

Attachment C – PowerPoint Presentation



PANHANDLE TELECOMMUNICATION SYSTEMS, INC. (PTSI)

D/B/A PANHANDLE TELEPHONE COOPERATIVE, INC. (PTCI)

EX PARTE

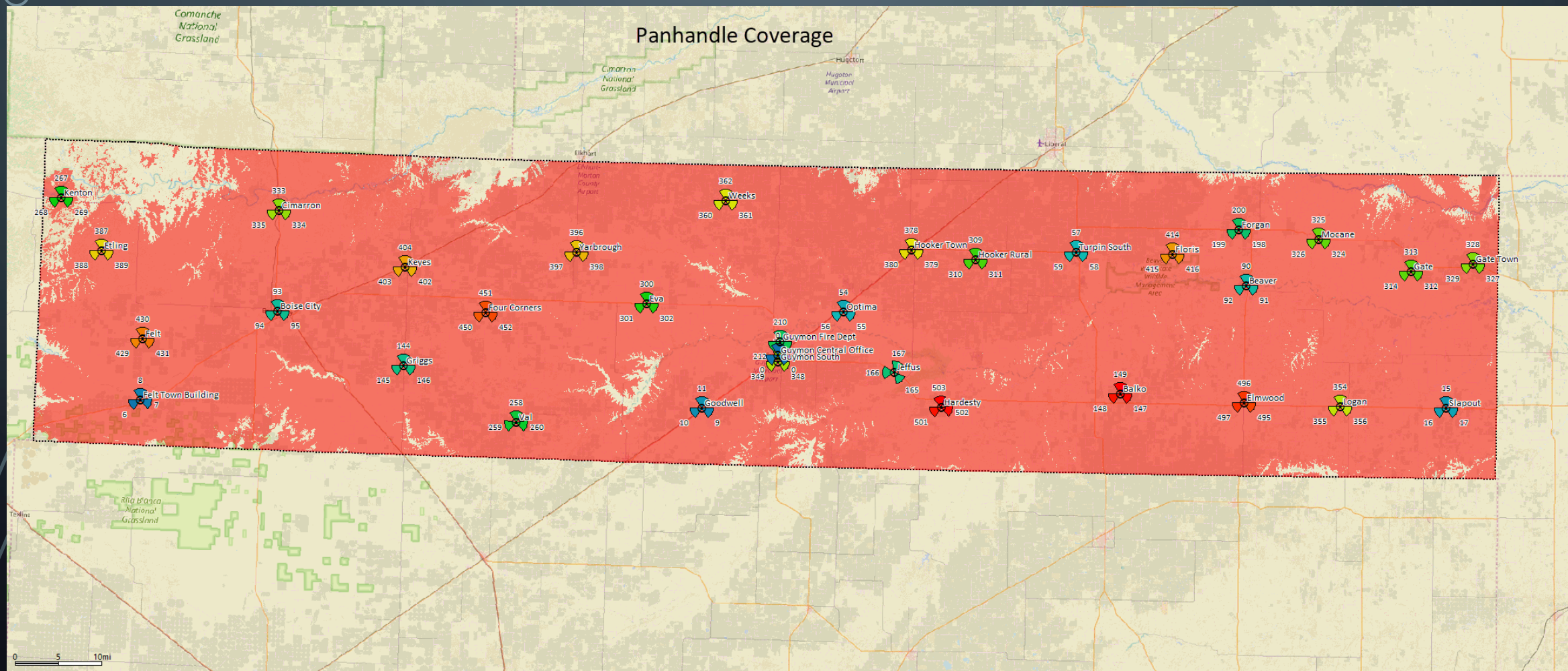
APRIL 18, 2018



TOPICS

- Concerns regarding overstated unsubsidized coverage remain.
- The square kilometer requirement combined with inaccessible “roads” on private property make it nearly impossible to challenge that coverage.
 - The uniform square kilometer grid with quarter kilometer buffer area disqualifies most rural geography from being effectively challenged.
 - Area where the challenge process assumes square kilometer tests can be driven are really not accessible because they reside on private property.
- Grant of RWA’s Application for Review is critical to ensuring the ability of prospective challengers to mount challenges where necessary.

