

**Town of Porter
Stormwater Management Board
303 Franklin Street
Porter, Indiana 46304**

MINUTES FROM THE MEETING OCTOBER 23, 2012

The meeting was opened at 5:00 pm with President Jon Granat leading the Pledge of Allegiance.

Officers Present-Jon Granat, President, Greg Stinson, Interim Member, Daniel Colbert, Treasurer. Also at the meeting were Tammie Sufana, Secretary, Brenda Brueckheimer, Public Works Director, and Warren Thiede from Haas.

Motion to approve August 28 meeting minutes as presented was made by Daniel Colbert, and second by Greg Stinson.

Motion passed 2-0

Motion to approve the claims for September 25-October 23, 2012 accounts payable voucher as submitted by Greg Stinson, second by Daniel Colbert.

Motion passed 3-0.

Motion to approve Treasurers report \$227,124.85 as balance now as presented was made by Greg Stinson, second by Jon Granat.

Motion passed 3-0.

Brenda Brueckheimer, Director of Public Works, MS4 audit we did well. Construction Audit MS4- ca e by mail today. Working on the correcting report will give us results at next meeting.

Top 5 drainage issues see attached report by Haas. 1. Ackerman & Franklin, 2. Porter Beach Project, 3. Oakhill, 4. Dune Meadows-priority one, and 5. Dunes forest Trl & Clark-item 13 on master plan. Warren asked if they were any questions about the plans. There is a lot of verbiage in the report. Best solutions for town & cost efficient.

New partnership with NIRPC. Handle national campaign for them we do smaller parts advertising they do larger. Annual meeting is on October 24, 2012.

Brenda started a storm water face book page. Like us on it. Look at Chesterton Website getting some ideas.

Jon is going to talk to the attorney on Worthington and the storm water fee. Warren is going to look through his notes also on it. Postponed until next month.

Dune Meadows- not sure who does repairs. It is a Town drainage easement. Jon is going to talk to attorney to see who has to maintain the property. Brenda suggested Mike talk to attorney seeing he has been out there.

NPS was disputing there storm water charges since they went into effect on September 20, 2012 NPS will now be paying all storm water charges.

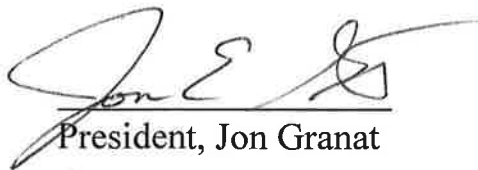
Shirley Heinz Land Trust- Jon is going to talk to the attorney about combining and possibly deleting the fees.

There was no new business to report.

There was no public comment

A motion to adjourn was made by Greg Stinson, second by Dan Colbert.
Motion passed 3-0.

The meeting adjourned at 5:34 P.M.



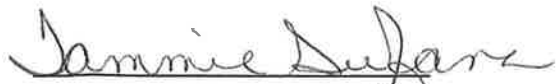
President, Jon Granat



Interim Member, Greg Stinson



Treasurer, Daniel Colbert


Secretary, Tammie Sufana

MEMORANDUM TO TOWN OF PORTER
PROPOSED STORM DRAINAGE PROJECTS -2012,
AS PROVIDED BY TOWN OFFICIALS
October 16, 2012

This document is being prepared at the request of Porter Public Works Director, in order to provide the Porter Stormwater Management Board with a preliminary outline of work tasks to be performed, or options to be determined, for the five drainage improvement projects. Included within the narrative is a preliminary estimated construction cost range, to be narrowed down once design has begun and the work scope is better defined. Also included is an estimated engineering design fee for the proposed work. The projects listed herein were supplied by the Town, and are as follows:

