

A Review of Airport Fencing and Wildlife Hazards in Indiana



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**AVIATION WILDLIFE
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Airport Fencing Summary

- Airport fences at Indiana airports were assessed from 2010 to 2023, revealing their strengths and weaknesses in restricting wildlife access to Airport Operations Areas.
- The designs of the FAA approved wildlife exclusion fencing are also reviewed and explained.
- General guidelines on fence gap evaluation and maintenance are covered to help reduce wildlife access to airports.
- Airport fence evaluations can be key to obtaining airport improvement project funding in the cases of inadequate fencing.



What Are Airport Fences For?

- To Keep People Out
- To Keep Wildlife Out

But only if they are of adequate height and well maintained



Our Skilled Team



**White-tailed
deer**



Coyote



Bobcat



Red fox



Woodchuck

“Wildlife have all day and night to figure out how to get onto your airport.” Robert Sliwinski



Presentation

1. Introduction
2. Types of Fencing
3. Airport fences/Strengths and Weaknesses
4. FAA Approved Wildlife Exclusion Fencing
5. Fence Gap Evaluation and Maintenance
6. Inadequate Fencing and Funding



Introduction



Evaluations of airport fencing to detect wildlife breaches and gaps were completed at the following Indiana airports from 2010-2023:

- Terre Haute Regional Airport
- Monroe County Regional Airport
- Clark County Regional Airport
- Indianapolis Executive Airport
- New Castle Municipal Airport
- Porter County Regional Airport



Types of Airport Fencing Observed in Indiana

- 4-foot pasture fence
- 6-foot chainlink fence
- 10-foot chainlink fence (barbed wire or razorwire)



<https://www.wiresfence.com/img/chain-link-airport-fencing-barbed-wire.jpg>



https://image.chukouplus.com/themes/simplebootx/Upload/W_563/upload/5fadfa08782a1.jpg



<https://images.suite101.com/wp-content/uploads/2024/07/woven-wire-farm-fencing.jpg>



https://styves.co.za/wp-content/uploads/2023/08/6ft-chain-link-fence-the-ultimate-guide-to_10.jpg



How Do Wildlife Access Airports?

- **Low Perimeter Fences** – jump over like deer
- **Some climb fences** - squirrels, woodchucks, snapping turtles, bobcats
- **Go under fences** – coyote, foxes, raccoons, opossum, skunks
- **Some go through gaps in gates**
- **Regular perimeter fence checks for breaches** is recommended.



