

AGENDA

LAKE COUNTY DRAINAGE BOARD and ADVISORY COMMITTEE WEDNESDAY, MAY 18, 2016

Advisory Committee Meeting-8:00 A.M. Drainage Board Meeting-9:00 A.M.
Both Meetings Held in the Commissioner's Courtroom, Lake County Government Center
2293 North Main Street, Crown Point, IN 46307 Phone-219-755-3745 Fax 219-755-3750

Lake County Drainage Board

Gerry J. Scheub, Chairman
Michael C. Repay, Member
Kyle Allen, Sr., Member
Peter Katic, Drainage Board Attorney

Technical Support

Bill Emerson Jr., Lake County Surveyor
Daniel V. Gossman, Drainage Administrator
Rich Budziak, MS4 Coordinator
Clifford E. Duggan Jr., Legal Consultant
Mary Ellen Kupsik, Drainage Board Secretary

NOTE: All motions and votes by the Advisory Committee are recommendations to the Lake County Drainage Board and are not final actions. The Lake County Drainage Board is the agency having the authority to act under Indiana Statute.

1. Meeting Called to Order – Pledge of Allegiance

A. Emergency Exit Announcement: In case of emergency, exit the Commissioners Courtroom and proceed to the stairs and go to the second floor and exit the building. Do not enter an elevator in an emergency. If you require assistance, an employee will escort and/or assist you. Please silence any cellular telephones during this meeting. If you receive a call/text during this meeting, please excuse yourself with as little disruption as possible.

2. Roll Call

3. Agenda

- A. Additions, Deletions, and/or Corrections
- B. Permission to Open Bids/Proposals

4. Minutes

- A. April 20, 2016

5. Reports – Correspondence – Information for the Record

A. Advisory Committee By Township

1. Letter from Frank Mrvan, North Township Trustee to County Surveyor Bill Emerson, Jr. regarding appointment of Jamie Blankman as North Township Advisory Committee Representative.
2. **Certificate of Appreciation for Barney Stodola**

B. Little Calumet River Watershed

1. Indiana Department of Natural Resources “Certificate of Approval” for “Construction in a Floodway” to Indiana Department of Transportation for a twin bridge structures over Burns Ditch in Hobart.
2. Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson, Jr. regarding relocation of beavers and removal of dams.
3. **Cady Marsh Ditch, North Twp.**
Email from Natalie Conlon of NIPSCo to Drainage Administrator Dan Gossman regarding “inadvertent discharge” into Cady Marsh Ditch.
4. Other.

C. Kankakee River Watershed

1. Kankakee River, Cedar Creek Twp.

- Email from Elisa Abraham, Enterprise Products to County Surveyor Bill Emerson, Jr. regarding pipeline work near the Kankakee River.
- Letter from Drainage Administrator Dan Gossman to Elisa Abraham regarding review of request.

2. M.J. Brown Ditch, Eagle Creek Twp.

- Letter from Luella Hillen, CEC to County Surveyor Bill Emerson, Jr. regarding the INDOT replacement of State Route 2 bridges over M.J. Brown Ditch.

3. McConnell Ditch-Cedar Creek-Singleton Ditch, Cedar Creek Twp.

- Post Tribune news article regarding the Public meetings held with property owners.

4. Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson, Jr. regarding relocation of beavers and removal of dams.

5. Other

D. Current Projects - Little Calumet River Watershed

1. Hart Ditch, St John Twp. (State Line to US Highway 30, - Dyer)

2. Niles Ditch, Center & Winfield Twps. (113th to Gibson Street)

3. Cady Marsh Ditch - Highland, North Twp. (Hart Ditch to Cline Ave, Highland)

- Review and recommendation for approval of partial payment of \$64,274.73 from Al Walus (CBBEL). Contractor: KDM Services, LLC.
- Letter from Al Walus (CBBEL) to County Surveyor Bill Emerson, Jr. regarding recommendation for approval of change order for “Scope of Work Reductions” in the amount of \$7,727.00. Contractor: KDM Services, LLC.
- Review and recommendation for approval of partial payment of \$43,293.05 from Al Walus (CBBEL). Contractor: KDM Services, LLC.

4. Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.

- Review and recommendation for approval of partial payment of \$68,443.70 from Drainage Administrator Dan Gossman. Contractor: Austgen Equipment.

5. Cady Marsh Ditch – Griffith, Calumet Twp. (Cline Ave to Colfax St, Griffith)

6. Turkey Creek Lateral #6–Emergency Culvert Replacement, Ross Twp. (61st Ave)

7. Main Beaver Dam Ditch, St John Twp., (East of Blaine Street)

8. Other

E. Current Projects - Kankakee River Watershed

1. Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.

- Review and recommendation for approval of final payment of \$2,000.00 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

2. West Creek Maintenance, Hanover Twp. (125th Ave to 133rd Ave)

3. Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp. (Cedar Creek to Monon Road)

- Review and recommendation for approval of partial payment of \$61,495.80 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

4. Ernie Niemeyer Creek & Levee – Phase IV, West Creek Twp. (Stateline to US 41)

5. Stoney Run Ditch West Branch – Emergency Bank Repair, Eagle Creek Twp.

- Review and recommendation for approval of partial payment of \$19,151.77 from Drainage Administrator Dan Gossman. Contractor: Austgen Equipment.

6. Other

F. Geographic Information System

6. Applications / Petitions

A. Main Beaver Dam Ditch, Center Twp.

Applicant: St George Serbian Orthodox Church

Application to “Perform Work”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of replacing failed culvert crossing.

B. Other

7. MS4 Water Quality

A. Capital Projects Status Report

1. 41st Avenue Storm Sewer Project, Calumet Twp.

2. 133rd Avenue / S.R. 55 Storm Drainage Project, Center Twp.

3. Upper Beaver Dam Ditch Storage/Water Quality Project

4. Willowdale Sanitary Sewer – Phase II & III

- Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr. regarding status of Storm Water Pollution Prevention Plan (SWPPP).

5. Wilson Street, Calumet Twp.

- Warranty Deed transferring ownership to Lake County Commissioners.

B. MS4 Information and Correspondence

C. Other.

8. Financial Issues

A. Little Calumet River Watershed

B. Kankakee River Watershed

9. Approve Plans/Advertise for Bids/Seek Proposals and/or Approve Plan Modifications

A. Little Calumet River Watershed

B. Kankakee River Watershed

1. 2016 Singleton Ditch Maintenance, Cedar Creek Twp. (Monon Rd-Mississippi St)

2. 2016 Cedar Creek Maintenance, Cedar Creek Twp. (Lake Dalecarlia to 171st Ave)

3. 2016 McConnell Ditch Maintenance, Cedar Creek Twp. (Morse St to 171st Ave)

10. Receive and Open Bids/Proposals

- A. Little Calumet River Watershed**
- B. Kankakee River Watershed**

11. Award Contracts, Approve Modifications, and/or Ratify Actions by County Surveyor

- A. Little Calumet River Watershed**
 - 1. Turkey Creek Lateral No. 13 – Bank Stabilization, St John Twp.**
 - Summary of Bids
 - Letter from Don Oliphant, P.E. (CBBEL) review of bids
 - Contract for Austgen Equipment
- B. Kankakee River Watershed**

12. Other Business

- A. Resolution Opposing the Proposed Great Lakes Basin Transportation Rail Line.**
- B. Other**

13. Adjournment

- A. The next meeting is scheduled for Wednesday June 15, 2016 in the Lake County Commissioners' Courtroom at 8:00AM Drainage Advisory Committee and 9:00AM Drainage Board.**
- B. Motion to Adjourn.**

MINUTES

LAKE COUNTY DRAINAGE BOARD ADVISORY COMMITTEE

WEDNESDAY, APRIL 20, 2016

*Advisory Committee Meeting-8:00 A.M. Drainage Board Meeting-9:00 A.M.
Both Meetings Held in the Commissioner's Courtroom, Lake County Government Center
2293 North Main Street, Crown Point, IN 46307 Phone-219-755-3745 Fax 219-755-3750*

Lake County Drainage Board

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Technical Support

**Bill Emerson Jr., Lake County Surveyor
Daniel V. Gossman, Drainage Administrator
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NOTE: All motions and votes by the Advisory Committee are recommendations to the Lake County Drainage Board and are not final actions. The Lake County Drainage Board is the agency having the authority to act under Indiana Statute.

1. Meeting Called to Order – Pledge of Allegiance

A. Emergency Exit Announcement: In case of emergency, exit the Commissioners Courtroom and proceed to the stairs and go to the second floor and exit the building. Do not enter an elevator in an emergency. If you require assistance, an employee will escort and/or assist you. Please silence any cellular telephones during this meeting. If you receive a call/text during this meeting, please excuse yourself with as little disruption as possible.

2. Roll Call

Dave Hubinger, Center Twp.; Tom Silich, Hobart Twp.; Milan Dakich, Ross Twp.; Larry Cope, Winfield Twp.; Louise Neese, Calumet Twp.; Harold Mussman, West Creek Twp.; Alice Dahl, Cedar Creek Twp.; and Ken Huseman, Hanover Twp. [8 Present, 3 Absent]. Also Present: Lake County Surveyor **Bill Emerson, Jr.; **Dan Gossman**, Drainage Administrator; Legal Consultant, **Clifford E. Duggan, Jr.**; **Mary Ellen Kupsik**, Drainage Board Secretary; North Watershed Engineering Consultant, **Don Oliphant** of Christopher B. Burke Engineering; South Watershed Engineering Consultant, **Brian Ralstin**, American Structurepoint, Inc.**

3. Agenda

A. Additions, Deletions, and/or Corrections

Dan Gossman requested the following additions to the Agenda. Item No. 5-B-7, IDEM Permit Letter regarding the Cady Marsh Ditch Project; Item No. 5-B-9, "News Release" regarding Calumet Township drainage project; Item No. 11-B-1, Approval Letter for Stony Run West Branch Emergency, and correction on Item No. 5-E-3, "final" payment should read, "partial" payment. Motion to accept the above-stated additions and changes was made by **Alice Dahl**, seconded by **Louise Neese**. Motion carried.

B. Permission to Open Bids/Proposals

4. Minutes

A. March 16, 2016

Tom Silich requested a motion to accept and approve the March 16, 2016 Lake County Drainage Advisory Board Minutes. Motion to accept and approve same was made by **Louise Neese**, seconded by **Alice Dahl**. Motion carried.

5. Reports – Correspondence – Information for the Record

A. Advisory Committee By Township

Larry Cope (WINFIELD TOWNSHIP) asked if there is any activity regarding the open ditch on 145th. **Lake County Surveyor Bill Emerson, Jr.** replied that, to date, no final design has been completed. He stated that he personally spoke with the property owner over the phone and explained to him that we will help with some of the drainage issues and, in addition, he understands that it will never be completely fixed. **Larry** asked if the neighboring property owner can perform the work himself. **Surveyor Emerson** replied that he would be open to it if he sent us a formal letter requesting same and we, in turn, would still have to get the proper permitting.

Larry Cope inquired as to the overtopping of water on US 231 and if INDOT has been notified of same. **Surveyor Emerson** replied that he has spoken with an INDOT representative and they have no future plans to rectify that situation, but he will continue to bring it to INDOT's attention.

Larry Cope inquired as to the status of the Niles Ditch Project. **Surveyor Emerson** explained that he and his staff have had several meetings with the contractor for this project. At the last meeting, the contractor had indicated that due to the sequence of events on this project and his other projects, he would like to release himself from performing this ditch maintenance project. **Surveyor Emerson** reminded the Advisory Committee that the Army Corps put a stop to that project for wetland violations by the contractor, and stated that he was considering letting this contractor go and rebidding this project in smaller phases and is currently under discussion with **Attorney Cliff Duggan** regarding the legalities. **Surveyor Emerson** commented that we will need to take a more thorough look at having this contractor perform any future ditch maintenance projects with Lake County.

Harold Mussman (West Creek) reported meeting with property owner **Dick Duncan** regarding the road side ditch on State Line by the Ernie Niemeyer Bridge being in need of cleaning.

Surveyor Emerson and Dan Gossman replied that they will contract the Lake County Highway Department, since that is under their jurisdiction.

Alice Dahl (Cedar Creek) asked if the Drainage Board would prepare a resolution opposing the proposed rail line down in South County wherein the Advisory Committee representatives and the Drainage Board Members can sign, since this proposed rail line can have an impact on our drainage ditches. **Surveyor Emerson** concurred knowing all the drainage issues we have already down in South Lake County that putting a railway in that area is not a very good idea.

Alice Dahl proceeded to make a motion for all to agree to sign a Resolution against the proposed railroad in South Lake County, seconded by **Harold Mussman**. Motion carried.

B. Little Calumet River Watershed

1. Indiana Department of Environmental Management "Memorandum" regarding approval from Office of Air Quality for a prescribed burn.
2. Letter from Surveying Administrator Juan Lopez and Drainage Administrator Dan Gossman to Lawson-Fisher Assoc. regarding INDOT project on S.R. 2.

Dan Gossman reported that INDOT is taking local testimony from property owners regarding their bridge over the MJ Brown hosted by property owner Jim Bryant. They will be designing a diverter pipe to deal with some of the heavy rain events and they will be forwarding all their calculations to the Surveyor's Office for our review. He stated that the bridge will be raised and the opening is going to be twice as big to allow more water through that area.

3. Spring Street Ditch, (a.k.a. Seberger Ditch), North Twp.

Indiana Department of Natural Resources "Certificate of Approval" for "Construction in a Floodway" for Solan-Prugin Funeral Home for expanded parking lot.

4. Spring Street Ditch, North Twp.

- Letter from Drainage Administrator Dan Gossman to Enbridge Energy regarding an amendment to existing Drainage Board permit.
- Letter from Enbridge Energy requesting Amendment to Drainage Board permit 278-6-15-1.
- Letter/Report from Christopher B. Burke Engineering regarding no impact to ditch for proposed amendment.

Dan Gossman reported that Enbridge Energy is requesting an amendment to its previously approved Drainage Application and after a thorough review, CBBEL reported that this amendment will not have any adverse effects on the drain and requested recommending approval. Motion to recommend approval was made by **Louise Neese**, seconded by **Dave Hubinger**. Motion carried.

5. Spring Street Ditch - Highland, North Twp.

- Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr. regarding inspection at the Spring Creek Condominiums.
 - Letter from Spring Creek Condominiums to County Surveyor Bill Emerson, Jr. regarding alleged debris in ditch.
6. Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson, Jr. regarding relocation of beavers and removal of dams.

7. Cady Marsh Ditch, North & Calumet Twps.

Letter from Christopher B. Burke Engineering LLC to Indiana Department of Environmental Management requesting an extension of the existing permit for the Cady Marsh Ditch Maintenance.

Dan Gossman reported that the Surveyor's Office asked the Indiana Department of Environmental Management for an extension on the county's existing permit for the Cady Marsh Ditch and received same this past Monday (see "Handout").

8. Letter/Report from Asst Drainage Administrator Tom Regalado to County Surveyor Bill Emerson, Jr. regarding Clearing & Snagging Crew activity.

Dan Gossman reported that the Clearing and Snagging Crew are now actively working regularly through the fall and informed the Advisory Committee to contact the Surveyor's Office regarding anything they find in their area that can be addressed by this crew.

9. U.S. Army Corps NEWS RELEASE entitled, "Officials announce public comment period for Calumet Township drainage project."

Lake County Surveyor Bill Emerson, Jr. reported that this is an upcoming project that the Army Corps., Lake County, and Congressman Visclosky are putting together to relieve some drainage issues on 41st Avenue just north of Cady Marsh Ditch in Calumet Township. **Surveyor Emerson** stated that it is a low lying area and **Commissioner Repay** has been receiving several complaints. He explained that the Surveyor's Office has committed to splitting the county's cost portion between MS4 funds and Commissioner Funds to assist with the federal dollars, adding that the Army Corps and CBBEL are assisting with most of the designs.

10. Other.

C. Kankakee River Watershed

1. Letter from FEMA to property owner Michael Kalvaitis regarding LOMA determination in Cedar Creek Twp
2. **Upper Bull Run Ditch, St John Twp.**
 - Letter from Vince Casboni to Indiana Department of Environmental Management requesting a "Public Meeting" regarding the Preserve.
 - Letter from Nancy & Daniel Simanek to Indiana Department of Environmental Management requesting a "Public Meeting" regarding the Preserve.

Vince Casboni (9679 White Oak Avenue in St. John, IN) stated that he lives on 38 acres located right across from the proposed Preserve Subdivision, which is a 319-acre development encompassing 445 homes. He claims that he is currently getting flooded out from the north and his concern is what will happen when this Preserve Subdivision gets built and the affects it will have on flooding his property. In addition, he stated that another proposed subdivision has been approved by St. John called Greystone, which is going to consist of approximately 48 townhouses and 84 single homes, leaving almost 500 acres flowing down into his property. He thanked Bill Emerson, Jr. and Dan Gossman for any help they could provide him and asked if the Town of St. John submitted an application to the Drainage Board. **Lake County Surveyor Bill Emerson, Jr.** replied that he and **Commissioner Scheub** have met with St. John residents to hear their concerns and are keeping a close watch over these new Developments, which have already been approved by the Town of St. John. He stated that both the Town of St. John

and the Developer have been notified that a Drainage Board Application must be submitted for review prior to any groundbreaking, since the development will be draining into our regulated drain, Bull Run Ditch. The Developer has provided us with a set of plans, which **Brian Ralstin (ASI)** has been reviewing, but no final recommendation will be made until a formal Drainage Application is provided to the Lake County Drainage Board. **Lake County Surveyor Bill Emerson, Jr.** also stated that this project will be in Phases and when it is reviewed by the Lake County Drainage Board, all the phases will be reviewed at the same time, to verify that the whole area is in compliance with the Lake County Stormwater Ordinance. **Dan Gossman** added that he will keep **Mr. Casboni** informed whenever the Surveyor's Office/Drainage Board receives any additional information related to this proposed Development. **Harold Mussman** voiced his concern that West Creek becomes the final drainage recipient from most new developments in St. John.

3. Cedar Creek, Cedar Creek Twp.

Indiana Department of Natural Resources "Termination Notice" for "Construction in a Floodway" to John Lotton for a two lane bridge in Lake Dalecarlia.

4. Stoney Run Ditch Lateral B, Eagle Creek Twp.

Report/recommendation from American Structurepoint with alternative methods for repair/replacing breakdowns in the existing tile.

Dan Gossman reported a series of sinkholes in this area and American Structurepoint was asked to inspect, review and provide possible solutions to repair same and **Brian Ralstin (ASI)** has submitted two alternatives, both of which are very expensive--Alternative One estimated cost is \$140,000 and Alternative Two estimated cost is \$280,000. **Brian Ralstin (ASI)** explained that Alternative One (\$140,000) would be to perform spot repairs to the two sinkholes, including replacement of pipe in each location and backfilling the sinkholes. A primary concern of his was the sediment buildup after several years of exposure to sedimentation due to the sinkholes and recommended televising the line. Alternative Two (\$280,000) would be replacing the piped drain in its entirety and the sinkholes would be backfilled. **Lake County Surveyor Bill Emerson, Jr.** stated that this is for information only and there is no recommendation at this time.

- 5. Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr., regarding relocation of beavers and removal of dams.**

Dan Gossman requested recommending approval to pay the \$4,400.00 invoice to Wildlife Population Control Specialist **Bob Jensen** for the removal of 22 beavers at various locations throughout Lake County. Motion to recommend approval was made by **Alice Dahl** seconded by **Louise Neese**. Motion carried.

6. McConnell Ditch, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

7. Cedar Creek, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

8. Singleton Ditch, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

Dan Gossman explained that Item Nos. 5-C-6, 7 & 8 are upcoming projects. Prior to approving these projects, meetings are being planned to meet with the property owners for their input so the plans can be adapted to address any of their concerns. Meetings to be held on Friday, April 29th at the Cedar Creek Township Trustee's Office in Lowell.

9. Other

D. Current Projects - Little Calumet River Watershed

1. **Hart Ditch, St John Twp.** (State Line to US Highway 30, - Dyer)
2. **Niles Ditch, Center & Winfield Twps.** (113th to Gibson Street)
3. **Cady Marsh Ditch - Highland, North Twp.** (Hart Ditch to Cline Ave, Highland)
 - Request from KDM Services for a "Change in Scope"

Dan Gossman requested recommending approval for the "Change of Scope" for the work performed by KDM Services. Motion to recommend approval was made by **Alice Dahl**, seconded by **Dave Hubinger**. Motion carried.

4. **Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.**
 - Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of their "Bid Bond" for this project.
 - Letter from Drainage Administrator Dan Gossman to Contractor Gariup Construction Co., Inc. regarding the return of their "Bid Bond" for this project.

Dan Gossman requested recommending approval to return the "Bid Bonds" to **R.A. Oros and Gariup Construction**. Motion to recommend approval was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried.

5. **Cady Marsh Ditch – Griffith, Calumet Twp.** (Cline Ave to Colfax St, Griffith)
 - Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.

Dan Gossman requested recommending approval for partial payment to **Delta III, Inc.** in the amounts of \$24,297.25 and \$25,105.60. Motion to recommend approval was made by **Louise Neese**, seconded by **Dave Hubinger**. Motion carried.

6. **Turkey Creek Lateral #6–Emergency Culvert Replacement, Ross Twp.** (61st Ave)
 - Letter from Thomas T. Burke, Jr., PhD, PE (CBBEL) to County Surveyor Bill Emerson, Jr. regarding recommendation for approval of change order and invoices.

Dan Gossman reported that this recommendation relates to a "change order" that was done onsite regarding the use of a different size pipe to use under the MCD line and above the gas line, per the request of Marathon Pipeline. Motion to recommend approval was made by **Milan Dakich**, seconded by **Alice Dahl**. Motion carried.

- Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.

Dan Gossman requested recommendation to approve partial payment in the amount of \$58,225.00 to **Delta III, Inc.** Motion to recommend approval was made by **Milan Dakich**, seconded by **Alice Dahl**. Motion carried.

7. Main Beaver Dam Ditch, St John Twp., (East of Blaine Street)

- Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.

Dan Gossman requested recommendation to approve partial payment in the amount of \$14,280.00 to **Delta III, Inc.** Motion to recommend approval was made by **Alice Dahl**, seconded by **Milan Dakich**. Motion carried.

8. Other

E. Current Projects - Kankakee River Watershed

- 1. Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.**
- 2. West Creek Maintenance, Hanover Twp. (125th Ave to 133rd Ave)**
- 3. Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp. (Cedar Creek to Monon Road)**
 - Review and recommendation for approval of final partial payment of \$60,541.25 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

Dan Gossman requested recommendation to approve partial payment in the amount of \$60,541.25 to **R.A. Oros, Inc.** Motion to recommend approval was made by **Harold Mussman**, seconded by **Alice Dahl**. Motion carried.

- 4. Ernie Niemeyer Creek & Levee – Phase IV, West Creek Twp. (Stateline to US 41)**
- 5. Other**

Dan Gossman requested that Item Nos. 5-A, B, C, D & E be made a “Matter of Public Record”. Motion to make Item Nos. 5-A, B, C, D & E a “Matter of Public Record” was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried 9-0.

F. Geographic Information System

6. Applications / Petitions

A. Cady Marsh Ditch, Calumet Twp.

Applicant: Wisconsin Central Limited – Agent: Midwest Engineering

Application to “Perform Work”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of reconstruction of Railroad Bridge.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Oliphant (CBBEL) recommended approval with one condition that Applicant needs to get approval from IDNR since they will be performing work within a floodway. Motion to recommend approval with the above-stated condition was made by **Louise Neese**, seconded by **Dave Hubinger**. Motion carried.

B. Cady Marsh Ditch and Hart Ditch, North and St John Twps.

Applicant: Nipsco

Application to “Perform Work”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of replacing wooden power poles.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Oliphant (CBBEL) recommended approval with one condition that Applicant needs to have their plan sheets signed and sealed by a Registered Indiana Professional Engineer. Motion to recommend approval with the above-stated conditions was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried.

C. West Creek Lateral No. 4, West Creek Twp.

Applicant: NIPSCO

Application to “Perform Work” within regulated drain for the purpose of inspecting existing 30” gas line.

- Review from Brian Payne, PE (ASI) regarding items of concern to comply with LCSO Stormwater Ordinance.

Brian Ralstin (American Structurepoint, Inc.) requested recommending approval with the following three conditions:

- 1) While completing the work, the applicant shall ensure that no construction debris or materials are placed within the ditch channel. Based on the location of the applicant's gas main, it is not expected that any work or materials will be inside the ditch channel. If this changes, the Applicant shall contact the Surveyor’s Office and copy American Structurepoint, Inc.
- 2) Excavated soil shall be stockpiled outside of the ditch channel and if possible down slope from the top pf banks of the ditch. Since erosion control plans were not provided, the contractor shall use appropriate erosion control measures to prevent sediment from being transported into the ditch.
- 3) After completion of the work and restoration of the site, final ground surface elevations within the drainage easements shall be no higher than the current existing elevations.

Motion to recommend approval with the above-stated conditions was made by **Harold Mussman**, seconded by **Louise Neese**. Motion carried.

D. Main Beaver Dam Ditch, Center Twp.

Applicant: NIPSCO

Application to “Perform Work” and “Place Temporary/Permanent Structure” within regulated drain for the purpose installing 8” gas line.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Oliphant (CBBEL) recommended approval with the following four conditions:

1. A plan set that is signed and sealed by a Registered Indiana Professional Engineer should be provided.
2. Work within the banks of Main Beaver Dam Ditch will be completed during low flow conditions. The temporary stream crossing and any other temporary

obstructions within the ditch should be removed upon any substantial rainfall forecasting,

3. NIPSCO shall provide an on-site contact to the LCSO and notify the LCSO 48 hours prior to the commencement of all activities.
4. All disturbed areas within the 75-foot drainage easement will be restored to existing conditions.

Motion to recommend approval with the above-stated conditions was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried.

E. Other

7. MS4 Water Quality

A. Capital Projects Status Report

1. **41st Avenue Storm Sewer Project, Calumet Twp.**
2. **133rd Avenue / S.R. 55 Storm Drainage Project, Center Twp.**
3. **Upper Beaver Dam Ditch Storage/Water Quality Project**
4. **Willowdale Sanitary Sewer – Phase II & III**

B. MS4 Information and Correspondence

C. Other.

Lake County Surveyor Bill Emerson, Jr. reported that there are no major developments under Item No. 7-A; however, starting next month he will be providing progress reports regarding the County's 41st Avenue Sewer and Drainage Project, which will improve drainage and reduce flooding within unincorporated Calumet Township between Whitcomb and Marshal Streets north of 41st Avenue and south of Ridge Road.

8. Financial Issues

A. Little Calumet River Watershed

B. Kankakee River Watershed

1. **Spring Run Ditch Storage Facility, Cedar Creek Twp.**

Invoice from Indiana Department of Natural Resources.

Lake County Surveyor Bill Emerson, Jr. explained that this \$100.00 invoice relates to an inspection performed by IDNR on the County's Spring Run Ditch Dam and requested recommending approval to pay same. Motion to recommend approval was made by **Alice Dahl**, seconded by **Louise Neese**. Motion carried.

Surveyor Emerson, Jr. commented that he does not understand why Lake County would be paying another governmental agency (IDNR) an inspection fee on one of our Lake County facilities. **Alice Dahl** recommended that **Surveyor Bill Emerson, Jr.** write a letter to our legislators requesting to waive this inspection fee. **Lake County Surveyor Emerson, Jr.** replied that he will consider doing same.

9. Approve Plans/Advertise for Bids/Seek Proposals and/or Approve Plan Modifications

A. Little Calumet River Watershed

B. Kankakee River Watershed

10. Receive and Open Bids/Proposals

A. Little Calumet River Watershed

1. Turkey Creek Lateral No. 13 – Bank Stabilization, St John Twp.

- Open Sealed Bids

[BIDS TO BE OPENED AT TODAY’S DRAINAGE BOARD MEETING AT 9:00 A.M.]

B. Kankakee River Watershed

11. Award Contracts, Approve Modifications, and/or Ratify Actions by County Surveyor

A. Little Calumet River Watershed

B. Kankakee River Watershed

1. Stoney Run Ditch West Branch – Emergency Bank Repair, Eagle Creek Twp.

- Letter to County Surveyor Emerson and Drainage Board Chairman Scheub regarding ratification of emergency action.
- “Notice to Proceed” from Drainage Administrator Dan Gossman to Austgen Equipment.
- Invitation to Contractors for “Mandatory Meeting” with plans and specifications.
- Addendum No. 1 to the specifications.

Dan Gossman reported that Advisory Committeeman **John Jurs** brought to our attention that there were some blowouts on the banks of Stoney Run Ditch West Branch, which is causing the water to overtop the banks and planting season is about to begin. He and **Surveyor Emerson, Jr.** inspected the site and reviewed with **Gerry Scheub** and then invited six contractors to attend a mandatory onsite meeting in order to submit a proposal, four out of six attended. The four contractors who submitted a proposal were as follows:

Delta III, Inc.	\$37,472.50
Dyer Construction	\$45,148.23
Austgen Equipment	\$22,531.50
R.A. Oros, Inc.	\$30,799.90

Dan Gossman explained that due to the emergency of this project, a *Notice to Proceed* was given to the lowest, most responsible bidder, Austgen Equipment, in the amount of \$22,531.50. **Attorney Cliff Duggan** requested the Advisory Committee to make a recommendation to the Board that an Emergency be declared for the Stoney Run Ditch West Branch; that the proposed description of the repairs be accepted and approved, and that Austgen Equipment be found to be the lowest, most responsive and responsible proposer and the emergency project repairs be awarded to them. Motion to request recommending approval was made by **Dave Hubinger**, seconded by **Harold Mussman**. Motion carried.

12. Other Business

A. Other

Tom Silich opened a discussion regarding Turkey Creek Lateral 6, stating that even though beaver dams have been knocked down by the Clearing and Snagging Crew and the water is flowing better, water is still hung up on the railroad culvert. **Surveyor Emerson, Jr.** agreed that the railroad culverts are clogged up and that his office has reached out to the railroad, since they have the equipment to clean it out. He reported that it took at least three weeks for our Clearing and Snagging Crew to get the water flowing on the south side of the railroad; however the property owners to the north are still dealing with at least 3 to 4 feet more water. **Surveyor**

Emerson stated that he is considering putting a maintenance contract in place for this particular area in order to continually keep the water flowing and would seek a contractor with special equipment that would be able to perform the work in a few hours, as opposed to our Drainage Crew working weeks to clear it out. **Tom Silich** reported railroad ties lying in the ditch on Liverpool Drive, looking to the west on the north side of the ditch.

Prudence Tokarz (4804 East 181st Avenue, Hebron, IN) discussed Singleton Mine Company claiming that they continually pump water into the Singleton without approval and inquired as to why they were not getting fined.

She stated that according to an Ordinance that the Surveyor's Office holds, they can fine any company for non-compliance.

She stated that this Board discussed, voted and wrote a letter requesting a joint meeting with the Commissioners to be held about the failure to build according to the permit plans, and they ignored your request.

She stated that this company built the berms completely different than originally designed.

She stated that the location of the ponds, the pit and the stock pilings are not where they were permitted to be, and they are hauling without the approval to Operate.

She stated that Dan Gossman went down there and stopped them, but claimed that the minute he left they started hauling again. And, again, questioned why they weren't fined for hauling

She complained that the drainage ditches between the berm and Clay Street are higher than the road and need to be recalculated, because during any rain event the water runs off the Mine property into the roadside ditches and travels across the street.

She is still waiting for an online gauge where we can have access to review.

She inquired as to how the onsite operating equipment is being fueled up. She wondered if they have an onsite underground fuel storage and if they have a permit to put an underground tank on this property.

Surveyor Emerson, Jr. stated that this is the first he has heard of an underground fuel storage facility and will go onsite and inquire. He stated that there are state agencies that deal with underground fuel tank permits and this not part of our drainage permit review, but believes if it is an underground tank next to a big hole in the ground which eventually gets pumped into our ditch, it is within his rights to inquire as to what is going on.

She asked Surveyor Emerson to check and see if they have any permits in place to lay asphalt on their site.

13. Adjournment

A. The next meeting is scheduled for Wednesday May 18, 2016 in the Lake County Commissioners' Courtroom at 8:00AM Drainage Advisory Committee and 9:00AM Drainage Board.

B. Motion to Adjourn.

Meeting adjourned at 9:15 a.m.

MINUTES

LAKE COUNTY DRAINAGE BOARD WEDNESDAY, APRIL 20, 2016

Advisory Committee Meeting-8:00 A.M. Drainage Board Meeting-9:00 A.M.
*Both Meetings Held in the Commissioner's Courtroom, Lake County Government Center
2293 North Main Street, Crown Point, IN 46307 Phone-219-755-3745 Fax 219-755-3750*

Lake County Drainage Board

Gerry J. Scheub, Chairman
Michael C. Repay, Member
Kyle Allen, Sr., Member
Peter Katic, Drainage Board Attorney

Technical Support

Bill Emerson Jr., Lake County Surveyor
Daniel V. Gossman, Drainage Administrator
Rich Budziak, MS4 Coordinator
Clifford E. Duggan Jr., Legal Consultant
Mary Ellen Kupsik, Drainage Board Secretary

NOTE: All motions and votes by the Advisory Committee are recommendations to the Lake County Drainage Board and are not final actions. The Lake County Drainage Board is the agency having the authority to act under Indiana Statute.

1. Meeting Called to Order – Pledge of Allegiance

A. Emergency Exit Announcement: In case of emergency, exit the Commissioners Courtroom and proceed to the stairs and go to the second floor and exit the building. Do not enter an elevator in an emergency. If you require assistance, an employee will escort and/or assist you. Please silence any cellular telephones during this meeting. If you receive a call/text during this meeting, please excuse yourself with as little disruption as possible.

2. Roll Call

Members Present: **Chairman Gerry Scheub** and Board Member, **Michael Repay**. [2 Present, 0 Absent]. Also Present: **Lake County Surveyor Bill Emerson, Jr.**; Lake County Drainage Administrator, **Dan Gossman**; Drainage Board Attorney, **Peter Katic**; Lake County Drainage Consultant **Clifford E. Duggan, Jr.**; Drainage Board Secretary, **Mary Ellen Kupsik**; North Watershed Engineering Consultant, **Don Oliphant** of Christopher B. Burke Engineering; and South Watershed Engineering Consultant, and **Brian Ralstin**, American Structurepoint.

3. Agenda

A. Additions, Deletions, and/or Corrections

Dan Gossman requested the following additions to the Agenda. Item No. 5-B-7, IDEM Permit Letter regarding the Cady Marsh Ditch Project; Item No. 5-B-9, "News Release" regarding Calumet Township drainage project; Item No. 11-B-1, Approval Letter for Stony Run West Branch Emergency, and correction on Item No. 5-E-3, "final" payment should read, "partial" payment. Motion to accept the above-stated additions and changes was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

B. Permission to Open Bids/Proposals

Motion to open bids under Item No. 10-A-1 was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

4. Minutes

A. March 16, 2016

Motion made by **Michael C. Repay** to approve the **March 16, 2016** Lake County Drainage Board Minutes, seconded by **Gerry Scheub**. Motion carried 2-0.

5. Reports – Correspondence – Information for the Record

A. Advisory Committee By Township

B. Little Calumet River Watershed

1. Indiana Department of Environmental Management “Memorandum” regarding approval from Office of Air Quality for a prescribed burn.
2. Letter from Surveying Administrator Juan Lopez and Drainage Administrator Dan Gossman to Lawson-Fisher Assoc. regarding INDOT project on S.R. 2
3. **Spring Street Ditch, (a.k.a. Seberger Ditch), North Twp.**
Indiana Department of Natural Resources “Certificate of Approval” for “Construction in a Floodway” for Solan-Pruzin Funeral Home for expanded parking lot.
4. **Spring Street Ditch, North Twp.**
 - Letter from Drainage Administrator Dan Gossman to Enbridge Energy regarding an amendment to existing Drainage Board permit.
 - Letter from Enbridge Energy requesting Amendment to Drainage Board permit 278-6-15-l.
 - Letter/Report from Christopher B. Burke Engineering regarding no impact to ditch for proposed amendment.

Dan Gossman reported that Enbridge Pipeline has an existing permit and have asked for an amendment to that permit. CBBEL has reviewed the request and reported that this amendment will have no adverse effect on the county’s regulated drain and requested approval to the amendment to the existing permit for Enbridge. Motion to approve was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

5. Spring Street Ditch - Highland, North Twp.

- Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr. regarding inspection at the Spring Creek Condominiums.
 - Letter from Spring Creek Condominiums to County Surveyor Bill Emerson, Jr. regarding alleged debris in ditch.
6. Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson, Jr. regarding relocation of beavers and removal of dams.

Dan Gossman requested approval for invoice payment to Wildlife Population Control Specialist Tom Larson in the amount of \$2,000.00. Motion to approve was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

7. Cady Marsh Ditch, North & Calumet Twps.

Letter from Christopher B. Burke Engineering LLC to Indiana Department of Environmental Management requesting an extension of the existing permit for the Cady Marsh Ditch Maintenance.

- 8.** Letter/Report from Asst Drainage Administrator Tom Regalado to County Surveyor Bill Emerson, Jr. regarding Clearing & Snagging Crew activity.

Chairman Scheub reiterated that Schererville Heights and Shady Shores areas need to be addressed by the County's Drainage Clearing & Snagging Crew.

- 9.** U.S. Army Corps NEWS RELEASE entitled, "Officials announce public comment period for Calumet Township drainage project."

Dan Gossman explained that this is the announcement for the 219 Grant regarding Calumet Township's 41st Avenue drainage and sewer project. **Surveyor Emerson, Jr.** added that this should be a great help to the Calumet Township community and thanked **Commissioner Repay** for his involvement in supporting this great project.

10. Other.

C. Kankakee River Watershed

- 1.** Letter from FEMA to property owner Michael Kalvaitis regarding LOMA determination in Cedar Creek Twp
- 2. Upper Bull Run Ditch, St John Twp.**
 - Letter from Vince Casboni to Indiana Department of Environmental Management requesting a "Public Meeting" regarding the Preserve.
 - Letter from Nancy & Daniel Simanek to Indiana Department of Environmental Management requesting a "Public Meeting" regarding the Preserve.

Vince Casboni (9679 White Oak Avenue in St. John, IN) explained that his property is right across from the Preserve Subdivision Development, which will consist of 445 homes on 319 acres of land. He was also informed by Jack Slager and the Town of St. John that two additional new subdivisions, Greystone, which is a 110-acre subdivision consisting of 48 duplexes and 84 single homes, plus Silverleaf Subdivision will run directly into Bull Run Ditch. **Mr. Casboni's** main concern is that his property is currently getting flooded without any developments in place. He stated that **Commissioner Scheub, Lake County Surveyor Bill Emerson, Jr., Drainage Administrator Dan Gossman and Assistant Drainage Administrator Tom Regalado** have been very understanding and helpful and asked again for their help in making sure the drainage for these new developments is properly addressed to avoid having any further flooding on his property.

Daniel Simanek stated that Schilling has approval for 250, 80 x 100-foot lots on the Preserve Subdivision Development creating a tremendous amount of asphalt and concrete, which will cause a ton of surface water that is going to have to be absorbed somewhere. He explained that currently 10% to 15% of that farmland development site is unfarmable due to excess standing water and questioned where is that water going to go once it is developed and whether the city stormsewers will be able to handle all that water,.

Commissioner Scheub asked if we could get a flow chart from the Developer's engineer. **Lake County Surveyor Emerson, Jr.** responded that engineering plans have been submitted

to the Lake County Surveyor's Office for this development and we have started reviewing it, but a formal Drainage Application has yet to be received, reiterating that the Developer must comply with the Lake County Stormwater Ordinance, which is more stringent than other municipality ordinances. **Commissioner Scheub** adamantly recommended that retention ponds be properly in place to hold back water.

3. Cedar Creek, Cedar Creek Twp.

Indiana Department of Natural Resources "Termination Notice" for "Construction in a Floodway" to John Lotton for a two lane bridge in Lake Dalecarlia.

4. Stoney Run Ditch Lateral B, Eagle Creek Twp.

Report/recommendation from American Structurepoint with alternative methods for repair/replacing breakdowns in the existing tile.

Dan Gossman reported that we have two alternatives provided by American Structurepoint. The first alternative is \$140,000, which would repair a little over 300 feet of pipe. The second alternative is to replace the entire length of that pipe from 137th Avenue down to the main ditch, which is a little over 2400 feet for an estimated \$280,000.00. He explained that the current tile was put in during the early 1900's and if we start performing repairs, we don't know where it's going to blowout next, and American Structurepoint's concern that with the sinkholes being there for the past two years or more, how much sediment has been washed into this pipe.

Dan Gossman also reported that another consideration was installing a new drain tile from the existing culvert under 137th Avenue east, to another existing large structure where Stony Run Creek crosses 137th Avenue, but unfortunately it goes uphill and the elevations will not work to where we can outlet it into the ditch. The bottom of the ditch is three feet higher in elevation than the pipe at this location, leaving only the two options previously discussed and we will continue to keep these alternatives open for review and further discussion. **Chairman Scheub** stated that this project needs to move forward and one of the two options presented needs to be decided. **Lake County Surveyor Bill Emerson, Jr.** replied that drainage board funding needs to be reviewed and, based on that review, we can better determine what alternative can be applied. **Commissioner Scheub** voiced his concern that these sinkholes are very wide, deep and dangerous and a liability.

5. Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr., regarding relocation of beavers and removal of dams.

Dan Gossman requested approving the \$4,400.00 invoice submitted by Wildlife Relocation Specialist **Bob Jensen** for 22 beavers and nine different locations. Motion to approve was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

6. McConnell Ditch, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

7. Cedar Creek, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

8. Singleton Ditch, Cedar Creek Twp.

Letter from County Surveyor Bill Emerson, Jr. to property owners regarding public meeting to discuss upcoming maintenance project.

Dan Gossman explained that Item Nos. 5-C-6, 7 & 8 are upcoming projects. Prior to approving these projects, meetings are being planned with the property owners giving them an opportunity for their input and adjust the plans to address any of their concerns. Meetings to be held on Friday, April 29th at the Cedar Creek Township Trustee's Office in Lowell.

9. Other

D. Current Projects - Little Calumet River Watershed

1. **Hart Ditch, St John Twp.** (State Line to US Highway 30, - Dyer)
2. **Niles Ditch, Center & Winfield Twps.** (113th to Gibson Street)
3. **Cady Marsh Ditch - Highland, North Twp.** (Hart Ditch to Cline Ave, Highland)
 - Request from KDM Services for a "Change in Scope"
4. **Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.**
 - Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of their "Bid Bond" for this project.
 - Letter from Drainage Administrator Dan Gossman to Contractor Gariup Construction Co., Inc. regarding the return of their "Bid Bond" for this project.
5. **Cady Marsh Ditch – Griffith, Calumet Twp.** (Cline Ave to Colfax St, Griffith)
 - Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.
6. **Turkey Creek Lateral #6–Emergency Culvert Replacement, Ross Twp.** (61st Ave)
 - Letter from Thomas T. Burke, Jr., PhD, PE (CBBEL) to County Surveyor Bill Emerson, Jr. regarding recommendation for approval of change order and invoices.
 - Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.
7. **Main Beaver Dam Ditch, St John Twp.,** (East of Blaine Street)
 - Review and recommendation for approval of partial payment from Drainage Administrator Dan Gossman. Contractor: Delta III Inc.

Dan Gossman requested approval of Item Nos. 5-D-3, 4, 5, 6 & 7. Motion to approve same was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

8. Other

E. Current Projects - Kankakee River Watershed

1. **Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.**
2. **West Creek Maintenance, Hanover Twp.** (125th Ave to 133rd Ave)
3. **Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp.** (Cedar Creek to Monon Road)
 - Review and recommendation for approval of final partial payment of \$60,541.25 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

Dan Gossman reported that both he and **Lake County Surveyor Emerson, Jr.** performed an onsite inspection to confirm the \$60,541.25 amount invoiced by R.A. Oros, Inc. Motion to approve partial payment to R. A. Oros, Inc. in the amount of \$60,541.25 was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

4. **Ernie Niemeyer Creek & Levee – Phase IV, West Creek Twp.** (Stateline to US 41)
5. Other

Dan Gossman requested that Item Nos. 5-A, B, C, D & E be made a "Matter of Public Record". Motion to make Item Nos. 5-A, B, C, D & E a "Matter of Public Record" was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

F. Geographic Information System

6. Applications / Petitions

A. Cady Marsh Ditch, Calumet Twp.

Applicant: Wisconsin Central Limited – Agent: Midwest Engineering

Application to "Perform Work", and "Place Temporary/Permanent Structure" within regulated drain for the purpose of reconstruction of Railroad Bridge.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Oliphant (CBBEL) recommended approval with one condition that Applicant needs to get approval from IDNR since they will be performing work within a floodway. Motion to approve with the above-stated condition was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

B. Cady Marsh Ditch and Hart Ditch, North and St John Twps.

Applicant: Nipsco

Application to "Perform Work", and "Place Temporary/Permanent Structure" within regulated drain for the purpose of replacing wooden power poles.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Oliphant (CBBEL) recommended approval with one condition that Applicant needs to have their plan sheets signed and sealed by a Registered Indiana Professional Engineer. Motion to approve with the above-stated condition was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

C. West Creek Lateral No. 4, West Creek Twp.

Applicant: NIPSCO

Application to "Perform Work" within regulated drain for the purpose of inspecting existing 30" gas line.

- Review from Brian Payne, PE (ASI) regarding items of concern to comply with LCSO Stormwater Ordinance.

Brian Ralstin (American Structurepoint, Inc.) requested recommending approval with the following three conditions:

- 1) While completing the work, the applicant shall ensure that no construction debris or materials are placed within the ditch channel. Based on the location of the applicant's gas main, it is not expected that any work or materials will be inside the ditch channel. If this changes, the Applicant shall contact the Surveyor's Office and copy American Structurepoint, Inc.
- 2) Excavated soil shall be stockpiled outside of the ditch channel and if possible down slope from the top pf banks of the ditch. Since erosion control plans were not provided,

the contractor shall use appropriate erosion control measures to prevent sediment from being transported into the ditch.

- 3) After completion of the work and restoration of the site, final ground surface elevations within the drainage easements shall be no higher than the current existing elevations.

Motion to approve with the above stated conditions was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

D. Main Beaver Dam Ditch, Center Twp.

Applicant: NIPSCO

Application to "Perform Work" and "Place Temporary/Permanent Structure" within regulated drain for the purpose installing 8" gas line.

- Review letter from Thomas Burke, P.E., PhD. (CBBEL) regarding items of concern to comply with LCSO Stormwater Ordinance.

Don Olifant (CBBEL) recommended approval with the following four conditions:

1. A plan set that is signed and sealed by a Registered Indiana Professional Engineer should be provided.
2. Work within the banks of Main Beaver Dam Ditch will be completed during low flow conditions. The temporary stream crossing and any other temporary obstructions within the ditch shall be removed upon any substantial rainfall forecasting,
3. NIPSCO shall provide an on-site contact to the LCSO and notify the LCSO 48 hours prior to the commencement of allow activities.
4. All disturbed areas within the 75 foot drainage easement will be restored to existing conditions.

Motion to approve with the above stated conditions was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

E. Other

7. MS4 Water Quality

A. Capital Projects Status Report

1. **41st Avenue Storm Sewer Project, Calumet Twp.**
2. **133rd Avenue / S.R. 55 Storm Drainage Project, Center Twp.**
3. **Upper Beaver Dam Ditch Storage/Water Quality Project**
4. **Willowdale Sanitary Sewer – Phase II & III**

B. MS4 Information and Correspondence

C. Other.

Lake County Surveyor Bill Emerson, Jr. reported there are no current major developments under Item No. 7-A; however, in the months to follow, he will be providing monthly updates as to the progress of the County's 41st Avenue Sewer and Drainage Project, adding that this project will improve drainage and reduce flooding within unincorporated Calumet Township between Whitcomb and Marshal Streets north of 41st Avenue and south of Ridge Road.

8. Financial Issues

A. Little Calumet River Watershed

B. Kankakee River Watershed

1. Spring Run Ditch Storage Facility, Cedar Creek Twp.

Invoice from Indiana Department of Natural Resources.

Lake County Surveyor Bill Emerson, Jr. stated we received a \$100.00 invoice from the IDNR for their performing an inspection of our Spring Run Ditch Storage Facility and requested approval of same. He commented that he does not understand why Lake County would be paying another governmental agency (IDNR) an inspection fee on one of our facilities, adding that he is considering writing a letter to IDNR questioning same. Motion to approve was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

9. Approve Plans/Advertise for Bids/Seek Proposals and/or Approve Plan Modifications

A. Little Calumet River Watershed

B. Kankakee River Watershed

10. Receive and Open Bids/Proposals

A. Little Calumet River Watershed

1. Turkey Creek Lateral No. 13 – Bank Stabilization, St John Twp.

- Open Sealed Bids

Attorney Peter Katic opened seven (7) bids received all of which appeared to be in proper legal order and they were as follows:

Austgen Equipment	\$ 45,984.00
Gough, Inc.	\$ 50,845.00
Gariup Construction Co., Inc.	\$ 79,900.00
Delta III	\$ 75,170.00
R.A. Oros, Inc.	\$ 74,630.00
Rieth-Riley Construction Co.	\$104,283.05
Ellas Construction Co., Inc.	\$ 58,922.00

Lake County Surveyor Emerson, Jr. requested taking these 7 bids under advisement. Motion to take these 7 bids under advisement was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

B. Kankakee River Watershed

11. Award Contracts, Approve Modifications, and/or Ratify Actions by County Surveyor

A. Little Calumet River Watershed

B. Kankakee River Watershed

1. Stoney Run Ditch West Branch – Emergency Bank Repair, Eagle Creek Twp.

- Letter to County Surveyor Emerson and Drainage Board Chairman Scheub regarding ratification of emergency action.
- “Notice to Proceed” from Drainage Administrator Dan Gossman to Austgen Equipment.
- Invitation to Contractors for “Mandatory Meeting” with plans and specifications.

• **Addendum No. 1 to the specifications.**

Dan Gossman referred to a “Hand-Out” from **Attorney Cliff Duggan** recommending awarding Austgen Equipment in the amount of \$22,531.50 to perform emergency bank repair on Stoney Run Ditch West Bank.

Dan Gossman reported that these two significant bank blowouts were brought to our attention by **Eagle Creek Advisory Committeeman John Jurs** and after he and **Surveyor Emerson, Jr.** inspected the site and reviewed it with Chairman Gerry Scheub, it was decided to move forward and declare this site an emergency and invited six contractors to attend a mandatory onsite meeting wherein four out of six attended. The four contractors who submitted a proposal were as follows:

Delta III, Inc.	\$37,472.50
Dyer Construction	\$45,148.23
Austgen Equipment	\$22,531.50
R.A. Oros, Inc.	\$30,799.90

Attorney Cliff Duggan respectfully recommend as follows:

1. That an emergency be declared for the Stoney Run Ditch West Branch in the area described.
2. That the proposed description of repairs be accepted and approved by the Board.
3. That Austgen Equipment be found the lowest responsive and responsible proposer, and the contract for said repairs be awarded to Austgen Equipment.

Dan Gossman explained that due to the emergency of this project, a Notice to Proceed was given to the lowest, most responsible bidder, **Austgen Equipment** in the amount of \$22,531.50. Motion to declare this project an emergency; approve the specifications as outline by the Lake County Surveyor’s Office and ratify the emergency action taken and declare **Austgen Equipment** the lowest and most responsive bidder was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0.

12. Other Business

A. Other

Lake County Surveyor Bill Emerson, Jr. reported on some concerns he has regarding Turkey Creek Lateral No. 6 in Hobart by I-65. He stated that the County’s Drainage Crew has been out at this site for over two weeks straight and has been successful in lowering the water levels on one side of the railroad, but the north side of the railroad is still high, adding that this entire area is and will continue to be an ongoing flooding issue. **Lake County Surveyor Emerson, Jr.** stated that he will be seeking proposals for a maintenance contractor with special equipment to continually come onsite, as necessary, to prevent the water levels from getting too high and, even though it is a relatively small area, it is too large of an area for the County’s Drainage Crew to maintain.

Prudence Tokarz (4804 East 181st Avenue, Hebron, IN) appeared before the Drainage Board to discuss and ask questions regarding the Singleton Mine. **Mrs. Tokarz** was immediately

informed by **Attorney Peter Katic** that this subject matter falls under the "Special Drainage Board".

"We have been through this in the past and I listened to the audience participation by Ms. Tokarz at the Lake County Drainage Advisory Committee Meeting, which was appropriate, but now that same subject matter, and if it is the same subject matter that was brought up at the Advisory Committee Meeting, that subject matter falls under the domain of the Lake County Special Drainage Board. Thank you." - Attorney Peter Katic

13. Adjournment

- A. The next meeting is scheduled for Wednesday May 18, 2016 in the Lake County Commissioners' Courtroom at 8:00AM Drainage Advisory Committee and 9:00AM Drainage Board.**
- B. Motion to Adjourn.**

Motion to adjourn was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0. Meeting adjourned at 10:00 a.m.

APPROVED THIS 18th DAY OF MAY, 2016

LAKE COUNTY DRAINAGE BOARD



Gerry Scheub, Chairman



Michael C. Repay, Member



Kyle W. Allen, Sr., Member

ATTEST: 
Mary Ellen Kupsik, Drainage Board Secretary

5-A-1
5-20-16

FRANK J. MRVAN

NORTH TOWNSHIP TRUSTEE



LAKE COUNTY
INDIANA

(MAIN OFFICE)
5947 Hohman Ave.
Hammond, IN
46320

(219) 932-2530
Fax (219) 937-4412

2105 Broadway
East Chicago, IN
46312

(219) 398-2435
Fax (219) 397-2190

April 26, 2016

Mr. Bill Emerson
Lake County Surveyor
2293 N. Main Street
Crown Point, Indiana 46307

RE: Lake County Drainage Advisory Committee

Dear Surveyor Emerson,

As the North Township Trustee, I am very pleased to appoint Jamie Blankman, 7528 Woodmar Avenue, Hammond, Indiana 46320, 219-644-7636, Jamie.blankman@rndc/rndcusa.com to the Lake County Drainage Advisory Committee as a representative. Jamie is an energetic, conscientious individual, who certainly adds value to the Committee.

I have sent correspondence to Jamie requesting him to accept the appointment to the Committee. I believe that the Committee provides a valuable service to the residents of Lake County and appreciate the opportunity to have a North Township representative participate.

Should you be in need of any further assistance, please do not hesitate to call me at 219-932-2530, ext. 324.

Sincerely,

A handwritten signature in black ink that reads "Frank J. Mrvan".

Frank J. Mrvan
North Township Trustee

5-B-1
5-20-16

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
CERTIFICATE OF APPROVAL
CONSTRUCTION IN A FLOODWAY

APPLICATION # : FW-28157
STREAM : Burns Ditch
APPLICANT : Indiana Department of Transportation
Sandra A Bowman
100 North Senate Avenue, Room N642
Indianapolis, IN 46204



AGENT : The Troyer Group Incorporated
Michael Brian James
550 South Union Street
Mishawaka, IN 46544-2340

AUTHORITY : IC 14-28-1 with 312 IAC 10

DESCRIPTION : The existing twin bridge structures (INDOT Des #1006756 and 1296981) will each be replaced with a three span continuous composite rolled bridges. The southbound bridge will have span lengths of 52', 75', and 52' and the northbound bridge will have span lengths of 52', 75', and 66'. The spill through abutments for both bridges will have 2.4:1 slopes at the south abutment and 2.5:1 slopes at the north abutment. Each slope will be armored with riprap over geotextile fabric. The abutments and piers will be skewed 20 degrees. The existing structures will be completely removed. In addition, three cofferdams will be necessary in order to construct the new bridge structures. Details of the project are contained in information and plans received at the Division of Water on October 9, 2015, October 13, 2015, December 10, 2015, April 21, 2016, April 26, 2016 and April 27, 2016.

