

ROAD REPOSITIONING ISSUES

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The following pages are examples of Road repositioning issues encountered in the Michigan Geographic Framework. They are presented here in draft form for consideration by Framework users and partners. Please review these examples and feel free to provide feedback to:

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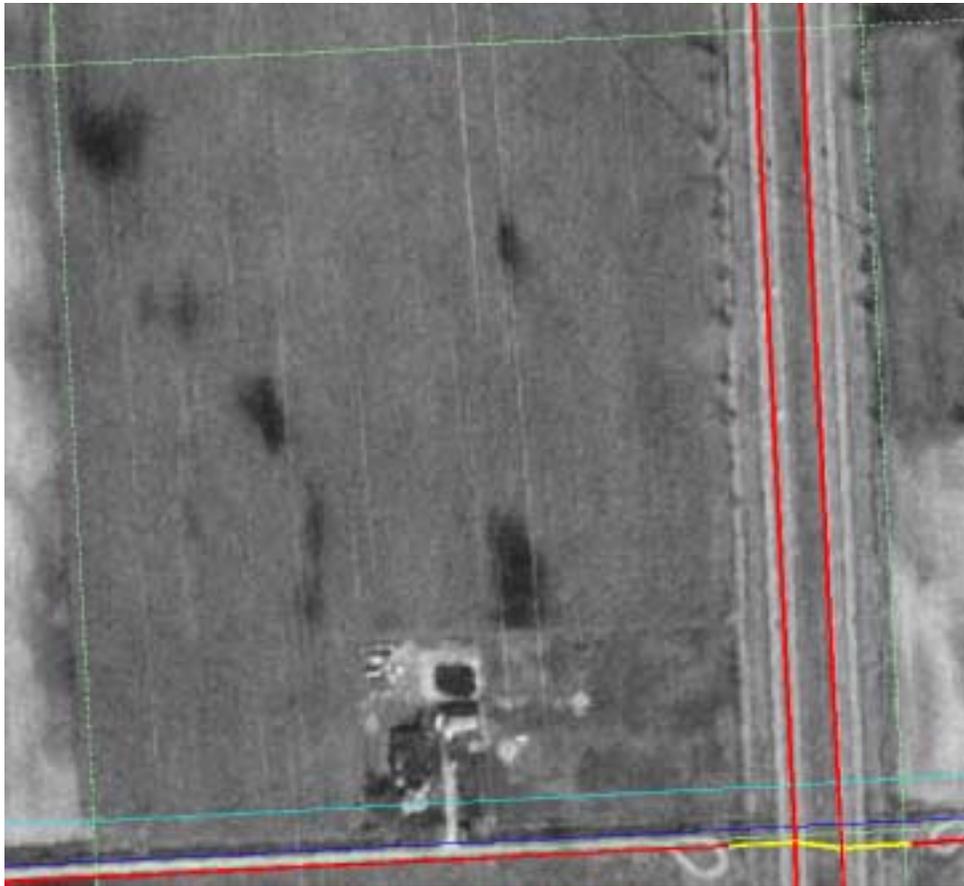
Phone: 517-373-7910

Repositioning Issues Legend

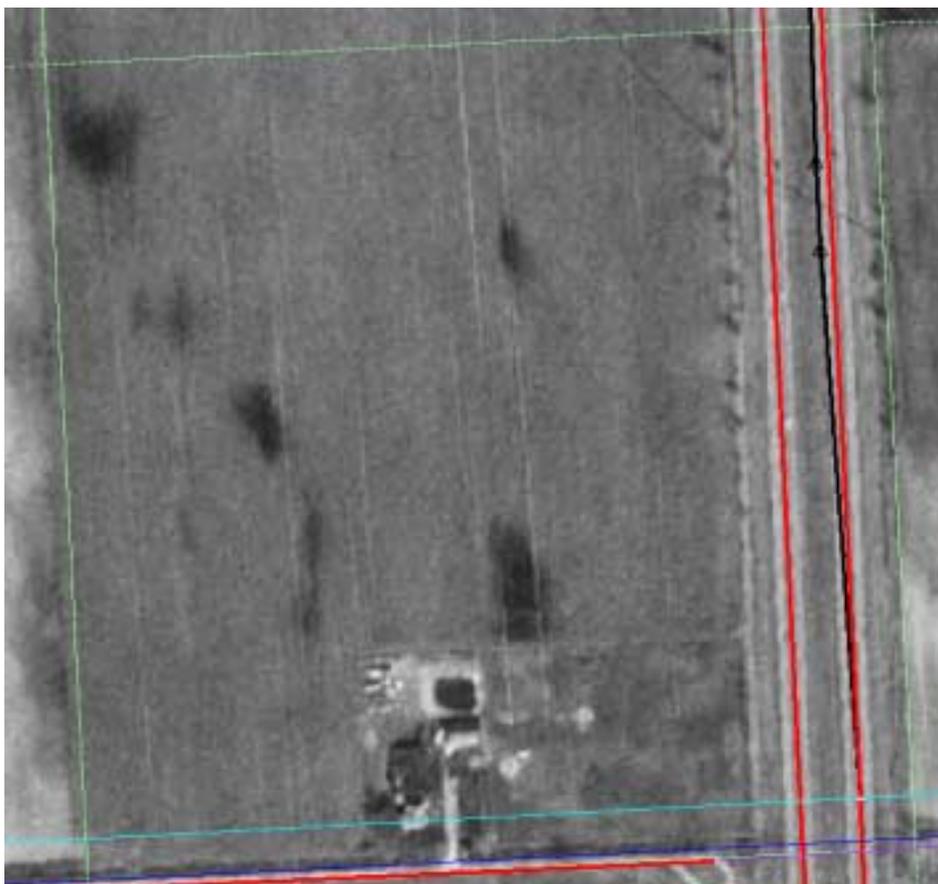
(The following legend applies to all pages in this document)

	PR'd Roads
	Non PR'd Roads
	Shared PR'd Roads
	FCC = X00
	FCC = Z00, Z01, or Z02
	FCC Discrepancies
	Hydrography
	Nonvisible
 or 	Railroads, Power Line, or Pipeline
	Quarter - Quarter Lines
	Section Lines

Road Example FCC Discrepancy (Yellow)



A thick yellow line represents an arc that was classified as a road in MIRIS, but not a road in TIGER. During Phase2, it was discovered that the road does not cross the highway. Therefore, a PR was not posted on the road. This arc has been flagged yellow indicating the need for investigation during repositioning. While investigating the arc, the Repositioner determined that the yellow arcs are not road features. However, these arcs represent a Minor Civil Division (MCD) boundary. Therefore, the arcs could not be deleted.



The arcs in the 40 acre view were repositioned. The FCC code was changed to F13 and the SYM was changed to 12. **(Helpful Hint:** Always change the SYM so you know that the arc was reviewed and fixed.)

