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Heliport Assessment Report

Indianapolis Downtown Heliport
FAA Location Identifier (8A4)

Date: June 6, 2024

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INDIANAPOLIS DOWNTOWN HELIPORT ASSESSMENT REPORT

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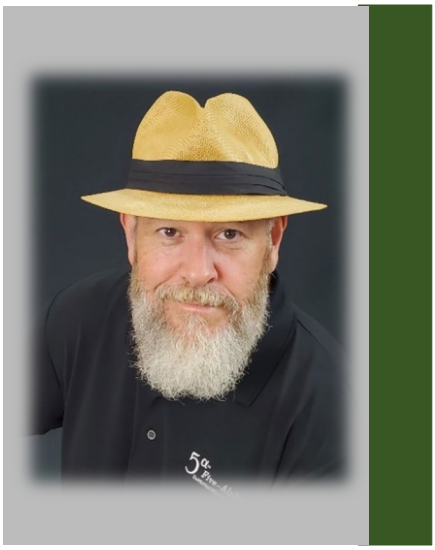
Five-Alpha LLC
Rex Alexander / President & Executive Director



Beginning his aeronautical pursuits in 1976, Rex is a veteran rotary wing and fixed wing pilot, airframe & powerplant technician and aviation entrepreneur with some four decades of experience in military aviation, general aviation, and commercial aviation. His primary areas of concentration have been in vertical flight infrastructure design and development, helicopter air ambulance operational development and oversight, military operations and training, and offshore oil and gas support. Through his continued efforts to advance safety in the aviation community, Rex has come to be recognized as one of the global leaders in the world of Helicopter, Advanced Air Mobility, and Powered Lift Infrastructure design and safety. Rex currently serves as the primary infrastructure advisor and liaison for the Vertical Flight Society (VFS), representing their interests to the FAA, ICAO, government officials, and the aviation community at large. He is a volunteer with the American Society of Testing and Materials (ASTM) International F38 committee, acting as the primary author for New Specification for Vertiport Design (WK59317) for the next generation of vertical flight infrastructure for manned and unmanned aircraft. Since 2007 he has been a volunteer on the Vertical Aviation Safety Team (VAST), formerly the International Helicopter Safety Team (IHST), as well as the U.S. Helicopter Safety Team (USHST) and serves as the cochair of the Infrastructure Woking Group, functioning as a primary liaison on vertical flight infrastructure matters to the U.S. Congress. Since 2010 he has served as a platform instructor to the U.S. D.O.T. Transportation Safety Institute (TSI) for whom he helped develop and now teaches their Heliport Planning and Evaluation Course in conjunction with Heliport Accident Investigation Techniques for their Advanced Rotorcraft Accident Investigation course. He has served on the National Fire Protection Associations (NFPA)-418, Standard for Heliports Technical Committee since 2009 and is the current chair, and is a member of the Illuminating Engineering Society (IES) Airport and Heliport Lighting Committee. He is a former board member and past president of the National EMS Pilots Associating (NEMSPA) as well as a former board member and past president of the Indiana Association of Air Medical Services (INAAMS). He is an alumnus of Parks College of Aviation at St. Louis University and is a former U.S. Army Warrant Officer and 'Aeroscout' Helicopter Pilot, Instructor Pilot and Standardization Instructor having served both on active duty and in the Indiana Army National Guard.

Professional Data

Experience

40 Years Aviation
35 Years Helicopter Pilot
30 Years Infrastructure Development
20 Years Helicopter Air Ambulance
11 Years Military Aviation

Education

BS Aeronautics, Parks College

Training and Certifications

Commercial Helicopter Pilot
Private Airplane Pilot
Airframe & Powerplant Technician
U.S. Army Warrant Officer Course
U.S. Army Helicopter Pilot
U.S. Army Instructor Pilot
U.S. Army Standards Instructor
Former IS-BAO Inspector
TSI Safety Management Systems
TSI Heliport Course
TSI Rotorcraft Accident Course

Memberships

Vertical Flight Society
Aircraft Owners & Pilots Association
Experimental Aircraft Association
National Fire Protection Association
ASTM International
Vertical Aviation International

EXECUTIVE OVERVIEW

GENERAL

The Indianapolis Downtown Heliport, identified by the FAA location identifier 8A4, holds the distinction of being the first public use downtown municipal heliport in the United States. Initially opened as a private-use heliport in 1969, it was officially designated for public use by the FAA in 1978. Among the 6,191 heliports in the U.S. recognized by the FAA, 8A4 is one of only 53 designated for public use and is the sole public-use heliport in Indiana.

Indiana's aviation infrastructure includes 119 private-use heliports, 7 of which are publicly owned, and 350 airports, comprising 99 public-use and 251 private-use facilities. The Indianapolis Airport Authority has been involved with the heliport since its inception, initially through a lease agreement with Conrail Railroad for $1 per year. In 1979, the Authority authorized the purchase of the 2.3-acre heliport site for approximately $171,000, with $75,000 of the purchase price funded by a State Aeronautics Commission grant.

This report provides an overview of the heliport designated as 8A4, highlighting its key features and operational capabilities.

Heliport Layout and Dimensions

1. **Landing Site:**
    - **Touchdown and Liftoff (TLOF) Area:**
        - Diameter: 60 feet
        - Function: Marked area designated for the precise landing and liftoff of helicopters.
    - **Final Approach and Takeoff (FATO) Area:**
        - Diameter: 91 feet
        - Function: Surrounding area providing additional space for approach and takeoff maneuvers.
2. **Accommodations:**
    - Capable of handling all commercially operated helicopters in the U.S., including the new Presidential Sikorsky S92.

Additional Facilities

1. **Parking Positions:**
    - Number: 6
    - Marked positions for helicopter parking when not in use or undergoing maintenance.
2. **Refueling System:**
    - Above-ground refueling system available for helicopter fuel needs.
3. **Hangars:**

- **Maintenance Hangar:**
  - Size: 6,000 square feet
  - Function: Space for helicopter maintenance operations.
- **Storage Hangar:**
  - Size: 6,000 square feet
  - Function: Storage space for helicopters and related equipment.
- Both hangars are located on either side of a three-story central tower and building.

4. **Central Building:**
   - Includes terminal/waiting area and associated office space for operations management.

Unique Attributes

- **Size and Public-Use Status:**
  - Third largest public-use heliport in the U.S. in terms of physical operational area.
  - One of only five public-use heliports in existence with published instrument procedures.

Instrument Flight Capabilities

- **Instrument Flight Rules (IFR):**
  - Equipped for operations under IFR, allowing helicopters to operate in Instrument Meteorological Conditions (IMC).
  - This capability enables safe operation during poor visibility conditions, enhancing the heliport's functionality and safety.

Exclusions

- This report does not cover the details of hangars and fuel systems.
- IFR airspace considerations are also excluded from the scope of this evaluation.

This overview demonstrates 8A4's substantial capacity and sophisticated facilities, making it a crucial infrastructure component for both routine and specialized helicopter operations in the United States.

REGULATORY COMPLIANCE

The following summary addressed the compliance status for the heliport under the FAA standards is clear and well-structured.

1. **Current FAA Standards**:
   - FAA standards for public use airports and heliports that have accepted federal funding are outlined in the FAA Heliport Design Advisory Circular AC 150/5390.

2. **Grandfather Clause**:
    - Airports and heliports are typically grandfathered under the standards that were effective at the time of their activation.
    - They are only required to comply with newer standards if there has been a major change to the site location or its airspace.
3. **Assessment of Heliport 8A4**:
    - After reviewing all available records, no major changes to the site location or its airspace were identified for heliport 8A4.
    - Therefore, the applicable standard for heliport 8A4 is AC 150/5390-1B, which was published on August 22, 1977.
4. **Compliance Evaluation**:
    - The heliport was evaluated using the standards in AC 150/5390-1B.
    - It was found to be in full compliance with all published requirements of this advisory circular.

To maintain the current compliance status, it's crucial to regularly review any updates or changes in FAA standards and ensure that no major alterations are made to the heliport's site location or airspace without proper reassessment.

The heliport advisory circular issued by the FAA not only addresses aviation standards but also references several fire safety standards established by the National Fire Protection Association (NFPA). These standards, widely adopted by municipalities and referenced by the International Code Council (ICC) in their Building and Fire Code standards, play a critical role in ensuring the safety and compliance of heliports. For the specific heliport in question (8A4), the primary applicable standards include:

1. **NFPA 407: Standard for Aircraft Fuel Servicing**
2. **NFPA 409: Standard on Aircraft Hangars**
3. **NFPA 418: Standard for Heliports**

Key Points Regarding the Application of Standards:

- **Historical Application:** The application of these standards typically corresponds to the version in effect at the time of the site's activation or the installation of the relevant component.
- **Authority Having Jurisdiction (AHJ) Discretion:** The AHJ has the authority to require existing sites to comply with newer standards if they determine that an element previously not fully addressed poses a safety critical risk.

Focus on NFPA 418:

For this particular study, only **NFPA 418** was applied, specifically the 2016 edition.

Compliance Overview:

- **Design Compliance:** The overall design of the heliport meets the requirements set forth in NFPA 418 (2016 edition).
- **Fire Extinguishers:** There are minor discrepancies concerning the number and placement of fire extinguishers on-site. However, these issues are relatively straightforward to rectify.

While minor adjustments related to fire extinguisher placement are needed, the heliport's overall design complies with the NFPA 418 standard from the perspective of its overall design. This compliance ensures a robust framework for fire safety at the heliport, contributing to the overall safety and operational integrity of the facility.

The regulations and standards governing heliports in Indiana are indeed specified in the Indiana State Code Title 8, Utilities and Transportation, under Article 21, Aeronautics. The relevant section, IC 8-21-10-8, addresses airport and heliport imaginary surfaces, which are designed to ensure safety and efficiency in air navigation.

Key Points of IC 8-21-10-8

1. **Imaginary Surfaces Defined**:
    - **Primary Surface**: A rectangular area centered on the heliport's designated takeoff and landing area, extending horizontally.
    - **Approach Surface**: A surface extending outward and upward from the end of the primary surface along the approach path.
    - **Transitional Surfaces**: Extend outward and upward at right angles to the runway centerline and approach surfaces.
2. **Protection for Public-Use Airports and Heliports**:
    - These regulations provide extensive safety zones around public-use facilities.
    - Height restrictions and other controls are imposed to prevent obstructions that could interfere with aircraft operations.
3. **Lack of Protection for Private-Use Facilities**:
    - Private-use heliports, which include hospital heliports, do not receive the same level of regulatory protection.
    - This means that hospital heliports are potentially more susceptible to encroachments by buildings, structures, and other obstructions.

The Indiana State Code provides a robust framework for the protection of public-use airports and heliports through IC 8-21-10-8. However, this level of protection is not extended to private-use facilities, including hospital heliports. This regulatory gap highlights the need for potential advocacy and policy adjustments to ensure the safety and effectiveness of medical air transport services in Indiana.

In reviewing the applicable standards that apply to the heliport regarding the zoning ordinances for Marion County, the following restrictions apply regarding land use under the imaginary surfaces: Sec. 742-205. - Airspace Secondary Zoning District:

"Prohibited uses for heliport. Within that part of the heliport surface areas and heliport transitional surface areas of the Airspace District and designated on the official zoning map, which extend 4,000 feet from the designated landing and takeoff area of the heliport, no building, structure or premises shall be erected, relocated or converted for use as a school, church, child caring institution, hospital, stadium, sports arena, public swimming pool, picnic grounds, public auditorium, assembly hall, carnival, amusement park, correctional or penal institution or any other public assembly use."

FEDERAL FUNDING

The following is a breakdown of the known financial details related to the Indianapolis Downtown Heliport (8A4) and the Airport Improvement Planning (AIP) program funding it received.

Funding Details

- Total AIP funding received (2007-2019): $2.2 million.
- Prorated estimate on the traditional 20-year cycle: $900,000

The $900,000 prorated amount is based on the depreciation of the federal funds over a 20-year cycle. This means the federal government is due back a portion of the funds if the heliport is sold before the end of this cycle.

To clarify, when a federally funded airport or heliport is sold, the government expects a return of a proportionate amount of the invested funds, reflecting the remaining time in the funding cycle.

Given the provided prorated amount of $900,000, this calculation might include additional factors or different assumptions about the distribution of funds, or the specific projects funded within the cycle.

Based on the information provided, if the Indianapolis Downtown Heliport (8A4) were to be sold today, the prorated amount due to the Federal Government is estimated at $900,000. This reflects the remaining value of the federal investment over the 20-year cycle, adjusted for the improvements funded by the AIP program between 2007 and 2019.

LAND-USE COMPATIBILITY

The constraints on vertical development around the heliport are multi-faceted, encompassing restrictions due to both Visual Flight Rules (VFR) and Instrument Flight Procedures, as well as considerations related to the proximity of the Indianapolis International Airport. Here's a detailed breakdown of these constraints:

VFR Airspace Constraints for the Heliport:

1. **8:1 Approach Surface:**
    - Any structure under the approach paths of the heliport must remain below an imaginary surface extending outward and upward from the heliport at a ratio of 8:1 (8 units horizontally for every 1 unit vertically).
2. **Lateral 2:1 Transitional Surfaces:**
    - Structures must also remain below the transitional surfaces, which extend outward and upward from the sides of the approach surfaces at a ratio of 2:1 (2 units horizontally for every 1 unit vertically).
3. **Beyond the VFR Paths:**
    - Outside the defined VFR approach/departure paths and their associated airspaces, there are no specific height restrictions related to the heliport's VFR airspace.

Instrument Flight Procedures:

- **FAA Determination:**
    - For areas beyond the specified VFR paths, any proposed construction may still require an FAA determination to assess the impact on Instrument Flight Procedures. This assessment ensures that the new structures do not interfere with the navigational aids and instrument approaches used by aircraft operating under Instrument Flight Rules (IFR).

Proximity to Indianapolis International Airport:

- **Additional Height Restrictions:**
    - The heliport's proximity to the Indianapolis International Airport imposes further height restrictions unrelated to the heliport's VFR airspace. These restrictions are to prevent obstructions in the airspace used by the airport, ensuring safety and efficiency for a wider range of aviation operations.

Understanding and complying with these multi-layered airspace and height restrictions is essential for any development project near the heliport and the Indianapolis International Airport to ensure safety and regulatory adherence.

