

Berkshire eSupply

HexArmor

UL Solutions

LG Ultium Cells

GM Orion Assembly

Case STUDIES

NOTE: The tools highlighted in the following case studies are detailed in the Technical Guidance portion of this document. Each tool is designed with a certain audience (sector) and stage of project (phase) in mind. The icons below denote which sector and phase the tool is intended for.

SECTOR



The Public Sector: government agencies and publicly funded organizations at the local, state, and federal levels. Their role is to guide development in ways that align with community goals.



The Private Sector: businesses, investors, developers, and property owners who bring capital, innovation, and market knowledge to projects. They typically take the lead in financing, designing, constructing, and operating new developments.

PHASE



Pre-Project



Project Commencement



Construction/Post-Construction

NOVI, MI

Berkshire eSupply

Modern industrial distribution and headquarters campus, predictable approvals, wetland stewardship, and a competitive incentive stack

Why Berkshire eSupply and why Novi? This project is a useful example for communities that want industrial investment without losing control of design, infrastructure, and environmental outcomes. Berkshire eSupply is not a traditional factory. It is an industrial distribution and fulfillment operation that supports manufacturing and maintenance supply chains at scale, with a professional headquarters presence and a campus feel.

According to the public record, Novi's value proposition was straightforward: a strong freeway location, a review pathway that could handle a complex site, and a municipal culture that treats permitting, infrastructure, and environmental standards as part of the same decision.

The project also shows what modern site selection looks like in practice. The project team evaluated dozens of potential sites and ultimately chose Novi because it could meet both operational requirements and the softer requirements that keep a workforce stable, including proximity to hotels and a setting that feels like a long-term home for the business.

Asset Class: logistics and e-commerce distribution warehouse. A two-part industrial campus, including a headquarters office building paired with the fulfillment center and warehouse.

Tools Used:

-  **9. Site Design** ●○○
-   **10. The Development Review Process** ●○○
-  **13. Brownfields and Incentives** ●○○

Site Context and Facility Details

The site is an approximately 57-acre parcel at the southeast corner of M-5 and West Fourteen Mile Road, with frontage on Fourteen Mile Road and Haggerty Road. In 2017, the property was zoned Office Service Technology and the future land use designation was Office Research Development and Technology. Residential areas were located across M-5, which is why buffering, circulation, and environmental standards mattered in the review record.

The approval pathway ran through planning commission public hearings and a coordinated technical review process with City staff. The project required wetland and woodland approvals, stormwater management plan approval, and a structured response to traffic and access details.

By the Numbers

- Site:** 57 acres
- Office:** 18,000 square feet
- Warehouse:** 193,230 square feet
- Total capital investment:** \$69,737,750
- Incentives:** Industrial Facilities Tax Exemption Certificate estimated at \$5,000,000 in developer savings
- Grant:** \$1,000,000 Michigan Business Development Program performance-based grant
- Jobs:** 240 total new jobs

Site Location: 40333 W 14 Mile Road, Novi, MI 48377.



What Came Up During Approvals that Other Communities Can Learn From?

Wetlands and mitigation were treated as core site design issues. The planning commission record identifies regulated wetlands and woodlands on site with wetland impacts and mitigation requirements that had to be resolved through the site plan process.

Parking and circulation were not glossed over. Early proposals reserve parking areas, a practice which keeps green space undeveloped until additional parking demand is warranted. The commission ultimately approved this approach while applying specific conditions.

Traffic control was a negotiated deliverable. The commission's approval was tied to a revised entry design that included a proposed traffic signal at the entry drive and Fourteen Mile intersection.

Infrastructure alignment required real decisions. The record shows the project intersected with an existing water main easement and a future road extension concept in the City's future land use plan, which required coordination between engineering, administration, and the applicant to reach a workable alignment.

Public process was straightforward. Records for the planning commission meeting show no public comment for the project, signaling that proactive planning, zoning, and a strong application from Berkshire eSupply aligned with community sentiment.

Challenges and Adaptive Processes

This project demonstrates a common pattern in high-stakes industrial development: the early concept is rarely the final plan. There was ongoing refinement on parking, circulation, wetland impacts and mitigation, and utility alignment.

It also shows a practical way to prevent conflict. The City used normal public processes and clear conditions rather than improvising special rules. Where the project required flexibility, it was paired with requirements that were visible in the public record, including the traffic signal condition and the later conservation easement.

Photo by Albert Kahn Associates, Inc.



Planning Policies and Local Partnerships

Novi's proactive, holistic approach helped secure the right site plan and the right user for the site.

The approval process not only focused on whether the use was acceptable. Additionally, the City of Novi emphasized a site plan that responded to existing conditions and provided reasonable plans for on-site parking and the mitigation of the nearby natural systems.

A few examples from the public record illustrate that approach.

- Environmental stewardship was formalized. In 2020, City Council accepted a wetland conservation easement offered as part of the development, explicitly intended to protect remaining wetlands and mitigation areas from future disturbance.
- Infrastructure was coordinated, not assumed. The project required water system decisions, easement coordination, and later a formal action to terminate a portion of an existing water main easement after the water main alignment was adjusted to serve the development.
- Operational realities were taken seriously. The planning commission record reflects concerns about driveways, parking layout, and internal site function, not just off-site traffic volumes.

This is the core lesson for municipalities: modern industrial compatibility is not the absence of impacts. It is the management of impacts through clear site standards, predictable review, and documented commitments.



Photos by Berkshire eSupply (top left) and Albert Kahn Associates, Inc.



What lessons can others take from Berkshire eSupply?

Modern industrial is often supply chain infrastructure.

Berkshire eSupply is a large-scale distribution and fulfillment operation supporting industrial tools and maintenance supply chains, and the City's own communications frame it as part of Industry 4.0 evolution.

Predictable approvals are an economic development tool.

Novi's record shows a standard, thorough process with conditions and follow-through, rather than an ad hoc pathway. For example, the City shares that the average permit approval time is seven months, an estimate that varies by project type, complexity, and zoning. Dozens of

checklists on the Community Development Department's website ensure that applicants are prepared to work with the City, in addition to a crystal-clear protocol that begins first with a concept meeting then moves to a pre-application meeting. This clarity and transparency of process and requirements positions the City and potential developers for mutual understanding.

Environmental commitments are often a main feature of industrial development.

A conservation easement is a durable mechanism that turns mitigation and preservation into long-term stewardship rather than a one-time promise.

Infrastructure details belong in the entitlement conversation early.

Water main easements, future road concepts, and access design were not afterthoughts. They were part of the review process and the later implementation record.

Incentives work best when paired with clear commitments.

The local abatement agreement ties benefits to continued operation, and state support was structured as performance-based.

