



WEST PAPIO TRAIL ALIGNMENT STUDY





West Papio Trail Alignment Study

June 30, 2012

Prepared for:
THE CITY OF LAVISTA
THE CITY OF OMAHA
THE CITY OF PAPIILLION
THE PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT



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INTRODUCTION

The West Papio Trail Alignment Study was conducted to evaluate trail alignment options for an uncompleted segment of West Papio Trail that will link two of the trail's completed segments, creating a trail route linking Bellevue to the Millard area in Omaha.

The West Papio Trail originates at its intersection with the Keystone Trail in Bellevue. It extends northwest through the communities of Bellevue, Papillion, LaVista and Omaha with a future northern terminus near Ida and 180th Streets in northwest Omaha. Several significant sections of the trail have been completed. The remaining unbuilt segments will be constructed as financial resources become available, or as areas within the host communities become developed. One significant unbuilt segment exists near the trail's midpoint. The unbuilt segment begins where the southern-most constructed section of trail currently ends, near south 96th Street in Papillion. This unbuilt segment extends for about 5.5 miles to Millard Avenue in southwestern Omaha, to where the constructed trail begins again.

This unbuilt segment passes through the communities of Papillion, LaVista and Omaha, which could complicate its completion due to the level of coordination and cooperation required to create a continuous trail alignment. As with other multi-jurisdictional trails in the metropolitan area, the Papio-Missouri River Natural Resources District (P-MRNRD) determined it was in the best interests of the metropolitan area to ensure that the West Papio Trail's alignment was carefully coordinated to provide connectivity and efficient routing. The P-MRNRD proposed that an alignment study be cooperatively undertaken, and served as the coordinating agency for the plan's development. The P-MRNRD along with the cities of LaVista, Omaha and Papillion agreed to jointly fund and actively participate in the plan's development. The P-MRNRD served as the contracting agency and retained Big Muddy Workshop, Inc. (BMW) Master Planning / Landscape Architecture of Omaha to conduct the trail planning study.

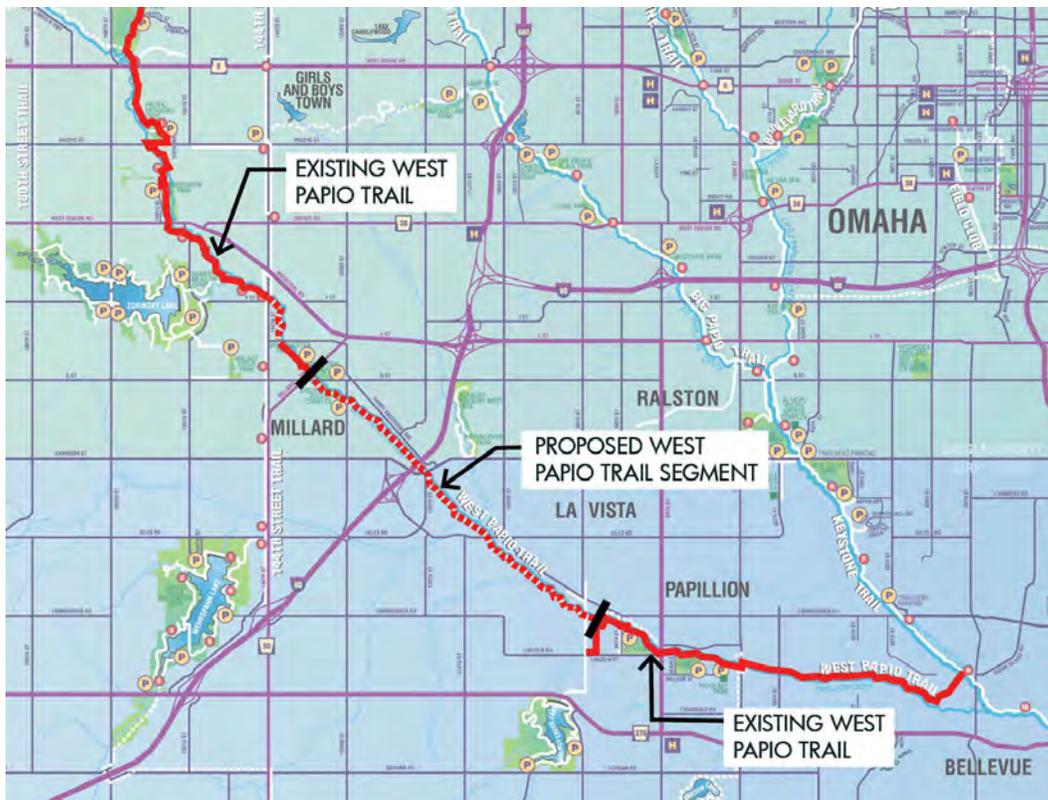


Figure 1: West Papio Trail Alignment Study Extent, adapted from P-MRNRD Metro Area Trails Map

STUDY GOAL AND APPROACH

The study's central goal is to identify a primary trail alignment that can be implemented cooperatively, that will ensure good connectivity with each of the cities' trail networks and with the proposed P-MRNRD flood control lakes within the West Papillion Creek watershed. In anticipation of developing this missing section of the West Papio Trail, the Papio-Missouri River Natural Resources District (P-MRNRD) in 2010 acquired 2 ¾ miles of an abandoned railroad line from Union Pacific Railroad that parallels West Papillion Creek. The section of former railroad right-of-way begins at "Q" Street in Omaha extending southeast to Giles Road in LaVista. The property acquisition prompted the P-MRNRD to initiate the idea of undertaking a trail alignment study to determine the best route for the yet to be constructed section of West Papio Trail.

The study process used to determine the primary trail alignment involved field investigation of the proposed corridor and an analysis of existing and proposed trails in the study area. BMW staff then met individually with representatives from each City as well as with the P-MRNRD. After these meetings were completed, a preliminary alignment plan was developed and presented in a meeting attended by representatives of the cities and NRD. Comments from that meeting were used to refine the preliminary concept into the final trail alignment plan.

PAVEMENT WIDTH AND TYPE

The proposed pavement width for the primary alignment is 10 feet. This width meets the preferred, and most common trail width within the metropolitan area. A portion of the primary alignment follows the abandoned railroad line, which will easily accommodate the ten-foot pavement width. Several spur trails will connect from the primary alignment to existing or future trail networks within each city. It is preferable for the width of the spur trails match the primary trail width, except where space limitations, or extremely low levels of use are anticipated. A minimum width of eight feet is recommended for these spur trails.

It is anticipated that all of these proposed trails will be constructed of Portland cement concrete (PCC) pavement with a pavement thickness of six inches. Trail signage along the trails should match that on other metropolitan trails.

WEST PAPIO TRAIL CORRIDOR SUMMARY

The West Papio Trail Study corridor area starts about one-third mile southeast of where South 96th Street crosses the West Papillion Creek. At this point, the existing southern section of West Papio Creek Trail turns south and no longer parallels the creek, running south to its terminus at Lincoln Street in Papillion. The study corridor extends from this point northwest for 5.5 miles, to where the next completed section of the trail begins, on the west side of Millard Avenue.

Along the corridor there are numerous parks, recreational facilities, residences and businesses on or close to the corridor that could be linked by the West Papio Trail. These include several adjacent existing Omaha park and recreational facilities, as well as a proposed major park within the City of LaVista. Several existing neighborhood trails run close to the corridor and could be connected to a completed West Papio Trail. Also, the City of Papillion has an ambitious plan to create a system of trails that will be within that City's future residential neighborhoods, connecting this future development south of Papillion Creek to several proposed flood control reservoirs. A large white-collar employment center within the Southport Development is located just west of the trail corridor in the vicinity of Harrison and Interstate 80. When completed, the trail will serve as an alternate transportation mode for persons living or working in the residential, commercial and industrial areas adjacent to the corridor.