HELIPORT AIRSPACE

Based on the provided information, the heliport (identified as 8A4) has been evaluated and found to be in compliance with the Federal Aviation Administration (FAA) guidelines concerning protected airspace, specifically under the Code of Federal Regulations Title 14 Part 77.23, which deals with Heliport Imaginary Surfaces.

Here is a breakdown of the key points:

1. **Compliance with FAA Guidelines**: The heliport's airspace meets all FAA requirements for protected airspace. This ensures safe operations for aircraft using the facility.

2. **Heliport Imaginary Surfaces**: The 8:1 imaginary surface required under CFR Title 14 Part 77.23 ensures that there are no obstructions that would interfere with the safe approach and departure of aircraft.
3. **Jeppesen Charts**: The Jeppesen charts, which provide detailed navigational information, were published on June 11, 2021, and reflect the current status of the heliport's approach/departure routes.
4. **Approach/Departure Routes**:
    - **East Route**:
        - **Ingress Heading**: 276°
        - **Egress Heading**: 096°
    - **Southwest Route**:
        - **Ingress Heading**: 030°
        - **Egress Heading**: 210°
5. **On-site Evaluation**: Both approach and departure paths have been physically evaluated on-site and confirmed to meet FAA regulatory guidelines, ensuring they are clear of obstructions and safe for operations.

In summary, the heliport 8A4 is fully compliant with FAA guidelines regarding protected airspace, with well-defined and safe VFR approach and departure routes as documented in the Jeppesen charts and confirmed by on-site evaluations.

STRATEGIC PLAN FOR ENHANCING HELIPORT UTILIZATION

1. Operational Enhancements

Objective: Expand operational hours to increase accessibility for helicopter operators and users.

- **Action Steps:**
    - **Extended Hours:** Increase staffing to cover early morning and evening hours during weekdays. Implement a phased approach to test the feasibility of 24/7 operations.
    - **Weekend Operations:** Ensure availability by having dedicated staff or a reliable on-call system for weekends.
    - **Technology Integration:** Introduce automated systems for scheduling and access to reduce reliance on on-site staffing.

Outcome: Increased accessibility and attractiveness to helicopter operators and users, leading to higher utilization.

2. Improved City Access

Objective: Facilitate easier and quicker access from the heliport to the surrounding city.

- **Action Steps:**

- **Transportation Links:** Develop partnerships with local taxi and ride-sharing services to offer dedicated pick-up and drop-off points at the heliport.
- **Shuttle Service:** Introduce a shuttle service operating on a fixed schedule between the heliport and key city locations.
- **Infrastructure Improvements:** Work with city planners to improve signage and road conditions leading to and from the heliport.

Outcome: Reduced travel time and inconvenience for users, enhancing the heliport's convenience and appeal.

3. Marketing and Outreach

Objective: Attract more operators and tenants through targeted marketing and outreach efforts.

- **Action Steps:**
  - **Marketing Campaign:** Launch a comprehensive marketing campaign highlighting the heliport's features, improved operational hours, and enhanced city access.
  - **Industry Engagement:** Participate in industry conferences and events to promote the heliport and establish relationships with potential operators.
  - **Incentive Programs:** Develop incentive programs for new operators and tenants, such as reduced landing fees or promotional rates for long-term leases.

Outcome: Increased visibility and attractiveness of the heliport to potential operators, leading to higher occupancy and utilization.

4. Partnerships and Collaboration

Objective: Foster partnerships with local businesses and government entities to support heliport development and utilization.

- **Action Steps:**
  - **Local Business Engagement:** Collaborate with local businesses to create mutually beneficial arrangements, such as offering heliport services to business clients.
  - **Government Support:** Work with municipal and state governments to secure funding and support for heliport improvements.
  - **Community Involvement:** Engage with the local community to address concerns and highlight the benefits of an active heliport.

Outcome: Stronger community ties and support, leading to a more sustainable and integrated heliport operation.

5. Performance Monitoring and Continuous Improvement

Objective: Establish a robust system for monitoring performance and continuously improving heliport operations.

- **Action Steps:**
  - **Key Metrics:** Define key performance indicators (KPIs) such as utilization rates, customer satisfaction, and financial performance.
  - **Regular Reviews:** Conduct regular reviews of performance data and gather feedback from users to identify areas for improvement.
  - **Continuous Improvement:** Implement a continuous improvement process to address identified issues and capitalize on new opportunities.

Outcome: Ongoing optimization of heliport operations, ensuring sustained growth and user satisfaction.

By addressing the key challenges related to operational hours, city access, marketing, and partnerships, the heliport can significantly improve its utilization. Implementing this strategic plan will not only attract more helicopter operators and tenants but also enhance the overall user experience, making the heliport a more viable and attractive option for aviation activities.

BUSINESS OPPORTUNITIES

The Indianapolis Downtown Heliport experienced a notable period of success in the 1980s, becoming a model for other cities due to its efficient design and operation. This success was largely attributed to the involvement of helicopter professionals in its management, facilitated by a public-private partnership between the Indianapolis Airport Authority and the Indianapolis Heliport Corporation. With approximately 10,000 annual departures and landings, the heliport was a bustling hub of activity. However, this success dwindled in the mid-90s after Rocky Mountain Helicopters acquired the Indianapolis Heliport Corporation and removed the professional management team, leading to a decline in operations.

During the dedication ceremony in May 1985, Mayor William Hudnut praised the heliport as a symbol of progress and downtown revitalization, emphasizing its potential to enhance the city's competitive edge. These words resonate today as Indianapolis has a unique opportunity to capitalize on the next generation of aviation technology known as Advanced Air Mobility (AAM). AAM involves electric and hybrid/electric distributed lift aircraft, which could revolutionize urban transportation.

By modifying the heliport to support electric aviation, Indianapolis can develop a multimodal transportation system, integrating the heliport with existing road, rail, and air traffic. This expanded transportation ecosystem could significantly benefit the city's residents and alleviate traffic congestion around downtown sporting venues.

In considering future developments, it is worth noting the potential role of the Airport Investment Partnership Program (AIPP). Originally established as the Airport Privatization Pilot Program (APPP) in 1996, the AIPP aims to enhance airport efficiency, competitiveness, and financial viability through private investment. Although participation has been limited due to conflicting stakeholder interests, the program might offer a viable framework for re-invigorating the Indianapolis Heliport. Exploring the AIPP could provide the necessary capital and expertise to transform the heliport into a leading hub for AAM, aligning with the city's goals of progress and revitalization.

FUTURE DEVELOPMENT OPPORTUNITIES

The Indianapolis Downtown Heliport holds immense potential as a transformative hub for Advanced Air Mobility (AAM) and Urban Air Mobility (UAM). By leveraging this underutilized resource, Indianapolis can position itself as a leader in the future of green transportation and urban mobility, creating significant economic and educational opportunities. Here's a breakdown of how this vision can be realized:

1. Advanced Air Mobility (AAM) and Urban Air Mobility (UAM)

Potential Benefits:

- **Efficient Transportation:** AAM can revolutionize public transport by reducing congestion on roads and providing faster, more efficient travel within the city and surrounding areas.
- **Environmental Impact:** Electric Vertical Takeoff and Landing (eVTOL) vehicles and other green transportation technologies can reduce carbon emissions, contributing to a more sustainable urban environment.
- **Economic Growth:** Establishing Indianapolis as a hub for AAM can attract businesses and investments, creating jobs and boosting the local economy.

Implementation Strategies:

- **Infrastructure Development:** Upgrading the heliport to support AAM technologies, including charging stations for electric aircraft, advanced navigation systems, and passenger facilities.
- **Regulatory Support:** Working with local and federal authorities to create a regulatory framework that supports the integration of AAM into the city's transportation network.
- **Public-Private Partnerships:** Engaging with private companies and investors to fund and develop AAM infrastructure and services.

2. Educational Opportunities and Workforce Development

STEM Education Center:

- **Aviation and Aerospace Training:** Establishing an educational center focused on aviation and aerospace can address the growing demand for professionals in these fields.
- **STEM Programs:** Developing STEM programs in collaboration with local schools, colleges, and universities to inspire and train the next generation of engineers, scientists, and aviation professionals.
- **Industry Collaboration:** Partnering with industry leaders to provide internships, apprenticeships, and hands-on training opportunities for students.

Community Impact:

- **Skill Development:** Providing local residents with access to high-quality education and training in emerging technologies can enhance job prospects and economic mobility.
- **Innovation Hub:** Creating a hub for innovation and research in aviation and aerospace technologies can attract top talent and foster a culture of innovation in Indianapolis.

3. Global Business Model and Use-Case

Showcasing Success:

- **Pilot Projects:** Implementing pilot projects to demonstrate the feasibility and benefits of AAM and UAM, attracting global attention and serving as a model for other cities.
- **Conferences and Events:** Hosting international conferences and events focused on AAM, UAM, and green transportation to position Indianapolis as a leader in these fields.
- **Research and Development:** Investing in R&D to advance AAM technologies and develop best practices that can be shared globally.

Collaboration and Networking:

- **International Partnerships:** Building partnerships with cities, companies, and organizations worldwide to exchange knowledge and collaborate on AAM initiatives.
- **Knowledge Sharing:** Creating platforms for knowledge sharing and collaboration, such as online forums, publications, and workshops.

By capitalizing on the potential of the Indianapolis Downtown Heliport, the city can become a beacon of innovation in urban transportation and education. This vision requires a coordinated effort from government, industry, and educational institutions to fully realize the benefits of AAM and UAM, driving economic growth, sustainability, and educational excellence.

POTENTIAL OPTIONS

The decision surrounding the heliport indeed involves several nuanced considerations. Here's a detailed look at each of the five potential options:

1. Maintain as Publicly Owned and Public Use

Pros:

- **Public Accessibility:** The heliport remains accessible to the general public and can serve a wide range of users including emergency services, corporate flights, and tourism.
- **FAA Protection:** As a public-use facility, the heliport benefits from FAA protection for its airspace.
- **Public Benefit:** Continued operation could support economic development and connectivity in the area.

Cons:

- **Operational Costs:** The city and the Indianapolis Airport Authority bear all operational and maintenance costs.
- **Liability:** The city retains all liabilities associated with the heliport's operations.

2. Public Ownership with Private Operation

Pros:

- **Expert Management:** A third-party operator with expertise in helicopter operations can potentially manage the heliport more efficiently.
- **Cost Reduction:** The city can reduce its operational burden while still owning the asset.
- **Continued Public Use:** The heliport remains available to the public under professional management.

Cons:

- **Contractual Complexity:** Requires detailed agreements to ensure the operator meets public service obligations.
- **Oversight Required:** The city would still need to monitor the operator's performance and compliance with terms.

3. Eliminate and Sell for Development

Pros:

- **Immediate Revenue:** Sale of the land could provide a significant one-time financial boost to the city.
- **Development Opportunities:** New development could bring additional revenue streams and enhance the downtown area.

Cons:

- **Irreplaceable Asset:** Once sold, it's nearly impossible to find another suitable location for a heliport within the city.
- **Future Needs:** Eliminating the heliport could limit future urban air mobility options and emergency services.

4. Private Ownership with Public Use

Pros:

- **Cost Transfer:** The city and Airport Authority are relieved of ownership and operational responsibilities.
- **Public Accessibility:** The heliport remains accessible to the public, retaining its benefits for the community.
- **FAA Protection:** Airspace protection continues under FAA regulations for public-use facilities.

Cons:

- **Dependence on Private Owner:** Continued public use relies on the private owner's commitment.
- **Regulation and Oversight:** The city must ensure the private owner adheres to public-use obligations.

5. Private Ownership and Private Use

Pros:

- **Complete Cost Transfer:** The city and Airport Authority no longer bear any operational costs or liabilities.
- **Potential Safety:** Restricted access can potentially enhance operational safety and control.

Cons:

- **Limited Access:** The heliport becomes inaccessible to the general public, potentially impacting services that rely on it.
- **Loss of FAA Protection:** Airspace protection is no longer guaranteed by the FAA, relying solely on the private owner's management.

Conclusion

The best option depends on the city's priorities, including financial considerations, public service commitments, and long-term strategic goals for urban mobility and development. A thorough cost-benefit analysis, including stakeholder input and future urban planning considerations, will be crucial in making an informed decision.

1. FEDERAL FUNDING

According to FAA records the Indianapolis Heliport has received the following federal grant monies allocated under the Airport Improvement Plan (AIP) program.

Year	Amount	Description of Work
2007	$476,168.00	Rehabilitate Heliport/Helipad, Rehabilitate Terminal Building
2010	$274,832.00	Rehabilitate Parking Lot
2010	$175,168.00	Rehabilitate Terminal Building
2011	$112,648.00	Rehabilitate Apron
2012	$187,352.00	Rehabilitate Apron
2014	$300,000.00	Rehabilitate Apron
2015	$150,000.00	Rehabilitate Apron
2016	$150,000.00	Rehabilitate Apron
2017	$150,000.00	Construct Fuel Farm
2018	$150,000.00	Construct Fuel Farm
2019	$77,966.00	Construct Fuel Farm
Total	**$2,204,134.00**	

2. FLIGHT VOLUMES

While historical records for flight volumes are scarce, the following data was found during a review of the historical archives of Indianapolis Newspapers.

23 Apr 1986 / Indianapolis News: *"Operations – Aviation Lingo for takeoffs and landings – are running between 800 and 900 a month."* Jim Brown President Indianapolis Heliport Corp.

30 Jan 1990 / Indianapolis News: *"There is a total of about 10,000 departures and landings annually at the heliport."* Jim Brown President Indianapolis Heliport Corp.

The following data was produced by the company Flight Aware for this review utilizing Automatic Dependent Surveillance–Broadcast (ADS-B) data from aircraft which have operated at the Indianapolis Downtown Heliport over the past five years. Since the heliport does not track operations in the same way that airports do there are no records that indicate the volume of operations experienced at this facility other than this data. Due to the fact that when the FAA published its final rule mandating that by 2020 all aircraft owners will be required to have ADS-B Out capabilities when operating in any airspace that currently requires a transponder (airspace classes A, B, and C, and airspace class E at certain altitudes) early data, 2018-2020 is sporadic and incomplete.

