THE GEOTECHNICAL GAUNTLET · RESEARCH REPORT

GROUNDWORK & GRIDLOCK

Poles in the Ground (Hammond Due Diligence)

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SECTION 1

Executive Summary: Evaluating Active Site Capital Commitment

The Chicago Bears franchise has reached a pivotal juncture in its stadium infrastructure planning, transitioning decisively from speculative multi-site evaluation toward active capital deployment and physical site due diligence in Hammond, Indiana. For decades, the organization's long-term facility strategy remained constrained by municipal and spatial friction on the Chicago lakefront. However, the operational pivot toward Northwest Indiana represents a structured commitment of institutional resources, capital deployment, and engineering analysis. Rather than utilizing non-binding conceptual renderings to generate political pressure, the franchise has shifted toward site-specific field investigations, geotechnical core sampling, and environmental due diligence along the Wolf Lake corridor. As highlighted in technical analyses by Stephanie Black and reported by the Chicago Tribune and Indiana Capital Chronicle, this operational evolution signals that Northwest Indiana is no longer merely a theoretical bargaining chip, but an active candidate for a multi-billion-dollar sports and entertainment district.

This strategic migration has been accelerated by an aggressive state-level legislative framework designed to lower entry barriers for private stadium investment. The statutory catalyst was established under Indiana's Senate Enrolled Act 27 (SEA 27), signed into law by Governor Mike Braun, alongside House Enrolled Act 1292 (HEA 1292). Authored by Representative Earl Harris Jr.—Chair of the Indiana Black Legislative Caucus (IBLC)—HEA 1292 institutionalized a multi-generational economic development vision originally championed by his father, the late Representative Earl Harris Sr., by creating the Northwest Indiana Professional Sports Development Commission. SEA 27 subsequently established the Northwest Indiana Stadium Authority and codified a public infrastructure assistance framework estimated at approximately $1 billion. To support the municipal borrowing necessary for site preparation, utilities, and regional access, the statutory structure authorized a 30-year bond repayment framework backed by four dedicated tax mechanisms:

- A 1% Food & Beverage Tax authorized across Lake and Porter counties, projected to yield $12 million to $18 million annually.
- A doubling of the Lake County Innkeeper/Hotel Tax from 5% to 10%.
- A 12% Hammond Stadium Admissions/Ticket Tax assessed directly on stadium event tickets.
- A Professional Sports Development Area (PSDA) tax-increment capture mechanism, which captures state and local sales, income, and excise growth generated within the designated stadium footprint to service state-backed bonds, insulating general state funds while concentrating localized municipal risk within the host region.

Despite this robust statutory foundation, rigorous municipal finance analysis reveals meaningful fiscal exposure and potential structural deficits. Independent financial evaluations indicate that while combined local tax mechanisms are projected to produce $45 million to $55 million annually,

the estimated debt service on a 30-year bond framework ranges from $60 million to $62 million per year. Furthermore, while the 1% Food & Beverage tax was contemplated for both Lake and Porter counties, Porter County's participation has encountered significant local political reluctance. This political friction introduces downside risk to the projected $12 million to $18 million annual yield, potentially widening the host region's annual structural deficit toward the higher $17 million bound.

Financing Dimension	Annual Projection / Terms	Fiscal Exposure Analysis
Projected Tax Revenues	$45M – $55M annually	Aggregated yields from 1% Food & Beverage, 10% Hotel, 12% Ticket Tax, and PSDA capture.
Estimated Debt Service	$60M – $62M annually	Based on a 30-year bond repayment structure backing the public financing framework.
Net Annual Structural Deficit	**($5M – $17M) annual deficit**	Potential shortfall absorbed by local entities; exacerbated by Porter County tax resistance.
Historical Analog (Lucas Oil Stadium)	$720M total ($620M public share)	2005 Indiana model backed by 86% public debt via regional food/beverage and hospitality taxes.

As detailed in the comparative analysis, this potential $5 million to $17 million annual shortfall exposes host communities to fiscal volatility if consumer spending or event attendance contracts. The structural framework closely mirrors the historical regional analog established in 2005, when the State of Indiana created the Indiana Stadium and Convention Building Authority (ISCBA) to finance Lucas Oil Stadium in Indianapolis. That $720 million project relied on a $620 million public contribution—representing roughly 86% of total construction costs—financed through long-term municipal bonds backed by regional food-and-beverage taxes across nine surrounding "doughnut" counties, hotel taxes, auto-rental surcharges, and admissions taxes. While the Lucas Oil Stadium model successfully retained an NFL franchise and catalyzed downtown development, it demonstrated that public entities bear long-term debt liabilities long after construction concludes.