LOCATION : DOWNSTREAM: At the State Road 51 stream crossing at Lake Station, Hobart Township, Lake County
Section 9, T 36N, R 7W, Portage Quadrangle
UTM Coordinates: Downstream 4603866 North, 479959 East
UPSTREAM: Section 8, T 36N, R 7W

APPROVED BY : 
James J. Hebenstreit, PE, Assistant Director
Division of Water

APPROVED ON : April 29, 2016

Included: Notice Of Right To Administrative Review - General Conditions - Special Conditions - Service List

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF RIGHT TO ADMINISTRATIVE REVIEW

APPLICATION #: FW- 28157

This signed document constitutes the issuance of a permit by the Department of Natural Resources, subject to the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

The permit or any of the conditions or limitations which it contains may be appealed by applying for administrative review. Such review is governed by the Administrative Orders and Procedures Act, IC 4-21.5, and the Department's rules pertaining to adjudicative proceedings, 312 IAC 3-1.

In order to obtain a review, a written petition must be filed with the Division of Hearings within 18 days of the mailing date of this notice. The petition should be addressed to:

Director
Division of Hearings
Indiana Government Center North, Room N501A
100 North Senate Avenue
Indianapolis, Indiana 46204

The petition must contain specific reasons for the appeal and indicate the portion or portions of the permit to which the appeal pertains.

If an appeal is filed, the final agency determination will be made by the Natural Resources Commission following a legal proceeding conducted before an Administrative Law Judge. The Department of Natural Resources will be represented by legal counsel.

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

GENERAL CONDITIONS

APPLICATION #: FW- 28157

- (1) If any archaeological artifacts or human remains are uncovered during construction, federal law and regulations (16 USC 470, et seq.; 36 CFR 800.11, et al) and State Law (IC 14-21-1) require that work must stop and that the discovery must be reported to the Division of Historic Preservation and Archaeology within 2 business days.

Division of Historic Preservation and Archaeology
Room W274
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-1646, FAX: (317) 232-8036

- (2) This permit must be posted and maintained at the project site until the project is completed.
- (3) This permit does not relieve the permittee of the responsibility for obtaining additional permits, approvals, easements, etc. as required by other federal, state, or local regulatory agencies. These agencies include, but are not limited to:

Agency	Telephone Number
Lake County Drainage Board	
Little Calumet River Basin Development Commission	(219) 595-0599
US Army Corps of Engineers	(312) 846-5539
Indiana Department of Environmental Management	(317) 233-8488 or (800) 451-6027
Local city or county planning or zoning commission	

- (4) This permit must not be construed as a waiver of any local ordinance or other state or federal law.
- (5) This permit does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.
- (6) This permit may be revoked by the Department of Natural Resources for violation of any condition, limitation or applicable statute or rule.
- (7) This permit shall not be assignable or transferable without the prior written approval of the Department of Natural Resources. To initiate a transfer contact:

Mr. Michael W. Neyer, PE, Director
Division of Water
Room W264
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-4160, Toll Free: (877) 928-3755
FAX: (317) 233-4579

- (8) The Department of Natural Resources shall have the right to enter upon the site of the permitted activity for the purpose of inspecting the authorized work.
- (9) The receipt and acceptance of this permit by the applicant or authorized agent shall be considered as acceptance of the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 28157

PERMIT VALIDITY : This permit is valid for 60 months from the "Approved On" date shown on the first page. If construction work in the floodway has not been completed by April 29, 2021 the permit will become void. This permit may be renewed one (1) time for a period not to exceed five (5) additional years only if a written request for the five (5) year permit renewal is received by DNR, Division of Water prior to April 29, 2021. Thereafter the permit will become void and a new permit will be required in order to continue work on the project.

This permit becomes effective 18 days after the "MAILED" date shown on the first page. If both a petition for review and a petition for a stay of effectiveness are filed before this permit becomes effective, any part of the permit that is within the scope of the petition for stay is stayed for an additional 15 days.

CONFORMANCE : Other than those measures necessary to satisfy the "General Conditions" and "Special Conditions", the project must conform to the information received by the Department of Natural Resources on: October 9, 2015, October 13, 2015, December 10, 2015, April 21, 2016, April 26, 2016 and April 27, 2016. Any deviation from the information must receive the prior written approval of the Department.

Number Special Condition

- (1) revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion
- (2) minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush
- (3) do not work in the waterway from May 15 through June 30 without the prior written approval of the Division of Fish and Wildlife
- (4) do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30
- (5) do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure
- (6) use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids
- (7) do not use broken concrete as riprap
- (8) minimize the movement of resuspended bottom sediment from the immediate project area
- (9) do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway
- (10) appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized

**STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES**

SPECIAL CONDITIONS

APPLICATION #: FW- 28157

- (11) seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas
- (12) plant five trees, at least 2 inches in diameter-at-breast height, for each tree which is removed that is ten inches or greater in diameter-at-breast height
- (13) do not conduct bridge demolition or construction from March 15 through September 7 due to the presence or potential presence of nesting swallows (*Hirundo* spp.) and eastern phoebes (*Sayornis phoebe*) under the existing structure; if construction is planned during this time, prior approval from the USDA must be secured by contacting: Wildlife Services State Director, USDA Wildlife Services, 901 W. State Street, W. Lafayette, IN 47907; (765) 494-6229; request Form 37 and any other required documentation and follow the USDA's instructions
- (14) do not dewater directly into the stream; dewater into a sediment bag, into a roll off box, and onto a riprap apron, or similar system
- (15) dewatering pumps should incorporate filters or bypasses to avoid injuring or killing fish and other aquatic organisms
- (16) a silt-curtain approved for use in a flowing body of water must be installed around all in-stream work areas (excavation, dredging, structure removal, etc.) prior to the initiation of in-stream excavation to contain and minimize the off-site/downstream movement of suspended silt; the silt-curtain must remain in place and be kept in good working order until all in-stream and bank excavation/construction has been completed; follow the silt curtain manufacturer's recommendations for installation, maintenance during on-going work, and removal of the silt curtain
- (17) except for the material used as backfill as shown on the above referenced project plans on file at the Division of Water, place all excavated material landward of the floodway *
- (18) all work must conform with the existing bank at the upstream and downstream limits of the project site
- (19) do not leave felled trees, brush, or other debris in the floodway *
- (20) upon completion of the project, remove all construction debris from the floodway *
- (21) issuance of this Certificate does not constitute approval of any additional temporary causeways, coffer dams, runarounds, access bridges or borrow areas associated with the proposed bridge construction; separate written approval must be obtained from the Department for these types of projects prior to beginning any work within the floodway *
- (22) keep the bridge waterway opening free of debris and sediment at all times
- (23) * NOTE: for regulatory purposes, the floodway is defined shown on Panel 178 of the Lake County Flood Insurance Rate Map dated January 18, 2012

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SERVICE LIST

APPLICATION #: FW- 28157

Indiana Department of Transportation
Sandra A Bowman
100 North Senate Avenue, Room N642
Indianapolis, IN 46204

The Troyer Group Incorporated
Michael Brian James
550 South Union Street
Mishawaka, IN 46544-2340

Cfj Properties
PO Box 54470
Lexington, KY 40555

Free IV LLC
PO Box 54470
Lexington, KY 40555

Michael J and Betty M Greco
846 87th Avenue
Merrillville, IN 46410-2026

Indiana Department of Natural Resources
Steve Davis
100 West Water Street
Michigan City, IN 46360-1310

Indiana Department of Natural Resources
Division of Law Enforcement
District 10 Headquarters Dist 0
100 West Water Street
Michigan City, IN 46360

Lake County Drainage Board
2293 North Main Street
Crown Point, IN 46307

Lake County SWCD
880 East 99th Court, Suite A
Crown Point, IN 46307

Little Calumet River Basin Development
Commission
Dan Repay
900 Ridge Road
Munster, IN 46321

Pilot Manning LLC
5508 Lonas Drive
Knoxville, TN 37909

Mr. Mike Simiakos
1969 Central Avenue
Lake Station, IN 46405

US Army Corps of Engineers
Chicago District
231 South LaSalle Street, Suite 1500
Chicago, IL 60604

Staff Assignment:

Administrative
Technical
Environmental
Fish and Wildlife
Engineering

: Jennifer L. Ware
: Jennifer L. Ware
: J. Matthew Buffington
: Lori White
: Christopher Limiac



5-B-2
5-20-16

Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

May 13, 2016

Bill Emerson, Jr
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: Monthly Report on Clearing and Snagging Crew
Little Calumet River Watershed

Dear Mr. Emerson,

Following are the sites addressed by the crew since mid-April

April 14th – May 12th

Turkey Creek Lat. # 6	Removed Debris & Fallen Trees
Turkey Creek Lat. # 6	Removed Beaver Dam
Turkey Creek Lat. # 5	Removed Beaver Dam
Turkey Creek	Removed Beaver Dam

In addition, crew maintained/cleared easements along Cady Marsh Ditch, removed beaver dams and fallen trees at Johnson Ditch, also maintained/ inspected various culvert crossings countywide.

Respectfully,

Thomas Regalado
Assistant Drainage Administrator

Cc: Daniel V. Gossman, Drainage Administrator
Lake County Drainage Board and Advisory Committee

Turkey Creek Lat. # 6 West of I-65

Ross Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Lat. # 6 West of I-65

Ross Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Lat. # 6 West of I-65

Ross Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Lat. # 6 West of I-65

Ross Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Lat. # 5 New Elliott

St. John Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Lat. # 5 New Elliott

St. John Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Gatlin Ponds

St. John Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Turkey Creek Gatlin Ponds

St. John Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

5-B-3
5-20-16

Daniel Gossman

From: nconlon@nisource.com
Sent: Wednesday, May 11, 2016 11:04 AM
To: Daniel Gossman
Cc: Mary Ellen Kupsik
Subject: Fw: Inadvertent return at Hart Ditch crossing for stateline to highland

Dan,

Late Monday, I received notice that an inadvertent return of slurry from our bore operations leaked out into Hart Ditch while they were doing the actual boring. Details are in the forwarded email below. They immediately stopped the boring activities and have opted to do some additional test bores before determining how to best complete the crossing. We have notified Marty Maupin at IDEM and he saw no major issue. The additives are bentonite additives and the mud release has stopped. Please let me know if you need any additional information.

Thanks,
Natalie Conlon
Natural Resources Permitting Coordinator
NIPSCO
nconlon@nisource.com
Work: 219.647.5251
Mobile: 219.742.5633

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*If you are not the intended recipient: Please do not disclose, copy, distribute or use this email or attachment for any purpose. Please notify us by return email of this error and delete the email and any copies from your system. Thank you for your cooperation.

----- Forwarded by Natalie Conlon/NCS/Enterprise on 05/11/2016 10:40 AM -----

From: Natalie Conlon/NCS/Enterprise
To: MMAUPIN@idem.IN.gov
Date: 05/10/2016 03:26 PM
Subject: Inadvertent return at Hart Ditch crossing for stateline to highland

Per my voicemail, see below.

Time of initial release - 3:45PM 5/9/2016

Time work stopped - 3:45PM 5/9/2016

Closest street address - 8848 Parkway Drive, Highland IN.

List of drill fluid additives - Max Bore, Duo Vis and Platinum Pac.

Amount of additives used - 2qt per every 1,000 Gal of water at max.

Description of subsurface materials - Sandy

Amount of water used - 4,000 Gal used (Not Released)

Photos - Attached to next Email.

Description of impacted area - Frac-Out in Cady Marsh Ditch

Actions taken for clean up/stopping release - Stopped drilling immediately. Set curtains in creek.

Stage of bore construction - Plotting.

Estimated time to complete bore - N/A Due to reassessment of depth

Natalie Conlon

Natural Resources Permitting Coordinator

NIPSCO

nconlon@nisource.com

Work: [219.647.5251](tel:219.647.5251)

Mobile: [219.742.5633](tel:219.742.5633)

Confidentiality Notice: This email and any attachments are confidential and are protected by the attorney-client and work product legal privileges. Please do not forward to others.

If you are not the intended recipient: Please do not disclose, copy, distribute or use this email or attachment for any purpose. Please notify us by return email of this error and delete the email and any copies from your system. Thank you for your cooperation.

5-C-1
5-20-16

From: Abraham, Elisa [<mailto:ekabraham@eprod.com>]
Sent: Friday, April 22, 2016 7:54 AM
To: Emerson, Bill J
Subject: Existing Pipeline Easement Valve Removal Project P35_N22961

Good morning, Mr. Emerson.

This summer (2016) we are hoping to remove two valves on our existing pipeline easement (pipeline P-35) on each side of the Kankakee River in northern Indiana.

A few years ago we installed new valves on the north and south side of the river along the nearby roads. The old valves—which are no longer in use—are very close to the river's edge and the area is wet most of the year.

Please review the attachments including pictures, maps and google earth locations to help illustrate the objective of our project.

Equipment list that will be used at the actual work sight (Not the staging area as there will be more there)

- 1- Track hoe 30,000 lb. machine
 - 1- Mid-sized track hoe 15,000 lb. machine.
 - 1- Trench box
 - 2- Welding trucks
 - 3- Portable water pumps
 - 2- UTV-s (Polaris Ranger)
- Wood matting as needed to bridge wet conditions.

Our environmental engineer in our Houston offices is currently working to acquire the proper permits for Corps/IDEM.

Currently, I am trying to contact all possible involved parties and organize all the required materials. So far I have spoken to Rose Morgan of Newton County SWCD, Zack De Young of La Salle Fish and Wildlife Preserve, and reached out to Jody Melton of Kankakee River Basin to see what type of local permitting/precautions may be required.

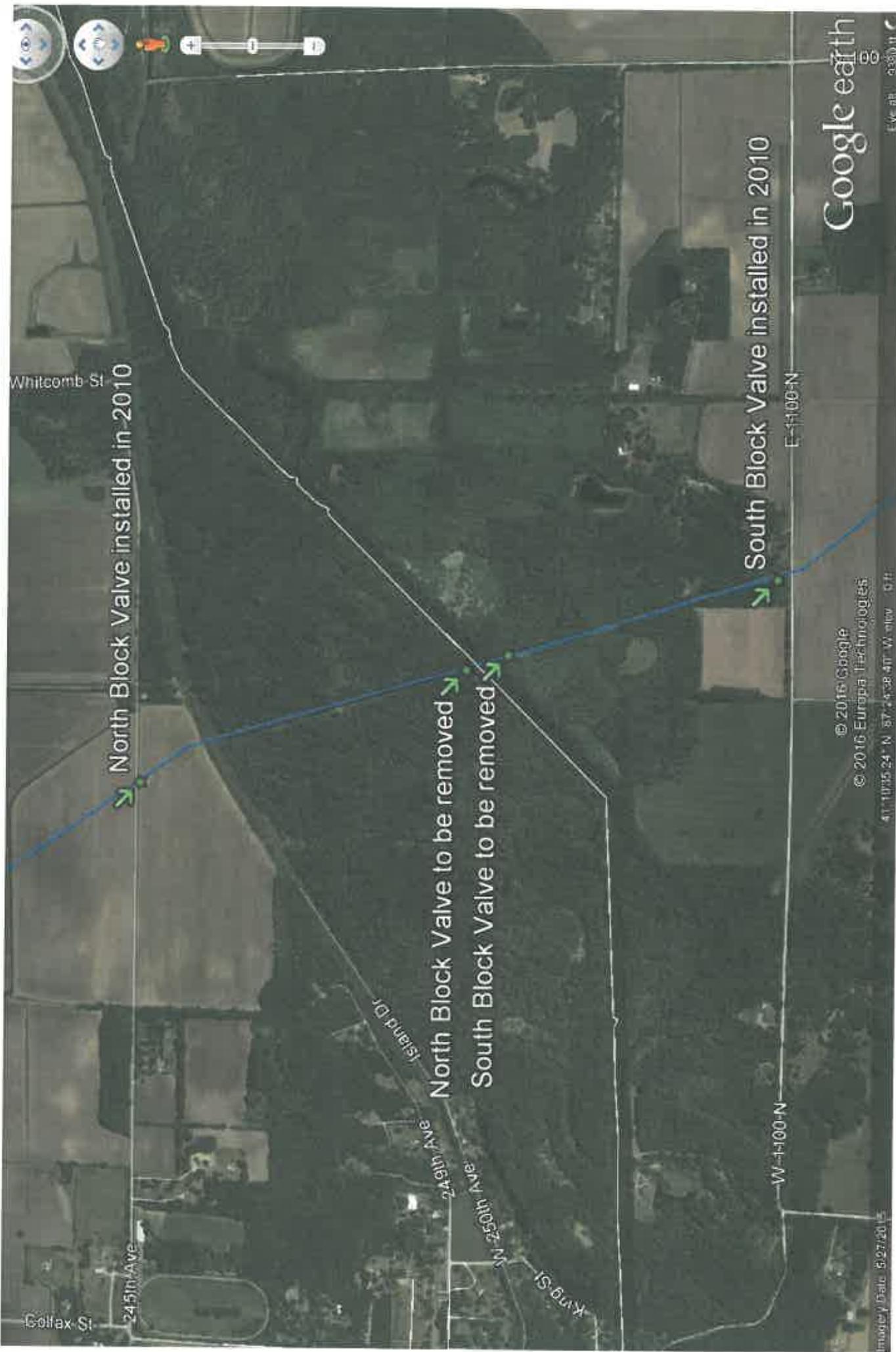
I'd really appreciate any contact information or guidance you may offer as we hope to complete this project this year since the weather may be drier than the past few years.

Please let me know what other information you may need and what kind of permitting or applications may be required by your organization prior to this project taking place.

Sincerely,
Elisa

Elisa K. Abraham - Senior Land Representative

Enterprise Products
1270 Washington St.
Columbus, IN 47201
Office: 812.376.2368
Cell: 812.341.7493
Fax: 281.887-7939
ekabraham@eprod.com



North Block Valve installed in 2010

North Block Valve to be removed

South Block Valve to be removed

South Block Valve installed in 2010

Whitcomb St

Golfax St

24.5th Ave

Island Dr

2.49th Ave

W 2.50th Ave

King St

W-1100-N

E-1100-N

Google earth

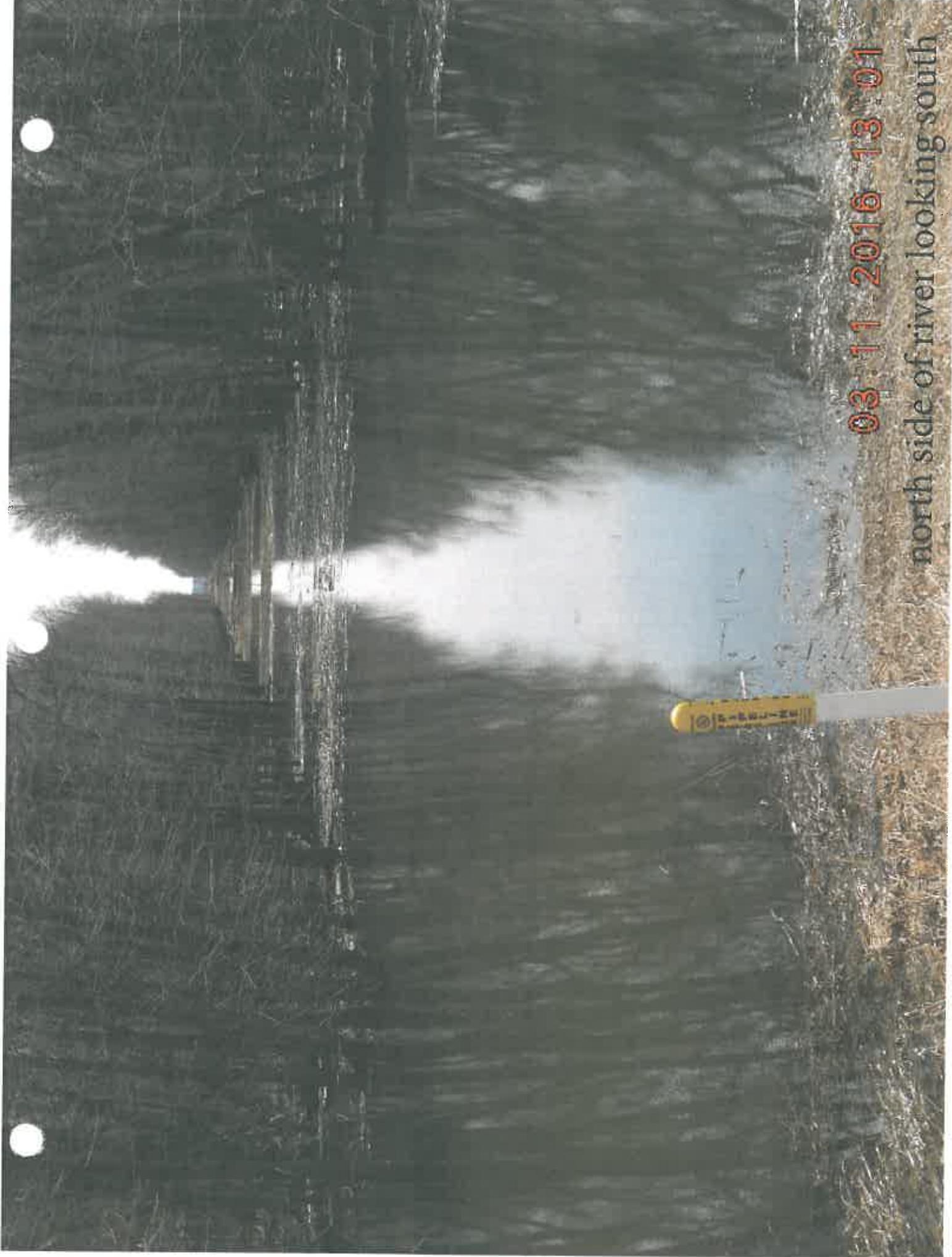
© 2016 Google
© 2016 Europa Technologies
41.111524° N 87.243841° W elev 0 ft

Imagery Date: 5/27/2015

Eye Alt: 9380 ft

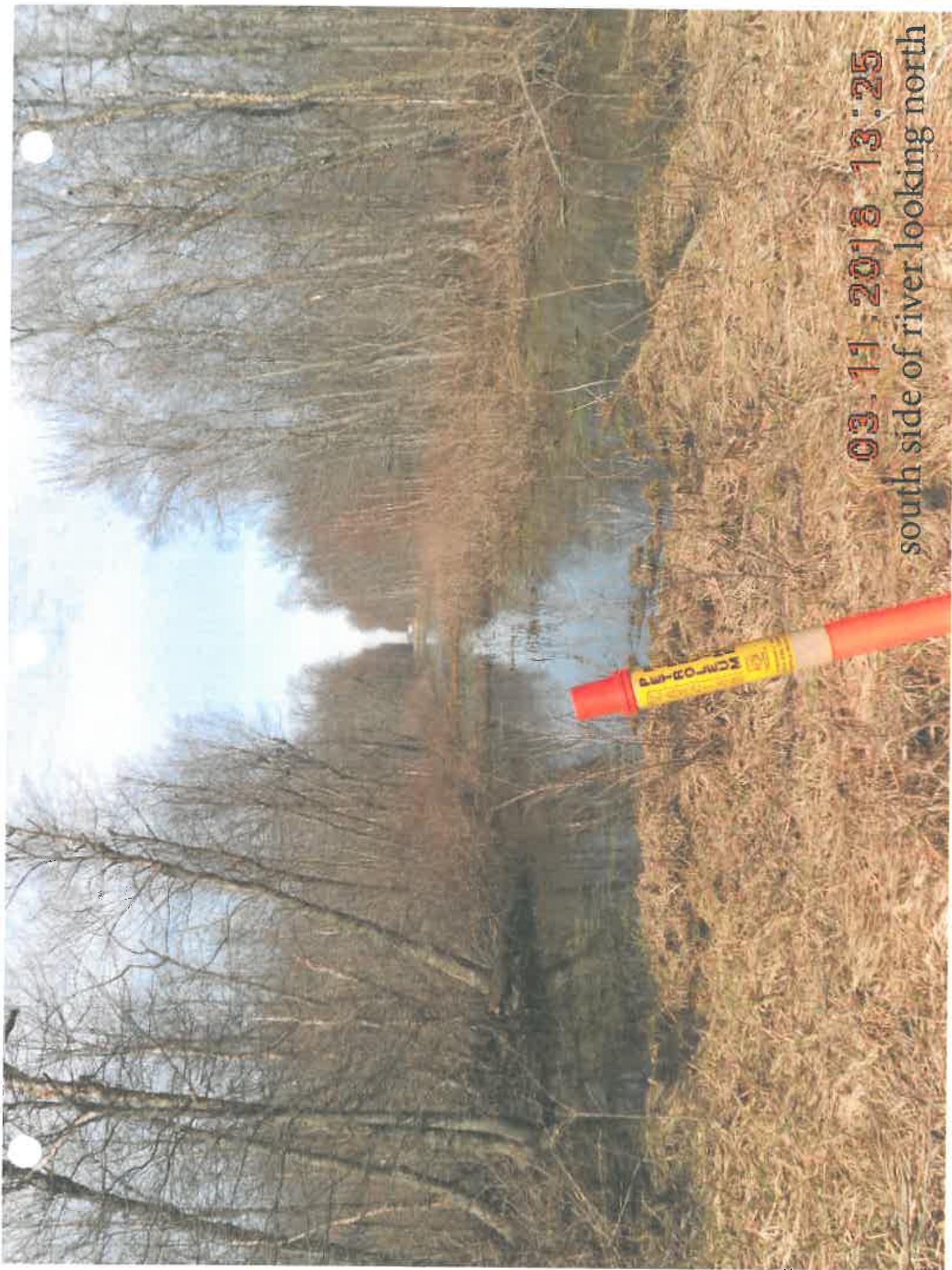
South 3.18.2016





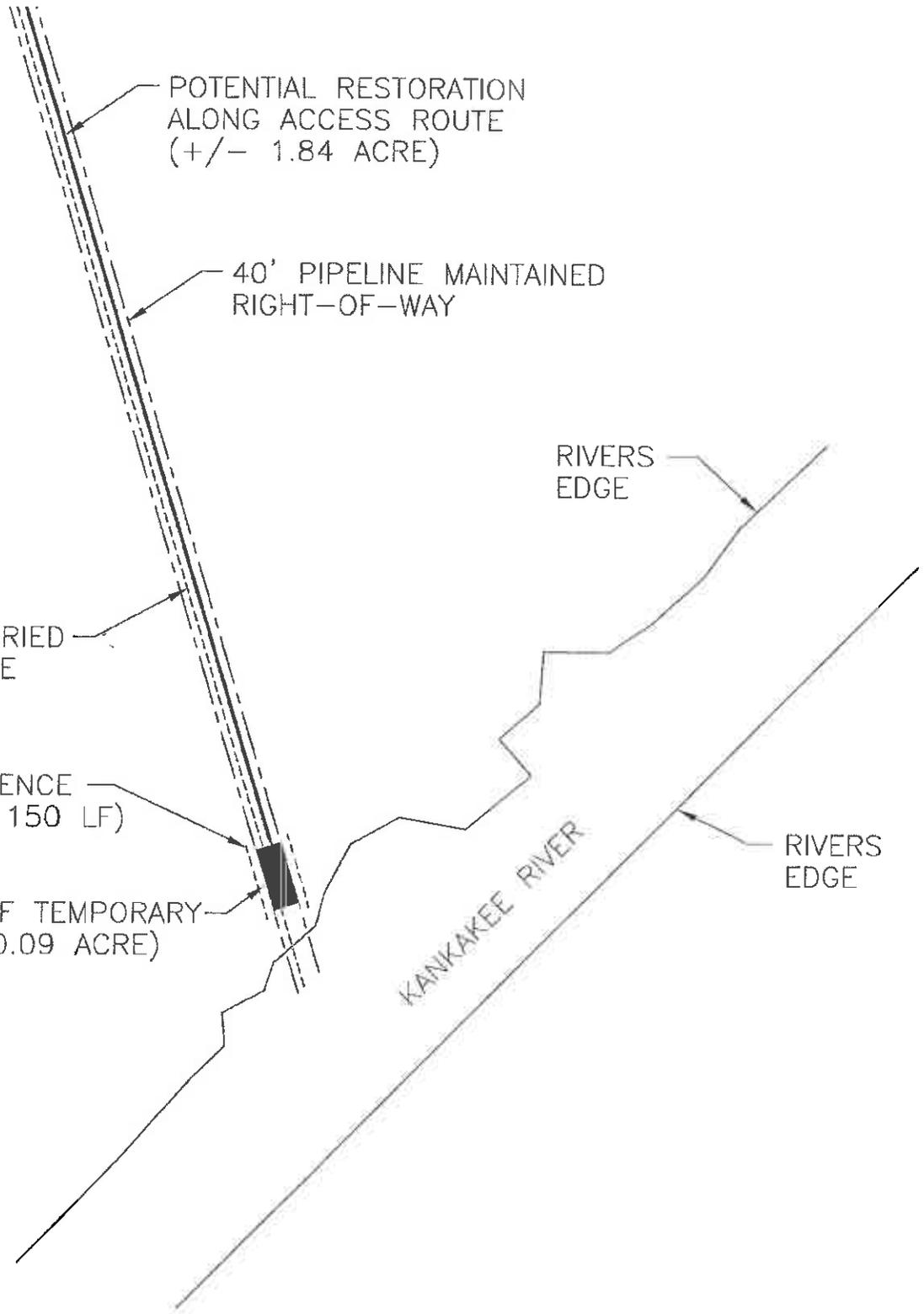
03 11 2018 13 01

north side of river looking south



03.11.2013 13:25

south side of river looking north



POTENTIAL RESTORATION
ALONG ACCESS ROUTE
(+/- 1.84 ACRE)

40' PIPELINE MAINTAINED
RIGHT-OF-WAY

RIVERS
EDGE

14" BURIED
PIPELINE

SILT FENCE
(+/- 150 LF)

RESTORATION OF TEMPORARY
IMPACT AREA (0.09 ACRE)
(110' x 40')

RIVERS
EDGE

KANKAKEE RIVER



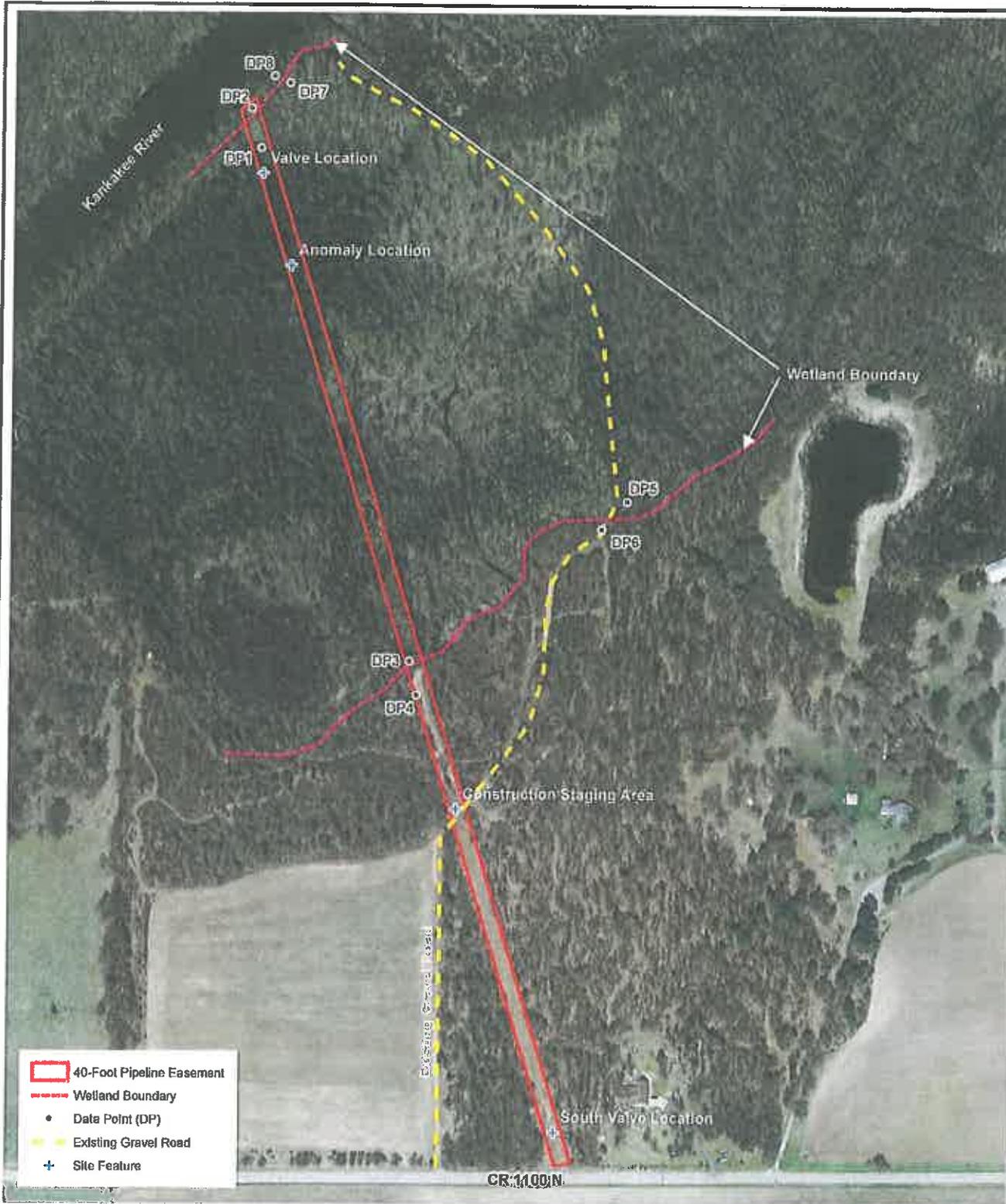
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**ENTERPRISE
PRODUCTS**
KANKAKEE RIVER NORTH VALVE
LAKE COUNTY, IN

SCALE	N/A
CAD	
ENG	
CHK	
DWG No.	-----

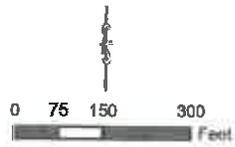
PRJ No.	---
REV.	---



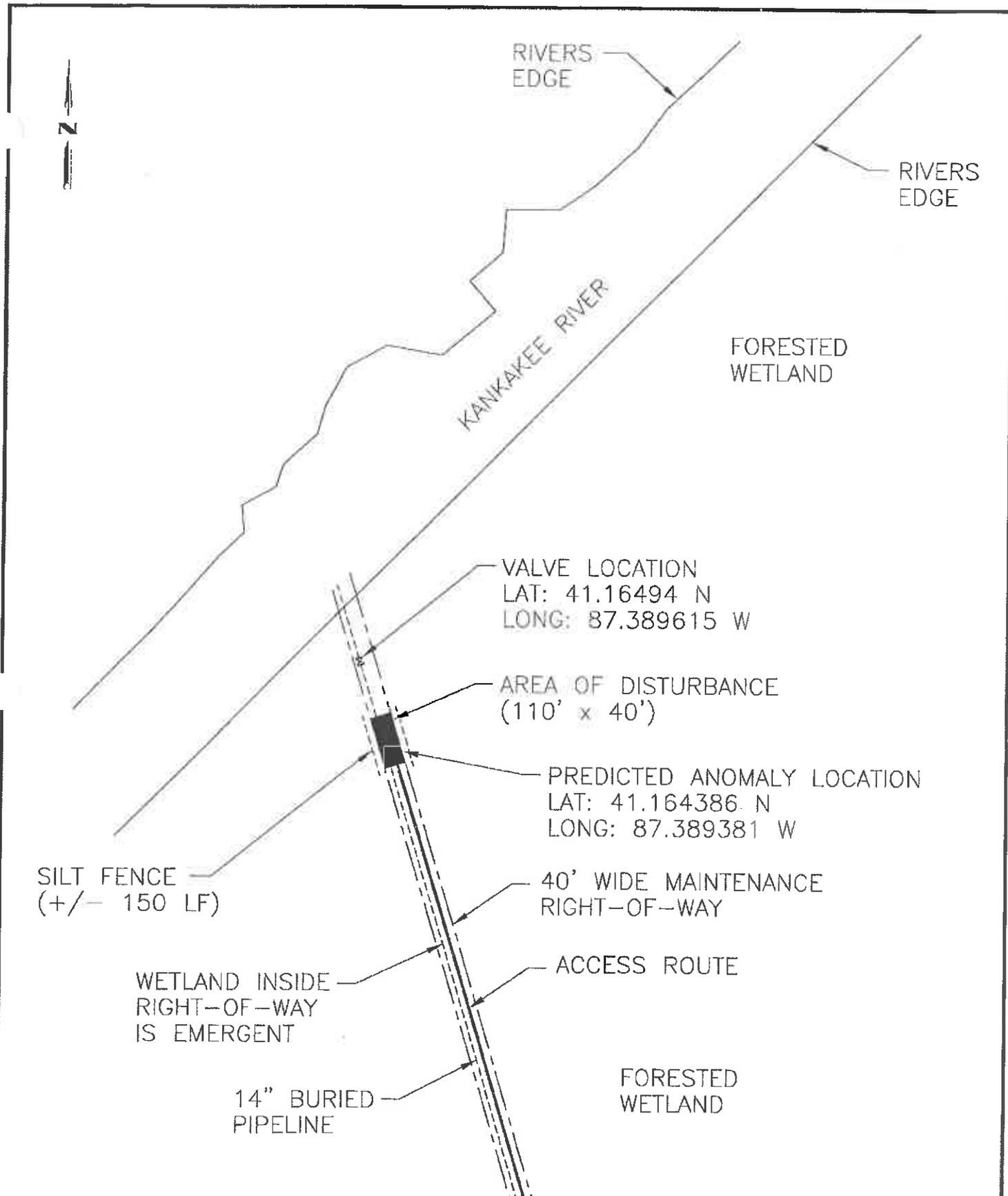
Friday, August 27, 2010 3:53:32 PM
 R:\Projects\10\1003\1003025_Peterson\Eng_TEPPCO\Figures\Delin\head\Map1a-Delin_Location_NMI.mxd

Figure 3: Wetland and Site Feature Map
TEPPCO Valve Block Site
Regulated Waters Delineation
Peterson Engineering
Newton County, Indiana
 (Schneider Quad; T31N, R9W, Sec1 - T31N, R8W, Sec6)

October 2010
 JFN File No. 1003025




 3801 Industrial Boulevard, Indianapolis, IN 46208
 Phone 317-388-1882 / Fax 317-388-1886
www.jfnew.com




**PETERSEN
ENGINEERING**

6902 VINCENNES CIRCLE - SUITE F INDIANAPOLIS, IN 46266

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**ENTERPRISE
PRODUCTS**

KANKAKEE RIVER SOUTH VALVE
NEWTON COUNTY, IN

SCALE	N/A
CAD	
ENG	
CHK	
DWG No.	-----

PROJ No.	
REV.	



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

5-C-1
5-20-16

Bill Emerson, Jr.
County Surveyor

May 5, 2016

Sent Via Email

Elisa K. Abraham - Senior Land Representative
Enterprise Products
1270 Washington St.
Columbus, IN 47201

RE: Kankakee River
Cedar Creek Twp.

Dear Ms. Abraham,

Please be advised that the Lake County Surveyor/Lake County Drainage Board is in receipt of your request for clarification whether a Lake County Drainage Board Permit is required for the proposed activity near the Kankakee River. Lake County Surveyor Bill Emerson, Jr. and I have reviewed the information submitted and have decided that at this time no permit would be required.

However, we have recommendations regarding repairs to pipelines within regulated drains of Lake County. We assume the pipelines will need to block flow through a ditch to perform the repair. The following requirements are recommended so that the regulated drains can maintain their function during heavy rains and not cause flooding problems upstream nor allow sediment deposition downstream.

1. Sediment control devices must be in place before work begins and shall be maintained during the project.
2. A safe and properly stabilized ditch cross-section shall be provided in the vicinity of the project.
3. Blocking of the drainage ditch shall not occur after a significant rainfall event (greater than 1.0-inch) or when such events have been forecasted. The work shall not begin until water levels within the regulated drain have substantially receded.
4. All disturbed areas should be re-vegetated and restored to existing conditions.

Should you have any additional questions or concerns, please do not hesitate to contact our office.

Sincerely,

Daniel V. Gossman
Drainage Administrator

Cc: Bill Emerson, Jr., Lake County Surveyor
Tom Regalado, Asst Drainage Admn
Alice Dahl, Cedar Creek Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee
Jody Melton, Kankakee River Basin Commission

May 5, 2016

Mr. Bill Emerson, Jr
Lake County Surveyor
Building 'A', 3rd Floor
2293 N. Main Street
Crown Point, IN 46307



Dear Mr. Emerson:

Subject: Proposed SR 2 Bridge
(#002-45-00802C [NBI#580])
over MJ Brown Ditch in
Eagle Creek Township, Lake County, Indiana
(Des. No. 0500028, DHPA#19111)
CEC Project 153-396

The Indiana Department of Transportation (INDOT) intends to address the structural deficiencies of the SR 2 Bridge (#002-45-00802C [NBI#580]) over MJ Brown Ditch in Eagle Creek Township, Lake County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental issues associated with this project. **Please use the above referenced designation number and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The proposed bridge project is located 2.75 miles east of the intersection of SR 2 and I-65. The project area extends 618 feet west and 750 east of MJ Brown Ditch and is 135 feet wide. In addition to addressing the structural deficiencies, the project will address the drainage of the area by including the construction of precast reinforced concrete 4-sided box structure 560 feet east of the bridge. It is anticipated that right-of-way (R/W) will be needed along the project area; however R/W quantities have not been determined at this time.

The terrain is flat and is of agricultural landuse. Investigations involving the environmental impacts such as streams and wetlands, archaeological and historic resources for Section 106 compliance, and parcels of concern for hazardous materials will be conducted.

Should we not receive your response within **thirty (30) calendar** days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary; a reasonable amount may be granted upon request.

If you have any questions regarding this matter, please feel free to contact Luella Beth Hillen at (317) 655-7777 or at bhillen@cecinc.com. You can also contact Sam Snell at ssnell@cecinc.com. Thank you in advance for your input.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

A handwritten signature in black ink that reads "Luella Beth Hillen".

Luella Beth Hillen
Principal

Enclosures

L 153-396 2016 05-05 SR2 Bridge – Early Coordination – Lake County Surveyor



NORTH

PROJECT AREA



INDIANA



Legend

- Indianapolis
- Counties
- Lake County



REFERENCE

USGS TOPOGRAPHIC MAP/ARCGIS MAP SERVICE:
HTTP://GOTO.ARCGISONLINE.COM/MAPS/USA_TOPO_MAPS,
ACCESSED 4/26/2016



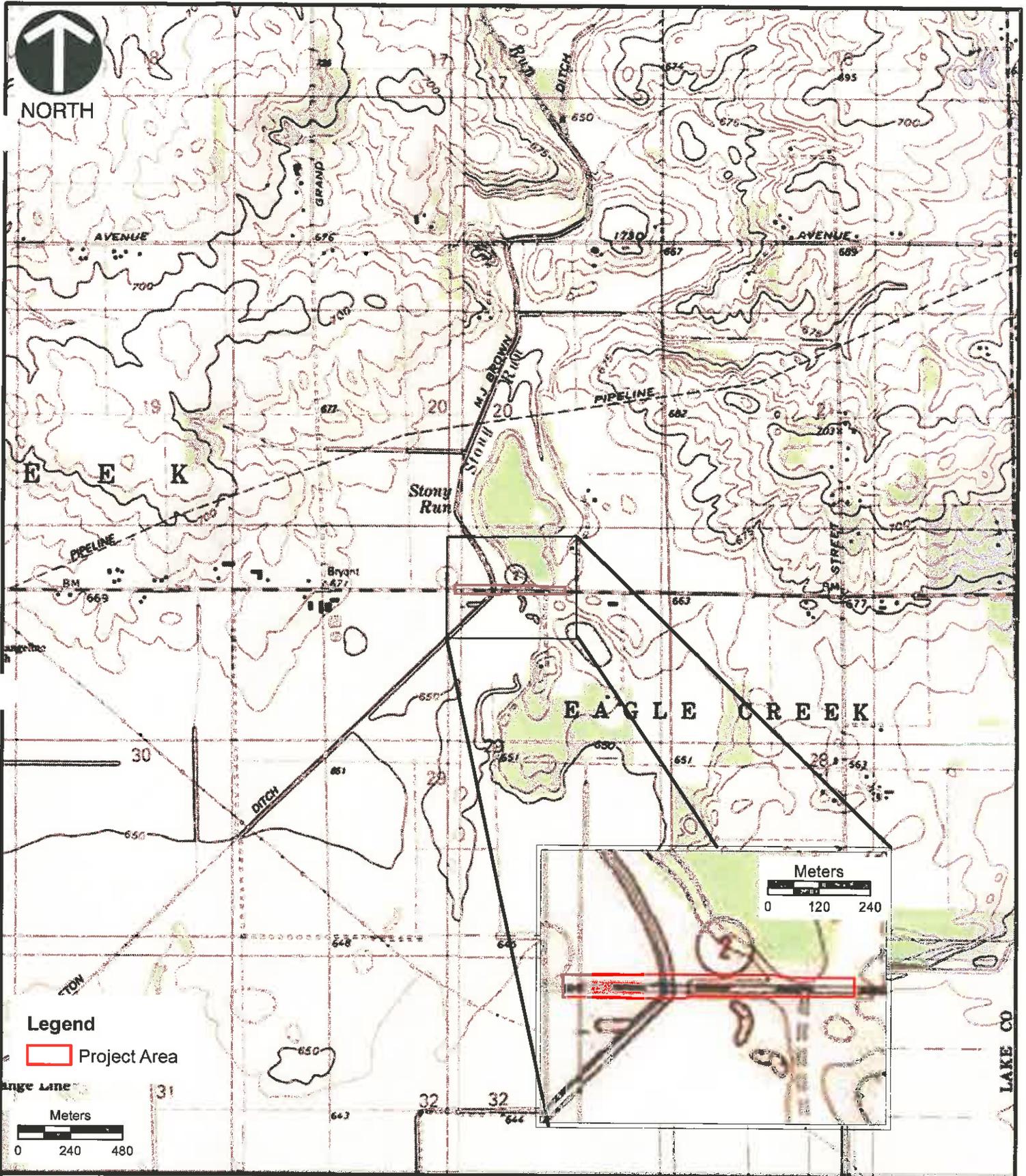
Civil & Environmental Consultants, Inc.

530 East Ohio Street, Suite G - Indianapolis, IN 46204
317-655-7777 • 877-746-0749
www.cecinc.com

LAWSON-FISHER ASSOCIATES
STATE ROUTE 2 BRIDGE OVER
MJ BROWN DITCH PROJECT (DES. NO. 0500028)
EAGLE CREEK TOWNSHIP,
LAKE COUNTY, INDIANA

Project area Location

DRAWN BY:	SPS	CHECKED BY:	JAS	APPROVED BY:	LBH	FIGURE NO:	1
DATE:	03/24/2016	SCALE:	1 cm = 20 km	PROJECT NO:	153-396		



Civil & Environmental Consultants, Inc.

530 East Ohio Street, Suite G - Indianapolis, IN 46204
 317-655-7777 • 877-746-0749
 www.cecinc.com

LAWSON-FISHER ASSOCIATES
 STATE ROUTE 2 BRIDGE OVER
 MJ BROWN DITCH PROJECT (DES. NO. 0500028)
 EAGLE CREEK TOWNSHIP,
 LAKE COUNTY, INDIANA

Project area on portions of the 1992 Hebron
 and 1992 Leroy, IN, 7.5 minute quadrangles

DRAWN BY:	SPS	CHECKED BY:	JAS	APPROVED BY:	LBH	FIGURE NO: 2
DATE:	03/24/2016	SCALE:	1 cm = 240 m	PROJECT NO:	153-396	



Legend
 Project Area



REFERENCE
 ESRI WORLD IMAGERY / ARCOIS MAP SERVICE:
[HTTP://GOTO.ARCGIS.COM/ARCGISONLINE.COM/MXAPPS/WORLD_IMAGERY](http://gto.arcgis.com/arcgisonline.com/mxapps/world_imagery),
 ACCESSED 4/26/2016



Civil & Environmental Consultants, Inc.
 530 East Ohio Street, Suite G - Indianapolis, IN 46204
 317-655-7777 · 877-746-0749
www.cecinc.com

LAWSON-FISHER ASSOCIATES
 STATE ROUTE 2 BRIDGE OVER
 MJ BROWN DITCH PROJECT (DES. NO. 0500028)
 EAGLE CREEK TOWNSHIP,
 LAKE COUNTY, INDIANA

Project area on an aerial photograph

APPROVED BY: *LBF*
 PROJECT NO: 153-396

FIGURE NO: **3**

DRAWN BY: SPS
 CHECKED BY: JAS
 DATE: 03/29/2016
 SCALE: 1 cm = 20 m

Work on area ditches could prevent catastrophe

[Kitty Conley](#) May 6, 2016

Lake County Surveyor Bill Emerson Jr. and his staff work hard to keep up with maintenance on the ditches and creeks that make up the regulated drains in Lake County.

It doesn't make any difference if you live in a big city or in a very rural area. These drains can fail and if they do you or your neighbor can get a lot of water in your basement, streets can have cars floating in them or you lose all your income for an entire year when your crops on your farm are destroyed.

When you think it is just a little amount of water in a little ditch – stop and think. The Colorado River is a nice size river, but not that grand, but it created the Grand Canyon. Given enough time water can do strange things. When the rain comes and the banks are eroded the water goes where ever it wants to go. Land that was not intended by nature to be wetland suddenly cannot support a tractor to care for crops. If the Beaver Dam Lateral doesn't do its job, which it didn't a few years back, Broadway is flooded. The Calumet River and the Little Cal didn't or couldn't do its job and Munster flooded.

In south Lake County there is a regulated drain called McConnell Ditch. Right now, according to Dan Gossman, the drainage administrator for Emerson, the county needs to repair the break in the McConnell Ditch. There is a part that was there that is no longer a ditch. The banks failed and the water just filled in the land around it. The part of this ditch that goes from the west side of Lake Dalecarlia to join Cedar Creek in Lowell right around Saco Industries on Morse Street needs to be dug again so water can flow once again.

Emerson called for a meeting of the property owners where this part of McConnell runs. Not one owner of the 12 parcels attended. So the county will have to move on what they have to do. The missing part of the ditch was definable very clearly on the 1980 map; by 1998 it was starting to disappear. Since 2002 it has been gone. This is the smallest area on this project that all interconnects and this one might come in around \$80,000 or a lot less. That will be determined by what the engineering company defines and the work involved.

There is another regulated drain. This one is Cedar Creek. Cedar Creek is a major tributary of the Kankakee River. The watershed for Cedar Creek encompasses a drainage area a little more than 31 square miles where it joins the Singleton Ditch. Cedar Creek, according to Emerson, flows southerly for a distance of almost 7 miles across flat, low-lying land to the Singleton Ditch. Singleton flows westerly into the Kankakee River. During drier periods the flow in Cedar Creek is very slow and sluggish and is even stagnant in some areas. That slow flow all changes when the big rains come. Then Cedar Creek has overtopped it's banks flooding the low-lying areas.

A few years ago downtown Lowell was flooded. That was the work of Cedar Creek. When any of these regulated drains end up disappearing by eroding their own banks or debris such as overgrown vegetation and fallen trees or branches blocks the way flooding is not far behind.

Once again Emerson invited the property owners to a meeting to discuss the maintenance project on Cedar Creek between Lake Dalecarlia and 171st Avenue.

Land owners along this stretch of Creek did come to the meeting in April. That way the property owners know about the work that is going to be done, and can inform the county about the times and types of crops around the creek so a time frame can be established to not interfere with the cash crops. This section of the creek that will be worked on should come in around \$100,000 depending on what the engineers design for being accomplished this year.

The biggest bill is going to come from the repair to the Singleton Ditch from Monon Road to Mississippi Street. The Singleton is a major tributary of the Kankakee River Watershed. This ditch drains an area of just under 87 square miles, flows westward for almost 15 miles also across flat, low-lying land into the Kankakee River in Illinois. This part of the Singleton that is scheduled for maintenance is quite a ways south and west of the Singleton Quarry. This project has nothing to do with the quarry other than the fact that the Singleton Ditch travels for miles. The work to be done includes debris, sediment and obstruction removal, along with stabilization of the banks along the way. This part of the regulated drain maintenance in South Lake County is the longest and the will undoubtedly be the most expensive, according to Grossman. This may take two years and could possibly be pushing \$200,000, depending on what the engineers recommend.

The reason for the meeting with the property owners along the way was, according to Grossman, giving them a chance to give Emerson's office their input as to dates and times for crops. The May Drainage Board meeting will call for advertising for bids on these three regulated drains. Then the bids will be due to open on at the June meeting. They usually take these bids under advisement and may be let by the July 20 meeting.



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

5-C-4
5-20-16

Bill Emerson, Jr.
County Surveyor

May 13, 2016

Bill Emerson, Jr
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: Monthly Report on Clearing and Snagging Crew
Kankakee River Watershed

Dear Mr. Emerson,

Following are the sites addressed by the crew since mid-April

April 14th – May 12th

Hayden Ditch	Removed Beaver Dam
Cedar Creek	Removed Beaver Dam
Cedar Creek	Removed Beaver Dam

In addition, crew maintained/cleared easements along West Creek, removed beaver dams and fallen trees at Foss Ditch, also maintained/ inspected various culvert crossings countywide.

Respectfully,

Thomas Regalado
Assistant Drainage Administrator

Cc: Daniel V. Gossman, Drainage Administrator
Lake County Drainage Board and Advisory Committee

Hayden Ditch State Line / Marvin Bredemeier Property

West Creek Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Hayden Ditch State Line / Marvin Bredemeier Property

West Creek Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Cedar Creek South of 171st

Cedar Creek Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Cedar Creek South of 171st

Cedar Creek Twp.



After

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Cedar Creek South of 171st

Cedar Creek Twp.



Before

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor

Cedar Creek South of 171st

Cedar Creek Twp.



After

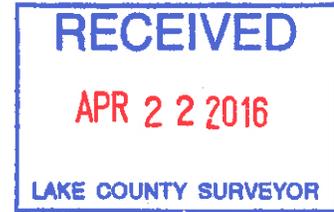
Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr Lake County Surveyor



5-D-3
5-10-16

April 22, 2016

Lake County Surveyor's Office
Lake County Government Center
2293 North Main Street
Crown Point, Indiana 46307



Attention: Bill Emerson Jr., Lake County Surveyor

Subject: Cady Marsh Ditch – 2015 (Highland)
Review of Invoice #5

Dear Mr. Emerson:

As requested, Christopher B. Burke Engineering, LLC staff (CBBEL) reviewed the invoice from KDM Services, LLC (KDM) for the Cady Marsh Ditch Project dated April 20, 2016. CBBEL inspected the work completed by KDM on April 20, 2016. The work completion observations correspond with the Pay Items and Project Stationing identified in KDM's Invoice. CBBEL offers the following information on areas identified where improvements have occurred and have been field verified:

Item 1: Log Jam Removal (Clearing & Snagging)

Original Contract Amount = \$121,206.25 (based on 11,275 LFT)

Quantity Completed through previous invoices = 8,900 LFT

Work completed for this Invoice:

Sta. 30+25 to 31+50 =	125 LF
Sta. 59+00 to 66+00 =	700 LF
Sta. 131+00 to 137+00 =	600 LF

1,425 LF Total this Invoice

Unit Cost @ \$10.75/LF x 1,425 LF = **\$15,318.75**

(Note: For Pay Item 1, Log Jam Removal, KDM is 92% complete through Invoice #5.)

