

City of Mora Kanabec County, Minnesota Meeting Agenda Planning Commission

Mora City Hall 101 Lake Street S Mora, MN 55051

Monday, April 12, 2021

5:30 PM

Mora City Hall

City of Mora Code of Ordinances, Chapter 32: The role of the Planning Commission is to serve the City Council in an advisory capacity on matters relating to citizen requests for action, zoning changes and review, Comprehensive Plan reviews, capital improvement reviews, and other actions as deemed necessary to carry out the functions of a pro-active Planning Commission.

- 1. Call to Order
- 2. Roll Call: Carmen Finn, Chad Gramentz, Jake Mathison, Todd Sjoberg and Sara Treiber.
- **3. Adopt Agenda** (No item of business shall be considered unless it appears on the agenda for the meeting. Board members may add items to the agenda prior to adoption of the agenda.)
- 4. Approval of Minutes
 - a. March 8, 2021 Meeting
- 5. Public Hearings

None

- 6. Open Forum
- 7. New Business

None

- 8. Old Business
 - a. Tabled from March 8, 2021 Meeting Conditional Use Permit to allow a School and school related facilities to be located in the R-1 Single Family Residential District. The subject site is located at 200 9th Street E. The applicant is ICS and the property owner is Mora Public School District.
- **9. Reports** (In addition to the items listed below, each board and staff member will be given the opportunity to share information.)

10. Adjournment

The next regular meeting is scheduled for Monday, May 10, 2021 at 5:30 PM.

City of Mora, MN PLANNING COMMISSION Meeting Minutes

March 8, 2021

Present: Carmen Finn, Chad Gramentz, Jake Mathison and Todd Sjoberg

Absent: Sara Treiber

Staff Present: Community Development Director Beth Thorp and City Administrator Lindy

Crawford

Also Present: Rick & Angela Tvedt, Gene & Shirley Nelson (departed before the meeting was

called to order), Dan Cook, Kenny Stumpf, Dan Voce, Tammy Bohachek, Chris

Ziemer and Evan Johnson

1. Call to Order. Chair Sjoberg called the meeting to order at 5:30 pm.

2. Roll Call.

Finn – Present Gramentz – Present Mathison – Present Sjoberg – Present

Treiber – Absent (excused)

- 3. <u>Adopt Agenda.</u> Motion by Mathison, second by Gramentz to adopt the March 8, 2021 agenda as presented. All present voted aye, motion carried.
- 4. <u>Approval of Minutes.</u> Motion by Gramentz, second by Mathison to approve the February 8, 2021 meeting minutes as presented. All present voted aye, motion carried.

5. New Business.

a. Determination of Proposed Use in the B-2 General Business District. Thorp informed the Planning Commission that a potential buyer, Angela Tvedt, for property located at 841 Forest Avenue E. (the former Gorham Oien Mechanical site) had expressed interest in using the site for her septic business as well as leasing excess office space to other business owners for commercial purposes. Thorp explained that the property was currently zoned I-1 Limited Industrial District which would not support the commercial component, and asked the commission to consider whether or not the proposed septic business was of the same general character as other uses permitted in the B-2 District. Thorp further explained that if the septic business was found to be an allowable use within the B-2 District, Tvedt would consider submitting a request for Rezoning the property from I-1 to B-2. Sjoberg asked Tvedt if her proposed business would include a retail component; Tvedt responded that there would be some retail and it would also include septic pumping, design, installation and repairs. Tvedt explained that the retail component would offer parts to other septic businesses in addition to the general public. Tvedt stated that the existing building included 24 office spaces that would be ideal for leasing to other businesses. Thorp requested that Tvedt provide more information about the exterior use of the property; Tvedt explained that all vehicles and equipment would be stored in the existing shop and the existing parking area would only be used for employees and customers. Because the parking area had a gravel surface, Sjoberg asked about plans to install hard surfacing. Tvedt explained that she intended to hard surface the parking lot per the city's zoning regulations and was in the

process of seeking bids for the work and working with city staff to determine how many offstreet parking spaces would be required. Sjoberg asked if the property included an easement extending to Howe Avenue; Tvedt responded that the property abutted Howe Avenue and included an existing driveway from Howe Avenue. Tvedt stated that she would like to move her business to Mora and there was a need in the area for the services provided by her business; and, added that there was also a need for small office space, which she could provide. Thorp requested that the commission make a determination on whether the proposed septic business would be of the same general character as other uses permitted in the B-2 District – specifically the category including Cabinet and Carpentry Shops, Electrical Service, Heating, Plumbing, Upholstery, and Air Conditioning Service Shops - in order to provide guidance to Tvedt on the possibility of Rezoning the property from I-1 to B-2. Mathison commented that if the proposed septic business included a retail component it would be similar, in his opinion, to a showroom. Sjoberg asked whether or not the potential Rezoning would be considered spot zoning; Thorp explained that the B-2 District abutted the subject site on the west and north, so it would not be spot zoning. Based on the fact that the subject site was zoned I-1 but surrounded by other zoning classifications on three and a half sides, Gramentz asked if any of the adjacent B-2 properties were previously zoned I-1 or if the subject site itself had been spot zoned; Thorp responded that the I-1 District was larger in the past but when most of the properties were Rezoned to B-2 the owner of the subject site wished for the property to remain in the I-1 District based on use of the property at the time. Thorp added that staff had not been opposed to the subject site remaining I-1 because it was adjacent to other I-1 properties to the south. Gramentz asked Tvedt if she planned on selling and /or displaying septic tanks at the subject site; Tvedt responded that she would not have large items, such as tanks, on site. Finn commented that she believed the proposed septic business was similar to plumbing. Gramentz commented that he felt the proposed use met the intent of the B-2 District. The consensus of the Planning Commission was that the proposed septic business was of the same general character as Plumbing, which was a permitted use within the B-2 General Business District. Thorp stated that the request and commission's recommendation will be presented to the City Council on March 16th for final consideration.

6. Reports.

- a. <u>Floodplain Management Ordinance Update</u>. Thorp informed commission members that the City Council adopted the Floodplain Management Ordinance at its February meeting, adding that the ordinance was published in the Kanabec County Times and filed with the Kanabec County Recorder. Thorp submitted the ordinance and all required documentation to the Minnesota Department of Natural Resources on March 8th, completing the city's ordinance update process.
- b. <u>Comprehensive Plan Update</u>. Thorp shared that the Comprehensive Plan consultant had provided his final draft of the update to staff and she was currently making final edits and formatting the document, adding that she intended to provide her final draft to the commission at an upcoming meeting. Sjoberg requested that the draft be provided to commission members at least one week prior to the meeting.
- c. <u>Fox Run PUD Amendment.</u> Thorp informed commission members that the owner of vacant land within Fox Run Jake Fedder submitted a request for PUD Amendment to be allowed to Final Plat single family lots rather than twin home lots. Thorp explained that the City Council would determine if the proposed changes were minor or major; if the changes were determined to be minor Fedder could proceed to the Final Plat process, but if the changes were determined to be major then Fedder would either need to Final Plat in conformance

with the Preliminary Plat or begin the platting process over. Thorp added that Fedder hoped to have Fox Run 3rd Addition approved for the 2021 construction season.

7. Public Hearings.

- a. Public Hearing to Consider a Conditional Use Permit to Allow a School and School Related Facilities to be Located in the R-1 Single Family Residential District. Thorp read from the public hearing notice and reviewed her staff report providing the following comments about the proposed construction of a high school and related facilities at 200 9th Street E.:
 - The proposed project included a high school facility with an approximate 136,000 square foot footprint, off-street parking facilities for staff and students, athletic fields, and stormwater management ponds.
 - The preliminary civil plans had been reviewed by city and utility staff, the City Engineer, the County Engineer, and MnDOT.
 - The proposed exterior construction materials for the high school included precast concrete, metal panels of two colors, and brick. Thorp stated that staff had no concerns with the construction materials as they mirrored and complemented materials used for Mora Elementary and Welia Health Wellness Center.
 - In regard to landscaping, Thorp stated that the applicant was proposing to include topsoil, seed, and a variety of trees and shrubs, meeting the minimum requirements, but had not provided a landscaping plan for the project. Thorp expressed the importance of landscaping for aesthetics and buffering and commented that the zoning code allowed the Planning Commission and City Council to require additional landscaping for non-residential projects in residential districts. Thorp recommended that a landscaping plan be submitted for review by the Planning Commission.
 - Thorp explained that the zoning code provided specific off-street parking requirements for the various uses on the subject site, reviewing each use and the status of off-street parking:
 - Mora Elementary was required to have 96 off-street parking spaces per the Conditional Use Permit granted in April 2016 and 196 spaces were provided.
 - Welia Health Wellness Center was required to have 40 off-street parking spaces per the Conditional Use Permit granted in April 2017 and the preliminary civil plans showed that the parking lot was proposed to be reduced from 40 spaces to 34 spaces. Thorp stated that parking for the wellness center would need to be expanded to meet CUP requirements, unless otherwise approved by the City Council.
 - Based on the number of students and staff, the high school was required to have a minimum of 280 off-street parking spaces and the preliminary civil plans showed 338 spaces provided.
 - The athletic fields three in total including the track / football field and two ball fields

 were each required to have 40 off-street parking spaces. Thorp explained that in
 aggregate there were 130 parking spaces provided adjacent to the athletic fields and
 believed this to be adequate.
 - Thorp shared that the proposed off-street parking spaces were shown to be 9' x 18' in size with drive aisles located within the parking areas shown to be 24' in width, explaining that the zoning code required a minimum of 9' x 19' and 26' respectively. Thorp stated that the applicant would either need to amend the civil plans accordingly or request and be granted a Variance to the size requirements.
 - In regard to bus traffic, Thorp shared that Mora Public Schools was not proposing any change to bus traffic or parking.
 - Thorp reviewed several concerns related to traffic, including:

- The traffic study submitted appeared to be a preliminary study and she recommended that the applicant provide a final study.
- The traffic study was based on traffic counts collected in a single day during a
 pandemic on an early release day. Thorp shared that the City Administrator had
 expressed concern that this was not an optimal time or duration of time to complete
 the study.
- MnDOT had reviewed the traffic study and commented that the proposed increase in traffic at the intersection of Highway 65 and 9th Street would likely warrant safety improvements. Thorp shared that possible improvements suggested by MnDOT included increased and updated intersection lighting, removing the existing bypass lane and installing a northbound turn lane, or the installation of a roundabout. Although MnDOT was not requiring any immediate safety improvements as part of the proposed project, MnDOT expressed a desire to be involved in discussions with the city, school district, and Kanabec County Sheriff's Office about possible safety improvements.
- The vehicle storage area located in front of the main high school entrance was 1,000' despite the traffic study estimating that actual storage needs were in the range of 1,050' 1,250'. Thorp expressed concern that this could lead to stacking on 9th Street and recommended that the school district install internal signage directing drivers to use the parking lot if the drop off lane was full. Thorp added that if stacking on 9th Street became an issue, even with signage, that the school district should be required to adjust internal traffic flow.
- Thorp stated that the traffic study recommended a continuous two-way center turn lane on 9th Street, which would necessitate the restriping of 9th Street. Thorp recommended that the school district be responsible for all expenses related to the restriping 9th Street.
- Thorp stated that the traffic study recommended that a new crosswalk be installed at the intersection of 9th Street and Village Green Place. Thorp recommended that the crosswalk be installed in the same manner – same signage, pavement markings, and pedestrian activated flasher – as the existing crosswalk at 9th Street and Village Green Lane and at the school district's expense.
- Thorp shared that the County Engineer recommended that the pedestrian crossing at 7th Street be analyzed for adequacy with increased traffic, and also recommended that the city consider safety benefits of a right turn lane at 7th Street, improved shoulders on Grove Street N., and the extension of 9th Street to Grove Street N.
- The Public Works Director expressed concern about the width of Grove Street N. and suggested that improved shoulders or a turn lane should be considered.
- Thorp explained that the preliminary civil plans showed the proposed relocation of the city-owned multi-use trail and the proposed installation of an access road extending east from Grove Street N. in the current location of the trail. It was believed that the proposed access road was to be located within a public roadway easement. Thorp stated that relocation of the trail would require coordination with the City Administrator, potentially a new easement provided to the city, and an updated maintenance agreement between the city and school district. Further, Thorp commented that the proposed private access road could not be located in a public roadway easement and the applicant would need to resolve these issues.
- Thorp shared concerns that there may be some impacts to the buried electric lines along the north side of 9th Street at the location of the stormwater management ponds, and stated that the applicant would need to coordinate any utility changes with the City Administrator / Public Utilities General Manager.

- Thorp stated that the City Engineer provided proposed conditions of approval for the replacement of the existing sanitary sewer connection and possible replacement of the water service connection in 9th Street.
- The Fire Chief provided several recommended conditions of approval, including:
 - The installation of a Knox Box at the main entrance of the high school.
 - The installation of "No Parking Fire Lane" signs along the designated fire lanes.
 - o All fire lanes must be a minimum of 20' wide.
 - Adequate access, such as a 20' fire lane, must be provided to serve the west side of the high school.
- Thorp commented that the subject site is at or near sign capacity and any additional signage would require either a Variance or Text Amendment to increase allowable signage, adding that this issue was not part of the request for Conditional Use Permit.

Thorp shared that she had only received one comment from the public prior to the meeting, explaining that John Ahlgren, 2113 Pine Ridge Road, offered verbal support for the project. Due to the number of outstanding items and requests for additional information, Thorp recommended that the commission either continue the public hearing to April 12th or table the request until such time that all requested information had been provided. Sjoberg invited representatives of the applicant and property owner to identify themselves; Dan Voce, Mora Public Schools, was in attendance as well as Evan Johnson and Chris Ziemer of ICS. Sjoberg opened the public hearing at 6:09 pm. Ziemer and Johnson provided a PowerPoint presentation, focusing on the proposed site plan. Ziemer pointed out various aspects of the proposed project, including the proposed access points, parking areas, athletic fields, and structures. Ziemer provided the following comments:

- The bus loop was not moving or changing, as the same buses that serve the elementary school will serve the high school.
- The off-street parking for Welia Health Wellness Center was proposed to be reduced from 40 spaces to 34 spaces based on comments from Welia staff and their reports of current usage of the building. Ziemer commented that any overflow parking could utilize the main high school parking lot.
- The main entrance point at 9th Street included two lanes in and two lanes out.
- The proposed stormwater management ponds would be set back far enough as not to interfere with the electric lines.
- Ziemer commented that the existing stormwater management pond on the north side of the subject site could not be constructed any deeper, necessitating additional ponds on the south side of the subject site adjacent to 9th Street.
- Ziemer stated that the City Engineer had previously commented that the vehicle storage area / drop off loop was deemed to be adequate and it was not suggested that the applicant install a turn lane on 9th Street.
- The track was shown in the same location as it was currently located, but it would be resurfaced and slightly expanded for safety and an artificial surface would be added in the middle to serve as a football field.
- The city-owned trail would be moved slightly north to allow for the construction of an access road extending east from Grove Street N. Ziemer acknowledged that the city requested that the applicant identify the location of a public roadway easement, believed to be in the same general location as the proposed access road, and requested the city's assistance in locating that easement if possible.
- Ziemer identified proposed locations of ball fields as well as parking for athletic fields.
- In response to the Fire Chief's request for an adequate access to serve the west side of the high school, Ziemer stated that the applicant would install a 20 foot wide fire lane.

Sjoberg asked the applicant to provide more detail about the proposed stormwater management ponds, specifically inquiring where the water would flow; Ziemer responded that the ponds would be constructed to drain in three directions at a controlled rate. Sjoberg asked where water would go when the ponds were full; Ziemer responded that water would flow to the Snake River and not Lake Mora. Thorp interjected to comment that staff was recommending that the applicant provide the city with a final drainage plan prior to the request for CUP being forwarded to the City Council. Crawford commented that the proposed restriping of 9th Street was suggested by the applicant's traffic study, regardless of conversations between the applicant and the City Engineer. Sjoberg inquired about conditions of Grove Street N. and Wood Street N. and their ability to support additional traffic generated by the proposed project; Crawford responded that the city was currently in the process of updating its street improvement plan and staff was aware of the condition of these two streets. Ziemer acknowledged that the traffic study was completed during a pandemic on an early release day, but added that they utilized a full model of full capacity of Mora Elementary, Welia Health Wellness Center and the high school to complete the study. Sjoberg asked ISD 332 Superintendent Voce to provide the record high and low numbers of students in Mora; Voce stated that the highest number of students was approximately 1,750 and the current student population was 1,650. Voce added that the average high school student population was approximately 700-725. Voce commented that not all high school students drive to school. Sjoberg explained that he was concerned about potential growth, wanting to ensure that enough parking was provided to meet the school district's needs at maximum capacity. Voce stated that the high school facility was sized with the ability to increase the student population; however, the school district had also requested alternate bids for the addition of four classrooms on the west side of the building (Ziemer identified the proposed location on the site plan). Ziemer added that if student parking became an issue in the future the school district could begin issuing parking permits to limit student parking needs or the school district could consider additional parking areas on the school district's property. Crawford questioned why the four additional classrooms – creating additional hard surfaced areas – were not identified on the civil plans, suggesting that it would be more prudent to present the long-range plan to the city for consideration rather than amending the Conditional Use Permit in the future with the potential of amending other features such as stormwater management ponds. Thorp echoed Crawford's comment stating that any future changes, such as adding classrooms, would necessitate a Conditional Use Permit Amendment. School Board member Bohachek stated that the school district was bound to construct the new school for the student capacity that they had at the time that the referendum was passed. Ziemer commented that he believed the stormwater management ponds were sized to include the four alternate classrooms and stated that the applicant could add the classrooms to the civil plans. In regard to the size of proposed off-street parking spaces, Ziemer stated that the proposed spaces matched the size of existing spaces on the subject site and expanding the size would either require the elimination of some parking or require the relocation of the stormwater management ponds. Sjoberg questioned the history of the off-street parking sizes; Thorp stated that parking for Trailview Elementary (former name of Mora Elementary), constructed in approximately 1995, was sized at 9' x 18' but she didn't know the reason or if special approval was granted, and added that parking for the wellness center was sized at 9' x 18' and that was an oversight on her part. Thorp explained that all future parking needed to comply with the city's minimum requirements, which meant that the applicant would either need to adjust the sizes accordingly or request and be granted a Variance to the size requirements. Thorp added that the applicant would be required to demonstrate need for the Variance. Gramentz commented that the requirement for 9' x 19' was fairly standard. Finn, stating that the city-owned multi-use trail was a community asset, asked if the applicant intended to construct the new trail in a similar manner using asphalt; Ziemer

responded that the trail would be shifted north approximately 20 feet and would be constructed at the same width using the same materials. Sjoberg invited members of the audience to provide comments. Kenny Stumpf, Peace Township, asked if there was enough bonding money for all of the add-ons that the school district would be responsible for; Sjoberg responded that the public hearing was not for the purpose of discussing finances and that the question should be directed to the school board. Gramentz requested that the applicant provide a plan showing the future connection of and access points from the school site to adjacent properties to the north and east; Ziemer responded that that type of plan would be the responsibility of the city or future developer, not the responsibility of the school district or applicant. Gramentz again asked for a plan showing future access points; Ziemer responded that development on the northern part of the school district's property would be challenging due to wetlands and an established eagles nest and therefor the applicant did not intend to propose future connections or prepare a plan as Gramentz requested. Gramentz asked about the reasoning for the proposed black metal exterior; Ziemer responded that the black brick was considered a modern Scandinavian material and the black metal accented the black brick. With no further comments, Sjoberg closed the public hearing at 6:34 pm. Commission members briefly discussed options for the request. Gramentz asked if continuing the public hearing or tabling the request would interfere with the 60-day review period; Thorp stated that the review period had been extended by the city an additional 60 days expiring on June 1, 2021. Sjoberg discussed with the applicant the need for additional information before the commission could make a recommendation on the request. Motion by Mathison, second by Gramentz to table the request for Conditional Use Permit until the applicant had provided sufficient information in order to complete a thorough review of the project. All present voted aye, motion carried. Crawford asked the Planning Commissioners if they would like the applicant to provide any additional information that wasn't already requested in the staff report. Sjoberg commented that he would submit his requests following the meeting, and Gramentz - with support from Finn - again requested that the applicant provide a plan to show future connections to adjacent properties to the north and east.

- 8. Open Forum. No members of the public were present for open forum.
- 9. Old Business. None
- 10. <u>Adjournment.</u> Motion by Mathison, second by Finn to adjourn. All present voted aye, motion carried and the meeting was adjourned at 6:38 pm.

	ATTEST:
Todd Sjoberg	Beth Thorp
Chair	Community Development Director



MEMORANDUM

TO: Planning Commission

FROM: Beth Thorp, Community Development Director

SUBJECT: Tabled from March 8, 2021 Meeting – Conditional Use Permit to allow a School

and related school facilities to be located in the R-1 Single Family Residential

District

DATE: April 12, 2021

SUMMARY

The Planning Commission will continue its review of a request for Conditional Use Permit to allow Mora High School and related facilities to be located in the R-1 Single Family Residential District.

SITE & APPLICATION INFORMATION

Applicant: ICS

Property Owner: Mora Public School District (ISD 332)

Location: 200 9th Street East

Current Zoning: R-1 Single Family Residential District

Adjacent Zoning: North: Arthur Township

South: R-1 Single Family Residential District East: R-1 Single Family Residential District West: R-1 Single Family Residential District

Comp. Plan Designation: Public / Semi-Public / Institutional

Date Application Received: January 20, 2021
Date Application Complete: February 1, 2021
Public Hearing Conducted: March 8, 2021
Extended Review Period: June 1, 2021

DISCUSSION

ICS and ISD 332 submitted a request for Conditional Use Permit to allow a *School* and school related facilities to be located in the R-1 Single Family Residential District. The Planning Commission conducted a public hearing at its March 8, 2021 meeting and ultimately tabled the request so that the applicant could provide information necessary to complete a thorough review. Since the March 8th meeting, the applicant has provided several items, including: revised civil plans, a landscape plan, a final traffic study, a drainage and hydrologic report, information on the 66' public roadway easement located in the area of the proposed east-west private access road and city owned trail, and easement exhibits for a new turn lane on Grove Street N. and the city-owned trail. The commission will now continue its review of the proposed high school and related facilities.

The information below was provided in the March 8th staff report with new information since the March meeting added in *italics*. City and utility staff, the City Engineer, the County Engineer / Public Works Director, and MnDOT have all reviewed the new information provided by the applicant and their comments have been incorporated into the staff report and draft resolution.

• Construction Materials. The applicant has provided illustrations of exterior materials proposed for the high school facility, which include precast concrete, metal panels (two colors), and brick (see attached). Although this is a new facility, it will be connected to the existing Welia Health Wellness Center and Mora Elementary facilities and it's important to evaluate the overall appearance and cohesiveness. The proposed precast concrete panels appear to be the same product used for the Wellness Center, and the proposed brick and metal panels mirror and complement materials used for Mora Elementary (although the colors appear to vary slightly between the facilities). Staff has no concerns about the proposed construction materials.

No additional information requested or provided.

• Landscaping. The Zoning Code requires that all exposed ground areas on a lot or parcel surrounding a principal or accessory structure that are not devoted to drives, sidewalks, or parking lots be covered with a minimum of four inches of topsoil and be covered with sod, seed, or other landscaping materials as approved by the city. Non-residential uses, such as this project, may be subject to additional landscaping as determined by the Planning Commission and City Council.

The applicant has stated that a basic landscaping approach is currently planned with an option for ISD 332 to add a more enhanced landscaping package at a later date. The basic landscaping approach includes topsoil, seed, and a variety of native trees and shrubs planted throughout the site with emphasis around major traffic areas and the main entrance. A landscaping plan has not been provided; however, the applicant informed staff that one is currently being prepared. Being that the subject site is located in a well-established residential area and landscaping can play a major role in aesthetics and buffering, staff recommends that the landscaping plan be submitted to the Planning Commission for review prior to the request for Conditional Use Permit being forwarded to the City Council for final consideration. However, the applicant's basic landscaping approach does meet the R-1 District's minimum requirements and the Planning Commission can recommend approval of this plan without reviewing a formal landscaping plan, if desired.

The applicant has provided a landscape plan (attached) for the Planning Commission's consideration. The plan shows the installation of a variety of deciduous, ornamental and evergreen trees, as well as shrubs and ornamental grasses. Being that there will be underground electric service, the applicant has stated that tree plantings will be field verified at the time of installation to avoid underground utilities and allow the desired clearances.

Off-Street Parking.

- Number of Off-Street Parking Spaces. In reference to this particular project, the Zoning Code provides varying off-street parking requirements for the existing elementary school, the existing wellness center, the proposed high school, and the proposed athletic fields. Further, Conditional Use Permits granted in the past for the elementary school and wellness center provide specific off-street parking requirements that must be maintained unless otherwise authorized through this Conditional Use Permit process.
 - Mora Elementary was allowed by a Conditional Use Permit granted in April 2016 (when the former Fairview Elementary relocated to the subject site). Off-street parking requirements for elementary schools are based on the number of classrooms. In 2016 it was determined that the elementary school was required to have a minimum of 96 off-street parking spaces; and, the approved plans show a total of 196 spaces provided. There are currently no proposed changes to off-street parking at Mora Elementary. Off-

street parking requirements for the elementary school exceed the minimum requirement.

No additional information requested or provided.

Welia Health Wellness Center was allowed by a Conditional Use Permit granted in April 2017. Off-street parking requirements were established by the Planning Commission and City Council in 2017 being that the Zoning Code doesn't provide a clear formula for this particular use. The wellness center was required to have a minimum of 40 off-street parking spaces; and, the approved plans show a total of 40 spaces provided. The civil plans for the high school project show that the existing parking area for the wellness center will be removed and relocated with a total of 34 new off-street parking spaces provided. Because the 2017 Conditional Use Permit requires 40 off-street parking spaces for this particular use, the parking area dedicated for the wellness center must be expanded to provide the required number of parking spaces. The Planning Commission and City Council do have the authority to reduce the number of required spaces from 40 to 34 if it's specifically added as a condition of approval; however, staff recommends that the off-street parking requirement remain at 40 spaces. (Note: A reduction wouldn't require a Variance as the number of off-street parking spaces was determined by the Planning Commission and City Council.)

The revised civil plans (attached) show that 40 off-street parking spaces are now provided for the wellness center.