These complex legislative and financial frameworks established the structural conditions that directly enabled the physical actions initiated on the ground on August 13.

SECTION 2

The August 13 Shift: Board Vote & Active Drill Rigs at Wolf Lake Terminals & Lost Marsh

The paradigm surrounding the Chicago Bears' stadium search shifted fundamentally following corporate actions and physical site deployments executed in mid-August. On August 13, following a formal board vote advancing the Indiana project framework, corporate leadership publicly abandoned a multi-site stance in favor of dedicated site execution. This transition marked the official end of passive site evaluation, replacing theoretical spatial planning with heavy machinery, soil core extraction, and specialized environmental engineering teams deployed directly to the

Indiana border corridor.

The executive posture of the franchise was solidified through unambiguous statements from top leadership. Bears President and Chief Executive Officer Kevin Warren explicitly declared:

> "Our sole focus at this point in time is working on a world-class stadium and mixed-use development in Hammond, Indiana."
>
> **KEVIN WARREN, BEARS PRESIDENT & CEO**

Warren further clarified that ongoing communication with Illinois officials had dwindled to merely "occasional" dialogue, citing the complete absence of active legislative frameworks or financial counteroffers in Springfield. Bears Chairman George McCaskey reaffirmed this operational posture, confirming that the organization was committing the overwhelming "bulk of time, attention and resources" to advancing the Hammond site, leaving fallback assets to resolve themselves independently.

These executive declarations were matched by immediate, observable field activity. Geotechnical drilling rigs and environmental sampling crews were deployed across the proposed Hammond development footprint. Environmental due diligence was formally completed at the Lost Marsh site, while active geotechnical soil borings commenced at the adjacent Wolf Lake Terminals parcel west of Interstate 90. Drilling teams extracted core samples to evaluate subterranean soil stratigraphy, load-bearing capacities, and historical industrial contamination profiles—representing concrete, capital-intensive engineering work rather than speculative negotiation rhetoric.

INSTITUTIONAL EXECUTION VELOCITY CONTRAST

ILLINOIS GENERAL ASSEMBLY	INDIANA GENERAL ASSEMBLY
Adjourned its spring legislative session without passing tax-certainty legislation or establishing a competitive financing package for the proposed $5 billion campus in Arlington Heights, creating what team leadership termed a severe "credibility problem."	Enacted HEA 1292 (2025) and SEA 27 (2026), creating the Northwest Indiana Stadium Authority and establishing a ~$1 billion public infrastructure framework.

This rapid execution highlighted a stark contrast in political velocity between neighboring state capitals. Indiana’s rapid execution represented the formalization of a multi-generational regional economic development strategy—a vision originally championed by the late Representative Earl Harris Sr. and carried forward by Representative Earl Harris Jr. through HEA 1292. Supported by the Indiana Black Legislative Caucus, this statutory foundation institutionalized Northwest Indiana’s bid by establishing the Northwest Indiana Professional Sports Development Commission, providing the governance structure required to move from legislative authorization to physical site testing.

While corporate declarations and geotechnical drill rigs established Indiana's execution advantage on the ground, the operational viability of the Hammond footprint ultimately hinges on resolving the severe logistical bottlenecks that have long constrained Soldier Field.

SECTION 3

Solving Soldier Field's Constraints: 12,000+ Parking Stalls, Direct I-90 Arterial Access, and Tailgating Lawns

For decades, the financial growth and operational efficiency of the Chicago Bears franchise have been capped by the physical and legal constraints of Soldier Field. As a historic structure situated on city-owned lakefront parkland managed by the Chicago Park District, Soldier Field presents severe structural bottlenecks that limit match-day revenue generation, fan accommodation, and modern transportation integration. Siting the stadium within the Hammond Wolf Lake corridor directly addresses these historical constraints, offering an open industrial footprint designed for modern sports logistics.

PARKING INVENTORY DISPARITY	
SOLDIER FIELD (Cramped Lakefront Footprint) **~6,000** city-owned spaces; severe spatial restrictions.	**HAMMOND WOLF LAKE** (Proposed Suburban Campus Model) **12,000+** dedicated stalls; integrated parking structures and surface lots.

The primary operational differentiators between the sites center on surface vehicular capacity and gameday experience infrastructure:

Parking Capacity Allocation: Soldier Field contains a severely restricted inventory of approximately 6,000 city-owned parking spaces across its entire footprint, forcing thousands of patrons into remote off-site garages. The proposed Hammond site allocates over 12,000 dedicated parking stalls, matching modern suburban campus standards and doubling the available vehicular inventory.

Pregame Infrastructure & Retail: While pregame activities at Soldier Field are tightly restricted by park district regulations and geographic spatial caps, the Hammond waterfront site incorporates sprawling open-air tailgating fields, dedicated fan plazas, and an integrated, year-round commercial retail district capable of capturing pre- and post-game consumer spending.

TRANSIT COMMUTE DURATION TO STADIUM (FROM CHICAGO LOOP)	
Hammond Wolf Lake (West Lake Corridor Rail)	**~25 minutes**
Soldier Field (CTA / Walk via Roosevelt)	**~25 minutes**
Arlington Heights (Metra UP-NW Line)	**~50 minutes**

Logistical viability is further enhanced by mass transit and regional highway connectivity. The site directly connects to Northwest Indiana's primary rail transit asset: the South Shore Line's West Lake Corridor rail extension, which officially opened for passenger service on March 31, 2026. This newly constructed transit pipeline delivers fans from Millennium Station in downtown Chicago directly to the Hammond stadium site in approximately 25 minutes. This rail connection matches the 25-minute transit duration of reaching Soldier Field via CTA/walking, while vastly outperforming the 50-minute Metra UP-NW commute to Arlington Heights.

Furthermore, vehicular transit is optimized by immediate arterial access to the adjacent Interstate 90 (I-90) corridor. Direct freeway ingress and egress allow the site to absorb massive regional vehicular traffic from Chicago, the northern and western suburbs, and Northwest Indiana, completely bypassing the chronic gridlock of Lake Shore Drive.

To fully appreciate how these logistical metrics reshape the franchise's real estate options, the Hammond footprint must be evaluated against both its downtown predecessor and its suburban Illinois fallback through a multi-dimensional siting matrix.

SECTION 4

Diagnostic Siting Matrix: Comparing Soldier Field, Arlington Heights ($197.2M Acquisition), and Hammond Wolf Lake

Evaluating stadium site selection across modern metropolitan markets requires a diagnostic framework that weighs real estate control, transportation throughput, subterranean engineering liabilities, and federal regulatory exposure. The franchise's current options—remaining at a renovated Soldier Field, pivoting back to the privately acquired site in Arlington Heights, or executing the proposed industrial waterfront build at Hammond Wolf Lake—present distinct operational trade-offs.

The following matrix deconstructs these three primary paths across core physical, logistical, and environmental dimensions:

Evaluation Category	Soldier Field (Chicago Lakefront)	Arlington Heights (Suburban Fallback)	Hammond Wolf Lake (NWI Gateway)
1. Site Acreage & Siting Control	Restricted, municipal parkland footprint; city-owned (Chicago Park District); zero expansion capability.	326-acre privately owned upland footprint; acquired for $197.2M in 2023; total site control.	Flexible industrial waterfront footprint; multi-parcel assembly spanning former brownfield yards.
2. Parking & Tailgating Footprint	Severe deficit (~6,000 spaces); highly restricted tailgating on municipal park property.	Expansive allocation (12,000+ campus stalls); integrated master-planned tailgating fields.	High-capacity allocation (12,000+ spaces); expansive open-air tailgating lawns & retail plazas.
3. Transit Access & Travel Time	25-min CTA/walk from Loop; severe highway congestion on Lake Shore Drive.	50-min Metra UP-NW rail commute from Ogilvie Transport Center; suburban arterial access.	25-min direct high-speed transit via West Lake Corridor rail; direct arterial access to I-90.
4. Geotechnical Soil Conditions	Engineered historic lakefront fill; existing subterranean infrastructure constraints.	Stable native upland soil; standard, low-cost shallow foundations permitted.	Highly unstable industrial "layer cake" (slag, petroleum fill, peat); shallow foundations prohibited.
5. Environmental & Permitting Vulnerability	Minimal (established urban footprint); no new federal wetland permitting required.	Zero federal wetland risk (Clean Upland Site); standard municipal zoning/permitting scope.	High-Stakes Exposure: Clean Water Act Section 404/401; highly vulnerable to LEDPA permit denial.

Synthesizing this comparative matrix underscores the strategic trade-offs highlighted in technical assessments by Stephanie Black. Arlington Heights offers absolute land-use control and benign geotechnical conditions, but remains bogged down by Illinois municipal gridlock and unresolved property tax disputes with Cook County school districts.

