

# AGENDA

## LAKE COUNTY DRAINAGE BOARD and ADVISORY COMMITTEE WEDNESDAY, MARCH 16, 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. February 17, 2016

### 5. Reports – Correspondence – Information for the Record

- A. Advisory Committee By Township

**B. Little Calumet River Watershed**

1. Indiana Department of Natural Resources "Certificate of Approval" for "Construction in a Floodway" for the Little Calumet River Basin Development Commission.
2. **Cady Marsh Ditch, North Twp.**
  - Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson, Jr., regarding a vehicle accident in the ditch and spill containment.
3. **Turkey Creek Lateral #6 – Hobart, Hobart Twp.**
  - Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson, Jr., regarding relocation of beavers and removal of dams.
4. Other.

**C. Kankakee River Watershed**

1. **Upper Bull Run Ditch, St John Twp.**  
Stormwater Report for the Preserve Subdivision from Manhard Consulting.
2. 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.** (113<sup>th</sup> to Gibson Street)
3. **Cady Marsh Ditch - Highland, North Twp.** (Hart Ditch to Cline Ave, Highland)
4. **Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.**
  - Letter from Drainage Administrator Dan Gossman to Contractor Austgen Equipment regarding the return of his "Bid Bond" for this project.
  - "Notice of Award" to Delta III, Inc., from Drainage Administrator Dan Gossman.
  - Accept and receive "Performance Bond" from Delta III, Inc.
  - "Notice to Proceed" from Drainage Administrator Dan Gossman
5. **Cady Marsh Ditch – Griffith, Calumet Twp.** (Cline Ave to Colfax St, Griffith)
6. **Turkey Creek Lateral #6–Emergency Culvert Replacement, Ross Twp.** (61<sup>st</sup> Ave)
  - "Notice to Proceed" from Drainage Administrator Dan Gossman
7. Other

**E. Current Projects - Kankakee River Watershed**

1. **Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.**
2. **West Creek Maintenance, Hanover Twp.** (125<sup>th</sup> Ave to 133<sup>rd</sup> Ave)
3. **Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp.** (Cedar Creek to Monon Road)
4. **Ernie Niemeyer Creek & Levee – Phase IV, West Creek Twp.** (Stateline to US 41)
5. Other

**F. Geographic Information System**

**6. Applications / Petitions**

**A. Cady Marsh Ditch, Calumet Twp.**

**Applicant: Wisconsin Central Limited – Agent: Midwest Engineering**

Application to "Perform Work Within", 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.

**B. Cedar Creek, Cedar Creek Twp.**

**Applicant: Nipsco**

Application to "Perform Work Within", and "Place Temporary/Permanent Structure" within regulated drain for the purpose of replacing 4 wooden power poles along Cedar Creek.

**C. Other**

**7. MS4 Water Quality**

**A. Capital Projects Status Report**

1. 41<sup>st</sup> Avenue Storm Sewer Project, Calumet Twp.
2. 133<sup>rd</sup> 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**

1. 4<sup>th</sup> Annual Lake County Contractor's Workshop for Stormwater Pollution Prevention – March 30, 2016 8:00am until noon at the Lake County Fair Grounds
2. 71<sup>st</sup> Annual Lake County Soil & Water Conservation District meeting – March 17, 2016 6:30pm at Teibel's

**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
  1. Turkey Creek Lateral No. 13 – Bank Stabilization, St John Twp.
- B. Kankakee River Watershed

**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
- B. Kankakee River Watershed

**12. Other Business**

- A. Other

**13. Adjournment**

- A. The next meeting is scheduled for Wednesday April 20, 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 WEDNESDAY, FEBRUARY 17, 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  
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### Technical Support

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

Members Present: **Chairman Gerry Scheub**; Board Member, **Michael Repay**; Board Member **Kyle Allen**. [3 Present, 0 Absent]. Also Present: **Lake County Surveyor Bill Emerson, Jr.**; Lake County Drainage Administrator, **Dan Gossman**; Lake County Drainage Board Attorney **Peter Katic**; Drainage Board Secretary, **Mary Ellen Kupsik**; North Watershed Engineering Consultant, **Thomas Burke** 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-4, Memo from Attorney Cliff Duggan; Item No. 6-A, Correspondence from DVG; Item No. 6-B, Correspondence from Nipsco and Item No. 11-A-1, Correspondence from Attorney Cliff Duggan. Motion to accept and approve the additions to the Agenda was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

## B. Permission to Open Bids/Proposals

Motion made by **Michael C. Repay** and seconded by **Kyle Allen** to open the bid proposals under Item No. 11-A-1. Motion carried 3-0

### 4. Minutes

#### A. January 20, 2016

Motion made by **Michael C. Repay** to approve the January 20, 2016 Lake County Drainage Board Minutes, seconded by **Gerry Scheub**. Motion carried 2-0 (Member Allen abstained)

### 5. Reports – Correspondence – Information for the Record

#### A. Advisory Committee By Township

##### B. Little Calumet River Watershed

##### 1. Hartsdale Pond (Spring Street Ditch), St John Twp.

- Letter from Indiana Department of Environmental Management regarding NPDES Permit to Buckeye Partners.

Information Only.

##### 2. Beaver Dam Ditch Lateral #1, Center Twp.

- Letter from Hubinger Landscaping Corp. regarding culvert replacement.
- Letter from Drainage Administrator Dan Gossman to Hubinger Landscaping.

Information Only.

##### 3. Main Beaver Dam Ditch, Center Twp.

- Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson regarding bank erosion at 1423 Edgewater Road, Crown Point

Information Only.

##### 4. Turkey Creek Lateral No. 6, Ross Twp.

- Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson regarding sinkhole along 61<sup>st</sup> Avenue in Merrillville.

**Dan Gossman** reported that **Surveyor Emerson, Jr.** and his staff met with Town of Merrillville officials regarding an unexpected sinkhole occurring on the south side of 61<sup>st</sup> Avenue on Turkey Creek Lateral 6 across from the Intermediate Merrillville Middle School. Dan referred to the "handout" from **Attorney Cliff Duggan** requesting that this sinkhole be declared an emergency and invite three contractors to the site, seek proposals, and authorize the Surveyor to immediately award. Motion to declare this sinkhole along 61<sup>st</sup> Avenue in Merrillville be an emergency repair and authorize the Lake County surveyor to act accordingly was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

##### 5. Other.

**C. Kankakee River Watershed**

1. U.S. Army Corps of Engineers "Public Notice"

Information Only.

2. 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.** (113<sup>th</sup> to Gibson Street)
3. **Cady Marsh Ditch - Highland, North Twp.** (Hart Ditch to Cline Ave, Highland)
4. **Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.**
5. **Cady Marsh Ditch – Griffith, Calumet Twp.** (Cline Ave to Colfax St, Griffith)
  - Letter from Drainage Administrator Dan Gossman to Contractor Delta III, Inc. regarding the return of his "Bid Bond" for this project.
  - Receive and Accept the "Performance Bond" from Delta III, Inc.

**Dan Gossman** requested the acceptance and approval of the Performance Bond submitted by Delta III for this project and he will then forward a "Notice to Proceed" to the contractor. Motion to approve and accept same was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

6. Other

**E. Current Projects - Kankakee River Watershed**

1. **Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.**
2. **Singleton Ditch Maintenance, West Creek Twp.** (US 41 to Monon Road)
  - Review and recommendation for approval of final payment of \$26,673.13 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

**Dan Gossman** requested approval for the final payment to R.A. Oros in the amount of \$26,673.13. Motion to approve same was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

3. **West Creek Maintenance, Hanover Twp.** (125<sup>th</sup> Ave to 133<sup>rd</sup> Ave)
4. **Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp.** (Cedar Creek to Monon Road)
  - Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of his "Bid Bond" for this project.
  - Receive and Accept the "Performance Bond" from R.A. Oros, Inc.

**Dan Gossman** requested the acceptance and approval of the Performance Bond submitted by R.A. Oros for the Singleton Ditch Maintenance US 41 to Monon Road-Phase II and he will then issue a "Notice to Proceed". Motion to approve same was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

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

- Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of his “Bid Bond” for this project.
- Receive and Accept the “Performance Bond” from R.A. Oros, Inc.

**Dan Gossman** requested the acceptance and approval of the Performance Bond submitted by R.A. Oros for the Ernie Niemeyer Creek & Levee-Phase IV and he will then issue a “Notice to Proceed”. Motion to approve same was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

**6. Other**

**F. Geographic Information System**

**6. Applications / Petitions**

**A. Beaver Dam Ditch Lateral No. 1**

**Applicant: Coyne Vet Clinic – Agent: DVG, Inc.**

Application to “Perform Work Within”, “Connect/Discharge Into”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of construction of Veterinary Clinic.

**Dan Gossman** explained that there were “handouts” provided at the beginning of this meeting, which were two review letters from CBBEL and one comment response letter from DVG. **Thomas Burke (CBBEL)** explained that this Application was submitted at the beginning of this month, reviewed by CBBEL and returned to DVG with a number of comments that needed to be addressed. DVG was prompt in their responses and, as of yesterday, they have responded and addressed all outstanding concerns and meeting all the guidelines of the Lake County Stormwater Ordinance and recommended approval. Motion to approve this Coyne Vet Clinic was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

**B. Cady Marsh Ditch, Schoon Ditch, Hart Ditch**

**Applicant: Nipsco**

Application to “Perform Work Within”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of installing a 24” natural gas pipeline.

**Dan Gossman** explained that there was also a “handout” review letter from CBBEL. **Thomas Burke (CBBEL)** explained that this Drainage Board Application relates to NIPSCO installing gas lines in the county’s drainage easement along the Cady Marsh Ditch, Schoon Ditch and the Hart Ditch and, after being under review for the past three months, he reported that they have now addressed all concerns and recommended approval with the following conditions:

1. The LCSO should be copied on all Indiana Department of Environmental Management (IDEM) and/or United States Army Corps of Engineers 401 and 404 permitting. No work should commence until all required state and federal permits are obtained.
2. NIPSCO shall provide an on-site contact to the LCSO and notify the LCSO 48 hours prior to the directional boring activities commence.
3. NIPSCO shall provide the IDEM hydrostatic discharge permit to the LCSO when it is obtained.

Motion to approve with the above-stated conditions was made by **Michael C. Repay**, seconded by **Kyle Allen**. Motion carried 3-0

**C. Other**

**7. MS4 Water Quality**

**A. Capital Projects Status Report**

**1. 41<sup>st</sup> Avenue Storm Sewer Project, Calumet Twp.**

**Lake County Surveyor Bill Emerson, Jr.** reported the Surveyor's Office has contacted INDOT's new representative who will be addressing the outstanding issues at this site.

**2. 133<sup>rd</sup> Avenue / S.R. 55 Storm Drainage Project, Center Twp.**

**Rich Budziak, MS4 Coordinator**, reported there is a new Project Manager at NRCS, Derrick Schmidt, who explained that there is now a new property owner involved which may delay this project again.

**3. Upper Beaver Dam Ditch Storage/Water Quality Project**

**Lake County Surveyor Bill Emerson, Jr.** reported that he is currently reviewing a draft prepared by DLZ regarding different options on retaining water to alleviate drainage issues downstream, along with helping with regional water in that area.

**4. Willowdale Sanitary Sewer – Phase II & III**

**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**

**10. Receive and Open Bids/Proposals**

**A. Little Calumet River Watershed**

**B. Kankakee River Watershed**

**1. Ernie Niemeyer Creek & Levee – Annual Maintenance (Shelby to Schneider)**

**Attorney Peter Katic** opened two proposals for this Annual Maintenance Project on the Ernie Niemeyer Creek & Levee from Shelby to Schneider and they both appear to be in apparent legal order. They are as follows:

Wunderink Riverside Farms	\$12,000.00
Delta III	\$22,000.00

**Lake County Surveyor Bill Emerson, Jr.** requested awarding Wunderink Riverside Farms in the amount of \$12,000.00. Motion to award same was made by **Michael Cl Repay**, seconded by **Kyle Allen**. Motion carried 3-0.

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

**A. Little Calumet River Watershed**

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

**Dan Gossman** stated that these bids were opened at last month's meeting and were taken under advisement and based on Attorney Duggan's memo (handout), the low bidder, Grimmer Construction, holds a "General Contractor License Specialty" which, according to the Plan Commission, does not allow them to subcontract and therefore the recommendation is to award to the next lowest bidder, Austgen Equipment, who holds a General Contractor's License. Dan added that it was stated at the Pre-Bid Meeting that a General Contractor's License is required because this project involves hiring a sub-contractor to perform a specific service on this project. **Attorney Peter Katic** requested approval to award this contract to Austgen Equipment in the amount of \$80,522.00. Motion to award this contract to Austgen Equipment was made by **Michael C. Repay**, seconded by **Gerry Scheub**. Motion carried 2-0 (Member Allen abstained).

**Lake County Surveyor Bill Emerson, Jr.** requested opening up for general discussion that the Drainage Board should consider for all future Drainage Board projects that all contractors be required to hold a General Contractor's License, which would enable them to subcontract, if needed. **Member Repay** questioned the reasoning behind the different labeling of contractor's licenses and the reasoning for it, since the contractor's that bid on our Drainage projects are very reputable in Lake County. **Surveyor Emerson, Jr.** stated that he is on the Plan Commission Board and will make inquiries. **Member Repay** stated he was in favor of having all contractors who bid on future Drainage Board projects need to hold a General Contractor's license for subcontracting purposes, if needed.

**B. Kankakee River Watershed**

**12. Other Business**

**A. Other**

**Vince Casboni (9679 White Oak, St. John, IN)** stated that for the past 40 years he has owned 38 acres on White Oak Avenue and was appearing before the Drainage Board to inquire about a drainage study for a new 319-acre subdivision being planned with 445 homes, which will run through Bull Run Ditch. He claims that his property currently floods off of 93<sup>rd</sup> and his main concern is drainage and feels that the Town of St. John is not reviewing this development thoroughly enough as it relates to drainage, and understands that the developer has yet to make a Drainage Board Application. **Dan Gossman** stated that he personally contacted the Town of St. John and that the developer's engineer is working on submitting a Drainage Board Application. **Chairman Scheub** stated that he currently has a meeting next Monday with the Town of St. John and invited Surveyor Emerson, Jr. to attend, adding that he was very adamant regarding future development in this area and requested it be thoroughly reviewed by American Structurepoint, Inc. He reported that a study is currently being performed regarding road traffic on 109<sup>th</sup> from White Oak to US 41 and are locally working towards getting a turn lane where 109<sup>th</sup> meets US 41 this fall or early spring 2017.

[DISCUSSION REGARDING TRAFFIC AND NEW ROADS IN THIS AREA ENSUED.]

**Surveyor Emerson, Jr.** stated that this subject is for "Discussion Only".

**Zack DeYoung (DNR-LaSalle Fish & Wildlife in Newton & Lake County)** requested the Drainage Board's assistance in the replacement of a collapsed foot bridge that crosses over the Ernie Niemeyer. He was proposing to replace it with culverts or some other means of a crossing to allow vehicle access to both sides of the Levee for maintenance and emergency purposes. Mr. DeYoung stated that the DNR is willing to work with the Surveyor's Office and the Drainage Board in getting this accomplished. **Surveyor Emerson, Jr.** responded that the Surveyor's Office/Drainage Board does not necessarily need bridge access; however, could possibly assist them with the engineering and permitting portion of the replacement, but with limited funding and continuing drainage problems to address, this request will need to be further reviewed by the Drainage Board.

**Dan Gossman** reported that **Brian Ralstin (ASI)** met with property owner, John Little, to inspect portion of West Creek along Mr. Little's property this past Monday and has provided the Surveyor's Office with a Preliminary Report yesterday, which he and Surveyor Emerson, Jr. have yet to review.

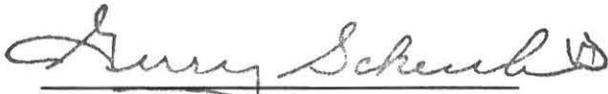
**13. Adjournment**

- A. The next meeting is scheduled for Wednesday March 16, 2016 in the Lake County Commissioners' Courtroom at 8:00AM Drainage Advisory Committee and 9:00AM Drainage Board.**
- B. Motion to Adjourn.**

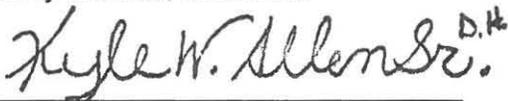
Motion to adjourn was made by Michael C. Repay, seconded by Kyle Allen. Motion carried 3-0. Meeting adjourned at 9:28 a.m.

APPROVED THIS 16th DAY OF MARCH, 2016

**LAKE COUNTY DRAINAGE BOARD**



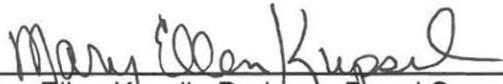
Gerry Scheub, Chairman



Kyle Allen, Member



Michael C. Repay, Member

ATTEST:   
Mary Ellen Kupsik, Drainage Board Secretary

# MINUTES

## LAKE COUNTY DRAINAGE BOARD ADVISORY COMMITTEE

WEDNESDAY, FEBRUARY 17, 2016

Advisory Committee Meeting-8:00 A.M.      Drainage Board Meeting-9:00 A.M.  
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#### 2. Roll Call

Dave Hubinger, Center Twp.; Jean Shepherd, St. John Twp.; Tom Silich, Hobart Twp.; Milan Dakich, Ross Twp.; Louise Neese, Calumet Twp.; Harold Mussman, West Creek Twp.; Alice Dahl, Cedar Creek Twp.; Ken Huseman, Hanover Twp., and John Jurs, Eagle Creek Twp. [9 Present, 2 Absent]. Also Present: Lake County Surveyor Bill Emerson, Jr.; Dan Gossman, Drainage Administrator; Mary Ellen Kupsik, Drainage Board Secretary; North Watershed Engineering Consultant, Thomas Burke 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-4, Memo from Attorney Cliff Duggan; Item No. 6-A, Correspondence from DVG; Item No. 6-B, Correspondence from NIPSCo and Item No. 11-A-1, Correspondence from Attorney Cliff Duggan. Motion to accept the additions were made by **Dave Hubinger**, seconded by **Milan Dakich**. Motion carried 9-0.

#### B. Permission to Open Bids/Proposals

### 4. Minutes

#### A. January 20, 2016

**Tom Silich** requested a motion to accept and approve the January 20, 2016 Lake County Drainage Advisory Board Minutes. Motion to accept and approve same was made by **Alice Dahl**, seconded by **Louise Neese**. Motion carried 9-0.

### 5. Reports – Correspondence – Information for the Record

#### A. Advisory Committee By Township

**Milan Dakich (Ross Twp.)** Regarding Item No. 5-B-4, he questioned whether a barricade was placed around this sinkhole due to the proximity of the school. **Dan Gossman** replied that the Town of Merrillville has provided same.

**Tom Silich (Hobart Twp.)** asked if the Lake County Surveyor meet with Hobart City Officials regarding the standing water at I-65 and the Norfolk Southern Line Railroad culvert. **County Surveyor Bill Emerson, Jr.** replied that he and his staff had met with the Mayor and other Hobart officials regarding this issue and they have committed their full support to rectify this matter and we will be working together on a solution. He added that the City of Hobart will be proposing a project to the Little Calumet River Basin Commission and request assistance with funding.

**Harold Mussman (West Creek Twp.)** inquired as to who is going to handle cleaning the brush on the north side of the Ernie Niemeyer on the Nelson Property. **Dan Gossman** replied that he will contact Dan Nelson. He further stated that the contractor is currently working on the Singleton and is planning on bring his drag line out to the Ernie Niemeyer and will ask the contractor to reach out to Dan Nelson before he starts.

**John Jurs (Eagle Creek Twp.)** inquired as to whether or not the Quarry has submitted their "as built" survey. **Lake County Surveyor Bill Emerson, Jr.** replied that, to date, no final "as-built" has been received from the Quarry; however, yesterday he was contacted by the Quarry's engineer to set up a meeting to present their proposed design to complete the area around the perimeter of the quarry. **Lake County Bill Emerson, Jr.** reiterated that the Quarry can crush stone for the site development, but they cannot go into production until they have presented a final "as-built" to the county. **John Jurs** also requested the status of the concerns brought up at last month's meeting regarding Route 2 and Clay Street. **Dan Gossman** responded that INDOT's representative has been contacted and he is currently working on coordinating a date and time wherein all involved entities can meet onsite to address the situation. **Dan Gossman** stated that he will work towards setting up a meeting this Friday.

**B. Little Calumet River Watershed**

**1. Hartsdale Pond (Spring Street Ditch), St John Twp.**

- Letter from Indiana Department of Environmental Management regarding NPDES Permit to Buckeye Partners.

**Information Only.**

**2. Beaver Dam Ditch Lateral #1, Center Twp.**

- Letter from Hubinger Landscaping Corp. regarding culvert replacement.
- Letter from Drainage Administrator Dan Gossman to Hubinger Landscaping.

**Information Only.**

**3. Main Beaver Dam Ditch, Center Twp.**

- Letter from Asst Drainage Admn Tom Regalado to County Surveyor Bill Emerson regarding bank erosion at 1423 Edgewater Road, Crown Point

**Information Only.**

**4. Turkey Creek Lateral No. 6 Ross Twp.**

- Letter from MS4 Compliance Inspector Chris Brown to County Surveyor Bill Emerson regarding sinkhole along 61<sup>st</sup> Avenue in Merrillville.

**Lake County Surveyor Bill Emerson, Jr.** requested recommending this sinkhole be declared an emergency. Motion to declare this sinkhole along 61<sup>st</sup> Avenue in Merrillville an emergency was made by **Milan Dakich**, seconded by **Dave Hubinger**. Motion carried 9-0.

**5. Other.**

**C. Kankakee River Watershed**

**1. U.S. Army Corps of Engineers "Public Notice"**

**Information Only.**

**2. 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.** (113<sup>th</sup> to Gibson Street)

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

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

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

- Letter from Drainage Administrator Dan Gossman to Contractor Delta III, Inc. regarding the return of his "Bid Bond" for this project.
- Receive and Accept the "Performance Bond" from Delta III, Inc.

**Dan Gossman** requested recommending the acceptance and approval of the Performance Bond submitted by Delta III for this project. Motion to recommend same was made by **Louise Neese**, seconded by **Dave Hubinger**. Motion carried 9-0.

## 6. Other

### E. Current Projects - Kankakee River Watershed

1. **Brown Levee Ditch – Emergency Levee Repair, Eagle Creek Twp.**
2. **Singleton Ditch Maintenance, West Creek Twp.** (US 41 to Monon Road)
  - Review and recommendation for approval of final payment of \$26,673.13 from Drainage Administrator Dan Gossman. Contractor: RA Oros.

**Dan Gossman** requested recommending the approval for the final payment to **R.A. Oros** in the amount of \$26,673.13. Motion to recommend approval of same was made by **Harold Mussman**, seconded by **Milan Dakich**. Motion carried 9-0.

3. **West Creek Maintenance, Hanover Twp.** (125<sup>th</sup> Ave to 133<sup>rd</sup> Ave)
4. **Singleton Ditch Maintenance US 41 to Monon Road – Phase II, Cedar Creek Twp.** (Cedar Creek to Monon Road)
  - Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of his “Bid Bond” for this project.
  - Receive and Accept the “Performance Bond” from R.A. Oros, Inc.

**Dan Gossman** requested recommending the acceptance and approval of the Performance Bond submitted by **R.A. Oros** for the Singleton Ditch Maintenance US41 to Monon Road-Phase II in order for a “Notice to Proceed” to be issued.. Motion to recommend same was made by **Alice Dahl**, seconded by **Dave Hubinger**. Motion carried 9-0.

Both **Alice Dahl** and **John Jurs** reported that they received word that **Bill Peterson** was concerned regarding the silt fence being still in place on the Singleton, which cannot be removed since spoils have been placed on the top of the fence and is now frozen over. **Dan Gossman** replied that he was unaware of his concerns and will address same with the contractor **R.A. Oros**.

5. **Ernie Niemeyer Creek & Levee – Phase IV, West Creek Twp.** (Stateline to US 41)
  - Letter from Drainage Administrator Dan Gossman to Contractor R.A. Oros, Inc. regarding the return of his “Bid Bond” for this project.
  - Receive and Accept the “Performance Bond” from R.A. Oros, Inc.

**Dan Gossman** requested recommending the acceptance and approval of the Performance Bond submitted by **R.A. Oros** for the Ernie Niemeyer Creek & Levee-Phase IV in order for a “Notice to Proceed” can be issued. Motion to recommend same was made by **Alice Dahl**, seconded by **Dave Hubinger**. Motion carried 9-0.

## 6. Other

**Dan Gossman** reported minimal activity due to the winter months and 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 **Milan Dakich**. Motion carried 9-0.

## F. Geographic Information System

### 6. Applications / Petitions

#### A. Beaver Dam Ditch Lateral No. 1

**Applicant: Coyne Vet Clinic – Agent: DVG, Inc.**

Application to “Perform Work Within”, “Connect/Discharge Into”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of construction of Veterinary Clinic.

**Thomas Burke (CBBEL)** explained that after a thorough review of this Drainage Board Application, the Applicant has met all the requirements of the Lake County Stormwater Ordinance and recommended requesting approval. Motion to recommend approval was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried 9-0.

#### B. Cady Marsh Ditch, Schoon Ditch, Hart Ditch

**Applicant: NIPSCO**

Application to “Perform Work Within”, and “Place Temporary/Permanent Structure” within regulated drain for the purpose of installing a 24” natural gas pipeline.

**Thomas Burke (CBBEL)** explained that this Drainage Board Application relates to NIPSCO installing gas lines in the county’s drainage easement, along the Cady Marsh Ditch, Schoon Ditch and the Hart Ditch and has been under review for three months. He stated that they have now addressed all concerns and recommended requesting approval with the following conditions:

1. The LCSO should be copied on all Indiana Department of Environmental Management (IDEM) and/or United States Army Corps of Engineers 401 and 404 permitting. No work should commence until all required state and federal permits are obtained.
2. NIPSCO shall provide an on-site contact to the LCSO and notify the LCSO 48 hours prior to the directional boring activities commence.
3. NIPSCO shall provide the IDEM hydrostatic discharge permit to the LCSO when it is obtained.

Motion to recommend approval with the above-stated conditions was made by **Dave Hubinger**, seconded by **Louise Neese**. Motion carried 9-0

#### C. Other

### 7. MS4 Water Quality

#### A. Capital Projects Status Report

1. 41<sup>st</sup> Avenue Storm Sewer Project, Calumet Twp.

**Lake County Surveyor Bill Emerson, Jr.** reported that he and his staff have contacted INDOT’s representative who will be addressing the outstanding issues at this site.

