marihuana Dispensary must satisfy the general standards in Section 9.1, the specific requirements of this Section, and all other requirements of the Acme Township Zoning Ordinance.

9.26.2 REQUIRED STANDARDS:

- a. The acquisition, possession, delivery or transfer of marihuana or paraphernalia shall comply at all times with the Medical Marihuana Act and the General Rules of the Michigan Department of Community Health, as amended.
- b. The transfer of Medical Marihuana shall be only allowed to a Qualifying Patient by his or her Registered Primary Caregiver or by another Qualifying Patient as allowed by the Medical Marihuana Act and the General Rules of the Michigan Department of Community Health, as amended.
- c. A Medical Marihuana Dispensary shall not operate between the hours of 10:00 p.m. and 7:00 a.m.
- d. No Medical Marihuana Cultivation shall occur on the parcel.
- e. Except for parents or guardians of a Qualifying Patient and the Owner or staff of the facility, persons other than a Qualifying Patient or Primary Caregiver shall not be permitted within the facility when Medical Marihuana is being transferred.
- f. A Medical Marihuana Dispensary shall not be owned or operated by, or employ, a person that has been convicted of a felony involving controlled substances.
- g. No use by way of smoking, ingestion, consumption, or any other method of taking Medical Marihuana into the body shall occur at a Medical Marihuana Dispensary.
- h. No person under the age of 18 shall be permitted into a Medical Marihuana Dispensary at any time unless that person is a Qualifying Patient and is accompanied by that person’s parent or guardian.
- i. Medical Marihuana Dispensaries shall be considered a Retail store for purposes of determining Off-Street Parking and Loading requirements under the Zoning Ordinance.
- j. A Medical Marihuana Dispensary shall not be located within a 1,000 foot radius of another existing Medical Marihuana Dispensary.

1. For purposes of measuring the 1,000 foot radius in this section, the measurement shall be taken from the nearest point on the building where the existing Medical Marihuana Dispensary exists to the nearest point on the building where the proposed Medical Marihuana Dispensary is proposed.
- k. A Medical Marihuana Dispensary shall not be located within a 1,000 foot radius of any existing public or private elementary, vocational, or secondary school, or a public or private college, junior college, or university, or a library, or a playground or park.
1. For purposes of this section the term “library” means a library that is established by the state; a county, city, township, village, school district, or other local unit of government or authority or combination of local units of government and authorities; a community college district; a college or university; or any private library open to the public.
 2. For purposes of this section the term “playground” means any outdoor facility (including any parking lot appurtenant thereto) intended for recreation, open to the public, and with any portion thereof containing three or more separate apparatus intended for the recreation of children including, but not limited to, sliding boards, swing sets, and teeterboards.
 3. For purposes of this section the term “park” means any land or facility of any size or shape, including but not limited to linear ways, road ends, and submerged lands, that are open to the public and used for recreation or held for future recreational use.
 4. For purposes of measuring the 1,000 foot radius in this section, the measurement shall be taken from the nearest property line of the existing public or private elementary, vocational, or secondary school, or public or private college, junior college, or university, library, or playground or park to the nearest point on the building where the proposed Medical Marihuana Dispensary is proposed.

SECTION 9.26 ADDED BY AMENDMENT 013 ADOPTED 08/02/11 EFFECTIVE 08/13/11.

planning review

Date: 10.05.2015

From: John Iacoangeli
To: **Karly Wentzloff, Chairperson**
ACME TOWNSHIP PLANNING COMMISSION
6042 Acme Road
Traverse City, MI 49690

Project: **Village at Grand Traverse (VGT-Phase 1 SUP#2009-1P)**
Stormwater Collection and Treatment System
Response to the Watershed Center Letter

Background

As requested by the Planning Commission at the September 14, 2015 meeting I transmitted a copy of the Watershed Center letter dated, August 25, 2015, to the Township consultants, Gosling Czubak and Cardno Environmental, and the Developer's consultant, Horizon Environmental for their review and response. I have attached correspondence from those firms wishing to respond to the Watershed Center letter.

As noted at numerous Planning Commission meetings, as part of the review and approval process of the Grand Traverse Town Center (VGT,LLC) SUP application and Phase 1 Site Plan, the design of the storm water treatment system was a lengthy and detailed process involving seven (7) different firms represented by four (4) Professional Engineers and a variety of environmental consultants with backgrounds in natural sciences; including biologists, hydrology and ecology. The design and review process spanned seven months of design, engineering review, redesign, hydrologic modeling and wetland planting design.

Throughout the design process both the Applicant and the Township were tasked to meet the intent of the SUP to provide an innovative storm water management plan, address the requirements of Ordinance No. 2007-01 Acme Township Storm Water Control Ordinance, and follow best management practices focused on the creation of a constructed wetlands. This was a complex, technical and lengthy process.