FLIGHTAWARE | 8A4 DEPARTURE COUNT BY YEAR | 2018-2024		
RANKED	**YEAR**	**COUNT**
1	2023	3114
2	2022	3069
3	2024	450
4	2021	114
5	2020	85
6	2019	61
7	2018	37

FLIGHTAWARE | 8A4 ARRIVAL COUNT BY YEAR | 2018-2024		
RANKED	**YEAR**	**COUNT**
1	2023	2987
2	2022	2968
3	2024	434
4	2021	113
5	2020	85
6	2019	61
7	2018	37

FLIGHTAWARE | 8A4 DEPARTURE COUNT BY WEEKDAY | 2018-2024	
DAY	**COUNT**
MONDAY	767
TUESDAY	872
WEDNESDAY	975
THURSDAY	842
FRIDAY	891
SATURDAY	857
SUNDAY	1034

FLIGHTAWARE | 8A4 ARRIVAL COUNT BY WEEKDAY | 2018-2024	
DAY	**COUNT**
MONDAY	713
TUESDAY	839
WEDNESDAY	925
THURSDAY	804
FRIDAY	846
SATURDAY	972
SUNDAY	973

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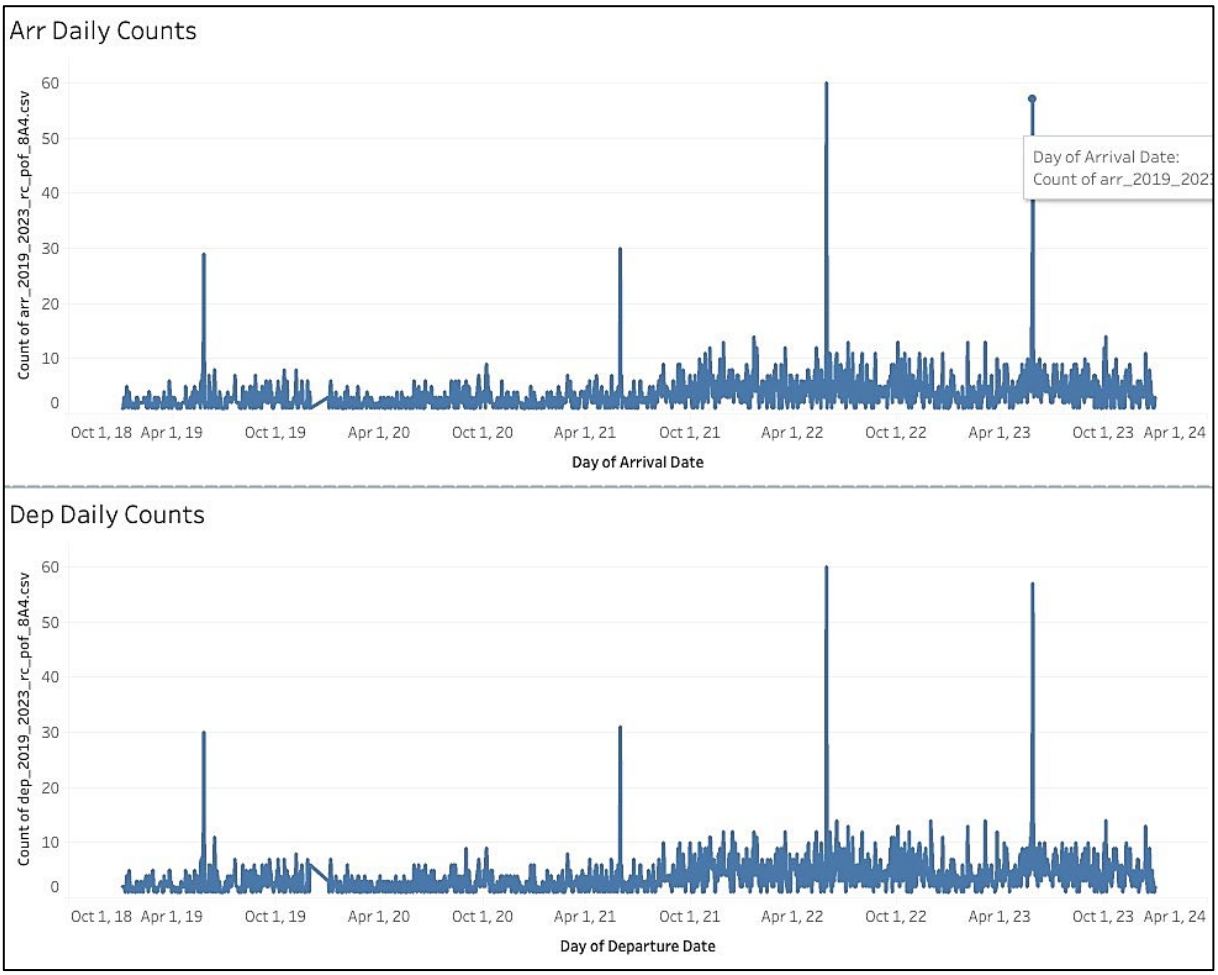
FLIGHTAWARE | 8A4 DEPARTURES | 2018-2024	
Time	**Count**
Day	4372
Night	2558

FLIGHTAWARE | 8A4 ARRIVALS | 2018-2024	
Time	**Count**
Day	4148
Night	2537



*Note: Peaks in the data coincide with operations conducted in support of the Indianapolis 500 race in May.

3. AIRSPACE

The required airspace for a public use heliport is outlined in the Code of Federal Regulation in Title 14 Part 77. The following expert explains what the regulation requires.

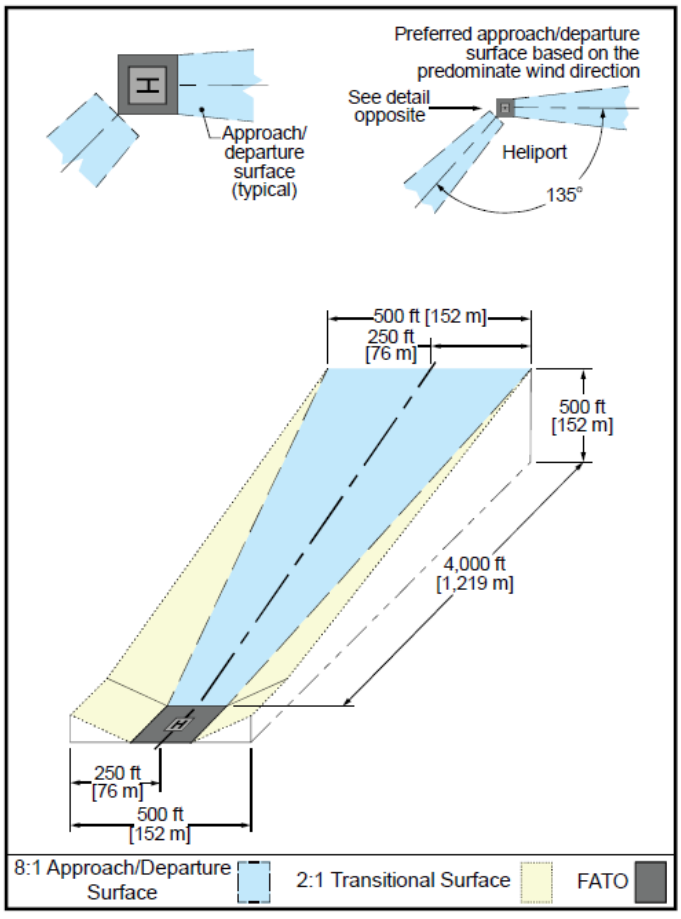
> *§ 77.23 Heliport imaginary surfaces.*
>
> *(a) Primary surface. The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.*
>
> *(b) Approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.*
>
> *(c) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.*

The illustration to the right is from the FAA Heliport Design Advisory Circular 150/5390-2D which illustrates the imaginary surfaces for a public use heliport.

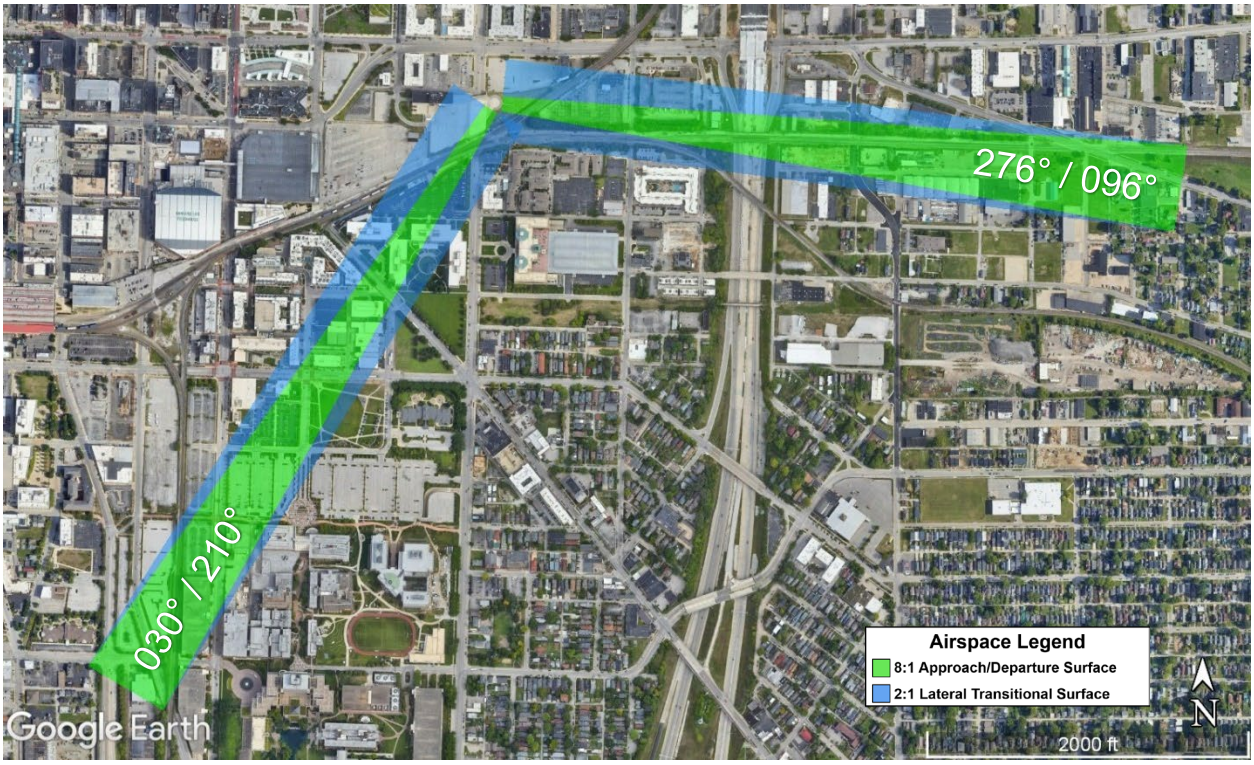
In the case of 8A4 the marked FATO is 91 feet in diameter. This would then indicate that the Primary Surface, which occupies the same space as the FATO, is also 91 feet in diameter. The approach surface originates from the edge of the Primary Surface at the same elevation as the Touchdown Lift Off (TLOF) area. The approach surface then extends outward and upward to a distance of 4,000 feet to a height of 500’ above the heliport TLOF.

Fort the purposes of illustrating the airspace at 8A4 the CAD program Sketchup was utilized in conjunction with Google Earth Pro.

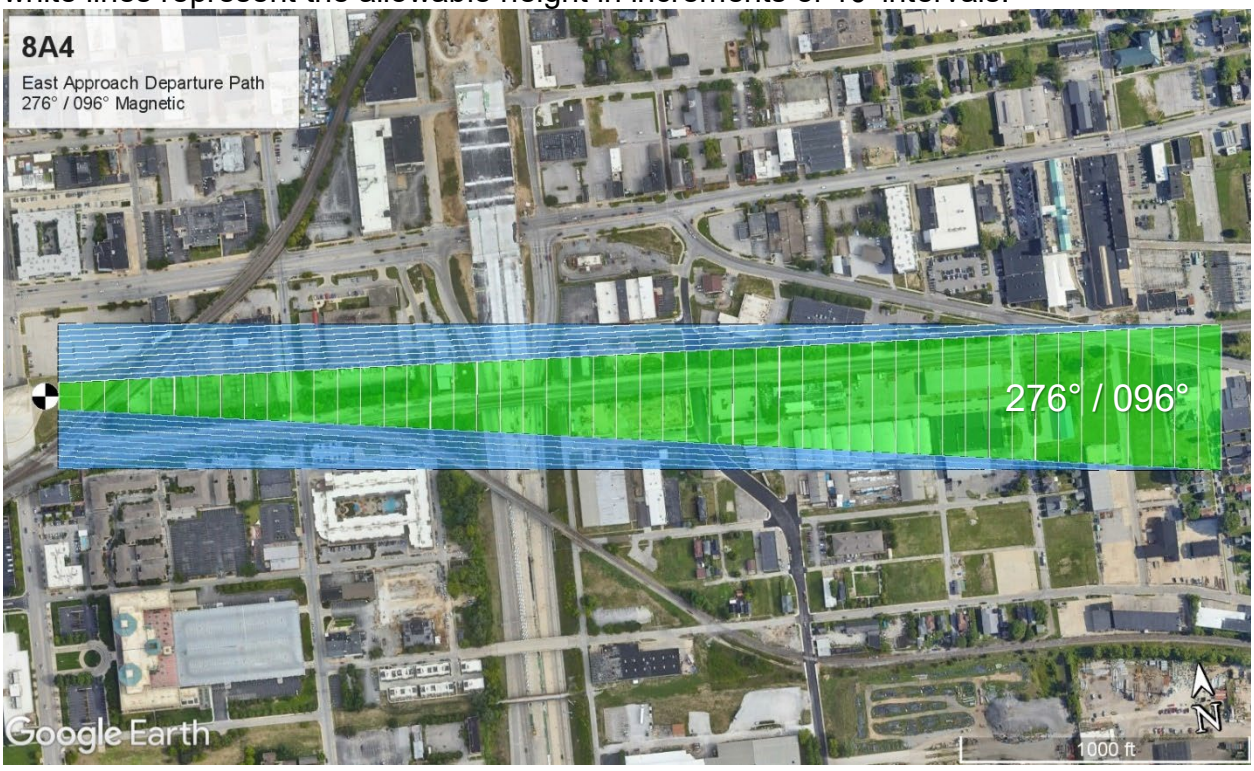
Figure 2-15. VFR Heliport Approach/Departure and Transitional Surfaces



