Appendix E

Disturbed Area Calculations

Calculations

MP 8/6/15

Disturbed Area Calculations

Total Area = ROW + Support Facilities
(Public / Private) (decking, access roads, laydown, splicing sites)

Disturbed Areas include:

- New Access Road const
- laydown yards -
- each structure site work area

Total Area Calculation as per EIS (pg 2-3)

100ft wide Public - $53.9 \text{ miles} \times \frac{5280 \text{ ft}}{1 \text{ mile}} \times 100 \text{ ft} \times \frac{1 \text{ ac}}{43560 \text{ ft}^2} = 6533 \text{ acres}$

125ft wide Private - $90 \text{ miles} \times \frac{5280 \text{ ft}}{1 \text{ mi}} \times 225 \text{ ft} \times \frac{1 \text{ ac}}{43,560 \text{ ft}^2} = 2454.5 \text{ acres}$

3108 acres ROW

Support facilities:

Laydown: 24 acres | 3, 8-acre laydown yards (one already graveled) — Peabody, Christensen, Turkey Track, Durham
2.20 | 1, established yard Osage 2.20 acres

26.2 acres

Splicing: done in ROW

decking 44 sites x 2.5 acre/location = 110 acres

Total area = 3108 + 26.2 + 110 = 3244 acres

MP 8/6/15

Disturbed Area Calculations 14.64 ac Wy
Wy = 638 SD = 400 (est) 9.18 ac SD

Structures: 20'x50' (est.) x 1038 # of structures = 23.83 acres
20 x 50 x 1,038 ÷ 43560

laydown yards: 2 X 8 acre = 16 acres =
+ Osage 2.20 ac = 18.20 ac

1 graveled laydowns likely not disturbed (mowed at most)

access roads: All are existing. Gravel or stabilized surface. No disturbance.

ROW roads: Two track roads. Overland route. Minimal grading needed. disturbed area in structure calculations should also cover ROW road grading. No disturbance

23.8 + 18.2 = Total disturbed = 42 Acres Approx. 32.8 ac Wy 9.2 ac SD

Area disturbed calcs based on project info as of 8/6/15. Subject to change and design build infield.

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Tecktla - Osage - Rapid City 230 kV Disturbed Area Calculations

Revised 6/29/16

South Dakota portion:

Assume worst case scenario @ each structure to account for unforseen minor pad leveling

SD: Penn county 284 structures total assume 20' x 50' Area pad

Structures: 284 x 1000 sqft = 284,000 sqft = 6.52 acres

includes incidental leveling, & minor access to structure

Temporary
New Access Roads: not included above

Access to Structures 875, 876

Temp. Two track Road: 14' max wide grading x 4000 ft long

14' x 4000' = 56,000 sq ft

= 1.29 acres

Structures 791, 792 access

Temp. Two Track Road: 14' max x 3000 = 42,000 sqft

= 0.96 acres

Worst case scenario = 8.77 acres estimated

6/29/16