Road Example

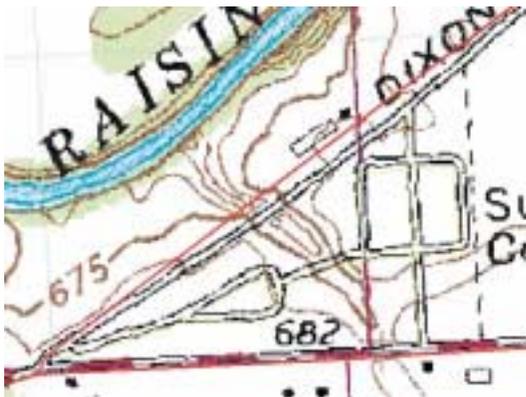
FCC Discrepancy Road: Cemetery (Yellow)



A thin yellow line represents a feature that was originally classified as a road feature in MIRIS or TIGER, but does not match any of the criteria used to classify framework roads. These features are not positionally accurate. The road needs a different FCC code.



The image above is the digital orthophoto. The shape of the roads indicate that this could be a cemetery or a residential area. **(Helpful Hint:** Viewing the digital orthophoto without the Framework drawn, allows the features to be seen easier.)



This image shows the framework superimposed on the DRG. Often the DRG will have helpful hints about features found on the imagery that are hard to interpret. The text east of the yellow feature has been cut off in this view, but it indicates this is a cemetery.



Using clues from the imagery and the DRG, the features were classified as FCC = A51. In addition, the arcs in the above image were repositioned and the SYM was changed to 2.

Road Example FCC Discrepancy (Yellow)



A thin yellow line represents a feature that was originally classified as a road feature in TIGER or MIRIS, but does not match any of the criteria used to classify framework roads. This arc has been flagged yellow indicating the need for investigation during repositioning. While investigating the arc, the Repositioner determined that the yellow arc is not a road feature. However, this arc represent a Census Block boundary. Therefore, the arc could not be deleted.



The arcs in the 40 acre view were repositioned. The FCC code was changed to F43 and the SYM was changed to 12. **(Helpful Hint:** Always change the SYM so you know that the arc was reviewed and fixed).

Road Example FCC Discrepancy (Yellow)



A thin yellow line represents a feature that was originally classified as a road feature in MIRIS or TIGER, but does not match any of the criteria used to classify framework roads. There are two groups of yellow roads in this image. The yellow road to the north appears to be a road to a non-residential area. The roads to the south appear to access a residential area. The features are not positionally accurate and the FCC needs to be changed.

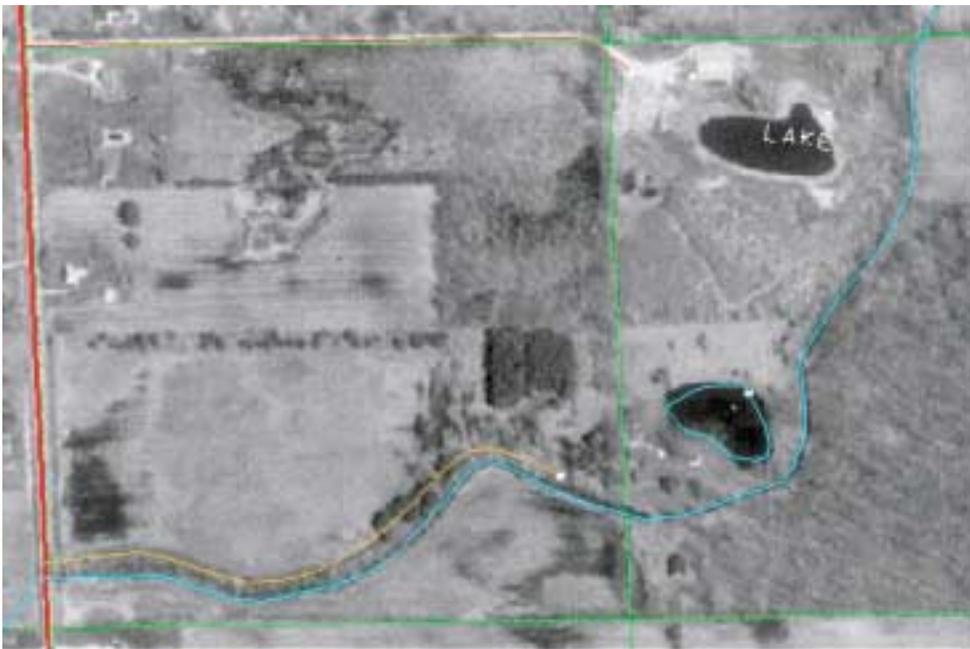


The arcs in this image have been repositioned. The road features to the north were classified as FCC = A52 and the SYM was changed to 2. The roads to the south were classified as FCC = A55 and the SYM was changed to 2. For an in depth explanation of the procedure used to reposition the nonvisible features, see page HXXX.

Road Example FCC Discrepancy (Yellow)

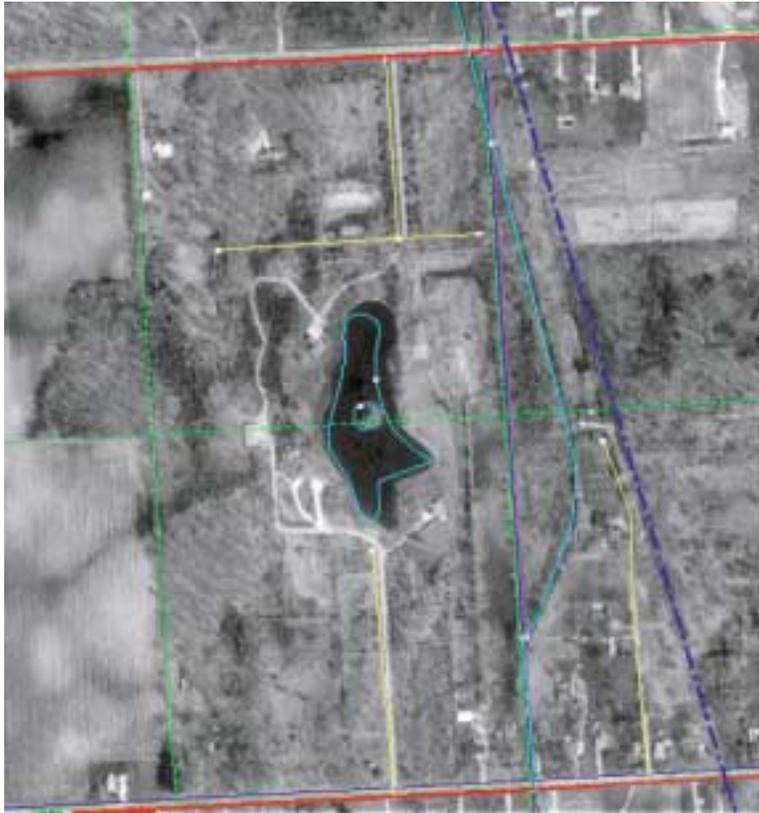


A thin yellow line represents a feature that was originally classified as a road feature by TIGER or MIRIS, but does not match any of the criteria used to classify framework roads. There are two yellow features seen in this example. The northern yellow feature is clearly seen on the image and can be easily repositioned and reclassified. However, the southern yellow feature is undetectable. Therefore it cannot be repositioned or classified as a road.

