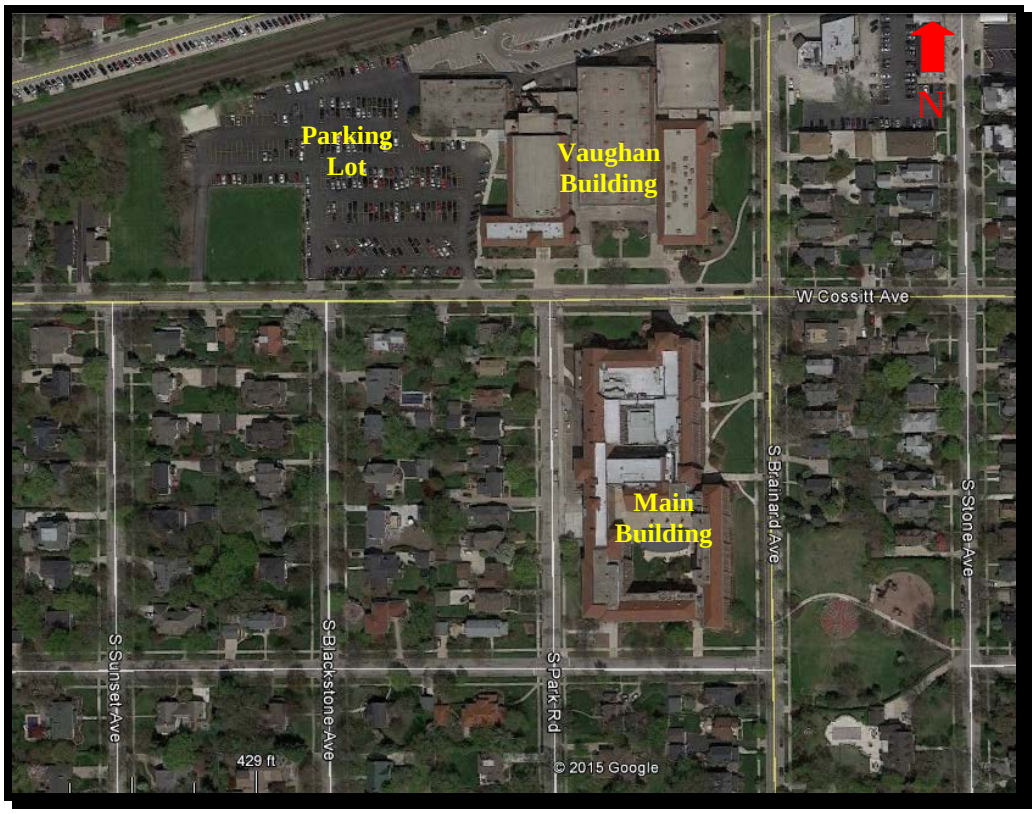
Traffic Circulation & Pedestrian Safety Study

Lyons Township High School North Campus

La Grange, Illinois



Prepared for:

Prepared by:

July 23, 2015

Contents

List of Figures, iii

1. Introduction 1

2. Existing Conditions 3
   - Street System Characteristics 3
   - North Campus School Hours, Population and Travel Mode 4
   - School Bus Circulation and Loading 6
   - Student Drop-off and Pick-up 7
   - Pedestrian Street Crossings 7
   - School Parking 9
   - Significant Issues and Concerns 9

3. Circulation Options / Pedestrian Safety Measures 10
   - Option 1 – Pedestrian Safety Enhancements 10
   - Option 2 – Designated Drop-off/Pick-up Zones 13
   - Option 3 – Relocation of Bus Staging 15

