

**U.S. Geological Survey
Broad Agency Announcement (BAA) for 3D Elevation Program (3DEP)
140G0118R0037, G18AS00078**

Attachment B

Instructions for Conversion of Project Boundary to the 3DEP National Indexing Scheme

For background information on the 3DEP National Indexing Scheme, see the fact sheet available at: <https://pubs.er.usgs.gov/publication/fs20173073>

3DEP lidar data collection within the lower 49 states will be coordinated by using an Albers Equal Area 1km x 1km indexing schema. The boundaries of all BAA projects must be:

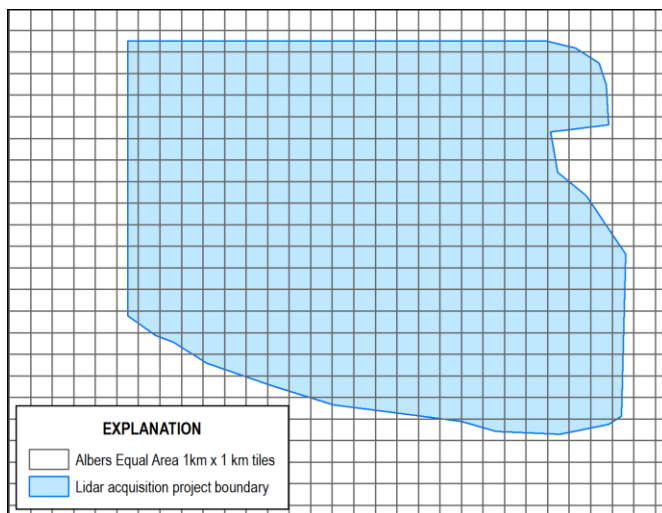
1. Converted to conform to the Albers Equal Area projection
2. Extended to complete all 1km x 1km tiles that intersect the project boundary buffered by 100 meters.

I. Download the National Indexing Scheme geospatial data:

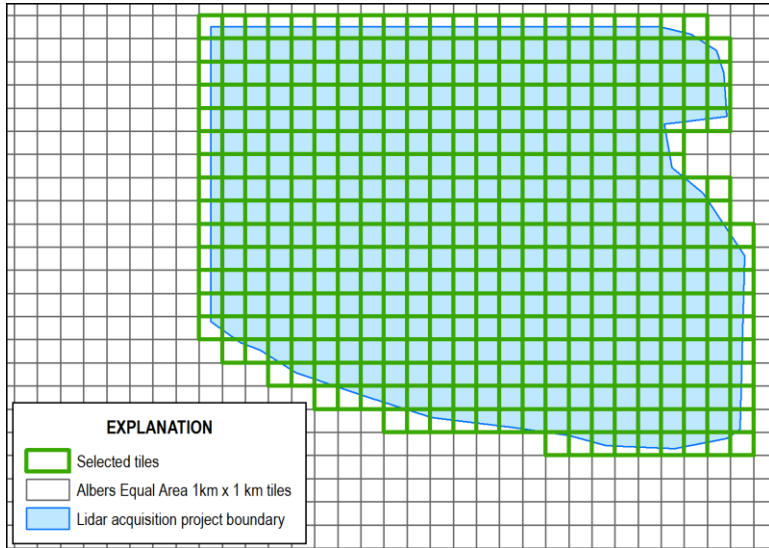
The 3DEP National Indexing Scheme is available as a [map service](#) for visualization. It is also available for download as a File Geodatabase, a Shapefile, or a GeoPackage on an [FTP site](#).