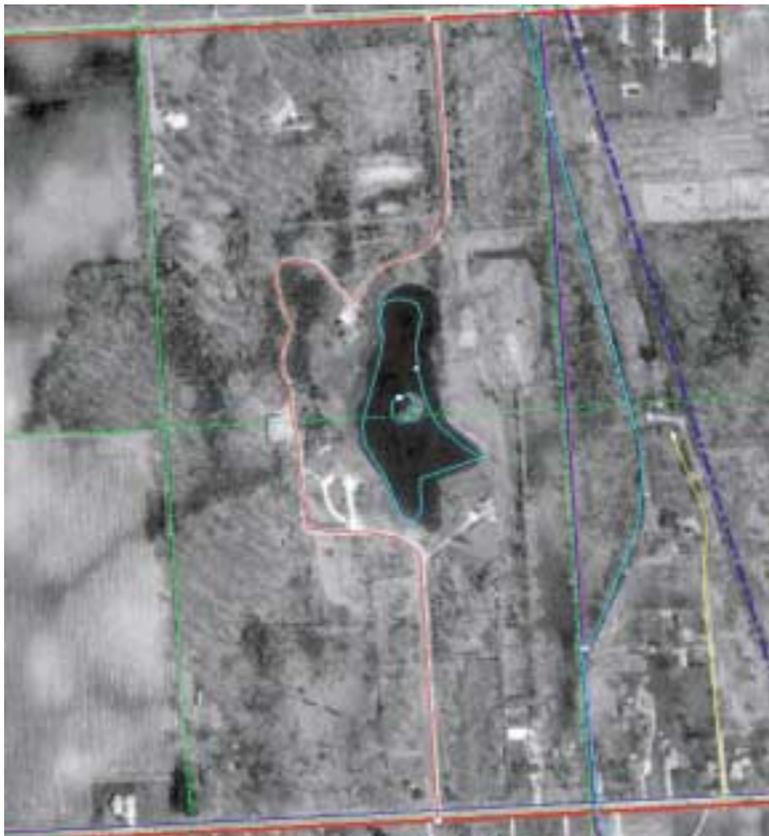


This image is the area after it has been repositioned. The northern feature was repositioned and classified as a FCC = A56. The symbology was changed to 2. The southern feature was not repositioned, but it was reclassified as a FCC = X00. This FCC code is given to features that have been researched during repositioning, but feature type is still unknown. X00 is a flag indicating the feature needs to be reviewed and fixed during framework maintenance. For an in depth explanation of the procedure used to reposition the hydrography, see page HXXX.

Road Example FCC Discrepancy (Yellow)

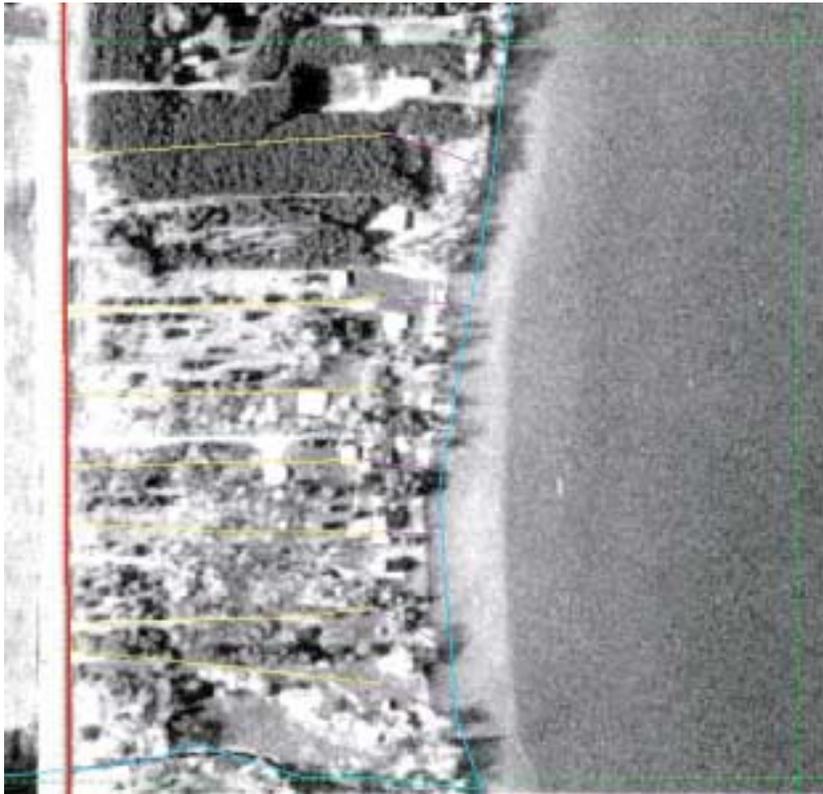


A thin yellow line represents a feature that was originally classified as a road feature by MIRIS or TIGER, but does not match any of the criteria used to classify framework roads. There are a few houses and driveways visible on the imagery indicating that this is a newly developed residential area. There is not a PR or road name on the yellow arc feature. This allows the Repositioner to connect the yellow features and reposition them to follow the road features seen on the imagery.

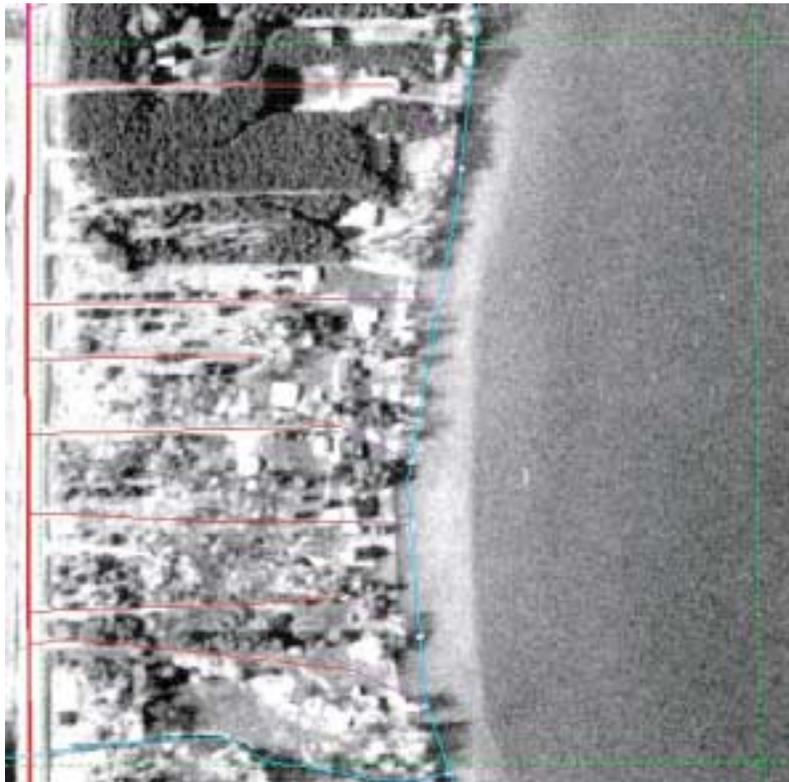


This image shows the area after it has been repositioned. Notice the three yellow features have been combined into one road feature. The feature was classified as FCC = A53 and SYM was changed to 2.

Road Example FCC Discrepancy Road



The image to the left is a group of private roads and private driveways leading to a residential area. It is difficult to determine which Framework road matches the imagery. The roads in the area should be repositioned as accurately as possible. However, do not spend a large amount of time.