■ Off-street parking requirements for the **high school** are based on the number of staff members present on the largest shift and the student population. Mora Public Schools Superintendent Dan Voce stated that there are currently 125 staff members at the high school and 775 students (grades 7 – 12), which requires a total of 280 off-street parking spaces (125 spaces for staff and 155 spaces for students). **The civil plans show that 338 spaces are proposed which exceeds the minimum requirement.**

The revised civil plans (attached) show the four alternate classrooms discussed at the March 8th meeting. Based on the addition of classrooms and related staff members and new information provided by the applicant pertaining to building capacity rather than current student population, staff has recalculated the number of off-street parking spaces required for the high school.

The high school, at capacity <u>without</u> the alternate classrooms, is projected to accommodate 952 students and 125 staff members, which will require a total of 315 off-street parking spaces (190 spaces for students and 125 spaces for staff). The civil plans show that 338 spaces are proposed which exceeds the minimum requirement IF the high school is constructed without the alternate classrooms.

The high school, at capacity <u>with</u> the alternate classrooms, is projected to accommodate 1,095 students and 130 staff members, which will require a total of 349 off-street parking spaces (219 spaces for students and 130 spaces for staff). Because the proposed parking lot does not have enough off-street parking to accommodate the minimum required parking, staff recommends that the school be required to provide additional off-

street parking, such as the parking area shown as Alternate #8, if and when the alternate classrooms are added.

The Zoning Code also includes off-street parking requirements for "play fields" (aka athletic fields) such as the track / football field and ball fields. More specifically, the Zoning Code requires 40 off-street parking spaces for each play field. The civil plans show two ball fields located on the north side of the project along with 52 off-street parking spaces, as well as one track / football field with 78 adjacent off-street parking spaces. There are three play fields in total which requires a total of 120 off-street parking spaces, and 130 off-street parking spaces are proposed in total. While not all proposed parking is located immediately adjacent to the play field it may serve (i.e. the ball fields require 80 spaces and 52 are proposed immediately adjacent to the fields) and the parking adjacent to the track / football field is also identified as being for staff and ALC students, it's staff's opinion that the aggregate number and location of off-street parking spaces satisfies the requirement.

No additional information requested; however, the applicant has commented that the staff parking lot, which is close to the ball fields, could be utilized for athletic events outside of school hours.

o Size of Off-Street Parking Spaces and Drive Aisles. The Zoning Code requires that off-street parking spaces be a minimum of 9' x 19' and drive aisles be a minimum of 26' wide. The civil plans show that all new off-street parking spaces will be 9' x 18' and the drive aisles located within the parking areas will be 24' wide. In taking a closer look at the existing parking areas for Mora Elementary and Welia Health Wellness Center, it was discovered that all existing parking spaces are 9' x 18' with 24' wide drive aisles. While there are no known issues relating to the slightly smaller parking spaces and drive aisles, the city cannot approve the reduced sizes through the Conditional Use Permit process. Instead, the applicant must either amend the civil plans for the high school project to reflect minimum sizes required per the Zoning Code or request a Variance to the Zoning Code requirements.

The revised civil plans (attached) show that all proposed off-street parking spaces and drive aisles have been adjusted to meet the city's minimum size requirements.

Accessible Off-Street Parking Spaces. The Building Official has commented that the proposed parking must comply with the Minnesota 2020 Accessibility Code. Accessible parking spaces shall be provided in compliance with Table 1106.1, except as required by Sections 1106.2-1106.4. Per Accessibility Code Section 1106.5, for every six or fraction of six accessible parking spaces at least one shall be a van-accessible parking space.

The applicant has commented that all accessible parking spaces are designed to be vanaccessible parking spaces.

• **Bus Traffic.** The applicant has reported that bus traffic and flow will remain the same as it has been in the recent past, utilizing the existing bus parking area. **Staff has no concerns about bus traffic.**

No additional information requested or provided.

- Traffic. The applicant provided a traffic study dated January 19, 2021 for the proposed project
 (attached). Because the subject site abuts a county road and the project impacts Highway 65, the
 traffic study was reviewed by the County Engineer / Public Works Director and MnDOT in addition to
 city staff and the City Engineer.
 - The city was provided with what appears to be a preliminary traffic study. A final traffic study should be submitted.

The applicant has provided a final traffic study dated March 22, 2021 (attached). While the study generally includes the same information, there are some changes and additions to the Findings and Conclusions section.

 The City Engineer and County Engineer / Public Works Director have provided several comments pertaining to traffic (see attached).

Sheriff Smith has reviewed the final traffic study and provided comments (see attached).

• MnDOT's Development Review Committee has reviewed and discussed the project at length and, while there are no immediate improvements required at the intersection of Highway 65 and 9th Street, MnDOT believes that the increase in traffic at this intersection may warrant safety improvements. MnDOT would like to be involved in discussions with the city, the Sheriff's Office, and ISD 332 when considering possible safety improvements. Possible safety improvements suggested by MnDOT include: increased and updated intersection lighting; removing the existing bypass lane on Highway 65 at 9th Street and using that space for a north-bound left turn lane; or, installing a roundabout. Staff will continue this discussion with MnDOT and other stake holders.

MnDOT received the final traffic study but did not provide any additional comments. The applicant has commented that they're interested in being involved in conversations with MnDOT, the city and the Kanabec County Sheriff's Office regarding safety improvements at the intersection of Highway 65 and 9th Street.

The study was based on traffic counts collected within a single day during a pandemic on an early release day. The City Administrator is concerned that this was not an optimal time to complete a traffic study and that the duration of the study was too short.

The applicant has commented that traffic studies are based on both assumptions and observations to create a model of likely scenarios. Since the high school is a new facility, there are no actual numbers to count, so estimations and assumptions are paired with growth factors to produce likely scenarios of traffic projections.

■ The vehicle storage area from the drop off lane in front of the high school to the 9th Street entrance is 1,000 feet, with estimated vehicle storage needs being 1,050 − 1,250 feet. Not providing sufficient storage area may lead to stacking on 9th Street, which is concerning. To address this issue, **staff recommends that ISD 332 install internal signage directing drivers to use the parking lot if the drop off lane is full**. If stacking on 9th Street becomes an issue despite the signage, ISD 332 would need to consider adjusting traffic flow internally to alleviate this issue.

The applicant has clarified that the civil plans show three 1,000 foot drop off lanes, not just one single 1,000 foot drop off lane.

■ The study recommends the installation of a continuous 2-way center turn lane on 9th Street. This would require restriping of 9th Street and it would utilize the entire roadway surface of 9th Street. If a center turn lane is installed staff recommends that ISD 332 be responsible for all expenses related to restriping 9th Street.

The applicant has clarified that they intend to grind off the existing pavement markings on 9^{th} Street, between Wood Street N. and Sunset Lane, and repaint with a shared center left turn lane. The City Administrator strongly recommends restriping 9^{th} Street to the intersection of 9^{th} and Hwy 65.

A new crosswalk is recommended at the intersection of 9th Street and Village Green Place, in addition to the crosswalk at the intersection of 9th Street and Village Green Lane. The proposed crosswalk would create a direct access from 9th Street to the main entrance of the high school. If a new crosswalk is installed staff recommends that the new crosswalk be installed in the same manner – the same signage, pavement markings, and pedestrian activated flasher – as the existing crosswalk and at ISD 332's expense.

The applicant has commented that they plan to include a new crosswalk at Village Green Place with both pavement markings and signage that match the existing crosswalk at Village Green Lane.

 The County Engineer / Public Works Director recommends that the pedestrian crossing at 7th Street be analyzed for adequacy with increased traffic.

The applicant has commented that this area is outside of the project area. The County Engineer has stated that he'll recommend that the county install a stop sign on Grove Street N. at 7th Street to increase pedestrian safety at the intersection.

The County Engineer / Public Works Director recommends that the city consider the safety benefits of a right turn lane at 7th Street, improved shoulders on Grove Street N., and the extension of 9th Street to Grove Street N, with the suggestion that expanding the scope of the traffic study would be beneficial to this discussion. The city's Public Works Director also expressed concern about Grove Street N., explaining that it's a narrow road and improved shoulders or a turn lane should be considered.

The applicant is proposing and has provided an easement exhibit for the addition of a northbound right turn lane on Grove Street N. at the private access road. The County Engineer has given preliminary verbal approval for the turn lane.

• City-Owned Multi-Use Trail and Proposed Grove Street N. Access Road. The City Engineer has pointed out in his comments (see attached) that the existing city-owned multi-use trail located from Grove Street N. to Highway 65, shown between the proposed ball fields and track / football field, is located within an existing public roadway easement. The applicant is proposing to relocate the trail in conjunction with the proposed construction of the access road. The proposed private access road

is also believed to be located in the public roadway easement. Because the civil plans do not show the public roadway easement, staff has requested a survey from the applicant to verify the exact location of the easement and the locations of the existing trail and proposed access road in relation to the easement.

If the city-owned multi-use trail is relocated, this will need to be coordinated with the city and, if the trail is to be located outside of the existing public roadway easement, ISD 332 will need to provide a new easement to the city for the trail. Further, if the trail is relocated, the city and ISD 332 will need to update the existing maintenance agreement to address the new improvements. The trail system is a vital asset to the community and must be protected.

The City Engineer has commented that the private access road, in its proposed location, will require that the existing public roadway easement be adjusted.

Staff recommends that resolving these issues be included as conditions of approval and that the issues be resolved prior to the request for Conditional Use Permit being forwarded to the City Council for final consideration.

The applicant has provided a survey showing the 66' public roadway easement and intends to submit a petition to the City Council for the vacation of the entire easement. It was initially believed that the south 33' was dedicated to the city and the north 33' was dedicated to the township and both jurisdictions would need to vacate their respective portion; however, the City Attorney has confirmed that the city was granted full road authority when the property was annexed into the city in 2012. The applicant has also provided a survey for the dedication of a new trail easement to the city and is agreeable to updating the maintenance agreement to address the new improvements (or to create an agreement if one does not already exist).

The applicant will be required to obtain an access permit from the County Engineer for the private access road off of Grove Street N.

 Drainage. The applicant has not yet provided a final drainage study or drainage plan for the subject site. Staff recommends that a final drainage plan be submitted for review and approval by the City Engineer and County Engineer / Public Works Director prior to the request for Conditional Use Permit being forwarded to the City Council for final consideration.

The applicant submitted a final drainage and hydrologic report dated revised April 1, 2021 for review by the City Engineer and County Engineer. While the County Engineer doesn't have any concerns with the drainage to Grove Street N., he is concerned about drainage from the unnamed ponds going to Lake Mora rather than the Snake River and has requested that this be verified. This information and request has been shared with the applicant. The City Engineer reviewed the report and is generally satisfied that it meets all requirements; however, he shares the County Engineer's concern and has also requested that the applicant verify the information.

Utilities.

It appears that there may be some impacts to the buried electric lines along the north side of 9th Street at the location of the proposed stormwater management ponds, and the lines will either need to be moved toward the street or lowered underground. The City Engineer believes that the electric lines are located within a utility easement behind the 9th Street right-of-way. The

applicant will need to coordinate any utility changes with the City Administrator / Public Utilities General Manager.

The applicant has commented that the grading limits of the ponds have been adjusted to avoid utilities. The applicant is already in discussions with the City Administrator / Public Utilities General Manager regarding underground electric service and issues related to installation of other utility infrastructure.

 The new high school will require the replacement of the existing sanitary sewer connection to the city main in 9th Street. The City Engineer has provided several recommended conditions of approval for this work (see attached). These same conditions would apply if there is a new or replaced water service connection in 9th Street.

The applicant has commented that they have no issues with the City Engineer's recommended conditions of approval and they've already been incorporated into the plans.

- **Fire**. The city's Fire Chief has reviewed the civil plans and provided the following comments / recommended conditions of approval:
 - Place at least one Knox Box at the main entry of the high school. The Knox Rapid Access
 Solutions system will provide the Fire Department with one master key for the entire facility for immediate access in case of emergency.

The applicant has commented that a Knox Box will be placed at the main entrance of the school.

- The number and placement of fire hydrants is sufficient for this project.
- Place "No Parking Fire Lane" signs along the designated fire lane(s). The number and placement of signs should be coordinated with the Fire Chief.
- All fire lanes must be a minimum of 20' wide.
- There does not appear to be adequate access for the fire department along the west side of the proposed high school facility (between the track and the high school). The Fire Chief recommends that the applicant provide a fire lane, or other acceptable option, to serve the west side of the high school.

The revised civil plans (attached) show that the 6' wide sidewalk has been replaced with a 20' wide bituminous fire lane on the west side of the high school.

• **Signs**. The subject site, being a non-residential use located in a residential zoning district, is currently at or near maximum allowable signage capacity. With the proposed addition of another facility, the school district is exploring options for additional signage. Staff has advised that the only two options available include a request for Variance or Text Amendment. A Variance, if approved, would be specific to the subject site, whereas a Text Amendment, if approved, would likely apply to all non-residential uses in the R-1 Single Family Residential District or various residential districts. This issue will be further discussed and considered by the Planning Commission in the future, but is not a discussion item related to the current request for Conditional Use Permit.

No additional information requested or provided.

Staff did not receive any comments from the public regarding this request following the March 8th meeting.

Note: Representatives of the applicant and property owner will be present at the April 12th meeting to provide information about the project and answer questions from the Planning Commission.

OPTIONS

- 1. Table the request for further consideration. The extended review period for this request expires on June 1, 2021.
- 2. Recommend approval of the request with conditions presented or amended.
- 3. Recommend denial of the request, providing specific reasons for the recommendation of denial for the written record.

STAFF RECOMMENDATION

Staff recommends approval with conditions presented in Resolution No. PC2021-401.

ACTION REQUESTED

Motion to approve Resolution No. PC2021-401 as presented or amended.

ATTACHMENTS

City Engineer's comments dated March 2, 2021 and revised April 6, 2021

County Engineer / Public Works Director's comments dated February 26, 2021

Kanabec County Sheriff's comments dated April 9, 2021

Final Traffic Study dated March 22, 2021

Resolution No. PC2021-401

Revised Civil Plans signed and dated March 11, 2021 (select sheets)

Sheet Number C-3.3 Existing & Removals

Sheet Number C-4.0 Site Key Plan

Sheet Number C-5.0 Site Plan Area A

Sheet Number C-5.1 Site Plan Area B

Sheet Number C-5.2 Site Plan Area C

Sheet Number C-5.3 Site Plan Area D

Landscape Plan signed and dated March 11, 2021 (select sheets)

Sheet Number L-1.0 Landscape Plan

Sheet Number L-1.1 Planting Area A

Sheet Number L-1.2 Planting Area B

Sheet Number L-1.3 Tree and Planting Bed Plans

Sheet Number L-2.0 Planting Schedule, Details and Notes



MEMORANDUM

TO: Beth Thorp, Community Development Director

FROM: Greg Anderson, PE - City Engineer (Lic. MN)

DATE: March 2, 2021 | Revised April 6, 2021

RE: Mora Public School District – CUP application for new high school

SEH No. MORA0 145879 14.00

Per you request we have reviewed the Conditional Use Permit (CUP) application submitted by the school district for their new high school to be located off 9th Street. The plans that accompanied the application were prepared by Northland Consulting engineers and received on February 5th. Also included in our review is the Mora High School Traffic Study prepared by SEH and dated January 19, 2021. Our comments are as follows:

TRAFFIC

- 1. It appears a new crosswalk on 9th Street is intended or should be planned at the intersection of 9th Street at Village Green Place. The school plans show a new sidewalk from the main entrance doors of the new high school out to 9th Street at this location. This new sidewalk will encourage pedestrian traffic to cross 9th Street at this location for access to the high school rather than use the marked and signed crosswalk at Village Green Lane & 9th Street. A new crosswalk should have the same signage, pavement markings and pedestrian activated flasher as the current crosswalk at 9th Street & Village Green Lane. Since the high school construction is causing this need for this new crosswalk, it's our opinion that these costs should be a school district expense. The City paid for the existing crosswalk markings, signing and flasher currently at the 9th Street & Village Green Lane intersection. The applicant has indicated they will pay for and install the required crosswalk improvements at Village Green Place to match the existing cross walk at 9th Street and Village Green Lane.
- 2. The traffic study recommends expanding the center left turn lane pavement markings on 9th Street to assist with traffic peaks during school hours and turning movements into the new high school entrance. I agree with their suggestion of expanding the center left turn lanes on 9th Street. Like the new crosswalk discussed in item #1, the pavement marking costs should be a school district expense as the new high school entrance is causing the need for the change. The applicant has indicated they will pay for and install the required pavement markings to create the shared center left turn lane recommended.
- 3. The traffic study results based on the models for when the high school is built found all studied intersections to still be operating at acceptable traffic levels. The only potential areas of concern may be the new high school entrance off 9th Street and the 9th Street at TH 65 intersection.
 - a. High School entrance The site plan provides approximately 1,000 feet of vehicle storage from the drop off lane in front of the high school doors to the entrance at 9th Street. This is on the low end of what's typically seen for schools this size. If arrival/departure traffic does start to stack on to 9th Street, the school has options to adjust traffic flow internally to alleviate this. If traffic does

start to stack on 9th Street, the City should require the school to adjust their internal traffic movements. **The applicant has noted that traffic should not stack on 9th Street with three incoming traffic lanes.**

- b. 9th Street & TH 65 Left turning movements from 9th Street to TH 65 and vice versa will operate at a level of service C, which is acceptable. The City should monitor traffic at this intersection and any accidents while continuing the discussion with MnDOT about future geometric or speed improvements on TH 65.
- 4. The existing city bike trail along the north side of the school athletic fields from Grove Street to TH 65 resides in an existing roadway easement. Will/does the school need to adjust that easement for their new entrance road off Grove Street and the relocation of the bike trail? If the school builds a private road in a public roadway easement, the easement will need to be adjusted. Similarly, if the new bike trail on the north side of the new school road is outside the current easement, a new easement should be recorded to cover the relocated bike trail. The applicant is working to vacate the old easement and dedicate new easement(s) to fit the proposed improvements.
- 5. Similar to the easement for the bike trail/new school road, the maintenance agreement between the City of Mora and the school district for the bike trial should also be updated to cover the new improvements. The applicant is working to vacate old easement and dedicate new easement(s) to fit the proposed improvements.

DRAINAGE

- 1. The final drainage plan and drainage study have yet to be received for our review and approval.
- 2. We have had ongoing discussions about stormwater on and from the site with Northland Consulting Engineers and I believe we are on the same page as to what the overall intent for drainage on and off the site should entail. The City should include drainage plan review & approval in either their CUP or building permit approvals to ensure this step is completed.

The final drainage plan and report has been received and reviewed. We have no further comments or revisions as it meets the requirements.

UTILITIES

- 1. The new high school will require replacement of the existing sanitary sewer connection to the City main in 9th Street. They plan to reinstall the existing pipe at a lower elevation into the existing sanitary manhole in the intersection of 9th Street and Village Green Place. That connection should include the following:
 - a. A watertight, boot type connection in the existing manhole for the revised connection.
 - b. City of Mora public works staff should witness and approve the connection to the existing manhole and backfilling of the sewer trench in the ROW of 9th Street.
 - c. The bituminous patch in 9th Street for the sewer line replacement should be replaced at a 1.5:1 slope based on the depth of the trench.
 - d. The sewer trench shall be backfilled in lifts not greater than 1-foot and the school shall provide a material testing firm to verify compaction meets or exceeds 100% in the top 3-feet of the trench and 95% below 3-feet depth for the sewer trench in 9th Street.

Items a through d have been incorporated into the final plans.

Memorandum March 2, 2021 | Revised April 6, 2021 Page 3

- 2. I am not aware of a new or replaced water service connection in 9th Street, but if there is one, the above conditions apply with respect to city inspection, bituminous patching, and trench backfilling densities. The existing water service will be used for the new high school, no additional water connections into 9th Street are needed.
- 3. Has the fire chief reviewed the hydrant locations on the new water line around the high school? The fire chief has approved the number and placement of the proposed fire hydrants around the new high school.

ah/GFA

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KANABEC COUNTY PUBLIC WORKS DEPARTMENT



Chad T. Gramentz, PE, Public Works Director 903 Forest Avenue East, Mora, MN 55051 320-679-6300

February 26, 2021

Beth Thorp Community Development Director City of Mora

Re: Mora Public School District CUP

Dear Ms. Thorp,

I have received a preliminary site plan for the proposed Mora high school and associated site improvements. My review consists of the proposed projects impacts to N. Grove St. My comments are as follows:

- 1. The site plan is preliminary in nature and could not be thoroughly reviewed as would be necessary for approval. A final site plan signed by a professional engineer should submitted.
- 2. No drainage information was submitted for review. A complete drainage plan signed by a professional engineer should be submitted.
- 3. A preliminary traffic study was submitted to me by the project team. This study should be finalized and signed by a professional engineer. The study recommends a turn lane at the Pine Ridge entrance. I recommend the planning commission consider the safety benefits of a right turn lane at 7th St., improved shoulders on Grove St., and the extension of 9th St. to Grove St. An expanded scope of the traffic study analysis may be beneficial to help with these decisions.
- 4. The pedestrian crossing at 7th St. should be analyzed for adequacy with the increased traffic count.

I recommend the following conditions at a minimum:

- 1. County Engineer approval of site plans, and
- 2. County Engineer approval of drainage plan.

I will forward my comments on additional review as I receive updated submittals.

Sincerely,

Chad T. Gramentz, PE

Kanabec County Engineer

Beth Thorp

From:

Brian Smith <bri> smith@co.kanabec.mn.us>

Sent:

Friday, April 09, 2021 10:22 AM

To:

Beth Thorp

Subject:

Re: Mora High School Project

Attachments:

image001.png; image001.png

Beth,

In reviewing the Mora High School project traffic study I do have a couple concerns.

One is the timing and duration of the study itself. Seeing that it was completed on an early release day with COVID protocols in place limiting those that would have been present during school, and then again after school when most normal activities were cancelled leads me to question the accuracy of the resulting projections. I also question what this was done done over multiple days, rather than just one.

There are essentially 2.5 routes to access the school and its associated facilities, including the Welia center. The first, and heaviest, is Hwy 65 to the east, which is a main artery from the metro to the northern lakes, which you have to merge onto a full 60 mph State Hwy. The second would be Wood St. to the south which then can split to 7th Street providing access to the west and north via Grove St. Wood St. Is a primary access to the center of downtown Mora and lacks adequate sidewalks for safe pedestrian traffic. Grove St. to the north is narrow with relatively no shoulders and is currently in need of significant repair, until the turn west to 220th. This will interfere with people selecting this optional route to and from the school site.

The plan to utilize a center turn lane on 9th straight is going to prohibit any on street parking as it is too narrow for three lanes and any parking on the shoulder. I did not see anything addressing Varsity events in the evening and if the current parking would be sufficient to handle that need. Currently at the high school those events fill up school parking, on street parking, and then start to fill up the Courthouse and adjacent businesses. I think this needs further focused review.

The last item that caught my attention was there was no discussion of student release at lunch time. If this will be a closed campus and students will not be allowed to leave for lunch I would have no concern. If it will be an open campus I fear that the increased distance to food services in town will create a significant public safety concern to the Hwy 65/9th street access and to Wood St. Student drivers are impatient to begin with and funneling them to just 2 routes will cause accidents.

Thank you, Brian

Sheriff Brian Smith



Mora High School Traffic Study ISD #332 - Mora Public Schools

Mora, Minnesota

March 22, 2021



Mora High School Traffic Study

Independent School District #332 Mora Public Schools Mora, Minnesota

March 22, 2021

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

<u>Nital E. Krtta</u> Date: <u>March 22, 2021</u> License No.: <u>19254</u>

Short Elliott Hendrickson Inc.

10901 Red Circle Drive; Suite 300

Minnetonka, MN 55343





Building a Better World for All of Us®

FINAL TRAFFIC STUDY MEMORANDUM

TO: Chris Ziemer, Project Manager

ICS Consulting

FROM: Mike Kotila, PE (MN)

Leo Johnson, EIT

DATE: March 22, 2021

RE: Mora High School Traffic Study

SEH No. ICSCO 157520

INTRODUCTION

This technical memorandum provides study findings related to the planned new high school expansion adjacent to the existing Trailview Elementary School in the City of Mora. The new high school, planned for opening in the fall of 2023, will serve grades 7-12 with a projected future enrollment of 800. The existing elementary school serves grades kindergarten through 6 with an enrollment of 771 students. In addition, the existing site accommodates a pre-kindergarten enrollment of 90 students as well as a community wellness facility.

This study examines traffic operations at study area intersections for existing land uses in the study area plus future land uses that include the high school and additional residential land uses that are assumed to be developed within the study area.

The study area is bounded by Grove Street (Kanabec County Road 70) on the west and State Highway 65 on the east. 9th Street serves as an eastbound/westbound collector roadway through the study area and primary access roadway for both school sites. The intersection of Grove Street and Pine Ridge Road is the northern boundary of the study area and 7th Street intersections with Grove Street and Wood Street form the southern boundary of the study area.

Figure 1 shows the study area, locations of the planned high school, the existing elementary school, areas of assumed residential development, and the study intersections and associated intersection numbers that correlate to the map.



EXISTING CONDITIONS

The proposed high school is planned for construction in the space currently occupied by baseball fields on the elementary school campus. 9th Street provides access to both the elementary school and the proposed high school along the south side of the project site. 9th Street is a 2-lane roadway with eastbound left turn lanes at the existing accesses to the elementary school and on its eastbound approach to Highway 65. 9th Street operates with a posted speed limit of 35-mph and a school speed zone reducing to a 20-mph limit when children are present.

Highway 65 is a 2-lane highway with a speed limit of 55-mph. Wood Street and 7th Street are 2-lane city streets with statutory speed limits of 30 mph. Grove Street is a 2-lane county road (Kanabec CR 70) that operates at 30-mph within the developed area of the city but increases to a statutory 55-mph limit north of 7th Street.

Trails are in place along the south side of 9th Street, the east side of Wood Street and the north side of 7th Street. A marked school crosswalk and pedestrian activated warning flasher system is in place to serve students crossing 9th Street at its intersection with Village Green Lane. The crossing is staffed by an adult crossing guard to assist students.

Existing intersection traffic control at all study intersections is a stop sign on the minor street (or driveway) approaches.



Looking westerly along 9th Street at the Sunset Lane intersection and entrance to the elementary school. The trail on the south side and the eastbound left turn lane to the school are apparent. The pedestrian crossing at Village Green Lane is visible in the distance

Mora High School Traffic Study March 22, 2021 Page 4

EXISTING TRAFFIC COUNTS

On October 6th, 2020 traffic cameras were used to collect video data at eight intersections in the study area. From the videos, traffic movements were counted for passenger vehicles, heavy vehicles, buses, pedestrians, and bicycles at each intersection.