Due to the complexity of the storm water design for the Grand Traverse Town Center which was influenced by the size, topography and soil conditions of the property all aspects of Ordinance No. 2007-01 Acme Township Storm Water Control Ordinance were applied. Deviations from the ordinance were based on prudent and acceptable engineering standards, and at the same time incorporating best management practices published by the Michigan Department of Environmental Quality. Based on the design reviews and technical considerations provided by the Applicant's engineers and storm water designers, and the reviews and recommendations of Acme Townships' engineer and environmental consultant the physical design and functional operation of the storm

water treatment system was developed and recommended for approval. Deviations from a particular standard was made only when strict interpretation of the requirements caused a practical difficulty and only after a review by the Township's engineer confirmed that the design would function appropriately and meet the purpose and intent of the ordinance. Further, such deviation of the standard would not prevent nor result in less management of the storm water runoff. Approval of the storm water design, and management and maintenance plan incorporated these deviations as part of the design, review and approval process. Although two inconsistencies (the riser height and the submerged inlet) of the ordinance were so noted they had been considered and waived as part of the overall approval process.

I would anticipate that future storm water plans on this site or other properties may involve deviations from the design standards based on practical difficulties associated with the respective sites which will not impair the effective management of storm water runoff in the Township. For example, the Acme Township Placemaking Plan which was incorporated into the Acme Community Master Plan, recommends the construction of a centralized Business District Stormwater Facility along US-31 because strict application of Ordinance No. 2007-01 could not be met on an parcel-by-parcel basis and needs to be considered as a shared facility.¹

Attachments:

Letter from Gosling Czubak, dated October 5, 2015
Letter from Cardno, dated October 7, 2015
Letter from Horizon Environmental, dated October 5, 2015

¹ Acme Shores: a Placemaking Strategy for the US-31 Shoreline Corridor, October 2012.



October 5, 2015

Mr. John Iacoangeli, Acme Township Planner
Ms. Karly Wentzloff, Chair
Acme Township Planning Commission
6042 Acme Road
Williamsburg, MI 49690

Subject: Grand Traverse Town Center site Storm water Collection and Treatment System

Dear Mr. Iacoangeli and Ms. Wentzloff,

This letter is being provided at your request to address the items of concern that were raised by The Watershed Center (TWC) in their August 25, 2015 correspondence to you regarding the Grand Traverse Town Center (GTTC) site also referred to as the Village at Grand Traverse (VGT).

It is mentioned in the letter from TWC that “it is particularly important to The Watershed Center that the permanent storm water control system at this site is designed to prevent sediment-laden runoff from leaving the site.” The letter from TWC also referenced “serious storm water violations” that occurred last fall at this site. Those violations occurred at a time when the site was under construction with a large amount of site disturbance and temporary soil erosion control measures failed under heavy rain events. The current condition of the site is that construction of this phase is complete, the site has been stabilized, and permanent soil erosion and sedimentation control measures are in place. Modifications to the storm water system were also completed to lower release rates from the detention ponds and add additional treatment tiers upstream of the discharges to Acme Creek. The modifications that were completed generally followed Acme Township Storm Water Control Ordinance (Ordinance No. 2007-01) to meet the treatment and flood control criteria. These modifications increased the storm water retention time and decreased the discharge rate. This as well as the additional treatment tiers that were added enhance the ability of the system to remove sediment and capture nutrients and pollutants from the storm water runoff as required by the Special Use Permit (SUP).

The following are the specific concerns excerpted from TWC’s letter (*italicized*) followed by our comments.

1. Inaccessible Location of Outlet Control Structures:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(ii)(10), Storm Water

Facilities, Detention Systems, Outlet Design (at page 18), requires that “Outlet control structures shall be placed near or within the embankment to facilitate maintenance access.” Similarly, the Michigan Department of Environmental Quality Nonpoint Source Best Management Practices Manual (DEQ BMP Manual) for Wet Detention Basins (at WDB-3) provides that “All outlets should have an accessible, above-ground cap to allow easy cleaning. The outlet should be designed so that trapped trash and debris can be easily removed.”

The outlet control structure for each Basin is located more than 30 feet from the Basin embankment and will be submerged when the Basin is full. It will likely be necessary to pump down the Basin or use a boat or waders to reach the outlet control for maintenance and cleaning. These impediments to routine inspection will likely result in less frequent and less effective inspections, maintenance, and cleaning. Further, the inaccessible location will lead to delayed emergency blockage removal.