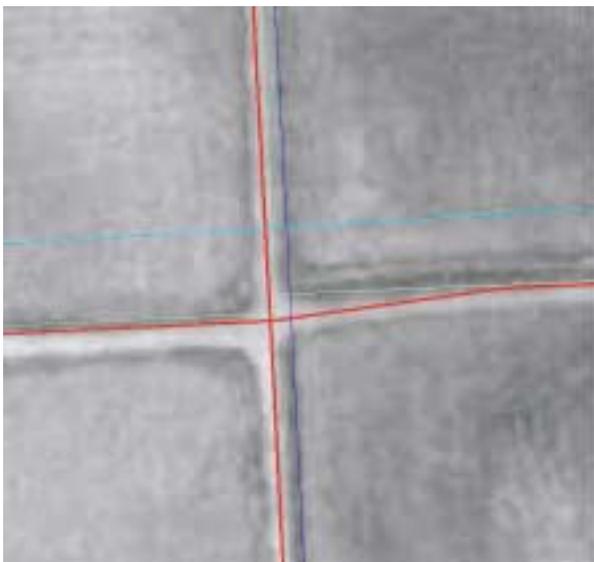
This image shows the area after it has been repositioned. The roads were reclassified as FCC = A53 and the symbology was changed to 2. (**Helpful Hint:** Always change the sym so you know the arc was reviewed and fixed.)

Road Example

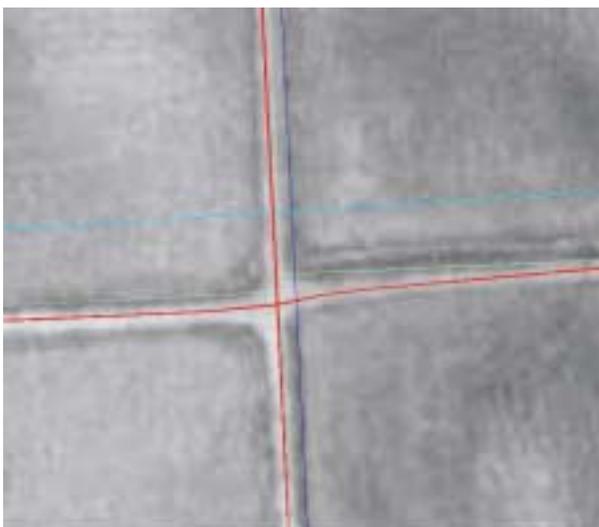
Road Jog



A jog must measure a distance of at least seven meters from centerline to centerline. By measuring the centerline distance and using their judgment on the angle of the intersection, the Repositioner decided that this intersection does not jog.



This image shows that the topology of the roads in framework is correct, but the roads need to be repositioned.



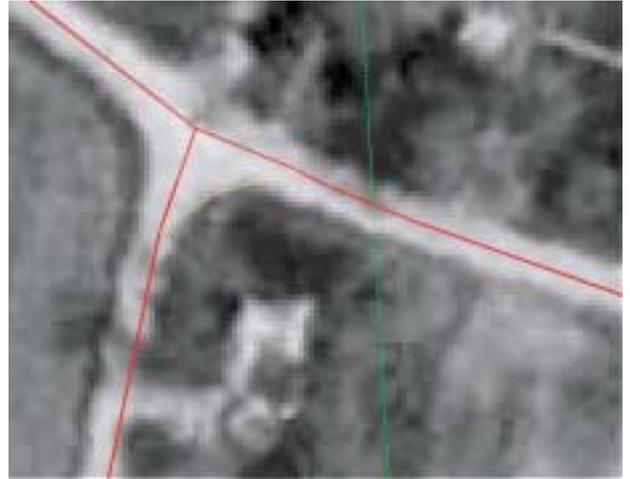
This image shows the area after it has been repositioned. The topology of the intersection has not been changed, but the general shape has been smoothed out.

Road Example

Fanned Intersection vs. Cutoff



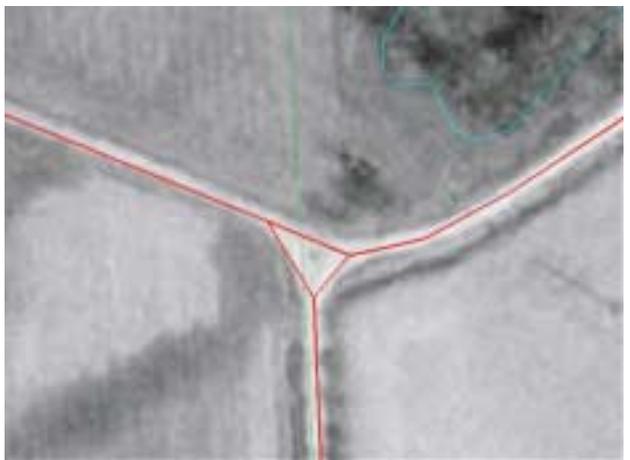
The image above is an example of a fanned intersection. A fanned intersection is a three approach intersection with no defined turn channels. Often, fanned intersections are located on rural dirt roads.



The road arcs forming the intersection should be positioned to follow the centerline of the roads. Often the framework coverage will have an extra arc (the yellow arc seen in this image) representing the fanned shape. This arc should be deleted from the coverage. In this situation, the pseudo nodes should not be removed because the road has address ranges that need to be preserved.



The image above is an example of a cutoff intersection. Like a fanned intersection, the cutoff intersection is a three approach intersection. However, this intersection has turn channels defined by the dark area in the center of the intersection.



There should be three arcs forming a triangle representing the cutoff. In addition, there should be three PRs at this intersection. If there are not three PRs, flag the intersection with a ROAD annotation.

Road Example Cutoff



There is a visible grassy area in the center of this intersection indicating that this is a cutoff intersection. There should be three PR'd road features forming the cutoff intersection. In this example, the thin yellow arc does not have a PR. During repositioning, there will be no PRs added. However, this arc should be flagged so the area is reviewed during framework maintenance.



This image shows the area after it was repositioned. The arcs have been repositioned to follow the center line of the roads. A ROAD annotation was placed by the yellow arc, flagging it for investigation during framework maintenance.