PRIMARY TRAIL ALIGNMENT OVERVIEW

This description of the primary trail alignment will begin at the north end of the trail study corridor at Millard Avenue, and proceeds south to the near South 96th Street, where this proposed section would join the trail's existing southern section (see Figure 2).

The primary trail alignment starts on the west side of Millard Avenue, where Papillion Creek crosses under that street. The existing trail is located on the creek's south bank at this location so the new trail will continue along the south bank as it crosses under Millard Avenue. Southeast of Millard Avenue, the trail will cross from the south to north bank to pass through Omaha's Andersen Park. A new trail bridge to cross the creek will be required at this location. The trail will continue along the park's western edge until it reaches "Q" Street, where the trail will cross under that street.

Southeast of "Q" Street, the trail will continue along the creek's north bank before reaching and crossing under 132nd Street. East of 132nd Street, the trail alignment continues to follow the north bank until it intersects with the northern end of the abandoned railroad right-of-way purchased by the P-MRNRD, immediately west of Harry Andersen Avenue. The abandoned railroad right-of-way parallels the creek. Continuing the trail along the former rail

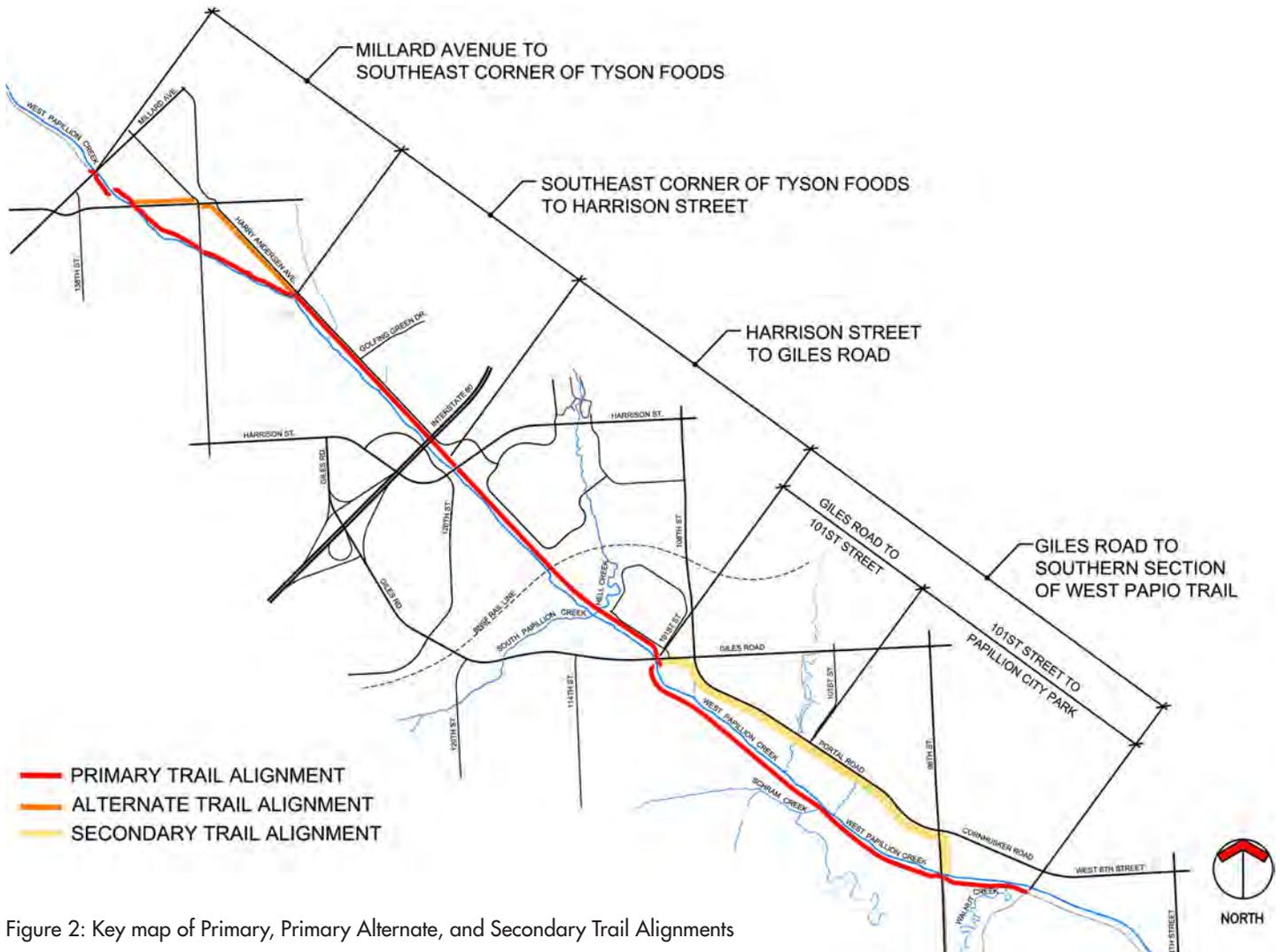


Figure 2: Key map of Primary, Primary Alternate, and Secondary Trail Alignments

line will allow the trail to pass under both Interstate 80 and Harrison Boulevard before arriving at the north side of Giles Road.

At Giles Road, the trail will first cross under that street, then change from the creek's north bank to its south bank by crossing over the creek on a new trail bridge located just southeast of Giles Road. The trail will then continue southeasterly toward 96th Street along the creek's south bank. At 96th Street, the trail will pass under that road before arriving at the existing southern portion of the West Papio Trail. The total length of the primary trail alignment is approximately 5.50 miles.

The primary alignment is explained in greater detail in the following section of this report. The detailed descriptions also include information on an alternate primary alignment near the trail's northern end, a secondary alignment near its southern end, and proposed spur trails that would connect the primary alignment to adjacent community features and neighborhoods.

DETAILED TRAIL ALIGNMENT DESCRIPTIONS

For ease of comprehension, the detailed alignment descriptions are described using these four geographic reaches:

- Millard Avenue to Southeast Property Corner of Tyson Foods
- Southeast Property Corner of Tyson Foods to Harrison Street
- Harrison Street to Giles Road
- Giles Road to Existing Southern Section of West Papio Trail

Millard Avenue to Southeast Property Corner of Tyson Foods

This section of trail starts at the north end of the study corridor near Millard Avenue, and extends southeast for approximately 1.05 miles, ending near the southeast property corner of the Tyson Foods property (See Figure 3). In this section, the trail alignment will cross under three major streets and cross from the south to the north bank of West Papillion Creek. It travels through a heavily used Omaha city park, and a proposed spur trail provides the opportunity to connect to another heavily used Omaha sports field complex.

Due to the technical and financial challenges of having to cross a large storm drain outlet immediately east of 132nd Street, and the possibility that some of the land needed for this alignment might be owned by the Omaha Airport Authority - which has strongly objected to and prevented trail development on property it controls - an alternate alignment was examined for this section of the trail. The alternate segment would begin at the southern edge of Andersen Park and then follow the north side of "Q" Street east to Harry Andersen Avenue. After crossing from the north to south sides of "Q" Street, this alignment would run along the portion of former railroad right-of-way that extends south from "Q" Street to near the southeast property corner of Tyson Foods.



