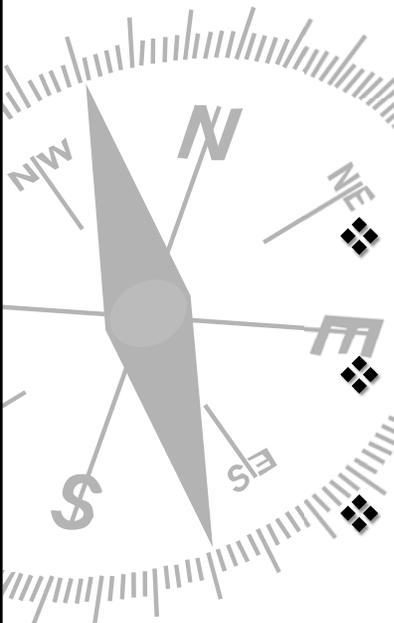


Map No. 92337 – Section 4407 Easements

- Contract: June 2016 - DOT South Coast/R&M, Inc. for review of "Section 4407 Easement Maps" - My focus: As a PLS, Mapper, Engineering Technician & ROW Professional
- Subject: Section 4407 of 2005 SAFETEA-LU – Federal Highway bill Intended to exchange ROW/easements between FS and SOA
 - ❖ Log Transfer Facilities & Marine Access Points over State owned tidelands to provide access to FS properties/infrastructure for linear Transportation and Utility Corridor ROW over FS lands to connect the communities of SE Alaska with surface transportation and utilities
 - ❖ Sec. 4407 referenced Map No. 92337 identifying easements and sites to be exchanged
 - ❖ Map No. 92337 published at an approximate scale of 1:754,286 or 1" = 12 Miles
 - ❖ Map coverage from Yakutat to Prince Rupert



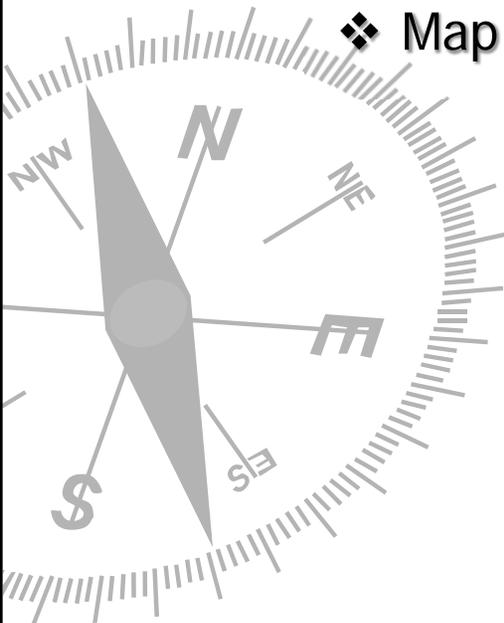
Map No. 92337 – Section 4407 Easements

- Implementation: Sept. 2006: DOT/DNR/FS enter into MOU –
 - ❖ Paragraph D1/D2 Easement "bootstrap" process
 - ❖ D1 Easement – 50 year/300-foot wide for planning/engineering/environmental activities anywhere within the identified sections. These section lines can be readily located on the ground by legal real property location survey methods. (Preliminary right of entry permit for design, geotech, surveys, etc.)
 - ❖ D2 Easement - 55 year/300-foot wide feet prior to construction based on a survey. (Intended to be post design, as-advertised alignment and final ROW definition)



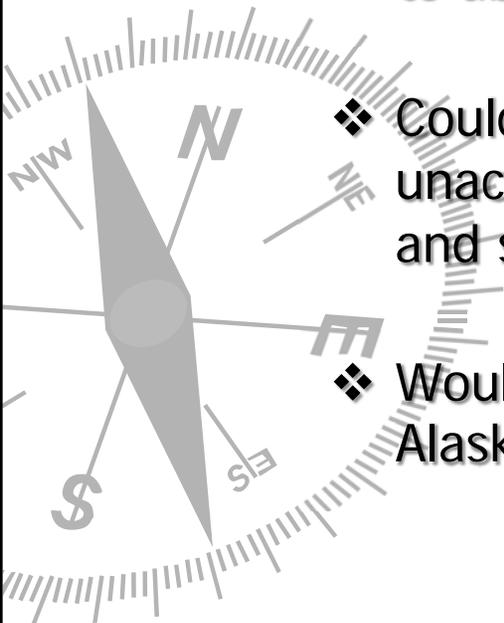
Map No. 92337 – Section 4407 Easements

- FS Position: FS “Talking Points” paper asserts that –
 - ❖ Lines shown on Map No. 92337 represent the Congressional intent, and the absolute fixed legal descriptions of D1 & D2 easement centerlines can be found with USFS’s GIS data used to draw Map 92337.
 - ❖ Map No. 92337 can be georeferenced to improve its accuracy.



