

Detailed Access Management Strategies and Recommendations

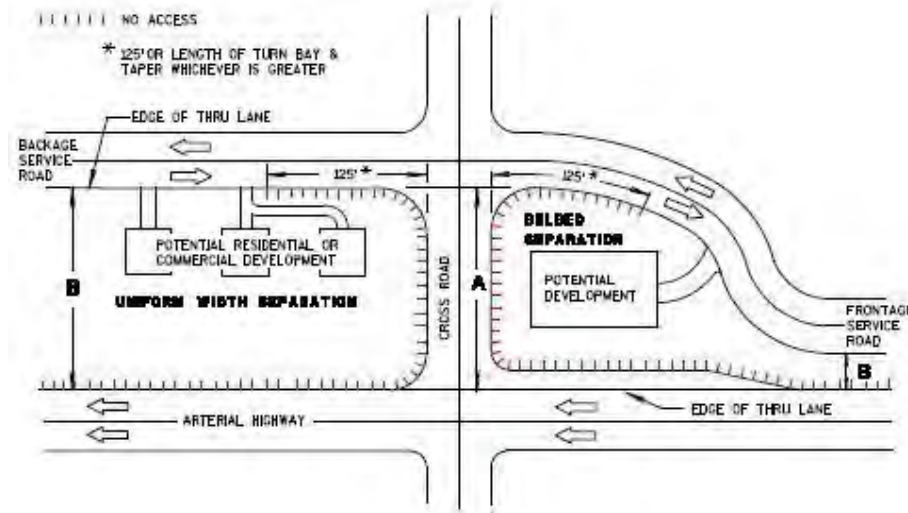
The paragraphs below provide further detail into the strategies shown in exhibit 21, Access Management Plan. Strategies are organized by the map sheets on which they are identified by number. Portions of US 14 currently fall under access control (Wis. Stat. 84.25). Plan development included referencing the access control map in combination with aerial photography and field review to determine driveway locations. Italicized text refers to the access control map (Wis. Stat. 84.25), which can be found in Appendix G.

Between the villages of Mazomanie and Black Earth, three strategies were developed to address safety issues. Each strategy is a package of detailed access recommendations at locations along this stretch of US 14. Strategy A maintains US 14 on its existing route and is considered the “no-build” option. Strategies B and C propose realignment of US 14 to improve safety and operations in relation to the existing curves, improve safety for bus and school traffic at existing school entrances, and provide greater separation between US 14 and the existing railroad and Black Earth Creek. Under strategies B and C, a segment of the current US 14 corridor would be converted to a local road, providing access to private properties in place. Strategies B and C differ in the impacts to existing properties.

Blue dashed circles represent optimal spacing of public road intersections along US 14 (at approximately one-mile intervals per FDM Procedure 11-5-5; see table 48 on page 159). Proposed long-term recommendations shown in the exhibit try to achieve optimal spacing goals where possible. In developed areas (such as Middleton), half-mile spacing might also be feasible. Additional road connections are shown in some locations that preserve minimum half-mile spacing.

Recommendations also include the redesign and relocation of some existing intersections and local roads. Per FDM Procedure 11-25-45, local road intersections should be spaced no closer than 600 feet from an arterial highway when the crossroad experiences more than 1,000 vehicles per day AADT and no closer than 300 feet for crossroads having daily traffic volumes of less than 1,000 vehicles. Figure 23 below illustrates these design standards for access on crossroads near arterial highways.

Figure 23 Access spacing guidelines for cross roads and local roads near arterial highways



| Min. Distance A ¹ (stop control) | | |
|---|---------------|-------|
| Crossroad Design year AADT | Distance (ft) | |
| | Urban | Rural |
| < 100 | 150 | 300 |
| 100 – 1,000 | 300 | 300 |
| > 1,000 | 600 | 600 |

Maps 1 and 2

Location 1, Strategy A — If land uses south of US 14/WIS 78 change and intensify, provide access via Wolf Road. If safety becomes an issue of concern at the existing commercial property, evaluate the potential for one well-designed driveway connection to US 14. The driveway should have adequate length and provide joint access. Provide additional access via a local road system connecting to Wolf Road if area develops. *Confirm Joint Driveway #115 and Special Crossings #114 and #14 from Access Control Map. Confirm driveway #113 and joint use of driveway #112.*