COVERAGE FILED BY PTCI



CONCERNS REGARDING OVERSTATED UNSUBSIDIZED COVERAGE REMAIN

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Source: <https://www.att.com/maps/reseller.html>

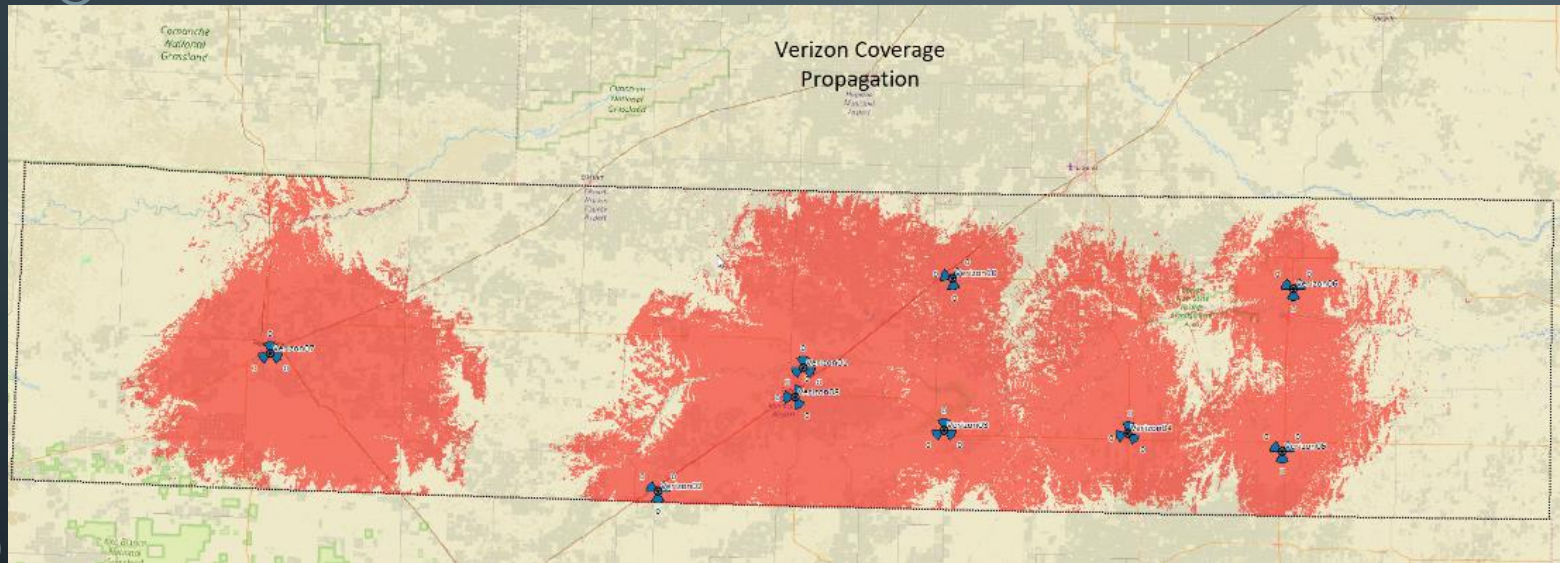


Source: <https://www.verizonwireless.com/featured/better-matters/>

CONCERNS REGARDING OVERSTATED UNSUBSIDIZED COVERAGE REMAIN

- PTCI has studied Verizon's coverage in Oklahoma panhandle for years
- Number of Cell sites in Oklahoma Panhandle
 - PTCI = 38
 - Verizon = 9
- PTCI had Professional RF Engineer estimate Verizon coverage 3 years ago with knowledge of:
 - Cell site locations
 - Verizon Spectrum
 - Assumed height/placement on towers
 - Assumed uplink – Customer Experience
- No towers added in 3 years