Traffic video was recorded at the following locations that serve existing school traffic movements:

- #1 Grove Street at Pine Ridge Road
- #2 Grove Street at 7th Street
- #3 Wood Street at 7th Street
- #4 9th Street at Existing Bus Only Driveway
- #5 9th Street at Village Green Place
- #6 9th Street at Village Green Lane
- #7 9th Street at Sunset Lane West
- #13 Highway 65 at 9th Street

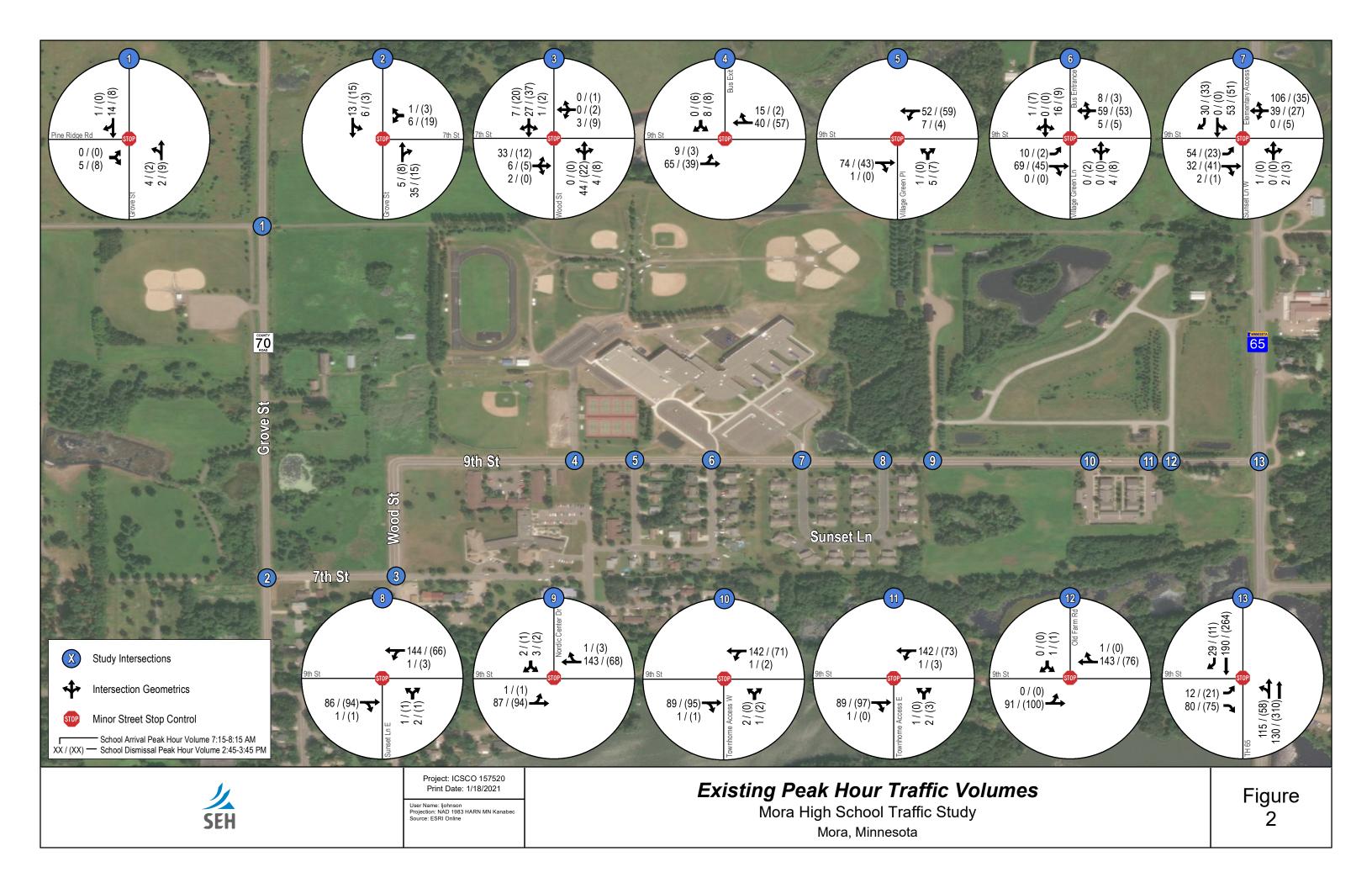
Traffic counts were performed from the video during the morning peak period (7-9 am) and afternoon peak period (1-6 pm). The elementary school was in session on the day the video was collected however the programmed dismissal time was earlier than normal due to schedule adjustments made during the Covid-19 pandemic. The peak traffic hours were found to be 7:15-8:15 am which overlaps school arrival. In the afternoon, classes dismissed at 2 pm, followed by an optional after-school program which lasted until 3:15 pm. This resulted in dismissal traffic to be spread over a longer period and the peak hour of traffic to be from 2:45-3:45 pm. The 2020 existing turning movement counts are included as attachments to this memorandum.

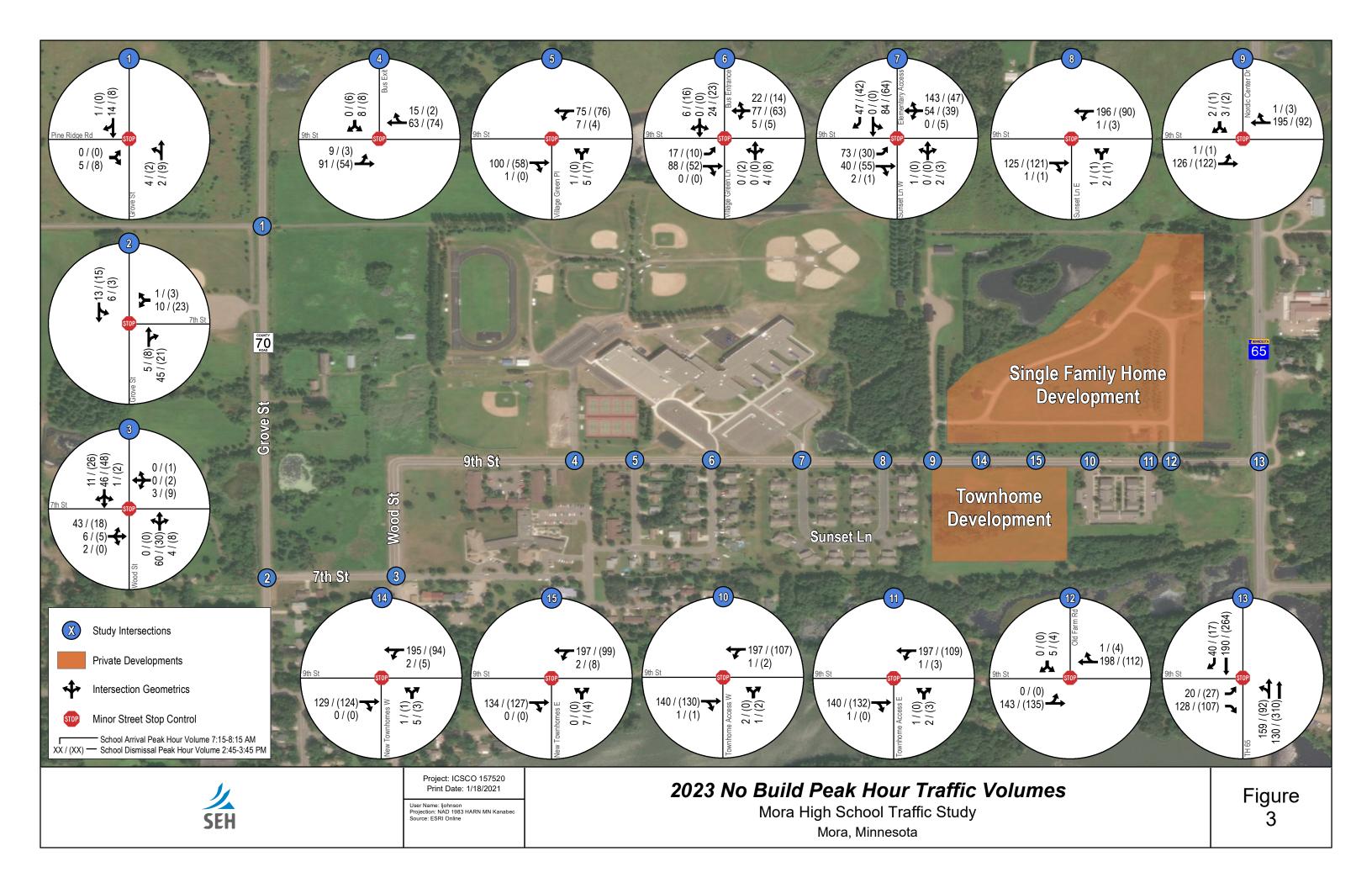
Observations of the elementary school entrance intersection during peak periods indicate that parent pick-up and drop off queues do not exceed on-site storage capacity and do not back out to the street intersection.

Figure 2 shows the existing intersection lane configurations and existing traffic demands for the AM School Arrival peak hour and PM School Dismissal peak hour for each study intersection. Existing traffic volumes for study intersections #8, #9, #10, #11, and #12 have been estimated based upon trip generation rates for the land uses served by each intersecting street.

Figure 3 shows the peak hour traffic volumes in 2023 with additional trips due to residential growth but without the high school.

Figure 4 depicts the proposed site plan for the high school.





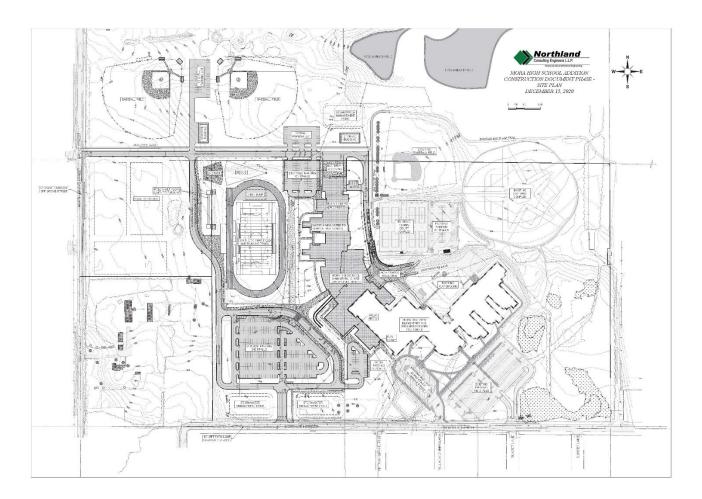


Figure 4 – Proposed High School Site Plan

TRAFFIC VOLUME ASSUMPTIONS / COVID-19 Adjustments

Based on review of pre-pandemic traffic volumes it has been found that COVID-19 has contributed to an average reduction of approximately 15% in regional traffic demand. Volumes at the local level are dependent upon on-site specific conditions. Therefore, for the purposes of this study, traffic volumes on Highway 65 were increased to account for the effect of the pandemic. Traffic volumes turning to and from 9th Street were not adjusted because the elementary school was providing in-person learning and was operating close to normally. The Welia community wellness center was closed due to COVID-19, therefore, estimated trips to and from Welia were added to the analysis scenarios for future conditions. No adjustments were made to estimated traffic volumes generated by existing or future single-family homes.

TRIP GENERATION AND DISTRIBUTION

The proposed high school is projected to have an enrollment of 800 students in 2023. To be conservative, enrollment at the elementary school was assumed to grow by a similar proportion as the high school to 822 students. The private townhome development was assumed to be 16 duplexes for a total of 32 dwelling units and is assumed to be completed in 2023. Additionally, seven single-family homes were assumed to be constructed on the north side of 9th Street through 2023.

Table 1 shows the projected growth of the Elementary School and the sizes of the expected new developments.

Table 1 – Assumed Development Sizes for Trip Generation Estimates

Land Use	Size	Units	
Elementary School Growth		Students	
High School	800	Students	
Recreational Community Center	50	KSF	
Multifamily Housing (Low-rise)	32	Units	
Single Family Housing	7	Units	

Trip generation estimates for the High School, Welia community wellness center, townhome development, and single-family home development were performed based upon the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition.

Table 2 shows the trip generation rates (i.e., the number of 1-way vehicle trips generated per student (or unit) and proportion of trips entering and exiting the site from the new High School and from the increased enrollment at the Elementary School.

Table 2 – Trip Generation Rates and Distributions

Land Use	ITE	Units	AM/School Arrival		PM/School Dismissal			
Land Ose	Code	Ullits	Rate	Enter	Exit	Rate	Enter	Exit
Elementary School	520	Students	0.67	0.54	0.46	0.34	0.45	0.55
High School	530	Students	0.55	0.68	0.32	0.33	0.32	0.68
Multifamily Housing (Low-rise)	220	Units	0.46	0.23	0.77	0.56	0.63	0.37
Single Family Housing	210	Units	0.74	0.25	0.75	0.99	0.63	0.37
Welia Community Center	Volumes estimated based on proportions of daily rates							

Trip Generation Assumptions

The AM peak hour of adjacent traffic and the school arrival peak hour occur at approximately the same. The school dismissal peak occurs prior to the PM peak hour for other traffic. The multi-family housing and single family homes will have the highest trip generation during the normal AM and PM peak hours, so using the PM peak hour in place of the school dismissal peak hour (which is not available) is conservative.

For the Welia community wellness center the total expected daily trips was calculated; then, using ITE's 24-hour distribution of trips for the recreational community center land use, the school arrival hour and school dismissal hour trip generation percentages of daily traffic numbers were found and the number of entering and exiting trips were calculated. A 50% reduction was applied to account for internal trips for parents or staff that use the center before or after school, and to account for the use of the wellness center's facilities by students during physical education.

No reduction in trips was assumed for parent trips that may pick-up or drop off students for both schools at the same location (conservative assumption). The elementary school and high school share a bus lot and students from both schools will ride the same buses.

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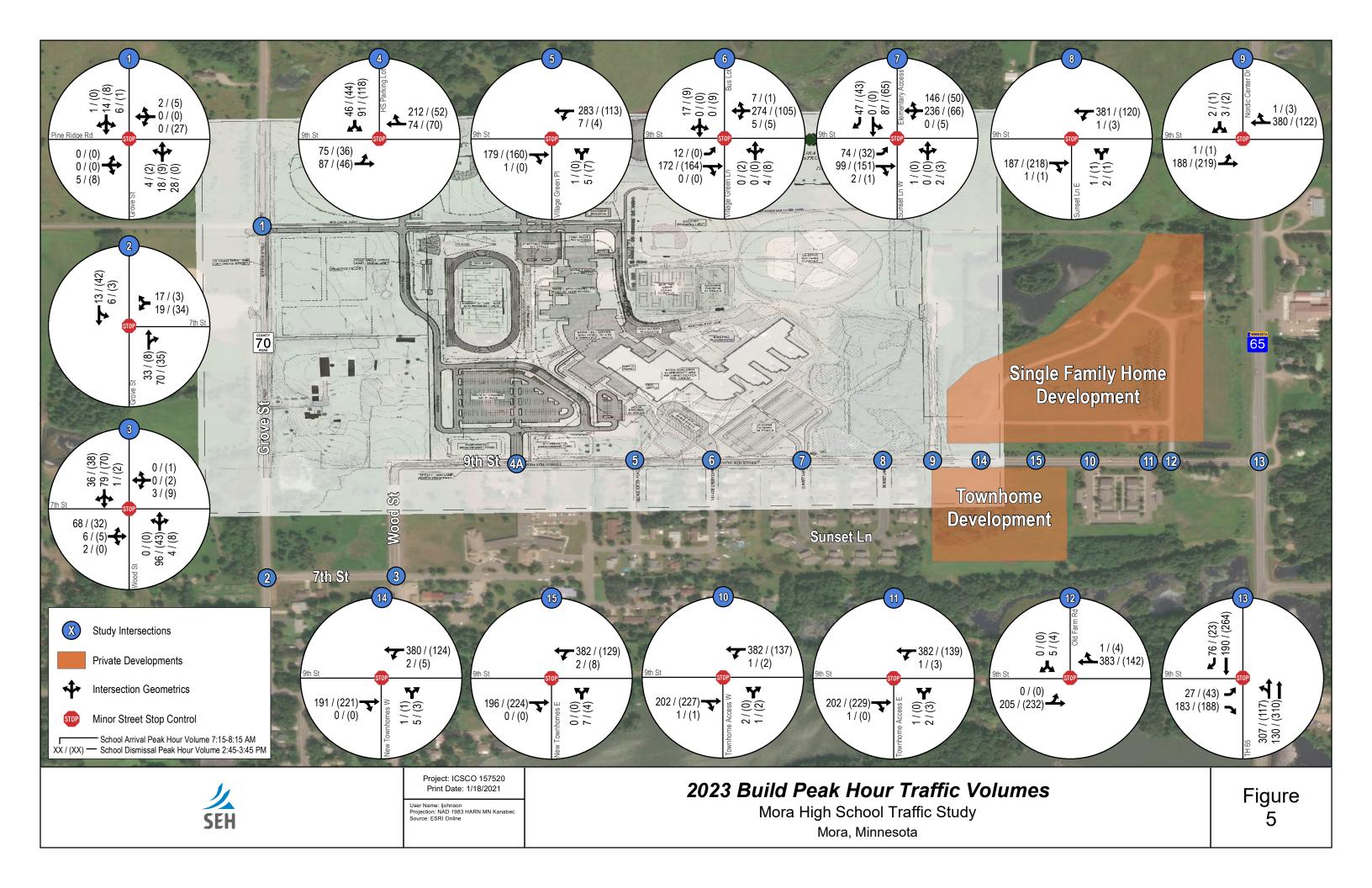
Table 3 shows the AM/school arrival, and PM/school dismissal peak hour trips generated by both the proposed high school, small increase at the elementary school, community center, and growth from nearby residential land uses.

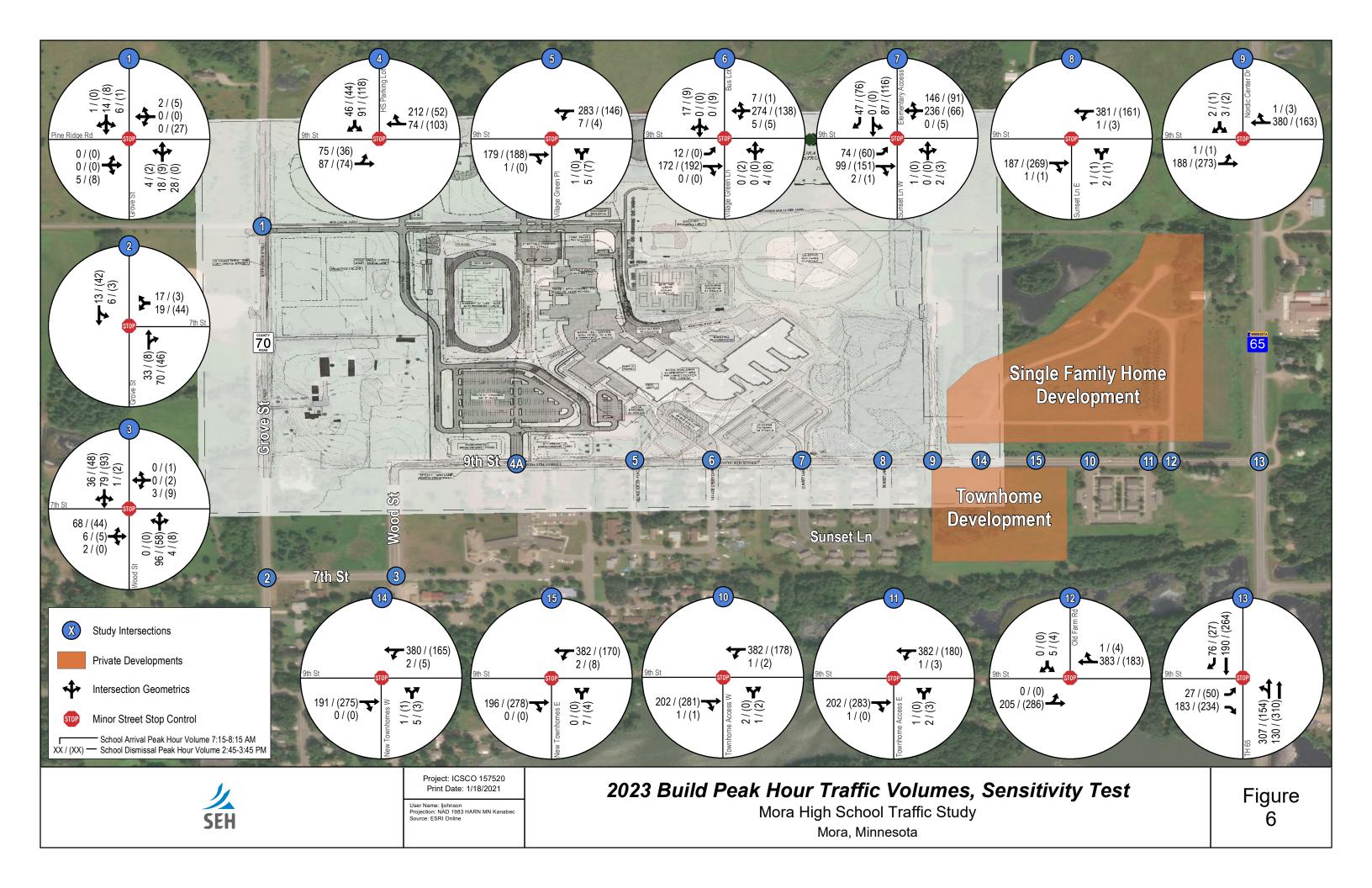
Table 3 – Trip Generation

Land Use	School	Arrival Pea	k Hour	School D	Dismissal Pe	eak Hour
Land Ose	Enter	Exit	Total	Enter	Exit	Total
Elementary School growth	18	15	33	8	9	17
High School	299	141	440	84	180	264
Recreational Community Center	21	13	34	19	23	42
Multifamily Housing (Low-rise)	4	13	17	13	7	20
Single Family Housing	1	4	5	4	3	7
Total	325	171	496	120	213	333

Trips generated by the new high school were directionally distributed based on the existing traffic distribution patterns to and from the existing elementary school. The generated and distributed trips were then added to the existing trips to determine the 2023 Build Volumes, shown in **Figure 5**.

Figure 6 depicts peak hour traffic volumes for 2023 Build conditions for a Sensitivity Test. Traffic volume adjustments (additions) have been made to the baseline volumes to better represent what maximum traffic demand conditions with all programmed activities on site operating at normal schedule and capacity. This was done as a sensitivity test to identify if any findings would change with higher traffic volumes that would be present.





OPERATIONAL ANALYSIS

Traffic operations analyses were conducted to determine if improvements to the existing roadway network will be needed when the proposed high school is opened in 2023 based on delay, level of service (LOS), and anticipated traffic queue lengths. The new high school parking lot access to 9th Street was modeled with two southbound lanes of approach as shown in the site plan. Similarly, the bus driveway and the elementary school were modeled consistently with the site plan, each with two lanes of approach.

The traffic analysis was performed using Synchro/SimTraffic software (version 11). The results reported are based on an average of 10 runs in SimTraffic. Detailed SimTraffic operations tables are attached.

Intersection LOS, as defined in the 2010 Highway Capacity Manual, is a qualitative performance measure that represents quality of service indicating how well an intersection is operating based upon average delay experienced. Intersection performance is ranked from LOS A through LOS F. The LOS results are based on average delay per vehicle, which corresponds to the delay threshold values shown in **Table 4**.

LOS Designation	Signalized Intersection Average Delay/Vehicle (seconds)	Unsignalized Intersection Average Delay/Vehicle (seconds)
Α	≤ 10	≤ 10
В	> 10 – 20	> 10 – 15
С	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

Table 4 – Level of Service Criteria for Signalized and Unsignalized Intersections

LOS A indicates the best traffic operation and LOS F indicates an intersection where demand exceeds capacity. For this study, LOS D or better is considered acceptable for each intersection movement; and, LOS C or better is considered acceptable for each approach and each intersection as a whole.

2023 NO BUILD OPERATIONS

Based on analysis results for the 2023 No Build scenario with the existing intersection control and lane configurations, all of the study intersections are expected to operate acceptably with each movement operating at LOS B or better and with each approach and intersection operating at LOS A. Under these conditions, there will likely be some longer queues and delays during the highest 5-10 minute peak of school traffic, however, these delays and maximum queue lengths are expected to be manageable within the existing site and local street system and each overall intersection will operate acceptably. **Table 6** shows the 2023 No Build Operations during the School Arrival, and School Dismissal peak hours.

2023 BUILD OPERATIONS

Based on analysis results for the 2023 Build scenario with the existing intersection control and lane configurations, all the study intersections are expected to operate acceptably with each movement operating at LOS C or better and with each approach and intersection operating at LOS A. As with the 2023 No Build scenario, there will likely be some longer queues and delays during the highest 5-10 minute peak of school traffic, however, these delays and maximum queue lengths are expected to be manageable within the existing and planned site and local street system and each overall intersection will operate acceptably. **Table 7** shows the 2023 Build Operations during the AM, School Dismissal, and PM peak hours.

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Some traffic movements that if not well served, or experience long delays, could cause issues for other on-site or on-street operations. A few notable movements of interest include:

- The eastbound left turn from 9th Street to northbound Highway 65 and 9th St operates at LOS C in the school arrival hour with an average delay of 15.9 seconds (maximum queue = 54 ft); This delay will be experienced by a relatively low number of vehicles. If longer delays occur, drivers destined for northbound Highway 65 leaving the school sites may choose to utilize northbound Grove Avenue to 220th Street to access Highway 65.
- The southbound left turn movement out of the elementary school parking lot will experience greater delays than it does under existing conditions because of the addition of high school traffic on 9th Street. Also, if the southbound left experiences long delays or queuing, it could disrupt the efficiency of student loading in front of the school. Operational results show that the am arrival peak hour operates at LOS A with an average delay of 8.9 seconds and a maximum queue of 73 feet. So, based on modeling, this is not anticipated to become a problem for other on-site operations.
- The location of the high school driveway on 9th Street should be located such that it is sufficiently separated from the 90 degree turn of Wood Street onto 9th Street to allow buses to turn the corner and continue in the through lane without conflicting with vehicles waiting to turn left from 9th Street into the high school parking lot. The high school parking lot should be served by an eastbound left turn lane with a minimum of 120 feet of storage length.

This study was performed during pandemic conditions. The Mora School District's COVID-19 operational plan in October 2020 included a 1-hour early dismissal for the elementary school at 2 pm. Free childcare was provided for 1st responders after school until 3:15 PM, with possible paid childcare for other parents. This is different than normal operations when all students get released at 3 pm creating a dual peak hour in the afternoon. To estimate the normal school dismissal hour, a sensitivity test was performed assuming the 2 pm traffic was increased to represent what would be the normal 3 pm demands. The 2 pm peak hour volumes had 70% of the 3pm peak hour traffic into and out of the school added to it via trip generation.