Our previous comments regarding the outlet control structure were provided via a June 18, 2015 memo to John Iacoangeli and stated: “Granting a waiver for this situation will not substantially prevent nor result in less effective management of storm water runoff. The main function of the outlet riser is to control the runoff release rate and promote the removal of sediment, nutrients, and pollutants. This function is accomplished through the orifices located on the side of the riser through which all the runoff flows. The diameter of the riser has no effect on the orifices or their function. The diameter is more of a maintenance function. The MDEQ Nonpoint Source Best Management Practices Manual description for a Wet Detention Basin states that “All outlets should have an accessible, above-ground cap to allow easy cleaning. The outlet should be designed so that trapped trash and debris can be easily removed.” The existing outlets meet these criteria.”

We maintain these outlet risers are accessible, above-ground, and allow easy cleaning. There are grates at the top of each riser to catch trash and debris. Vacuum trucks or trailer mounted vacuum equipment is capable of traversing the top of the basin towards the outlet structure, parking, and extending hoses to clean the risers.

It is also noted that the normal pond water levels are actually 4.8 feet below the top of riser at Basin #1 and 4.5 feet below the top of riser at Basin #2. Routine inspection, maintenance, and cleaning can occur without the need of special equipment such as a boat or the need to pump either basin down.

2. Narrow Outlet Riser Pipe:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(ii)(8), Storm Water Facilities, Detention Systems, Outlet Design (at page 17), requires that “Riser pipes greater than 5 feet in height shall be 48 inches in diameter.” As noted above, the DEQ BMP Manual for Wet Detention Basins (at WDB-3) provides that the outlets should allow for easy cleaning and blockage removal.

The riser pipes for both Basins are over 8 feet in height with a 36-inch diameter.

The deficient pipe diameter limits accessibility to the bottom of the structure for cleaning and removing blockages from the inlet orifices and outlet pipe.

In a June 18, 2015, letter, Mr. Iacoangeli waived the requirement to comply with the 48-inch diameter provision in the Ordinance on two bases: installing new risers would delay site revegetation, and the narrow riser pipe “can be adequately cleaned.” There is no explanation for how installing wider outlets inside the Basins would delay site re-vegetation. Further, there may be ways to minimize downtime of the Basins by, for example, constructing new outlets offsite or along-side the existing outlets while they remain in service. Moreover, the risks associated with system failure due to limited accessibility outweigh potential site revegetation delays caused by repairing the issue, so it is short-sighted to waive the sizing requirement on this basis. Finally, as a practical matter, it is difficult to understand how to easily clean the bottom of a 36-inch pipe, and the outlet pipe located within it, inside an 8-foot riser located 30 feet from a berm.

Please again refer to the comments provided June 18, 2015 to Mr. Iacoangeli and provided in the comments to the preceding item. We reiterate the outlet structures are accessible for routine inspection, accessible to available equipment for cleaning and maintenance, and functionally control the release rates thus promoting the removal of sediment, nutrients, and pollutants from the runoff.

3. Lack of Base Flow Supply for Wet Detention Basins:

The Storm Water Control Ordinance, Section 2(E)(3)(a), Storm Water Facilities, Detention Systems, Physical Feasibility (at page 15), requires that “A reliable supply of base flow is required for wet basins to prevent excessive drawdown of the permanent pool.” The wet basin design does not identify a source of basin replenishment to sustain the design level. Wet detention ponds rely on physical, biological, and chemical processes to remove pollutants from influent storm water. A wet basin pond replenished only by rainfall will be subject to occasional drawdown from drought. An unstable wet basin will stress and reduce the vegetation, thereby impairing the effective storm water treatment capacity of the facility. The lack of reliable base flow supply was also identified recently by the Township consultant, Cardno Environmental, during site visits on July 14 and 17, 2015, that documented low water levels in both Basins.

This item is related to the items reviewed by Cardno, Inc. at this site for Beckett and Raeder and it is expected they have or will provide follow up commentary. It is believed, however, that the dates mentioned above by TWC are when the basins were being actively pumped by the developer which could explain low water levels.

4. Submerged Inlet Pipes:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(i)(1), Storm Water Facilities, Detention Systems, Controls, Inlet Design (at page 16), requires that “Inlet pipes shall not be fully submerged at normal pool elevations.” The two 48-inch inlet pipes at Basin #2 are both 4 feet below the permanent water level. Having submerged inlet pipes leads

to maintenance problems and potential issues related to freezing, increasing the likelihood of overflows and other problems. The Township dismissed this requirement without showing the waiver criteria were met (see May 7, 2015, Technical Memo – Storm Water Review from R. Verschaeve, at page 2).