Conversely, Hammond Wolf Lake provides high political velocity, fast-track infrastructure backing, and exceptional regional transit access. However, these surface-level benefits are counterbalanced by severe subterranean geotechnical liabilities and high-stakes federal environmental regulatory exposure.

To determine whether these operational advantages outweigh the subterranean liabilities, market analysis must evaluate how the ticket-buying public perceives crossing state lines for match-day attendance.

SECTION 5

Commercial Feasibility: Season-Ticket Holder Survey Data on Travel Times, Parking Willingness, and Gameday Experience

The long-term commercial viability of an NFL stadium district depends on consumer spending elasticity, ticket-holder demographics, and fan willingness to adopt new travel behaviors. Moving a historic sports franchise across state lines introduces psychological friction regarding market identity. However, empirical consumer sentiment data demonstrates that actual transit efficiency and gameday comfort consistently override traditional geographic borders.

Survey analytics evaluating season-ticket holder behavior reveal that fan tolerance for travel friction is driven primarily by door-to-door transit time and parking convenience, rather than jurisdictional lines. While casual optics portray moving to Indiana as a major geographic leap, market data highlights that a direct 25-minute commute via the West Lake Corridor rail line from Millennium Station eliminates the perceived burden of crossing the state line. Fans prioritize predictable travel windows over geographic proximity; the 25-minute rail connection to Hammond compares favorably to the 50-minute Metra commute required to reach Arlington Heights.

Furthermore, parking elasticity studies indicate high consumer willingness to spend on premium reserved parking when paired with dedicated tailgating infrastructure. High-net-worth season-ticket holders consistently express frustration with Soldier Field's cramped garage footprints and restrictive park district rules, indicating a strong preference for reserved open-air tailgating stalls, dedicated fan zones, and streamlined highway access along I-90.

PREDICTIVE REAL ESTATE VALUE SPILLOVER
Target Residential Enclaves: Crown Point, Winfield, Lakes of the Four Seasons (LOFS).
Primary Catalysts: Executive housing demand, regional infrastructure investment, enhanced transit corridor connectivity.
Projected Appreciation: +5% to +15% cumulative increase in residential property values within 5 years of stadium opening.

Beyond direct stadium revenues, predictive real estate models show substantial regional economic spillover into high-tier residential communities in southern Lake County, including Crown Point, Winfield, and Lakes of the Four Seasons (LOFS). As executive staff, players, and regional workers seek premium housing within the new stadium transit corridor, property value models project a cumulative 5% to 15% increase in residential property values within these specific sub-markets over the first five years of stadium operation.

Tax Mechanism	Statutory Structure	Consumer Impact & Policy Dynamics
Countywide Food & Beverage Tax	1% levy on prepared food & beverages	$40 – $100 annual household cost; functions as an unavoidable, regressive consumption tax on daily dining.
Lake County Innkeeper Tax	Doubled from 5% to 10%	Targeted user fee absorbed primarily by out-of-town hotel guests and visiting consumers.
Hammond Ticket Admissions Tax	12% tax on event admissions	Direct user fee paid exclusively by event attendees and stadium consumers.

This real estate appreciation is counterbalanced by local consumer resistance regarding regressive taxation. A central public policy conflict emerges when analyzing the local funding stack: while the 12% ticket tax and 10% hotel tax function as targeted user fees paid by voluntary event consumers and out-of-town visitors, the authorized 1% Food & Beverage tax across Lake and Porter counties is projected to cost an average household $40 to $100 annually. Because this 1% food tax applies to everyday restaurant meals, takeout, and prepared food purchases regardless of stadium attendance, non-stadium-going residents object to paying an unavoidable regressive tax to subsidize a private sports franchise, driving local political pushback.

While surface logistics, rail transit metrics, and commercial fan sentiment strongly favor the Hammond site, evaluating total project feasibility requires pivoting from above-ground operational viability to severe subterranean geotechnical liabilities.

SECTION 6

Strategic Transition: Moving from Operational Due Diligence to Subterranean Physical Realities

Evaluating the operational feasibility, financial models, and logistical advantages of the Hammond proposal reveals a compelling above-ground narrative. However, civil engineering and environmental due diligence dictate that a stadium's structural viability is determined by subsurface conditions. The core strategic challenge facing the Chicago Bears at Wolf Lake Terminals is not located in legislative chambers or fan surveys, but beneath the surface soil.

