Tremonton City Corporation
City Council Meeting
April 4, 2023
Meeting to be held at
102 South Tremont Street
Tremonton, Utah

5:00 p.m.

1. Presentation and discussion of the 2024 Fiscal Year Budget for governmental funds and enterprise funds
2. Review of the agenda items identified on 7:00 p.m. City Council Agenda
3. ***CLOSED SESSIONS:***
   - ***a. Strategy session to discuss the purchase of real property when public discussion of the transaction would disclose the appraisal or estimated value of the property under consideration or prevent the public body from completing the transaction on the best possible terms; and/or***
   - ***b. Strategy session to discuss the character, professional competence or physical or mental health of an individual; and/or***
   - ***c. Strategy sessions to discuss pending or reasonably imminent litigation; and/or***
   - ***d. Discussions regarding security personnel, devices or systems***

CITY COUNCIL MEETING AGENDA
7:00 p.m.

1. Opening Ceremony
2. Introduction of guests
3. Declaration of Conflict of Interest
4. Approval of agenda
5. Approval of minutes – March 21, 2023
6. Presentation
   a. Tremonton City Citizenship Award to Elementary and Intermediate Students

7. Proclamation
    a. Arbor Day Proclamation- April 28, 2023

8. Public comments: This is an opportunity to address the City Council regarding your concerns or ideas.

9. New Council Business:
    a. Discussion and consideration of adopting Resolution No. 23-23 appointing Mike Garrett to serve on the Tremonton City Library Board and reaffirming and appointing existing Library Board Members
    b. Discussion and consideration of adopting Resolution No. 23-24 approving a Cooperative Agreement for Phased Development Improvements between Utah Department of Transportation (UDOT), Tremonton City, and Rivers Edge Real Holdings, LLC for a future traffic signal at the intersection of Main Street (State Route 102) and 950 East and other improvements at the intersection of 1600 East (State Route 13) and 450 North

10. Calendar Items and Previous Assignment
    a. Review of calendar
    b. Unfinished Business/Action Items
    c. Branding Implementation update

11. Reports & Comments:
    a. City Administration Reports and Comments
    b. Development Review Committee Report and Comments
    c. City Department Head Reports and Comments
    d. Council Reports and Comments

12. ***CLOSED SESSIONS:***
    a. Strategy session to discuss the purchase of real property when public discussion of the transaction would disclose the appraisal or estimated value of the property under consideration or prevent the public body from completing the transaction on the best possible terms; and/or
    b. Strategy session to discuss the character, professional competence or physical or mental health of an individual; and/or
    c. Strategy sessions to discuss pending or reasonably imminent litigation; and/or
    d. Discussions regarding security personnel, devices or systems

13. Adjournment

Anchor location for Electronic Meeting by Telephone Device. With the adoption of Ordinance No. 13-04, the Council may participate per Electronic Meeting Rules. Please make arrangements in advance.

Persons with disabilities needing special assistance to participate in this meeting should contact

Linsey Nessen no later than 48 hours prior to the meeting.

Notice was posted March 31, 2023 a date not less than 24 hours prior to the date and time of the meeting and remained so posted until after said meeting. A copy of the agenda was delivered to The Leader (Newspaper) on March 31, 2023.

_____

Linsey Nessen, CITY RECORDER

Proclamation

ENCOURAGING THE OBSERVANCE OF ARBOR DAY

WHEREAS, in 1872, J. Sterling Morton proposed to the Nebraska Board of Agriculture that a special day be set aside for the planting of trees, and

WHEREAS, this holiday, called Arbor Day, was first observed with the planting of more than a million trees in Nebraska, and

WHEREAS, Arbor Day is now observed throughout the nation and the world, and

WHEREAS, trees can reduce the erosion of our precious topsoil by wind and water, cut heating and cooling costs, moderate the temperature, clean the air, produce oxygen and provide habitat for wildlife, and

WHEREAS, trees are a renewable resource giving us paper, wood for our homes, fuel for our fires and countless other wood products, and

WHEREAS, trees in our City increase property values, enhance the economic vitality of business areas, and beautify our community, and

WHEREAS, trees, wherever they are planted, are a source of joy and spiritual renewal.

NOW THEREFORE, I, Lyle N. Holmgren, Mayor of the City of Tremonton, Utah, do hereby proclaim April 28, 2023, as ARBOR DAY. In the City of Tremonton, I urge all citizens to support efforts to protect our trees and woodlands and to support our City's Urban Forestry Program, and

FURTHER, I urge all citizens to plant trees to gladden hearts and promote the well-being of present and future generations.

DATED this 4th day of April, 2023.

TREMONTON CITY CORPORATION

_____

Lyle N. Holmgren, Mayor

ATTEST:

_____

Linsey Nessen, Recorder

TREMONTON CITY

CITY COUNCIL MEETING

APRIL 4, 2023

TITLE:	Discussion and consideration of adopting Resolution No. 23-23 appointing Mike Garrett to serve on the Tremonton City Library Board and reaffirming and appointing existing Library Board Members
FISCAL IMPACT:	Not applicable
PRESENTER:	Kim Griffiths, Library Director

Prepared By:

Kim Griffiths

RECOMMENDATION:

I move that the City Council adopt a resolution to appoint Mike Garrett as a Tremonton City Library Board member.

BACKGROUND:

Mike will be replacing Mercedes Stacey, who has moved. Mike volunteered to serve on the Board and was introduced to the existing Board on March 17, 2023.

As stated in the Tremonton City Library ordinance Section 3 article 3.4: In the event of a vacancy on the Library Board, replacement candidates will be recommended by the Library Board and approved by the Tremonton City Council.

RESOLUTION NO. 23-23

A RESOLUTION OF TREMONTON CITY COUNCIL APPOINTING MIKE GARRETT TO SERVE ON THE TREMONTON CITY LIBRARY BOARD AND REAFFIRMING AND APPOINTING EXISTING LIBRARY BOARD MEMBERS

WHEREAS, Tremonton City believes that public libraries promote literacy and quality of life in a community and provide many other ancillary services; and

WHEREAS, following Utah Code 9-7-402, Tremonton City has established and maintains a public library; and

WHEREAS, Utah Code 9-7-402 requires that when a city's governing body decides to establish and maintain a city public library, it shall appoint a Library Board of not less than five members and not more than nine members, chosen from the citizens of the city and based upon their fitness for the office; and

WHEREAS, Tremonton City has established a Library Board as required by Utah Code 9-7-402, codified in Title 3. City Government, Part 3-840 Library Board of the Revised Ordinances of Tremonton City Corporation; and

WHEREAS, per Tremonton City Code 3-841 (1), the Library Board consists of seven (7) to nine (9) persons chosen from the citizens at large of Tremonton, Utah, with one member of the board being a member of the Tremonton City Council; and

WHEREAS, per Tremonton City Code 3-841 (2), the Library Board member is appointed for a three (3) year term, or until their successors are appointed, with Board members not serving more than two (2) consecutive full terms; and

WHEREAS, Library Board Member Mercedes Stacey is moving and has resigned from the Library Board, creating a vacant position on the Tremonton City Library Board; and

WHEREAS, Mike Garrett, a Tremonton City resident, has expressed interest in participating in the Tremonton City Library Board and possesses skills and interests that will complement the Library Board as detailed in Exhibit "A."

NOW BE IT RESOLVED that the Tremonton City Council hereby appoints Mike Garrett to serve on the Tremonton City Library Board and reaffirms and appoints the following individuals as members of the Tremonton City Library Board for the following duration:

Board Member	Term	Can Serve Thru (Two-Term Limits)
Mike Garrett	June 2024	June 2030
Moroni Aguilar	June 2024	June 2024
Lisa Unsworth	June 2024	June 2024
Alysia Chapman	June 2024	June 2027
Annette Macfarlane	June 2024	June 2027

Becca Ashby	June 2025	June 2028
Rick Jeppesen	June 2025	June 2028
Julie Beagley	June 2025	June 2028
Connie Archibald	Not Applicable	Not Applicable

Adopted and passed by the City Council this 4th day of April 2023. Resolution to become effective upon adoption.

TREMONTON CITY
A Utah Municipal Corporation

By _____
Lyle Holmgren, Mayor

ATTEST:

_____
Linsey Nessen, City Recorder

EXHIBIT "A"

A little background about me:
Mike Garrett
Tremont Street
Tremonton Ut. 84337

My wife is Sheri Lott Garrett, we've been married for 42 years. We have 4 boys and two girls.The youngest two are twin boys. (*Everyone in life should experience raising twins… just saying.*)

-I was born here in Tremonton, attended part of 1st Grade here at the old McKinley. Grew up in Soda Springs Idaho. Attended Ricks College (BYU-Idaho) and Utah State University in Logan. My education background is in Automotive, Aerospace, and Environmental Protection.

-I'm a licensed Power Plant Operator (Industrial Steam Eng) at the North Plant for Northrop Grumman, Promontory. I work rotating shifts, text me anytime. (*I'm probably awake at 3 am.*) I'm about two years away from retirement.

-I've been taking on-line and USU extension classes for Creative Nonfiction Writing for about the past 8 years. I really enjoy writing about adventure and time-travel romance. Indiana Jones and Regency Jane Austen are my favorites. (*Miss Jane Austen is my home-town girl.)* As a writer, I have developed pretty thick skin. I'm a pretty easy going type of guy, it's hard to offend me. (*Typo's kill me…)*

-I love to volunteer, I was involved in Cub and Boy Scouts for 39 years. One of my most enjoyable positions was being WEBELOS leader. One year we took the boys flying with Wayne Larsen after they "graduated" from a 5 hour flight school. I'm a S.T.E.M. advocate for a fun way to learn. (*S.T.E.M stands for science, technology, engineering, and mathematics*)

TREMONTON CITY
CITY COUNCIL MEETING
April 4, 2023

TITLE:	Discussion and consideration of adopting Resolution No. 23-24 approving a Cooperative Agreement for Phased Development Improvements between Utah Department of Transportation (UDOT), Tremonton City, and Rivers Edge Real Holdings, LLC for a future traffic signal at the intersection of Main Street (State Route 102) and 950 East and other improvements at the intersection of 1600 East (State Route 13) and 450 North
FISCAL IMPACT:	Not applicable.
PRESENTER:	Shawn Warnke, City Manager

BACKGROUND:

The Rivers Edge - Phase 1 is being proposed as the first phase of the Rivers Edge Development, and the construction of this phase requires access onto State Route 102 (Main Street), which is owned and controlled by the Utah Department of Transportation (UDOT). Accessing State Routes requires access permits from UDOT, and as part of the access permitting process, UDOT requires that Developers submit a traffic impact study.

The Developers of the Rivers Edge Development completed a traffic impact study which identified several site-related traffic mitigation improvements required during the construction of this Development. More specifically, the traffic impact study identifies that a traffic signal at the intersection of Main Street (State Route 102) and 950 East is needed as a site-related improvement when 35% of the Rivers Edge Development is complete. The traffic impact study identified right and left turn lanes that need to be constructed on 1600 East (State Route 13) when the 450 North Collector Road connects to State Route 13.

The proposed River Edge - Phase 1 plat is less than 35% of the total Rivers Edge Development, and the construction of the 450 North Collector Road will be constructed in a future phase of the Rivers Edge Development. UDOT is willing to grant Rivers Edge - Phase 1 an access permit for the intersection of 950 East and Main Street (State Route 102) if the Utah Department of Transportation, Tremonton City, and Rivers Edge Holdings, LLC enter into Cooperative Agreement for Phased Development Improvement.

This Cooperative Agreement for Phased Development Improvements requires that the City not issue any future development approval for future phases of the Rivers Edge Development without requiring the Developer to submit an amended traffic impact study (TIS) to UDOT to verify if the proposed phase meets the warrant for a traffic signal at the intersection of State Route 102 (Main Street) and 950 East. If the TIS finds that the proposed phase meets UDOT's warrants for a traffic signal, the Developer shall provide construction plans of the traffic signal and any other mitigation improvements for review and approval by UDOT. Thereafter the Developer shall construct a traffic signal and any other mitigation improvement required by UDOT concurrent with constructing the subdivision improvements for the proposed phase; and

This Cooperative Agreement for Phased Development Improvements requires that the City not issue any future development approval for future phases, which includes the construction of the city street that connects to State Route 13 unless the Developer shall be required to construct mitigation improvements which include but are not limited to right and left turn lanes on State Route 13. The Developer shall provide construction plans of the mitigation improvements for connecting a city street to State Route 13 for review and approval by UDOT. Thereafter the Developer shall construct right and left turn lanes on State Route 13 and any other mitigation improvement required by UDOT concurrent with constructing the subdivision

improvements for the proposed phase.

City Staff is proposing that this Cooperative Agreement for Phased Development Improvements be recorded in the office of the Box Elder County Recorder so that any successor of interest in the Rivers Edge Development is notified of this future obligation to construct the required traffic mitigation measures and other improvements.

Attachment: Resolution No. 23-24

RESOLUTION NO. 23-24

A RESOLUTION OF TREMONTON CITY CORPORATION APPROVING A COOPERATIVE AGREEMENT FOR PHASED DEVELOPMENT IMPROVEMENTS BETWEEN UTAH DEPARTMENT OF TRANSPORTATION (UDOT), TREMONTON CITY, AND RIVERS EDGE REAL HOLDINGS, LLC FOR A FUTURE TRAFFIC SIGNAL AT THE INTERSECTION OF MAIN STREET (STATE ROUTE 102) AND 950 EAST AND OTHER IMPROVEMENTS AT THE INTERSECTION OF 1600 EAST (STATE ROUTE 13) AND 450 NORTH

WHEREAS, Tremonton City adopted Resolution No. 18-40, approving the Tremonton Transportation Master Plan, which identifies the 950 East Collector Road and the 450 North Collector Road as needed transportation corridors as shown in Exhibit "A"; and

WHEREAS, the Tremonton Transportation Master Plan also identified the intersection of 950 East to be a signalized location, as shown in Exhibit "A"; and

WHEREAS, in accordance with the Tremonton Transportation Master Plan, the Rivers Edge Development, as legally described in Exhibit "B" has incorporated the 950 East Collector Road and the 450 North Collector Road into their development plans as shown in Exhibit "C"; and

WHEREAS, the 950 East Collector Road and the 450 North Collector Road intersect with State Route 102 (Main Street) and State Route 13 (1600 East), respectively, as shown in Exhibit "C"; and

WHEREAS, the Developers of Rivers Edge Development are proposing that the project be developed in phases, as shown in Exhibit "C"; and

WHEREAS, Rivers Edge - Phase 1 is being proposed as the first phase of the Rivers Edge Development, requires access onto State Route 102 (Main Street); and

WHEREAS, State Route 102 (Main Street) is owned and controlled by the Utah Department of Transportation (UDOT), and accessing State Routes requires access permits from UDOT; and

WHEREAS, as part of the access permitting process, UDOT requires that Developers submit a traffic impact study; and

WHEREAS, the Developers of the Rivers Edge Development completed a traffic impact study which identified several improvements as summarized in Exhibit "D" and fully detailed in Exhibit "E"; and

WHEREAS, more specifically, the traffic impact study identifies that a traffic signal at the intersection of Main Street (State Route 102) and 950 East is needed as a site-related improvement when 35% of the Rivers Edge Development is complete; and

WHEREAS, the proposed River Edge - Phase 1 plat is less than 35% of the total Rivers Edge Development; and

WHEREAS, UDOT is willing to grant Rivers Edge - Phase 1 an access permit for the intersection of 950 East and Main Street (State Route 102) if the Utah Department of Transportation, Tremonton City, and Rivers Edge Holdings, LLC enter into Cooperative Agreement for Phased Development Improvement; and

WHEREAS, the Cooperative Agreement for Phased Development Improvements requires that the City not issue any future development approval for future phases of the Rivers Edge Development without requiring the Developer to submit an amended traffic impact study (TIS) to UDOT to verify if the proposed phase meets the warrant for a traffic signal at the intersection of State Route 102 (Main Street) and 950 East. If the TIS finds that the proposed phase meets UDOT's warrants for a traffic signal, the Developer shall provide construction plans of the traffic signal and any other mitigation improvements for review and approval by UDOT. Thereafter the Developer shall construct a traffic signal and any other mitigation improvement required by UDOT concurrent with constructing the subdivision improvements for the proposed phase; and

WHEREAS, the Rivers Edge Development includes a future phase wherein the 450 North Collector Road will require access to State Route 13 (1600 East) as shown in Exhibit "C"; and

WHEREAS, the traffic impact study complete for the River Edge Development as summarized in Exhibit "D" and fully detailed in Exhibit "E" identified right and left turn lanes be construction on 1600 East (State Route 13); and

WHEREAS, the Cooperative Agreement for Phased Development Improvements requires that the City not issue any future development approval for future phases, which includes the construction of the city street that connects to State Route 13, unless the Developer shall be required to construct mitigation improvements which include but are not limited to right and left turn lanes on State Route 13. The Developer shall provide construction plans of the mitigation improvements for connecting a city street to State Route 13 for review and approval by UDOT. Thereafter the Developer shall construct right and left turn lanes on State Route 13 and any other mitigation improvement required by UDOT concurrent with constructing the subdivision improvements for the proposed phase; and

WHEREAS, the complete Cooperative Agreement for Phased Development Improvements is contained within Exhibit "F"; and

WHEREAS, Tremonton City desires that this Cooperative Agreement for Phased Development Improvements be recorded in the office of the Box Elder County Recorder so that any successor of interest in the Rivers Edge Development is notified of this future obligation to construct the required traffic mitigation measures and other improvements.

NOW THEREFORE, BE IT RESOLVED that the Tremonton City Council approves the Cooperative Agreement for Phased Development Improvements between Utah Department of Transportation (UDOT), Tremonton City, and Rivers Edge Real Holdings, LLC for a future traffic signal at the intersection of Main Street (State Route 102) and 950 East and other improvements at the intersection of 1600 East (State Route 13) and 450 North as contained in Exhibit "F."

FURTHER BE IT RESOLVED that the Tremonton City Council authorizes the City Manager to sign the Cooperative Agreement for Phased Development Improvements as contained in Exhibit "F" on behalf of Tremonton City.

LASTLY, BE IT RESOLVED that the City Council directs the City Recorder to record this Cooperative Agreement for Phased Development Improvements in the Box Elder County Recorder's Office so that any successor of interest in the Rivers Edge Development is notified of this future obligation to construct the required traffic mitigation improvements.

PASSED AND ADOPTED by the Tremonton City Council on this the 4th day of April 2023. To become effective upon passage.

TREMONTON CITY CORPORATION
A Utah Municipal Corporation

By _____
Lyle Holmgren, Mayor

ATTEST:

_____
Linsey Nessen, City Recorder

NOTARY PUBLIC

State of Utah)
§
County of Box Elder)

On this _____day of _____, in the year 2023, before me _____

a notary public, personally appeared Lyle Holmgren and proved on the basis of satisfactory evidence to be the person(s) whose name(s) subscribed to this instrument, and acknowledge executing the same.

_____
Notary Public

EXHIBIT "A"

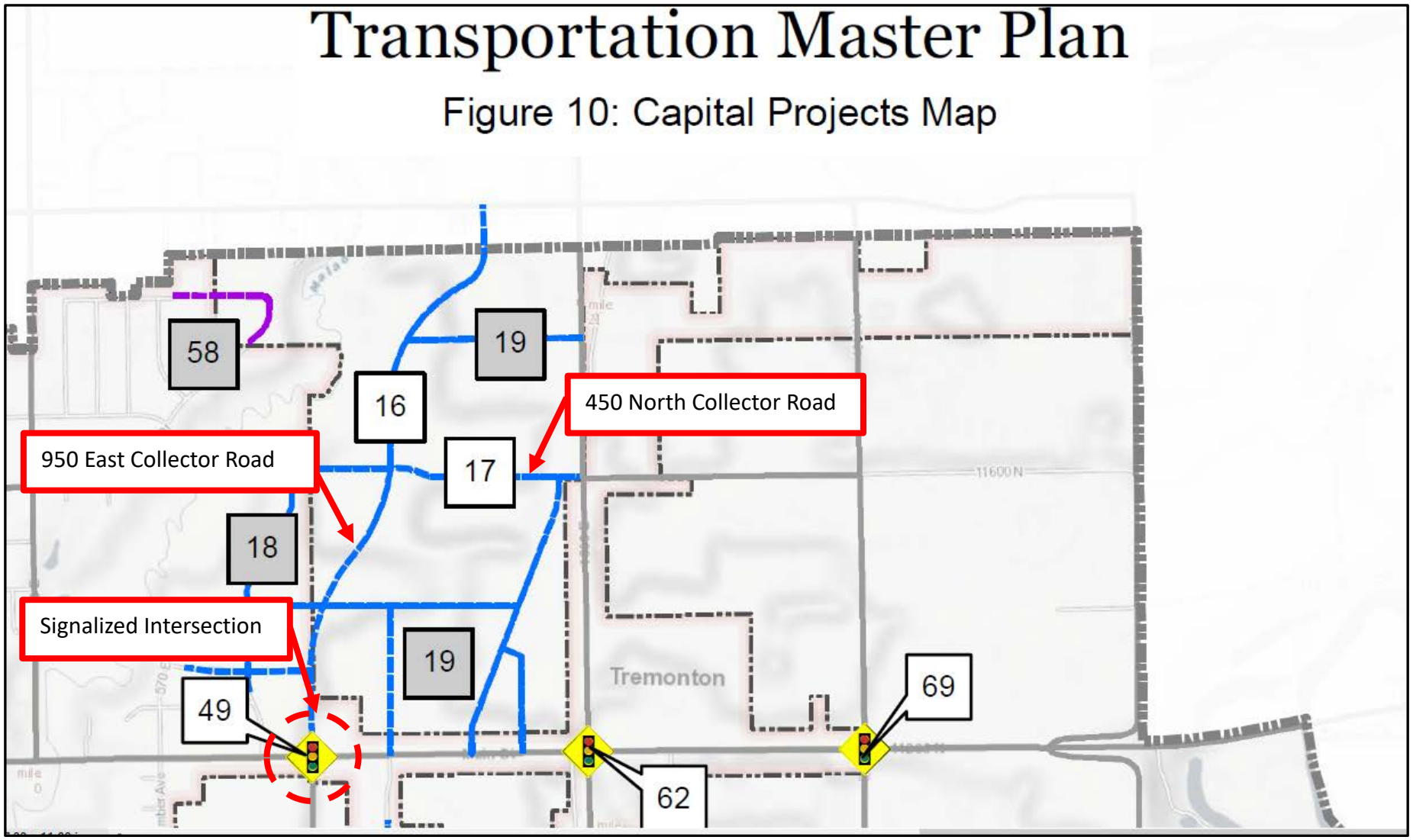
Transportation Master Plan
Figure 10: Capital Projects Map
58
19
16
450 North Collector Road
950 East Collector Road
17
18
Signalized Intersection
19
49
Tremonton
69
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EXHIBIT “B”

LEGAL DESCRIPTION

A part of Section 2, Township 11 North, Range 3 West, Salt Lake Base and Meridian, U.S Survey:

Beginning at the Center of said Section 2 said point being 2639.50 feet North 01°20’04” West from the South Quarter corner of said Section; and running thence North 88°50'54" East 2,004.33 feet; thence South 01°09'01" East 186.64 feet; thence North 89°58'32" East 104.95 feet; thence South 00°01'28" East 126.74 feet; thence North 88°51'00" East 266.41 feet; thence South 08°30'15" West 123.54 feet; thence South 00°01'14" East 206.20 feet; thence South 04°06'23" East 676.79 feet; thence South 88°50'19" West 608.67 feet; thence South 24°20'00" West 1,406.61 feet; thence South 88°49'43" West 35.75 feet; thence North 24°20'00" East 375.60 feet; thence South 88°49'43" West 324.94 feet; thence South 01°10'15" East 7.00 feet; thence South 88°49'43" West 180.00 feet; thence South 01°10'15" East 332.00 feet; thence South 88°49'43" West 97.88 feet; thence North 01°10'15" West 105.00 feet; thence South 87°39'50" West 107.75 feet; thence South 02°19'13" West 103.00 feet; thence South 88°49'43" West 570.25 feet; thence North 01°20'04" West 338.53 feet; thence South 88°49'41" West 357.63 feet; thence North 14°29'46" West 92.49 feet; thence North 14°32'43" West 136.57 feet; thence North 14°31'32" West 54.36 feet; thence North 00°46'38" West 145.74 feet; thence North 08°58'18" East 60.95 feet; thence North 01°11'46" West 120.00 feet; thence South 88°48'14" West 209.45 feet; thence North 87°50'49" West 60.08 feet; thence South 89°13'22" West 200.00 feet; thence South 89°13'28" West 222.96 feet; thence North 74°47'49" West 121.70 feet; thence North 03°34'08" East 157.10 feet; thence North 33°20'49" East 123.47 feet; thence North 77°10'36" East 60.00 feet; thence North 89°56'18" East 568.51 feet; thence North 00°03'41" West 120.16 feet; thence North 04°06'54" West 60.12 feet; thence North 00°03'31" West 99.25 feet; thence North 58°18'35" East 114.42 feet; thence North 16°07'42" East 102.16 feet; thence North 15°50'30" East 101.96 feet; thence North 27°11'56" East 399.77 feet; thence North 62°48'02" West 120.00 feet; thence North 27°11'58" East 66.99 feet; thence North 62°48'02" West 213.04 feet; thence North 29°12'26" East 25.27 feet; thence North 04°52'40" East 159.87 feet; thence North 01°00'48" West 144.50 feet; thence North 27°29'05" East 72.06 feet; thence North 55°12'22" East 419.94 feet; thence South 01°20'01" East 373.07 feet to the POINT OF BEGINNING.

Containing 135.5117 acres, more or less.

END OF DESCRIPTION.

EXHIBIT "C"

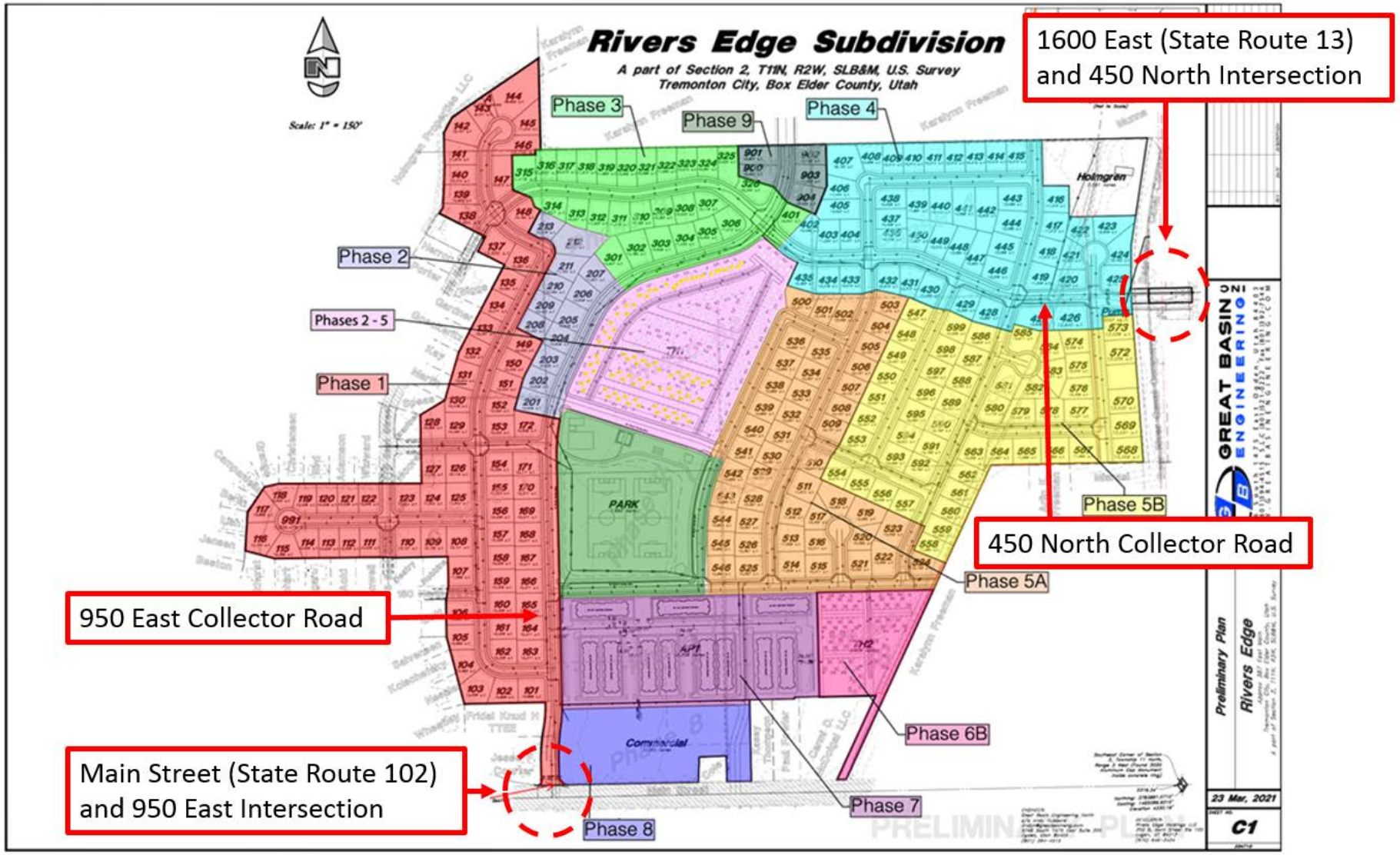
Rivers Edge Subdivision
A part of Section 2, T11N, R2W, SLB&M, U.S. Survey
Tremonton City, Box Elder County, Utah
Scale: 1" = 150'
1600 East (State Route 13) and 450 North Intersection
Phase 3
Phase 9
Phase 4
Phase 2
Phases 2 - 5
Phase 1
Phase 5B
450 North Collector Road
Phase 5A
950 East Collector Road
Phase 6B
Main Street (State Route 102) and 950 East Intersection
Phase 7
Phase 8
PARK
Commercial
Holmgren
GREAT BASIN ENGINEERING
Preliminary Plan
Rivers Edge
23 Mar, 2021
C1

EXHIBIT "D"

Edited Excerpts from Traffic Impact Study for the River, the complete Traffic Impact Study for the Rivers Edge Development is contained in Exhibit "E"

- 950 East Collector Road & Main Street (State Route 102)- Signalize intersection when 35% of the site is complete. Signal should be constructed with left and right tum storage lanes for all approaches. This is a future master planned signalized location. Site traffic increases traffic at this intersection by 40%. This is a site-related improvement.
- The 1150 East Access & Main Street (State Route 102) access requires an eastbound lane (50-foot minimum) and westbound right (50-foot minimum) deceleration lanes, and a southbound right acceleration lane. This is a site-related improvement.
- 450 North Collector Road & 1600 East (State Route 13) requires a northbound lane (50-foot minimum) and southbound right (50-foot minimum) deceleration lanes. This is a site-related improvement.

EXHIBIT “E”

EXHIBIT “F”

Rivers Edge
5600 West / Main Street
Traffic Impact Study

Tremonton, Utah

March 2021

TRAFFIC STUDY

TRANSPORTATION ENGINEERING

A-Trans Engineering
P.O. Box 521651
Salt Lake City, Utah 84152
(801) 949-0348 telephone
(801) 582-6252 fax

Rivers Edge
5600 West / Main Street
Traffic Impact Analysis

Tremonton, Utah

Category II

March 2021

Prepared by:

A-Trans Engineering
Joseph Perrin, PhD, PE, PTOE
P.O. Box City, 521651
Salt Lake City, Utah 84152
(801) 949-0348
atrans@comcast.net

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I. Introduction and Summary

This traffic impact analysis is for the proposed Rivers Edge residential development located to the north of Main Street (11200 North) and west of 1600 East in Tremonton, Utah. The site is planned to include 210 townhomes, 264 apartments, 369 single family residences and 70,000 sf of retail. It is projected to generate 557 AM, 898 PM peak hour trips and 9,596 daily trips. The site is planning 3 accesses to the site. One access along 1600 East and two accesses along Main Street that align will the existing streets of 5600 West and 1150 East.

1600 East / Main Street operates with overall LOS B in the AM and LOS C in the PM peak period. In 2026 without the site in LOS increases to LOS B in the AM and LOS D in the PM peak period. With the site in 2021 the intersection operates with LOS B in the AM and LOS E in the PM peak period with the NB direction at LOS F. In 2026 with the site the intersection operates with LOS C in the AM and LOS F in the PM peak period with the NB direction at LOS F. With growth in the area plus the addition of site traffic the intersection is operating near capacity and an improvement is recommended by 2026. The intersection was analyzed as an all-way stop with additional lanes in each direction or as a signal. Both of these options allow the intersection to operate at acceptable LOS. It is recommended that UDOT consider the options available at this location and plan this as a future improvement location.

1150 East / Main Street operates with a critical NBLTR at LOS B in the AM and LOS C in the PM peak period. Without the site in 2026 the intersection operates with critical NBLTR at LOS C in the AM and LOS C in the PM peak period. With the addition of site traffic the NBLTR lane will operate at LOS E and the PM peak period and the site SBL traffic will operate at LOS C. 5600 West / Main Street operates with critical NBLTR at LOS B in the AM and LOS C in the PM peak period. This is maintained in 2026 without the site. With the site traffic at this location the delay for the NBL and SBL declines to LOS F. A signal is recommended at this location when the site is 35% complete. With a signal at this location the intersection operates with overall LOS B in the AM and LOS C in the PM peak period. Access Z / 1600 North is projected to operate with critical EBL at LOS B in 2021 and 2026 in the AM and PM peak periods.

Recommendations:

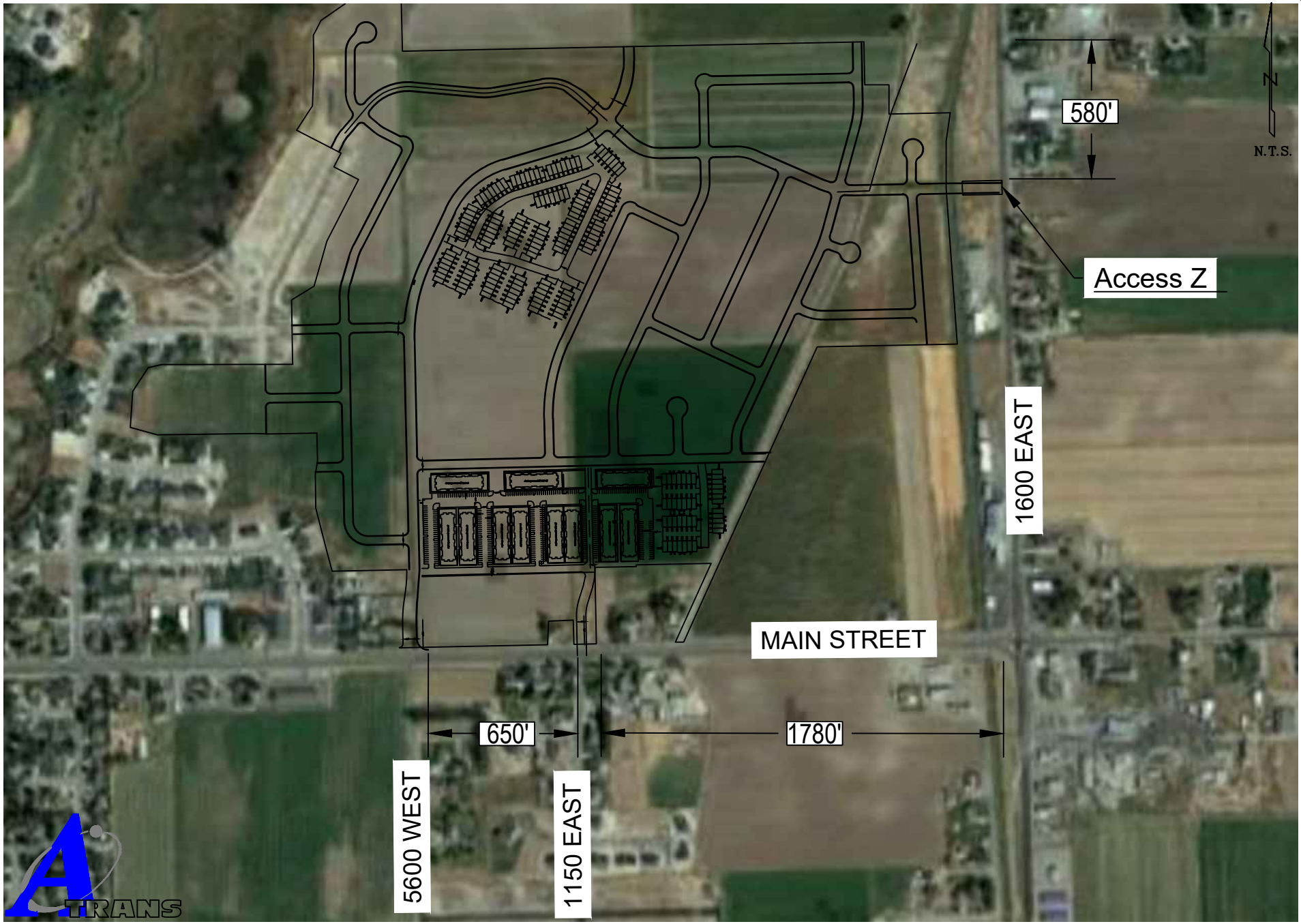
- Main Street / 1600 East (2026) – Improve intersection geometry to an all-way stop with separate left and through right turn lanes or signalize. Signal should be constructed with left and right turn storage lanes for all approaches. This is a future master planned signalized location. Site traffic increases traffic at this intersection by 18%. This is a site related and non-site related improvement. It is recommended that UDOT investigate potential improvement options for this intersection.

- 5600 West / Main Street – Signalize intersection when 35% of the site is complete. Signal should be constructed with left and right turn storage lanes for all approaches. This is a future master planned signalized location. Site traffic increases traffic at this intersection by 40%. This is a site related improvement.
- The 1150 East / Main Street access requires EBL (50 foot minimum) and WBR (50 foot minimum) deceleration lanes and a SBR acceleration lane. This is a site related improvement.
- Access Z / 1600 East requires NBL (50 foot minimum) and SBR (50 foot minimum) deceleration lanes. This is a site related improvement.

II. Proposed Project

The proposed single and multi-family residential community is planned to the north of Main Street (11200 North) and west of 1600 East in Tremonton, Utah. The site is planned to include 210 townhomes, 264 apartments, 369 single family residences and 70,000 sf of retail. It is projected to generate 557 AM, 898 PM peak hour trips and 9,596 daily trips.

The site is proposing 3 accesses; one access (Access Z) is located along SR 13 approximately 580 feet south of 11600 North. There are several residential driveways within 500 feet of the access. Due to the location of the residential driveways and 11600 North along SR 13 the accesses must be approved through the variance process. The two accesses along SR 102 are planned to align with 1150 East and 5600 West. 1150 East is approximately 1780 feet west of 1600 East. 5600 West is located approximately 650 feet west of 1150 East. There are several residential driveways within 500 feet of the proposed roadways. Due to the location of the residential driveways along SR 102 the accesses must be approved through the variance process. The site plan and access location and spacing is shown in Figure 1.



A-TRANS TRANSPORTATION ENGINEERING
P.O. BOX 521651, SLC, UT 84152
Phone: 801-949-0348 Fax: 801-582-6252

Figure 1

Conceptual Site Plan

III. Study Area Conditions

The study area includes the following intersection.

- 1600 East / Main Street
- Main Street / 1150 East
- Main Street / 5600 West
- 1600 East / Access Z

Figure 2 shows the location of the site. Figure 3 shows existing intersection geometry.

Main Street

Main Street or 11200 North (SR 102) is currently a 3 lane facility with one lane in each direction and a center turn lane. The 2019 AADT is 8,600 vehicles per day with a posted speed limit is 55 MPH. The Tremonton City Master Transportation Plan classifies Main Street as a Major Arterial.

1600 East

1600 East (SR 13) is currently a 2 lane facility with one lane in each direction. The 2019 AADT is 5,100 vehicles per day with a posted speed limit of 55 MPH. The Tremonton City Master Transportation Plan classifies Main Street as a Major Arterial.

- 5600 West is planned as a collector.
- 1600 East / Main Street is planned as a future signalized location.
- Main Street / 5600 West is planned as a future signalized location.

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Figure 2

Site Location

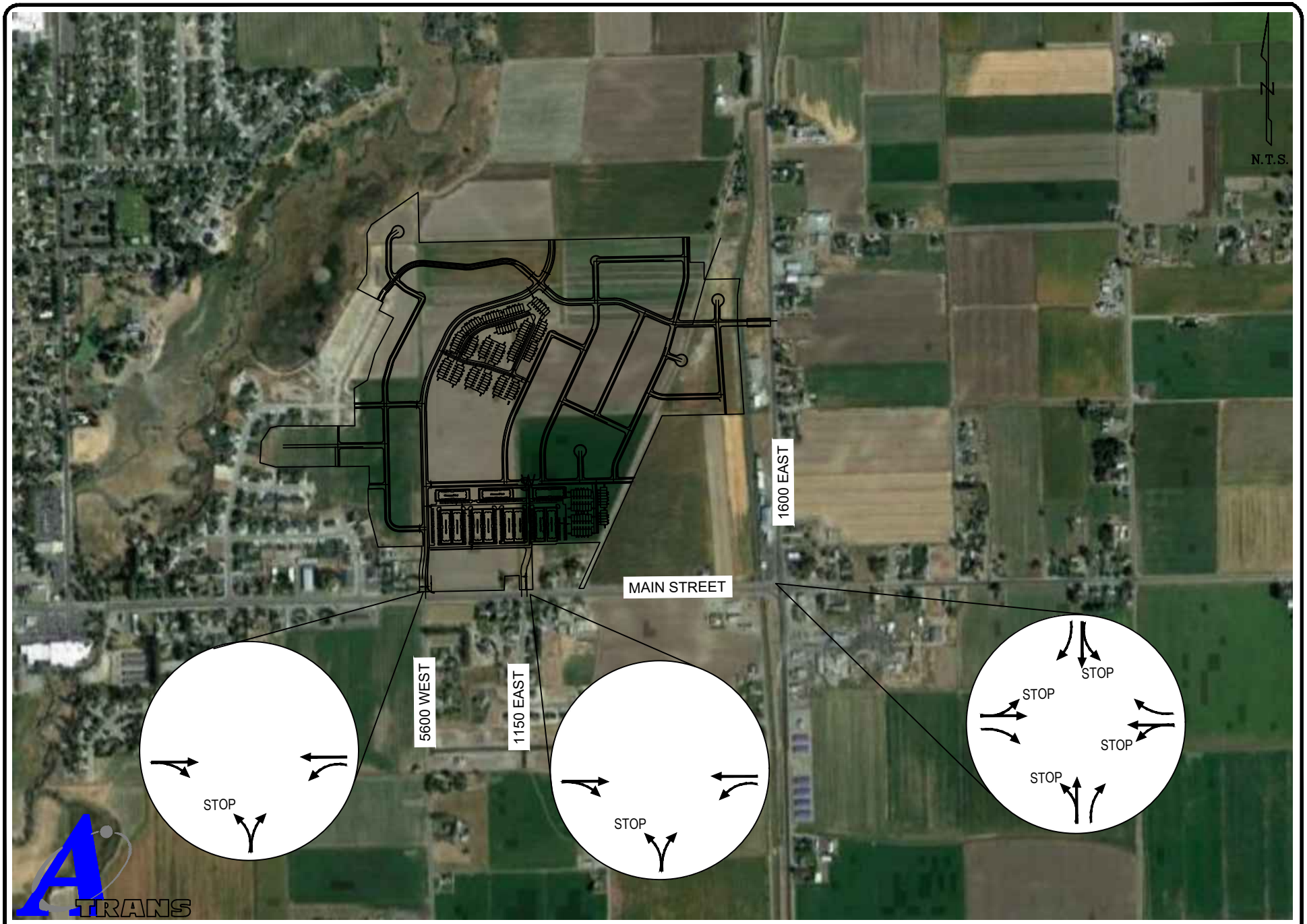

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Figure 3

Existing Geometry

IV. Analysis of Existing Condition

The existing traffic counts were performed March 2-4, 2021 during the AM and PM peak periods. The 2021 Existing Traffic volumes used in the study are shown in Figure 4.

The 6th Edition Highway Capacity Manual defines the Level of Service (LOS) for both signalized and unsignalized intersections as a range of average experienced delay. LOS is a qualitative rating of traveler satisfaction from A to F whereby LOS A is good and LOS F poor. Table 1 shows the LOS range by delay for unsignalized and signalized intersections and accesses.

Table 1: Intersection LOS-Delay Relationship

	Unsignalized	Signalized
Level of Service	Total Delay per Vehicle (sec)	Total Delay per Vehicle (sec)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

1600 East / Main Street operates with an overall LOS B in the AM and LOS C in the PM peak period. 1150 East / Main Street operates with a critical NBLTR at LOS B in the AM and LOS C in the PM peak period. 5600 West / Main Street operates with a critical NBLTR at LOS B in the AM and LOS C in the PM peak period. Table 2 shows the Existing LOS.

Table 2: Existing Level of Service

Intersection	Delay (sec/veh)	
1600 East / Main Street (Overall)	11.9	B
	21.0	C
Main Street / 1150 East (NBLTR)	14.2	B
	18.3	C
Main Street / 5600 West (NBLTR)	14.3	B
	20.9	C

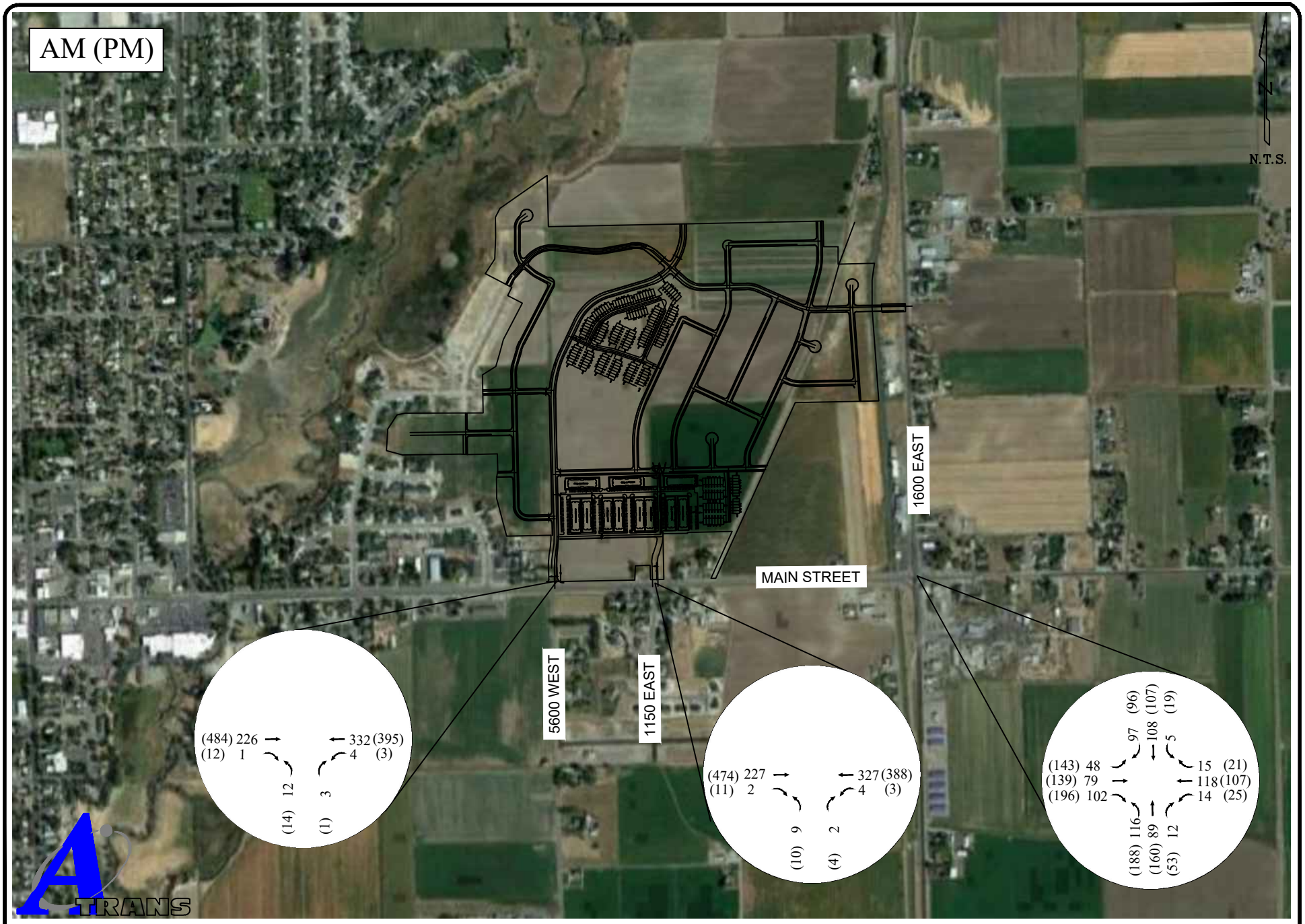

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Figure 4

Existing Traffic

V. Projected Traffic

A. Trip Generation

Trip generation for the site was done using The Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition) handbook. The site is planned to include 210 townhomes, 264 apartments, 369 single family residences and 70,000 sf of retail. It is projected to generate 557 AM, 898 PM peak hour trips and 9,596 daily trips. The trip generation for the site is shown in Table 3.

Table 3: Trip Generation for Site

Land Use Type	Density	Land Use #	Trip Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
Single Family	369	210	0.74	273	25%	75%	68	205
Town Homes	210	220	0.46	97	23%	77%	22	75
Apartments	264	220	0.46	121	23%	77%	28	93
Retail	70,000	820	0.94	66	62%	38%	41	25
Total				**557**			**159**	**398**
PM								
Single Family	369	210	0.99	365	63%	37%	230	135
Town Homes	210	220	0.56	118	63%	37%	74	44
Apartments	264	220	0.56	148	63%	37%	93	55
Retail	70,000	820	3.81	267	48%	52%	128	139
Total				**898**			**525**	**373**
Daily								
Single Family	369	210	9.44	3483				
Town Homes	210	220	7.32	1537				
Apartments	264	220	7.32	1932				
Retail	70,000	820	37.75	2644				
Total				**9596**				

B. Trip Distribution

Project site traffic was applied to the origin-destination (O-D) for the site. Origin-destination was determined from evaluating the existing traffic patterns and hourly traffic volumes on each leg of the included intersections as well as the location of retail centers and freeways relative to this site. This was used as a baseline for origin destination and engineering judgment was applied to this to determine the following OD for the site.

- 70% to/from west on Main Street
- 10% to/from east on Main Street
- 5% to/from north on 1600 East
- 15% to/from south on 1600 East

Origin Destination is shown in Figure 5. Site trip distribution is shown in Figure 6.

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Figure 5

Origin Destination

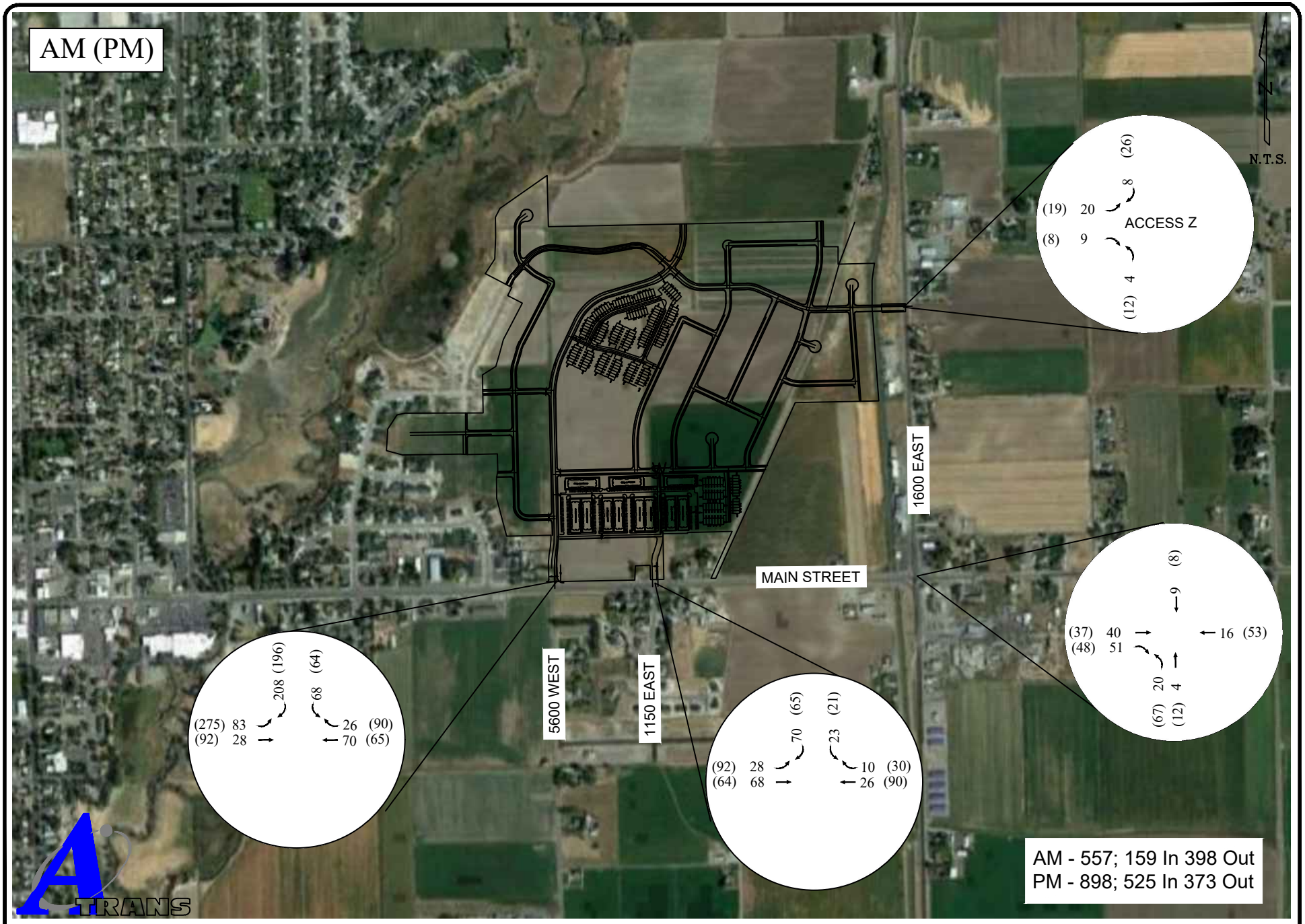

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Figure 6

Site Generated Traffic

VI. Growth

Growth in the area was determined from the 2019 Traffic on Utah Highways counts. The 2040 projections were taken from Wasatch Front Regional Council. The volumes and utilized to determine growth in the area is shown in Table 4. Based on this data an average growth of 1.4% is assumed for the 2026 analysis (1.07 growth factor).

Table 4: Growth Projections

	Main Street	1600 East
2019	8,600	5,100
2040	10,500	7,500
Growth	0.96%	1.85%

Background traffic is determined by multiplying the existing traffic by the growth factor for 2026. 2026 Background Traffic is shown in Figure 7. Total traffic in the area for the future projection years is derived by adding the non-site volume forecasts to the site trip distribution. 2021 Total Traffic is shown in Figure 8. 2026 Total Traffic is shown in Figure 9.

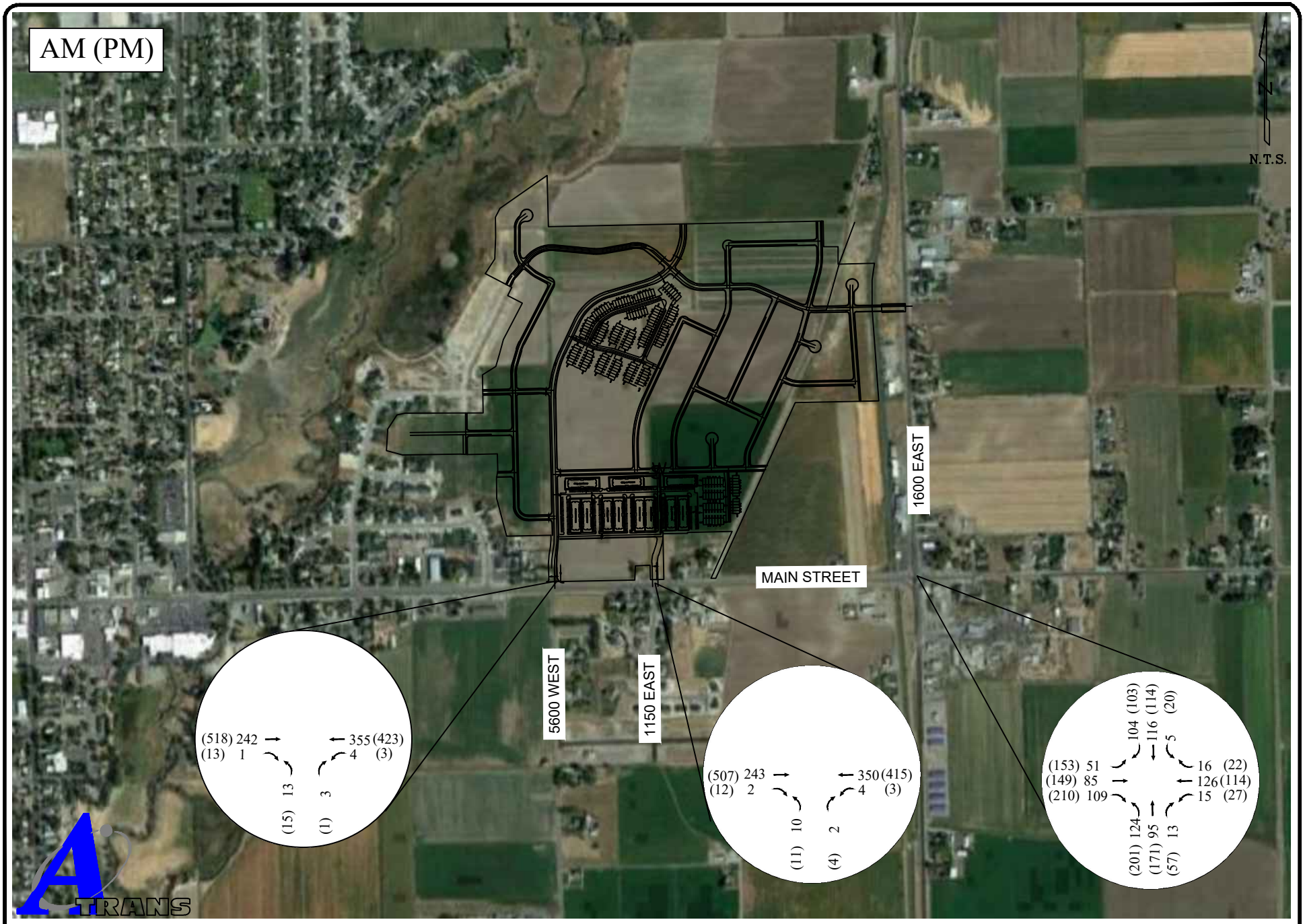

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Figure 7

2026 Background Traffic

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Figure 9

2026 Total Traffic

VII. Traffic Analysis

A. Level of Service Analysis

The intersection and access analysis evaluates the performance of each intersection and access using the measure of performance of delay and level of service (LOS). Tables 5-8 show the intersection and access analysis.

Analysis Results

- 1600 East / Main Street operates with an overall LOS B in the AM and LOS C in the PM peak period. In 2026 without the site in LOS increases to LOS B in the AM and LOS D in the PM peak period. With the site in 2021 the intersection operates with LOS B in the AM and LOS E in the PM peak period with the NB direction at LOS F. In 2026 with the site the intersection operates with LOS C in the AM and LOS F in the PM peak period with the NB direction at LOS F. With growth in the area plus the addition of site traffic the intersection is operating near capacity and an improvement is recommended by 2026. The intersection was analyzed as an all-way stop with additional lanes in each direction or as a signal. Both of these options allow the intersection to operate at acceptable LOS. It is recommended that UDOT consider the options available at this location and plan this as a future improvement location.
- 1150 East / Main Street operates with critical NBLTR at LOS B in the AM and LOS C in the PM peak period. Without the site in 2026 the intersection operates with critical NBLTR at LOS C in the AM and LOS C in the PM peak period. With the addition of site traffic the NBLTR lane will operate at LOS E and the PM peak period and the site SBL traffic will operate at LOS C.
- 5600 West / Main Street operates with critical NBLTR at LOS B in the AM and LOS C in the PM peak period. This is maintained in 2026 without the site. With the site traffic at this location the delay for the NBL and SBL declines to LOS F. A signal is recommended at this location when the site is 35% complete. With a signal at this location the intersection operates with overall LOS B in the AM and LOS C in the PM peak period.
- Access Z / 1600 North is projected to operate with critical EBL at LOS B in 2021 and 2026 in the AM and PM peak periods.

Table 5: 1600 East / Main Street Intersection Analysis

Existing Geometry		EBLT		EBR		WBLT		WBR		NBLT		NBR		SBLT		SBR		INT	
2021 Existing	AM	11.9	B	9.8	A	12.1	B	8.8	A	14.6	B	8.5	A	11.2	B	9.7	A	11.9	B
	PM	22.9	C	13.4	B	14.7	B	10.4	B	33.5	D	10.1	B	13.9	B	11.6	B	21.0	C
2026 Background	AM	12.5	B	10.2	B	12.8	B	9.0	A	16.0	C	8.7	A	11.7	B	10.1	B	12.6	B
	PM	27.8	D	14.8	B	15.9	C	10.8	B	44.9	E	10.5	B	15.0	C	12.3	B	25.8	D
2021 Total	AM	14.0	B	11.5	B	13.7	B	9.3	A	18.2	C	9.0	A	12.5	B	10.6	B	13.9	B
	PM	34.9	D	18.1	C	19.7	C	11.3	B	89.8	F	10.9	B	16.2	C	13.1	B	41.8	E
2026 Total	AM	15.0	C	12.2	B	14.7	B	9.6	A	20.4	C	9.2	A	13.2	B	11.1	B	15.0	C
	PM	43.3	E	20.1	C	21.4	C	11.7	B	118.2	F	11.2	B	17.3	C	13.8	B	52.4	F
Improvements		EBL		EBT		EBR		WBL		WBTR		NBL		NBTR		SBL		SBTR		INT	
2021 Total (All-Way Stop)	AM	11.8	B	13.2	B	12.8	B	11.4	B	15.2	C	15.3	C	12.7	B	10.9	B	17.5	C	14.6	B
	PM	18.3	C	19.2	C	22.2	C	14.0	B	23.3	C	33.0	D	23.2	C	13.6	B	25.1	D	23.8	C
2026 Total (All-Way Stop)	AM	12.2	B	13.9	B	13.6	B	11.7	B	16.5	C	16.3	C	13.4	B	11.2	B	19.7	C	15.7	C
	PM	20.5	C	21.8	C	27.1	D	14.8	B	27.1	D	42.2	E	28.5	D	14.3	B	31.0	D	28.8	D
2026 Total (Signal)	AM	15.2	B	16.0	B	4.1	A	23.4	C	26.4	C	11.1	B	9.1	A	20.2	C	22.6	C	15.9	B
	PM	18.9	B	17.2	B	3.8	A	27.9	C	34.9	C	16.1	B	11.4	B	26.2	C	31.1	C	18.5	B

2021 and 2026 Total (All Way Stop) Geometry assumed: EBL, EBT, EBR, WBL, WBTR, NBL, NBTR, SBL and SBTR

2026 Total (Signal) Geometry assumed: EBL, EBT, EBR, WBL, WBTR, NBL, NBTR, SBL and SBTR

Table 6: 5600 West / Main Street Intersection Analysis

Unsignalized		EBL		WBL			NBL		SBL		INT
2021 Existing	AM			7.8 A			14.3 B				0.4 A
	PM			8.5 A			20.9 C				0.4 A
2026 Background	AM			7.8 A			15.0 C				0.4 A
	PM			8.6 A			22.9 C				0.4 A
2021 Total	AM	8.8 A		7.9 A			42.8 E		34.2 D	15.7 C	6.6 A
	PM	10.3 B		8.8 A			>150 F		>150 F	15.0 C	19.7 C
2026 Total	AM	8.9 A		7.9 A			48.9 E		38.2 E	16.5 C	6.9 A
	PM	10.5 B		8.9 A			>150 F		>150 F	15.7 C	23.2 C
Signal		EBL	EBTR	WBL	WBT	WBR	NBL	NBTR	SBL	SBTR	INT
2021 Total	AM	15.9 B	16.3 B	15.8 B	34.3 C	0.4 A	19.2 B	0.0 A	19.2 B	0.7 A	19.8 B
	PM	22.4 C	15.1 B	16.0 B	35.5 D	7.0 A	25.6 C	0.0 A	25.8 C	0.7 A	20.2 C
2026 Total	AM	15.0 B	15.5 B	14.8 B	33.3 C	0.4 A	20.5 C	0.0 A	20.4 C	0.7 A	19.5 B
	PM	24.0 C	15.1 B	15.7 B	35.8 D	6.8 A	26.1 C	0.0 A	26.5 C	0.7 A	20.7 C

Table 7: 1150 East / Main Street Intersection Analysis

		EBL	WBL	NBL	SBL	INT
2021 Existing	AM		7.8 A	14.2 B		0.3 A
	PM		8.5 A	18.3 C		0.3 A
2026 Background	AM		7.9 A	15.0 C		0.3 A
	PM		8.6 A	19.7 C		0.4 A
2021 Total	AM	8.3 A	8.0 A	20.3 C	15.0 C	2.4 A
	PM	8.9 A	8.7 A	36.3 E	22.4 C	2.7 A
2026 Total	AM	8.4 A	8.1 A	22.1 C	15.7 C	2.4 A
	PM	9.0 A	8.8 A	41.8 E	24.7 C	2.7 A

Table 8: 1600 East / Access Z Intersection Analysis

		EBL	NBL	INT
2021 Total	AM	11.1 B	7.8 A	0.9 A
	PM	12.4 B	7.8 A	0.7 A
2026 Total	AM	11.4 B	7.8 A	0.8 A
	PM	12.8 B	7.9 A	0.7 A

B. Queue Analysis

Based on the projected traffic, queue storage length requirements can be evaluated to determine if sufficient storage space exists to accommodate the projected demand. The intersection and accesses included in this traffic study are analyzed for queue storage capacity utilizing the HCM analysis and are done through Synchro. Table 9 shows the projected queue at the study intersections in 2026.

Table 9: 2026 Queue Analysis

		EBL	EBR	WBL	WBR	NBL	SBL	SBR
1600 East / Main Street	Signal	125	100	100		150	100	
	All-Way Stop*	100	125	100		175	100	
1150 East / Main Street	Projected Two Way Stop	50			50			
5600 West / Main Street	Projected Signal	150		100	100	100	100	
1600 East / Access Z	Projected Two Way Stop					50		50

*Geometry assumed: EBL, EBT, EBR, WBL, WBTR, NBL, NBTR, SBL and SBTR

C. Signal Warrant

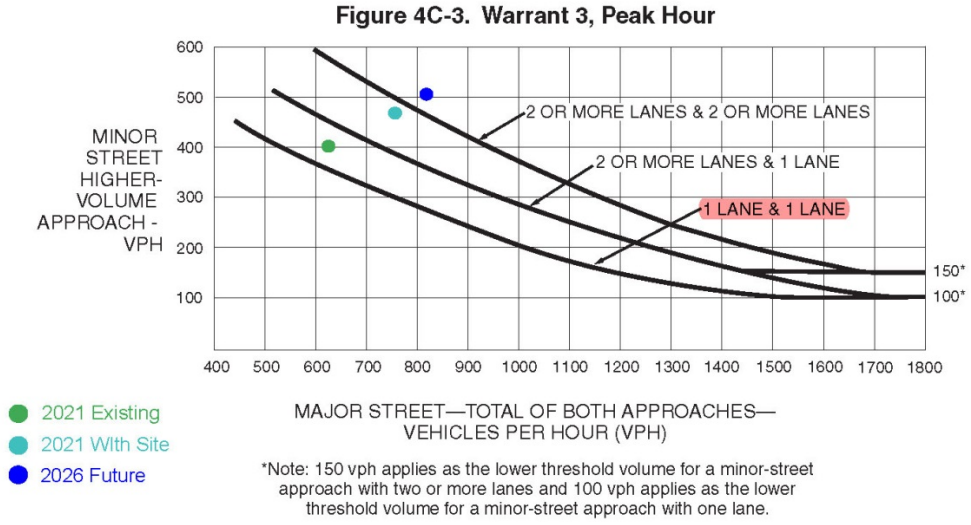
Per the Manual on Uniform Traffic Control Devices (MUTCD) peak hour warrant on Page 441 Figure 4C-3, a Peak Hour Signal Warrant was performed for the existing intersection of Main Street / 1600 East and the proposed site access of 5600 West / Main Street. The sum of the approaches along Main Street was compared against the highest of northbound or southbound approaches. These volumes are shown in Table 10. The analysis was done for the 2021 existing condition, the 2021 with site opening and the 2026 future condition.

Table 10: Signal Warrant Volumes

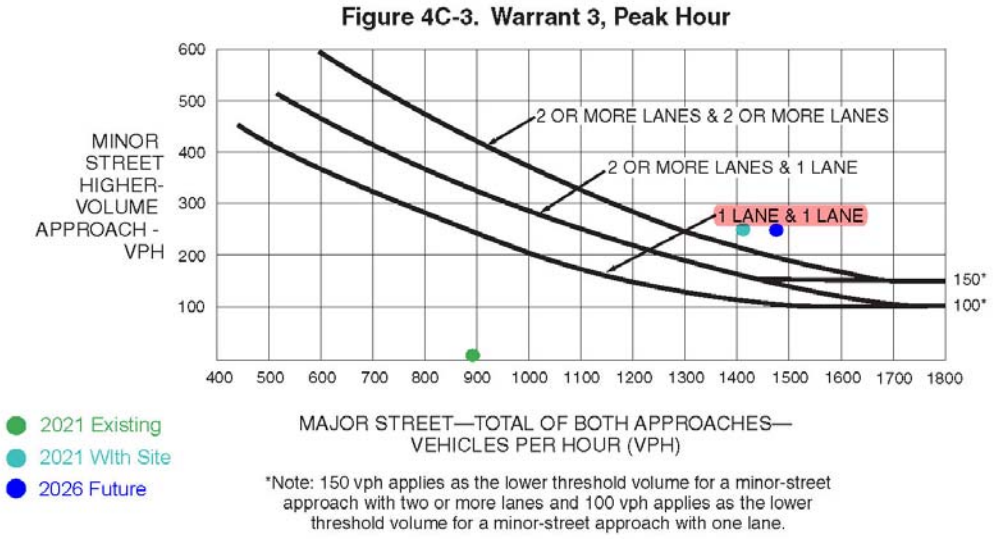
	Existing	2021 Site Opening	2026 Future
Main Street / 1600 East			
Major Direction	E/W	E/W	E/W
Major	631	769	813
Minor	401	480	508
Warranted	Yes	Yes	Yes
Main Street / 5600 West			
Major Direction	E/W	E/W	E/W
Major	894	1416	1479
Minor	15	260	260
Warranted	No	Yes	Yes

The signal warrant is shown in Graph 1 and Graph 2. The signal at Main Street / 1600 East is currently warranted with the existing traffic. The signal at Main Street / 5600 West will be warranted with the addition of site traffic.

Graph 1: Signal Warrant Main Street / 1600 East



Graph 2: Signal Warrant Main Street / 5600 West



D. Access and Roadway Category

According to the UDOT, SR 13 (1600 East) and SR 102 (Main Street) are categorized as a Category 4 roadway. As per UDOT Administrative Rule R930-6, signal spacing is required at 2,640 feet, street spacing is required at 660 feet and access spacing is required at 500 feet or by variance. The distance between access points/intersections is measured from end of radius to end of adjacent radius. The site is proposing 3 accesses, one access (Access Z) is located along SR 13 approximately 580 feet south of 11600 North. There are several residential driveways within 500 feet of the access. Due to the location of the residential driveways and 11600 North along SR 13 the accesses must be approved through the variance process. The two accesses along SR 102 are planned to align with 1150 East and 5600 West. 1150 East is approximately 1780 feet west of 1600 East. 5600 West is located approximately 650 feet west of 1150 East. There are several residential driveways within 500 feet of the proposed roadways. Due to the location of the residential driveways along SR 102 the accesses must be approved through the variance process.

According to UDOT Administrative Rule R930-6 a Category 4 roadway requires:

- A left turn deceleration lane with taper and storage length is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn deceleration lane and taper length is required for any access with a projected peak hour right ingress turning volume greater than 25 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn acceleration lane and taper length is required for any access with a projected peak hour right turning volume greater than 50 vehicles per hour when the posted speed on the highway is greater than 40 mph. The taper length must be included in the required acceleration length. A right turn acceleration lane may also be required at a signalized intersection if a free-right turn is needed to maintain an appropriate level of service for the intersection.
- Right turn deceleration and acceleration lanes are generally not required on roadways with three or more travel lanes in the direction of the right turn.
- A left turn acceleration lane may be required if it will be a benefit to the safety and operation of the roadway.
- A left turn acceleration lane is generally not required where the posted speed is less than 45 mph, the intersection is signalized, or the acceleration lane would interfere with the left turn ingress movements to any other access.

The 5600 West / Main Street access requires EBL (150 foot minimum) and WBR (100 foot minimum) deceleration lanes.

The 1150 East / Main Street access requires EBL (50 foot minimum) and WBR (50 foot minimum) deceleration lanes and a SBR acceleration lane.

Access Z / 1600 East requires NBL (50 foot minimum) and SBR (50 foot minimum) deceleration lanes. This is a site related improvement.

VIII. Conclusions

This analysis is for the proposed Rivers Edge residential development located to the north of Main Street (11200 North) and west of 1600 East in Tremonton, Utah. The site is planned to include 210 townhomes, 264 apartments, 369 single family residences and 70,000 sf of retail. It is projected to generate 557 AM, 898 PM peak hour trips and 9,596 daily trips. The site is planning 3 accesses to the site. One along 1600 East and two along Main Street that align with the existing streets of 5600 West and 1150 East.

The following comments are made about the project:

- 1600 East / Main Street operates with an overall LOS B in the AM and LOS C in the PM peak period. In 2026 without the site in LOS increases to LOS B in the AM and LOS D in the PM peak period. With the site in 2021 the intersection operates with LOS B in the AM and LOS E in the PM peak period with the NB direction at LOS F. In 2026 with the site the intersection operates with LOS C in the AM and LOS F in the PM peak period with the NB direction at LOS F. With growth in the area plus the addition of site traffic the intersection is operating near capacity and an improvement is recommended by 2026.
- 1600 East / Main Street was analyzed as an all-way stop with additional lanes in each direction or as a signal. Both of these options allow the intersection to operate at acceptable LOS. It is recommended that UDOT consider the options available at this location and plan this as a future (2026) improvement location.
- 1150 East / Main Street operates with critical NBLTR at LOS B in the AM and LOS C in the PM peak period. Without the site in 2026 the intersection operates with critical NBLTR at LOS C in the AM and LOS C in the PM peak period. With the addition of site traffic the NBLTR lane will operate at LOS E and the PM peak period and the site SBL traffic will operate at LOS C.
- 5600 West / Main Street operates with critical NBLTR at LOS B in the AM and LOS C in the PM peak period. This is maintained in 2026 without the site. With the site traffic at this location the delay for the NBL and SBL declines to LOS F. A signal is recommended at this location when the site is 35% complete. With a signal at this location the intersection operates with overall LOS B in the AM and LOS C in the PM peak period.

- Access Z / 1600 North is projected to operate with critical EBL at LOS B in 2021 and 2026 in the AM and PM peak periods.
- Per UDOT standard, the 5600 West / Main Street access requires EBL (150 foot minimum) and WBR (100 foot minimum) deceleration lanes.
- Per UDOT standard, the 1150 East / Main Street access requires EBL (50 foot minimum) and WBR (50 foot minimum) deceleration lanes and a SBR acceleration lane.
- Per UDOT standard, Access Z / 1600 East requires NBL (50 foot minimum) and SBR (50 foot minimum) deceleration lanes. This is a site related improvement.
- All 3 site accesses must be approved through the UDOT variance process.

Recommendations:

- Main Street / 1600 East (2026) – Improve intersection geometry to an all-way stop with separate left and through right turn lanes or signalize. Signal should be constructed with left and right turn storage lanes for all approaches. This is a future master planned signalized location. Site traffic increases traffic at this intersection by 18%. This is a site related and non-site related improvement. It is recommended that UDOT investigate potential improvement options for this intersection.
- 5600 West / Main Street – Signalize intersection when 35% of the site is complete. Signal should be constructed with left and right turn storage lanes for all approaches. This is a future master planned signalized location. Site traffic increases traffic at this intersection by 40%. This is a site related improvement.
- The 1150 East / Main Street access requires EBL (50 foot minimum) and WBR (50 foot minimum) deceleration lanes and a SBR acceleration lane. This is a site related improvement.
- Access Z / 1600 East requires NBL (50 foot minimum) and SBR (50 foot minimum) deceleration lanes. This is a site related improvement.

APPENDICES

Appendix A	Traffic Counts and Projections
Appendix B	Without Site Intersection Analyses
Appendix C	With Site Intersection Analysis
Appendix D	With Site Intersection Analysis with Improvements

Appendix A Traffic Counts and Projections

AM PEAK HOUR VOLUMES

Ped = 0

INTERSECTION: **5600 West** **and** **Main Street**

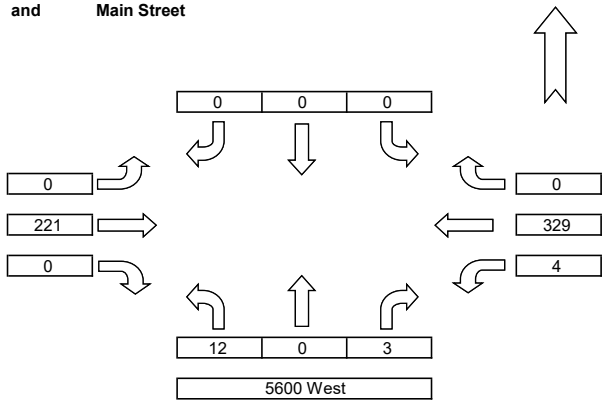
N-S STREET: **5600 West**
E-W STREET: **Main Street**

COUNT DATE: **March 3, 2021**
Day of the Week: **Wednesday**
NOTES:

COUNT TIME:
FROM: **7:00 AM**
TO: **9:00 AM**

PK HR VOLUME:	569
PHF:	0.84
PEAK HOUR:	
FROM:	TO:
7:45 AM	8:45 AM

Main Street



AM Traffic

COUNT DATA INPUT: Name: Blakely Name: Blakely Name: Blakely Name: Blakely

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
7:00 AM	7:05 AM	0	0	0	0	16	0	0	0	0	0	15	0	31	97	0	0
7:05 AM	7:10 AM	1	0	1	0	15	0	0	0	0	0	13	0	30	91	0	0
7:10 AM	7:15 AM	0	0	0	0	23	0	0	0	0	0	13	0	36	102	0	0
7:15 AM	7:20 AM	0	0	0	0	14	1	0	0	0	1	9	0	25	101	0	0
7:20 AM	7:25 AM	0	0	0	0	20	2	0	0	0	0	19	0	41	113	0	0
7:25 AM	7:30 AM	0	0	0	0	14	4	0	0	0	0	17	0	35	103	0	0
7:30 AM	7:35 AM	1	0	0	0	18	1	0	0	0	1	16	0	37	106	0	0
7:35 AM	7:40 AM	0	0	0	0	16	1	0	0	0	0	14	0	31	125	0	0
7:40 AM	7:45 AM	1	0	0	0	18	1	0	0	0	0	18	0	38	144	0	0
7:45 AM	7:50 AM	0	0	1	0	23	0	0	0	0	1	31	0	56	145	0	0
7:50 AM	7:55 AM	0	0	1	0	17	0	0	0	0	0	32	0	50	124	0	0
7:55 AM	8:00 AM	1	0	0	0	13	0	0	0	0	0	25	0	39	106	0	0
8:00 AM	8:05 AM	1	0	0	0	10	0	0	0	0	2	22	0	35	109	0	0
8:05 AM	8:10 AM	0	0	0	0	16	0	0	0	0	0	16	0	32	116	0	0
8:10 AM	8:15 AM	1	0	0	0	23	0	0	0	0	0	18	0	42	140	0	0
8:15 AM	8:20 AM	3	0	0	0	17	0	0	0	0	0	22	0	42	161	0	0
8:20 AM	8:25 AM	1	0	1	0	20	0	0	0	0	0	34	0	56	170	0	0
8:25 AM	8:30 AM	2	0	0	0	16	0	0	0	0	1	44	0	63	166	0	0
8:30 AM	8:35 AM	2	0	0	0	21	0	0	0	0	0	28	0	51	154	0	0
8:35 AM	8:40 AM	1	0	0	0	17	0	0	0	0	0	34	0	52	138	0	0
8:40 AM	8:45 AM	0	0	0	0	28	0	0	0	0	0	23	0	51	136	0	0
8:45 AM	8:50 AM	2	0	0	0	13	0	0	0	0	2	18	0	35	133	0	0
8:50 AM	8:55 AM	2	0	0	0	18	1	0	0	0	0	29	0	50	98	0	0
8:55 AM	9:00 AM	0	0	0	0	17	2	0	0	0	0	29	0	48	48	0	0

PM PEAK HOUR VOLUMES

Ped = 0

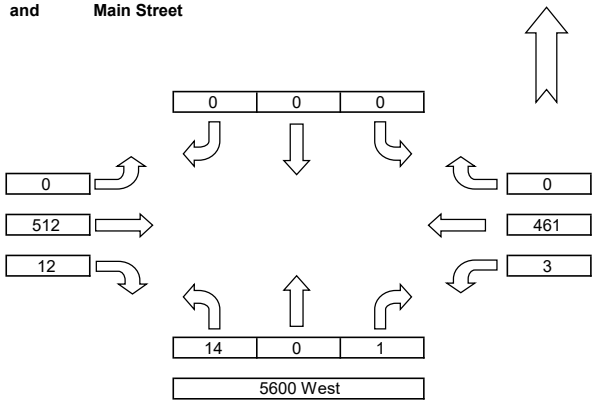
INTERSECTION: **5600 West** **and** **Main Street**

N-S STREET: **5600 West**
E-W STREET: **Main Street**

COUNT DATE: **March 2, 2021**
Day of the Week: **Tuesday**
NOTES:

COUNT TIME:
FROM: **4:00 PM**
TO: **6:00 PM**

PK HR VOLUME:	1,003
PHF:	0.93
PEAK HOUR:	
FROM:	TO:
5:00 PM	6:00 PM



PM Traffic

COUNT DATA INPUT: Name: Blakely Name: Blakely Name: Blakely Name: Blakely

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
4:00 PM	4:05 PM	0	0	0	0	48	3	0	0	0	0	32	0	83	259	0	0
4:05 PM	4:10 PM	0	0	0	0	37	2	0	0	0	0	40	0	79	257	0	0
4:10 PM	4:15 PM	3	0	0	0	45	1	0	0	0	0	48	0	97	265	0	0
4:15 PM	4:20 PM	2	0	0	0	45	1	0	0	0	0	33	0	81	241	0	0
4:20 PM	4:25 PM	0	0	1	0	42	0	0	0	0	0	44	0	87	227	0	0
4:25 PM	4:30 PM	2	0	0	0	26	0	0	0	0	0	45	0	73	209	0	0
4:30 PM	4:35 PM	1	0	1	0	28	1	0	0	0	0	36	0	67	208	0	0
4:35 PM	4:40 PM	0	0	0	0	36	0	0	0	0	0	33	0	69	209	0	0
4:40 PM	4:45 PM	1	0	0	0	33	0	0	0	0	0	38	0	72	224	0	0
4:45 PM	4:50 PM	0	0	0	0	32	1	0	0	0	0	35	0	68	231	0	0
4:50 PM	4:55 PM	1	0	0	0	44	0	0	0	0	0	39	0	84	234	0	0
4:55 PM	5:00 PM	0	0	0	0	35	0	0	0	0	0	44	0	79	217	0	0
5:00 PM	5:05 PM	1	0	1	0	34	0	0	0	0	0	35	0	71	227	0	0
5:05 PM	5:10 PM	0	0	0	0	36	0	0	0	0	0	31	0	67	253	0	0
5:10 PM	5:15 PM	0	0	0	0	48	2	0	0	0	0	39	0	89	259	0	0
5:15 PM	5:20 PM	4	0	0	0	49	0	0	0	0	1	43	0	97	259	0	0
5:20 PM	5:25 PM	1	0	0	0	41	2	0	0	0	0	29	0	73	243	0	0
5:25 PM	5:30 PM	1	0	0	0	49	2	0	0	0	0	37	0	89	251	0	0
5:30 PM	5:35 PM	0	0	0	0	47	1	0	0	0	0	33	0	81	259	0	0
5:35 PM	5:40 PM	0	0	0	0	41	1	0	0	0	0	39	0	81	265	0	0
5:40 PM	5:45 PM	2	0	0	0	50	1	0	0	0	0	44	0	97	271	0	0
5:45 PM	5:50 PM	1	0	0	0	44	2	0	0	0	1	39	0	87	258	0	0
5:50 PM	5:55 PM	3	0	0	0	38	0	0	0	0	1	45	0	87	171	0	0
5:55 PM	6:00 PM	1	0	0	0	35	1	0	0	0	0	47	0	84	84	0	0

AM PEAK HOUR VOLUMES

INTERSECTION: **1150 East** **and** **Main Street**

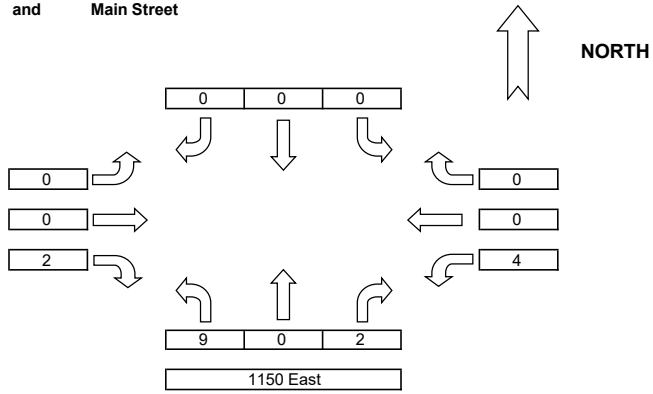
Ped = 0

N-S STREET: **1150 East**
E-W STREET: **Main Street**

COUNT DATE: **March 3, 2021**
Day of the Week: **Wednesday**
NOTES:

COUNT TIME:
FROM: **7:00 AM**
TO: **9:00 AM**

PK HR VOLUME:	17
PHF:	0.61
PEAK HOUR:	
FROM: 8:00 AM	TO: 9:00 AM



AM Traffic

COUNT DATA INPUT: Name: Blakely Name: Blakely Name: Blakely Name: Blakely

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
7:00 AM	7:05 AM	1	0	1	0	0	0	0	0	0	1	0	0	3	6	0	0
7:05 AM	7:10 AM	1	0	1	0	0	0	0	0	0	0	0	0	2	4	0	0
7:10 AM	7:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	3	0	0
7:15 AM	7:20 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0
7:20 AM	7:25 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
7:25 AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
7:30 AM	7:35 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
7:35 AM	7:40 AM	1	0	1	0	0	0	0	0	0	0	0	0	2	6	0	0
7:40 AM	7:45 AM	1	0	1	0	0	0	0	0	0	0	0	0	2	5	0	0
7:45 AM	7:50 AM	0	0	0	0	0	1	0	0	0	1	0	0	2	3	0	0
7:50 AM	7:55 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
7:55 AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	8:05 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
8:05 AM	8:10 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0	0
8:10 AM	8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0
8:15 AM	8:20 AM	2	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0
8:20 AM	8:25 AM	2	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0
8:25 AM	8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0
8:30 AM	8:35 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	5	0	0
8:35 AM	8:40 AM	1	0	0	0	0	0	0	0	0	1	0	0	2	7	0	0
8:40 AM	8:45 AM	1	0	0	0	0	0	0	0	0	1	0	0	2	5	0	0
8:45 AM	8:50 AM	0	0	1	0	0	2	0	0	0	0	0	0	3	5	0	0
8:50 AM	8:55 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
8:55 AM	9:00 AM	1	0	0	0	0	0	0	0	0	1	0	0	2	2	0	0

PM PEAK HOUR VOLUMES

Ped =0

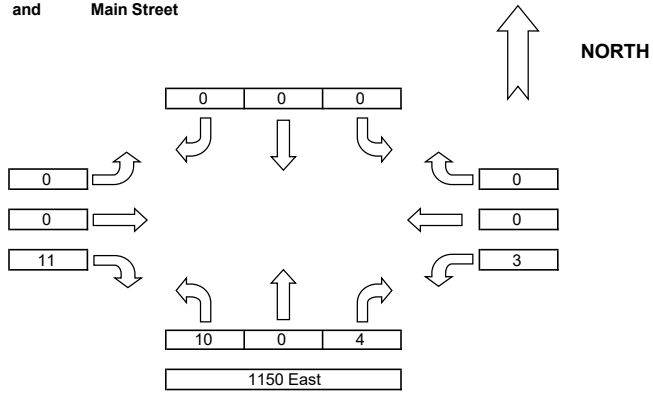
INTERSECTION: **1150 East** **and** **Main Street**

N-S STREET: **1150 East**
E-W STREET: **Main Street**

COUNT DATE: **March 2, 2021**
Day of the Week: **Tuesday**
NOTES:

COUNT TIME:
FROM: **4:00 PM**
TO: **6:00 PM**

PK HR VOLUME:	28
PHF:	0.58
PEAK HOUR:	
FROM:	TO:
4:50 PM	5:50 PM



PM Traffic

COUNT DATA INPUT: Name: Blakely Name: Blakely Name: Blakely Name: Blakely

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
4:00 PM	4:05 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	8	0	0
4:05 PM	4:10 PM	1	0	2	0	0	1	0	0	0	1	0	0	5	10	0	0
4:10 PM	4:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	2	6	0	0
4:15 PM	4:20 PM	1	0	0	0	0	1	0	0	0	1	0	0	3	5	0	0
4:20 PM	4:25 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0	0
4:25 PM	4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0
4:30 PM	4:35 PM	1	0	1	0	0	0	0	0	0	0	0	0	2	4	0	0
4:35 PM	4:40 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0
4:40 PM	4:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0	0
4:45 PM	4:50 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0
4:50 PM	4:55 PM	0	0	0	0	0	2	0	0	0	0	0	0	2	7	0	0
4:55 PM	5:00 PM	0	0	1	0	0	2	0	0	0	1	0	0	4	6	0	0
5:00 PM	5:05 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
5:05 PM	5:10 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	3	0	0
5:10 PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0
5:15 PM	5:20 PM	1	0	0	0	0	1	0	0	0	0	0	0	2	6	0	0
5:20 PM	5:25 PM	2	0	1	0	0	0	0	0	0	0	0	0	3	6	0	0
5:25 PM	5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	6	0	0
5:30 PM	5:35 PM	1	0	0	0	0	0	0	0	0	1	0	0	2	9	0	0
5:35 PM	5:40 PM	1	0	0	0	0	2	0	0	0	0	0	0	3	12	0	0
5:40 PM	5:45 PM	2	0	0	0	0	1	0	0	0	1	0	0	4	10	0	0
5:45 PM	5:50 PM	2	0	1	0	0	2	0	0	0	0	0	0	5	8	0	0
5:50 PM	5:55 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	3	0	0
5:55 PM	6:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	2	0	0

AM PEAK HOUR VOLUMES

INTERSECTION: **1600 East** **and** **Main Street**

Ped = 0

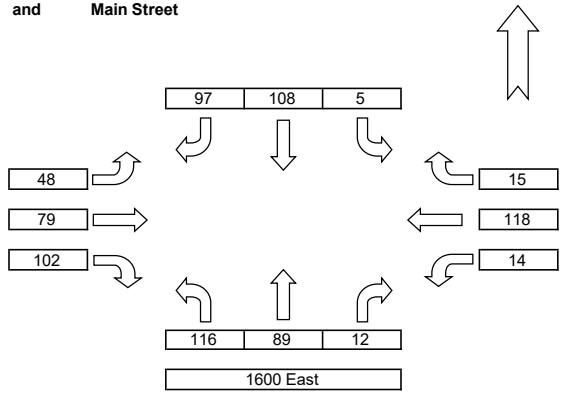
N-S STREET: **1600 East**
E-W STREET: **Main Street**

COUNT DATE: **March 3, 2021**
Day of the Week: **Wednesday**
NOTES:

COUNT TIME:
FROM: **7:00 AM**
TO: **9:00 AM**

PK HR VOLUME:	803
PHF:	0.82
PEAK HOUR:	
FROM:	TO:
7:45 AM	8:45 AM

Main Street



AM Traffic

COUNT DATA INPUT: Name: Barry Name: Barry Name: Barry Name: Barry

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
7:00 AM	7:05 AM	9	2	1	3	4	10	0	5	3	3	5	0	45	158	0	0
7:05 AM	7:10 AM	9	4	3	4	2	8	0	16	3	5	5	0	59	161	0	0
7:10 AM	7:15 AM	4	5	1	3	3	17	0	9	3	5	3	1	54	162	0	0
7:15 AM	7:20 AM	6	7	1	2	7	4	0	11	4	4	2	0	48	166	0	0
7:20 AM	7:25 AM	4	6	1	4	6	10	1	12	3	2	11	0	60	174	0	0
7:25 AM	7:30 AM	6	7	8	3	3	8	0	7	4	6	6	0	58	172	0	0
7:30 AM	7:35 AM	8	7	0	0	6	12	1	13	1	2	6	0	56	177	0	0
7:35 AM	7:40 AM	8	7	3	3	6	7	0	14	3	3	2	2	58	203	0	0
7:40 AM	7:45 AM	9	8	1	5	2	11	0	12	5	3	6	1	63	225	0	0
7:45 AM	7:50 AM	10	8	1	11	6	8	2	13	9	2	12	0	82	213	0	0
7:50 AM	7:55 AM	7	8	0	2	6	11	1	14	11	0	19	1	80	170	0	0
7:55 AM	8:00 AM	7	5	0	2	4	6	0	10	8	0	8	1	51	142	0	0
8:00 AM	8:05 AM	7	4	1	2	3	5	0	6	4	0	7	0	39	158	0	0
8:05 AM	8:10 AM	6	9	0	3	7	7	1	7	1	2	8	1	52	175	0	0
8:10 AM	8:15 AM	8	10	1	3	11	9	0	5	7	3	10	0	67	222	0	0
8:15 AM	8:20 AM	7	7	0	3	6	9	0	8	7	1	3	5	56	223	0	0
8:20 AM	8:25 AM	24	7	3	3	11	6	0	11	11	3	15	5	99	245	0	0
8:25 AM	8:30 AM	10	9	1	3	8	6	0	7	13	2	8	1	68	208	0	0
8:30 AM	8:35 AM	12	7	2	6	2	14	1	12	13	0	8	1	78	209	0	0
8:35 AM	8:40 AM	11	8	2	5	6	6	0	9	4	0	11	0	62	186	0	0
8:40 AM	8:45 AM	7	7	1	5	9	15	0	6	9	1	9	0	69	186	0	0
8:45 AM	8:50 AM	7	4	2	0	4	11	0	11	12	1	3	0	55	181	0	0
8:50 AM	8:55 AM	14	5	2	6	5	3	1	4	4	5	11	2	62	126	0	0
8:55 AM	9:00 AM	15	8	0	4	6	6	0	3	5	1	12	4	64	64	0	0

PM PEAK HOUR VOLUMES

Ped =

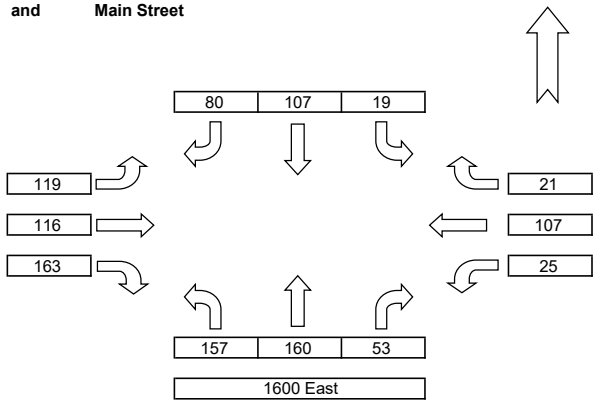
INTERSECTION: **1600 East** **and** **Main Street**

N-S STREET: **1600 East**
E-W STREET: **Main Street**

COUNT DATE: **March 4, 2021**
Day of the Week: **Thursday**
NOTES:

COUNT TIME:
FROM: **4:00 PM**
TO: **6:00 PM**

PK HR VOLUME:	1,127
PHF:	0.97
PEAK HOUR:	
FROM:	TO:
5:00 PM	6:00 PM



PM Traffic

COUNT DATA INPUT: Name: Blakely Name: Blakely Name: Blakely Name: Blakely

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
4:00 PM	4:05 PM	8	8	2	8	8	21	0	8	8	1	7	0	79	264	0	0
4:05 PM	4:10 PM	14	18	6	4	13	13	2	4	3	5	9	2	93	271	0	0
4:10 PM	4:15 PM	11	11	4	8	16	14	0	9	8	3	7	1	92	284	0	0
4:15 PM	4:20 PM	18	13	1	8	10	6	3	7	7	2	9	2	86	289	0	0
4:20 PM	4:25 PM	14	20	8	11	8	11	0	10	8	3	10	3	106	283	0	0
4:25 PM	4:30 PM	21	9	9	6	10	10	1	10	6	1	11	3	97	270	0	0
4:30 PM	4:35 PM	14	8	0	4	9	15	3	10	6	4	4	3	80	283	0	0
4:35 PM	4:40 PM	16	9	5	11	12	14	2	5	9	1	7	2	93	273	0	0
4:40 PM	4:45 PM	17	22	4	8	12	15	1	7	9	2	10	3	110	247	0	0
4:45 PM	4:50 PM	13	7	3	7	10	7	1	4	5	2	9	2	70	202	0	0
4:50 PM	4:55 PM	13	7	3	8	10	8	0	4	5	1	8	0	67	230	0	0
4:55 PM	5:00 PM	14	8	2	7	11	7	0	4	6	1	5	0	65	257	0	0
5:00 PM	5:05 PM	11	12	6	4	19	13	4	10	7	2	9	1	98	288	0	0
5:05 PM	5:10 PM	7	13	1	16	11	11	2	8	6	2	14	3	94	266	0	0
5:10 PM	5:15 PM	9	13	4	16	17	15	2	5	4	5	4	2	96	278	0	0
5:15 PM	5:20 PM	12	7	10	12	8	9	1	4	3	1	8	1	76	266	0	0
5:20 PM	5:25 PM	14	15	3	10	7	15	1	18	4	3	11	5	106	289	0	0
5:25 PM	5:30 PM	15	7	3	10	8	16	1	8	5	2	7	2	84	286	0	0
5:30 PM	5:35 PM	13	13	6	10	11	15	5	7	8	1	7	3	99	290	0	0
5:35 PM	5:40 PM	12	17	9	11	7	13	1	10	8	4	9	2	103	291	0	0
5:40 PM	5:45 PM	15	16	1	3	8	12	1	13	8	2	8	1	88	287	0	0
5:45 PM	5:50 PM	20	17	2	5	7	11	0	9	10	2	17	0	100	283	0	0
5:50 PM	5:55 PM	16	18	6	10	10	14	0	10	9	0	6	0	99	183	0	0
5:55 PM	6:00 PM	13	12	2	12	3	19	1	5	8	1	7	1	84	84	0	0

TRIP GENERATION

			Trip Rate			Trips			In / Out %				New			
ITE 10th Ed	Size	Land Use	AM	PM	Daily	AM	PM	Daily	AM IN	AM Out	PM IN	PM OUT	AM IN	AM Out	PM IN	PM OUT
Single Family	369	210	0.74	0.99	9.44	273	365	3483	25%	75%	63%	37%	68	205	230	135
Town Homes	210	220	0.46	0.56	7.32	97	118	1537	23%	77%	63%	37%	22	75	74	44
Apartments	264	220	0.46	0.56	7.32	121	148	1932	23%	77%	63%	37%	28	93	93	55
Retail	70.000	820	0.94	3.81	37.75	66	267	2643	62%	38%	48%	52%	41	25	128	139
			0	0	0	0	0	0	0%	0%	0%	0%	0	0	0	0
Total						**557**	**897**	**9596**					**159**	**398**	**525**	**373**

Long Term Growth

1.40%	Growth Factor	Years	Analysis Year
	1.00	0	2021
	1.07	5	2026
	1.30	19	2040

Straight line growth assumed between 2016 and 2040

1600 East		
2019	5,100	UDOT Traffic on Utah Highways
2040	7,500	WFRC
growth	**1.85%**	

2019	114.29	5100	
2020	114.29	5214	2.24%
2021	114.29	5329	2.19%
2022	114.29	5443	2.14%
2023	114.29	5557	2.10%
2024	114.29	5671	2.06%
2025	114.29	5786	2.02%
2026	114.29	5900	1.98%
2027	114.29	6014	1.94%
2028	114.29	6129	1.90%
2029	114.29	6243	1.86%
2030	114.29	6357	1.83%
2031	114.29	6471	1.80%
2032	114.29	6586	1.77%
2033	114.29	6700	1.74%
2034	114.29	6814	1.71%
2035	114.29	6929	1.68%
2036	114.29	7043	1.65%
2037	114.29	7157	1.62%
2038	114.29	7271	1.60%
2039	114.29	7386	1.57%
2040	114.29	7500	1.55%
			1.85%

11200 North		
2019	8,600	UDOT Traffic on Utah Highways
2040	10,500	WFRC
growth	**0.96%**	

2019	90.48	8600	
2020	90.48	8690	1.05%
2021	90.48	8781	1.04%
2022	90.48	8871	1.03%
2023	90.48	8962	1.02%
2024	90.48	9052	1.01%
2025	90.48	9143	1.00%
2026	90.48	9233	0.99%
2027	90.48	9324	0.98%
2028	90.48	9414	0.97%
2029	90.48	9505	0.96%
2030	90.48	9595	0.95%
2031	90.48	9686	0.94%
2032	90.48	9776	0.93%
2033	90.48	9867	0.93%
2034	90.48	9957	0.92%
2035	90.48	10048	0.91%
2036	90.48	10138	0.90%
2037	90.48	10229	0.89%
2038	90.48	10319	0.88%
2039	90.48	10410	0.88%
2040	90.48	10500	0.87%
			0.96%

Trip Distribution

11200 North / 1600 East			1.07			
	2021	Site	2021	2026	2026	
AM	Existing	Traffic	Total	Growth	Total	
EBL	48		48	51	51	
EBT	79	40	119	85	125	
EBR	102	51	153	109	160	
WBL	14		14	15	15	
WBT	118	16	134	126	142	
WBR	15		15	16	16	
NBL	116	20	136	124	144	
NBT	89	4	93	95	99	
NBR	12		12	13	13	
SBL	5		5	5	5	
SBT	108	9	117	116	125	
SBR	97		97	104	104	
East	243	56	299	260	316	17.43%
West	560	127	687	599	726	
North	362	13	375	387	400	
South	441	84	525	472	556	

	2021	Site	2021	2026	2026	
PM	Existing	Traffic	Total	Growth	Total	
EBL	143		143	153	153	
EBT	139	37	176	149	186	
EBR	196	48	244	210	258	
WBL	25		25	27	27	
WBT	107	53	160	114	167	
WBR	21		21	22	22	
NBL	188	67	255	201	268	
NBT	160	12	172	171	183	
NBR	53		53	57	57	
SBL	19		19	20	20	
SBT	107	8	115	114	122	
SBR	96		96	103	103	
East	364	90	454	389	479	17.94%
West	869	205	1074	930	1135	
North	546	20	566	584	604	
South	729	135	864	780	915	

11200 North / 1150 East			1.07			
	2021	Site	2021	2026	2026	
AM	Existing	Traffic	Total	Growth	Total	
EBL		28	28	0	28	
EBT	227	68	295	243	311	
EBR	2		2	2	2	
WBL	4		4	4	4	
WBT	327	26	353	350	376	
WBR		10	10	0	10	
NBL	9		9	10	10	
NBT			0	0	0	
NBR	2		2	2	2	
SBL		23	23	0	23	
SBT			0	0	0	
SBR		70	70	0	70	
East	560	127	687	599	726	39.40%
West	565	192	757	605	797	
North	0	131	131	0	131	
South	17	0	17	18	18	

	2021	Site	2021	2026	2026	
PM	Existing	Traffic	Total	Growth	Total	
EBL		92	92	0	92	
EBT	474	64	538	507	571	
EBR	11		11	12	12	
WBL	3		3	3	3	
WBT	388	90	478	415	505	
WBR		30	30	0	30	
NBL	10		10	11	11	
NBT			0	0	0	
NBR	4		4	4	4	
SBL		21	21	0	21	
SBT			0	0	0	
SBR		65	65	0	65	
East	869	205	1074	930	1135	40.67%
West	883	311	1194	945	1256	
North	0	208	208	0	208	
South	28	0	28	30	30	

Trip Distribution

11200 North / 5600 West			1.07			
	2021	Site	2021	2026	2026	
AM	Existing	Traffic	Total	Growth	Total	
EBL		83	83	0	83	
EBT	226	28	254	242	270	
EBR	1		1	1	1	
WBL	4		4	4	4	
WBT	332	70	402	355	425	
WBR		26	26	0	26	
NBL	12		12	13	13	
NBT			0	0	0	
NBR	3		3	3	3	
SBL		68	68	0	68	
SBT			0	0	0	
SBR		208	208	0	208	
East	565	192	757	605	797	83.56%
West	571	389	960	611	1000	
North	0	385	385	0	385	
South	20	0	20	21	21	

	2021	Site	2021	2026	2026	
PM	Existing	Traffic	Total	Growth	Total	
EBL		275	275	0	275	
EBT	484	92	576	518	610	
EBR	12		12	13	13	
WBL	3		3	3	3	
WBT	395	65	460	423	488	
WBR		90	90	0	90	
NBL	14		14	15	15	
NBT			0	0	0	
NBR	1		1	1	1	
SBL		64	64	0	64	
SBT			0	0	0	
SBR		196	196	0	196	
East	883	311	1194	945	1256	86.03%
West	905	628	1533	968	1596	
North	0	625	625	0	625	
South	30	0	30	32	32	

Access Z / 1600 East			1.07			
	2021	Site	2021	2026	2026	
AM	Existing	Traffic	Total	Growth	Total	
EBL		20	20	0	20	
EBT			0	0	0	
EBR		9	9	0	9	
WBL			0	0	0	
WBT			0	0	0	
WBR			0	0	0	
NBL		4	4	0	4	
NBT	152		152	163	163	
NBR			0	0	0	
SBL			0	0	0	
SBT	210		210	225	225	
SBR		8	8	0	8	
East	0	0	0	0	0	11.33%
West	0	41	41	0	41	
North	362	28	390	387	415	
South	362	13	375	387	400	

	2021	Site	2021	2026	2026	
PM	Existing	Traffic	Total	Growth	Total	
EBL		19	19	0	19	
EBT			0	0	0	
EBR		8	8	0	8	
WBL			0	0	0	
WBT			0	0	0	
WBR			0	0	0	
NBL		12	12	0	12	
NBT	324		324	347	347	
NBR			0	0	0	
SBL			0	0	0	
SBT	222		222	238	238	
SBR		26	26	0	26	
East	0	0	0	0	0	11.90%
West	0	65	65	0	65	
North	546	45	591	584	629	
South	546	20	566	584	604	

ArcGIS UDOT Access Category Identification Map

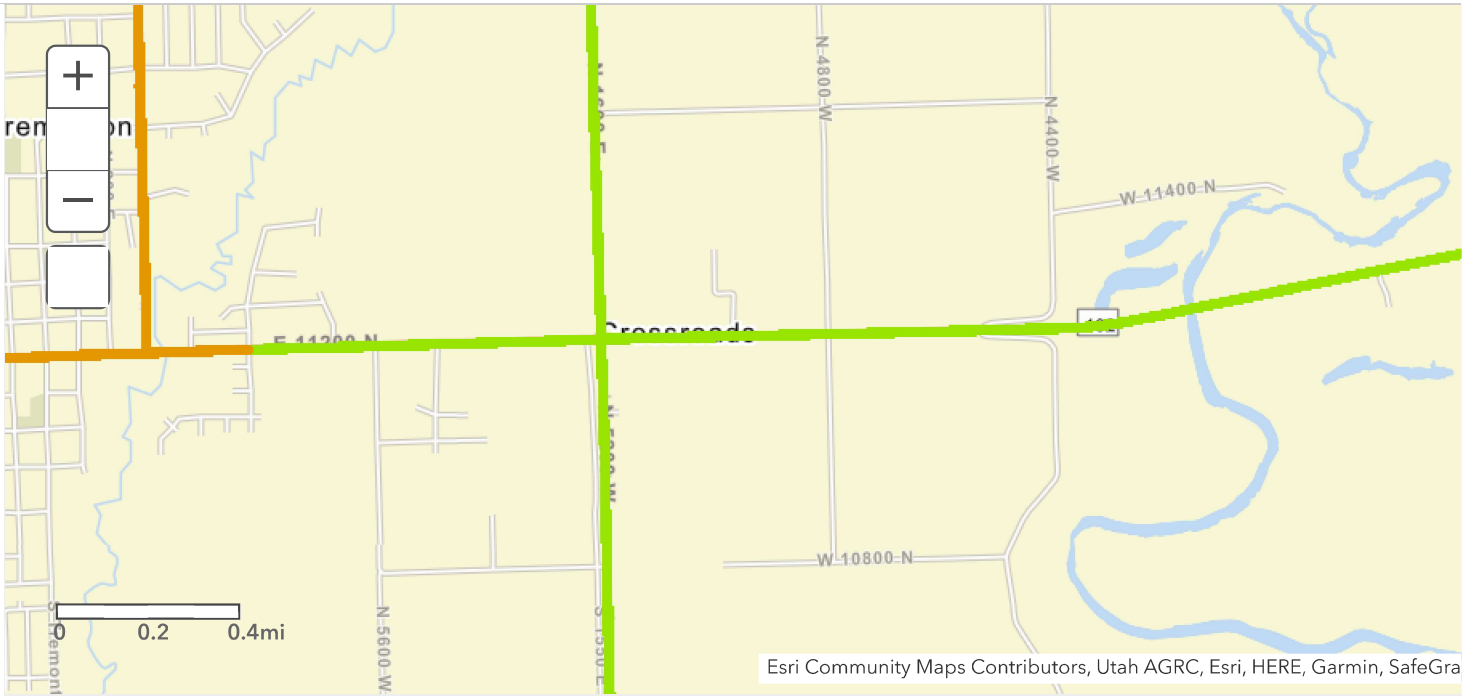
Details | Basemap | Share Print | Measure 1600 E Main St, Tremonton, UT, 84337, USA

Legend

ROW Access Categories

UDOT Access Category Identification

- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6
- Category 7



JA

SCALE: 1"=1600'

FEMA FLOOD PLAIN

66'

HIGH SCHOOL

AUDITORIUM

MIDDLE SCHOOL

100 W

TREMONT ST

800 N

875 N

800 N NORTH PARK SCHOOL

700 N

600 N

CHURCH

HILLCREST DR

DAVID DRIVE

HWY 13

ALT. FRONT RUNNER STATION

TRAILHEAD

FEMA FLOOD PLAIN

500 N

450 N

400 N

300 N

200 N

100 N

COTTONWOOD DR

FAIR AVE

PARK AVE

ASPEN COURT

RODEO

CHURCH

SHUMAN PARK

MAIN STREET

HWY 102

FIRE STATION CIVIC CENTER

AMBER AVE

CLARA PL

HALEE PL

CHRISTOPHER PL

MCKINLEY SCHOOL

SOUTH PARK

100 S

200 S

300 S

400 S

500 S

600 S

700 S

800 S

860 S

960 S

1200 S

66'

80'

CEMETERY

CENTRAL CANAL

GOBRANE CANAL

FRONT RUNNER STATION

FUTURE FREEWAY INTERCHANGE

FRONT RUNNER STATION

FEMA FLOOD PLAIN

LEGEND

- MAIN STREET ACCESS POINTS FOR ROADS
- FREEWAY
- MAJOR ARTERIAL
- MINOR ARTERIAL
- COLLECTOR ROADS
- LOCAL ROADS
- CURRENT CITY BOUNDARY
- FUTURE ANNEXATION BOUNDARY
- POWER CORRIDOR
- CONCEPTUAL ROADS
- EXISTING PUBLIC TRAIL
- FUTURE PUBLIC TRAIL
- EXISTING TRAFFIC LIGHT
- FUTURE TRAFFIC LIGHT

JONES & ASSOCIATES
CONSULTING ENGINEERS

TREMONTON CITY CORPORATION

TREMONTON CITY CORPORATION
TRANSPORTATION MASTER PLAN
MAP 1.06B

Appendix B Without Site Intersection Analyses

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	79	102	14	118	15	116	89	12	5	108	97
Future Vol, veh/h	48	79	102	14	118	15	116	89	12	5	108	97
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	95	123	17	142	18	140	107	14	6	130	117
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11	11.8	14.3	10.5
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	57%	0%	38%	0%	11%	0%	4%	0%
Vol Thru, %	43%	0%	62%	0%	89%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	12	127	102	132	15	113	97
LT Vol	116	0	48	0	14	0	5	0
Through Vol	89	0	79	0	118	0	108	0
RT Vol	0	12	0	102	0	15	0	97
Lane Flow Rate	247	14	153	123	159	18	136	117
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.45	0.022	0.28	0.194	0.291	0.029	0.241	0.183
Departure Headway (Hd)	6.562	5.565	6.576	5.673	6.585	5.819	6.363	5.629
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	548	640	545	629	544	612	562	635
Service Time	4.324	3.326	4.339	3.436	4.353	3.586	4.126	3.392
HCM Lane V/C Ratio	0.451	0.022	0.281	0.196	0.292	0.029	0.242	0.184
HCM Control Delay	14.6	8.5	11.9	9.8	12.1	8.8	11.2	9.7
HCM Lane LOS	B	A	B	A	B	A	B	A
HCM 95th-tile Q	2.3	0.1	1.1	0.7	1.2	0.1	0.9	0.7

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	227	2	4	327	0	9	0	2	0	0	0
Future Vol, veh/h	0	227	2	4	327	0	9	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	273	2	5	394	0	11	0	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	275	0	0	678	678	274	679	679	394
Stage 1	-	-	-	-	-	-	274	274	-	404	404	-
Stage 2	-	-	-	-	-	-	404	404	-	275	275	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1165	-	-	1288	-	-	366	374	765	366	374	655
Stage 1	-	-	-	-	-	-	732	683	-	623	599	-
Stage 2	-	-	-	-	-	-	623	599	-	731	683	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1165	-	-	1288	-	-	365	373	765	364	373	655
Mov Cap-2 Maneuver	-	-	-	-	-	-	365	373	-	364	373	-
Stage 1	-	-	-	-	-	-	732	683	-	623	597	-
Stage 2	-	-	-	-	-	-	621	597	-	729	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.2	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	403	1165	-	-	1288	-	-	-
HCM Lane V/C Ratio	0.033	-	-	-	0.004	-	-	-
HCM Control Delay (s)	14.2	0	-	-	7.8	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	226	1	4	332	0	12	0	3	0	0	0
Future Vol, veh/h	0	226	1	4	332	0	12	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	272	1	5	400	0	14	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	400	0	0	273	0	0	683	683	273	685	683	400
Stage 1	-	-	-	-	-	-	273	273	-	410	410	-
Stage 2	-	-	-	-	-	-	410	410	-	275	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1159	-	-	1290	-	-	363	372	766	362	372	650
Stage 1	-	-	-	-	-	-	733	684	-	619	595	-
Stage 2	-	-	-	-	-	-	619	595	-	731	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1159	-	-	1290	-	-	362	371	766	359	371	650
Mov Cap-2 Maneuver	-	-	-	-	-	-	362	371	-	359	371	-
Stage 1	-	-	-	-	-	-	733	684	-	619	593	-
Stage 2	-	-	-	-	-	-	617	593	-	728	684	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.3	0
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	405	1159	-	-	1290	-	-	-
HCM Lane V/C Ratio	0.045	-	-	-	0.004	-	-	-
HCM Control Delay (s)	14.3	0	-	-	7.8	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	21
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	143	139	196	25	107	21	188	160	53	19	107	96
Future Vol, veh/h	143	139	196	25	107	21	188	160	53	19	107	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	151	213	27	116	23	204	174	58	21	116	104
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	19	14.1	30.4	12.9
HCM LOS	C	B	D	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	54%	0%	51%	0%	19%	0%	15%	0%
Vol Thru, %	46%	0%	49%	0%	81%	0%	85%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	348	53	282	196	132	21	126	96
LT Vol	188	0	143	0	25	0	19	0
Through Vol	160	0	139	0	107	0	107	0
RT Vol	0	53	0	196	0	21	0	96
Lane Flow Rate	378	58	307	213	143	23	137	104
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.792	0.105	0.641	0.388	0.322	0.046	0.298	0.204
Departure Headway (Hd)	7.535	6.542	7.53	6.553	8.068	7.247	7.827	7.028
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	480	547	478	548	445	492	459	509
Service Time	5.289	4.295	5.287	4.31	5.838	5.016	5.593	4.793
HCM Lane V/C Ratio	0.787	0.106	0.642	0.389	0.321	0.047	0.298	0.204
HCM Control Delay	33.5	10.1	22.9	13.4	14.7	10.4	13.9	11.6
HCM Lane LOS	D	B	C	B	B	B	B	B
HCM 95th-tile Q	7.2	0.3	4.4	1.8	1.4	0.1	1.2	0.8

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	474	11	3	388	0	10	0	4	0	0	0
Future Vol, veh/h	0	474	11	3	388	0	10	0	4	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	515	12	3	422	0	11	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	527	0	0	949	949	521	951	955	422
Stage 1	-	-	-	-	-	-	521	521	-	428	428	-
Stage 2	-	-	-	-	-	-	428	428	-	523	527	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1137	-	-	1040	-	-	240	260	555	240	258	632
Stage 1	-	-	-	-	-	-	539	532	-	605	585	-
Stage 2	-	-	-	-	-	-	605	585	-	537	528	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1137	-	-	1040	-	-	240	259	555	238	257	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	240	259	-	238	257	-
Stage 1	-	-	-	-	-	-	539	532	-	605	583	-
Stage 2	-	-	-	-	-	-	603	583	-	533	528	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	18.3	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	286	1137	-	-	1040	-	-	-
HCM Lane V/C Ratio	0.053	-	-	-	0.003	-	-	-
HCM Control Delay (s)	18.3	0	-	-	8.5	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	484	12	3	395	0	14	0	1	0	0	0
Future Vol, veh/h	0	484	12	3	395	0	14	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	526	13	3	429	0	15	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	429	0	0	539	0	0	968	968	533	968	974	429
Stage 1	-	-	-	-	-	-	533	533	-	435	435	-
Stage 2	-	-	-	-	-	-	435	435	-	533	539	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1130	-	-	1029	-	-	233	254	547	233	252	626
Stage 1	-	-	-	-	-	-	531	525	-	600	580	-
Stage 2	-	-	-	-	-	-	600	580	-	531	522	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1130	-	-	1029	-	-	233	253	547	232	251	626
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	253	-	232	251	-
Stage 1	-	-	-	-	-	-	531	525	-	600	578	-
Stage 2	-	-	-	-	-	-	598	578	-	530	522	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	20.9	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	242	1130	-	-	1029	-	-	-
HCM Lane V/C Ratio	0.067	-	-	-	0.003	-	-	-
HCM Control Delay (s)	20.9	0	-	-	8.5	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	79	102	14	118	15	116	89	12	5	108	97
Future Vol, veh/h	48	79	102	14	118	15	116	89	12	5	108	97
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	62	102	131	18	152	19	150	115	15	6	139	125
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.5	12.4	15.6	11
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	57%	0%	38%	0%	11%	0%	4%	0%
Vol Thru, %	43%	0%	62%	0%	89%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	12	127	102	132	15	113	97
LT Vol	116	0	48	0	14	0	5	0
Through Vol	89	0	79	0	118	0	108	0
RT Vol	0	12	0	102	0	15	0	97
Lane Flow Rate	264	15	164	131	170	19	146	125
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.494	0.025	0.307	0.214	0.32	0.032	0.265	0.202
Departure Headway (Hd)	6.727	5.728	6.752	5.848	6.775	6.007	6.54	5.805
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	621	529	610	528	591	546	614
Service Time	4.503	3.503	4.531	3.625	4.56	3.792	4.319	3.583
HCM Lane V/C Ratio	0.494	0.024	0.31	0.215	0.322	0.032	0.267	0.204
HCM Control Delay	16	8.7	12.5	10.2	12.8	9	11.7	10.1
HCM Lane LOS	C	A	B	B	B	A	B	B
HCM 95th-tile Q	2.7	0.1	1.3	0.8	1.4	0.1	1.1	0.8

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	227	2	4	327	0	9	0	2	0	0	0
Future Vol, veh/h	0	227	2	4	327	0	9	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	293	3	5	422	0	12	0	3	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	422	0	0	296	0	0	727	727	295	728	728	422
Stage 1	-	-	-	-	-	-	295	295	-	432	432	-
Stage 2	-	-	-	-	-	-	432	432	-	296	296	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1137	-	-	1265	-	-	339	351	744	339	350	632
Stage 1	-	-	-	-	-	-	713	669	-	602	582	-
Stage 2	-	-	-	-	-	-	602	582	-	712	668	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1137	-	-	1265	-	-	338	350	744	337	349	632
Mov Cap-2 Maneuver	-	-	-	-	-	-	338	350	-	337	349	-
Stage 1	-	-	-	-	-	-	713	669	-	602	580	-
Stage 2	-	-	-	-	-	-	600	580	-	710	668	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	15	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	375	1137	-	-	1265	-	-	-
HCM Lane V/C Ratio	0.038	-	-	-	0.004	-	-	-
HCM Control Delay (s)	15	0	-	-	7.9	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	226	1	4	332	0	12	0	3	0	0	0
Future Vol, veh/h	0	226	1	4	332	0	12	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	291	1	5	428	0	15	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	428	0	0	292	0	0	730	730	292	732	730	428
Stage 1	-	-	-	-	-	-	292	292	-	438	438	-
Stage 2	-	-	-	-	-	-	438	438	-	294	292	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1131	-	-	1270	-	-	338	349	747	337	349	627
Stage 1	-	-	-	-	-	-	716	671	-	597	579	-
Stage 2	-	-	-	-	-	-	597	579	-	714	671	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1131	-	-	1270	-	-	337	348	747	334	348	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	337	348	-	334	348	-
Stage 1	-	-	-	-	-	-	716	671	-	597	577	-
Stage 2	-	-	-	-	-	-	595	577	-	710	671	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	15	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	379	1131	-	-	1270	-	-	-
HCM Lane V/C Ratio	0.051	-	-	-	0.004	-	-	-
HCM Control Delay (s)	15	0	-	-	7.8	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

Intersection	
Intersection Delay, s/veh	25.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	143	139	196	25	107	21	188	160	53	19	107	96
Future Vol, veh/h	143	139	196	25	107	21	188	160	53	19	107	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	166	162	228	29	124	24	219	186	62	22	124	112
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	22.5	15.2	40.4	13.8
HCM LOS	C	C	E	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	54%	0%	51%	0%	19%	0%	15%	0%
Vol Thru, %	46%	0%	49%	0%	81%	0%	85%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	348	53	282	196	132	21	126	96
LT Vol	188	0	143	0	25	0	19	0
Through Vol	160	0	139	0	107	0	107	0
RT Vol	0	53	0	196	0	21	0	96
Lane Flow Rate	405	62	328	228	154	24	147	112
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.876	0.116	0.712	0.433	0.359	0.052	0.332	0.228
Departure Headway (Hd)	7.795	6.8	7.813	6.834	8.419	7.595	8.154	7.352
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	465	525	462	524	425	469	440	486
Service Time	5.562	4.566	5.58	4.6	6.201	5.377	5.934	5.132
HCM Lane V/C Ratio	0.871	0.118	0.71	0.435	0.362	0.051	0.334	0.23
HCM Control Delay	44.9	10.5	27.8	14.8	15.9	10.8	15	12.3
HCM Lane LOS	E	B	D	B	C	B	B	B
HCM 95th-tile Q	9.2	0.4	5.5	2.2	1.6	0.2	1.4	0.9

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	474	11	3	388	0	10	0	4	0	0	0
Future Vol, veh/h	0	474	11	3	388	0	10	0	4	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	551	13	3	451	0	12	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	451	0	0	564	0	0	1015	1015	558	1017	1021	451
Stage 1	-	-	-	-	-	-	558	558	-	457	457	-
Stage 2	-	-	-	-	-	-	457	457	-	560	564	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1109	-	-	1008	-	-	217	238	529	216	236	608
Stage 1	-	-	-	-	-	-	514	512	-	583	568	-
Stage 2	-	-	-	-	-	-	583	568	-	513	508	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1109	-	-	1008	-	-	217	237	529	214	235	608
Mov Cap-2 Maneuver	-	-	-	-	-	-	217	237	-	214	235	-
Stage 1	-	-	-	-	-	-	514	512	-	583	566	-
Stage 2	-	-	-	-	-	-	581	566	-	508	508	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	19.7	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	261	1109	-	-	1008	-	-	-
HCM Lane V/C Ratio	0.062	-	-	-	0.003	-	-	-
HCM Control Delay (s)	19.7	0	-	-	8.6	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	484	12	3	395	0	14	0	1	0	0	0
Future Vol, veh/h	0	484	12	3	395	0	14	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	563	14	3	459	0	16	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	459	0	0	577	0	0	1035	1035	570	1036	1042	459
Stage 1	-	-	-	-	-	-	570	570	-	465	465	-
Stage 2	-	-	-	-	-	-	465	465	-	571	577	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1102	-	-	996	-	-	210	232	521	210	230	602
Stage 1	-	-	-	-	-	-	506	505	-	578	563	-
Stage 2	-	-	-	-	-	-	578	563	-	506	502	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1102	-	-	996	-	-	210	231	521	209	229	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	231	-	209	229	-
Stage 1	-	-	-	-	-	-	506	505	-	578	561	-
Stage 2	-	-	-	-	-	-	576	561	-	505	502	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	22.9	0
HCM LOS			C	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	219	1102	-	-	996	-	-	-
HCM Lane V/C Ratio	0.08	-	-	-	0.004	-	-	-
HCM Control Delay (s)	22.9	0	-	-	8.6	-	-	0
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Appendix C With Site Intersection Analyses

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	119	153	14	134	15	136	93	12	5	117	97
Future Vol, veh/h	48	119	153	14	134	15	136	93	12	5	117	97
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	143	184	17	161	18	164	112	14	6	141	117
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	12.8	13.3	17.7	11.7
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	59%	0%	29%	0%	9%	0%	4%	0%
Vol Thru, %	41%	0%	71%	0%	91%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	229	12	167	153	148	15	122	97
LT Vol	136	0	48	0	14	0	5	0
Through Vol	93	0	119	0	134	0	117	0
RT Vol	0	12	0	153	0	15	0	97
Lane Flow Rate	276	14	201	184	178	18	147	117
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.548	0.025	0.388	0.311	0.353	0.032	0.285	0.203
Departure Headway (Hd)	7.153	6.136	6.943	6.082	7.132	6.367	6.984	6.247
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	505	585	521	594	505	562	514	574
Service Time	4.872	3.855	4.661	3.8	4.877	4.112	4.726	3.99
HCM Lane V/C Ratio	0.547	0.024	0.386	0.31	0.352	0.032	0.286	0.204
HCM Control Delay	18.2	9	14	11.5	13.7	9.3	12.5	10.6
HCM Lane LOS	C	A	B	B	B	A	B	B
HCM 95th-tile Q	3.3	0.1	1.8	1.3	1.6	0.1	1.2	0.8

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	295	2	4	353	10	9	0	2	23	0	70
Future Vol, veh/h	28	295	2	4	353	10	9	0	2	23	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	355	2	5	425	12	11	0	2	28	0	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	437	0	0	357	0	0	907	871	356	860	860	425
Stage 1	-	-	-	-	-	-	424	424	-	435	435	-
Stage 2	-	-	-	-	-	-	483	447	-	425	425	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1123	-	-	1202	-	-	257	289	688	276	294	629
Stage 1	-	-	-	-	-	-	608	587	-	600	580	-
Stage 2	-	-	-	-	-	-	565	573	-	607	586	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1123	-	-	1202	-	-	217	279	688	268	284	629
Mov Cap-2 Maneuver	-	-	-	-	-	-	217	279	-	268	284	-
Stage 1	-	-	-	-	-	-	590	569	-	582	578	-
Stage 2	-	-	-	-	-	-	487	571	-	587	568	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	20.3	15
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	248	1123	-	-	1202	-	-	472
HCM Lane V/C Ratio	0.053	0.03	-	-	0.004	-	-	0.237
HCM Control Delay (s)	20.3	8.3	-	-	8	-	-	15
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	254	1	4	402	26	12	0	3	68	0	208
Future Vol, veh/h	83	254	1	4	402	26	12	0	3	68	0	208
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	306	1	5	484	31	14	0	4	82	0	251

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	515	0	0	307	0	0	1142	1032	307	1003	1001	484
Stage 1	-	-	-	-	-	-	507	507	-	494	494	-
Stage 2	-	-	-	-	-	-	635	525	-	509	507	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1051	-	-	1254	-	-	177	233	733	221	243	583
Stage 1	-	-	-	-	-	-	548	539	-	557	546	-
Stage 2	-	-	-	-	-	-	467	529	-	547	539	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1051	-	-	1254	-	-	93	210	733	203	219	583
Mov Cap-2 Maneuver	-	-	-	-	-	-	93	210	-	203	219	-
Stage 1	-	-	-	-	-	-	496	488	-	504	544	-
Stage 2	-	-	-	-	-	-	265	527	-	493	488	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	0.1	42.8	20.3
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	113	1051	-	-	1254	-	-	203	583
HCM Lane V/C Ratio	0.16	0.095	-	-	0.004	-	-	0.404	0.43
HCM Control Delay (s)	42.8	8.8	-	-	7.9	-	-	34.2	15.7
HCM Lane LOS	E	A	-	-	A	-	-	D	C
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0	-	-	1.8	2.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	9	4	152	210	8
Future Vol, veh/h	20	9	4	152	210	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	11	5	183	253	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	446	253	263	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	570	786	1301	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	568	786	1301	-	-	-
Mov Cap-2 Maneuver	568	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1301	-	621	-	-
HCM Lane V/C Ratio	0.004	-	0.056	-	-
HCM Control Delay (s)	7.8	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	41.8
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	143	176	244	25	160	21	255	172	53	19	115	96
Future Vol, veh/h	143	176	244	25	160	21	255	172	53	19	115	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	191	265	27	174	23	277	187	58	21	125	104
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	27.6	18.8	81.1	14.9
HCM LOS	D	C	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	60%	0%	45%	0%	14%	0%	14%	0%
Vol Thru, %	40%	0%	55%	0%	86%	0%	86%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	427	53	319	244	185	21	134	96
LT Vol	255	0	143	0	25	0	19	0
Through Vol	172	0	176	0	160	0	115	0
RT Vol	0	53	0	244	0	21	0	96
Lane Flow Rate	464	58	347	265	201	23	146	104
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.064	0.116	0.779	0.526	0.482	0.05	0.346	0.225
Departure Headway (Hd)	8.254	7.225	8.392	7.437	8.969	8.169	8.886	8.083
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	499	433	488	404	441	408	447
Service Time	5.954	4.925	6.092	5.137	6.669	5.869	6.586	5.783
HCM Lane V/C Ratio	1.052	0.116	0.801	0.543	0.498	0.052	0.358	0.233
HCM Control Delay	89.8	10.9	34.9	18.1	19.7	11.3	16.2	13.1
HCM Lane LOS	F	B	D	C	C	B	C	B
HCM 95th-tile Q	15.1	0.4	6.7	3	2.5	0.2	1.5	0.9

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	538	11	3	478	30	10	0	4	21	0	65
Future Vol, veh/h	92	538	11	3	478	30	10	0	4	21	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	585	12	3	520	33	11	0	4	23	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	553	0	0	597	0	0	1369	1350	591	1319	1323	520
Stage 1	-	-	-	-	-	-	791	791	-	526	526	-
Stage 2	-	-	-	-	-	-	578	559	-	793	797	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1017	-	-	980	-	-	124	150	507	134	156	556
Stage 1	-	-	-	-	-	-	383	401	-	535	529	-
Stage 2	-	-	-	-	-	-	501	511	-	382	399	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1017	-	-	980	-	-	100	135	507	123	140	556
Mov Cap-2 Maneuver	-	-	-	-	-	-	100	135	-	123	140	-
Stage 1	-	-	-	-	-	-	345	362	-	483	527	-
Stage 2	-	-	-	-	-	-	436	509	-	341	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.3	0.1	36.3	22.4
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	130	1017	-	-	980	-	-	299
HCM Lane V/C Ratio	0.117	0.098	-	-	0.003	-	-	0.313
HCM Control Delay (s)	36.3	8.9	-	-	8.7	-	-	22.4
HCM Lane LOS	E	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0.3	-	-	0	-	-	1.3

Intersection	
Int Delay, s/veh	19.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	275	576	12	3	460	90	14	0	1	64	0	196
Future Vol, veh/h	275	576	12	3	460	90	14	0	1	64	0	196
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	299	626	13	3	500	98	15	0	1	70	0	213

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	598	0	0	639	0	0	1893	1835	633	1737	1743	500
Stage 1	-	-	-	-	-	-	1231	1231	-	506	506	-
Stage 2	-	-	-	-	-	-	662	604	-	1231	1237	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	979	-	-	945	-	-	53	76	480	~ 68	87	571
Stage 1	-	-	-	-	-	-	217	250	-	549	540	-
Stage 2	-	-	-	-	-	-	451	488	-	217	248	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	979	-	-	945	-	-	25	53	480	~ 52	60	571
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	53	-	~ 52	60	-
Stage 1	-	-	-	-	-	-	151	174	-	382	538	-
Stage 2	-	-	-	-	-	-	282	487	-	150	172	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0	259.4	101.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	27	979	-	-	945	-	-	52	571
HCM Lane V/C Ratio	0.604	0.305	-	-	0.003	-	-	1.338	0.373
HCM Control Delay (s)	259.4	10.3	-	-	8.8	-	-	$ 368.1	15
HCM Lane LOS	F	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	1.9	1.3	-	-	0	-	-	6.3	1.7

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	8	12	324	222	26
Future Vol, veh/h	19	8	12	324	222	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	9	13	352	241	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	619	241	269	0	-	0
Stage 1	241	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	452	798	1295	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	447	798	1295	-	-	-
Mov Cap-2 Maneuver	447	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	514	-	-
HCM Lane V/C Ratio	0.01	-	0.057	-	-
HCM Control Delay (s)	7.8	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	125	160	15	142	16	144	99	13	5	125	104
Future Vol, veh/h	51	125	160	15	142	16	144	99	13	5	125	104
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	151	193	18	171	19	173	119	16	6	151	125
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	13.7	14.2	19.8	12.3
HCM LOS	B	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	59%	0%	29%	0%	10%	0%	4%	0%
Vol Thru, %	41%	0%	71%	0%	90%	0%	96%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	243	13	176	160	157	16	130	104
LT Vol	144	0	51	0	15	0	5	0
Through Vol	99	0	125	0	142	0	125	0
RT Vol	0	13	0	160	0	16	0	104
Lane Flow Rate	293	16	212	193	189	19	157	125
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.596	0.027	0.42	0.336	0.387	0.035	0.313	0.225
Departure Headway (Hd)	7.328	6.31	7.133	6.27	7.36	6.594	7.195	6.458
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	492	567	505	573	488	542	500	555
Service Time	5.072	4.054	4.877	4.014	5.111	4.344	4.942	4.204
HCM Lane V/C Ratio	0.596	0.028	0.42	0.337	0.387	0.035	0.314	0.225
HCM Control Delay	20.4	9.2	15	12.2	14.7	9.6	13.2	11.1
HCM Lane LOS	C	A	B	B	B	A	B	B
HCM 95th-tile Q	3.8	0.1	2.1	1.5	1.8	0.1	1.3	0.9

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	311	2	4	376	10	10	0	2	23	0	70
Future Vol, veh/h	28	311	2	4	376	10	10	0	2	23	0	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	375	2	5	453	12	12	0	2	28	0	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	465	0	0	377	0	0	955	919	376	908	908	453
Stage 1	-	-	-	-	-	-	444	444	-	463	463	-
Stage 2	-	-	-	-	-	-	511	475	-	445	445	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1096	-	-	1181	-	-	238	271	670	256	275	607
Stage 1	-	-	-	-	-	-	593	575	-	579	564	-
Stage 2	-	-	-	-	-	-	545	557	-	592	575	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1096	-	-	1181	-	-	199	262	670	248	265	607
Mov Cap-2 Maneuver	-	-	-	-	-	-	199	262	-	248	265	-
Stage 1	-	-	-	-	-	-	575	557	-	561	562	-
Stage 2	-	-	-	-	-	-	467	555	-	572	557	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.1	22.1	15.7
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	225	1096	-	-	1181	-	-	447
HCM Lane V/C Ratio	0.064	0.031	-	-	0.004	-	-	0.251
HCM Control Delay (s)	22.1	8.4	-	-	8.1	-	-	15.7
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	270	1	4	425	26	13	0	3	68	0	208
Future Vol, veh/h	83	270	1	4	425	26	13	0	3	68	0	208
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	325	1	5	512	31	16	0	4	82	0	251

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	543	0	0	326	0	0	1189	1079	326	1050	1048	512
Stage 1	-	-	-	-	-	-	526	526	-	522	522	-
Stage 2	-	-	-	-	-	-	663	553	-	528	526	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1026	-	-	1234	-	-	165	218	715	205	228	562
Stage 1	-	-	-	-	-	-	535	529	-	538	531	-
Stage 2	-	-	-	-	-	-	450	514	-	534	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1026	-	-	1234	-	-	84	196	715	188	205	562
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	196	-	188	205	-
Stage 1	-	-	-	-	-	-	483	478	-	486	529	-
Stage 2	-	-	-	-	-	-	248	512	-	480	478	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.1	48.9	21.8
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	101	1026	-	-	1234	-	-	188	562
HCM Lane V/C Ratio	0.191	0.097	-	-	0.004	-	-	0.436	0.446
HCM Control Delay (s)	48.9	8.9	-	-	7.9	-	-	38.2	16.5
HCM Lane LOS	E	A	-	-	A	-	-	E	C
HCM 95th %tile Q(veh)	0.7	0.3	-	-	0	-	-	2	2.3

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	9	4	163	225	8
Future Vol, veh/h	20	9	4	163	225	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	11	5	196	271	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	477	271	281	0	-	0
Stage 1	271	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	547	768	1282	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	545	768	1282	-	-	-
Mov Cap-2 Maneuver	545	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1282	-	599	-	-
HCM Lane V/C Ratio	0.004	-	0.058	-	-
HCM Control Delay (s)	7.8	-	11.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Intersection Delay, s/veh	52.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	186	258	27	167	22	268	183	57	20	122	103
Future Vol, veh/h	153	186	258	27	167	22	268	183	57	20	122	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	166	202	280	29	182	24	291	199	62	22	133	112
Number of Lanes	0	1	1	0	1	1	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	33.3	20.4	106.2	15.8
HCM LOS	D	C	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	59%	0%	45%	0%	14%	0%	14%	0%
Vol Thru, %	41%	0%	55%	0%	86%	0%	86%	0%
Vol Right, %	0%	100%	0%	100%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	451	57	339	258	194	22	142	103
LT Vol	268	0	153	0	27	0	20	0
Through Vol	183	0	186	0	167	0	122	0
RT Vol	0	57	0	258	0	22	0	103
Lane Flow Rate	490	62	368	280	211	24	154	112
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	1.147	0.127	0.842	0.569	0.514	0.053	0.375	0.248
Departure Headway (Hd)	8.424	7.395	8.667	7.707	9.283	8.478	9.176	8.37
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	485	420	471	390	425	395	432
Service Time	6.165	5.135	6.367	5.407	6.983	6.178	6.876	6.07
HCM Lane V/C Ratio	1.137	0.128	0.876	0.594	0.541	0.056	0.39	0.259
HCM Control Delay	118.2	11.2	43.3	20.1	21.4	11.7	17.3	13.8
HCM Lane LOS	F	B	E	C	C	B	C	B
HCM 95th-tile Q	18	0.4	8.1	3.5	2.8	0.2	1.7	1

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	571	12	3	505	30	11	0	4	21	0	65
Future Vol, veh/h	92	571	12	3	505	30	11	0	4	21	0	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	100	621	13	3	549	33	12	0	4	23	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	582	0	0	634	0	0	1435	1416	628	1385	1389	549
Stage 1	-	-	-	-	-	-	828	828	-	555	555	-
Stage 2	-	-	-	-	-	-	607	588	-	830	834	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	992	-	-	949	-	-	111	137	483	121	142	535
Stage 1	-	-	-	-	-	-	365	386	-	516	513	-
Stage 2	-	-	-	-	-	-	483	496	-	364	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	992	-	-	949	-	-	89	123	483	110	127	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	123	-	110	127	-
Stage 1	-	-	-	-	-	-	328	347	-	464	511	-
Stage 2	-	-	-	-	-	-	418	495	-	324	344	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.2	0	41.8	24.7
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	114	992	-	-	949	-	-	275
HCM Lane V/C Ratio	0.143	0.101	-	-	0.003	-	-	0.34
HCM Control Delay (s)	41.8	9	-	-	8.8	-	-	24.7
HCM Lane LOS	E	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0	-	-	1.5

Intersection	
Int Delay, s/veh	23.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	275	610	13	3	488	90	15	0	1	64	0	196
Future Vol, veh/h	275	610	13	3	488	90	15	0	1	64	0	196
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	100	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	299	663	14	3	530	98	16	0	1	70	0	213

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	628	0	0	677	0	0	1960	1902	670	1805	1811	530
Stage 1	-	-	-	-	-	-	1268	1268	-	536	536	-
Stage 2	-	-	-	-	-	-	692	634	-	1269	1275	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	954	-	-	915	-	-	48	69	457	~ 61	79	549
Stage 1	-	-	-	-	-	-	207	240	-	529	523	-
Stage 2	-	-	-	-	-	-	434	473	-	206	238	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	954	-	-	915	-	-	22	47	457	~ 46	54	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	22	47	-	~ 46	54	-
Stage 1	-	-	-	-	-	-	142	165	-	363	521	-
Stage 2	-	-	-	-	-	-	265	472	-	141	164	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	$ 343.9	124.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	23	954	-	-	915	-	-	46	549
HCM Lane V/C Ratio	0.756	0.313	-	-	0.004	-	-	1.512	0.388
HCM Control Delay (s)	$ 343.9	10.5	-	-	8.9	-	-	$ 456.5	15.7
HCM Lane LOS	F	B	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.2	1.3	-	-	0	-	-	6.8	1.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	8	12	347	238	26
Future Vol, veh/h	19	8	12	347	238	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	9	13	377	259	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	662	259	287	0	-	0
Stage 1	259	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	427	780	1275	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	675	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	423	780	1275	-	-	-
Mov Cap-2 Maneuver	423	-	-	-	-	-
Stage 1	776	-	-	-	-	-
Stage 2	675	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1275	-	489	-	-
HCM Lane V/C Ratio	0.01	-	0.06	-	-
HCM Control Delay (s)	7.9	-	12.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Appendix D With Site and With Improvements Intersection Analyses

Intersection	
Intersection Delay, s/veh	14.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	119	153	14	134	15	139	93	12	5	117	97
Future Vol, veh/h	48	119	153	14	134	15	139	93	12	5	117	97
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	143	184	17	161	18	167	112	14	6	141	117
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	12.8	14.9	14.2	17.3
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	89%	0%	100%	0%	0%	90%	0%	55%
Vol Right, %	0%	11%	0%	0%	100%	0%	10%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	105	48	119	153	14	149	5	214
LT Vol	139	0	48	0	0	14	0	5	0
Through Vol	0	93	0	119	0	0	134	0	117
RT Vol	0	12	0	0	153	0	15	0	97
Lane Flow Rate	167	127	58	143	184	17	180	6	258
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.37	0.259	0.126	0.293	0.34	0.039	0.384	0.013	0.516
Departure Headway (Hd)	7.952	7.362	7.866	7.356	6.641	8.294	7.708	8.039	7.207
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	452	487	455	487	540	431	467	445	500
Service Time	5.709	5.119	5.623	5.112	4.397	6.058	5.472	5.796	4.964
HCM Lane V/C Ratio	0.369	0.261	0.127	0.294	0.341	0.039	0.385	0.013	0.516
HCM Control Delay	15.3	12.7	11.8	13.2	12.8	11.4	15.2	10.9	17.5
HCM Lane LOS	C	B	B	B	B	B	C	B	C
HCM 95th-tile Q	1.7	1	0.4	1.2	1.5	0.1	1.8	0	2.9

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	143	176	244	25	160	21	255	172	53	19	115	96
Future Vol, veh/h	143	176	244	25	160	21	255	172	53	19	115	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	155	191	265	27	174	23	277	187	58	21	125	104
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	20.3	22.2	28.4	24.2
HCM LOS	C	C	D	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	76%	0%	100%	0%	0%	88%	0%	55%
Vol Right, %	0%	24%	0%	0%	100%	0%	12%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	255	225	143	176	244	25	181	19	211
LT Vol	255	0	143	0	0	25	0	19	0
Through Vol	0	172	0	176	0	0	160	0	115
RT Vol	0	53	0	0	244	0	21	0	96
Lane Flow Rate	277	245	155	191	265	27	197	21	229
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.721	0.589	0.403	0.468	0.596	0.078	0.534	0.059	0.596
Departure Headway (Hd)	9.36	8.676	9.33	8.813	8.09	10.372	9.765	10.205	9.358
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	385	416	385	407	446	345	368	350	385
Service Time	7.13	6.447	7.099	6.582	5.857	8.156	7.549	7.986	7.139
HCM Lane V/C Ratio	0.719	0.589	0.403	0.469	0.594	0.078	0.535	0.06	0.595
HCM Control Delay	33	23.2	18.3	19.2	22.2	14	23.3	13.6	25.1
HCM Lane LOS	D	C	C	C	C	B	C	B	D
HCM 95th-tile Q	5.5	3.7	1.9	2.4	3.8	0.3	3	0.2	3.7

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	125	160	15	142	16	144	99	13	5	125	104
Future Vol, veh/h	51	125	160	15	142	16	144	99	13	5	125	104
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	61	151	193	18	171	19	173	119	16	6	151	125
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	13.5	16.1	15	19.5
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	88%	0%	100%	0%	0%	90%	0%	55%
Vol Right, %	0%	12%	0%	0%	100%	0%	10%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	144	112	51	125	160	15	158	5	229
LT Vol	144	0	51	0	0	15	0	5	0
Through Vol	0	99	0	125	0	0	142	0	125
RT Vol	0	13	0	0	160	0	16	0	104
Lane Flow Rate	173	135	61	151	193	18	190	6	276
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.395	0.285	0.138	0.318	0.368	0.043	0.421	0.014	0.57
Departure Headway (Hd)	8.2	7.608	8.108	7.596	6.879	8.556	7.969	8.268	7.434
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	437	471	441	471	520	417	449	432	483
Service Time	5.974	5.381	5.879	5.366	4.649	6.337	5.749	6.04	5.206
HCM Lane V/C Ratio	0.396	0.287	0.138	0.321	0.371	0.043	0.423	0.014	0.571
HCM Control Delay	16.3	13.4	12.2	13.9	13.6	11.7	16.5	11.2	19.7
HCM Lane LOS	C	B	B	B	B	B	C	B	C
HCM 95th-tile Q	1.9	1.2	0.5	1.4	1.7	0.1	2.1	0	3.5

Intersection	
Intersection Delay, s/veh	28.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	153	186	258	27	167	22	268	183	57	20	122	103
Future Vol, veh/h	153	186	258	27	167	22	268	183	57	20	122	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	166	202	280	29	182	24	291	199	62	22	133	112
Number of Lanes	1	1	1	1	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	3
HCM Control Delay	23.8	25.6	35.7	29.6
HCM LOS	C	D	E	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%	0%	100%	0%	100%	0%
Vol Thru, %	0%	76%	0%	100%	0%	0%	88%	0%	54%
Vol Right, %	0%	24%	0%	0%	100%	0%	12%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	268	240	153	186	258	27	189	20	225
LT Vol	268	0	153	0	0	27	0	20	0
Through Vol	0	183	0	186	0	0	167	0	122
RT Vol	0	57	0	0	258	0	22	0	103
Lane Flow Rate	291	261	166	202	280	29	205	22	245
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.799	0.666	0.454	0.523	0.669	0.089	0.591	0.065	0.674
Departure Headway (Hd)	9.88	9.192	9.838	9.319	8.592	10.975	10.365	10.77	9.919
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	394	368	388	423	327	349	333	364
Service Time	7.6	6.912	7.557	7.038	6.311	8.734	8.124	8.526	7.674
HCM Lane V/C Ratio	0.793	0.662	0.451	0.521	0.662	0.089	0.587	0.066	0.673
HCM Control Delay	42.2	28.5	20.5	21.8	27.1	14.8	27.1	14.3	31
HCM Lane LOS	E	D	C	C	D	B	D	B	D
HCM 95th-tile Q	6.8	4.7	2.3	2.9	4.8	0.3	3.6	0.2	4.7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	51	125	160	15	142	144	99	5	125
Future Volume (vph)	51	125	160	15	142	144	99	5	125
Turn Type	pm+pt	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases	7	4			8	5	2		6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	8	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	12.0	39.0	39.0	27.0	27.0	17.0	51.0	34.0	34.0
Total Split (%)	13.3%	43.3%	43.3%	30.0%	30.0%	18.9%	56.7%	37.8%	37.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead			Lag	Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	18.1	18.1	18.1	12.3	12.3	25.8	25.8	14.3	14.3
Actuated g/C Ratio	0.33	0.33	0.33	0.22	0.22	0.47	0.47	0.26	0.26
v/c Ratio	0.15	0.25	0.30	0.06	0.46	0.32	0.16	0.02	0.56
Control Delay	15.2	16.0	4.1	23.4	26.4	11.1	9.1	20.2	22.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	16.0	4.1	23.4	26.4	11.1	9.1	20.2	22.6
LOS	B	B	A	C	C	B	A	C	C
Approach Delay		10.2			26.1		10.3		22.6
Approach LOS		B			C		B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 54.7	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 15.9	Intersection LOS: B
Intersection Capacity Utilization 48.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: 1600 East & 11200 North

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	153	186	258	27	167	268	183	20	122
Future Volume (vph)	153	186	258	27	167	268	183	20	122
Turn Type	pm+pt	NA	Perm	Perm	NA	pm+pt	NA	Perm	NA
Protected Phases	7	4			8	5	2		6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	4	8	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	9.5	22.5	22.5	22.5
Total Split (s)	15.0	39.0	39.0	24.0	24.0	22.0	51.0	29.0	29.0
Total Split (%)	16.7%	43.3%	43.3%	26.7%	26.7%	24.4%	56.7%	32.2%	32.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead			Lag	Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	Min
Act Effct Green (s)	27.2	27.2	27.2	12.8	12.8	33.2	33.2	13.5	13.5
Actuated g/C Ratio	0.39	0.39	0.39	0.18	0.18	0.48	0.48	0.19	0.19
v/c Ratio	0.40	0.28	0.36	0.13	0.60	0.55	0.30	0.10	0.66
Control Delay	18.9	17.2	3.8	27.9	34.9	16.1	11.4	26.2	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	17.2	3.8	27.9	34.9	16.1	11.4	26.2	31.1
LOS	B	B	A	C	C	B	B	C	C
Approach Delay		11.8			34.1		13.9		30.7
Approach LOS		B			C		B		C

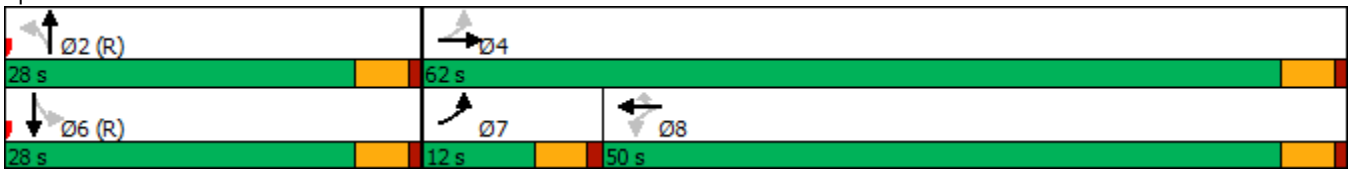
Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.7	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 1600 East & 11200 North

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	83	254	4	402	26	12	0	68	0
Future Volume (vph)	83	254	4	402	26	12	0	68	0
Turn Type	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	62.0	50.0	50.0	50.0	28.0	28.0	28.0	28.0
Total Split (%)	13.3%	68.9%	55.6%	55.6%	55.6%	31.1%	31.1%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	40.1	40.1	30.5	30.5	30.5	40.9	40.9	40.9	40.9
Actuated g/C Ratio	0.45	0.45	0.34	0.34	0.34	0.45	0.45	0.45	0.45
v/c Ratio	0.37	0.37	0.01	0.77	0.05	0.03	0.00	0.13	0.26
Control Delay	15.9	16.3	15.8	34.3	0.4	19.2	0.0	19.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	16.3	15.8	34.3	0.4	19.2	0.0	19.2	0.7
LOS	B	B	B	C	A	B	A	B	A
Approach Delay		16.2		32.1			15.0		5.2
Approach LOS		B		C			B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 49.9%	ICU Level of Service A
Analysis Period (min) 15	

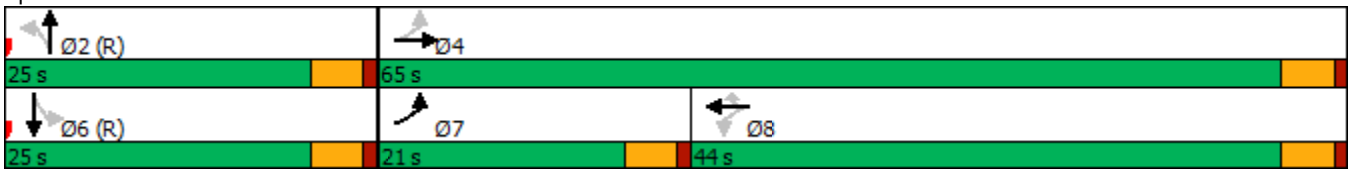
Splits and Phases: 3: 5600 West & 11200 North



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	275	576	3	460	90	14	0	64	0
Future Volume (vph)	275	576	3	460	90	14	0	64	0
Turn Type	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	65.0	44.0	44.0	44.0	25.0	25.0	25.0	25.0
Total Split (%)	23.3%	72.2%	48.9%	48.9%	48.9%	27.8%	27.8%	27.8%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	50.5	50.5	30.7	30.7	30.7	30.5	30.5	30.5	30.5
Actuated g/C Ratio	0.56	0.56	0.34	0.34	0.34	0.34	0.34	0.34	0.34
v/c Ratio	0.71	0.61	0.01	0.79	0.17	0.04	0.00	0.15	0.25
Control Delay	22.4	15.1	16.0	35.5	7.0	25.6	0.0	25.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	15.1	16.0	35.5	7.0	25.6	0.0	25.8	0.7
LOS	C	B	B	D	A	C	A	C	A
Approach Delay		17.4		30.7			24.0		6.9
Approach LOS		B		C			C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

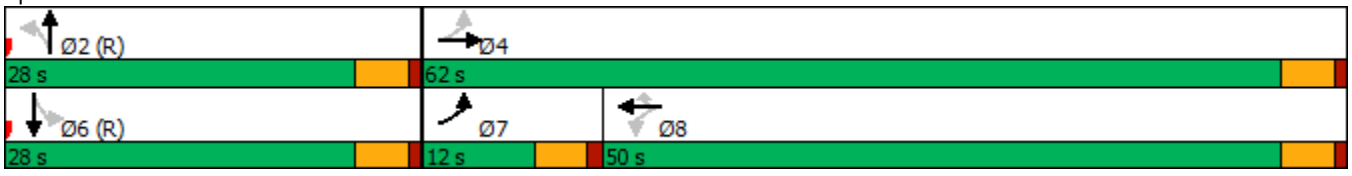
Splits and Phases: 3: 5600 West & 11200 North



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	83	270	4	425	26	13	0	68	0
Future Volume (vph)	83	270	4	425	26	13	0	68	0
Turn Type	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	62.0	50.0	50.0	50.0	28.0	28.0	28.0	28.0
Total Split (%)	13.3%	68.9%	55.6%	55.6%	55.6%	31.1%	31.1%	31.1%	31.1%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	41.7	41.7	32.1	32.1	32.1	39.3	39.3	39.3	39.3
Actuated g/C Ratio	0.46	0.46	0.36	0.36	0.36	0.44	0.44	0.44	0.44
v/c Ratio	0.37	0.38	0.01	0.77	0.05	0.04	0.00	0.13	0.27
Control Delay	15.0	15.5	14.8	33.3	0.4	20.5	0.0	20.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	15.5	14.8	33.3	0.4	20.5	0.0	20.4	0.7
LOS	B	B	B	C	A	C	A	C	A
Approach Delay		15.4		31.2			16.4		5.6
Approach LOS		B		C			B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

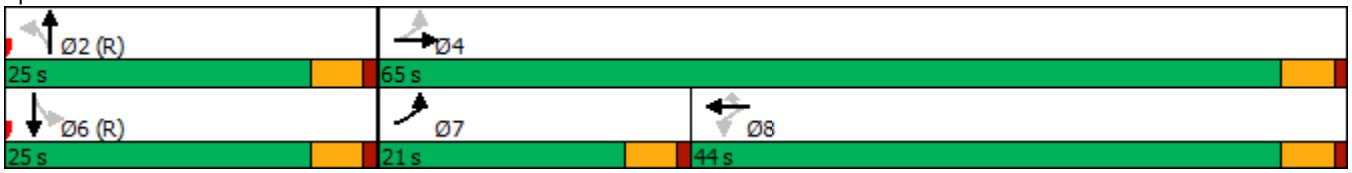
Splits and Phases: 3: 5600 West & 11200 North



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	275	610	3	488	90	15	0	64	0
Future Volume (vph)	275	610	3	488	90	15	0	64	0
Turn Type	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	7	4		8			2		6
Permitted Phases	4		8		8	2		6	
Detector Phase	7	4	8	8	8	2	2	6	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	21.0	65.0	44.0	44.0	44.0	25.0	25.0	25.0	25.0
Total Split (%)	23.3%	72.2%	48.9%	48.9%	48.9%	27.8%	27.8%	27.8%	27.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead		Lag	Lag	Lag				
Lead-Lag Optimize?	Yes		Yes	Yes	Yes				
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	51.5	51.5	31.8	31.8	31.8	29.5	29.5	29.5	29.5
Actuated g/C Ratio	0.57	0.57	0.35	0.35	0.35	0.33	0.33	0.33	0.33
v/c Ratio	0.72	0.64	0.01	0.81	0.16	0.05	0.00	0.15	0.25
Control Delay	24.0	15.1	15.7	35.8	6.8	26.1	0.0	26.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	15.1	15.7	35.8	6.8	26.1	0.0	26.5	0.7
LOS	C	B	B	D	A	C	A	C	A
Approach Delay		17.8		31.2			24.5		7.1
Approach LOS		B		C			C		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: 5600 West & 11200 North



State of Utah
Department of Transportation

Cooperative Agreement **Phased Development Improvements**	Development Name **Rivers Edge - Phase 1**		
Application ID **115166**	Contract #	Tracking #	Date Executed

This **AGREEMENT**, made and entered into on the executed date, by and between the **UTAH DEPARTMENT OF TRANSPORATION**, hereinafter referred to as "**UDOT**", Tremonton City, hereinafter referred to as "**LOCAL GOVERNMENT"**, and Rivers Edge Real Holdings, LLC, hereinafter referred to as the "**DEVELOPER**".

RECITALS

WHEREAS, **UDOT** owns state highway right-of-way for State Route SR-102; and

WHEREAS, the parties desire to enter into an agreement to establish the scope and schedule of when all improvements will be required within the state route; and

WHEREAS, **UDOT** is willing to permit the installation of an access within SR-102 at 950 East (public street); and

WHEREAS, the **DEVELOPER** is required to construct traffic mitigation described herein; and

WHEREAS, this Agreement is made to set forth the terms and conditions for the installation of these mitigation improvements within UDOT's right-of-way.

AGREEMENT

NOW THEREFORE, it is agreed by and between the parties as follows:

I. Access for the **DEVELOPER's** site in the UDOT right-of-way shall be allowed only by permit issued by UDOT in conformance with Utah Administrative Codes R-930-6.

II. Upon receipt of an encroachment permit from **UDOT**, the **DEVELOPER** will have temporary access within SR-102 right-of-way at 950 East (public street) for the sole purpose of the mitigation improvements and access described in "Exhibit A", which is incorporated by reference.

III. The **DEVELOPER** will be responsible for all construction materials and design of the traffic mitigation improvements in accordance with the plan set in "Exhibit A" and at no cost to **UDOT** and the **LOCAL GOVERNMENT**. The **DEVELOPER** will construct the traffic

mitigation improvements in strict compliance with the most current UDOT standards at the time of installation. Any part of the plan set that must be re-designed to comply with the UDOT standards will be at the **DEVELOPER's** expense.

IV. The **DEVELOPER** must obtain **UDOT's** written approval of the traffic mitigation improvements and traffic control plan in accordance with the MUTCD and applicable rules.

V. **UDOT** will remain the owner of the real properties on which the traffic mitigation improvements are installed. Any changes within the UDOT right-of-way will be reviewed and approved by **UDOT** before work may commence.

VI. Commencement of the design and subsequent construction of the traffic mitigation improvements shall start when the following conditions are met:

1) Any future phases of the Rivers Edge development beyond Rivers Edge - Phase 1 shall require the DEVELOPER to provide an amended Traffic Impact Study (TIS) to UDOT to verify if the proposed phase meets the warrant for a traffic signal at the intersection of SR-102 (Main Street) and 950 East. If the TIS finds that the proposed phase meets UDOT's warrants for a traffic signal, the DEVELOPER shall provide construction plans of the traffic signal and any other mitigation improvements for review and approval by UDOT. Thereafter the DEVELOPER shall construct traffic signal and any other mitigation improvement required by UDOT concurrent with constructing the subdivision improvements for the proposed phase.

2) Any future phase of the Rivers Edge development which includes the construction of the city street that connects to SR-13, the DEVELOPER shall be required to construct mitigation improvements which include but are not limited to right and left turn lanes on SR-13. The DEVELOPER shall provide construction plans of the mitigation improvements for connecting a city street to SR-13 for review and approval by UDOT. Thereafter the DEVELOPER shall construct right and left turn lanes on SR-13 and any other mitigation improvement required by UDOT concurrent with constructing the subdivision improvements for the proposed phase.

The traffic signal at the intersection of 950 East and SR-102 and the right and left turn lane associated with connecting a city street to SR-13 may be phased independently or UDOT may required that these mitigation improvements be done simultaneously depending upon how the DEVELOPER proposes future phases of the Rivers Edge development.

VII. The **LOCAL GOVERNMENT** will not issue any permits to the **DEVELOPER** after the conditions included in section VI until the design and subsequent construction of the traffic mitigation improvements are commenced.

VIII. The **DEVELOPER** may assign this Agreement to a subsequent property owner with UDOT's prior consent. Any transfer of the property will require the **DEVELOPER** to provide written notice to UDOT. The obligations in this Agreement shall apply to any successors in interest to the parties. The **DEVELOPER** may hire a contractor to perform the installation of the traffic mitigation improvements.

IX. The **DEVELOPER** agrees to indemnify, defend, save harmless, and release **UDOT** and **LOCAL GOVERNMENT** from and against any and all loss, damages, injury, liability, suits, claims and proceedings arising out of the performance of this Agreement, except where the claim arises out of **UDOT's** and **LOCAL GOVERNMENT's** sole negligence. This provision shall survive the termination of this Agreement. **DEVELOPER** shall indemnify **UDOT** and **LOCAL GOVERNMENT** for any losses, damages, injury, liability, claims, suits and proceedings arising out of the access improvements installed by the **DEVELOPER** within **UDOT's** right-of-way.

X. This Agreement shall be governed by the laws of the State of Utah both as to interpretation and performance.

X. This Agreement in no way creates any type of agency relationship, joint venture, or partnership between the **DEVELOPER** and **UDOT** and the **LOCAL GOVERNMENT**.

XI. This Agreement, together with all exhibits and attachments, constitutes the entire agreement between the parties and supersedes any prior understandings, agreements, or representations, verbal or written. No subsequent modification or amendments will be valid unless in writing and signed by both parties.

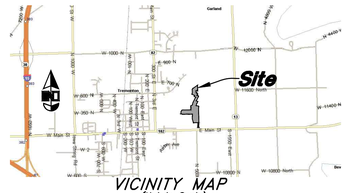
XII. Each party represents that it has the authority to enter into this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by its duly authorized officers as of the day and year of the last signature.

Rivers Edge Real Holdings, LLC				**Utah Department of Transportation**			
By		Date		By		Date	
Michael Jewell				Region Permit Office			
				By		Date	
Tremonton City				Region Director			
By		Date		By		Date	
Shawn Warnke (City Manager)				UDOT Comptroller's Office			

Rivers Edge - Phase 1

A part of Section 2, T11N, R2W, SLB&M, U.S. Survey
Tremonton City, Box Elder County, Utah
June 2021



VICINITY MAP
(Not to Scale)

GENERAL NOTES:

1. All Construction within the Main Street Right-of-Way shall meet UDOT Standards (See UDOT General Notes).
2. All Construction Shall meet Tremonton City Construction Standards and Specifications
3. Coordinate all utility connections to building with plumbing plans and building contractor.
4. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
5. All catch basin and inlet box grates are to be bicycle proof.
6. All inlet boxes located in curb and gutter are to be placed parallel to the curb and gutter and set under the frame and grate. Improperly placed boxes will be removed and replaced at no additional cost to the owner. Precast or cast in place boxes are acceptable.
7. Any curb that holds water after construction will be removed and replaced until it will flow without holding water.
8. Refer to the site electrical plan for details and locations of electrical lines, transformers, and light poles.
9. Gas lines, telephone lines, and cable TV lines are not a part of these plans unless otherwise noted.
10. Water meters are to be installed per city standards and specifications. It will be the contractor's responsibility to install all items required.
11. Water lines, valves, fire hydrants, fittings, etc. are to be constructed as shown. Contractor is responsible to construct any vertical adjustments necessary to clear sewer, storm drain, or other utilities as necessary including valve boxes and hydrant spools to proper grade.
12. Field verify all existing and/or proposed Roof Drain/Roof Drain down spout connections to Storm Water System with Civil, Plumbing & Architectural plans. Notify Engineer of any discrepancies.
13. All gravity flow utility lines shall be installed prior to any pressurized utilities unless written permission is obtained from the engineer of record before construction begins.
14. All construction within the UDOT right-of-way shall conform to the most current UDOT standard (including supplemental) drawings and specifications.
15. The contractor is to obtain an encroachment permit from the applicable UDOT Region Permit office prior to commencing work within UDOT right-of-way. Working hour limitations will be listed in the limitations section of the encroachment permit.
16. UDOT reserves the right, at its option, to install a raised median island or restrict the access to a right-in or right-out at any time.
17. Owner, developer, and contractor are responsible for any damages directly or indirectly within the UDOT right-of-way as a result of development activities.
18. Owner, developer, and/or contractor is required to hire an independent company for all testing within the UDOT right-of-way.
19. All signs installed on the UDOT right-of-way must be high intensity grade (Type XI sheeting) with a B3 slip base. Install all signs per UDOT SN series Standard Drawings.
20. Comply with the requirements of Utah Code 17-23-14 (Disturbed Corners - County surveyor to be notified - Coordination with certain state agencies).
21. For asphalt construction within the UDOT ROW match existing, or the anticipated existing of 8 inches of UDOT- approved hot mix asphalt (HMA), PG-grade 64-34 asphalt binder, 1/2 inch nominal max, 7-75-115 gyration per UDOT standard specification 02741; over 6 inches untreated base course (UTBC) per UDOT specification 02721; over 18 inches granular borrow (GB) per UDOT specification 02056 (whichever is greater). Provide documentation of compaction from a UDOT-qualified laboratory.
22. Flushing stations should be located at all dead-ends and should discharge into a storm drain box where possible. Where the SD system does not exist, a bubble-up catch basin should be used with a gravel bottom. This box should only be located at a high point in the curb. or into a sewer manhole of points lower than the Storm Drain. Additional flushing stations may be required at the direction of the Public Works Department.
23. Refer to the Public Works Standards for details of the flushing and drain stations.

UTILITY PIPING MATERIALS:

1. All piping to be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.
2.
3. CULINARY SERVICE LATERALS
4. Culinary service laterals need to be 3/4" (200 PSI) CTS poly with a 14 gauge tracing wire along service line from Main to Property line.

WATER MAIN LINES AND FIRE LINES

1. Pipe material as shown on utility plan view or to meet Tremonton Standards and Specifications.

SANITARY SEWER LINES

1. All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D 3034, Type PSM, SDR 35
2. All sewer lines to be marked with marking tape per Tremonton Standards.

STORM DRAIN LINES

1. 15" to 21" pipes - Concrete Pipe, ASTM C14, Class III up to 13' of cover. For greater than 13' feet of cover, use reinforced concrete pipe and classes listed below.
2. 24" pipes or larger - Reinforced Concrete Pipe, ASTM C76, Class III up to 13' of cover, Class IV for 13' to 21' of cover, Class V for 21' to 32' of cover, and Special Design for cover greater than 32 feet.

IRRIGATION LINES

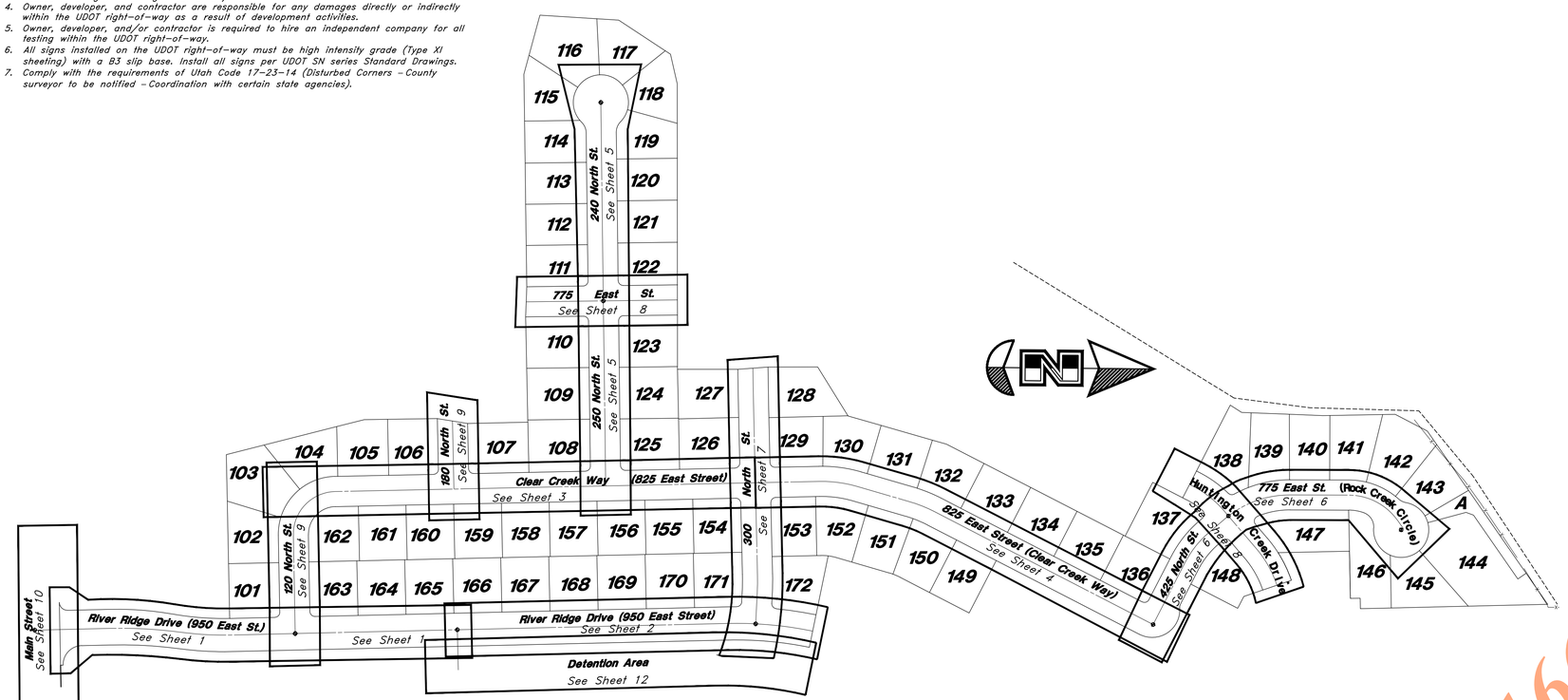
1. All Irrigation piping is to be purple (24" min. cover) with a locator tape placed at a depth of 1.0' below grade.

NATURAL GAS SERVICE LATERALS (DOMINION ENERGY)

1. PLASTIC PIPING MATERIAL: Plastic polyethylene pipe materials and compression couplings must be approved for natural gas applications and must be installed underground. All plastic pipe and fittings must conform to ASTM D2513 ('60 psi and above high density pipe approved 3408).
2. Plastic pipe must be joined by individuals qualified in the heat fusion method of connecting pipe and fittings or approved mechanical fittings. A minimum number 18 insulated yellow copper tracer wire shall be installed with underground nonmetallic gas piping and shall terminate above grade at each end. Tracer wire shall not come in contact with plastic piping.
3. Risers and prefabricated risers inserted with plastic pipe shall conform to ASTM D2513, shall be metallic, have a space of 10 inches from the bottom of the service valve and grade, and shall be wrapped or coated to a point at least 6 inches above grade or protected in an approved manner. When a riser connects underground to plastic pipe, the underground horizontal metallic portion of the riser shall extend at least 12 inches before connecting to the plastic pipe by means of an approved transition fitting, adapter, or heat fusion.
4. Plastic pipe used underground for customer fuel lines must be approved polyethylene material and be buried a minimum of 12 inches. It shall not be used inside buildings or above ground. PVC (Polyvinyl Chloride) is not approved for piping systems in Questar Gas's service area. Individual gas lines (metallic or plastic) to a single outside appliance (outside lights, grilles, etc.) shall be installed a minimum of 8 inches below grade, provided such installation is approved and installed in locations not susceptible to physical damage.

UDOT GENERAL NOTES:

1. All construction within the UDOT right-of-way shall conform to the most current UDOT Standard (including supplemental) drawings and specifications.
2. The contractor is to obtain an encroachment permit from the applicable UDOT Region Permit office prior to commencing work within UDOT right-of-way. Working hour limitations will be listed in the limitations section of the encroachment permit.
3. UDOT reserves the right, at its option, to install a raised median island or restrict the access to a right-in or right-out at any time.
4. Owner, developer, and contractor are responsible for any damages directly or indirectly within the UDOT right-of-way as a result of development activities.
5. Owner, developer, and/or contractor is required to hire an independent company for all testing within the UDOT right-of-way.
6. All signs installed on the UDOT right-of-way must be high intensity grade (Type XI sheeting) with a B3 slip base. Install all signs per UDOT SN series Standard Drawings.
7. Comply with the requirements of Utah Code 17-23-14 (Disturbed Corners - County surveyor to be notified - Coordination with certain state agencies).



- NOT TO SCALE -

NOTES:

1. See Sheet 13 for details

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

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Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-662-4111

REV | DESCRIPTION | DATE

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WWW.GREATBASINENGINEERING.COM

Cover

Rivers Edge - Phase 1

Approx: 9.35 East Main Street Utah
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N, R2W, SLB&M, U.S. Survey

11 Oct, 2021

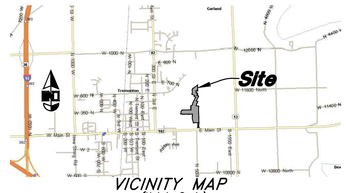
SHEET NO.
CO

20N710

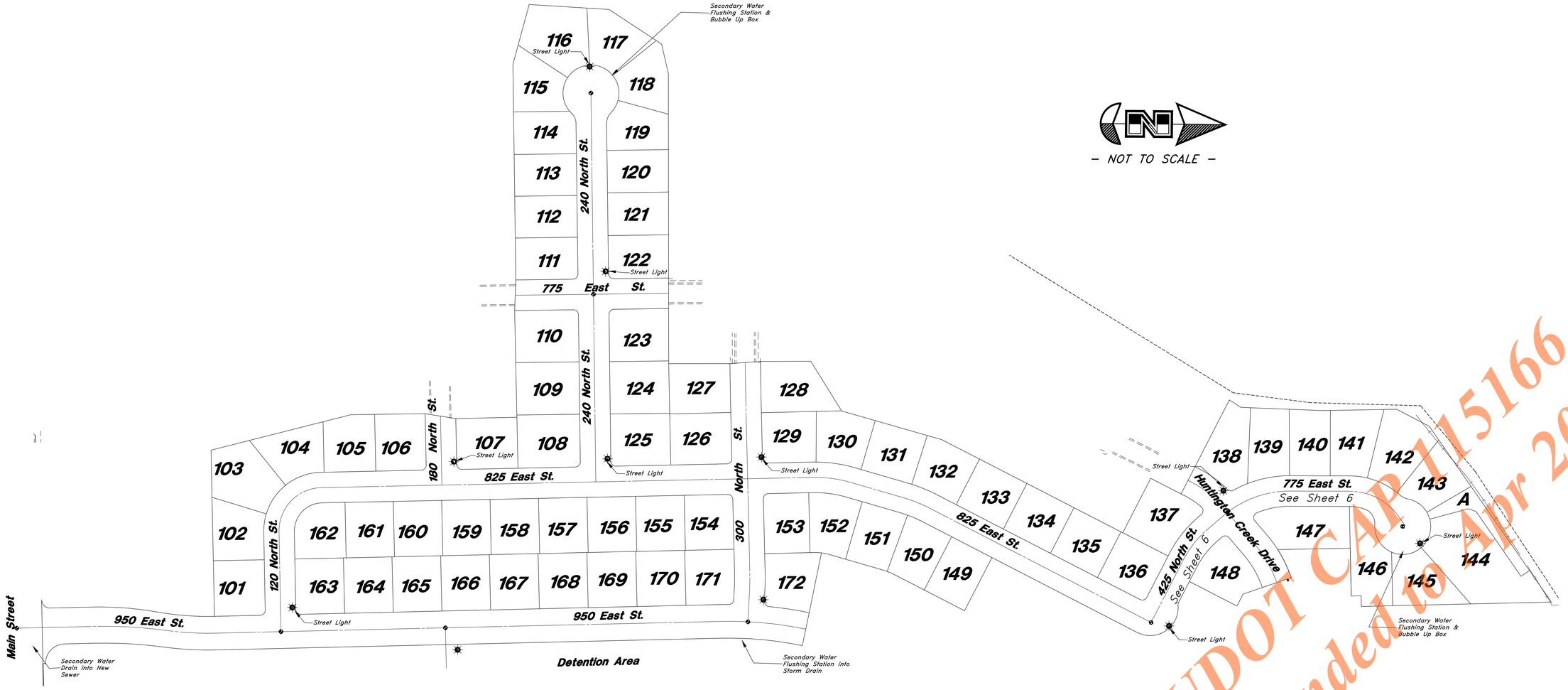
W:\20N710 - River's Edge\DWG\20N710 - AM.dwg, 3/7/2022 1:39:10 PM, drew, 1:1

Rivers Edge - Phase 1

A part of Section 2, T11N, R2W, SLB&M, U.S. Survey
Tremonton City, Box Elder County, Utah
June 2021



VICINITY MAP
(Not to Scale)



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Secondary Water Flushing Station and Street Light Layout

Rivers Edge - Phase 1

Approx. 935 East Main Street
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N, R2W, SLB&M, U.S. Survey

11 Oct, 2021

SHEET NO.
C0

20N710

Horz. Scale: 1"=40'
Vert. Scale: 1"=4'

40 0 10 20 40 50 60 70 80

Graphic Scale

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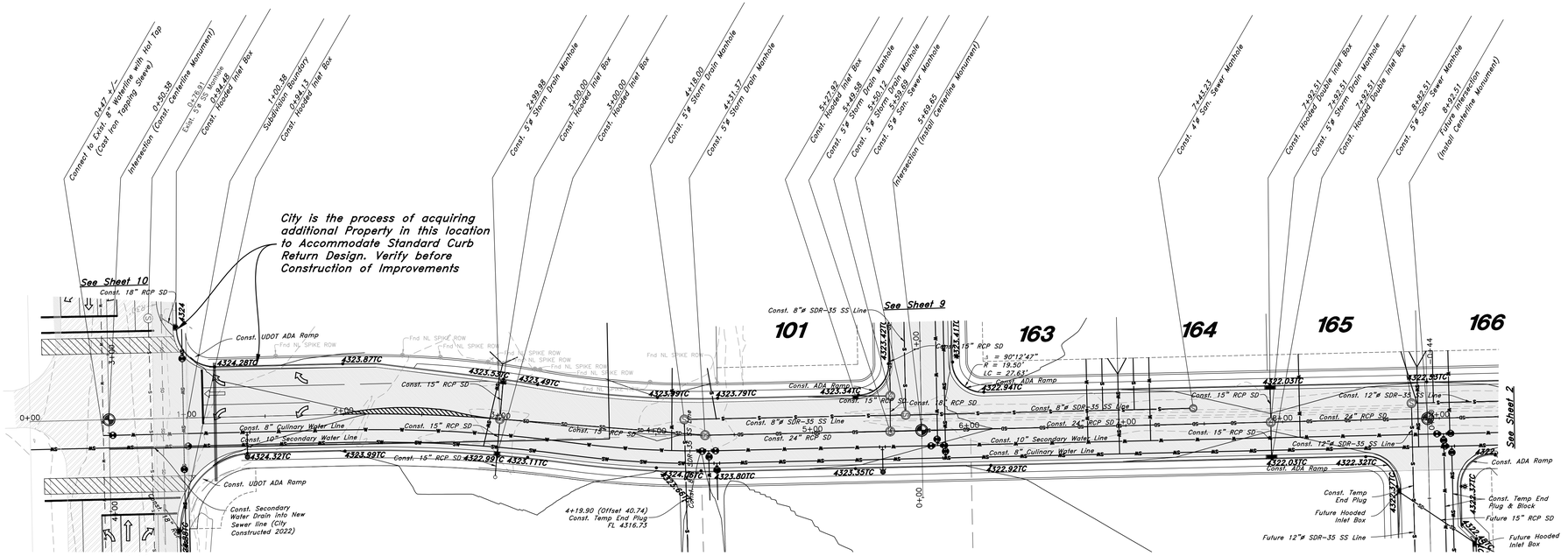
Legend

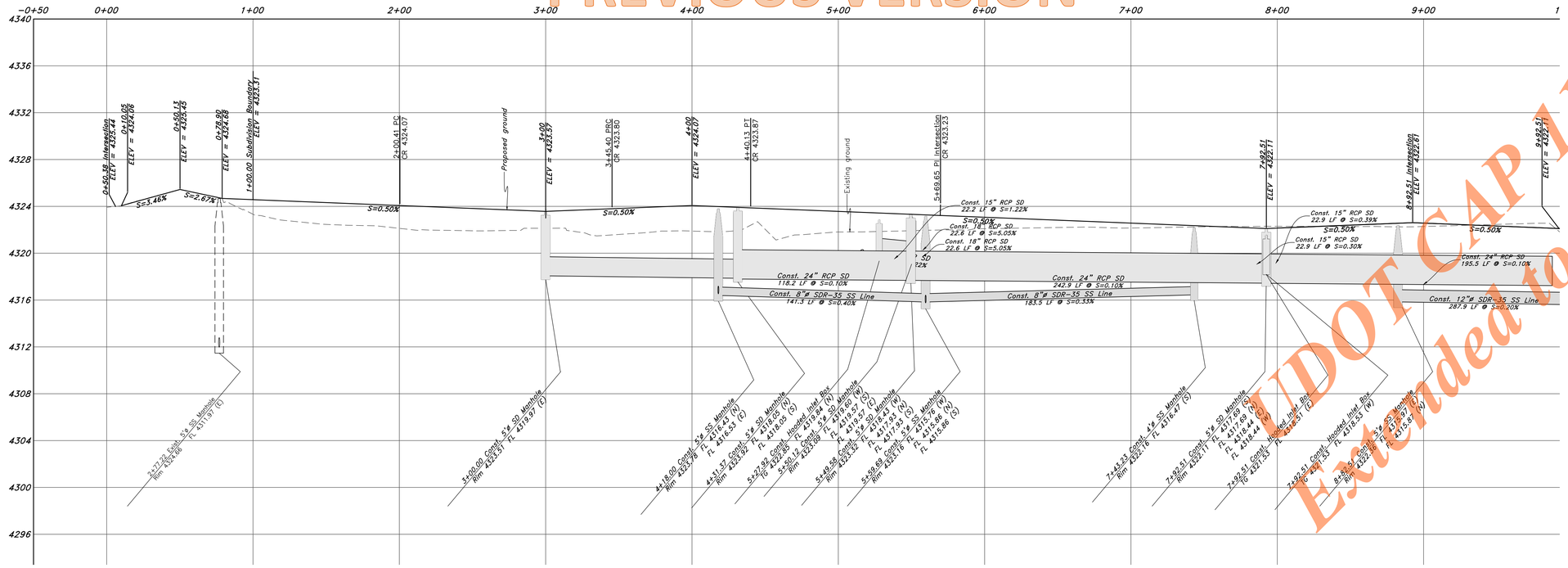
(Note: All Items may not appear on drawing)

San. Sewer Manhole (S)
Water Manhole (W)
Storm Drain Manhole (SD)
Electrical Manhole (E)
Catch Basins
Exist. Fire Hydrant
Fire Hydrant
Exist. Water Valve
Water Valve
Sanitary Sewer — S
Culinary Water — W
Gas Line — G
Irrigation Line — IW
Storm Drain — SD
Telephone Line — T
Secondary Waterline — SW
Power Line — P
Fire Line — F
Land Drain — LD
Power pole
Power pole w/guy
Light Pole
Fence
Flowline of ditch
Overhead Power line — OHP
Corrugated Metal Pipe — CMP
Concrete Pipe — CP
Reinforced Concrete Pipe — RCP
Ductile Iron — DI
Polyvinyl Chloride — PVC
Top of Asphalt — TA
Edge of Asphalt — EA
Centerline — CL
Flowline — FL
Finish Floor — FF
Top of Curb — TC
Top of Wall — TWL
Top of Walk — TW
Top Of Concrete — TCN
Natural Ground — NG
Finish Contour — 90
Exist. Contour — 90
Finish Grade — 95.33TA
Exist. Grade — 95.72EA
Ridge Line — R
Direction of Flow
Existing Asphalt
New Asphalt
Heavy Duty Asphalt
Concrete
Open Face Curb & Gutter



950 East Street

PREVIOUS VERSION



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REV	DATE	DESCRIPTION

Plan and Profile

Rivers Edge - Phase 1

Approx. 935 East Main Street Tremonton City, Box Elder County, Utah
A part of Section 2, T11N, R2W, SLB&M, U.S. Survey

11 Oct, 2021

SHEET NO.
C1

20N710

Horz. Scale: 1"=40'
Vert. Scale: 1"=4'

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Graphic Scale

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Legend

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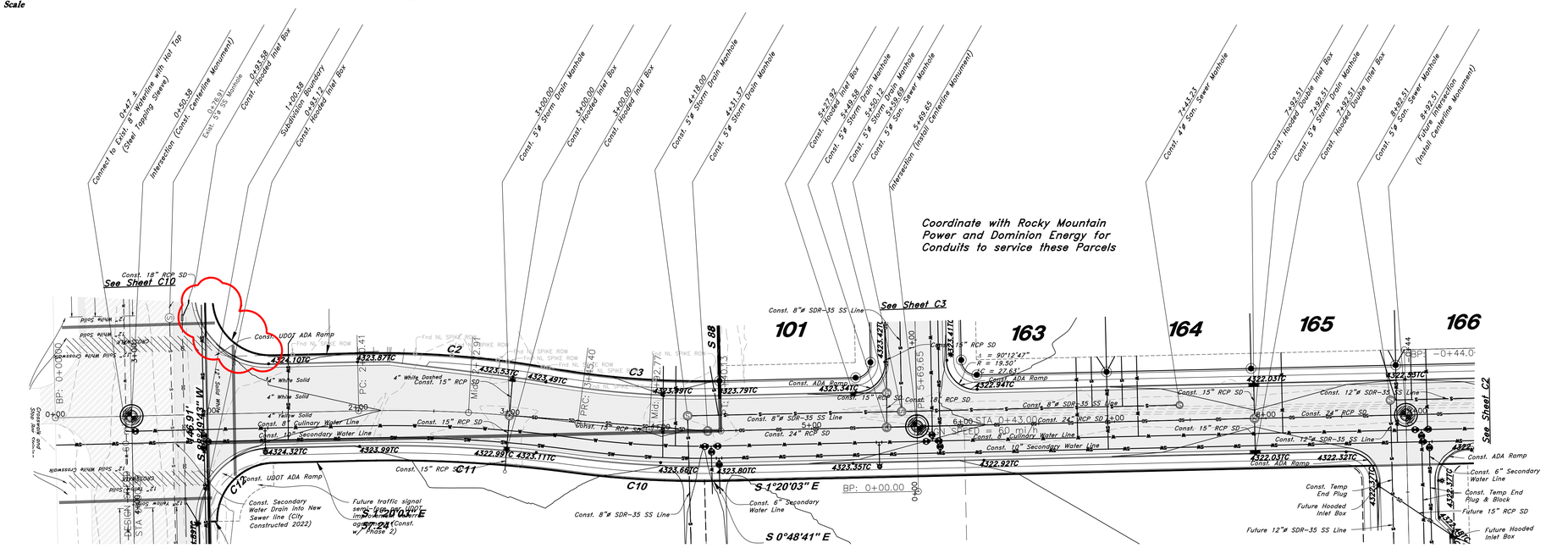
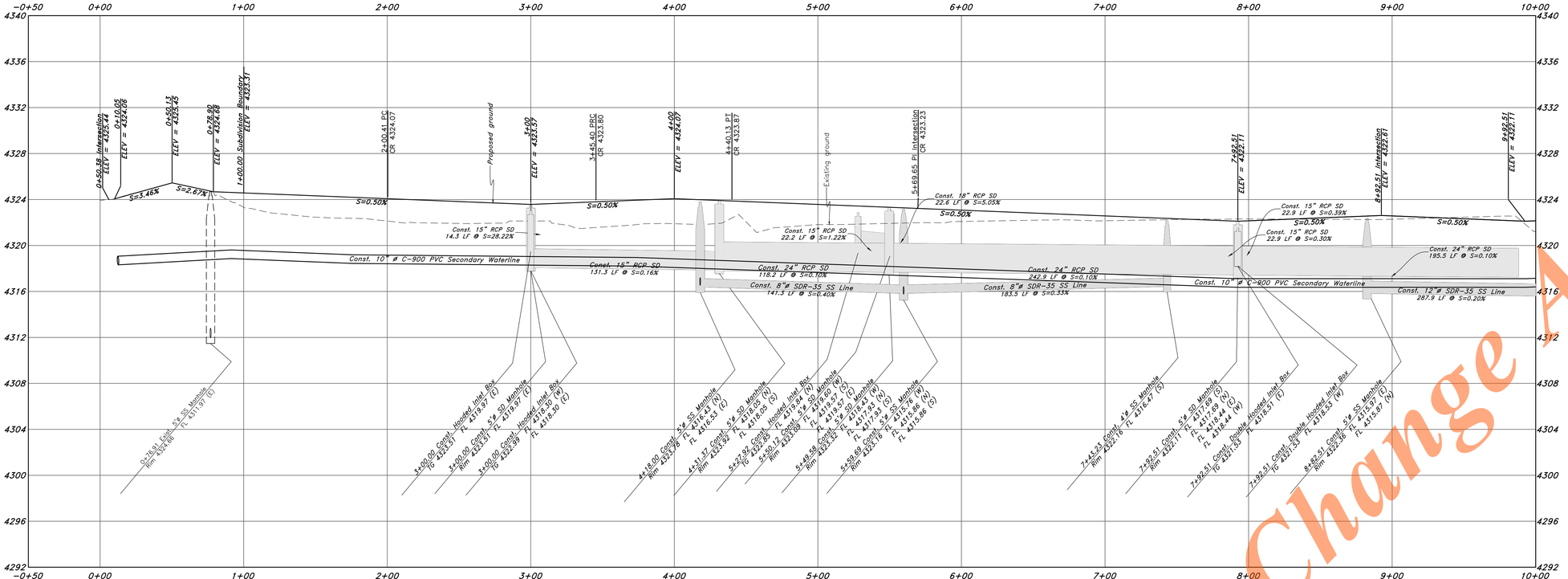
Water Manhole (W)
Storm Drain Manhole (SD)
Electrical Manhole (E)
Catch Basins
Exist. Fire Hydrant
Fire Hydrant
Exist. Water Valve
Water Valve
Sanitary Sewer — S
Culinary Water — W
Gas Line — G
Irrigation Line — IW
Storm Drain — SD
Telephone Line — T
Secondary Waterline — SW
Power Line — P
Fire Line — F
Land Drain — LD
Power pole
Power pole w/guy
Light Pole
Fence
Flowline of ditch
Overhead Power line — OHP
Corrugated Metal Pipe — CMP
Concrete Pipe — CP
Reinforced Concrete Pipe — RCP
Ductile Iron — DI
Polyvinyl Chloride — PVC
Top of Asphalt — TA
Edge of Asphalt — EA
Centerline — CL
Flowline — FL
Finish Floor — FF
Top of Curb — TC
Top of Wall — TW
Top of Walk — TW
Top of Concrete — TCN
Natural Ground — NG
Finish Contour — 90
Exist. Contour — 90
Finish Grade — 95.33TA
Exist. Grade — 95.72EA
Ridge Line — R
Direction of Flow
Existing Asphalt
New Asphalt
Heavy Duty Asphalt
Concrete
Open Face Curb & Gutter



950 East Street



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REV	DATE	DESCRIPTION
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Plan and Profile

Rivers Edge - Phase 1

Approx. 9.35 East Main Street
Tremonton City, Box Elder County, Utah
A part of Section 2, T1.1N. R2W, SLB&M, U.S. Survey

March, 2022

SHEET NO.
C1

20N710

Horz. Scale: 1"=40'
Vert. Scale: 1"=4'

Graphic Scale

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City is the process of acquiring additional Property in this location to Accommodate Standard Curb Return Design. Verify before Construction of Improvements

Developer to coordinate with city to curb match this small section, per UDOT requirements.

Jesse F. Courter

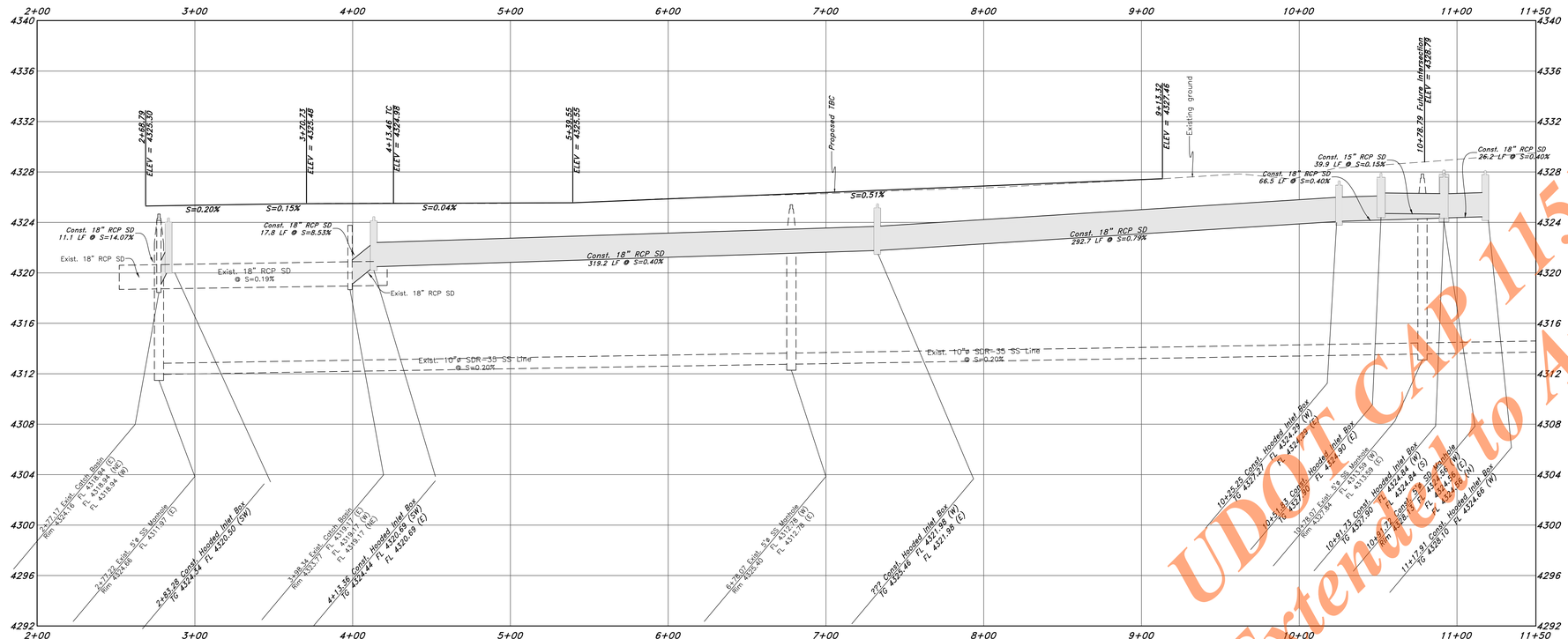
Justin Cole

Future Phase

Const. UDOT ADA Ramp
Const. 18" RCP SD
Const. Temp End Plug & Block
Const. 30" Curb & Gutter
Install 4-2" Conduits for Future Traffic Signal Communication Lines
Const. 6" Secondary Waterline (3' behind curb)
Const. UDOT Drive Approach (Developer and City to Coordinate with Land Owner for Access during construction
Exist. 18" RCP SD
Exist. 10"ø SDR-35 SS Line
Exist. 8" SS Manhole
Exist. Catch Basin
Exist. Inlet Box
Const. Inlet Box
Const. Hooded Inlet Box
Const. 5'ø Storm Drain Manhole
Exist. 5'ø SS Manhole
Exist. Fire Hydrant
Const. 15" RCP SD
Const. 10"ø SDR-35 SS Line

PREVIOUS VERSION

Main Street



UDOT CAP 1115166 Extended to Apr 2026

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Legend

(Note: All items may not appear on drawing)

- San. Sewer Manhole
- Water Manhole
- Storm Drain Manhole
- Electrical Manhole
- Catch Basins
- Exist. Fire Hydrant
- Fire Hydrant
- Exist. Water Valve
- Water Valve
- Sanitary Sewer
- Culinary Water
- Gas Line
- Irrigation Line
- Storm Drain
- Telephone Line
- Secondary Waterline
- Power Line
- Fire Line
- Land Drain
- Power pole
- Power pole w/guy
- Light Pole
- Fence
- Flowline of ditch
- Overhead Power line
- Corrugated Metal Pipe
- Concrete Pipe
- Reinforced Concrete Pipe
- Ductile Iron
- Polyvinyl Chloride
- Top of Asphalt
- Edge of Asphalt
- Centerline
- Flowline
- Finish Floor
- Top of Curb
- Top of Wall
- Top of Walk
- Top of Concrete
- Natural Ground
- Finish Contour
- Exist. Contour
- Finish Grade
- Exist. Grade
- Ridge Line
- Direction of Flow
- Existing Asphalt
- New Asphalt
- Heavy Duty Asphalt
- Concrete
- Open Face Curb & Gutter

OHP, CMP, CP, RCP, DI, PVC, TA, EA, CL, FL, FF, TC, TWL, TW, TCN, NG, 90, 95.33TA, 95.72TA, R

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REV	DATE	DESCRIPTION

Plan & Profile

Rivers Edge - Phase 1

Approx. 935 East Main Street Utah
Tremonton City, Box Elder County, U.S. Survey
A part of Section 2, T11N. R2W. SLB&M.

11 Oct, 2021

SHEET NO.
C10

20N710

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Graphic Scale

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Developer to coordinate with city to curb match this small section per UDOT requirements.

Jesse F. Courter

Justin Cole

See sheet C1

See sheet C11

Future traffic signal semi-fore per UDOT improvement reterral agreement (Const. w/ Phase 2)

Install 4-2" Conduits for Future Traffic Signal Communication Lines

Future Phase

Const. 15" RCP SD

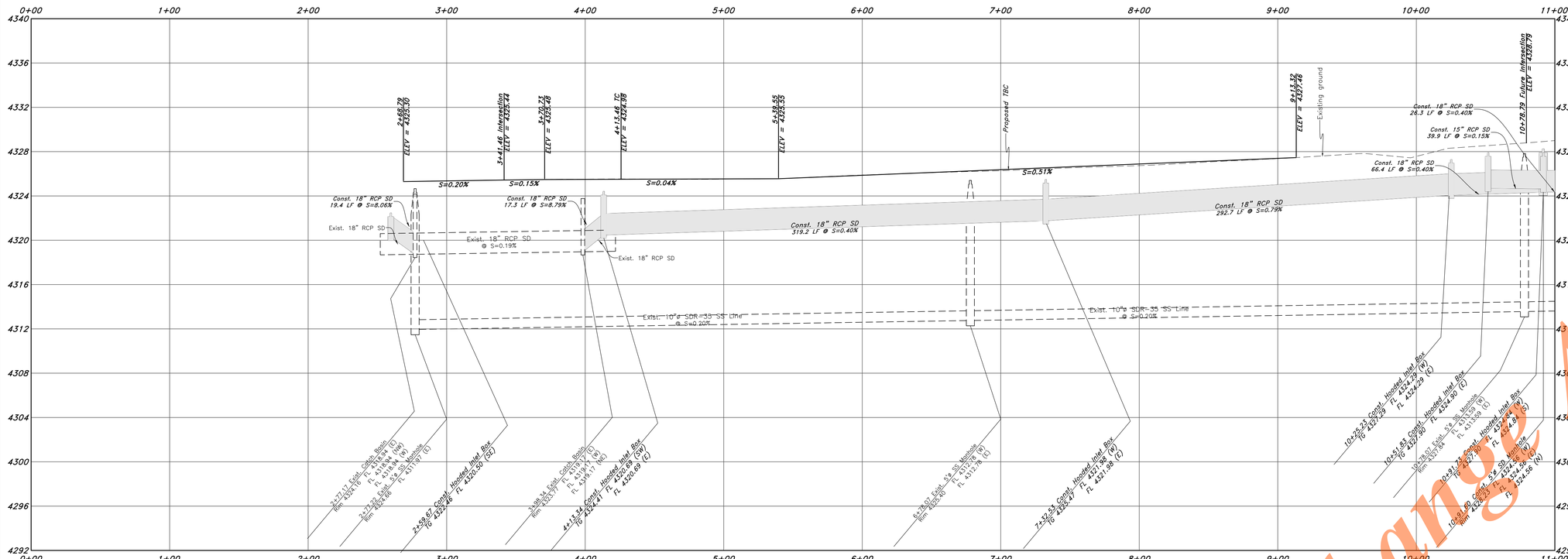
Const. 6" Secondary Waterline (3' behind curb)

Const. UDOT Drive Approach (Developer to coordinate with City/Property Owner for Access during construction

Const. UDOT ADA Ramp

Const. Temp End Plug & Block

Main Street



Legend

(Note: All items may not appear on drawing)

San. Sewer Manhole — S
Water Manhole — W
Storm Drain Manhole — D
Electrical Manhole
Catch Basins
Exist. Fire Hydrant
Fire Hydrant
Exist. Water Valve
Water Valve
Sanitary Sewer — SS
Culinary Water — W
Gas Line — G
Irrigation Line — IW
Storm Drain — SD
Telephone Line — T
Secondary Waterline — SW
Power Line — P
Fire Line — F
Land Drain — LD
Power pole
Power pole w/guy
Light Pole
Fence
Flowline of ditch
Overhead Power line — OHP
Corrugated Metal Pipe — CMP
Concrete Pipe — CP
Reinforced Concrete Pipe — RCP
Ductile Iron — DI
Polyvinyl Chloride — PVC
Top of Asphalt — TA
Edge of Asphalt — EA
Centerline — CL
Flowline — FL
Finish Floor — FF
Top of Curb — TC
Top of Wall — TW
Top of Walk — TW
Top of Concrete — TCN
Natural Ground — NG
Finish Contour — 90
Exist. Contour — 90
Finish Grade — 95.33TA
Exist. Grade — 95.72TA
Ridge Line — R
Direction of Flow
Existing Asphalt
New Asphalt
Heavy Duty Asphalt
Concrete
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Plan & Profile

Rivers Edge - Phase 1

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Tremonton City, Box Elder County, Utah
A part of Section 2, T11N. R2W. SLB&M. U.S. Survey

March, 2022

SHEET NO.
C10

20N710

Horz. Scale: 1"=40'
Vert. Scale: 1"=4'

40 0 10 20 40 50 60 70 80

Graphic Scale

Legend

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Water Manhole	W
Storm Drain Manhole	SD
Electrical Manhole	E
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	S
Culinary Water	W
Gas Line	G
Irrigation Line	IW
Storm Drain	SD
Telephone Line	T
Secondary Waterline	SW
Power Line	P
Fire Line	F
Land Drain	LD
Power pole	
Power pole w/guy	
Light Pole	
Fence	x x x
Flowline of ditch	
Overhead Power line	OHP
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
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Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top of Concrete	TCN
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Exist. Contour	90
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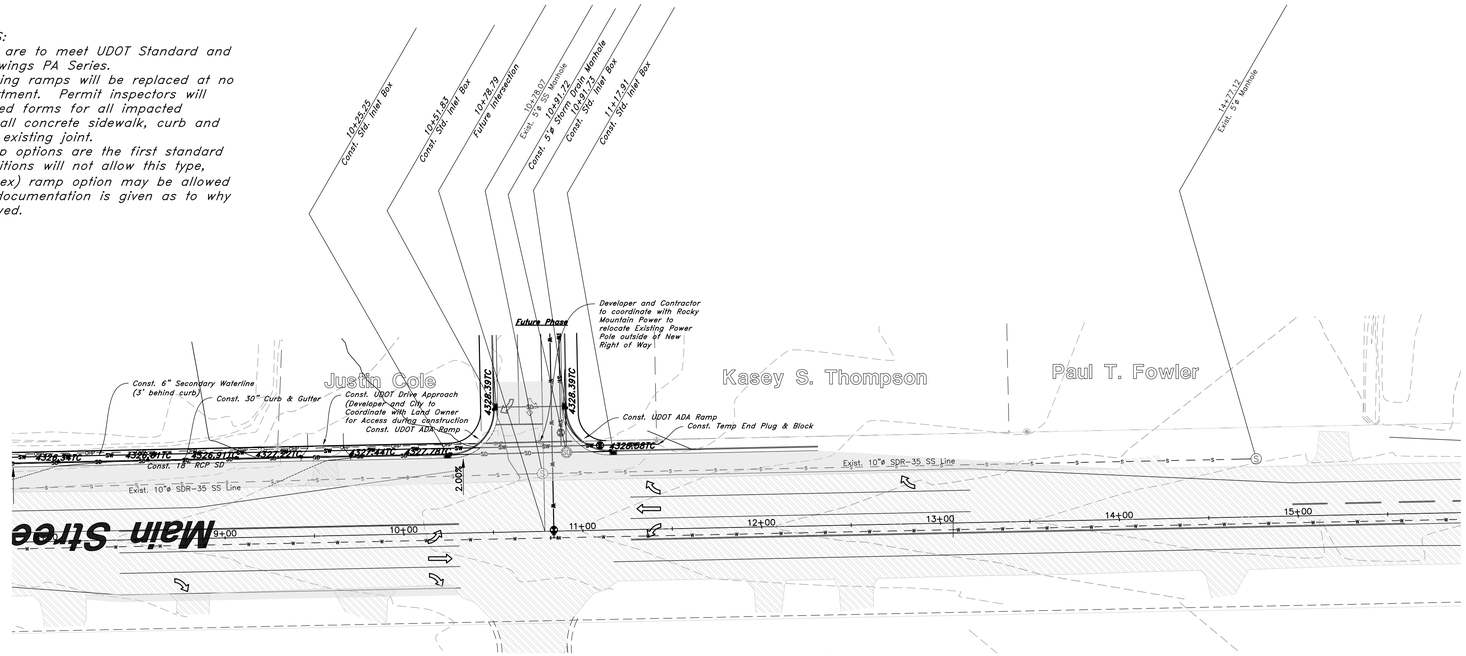
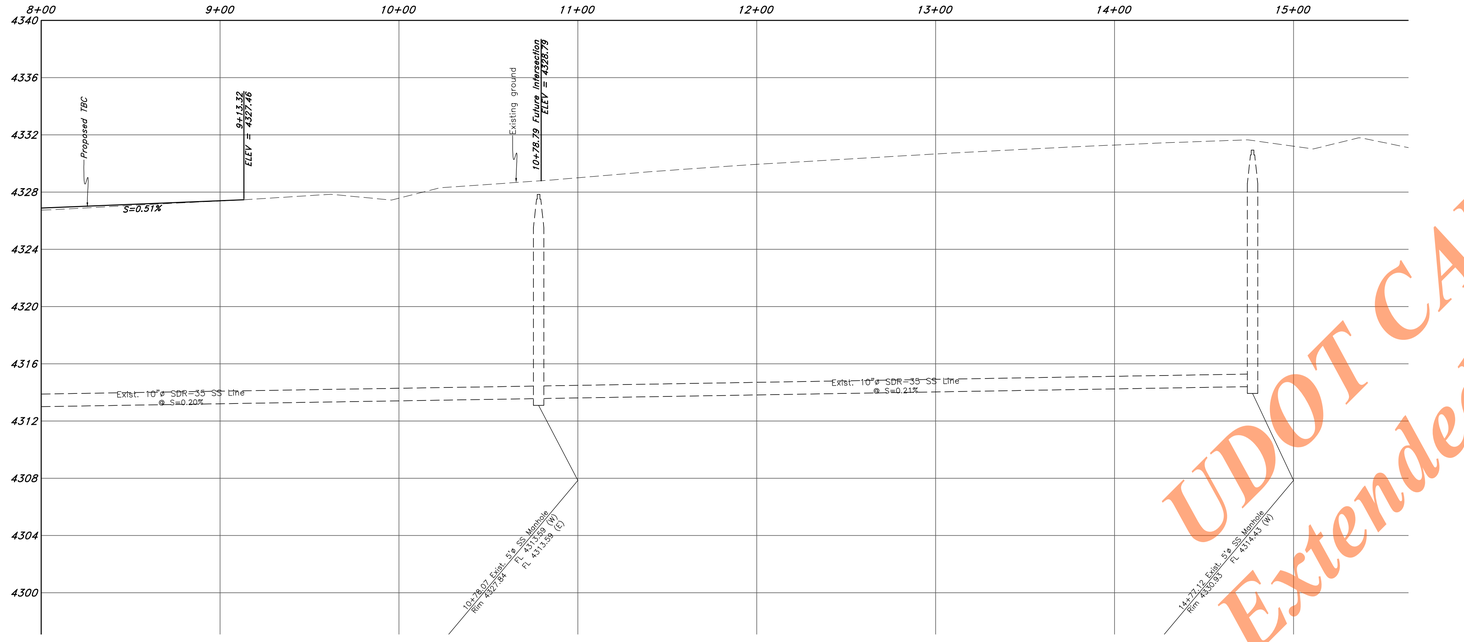


Main Street

PREVIOUS VERSION



UDOT CAP 1151166
Extended to Apr 2026

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Plan & Profile

Rivers Edge - Phase 1

Approx. 935 East Main Street Utah
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N, R2W, SLB&M, U.S. Survey

11 Oct, 2021

SHEET NO.
C11

20N710

W:\20N710 - River's Edge\DWG\20N710 - AM.dwg, 3/7/2022 1:42:28 PM, drew, 1:1

Horz. Scale: 1"=40'
Vert. Scale: 1"=4'

40 0 10 20 40 50 60 70 80

Graphic Scale

Legend

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- Overhead Power line — OHP —
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- Top of Wall — TWL —
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- Top of Concrete — TCN —
- Natural Ground — NG —
- Finish Contour — 90 —
- Exist. Contour — 90 —
- Finish Grade — 95.33TA
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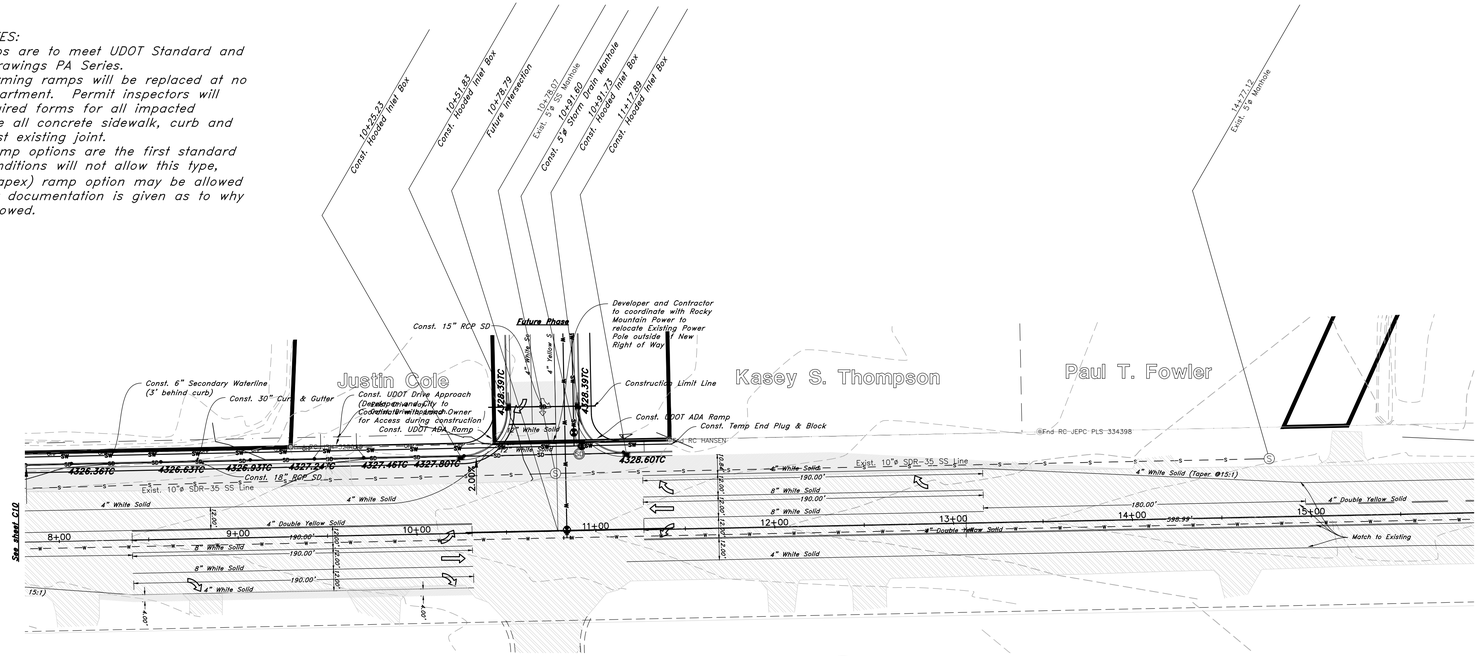
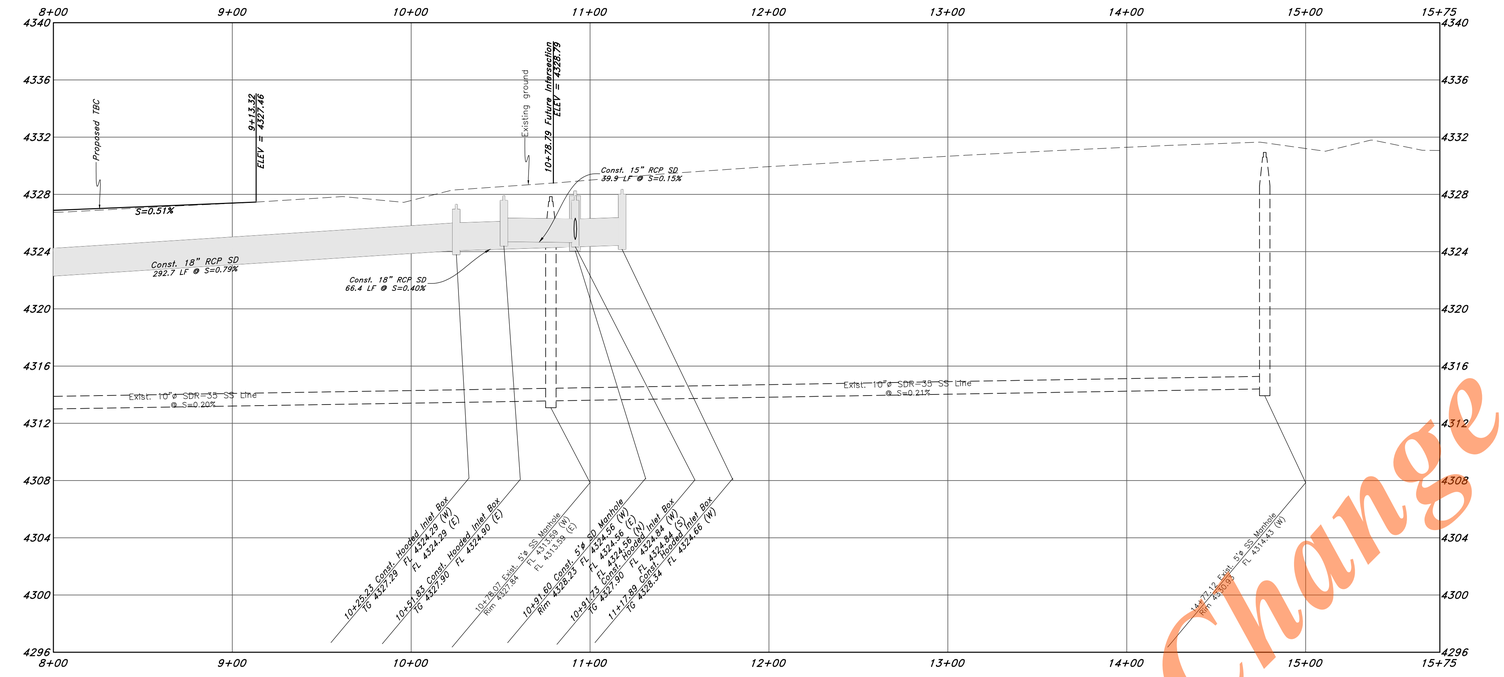


Main Street



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Plan & Profile

Rivers Edge - Phase 1

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March, 2022

SHEET NO.
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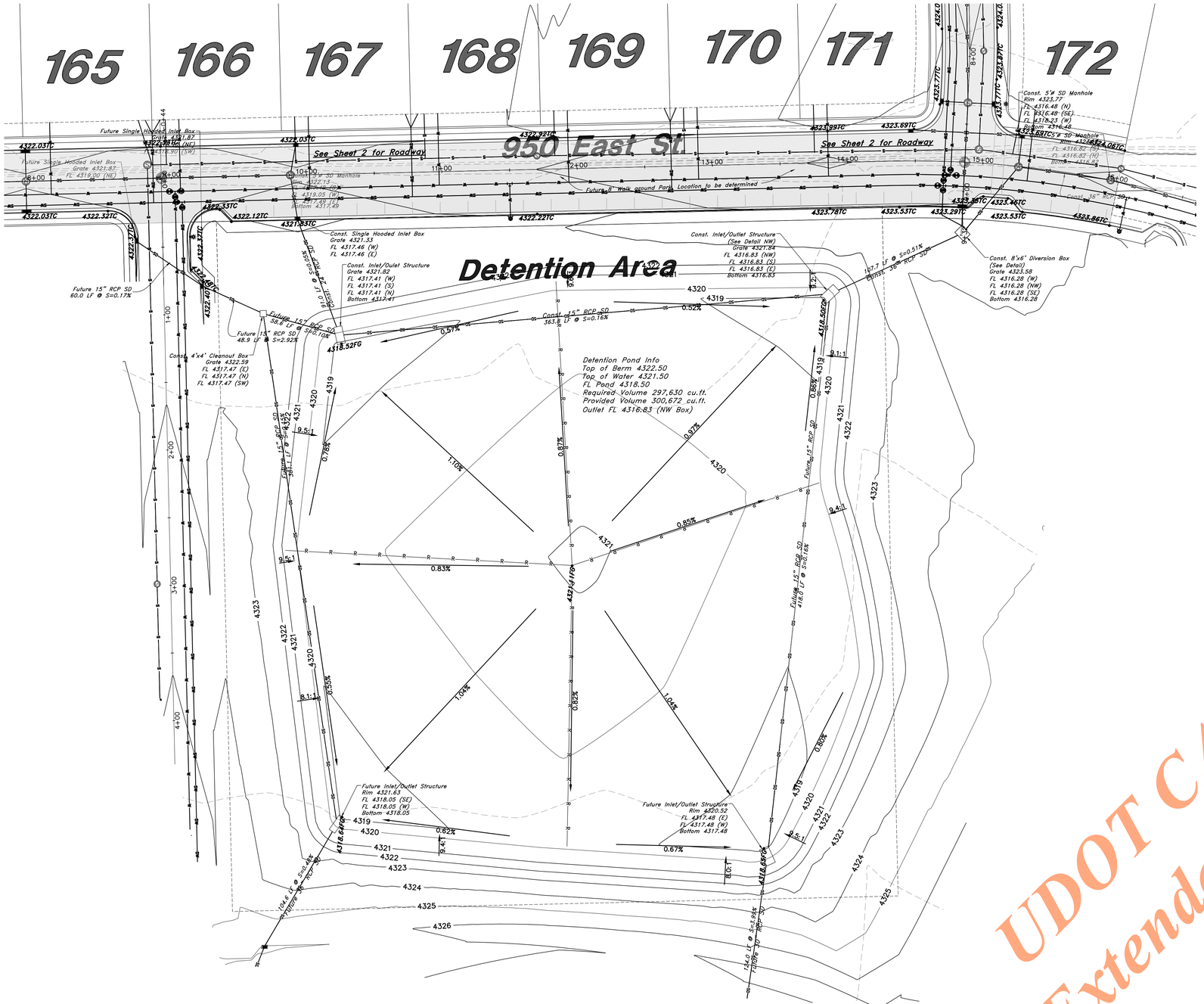
40 0 10 20 40 50 60 70 80

Graphic Scale



Legend

(Note: All Items may not appear on drawing)

San. Sewer Manhole	S
Water Manhole	W
Storm Drain Manhole	SD
Electrical Manhole	E
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	S
Culinary Water	W
Gas Line	G
Irrigation Line	IW
Storm Drain	SD
Telephone Line	T
Secondary Waterline	SW
Power Line	P
Fire Line	F
Land Drain	LD
Power pole	
Power pole w/guy	
Light Pole	
Fence	
Flowline of ditch	
Overhead Power line	OHP
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Ductile Iron	DI
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
Finish Floor	FF
Top of Curb	TC
Top of Wall	TWL
Top of Walk	TW
Top Of Concrete	TCN
Natural Ground	NG
Finish Contour	90
Exist. Contour	90
Finish Grade	95.33TA
Exist. Grade	95.72EX
Ridge Line	R
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Concrete	
Open Face Curb & Gutter	

NOTES:

1. Full Pond Design, Landscape, & Amenity Package to be provided as part of Phase 2 Development Package.

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-662-4111

REV	DATE	DESCRIPTION

GREAT BASIN ENGINEERING
5746 SOUTH 1475 EAST OGDEN, UTAH 84403
MAIN (801)394-4515 S.L.C.(801)521-0222 FAX(801)392-7544
WWW.GREATBASINENGINEERING.COM

Plan and Profile

Rivers Edge - Phase 1

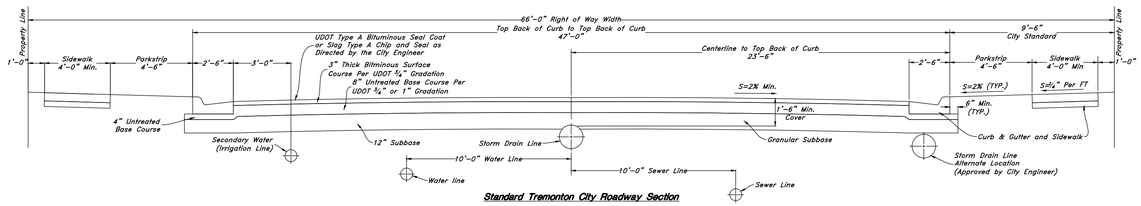
Approx. 9.55 East Main Street
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N. R2W. SLB&M. U.S. Survey

11 Oct, 2021

SHEET NO.
C12

20N710

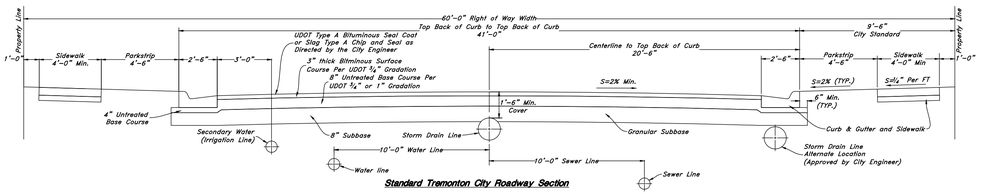
W:\20N710 - River's Edge\DWG\20N710 - AM.dwg, 3/7/2022 1:43:08 PM, drew, 1:1



Standard Tremonton City Roadway Section

NOTES:
1. Provide 4" Thickness of ¾" or 1" Gravel Base Course Under Sidewalk, Driveway Approached and Curb & Gutter when Subgrade is clay or as directed by the City Engineer.
2. These Pavement thickness shall be increased by the city engineer when a greater depth is necessary to provide sufficient stability.

Designer and/or Developer may submit an alternative pavement design based on a detailed soils analysis for the approval by the city engineer which may modify pavement thickness, but in no case shall the bituminous surface course be less than 3" and Gravel base course less than 4" thick.



Standard Tremonton City Roadway Section

NOTES:
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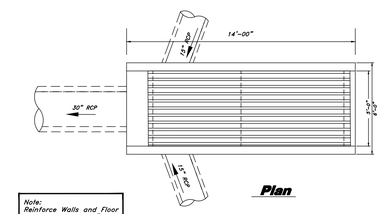
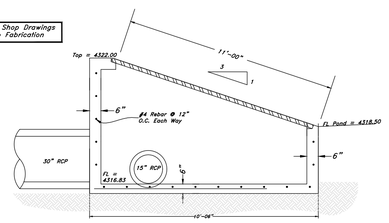


Plan

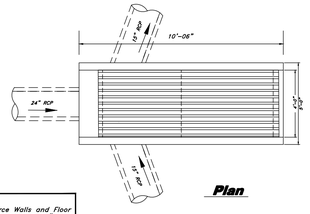
Note: Reinforce Walls and Floor with #4 bars @ 12" O.C. (Both Directions).

Submit Shop Drawings Prior to Fabrication



NW Inlet/Outlet Structure

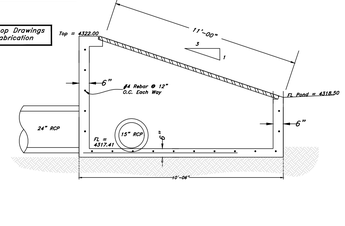
Not to Scale



Plan

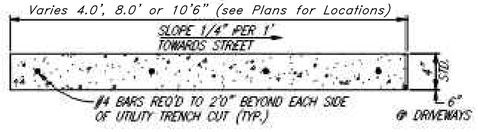
Note: Reinforce Walls and Floor with #4 bars @ 12" O.C. (Both Directions).

Submit Shop Drawings Prior to Fabrication

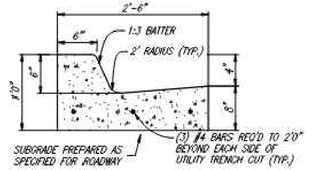


SW Inlet/Outlet Structure

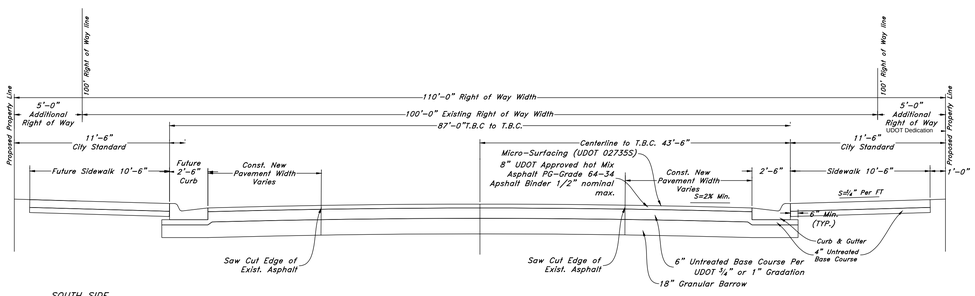
Not to Scale



SIDEWALK SECTION

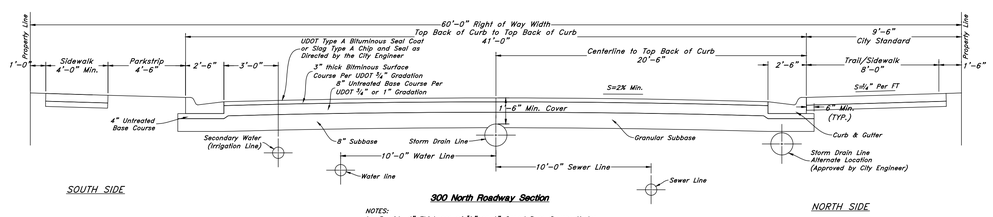


CURB & GUTTER SECTION



Main Street Roadway Section UDOT Preferred

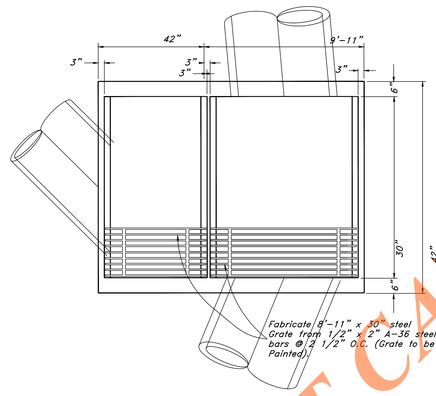
NOTES:
1. See Striping plan for

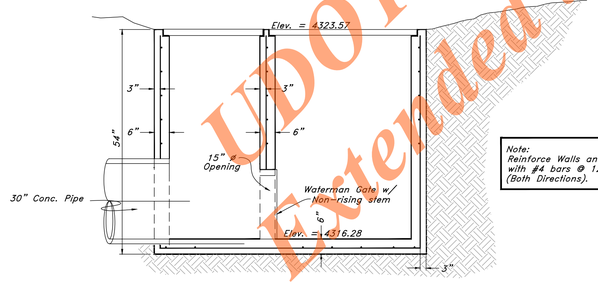


300 North Roadway Section

NOTES:
1. Provide 4" Thickness of ¾" or 1" Gravel Base Course Under Sidewalk, Driveway Approached and Curb & Gutter when Subgrade is clay or as directed by the City Engineer
2. These Pavement thickness shall be increased by the city engineer when a greater depth is necessary to provide sufficient stability.

Designer and/or Developer may submit an alternative pavement design based on a detailed soils analysis for the approval by the city engineer which may modify pavement thickness, but in no case shall the bituminous surface course be less than 3" and Gravel base course less than 4" thick.





Detail of Diversion Structure

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REV	DATE	DESCRIPTION

Details

Rivers Edge - Phase 1

Approx. 935 East Main Street Utah
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N. R2W, SLB&M, U.S. Survey

11 Oct, 2021

SHEET NO.
C13

20N710

Scale: 1" = 40'

40 0 10 20 40 50 60 70 80

Graphic Scale

Legend

(Note: All items may not appear on drawing)

San. Sewer Manhole	S
Water Manhole	W
Storm Drain Manhole	SD
Electrical Manhole	E
Catch Basins	
Exist. Fire Hydrant	
Fire Hydrant	
Exist. Water Valve	
Water Valve	
Sanitary Sewer	S
Culinary Water	W
Gas Line	G
Irrigation Line	IW
Storm Drain	SD
Telephone Line	T
Secondary Waterline	SW
Power Line	P
Fire Line	F
Land Drain	LD
Power pole	
Power pole w/guy	
Light Pole	
Fence	x x x
Flowline of ditch	
Overhead Power line	OHP
Corrugated Metal Pipe	CMP
Concrete Pipe	CP
Reinforced Concrete Pipe	RCP
Ductile Iron	DI
Polyvinyl Chloride	PVC
Top of Asphalt	TA
Edge of Asphalt	EA
Centerline	CL
Flowline	FL
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Top of Curb	TC
Top of Wall	TW
Top of Walk	TW
Top of Concrete	TCN
Natural Ground	NG
Finish Contour	90
Exist. Contour	90
Finish Grade	95.33TA
Exist. Grade	95.72TA
Ridge Line	R
Direction of Flow	
Existing Asphalt	
New Asphalt	
Heavy Duty Asphalt	
Concrete	
Open Face Curb & Gutter	

City is the process of acquiring additional Property in this location to Accommodate Standard Curb Return Design. Verify before Construction of Improvements

Developer to coordinate with city to curb match this small section, per UDOT requirements.

Install 4-2" Conduits Both Directions for Future Traffic Signal Communication Lines

15' Wide Traffic Signal Parcel to be Deeded to UDOT

Install 4-2" Conduits Both Directions for Future Traffic Signal Communication Lines

5' Strip to UDOT

4" White Dashed

4" White Solid

4" White Solid (Taper @ 15:1)

4" Solid white - 50ft radius 15:1 taper

12" Solid White

4" Yellow Solid

4" Double Yellow Solid

8" White Solid

8" Solid White

Shoulder

Match to Existing

Crosswalk and Stop Bar Striping to be installed once signal is constructed

Future Access Location, Const. Curb, Gutter and Asphalt as needed to get outside of UDOT R.O.W. (See Sheet C11)

Exist. Drive way, Const. Drive approach.

20.00'

EP 9+64.55

UDOT CAP 115166
Extended to Apr 2024

NOT FOR CONSTRUCTION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-662-4111

REV	DATE	DESCRIPTION

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Striping Plan

Rivers Edge Subdivision - Phase 1

Approx 387 East Main
Tremonton City, Box Elder County, Utah
A part of Section 2, T11N, R3W, SLB&M, U.S. Survey

March, 2022

SHEET NO.
C14

20N710

TREMONTON CITY **CITY COUNCIL MEETING** April 4, 2023	
TITLE:	Review of Calendar and Review of Past Assignments
FISCAL IMPACT:	Not applicable
PRESENTER:	Marc Christensen

April 10

Fire Chief Interviews:

6 pm – John Connolly

7 pm – Christopher Wells

April 19-21

***No City Council Meeting on April 18 due to the ULCT Midyear Conference.**

Dates: Wednesday, April 19 - 21, 2023

Location: Dixie Convention Center, St. George

April 26

Cathy Newman, Food Pantry Director, is retiring. We appreciate all she has done for the city and wish her well in retirement. There is no event scheduled for her retirement.