The submerged inlet pipes were noted in our engineering review memo dated 5-7-2015 as follows: “It is noted the inlet pipes at Basin #2 are shown below the permanent water level in that basin. It was noted by the design engineer that site constraints at this location necessitated placing these inlet pipe inverts below the permanent water level. Additional hydraulic calculations were provided showing that the pipes will function in this situation and flood volume water levels won’t rise above the rim elevations of the drainage structures causing flooding or uncontrolled release of runoff.” The additional calculations were required to show the functionality of the inlets during the engineering review because of the submerged condition. It should be noted that there is not a specific MDEQ Nonpoint Source Best Management Practices (BMP) Manual section that addresses inlet pipes nor a section in applicable individual BMPs. This existence of a submerged inlet pipe would not be a new occurrence in Grand Traverse County either. The Grand Traverse Mall and Grand Traverse Crossings, both similar large retail developments, are believed to have storm water ponds with submerged piping.

5. Undersized Emergency Overflow:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(iii), Storm Water Facilities, Detention Systems, Controls, Emergency Overflow (at page 18), requires that the detention system must have a spillway “designed for the 100-year rainfall event from the fully developed watershed.” The Township staff review memos do not include any analysis of the spillway volume capacity for each detention system. Our cursory calculations show the spillway is undersized for even a 10-year storm, let alone a 100-year storm. The Applicant should provide, and Township consultants should verify, that the spillways meet this Ordinance requirement.

Moreover, Section 2(E)(3)(d)(iii) requires that the emergency spillway shall have a “maximum flow depth of 1 foot” and that the “top of the berm elevation shall be a minimum of 1 foot above the design maximum water level.” This appears to require a minimum 2-foot berm. The storm water plans indicate a 1.5-foot deep channel along the wetlands, less than the Ordinance minimum.

The first three sentences of the section referenced on page 18 by TWC reads as follows: “All detention systems must have a provision for overflow at the high water level. A spillway shall be designed for the 100-year rainfall event from the fully developed watershed with a maximum flow depth of 1 foot. The spillway shall be sized using the weir equation:” The plans and calculations provided by GTTC engineers for review dated 5/5/2015 show the main provision for overflow at the high water level being through the top of the outlet structure itself and the spillway is a secondary provision.

The Ordinance requires a flood control volume based on the 25 year storm event for the entire

contributing area. This requirement has no provision for outflow that would occur from the basin during the storm. The provided calculations for each watershed show that the runoff generated from this storm event is entirely detained in each basin and no overflow occurs through either the outlet structure or spillway. Additional modeling of the 100 year storm event with outflow included was also provided in the calculations. Those calculations also show the peak runoff from that event being contained in the basins. The expected basin elevations for each watershed area are noted as:

Basin #1:	Top of berm: 660.80 Overflow elevation: 659.80 Ordinance 25 year flood elev: 659.54 100 year modeled flood elev: 658.74
Basin #2:	Top of berm: 654.51 Overflow elevation: 653.51 Ordinance 25 year flood elev: 652.63 100 year modeled flood elev: 651.34

To summarize, the 25 year flood elevation for Basin 1 is .26 feet below the overflow elevation and 1.26' below the top of berm. The 100 year flood modeled elevation is 1.06 feet below the overflow elevation and 2.06 feet below the top of berm. The 25 year flood elevation for Basin 2 is .88 feet below the overflow elevation and 1.88' below the top of berm. The 100 year flood modeled elevation is 2.17 feet below the overflow elevation and 3.17 feet below the top of berm.

It has always been pointed out in our reviews that the impervious areas included in the plans and calculations provided by GTTC have been only the phase 1 build-out of the development. Storm water from future build-outs will be addressed on a site by site basis and additional review will be required. Addition controls at each site and adjustments to the system may be needed to keep the volumes and release rates at acceptable levels.

6. Wetland Swale Outlet Deficiencies:

The Storm Water Control Ordinance, Section 2(C)(3)(b), Grassed Waterways, Soil Erosion and Sedimentation Control (at page 6), requires that "grassed waterway flow velocities shall be neither siltative or erosive." The DEQ BMP Manual for Riprap-Stabilized Outlet (at RO-2) provides that outlets "on slopes steeper than 10 percent cannot be protected by rock aprons or riprap sections due to re-concentration of flows and high velocities encountered after the flow leaves the apron." The BMP Manual (at RO 1 to RO 4) also provides that the apron should be twice the diameter of the outlet, with no slope along its length, and with non-woven geotextile fabric lines.

Contrary to the DEQ BMP Manual, the wetland swales from both Basins discharge at the top of slopes that appear greater than 10%. Moreover, the swale discharge from both Basins is likely to be at high volume and velocity due to channel size and design. Additionally, the rip-rap apron at the swale outlet for each Basin does

Mr. John Iacoangeli
Ms. Karly Wentzloff
Page 6 of 6
October 5, 2015

not meet the DEQ BMP Manual, since the apron is the same diameter as the outlet, is sloped, and is lined with woven geotextile fabric.