2023 BUILD OPERATIONS - SENSITIVITY TEST

Based on analysis results for the 2023 Build – Sensitivity Test scenario with the existing intersection control and lane configurations, all the study intersections are expected to operate acceptably with each movement operating at LOS C or better and with each approach and intersection operating at LOS A. As with the 2023 No Build and 2023 Build scenarios, there will likely be some longer queues and delays during the highest 5–10-minute peak of school traffic, however, these delays and maximum queue lengths are expected to be manageable within the existing and planned site and local street system and each overall intersection will operate acceptably. **Table 8** shows the 2023 Build – Sensitivity Test Operations during the AM, School Dismissal, and PM peak hours.

Table 5 – 2020 Existing Operations

			rrival / AM : Hour		missal / PM : Hour
Intersection	Approach	Approach Delay/LOS	Intersection Delay/LOS	Approach Delay/LOS	Intersection Delay/LOS
	NB	1 / A		0.6 / A	
Grove St at Pine	SB	0.0 / A	00/4	0.0 / A	40/4
Ridge Rd	EB	2.5 / A	0.8 / A	2.6 / A	1.0 / A
	WB	0.0 / A		0.0 / A	
	NB	0.2 / A		0.2 / A	
0 04 -4 745 04	SB	0.6 / A	07/4	0.4 / A	47/4
Grove St at 7th St	EB	0.0 / A	0.7 / A	0.0 / A	1.7 / A
	WB	4.0 / A		4.5 / A	
	NB	6.4 / A		5.5 / A	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	SB	4.9 / A	40/4	4.7 / A	40/4
Wood St at 7th St	EB	1.5 / A	4.2 / A	1.2 / A	4.0 / A
	WB	1.3 / A		1.3 / A	
	NB	0.0 / A		0.0 / A	
9th St at New	SB	4.6 / A	0.5./ 4	3.7 / A	0.0/4
Parking Access	EB	0.3 / A	0.5 / A	0.2 / A	0.6 / A
	WB	0.2 / A		0.1 / A	
	NB	3.2 / A		2.7 / A	
9th St at Village	SB	0.0 / A	0.4/4	0.0 / A	0.4./
Green Pl	EB	0.2 / A	0.4 / A	0.2 / A	0.4 / A
	WB	0.4 / A		0.4 / A	
	NB	3.0 / A		2.8 / A	
9th St at Village	SB	5.9 / A	44/4	4.1 / A	40/4
Green Ln	EB	0.4 / A	1.1 / A	0.2 / A	1.0 / A
	WB	0.6 / A		0.4 / A	
	NB	2.8 / A		2.5 / A	
9th St at Sunset Ln	SB	5.1 / A	04/4	4.2 / A	20/4
W	EB	1.7 / A	2.1 / A	0.9 / A	2.0 / A
	WB	0.6 / A		0.3 / A	
	NB	0.8 / A		0.4 / A	
Llyany GE at Oth Ot	SB	0.6 / A	10/1	0.6 / A	10/4
Hwy 65 at 9th St	EB	3.4 / A	1.2 / A	3.7 / A	1.0 / A
	WB	0.0 / A		0.0 / A	

Table 6 – 2023 No Build Operations

			rrival / AM : Hour		missal / PM : Hour
Intersection	Approach	Approach Delay/LOS	Intersection Delay/LOS	Approach Delay/LOS	Intersection Delay/LOS
	NB	1.1 / A		0.4 / A	
Grove St at Pine	SB	0.0 / A	07/4	0.0 / A	00/4
Ridge Rd	EB	2.5 / A	0.7 / A	2.3 / A	0.9 / A
	WB	0.0 / A		0.0 / A	
	NB	0.2 / A		0.1 / A	
O Ot -t 7th Ot	SB	0.6 / A	0.0 / 4	0.6 / A	45/4
Grove St at 7th St	EB	0.0 / A	0.8 / A	0.0 / A	1.5 / A
	WB	4.8 / A		3.7 / A	
	NB	6.8 / A		5.9 / A	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	SB	5.0 / A	40/4	4.8 / A	40/4
Wood St at 7th St	EB	1.6 / A	4.6 / A	1.4 / A	4.2 / A
	WB	1.6 / A		1.4 / A	
	NB	0.0 / A		0.0 / A	
9th St at New	SB	5.6 / A	0.4/4	3.7 / A	05/4
Parking Access	EB	0.3 / A	0.4 / A	0.2 / A	0.5 / A
	WB	0.2 / A		0.1 / A	
	NB	3.4 / A		2.6 / A	
9th St at Village	SB	0.0 / A	0.4/4	0.0 / A	0.4./
Green Pl	EB	0.2 / A	0.4 / A	0.2 / A	0.4 / A
	WB	0.4 / A		0.4 / A	
	NB	2.7 / A		2.9 / A	
9th St at Village	SB	6.3 / A	4 4 / A	4.5 / A	45/4
Green Ln	EB	0.5 / A	1.4 / A	0.4 / A	1.5 / A
	WB	0.7 / A		0.5 / A	
	NB	2.6 / A		3.1 / A	
9th St at Sunset Ln	SB	5.8 / A	24/4	4.6 / A	21/4
W	EB	1.9 / A	2.4 / A	1.1 / A	2.1 / A
	WB	0.7 / A		0.5 / A	
	NB	1.1 / A		0.6 / A	
Lluny 65 at 0th Ct	SB	0.8 / A	17/1	0.8 / A	12/1
Hwy 65 at 9th St	EB	4.1 / A	1.7 / A	4.2 / A	1.3 / A
<u></u>	WB	0.0 / A		0.0 / A	
Note: Minor street stop cont	WB	0.0 / A	(100) is to misselle.	0.0 / A	

Table 7 – 2023 Build Operations

		1		I	
			rrival / AM : Hour		missal / PM : Hour
Intersection	Approach	Approach Delay/LOS	Intersection Delay/LOS	Approach Delay/LOS	Intersection Delay/LOS
	NB	0.7 / A		0.5 / A	
Grove St at Pine	SB	0.5 / A	00/4	0.3 / A	00/4
Ridge Rd	EB	2.5 / A	0.8 / A	2.9 / A	2.8 / A
	WB	2.4 / A		4.2 / A	
	NB	0.4 / A		0.2 / A	
O Ot at 7th Ot	SB	0.8 / A	42/4	0.7 / A	40/4
Grove St at 7th St	EB	0.0 / A	1.3 / A	0.0 / A	1.6 / A
	WB	4.0 / A		4.1 / A	
	NB	7.2 / A		6.3 / A	
M Ot t. 7th. Ot	SB	5.7 / A	50/A	5.0 / A	45/4
Wood St at 7th St	EB	1.8 / A	5.2 / A	1.4 / A	4.5 / A
	WB	2.3 / A		1.5 / A	
	NB	0.0 / A		0.0 / A	
9th St at New High	SB	5.6 / A	00/4	5.8 / A	00/4
School Parking Lot Access	EB	1.1 / A	2.2 / A	0.9 / A	2.9 / A
7 100000	WB	1.2 / A		0.5 / A	
	NB	3.2 / A		2.8 / A	
9th St at Village	SB	0.0 / A	0.4/4	0.0 / A	05/4
Green PI	EB	0.5 / A	0.4 / A	0.6 / A	0.5 / A
	WB	0.3 / A		0.2 / A	
	NB	2.6 / A		4.1 / A	
9th St at Village	SB	3.8 / A	0.7.4	4.8 / A	06/4
Green Ln	EB	0.3 / A	0.7 / A	0.1 / A	0.6 / A
	WB	0.8 / A		0.5 / A	
	NB	5.0 / A		3.5 / A	
9th St at Sunset Ln	SB	6.9 / A	24/4	5.2 / A	40/4
W	EB	1.6 / A	2.4 / A	0.7 / A	1.9 / A
	WB	1.2 / A		0.6 / A	
	NB	3.1 / A		1.2 / A	
Lluny 65 at 0th Ct	SB	1.0 / A	20/4	1.1 / A	22/4
Hwy 65 at 9th St	EB	5.0 / A	2.9 / A	5.5 / A	2.3 / A
	WB	0.0 / A		0.0 / A	
Note: Minor street stop cont	rol intersection	Level of Service	(LOS) is typically	dofined as the we	rot approach

Table 8 – 2023 Build Sensitivity Test Operations

			rrival / AM : Hour		missal / PM : Hour
Intersection	Approach	Approach Delay/LOS	Intersection Delay/LOS	Approach Delay/LOS	Intersection Delay/LOS
	NB	0.7 / A		0.5 / A	
Grove St at Pine	SB	0.5 / A	00/4	0.2 / A	07/4
Ridge Rd	EB	2.5 / A	0.8 / A	2.6 / A	2.7 / A
	WB	2.4 / A		4.2 / A	
	NB	0.4 / A		0.2 / A	
0 04 -4 745 04	SB	0.8 / A	40/4	0.6 / A	40/4
Grove St at 7th St	EB	0.0 / A	1.3 / A	0.0 / A	1.6 / A
	WB	4.0 / A		4.0 / A	
	NB	7.2 / A		6.8 / A	
M Ot t. 7th . Ot	SB	5.7 / A	5 O / A	5.8 / A	F 4 / A
Wood St at 7th St	EB	1.8 / A	5.2 / A	1.7 / A	5.1 / A
	WB	2.3 / A		1.3 / A	
	NB	0.0 / A		0.0 / A	
9th St at New	SB	5.6 / A	0.0 / 4	6.5 / A	00/4
Parking Access	EB	1.1 / A	2.2 / A	0.9 / A	2.9 / A
	WB	1.2 / A		0.6 / A	
	NB	3.2 / A		3.0 / A	
9th St at Village	SB	0.0 / A	0.4/4	0.0 / A	0.5./ 4
Green Pl	EB	0.5 / A	0.4 / A	0.6 / A	0.5 / A
	WB	0.3 / A		0.2 / A	
	NB	2.6 / A		4.5 / A	
9th St at Village	SB	3.8 / A	0.7/4	5.1 / A	0.074
Green Ln	EB	0.3 / A	0.7 / A	0.1 / A	0.6 / A
	WB	0.8 / A		0.5 / A	
	NB	5.0 / A		3.7 / A	
9th St at Sunset Ln	SB	6.9 / A	0.4/4	7.0 / A	20/4
W	EB	1.6 / A	2.4 / A	1.0 / A	3.0 / A
	WB	1.2 / A		0.8 / A	
	NB	3.1 / A		1.7 / A	
Llyany GE at Oth Ot	SB	1.0 / A	20/4	1.5 / A	22/1
Hwy 65 at 9th St	EB	5.0 / A	2.9 / A	7.5 / A	3.3 / A
	WB	0.0 / A		0.0 / A	

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OTHER CONSIDERATIONS

Access to staff parking lots

Staff parking lots are located on the north side of the high school, near the tennis courts plus custodial and food service parking areas adjacent to the building. The traffic analysis assumed that most of the staff will arrive and depart via Highway 65 and 9th Street to use the new high school driveway and internal north-south access road circulating within the site to travel to and from these parking areas.

If the internal north-south access road was closed for athletic events on campus, staff would enter or exit via the Pine Ridge Road and Grove Street intersection increasing demand along Grove Street. There is nominal competing traffic demand at Grove Street intersections (as evidenced by operational results at LOS A), so it is not expected that any significant delay or queuing issue will occur.

Event Traffic

The analysis results reported in this study were based on real and assumed conditions representing morning arrival and afternoon dismissal traffic demands on a typical school day. It is acknowledged that school events including athletics, performance arts, or parent-teacher conferences will generate demands differently than those analyzed. However, it is expected that event traffic will not typically occur at the same time the peak periods for other school and/or neighborhood traffic. Therefore, no explicit evaluation of event traffic has been performed.

FINDINGS AND CONCLUSIONS

Traffic demands anticipated to be generated by the proposed new Mora High School have been estimated in its year of opening, 2023. In addition, several adjustments were made to existing traffic volumes to estimate traffic demands that would be in place without the influence of the current COVID-19 pandemic. For instance, in the build scenarios, traffic demands on Highway 65 were increased to represent pre-pandemic levels, and on the school site, traffic demands for the hour of dismissal for the elementary school were re-aligned with that of the high school. The build condition also assumes normal operation of the wellness center and restoration of the Pre-K program to normal levels. Further, this study assumes that residential development will continue in the 9th Street corridor adding traffic demands through the study intersections. In addition, a sensitivity test was conducted that included further inflation of assumed traffic volumes to identify any analysis results that may be nearing threshold levels of concern. The sensitivity analysis did not result in intersection performance or LOS issues that require mitigation.

The following findings are evident from this evaluation:

9th Street - Left Turn Lanes

• Each of the intersections to the school site from 9th Street is recommended to have an eastbound left turn lane. It would be advantageous to restripe all of 9th Street to include a continuous 2-way center left turn lane to also provide safety benefit to traffic turning left from westbound 9th Street to neighborhood streets. The continuous turn lane would provide the opportunity for left turning traffic in either direction to decelerate and wait for an opposing gap in traffic to complete their left turn maneuver without blocking the through lane.

Trailview Elementary School – Parking Lot Driveway on 9th Street

- Entering Traffic
 - Should be served by an eastbound left turn lane.
 - Parent pick-up and drop-off queues are expected to be manageable on site and are not expected to interfere with operation of 9th Street.
 - o Given the low speed conditions on 9th Street (normally 35 mph; reduced to 25 mph when children are present) the need for a right turn lane is not anticipated.
- Exiting Traffic

- The existing driveway configuration with a southbound through-left lane and an exclusive right turn lane should be perpetuated.
- Exiting traffic will experience increased delay compared to existing conditions due to increase in high school traffic through the intersection along 9th Street; however, delays will be at an acceptable level of service.
- Parent queues are not expected to interfere with loading zone operation near the school door.

School Bus Driveway

- Entering traffic
 - Should be served by an eastbound left turn lane.
 - o Right turns can be made from the westbound through lane.
- Exiting Traffic
 - The existing driveway configuration with a southbound through-left lane and an exclusive right turn lane should be perpetuated.
 - Exiting traffic will experience an increase in delay compared to existing conditions due to the increase in high school traffic through the intersection along 9th Street; however, delays will be at an acceptable level of service.

High School Driveway

- Entering Traffic
 - Should be served be an eastbound left turn lane. The turn lane should be adequately separated from the 90-degree turn from northbound Wood Street to eastbound 9th Street to allow school buses to complete the turn into the eastbound lane without encroaching into the eastbound left turn lane to the high school driveway.
 - The site plan provides approximately 1000 feet of vehicle storage length from the front of the drop-off lane to the entrance from 9th Street. Based upon observed arrival and departures rates from other schools the range of storage needed is estimated to be from 1050 1250 feet. To optimize the use of the waiting lane during peaks, staff may need to instruct parents to pull to the front of the parking lane beyond the entrance door to maximize space for other drivers entering the site. If the lane is full, drivers entering from 9th Street will have the option of using the second entrance lane to access the parking lot rather than wait in a long pick-up / drop-off queue. Instructional signage should be considered to direct drivers to use the parking lot if the drop off lane is full.
 - Given the low-speed conditions on 9th Street (normally 35 mph; reduced to 20 mph when children are present) a right turn lane is not needed based on speed differentials. Further, if the drop off lane is effectively managed at the front end, and drivers are instructed to use the parking lot when the drop off lane is full, the need for a right turn lane on 9th Street is not anticipated for the purpose of storing waiting vehicles.
- Exiting Traffic
 - The driveway configuration shown in the site plan with a southbound through-left lane and an exclusive right turn lane will adequately serve demands.
 - Exiting traffic delays will be at an acceptable level of service.
 - Exiting traffic queues are not expected to interfere with other on-site operations or loading zone operations near the school door.

9th Street Intersections with Local Residential Streets

• There will be increased school traffic on 9th Street, but no delay or level of service issues are expected on local street approaches to 9th Street. As previously described, there would be a safety benefit for local street traffic if a continuous two-way left turn lane were installed with the school project.

9th Street at Highway 65

- Traffic movements from Highway 65 to 9th Street
 - Southbound right turns from Highway 65 to 9th Street can occur from an existing right turn lane.
 Drivers making this movement will have the right of way over other conflicting movements and will operate efficiently without delay or queueing issues.
 - Northbound left turns from Highway 65 to 9th Street will occur from the northbound through lane. There is a northbound left turn bypass lane that allows through traffic to avoid vehicles waiting for a gap to complete their left turn maneuver. During peak periods, a left turn queue is expected to form, but based on modeling, the maximum queue would be about 100 feet in length which does not exceed the length of the bypass lane.
 - Highway 65 is a high-speed corridor (55 mph). Speed differentials between turning traffic and through traffic can be a significant contributor to vehicular conflict and crashes. Therefore, operating and safety conditions on Highway 65 should be monitored.
 - Possible improvements to mitigate safety issues related to speed differentials on Highway 65 could include:
 - A school speed zone to require a lower operating speed when school related traffic is present.
 - Speed reduction warning systems (flashers) to inform drivers of lower speed limit and of potential conflicts.
 - Dynamic Speed Display signs to provide real time feedback to drivers entering the school speed zone.
 - o Possible improvements on Highway 65:
 - An exclusive northbound left turn lane: this would require widening on Highway 65 further to the south than the existing bypass lane currently extends. Changes would extend to the proximity of the next intersection on Highway 65 with Industrial Boulevard, which could lead to a larger and more complex project to implement.
 - Improved intersection lighting.
 - A roundabout has been suggested as a potential safety improvement to be considered in the future. To be considered, an Intersection Control Evaluation (ICE) study would need to be conducted to evaluate pros and cons of various intersection control types to address operational and safety needs should they develop beyond conditions identified in this school traffic impact study.
- Traffic movements from 9th Street to Highway 65
 - After leaving the school site approximately 60% of all school traffic will be destined for southbound Highway 65. Eastbound right turns from 9th Street will operate efficiently and experience minimal delay.
 - O After leaving the school site about 10% of all school traffic will be destined for northbound Highway 65 making a left turn from 9th Street. Left turns will need to yield to all other conflicting traffic movements so there will be some delay and queuing issues that occur during daily peak periods. In the school arrival peak period, modeling indicates average delays for eastbound left turns to Highway 65 will be at LOS C in the am and pm peaks with maximum queues of about 85 feet which will not exceed the length of the existing eastbound left turn lane. If actual delays are longer, drivers may begin to choose alternative routes; in this case drivers may choose to leave the school site on northbound Grove Street and access Highway 65 from 220th Avenue.

Wood Street - Maple Avenue to 7th Street

Traffic volumes on Wood Street south of 7th Street are expected to increase due to high school traffic.
 Currently school related trips on Wood Street are estimated to be about 70 in the am peak hour which is the highest hour of the day. This is estimated to increase to about 175 in the am peak hour with high school traffic included.

Grove Street at Pine Ridge Road South

- This intersection will serve access to the staff parking lot, loading docks and north athletic fields. During
 daily arrival and dismissal peak periods, only a small portion of traffic that arrives and departs during peak
 periods will utilize this intersection.
- Staff parking lots are located on the north side of the elementary and high school sites. Most staff are expected to arrive via Highway 65 and westbound 9th Street and would use the new high school driveway and internal north-south access road circulating within the site to gain access to parking areas. If internal circulation is for some reason not available, more staff would utilize Grove Street to enter the campus from the Pine Ridge Road intersection. Grove Street intersections including Pine Ridge Road South have adequate capacity to serve the demand.
- County Road 70 is a high-speed rural roadway. A northbound right turn lane is recommended to reduce vehicular conflicts and lessen the negative effect of speed differentials.

Grove Street at 7th Street

- School traffic patterns will increase use of this intersection. No operational / delay issues are anticipated.
- Grove Street and 7th Street are low speed roadways and westbound 7th Street is controlled with a stop sign. Under low-speed operating conditions with no anticipated capacity/LOS issue, addition of a westbound right turn lane or southbound left turn lane is not warranted.
- An existing crosswalk is in place crossing Grove Street at 7th Street. Traffic increases through the intersection due to school site improvements will not change the type of pedestrian crossing amenities or traffic warning devices that are appropriate at this location.

Grove Street - Maple Avenue to Pine Ridge Road South

- Traffic volumes on Grove Street south of 7th Street are expected to increase due to high school traffic.
 Currently school related trips on Grove Street are estimated to be about 40 in the am peak hour which is the highest hour of the day. This is estimated to increase to about 90 in the am peak hour with high school traffic included.
- Grove Street from Central Avenue to Street is a two-lane roadway with a wide paved shoulder/2-way bike lane on the west side, but a narrow shoulder on the east side. Shoulder widening is often a worthy safety improvement and could be considered based upon needs that are unrelated to school traffic increases. However, the added traffic demands from the school will not create the need.

Attachments:

2020 Existing Turning Movement Counts SimTraffic Results Tables

x:\fj\i\icsco\157520\8-planning\87-rpt-stud\final mora high school tis memo 032221.docx

Location: Grove St at Pine Ridge Rd

Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA All Vehicles



		Gro	ve St			N	/A	All Ve	liicies	Gro	ve St			Pine R	idge Rd		
			bound				bound				bound				oound		
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4
7:15 7:30	0	6 4	1	0	0	0	0	0	3 1	0	0	0	0	0	0 1	0	10 6
7:45	0	4	0	0	0	0	0	0	0	2	0	0	0	0	4	0	10
8:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15	0	1	0	0	0	0	0	0	0	5	0	0	0	0	1	0	7
8:30	0	2	1	0	0	0	0	0	1	2	0	1	0	0	1	0	7
8:45	0	2	0	0	0	0	0	0	4	0	0	0	0	0	2	0	8
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	1	0	0	0	0	1	2	0	2	0	0	2	0	5
13:15	0	3	1	0	0	0	0	0	0	1	0	0	0	0	1	0	6
13:30	0	0	0	0	0	0	0	0	1	3	0	0	1	0	0	0	5
13:45	0	2	0	0	0	0	0	0	2	1	0	0	0	0	4	0	9
14:00	0	0	0	0	0	0	0	0	0	6	0	1	0	0	3	0	9
14:15	0	4	0	0	0	0	0	0	0	0	0	1	0	0	1	0	5
14:30	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	4
14:45	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	4
15:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	4
15:15	0	3	0	1	0	0	0	0	0	0	0	3	0	0	0	0	3
15:30	0	1	1	1	0	0	0	0	1	2	0	12	0	0	1	0	6
15:45	0	5	0	0	0	0	0	0	1	3	0	4	0	0	11	0	10
16:00 16:15	0	1	0	0	0	0	0	0	3	3	0 1	1 10	0	0	1 1	0	8
16:15	0	3 2	0	0	0	0	0	1	2 3	1	0	0	0	0	0	0	9 5
16:45	0	0	0	0	0	0	0	0	3	6	0	0	0	0	4	0	13
17:00	0	2	0	0	0	0	0	0	0	2	0	3	0	0	1	0	5
17:15	0	4	0	0	0	0	0	0	1	1	0	0	0	0	3	0	9
17:30	0	2	0	0	0	0	0	0	2	2	0	3	1	0	0	0	7
17:45	0	2	1	0	0	0	0	0	1	4	0	0	0	0	1	0	9
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	57	5	3	0	0	0	1	33	51	1	44	3	0	37	0	187
Cars+ Trucks	0	56 1	4 1	1 2	0	0	0	0	27 6	48 3	0 1	38 6	2 1	0	31 6	0	168 19
	0.0	1.8	20.0	66.7	0.0	0.0	0.0	100.0	18.2	5.9	100.0	13.6	33.3	0.0	16.2	0.0	
% Trucks			3.2				.0				1.8				7.5		10.2

Location: Grove St at 7th St

Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA All Vehicles



		Gro	ve St			7th	n St	711 40	nicies	Gro	ve St			N	/A		
			bound				bound				bound				ound		
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	2	3	0	0	4	0	0	0	0	0	6	0	0	0	0	0	15
7:15	1	3	0	0	0	0	0	0	0	3	10	0	0	0	0	0	17
7:30	3	4	0	0	1	0	0	0	0	1	11	0	0	0	0	0	20
7:45	2	6	0	0	3	0	1	0	0	1	10	0	0	0	0	0	23
8:00	0	0	0	0	2	0	0	0	0	0	4	0	0	0	0	0	6
8:15	0	2	0	0	1	0	1	0	0	4	3	0	0	0	0	0	11
8:30	1	2	0	2	1	0	1	0	0	2	1	0	0	0	0	0	8
8:45	0	4	0	1	0	0	2	0	0	2	1	1	0	0	0	0	9
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	2	0	0	0	0	1	0	0	4	1	0	0	0	0	0	8
13:15	0	4	0	1	0	0	1	0	0	0	1	0	0	0	0	0	6
13:30	0	0	0	0	3	0	0	0	0	4	1	0	0	0	0	0	8
13:45	0	5	0	0	4	0	1	0	0	2	7	0	0	0	0	0	19 19
14:00	2	4	0	0	5	0	0	1	0	6	2	1	0	0	0	0	
14:15	1	3	0	0	3	0	0	0	0	0	6	0	0	0	0	0	13
14:30	0	3	0	0	7	0	2	0	0	0	0	0	0	0	0	0	12
14:45	0	0	0	0	1	0	0	0	0	4	5	0	0	0	0	0	10
15:00	2	2	0	1	12	0	1	0	0	2	5	0	0	0	0	0	24
15:15	0	3	0	0	10	0	1	0	0	0	10	0	0	0	0	0	24
15:30	1	2	0	0	3	0	0	0	0	4	5	0	0	0	0	0	15
15:45	1	6	0	1	6	0	11	0	0	3	4	1	0	0	0	0	21 20
16:00	1	1	0	0	9	0	1	0	0	6	2	0	0	0	0	0	
16:15	0	5	0	0	6	0	1	0	0	2	4	0	0	0	0	0	18
16:30	0	1	0	0	9	0	0	1	0	3	1	0	0	0	0	0	14
16:45	0 2	3	0	1 1	6 5	0	2	0	0	8 1	5 3	2	0	0	0	0	23 16
17:00 17:15	1	3 6	0	0	3	0	1	0	0	1	3	0 1	0	0	0	0	15
17:15	0	2	0	1	8	0	2	0	0	2	3 6	0	0	0	0	0	20
17:30	1	2	0	0	1	0	2	0	0	3	0 1	0	0	0	0	0	10
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	21	81	0	9	113	0	23	4	0	68	118	6	0	0	0	0	424
	•																•
Cars+ Trucks	18 3	76 5	0 0	7 2	106 7	0 0	20 3	3 1	0 0	63 5	114 4	4 2	0 0	0 0	0 0	0 0	397 27
% Trucks	14.3	6.2	0.0	22.2	6.2	0.0	13.0	25.0	0.0	7.4	3.4	33.3	0.0	0.0	0.0	0.0	
70 TIUCKS		7	7.8			7	.4			4	.8			0	.0		6.4