Adaptive reuse, community partnerships, nimble planning

Why HexArmor? This project serves as an example of capturing growth opportunities that already exist within the community, demonstrating ways in which adaptively reusing obsolete buildings can mutually benefit both the industrial user and the local community. The City of Grand Rapids recognized this opportunity, proactively streamlining their zoning and approval processes to be nimble and reasonable when development opportunities such as HexArmor's relocation arise.

Asset Class: mid-sized modern manufacturing. HexArmor was founded in Grand Rapids in 2002 and has grown significantly over the years. The company provides industrial personal protection equipment (IPPE), primarily offering cut and puncture-resistant gloves and armguards, and recent product line expansions that include safety eyewear.

Tools Used:



1. Roles, Responsibilities, and the Development Process ●○○○



2. Master Planning for Industrial ●○○○



3. Conducting Exploratory Meetings ●○○○



7. Industrial Zoning District Guidelines ●○○○



10. The Development Review Process ●●○○



13. Brownfields and Incentives ●●○○

GRAND RAPIDS, MI

HexArmor

Site Context and Facility Details

HexArmor's Continued Growth in Grand Rapids

HexArmor relocated to 640 Leffingwell Ave NE to replace and enlarge its footprint from the previous facility at 2000 Oak Industrial Drive NE, responding to increased headcount, warehousing needs, and a broader product line expansion (enabled by a strategic partnership with the Germany-based uvex Safety Group). This \$8.7 million project was a complete revitalization of a vacant, 52,000-square foot obsolete building.

Continued expansion. On January 30, 2025, local economic development group The Right Place, in partnership with the Michigan Economic Development Corporation (MEDC), announced HexArmor's plans to expand its headquarters further with an \$11.4 million investment. The expansion added 59,000 square feet to its existing Grand Rapids facility to meet the company's global growth. This project will double the company's warehouse capacity and enlarge office spaces, creating 100 new jobs in the process.

Site Location: 640 Leffingwell Avenue NE

By the Numbers

Building size:
111,000 square feet
Current: 52,000 square feet
Expansion: 59,000 square feet

Project cost:
2019: \$8.7 million
2025 expansion: \$11.4 million

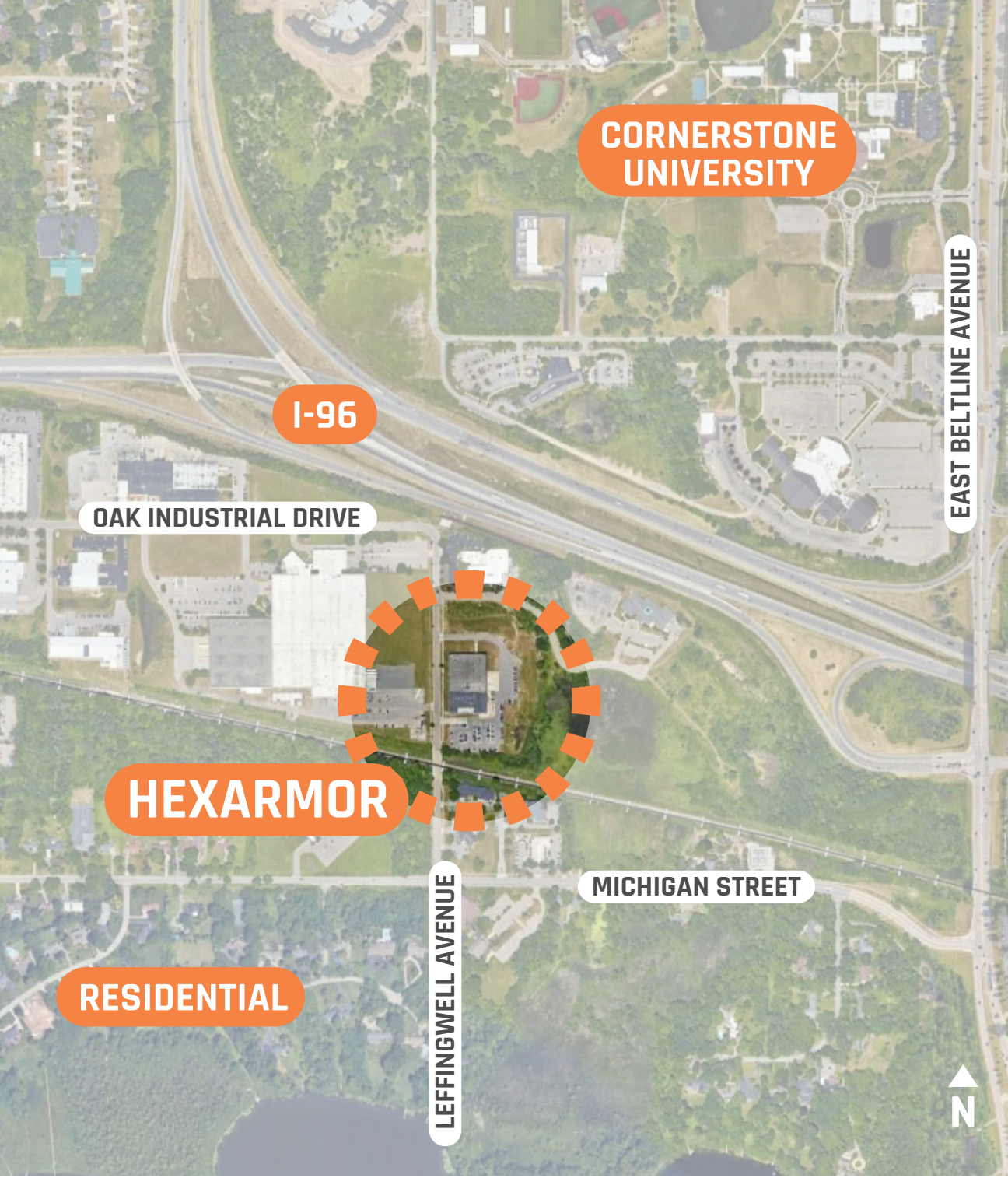
Number of jobs:
280 full-time employees
Current: 180 full-time employees (50-person increase from Oak Industrial location)
Expansion: 100 full-time employees

Site Context

Oak Industrial Park was created in the 1970s to facilitate industrial development in the City of Grand Rapids. It is one of the only remaining viable industrial areas within the City because many former industrial buildings have been converted into mixed-use. City leaders have maintained that the Oak Industrial Park must remain as industrial to preserve jobs within the City and have worked to prevent the intrusion of non-industrial uses into the area.

Initially located at 2000 Oak Industrial Drive NE in Grand Rapids, HexArmor decided to relocate and expand its headquarters to 640 Leffingwell within the Oak Industrial Park in 2019. Their new location can be easily accessed by the I-196 Interchange and East Beltline Avenue. Various other industrial uses surround the site, as Leffingwell Avenue turns into Oak Industrial Drive. Cornerstone University is located just north of the site beyond the highway, Aquinas College is southwest of the site, and residential neighborhoods exist to the south and west of the site.