The slopes of the rip rap aprons where the pipe outlets are at the upstream ends of the swale were measured with a smart level for both swales. Measurements of about 5% were obtained on the rip rap at the outlet pipes from both basins. It appears these pipe outlets are at slopes well below 10%. The outlet pipes from each basin are 24 inch diameter. The riprap aprons at these outlets are also over four feet wide.

The slopes of the rip rap aprons located at the lower ends of the swales where they discharge were also measured. The slope of the apron at swale 1 was approximately 2%. The slope of the apron at swale 2 was about 4%. The 10% slope criteria cited is only mentioned for pipe outlets in the cited BMP.

Overall, the storm water control system and detention basins that have been constructed have the capacity to detain the required runoff volumes from the phase 1 GTTC build-out to the Acme Township Storm Water Control Ordinance standards. The runoff is released downstream at rates below the maximum allowed per the Ordinance. This meets the requirements of the SUP for the development which says "The Applicant shall use innovative storm water control techniques which shall conform to the Best Management Practices to remove sediment, capture nutrients, and pollutants, and provide infiltration of the storm water throughout the site." Failure of the system under the required storm events and the 100 year storm event is unlikely. The site is currently restored and stabilized and the storm water system is functioning well.

Sincerely,

GOSLING CZUBAK



Robert M. Verschaeve, P.E.
Project Engineer

October 7, 2015



John Iacoangelli
Project Manager
Beckett and Raeder
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Subject: Comment Response to Watershed Center Comment Letter dated Aug, 25 2015

Dear Mr. Iacoangelli:

Having discussed item 3 on the comments list (The Watershed Center Letter dated Aug. 25, 2015) with Kara Grisamer, (Cardno storm water engineer), we have come to agreement on the following from our Point of View.

1. The system is designed to handle the site runoff as proposed in its final construction configuration. The final plan encompasses a great deal more impermeable surfaces and surface water routing infrastructure feeding hydrology into the basins. The greater input will result in a higher volume of water retention as per the design plan. The current state of the site consists of a large proportion of open, vegetated ground. This condition is more conducive to water infiltration, plant uptake and increased retention time on the ground surface. Impermeable surfaces associated with the final build plan, as proposed, will provide adequate hydrology to the basin to sustain hydric conditions.
2. Drought conditions adversely affect all wetland habitats either natural or constructed. In constructed wetlands, the idea is to develop a planting plan of site specific vegetation that is suited to normal conditions or at least proposed normal conditions. Once the site is inoculated with the species proposed in this plan, the expectation is that normal site conditions will allow the vegetative community to establish and proliferate over time. Given several seasons of growth the community should be established and able to rebound from unpredictable drought mortality similar to conditions in a natural system. It would be appropriate during dry conditions to implement the long term maintenance plan that is inherent with any constructed wetland and conduct augmentation plantings, watering regimes and take community restoration measures. It must be understood that wet detention basins are not the same as mitigation wetlands or wetland enhancements. These systems are inherently and purposefully disconnected from direct groundwater influence to allow the treatment of "first flush" runoff prior to discharge into natural systems.
3. Observations made by Cardno biologists on July 14th and 17th noted the low flow conditions within the basin. It was also noted that sprinklers were present to support the plantings at this early stage. It was noted that this protocol may be necessary for some time. Plug planting are vulnerable within the first season of installation and seed stock takes time to establish. No subsequent site inspections have been made to date. It is expected that the system conditions will change dramatically upon final construction.

Beckett and Raeder
October 7, 2015

2



Cardno is always available for follow up site inspections or site remediation consultation at the convenience of the Township. Should you wish to discuss our findings, I am available to you at any time and look forward to the discussion.

Sincerely,

A handwritten signature in black ink that reads "Adam Crowe".

Adam Crowe
Senior Project Scientist
Cardno
616-847-1680 x13
Email: adam.crowe@cardno.com



October 5, 2015

VIA E-MAIL

Karly Wentzloff, Chairperson, Acme Township Planning Commission
John Iacoangeli, Beckett & Raeder, Inc., Township Planner
Acme Township Planning Commission
6042 Acme Road
Traverse City, MI 49690

RE: VILLAGE AT GRAND TRAVERSE, STORMWATER COLLECTION AND TREATMENT SYSTEM

Dear Chairperson Wentzloff and Mr. Iacoangeli:

The purpose of this correspondence is to respond to concerns raised by The Watershed Center ("TWC") in August 25, 2015 correspondence to you and the Planning Commission regarding the storm water management system at the Grand Traverse Town Center ("GTTC") site in Acme Township, Grand Traverse County, Michigan. This response was developed by Horizon Environmental Corporation ("Horizon") on behalf of the Village at Grand Traverse, LLC ("VGT"), based on Horizon's work with you and other consultants and representatives of Acme Township to demonstrate the adequacy of the storm water management system. Horizon's responses are presented below following re-iteration of the TWCs comment.

