INFORMAL STAFF REPORT TO
THE MAYOR AND CITY COUNCIL

SUBJECT

On April 1, 2025, City Council directed the development of an Informal Staff Report based on Council Member Holland's two-minute pitch to investigate the cost of converting East Hickory to traditional front-end parking. This report provides an overview of back-in parking on Hickory Street, including the feasibility and cost of converting it to front-end parking.

EXECUTIVE SUMMARY

Back-in parking has emerged as an effective strategy to enhance road safety and improve the overall parking experience for drivers and pedestrians alike. One of the primary benefits of back-in parking is the increased visibility it provides when exiting a parking space. By allowing drivers to reverse into a spot, they can pull out into the travel lane while maintaining a clear line of sight to oncoming traffic, pedestrians, and cyclists. This practice reduces the risk of reversing into the street, minimizing the probability of accidents. Additionally, back-in parking can promote safer interactions between vehicles and pedestrians, as it encourages drivers to open their doors toward the sidewalk, reducing the likelihood of dooring incidents and keeping people away from the road.

Even though most Original Equipment Manufacturers [OEMs] have been equipping their latest models of vehicles with in-cabin displays for rear view cameras, back-in parking still poses various road safety risks, especially given the need for proactive enforcement. During the backing maneuver, drivers in older vehicles with no rear-view cameras have limited visibility, increasing the chance of collisions with pedestrians, cyclists, and other vehicles, particularly in high-traffic areas. Unsafe behaviors can arise without effectively enforcing parking rules, such as choosing front-in parking or blocking traffic lanes, which endangers pedestrians and cyclists. Proactive enforcement helps mitigate these risks by ensuring compliance with regulations, improving signage, and fostering responsible parking practices, ultimately enhancing safety for all road users.

BACKGROUND

The back-in parking was completed as part of the "Hickory Grand Street" capital project, which transformed the area from the Downtown A-Train Station to Locust Street. The project, budgeted at $3,232,882, included new pavement, ADA-compliant sidewalks, improved landscaping, and better pedestrian lighting to enhance safety and accessibility for all users.

On August 28, 2012, the City Council approved a contract with Michael Baker Jr. Inc. for the Hickory Grand Street improvements. Early designs included back-in parking to enhance safety for motorists and pedestrians. This innovative concept was presented to the City Council on February 5, 2013, highlighting its advantages over traditional head-in angled parking.

The compelling benefits of back-in parking were emphasized during the presentation, highlighting its potential to enhance safety. Drivers utilizing this method can smoothly pull into the travel lane without worrying about reversing into oncoming traffic, significantly mitigating risks. This configuration fosters better visibility for drivers, allowing them to spot approaching vehicles and cyclists more clearly. Moreover, the design encourages car doors to open towards the sidewalk, steering pedestrians, especially children, safely away from the street while allowing access to the trunk from the sidewalk rather than the roadway. Additionally, the back-in format better accommodates on-street handicapped parking and enables drivers to make "eye-to-eye" contact with nearby road users, promoting a safer environment.

The staff also acknowledged several challenges associated with back-in parking during their presentation. This parking format, being somewhat unconventional, risks confusing drivers who might attempt to maneuver into spaces inappropriately from the opposite travel lane. Concerns were raised about potential hazards, including vehicles overhanging the sidewalks, which can cause exhaust fumes to affect pedestrians. Furthermore, reversing into a parking space can be problematic if another vehicle follows the parked car closely. As the staff weighs these advantages and disadvantages, their assessment will play a crucial role in determining the future of back-in parking on Hickory Street.

Following the presentation on February 5, the staff agreed to collaborate with the Traffic Safety Commission and the Downtown Task Force regarding the proposed project. The minutes from that meeting indicated a clear consensus among the Council to move forward with back-in parking. Later, on July 19, 2013, Michael Baker's consultant team organized a public meeting to gather feedback from residents and business owners before finalizing the design for the Hickory Grand Street project. This meeting drew around 50 stakeholders, who expressed various concerns about the project, including specific comments on the back-in parking arrangement. Following this, the staff delivered a project update to the City Council on September 10, 2013, which summarized the feedback collected from the July meeting and elaborated on the advantages of back-in parking. Ultimately, on November 18, 2014, the City Council unanimously passed Ordinance 2014-384, which included several provisions, including the establishment of back-in-only parking requirements. This ordinance clearly states that parking in a designated back-in space must be done exclusively by backing into the space.