Location 1, Strategy B — Reconnect old WIS 78 (now a cul-de-sac) to US 14 to provide a local road connection. Create a cul-de-sac of existing US 14 just east of the WIS 78 intersection. Existing US 14 would become a local road for property access. If land uses south of US 14/WIS 78 change and intensify, provide property access via the new local road (existing US 14). Remove Wolf Road due to its proximity to the proposed extension of WIS 78; realign the farm access to the newly-created US 14/WIS 78 intersection. Realign existing private driveways from Wolf Road to the new local road (existing US 14). *Vacate existing Wis. Stat. 84.25 access controls on the portion of US 14 converted to a local road.*

Location 1, Strategy C — Connect Wolf Road extension to former US 14 alignment via a new local road. Provide property access via a new Wolf Road

extension. Require future driveways connect to local streets if land use changes. *Confirm Joint Driveway #115 from Access Control Map (please see Appendix G). Confirm Special Crossing #114 and #14 from Access Control Map. Vacate existing Wis. Stat. 84.25 access controls on the portion of US 14 converted to a local road.*

Location 2, Strategy A — Explore opportunities to consolidate the industrial, residential, and field driveways into one driveway connection. Considerations will need to include traffic mix and safety (trucks, cars, and agricultural equipment) as well as circulation through the industrial property.

Evaluate the existing driveways along this portion of US 14 as safety/operations warrant. Promote one access point directly across from the school driveway; if the area north of US 14 experiences land use change in the future, provide an internal road network for circulation and access.

Location 2, Strategy B — Access to a new US 14 alignment would be provided at the US 14/WIS 78 and Miller Farm Road intersections. Create an at-grade intersection or grade separation of a new US 14 connecting the newly created local road (existing US 14). *Vacate existing Wis. Stat. 84.25 access controls on the portion of US 14 converted to a local road.*

Location 2, Strategy C — Access to a new US 14 alignment would be provided by US 14/WIS 78 and Miller Farm Road intersections. Former US 14 would be converted to a local road with access via Wolf and Miller Farm roads. Evaluate access for properties north of the new alignment. *Vacate existing Wis. Stat. 84.25 access controls on the portion of US 14 converted to a local road.*

Location 3, Strategy A — If future safety/operations warrant, or if the land uses west of Miller Farm Road change and intensify, relocate the existing driveway connection of the commercial/residential property further north along Miller Farm Road to provide adequate separation from the US 14 intersection. All access to property would be provided at Miller Farm Road. Close the field entrance on the south side of US 14 (see Map 3) and use the existing field connection to the farm located to the west (Location 4). *Confirm Special Crossing #22 and field entrances #23 and #24 from Access Control Map.*

Location 3, Strategies B and C — Access for the property on the north side of existing US 14 would be provided by a cul-de-sac of the newly created local road (existing US 14).

Location 4 — See Map 3 below.

Map 3

Location 4 — The driveways on the north side of US 14 located west of the village of Black Earth are located closer to each other than the recommended spacing per FDM Procedure 11-5-5, Attachment 1 (see table 48). Consolidate and relocate the driveway connections further west away from the bluff and curve if future safety/operations warrant. Evaluate the driveway on the south side of US 14 near the creek if/when safety/operations warrant. *Confirm special crossing #30 on the*

Access Control Map. If ownership changed, remove field entrances on both sides of US 14.

Location 5a — The commercial driveways on the south side of US 14 located west of Black Earth Creek are located closer to each other than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. *Confirm driveway locations for #101 and #102 from the Access Control Map and remove one.*

Location 5b — The commercial driveways on the north and south sides of US 14 located in the village of Black Earth have less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Relocate the driveway connections away from the intersection functional areas and provide access from Center Street only. A right-in only connection is possible for the driveway located east of Center Street on the north side of US 14 as it is located outside of the intersection functional area. A memorandum of agreement is on file pertaining to this access. If the senior housing establishment moves from this site, consider relocating the driveway connection currently located inside the US 14/WIS 78/County F intersection functional area to Center Street. Develop a circulation plan for properties on the north side of US 14 as redevelopment occurs, focusing on providing access solely at the existing signalized intersection at Mills Street. Allowing only public street connections to US 14 within the village of Black Earth is optimal.

Location 6 — Relocate the existing field entrance to Park Street/Kahl Road if safety/operations warrant and/or land use changes. Challenges include providing an additional crossing over the railroad.