The area is located on a bus line, but there was historically a lack of sidewalks and bike facilities. Over the course of the past decade, the City of Grand Rapids has worked to add sidewalks that connect to transit stops and refurbish an overpass that extends over I-196 to connect to northern neighborhoods with a new sidewalk.



← **DOWNTOWN GRAND RAPIDS** 3 MILES WEST OF SITE

← **AQUINAS COLLEGE** 6 MILES SOUTH WEST OF SITE

Adaptive Reuse and Incentives

This project adaptively reused an existing industrial building, blending into the existing context of the area came naturally.

This is one of the reasons why adaptive reuse can strengthen a project's feasibility right from the start. Revitalizing a building that previously housed an industrial or similar use often ensures that the proper zoning, infrastructure, and compatibility with surrounding uses exists for a new industrial project.

Adaptive reuse has the potential to benefit the developer and the community.

The building at 640 Leffingwell had stood largely vacant for years before HexArmor acquired it. Through a complete \$8.7 million renovation, HexArmor transformed the structure into a modern, fully functional headquarters featuring a mix of office space, light manufacturing/assembly floors, and warehousing capacity designed for contemporary PPE production and distribution demands. In addition to restoring productive

use to a property that might otherwise have remained blighted, the project delivered inherent sustainability benefits by reusing the existing building rather than demolishing it. The revitalized facility now supports local manufacturing while also demonstrating how thoughtful adaptive reuse can produce high-performing, innovative, and environmentally responsible workspaces.

Tax Incentives

The City of Grand Rapids approved a P.A. 146 Obsolete Property Rehabilitation Act (OPRA) tax abatement in support of the company's revitalization of the new facility. OPRA provides tax incentives to developers for rehabilitating older properties. Typically, this means a temporary exemption or reduction of property taxes on the increased value resulting from renovations. These incentives reduce the financial burden of updating older buildings to meet modern standards, allowing companies to invest in new equipment, improve working conditions, and expand operations without being immediately penalized by higher taxes.



Further Reading

State of Michigan OPRA Overview



Original building



2019

HexArmor
protecting people

P.A. 146 Obsolete Property Rehabilitation Act

An OPRA incentive helps reduce the tax burden associated with redeveloping an obsolete or deteriorated building, which is often one of the biggest financial barriers in adaptive reuse projects. By freezing the property's taxable value for up to 12 years, OPRA allows developers to invest in rehabilitation without immediately absorbing higher taxes triggered by their improvements. This makes it more feasible to modernize older structures. For communities, OPRA supports reinvestment in existing buildings and brings vacant or underused spaces back into productive use.

Planning Policies and Local Partnerships

City Of Grand Rapids Zoning

The HexArmor parcel is zoned as Special District Industrial Transportation: The Industrial-Transportation District (IT) was established to reflect the goals and objectives of the Grand Rapids Master Plan for a wide range of light industrial and manufacturing uses, heavy manufacturing and processing of raw materials. Neither a special land use nor rezoning was required for this property, and the Grand Rapids Planning Department has proactively prepared for industrial development.

Creating flexible rules so developers can “play in the sandbox.”

The Grand Rapids ordinance includes provisions that allow “administrative departures,” or waivers, allowing planning staff to use a more flexible approach to suit a project’s needs. In this case, HexArmor wanted a rooftop entertainment space and meeting room that exceeded the allowable building height. Given the size of the building and rooftop appurtenance, it was approved as a minor deviation.

Additionally, Grand Rapids planning staff set the public hearing so that HexArmor needed to only appear at one planning commission for its approval. The planning commission did not table the item, nor was the project required to go to the City Commission for review.

The Right Place and the Michigan Economic Development Corporation

The Right Place in Grand Rapids is the region’s leading non-profit economic development organization, focused on attracting, retaining, and growing businesses in key sectors like manufacturing, tech, and life sciences to create jobs and investment, making Greater Grand Rapids a thriving center for innovation and commerce. In partnership with MEDC, a \$350,000 Michigan Business Development Program performance-based grant was provided to HexArmor to assist them in their 2019 facility relocation project. The Right Place also connected HexArmor to workforce development resources at West Michigan Works! to assist with employee training.

The Right Place and MEDC continue to support the forward progress of HexArmor in Grand Rapids through additional financial assistance amidst the company’s current expansion project, providing a \$700,000 grant from the Michigan Business Development Program.

HexArmor has long-standing partnerships that have assisted in their continual growth in Grand Rapids. These partnerships have been steadfast in showing their investment in HexArmor through providing funding and resources for both their 2019 relocation and adaptive reuse project as well as their 2025 expansion project. Without these relationships, funding, and tax incentives, the project may not have been feasible.

Your zoning should allow for beneficial projects, not inhibit them.

The planning department has the discretion to make reasonable deviations from typical requirements on a case by case basis. Had the City of Grand Rapids stayed stringent to the zoning requirements for HexArmor’s proposed rooftop, they would have rendered an incredible project amenity unfeasible on the project’s timeline.

Not all planning requirements best serve a project; a nimble planning commission trusts their instincts and makes decisions in alignment with the wellbeing of its community and design best practices.

“HexArmor is strongly committed to growth in the City of Grand Rapids, and we feel this vibrant community is the best place for both our business and employees. We’re grateful for the support of The Right Place and their partners at the MEDC and City of Grand Rapids as we enter this next phase of growth.”

- Steve VanErmen, President and CEO of HexArmor

What lessons can others take from HexArmor?

HexArmor's relocation and expansion into 640 Leffingwell Ave NE demonstrates how a coordinated approach built on adaptive reuse, cross-sector partnerships, and targeted public incentives can transform an obsolete industrial facility into a forward-thinking employment center.

By choosing to rehabilitate a vacant, deteriorating building rather than construct new space elsewhere, the company utilized existing infrastructure and revitalized a structure that had lost its economic purpose. The modernization of the site into a functional mix of office, light manufacturing, and warehousing space illustrates the power of adaptive reuse to efficiently meet contemporary operational needs while reinforcing the long-term vitality of an established industrial corridor.

The project was made possible through strong collaboration among HexArmor, The Right Place, MEDC, the City of Grand Rapids, along with use of the Obsolete Property Rehabilitation Act incentive, which helped close the financial gap of renovating an underperforming asset. These partnerships aligned business growth with community objectives, demonstrating how coordinated public-private support and well-targeted incentives can catalyze private investment, retain and grow jobs, and transform aging industrial real estate into a future-focused headquarters.

Adaptive reuse provides a strong foundation for feasibility.

Starting from scratch is not always necessary, and "new" is not always better. Using an existing building reduces upfront costs, shortens construction timelines, and avoids many of the uncertainties of new development. Industrial buildings often already have the structural capacity, infrastructure, and zoning needed for modern operations, making them strong candidates for reinvestment.

Local partnerships matter.