Map No. 92337 – Section 4407 Easements

- AKDOT Position: Locating a road centerline based on absolute Map No. 92337 positions –
 - ❖ Would be inappropriate for engineering design and centerline location.
 - ❖ Would be contrary to established engineering principles and lead to absurd results.
 - ❖ Could result in an alignment that traverses lands with unacceptable slopes, poor soils environmentally sensitive areas and significant bodies of water.
 - ❖ Would defeat Congressional intent to connect communities of SE Alaska.

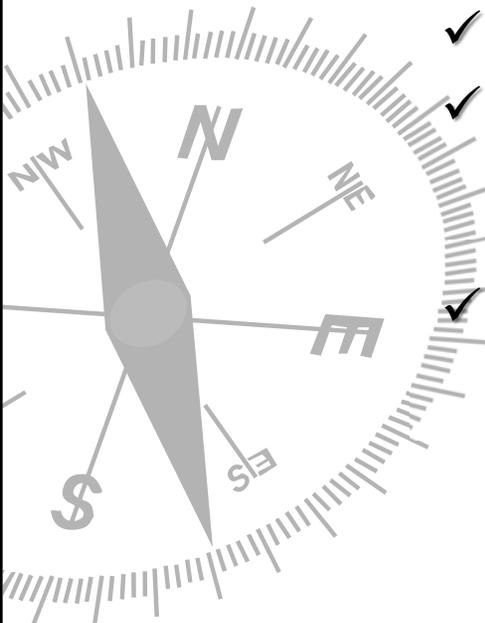


Map No. 92337 – Section 4407 Easements

- Mapping Standards (Covered by T. Heinrichs)
- Legislative Mapping: Crude maps may serve legislative purpose –

❖ ANILCA

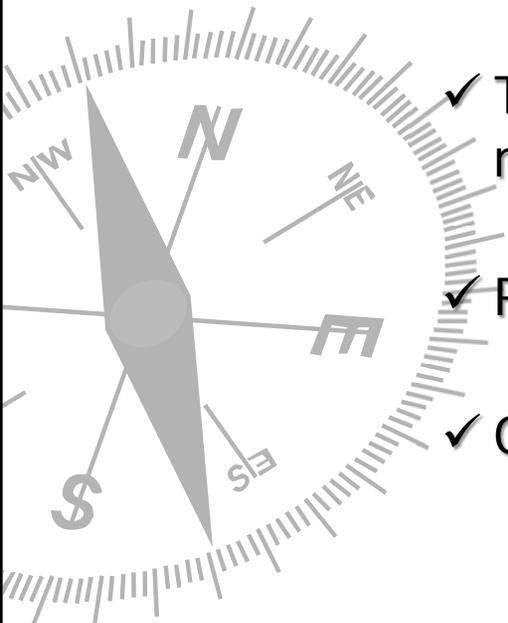
- ✓ ANILCA Maps described geographic boundaries of conservation system units
- ✓ Thick tape outlines on 1:250,000 maps
- ✓ Actual boundaries controlled by "hydrographic divides" or other "topographic or natural features." (See ANILCA Section 103(a))
- ✓ Boundary definition subject to public lands (protect valid existing rights)



Map No. 92337 – Section 4407 Easements

❖ ANCSA

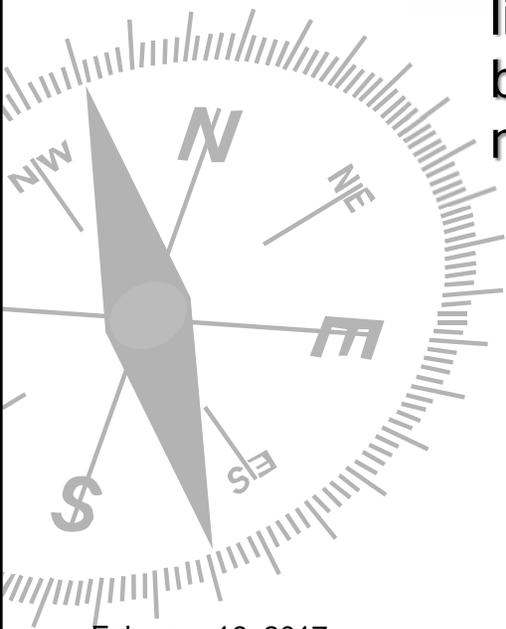
- ✓ 17(b) easement through ANCSA lands to public lands
- ✓ Maps not a part of legislation but intended to implement legislation
- ✓ 17(b) easements have limited scope of use
- ✓ Trail alignment may not currently exist, mapped alignment may be approximate
- ✓ Reasonable alignment may require adjustment
- ✓ Generally not required to meet highway design standards



Map No. 92337 – Section 4407 Easements

❖ Forest Service Policy (2011 – Current?)