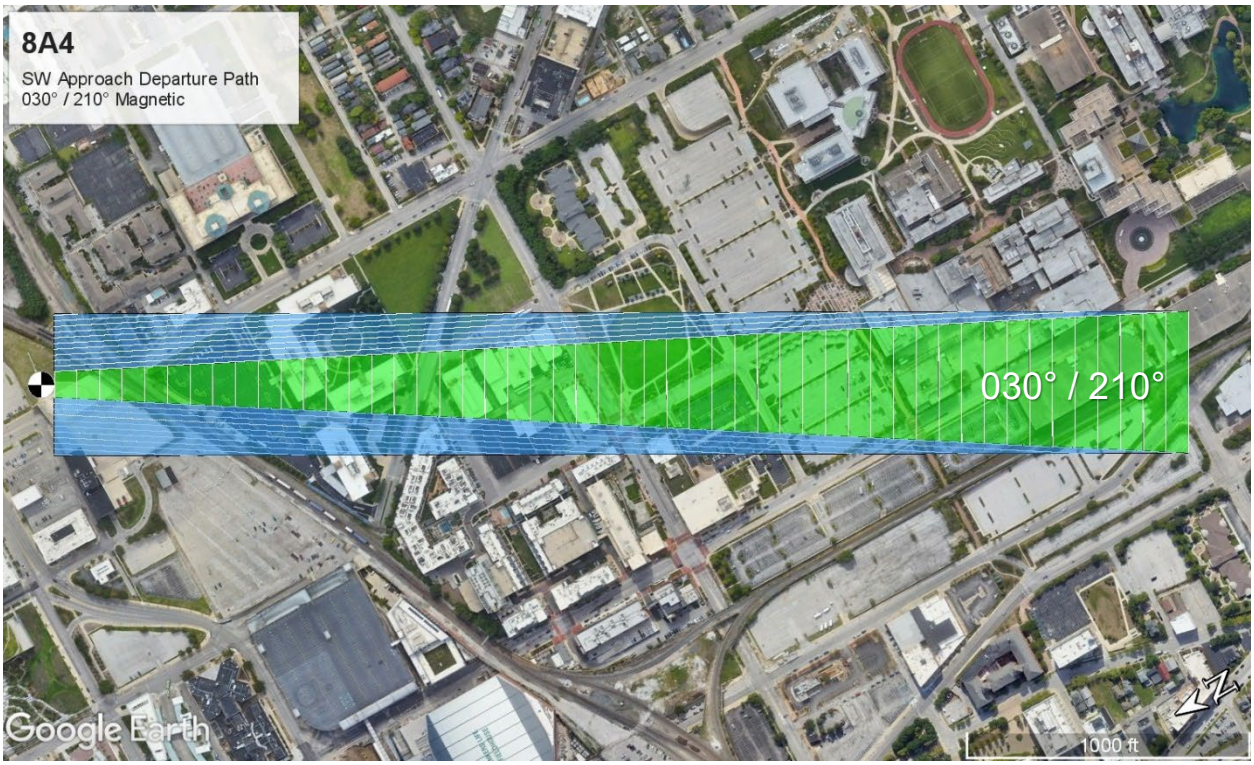
The below image illustrates the VFR airspace that exists at the 8A4 Heliport according to the data from the Jeppesen Charts.



The below image provides a close up look at the East Approach Departure Path. The white lines represent the allowable height in increments of 10’ intervals.



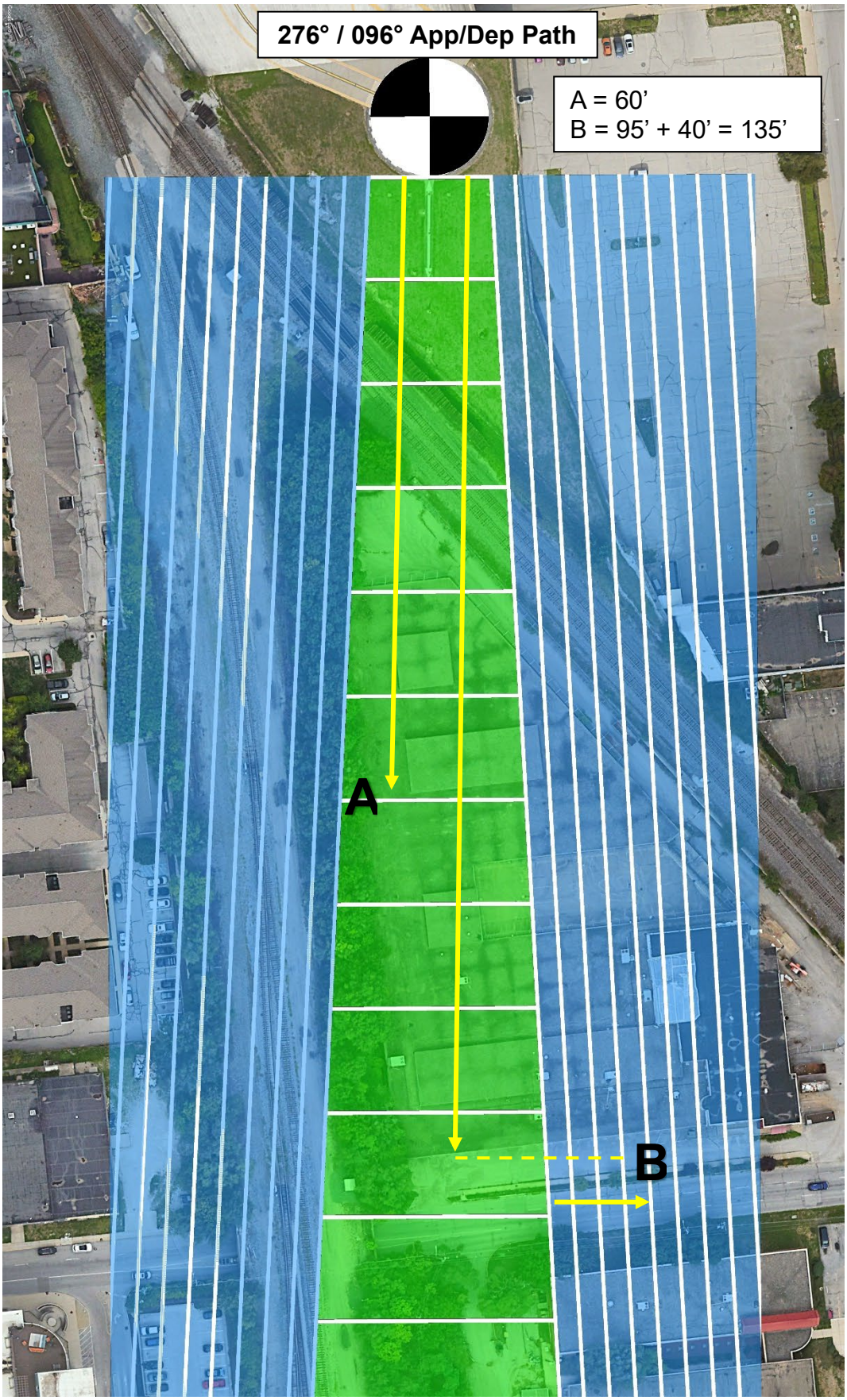
The below image provides a close up look at the Southwest Approach Departure Path. The white lines represent the allowable height in increments of 10' intervals.

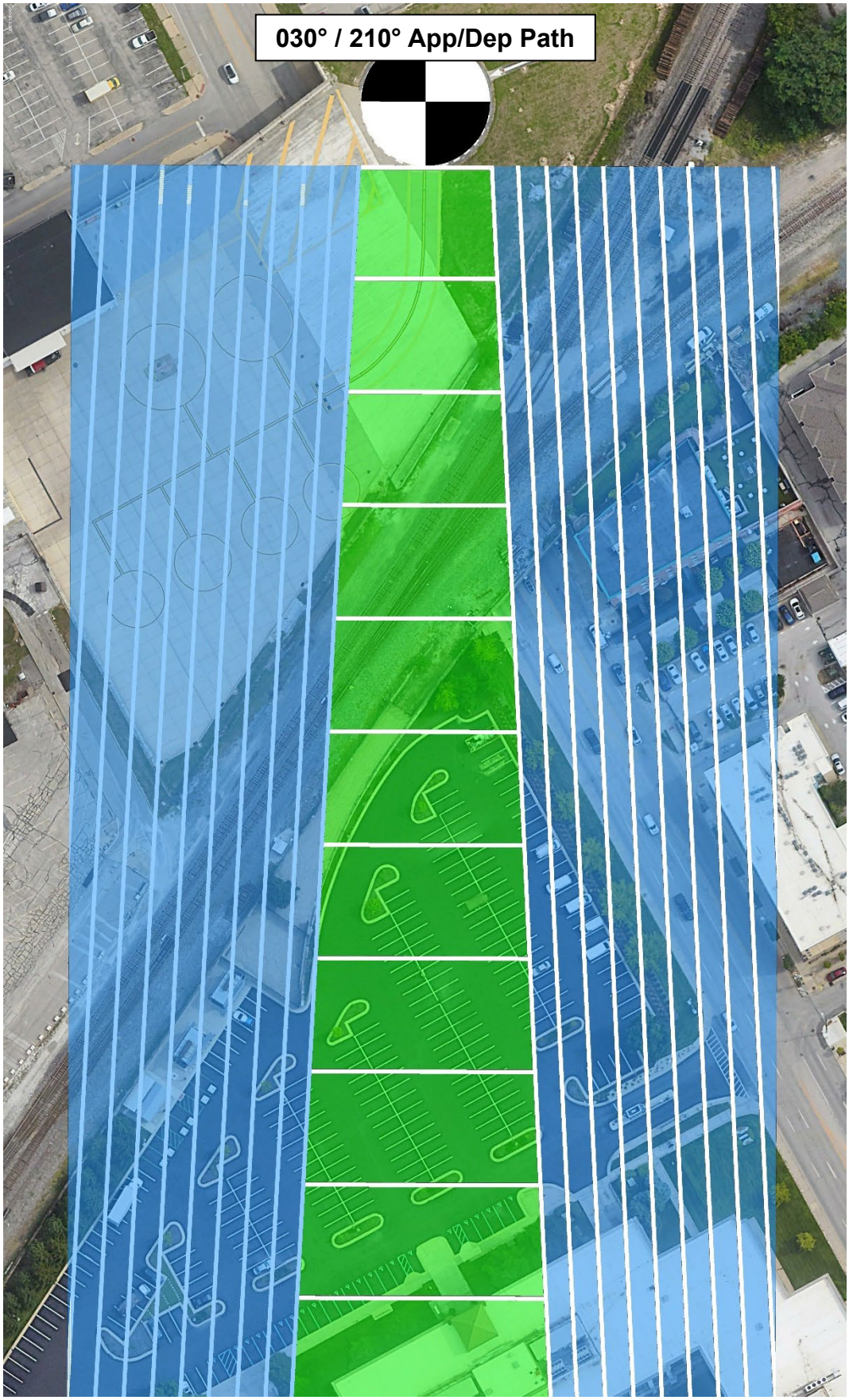


For enhanced clarity, the following illustrations are of the first 1,000' of each of the two approach departure paths. The white lines represent increments of 10 feet in elevation above the FATO in both the approach surface as well as the transitional surfaces. Given that the approach surface ration is 8:1, the area shaded in green, each of the white lines is separated by 80'. For the 2:1 transitional surface, the area shaded in blue, each of the white lines is separated by 20'.

To calculate the maximum allowable height at any point on the illustration you must first start on the white line in the green region that is nearest to the FATO, the black and white circle. From that point count the number of lines to the area that you are interested in and then multiply that number by 10. Being sure to take into account any differences in elevation between the heliport and the location being evaluated this then represents the maximum height anyone can build at that location. If the area that is being evaluated is in the 2:1 blue region, do the same exercise as above and once you're abeam the area in question calculate the first number. Then count the number of white lines, starting at the edge of the 8:1 and working outward, until you reach the area of interest in the blue region. Multiply this number by 10 and then add it to the first number for the maximum height for that location.

It should be kept in mind that these are for estimations only. For a more accurate accounting a more formal survey will need to be accomplished.


276° / 096° App/Dep Path
A = 60’
B = 95’ + 40’ = 135’
A
B


030° / 210° App/Dep Path

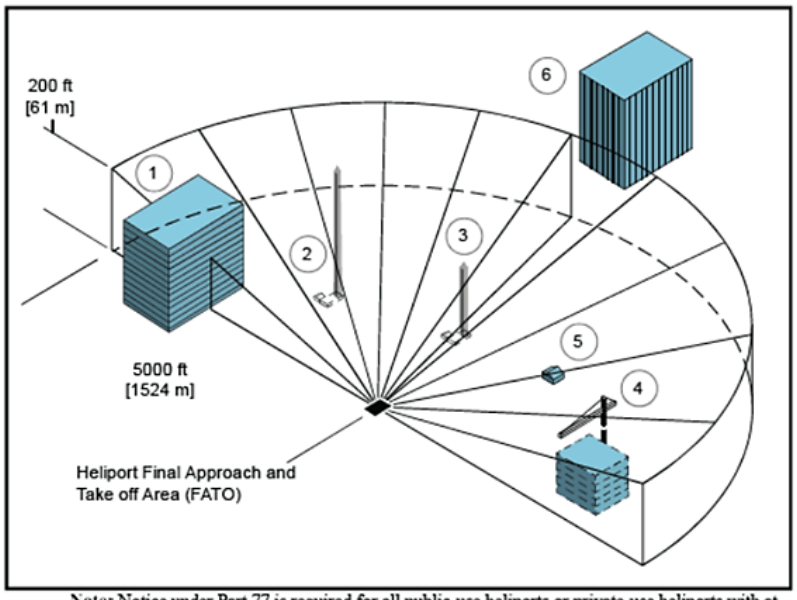
4. OBSTRUCTION EVALUATION

The following excerpt is from the Code of Federal Regulation regarding when notice is required to be provided to the FAA on building construction projects:

> *§ 77.9 Construction or alteration requiring notice.*
>
> *If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:*
>
> *(a) Any construction or alteration that is more than 200 ft. AGL at its site.*
>
> *(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:*
>
> *(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.*

The following illustration is taken from the FAA AC 150/5390-2D Heliport Guide (Jan 2023) which demonstrates how obstructions are evaluated around a heliport.