Wood St at 7th St Location:

Count Date: 10/6/2020 Counted By: LJJ

% Trucks

6.3

TURNING MOVEMENT COUNT DATA All Vehicles



0.0

13.6

5.1

8.4

Location: 9th St at New Parking Access(Current bus Exit)

Count Date: 10/6/2020 Counted By: LJJ





		Parking	Access			9th	n St	All Ve	nicies	N	I/A			9th	n St		
			bound				bound				bound				oound		
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	2	0	0	0	0	0	1	0	0	0	0	0	4	7	0	1	14
7:15	1	0	0	0	0	3	4	0	0	0	0	0	2	10	0	0	20
7:30	0	0	0	0	0	9	7	0	0	0	0	0	4	16	0	0	36
7:45	4	0	0	0	0	20	4	0	0	0	0	0	1	22	0	0	51
8:00	3	0	0	0	0	8	0	0	0	0	0	0	2	17	0	0	30
8:15	1	0	0	0	0	4	0	0	0	0	0	0	0	5	0	0	10
8:30	1	0	1	0	0	5	0	0	0	0	0	0	0	1	0	0	8
8:45	0	0	2	0	0	3	1	0	0	0	0	0	0	6	0	1	12
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0		0	0	0	0	0	0	0	0	0	0	0		0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	3	0	0	0	0	0	0	1	6	0	0	10
13:15	2	0	0	0	0	6	1	0	0	0	0	0	2	3	0	3	14
13:30	0	0	0	0	0	6	0	0	0	0	0	0	3	15	0	0	24
13:45	2	0	4	0	0	17	2	0	0	0	0	0	1	16	0	0	42
14:00	4	0	1	0	0	17	0	0	0	0	0	0	0	10	0	0	32
14:15	2	0	0	0	0	7	0	0	0	0	0	0	2	9	0	0	20
14:30	0	0	1	0	0	16	0	0	0	0	0	0	0	4	0	3	21
14:45	3	0	2	0	0	5	4	0	0	0	0	0	3	6	0	0	23
15:00	6	0	4	0	0	15	13	0	0	0	0	0	12	19	0	0	69
15:15	12	0	4	1	0	13	9	0	0	0	0	0	17	7	0	1	62
15:30	2	0	1	0	0	7	2	0	0	0	0	0	4	12	0	0	28
15:45	1	0	0	0	0	8	2	0	0	0	0	0	1	8	0	0	20
16:00	2	0	1	0	0	9	3	0	0	0	0	0	1	9	0	0	25
16:15	5	0	5	0	0	7	3	0	0	0	0	0	1	5	0	0	26
16:30	6	0	15	0	0	4	7	0	0	0	0	0	5	4	0	1	41
16:45	9	0	8	0	0	6	7	0	0	0	0	0	9	0	0	0	39
17:00	13	0	10	0	0	5	2	0	0	0	0	0	2	5	0	0	37
17:15	2	0	1	0	0	4	1	0	0	0	0	0	3	7	0	0	18
17:30	9	0	7	0	0	6	5	0	0	0	0	0	4	8	0	0	39
17:45	1	0	3	0	0	0	0	0	0	0	0	0	1	3	0	0	8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	70	0	0	0	70	0	0	0	0	0	0	0	0	0	770
Total	93	0	70	1	0	213	78	0	0	0		0	85	240	0	10	779
Cars+ Trucks	86 7	0	66 4	0 1	0	201 12	74 4	0	0	0	0	0	78 7	206 34	0	4 6	711 68
% Trucks	7.5	0.0	5.7	100.0	0.0	5.6	5.1	0.0	0.0	0.0	0.0	0.0	8.2	14.2	0.0	60.0	
70 ITUCKS		6	.7			5	.5			C	0.0			12	2.6		8.7

Location: 9th St at Village Green PI

Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA All Vehicles



		N	I/A			9th	n St	All Ve	hicles	Village (Green Pl			9th	St		
			nbound				bound			North				Easth			
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	3	0	0	0	0	2	1	0	9	0	0	14
7:15	0	0	0	0	1	5	0	0	0	0	0	0	0	12	0	0	18
7:30	0	0	0	0	1	16	0	0	1	0	2	0	0	18	0	0	38
7:45 8:00	0	0	0	0	4	23 8	0	0	0	0	1	3	0	25 19	0	0	55 29
8:00	0	0	0	0	1	4	0	0	0	0	1	0	0	4	0	0	10
8:30	0	0	0	0	1	6	0	0	0	0	0	0	0	4	0	0	11
8:45	0	0	0	0	0	3	0	0	0	0	0	1	0	3	1	0	
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	3	0	0	1	0	0	0	0	4	1	0	9
13:15	0	0	0	0	0	6	0	0	0	0	1	0	0	6	0	0	13
13:30	0	0	0	0	1	6	0	0	0	0	1	0	0	18	0	0	26
13:45	0	0	0	0	1	21	0	0	0	0	1	7	0	14	0	0	37
14:00	0	0	0	0	1	16	0	0	0	0	2	7	0	14	0	0	33
14:15	0	0	0	0	2	7	0	0	0	0	1	0	0	12	0	0	22
14:30	0	0	0	0	0	15	0	0	0	0	3	0	0	3	0	0	21
14:45	0	0	0	0	0	9	0	0	1	0	3	0	0	10	0	0	23
15:00	0	0	0	0	1	28	0	0	0	0	4	0	0	26	0	0	59
15:15	0	0	0	0	0	24	0	0	0	0	2 0	0	0	18	1	0	45 22
15:30 15:45	0	0	0	0	2 1	6 9	0	0	0	0	4	4	0	14 8	0	0	22
16:00	0	0	0	0	1	12	0	0	0	0	2	0	0	11	0	0	23 26
16:15	0	0	0	0	0	10	0	0	0	0	1	0	0	10	0	0	21
16:30	0	0	0	0	0	11	0	0	0	0	1	0	0	10	0	0	22
16:45	0	0	0	0	3	13	0	0	0	0	1	2	0	11	0	0	28
17:00	0	0	0	0	0	7	0	0	1	0	2	1	0	16	0	0	26
17:15	0	0	0	0	1	5	0	0	1	0	1	0	0	10	0	0	18
17:30	0	0	0	0	0	9	0	0	0	0	0	1	0	16	0	0	25
17:45	0	0	0	0	2	1	0	0	0	0	1	0	0	4	0	0	8
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	25	286	0	0	6	0	39	30	0	329	4	0	689
Cars+ Trucks	0	0	0	0	23 2	271 15	0 0	0	5 1	0	37 2	24 6	0	288 41	4 0	0 0	628 61
% Trucks	0.0	0.0	0.0	0.0	8.0	5.2	0.0	0.0	16.7	0.0	5.1	20.0	0.0	12.5	0.0	0.0	
70 TIUCKS		(0.0			5	5.5			6	.7			12	2.3		8.9

Location: 9th St at Village Green Ln

Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA



All Vehicles

	School Access						h St				Green Pl				n St		
		South	nbound			West	tbound			North	bound			East	bound		
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00	3	0	0	0	0	3	2	0	0	0	1	1	1	10	0	0	20
7:15	2	0	0	0	1	6	2	0	0	0	1	0	0	12	0	0	24
7:30	1	0	0	0	0	18	2	3	0	0	2	0	4	16	0	0	43
7:45	12	0	1	0	1	26	4	7	0	0	1	6	4	24 17	0	0	73 32
8:00 8:15	1	0	0 1	0	3	9	0	1	0	0	0	4 0	2	17 5	0	0	
8:30	0	0	0	0	1	3 6	0	0	1	0	1	0	0	4	0	0	9 13
8:45	1	0	0	0	0	3	1	0	0	0	0	1	0	3	0	0	8
9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	1	0	0	0	3	3	1	0	0	0	3	0	0	5	0	0	16
13:15	0	1	0	0	1	6	0	0	0	0	0	0	0	6	0	0	14
13:30	0	0	0	0	1	8	0	1	0	0	1	0	14	8	0	0	32
13:45	0	0	0	0	0	21	0	15	2	0	1	8	0	12	0	0	36
14:00	8	0	6	0	1	9	0	6	0	0	3	7	0	16	0	1	43
14:15	0	0	1	0	1	10	2	0	0	0	3	0	2	11	0	0	30
14:30	1	0	0	0	3	13	1	0	0	0	1	0	0	6	0	0	25
14:45	3	0	4	0	4	6	6	0	0	0	3	0	4	10	0	0	40
15:00	12	1	13	0	2	15	8	0	1	1	6	0	14	15	0	0	88
15:15	4	0	1	0	3	22	6	0	0	0	3	0	1	16	2	0	58
15:30	1	0	3	0	1	7	3	0	0	0	3	0	4	9	1	0	32
15:45	2	0	0	0	2	8	1	2	0	0	2	2	2	11	0	2	28
16:00	3	0	3	0	2	9	2	0	0	0	1	1	1	11	0	1	32
16:15	1	0	1	0	1	11	0	0	0	0	3	0	0	9	1	0	27
16:30	1	0	0	0	1	9	1	0	0	0	2	0	1	11	0	0	26
16:45	0	0	0	0	2	14	2	0	0	0	1	5	0	11	0	0	30
17:00	0	0	0	1	1	7	2	1	0	0	4	1	1	14	3	1	32
17:15	13	0	4	0	1	4	5	0	0	0	2	0	8	3	0	0	40
17:30	11	1	3	0	1	4	5	0	0	1	1	2	4	11	1	1	43
17:45	2	0	0	0	1	3	0	0	0	0	1	0	0	5	0	0	12
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	83	3	41	1	38	263	56	36	4	2	50	38	67	291	8	6	906
Cars+ Trucks	56 27	3 0	31 10	1	37 1	257 6	50 6	33 3	2 2	2	48 2	32 6	36 31	279 12	8	4 2	809 97
1	32.5	0.0	24.4	0.0	2.6	2.3	10.7	8.3	50.0	0.0	4.0	15.8	46.3	4.1	0.0	33.3	31
% Trucks	02.0		9.1	0.0			3.6	0.0	55.0		'.1		. 5.0		1.7	55.0	10.7

9th St at Sunset Ln Location:

1.3

Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA All Vehicles



9.1

4.5

2.9

Location: Hwy 65 at 9th St Count Date: 10/6/2020 Counted By: LJJ

TURNING MOVEMENT COUNT DATA All Vehicles



Table C1
Mora High School Traffic Study
2020 Existing (COVID-19 Adjusted) Conditions (Elementary School Hours 8:00AM - 3:00PM)

Sch	ool Arrival (7	:15 AM)	Scho-	ol Disr	nissal	(2:45 P	M)													Vel	hicle Que	ing Infor	mation (f	eet)					
				Demand	Volume	s			Delay ((s/veh)			LOS Appro		LOS Interse			Left Tu	rn Lane			Thr	ough Lan	e (s)			Right Tu		
	ntersection	Approach	L	Т	R	Total	L	LOS	Т	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) ³	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Thru (2) >	% Block Left ⁽²⁾ <	Link Length (feet)	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Right ⁽²⁾	% Block Thru (2) <	Storage (feet) ³	Avg. Queue (feet) 1	Max Queue (feet) 1
	0	NB	4	2		6	2.2	Α	0.1	A	0.0		1.0	A	0.0							1972		20					
	Grove St at Pine Ridge Rd	SB EB		14	5	15 5			0.0	Α	0.0 2.5	A	0.0 2.5	A	8.0	Α						587	20	36					
	:	WB									2.0	,,	0.0	Α								001	20						
		NB		5	35	40			0.5	Α	0.2	Α	0.2	Α															
	Grove St at 7th St	SB EB	6	13		19	1.9	Α	0.1	Α			0.6	A	0.7	Α						1972		20					
		WB	6		1	7	4.6	А			2.5	Α	4.0	A								471	20	31					
		NB		44	4	48			6.9	Α	1.9	Α	6.4	Α								800	30	71					
	Wood St at 7th St	SB EB	33	27 6	7	35 41	0.0 2.0	A	5.5 0.3	A	0.2	A	4.9 1.5	A	4.2	Α						611 471	20	42 20					
		WB	3	0		3	1.3	A	0.3	A	0.2	A	1.3	A								4/1		20					
Hour		NB											0.0	Α															
품	9th St at New Parking Access	SB	8	0.5		8	4.6	A	0.4				4.6	A	0.5	Α						501	20	58					
I Peak	r unting / toooco	EB WB	9	65 40	15	74 55	1.9	A	0.1	A	0.1	A	0.3	A								664	20	20					
rriva		NB	1		5	6	4.1	Α			3.0	A	3.2	Α								449	20	47					
School Arrival	9th St at Village Green PI	SB		-									0.0	Α	0.4	Α													
Scho	GIEGIIFI	EB WB	7	74 52	1	75 59	1.9	A	0.2	A	0.1	A	0.2	A								246		20					
		NB		32	4	4	1.5		0.2		3.0	Α	3.0	A								462	20	25					
	9th St at Village	SB	16		1	17	6.1	Α			3.0	Α	5.9	Α	1.1	Α						242	20	88					
	Green Ln	EB WB	10 5	69 59	8	79 72	2.0	A	0.2	A	0.5	A	0.4	A			180	20	32			310		20					
		NB	1	35	2	3	4.5	A	0.5	^	1.9	A	2.8	A								424	20	30					
	9th St at Sunset	SB	53		30	83	6.5	Α			2.9	Α	5.1	Α	2.1	Α						455	20	60			230	20	48
	Ln W	EB WB	54	32 39	2 106	88 145	2.3	Α	1.0	A	0.1	A	1.7 0.6	A			180	20	33			259	20	20					
		NB	115	130	106	245	1.4	Α	0.2	A	0.4	A	0.8	A			160	20	50			259	20	20					
	Hwy 65 at 9th	SB		190	29	219			0.7	Α	0.0	Α	0.6	Α	1.2	Α													
	St	EB WB	12		80	92	8.1	Α	0.4	Α	3.3	Α	3.4 0.0	A			250	20	72								130	25	86
-		NB	2	9		11	1.7	А	0.4	Α			0.6	A															
	Grove St at	SB		8		8			0.0	Α			0.0	Α	1.0	Α													
	Pine Ridge Rd	EB WB			8	8					2.6	Α	2.6 0.0	A								587	20	57					
		NB		8	15	23			0.3	Α	0.1	Α	0.0	A															
	Grove St at 7th	SB	3	15		18	2.3	Α	0.2	Α			0.4	Α	1.7	Α													
	St	EB WB	19		3	22	4.6	A	0.0	A	3.4	A	0.0 4.5	A								471	20	64					
		NB	19	22	8	30	4.6	A	6.6	A	2.2	A	5.5	A								800	20	50					
	Wood St at 7th	SB	2	37	20	59	5.0	Α	5.8	Α	2.1	A	4.7	Α	4.0	Α						611	35	70					
	St	EB W/P	12	5	1	17	1.8	A	0.2	A	0.1	_	1.2	A								402		20					
		WB NB	9	2	1	12	1.7	Α	0.1	Α	0.1	A	1.3 0.0	A								493		20					
- Ra	9th St at New	SB	8		6	14	4.8	Α			2.4	Α	3.7	Α	0.6	Α						501	20	64					
Dismissa	Parking Access	EB	3	39		42	1.9	Α	0.1	A	0.0	,	0.2	A								664		20					
l Dis		WB NB		57	7	59 7			0.1	Α	0.0 2.7	A	0.1 2.7	A		-						449	20	48					
School	9th St at Village	SB											0.0	A	0.4	Α							Ĕ	L.					
ű	Green Pl	EB		43		43	4.0		0.2	A			0.2	A								242		20					
		WB NB	2	59	8	63 10	1.6 4.6	A	0.3	Α	2.4	A	0.4 2.8	A								246 462	20	20 65					
	9th St at Village	SB	9		7	16	4.7	A			3.2	A	4.1	A	1.0	Α						242	20	91					
	Green Ln	EB	2	45		47	1.7	Α	0.1	Α			0.2	Α			180		20										
		WB NB	5	53	3	61 3	1.7	A	0.3	Α	0.2 2.5	A	0.4 2.5	A								310 424	20	20 30					
	9th St at Sunset	SB	51		33	84	5.3	Α			2.5	A	4.2	A	2.0	Α						455	24	61			230	20	47
	Ln W	EB	23	41	1	65	1.7	Α	0.6	Α	0.0	Α	0.9	Α			180	20	26										
	-	WB NB	5 58	27 310	35	67 368	1.7	A	0.4	A	0.1	A	0.3	A			160	20	46			259		20					
	Hwy 65 at 9th	SB	50	264	11	275	1.3		0.6	A	0.0	Α	0.6	A	1.0	А	100	20	70										
	St	EB	21		75	96	8.7	Α	0.3	Α	3.1	Α	3.7	Α			250	20	62								130	27	76
ı		WB											0.0	Α		l													

^{2.} Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.

Table C2 Mora High School Traffic Study 2023 No Build Conditions (Elementary School Hours 8:00AM - 3:00PM)

Grove St at 7th SB 6 6 6 6 6 6 6 6 6	5 AM) /	Schoo	DI DISN	nissal	(∠:45 P	IVI)						1.00	D.,	1.00	Vehicle Queing Information (feet)													
Crove St at Pine Ridge Rd			Demand	Volumes	3			Delay (s/veh)			LOS Appro		LOS Interse				rn Lane				ough Lan				Right Tu		
Grove St at 7th SB Grove St at 7th SB SB WB SB SB SB SB SB	proach	L	т	R	Total	L	LOS	Т	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) 3	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Thru (2) >	% Block Left ⁽²⁾ <	Link Length (feet)	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Right ⁽²⁾ >	% Block Thru (2) <	Storage (feet) 3	Avg. Queue (feet) 1	Max Queue (feet)
Pine Ridge Rd		4	2	1	6 15	1.8	Α	0.0	A	0.0	_	1.1	A	0.7														
Page			14	5	5			0.0		0.0 2.5	A	2.5	A	0.7	Α						587	20	42					
Section Sect												0.0	Α															
St		6	5 13	45	50 19	1.8	Α	0.3	A	0.2	A	0.2	A	0.8	А						1972		20					
Page	EB											0.0	Α															
Wood St at 7th SB		10	60	4	11 64	4.8	Α	7.2	Α	0.0 2.5	A	4.8 6.8	A								471 800	20 34	31 77					
Parking Access	SB	1	46	11	58	4.7	Α	5.6	Α	2.2	Α	5.0	Α	4.6	Α						611	22	47					
## 15 ##		43	6	2	51 3	2.0 1.6	A	0.2	Α	0.4	Α	1.6	A								471 493	20	20 20					
Section Sect		3			3	1.0						0.0	A								490		20					
Section Sect		8			8	5.6	Α					5.6	Α	0.4	Α						501	20	54					
## STATE STA		9	91 63	15	100 78	1.9	Α	0.2	A	0.0	A	0.3	A								664	20	22					
Green Pi	NB	1		5	6	5.7	Α			2.6	Α	3.4	Α								449	20	45					
9th St at Village SB 24 Green Ln			100	1	101			0.2	A	0.1	Α	0.0	A	0.4	Α													
9th St at Village SB 24 Green Ln		7	75		82	1.8	А	0.2	A	0.1		0.4	A								246		20					
Green Ln				4	4					2.7	Α	2.7	Α								462	20	30					
Stat Sunset		24 17	88	6	30 105	7.0	A	0.1	А	3.7	A	6.3 0.5	A	1.4	Α	180	20	53			242	32	103					
9th St at Sunset Ln W EB 7: WB WB 15 Hwy 65 at 9th SB EB 20 WB W	WB	5	77	22	104	1.6	Α	0.7	Α	0.5	Α	0.7	Α								310		20					
Section Color Co		1 84		2 47	3 131	7.3	A			2.2	A	2.6 5.8	A	2.4	А						424 455	20 24	28 78			230	20	46
NB		73	40	2	115	2.7	A	1.0	А	0.1	A	1.9	A	2.4	^	180	20	37			400	24	70			230	20	40
Hwy 65 at 9th St		150	54	143	197	4.0		1.2	Α	0.4	Α	0.7	Α			400	04	- 00			259		20					
St		159	130 190	40	289 230	1.8	Α	0.2	A	0.1	Α	1.1 0.8	A	1.7	А	160	21	68			301		20			260		20
Grove St at 7th Pine Ridge Rd Pine Rd	EB	20		128	148	10.6	В	0.7	Α	3.8	Α	4.1	Α			250	20	76								130	31	102
Grove St at Pine Ridge Rd		2	9		11	2.5	Α	0.2	Α			0.0	A															
WB WB NB NB St EB WB 25 WB 25 WB St EB 16 WB 9 WB 9 WB St St VB WB St St VB WB St St WB St St VB St St St St St St St S		_	8		8	2.0	,	0.0	A			0.0	Α	0.9	Α													
Start Star				8	8					2.3	Α	2.3	A								587	20	67					
St			8	21	29			0.1	Α	0.1	Α	0.0	A															
## Parking Access Fig.		3	15		18	2.6	Α	0.3	Α			0.6	Α	1.5	Α						1972		20					
## Wood St at 7th		23		3	26	4.3	A	0.3	A	2.9	A	0.0 3.7	A								471	20	61					
St		20	30	8	38	1.0	7.	6.8	A	2.4	Α	5.9	Α								800	22	52					
## STATE STA		2	48 5	26	76 23	5.4 1.9	A	5.9 0.2	A	2.3	Α	4.8 1.4	A	4.2	Α						611 471	34	78 20					
9th St at Village SB SB Green PI SB		9	2	1	12	1.8	A	0.2	A	0.3	Α	1.4	A								493		20					
Parking Access EB 3 WB WB Stat Village SB Green Pl EB WB 4 WB ST ST ST ST ST ST ST S				_								0.0	Α															
## B	_	3	54	6	14 57	4.5 1.9	A	0.1	A	2.6	Α	3.7 0.2	A	0.5	Α						501 664	20	65 20					
## B	WB		74	2	76			0.1	Α	0.0	Α	0.1	Α															
## B				7	7					2.6	Α	2.6 0.0	A	0.4	А						449	20	54					
9th St at Village SB 22 Green Ln EB 10 WB 5 9th St at Sunset SB 64 Ln W EB 33 WB 5			58		58			0.2	А			0.2	A	0.4														
9th St at Village SB 23 Green Ln EB 10 WB 5 NB 9th St at Sunset SB 64 Ln W EB 30 WB 5		4	76		80	1.5	A	0.3	Α			0.4	Α								246	00	20					
Green Ln		23		8 16	10 39	3.9 5.4	A			2.6 3.3	A	2.9 4.5	A	1.5	А						462 242	20 42	60 98					
9th St at Sunset SB 64 Ln W EB 30 WB 5	EB	10	52		62	1.8	Α	0.1	Α			0.4	Α			180	20	20										
9th St at Sunset SB 64 Ln W EB 30 WB 5		5	63	14 3	82 3	1.9	Α	0.5	Α	0.3 3.1	A	0.5 3.1	A								310 424	20	20 28					
WB 5		64		42	106	5.8	Α			2.8	A	4.6	A	2.1	Α						455	25	62			230	21	56
		30	55	1	86	1.9	A	0.8	A	0.0	A	1.1	A			180	20	24			250		20					
NB 92	NB	5 92	39 310	47	91 402	1.8	A	0.7	A	0.1	A	0.5	A			160	20	54			259		20					
Hwy 65 at 9th SB	SB		264	17	281			0.8	Α	0.0	Α	0.8	Α	1.3	Α													
St EB 27		27		107	134	10.5	В	0.5	Α	3.4	Α	4.2 0.0	A			250	20	63								130	32	82

^{2.} Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.