- ✓ FSM 1500 – External Relations; Ch 1510 – Legislative Affairs; 1517 - Legislative Maps
- ✓ "Prior to passage of legislation by the Congress, ensure that the accompanying Legislative Map is reviewed by a state-licensed professional land surveyor to verify that proposed boundaries can be legally described and marked as necessary."

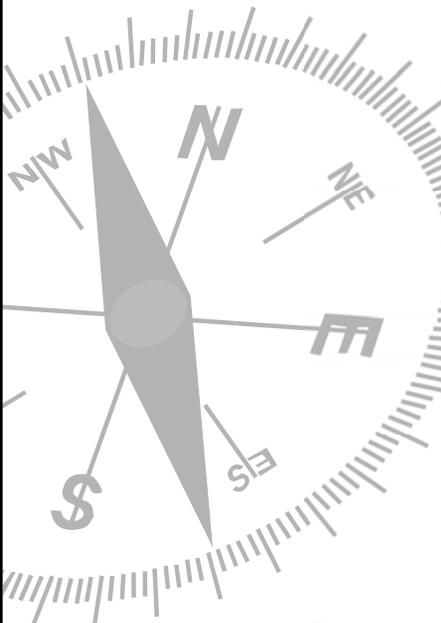


Map No. 92337 – Section 4407 Easements

➤ Route Location

- ❖ Can a Transportation/Utility alignment be located without a preliminary survey?

- ❖ Route location is a function of and adjustments are made based on:
 - ✓ Terminal points, areas of economic development
 - ✓ Grades
 - ✓ Soils & Geology
 - ✓ Cut & Fill
 - ✓ Hydrology/Drainage – Bridges/culverts
 - ✓ Material source availability
 - ✓ Existing land rights (inholdings, allotments, certain government properties)
 - ✓ Environmentally sensitive lands (wetlands, vegetation, fish habitat, birds, mammals, endangered species, cultural resources)



Map No. 92337 – Section 4407 Easements

- ❖ Existing mapping & photography provide a good start for Office Location

 - ✓ USGS Quads, contour mapping

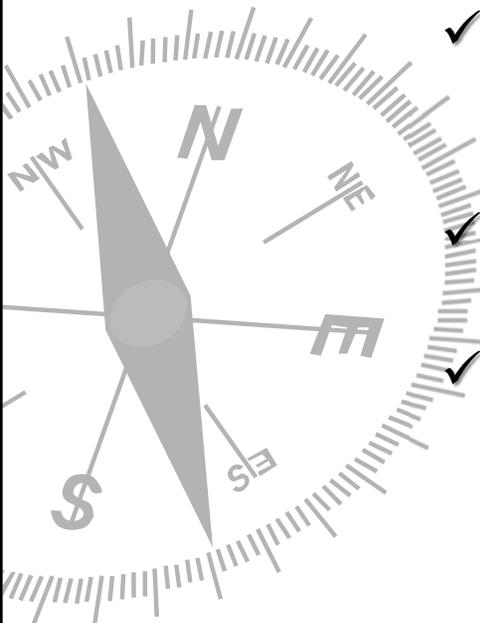
 - ✓ GIS, DTM, satellite/aerial imagery

- ❖ FS Road Preconstruction Handbook –

 - ✓ Objective: "To identify, on the ground, the location of a road that best satisfies the design criteria and Road Management Objectives."

 - ✓ Field Location: "Choosing the correct location is the most important part of road construction..."

 - ✓ "A properly located road will result in lower costs, fewer maintenance problems, and reduced environmental impacts."



Map No. 92337 – Section 4407 Easements

➤ Conclusion

- ❖ FS unreasonably suggests that it was the intent of Congress to absolutely fix the final centerline for the TUC corridors as presented on Map No. 92337 without regard to “any positional inaccuracy that may inherently be contained in the map.”
- ❖ We conclude that the reasonable position is that the congressional intent for Map No. 92337 is to provide a general location for the TUC centerlines that would be refined by surveys and other engineering studies until a final alignment was reached that met the design controls and environmental constraints.