Location 7 — If development occurs, explore opportunities to shift Heidi's Lane west if/when safety/operations warrant to improve visibility at the intersection. Relocate Park Street/Kahl Road further south to provide adequate space to a US 14/Heidi's Lane intersection. Shift the existing residential access to the new alignment, and do not allow private driveways on the new local road closer than 600 feet from the US 14 intersection on the north side. Do not allow private driveways on the south side. If the existing agricultural land use west of Heidi's Lane changes, provide a connection to County F via a local road system. (Recommendations for Location 7 continued on Map 4 below).

Map 4

Location 7 (continued) — Kahl Road currently has poor intersection geometry. Create cul-de-sacs of Kahl Road north and south of US 14 and provide a new connection to US 14 via a new location of Heidi's Lane.

Location 8 — Explore opportunities for one public road connection to US 14 at this location. Evaluate the field entrances if future ownership patterns or land use changes and/or safety/operations warrant. Do not allow private driveways between Schultz Road and the new US 14 intersection. *Confirm special crossing # 35 on the north side of US 14 and driveway #36 from Access Control Map.*

Location 9 — Evaluate the field entrance and driveway connection if future ownership patterns or land use changes and/or safety/operations warrant.

Location 10 — If safety/operations warrant, relocate the existing field entrance to South Valley Road (see also Location 11). *Confirm Special Crossing #39 from Access Control Map.*

Location 11 — Improve the US 14/South Valley Road intersection geometry if/when safety/operations warrant. The field entrance on the north side of US 14 is located within the US 14/South Valley Road intersection functional area and provides less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Relocate the field entrance to South Valley Road if safety/operations warrant or land use changes. Do not allow private access less than 300 feet from the intersection. *Confirm Special Crossing #40 from Access Control Map.*

Map 5

Location 12 — Evaluate the field entrance if land use changes and/or safety/operations warrant removal. *Confirm Special Crossing #42 from Access Control Map.*

Location 13 — If/when safety/operations warrant, close the driveway on the south side of US 14 and promote public access via Scherbel Road only. Alternatively, this driveway could be incorporated into a new intersection, with left-turn lanes, that would relocate access to Carya Road and the north leg of Scherbel Road (as described in Location 14 below). Consolidate the field entrance and driveway connection on the north side of US 14. If area land use changes or intensifies, access should be provided from Location 14A.

Location 14 — The residential driveway on the north side of US 14 located just east of Carya Road has less than the recommended spacing from Carya Road per FDM Procedure 11-5-5, Attachment 1. Relocate the residential driveway to Carya Road.

Future development should be served by one public road connection to US 14 only. Scherbel Road and Carya Road are located within 650 feet of each other along US 14, which is less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Explore opportunities to connect both roadways and relocate the Carya Road connection to US 14 further west if/when safety/operations warrant. Evaluate the field entrance located east of Scherbel Road and relocate if/when safety/operations warrant removal.

Location 14A — If/when land use changes on the north side of US 14, create a cul-de-sac of Braemar Road and provide access from a new local road to Carya Road.

Location 14B — If/when land use changes along Scherbel Road, or safety/operations warrant, relocate the south leg of Scherbel Road further east to provide adequate spacing from the proposed north intersection.

Location 15 — See Map 6.

Map 6

Location 15 — Evaluate the field entrance on the south side of US 14 and relocate to County KP if/when safety/operations warrant. If public access is desired, a connection via County KP could be provided. For residential properties on the north side of US 14, relocate the joint driveway connection to Scheele Road if/when safety/operations warrant.

Location 16 — Relocate County KP further west away from the bridge to improve geometry and visibility; create a cul-de-sac of the existing County KP alignment. The field entrance on the north side of US 14 located east of County KP has less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. If land use changes on the north side of US 14 consider relocating the existing field access to Scheele Road or County KP. In addition, promote agricultural access from County KP for the southern parcels if a crossing of US 14 is not needed and/or safety/operations warrant relocation of the driveway connection.

Location 17 — Evaluate the field entrances on the north side of US 14 if/when land use changes and/or safety/operations warrant. Local road connections could require additional crossings of Black Earth Creek to relocate driveway connections to local roads.

Location 18 — The commercial driveways on both sides of US 14 are located within the US 14/County KP/Market Street intersection functional area, lack defined throat distance or width, or are located less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Evaluate the driveway connections as redevelopment occurs on the lots surrounding this intersection, and promote cross-access and/or joint access where possible. Consider acquiring the strip of land in the southwest quadrant of the intersection as mitigation for access management and to preserve intersection operations long-term.

Map 7

Location 19 — Consider closing Water and Spring streets and converting Center Street and East Street to right-in/right-out access only if/when safety/operations warrant. Evaluate access to industrial properties on the south side of US 14 if/when redevelopment or land use change occurs. Consider opportunities for consolidation, cross-access, or alternative local road connections via alleys.

Location 20 — This area has been identified by the village as likely to remain residential. Evaluate opportunities to relocate private driveways from US 14 to a potential alley located between Black Earth Creek and the buildings via an East Street connection if safety/operations warrant. Close Maple Street if/when safety/operations warrant. Hickory Street would remain a full-access intersection.

Location 21 — If the land use changes on the parcels on the north side of US 14 and/or safety/operations warrant relocation of driveway connections, consider opportunities to relocate driveways to local roads. Close American Legion Drive if safety/operations warrant. Mill Street could remain a full-access intersection (on the north side of US 14) to facilitate access and circulation between US 14 and the village. Wilson Street could be right-in only.

Location 22 — Allow right-in only or right-in/right-out driveway connections only in coordination with the proposed Lagoon Street improvement initiated by the Village of Cross Plains. Relocate the residential driveway on the south side of US 14 to Lagoon Street. Full access would be provided to US 14 at Lagoon Street intersections to promote parking and circulation for businesses.

Location 23 — Promote redevelopment on the north side of US 14 that will utilize driveway connections from Jovina or Caesar streets rather than directly to US 14. Caesar Street could retain a full access intersection to facilitate access and circulation between US 14 and the village.

Location 24 — Support the village plans to improve Lagoon Street and promote access relocations to Lagoon Street. Promote extension of Lagoon Street eastward to maximize alternative site access and circulation, if feasible.

Location 25 — If redevelopment of the three residential properties on the south side of US 14 occurs, relocate access to the Lagoon Street connection and provide internal circulation. Convert the existing full-access Valley Street intersection to right-in/right-out or close if/when safety/operations warrant. Relocate the existing commercial driveway on the north side of US 14 to Valley Street, if feasible. Convert the Jovina Street intersection to right-in only if/when safety/operations warrant.

Location 26 — Evaluate the commercial driveway connection on the south side of US 14 if/when land use changes and/or safety/operations at County P affect driveway safety/operation. Convert Eulia Street to right-in/right-out or close the connection if/when safety/operations warrant.

Location 27 — Long-term enhancements to the US 14/County P intersection could include maintaining the signalized intersection with changes in geometry and additional turn lanes or conversion to a roundabout (see further discussion in the traffic analysis section of the study report). Depending on the type of improvement selected for the US 14/County P intersection, commercial driveway connections could be converted to right-in/right-out, relocated to internal site circulation, or consolidated. A future driveway connection for the parcels in the southeast quadrant of the US 14/County P intersection should be located as far east of the intersection as possible to avoid conflicts with intersection operations. In addition, the intersection at Brewery Road could be evaluated for a future signal in conjunction with improvements at the US 14/County P intersection.

Map 8

Location 28 — Evaluate the field entrance located on the south side of US 14 opposite Brewery Road if /when safety/operations warrant. This driveway connection to the adjacent DNR-owned property should remain low-volume. Promote public access to the property at County P rather than directly from US 14. *Confirm unconstructed driveway #55 from Access Control Map.*

Location 29 — Explore opportunities to provide a driveway easement along the existing County P field entrance for both the farm and fields if safety/operations

warrant relocating the existing US 14 driveway connection. Challenges would include coordinating with three property owners to provide alternative access.

Location 30 — If the land use of the parcels north of US 14 change, a long-term concept could include improving connectivity between Airport Road and the village of Cross Plains as an alternative corridor to US 14. An additional long-term option could include relocating County P east of the village to improve north-south operations along County P and relocate the currently confined intersection east and away from Black Earth Creek. Any location of a future US 14/County P intersection should maximize use of existing crossings of Black Earth Creek and minimize wetland and other creek impacts. (Note: The Village of Cross Plains is currently mapping a southern bypass. The proposed bypass would intersect US 14 at the location noted on Map 8 by a green dashed line.)