Table C3 Mora High School Traffic Study 2023 Build Conditions (High School and Elementary School Hours: 8:00AM - 3:00PM)

School Arrival Peak Hour 16	Grove St at Pine Ridge Rd Grove St at 7th St Vood St at 7th St Bith St at New arking Access th St at Village Green Pl	Approach NB SB EB WB NB SB EB WB NB SB EB WB NB SB EB WB NB NB SB EB NB	L 4 6 6 19 1 68 3 91 75	18 14 33 13 96 79 6	R 28 1 5 2 70 17 4 36 2	Total 50 21 5 2 103 19 36 100 116	2.7 4.7	A A A	T 0.9 0.0 0.7 0.2	LOS A A A A	R 0.4 0.0 2.5 2.4 0.3	LOS A A A	Delay (S/Veh) 0.7 0.5 2.5	LOS	LOS Interse Delay (S/Veh)		Storage (feet) ³	Avg. Queue (feet) 1	Max Queue	% Block Thru ⁽²⁾	% Block Left (2)	Link Length (feet)	Avg. Queue	Max Queue	% Block Right ⁽²⁾	% Block Thru ⁽²⁾	Right Tu Storage (feet) ³	Avg. Queue (feet) 1	Max Queue
School Arrival Peak Hour 16	Grove St at Prine Ridge Rd Grove St at 7th St Vood St at 7th St Pth St at New arking Access	NB SB EB WB NB SB EB NB SB EB	4 6 19 1 68 3	18 14 33 13 96 79	28 1 5 2 70 17 4 36	50 21 5 2 103 19 36 100	3.2 1.7 2.7	A A	0.9	A A	0.4 0.0 2.5 2.4	A A A	0.7 0.5	Α		LOS		Queue	Queue	Thru (2)	Left (2)	Length	Queue	Queue	Right ⁽²⁾	% Block Thru (2) <		Queue	Queue
School Arrival Peak Hour	From Ridge Rd From St at 7th St Vood St at 7th St Pth St at New Arking Access	SB EB WB NB SB EB WB NB SB EB WB NB SB EB WB NB NB SB EB NB NB SB SB EB NB SB SB EB NB SB SB EB	6 6 19 1 68 3	33 13 96 79	1 5 2 70 17 4 36	21 5 2 103 19 36 100	2.7	A	0.0	A	0.0 2.5 2.4	A A	0.5					(leet)	(feet) 1			(ICCI)	(leet)	(feet) 1					(feet)
School Arrival Peak Hour	From Ridge Rd From St at 7th St Vood St at 7th St Pth St at New Arking Access	EB WB NB SB EB WB NB SB EB WB NB SB EB WB NB	6 19 1 68 3	33 13 96 79	5 2 70 17 4 36	5 2 103 19 36 100	2.7	A	0.7	A	2.5 2.4	Α										1966		20					
School Arrival Peak Hour	Frove St at 7th St Vood St at 7th St Who St at New Arking Access	WB NB SB EB WB NB SB EB WB NB SB EB WB NB NB NB SB EB NB NB SB EB NB SB EB	19 1 68 3	96 79	2 70 17 4 36	2 103 19 36 100	4.7				2.4			A	0.8	Α						568	00	20					
School Arrival Peak Hour	St Vood St at 7th St 9th St at New arking Access	NB SB EB WB NB SB EB WB NB SB EB WB NB SB NB SB EB NB SB EB NB	19 1 68 3	96 79	70 17 4 36	103 19 36 100	4.7						2.4	A								587 339	20 20	42 30					
School Arrival Peak Hour	St Vood St at 7th St 9th St at New arking Access	SB EB WB NB SB EB WB NB SB EB NB NB SB EB NB NB NB NB NB NB NB NB	19 1 68 3	96 79	17 4 36	19 36 100	4.7					Α	0.4	A								003	20	50					
School Arrival Peak Hour	Vood St at 7th St 9th St at New arking Access	WB NB SB EB WB NB SB EB WB NB NB NB NB NB	1 68 3	79	4 36	100		A					0.8	Α	1.3	Α						1966	20	20					
School Arrival Peak Hour	St 9th St at New arking Access th St at Village	NB SB EB WB NB SB EB WB NB NB	1 68 3	79	4 36	100		l A					0.0	Α															
School Arrival Peak Hour	St 9th St at New arking Access th St at Village	SB EB WB NB SB EB WB NB	68 3 91	79	36				7.4	A	3.3	A	4.0	A								471	31 38	73 74					
School Arrival Peak Hour	St 9th St at New arking Access th St at Village	EB WB NB SB EB WB	68 3 91				0.0	А	7.4 7.0	A	3.0 2.7	A	7.2 5.7	A	5.2	А						800 604	44	81					
School Arrival Peak	arking Access	NB SB EB WB	91			76	2.0	Α	0.5	Α	0.2	Α	1.8	Α								471	20	25					
School Arrival Peak	arking Access	SB EB WB NB				3	2.3	Α					2.3	Α								493		20					
School Arrival Peak	arking Access	EB WB NB			10	407							0.0	A			500	00									000	05	
School Arrival	th St at Village	WB NB	7.5	87	46	137 162	7.1	A	0.2	Α	2.9	Α	5.6 1.1	A	2.2	Α	520 120	36 20	77 48								260	25	54
				74	212	286		,	2.2	A	0.8	А	1.2	A			120	20											
			1		5	6	4.7	Α			3.0	Α	3.2	Α								449	20	50					
	Steeli Fi	SB		470		400							0.0	A	0.4	Α													
91		EB WB	7	179 283	1	180 290	2.1	Α	0.5	A	0.7	Α	0.5	A								240	20	20					
91		NB		200	4	4	2.,	Ĥ	0.0		2.6	А	2.6	A								462	20	30					
	th St at Village	SB			17	17					3.8	Α	3.8	Α	0.7	Α						242	26	80					
	Green Ln	EB	12	172		184	3.0	Α	0.1	Α			0.3	Α			180	20	58										
⊢		WB NB	5	274	7	286	2.2 6.5	A	0.8	Α	0.5 4.2	A	0.8 5.0	A								310 424	20	20 25					
91	th St at Sunset	SB	1 87		47	3 134	8.9	A			3.5	A	6.9	A	2.4	Α						455	35	73			230	26	50
	Ln W	EB	74	99	2	175	3.6	Α	0.2	Α	0.0	Α	1.6	Α			180	20	49										
L		WB		236	146	382			1.6	Α	0.5	Α	1.2	Α								259	20	20					
Ι.	h 05 -4 0#	NB	307	130	70	437	4.0	Α	1.1	A	0.0		3.1	A	0.0		160	42	93								200	20	22
	Hwy 65 at 9th St	SB EB	27	190	76 183	266 210	15.9	С	1.3 0.6	A	0.2 3.4	A	1.0 5.0	A	2.9	Α	250	20	54								260 130	20 33	22 84
		WB											0.0	Α															
		NB	2	9		11	1.6	Α	0.2	Α			0.5	Α															
	Grove St at Pine Ridge Rd	SB FB	1	8		9	1.5	Α	0.1	Α	2.9		0.3 2.9	A	2.8	Α						587	00	70					
l'	ino raago raa	WB	27		8 5	32	4.4	Α			2.9	A	4.2	A								495	20	38					
		NB		8	35	43		, ,	0.4	А	0.1	Α	0.2	A								.00	20	55					
G	Frove St at 7th	SB	3	42		45	3.0	Α	0.6	Α			0.7	Α	1.6	Α						1966		20					
	St	EB	34		3	07	4.7				0.4		0.0	A								474	0.4	50					
-		WB NB	34	43	8	37 51	4./	Α	7.0	A	2.4	A	4.1 6.3	A								471 800	24 27	56 60					
ν	Vood St at 7th	SB	2	70	38	110	3.8	Α	6.3	A	2.6	A	5.0	A	4.5	Α						604	35	71					
	St	EB	32	5		37	1.9	Α	0.2	Α			1.4	Α								471		20					
F		WB	9	2	1	12	1.9	Α	0.2	Α	0.0	Α	1.5	A								493		20					
	9th St at New	NB SB	118		44	162	6.8	Α			3.0	Α	0.0 5.8	A	2.9	Α	520	39	89								260	23	57
Dismissa	arking Access	EB	36	46		82	1.8	A	0.2	А	0.0		0.9	A	2.3		120	20	30								200	20	0,
msi _		WB		70	52	122			0.7	Α	0.2	Α	0.5	Α															
8		NB			7	7					2.8	Α	2.8	Α								449	20	41					
School at	th St at Village Green Pl	SB EB		160		160			0.6	^			0.0	A	0.5	Α													
	· · · · ·	WB	4	113		160 117	1.9	Α	0.6	A			0.6	A								240		20					
	į	NB	2		8	10	8.7	Α			3.3	Α	4.1	A								462	20	57					
9t	th St at Village	SB	9		9	18	7.1	Α			3.2	Α	4.8	Α	0.6	Α						242	21	91					
	Green Ln	EB WB	5	164 105		164	1.8	A	0.1	A	0.1	_	0.1	A								310		20					
⊢	-	NB	5	105	3	111 3	1.8	A	0.4	A	0.1 3.5	A	3.5	A								424	20	31					
91	th St at Sunset	SB	65		43	108	6.7	Α			2.7	A	5.2	A	1.9	Α						455	30	62			230	23	58
	Ln W	EB	32	151	1	184	2.0	Α	0.4	Α	0.0	Α	0.7	Α			180	20	31										
⊢		WB	5	66	50	121	2.3	A	0.7	A	0.2	Α	0.6	A			400	20	60			259	20	29					
Ι.	Hwy 65 at 9th	NB SB	117	310 264	23	427 287	2.5	Α	0.7 1.2	A	0.0	A	1.2	A	2.3	А	160	22	63										
	St St	EB	43	204	188	231	11.2	В	1.1	A	4.8	A	5.5	A	2.0	^	250	21	60								130	41	99
L	-									_	_		0.0																

^{2.} Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.

Table C4
Mora High School Traffic Study
2023 Build Conditions (High School and Elementary School Hours: 8:00AM - 3:00PM)

	nool Arrival (7																				Vel	nicle Que	ing Infor	mation (f	eet)				
				Demand	Volume	s			Delay	(s/veh)			LOS Appro	By each	LOS Interse			Left Tu	rn Lane			Thr	ough Lan	e (s)			Right Tu	ırn Lane	
	Intersection	Approach	L	т	R	Total	L	LOS	т	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Storage (feet) 3	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Thru (2) >	% Block Left (2) <	Link Length (feet)	Avg. Queue (feet) 1	Max Queue (feet) 1	% Block Right ⁽²⁾	% Block Thru (2) <	Storage (feet) 3	Avg. Queue (feet) 1	Max Queue (feet) 1
		NB	4	18	28	50	3.2	Α	0.9	Α	0.4	Α	0.7	Α								1966		20					
	Grove St at Pine Ridge Rd	SB EB	6	14	1 5	21	1.7	Α	0.0	Α	0.0	A	0.5	A	8.0	Α				<u> </u>		568	20	20 42					
	g	WB			2	5					2.5	A	2.5	A								587 339	20 20	30					
		NB		33	70	103			0.7	Α	0.3	Α	0.4	Α															
	Grove St at 7th	SB	6	13		19	2.7	Α	0.2	Α			0.8	Α	1.3	Α						1966	20	20					
	St	EB											0.0	A						.									
		WB NB	19	96	17 4	36 100	4.7	Α	7.4	Α	3.3	A	4.0 7.2	A								471 800	31 38	73 74					
	Wood St at 7th	SB	1	79	36	116	0.0	Α	7.0	A	2.7	A	5.7	A	5.2	Α						604	44	81					
	St	EB	68	6	2	76	2.0	Α	0.5	Α	0.2	Α	1.8	Α								471	20	25					
		WB	3			3	2.3	Α					2.3	Α								493		20					
Жur	9th St at New	NB			40	407							0.0	A			500										000	05	
Peak	Parking Access	SB EB	91 75	87	46	137 162	7.1	A	0.2	Α	2.9	A	5.6 1.1	A	2.2	Α	520 120	36 20	77 48								260	25	54
		WB		74	212	286	2.2		2.2	A	0.8	Α	1.2	A			120		.0										
riš		NB	1		5	6	4.7	Α			3.0	Α	3.2	Α								449	20	50					
0	9th St at Village Green Pl	SB											0.0	A	0.4	Α				.									
School Arrival	Gleen Fi	EB WB	7	179 283	1	180 290	2.1	A	0.5	A	0.7	Α	0.5	A								240	20	20					
"		NB	,	200	4	4	2.1	_	0.3		2.6	Α	2.6	A								462	20	30					
	9th St at Village	SB			17	17					3.8	Α	3.8	Α	0.7	Α						242	26	80					
	Green Ln	EB	12	172		184	3.0	Α	0.1	Α			0.3	Α			180	20	58										
	-	WB	5	274	7	286	2.2	A	0.8	Α	0.5	A	0.8	A								310	20	20					
	9th St at Sunset	NB SB	1 87		2 47	3 134	6.5 8.9	A			4.2 3.5	A	5.0 6.9	A	2.4	Α				1		424 455	20 35	25 73			230	26	50
	Ln W	EB	74	99	2	175	3.6	A	0.2	Α	0.0	Α	1.6	Α		, ,	180	20	49			100	- 00				200		
		WB		236	146	382			1.6	Α	0.5	Α	1.2	Α								259	20	20					
		NB	307	130		437	4.0	Α	1.1	A			3.1	A			160	42	93										
	Hwy 65 at 9th St	SB EB	27	190	76 183	266 210	15.9	С	1.3 0.6	A	0.2 3.4	A	1.0 5.0	A	2.9	Α	250	20	54								260 130	20 33	22 84
		WB	21		100	210	10.5	Ü	0.0	Ĥ	0.4		0.0	A			200	20	04								100	00	- 04
		NB	2	9		11	2.3	Α	0.1	Α			0.5	Α															
	Grove St at Pine Ridge Rd	SB	1	8		9	1.5	Α	0.0	Α			0.2	A	2.7	Α				.									
	Fille Riage Ra	EB WB	27		- 8 - 5	8 32	4.4	A			2.6	A	2.6 4.2	A								587 495	20	63 44					
		NB	Z.I	8	46	54	4.4	^	0.3	Α	0.2	A	0.2	A								493	20	44					
	Grove St at 7th	SB	3	42		45	2.6	Α	0.5	Α			0.6	Α	1.6	Α						1966		20					
	St	EB											0.0	Α						ļ									
	-	WB	44	E0	8	47	4.5	Α	7.3	A	2.4 3.1	A	4.0	A								471 800	27 29	71 62					
	Wood St at 7th	NB SB	2	58 93	48	66 143	7.1	А	7.1	A	3.2	A	6.8 5.8	A	5.1	Α				1		604	42	84					
	St	EB	44	5		49	2.0	Α	0.2	Α			1.7	Α								471	20	20					
		WB	9	2	1	12	1.7	Α	0.3	Α	0.0	Α	1.3	Α								493		20					
1_	Oth Stat Na	NB SB	110		44	160	77				3.3	^	0.0	Α	2.0		520	41	97								260	24	58
ssa	9th St at New Parking Access	SB EB	118 36	74	44	162 110	7.7 2.2	A	0.3	Α	3.3	Α	6.5 0.9	A	2.9	Α	520 120	20	35								200	24	36
Dismissa		WB		103	52	155		Ė	0.8	A	0.3	Α	0.6	A															
×		NB			7	7					3.0	Α	3.0	Α								449	20	54					
School	9th St at Village Green Pl	SB		400		400			0.0				0.0	A	0.5	Α													
"	5.50111	EB WB	4	188 146		188 150	2.0	A	0.6	A			0.6	A								240	20	20					
1		NB	2	. 40	8	10	9.4	A	3.2		3.3	Α	4.5	A								462	20	55					
1	9th St at Village	SB	9		9	18	7.6	Α			3.0	Α	5.1	Α	0.6	Α						242	20	82					
1	Green Ln	EB	-	192		192			0.1	Α			0.1	Α								0.10							
1	H	WB NB	5	138	3	144 3	2.0	Α	0.5	Α	0.3 3.7	A	0.5 3.7	A								310 424	20	20 28					
	9th St at Sunset	SB	116		76	192	9.6	Α			3.1	A	7.0	A	3.0	Α						455	44	115			230	31	60
	Ln W	EB	60	151	1	212	2.3	A	0.5	Α	0.0	Α	1.0	A			180	20	35										
		WB	5	66	91	162	2.8	Α	1.1	Α	0.4	Α	8.0	Α								259	20	34					
1	Lhun GE -4 OF	NB	154	310	07	464	3.5	Α	0.8	A	0.1	_	1.7	A	2.0		160	29	82								200		20
1	Hwy 65 at 9th St	SB EB	50	264	27 234	291 284	16.7	С	1.6	A	6.0	A	1.5 7.5	A	3.3	Α	250	28	85								260 130	49	20 127
		WB	30		204	204	10.7		1.4		0.0	_	0.0	A			230	20	00								130	40	121
•													0.0	, ,,															

^{2.} Block Percentage is proportion of analysis time (1 hour) the storage lane or through lane is blocked or blocking.



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RESOLUTION NO. PC2021-401

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MORA, MINNESOTA, RECOMMENDING APPROVAL OF A CONDITIONAL USE PERMIT TO ALLOW A SCHOOL AND SCHOOL RELATED FACILITIES TO BE LOCATED IN THE R-1 SINGLE FAMILY RESIDENTIAL DISTRICT AS REQUESTED BY ICS AND MORA PUBLIC SCHOOLS

WHEREAS, ICS, applicant, and Mora Public Schools, property owner, have submitted an application dated received January 20, 2021 and considered complete on February 1, 2021 for a Conditional Use Permit to allow a School and school related facilities in the R-1 Single Family Residential District; and

WHEREAS, the property upon which the request is being made is located at 200 9th Street E. and is legally described as:

PID 22.00290.50

E ½ of NE ¼ of NW ¼ and NW ¼ of NE ¼, Ex S 80' of N 503' of E 12' thereof Section 11 Township 039 Range 024 Kanabec County, Minnesota

PID 22.00290.10

The North 579.00 feet of the West Half of the Northeast Quarter of the Northwest Quarter of Section 11, Township 039 North, Range 024 West of the Fourth Principal Meridian,
Kanabec County, Minnesota

AND

PID 22.00004.10 SE ¼ of SW ¼ and SW ¼ of SE ¼ Section 02 Township 039 Range 024 Kanabec County, Minnesota; and

WHEREAS, notice was provided and on March 8, 2021, the Planning Commission conducted a public hearing regarding the request, at which it heard from the Community Development Director and invited members of the public to comment; and

WHEREAS, the Planning Commission has made the following findings as required by Zoning Code §150.036 Conditional Uses, Subd. E Standards:

Criteria #1	The use is consistent with the purposes and intent of the Zoning Code and the purposes and intent of the zoning district in which the applicant intends to locate the proposed use.
Finding #1	The Zoning Code identifies the proposed use of School as a Conditional Use in the R-1 District, and the proposed use is consistent with the intent of the Zoning Code.
Criteria #2 Finding #2	The use is in keeping with the Comprehensive Plan and the policies thereof. The Comprehensive Plan Land Use Map identifies the subject site as Public / Semi-Public / Institutional. Further, the Comprehensive Plan identifies a Public Services and Facilities policy stating, "Realize that certain public costs, such as education and pollution control, represent an essential investment in the future and should be supported." The city finds

that the proposed use and Conditional Use Permit comply with the Comprehensive Plan designation and policies.

Criteria #3 The use will not cause undue traffic congestion or hazards.

Finding #3 The applicant has provided a traffic study which was reviewed by the city, county, and MnDOT. The applicant and property owner will coordinate street and subject site improvements with the city, county, and potentially MnDOT in order to address traffic congestion or hazard concerns.

Criteria #4 The use will be adequately served by public utilities and all other necessary public facilities and services.

Finding #4 The site / use is currently served by public utilities and other necessary public facilities and services, and any necessary municipal utility improvements will be coordinated with the City of Mora and Mora Municipal Utilities.

Criteria #5 The structure and the site shall have an appearance that will not have an adverse effect upon adjacent properties.

Finding #5 The applicant intends to use an assortment of building materials for the proposed facility to mirror and complement the materials used for the existing facilities located on the subject site. There is no evidence to suggest that the proposed structure will have an adverse impact upon adjacent properties.

Criteria #6 The use will be sufficiently compatible by distance or screened from adjacent residentially zoned or used land so that existing homes will not be depreciated in value and there will be no deterrence to development of vacant land.

Finding #6 The proposed use (high school) is an expansion of existing and related uses (elementary school and wellness center), and there is no evidence to suggest that the existing or proposed uses have had or will have a negative impact on the adjacent residential land.

Criteria #7 The use will not jeopardize the public's health, safety or general welfare.

Finding #7 There is no evidence to suggest that the proposed use will jeopardize the public's health, safety or general welfare.

NOW THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF MORA, MINNESOTA, AS FOLLOWS:

That the Planning Commission hereby recommends approval of the Conditional Use Permit with the following conditions:

- 1. Development of the subject site shall be consistent with the civil plans signed and dated March 11, 2021 by David G. Bolf P.E. (shown revised on March 29, 2021 per Addendum 3), except as specifically noted below. Any significant changes, as determined by city staff and except as allowed by this resolution, shall require further review and approval by the Planning Commission and City Council. The civil plans are attached as Exhibit 1.
- Landscaping shall be installed in accordance with the Landscape Plan signed and dated March 11, 2021 by Luke W. Sydow. The Landscape Plan is attached as Exhibit 2. The applicant shall field verify all tree plantings at the time of installation to avoid underground utilities and to allow for desired clearances as determined by the Public Utilities General Manager.

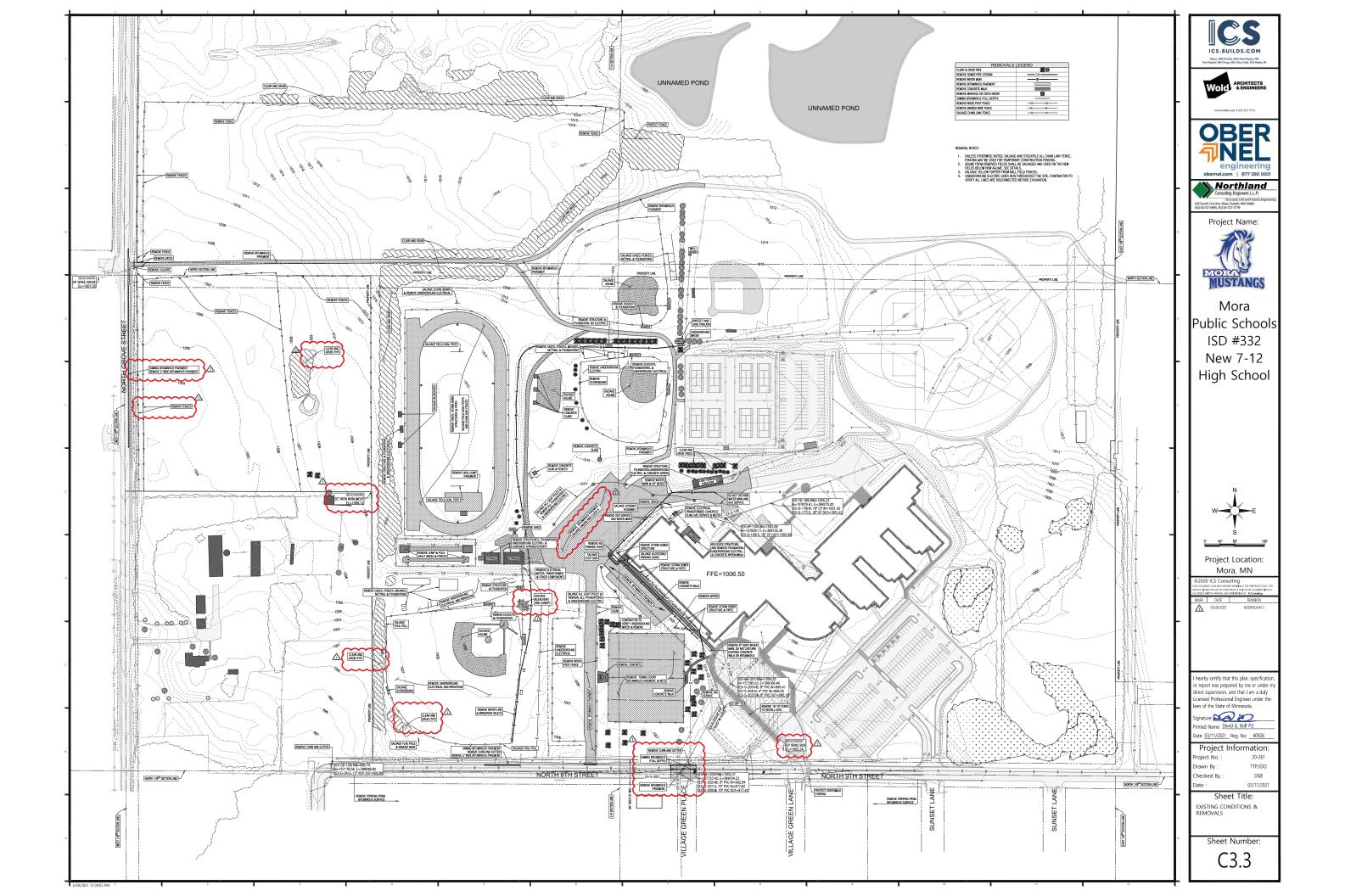
- 3. Approval of the request and preliminary civil plans may impact the Conditional Use Permits granted by Resolution No. 2016-412 (elementary school) and Resolution No. 2017-421 (wellness center). Approval of this Conditional Use Permit does not invalidate the 2016 or 2017 Conditional Use Permits or the conditions contained within, unless specifically noted below.
- 4. The proposed exterior construction materials, including precast concrete panels, metal panels of two colors, and brick, are approved. Any changes to the exterior construction materials requires prior approval from the City Council.
- 5. In compliance with Resolution No. 2016-412, the property owner shall provide a minimum of 96 offstreet parking spaces for Mora Elementary. Any future expansion of the facility may require additional parking.
- 6. In compliance with Resolution No. 2017-421, the property owner shall provide a minimum of 40 off-street parking spaces for Welia Health Wellness Center. Any future expansion of the facility may require additional parking.
- 7. Based on a building capacity of 952 students and 125 staff members (information provided by the applicant and property owner), the property owner shall provide a minimum of 315 off-street parking spaces for the proposed high school facility. Based on a building capacity of 1,095 students and 130 staff members (information provided by the applicant and property owner, with construction of alternate classrooms), the property owner shall provide a minimum of 349 off-street parking spaces. The construction of the parking lot shown as Alternate #8 on the civil plans can be used to accommodate this off-street parking requirement. Any future expansion of the facility, not illustrated on the civil plans, may require additional parking.
- 8. The property owner shall provide a minimum of 120 off-street parking spaces, in aggregate, for the athletic fields. Any future expansion or addition of athletic fields may require additional parking.
- 9. All new off-street parking spaces shall be a minimum of 9' x 19' in size and all new drive aisles shall be a minimum of 26' wide.
- 10. The city acknowledges that the existing off-street parking spaces at Mora Elementary are 9' x 18' in size and that drive aisles are 24' in width. If at any time the property owner improves the parking lot, parking spaces and drive aisles shall be brought into compliance with the zoning code. Further, if the property owner ever expands the parking lot, parking spaces and drive aisles will be required to meet current requirements of the zoning code.
- 11. The proposed parking areas must comply with the Minnesota 2020 Accessibility Code. Accessible off-street parking spaces shall be provided in compliance with Table 1106.1, except as required by Sections 1106.2-1106.4. Per Accessibility Code Section 1106.5, for every six or fraction of six accessible parking spaces at least one shall be a van-accessible parking space.
- 12. The project does not include any proposed changes to bus traffic, flow, or parking. If bus traffic, flow, or parking does change, either before the project is complete or at any point in time that the Conditional Use Permit is actively utilized for *School* purposes, it shall require further review and approval by the Planning Commission and City Council.