TWC Comment:

1. Inaccessible Locations of Outlet Control Structures

The Storm Water Control Ordinance, Section 2(E)(3)(d)(ii)(10), Storm Water Facilities, Detention Systems, Outlet Design (at page 18), requires that "Outlet control structures shall be placed near or within the embankment to facilitate maintenance access." Similarly, the Michigan Department of Environmental Quality Nonpoint Source Best Management Practices Manual (DEQ BMP Manual) for Wet Detention Basins (at WDB-3) provides that "All outlets should have an accessible, above-ground cap to allow easy cleaning. The outlet should be designed so that trapped trash and debris can be easily removed."

The outlet control structure for each Basin is located more than 30 feet from the Basin embankment and will be submerged when the Basin is full. It will likely be necessary to pump down the Basin or use a boat or waders to reach the outlet control for maintenance and cleaning. These impediments to routine inspection will likely result in less frequent and less effective inspections, maintenance, and cleaning. Further, the inaccessible location will lead to delayed emergency blockage removal.

Horizon Response:

This comment suggests a fundamental misunderstanding of the how the basins are designed to function and, in particular, the design of the outlet control structures. Except under the most unusual of circumstances (i.e., a rainfall event that occurs once every 100 years) the outlet control structure will not be submerged. Rather, at most times, the level of water in the basins will be such that the base of the outlet control structures can be accessed by walking through standing water on the shelves of the basin with a depth of one foot or less. The need to walk through water with a depth of one foot or less clearly does not represent an impediment to the required maintenance or cleaning of these structures.

TWC Comment:

2. Narrow Outlet Riser Pipe:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(ii)(8), Storm Water Facilities, Detention Systems, Outlet Design (at page 17), requires that “Riser pipes greater than 5 feet in height shall be 48 inches in diameter.” As noted above, the DEQ BMP Manual for Wet Detention Basins (at WDB-3) provides that the outlets should allow for easy cleaning and blockage removal.

The riser pipes for both Basins are over 8 feet in height with a 36-inch diameter. The deficient pipe diameter limits accessibility to the bottom of the structure for cleaning and removing blockages from the inlet orifices and outlet pipe.

In a June 18, 2015, letter, Mr. Iacoangeli waived the requirement to comply with the 48-inch diameter provision in the Ordinance on two bases: installing new risers would delay site revegetation, and the narrow riser pipe “can be adequately cleaned.” There is no explanation for how installing wider outlets inside the Basins would delay site re-vegetation. Further, there may be ways to minimize downtime of the Basins by, for example, constructing new outlets offsite or alongside the existing outlets while they remain in service. Moreover, the risks associated with system failure due to limited accessibility outweigh potential site revegetation delays caused by repairing the issue, so it is short-sighted to waive the sizing requirement on this basis. Finally, as a practical matter, it is difficult to understand how to easily clean the bottom of a 36-inch pipe, and the outlet pipe located within it, inside an 8-foot riser located 30 feet from a berm.

Horizon Response:

The hydraulic capacity of outlet riser pipe has been reviewed and determined to be more than adequate. The results of the evaluations are documented in Township files.

With respect to maintenance accessibility, the ordinance cited in the comment is performance-based not prescriptive (i.e., are the structures wide enough to allow access to remove debris and other materials that may prevent discharge). Field review by VGT and Acme Township’s engineers indicated that the outlets are wide enough to allow necessary maintenance of the structures to be readily completed. A maintenance plan is under development by VGT that will outline procedures and a proposed frequency for cleaning of these structures. The waiver granted here was justified based on the performance standard and no difficulties have been encountered in the maintenance of the inlet orifices and outlet structures.

TWC Comment:

3. Lack of Base Flow Supply for Wet Detention Basins:

The Storm Water Control Ordinance, Section 2(E)(3)(a), Storm Water Facilities, Detention Systems, Physical Feasibility (at page 15), requires that “A reliable supply of base flow is required for wet basins to prevent excessive drawdown of the permanent pool.” The wet basin design does not identify a source of basin replenishment to sustain the design level. Wet detention ponds rely on physical, biological, and chemical processes to remove pollutants from influent stormwater. A wet basin pond replenished only by rainfall will be subject to occasional drawdown from drought. An unstable wet basin will stress and reduce the vegetation, thereby impairing the effective stormwater treatment capacity of the facility. The lack of reliable base flow supply was also identified recently by the Township consultant, Cardno Environmental, during site visits on July 14 and 17, 2015, that documented low water levels in both Basins.