The Right Place and MEDC played a critical role in the 2019 relocation, facilitating coordination, financing, workforce training support, and the incentives applications. They have shown their continued support by helping finance the 2025 expansion project representing the strength of this public-private partnership. City staff and the planning commission supported the use of property tax abatements to secure new investment and jobs in the City.

Incentive policies can be mutually beneficial.

The OPRA public incentive made this substantial renovation project financially viable for HexArmor while also giving new life to an unused space in the community that may have otherwise been demolished. Incentives of this sort work by equipping developers with the means to make a substantial impact on vacant industrial spaces, which directly benefits the host community.

Space for industrial growth exists without the need for sprawl.

By revitalizing an existing industrial building rather than building on undeveloped land, the project avoided greenfield development, supporting sustainable development and efficient infrastructure use. When a use can feasibly locate within an existing industrial area, regional land use goals are advanced, and residents are more likely to support the project.

Consider flexibility for future expansion when choosing a site.

The 2019 renovation allowed HexArmor to grow, but the 2025 expansion illustrates that planning for flexibility—having room on site, available infrastructure, industrial zoning—can pay off as a company grows. HexArmor's site selection ensured that their investment would be able to sustain and evolve with their future needs. The City's willingness to be flexible in the development approvals process helped facilitate redevelopment and new construction with minimal delay, helping to control HexArmor's cost of development.

A proactive city made the process smooth.

The City of Grand Rapids' master plan and zoning ordinance made site redevelopment easy to facilitate. The master plan established the policy framework and future land use that identified projects like HexArmor, while the City's zoning district created a clear pathway for HexArmor's development to move forward. Because this type of land use was already established in City documents, the review process was simple and fast.

High-tech “industrial”, battery safety and performance testing, incentives and predictable approvals

Why UL Solutions and why Auburn Hills? This is a useful example for communities that are cautious about industrial development, because it shows what a lot of “modern industrial” has become: controlled, high-value technical work that supports manufacturing, without looking or operating like a traditional heavy plant. UL’s Auburn Hills facility is built specifically for advanced battery testing and engineering, which is the kind of work EV and energy-storage companies need to move products through validation and certification.

It’s also a practical municipal case study because the project ran through a familiar set of levers: industrial land in a tech/industrial park, site plan approvals with site constraints (trees, access, emergency response), and a local and state incentive package.

Asset Class: advanced battery testing laboratory. This is “industrial” in the modern sense: a facility that enables manufacturing at a large scale by reducing safety risk, accelerating product development, and meeting compliance requirements for batteries used in vehicles and stationary storage.

Tools Used:



2. Master Planning for Industrial ●○○



9. Site Design ●●○



10. The Development Review Process ●●○



13. Brownfields and Incentives ●●○

AUBURN HILLS, MI

UL Solutions

Site Context and Facility Details

The lab is located at 4322 New Energy Way within Auburn Hills' broader tech/ industrial park environment. The site is behind an existing TÜV SÜD facility, accessed via a private road off Dutton Road, with additional access planning tied to Bald Mountain Road for emergency response.

There were several items that came up during the approval process, which other municipalities could learn from.

- Emergency-only gated access from Bald Mountain Rd with a Knox box arrangement for Fire Department entry
- Perimeter screening added as part of the project approach
- A bike path diversion onto the property to preserve larger trees as part of the review process
- Operational and circulation concerns were raised publicly and the developer responded and took these seriously
- Groundbreaking occurred in June 2023, and UL held a grand opening in August 2024

By the Numbers

- Building size:** 83,061 square feet
- Projected investment:** Up to \$72.7 million total capital investment
- Projected jobs:** 61 new jobs
- Local abatement basis:** \$40,404,000 under PA 198
- State support:** \$1.0 million Michigan Business Development Program performance-based grant; \$500k Jobs Ready Michigan grant; 50 percent Alternative State Essential Services Assessment Exemption up to 5 years.

Site Location: 4322 New Energy Way, Auburn Hills, MI 48326



Planning Policies and Local Partnerships

The City of Auburn Hills' role was decisive.

The City provided the basic preconditions: an appropriate industrial context, a review pathway that could handle a technical facility, and enough clarity to keep the entitlement process predictable.

Design and operations still mattered.

Even for a lab, the City and developer worked through emergency response access, internal circulation, and site interface issues—including trail alignment and trees. This allowed the City to manage impacts while reaping the benefits of industrial development.

The project was also a competition.

State sources explicitly frame the project as competing with other states, and the incentive stack reflects that reality: local abatement and state grants. Because of the financing package, UL Solutions selected the Auburn Hills site over competing locations in both Indiana and Ohio, which featured lower upfront company investment.