Road Example Rest Area

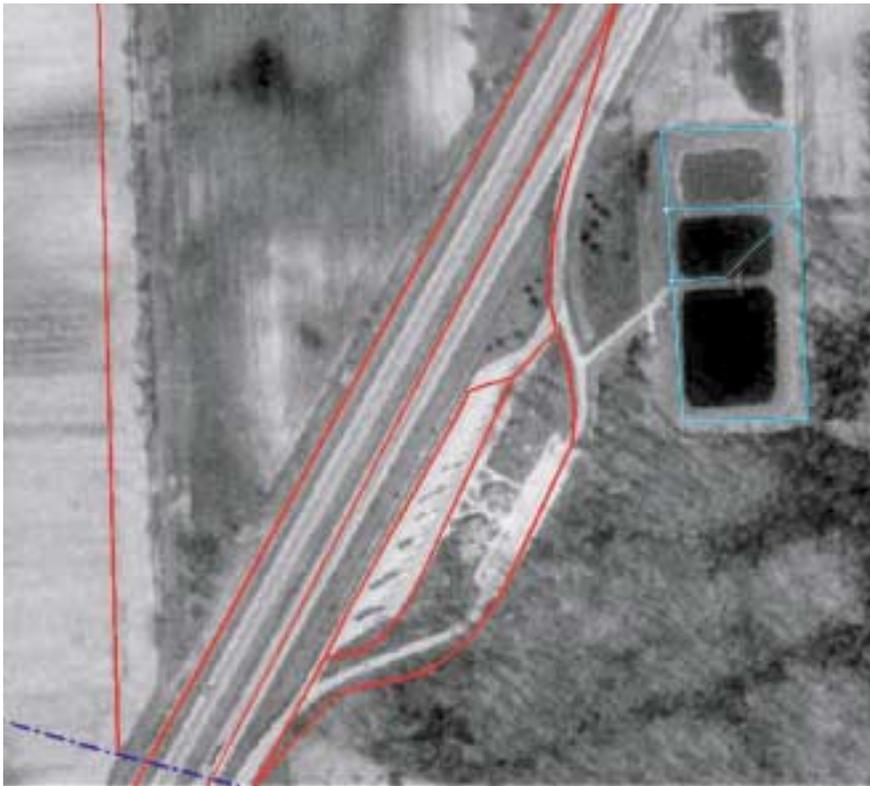


The example to the left is a rest area found in Framework. A rest area is always represented by two road features. This rest area is incorrect. The road feature representing the truck/trailer lane is missing. New features are not added during repositioning. If a feature is seen on the imagery, it is flagged to be reviewed during framework maintenance.

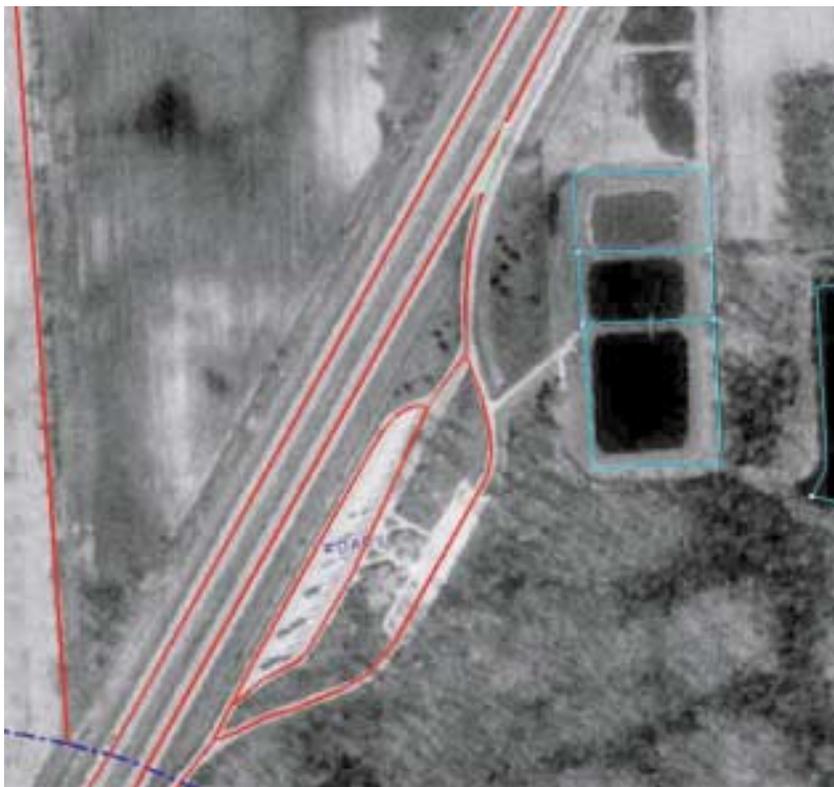


The image to the left is the rest area after it has been repositioned. The rest area was marked with a ROAD annotation, flagging the area to be reviewed during Framework maintenance.

Road Example Rest Area



The example to the left is a rest area found in Framework. A rest area is always represented by two road features. This rest area is incorrect. There are two road features representing the truck/trailer lane. Road features with PRs are not being removed during repositioning. If an extra feature is in the coverage, it is flagged to be removed during framework maintenance.



The image to the left is the rest area after it has been repositioned. The rest area was marked with a ROAD annotation, flagging the area to be reviewed during Framework maintenance.

Road Example Position Change



The image to the left is an example of a group of road features that resembles an area on the imagery. However, it is questionable. In order to reposition these arcs, they would be moved approximately 300 meters to the east. The shape and lengths of the Framework road features would be changed drastically. There is not enough information here to make a decision. Therefore, the area should be flagged with a ROAD annotation so that it can be investigated during Framework maintenance.

Road Example Reshaping a Road Feature



In this example, a Framework road feature is positioned in the water. However, there is no feature seen on the imagery to reposition the road. In this situation, the Repositioner must reshape the feature so that it does not extend into the water, while preserving the shape of the road.



This image shows the Framework coverage after it has been repositioned. The road intersection has not changed, but the feature was reshaped. A ROAD annotation was added, so that the feature can be checked during Framework maintenance.

Road Example Cul De Sac

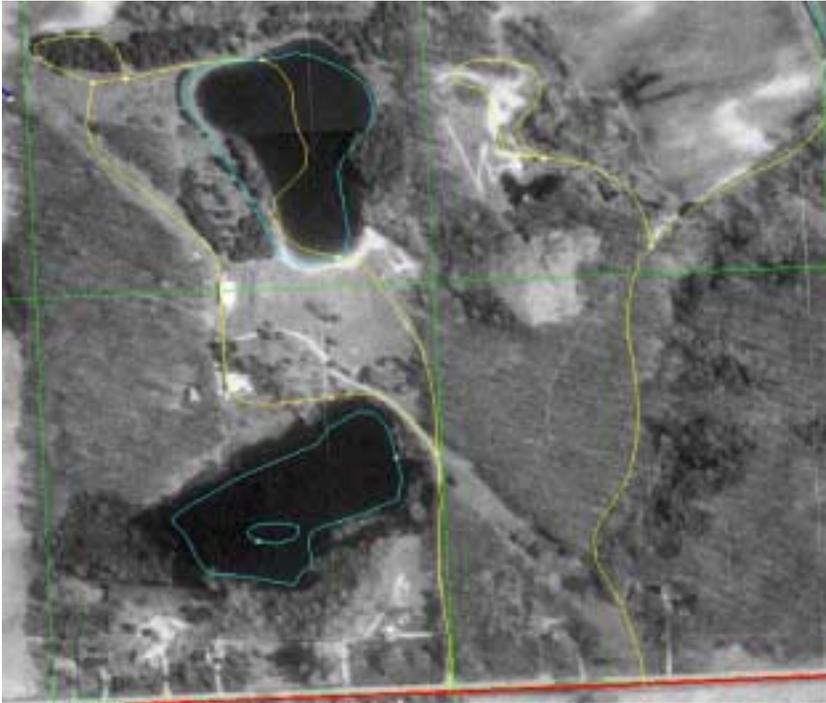


The road seen in this example is a cul de sac. The road needs to be repositioned to follow the feature seen on the image. However, the road will not be shaped to follow the cul de sac. If there was a grassy area in the center of the cul de sac in which houses could be built, then the circle would be created.