Location 31 — Evaluate the existing driveways if land use changes or safety/operations warrant relocation. In the long-term, promote local roadway circulation within the parcels north of US 14 if the area develops and explore options for relocating driveway connections from US 14 to any future local road system, if feasible.

Location 32 — Evaluate the existing field entrance if land use changes or safety/operations warrant relocation. Explore a connection to Stagecoach Road if land use changes. One challenge would be providing an additional crossing of Black Earth Creek.

Location 33 — Evaluate the existing driveway if land use changes or safety/operations warrant relocation. In the long-term, promote local roadway circulation within the parcels north of US 14 if the area develops and explore options for relocating the driveway connection from US 14 to a local road system, if feasible.

Location 34 — The current driveway spacing of 200 feet is less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Evaluate the existing driveway if land use changes or safety/operations warrant relocation. In the short-term, consolidate the driveways into one driveway connection if safety/operations warrant. In the long-term, promote a local roadway connection within the parcels north of US 14 if the area develops and explore options for relocating the driveway connection from US 14 to any future local road system, if feasible.

Location 35 — See Map 9.

Map 9

Location 35 — In the short-term, provide intersection improvements to enhance operations (see Strategies and Recommendations section). In the long term, convert the intersection to right-in/right-out if local circulation can be provided via new local roads parallel to US 14 (see locations 36 and 37).

Location 36 — In the long term, provide a local connection to Rocky Dell Road to provide additional opportunities for access to this neighborhood (see Location 37 for long-term recommendations).

Location 37 — In the long term, relocate the US 14/Rocky Dell Road intersection east to the existing US 14/Cleveland Road T-intersection to create a full-access intersection. Also, provide local connectivity between Birch Trail and Rocky Dell Road and between Low Road and Deer Run Road, if needed, for local circulation. Do not allow private drives between parallel roads and US 14 in this area. Future pedestrian access at the intersection could be considered to facilitate a connection between National Park Service lands and Dane County lands if desired.

Location 38 — Coordinate with Dane County to provide property access via Rocky Dell Road/Cleveland Road. Close the existing field entrances on US 14 if no longer used for farming purposes.

Map 10

Location 39 — In the short term, consolidate the two residential driveways to one driveway connection if safety/operations warrant. If the field access becomes a safety concern, consolidate it as well or coordinate with Dane County to relocate the access of several US 14 driveways into one property access via Rocky Dell Road (see also Location 38). In the long term, determine if the curve radius should be improved. Access could be addressed as part of the improvement. Challenges to highway improvements include cut of the existing slope. On the south side of US 14, remove the existing field entrance if safety/operations warrant or land use changes. The property currently has access via Low Road.

Location 40 — Evaluate the existing field entrances and industrial driveway connection if land use changes or safety/operations warrant relocation. Explore opportunities to consolidate the driveway connections on the north side of US 14 to one access location aligned across from Twin Valley Road if/when development occurs. Do not allow private access less than 600 feet from the intersection. Access to the Refuse Hiway Property should be considered in any relocation or consolidation concepts. *Confirm the special crossing #134 and #88 from the Access Control Map.*

Location 41 — Wayside Road Area (west) – The topography and curve in this area could create the potential for safety issues as traffic volumes increase due to the visibility limitations at the intersection. The Wayside Road (east) intersection provides greater visibility of US 14 traffic. The current Wayside Road/Willow Lane intersection could be closed or converted to right-in/right-out on both sides of US 14 if safety/operations warrant. Local driveways could be relocated to Wayside Road as they are currently located less than the recommended spacing per FDM Procedure 11-5-5, Attachment 1. Wayside Road could be extended west to provide access to the current field; however, topography could provide challenges to this concept. The current field access would likely function well into the future as long as the current land use does not change. *Confirm the special crossing #72 from the Access Control Map. Confirm field entrance on south side of US 14 #87 from Access Control Map.*

Map 11

Location 42 — Wayside Road Area (east) – Examine opportunities to relocate private driveways from US 14 to Wayside Road. Wayside Road would be located 2,600 feet west of the proposed shifted Schwartz Road connection. The intersection could remain as a full-access intersection. The farm and commercial driveway connections located east of Wayside Road have less than the recommended spacing between them per FDM Procedure 11-5-5, Attachment 1.

Location 43 — Provide internal circulation and local road connectivity as the area south of US 14 develops. This includes providing access via lower functional class roadways such as Pleasant View Road and Twin Valley Road, as well as identifying adequately spaced public road intersections with US 14. Challenges to on-site local circulation include the headwaters of Black Earth Creek.

Location 44 — Pinehurst Drive is located within 1,200 feet of the existing Pleasant View Road intersection. Pinehurst Drive, Capitol Court, and Schwartz Road are located within 800 feet of each other, less than the 1,000 foot minimum spacing recommended in FDM Procedure 11-5-5, Attachment 1. Pinehurst Drive is currently located at the four- to two-lane taper of US 14 and could be a candidate for right-in/right-out access or closure. The concept could include a combination of right-in/right-out access at either Pinehurst Drive or Capitol Court. If Capitol Court is closed, Schwartz Road could be shifted further west to provide a full access intersection approximately 2,200 feet west of Pinehurst Drive. The three existing driveways could be relocated to one at-grade intersection serving both sides of US 14. The new intersection would provide half-mile spacing between Pleasant View Road and Wayside Road. Connections between the new Schwartz Road location and Pinehurst Drive would provide further cross-access and connectivity for internal parcels. Schwartz Road would likely require further evaluation to determine how it would cross the existing railroad grade.

Location 45 — The existing Pleasant View Road intersection should function adequately in its current location with minor operational improvements (see Strategies and Recommendations section). It is located within 1,900 feet of the Eagle Drive intersection and 3,400 feet from Deming Way (minimum recommended distances between local roads along US 14 range between 2,000 feet and two miles depending on the functional class of the intersecting roadway). A realignment of the corridor further to the west as a long-term improvement could be pursued by local entities. An at-grade intersection on the alignment shown should also provide adequate operations in the long term.

If Pleasant View Road is shifted west, the Quarry Road access should be maintained as an alternate entrance into the business park. In the long term, the Quarry Road intersection could be extended into the existing quarry to provide local circulation and access if/when the quarry undergoes land use change. The University Green/Pleasant View Road intersection should be further evaluated for local circulation and to provide adequate separation from US 14.

Map 12

Location 46 — The City of Middleton could identify additional opportunities to connect the Middleton Business Park to the Discovery Springs Business District. One long-term connection could include extending Fairway Place to Discovery Drive. This would maximize access to the area via the Pleasant View Road corridor, Deming Way, and the Parmenter Street corridor via Discovery Drive.

Location 47 — The narrow parcels located between US 14 and the railroad right-of-way should be reviewed for on-site cross-access or local circulation opportunities if they are consolidated or land uses change in the future. In the short term, the median opening west of the US 14/Deming Way intersection could be closed if safety/operations warrant. The driveway located furthest to the west could remain right-in/right-out with additional access provided via a connection to Deming Way.

Location 48 — Deming Way is currently located 1,300 feet west of the existing US 12/14 eastbound onramp. This location is close to the spacing recommended in FDM Procedure 11-5-5, Attachment 2 (see figure 17), and greater than the 1,000 foot minimum. Deming Way is the closest major intersection to the US 12/14 ramps, and thus improvements to enhance intersection operations here will have positive effects for the function of other nearby roads and intersections. Detailed improvement recommendations for the US 14/Deming Way intersection can be found in Part II, Strategies and Recommendations.

Location 49 — The driveways located on US 14 between Deming Way and the US 12/14 eastbound ramps have less than minimum spacing per FDM Procedure 11-5-5, Attachment 2. According to Procedure 11-5-5, it is recommended that access be prohibited between a public road and a freeway ramp terminal, while any public road connection should be spaced more than 1,320 feet from a ramp.

The driveways and median openings could be closed to meet recommended spacing. A less optimal option could include closing the easternmost driveway and median opening (which are very close to the intersection functional area), and allowing right-in/right-out access at the other location. At a minimum, the informal driveway located on the north side of US 14 across from Janesville Sand and Gravel should be closed.

Access changes could occur when properties are consolidated, at which time internal circulation should be incorporated into new site plans with cross-access agreements allowing access via Deming Way. Optimal access to the site would include a crossing of the rail corridor connecting to Terrace Avenue and using the existing Deming Way/Terrace Avenue intersection.