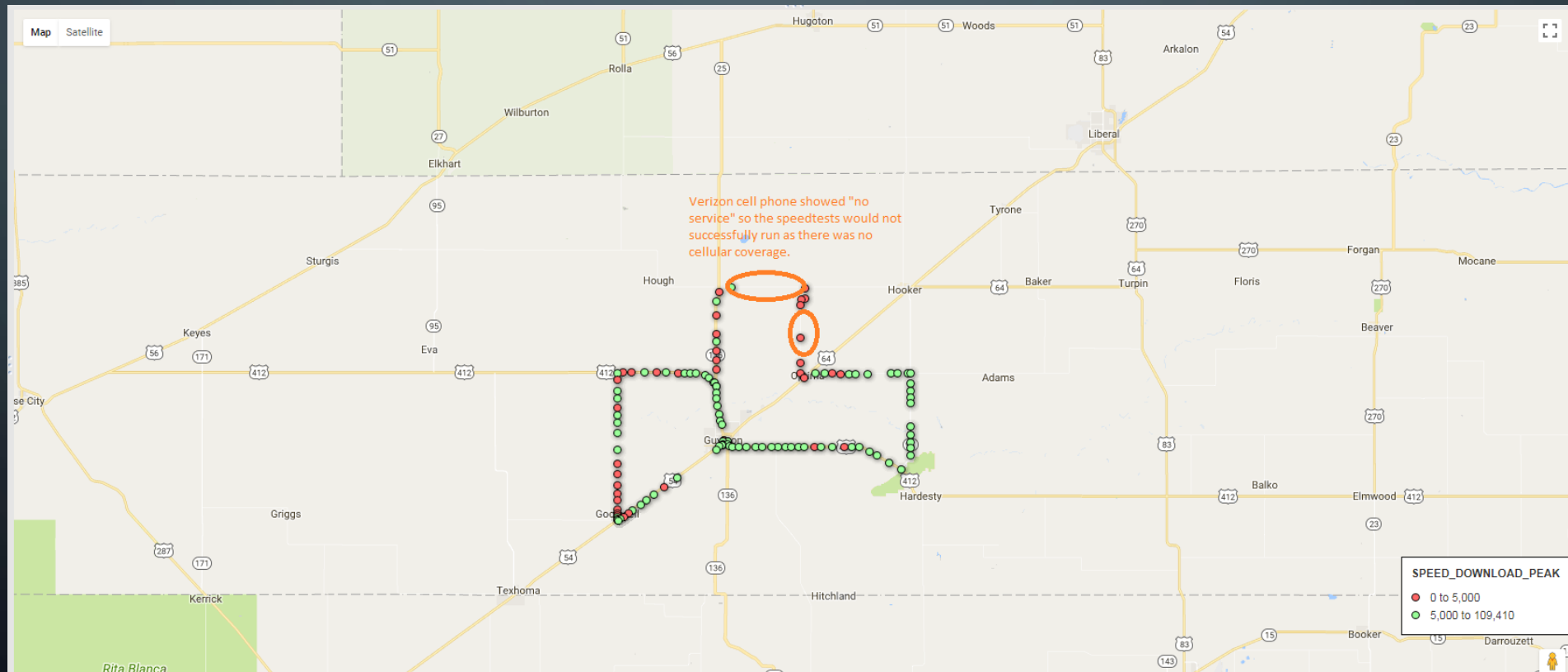
CONCERNS REGARDING OVERSTATED UNSUBSIDIZED COVERAGE REMAIN



- Oklahoma Panhandle has a total of 14,778.47 KM²
- RF Engineer Estimate of VZW Coverage (using publicly available information) totals 