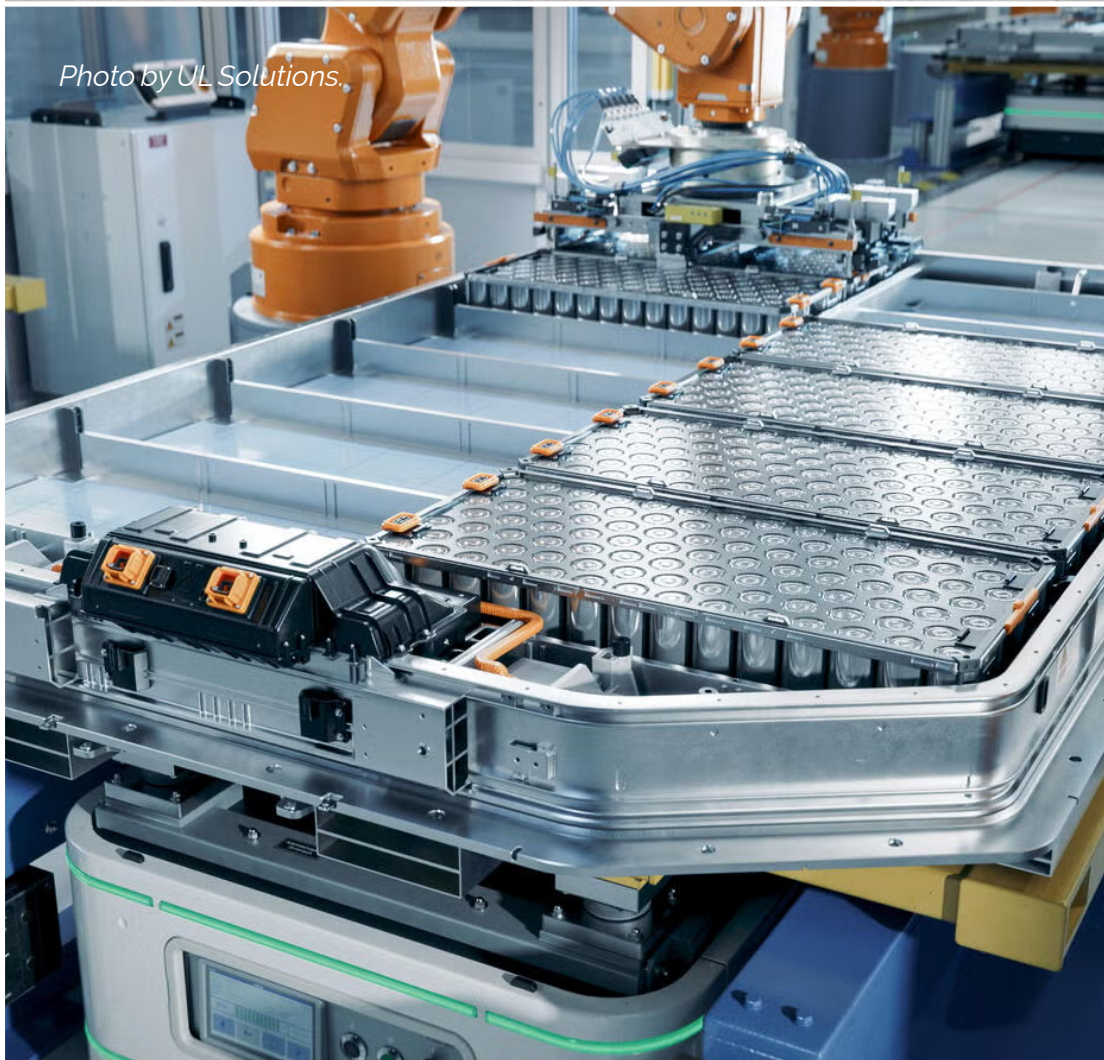




Photo by Lisa Passalacqua, City of Auburn Hills.

What lessons can others take from UL Solutions?

Photo by UL Solutions.

Industrial development isn't just factories anymore.

If your community only plans for warehouses or heavy manufacturing, it can miss the “support infrastructure” that advanced manufacturing depends on.

Predictable approvals are an economic development tool.

The City of Auburn Hills shares [application checklists](#), tax incentive resources, and information tailored to exemptions for industrial facilities online. City staff are also

available for pre-application meetings before submitting site plans. This transparent and collaborative approach to development proposals lets potential applicants know the City is open for business.

Emergency access and operational design belong in the conversation early.

Technical facilities still raise real questions, which can be answered through design requirements instead of political drama.

Incentives are often about competitiveness, not generosity.

The public record is clear—the incentive package helped Michigan compete against contending sites in Ohio and Indiana.

DID YOU KNOW?

Surprising stories from **200+ years** of making things in the Detroit Region.

There's a salt mine under the City, and it's older than the dinosaurs.

Roughly 1,200 feet beneath Detroit, Allen Park, and Melvindale sits a hidden world: over 1,500 acres of caverns with about 100 miles of underground roads. The salt bed formed around 400 million years ago, when an ancient sea evaporated. Mining began in 1910, decades before it was used to de-ice the region's winter highways.

1,200 ft.

BELOW THE STREETS

100 mi.

OF UNDERGROUND ROADS

170 million

YEARS OLDER THAN DINOSAURS

Before the “Big Three” cars, Detroit had a “Big Three” of stoves.

In the late 1800s Detroit was the stove-making capital of the country, led by Detroit Stove Works, the Michigan Stove Company, and the Peninsular Stove Company. The City even built a 25-foot-tall “world's largest stove” as a showpiece. The metal-bending skills behind those stoves? They became the foundation for building automobiles.

“The stove trade taught Detroit how to cast, bend, and join metal at scale: the exact skills a car needs.”

America's oldest surviving soft drink was concocted by a Detroit pharmacist.

Vernors Ginger Ale was first served in 1866 by pharmacist James Vernor, who reportedly aged his ginger syrup in an oak cask while he was away in the Civil War. He came back to find it “deliciously different.” More than 160 years later it's still around, still fiercely regional, and still sworn by as a cure for an upset stomach.



The world's first modern drug-research lab was built on the Detroit riverfront.

In 1902, Parke-Davis opened the first industrial lab built purely for pharmacological research. Once the largest pharmaceutical company on earth, it pioneered the modern clinical trial and gave the world the first antihistamine, Benadryl.

Sources: WDET; Atlas Obscura; Detroit Historical Society



At one point, Detroit built nearly half the ships on the Great Lakes.

By 1905, Detroit shipyards were turning out close to half of all the freight and passenger ships on the Great Lakes, building some of the largest freshwater vessels afloat. A young machinist's apprentice named Henry Ford learned about engines there before he ever built a car.

~50%
of all Great Lakes ships
built in Detroit, circa 1905

Detroit also shipped the world seeds, soap, varnish... and organs fit for a Queen.

SEEDS BY MAIL

D.M. Ferry & Co., founded in Detroit in 1879, became one of the largest seed companies in the world.

MUSIC FOR ROYALTY

Detroit's instrument makers were so renowned that, as the story goes, Queen Victoria ordered organs built in the Motor City, long before it was the Motor City.

Two world-firsts that quietly changed everyday life everywhere.

1909

First Concrete Highway

A one-mile stretch of Woodward Avenue became the first mile of paved concrete road in the U.S., which was the humble start of modern roads and logistics.

1913

The Moving Assembly Line

At the Highland Park plant, the first moving automotive assembly line dropped the time to build a car from 12 hours to about 90 minutes, reshaping production worldwide.

NOW YOU KNOW!

The next chapter of the region's industrial story is being written right now — in your community. The Industrial Development Toolkit is here to help you shape it.

DELTA TOWNSHIP,
GREATER LANSING, MI

LG Ultium Cells

Battery manufacturing, 425 agreements, and strategic infrastructure coordination

Why LG Ultium Cells and why Delta Township? The Ultium Cells battery manufacturing facility in Delta Township represents one of the most significant industrial investments in Michigan in recent decades. Developed to support the rapidly evolving electric vehicle supply chain, the project reflects the scale, complexity, and infrastructure demands that increasingly define modern industrial development.

Announced as a multi-billion-dollar investment, the facility was planned as a high-volume battery cell manufacturing plant designed to supply EV production across General Motors' North American operations. At full build-out, the project was expected to employ approximately 1,700 workers and occupy a campus of roughly 2.8 million square feet.

Asset Class: advanced battery cell manufacturing. Battery cell manufacturing sits at the center of the EV transition. These facilities are capital-intensive, highly automated, and utility-dependent, requiring exceptional reliability in power, water, and wastewater systems. They also demand close coordination with fire services, environmental regulators, and workforce partners. From a site selection perspective, this asset class places a premium on speed, certainty, and the ability to scale infrastructure quickly.

Tools Used:

-  **6. Site Readiness and Feasibility** ●○○
-   **11. Conducting a Successful Public Meeting** ●●○
-  **15. 425 Agreements** ●○○
-   **16. Communicating During Construction** ●●●

Site Context and Facility Details

The Delta Township site encompasses approximately 220 acres along the Davis Highway corridor.