Figure 1-4. Offsite Development Requiring Notice to the FAA

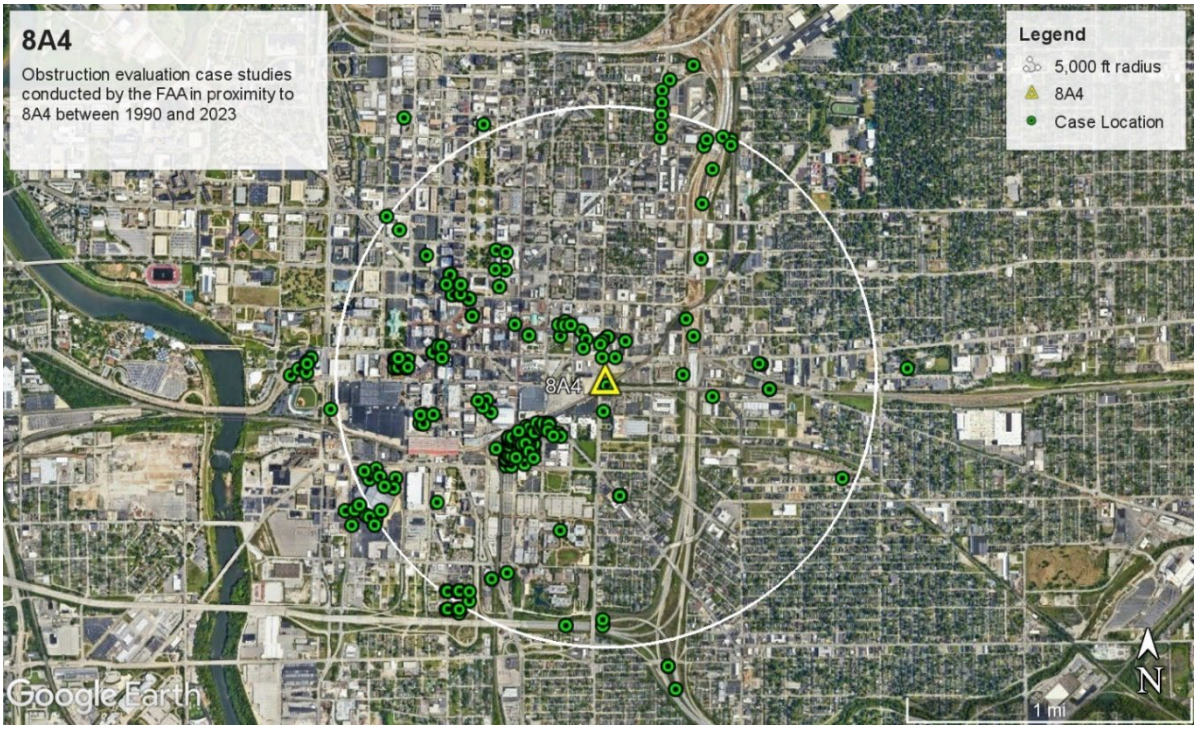


Note: Notice under Part 77 is required for all public-use heliports or private-use heliports with at least one FAA-approved instrument approach procedure.

Offsite Development Examples for Figure 1-4:

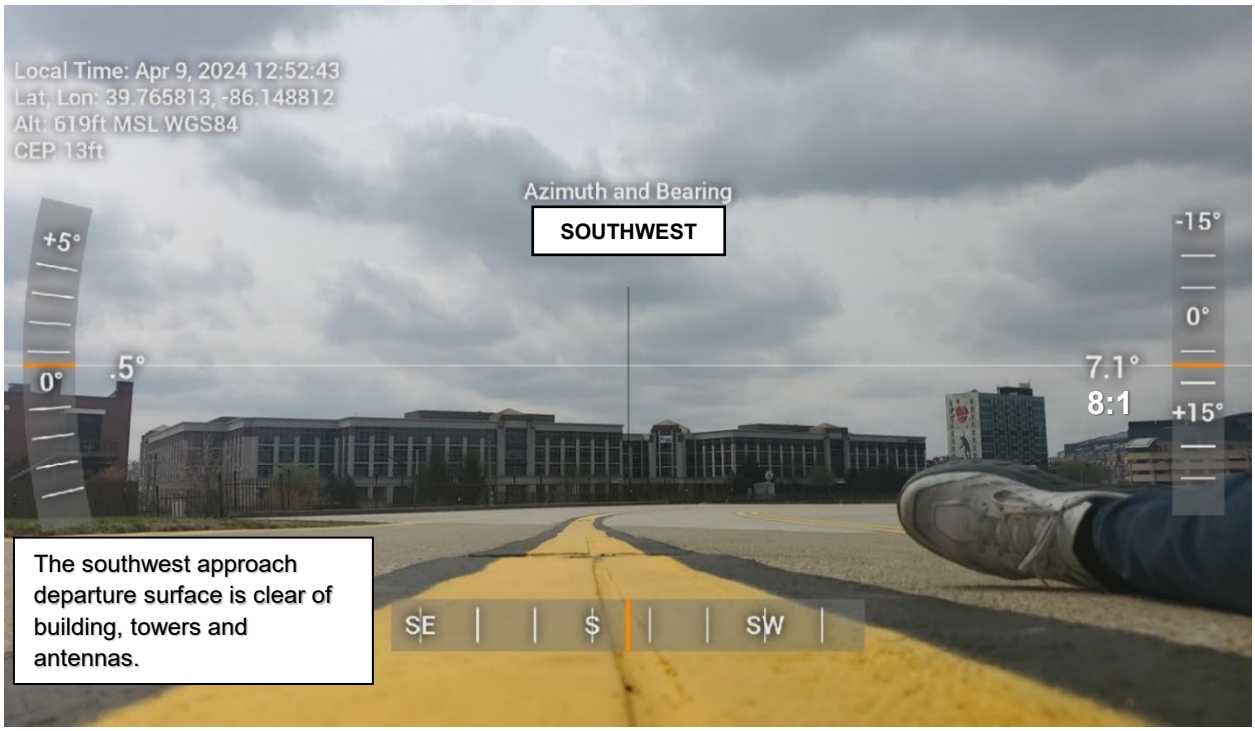
① Building is less than 200 feet (ft) (61 meters (m)) in height, but top will penetrate the 25:1 surface (notice required by § 77.9).
② Antenna is over 200 ft (61 m) in height (notice is required by § 77.9(a)).
③ Antenna is less than 200 ft (61 m) in height and penetrates the 25:1 surface (notice is required by § 77.9(b)(3)).
④ Construction crane penetrates 25:1 surface (notice is required by § 77.9(b)(3)).
⑤ Building is less than 200 ft (61 m) in height and does not penetrate the 25:1 surface (notice is not required).
⑥ Building is more than 5,000 ft (1,524 m) from heliport (notice is required if building will be 200 ft (61 m) or more in height).

According to FAA records, there have been 273 obstruction evaluation request filed in proximity to 8A4 between 1990 and 2023 with the FAA. The data represented in the illustration below is from the FAA Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) website. The data was collected using the circle search parameters for offsite cases using a 1 nautical mile radius from the center of the heliport. The 5,000-foot radius for the heliport obstruction criteria is represented by the white circle.



The photos below were taken using a Dioptra application used for measuring inclination angles on Apr 9, 2024. The horizontal line in the center of the photo represents the 8:1 (7.125°) approach surface that is to be kept clear of any vertical penetrations.

The east approach departure surface is clear of building, towers, and antennas However, the trees do need to be trimmed.



The southwest approach departure surface is clear of building, towers and antennas.

5. FAA AIRPORT DIRECTORY INFORMATION

INDIANAPOLIS DOWNTOWN HELIPORT (8A4) 0 N UTC–5(–4DT) N39°45.95′ W86°08.93′ **ST LOUIS**
732 B NOTAM FILE HUF **L–27D**
HELIPAD H1: H60X60 (CONC) **IAP**
HELIPAD H1: NSTD.
SERVICE: S2 **FUEL** JET A1+ **LGT** Actvt ODALS; NSTD PLASI; and High Ints Pad Lgts—CTAF. ODALS wb ingress. Helipad H1 NSTD Pulsating Apch Slope Indicator; on E apch.
NOISE: Noise abatement proc in efct – amgr.
HELIPORT REMARKS: Attended Mon–Fri 1300–2130Z‡, Sat–Sun on req. Info – 317–955–1271; aft hr – 317–487–5089. Fuel self serve. Minor repairs – 317–487–5089. Helipad H1 building area to northeast is lgtd.
AIRPORT MANAGER: (317) 487-5022
WEATHER DATA SOURCES: AWOS–3 135.525 (317) 955–3160.
COMMUNICATIONS: CTAF/UNICOM 123.05
® **APP/DEP CON** 125.275
CLEARANCE DELIVERY PHONE: For CD ctc Indianapolis Apch at 317-227-5743.
RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.
SHELBYVILLE (VL) (DH) VOR/DME 116.15 SHB Chan 108(Y) N39°37.95′ W85°49.46′ 297° 17.0 NM to fld. 805/1E.
VOR unusable:
010°–045° byd 20 NM blo 4,000′
020°–135° byd 40 NM
046°–085° byd 20 NM blo 6,000′
DME unusable:
085°–105° byd 10 NM blo 5,000′
085°–105° byd 20 NM blo 4,000′
COMM/NAV/WEATHER REMARKS: Coord ingress/egress with Indianapolis Apch – 125.275; arr & dep E or W hdg; rmn S of heli; utilize rr & interstate for ingress/egress.

6. 8A4 FAA FORM 5010

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 03/26/2024
AFD EFF 03/21/2024
FORM APPROVED OMB 2120-0015

> 1 ASSOC CITY: INDIANAPOLIS
> 2 AIRPORT NAME: INDIANAPOLIS DOWNTOWN
3 CBD TO AIRPORT (NM): 0 N
4 STATE: IN
6 REGION/ADO: AGL /CHI
LOC ID: 8A4
5 COUNTY: MARION, IN
7 SECT AERO CHT: ST LOUIS
FAA SITE NR: 05370.8*H

GENERAL

10 OWNERSHIP: PUBLIC
> 11 OWNER: INDIANAPOLIS ARPT AUTH
> 12 ADDRESS: 7800 COL. H. WEIR. COOK MEMORIAL DR INDIANAPOLIS, IN 46241
> 13 PHONE NR: (317) 487-5022
> 14 MANAGER: KEITH BERLEN
> 15 ADDRESS: 7800 COL. H. WEIR. COOK MEMORIAL DR INDIANAPOLIS, IN 46241
> 16 PHONE NR: (317) 487-5022
> 17 ATTENDANCE SCHEDULE:

MONTHS	DAYS	HOURS
ALL	SAT-SUN	ON REQ
ALL	MON-FRI	0800-1630

18 AIRPORT USE: PUBLIC
19 ARPT LAT: 39-45-57.155N ESTIMATED
20 ARPT LONG: 86-8-55.95W
21 ARPT ELEV: 732.0 SURVEYED
22 ACREAGE: 6
> 23 RIGHT TRAFFIC: NO
> 24 NON-COMM LANDING: NO
25 NPIAS/FED AGREEMENTS: YES / NGY
> 26 FAR 139 INDEX: /

SERVICES

> 70 FUEL: A1+
> 71 AIRFRAME RPRS: MINOR
> 72 PWR PLANT RPRS: MINOR
> 73 BOTTLE OXYGEN:
> 74 BULK OXYGEN:
75 TSNT STORAGE: TIE
76 OTHER SERVICES:

BASED AIRCRAFT

90 SINGLE ENG:	0
91 MULTI ENG:	0
92 JET:	0
93 HELICOPTERS:	1
TOTAL:	1
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	0

FACILITIES

> 80 ARPT BCN: WGY
> 81 ARPT LGT SKED: SEE RMK
BCN LGT SKED: SS-SR
> 82 UNICOM: 123.050
> 83 WIND INDICATOR: YES-L
84 SEGMENTED CIRCLE: NONE
85 CONTROL TWR: NO
86 FSS: TERRE HAUTE
87 FSS ON ARPT: NO
88 FSS PHONE NR:
89 TOLL FREE NR: 1-800-WX-BRIEF

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	17
103 G A LOCAL:	0
104 G A ITNRNT:	1,662
105 MILITARY:	17
TOTAL:	1,696

OPERATIONS FOR 12 MONTHS ENDING 12/31/2019

RUNWAY DATA

	H1
> 30 RUNWAY IDENT:	
> 31 LENGTH:	60
> 32 WIDTH:	60
> 33 SURF TYPE-COND:	CONC-G
> 34 SURF TREATMENT:	NONE
35 GROSS WT: S	
36 (IN THSDS) D	
37 2D	
38 2D/2DS	
> 39 PCN / PCR:	

LIGHTING/APCH AIDS

> 40 EDGE INTENSITY:	
> 42 RWY MARK TYPE-COND:	BSC- G
> 43 VGSI:	NSTD
44 THR CROSSING HGT:	
45 VISUAL GLIDE ANGLE:	
> 46 CNTRLN-TDZ:	-
> 47 RVR-RVV:	-
> 48 REIL:	N
> 49 APCH LIGHTS:	

OBSTRUCTION DATA

50 FAR 77 CATEGORY:	
> 51 DISPLACED THR:	
> 52 CTLG OBSTN:	
> 53 OBSTN MARKED/LGTD:	
> 54 HGT ABOVE RWY END:	
> 55 DIST FROM RWY END:	0
> 56 CNTRLN OFFSET:	
57 OBSTN CLNC SLOPE:	
58 CLOSE-IN OBSTN:	N

DECLARED DISTANCES

> 60 TAKE OFF RUN AVBL (TORA):	/
> 61 TAKE OFF DIST AVBL (TODA):	/
> 62 ACLT STOP DIST AVBL (ASDA):	/
> 63 LNDG DIST AVBL (LDA):	/

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

A 017 INFO - 317-955-1271; AFT HR - 317-487-5089.
A 043 RWY H1 PULSATING APCH SLOPE INDICATOR; ON E APCH.
A 049 RWY H1 ODALS WB INGRESS
A 052 RWY H1 BLDG AREA NE LGTD.
A 070 SELF SERVE.
A 071 MINOR REPAIRS - 317-487-5089.
A 081 ACTVT ODALS; PLASI; HIGH INTST PAD LGTS - CTAF.

111 INSPECTOR: (S) 112 LAST INSP: 02/11/2021 113 LAST INFO RES: 06/20/1980

FAA FORM 5010-1 (06/2003) SUPERSEDES PREVIOUS EDITION

Be Aware • Be Informed • Be Safe

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIRPORT MASTER RECORD

PRINT DATE: 03/26/2024
AFD EFF 03/21/2024
FORM APPROVED OMB 2120-0015

> 1 ASSOC CITY:	INDIANAPOLIS	4 STATE: IN	LOC ID: 8A4	FAA SITE NR: 05370.8*H
> 2 AIRPORT NAME:	INDIANAPOLIS DOWNTOWN		5 COUNTY: MARION, IN	
3 CBD TO AIRPORT (NM): 0 N		6 REGION/ADO: AGL /CHI	7 SECT AERO CHT: ST LOUIS	

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10 OWNERSHIP:	PUBLIC
> 11 OWNER:	INDIANAPOLIS ARPT AUTH
> 12 ADDRESS:	7800 COL. H. WEIR. COOK MEMORIAL DR INDIANAPOLIS, IN 46241
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> 14 MANAGER:	KEITH BERLEN
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> 16 PHONE NR:	(317) 487-5022

> 17 ATTENDANCE SCHEDULE:

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ALL	MON-FRI	0800-1630

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20 ARPT LONG:	86-8-55.95W
21 ARPT ELEV:	732.0 SURVEYED
22 ACREAGE:	6
> 23 RIGHT TRAFFIC:	NO
> 24 NON-COMM LANDING:	NO
25 NPIAS/FED AGREEMENTS:	YES / NGY
> 26 FAR 139 INDEX:	/

SERVICES

> 70 FUEL:	A1+
> 71 AIRFRAME RPRS:	MINOR
> 72 PWR PLANT RPRS:	MINOR
> 73 BOTTLE OXYGEN:	
> 74 BULK OXYGEN:	
75 TSNT STORAGE:	TIE
76 OTHER SERVICES:	

FACILITIES

> 80 ARPT BCN:	WGY
> 81 ARPT LGT SKED:	SEE RMK
BCN LGT SKED:	SS-SR
> 82 UNICOM:	123.050
> 83 WIND INDICATOR:	YES-L
84 SEGMENTED CIRCLE:	NONE
85 CONTROL TWR:	NO
86 FSS:	TERRE HAUTE
87 FSS ON ARPT:	NO
88 FSS PHONE NR:	
89 TOLL FREE NR:	1-800-WX-BRIEF

BASED AIRCRAFT

90 SINGLE ENG:	0
91 MULTI ENG:	0
92 JET:	0
93 HELICOPTERS:	1
TOTAL:	1
94 GLIDERS:	0
95 MILITARY:	0
96 ULTRA-LIGHT:	0

OPERATIONS

100 AIR CARRIER:	0
102 AIR TAXI:	17
103 G A LOCAL:	0
104 G A ITNRNT:	1,662
105 MILITARY:	17
TOTAL:	1,696

OPERATIONS FOR 12 MONTHS ENDING 12/31/2019

RUNWAY DATA

> 30 RUNWAY IDENT:
> 31 LENGTH:
> 32 WIDTH:
> 33 SURF TYPE-COND:
> 34 SURF TREATMENT:

35 GROSS WT:	S
36 (IN THSDS)	D
37	2D
38	2D/2DS

> 39 PCN / PCR:

LIGHTING/APCH AIDS

> 40 EDGE INTENSITY:
> 42 RWY MARK TYPE-COND:
> 43 VGSI:
44 THR CROSSING HGT:
45 VISUAL GLIDE ANGLE:
> 46 CNTRLN-TDZ:
> 47 RVR-RVV:
> 48 REIL:
> 49 APCH LIGHTS:

OBSTRUCTION DATA

50 FAR 77 CATEGORY:
> 51 DISPLACED THR:
> 52 CTLG OBSTN:
> 53 OBSTN MARKED/LGTD:
> 54 HGT ABOVE RWY END:
> 55 DIST FROM RWY END:
> 56 CNTRLN OFFSET:
57 OBSTN CLNC SLOPE:
58 CLOSE-IN OBSTN:

DECLARED DISTANCES

> 60 TAKE OFF RUN AVBL (TORA):
> 61 TAKE OFF DIST AVBL (TODA):
> 62 ACLT STOP DIST AVBL (ASDA):
> 63 LNDG DIST AVBL (LDA):

(>) ARPT MGR PLEASE ADVISE FSS IN ITEM 86 WHEN CHANGES OCCUR TO ITEMS PRECEDED BY >

> 110 REMARKS:

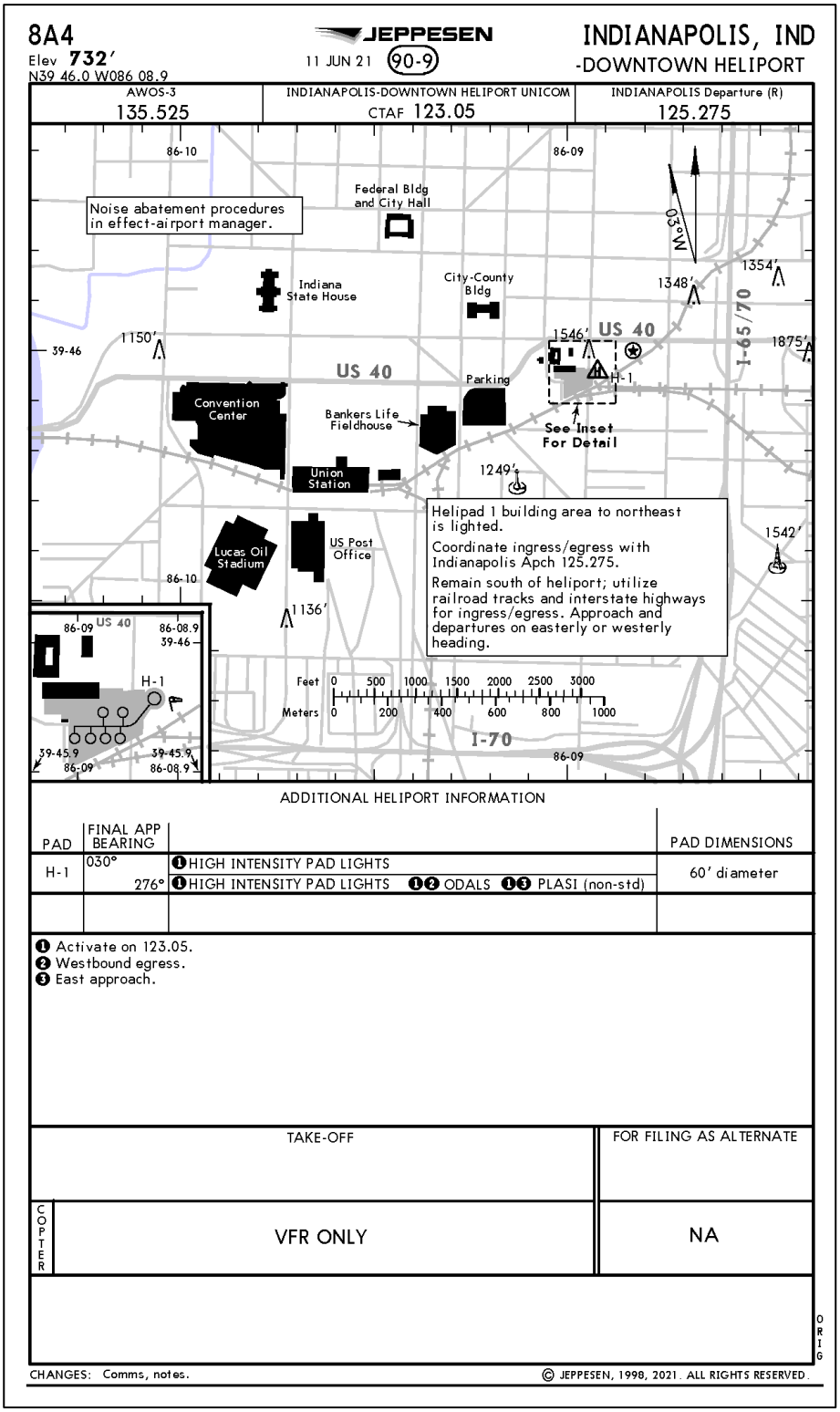
A 110-001 FAC & ARPT REGS PER INDIANAPOLIS ARPT AUTH.
A 110-002 COORD INGRESS/EGRESS WITH INDIANAPOLIS APCH - 125.275; ARR & DEP E OR W HDG; RMN S OF HELI; UTILIZE RR & INTERSTATE FOR INGRESS/EGRESS.
A 110-004 NOISE ABATEMENT PROC IN EFCT - AMGR.
A 110-006 FOR CD CTC INDIANAPOLIS APCH AT 317-227-5743.

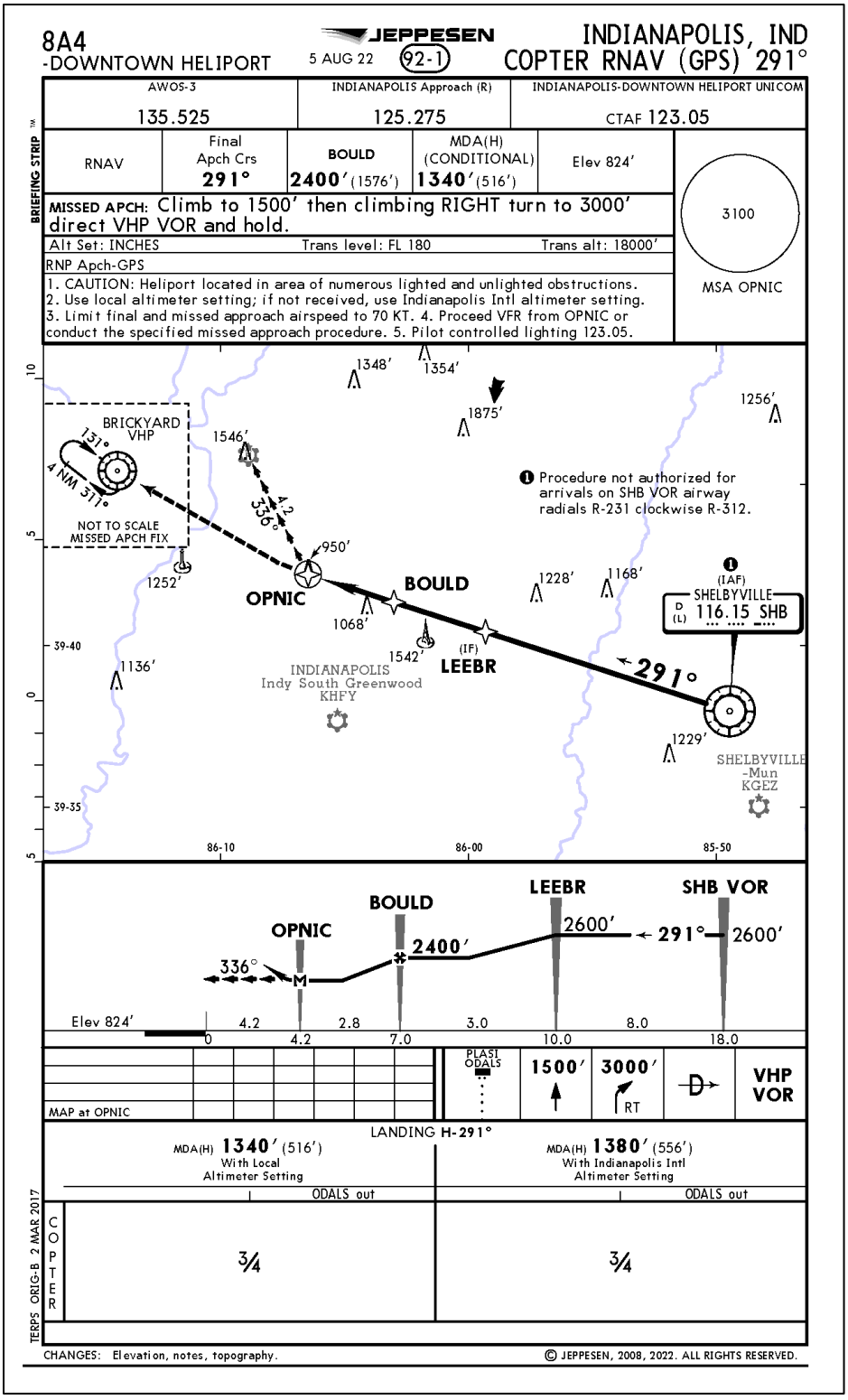
111 INSPECTOR: (S) 112 LAST INSP: 02/11/2021 113 LAST INFO RES: 06/20/1980

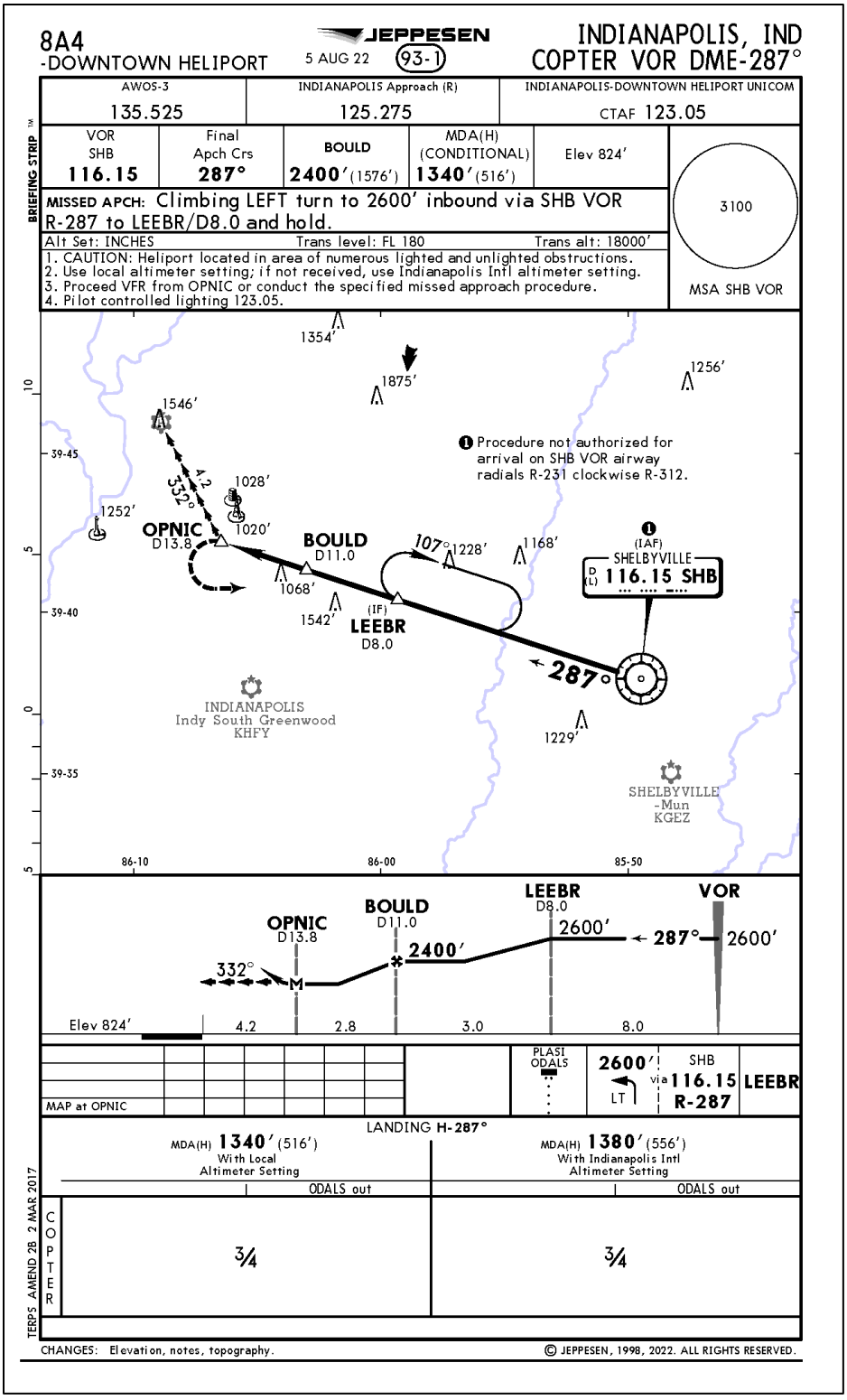
FAA FORM 5010-1 (06/2003) SUPERSEDES PREVIOUS EDITION

7. INSTRUMENT PROCEDURES

The following information represents what is on file with the FAA regarding instrument procedures at the Indianapolis Downtown Heliport.