6806.49 KM² (47.82% of what VZW posts on their website)

Q4, 2017 – PRE-CHALLENGE DRIVE TEST

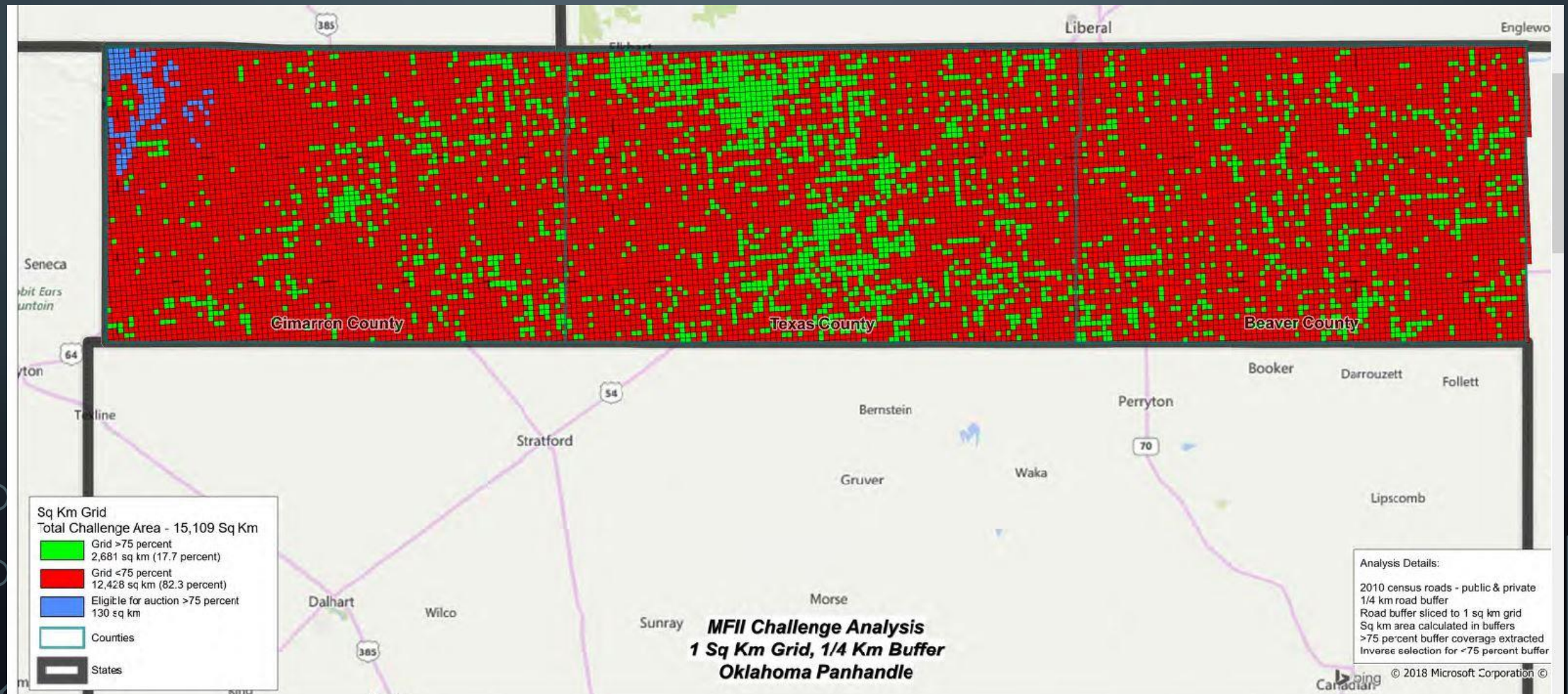
- Completed Drive Test with FCC 5 Mbps Down standard using Verizon cellular service with iPhone 8