Local review focused on issues typical of large, modern industrial campuses.

This included traffic access and routing, wetland and environmental features, utility capacity, stormwater management, and first-responder preparedness. Planning and entitlement discussions included coordination on roadway improvements, site access points, chemical handling protocols, and ordinance compliance.

The site's size and location required close collaboration between township staff, regional agencies, and service providers to ensure that approvals and infrastructure planning progressed in parallel.

Infrastructure and intergovernmental coordination supported project operations.

A defining feature of the project was the level of infrastructure coordination

required to support operations. Significant investments were made to expand electric capacity, upgrade water and wastewater systems, and prepare the surrounding transportation network for construction and long-term operations.

A 425 agreement played a central role.

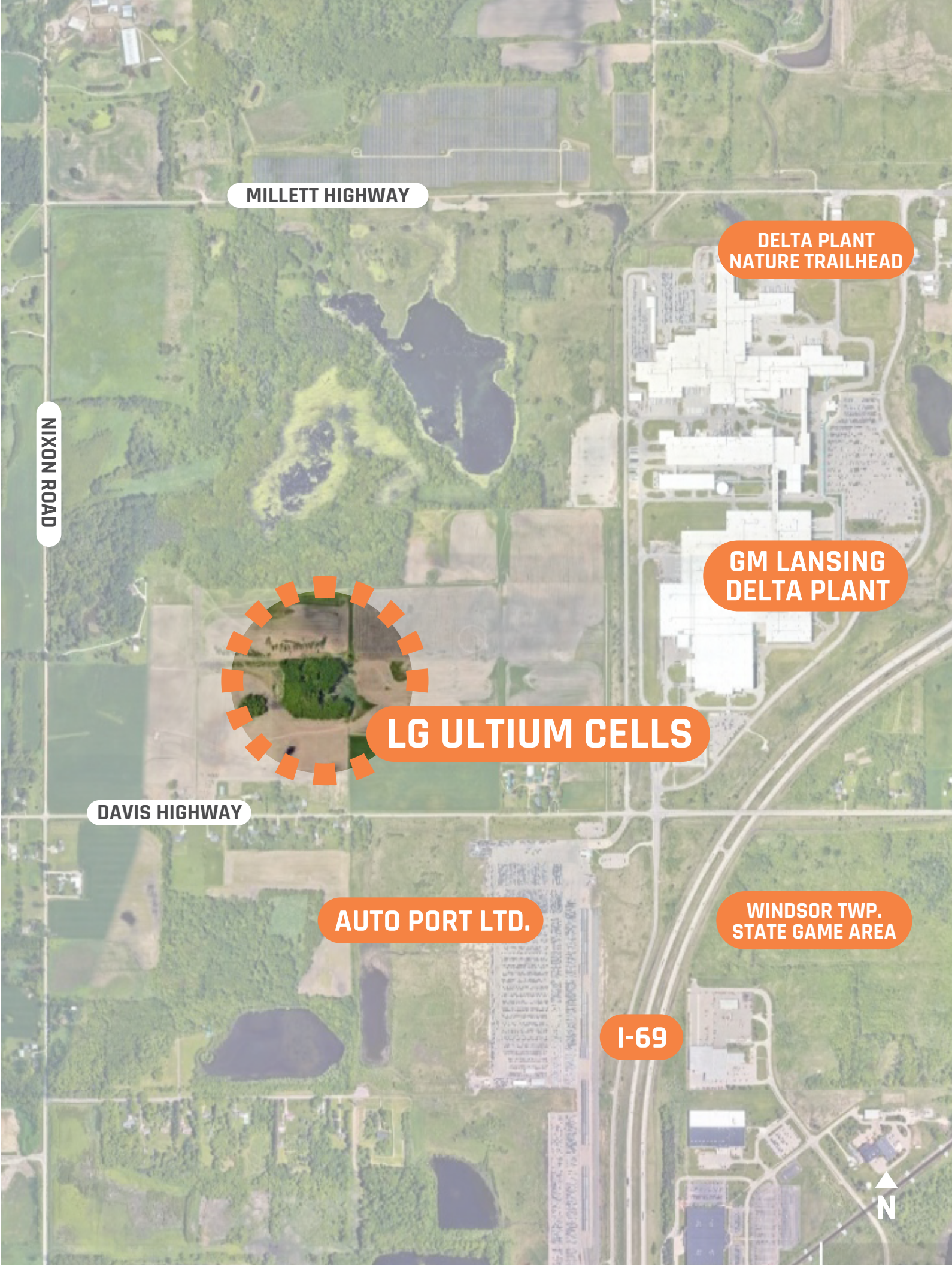
A long-term, revenue-sharing 425 agreement helped align jurisdictional boundaries, service provision, and fiscal impacts between the City of Lansing and Delta Township, allowing the project to move forward without prolonged boundary or service disputes. State and local partners worked in tandem to deliver utility upgrades on an accelerated timeline.

By the Numbers

- Campus size:** 2.8 million square feet
- Projected investment:** \$2.6 billion
- Projected jobs:** 1,700

Site Location:

7111 Davis Hwy, Lansing, MI 48917



Incentives and Public Investment

The project was supported through a combination of state and local economic development tools.

These included performance-based grants, long-term tax exemptions, and targeted site readiness funding to address infrastructure gaps. Together, these tools reduced upfront risk, supported major utility investments, and improved the project's competitiveness relative to other potential locations.

A 25-year 425 revenue-sharing agreement was tied to the project geography, alongside other local approvals and utility-rate actions.

The project included a state-level \$600 million Critical Industry Program grant, an 18-year Renewable Energy Renaissance Zone, and a \$66.1 million Strategic Site Readiness Program (SSRP) award to support infrastructure/utility upgrades. They also received a \$2.5 billion loan from the Department of Energy in 2022 to support the development of this facility, as well as one in Ohio and another in Tennessee.

Projects of this scale naturally generate public interest and discussion.

Community conversations reflected both optimism about job creation and economic diversification, as well as questions about infrastructure costs, environmental stewardship, and long-term accountability. Ongoing communication, clear articulation of project milestones, and visible coordination among public partners were important in maintaining public confidence as the project progressed.





Photo by the Lansing State Journal.

What lessons can others take from LG Ultium Cells?

The LG Ultium Cells project offers several takeaways for municipalities considering large-scale industrial development:

Modern industrial projects are infrastructure projects.

Utility capacity, reliability, and delivery timelines often determine success.

Governance matters.

Clear intergovernmental agreements can prevent delays and align incentives.

Readiness is iterative.

Large projects evolve over time, and communities must be prepared to adapt approvals and infrastructure plans.

Early coordination with emergency services is essential.

Fire, safety, and hazmat planning should be integrated into the entitlement process.

Clear communication supports long-term trust.

Large investments benefit from simple, consistent explanations of benefits, timelines, and responsibilities.

Industrial retention, EV transition, policy alignment, infrastructure investment

Why GM Orion Assembly and why Orion Township? The GM Orion Assembly facility shows how existing sites can be modernized to fit the needs of today's industrial landscape. The project also shows that industrial attraction is really only part of the story. Retention and reinvestment are critical components of industrial development, and they often hinge on whether or not a community can align zoning, approvals, and infrastructure to meet production timelines while staying true to the goals of the community.

In 2022, GM announced that Orion Assembly would be converted to build full-size electric pickups as part of a broader Michigan investment. This was made possible by the State of Michigan's Strategic Outreach and Attraction Reserve (SOAR) fund. Locally, Orion Township processed key approvals (including a Special Land Use request for expansion) and adopted an Industrial Facilities Tax Exemption to support reinvestment at the site. Today, due to shifting market conditions, the line being built at this facility is pivoting from being a hub for all-electric vehicle production to focusing on internal combustion engine products.

Asset Class: large-format automotive manufacturing. The site established an industrial environment for EV truck production and its associated systems.

Tools Used:

 **2. Master Planning for Industrial** ●○○○

 **7. Industrial Zoning District Guidelines** ●○○○

 **9. Site Design** ●●○○

  **10. The Development Review Process** ●●○○

 **13. Brownfields and Incentives** ●●○○

ORION TOWNSHIP, MI

GM Orion Assembly

Site Context and Facility Details

GM Orion Assembly is an established manufacturing campus on Giddings Road in Orion Township, within the Township's Industrial Complex zoning district.

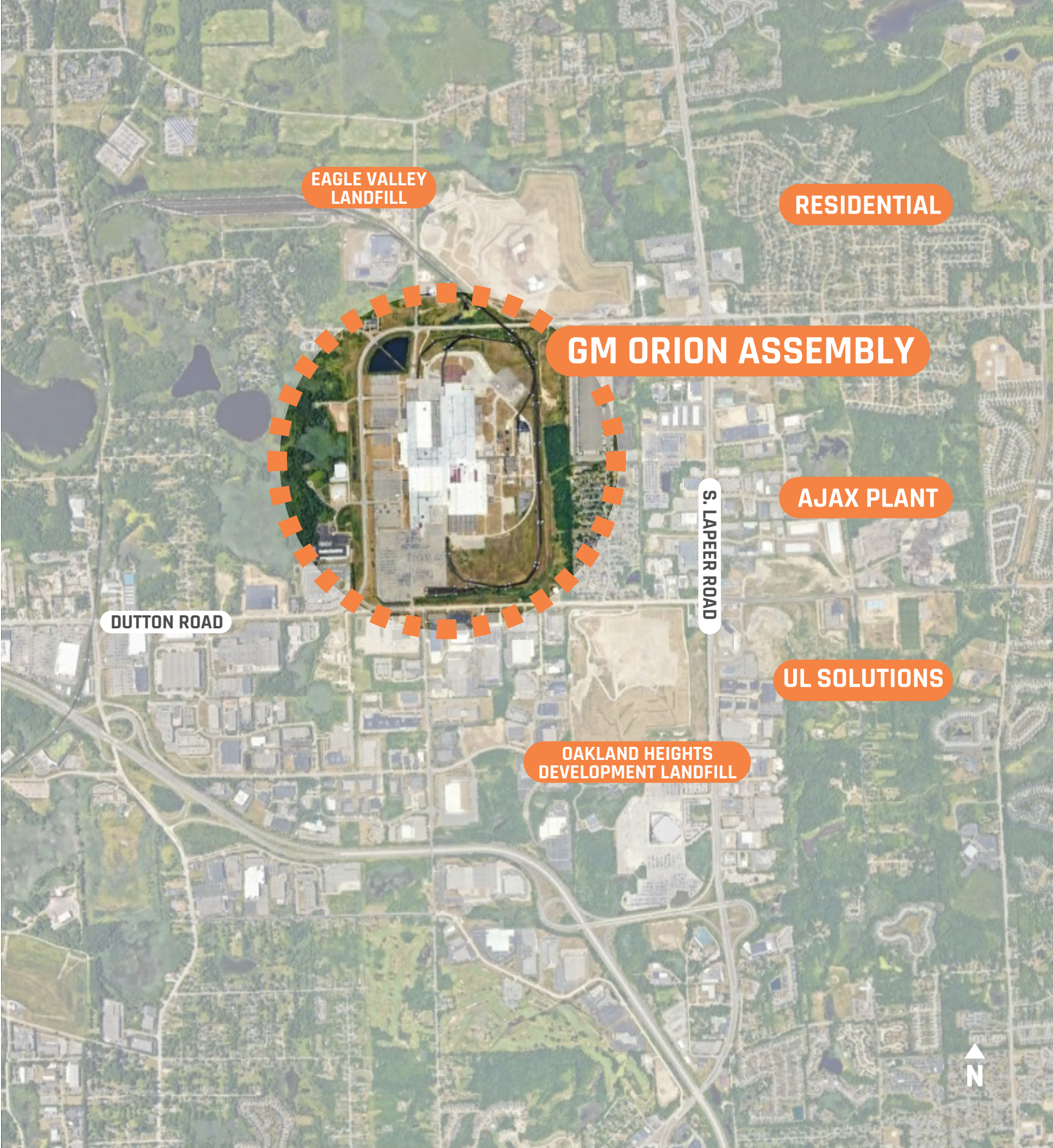
By the Numbers

- Site:** 433 acres
- Facility Scale:** 4,300,000 square feet; 805,000 square foot body shop addition
- Investment:** \$4 billion
- Jobs:** According to planning commission notes, the project will create more than 2,300 new jobs, retaining 1,000 current jobs.
- Project Components:** New truck gates, body assembly expansion, a paint shop connected by a closed conveyor system, new employee parking, and expanded on-site stormwater features, including bioswales and added landscaping/screening.

Site Location: 4555 Giddings Rd, Lake Orion, MI 48359

A Note on Schedule Risk

The Township's planning commission approved a special land use permit along with wetland and site plans at the first meeting at which the Orion project was presented in July 2022. This indicates that Township staff worked closely and quickly with company officials to prepare a thorough application.



Planning Policies

A few moves that translate well to other municipalities:

Treat industrial retention as a planning goal.

Orion Township's approach shows how a community can use existing industrial districts and adopted policies to say “yes, with standards” instead of improvising in real time.

Use zoning district and SLU standards as a decision-making framework.

In the public hearing, GM's representative explicitly tied the expansion to the intent of the Industrial Complex district and presented the expansion as a scaled up version of existing uses. This is a strong way to keep discussion focused on adopted standards.

Make infrastructure a parallel track, not an afterthought.

The planning record discussed anticipated turn lanes, signal modifications, and a new electric feed/easements as part of the expansion story, not as later engineering.