II. Geoprocessing Steps:

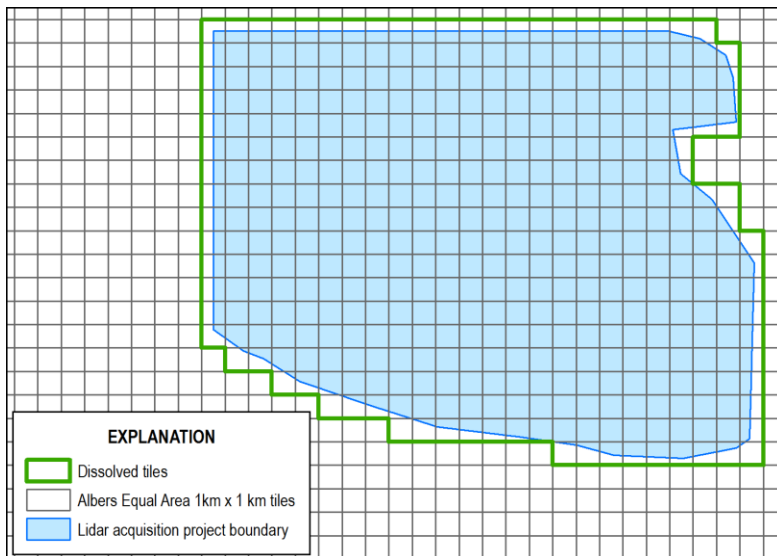
Step 1: Overlay the national indexing scheme layer onto your lidar project boundary layer.



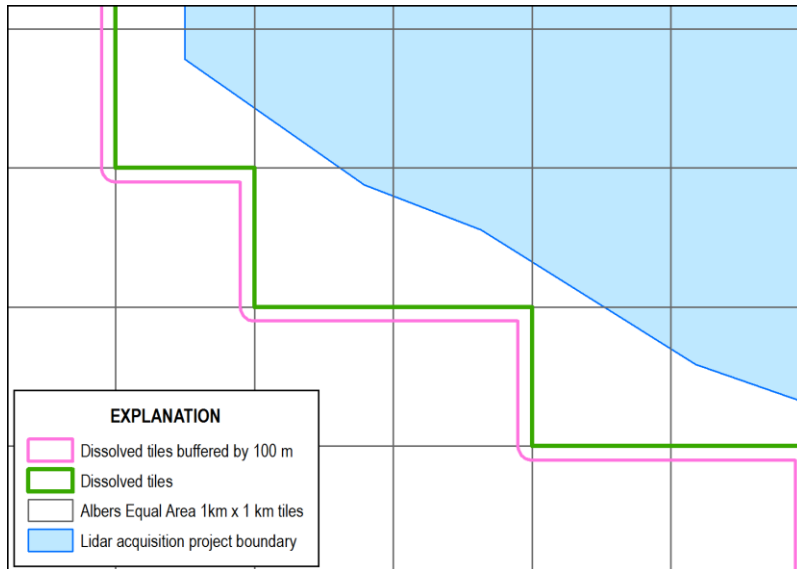
Step 2: Use a select by location tool to select the tiles that intersect with the lidar project boundary layer. Export the selected tiles to a new layer.



Step 3: Dissolve the tiles into a single polygon.



Step 4. Buffer the dissolved tiles polygon by 100 meters. (The 3DEP data processing workflow requires that all project boundaries include this buffer.) Ensure that the final project boundary is in the Albers Equal Area coordinate reference system (EPSG code 6350).



III. Inclusion of Open Water and Instruction for Aligning with Existing Data

Coastal and Open Water Areas:

For project areas that include areas of open water, the project boundary should include the complete tiles along the shoreline. The 3DEP data acquisition team will adjust the resulting project boundary to eliminate the open water areas. It is easier to apply the indexing scheme and then scale back the project boundary afterwards where necessary.

Adjacent Project Boundaries:

For project areas that are adjacent to existing lidar surveys that meet 3DEP standards, the project boundary should still include complete tiles. The complete tiles will likely overlap the existing lidar survey, resulting in a small amount of repeat coverage over the same area. The goal of the national indexing scheme is to map the conterminous U.S. with complete tiles, which will eliminate slivers and gaps and simplify future project planning when re-mapping these areas in the future. The 3DEP data acquisition team will identify adjacent existing lidar surveys and adjust the project boundary as needed.