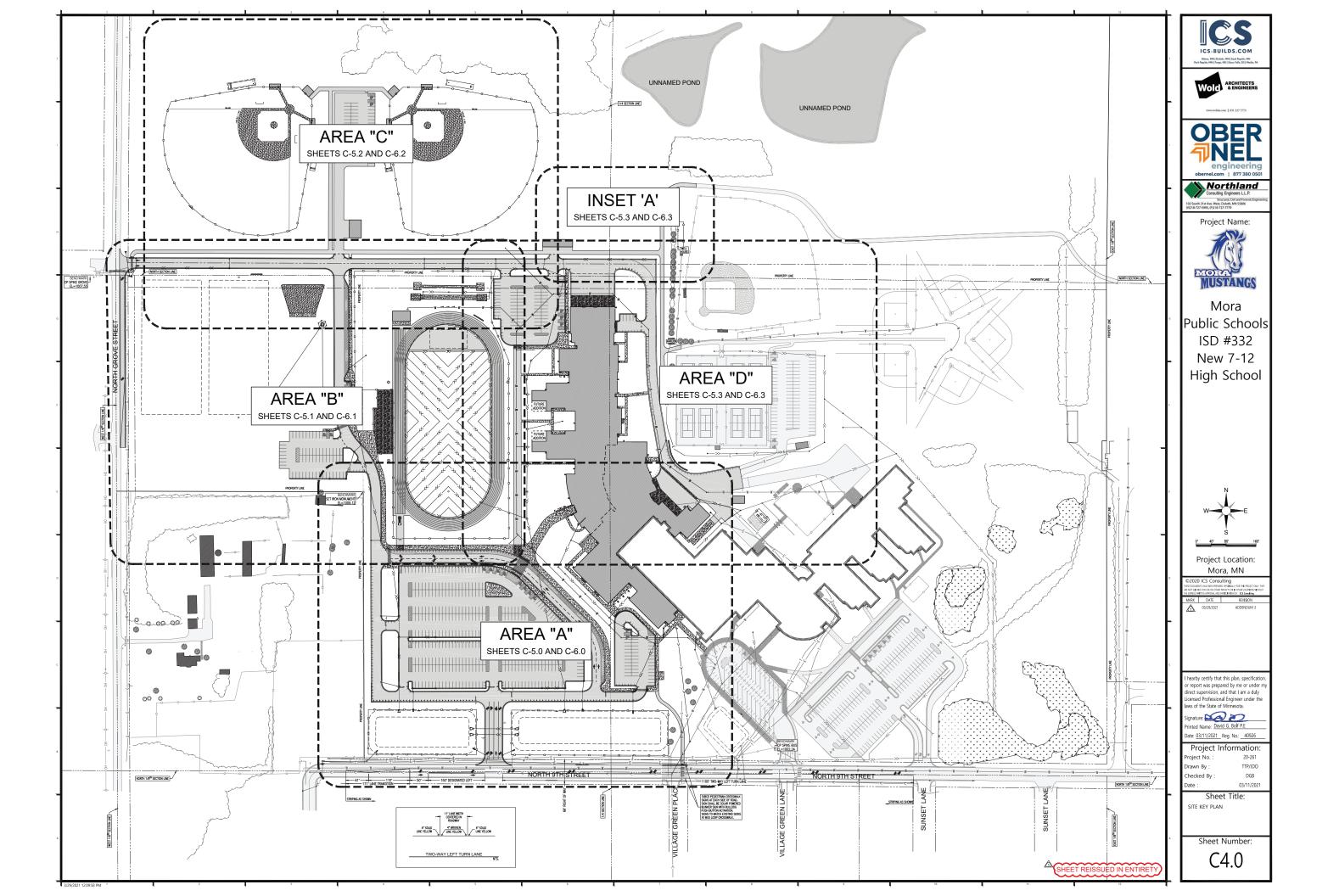
- 13. In reference to vehicle storage in front of the main entrance, if the three drop off lanes do not adequately accommodate vehicles and the city determines that stacking on 9th Street E. becomes a safety hazard, the City Council has the authority to require that the property owner adjust traffic flow internally to alleviate the hazard.
- 14. The city authorizes the property owner to install a continuous two-way center turn lane on 9th Street E. as recommended by the traffic study dated March 22, 2021. The property owner shall be responsible for all expenses related to the restriping of 9th Street E. and work shall be coordinated with the City Administrator.
- 15. The city authorizes the property owner to install a pedestrian crossing at the intersection of 9th Street E. and Village Green Place. The pedestrian crossing shall be installed in the same manner as the existing pedestrian crossing located at the intersection of 9th Street E. and Village Green Lane, including the same signage, pavement markings, and pedestrian activated flasher. The property owner shall be responsible for all expenses related to installing the pedestrian crossing and work shall be coordinated with the City Administrator.
- 16. The applicant shall install a northbound right turn lane on Grove Street N. at the location of the access road. All improvements made on or adjacent to Grove Street N. shall require prior authorization from Kanabec County.
- 17. The access road extending east from Grove Street N. shall not be constructed until such time that the City Council has vacated the 66' public roadway easement.
- 18. The city acknowledges that the construction of the access road extending east from Grove Street N., in its proposed location, requires the relocation of the city-owned multi-use trail. Relocation of the trail will require coordination with the City Administrator, a new trail easement provided by the property owner to the City of Mora, and approval of an updated or new maintenance agreement between the City of Mora and Mora Public Schools.
- 19. Any change to municipal utility services and/or infrastructure shall be coordinated and approved by the Public Utilities General Manager.
- 20. The new school facility will require replacement of the existing sanitary sewer connection to the city main in 9th Street E. That connection shall include:
 - a. A watertight, boot type connection in the existing manhole for the revised connection.
 - b. City of Mora public works staff shall witness and approve the connection to the existing manhole and backfilling of the sewer trench in the 9th Street E. right-of-way.
 - c. The bituminous patch in 9th Street E. for the sewer line replacement should be replaced at a 1.5:1 slope based on the depth of the trench.
 - d. The sewer trench shall be backfilled in lifts not greater than one foot and the property owner shall provide a material testing firm to verify compaction meets or exceeds 100% in the top three feet of the trench and 95% below the three foot depth.
- 21. If the new school facility requires a new or replaced water service connection in 9th Street E., the work shall be subject to the same city inspection, bituminous patching, and trench backfilling density requirements listed above in condition 20.

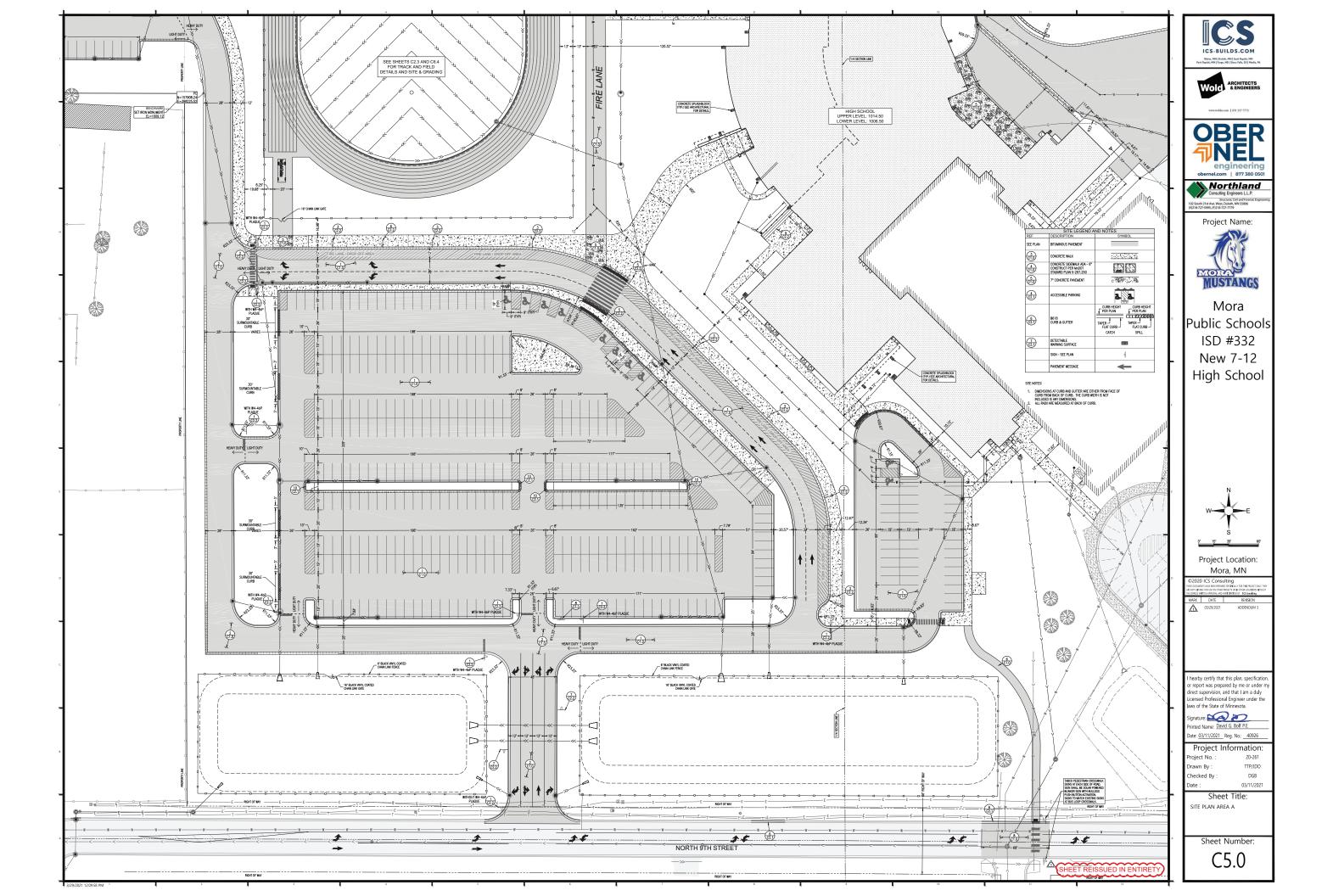
- 22. Prior to the request for Conditional Use Permit being presented to the City Council for final consideration, the applicant shall verify that drainage from the unnamed ponds flows to the Snake River rather than Lake Mora as requested by the City Engineer and County Engineer.
- 23. The property owner shall install a Knox Box at the main entrance of the high school. Specifications and placement shall be coordinated with the Fire Chief.
- 24. The property owner shall install "No Parking Fire Lane" signs along the designated fire lane(s). The number and placement of signs shall be coordinated with the Fire Chief.
- 25. All fire lanes must be a minimum of 20' wide.
- 26. The approval of this Conditional Use Permit does not authorize the installation or relocation of any signage. Any new or relocated signage must be incompliance with zoning code §§150.210-150.227, unless authorized by Variance, and must be approved by issuance of a sign permit.

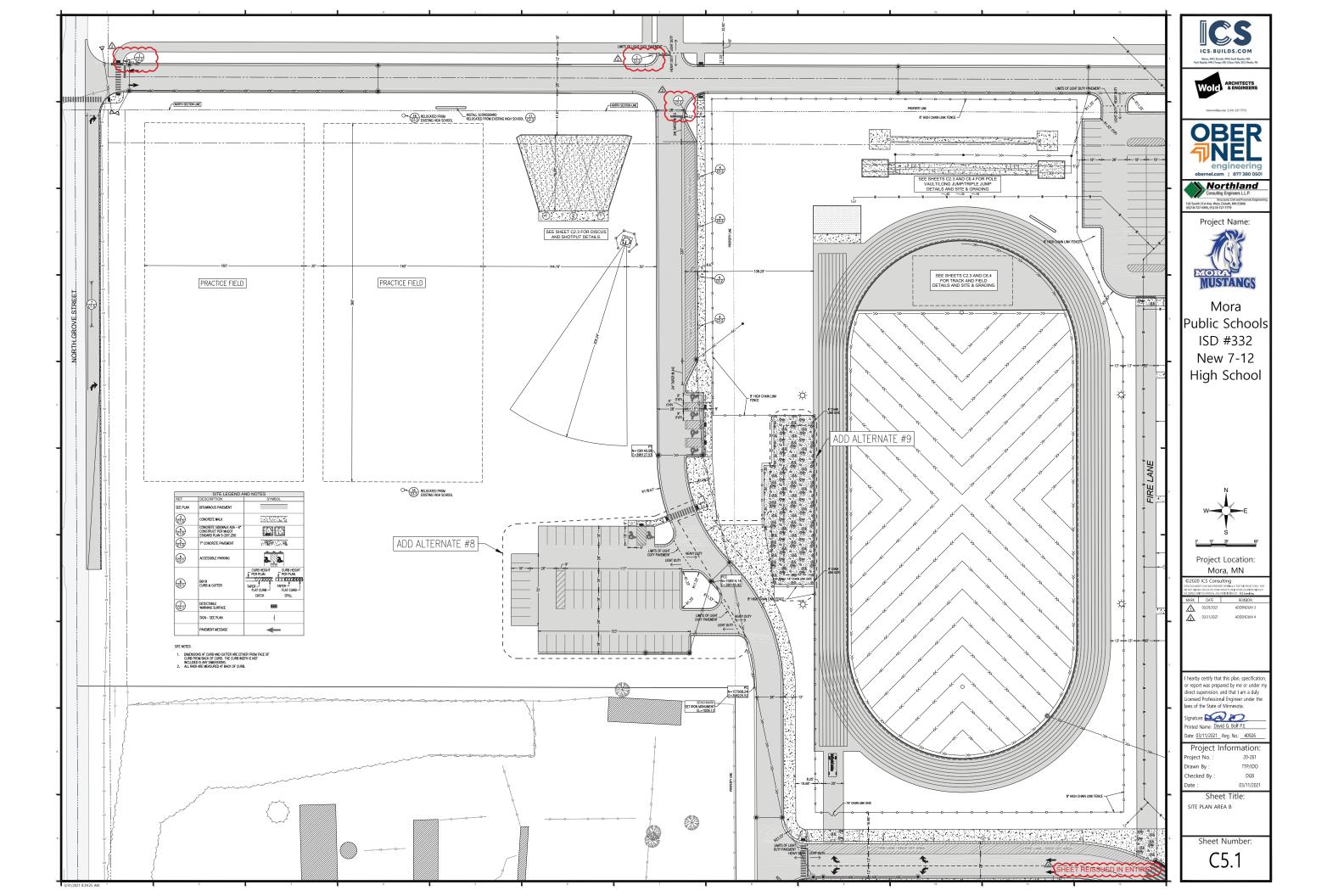
Adopted by the Planning Commission of the City of Mora, Minnesota, this 12th day of April, 2021.

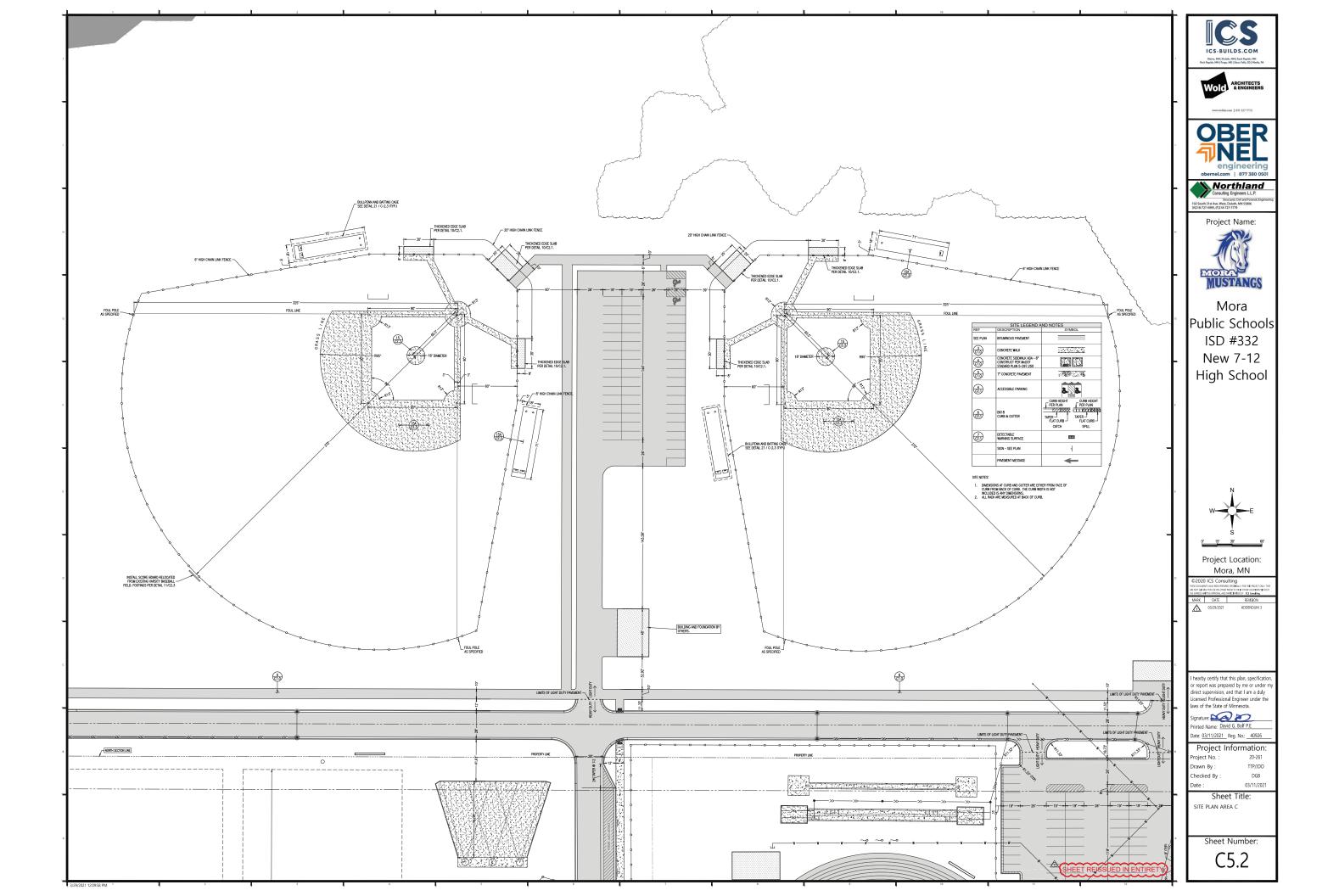
Todd Sjoberg Chad Gramentz Sara Treiber		Carmen Finn Jake Mathison	
	ATTEST:		
Todd Sjoberg Chair		Beth Thorp Community Developme	ent Director