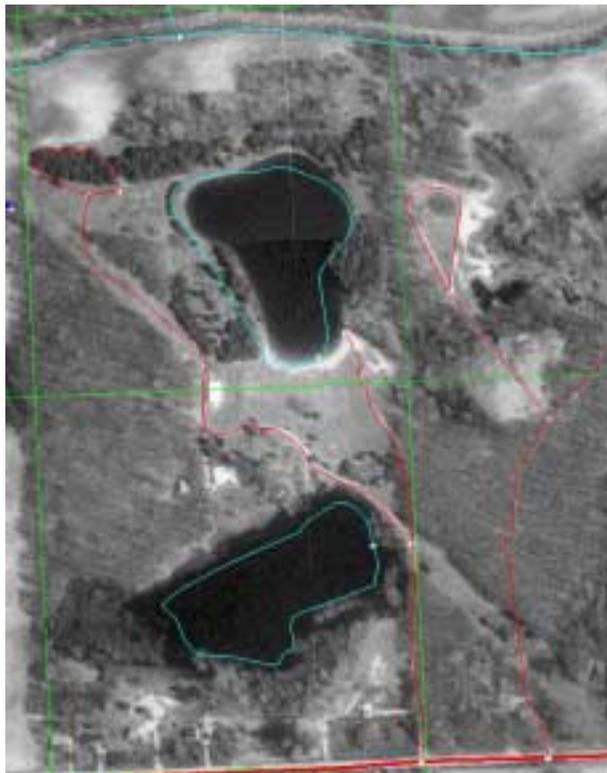


This image shows the road after it has been repositioned. The road has been moved to the southwest and the corner was reshaped from a 90 degree angle to a soft curve. Notice that the road has not been shaped around the cul de sac. The end of the road was positioned in the center of the cul de sac.

Road Example Two-Track

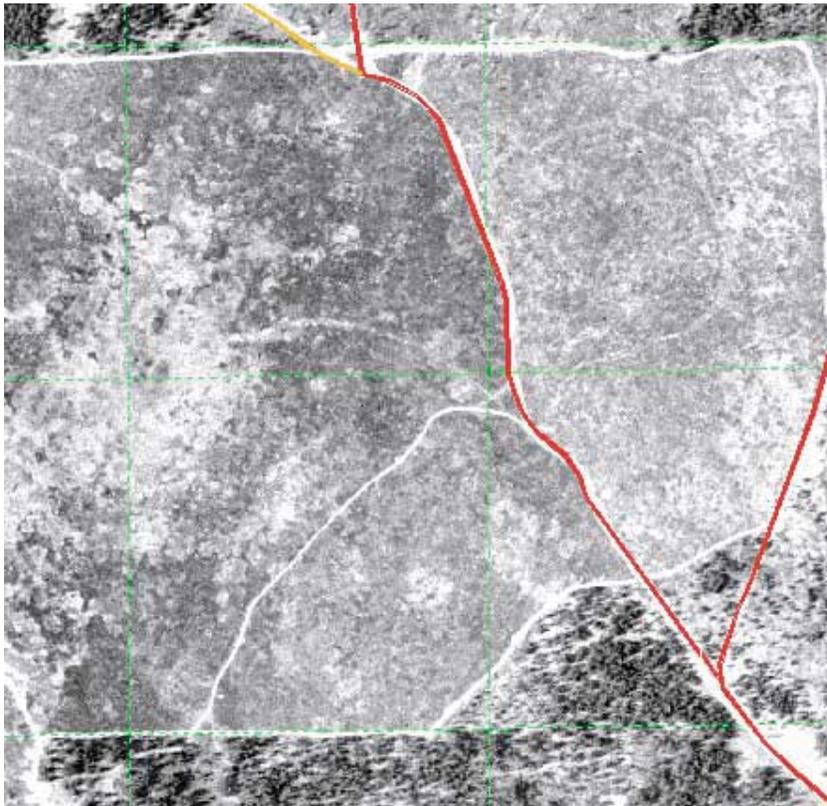


The thin yellow lines indicate that the features were unable to be classified with a FCC code and need further investigation. In the image to the left, the yellow arcs are two-track features that are not correctly positioned. Most of the two-tracks can be seen on the imagery. However, a few of the two-tracks are undetectable and cannot be repositioned. Notice, the two-track cuts through the water feature.

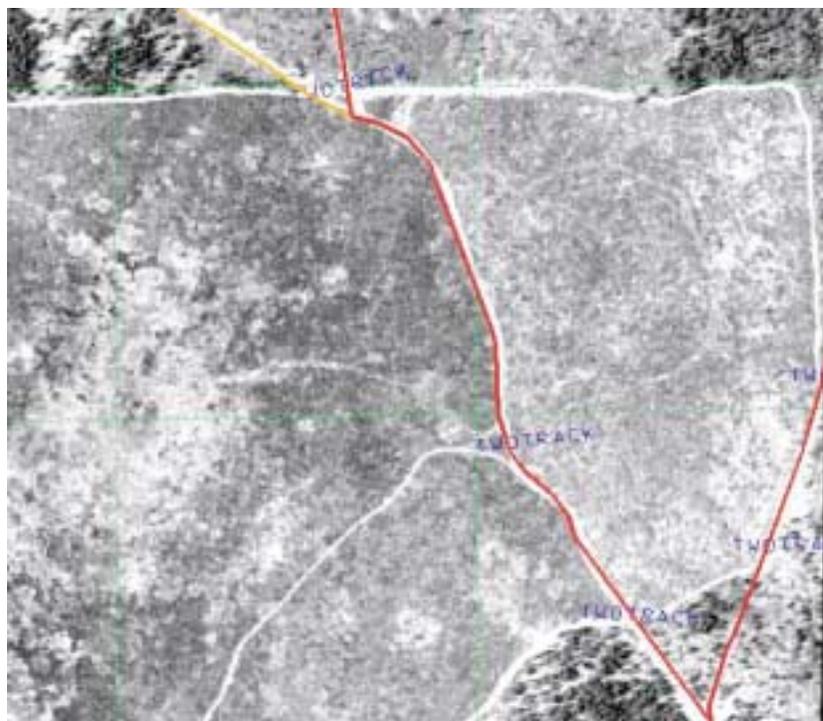


This image shows the framework coverage after it was repositioned and reclassified. The yellow features were classified as FCC = A56 and the SYM was changed to 2. The two-track feature that ran through the lake was deleted. The arc that was connected to the water was disconnected and the pseudo nodes were removed. For an in depth explanation of the procedure used to reposition the hydrography, see page HXXX.

Road Example Two-Track

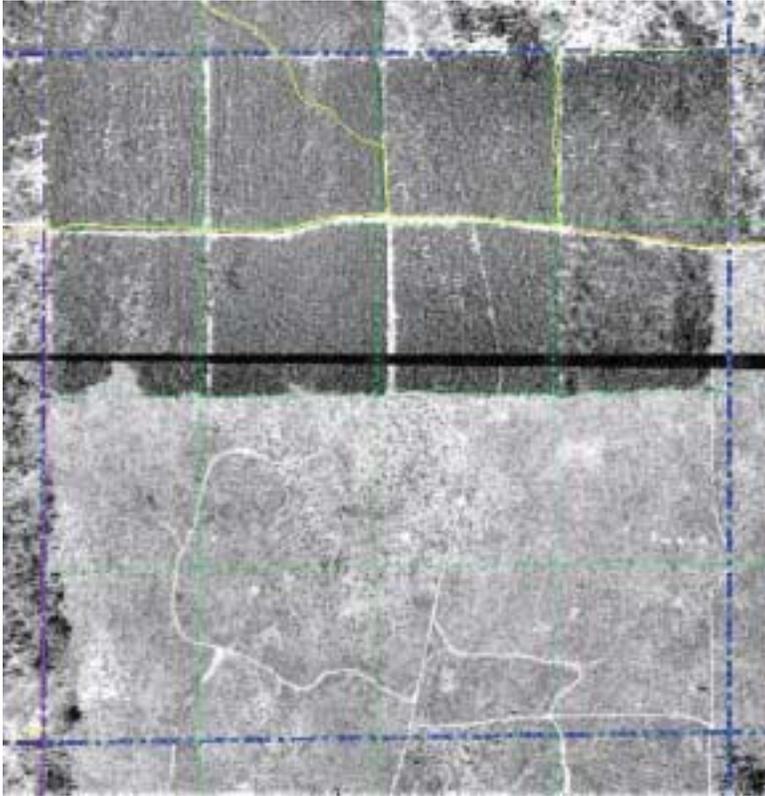


During repositioning, new features will not be added. However, in many rural areas there are two-tracks seen on the imagery which are not represented in Framework. These two-tracks need to be marked with a TWOTRACK annotation, flagging the area for investigation during Framework maintenance.

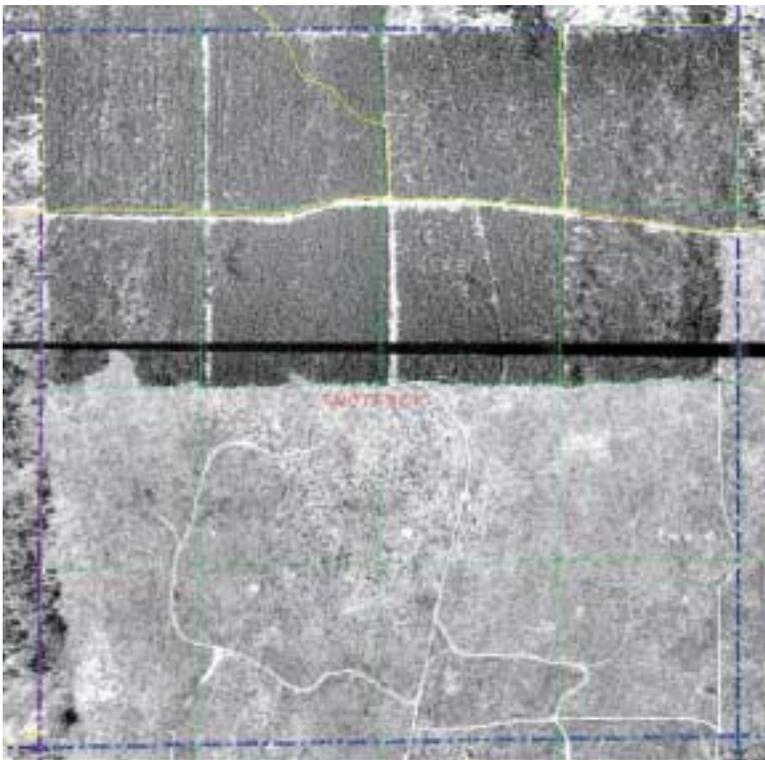


An annotation is added where a two-track intersects a PR'd road. This image shows the Framework coverage after the TWOTRACK annotations were added. The road features seen in this example have not yet been repositioned.

Road Example Two-Track

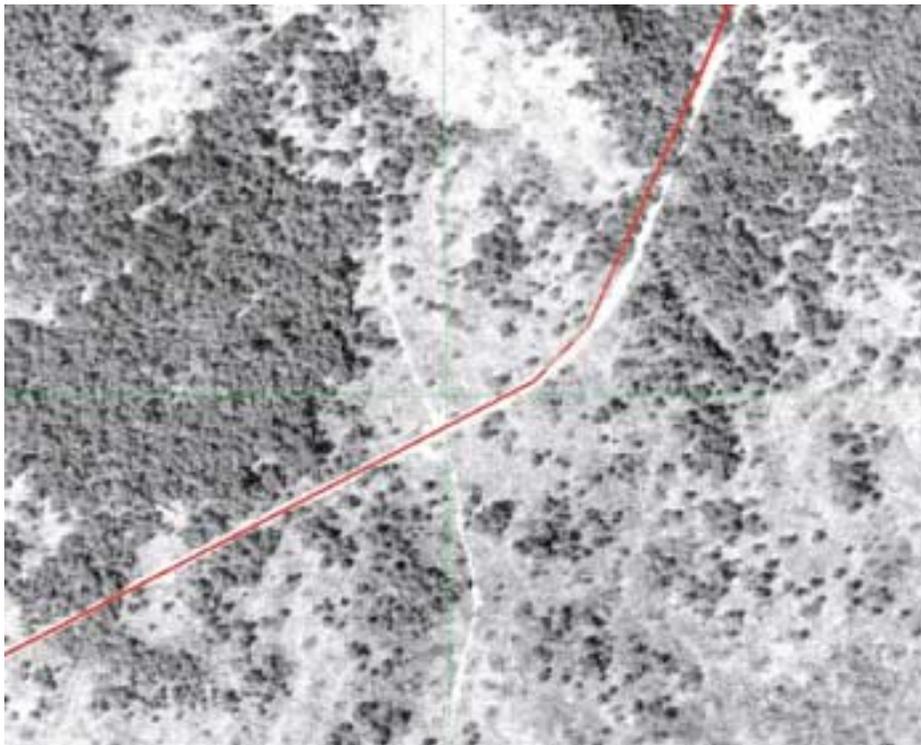


The image to the left is a view of an entire section of a Framework coverage. The thin yellow lines indicate that the features were unable to be classified with a FCC code and need investigation. During repositioning, new features will not be added. However, in many rural areas there are two-tracks seen on the imagery which are not represented in Framework. These two-tracks need to be marked with a TWOTRACK annotation, flagging the area for investigation during Framework maintenance.

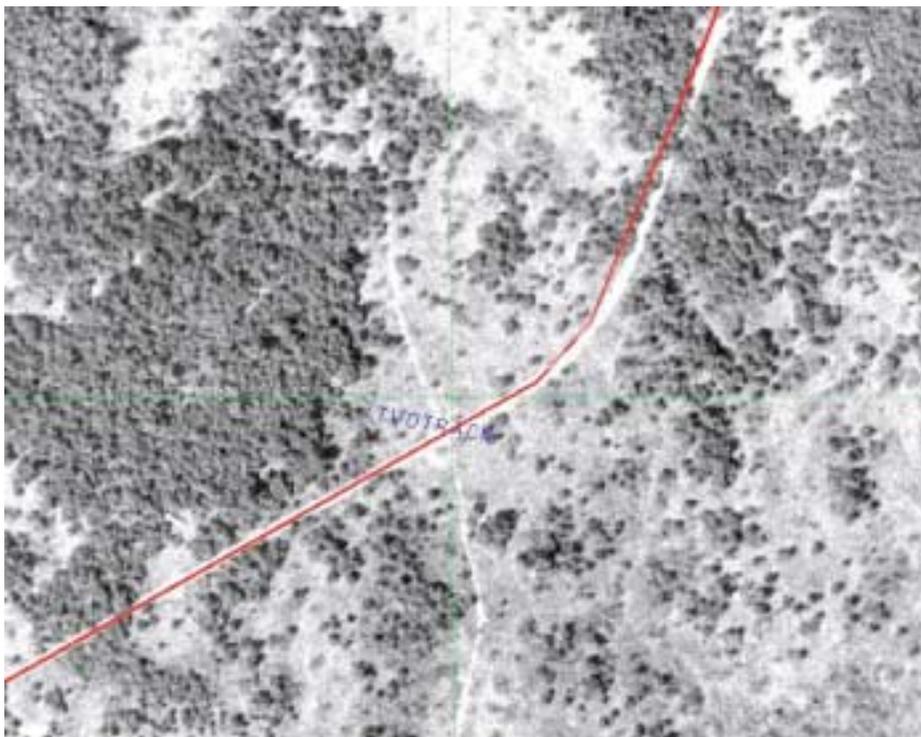


An annotation is added where a two-track intersects a PR'd road. However, this network of two-tracks does not have an intersection with a PR'd road. Therefore, a TWOTRACK annotation is placed in the center of the section. This indicates that the entire section needs to be reviewed during Framework maintenance. At that time, the appropriate two-track features will be added to the Framework coverage.

Road Example Two-Track

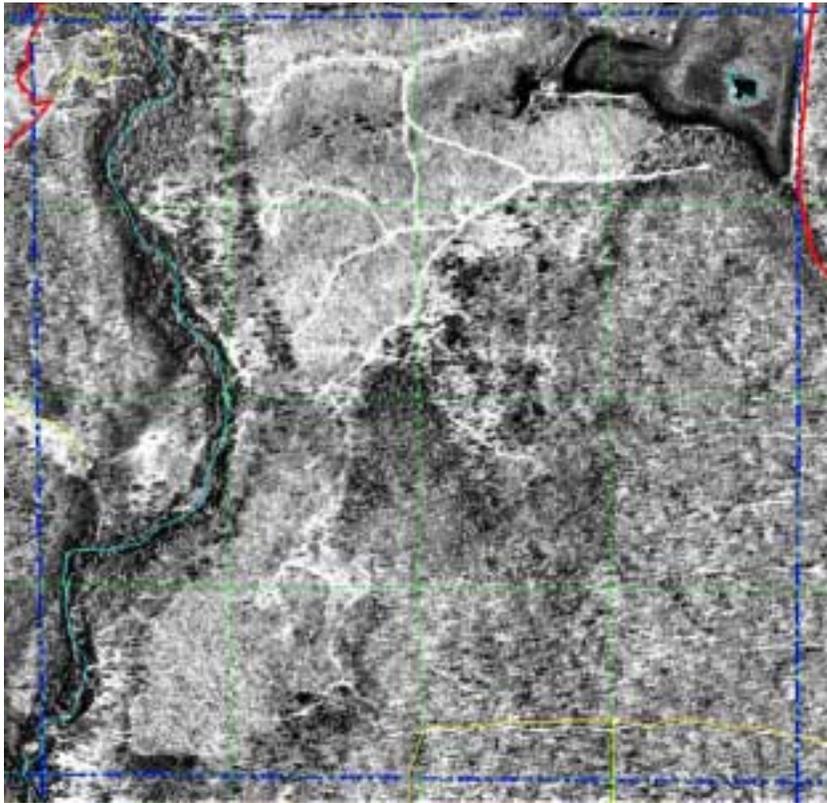


During repositioning, new features will not be added. However, in many rural areas there are two-tracks seen on the imagery which are not represented in Framework. These two-tracks need to be marked with a TWOTRACK annotation, flagging the area for investigation during Framework maintenance.

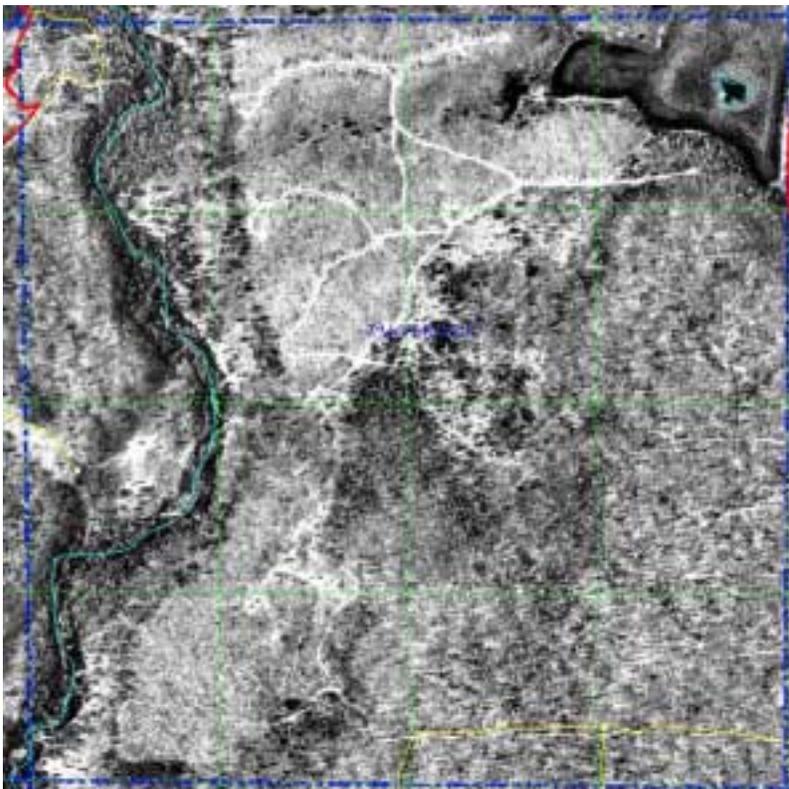


An annotation is added where a two-track intersects a PR'd road. This image shows the Framework coverage after the TWOTRACK annotations were added. The road features seen in this example have not yet been repositioned.

Road Example Two-Track



The image to the left is a view of an entire section of a Framework coverage. The thin yellow lines indicate that the features were unable to be classified with a FCC code and need investigation. During repositioning, new features will not be added. However, in many rural areas there are two-tracks seen on the imagery which are not represented in Framework. These two-tracks need to be marked with a TWOTRACK annotation, flagging the area for investigation during Framework maintenance.



An annotation is added where a two-track intersects a PR'd road. However, this network of two-tracks does not have an intersection with a PR'd road. Therefore, a TWOTRACK annotation is placed in the center of the section. This indicates that the entire section needs to be reviewed during Framework maintenance. At that time, the appropriate two-track features will be added to the Framework coverage.

Road Example FCC Discrepancy: Driveways (Yellow)



Both of the images seen on this page are examples of road features that appear to be private driveways. A thin yellow line indicates that a feature was unable to be classified with a FCC and needs further investigation. The level = 4, this indicates that the features originally came from MIRIS. MIRIS classified them as local, minor, residential streets. There are several of these types of dead end road features in every Framework coverage. In the top example, the feature is a private driveway. This could be classified as FCC = A53 or should it be deleted? In the bottom example, the road feature appears to have more than one residence. During repositioning, this feature would be repositioned and classified FCC = A55.