Item 2: Channel Bottom Dipping

Original Contract Amount = \$72,191.25 (based on 6,417 CY)

Quantity Completed through previous invoices = 933 LFT

Work completed for this Invoice at \$11.25/LF Unit Price:

Sta. 60+00 to 66+00 = 600 LFT	200.12 CY
Sta. 131+00 to 137+00 = 600 LFT	889.10 CY

1089.22 CY Total this Invoice

Unit Cost @ \$11.25/LF x 1089.22 = **\$12,253.73**

Final partial payment at \$3.00 CY at these locations:

Sta. 100+50 to 103+00 = 250 LFT	333.27 CY
Sta. 112+00 to 123+30 = 1130 LFT	1,506.96 CY

1,840.23 CY Total this Invoice

Unit Cost @ \$3.00/LF x 1,840.23 = **\$5520.56** (Per KDM)

(Note: For Pay Item 2, Channel Bottom Dipping, KDM is 60% complete through Invoice #5.)

Item 3: Temporary Wetland Crossing (Drag Line Mat)

Original Contract Amount = \$61,460.00 (based on 1,400 LFT)

Quantity Completed through previous invoices = 350 LFT

Work completed for this Invoice:

Sta. 131+50 to 137+00 =	<u>550 LF</u>	
	550 LF	Total this Invoice
Unit Cost @ \$43.90/LF x 550 LF =	\$24,145.00	

(Note: For Pay Item 3, Temporary Wetland Crossing, KDM is 64% complete through Invoice #5.)

Item 6A: Erosion Control Blanket (Special) – Spoil Piles

Original Contract Amount = \$41,149.50 (Spoil Piles: 7,838 SY x \$5.25/SY = \$41,149.50)

Quantity Completed through previous invoices = 1,011 SY

Work completed for this Invoice:

Sta. 100+50 to 103+00 =	361.05 SY	
Sta. 112+00 to 117+00 =	722.31 SY	
Sta. 121+00 to 123+30 =	<u>333.00 SY</u>	
	1,416.36 SY	Total this Invoice
Unit Cost @ \$5.00/SY x 1,416.36 SY =	\$7,081.80	

(Note: For Pay Item 6A, ECB – Spoil Piles, KDM is 31% complete through Invoice #5.)

Item 8: Silt Fence

Original Contract Amount = \$9,493.75 (based on 5,425 LFT)

Quantity Completed through previous invoices = 2,480 LFT

Work completed for this Invoice:

Sta. 123+80 to 130+50 =	<u>670 LFT</u>	
	670 LFT	Total this Invoice
Unit Cost @ \$1.75/SY x 670 LFT =	\$1,172.50	

(Note: For Pay Item 8, Silt Fence, KDM is 58% complete through Invoice #5.)

Item 9: Removal/Relocation of Obstructions

Original Contract Amount = \$10,125.00 (lump sum item).

Quantity Completed through previous invoices = 0

Work completed for this Invoice: Removal and reinstallation of fencing obstruction from Sta. 57+00 to 66+00 completed.

Unit Cost @ \$10,125.00 x 1 (lump sum) = **\$10,125.00**

(Note: For Pay Item 9, Removal/Relocation of Obstructions, KDM is 100% complete through Invoice #5.)

Summary of Pay Items for this Invoice:

Log Jam Removal:	\$15,318.75
Channel Bottom Dipping	\$17,774.28
Temporary Wetland Crossing	\$24,145.00
Erosion Blanket (Special) – Spoil Piles:	\$7,081.80
Silt Fence:	\$1,172.50
Removal/Relocation of Obstructions:	<u>\$10,125.00</u>
Value of Work Completed This Invoice:	\$75,617.33

CBBEL's recommendation for payment:

Total Improvements:	This Invoice	To Date
Value of Work Completed:	\$ 75,617.33	\$ 269,398.85
Less Retainage (15%):	\$ (11,342.60)	\$ (40,409.83)
Balance:	\$ 64,274.73	\$ 228,989.02
Less Previous Payments:	n/a	\$ (164,714.30)
Subtotal:	\$ 64,274.73	\$ 64,274.73
Amount Due This Payment:	\$ 64,274.73	\$ 64,274.73

With an overall contract value of \$397,826.25, the value of completed work to date of \$269,398.85 represents an overall project completion status of 68% complete at the time of the site inspection conducted on April 22, 2016. If you have any questions, please do not hesitate to call.

Sincerely,


Alan J. Walus, Senior Project Manager

Attached: KDM Services, LLC Invoice dated on April 20, 2016

cc: Daniel V. Gossman, Lake County Surveyor's Office
Thomas T. Burke, Jr., CBBEL

L9301690001 Cady Marsh Invoice 5 Review 042216



INVOICE

11703 West 173rd Avenue
 Lowell, IN 46356
 Phone: (219) 690-1234
 Fax: (219) 690-1234

Date	Order No.
04/20/2016	153092
Bill To:	
Lake County Surveyor's Office 2293 N Main Crown Point, IN 46307	

Job: Cady Marsh Ditch

Description	Quantity	Unit Price	Total
Log jam removal (clearing and snagging) STA 30+25 to 31+50 STA 59+00 to 66+00 STA 131+00 to 137+00	125 LFT 700 LFT 600 LFT	\$10.75/LFT	\$15,318.75
Channel bottom dipping (sediment removal) STA 60+00 to 66+00 STA 100+50 to 103+00 *Unit price adjusted to complete payment from order #153085 STA 112+00 to 123+30 *Unit price adjusted to complete payment from order #153085 STA 131+00 to 137+00	200.12 CY 333.27 CY 1,506.96 CY 889.10 CY	\$11.25/CY \$3.00/CY \$3.00/CY \$11.25/CY	\$17,774.28
Temporary wetland crossing (drag line mat) STA 131+50 to 137+00	550 LFT	\$43.90/LFT	\$24,145.00
Erosion blanket (special) spoil piles STA 100+50 to 103+00 STA 112+00 to 117+00 STA 121+00 to 123+30	361.05 SY 722.31 SY 333 SY	\$5.00/SY	\$7,081.80
Silt fence STA 123+80 to 130+50	670 LFT	\$1.75/LFT	\$1,172.50
Removal/relocation of obstructions	1	LSUM	\$10,125.00

Notes:

"OK"
Per CBBEL Hg 4/20/16
[Signature]

Total \$75,617.33
 -Less 15% retainage \$11,342.60
Grand Total \$64,274.73

5-D-3
5-20-16



May 9, 2016

Lake County Surveyor's Office
Lake County Government Center
2293 North Main Street
Crown Point, Indiana 46307

Attention: Bill Emerson Jr., Lake County Surveyor

Subject: Cady Marsh Ditch (Highland) – Scope of Work Reductions
(CBBEL Project No. 930169.00060)

Dear Mr. Emerson:

While performing the Scope of Work items specified in the Contract Documents for the Cady Marsh Ditch–Highland Project, KDM Services, LLC, has identified two areas of the project where there is limited site access issues related to Channel Bottom Dipping and the associated Scope of Work items. These are at Sta. 57+00 to 60+00 (from Kennedy Ave. to the footbridge near Highland High School) and Sta. 110+50 to 112+00 (Liable Road and septic system interference).

CBBEL has reviewed the access issues related to this work and we have also discussed the issues with Dan Gossman of the Lake County Surveyor's Office. CBBEL and the LCSO are in agreement to delete the Channel Bottom Dipping (and associated Silt Fence, Erosion Control Blanket and Seeding) at the above noted Station reaches. Based on the As-Bid Contract Unit Prices from KDM, the value of the reductions of the above-noted Scope of Work items at Sta. 57+00 to 60+00 and Sta. 110+50 to 112+00 has been calculated as follows:

Scope of Work Reductions at Sta. 57+00 to Sta. 60+00 (300 LFT)

The corresponding reduction in price is:

Work Description:	Unit Cost:	Quantity Reduced:	Value of Reduction:
Channel Bottom Dipping:	\$11.25/CY	$(300 \text{ LFT})(0.5' \text{ avg.})(18' \text{ avg.}) / 27 = 100 \text{ CY}$	\$ (1,125)
Erosion Blanket:	\$5.25/SY	$(300 \text{ LFT})(13)/9 = 433.3 \text{ SY}$	\$ (2,275)
Seeding of Spoil Piles:	\$1,125/AC	$(300 \text{ LFT})(13)/43,560 = 0.09 \text{ AC}$	\$ (101)
Silt Fence:	\$1.75/LFT	300 LFT	\$ (525)
			\$ (4,026)

Scope of Work Reductions at Sta. 110+50 to Sta. 112+00 (150 LFT)

The corresponding reduction in price is:

Work Description:	Unit Cost:	Quantity Reduced:	Value of Reduction:
Channel Bottom Dipping:	\$11.25/CY	$(150 \text{ LFT})(2.0' \text{ avg.})(18' \text{ avg.}) / 27 = 200 \text{ CY}$	\$ (2,250)
Erosion Blanket:	\$5.25/SY	$(150 \text{ LFT})(13)/9 = 216.7 \text{ SY}$	\$ (1,138)
Seeding of Spoil Piles:	\$1,125/AC	$(150 \text{ LFT})(13)/43,560 = 0.0448 \text{ AC}$	\$ (50)
Silt Fence:	\$1.75 LFT	150 LFT	\$ (263)
			\$ (3,701)

Summary of Work Scope Reductions:

Sta. 57+00 to Sta. 60+00	\$ (4,026)
Sta. 110+50 to Sta. 112+00	\$ (3,701)
Value of Work Reduced:	\$ (7,727)

The calculated Work Scope Reduction amount of \$(7,727) will be accounted for in the review of the next invoice submitted by KDM for work related to this project.

If you have any questions, please do not hesitate to call.

Sincerely,



Alan J. Walus, Senior Project Manager

cc: Daniel V. Gossman, Lake County Surveyor's Office
Thomas T. Burke, Jr., CBBEL
Don Oliphant, CBBEL

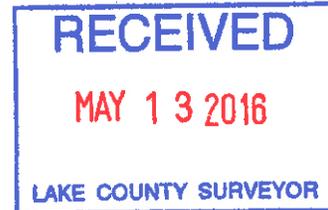
L930169 Cady Marsh Ditch-Highland Scope Reductions 5-9-16

5-D-3
5-20-16



May 13, 2016

Lake County Surveyor's Office
Lake County Government Center
2293 North Main Street
Crown Point, Indiana 46307



Attention: Bill Emerson Jr., Lake County Surveyor

Subject: Cady Marsh Ditch – 2015 (Highland)
Review of Invoice #6

Dear Mr. Emerson:

As requested, Christopher B. Burke Engineering, LLC staff (CBBEL) reviewed Invoice #153095 dated May 12, 2016, from KDM Services, LLC (KDM) for the Cady Marsh Ditch Project. CBBEL inspected the work completed by KDM on May 12, 2016. The work completion observations correspond with the Pay Items and Project Stationing identified in KDM's Invoice. CBBEL offers the following information on areas identified where improvements have occurred and have been field verified:

Item 3: Temporary Wetland Crossing (Drag Line Mat)

Work completed for this Invoice:

Sta. 130+50 to 131+50 =	100 LF	
	100 LF	Total this Invoice
Unit Cost @ \$43.90/LF x 100 LF =	\$4,390.00	

Item 5: Riprap Bank Protection

Original Contract Amount = \$46,543.00 (based on 763 TONS)

Work completed for this Invoice:

Sta. 54+00 to 56+00 =	400 TONS	
Sta. 57+00 to 57+50 =	200 TONS	
Sta. 62+00 to 62+50 =	100 TONS	
Sta. 128+00 to 128+25 =	63 TONS	
	763 TONS	Total this Invoice
Unit Cost @ \$61/TON x 763 TONS =	\$46,543.00	

(Note: For Pay Item 5, Riprap Bank Protection, KDM is 100% complete through Invoice #6.)

Summary of Pay Items for this Invoice:

Temporary Wetland Crossing:	\$4,390.00
Riprap Bank Protection:	\$46,543.00
Value of Work Completed This Invoice:	\$50,933.00

CBBEL's recommendation for payment:

Total Improvements:	This Invoice	To Date
Value of Work Completed:	\$ 50,933.00	\$ 320,331.86
Less Retainage (15%):	\$ (7,639.95)	\$ (48,049.78)
Balance:	\$ 43,293.05	\$ 272,282.07
Less Previous Payments:	n/a	\$ (228,989.03)
Subtotal:	\$ 43,293.05	\$ 43,293.05
Amount Due This Payment:	\$ 43,293.05	\$ 43,293.05

With a contract value of approximately \$390,100 the value of completed work to date of \$320,331.86 represents an overall project completion status of 82% complete. The remainder of the contracted work is in the process of being completed; however, not ready for invoicing at this time. Invoicing for these remaining work items should be completed and ready for invoicing prior to the June Drainage Board Meeting.

If you have any questions, please do not hesitate to call.

Sincerely,


Alan J. Walus, Senior Project Manager

Attached: KDM Services, LLC Invoice #153095 dated May 12, 2016

cc: Daniel V. Gossman, Lake County Surveyor's Office
Thomas T. Burke, Jr., CBBEL

L9301690001 Cady Marsh Invoice 6 Review 051216



5-D-4
5-20-16

Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

May 4, 2016

Bill Emerson, Jr.
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: 2015 Turkey Creek Lateral No. 3 – Culvert Improvements
Schervood Golf Course, Scherverville, St John Twp.
Invoice #34688 Review

Dear Bill,

I have reviewed the Invoice #34688 from Austgen Equipment dated April 27, 2016 in the amount of \$68,443.70 (see attached) in reference to work on the Turkey Creek Lateral No. 3 project. An inspection with MS4 Compliance Inspector Chris Brown was made on May 04, 2016.

After the inspection, staff confirms the invoice submitted is consistent with the work accomplished to date. Therefore, it is recommended that the contractor receive payment for the invoiced amount.

Should you have any questions or comments, or require additional information, please do not hesitate to let me know.

Sincerely,

A handwritten signature in black ink that reads "Daniel V. Gossman".

Daniel V. Gossman
Drainage Administrator

Cc: Tom Regalado, Asst Drainage Admn
Chris Brown, MS4 Compliance Inspector
Cliff Duggan, Legal Advisor
Jean Shepherd, St John Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee
John Dumbky, Austgen Equipment Inc.



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor



Austgen Equipment, Inc.

11309 Broadway, Suite C3
 Crown Point, IN 46307
 Phone 219-213-2389
 Fax 219-779-9623



Invoice

Date:	Invoice #
4/27/2016	34688

Bill To:
LAKE COUNTY DRAINAGE BOARD 2293 NORTH MAIN STREET CROWN POINT, IN 46307

Job Address:
TURKEY CREEK LATERAL # 3 TURKEY CREEK LATERAL # 3 Scherwood Golf Course Culvert Improvements

Terms	Rep	Service Date	Job No.	P.O. Number	
Net 30		4/27/2016	5274-C	Scherwood Golf	
Description			Quantity	Rate	Amount
Scherwood Gold Course Culvert Improvements					
Item 1: Eroison Blanket - 1000 SY @ \$1.65 Per SY			1,000.00	1.65	1,650.00
Item 2: C-20 Canal Gate - 1 @ \$16,267.00			1.00	16,267.00	16,267.00
Item 3: F-10 Cast Iron Drainage Gate - 1 @ \$7,125.00			1.00	7,125.00	7,125.00
Item 4: Grouting of Culvert - 1 Lump Sum @ 42,114.00			1.00	42,114.00	42,114.00
Item 5: Mulched Seeding - 0.25 Acre @ \$12,700.00 Per Acre			0.25	12,700.00	3,175.00
Item 6: Silt Curtain - 25 LF @ \$140.00 Per LF			25.00	140.00	3,500.00
Item 7: Site Dewatering - 1 Lump Sum @ \$6,691.00			1.00	6,691.00	6,691.00
					80,522.00
Retention					(12,078.30)
<i>Please remit to above address</i>			Total	\$	68,443.70

SUPPLEMENTAL BID PROPOSAL FORM (TO BE ATTACHED AND MADE PART OF FORM 96)
 PROJECT: SCHERWOOD GOLF COURSE CULVERT IMPROVEMENTS

5274-C

The undersigned, having familiarized himself/herself/themselves with local contract documents, comprised of the following:

1. Project documents for the project known as SCHERWOOD GOLF COURSE CULVERT IMPROVEMENTS, Little Calumet River Watershed, Lake County, Indiana.

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the unit prices/lump sums stipulated. All prices listed include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

Item No.	Description And Calculation	Unit	Quantity	Unit Price	Total
1	Erosion Blanket	SY	1000	1.65	1,650
2	C-20 Canal Gate	Each	1	16,267	16,267
3	F-10 Cast Iron Drainage Gate	Each	1	7,125	7,125
4	Grouting of Culvert	LS	1	42,114	42,114
5	Mulched Seeding	Acre	0.25	12,700	3,175
6	Silt Curtain	LF	25	140	3,500
7	Site Dewatering	LS	1	6,691	6,691
Total Bid Price				\$	80,522.00

BIDDERS PROPOSAL FOR MAKING ENTIRE IMPROVEMENT

\$ EIGHTY THOUSAND FIVE HUNDRED TWENTY TWO DOLLARS AND 00/100
 (WORDS)

This proposal submitted this 20TH day of JANUARY, 2016.

Corporate Name: AVSTGEN EQUIPMENT, INC.

Address: 11309 BROADWAY SUITE C3
CROWN POINT, IN 46307

By: JOHN DUMBSKY

Title: ESTIMATOR



May 16, 2016

Lake County Surveyor's Office
Lake County Government Center
2293 North Main Street
Crown Point, Indiana 46307



Attention: Bill Emerson, Jr. – Lake County Surveyor
Subject: Cady Marsh Ditch (Griffith) – Erosion Control Blanket Changes
(CBBEL Project No. 930169.00064)

Dear Mr. Emerson:

Christopher B. Burke Engineering, LLC (CBBEL) had previously accompanied Lake County Surveyors Office (LCSO) staff on a site visit to the Cady Marsh Ditch (Griffith) Maintenance Improvements project on April 20, 2016, to review with Delta III the spoil pile placement associated with the Channel Bottom Dipping (Sediment Removal) scope of work. During the site visit, those present acknowledged the difficulties with placing the spoils on the steep slope of the southern bank of the ditch. Accordingly, verbal approval was provided to spread the spoils pile out further down the slope of the bank and an additional alternate spoils placement area was identified between Indiana Street and the railroad tracks. All parties recognized that the amount of erosion control blanket on the steep slopes and the additional area by the railroad tracks would result in an increase in the quantity of erosion control blanket for the project.

On May 13, 2016, CBBEL obtained measurements of the areas where erosion control blanket was placed and CBBEL also met with Delta III on-site on May 16, 2016 to verify the final quantities. For the project, the additional areas of erosion control blanket over and above the original plan quantities are summarized as follows:

1. Sta. 15+25 to Sta. 21+25 (600 LFT) and Sta. 21+75 to 24+25 (250 LFT)
Within this length of the project of 850 LFT, due to the steepness of the ditch bank the average width of erosion control blanket was measured to be 17.5 LFT compared to the design width of 13 LFT. Thus, the additional erosion control blanket from Broad Street through Indiana Street averaged 4.5 feet in additional width that equates to the following additional area:

$$(850 \text{ LFT})(4.5 \text{ LFT})/9 = \mathbf{425 \text{ SY in additional erosion control blanket}}$$

2. Sta. 24+25 to Sta. 27+40 (triangular area west of the railroad tracks)
Detailed measurements of the erosion control blanket installed in this area determined that a total of 922 SYS of erosion control blanket was installed compared to the design value 455 SYS. Thus, the additional erosion control blanket for this section is:

$$922 \text{ SYS} - 455 \text{ SYS} = \mathbf{467 \text{ SYS in additional erosion control blanket}}$$

3. Sta. 31+50 to Sta. 41+50 to 24+25 (1000 LFT)

Within this length of the project of 1000 LFT, due to the steepness of the ditch bank the average width of erosion control blanket was measured to be 17.75 LFT compared to the design width of 13 LFT. Thus, the additional erosion control blanket from Wood Street to Arbogast Street averaged 4.75 feet in additional width that equates to the following additional area:

$$(1,000 \text{ LFT})(4.75 \text{ LFT})/9 = 528 \text{ SY in additional erosion control blanket}$$

In summary, the overall quantities and cost at the unit cost of \$8.00/SY are:

Additional Erosion Control Blanket Quantities & Cost:

Item 1:	425 SYS
Item 2:	467 SYS
Item 3:	<u>528 SYS</u>
	1,420 SYS
Unit Cost @ \$8.00/Y x 1,420 SYS =	\$11,360.00

If you have any questions or require any additional information, please do not hesitate to call.

Sincerely,

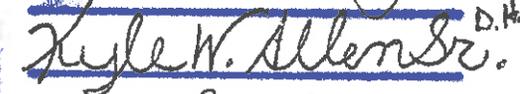


Alan J. Walus, Senior Project Manager

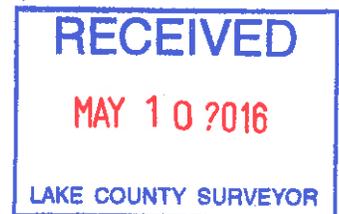
CC: Dan Gossman, Drainage Administrator – LCSO
Mary Ellen Kupsik – LCSO
Thomas Burke, PhD, PE – CBBEL

Cady Griffith Erosion Blanket Changes 051616

LAKE COUNTY DRAINAGE BOARD


APPROVED THIS 18 DAY OF MAY 20 16

Delta III Inc
2063 West 1250 South
Hanna, Indiana 46340
219-797-4004
fax 797-3008



Lake County Drainage Board
2293 N Main Street
Crown Point, IN 46307
Dan Gossman
Ref: Cady Marsh Broad Street.

May 10, 2016

Dear Dan,

Per our conversation in late March 2016 about needing extra quantity syds of erosion control blankets. I am asking for a change order of 1,420 syds @ \$8.00 per syds for a total of 11,360.00.

The original contract called for 3,467 syds. Actual installed is 4,887 syds.

Any alteration or deviation from the above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. Workman's Compensation and Public Liability Insurance on the above work to be taken out by Delta III Inc.

We appreciate the opportunity of submitting this proposal and look forward to working with you on this project.

Delta III Inc
Mike Eaton
President



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

5-E-1
5-20-16

Bill Emerson, Jr.
County Surveyor

May 13, 2016

Bill Emerson, Jr.
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: 2013 Brown Levee Ditch – Emergency Repairs
Eagle Creek Twp.
Invoice #1326 Review

Dear Bill,

I have reviewed the Invoice #1326 from R.A. Oros Inc. dated May 12, 2016 in the amount of \$2,000.00 (see attached) in reference to work on the Brown Levee Ditch Emergency project. An inspection with MS4 Compliance Inspector Chris Brown was made on May 13, 2016.

After the inspection, staff confirms the invoice submitted is consistent with the work accomplished to date. Therefore, it is recommended that the contractor receive final payment for the invoiced amount.

Should you have any questions or comments, or require additional information, please do not hesitate to let me know.

Sincerely,

Daniel V. Gossman
Drainage Administrator

LAKE COUNTY DRAINAGE BOARD

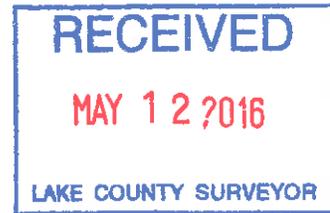
APPROVED THIS 18 DAY OF MAY 2016

Cc: Tom Regalado, Asst Drainage Admn
Chris Brown, MS4 Compliance Inspector
Cliff Duggan, Legal Advisor
John Jurs, Eagle Creek Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee
Emil Poppa, R.A. Oros Inc.

R. A. Oros, Inc.

Invoice

8244 Greenwood Ave.
Munster, IN 46321



Bill To:
Lake County Surveyor 2293 N. Main St. Crown Point, IN. 46307

Date	Invoice No.	P.O. Number	Terms	Project
05/12/16	1326	Draw #5		Brown Levee Emergency Bank Repairs

Item	Description	Quantity	Rate	Amount
Retainage	Project is complete - Billing for Remaining Retainage		2,000.00	2,000.00
Thank you for your business.			Total "016" E	\$2,000.00



Office of the Lake County Surveyor

5-E-3
5-20-16

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

May 4, 2016

Bill Emerson, Jr.
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: Singleton Ditch Maintenance – US 41 to Monon Road – Phase II
Invoice #1312 Review

Dear Bill,

I have reviewed the Invoice #1312 from R.A. Oros dated May 3, 2016 in the amount of \$61,495.80 (see attached) in reference to work on the Singleton Ditch Maintenance project. An inspection with Assistant Drainage Administrator Tom Regalado was made on May 04, 2016.

After the inspection, staff confirms the invoice submitted is consistent with the work accomplished to date. Therefore, it is recommended that the contractor receive payment for the invoiced amount.

Should you have any questions or comments, or require additional information, please do not hesitate to let me know.

Sincerely,

Daniel V. Gossman
Drainage Administrator

Cc: Tom Regalado, Asst Drainage Admn
Chris Brown, MS4 Compliance Inspector
Cliff Duggan, Legal Advisor
Alice Dahl, Cedar Creek Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee
Emil Poppa, R.A. Oros Inc.



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor



Before



After

R. A. Oros, Inc.

Invoice

8244 Greenwood Ave.
 Munster, IN 46321

Bill To:
Lake County Surveyor's Office Attn: Dan Gossman 2293 N. Main Street Crown Point, IN. 46307

RECEIVED
MAY 04 2016
LAKE COUNTY SURVEYOR

Date	Invoice No.	P.O. Number	Terms	Project
05/03/16	1312	draw 3		Singleton Ditch Phase II

Item	Description	Quantity	Rate	Amount
Slope Repair	219+92 to 229+61; 239+96 to 243+30; 249+85 to 250+78 (1,396 LF)	1,396	10.00	13,960.00
Mulched Seeding	125+00 to 251+71 (14.5 acres)	14.5	3,000.00	43,500.00
Erosion Control Blanket & Seed	219+92 to 229+61; 239+96 to 243+30; 249+85 to 250+78 (1,861 SY)	1,861	8.00	14,888.00
Retainage	Hold 15% Retainage	72,348	-0.15	-10,852.20
Thank you for your business.			Total	\$61,495.80

"OK"
 [Signature]



5-E-5
5-20-16

Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

May 6, 2016

Bill Emerson, Jr.
Lake County Surveyor
2293 North Main Street
Crown Point, Indiana 46307

RE: Stoney Run Ditch West Branch – Emergency Bank Repair
153rd Ave & Clay Street, Eagle Creek Twp.
Invoice #34687 Review

Dear Bill,

I have reviewed the Invoice #34687 from Austgen Equipment dated April 27, 2016 in the amount of \$19,151.77 (see attached) in reference to work on the Stoney Run Ditch West Branch – Emergency Bank Repair project. An inspection with me, MS4 Compliance Inspector Chris Brown and yourself was made on May 6, 2016.

After the inspection, staff confirms the invoice submitted is consistent with the work accomplished to date. Therefore, it is recommended that the contractor receive payment for the invoiced amount.

Should you have any questions or comments, or require additional information, please do not hesitate to let me know.

Sincerely,

Daniel V. Gossman
Drainage Administrator

Cc: Tom Regalado, Asst Drainage Admn
Chris Brown, MS4 Compliance Inspector
Cliff Duggan, Legal Advisor
John Jurs, Eagle Creek Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee
John Dumbsky, Austgen Equipment Inc.



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor





Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor





Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor



Austgen Equipment, Inc.

11309 Broadway, Suite C3
 Crown Point, IN 46307
 Phone 219-213-2389
 Fax 219-779-9623

RECEIVED
 MAY 02 2016
 LAKE COUNTY SURVEYOR

Invoice

Date:	Invoice #
4/27/2016	34687

Bill To:
LAKE COUNTY DRAINAGE BOARD 2293 NORTH MAIN STREET CROWN POINT, IN 46307

Job Address:
Stoney Run Ditch West Branch Stoney Run Ditch West Branch Emergency Bank Repair

Terms	Rep	Service Date	Job No.	P.O. Number	
Net 30		4/27/2016	5300-C	ER Bank Repair	
Description			Quantity	Rate	Amount
Emergency Bank Repair Within Stoney Run Ditch West Branch					
Area Number 1					
Item 1: Remove all debris, vegetation, deleterious material from the ditch bottom and haul from the site. 40 LF @ \$24.60 Per LF			40.00	24.00	960.00
Item 2: Apply Mirafi 180N 8oz. non-woven geotextile fabric AASHTO MZ88-96 spec for sub surface drainage Class 1 and separation Class 1 or an approved equal material. (40'x20') 90 SY @ \$1.20 Per SY			90.00	1.20	108.00
Item 3: Place Rip/Rap over the fabric. 105 Tons @ \$43.50 Per Ton			105.00	43.50	4,567.50
Item 4: Restoration/Seeding disturbed areas. \$715.00 Lump Sum			1.00	715.00	715.00
Area Number 2					
Item 1: Remove all debris, vegetation, deleterious material from the ditch bottom and haul from the site. 110 LF @ \$15.00 Per LF			110.00	15.00	1,650.00
Item 2: Apply Mirafi 180N 8oz. non-woven geotextile fabric AASHTO MZ88-96 spec for sub surface drainage Class 1 and separation Class 1 or an approved equal material. (110'x25') 310 SY @ \$1.20 Per SY			310.00	1.20	372.00
Item 3: Place Rip/Rap over the fabric. 350 Tons @ \$37.00 Per Ton			350.00	37.00	12,950.00
Item 4: Restoration/Seeding disturbed areas. \$1209.00 Lump Sum			1.00	1,209.00	1,209.00
					22,531.50
Retention					(3,379.73)
<i>Please remit to above address</i>			Total	\$	19,151.77

ADDENDUM NO. 1

BID PROPOSAL

For Emergency Bank Repair within Stoney Run Ditch West Branch
(4285 Cleveland Street, Gary, Indiana)

The undersigned, having familiarized (himself/herself/themselves) with the plans and specifications and on-site conditions which comprise the following:

Documents for the project known as the Emergency Bank Repair of the south bank along the Stoney Run Ditch West Branch.

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the unit prices/lump sums stipulated. All prices listed include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

AREA 1.

ITEM NO. 1

Remove all debris, vegetation, deleterious material from ditch bottom and haul from site.
Amount: 40 linear feet at \$ 24 /l.f. Equals \$ 960

ITEM NO. 2

Apply Mirafi 180N 8oz. non-woven geotextile fabric AASHTO MZ88-96 Spec for sub surface drainage Class I and separation Class I or an approved equal material. (40'x20')
Amount: 90 sq. yds. at \$ 1.20 /sq. yd. Equals \$ 108

ITEM NO. 3

Place rip rap over fabric.
Amount: 105 tons at \$ 43.50 /ton Equals \$ 4,567.50

ITEM NO. 4

Restoration/Seeding disturbed areas.
Amount: Lump Sum Equals \$ 715

AREA 2.

ITEM NO. 1

Remove all debris, vegetation, deleterious material from ditch bottom and haul from site.
Amount: 110 linear feet at \$ 15 /l.f. Equals \$ 1,650

ITEM NO. 2

Apply Mirafi 180N 8oz. non-woven geotextile fabric AASHTO MZ88-96 Spec for sub surface drainage Class I and separation Class I or an approved equal material. (110'x25')
Amount: 310 sq. yds. at \$ 1.20 /sq. yd. Equals \$ 372

ITEM NO. 3

Place rip rap over fabric.
Amount: 350 tons at \$ 37 /ton Equals \$ 12,950

ITEM NO. 4

Restoration/Seeding disturbed areas.
Amount: Lump Sum Equals \$ 1,209

GRAND TOTAL \$ 22,531.50



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

NOTICE TO PROCEED

April 15, 2016

Austgen Equipment
11309 Broadway
Crown Point, Indiana 46307

**Emergency Project: 2016 Stoney Run Ditch West Branch – Emergency Bank Repair
North of 153rd Avenue and West of Clay Street – Eagle Creek Township
Amount: \$22,531.50**

The Lake County Surveyor on behalf of the Lake County Drainage Board, in accordance with the specifications, you are hereby notified to commence work immediately on the above emergency work on or before April 18, 2016.

Please submit a schedule as to your anticipated completion. Please coordinate a utility locate for the project site, and contact the property owner (Ed Bult) prior to starting. Should you have any additional questions or comments, please do not hesitate to contact our office.

Sincerely,

Daniel V. Gossman
Drainage Administrator

Cc: Bill Emerson, Jr., Lake County Surveyor
Cliff Duggan, Legal Advisor
Tom Regalado, Asst Drainage Admn
Mary Ellen Kupsik, Drainage Board Secretary
John Jurs, Eagle Creek Township Advisory Committee Representative
Lake County Drainage Board & Advisory Committee



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor



6-A

NOTICE OF ACTION Application No. 297-5-16-I-III

May 18, 2016

Mr. George Dobrijevic
ST. GEORGE SERBIAN ORTHODOX CHURCH
4021 Elm Street
East Chicago, IN 46375

DEAR PETITIONER:

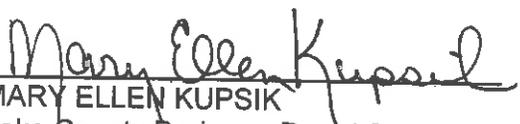
THIS NOTICE IS TO INFORM YOU THAT YOUR PETITION OR REQUEST FOR

Main Beaver Dam Ditch, Center Township
Applicant: ST. GEORGE SERBIAN ORTHODOX CHURCH
Application to Perform Work and Place Temporary/Permanent Structure within a
Regulated Drain/Easement for the purpose of replacing failed culvert crossing.

WAS CONSIDERED BY THE DRAINAGE BOARD AT A MEETING ON THE 18th DAY OF May,
2016 WITH THE FOLLOWING ACTION:

- APPROVED PETITION OR REQUEST.
- APPROVED PETITION OR REQUEST SUBJECT TO CONDITIONS LISTED ON
ATTACHMENT #1.
- CONTINUED PETITION OR REQUEST TO **JUNE 15, 2016** MEETING.
- DENIED PETITION OR REQUEST.
- REMOVED FROM THE AGENDA. IF YOU WOULD LIKE TO REAPPLY TO
THE DRAINAGE BOARD A NEW APPLICATION WILL NEED TO BE SUBMITTED,
14 DAYS PRIOR TO THAT MONTH'S MEETING.
- PETITION NOT RELEASED DUE TO NON-PAYMENT OF APPLICATION FEE(S).

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CONTACT BILL EMERSON, JR. OR
DAN GOSSMAN AT (219) 755-3745.


MARY ELLEN KUPSIK
Lake County Drainage Board Secretary

ATTACHMENT #1

Application No. 297-5-16-I-III

THE ABOVE-REFERENCED DRAINAGE BOARD APPLICATION WAS APPROVED WITH THE FOLLOWING CONDITION:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ("IDEM") AND INDIANA DEPARTMENT OF NATURAL RESOURCES ("IDNR") BE NOTIFIED SHOULD ANY PERMITTING BE REQUIRED.

6-A
5-20-16

APPLICATION NO. 297-5-16-I-III

APPLICATION FOR PERMISSION TO PERFORM THE FOLLOWING TASK(S) WITHIN A
REGULATED DRAIN
[PLEASE CHECK THE APPROPRIATE BOX]

RECEIVED
MAY 13 2016
LAKE COUNTY SURVEYOR

- I. WORK WITHIN A REGULATED DRAIN
- II. CONNECT/DISCHARGE INTO THE DRAIN/EASEMENT
- III. PLACE TEMPORARY/PERMANENT STRUCTURE IN THE DRAIN/EASEMENT
- IV. REDUCE EASEMENT FROM SEVENTY-FIVE (75) FEET

TO THE LAKE COUNTY DRAINAGE BOARD, LAKE COUNTY, INDIANA;

(Name) St. George Serbian Orthodox Church
4021 Elm St.
East Chicago, IN 46375

HEREINAFTER CALLED APPLICANT, HEREBY MAKES APPLICATION TO THE LAKE COUNTY DRAINAGE BOARD TO PERFORM THE ABOVE DESCRIBED ACTIVITY WITHIN A REGULATED DRAIN AND/OR THE EASEMENT FOR A REGULATED DRAIN WHICH IS PART OF THE DRAINAGE SYSTEM FOR LAKE COUNTY, INDIANA.

THE LOCATION IS AS FOLLOWS:

NAME OF WATERWAY: Main Beaver Dam Ditch
SECTION(s): 35 TOWNSHIP: 35 RANGE: 9
ADDRESS OR DESCRIPTION OF LOCATION 93rd Ave., Crown Point, IN

THE REQUEST IS TO CONSIST OF THE FOLLOWING ACTIVITIES:

Repair of ditch culvert which has collapsed.
Replace culvert 6' pipe, estimated length
of 30'.

THE PURPOSE OF THE REQUEST IS TO:

Repair of collapsed culvert in order to
be able to access the entire property.

LAKE COUNTY DRAINAGE BOARD

Lake County Government Center
2293 North Main Street, Crown Point, IN 46307
Phone-219-755-3745 Fax 219-755-3750

Drainage Board

Commissioner Gerry J. Scheub, Chairman
Commissioner Michael C. Repay, Member
Commissioner Kyle W. Allen, Sr., Member
Peter Katic, Drainage Board Attorney

Technical Support

Bill Emerson, Jr., Lake County Surveyor
† Dan Gossman, Drainage Admin.
Tom Regalado, Asst. Drainage Admin.
Mary Ellen Kupsik, Drainage Board Secretary
Clifford Duggan, Legal Advisor

Important instructions to Drainage Board Applicants

1. **ALL APPLICATIONS MUST BE SUBMITTED FOURTEEN (14) DAYS PRIOR TO THE NEXT DRAINAGE BOARD MEETING.**
2. Please enclose a cover letter that explains your request, along with identifying the owner, developer, engineer, agent and the signed/notarized Power of Attorney (if required), two (2) sets of detailed engineering plans (that includes reduced copies no larger than 11 x 17), and a vicinity map with each application, which are in compliance with **The Lake County Stormwater Ordinance No. 1365C** (available in the Lake County Surveyor's Office and online at http://www.lakecountyin.org/portal/media-type/html/group/surveyor/page/default.psm1/js_pane/P-14290c7dc82-1d162).
3. Upon receipt of application and the materials requested in Item No. 2 above, the Lake County Drainage Board will determine the fees due to process said application per **Ordinance No. 1365C**. Once payment has been received and the fee schedule acknowledged and agreed upon by applicant, the application will be assigned an application number and placed on the next scheduled Lake County Drainage Board Meeting for review and recommendation of the application request. Following the Board Meeting, a "Notice of Action" will be forwarded to applicant acknowledging the Board's decision. *[Note: All applications received will be placed on the Drainage Board's Monthly Meeting Agenda; however, approved applications will not be released until payment of fees, set by the Lake County Drainage Board, is received.]*
4. Prior to an application being considered by the Drainage Board, application fee(s) must be submitted in the form of a **CERTIFIED CHECK OR MONEY ORDER** and made payable to: **LAKE COUNTY SURVEYOR**.
5. Please submit ALL correspondence regarding applications to the Lake County Drainage Board as follows:

<u>ONE SET TO:</u> Lake County Surveyor's Office C/O Mary Ellen Kupsik, Drainage Board Secretary 2293 North Main Street, A-306 Crown Point, IN 46307	<u>ONE SET TO:</u> Thomas Burke Christopher B. Burke Engineering, Ltd. 9575 West Higgins Road, Suite 600 Rosemont, IL 60018 Phone: 847-823-0500
--	--
6. If you have any questions, please feel free to call Dan or Mary Ellen at (219) 755-3745, or Fax (219) 755-3750.

1. THE APPLICANT HEREBY AGREES TO RESTORE THE LAND, DRAINAGE DITCHES AND ALL OTHER SURFACES AND/OR STRUCTURES WITHIN THE DITCH AND REGULATED DRAIN EASEMENT TO A CONDITION AS GOOD OR BETTER THAN THEY WERE PRIOR TO THE COMMENCEMENT OF THE WORK.

2. THE APPLICANT SHALL AND WILL INDEMNIFY AND HOLD HARMLESS ANY AND ALL COUNTY ENTITIES, INCLUDING BUT NOT LIMITED TO THE COUNTY OF LAKE, BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE, THE LAKE COUNTY DRAINAGE BOARD, LAKE COUNTY SURVEYOR, ITS ELECTED OFFICIALS, ITS APPOINTED OFFICIALS, ITS OFFICERS, ITS EMPLOYEES, ITS DEPARTMENTS, ITS BOARDS AND/OR AGENTS FROM AND AGAINST ANY AND ALL DAMAGES, INJURIES, LOSSES, DEMANDS, OR COSTS PROXIMATELY CAUSED BY THE FAULT, CULPABILITY OR NEGLIGENCE OF THE APPLICANT IN THE PERFORMANCE OF OR IN ANY WAY RELATED TO OR RESULTING FROM THE PERMITTED WORK OVER AND ACROSS THE DRAINS OR DRAINAGE RIGHTS-OF-WAY UNDER THE JURISDICTION OF THE LAKE COUNTY DRAINAGE BOARD.

3. **IMPORTANT CLAUSE IN THIS PERMIT APPLICATION:** THE APPLICANT FURTHER AGREES TO NOTIFY THE LAKE COUNTY DRAINAGE BOARD OR THE LAKE COUNTY SURVEYOR IN WRITING AT LEAST FIVE (5) DAYS IN ADVANCE OF THE COMMENCEMENT OF THE WORK DESCRIBED IN THIS APPLICATION, AND WILL ALSO GIVE NOTICE TO THE LAKE COUNTY DRAINAGE BOARD OR THE LAKE COUNTY SURVEYOR THE DAY PRECEDING THE COMPLETION OF THE WORK. FAILURE TO PROVIDE SUCH NOTICE MAY CAUSE REVOCATION OF THE PERMIT(S) AND APPLICANT MAY INCUR PENALTIES. PLEASE SEND NOTICES TO: LAKE COUNTY DRAINAGE BOARD, ATTN: LAKE COUNTY DRAINAGE BOARD SECRETARY, 2293 N. MAIN STREET, CROWN POINT, IN 46307

4(a). THE APPLICANT AGREES TO AVOID CAUSING DAMAGE TO THE ESTABLISHED REGULATED DRAIN OR TO LANDOWNERS AFFECTED BY THE DRAIN, PURSUANT TO I.C.36-9-27-72(D).

4(b). FOR APPLICATIONS REGARDING THE PLACEMENT OF TEMPORARY STRUCTURES IN THE DRAIN'S EASEMENT (BOX III, PAGE 1), SUCH AS FENCES, TREES, GARDENS, SHEDS, ETC., THE APPLICANT UNDERSTANDS THAT, IF THE DRAINAGE BOARD GRANTS PERMISSION TO PLACE SAID TEMPORARY STRUCTURES WITHIN THE DRAINAGE EASEMENT, SAID PLACEMENT IS AT THE OWNER'S RISK. SHOULD THE COUNTY SURVEYOR/DRAINAGE BOARD, THEIR AGENTS, REPRESENTATIVES, CONTRACTORS OR OTHERS AT THE DIRECTION OF SAID COUNTY SURVEYOR/DRAINAGE BOARD, NEED ACCESS TO THE DRAIN OR EASEMENT AND THE STRUCTURE REQUIRES REMOVAL, THE OWNER SHALL REMOVE SAME AT THE OWNER'S EXPENSE. SHOULD THE OWNER FAIL TO REMOVE SAME IN A TIMELY FASHION, THEN THE COUNTY SURVEYOR/DRAINAGE BOARD SHALL CAUSE SAME TO BE REMOVED AND THE OWNER SHALL HAVE NO RECOURSE. AFTER COMPLETION OF THE COUNTY SURVEYOR'S/DRAINAGE BOARD'S ACTIVITY, THE OWNER SHALL HAVE THE RIGHT TO REINSTALL THE TEMPORARY STRUCTURE IN COMPLIANCE WITH THE COUNTY SURVEYOR'S/DRAINAGE BOARD'S REQUIREMENTS. THE COUNTY SURVEYOR/DRAINAGE BOARD MAY REQUIRE PAYMENT FROM THE OWNER FOR THE COST OF THE REMOVAL OR REPLACEMENT FOR ANY OF SAID ITEMS, PURSUANT TO STATUTE.

5. THE APPLICANT SHALL HAVE WORKMAN'S COMPENSATION INSURANCE AS REQUIRED BY STATE LAW.

6. THE APPLICANT SHALL PAY THE LAKE COUNTY SURVEYOR'S OFFICE AN APPLICATION FEE(S) PRIOR TO THE APPLICATION BEING CONSIDERED AT THE NEXT MONTHLY LAKE COUNTY DRAINAGE BOARD MEETING.

7. THE APPLICANT SHALL CARRY PUBLIC LIABILITY INSURANCE MEETING THE MAXIMUM DOLLAR LIMITS AS SPECIFIED IN I.C. 34-13-3-1 ET SEQ. OR ANY SUBSEQUENTLY ENACTED APPLICABLE STATUTES, AND SHALL LIST THE COUNTY OF LAKE, THE BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE, THE LAKE COUNTY DRAINAGE BOARD, LAKE COUNTY SURVEYOR, ITS ELECTED OFFICIALS, ITS APPOINTED OFFICIALS, ITS OFFICERS, ITS EMPLOYEES, ITS DEPARTMENTS, ITS BOARDS AND AGENTS AS OTHER INSURED.

8. THIS PERMIT DOES NOT OBIVATE THE NEED TO OBTAIN ANY OTHER FEDERAL, STATE AND/OR LOCAL AUTHORIZATION, IF REQUIRED.

9 BY SUBMITTING THIS APPLICATION, THE APPLICANT HEREBY STATES THE FOLLOWING:

- A. THE PROPOSED WORK MEETS ALL HYDRAULIC REQUIREMENTS THAT WILL PERMIT THE DRAIN TO FUNCTION PROPERLY. (I.C. 36-9-37-72 (C)).
- B. THE REGULATED DRAIN IS ADEQUATE TO HANDLE THE ADDITIONAL FLOW OF WATER, IF ANY
- C. NO HARMFUL POLLUTION IS LIKELY TO RESULT. (I.C. 36-9-27-17(C)).

10. ENGINEERING PLANS, WHICH SUBSTANTIATE THE ABOVE STATEMENTS, MUST ACCOMPANY THIS APPLICATION. THESE PLANS MUST INCLUDE SUFFICIENT DETAIL TO ALLOW VERIFICATION OF THE ABOVE STATEMENTS. (THESE PLANS SHOULD GENERALLY INCLUDE DIMENSIONS, ELEVATIONS, CALCULATIONS, DESCRIPTIONS OR THE QUANTITIES AND TYPES OF MATERIAL TO BE USED, DISCHARGE CALCULATIONS AND OTHER RELEVANT INFORMATION.)

11. UPON COMPLETION OF THE WORK, "AS BUILT PLANS", SIGNED AND SEALED BY AN INDIANA REGISTERED PROFESSIONAL ENGINEER, SHALL BE FORWARDED TO THE LAKE COUNTY DRAINAGE BOARD WITHIN 30 DAYS.

12. THE DRAINAGE BOARD RESERVES THE RIGHT TO WAIVE ANY OF THE REQUIREMENTS STATED HEREON.

SUBMITTED: George Dobrijenich DATE: 5/10/16
(PRINT OR TYPE NAME)

George Dobrijenich
(SIGNATURE)

SUBMITTED FOR: St. George S.O.C.

ADDRESS 4021 Elm St.
East Chicago, IN 46312

PHONE#: 219-397-0240

(THIS SECTION FOR DRAINAGE BOARD USE ONLY)

LAKE COUNTY DRAINAGE BOARD

[Signature]

[Signature]
Kyle W. Allen Sr. D.H.

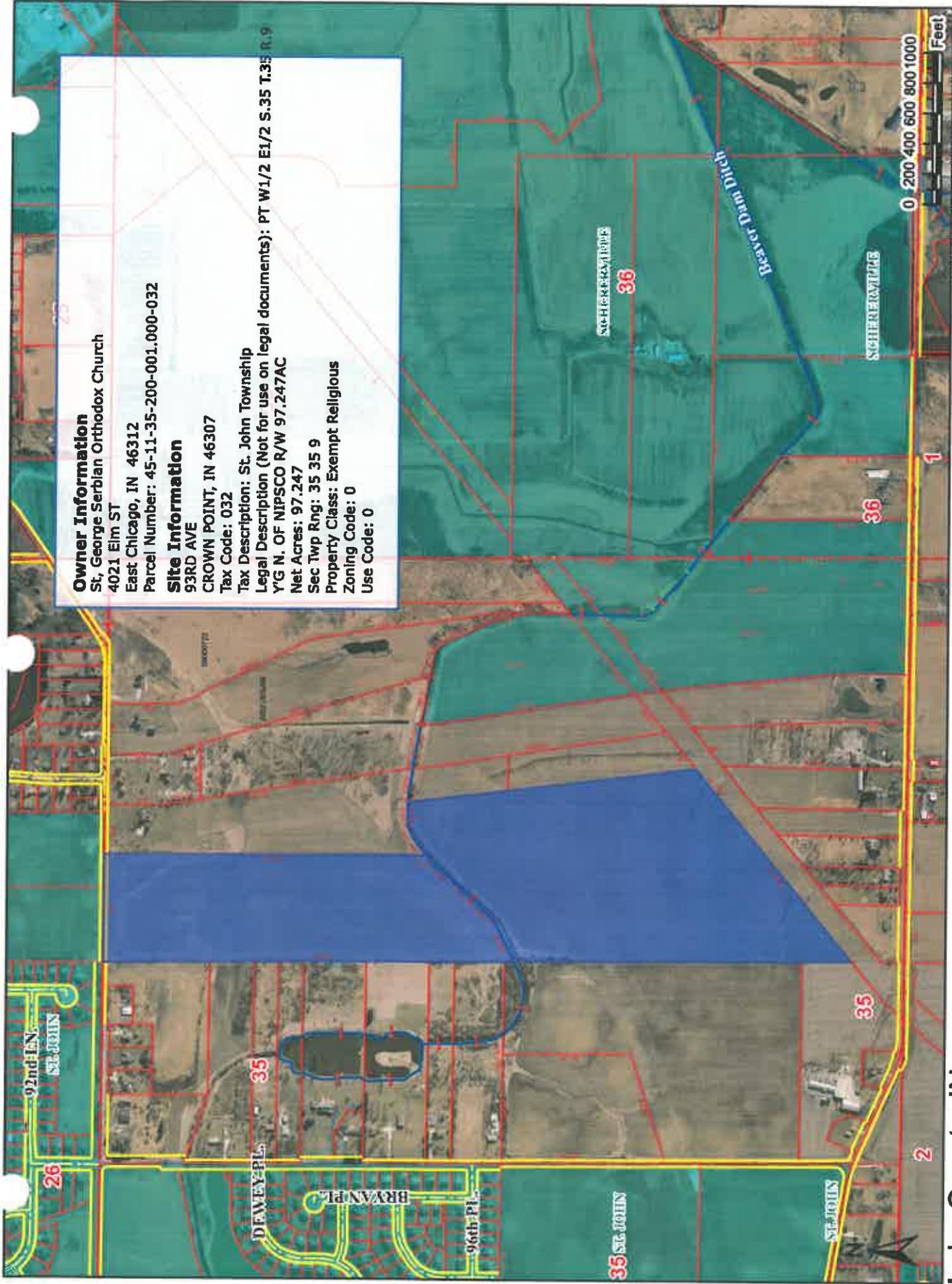
DATE: 5-18-2016 APPROVED: X* DENIED: _____

SHOULD ANY APPLICATIONS BE SUBMITTED BY AN AGENT, CONSULTANT, ENGINEER, REPRESENTATIVE OR OTHERS PURPORTING TO ACT AS THE OWNER, THEN A POWER OF ATTORNEY SHALL BE DULY EXECUTED AND ATTACHED TO THESE APPLICATIONS. [SEE ATTACHMENT I]

APPROVAL SHALL BE VALID FOR A PERIOD OF TWO YEARS FROM THE DATE OF APPROVAL. SHOULD THE WORK AND ALL RELATED ACTIVITIES NOT BE COMPLETED BY THAT TIME, PETITIONER IS REQUIRED TO REAPPLY. SHOULD THE SCOPE OF WORK, PLANS AND SPECIFICATIONS, OR ACTIVITIES LISTED HEREIN BE MODIFIED, PETITIONER MUST NOTIFY THE LAKE COUNTY SURVEYOR AND THE DRAINAGE BOARD OF THESE MODIFICATIONS FOR REVIEW AND/OR APPROVAL/DENIAL BY THE COUNTY SURVEYOR/DRAINAGE BOARD.

*NOTE: APPROVED WITH CONDITIONS. SEE ATTACHED "NOTICE OF ACTION".