SUBTERRANEAN "LAYER CAKE" STRATIGRAPHY (WOLF LAKE TERMINALS)	
Layer 1 (Surface / Upper Fill)	Shifting industrial steel slag heaps; unsettled fill material.
Layer 2 (Intermediate Zone)	Petroleum refinery waste and hydrocarbon chemical residue.
Layer 3 (Deep Substrate)	Highly compressible organic peat; saturated, low-load capacity.
Target Foundation Stratum	Solid load-bearing bedrock reached via deep caissons and heavy steel piles.

Geotechnical soil borings conducted at the Wolf Lake Terminals site reveal a complex, multi-layered "layer cake" of subsurface liabilities. Native stable soil is entirely absent, prohibiting standard shallow foundations under structural engineering standards. Supporting the massive dead load of a 70,000-seat NFL stadium requires driving deep concrete caissons and heavy steel piles through hundreds of feet of industrial slag, refinery waste, and compressible peat directly down to solid bedrock, introducing massive capital expenditure premiums into early foundation construction.

Driving these deep structural foundations creates severe environmental permitting vulnerabilities under state and federal law:

Hydrological Plume Upwelling & Regulatory Tightening: Driving hundreds of deep concrete caissons acts as an invasive subsurface disturbance, risking the upwelling and cross-border migration of dormant groundwater lead and petroleum hydrocarbon plumes across the state line into Illinois. IDEM's groundwater lead standard has recently tightened from the historical 15 µg/L baseline down to 10 µg/L, while EPA's updated residential soil lead screening level stands at 200 ppm (and 100 ppm where multiple lead sources exist). Any cross-border plume migration would trigger mandatory federal intervention from EPA Region 5, instantly halting construction.

Clean Water Act Section 404 & The LEDPA Rule: Filling protected wetlands to construct stadium infrastructure requires a permit from the U.S. Army Corps of Engineers (USACE) under Section 404, alongside state Section 401 water quality certification. Under federal law, non-water-dependent projects face a strict legal presumption that a non-wetland alternative exists, requiring selection of the Least Environmentally Damaging Practicable Alternative (LEDPA). Because the Bears already own a 326-acre, wetland-free upland property in Arlington Heights (purchased for $197.2 million), federal regulators possess pre-existing, legally unassailable baseline evidence to deny the Wolf Lake Section 404 permit outright.

Regulatory Moving Goalposts: The financial sensitivity of brownfield remediation is illustrated by the nearby Town of Pines Superfund alternative site. When EPA and IDEM tightened regulatory screening limits—halving soil lead thresholds to 200 ppm while revising arsenic (25.2 ppm) and thallium (1.62 ppm) standards—the cleanup scope at Town of Pines

instantly expanded by 20,000 cubic yards of soil, adding $720,000 in unbudgeted cleanup costs. Similar regulatory shifts at Wolf Lake would drive severe CAPEX volatility.

To navigate these subterranean liabilities, the Bears franchise faces three distinct strategic paths, outlined in the comparative cost-risk matrix below:

Strategic Path	Core Operational Mechanics	Financial & Regulatory Exposure	Strategic Trade-Off Summary
Path 1: Proceed with Wolf Lake (Mitigation & Deep Caissons)	Advance in Hammond; execute deep caissons to bedrock; purchase off-site wetland mitigation credits via IN SWMP.	**Extreme CAPEX Volatility & Regulatory Risk:** High exposure to IDEM/EPA enforcement and potential Clean Water Act Section 404 (LEDPA) permit denial.	Accepts massive subsurface remediation costs and decade-scale biological liabilities in exchange for Indiana's fast-moving $1B public infrastructure framework (SEA 27).
Path 2: Pivot Back to Arlington Heights (Upland Fallback)	De-escalate Indiana site work; return resources to the 326-acre upland property; resolve Cook County school tax dispute.	**High Political Risk / Zero Environmental Risk:** Bypasses CWA Section 404 wetland gauntlet and deep caisson costs entirely; exposed to Illinois political gridlock.	Trades complex industrial swampland engineering for standard suburban site development, but requires navigating stalled property tax negotiations in Cook County.
Path 3: Leverage Data for Multi-State Deal	Maintain Hammond publicly as "sole focus"; use documented subsurface remediation cost estimates as multi-state leverage.	**Moderate Sunk-Cost Exposure:** Risks alienating state leaders if leverage fails, leaving the team committed to high-cost sites.	Uses quantified Wolf Lake caisson/remediation costs to force a written tax-certainty offer from Illinois or extract cost-overrun protections from Indiana.

Ultimately, empirical geotechnical audit data and federal environmental law will dictate whether the Hammond stadium proposal serves as a masterstroke of multi-state negotiation leverage or a billion-dollar environmental gauntlet.