**2. 133<sup>rd</sup> Avenue / S.R. 55 Storm Drainage Project, Center Twp.**

**Rich Budziak, MS4 Coordinator**, reported there is a new Project Manager at NRCS, Derrick Schmidt, and explained that there is now a new property owner involved, which could possibly delay the project again.

**3. Upper Beaver Dam Ditch Storage/Water Quality Project**

**Lake County Surveyor Bill Emerson, Jr.** reported that he currently reviewing a draft prepared by DLZ in conjunction with the Little Calumet River Basin Commission to determine if this is a project we want to pursue.

**4. Willowdale Sanitary Sewer – Phase II & III**

- 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**

**10. Receive and Open Bids/Proposals**

- A. Little Calumet River Watershed**
- B. Kankakee River Watershed**
  - 1. Ernie Niemeyer Creek & Levee – Annual Maintenance (Shelby to Schneider)**

**Dan Gossman** reported that proposals received for this project will be opened at today's 9:00 a.m. Drainage Board Meeting.

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

- A. Little Calumet River Watershed**
  - 1. Turkey Creek Lateral # 3 – Scherwood Golf Course, Schererville, St John Twp.**

**Dan Gossman** reported that we opened bids for this project at last month's Drainage Board Meeting where they were taken under advisement. He explained to the Advisory Committee **Attorney Duggan's** memo (handout) regarding the bid results, stating that even though Grimmer was the lowest bidder, they do not hold a General Contractor's license with Lake County's Plan Commission; therefore the recommendation is to award to the next lowest bidder, Austgen Equipment. Motion to recommend requesting to award bid to Austgen Equipment was made by **Jean Shepherd**, seconded by **Harold Mussman**. Motion carried 9-0.

- B. Kankakee River Watershed**

## **12. Other Business**

### **A. Other.**

**Zack DeYoung (DNR-LaSalle Fish & Wildlife)** presented himself to request assistance in the replacement of a collapsed foot bridge that crosses the Ernie Niemeyer. He was suggesting removing the bridge and replacing with a couple culverts, claiming that this would allow access for their vehicles in order to maintain both sides of the Levee, along with being able to get emergency vehicles in on the eastern end of the property that is right now inaccessible. He presented a site location map. **Lake County Surveyor Bill Emerson, Jr.** stated that he would certainly assist them on getting Drainage Board Approval, but it would be up to this Committee and Drainage Board to decide whether to provide funding for said replacement, adding that this is something our Drainage Board doesn't necessarily need, but will open discussion to them at the next meeting.

## **13. Adjournment**

- A. The next meeting is scheduled for Wednesday March 16, 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 8:28 a.m.



STATE OF INDIANA  
DEPARTMENT OF NATURAL RESOURCES



5-B-1  
03-14-14

**CERTIFICATE OF APPROVAL  
CONSTRUCTION IN A FLOODWAY**

**APPLICATION #** : FW-28183  
**STREAM** : Little Calumet River  
**APPLICANT** : Little Calumet River Basin Development Commission  
Dan Repay  
900 Ridge Road  
Munster, IN 46321

**MAILED: February 23, 2016**

**AGENT** : Garcia Consulting Engineers  
Jeff Yatsko, PLS  
7501 Indianapolis Boulevard  
Hammond, IN 46324-2911

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

**DESCRIPTION** : Five existing manholes, located streamward of the levee will be rehabilitated. The manholes will be lowered to grade and steel pipe will be fitted and elevated to 601' (NAVD88) for venting. New concrete collars will be poured around the manholes at a minimum of 4' below grade. Details of the project are contained in information and plans received at the Division of Water on November 4, 2015, December 4, 2015 and December 30, 2015.

**LOCATION** : Along the east overbank of the Little Calumet River, beginning immediately downstream of the I-80 bridge crossing and extending approximately 800' upstream near Hammond, North Township, Lake County Section 13, T 36N, R 10W, Calumet City, IL-IN Quadrangle  
UTM Coordinates: Downstream 4602570 North, 456796 East

**APPROVED BY** :   
Larissa Muellner, CFM, Sr Environmental Manager  
Division of Water

**APPROVED ON** : February 22, 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- 28183

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- 28183

- (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:

<u>Agency</u>	<u>Telephone Number</u>
Lake County Drainage Board	
US Army Corps of Engineers, Chicago District	(312) 846-5539
Indiana Department of Environmental Management	(317) 233-8488 or (800) 451-6027
Local city or county planning or zoning commission	

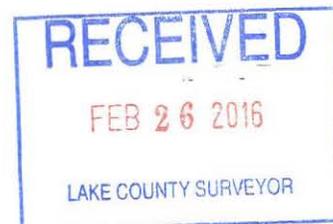
- (4) This permit must not be construed as a waiver of any local ordinance or other state or federal law.
- (5) This permit does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.
- (6) This permit may be revoked by the Department of Natural Resources for violation of any condition, limitation or applicable statute or rule.

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- 28183

**PERMIT VALIDITY** : This permit is valid for 24 months from the "Approved On" date shown on the first page. If construction work in the floodway has not been completed by February 22, 2018 the permit will become void. This permit may be renewed one (1) time for a period not to exceed two (2) additional years only if a written request for the two (2) year permit renewal is received by DNR, Division of Water prior to February 22, 2018. 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: November 4, 2015, December 4, 2015 and December 30, 2015. 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) and legumes as soon as possible upon completion; low endophyte tall fescue may be used in the ditch bottom and side slopes only
( 2 )	minimize and contain within the project limits all tree and brush clearing
( 3 )	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
( 4 )	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
( 5 )	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
( 6 )	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
( 7 )	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 *
( 8 )	do not leave felled trees, brush, or other debris in the floodway *
( 9 )	upon completion of the project, remove all construction debris from the floodway *

STATE OF INDIANA  
DEPARTMENT OF NATURAL RESOURCES

**SPECIAL CONDITIONS**

**APPLICATION #: FW- 28183**

- ( 10) \* Note: for regulatory purposes, the floodway is defined as that shown on Panel 109 of the Lake County Flood Insurance Rate Map dated January 1, 2012 and revised by a Letter of Map Revision effective March 1, 2013



STATE OF INDIANA  
DEPARTMENT OF NATURAL RESOURCES

SERVICE LIST

APPLICATION #: FW- 28183

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

Garcia Consulting Engineers  
Jeff Yatsko, PLS  
7501 Indianapolis Boulevard  
Hammond, IN 46324-2911

City of Hammond  
5925 Calumet Avenue  
Hammond, IN 46320

Mr. Mark Corey  
1005 Ridge Road  
Munster, IN 46321

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  
100 West Water Street  
Michigan City, IN 46360

INDOT  
315 East Boyd Boulevard  
LaPorte, IN 46350

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

Lake County Soil and Water Conservation District  
928 South Court Street Suite C  
Crown Point, IN 46307

NICTD  
33 East US Highway 12  
Chesterton, IN 46304-3514

Kevin Thomas  
7731 State Line Avenue  
Munster, IN 46321

US Army Corps of Engineers, Chicago District  
111 North Canal Street, Suite 600  
Chicago, IL 60606

Jaclyn Zar  
7652 Garfield Avenue  
Hammond, IN 46324

Staff Assignment:

Administrative  
Technical  
Environmental  
Fish and Wildlife

: Sam Jordan  
: Sam Jordan  
: J. Matthew Buffington  
: Brian Boszor



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

5-B-2  
03-16-16



March 11, 2016

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

RE: Cady Marsh Ditch-Car Accident  
Erie St. Highland/ North Township

Dear Bill,

Our office received a phone call on February 19, regarding a vehicle in the Cady Marsh Ditch at the pedestrian foot bridge near Erie St. just north of Highland High School. The concern was the vehicles fluids potentially were leaking into the regulated drain.

Drainage Administrator Dan Gossman, MS4 Compliance Inspector Chris Brown and I inspected the location immediately to only find small amount of petroleum leaking into the ditch. The Highland Fire Department placed a hazardous containment boom to absorb the remaining petroleum. IDEM was then contacted.

Respectfully,

Thomas Regalado  
Assistant Drainage Administrator

Cc: Daniel V. Gossman, Drainage Administrator  
Mark Kozy, North Township, Advisory Committee Representative  
Cliff Duggan, Legal Advisor  
Peter Katic, Drainage Board Attorney  
Lake County Drainage Board and Advisory Committee

**Looking South**



**Looking North**



## Looking South



5-B-3  
03-16-16



## 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

March 11, 2016

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

RE: Turkey Creek Lateral 6 (Hobart/ I-65 area)

Dear Bill,

As you know, a continuing effort is underway to provide drainage relief to the Hobart/Gary area along the Turkey Creek Lateral 6/ I-65 corridor. Over the past several years, a number of beaver dams have been removed, and beavers relocated throughout this area. (Inspections have even been conducted by our very own Hobart Twp. Advisory Committee Rep, Tom Silich!)

To this effect, during the last week of February/ first week of March, myself, Tom Regalado, and Neil Anderson, all of the Surveyors Office, removed seven dams from the areas east of I-65. I then contacted Tom Larson, Wildlife Population Control Specialist, to relocate any beavers from the area.

Over the next several days, Tom and I provided Mr. Larson access to these areas with our Argo amphibious vehicle, allowing him to get to areas there which are otherwise very difficult to reach.

After several trips to the area, six beavers were eventually removed. Over the next week or so, any remaining beaver dams or remnants of dams will be thoroughly removed, and the area will then be closely monitored for any new beaver activity.

If you need any more information, do not hesitate to ask.

Sincerely,

Chris Brown  
MS4 Compliance Inspector

Cc: Dan Gossman, Drainage Administrator  
Rich Budziak, MS4 Coordinator  
Lake County Drainage Board and Advisory Committee  
Tom Silich, Hobart Township Advisory Committee Representative



Lake County, IN

Date Printed: March 11, 2016

— Approx. Location  
Turkey Creek LAT. 6

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

5-C-1  
03-16-14



**FINAL  
STORMWATER REPORT  
For  
THE PRESERVE SUBDIVISION  
ST. JOHN, LAKE COUNTY,  
INDIANA**

PREPARED FOR:

SCHILLING DEVELOPMENT  
8900 WICKER AVENUE (US 41)  
ST. JOHN, INDIANA 46373

PREPARED BY:

MANHARD CONSULTING, LTD  
700 SPRINGER DRIVE  
LOMBARD, ILLINOIS 60148  
PHONE: (630) 691-8500 FAX: (630) 691-8585

JOB CODE: SCD.SJIN02  
October 21, 2015  
**REVISED December 30, 2015**

## **Project Overview**

The Preserve Subdivision is located at the northwest corner of 101<sup>st</sup> Avenue and White Oak Avenue in the Town of St. John, Lake County, Indiana. A site location map can be found on the cover of the plan set. The project site to be developed is approximately 234 acres, and is adjacent to Bull Run Creek. The proposed site will be developed with 432 single family residential lots, public roadways, watermain, sanitary sewer extensions, and on-site detention basins with associated storm sewers. The on-site detention basins are designed to provide stormwater detention for the proposed on-site conditions and the emergency overflow weirs can safely pass the existing tributary areas per St. John standards. The proposed detention basins B, C, D, and existing basin H discharge directly to Bull Run Creek. Detention Basins E and F discharge to Basin G which outlets to a 12" culvert beneath White Oak Avenue and connects to an existing 10" PVC pipe that passes through Rosewood Estates prior to discharging to Bull Run Creek. Basin A discharges to a 24" culvert beneath White Oak Avenue. The proposed detention basins were analyzed using PondPack (TR55). 100 Year rainfall data from Table 3-5 of the Lake County, Indiana Stormwater Technical Standards Manual was used in the site's stormwater calculations.

## **Existing Drainage Characteristics**

The existing site is a farmed area with some wooded areas with a drainage divide through the center of the property which divides drainage to the east and west. The northwest portion of the site (Area 4) slopes toward the existing detention basin (Basin H). The surrounding properties to the north and east are residential developments. The existing Basin H serves the 111 acre development to the north while also accepting 11 acres from the east. The area to the west and south of the site are bounded by Bull Run Creek. Please see the Existing Conditions Drainage Exhibit in this report.

The US EPA Watershed Map indicates that the site lies within the Bull Run Creek watershed (12 digit Hydrologic Unit Code 071200011308). Lake County topography indicates a major ridge in the center of the site that splits the drainage to the east and west, and the southern portion of the site drains south into Bull Run Creek. The area of the site that drains west flows into a series of depressions that ultimately discharges to a small channel at the southeast portion of the site. The small channel outlets to a 24" culvert beneath White Oak Avenue that daylight on the east side of the road where the flow travels overland for approximately 600 feet before entering Bull Run Creek. The existing drainage patterns are maintained under proposed conditions.

The USFWS National Wetland Inventory Map indicates the presence of wetlands on the site. Wetland Consultants are in the process of preparing a formal wetland delineation report for the area. Please see the National Wetlands Inventory Map Exhibit in this report.

The Custom Soil Survey Report for the Town of St. John, Lake County, Indiana, generated by the USDA, indicates that the soils likely to be found on the site are Blount silt loam, Del Rey silt loam, Pewamo silty clay loam, Elliott silt

loam, Markham silt loam, Milford silt loam, Morley silty clay loam, and Morley silt loam, all classified as Group-C or C/D soils. Please see the Hydrologic Soil Group Exhibit in this report for more information.

The FEMA Flood Insurance Rate Map (FIRM) Panel numbers for the site are Map Numbers 18089C0228E, 18089C0210E, 18089C0220E, 18089C0236E effective January 18, 2012. The panels indicate the majority of the site is within a Zone X designation. However, there is also Numbered Zone A Floodplain and Floodway associated with Bull Run Creek located on the site. Please see the FEMA FIRM Map Exhibit in this report.

The existing conditions currently drain into the Bull Run Creek watershed at multiple discharge points. The Existing Conditions Drainage Exhibit shows the site divided into 18 tributary areas. Area 4 drains to the existing detention basin. Areas 5, 6, 7, 8, 9, 10, 11, 12, and 13 discharge directly into Bull Run Creek. Areas 1, 2, 15, and 18 discharge into existing storm sewer along White Oak Avenue and 93<sup>rd</sup> Avenue which routes through the residential development to the north before ultimately discharging to the existing detention basin. Areas 3, 17, and 16 have depressions that overflow to the area 14 depression which ultimately discharges to the 24" Culvert beneath White Oak Avenue. The existing conditions were modeled using PondPack (TR-55) assuming surface coverage of straight row crops in good hydrologic condition (CN=85, 89) and woods in good hydrologic condition (CN=72, 79), and a critical duration analysis was prepared. Please see the attached Pond Pack analysis for more information.

Local drainage ordinances require that the allowable release rate be determined as the lesser of the calculated existing 2 year frequency discharge rate, and 0.2 cfs/acre of development. As shown in Table 1, for the 2 year frequency, the critical duration is 1 hour with a flow of 96.23 cfs. Using the 0.2 cfs/acre of development yields a release rate of 46.8 cfs for the 234 acres to be disturbed. Therefore, the gross allowable release rate is governed by 0.2 cfs/acre and is 46.8 cfs.

## **Proposed Conditions**

The proposed site will consist of 432 single family residential lots, public roadways, watermain, sanitary sewer extensions, and on-site detention basins with associated storm sewers. The on-site detention basins are designed to provide stormwater detention for the proposed on-site conditions and the emergency overflow weir can safely pass the existing tributary areas per St. John standards. The subdivision will be constructed with seven (7) proposed detention basins located onsite along with one (1) existing basin that was sized with the intention of providing storage for the proposed development. Proposed basins A, D, E, F and G will be dry bottom ponds, compensatory storage basins B and C will be wet bottom with native plantings to promote water quality.

The system was modeled and designed using PondPack, which is able to analyze multiple interconnected ponds. Connections between ponds were modeled as culverts where standard pipe sizes are proposed. Where nonstandard sizes are needed, an orifice plate will be provided, and has been modeled accordingly. The hydrologic modeling used rainfall data from the Lake County, Indiana Stormwater Technical Standards Manual to analyze the

required detention for the 100 year, 24 hour event. Please see the PondPack Model included in this report for more information.

The proposed development area is approximately 234 acres, and the unrestricted area accounts for 17.99 acres of the disturbed area. The average lot area was calculated to be 1/3 acre with a corresponding CN = 81, 86 for hydrologic soil groups C and D, respectively. The basins were assumed to have a CN = 98 at the normal water elevation. The peak unrestricted release rate is 9.56 cfs, and the net allowable release rate is **37.24 cfs** (the gross allowable of 46.8 cfs minus the unrestricted release rate of 9.56 cfs).

Although the amount of floodplain/floodway impact is minimized, there is impact to the floodplain and floodway of Bull Run Creek as a result of the proposed development. An analysis of these impacts is currently underway and will be submitted under separate cover. It is anticipated that a LOMR will be required to redelineate the floodway in areas where impact is unavoidable.

The proposed system discharges at six (6) locations. The proposed tributary areas and their respective curve numbers can be found on the Proposed Curve Number Exhibit in this report. Storage tables for the existing and proposed basins can be found in the PondPack analysis of this report.

Basin H currently serves 111 acres of residential area north of the proposed development and approximately 11 acres from the east. An additional 62.34 acres from the proposed development is routed to Basin H. It should be noted that the 11 acres from the east has also been routed to Basin H, stored, and released at a controlled rate. The outfall from the basin is below the 100 year BFE and was designed assuming a zero release. The peak release rate based on analyzing the basin as a free outfall is 20.39 cfs. **2.49 cfs** of this outflow is attributed to the proposed project site, and the remainder is attributed to the areas originally tributary to the existing pond.

Basin B serves 52.83 acres of the proposed development and provides 10-100 year compensatory storage for fill in the floodplain. The basin provides adequate storage for onsite detention as well as a surplus of compensatory storage. Basin B also has been sized for zero release due to the release being below the 100 Year BFE. The peak release rate based on analyzing the basin as a free outfall is **0.86 cfs**.

Basin C serves 11.77 acres of the proposed development and provides 0-10 year compensatory storage. The basin allows inflow from Bull Run Creek via an 18" pipe with a tide flex backflow preventer. The water stored is then released via a 4" restrictor back into Bull Run Creek at a peak rate of **0.89 cfs**. Because the pond outlets directly to Bull Run Creek below the 100 year BFE, the proposed pond was sized assuming a zero release rate, and provides this required amount of storage, plus the 0-10 year compensatory storage.

Basin D serves 12.44 acres of the proposed development. The peak release rate from the basin into Bull Run Creek is **1.01 cfs**.

Basin A serves 31.6 acres of the development. The peak release rate from the basin is **3.22 cfs**. It discharges into an existing channel that drains to a proposed 24" flared end section with a capacity of 31.99 cfs.

Basin E releases to the proposed Basin F at a peak rate of 0.20 cfs, and Basin F discharges to Basin G at a peak rate of 2.44 cfs. Basin G has a maximum release rate of **1.51 cfs**. The release from Basin G is governed by the 2.47 cfs capacity of the 10" PVC pipe east of White Oak Avenue with existing tributary flows east of White Oak Avenue combined with unrestricted release flows from the west ROW of White Oak Avenue (0.94 cfs).

The total combined peak discharge from the proposed basins during the 100 year 24 hour event is 11.67 cfs which is significantly lower than the allowable release rate of 37.24 cfs.

All proposed detention facilities have been provided with an emergency overflow weir sized to pass the peak 50 year flow tributary to each pond. From North to South, Detention Basin H will overflow directly into Bull Run Creek. Pond E will overflow into Pond F, which then overflows to Pond G. The overflow of Pond G will be routed onto the proposed roadway and into Pond A. Pond A will overflow to the east across the roadway and into a tributary to Bull Run Creek. Ponds D, B, and C will all overflow directly into Bull Run Creek. The overflow weirs for the proposed basins maintain the existing discharge points. The peak 50 year flow was calculated using PondPack. Please see the Overflow Weir Design Calculations for more information.

## **Storm Sewer**

The majority of the proposed on-site storm sewer systems are designed to convey runoff from storms up to and including the 5-year event per the Town of St. John Standards. Per the St. John ordinance, a minimum time of concentration of 10 minutes is used for inlet times, and runoff coefficients are 0.40 for single family. The grading design includes overland flow routes that ultimately drain to the proposed stormwater detention basins when storms exceed the required storm sewer capacity. The storm sewer along eastern and northern property lines that discharges to Detention Basin H has been designed to convey the 100 year storm from the "East Offsite Area", rather than having the route travel over land for that area. See the storm sewer calculations and General Layout Plan for more information. In other locations where an overland flow route was impossible, the storm sewer was sized to convey the 100 year storm.

## **Stormwater Pollution Prevention Measures**

During construction, silt fence will be installed along the perimeter of proposed grading operations for the project where applicable. The storm water pollution prevention measures are indicated on the Erosion and Sedimentation Control Plans and Details. A complete Storm Water Pollution Prevention Plan (SWPPP) has been completed and

is included with this submittal. Erosion control measures put in place to prevent stormwater pollution include silt fence, erosion control blanket, rip rap, and inlet filter baskets. All of these measures will be completed, inspected, and maintained as detailed in the SWPPP and the Soil Erosion and Sediment Control Plan & Details.

## **Conclusion**

The proposed The Preserve Subdivision improvements provide stormwater management consistent with the requirements of the Town of St. John standards. In addition, best management practices will be provided throughout the entire construction process to ensure that stormwater runoff is improved to the extent possible before being released. Should you have any questions, comment or concerns regarding the content of this report, please do not hesitate to contact Brad Moore.



---

Brad Moore  
Project Manager

5-D-4  
03-16-16



# 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

March 2, 2016

Austgen Equipment  
11309 Broadway  
Crown Point, Indiana 46307

**Contract No. 2016-LC-3; Contract Amount: \$80,522.00**  
**Project: 2015 Turkey Creek Lateral No. 3 –Culvert Improvements**  
**Scherwood Golf Course, Schererville, St John Township**

Dear Mr. Eaton,

On Wednesday March 2, 2016 the Lake County Surveyor/Lake County Drainage Board received a "Performance Bond" for the above mentioned maintenance project from Austgen Equipment.

Therefore, the Lake County Surveyor/Lake County Drainage Board is returning the Bid Bond since the contract is now fully executed.

Sincerely,

Daniel V. Gossman  
Drainage Administrator

Cc: Bill Emerson, Jr., Lake County Surveyor  
Allura Jean Gray, Chief Deputy Surveyor  
Cliff Duggan, Legal Advisor  
Tom Regalado, Asst Drainage Administrator  
Peter Katic, Drainage Board Attorney  
Jean Shepherd, St John 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

## NOTICE OF AWARD

February 22, 2016

Austgen Equipment  
11309 Broadway  
Crown Point, Indiana 46307

**Contract No. 2016-LC-3; Contract Amount: \$80,522.00**  
**Project: 2015 Turkey Creek Lateral No. 3 – Culvert Improvements**  
**Scherwood Golf Course, Schererville, St John Township**

The Lake County Surveyor's Office on behalf of the Lake County Drainage Board, in accordance with the provisions of the contracts general conditions, you are hereby notified of the 2015 Turkey Creek Lateral No. 3 – Scherwood Golf Course Culvert Improvements, in Schererville, St John Twp. contract to Austgen Equipment.

Please contact our office to schedule a time during the week of February 29 through March 4, 2016 to sign the contract. As per Indiana Code 36-9-27-78 "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".

A "Notice to Proceed" along with a pre-construction meeting will be scheduled as soon as the contract is signed and the bond is posted.

Sincerely,

Daniel V. Gossman  
Drainage Administrator

Cc: Bill Emerson, Jr., Lake County Surveyor  
Cliff Duggan, Legal Advisor  
Peter Katic, Drainage Board Attorney  
Tom Regalado, Asst Drainage Admn  
Jean Shepherd, St John Township Advisory Committee Representative  
Lake County Drainage Board & Advisory Committee

# MERCHANTS BONDING COMPANY™

MERCHANTS BONDING COMPANY (MUTUAL) • MERCHANTS NATIONAL BONDING, INC.  
2100 FLEUR DRIVE • DES MOINES, IOWA 50321-1158 • (800) 678-8171 • (515) 243-3854 FAX

## Performance Bond

Bond No. **INC60130**

### CONTRACTOR:

*(Name, legal status and address)*

Austgen Equipment, Inc.  
11309 Broadway, Ste C3  
Crown Point, IN 46307-7104

### SURETY:

*(Name, legal status and principal place  
of business)*

Merchants Bonding Company (Mutual)  
2100 Fleur Drive, Des Moines, IA 50321-1158

### OWNER:

*(Name, legal status and address)*

Lake County Drainage Board  
2293 N Main St  
Crown Point, IN 46307-1854

### CONSTRUCTION CONTRACT

Date:

Amount: Eighty Thousand Five Hundred Twenty-two And No/100 Dollars (\$80,522.00)

Description: 2015 Turkey Creek Lateral No. 3 - Culvert Improvements Scherwood Golf  
*(Name and location)* Course, Schererville, St. John Township

### BOND

Date: February 23, 2016

*(Not earlier than Construction Contract Date)*

Amount: Eighty Thousand Five Hundred Twenty-two And No/100 Dollars (\$80,522.00)

Modifications to this Bond:  None  See Section 16

### CONTRACTOR AS PRINCIPAL

Company: *(Corporate Seal)*  
Austgen Equipment, Inc.

Signature: *David & Misty*

Name  
and Title:

*(Any additional signatures appear on the last page of this Performance Bond.)*

*(FOR INFORMATION ONLY — Name, address and telephone)*

### AGENT or BROKER:

M.J. Schuetz Insurance Services  
(317) 639-5679  
55 Monument Circle, Ste 500  
Indianapolis, IN 46204-5911

### SURETY

Company: *(Corporate Seal)*  
Merchants Bonding Company (Mutual)

Signature: *Tiffany Williams*

Name Tiffany T. Williams  
and Title: Attorney-In-Fact

### OWNER'S REPRESENTATIVE:

*(Architect, Engineer or other party.)*

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

This document combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

Printed in cooperation with American Institute of Architects (AIA). The language in this document conforms exactly to the language used in AIA Document A312-Performance Bond-2010 edition.

# MERCHANTS BONDING COMPANY™

MERCHANTS BONDING COMPANY (MUTUAL) • MERCHANTS NATIONAL BONDING, INC.  
2100 FLEUR DRIVE • DES MOINES, IOWA 50321-1158 • (800) 678-8171 • (515) 243-3854 FAX

## Payment Bond

Bond No. **INC60130**

### CONTRACTOR:

(Name, legal status and address)

Austgen Equipment, Inc.  
11309 Broadway, Ste C3  
Crown Point, IN 46307-7104

### SURETY:

(Name, legal status and principal place  
of business)

Merchants Bonding Company (Mutual)  
2100 Fleur Drive, Des Moines, IA 50321-1158

### OWNER:

(Name, legal status and address)

Lake County Drainage Board  
2293 N Main St  
Crown Point, IN 46307-1854

### CONSTRUCTION CONTRACT

Date:

Amount: Eighty Thousand Five Hundred Twenty-two And No/100 Dollars (\$80,522.00)

Description: 2015 Turkey Creek Lateral No. 3 - Culvert Improvements Scherwood Golf  
(Name and location) Course, Schererville, St. John Township

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

This document combines two separate bonds, a Performance Bond and a Payment Bond, into one form. This is not a single combined Performance and Payment Bond.

### BOND

Date: February 23, 2016

(Not earlier than Construction Contract Date)

Amount: Eighty Thousand Five Hundred Twenty-two And No/100 Dollars (\$80,522.00)

Modifications to this Bond:  None  See Section 18

### CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)  
Austgen Equipment, Inc.

Signature: David & Austgen  
Name  
and Title:

### SURETY

Company: (Corporate Seal)  
Merchants Bonding Company (Mutual)

Signature: Tiffany Williams  
Name Tiffany T. Williams  
and Title: Attorney-In-Fact

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY— Name, address and telephone)

### AGENT or BROKER:

M.J. Schuetz Insurance Services  
(317) 639-5679  
55 Monument Circle, Ste 500  
Indianapolis, IN 46204-5911

### OWNER'S REPRESENTATIVE:

(Architect, Engineer or other party:)

Printed in cooperation with American Institute of Architects (AIA). The language in this document conforms exactly to the language used in AIA Document A312-Payment Bond-2010 edition.



# 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**

March 7, 2016

Austgen Equipment  
11309 Broadway  
Crown Point, Indiana 46307

**Contract No. 2016-LC-3; Contract Amount: \$80,522.00**  
**Project: 2015 Turkey Creek Lateral No. 3 –Culvert Improvements**  
**Scherwood Golf Course, Schererville, St John Township**

The Lake County Surveyor's Office on behalf of the Lake County Drainage Board, in accordance with the provisions of the contracts general conditions, you are hereby notified to commence work on the subject contract on or before March 21, 2016 and are to fully complete the work within 180 consecutive calendar days in accordance with your contract completion date of September 17, 2016.

A pre-construction meeting is scheduled for Wednesday March 16, 2016 at 10:00am in the Lake County Surveyor's office. Please be prepared to submit a construction schedule on or before this meeting. One copy of the executed contract is enclosed for your files.

As stated in the contract documents for this project, no extra work or change order is to be started without written authorization from the Lake County Surveyor's 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  
Jean Shepherd, St John Township Advisory Committee Representative  
Lake County Drainage Board & Advisory Committee



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

5-D-6  
03-16-16

## NOTICE TO PROCEED

February 22, 2016

Delta III, Inc.  
2063 W. 1250 S.  
Hanna, IN 46340

**Emergency Project: 2016 Turkey Creek Lateral #6 – Emergency Culvert Replacement**  
**Amount: \$68,500.00**  
**61<sup>st</sup> Avenue east of Taft Street (S.R. 55), Merrillville – Ross Township**

The Lake County Surveyor on behalf of the Lake County Drainage Board, in accordance with the directions given by the Board to the Surveyor at the February 17, 2016 meeting, you are hereby notified to commence work immediately on the above emergency work on or before February 29, 2016.

Please submit a schedule as to your anticipated completion. Please submit all necessary submittals to Thomas Burke, PhD., P.E. (CBBEL) immediately. Please coordinate a utility locate for the project site, and contact the Town of Merrillville 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

**LAKE COUNTY DRAINAGE BOARD**  
  
  
**APPROVED THIS 16 DAY OF MARCH 20 16**

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

OFFICE OF THE LAKE COUNTY SURVEYOR  
PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

***Instructions:***

Proposals must be received no later than Monday, February 22, 2016, by 2:00 PM, Local Time, at the **Lake County Surveyor's Office** in a sealed envelope, labeled:

**“Turkey Creek Lateral #6 – Emergency Culvert Replacement Project”.**

Proposals received after 2:00 PM will be returned unopened.

The proposals will be opened at the Lake County Surveyor's Office immediately after 2:00 PM, Local Time, on Monday, February 22, 2016.

OFFICE OF THE LAKE COUNTY SURVEYOR  
 PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the lump sum and alternate stipulated. All prices listed include any incidental work that may be necessary to complete the project in accordance with the scope of work for the culvert replacement, as may be amended.

Payment to the Contractor shall be made upon completion and final inspection/acceptance by the Surveyor's office.

Item No.	Description
1	<b>Coordinate with and work with appropriate utility companies to identify and resolve potential utility conflicts</b>
2	<b>Remove sidewalk</b> Project limits
3	<b>Clearing and Grubbing</b> Project limits
4	<b>Remove, store and re-install chain link fence</b>
5	<b>Remove manhole structure</b>
6	<b>Locate, disconnect, and re-connect 12" diameter storm pipe on northwest side of existing culvert</b>
7	<b>Culvert Removal</b> Remove existing culvert
8	<b>Grading/prep for installation of new culvert pipe</b>
9	<b>Culvert Installation</b> Replace existing culvert at grade, 60" diameter corrugated steel pipe, aluminized, type 2
10	<b>Install flared end section for new culvert pipe</b>
11	<b>Riprap Revetment Type 1</b> Downstream outlet

OFFICE OF THE LAKE COUNTY SURVEYOR  
 PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

Item No.	Description
12	<b>Mulched Seeding, R</b> Disturbed areas within project limits
13	<b>Erosion Blanket</b> Bank slopes
<b>Bid Lump Sum Price</b>	
	\$ 68,500.00

BIDDERS LUMP SUM PROPOSAL FOR MAKING ENTIRE IMPROVEMENT

\$ Sixty-Eight Thousand Five Hundred and Zero Dollars  
 (WORDS)

Delivery time for 60" diameter corrugated steel pipe, aluminized (Item #9):

1.5 - 2 Weeks from time of order

**ALTERNATE PROPOSAL #1:** Substitute 60" RCP material type for Culvert Pipe (Item #9):

Alternate #1 Bid Lump Sum Price: \$ 86,500.00

\$ Eighty-Six Thousand Five Hundred and Zero Dollars  
 (WORDS)

Delivery time for 60" RCP (Item #9):

2 - 3 Weeks

This proposal submitted this 22 day of February, 2016.

Corporate Name: Delta III, Inc.

Address: 2063 W 1250 S

Hanna, IN 46340

By: 

Title: President - Michael Eaton

POTENTIAL BIDDERS

2016 TURKEY CREEK LATERAL NO. 6 – EMERGENCY CULVERT REPLACEMENT  
61<sup>ST</sup> AVENUE EAST OF TAFT STREET (SR 55)  
MERRILLVILLE, ROSS TWP.

Delta III  
2063 W. 1250 S  
Hanna, IN 46340

\$ 68,500.00 1½-2 weeks  
Alt \$ 86,500.00 2-3 weeks

R.A. Oros, Inc  
8244 Greenwood Avenue  
Munster, IN 46321

\$ \_\_\_\_\_

Dyer Construction Company, Inc.  
1716 Sheffield Avenue  
Dyer, IN 46311

\$ 91,000.00 2 weeks  
Alt \$ 98,500.00 3 weeks



## Daniel Gossman

---

**From:** elpop@comcast.net  
**Sent:** Monday, February 22, 2016 11:34 AM  
**To:** Daniel Gossman  
**Subject:** Turkey Creek Lateral #6 Emergency culvert repair / replacement

Dear Mr. Gossman,

We at R.A.Oros are thankful for the invitation to participate in the above referenced project. Regrettably due to existing obligations of our current commitments to contracts in progress we will not be submitting a proposal on this emergency repair. However, please be kind enough to keep us in mind should you have cause in the future. Once again, Thanks again for the consideration.

Best Regards,

Emil L. Poppa  
R. A. Oros, Inc.  
(219) 838-4942 ph  
(219) 838-7624 fx

OFFICE OF THE LAKE COUNTY SURVEYOR  
PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

***Instructions:***

Proposals must be received no later than Monday, February 22, 2016, by 2:00 PM, Local Time, at the **Lake County Surveyor's Office** in a sealed envelope, labeled:

**“Turkey Creek Lateral #6 – Emergency Culvert Replacement Project”.**

Proposals received after 2:00 PM will be returned unopened.

The proposals will be opened at the Lake County Surveyor's Office immediately after 2:00 PM, Local Time, on Monday, February 22, 2016.

OFFICE OF THE LAKE COUNTY SURVEYOR  
 PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

The undersigned has carefully inspected the site of the proposed work and can perform the various items of work for the lump sum and alternate stipulated. All prices listed include any incidental work that may be necessary to complete the project in accordance with the scope of work for the culvert replacement, as may be amended.

Payment to the Contractor shall be made upon completion and final inspection/acceptance by the Surveyor's office.

Item No.	Description
1	<b>Coordinate with and work with appropriate utility companies to identify and resolve potential utility conflicts</b>
2	<b>Remove sidewalk</b> Project limits
3	<b>Clearing and Grubbing</b> Project limits
4	<b>Remove, store and re-install chain link fence</b>
5	<b>Remove manhole structure</b>
6	<b>Locate, disconnect, and re-connect 12" diameter storm pipe on northwest side of existing culvert</b>
7	<b>Culvert Removal</b> Remove existing culvert
8	<b>Grading/prep for installation of new culvert pipe</b>
9	<b>Culvert Installation</b> Replace existing culvert at grade, 60" diameter corrugated steel pipe, aluminized, type 2
10	<b>Install flared end section for new culvert pipe</b>
11	<b>Riprap Revetment Type 1</b> Downstream outlet

OFFICE OF THE LAKE COUNTY SURVEYOR  
 PROJECT: TURKEY CREEK LATERAL #6 – 61<sup>ST</sup> AVE EAST OF TAFT STREET  
EMERGENCY CULVERT REPLACEMENT – 2016

Item No.	Description
12	<b>Mulched Seeding, R</b> Disturbed areas within project limits
13	<b>Erosion Blanket</b> Bank slopes
<b>Bid Lump Sum Price</b>	
	<b>\$ 91,000.00</b>

BIDDERS LUMP SUM PROPOSAL FOR MAKING ENTIRE IMPROVEMENT

\$ Ninety-One Thousand and 00/00  
 (WORDS)

Delivery time for 60" diameter corrugated steel pipe, aluminized (Item #9):

(2) Weeks after receipt of approved submittal.

**ALTERNATE PROPOSAL #1:** Substitute 60" RCP material type for Culvert Pipe (Item #9):

Alternate #1 Bid Lump Sum Price: \$ 7,500.00 (Add)

\$ Seven Thousand Five Hundred and 00/00  
 (WORDS)

Delivery time for 60" RCP (Item #9):

(3) Weeks after receipt of approved submittal.

This proposal submitted this 22nd day of February, 2016.

Corporate Name: Dyer Construction Company, Inc.

Address: 1716 Sheffield Avenue

Dyer, IN 46311

By:   
 Greg Furman

Title: Vice-President

Exhibit A  
Turkey Creek Lateral #6 – Emergency Culvert Replacement  
Bid Proposal Remarks:

1. Proposal is based on backfilling with onsite excavated materials.
2. Proposal does not include Sales Tax, Compaction Testing, Testing, Manhole Testing, Building Permits, IDEM notification or posting thereof, Builder's Risk Insurance, MBE/DBE/WBE Requirements and/or Local Work force requirements.
3. Proposal does not include handling, identifying and/or removing hazardous or contaminated materials or asbestos removals
4. Excavation will be performed per Indiana Digging Laws.



# 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. 291-3-16-I-III

March 16, 2016

Josh L Auxier, PE  
Midwest Engineering Associates, Inc.  
140 East Washington Street  
East Peoria, IL 61611

DEAR PETITIONER:

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

**Cady Marsh Ditch, Calumet Township**  
**Applicant: Wisconsin Central Limited – Agent: Midwest Engineering.**  
Application to Perform Work Within and Place Temporary/Permanent Structure in a Regulated Drain/Easement for the purpose of reconstruction of Railroad Bridge.

WAS CONSIDERED BY THE DRAINAGE BOARD AT A MEETING ON THE 16<sup>th</sup> DAY OF March, 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 **APRIL 20, 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



March 7, 2016

Midwest Engineering Associates, Inc.  
140 E. Washington Street  
East Peoria, Illinois 61611

Attention: Josh L. Auxier, PE  
Project Engineer

Subject: **Wisconsin Central/CN Bridge Replacement**  
**Watercourse:** Cady Marsh Ditch  
**Applicant:** Wisconsin Central/Canadian National Railroads  
**Engineer:** Midwest Engineering Associates, Inc.  
(CBBEL Project No. 93-169)

Dear Mr. Auxier:

At the request of the Lake County Surveyor's Office (LCSO), Christopher B. Burke Engineering, LLC (CBBEL) has performed a review of the material submitted for the subject project by Midwest Engineering Associates, Inc. (Midwest). The project consists of the removal and replacement of the superstructure of a railroad bridge over the Cady Marsh Ditch between Broad Street and Arbogast Street in the Town of Griffith, Indiana. The existing concrete abutments will remain in place. The proposed cross-sectional area of the waterway opening appears to be larger than existing conditions since the proposed bridge low chord will be raised. There is mapped Zone AE floodplain and floodway located through the site according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Lake County, Indiana and Incorporated Areas, Panels 141 of 480, dated January 18, 2012. The purpose of the CBBEL review was to comment on compliance with the Lake County, Indiana Stormwater Management Ordinance (Ordinance) and standard engineering methods.

CBBEL received the following items for review:

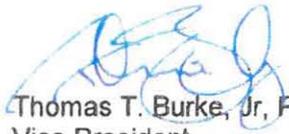
- Letter, prepared by Midwest, dated February 22, 2016.
- Letter, prepared by CN, dated October 29, 2015.
- Memorandum, prepared by Midwest, dated February 22, 2016.
- Lake County Drainage Board Permit Application
- Correspondence from LCSO and Midwest from November 4 and November 17, 2015.
- Canadian National Plan Set, prepared by CN, dated October 16, 2015.

CBBEL staff has reviewed the supplied information and provides the following comments:

1. The plan set should be signed and sealed by a Registered Professional Engineer. A complete plan set should be provided upon approval. It appears that additional sheets not included with this submittal are not applicable to our review based on the index sheet.
2. The Applicant should notify the LCSO 48 hours prior to the start of work and provide a contact person for the project.
3. Even though the removal and replacement of the superstructure is above the Base Flood Elevation (BFE) of Cady Marsh Ditch, it is still located within the mapped regulatory floodway. Therefore, an Indiana Department of Natural Resources – Division of Water (IDNR-DOW) Floodway Construction Permit is required. Since the proposed work appears to be above the BFE, the project will likely be eligible to utilize a Non-Modeling Assessment spreadsheet. The Applicant should contact IDNR-DOW personnel to determine which spreadsheet should be utilized for this project.
4. The flow direction arrow on Plan Sheet 2.1 is the wrong direction and should be corrected.
5. Mapped limits of the 100-year floodplain and regulatory floodway boundaries should be shown on Plan Sheet 2.3. We recommend that the staging area be located outside of the regulatory floodway (if applicable).
6. The County Drainage Easement limits should be shown on Plan Sheet 2.3. The limits are 75 ft. wide measured from the top of each bank.
7. The silt fence should also be placed on the southeast side of the bridge to contain the noted set-off/storage area on Plan Sheet 2.3. A detail of the silt fence, timber matting, or any other soil erosion/sediment control device should also be included in the plan set.
8. The plans should detail how the demolition and construction of the railroad will minimize debris from entering the waterway. The plans should also detail how debris will be removed, if necessary.

If you have any questions please do not hesitate to call (847) 823-0500.

Sincerely,



Thomas T. Burke, Jr, PhD, PE  
Vice President  
Head, Water Resources Department

CC: Bill Emerson, Jr. – Lake County Surveyor  
Dan Gossman – LCSO  
Mary Ellen Kupsik – LCSO

DCOI  
N:\INDIANA\93169\2016\Reviews\L\_Wisc Central Cady 030716.docx

L-A  
03-16-16



**Midwest Engineering**  
Associates, Inc.

February 22, 2016

Lake County Surveyor's Office  
C/O Mary Ellen Kupsik, Drainage Board Secretary  
2293 North Main Street, A-306  
Crown Point, IN 46307

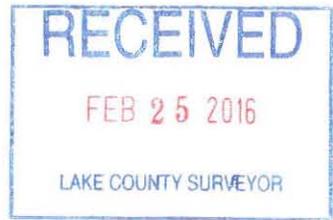
**Re: Drainage Board Permit Application for Railroad Bridge Reconstruction**  
Wisconsin Central Limited  
Matteson Subdivision - Mile Post 37.9  
Griffith, IN in Lake County

To whom it may concern:

On behalf of Wisconsin Central Limited, a subsidiary of Canadian National, Midwest Engineering Associates, Inc. is submitting an application for permission to work within a regulated drain for the reconstruction of an existing single span bridge in Lake County, IN.

The existing structure is located in Griffith at the railroad crossing over Cady Marsh Ditch between N. Broad Street and N. Arbogast Street (Lat: 41.543381/Long: -87.422928). The existing bridge consists of a single span steel structure with the bridge deck running perpendicular across the drainage way. The structure is located in an urban area. The proposed improvements consist of replacing the steel superstructure with concrete girders, while utilizing the existing concrete abutments. Additionally minor concrete repairs to the abutments will be performed.

Prior to this submittal, a letter received on November 4, 2015 from Lake County asked WCL/CN to remove and haul away sediment from the ditch bottom within railroad right-of-way. A response from MWEA on behalf of WCL/CN was sent to the County on November 17, 2015. The response outlines the difficulties involved in including dredging in this project and offers an expedited Right of Entry as well as railroad flagman at no cost to the County to help facilitate the County's project. In the absence of a response from the County, the documents in this submittal do not include the dredging of Cady Marsh Ditch.



Included in this submittal application are the following documents for review:

- A letter from Canadian National authorizing Midwest Engineering Associates to apply for permits on their behalf for the above referenced project.
- Lake County Drainage Board Permit Application
- Letter from Lake County dated November 4, 2015
- Response letter to Lake County dated November 17, 2015
- A USGS Quadrangular Map – Partial map segment showing project location
- Hydraulic Commentary Memorandum
- Excerpt from FIS No. 18089CB001A
- FEMA FIRMette of FIRM Panel 18089C0141E
- Two (2) sets of the preliminary proposed Bridge Replacement General Arrangement Plans
- Images of the site taken during a site visit

If any questions or issues arise during the review process please feel free to contact Erin Strickler or myself. I may be reached at (309) 222-8632 or [jauxier@mweainc.com](mailto:jauxier@mweainc.com), and Erin may be reached at (309) 222-8631.

Sincerely,



Josh L. Auxier, P.E. (IL), LEED AP®  
Enclosures

CC: Thomas Burke  
Christopher B. Burke Engineering, Ltd.  
9575 West Higgins Road, Suite 600  
Rosemont, IL 60018



17641 South Ashland Avenue  
Homewood, Illinois 60430

Aneesh Bethi  
Bridges Design Engineer  
Telephone (708) 332-3167,  
Fax (708) 332-3052  
email: aneesh.bethi@cn.ca

Date: October 29, 2015

**Re: Permit applicaton for railroad bridge superstructure replacement at mile post 37.94 on the Matteson subdivision near Griffith, IN**

To whom it may concern:

Wisconsin Central Limited (WCL)/CN hereby authorizes **Josh L. Auxier of Midwest Engineering Associates, Inc.** or any agent of Midwest Engineering Associates, Inc., to sign the permit application(s) for the bridge superstructure replacement projects located at mile posts 37.94 on Matteson subdivision, where WCL/CN is the property owner. This provides Midwest Engineering Associates, Inc., the authority to negotiate work or permit application changes on our behalf.

If you have any questions regarding this matter, please call.

Best Regards

A handwritten signature in black ink, appearing to read 'Aneesh Bethi', with a long horizontal stroke extending to the right.

Aneesh Bethi  
Bridge Design Engineer  
Network Operations

APPLICATION NO. \_\_\_\_\_

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

- 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) Wisconsin Central Limited

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: Cady Marsh Ditch

SECTION(S): 26 TOWNSHIP: 36N RANGE: 9W

ADDRESS OR DESCRIPTION OF LOCATION Railroad crossing over Cady Marsh Ditch  
Between N. Broad Street and N. Arbogast St. in Griffith, IN

THE REQUEST IS TO CONSIST OF THE FOLLOWING ACTIVITIES:

Reconstruction of superstructure of railroad bridge and related  
temporary silt fence and access road located within drainage  
easement.

THE PURPOSE OF THE REQUEST IS TO:

Reconstruct the above mentioned railroad bridge superstructure as it  
has reached the end of its original design life and is in need of  
repair.

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 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: Josh L. Auxier DATE: 02/22/2016  
(PRINT OR TYPE NAME)

  
(SIGNATURE)

SUBMITTED FOR: Aneesh Bethi (WCL/CN)

ADDRESS 17641 South Ashland Avenue  
Homewood, IL 60430

PHONE#: (708) 332-3167

---

(THIS SECTION FOR DRAINAGE BOARD USE ONLY)

LAKE COUNTY DRAINAGE BOARD

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

DATE: \_\_\_\_\_ APPROVED: \_\_\_\_\_ 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.**



# 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

November 4, 2015

Erin Strickler  
Midwest Engineering Associates, Inc.  
140 East Washington St.  
East Peoria, Illinois 61611

RE: Cady Marsh Ditch – Canadian National Crossing  
Highland, IN (North Twp.)

Dear Erin,

In response to your email of October 30, 2015 regarding several items for a Lake County Drainage Board application for Canadian National to perform work within the 75' right-of-way easement for the Cady Marsh Ditch, please consider the following as recommendations and conditions.

A letter from Canadian National giving Midwest Engineering permission to sign permits is sufficient for our permit as "power of attorney". With regard to the drainage easement, Indiana Code 36-9-27-33 states that the 75' easement is measured at right angles from the top-of-bank as determined by the county surveyor, which would extend parallel to the Railroad. As far as any specific requirements for regarding the FIRM, a statement with the documentation (FIRM and FIS) is sufficient.

The Lake County Surveyor on behalf of the Lake County Drainage Board would ask the Railroad to remove and haul away sediment from the ditch bottom within the Railroad ROW. We estimate the sediment is less than or equal to 2 feet in depth. The Surveyor's Office is currently working on Cady Marsh Ditch but will not be doing work within the Railroad ROW.

Hopefully this answers all your concerns. Should you have any additional questions, 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  
Cliff Duggan, Legal Advisor  
Mark Kozy, North Township Advisory Committee Representative  
Lake County Drainage Board & Advisory Committee  
Thomas Burke, P.E., PhD., CBBEL  
John Bach, Town of Highland Public Works Director



Midwest Engineering

Associates, Inc.

November 17, 2015

Daniel Gossman  
Lake County Drainage Administrator  
2293 North Main Street  
Crown Point, IN 46307

**Re: Cady Marsh Ditch – Wisconsin Central Limited/CN Crossing**  
Matteson Subdivision - Mile Post 37.9  
Griffith, IN in Lake County

Mr. Gossman,

On behalf of Wisconsin Central Limited, a subsidiary of Canadian National, Midwest Engineering Associates, Inc. is responding to your letter dated November 4, 2015 regarding the rail crossing over Cady Marsh Ditch.

The existing structure is located at Cady Marsh Ditch between N. Broad Street and N. Arbogast Street (Lat: 41.543381/Long: -87.422928). According to the Lake County GIS online portal, the crossing is located in Griffith. Your letter indicated the crossing was in Highland. There is an additional crossing in Highland and I want to confirm that we are referencing the same crossing.

Your letter also asked that Wisconsin Central Limited/CN remove and haul away sediment from the ditch bottom within railroad right-of-way. It is our understanding that the County is dredging both upstream and downstream of the rail crossing and has received all permits necessary for this work. Given the difficulties in managing two separate construction schedules and becoming shovel ready (obtaining permits, finding an acceptable disposal site, mobilizing equipment) for such a small portion of the County's larger project, it is our belief that the portion of the dredging project within Wisconsin Central Limited/CN right-of way is better suited to be performed by the County during the completion of the remainder of the project.

Although a Wisconsin Central Limited/CN Right of Entry (ROE) is required prior to advancing the work, Wisconsin Central Limited/CN will advance an expedited, no fee ROE and provide a railroad flagman during the work at no cost to the County.

Please advise us as to whether or not this meets the satisfaction of the Surveyor's office and Drainage Board. If you have any questions please feel free to contact Erin Strickler or myself. I may be reached at (309) 222-8632 or [jauxier@mweainc.com](mailto:jauxier@mweainc.com), and Erin may be reached at (309) 222-8631.

Sincerely,

Josh L. Auxier, P.E. (IL), LEED AP®  
Project Engineer

CC: Bill Emerson, Jr. Lake County Surveyor  
Tom Regalado, Asst Drainage Admn  
Cliff Duggan, Legal Advisor  
Mark Kozy, North Township Advisory Committee Representative  
Thomas Burke, P.E., Ph D., CBBEL  
John Bach, Town of Highland Public Works Director



## MEMORANDUM

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Date: 02/22/2016  
To: Lake County, Indiana Drainage Board  
From: Josh L. Auxier, PE (IL), LEED AP  
Subject: Bridge Hydraulic Commentary for the Wisconsin Central Limited  
Rail Bridge Reconstruction project at Mile Post 37.94  
Project #: 20150075

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Distribution: Lake County Indiana Drainage Board, File

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This memorandum is written to provide commentary to accompany the Lake County Drainage Board Application for the reconstruction of the Canadian National rail bridge over Cady Marsh Ditch in Griffith, Lake County, Indiana.

The project involves the reconstruction of the rail bridge superstructure on the existing concrete abutments at the rail crossing of Cady Marsh Ditch in the Town of Griffith, Indiana. The structure is located approximately 0.27 miles west (downstream) of the roadway structure at N. Arbogast Street. The reconstruction of the bridge superstructure will not encroach vertically or horizontally on the existing waterway opening beyond that of the existing abutments. The proposed low soffit elevation for the west structure is 613.72, which is 0.55 feet higher than the existing low steel elevation of 613.17. Similarly the proposed east structure low steel elevation of 613.77 is 0.53 feet higher than the existing low steel elevation of 613.24. All elevations reference NAVD88.

Cady Marsh Ditch flows through the town of Griffith to the west toward Hart Ditch which continues north to the Little Calumet River. The hydraulic characteristics of the ditch were extensively studied by the Federal Emergency Management Agency in 2012 for Flood Insurance Study (FIS) Number 18089CV001A. The resulting Flood Insurance Rate Map is Panel 18089C0141E with an effective date of January 18, 2012.

This FIS Study lists the regulatory 1-percent annual chance flood water surface elevation as 611.9 (NAVD88) at this structure. The proposed bridge low soffit is 613.72 (NAVD88), 1.82 feet above the base flood water surface elevation.

It should be noted that a Preliminary FIS – Panel 18089CV001B – with an effective date of March 16, 2016, lowers the 1-percent annual chance flood water surface elevation at this location to 610.2 (NAVD88) due to an Army Corps of Engineers project recently completed to divert flood water from Cady Marsh Ditch upstream of the rail structure. The lowering of the base flood elevation increases the structure freeboard and therefore has no impact on the following statements.

On the basis of this information, the following statements are provided:

1. The proposed structure will not encroach on the waterway for flows up to the current, effective published regulatory 1 percent annual chance flood water surface elevation of 611.9 (feet NAVD88).
2. Further, the new structure will provide an effective waterway opening equal to or greater than that provided by the existing structure at this location.

FLOODING SOURCE		FLOODWAY				1-PERCENT ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY <sup>2</sup> (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Burns Ditch									
P	16,258 <sup>1</sup>	2,575	5,195	0.9		595.8	595.8	595.9	0.1
Q	21,948 <sup>1</sup>	1,180	4,895	1.1		596.6	596.6	596.7	0.1
Cady Marsh Ditch									
A	3586 <sup>3</sup>	39	304	1.9		607.7	607.7	607.8	0.1
B	4980 <sup>3</sup>	20	160	3.6		608.2	608.2	608.3	0.1
C	6311 <sup>3</sup>	26	152	3.8		608.8	608.8	608.9	0.1
D	8600 <sup>3</sup>	35	176	2.9		610.2	610.2	610.3	0.1
E	10,310 <sup>3</sup>	117	296	1.4		610.8	610.8	610.9	0.1
F	11,594 <sup>3</sup>	1,020	927	0.4		611.0	611.0	611.1	0.1
G	12,138 <sup>3</sup>	660	223	1.8		611.0	611.0	611.1	0.1
H	12,750 <sup>3</sup>	1,440	2,267	0.2		611.1	611.1	611.2	0.1
I	14,189 <sup>3</sup>	320	171	2.1		611.4	611.4	611.5	0.1
J	14,891 <sup>3</sup>	58	188	1.7		611.5	611.5	611.6	0.1
K	15,654 <sup>3</sup>	42	184	1.6		611.7	611.7	611.8	0.1
L	17,174 <sup>3</sup>	44	144	1.8		611.9	611.9	612.0	0.1
M	17,842 <sup>3</sup>	42	201	1.2		612.1	612.1	612.2	0.1
N	19,002 <sup>3</sup>	58	162	1.7		612.2	612.2	612.3	0.1
O	19,545 <sup>3</sup>	830	1,984	0.1		612.3	612.3	612.4	0.1

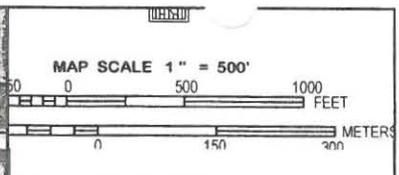
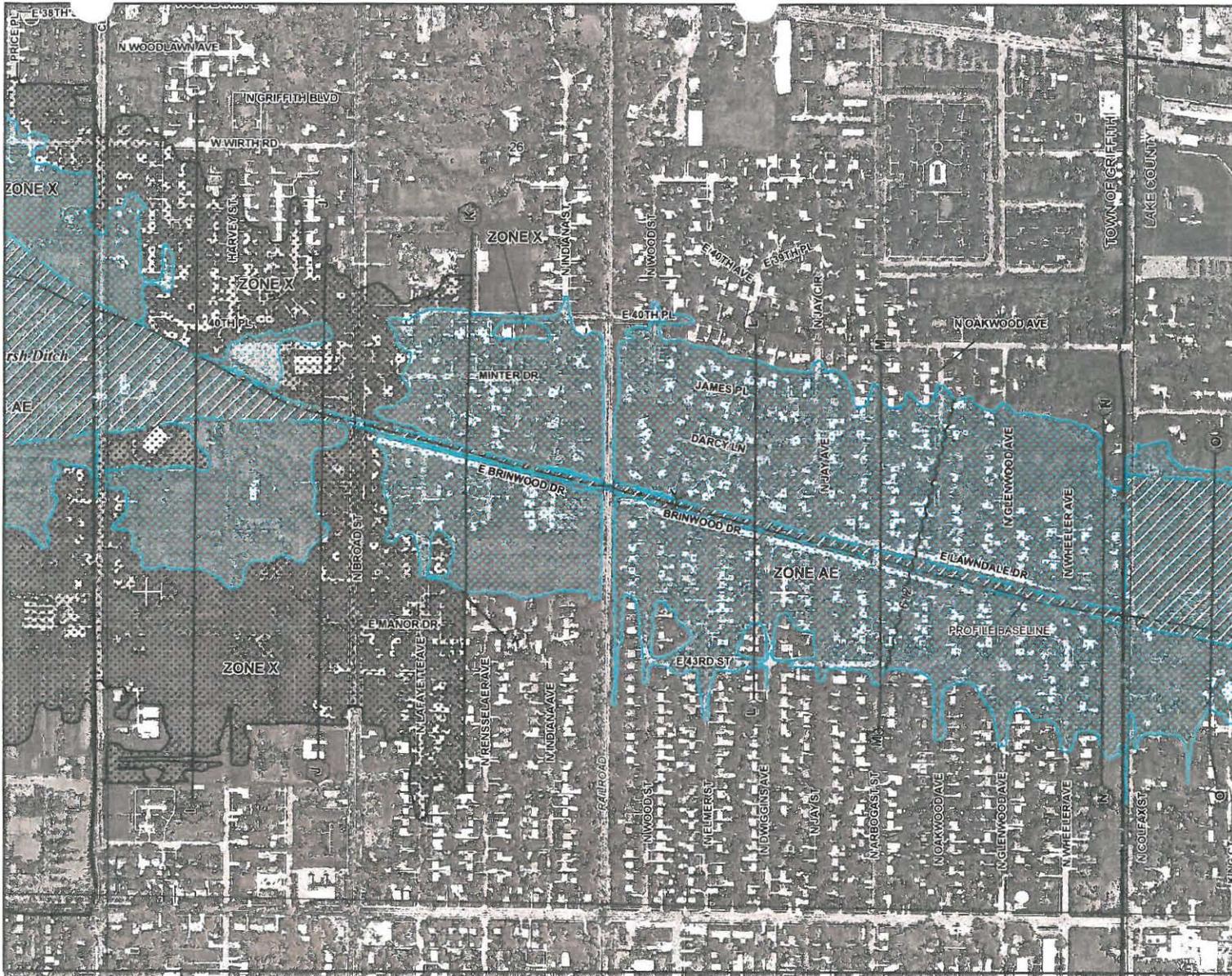
<sup>1</sup>Feet Above Corporate Limits <sup>2</sup>See Explanation in Section 4.2 Floodways <sup>3</sup>Feet above mouth

Table 11

FEDERAL EMERGENCY MANAGEMENT AGENCY  
LAKE COUNTY, INDIANA  
AND INCORPORATED AREAS

**FLOODWAY DATA**

**Burns Ditch - Cady Marsh Ditch**



**NATIONAL FLOOD INSURANCE PROGRAM**

PANEL 0141E

**FIRM**  
FLOOD INSURANCE RATE MAP

LAKE COUNTY,  
INDIANA  
AND INCORPORATED AREAS

PANEL 141 OF 480  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTRACT:

COMMUNITY	NUMBER	PANEL	SUFFIX
DART, CITY OF	1810E	0141	E
DEPTEN TOWNSHIP	1811E	0141	E
HIGHLAND TOWNSHIP	1812E	0141	E
LAKE COUNTY	1813E	0141	E

NOTE TO USER: The Map Number shown below should be used when placing map orders. The Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
18089C0141E

**EFFECTIVE DATE**  
JANUARY 18, 2012

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

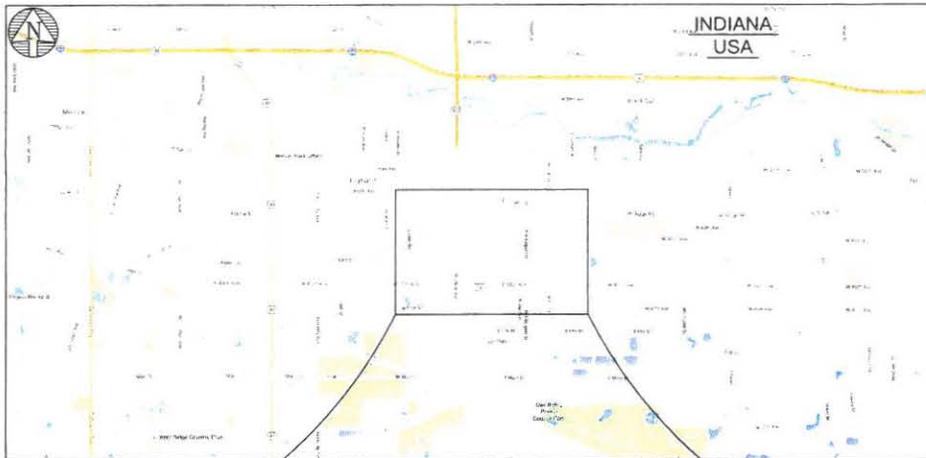


IMAGE TAKEN FROM GOOGLE MAPS

LOCATION MAP

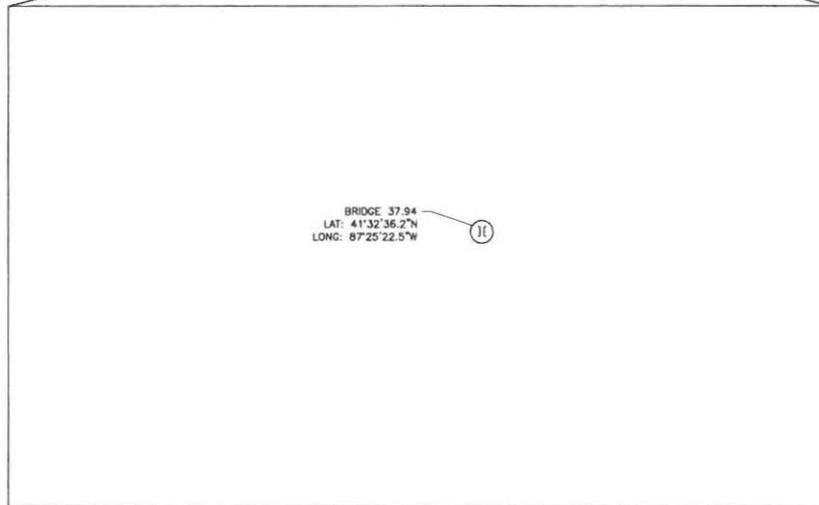


IMAGE TAKEN FROM GOOGLE MAPS

LOCATION PLAN

LIST OF DRAWINGS

- COVER SHEET	AA0334-37.94-2.0
- GENERAL ARRANGEMENT (1 of 2)	AA0334-37.94-2.1
- GENERAL ARRANGEMENT (2 of 2)	AA0334-37.94-2.2
- SITE ACCESS PLAN	AA0334-37.94-2.3

LIST OF CN STANDARD DRAWINGS

- PRESTRESSED PRECAST 30" DOUBLE VOIDED BOX GIRDERS (E-90) DVB3020 to DVB3030	R5A-5.5C
- 30" DOUBLE VOIDED BOX GIRDERS (E-90) DVB3020 to DVB3030 - TENDON LAYOUT	R5A-5.6B
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - TYPICAL DETAILS	R5A-7.1D
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - TYPICAL WALKWAY ASSEMBLIES	R5A-7.2C
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - BILL OF MATERIAL	R5A-7.3C
- TYPE H-3 SADDLE CLIP FOR 38-4 HEAVY DUTY GRATING	S9I

LIST OF REFERENCE DRAWINGS

- EXISTING DRAWINGS	AA0334-37.94 SERIES 1
- SURVEY DRAWINGS PREPARED BY MIDWEST ENGINEERING ASSOCIATES INC.	AA0334-37.94 SERIES 15
- DATED AUGUST 4, 2015	
- EXISTING BRIDGE SURVEY REPORT PREPARED BY MIDWEST ENGINEERING ASSOCIATES, INC.	
- DATED JUNE 22, 2015	

PRELIMINARY

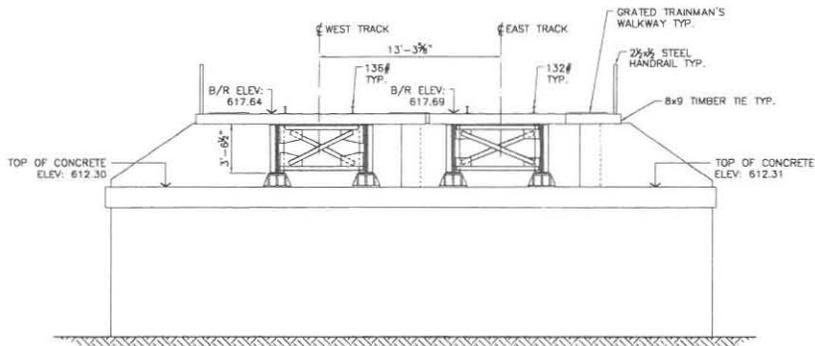
10/16/2015



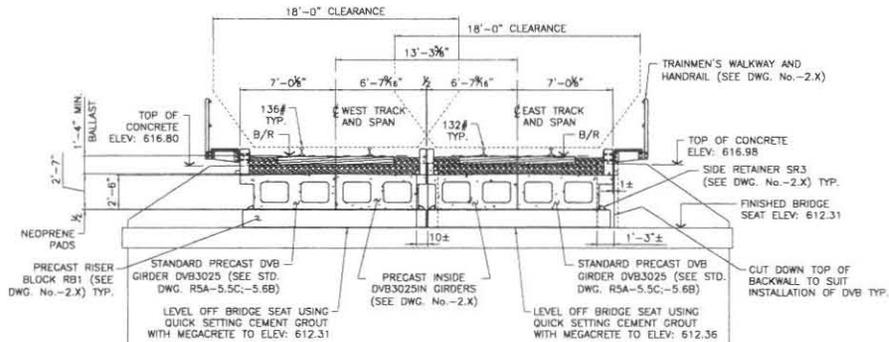
**Canadian National**  
OFFICE OF THE CHIEF ENGINEER

BRIDGE REPLACEMENT  
Mi.37.94 MATTESON SUBDIVISION  
NEAR GRIFFITH, INDIANA, USA

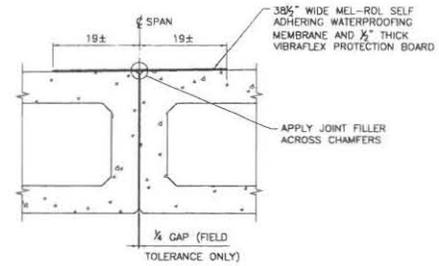




SECTION "C-C"



SECTION "D-D"



SECTION THROUGH DVB GIRDERS

SCALE: 1"=1'-0"

**NOTES:**

- FOR GENERAL NOTES AND SPECIFICATIONS SEE DRAWING AA0334-37.94-2.2
- READ THIS DRAWING IN CONJUNCTION WITH DRAWING AA0334-37.94-2.1

**WATERPROOFING NOTES:**

- MEMBRANE SHALL BE MEL-ROL SELF-ADHERING AS SUPPLIED BY W. R. MEADOWS (PRODUCT DATA 714 OR 714D). MEMBRANE IS SUPPLIED IN 38.5" WIDE x 62.5' LONG ROLLS AND SHALL BE INSTALLED CENTERED OVER;
- LONGITUDINAL AND TRANSVERSE JOINTS BETWEEN GIRDERS
- TRANSVERSE JOINTS BETWEEN GIRDERS AND BACKWALLS (OVER DECK JOINT COVER PLATES). MEMBRANE SHALL EXTEND BALLAST CURB FULL-HEIGHT.
- PRIOR TO MEMBRANE INSTALLATION, APPLY JOINT FILLER ALONG THE LONGITUDINAL GIRDER CHAMFERED EDGES TO PREVENT MEMBRANE STRETCHING ACROSS THE CHAMFERED EDGES AND SUBSEQUENT MEMBRANE PUNCTURING. JOINT FILLER SHALL BE ONE OF THE FOLLOWING OR ENGINEER APPROVED EQUAL:
  - CLOSED-CELL, POLYETHYLENE FOAM BACKER ROD JOINT FILLER AS MANUFACTURED BY SIKKA, SAKRETE OR EQUAL
  - SPRAY FOAM, MINIMAL EXPANSION, POLYURETHANE INSULATING SEALANT AS MANUFACTURED BY GREAT STUFF OR EQUAL.
- INSTALL ONE LAYER OF VIBRAFLEX ASPHALTIC PANEL BRIDGE DECK PROTECTION COURSE AS SUPPLIED BY W. R. MEADOWS (PRODUCT DATA 730) PANEL SHALL BE 1/2"x4'x8' AND SHALL BE CENTERED OVER THE MEMBRANE TO PREVENT DAMAGE.

**PRELIMINARY**  
10/08/2015

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	Sub-division	MATTESON	Mile	By/Per	37.94
Division		CHICAGO					

**BRIDGE 37.94**  
NEAR GRIFFITH, IN  
**SPAN REPLACEMENT**  
**GENERAL ARRANGEMENT (2 of 2)**

Drawn	TZ	Designed	-	Checked	Vertical	Scale	1/4"=1'-0"	Date	-
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Office of Chief Engineer  
Bureau de l'ingénieur en chef

File Reference	37.94 MATTESON	Drawing Number	Date	AA0334-37.94-2.2
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10/08/2015 10:10 AM

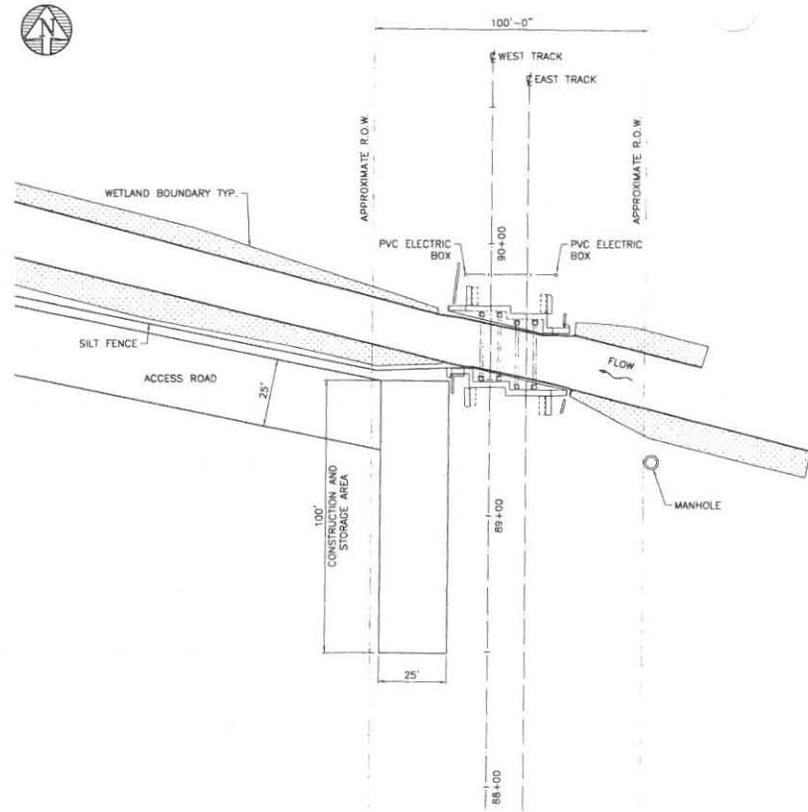


IMAGE TAKEN FROM GOOGLE MAPS

**SITE ACCESS PLAN**

**SITE ACCESS NOTES:**

1. ACCESS TO THE BRIDGE SITE SHALL BE BY ACCESS ROAD.
2. TEMPORARY SET-OFF PAD/STORAGE AREA WILL BE CONSTRUCTED AT THE SOUTHEAST CORNER OF THE BRIDGE.
3. DIMENSIONS OF THE TEMPORARY WORKS SHOWN ON THE DRAWING SHALL GOVERN, UNLESS ALTERNATE DETAILS ARE SUBMITTED AND APPROVED BY CN AND THE APPROPRIATE PERMITTING AUTHORITIES.
4. DESIGN AND DETAILS OF THE TEMPORARY WORKS SHALL BE BY THE CONTRACTOR, SUBJECT TO DIMENSIONS SHOWN. APPROPRIATE MEASURES MUST BE TAKEN TO MAINTAIN NORMAL DOWNSTREAM FLOWS AND MINIMIZE EROSION AND FLOODING BY EXPECTED HIGH FLOWS.
5. ALL MATERIALS USED FOR TEMPORARY ACCESS SHALL BE COMPLETELY REMOVED FROM THE SITE UPON COMPLETION OF THE PROJECT. TEMPORARY FILL MATERIAL SHALL CONSIST OF CLEAN AGGREGATE AND/OR TIMBER MATS UNDERLAIN BY GEO-FABRIC.
6. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS OUTSIDE THE LIMITS OF THE RR EMBANKMENT SLOPES SHALL BE SEEDED WITH A SEED MIXTURE NATIVE TO THE AREA.



**ENLARGED SITE ACCESS PLAN**

SCALE: 1"=20'-0"

**PRELIMINARY**  
10/28/2015

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	By/Per

Division	CHICAGO	Sub-division	MATTESON	Mill	37.94
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**BRIDGE 37.94**  
NEAR: GRIFFITH, IN  
**SPAN REPLACEMENT**  
**SITE ACCESS PLAN**

Drawn	TZ	Designed	Conception	Checked	Verification	Scale	AS NOTED	Date	
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Office of Chief Engineer  
Bureau de l'Ingénieur en chef



File Reference	37.94 MATTESON	Drawing Number	AA0334-37.94-2.3
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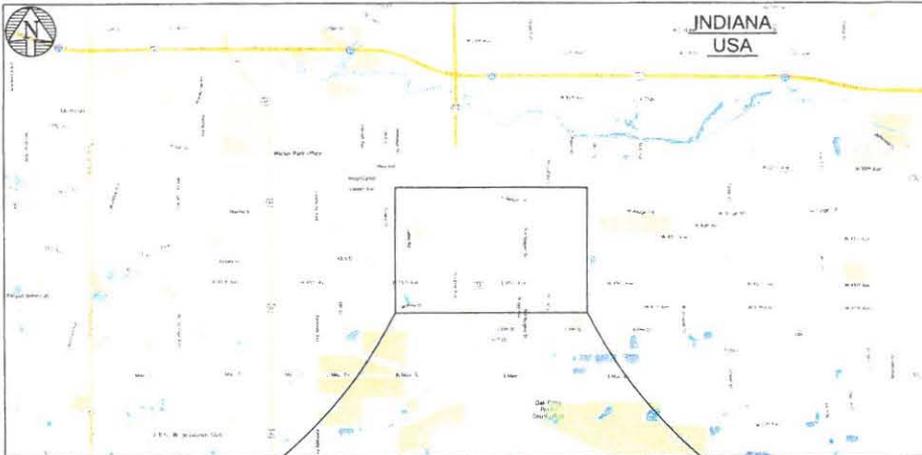
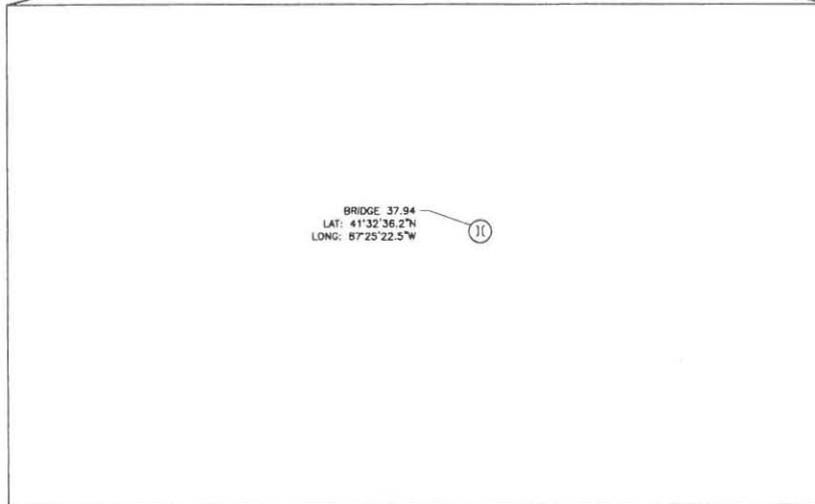


IMAGE TAKEN FROM GOOGLE MAPS

LOCATION MAP



BRIDGE 37.94  
LAT: 41°32'36.2"N  
LONG: 87°25'22.5"W

IMAGE TAKEN FROM GOOGLE MAPS

LOCATION PLAN

LIST OF DRAWINGS

- COVER SHEET	AA0334-37.94-2.0
- GENERAL ARRANGEMENT (1 of 2)	AA0334-37.94-2.1
- GENERAL ARRANGEMENT (2 of 2)	AA0334-37.94-2.2
- SITE ACCESS PLAN	AA0334-37.94-2.3

LIST OF CN STANDARD DRAWINGS

- PRESTRESSED PRECAST 30" DOUBLE VOIDED BOX GIRDERS (E-90) DVB3020 to DVB3030	RSA-5.5C
- 30" DOUBLE VOIDED BOX GIRDERS (E-90) DVB3020 to DVB3030 - TENDON LAYOUT	RSA-5.6B
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - TYPICAL DETAILS	RSA-7.1D
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - TYPICAL WALKWAY ASSEMBLIES	RSA-7.2C
- TRAINMEN'S WALKWAYS FOR PRECAST CONCRETE SPANS - BILL OF MATERIAL	RSA-7.3C
- TYPE H-3 SADDLE CLIP FOR 38-4 HEAVY DUTY GRATING	S9I

LIST OF REFERENCE DRAWINGS

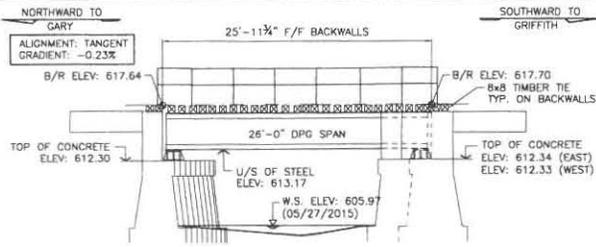
- EXISTING DRAWINGS	AA0334-37.94 SERIES 1
- SURVEY DRAWINGS PREPARED BY MIDWEST ENGINEERING ASSOCIATES, INC., DATED AUGUST 4, 2015	AA0334-37.94 SERIES 15
- EXISTING BRIDGE SURVEY REPORT PREPARED BY MIDWEST ENGINEERING ASSOCIATES, INC., DATED JUNE 22, 2015	

PRELIMINARY  
10/16/2015

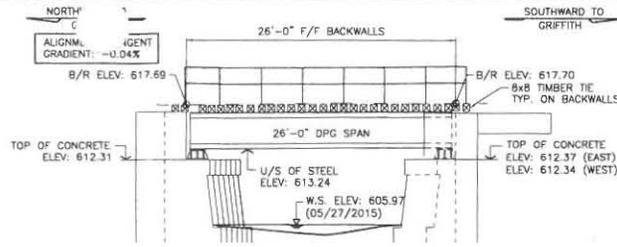


**Canadian National**  
OFFICE OF THE CHIEF ENGINEER

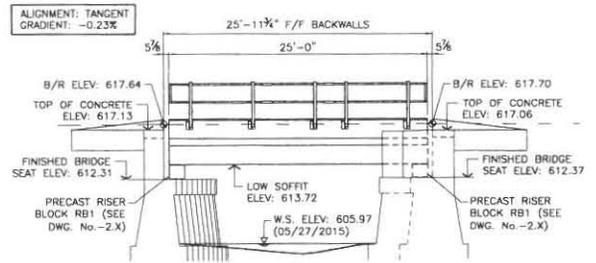
BRIDGE REPLACEMENT  
Mi.37.94 MATTESON SUBDIVISION  
NEAR GRIFFITH, INDIANA, USA



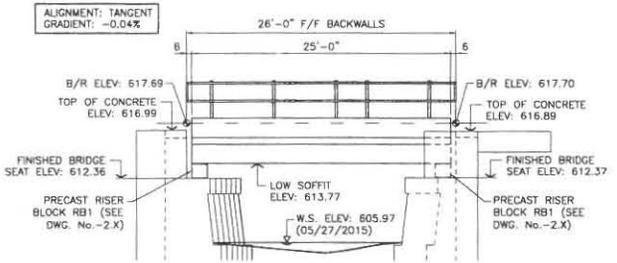
SECTION "A-A"  
(EXISTING WEST BRIDGE)



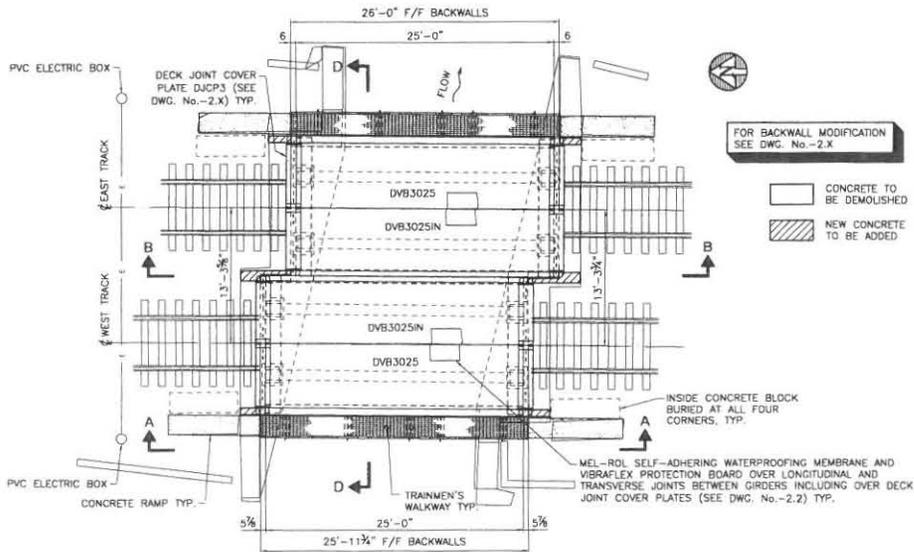
SECTION "B-B"  
(EXISTING EAST BRIDGE)



SECTION "A-A"  
(PROPOSED WEST BRIDGE)



SECTION "B-B"  
(PROPOSED EAST BRIDGE)



PLAN OF PROPOSED BRIDGE

**GENERAL NOTES:**

- IT IS PROPOSED TO REPLACE THE EXISTING SINGLE OPEN DECK DPG SPAN OF BOTH BRIDGES WITH PRECAST DOUBLE VOIDED BOX GIRDER (25'-0" LENGTH) SPAN SUPPORTED ON EXISTING ABUTMENTS.
- TRACK ALIGNMENT AND BASE OF RAIL PROFILE WILL REMAIN UNCHANGED
- DESIGN LIVE LOAD: COOPER E90 WITH DIESEL IMPACT
- ALL DIMENSIONS SHOWN SHALL BE VERIFIED IN THE FIELD BEFORE START OF CONSTRUCTION
- ENGINEER SHALL BE INFORMED OF ANY DISCREPANCIES FROM DIMENSIONS SHOWN ON DRAWINGS
- NEAREST STATION: GRIFFITH, IN, M 36.2 MATTESON SUBDIVISION
- ALL ELEVATIONS ARE REFERENCE TO NAVD 88

**MATERIAL SPECIFICATIONS:**

- DESIGN AND WORKMANSHIP: AREMA (2014) CHAPTERS 8 & 15  
 STRUCTURAL STEEL: ASTM A572, GRADE 50 (U.N.O.)  
 CONCRETE: ACI 117, 211, 301, 304, 305  
 REINFORCING STEEL: ASTM A615/A615M, GRADE 60  
 WELDING: AWS D1.5  
 ANCHOR RODS: ASTM F1554, GRADE 105 OR EQUIVALENT  
 H.S. BOLTS: ASTM A325 TYPE 3, 3/4" dia., 2 1/4" HEAVY HEX NUT AND HARDENED ROUND WASHER U.N.O. NUTS TO BE TIGHTENED BY THE TURN OF NUT METHOD  
 BOLT HOLES: 1/4" dia. (U.N.O.), DRILLED FULL SIZE OR SUB-PUNCHED AND REAMED  
 GALVANIZING: ASTM A123  
 NEOPRENE PADS: SHALL CONFORM TO AREMA CHAP. 15, SECTION 5.6, ELASTOMERIC BEARINGS - DUROMETER 60  
 WATERPROOFING: SEE DRAWING -2.2

**REFERENCES:**

- EXISTING DRAWINGS AA0334-37.94-SERIES 1
- SURVEY DRAWINGS AA0334-37.94-15,SERIES

**SITE BENCH MARKS:**

- BM #1 - 3/4" REBAR W/ YELLOW CAP; N 2293336.91 E 2859770.00 ELEV. = 615.06 STA. 91+29.01, 12.21 LT.
- BM #2 - 3/4" REBAR W/ YELLOW CAP; N 2293148.22 E 2859769.58 ELEV. = 615.67, STA. 89+40.28, 11.31' LT.
- BM #3 - 3/4" REBAR W/ YELLOW CAP; N 2292995.52 E 2859807.21 ELEV. = 614.70 STA. 87+87.84, 27.65 RT.

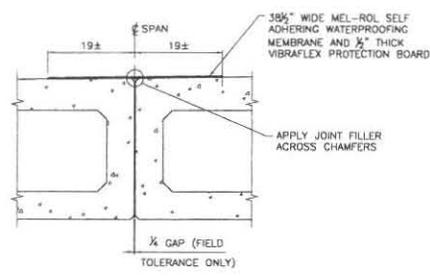
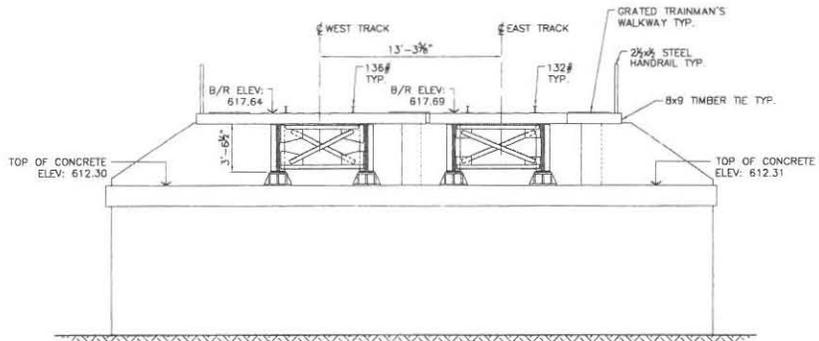
PRELIMINARY  
10/16/2015

SENIOR STRUCTURAL ENGINEER

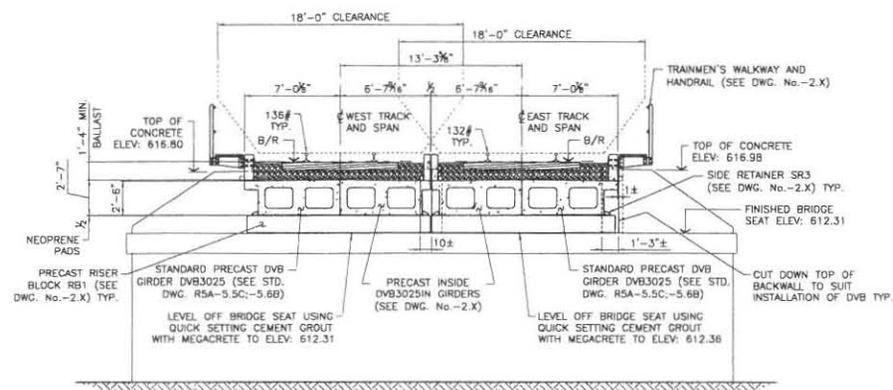
No.	Date	Revision	By/Per

Drawn	CHICAGO	Sub-division	MATTESON	Min. City	37.94
<b>BRIDGE 37.94</b> <b>NEAR GRIFFITH, IN</b> <b>SPAN REPLACEMENT</b> <b>GENERAL ARRANGEMENT (1 of 2)</b>					
Drawn	TZ	Designed	Conception	Checked	Ventilation
Scale	3/16"=1'-0"	Date			

Office of Chief Engineer		
Bureau de l'Ingénieur en chef		
File Reference	37.94 MATTESON	Drawing Number Design Numbers AA0334-37.94-2.1



SECTION "C-C"



SECTION "D-D"

**NOTES:**

- FOR GENERAL NOTES AND SPECIFICATIONS SEE DRAWING AA0334-37.94-2.2
- READ THIS DRAWING IN CONJUNCTION WITH DRAWING AA0334-37.94-2.1

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PRELIMINARY  
10/08/2015

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	By/For

Division	CHICAGO	Sub-division	MATTESON	Wks. No.	37.94
<b>BRIDGE 37.94</b> NEAR GRIFFITH IN <b>SPAN REPLACEMENT</b> <b>GENERAL ARRANGEMENT (2 of 2)</b>					
Drawn	TZ	Checked	Vertical/	Date	10/10/15

Office of Chief Engineer  
Bureau de l'Ingénieur en chef



File Reference: 37.94 MATTESON Drawing Number: AA0334-37.94-2.2

10/08/2015 10:10:15 AM

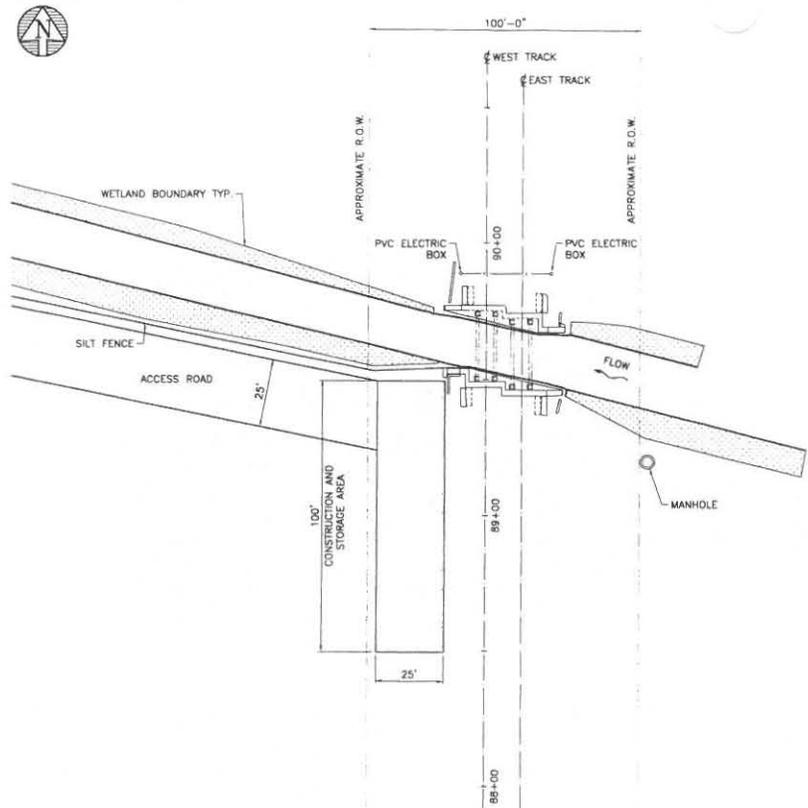


IMAGE TAKEN FROM GOOGLE MAPS

SITE ACCESS PLAN

SITE ACCESS NOTES:

1. ACCESS TO THE BRIDGE SITE SHALL BE ALONG THE TRACK, AT TRACK LEVEL, FROM
2. TEMPORARY SET-OFF PAD/STORAGE AREA MAY BE CONSTRUCTED AT THE SOUTHEAST CORNER OF THE BRIDGE.
3. DIMENSIONS OF THE TEMPORARY WORKS SHOWN ON THE DRAWING SHALL GOVERN, UNLESS ALTERNATE DETAILS ARE SUBMITTED AND APPROVED BY CN AND THE APPROPRIATE PERMITTING AUTHORITIES.
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ENLARGED SITE ACCESS PLAN

SCALE: 1"=20'-0"

**PRELIMINARY**  
10/28/2015

SENIOR STRUCTURAL ENGINEER

No.	Date	Revision	By	For

Division	CHICAGO	Sub-division	MATTESON	File No.	37.94
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**BRIDGE 37.94**  
NEAR: GRIFFITH, IN  
**SPAN REPLACEMENT**  
**SITE ACCESS PLAN**

Drawn	TZ	Designed	-	Checked	-	Scale	AS NOTED	Date	-

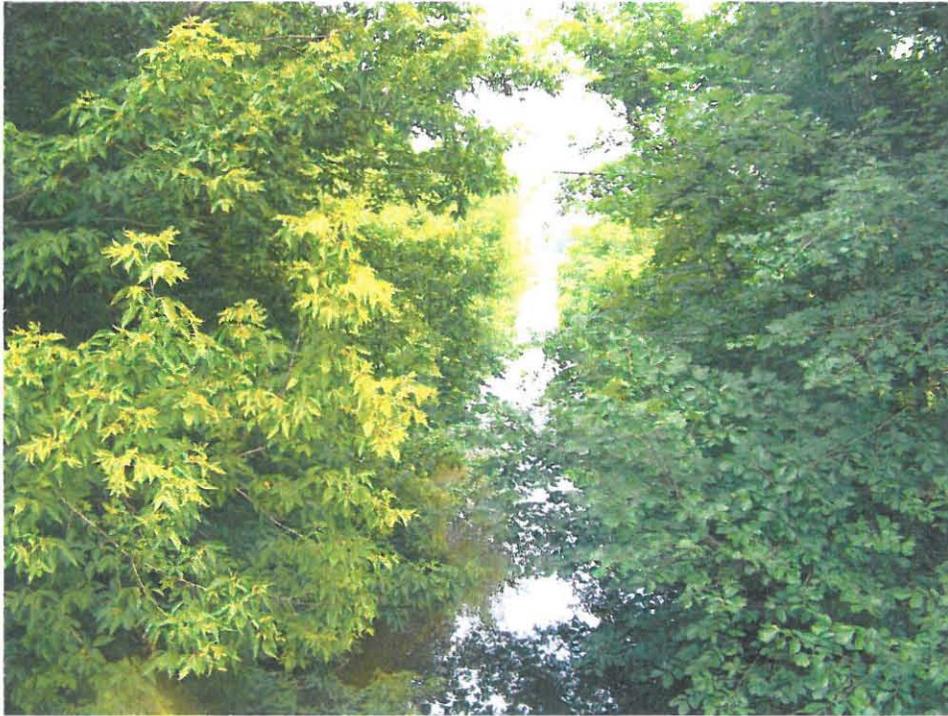
Office of Chief Engineer  
Bureau de l'Ingénieur en chef



File Reference	37.94 MATTESON	Drawing Number	AA0334-37.94-2.3
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10/28/2015 10:28 AM

Matteson 37.9 – Griffith, IN – Site Photographs



**Photo 1: From bridge deck Facing East (Upstream)**



**Photo 1: From bridge deck Facing West (Downstream)**



**Photo 3: From downstream streambank Facing East (Upstream)**



**Photo 4: From Upstream streambank Facing NW**



# 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-B

## NOTICE OF ACTION Application No. 292-3-16-I-III

March 16, 2016

Tony Barringer  
NIPSCO  
1055 Joliet Road  
Valparaiso, IN 46383

DEAR PETITIONER:

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

**Cedar Creek, Cedar Creek Township**

**Applicant: NIPSCO**

Application to Perform Work Within and Place Temporary/Permanent Structure in a Regulated Drain/Easement for the purpose of replacing 4 wooden power poles along Cedar Creek.

WAS CONSIDERED BY THE DRAINAGE BOARD AT A MEETING ON THE 16<sup>th</sup> DAY OF March, 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 **APRIL 20, 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 KUPSİK  
Lake County Drainage Board Secretary

Handout 6-B  
03-16-16



AMERICAN  
**STRUCTUREPOINT**  
INC.

7260 Shadeland Station, Indianapolis, Indiana 46256  
TEL 317.547.5580 FAX 317.543.0270

www.structurepoint.com

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## M E M O R A N D U M

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**DATE:** March 14, 2016  
**TO:** Bill Emerson, Jr., Lake County Surveyor  
**FROM:** Brian Payne, Staff Engineer  
**RE:** NIPSCO Wooden Pole Replacements along Cedar Creek  
**CC:** Brian Ralstin, Jeremy Schmitt

---

As requested by the Lake County Surveyor's Office, American Structurepoint, Inc. has reviewed NIPSCO's application to work within a regulated drain and place temporary/permanent structures within the drain/easement. The application was submitted by Tony Barringer of NIPSCO for the proposed replacement of four (4) wooden poles along Cedar Creek at (2) separate locations on Mill Street as well as the intersection of Grant and Main Street in the Town of Lowell. Review comments are included in this memo. The proposed project is described as follows:

**Owner/Developer:** NIPSCO  
**Project Name:** NIPSCO Wooden Pole Replacements along Cedar Creek  
**Project Location:** Mill Street and the intersection of Grant and Main Street, within the Town of Lowell, Lake County, Indiana.  
**Description:** The Applicant is requesting allowance for replacement of four (4) wooden poles along Cedar Creek as part of an overall modernization project to reconductor 5,700 ft of wire.

---

**Submittal  
Information  
Received:**

- Cover Letter from Tony Barringer of NIPSCO dated February 29, 2016 and delivered to the Lake County Surveyor's Office.
- Application for Permission to Place Temporary/Permanent Structure in the Drain/Easement
- Site aerial photos of pole locations
- Site plans of pole locations

**Review Comments:**

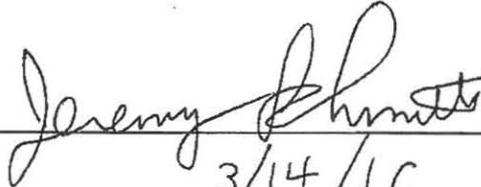
American Structurepoint, Inc. has completed an initial review of the submittal to verify compliance with the requirements of the Lake County Ordinance No. 1365C. This comment letter is a review for general conformance with standards. The Project Engineer is still responsible for his own design and neither the County nor the County's Engineer is responsible for the completeness of the design. We submit the following comments:

1. The Applicant confirmed that the attached site plans (with mark-ups by American Structurepoint) correctly show the locations of the four (4) wooden poles to be replaced. As noted in the mark-ups, only one (1) pole in each location is located within the 75-foot drainage easement on either side of Cedar Creek.
2. While completing the work, the applicant shall ensure that no construction debris or materials are placed within the ditch channel. Based on the locations of the applicant's poles, 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.
3. Final ground surface elevations around poles replaced within the drainage easements shall be no higher than the current existing elevations.

**Recommendation:**

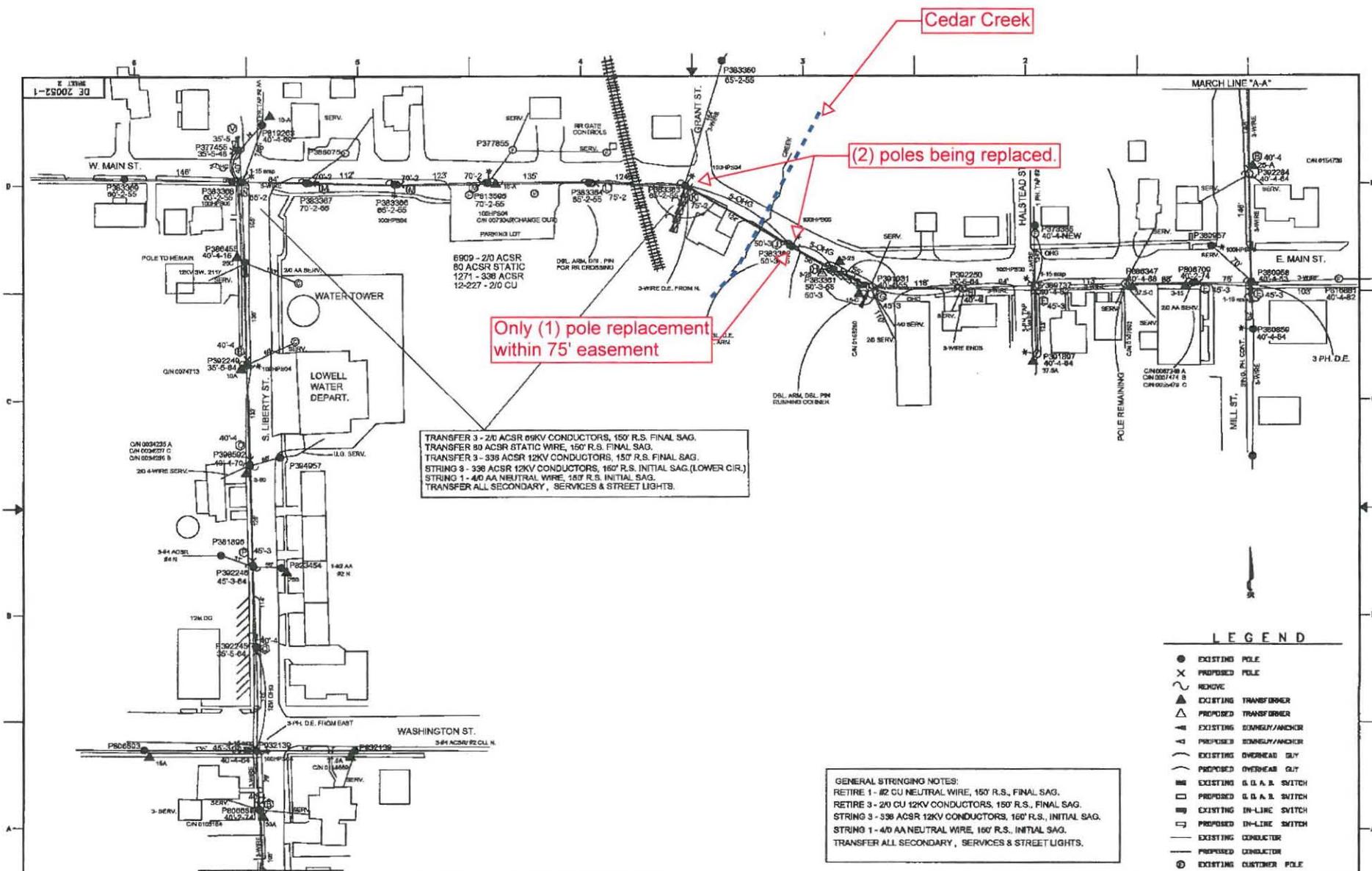
American Structurepoint recommends approval of this application. The applicant shall address the comments above while completing this work. Resubmittal of plans is not required.

Reviewed by: \_\_\_\_\_



Date: \_\_\_\_\_

3/14/16



Only (1) pole replacement within 75' easement

(2) poles being replaced.

Cedar Creek

TRANSFER 3 - 2/0 ACSR 69KV CONDUCTORS, 150' R.S. FINAL SAG.  
 TRANSFER 80 ACSR STATIC WIRE, 150' R.S. FINAL SAG.  
 TRANSFER 3 - 3/8 ACSR 12KV CONDUCTORS, 150' R.S. FINAL SAG.  
 STRING 3 - 3/8 ACSR 12KV CONDUCTORS, 150' R.S. INITIAL SAG. (LOWER CIR.)  
 STRING 1 - 4/0 AA NEUTRAL WIRE, 150' R.S. INITIAL SAG.  
 TRANSFER ALL SECONDARY, SERVICES & STREET LIGHTS.

GENERAL STRINGING NOTES:  
 RETIRE 1 - #2 CU NEUTRAL WIRE, 150' R.S., FINAL SAG.  
 RETIRE 3 - 2/0 CU 12KV CONDUCTORS, 150' R.S., FINAL SAG.  
 EXISTING 3 - 5/8 ACSR 12KV CONDUCTORS, 150' R.S., INITIAL SAG.  
 STRING 1 - 4/0 AA NEUTRAL WIRE, 150' R.S., INITIAL SAG.  
 TRANSFER ALL SECONDARY, SERVICES & STREET LIGHTS.

- LEGEND**
- EXISTING POLE
  - × PROPOSED POLE
  - ⊘ REMOVE
  - ▲ EXISTING TRANSFORMER
  - △ PROPOSED TRANSFORMER
  - ≡ EXISTING DOWNS/ANCHOR
  - ≡ PROPOSED DOWNS/ANCHOR
  - EXISTING OVERHEAD GUY
  - PROPOSED OVERHEAD GUY
  - ⊞ EXISTING G. D. A. S. SWITCH
  - ⊞ PROPOSED G. D. A. S. SWITCH
  - ⊞ EXISTING IN-LINE SWITCH
  - ⊞ PROPOSED IN-LINE SWITCH
  - EXISTING CONDUCTOR
  - PROPOSED CONDUCTOR
  - ⊙ EXISTING CUSTOMER POLE

REV.	W.L.	DESCRIPTION	DATE	BY	CHK	FILE	REV.	W.L.	DESCRIPTION	DATE	BY	CHK	FILE

**Northern Indiana Public Service Company**  
A subsidiary of IHS&A Holdings, Inc.

**CIRCUIT 12-27 RECONDUCTOR**

LOCATION: LOWELL, INDIANA

PLAN VIEW

SCALE: 1" = 100'

DATE: 08-01-15

W.D./A.C.T. NO. 110 00041-013

HP500 DRAWING NO. REV.

**DE 20052-1**

SHEET 2



6-13  
03-16-16



1055 Joliet Rd. Valparaiso, IN 46383

February 29, 2016

Lake County Surveyor's Office  
c/o Mary Ellen Kupsik, Drainage Board Secretary  
2293 North Main Street, A-306  
Crown Point, IN 46307

RE: NIPSCO wooden pole replacement along Cedar Creek in Lowell, IN.

Dear Drainage Board Members,

On May 31, 2016, Northern Indiana Public Service Company is scheduled to begin a modernization project to replace approximately 5,700 feet of existing conductor as well as 44 wood poles in Lowell, Indiana. This project does cross Cedar Creek in (2) separate locations on Mill Street as well as the intersection of Grant and Main Street. (2) existing wooden poles on Main Street and (2) existing wooden poles at the intersection of Grant and Main Street will be replaced.

We have enclosed (2) copies of the application form, (2) copies of 8.5"x11" drawings, and (2) copies of vicinity maps applicable to the proposed Cedar Creek crossings.

Sincerely,

A handwritten signature in black ink, appearing to be "Tony Barringer". The signature is stylized and includes a long horizontal flourish extending to the right.

Tony Barringer

Electric Project Manager, CAPM

NIPSCO





APPLICATION NO. 292-3-16-I-III

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

- 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) NIPSCO  
C/O TONY BARRINGER  
219-286-5269

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: CEDAR CREEK  
SECTION(S): \_\_\_\_\_ TOWNSHIP: CEDAR CREEK RANGE: \_\_\_\_\_  
ADDRESS OR DESCRIPTION OF LOCATION MILL ST. AND THE  
INTERSECTION OF GRANT + MAIN ST.

THE REQUEST IS TO CONSIST OF THE FOLLOWING ACTIVITIES:

REPLACE (4) WOODEN POLES ALONG CEDAR CREEK AS  
PART OF AN OVERALL MODERNIZATION PROJECT TO RECONDUCTOR  
5,700 FT OF WIRE IN LOWELL.

THE PURPOSE OF THE REQUEST IS TO:

OBTAIN DRAINAGE EASEMENT PERMISSION IN ORDER  
TO REPLACE WOODEN POLES.

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.

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: TONY BARRINGER DATE: 2/29/16  
(PRINT OR TYPE NAME)

[Signature]  
(SIGNATURE)

SUBMITTED FOR: NIPSCO

ADDRESS 1055 SOLIET RD

VALPARAISO, IN 46383

PHONE#: 219-286-5269

(THIS SECTION FOR DRAINAGE BOARD USE ONLY)

LAKE COUNTY DRAINAGE BOARD

[Signature]  
X8.

[Signature]  
D.H.

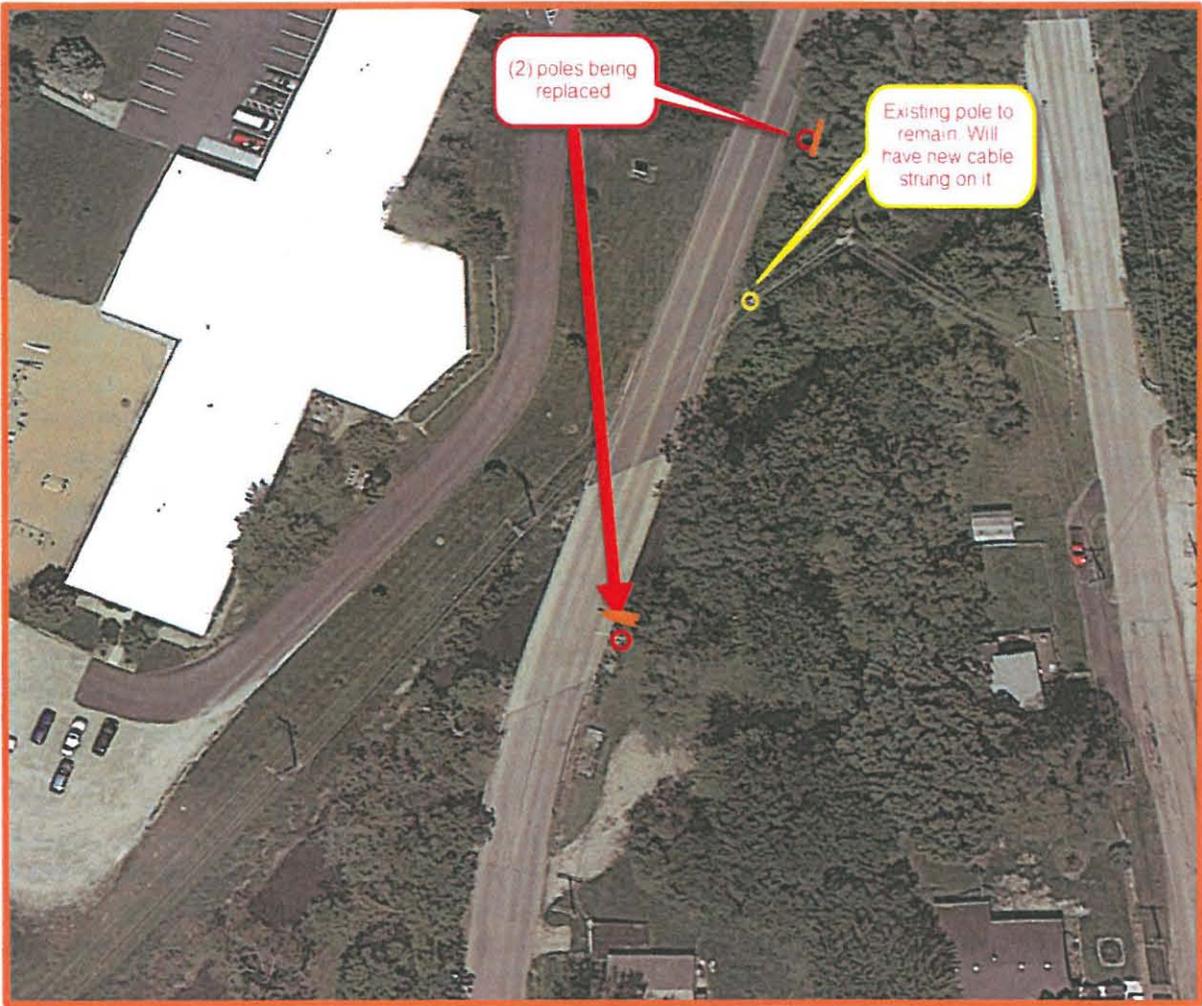
DATE: March 16, 2016 APPROVED: X\* DENIED: \_\_\_\_\_

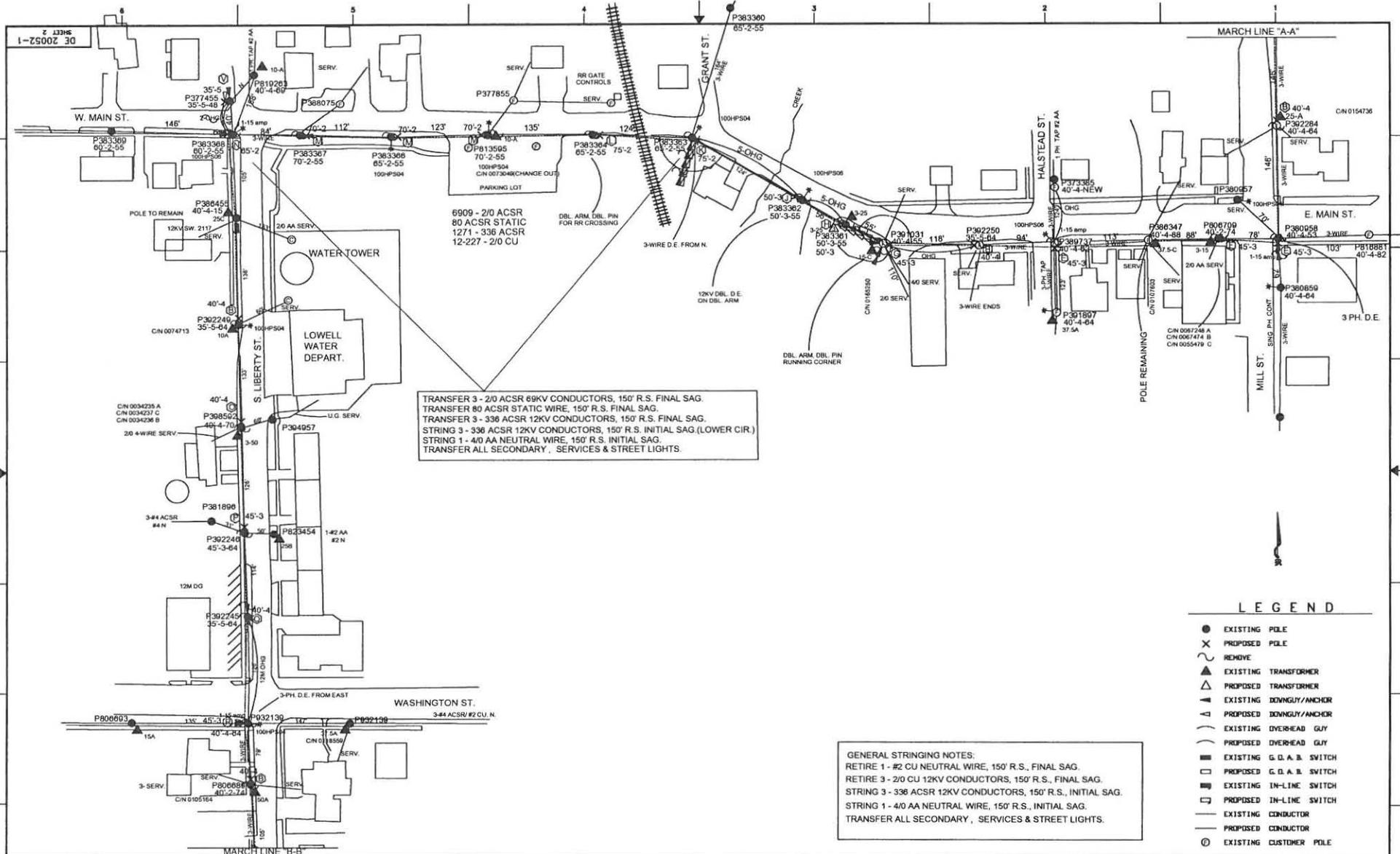
SHOULD ANY APPLICATIONS BE SUBMITTED BY AN AGENT, CONSULTANT, ENGINEER, REPRESENTATIVE OR OTHERS PURPORTING TO ACT AS THE OWNER, THEN A POWER OF ATTORNEY SHALL BE DULY EXECUTED AND ATTACHED TO THESE APPLICATIONS. [SEE ATTACHMENT I]

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.

\*APPROVED WITH CONDITIONS. SEE ATTACHED "NOTICE OF ACTION".







6909 - 2/0 ACSR  
 80 ACSR STATIC  
 1271 - 336 ACSR  
 12-227 - 2/0 CU

TRANSFER 3 - 2/0 ACSR 69KV CONDUCTORS, 150' R.S. FINAL SAG.  
 TRANSFER 80 ACSR STATIC WIRE, 150' R.S. FINAL SAG.  
 TRANSFER 3 - 336 ACSR 12KV CONDUCTORS, 150' R.S. FINAL SAG.  
 STRING 3 - 336 ACSR 12KV CONDUCTORS, 150' R.S. INITIAL SAG. (LOWER CIR.)  
 STRING 1 - 40 AA NEUTRAL WIRE, 150' R.S. INITIAL SAG.  
 TRANSFER ALL SECONDARY, SERVICES & STREET LIGHTS.

GENERAL STRINGING NOTES:  
 RETIRE 1 - #2 CU NEUTRAL WIRE, 150' R.S., FINAL SAG.  
 RETIRE 3 - 2/0 CU 12KV CONDUCTORS, 150' R.S., FINAL SAG.  
 STRING 3 - 336 ACSR 12KV CONDUCTORS, 150' R.S., INITIAL SAG.  
 STRING 1 - 40 AA NEUTRAL WIRE, 150' R.S., INITIAL SAG.  
 TRANSFER ALL SECONDARY, SERVICES & STREET LIGHTS.

- LEGEND**
- EXISTING POLE
  - PROPOSED POLE
  - ~ REMOVE
  - ▲ EXISTING TRANSFORMER
  - △ PROPOSED TRANSFORMER
  - ▲ EXISTING DOWNGUY/ANCHOR
  - △ PROPOSED DOWNGUY/ANCHOR
  - EXISTING OVERHEAD GUY
  - PROPOSED OVERHEAD GUY
  - EXISTING G. D. A. B. SWITCH
  - PROPOSED G. D. A. B. SWITCH
  - ▣ EXISTING IN-LINE SWITCH
  - ▢ PROPOSED IN-LINE SWITCH
  - EXISTING CONDUCTOR
  - PROPOSED CONDUCTOR
  - ⊙ EXISTING CUSTOMER POLE

REV.	W.C.	DESCRIPTION	DATE	BY	CHKD	FLM	REV.	W.C.	DESCRIPTION	DATE	BY	CHKD	FLM

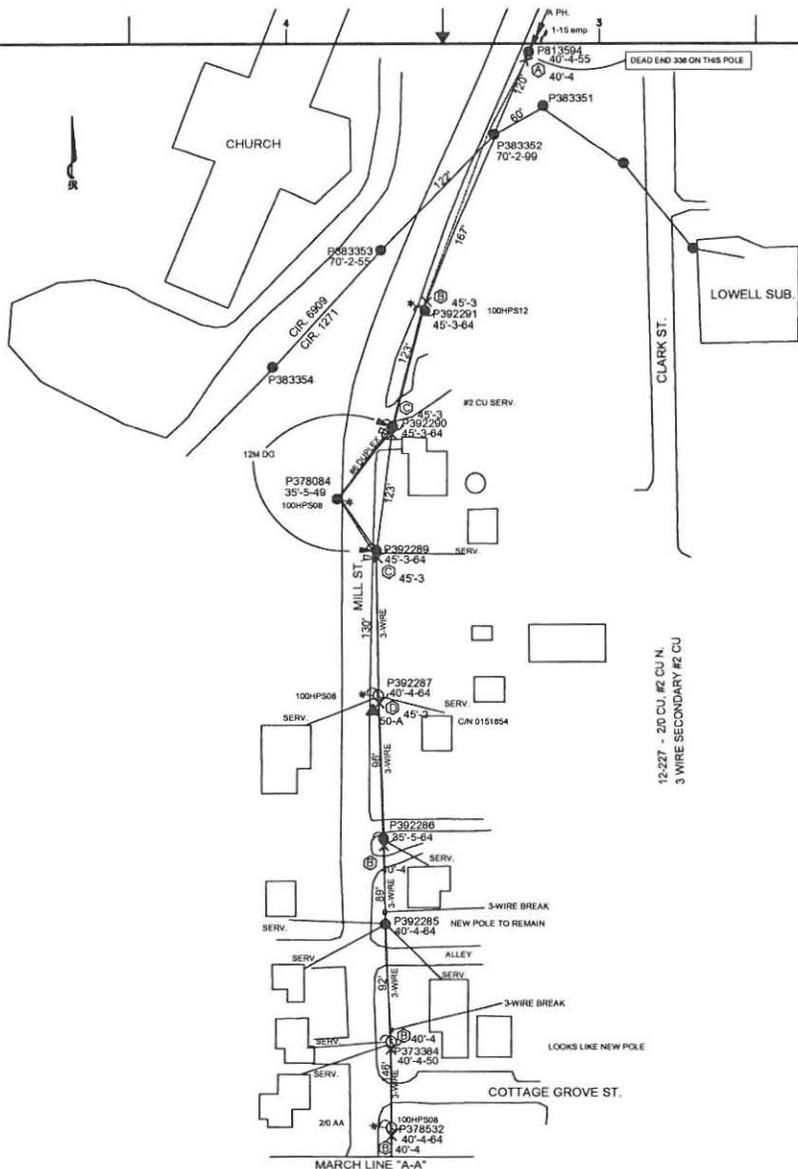
**Northern Indiana  
Public Service Company**  
A member of IUPUI Holdings, Inc.

DRAWN: T. B. KIZER  
 ENGINEER: T. B. KIZER  
 APPROVED: [Signature]  
 DATE: 09-01-15  
 SCALE: 1" = 100'

TITLE: **CIRCUIT 12-227 RECONDUCTOR**  
 LOCATION: **LOWELL, INDIANA**  
 DETAIL: **PLAN VIEW**  
 W.D./ACT. NO. **WO 30541-812**

HPSCO DRAWING NO. **DE 20052-1**  
 SHEET **2**

DE 20052-1



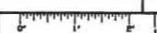
LEGEND

- EXISTING POLE
- × PROPOSED POLE
- ⤴ REMOVE
- ▲ EXISTING TRANSFORMER
- ▲ PROPOSED TRANSFORMER
- ▲ EXISTING DOWNGUY/ANCHOR
- ▲ PROPOSED DOWNGUY/ANCHOR
- EXISTING OVERHEAD GUY
- PROPOSED OVERHEAD GUY
- ⊞ EXISTING G. D. A. B. SWITCH
- ⊞ PROPOSED G. D. A. B. SWITCH
- ⊞ EXISTING IN-LINE SWITCH
- ⊞ PROPOSED IN-LINE SWITCH
- EXISTING CONDUCTOR
- PROPOSED CONDUCTOR
- ⊙ EXISTING CUSTOMER POLE

REV.	W.O.	DESCRIPTION	DATE	BY	CHK	FILM	REV.	W.O.	DESCRIPTION	DATE	BY	CHK	FILM

**Northern Indiana  
Public Service Company**  
A subsidiary of IUPUI Industries, Inc.

DRAWN: T. B. KIZER	TITLE: CIRCUIT 12-227 RECONDUCTOR	IUPSCO DRAWING NO.:	REV.
ENGINEER: T. B. KIZER	LOCATION: LOWELL, INDIANA	DE 20052-1	
APPROVED:	DETAIL: PLAN VIEW		
DATE: 09-01-15			
SCALE: 1" = 100'	W.S./ACCT. NO. W0 50641-912		



SHEET 1





7-B-1  
03-10-16

Sponsored By:  
Office of the Lake County Surveyor  
Bill Emerson, Jr.  
MS4 - Stormwater  
Department

# 4th Annual Lake County Contractor's Workshop For Stormwater Pollution Prevention Wednesday, March 30, 2016 - 8:00 a.m. until Noon

Location: Lake County Fairgrounds - 4H Building - Registration 7:30 a.m.

## Workshop Topics

- Lake County Stormwater Management & Clean Water Regulations.
- Lake County Surveyors Office MS4 Program - Staff Introduction.
- What is the Inspector's Responsibility & Are you Qualified?
- Erosion & Sediment Control Measures for Stormwater Regulations.
- Erosion & Sediment Control for Working Around Waterways.
- Code Enforcement & Obligations per Lake County Ordinance.
- INDOT Storm Water Field Guide - Training Opportunities & Req.
- Networking With Contractors, Vendors and Staff.

*All Workshop Attendees will Receive:*  
Handouts of all presentations.  
Forms & Guides to assist with MS4 compliance on Construction Sites.  
Networking with Presenters and Vendors  
No cost to attend. RSVP Lake County Surveyor's Office:  
myresct@lakecountyin.org (219) 755-3753



7-B-2  
03-16-16



# Conservation News



Lake County Soil & Water  
Conservation District

880 East 99th Court, • Suite A • Crown Point IN 46307 • 219-663-7042

## 71st Annual Meeting

**Date:** March 17th  
**Time:** 6:30 p.m.  
**Place:** Teibel's  
**Tickets:** \$15.00  
**Entertainment:** *Larry Wirtz*  
*Illusionist - Comedian -*  
*Inspirational Speaker*

The Lake County Soil and Water Conservation District (SWCD) will be celebrating their 71st Annual Meeting on March 17th at Teibel's Restaurant.

The dinner will begin at 6:30 p.m. followed by presentations of conservation awards, election of supervisor, recognition of special guests and a report of our activities.

Our entertainment will be Larry Wirtz, Illusionist, Comedian, Inspirational Speaker. Larry Wirtz draws upon his 30+ years performing experience to bring a

rare sense of perspective and conviction to his presentations. Described as intelligent, articulate and dynamic, he delivers an eye-opening, jaw-dropping program that is genuine, dignified, funny and entertaining.

Wirtz is a graduate of the Chavez College of Manual Dexterity and Prestidigitation, the only institution in the world dedicated to the cultivation of quality performers in the magical arts. The years have given him the opportunity to work a multitude of venues across the United States and Canada.

You may purchase your tickets at the SWCD office; from one of our Supervisors, Associate Supervisors, or you may fill out the form below. Check the appropriate boxes, make your check payable to the Lake County SWCD and mail to 880 East 99th Court, Suite A, Crown Point, IN.



Your tickets will be ready for you at the door or you may pick them up at the office anytime. Remember that the doors open at 5:30 p.m., so that we may get everyone seated and dinner will be served at 6:30 p.m. Chicken and perch will be served.



# Lake County Soil & Water Conservation District

880 East 99<sup>th</sup> Court, Suite A • Crown Point, Indiana 46307 • 219-663-7042

## Board of Supervisors

Kevin Garling  
*Chairman*

Lyle Patchett  
*Vice-Chairman*

Donna Molchan  
Kim Peterson  
Brian Wietbrock

## Associate Supervisors

Darlene Corns  
Edgar Corns  
Bill Duttlinger  
Phyllis Reeder  
Betty VanHal

## SWCD Office Staff

Julie Duttlinger  
*Administrator*

Betty Huseman  
*Education Instructor*

Beth Huebner  
*MS4 Education Instructor*

Beth Froedge  
Georgia Steininger  
*Secretary*

February 12, 2016

Dear Friends of Conservation:

The Lake County Soil and Water Conservation District (SWCD) programs continue to grow and expand each year. This growth is possible because of the continued financial support of our Affiliate Members.

Even though SWCD is funded by the Lake County Council, this is only for operating expenses. Our excellent education programs are dependent upon donations by individual, business and school memberships. These funds support school visits, contest awards, library materials, educational supplies, tours and workshops. We are asking that you consider becoming an affiliate member or continue your affiliate membership for 2016.

Please renew your affiliate membership today, or if you have not been a member before consider becoming a new affiliate member for 2016. Memberships are available for \$25.00, \$50.00 or \$100.00. Regular memberships are \$25.00, Supporting memberships are \$50.00, and Corporate memberships are \$100.00. Return your check with the form provided to the Lake County Soil & Water Conservation District.

For your contribution you will receive a receipt, an Affiliate Certificate and a 2015 Annual Report. Your support helps to promote the importance of conserving our natural resources and is greatly appreciated. Thank you and we hope to be hearing from you soon!

Make plans now to attend our 71<sup>st</sup> annual meeting of the Lake County Soil & Water Conservation District. The featured entertainment will be Larry Wirtz, Illusionist, Comedian, and Inspirational Speaker. Perch and chicken will be served. The meeting will be held March 17, 2016. Tickets are \$15.00 each. It will be an evening dinner meeting at 6:30 p.m. at Teibel's Restaurant, located at the intersection of US 30 and 41, in Schererville. The doors open at 5:30 p.m. We ask that you please plan to arrive early so that everyone can be seated and dinner served promptly at 6:30 p.m.

Yours in Conservation,

Kevin Garling  
SWCD Chairman

PLANS & SPECIFICATIONS FOR  
**TURKEY CREEK LATERAL NO. 13 BANK STABILIZATION**  
**VON TOBEL – 2016**  
**-EAST BANK-**

ST. JOHN TOWNSHIP  
LITTLE CALUMET RIVER WATERSHED

---

PREPARED FOR  
**LAKE COUNTY DRAINAGE BOARD**



**LAKE COUNTY SURVEYOR – BILL EMERSON, JR.**

Turkey Creek Lateral No. 13 Bank Stabilization at Von Tobel (US Hwy. 30 & Cline Avenue)



**CHRISTOPHER B. BURKE ENGINEERING, LLC**  
One Professional Center, Suite 314 Crown Point, Indiana 46307 Tel (219) 663-3410 Fax (219) 663-3450

**TABLE OF CONTENTS**

SPECIAL INSTRUCTIONS TO BIDDERS ..... 5 PAGES

GENERAL INFORMATION..... 1 PAGE

**ATTACHMENT A**

TECHNICAL SPECIFICATIONS ..... 10 PAGES

BID PROPOSAL FORM ..... 2 PAGES

AERIAL PLAN VIEW ..... 2 PAGES

CROSS SECTION DETAILS ..... 3 PAGES

**TURKEY CREEK LATERAL NO. 13 BANK STABILIZATION  
VON TOBEL – 2016**

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 Bothwell Lateral No. 13 (a.k.a. Turkey Creek Lateral No. 13) Bank Stabilization – Von Tobel (**East Bank**) hereinafter referred to as the Project, as identified and described herein and in the plans and specifications prepared by Christopher B. Burke Engineering, LLC, hereinafter referred to as the Engineer.
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 Engineer, 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 Engineer, 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 licensed to perform the work within the County of Lake. All bidders shall hold a General Contractor License from 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.

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 sub-contractor 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.

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 16 DAY OF MARCH 2016.

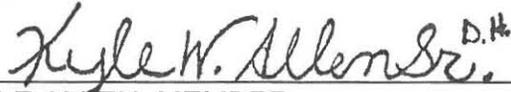
LAKE COUNTY DRAINAGE BOARD



GERRY SCHEUB, CHAIRMAN



MICHAEL REPAY, MEMBER



KYLE ALLEN, MEMBER

## 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 Turkey Creek Lateral No. 13, 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

TURKEY CREEK LATERAL NO. 13 BANK STABILIZATION –  
VON TOBEL – 2016

LAKE COUNTY, INDIANA

**LAKE COUNTY DRAINAGE BOARD**

GERRY SCHEUB, CHAIRMAN  
MICHAEL REPAY, MEMBER  
KYLE ALLEN, 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 & 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 along the east side of Turkey Creek. At the work site and downstream, Turkey Creek parallels the western boundary of the Von Tobel Corporation property located at 751 Lincoln Highway. Thus, access to the 75' drainage easement at the work site must be coordinated with Von Tobel. 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 the waterway. Access to the work site will require the temporary removal and subsequent installation of a fence that parallels Turkey Creek. The fence shall be placed as close to the original location as practical and fence removal/replacement is incidental to the contract.

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 any free logs or affixed logs, including foreign material, that are crossway in the channel. 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 that are left in place, 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 a dye colored 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.

**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.

## 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 streambank 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 along the east side of Turkey Creek. At the work site and downstream, Turkey Creek parallels the western boundary of the Von Tobel Corporation property located at 751 Lincoln Highway. Thus, access to the 75' drainage easement at the work site must be coordinated with Von Tobel. 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 the waterway. Access to the work site will require the temporary removal and subsequent installation of a fence that parallels Turkey Creek. The fence shall be placed as close to the original location as practical and fence removal/replacement is incidental to the contract.

**Materials:** Materials shall consist of INDOT Class 1 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.

## **CHANNEL BANK FILL (SLOPE REPAIR)**

**Description:** This work shall consist of regrading and backfilling eroded slopes, as specified, to allow the construction of gabion retaining wall within the regulated drain to the required dimensions in reasonably close conformance with the lines and grades shown on the plans. All work shall be performed within the existing 75-foot Drainage Board easement.

**Backfilling:** The contractor shall regrade and backfill the eroded bank sections as shown on the typical section. All embankment backfill shall be placed in essentially horizontal lifts not exceeding 12 inches in loose thickness. Each lift should be compacted to at least 95 percent of the maximum dry density determined in the laboratory by the "Standard Proctor" compaction test, ASTM D 698 and tested for its density as well as moisture content. The moisture content of the embankment material should be within +/- 2% of the optimum moisture content during its placement.

The Contractor shall employ an independent geotechnical firm to oversee all embankment work and provide the necessary testing to confirm that the proposed embankment has been constructed in accordance with the contract documents. These reports shall be provided to the Engineer and LCSO throughout the duration of the project. The amount of testing necessary shall be determined by the geotechnical firm and approved by the LCSO and Engineer. The bearing soils for the bank may need to be compacted and densified in place using a sheeps-foot roller or approved equal.

The cost for the independent geotechnical testing and reporting shall be included with the cost for CHANNEL BANK FILL (SLOPE REPAIR). No additional monies will be allotted. In addition, the LCSO and/or Engineer have the right to reject any material, based on visual inspection that does not meet the requirements as set forth in the contract documents.

**Fill Material:** Fill material for the embankment shall consist of cohesive soil types with less than 10% sand and gravel. Coefficients of permeability (K) values of less than 10<sup>-7</sup> cm/sec shall be used. Maximum particle sizes of 4-inches. These materials will be practically impervious. If the site soils are to be used, they shall be tested for classification, compaction characteristics, permeability characteristics, and unconfined compressive strength in order to ensure that they meet the requirements. The material for the embankment fill shall be CL type (per the USC classification system, ASTM D2487) and free from gravel, roots, organic material, and any other objectionable material.

**Measurement and Payment:** This work shall be paid for at the contract unit price per cubic yard for CHANNEL BANK FILL (SLOPE REPAIR) which price shall include all regrading, backfilling, compacting, geotechnical compaction testing services and all other items necessary to complete the work to the satisfaction of the Lake County Surveyor. The measurement for payment shall be based on the quantity of bank fill actually needed, to repair transitional areas, to the lines, grades and typical cross-sections specified. All other items necessary to complete the work to the satisfaction of the Lake County Surveyor will

not be measured for payment but shall be considered as included in the pay item for CHANNEL BANK FILL (SLOPE REPAIR) per cubic yard as specified.

## GABION RETAINING WALL

**General Requirements:** This work shall be performed as described in detail in the Indiana Drainage Handbook (Section 5.5, Practice 506 & 512). 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 construct a gabion retaining wall with bedding, and riprap bank protection above the gabions to stop erosion on the channel banks. See detail for more clarification and description.

**Access:** Access to and within the work site shall be within the 75' drainage easement along the east side of Turkey Creek. At the work site and downstream, Turkey Creek parallels the western boundary of the Von Tobel Corporation property located at 751 Lincoln Highway. Thus, access to the 75' drainage easement at the work site must be coordinated with Von Tobel. 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 the waterway. Access to the work site will require the temporary removal and subsequent installation of a fence that parallels Turkey Creek. The fence shall be placed as close to the original location as practical and fence removal/replacement is incidental to the contract.

### **Construction Requirements:**

**Gabion Baskets** - Materials shall consist of 3'H x 3'D x 5'W gabion baskets, stacked three (3) high, perpendicular to the ditch, filled with 4" to 8" rocks for gabions (preferably from local sources). Filter fabric shall be installed below the first basket row and along the backside of all gabions. Gabions shall be placed on top of 18" min of 1.5" - 3" crushed bedding stone for toe in along with rip rap installed in front of the gabion along water edge. The Contractor will be responsible for diverting the ditch from the work zone. The ditch diversion and any required dewatering shall be included in the unit price for this item. Gabions shall be constructed as specified below. Gabion baskets shall be manufactured by Maccaferri, Inc., or approved equal.

**Fabricating the Gabions:** Baskets shall be fabricated in such a manner that the sides, ends, lid, and diaphragms can be assembled at the construction site into rectangular baskets of the sizes specified and shown on the drawings. Baskets furnished by the manufacturer shall be of uniform size. Baskets shall be of single unit construction, i.e., the base, lid, ends, and sides shall be either woven into a single unit or one edge of these members connected to the base section of the basket in such a manner that strength and flexibility at the point of connection is at least equal to that of the mesh. Where the length of the basket exceeds 1 1/2 its horizontal width, the basket shall be equally divided by diaphragms, of the same mesh and gauge as the body of the baskets, into cells whose length does not exceed the horizontal width. The basket shall be furnished with the necessary diaphragms secured in proper position on the base in such a manner that no additional tying at this juncture will be necessary. Baskets shall be assembled by tying or fastening all untied edges. The tying wire shall be tightly laced around every fabric opening along the seams in

such a manner that single and double loops are alternated. If wire fasteners are used, they shall be installed at approximately 4 in. to 6 in. intervals, but not less than one fastener for each fabric opening along the joint. Sufficient wire fasteners, lacing, and connecting wire to match the basket material shall be supplied with the baskets for all fastening operations carried out in the construction of the gabion work. All perimeter edges of the baskets, including end panels and the diaphragms, if any, shall be mechanically selvaged in such a way as to prevent any unraveling of the fabric and to develop the full strength of the fabric. The wire used for the selvedge shall have a diameter greater than that of the wire used to form the fabric.

Foundation Preparation: The bed for the gabions shall be trimmed and shaped to conform to the line and grade shown on the plans and as directed by the Engineer. The gabion baskets shall be keyed into the streambed with bedding stone to prevent undermining and slumping.

Placing: After the Engineer has approved the foundation preparation, the baskets shall be placed to conform with plan details. Filter fabric should be placed below the first row of baskets and behind each row of gabions. Empty basket units shall be assembled individually and placed on the approved surface to the lines and grades as shown on the drawings or as directed by the Engineer, with the sides, ends, and diaphragms erected in such a manner to insure the correct position of all creases and that the tops of all sides are level. All adjoining empty gabion units shall be secured to the adjoining unit in order to obtain a monolithic structure. Wire fasteners may be used in lieu of lacing wire for forming individual baskets, joining empty baskets together and closing lids. Binding wire or wire fasteners shall be used along vertical reinforced edges and top selvages. When baskets are stacked, the base of the top basket shall be tightly wired or fastened to the lower basket at front and back. Lacing of adjoining basket units shall be accomplished by continuous stitching with alternating single and double loops at intervals of not more than 5 in. All lacing wire terminals shall be securely fastened. If wire fasteners are used, a fastener shall be provided at each fabric opening along the joint. A minimum of six fasteners are required per 3 ft seam, three fasteners are required per 18 in. seam and two fasteners per 1 ft seam. The initial line of basket units shall be placed on the prepared surface in a direction parallel to stream flow, and partially filled to provide anchorage against deformation and displacement during filling operations. After adjoining empty basket units are set to line and grade and common sides with adjacent units thoroughly laced or fastened, baskets shall be placed in tension and stretched to remove any kinks from the fabric and to a uniform alignment. The stretching of empty basket units shall be accomplished in such a manner as to prevent any possible unraveling. The stone material shall be placed in close contact in the unit so that maximum fill is obtained. Stone filling operations shall carefully proceed with placement by hand or machine so as not to damage the wire coating, to assure a minimum of voids between the stones, and the maintenance of alignment throughout the filling process. Undue deformation and bulging of the fabric shall be corrected prior to further stone filling. To avoid localized deformation, the basket units in any row are to be filled in stages consisting of maximum 12 in. courses. The 3 ft tall baskets shall have connecting wires installed between each 12 in. layer of stone. These wires shall connect the front face to the back face. All connecting wires shall be looped

around two fabric openings and the ends of the wires securely twisted to prevent loosening. For end units, two additional connecting wires shall be placed at each level perpendicular to the normally required connecting wires. At no time shall any cell be filled to a depth exceeding 12 in. more than the adjoining cell. The maximum height from which the stone may be dropped into the basket units shall be 3 ft. Along all exposed faces, the outer layer of stone shall be carefully placed and arranged by hand to insure a neat and compact appearance. The last layer of stone shall be leveled with the top of the gabion to allow for the proper closing of the lid and to provide an even surface that is uniform in appearance. Lids shall be stretched tight over the stone fill using only an approved lid closing tool, until the lid meets the perimeter edges of the front and end panels. Using crowbars or other single point leverage bars for lid closing shall be prohibited. The lid shall then be tightly tied with lacing wire along all edges, ends, and internal cell diaphragms by continuous stitching with alternating single and double loops at intervals not more than 5 in. Wire fasteners may be used in lieu of lacing wire. Special attention shall be given to see that a projections or wire ends are turned into the baskets. Where shown on the drawings or as directed by the Engineer, or where a complete gabion unit cannot be installed because of space limitations, the basket unit shall be cut, folded, and wired together to suit existing site conditions. The assembling, installation, filling, lid closing, and lacing of the reshaped gabion units shall be carried out as specified above. The Contractor shall maintain the gabions until final acceptance and any material displaced by any cause shall be replaced by the Contractor at his/her own expense.

**Filter Fabric** – shall be used below and along the backside of the gabion baskets. The filter fabric shall be formed in widths not less than 6 ft. The texture of the fabric shall be such that the bedding material and gabion baskets will remain in an equilibrium state and not slip or slide. The filter fabric shall have a high dimensional stability when set, have good soil filtration characteristics, have a high resistance to tear propagation in all directions, and be according to the following:

**Physical Properties:**

Weight of Fabric	(6 oz/sq yd), ASTM D 3776
Burst Strength	(250 psi), ASTM D 3786
Trapezoidal Tear Strength	(60 lbs), ASTM D 5733
Grab Tensile Strength	(160 lbs), ASTM D 4632
Grab Tensile Elongation	(20%), ASTM D 4632

**Riprap Bank Protection** – Class 1 riprap shall be installed above the gabions at a slope of 2:1. The existing channel bank shall be graded back as needed to achieve the 2:1 slope and to match the riprap with existing grade. See “Riprap Bank Protection” for technical specifications/requirements.

**Method of Measurement:** This work will be measured for payment in feet along the centerline of the ditch. Measurement will not be made by the amount of lifts needed to tie into the top of bank but only the lineal footage, of the completed constructed section, parallel to the ditch. The contractor is advised to visit site and measure the amount of material vertically that he will need for each lineal foot, horizontally, constructed.

**Basis of Payment:** The work will be paid for at the contract unit price per foot for GABION RETAINING WALL, for the typical section specified. In which price shall constitute all labor, materials including bedding, gabion, backfilling, erosion blanket, topsoil, ditch diversion, dewatering, and equipment necessary to complete the work as specified. RIPRAP BANK PROTECTION above the gabion baskets will be measured and paid for as specified elsewhere.

SUPPLEMENTAL BID PROPOSAL FORM (TO BE ATTACHED AND MADE PART OF FORM 96)

PROJECT: Turkey Creek Lateral No. 13 Bank Stabilization – Von Tobel – 2016 – EAST BANK

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

1. Project documents for the project known as TURKEY CREEK LATERAL NO. 13 BANK STABILIZATION – VON TOBEL – 2016 – EAST BANK, 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. The awarded Contractor will be responsible for all site safety, including both working and non-working hours to protect the public, throughout the duration of the contract.

Coordination will need to be established between the adjacent businesses, the awarded Contractor and the Lake County Surveyors office regarding notifications, parking arrangements and safety, during both the pre-construction and construction phases of the project. The existing fence along the top of bank must be removed to gain access to project site and the fence must be replaced after all bank stabilization work is completed. There will be no separate pay items for the removal and replacement of the fence.

Item No.	Description And Calculation	Unit	Qty.	Unit Price	Total
1-1	<b>Logjam Removal (Clearing &amp; Snagging)</b> STA 0+26 to 0+82 = 56 LF (East Bank)	LFT	56		
1-2	<b>Riprap Bank Protection</b> STA 0+26 to 0+34 = 8 LF 8 LF x 20.0 FT (avg.) x 1.5 FT = 16 TON STA 0+34 to 0+74 = 40 LF 40 LF x 7.0 FT (avg.) x 1.5 FT = 28 TON STA 0+74 to 0+82 = 8 LF 8 LF x 20.0 FT (avg.) x 1.5 FT = 16 TON	TON	60		
1-3	<b>Channel Bank Fill (Slope Repair)</b> STA 0+34 to 0+74 = 40 LF (East Bank) 40 LF x 12 FT x 6 FT = 2,880 CF/27 = 107 CYS	CYS	107		
1-4	<b>Gabion Retaining Wall</b> STA 0+34 to 0+74 = 40 LF (East Bank)	LFT	40		
<b>TOTAL BID PRICE</b>				\$	

SUPPLEMENTAL BID PROPOSAL FORM (TO BE ATTACHED AND MADE PART OF FORM 96)  
PROJECT: Turkey Creek Lateral No. 13 Bank Stabilization – Von Tobel – 2016 – EAST BANK

**BIDDERS PROPOSAL FOR MAKING ENTIRE IMPROVEMENT – TURKEY CREEK LATERAL  
NO. 13 BANK STABILIZATION – VON TOBEL – EAST BANK**

\$ \_\_\_\_\_  
(WORDS)

This proposal submitted this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

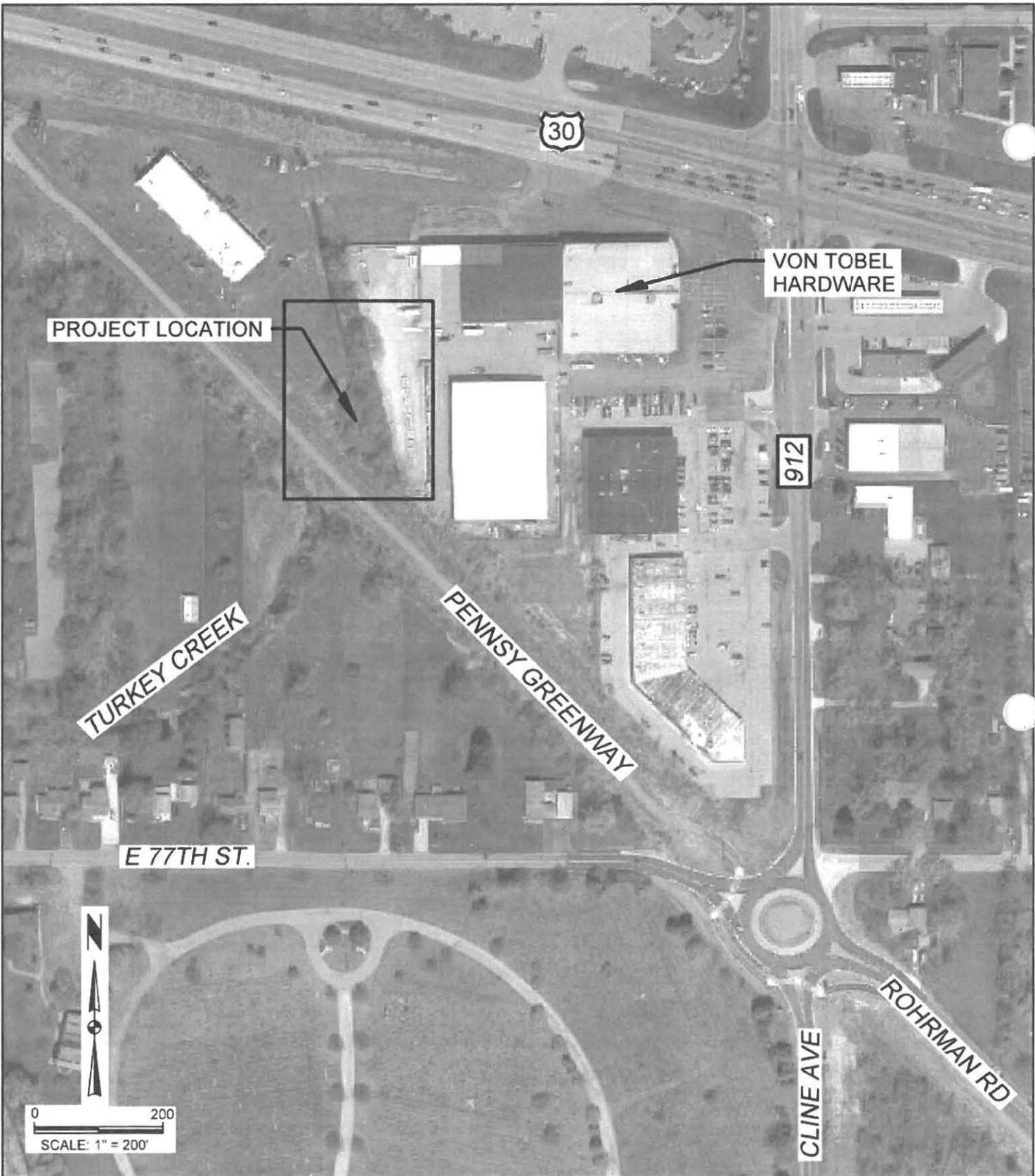
Corporate Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_



**AERIAL PLAN VIEW - PROJECT LOCATION**

SCALE = 200:1



CHRISTOPHER B. BURKE ENGINEERING, LLC  
 One Professional Center, Suite 314  
 Crown Point, Indiana 46307  
 (219) 663-3410 FAX: (219) 663-3450

PROJECT

LAKE COUNTY DRAINAGE BOARD

TURKEY CREEK LATERAL No. 13  
 BANK STABILIZATION AT VON TOBEL

PROJECT NO

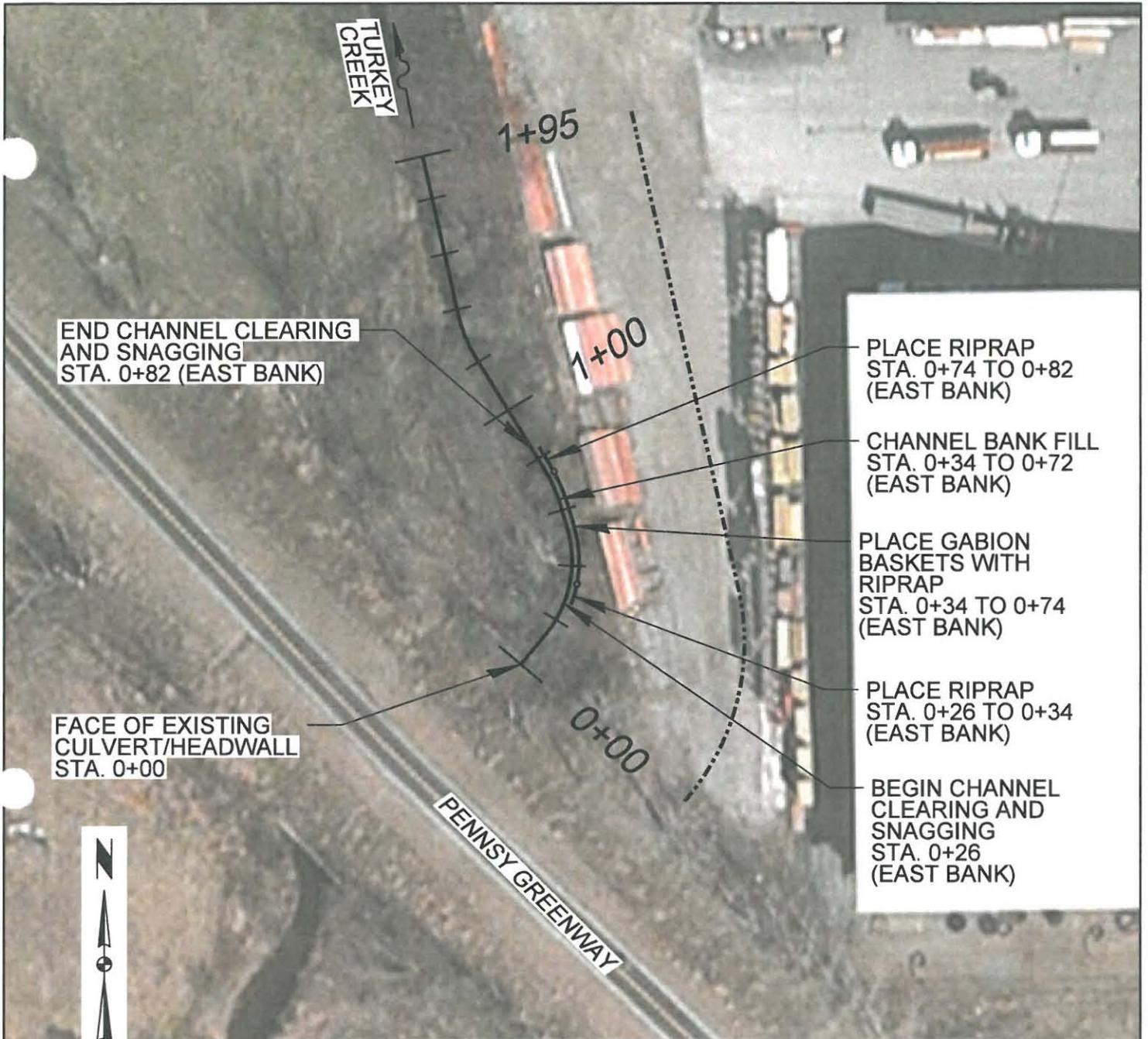
93-169

SHEET

1 OF 1

DRAWING NO

1



### AERIAL PLAN VIEW - EAST BANK

SCALE = 50:1

**NOTE:**

ALL WORK WILL BE DONE FROM EAST BANK OF TURKEY CREEK.

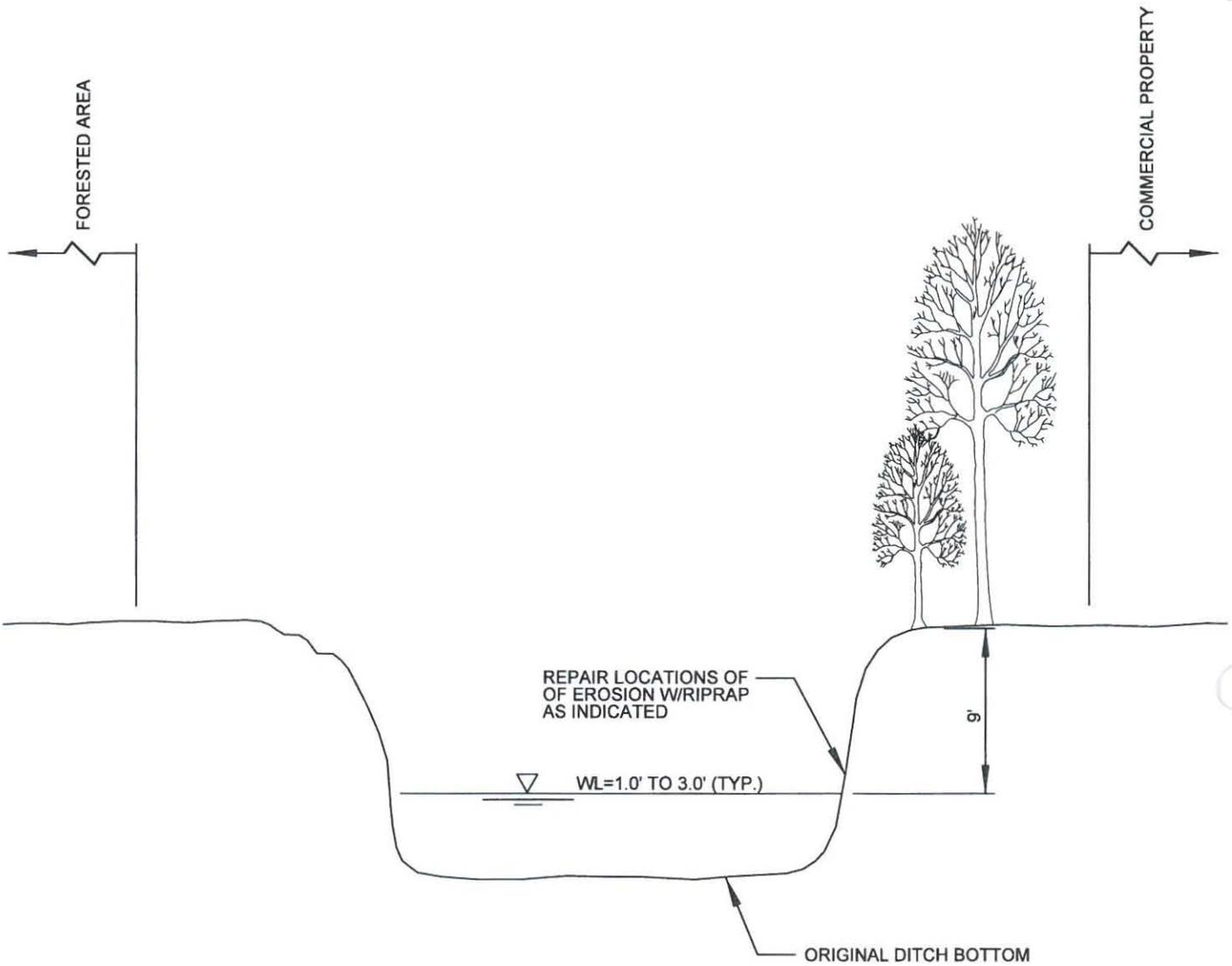
**LEGEND**

- 5+00 ——— DITCH ALIGNMENT W/STATIONING
- LEGAL DRAIN EASEMENT



**CHRISTOPHER B. BURKE ENGINEERING, LLC**  
 One Professional Center, Suite 314  
 Crown Point, Indiana 46307  
 (219) 663-3410 FAX: (219) 663-3450

PROJECT:	LAKE COUNTY DRAINAGE BOARD	PROJECT NO.	93-169
	TURKEY CREEK LATERAL No.13 BANK STABILIZATION AT VON TOBEL	SHEET	2 OF 2
		DRAWING NO.	2



CROSS SECTION  
 TURKEY CREEK LATERAL No. 13 AT VON TOBEL- EAST BANK  
 LOOKING DOWNSTREAM  
 STA. 0+00 - 0+82

NOT TO SCALE

EXISTING



CHRISTOPHER B. BURKE ENGINEERING, LLC  
 One Professional Center, Suite 314  
 Crown Point, Indiana 46307  
 (219) 663-3410 FAX: (219) 663-3450

PROJECT:

LAKE COUNTY DRAINAGE BOARD

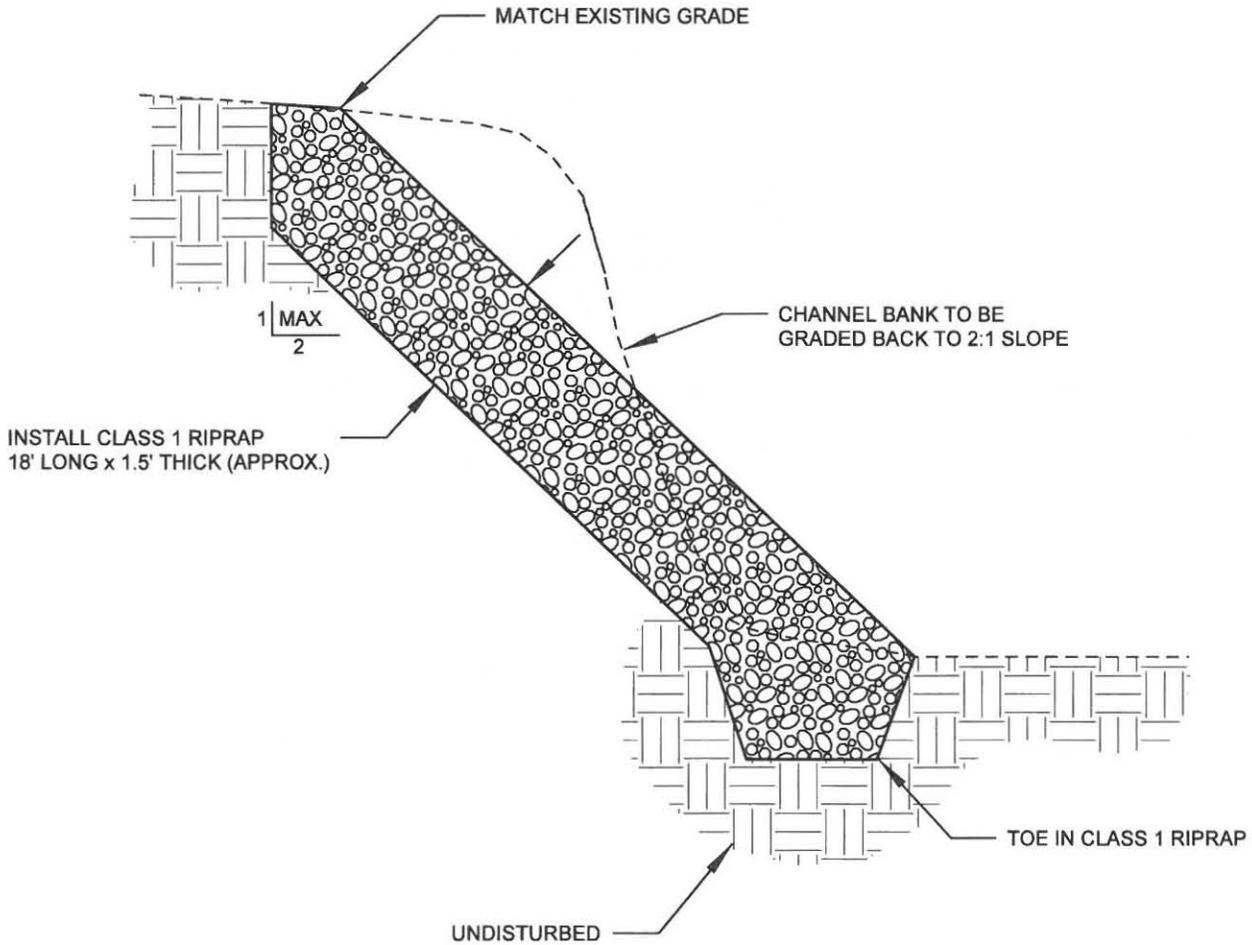
TURKEY CREEK LATERAL No. 13  
 BANK STABILIZATION AT VON TOBEL

PROJECT NO.  
93-169

SHEET  
1 OF

DRAWING NO.

1



**TYPICAL SECTION BANK REPAIR**  
**TURKEY CREEK LATERAL No. 13 AT VON TOBEL - EAST BANK**  
**LOOKING UPSTREAM**  
**STA. 0+26 TO 0+34**  
**STA. 0+74 TO 0+82**

NOT TO SCALE

**PROPOSED**



**CHRISTOPHER B. BURKE ENGINEERING, LLC**  
 One Professional Center, Suite 314  
 Crown Point, Indiana 46307  
 (219) 663-3410      FAX: (219) 663-3450

PROJECT:

LAKE COUNTY DRAINAGE BOARD

TURKEY CREEK LATERAL No. 13  
 BANK STABILIZATION AT VON TOBEL

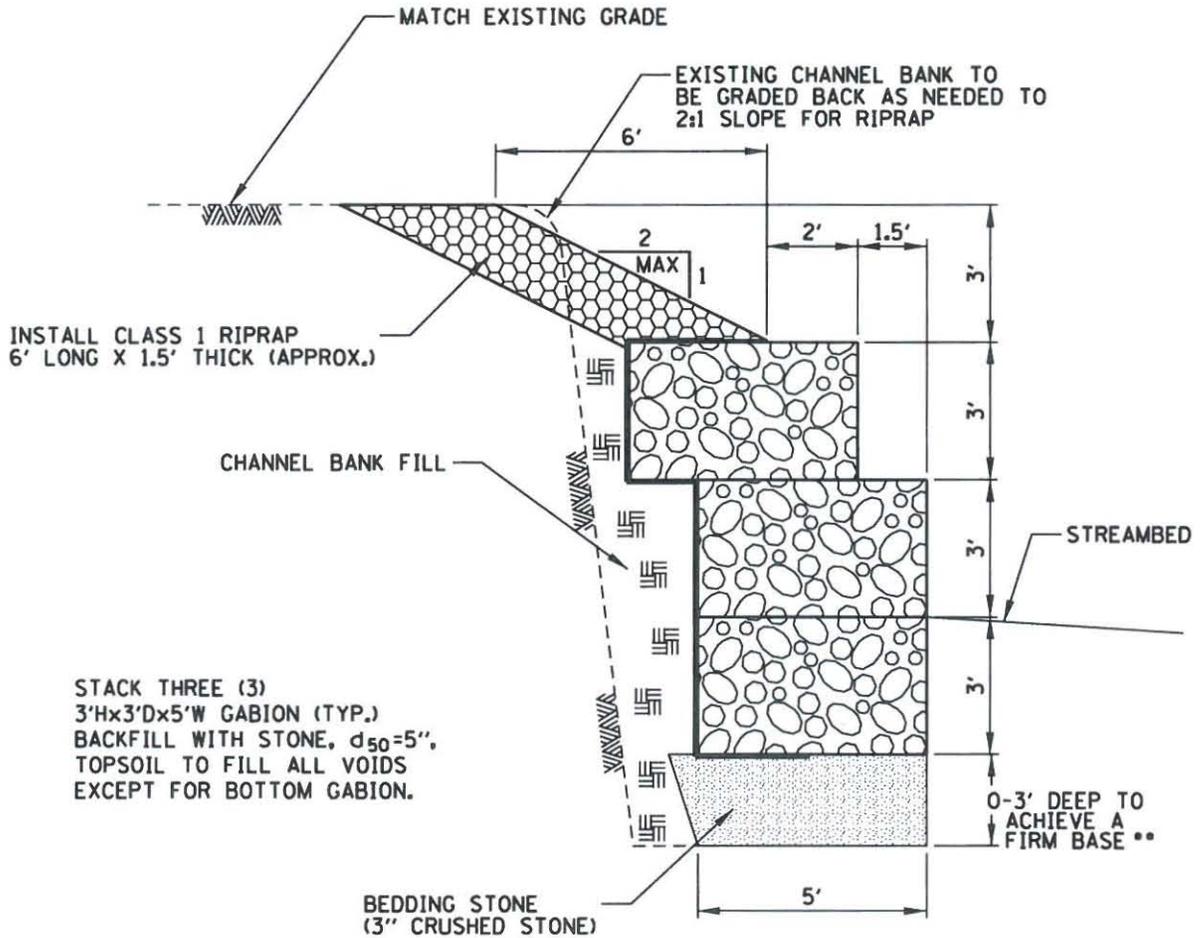
PROJECT NO.

93-169

SHEET 2 OF 3

DRAWING NO.

2



INSTALL CLASS 1 RIPRAP  
6' LONG X 1.5' THICK (APPROX.)

STACK THREE (3)  
3'Hx3'Dx5'W GABION (TYP.)  
BACKFILL WITH STONE,  $d_{50}=5''$ ,  
TOPSOIL TO FILL ALL VOIDS  
EXCEPT FOR BOTTOM GABION.

BEDDING STONE  
(3" CRUSHED STONE)

NOTE:  
WRAP THE INTERIOR FACES OF THE GABION WITH EROSION CONTROL  
BLANKET, BACKFILL WITH STONE AND TOPSOIL TO FILL VOIDS THEN  
SEED THE INTERIOR TOP AND FACE OF EACH GABION EXCEPT FOR  
BOTTOM GABION LOCATED IN THE WATER. EROSION CONTROL BLANKET  
WILL BE MAG C125BN OR VENTURE FIBER VM7 OR APPROVED EQUAL.

## TYPICAL SECTION FROM STATION 0+34 TO 0+74 GABION RETAINING WALL

(GABION WALL 6' HIGH, TOTAL EMBANKMENT HEIGHT 9')

\*\* FOR SCOUR HOLES OR POOR SOIL CONDITIONS  
A GREATER DEPTH OF FILL MAYBE REQUIRED

CLIENT:

**LAKE COUNTY DRAINAGE BOARD**

TITLE:

**TURKEY CREEK LATERAL NO. 13  
BANK STABILIZATION AT VON TOBEL**

PROJ. NO. 930169.02015

DATE: 3/2/2016

SHEET 3 OF 3

DRAWING NO.



**CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
9575 W. Higgins Road, Suite 600 · Rosemont, Illinois 60018 · (847) 823-0500

DSGN.		SCALE:	4'
DRAW.		MODEL:	Default
CHKD.		PLOT DATE:	3/2/2016
FILE:	Detail_930169.02015exh3 Phase 63		

**3**



# 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

March 16, 2016

John Little  
14315 Belshaw Road  
Lowell, Indiana 46356

RE: West Creek Agreement

Dear Mr. Little,

The Lake County Surveyor on behalf of the Lake County Drainage Board is asking that you review and sign the attached agreement for the proposed work on West Creek within your property. This agreement merely states what will be provided by the county and what will be provided by the property owner.

Should you have any questions or comments, 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  
Cliff Duggan, Legal Advisor  
Brian Ralston, American Structurepoint Inc.  
Harold Mussman, West 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

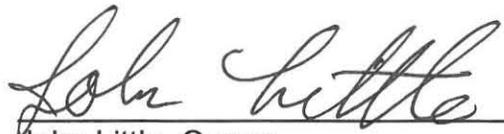
## OBLIGATION/AGREEMENT

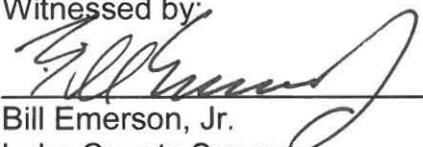
This Agreement by and between the Lake County Drainage Board, hereinafter, the "Board", its Advisory Committee, hereinafter, the "Committee", the Lake County Surveyor, hereinafter, the "Surveyor" and John Little, hereinafter, "Owner" dated this 16<sup>th</sup> day of March 2016, hereby agree to the following obligations and conditions to the Board, Committee and Surveyor in the matter of "Temporary/Permanent Structure" into West Creek which lies on the property described as follows:

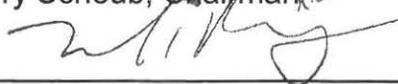
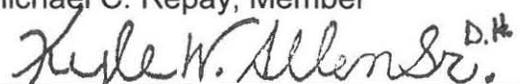
- Tract 1: Pt. S.1/2 of NW.1/4 & N.1/2 of SW.1/4 S.7 T.32 R.9 Lying S. of St. Rd. #2 (649.73x764.21ft.) 10.0Ac.;
- Tract 2: Pt. S.1/2 of NW.1/4 & Pt. SW.1/4 S.7 T.32 R.9 Lying S. of St. Rd.#2 142Ac.;
- Tract 3: NW.1/4 S.18 T.32 R.9 160Ac.;

Therefore, Owner hereby promises to perform items that are listed on the attached "Exhibit A", dated March 16, 2016.

Signed this 16<sup>th</sup> day of MARCH, 2016

By:   
John Little, Owner

Witnessed by:  
  
Bill Emerson, Jr.  
Lake County Surveyor

**Lake County Drainage Board**  
  
Gerry Scheub, Chairman  
  
Michael C. Repay, Member  
  
Kyle W. Allen, Sr., Member



*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

## **“EXHIBIT A”**

Dated March 16, 2016

### **Required Items**

West Creek  
14315 Belshaw Road  
Lowell, Indiana

1. Remove all manner of debris, i.e. tires, bottles, lumber, plastic containers, cans, rubbish/trash from the ditch bottom and side slopes.
2. Remove all trees that are leaning towards the ditch threatening to fall. This applies to both slopes and both bank tops.
3. Excavate silt build-up in the ditch bottom the length of the proposed weir along said property. This material can be deposited on the bank top, allowed to dry and bladed to a smooth condition that will be seeded and mulched.
4. Seed and mulch any disturbed areas along the top of bank and side slopes.
5. Install weirs as designed by county.
6. An “As-Built” survey of the installed drainage system shall be provided to the Lake County Surveyor for review.
7. The Lake County Surveyor/Lake County Drainage Board agrees to provide the necessary engineering for the weirs.

All work items above are to be completed within 180 working days from April 20, 2016. When completed, the petitioner shall inform the Lake County Surveyor for compliance inspection.

Handout

6-B  
03-16-16



AMERICAN  
**STRUCTUREPOINT**  
INC.

7260 Shadeland Station, Indianapolis, Indiana 46256  
TEL 317.547.5580 FAX 317.543.0270

www.structurepoint.com

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## M E M O R A N D U M

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**DATE:** March 14, 2016  
**TO:** Bill Emerson, Jr., Lake County Surveyor  
**FROM:** Brian Payne, Staff Engineer  
**RE:** NIPSCO Wooden Pole Replacements along Cedar Creek  
**CC:** Brian Ralstin, Jeremy Schmitt

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As requested by the Lake County Surveyor's Office, American Structurepoint, Inc. has reviewed NIPSCO's application to work within a regulated drain and place temporary/permanent structures within the drain/easement. The application was submitted by Tony Barringer of NIPSCO for the proposed replacement of four (4) wooden poles along Cedar Creek at (2) separate locations on Mill Street as well as the intersection of Grant and Main Street in the Town of Lowell. Review comments are included in this memo. The proposed project is described as follows:

**Owner/Developer:** NIPSCO  
**Project Name:** NIPSCO Wooden Pole Replacements along Cedar Creek  
**Project Location:** Mill Street and the intersection of Grant and Main Street, within the Town of Lowell, Lake County, Indiana.  
**Description:** The Applicant is requesting allowance for replacement of four (4) wooden poles along Cedar Creek as part of an overall modernization project to reconnector 5,700 ft of wire.

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**Submittal  
Information  
Received:**

- Cover Letter from Tony Barringer of NIPSCO dated February 29, 2016 and delivered to the Lake County Surveyor's Office.
- Application for Permission to Place Temporary/Permanent Structure in the Drain/Easement
- Site aerial photos of pole locations
- Site plans of pole locations

**Review Comments:**

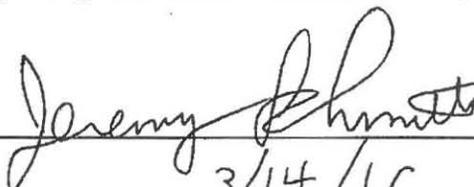
American Structurepoint, Inc. has completed an initial review of the submittal to verify compliance with the requirements of the Lake County Ordinance No. 1365C. This comment letter is a review for general conformance with standards. The Project Engineer is still responsible for his own design and neither the County nor the County's Engineer is responsible for the completeness of the design. We submit the following comments:

1. The Applicant confirmed that the attached site plans (with mark-ups by American Structurepoint) correctly show the locations of the four (4) wooden poles to be replaced. As noted in the mark-ups, only one (1) pole in each location is located within the 75-foot drainage easement on either side of Cedar Creek.
2. While completing the work, the applicant shall ensure that no construction debris or materials are placed within the ditch channel. Based on the locations of the applicant's poles, 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.
3. Final ground surface elevations around poles replaced within the drainage easements shall be no higher than the current existing elevations.

**Recommendation:**

American Structurepoint recommends approval of this application. The applicant shall address the comments above while completing this work. Resubmittal of plans is not required.

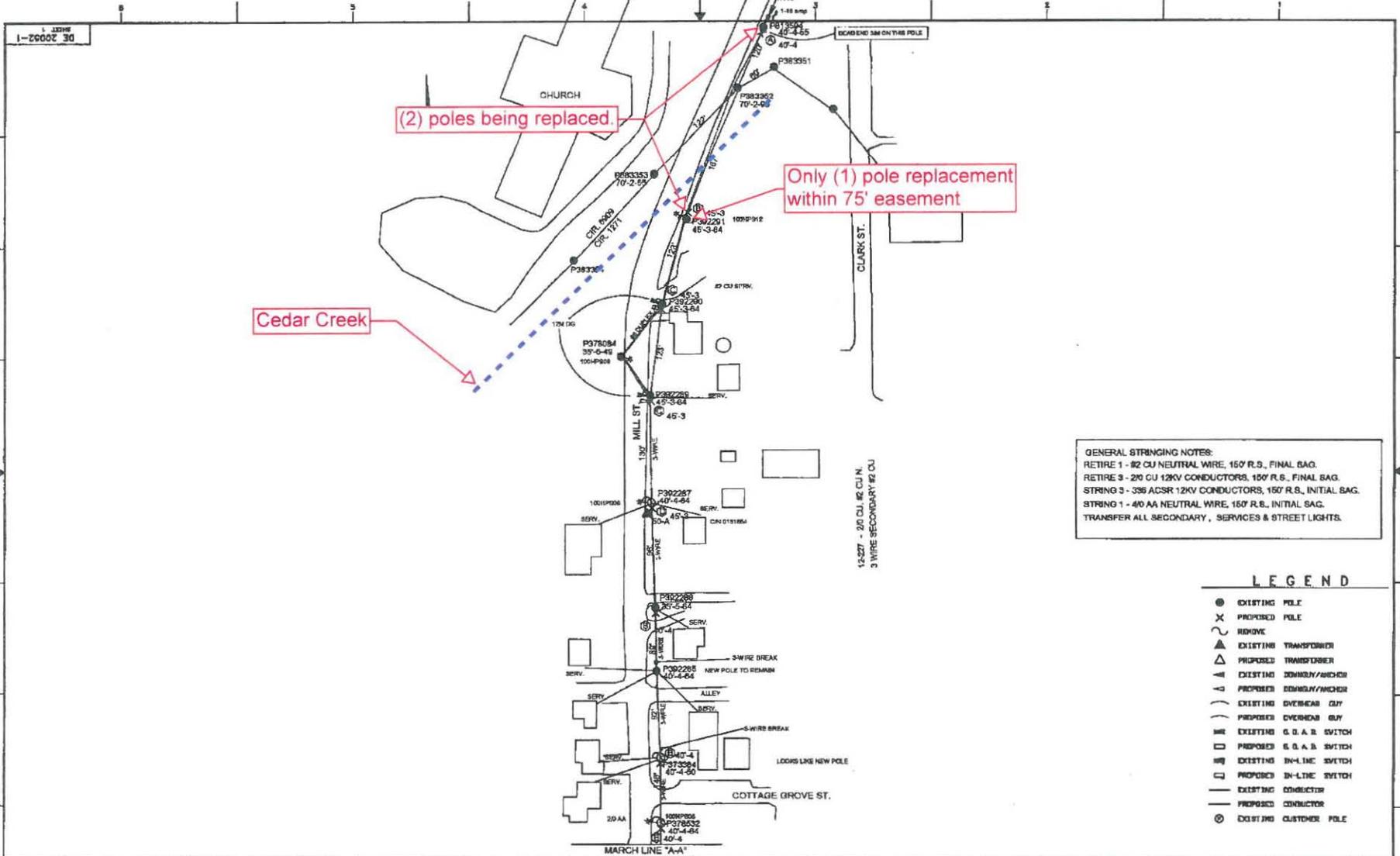
Reviewed by: \_\_\_\_\_



Date: \_\_\_\_\_

3/14/16





GENERAL STRINGING NOTES:  
 RETIRE 1 - #2 CU NEUTRAL WIRE, 150' R.S., FINAL SAG.  
 RETIRE 3 - 20 CU 12KV CONDUCTORS, 150' R.S., FINAL SAG.  
 STRING 3 - 336 ACSR 12KV CONDUCTORS, 150' R.S., INITIAL SAG.  
 STRING 1 - 40 AA NEUTRAL WIRE, 150' R.S., INITIAL SAG.  
 TRANSFER ALL SECONDARY, SERVICES & STREET LIGHTS.

- LEGEND**
- EXISTING POLE
  - ⊗ PROPOSED POLE
  - REMOVE
  - ▲ EXISTING TRANSFORMER
  - △ PROPOSED TRANSFORMER
  - ▲ EXISTING DOWNSH/ANCHOR
  - △ PROPOSED DOWNSH/ANCHOR
  - ⌋ EXISTING OVERHEAD GUY
  - ⌋ PROPOSED OVERHEAD GUY
  - ⌋ EXISTING G. O. A. B. SWITCH
  - ⌋ PROPOSED G. O. A. B. SWITCH
  - ⌋ EXISTING IN-LINE SWITCH
  - ⌋ PROPOSED IN-LINE SWITCH
  - EXISTING CONDUCTOR
  - PROPOSED CONDUCTOR
  - ⊙ EXISTING CUSTOMER POLE

Northern Indiana Public Service Company a subsidiary of IUPUI Networks, Inc.										DRAWN: T. B. ROER ENGINEER: T. B. ROER APPROVED: [Signature] DATE: 09-01-10 SCALE: 1" = 500'	TITLE: CIRCUIT 12-227 RECONDUCTOR LOCATION: LOWELL, INDIANA DETAIL: PLAN VIEW I.A./NOT. NO. 90 50941-912	IUPUI DRAWING NO.: DE 20052-1 SHEET: 1	
REV.	U.A.	DESCRIPTION	DATE	BY	CHK	FLM	REV.	U.A.	DESCRIPTION	DATE	BY	CHK	FLM

# ATTENDANCE FOR LAKE COUNTY DRAINAGE BOARD MEETINGS – 2016

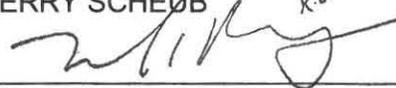
	JAN 20	FEB 17	MAR 16	APR 20	MAY 18	JUNE 15	JULY 20	AUG 17	SEPT 21	OCT 19	NOV 16	DEC 21
COMMISSIONER SCHEUB			X									
COMMISSIONER ALLEN			X									
COMMISSIONER REPAY			X									

TO BE PAID EVERY THREE MONTHS (QUARTERLY)  
EACH MEETING \$35.00

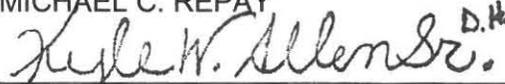
**LAKE COUNTY DRAINAGE BOARD**



GERRY SCHEUB X.B.



MICHAEL C. REPAY



KYLE ALLEN



# LAKE COUNTY DRAINAGE BOARD

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

9-2

## Drainage Board

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

## Technical Support

Bill Emerson, Jr., Lake County Surveyor  
Daniel V. Gossman, Sr. Drainage Admin.  
Tom Regalado, Asst. Drainage Admin.  
Clifford E. Duggan, Jr., Technical Advisor  
C.B. Burke Eng. Ltd., Consultant  
American Structurepoint, Consultant  
Mary Ellen Kupsik, Drainage Board Secretary

## ADVISORY COMMITTEE

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Crown Point, IN 46307  
[david@hubingers.com](mailto:david@hubingers.com)  
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[stjohn township@sbcglobal.net](mailto:stjohn township@sbcglobal.net)  
Cell: 718-1510  
Term Expires: 1-01-19

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### WINFIELD TOWNSHIP

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14320 Elkhart Street  
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Work: 219-663-5561  
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[hobarttrustee@frontier.com](mailto:hobarttrustee@frontier.com)  
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Cell: 219-617-2788  
Term Expires: 7-1-17

### CALUMET TOWNSHIP

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1900 West 41<sup>st</sup> Avenue  
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[lneese@calumet-in.gov](mailto:lneese@calumet-in.gov)  
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Term Expires: 8-01-19

### CEDAR CREEK TWP.

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151 N. Freemont Street  
Lowell, IN 46356  
[alicefdahl@yahoo.com](mailto:alicefdahl@yahoo.com)  
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Work: 696-9713  
Fax: 696-8963  
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Cedar Lake, IN 46303  
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Cell: 765-0580  
Term Expires: 2-1-19

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Munster, IN 46321  
[Mkozy614@gmail.com](mailto:Mkozy614@gmail.com)  
Home: 836-4090  
Cell: 201-4230  
Term Expires: 1-1-16

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Lowell, IN 46356  
[Wctpcts1-5@att.net](mailto:Wctpcts1-5@att.net)  
Work: 696-9432  
Term Expires: 7-01-18

### EAGLE CREEK TOWNSHIP

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Hebron, IN 46341  
[johnjurs@gmail.com](mailto:johnjurs@gmail.com)  
Cell: 219-805-4316  
Term Expires: 7-1-17