1. THE APPLICANT HEREBY AGREES TO RESTORE THE LAND, DRAINAGE DITCHES AND ALL OTHER SURFACES AND/OR STRUCTURES WITHIN THE DITCH AND REGULATED DRAIN EASEMENT TO A CONDITION AS GOOD OR BETTER THAN THEY WERE PRIOR TO THE COMMENCEMENT OF THE WORK.
2. THE APPLICANT SHALL AND WILL INDEMNIFY AND HOLD HARMLESS ANY AND ALL COUNTY ENTITIES, INCLUDING BUT NOT LIMITED TO THE COUNTY OF LAKE, BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE, THE LAKE COUNTY DRAINAGE BOARD, LAKE COUNTY SURVEYOR, ITS ELECTED OFFICIALS, ITS APPOINTED OFFICIALS, ITS OFFICERS, ITS EMPLOYEES, ITS DEPARTMENTS, ITS BOARDS AND/OR AGENTS FROM AND AGAINST ANY AND ALL DAMAGES, INJURIES, LOSSES, DEMANDS, OR COSTS PROXIMATELY CAUSED BY THE FAULT, CULPABILITY OR NEGLIGENCE OF THE APPLICANT IN THE PERFORMANCE OF OR IN ANY WAY RELATED TO OR RESULTING FROM THE PERMITTED WORK OVER AND ACROSS THE DRAINS OR DRAINAGE RIGHTS-OF-WAY UNDER THE JURISDICTION OF THE LAKE COUNTY DRAINAGE BOARD.
3. **IMPORTANT CLAUSE IN THIS PERMIT APPLICATION:** THE APPLICANT FURTHER AGREES TO NOTIFY THE LAKE COUNTY DRAINAGE BOARD OR THE LAKE COUNTY SURVEYOR IN WRITING AT LEAST FIVE (5) DAYS IN ADVANCE OF THE COMMENCEMENT OF THE WORK DESCRIBED IN THIS APPLICATION, AND WILL ALSO GIVE NOTICE TO THE LAKE COUNTY DRAINAGE BOARD OR THE LAKE COUNTY SURVEYOR THE DAY PRECEDING THE COMPLETION OF THE WORK. FAILURE TO PROVIDE SUCH NOTICE MAY CAUSE REVOCATION OF THE PERMIT(S) AND APPLICANT MAY INCUR PENALTIES. PLEASE SEND NOTICES TO: **LAKE COUNTY DRAINAGE BOARD, ATTN: LAKE COUNTY DRAINAGE BOARD SECRETARY, 2293 N. MAIN STREET, CROWN POINT, IN 46307**
- 4(a). THE APPLICANT AGREES TO AVOID CAUSING DAMAGE TO THE ESTABLISHED REGULATED DRAIN OR TO LANDOWNERS AFFECTED BY THE DRAIN, PURSUANT TO I.C.36-9-27-72(D).
- 4(b). FOR APPLICATIONS REGARDING THE PLACEMENT OF TEMPORARY STRUCTURES IN THE DRAIN'S EASEMENT (BOX III, PAGE 1), SUCH AS FENCES, TREES, GARDENS, SHEDS, ETC., THE APPLICANT UNDERSTANDS THAT, IF THE DRAINAGE BOARD GRANTS PERMISSION TO PLACE SAID TEMPORARY STRUCTURES WITHIN THE DRAINAGE EASEMENT, SAID PLACEMENT IS AT THE OWNER'S RISK. SHOULD THE COUNTY SURVEYOR/DRAINAGE BOARD, THEIR AGENTS, REPRESENTATIVES, CONTRACTORS OR OTHERS AT THE DIRECTION OF SAID COUNTY SURVEYOR/DRAINAGE BOARD, NEED ACCESS TO THE DRAIN OR EASEMENT AND THE STRUCTURE REQUIRES REMOVAL, THE OWNER SHALL REMOVE SAME AT THE OWNER'S EXPENSE. SHOULD THE OWNER FAIL TO REMOVE SAME IN A TIMELY FASHION, THEN THE COUNTY SURVEYOR/DRAINAGE BOARD SHALL CAUSE SAME TO BE REMOVED AND THE OWNER SHALL HAVE NO RECOURSE. AFTER COMPLETION OF THE COUNTY SURVEYOR'S/DRAINAGE BOARD'S ACTIVITY, THE OWNER SHALL HAVE THE RIGHT TO REINSTALL THE TEMPORARY STRUCTURE IN COMPLIANCE WITH THE COUNTY SURVEYOR'S/DRAINAGE BOARD'S REQUIREMENTS. THE COUNTY SURVEYOR/DRAINAGE BOARD MAY REQUIRE PAYMENT FROM THE OWNER FOR THE COST OF THE REMOVAL OR REPLACEMENT FOR ANY OF SAID ITEMS, PURSUANT TO STATUTE.
5. THE APPLICANT SHALL HAVE WORKMAN'S COMPENSATION INSURANCE AS REQUIRED BY STATE LAW.
6. THE APPLICANT SHALL PAY THE LAKE COUNTY SURVEYOR'S OFFICE AN APPLICATION FEE(S) PRIOR TO THE APPLICATION BEING CONSIDERED AT THE NEXT MONTHLY LAKE COUNTY DRAINAGE BOARD MEETING.
7. THE APPLICANT SHALL CARRY PUBLIC LIABILITY INSURANCE MEETING THE MAXIMUM DOLLAR LIMITS AS SPECIFIED IN I.C. 34-13-3-1 ET SEQ. OR ANY SUBSEQUENTLY ENACTED APPLICABLE STATUTES, AND SHALL LIST THE COUNTY OF LAKE, THE BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE, THE LAKE COUNTY DRAINAGE BOARD, LAKE COUNTY SURVEYOR, ITS ELECTED OFFICIALS, ITS APPOINTED OFFICIALS, ITS OFFICERS, ITS EMPLOYEES, ITS DEPARTMENTS, ITS BOARDS AND AGENTS AS OTHER INSURED.
8. **THIS PERMIT DOES NOT OBTAIN THE NEED TO OBTAIN ANY OTHER FEDERAL, STATE AND/OR LOCAL AUTHORIZATION, IF REQUIRED.**



Owner Information

St, George Serbian Orthodox Church
 4021 Elm ST
 East Chicago, IN 46312
 Parcel Number: 45-11-35-200-001.000-032

Site Information

93RD AVE
 CROWN POINT, IN 46307
 Tax Code: 032
 Tax Description: St. John Township
 Legal Description (Not for use on legal documents): PT W1/2 E1/2 S.35 T.35 R.9
 Y'G N. OF NIPSCO R/W 97.247AC
 Net Acres: 97.247
 Sec Twp Rng: 35 35 9
 Property Class: Exempt Religious
 Zoning Code: 0
 Use Code: 0

This map is to be used for tax purposes only. - Bill Emerson, Jr., Lake County Surveyor

7-A-4
5-20-16



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

May 12, 2016

Bill Emerson, Jr.
Lake County Surveyor
2293 N. Main Street
Crown Point, Indiana 46307

RE: Willowdale SWPPP

Dear Bill,

After review of Frank Stewarts e-mail comments regarding Willowdale soil stabilization, I conducted another inspection of the area.

As you can see from the attached pictures, the roadside ditch in front of the sub along 105th, appears to be stabilized with grass coverage of 80% or better. However, disturbed areas in most of the rest of the subdivision are not.

You will notice in the photos a number of areas which have not yet been stabilized, and in fact several (see attached), appear not to have been seeded at all or even properly graded for seeding. In my opinion, further finish grading and seeding work still needs to be completed. In particular the open roadside ditch along the east side of Noble Street (in front of 10411 and 10413), needs attention. (See photo). While onsite, the property owner at 10413 Noble Street indicated that the contractor had not seeded the area, and was hopeful that this would soon take place.

In addition, while onsite, I replaced the filter tubes around the stormwater inlet which appeared to have been run over, however some sediment is now present on the inlet and should be removed by the contractor. (See photo).

If you need any further information, please let me know.

Sincerely,

Chris Brown
MS4 Compliance Inspector

Cc: Rich Budziak, MS4 Coordinator
Dan Gossman, Drainage Administrator
Frank Stewart, P.E., DLZ Engineering
Gough, Inc., Contractor

WILLOWDALE SUBDIVISION 105TH AND JENNINGS PL.

Center Twp./ Crown Point.



Stabilized Area.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION JENNINGS PL.

Center Twp./ Crown Point.



Unstabilized Area.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION JENNINGS PL.

Center Twp./ Crown Point.



Unstabilized Area, Note Rill Erosion and Grading.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION JENNINGS PL.

Center Twp./ Crown Point.



Unstabilized Area, Note Grading. No Seeding Present.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION NOBLE STREET

Center Twp./ Crown Point.



Unstabilized Area, Poor Grading. No Seeding Present.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION 10413 NOBLE STREET

Center Twp./ Crown Point.



Unstabilized Ditch and Yard Area, No Seeding Present.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WILLOWDALE SUBDIVISION JENNINGS PLACE

Center Twp./ Crown Point.



Silt Tubes Replaced, Sediment on Inlet Needs Removed.

Prepared by the Lake County Surveyor's Office
Bill Emerson, Jr., Lake County Surveyor

WARRANTY DEED

This Indenture, Witnesseth, that Donna Lee Anderson, the Grantor of Lake County, State of Indiana, the Owner of the parcel described hereinafter, hereinafter Owner, hereby conveys and warrants to the Board of Commissioners of Lake County, Indiana, the Grantee, hereinafter County, for and in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, certain real estate in the County of Lake, State of Indiana, and, being more particularly described in the legal description(s) attached hereto as Exhibit "A" and described in the July 29, 2015 letter from the Lake County Surveyor's Office to Donna Anderson attached hereto as Exhibit "B", both of which exhibits are incorporated herein by reference, which parcel was previously a part of real estate commonly known as 1830 East Main Street, Gary, IN 46408, Parcel #45-08-31-354-005.000-001.

This conveyance is subject to any and all easements, conditions and restrictions of record.

The Grantor hereby specifically acknowledges and agrees that the Real Estate conveyed herein is conveyed in fee simple and that no reversionary rights whatsoever shall remain with the Grantor, or any successors in title to the abutting lands of the Grantor, notwithstanding any subsequent abandonment, vacation, disuse, nonuse, change of use, conveyance, lease, and/or transfer by the Grantee or its successor in title, of a portion or all of said Real Estate or any right of way, drainage easement, roadway or roadway appurtenances established thereupon. This acknowledgement and agreement is a covenant running with the land and shall be binding upon the Grantor and all successors and assigns.

The Grantor assumes and agrees to pay the prorated real estate taxes and assessments on the above described Real Estate due up to the date of conveyance. This obligation shall survive the closing and shall be enforceable by the County in the event of any non-payment.

I affirm under the penalty of perjury that I have taken reasonable care to redact each Social Security number in this document, unless required by law.

Interests in land acquired by the Board of Commissioners of Lake County, Indiana
Grantee and tax mailing address:
1100 East Monitor Street 2293 N. Main St.
Crown Point, IN 46307

This instrument prepared by:

Clifford E. Duggan Jr.
Atty # 4678-45
Legal Advisor, Lake County Surveyor

NON-TAXABLE

MAY 23 2016

JOHN E. PETALAS
LAKE COUNTY AUDITOR

2016
MAY 23 2016
STAMP
FILED
CLERK
CROWN POINT, IN
2926

Witness my/our hand(s) and seal(s) this 9 day of May, 2016.

Donna Lee Anderson Donna Lee Anderson
DONNA LEE ANDERSON, OWNER OWNER

STATE OF INDIANA)
) SS:
COUNTY OF LAKE)

Before me, a Notary Public in and for said County and State, personally appeared Donna Lee Anderson, who acknowledged the execution of the foregoing Warranty Deed, and who, having been duly sworn, stated that any representations therein contained are true.

Witness my hand and Notarial Seal this ___ day of _____, 2016.

Constance Myres
Signature

CONSTANCE MYRES
Printed Name

My Commission expires:
December 10, 2017

Resident of LAKE

GRANTEE:

BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE

Gerry Scheub
Gerry Scheub, Chairman

Michael C. Repay
Michael C. Repay, Member

Kyle W. Allen Sr.
Kyle W. Allen Sr., Member

BOARD OF COMMISSIONERS OF THE COUNTY OF LAKE
Kyle W. Allen Sr. D.H.
Gerry Scheub
RATIFIED THIS 18 DAY OF May 2016

EXHIBIT A

LEGAL DESCRIPTION

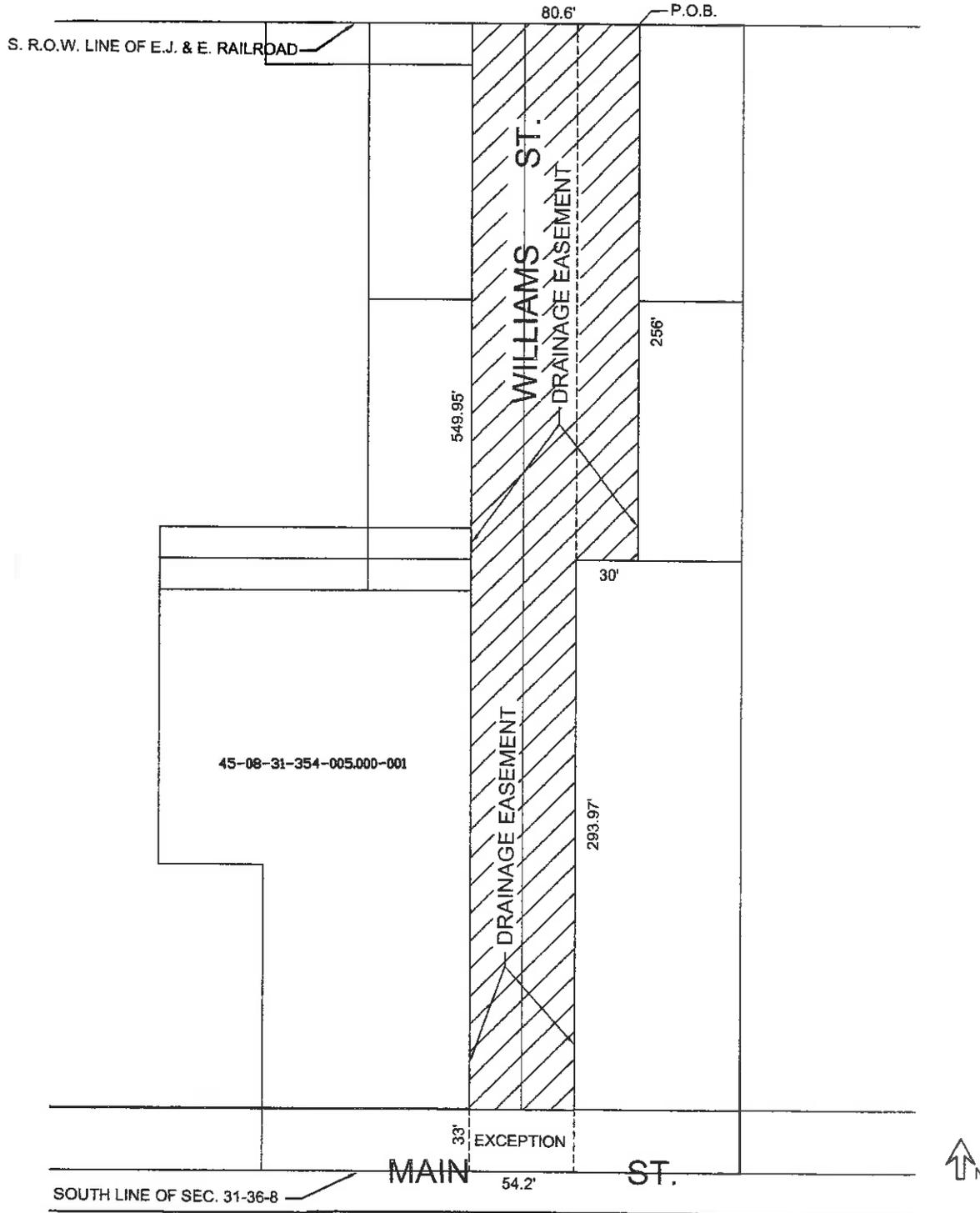
A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF FRACTIONAL SECTION 31, TOWNSHIP 36 NORTH, RANGE 8 WEST OF THE 2ND P.M. DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE FORMER SOUTH RIGHT-OF-WAY LINE OF THE E. J. & E. RAILROAD WHICH IS 789.32 FEET WEST OF THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE SOUTH PARALLEL TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 256 FEET TO THE NORTH LINE OF DECKER PARCEL[WARRANTY DEED RECORD #962 PAGE #466]; THENCE WEST, ALONG THE NORTH LINE OF DECKER, PARALLEL TO THE SOUTH SECTION LINE, 30 FEET; THENCE SOUTH PARALLEL TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 293.97 FEET MORE OR LESS TO THE SOUTH LINE OF SECTION 31; THENCE WEST, ALONG AFORESAID SECTION LINE, 54.2 FEET; THENCE NORTH, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 549.95 FEET MORE OR LESS TO THE FORMER SOUTH RIGHT-OF-WAY LINE OF THE E. J. & E. RAILROAD; THENCE EAST, ALONG AFORESAID FORMER SOUTH RIGHT-OF-WAY LINE, 80.6 FEET MORE OR LESS TO THE POINT OF BEGINNING; EXCEPTING THAT PORTION[33 FEET PER COMMISSIONER ROAD RECORD] LYING IN MAIN STREET, ALSO KNOWN AS 53RD AVENUE CONTAINING 0.797 ACRES MORE OR LESS.

LEGAL DESCRIPTION

A PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF FRACTIONAL SECTION 31, TOWNSHIP 36 NORTH, RANGE 9 WEST OF THE 2ND P.M. DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE FORMER SOUTH RIGHT-OF-WAY LINE OF THE E. J. & E. RAILROAD WHICH IS 789.32 FEET WEST OF THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER; THENCE SOUTH PARALLEL TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 298 FEET TO THE NORTH LINE OF BECKER PARCEL (WARRANTY DEED RECORD 8982 PAGE 8466); THENCE WEST, ALONG THE NORTH LINE OF BECKER, PARALLEL TO THE SOUTH SECTION LINE, 30 FEET; THENCE SOUTH PARALLEL TO THE EAST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 293.97 FEET MORE OR LESS TO THE SOUTH LINE OF SECTION 31; THENCE WEST, ALONG AFORESAID SECTION LINE, 54.2 FEET; THENCE NORTH, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, 549.95 FEET MORE OR LESS TO THE FORMER SOUTH RIGHT-OF-WAY LINE OF THE E. J. & E. RAILROAD; THENCE EAST, ALONG AFORESAID FORMER SOUTH RIGHT-OF-WAY LINE, 80.6 FEET MORE OR LESS TO THE POINT OF BEGINNING; EXCEPTING THAT PORTION 123 FEET PER COMMISSIONER ROAD RECORD LYING IN MAIN STREET, ALSO KNOWN AS 53RD AVENUE CONTAINING 8.797 ACRES MORE OR LESS.



 Bill Emerson, Jr.
Lake County Surveyor
MSA System
2295 W. Main Street
Crown Point, IN 46307
Phone: (317) 735-7753
Email: bill@lakecounty.in.gov

EASEMENT AGREEMENT EXHIBIT A

1830 E. Main Street Gary, In. 46408

SCALE-NTS

DATE: 5/06/16

PROJECT NO.
SHEET 1 OF 1
DRAWING NO. 1

EXHIBIT B

See Attachment B-1, attached hereafter.

EXHIBIT B



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

July 29, 2015

Donna L. Anderson
3931 S. Lake Shore Drive
Crown Point, Indiana 46307

RE: Property at approx. 1830 E. Main Street (parcel# 45-08-31-354-005.000-001)

Dear Mrs. Anderson,

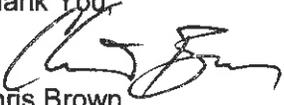
The Office of the Lake County Surveyor's MS4 Department is proposing a potential drainage improvement project to convey stormwater in your area. This project would likely include the installation/improvement of a roadside ditch on the east side of Williams Street. As you can see on the maps I have included, a 30' wide right-of-way strip east of the roadway, as well as the roadway itself, appear to lie within a private parcel boundary which records indicate is owned by you. This means that the county would likely be unable to perform any kind of maintenance in this area, since there is no dedicated right-of-way or easement to work within. For this reason, we are seeking cooperation with local property owners in order to facilitate these improvements.

To this end, we would like to meet with you in order to discuss possible solutions to this issue. These may include options such as dedicating the roadway portion of this parcel to Lake County, in which case *you would no longer have to pay taxes on it*, as you currently do.

Please contact our office at (219) 755-3745 at your earliest convenience so that we can discuss this and other possible options with you in more detail.

The Lake County Surveyors Office appreciates your cooperation in this matter. I look forward to your call.

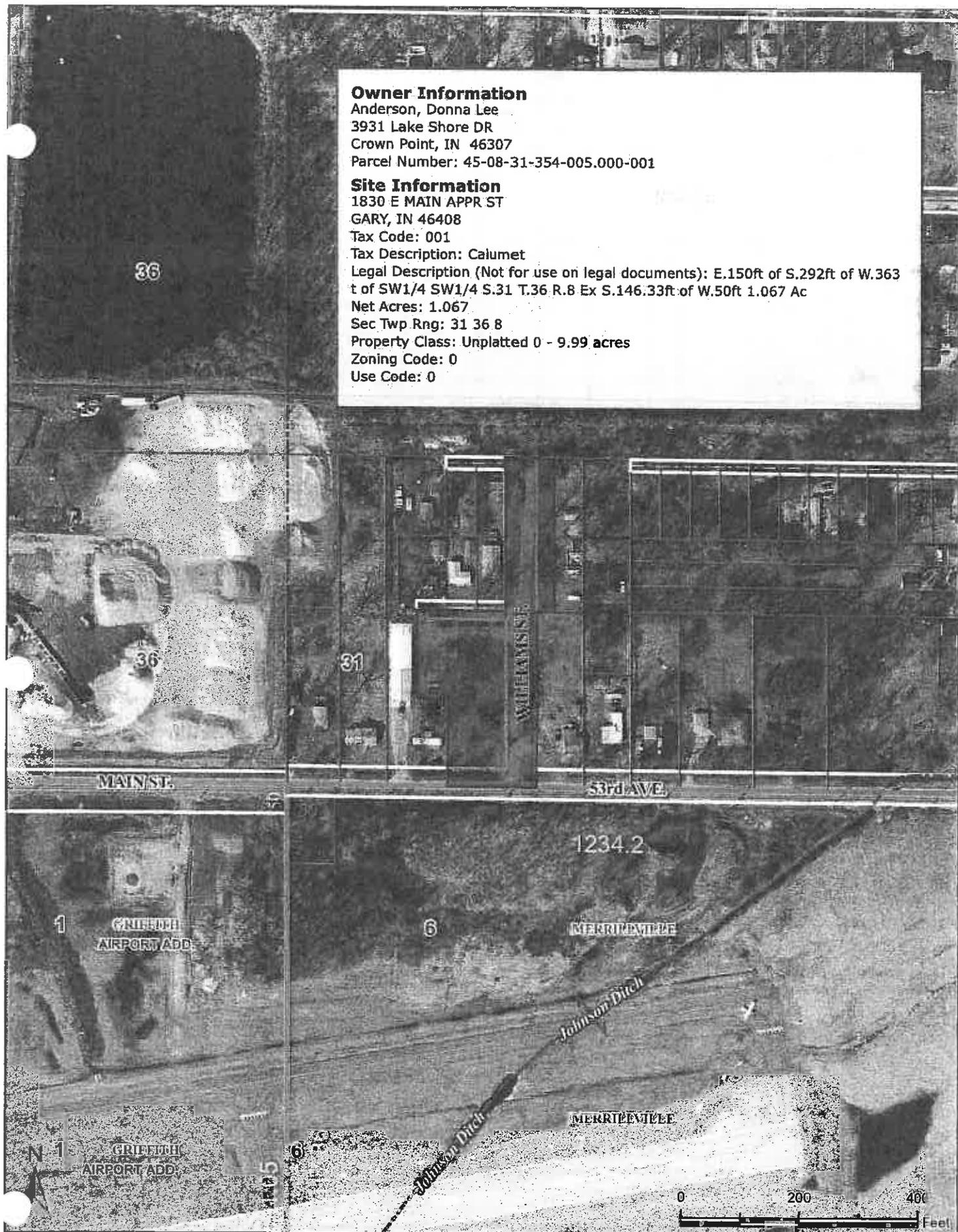
Thank You


Chris Brown
MS4 Compliance Inspector

Cc: Bill Emerson, Jr., Lake County Surveyor
Rich Budziak, MS4 Coordinator
Dan Gossman, Drainage Administrator

Owner Information
 Anderson, Donna Lee
 3931 Lake Shore DR
 Crown Point, IN 46307
 Parcel Number: 45-08-31-354-005.000-001

Site Information
 1830 E MAIN APPR ST
 GARY, IN 46408
 Tax Code: 001
 Tax Description: Calumet
 Legal Description (Not for use on legal documents): E.150ft of S.292ft of W.363
 t of SW1/4 SW1/4 S.31 T.36 R.8 Ex S.146.33ft of W.50ft 1.067 Ac
 Net Acres: 1.067
 Sec Twp Rng: 31 36 8
 Property Class: Unplatted 0 - 9.99 acres
 Zoning Code: 0
 Use Code: 0



9-B-1
5-20-16

Singleton Ditch Phase III Maintenance Monon Road to Mississippi Street Lake County, Indiana

Specifications and Bid Documents



May 12, 2016

Prepared By:

American Structurepoint, Inc.
7260 Shadeland Station
Indianapolis, IN 46256
Tel: 317-547-5580
Fax: 317-543-0270



Jeremy C. Schmitt
5/12/16

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1.0 SPECIAL INSTRUCTION TO BIDDERS

1.1 GENERAL INFORMATION

It is the intention of the *Lake County Drainage Board*, hereinafter referred to as the **BOARD**, to secure bids for maintenance work to be performed on the *Singleton Ditch Maintenance Phase III* hereinafter referred to as the **PROJECT**, as identified and described herein and in the plans and specifications prepared by *American Structurepoint, Inc.*, hereinafter referred to as the **ENGINEER**.

All bids for the proposed work shall be submitted on a unit price as set forth on the bid proposal form attached herein, all in accordance with the **PROJECT** documents.

The **BOARD** intends to review all bids for the **PROJECT** and upon final review and determination, award the bid to the successful bidder. Among other considerations, the successful bidder will be determined by the lowest overall total bid as provided in the bid proposal form attached herein. The total quantity of work to be awarded by the **BOARD** will be based on the total dollars available at the time of contract award and the respective applicable unit prices of the successful bidder.

The bid proposal form to the **BOARD** consisting of 1 page, as set out hereinafter, shall be attached and submitted with Bid Form 96 and Form 95.

1.2 BIDDERS INFORMATION

It is the responsibility of all **PROJECT** bidders to review all bid documents to ascertain their effect on each bid.

It is the responsibility of all **PROJECT** bidders to carefully examine the **PROJECT** site and fully inform himself/herself with the limitations and conditions related to the work covered by his/her bid, and shall include in his/her bid a sum to cover the cost of all such items. It is the purpose and intent of the contract documents that a fully complete job be accomplished. It is the responsibility of each bidder to include all costs necessary to provide all labor, materials and equipment for the portion of the work bid upon, including incidentals, whether or not specifically called for in the **PROJECT** plans and specifications. Each bidder by making his/her bid represents that he/she has read and understands the bid documents and represents that he/she has visited the site and has familiarized himself/herself with all the conditions under which the work is to be performed.

It is the responsibility of all bidders to contact all utility companies and public and/or private agencies to become familiar with the specific locations of all existing utilities and

systems that will affect the work. The successful bidder shall protect all such systems and utilities, including all other improvements which may exist within or adjacent to the work area during the execution of the work. All existing improvements, utilities and systems that may be damaged during construction shall be repaired and/or replaced to a condition at least equal to that prior to such damage at no additional expense to the **BOARD**. All such companies shall be notified prior to commencement of the work in order that all such lines be located and identified by the affected companies.

All inquiries as to the documents, interpretations, substitutions, conflicts, discrepancies, omissions and questions shall be referred to the **ENGINEER**, representative of the **BOARD**, who in turn will refer same to the **BOARD**.

All bidders in doubt as to the true meaning of any part of the **PROJECT** documents shall submit to the **ENGINEER**, not less than seven (7) days before the bid deadline, a written request for interpretation and clarification.

Bidders are responsible for acquiring any and all issued addenda in time to incorporate them into their bid. Each bidder shall enumerate all addenda he has received in his bid.

All bidders and their subcontractors, if any, shall furnish proof, satisfactory to the **BOARD** that they are in good standing and are authorized to do business in the State of Indiana and that they are licensed to perform the work within the County of Lake. All bidders shall furnish a list of their subcontractors, if any, including name, address and telephone numbers.

The County's affirmative action program as adopted by the County of Lake, dated May 31, 1977, a copy of which is on file in the Lake County Auditor's office and the office of the Board of Commissioners of the County of Lake, is a condition of the **PROJECT** documents. The bidder shall submit, together with his/her bid, in writing, his/her affidavit, that he/she will comply with the County's affirmative action program.

It is recommended that all bidders attend any and all pre-bid conferences that may be scheduled by the **BOARD**.

The Lake County Surveyor and the **ENGINEER**, or their designated agents, will perform **PROJECT** supervision and periodic inspections to determine compliance with all **PROJECT** documents, percentages or inspections will include measurements and elevations of the completed work for compliance with the plans and specifications prior to payment recommendations to the **BOARD**.

The Contractor shall be permitted to submit claims for payment on a monthly basis as the

work progresses, subject to a fifteen percent (15%) retainage, all as approved by the Lake County Surveyor and the **ENGINEER**. Fifteen percent (15%) of the completed value of the work shall be withheld by the **BOARD** for a period of sixty (60) days after the completion of the work and its acceptance by the Lake County Surveyor and the **ENGINEER** for the purpose of securing payment of suppliers, laborers and subcontractors, if any. The Contractor shall be required to furnish a sworn statement of all indebtedness for labor and materials furnished, used or extended for said construction, the amount of due and to become due to each subcontractor and material supplier before issuance of any payment, and final waiver of lien and an affidavit showing all bills, on the issuance of the final payment. Upon certifications by the Lake County Surveyor and the **ENGINEER**, the **BOARD** shall pay to the Contractor, on account of the contract, the value of labor and materials incorporated into the work.

A bid security in the form of a certified check/cashier's check or a bid bond from an acceptable surety made payable to the **BOARD** shall accompany each bid. The bid security shall be in the penal amount of five percent (5%) of the total bid. Bid security shall be forfeited if the bid is withdrawn after closing time on the date for receiving bids. Out of state bidders must submit a certified check of ten percent (10%) of the total bid made payable to the **BOARD**.

Upon execution of the contract, the successful bidder shall give to the **BOARD** a bond payable to the **BOARD**, in an amount fixed by the board but not less than the amount of the bid, and with a corporate surety licensed to do business in Indiana. The bond must be conditioned on the faithful performance of the contract and the payment of all expenses and damages incurred under the contract, including payment of all suppliers, laborers, and subcontractors. However, in lieu of a corporate surety bond, the **BOARD** may accept:

- (1) a cash bond;
- (2) a property bond; or
- (3) a bond from a sufficiently financed private bonding company.

All Contractors, including sub-contractors, shall carry full insurance coverage and certificates of insurance shall be delivered to the **BOARD**, upon signing of the contract.

Contractor shall have Workmen's Compensation, as required by applicable Federal and State laws

Contractor's Liability, including contractual liability, form of insurance shall be comprehensive general liability and comprehensive automobile liability \$500,000 CSL;

for bodily injury, property damage and personal injury, including complete operations broad form; bodily injury and property damage, automobile liability, owned, non-owned and hired.

In addition to the above, the Contractor shall provide operations and products liability, XCU coverage and \$1,000,000 umbrella liability.

At all times during the progress of the work, the Contractor shall maintain such insurance as will protect and save harmless the **BOARD**, and its agents, from claims under the Workmen's Compensation Act, from any and all other claims for damages for property damage, personal injury and/or death and patent infringement, which may arise from operation under the contract documents, whether such act or omission be by itself or by an employee or sub-contractor or anyone directly or indirectly employed by either of them; and certificates of such insurance as required by the **PROJECT** documents shall be filed with the **BOARD**.

Should the **BOARD** suffer any damage, cost or expense, including attorney's fees, in any manner, because of any wrongful act or negligence of the Contractor, or anyone employed by it or a subcontractor or the assertion of any claim of whatever nature which arises from operation under the contract documents, then the Contractor shall reimburse the **BOARD** for any such damage and all reasonable attorney fees and expenses related to such claim and/or reimbursement thereto, all without relief from validation and appraisal laws.

2.0 GENERAL INFORMATION

2.1 PERMITS

The **BOARD** will procure all necessary permits from the Indiana Department of Natural Resources, Indiana Department of Environmental Management and Army Corps of Engineers for the performance of the work. All such permits are considered part of the **PROJECT** documents and all work shall be performed in strict compliance with all provisions and conditions therein. In the event discrepancies exist between the **PROJECT** documents and the provisions and conditions of such permits, the Contractor shall immediately notify the Lake County Surveyor and the **ENGINEER** to resolve any such discrepancy.

2.2 CONSTRUCTION METHODS AND STANDARDS

All construction methods, standards and specifications, as adopted by the **BOARD** shall govern the performance of the work unless otherwise specified in the **PROJECT** documents.

2.3 WORK WITHIN EASEMENTS

All work shall be performed within the limits of the existing regulated drain easement for the **PROJECT** and within other access and work easements acquired by the **BOARD** as otherwise specified herein.

2.4 MAINTENANCE OF DRAINWAYS

All construction shall be performed in such a manner that will not interfere with existing drainage of the areas adjacent to the **PROJECT**. All work shall be performed in such a manner that will ensure proper drainage.

2.5 AUTHORIZATION TO PROCEED

No work shall be performed prior to receipt of "Authorization to Proceed" notification from the Lake County Surveyor.

2.6 CONTRACTOR'S SCHEDULE

The Contractor will be requested to attend a pre-construction conference to be scheduled by the Lake County Surveyor at which time the Contractor will be required to submit a construction schedule to the Lake County Surveyor prior to commencement of the work.

2.7 CONTRACTOR'S EQUIPMENT AND METHOD OF CONSTRUCTION

The Contractor shall include with his bid a list of equipment available to perform the work. Each piece of equipment shall be listed by type of ownership. (Own, Lease or

Rental). The Contractor shall also provide a detailed description of the proposed method of construction with his bid.

3.0 TECHNICAL SPECIFICATIONS

3.1 CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 601). A copy of the latest version of the Handbook is available online at <http://www.in.gov/dnr/water/4893.htm>.

Work shall be performed in accordance with the Special Conditions of the Indiana Department of Natural Resources Permit for Construction in a Floodway that will be secured for this project.

Description: This work shall consist of dipping, dredging, and/or removing sediment from the channel bottom with a bucket operated by a dragline excavator from the one side of the channel without disturbing the ditch banks. All work adjacent to wetland areas shall be performed from the bank opposite of the wetland area when possible. All work shall be performed within the existing **DRAINAGE BOARD** easement. The work shall also include the removal of sediment from identified culverts within the regulated drain.

Excavation: The contractor shall excavate the low flow channel below the existing flow line to the original channel bottom as shown in the Typical Ditch Cross Section Detail in the plans. The depths of sediment estimated for removal in the bid proposal form are an average depth – the actual depth of sediment to be removed will vary across the cross-section of the channel and along the channel alignment.

Cross-section geometry should, in general, be trapezoidal with a flat, level channel bottom and a positive grade along the ditch channel. Side slopes of excavated low flow area should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed a maximum slope of 2:1 (2H: 1V). A minimum twenty (20) foot longitudinal transition shall be provided from the full-cut excavated area to the undisturbed ditch bottom.

To the extent feasible, the contractor shall also carefully remove any sediments deposited in the identified culverts that lie within the regulated drain. Feasibility of removal shall be determined based on the ability of the contractor to remove sediment without engaging confined space entry requirements. When the contractor is unable to clean the entire length of culvert, downstream of the culvert the contractor shall excavate the ditch an additional 3 feet for a length equivalent to the culvert length to serve as a sediment trap for any sediment that would be washed out of the culvert.

Spoil Material: Spoil material shall **not** be placed in the floodway or in the wetlands. Limits of jurisdictional wetlands, if present, are shown on the plans and copies of maps showing floodway limits as delineated by FEMA are available at the Office of the Lake County Surveyor. Otherwise, spoil material shall be disposed of adjacent to the excavated area unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. Spoil shall be placed landward of the channel bank a distance of ten feet (or more, as needed to stay outside of the floodway limit) to allow for future maintenance access. Spoil shall be leveled to have a foreslope of 5:1 (5H:1V) or flatter so as not to severely impact stream system and applied erosion control measures. From the maximum height, the spoil shall have an 8:1 (8H:1V) back slope to existing grade. Grading of spoil material shall coincide with adjacent stream overbank topography. Spoil piles shall be notched to allow drainage away from adjacent properties.

Spoil material cannot be placed within 10 feet of the top of bank.

Where it becomes necessary to remove spoil from the area due to lack of dump space alongside drain, contractor is responsible to locate a dump site and remove this excess spoil from the jobsite. No extra payments will be made for this removal. This location must be in an uplands site. Wetlands, streams, any "Waters of the State", etc. will not be allowed for this dump site. Contractor is to provide an offsite dump plan and an erosion control plan as necessary for this dump site.

Measurement and Payment: Work shall be paid for at the contract unit price per cubic yard for CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL) which price shall include all excavation (including any sediment removal from within culverts), spoil disposal, off-site if necessary, and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

3.2 SILT FENCING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1, Practice 105). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: Temporary barrier of entrenched geotextile fabric stretched across and attached to supporting post used to intercept sediment – laden runoff from drainage areas of disturbed soil.

Location: Along creek/ditch side of spoil piles.

Materials/installation: This work shall be in accordance with Practice 105 as referenced above and with Section 205 of the INDIANA DEPARTMENT OF

TRANSPORTATION STANDARD SPECIFICATIONS, latest edition.

Payment: This work shall be paid for at the contract unit price per foot for SILT FENCE which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work including complete removal after vegetation has been established.

3.3 MULCHED SEEDING

Description: Application of seed, fertilizer, mulch and water to spoils piles.

Location: Top of spoil pile and other areas on the overbank disturbed by machinery.

Materials Installation: This work shall be in accordance with Section 621 of the INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (INDOT Specifications), latest edition, except that 100% perennial rye-grass shall be used as follows:

Spoils Pile Cover and Bank Stabilization		
Common Name	Botanic Name	Seeding Rate
Perennial Rye-Grass	Lolium perenne	24 lb/ac

Application of seed, mulch (2 tons/acre), fertilizer (800 lbs/acre), and water shall be performed according to INDOT Specifications Section 621.05.

Payment: This work shall be paid for at the contract unit price per acre for MULCHED SEEDING which price shall be payment in full for constructing this item as specified, including all materials, labor, and equipment.

3.4 CHANNEL BANK EXCAVATION (SLOPE REPAIR)

Certain areas of the ditch bank have partially failed and are in need of repair. This work is to correct those areas and repair the channel geometry to its original dimensions.

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 602). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of regrading failed slopes where bank repair is specified in the plans within the regulated drain.

Excavation: The contractor shall excavate the failed bank sections as shown on the plans. To the extent practical, collect and preserve the top soil removed from the area of bank repair. After completion of the slope repair, return topsoil to the bank in order

to prepare the site for seeding.

Cross-section geometry should, in general, be trapezoidal with positive grade. Side slopes should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed the maximum existing bank slope.

Payment: This work shall be paid for at the contract unit price per linear foot of CHANNEL BANK EXCAVATION (SLOPE REPAIR) which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work.

3.5 EROSION CONTROL BLANKET AND SEEDING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.11, Practice 1104). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of furnishing all labor, materials, tools and equipment necessary to seed and place EROSION CONTROL BLANKET on locations requiring bank repair as shown in the plans. The blanket provides temporary stabilization of bank soils until vegetation can be established.

The erosion control blanket shall be biodegradable organic or synthetic mulch incorporated into a polypropylene or similar netting material. Material may be biodegradable, photodegradable, or permanent.

Location: Areas of bank repair on the drainage ditch banks.

Materials/installation: This work shall be in accordance with Practice 1104 as referenced above. EROSION CONTROL BLANKET shall be of an appropriate type and weight to fit the site conditions.

Prepare the seedbed, fertilize and seed bank repair areas. Seed and fertilize according to the MULCHED SEEDING specification above (but do not mulch) immediately after CHANNEL BANK EXCAVATION has been performed. Lay blankets on seeded areas following manufacturer's directions. Blankets should be laid so they are in continuous contact with the soil, and upslope or upstream blankets should overlap the lower ones by at least 8". Tuck the uppermost edge of the upper blankets into a check slot (slit trench) and backfill with soil. Tamp down.

Anchor blankets as specified by the manufacturer for the existing slope and soil at the site. This usually involves driving 6"-8" wood or metal staples into the ground in a pattern determined by site conditions. Wood staples are preferable to metal staples. Wood staples will swell and hold better.

failing into the waterway, shall be cut and removed along with all trees between the top of ditch banks.

The root system and stump of the tree shall be left in place. Stumps shall be cut as low as possible and parallel with the slope of the bank but in no case higher than twelve inches, unless authorized by the County Surveyor Office. Stump splinters shall also be cut off. It shall be the contractor's responsibility to walk the site and estimate the size and number of these trees to be removed. Cut stumps shall be treated with herbicide as soon as possible after cutting, preferably less than two (2) hours. Stumps should be saturated, especially in the cambial area. Cut stumps shall be treated with Tordon 101, Tordon K or Garlon 4. The herbicide used to treat the cut stumps must include a colored, chemical dye to indicate clearly the proper application of the product.

Removed Tree, Tree Parts, an Debris: All trees, logs and other tree parts cut, broken, and/or removed by the contractor shall be disposed of off-site unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. The removed trees and brush may be mulched (chipped) and spread on top of the ditch bank, outside of the floodway and wetland limits, in a manner approved by the Lake County Surveyor's office. As described in *Practice 1301, Debris Disposal* non-toxic debris such as broken concrete may be disposed of onsite if it is buried a minimum of 2' deep. If the contractor chooses to remove materials from the site, the materials shall be disposed of by the contractor in an approved manner at an approved disposal site, all of which must be approved by the Lake County Surveyor's office.

Measurement and Payment: This work shall be paid for at the contract LUMP SUM price which shall include all cutting, relocation and removing of trees, tree parts and foreign material, including disposal and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

Supplemental Bid Proposal Form (To be attached and made part of Form 96)

Project: **Singleton Ditch Maintenance - Phase III**

The undersigned, having reviewed the local contract documents, comprised of the project documents for the Project known as Singleton Ditch Maintenance Phase III, Kankakee River Watershed, Lake County, Indiana (May 2016)

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the prices stipulated. All prices include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

Item No.	Item						Quantity	Unit	Unit Price	Total
1	Channel Bottom Dipping (Sediment Removal by Dragline Excavation)						33,500	CY	\$	\$
	From Station	To Station	Distance	Depth	Width	Volume				
	251+71	325+00	7,329	1.0	30	8,200				
	325+00	350+00	2,500	1.5	30	4,200				
	350+00	400+00	5,000	2.0	30	11,200				
	400+00	415+00	1,500	1.5	30	2,500				
	415+00	448+29	3,329	2.0	30	7,400				
2	Silt Fence						19,658	LF	\$	\$
	From Station	To Station	Distance							
	251+71	448+29	19,658							
3	Mulched Seeding						14.0	AC	\$	\$
	From Station	To Station	Distance	Width	Area					
	251+71	448+29	19,658	30	13.54					
4	Channel Bank Excavation (Slope Repair)						1,130	LF	\$	\$
	From Station	To Station	Distance	Width	Area					
	254+85	255+45	60		60					
	256+00	256+25	25		25					
	270+30	271+25	95		95					
	273+00	273+20	20		20					
	274+00	274+35	35		35					
	275+20	275+55	35		35					
	276+50	281+85	535		535					
	283+75	285+00	125		125					
	333+00	333+35	35		35					
	339+80	340+00	20		20					
	421+70	422+20	50		50					
	422+70	423+35	65		65					
	424+25	424+55	30		30					
	5	Erosion Control Blanket and Seeding								
From Station		To Station	Distance	Width	Area					
254+85		255+45	60	10	67					
256+00		256+25	25	10	28					
270+30		271+25	95	10	106					
273+00		273+20	20	10	22					
274+00		274+35	35	10	39					
275+20		275+55	35	28	109					
276+50		281+85	535	10	584					
283+75		285+00	125	10	139					
333+00		333+35	35	10	39					
339+80		340+00	20	10	22					
421+70		422+20	50	10	56					
422+70		423+35	65	10	72					
424+25		424+55	30	10	33					
6		Tree and Debris Removal						1	LS	\$
Total Bid Price									\$	

Bidder's proposal in words for making entire improvement:

This proposal is submitted this _____ day of _____, 2016.

Corporation: _____

Address: _____

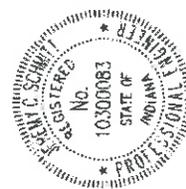
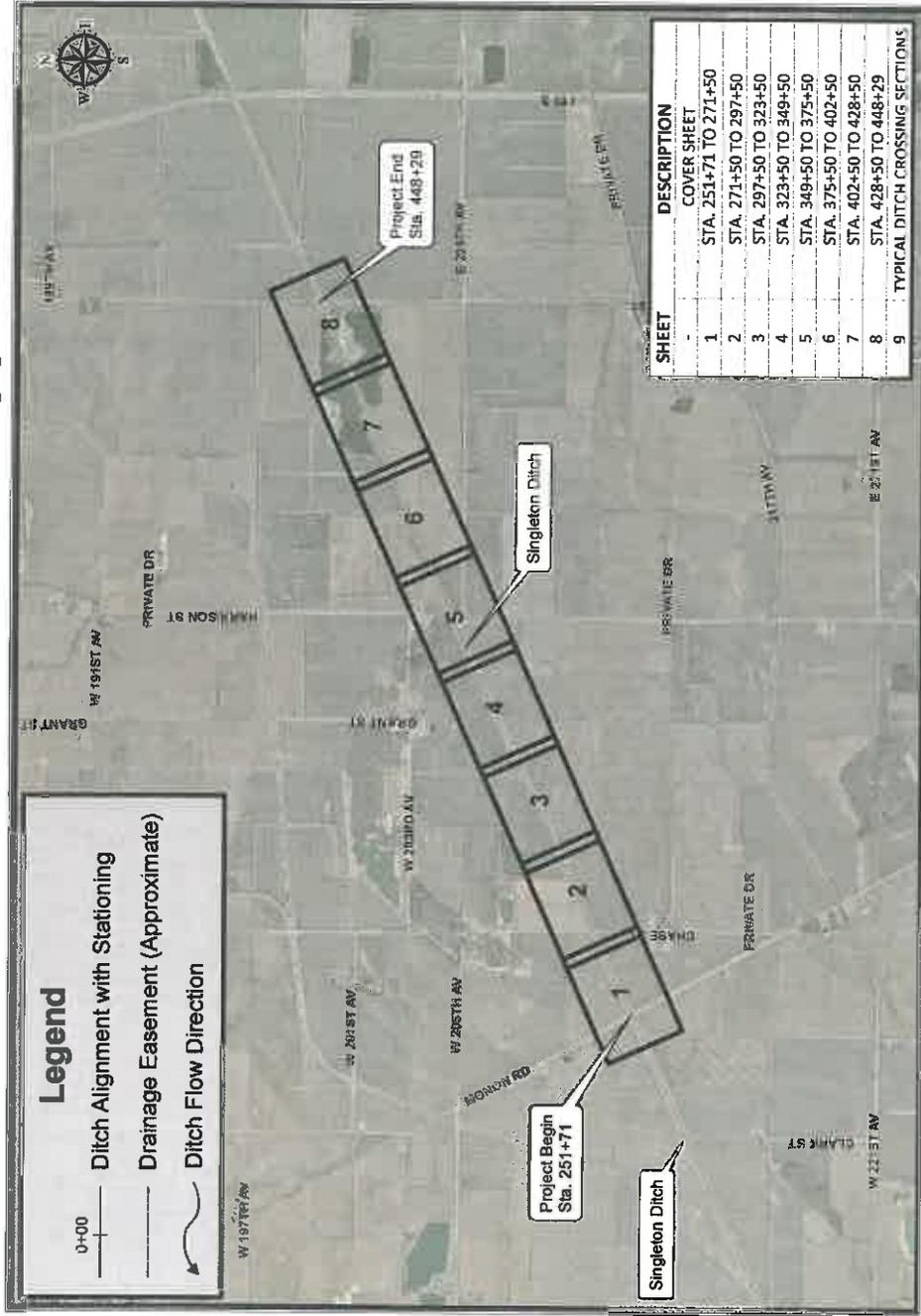
By (Printed Name): By (Signature): _____

Title: _____

Lake County, Indiana

Singleton Ditch Maintenance Phase III

Monon Road to Mississippi Street



Gregory C. Schmitt
 Gregory C. Schmitt
 Registered Professional Engineer
 No. 10300083
 State of Indiana

Prepared By:
STRUCTUREPOINT
 AMERICAN
 www.structurepoint.com
 6077 20th Ave SW, StructurePoint, Inc.
 Printed: May 12, 2016



NOTES:
 DRAINAGE EASEMENTS ARE LOCATED 75 FEET FROM TOP OF BANK ON EACH SIDE OF THE DITCH.
 EASEMENT LOCATIONS AS SHOWN IN FIGURES ARE APPROXIMATE.

Singleton Ditch Maintenance Phase III Lake County, Indiana

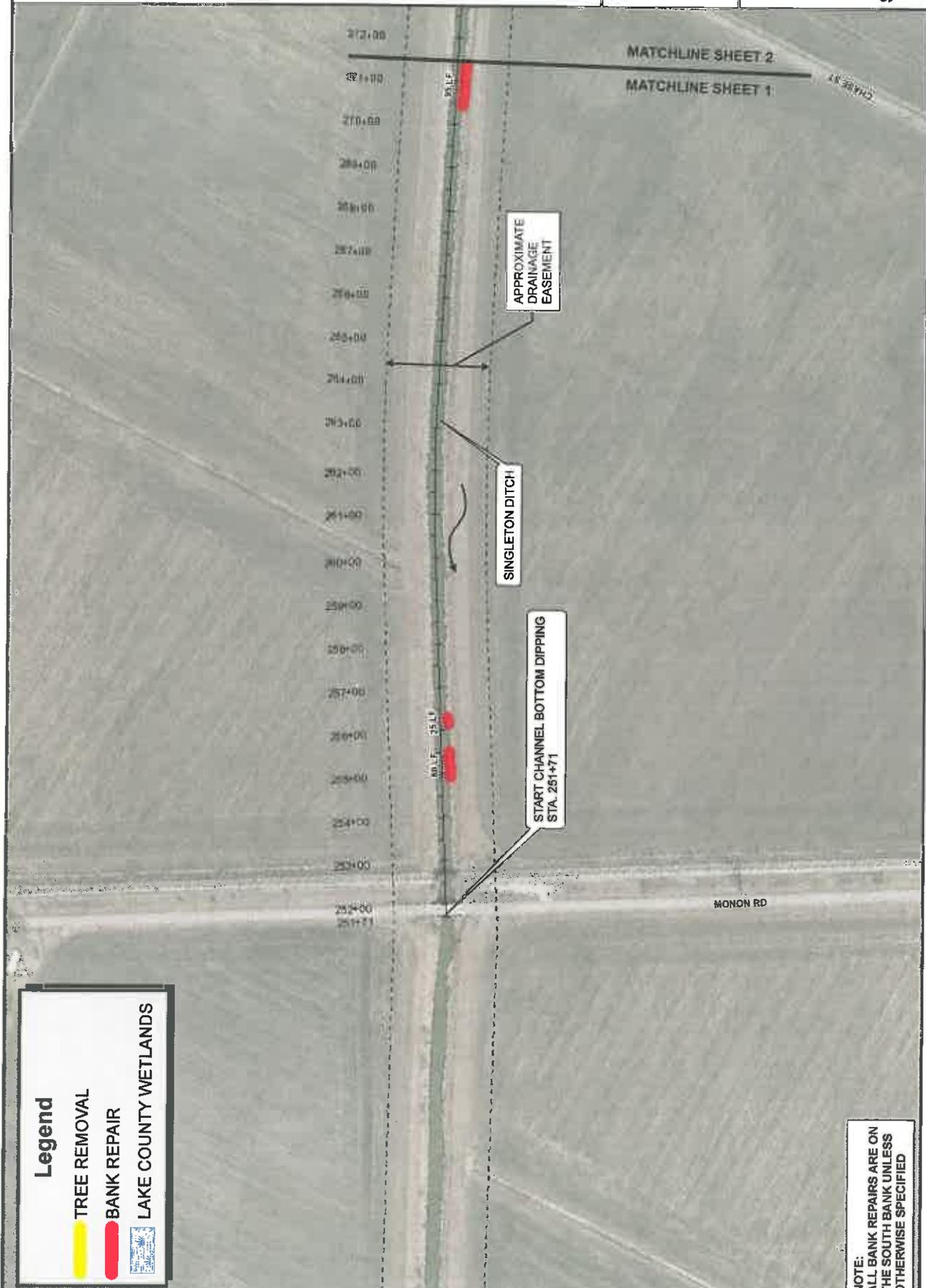


1 inch = 200 feet

Prepared For:
Lake County
Indiana

Prepared By:
STRUCTUREPOINT
INCORPORATED

Printed: May 12, 2016



Legend

- TREE REMOVAL
- BANK REPAIR
- LAKE COUNTY WETLANDS

NOTE:
ALL BANK REPAIRS ARE ON
THE SOUTH BANK UNLESS
OTHERWISE SPECIFIED

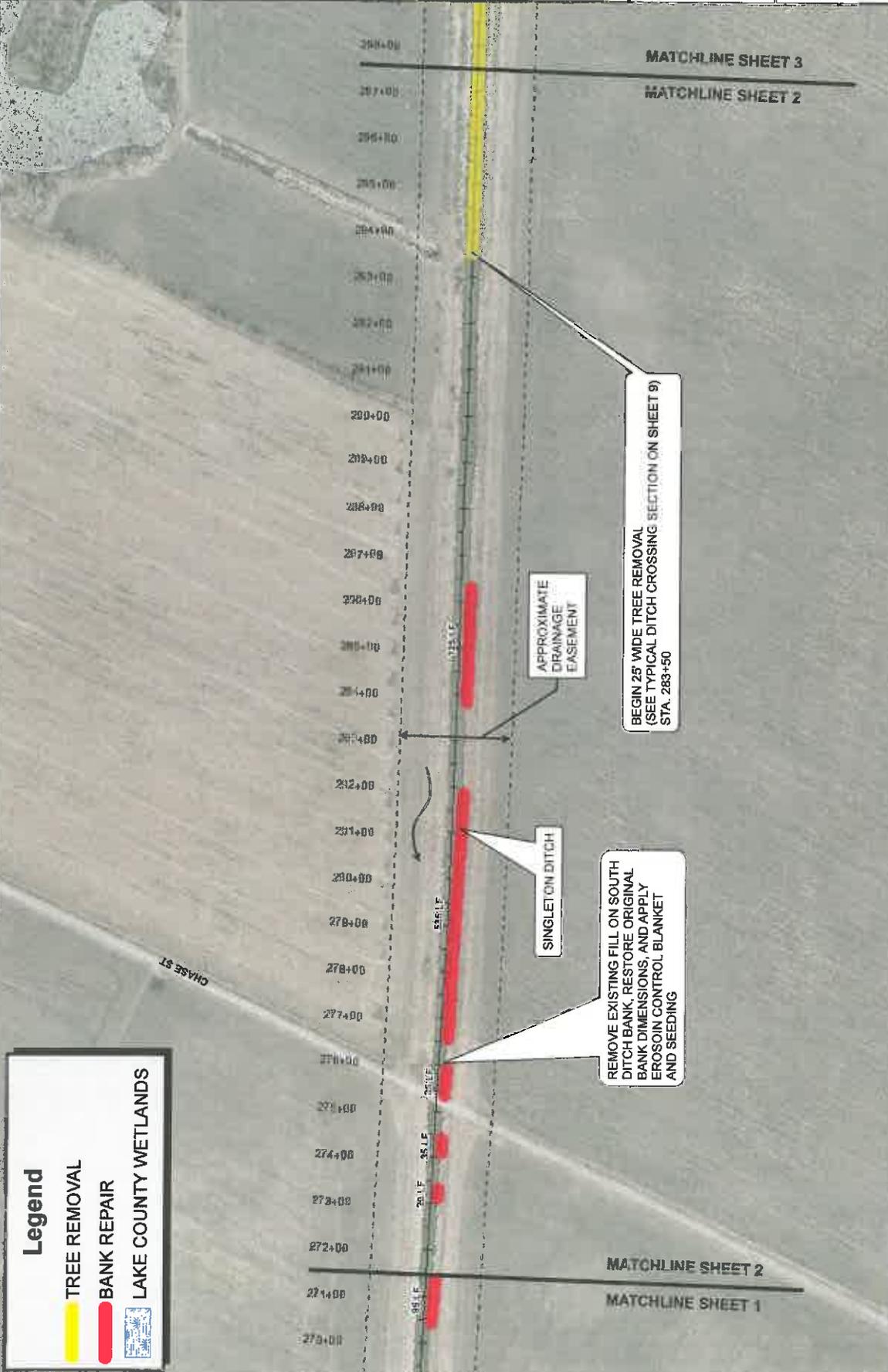
Singleton Ditch Maintenance Phase III Lake County, Indiana



1 inch = 200 feet

Prepared For:
Lake County
Indiana

Prepared By:
MICHAEL
STRUCTUREPOINT
Printed: May 12, 2016



Legend

- TREE REMOVAL
- BANK REPAIR
- LAKE COUNTY WETLANDS

APPROXIMATE DRAINAGE EASEMENT

BEGIN 25' WIDE TREE REMOVAL (SEE TYPICAL DITCH CROSSING SECTION ON SHEET 9) STA. 283+50

SINGLETON DITCH

REMOVE EXISTING FILL ON SOUTH DITCH BANK, RESTORE ORIGINAL BANK DIMENSIONS, AND APPLY EROSION CONTROL BLANKET AND SEEDING