Horizon Response:

The basins have been designed using sound engineering practices to assure that water elevations on the “shelves” of the basins can be maintained over long periods without rainfall. The inspections by Cardno in July referenced in TWC’s comment were completed at a time when water levels in the detention basins were being actively pumped down by VGT to facilitate completion of construction of the swale outlets, to avoid inundation of new plants, and to assure that the water quality of Acme Creek was protected during active land disturbance activities associated with plant installation and swale modifications. This practice has been discontinued as the site has been stabilized through propagation of vegetation and water levels in the detention basins have, as a result, stabilized at normal expected levels which are supportive of basin wetland vegetation. The proof is evident in the fact that the newly planted wetland vegetation in the basins and swales is thriving under appropriate levels of soil saturation, despite having been planted late in the planting season (when dry conditions prevailed), and water quality in the storm water discharge from the site has improved and is consistently good.

Additional specific responses to the findings of Cardno’s July 23, 2015 inspection report are presented in September 16, 2015 correspondence from Matt Stone-Palmquist of King and MacGregor Environmental, Inc. (“KME”), to John Iacoangeli. In general terms, the September 15 correspondence from KME suggests that Cardno’s July inspections were completed too soon to assess wetland species survival and the initial plantings in the basins and swales are establishing as planned.

TWC Comment:

4. Submerged Inlet Pipes:

The Storm Water Control Ordinance, Section 2(E)(3)(d)(i)(1), Storm Water Facilities, Detention Systems, Controls, Inlet Design (at page 16), requires that “Inlet pipes shall not be fully submerged at normal pool elevations.” The two 48-inch inlet pipes at Basin #2 are both 4 feet below the permanent water level. Having submerged inlet pipes leads to maintenance problems and potential issues related to freezing, increasing the likelihood of overflows and other problems. The Township dismissed this requirement without showing the waiver criteria were met (see May 7, 2015, Technical Memo – Storm Water Review from R. Verschaeve, at page 2).

Horizon Response:

With regard to the elevations of inlet piping to storm water detention basin #2, site grading, cut/fill balance, access road location and elevation, size of basin, conceptual structures impacted, sequence of future build-out and the physical requirements necessary to build Basin #2 were all considered when invert elevations were established. Based on these considerations, inlet invert elevations were set such that inlet pipes would be submerged (top of pipe equal to permanent pond water elevation of 649.00). An evaluation was done to insure that storm water at its highest possible elevation (the top of berm elevation of 654.51) was lower than the lowest rim elevation of any catch basin (CB-53A rim elevation of 655.50) delivering flow to Basin #2.

The basin, pond, related piping and catch basin form an open system which is affected by atmospheric pressure and gravity only. Because of this open system, and given a steady liquid flow, the Bernoulli equation is applicable. When considering the equation and its application to the inlet piping, it can be seen that the pressure head on both sides of the equation are equal and cancel (due to it being an open system) and that the velocity heads on both sides of the equation are also equal because the inlet piping will be completely full of water during significant rainfall events. The only remaining components of the equation are the dimensions from any reference line to the liquid surfaces open to the atmosphere. Therefore, for the system to be in equilibrium, both reference elevations must be the same and thus both water surfaces the same, except for differential that will result from frictional losses due to flow in the inlet piping.

The potential for significant frictional losses in the inlet piping under peak flow conditions, including pipe entrance and exit losses, was assessed via Darcy-Weisback/Colebrook method for full (i.e., pressure) flow in pipes. Based on the very conservative simplifying assumption that the entirety of the peak storm water flow rate predicted by the HydroCAD 100 year rainfall analysis (72 cubic feet/second) is routed entirely through one of the two 48-inch diameter inlet pipes, we calculate a frictional loss of 0.96 feet. This frictional loss would be manifest as an increase in the water elevation in the catch basin immediately upstream of basin #2 of less than 0.96 feet which will not materially change flow conditions in this manhole nor cause the rim of the manhole to be overtopped.

TWC Comment:

5 Undersized Emergency Overflow

The Storm Water Control Ordinance, Section 2(E)(3)(d)(iii), Storm Water Facilities, Detention Systems, Controls, Emergency Overflow (at page 18), requires that the detention system must have a spillway “designed for the 100-year rainfall event from the fully developed watershed.” The Township staff review memos do not include any analysis of the spillway volume capacity for each detention system. Our cursory calculations show the spillway is undersized for even a 10-year storm, let alone a 100-year storm. The Applicant should provide, and Township consultants should verify, that the spillways meet this Ordinance requirement.