8A4
-DOWNTOWN HELIPORT
JEPPESEN
5 AUG 22
92-1
INDIANAPOLIS, IND
COPTER RNAV (GPS) 291°
AWOS-3
135.525
INDIANAPOLIS Approach (R)
125.275
INDIANAPOLIS-DOWNTOWN HELIPORT UNICOM
CTAF 123.05
BRIEFING STRIP
RNAV
Final Apch Crs 291°
BOULD 2400′ (1576′)
MDA(H) (CONDITIONAL) 1340′ (516′)
Elev 824′
MISSED APCH: Climb to 1500′ then climbing RIGHT turn to 3000′ direct VHP VOR and hold.
Alt Set: INCHES
Trans level: FL 180
Trans alt: 18000′
RNP Apch-GPS
1. CAUTION: Heliport located in area of numerous lighted and unlighted obstructions.
2. Use local altimeter setting; if not received, use Indianapolis Intl altimeter setting.
3. Limit final and missed approach airspeed to 70 KT. 4. Proceed VFR from OPNIC or conduct the specified missed approach procedure. 5. Pilot controlled lighting 123.05.
3100
MSA OPNIC
BRICKYARD VHP
131°
4 NM
311°
NOT TO SCALE
MISSED APCH FIX
1348′
1354′
1875′
1256′
1546′
4.2
336°
950′
1252′
OPNIC
BOULD
1068′
1542′
(IF)
LEEBR
1228′
1168′
(IAF)
SHELBYVILLE
D (L) 116.15 SHB
291°
1136′
INDIANAPOLIS
Indy South Greenwood
KHFY
1229′
SHELBYVILLE
-Mun
KGEZ
Procedure not authorized for arrivals on SHB VOR airway radials R-231 clockwise R-312.
39-40
39-35
86-10
86-00
85-50
LEEBR
SHB VOR
BOULD
OPNIC
2600′
291°
2600′
336°
2400′
Elev 824′
4.2
2.8
3.0
8.0
0
4.2
7.0
10.0
18.0
PLASI
ODALS
1500′
3000′
RT
VHP VOR
MAP at OPNIC
LANDING H-291°
MDA(H) 1340′ (516′)
With Local Altimeter Setting
ODALS out
MDA(H) 1380′ (556′)
With Indianapolis Intl Altimeter Setting
ODALS out
CATEGORY
¾
¾
TERPS ORIG-B 2 MAR 2017
CHANGES: Elevation, notes, topography.
© JEPPESEN, 2008, 2022. ALL RIGHTS RESERVED.


8A4
-DOWNTOWN HELIPORT
JEPPESEN
5 AUG 22
93-1
INDIANAPOLIS, IND
COPTER VOR DME-287°
AWOS-3
135.525
INDIANAPOLIS Approach (R)
125.275
INDIANAPOLIS-DOWNTOWN HELIPORT UNICOM
CTAF 123.05
VOR
SHB
116.15
Final
Apch Crs
287°
BOULD
2400′ (1576′)
MDA(H)
(CONDITIONAL)
1340′ (516′)
Elev 824′
MISSED APCH: Climbing LEFT turn to 2600′ inbound via SHB VOR R-287 to LEEBR/D8.0 and hold.
Alt Set: INCHES
Trans level: FL 180
Trans alt: 18000′
1. CAUTION: Heliport located in area of numerous lighted and unlighted obstructions.
2. Use local altimeter setting; if not received, use Indianapolis Intl altimeter setting.
3. Proceed VFR from OPNIC or conduct the specified missed approach procedure.
4. Pilot controlled lighting 123.05.
3100
MSA SHB VOR
BRIEFING STRIP
1354′
1875′
1256′
1546′
1028′
1252′
OPNIC
D13.8
1020′
BOULD
D11.0
107°
1228′
1168′
1068′
1542′
(IF)
LEEBR
D8.0
(IAF)
SHELBYVILLE
D (L) 116.15 SHB
287°
1229′
Procedure not authorized for arrival on SHB VOR airway radials R-231 clockwise R-312.
INDIANAPOLIS
Indy South Greenwood
KHFY
SHELBYVILLE
-Mun
KGEZ
39-45
39-40
39-35
86-10
86-00
85-50
OPNIC
D13.8
BOULD
D11.0
LEEBR
D8.0
VOR
2600′
287°
2600′
332°
2400′
Elev 824′
4.2
2.8
3.0
8.0
MAP at OPNIC
PLASI
ODALS
2600′
LT
via
SHB
116.15
R-287
LEEBR
LANDING H-287°
MDA(H) 1340′ (516′)
With Local
Altimeter Setting
ODALS out
MDA(H) 1380′ (556′)
With Indianapolis Intl
Altimeter Setting
ODALS out
COPTER
¾
¾
TERPS AMEND 2B 2 MAR 2017
CHANGES: Elevation, notes, topography.
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8. PREVIOUS FAA INSPECTIONS

The following represents the most recent instrument procedures inspection conducted by the FAA.

FLIGHT INSPECTION REPORT
Rho-Theta Systems

1. FLIGHT INSPECTION REPORT HEADER

IDENT	STATE	CTRY	INSPECTION DATE(S)
SHB	IN	US	10/13/2023

LOCATION	INSP TYPE
SHELBYVILLE	P

2. CREW INFORMATION

PIC	SIC	MS	A/C NO
VN219	VN424	VN260	N80

ACM	FIFO
	BTL

3. FACILITY INFORMATION

VOR	Inspected
TACAN	
VOT	
DME COV.	Inspected/Sat
DME ACC.	Inspected/Sat

VOICE		
STANDBY POWER		
IDENT		Sat
FACILITY TYPE		V/DME

FACILITY STATUS	Restricted
SIAP(s) VERIFIED	Sat

4. NOTAMs

NOTAM "10/438 SHB COM VOR VOICE U/S 2310231010-2311292000EST" issued by tech ops.

5. REMARKS

Terra Hautte radio advises No live voice on SHB VTAC. FIDEX will be issued.

6. FLIGHT INSPECTION DATA

A. ORBITAL DATA

	MEAN	MAX +	MAX -	SPREAD	DIR	ALT	DIST	REF DATE
TX 1								
TX 2								
TP 1								
TP 2								

B. REFERENCE RADIAL/MONITORS

O VOR O VOT		TX	ALIGN	ALARM +	ALARM -	DATE ESTABLISHED
REFERENCE RADIAL						
CHECK POINT						
TAC		TP	ALIGN	ALARM +	ALARM -	DATE ESTABLISHED
REFERENCE RADIAL						
CHECK POINT						

**** Remarks are required for fields marked with an asterisk***

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7. VOR, VOR/DME, VORTAC, TACAN, VOT - RADIAL DATA

Service Designation	VOR	VOR	VOR	VOR	VOR
Radial Use	ARR	APCH	APCH	APCH	APCH
Azimuth	142	156	287	269	346
Transmitter(s)	1	1	1	1	1
MSL Altitude	40.2	17/10.8	24/12.4	26/12.6	25/12
Distance From	18.7	0.0	5.2	4.3	6.1
Distance To	9.8	2.6	13.8	12.2	13.0
Roughness/Scalloping	0.3/11.5	0.7/1.6	2.1/13.7	2.1/8.4	1.1/13.0
Bend/CMA	+0.7/13.2		+1.1/10.3	+1.4/11.5	-0.7/12.1
Bends	-0.3/12.0	SAT	+1.3/10.3	+1.4/11.5	+0.8/11.1
Polarization	0.6/17.3				
Alignment Error	+0.4/15.0-10.0		-0.2/5.2-13.8	0.0/5.0-12.2	-0.1/6.1-13.0
Modulations	Sat	Sat	Sat	Sat	Sat
Transmitter Diff.					
Signal Strength	428	945	46	72	44
Interference	Sat	Sat	Sat	Sat	Sat

Service Designation	VOR	VOR			
Radial Use	APCH	APCH			
Azimuth	330	142			
Transmitter(s)	1	1			
MSL Altitude	26/12.4	27/15.8			
Distance From	13.1	5.0			
Distance To	20.0	22.8			
Roughness/Scalloping	2.2/19.7	1.6/22.1			
Bend/CMA	-1.2/19.4	+2.1/16.7			
Bends	+1.3/17.7	+1.4/16.7			
Polarization					
Alignment Error	-0.1/13.1-20.0	+0.7/5.0-22.8			
Modulations	Sat	Sat			
Transmitter Diff.					
Signal Strength	19	25			
Interference	Sat	Sat			

Service Designation					
Radial Use					
Azimuth					
Transmitter(s)					
MSL Altitude					
Distance From					
Distance To					
Roughness/Scalloping					
Bend/CMA					
Bends					
Polarization					
Alignment Error					
Modulations					
Transmitter Diff.					
Signal Strength					
Interference					

**** Remarks are required for fields marked with an asterisk***

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9. PREVIOUS INDIANA DOT INSPECTIONS

The following represents the most recent Inspection of the heliport conducted by members of the Indiana DOT.

HELIPORT INSPECTION REPORT

FACILITY NAME	Indianapolis Downtown Heliport
INSPECTION DATE	Monday, February 20, 2023
FACILITY EMAIL	mlewis@ind.com

HELIPAD INFO

Helipad Type	Min Width (40')	Btwn Cntl & Txy Ctln. (100') CL & Txy CL(100')	Tie Downs from Centerline (125')	Min Dist/Bldng. Restriction	Approach & Departure Surface (8:1)	Transitional Surface (2:1)
Primary	Y ⊙	Y ⊙	Y ⊙	Y ⊙	Y ⊙	Y ⊙
	N ○	N ○	N ○	N ○	N ○	N ○
	NA ○	NA ○	NA ○	NA ○	NA ○	NA ○

NIGHT OPERATIONS

TAXI LIGHTS OPERATIONAL

Helipad Type	Square/Rectangular (Odd no. per side)	Circular Pad (8 or more)	Less than 30' Apart? (Y)
Primary	Y ⊙	Y ⊙	Y ⊙
	N ○	N ○	N ○
	NA ○	NA ○	NA ○

Lighted Wind Indicator Operational: Yes ⊙ No ○ Not Applicable ○

Type:

MISC

Line of Site for two helipads?:	Yes ⊙	No ○	Not Applicable ○
If no, Is there a sign?:	Yes ⊙	No ○	Not Applicable ○
helipad markings clearly visible?:	Yes ⊙	No ○	Not Applicable ○

10/20/2023 Indiana Department of Transportation Aeronautics Section Page 1 of 2

HELIPORT INSPECTION REPORT

GENERAL REQUIREMENTS

Are operational areas maintained?:	Yes	◉	No	○	Not Applicable ○
Segmented Circle:	Yes	○	No	○	Not Applicable ◉
Rules & Regulations:	Yes	◉	No	○	Not Applicable ○
24-Hour Phone:	Yes	◉	No	○	Not Applicable ○
Wind Indicator:	Yes	◉	No	○	Not Applicable ○
Traffic Pattern Indicator:	Yes	○	No	○	Not Applicable ◉
Separate Auto Parking:	Yes	◉	No	○	Not Applicable ○
	Inside ○		Outside ◉		Other ○

State Safety Regulations Compliance:	**Compliant**	◉	**Non-Compliant**	○

Comments:

E-Signatures (Inspector): Matt Hankins

Signature Date: Wednesday, February 22, 2023

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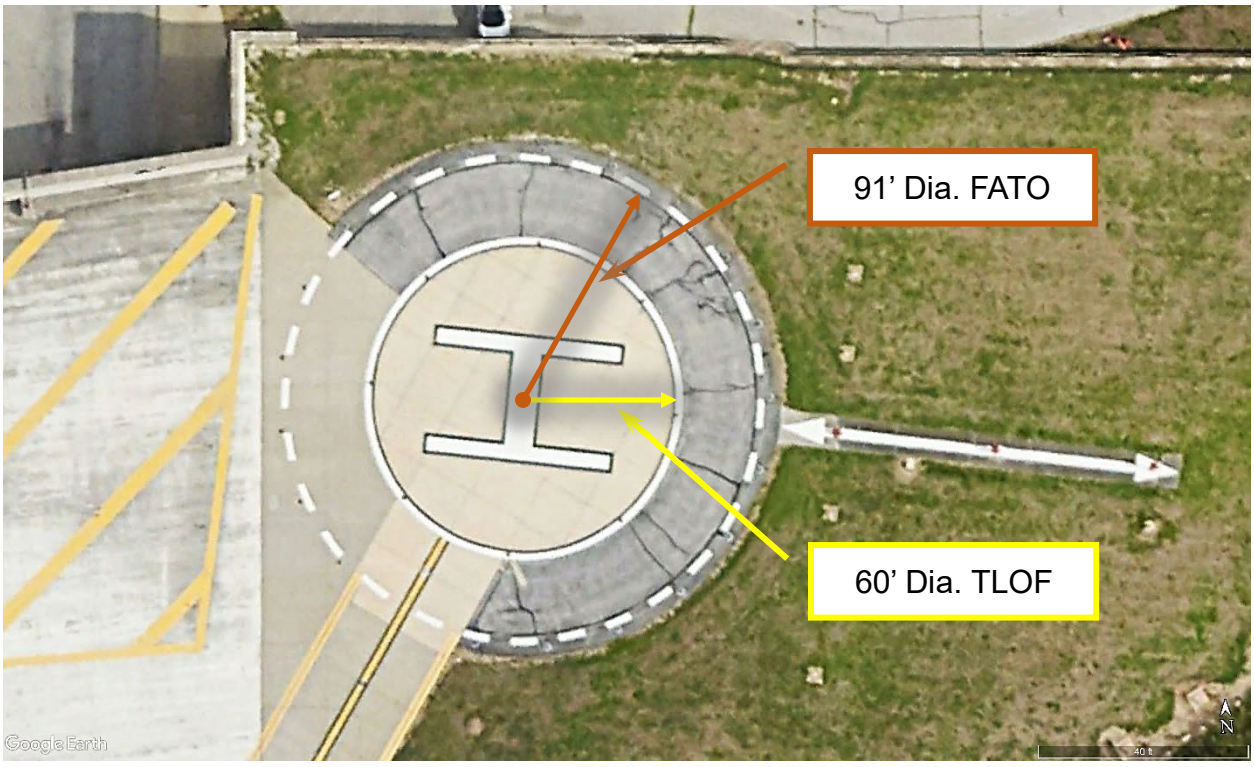
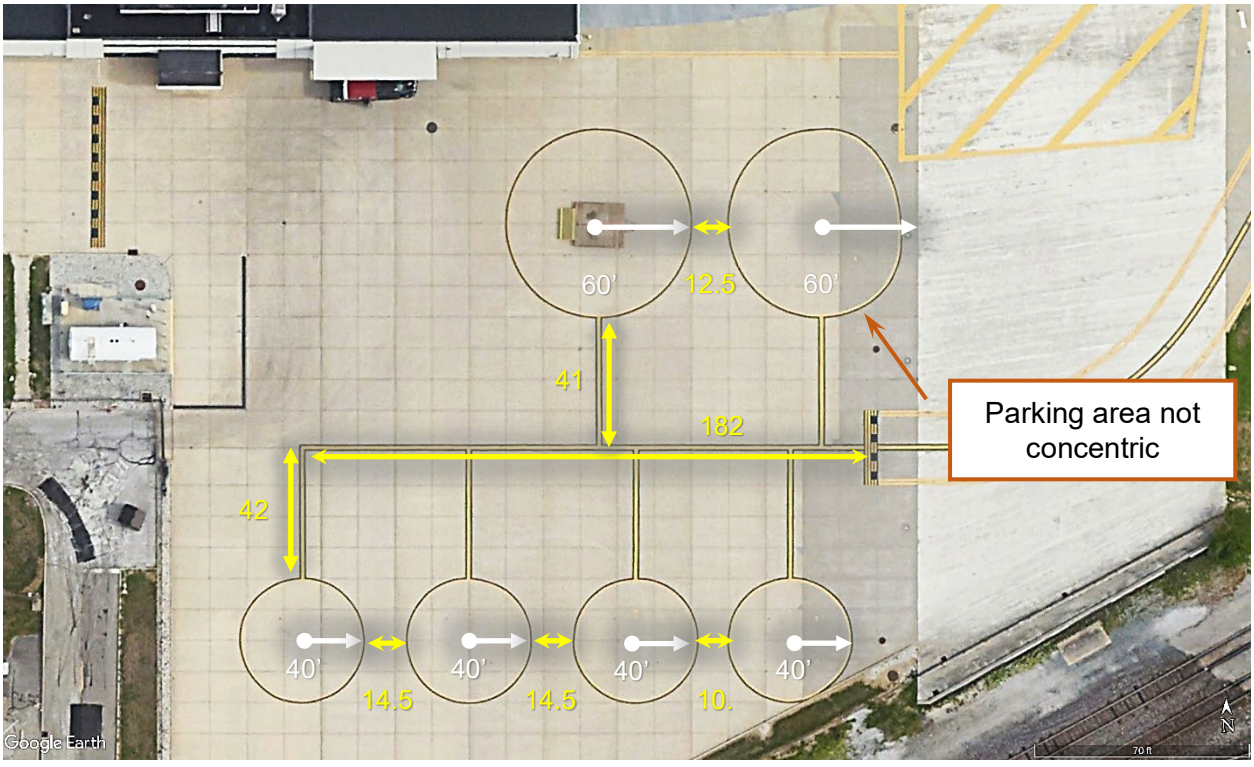
10. HELIPORT DIMENSIONAL LAYOUT

Following are the heliport measurements taken utilizing a standard survey measuring wheel and a handheld TruPulse 200 Laser Rangefinder.





12. REPORTED HELIPORT MODIFICATIONS

In evaluating those FAA records on file, i.e., those in the Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) database, there were no instances identified that would constitute a major change as defined by the FAA having taken place at the heliport. A major change being defined as relocating or moving the airspace or moving the Primary Surface of the heliport. There were eighteen instances identified where a minor change had been recorded involving items on the property. Below is a list of those items in chronological order from oldest to most recent.

No.	Case Number	Date	Remarks
1.	2000-AGL-476-NRA	10/03/2000	Install 16' light poles in parking lot adjacent to heliport. DNE Part 77 surfaces. Lighting will reflect downward to parking lot. we have no objection.
2.	2003-AGL-894-NRA	02/25/2004	Install AWOS at Indianapolis Downtown Heliport . Site is identical to the previous FAA installed AWOS that was removed. Installation is AIP funded.
3.	2008-AGL-1671-NRA	09/21/2008	Construction Safety Phasing Plan for the rehabilitation of the airport's airfield lighting.
4.	2014-AGL-651-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. Crane and parking areas will be temporary. See attached exhibit for additional information.
5.	2014-AGL-652-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
6.	2014-AGL-653-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
7.	2014-AGL-654-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
8.	2014-AGL-655-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
9.	2014-AGL-656-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
10.	2014-AGL-657-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
11.	2014-AGL-658-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.

12.	2014-AGL-659-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information.
13.	2014-AGL-660-NRA	02/03/2014	Project consists of the reconstruction of the heliport structural slabs above the parking structure. See attached exhibit for additional information
14.	2015-AGL-3676-NRA	05/05/2015	New fuel farm facility at Indianapolis Downtown Heliport (8A4).
15.	2015-AGL-3677-NRA	05/05/2015	New fuel farm facility at Indianapolis Downtown Heliport (8A4).
16.	2015-AGL-3678-NRA	05/05/2015	Temporary Crane to support construction of a new fuel farm at the Indianapolis Downtown Heliport (8A4).
17.	2015-AGL-7764-NRA	09/08/2015	Replacing an existing underground self-fueling system with an above ground system. Location noted is highest point on system (ladder on storage tank).
18.	2016-AGL-11020-NRA	12/14/2016	Replacement of an existing antenna with a new communications antenna for use by the Police Department to connect with the City of Indianapolis Enterprise Network. antenna is a Panorama WMMG-&-27-03NJ (186mm x 155mm)

11. GLOSSARY OF TERMS

Approach/Departure Path	The flight track helicopters follow when landing at or departing from a heliport. An approach/departure surface is centered on each approach/departure path. The approach/departure path starts at the edge of the FATO and slopes upward at 8:1 (8 units horizontal in 1 unit vertical) for a distance of 4,000 feet (1,219 m) where the width is 500 feet (152 m) at a height of 500 feet (152 m) above the heliport elevation.
(D) (Formerly Overall Length or "OL")	The overall length of the helicopter, which is the dimension from the tip of the main or forward rotor to the tip of the tail rotor, fin, or other rear-most point of the helicopter. This value is with the rotors at their maximum extension. See Figure B–1. If only the value of the rotor diameter (RD) is known, estimate the value for D using the relationship D = 1.2 RD (or conversely, RD = 0.83 D).
Design Helicopter	A single or composite helicopter that reflects the maximum weight, maximum contact load/minimum contact area, overall length (D), rotor diameter (RD), tail rotor arc radius, undercarriage dimensions, and pilot's eye height of all helicopters expected to operate at the heliport.
Design Loads	Design and construct the TLOF and any load-bearing surfaces to support the loads imposed by the design helicopter and any ground support vehicles and equipment.
Dynamic Load	For design purposes, assume the dynamic load at 150 percent of the maximum takeoff weight of the design helicopter applied through the main undercarriage on a wheel-equipped helicopter or aft contact areas of skid-equipped helicopter.
Elevated Heliport	A heliport located on a rooftop or other elevated structure where the TLOF is at least 30 inches (76 cm) above the surrounding surface (a ground level heliport with the TLOF on a mound is not an elevated heliport).
Final Approach and Takeoff Area (FATO)	A defined area over which the pilot completes the final phase of the approach to a hover or a landing and from which the pilot initiates takeoff. The FATO elevation is the lowest elevation of the edge of the TLOF.
Hazard to Air Navigation	Any object having a substantial adverse effect upon the safe and efficient use of the navigable airspace by aircraft, upon the operation of air navigation facilities, or upon existing or planned airport/heliport capacity as determined by the FAA.
Helipad	A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. A helipad on an airport does not constitute a heliport.
Heliport	The area of land, water, or a structure used or intended to be used for the landing and takeoff of helicopters, together with appurtenant buildings and facilities.
Helistop	A heliport that provides no fueling, defueling, maintenance, repairs, or storage of helicopters. The geometry and approach/departure surfaces of a helistop are identical to those of a heliport.
Hospital Heliports	A heliport limited to serving helicopters engaged in air ambulance, or other hospital related functions. A designated helicopter landing area located at a hospital or medical facility is a heliport and not a medical emergency site.
Obstructions	In determining approach/departure paths, take into account the obstructions in the vicinity of the heliport and, in particular, those likely to be a hazard to air navigation.
Private Use	Means available for use by the owner only or by the owner and other persons authorized by the owner.
Public Use	Means available for use by the general public without a requirement for prior approval of the owner or operator.
(RD) Rotor Diameter	The length of the main rotor, from tip to tip.
Safety Area	A defined area on a heliport surrounding the FATO intended to reduce the risk of damage to helicopters accidentally diverging from the FATO.
Static Load	For design purposes, the design static load is equal to the helicopter's maximum takeoff weight applied through the total contact area of the wheels or skids.
Touchdown and Liftoff Area (TLOF).	A load bearing, generally paved area, normally centered in the FATO, on which the helicopter lands and/or takes off.
Transitional Surfaces	Transitional Surfaces start from the edges of the FATO parallel to the flight path center line, and from the outer edges of the 8:1 approach/departure surface and extend outwards at a slope of 2:1 (2 units horizontal in 1 unit vertical) for a distance of 250 feet (76 m) from the centerline. The transitional surface does not apply to the FATO edge opposite the approach/departure surface.

12. TECHNICAL REFERENCES

1.	CFR Title 14 Part 77	Safe, Efficient Use and Preservation of the Navigable Airspace.
2.	CFR Title 14 Part 91	General Operating and Flight Rules.
3.	CFR Title 14 Part 135	Operating Requirements: Commuter and on demand operations and rules governing persons on board such aircraft.
4.	CFR Title 14 Part 157	Notice of Construction, Alteration, Activation, and Deactivation of Airports.
5.	AIM	Aeronautical Information Manual
6.	FAA AC 70/7460-1	Obstruction Marking and Lighting
7.	FAA AC 150/5220-16	Automated Weather Observing Systems (AWOS) for Non-Federal Applications.
8.	FAA AC 150/5190-4	A model Zoning Ordinance to Limit Height of Objects Around Airports
9.	FAA AC 150/5230-4A	Aircraft Fuel Storage, Handling, and Dispensing on Airports
10.	FAA AC 150/5390-2D	FAA Advisory Circulars on Heliports Design
11.	FAA AC 150/5345-12	Specifications for Airport and Heliport Beacons
12.	FAA AC 150/5345-27	Specifications for Wind Cone Assemblies
13.	FAA AC 150/5345-39	FAA Specification L-853, Runway and Taxiway Retroreflective Markers.
14.	FAA AC 150/5345-46	FAA Specification for Runway and Taxiway Light Fixtures.
15.	FAA FSIMS 8900.1 Vol-8/Chp-3/Sec-3	Evaluation and Surveillance of Heliports
16.	ICC/IBC	International Code Council / International Building Codes
17.	ICC/IFC	International Code Council / International Fire Codes
18.	NFPA 10	Standards for Portable Fire Extinguishers
19.	NFPA 25	Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
20.	NFPA 99	Standards for Health Care Facilities
21.	NFPA 101	Life Safety Code
22.	NFPA 407	Standards for Aircraft Fuel Servicing
23.	NFPA 409	Standards for Aircraft Hangars
24.	NFPA 418	Standards for Heliports
25.	ATA Specification No. 103	Standard for Jet Fuel Quality Control at Airports
26.	ISO 31000:2009	International Organization for Standards Risk Management Principles and Guidelines
27.	OSHA 1910 Subpart-N	Materials Handling and Storage
28.	OSHA 1910.179	Overhead & Gantry Cranes
29.	OSHA 1910.191	Compressed Gasses
30.	OSHA 1910 Subpart-Z	Toxic and Hazardous Substances
31.	OSHA 1910.1030	Blood Borne Pathogens
32.	OSHA 1910.23	Guarding floor and wall openings and holes
33.	IS-BAO Standards	International Standard for Business Aircraft Operations
34.	FAA-RD-80-107	Study of Heliport Airspace and Real Estate Requirements
35.	DOT/FAA/PM-87/32 DOT/FAA/PP-88/2	Four Urban Heliport Case Studies
36.	DOT/FAA/PM-87/31 DOT/FAA/PP-88/1	Analyses of Heliport Systems
37.	DOT/FAA/DS-82/32	Indianapolis Downtown Heliport – Operations Analysis and Marketing History

NOTHING ELSE FOLLOWS

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