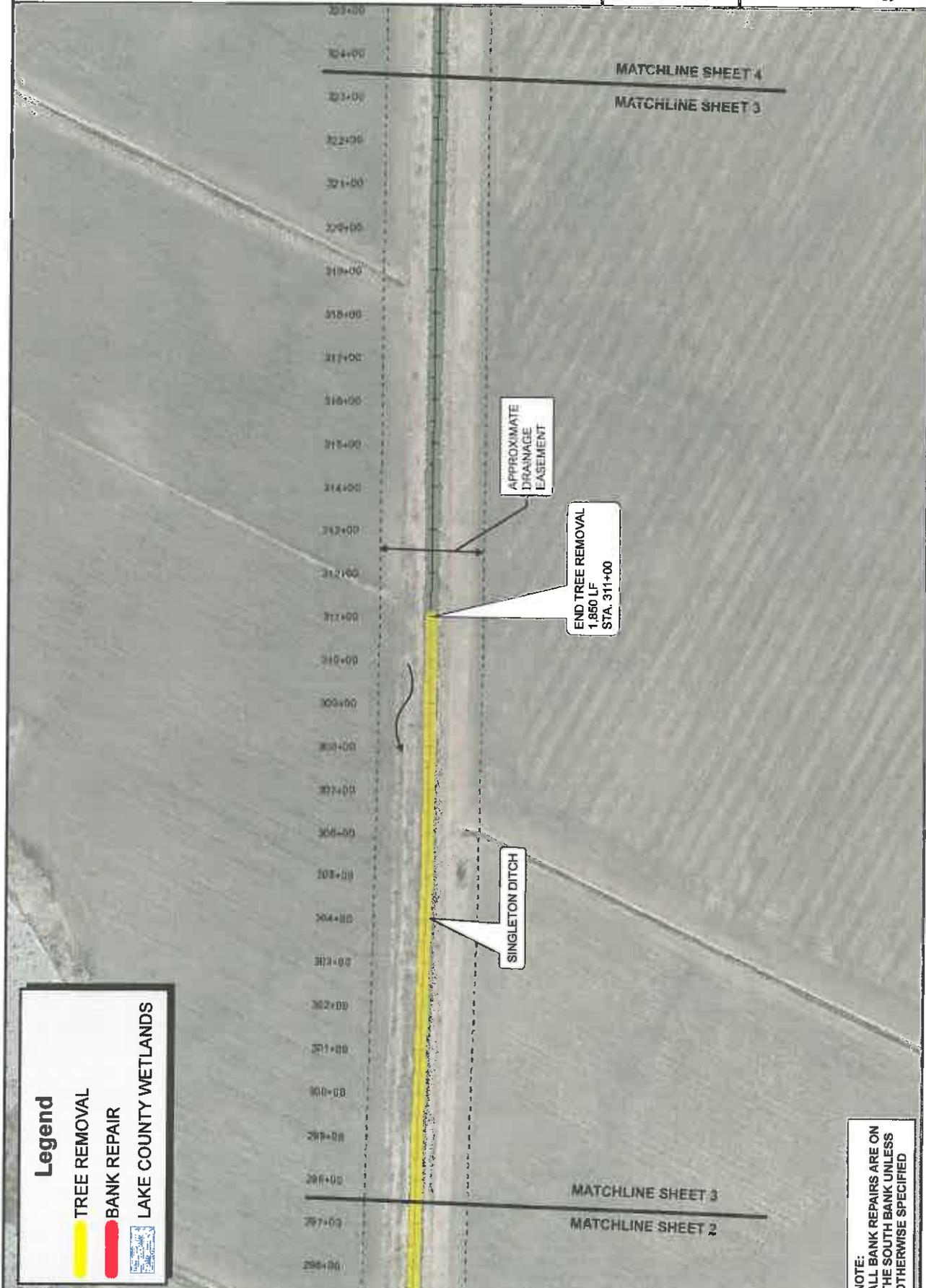
NOTE:
ALL BANK REPAIRS ARE ON THE SOUTH BANK UNLESS OTHERWISE SPECIFIED



1 inch = 200 feet

Prepared For:
Lake County
Indiana

Prepared By:
STRUCTUREPOINT
INCORPORATED
Printed: May 12, 2016



Legend

- TREE REMOVAL
- BANK REPAIR
- LAKE COUNTY WETLANDS

NOTE:
ALL BANK REPAIRS ARE ON
THE SOUTH BANK UNLESS
OTHERWISE SPECIFIED

Singleton Ditch Maintenance Phase III Lake County, Indiana



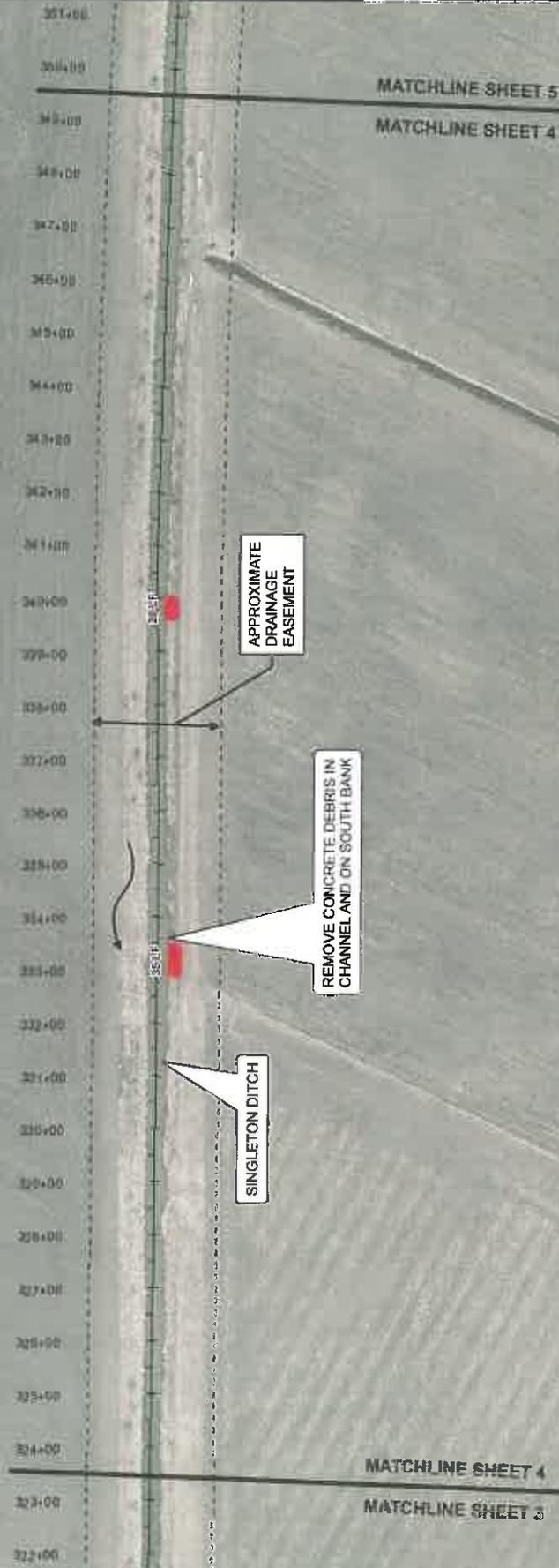
1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:
STRUCTUREPOINT
Printed: May 12, 2016

Legend

-  TREE REMOVAL
-  BANK REPAIR
-  LAKE COUNTY WETLANDS



NOTE:
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THE SOUTH BANK UNLESS
OTHERWISE SPECIFIED

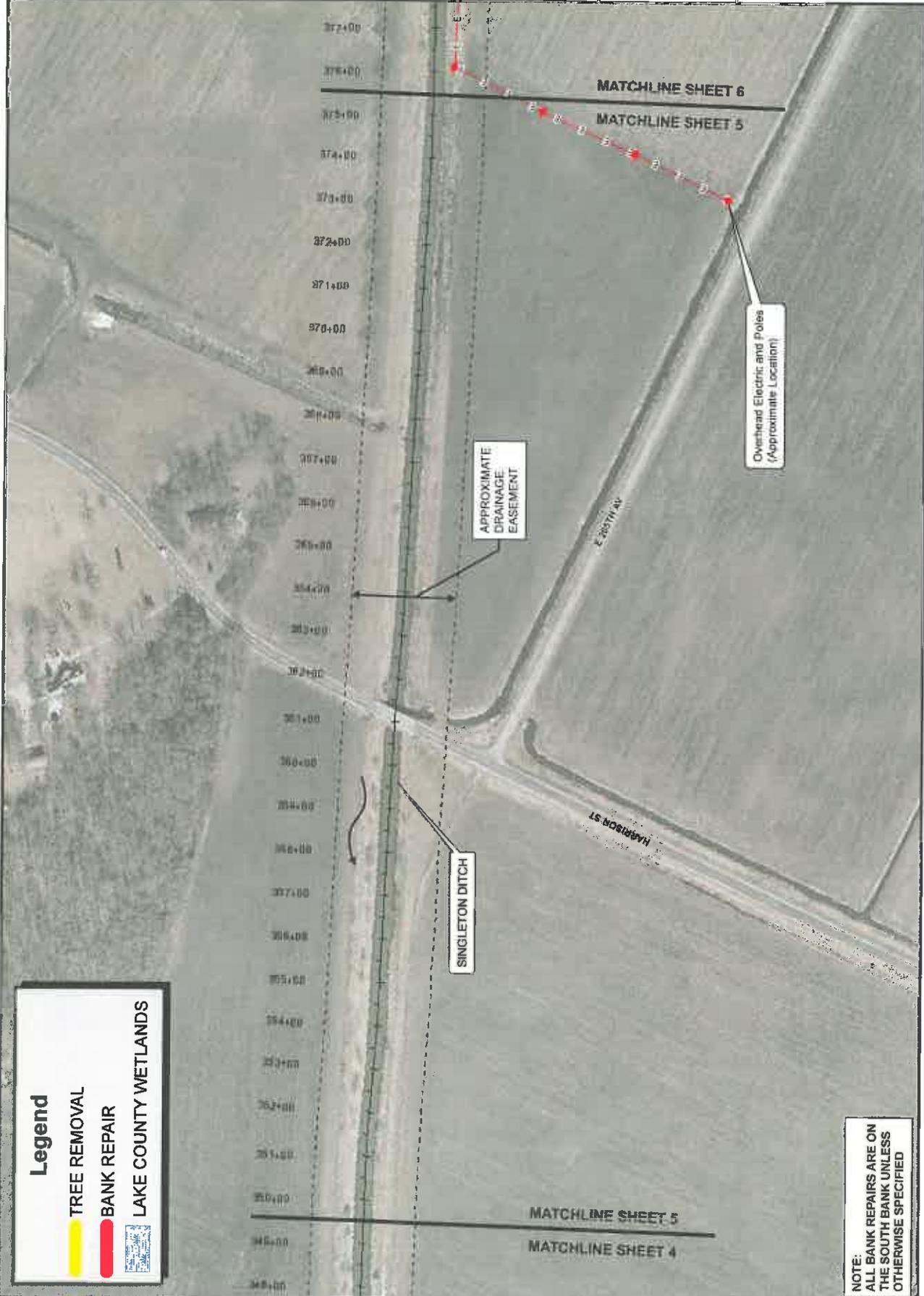
Singleton Ditch Maintenance Phase III Lake County, Indiana



1 inch = 200 feet

Prepared For:
Lake County
Indiana

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Printed: May 12, 2016

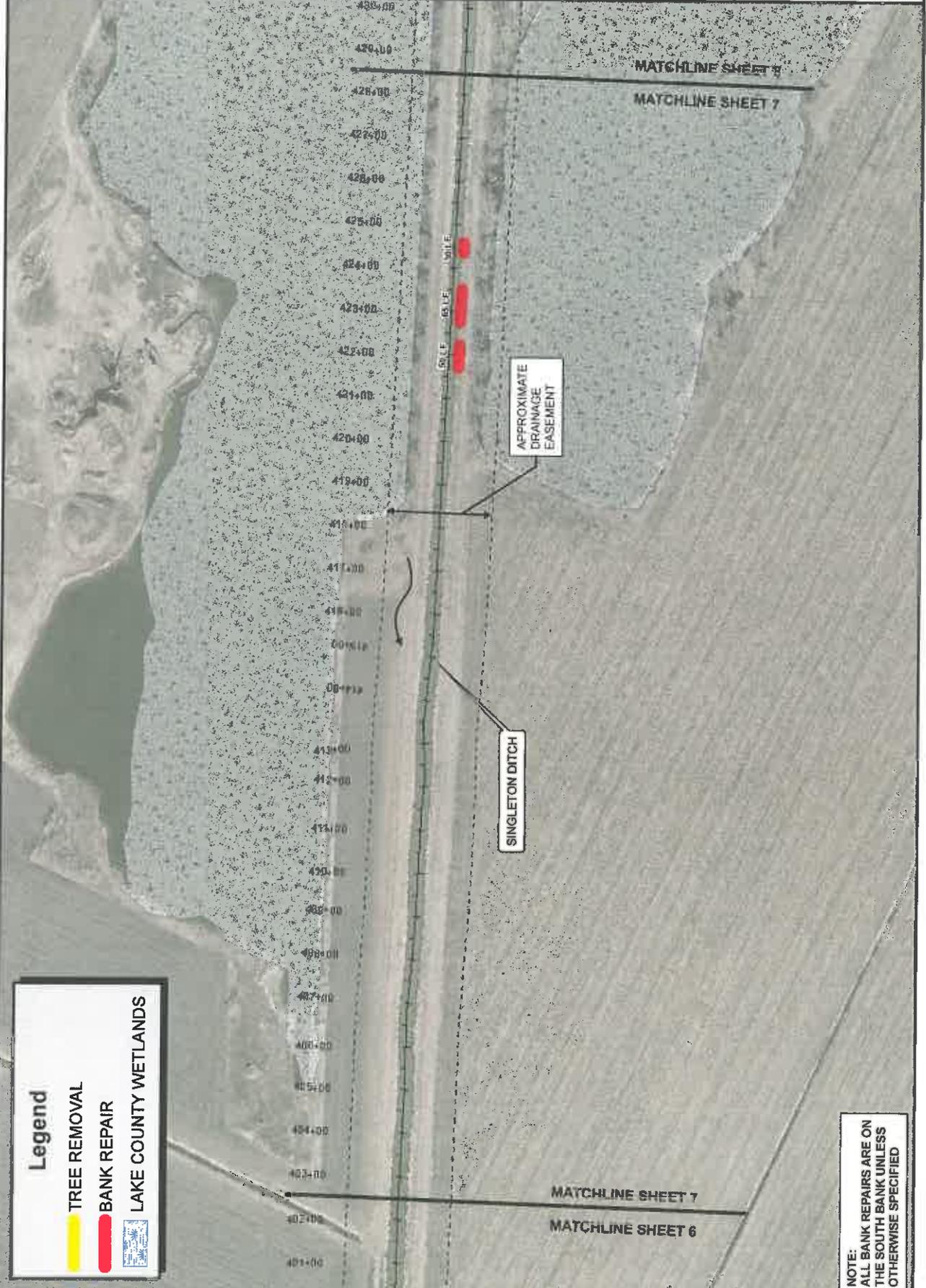




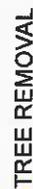
1 inch = 200 feet

Prepared For:
Lake County
Indiana

Prepared By:
STRUCTUREPOINT
Printed: May 12, 2016



Legend

-  TREE REMOVAL
-  BANK REPAIR
-  LAKE COUNTY WETLANDS

NOTE:
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THE SOUTH BANK UNLESS
OTHERWISE SPECIFIED

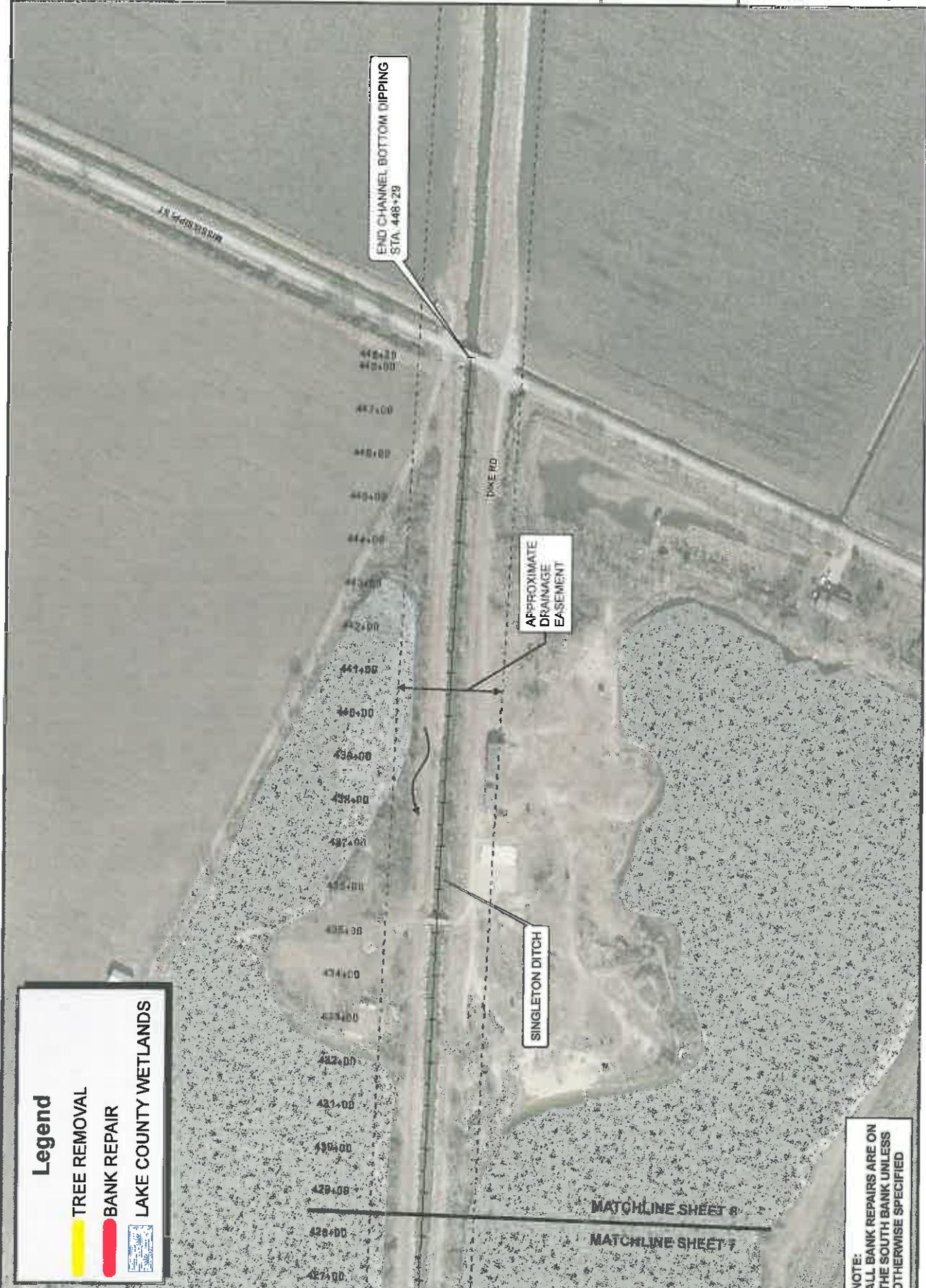
Singleton Ditch Maintenance Phase III Lake County, Indiana



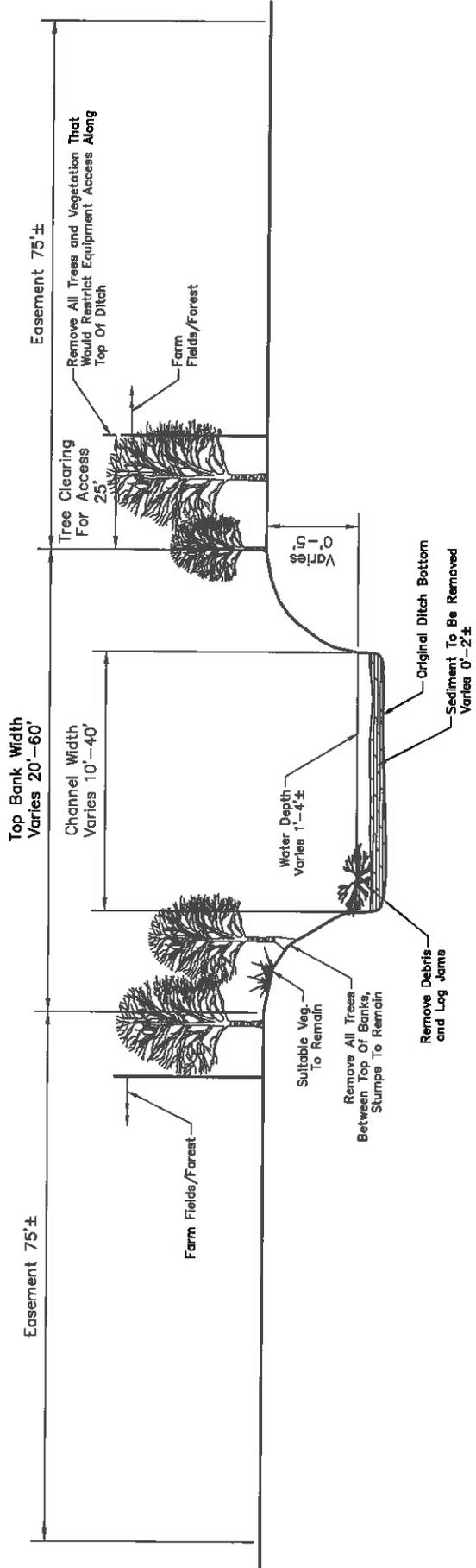
1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:
STRUCTUREPOINT
Pinned: May 12, 2016



NOTE:
ALL BANK REPAIRS ARE ON
THE SOUTH BANK UNLESS
OTHERWISE SPECIFIED



	TYPICAL DITCH CROSS SECTION SINGLETON DITCH Lake County Surveyor 1100 East Monitor Street Crown Point, Indiana 46307	Lake County Singleton Ditch Maintenance Phase III Monon Road to Mississippi Street Date: 05/12/2016
	Sheet 9	

9-B-2
5-20-16

Cedar Creek Ditch Maintenance 171st Avenue to Lake Dalecarlia Lake County, Indiana

Specifications and Bid Documents



May 12, 2016

Prepared By:

American Structurepoint, Inc.
7260 Shadeland Station
Indianapolis, IN 46256
Tel: 317-547-5580
Fax: 317-543-0270



Jeremy C. Schmitt
5/12/16

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1.0 SPECIAL INSTRUCTION TO BIDDERS

1.1 GENERAL INFORMATION

It is the intention of the *Lake County Drainage Board*, hereinafter referred to as the **BOARD**, to secure bids for maintenance work to be performed on the *Cedar Creek Ditch Maintenance* hereinafter referred to as the **PROJECT**, as identified and described herein and in the plans and specifications prepared by *American Structurepoint, Inc.*, hereinafter referred to as the **ENGINEER**.

All bids for the proposed work shall be submitted on a unit price as set forth on the bid proposal form attached herein, all in accordance with the **PROJECT** documents.

The **BOARD** intends to review all bids for the **PROJECT** and upon final review and determination, award the bid to the successful bidder. Among other considerations, the successful bidder will be determined by the lowest overall total bid as provided in the bid proposal form attached herein. The total quantity of work to be awarded by the **BOARD** will be based on the total dollars available at the time of contract award and the respective applicable unit prices of the successful bidder.

The bid proposal form to the **BOARD** consisting of 1 page, as set out hereinafter, shall be attached and submitted with Bid Form 96 and Form 95.

1.2 BIDDERS INFORMATION

It is the responsibility of all **PROJECT** bidders to review all bid documents to ascertain their effect on each bid.

It is the responsibility of all **PROJECT** bidders to carefully examine the **PROJECT** site and fully inform himself/herself with the limitations and conditions related to the work covered by his/her bid, and shall include in his/her bid a sum to cover the cost of all such items. It is the purpose and intent of the contract documents that a fully complete job be accomplished. It is the responsibility of each bidder to include all costs necessary to provide all labor, materials and equipment for the portion of the work bid upon, including incidentals, whether or not specifically called for in the **PROJECT** plans and specifications. Each bidder by making his/her bid represents that he/she has read and understands the bid documents and represents that he/she has visited the site and has familiarized himself/herself with all the conditions under which the work is to be performed.

It is the responsibility of all bidders to contact all utility companies and public and/or private agencies to become familiar with the specific locations of all existing utilities and

systems that will affect the work. The successful bidder shall protect all such systems and utilities, including all other improvements which may exist within or adjacent to the work area during the execution of the work. All existing improvements, utilities and systems that may be damaged during construction shall be repaired and/or replaced to a condition at least equal to that prior to such damage at no additional expense to the **BOARD**. All such companies shall be notified prior to commencement of the work in order that all such lines be located and identified by the affected companies.

All inquiries as to the documents, interpretations, substitutions, conflicts, discrepancies, omissions and questions shall be referred to the **ENGINEER**, representative of the **BOARD**, who in turn will refer same to the **BOARD**.

All bidders in doubt as to the true meaning of any part of the **PROJECT** documents shall submit to the **ENGINEER**, not less than seven (7) days before the bid deadline, a written request for interpretation and clarification.

Bidders are responsible for acquiring any and all issued addenda in time to incorporate them into their bid. Each bidder shall enumerate all addenda he has received in his bid.

All bidders and their subcontractors, if any, shall furnish proof, satisfactory to the **BOARD** that they are in good standing and are authorized to do business in the State of Indiana and that they are licensed to perform the work within the County of Lake. All bidders shall furnish a list of their subcontractors, if any, including name, address and telephone numbers.

The County's affirmative action program as adopted by the County of Lake, dated May 31, 1977, a copy of which is on file in the Lake County Auditor's office and the office of the Board of Commissioners of the County of Lake, is a condition of the **PROJECT** documents. The bidder shall submit, together with his/her bid, in writing, his/her affidavit, that he/she will comply with the County's affirmative action program.

It is recommended that all bidders attend any and all pre-bid conferences that may be scheduled by the **BOARD**.

The Lake County Surveyor and the **ENGINEER**, or their designated agents, will perform **PROJECT** supervision and periodic inspections to determine compliance with all **PROJECT** documents, percentages or inspections will include measurements and elevations of the completed work for compliance with the plans and specifications prior to payment recommendations to the **BOARD**.

The Contractor shall be permitted to submit claims for payment on a monthly basis as the

work progresses, subject to a fifteen percent (15%) retainage, all as approved by the Lake County Surveyor and the **ENGINEER**. Fifteen percent (15%) of the completed value of the work shall be withheld by the **BOARD** for a period of sixty (60) days after the completion of the work and its acceptance by the Lake County Surveyor and the **ENGINEER** for the purpose of securing payment of suppliers, laborers and subcontractors, if any. The Contractor shall be required to furnish a sworn statement of all indebtedness for labor and materials furnished, used or extended for said construction, the amount of due and to become due to each subcontractor and material supplier before issuance of any payment, and final waiver of lien and an affidavit showing all bills, on the issuance of the final payment. Upon certifications by the Lake County Surveyor and the **ENGINEER**, the **BOARD** shall pay to the Contractor, on account of the contract, the value of labor and materials incorporated into the work.

A bid security in the form of a certified check/cashier's check or a bid bond from an acceptable surety made payable to the **BOARD** shall accompany each bid. The bid security shall be in the penal amount of five percent (5%) of the total bid. Bid security shall be forfeited if the bid is withdrawn after closing time on the date for receiving bids. Out of state bidders must submit a certified check of ten percent (10%) of the total bid made payable to the **BOARD**.

Upon execution of the contract, the successful bidder shall give to the **BOARD** a bond payable to the **BOARD**, in an amount fixed by the board but not less than the amount of the bid, and with a corporate surety licensed to do business in Indiana. The bond must be conditioned on the faithful performance of the contract and the payment of all expenses and damages incurred under the contract, including payment of all suppliers, laborers, and subcontractors. However, in lieu of a corporate surety bond, the **BOARD** may accept:

- (1) a cash bond;
- (2) a property bond; or
- (3) a bond from a sufficiently financed private bonding company.

All Contractors, including sub-contractors, shall carry full insurance coverage and certificates of insurance shall be delivered to the **BOARD**, upon signing of the contract.

Contractor shall have Workmen's Compensation, as required by applicable Federal and State laws

Contractor's Liability, including contractual liability, form of insurance shall be comprehensive general liability and comprehensive automobile liability \$500,000 CSL;

for bodily injury, property damage and personal injury, including complete operations broad form; bodily injury and property damage, automobile liability, owned, non-owned and hired.

In addition to the above, the Contractor shall provide operations and products liability, XCU coverage and \$1,000,000 umbrella liability.

At all times during the progress of the work, the Contractor shall maintain such insurance as will protect and save harmless the **BOARD**, and its agents, from claims under the Workmen's Compensation Act, from any and all other claims for damages for property damage, personal injury and/or death and patent infringement, which may arise from operation under the contract documents, whether such act or omission be by itself or by an employee or sub-contractor or anyone directly or indirectly employed by either of them; and certificates of such insurance as required by the **PROJECT** documents shall be filed with the **BOARD**.

Should the **BOARD** suffer any damage, cost or expense, including attorney's fees, in any manner, because of any wrongful act or negligence of the Contractor, or anyone employed by it or a subcontractor or the assertion of any claim of whatever nature which arises from operation under the contract documents, then the Contractor shall reimburse the **BOARD** for any such damage and all reasonable attorney fees and expenses related to such claim and/or reimbursement thereto, all without relief from validation and appraisal laws.

1.3 RIGHT OF THE BOARD

The **BOARD** reserves the right to issue addenda changing, altering or supplementing the contract documents, at any time prior to the bid deadline.

The **BOARD** reserves the right to reject any or all bids and to waive any information or irregularity in any bid accepted.

The **BOARD** reserves the right to approve or reject any sub-contractor submitted by the bidders.

The **BOARD** reserves the right to award all or individual **PROJECTS** within the scope of work to comply with available funds.

APPROVED THIS 18 DAY OF MAY, 2016

LAKE COUNTY DRAINAGE BOARD


KYLE ALLEN, MEMBER


GERRY L. SCHEUB, CHAIRMAN


MICHAEL C. REPAY, MEMBER

2.0 GENERAL INFORMATION

2.1 PERMITS

The **BOARD** will procure all necessary permits from the Indiana Department of Natural Resources, Indiana Department of Environmental Management and Army Corps of Engineers for the performance of the work. All such permits are considered part of the **PROJECT** documents and all work shall be performed in strict compliance with all provisions and conditions therein. In the event discrepancies exist between the **PROJECT** documents and the provisions and conditions of such permits, the Contractor shall immediately notify the Lake County Surveyor and the **ENGINEER** to resolve any such discrepancy.

2.2 CONSTRUCTION METHODS AND STANDARDS

All construction methods, standards and specifications, as adopted by the **BOARD** shall govern the performance of the work unless otherwise specified in the **PROJECT** documents.

2.3 WORK WITHIN EASEMENTS

All work shall be performed within the limits of the existing regulated drain easement for the **PROJECT** and within other access and work easements acquired by the **BOARD** as otherwise specified herein.

2.4 MAINTENANCE OF DRAINWAYS

All construction shall be performed in such a manner that will not interfere with existing drainage of the areas adjacent to the **PROJECT**. All work shall be performed in such a manner that will ensure proper drainage.

2.5 AUTHORIZATION TO PROCEED

No work shall be performed prior to receipt of "Authorization to Proceed" notification from the Lake County Surveyor.

2.6 CONTRACTOR'S SCHEDULE

The Contractor will be requested to attend a pre-construction conference to be scheduled by the Lake County Surveyor at which time the Contractor will be required to submit a construction schedule to the Lake County Surveyor prior to commencement of the work.

2.7 CONTRACTOR'S EQUIPMENT AND METHOD OF CONSTRUCTION

The Contractor shall include with his bid a list of equipment available to perform the work. Each piece of equipment shall be listed by type of ownership. (Own, Lease or

Rental). The Contractor shall also provide a detailed description of the proposed method of construction with his bid.

3.0 TECHNICAL SPECIFICATIONS

3.1 CHANNEL BOTTOM DIPPING (SEDIMENTREMOVAL)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 601). A copy of the latest version of the Handbook is available online at <http://www.in.gov/dnr/water/4893.htm>.

Work shall be performed in accordance with the Special Conditions of the Indiana Department of Natural Resources Permit for Construction in a Floodway that will be secured for this project.

Description: This work shall consist of dipping, dredging, and/or removing sediment from the channel bottom without disturbing the ditch banks. All work adjacent to wetland areas shall be performed from the bank opposite of the wetland area when possible. All work shall be performed within the existing **DRAINAGE BOARD** easement. The work shall also include the removal of sediment from identified culverts within the regulated drain.

Excavation: The contractor shall excavate the low flow channel below the existing flow line to the original channel bottom as shown in the Typical Ditch Cross Section Detail in the plans. The depths of sediment estimated for removal in the bid proposal form are an average depth – the actual depth of sediment to be removed will vary across the cross-section of the channel and along the channel alignment.

Cross-section geometry should, in general, be trapezoidal with a flat, level channel bottom and a positive grade along the ditch channel. Side slopes of excavated low flow area should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed a maximum slope of 2:1 (2H: 1V). A minimum twenty (20) foot longitudinal transition shall be provided from the full-cut excavated area to the undisturbed ditch bottom.

To the extent feasible, the contractor shall also carefully remove any sediments deposited in the identified culverts that lie within the regulated drain. Feasibility of removal shall be determined based on the ability of the contractor to remove sediment without engaging confined space entry requirements. When the contractor is unable to clean the entire length of culvert, downstream of the culvert the contractor shall excavate the ditch an additional 3 feet for a length equivalent to the culvert length to serve as a sediment trap for any sediment that would be washed out of the culvert.

Spoil Material: Spoil material shall not be placed in the floodway or in the wetlands. Limits of jurisdictional wetlands, if present, are shown on the plans and copies of maps showing floodway limits as delineated by FEMA are available at the Office of the Lake County Surveyor. Otherwise, spoil material shall be disposed of adjacent to the excavated area unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. Spoil shall be placed landward of the channel bank a distance of ten feet (or more, as needed to stay outside of the floodway limit) to allow for future maintenance access. Spoil shall be leveled to have a foreslope of 5:1 (5H:1V) or flatter so as not to severely impact stream system and applied erosion control measures. From the maximum height, the spoil shall have an 8:1 (8H:1V) back slope to existing grade. Grading of spoil material shall coincide with adjacent stream overbank topography. Spoil piles shall be notched to allow drainage away from adjacent properties.

Spoil material cannot be placed within 10 feet of the top of bank.

Where it becomes necessary to remove spoil from the area due to lack of dump space alongside drain, contractor is responsible to locate a dump site and remove this excess spoil from the jobsite. No extra payments will be made for this removal. This location must be in an uplands site. Wetlands, streams, any "Waters of the State", etc. will not be allowed for this dump site. Contractor is to provide an offsite dump plan and an erosion control plan as necessary for this dump site.

Measurement and Payment: Work shall be paid for at the contract unit price per cubic yard for CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL) which price shall include all excavation (including any sediment removal from within culverts), spoil disposal, off-site if necessary, and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

3.2 SILT FENCING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1, Practice 105). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: Temporary barrier of entrenched geotextile fabric stretched across and attached to supporting post used to intercept sediment – laden runoff from drainage areas of disturbed soil.

Location: Along creek/ditch side of spoil piles.

Materials/installation: This work shall be in accordance with Practice 105 as referenced above and with Section 205 of the INDIANA DEPARTMENT OF

TRANSPORTATION STANDARD SPECIFICATIONS, latest edition.

Payment: This work shall be paid for at the contract unit price per foot for SILT FENCE which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work including complete removal after vegetation has been established.

3.3 MULCHED SEEDING

Description: Application of seed, fertilizer, mulch and water to spoils piles.

Location: Top of spoil pile and other areas on the overbank disturbed by machinery.

Materials Installation: This work shall be in accordance with Section 621 of the INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (INDOT Specifications), latest edition, except that 100% perennial rye-grass shall be used as follows:

Spoils Pile Cover and Bank Stabilization		
Common Name	Botanic Name	Seeding Rate
Perennial Rye-Grass	Lolium perenne	24 lb/ac

Application of seed, mulch (2 tons/acre), fertilizer (800 lbs/acre), and water shall be performed according to INDOT Specifications Section 621.05.

Payment: This work shall be paid for at the contract unit price per acre for MULCHED SEEDING which price shall be payment in full for constructing this item as specified, including all materials, labor, and equipment.

3.4 CHANNEL BANK EXCAVATION (SLOPE REPAIR)

Certain areas of the ditch bank have partially failed and are in need of repair. This work is to correct those areas and repair the channel geometry to its original dimensions.

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 602). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of regrading failed slopes where bank repair is specified in the plans within the regulated drain.

Excavation: The contractor shall excavate the failed bank sections as shown on the plans. To the extent practical, collect and preserve the top soil removed from the area of bank repair. After completion of the slope repair, return topsoil to the bank in order

to prepare the site for seeding.

Cross-section geometry should, in general, be trapezoidal with positive grade. Side slopes should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed the maximum existing bank slope.

Payment: This work shall be paid for at the contract unit price per linear foot of CHANNEL BANK EXCAVATION (SLOPE REPAIR) which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work.

3.5 EROSION CONTROL BLANKET AND SEEDING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.11, Practice 1104). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of furnishing all labor, materials, tools and equipment necessary to seed and place EROSION CONTROL BLANKET on locations requiring bank repair as shown in the plans. The blanket provides temporary stabilization of bank soils until vegetation can be established.

The erosion control blanket shall be biodegradable organic or synthetic mulch incorporated into a polypropylene or similar netting material. Material may be biodegradable, photodegradable, or permanent.

Location: Areas of bank repair on the drainage ditch banks.

Materials/installation: This work shall be in accordance with Practice 1104 as referenced above. EROSION CONTROL BLANKET shall be of an appropriate type and weight to fit the site conditions.

Prepare the seedbed, fertilize and seed bank repair areas. Seed and fertilize according to the MULCHED SEEDING specification above (but do not mulch) immediately after CHANNEL BANK EXCAVATION has been performed. Lay blankets on seeded areas following manufacturer's directions. Blankets should be laid so they are in continuous contact with the soil, and upslope or upstream blankets should overlap the lower ones by at least 8". Tuck the uppermost edge of the upper blankets into a check slot (slit trench) and backfill with soil. Tamp down.

Anchor blankets as specified by the manufacturer for the existing slope and soil at the site. This usually involves driving 6"-8" wood or metal staples into the ground in a pattern determined by site conditions. Wood staples are preferable to metal staples. Wood staples will swell and hold better.

Payment: This work shall be paid for at the contract unit price per square yard of EROSION CONTROL BLANKET which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work.

3.6 TREE AND DEBRIS REMOVAL

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1 Practices 103 and 107, Section 5.4 Practices 401 and 402, and Section 5.13 Practice 1301). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of removing accumulations of logs, root wads, trees in danger of falling into the stream or obstructing the flow, and other debris that span the waterway and/or the remainder of the drainage easement using hand-operated and/or heavy equipment from one side of the channel without disturbing the ditch banks. All work shall be performed within the existing **DRAINAGE BOARD** easement.

The scope of this work includes removal of all trees between the top of banks and the top of ditch (25' wide). The scope also includes removal of additional debris and ditch crossing as shown on plans.

Access: Access to and within the work site shall be within the existing drainage easement. Care shall be taken to limit tree removal (for the purpose of gaining access to the work site) to an absolute minimum. Access shall not cross a waterway or traverse a wetland as indicated on the jurisdictional wetland map, unless pads are used as specified in *Practice 103, Temporary Wetland Crossing*.

Equipment: Hand-operated equipment, such as axes, chain saws, and portable winches shall be used for removal of obstructions, unless determined impracticable. Where heavy equipment is necessary for removal of obstructions, only suitable equipment not equipped for excavation such as small tractors, backhoe equipped with a hydraulic thumb, bulldozer with its blade up, or a logskidder shall be used.

Removal of Trees, Tree Parts, and Foreign Material: The Contractor shall cut, relocate and remove from the channel, any free logs or affixed logs, including foreign material that are crossway in the channel. Logs shall be removed with minimal damage to existing vegetation. Limits of jurisdictional wetlands are shown on the plans and copies of maps showing floodway limits are available at the Office of the Lake County Surveyor. Severely damaged, dead, leaning or other trees, which are in immediate danger of falling into the waterway, shall be cut and removed along with all trees between the top of ditch banks.

The root system and stump of the tree shall be left in place. Stumps shall be cut as low as possible and parallel with the slope of the bank but in no case higher than twelve inches, unless authorized by the County Surveyor Office. Stump splinters shall also be cut off. It shall be the contractor's responsibility to walk the site and estimate the size and number of these trees to be removed. Cut stumps shall be treated with herbicide as soon as possible after cutting, preferably less than two (2) hours. Stumps should be saturated, especially in the cambial area. Cut stumps shall be treated with Tordon 101, Tordon K or Garlon 4. The herbicide used to treat the cut stumps must include a colored, chemical dye to indicate clearly the proper application of the product.

Removed Tree, Tree Parts, and Debris: All trees, logs and other tree parts cut, broken, and/or removed by the contractor shall be disposed of off-site unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. The removed trees and brush may be mulched (chipped) and spread on top of the ditch bank, outside of the floodway and wetland limits, in a manner approved by the Lake County Surveyor's office. As described in *Practice 1301, Debris Disposal* non-toxic debris such as broken concrete may be disposed of onsite if it is buried a minimum of 2' deep. If the contractor chooses to remove materials from the site, the materials shall be disposed of by the contractor in an approved manner at an approved disposal site, all of which must be approved by the Lake County Surveyor's office.

Measurement and Payment: This work shall be paid for at the contract LUMP SUM price which shall include all cutting, relocation and removing of trees, tree parts and foreign material, including disposal and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

Supplemental Bid Proposal Form (To be attached and made part of Form 96)

Project: Cedar Creek Ditch Maintenance

The undersigned, having reviewed the local contract documents, comprised of the project documents for the Project known as Cedar Creek Ditch Maintenance, Kankakee River Watershed, Lake County, Indiana (May 2016)

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the prices stipulated. All prices include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

Item No.	Item						Quantity	Unit	Unit Price	Total
1	Channel Bottom Dipping (Sediment Removal)						9,300	CY	\$	\$
	From Station	To Station	Distance	Avg. Depth	Avg. Width	Volume				
	0+00	5+00	500	1.0	30	600				
	5+00	20+00	1,500	1.0	25	1,400				
	20+00	35+00	1,500	1.5	25	2,100				
	35+00	45+00	1,000	0.5	25	500				
	45+00	50+00	500	1.5	25	700				
	50+00	60+00	1,000	2.0	20	1,500				
	60+00	70+00	1,000	1.0	20	800				
	70+00	80+00	1,000	1.0	25	1,000				
	80+00	85+00	500	1.0	35	700				
	2	Silt Fence								
From Station		To Station	Distance							
0+00		85+00	8,500							
3	Mulched Seeding						4.9	AC	\$	\$
	From Station	To Station	Distance	Width	Area					
	0+00	85+00	8,500	25	4.88					
4	Tree and Debris Removal						1	LS	\$	\$
Total Bid Price									\$	

Bidder's proposal in words for making entire improvement:

This proposal is submitted this _____ day of _____, 2016.

Corporation: _____

Address: _____

By (Printed Name): By (Signature): _____

Title: _____

Cedar Creek Maintenance
Lake County, Indiana



1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:
**AMERICAN
STRUCTUREPOINT**

Printed: May 12, 2016

Legend

- LEAVE DITCH CROSSING(S)
- REMOVE DITCH CROSSING(S)
- TREE REMOVAL

BEGIN 25' WIDE TREE REMOVAL
(SEE TYPICAL DITCH CROSS SECTION SHEET 5)
STA. 0+50

START CHANNEL BOTTOM DIPPING
STA. 000+00

APPROXIMATE
DRAINAGE
EASEMENT

CEDAR CREEK

MATCHLINE SHEET 1
MATCHLINE SHEET 2

0+00 2+00 4+00 6+00 8+00 10+00 12+00 14+00 16+00

W 173RD AV

OAK VALLEY DR

RED OAK DR

GOLDEN OAK DR

HIGHGROVE CT

BROOKWOOD DR

W 171ST AV

172ND AV

Path: P:\201401733\Drawings\Environmental\ArcView\Exhibits\Misc_Maps\Map Books\Cedar Creek 1\201401733.U\GIS Map Book Cedar Creek 01.mxd Date: 5/11/2016 User: jmcann

Cedar Creek Maintenance
Lake County, Indiana

Legend

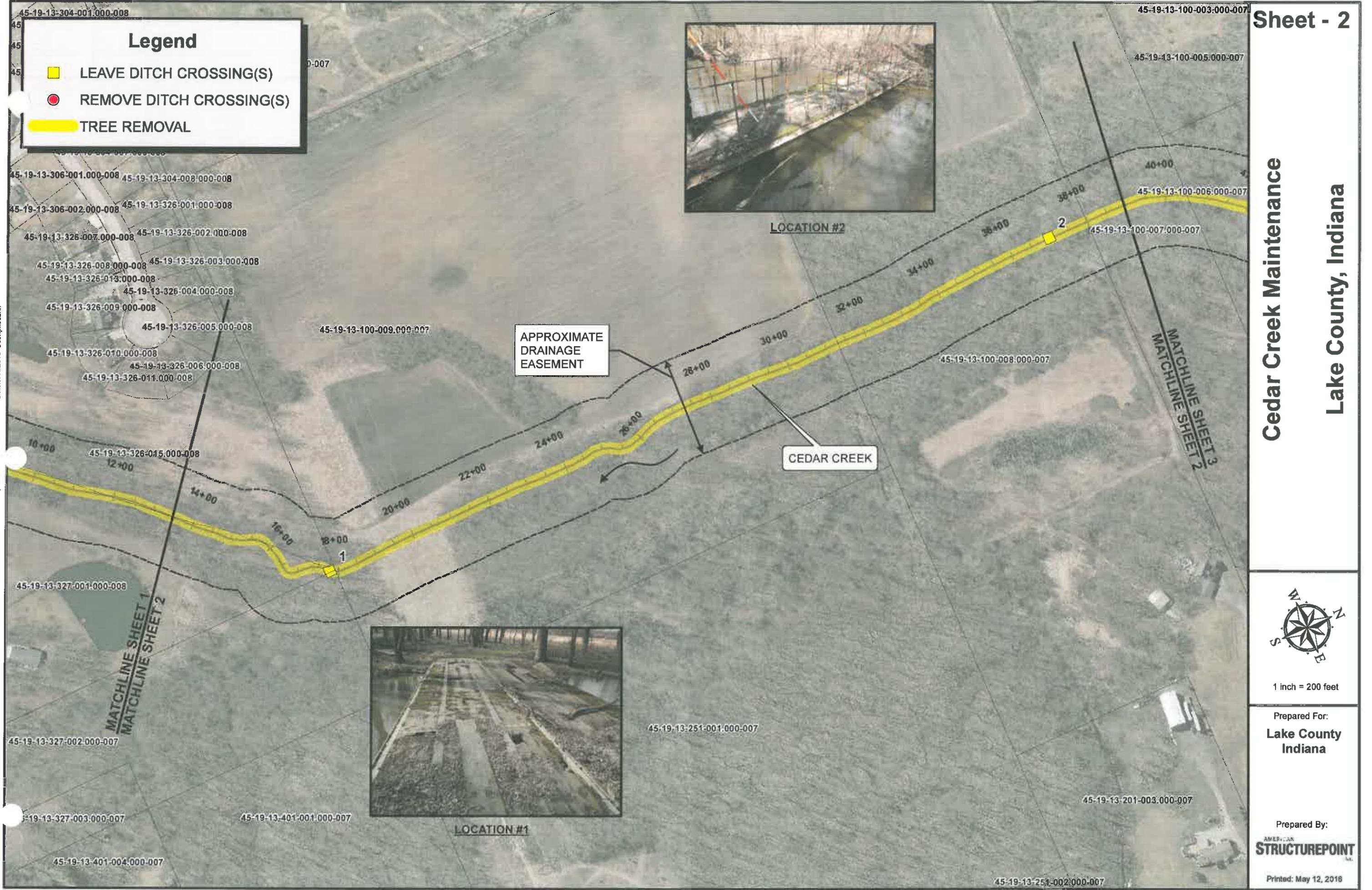
-  LEAVE DITCH CROSSING(S)
-  REMOVE DITCH CROSSING(S)
-  TREE REMOVAL



LOCATION #2



LOCATION #1



APPROXIMATE DRAINAGE EASEMENT

CEDAR CREEK

MATCHLINE SHEET 1
MATCHLINE SHEET 2

MATCHLINE SHEET 2
MATCHLINE SHEET 3



1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:
**AMERICAN
STRUCTUREPOINT
LLC**

Printed: May 12, 2016

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Legend

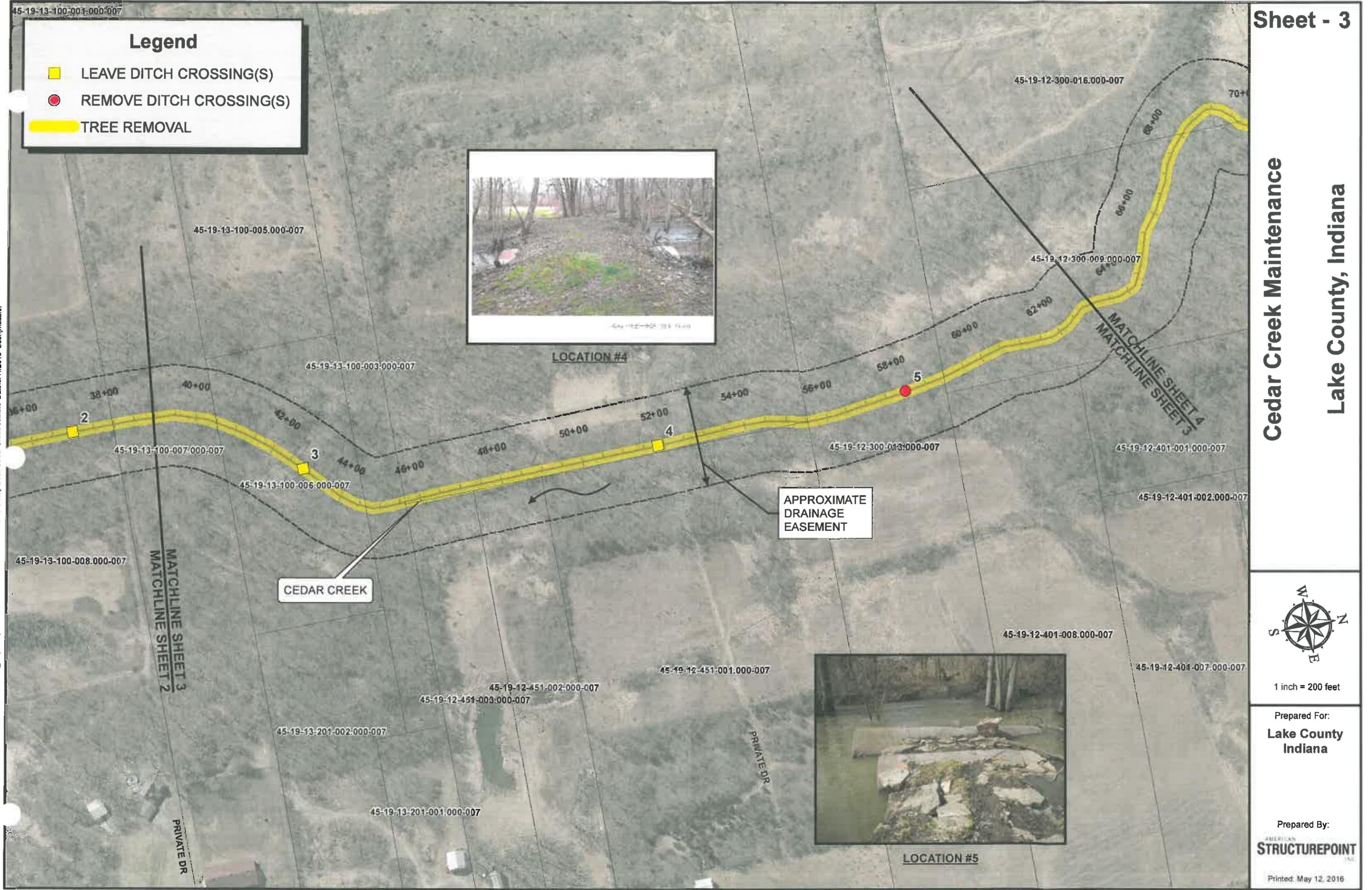
- LEAVE DITCH CROSSING(S)
- REMOVE DITCH CROSSING(S)
- TREE REMOVAL



LOCATION #4



LOCATION #5



**Cedar Creek Maintenance
Lake County, Indiana**



1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

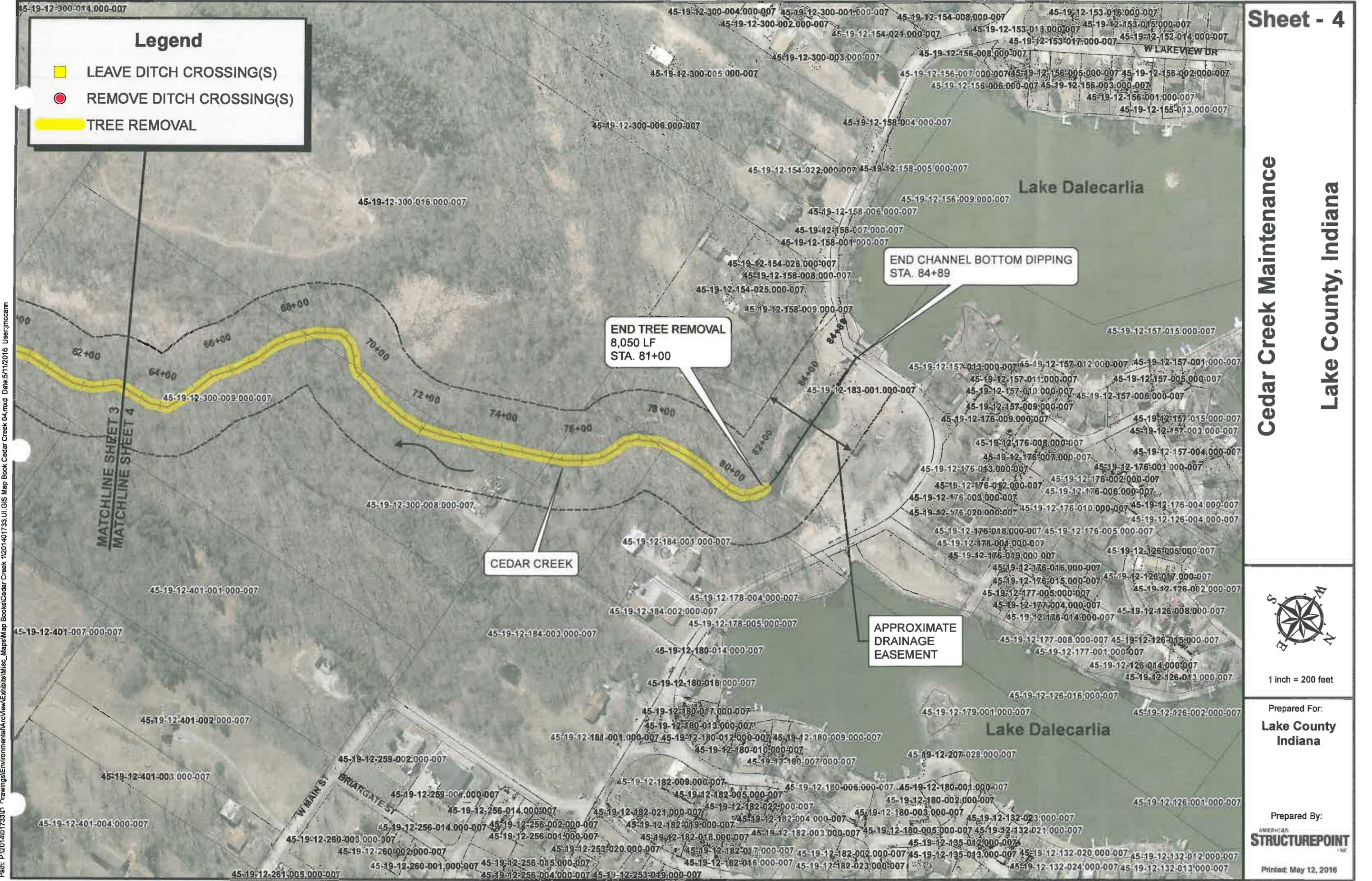
Prepared By:
**AMERICAN
STRUCTUREPOINT
INC.**

Printed: May 12, 2016

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Legend

- LEAVE DITCH CROSSING(S)
- REMOVE DITCH CROSSING(S)
- TREE REMOVAL



Cedar Creek Maintenance
Lake County, Indiana



1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:
**AMERICAN
STRUCTUREPOINT**

Printed: May 12, 2016

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9-B-3
5-20-14

**McConnell Ditch and Lateral A
Maintenance
171st Avenue to Morse Street
Lake County, Indiana**

Specifications and Bid Documents



May 12, 2016

Prepared By:

American Structurepoint, Inc.
7260 Shadeland Station
Indianapolis, IN 46256
Tel: 317-547-5580
Fax: 317-543-0270



Jeremy C. Schmitt
5/12/16

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1.0 SPECIAL INSTRUCTION TO BIDDERS

1.1 GENERAL INFORMATION

It is the intention of the *Lake County Drainage Board*, hereinafter referred to as the **BOARD**, to secure bids for maintenance work to be performed on the *McConnell Ditch and Lateral A Maintenance* hereinafter referred to as the **PROJECT**, as identified and described herein and in the plans and specifications prepared by *American Structurepoint, Inc.*, hereinafter referred to as the **ENGINEER**.