1. Ackerman and Franklin: Ditch and Culvert Improvements

- a. Town employees jetted out existing storm culverts on north and south sides of Franklin Street from Waverly Road to the east end of Franklin, to determine condition. They determined that all existing culverts under the drives are in good condition, and do not need to be replaced. However, the ditch between the drive at 630 Franklin and the culvert under Ackerman Drive on the north side of Franklin was in poor condition, and the culvert under Ackerman Drive is collapsed. Also, the existing culvert under the drive at 661 Franklin is collapsed. In addition, it was found that there are multiple culverts connected to one culvert in the ROW at the NE corner of 655 Franklin. The connection between culverts was constructed with an old tire and black plastic yard bags.
- b. Further investigation by Haas & Associates (HA) found the ditch east of Ackerman to be shallow and not well defined. County records indicate the property where the ditch is located is owned by a Living Trust, from Elk Grove Village, IL.
- c. The ditch work will require an U.S. Army Corps of Engineers (USACE) Nationwide Permit #3, which permit requires a wetland delineation survey, State Historic Preservation Officer (SHPO) and US Fish and Wildlife Service (USFWS) reviews.
- d. HA understands the scope of services to include:
 - 1) complete a topographical survey of the project area, from approx. 50 feet west of the drive at 630 Franklin to 50 feet east of the Franklin/Ackerman intersection;
 - 2) re-grade and reshape approx. 100LF of ditch and side-slopes on North side of Franklin, from Ackerman to the west side of the 630 Franklin driveway. Design will include grass side slopes, riprap bottom and check dams, at a minimum;
 - 3) replace culvert under Ackerman at North side of Franklin;
 - 4) clean out exist ditch on NE corner of Franklin and Ackerman at outfall of new culverts (within the street R.O.W.);
 - 5) install a new inlet with beehive casting at the location where multiple culverts were incorrectly connected to one culvert in the R.O.W. at the NE corner of 655 Franklin, and install one culvert (to be sized based on flow calculations) from the new inlet to the existing ditch to the north;
 - 6) Other BMP options will be reviewed.
- e. Discussions with the Town for further consideration should include obtaining the necessary easements and permits to improve the existing ditch from the easterly R.O.W. of Ackerman to the Little Calumet River.
- f. The preliminary estimated construction cost range for this work is \$11,850 to \$16,000, and does not include the cost of any easements.

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- g. The estimated engineering design fee for the work as described above is \$7,000, and does not include permitting (see Area 5, Item g) or easement acquisition.

2. North end of Market Street, Porter Beach:

- a. A significant amount of storm water travels north down Market Street. The current solution to handling the storm water flow is via trying to channelize the flow into an existing 15" HDPE flexible pipe that runs down the side of the dune and outfalls on a dune grass at beach level. However, the 15" HDPE flexible pipe is broken at an acute bend in the pipe approx. 5' from the point of entry of the storm water, causing severe erosion of the dune and sand under the north edge of the road pavement, and including an area below the adjacent wooden stairway that accesses the beach.
- b. HA to design a conveyance system to take storm water from the end of the street to an existing "vegetated filter strip" at bottom of dune. We propose to:
 - 1) complete a topographical survey of the project area, from approx. 100 feet south of the end of the Market Street pavement to 100 feet north of the base of the dune;
 - 2) design a 15" wide x 60" long catch basin (CB) structure set in a poured concrete pad, to channel all storm flow into the CB. An Ultra Urban Filter (BMP), as manufactured by Abtech Industries, could be installed in the CB to reduce hydrocarbon and other roadway deposits from washing down to the beach area;
 - 3) design a pipe (may be installed by HDD methods?) from the CB to the bottom of the dune. Pipe bends may be necessary at the top and bottom of the dune;
 - 4) design a riprap basin at the bottom of the dune at the pipe outfall, to reduce the flow velocity and allow the storm water to be absorbed into the sand;
 - 5) design a way to stabilize the existing dune (and stairway) from further erosion.
- c. Brenda B stated it is very likely that the neighbor on the West side of the Market Street R.O.W. would probably grant a permanent drainage easement if necessary.
- d. The preliminary estimated construction cost range for this work is \$23,400 to \$30,000, and does not include the cost of any easements.
- e. The estimated engineering design fee for the work as described above is \$7,200, and does not include easement acquisition.

3. West Oak Hill Road, from approx. 250' West of Waverly Road (at exist. ditch) to Mineral Springs Road:

- a. TOP wants to re-establish approx. 2400 LF of existing ditch line, along with necessary driveway culvert replacements, along the North side of West Oak Hill Road, from Mineral Springs Road to an existing ravine approximately 250 feet west of Waverly Road. TOP also requested that shoulder grading on the south side of Oak Hill Road at the ravine be included in the work to eliminate a standing water condition on the pavement during rain events.
- b. The ditch work will require an U.S. Army Corps of Engineers (USACE) Nationwide Permit #3, which permit requires a wetland delineation survey, State Historic Preservation Officer (SHPO) and US Fish and Wildlife Service (USFWS) reviews.

