U.S. DEPARTMENT OF TRANSPORTATION

PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

FINAL ENVIRONMENTAL ASSESSMENT
and
FINDING OF NO SIGNIFICANT IMPACT

Special Permit Information:

Docket Number:	PHMSA-2022-0044
Requested By:	Rockies Express Pipeline, LLC
Operator ID#:	32163
Original Date Requested:	March 11, 2022
Issuance Date:	October 3, 2023
Code Section:	49 CFR 192.611

I. Background

The National Environmental Policy Act (NEPA), 42 United States Code (USC) 4321 – 4375 et seq., Council on Environmental Quality Regulations, 40 Code of Federal Regulation (CFR) 1500-1508, and U.S. Department of Transportation (DOT) Order No. 5610.1C, requires the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS)[1] to analyze a proposed action to determine whether the action will have a significant impact on the human environment. PHMSA analyzes special permit requests for potential risks to public safety and the environment that could result from our decision to grant, grant with additional conditions, or deny the request. As part of this analysis, PHMSA evaluates whether a special permit would impact the likelihood or consequence of a pipeline failure as compared to the operation of the pipeline in full compliance with the Federal pipeline safety regulations. PHMSA's environmental review associated with the special permit application is limited to impacts that would result from granting or denying the special permit. PHMSA

[1] References to PHMSA in this document means PHMSA OPS.

developed this assessment to determine what effects, if any, our decision would have on the environment.

Pursuant to 49 USC 60118(c) and 49 CFR 190.341, PHMSA may only grant special permit requests that are not inconsistent with pipeline safety. PHMSA will impose conditions in the special permit if it is concluded that they are necessary for safety, environmental protection, or are otherwise in the public interest. If PHMSA determines that a special permit would be inconsistent with pipeline safety or is not justified, the application will be denied.

The purpose of this final environmental assessment (FEA) is to comply with the National Environmental Policy Act (NEPA) for the Rockies Express Pipeline, LLC (REX) application for a special permit request to waive compliance with the requirements of 49 CFR 192.611(a)(1)(i) "Change in class location: Confirmation or revision of maximum allowable operating pressure" and instead allow for use of 49 CFR 192.611(a)(1)(ii) for approximately 4.25 miles of 42-inch diameter gas transmission pipelines located in Missouri, Illinois, Indiana, and Ohio. This FEA and finding of no significant impact (FONSI) is prepared by PHMSA to assess the pipeline special permit request, in accordance with 49 CFR 190.341, and is intended to specifically analyze any environmental impact associated with the waiver of 49 CFR 192.611(a)(1)(i) and instead allow use of 49 CFR 192.611(a)(1)(ii). The REX 42-inch pipeline Class 1 locations operate at 80% SMYS under Special Permit PHMSA-2006-23998 and without a special permit cannot operate in Class 2 locations above 72% SMYS.[2]

II. Introduction

Pursuant to 49 United States Code 60118(b) and 49 CFR 190.341, REX submitted an application for a special permit to PHMSA on March 11, 2022, requesting that PHMSA authorize twenty ***pipeline segments*** located in Buchanan County, Missouri; Macon and Douglas Counties, Illinois; Morgan County, Indiana; and Butler, Middletown, Warren, Pickaway, Fairfield, Perry, and Muskingum Counties, Ohio for which the class location has changed from Class 1 to Class 2 due to population density increase to maintain the maximum allowable operating pressure (MAOP) and to operate at 80% SMYS instead of the 72% SMYS level set out in 49 CFR 192.611(a)(1)(i) and instead allow the use of 49 CFR 192.611(a)(1)(ii) **("*special permit segments")***. A total of 3.52 miles have changed from Class 1

[2] The 80% SMYS special permit, PHMSA-2006-23998, was Federal Register noticed on July 11, 2006 and can be reviewed by the public at www.regulations.gov or Special Permits Issued | PHMSA (dot.gov).

to Class 2; however, the segments have been extended to 4.25 miles to incorporate likely future class changes. Without the special permit, 49 CFR 192.611(a)(1)(i) would require REX to replace the pipe segments or reduce pipeline MAOP.

PHMSA may issue a special permit to waive certain regulatory requirements where the alternative measures would achieve an equivalent level of safety as required by the applicable regulation, and is consistent with public interest and pipeline safety, which is typically contingent on the performance of additional measures beyond minimum PHMSA pipeline safety regulations, in accordance with 49 CFR 190.341.

III. Regulatory Background

PHMSA regulations at 49 CFR 192.611(a) require that an operator confirm or revise the MAOP of a pipe segment that is in satisfactory condition when the hoop stress of the segment is no longer commensurate with class location. Under section 192.611(a)(1)(i), an operator may be required either to reduce the operating pressure of a pipe segment, or alternatively, may have to replace the pipe to maintain the MAOP if the MAOP exceeds 72% SMYS in Class 2 locations, whereas 192.611(a)(1)(ii) allows for operation up to 80% SMYS in Class 2 locations. Below is the relevant text of 49 CFR 192.611(a):

49 CFR 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

(a) If the hoop stress corresponding to the established maximum allowable operating pressure of a segment of pipeline is not commensurate with the present class location, and the segment is in satisfactory physical condition, the maximum allowable operating pressure of that segment of pipeline must be confirmed or revised according to one of the following requirements:

(1) If the segment involved has been previously tested in place for a period of not less than 8 hours:

(i) The maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations, 0.667 times the test pressure in Class 3 locations, or 0.555 times the test pressure in Class 4 locations. The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(ii) The alternative maximum allowable operating pressure is 0.8 times the test pressure in Class 2 locations and 0.667 times the test pressure in Class 3 locations. For pipelines operating at alternative maximum allowable pressure per §192.620, the corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.

(2) The maximum allowable operating pressure of the segment involved must be reduced so that the corresponding hoop stress is not more than that allowed by this part for new segments of pipelines in the existing class location.

3) The segment involved must be tested in accordance with the applicable requirements of subpart J of this part, and its maximum allowable operating pressure must then be established according to the following criteria:

(i) The maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations, 0.667 times the test pressure for Class 3 locations, and 0.555 times the test pressure for Class 4 locations.

(ii) The corresponding hoop stress may not exceed 72 percent of the SMYS of the pipe in Class 2 locations, 60 percent of SMYS in Class 3 locations, or 50 percent of SMYS in Class 4 locations.

(iii) For pipeline operating at an alternative maximum allowable operating pressure per §192.620, the alternative maximum allowable operating pressure after the requalification test is 0.8 times the test pressure for Class 2 locations and 0.667 times the test pressure for Class 3 locations. The corresponding hoop stress may not exceed 80 percent of the SMYS of the pipe in Class 2 locations and 67 percent of SMYS in Class 3 locations.

(d) Confirmation or revision of the maximum allowable operating pressure that is required as a result of a study under §192.609 must be completed within 24 months of the change in class location. Pressure reduction under paragraph (a) (1) or (2) of this section within the 24-month period does not preclude establishing a maximum allowable operating pressure under paragraph (a)(3) of this section at a later date.

IV. Purpose and Need

PHMSA issued the existing REX special permit (PHMSA-2006-23998) ("Existing REX Special Permit") in 2006, prior to construction of the pipeline. Under the Existing REX Special Permit, REX

has been authorized to operate at up to 80% SMYS for the 1162 miles of pipe that was installed in Class 1 locations at the time of construction. The Existing REX Special Permit did not address how to handle post-construction Class 1 to 2 changes that occurred after the issuance of the REX special permit. REX has been reporting class changes from Class 1 to Class 2 operating at 80% to PHMSA as part of the annual waiver report and written correspondence since as early as 2010.

This class change special permit would allow REX to continue providing gas transportation service to its commercial customers without having either to reduce service due to a reduction in pressure, or to curtail service for a period while it closed the entire line to replace the piping the twenty (20) segments to maintain operations at the current level. The alternative measures proposed by REX in its application for special permit would achieve an equivalent level of safety as a proposed reduction in operating pressure and would allow REX to continue to operate at its current MAOP of 1480psig (80% SMYS) in Class 1 to Class 2 change locations and avoid replacement of twenty (20) segments of pipe totaling 3.52 miles plus any class changes from Class 1 to Class 2. This project would avoid significant impacts to the environment caused by the excavation and other work associated with replacing the pipeline in the segments in question in order to maintain service at the same level as it has been operated historically.

The Special Permit Request would benefit the public by maintaining the level of reliable service that REX has provided under the Existing REX Special Permit. By allowing REX to operate at 80% SMYS in Class 2 locations, REX can deliver consistently to the local distribution companies, power generating stations, other commercial and industrial customers that rely on REX; thereby, reducing the risk of potential price increases due to shortages of natural gas. The special permit conditions would further benefit the public by avoiding substantial pipe excavation, construction work and interruptions in contracted gas service to firm shippers and end-use customers.

Continued operation at 80% SMYS under the special permit will result in lower fuel gas consumption and lower greenhouse gas emissions. Therefore, given the above, the public would benefit from PHMSA granting the special permit by avoiding construction projects that would otherwise be required.

REX seeks relief from the 72% SMYS limitation in CFR 49 192.611(a)(1)(i) for class changes from Class 1 to Class 2, and instead proposes to utilize CFR 49 192.611(a)(1)(ii) to allow continued operation at up to 80% SMYS.

V. Site Description

On the condition that REX complies with the terms and conditions set forth below, the special permit will waive compliance with the 72% SMYS limitation in 49 CFR 192.611(a)(1)(i) and allow operation at up to 80% SMYS for approximately 4.25 miles of gas transmission pipelines on the 42-inch diameter pipelines where the class location has changed from Class 1 to Class 2 location in Buchanan County, Missouri; Macon and Douglas Counties, Illinois; Morgan County, Indiana; and Butler, Middletown, Warren, Pickaway, Fairfield, Perry, and Muskingum Counties, Ohio.

This special permit will allow REX to maintain the current MAOP as shown in **Table 1 – Special Permit Segments**.

VI. Special Permit Segments and Special Permit Inspection Areas

This special permit pertains to the specified ***special permit segments*** and corresponding ***special permit inspection areas*** defined in this section.

Special Permit Segments:

This special permit applies to the ***special permit segments*** in **Table 1 – Special Permit Segments** and are identified using the REX survey station (SS) references.

Table 1 – Special Permit Segments										
Special Permit Segment Number	Outside Diameter (inches)	Line Name	Length (feet)	Start Survey Station (SS)	End Survey Station (SS)	County or Parish, State	No. Dwellings	Year Installed	Seam Type	MAOP (psig)
S1	42	Steele City to Turney	938	4598103	4599041	Buchanan, MO	1	2008	SPIRAL	1,480
S2	42	Blue Mound to Bainbridge	705	6374461	6375166	Macon, IL	1	2009	DSAW	1,480
S3	42	Blue Mound to Bainbridge	3,055	6377503	6380558	Macon, IL	1	2009	DSAW	1,480
S4	42	Blue Mound to Bainbridge	454	6521655	6522109	Douglas, IL	2	2009	DSAW	1,480
S5	42	Blue Mound to Bainbridge	529	6524127	6524656	Douglas, IL	2	2009	DSAW	1,480
S6	42	Blue Mound to Bainbridge	1,567	6526134	6527701	Douglas, IL	2	2009	DSAW	1,480
S7	42	Bainbridge to Hamilton	239	7165080	7165319	Morgan, IN	2	2009	DSAW	1,480
S8	42	Bainbridge to Hamilton	1,671	7188090	7189761	Morgan, IN	2	2009	DSAW	1,480
S9	42	Bainbridge to Hamilton	308	7661845	7662153	Butler, OH	1	2009	DSAW	1,480
S10	42	Bainbridge to Hamilton	1,261	7683607	7684868	Butler, OH	1	2009	DSAW	1,480
S11	42	Bainbridge to Hamilton	163	7744066	7744229	Butler, OH	1	2009	DSAW	1,480
S12	42	Bainbridge to Hamilton	915	7807686	7808601	Butler, OH	1	2009	DSAW	1,480
S13	42	Bainbridge to Hamilton	128	7816472	7816600	Warren, OH	1	2009	SPIRAL	1,480
S14	42	Hamilton to Chandlersville	461	7862988	7863449	Warren, OH	1	2009	SPIRAL	1,480
S15	42	Hamilton to Chandlersville	275	8244665	8244940	Pickaway, OH	1	2009	SPIRAL	1,480
S16	42	Hamilton to Chandlersville	2,215	8328167	8330382	Fairfield, OH	4	2009	DSAW	1,480
S17	42	Hamilton to Chandlersville	758	8370059	8370817	Fairfield, OH	1	2009	SPIRAL	1,480
S18	42	Hamilton to Chandlersville	111	8374302	8374413	Fairfield, OH	1	2009	SPIRAL	1,480
S19	42	Hamilton to Chandlersville	2,386	8413892	8416278	Perry, OH	2	2009	SPIRAL	1,480
S20	42	Chandlersville to Clarington	4,314	8570887	8575201	Muskingum, OH	3	2009	SPIRAL	1,480

Note: **DSAW** is double submerged arc welded pipe longitudinal seam.
SPIRAL is spiral welded pipe longitudinal seam.

Special Permit Inspection Areas: The ***special permit inspection areas*** are defined as the area that extends 220 yards on each side of the centerline as listed in **Table 2 – Special Permit Inspection Areas**.

Table 2 – Special Permit Inspection Areas						
Special Permit Inspection Area Number	Special Permit Segment(s) Included	Outside Diameter (inches)	Line Name (Segment Name)	Start Survey Station (SS)	End Survey Station (SS)	Length[3] (miles)
SCT4	S1	42	Steele City to Turney	4015415.5	4761805.4	141.36
BB7	S2, S3, S4, S5, S6	42	Blue Mound to Bainbridge	6265422	6969626.1	133.37
BH8	S7, S8, S9, S10, S11, S12, S13	42	Bainbridge to Hamilton	6969977.9	7816977.6	160.42
HC9	S14, S15, S16, S17, S18, S19	42	Hamilton to Chandlersville	7817309.2	8550982.1	138.95
CC10	S20	42	Chandlersville to Clarington	8551337.5	8895996.7	65.28

[3] If the ***special permit inspection area*** footage does not extent from launcher to receiver then the ***special permit inspection area*** would need to be extended. The length in mileage has been adjusted for station equations.

High Consequence Areas: HCAs located in the ***special permit inspection areas*** are located as shown in **Table 3 – High Consequence Areas**.

Table 3 – High Consequence Areas				
Special Permit Inspection Area Number	HCA ID	Start Station (SS)	End Station (SS)	Length (miles)[2]
SCT4	100249	4603521.2	4608434.3	0.93
SCT4	8185	4634731.2	4641331	1.25
BB7	8201	6377494.1	6380406.8	0.55
BB7	8203	6428839	6433367.4	0.86
BB7	8205	6544003.59	6548310.39	0.82
BB7	32493	6549272.1	6552392.4	0.59
BB7	32507	6521083.8	6525228.6	0.79
BB7	8207	6575819.5	6579697.2	0.73
BB7	8209	6666553.4	6671451.3	0.93
BB7	8212	6863169.3	6867209.1	0.77
BB7	8214	6884337.1	6887143	0.53
BH8	8216	7567858.25	7572366.65	0.85
BH8	8218	7708185.85	7713126.45	0.94
BH8	8220	7762075.35	7764588.55	0.48
HC9	8224	8314075.55	8319407.5	1.01
HC9	1001844	8438274.44	8442386.12	0.78
CC10	14516	8678694	8682306.6	0.68

VII. Alternatives

1) **Alternative 1: "No Action" Alternative**

Denial of the special permit would require the replacement and pressure testing of the pipeline segment associated with this special permit request, which includes approximately 4.25 miles of mainline pipe. If REX opted not to replace these ***special permit segments***, 49 CFR 192.611 requires a reduction in the pipeline MAOP.[4]

2) **Alternative 2: "Selected" Alternative**

[4] These regulatory options are specified in 49 CFR 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

PHMSA is granting the special permit with conditions, and REX is allowed to continue operating locations that have changed from Class 1 to Class 2 at up to 80% SMYS. In turn, REX will apply the special permit conditions as outlined under the special permit for the ***special permit segments***.

All of the special permit conditions are attributes of a robust IM program. These special permit conditions include conducting periodic: Close interval surveys, cathodic protection (CP) reliability improvements, stress corrosion cracking assessment, running inline inspection (ILI) assessments (smart pigs), interference current control surveys, remediating ILI findings through anomaly evaluation and repairs, pipe seam evaluations, pipe properties records review and documentation, and maintaining line-of-sight markers. Many of these integrity activities are currently required in 49 CFR Part 192, Subpart O, an IM program to manage HCAs at specified reassessment intervals. The assessment and reassessment intervals, the level of remediation and the maintenance activities required in a special permit are more stringent to maintain pipe integrity and protect both the public and the environment for the class location units in which the ***special permit segment*** is located.

REX must conduct a class location study at an interval specified in the special permit. This allows REX to quickly identify extended locations that must comply with the ***special permit segment*** requirements. REX may extend the ***special permit segments*** with proper notification, update of the Final Environmental Assessment (FEA), and implementation of all requirements in the special permit.

The special permit contains detailed conditions that would be implemented in addition to the existing requirements set forth in the Existing REX Special Permit (PHMSA-2006-23998).

REX will follow all applicable environmental laws and timing restrictions, and any applicable permits and clearances will be obtained prior to any disturbance.

VIII. Overview of Special Permit Conditions

To provide an equivalent level of safety in the absence of either lowering the pipeline operating pressure or upgrading the pipe, this special permit has additional operations and maintenance requirements (conditions) which are intended to decrease the likelihood of a release of gas. These additional preventative measures will help prevent leaks and ruptures, demonstrating that the special permit is not inconsistent with pipeline safety. This section provides an overview of the special permit conditions. For REX specific technical requirements and the special permit conditions can be read in its entirety in

Docket No. PHMSA-2022-0044 in the Federal Docket Management System located on the internet at www.regulations.gov or on the PHMSA website for special permits issued at https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued.

1) **Current Status of Pipe in the Ground**

   To ensure that key characteristics of the pipe currently installed in each ***special permit segment*** are known, records that confirm pipe specifications, successful pressure tests, and girth weld non-destructive tests are required. Should records be unavailable or unacceptable, additional activities as detailed in the special permit must be completed. If these additional activities are not completed or should pipe be discovered that does not meet specific requirements of eligibility, the ***special permit segment*** must be replaced.

2) **Operating Conditions**

   The ***special permit inspection area*** must continue to be operated at or below the existing MAOP until a restoration or uprating plan has been approved, if allowed by the special permit. To ensure compliance with special permit conditions, REX's Operations and Maintenance Manual (O&M), Integrity Management Program (IMP), and Damage Prevention (DP) program must be modified to implement the special permit conditions. In addition, PHMSA must approve any long-term flow reversals that would impact ***special permit segment(s)***.

3) **Threat Management**

   Threats are factors that can lead to the failure of a pipeline. Activities are required to identify, assess, remediate, and monitor threats to the pipeline.

   a) **General activities.** REX must perform annual data integration and identification of threats to which each ***special permit inspection area*** is susceptible. These activities must include integrity assessments with specific inline inspection (ILI) tools, strict anomaly repair criteria, and appropriate environmental assessment and permitting. Additional integrity assessment methodologies may be used if allowed by the special permit. Integrity assessments must then be conducted periodically at an interval determined in the special permit for each threat identified.

   b) **External corrosion control requirements.** The special permit requires additional activities to monitor and mitigate external corrosion. These activities include installation and annual monitoring of cathodic protection (CP) test stations, periodic close interval surveys (CIS), and

clearing or remediating shorted casings that may impede CP effectiveness. These activities ensure the appropriate level of CP is reaching the pipeline in areas where coating loss or damage has occurred in order to prevent or mitigate external corrosion. In addition, REX would be required to develop and implement a plan that identifies and remediates interference from alternating or direct current (AC/DC) sources (such as high-voltage powerlines) that could adversely impact the effectiveness of CP.

c) **Internal corrosion control requirements.** The special permit includes gas quality specifications to mitigate internal corrosion because internal corrosion is highly dependent on the quality of the gas transported within the pipeline.

d) **Stress corrosion cracking requirements.** To ensure that stress cracking corrosion (SCC) is discovered and remediated, any time a pipe segment is exposed during an excavation, REX must examine coating to determine type and condition. If the coating is in poor condition, REX must conduct additional SCC analysis. If SCC is confirmed, REX must implement additional special permit defined remediation and mitigation.

e) **Pipe seam requirements.** REX must perform an engineering integrity analysis to determine susceptibility to seam threats to the extent identified in the special permit. REX must re-pressure test any ***special permit segment*** with an identified seam to ensure the issue is not systemic in nature.

f) **External pipe stress requirements.** Upon identification of any source of external stress on the pipeline (such as soil movement), REX must develop procedures to evaluate and periodically monitor these stresses.

g) **Third-party specific requirements.** To assist in identifying the pipeline location and minimizing the chance of accidental pipeline strikes, REX must install and maintain line-of-site markers for the pipeline. REX must perform mitigation activities for any location where a depth-of-cover survey shows insufficient soil cover.

4) **Consequence Mitigation**

To ensure quick response and decreased adverse outcome in the event of a failure, each side (upstream and downstream) of the ***special permit segment*** has and maintains operable automatic shutdown valves (ASV) or remote-controlled valves (RCV). REX must monitor valves through a

control room with a supervisory control and data acquisition (SCADA) system. In addition to the mainline valves, should a crossover or lateral connect between the valve locations, additional isolation valves may be required.

5) **Gas Leakage Surveys and Remediation**

Each ***special permit segment*** and ***special permit inspection area*** has requirements in the special permit to conduct leakage surveys more frequently than is presently required in 49 CFR 192.706. Gas leakage surveys using instrumented gas leakage detection equipment must be conducted along each ***special permit segment*** and at all valves, flanges, pipeline tie-ins with valves and flanges, ILI launcher, and ILI receiver facilities in each ***special permit inspection area*** at least twice each calendar year, not to exceed 7½ months. The type of leak detection equipment used, survey findings, and remediation of all instrumented gas leakage surveys must be documented by operator. The special permit will require a three-step grading process with a time interval for remediation based upon the type of leak.

6) **Post Leak or Failure**

If the ***special permit inspection area*** experiences an in-service or pressure test leak/failure, REX must conduct a root cause analysis to determine the cause. If the cause is determined to be systemic in nature, REX must implement a remediation plan or the ***special permit segment*** must be replaced, as determined by the special permit specific conditions.

7) **Class Location Study and Potential Extension of Special Permit Segment**

REX must conduct a class location study at an interval specified in the special permit. This allows REX to quickly identify extended locations that must comply with the ***special permit segment*** requirements. REX may extend a ***special permit segment*** with proper notification, update of the FEA, and implementation of all requirements in the special permit.

8) **PHMSA Oversite and Management**

PHMSA maintains oversight and management of each special permit. This includes annual meetings with executive level officers on special permit implementation status, written certification of the special permit, special permit required notification of planned activities, notification of root cause analysis results, and notification prior to certain excavation activities so that PHMSA may observe.

9) **Documentation**

REX must maintain documentation that supports compliance with special permit conditions for the life of the pipeline.

IX. Affected Resources and Environmental Consequences

The "Selected" Action will not impact the aesthetics, agricultural resources, biological resources, cultural resources, geology, soils, mineral, Indian Trust Assets, land use, recreation, topography, transportation, or water resources identified in Items 5 through 14 below because REX is already installed and fully operational. There are no wetlands and waterbodies within the ***special permit segments*** (see Exhibit 4 and Exhibit 5 below) that would be impacted during the installation of test stations. When maintenance activities are required, all pertinent laws including but not limited to any applicable federal, state or local environmental laws and any timing restrictions will be followed. REX will obtain all necessary clearances. The special permit does not increase the consequence of a failure.

Whereas the "No Action" Alternative would directly lead to negative economic and environmental impacts as described below.

1) **Safety:** Class locations are based upon the population (dwellings for human occupancy) within a "class location unit" which is defined as an onshore area that extends 220 yards on either side of the centerline of any continuous 1-mile of pipeline. These locations are determined by surveying the pipeline for population growth. The more conservative safety factors are required as dwellings for human occupancy (population growth) increases near the pipeline. Pipeline operators must conduct surveys and document population growth within 220 yards on either side of the pipeline. A higher population along the pipeline may trigger any of the following for the pipeline segment with the higher population: a reduced MAOP, a new pressure test at a higher pressure, or installation new pipe with either or both heavier walled or higher-grade pipe with new, modem coating to protect against integrity risks to occupants along the pipeline segment. If the special permit were denied, REX would replace the existing ***special permit segments*** that underwent class location change with new pipe that meets a higher safety factor and has new pipeline coating. This pipeline replacement would result in pipeline safety benefits.

The special permit conditions are designed to identify and mitigate integrity issues along the ***special permit inspection areas*** that could threaten the pipeline segment and cause failure. Compliance the monitoring and maintenance requirements in the special permit will ensure the integrity of the pipe and protection of the population living near the ***special permit segments*** to a similar degree of a lower MAOP, new pressure test, or a thicker walled or higher-grade pipe without the enhanced IM protections. Populations living near the ***special permit inspection areas*** will benefit from a higher level of safety. The safety risk with respect to this request for a special permit focuses on maintaining the integrity of the pipeline and on the risk, it poses to the increased population to mitigate a failure of this pipeline. Granting this special permit does not increase the potential impact radius (PIR (the radius of a circle within which the potential failure of a pipeline could have significant impact on people or property)) of the pipeline. However, the risk from the increased human population around the pipeline would be mitigated through IM procedures. The pipeline integrity attributes (such as pipe diameter, wall thickness, grade, pipe seam type, pressure test, maximum allowable operating pressure, and anomaly findings) for the special permit segment can be reviewed in the Federal Dockets Management System (FDMS) located at www.regulations.gov under the document titled "**2022-0044 - Attachment A – Segment Integrity Information**." Details about the pipeline's integrity and compliance history are provided in the **Special Permit Analysis and Findings (SPAF)** document, which is available in the docket (PHMSA-2022-0044) in the FDMS at www.regulations.gov. The SPAF does not describe any integrity issues (such as pipe body, seam or girth weld, operational or environmental) that would affect the approval of the special permit with implementation by REX of conditions to maintain safety. PHMSA has determined that the pipeline and ***special permit segments*** is in satisfactory condition for the issuance of the special permit.

The REX pipeline is 100% coated with non-shielding epoxy coatings and meets the -850mV polarized potential cathodic protection criteria for the entire length of the pipeline, demonstrating the excellent condition of the coating as well as the adequate cathodic protection.

In 2009 REX fully assessed REX East for expanded pipe due to low and variable yield and tensile strength per PHMSA advisory bulletin PHMSA-2009-0148 and certified that REX East did not contain any expanded pipe. This analysis and findings were accepted by PHMSA prior to allowing REX to increase the MAOP to 80% SMYS in Class 1 areas.

REX has a geohazards program in place to mitigate the natural hazard threat to the pipeline. Within the geohazards program REX identifies, monitors, and repairs areas of land movement or unstable soil. There is one low priority and one moderate priority land slide identified within the Geohazards program that are near ***special permit segment 20***. Low and moderate priority landslides are regularly monitored by REX but are not considered severe enough to require any mitigation.

REX has not had any reportable incidents within the special permit segments within the last 10 years.

There are no repair sleeves within the ***special permit segments***.

a) What protections are normally provided by the regulation(s) being waived?

When population densities increase around pipelines to the extent that there is a change in class location, pipeline operators are required to revise or confirm the MAOP under 49 CFR 192.611. In some instances, such as for Class 1 to Class 2 location changes, pipelines are able to maintain a higher operating stress level in the class location, provided there has been a sufficient pressure test under Subpart J of 49 CFR Part 192.

REX's special permit conditions will allow REX to continue operating at 80% SMYS for the 20 ***special permit segments*** where the class has changed from Class 1 to Class 2 as provided in CFR 49 192.611(a)(1)(ii). The entire pipeline including the special permit segments were tested to a minimum 1.25 times MAOP (1850 psig) (100% SMYS), which is sufficient to maintain an MAOP of 1480 psig (1850*0.8=1480) in Class 1 to Class 2 change locations and consistent with the requirements of 49 CFR 192.611(a). On the other hand, the "no action" alternative would require full compliance with 49 CFR 192.611(a). This provision would require the replacement of 3.52 miles of the existing pipeline or areas with future class changes with a pipeline with thicker wall pipe that meets the requirements of 49 CFR 192.611(a).

b) Describe potential safety risks that could be associated with waiving the cited regulations. How could those risks be relevant to the operation and operation history of this pipeline? How will the protections normally provided by the regulation be provided under the special permit?

REX has operated under the Existing REX Special Permit at 80% SMYS in Class 2 locations without incident, it demonstrates that there are minimal risks in allowing REX to continue to operate Class 2 locations at 80% SMYS. The increased protections provided by the Existing

REX Special Permit, as well as the conditions contained within this special permit, including, but not limited additional monitoring, reporting, line markers, corrosion control, provide numerous barriers to an incident and higher level of safety on the pipeline such that the operation of the ***special permit segments*** have no increased risk above that offered by operating the pipeline at 72% SMYS; and thus, the special permit is not inconsistent with pipeline safety.

c) Would operation under a special permit change the risk of rupture or failure?

REX conducted a risk analysis upon initial construction comparing the risks associated with using a 0.80 design criteria to that of a 0.72 design criteria. The risk analysis considered risks in the following nine areas: (1) Stress corrosion cracking; (2) manufacturing defects; (3) weather/ outside factors; (4) welding and fabrication defects; (5) equipment failure; (6) equipment impact or third-party damage; (7) external corrosion; (8) internal corrosion; and (9) incorrect operation. From the risk analysis results, REX determined, that there was no significant increase in the overall risk associated with using the 0.80 design criteria for this type of pipe; therefore, the protections normally provided by the regulation would be maintained under the requested special permit.

d) How would the special permit conditions mitigate or account for this risk so that the overall level of safety of the pipeline is unchanged or improved?

The "Selected" Alternative will not change the consequence of a failure. The added protections within the Existing REX Special Permit, as well as the additional protections within the special permit such as additional corrosion test points, close interval surveys, and increased anomaly response requirements reduce the overall risk of rupture or failure. REX has implemented numerous pipeline safety measures that exceed the requirements of 49 CFR Part 192 and will continue to do so under the special permit.

e) If a failure occurred, would consequences and spill or release volumes be different if PHMSA granted the permit?

Release volumes will not change under the "Selected" Alternative, and therefore, there is no greater impact to the environment. However, the conditions of the special permit would reduce the overall risk of failure due to the increased maintenance, inspection, integrity, and repair activities.

f) For Part 192 special permit request, would the Potential Impact Radius (PIR) of a rupture change under the special permit? Please calculate and provide the PIR data, if applicable. Would more people be affected by a failure if PHMSA granted the permit?

The PIR of the special permit area would not change as a result of the "Selected" Alternative because there will be no pressure increase. The calculated PIR in segments where class changes from Class 1 to Class 2, based on the REX MAOP of 1,480 psig and 42 inch outside diameter, is 1,155 feet (1115 ft. + a Company-added safety buffer of 40 feet) as calculated per 49 C.F.R. § 192.903.

g) Would operation under the special permit have an effect on pipeline longevity or reliability? Would there be any life cycle or maintenance issues?

Operation under the special permit will not have any detrimental effect on the longevity or reliability of the REX pipeline as this is an existing pipeline that will continue to be operated as established. Furthermore, the conditions within the special permit, such as increased corrosion test points, CIS, and more stringent anomaly response, will lead to enhanced operations, monitoring, and maintenance requirements that may increase the longevity of the pipeline.

2) **Climate Change and Air Quality:**

a) Describe the air quality of the ***special permit segment(s)*** and ***special permit inspection area(s)***. Will either the "Selected" Action or No Action Alternative cause an increase or decrease in greenhouse gas (GHG) emissions or other air emissions in the vicinity of the ***special permit segment(s)*** or ***special permit inspection area(s)***?

The No Action Alternative would result in pipe replacement in locations that changed from Class 1 to Class 2, which would cause construction-related environmental disturbance as well as emissions from construction vehicles and delivery vehicles, compounded by traffic delays. The "Selected" Alternative could result in a slight increase in emissions from smaller, but more frequent, maintenance work on the pipeline due to the more stringent special permit conditions.

b) Explain whether blowdown would occur as a result of either the "Selected" Action Alternative or the No Action Alternative. What steps would the applicant take to mitigate blowdown associated with the special permit, such as reducing pressure prior to blowdown, methane capture, or flaring?

Blowdown will not be required under the "Selected" Action. Under the No Action Alternative blowdowns of natural gas would be required prior to pipe replacement, which would result in a release of methane, a known greenhouse gas, as well as volatile organic compounds. The No Action Alternative would result in additional future emissions as more pipe segments that change from Class 1 to Class 2 were replaced.

When blowdowns are required for pipe replacement or certain repair activities, one or more of the following mitigation techniques could be deployed: transferring gas from pipeline segment to be blown down to adjacent lower pressure gas systems, drawing down pressure prior to blowing down, isolating with stopples, using hot taps, combusting gas with a flare or other combustion devices, or other innovative mitigation techniques. While these alternative mitigation techniques, when successful, may slightly reduce the potential for methane release, they inherently pose their own significant environmental and safety risks.

In addition to gas released due to blowdowns, the No Action Alternative would have a more substantial effect on air quality, with additional air emissions resulting from the equipment used during excavation, pipe removal, pipe replacement, and pipe installation at any class change locations.

c) Explain whether construction activities or other activities causing emissions would occur as a result of either alternative?

Methane emissions would be minimized for the "Selected" Alternative as there will be no pipe replacement and the construction activities associated with installing test point locations is minimal. There could be slight increased emissions from smaller, but more frequent, maintenance work on the pipeline due to the special permit conditions.

d) Explain whether materials, design, etc. in the proposed special permit application could result in an increase or decrease in emissions in comparison to operation under the No Action Alternative. Cite any data relied upon. For example, non-steel pipelines have increased porosity allowing greater seepage emissions than steel pipelines.

Minimal construction-related activities will occur under the "Selected" Alternative; however, there could be a slight increase in emissions from smaller, but more frequent, maintenance work on the pipeline due to the special permit conditions.

Additional test stations would be installed in ***special permit segments*** under the special permit. Generally, disturbance would be minimal and limited to a 10-inch diameter borehole, which would be accomplished with a hydro-vac resulting in negligible transportation related combustion emissions from a hydro-vac truck and a passenger truck. Where possible, the test station will be located in previously disturbed, above ground facilities or ROW.

3) **Noise:**

a) Describe current noise levels in the ***special permit segment(s)*** and ***special permit inspection area(s)***.

The current noise level in the ***special permit segments*** consists of ambient noise.

b) Will noise levels change under either alternative? If so, explain the changes in noise, including frequency.

Under the "Selected" Alternative very minor short-term changes in noise will occur, when test stations are installed by hydro-vac. There could be a slight temporary increase in noise from smaller, but more frequent, maintenance work on the pipeline due to the special permit conditions.

The No Action Alternative would result in additional widespread increases in noise levels during the replacement of the existing pipe, or future pipe changes, resulting from the construction activities. The highest level of construction noise would likely occur during earth work, but any noise associated with removal and replacement of pipe would be localized and short-term in duration.

c) Are there any State or County noise ordinances applicable to the ***special permit inspection area(s)***?

Most counties with special permit segments have noise ordinances. Under the "Selected" Alternative, none of these noise ordinances will be violated during normal operations. In the event of maintenance is required under the special permit conditions, all noise ordinances will be followed.

4) **Environmental Justice:**

a) Please provide demographic information about the community immediately surrounding (i.e. half-mile vicinity) the relevant site(s).

The special permit will not impact any predominantly minority, low income, or linguistically isolated populations where the special permit segments are located. The objective of the special permit is to avoid construction or ground disturbances in the pipeline ROW that would be necessitated if the special permit was not granted. Therefore, approval of this special permit would not have an adverse impact on the local population.

While the No Action Alternative would require pipeline replacement, none of the ***special permit segments*** have a minority population that exceeds the 50 percent minority threshold identified by CEQ. Additionally, none of the ***special permit segments*** has a low-income population that exceeds the 50 percent of the total population.

Table 4 - Demographic Information for Special Permit Segments – Using EPA EJScreen

Special Permit Segment No.	State	County	Total Population (Along Special Permit Segment)	Minority*/ People of Color** Population	Low Income Population	Linguistically Isolated
S1	MO	Buchanan	14	10%	25%	0%
S2	IL	Macon	13	8%	11%	0%
S3	IL	Macon	109	12%	25%	0%
S4	IL	Douglas	10	1%	41%	0%
S5	IL	Douglas	21	1%	41%	0%
S6	IL	Douglas	0	0%	0%	0%
S7	IN	Morgan	258	1%	16%	0%
S8	IN	Morgan	227	1%	11%	0%
S9	OH	Butler	290	0%	17%	0%
S10	OH	Butler	230	0%	6%	0%
S11	OH	Butler	88	4%	20%	1%
S12	OH	Butler	218	1%	10%	0%
S13	OH	Warren	65	8%	7%	0%
S14	OH	Warren	274	4%	6%	0%
S15	OH	Pickaway	24	0%	5%	0%
S16	OH	Fairfield	16	1%	27%	0%
S17	OH	Fairfield	357	5%	15%	0%
S18	OH	Fairfield	32	5%	15%	0%
S19	OH	Perry	88	0%	24%	3%
S20	OH	Muskingum	161	2%	14%	0%

Minority*: The term minority is used in the currently active DOT Environmental Justice Order 5610.2(a), available at: https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm
People of Color**: The term people of color is used in the EPA's Environmental Justice Screening and mapping tool (EJSCREEN). An overview of demographic indicators through EJSCREEN is available at: https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen

b) Explain how a pipeline failure along the ***special permit segment(s)*** could impact environmental resources and human health/safety. It is important that the public understand that PHMSA and the applicant are cognizant of these potential impacts in proposing and considering the special permit.

A failure in a ***special permit segment*** could result in a release of natural gas into the environment, which includes methane and volatile organic compounds. A pipeline failure could also result in the combustion of gas released, resulting in a higher risk to those individuals living in the Potential Impact Radius of the pipeline, as well as local impacts to air quality. The consequences of a pipeline failure under either the "Selected" Alternative or No Action Alternative will remain the same as the volume of gas transported would be identical under either scenario.

c) Explain whether the special permit would increase risk or decrease risk of pipeline failure in comparison to the no action alternative. If there could arguably be an increase in risk, transparently explain this and why the increased risk is acceptable. Also, explain how the special permit conditions mitigate any arguable increase in risk.

The special permit will allow operation at the current MAOP, creating no additional risk when compared to the last ten or more years of operation. Under the "Selected" Alternative, the risk of pipeline failure will likely decrease due to the increased monitoring, maintenance, and repair activities.

d) In economic terms, describe the population in the affected area. Will this project be situated in or disproportionately impact any predominantly low-income populations?

The "Selected" Alternative will not result in an adverse impact on the local population. The increased monitoring and maintenance activities associated with the "Selected" Alternative will improve safety for those that live or work near the special permit segment.

The minority population percentages are provided in Table 4 for all special permit segments. The special permit will not disproportionately impact any minority, low income, or non-English language populations. However, the No Action Alternative would result in pipe replacement that would negatively impact the communities near the existing REX pipeline.

5) **Aesthetics:** The special permit will not impact the aesthetics because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to aesthetics.

6) **Agricultural Resources:** The special permit will not impact agricultural resources because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to agricultural resources.

7) **Biological Resources:** The special permit will not impact biological resources below because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to biological resources. By granting this special permit there will be no threat to any potential endangered species. However, the No Action Alternative would drive disturbance, therefore, prior to any disturbance a desktop evaluation would be conducted to determine if threatened or endangered species exist at each location and if critical or sensitive habitat is present. REX would comply with all FERC requirements related to the Endangered Species Act, Migratory Bird Treaty Act, and Bald and Golden Eagle Protection Act and would conduct additional field surveys and consult with the USFWS, as required.

8) **Cultural Resources:** The special permit will not impact cultural resources because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance due to pipe replacement, however, the disturbance would likely stay within the confines of the previously surveyed and approved construction right-of-way so no impacts to cultural resources would occur.

9) **Geology, Soils, and Mineral Resources:** The special permit will not impact the aesthetics, agricultural resources, biological resources, cultural resources, geology, soils, mineral, Indian Trust Assets, land use, recreation, topography, transportation, or water resources identified in Items 5 through 14 below because REX is already installed and fully operational. There are no wetlands and waterbodies within the special permit segments (see Exhibit 4 and Exhibit 5 below) that would be impacted during the installation of test stations. The No Action Alternative would lead to increased disturbance and short-term impacts to soil resources. Geology and mineral resources would not be impacted by pipe replacement where disturbance stays within the previous construction right-of-way.

10) **Indian Trust Assets:** The special permit will not impact any Indian Trust Assets because REX is already installed and fully operational. REX does not cross any Indian Trust Assets; therefore, Indian Trust Assets will not be impacted by the "Selected" Alternative or No Action Alternative.

11) **Land Use:** The special permit will not impact the land use because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to land use including farmland.

12) **Recreation:** The special permit will not impact the recreation because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to recreation.

13) **Topography:** The special permit will not impact the topography because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to topography.

14) **Transportation:** The special permit will not impact the transportation because REX is already installed and fully operational. The No Action Alternative would lead to increased disturbance and short-term impacts to transportation related to pipeline replacement construction traffic.

15) **Water Resources:** The Selected Alternative would not result in an adverse impact on wetlands or waterbodies because the pipeline is an existing operational pipeline. Additionally, wetlands and waterbodies would be avoided to the extent possible. If a wetland or waterbody may be impacted during maintenance activities, REX will follow all applicable FERC, federal, state, and local permitting requirements, and will obtain any required permits or clearances prior to disturbance.

    Under the No Action Alternative, pipeline replacement would be expected to disturb wetlands and waterbodies within the special permit areas on REX. Pipeline replacement would result in a short-term decrease in vegetative cover increasing the risk of possible sedimentation to waterbodies and wetlands.

    Exhibit 4 provides a list of all waterbodies within 100 feet of the special permit inspection areas and Exhibit 5 provides a list of all wetlands within 100 feet of the special permit inspection areas.

X. Consultation and Coordination

REX/Tallgrass

- Terra Mascarenas – Senior EHS Permitting and Compliance Specialist – Tallgrass
- Jennifer Eckels – Manager - Compliance – Tallgrass
- Kale Stanton – Director - Asset Integrity – Tallgrass
- Corky Patton – Engineer - Asset Integrity, Lead - Tallgrass

PHMSA

- Amelia Samaras – Attorney, PHMSA, US DOT
- Steve Nanney – Senior Technical Advisor, PHMSA, US DOT

XI. Request for Public Comments Placed on Docket PHMSA-2022-0044

PHMSA published the special permit request in the Federal Register (87 FR 32233) for a 30-day public comment period from May 27, 2022 through June 27, 2022, and considered all comments received. PHMSA sought comments on any potential environmental impacts that could result from the selection of either alternative, including the special permit conditions. The special permit application from REX, and draft special permit conditions were available in Docket No. PHMSA-2023-0002 at: www.regulations.gov for public review.

PHMSA received four (4) public comments concerning this special permit request. PHMSA received comments from the Pipeline Safety Trust (PST), Illinois Commerce Commission (ICC), Indiana Utility Regulatory Commission, Pipeline Safety Division (IN PSD), and Missouri Public Service Commission (MO PSC) which asked PHMSA to examine several topics:

(1) **PST Comment**: Rockies Express (REX) was constructed following the award of a pre-construction special waiver to allow operation at up to 80% SMYS in Class 2 areas (normal regulations limit the operating pressure to 72% SMYS).[5] This special permit did not waive application of the 72% SMYS limitation to areas that were Class 1 but later became Class 2 areas. REX now seeks a new

[5] PHMSA notes the aspect of the 2006 special permit that PST's comment refers at Docket No. PHMSA–2006–23998 did not grant relief for Class 2 locations, but rather for Class 1 locations. 71 Fed. Reg. 39,141 (July 11, 2006).

special permit to waive application of that same regulation to areas that have become Class 2 areas since construction.

- **PHMSA Response**: REX in their original request for a special permit did not ask for Class 1 to Class 2 location changes in accordance with 49 CFR 192.611. Since the pipeline was placed in service in 2008 REX has had 20 ***special permit segments*** that have Class 1 to Class 2 location changes. REX in annual reports to PHMSA did notify the PHMSA regional director and associate administrator that there had been Class 1 to Class 2 location changes but did not request a special permit. PHMSA is in the process with this special permit of addressing this situation, with a special permit and conditions that address the integrity of the pipeline for a Class 1 to Class 2 location change. If REX does not want to accept the special permit with conditions for maintaining integrity, then REX will have to implement the enforcement requirements.

(2) **PST Comment**: REX has been subject to enforcement actions relating to construction practices with other violations of the conditions imposed in the 2006 Special Permit. It has had several failures, including two weld failures after REX has claimed to rectify construction related integrity issues.

- **PHMSA Response**: PHMSA is aware of the construction related integrity issues on the REX pipeline during initial construction and operation. PHMSA has taken enforcement action to address those issues in the past, and those actions have been satisfactorily closed after REX performed the actions required by PHMSA to ensure safety in those matters. See, *e.g.*, CPF 3-2012-1003.[6] Further, the special permit conditions will require annual reports and review meetings with the assigned PHMSA regional director to maintain safety oversite by PHMSA of REX's implementation of the special permit conditions. PHMSA is granting this permit for a duration of 10 years and at any time the operator fails to comply with any material term or condition of a special permit, PHMSA may revoke, suspend, or modify the special permit as allowed by 49 CFR 190.341(j).

(3) **PST Comment**: PST states that REX claims the permit will provide environmental and safety benefits by eliminating methane emissions that would occur from blowdowns in anticipation of

[6] https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320121003.html?nocache=5780#_TP_1_tab_2

hydrotesting and/or replacement. PST comments that non-emergency blowdowns should not be considered a sufficient reason to avoid strength testing and replacement of pipe segments where necessary to comply with the Federal pipeline safety regulations.

- **PHMSA Response**: PHMSA uses strict criteria when determining whether a class location special permit will provide an equivalent level of safety to people and the environment as the Federal pipeline safety regulations. While avoiding the release of unburned methane is beneficial, the special permit criteria focus is on the safety of communities that are in proximity to the ***special permit segments***. Please see the Federal Register Notice, "Pipeline Safety: Development of Class Location Change Waiver Criteria," (69 FR 38948, June 29, 2004) for a detailed description of the criteria that PHMSA evaluates when determining if granting a special permit is consistent with pipeline safety. Furthermore, PHMSA imposes special permit conditions that require minimization of gas loss during blowdowns and leakage surveys along the pipeline.

(4) **PST Comment**: PST commented that REX's application does not contain adequate justification for the need of the special permit.

- **PHMSA Response**: Section 190.341(c)(4) requires operators to provide, "an explanation of the unique circumstances that the applicant believes make the applicability of that regulation or standard (or portion thereof) unnecessary or inappropriate for its facility" with their special permit application. The Federal Register Notice, "Pipeline Safety: Development of Class Location Change Waiver Criteria," (69 FR 38948, June 29, 2004), describes the specific circumstances in which PHMSA will consider special permit applications for class location changes. The Federal Register Notice includes the criteria that PHMSA evaluates to determine the suitability of granting a permit, in addition to consideration of the justification for the waiver. PHMSA finds that implementation of enhanced integrity management with enhanced monitoring and maintenance requirements are consistent with pipeline safety to protect the population living near the pipeline segment to a similar degree as replacing with heavier walled or higher-grade pipe without the enhanced integrity management activities (see **Attachment A – Segment Integrity Information**).

(5) **ICC Comment**: ICC in past inspections found numerous construction practices that violated the federal regulations and reported them to PHMSA. Contrary to the terms of the 2006 Special Permit, REX failed to adhere to the construction quality assurance plan, nor did it construct the pipeline in

compliance with Federal pipeline safety regulations. ICC believes PHMSA should deny the special permit request as it is inconsistent with pipeline safety as the proposed higher pressure in Class 2 locations pose increased risks to the environment, health, and safety of Illinois citizens.

- **PHMSA Response**: PHMSA is aware of the construction related integrity issues on the REX pipeline during initial construction and operation. As discussed above, PHMSA has taken several enforcement actions to address those issues, and those actions have been satisfactorily closed after REX performed the actions required by PHMSA to ensure safety. *See, e.g.*, CPF 3-2012-1003. The last of the 2012 enforcement cases Illinois references was satisfactorily closed in 2017 after completion of the required work under the relevant consent agreement. To ensure the integrity issues from initial construction and initial operations are not ongoing, PHMSA will require REX to conduct additional assessments and remediation such as:
  - Direct current voltage gradient (DCVG)
  - Close interval survey (CIS)
  - Leak detection surveys

    Review of historic girth weld leakage issues in the ***special permit segment.***

  PHMSA will also require annual reports and review meetings with the assigned PHMSA regional director to maintain safety oversite by PHMSA of REX's implementation of the special permit conditions. PHMSA is granting this permit for a duration of 10 years and at any time the operator fails to comply with any material term or condition of a special permit, PHMSA may revoke, suspend, or modify the special permit as allowed by 49 CFR 190.341(j).

(6) **ICC Comment**: Federal regulations define the Potential Impact Radius ("PIR") for natural gas pipelines such as REX East. The REX pipeline has a PIR of 1,115 feet, but PHMSA here under its regulations only considers a radius of 660 feet. The PIR is almost double the class location requirement and many more people living in dwellings not counted under the Class Location formula could be injured and structures damaged by a failure on the REX pipeline than considered under the 660-foot radius consider here. In 2010, a natural gas pipeline in San Bruno, California that was operating at only 25-30% of the REX pipeline pressure ruptured and the gas ignited. Eight people were killed, and fifty-one people were hospitalized as a result of that incident.

- **PHMSA Response**: The REX special permit request is for a Class 1 to Class 2 Location change as defined in 49 CFR 192.5. PIR is based upon 49 CFR 192 Subpart O for integrity management.

PHMSA is not relieving the operator from any integrity management requirements based on the PIR of 1,115 feet. The special permit conditions for the Class 1 to Class 2 location change is more robust and incorporates the requirements detailed in 49 CFR 192 Subpart O.

(7) **ICC Comment**: The ICC requests PHMSA deny REX's special permit request due to the risks associated with a pipeline failure are too great in these areas at the elevated pressure of 80% SMYS. REX has failed to demonstrate the special permit request is consistent with pipeline safety or that public interest is served.

- **PHMSA Response**: PHMSA understands the ICC comments concerning public safety and possible harm that a pipeline failure could cause. REX Pipeline will be required to implement special permit conditions to ensure integrity of the pipeline and in doing so ensure safety of the public. The special permit conditions will require integrity assessments and corresponding remediation which includes: CIS (cathodic protection (CP) effectiveness and coating quality), ILI assessments (corrosion, dents, cracking, and pipe movement). **Section VIII. Overview** of Special Permit Conditions has a review of the full list of required activities or for specific technical requirements view the special permit conditions can be read in its entirety in Docket No. PHMSA-2022-0044 in the Federal Docket Management System located on the internet at www.regulations.gov.

(7) **IN PSD Comment**: While the PSD understands that the energy needs of the nation are of great concern due to limited supply and rising prices. Delivering this critical resource must be done with public safety at the forefront. Allowing the REX Pipeline to operate above what is considered safe by the Federal pipeline minimum safety standards is of concern.

- **PHMSA Response**: PHMSA understands the PSD comments concerning public safety, limited supply, and rising prices. The special permit conditions will require annual reports and review meetings with the assigned PHMSA regional director to maintain safety oversite by PHMSA of REX's implementation of the special permit conditions. PHMSA is granting this permit for a duration of 10 years and at any time the operator fails to comply with any material term or condition of a special permit, PHMSA may revoke, suspend, or modify the special permit as allowed by 49 CFR 190.341(j).

(8) **MO PSC Comment**: On January 29, 2015, a rupture occurred at a girth weld on a segment of the REX Pipeline operating in Pike County, Missouri, within a Class 1 location. The Root Cause

Analysis (RCA) identified five variables that likely led to the rupture: pipeline settlement, pipeline misalignment, temperature stresses, internal pressure, and construction forces. REX must run inertial measurement unit (IMU) and HR-deformation In Line Inspection (ILI) tools for detection and remediation of strains and denting of the pipe body and girth welds from soil movements that impair pipeline integrity. MO PSC requests that PHMSA consider requiring the use of such tools over the entire ***special permit inspection area*** not just locations that have already experienced leaks or ruptures or where a threat of soil movement has been identified.

- **PHMSA Response**: The January 29, 2015 incident was considered as part of a PHMSA enforcement action that was closed in 2017 after REX's actions to fulfill the terms of the consent agreement in that matter.[7] PHMSA understands the MO PSC comments concerning public safety and possible harm that a pipeline failure could cause. The special permit will require REX to maintain the integrity of the pipeline through implementation of the special permit conditions. These conditions will require integrity assessments which includes: DCVG for coating damage, CIS (to determine cathodic protection (CP) effectiveness and coating quality), ILI assessments (to detect pipe dents, weld and pipe stresses, corrosion, dents, cracking, and expanded pipe movement assessments), and repair of any assessment findings. Section VIII. Overview of Special Permit Conditions has a review of the full list of required activities or for specific technical requirements view the special permit conditions can be read in its entirety in Docket No. PHMSA-2022-0044 in the Federal Docket Management System located on the internet at www.regulations.gov.

XII. Finding of No Significant Impact

In consideration of the FEA, the special permit conditions explained above, the SPAF and other documents included as part of this action, PHMSA finds that no significant negative impact to human health of safety or the environment will result from the issuance and full implementation of the above-described special permit to waive the requirements of 49 CFR 192.611(a)(1)(i) and instead allow the use of 192.611(a)(1)(ii) for the ***special permit segments,*** 4.25 miles of 42-inch diameter pipelines located in Buchanan County, Missouri; Macon and Douglas Counties, Illinois; Morgan County, Indiana; and Butler, Middletown, Warren, Pickaway, Fairfield, Perry, and Muskingum Counties, Ohio. This special

[7] See CPF 3-2012-1003; available online at: https://primis.phmsa.dot.gov/comm/reports/enforce/CaseDetail_cpf_320121003.html?nocache=1350#_TP_1_tab_2

permit will require REX to implement additional conditions on the operations, maintenance, and IM on the ***special permit segments*** and ***special permit inspection areas***.

The granted special permit conditions are available in the FDMS Docket No. PHMSA-2022-0044 at: www.regulations.gov for public review.

XIII. Bibliography

USGS 2020, Available at: https://www.usgs.gov/products/maps/gis-data

USFWS 2020, Available at: https://www.fws.gov/wetlands/data/data-download.html

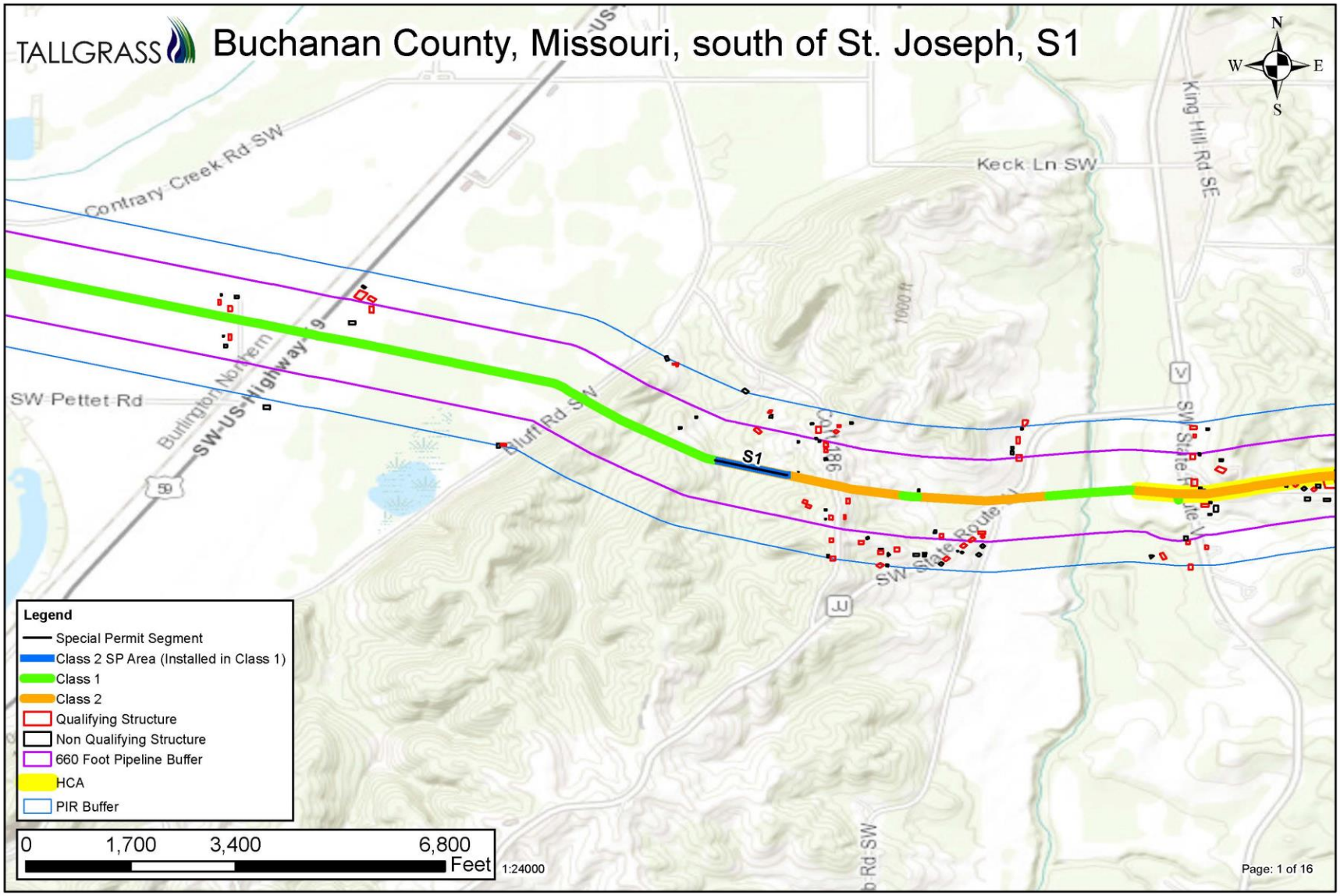
EPA – EJ SCREEN, 2021, Available at: https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen

DOT Environmental Justice Order 5610.2(a), Available at: https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm

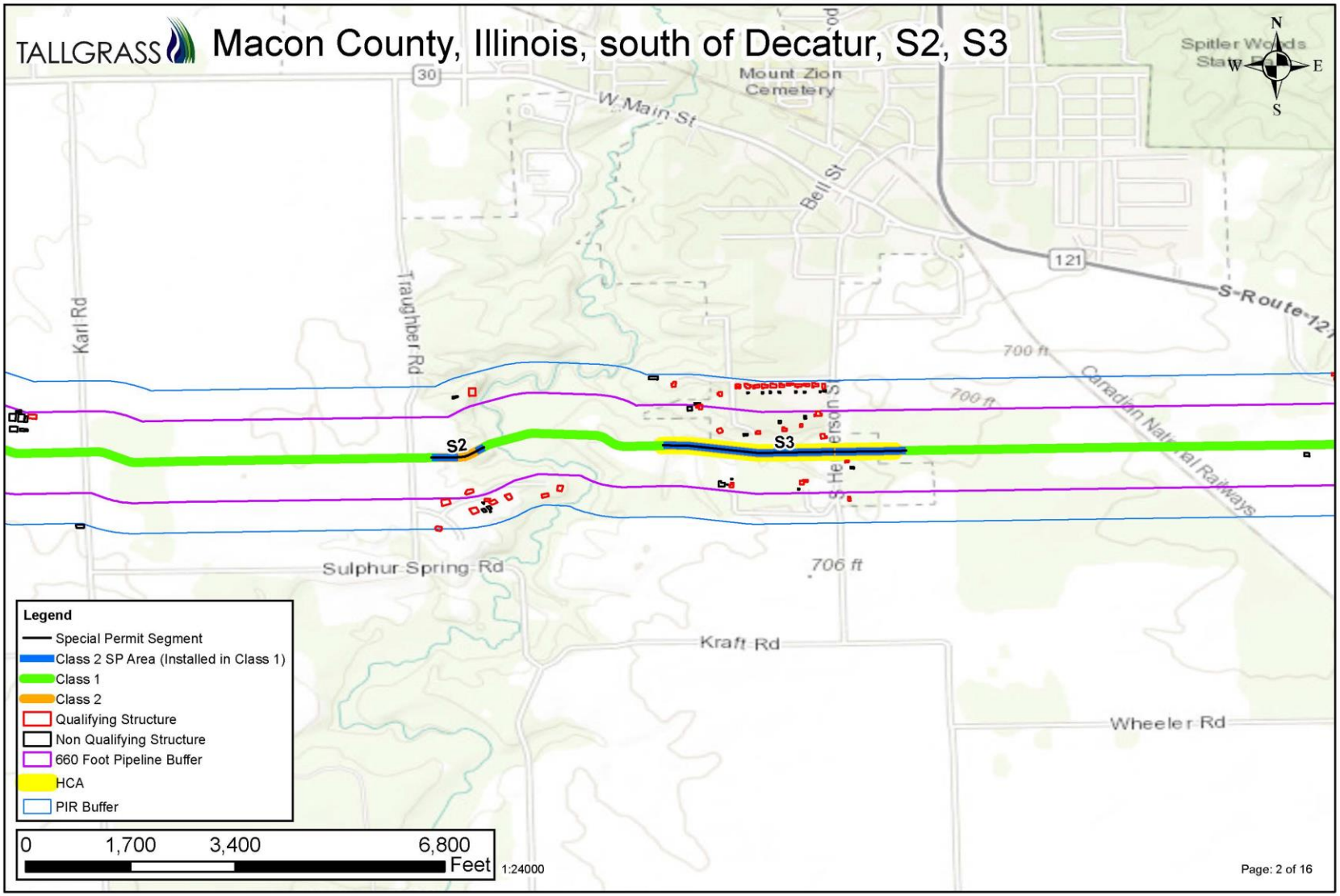
The special permit with conditions granted to REX, SPAF, and **Attachment A – Segment Integrity Information** for Docket No. PHMSA-2022-0044 can be found the FDMS located on the internet at www.regulations.gov or on the PHMSA website for special permits issued at https://www.phmsa.dot.gov/pipeline/special-permits-state-waivers/special-permits-issued.

Completed by PHMSA in Washington, DC on: October 3, 2023

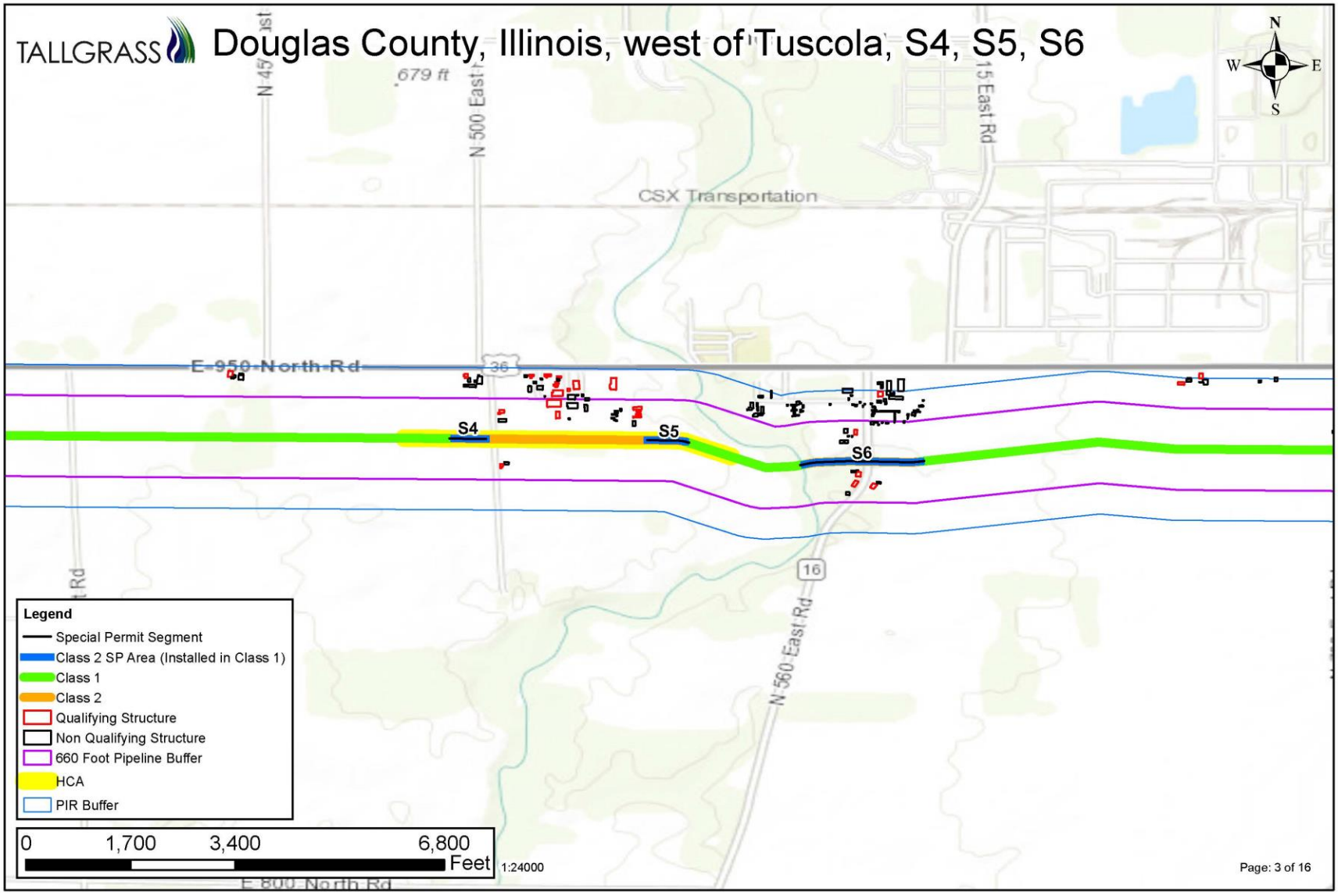
Attachment B-1 - Special Permit Segment – S1



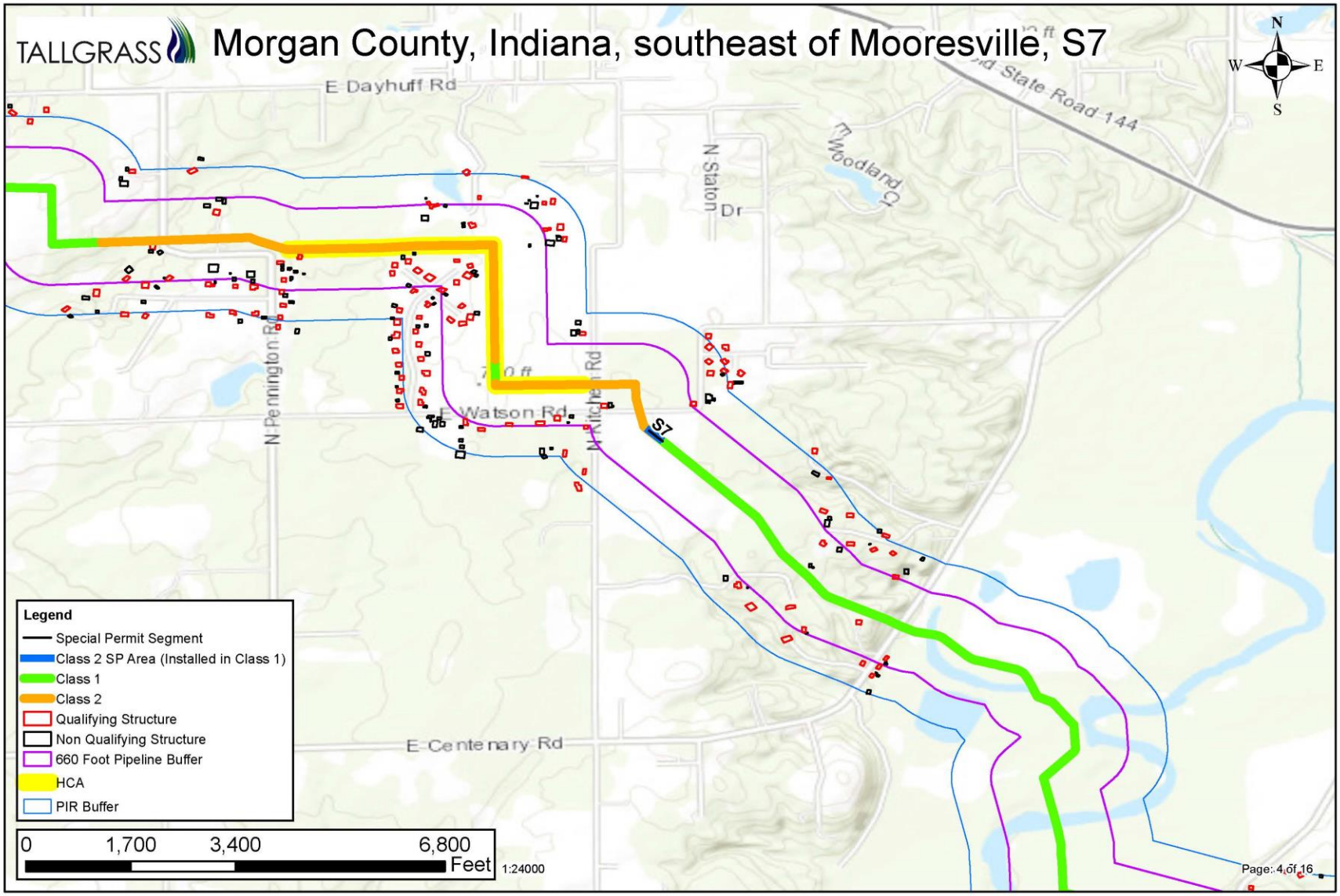
Attachment B-2 - Special Permit Segments – S2 and S3



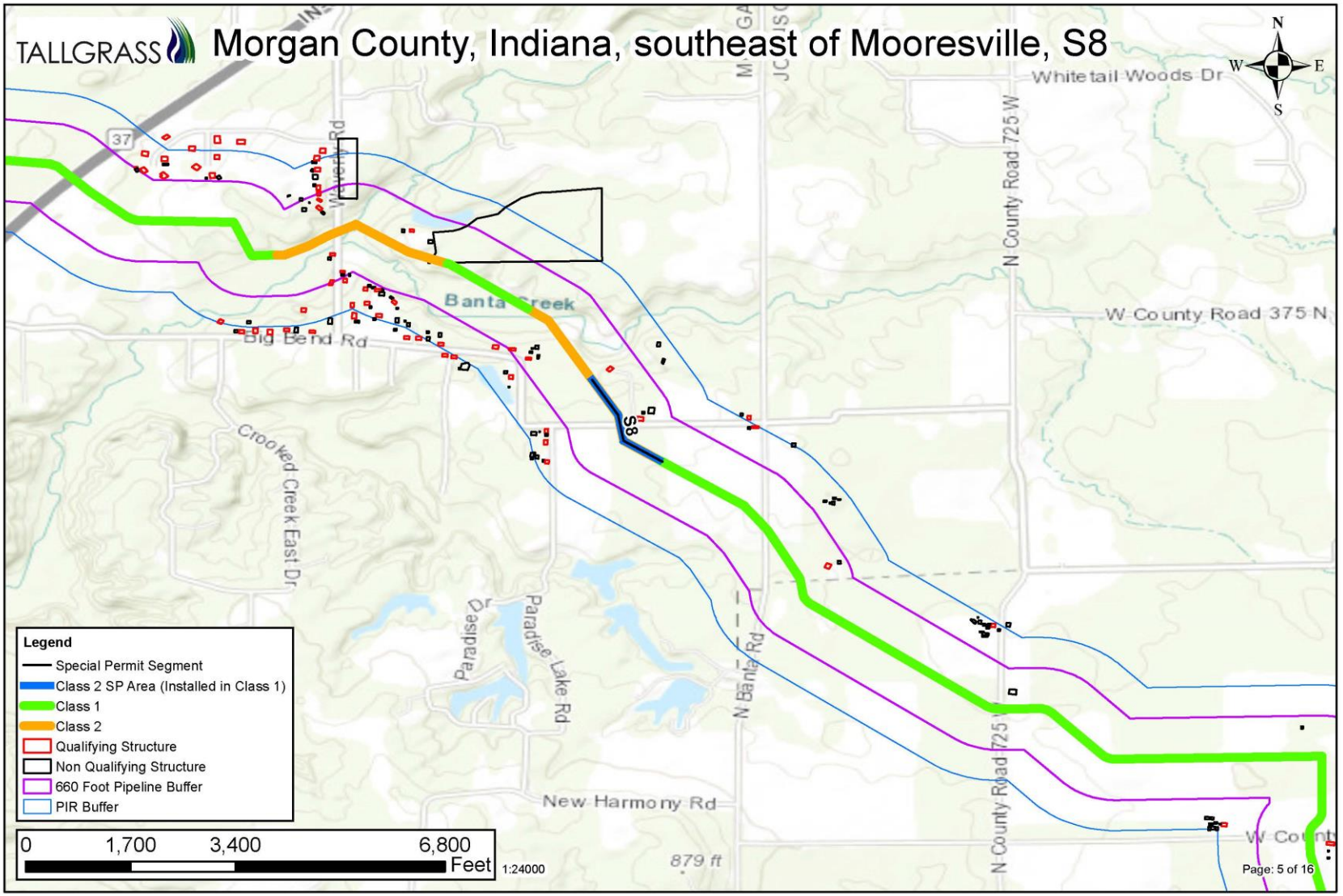
Attachment B-3 - Special Permit Segments – S4, S5, and S6



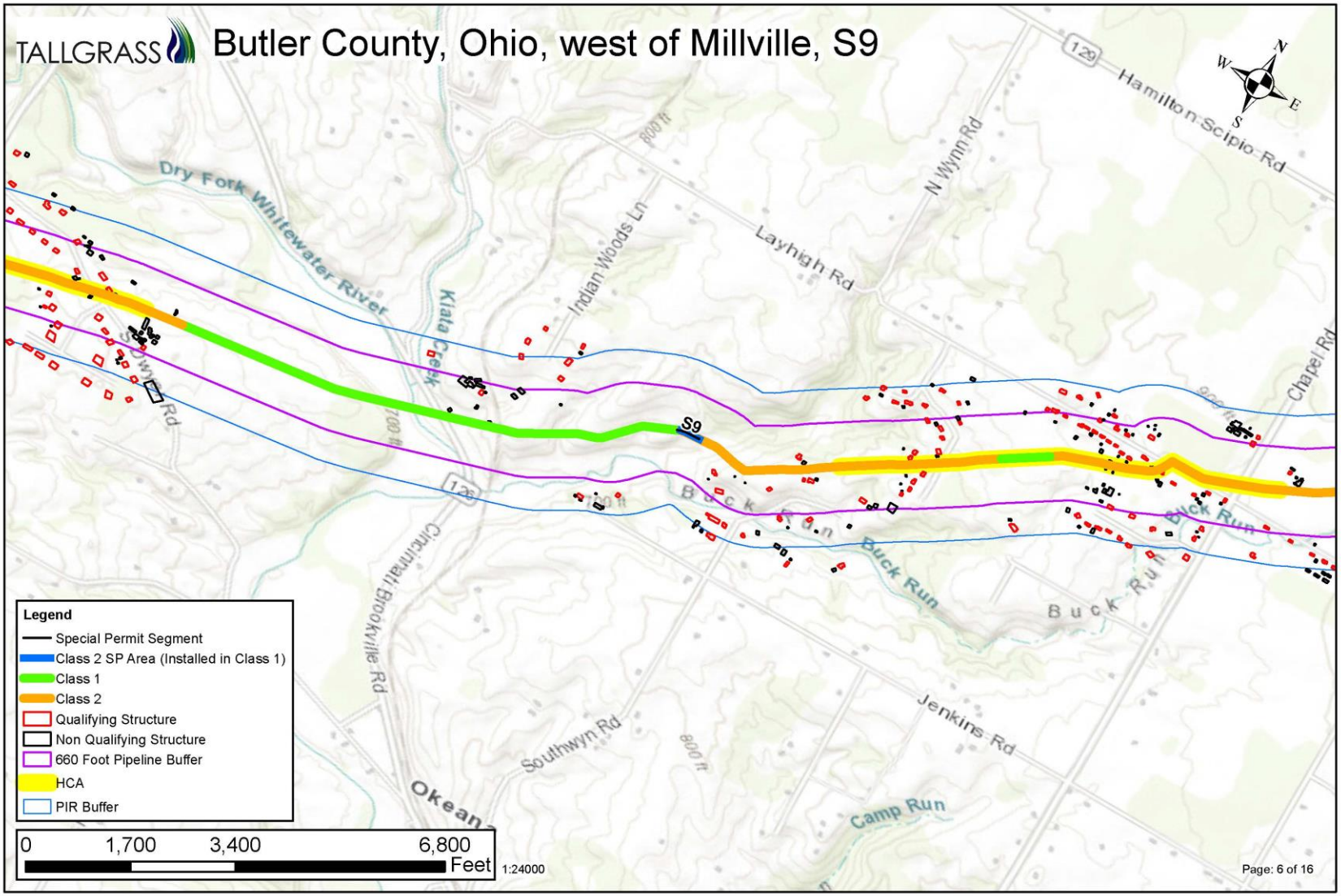
Attachment B-4 - Special Permit Segment – S7



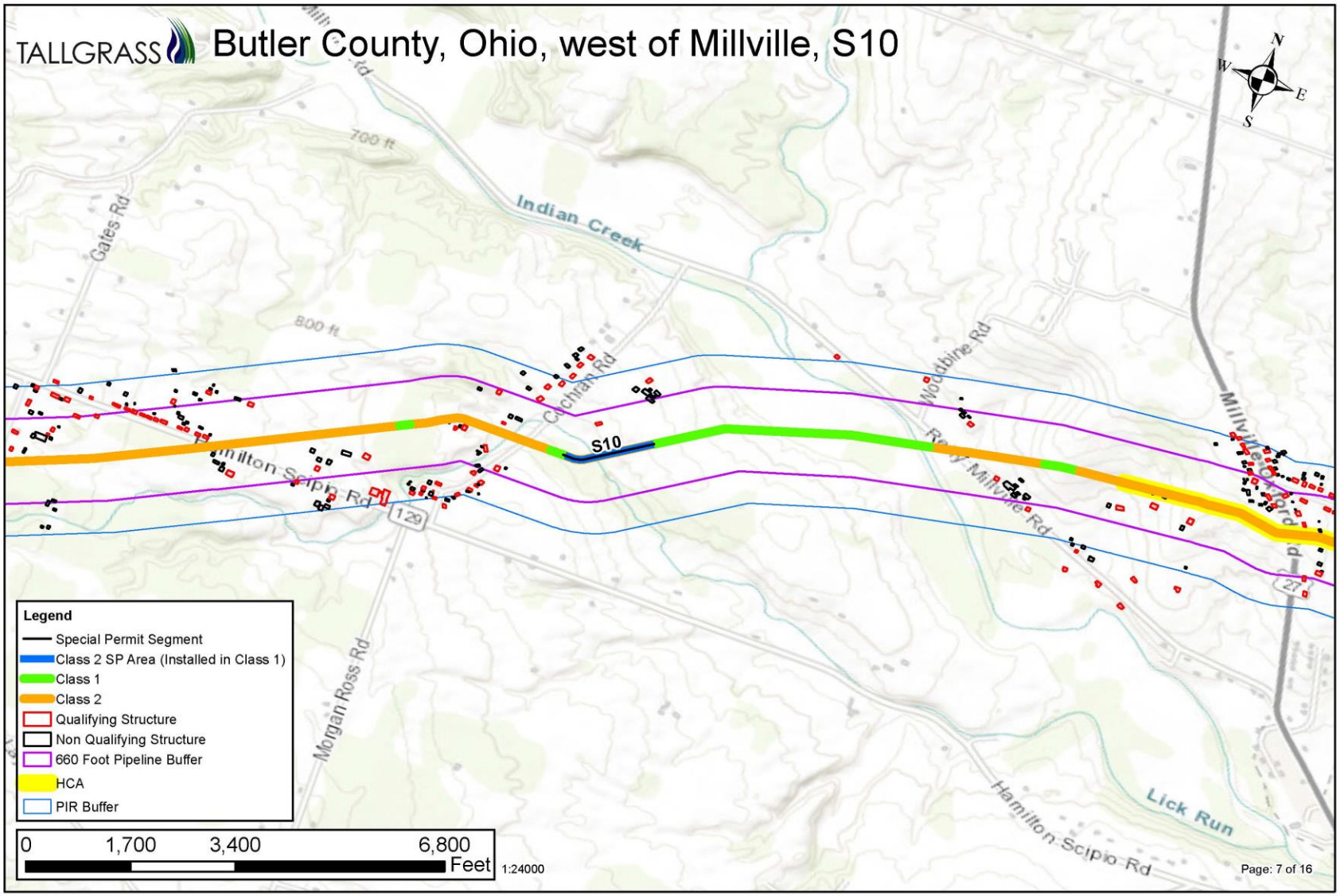
Attachment B-5 - Special Permit Segment – S8



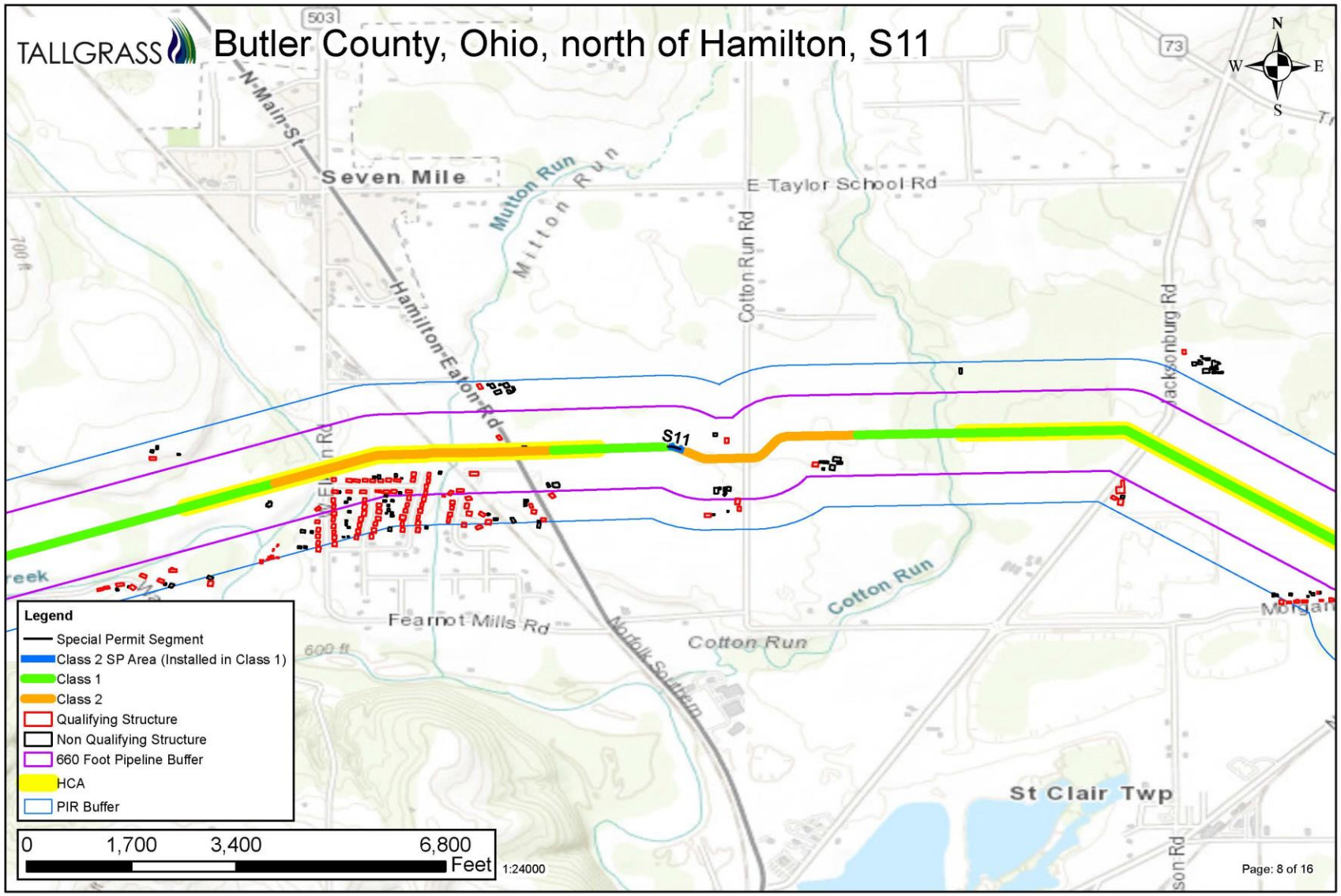
Attachment B-6 - Special Permit Segment – S9



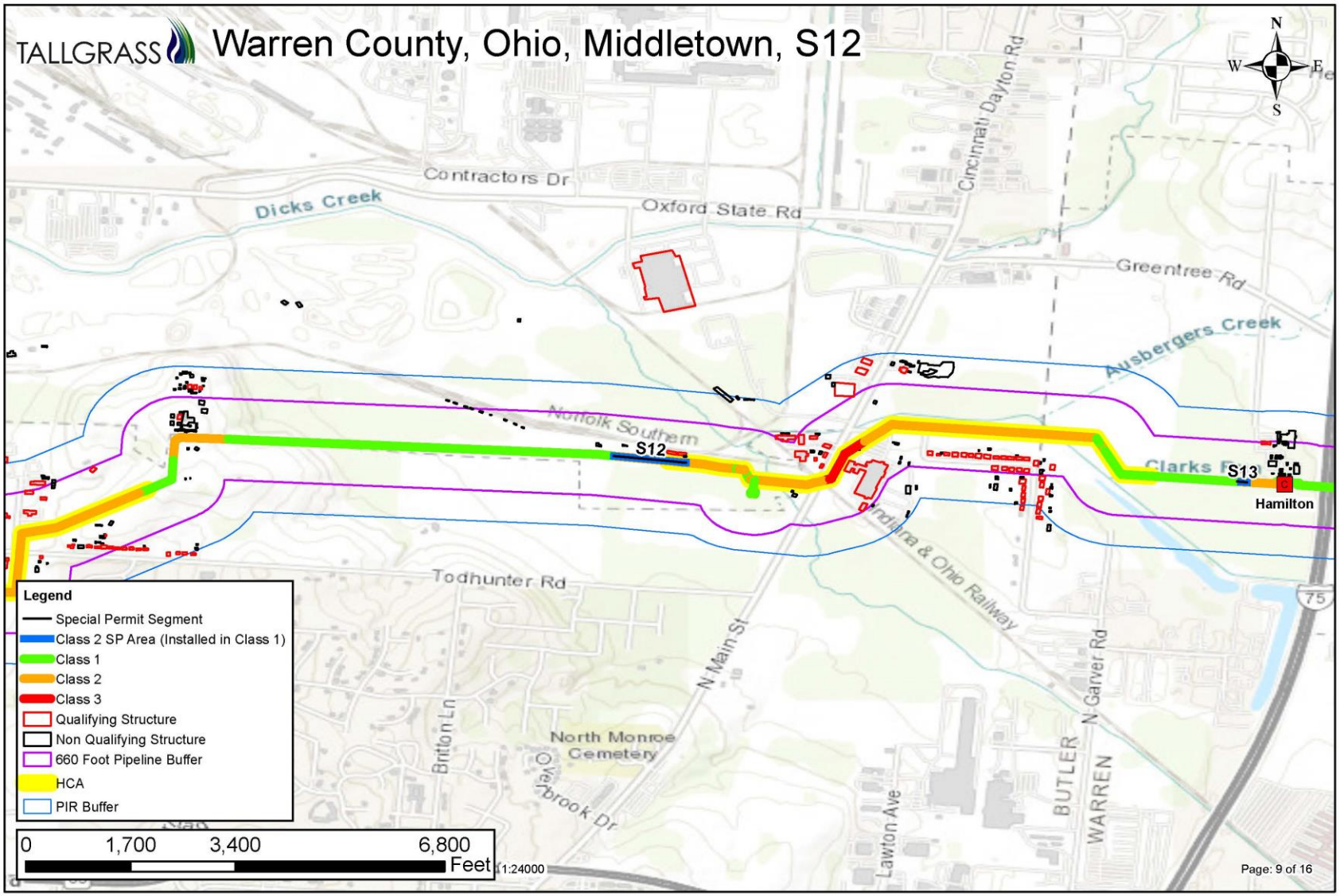
Attachment B-7 - Special Permit Segment – S10



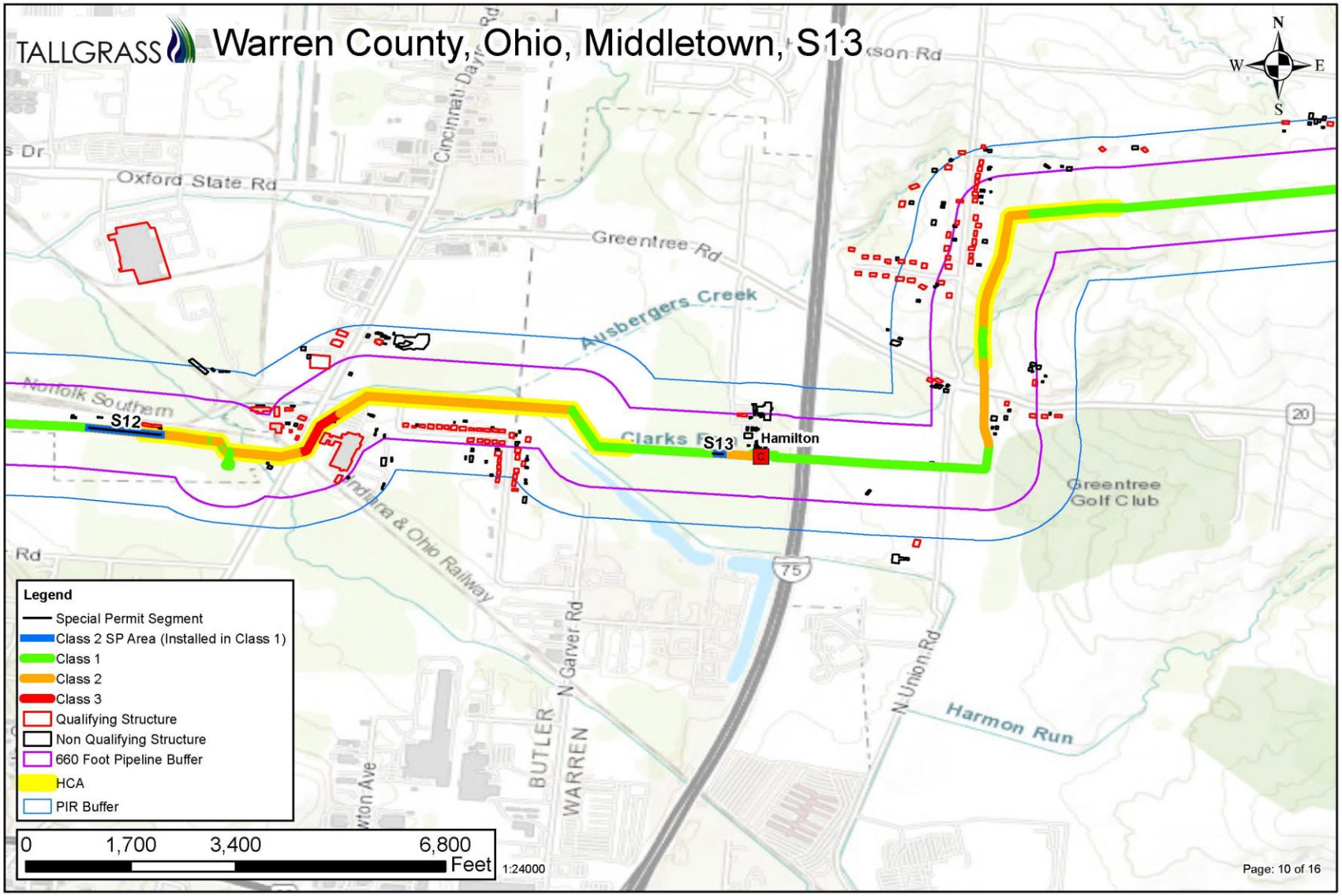
Attachment B-8 - Special Permit Segment – S11



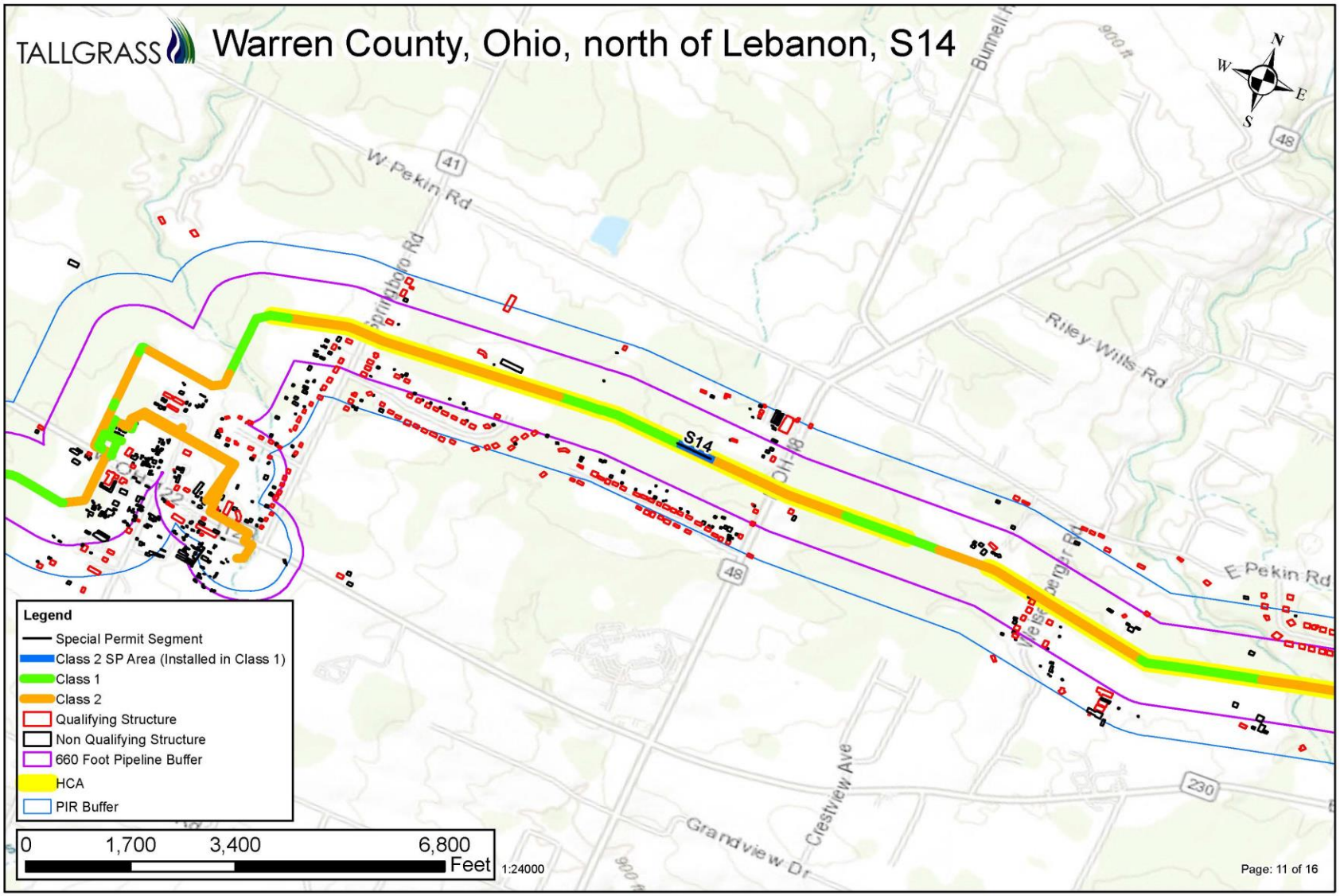
Attachment B-9 - Special Permit Segment – S12



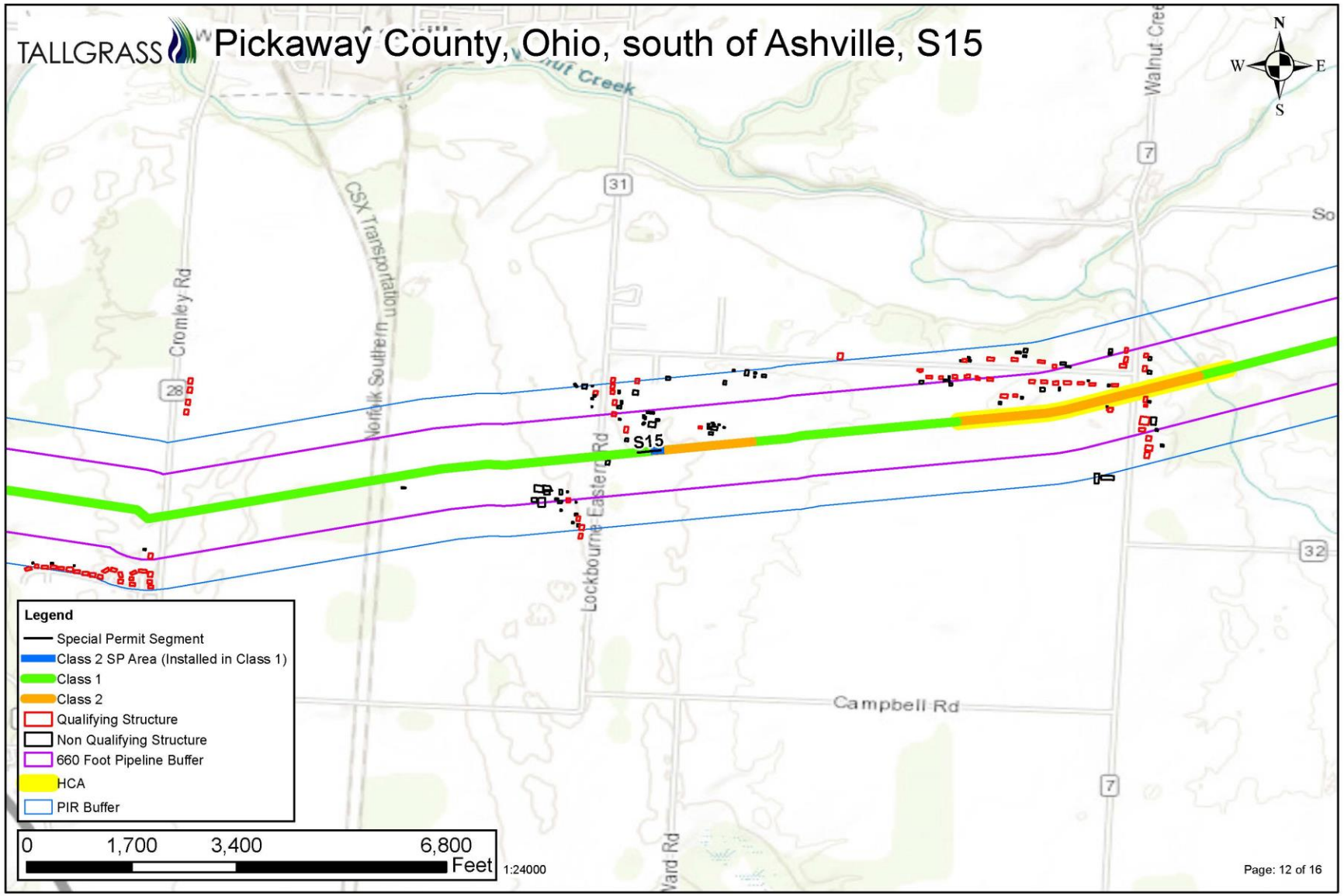
Attachment B-10 - Special Permit Segment – S13



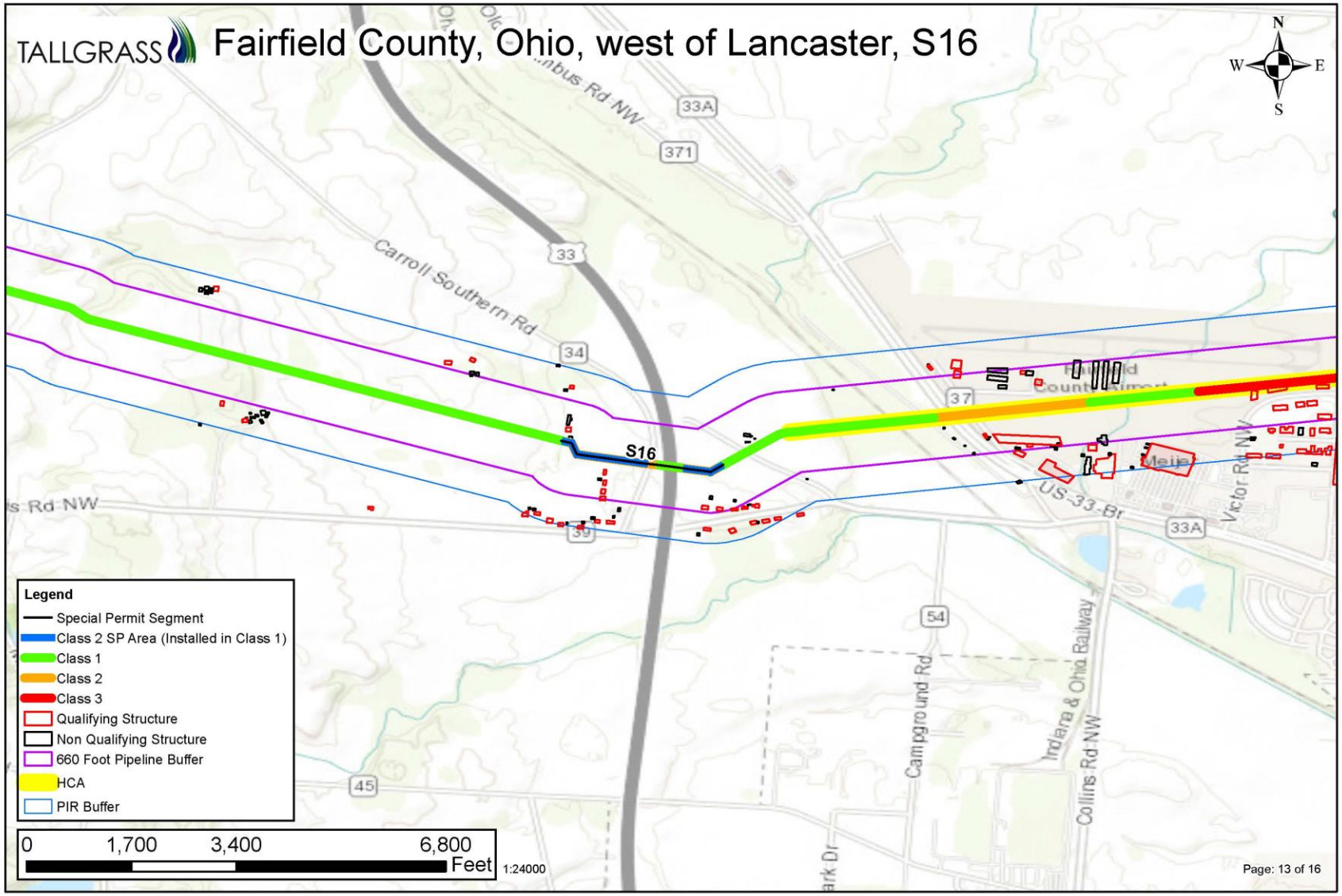
Attachment B-11 - Special Permit Segment – S14



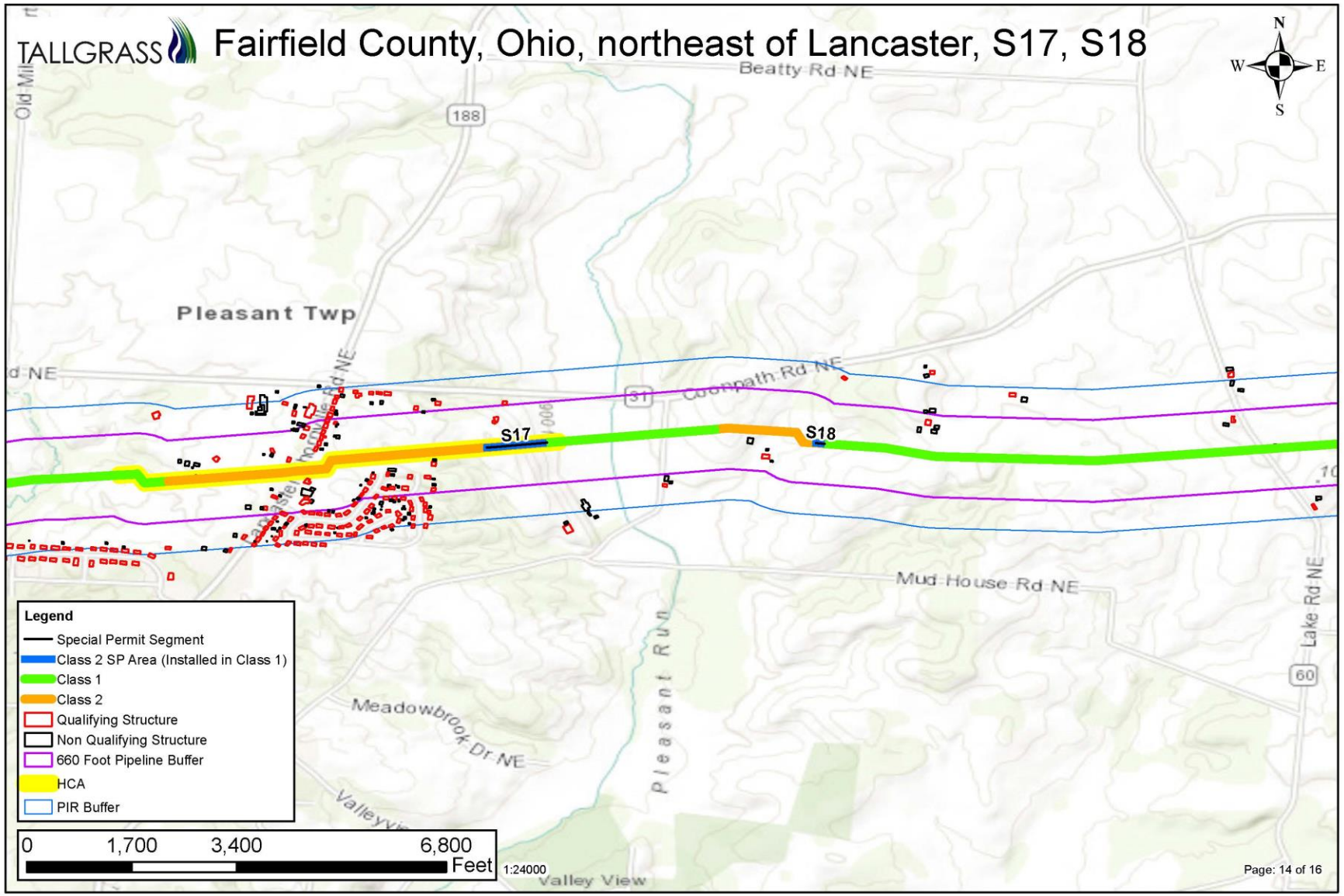
Attachment B-12 - Special Permit Segment – S15



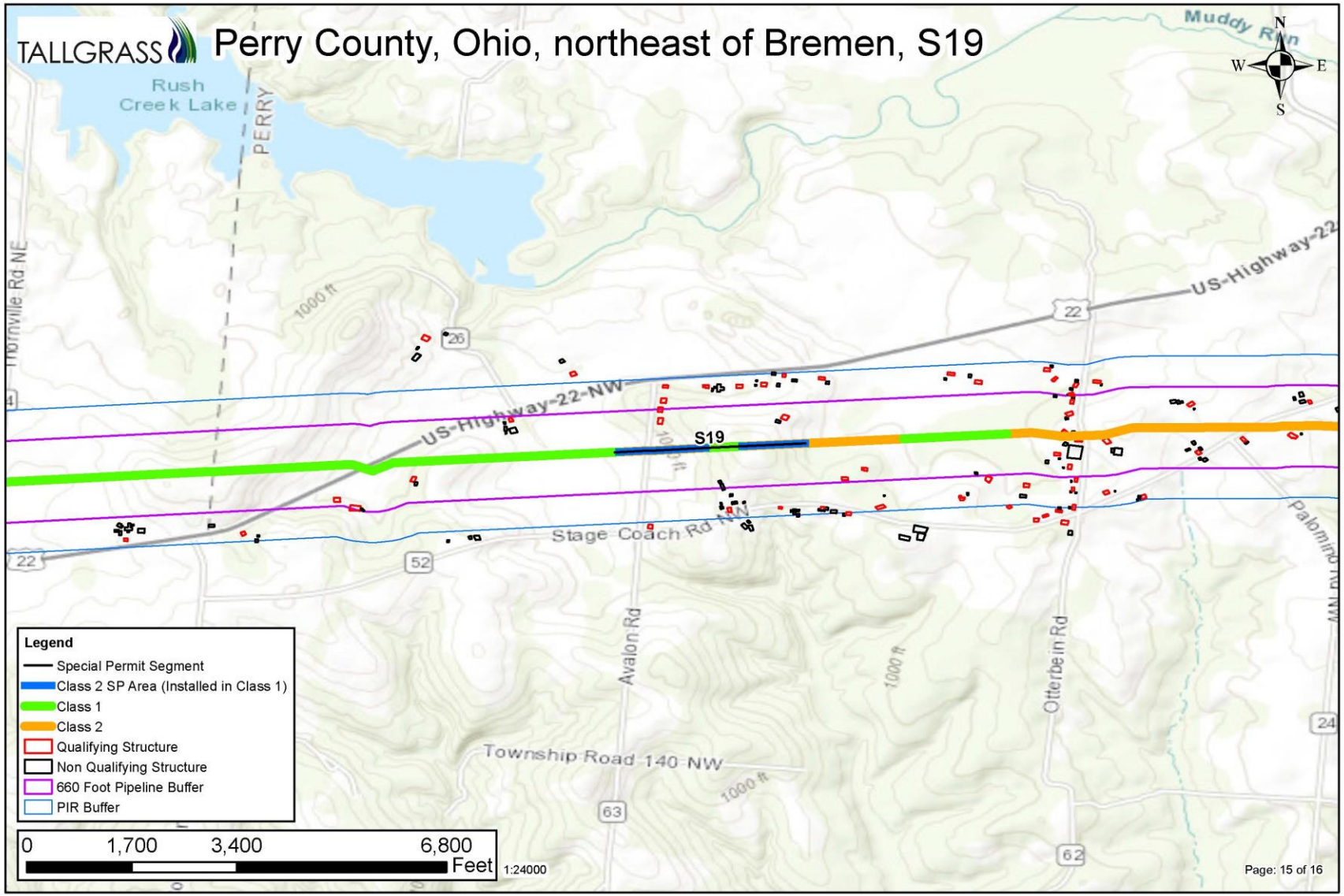
Attachment B-13 - Special Permit Segment – S16



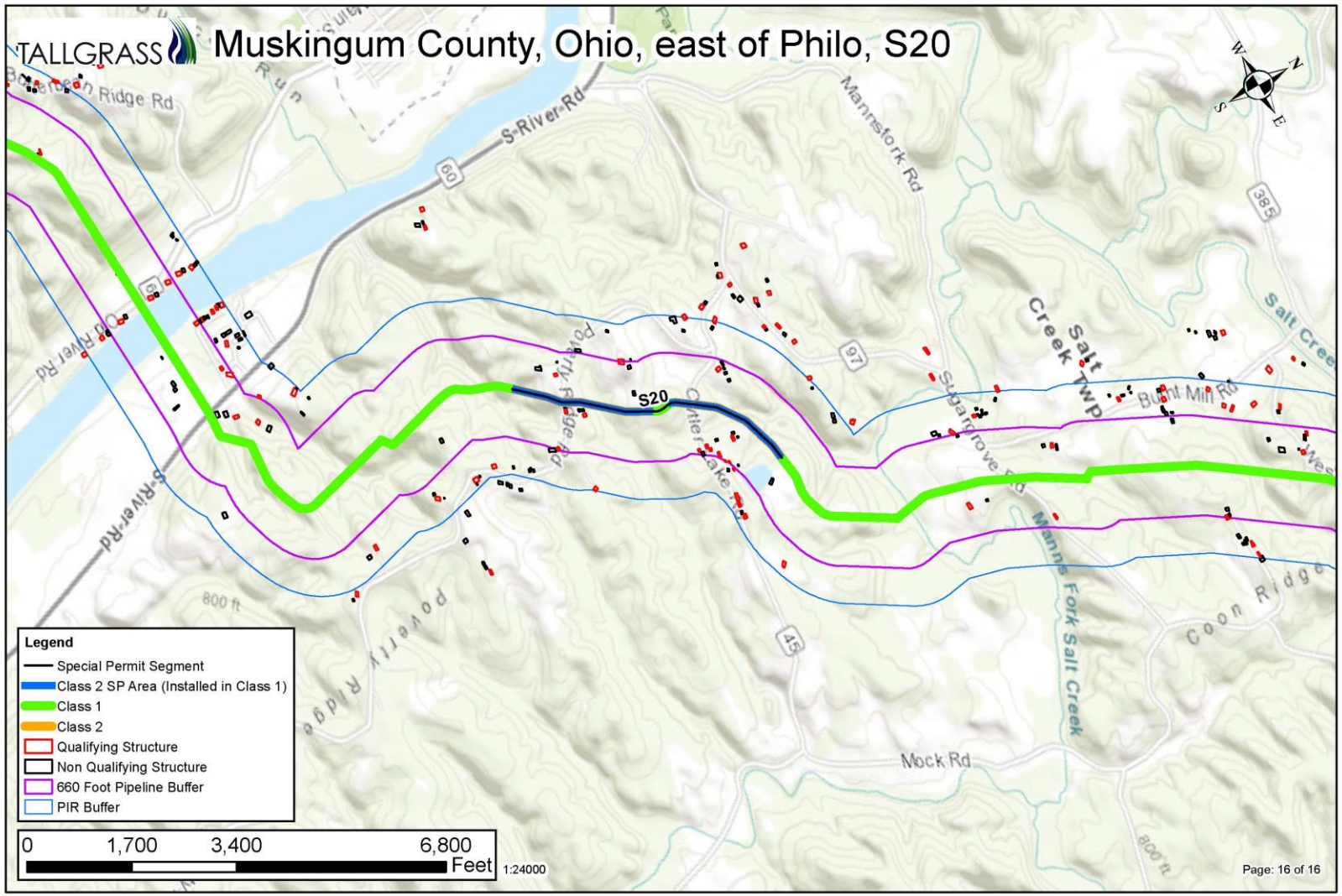
Attachment B-14 - Special Permit Segments – S17 and S18



Attachment B-15 - Special Permit Segment – S19



Attachment B-16 - Special Permit Segment – S20



Last Page of the DEA and FONSI