All bids for the proposed work shall be submitted on a unit price as set forth on the bid proposal form attached herein, all in accordance with the **PROJECT** documents.

The **BOARD** intends to review all bids for the **PROJECT** and upon final review and determination, award the bid to the successful bidder. Among other considerations, the successful bidder will be determined by the lowest overall total bid as provided in the bid proposal form attached herein. The total quantity of work to be awarded by the **BOARD** will be based on the total dollars available at the time of contract award and the respective applicable unit prices of the successful bidder.

The bid proposal form to the **BOARD** consisting of 1 page, as set out hereinafter, shall be attached and submitted with Bid Form 96 and Form 95.

1.2 BIDDERS INFORMATION

It is the responsibility of all **PROJECT** bidders to review all bid documents to ascertain their effect on each bid.

It is the responsibility of all **PROJECT** bidders to carefully examine the **PROJECT** site and fully inform himself/herself with the limitations and conditions related to the work covered by his/her bid, and shall include in his/her bid a sum to cover the cost of all such items. It is the purpose and intent of the contract documents that a fully complete job be accomplished. It is the responsibility of each bidder to include all costs necessary to provide all labor, materials and equipment for the portion of the work bid upon, including incidentals, whether or not specifically called for in the **PROJECT** plans and specifications. Each bidder by making his/her bid represents that he/she has read and understands the bid documents and represents that he/she has visited the site and has familiarized himself/herself with all the conditions under which the work is to be performed.

It is the responsibility of all bidders to contact all utility companies and public and/or private agencies to become familiar with the specific locations of all existing utilities and

systems that will affect the work. The successful bidder shall protect all such systems and utilities, including all other improvements which may exist within or adjacent to the work area during the execution of the work. All existing improvements, utilities and systems that may be damaged during construction shall be repaired and/or replaced to a condition at least equal to that prior to such damage at no additional expense to the **BOARD**. All such companies shall be notified prior to commencement of the work in order that all such lines be located and identified by the affected companies.

All inquiries as to the documents, interpretations, substitutions, conflicts, discrepancies, omissions and questions shall be referred to the **ENGINEER**, representative of the **BOARD**, who in turn will refer same to the **BOARD**.

All bidders in doubt as to the true meaning of any part of the **PROJECT** documents shall submit to the **ENGINEER**, not less than seven (7) days before the bid deadline, a written request for interpretation and clarification.

Bidders are responsible for acquiring any and all issued addenda in time to incorporate them into their bid. Each bidder shall enumerate all addenda he has received in his bid.

All bidders and their subcontractors, if any, shall furnish proof, satisfactory to the **BOARD** that they are in good standing and are authorized to do business in the State of Indiana and that they are licensed to perform the work within the County of Lake. All bidders shall furnish a list of their subcontractors, if any, including name, address and telephone numbers.

The County's affirmative action program as adopted by the County of Lake, dated May 31, 1977, a copy of which is on file in the Lake County Auditor's office and the office of the Board of Commissioners of the County of Lake, is a condition of the **PROJECT** documents. The bidder shall submit, together with his/her bid, in writing, his/her affidavit, that he/she will comply with the County's affirmative action program.

It is recommended that all bidders attend any and all pre-bid conferences that may be scheduled by the **BOARD**.

The Lake County Surveyor and the **ENGINEER**, or their designated agents, will perform **PROJECT** supervision and periodic inspections to determine compliance with all **PROJECT** documents, percentages or inspections will include measurements and elevations of the completed work for compliance with the plans and specifications prior to payment recommendations to the **BOARD**.

The Contractor shall be permitted to submit claims for payment on a monthly basis as the

work progresses, subject to a fifteen percent (15%) retainage, all as approved by the Lake County Surveyor and the **ENGINEER**. Fifteen percent (15%) of the completed value of the work shall be withheld by the **BOARD** for a period of sixty (60) days after the completion of the work and its acceptance by the Lake County Surveyor and the **ENGINEER** for the purpose of securing payment of suppliers, laborers and subcontractors, if any. The Contractor shall be required to furnish a sworn statement of all indebtedness for labor and materials furnished, used or extended for said construction, the amount of due and to become due to each subcontractor and material supplier before issuance of any payment, and final waiver of lien and an affidavit showing all bills, on the issuance of the final payment. Upon certifications by the Lake County Surveyor and the **ENGINEER**, the **BOARD** shall pay to the Contractor, on account of the contract, the value of labor and materials incorporated into the work.

A bid security in the form of a certified check/cashier's check or a bid bond from an acceptable surety made payable to the **BOARD** shall accompany each bid. The bid security shall be in the penal amount of five percent (5%) of the total bid. Bid security shall be forfeited if the bid is withdrawn after closing time on the date for receiving bids. Out of state bidders must submit a certified check of ten percent (10%) of the total bid made payable to the **BOARD**.

Upon execution of the contract, the successful bidder shall give to the **BOARD** a bond payable to the **BOARD**, in an amount fixed by the board but not less than the amount of the bid, and with a corporate surety licensed to do business in Indiana. The bond must be conditioned on the faithful performance of the contract and the payment of all expenses and damages incurred under the contract, including payment of all suppliers, laborers, and subcontractors. However, in lieu of a corporate surety bond, the **BOARD** may accept:

- (1) a cash bond;
- (2) a property bond; or
- (3) a bond from a sufficiently financed private bonding company.

All Contractors, including sub-contractors, shall carry full insurance coverage and certificates of insurance shall be delivered to the **BOARD**, upon signing of the contract.

Contractor shall have Workmen's Compensation, as required by applicable Federal and State laws

Contractor's Liability, including contractual liability, form of insurance shall be comprehensive general liability and comprehensive automobile liability \$500,000 CSL;

for bodily injury, property damage and personal injury, including complete operations broad form; bodily injury and property damage, automobile liability, owned, non-owned and hired.

In addition to the above, the Contractor shall provide operations and products liability, XCU coverage and \$1,000,000 umbrella liability.

At all times during the progress of the work, the Contractor shall maintain such insurance as will protect and save harmless the **BOARD**, and its agents, from claims under the Workmen's Compensation Act, from any and all other claims for damages for property damage, personal injury and/or death and patent infringement, which may arise from operation under the contract documents, whether such act or omission be by itself or by an employee or sub-contractor or anyone directly or indirectly employed by either of them; and certificates of such insurance as required by the **PROJECT** documents shall be filed with the **BOARD**.

Should the **BOARD** suffer any damage, cost or expense, including attorney's fees, in any manner, because of any wrongful act or negligence of the Contractor, or anyone employed by it or a subcontractor or the assertion of any claim of whatever nature which arises from operation under the contract documents, then the Contractor shall reimburse the **BOARD** for any such damage and all reasonable attorney fees and expenses related to such claim and/or reimbursement thereto, all without relief from validation and appraisal laws.

1.3 RIGHT OF THE BOARD

The **BOARD** reserves the right to issue addenda changing, altering or supplementing the contract documents, at any time prior to the bid deadline.

The **BOARD** reserves the right to reject any or all bids and to waive any information or irregularity in any bid accepted.

The **BOARD** reserves the right to approve or reject any sub-contractor submitted by the bidders.

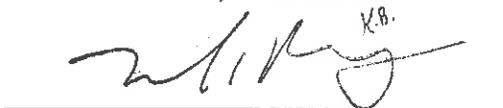
The **BOARD** reserves the right to award all or individual **PROJECTS** within the scope of work to comply with available funds.

APPROVED THIS 18 DAY OF MAY, 2016

LAKE COUNTY DRAINAGE BOARD


KYLE ALLEN, MEMBER


GERRY L. SCHEUB, CHAIRMAN


MICHAEL C. REPAY, MEMBER

2.0 GENERAL INFORMATION

2.1 PERMITS

The **BOARD** will procure all necessary permits from the Indiana Department of Natural Resources, Indiana Department of Environmental Management and Army Corps of Engineers for the performance of the work. All such permits are considered part of the **PROJECT** documents and all work shall be performed in strict compliance with all provisions and conditions therein. In the event discrepancies exist between the **PROJECT** documents and the provisions and conditions of such permits, the Contractor shall immediately notify the Lake County Surveyor and the **ENGINEER** to resolve any such discrepancy.

2.2 CONSTRUCTION METHODS AND STANDARDS

All construction methods, standards and specifications, as adopted by the **BOARD** shall govern the performance of the work unless otherwise specified in the **PROJECT** documents.

2.3 WORK WITHIN EASEMENTS

All work shall be performed within the limits of the existing regulated drain easement for the **PROJECT** and within other access and work easements acquired by the **BOARD** as otherwise specified herein.

2.4 MAINTENANCE OF DRAINWAYS

All construction shall be performed in such a manner that will not interfere with existing drainage of the areas adjacent to the **PROJECT**. All work shall be performed in such a manner that will ensure proper drainage.

2.5 AUTHORIZATION TO PROCEED

No work shall be performed prior to receipt of "Authorization to Proceed" notification from the Lake County Surveyor.

2.6 CONTRACTOR'S SCHEDULE

The Contractor will be requested to attend a pre-construction conference to be scheduled by the Lake County Surveyor at which time the Contractor will be required to submit a construction schedule to the Lake County Surveyor prior to commencement of the work.

2.7 CONTRACTOR'S EQUIPMENT AND METHOD OF CONSTRUCTION

The Contractor shall include with his bid a list of equipment available to perform the work. Each piece of equipment shall be listed by type of ownership. (Own, Lease or Rental). The Contractor shall also provide a detailed description of the proposed method of construction with his bid.

3.0 TECHNICAL SPECIFICATIONS

3.1 CHANNEL EXCAVATION AND BOTTOM DIPPING (SEDIMENT REMOVAL)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1 Practice 103 and Section 5.6 Practices 601 and 602). A copy of the latest version of the Handbook is available online at <http://www.in.gov/dnr/water/4893.htm>.

Work shall be performed in accordance with the Special Conditions of the Indiana Department of Natural Resources Permit for Construction in a Floodway that will be secured for this project.

Description: This work shall consist of dipping, dredging, and/or removing sediment from the existing channel bottom without disturbing the ditch banks. The work also consists of excavating a new ditch between the stations indicated on the Plans for Lateral A. Portions of Lateral A have completely filled in and must be re-established.

All work adjacent to wetland areas shall be performed from the bank opposite of the wetland area when possible and temporary wetland crossings shall be used when passing through wetlands which cannot be avoided. All work shall be performed within the existing **DRAINAGE BOARD** easement. The work shall also include the removal of sediment from identified culverts within the regulated drain.

Excavation: The contractor shall excavate the low flow channel below the existing flow line to the original channel bottom as shown in the Existing Ditch Cross Section Detail in the plans. The depths of sediment estimated for removal in the bid proposal form are an average depth – the actual depth of sediment to be removed will vary across the cross-section of the channel and along the channel alignment. The contractor shall excavate a new channel as shown in the Proposed Ditch Cross Section Detail in the plans along a consistent slope between the upstream and downstream cross sections. Contractor shall transition the new channel back to the existing channel as needed at the upstream and downstream stations.

Cross-section geometry should, in general, be trapezoidal with a flat, level channel bottom and a positive grade along the ditch channel. Side slopes of excavated low flow area should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed a maximum slope of 2:1 (2H: 1V). A minimum twenty (20) foot longitudinal transition shall be provided from the full-cut excavated area to the undisturbed ditch bottom.

To the extent feasible, the contractor shall also carefully remove any sediments deposited

in the identified culverts that lie within the regulated drain. Feasibility of removal shall be determined based on the ability of the contractor to remove sediment without engaging confined space entry requirements. When the contractor is unable to clean the entire length of culvert, downstream of the culvert the contractor shall excavate the ditch an additional 3 feet for a length equivalent to the culvert length to serve as a sediment trap for any sediment that would be washed out of the culvert.

As shown on the plans, a new ditch channel shall be excavated along a portion of the Lateral A channel. The channel shall be excavated with a consistent downhill slope between the beginning and ending stations.

Spoil Material: Spoil material shall not be placed in the floodway or in the wetlands. Limits of jurisdictional wetlands, if present, are shown on the plans and copies of maps showing floodway limits as delineated by FEMA are available at the Office of the Lake County Surveyor. Otherwise, spoil material shall be disposed of adjacent to the excavated area unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. Spoil shall be placed landward of the channel bank a distance of ten feet (or more, as needed to stay outside of the floodway limit) to allow for future maintenance access. Spoil shall be leveled to have a foreslope of 5:1 (5H:1V) or flatter so as not to severely impact stream system and applied erosion control measures. From the maximum height, the spoil shall have an 8:1 (8H:1V) back slope to existing grade. Grading of spoil material shall coincide with adjacent stream overbank topography. Spoil piles shall be notched to allow drainage away from adjacent properties.

Spoil material cannot be placed within 10 feet of the top of bank.

Where it becomes necessary to remove spoil from the area due to lack of dump space alongside drain, contractor is responsible to locate a dump site and remove this excess spoil from the jobsite. No extra payments will be made for this removal. This location must be in an uplands site. Wetlands, streams, any "Waters of the State", etc. will not be allowed for this dump site. Contractor is to provide an offsite dump plan and an erosion control plan as necessary for this dump site.

Measurement and Payment: Work shall be paid for at the contract unit price per cubic yard for CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL) which price shall include all excavation (including any sediment removal from within culverts), spoil disposal, off-site if necessary, and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

3.2 SILT FENCING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1, Practice 105). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: Temporary barrier of entrenched geotextile fabric stretched across and attached to supporting post used to intercept sediment – laden runoff from drainage areas of disturbed soil.

Location: Along creek/ditch side of spoil piles.

Materials/installation: This work shall be in accordance with Practice 105 as referenced above and with Section 205 of the INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, latest edition.

Payment: This work shall be paid for at the contract unit price per foot for SILT FENCE which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work including complete removal after vegetation has been established.

3.3 MULCHED SEEDING

Description: Application of seed, fertilizer, mulch and water to spoils piles.

Location: Top of spoil pile and other areas on the overbank disturbed by machinery.

Materials Installation: This work shall be in accordance with Section 621 of the INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (INDOT Specifications), latest edition, except that 100% perennial rye-grass shall be used as follows:

Spoils Pile Cover and Bank Stabilization		
Common Name	Botanic Name	Seeding Rate
Perennial Rye-Grass	Lolium perenne	24 lb/ac

Application of seed, mulch (2 tons/acre), fertilizer (800 lbs/acre), and water shall be performed according to INDOT Specifications Section 621.05.

Payment: This work shall be paid for at the contract unit price per acre for MULCHED SEEDING which price shall be payment in full for constructing this item as specified, including all materials, labor, and equipment.

3.4 CHANNEL BANK EXCAVATION (SLOPE REPAIR)

Certain areas of the ditch bank have partially failed and are in need of repair. This work is to correct those areas and repair the channel geometry to its original dimensions.

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 602). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of regrading failed slopes where bank repair is specified in the plans within the regulated drain.

Excavation: The contractor shall excavate the failed bank sections as shown on the plans. To the extent practical, collect and preserve the top soil removed from the area of bank repair. After completion of the slope repair, return topsoil to the bank in order to prepare the site for seeding.

Cross-section geometry should, in general, be trapezoidal with positive grade. Side slopes should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed the maximum existing bank slope.

Payment: This work shall be paid for at the contract unit price per linear foot of CHANNEL BANK EXCAVATION (SLOPE REPAIR) which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work.

3.5 EROSION CONTROL BLANKET AND SEEDING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.11, Practice 1104). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of furnishing all labor, materials, tools and equipment necessary to seed and place EROSION CONTROL BLANKET on the banks of the new channel as shown in the plans. The blanket provides temporary stabilization of bank soils until vegetation can be established.

The erosion control blanket shall be biodegradable organic or synthetic mulch incorporated into a polypropylene or similar netting material. Material may be biodegradable, photodegradable, or permanent.

Location: Banks of newly constructed channel.

Materials/installation: This work shall be in accordance with Practice 1104 as referenced above. EROSION CONTROL BLANKET shall be of an appropriate type and weight to fit the site conditions.

Prepare the seedbed, fertilize and seed banks of newly constructed channel. Seed and fertilize according to the MULCHED SEEDING specification above (but do not mulch)

immediately after CHANNEL BANK EXCAVATION has been performed. Install erosion control from top of slope down to where the bank meets the channel, unless there is water at the time of construction. If there is water present in the channel at the time of construction, end installation of the erosion control blanket at the water surface.

Blankets should be laid so they are in continuous contact with the soil, and upslope or upstream blankets should overlap the lower ones by at least 8". Tuck the uppermost edge of the upper blankets into a check slot (slit trench) and backfill with soil. Tamp down.

Anchor blankets as specified by the manufacturer for the existing slope and soil at the site. This usually involves driving 6"-8" wood or metal staples into the ground in a pattern determined by site conditions. Wood staples are preferable to metal staples. Wood staples will swell and hold better.

Payment: This work shall be paid for at the contract unit price per square yard of EROSION CONTROL BLANKET which price shall be payment in full for constructing this item as specified, including all materials, labor and equipment necessary to perform this work.

3.6 TREE AND DEBRIS REMOVAL

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1 Practices 103 and 107, Section 5.4 Practices 401 and 402, and Section 5.13 Practice 1301). A copy of the latest version of the Handbook is available at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of removing accumulations of logs, root wads, trees in danger of falling into the stream or obstructing the flow, and other debris that span the waterway and/or the remainder of the drainage easement using hand-operated and/or heavy equipment from one side of the channel without disturbing the ditch banks. All work shall be performed within the existing **DRAINAGE BOARD** easement.

The scope of this work includes removal of all trees between the top of banks and the north/east top of ditch (25' wide). The scope also includes removal of additional debris and ditch crossing as shown on plans.

Access: Access to and within the work site shall be within the existing drainage easement. Care shall be taken to limit tree removal (for the purpose of gaining access to the work site) to an absolute minimum. Access shall not cross a waterway or traverse a wetland as indicated on the jurisdictional wetland map, unless pads are used as specified in *Practice 103, Temporary Wetland Crossing*.

Equipment: Hand-operated equipment, such as axes, chain saws, and portable winches shall be used for removal of obstructions, unless determined impracticable. Where heavy equipment is necessary for removal of obstructions, only suitable equipment not equipped for excavation such as small tractors, backhoe equipped with a hydraulic thumb, bulldozer with its blade up, or a log skidder shall be used.

Removal of Trees, Tree Parts, and Foreign Material: The Contractor shall cut, relocate and remove from the channel, any free logs or affixed logs, including foreign material that are crossway in the channel. Logs shall be removed with minimal damage to existing vegetation. Limits of jurisdictional wetlands are shown on the plans and copies of maps showing floodway limits are available at the Office of the Lake County Surveyor. Severely damaged, dead, leaning or other trees, which are in immediate danger of failing into the waterway, shall be cut and removed along with all trees between the top of ditch banks.

The root system and stump of the tree shall be left in place. Stumps shall be cut as low as possible and parallel with the slope of the bank but in no case higher than twelve inches, unless authorized by the County Surveyor Office. Stump splinters shall also be cut off. It shall be the contractor's responsibility to walk the site and estimate the size and number of these trees to be removed. Cut stumps shall be treated with herbicide as soon as possible after cutting, preferably less than two (2) hours. Stumps should be saturated, especially in the cambial area. Cut stumps shall be treated with Tordon 101, Tordon K or Garlon 4. The herbicide used to treat the cut stumps must include a colored, chemical dye to indicate clearly the proper application of the product.

Removed Tree, Tree Parts, and Debris: All trees, logs and other tree parts cut, broken, and/or removed by the contractor shall be disposed of off-site unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. The removed trees and brush may be mulched (chipped) and spread on top of the ditch bank, outside of the floodway and wetland limits, in a manner approved by the Lake County Surveyor's office. As described in *Practice 1301, Debris Disposal* non-toxic debris such as broken concrete may be disposed of onsite if it is buried a minimum of 2' deep. If the contractor chooses to remove materials from the site, the materials shall be disposed of by the contractor in an approved manner at an approved disposal site, all of which must be approved by the Lake County Surveyor's office.

Measurement and Payment: This work shall be paid for at the contract LUMP SUM price which shall include all cutting, relocation and removing of trees, tree parts and foreign material, including disposal and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

Supplemental Bid Proposal Form (To be attached and made part of Form 96)

Project: **McConnell Ditch and Lateral A Maintenance**

The undersigned, having reviewed the local contract documents, comprised of the project documents for the Project known as McConnell Ditch and Lateral A Maintenance, Kankakee River Watershed, Lake County, Indiana (May 2016)

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the prices stipulated. All prices include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

Item No.	Item						Quantity	Unit	Unit Price	Total
1	Channel Excavation and Bottom Dipping						17,600	CY	\$	\$
	From Station	To Station	Distance (FT)	Avg. Depth (FT)	Avg. Width (FT)	Volume (CY)				
	0+00	5+00	500	2.0	35	1,300				
	5+00	10+00	500	2.0	25	1,000				
	10+00	15+00	500	2.0	20	800				
	15+00	20+00	500	2.5	25	1,200				
	20+00	25+75	575	3.0	20	1,300				
	47+30	50+00	270	3.0	20	600				
	50+00	55+00	500	2.5	15	700				
	55+00	60+00	500	2.0	15	600				
	60+00	65+00	500	1.0	25	500				
	<i>New channel excavation - Trapezoidal channel per Proposed Ditch Detail, assumed 4' deep:</i>									
	25+75	47+30	2,013	4.0	32	9,600				
	2	Silt Fence								
From Station		To Station	Distance (FT)							
	45+00	65+00	2,000							
3	Mulched Seeding						1.15	AC	\$	\$
	From Station	To Station	Distance (FT)	Width (FT)	Area (AC)					
	45+00	65+00	2,000	25.0	1.15					
4	Erosion Control Blanket and Seeding						7,900.00	SY	\$	\$
	From Station	To Station	Distance (FT)	Width (FT)	Area (SY)					
	20+00	25+75	575	19.0	1,214					
	25+75	47+30	2,155	25.2	6,034					
5	47+30	50+00	270	19.0	570					
Tree and Debris Removal							1	LS	\$	\$
								Total Bid Price	\$	

Bidder's proposal in words for making entire improvement:

This proposal is submitted this _____ day of _____, 2016.

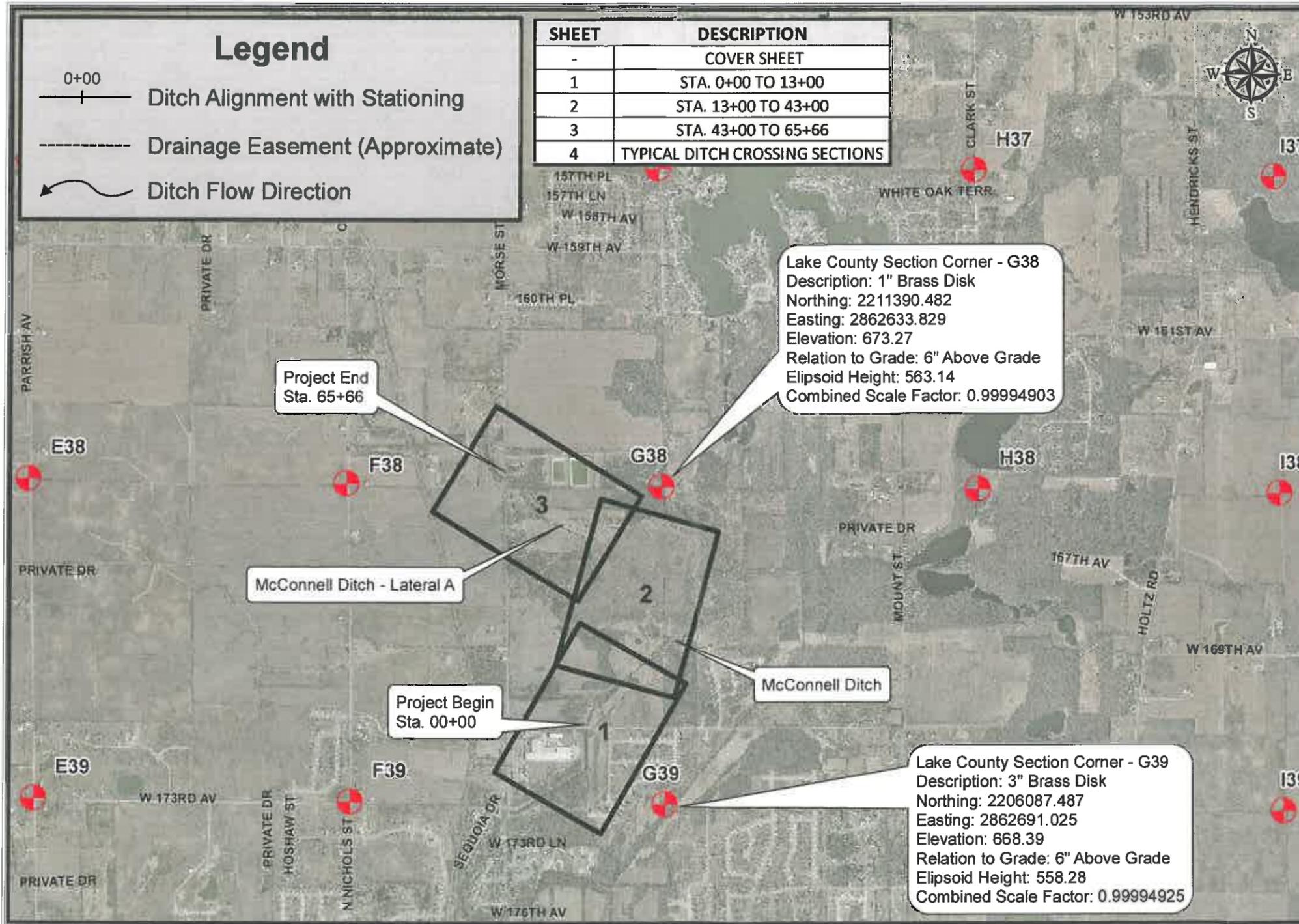
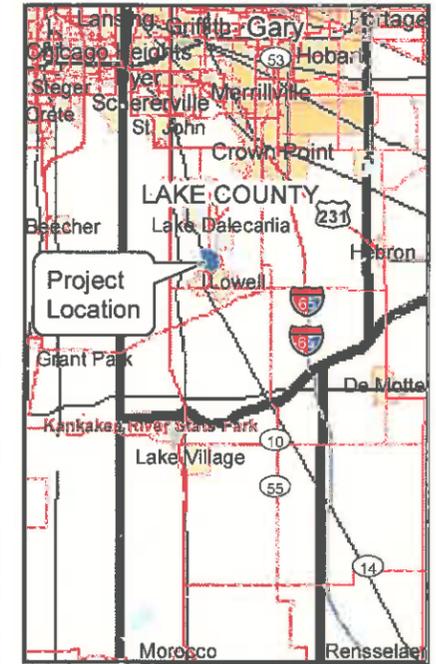
Corporation: _____

Address: _____

By (Printed Name): By (Signature): _____

Title: _____

Lake County, Indiana McConnell Ditch and Lateral A 171st Avenue to Morse Street



Jeremy C. Schmitt
Jeremy C. Schmitt
Registered Professional Engineer
No. 10300083
State of Indiana



Prepared By:

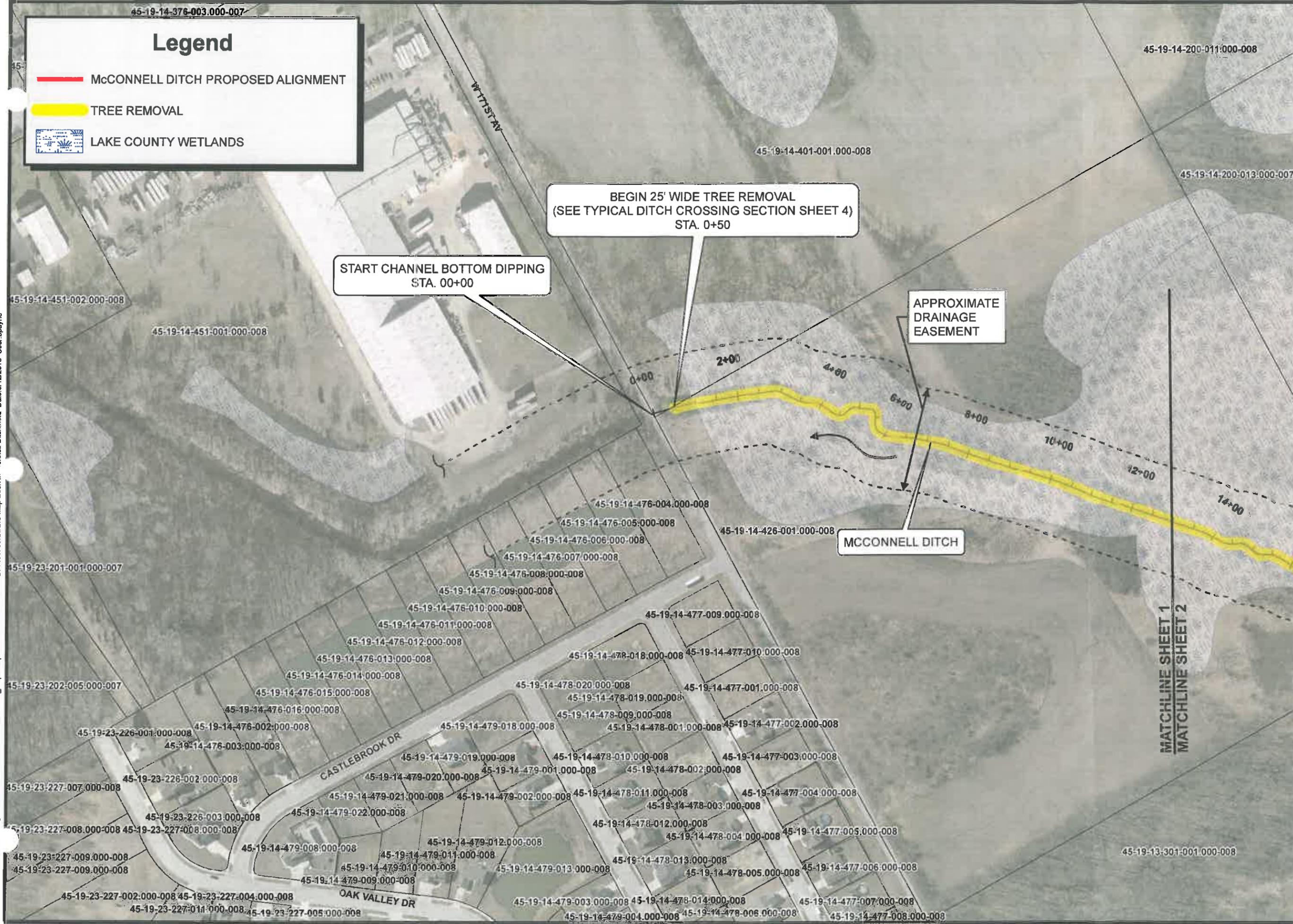
Printed:
May 12, 2016



NOTES:
DRAINAGE EASEMENTS ARE LOCATED 75 FEET FROM TOP OF BANK ON EACH SIDE OF THE DITCH.
EASEMENT LOCATIONS AS SHOWN IN FIGURES ARE APPROXIMATE.

Legend

- McCONNELL DITCH PROPOSED ALIGNMENT
- TREE REMOVAL
- LAKE COUNTY WETLANDS



McConnell Ditch Lateral A

Lake County, Indiana



1 inch = 200 feet

Prepared For:
Lake County
Indiana

Prepared By:
 AMERICAN
STRUCTUREPOINT
 LLC

Printed: May 12, 2016

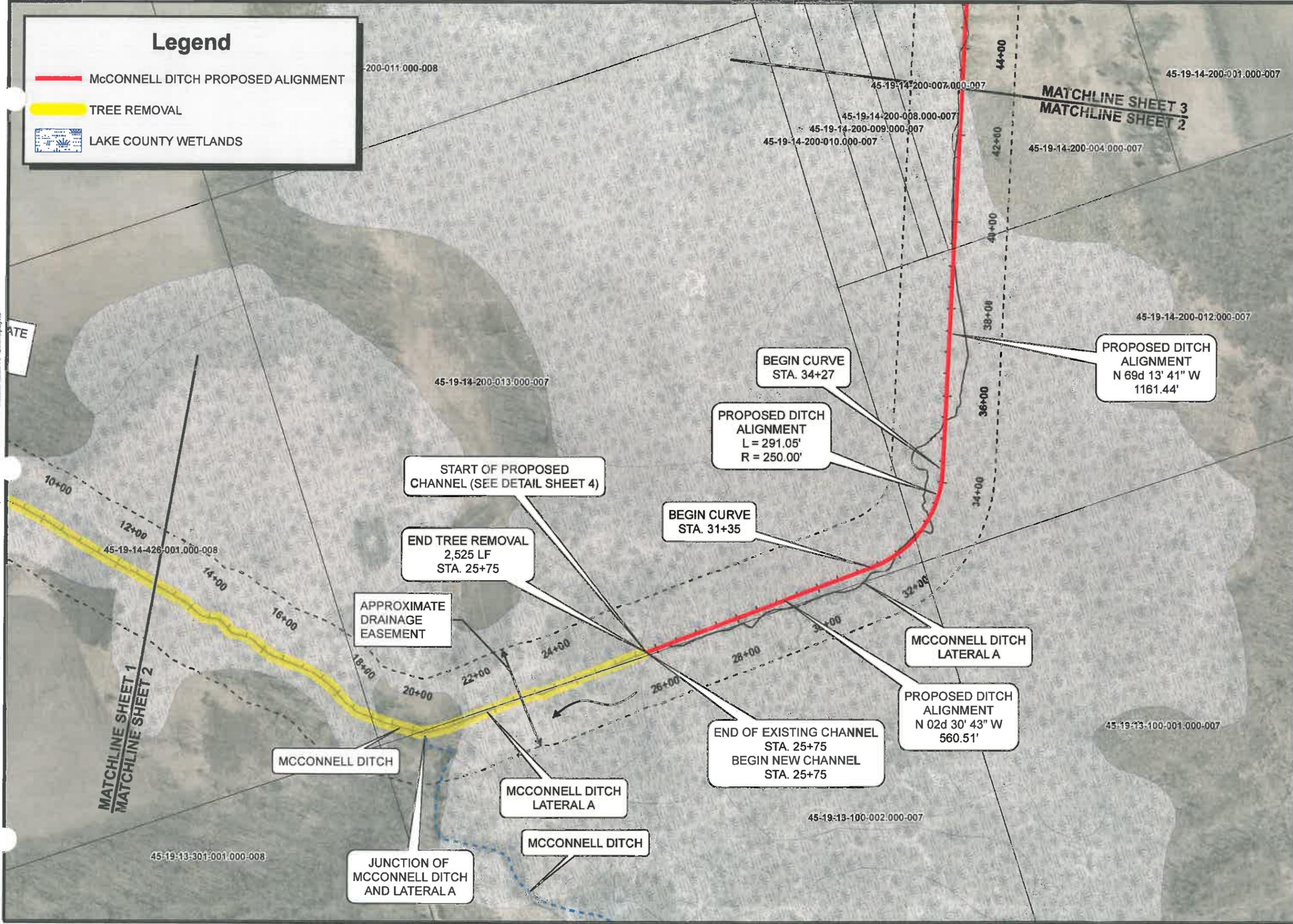
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Legend

-  McCONNELL DITCH PROPOSED ALIGNMENT
-  TREE REMOVAL
-  LAKE COUNTY WETLANDS

McConnell Ditch Lateral A
Lake County, Indiana

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1 inch = 200 feet

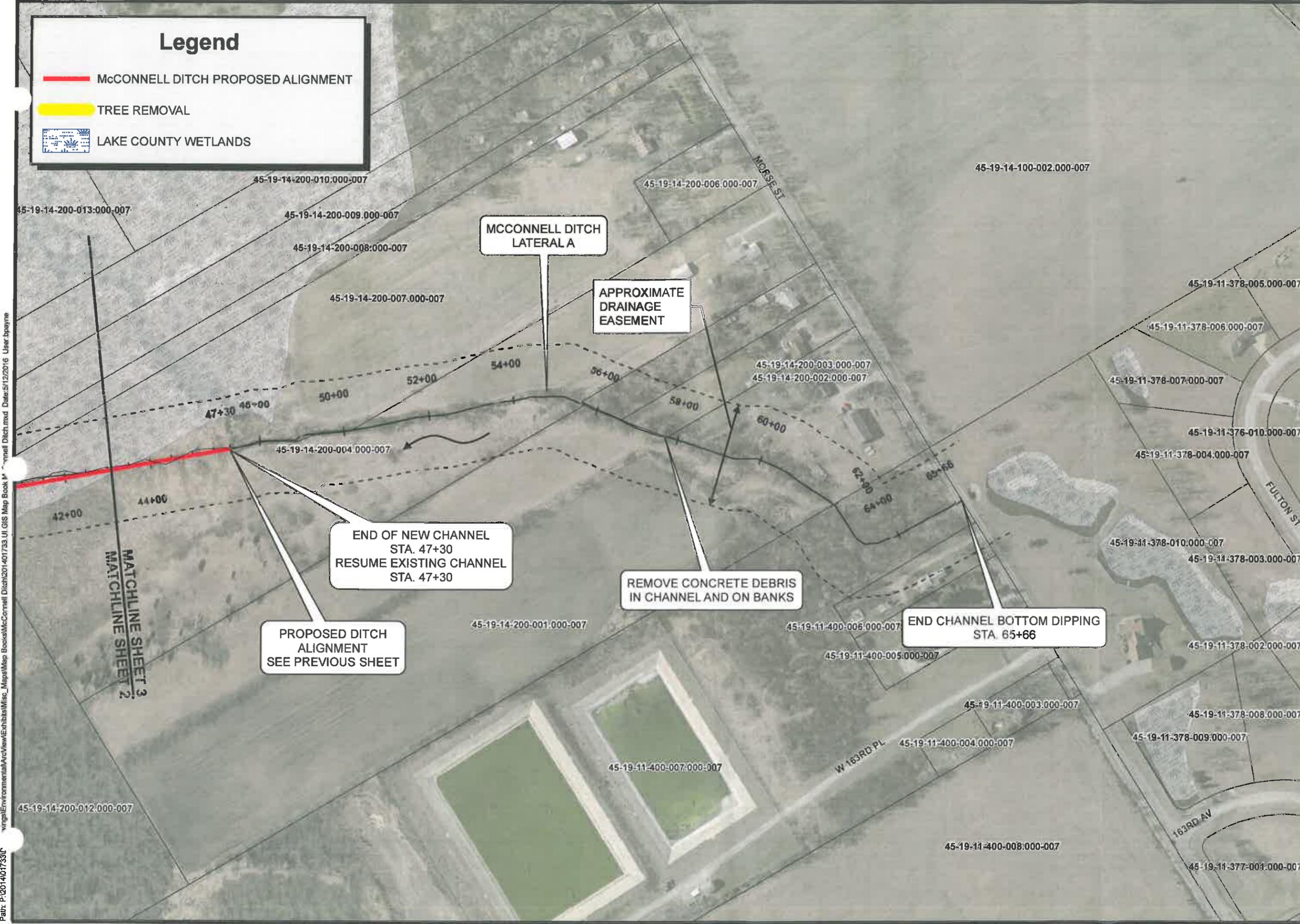
Prepared For:
**Lake County
Indiana**

Prepared By:
STRUCTUREPOINT
INC.

Printed: May 12, 2016

Legend

- McCONNELL DITCH PROPOSED ALIGNMENT
- TREE REMOVAL
- LAKE COUNTY WETLANDS



McConnell Ditch Lateral A
Lake County, Indiana



1 inch = 200 feet

Prepared For:
**Lake County
Indiana**

Prepared By:



Printed: May 12, 2016

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MATCHLINE SHEET 2
MATCHLINE SHEET 3

PLANS & SPECIFICATIONS FOR
2016 – Stoney Run Ditch Middle Branch – Lateral No. 4

WINFIELD TOWNSHIP
KANKAKEE RIVER WATERSHED

PREPARED FOR
LAKE COUNTY DRAINAGE BOARD



LAKE COUNTY SURVEYOR - BILL EMERSON, JR.



Lake County, IN

Prepared By
The Office of Lake County Surveyor

May 12, 2016

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ATTACHMENT A

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LOCATION MAP and PROJECT PLANS	2	PAGES

2016 STONEY RUN DITCH MIDDLE BRANCH – LATERAL NO. 4 MAINTENANCE PROJECT

SPECIAL INSTRUCTIONS TO BIDDERS

A. GENERAL INFORMATION

1. It is the intention of the Lake County Drainage Board, hereinafter referred to as the Board, to secure bids for maintenance work to be performed on STONEY RUN DITCH MIDDLE BRANCH – LATERAL NO. 4 hereinafter referred to as the Project, as identified and described herein and in the plans and specifications prepared by the Lake County Surveyor's office, hereinafter referred to as the Manager.
2. All bids for the proposed work shall be submitted on a unit price or lump sum basis, as applicable, and as set forth on the bid proposal form attached herein, all in accordance with the project documents.
3. The Board intends to review all bids for the project and upon final review and determination, award the bid to the successful bidder. Among other considerations, the successful bidder will be determined by the lowest overall total bid as provided in the bid proposal form attached herein. The total quantity of work to be awarded by the Board will be based on the total dollars available at the time of contract award and the respective applicable unit prices and/or lump sums of the successful bidder.
4. The bid proposal form to the Board consisting of 2 pages, as set out hereinafter, shall be attached and submitted with Bid Form 96 and Form 95.

B. BIDDERS INFORMATION

1. It is the responsibility of all project bidders to review all bid documents to ascertain their effect on each bid.
2. It is the responsibility of all project bidders to carefully examine the project site and fully inform himself/herself with the limitations and conditions related to the work covered by his/her bid, and shall include in his/her bid a sum to cover the cost of all such items. It is the purpose and intent of the contract documents that a fully complete job be accomplished. It is the responsibility of each bidder to include all costs necessary to provide all labor, materials and equipment for the portion of the work bid upon, including incidentals, whether or not specifically called for in the project plans and specifications. Each bidder by making his/her bid represents that he/she has read and understands the bid documents and represents that he/she has visited the site and has familiarized himself/herself with all the conditions under which the work is to be performed.
3. It is the responsibility of all bidders to contact all utility companies and public and/or private agencies to become familiar with the specific locations of all existing utilities and systems that will affect the work. The successful bidder shall protect all such systems and utilities, including all other improvements which may exist within or adjacent to the work area during the prosecution of the work. All existing improvements, utilities and systems that may be damaged during construction shall be repaired and/or replaced to a condition at least equal to that prior to such damage at no additional expense to the Board. All such companies

shall be notified prior to commencement of the work in order that all such lines be located and identified by the affected companies.

4. All inquiries as to the documents, interpretations, substitutions, conflicts, discrepancies, omissions and questions shall be referred to the Manager, representative of the Board, who in turn will refer same to the Board.
5. All bidders in doubt as to the true meaning of any part of the project documents shall submit to the Manager, not less than seven (7) days before the bid deadline, a written request for interpretation and clarification.
6. Bidders are responsible for acquiring any and all issued addenda in time to incorporate them into their bid. Each bidder shall enumerate all addenda he has received in his bid.
7. All bidders and their sub-contractors, if any, shall furnish proof, satisfactory to the Board that they are in good standing and are authorized to do business in the State of Indiana and that they are only licensed to perform the work within the County of Lake. All bidders shall furnish a list of their sub-contractors, if any, including name, address and telephone numbers.
8. The County's affirmative action program as adopted by the County of Lake, dated May 31, 1977, a copy of which is on file in the Lake County Auditor's office and the office of the Board of Commissioners of the County of Lake, is a condition of the project documents. The bidder shall submit, together with his/her bid, in writing, his/her affidavit, that he/she will comply with the County's affirmative action program.
9. It is recommended that all bidders attend any and all pre-bid conferences that may be scheduled by the Board.
10. The Lake County Surveyor and the Engineer, or their designated agents, will perform project supervision and periodic inspections to determine compliance with all project documents, percentages or inspections will include measurements and elevations of the completed work for compliance with the plans and specifications prior to payment recommendations to the Board.
11. The Contractor shall be permitted to submit claims for payment on a monthly basis as the work progresses, subject to a fifteen percent (15%) retainage, all as approved by the Lake County Surveyor and the Engineer. Fifteen percent (15%) of the completed value of the work shall be withheld by the Board for a period of sixty (60) days after the completion of the work and its acceptance by the Lake County Surveyor and the Engineer for the purpose of securing payment of suppliers, laborers and subcontractors, if any.

The Contractor shall be required to furnish a sworn statement of all indebtedness for labor and materials furnished, used or extended for said construction, the amount of due and to become due to each subcontractor and material supplier before issuance of any payment, and final waiver of lien and an affidavit showing all bills, on the issuance of the final payment.

Upon certifications by the Lake County Surveyor and the Engineer, the Board shall pay to the Contractor, on account of the contract, the value of labor and materials incorporated into the work.

C. RIGHT OF THE BOARD

1. The Board reserves the right to issue addenda changing, altering or supplementing the contract documents, at any time prior to the bid deadline.
2. The Board reserves the right to reject any or all bids and to waive any information or irregularity in any bid accepted.
3. The Board reserves the right to approve or reject any sub-contractor submitted by the bidders.
4. The Board reserves the right to award all or individual projects within the scope of work to comply with available funds.

APPROVED THIS 18 DAY OF MAY, 2016

LAKE COUNTY DRAINAGE BOARD



GERRY L. SCHEUB, CHAIRMAN



MICHAEL C. REPAY, MEMBER



KYLE W. ALLEN, SR., MEMBER

12. A bid security in the form of a certified check/cashier's check or a bid bond from an acceptable surety made payable to the Board shall accompany each bid. The bid security shall be in the penal amount of five percent (5%) of the total bid. Bid security shall be forfeited if the bid is withdrawn after closing time on the date for receiving bids. Out of state bidders must submit a certified check of ten percent (10%) of the total bid made payable to the Board.

Upon execution of the contract, the successful bidder shall give to the Board a bond payable to the Board, in an amount fixed by the Board but not less than the amount of the bid, and with a corporate surety licensed to do business in Indiana. The bond must be conditioned on the faithful performance of the contract and the payment of all expenses and damages incurred under the contract, including payment of all suppliers, laborers, and subcontractors. However, in lieu of a corporate surety bond, the Board may accept:

- (1) a cash bond;
- (2) a property bond; or
- (3) a bond from a sufficiently financed private bonding company.

13. All Contractors, including sub-contractors, shall carry full insurance coverage and certificates of insurance shall be delivered to the Board, upon signing of the contract.

- a. Workmen's Compensation, as required by applicable Federal and State laws.
- b. Contractor's Liability, including contractual liability, form of insurance shall be comprehensive general liability and comprehensive automobile liability \$500,000 CSL; for bodily injury, property damage and personal injury, including complete operations broad form; bodily injury and property damage, automobile liability, owned, non-owned and hired.
- c. In addition to the above, the Contractor shall provide operations and products liability, XCU coverage and \$1,000,000 umbrella liability.
- d. At all times during the progress of the work, the Contractor shall maintain such insurance as will protect and save harmless the Board, and its agents, from claims under the Workmen's Compensation Act; from any and all other claims for damages for property damage, personal injury and/or death and patent infringement, which may arise from operation under the contract documents, whether such act or omission be by itself or by an employee or sub-contractor or anyone directly or indirectly employed by either of them; and certificates of such insurance as required by the project documents shall be filed with the Board.
- e. Should the Board suffer any damage, cost or expense, including attorney's fees, in any manner, because of any wrongful act or negligence of the Contractor, or anyone employed by it or a subcontractor or the assertion of any claim of whatever nature which arises from operation under the contract documents, then the Contractor shall reimburse the Board for any such damage and all reasonable attorney fees and expenses related to such claim and/or reimbursement thereto, all without relief from validation and appraisal laws.

GENERAL INFORMATION

A. INDR. COE AND STATE PERMITS

The Board will procure all necessary permits from the Indiana Department of Natural Resources, the Army Corps of Engineers and the Indiana Stream Pollution Control Board for the performance of the work. All such permits are considered part of the project documents and all work shall be performed in strict compliance with all provisions and conditions therein. In the event discrepancies exist between the project documents and the provisions and conditions of such permits, the Contractor shall immediately notify the Lake County Surveyor and the Engineer to resolve any such discrepancy.

B. CONSTRUCTION METHODS AND STANDARDS

All construction methods, standards and specifications, as adopted by the Board shall govern the performance of the work unless otherwise specified in the project documents.

C. WORK WITHIN EASEMENTS

All work shall be performed within the limits of the existing regulated drain easement for STONEY RUN DITCH MIDDLE BRANCH – LATERAL NO. 4, and within other access and work easements acquired by the Board as otherwise specified herein.

D. MAINTENANCE OF DRAINWAYS

All construction shall be performed in such a manner that will not interfere with existing drainage of the areas adjacent to the project. All work shall be performed in such a manner that will ensure proper drainage.

E. AUTHORIZATION TO PROCEED

No work shall be performed prior to receipt of "Authorization to Proceed" notification from the Lake County Surveyor.

F. CONTRACTOR'S SCHEDULE

The Contractor will be requested to attend a pre-construction conference to be scheduled by the Lake County Surveyor at which time the Contractor will be required to submit a construction schedule to the Lake County Surveyor prior to commencement of the work.

ATTACHMENT A

TECHNICAL SPECIFICATIONS

FOR

STONE RUN DITCH MIDDLE BRANCH – LATERAL NO. 4 - 2014

LAKE COUNTY, INDIANA

LAKE COUNTY DRAINAGE BOARD

GERRY L. SCHEUB, CHAIRMAN

MICHAEL REPAY, MEMBER

KYLE ALLEN, SR. , MEMBER

LOGJAM REMOVAL (CLEARING AND SNAGGING)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.4, Practices 401 and 402). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>

Description: This work shall consist of removing accumulations of logs, root wads, beaver dams, trees in danger of falling into the stream or obstructing the flow, and other debris that span the waterway using hand-operated and/or heavy equipment from the side of the channel without disturbing the ditch banks. All work shall be performed within the existing 75-foot Drainage Board easement.

Access: Access to and within the work site shall be within the 75' drainage easement. Care shall be taken to limit tree removal (for the purpose of gaining access to the work site) to an absolute minimum. Access shall not cross a waterway or traverse a wetland as indicated on the jurisdictional wetland map, unless pads are used as specified in Practice 103, Temporary Wetland Crossing.

Equipment: Hand-operated equipment, such as axes, chain saws, and portable winches shall be used for removal of obstructions, unless determined impracticable. Where heavy equipment is necessary for removal of obstructions, only suitable equipment not equipped for excavation such as small tractors, backhoe equipped with a hydraulic thumb, bulldozer with its blade up, or a log skidder shall be used.

Removal of Trees, Tree Parts, and Foreign Material: The Contractor shall cut, relocate and remove from the floodplain and/or wetlands, any free logs or affixed logs, including foreign material, that are crossway in the channel. Logs shall be removed with minimal damage to vegetation and placed outside of wetlands. Limits of jurisdictional wetlands are shown on the plans and copies of maps showing floodway limits are available at the Office of the Lake County Surveyor. Isolated or single logs that are embedded, lodged, or rooted in the channel, and which do not span the channel or cause flow problems, shall not be removed, unless they are associated with or in close proximity to larger obstructions, or they pose a hazard to navigation. Severely damaged, dead, leaning or other trees, which are in immediate danger of falling into the waterway, shall be cut and removed. The **root system and stump** of the **tree shall be left in place**, Stumps shall be cut as low as possible and parallel with the slope of the bank but in no case higher than twelve inches, unless authorized by the County Surveyor's Office. Stump splinters shall also be cut off. It shall be the contractor's responsibility to walk the site and estimate the size and number of these trees to be removed. Cut stumps shall be treated with herbicide as soon as possible after cutting, preferably less than 2 hours. Stumps should be saturated, especially in the cambial area. Cut stumps shall be treated with Garlon 3A or approved equal but Tordon will not be allowed.

Removed Tree and Tree Parts: All trees, logs and other tree parts cut, broken, and/or removed by the contractor shall be disposed of off-site unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor.

The removed trees and brush may be mulched (chipped) and spread on top of the ditch bank, outside of the flood way limits, in a manner approved by the Lake County Surveyor's office. If the contractor chooses to remove materials from the site, the materials shall be disposed of by the contractor in an approved manner at an approved disposal site, all of which must be approved by the Lake County Surveyor's office.

Measurement and Payment: This work shall be paid for at the contract unit price per foot for LOGJAM REMOVAL (CLEARING AND SNAGGING) which price shall include all cutting, relocation and removing of trees, tree parts and foreign material, including disposal and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

PRACTICE 401
LOGJAM REMOVAL USING HAND-HELD TOOLS

DESCRIPTION ● Removing logjams from natural streams and man-made ditches using hand-held tools.



Exhibit 401a: Logjam Removal Using Hand-Held Tools (Source: CBBEL Files)

PURPOSE ● To remove logjams causing flooding, sedimentation, or destruction of wildlife habitat.

WHERE APPLICABLE ● Streams and man-made ditches classified as Condition 2, possibly Condition 3, and Condition 5 (See Introduction).

ADVANTAGES ● Restores natural flow and conveyance of streams and ditches.
 ● Reduces erosion, sedimentation, and flood potential.
 ● May improve wildlife habitat and water quality.

CONSTRAINTS ● May be time consuming and labor intensive.
 ● Restricted to logjams where use of hand-held tools are practical.
 ● Usually requires restabilization (See Activity 5.11 Revegetation and Site Stabilization).
 ● May cause temporary sedimentation.