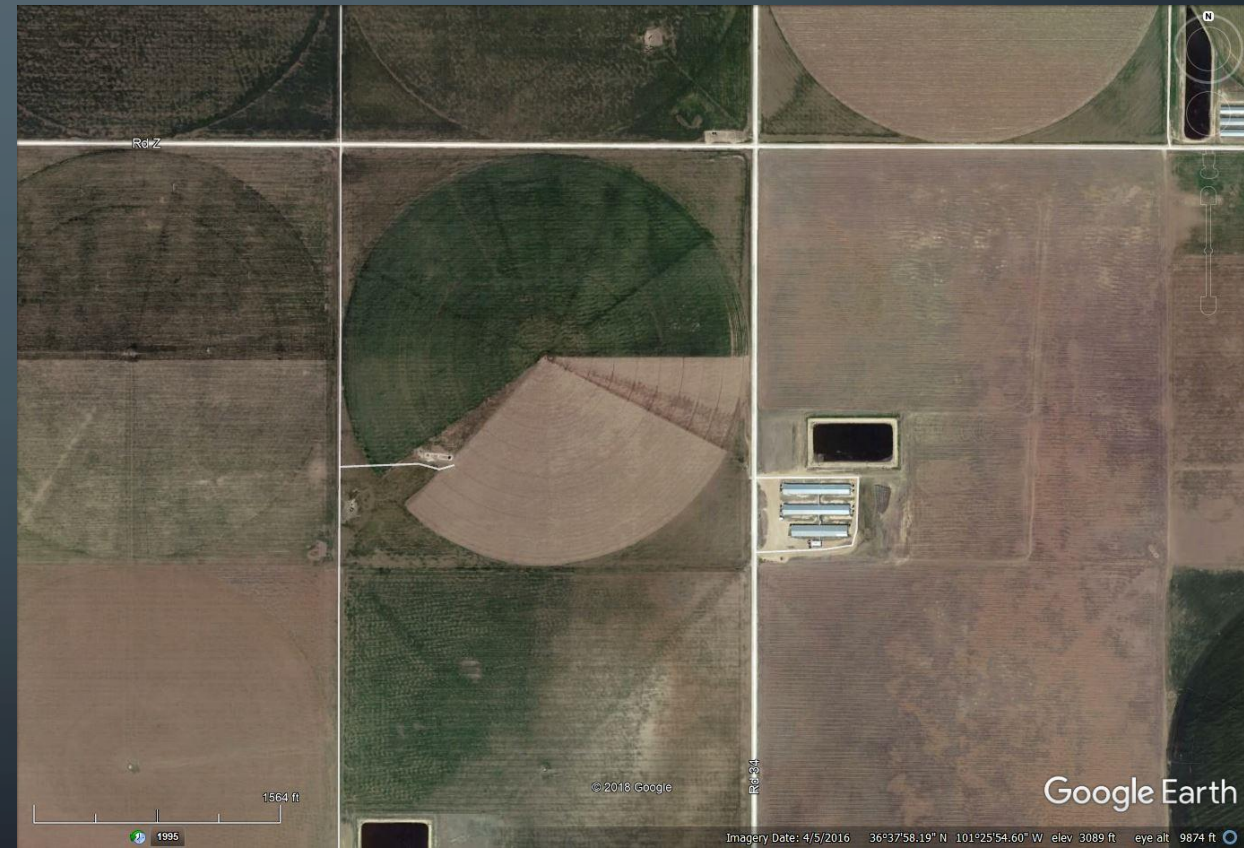
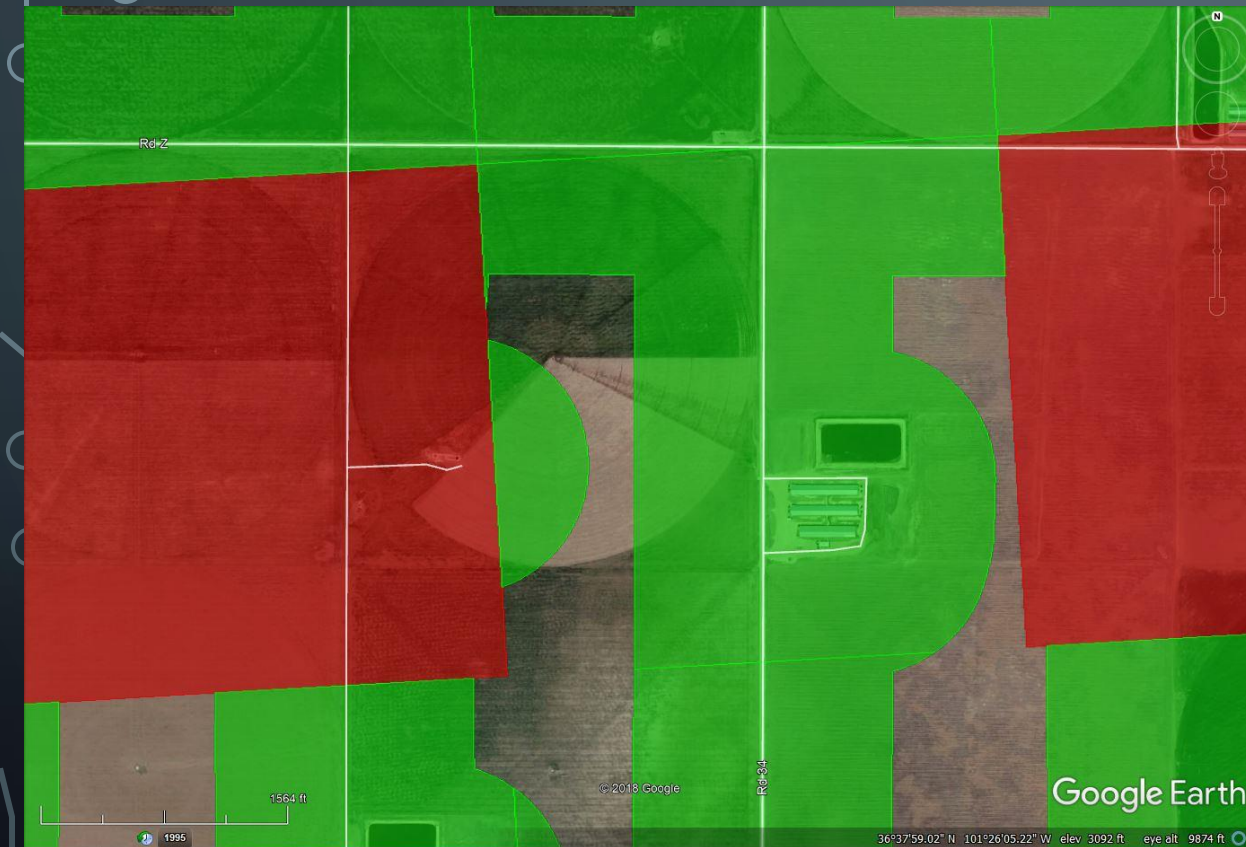
SQUARE KILOMETER CHALLENGE GRID ISSUES

- Most of the roads in the Oklahoma Panhandle are set up in a 1 mile grid pattern
 - This makes it very difficult to have enough drivable roads to pass the 75% criterion set by the FCC in in the Mobility Fund Phase II challenge process
- The following maps depict examples of these complications.
 - The 1 kilometer grid pattern has been applied, with the $\frac{1}{4}$ kilometer buffer
 - Green areas pass the 75% criterion using “roads” in Google Earth
 - Many of the areas on these maps that show to pass the 75% criterion required by the challenge process do so by using dirt paths on private property, not public roadways
 - Red areas do not pass the 75% criterion

RED AREAS CAN'T BE CHALLENGED DUE TO SQUARE KILOMETER GRID PARAMETERS

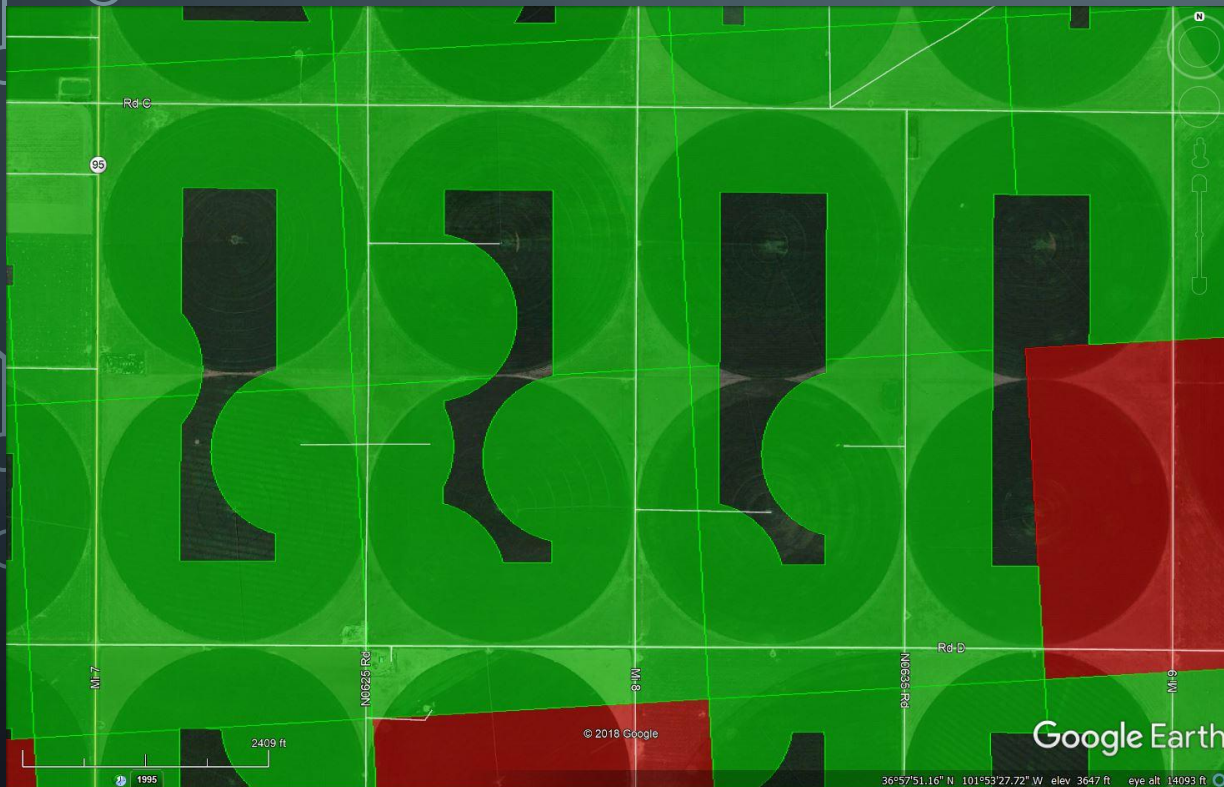


ASSUMED ROADS ARE NOT ACCESSIBLE FOR DRIVE TEST CHALLENGES



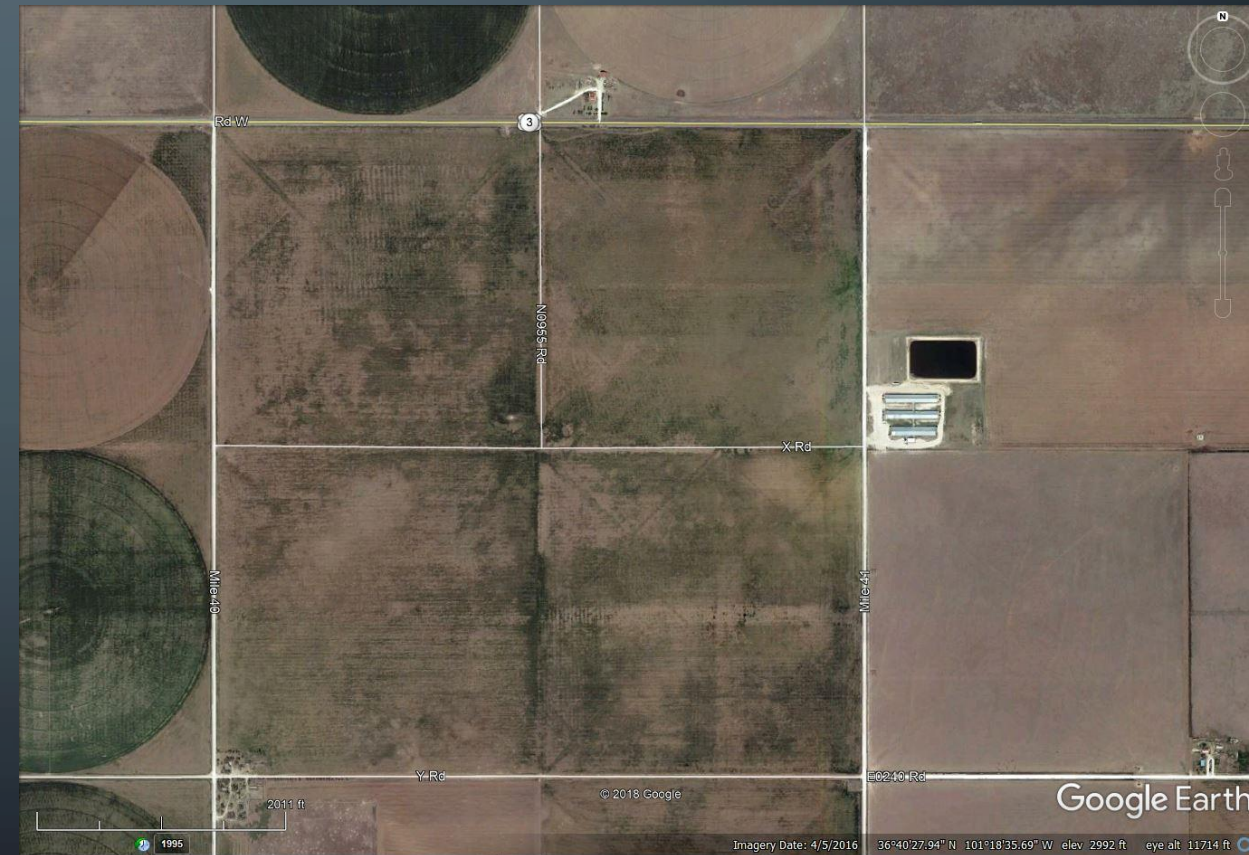
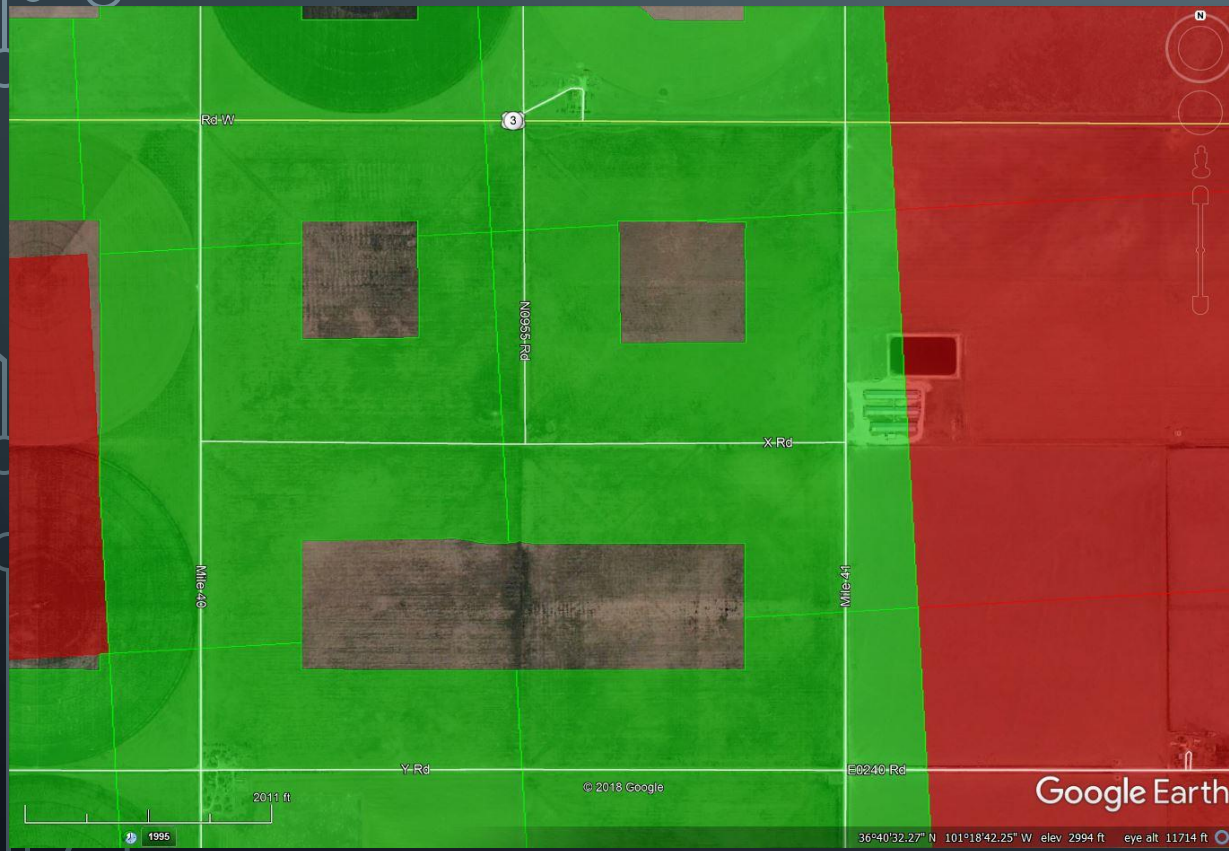
- Dirt Paths through Center Pivot Irrigation Fields and Driveways through Hog Containment Centers are private property
- Mobile data necessary for precision agriculture, animal welfare at Hog Containment Centers, as well as employees in the field

ASSUMED ROADS ARE NOT ACCESSIBLE FOR DRIVE TEST CHALLENGES



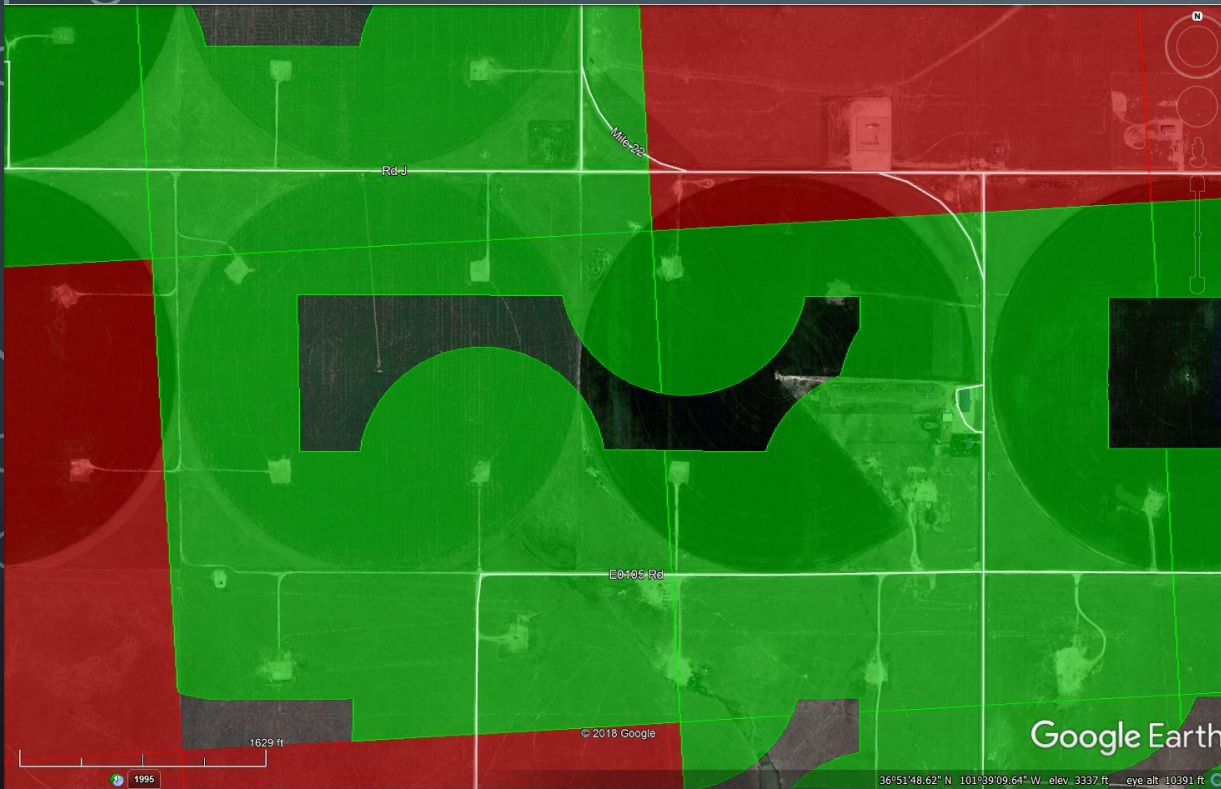
- Dirt Paths to access Center Pivot Irrigation Fields are private property/not public roads
- Reliable cellular network necessary for precision agriculture & public safety

ASSUMED ROADS ARE NOT ACCESSIBLE FOR DRIVE TEST CHALLENGES



- Jeep tracks through dry land farming operations are private property/not public access roads
- Reliable cellular network necessary for precision agriculture, animal welfare, & public safety

ASSUMED ROADS ARE NOT ACCESSIBLE FOR DRIVE TEST CHALLENGES



- Dirt Paths to Oil and Gas Wells are private property/not Public access roads
- Reliable cellular network necessary for precision agriculture, oil & gas well monitoring, & public safety

ASSUMED ROADS ARE NOT ACCESSIBLE FOR DRIVE TEST CHALLENGES



- Dirt Paths to access wind turbines are private property/not public access roads
- Reliable cellular network necessary for precision agriculture, wind energy monitoring, animal welfare, & public safety

CONCLUSIONS

- Concerns regarding overstated unsubsidized coverage remain.
- The square kilometer issue and inaccessible private “roads” make it nearly impossible to challenge such coverage.
- Square kilometer parameter disqualifies massive portions of western rural America from being challenged.
- Even areas presumed challengeable are inaccessible.
- Grant of RWA’s Application for Review is critical to ensuring the ability of prospective challengers to mount challenges where necessary.