Moreover, Section 2(E)(3)(d)(iii) requires that the emergency spillway shall have a “maximum flow depth of 1 foot” and that the “top of the berm elevation shall be a minimum of 1 foot above the design maximum water level.” This appears to require a minimum 2-foot berm. The stormwater plans indicate a 1.5-foot deep channel along the wetlands, less than the Ordinance minimum.

Horizon Response:

This comment appears to suggest a misunderstanding of the Acme Township ordinance requirements and the nature/location of the emergency overflow spillways. The emergency spillways in question are the five foot long by one foot deep cuts in the berms of the storm water detention basins, which would allow controlled release from the basins to the swales in the event the engineered riser pipe/orifice structures were not functional. There are no emergency spillways “along the wetlands.”

The emergency spillways are each five feet wide with a nominal flow depth of one foot, providing an available flow area of 5 square feet, which, according to weir flow calculation methods, will accommodate a flow up more than 10 cubic feet/sec, which is greater than the design flow for all of the other release structures during a 100 year storm event.

Regarding the height of the berms, specific elevation data for the overflow spillways and design water elevations in the basins is summarized as follows:

Basin	Maximum Predicted Water Elevation (ft)	Base of Overflow Spillway Elevation (ft)	Top of Berm Elevation (ft)
Basin #1	658.74	659.80	660.80
Basin #2	651.34	653.51	654.51

As evident from review of the above, the maximum predicted water elevation in each basin is more than one foot below the base of the respective overflow spillway. The remainder of the basin berms is, in turn, one foot above the base of the respective spillway. Based on this, the emergency overflow spillways are compliant with the cited terms of the Acme Township Storm Water Ordinance.

TWC Comment

6. Wetland Swale Outlet Deficiencies:

The Storm Water Control Ordinance, Section 2(C)(3)(b), Grassed Waterways, Soil Erosion and Sedimentation Control (at page 6), requires that “grassed waterway flow velocities shall be neither siltative or erosive.” The DEQ BMP Manual for Riprap-Stabilized Outlet (at RO-2) provides that outlets “on slopes steeper than 10 percent cannot be protected by rock aprons or riprap sections due to re-concentration of flows and high velocities encountered after the flow leaves the apron.” The BMP Manual (at RO 1 to RO 4) also provides that the apron should be twice the diameter of the outlet, with no slope along its length, and with non-woven geotextile fabric lines.

Contrary to the DEQ BMP Manual, the wetland swales from both Basins discharge at the top of slopes that appear greater than 10%. Moreover, the swale discharge from both Basins is likely to be at high volume and velocity due to channel size and design. Additionally, the rip-rap apron at the swale outlet for each Basin does not meet the DEQ BMP Manual, since the apron is the same diameter as the outlet, is sloped, and is lined with woven geotextile fabric.

Horizon Response

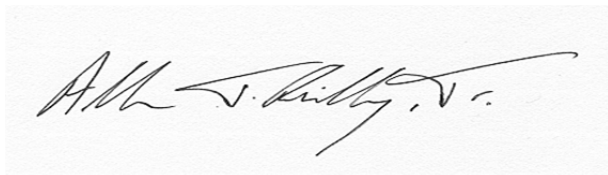
Our review suggests that discharge from the riprap aprons at the end of each swale is to a slope with an average grade significantly less than ten percent (discharge swale from Basin #1 at 5.1%, discharge swale from Basin #2 at 3.0%). In addition, release rates from each of the detention basins have been purposefully limited in accordance with the Acme Township Storm Water ordinance to assure modest volumes and low velocities in the discharge swales. Finally, and most significantly, no erosion has been observed at or downstream from either of the discharge aprons as a result of discharge from the storm water management system, which strongly suggests that the best management practices that have been employed by VGT are functioning in the intended manner.

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In closing, the design of the storm water management system at the GTTC site has been subject to multiple rounds of review as the detailed engineering necessary to bring the conceptual design contained in the approved SUP to a final, constructable storm water management system has been completed. These reviews confirm that the system is compliant with Township ordinance 2007-1 and consistent with MDEQ best management practice for constructed wetland storm water management systems and best engineering practice. These engineering reviews are corroborated by monitoring data which document that discharge from the finished system is excellent. In recent storm water events, the turbidity of the discharge from the basins entering the creek was observed to be better than the water quality in the creek itself. Horizon, on behalf of VGT, would like to extend an invitation to the Planning Commission and other members of the interested public to tour the site to observe the finished product.

Sincerely,

HORIZON ENVIRONMENTAL



Allen J. Reilly, Jr.
Director, Environmental Risk Management Services



Christopher A. Miron, P.E.
Director, Engineering

cc: Richard Bailey, GTBOC EDC