DESIGN AND CONSTRUCTION GUIDELINES **Materials**
 ● Hand-tools such as axes, chain saws, hand winches, floats.
 ● Vegetative Restabilization (See Practice 1102).

Installation
 ● Hand-held tools that cause the least damage to the environment shall be selected for performing the work.
 ● Logjams, free logs, and/or affixed logs that are crossway in the channel should be cut, relocated, removed, or, if appropriate, secured parallel to the stream bank.

- Logjams may be disposed of by removing them from the floodplain and/or wetlands, or by piling and cabling logs at secured areas, as appropriate, with minimum amount of disturbance to vegetation.
- Isolated or single logs embedded, lodged, or rooted in the channel that do not span the channel or cause any impediment to flow should not be removed unless they are associated with or are in close proximity to larger obstructions, in which case they may be removed.
- Damaged, severely leaning trees should be removed if they pose a risk of falling and causing additional obstructions.
- Stumps and root systems should be left in place.

Special Considerations

- Employ appropriate siltation and erosion control practices during construction as necessary.
- Logjams that do not restrict the natural flow and conveyance of streams and ditches, and are not likely to cause further blockages, should not be removed.

MAINTENANCE

- Stream conditions should be monitored on a regular basis to avoid costly logjam removal in the future.

REFERENCES

Related Practices

- Practice 107 Clearing and Grubbing.
- Practice 301 Chemical Vegetation Control.
- Practice 302 Mechanized Debrushing Using Hand-held Equipment.
- Practice 303 Mechanized Debrushing Using Heavy Machinery.
- Practice 402 Logjam Removal Using Heavy Machinery.
- Practice 403 Large-Scale River Restoration.
- Practice 1301 Debris Disposal.

Other Sources of Information

- MRBC Obstruction Removal Program.
- American Fisheries Society Obstruction Removal Guidelines.

Last Print/Revision Date: October 13, 1996

PRACTICE 402
LOGJAM REMOVAL USING HEAVY MACHINERY

DESCRIPTION ● Removing logjams from natural streams and man-made ditches using heavy machinery.



Exhibit 402a: Logjam Removal Using Heavy Machinery (Source: NRCS Files)

PURPOSE	● To remove logjams causing flooding, sedimentation, or destruction of wildlife habitat.
WHERE APPLICABLE	● Streams and man-made ditches classified as Condition 2, Condition 3, and Condition 4 (See Introduction).
ADVANTAGES	<ul style="list-style-type: none"> ● Restores natural flow and conveyance of streams and ditches. ● May reduce erosion, sedimentation, and flood potential. ● May improve wildlife habitat and water quality.
CONSTRAINTS	<ul style="list-style-type: none"> ● Potentially more damaging to the environment than hand-held tools. ● May be time consuming and labor intensive. ● Usually requires restabilization (See Activity 5.11 Revegetation and Site Stabilization). ● May cause temporary sedimentation.
DESIGN AND CONSTRUCTION GUIDELINES	<p>Materials</p> <ul style="list-style-type: none"> ● Hand-tools such as axes, chain saws, hand winches, floats. ● Backhoes, bulldozers, log skidders, and other heavy, low psi machinery equipped only with brush hooks, snags, or hydraulic thumbs. <u>Machinery equipped with excavation implements may not be used.</u> ● Vegetative Restabilization (See Practice 1102). <p>Installation</p> <ul style="list-style-type: none"> ● Machinery that causes the least damage to the environment shall be selected for performing the work.

- Logjams, free logs, and/or affixed logs that are crossway in the channel should be cut, relocated, removed, or, if appropriate, secured parallel to the stream bank.
- Logjams may be disposed of by removing them from the floodplain and/or wetlands, or by piling and cabling logs at secured areas, as appropriate, with minimum amount of disturbance to vegetation.
- Isolated or single logs embedded, lodged, or rooted in the channel that do not span the channel or cause any impediment to flow should not be removed unless they are associated with or are in close proximity to larger obstructions, in which case they may be removed.
- Damaged, severely leaning trees should be removed if they pose a risk of falling and causing additional obstructions.
- Stumps and root systems should be left in place.

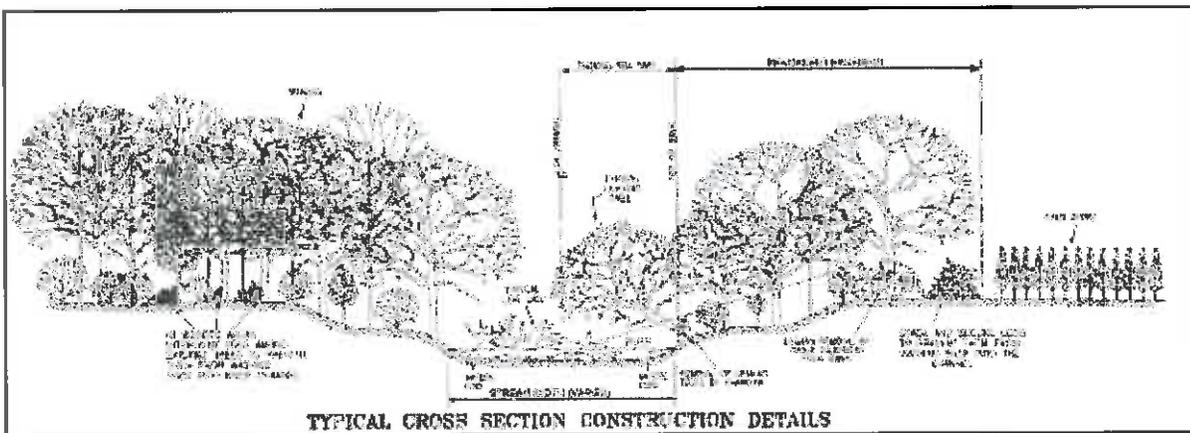


Exhibit 402b: Typical Cross-Section Construction Detail (Source: NRCS Files)

Special Considerations

- Employ appropriate siltation and erosion control practices during construction as necessary.
- Logjams that do not restrict the natural flow and conveyance of streams and ditches, and are not likely to cause further blockages, should not be removed.

MAINTENANCE

- Stream conditions should be monitored on a regular basis to avoid costly logjam removal in the future.

REFERENCES

Related Practices

- Practice 107 Clearing and Grubbing.
- Practice 301 Chemical Vegetation Control.
- Practice 302 Mechanized Debrushing Using Hand-held Equipment.
- Practice 303 Mechanized Debrushing Using Heavy Machinery.
- Practice 401 Logjam Removal Using Hand-held Tools.
- Practice 403 Large-Scale River Restoration.
- Practice 1301 Debris Disposal.

Other Sources of Information

- MRBC Obstruction Removal Program.
- American Fisheries Society Obstruction Removal Guidelines.

Last Print/Revision Date: October 13, 1996

CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.6, Practice 601). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of dipping, dredging, and/or removing sediment from the channel bottom with a bucket from one side of the channel without disturbing the ditch banks. **All work adjacent to wetland areas shall be performed from the bank opposite of the wetland area or in cases where wetlands are on both sides of the ditch, drag line mat must be used.** All work shall be performed within the existing 75-foot Drainage Board easement. The work shall also include the removal of sediment from identified culverts within the regulated drain.

Excavation: The contractor shall excavate the low flow channel below the existing flow line to the channel bottom as shown on the typical sections. Cross-section geometry should, in general, be trapezoidal with positive grade. Side slopes of excavated low flow area should be cut away from the edge of water so as not to compromise channel bank stability and shall not exceed a maximum slope of 2:1 (1V: 2H). A minimum twenty- (20) foot longitudinal transition shall be provided from the full-cut excavated area to the undisturbed ditch bottom.

Spoil Material: Spoil material shall be disposed of adjacent to the excavated area unless other written arrangements have been made with the adjacent landowner and approved by the Lake County Surveyor. Spoil shall be placed landward of the channel bank a distance of ten feet (or more, as needed to stay outside of the floodway limit) to allow for future maintenance access. Spoil shall be leveled to have a foreslope of 5: 1 (1 V: 5H) or flatter so as not to severely impact stream system and applied erosion control measures. From the maximum height, the spoil shall have an 8:1 (1 V: 8H) back slope to existing grade. Grading of spoil material shall coincide with adjacent stream overbank topography. Spoil piles shall be cut (notched) to allow for positive drainage from adjacent properties.

Spoil material shall not be placed in the floodway or in the wetlands. Limits of jurisdictional wetlands are shown on the plans and copies of maps showing floodway limits are available at the Office of the Lake County Surveyor.

Measurement and Payment: This work shall be paid for at the contract unit price per cubic yard for CHANNEL BOTTOM DIPPING (SEDIMENT REMOVAL) which price shall include all excavation (including any sediment removal from within culverts), spoil disposal, and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

**PRACTICE 601
CHANNEL BOTTOM DIPPING**

DESCRIPTION

- Dipping, dredging and/or removing sediment from the channel bottom with a bucket from one side of the channel without disturbing the ditch banks.



Exhibit 601a: Channel Bottom Dipping (Source: NRCS files)

PURPOSE

- To lower the grade of the ditch bottom to match the upstream or downstream reaches by means of excavating or dredging the sediments accumulated at the ditch bottom over time.

WHERE APPLICABLE

- Where in-channel obstruction such as sediment or vegetative debris have eliminated a positive hydraulic grade.
- Where stream banks and adjacent overbanks are well defined and stable while in-channel alignment and condition are not conducive for effective low flow.

ADVANTAGES

- Improve low flow conveyance capacity of stream.
- Provides hydraulic benefit to low flow conditions.
- Prevents stagnation or sedimentation pools by providing positive flow conditions.
- Eliminates impact to inflow structures such as tile drains or surface flow systems.

CONSTRAINTS

- Need for extensive in-channel erosion control measures.
- May temporarily impact well established aquatic habitat.
- Has minimal hydraulic benefit for flood flow conditions.

DESIGN AND CONSTRUCTION GUIDELINES

Materials

- In-channel sediment basin.

Installation

- Install In-channel Sediment Basin (Practice 801) if necessary.

- Remove all in-channel obstructions (Practice 401 or 402).
- Excavate low flow channel below existing flow line to grades shown in design plans or specifications. Cross section geometry should, in general, be trapezoidal with positive grade. Side slopes of excavated low flow area should be cut away from edge of water so as not to compromise channel bank stability.
- Spoil material should be disposed of adjacent to excavated area unless required differently in design plans or specifications. Spoil shall be placed landward of channel bank by a distance of five feet or more (outside of the floodway) and leveled to a slope of 5:1 (1V:5H) or flatter so as not to severely impact stream system and applied erosion control measures. From the maximum height, the soil should have an 8:1 (1V:8H) back slope to field level. Grading of spoil material should coincide with adjacent stream overbank topography.
- All spoil deposition areas shall be same-day seeded or mulched immediately after final grading if not in agricultural production.

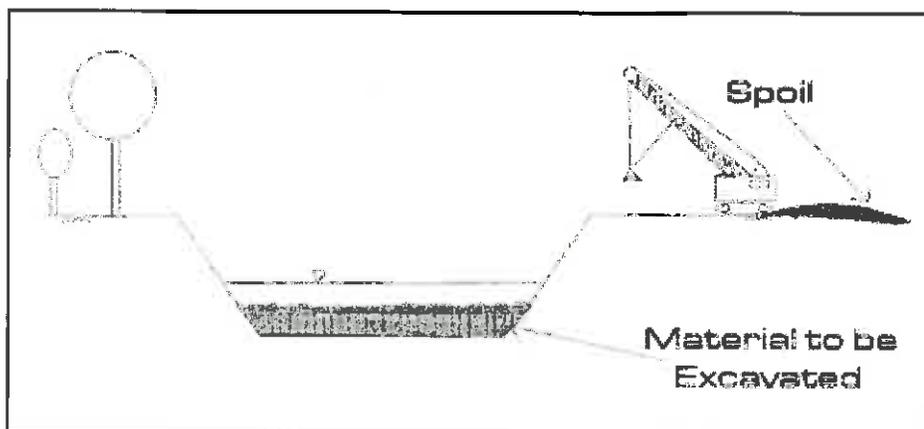


Exhibit 601b: Illustration of Bottom Dipping practice (Source: CBBEL Files)

Special Considerations

- Transitions in size or dimension of excavated area should be gradual to prevent unstable flow conditions and to avoid sedimentation problems.
- Disposal of spoil material should consider additional factors of land ownership or right-of-way, land use (particularly agricultural or crop production), environmentally sensitive areas, or related impacts due to placement of the material.
- Spoil material should not be placed in floodway or in wetlands. Additional permits are required for placement of fill in floodway or wetlands. (See Practice 1301 Debris Disposal.)
- When feasible, consider installing vegetative filter strip (Practice 804) along the work-side of the bank. Channel excavation practices create a unique opportunity to install filter strips with minimal costs.

MAINTENANCE

- Inspect excavated area after major flow events to remove collected debris, as necessary.
- Inspect excavated reach to confirm stability in channel cross section, particularly the channel banks for location of excessive erosion or

streambank failure.

- Remove sediment and debris from excavated area as necessary to maintain cross section and grade to prevent additional sedimentation or erosion.
 - Reduce sediment delivery to the ditch by regrading eroded ditch banks and by installing erosion control practices in the contributing watershed.
-

REFERENCES

Related Practices

- Practice 401 Logjam Removal Using Hand-held Tools .
- Practice 402 Logjam Removal Using Heavy equipment.
- Practice 704 Channel Transitions (Tie-Ins).
- Practice 801 In-channel Sediment Basin .
- Practice 1001 Tile Drain Outlet Extension.
- Practice 1301 Debris Disposal.
- Practice 1303 Permanent Maintenance Access.

Other Sources of Information

- Illinois Urban Manual.
 - NRCS Standard Specifications.
-

Last Print/Revision Date: October 13, 1996

TEMPORARY WETLAND CROSSING (DRAG LINE MAT)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1 , Practice 103). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>

Description: This work shall consist of placing wooden drag line mats beneath the tread of heavy machinery to reduce the impact of the machinery on the wetland or tributaries.

Location: Drag line mats shall be used in wetland locations indicated on the plans. (Only useful if water is less than 6" deep). Drag line mats can also be used in areas to cross tributaries if machinery needs assistance over crossings.

Materials: One mat shall consist of 5 pieces of 20' long, 12" x 12" treated wooden beams cabled together. At least four drag line mats shall be needed.

Installation: Two mats are placed in front of the machinery so that each mat is centered by each tractor tread, and two mats are placed behind the machinery. Operator then drives onto mats in front of the machine and uses the boom to lift the two mats behind the machine and places them up in front of the mats the machine is on. This process continues until the operator reaches the final destination.

Measurement and Payment: This work shall be paid for at the contract unit price per foot for TEMPORARY WETLAND CROSSING which price shall be payment in full for constructing the mats as specified including all materials, labor, and equipment. Removal and disposal of mats off-site after use shall be considered incidental to this item.

PRACTICE 103
TEMPORARY WETLAND CROSSING (Drag Line Mat)

DESCRIPTION ● A series of wooden "rafts" placed beneath the tread of heavy machinery to more evenly distribute the weight.

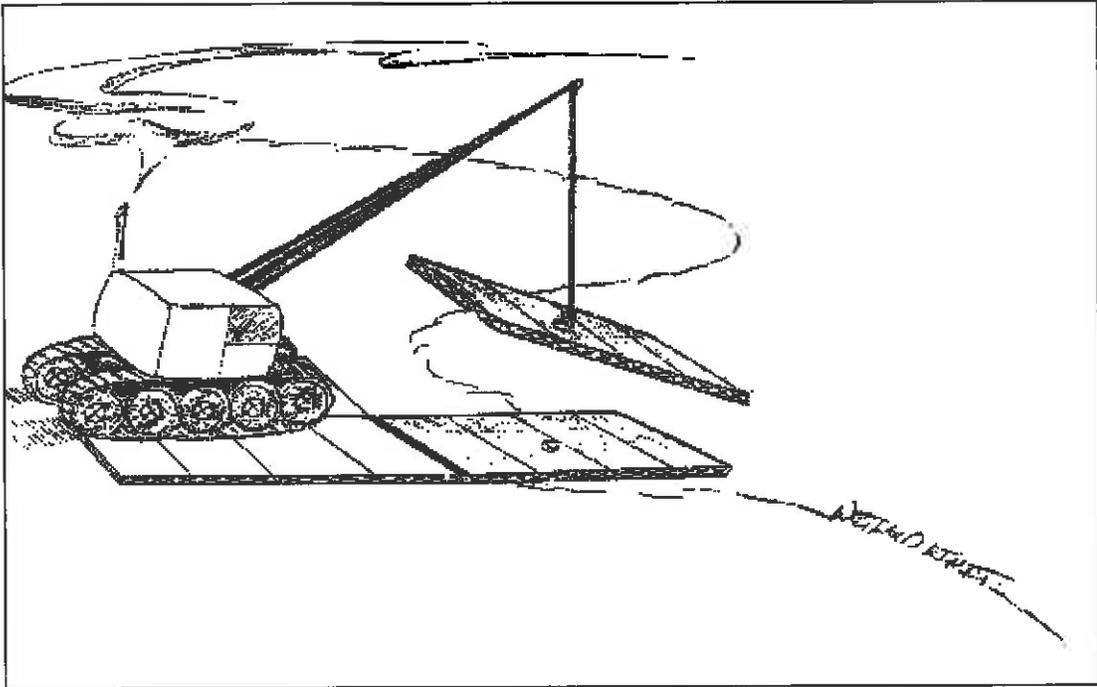


Exhibit 103a: Temporary Wetland Crossing (Source: CBBEL Files)

PURPOSE ● To reduce the impact of heavy machinery in wetlands or other sensitive or soft areas.

WHERE APPLICABLE ● Shallow wetlands.
 ● Soft soils or other sensitive areas.

ADVANTAGES ● Allows access through shallow wetlands or other sensitive areas.
 ● Minimizes adverse impacts to wetlands or other sensitive areas by more evenly distributing the weight.

CONSTRAINTS ● Only useful with machinery equipped with a boom such as a back hoe or drag line.
 ● Minor soil displacement is inevitable.

DESIGN AND CONSTRUCTION GUIDELINES **Materials**
 ● 4 drag line mats, each constructed from 5 pieces of 20' long, 12" x 12" treated wooden beams cabled together.

Installation
 ● 2 drag line mats are placed in front of the machinery so that each mat is centered by each tractor tread, and two mats are placed behind the machinery.
 ● Machinery operator drives onto mats in front of the machine.
 ● Machinery operator uses boom to lift the two mats behind the

T.O.C.

machine, and lines them up in front of the mats the machine is on.

- Operator drives onto the two mats just placed in front of the mats the machine is on.
- Operator uses boom to retrieve the 2 mats now behind the machine, and places them in front of the machine as described above.
- Piggy back process continues until operator reaches the final destination.

Special Considerations

- Only useful if water is ≤ 6 " deep.

MAINTENANCE

- Periodically inspect the mats to make sure they maintain their structural integrity.

REFERENCES

Related Practices

- Practice 901 Culverts.
- Practice 902 Bridges.
- Practice 903 Fords/Low Water Crossings.

Other Sources of Information

- CBBEL Files.
-

Last Print/Revision Date: October 13, 1996

RIPRAP BANK PROTECTION

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.5, Practice 510 and Section 5.10, Practice 1002). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of covering of a portion of a channel bank with a layer of stone at locations shown on the plans to protect stream bank from erosion. When completed, the worked section shall approximate the natural slope of the channel bank. All work shall be performed within the existing 75-foot Drainage Board easement.

Access: Access to and within the work site shall be within the 75' drainage easement and/or within the public right-of-way. Care shall be taken to limit tree removal (for the purpose of gaining access to the work site) to an absolute minimum. Access shall not cross a waterway or traverse a wetland as indicated on the jurisdictional wetland map, unless pads are used as specified in Practice 103, Temporary Wetland Crossing.

Materials: Materials shall consist of revetment or hand-laid riprap, preferably from local sources. Geotextile fabric or sand/gravel layer should be used for stabilization under all permanent riprap installations.

Site Preparation: This work shall include the removal of brush, trees, stumps and other debris on the slope to be dressed. The material removed shall be disposed of by a method approved by the Lake County Surveyor's Office.

Excavation and Slope Compaction: This work shall include excavation, grading/flattening of the slope and compacting the slope. Excavation shall be deep enough to accommodate the depth of filter and riprap. Slopes steeper than 2:1 (1V: 2H) shall be flattened so stone material will not become displaced. Contractor shall cut a keyway at base of slope to reinforce the toe; keyway depth should be 1.5 times the design thickness of the riprap and extend a horizontal distance equal to the design thickness (see Typical Section). Foundation toe must be properly reinforced to prevent undercutting or slumping. The excavated/prepared slope as well as any fill material shall be proposed compacted to density of surrounding natural soil before the filter and the riprap are placed.

Placement of Riprap: This work shall include the placement of filter and the riprap on a prepared slope. Contractor shall first place geotextile fabric on the slope in accordance with manufacturer's guidelines. The contractor shall spread the well-graded aggregate in a uniform layer at 18 inches in depth.

Riprap shall be placed to full thickness in 1 operation. Smaller rock shall be placed in voids to form a dense, uniform, well-graded mass. Some hand placement of material will most likely be necessary. The contractor shall blend the riprap surface smoothly with the surrounding area to eliminate protrusions or overfalls. Riprap may be either hand-placed or dumped. Riprap used must be of sized according to INDOT standard specifications and extend at least 12 inches below normal water level to provide habitat for aquatic organisms in the voids.

Measurement and Payment: This work shall be paid for at the contract unit price per ton for RIPRAP BANK PROTECTION which price shall include all materials including geotextile fabric, shaping, grading, compacting, use of machinery, labor and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor.

**PRACTICE 510
STONE RIPRAP**

DESCRIPTION

- Covering of a portion of a channel bank with a layer of stone that approximates the natural slope of the channel bank. (Note: This practice is also included in the Indiana Erosion Control Handbook.)



Exhibit 510a: Stone Riprap (Source: North Carolina Erosion Control Manual)

PURPOSE	● To protect streambanks from the erosive forces of flowing water.
WHERE APPLICABLE	<ul style="list-style-type: none">● On small to medium sized channels and on all character types.● Generally applicable where flow velocities exceed 6 ft/sec or where vegetative streambank protection is inappropriate.● Shaded areas.● Streams where water levels fluctuate.● Actively eroding banks usually along channel curves or wherever it is desirable to reduce the energy of the water.
ADVANTAGES	<ul style="list-style-type: none">● Relatively inexpensive, especially compared to other structural methods such as walls.● Flexible and resistant to scour.● Allows for water percolation.
CONSTRAINTS	<ul style="list-style-type: none">● Available stone must be able to resist the force of high velocity water flows.● Not recommended on steep slopes or areas where slope cannot be regraded to 2:1 (1V:2H) or flatter.● Hand-placed riprap is labor intensive.● Flooding may wash riprap into stream.

DESIGN AND CONSTRUCTION GUIDELINES

Materials

- Hard, angular and weather-resistant stone having specific gravity of at least 2.5.
- Where available, use local stone. Local stone can often be obtained at lower cost and it also blends better into the existing streambank environment.
- 50% of stone (by weight) must be larger than specified d_{50} and no more than 15% of the pieces (by weight) should be less than 3 inches.
- Geotextile fabric or sand/gravel layer should be used for stabilization under all permanent riprap installations.

Installation

- Remove brush, trees, stumps and other debris.
- Excavate only deep enough for filter and riprap.
- Compact any fill material to density of surrounding natural soil.

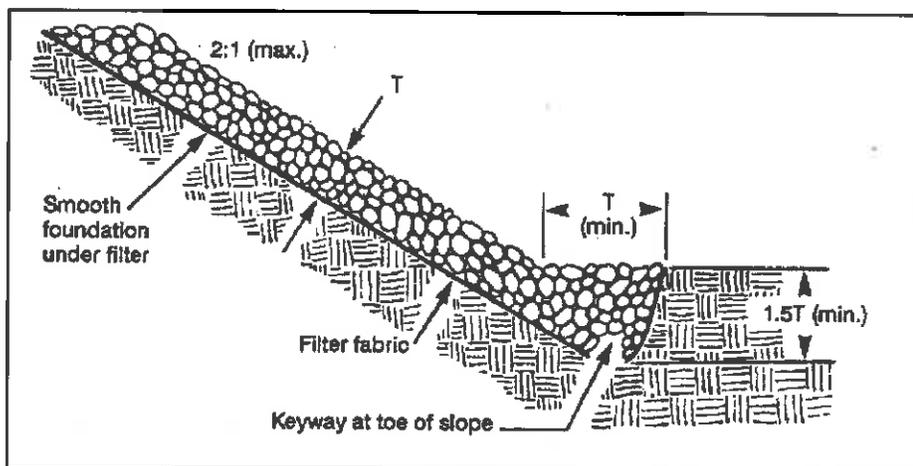


Exhibit 510b: Construction of a riprap bank with toe protection (Source: Indiana Erosion Control Handbook)

- Cut keyway at base of slope to reinforce the toe; keyway depth should be $1\frac{1}{2}$ times the design thickness of the riprap and extend a horizontal distance equal to the design thickness.
- Place geotextile fabric. If using sand/gravel filter, spread the well-graded aggregate in a uniform layer at least 6 inches thick; if 2 or more layers are required, place the layer of smaller gradation first and avoid mixing the layers.
- Add riprap to full thickness in 1 operation.
- Place smaller rock in voids to form a dense, uniform, well-graded mass. Some hand placement of material will most likely be necessary.
- Blend the riprap surface smoothly with the surrounding area to eliminate protrusions or overfalls.
- Riprap may be either hand-placed or dumped.

Special Considerations

- Use the peak 10-year storm discharge for computing the minimum expected (design) velocity.
 - Foundation toe must be properly reinforced to prevent undercutting or slumping.
 - Slopes steeper than 2:1 (1V:2H) should be flattened so stone material will not become displaced.
 - Riprap must be properly graded to prevent stone movement and erosion of the foundation.
 - Compact the slopes before placing riprap or stone settlement and displacement may occur.
 - Extend riprap sections the entire length between well-stabilized points of the stream channel.
 - Riprap used must be of large enough size and extend at least 12 inches below normal water level to provide habitat for aquatic organisms in the voids
 - May secure toe using A-Jacks (See Practice 509)
-

MAINTENANCE

- Inspect periodically for displaced stone material, slumping and erosion at edges (especially downstream or downslope). Properly designed and installed riprap usually requires very little maintenance if promptly repaired.
-

REFERENCES

Related Practices

- Practice 501 Live Stakes.
- Practice 507 Live Cribwalls.
- Practice 508 Lunkers.
- Practice 512 Gabion Retaining Wall.
- Other Combined Practices.

Other Sources of Information

- Indiana Erosion Control Handbook.
 - North Carolina Erosion Control Manual.
 - Pennsylvania Streambank Stabilization Guide.
 - COE Streambank Guidelines.
-

Last Print/Revision Date: October 13, 1996

**PRACTICE 1002
RIPRAP-LINED APRON**

DESCRIPTION ● Riprap apron placed at outlet end of culverts, conduits, or channels. (Note: this practice is also included as "Rock Chute" in the Indiana Erosion Control Handbook.)



Exhibit 1002a: Riprap-Lined Apron (Source: North Carolina Erosion Control Manual)

PURPOSE	● To reduce runoff velocity and prevent erosion at the outlet of a channel or culvert.
WHERE APPLICABLE	<ul style="list-style-type: none"> ● Culvert outlets. ● Pipe conduits from all sediment basins, and dry as well as wet basin detention stormwater ponds. ● New channels constructed as outlets for culverts and conduits. ● Where outflows from conduits or channels do not exceed 10 feet per second.
ADVANTAGES	<ul style="list-style-type: none"> ● Prevent scour erosion at stormwater outlets. ● Protects outlet structure. ● Minimizes the potential for downstream erosion by reducing the velocity or energy of concentrated stormwater flows. ● Reduces the effects of turbidity and sedimentation downstream.
CONSTRAINTS	<ul style="list-style-type: none"> ● May require heavy machinery to install riprap. ● Not recommended for pipe outlets at the top of cuts, or on slopes steeper than 10%. ● Contributing drainage area should be ≤ 100 acres. ● Peak runoff from a 10-year frequency, 24 hour storm event should be accommodated. ● Length and width of apron are calculated based on pipe diameter, design flow rate, and the absence or presence of downstream tailwater.

DESIGN AND CONSTRUCTION GUIDELINES

Materials

- Riprap.
- Geotextile fabric.

Installation

- Excavate the apron area subgrade below design elevation to allow for the thickness of filter and riprap.
- Compact fill used in the subgrade to the density of the surrounding undisturbed material, and smooth enough to protect fabric from tearing.
- Place geotextile fabric on the foundation. If more than one piece of fabric is needed, then upstream piece should overlap the downstream piece by at least one foot.
- Install riprap to the lines and elevations shown in the design.
- Make sure the top of the apron is level with or slightly below the receiving stream.
- A portion of the apron below the outlet may be shaped into a bowl or a plunge pool to act as a stilling basin.
- Blend the riprap smoothly to the surrounding grade.
- Stabilize all disturbed areas immediately following installation.

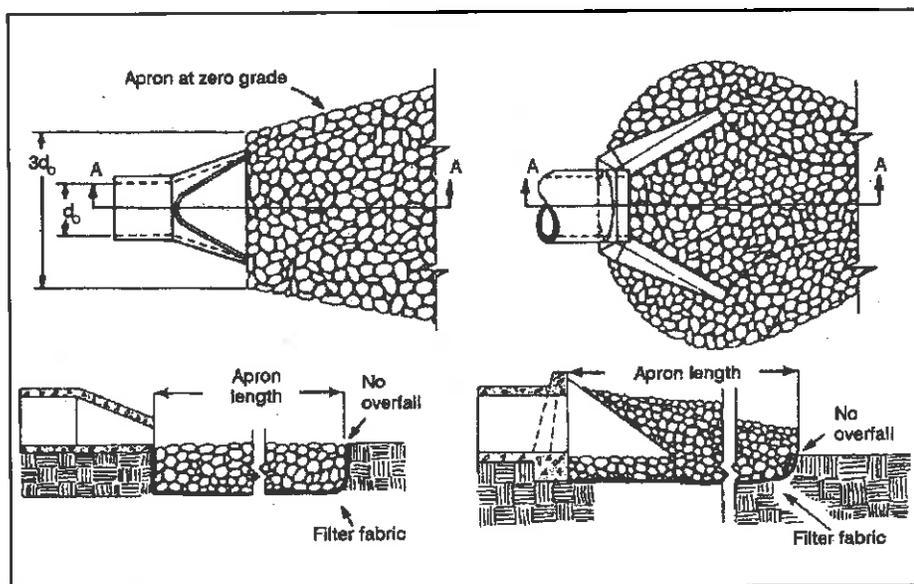


Exhibit 1002b: Pipe outlet aprons for a channel (left) that is not well defined and (right) that is well defined. (Source: Indiana Erosion Control Handbook)

Special Considerations

- Choice of materials should be based on the type of soil to be protected, season, and economics.
- Organic mulch materials such as straw, wood chips, bark, and wood fiber have been found to be the most effective.
- Chemical soil stabilizers and binders work best when used in conjunction with organic mulches.

MAINTENANCE

- Inspect and reapply mulch as necessary after storm events.

T.O.C.

- Continue inspections until vegetation becomes established.
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REFERENCES

Related Practices

- Practice 105 Silt Fencing.
- Practice 106 Straw Bale Filter.
- Practice 1102 Vegetative Stabilization.

Other Sources of Information

- Indiana Erosion Control Handbook.
 - Illinois Urban Manual.
 - North Carolina Erosion Control Manual.
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Last Print/Revision Date: October 13, 1996

EROSION BLANKET (SPECIAL)

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.11 , Practice 1104). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>

Description: This work shall consist of furnishing all labor, materials, tools and equipment necessary to place EROSION BLANKET (SPECIAL) on the channel banks or as directed by the Manager.

The composite turf reinforcement mat (C-TRM) shall be a machine-produced mat of 70% straw/30% coconut fiber matrix incorporated into a permanent three-dimensional turf reinforcement matting.

The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between a heavy duty UV stabilized bottom net with 0.50 x 0.50 inch (1 .27 x 1.27 cm) openings, an ultra-heavy duty UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.50 x 0.50 inch (1 .27 x 1.27 cm) openings, and covered by a heavy duty UV stabilized top net with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (3.81 cm) centers with UV stabilized polypropylene thread to form a permanent three-dimensional turf reinforcement matting.

The SC250 shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the U.S. Department of Transportation, Federal Highway Administration's (FHWA) *Standard Specifications For Construction of Roads and Bridges on Federal Highway Projects, FP-03 2003 Section 713.18* as a *Type 5A, B, and C Permanent Turf Reinforcement Mat*.

Installation staple patterns shall be clearly marked on the turf reinforcement mattings with environmentally safe paint. All mats shall be manufactured with a colored thread stitched along both *outer edges* (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The composite turf reinforcement mat shall be the North American Green SC250, or equivalent. The SC250 permanent composite turf reinforcement mat shall have the following physical properties:

Material Content

Matrix	70% Straw Fiber (0.35 lb/yd ²) (0.19 kg/m ²) 30% Coconut Fiber (0.15 lb/yd ²) (0.08 kg/m ²)
Netting	Top and Bottom - Heavy Duty UV Stabilized Polypropylene (5.0 lbs/1 ,000 ft ² [2.44 kg/100 m ²] approximate weight) Mid - Corrugated Ultra Heavy Duty UV Stabilized Polypropylene (24-lb/1 ,000 ft ² [11 . 7-kg/1 00 m ²] approximate weight)
Thread	UV Stabilized Polypropylene

The composite turf reinforcement mat shall be installed in accordance with the manufacture's recommendations. Where necessary, check slots shall be cut for any stumps or objects to remain that protrude from the ground surface.

Method of Measurement: This work will be measured in place and the area computed in square yards.

Basis of Payment: The work will be paid for at the contract unit price per square yard for EROSION BLANKET (SPECIAL), which price shall constitute full compensation for all labor, materials and equipment necessary to complete the work as specified.

PRACTICE 1104
EROSION CONTROL BLANKET

DESCRIPTION

- Biodegradable organic or synthetic mulch incorporated into a polypropylene or similarly netting material. (Note: this practice is also included in the Indiana Erosion Control Handbook.)



Exhibit 1104a: Erosion Control Blanket (Source: CBBEL Files)

PURPOSE	<ul style="list-style-type: none"> ● To prevent erosion.
WHERE APPLICABLE	<ul style="list-style-type: none"> ● Usually on slopes or in areas of concentrated flow. ● Area with high potential for erosion.
ADVANTAGES	<ul style="list-style-type: none"> ● Provides temporary surface stabilization. ● Provides immediate erosion and water quality benefits. ● Reduces soil crusting. ● Conserves moisture and increases seed germination and seedling growth. ● Applicable in areas of concentrated flow and steep slopes (where mulch alone often fails).
CONSTRAINTS	<ul style="list-style-type: none"> ● Expensive.
DESIGN AND CONSTRUCTION GUIDELINES	<p>Materials</p> <ul style="list-style-type: none"> ● Organic (straw, excelsior, coconut fiber, etc.) or synthetic mulch material incorporated into a polypropylene or similar netting. Material may be biodegradable, photodegradable, or permanent. <p>Installation</p> <ul style="list-style-type: none"> ● Select type and weight of blanket to fit site conditions (e.g. slope, channel, flow velocity). ● Install necessary erosion control devices. ● Grade site as specified on plans. ● Add topsoil where appropriate.

- Prepare seedbed, fertilize, and **seed** immediately after grading.
- Lay blankets on seeded areas following manufacturers directions. Blankets should be laid so they are in continuous contact with the soil, and upslope or upstream ones should overlap the lower ones by at least 8".
- Tuck the uppermost edge of the upper blankets into a check slot (slit trench) and backfill with soil. Tamp down.
- Anchor blankets as specified by the manufacturer. This usually involves driving 6"-8" wood or metal staples into the ground in a pattern determined by site conditions. Wood staples are preferable to metal staples. Wood staples will swell and hold better.



Exhibit 1104b: Proper installation of erosion control blankets in a drainageway
(Source: Indiana Erosion Control Handbook)

Special Considerations

- Maximum life varies with material.
- Poor contact between the soil and the blanket resulting from improper stapling, or not using check slots, may cause water to flow under the blanket.

MAINTENANCE

- Inspect for erosion after each storm event during vegetation establishment.
- If any areas show erosion, pull back that portion of the blanket, add soil, re-seed, and re-lay and staple the blanket.
- Check area periodically after vegetation establishment.

REFERENCES

Related Practices

- Practice 1101 Mulching.
- Practice 1102 Vegetative Stabilization.
- Practice 1105 Bonded Fiber Matrix.

Other Sources of Information

- Indiana Erosion Control Handbook.
- NRCS Standard Specifications.

Last Print/Revision Date: October 13, 1996

MULCHED SEEDING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.11, Practice 1102). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>.

Description: This work shall consist of the application of seeding, plant residues or other suitable material to disturbed soil surface areas.

Location: Top of spoil pile and other areas disturbed by machinery, and bank restoration.

Materials/Installation: This work shall be in accordance with Section 621 of the Indiana Department of Transportation Standard Specifications, current edition, except the seed mixture.

Seed mixtures shall be as follows:

Common Name	Botanic Name	Seeding Rate
<u>Banks and Slopes (Stabilizing Matrix Species)</u>		
Big Bluestem	Andropogon gerardii	5 lb/ac
Brown Fox Sedge	Carex vulpinoidea	0.25lb/ac
Canada Wild Rye	Elymus Canadensis	5 lb/ac
Streambank Rye	Elymus riparius	1 lb/ac
Silky Wild Rye	Elymus vilosus	1 lb/ac
Virginia Wild Rye	Elymus virginicus	3 lb/ac
Torrey's Rush	Juncus torreyi	0.01 lb/ac
Evening Primrose	Oenothera biennis	0.25lb/ac
Switch Grass	Panicum virgatum	1 lb/ac
Indian Grass	Sorghastrum natans	5lb/ac
Prairie Cord Grass	Spartina pectinata	0.01 lb/ac
Blue Vervain	Verbena hastate	1 lb/ac

Measurement and Payment: This work shall be paid for at the contract unit price per acre for MULCHED SEEDING which price shall be payment in full for constructing this item as specified, including all materials, labor, and equipment.

PRACTICE 1102 VEGETATIVE STABILIZATION AND SEEDING

DESCRIPTION ● Stabilization and protection of streambanks with selected vegetation.

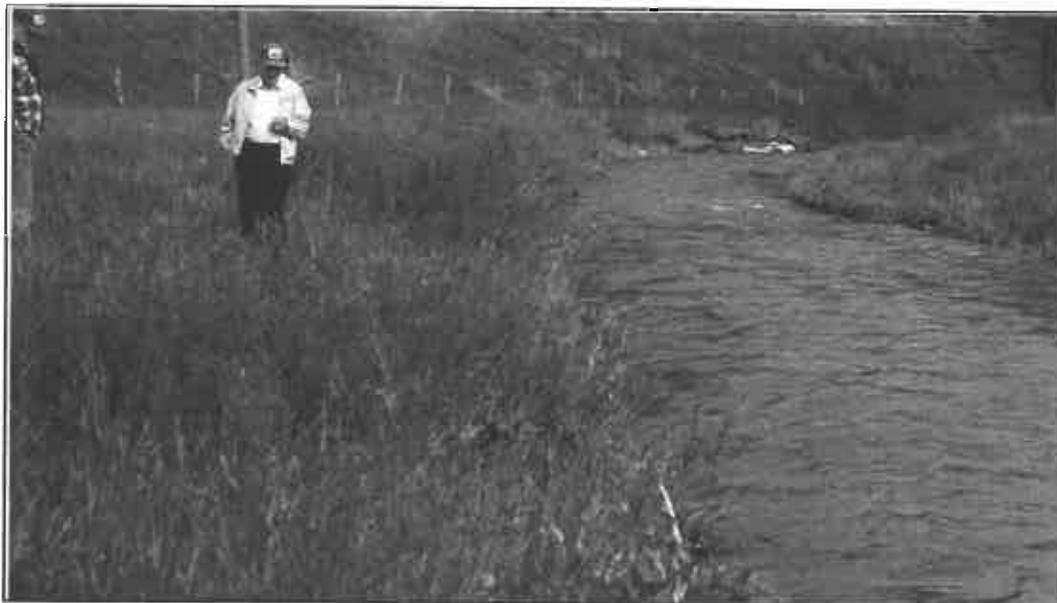


Exhibit 1102a: Vegetative Stabilization (Source: North Carolina Erosion Control Manual)

PURPOSE	<ul style="list-style-type: none"> ● To protect streambanks from the erosive forces of flowing water and provide a natural, pleasing appearance. ● To restabilize areas disturbed during construction. ● Shade provided by woody vegetation maintains lower water temperatures and provides wildlife habitat.
WHERE APPLICABLE	<ul style="list-style-type: none"> ● Generally applicable along streams and ditches where bankfull flow velocity does not exceed 5 ft/sec., and soils are erosion resistant. ● Vegetative techniques usually should be incorporated with structural techniques if the bankflow velocity exceeds 5 ft/sec. (See referenced sources.)
ADVANTAGES	<ul style="list-style-type: none"> ● Often less expensive than structural techniques. ● Natural appearance. ● May create or enhance wildlife habitat. ● Self repairing in many cases.
CONSTRAINTS	<ul style="list-style-type: none"> ● May not be applicable in high flow ditches and streams. ● Full stabilization may not be achieved until plants become established. ● Often requires limited but regular maintenance such as burning, and in some situations, herbiciding or even mowing.
DESIGN AND CONSTRUCTION GUIDELINES	<p>Materials</p> <ul style="list-style-type: none"> ● Appropriate plant species selected from following Exhibit 1102b or other referenced sources. Note that not all species listed are suitable for every region or soil. ● Mulch, erosion control blankets, and/or bonded fiber matrix.

Partial Sunlight (Half Day) to Full Sunlight

<u>Common Name</u>	<u>Botanic Name</u>	<u>Plugging</u>	
		<u>Rate On Center</u>	<u>Seeding Rate</u>
<u>Banks and Slopes (Stabilizing Matrix Species)</u>			
Big Bluestem	Andropogon gerardii	18-24"	5 lb/ac
Brown Fox Sedge	Carex vulpinoidea	18-24"	0.25 lb/ac
Canada Wild Rye	Elymus canadensis	18-24"	5 lb/ac
Streambank Rye	Elymus riparius	18-24"	1 lb/ac
Silky Wild Rye	Elymus villosus	18-24"	1 lb/ac
Virginia Wild Rye	Elymus virginicus	18-24"	3 lb/ac
Torrey's Rush	Juncus torreyi	18-24"	0.01 lb/ac
Evening Primrose	Oenothera biennis	18-24"	0.25 lb/ac
Switch Grass	Panicum virgatum	18-24"	1 lb/ac
Indian Grass	Sorghastrum nutans	18-24"	5 lb/ac
Prairie Cord Grass	Spartina pectinata	18-24"	N/A
Blue Vervain	Verbena hastata	18-24"	1 lb/ac
<u>Toe, Lower Banks (Stabilizing Species)</u>			
Sweet Flag	Acorus calamus	18-24"	N/A
Water Plantain	Alisma subcordatum	18-24"	N/A
Bluejoint Grass	Calamagrostis canadensis	18-24"	N/A
Creeping Spike Rush	Eleocharis acicularis	18-24"	N/A
Blue Flag Iris	Iris virginica	18-24"	N/A
Torrey's Rush	Juncus torreyi	18-24"	N/A
Switch Grass	Panicum virgatum	18-24"	N/A
Arrowhead	Sagittaria latifolia	18-24"	N/A
Hardstem Bulrush	Scirpus acutus	18-24"	N/A
Chairmaker's Rush	Scirpus americanus	18-24"	N/A
Dark Green Rush	Scirpus atrovirens	18-24"	N/A
River Bulrush	Scirpus fluviatilis	18-24"	N/A
Prairie Cord Grass	Spartina pectinata	18-24"	N/A
Blue Vervain	Verbena hastata	18-24"	N/A
<u>Cover Crops (Hydroseeding, Hand or Machine Planted Species)</u>			
Annual Ryegrass	Lolium multiflorum	N/A	60 lb/ac
Perennial Ryegrass	Lolium perenne	N/A	24 lb/ac
Smartweed	Polygonum punctatum	N/A	5 lb/ac
Yellow Coneflower	Ratibida pinnata	18-24"	0.25 lb/ac
Black-Eyed Susan	Rudbeckia hirta	18-24"	0.25 lb/ac
<u>Brush for live stakes, brush mattress, live fascine, branch packings, live cribwall and vegetated geogrid. (North bank may have to be planted by shade-tolerant species.)</u>			
Buttonbush	Cephalanthus occidentalis		
Silky Dogwood	Cornus amomum		
Red-Osier Dogwood	Cornus stolonifera		

Exhibit 1102b : Plant species for Vegetative Stabilization (Source: DuPage County Streambank Stabilization Program)

Partial Sunlight (Half Day) to Full Sunlight (continued)

<u>Common Name</u>	<u>Botanic Name</u>	<u>Plugging</u>	
		<u>Rate On Center</u>	<u>Seeding Rate</u>
<u>Brush ... (continued from last page)</u>			
White Willow	Salix alba		
Peach-Leaved Willow	Salix amygdaloides		
Pussy Willow	Salix discolor		
Sandbar Willow	Salix interior		
Black Willow	Salix nigra		
Elderberry	Sambucus canadensis		
<u>Non-Stabilizing Decorative and Screening Plants</u>			
Swamp Milkweed	Asclepias incarnata		
Joe-Pye Weed	Eupatorium maculatum		
Spiderwort	Tradescantia ohiensis		
Culver's Root	Veronicastrum virginicum		
Golden Alexanders	Zizia aurea		
<u>Shrubs (Plant sparsely to prevent overshadowing banks)</u>			
Eastern Ninebark	Physocarpus opulifolius		
Arrowwood Viburnum	Viburnum dentatum		
Nannyberry Viburnum	Viburnum lentago		
<u>Trees (Plant lightly to prevent overshadowing banks)</u>			
White Ash	Fraxinus americana		
Green Ash	Fraxinus pennsylvanica		
Quaking Aspen	Populus tremuloides		
Swamp White Oak	Quercus bicolor		
White Cedar	Thuja occidentalis		
Basswood	Tilia americana		
<u>Buffer Zone/Filter Strips</u>			
Big Bluestem	Andropogon gerardii	N/A	5 lb/ac
New England Aster	Aster novae-angliae	N/A	2 oz/ac
Oats*	Avena sativa	N/A	25 lb/ac
Daisy*	Chrysanthemum leucanthemum	N/A	0.25 lb/ac
Chicory*	Cichorium intybus	N/A	0.1 lb/ac
Barley*	Hordeum vulgare	N/A	25 lb/ac
Annual Ryegrass*	Lolium multiflorum	N/A	25 lb/ac
Wild Bergemont	Monarda fistulosa	N/A	0.5 oz/ac
Switch Grass	Panicum virgatum	N/A	1 lb/ac
Yellow Coneflower*	Ratibida pinnata	N/A	0.25 lb/ac

Exhibit 1102b (continued):

Plant species for vegetative Stabilization (Source: DuPage County
Streambank Stabilization Program)

Partial Sunlight (Half Day) to Full Sunlight (continued)

<u>Common Name</u>	<u>Botanic Name</u>	<u>Planting Rate On Center</u>	<u>Seeding Rate</u>
<u>Buffer Zone/Filter Strips (continued)</u>			
Black-Eyed Susan*	Rudbeckia hirta	N/A	0.25 lb/ac
Indian Grass	Sorghastrum nutans	N/A	5 lb/ac
Alsike Clover*	Trifolium hybridum	N/A	0.1 lb/ac
Red Clover*	Trifolium pratense	N/A	0.1 lb/ac
Hoary Vervain	Verbena stricta	N/A	0.5 oz/ac

* Transition species to be planted in the outer 5 feet of buffer to blend into existing landscape.

Full Shade

Bank and Slopes

Sideflowering Aster	Aster lateriflorus	18-24"	0.25 lb/ac
Gray Sedge	Carex amphibola	18-24"	N/A
Common Wood Sedge	Carex blanda	18-24"	N/A
Fowl Manna Grass	Glyceria striata	18-24"	0.25 lb/ac

Non-Stabilizing Decorative Plants

Jack-in-the-Pulpit	Arisaema triphyllum	10'	N/A
Green Dragon	Arisaema dracontium	10'	N/A
Turtlehead	Chelone glabra	10'	N/A
Shooting Star	Dodecatheon meadia	10'	N/A
Spotted Jewelweed	Impatiens capensis	10'	N/A
Cardinal Flower	Lobelia cardinalis	10'	N/A
Virginia Bluebells	Mertensia virginica	10'	N/A
Solomon's Seal	Polygonatum Canaliculatum	10'	N/A
Ostrich Fern	Pteretis pennsylvanica	10'	N/A
Swamp Buttercup	Ranunculus septentrionalis	10'	N/A

Not Recommended

Box Elder	Acer negundo
Garlic Mustard	Allilaria officinalis
Tartarian Honeysuckle	Loicera tatarica
Reed Canary Grass	Phalaris arundinacea
Common Buckthorn	Rhamnus cathartica
Glossy Buckthorn	Rhamnus frangula
Multiflora Rose	Rosa multiflora

Exhibit 1102b (continued): Plant species for vegetative Stabilization (Source: DuPage County Streambank Stabilization Program)

Installation

- Site Preparation
 1. Selected vegetative stabilization measure should be compatible with improvements planned or carried out by others.
 2. Protective measures should be started at a stabilized or controlled point on the stream and extended to a stabilized or controlled point downstream.
 3. The grade of the channel must be controlled, either by natural or artificial means, before any vegetative measure can be used, unless live stakes can be installed below the anticipated depth of the bottom scour.
 4. The substrate should have enough silt and clay material to maintain adequate moisture and nutrient supply, and sufficient pore space to permit root penetration. The bulk density should be 1.2-5 grams per cubic centimeter. Clay content should not exceed 35%.
 5. Soil depth appropriate for plant growth should be at least 12", except where adding soil material is not feasible because of steep grades.
 6. pH should be in a range between 5.5 and 6.5.
 7. Substrate should be free of toxins harmful to plant growth.

- Seedbed Preparation
 1. Apply fertilizer or other required amendments prior to final seedbed preparation.
 2. Prepare seedbed to a minimum depth of 3" by disking or other means. All tillage should follow the contour of the land.

- Seeding/Plugs (Exhibit 1102b)
 1. All permanent seed mixes should be installed with a rangeland drill seeder. Temporary mixes may be applied with a drill seeder, cultipacker, or a hydraulic sprayer. Hydro seeders are also good for larger areas.
 2. All seed, if possible, should be certified for viability.

- Timing
 1. Dormant seedings should take place between Dec. 1-Feb. 28 (north of U.S. 40), Dec. 10-Jan 15 (south of U.S. 40).
 2. Permanent seedings should take place between March 1 and September 30. Permanent seeding done between May 10 and August 10 may need irrigation.
 3. Temporary seeding should take place between March 1 and April 15 (oats), September 15 to October 30 (cereal rye and wheat), and March 1 to May 1 or August 1 to September 1 (perennial ryegrass).
 4. Plugs should be installed during spring.

Special Considerations

- Use of native species is always preferable to invasive introduced species such as Tall Fescue. However, the use of such species is sometimes inevitable where immediate and effective erosion control is essential. Indiana Erosion Control Handbook includes the listing of more traditional permanent seeding species applicable to many of these situations.
- All seedings should be protected with stabilization methods during the period of establishment (Practices 1101, 1103, and 1104).
- A listing of vendors who regularly carry native species noted in Exhibit 1102b may be obtained from the U.S. Fish and Wildlife Service.

MAINTENANCE

- Areas of inadequate cover after dormant seedings should be reseeded with a temporary or permanent matrix after mid- to late-April.
- Areas seeded with a permanent or temporary matrix should be fertilized as necessary. Damaged, eroded, bare, or sparsely covered areas should be repaired and reseeded.

REFERENCES

Related Practices

- Practice 1101 Mulching.
- Practice 1103 Bonded Fiber Matrix.
- Practice 1104 Erosion Control Blankets and Matting.
- Practice 1201 Wetland Replacement.
- Practice 1202 Stream Environment Enhancement.
- Practice 1204 Tree Replacement.

Other Sources of Information

- Indiana Erosion Control Handbook.
- DuPage County Streambank Stabilization Program.
- NRCS Standard Specifications.
- COE Engineering Manual.

Last Print/Revision Date: October 13, 1996

SILT FENCING

General Requirements: This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.1, Practice 105). A copy of the latest version of the Handbook is available online through the IDNR at <http://www.in.gov/dnr/water/4893.htm>.

Description: Temporary barrier of entrenched geotextile fabric stretched across and attached to supporting post used to intercept sediment - laden runoff from drainage areas of disturbed soil.

Location: Along creek/ditch side of spoil piles.

Materials/Installation: This work shall be in accordance with Practice 105 as referenced above and with Section 205 of the Indiana Department of Transportation Standard Specifications, current edition.

Measurement and Payment: This work shall be paid for at the contract unit price per foot for SILT FENCE which price shall be for constructing and removing this item as specified, including all materials, labor and equipment necessary to perform this work. Removal of silt fence is required when the project is complete and the disturbed areas have been stabilized, and will be considered incidental to the cost of the item.

<p>PRACTICE 105 SILT FENCING</p>
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DESCRIPTION

- Temporary barrier of entrenched geotextile fabric (filter fabric) stretched across and attached to supporting posts used to intercept sediment-laden runoff from small drainage areas of disturbed soil. (Note: this practice is also included in the Indiana Erosion Control Handbook.)



Exhibit 105a: Silt Fencing (Source: North Carolina Erosion Control Manual)

PURPOSE	● Cause the deposition of transported sediment load from sheet flows leaving disturbed areas.
WHERE APPLICABLE	● Situations when sediment laden runoff from small drainage areas are a concern.
ADVANTAGES	<ul style="list-style-type: none"> ● Silt fences capture and retain sediment on the construction site thus protecting waterways, streets and other areas outside of the construction limits from sedimentation. ● Silt fences often serve to define construction limits to equipment operators as well as bystanders. ● Silt fences are usually more effective and less expensive than a Straw Bale Filter (Practice 106).
CONSTRAINTS	● Not appropriate where the maximum drainage area exceeds 1/4 acre per 100 feet of fence. Silt fencing is further restricted by slope steepness.

Land Slope	Max. Distance Above Fence
< 2%	100'
2-5%	75'
5-10%	50'
10-20%	25'
> 20%	15'

Exhibit 105b: Maximum distance above silt fence based on land slope. (Source: Indiana Erosion Control Handbook)

- Silt fence should not be used in the flow path of defined drainageways.
- Silt fence may be a high maintenance item during earth moving activities in adjacent areas, and during the rainy season.

DESIGN AND CONSTRUCTION GUIDELINES

Materials

- 2" x 2" hardwood posts or steel posts.
- 14 gauge, 6" mesh wire fence (optional).
- Woven or non-woven geotextile fabric with specified filtering efficiency and tensile strength.