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- c. HA understands the proposed scope of services to be as follows:
 - 1) complete a topographical survey of approx. 2500 LF of Oak Hill, from the Road centerline to 20 north of the North R.O.W.;
 - 2) replace all existing culverts under drives that are collapsed or in poor condition along the route, to be sized based on storm flow calculations;
 - 3) provide plan and profile drawings depicting the existing conditions and proposed improvements;
 - 4) identify all trees to be removed for the new ditch work;
 - 5) provide erosion protection methods at ditch outfall locations; and
 - 6) provide check dams and other BMP' as necessary.
- d. The ROW north of the existing pavement may not be wide enough to include all the new work within the ROW; it may be necessary to obtain permanent drainage easements from at least some of the adjacent property owners along the route. Permits from USACE will also be required.
- e. The preliminary estimated construction cost range for this work is \$60,600 to \$66,000, and does not include the cost of any easements.
- f. The estimated engineering design fee for the work as described above is \$10,200, and does not include permitting (see Area 5, Item g) or easement acquisition.

4. Dune Meadows Drive (DMD):

- a. Culvert under roadway appears to have collapsed on East side of DMD between 1095 and 1075 DMD; TOP attempted to jet out existing storm culvert from the west side of DMD to the pond, to determine condition – could not pass due to blockage; TOP also attempted to jet out existing storm culvert along the east side of DMD between 1075 and 1055 DMD, to determine condition – discovered a 19 foot blockage in the pipe 116 feet from the northerly inlet and 34 feet from the southerly inlet; the existing inlet on the east side of 1075 DMD is not at a low point in the curb – there is evidence of a low point in the curb approx. 10 feet to the north of the inlet.
- b. HA understands the proposed scope of services to be as follows:
 - 1) complete a topographical survey of the Project Area to determine the existing storm system layout, and existing grades in the Park area;
 - 2) provide plan and profile drawings depicting the existing conditions and proposed improvements (2 locations) (TOP does NOT want us to extend the work all the way to the existing pond east of the Park if it requires Permits);
 - 3) provide design drawings for a proposed Rain Garden in the Park area to provide an outfall for the low point in the curb line.
- c. The preliminary estimated construction cost range for this work is \$19,000 to \$24,000.
- d. The estimated engineering design fee for the work as described above is \$5,500, and does not include permitting.

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5. Dune Forest Trail and Clark Streets

- a. TOP wants to solve a portion of AREA 13 from the 2009 Storm Water Master Plan, as follows:
The existing culverts along Dune Forest Trail are undersized, plugged and/or damaged, blocking the natural drainage pattern and causing flooding 1) on Dune Forest Trail, 2) in the area south of Knoelke, and 3) in the area between Clark and Cedar Streets along Knoelke. The proposed project will solve point #1, above.
- b. The ditch work will require an U.S. Army Corps of Engineers (USACE) Nationwide Permit #3, which permit requires a wetland delineation survey, State Historic Preservation Officer (SHPO) and US Fish and Wildlife Service (USFWS) reviews.
- c. HA understands the proposed scope of services to be as follows:
 - 1) complete a topographical survey of the Project Area to determine the existing storm system layout, and existing grades along Dune Forest Trail;
 - 2) provide plan and profile drawings depicting the existing conditions and proposed improvements along Dune Forest Trail from west of Clark Street to east of the Dune Forest Trail/ Triangle Trail intersection;
 - 3) provide erosion protection methods at ditch and culvert outfall locations; and
 - 4) provide check dams and other BMP' as necessary.
- d. The ROW north of the existing pavement along Dune Forest Trail may not be wide enough to include all the new work within the ROW; it may be necessary to obtain permanent drainage easements from the Indiana Dunes National Lakeshore (IDNL). Permits from IDNR or USACE may also be required.
- e. Coordination with IDNL will also be required to replace the existing culvert under Clark Street; they are the property owners west of the Clark Street ROW.
- f. The preliminary estimated construction cost range for this work is \$56,400 to \$65,000, and does not include the cost of any easements.
- g. The estimated engineering design fee for the work as described above is \$10,100, and does not include permitting or easement acquisition. The Soils Scientist Fee that would prepare the various required permits for Areas 1, 3 and 5 is estimated to be \$13,500, and was based on completing all three areas at the same time, to provide efficiency of time.

6. Conclusions and Recommendations:

- a. It is understood that TOP Stormwater Board has a limited budget and may not be able to correct all of the above drainage issues in the 2012 fiscal year. All five of these projects have merit and are necessary to complete. However, HA would offer the following priority for a proposed project completion schedule, based on the potential for public and private property damage:
 - 1) Dune Meadow Drive Culvert Replacement and Drainage Improvements (Area #4);
 - 2) North end of Market Street, Porter Beach (Area #2);
 - 3) Ackerman and Franklin Street Drainage Improvements (Area #1);

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- 4) Dune Forest Trail and Clark Street Ditch Improvements and Culvert Replacement (Area #5) (may require formal bidding process due to estimated construction costs), and;
 - 5) West Oak Hill Road Ditch and Culvert Improvements (Area #3) (may require formal bidding process due to estimated construction costs).
- b. In addition to these projects listed above, the Board will recall that the Board approved to pay for the design of the Waverly / Amtrak Stormwater System Improvements was made at the July meeting, with an estimated cost not to exceed \$6,000. The estimated Construction and contract administration costs for the work is approximately \$60,300, and does not include easement acquisition.
- c. A spreadsheet is attached that summarizes the proposed projects and defines some of the issues related to each. Haas and Associates is available to meet with the Board at your earliest convenience to discuss the projects listed above and to answer any questions you may have.

**SUMMARY OF ESTIMATED PROJECT COSTS - 2012 STORM DRAINAGE IMPROVEMENTS PROJECT
STORMWATER MANAGEMENT BOARD
TOWN OF PORTER, INDIANA**

Project Area	Project Description	Construction Cost Estimate, Low Range	Construction Cost Estimate, High Range	Engineering Design Fee (Approx.)	USACE Permit Preparation Fee (Approx.)	Total Estimated Cost, Low Range	Total Estimated Cost, High Range	Permits Required?	Stakeholder Coordination	BMP Options	Hurdles to Overcome?
1	Ackerman and Franklin Street Drainage	\$11,850.00	\$16,000.00	\$7,000.00		\$18,850.00	\$23,000.00	USACE Nationwide Permit #3	Easement from property owner?	Check Dams	Possible Easement Required from property owner
2	North end of Market, Porter Beach	\$23,420.00	\$30,000.00	\$7,200.00	The Soils Scientist Fee that would prepare the various required permits for Areas 1, 3 and 5 is estimated to be \$13,500	\$30,620.00	\$37,200.00		Easement from property owner?	Hydrocarbon / Sediment Filters	Possible Easement Required from property owner
3	West Oak Hill Road Ditch and Culvert Improvements	\$60,620.00	\$66,000.00	\$10,200.00		\$70,820.00	\$76,200.00	USACE Nationwide Permit #3	Easement from multiple property owners? Coordination with IDNL?	Check Dams	Possible Easements Required from property owners
4	Dune Meadow Drive Culvert Replacement	\$19,200.00	\$24,000.00	\$5,500.00		\$24,700.00	\$29,500.00		Coordination with Porter Park Board	Rain Garden	Approval to construct Rain Garden on Park Property
5	Dune Forest Trail and Clark Street Ditch Improvements and Culvert Replacement:	\$56,440.00	\$65,000.00	\$10,100.00		\$66,540.00	\$75,100.00	USACE Nationwide Permit #3	Coordination with IDNL	Check Dams	Possible Easement required from IDNL
Sub-Total Preliminary Estimate of Construction Costs, All Areas =		\$171,530.00	\$201,000.00								
Sub-Total Estimate of Eng. Design Costs, All Areas =				\$40,000.00							
Sub-Total Estimate of Permit Preparation Fee, Areas 1, 3 and 5 =					\$13,500.00	\$13,500.00	\$13,500.00				
Total Preliminary Estimate of Project Costs, All Areas =						\$225,030.00	\$254,500.00				