4. Conclusions and Next Steps 21

List of Figures

1. Aerial View of LTHS North Campus Study Area 2
2. Existing Traffic Controls and Parking Regulations 5
3. Existing School Traffic and Pedestrian Volumes 8
4. Proposed Circulation & Bus Staging Plan (Option 1) 11
5. Proposed Circulation & Bus Staging Plan (Option 1-Alternate Curb Treatment) 12
6. Proposed Circulation & Bus Staging Plan (Option 2) 14
7. Proposed Circulation & Bus Staging Plan (Option 3) 16
8. School Bus Maneuvering Diagram (Option 3) 18
9. Proposed Circulation & Bus Staging Plan (Option 3-Alternate Bus Arrangement) 19

1.
Introduction

This report summarizes the findings and recommendations of a Traffic Circulation and Pedestrian Safety Study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the North Campus of Lyons Township High School (LTHS) in La Grange, Illinois. **Figure 1** shows an aerial map of the LTHS North Campus and project study area.

This study was jointly sponsored by the Village of La Grange and Lyons Township High School District 204.

The purpose of the study is two-fold:

1. To develop an organized traffic circulation plan for student drop-off/pick-up.
2. To identify measures to reduce vehicular-pedestrian conflicts and increase safety for the high volume of pedestrians that cross Cossitt Avenue between the main school building on the south side of the street and the Vaughan Building and staff-visitor parking lot on the north side of the street.

The following chapters of this report include (1) an assessment of existing conditions, and (2) a description of potential pedestrian safety measures and school traffic circulation options.