DISCUSSION

The back-in parking spaces on Hickory Street were designed to slow down vehicle movement and improve safety for pedestrians, bicyclists, and users of alternative modes of transportation. According to Chapter 18, Section 18-91.54 of the City's Code of Ordinances referred on November 18, 2014 Informal Staff Report, drivers must use back-in parking spaces correctly. Proper use of these back-in parking spaces was intended to be enforced by parking officers throughout the day and monitored by patrol officers during the evening peak hours. The staff shares the following observations as key discussion points:

- ***Citation Data*** - The Informal Staff Report (ISR) concerning back-in parking on Hickory Street, released on November 9, 2018, reveals a significant decrease in the issuance of parking citations. This encouraging past trend indicates that road users developed a greater awareness of and adherence to the established guidelines for effectively utilizing back-in parking spaces, likely influenced by the enforcement. Over time, the data showed that education and enforcement efforts had fostered a more compliant driving culture in this area, leading to safer and more efficient use of parking resources.
- ***Lack of Enforcement Resources –*** Recently, Transportation Services contacted the Police Department to obtain detailed data on citations for back-in parking violations, specifically on Hickory Street. The Police Department indicated that while they are focused on addressing other priority issues like crashes and traffic hazards, enforcing back-in parking regulations on Hickory Street is challenging due to a lack of resources, including personnel and tools. This limitation hinders their ability to monitor and manage compliance effectively around the clock.
- ***Parking Violations*** - Additionally, an initial Audit of the parking conditions in this area of Hickory Street highlights concerning trends. Without consistent enforcement of parking regulations, numerous drivers frequently disregard the intended use of back-in parking spaces, treating them as traditional front-in spots. This pattern of misuse frustrates the purpose behind the carefully designed parking layout and creates substantial safety risks. The act of reversing out of these improperly used spaces can lead to dangerous situations, particularly as other users may not expect to encounter a vehicle moving backward from a space where it should have been parked head-in.

CONCLUSION

- As we look to the future of the Hickory Street back-in parking configuration, transforming parking spaces to facilitate standard front-in parking will likely require extensive design alterations and curb alterations. This reconfiguration aims to optimize the parking experience, making it more user-friendly and efficient for drivers. However, it is essential to note that implementing these changes may incur greater expenses than our current parking setup.

POTENTIAL SOLUTIONS – COSTS AND FEASIBILITY

- The audit findings indicate that back-in parking violations can be effectively managed by enhancing parking enforcement. However, enhanced parking enforcement requires additional financial resources. While engaging the police department may require additional resources, using authorized volunteers or automated parking enforcement systems could be the most cost-effective solution to address this issue. With the appropriate enforcement measures, the existing back-in parking system can function

efficiently, reducing safety risks and minimizing maintenance needs. As a result, the staff has prioritized this recommendation in the section below.

- Mitigation measures can be implemented to improve the current parking configuration, primarily by reconfiguring and restriping the existing parking spaces from angular back-in spots to standard perpendicular front-in spots. However, this reconfiguration presents significant challenges due to existing angular curbs and intermediate triangular curb buffers, as shown in Exhibit 1, complicating the transition. Consequently, this reconfiguration project is projected to be highly costly. It may prove impractical to execute, with preliminary estimates suggesting costs could exceed $3.5 million or more, contingent upon a detailed assessment of the scope of work required.

EXHIBIT 1 – EXISTING PARKING CONFIGURATION

- Implementing a one-way traffic system on Hickory Street could enhance safety and efficiency. This change would reduce conflicts between drivers and pedestrians by providing a more straightforward exit path, particularly with front-in parking. Streamlining traffic flow would improve the driving experience. Adjustments to the traffic direction on adjacent streets could minimize reconfiguration costs while enhancing overall functionality. However, this option could be expensive due to the necessary reconfiguration of directional flow on Hickory Street and nearby streets.

RECOMMENDATIONS

Based on the preliminary audit, the staff provides the following recommendations:

1. IMPROVE ENFORCEMENT FOR EXISTING BACK-IN PARKING

One effective solution is to enhance enforcement for back-in parking by allowing either the Police Department or authorized volunteers to issue citations for parking violations on the spot. Additional resources are required for this solution.

2. **REMOVE SIGNAGE FOR BACK-IN PARKING ONLY**

   A possible improvement to the parking situation could be to relax the "back-in only" requirement. Removing the signs enforcing this rule could reduce driver confusion. Instead, new warning signs could remind those using head-in parking to be cautious when backing out. Staff could further conduct a speed study on this location and, if feasible, reduce the speed to 20 mph. This approach utilizes existing parking spaces more flexibly and promotes safer driving habits. While it may not dramatically change overall safety, it encourages greater vigilance among drivers, fostering a more careful parking environment.

3. **AUTOMATED PARKING ENFORCEMENT**

   Automated parking enforcement uses camera sensors to detect violations and issue citations online, enhancing compliance and traffic management. This system identifies infractions like expired meters and unauthorized parking through images or videos. It allows law enforcement to allocate resources more efficiently, reduces physical patrols, and minimizes confrontations. Implementing this technology can boost compliance rates and cover costs through citation revenues, leading to safer, sustainable, and more organized urban environments. If directed to proceed with this option, the staff will prepare a formal assessment of legal contexts related to state and local regulations for automated parking enforcement systems, cost estimates, the scope, and the project implementation plan.

If Council Member Holland wants to explore the project further, staff recommends the item be presented to the Mobility Committee to receive their input and recommendation before a Council work session.

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