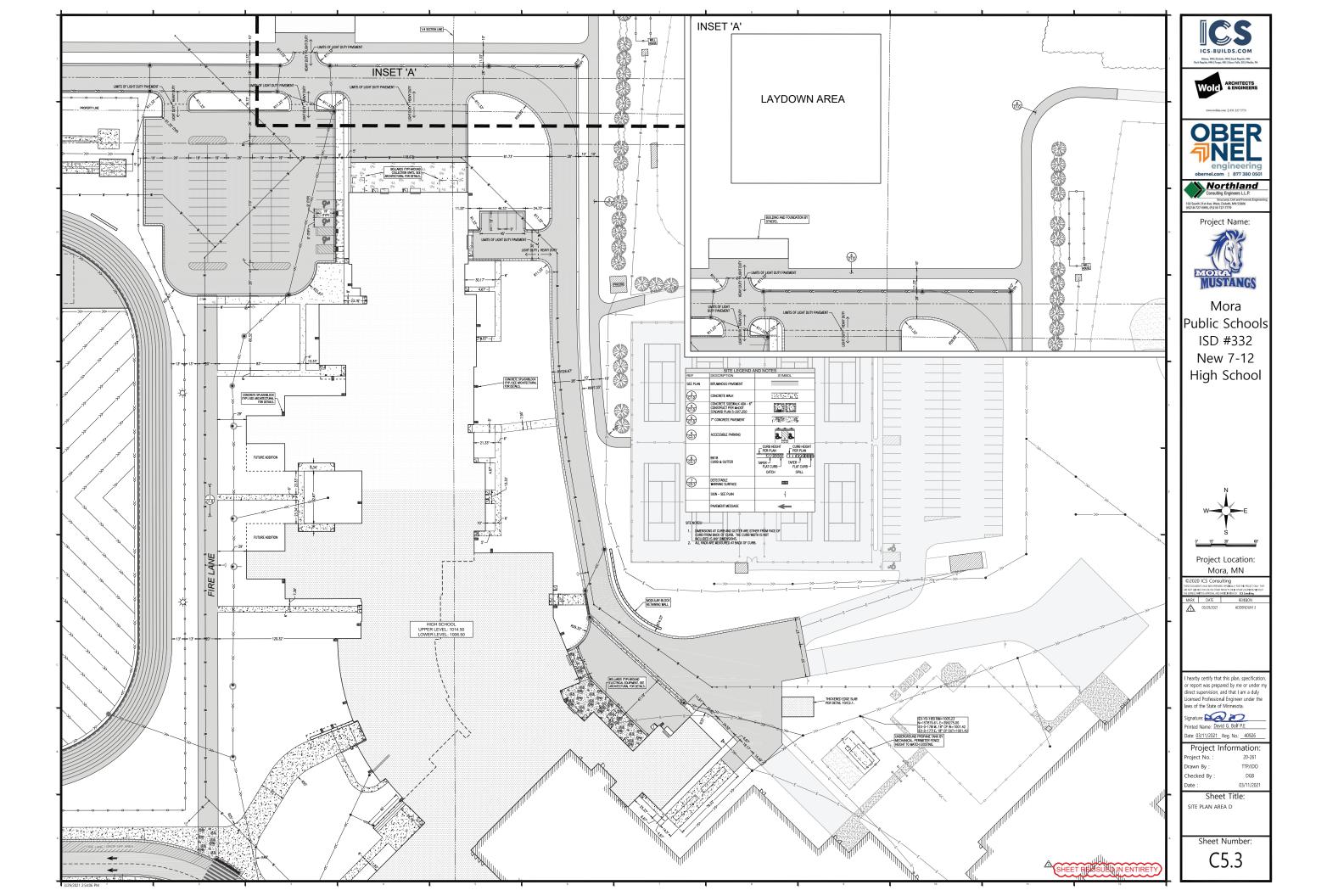


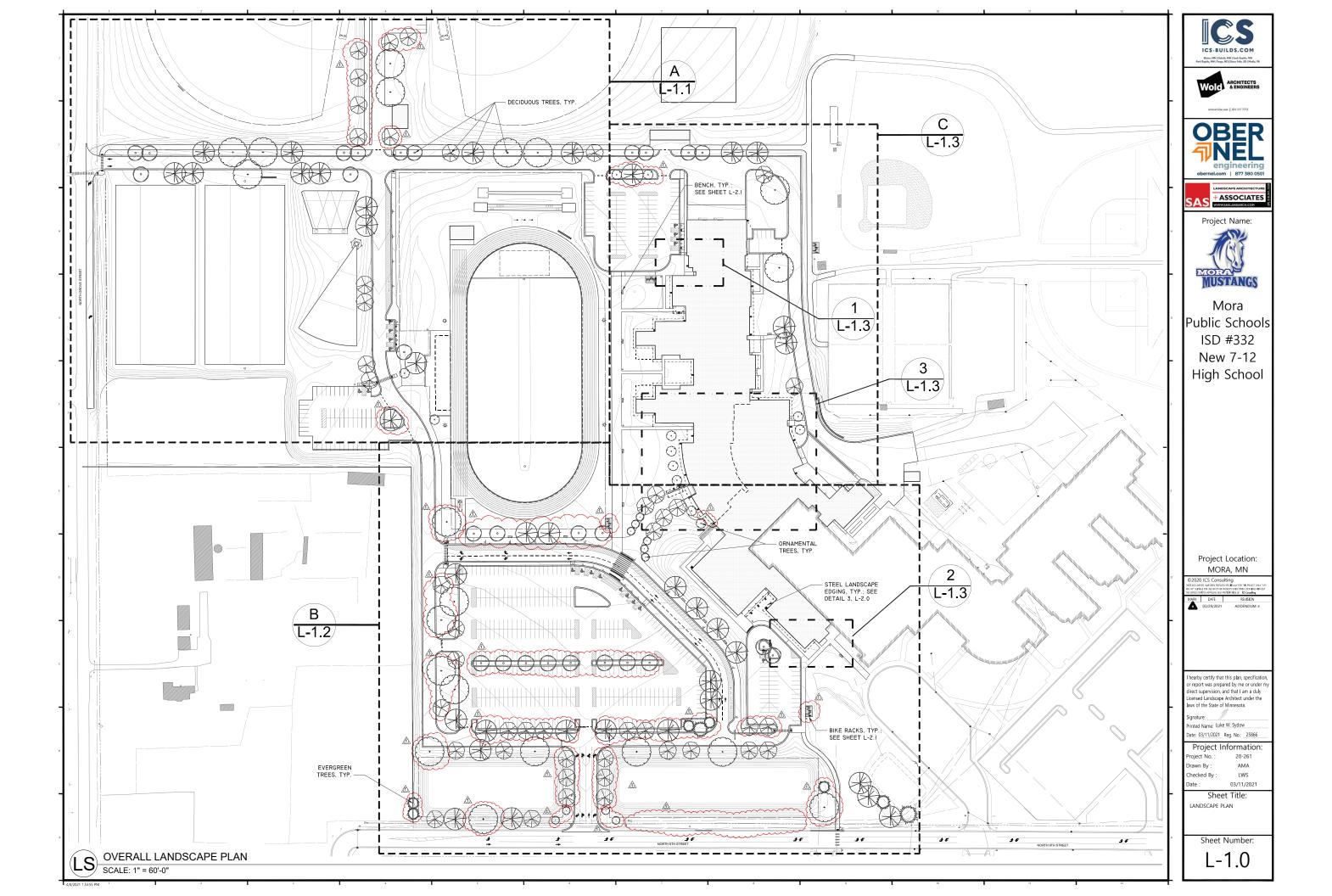


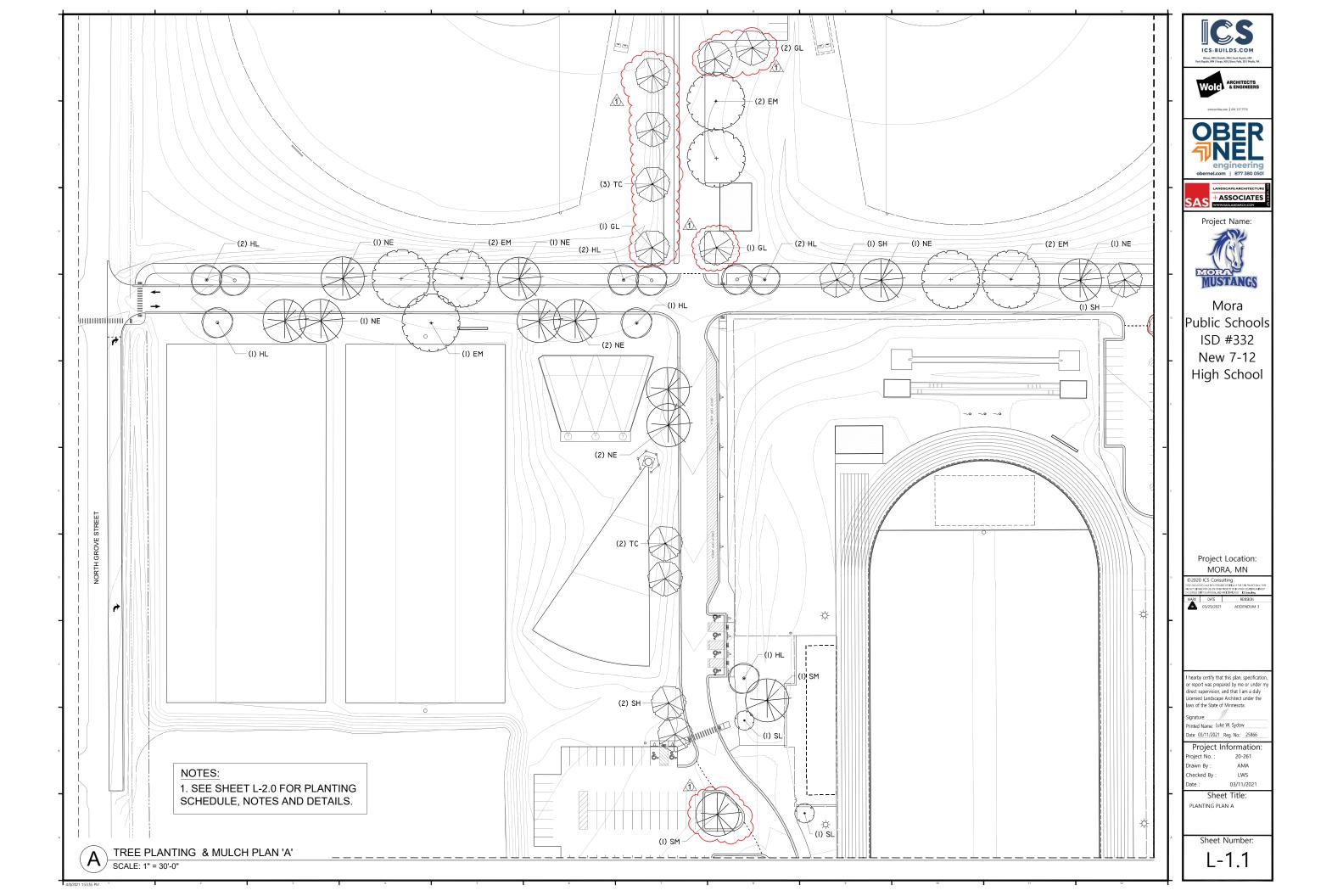


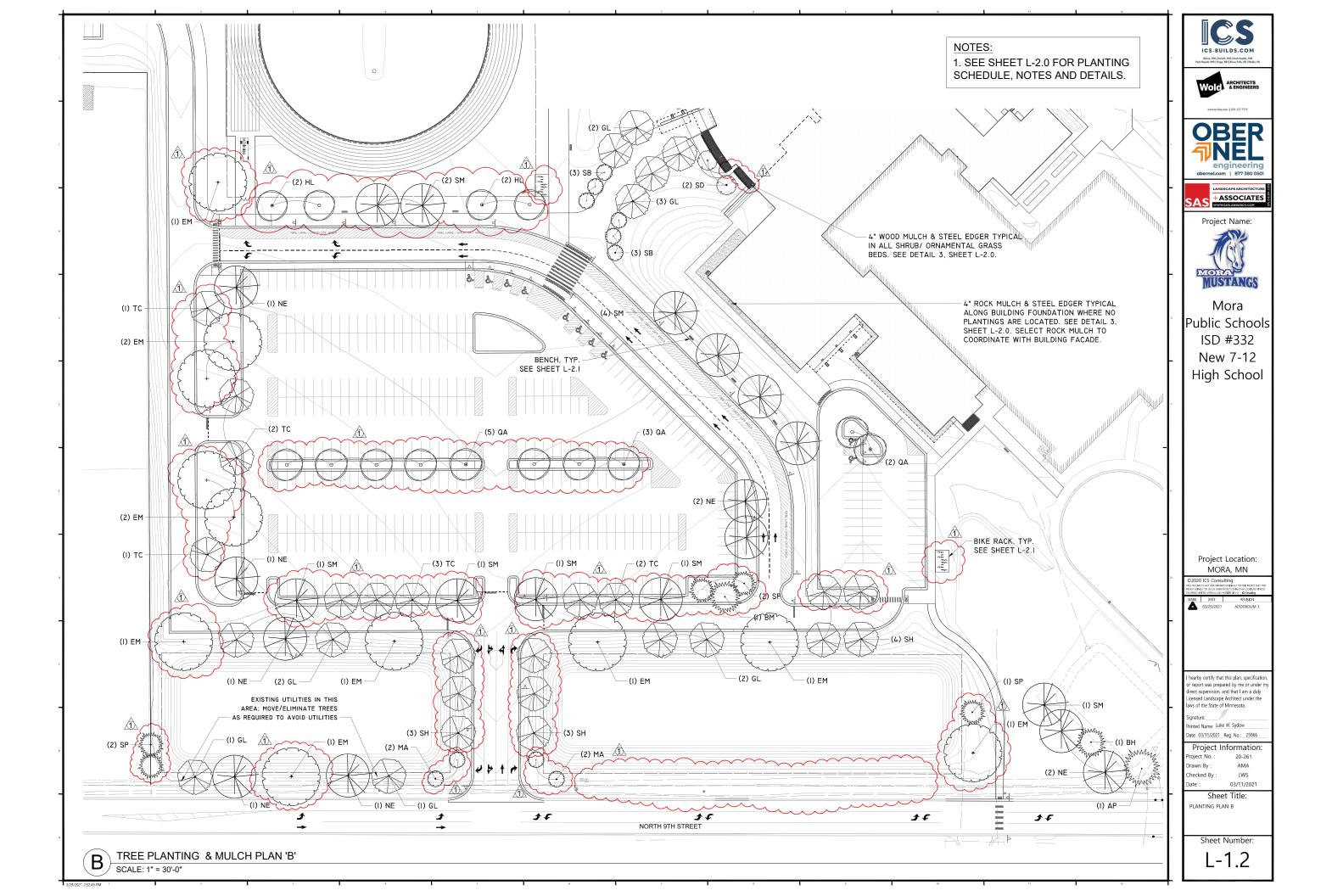


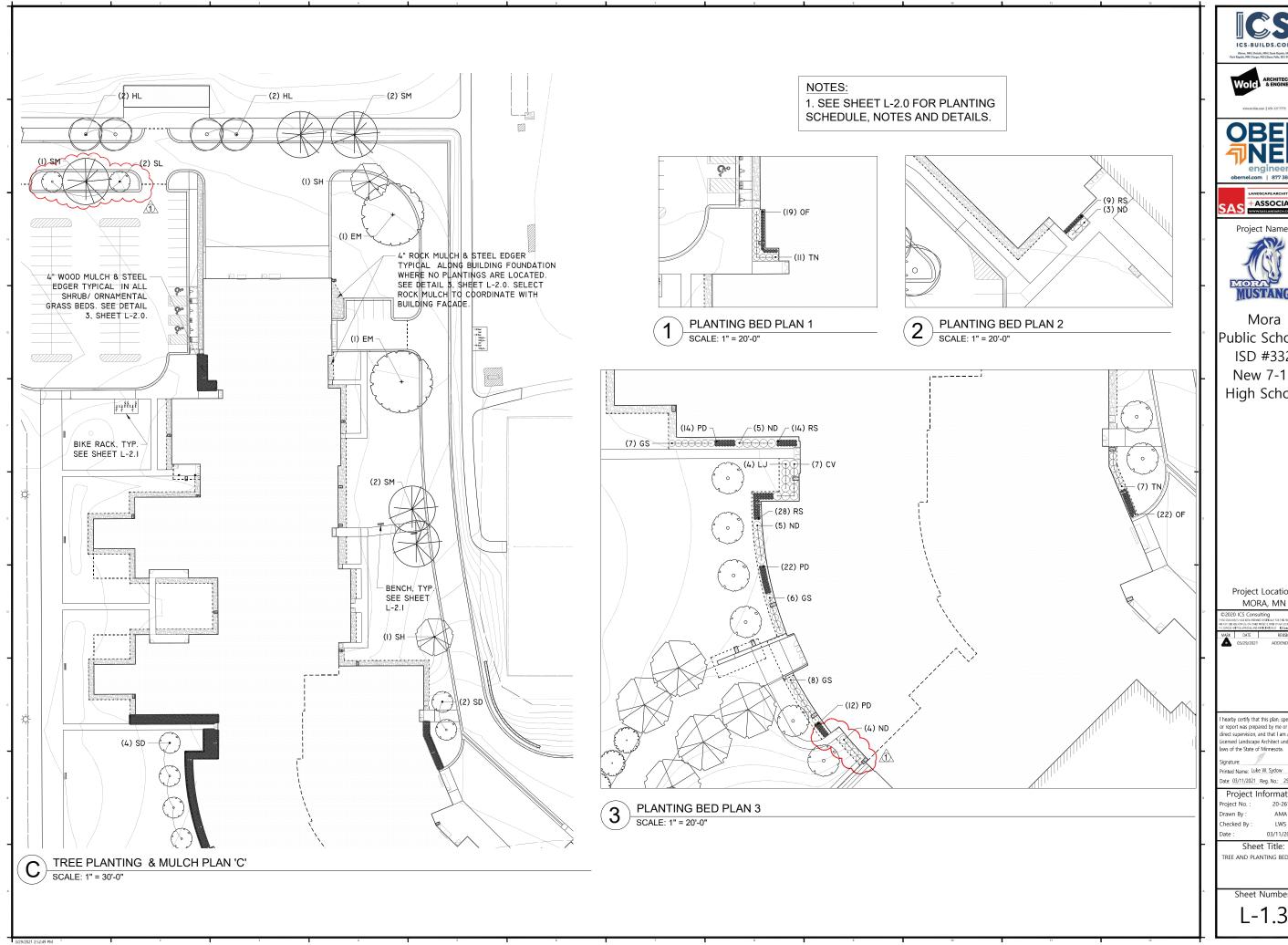




















Project Name:



Mora Public Schools ISD #332 New 7-12 High School

> Project Location: MORA, MN

© 2020 ICS Consulting THESE COLUMNITS HAVE BEEN REPORTED SPECIFICATE FOR THE PROJECT CARY. THEN HAVE BUT SULFAGE FOR USE ON OTHER PROJECTS OF IN OTHER LOCATIONS WITHOUT THE COMPASS BRETTEN APPRIESS. AND ANNICHABITION OF IES Committing. MARK DATE REVISION									
MARK	DATE	REVISION							
Δ	03/29/2021	ADDENDUM 3							

nearby certify that this plan, specification report was prepared by me or under m rect supervision, and that I am a duly ws of the State of Minnesota.

inted Name: Luke W. Sydow ate: 03/11/2021 Reg. No.: 25866

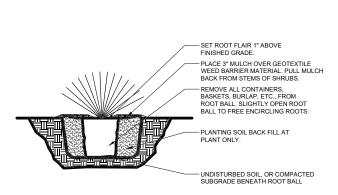
Project Information: 20-261 AMA LWS 03/11/2021

TREE AND PLANTING BED PLANS

Sheet Number:

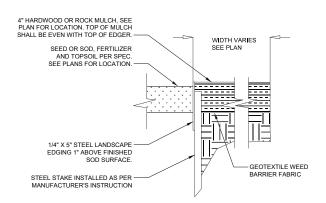
L-1.3

		PLANT MATERIALS LIST				
SYMBOL	COMMON NAME	SCIENTIFIC NAME	QUANTITY	SIZE	ROOT	COMMENTS
$\overline{}$	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	DECIDUOUS TREES	\checkmark	~	$\overline{}$	$\overline{}$
EM	EMERALD LUSTRE MAPLE	ACER PLATANOIDES 'POND'	20	2.5"	B & B	
GL	GREENSPIRE LINDEN	TILIA CORDATA 'GREENSPIRE'	15	2.5"	B & B	1
HL	HARVEST GOLD LINDEN	TILIA MONGOLICA 'HARVEST GOLD'	17	2.5"	B & B)
NE	NEW HORIZON ELM	ULMUS CARPINIFOLIA 'NEW HORIZON'	19	2.5"	B & B	
QA	QUAKING ASPEN	POPULUS TREMULOIDES	10	2.5"	B & B	
SH	SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SKYCOLE'	16	2.5"	B & B)
SM	SIENNA GLEN MAPLE	ACER x FREEMANII 'SIENNA'	18	2.5"	B & B	5
TC	TRUE NORTH COFFEETREE	GYMNOCLADUS DIOICUS 'UMNSYNERGY'	14	2.5"	B & B	_
		ORNAMENTAL TREES	'			,
MA	SHOWY MOUNTAIN ASH	SORBUS DECORA	4	2"	B & B	
SB	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER x GRANDIFLORA 'AUTUMN BRILLIANCE'	6	2"	B & B	SINGLE-STE
SD	SNOWDRIFT FLOWERING CRABAPPLE	MALUS 'SNOWDRIFT'	8	2"	B & B	
SL	SNOWDANCE TREE LILAC	SYRINGA RETICULATA 'BAILNCE'	4	2"	B & B	
		EVERGREEN TREES	'			
AP	AUSTRIAN PINE	PINUS NIGRA	1	8'	B & B	
ВН	BLACK HILLS SPRUCE	PICEA GLAUCA DENSATA	1	6'	B & B	
BM	BLUE MEYER SPRUCE	PICEA MEYERI	I	6'	B & B	
SP	SWISS STONE PINE	PINUS CEMBRA	5	6'	B & B	. /
~ ^		SHRUBS		~~	^	
CV	COMPACT AMERICAN CRANBERRYBUSH VIBURNUM	VIBURNUM TRILOBUM 'BAILEY COMPACT'	7	#5	CONTAINER	
GS	GLOW GIRL SPIREA	SPIRAEA BETULIFOLIA 'TORGOLD'	21	#5	CONTAINER	
LJ	LIME GLOW JUNIPER	JUNIPERUS HORIZONTALIS 'LIME GLOW'	4	#3	CONTAINER	
ND	NEON BURST DOGWOOD	CORNUS ALBA 'BYBOUGHEN'	17	#2	CONTAINER	
TN	TINY WINE NINEBARK	PHYSOCARPUS OPULIFOLIUS 'SMPOTW'	18	#3	CONTAINER	
		ORNAMENTAL GRASS				
PD	PRAIRIE DROPSEED	SPOROBOLUS HETEROLEPSIS 'TARA'	48	#1	CONTAINER	
SG	RED SWITCH GRASS	PANICUM VIRGATUM 'SHENANDOAH'	51	#1	CONTAINER	
FRG	OVERDAM FEATHER REED GRASS	CALAMAGROSTIS x ACUTIFLORA 'OVERDAM'	41	#1	CONTAINER	

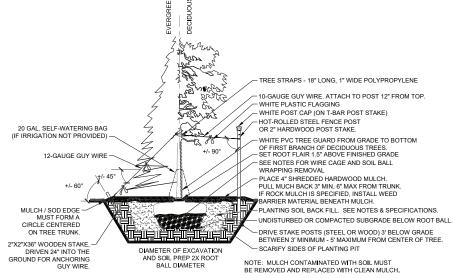


ALL SHRUB BEDS TO HAVE EDGING TO SEPARATE FROM TURF AREAS.

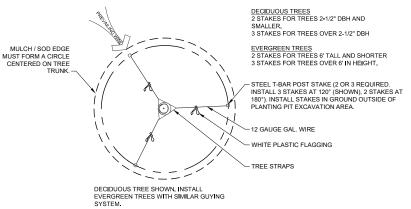
SHRUB PLANTING DETAIL SCALE: NOT TO SCALE



STEEL EDGER DETAIL SCALE: NOT TO SCALE



TREE PLANTING DETAIL SCALE: NOT TO SCALE



TREE GUYING DETAIL SCALE: NOT TO SCALE

PLANTING NOTES:

THESE PLANTING NOTES APPLY TO ALL PLANT AND PLANT-RELATED ASPECTS OF THIS PROJECT. IF THIS PLAN SET CONTAINS A SEPARATE SET OF SPECIFICATIONS, THOSE SEPARATE SPECIFICATIONS SHALL GOVERN.

1) ALL SHRUBS TO BE A MINIMUM OF 3"-0" FROM ALL WALKS OR CURBS (MEASURED FROM THE CENTER OF THE PLANT)

2) EVERGREEN AND DECIDUOUS TREES SHALL BE SUPPORTED WITH A SYSTEM OF HEAVY DUTY T-BAR STEEL POST STAKES, MINIMUM OF 6' IN LENGTH, WITH WHITE T-POST CAPS AND WITH 17-GAUGE GALVANIZED STEEL WIRE GUYS SECURED TO TREE WITH PROFESSIONAL-GRADE STRAPS (DARK GREEN OR BEIGE IN COLOR), SPECIFICALLY DESIGNED FOR TREE GUYING, ABOVE THE FIRST BRANCH OF DECIDUOUS TREES (4' ABOVE GRADE MINIMUM), 4' ABOVE TOP OF ROOT BALL ON EVERGREEN TREES. STAKES SHALL BE 3" MIN, 5" MAXIMUM FROM TRUNK OF TREE. TREE STRAPS TO BE USED SHALL BE SELECTED BASED ON MANUFACTURER'S RECOMMENDATION FOR THE SIZE TREE RECEIVING THE STRAPS, RUBBER HOSE SHALL NOT BE USED. WIRE TO BE TAUT BUT NOT OVER-TIGHT. TREE GUYING SHALL NOT PREVENT TREE FROM SLIGHT SWAYING UNDER NORMAL ENVIRONMENTAL CONDITIONS, WHICH HELPS DEVELOP ROOT AND TRUNK STRUCTURE. FLAG EACH WIRE WITH WHITE PLASTIC FLAGGING TAPE CENTERED ON WIRE, ADD ADDITIONAL FLAG ON WIRES GUYING EVERGREENS 12" ABOVE IN-GROUND STAKE.

3) CONFERS TO HAVE 2 STEEL POST STAKES, WIRES AND STRAPS FOR TREES 6' IN HEIGHT AND LESS, 3 STEEL POST STAKES, WIRES AND STRAPS FOR TREES ABOVE 6' IN HEIGHT, DECIDUOUS TREES TO HAVE 2 STEEL POST STAKES, WIRES AND STRAPS IN HEIGHT. DECIDIOUS TREES TO HAVE 2 STEEL POST STAKES, WIRES AND STRAYS FOR TREES 2-1/2" CALIPER AND LESS, 3 STAKES, WIRES AND STRAYES ABOVE 2-1/2" CALIPER. ONE STAKE SHALL BE ORIENTATED IN THE DIRECTION OF THE PREVAILING WINDS. REMOVE STAKES, GUY WIRES, STRAPS, AND FLAGGING AFTER 1 YEAR FROM DATE OF INITIAL ACCEPTANCE, OR WHEN DIRECTED BY OWNER OR OWNER

4) EACH TREE OR SHRUB, WHETHER CONTAINERIZED OR BALLED AND BURLAPPED, SHALL HAVE THE ROOT FLAIR EXPOSED AND SOIL ABOVE THE LEVEL OF THE ROOT FLAIR REMOVED. SET TREE IN PLANTING PIT WITH ROOT FLAIR 1" ABOVE SURROUNDING SOIL SURFACE. THE PLANTING PIT FOR EACH TREE OR PLANT SHALL BE MEASURED, DUG, VERIFIED AND MODIFIED AS NEEDED TO OBTAIN THE PROPER DEPTH FOR EACH INDIVIDUAL PLANT.

5) TREE SHALL ONLY BE MOVED BY THE BALL / WIRE BASKET. PLUMB TREE ONLY BY THE ROOT BALL. DO NOT PLUMB TREE BY OVERLY / AGGRESSIVELY PULLING OR PUSHING ON TRUNK OR BRANCHES.

6) AFTER TREE HAS BEEN SET IN THE PLANTING PIT TO PROPER GRADE AND PLUMBED, REMOVE TOP \$\frac{1}{2}\$ OF WIRE BASKET. REMOVE TWINE OR ROPE HOLDING BURLAP OR PLASTIC AROUND ROOT BALL. REMOVE AS MUCH PLASTIC WRAPPING OR TREATED BURLAP AS POSSIBLE. IF REGULAR BURLAP CONTAINS THE ROOT BALL, BACKFILL OF PIT, REMOVE TOP OF BURLAP AND COMPLETE BACKFILL. SOIL SHALL BE SETTLÉD AROUND ROOT BALL TO REMOVE LARGE AIR VOIDS WITH WATER. BACKFILL SHALL NOT BE PLACED ON TOP OF ROOTBALL.

7) CARE SHALL BE TAKEN TO INSURE BALL REMAINS INTACT WITH MINIMAL DISTURBANCE TO THE INTEGRITY OF THE SOIL BALL AND / OR TREE ROOTS, SOIL DISTURBANCE TO THE INTEGRITY OF THE SOIL BALL AND / OR TREE ROOTS. SOIL BALLS OF TREES WHICH ARE DEEMED BY THE OWNER OR OWNERS REPRESENTATIVE TO NOT BE OF ADEQUATE INTEGRITY, OR TRUNKS WHICH ARE LOOSE FROM THEIR SOIL BALLS, BEFORE OR AFTER BEING PLACED INTO THE PLANTING PIT, MAY BE REJECTED. CONTRACTOR SHALL PROMPTLY REMOVE REJECTED PLANT MATERIAL FROM SITE AND REPLACE WITH PLANT MATERIAL ORIGINALLY SCHEDULED. INSTALL AS ORIGINALLY SPECIFIED.

8) PLANTING SOIL BACKFILL SHALL BE COMPRISED OF THE FOLLOWING: 50% NATIVE SOIL THOROUGHLY INTERMIXED WITH 50% SPECIFIED TOPSOIL. TOPSOIL IS DEFINED AS FRIABLE LOAM SURFACE SOIL. SATISFACTORY TOPSOIL SHALL BE FREE OF SUBSOIL, LUMPS, STONES AND OTHER MATTER OVER 1" IN DIAMETER: WITHOUT WEEDS, ROOTS, OR OTHER OBJECTIONABLE MATERIAL. SEE #10 BELOW FOR

9) STRIPPING: UNLESS OTHERWISE RECOMMENDED IN SOIL REPORT, STRIP TOPSOIL, IF EXISTING, FROM AREA(S) TO BE GRADED OR PLANTED, TO WHATEVER DEPTHS ENCOUNTERED IN MANNER TO PREVENT INTERMINGLING WITH UNDERLYING SUBSOIL OR OTHER OBJECTIONABLE MATERIAL. STRIPPED TOPSOIL MAY BE RE-USED ON THIS PROJECT IF TESTING CONFIRMS IT IS IN COMPLIANCE WITH THE SPECIFICATIONS

10) TOPSOIL (IMPORTED OR EXISTING RELISED ON SITE) SHALL CONFORM WITH TABLE BELOW, FOR LOAM TOPSOIL BORROW TO BE USED AS A TURE AND PLANT GROWING MEDIUM. COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.

	MINIMUM	MAXIMU
MATERIAL PASSING ¾ IN (19.0 MM)	100%	
MATERIAL PASSING NO.4 (4.75 MM)	≥90%	
CLAY	5%	30%
SILT	10%	60%
SAND & GRAVEL	15%	60%
ORGANIC MATTER	8%	15%

COORDINATE FURNISHING AND PLACING WITH OTHER OPERATIONS.

1 UPON COMPLETION OF ROUGH GRADING, SUB-GRADE SHALL BE PREPARED.
SURFACE SHALL BE LOOSENED BY ROTOTILLING TO MINIMUM DEPTH OF 6", AND MATERIALS OVER 1" IN LARGEST DIMENSION SHALL BE REMOVED.

- AFTER COMPLETION OF SUB-GRADE PREPARATION, PLACE MINIMUM
 4" SETTLED MEASURE DEPTH OF TOPSOIL OVER ENTIRE AREA TO RECEIVE
 SOD UNLESS OTHERWISE NOTED. SMOOTH GRADE TO WITHIN 1-34" OF FINISH
 GRADE AFTER SETTLEMENT TO ELIMINATE IRREGULARITIES. FINISHED GRADE SHALL BE SET SUCH THAT NEW SOD SURFACE IS 1" BELOW FINISHED SIDEWALK OR BACK OF CURB EDGE.
- SIDEWALK OR BACK OF CORE BUSE.
 INTERMIX TOPSOIL MIXTURE WITH LOOSENED SUB-GRADE BY MEANS OF A
 ROTOTILLER.
 PLANTING SOIL FOR ALL PLANT MATERIAL (EXCLUDING SOD), SHALL BE 50%
 NATIVE SOIL THOROUGHLY INTERMIXED WITH 50% SPECIFIED TOPSOIL.

11) ADD 3" OF SELECT PLANTING SOIL TO AREAS TO RECEIVE SOD. TILL PLANTING SOIL INTO EXISTING SOILS TO A DEPTH OF 6" PRIOR TO PLACEMENT OF PLANTING SOIL, REMOVE ALL STONES, STICKS AND OTHER DEBRIS MEASURING MORE THAN 1" FROM AREAS TO RECEIVE SOD.

12) SOIL AMENDMENTS TO BE SPREAD EVENLY OVER AREA AT A RATE OF 4 CY./1,000 SF AND MIXED THOROUGHLY INTO SOIL SURFACE. PROVIDE OWNERV LANDSCAPE ARCHITECT PROPOSED PRODUCT PRIOR TO INSTALLATION; INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

13) FABRIC WEED BARRIER - SHALL BE A 4 OZ. SPUNBONDED NON-WOVEN POLYESTER FABRIC, MIRAFI, INC. - MIRASCAPE LANDSCAPE FABRIC OR APPROVED EQUAL. PROVIDE SAMPLE TO OWNERS REPRESENTATIVE FOR APPROVAL. PERENNIAL AND GROUND COVER BEDS DO NOT RECEIVE WEED CONTROL FABRIC.

14) MULCH SHALL BE SHREDDED HARDWOOD OR ROCK MULCH AS NOTED ON PLAN AND/ OR DETAILS. SUBMIT SAMPLES FOR APPROVAL. MINIMUM 4" DEPTH.

15) ALL PLANTING BEDS TO BE EDGED WITH 5" TALL X 1/4" WIDE STEEL EDGER (BLACK)

16) THE TREES/SHRUBS AND SOD/SEED AREAS ARE TO BE MAINTAINED (WATERING MOWING, FERTILIZING) UNTIL THE OWNER ACCEPTANCE AND THE WARRANTY PERIOD









Project Name:



Mora Public Schools ISD #332 New 7-12 **High School**

> Project Location: MORA, MN

020 ICS Consulting

report was prepared by me or under ect supervision, and that I am a duly ws of the State of Minnesota.

inted Name: Luke W. Sydow

rte: 03/11/2021_ Reg. No.: _ 25866 Project Information: oject No. : 20-261 awn By AMA hecked By : LWS 03/11/2021

> Sheet Title PLANTING SCHEDULE, DETAILS & NOTES

Sheet Number: