ITEM # 22 & 23
DATE: 02-25-14

COUNCIL ACTION FORM

SUBJECT: REZONING WITH MASTER PLAN FOR PROPERTY AT 321 STATE AVENUE (FORMER AMES MIDDLE SCHOOL SITE)

BACKGROUND:

Breckenridge Group Ames Iowa, LLC has approached the City to develop/redevelop three parcels of land located at 205 S. Wilmoth Avenue, 321 State Avenue, and 601 State Avenue. **The site of this specific rezoning request is 10.8 acres at 321 State Avenue (Middle Parcel). (See Attachment A) The request is to change the zoning designation from S-GA (Special-Government/Airport) to RL (Residential Low-Density) for development of up to 78 dwelling units.** The development concept articulated by the applicant for 321 State is for a new student housing rental development of small individual buildings that differs from traditional apartment type student housing developments**.**

To develop the site in conformance with the proposed RL zoning and submitted Master Plan, the applicant will be required to complete a preliminary and final subdivision plat for the property before development of the proposed residential units can occur. Because the proposed rezoning request is for single-family dwellings within the RL zone, no formal site plan approval will be required for the individual lots once platted. It should be noted that future development on individual lots within RL zoning districts does not require the sale of the homes individually, and the homes may be rented rather than sold.

The attached addendum provides the complete background and staff's analysis of this project. In summary, based upon the Land Use Policy Plan (LUPP) land use designation of Low-Density Residential, the proposed request to rezone the property to Low-Density Residential is consistent with the LUPP and current zoning designations within the surrounding area. The City has a stated desire and need to create individual residential lots for development within the Ames Community School District, which is fulfilled to some degree by rezoning this site to RL. Staff notes that most public infrastructure is adequate to serve the site, with the exception of the preliminary findings of the traffic impact analysis (TIA) submitted by the applicant. Development of this site with the proposed development of 601 State (South Parcel, separate application) show incremental impacts to nearby intersections, specifically at the intersection of Mortensen Road and State Avenue. The applicant has not offered mitigation for traffic impacts with this rezoning request.

Consistent with the requirements of Section 29.1507(8), a protest of the zone change application signed by 19 property owners representing 25 of the 36 properties within 200 feet of the subject site has been submitted to the City. As a result this protest, any action to rezone the site will require 5 affirmative votes by the City Council.

ALTERNATIVES:

1. The City Council can approve the rezoning of approximately 10.8 acres of land located at 321 State Avenue from "S-GA" (Government/Airport) to "RL" (Residential Low Density) with no Master Plan.

2. The City Council can approve the rezoning of approximately 10.8 acres of land located at 321 State Avenue from S-GA to RL, with a Master Plan and conditions on the Master Plan to eliminate the intended development range of 50-78 units.

3. The City Council can deny the request for RL zoning if it finds there is an interest in rezoning the 10.8 acres of land located at 321 State Avenue from S-GA to PRD in order to require a Major Site Development Plan review prior to subdivision. The applicant would then be required to submit a rezoning application to PRD with a Major Site Development Plan.

4. Action on this request can be postponed and referred back to City staff and/or the applicant for additional information or for an applicant's response to comments from the City Council. This could potentially include a request for contract rezoning.

5. The City Council can deny the request for rezoning of approximately 10.8 acres of land located at 321 State Avenue from S-GA to RL.

MANAGER'S RECOMMENDED ACTION:

Staff has reviewed the proposed rezoning and finds that the proposed zoning change to RL is the best fit for the site and is consistent with the Residential Low-Density designation of the Land Use Policy Plan, Alternative #1. Staff also feels, however, that based on the information on the applicant's Master Plan, adoption of the current proposed Master Plan is not warranted along with the rezoning.

The applicant's Master Plan conforms to the requirements of the Zoning Code to identify the developable areas of the site, types and intensities of use, and major street connections as required by the Code. However, it does not provide additional details beyond the basics of the underlying zoning, with the exception of showing a Tripp Street connection. Staff does not believe that the applicant's interest for a development range of 50-78 units (5-7.26 units per net acre) is realistic without more details on layout. Final design and layout decisions should be reserved for subdivision review, which will determine the total units to be built on the site.

Planned Residential Development provides the most detail about individual developments, and in return allows for potentially wider latitude in development. With the intended use of the site as single-family homes on individual lots, it will require subdivision approval to consider the size and layout of lots along with street patterns. With subdivision requirements in place, staff does not believe it is necessary to require a PRD to address the subsequent design issues for the site.

If Council should determine that the proposed rezoning is consistent with the goals and

policies of the Land Use Policy Plan, the City Council can approve the request for rezoning to "RL" Residential Low Density as identified in Alternative #1. However, if the City Council feels that there are additional concerns related to the RL zoning, such as street connections of the Master Plan or traffic impacts, the Council could address those concerns in the form of **conditions to the Master Plan** (Alternative #2) or as interests to be considered in a **contract zoning** (Alternative #4).

Staff will be prepared to provide additional information and to address Council's questions and concerns at the Public Hearing Tuesday night.

ADDENDUM

BACKGROUND INFORMATION:

Breckenridge Group Ames Iowa, LLC initially approached the City to develop/redevelop three parcels of land located at 205 S. Wilmoth Avenue, 321 State Avenue, and 601 State Avenue, respectively. See Attachment A. The three properties are currently designated as Low Density Residential or Village/Suburban Residential and all three are zoned Special-Government/Airport (S-G/A). See Attachment B. The development concept articulated by the applicant is for a new student housing rental development that differs from traditional apartment type student housing developments. The concept has been for small individual buildings rather than a development of larger apartment buildings. Development of the properties requires a rezoning to allow for development consistent with an underlying land use designation.

The applicant has filed two separate rezoning requests. **The first request is for rezoning of 321 State Avenue, the subject parcel, which is a 10.8 acres site and the location of the former Ames Middle School (referred to herein as the middle parcel).** See Attachment C – Existing Zoning Map. The request is to change the zoning designation from S-GA (Special-Government/Airport) to RL (Low-Density Residential) for development of up to 78 dwelling units. See Attachment D – Proposed Rezoning Map. The other pending rezoning request is for an undeveloped 28.9 acre site at 601 State Avenue (referred to herein as the south parcel). That request is to change the zoning designation from S-GA to FS-RM (Floating Suburban Residential Medium Density) for development of up to 432 dwelling units. Based on the applicant's proposals, development of the two sites could yield up to approximately 510 dwelling units at their maximum development potential. Full development potential is unlikely to be realized once design and subdivision requirements are taken into account.

Breckenridge Group Ames Iowa LLC owns an additional third parcel, the former middle school athletic field, at 205 S. Wilmoth Avenue. That parcel lies along Lincoln Way and is referred to herein as the north parcel. That site is currently zoned as S-GA. The owner is not seeking a change of zoning designation at this time and has stated that this will be done in a later phase. There is a pending request dated October 25th to the City Council to consider initiating a Land Use Policy Plan Amendment for the north site.

In response to the applicant's request to initiate a rezoning of the middle and south parcels, the City Council determined a Master Plan was needed to accompany the rezoning request. City Council asked the applicant to consider a number of concerns related to development of all of the properties and specifically asked that all three parcels be included in a Master Plan, even though the north parcel had not yet been requested to be rezoned. See Attachment E for a list of zoning code requirements of a Master Plan and an excerpt of Council's requested Master Plan conditions. Council also recommended that staff work to facilitate a discussion with the neighborhood and the applicant to address concerns for the development sites and the integration of the proposed rental development into the neighborhood.

The applicant agreed to a series of facilitated neighborhood meetings with Iowa State University representatives and the College Creek/Old Ames Middle School Neighborhood Association representatives in an effort to identify community issues and concerns in relation to the proposed development. A series of four meetings were held in June and July, with a final Neighborhood Association meeting in August to present a collective Master Plan concept to the neighborhood and the general public. The discussions with ISU and the neighborhood representatives encompassed many concerns and issues for the sites including such items as: land use, density, storm water and utilities, impacts to the surrounding neighborhood, quality of life concerns, on-site amenities, traffic, parking, lighting, and safety. Neighborhood representatives also met with staff to discuss their various interests and to understand the many steps in a development review process. Upon completing these neighborhood meetings, the applicant finalized their rezoning applications in the fall of 2013.

Project Description

The submittal of the Residential Low Density (RL) rezoning request with a Master Plan for the middle parcel constitutes a complete application for rezoning based upon the minimum submittal requirements of the Zoning Code. See Attachment G for the proposed Master Plan. However, the applicant has chosen not to provide the additional City Council requested information relating to the Middle Parcel and for the other two parcels at this time.

The rezoning request and Master Plan submitted for review for the middle parcel are for a RL development with 50-78 single family residential units. The Master Plan also includes a public street connection at Tripp Street connecting from Wilmoth to State Avenue. A Master Plan does not require the complete details of future development plans, such as a lotting pattern, local street circulation, and utility services. The Master Plan does note the intent for some alley accessed lots, but this type of detail will be reviewed as part a subsequent subdivision application and not as a Master Plan component.

The only allowed use within the proposed RL zoning is single-family homes on individual lots. To develop the site in conformance with the proposed RL zoning and Master Plan, the applicant will be required to submit a preliminary plat for subdivision of the property subsequent to approval of a rezoning. There is not individual site plan review for each lot or structure under RL development. Note that future development on

individual lots within RL zoning does not require the sale of the homes individually, and the homes may be rented rather than sold.

The Zoning Code-required information for a rezoning request is contained within the Master Plan; however, in evaluating the request staff has identified the potential for offsite traffic impacts from development of the project in combination with other pending development in the area. The Planning and Zoning Commission requested a traffic analysis to evaluate these potential impacts. A draft traffic impact analysis (TIA) with technical appendices was submitted to the City on January 7th, and a final TIA was submitted on February 18th (Attachment I). Staff has not yet reviewed this TIA in detail.

Project Analysis

Land Use Designation/Zoning. The LUPP Future Land Use Map designation for the subject site is Low -Density Residential. The Low-Density Residential designation of the LUPP is intended for such uses as single-family residential and existing two-family residential units. The following tables provide the future land use designation and zoning of the subject property and other surrounding properties.

Direction from Subject Property	LUPP Map Designation	Zoning Map Designation
Subject Property	Low Density Residential	"S-GA" (Government/Airport)
North	Low Density Residential	"RL" (Residential Low Density)
East	Parks and Open Space	"S-GA" (Government/Airport)
South	Village/Suburban Residential	"S-GA" (Government/Airport)
West	Low Density Residential	"RL" (Residential Low Density)

The current zone of S-GA is intended for uses associated with federal, state, county, school districts, or municipal governmental authorities, such as publically owned facilities used for administration, services or general aviation functions. Any use associated with these types of entities would be allowable under S-GA zoning. S-GA zoning may occur in conjunction with any LUPP designation.

The proposed rezoning from Government/Airport (S-GA) to Low-Density Residential (RL) is the primary zoning district intended to implement the LUPP designation. Its purpose corresponds to the description of the LUPP designation. Note that RL does not have a minimum density requirement and the applicant has stated intent to develop at the high end of the maximum density for the site at 50-78 units at 5-7.26 units per net acre. Staff does not believe that this range of total units will be completely achievable once subdivision design requirements are taken into account for the site.

Planned Residential Development zoning is also provided for in the zoning code. Property developed according to the F-PRD (Planned Residence District) requirements

is to allow for innovative housing types and create a development pattern that is more aesthetic in design and sensitive to the natural features of the site and to surrounding uses of land than would customarily result from the application of the requirements of other residential zoning districts. Development is to include a mix of housing types, integrated design, open space, site amenities, and landscaping that exceeds the requirements that exist in other residential zone development standards.

Existing Land Use. Land uses that occupy the subject property and other surrounding properties are described in the following table:

Direction from Subject Property	Existing Land Uses/ Ownership of Properties
Subject Property	Former Ames Middle School Breckenridge Ames Iowa, LLC
North	Single-Family Homes Rental and Owner Occupied
East	Undeveloped Park and Open Space Iowa State University
South	Vacant/Undeveloped Breckenridge Ames Iowa, LLC
West	Single-Family Homes Rental and Owner Occupied

Access. The Master Plan submitted indicates the connection of Tripp Street west to east as a public street. The identification of public streets is not a required element of the Master Plan submittal by the zoning code and would typically be addressed at the time of subdivision. However, with Tripp Street shown on the Master Plan in relation to site access, it would be a requirement of future development with approval of the rezoning and Master Plan. However, at the time of subdivision some flexibility would be allowed for the actual design and connection points with State Avenue and South Wilmoth Avenue based on the requirements of the subdivision code for public streets.

Infrastructure. The subject area is already a developed lot with the former Middle School and served by all City infrastructure. Public utility mains and streets are immediately adjacent to the subject property with infrastructure capacity to serve the site, with the exception of off-site transportation impacts.

Impacts. The Long Range Transportation Plan (LRTP) currently does not plan for any new residential units within the areas of the previous school district owned sites as they were government owned and not expected for near term development when it was adopted. The traffic impact analysis submitted by the applicant is intended to identify areas of increased traffic for vehicular movements at surrounding major intersections based on the projected number of new residential units for the sites. The city considers operational capacity at intersections when evaluating the effectiveness of the transportation network. The LUPP Transportation Chapter targets Level of Service (LOS) C for intersections.

The applicant intends to demolish the existing school building, parking lots and open space for the development of potentially 50-78 residential units for student housing rentals at 321 State Avenue. The traffic study also partially accounted for the pending rezoning of 601 State Avenue and considered the combined impacts of both projects. The applicant used assumptions of trips per person rather than units because of the intention for the development as student housing. The applicant also utilized a 20% discount in trip generation due to expected lower car utilization based on a survey of parking utilization at Campus Crest Communities on South 16th Street in Ames.

Staff reviewed the preliminary conclusions of the traffic impact analysis that was submitted in January and responded to the applicant with comments. Staff has not yet fully reviewed the traffic study submitted on February 19th. When responding to the preliminary TIA, staff generally noted that portions of the study were incomplete and additional documentation was needed for staff to complete a review. **Staff did note specifically that the development identified in the Master Plans of both the Middle and South Parcel did not match the number of units described in the traffic study.** The TIA showed less development than the full range described in the Master Plans. Staff also commented that the 20% reduction of trips based on a parking study that estimated parking occupancy was not appropriate as proposed. Staff has requested clarification on the parking study to determine suitability of the study use to reduce the number of trips in the TIA.

The conclusions of the preliminary TIA found that the highest level of impact is to the intersection of Mortensen Road and State Avenue during the PM Peak Hour. Under current conditions, the unsignalized Mortensen and State intersection operates at the cusp of acceptable delay. With the proposed project there is a significant increase in the delay for certain traffic movements at the intersection and a worsening of conditions. The conclusions drawn by the applicant's engineer indicate that the decreased level of service shown from the inclusion of the proposed development increase is not a significant change from existing conditions to warrant any mitigation on behalf of the development.

A planned improvement identified in the LRTP for this intersection is a roundabout. This would mitigate the projected project impacts of both 321 and 601 State Avenue. The existing conditions of the intersection do show a need for improvement and it is identified on a LRTP priority list for improvement within the 10-year planning cycle. However the current priorities do not show the improvement planned in the current 5-year Capital Improvement Program (CIP). The development of these parcels as described in the TIA may cause a need for the City to accelerate the planned improvements before the City's planned LRTP timeline. Development of the subject site could be accountable for a portion of the improvement needed to mitigate the impact and a condition of the rezoning as the City has not planned for this improvement in the near term.

Additionally, it is noted that while there is existing transit service to the general area by way of existing routes and stops on Lincoln Way, the current CyRide service in the area is at full capacity. CyRide has indicated it would not alter its routes to provide service on State Avenue for direct service to the sites. CyRide does not currently have the financial

means necessary to increase the level of service to the area with bus capacity or routes to accommodate the cumulative increase of new development in the area.

Goals of the Land Use Policy Plan (LUPP). Several of the ten goal statements of the LUPP speak indirectly to this request for rezoning. However, Goal No. 5 seems to address the rezoning proposal most directly since it states that "it is the goal of Ames to establish a cost-effective and efficient growth pattern for development in new areas and in a limited number of existing areas for intensification." Objective 5.C.states: "Ames seeks continuance of development in emerging and infill areas where there is existing public infrastructure and where capacity permits."

Applicable Laws and Policies. The City of Ames laws and policies that are applicable to this proposed rezoning are included in **(*Attachment F).***

Applicant's Statements. The applicant has provided a description of the proposed rezoning request and a narrative for the proposed Master Plan ***(See Attachment H).***

Findings of Fact. Based upon an analysis of the proposed rezoning and laws pertinent to the applicant's request, staff makes the following findings of fact that may be incorporated into final decision on the project:

1. The subject site is zoned S-GA as the location of the former Ames School District Middle School. S-GA allows for uses associated with federal, state, county, school districts, or municipal governmental authorities, such as publically owned facilities used for administration, services or general aviation functions.

2. Ames *Municipal Code Section 29.1507(2*) allows owners of 50 percent or more of the area of the lots in any district desired for rezoning to file an application requesting that the City Council rezone the property. The property represented by the applicant is entirely under one ownership representing 100 percent of the property requested for rezoning.

3. The subject property has been designated on the Land Use Policy Plan (LUPP) Future Land Use Map as "Residential Low Density." The City completed an analysis of government lands in 2008 and designated this site as low density to accommodate a desired increase in low-density single-family development and for compatibility with surrounding neighborhood.

4. The "Residential Low Density" land use designation supports the "RL" (Low Density Residential) zoning designation. Under "RL" zoning the proposed use as identified in the Master Plan is permitted. The applicant will be required to subdivide the property through a preliminary and final plat to allow for each residential unit to be located on individual lots.

5. Ames *Municipal Code Sec. 29.1507(5)* requires approval of a zoning agreement for an application with a Master Plan and that all subsequent development comply with the Master Plan.

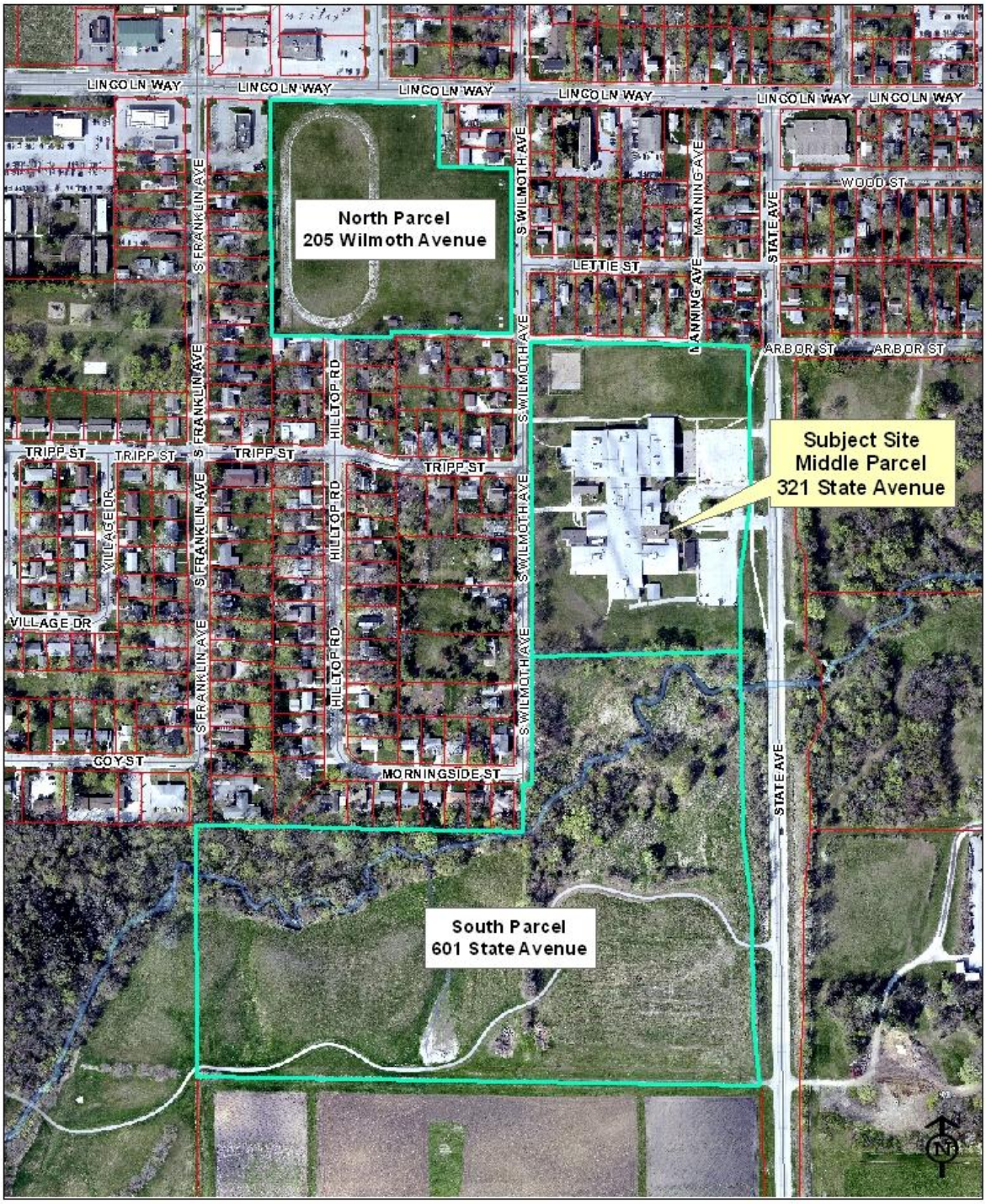
6. Public infrastructure is generally available to serve the proposed development and pending development. The project contributes incremental negative impacts to intersection operations in the area of the site and contributes additional riders to the bus system that operates at capacity.

7. Development of the project would accelerate the need to implement traffic mitigation at the intersection of Mortensen and State that is not programmed within the City's Capital Improvement Plan.

Public Notice. Notice was mailed to property owners within 200 feet of the rezoning area and a sign was posted on the subject property.

Planning and Zoning Commission Meeting.
The Planning and Zoning Commission held a public hearing on the proposed rezoning on January 15, 2014. After much debate on the range of options and with a vote of 4-1, the Planning and Zoning Commission recommended that the City Council approve the rezoning with Master Plan for 321 State Avenue from "S-GA" (Government/Airport) to "RL" (Residential Low Density). At the meeting, the Commission heard from the applicant, Charles Vatterott, and his attorney and engineer, Brian Torresi, Davis Brown Law Firm, and Scott Renaud, Fox Engineering. The Commission also heard from many residents from the College Creek Old Ames Middle School Neighborhood Association and a representative from Iowa State University. Mr. Warren Madden, Iowa State University, stated that the University is not opposed to the rezoning, but stated they have concerns that have not been addressed by the applicant such as who will be responsible for improvements and maintenance to the surrounding streets. Mr. Madden also noted that there is concern over any bike path improvements that may be required as the path crosses University property. The neighborhood comments focused around concerns for flooding and storm water runoff, removal of wildlife habitat areas, the need for more owner occupied single-family homes in the community, concern for increased cut through traffic due to the connection of Tripp Street, the use of proposed alleys within the neighborhood as noted on the Master Plan, noise, littering, quality of life issues for the existing residents, and lack of on-site management from the Breckenridge Group as demonstrated at other locations across the Country.

Attachment A
Location Map

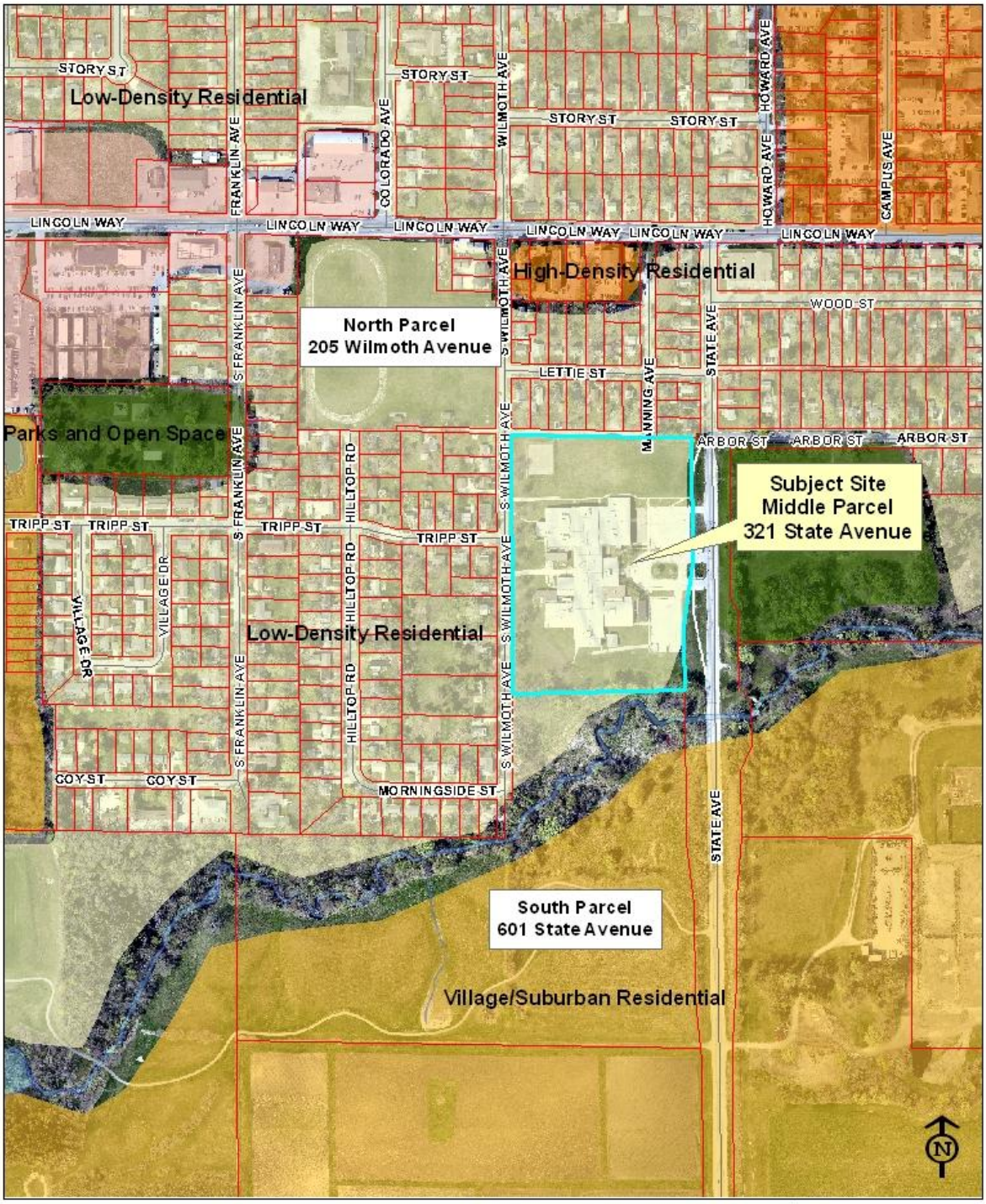


Location Map
Breckenridge Development Properties

CITY OF ames

0 165 330 660 Feet

Attachment B
LUPP Future Land Use Map

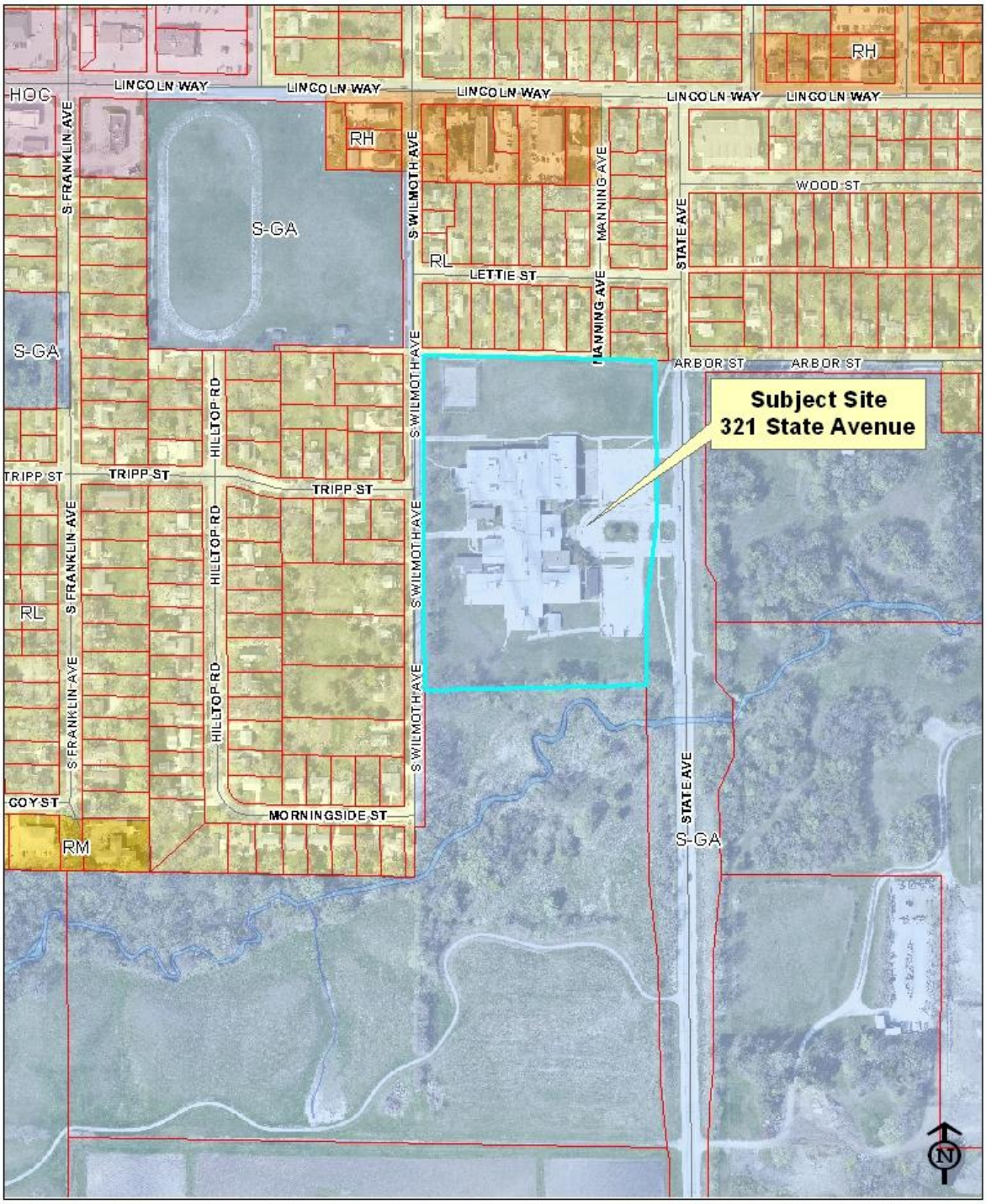


Existing Land Use Policy Plan Map
Breckenridge Development Properties

CITY OF ames

0 200 400 800 Feet

Attachment C
Existing Zoning



Existing Zoning Map
321 State Avenue

CITY OF ames
0 120 240 480 Feet

Attachment D
Proposed Zoning

Proposed Zoning Map
Breckenridge Development Properties

CITY OF ames

0 165 330 660 Feet

Attachment E

Code Requirements for a Master Plan and City Council Requested Conditions of the Master Plan for Old Middle School South, Middle, and North Sites

Per Section 29.1507(4): Master Plan Submittal Requirements:

a. Name of the applicant and the name of the owner of record.
b. Legal description of the property.
c. North arrow, graphic scale, and date.
d. Existing conditions within the proposed zoning boundary and within 200 feet of the proposed zoning boundary: Project boundary; all internal property boundaries; public rights-of-way on and adjacent to the site, utilities; easements; existing structures; topography (contours at two-foot intervals); areas of different vegetation types; designated wetlands; flood plain and floodway boundaries; areas designated by the Ames Land Use Policy Plan as Greenways and Environmentally Sensitive Areas
e. Proposed zoning boundary lines.
f. Outline and size in acres of areas to be protected from impacts of development
g. Outline and size in acres of areas proposed of each separate land use and for each residential unit type
h. Pattern of arterial streets and trails and off-site transportation connections
i. For proposed residential development provide the number of unit type for each area, expressed in a range of the minimum to maximum number to be developed in each area
j. For proposed residential development provide a summary table describing all uses of the total site area, including the number of units per net acre for each unit type and each zoning area.

City Council Conditions of Master Plan (April 9, 2013 Meeting):

a. In the RL zone consider locating each home on an individual lot as typical in a traditionally subdivision or alternatively consider requiring a Major Site Development Plan for a site with multiple single-family homes on a single lot.

b. Descriptions of buffering and security. These should be physical design features that can be expected to be incorporated into the site and building designs, rather than employment of personnel which may be diminished over time.

c. As part of the Master Plan, the City Council may wish to see a street connection of Tripp Street from Wilmoth Avenue to State Avenue. Such interconnectivity of residential neighborhoods is a consistent expectation of the City Council in reviewing other developments.

d. As part of the Master Plan, the owner should identify the natural resources of the site, such as the flood plain, Greenway and Environmentally Sensitive Lands of the LUPP, conservation easements. Further, the owner should provide information as to how these resources will be protected as part of the project.

e. As part of the Master Plan, the owner should identify any common facilities, such as open spaces or amenity buildings.

f. As part of the Master Plan, the City Council asked that all three properties be included. Although a rezoning is sought only for the middle and south parcels at this time, it is the owner's expressed expectation that the north parcel would be a later phase.

g. Items listed as part of the letter submitted from Iowa State University dated April 4, 2013:

1. Impact on adjacent agricultural plot and field work, require adequate fencing
2. Light pollution on adjacent experimental field plots
3. College Creek watershed impact and downstream water management.
4. Portions of State Street are in institutional road. Responsibility for funding road improvements. Who will pay for widening, signalization other possible improvements?
5. This project may require traffic signalization or construction of a roundabout at State Street and Mortensen to safely manage traffic.
6. Adequate parking in the area.
7. CyRide cost increases for bus service. ISU and students fund ~70% of CyRide operations. Where will financial support come from for expanded service?
8. Impact on Arboretum and Cross County Track on east side of State Street.
9. Walking and bicycle paths from the housing area to campus and retail and residential development to the west.
10. Impact on ISU recreations are to east.
11. Law enforcement and fire protection impact.
12. Campustown revitalization is higher priority for resource commitments and may be a better location for expanded student housing.
13. Long term ISU enrollment trend. Is housing of this type needed and can it be converted to other uses if there are changes in enrollment trends?
14. Impact on residential neighborhood and housing that many of our younger faculty and staff occupy. The neighborhood is opposed to the project.

h. As part of the Master Plan, the City Council asked that the plan include the equivalency of subdividing the property so that every building is on a separate lot and meets all City requirements.

Attachment F
Applicable Laws and Policies

The laws applicable to the proposed rezoning at 321 State Avenue are as follows:

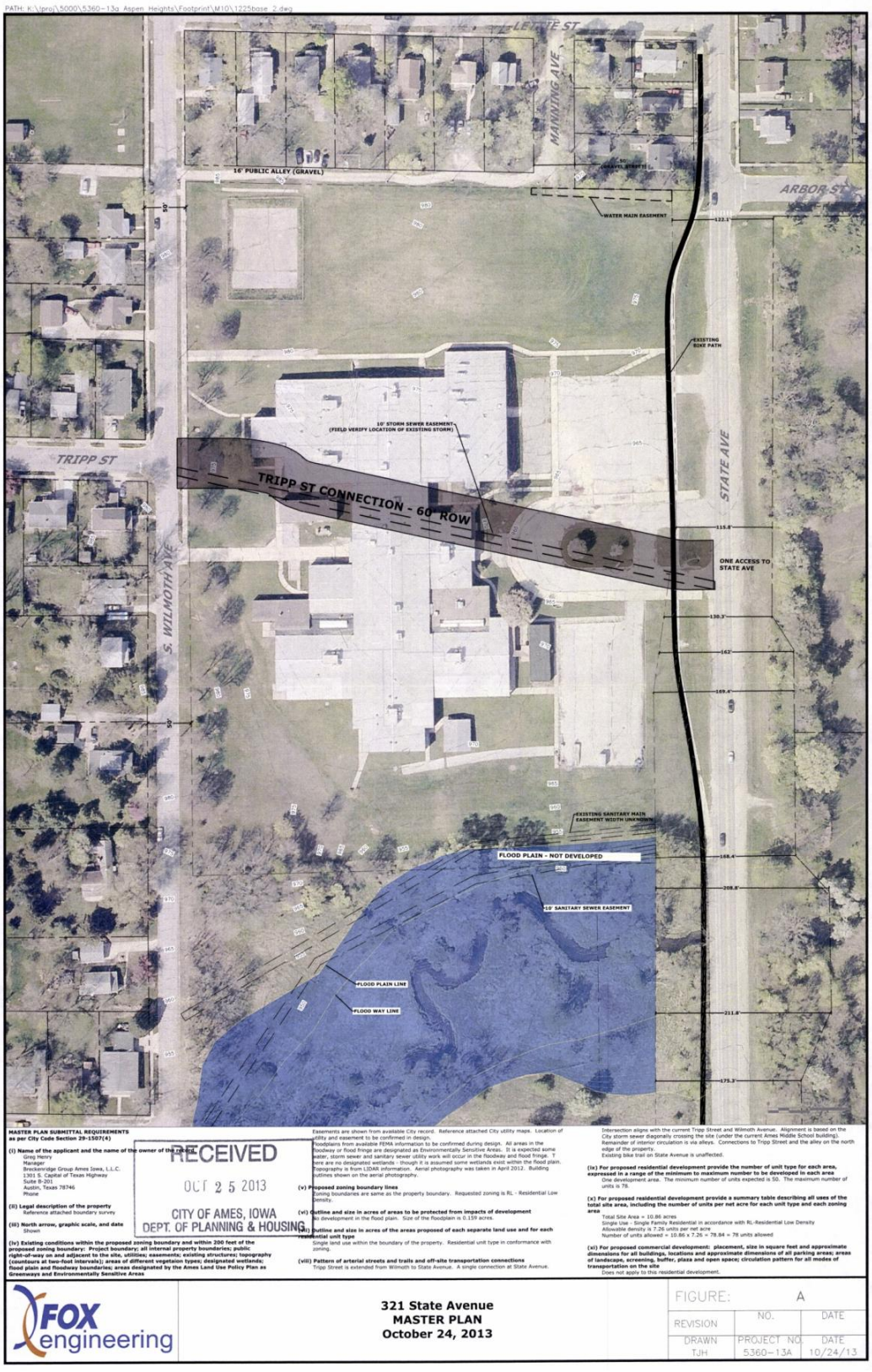
- Land Use Policy Plan (LUPP) Goals, Policies and the Future Land Use Map:

  The Land Use Policy Plan (LUPP) Future Land Use Map identifies the land use designations for the property proposed for rezoning.

- Ames *Municipal Code* Chapter 29, Section 1507, Zoning Text and Map Amendments, includes requirements for owners of land to submit a petition for amendment, a provision to allow the City Council to impose conditions on map amendments, provisions for notice to the public, and time limits for the processing of rezoning proposals.

- Ames *Municipal Code* Chapter 29, Section 701, Residential Low Density (RL) Zone, includes a list of uses that are permitted in the Residential Low Density zoning district and the zone development standards that apply to properties in that zone.

Attachment G
Proposed Master Plan



Attachment H
Applicant's Statement

321 State Avenue
Narrative to the Master Plan
RL Rezoning
Master Plan as per Ames Code 29.1507(4)
October 1, 2013

Reference Master Plan for detailed responses to the legal requirements of 29.1507(4).

All units are single family residential in conformance with zoning. The houses are a single type in conformance with zoning.

Tripp Street will be constructed as a public street connecting South Wilmoth Avenue to State Avenue as per the City's Transportation Master Plan. The location of Tripp Street is determined by the existing City storm sewer diagonally crossing the site. The existing storm sewer will be in the Tripp Street right of way.

Public alleys will be constructed to access the houses. There will not be lot access from S. Wilmoth, Tripp Street, State Avenue or the Marshall alley (along the north edge of the property). Houses will face the street or green areas. The rear of the houses will be to the alley. The alleys will be constructed to the standards necessary for fire protection as required by the Ames City Code.

Public sidewalks will be constructed as per the requirements for public streets except where trails have already been constructed on State Avenue.

Utilities

Water - Available adjacent to the site. Public mains will be run in the street and alleys as required to service the buildings and to provide fire protection.

Sanitary Sewer - Available adjacent to the site. Public mains will be run in the street and alleys as required to service the buildings.

Storm Sewer - Available adjacent to the site. Public mains will be run in the street and alleys as required to service the streets, alleys and lot drainage.

Gas/Electric/Phone - Available adjacent to the site.

K:\!proj\5000\5360-13a Aspen Heights\Master Plan\2013 10 01 south parcel mp narrative.docx

Attachment H, Cont.

Rezoning Narrative
321 State Avenue, Ames, Iowa

Reasons for Requesting Rezoning

The current zoning is S-GA – Government/Airport District is a Special Use District that is intended for governmental bodies and is not appropriate for private property ownership. Rezoning is necessary to redevelop the property for residential use.

Consistency of this Rezoning with the Land Use Policy Plan

The Future Land Use Map identifies this area to be rezoned to Residential Low Density. This rezoning request is in conformance with the Land Use Policy Plan.

Current Zoning - Current zoning is S-GA – Government/Airport District.

Proposed Zoning - RL- Residential Low Density

Proposed Use of the Property – Proposed use will be in conformance with the RL zoning ordinance.

Legal Description – See attached Plat of Survey

Land Area – 10.86 Acres

K:\!proj\5000\5360-13a Aspen Heights\320 Rezoning\Narrative Ver 1 2013 02 07.docx

Aspen Heights

Traffic Impact Analysis

Prepared for:
FOX Engineering

By:
Duane Smith, PE
desmith32@AOL.com
515-232-3202

February 19, 2014

Table of Contents

List of Figures

List of Tables

I. Introduction

A. Purpose

The purpose of this traffic impact analysis (TIA) is to forecast the travel demand and related traffic impacts associated with the proposed Aspen Heights development projects. This development is located on State Avenue, at the former Ames middle school site in Ames, Iowa.

The two (2) proposed Aspen Heights development projects discussed in this TIA are:

- the middle project located at the old Ames middle school site
- the south project located to the south of the middle project and north of Mortensen Road, on the west side of State Avenue.

The results of the TIA will identify acceptable levels of service (LOS) and provide input regarding traffic improvements that may be necessary to obtain acceptable levels of capacity in the future. Roadway capacity is evaluated on the basis of a Level of Service (LOS) analysis. Levels of Service are given letter designations of A through F, and are categorized based on driver perception and ease of traffic movements. LOS A represents free-flow conditions with no delays, while LOS E and F are generally considered unacceptable in urban areas.

B. Analytical Process

A detailed technical process was used in order to achieve the above objectives. Key steps in the process include:

- Trip Generation – The product of the trip generation is the estimated number of trips to and from each proposed land use within a development or project. Input includes statistics on the proposed development (i.e. number of dwelling units, bedrooms, persons etc.), and trip generation for each proposed use, (i.e. trips per person, etc.).

- Trip Distribution – The prime output of trip distribution is the quantification of the “desire” to travel from one location (the origin) to another location (the destination). The % of trips generated in the cardinal direction of north, south, east and west are documented. No route or trip path is implied by the trip distribution process.

- Trip Assignment – The assignment process requires that a roadway network be identified such that each estimated trip generated can be assigned to a specific path (roadway) connecting each origin-destination pair. The aggregation of all trips assigned to a given link in the roadway link in the network is the final traffic forecast for the roadway network.

- Capacity Analysis – This step consists of determining physical requirements needed to accommodate the forecasted traffic volumes and the associated level of service (LOS). The *Synchro* traffic modeling software, utilizing the *Highway Capacity Manual (HCM)* methods, is a key tool in this step.

II. Background

A. Aspen Heights Development

The Aspen Heights development project has been detailed in the 321 and 601 State Avenue master plans. The development is designed to be student apartments. The reason, it is expected that approximately 85% of the residents will be ISU students.

Trip Generation - Persons vs Dwelling Units

There may be a question concerning using persons and automobiles for the trip generation analyses rather than the number of units. The following calculations illustrate that the number of trips generated are similar when considering that the ITE trip generation rates are a result of several studies and compiling data to establish those rates. The following calculations compare traffic generated by persons and by dwelling units for the middle project

Persons Analysis:
The master plan shows 54 units. If we assume 3 persons per unit on the average there would be 163 persons. Not everyone will have a vehicle and as a result, they will not be generating a vehicle trip. This report assumes that 20 % of the people will not have a vehicle. Therefore, we can reduce the number of persons by 20%. The calculations for daily trips would be:
(54 units) (3 persons per unit) (0.80) = 129 (assume 130 persons)

The ITE Trip Generation Manual code 220 Apartment indicates 3.31 trips per day per person.
(130 persons)(3.31) = 430 trips daily

Dwelling Units Analysis:
The master plan shows 54 units. The ITE Trip Generation Manual, code 220 Apartment assumes 6.65 trips per day per unit.
(54 units)(6.65 trips per day) = 359 trips (assume 360)

If the number of trips is reduced by 20% because not all residents will have a vehicle, the number of daily trips is assumed to be:
(360 trips)(0.80) = 288.

Conclusion:
The conclusion that we can draw is that using persons as a metric to calculate vehicle trips is more conservative than using dwelling units. As a result, this TIA will utilize the number of persons (autos) as the basis for the analysis.

Establishing Maximum Number of Vehicles

The first step will be converting the number of bedrooms to persons and then to automobiles. The middle site (321) is projected to include 150 bedrooms, and the south site (601) is projected to include 570 bedrooms. The TIA will assume there is one (1) person per bedroom. The TIA also assumes that there will be a maximum possible of one automobile for each person. Therefore, the analysis will use a base of 150 persons (autos) for the middle project and 570 persons (autos) for the south project.

Establish Vehicles for Trip distribution

The next step was to determine the number of automobiles that will be used in the trip distribution analysis. We know that not all students will have a vehicle. This fact reduces the traffic impact the two developments will have on the adjacent street system. A study was completed on January 23 and 24, 2013 at the Campus Crest apartment complex. The Campus Crest study documents that approximately 20% of the occupants in that complex did not have a vehicle on the site. The results of this study were used to discount the number of vehicles at Aspen Heights by 20%. Therefore, the number of vehicles estimated for the Aspen Heights development is 120 (150 x 80% = 120) for the middle project and 455 (570 x 80% = 456) for the south project.

B. Location

The Aspen Heights development is located at the old Ames middle school site on State Avenue in Ames, Iowa. It is divided into 3 projects. The north project is at the old track and field location on Lincoln Way. The middle site is at the old middle school site and the south site is located between the middle project and Mortensen Road on the west side of State Avenue. These projects are shown in Figure 1. Only the middle and south projects are included in this TIA.

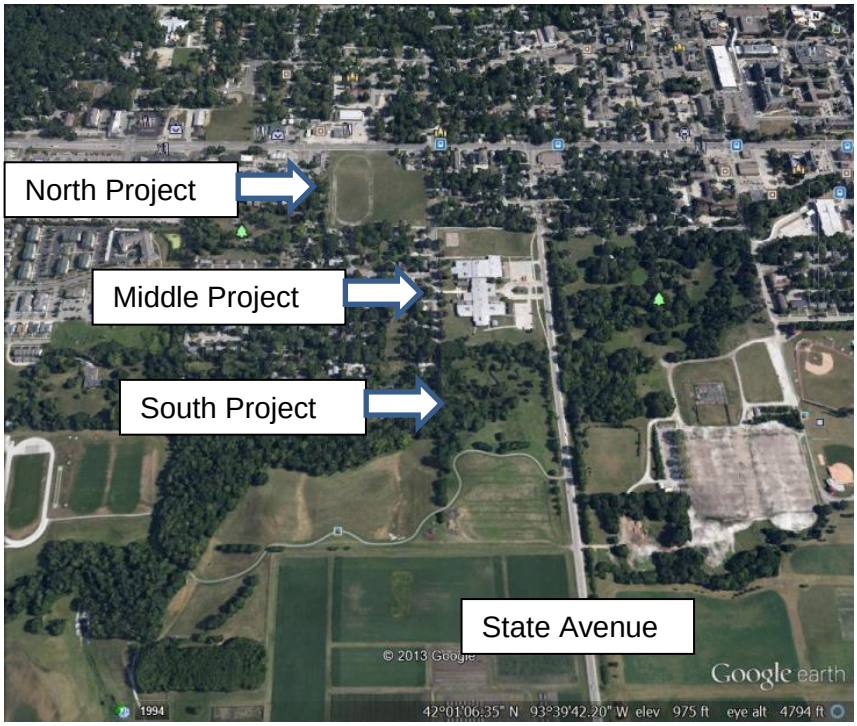


Figure 1 – Aspen Heights Project Locations

C. Study Area

The study area for this TIA was determined in consultation with the Ames City Traffic Engineer. It was concluded that the intersections that are most likely to be impacted by the Aspen Heights projects are: Lincoln Way and Wilmoth, Lincoln Way and State Avenue, Lincoln Way and Hyland Avenue, Wilmoth and Tripp Street, State Avenue and Tripp Street, State Avenue and South Project entrance and State Avenue and Mortensen Drive. Surveillance cameras were used to record traffic data at these intersections. The cameras recorded traffic data on Decem-

ber 3, 2013. Figure 2 below shows the intersections of interest and the location of the 5 surveillance cameras.

Figure 2 – Study Area

D. Background Traffic Volumes

The traffic counts used for background volumes were recorded by 5 cameras on December 3, 2013. The digital data from the cameras was used to determine hourly volumes, turning movements and % cars and trucks at each intersection. In order to establish traffic peak flow periods, data from Iowa State University was used. Iowa State University had completed a study in April/May of 2013 at State Avenue and Mortensen Road. The ISU study identified the peak hours as 8:00 – 9:00 AM and 4:30 – 5:30 PM. In order to utilize the traffic data from the camera counts taken on December 3, 2013, the peak hours of 8:00 – 9:00 AM and 5:00 – 6:00 PM were established for this TIA.

III. Site Trip Generation

Site trip generation refers to the relationship between vehicle trip making and land use activity. Trip generation rates were taken from statistical studies of similar land use categories and documented by the Institute of Transportation Engineers (ITE). The application of these rates for

proposed land uses results in a travel demand which is then distributed by direction and assigned to the adjacent road network.

ITE's *Trip Generation, Version 9* was used in this TIA to calculate expected trips generated by the middle and south projects. ITE Code 220 Apartment was used to calculate vehicle trips. Table 1 is a summary of the trip generation analysis.

Table 1 - Site Generated Traffic

Location	ITE Code	Persons	Daily Rate	AM Peak Rate		PM Peak Rate		Daily Trips	AM Peak Trips		PM Peak Trips	
				Enter	Exit	Enter	Exit		Enter	Exit	Enter	Exit
Middle Project	**220** p.345-6	120	3.31	0.14	0.16	0.24	0.26	400	16	20	29	31
South Project	**220** p.345-6	455	3.31	0.14	0.16	0.24	0.26	1506	64	72	110	118
TOTAL								***1906***	***80***	***92***	***139***	***149***

IV. Trip Distribution

Trip distribution is the process of allocating the site generated trips to the street network and is based on general location and direction of major population areas, employment, and commercial hubs, combined with the availability of roadways to connect these attractions to the proposed land development. The majority of the trips generated by the middle and south projects will be directed to the north and south along State Avenue. There is more of a desire to travel from the two projects south on State Avenue than to the north. The distribution shown in figure 3 illustrates that desire.

V. Traffic Assignment

Traffic assignment combines existing traffic volumes (the before condition) and the site generated traffic. The trips generated by the projects were added to the background volumes to estimate the future (total) build out traffic volumes. Figures 4-24 illustrate the three traffic volume components of traffic assignment; the existing, the site generated, and the combined traffic volume for each of the intersections included in this study.

VI. Capacity Analysis

Roadway capacity is evaluated on the basis of a Level of Service (LOS) analysis. Levels of Service are given letter designations of A through F, and are categorized based on driver perception and ease of traffic movements. LOS A represents free-flow conditions with no delays, while LOS E and F are generally considered unacceptable LOS in urban areas.

The capacity analysis was conducted using *Synchro* traffic modeling software which follows the *Highway Capacity Manual (HCM)* methods. For un-signalized intersections, LOS is given by minor street approach, and unlike signalized intersections, no overall level of service is given per intersection. The LOS letter designation is shown in each of the intersection combined traffic figures. The LOS designations appear as B

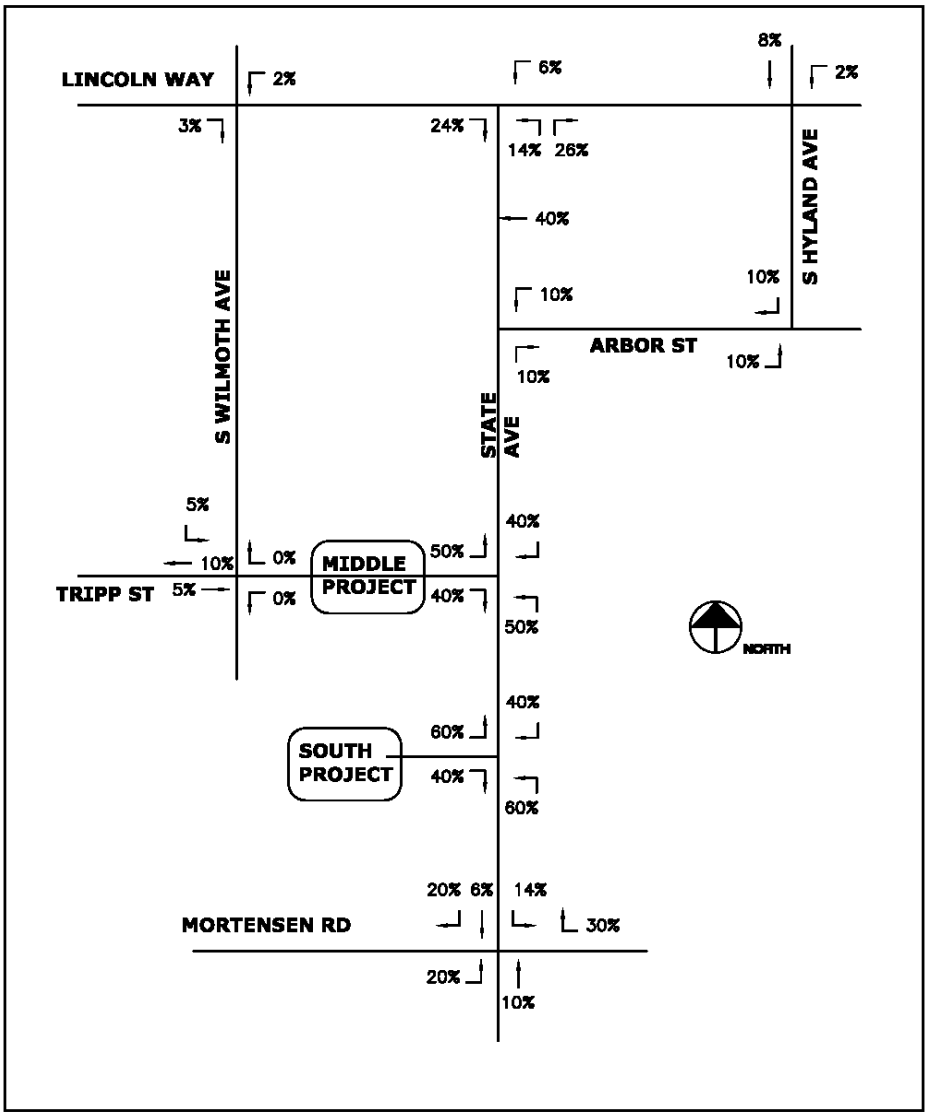


Figure 3. Trip Distribution Middle and South Projects

Intersection Traffic Assignments

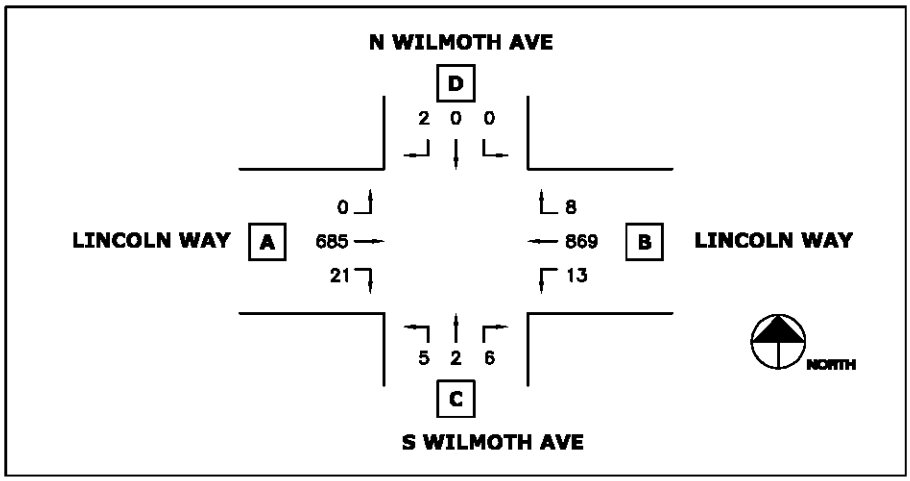


Figure 4 Lincoln Way – Wilmoth Avenue Existing Traffic Volumes

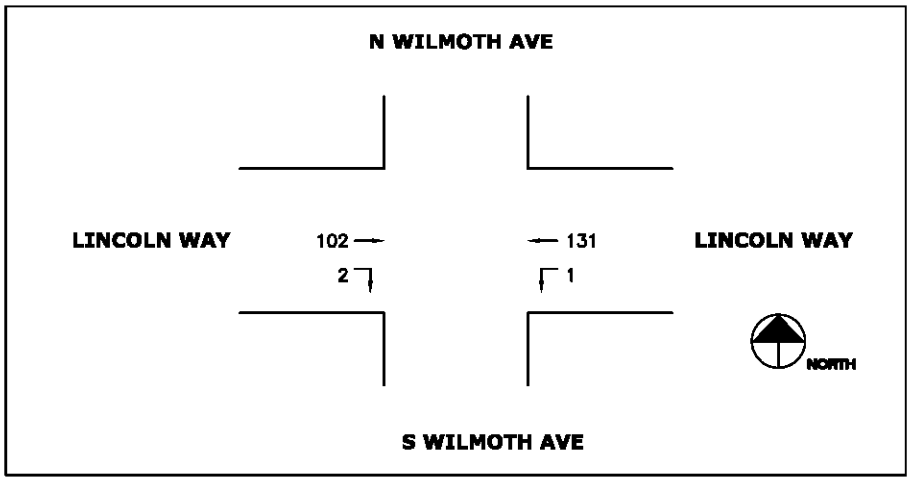


Figure 5 Lincoln Way – Wilmoth Avenue Site Generated Traffic Volumes

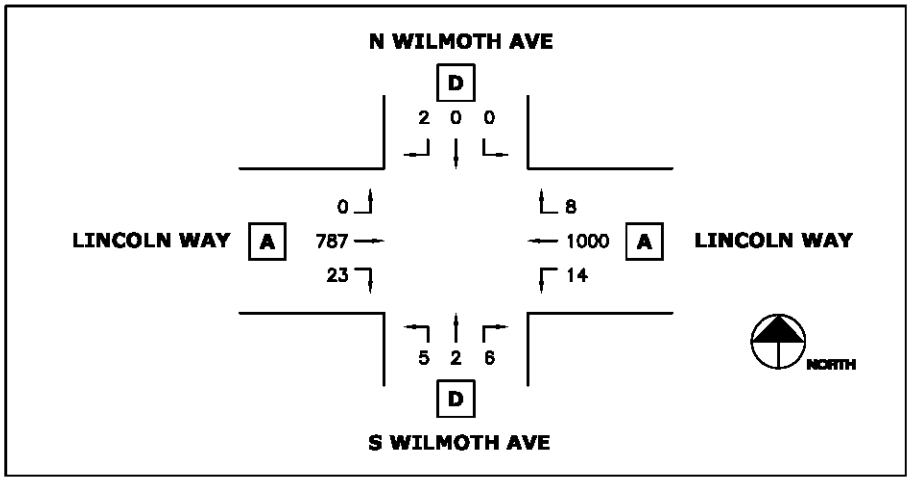


Figure 6 Lincoln Way – Wilmoth Avenue Combined Traffic Volumes

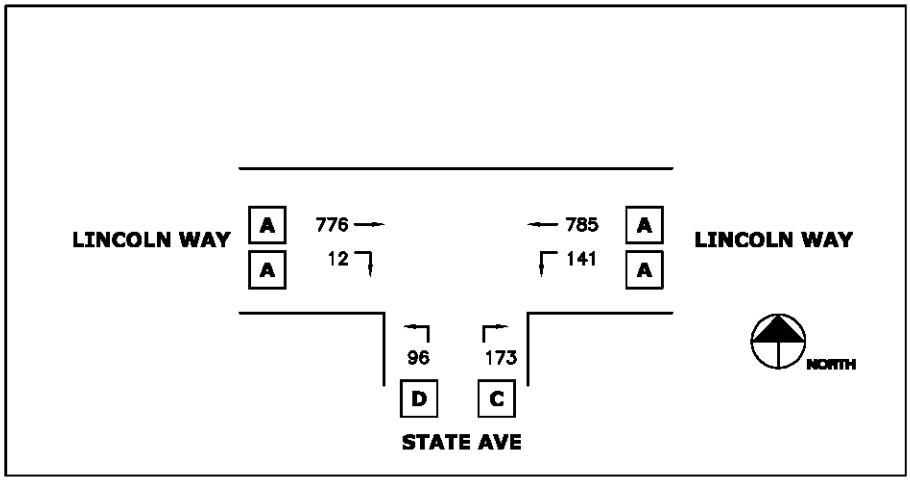


Figure 7 Lincoln Way – State Avenue Existing Traffic Volumes

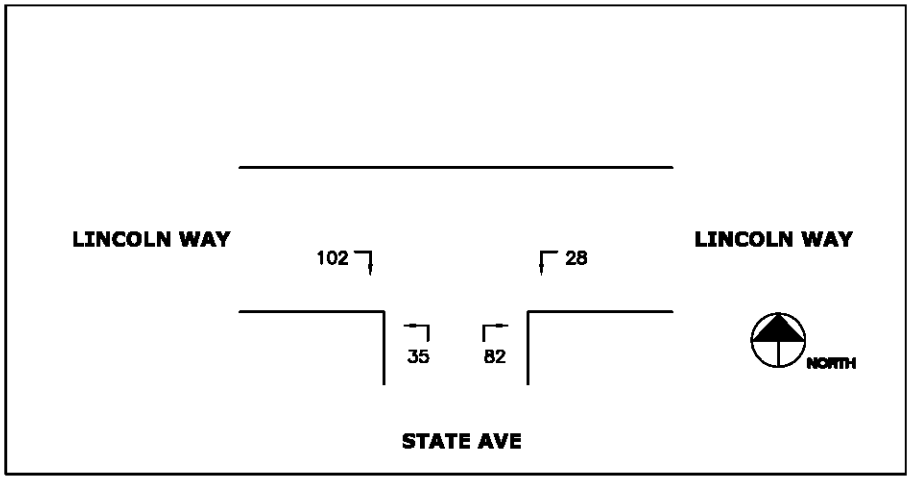


Figure 8 Lincoln Way – State Avenue Site Generated Traffic Volumes

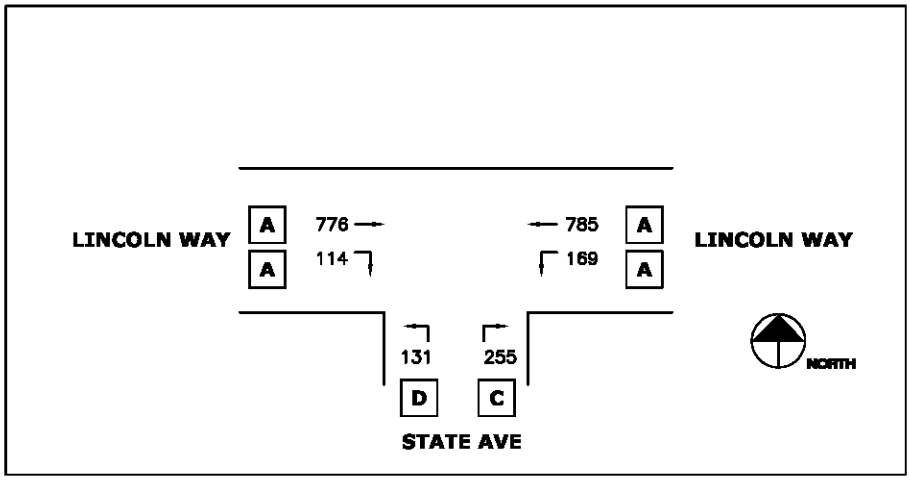


Figure 9 Lincoln Way – State Avenue Combined Traffic Volumes

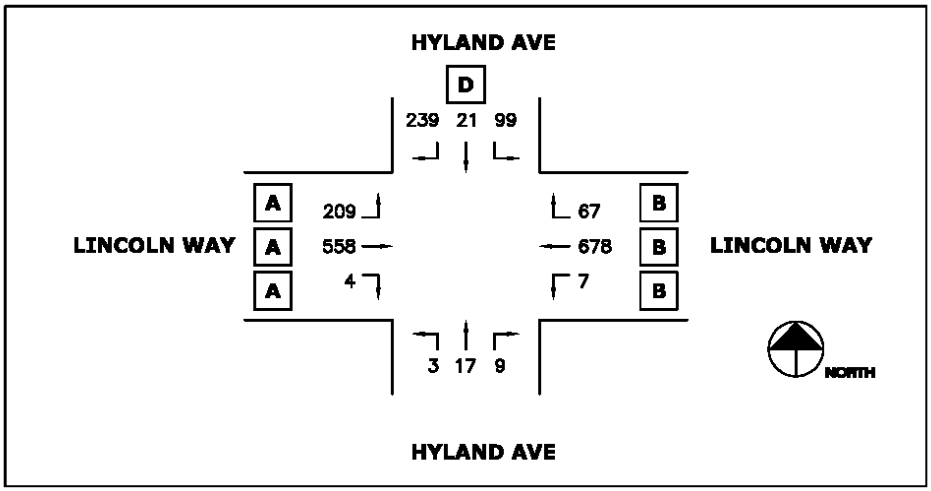


Figure 10 Lincoln Way – Hyland Avenue Existing Traffic Volumes

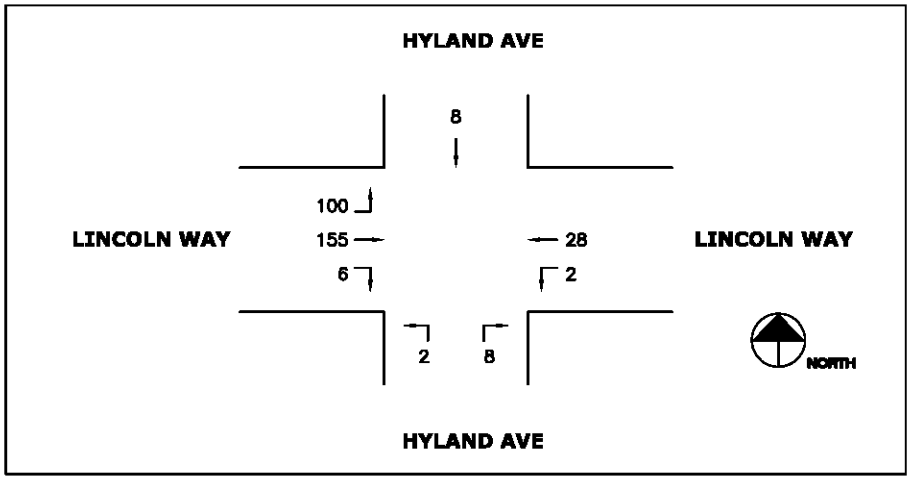


Figure 11 Lincoln Way – Hyland Avenue Site Generated Traffic Volumes

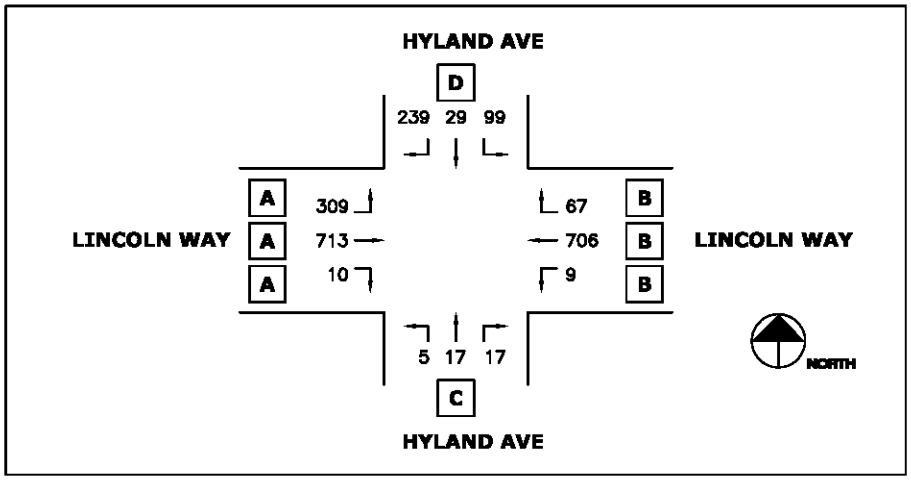


Figure 12 Lincoln Way – Hyland Avenue Combined Traffic Volumes

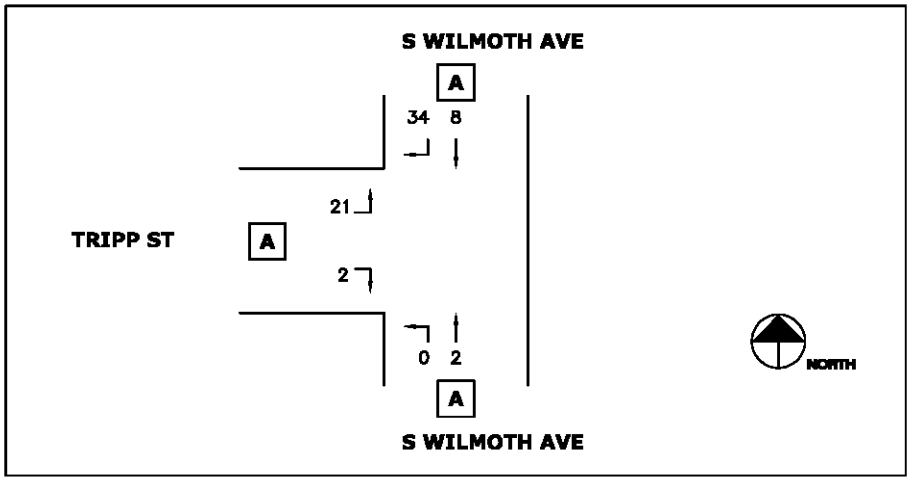


Figure 13 Wilmoth Avenue – Tripp Street Existing Traffic Volumes

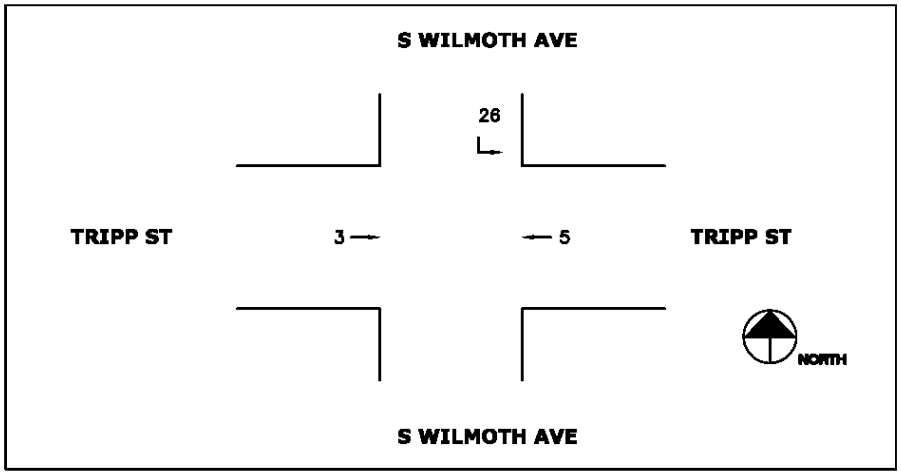


Figure 14 Wilmoth Avenue – Tripp Street Site Generated Traffic Volumes

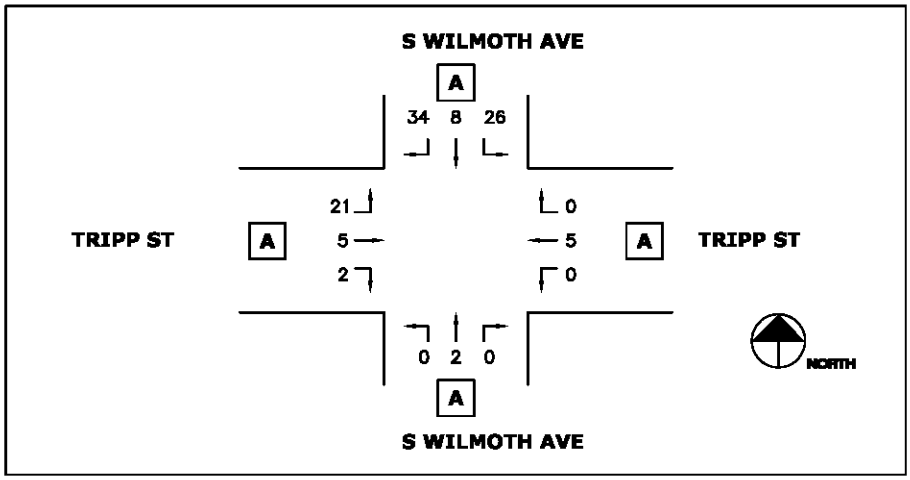


Figure 15 Wilmoth Avenue – Tripp Street Combined Traffic Volumes

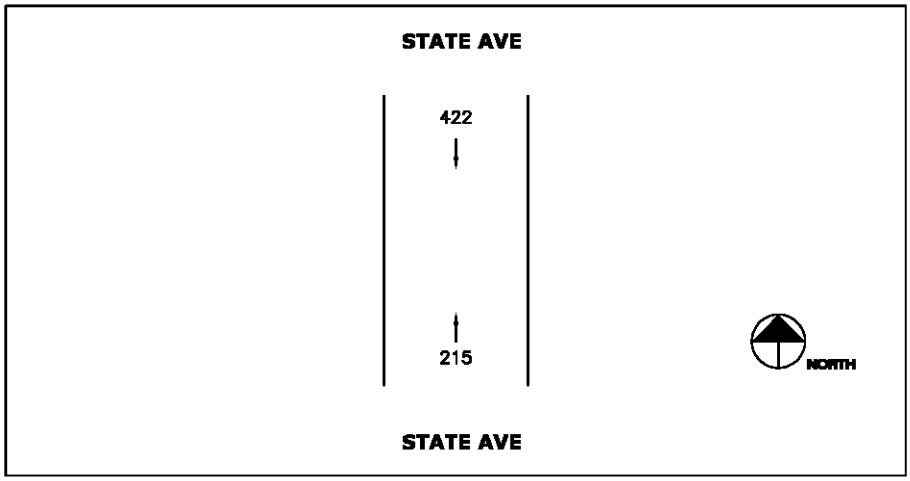


Figure 16 State Avenue – Tripp Street Existing Traffic Volumes

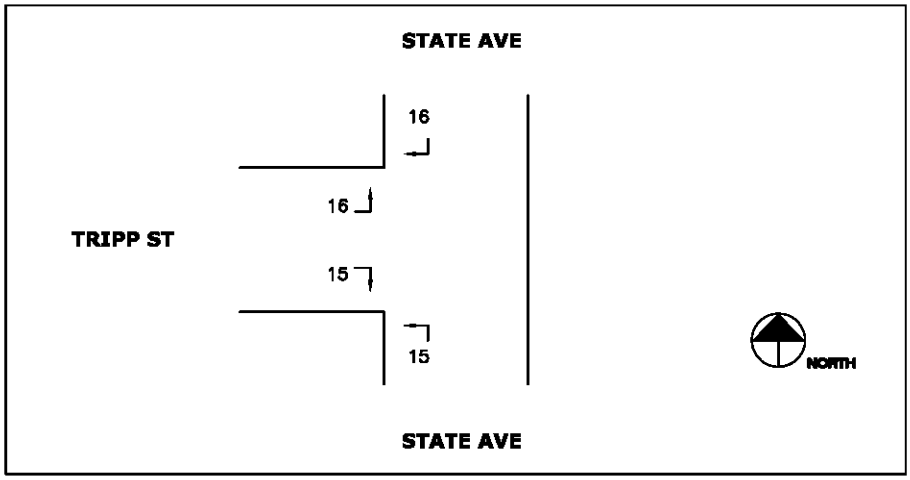


Figure 17 State Avenue – Tripp Street Site Generated Traffic Volumes

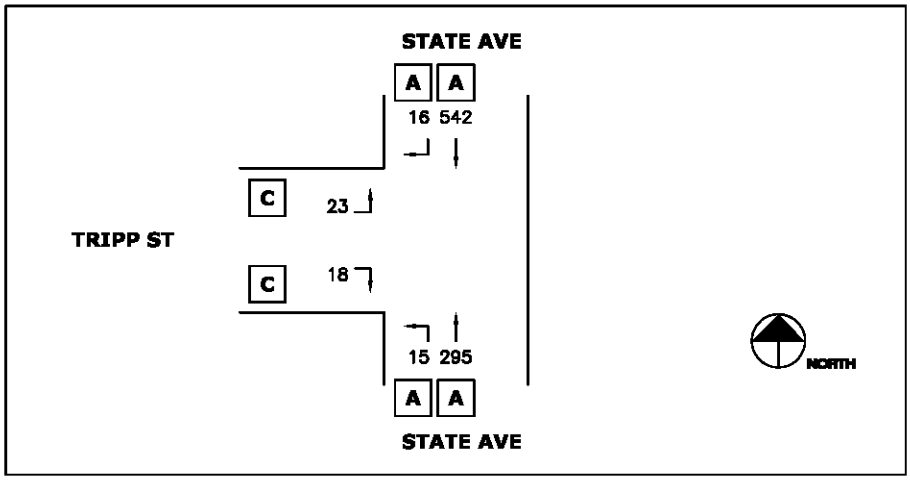


Figure 18 State Avenue – Tripp Street Combined Traffic Volumes

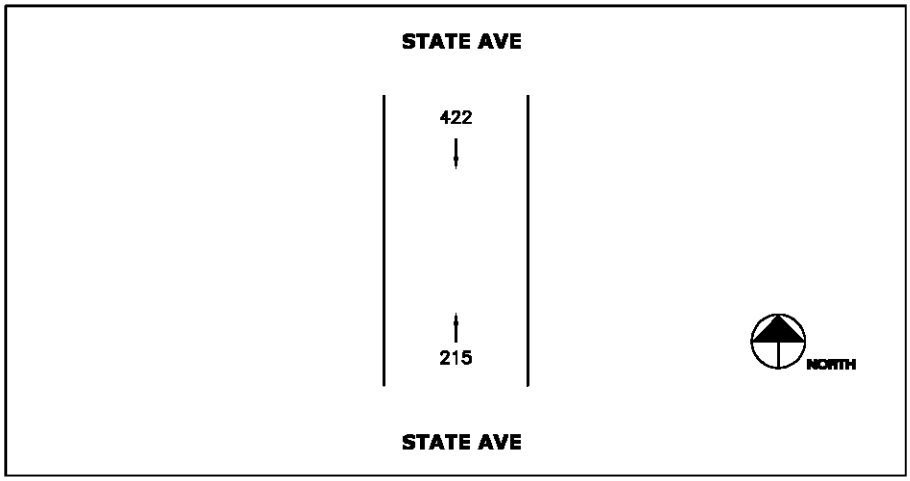


Figure 19 State Avenue – South Project Existing Traffic Volumes

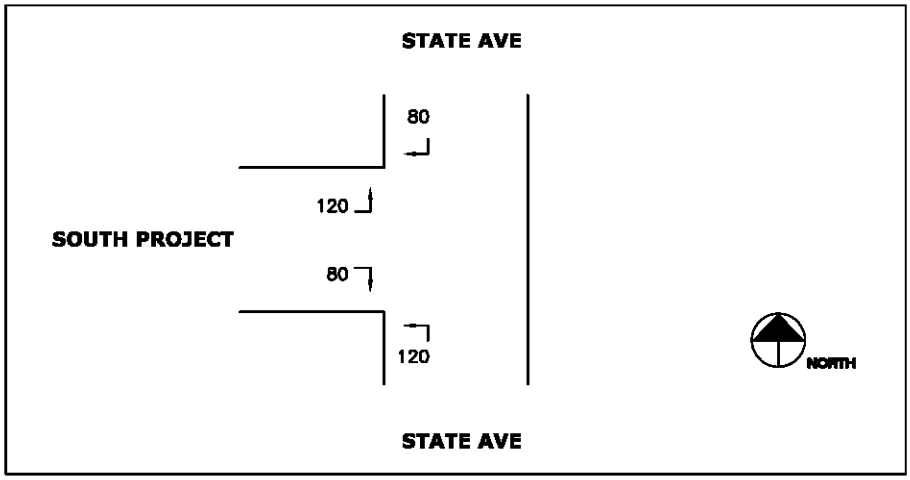


Figure 20 State Avenue – South Project Site Generated Traffic Volumes

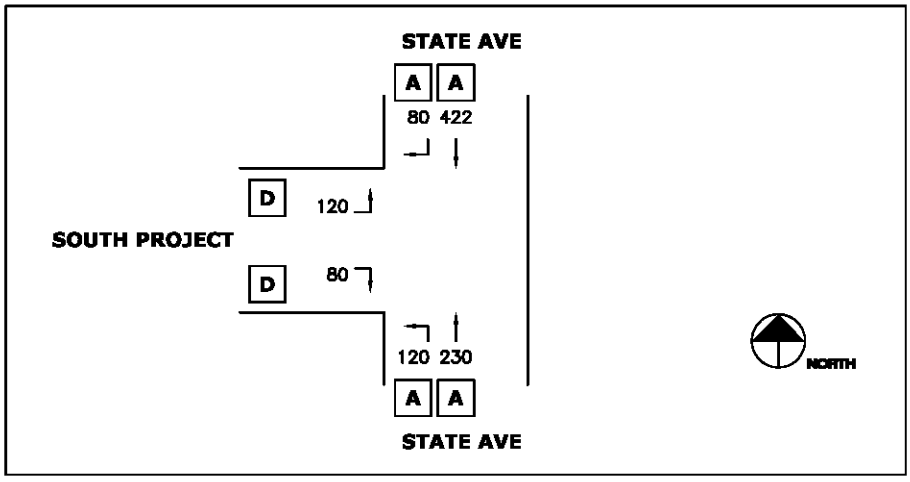


Figure 21 State Avenue – South Project Combined Traffic Volumes

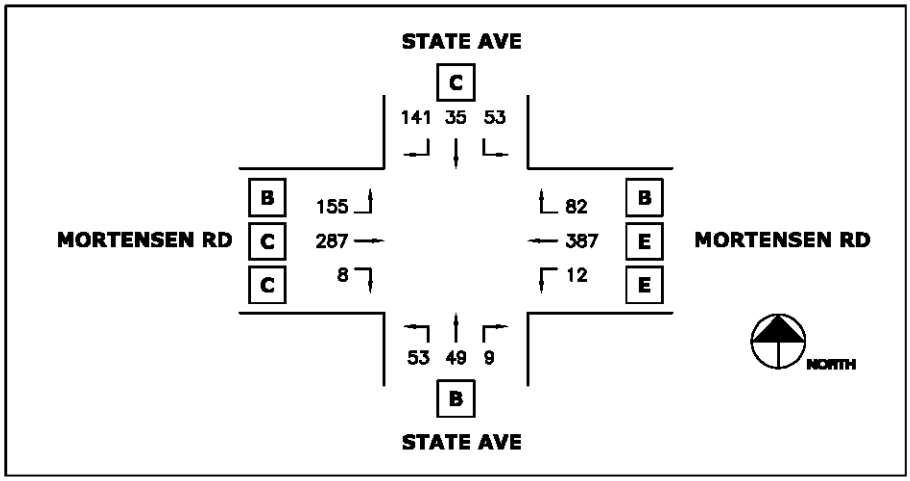


Figure 22 State Avenue – Mortensen Road Existing Traffic Volumes

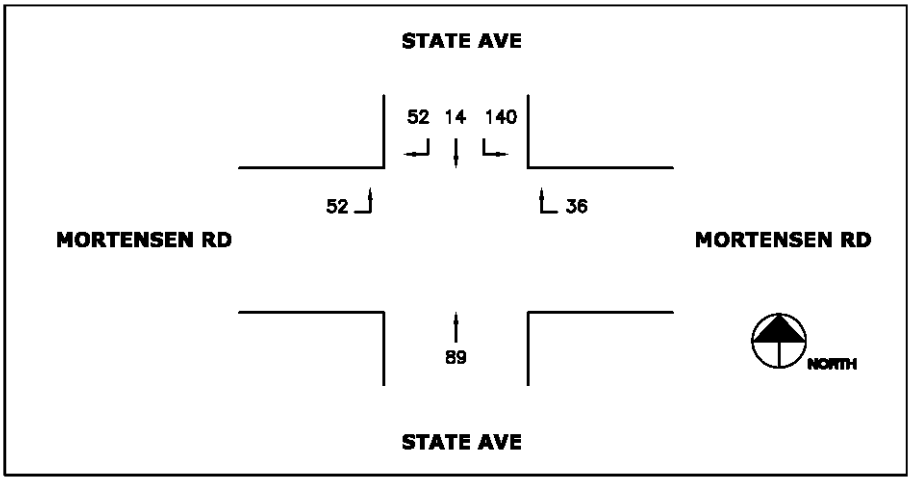


Figure 23 State Avenue – Mortensen Road Site Generated Traffic Volumes

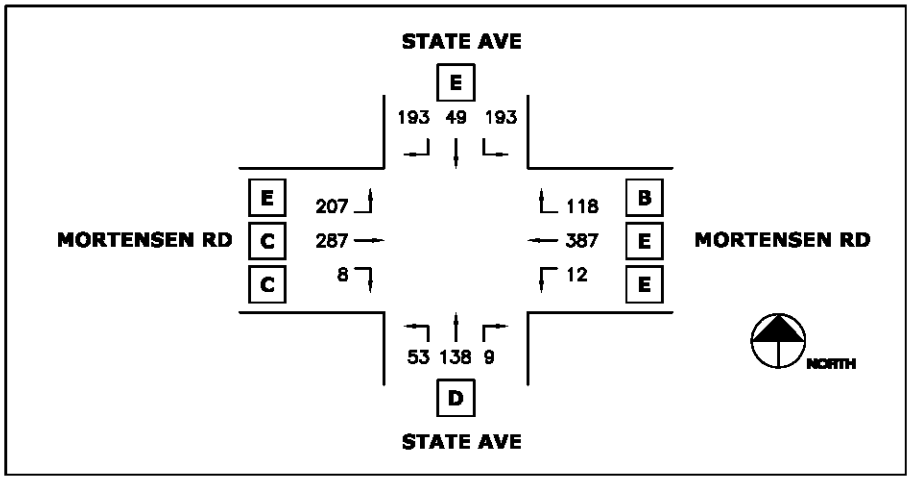


Figure 24 State Avenue – Mortensen Road Combined Traffic Volumes

VII. TIA Conclusions

Most every intersection in the study area will experience some changes in traffic volumes as a result of these two projects. In almost all cases, changes in LOS are small and will not be noticed by the traveling public. The intersection movements that show the most changes are:

1. The signalized intersection of Lincoln Way and State Avenue is expected to have some movements that are at LOS D but those are not changes from the current condition. No improvements are recommended at this location.

2. The intersection of Lincoln Way and Hyland is expected to have some movements that are at LOS D but those are not changes from the current condition. No improvements are recommended at this location.

3. The un-signalized intersection of Lincoln Way and Wilmoth is expected to experience a LOS of D for the northbound movement. No improvements are recommended for this movement. If the traveling public perceives that this is an unacceptable LOS there are other routing options available.

4. The un-signalized intersection of State Avenue and the South Project entrance is expected to function at an excellent LOS level except for the eastbound left and right turn lanes. These two movements may function at a LOS of D. This should be acceptable since it is predicted to occur only during the highest travel time of the day and only the residents of the development will experience this lower LOS. In many urban areas LOS D is acceptable during peak traffic flow periods. No improvements on State Avenue are required for this intersection.

5. In the future, the un-signalized intersection of State Avenue and Mortensen Road is expected to experience low LOS for some traffic movements. Today, the intersection is experiencing low LOS conditions. The movements that are of concern for the future are the eastbound, northbound and southbound traffic movements. Please refer to figure 24. Major improvements to the entire intersection would be required in order to provide a higher LOS. Planning activities for these improvements may include constructing a traffic roundabout or the installation of traffic signals. No improvements are recommended as a result of this study since the lower LOS condition exists today. The intersection LOS is considered to be a regional issue and not an Aspen Heights project development driven issue.

VIII Transportation Model 2035

The city of Ames utilizes a transportation model to estimate transportation demands for future dates. The Iowa Department of Transportation (DOT) manages this transportation model for the city of Ames. The DOT provided the transportation model values in the study area for the year 2035. Please refer to figure 25 which illustrate the 2035

transportation model values. The model includes the “Existing + Committed + Planned” roads. The model is showing adjusted traffic volumes for the Old Middle School location. The transportation modeling engineer at the DOT thought the traffic volumes weren't showing as much growth on Lincoln Way as he would expect. After further analysis he stated “I took a look at the counts from 1999 to 2011 in this area and there doesn't seem to be much growth of traffic in the north half of the study area. More of the growth from the base year counts seems to be towards the south part of the study area, which the model shows as well.” With the DOT transportation model engineer’s statement we can assume that the traffic volumes in the study area will show only modest, if any, growth in the future. Therefore the LOS values would not be significantly different than the values estimated in this TIA.

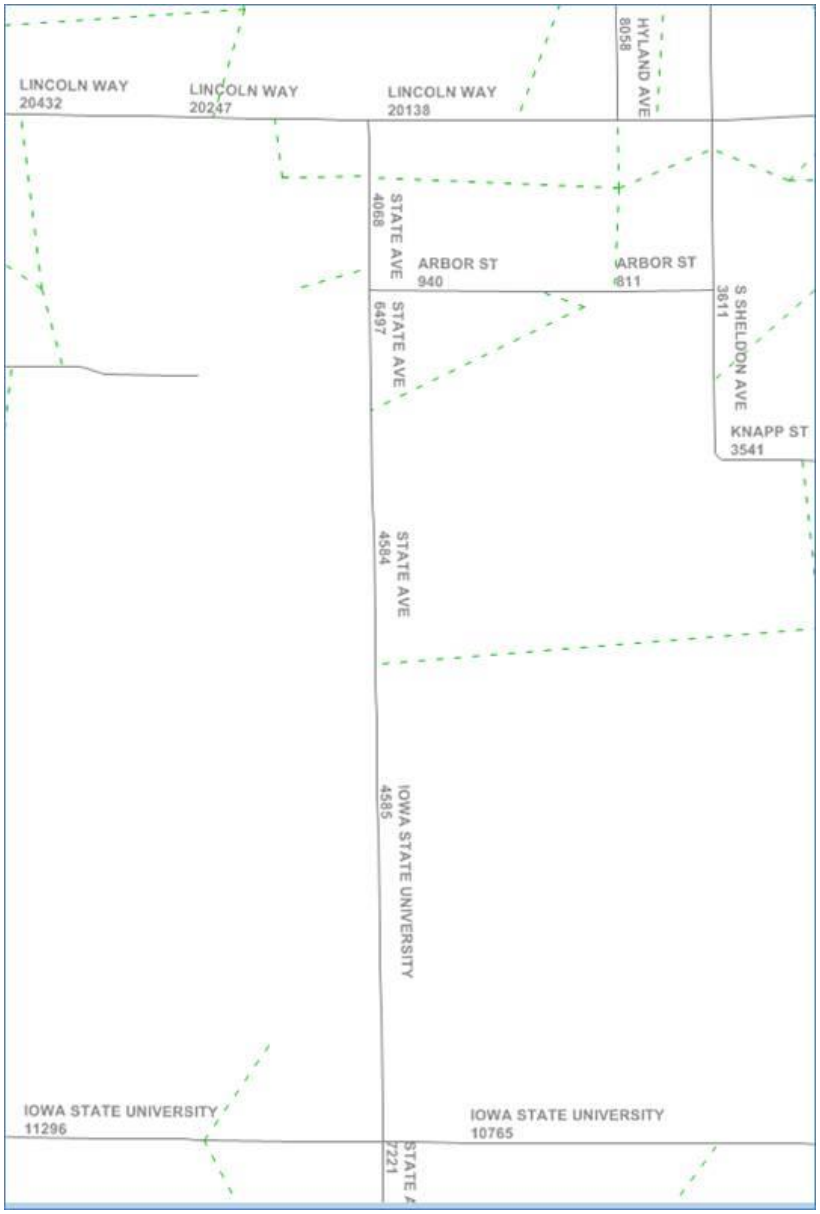


Figure 25 Transportation Model 2035

IX Estimating Impacts in 2035

The following discussion will look at traffic projections for the target year 2035 and will make a conclusion about the impact the Aspen Heights development may have in that future year. The two intersections that will be most impacted by the Aspen Heights development are Lincoln way / State Avenue and State Avenue / Mortensen Road. These two intersections that were analyzed for the 2035 impacts.

The steps included in making the predictions for the target year of 2035 included:

1. Compare the existing traffic counts with the 2035 traffic model predictions and establish a traffic growth relationship between the two. The DOT has existing traffic counts in the study area and they were used to make the comparison. From figure 25 the 2035 projected volumes were established. These values are illustrated in figures 26 – 27. The percent change is shown in each of the figures. The values are shows as : (2011 / 2035) XX%.
2. The next step is to apply the growth scenarios shown in figures 26 and 27 to the estimated turning movements. The estimated turning movements are shown in figures 3 and 22. Please refer to figures 28-29 for the turning movements that have been estimated for the future year of 2035. A LOS has been calculated for each of the intersection legs.
3. The site generated traffic volumes shown in figures 8 and 23 were added to the 2035 estimated turning movements. The resulting values are shown in figures 30-31. A LOS has been calculated for each of the intersection legs.

It would appear from the estimates for the year 2035 indicate the Aspen Heights developments will have approximately the same traffic impact on the study intersections as they will when the projects are first developed. There will be a small increase in traffic as a result of this development but that increase will not reduce the LOS to unacceptable levels.

The intersection of State Avenue and Mortensen Road as illustrated in figure 31 will have several traffic movements predicted to be at LOS F. This condition will exist without the Aspen Heights development. The reason this intersection is at such a low LOS is because of it's role in the entire transportation system in southern Ames. The traffic issues at this intersection are regional issues and not issues driven by the Aspen Heights development projects.

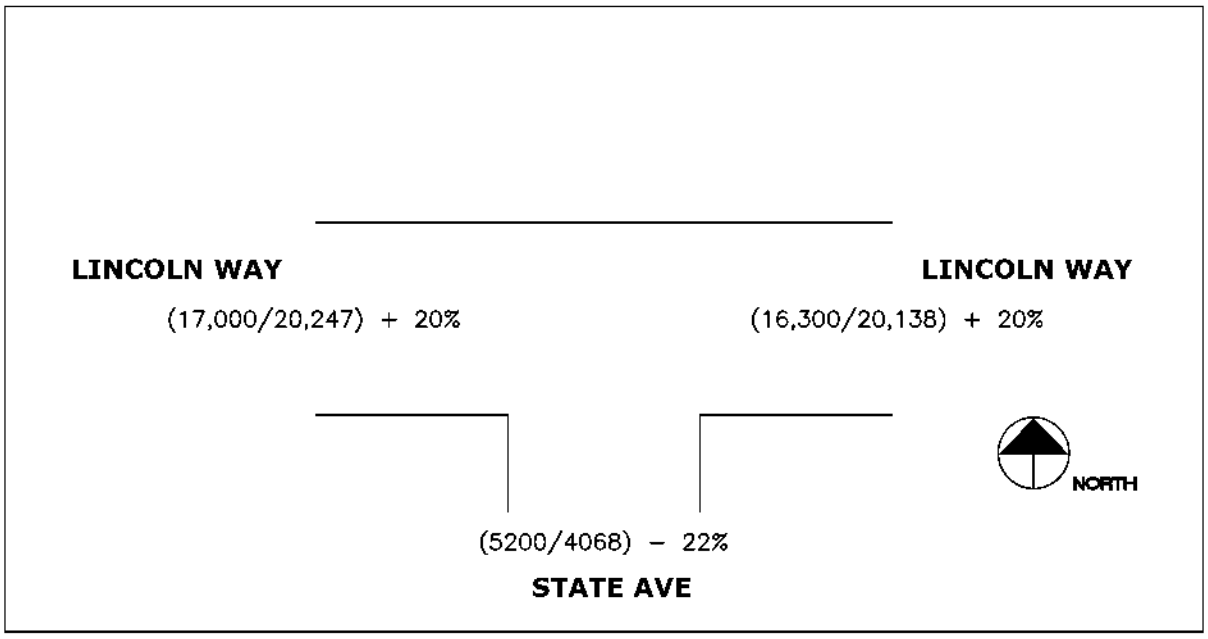


Figure 26 Lincoln Way and State Avenue percent growth

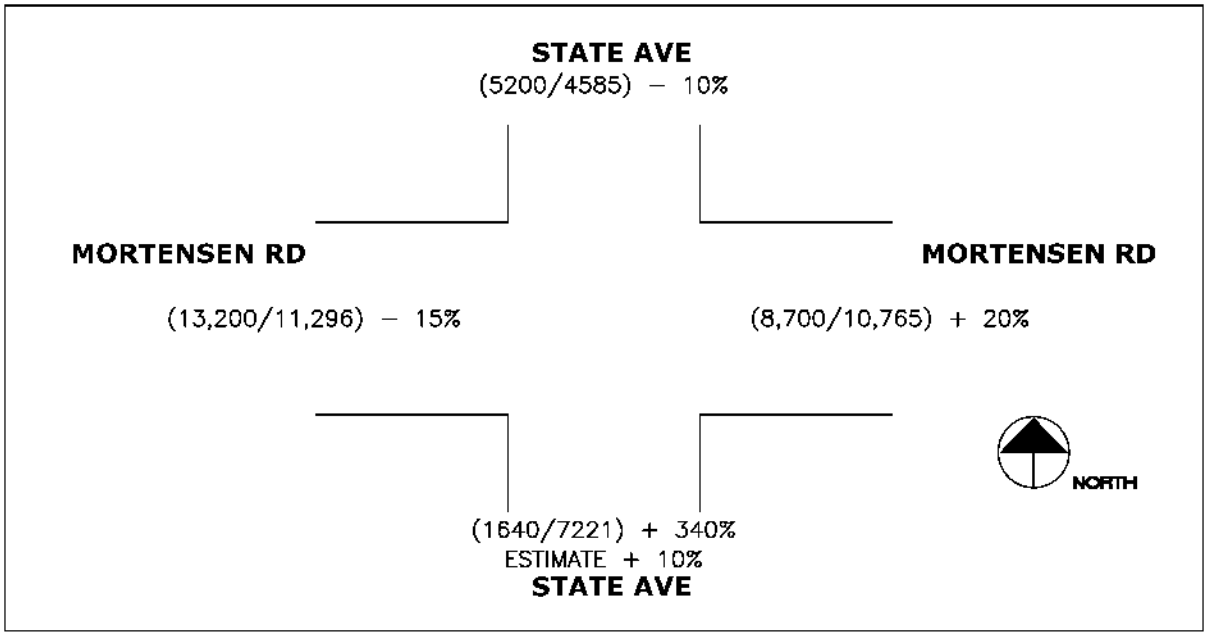


Figure 27 State Avenue and Mortensen Road percent growth

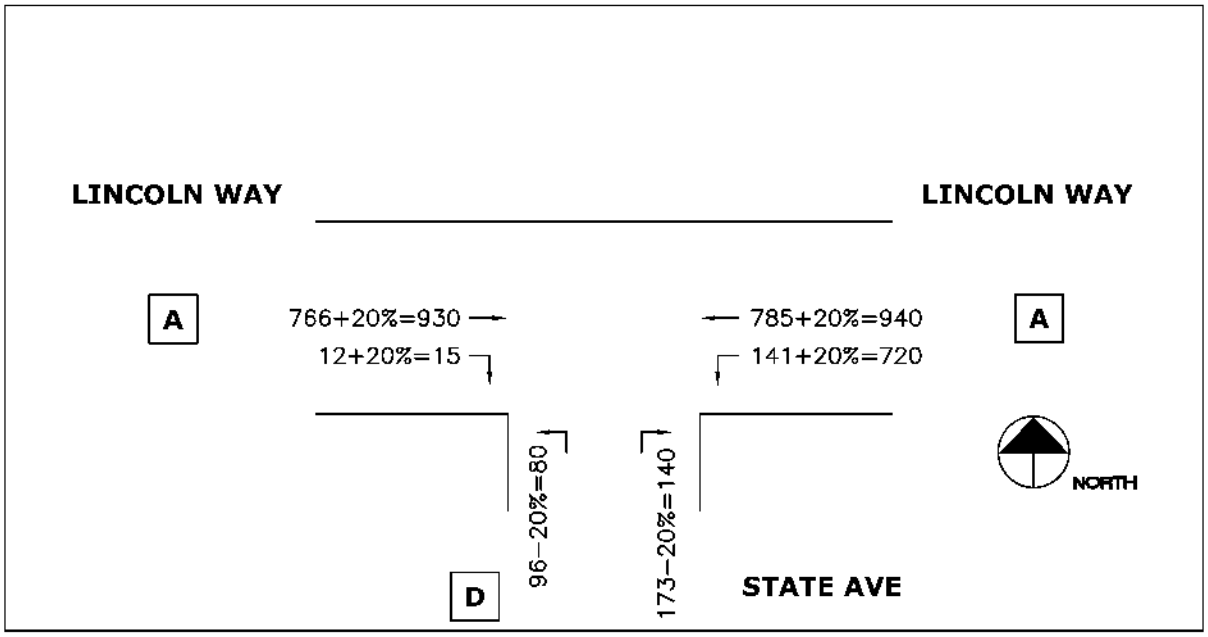


Figure 28 Lincoln Way and State Avenue 2035 Turning Movements

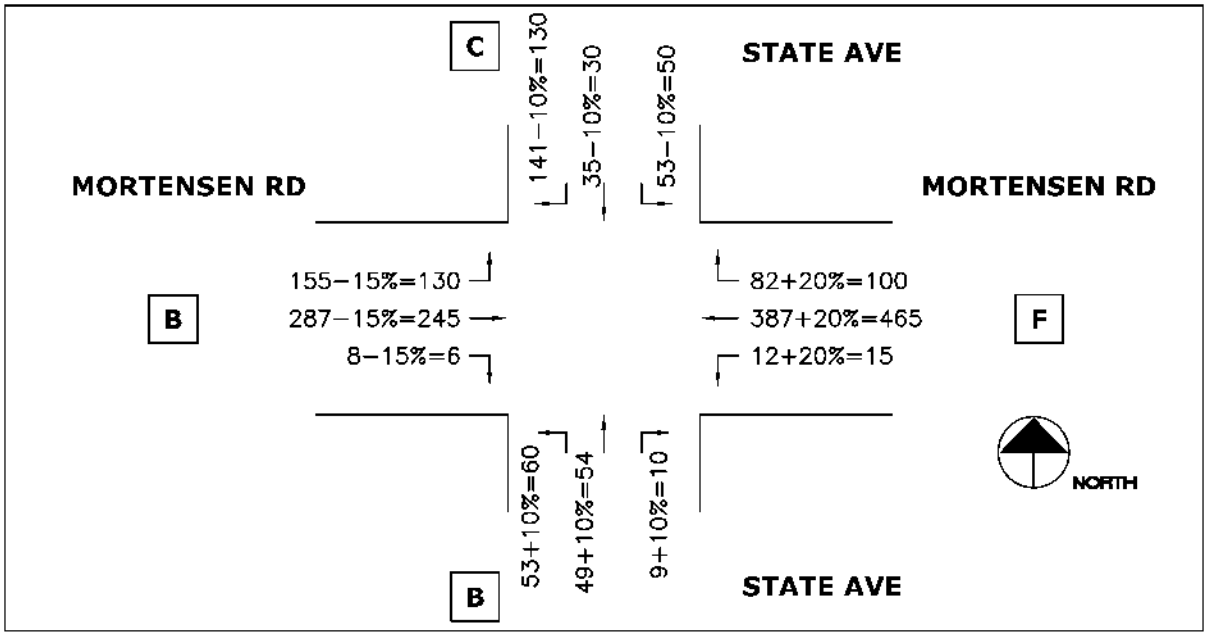


Figure 29 State Avenue and Mortensen Road 2035 Turning Movements

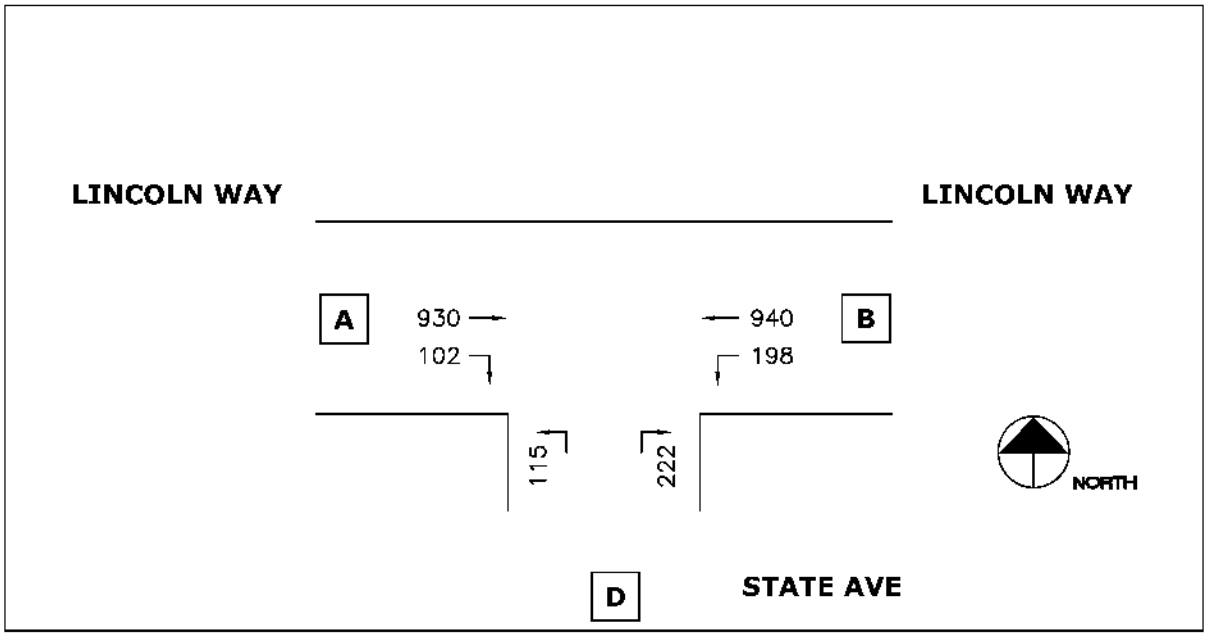


Figure 30 Lincoln Way and State Avenue 2035 Total Traffic

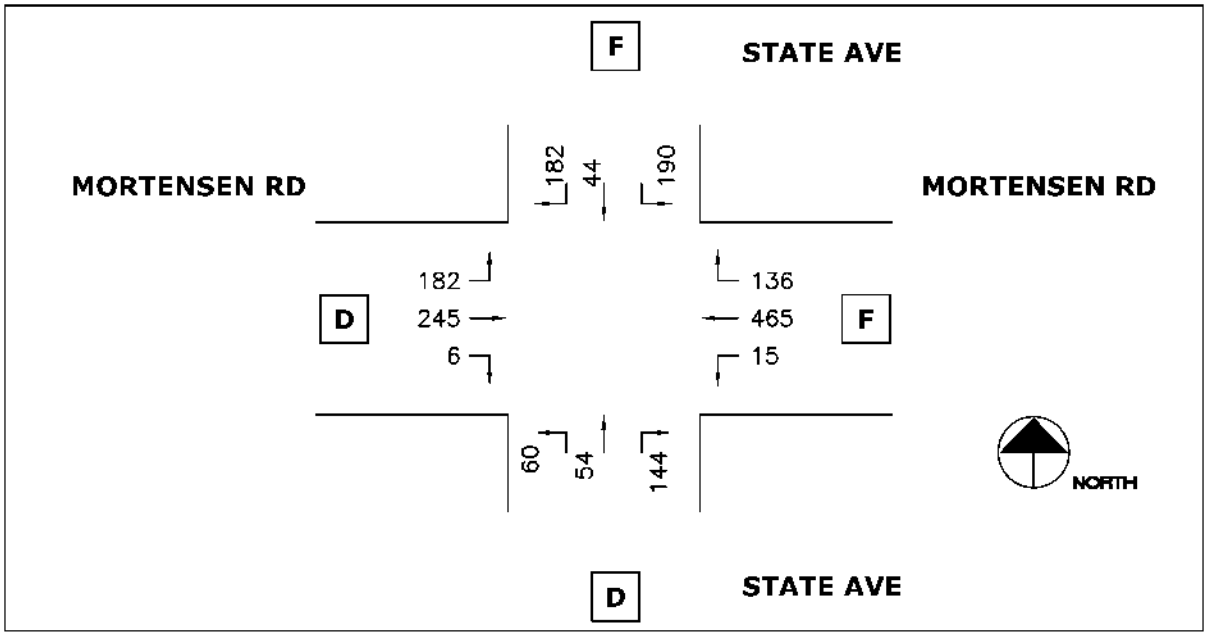


Figure 31 State Avenue and Mortensen Road 2035 Total Traffic