Facility Expansion

What the Expansion Required

Local meetings highlighted a set of practical issues that often decide whether a modernization stays on track:

Truck circulation and gates that work operationally

New truck gates and reconfigured access were part of the presented plan, along with limited but targeted roadway modifications, like turn lanes.

Utilities that scale with the user

Wastewater and natural gas were described as supportable with existing services, while electric service required a new feed tied into existing easements. In addition, the plant's adjacent rail spur was reactivated to respond to high-volume production.

Stormwater handled on-site, with no new discharge points

The plan described on-site storage improvements and bioswales, with added perimeter landscaping and screening to meet ordinance standards and improve the corridor.

Parking

Approximately 1,000 new employee spaces plus temporary construction parking were identified as part of the build-out.



The Public Toolbox that Supported the Project

Local Approvals and Risk Reduction

There was a special land use approval pathway for industrial expansion in the Industrial Complex district, which kept the decision tied to adopted standards.

An Industrial Facilities Tax Exemption (IFT) was approved for the project. The IFT is a 12-year exemption with a 3-year construction period (15-year total structure).

State-Level Incentive Alignment

At the state level, Michigan approved a performance-based Critical Industry Program grant of up to \$600M supporting GM's Orion conversion alongside the Ultium battery plant. They also authorized a State Education Tax abatement to pair with Orion Township's local PA 198 abatement for the Orion expansion.

Off-Site Infrastructure Investment that Matches Industrial Reality

A visible example is the Brown Road / Giddings / M-24 corridor work, which is a construction project funded by a state grant awarded to Orion Township. The project includes non-motorized pathways, a new traffic signal at Brown and South Giddings tied to a new gate into the GM plant, and new turn lanes near GM Gate 8.

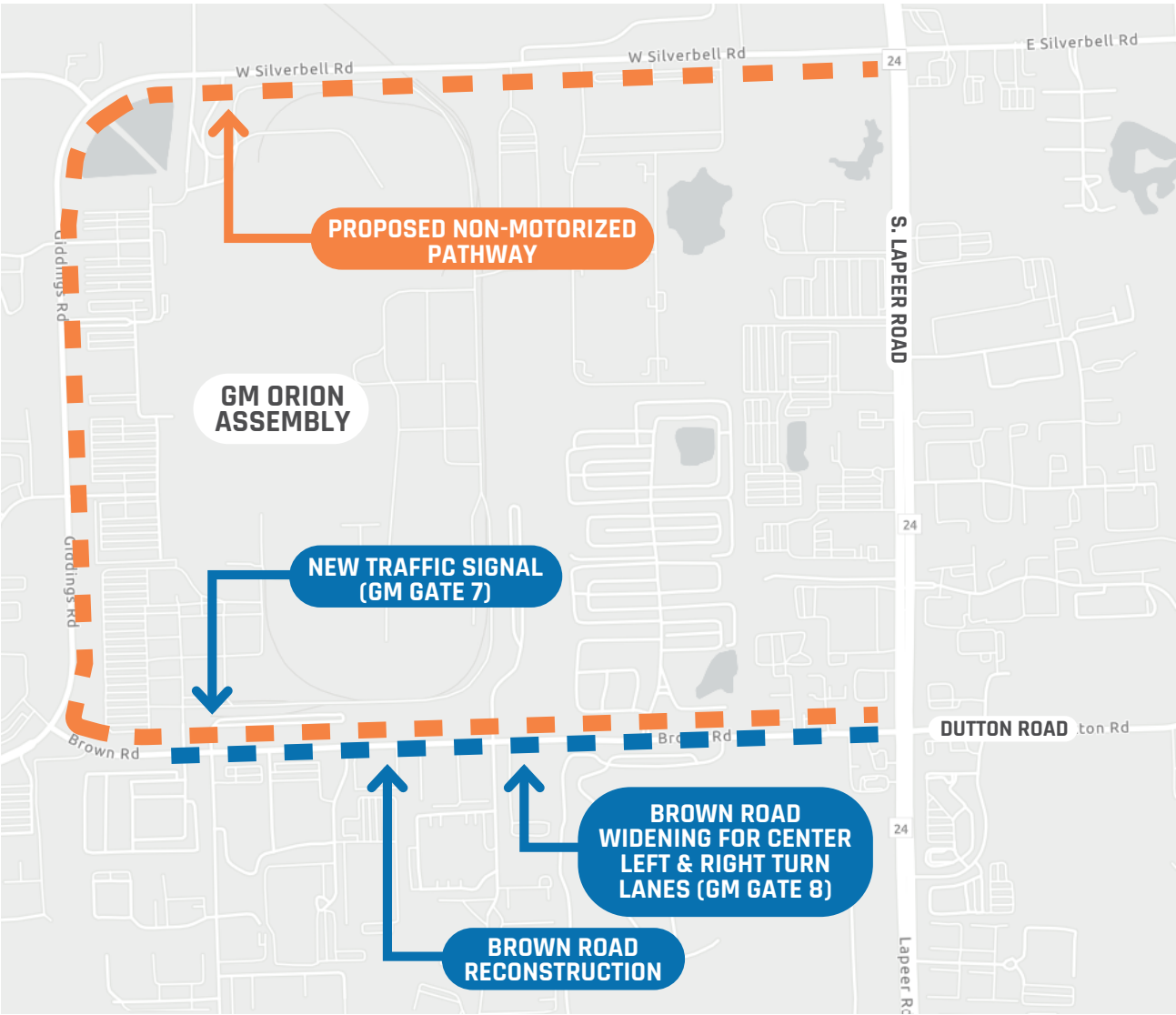
What Made this Work From a Municipal Perspective?

A Low-Conflict Process

The public hearing shows a straightforward presentation, no public comments, and no letters received, showing the benefits of expanding within existing industrial areas.

A Project Narrative Grounded In Specifics

Gates, truck flow, parking, utilities, stormwater are all plain-language elements that residents and decision-makers can actually evaluate.



What lessons can others take from GM Orion Assembly?

Industrial retention strategy should align planning and economic development.

Plans, zoning, and permit review standards should be designed with existing user retention in mind. Orion Township's master plan, adopted in 2022, specifically mentions the GM Orion Assembly expansion in its section on workforce.

Keep approvals tied to standards.

A clear Special Land Use framework helps local officials stay in their lane and keeps a streamlined approval track.

Utilities and roads are part of the industrial product.

If the corridor can't carry trucks safely or there isn't enough utility capacity, a project is still at the conceptual level. These are often some of the very first considerations raised by staff and local residents.

Public benefits matter even in retention projects.

As part of the incentives negotiations, corridor upgrades and site amenities can become a tangible community-facing upside.

Assume scope will evolve.

Build flexibility into how you sequence approvals, infrastructure, and communications, so changes don't make the process longer or more cumbersome than necessary.