Airport Fences Strengths and Weaknesses

Strengths

Good at keeping the public out

Ten-foot fence good at keeping most deer out

Weaknesses

Fencing shorter than 10 feet ineffective at keeping deer out

Large gaps in fences allow wildlife access

No fencing – free access



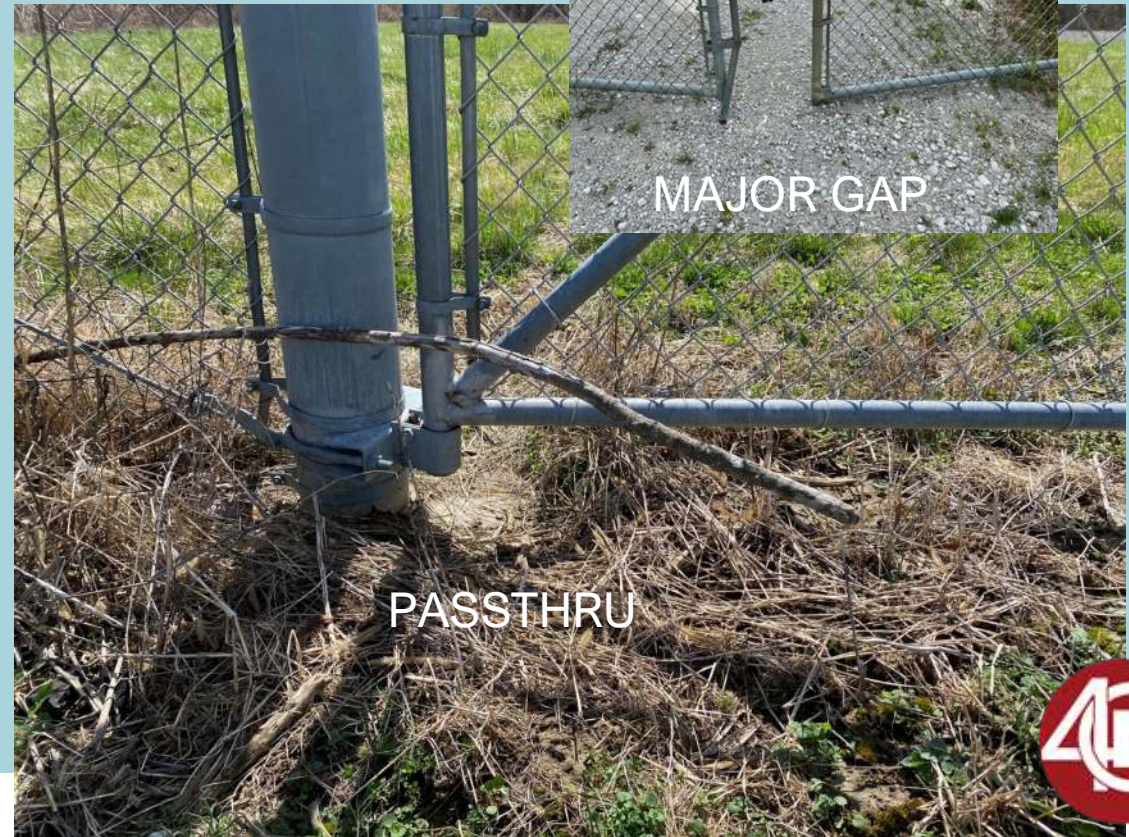
Airport Fences Strengths (Examples)



No gaps at gates, no gaps at fence bottom



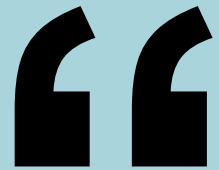
Airport Fences Weaknesses (Examples)



Airport Fences Weaknesses



Building fence gap, closer look at perfect gate, erosion at fence



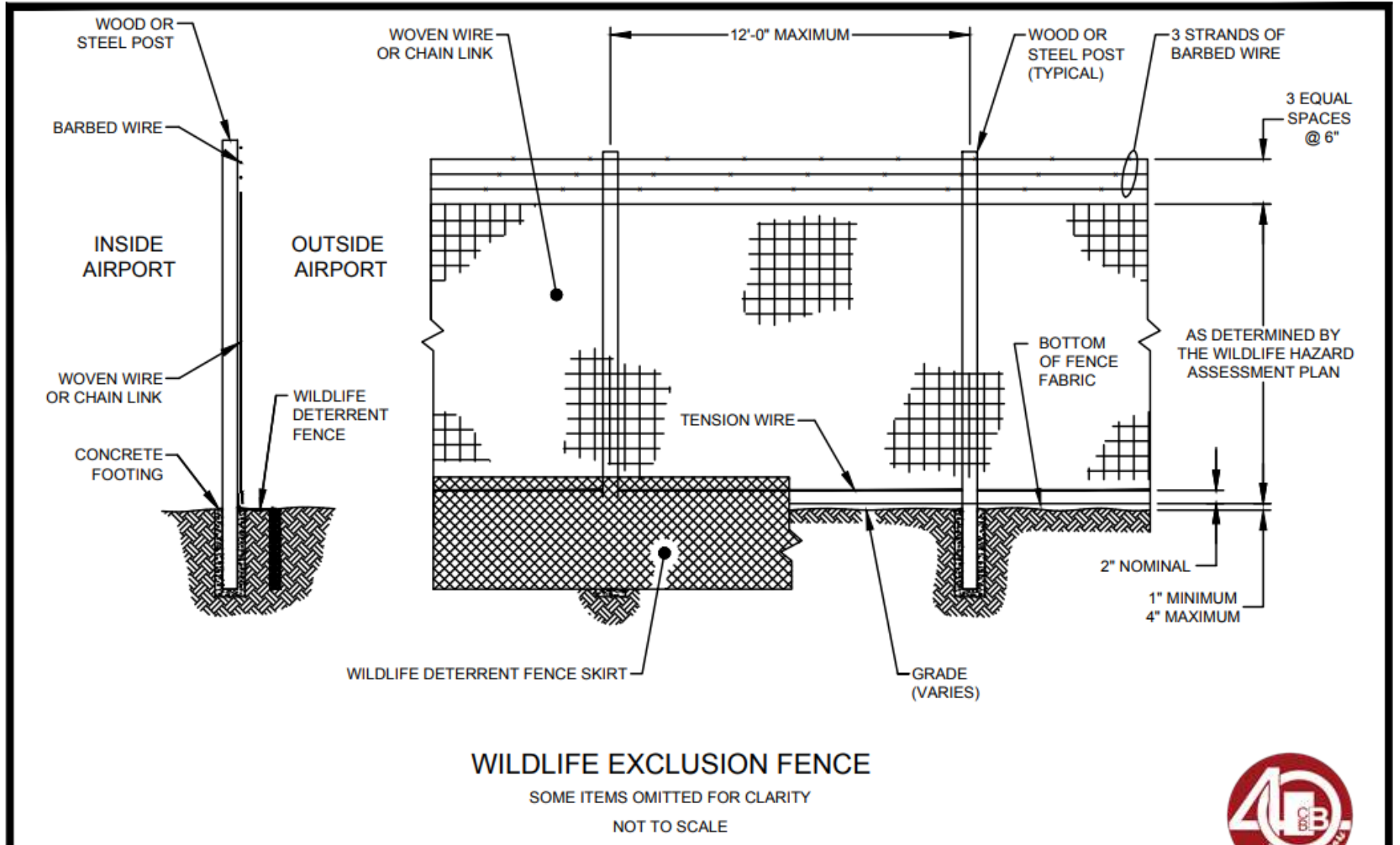
Wildlife Words of Wisdom



The first thing I ask an airport manager with a new FAA approved fence and a deer issue is “show me your gates”.



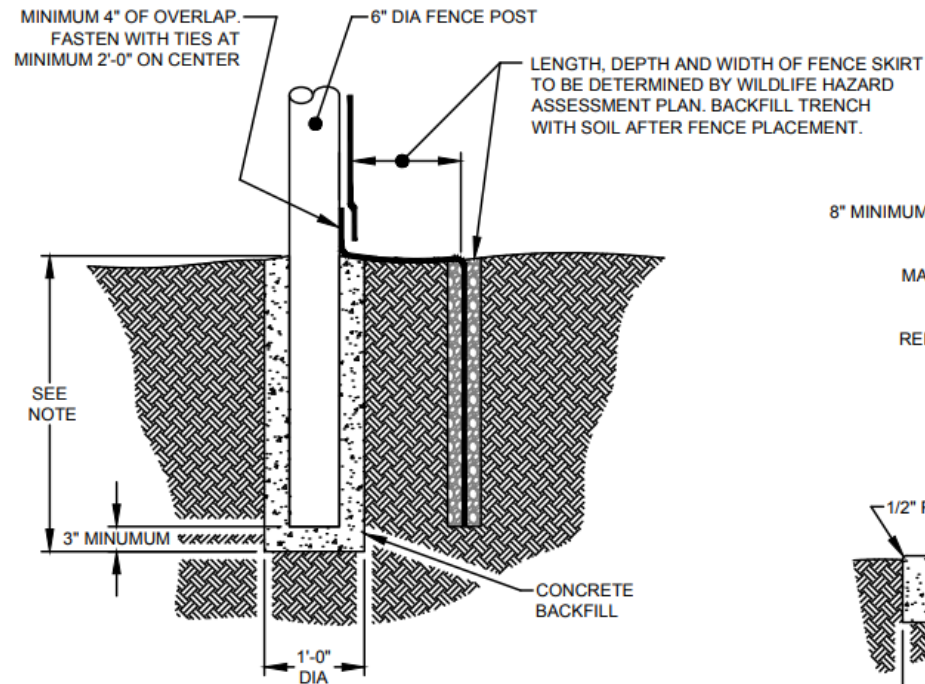
FAA Wildlife Exclusion Fencing



WILDLIFE EXCLUSION FENCE

SOME ITEMS OMITTED FOR CLARITY

NOT TO SCALE

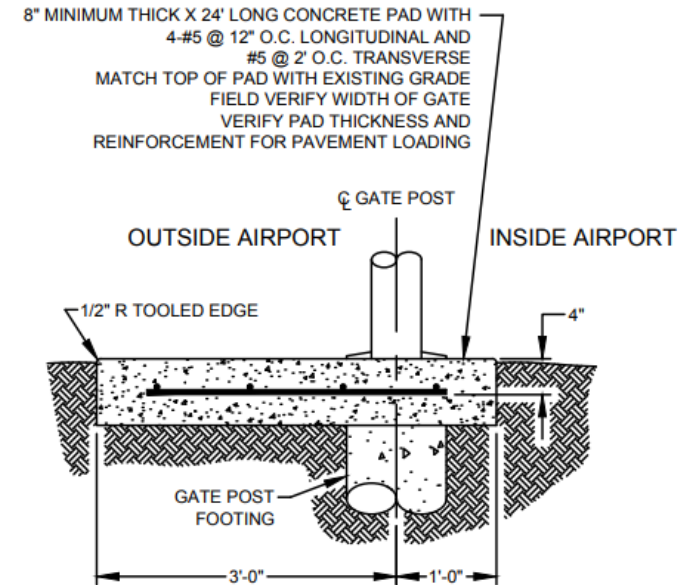


NOTE: NOMINAL DEPTH OF FENCE POST FOOTING IS 30". AT BRACES, GATES, CORNER PULL AND ENDS INCREASE DEPTH TO 36".

STANDARD WOVEN WIRE FENCE WITH WILDLIFE DETERRENT FENCE SKIRT FOOTING AND INSTALLATION DETAILS

NOT TO SCALE

NOTE: REFER TO F-164 WILDLIFE EXCLUSION FENCE FOR SPECIFICATIONS.



GATE CONCRETE PAD DETAIL

SOME ITEMS OMITTED FOR CLARITY

NOT TO SCALE



Fence Gap Evaluation

Locate all gaps during perimeter fence evaluation

- **Bottom of fence fabric**
- **Bottom of gates**
- **Sides of gates**
- **Fence to building gaps**

All gaps 4 inches and greater – repair and regularly check repaired locations and look for new gaps

GPS locations and clarify horizontal or vertical gap, size of gap and width of area



Fence Gap Evaluations



Fence Evaluation Reports provide:

- Height of fences (may vary)
- GPS location of gaps/breaches
- Approximate size of gap
- Evidence of wash outs
- Animal breaches
- Gate gaps
- Recommendations



Fence Gap Evaluation and Maintenance



Water flow can cause gaps under fence fabric
Examples of remediation – do they work?



Fence Gap Evaluation and Maintenance



Examples of asphalt pilings and rip rap



Fence Gap Evaluation and Maintenance

Fence Bottom Solutions

- Rip rap
- Concrete base
- Level ground
- Cleared debris



Fence Gap Evaluation and Maintenance

Eliminate gaps by clearing out debris along the bottom of a sliding gate to get better closure



Fence Gap Evaluation and Maintenance

- Regularly clean out debris under culverts with fences
- Keep gates closed



Fence Gap Evaluation and Maintenance



Repair bottom with riprap, gravel can be compromised, mitigate gaps with metal plates – but take a look at why there is a gap.



Trash Grates on Culverts

- Trash grates on culverts to reduce debris buildup
- But can be insufficient to keep out wildlife
- Some culverts have no grates
- Tighter fitting grates with regular maintenance of debris



Inadequate Fencing

- Livestock fencing
- Ornamental split rail fencing
- No fencing on part or all of the airport perimeter
- Chain link fencing in poor shape



Airport Improvement Program

1. Fence Evaluation



2. Evening Spotlight Survey



3. Application for Funding



**Federal Aviation
Administration**

**AIP and AIG
Programs**

Summary



Evaluate your perimeter fence regularly

Maintain a perimeter trail, if possible, for easy access

Cut vegetation along fence line to see breaches

Fix dugouts/breaches as often as possible and re-check a couple days later

Upsize rip rap if it is being moved by wildlife

Repair damaged fences

Reduce or eliminate gaps on fences at bottom and sides



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Questions?

Real Image or
AI Generated?