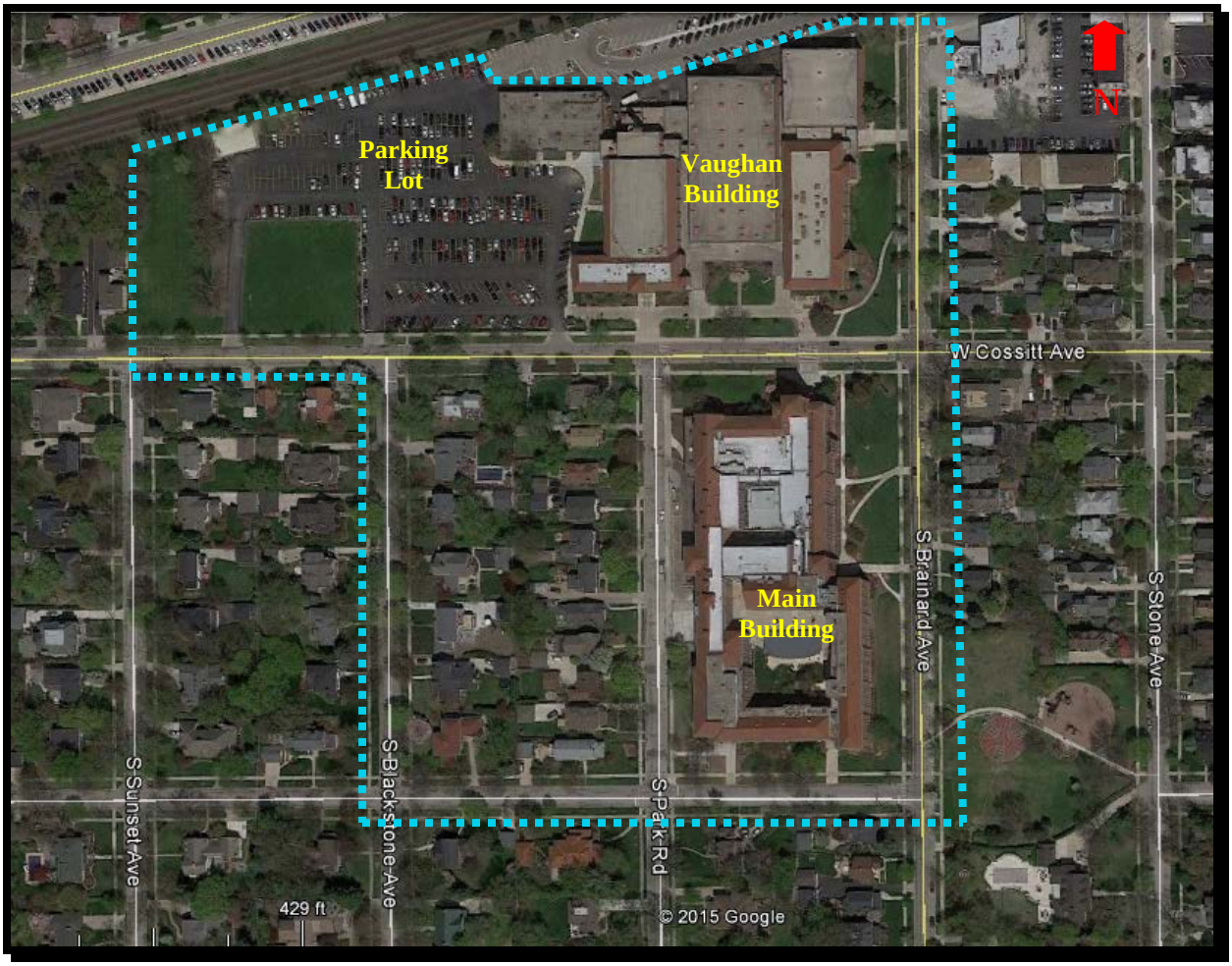


Figure 1
Aerial View of LTHS North Campus Study Area

2.
Existing Conditions

KLOA, Inc. conducted field reconnaissance of the LTHS North Campus study area and observed traffic and pedestrian conditions to document the current street design, traffic controls, school bus loading, drop-off/pick-up volumes, pedestrian volumes, parking conditions, and pedestrian safety measures. The reconnaissance was conducted during the school start and dismissal times prior to the end of the 2015 Spring Semester. The data collected provided a basis for developing the circulation options and pedestrian safety measures discussed in Chapter 3. Seven components of existing conditions are summarized below.

1. Characteristics of the key streets surrounding the LTHS North Campus
2. North Campus school hours, population and travel mode
3. School bus circulation and loading
4. Student drop-off and pick-up
5. Pedestrian street crossings
6. School parking
7. Significant issues and concerns

Street System Characteristics

The LTHS North Campus is located just south of the BNSF rail line along the west side of Brainard Avenue. The area surrounding the campus is predominantly residential to the east, south and west. The characteristics of the key streets providing access to the North Campus are described below.

Brainard Avenue is a north-south, two-lane roadway in the study area with one lane in each direction and a striped parking lane along the east side of the street. Through the study area Brainard Avenue is under the jurisdiction of the Village of La Grange and is classified by the Village as a collector street. Brainard Avenue carries approximately 6,200 vehicles per day (vpd) and is approximately 30 feet wide with sidewalks along both sides of the street. There is an unprotected crosswalk on Brainard Avenue at Elm Avenue that is supported with pedestrian crossing signs and advance pedestrian crossing signs. The posted speed limit on Brainard Avenue is 30 miles per hour (mph), except along the North Campus frontage where there is a 20 mph school speed zone on school days. Parking is prohibited along both sides of Brainard

Avenue from the BNSF rail line south to Elm Avenue, but two-hour parking is permitted along the east side of the street between 10:00 A.M. and 5:00 P.M., Monday through Friday, to the north of the rail line and south of Elm Avenue.

Cossitt Avenue is an east-west, two-lane roadway in the study area with one lane in each direction. Through the study area Cossitt Avenue is under the jurisdiction of the Village of La Grange and is classified by the Village as a collector street. Cossitt Avenue carries approximately 2,750 vpd and is approximately 30 feet wide with sidewalks along both sides of the street. The intersection of Cossitt Avenue with Brainard Avenue is under multiway stop control and there are crosswalks on both approaches of Brainard Avenue and the west approach of Cossitt Avenue. There are unprotected crosswalks on Cossitt Avenue at Park Avenue and mid-block between Brainard Avenue and Park Avenue, neither of which is supported with the most current pedestrian crossing signs. There is a 20 mph school speed zone on Cossitt Avenue along the North Campus frontage and parking is prohibited along both sides of Cossitt in the vicinity of the North Campus.

Park Avenue is a north-south, two-lane local street that is under the jurisdiction of the Village of La Grange. Park Avenue is approximately 30 feet wide with sidewalks along both sides of the street. The intersection of Park Avenue with Cossitt Avenue is under stop control on Park and there are crosswalks on all three approaches of the intersection. The posted speed limit on Park Avenue is 25 mph. Parking is prohibited along the east side of the street and restricted along the west side of the street between 8:00 A.M. and 4:00 P.M., Monday through Friday.

Elm Avenue is an east-west, two-lane local street that is under the jurisdiction of the Village of La Grange. Elm Avenue is approximately 30 feet wide with sidewalks along both sides of the street. The intersections of Elm Avenue with Brainard Avenue and Park Avenue are under stop control on Elm and there are crosswalks on Elm at both of these intersections. The posted speed limit on Elm Avenue is 25 mph. Parking is prohibited along both sides of the street between Brainard Avenue and Park Avenue, and along the south side of the street between Park Avenue and Blackstone Avenue. Parking is restricted between 8:00 A.M. and 4:00 P.M. on school days on both sides of Elm Avenue to the west of Blackstone Avenue and on the north side of Elm Avenue between Park Avenue and Blackstone Avenue.

The existing traffic controls and parking regulations on the study area roadways are shown in **Figure 2**.

North Campus School Hours, Population and Travel Mode

The following points describe the school hours, population and travel modes at North Campus:

- On a regular school day, classes at North Campus start at 7:45 A.M. and dismiss at 2:59 P.M. On late start days, classes start at 8:45 A.M. and dismiss at 3:04 P.M.
- The North Campus serves approximately 2,016 students in the 11th and 12th Grades.

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

EXISTING TRAFFIC CONTROLS & PARKING REGULATIONS

FIGURE NO.
2

- Approximately 27% of the student population resides in La Grange, with the remaining students residing in Western Springs (19%), La Grange Park (17%), Brookfield (13%), Countryside (9%), La Grange Highlands (3%), Burr Ridge (3%), Indian Head Park (3%), Willow Springs (3%), Hodgkins (2%), and McCook (1%).
- Approximately 62% of the student population (1,250 students) is eligible to ride the bus; the remaining 38% of students are dropped-off/picked up, walk, bike, or drive and park either around the West Field athletic area (Area H decal parking area) or in the Village's commuter parking lots (i.e., Lot 13, Hillgrove Avenue) if permits are purchased.
- There are 275 faculty/staff members at North Campus.
- Approximately 95% of faculty/staff drive to North Campus and are issued permits to park in the school's parking lot. The remaining 5% of faculty/staff take Metra or walk to campus.

School Bus Circulation and Loading

There are approximately 27 school buses that serve the North Campus. The buses arrive between 7:15 and 7:45 A.M. during the regular schedule morning arrival period. During the regular schedule afternoon dismissal period, buses arrive and depart in two 13-14 bus shifts, with the first shift arriving prior to the dismissal period and leaving by 3:20 P.M. and the second shift arriving after 3:15 P.M. and leaving by 3:30 P.M.

The buses approach the campus from Brainard Avenue and turn west onto Elm Avenue. The buses use the Elm Avenue curbfront adjacent to the main building for loading and unloading, or turn north on Park Avenue and use the Park Avenue curbfront adjacent to the main building for loading and unloading.

In the morning, buses were observed to approach, unload students, and depart the campus within a quick two-to-three minute period, and all but one of the buses used the Elm Avenue curbfront to unload. When departing the campus, 80 percent of the buses were observed to continue west on Elm Avenue with the remaining 20 percent turning south on Park Avenue.

In the afternoon, buses stage on-site for a longer period, which requires use of both the Elm Avenue and Park Avenue curbfronts and necessitates a staggered bus arrival/departure schedule. