



NST EXPRESS, LLC PROJECT (PU-15-232)

Permit Compliance Final Inspection Report #5



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1 EXECUTIVE SUMMARY

The North Dakota Public Service Commission (Commission) retained Houston Engineering, Inc. (HEI) to complete a construction inspection of the NST Express, LLC project (Case No. PU-15-232), a 12-inch crude oil pipeline spanning 23 miles in McKenzie County, North Dakota. The project is owned and operated by NST Express, L.L.C. (NST Express) and required the installation of an underground steel pipeline that will transport crude oil from a new gathering facility located approximately 9 miles north of Alexander, North Dakota (“NST Express Alexander Facility”) to the existing NST Transload Operating Company, LLC facility located approximately 0.5 miles north of East Fairview, North Dakota (“NST Transload East Fairview Facility”) (Docket No. 1). The 22.9 miles of 12-inch pipeline from Alexander facility to the Fairview facility was completed November 2016 (see Docket No. 79).

HEI reviewed all project documents, as posted to the docket, to identify the aspects of the project that required compliance. Visual inspection of the project was conducted several times throughout the project construction to observe: soil management, 50% and 90% complete-construction, post-construction, and lastly to observe final reclamation of the affected areas. Erosion controls and other best management practices have been reviewed throughout the project construction and no major issues have been identified. The focus of the most recent and final field inspection was to assess the status of reclamation and restoration activities for the project site.

Overall, the Project appears to have been constructed as designed, with minimal impacts to the surrounding natural or human environment. The site compliance investigations observed sustainable vegetation establishment in areas disturbed during project construction. No erosion and sedimentation issues were observed. There is no tree or shrub mitigation needed. All permits have been filed and there are no missing permits in the case file, except for the Stormwater Pollution Prevention Plan (SWPPP). The correctable issue that was identified is related to pipeline markers (signage). Please refer to **Appendix B** for photographs and **Exhibit A** for photograph locations. Most specifically, the pipeline marker on the east side of Highway 58 was observed leaning (**Appendix C**, photograph 3). At 160th Avenue, a pipeline marker is damaged (photographs 9-11). Furthermore, there were not any marker posts east of 159th Avenue NW to Yellowstone River where the boring was completed; photographs 19-23 were taken in the locations that were best estimated to be the pipeline location.

In conclusion, the Project is currently in compliance with all the provisions set forth by the Commission with the exception of what appears to be inadequate signage (project maintenance) along select areas along the pipeline corridor. The Commission may elect to require NST Express to correct the signage absences in order to reduce the possibility of damage or interference by identifying the location of the underground pipeline consistently across the landscape. The Commission may elect to conduct subsequent field verifications to ensure the location markers/signage has been completed.

2 INTRODUCTION AND BACKGROUND

2.1 PROJECT BACKGROUND

NST Express filed with the Commission an application for a certificate of corridor compatibility and route permit to authorize construction of its underground steel crude oil pipeline that is intended to transport crude oil from a gathering facility located approximately 9 miles north of Alexander, North Dakota (the “NST Express Alexander Facility”) to the NST Transload Operating Company, LLC facility located approximately 0.5 miles north of East Fairview, North Dakota (the “NST Transload East Fairview



Facility”)(Project). The project length is approximately 23 miles, in McKenzie County, North Dakota. The pipeline originates at the NST Express Alexander Facility and extends westward and southward to the NST Transload East Fairview Facility. The Project is owned and operated by NST Express. The Project is under the jurisdiction of the North Dakota Public Service Commission (Commission), which issued its Order in Case No. PU-15-232.

On May 29, 2015, NST Express filed a consolidated application for a Certificate of Corridor Compatibility and Route Permit to authorize construction of the Project (Docket No. 1). On July 8, 2015, the Commission deemed NST Express's applications complete and issued a Notice of Filings and Notice of Hearing for September 10, 2015 (Docket No. 8). The Commission issued its Findings of Fact, Conclusions of Law and Order on October 14, 2015 for the Project, Case No. PU-15-232. The Order granted NST Express's request and issued the Certificate of Corridor Compatibility No. 173 and Route Permit No. 185 designating a transmission facility corridor for NST Express for the construction, operation, and maintenance of the approximate 23 miles of 12-inch diameter crude oil pipeline and associated facilities (Docket No. 35).

2.2 PURPOSE OF THIS REPORT

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code (NDCC) Chapter 49-22) authorizes the Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of citizens of North Dakota. Post-construction inspections ensure that such projects are constructed in compliance with the siting laws (NDCC, Chapter 49-22) and rules (North Dakota Administrative Code (NDAC) Article 69-06) and the applicable Commission Findings of Fact, Conclusions of Law, and Order (Order). The Commission retained HEI to complete a construction inspection of the Project.

2.3 METHODS OF INSPECTION

2.3.1 PROJECT COMPLIANCE ITEMS IDENTIFIED & REVIEW OF DOCUMENTATION

HEI identified project provisions in the order and verified compliance through observations recorded during on-site inspections, and from a desktop review of the online case file no. PU-15-232. The Project *Findings of Fact, Conclusions of Law and Order and the Certification Relating to Order Provisions for Transmission Facility Siting* (October 14, 2015) provides these project provisions (Docket No. 35).

2.3.2 ON SITE INSPECTION

HEI conducted five (5) compliance site visits throughout the construction period:

- Site Visit 1: during initial soil separation activities, to confirm contractor is competent in identification of topsoil and separation was completed appropriately;
 - Site visit conducted May 10, 26 (Docket No. 65)
 - Topsoil separation activities were observed and it was concluded that the contractors constructing the project were proficient in segregations of topsoil material. The methods utilized were appropriate for the site and site conditions.
- Site Visit 2: during active construction; 50%, 11-12 miles of completed pipeline
 - Site visit conducted July 18, 2016 (Docket No. 72)



3.1 SUMMARY OF FINAL SITE VISIT

The final site inspection was completed on October 17, 2018 by Emma McFall, Civil Engineer, Houston Engineering, Inc. (HEI). The final site visit involved a full site tour of the Project areas and observations of the restoration activities. Utilizing field maps, HEI traveled along the corridor of the project, observing restoration and any disturbed areas that have not been restored. Areas of exposed soils, erosion and sedimentation issues, road crossings, and restored grading topography were focus areas for the final site visit.

Photographs were taken through out the entire corridor. Photo locations are mapped in **Exhibit A** and the entire photo set is included within **Appendix B**.

3.2 SITE INFORMATION

3.2.1 DESIGNATED LOCATIONS

The crude oil pipeline and associated facilities were built in the designated location as described and shown in the Application and as subsequently amended. The amended corridor drawings submitted as part of the project case file and the as-built drawings are consistent.

3.2.2 SITING CRITERIA

Siting criteria were analyzed in detail in the Application for the project. As noted in the Application and in accordance with NDAC 69-06-08-02, the project construction, operation, and maintenance did not impact any Exclusion Areas and no Avoidance Areas were impacted by the project.

3.2.3 LAND USE AND AGRICULTURAL IMPACTS

Agricultural land use comprised approximately 55% of the study area. It was proposed that the project would temporarily impact approximately 317 acres and approximately 133 acres are designated prime farmland and/or farmland of statewide importance (page 35 of the project Consolidated Application for a Certificate of Corridor Compatibility and Route Permit, and Waiver Application). Impacts to agricultural lands, as proposed, were restored to its prior use, within the right-of-way, and therefore impacts were primarily temporary and minimal.

3.3 PROJECT DESIGN AND ENGINEERING

3.3.1 ENGINEERING DESIGN DRAWINGS

Engineering documents were provided to the Commission as appendices to the Application for Certificate of Corridor Compatibility (Docket No. 1). As-built alignment drawings were filed on February 3, 2017 (Docket No. 81).

3.4 PRE-CONSTRUCTION

3.4.1 COMMISSION-REQUIRED DOCUMENTS

The Consolidated Application for a Certificate of Corridor Compatibility and Route Permit was submitted on May 29, 2015. (Docket No. 1). The Commission issued Findings of Fact, Conclusions of Law, and Order (Order) granting Certificate of Corridor Compatibility No. 173 and Route Permit No. 185 to NST Express, LLC on October 14, 2015 (Docket No. 35).



After the issuance of the Order, NST Express determined that route adjustments within, or less than 1.5 miles in length outside of the corridor designated for the project were necessary to accommodate landowner requests and satisfy road authority crossing requirements. No known exclusion or avoidance areas were proposed impacted by construction activities associated with the route adjustments (Docket 54).

3.4.2 PRE-CONSTRUCTION CONFERENCE/WEEKLY UPDATES

The pre-construction conference call took place on March 24, 2016. Meeting minutes from the pre-construction conference call were filed on April 4, 2016 (Docket No. 51). Construction reports were filed monthly during construction from April through November 2016 (Docket No's. 58, 63, 66, 68, 74, 75, 77, 79).

3.4.3 PERMITS AND APPROVALS FROM OTHER AGENCIES

No documentation is found within the project file that indicates additional permits were required as part of this Project, and no additional information regarding permitting details was submitted to the Commission.

3.4.4 COMMISSION APPROVAL OF MODIFICATIONS

Several project amendments were made and adequately documented within the project case file (PU-15-232), as summarized below.

A motion to amend the project consolidated Application was sent to the Commission September 14, 2015 (Docket 29). NST Express had identified nine locations along the proposed route where alternative alignments (re-routes) were necessary and due to landowner requests or with their approval. Additional temporary workspace was also identified to allow for enough workspace for bores at road crossings. Of the nine re-routes, three were located within the original corridor (proposed in the Application) and six were outside of that corridor. The additional workspace was slightly outside the original corridor. Hearing Exhibits on the case file show these re-routes and additional workspace in Docket 21. The Commission authorized the project and amendments in its Findings of Fact, Conclusions of Law and Order (October 14, 2015; Docket No. 35).

Subsequently, NST Express notified the Commission November 16, 2015 of plans to modify the project pipe design specifications (Docket No. 41). The Commission requested additional information on December 8, 2015 (Docket No. 42) and NST Express provided this information in its December 21, 2015 correspondence (Docket No. 43). Commission approval was not required for the modification of the pipe design or pipe wall thickness, and NST Express fulfilled the request for additional information regarding the event prompting the change of pipe specifications, and information comparing the yield strength and corrosion resistance of the pipes selected.

On April 27, 2016 NST Express submitted notification to the Commission of route adjustments within, or less than 1.5 miles in length outside of the corridor designated for the project due to landowner accommodations and to satisfy road authority crossing requirements. See Docket No. 54 for route amendment maps showing the route modification. On April 28, 2016 Commission issued written recognition to NST Express's notification to adjust the route and corridor as Ordered. The letter acknowledged that the Commission received the filing of written certifications under NDCD 49-22-16.3(1) for the route corridor adjustments (Docket No. 56).



On May 17, 2016 NST Express submitted notification to the Commission of plans to increase the capacity of the storage tanks from three 50,000-gallon aboveground storage tanks to three 80,000-gallon aboveground storage tanks at the NST Express Alexander Facility (Docket No. 61). An amended Conditional Use Permit was required and provided on August 29, 2016 (Docket 70).

On August 26, 2016 NST Express submitted notification to the Commission of plans for a route adjustment within, and less than 1.5 miles in length outside of the corridor designated for the project, which was necessary to facilitate interconnection of a third-party pipeline at the project's Dore Junction valve site (Docket No. 69). Compliance related documentation was also provided in the same case record (Docket No. 69) and in Docket No.71. On September 6, 2016 Commission issued written recognition to NST Express's August 26, 2016 notification to adjust the route pipeline, that was being constructed at that time, outside the corridor designated by the Commission, and no longer than 1.5 miles. The letter acknowledged that the Commission received the filing of written certifications under NDCD 49-22-16.3(1) and (3) for the project. Commission recognized that NST Express indicated that a copy of the county use permit will be filed with the Commission by the end of September 2016 and will also file landowner signatures for easements (Docket No. 73). On November 1, 2016, NST Express filed the McKenzie County letter regarding the project Conditional Use Permit and amendment to surface easement (Docket No. 76).

Based on a brief case search review of the project (PU-15-232), the case file appears complete with proper documentation and regulatory compliance of the modifications that unfolded during the project development process.

3.5 CULTURAL RESOURCES

3.5.1 CULTURAL SITE AVOIDANCE

The North Dakota State Historical Preservation Office (SHPO) reviewed the Class I and Class III Cultural Resources Surveys (including their addendum) for the project site and concurred with the "No Significant Sites" determination. HEI concludes that the Project was constructed as described in the Application, resulting in no impacts to cultural resources.

3.5.2 REPORTING OF NEW DISCOVERIES

No new discoveries of cultural, archeological, or historical sites were reported to the Commission during construction, and no discoveries were noted on the weekly construction reports for the Project. Based on this information, it is concluded that no new sites were encountered during construction of the Project.

3.6 NATURAL RESOURCES

3.6.1 WETLANDS, SURFACE WATER, AND FLOODPLAIN

Seven wetlands and five streams, including the Yellowstone River were identified during preliminary field surveys as part of the project development phases. The 7 wetlands encompass approximately 1.50 acres within the 200-foot-wide resource review area. No wetlands were identified in the facility areas. A total of 0.58 acres of wetlands was identified in the 100-foot construction right-of-way. The Yellowstone River was crossed using horizontal directional drilling techniques. Wetlands and stream crossings were conducted as proposed in the Application (Docket 1).



3.6.2 RARE, THREATENED AND ENDANGERED SPECIES REPORTING

The project had no impact to protected species. A cursory threatened and endangered species survey was conducted prior to project construction, concurrent with the project wetland determinations. No primary (e.g., actual sightings) or secondary (e.g., tracks, scat, fur) indications of the presence of threatened or endangered species were identified at that time, before construction. There were no reports filed documenting the presence of threatened or endangered species during construction.

3.6.3 TREE AND SHRUB MITIGATION

A tree and shrub survey of the project route was conducted on December 22, 2016 to ascertain the status of qualified (DBH of \geq 1 inch) trees and shrubs under North Dakota Public Service Commission regulations that would require replacement on a 2:1 basis, if those trees and shrubs were removed during pipeline construction. It was determined by SWCA Environmental Consultants that none of the 22 qualified trees and shrubs identified in the Commission application were removed during construction of the NST Express Pipeline (Docket No. 80). The Project complies with the Tree and Shrub Mitigation Specifications (attached to the Certification Relating to Order Provisions).

3.7 CONSTRUCTION, RECLAMATION & SOILS

3.7.1 EROSION AND SEDIMENTATION CONTROL

A Construction Stormwater permit was obtained by NST Express (Docket No. 51) and a Construction Stormwater Pollution Prevention Plan (SWPPP) was developed, though it is not included in the project case file. Vegetative restoration has occurred and appears to be well-established. The site was observed to have limited erosion and sedimentation issues.

3.7.2 RECLAMATION AND ROADS

Roads accessing the site appeared to be in a condition typical for the area and do not appear to have been impacted during construction.

3.7.3 RESEEDING

The Order Provisions stated that reclamation, fertilization, and reseeding is to be done per Natural Resources Conservation Service (NRCS) recommendations, unless otherwise specified by the landowner and approved by the Commission (Certification Relating to Order Provisions, ¶18). NST Express's obligation for reclamation and maintenance of the approved site will continue throughout the life of the energy conversion facility (Certification Relating to Order Provisions, ¶19). NST Express agreed to restore the area affected by the construction activities to near pre-construction conditions upon completion of the construction of the energy conversion facility, as soon as practicable (Certification Relating to Order Provisions, ¶7). Based on the final site visit, disturbed areas appear to have been successfully revegetated, with no erosion or sedimentation issues observed.

3.7.4 REPAIRS

No damage to property was observed during the site inspections.

3.7.5 WASTE

The Project area was free of construction debris and equipment.



3.8 OPERATION

3.8.1 OPERATION AND MAINTENANCE

The site appeared to be operated and maintained as described in the Application.

3.8.2 SAFETY AND RECORD-KEEPING

No concerns were identified during the site inspection that would indicate the Project construction or operation was out of compliance with the Application or applicable safety regulations. The project monthly construction reports (listed below) did not document any near-misses, accidents or other safety related information.

- April 2016 (Docket 58)
- May 2016 (Docket 63)
- June 2016 (Docket No. 66)
- July 2016 (Docket No. 68)
- August 2016 (Docket No. 74)
- September 2016 (Docket No. 75)
- October 2016 (Docket No. 77)
- November 2016 (Docket No. 79)

3.8.3 PUBLIC COMPLAINTS

No public complaints regarding the Project have been filed to date.

3.8.4 PUBLIC SAFETY

Safety concerns regarding the public appear to be minimal. A correction to maintaining a full extent of pipeline markers (signage) would be advised so the pipeline location is visible along the ground surface.

4 CONCLUSIONS

4.1 FINAL CONCLUSIONS

Overall, the Project appears to have been constructed as designed, with minimal impacts to the surrounding natural or human environment. The site compliance investigations observed the establishment of sustainable vegetation and no erosion and sedimentation issues were observed. There is no tree or shrub mitigation needed. All permits have been filed and there are no missing permits in the case file, except for the SWPPP. The correctable issue that was identified is related to pipeline markers (signage). Please refer to **Appendix B** for photographs and **Exhibit A** for photograph locations. The pipeline marker on the east side of Highway 58 was observed leaning (**Appendix B**, photograph 3). At 160th Avenue, a pipeline marker is damaged (photographs 9-11). Furthermore, there were not any marker posts east of 159th Avenue NW to Yellowstone River where the boring was completed; photographs 19-23 were taken in the locations that were best estimated to be the pipeline location.

In conclusion, the Project is currently in compliance with all the provisions set forth by the Commission with the exception of what appears to be inadequate signage (maintenance) along select areas along the pipeline corridor. The Commission may elect to require NST Express to correct the signage absences in order to reduce the possibility of damage or interference by identifying the location of the underground



pipeline consistently across the landscape. The Commission may elect to conduct subsequent field verifications to ensure the location markers/signage has been completed.

5 SIGNATURES

The services provided by HEI scientists and engineers for this Project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by professionals currently practicing in this area under similar time and budget constraints. Recommendations and findings contained in this report represent our professional judgement and are based upon available information, our compliance inspections, and technically accepted practices. Other than this, no warranty is implied or expressed.


Barton Schultz, Project Manager

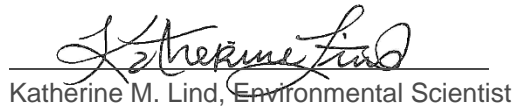
11/16/2018

Date


Emmy Baskerville, Environmental Scientist

11/16/2018

Date


Katherine M. Lind, Environmental Scientist

11/16/2018

Date

6 REFERENCES

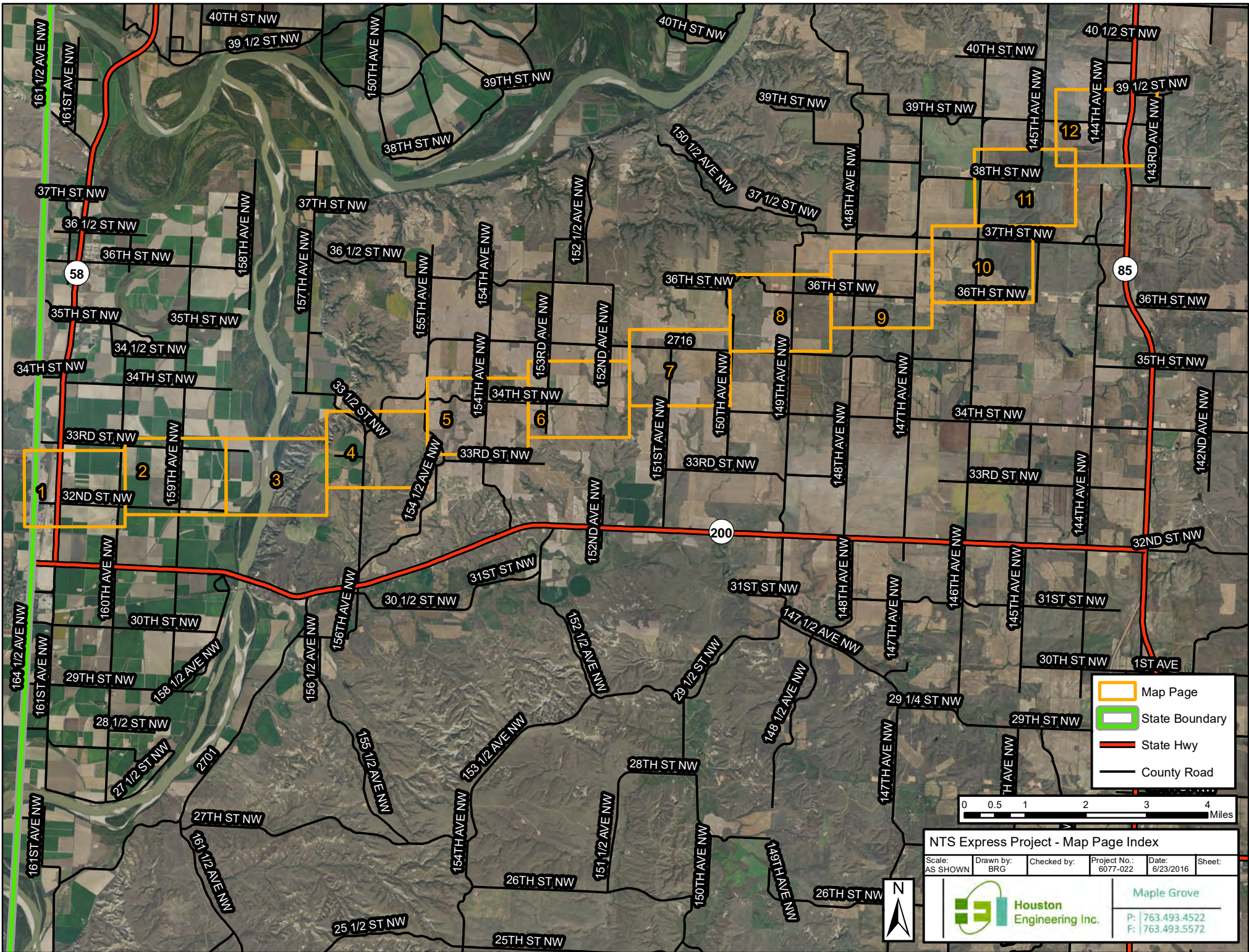
North Dakota Public Service Commission (Commission) 2018. Online Case Search. Available from: <http://psc.nd.gov/public/casesthrough>. Accessed October 2018.



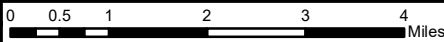
EXHIBIT A: SITE MAP

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- State Boundary
- State Hwy
- County Road



NTS Express Project - Map Page Index

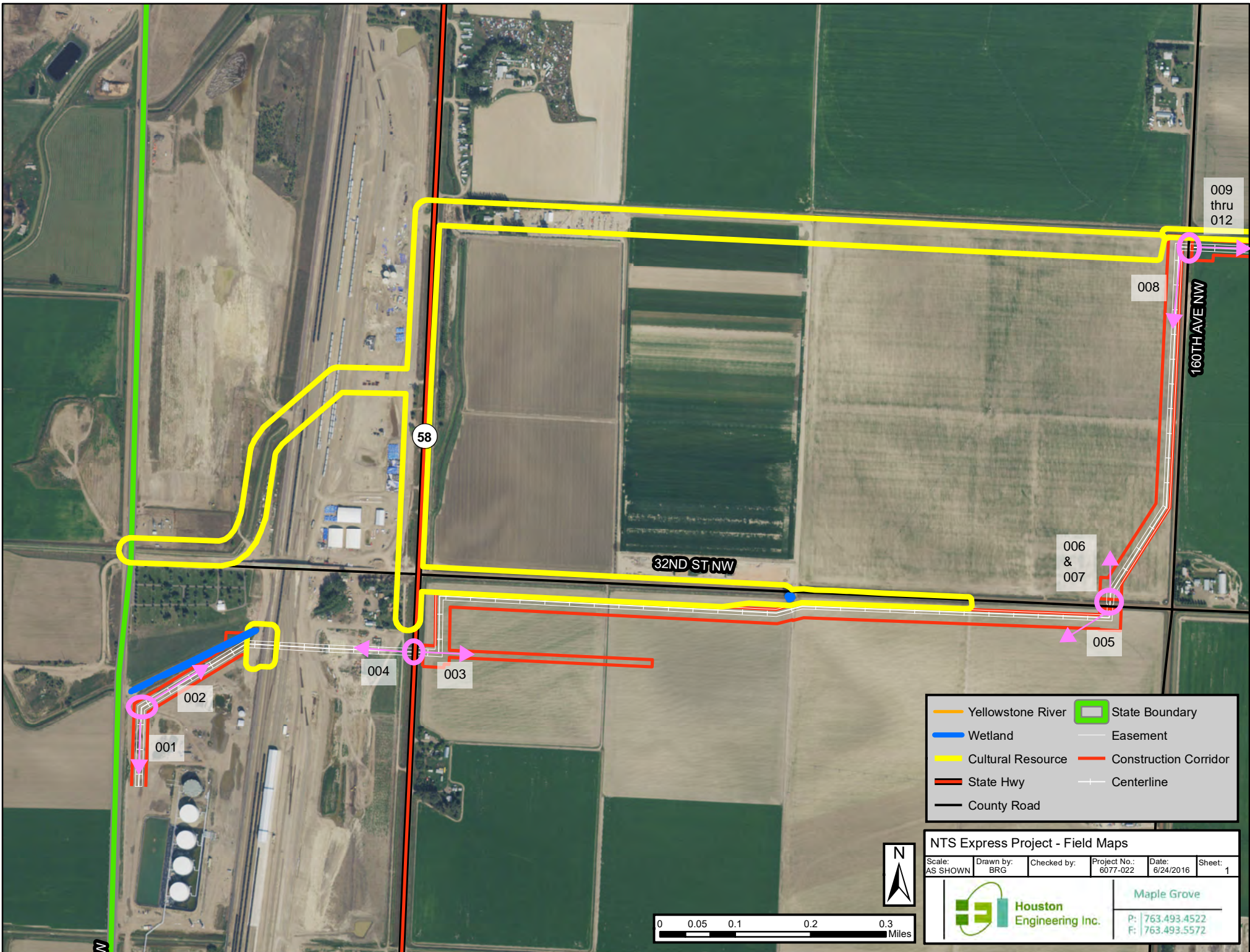
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Houston Engineering Inc.

Maple Grove

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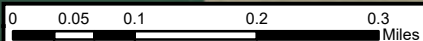




- Yellowstone River
- Wetland
- Cultural Resource
- State Hwy
- County Road
- State Boundary
- Easement
- Construction Corridor
- Centerline

NTS Express Project - Field Maps

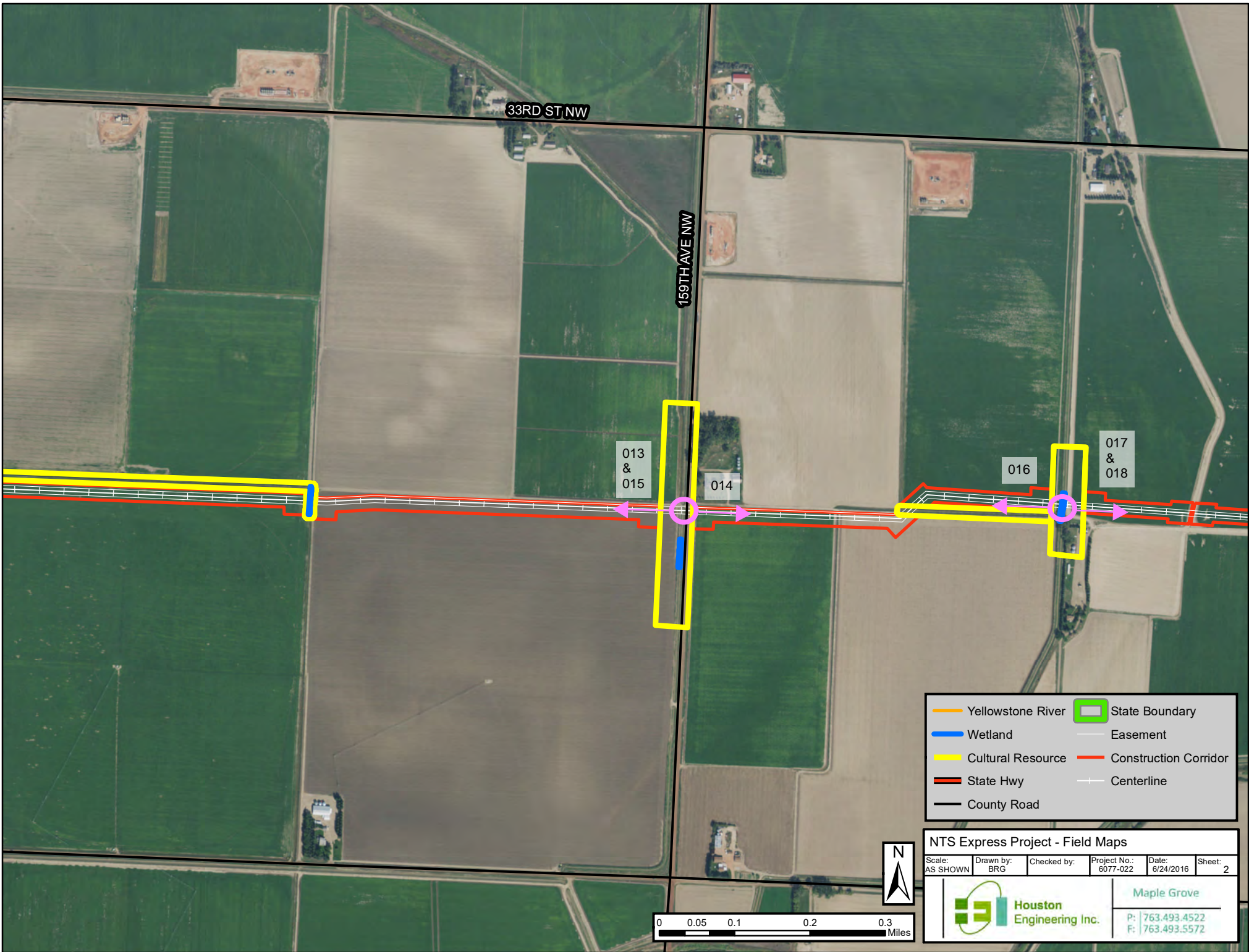
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33RD ST NW

159TH AVE NW

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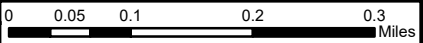
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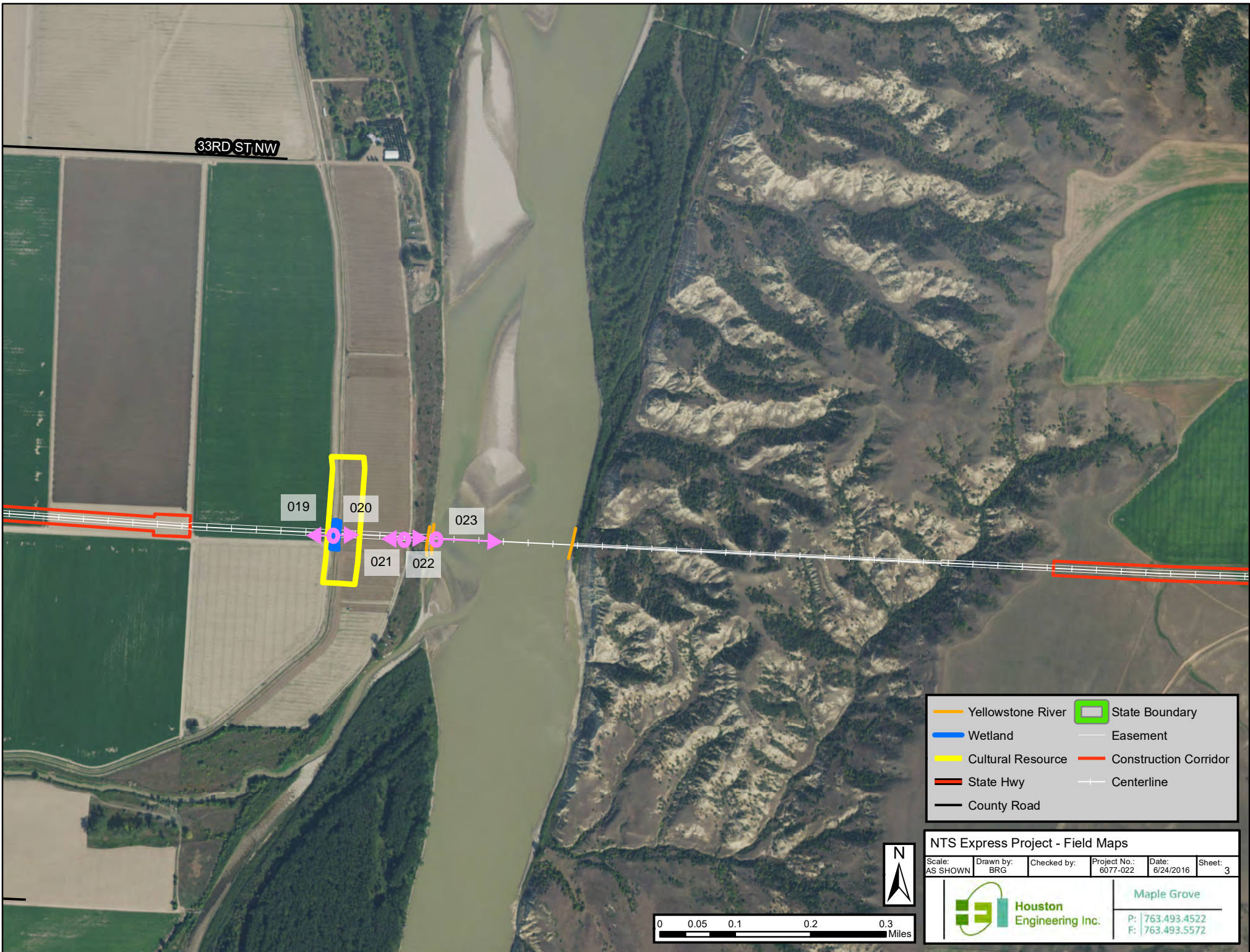
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

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33RD ST NW

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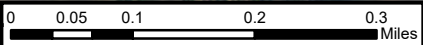
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- Yellowstone River
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- Cultural Resource
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- County Road
- State Boundary
- Easement
- Construction Corridor
- Centerline

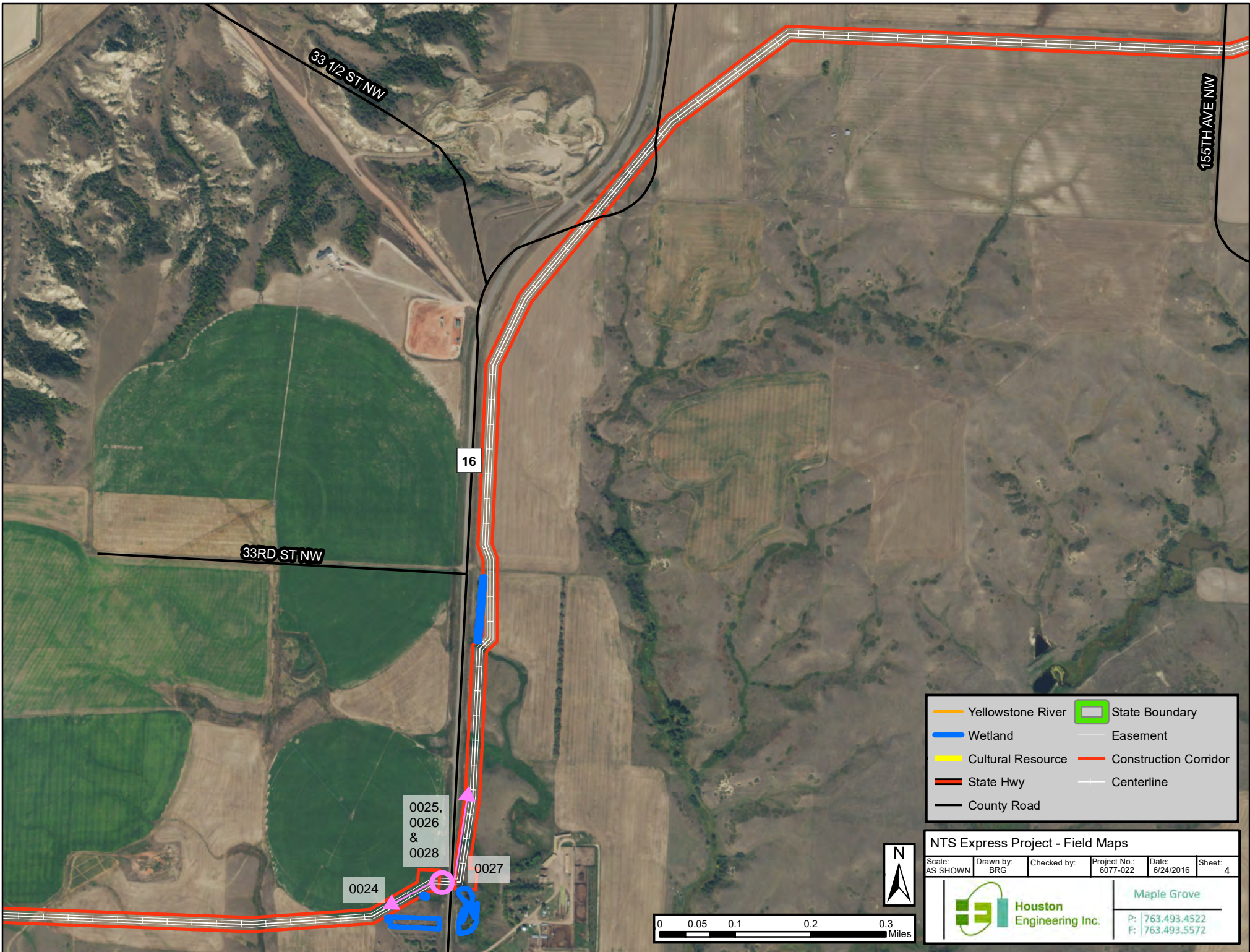
NTS Express Project - Field Maps

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33 1/2 ST NW

155TH AVE NW

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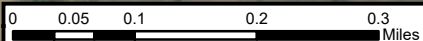
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- Yellowstone River
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NTS Express Project - Field Maps

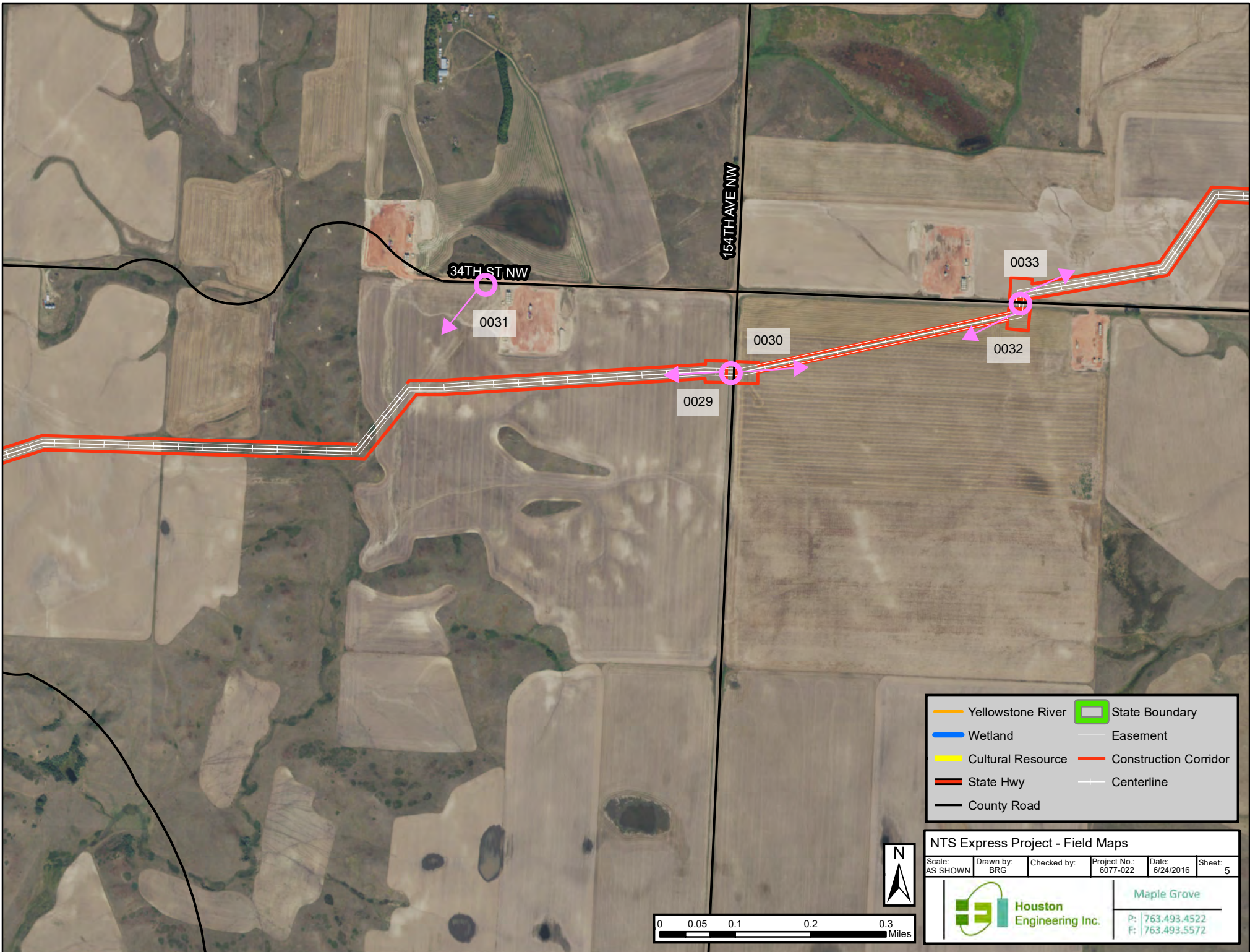
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34TH ST NW

154TH AVE NW










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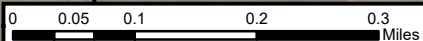
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-  Wetland
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NTS Express Project - Field Maps

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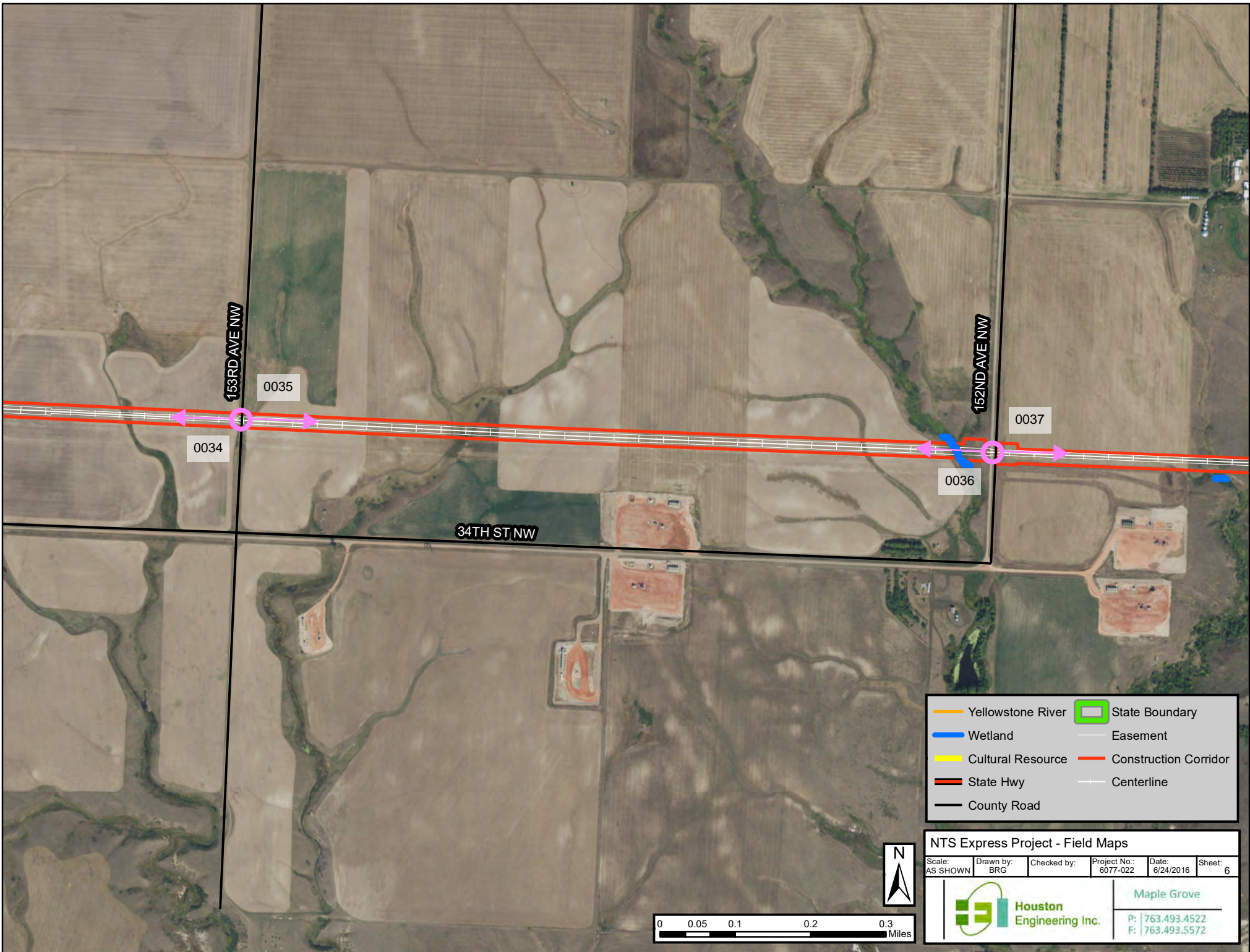




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153RD AVE NW

152ND AVE NW










34TH ST NW

0034

0035

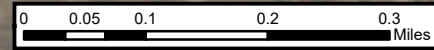
0036

0037

-  Yellowstone River
-  Wetland
-  Cultural Resource
-  State Hwy
-  County Road
-  State Boundary
-  Easement
-  Construction Corridor
-  Centerline

NTS Express Project - Field Maps

Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 6
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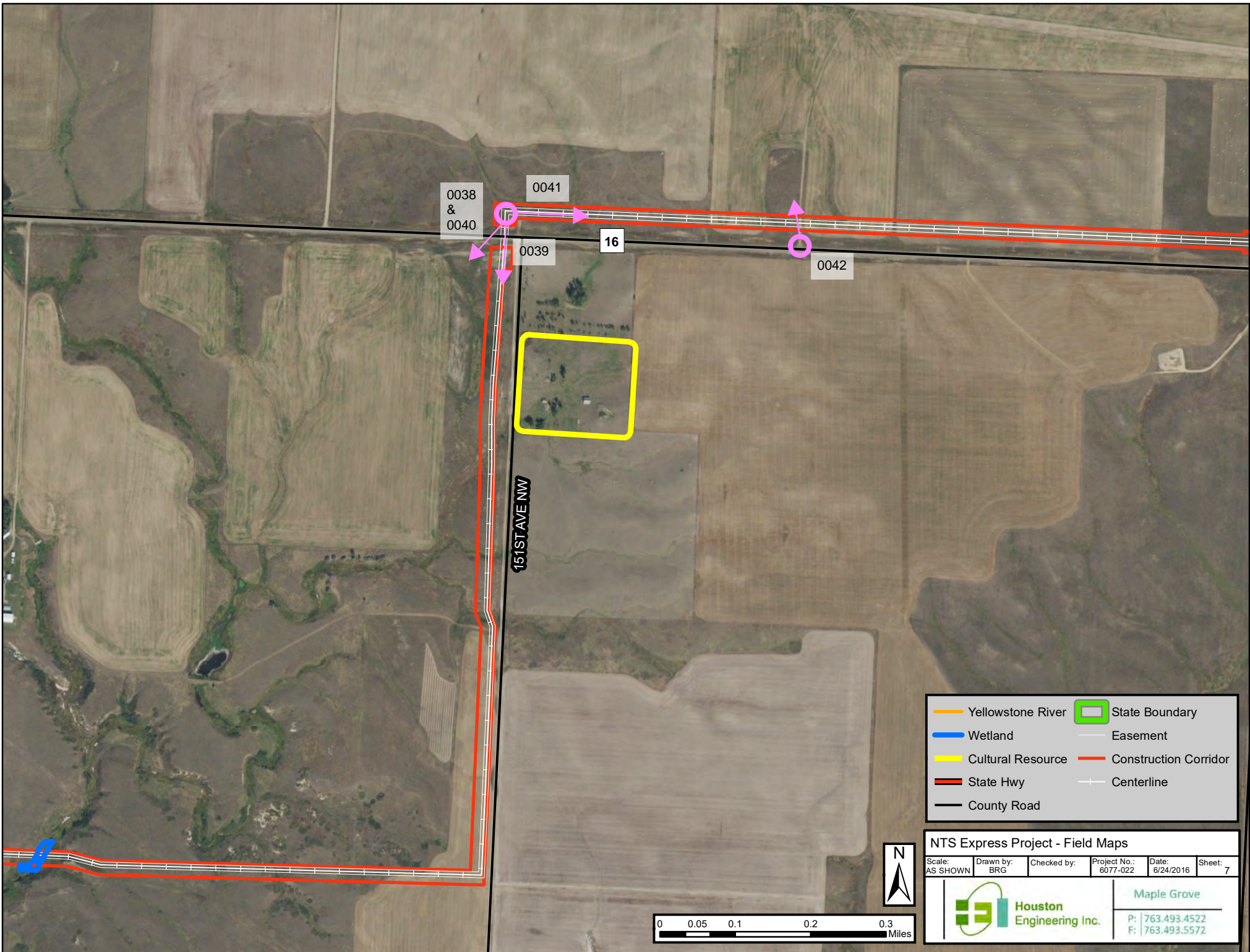




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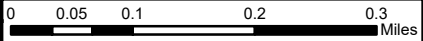


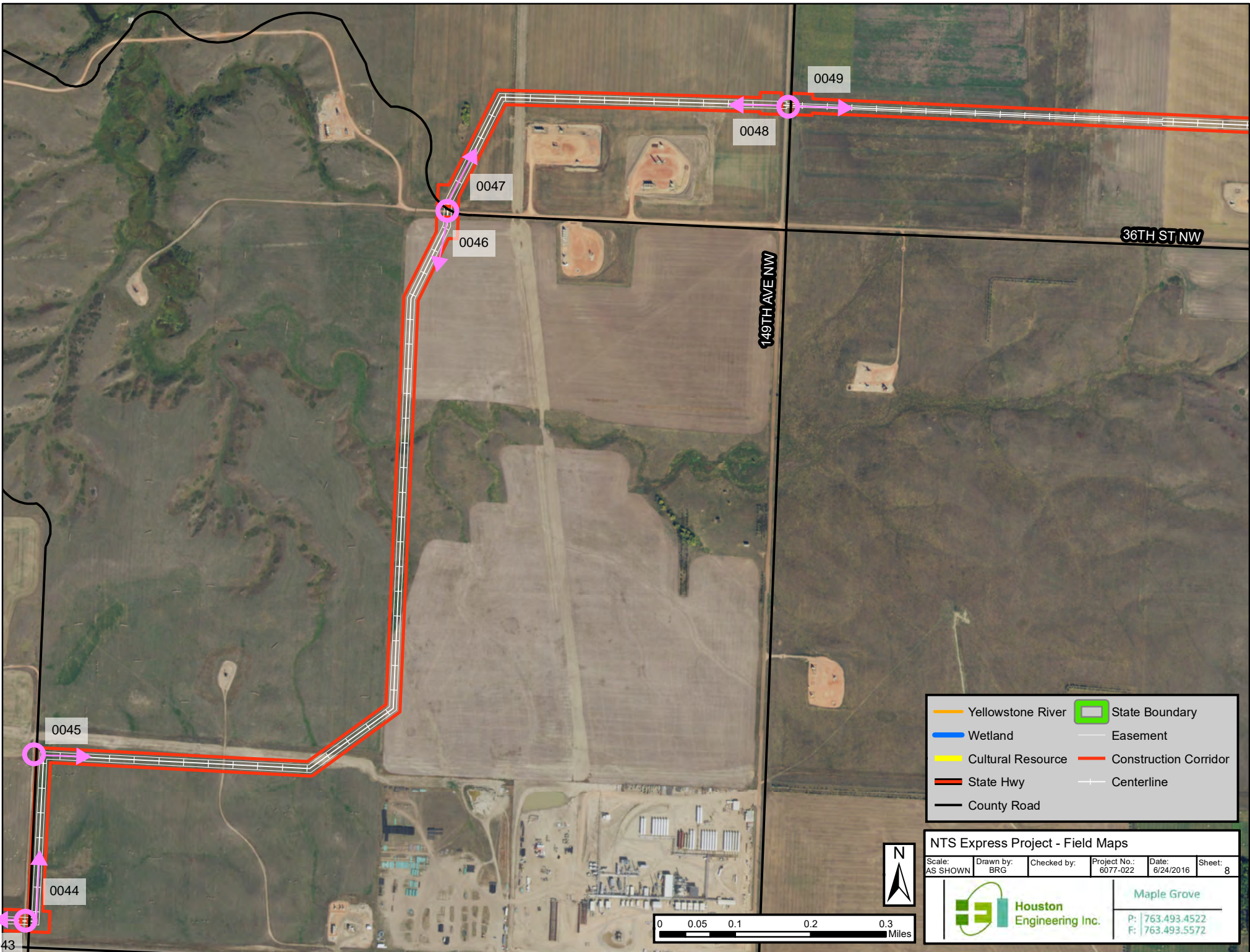
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 7
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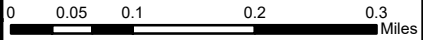




- Yellowstone River
- Wetland
- Cultural Resource
- State Hwy
- County Road
- State Boundary
- Easement
- Construction Corridor
- Centerline

NTS Express Project - Field Maps

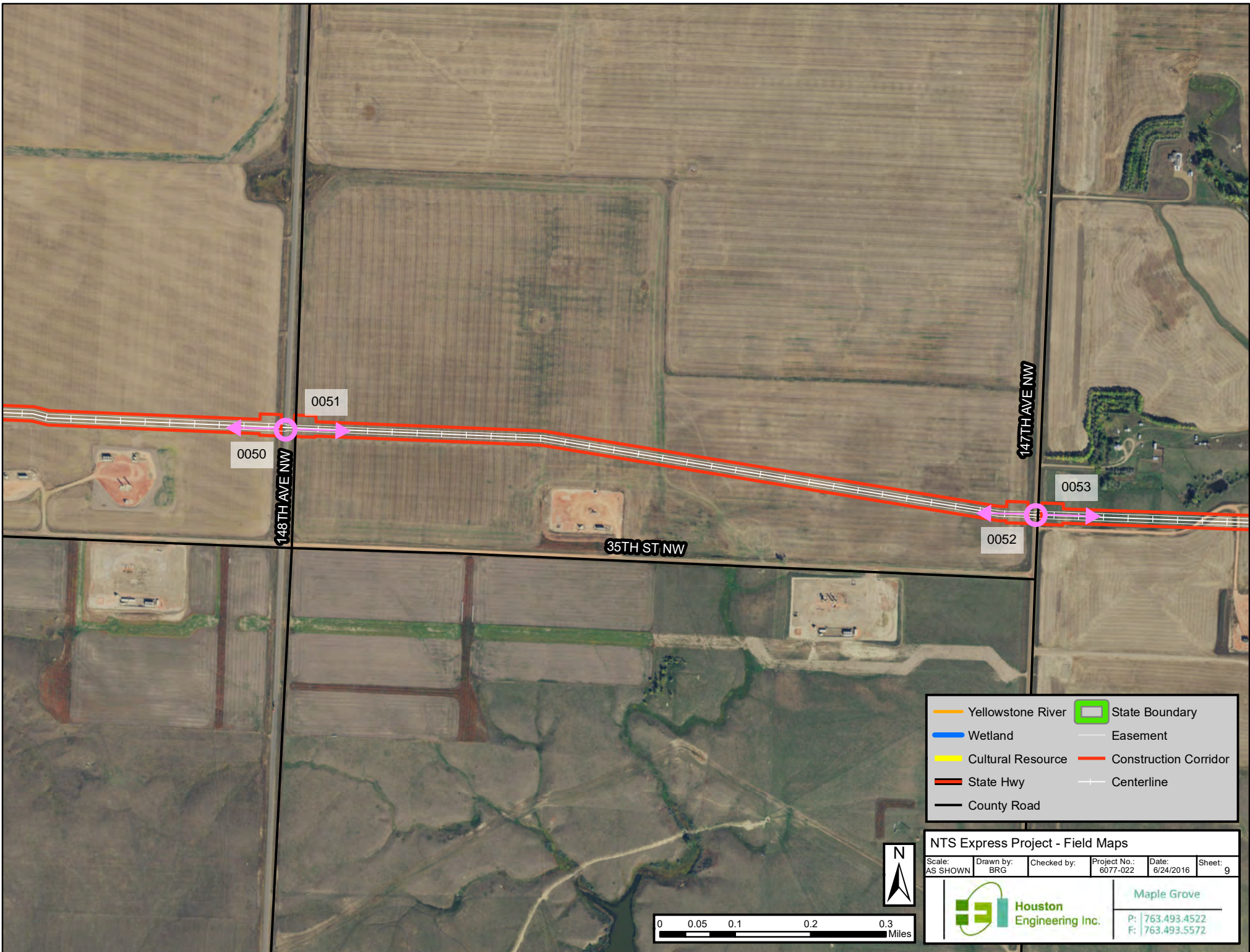
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P: 763.493.4522
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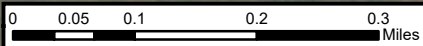
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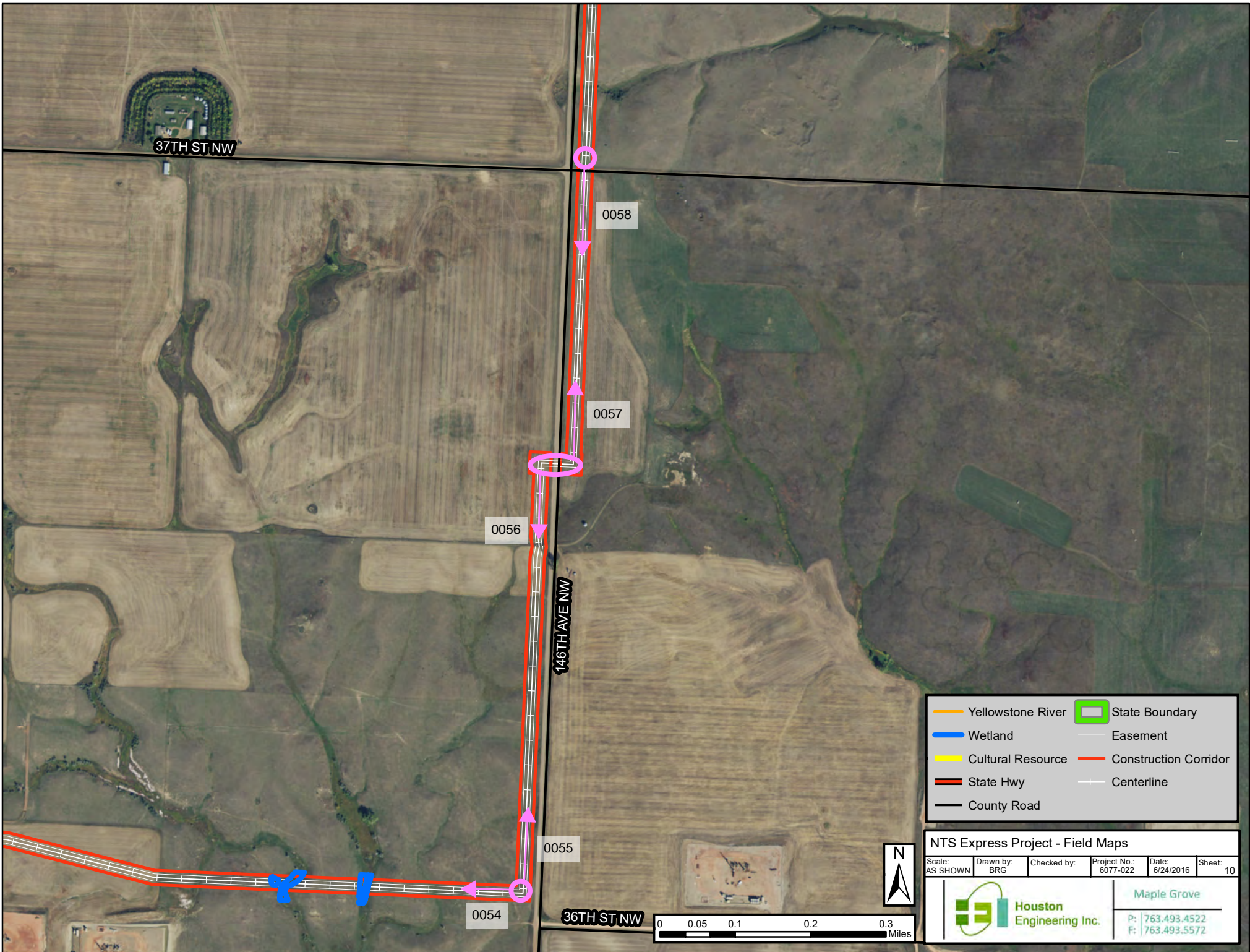
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 9
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37TH ST NW

0058

0057

0056

146TH AVE NW

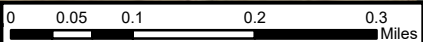
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0054

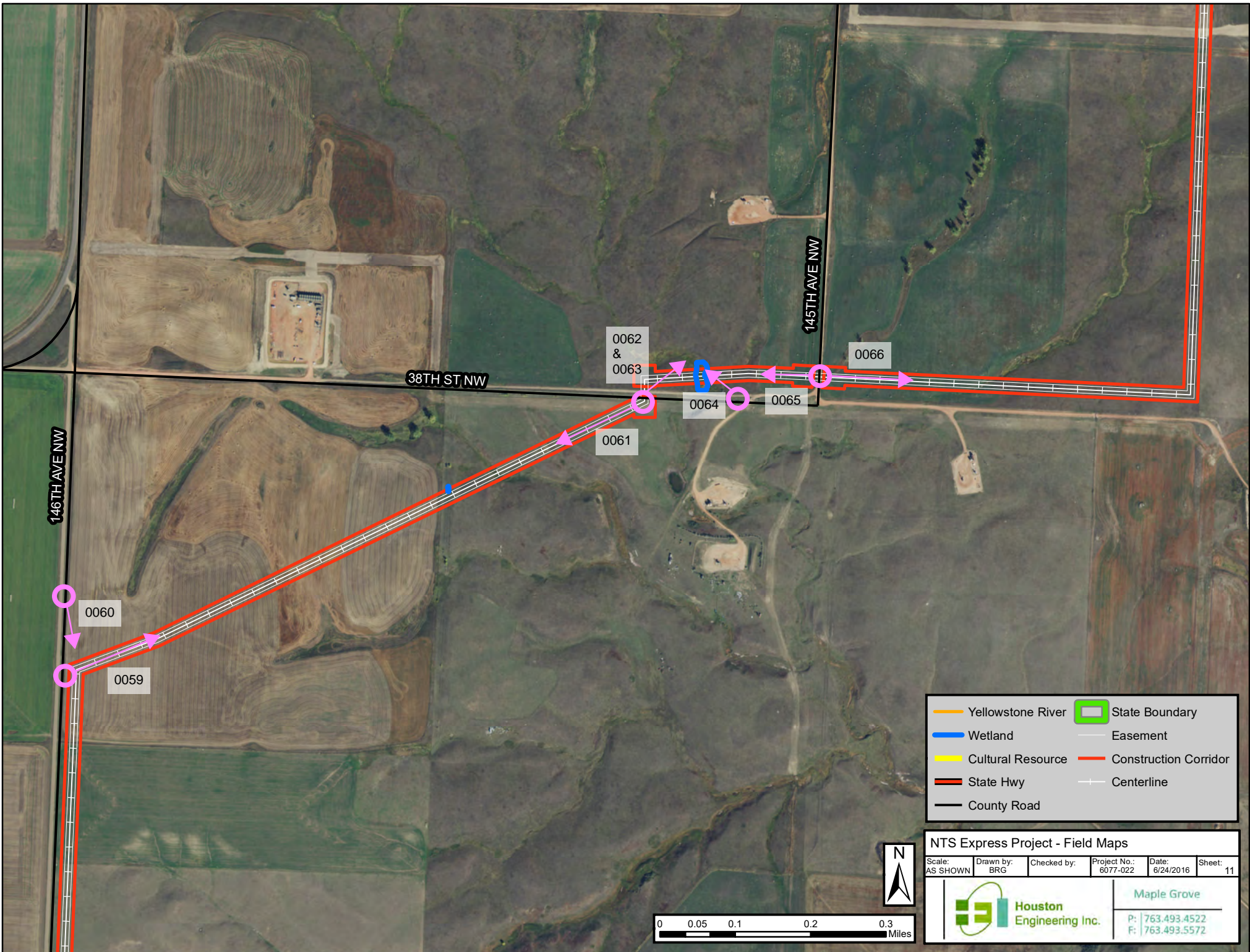
36TH ST NW

Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps					
Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 10



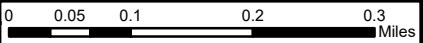
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- Yellowstone River
- Wetland
- Cultural Resource
- State Hwy
- County Road
- State Boundary
- Easement
- Construction Corridor
- Centerline

NTS Express Project - Field Maps

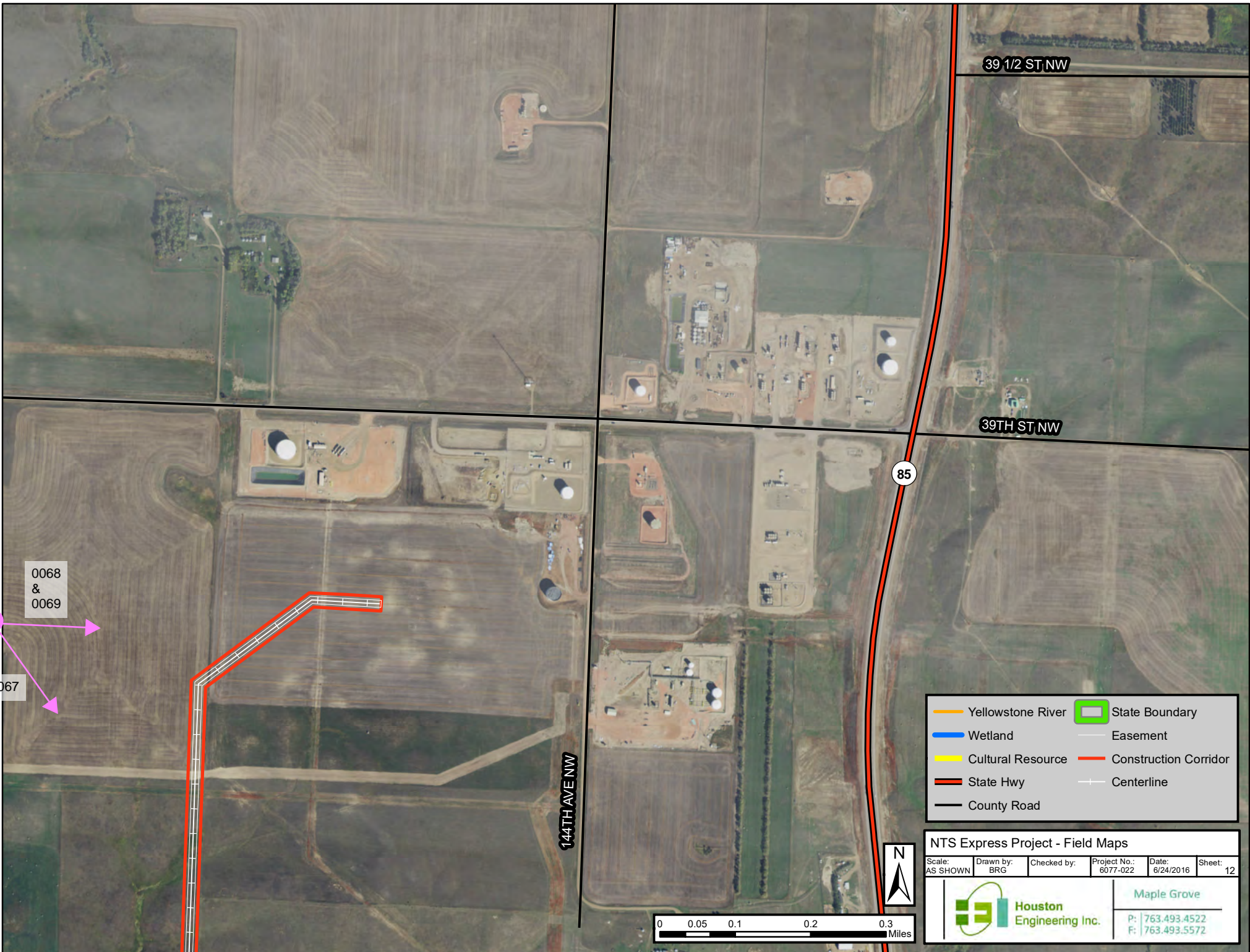
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39 1/2 ST NW

39TH ST NW

85

144TH AVE NW

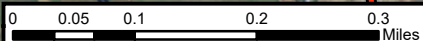
0068 & 0069

0067

- Yellowstone River
- Wetland
- Cultural Resource
- State Hwy
- County Road
- State Boundary
- Easement
- Construction Corridor
- Centerline

NTS Express Project - Field Maps

Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 12
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APPENDIX A: COMPLIANCE REVIEW

The following provisions are found in PU-15-232, Case Search at North Dakota's Public Service Commission website: <https://www.psc.nd.gov/public/casearch/index.php> (see Docket 35, Findings of Fact, Conclusions of Law and Order (October 14, 2015)).

Permit Conditions/Order Provisions	Compliance	Verification and Discussion
SITING and LOCATION		
<p>Findings of Fact- ¶12</p> <p><i>“(2) The project will consist of approximately 23 miles of new, 12-inch diameter pipeline and associated facilities to be located in McKenzie County, ND. The project will originate at the proposed NST Express Alexander Facility...approximately 9 miles north of Alexander, ND, and terminate at the existing NST Transload East Fairview Facility, located approximately 0.5 mile north of East Fairview, North Dakota.”</i></p>	Yes	The project appears to have been constructed as proposed in the project Application and Amendment of Application for Route Permit, and as ordered.
<p>Findings of Fact- ¶16</p> <p><i>“The NST Express Alexander Facility will consist of four truck offload skids, up to six pipeline connections, up to 150,000 barrels of tank working capacity, a tank booster and a mainline pump, a pig launcher, and a turbine meter run. Additional interconnection facilities will be constructed within the existing NST Transload East Fairview Facility, including a pig receiver, a turbine meter, piping to interconnect with existing tanks, and equipment and panels for supervisory control and data acquisition (SCADA) communications.”</i></p>	NA	Field visit did not conduct this level of detailed verification.
<p>Findings of Fact- ¶17</p> <p><i>“Five mainline valves would be located along the pipeline: one manual valve within the NST Express Alexander Facility; one manual valve within the NST Transload East Fairview Facility; two automated valves near the Yellowstone River crossing (one on each side of the river); and one manual valve along the pipeline.”</i></p>	NA	Field visit did not conduct this level of detailed verification.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Findings of Fact- ¶9</p> <p><i>“The temporary construction right-of-way will typically be 100 feet wide, but will be expanded in some areas, such as river, road, irrigation ditch, and railroad crossings. The permanent right-of-way will be no more than 50 feet wide..”</i></p>	Yes	The project appears to have been constructed as proposed in the project Application and Amendment of Application for Route Permit, and as ordered.
<p>Measures to Minimize Impact - ¶31</p> <p><i>“...a SCADA system will be installed as part of the Project, which will monitor pressure, flow, and temperature 24 hrs/day, 7 days/week at a control center, and the control center will have the ability to remotely shut-down the Project.”</i></p>	NA	Field visit did not conduct this level of detailed verification.
<p>Measures to Minimize Impact - ¶32</p> <p><i>“...HDD design and installation will comply with the requirements set forth in the USACE Section 10 Permit. ...the pipe will be installed a minimum of 50 feet below the bottom of the Yellowstone River.”</i></p>	Yes	It appears the project is compliant with the permit conditions assigned to the project.
<p>Certification Relating to Order Provisions, ¶3 – Permits</p> <p><i>“...obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit.”</i></p>	Yes, but incomplete case file	According to the project permit list (Docket No. 26) it appears all permits and permit ammendments were made and documented wihtin the project case file, with the exception of the project SWPPP.
<p>Certification Relating to Order Provisions, Route Adjustment Provisions (¶31-37)</p>	Yes	The project case file has been reviewed and appears complete with all necessary actions taken when addressing permit modifications. Refer to Section 3.4.4.
PRE-CONSTRUCTION		
<p>Certification Relating to Order Provisions, ¶7 - Construction</p> <p><i>“...preconstruction conference prior to commencement of any construction...”</i></p>	Yes	Preconstruction conference took place and is documented in Docket No. 51.
CULTURAL RESOURCES		



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Order - ¶17</p> <p><i>“NST shall file with the Commission a concurrence letter from SHPO concerning the Project’s supplemental Class III cultural resources inventory report prior to beginning construction on any portions of the Project covered in the supplemental report.”</i></p>	Yes	This concurrence letter from SHPO is dated September 16, 2015 and is found within Docket No. 51. SHPO concurred with a No Significant Sites Affected and accepted the addendum.
<p>Certification Relating to Order Provisions, ¶8 - Cultural</p> <p><i>“...all cultural resource mitigation plans must be submitted to the ND SHPO and approved prior to the start of any fieldwork and construction activity in the affected area.”</i></p>	Yes	The project complied and provided the supporting documentation to the project file.
<p>Siting Criteria - ¶19</p> <p><i>“Cultural resources are present within the Survey Area, but impacts to the cultural resources will be avoided. NST will bore beneath two cultural resources recommended eligible for listing on the National Register of Historic Places, and will reduce the construction right-of-way to avoid impacts to an unevaluated site lead.”</i></p>	Yes	The project appears to have been constructed as ordered.
<p>Certification Relating to Order Provisions, ¶14 - Cultural</p> <p><i>“...if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made by the State Historical Society, a report of such examination is filed with the Commission, and clearance to proceed is given by the Commission. “</i></p>	Yes	No cultural resources or paleontological/archeological site were discovered during the construction of the project.
NATURAL RESOURCES		
<p>Certification Relating to Order Provisions, ¶10</p> <p><i>“...report promptly to the Commission the presence in or near the approved site of any critical habitat of threatened species, endangered species, bald eagles, or golden eagles that Company becomes aware of and which were not previously reported to the Commission.”</i></p>	Yes	No protected species/habit were encountered during the construction of the project.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p style="text-align: center;">Siting Criteria</p> <p><i>“(19) Cultural resources are present within the Survey Area, but impacts to the cultural resources will be avoided. NST will bore beneath two cultural resources recommended eligible for listing on the National Register of Historic Places, and will reduce the construction right-of-way to avoid impacts to an unevaluated site lead.</i></p> <p><i>(20) Pallid sturgeon (endangered) occurs in the Yellowstone River, and the interior least tern (endangered) and piping plover (threatened) may use the shorelines of the Yellowstone River. NST Express proposes to use horizontal directional drilling (HDD) for the river crossing, and, therefore, no adverse impacts are anticipated.</i></p>	<p>Yes</p>	<p>Project bores were conducted to protect the natural resources within the project area.</p>
CONSTRUCTION and SOILS		
<p style="text-align: center;">Certification Relating to Order Provisions, ¶9 – Construction</p> <p><i>“...to inform the Commission and the Commission’s third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission’s third-party construction inspector updated on construction activities on a monthly basis.”</i></p>	<p>Yes</p>	<p>Houston Engineering, Inc. conducted five construction inspections and compliance review for the project.</p>
<p style="text-align: center;">Certification Relating to Order Provisions, ¶10 – Construction</p> <p><i>“...the pipeline will be buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in range land, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines..”</i></p>	<p>Yes</p>	<p>The project appears to be consistent with the required pipeline depths.</p>



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Certification Relating to Order Provisions, ¶11 - Topsoil</p> <p><i>"...all topsoil, at least 12 inches of topsoil, where available (or topsoil to the depth of cultivation, whichever is greater), over and along areas where facilities will be placed must be stripped and segregated from subsoil. Any area on which excavated subsoil will be placed must first be stripped of topsoil. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced."</i></p>	Yes	Topsoil activities were observed during the construction of the project and were considered adequate. In general, the site topography appeared to be maintained and disturbed areas were blended to grade into existing topography.
<p>Certification Relating to Order Provisions, ¶12 – Construction</p> <p><i>"...all buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road."</i></p>	Yes	All roadway crossings were adequately constructed, with appropriate approvals as ordered.
<p>Certification Relating to Order Provisions, ¶13 – Construction</p> <p><i>"...staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners."</i></p>	Yes	Staging areas were appropriately planned and utilized throughout project construction.
<p>Certification Relating to Order Provisions, ¶15 – Construction</p> <p><i>"...construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company."</i></p>	NA	The project construction was not observed during active weather events. Though there are no signs of problem areas with erosion and sedimentation. Vegetation seems to be establishing well.
RESTORATION and MAINTENANCE		
<p>Certification Relating to Order Provisions, ¶16 - Restoration</p> <p><i>"as soon as practicable upon the completion of construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction."</i></p>	Yes	The project appears to have conducted restoration as soon as practicable, as seen in the vegetation established and lack of erosion and sedimentation issues present on site.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Certification Relating to Order Provisions, ¶17 – Restoration</p> <p><i>“...all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.”</i></p>	Yes	After the site visits, it appears that the road conditions have not been degraded by the project.
<p>Certification Relating to Order Provisions, ¶18 – Restoration</p> <p><i>“...reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.”</i></p>	Yes	Reclamation and seeding activities appear to have been conducted as prescribed in the project Order.
<p>Certification Relating to Order Provisions, ¶19 - Reclamation</p> <p><i>“...reclamation and maintenance of the transmission facility right-of-way, transmission facility, associated facilities, fences and gates, drainage tile, and roadways will continue throughout the life of the transmission facility.”</i></p>	Yes	The project has been adequately reclaimed and maintenance issues appear to be negligible with the exception of the pipeline markers. Pipeline markers are found tilted, damaged, and absent in certain areas across the project corridor. These are recommended to be maintained as to reduce the possibility of damage or interference with the project.
<p>Certification Relating to Order Provisions, ¶20 – Tree & Shrub Mitigation</p> <p><i>“...comply with the Tree and Shrub Mitigation Specifications, attached [to the Certification Relating to Order Provisions – Energy Conversion Facility Siting].”</i></p>	Yes	The trees and shrubs initially identified during the project scoping phases were avoided and no tree and shrub mitigation was required..
<p>Certification Relating to Order Provisions, ¶23 – Staging</p> <p><i>“...staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.”</i></p>	Yes	NST Express utilized the proposed staging area and had all appropriate landowner agreements and consent prior to initiative project development activities.
<p>Certification Relating to Order Provisions, ¶21</p> <p><i>“...remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.”</i></p>	Yes	No project-generated waste was observed on site.



APPENDIX B: FINAL REPORT PHOTOGRAPHY



Photo 1: Western project termini. Reclamation facing south.



Photo 2: Western project termini. Reclamation facing northeast.



Photo 3: Reclamation facing east. Note: Pipeline marker post on east side of 58 is leaning.



Photo 4: Reclamation facing west



Photo 5: Fence repair facing southwest



Photo 6: Reclamation facing north



Photo 7: Reclamation facing north



Photo 8: Reclamation facing south.



Photo 9: Reclamation facing east.



Photo 10: Reclamation facing east. Broken signage. 160th Ave post down on the east side of the road.



Photo 11: Reclamation facing east. 160th Ave post down on the east side of the road.



Photo 12: Reclamation facing east.



Photo 13: Reclamation facing west.



Photo 14: Reclamation facing east.



Photo 15: Reclamation facing west.



Photo 16: Reclamation facing west.



Photo 17: Reclamation facing east.



Photo 18: Reclamation facing east.



Photo 19: Reclamation facing west. Note: No marker posts east of 159th Ave NW to Yellowstone River where the boring was done. Photos 19-23 are best-estimated locations based on visual references from other known markers.



Photo 20: Reclamation facing east. Note: No marker posts east of 159th Ave NW to Yellowstone River where the boring was done. Photos 19-23 are best-estimated locations based on visual references from other known markers.



Photo 21: Reclamation facing west. Note: No marker posts east of 159th Ave NW to Yellowstone River where the boring was done. Photos 19-23 are best-estimated locations based on visual references from other known markers.



Photo 22: Reclamation facing east. Note: No marker posts east of 159th Ave NW to Yellowstone River where the boring was done. Photos 19-23 are best-estimated locations based on visual references from other known markers.



Photo 23: Reclamation facing east. Note: No marker posts east of 159th Ave NW to Yellowstone River where the boring was done. Photos 19-23 are best-estimated locations based on visual references from other known markers.



Photo 24: Reclamation facing southwest.



Photo 25: Above ground features and vegetation restoration east of Yellowstone River.



Photo 26: Above ground features and vegetation restoration east of Yellowstone River.



Photo 27: Reclamation facing north/northeast.



Photo 28: Above ground features and vegetation restoration east of Yellowstone River.



Photo 29: Reclamation facing west.



Photo 30: Reclamation facing east/northeast.



Photo 31: Reclamation facing southwest.



Photo 32: Reclamation facing southwest.



Photo 33: Reclamation facing northeast.



Photo 34: Reclamation facing west





Photo 35: Reclamation facing east



Photo 36: Reclamation facing west



Photo 37: Reclamation facing east



Photo 38: Reclamation facing southwest.



Photo 39: Reclamation facing south.



Photo 40: Reclamation facing southwest.



Photo 41: Reclamation facing east.



Photo 42: Reclamation facing north/northwest.



Photo 43: Fence repair facing west

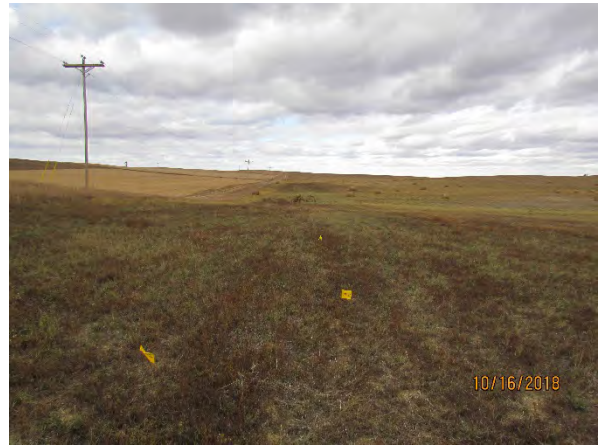


Photo 44: Reclamation facing north.



Photo 45: Reclamation facing east.



Photo 46: Reclamation facing south.



Photo 47: Reclamation facing north/northeast.



Photo 48: Reclamation facing west.



Photo 49: Reclamation facing east.



Photo 50: Reclamation facing west.



Photo 51: Reclamation facing east.



Photo 52: Reclamation facing west.



Photo 53: Reclamation facing east.



Photo 54: Reclamation facing west.



Photo 55: Reclamation facing north.



Photo 56: Reclamation facing south.



Photo 57: Reclamation facing north.



Photo 58: Reclamation facing south.



Photo 59: Reclamation facing east/northeast.



Photo 60: Reclamation facing south/southeast



Photo 61: Reclamation facing southwest.



Photo 62: Reclamation facing northeast.



Photo 63: Reclamation facing northeast



Photo 64: Reclamation facing northwest



Photo 65: Fence repair facing west



Photo 66: Reclamation facing east



Photo 67: Reclamation facing southeast towards eastern project termini.



Photo 68: Reclamation facing east towards eastern project termini.



Photo 69: Reclamation facing east towards eastern project termini.