West Papillion Creek at Anderson Park, looking northwest

Primary Alignment

The primary trail alignment begins on the west side of Millard Avenue, where Papillion Creek crosses under that street. The existing trail is located on the creek's south bank at this location, and a connector walk extends from the trail's terminus to the west sidewalk that runs along Millard Avenue.

The primary trail alignment will continue along the creek's south bank as it crosses under Millard Avenue. East of the bridge, the alignment will continue southeast to a point directly across from the west end of the Andersen Park parking lot, on the north side of the creek. The land from Millard Avenue to this point is heavily forested and significant tree removal may be required to route a trail through this area. It appears that the land on which this section of the trail will run is a single privately-owned parcel. At the point across from the parking lot, a new trail bridge will span from the south creek bank to the north bank. Current floodplain maps indicate that the floodway width at this point is approximately 270 feet. A new bridge in this location will need to span at least that distance without impeding flood flows.

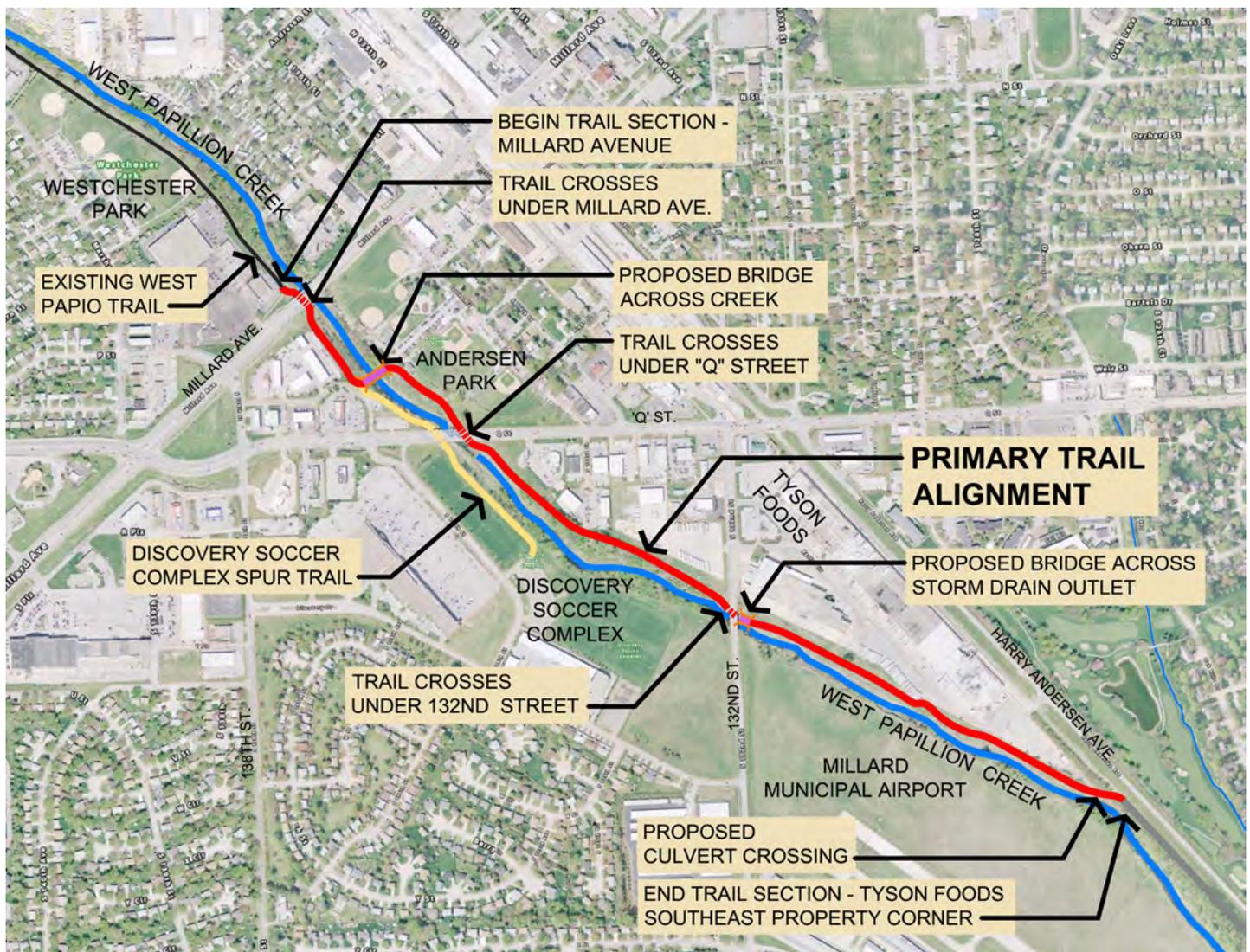


Figure 3: Millard Avenue to Southeast Property Corner of Tyson Foods, Primary Alignment

After crossing to the north bank, the primary alignment would run southeast along the western edge of Andersen Park until it reaches "Q" Street. The alignment would cross beneath "Q" Street adjacent to the creek and then continue southeasterly along the north creek bank until it reaches 132nd Street. The land along the north bank in this section includes both open and forested areas, and there are no apparent significant impediments or drainage structures that would affect trail development. The trail appears to pass through four privately-owned parcels between "Q" and 132nd Streets.

At 132nd Street, the trail will pass below the street adjacent to the creek. A large storm drain outlet structure exists immediately east of the 132nd Street bridge. The outlet's structure is approximately fifteen-feet high and thirty-feet wide. An arch drainpipe, approximately five-feet high by eight-feet wide, empties into the outlet structure. The structure's upstream edge is located about seven feet from the eastern edge of the 132nd Street bridge.

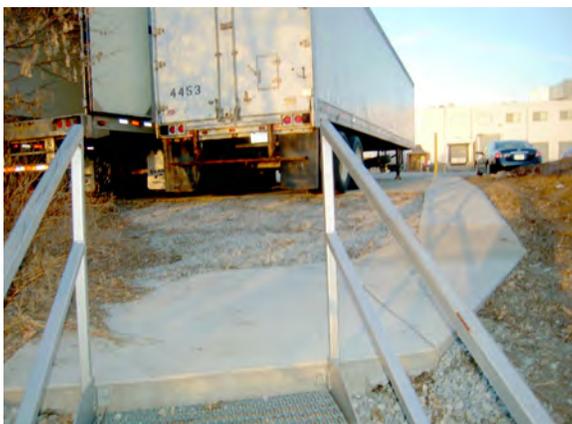
Two options were identified to cross the outlet structure. The first is to remove the existing outlet structure, extend the pipe toward the creek and then rebuild the outlet structure. This would allow the trail to run across the top of the extended pipe section. A second option is to use a trail bridge to cross the outlet structure. This would require a bridge approximately 75-feet in length. The length of the bridge would run parallel to the flow of the creek. Each of these options will require detailed engineering analysis to determine potential impacts on the floodway elevation and flows.

After crossing under 132nd Street and across the storm drain outlet, the primary trail alignment continues southeasterly along the creek's north bank of the creek. At about the mid-point between 132nd Street and the southeast corner of Tyson Food's property, a small portion of the adjacent parking lot extends nearly to the top of the creek's north bank. At this location there is also an access walk and staircase that provides access to a private discharge pipe emptying into the creek.



Large storm drain outlet structure on north bank, east of 132nd Street

Together, the parking lot corner and discharge access facility create a tight area through which the trail alignment will need to pass. It appears that in spite of these features, there is still approximately fifteen feet between the parking lot's back of curb and the east most edge of the staircase for the trail to pass through this area. Ideally, some portion of the adjacent parking lot would be removed to provide a wider trail corridor, and additional fencing and a gate to the discharge structure's access stairs would be required to prevent unauthorized access to that facility.



Access walk and stairs from Tyson Foods parking lot to discharge pipe, looking east

From this point, the primary trail alignment continues southeast along the north bank of the creek, to the southeast corner of Tyson Foods' property. The north creek bank becomes much steeper in this area and extends nearly to the edge of Tyson Foods' parking lot. The southeast portion of Tyson Foods' property comes to a sharp point that separates the creek from the former railroad right-of-way to its immediate east. Land ownership along the north bank of the West Papio Creek from 132nd Street to the southeast corner of the Tyson Foods property could involve up to three differ-

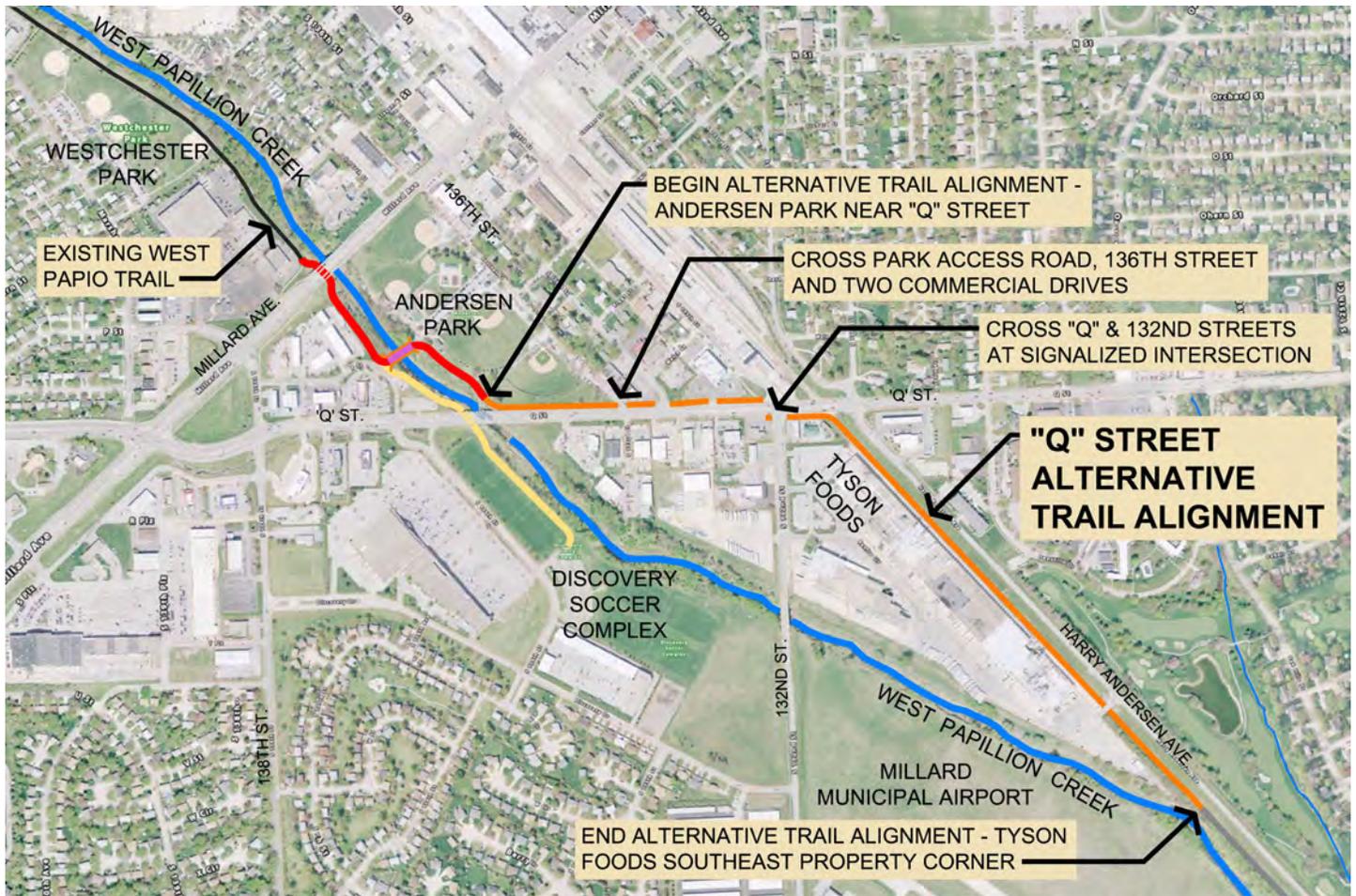


Figure 4: Millard Avenue to Southeast Property Corner of Tyson Foods, Alternate Alignment

ent owners who collectively own six separate parcels. It appears that land owned by the Omaha Airport Authority (OAA) extends to the north bank area and that the trail alignment may run on some of this property. OAA, under its previous Executive Director historically resisted trail development on property it controls.

The ditch that runs along the west side of Harry Andersen Avenue flows into West Papillion Creek near Tyson Foods' southeast property corner. The ditch becomes deeply incised as it approaches the creek, with a depth of approximately eight-feet. A culvert will need to be installed for the trail to cross over the ditch. Some additional grading and erosion control measures may be needed within the ditch to stabilize its channel.

"Q" Street Alternative Primary Trail Alignment

An alternate alignment was examined for the portion of trail from "Q" Street to the southeast corner of the Tyson Foods property (See Figure 4). The existence of the large storm drain outlet immediately east of 132nd Street, and the possibility that some of the land needed for this section could be controlled by the Omaha Airport Authority, prompted examination of an alternate route.

The alternate alignment follows "Q" Street east to near Harry Andersen Avenue, where the P-MRNRD-owned former railroad right-of-way begins. Unlike the preferred primary route already described, this alignment would require

trail users to make a series of seven at-grade crossings at several minor streets and private driveways, as well as at two major streets with signalized intersections.

The alternative trail alignment begins within Andersen Park, north of the "Q" Street bridge. The alternative trail alignment will turn and run east along the park's southern boundary within the park's open space, to the park's southeast corner. At the corner, the trail will join the existing sidewalk along "Q" Street. The existing sidewalks along the north side of "Q" Street vary from four to five feet wide. Routing the trail along the north side of "Q" Street from the park to 132nd Street requires removal of existing sidewalks, replacement with a ten-foot wide paved trail with shoulders, and an adequate horizontal safety distance from the road edge, as determined by AASHTO standards.

Just prior to exiting the park, the alternate trail alignment crosses a park road which provides access to the park's parking lots. The park road intersects "Q" Street at an acute angle, which reduces the safety for pedestrians and bicyclists using this crossing. The trail alignment continues east of the park access road to South 136th Street. Within this block, a two-lane wide commercial entrance drive crosses the alignment to provide access to the adjacent private property. The alignment then crosses South 136th Street at an intersection which is perpendicular to "Q" Street. Along this section of "Q" Street, where the park access road and South 136th Street intersect, vehicle access to and from "Q" Street is unrestricted in both directions. This condition, along with the acute angle of the park access road intersection, makes it and the 136th Street intersection potentially dangerous crossings for trail users.

After crossing South 136th Street, the trail alignment travels along a recently redeveloped property to South 132nd Street. "Q" Street has a lane divider for this section of street and the private parcel has only a single right-in and right-out commercial entrance drive in this block. At the South 132nd Street intersection, a signalized crossing exists to cross from the intersection's northwest to southwest corner. Another signalized crossing exists to cross 132nd Street from the southwest corner to the intersection's southeast corner. From this point, the trail alignment would extend along the south side of "Q" Street to the NRD-owned property adjacent to Harry Andersen Avenue. The existing sidewalks on the south side of "Q" Street are similar to those on the north in width and will require replacement to the ten-foot wide trail section.

Immediately east of 132nd Street, the trail will cross two busy commercial entrance drives for a gas station. Because there is a lane divider on "Q" Street east of 132nd Street, access to these two entrances are right-in and right-out only. After passing by the gas station, the alternate trail alignment reaches the NRD-owned former railroad right-of-way, where it will turn to the southeast and run along the existing railroad bed that parallels Harry Andersen Avenue. While adjacent to the Tyson Foods property, the trail will cross a single commercial entrance drive that provides access to Tyson Foods employee parking lot, then continues southeast along the former rail line toward Interstate 80.

The "Q" Street alternative trail alignment is approximately 300 feet longer than the same distance along the preferred trail alignment. The length of the alternative primary trail alignment is approximately 0.9 miles. The alternate alignment passes along three privately-owned parcels adjacent to "Q" Street, where additional right-of-way may need to be acquired to have adequate room within the street right-of-way to accommodate the wider trail.

Discovery Soccer Complex Spur Trail

Discovery Soccer Complex is located south of "Q" Street on the south side of Papillion Creek. A spur trail can easily be extended from the west end of the proposed trail bridge west of Andersen Park to the soccer complex. The spur trail alignment will run southeast from the proposed bridge on the creek's south bank for approximately 500 feet, crossing under the "Q" Street bridge. The trail alignment will continue southeasterly between the creek bank and adjacent soccer fields to reach the complex's parking lot. This spur trail will be approximately 0.30 mile long. The trail spur would benefit trail users wishing to access the soccer complex and allow the complex's parking lot to serve as a trailhead.

Southeast Property Corner of Tyson Foods to Harrison Street

The primary trail alignment for this section begins at the southeast corner of the Tyson Foods property and runs southeast, ending just north of Harrison Street (see Figure 5). In this section, the primary trail alignment follows the abandoned railroad line crossing over two minor creeks and crossing under Interstate 80 before arriving at the end of the section just north of Harrison Street. This section parallels Harry Andersen Avenue immediately to its east.

This section of trail is approximately 1.25 miles in length. A proposed spur trail to the Southport Development, which includes the PayPal campus will connect this employment and commerce center to the West Papio Trail.

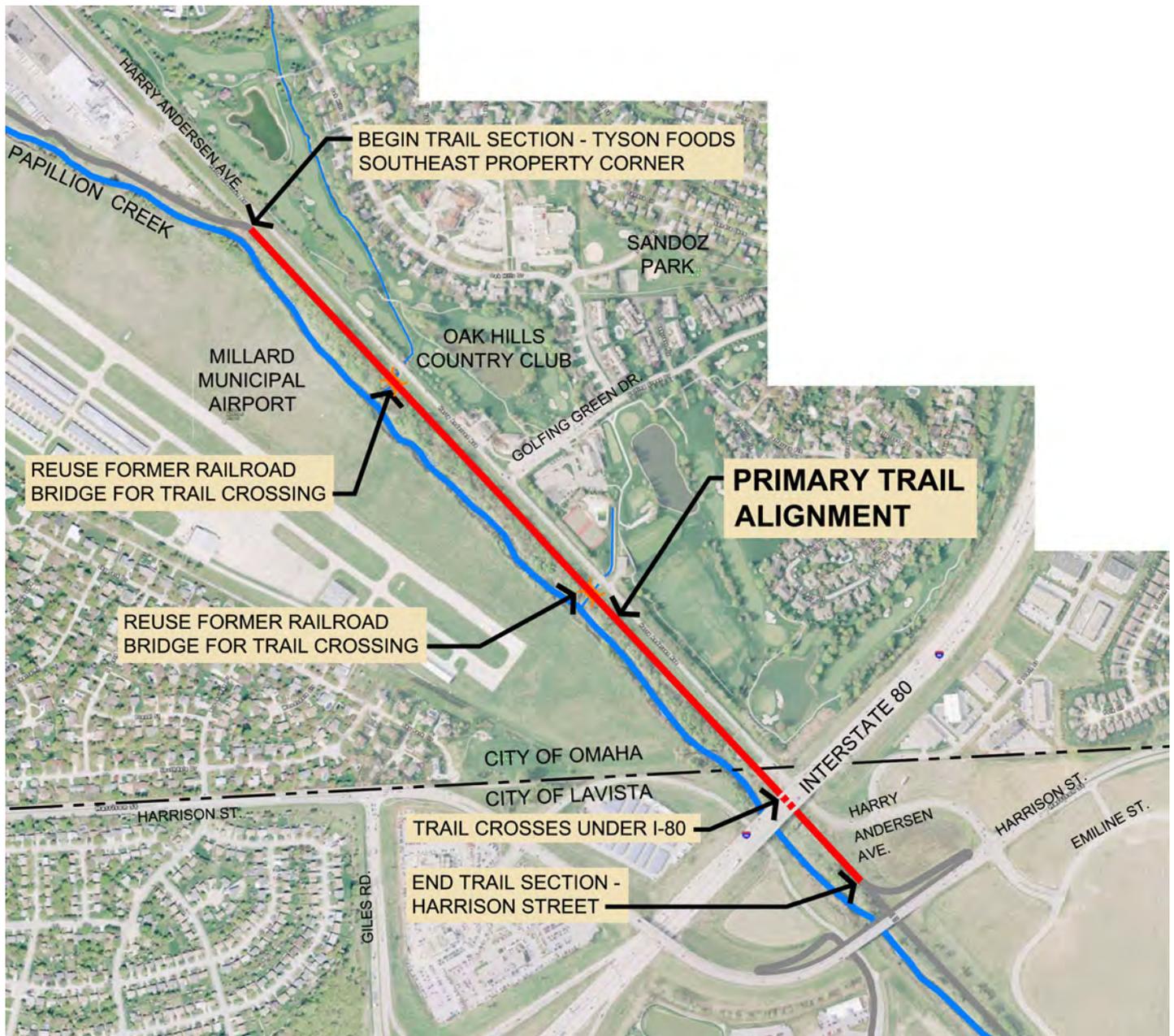


Figure 5: Southeast Property Corner of Tyson Foods to Harrison Street, Primary Alignment

Primary Alignment

Beginning at the southeast property corner of Tyson Foods, this section of trail will be located on the bed of the former rail line. Prior to reaching Interstate 80, the trail alignment crosses over two small tributary creeks that flow west from the Oak Hills Country Club to West Papillion Creek. The former railroad bridges at each tributary are still in place and can be re-decked and have guardrails added to allow them to serve the proposed trail. A concrete grade-control structure west of the north bridge has been severely undermined and has collapsed. Replacement of this grade-control structure and some rehabilitation of the channel will be required to ensure the stability of the existing bridge. The south bridge and channel appears to be stable and no corrective action should be needed. An inspection of each bridge's condition and structural integrity should be made as part of the trail's final design.



Eroded grade-control structure at north end of former railroad bridge, looking northeast toward bridge

When the trail reaches Interstate 80, it will cross below the west and east-bound bridges that span over the creek, former rail line, and Harry Andersen Avenue. The trail then continues southeast to the ending point of this section, just north of Harrison Street.

Southport Spur Trail

A spur trail is proposed to connect the Southport Development, which includes the PayPal campus on the south side of the West Papillion Creek to the proposed segment of the West Papio Trail on the north side of the creek. A five-foot wide walk exists along the north side of the Harrison Street bridge spanning over West Papillion Creek. Over half the length of this spur trail is located on the embankment for Harrison Street. Because of this, the recommended width of this trail is eight-feet wide, except on the existing bridge. Creating this additional width may require adding a low retaining wall on the north side of trail where it is adjacent to Harrison and where it transitions up and down the side slopes of the street's embankment.

The spur trail will begin at the West Papio Trail just north of the Harrison Street bridge. It will run east up the side slope of the street embankment making a 180-degree turn when it reached street level. The trail will then follow along the north side of Harrison Street to the existing walk on the bridge. After crossing the bridge, the trail will continue west before making another 180-degree turn and transitioning down the street embankment to the level of Eastport Parkway. At Eastport Parkway, the trail will make a right angle turn and follow the parkway under the Harrison Street bridge. Where the trail passes under the Harrison Street bridge, a retaining wall will need to be added to create room for the trail. Currently, the bank below the bridge slopes nearly to the street curb. The trail will extend at least to the intersection of Eastport Parkway and Port Grace Boulevard, where it will provide access to the development's existing walk system. The Harrison Street spur trail is approximately 0.55 mile in length.

Harrison Street to Giles Road

This section of the primary trail alignment begins just north of the Harrison Street bridge and continues southeast, ending just north of Giles Road (see Figure 6). In this section, the primary trail alignment follows the abandoned railroad line as it crosses under two major streets and an active railroad line, as well as crosses over two minor creeks. This section is approximately 1.25 miles in length.

Primary Alignment

After crossing under the Harrison Street bridge, the trail will continue to follow the abandoned railroad line southeast as it parallels 118th Street to its east. The trail will cross over a former railroad bridge that is still in place and conveys drainage from the area east of 118th Street. A short distance further southeast, the trail will cross under

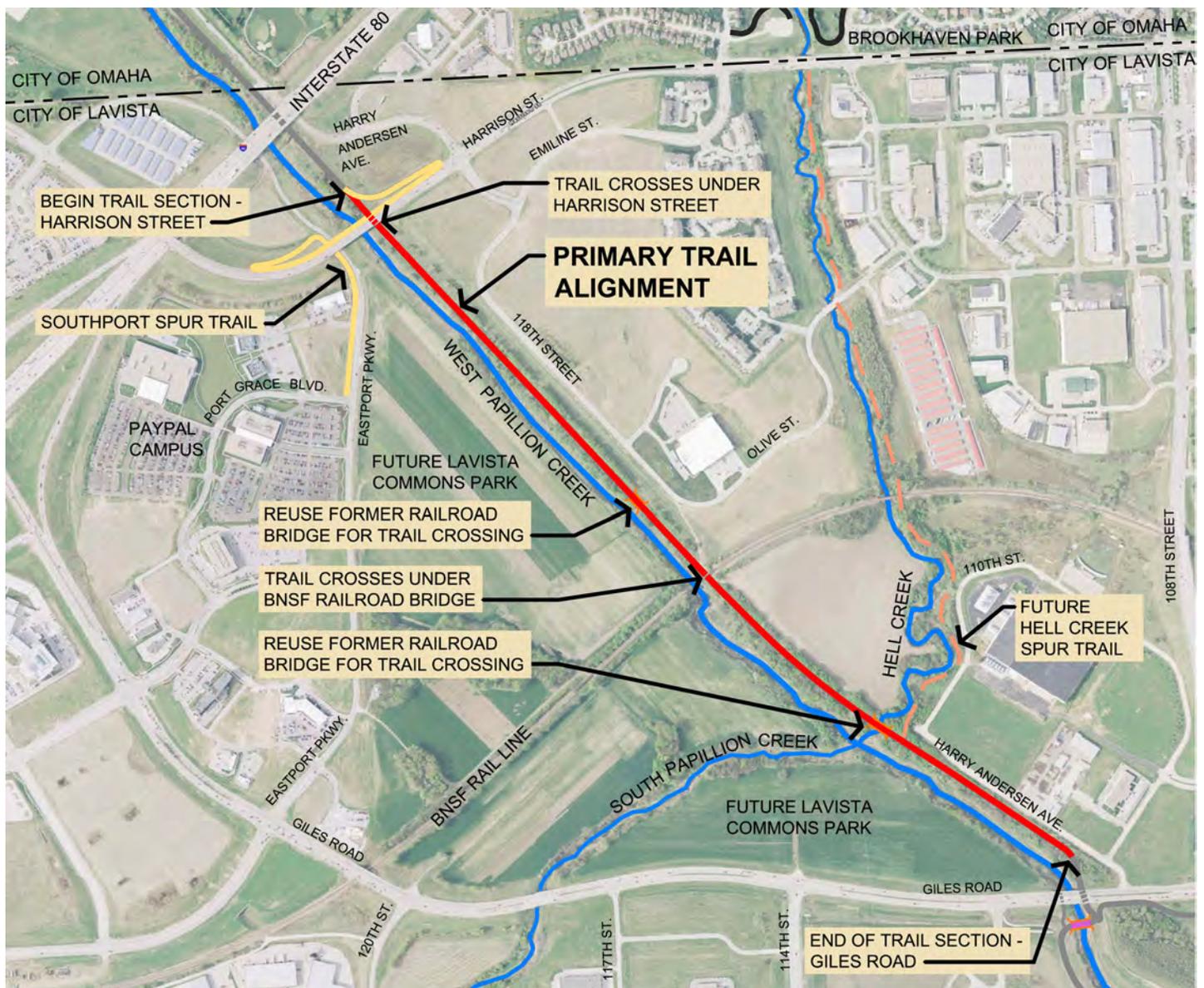


Figure 6: Harrison Street to Giles Road, Primary Alignment

the Burlington Northern Santa Fe Railroad (BNSF) bridge. A protection structure will be needed below the railroad bridge to protect trail users from the potential of falling debris. This undercrossing currently provides access from 118th Street to farmland located south of the bridge. The design of the trail section across the BNSF right-of-way, as well as design of the protection structure described above, will need to accommodate the field access requirement.

Southeast of the BNSF bridge, Hell Creek flows into West Papillion Creek. A steel girder bridge that once served the former railroad crosses over Hell Creek. A concrete slab extends between the bridge's stone abutments. A series of wooden and metal pilings, along with large rocks and large pieces of concrete, currently provide stream channel stabilization downstream of the bridge. An evaluation of the stability of this system should be completed during final design of the trail to ensure long-term stability of the bridge's abutments.

An inspection of both former railroad bridges' condition and structural integrity should be made as part of the trail's final design. Both bridges will need to be re-decked and have guardrails added to allow them to serve the proposed trail.

After crossing over Hell Creek, the trail again parallels a portion of Harry Andersen Avenue, which is immediately to its east. This section of Andersen Avenue is within Brook Valley Business Park and the street provides an opportunity for the public to directly access the trail from it. This section of trail ends just north of Giles Road. The former railroad right-of-way also ends in this area when it reaches the Giles Road right-of-way.



Existing Hell Creek railroad bridge, looking northeast

Hell Creek Spur Trail

The City of LaVista has a spur trail planned which will head north along Hell Creek's east bank. The future spur trail will connect the West Papio Trail to the Brookhaven Park trail, north of Harrison Street.

Giles Road to Existing Southern Section of West Papio Trail

This section of the primary trail alignment begins just north of Giles Road and continues southeast ending at the existing southern section of the West Papio Trail, near Papillion City Park (see Figures 7 & 8). The former railroad right-of-way ends on the north side of Giles Road, so the remainder of the trail will continue along the top of bank of West Papillion Creek. In this section, the trail will pass under two major streets, cross from the north to south bank of West Papillion Creek, and cross over Schram and Walnut Creeks, before ending at the existing southern portion of the West Papio Trail. The purpose of changing the primary trail alignment from the north to the south side of West Papillion Creek is to provide connectivity to the future growth area for the City of Papillion, connecting to a system of trails planned in the growth area. This section of the primary trail alignment is approximately 1.95 miles in length.

To provide connectivity to the City of LaVista trails located north of the creek, an extension to an existing trail that runs along a portion of Portal Road is proposed as a secondary alignment from Giles Road to South 96th Street. The length of this secondary alignment is 1.45 miles.

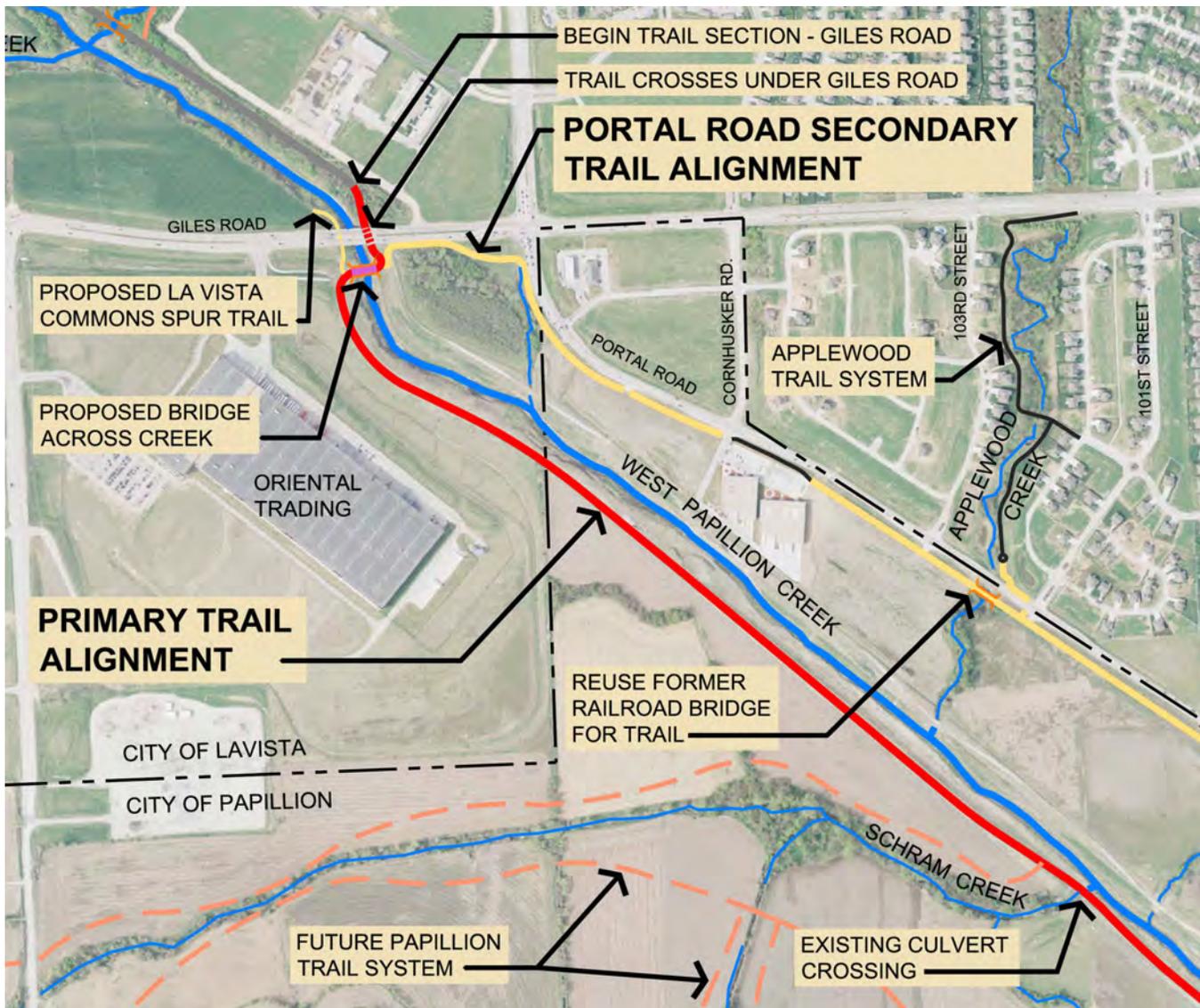


Figure 7: Giles Road to Harrison Street - Giles Road to 101st Street segment, Primary and Secondary Trail Alignments

Primary Alignment

From this section’s beginning point just north of Giles Road, the primary trail alignment will transition down the creek bank side slope to an elevation that provides the required vertical clearance needed to pass under the Giles Road bridge. After passing under the bridge, the trail will transition back up to the top of the creek’s north bank and continue southeast. Approximately one hundred feet south of Giles Road, the trail alignment will shift from the north to south bank of West Papillion Creek. A new trail bridge will be required at this location. Current floodplain maps indicate that the floodway width at this point is approximately 250 feet. A new bridge in this location will need to span at least that distance to avoid impeding flood flows.

After crossing to the Creek’s south bank, the trail alignment will continue adjacent to West Papillion Creek on the existing P-MRNRD’s maintenance road. The current crushed aggregate roadbed will be replaced with concrete pavement. This would allow the trail to accommodate both trail users and maintenance access.

As the trail continues to run southeast along the maintenance road, it will cross an existing concrete culvert through which Schram Creek empties into West Papillion Creek. The P-MRNRD confirmed that the concrete culverts used to convey flows of the tributaries on both sides of West Papillion Creek between Giles Road and Papillion City Park were designed to accommodate a future trail and its shoulders across the top of them. The concrete culverts were designed to contain most storm flows, with only very large storm flows overtopping the culverts to then flow into West Papillion Creek.

After passing over Schram Creek, the trail continues southeast to 96th Street. Immediately west of 96th the trail will transition down the creek bank side slope, as it did at Giles Road, to pass under the bridge. East of the bridge, the trail will transition back up to the maintenance road along the top of the creek bank. At this point a connector walk would extend back to 96th Street and its adjacent trail, on the vehicle access road connecting to 96th Street. The primary trail alignment will continue southeast, crossing the culvert that conveys flows from Walnut Creek into West Papillion Creek. Approximately 500 feet southeast of that culvert this section ends by joining the existing southern portion of the West Papiro Trail, near the northwest corner of Papillion City Park.

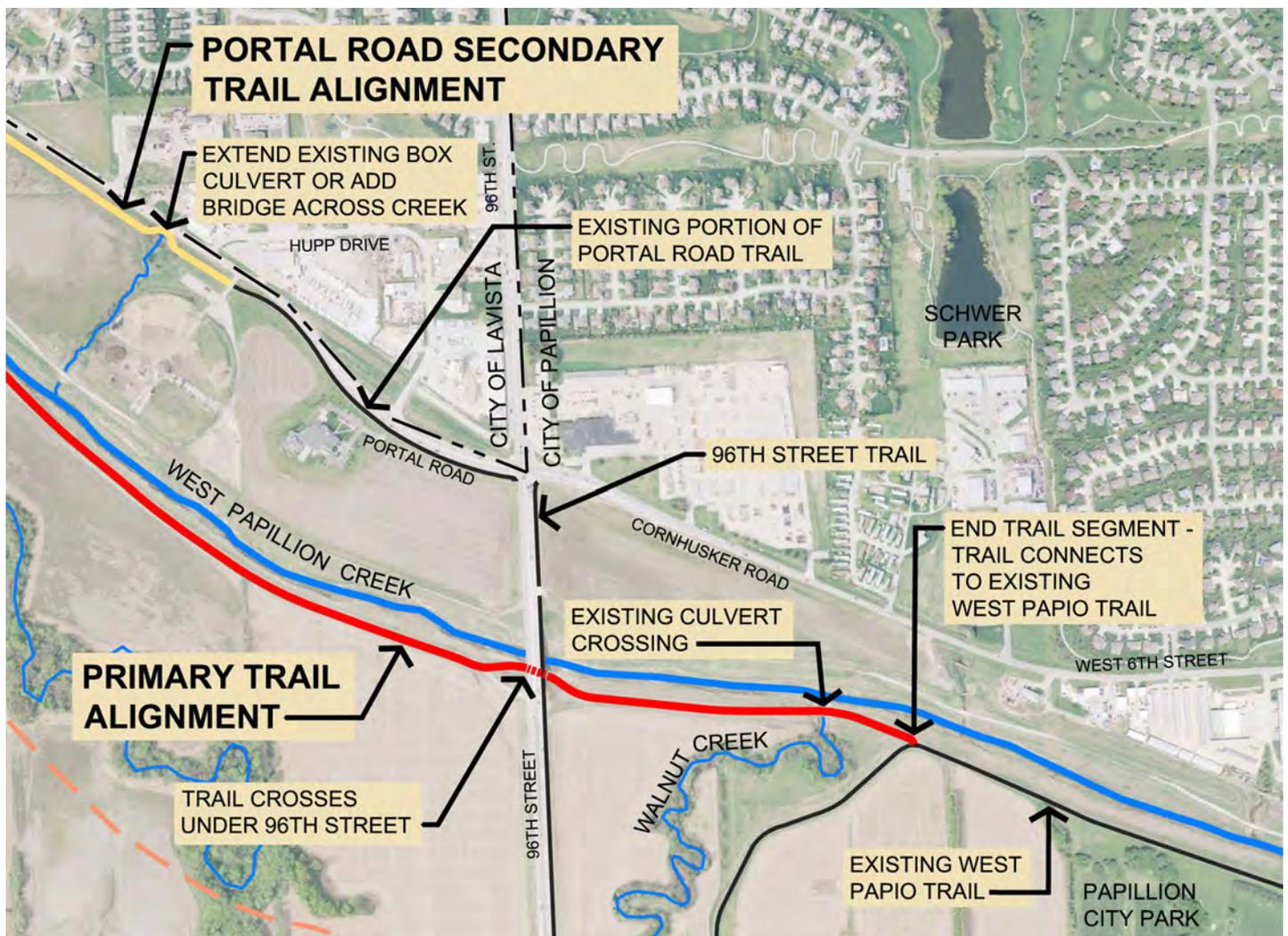


Figure 8: Giles Road to Harrison Street - 101st Street to Southern Section of West Papiro Trail, Primary and Secondary Trail Alignments

Portal Road Secondary Trail Alignment

An opportunity exists to improve the connectivity of the neighborhoods north of the creek that are between 108th and 96th Streets by completing a partially constructed trail that currently runs along the south side of Portal Road. The completed portion of this trail runs west from the intersection of 96th Street and Portal Road to a former City of Papillion ballfield complex, which is now used as a public works storage yard. To complete the secondary alignment, this trail will need to be extended west along Portal Road to its intersection with Giles Road, and then west along the south side of Giles to the primary alignment of the West Papio Trail. The total length of the proposed secondary trail alignment will be 1.45 miles. Approximately 0.45 miles of this trail is already constructed, so only a little over one mile of additional trail would be needed to complete this secondary alignment.



Former railroad bridge at Applewood Creek, looking northwest

This proposed secondary alignment would start at the primary alignment of the West Papio Trail just south of Giles Road, and then will run east to the intersection of 108th Street and Giles Road. The parcel of property southwest of this intersection is owned by the City of Papillion and could serve as the right-of-way needed between the creek and Portal Road. When the trail reaches Portal Road, it will turn southeast and run along the street's south side to the intersection of Portal and Cornhusker Roads. Southeast of this intersection, a section of trail exists for approximately 500 feet, which was installed when two adjacent commercial buildings were constructed. Southeast of this intersection, a former railroad bridge that crosses a small tributary is still in place and can be re-decked and have guardrails added to allow it to serve the proposed trail. An inspection of the bridge's condition and structural integrity should be made as part of the trail's final design.

Southeast of the intersection of Portal Road and 103rd Street, the Portal Road trail will provide access to LaVista's proposed Portal Greenway trail system. The Portal Greenway will include the existing Applewood neighborhood trail system, as well as a future trail that will extend north to a neighborhood park located just south of Harrison Street.

Continuing southeast along Portal, the trail will cross a small tributary to West Papillion Creek before arriving at the Papillion Public Works property. To cross this tributary will either require extending an existing eight-foot high by fourteen-foot wide double-box culvert by approximately ten feet, or placing a small bridge to span the channel. Some corrective work is needed to a storm drain outlet on the tributary's south bank.

After crossing this small tributary, the trail will extend southeast to the entry drive for the Public Works property. At this point the existing trail begins and extends east to the intersection of Portal Road and 96th Street. To get to the West Papio Trail from this point, trail users would cross from the southwest corner to the southeast corner of the intersection, then go south on the 96th Street Trail to the trail access point immediately south of the West Papillion Creek bridge.



Box culvert near Hupp Drive, requiring extension or trail bridge across channel

Papillion Trail System Spur Trails

The City of Papillion intends to construct a system of trails within its future growth area south and west of West Papillion Creek. These trails will connect to three future regional flood control reservoirs, as well as other trails in the city's western neighborhoods.

LaVista Commons Spur Trail

The City of LaVista intends to purchase a large area north of Giles Road and west of West Papillion Creek to develop as a regional-scale park. A spur trail can easily be extended from the west end of the proposed trail bridge to the proposed park. The spur trail alignment will run northwest from the west end of proposed trail bridge, crossing under the Giles Road bridge to the park property. This spur trail will be approximately 0.10 mile long. The trail spur would benefit trail users wishing to access the future park and allow the future park's parking lots to serve as trail-heads.

SUMMARY

Implementing this segment of the West Papio Trail that passes through Papillion, LaVista and Omaha will connect residential neighborhoods and employment centers to existing sections of the West Papio Trail, as well as to other highly-used metropolitan trails. This will increase recreational opportunities for citizens living in these neighborhoods, as well as provide an option to use an alternate mode of transportation for commuting, running errands and other activities. The cooperation of the three cities along with the P-MRNRD is essential in creating a comprehensive and connected trail segment. Such cooperation in the past has created the ever-expanding metropolitan trail system that is valued and used by the metropolitan area's citizens.