Physical Property	Woven Fabric	Non-woven Fabric
Filtering efficiency	85%	85%
Tensile strength at 20% elongation:		
Standard strength	30 lbs/l.in.	50 lbs/l.in.
Extra strength	50 lbs/l.in.	70 lbs/l.in.
Slurry flow rate	0.3 gal./min./sq.ft.	4.5 gal./min./sq.ft.
Water flow rate gal./min./sq.ft.	15 gal./min./sq.ft.	220
UV resistance	70%	85%

Exhibit 105c: Properties of woven versus non-woven silt fence fabric. (Source: Indiana Erosion Control Handbook)

Installation

- Dig an 8" deep, flat-bottomed or V-shaped trench along the entire intended fence line.
- Drive wood or steel support posts at least 1' into the ground, ≤ 8' apart (≤ 6' apart if not using support wire). Adjust spacing if necessary to ensure that posts are set at the low points along the fence.
- Fasten support wire to the up slope side of the posts, extending it 8" into the trench, or as recommended by the manufacturer.
- Run a continuous length of geotextile fabric on the up slope sides of the posts.

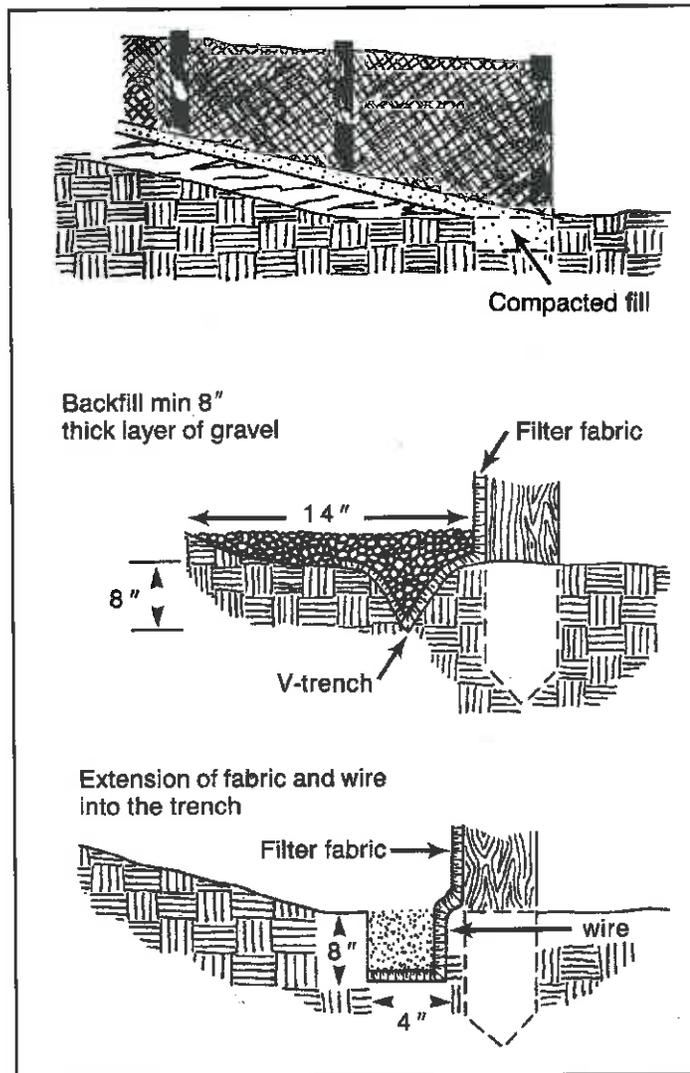


Exhibit 105d: Silt fence installation Details (Source: North Carolina Erosion Control Manual)

- If a joint is necessary, nail the overlap to the nearest post with lath.
- Place the bottom 1' of fabric in the 8" deep trench, extending the remaining 4" toward the up slope side.
- Backfill the trench with compacted earth or gravel.

Special Considerations

- Fence should be at least 10' from the toe of the slope to provide for sediment storage.
- The height of the fence should be 24"-36" above the ground surface.
- Silt fences should not be placed in areas of concentrated flows.
- Improper placement and/or installation can exacerbate and even create erosion problems.

MAINTENANCE

- Inspect fence periodically and after each storm event.
- Replace fencing as necessary.
- Remove deposited sediment when it reaches half the height of the fence at its lowest point, or if the fence begins to bulge.

T.O.C.

REFERENCES

Related Practices

- Practice 106 Straw Bale Filter.
- Practice 1102 Vegetative Stabilization.

Other Sources of Information

- Indiana Erosion Control Handbook.
 - NRCS Standard Specifications.
 - North Carolina Erosion Control Manual
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Last Print/Revision Date: October 13, 1996

SUPPLEMENTAL BID PROPOSAL FORM (TO BE ATTACHED AND MADE PART OF FORM 96)

PROJECT: STONEY RUN DITCH MIDDLE BRANCH – LATERAL NO. 4 - 2014

The undersigned, having familiarized himself/herself/themselves with local contract documents, comprised of the following:

1. Project documents for the project known as STONEY RUN DITCH MIDDLE BRANCH – LATERAL NO. 4 - 2014,
Little Calumet River Watershed, Lake County, Indiana.

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the unit prices/lump sums stipulated. All prices listed include any incidental work that may be necessary to complete the project in accordance with the provisions of the plans and specifications, as may be amended.

Item No.	Description And Calculation	Unit	Quantity	Unit Price	Total
1	Log Jam Removal (Clearing and Snagging) STA 0+50 to STA 4+19 = 369 LFT	LFT	369		
2	Channel Bottom Dipping (Sediment Removal) - STA 0+50 to STA 4+19 = 369 LFT (369')(2' avg.)(6' avg.) = 4,428cf / 27 = 164 CY	CY	164		
3	Temporary Wetland Crossing (Drag Line Mat) <i>The areas listed below have wetlands located on both sides of the ditch. Spoil material shall not be placed in these areas. Spoil shall be placed upland (upstream or downstream) of all wetland areas. Machinery shall only cross these areas by means of temporary wetland crossings (drag line mat). Entry to these areas shall be through the narrowest point.</i> STA 0+50 to STA 2+75 = 225 LFT	LFT	225		
4	Riprap Bank Protection (Pipe End Sections) STA 0+50 20 lf x 10 ft (avg.) x 1.5 ft = 20 TONS STA 4+19 20 lf x 10 ft (avg.) x 1.5 ft = 20 TONS	TON	40		
5	Erosion Blanket (Special) Spoil Piles STA 2+50 to STA 4+19 = 169 LFT (169')(20') = 3,380 sf / 9 = 375 SY	SY	375		
6	Mulched Seeding (stabilizing matrix species mix) Spoil Piles STA 2+50 to STA 4+19 = 169 LFT	AC	0.08		

	(169')(20') = 3,380 sf / 43,560 = 0.08 AC				
7	Silt Fence				
	STA 0+50 to STA 4+19 = 369 LFT	LFT	369		
Total Bid Price					\$

BIDDERS PROPOSAL FOR MAKING ENTIRE IMPROVEMENT

\$ _____
(WORDS)

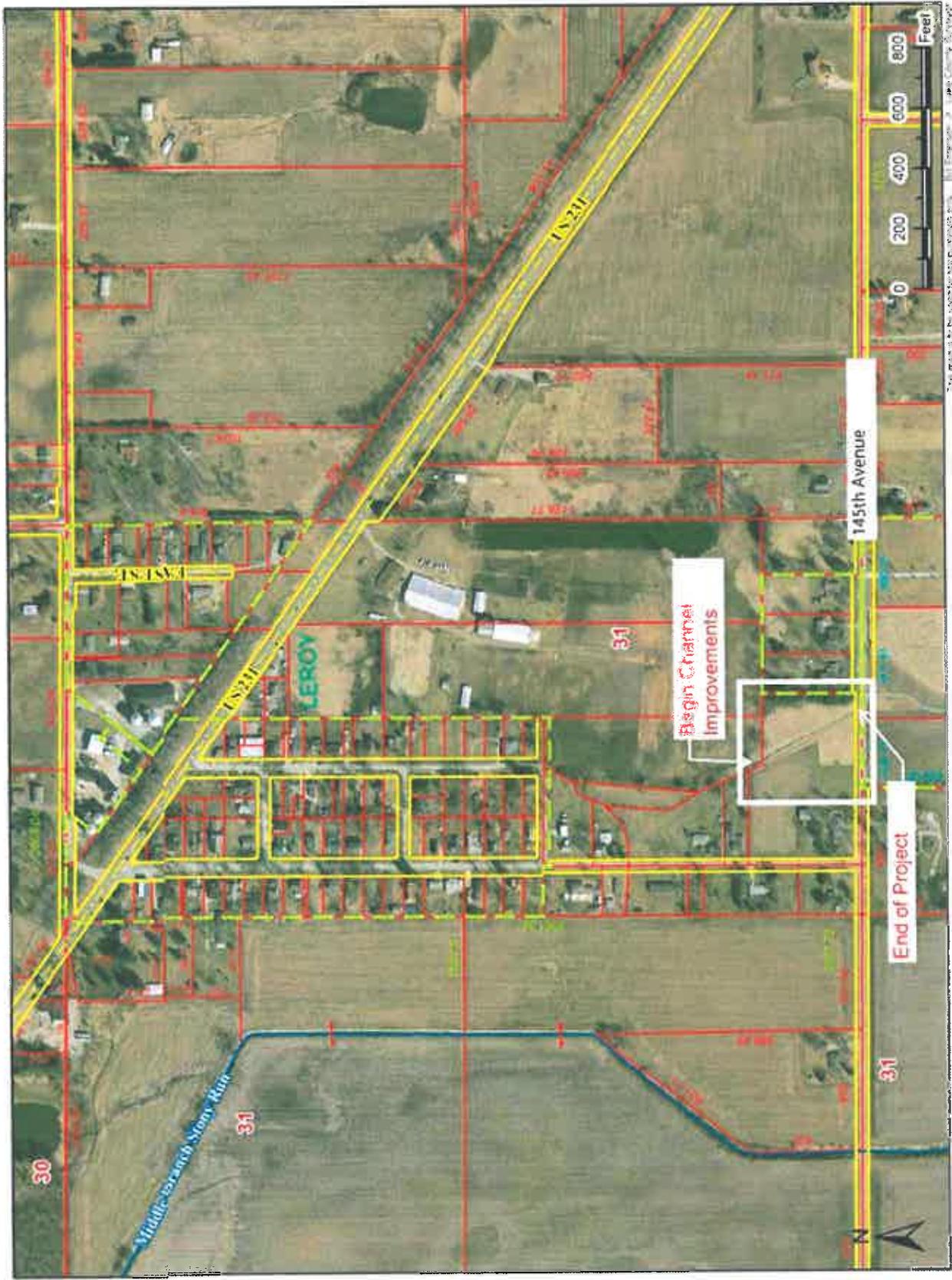
This proposal submitted this _____ day of _____, 2016.

Corporate Name: _____

Address: _____

By: _____

Title: _____



Stoney Run Middle Branch Lateral No. 4

75' Drainage Easement

Elkhart Street

Inv. Elev.
6711.08

4+00

3+00

2+00

1+00

0+00

Wetland

145th Avenue

Inv. Elev.
6722.00



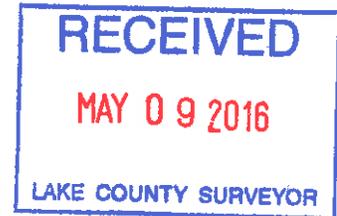
BIDDERS FROM APRIL 20, 2016 MEETING
2016 TURKEY CREEK LATERAL NO. 13 – MAINTENANCE
VON TOBEL LUMBER, SCHERERVILLE, ST JOHN TWP.

Austgen Equipment 11309 Broadway Crown Point, IN 46307	\$ 45,984.00
Delta III 2063 W. 1250 S Hanna, IN 46340	\$ 75,170.00
Dyer Construction 1716 Sheffield Avenue Dyer, IN 46311	\$
Ellas Construction Company, Inc 3810 E 7 th Avenue Gary, IN. 46403	\$ 58,922.00
ENCAP, Inc. 2585 Wagner Court DeKalb, IL 60005	\$
Gariup Construction Co. Inc. 3965 Harrison Street Gary, IN 46401	\$ 79,900.00
Gough, Inc. 2200 E 88 th Drive Merrillville, IN 46410	\$ 50,845.00
Hasse Construction 10 Lincoln Avenue Calumet City, IL 60409	\$
Isqft. 4500 Lake Forest Drive, Suite 502 Cincinnati, OH 45242	\$
KDM Services, LLC 11703 W 173 rd Avenue. Lowell, IN 46356	\$
LGS Plumbing, Inc. 1112 E Summit Street Crown Point, IN46307	\$
R.A. Oros, Inc 8244 Greenwood Avenue Munster, IN 46321	\$ 74,630.00
Reith-Riley 7500 W 5 th Avenue Gary, IN 46403	\$ 104,283.05



May 9, 2016

Lake County Surveyor's Office
Lake County Government Center
2293 North Main Street
Crown Point, Indiana 46307



Attention: Bill Emerson, Jr. – Lake County Surveyor

Subject: Turkey Creek Lateral No. 13 (Von Tobel) – Bid Review
(CBBEL Project No. 930169.00063)

Dear Mr. Emerson:

Christopher B. Burke Engineering, LLC (CBBEL) received the supplemental bid proposal forms provided by the Lake County Surveyors Office (LCSO) for the Turkey Creek Lateral No. 13 (Von Tobel) Maintenance Improvements project opened on April 20, 2016. As requested, the bid submittals were reviewed to make a recommendation.

CBBEL has performed the review of the bid submittals and makes a recommendation based solely on unit and total bid prices for Austen Equipment, Inc. as the awarded Contractor for the Turkey Creek Lateral No. 13 (Von Tobel) Maintenance Improvements. Based on unit prices, CBBEL's engineers' estimate was \$93,135.00 while the Austgen Equipment, Inc. bid was \$45,984.00.

Each of the three lowest bidders were contacted to ensure the Class 1 rip-rap bank protection line item was bid correctly. All contacted bidders noted that it was bid according to the specification. Therefore, we believe the noted Contractor has a firm understanding of what is required to complete this project to the plans and specifications provided.

If you have any questions or require any additional information, please do not hesitate to call.

Sincerely,

Donald C. Oliphant, PE, CFM, CPESC
Senior Water Resources Engineer

CC: Dan Gossman, Drainage Administrator – LCSO
Mary Ellen Kupsik – LCSO

Encl. Bid Tab

Turkey Creek Lat 13 Von Tobel Bid Revw 050916.docx

LAKE COUNTY DRAINAGE BOARD
 LAKE COUNTY SURVEYOR'S OFFICE
 Turkey Creek Lateral No. 13 - 2016 MAINTENANCE (VON TOBEL)

CHRISTOPHER B. BURKE ENGINEERING, LLC.
 Engineer's Estimated Cost of Construction
 6/9/2016

Item	Description	Unit	Quantity	Engineer's Estimate		Gough		Elles Construction		Ausgann Equipment		Garlap Construction		Richards/Reilly		R.L.A. Cross		Delta III	
				Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost	Unit Price	Cost
1	LOG JAM REMOVAL (CLEANING & SMAGGING)	LF	59.0	\$ 50.00	\$ 2,950.00	\$ 185.00	\$ 10,855.00	\$ 208.00	\$ 12,242.00	\$ 64.00	\$ 3,776.00	\$ 200.00	\$ 11,800.00	\$ 90.75	\$ 5,322.00	\$ 25.00	\$ 1,475.00	\$ 35.00	\$ 2,065.00
2	REPRAP BANK PROTECTION	TON	60.0	\$ 75.00	\$ 4,500.00	\$ 130.00	\$ 7,800.00	\$ 105.00	\$ 6,300.00	\$ 141.00	\$ 8,460.00	\$ 400.00	\$ 24,000.00	\$ 245.80	\$ 14,748.00	\$ 80.00	\$ 4,800.00	\$ 100.00	\$ 6,000.00
3	CHANNEL BANK FILL (SLOPE REPAIR)	CYS	107.0	\$ 65.00	\$ 6,955.00	\$ 65.00	\$ 6,955.00	\$ 82.00	\$ 8,774.00	\$ 60.00	\$ 6,420.00	\$ 100.00	\$ 10,700.00	\$ 210.75	\$ 22,550.25	\$ 80.00	\$ 8,560.00	\$ 30.00	\$ 3,210.00
4	GABION RETAINING WALL	LF	40.0	\$ 2,000.00	\$ 80,000.00	\$ 563.00	\$ 22,520.00	\$ 605.00	\$ 36,200.00	\$ 688.00	\$ 27,520.00	\$ 850.00	\$ 34,000.00	\$ 1,550.67	\$ 62,026.80	\$ 1,500.00	\$ 60,000.00	\$ 1,600.00	\$ 64,000.00
BID TOTALS:					\$ 95,135.00		\$ 50,845.00		\$ 58,922.00		\$ 46,884.00		\$ 79,800.00		\$ 104,283.05		\$ 74,630.00		\$ 75,170.00



Office of the Lake County Surveyor

Lake County Government Center • 2293 North Main Street • Crown Point, Indiana 46307
Phone: (219) 755-3745 • Fax: (219) 755-3750

Bill Emerson, Jr.
County Surveyor

CONTRACT #2016-LC-4

**PROJECT NAME: 2016 Turkey Creek Lateral #13-Bank Stabilization (East Bank)
Von Tobel Lumber, Schererville, St. John Township**

AMOUNT: \$45,984.00.00

This CONTRACT is made and entered into this 18th day of MAY, 2016 by and between AUSTGEN EQUIPMENT, INC., a(n) INDIANA Corporation hereinafter referred to as the "Contractor" and the Lake County Drainage Board, hereinafter referred to as the "Board".

NOW, THEREFORE, in consideration of the mutual promises contained herein, the Board and the Contractor do hereby mutually agree as follows:

I. SCOPE OF WORK

The Contractor shall provide the project services as described herein in Attachment A; in the approved plans and specifications, and any modifications or addenda thereof, which are attached hereto or otherwise incorporated herein by reference; in the terms contained in any permits obtained or not yet approved and any monies to be received from contributing municipalities; and in the Contractor's bid/response and any supplemental responses, and subsequent negotiations arising therefrom, all of which is incorporated herein by reference. Where there is an inconsistency between these terms, the term that is most beneficial to the Board shall control.

The Contractor shall perform the work covered by this Contract under the supervision of the Lake County Surveyor and/or its designee.

The Contractor shall comply with all plans, specifications, terms and conditions of this Contract. Deviation from said plans, specifications, terms or conditions shall be a basis for an immediate cease and desist notice of said unauthorized activity by the Board or the Lake County Surveyor's Office and, where appropriate as determined by the Board or the Lake County Surveyor's Office, cease and desist of contract activity until further action taken by the Board at its next public meeting.

The scope of work occurs on private property and/or within and upon a regulated drain and its easement as authorized by statute. The Contractor has the authority to keep unauthorized persons from the job site in order to avoid any potential liability arising therefrom. Should such persons fail to leave said site, the Contractor is to immediately contact the Lake County Surveyor's office, who may contact the Lake County Sheriff to maintain a safe work site and limit any liability of Lake County or the Contractor for any alleged claims or damages.

Soil Conditions

The Contractor agrees to accept full responsibility for its conclusions relative to the nature and probable difficulties of the work due to underground structures and soil conditions.

The results of subsurface soil investigations shown on the drawings or given in the specifications are for general information only. Neither the Lake County Drainage Board nor the engineer guarantees that materials other than those given in this information will not be encountered or that the proportions of the various materials will not vary from the information indicated on the plans or given in the specifications.

The Contractor shall be responsible for making its own subsurface soil investigations and shall make its own determinations from the investigations. The Contractor waives all claims for damages which it may suffer by reason of the inadequacies or discrepancies of the underground information shown on the plans or provided in the specifications. No compensation will be paid to the Contractor due to inadequacies or discrepancies in subsurface data furnished by Lake County Drainage Board or by the engineer.

Materials

No materials of any kind shall be used until they have been examined by the Lake County Surveyor or his engineer or other person authorized by the Lake County Surveyor, who shall have full power to condemn any work or materials not in accordance with these specifications, and to require the Contractor to remove any work or materials so condemned, and at the contractor's own expense to replace such condemned work or materials to the Lake County Surveyor or his engineer's satisfaction. The decision of the Lake County Surveyor or his engineer shall be final as to quality of workmanship and materials.

Clean up

During the time that the work is in progress the Contractor shall make every effort to maintain the site in a neat and orderly condition. All refuse, broken pipe, excess fill material, cribbing, etc., shall be removed as soon as practicable. Should the work not be maintained in a satisfactory condition the Lake County Surveyor or his engineer, or other person authorized by the Lake County Surveyor may cause the work to stop until the "clean-up" portion of the work has been done to the satisfaction of the Lake County Surveyor and/or its engineer.

The work will not be considered complete and the final payment certificate issued until all rubbish, unused material or equipment due to or connected with it shall have been removed and the premises left in a condition satisfactory to the Lake County Surveyor and/or its engineer.

II. PAYMENT OF SERVICE

- a. For the services rendered by the Contractor, the Board shall pay to the Contractor the sum of FORTY-FIVE THOUSAND, NINE HUNDRED AND EIGHTY-FOUR DOLLARS AND 00/100THS (\$45,984.00), payable in accordance with the attached "Schedule of Payments".
- b. No payment under paragraph (a) above shall be made until:
 - (1) The Lake County Surveyor has filed with the Board a written report approving the work performed by Contractor as required under this contract.

- (2) The Contractor shall have filed with the Board a waiver of lien and verified statement that all expenses incurred for labor, material, and suppliers have been paid in full.
- c. Billing for the services rendered under this contract shall be in the form and manner prescribed by the State of Indiana and the Board.
 - d. Approval of payment claims shall be made at a regular Board Meeting. Should there be a dispute regarding any invoice or payment thereof, the party raising the dispute shall notify the other party upon discovery thereof. Payment of any invoice shall not be a waiver of any right associated with a dispute with the invoice or payment, and any future payment may be modified accordingly to rectify any discovered discrepancy.
 - e. Fifteen percent (15%) of the contract price shall be withheld by the Board for a period of 60 days after completion of the work and its acceptance by the Lake County Surveyor for the purpose of securing payment of suppliers, laborers, and subcontractors, if any. However, if the Contractor files waivers of lien from all subcontractors, suppliers and laborers of this project, the 15% retainage may be paid along with the final payment under this contract.
 - f. The sources of funds for payment under this Contract is the Lake County Drainage Board and/or such other applicable and appropriate sources of funds as apply to the scope of work to be performed on behalf of the approved budget for this specific project, and more specifically the line item therein for the payment of these services. By execution of this Contract the Lake County Drainage Board or Lake County is not agreeing to use funds other than the funds in the budget for the purposes enunciated herein. The sources are restricted to those funds which have been appropriated for this purpose by the Lake County Council as applicable and approved by the Department of Local Government Finance, the State Board of Accounts and/or State Board of Tax Commissioners, as applicable. In this regard this Contract may be terminated, in whole or in part, when the Lake County Auditor makes a written determination that the funds are not appropriated or otherwise available to support continuation of performance. Such determination shall be final and conclusive. Notice shall be given to the Contractor as soon as the Board is aware of such a situation. However, the Board will make good faith efforts to provide funding for this Contract, and if such funding is available and appropriated, the Board shall fulfill its financial obligation, subject to all terms and conditions herein.

III. SUBLETTING AND ASSIGNMENT OF CONTRACT

No portion of the Contract shall be sublet, assigned or otherwise disposed of, except with the written consent of the Board. Consent to sublet, assign, or otherwise dispose of any portion of the Contract shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the Contract.

IV. SUCCESSORS AND ASSIGNEES

The Contractor binds its successors, executors, administrators and assignees to all covenants of this Contract. The Contractor shall not assign, sublet or transfer its interest in this Contract without the prior written consent of the Board, except as above set forth.

V. TERM OF CONTRACT

Time is of the essence. The Contractor shall complete the work under and pursuant to this Contract within 180 days, including Saturdays, Sundays, and

holidays. Should the Contractor fail to do so, the Lake County Drainage Board is entitled to and may retain, from compensation otherwise to be paid, or may otherwise pursue payment thereof, One Hundred Dollars (\$100.00) for each day, Sundays and holidays not included, that the work remains uncompleted beyond the specified period, which sum is agreed on as the proper measure of liquidated damages that Board will sustain by the failure of contractor to complete the work in the time stipulated, and this sum is not to be construed in any sense as a penalty.

When good cause for a delay in the work is shown by the Contractor, the Lake County Surveyor shall determine the seriousness of the delay and extend the time of completion of the work accordingly and in his sole discretion. Such good cause may include, but is not limited to, changes in the work, strikes, lockouts, or other labor disputes; fire, earthquake, or other natural disasters; unavoidable casualty or damage to personnel, materials, or equipment; delay in receiving materials or equipment; acts or neglect of the Board, the Board's representative, or an employee of either; acts or neglect of another Contractor employed by the Board, or any other person not directly responsible to Contractor; or other such similar cause beyond the control of the Contractor.

Any claim by Contractor for an extension of time must be made in writing to the Lake County Surveyor not more than one (1) day following the development of the cause for delay. However, in the case of a continuing cause of delay, only one claim need be made. Whenever the Lake County Surveyor or its representative in his or her own discretion determines that circumstances warrant an extension of time, he or she may grant such an extension until a claim of delay has been submitted by the Contractor.

VI. CHOICE OF LAW

This Contract shall be construed in accordance with and governed by the laws of the State of Indiana and suit, if any must be brought in Lake County, State of Indiana.

VII. INSURANCE/SECURITY/INDEMNITY

The Contractor shall carry or require that there be carried Workmen's Compensation Insurance for all its employees and those of its subcontractors in accordance with state or territorial Workmen's Compensation laws.

The Contractor shall carry or require that there be carried public liability and property damage insurance in amounts as outlined in IC 34-4-16.5-1 et. seq. to protect the Board and County, the Contractor and its subcontractors from claims which may arise from work under this Contract. The Board shall be named as an additional insured and be fully protected thereunder.

All insurance as required herein shall be effective for acts occurring during and shall be maintained during the entire life of this Contract.

The Contractor shall maintain during the term of the Contract a performance bond, payable to the Lake County Drainage Board, providing security for the Contractor's performance obligations in the amount of the Contract. Said bond may be reduced to an amount not less than the amount of the remaining item costs in said Contract.

The Contractor agrees to indemnify and hold harmless Lake County, the Lake County Drainage Board, the Lake County Surveyor, its officials, its departments,

its boards, its employees, and its agents and assigns against all actions, claims or demands for damages of any kind whatsoever, known or unknown, which may in any way be caused by the negligent acts of the Contractor, including but not limited to the negligent digging up of streets, alleys or public grounds, and by improper care of trees and shrubbery, or which may result from the default, carelessness or negligence of the Contractor, its agents, employees or workers under its control or direction in the performance of the work described herein, and shall refund and reimburse to the Lake County Drainage Board all sums which it may be obligated or adjudged to pay on any such claims or demands immediately upon such determination.

VIII. REMEDIES UPON DEFAULT

If either party of this Contract shall be in default of any of the terms and conditions hereof, the party complaining of the default shall notify the defaulting party in writing of the default complained of, and the defaulting party shall have ten (10) days from the date of receipt of said written notification in which to cure the default complained of therein. Only after the expiration of the ten (10) day period described herein may the parties resort to legal proceedings to enforce any of the terms and conditions of this Contract or to collect damages in a court of competent jurisdiction.

Should the Contractor be cited on three or more occasions by the Lake County Surveyor or Contract Engineer on the project, the Contract is subject to termination for cause, as determined by the Board at a public meeting.

IX. EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION

The Contractor agrees by the execution of this contract that in regards to its operations:

- a. No person shall, on the grounds of race, color, national origin or sex, be excluded from participation or be denied the benefits thereof, or be subject to discrimination.
- b. The principals of equal opportunity in employment and delivery of services are applicable and the contractor commits to a policy and practice of nondiscrimination and affirmative action based upon age, military service, ancestry, color, national origin, physical handicap, political affiliation, race, religion and sex.
- c. The provisions of the Affirmative Action Program adopted by the Board of Commissioners of the County of Lake on May 31, 1977, as applicable, are incorporated by reference as part of this Contract.
- d. The provisions of all Federal Civil Rights laws and the Indiana Civil rights laws as applicable are incorporated by reference as part of this Contract.
- e. Breach of any of the equal opportunity and/or the nondiscrimination provisions of the Contract may be regarded as a material breach of the Contract.
- f. Where applicable, nondiscriminatory clauses and affirmative action clauses shall be made a part of any agreement, contract or lease between Contractor and any organization, corporation, subcontractor or other legal entity that benefits from the funds paid to contractor by this Contract.

X. LIMITATION OF AUTHORITY

The Contractor has no authority to obligate the Board on any contract or agreement of any kind, character or nature, nor for any expense, except as otherwise delineated in this Contract.

- XI. PERSONNEL/INDEPENDENT CONTRACTOR
The Contractor represents that he has, or will secure at his own expense, all personnel required in performing the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the Board. All of the services required hereunder will be performed by the Contractor or under his supervision, and all personnel engaged in the work shall be fully qualified to perform such services.
- XII. ADDITIONAL SERVICES
In the event that any additional services are required of the Contractor that are over and above those described in the Contract and attachments hereto, the services shall not be performed without the express prior written agreement between the Board and Contractor. The scope of additional services and fees to be charged shall be specified in any such written authorization.
- XIII. SUBSTANTIAL PERFORMANCE
This Contract shall be deemed to have been substantially performed only when fully performed according to its terms and conditions and any modification thereof.
- XIV. WAIVER OF RIGHTS
No right conferred on either party under this Contract shall be deemed waived and no breach of this Contract excused, unless such waive or excuse shall be in writing and signed by the party claimed to have waived such right.
- XV. E-VERIFICATION
- A. IC 22-5-1.7 Chapter 1.7. Public Contract Services, Business Entities; Unauthorized Aliens.
 - B. IC 22-5-1.7.2 "Contractor" As used in this chapter, "contractor" means a person that has or is attempting to enter into a public contract for services with a state agency or political subdivision.
 - C. IC 22-5-1.7-3 "E-Verify program" As used in this chapter, "E-Verify program" means the electronic verification of work authorization program of the Illegal Immigration Reform and Immigration Responsibility Act of 1996 (P.L. 104-208), Division C, Title IV, s. 403(a), as amended, operated by the United States Department of Homeland Security or a successor work authorization program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work authorization status of newly hired employees under the Immigration Reform and Control.
 - D. IC 22-5-1.7-4 "Person" As used in this chapter, "person" means an individual, a corporation, a limited liability company, a partnership, or another legal entity.
 - E. IC 22-5-1.7-5 "Political subdivision" As used in this chapter, "political subdivision" has the meaning set forth in IC 36-1-2-13.
 - F. IC 22-5-1.7-6 "Public contract for services" As used in this chapter, "public contract for services" means any type of agreement between a state agency or a political subdivision and a contractor for the procurement of services.
 - G. IC 22-5-1.7-9 "Unauthorized alien" As used in this chapter, "unauthorized alien" has the meaning set forth in 8 U.S.C. 1324a(h)(3).
 - H. IC 22-5-1.7-11 Contractors with public contract for services required to use E-Verify program; business entities that receive certain grants required to use E-Verify program Sec. 11.
 - a. This subsection applies only to a public contract for services entered into or renewed after June 30, 2011. A state agency or political subdivision

may not enter into or renew a public contract for services with a contractor unless:

1. the public contract contains:
 - A. a provision requiring the contract to enroll in and verify the work eligibility status of all newly hired employees of the contractor through the E-Verify program; and
 - B. a provision that provides that a contractor is not required to verify the work eligibility status of all newly hired employees of the contractor through the E-Verify program if the E-Verify program no longer exists; and
2. the contractor signs an affidavit affirming that the contractor does not knowingly employ an unauthorized alien.
- b. A state agency or political subdivision may not award a grant of more than one thousand dollars (\$1,000) to a business entity unless the business entity:
 1. signs a sworn affidavit that affirms that the business entity has enrolled and is participating in the E-Verify program;
 2. provides documentation to the state agency or political subdivision that the business entity has enrolled and is participating in the E-Verify program; and
 3. signs an affidavit affirming that the business entity does not knowingly employ an unauthorized alien
- I. IC 22-5-1.7-15 Certification by subcontractor. If a contractor uses a subcontractor to provide services for work the contractor is performing under a public contract for services, the subcontractor shall certify to the contractor in a manner consistent with federal law that the subcontractor, at the time of certification:
 1. does not knowingly employ or contract with an unauthorized alien; and
 2. has enrolled and is participating in the E-Verify program.
- J. Affidavit by Contractor. By execution of this contract I swear under the penalties of perjury that my company does not knowingly employ an unauthorized alien.

XVI. MISCELLANEOUS PROVISIONS

This Contract represents the entire understanding between the parties, and modifications of this Contract shall not be effective unless reduced to writing and signed by both parties. In the event any portion or portions of this Contract are found to be void or voidable portions, these portions shall be stricken and the remaining portions enforced.

All provisions of State Law applicable to the County and/or governmental entity or entities which is/are a party to this Contract are incorporated by reference as a part of this contract.

In the event this Contract is not fully executed and approved prior to the date of commencement, it shall be deemed retroactive in force and effect to the date of commencement upon and after the full execution, approvals, required filing and recordation.

XVII. TERMINATION

Termination of Agreement. The County shall have the right to terminate this Contract, with or without cause, by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least fourteen (14) days before the effective date of such termination. In addition, the Consultant may, for any cause, also terminate this Contract by giving written notice to the Lake

County Surveyor of such termination and specifying the effective date thereof, at least fourteen (14) days before the effective date of such termination.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed by their duly authorized officers on the day and date first above written.

LAKE COUNTY DRAINAGE BOARD

CONTRACTOR

Gerry Scheub
GERRY SCHEUB, CHAIRMAN

AUSTGEN EQUIPMENT, INC.
PRINTED NAME - TITLE

Kyle W. Allen Sr. D.H.
KYLE ALLEN, SR., MEMBER

11309 Broadway, Suite C3

Michael C. Repay X.B.
MICHAEL C. REPAY, MEMBER

Crown Point, IN 46307
CITY, STATE, ZIP CODE

LAKE COUNTY SURVEYOR

(219) 213-2389
PHONE NUMBER

William Emerson, Jr.
WILLIAM EMERSON, JR.

SIGNATURE

EMAIL

ATTEST: *Mary Ellen Kupsik*
MARY ELLEN KUPSIK, SECRETARY,
LAKE COUNTY DRAINAGE BOARD

12-A
5-20-16

**RESOLUTION
LAKE COUNTY DRAINAGE BOARD &
LAKE COUNTY DRAINAGE ADVISORY COMMITTEE**

WHEREAS, the Lake County Drainage Board and Lake County Drainage Advisory Committee statutorily created governmental bodies having jurisdiction and authority over County regulated drains and stormwater quantity and quality in Lake County, Indiana; and

WHEREAS, the Lake County Drainage Board and Lake County Drainage Advisory Committee are alarmed at the significant environmental impacts the rail line proposed by the Great Lakes Basin Transportation, Inc., would have on Lake County; and

WHEREAS, the significant environmental impacts and dangers would include transportation of hazardous materials, drainage issues, and negative impacts on future land use;

THEREFORE, BE IT RESOLVED by the undersigned that the Lake County Drainage Board and Lake County Drainage Advisory Committee foresee no positive economic impact from this new proposed rail line, and foresee significant permanent negative environmental and drainage impacts, and therefore are opposed to Great Lakes Basin Transportation, Inc.'s proposed 278 mile rail line.

THIS RESOLUTION passed and adopted this **18th** day of **May, 2016**.

LAKE COUNTY DRAINAGE BOARD

LAKE COUNTY DRAINAGE ADVISORY COMMITTEE

Gerry Scheub, Chairman

Alice Dahl, Cedar Creek Twp.

Kyle Allen, Sr., Member

Harold Mussman, West Creek Twp.

Michael C. Repay, Member

John Jurs, Eagle Creek Twp.

Larry Cope, Winfield Twp.

Kenneth Huseman, Hanover Twp.

Dave Hubinger, Center Twp.

Jean Shepherd, St. John Twp.

Milan Dakich, Ross Twp.

Tom Silich, Hobart Twp.

Louise Neese, Calumet Twp.

Jamie Blankman, North Twp.



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

May 5, 2016

Carol S. Comer
Commissioner

VIA CERTIFIED MAIL

91 7190 0005 2710 0048 6431

Mr. Jack Slager, Development Manager
Schilling Development
8900 Wicker Avenue
St. John, Indiana 46373

Dear Mr. Slager:

Re: 327 IAC 3 Construction
Permit Application
Plans and Specifications for
Sanitary Sewer
The Preserve, Phase 1
Permit Approval No. 21827
St. John, Indiana
Lake County

The application, plans and specifications, and supporting documents for the above-referenced project have been reviewed and processed in accordance with rules adopted under 327 IAC 3. Enclosed is the Construction Permit (Approval No. 21827), which applies to the construction of the above-referenced proposed sanitary sewer system to be located near the northwest corner of the intersection of 101st Avenue and White Oak Avenue in Lake County.

Please review the enclosed permit carefully and become familiar with its terms and conditions. In addition, it is imperative that the applicant, consulting architect/engineer (A/E), inspector, and contractor are aware of these terms, conditions, and reporting and testing requirements.

It should be noted that any person affected or aggrieved by the agency's decision in authorizing the construction of the above-referenced facility may, within fifteen (15) days from date of mailing, appeal this permit by filing a request with the Office of Environmental Adjudication for an adjudicatory hearing in accordance with IC 4-21.5-3-7 and IC 13-15-6. The procedure for appeal is outlined in more detail in Part III of the attached construction permit.

COPY

Plans and specifications were prepared by Manhard Consulting, Ltd., certified by Mr. Frederick W. Thaete, P.E., and submitted for review on March 30, 2016, with additional information submitted on April 20, and April 21, 2016.

Any questions concerning this permit may be addressed to Mr. Mike Miles, P.E., of our staff, at 317/232-6548. Questions concerning appeal procedures should be addressed to the Office of Environmental Adjudication, at 317/232-8591.

Sincerely,



Dale T. Schnaith, Chief
Facility Construction and
Engineering Support Section
Office of Water Quality

Project No. M-22308

Enclosures

cc: Lake County Health Department
Lake County Commissioner
Manhard Consulting, Ltd.
Town of St. John

Attention: Mr. Stephen Z. Kil, Town Manager

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AUTHORIZATION FOR CONSTRUCTION OF
SANITARY SEWER SYSTEM
UNDER 327 IAC 3

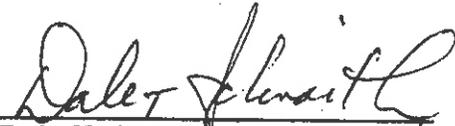
DECISION OF APPROVAL

Schilling Development; in accordance with the provisions of IC 13-15 and 327 IAC 3 is hereby issued a permit to construct the sanitary sewer system to be located near the northwest corner of the intersection of 101st Avenue and White Oak Avenue in Lake County. The permittee is required to comply with requirements set forth in Parts I, II and III hereof. The permit is effective pursuant to IC 4-21.5-3-4(d). If a petition for review and a petition for stay of effectiveness are filed pursuant to IC 13-15-6, an Environmental Law Judge may be appointed for an adjudicatory hearing. The force and effect of any contested permit provision may be stayed at that time.

NOTICE OF EXPIRATION DATE

Authorization to initiate construction of this sanitary sewer system shall expire at midnight May 1, 2017. In order to receive authorization to initiate construction beyond this date, the permittee shall submit such information and forms as required by the Indiana Department of Environmental Management. It is requested that this information be submitted sixty (60) days prior to the expiration date to initiate construction. This permit shall be valid for a period of five (5) years from the date below for full construction completion.

Signed this 5th day of May, 2016, for the Indiana Department of Environmental Management.


Dale T. Schnaith, Chief
Facility Construction and
Engineering Support Section
Office of Water Quality

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SANITARY SEWER SYSTEM DESCRIPTION

The proposed Phase 1 project shall consist of the construction of approximately 3,753 feet of 8-inch diameter PVC (ASTM D3034 SDR-26) sanitary sewer to be located near the northwest corner of the intersection of 101st Avenue and White Oak Avenue in Lake County. The proposed Phase 1 project will provide service for 57 new single-family homes and the expected average daily wastewater flow is 17,670 GPD. The new 8-inch diameter PVC SDR-26 sanitary sewer will be connected to an existing manhole on an 8-inch diameter sanitary sewer located along White Oak Avenue near the intersection with Rosewood Drive.

Inspection during construction of the new sanitary sewer will be provided by the Town of St. John. Maintenance after completion of construction will be provided by the Town of St. John. Wastewater treatment will be provided by the Town of Schererville Wastewater Treatment Plant.

CONDITIONS AND LIMITATIONS TO THE AUTHORIZATION FOR
CONSTRUCTION OF SANITARY SEWERS

During the period beginning on the effective date of this permit and extending until the expiration date, the permittee is authorized to construct the above described sanitary sewer system. Such construction shall conform to all provisions of State Rule 327 IAC 3 and the following specific provisions:

PART I

SPECIFIC CONDITIONS AND LIMITATIONS TO THE CONSTRUCTION PERMIT

Unless specific authorization is otherwise provided under the permit, the permittee shall comply with the following conditions:

1. All local permits shall be obtained before construction is begun on this project.
2. If pollution or nuisance conditions are created, immediate corrective action will be taken by the permittee.
3. The separation of sanitary sewers from water mains and drinking water wells must comply with 327 IAC 3-6-9.

13-2

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4. All gravity sewer pipe must be leak tested using either a hydrostatic test or air test in accordance with 327 IAC 3-6-19(d). If using a hydrostatic test, the rate of exfiltration or infiltration shall not exceed 200 gallons per inch of pipe diameter per linear mile per day. Air test shall be as prescribed.
5. The results of the gravity sewer leakage test and/or force main leakage test on the completed sewer shall be submitted to this office within three months of completion of construction.
6. Deflection tests must be performed on all flexible* pipe after the final backfill has been in place at least 30 days. No pipe shall exceed a vertical deflection of 5%. Deflection test results shall be submitted with the infiltration/exfiltration test results. (*The following are considered nonflexible pipes: vitrified clay pipe, concrete pipe, ductile iron pipe, cast iron pipe, asbestos cement pipe.)
7. Manholes shall be air tested in accordance with ASTM C1244-93, Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test. The manhole test results shall be submitted with the gravity sewer leakage test results.
8. A drop pipe must be provided for all sewers entering a manhole at an elevation of 24 inches or more above the manhole invert.

Failure to submit test results within the allotted time period or failure to meet guidelines as set forth in the above conditions could be subject to enforcement proceedings as provided by 327 IAC 3-5-3.

PART II

GENERAL CONDITIONS

1. No significant or material changes in the scope of the plans or construction of this project shall be made unless the following provisions are met:
 - a. Request for permit modification is made 60 days in advance of the proposed significant or material changes in the scope of the plans or construction;
 - b. Submit a detailed statement of such proposed changes;
 - c. Submit revised plans and specifications including a revised design summary; and
 - d. Obtain a revised construction permit from this agency.
2. This permit may be modified, suspended, or revoked for cause including, but not limited to the following:
 - a. Violation of any term or conditions of this permit;
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts.
3. Nothing herein shall be construed as guaranteeing that the proposed sanitary sewer system shall meet standards, limitations or requirements of this or any other agency of state or federal government, as this agency has no direct control over the actual construction and/or operation of the proposed project.

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PART III

APPEALS PROCEDURE

Anyone wishing to challenge this agency's decision for authorizing the construction of this facility may do so, provided that a petition for administrative review is filed as required by IC 4-21.5-3-7. The petition must be submitted within fifteen (15) days of the date of mailing of this permit notification. The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by this decision, or otherwise entitled to review by law. Additionally, IC 13-15-6-2 requires that your petition include:

1. The name and address of the person making the request;
2. The interest of the person making the request;
3. Identification of any persons represented by the person making the request;
4. The reasons, with particularity, for the request;
5. The issues, with particularity, proposed for consideration at the hearing; and
6. Identification of the permit terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing permits of the type granted or denied by the Assistant Commissioner's action.
7. Pursuant to IC 4-21.5-3-1(f), any document serving as a petition for review or review and stay must be filed with the Office of Environmental Adjudication. Filing of such a document is complete on the earliest of the following dates:
 - a. The date on which the petition is delivered to the Office of Environmental Adjudication, Indiana Government Center North, 100 North Senate Avenue, Room 501, Indianapolis, Indiana 46204;
 - b. The date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or
 - c. The date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

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What if you are not satisfied with the decision and you want to file an appeal?

Who may file an appeal?

The decision described in the accompanying Notice of Decision may be administratively appealed. Filing an appeal is formally known as filing a *Petition of Administrative Review* to request an administration hearing.

If you object to this decision issued by the Indiana Department of Environmental Management (IDEM) and are (1) person to whom the decision was directed (2) a party specified by law as being eligible to appeal or (3) aggrieved or adversely affected by the decision, you are entitled to file an appeal. (An aggrieved or adversely affected person is one who would be considered by the court to be negatively impacted by the decision. If you file an appeal because you feel that you are aggrieved, it will be up to you to demonstrate in your appeal how you are directly impacted in a negative way by the decision).

The Indiana Office of Environmental Adjudication (OEA) was established by state law. See Indiana Code (IC) 4-21-5-7, and is a separate state agency independent of IDEM. The jurisdiction of the OEA is limited to the review of environmental pollution concern or any alleged technical or legal deficiencies associated with the IDEM Decision making process. Once your request has been received by OEA, your appeal may be considered by an Environmental Law Judge.

What is required of person filing an appeal?

Filing an appeal is a legal proceeding, so it is suggested that you consult with an attorney. Your request for an appeal must include your name, address and identify your interest in the decision (Or, if you are representing someone else, his or her name, address and their interest in the decision). In addition, please include a photocopy of the accompanying Notice of Decision or list the permit number and name of the applicant, or responsible party in your letter.

Before a hearing is granted, you must identify the reason for the appeal request and the issues proposed for consideration at the hearing. You also must identify the permit terms and conditions that, in your judgment, would appropriately satisfy the requirements of law with respect to the IDEM decision being appealed. That is, you must suggest an alternative to the language in the permit (or other order, or decision) being appealed, and your suggested changes must be consistent with all applicable laws (See Indiana Code 13-15-6-2) and rules (See Title 315 of the Indiana Administrative Code or 315 IAC).

The effective date of this agency action is stated on the accompanying Notice of Decision (or other IDEM decision notice). If you file a Petition for Administrative Review (appeal), you may wish to specifically request that the action be stayed (temporarily halted) because most appeals do not allow for an automatic stay. If after an evidentiary hearing a stay is granted, the IDEM approved action may be halted altogether or only allowed to continue in part until a final decision has been made regarding the appeal. However, if the action is not stayed the IDEM approved activity will be allowed to continue during the appeal.

Where can you file an appeal?

If you wish to file an appeal, you must do so in writing. There are not standard forms to fill out and submit, so you must state your case in a letter (called a petition for administrative review) to the Indiana Office of Environmental Adjudication (OEA). Do not send the original copy of your appeal request to IDEM. Instead, send your letter to: The Office of Environmental Adjudication, Indiana Government Center North, 100 North Senate Avenue, Room NS01, Indianapolis, IN 46204. If you file an appeal, also send a copy of your appeal letter to IDEM contact person identified in the Notice of Decision and to the applicant (person receiving the IDEM permit, or other approval).

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Your appeal (petition of administrative review) must be received by the Office of Environmental Adjudication in a timely manner. The due date for filing an appeal may be given, or the method for calculating it explained on the accompanying Notice of Decision (NOD). Generally appeals must be filed within 18 days of the mailing date on the NOD. To ensure that you meet this filing requirement, your appeal must be:

- 1) Delivered in person to OEA by the close of business in the eighteenth day (if the 18th day falls on a day when the Office of Environmental Adjudication (OEA) is closed for the weekend; or for a state holiday, then your petition will be accepted on the next business day on which OEA is open).
- 2) Given to a private carrier who will deliver it to OEA on your behalf, (and from whom you must obtain a receipt dated on or before the 18th day).
- 3) For those appeal requests sent by U.S. Mail, your letter must be postmarked by no later than midnight of the 18th day.
- 4) Faxed to the OEA at 317-233-9372 before the close-of-business of the 18th day, provided that the original signed "Petition Administrative Review" is also sent, or delivered to the OEA in a timely manner.

What are the costs associated with filing an appeal?

The OEA does not charge a fee for filing documents for an administrative review or for the use of its hearing facilities. However, OEA does charge fifteen cents (\$.15) per page fee for copies of any documents you may request. Another cost that could be associated with your appeal would be for attorney's fees. Although you have the option to act as your own attorney, the administrative review and associated hearings are complex legal proceedings, therefore, you should consider whether your interests would be better represented by an experienced attorney.

What can you expect from the Office of Environmental Adjudication (OEA) after you file for an appeal?

The OEA will provide you with notice of any prehearing conferences, preliminary hearings, hearing, stays or orders disposing of the review of this decision. In addition, you may contact the OEA by phone at 317-232-8591 with any scheduling questions. However, technical questions should be directed to the IDEM contact person listed on the Notice of Decision.

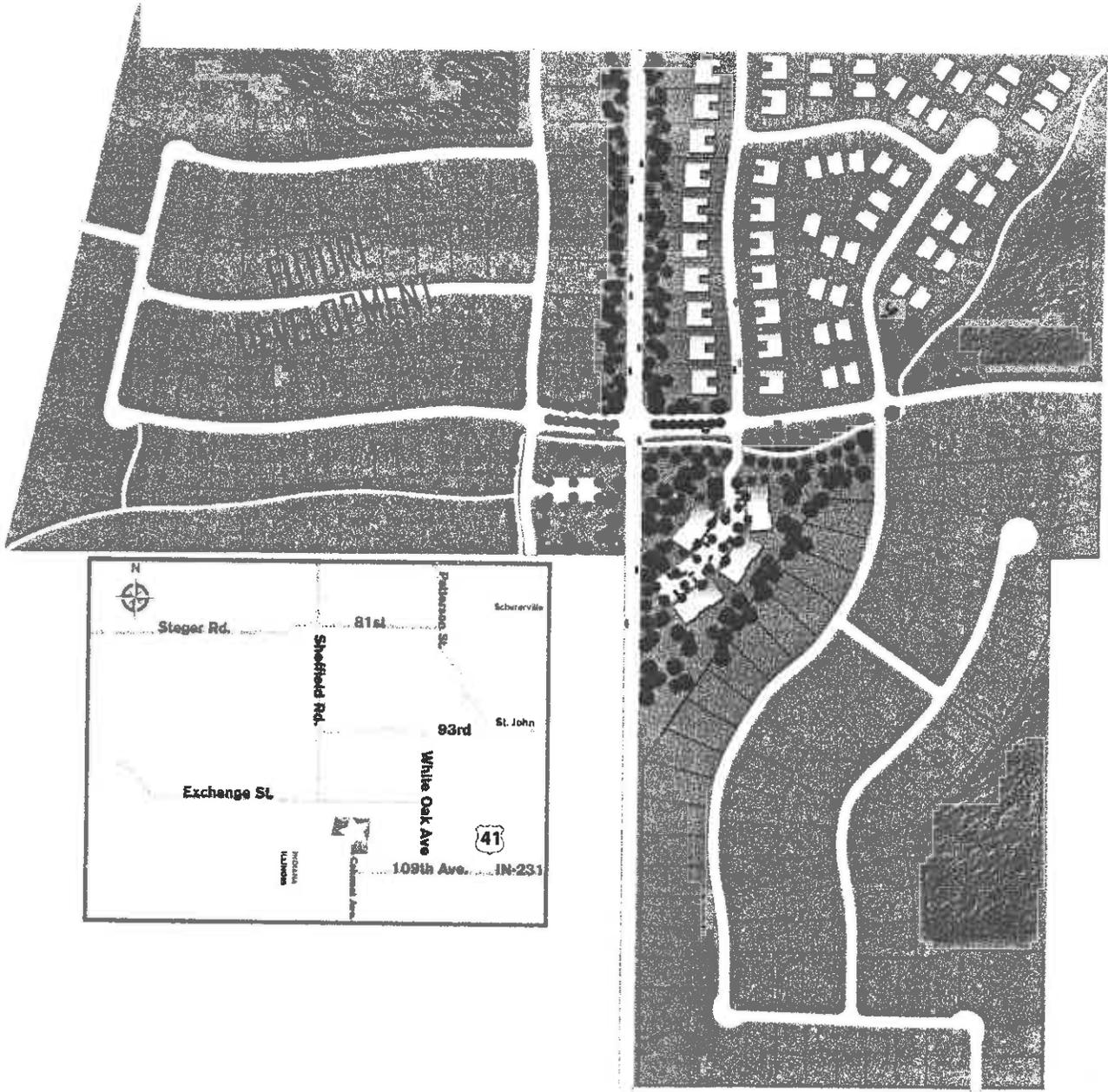
Do not expect to discuss details of your case with the OEA other than in a formal setting such as a prehearing conference, a formal hearing, or a settlement conference. The OEA is not allowed to discuss a case without all sides being present. All parties to the proceeding are expected to appear at the initial prehearing conference.

COPY

C-2

GREYSTONE

of Saint John



SCHILLING
DEVELOPMENT

WWW.SCHILLINGDEVELOPMENT.COM
219-365-6000

GRAY STONE = 119 AC.

- 49 DUPLEXES
- 48 COTTAGE HOMES
- 18 PATIO HOMES
- 84 SINGLE-FAMILY HOMES
- PROFESSIONAL OFFICES

PRESERVE : 319 AC.

445 SINGLE FAMILY HOMES

- 445 SINGLE FAMILY = PRESERVES
- 84 SINGLE FAMILY = GRAY STONE
- 48 COTTAGE HOMES = " "
- 18 PATIO HOMES = " "

595 TOTAL HOMES

48 DUPLEXES

TOWN OF ST. JOHN
PLAN COMMISSION – REGULAR MEETING
ST. JOHN MUNICIPAL BUILDING
10955 WEST 93RD AVENUE, ST. JOHN, IN
APRIL 6, 2016

Mr. Slager stated that the neighbors have been invited to tonight's public hearing including Saddle Creek residents from the newer homes along the proposed Greystone's eastern boundary. He stated that the Greystone parcel is currently a farm field that sits higher than Saddle Creek. He explained when it rains, about 50 acres of raw farm field (Greystone) drains towards the Saddle Creek homes causing their rear yard drains to become inundated with water and also causing some other water issues in their back yards.

Mr. Slager stated when the Greystone property is developed, *Out Lot C*, will be designated as a large detention basin and all of the storm water coming off of the farm field will be collected and directed into the storm water basin, discharged into a storm sewer and then flow into a creek. He commented that any of the Saddle Creek residents who are currently experiencing the heavy rain off of the farm field should see an improvement with the development of Greystone subdivision.

Mr. Slager addressed another comment from Mr. Kraus's letter. He stated that the address for Lot 121, the professional office area, was not given an address on the plat but the developer is requesting a Calumet Avenue address for this parcel, 10501 Calumet Avenue. He stated there will be no access onto Calumet Avenue from the professional office area, but the Calumet Avenue address will give the location a more professional sound.

Mr. Slager noted that the Calumet Avenue intersection will be improved with left-turn lanes in all four directions. He opined that the Petitioner has answered a lot of questions in the past at study sessions, but he would be glad to answer any specific questions tonight.

Mr. Forbes asked the Board members if they had any questions. There were no questions from the Board. Mr. Forbes stated that a stop light was discussed at Greystone and Calumet Avenue. He stated that the stop light will be put in prior to any development occurring on the west side of Greystone development. Mr. Slager concurred. He stated that the Petitioner is requesting approval tonight on the *entire east side* of Calumet Avenue.

Mr. Slager stated prior to seeking approval to develop the west side of Calumet Avenue, the developer will install a stop light at the intersection. He stated when it goes from being a three-way intersection to a four-way intersection, a stop light will be installed.

Mr. Forbes read the letter from Mr. Kenn Kraus, Haas & Associates, as follows: