



ATTACHMENT A

Updated: Attachment B Proposed Project Variances and Land Use Acreage Impacts Associated with the Proposed Project Variances



Proposed Project Variances

Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
24-Inch Pipeline											
0.0R	Added new staging area	Constructability.	STLP-A-1 (1)	MMID 672	Yes	Agricultural	No – No additional survey was required.	Supplemental information provided to USACE 7/2/2018 (Pending)	No eligible resources (Archaeology 1/26/2017) / Yes (7/6/2017; 11/15/2017)	No species affected.	No
19.5	Relocated MLV Site 1 (from MP 15.7)	Landowner request.	STLP-A-022 STPL-A-023 (17)	MMID 313	Yes	Agricultural	No – No additional survey was required.	None required.	No eligible resources (Archaeology 1/26/2017) / Yes (7/6/2017; 11/15/2017)	No species affected.	No
35.2R	Access Road PAR-031 added to MLV Site 2	Landowner request.	STLP-A-040 STLP-A-041 (18)	MMID 1562	Yes	Open Land and Developed	No – Survey was completed June 2018. No features were identified.	Supplemental information provided to USACE 7/2/2018 (Pending)	No eligible resources (Archaeology 1/26/2017; Addendum VII 4/17/2018) / Yes (7/6/2017; 11/15/2017; 6/15/2018)	Biological Opinion (2/2/2018); Incidental Take Authorization (Pending)	No
35.2R	Relocated MLV Site 2 (from MP 34.7)	Landowner request.	STLP-A-040 STPL-A-041 (19)	MMID 1562	Yes	Open Land	No – No additional survey was required.	None required.	No eligible resources (Archaeology 1/26/2017) / Yes (7/6/2017; 11/15/2017)	Biological Opinion (2/2/2018); Incidental Take Authorization (Pending)	No
43.9 ⁴	Reduced west side of Staging Area-002.	Reduced area to coincide with survey corridor.	STLP-A-050 (3)	MMID 1715	Landowner permission not needed for	Open Land	No – No additional survey was required.	Supplemental information provided to USACE	Not Applicable	Not Applicable	No



Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
					reduction of workspace			1/12/2018 (Pending)			
44.6R3-45.1	Reroute.	Avoidance of sensitive environmental area.	STLP-A-051 STLP-A-052 (16)	MMID 1741	Yes	Forest and Open Land	Yes – Survey was completed January 2018. Reroute reduces impacts to PFO wetland WIL-JJP-148 by 0.35 acres, avoids intermittent stream SIL-JJP-201, avoids ephemeral streams SIL-JJP-207 and SIL-JJP-206, and crosses perennial stream SIL-WJW-011 at a narrower location. Reroute results in temporary impact to ephemeral stream SIL-JJP-211 and PUB wetland WIL-WJW-003.	Supplemental information provided to USACE 7/2/2018 (Pending)	No eligible resources (Addendum III 9/29/2017; Addendum VI 2/16/2018; Site 11JY801 Phase II 4/17/2018; Avoidance Plan Site 11JY789 4/17/2018; Avoidance Plan Site 11JY800 4/17/2018) / Yes (11/15/2017; 3/22/2018; 6/15/2018)	Biological Opinion (2/2/2018); Incidental Take Authorization (Pending)	Yes – See Table 5-1.
49.3-50.1R2	Reroute.	Minimize wetland impact.	STLP-A-056 STLP-A-057 STLP-A-058 (20)	MMID 937 MMID 1234 MMID 917	Yes	Agricultural, Open Land, Wetland, and Developed	Yes – Survey was completed in November 2017. Reduces impact	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum)	No species affected	No.



Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
							to PEM wetland WMO-JJP-012.				
49.8R2 ⁴	Split and removed a portion of ATWS-774 and reduced associated TWS. Split ATWS's are now 774 and 943. Added ATWS-942 and ATWS-944.	Updated based on November 2017 field surveys.	STLP-A-057 STLP-A-058 (4)	MMID 1234 MMID 917	Landowner permission not needed for reduction of workspace	Agricultural and Wetland	Yes – No additional survey was required. Maintains 50-foot offset from wetland and reduces construction right-of-way to 75 feet.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum IV 12/1/2017) / Yes (12/20/2017)	No species affected	No
49.9R2 ⁴	Split and removed a portion of ATWS-943 and reduced associated TWS. Split ATWS's are now 943 and 947. Added ATWS-945 and ATWS-946.	Updated based on November 2017 environmental field surveys.	STLP-A-057 STLP-A-058 (5)	MMID 917	Landowner permission not needed for reduction of workspace	Agricultural and Open Land	Yes - No additional survey was required. Maintains 50-foot offset from stream and reduces construction right-of-way to 75 feet.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum IV 12/1/2017) / Yes (12/20/2017)	No species affected	No
58.8R2 / Laclede/Lange Delivery Station	Shifted ATWS-938 north.	Increase to 50-foot offset from stream.	STLP-A-068 (6)	MMID 6433	No	Forest, Open Land, and Developed	No - No additional survey was required.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology 1/26/2017) / Yes (7/6/2017; 11/15/2017)	No additional survey was required; No species affected (10/26/2017)	No
North County Extension											
0.0R3-0.6R3 ⁵	Minor alignment/workspace modification 10' ±.	Parcel Rectification.	STLP-A-1001 (7)	MMID 6464 MMID 6126 MMID 6468 MMID 6372	Yes	Agricultural, Developed, Forest, and Open Land	Yes - No additional survey was required. Equivalent	Supplemental information provided to USACE	No eligible resources (Archaeology 1/26/2017;	No additional survey was required; No	No



Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
				MMID 6121 MMID 6374 MMID 6370 MMID 6107 MMID 6101			impacts to streams and wetlands.	1/12/2018 (Pending)	Addendum I 4/21/2017)/ Yes (7/28/2017; 9/18/2017)	species affected (10/26/2017)	
0.9 ⁴	Reduced TWS.	Reduce construction right-of-way at stream.	STLP-A-1002 (8)	MMID 6076	Landowner permission not needed for reduction of workspace	Forest	Yes - No additional survey was required. Reduces impacts to stream.	Supplemental information provided to USACE 1/12/2018 (Pending)	Not Applicable	Not Applicable	No
0.9-1.6 ⁵	Minor alignment/workspace modification 12' ±.	Parcel Rectification.	STLP-A-1002 (9)	MMID 6076 MMID 6073 MMID 6085 MMID 6071 MMID 6067 MMID 6058 MMID 6065 MMID 6064 MMID 6052 MMID 6066	Yes	Forest, Open Land, and Developed	Yes - No additional survey was required. Equivalent impacts to streams and wetlands.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum I 4/21/2017) / Yes (9/18/2017)	No additional survey was required; No species affected (10/26/2017)	No
2.6-2.7	Minor alignment/workspace modification 10' ±.	Constructability.	STLP-A-1003 (11)	MMID 6265 MMID 6296	Yes	Forest, Open Land, and Developed	No - No additional survey was required.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum II 7/14/2017; Addendum III 9/29/2017) / Yes (7/28/2017; 10/10/2017)	No species affected	No



Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
2.7-3.2 ⁵	Minor alignment/workspace modification 2' ±.	Parcel Rectification.	STLP-A-1003 STLP-A-1004 (12)	MMID 6296	Yes	Agricultural, Forest, and Developed	Yes - No additional survey was required. Equivalent impacts to streams and wetlands.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum III 9/29/2017) / Yes (10/10/2017)	No additional survey was required; No species affected (10/26/2017)	No
3.2-3.7	Minor alignment/workspace modification 30' ±.	Reverted to July Filing Route to avoid potential environmental impact.	STLP-A-1004 STLP-A-1005 (13)	MMID 6296	Yes	Agricultural and Forest	No - No additional survey was required. Avoids potential forested wetland.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum III 9/29/2017) / Yes (10/10/2017)	No additional survey was required; No species affected (10/26/2017)	No
3.9	Addition of access road TAR-030 (approximately 427 feet).	Constructability	STLP-A-1002 (10)	MMID 6296	Yes	Agricultural	No – No additional survey was required.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum III 9/29/2017) / Yes (10/10/2017)	No additional survey was required; No species affected (10/26/2017)	No
4.5-5.5 ⁵	Minor alignment/workspace modification 5' ±. Extend TAR-026 workspace and reduce TAR-027 workspace	Parcel Rectification. Revised to meet public road.	STLP-A-1005 STLP-A-1006 (14)	MMID 6535 MMID 6536 MMID 6541 MMID 6528 MMID 6529 MMID 6531 MMID 6530 MMID 3755	Yes	Agricultural, Open Land, and Developed	Yes - No additional survey was required. Equivalent impacts to streams and wetlands.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology Addendum I 4/21/2017; Addendum II 7/14/2017) / Yes (9/18/2017; 7/28/2017)	No additional survey was required; No species affected (10/26/2017)	No
5.8R2-6.0R	Route modification/ Workspace modification up to 115' ±	Constructability	STLP-A-1007 (21)	MMID 6509	No	Agricultural, Wetland, Open Land, Forest, and Developed	Yes – No additional survey was required. Two streams avoided.	Supplemental information provided to USACE 12/15/2018 (Pending)	No eligible resources (Archaeology 1/26/2017; Addendum I 4/21/2017) / Yes	No additional survey was required; No species affected (10/26/2017)	No



Facility and Approximate MP	Description of Change ¹	Justification	Drawing Number ² (Hexagon Number)	Tract ID	Landowner Approval	Existing Land Use	Wetlands or Waterbodies Impacted	Permits Obtained ² (Authorization Date)	Cultural Resources Impacted (Applicable Report & Submittal Date) / SHPO Clearance (Date) ³	Federal and State T&E Clearance (Date)	Deviation to FERC Plan or Procedures
									(7/28/2017; 9/18/2017)		
6.0R ⁵	Minor alignment/workspace modification 3' ±.	Parcel Rectification	STLP-A-1007 (15)	MMID 6509 MMID 6510 MMID 6508	Yes	Agricultural, Open Land, Forest, and Developed	Yes - No additional survey was required. Equivalent impacts to streams and wetlands.	Supplemental information provided to USACE 1/12/2018 (Pending)	No eligible resources (Archaeology 1/26/2017) / Yes (7/28/2017)	No additional survey was required; No species affected (10/26/2017)	No

Note:

- ¹ This table summarizes changes that have occurred since the supplemental information filed on October 6, 2017, and recognizes that three changes requested on October 6, 2017 were not included in the FERC Order. Changes smaller than ½ of the diameter of the pipeline (i.e., 12 inches) was not considered to be a change.
- ² Submittal listed is the most recent addendum provided to USACE that contains the impacts for the proposed Project change. See Table 1.6-1 in Attachment A for a complete list of submittals to USACE.
- ³ No impacts to architectural resources are proposed. For Illinois, architectural resource studies were provided to the IHPA on 1/26/2017, with concurrence provided 6/22/2017 and 11/15/2017. For Missouri, architectural resource studies were provided to the MO SHPO on 1/26/2017, 4/21/2017, and 11/14/2017, with concurrence dated 11/29/2017.
- ⁴ Spire is notifying FERC of these workspace changes; however, these are not considered variance requests as these are changes reducing workspace. These changes are reflected in the construction alignment sheets included in Attachment C.
- ⁵ Areas of parcel rectification.

Red text indicates changes since the submittal of Spire's Implementation Plan filed on August 13, 2018.



Land Use Acreage Impacts Associated with Proposed Project Variances^{-1,2}

Facility and Approximate MP	Description of Change	Change in Agricultural (acres)		Change in Open Land (acres)		Change in Forest (acres)		Change in Developed (acres)		Change in Wetland (acres)		Change in Open Water (acres)		Change in Totals (Acres) ³	
		Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.	Const.	Oper.
24-Inch Pipeline															
0.0R	Added new staging area	7.04	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	7.15	0.00
19.5	Relocated MLV Site 1 (from MP 15.7)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.2R	Access Road PAR-031 added to MLV Site 2	0.14	0.14	0.05	0.00	0.00	0.00	0.21	0.17	0.00	0.00	0.00	0.00	0.39	0.31
35.2R	Relocated MLV Site 2 (from MP 34.7)	0.03	0.03	-0.03	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.94	Reduced west side of Staging Area-002.	0.00	0.00	-0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.90	0.00
44.6R3-45.1	Reroute.	0.00	0.00	0.41	0.59	0.70	-0.43	-0.04	<0.01	-0.32	-0.01	-0.13	-0.07	0.61	0.08
49.3-50.1R2	Reroute.	3.94	1.91	-0.01	0.00	0.00	0.00	-0.01	0.00	-3.62	-1.95	0.00	0.00	0.31	-0.04
49.8R2	Split and removed a portion of ATWS-774 and reduced associated TWS. Split ATWS's are now 774 and 943. Added ATWS-942 and ATWS-944.	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<0.01	0.00	0.00	0.00	0.14	0.00
49.9R2	Split and removed a portion of ATWS-943 and reduced associated TWS. Split ATWS's are now 943 and 947. Added ATWS-945 and ATWS-946.	0.10	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00
58.8R2 / Laclede/Lange Delivery Station	Shifted ATWS-938 north.	0.00	0.00	<0.01	0.00	<0.01	0.00	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Subtotals for 24-Inch Pipeline³		11.39	2.08	-0.50	0.56	0.70	-0.43	0.28	0.17	-3.94	-1.96	-0.13	-0.07	7.81	0.34
North County Extension															
0.0R3-0.6R3 ⁴	Minor alignment/workspace modification 10' ±.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.94	Reduced TWS.	0.00	0.00	0.00	0.00	<0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<0.01	0.00
0.9-1.6 ⁴	Minor alignment/workspace modification 12' ±.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2.6-2.7	Minor alignment/workspace modification 10' ±.	-0.01	0.01	-0.03	<0.01	-0.02	-0.01	<0.01	0.01	0.00	0.00	0.00	0.00	-0.07	<0.01
2.7-3.2 ⁴	Minor alignment/workspace modification 2' ±.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3.2-3.7	Minor alignment/workspace modification 30' ±.	-0.12	0.91	-0.03	-0.03	-0.88	-0.88	0.00	0.00	0.00	0.00	0.00	0.00	-1.03	0.00
3.9	Addition of access road TAR-030 (approximately 427 feet).	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00
4.5-5.5 ⁴	Minor alignment/workspace modification 5' ±. Extend TAR-026 workspace and reduce TAR-027 workspace	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5.8R2-6.0R	Route modification/ Workspace modification up to 115' ±	-0.33	-0.10	0.01	-0.01	-0.16	-0.03	<0.01	<0.01	<0.01	<0.01	0.00	0.00	-0.49	-0.15
6.0R ⁴	Minor alignment/workspace modification 3' ±.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Subtotals for North County Extension³		-0.13	0.82	-0.05	-0.04	-1.05	-0.92	-0.01	<0.01	<0.01	<0.01	0.00	0.00	-1.24	-0.14
Project Totals³		11.27	2.90	-0.55	0.52	-0.36	-1.35	0.28	0.17	-3.94	-1.96	-0.13	-0.07	6.57	0.20



Note:

- ¹ Acreage changes were not provided for parcel rectifications. NA = Not Applicable.
- ² Land affected during construction is comprised of the 50-foot permanent easement and 40 feet of TWS, ATWS where applicable, or permanent easement for access road. Land affected during operation of the pipeline includes only the 50-foot permanent easement.
- ³ May not equal the sum of the row or column due to rounding.
- ⁴ Areas of parcel rectification.



ATTACHMENT B

Updated: Table 5-1 Variances to the FERC Plan and Procedures for Modification MP44.6-45.1



Table 5-1. Variances to the FERC Plan and Procedures for Modification MP44.6-45.1

Approximate MP ¹	ATWS ID	Feature ID (Type)	Description of Modification	Justification	Approximate Distance (feet) ²	Mitigation Measures for identified environmental features ³
44.8R3	ATWS-967	SIL-JJP-211 (Ephemeral)	ATWS within 50 feet of Stream	Constructability	0	Stream will be crossed within the ATWS. A crossing bridge will be placed over the stream channel to allow for the passage of construction equipment. Sediment barriers will be installed to prevent soil and debris from entering the adjacent waterbody.
44.9R3	ATWS-968	SIL-JJP-211 (Ephemeral)	ATWS within 50 feet of Stream	Constructability of HDD; Temporary culvert will be used to minimize impact.	0	If the stream has perceptible flow during construction, a temporary culvert consisting of appropriately sized piping will be placed within the stream channel to allow unrestricted flow. Wooden matting and geotech fabric will be installed on top of the culverts. This area will be utilized as ATWS for spoil storage and construction equipment passage. This location is the flattest area between areas of sloping terrain to the north and south and avoids potential environmental resources to the south towards the Mississippi River, therefore, the ATWS cannot be moved to avoid these features.
44.9R3	ATWS-968	SIL-WJW-011 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD; Temporary culvert will be used to minimize impact.	0	
44.9R3	ATWS-967	SIL-WJW-011 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD	34	ATWS is located within 50 feet of the stream and is necessary for construction. ATWS-967 will not directly impact this feature at this location.



Approximate MP ¹	ATWS ID	Feature ID (Type)	Description of Modification	Justification	Approximate Distance (feet) ²	Mitigation Measures for identified environmental features ³
44.9R3	ATWS-970	SIL-WJW-011 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD	0	Stream will be crossed within the ATWS. A crossing bridge will be placed over the stream channel to allow for the passage of construction equipment. Sediment barriers will be installed to prevent soil and debris from entering the waterbody.
44.9R3	ATWS-970	SIL-JJP-203 (Intermittent)	ATWS within 50 feet of Stream	Constructability of HDD	0	
45.0R3	ATWS-970	SIL-WJW-011 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD	3	ATWS is located within 50 feet of the stream and is necessary for construction. ATWS-970 parallels this feature but will not directly impact the feature at this location. Sediment barriers will be installed as necessary to protect the adjacent feature.
45.1R3	ATWS-970	SIL-WJW-011 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD	15	
45.1R3	ATWS-970	SIL-JJP-200 (Perennial)	ATWS within 50 feet of Stream	Constructability of HDD	0	Stream will be crossed within the ATWS. A crossing bridge will be placed over the stream channel to allow for the passage of construction equipment. Sediment barriers will be installed to prevent soil and debris from entering the waterbody.
45.1R3	ATWS-970	SIL-JJP-202 (Ephemeral)	ATWS within 50 feet of Stream	Constructability of HDD	7	ATWS is located within 50 feet of the stream and is necessary for construction. ATWS-970 will not directly impact this feature at this location. Sediment barriers will be installed as necessary to protect the adjacent feature.
45.0R3	ATWS-970	WIL-JJP-148 (PFO)	ATWS within 50 feet of Wetland	Constructability of HDD	0	A small portion of WIL-JJP-148 will be cleared and utilized as ATWS in this location. A proposed temporary retaining wall/access road will extend along the perimeter of this ATWS.



Approximate MP ¹	ATWS ID	Feature ID (Type)	Description of Modification	Justification	Approximate Distance (feet) ²	Mitigation Measures for identified environmental features ³
45.1R3	ATWS-970	WIL-JJP-148 (PFO)	ATWS within 50 feet of Wetland	Constructability of HDD	0	A small portion of WIL-JJP-148 will be cleared and utilized as ATWS in this location to allow construction equipment to enter from State Route 100.

Notes:

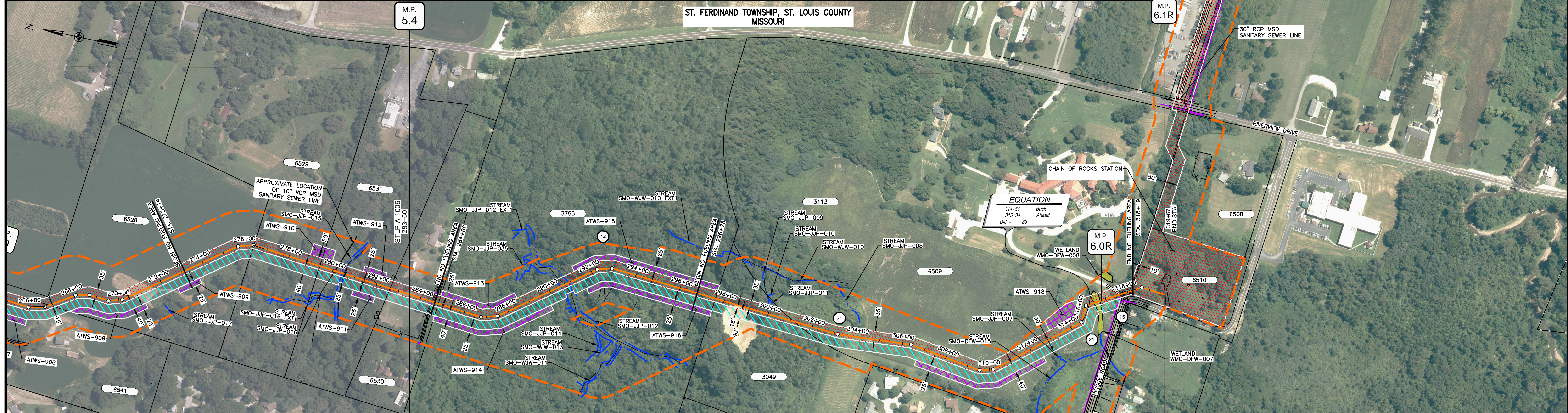
- ¹ Milepost based on nearest point between ATWS and pipeline where encroachment within 50' buffer occurs.
- ² Approximate distance rounded to the nearest foot.
- ³ Spire will adhere to the FERC Plan and Procedures and install sediment barriers along the limits of disturbance where necessary and where workspace is adjacent to streams and wetlands to prevent soil and debris from migrating into the features.

Red text indicates changes since the submittal of Spire's Implementation Plan filed on August 13, 2018.

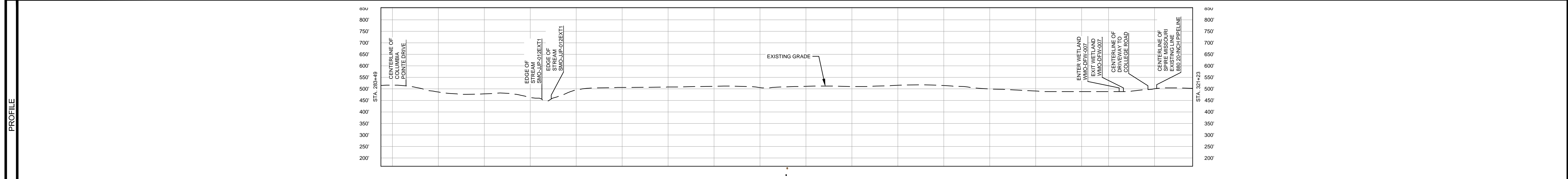


ATTACHMENT C
Revised Alignment Sheet
Chain of Rocks Facility

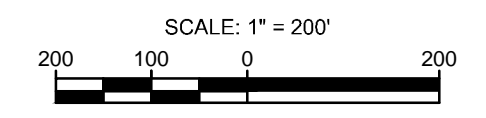
OWNERSHIP / FOOTAGE	6530 880L-043.00 PAVLOVITS 131'	3755 880L-044.00 SOCIAL BETTERMENT PROPERTIES 1279'	3049 880L-045.00 COLEMAN REALTY 355'	6529 880L-047.00 SOCIAL BETTERMENT PROPERTIES 1576'	PRIGGE ROAD	6509 880L-047.00 SOCIAL BETTERMENT PROPERTIES 22'	6510 880L-048.00 SPIRE 148'
STATIONING	283+50 284+81 284+81 284+81 284+81 284+81	290+00 290+17 290+17 290+17 290+17 290+17	301+15 301+15 301+15 301+15 301+15 301+15	317+74 317+74 317+74 317+74 317+74 317+74	317+74 317+74 317+74 317+74 317+74 317+74	317+74 317+74 317+74 317+74 317+74 317+74	318+19 318+19 318+19 318+19 318+19 318+19



CLASS LOCATION/MAOP	CLASS III / 1440 PSIG						
MATERIAL & COATING	3192' (3) 194' (2) 101' (3) 47' (REF)						
DESIGN FACTOR	0.5						
CONSTRUCTION METHOD	OPEN CUT (FLUMED)			OPEN CUT			BORE
PIPELINE COVER	5' MIN						
SOILS	60003		60005		60165		60003
LAND USE	AG	F	D	F	OW	F	OL



- NOTES:
 1. THE IMAGERY SHOWN WAS PROVIDED BY AERIAL DATA SERVICES, 2016. ADDITIONAL IMAGERY SUPPLEMENTED FROM USFWS-NWI AND USGS.
 2. EXISTING FEATURES SHOWN WERE SURVEYED BY MOTT MACDONALD AND DIGITIZED FROM IMAGERY. ALL LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.



MATERIAL		REFERENCE DRAWINGS		REVISIONS				APPROVALS		PREPARED FOR Spire STL Pipeline	SPIRE STL PIPELINE PROJECT	
TAG	QUANTITY	DESCRIPTION	DWG. NO.	TITLE	NO.	REVISIONS	DATE	DRAWN	CK		APPR	DRAWN BY
2	194'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE/ARO COATED	STLP-SS-004	ENABLE MRT CHAIN OF ROCKS STATION SITE PLAN	2	AMENDMENT TO FERC	04/2017	KAM	WH	DGG	DP	07/2017
3	3293'	PIPE, 24.000" OD X 0.500" WT, API-5L, X70, DSAW, FBE COATED			3	FERC SUPPLEMENTAL FILING	07/2017	KAM	RJP	DGG	CHECKED BY	DATE
21	3	ELL, 24.000" OD X 0.500" WT, 3DR, WPHY70, FBE COATED			4	FERC SUPPLEMENTAL FILING	10/2017	DP	RJP	DGG	RJP	07/2017
REF	47'	SEE REFERENCE DETAIL DRAWING			5	ISSUED FOR IMPLEMENTATION PLAN	05/2018	RJR	RJP	DGG	ENG. APPROVAL	DATE
											DGG	07/2017
											P.M. APPROVAL	DATE
											JEW	07/2017

SCALE PLAN: 1" = 200'	SCALE PROFILE H: 1" = 200'	SCALE PROFILE V: 1" = 200'
CLIENT APPROVAL	DATE	
PREPARED BY	DATE	
M M MOTT MACDONALD		REVISION
SCALE: 1" = 200'	DRAWING NO.: STLP-A-1007A	REVISION: 5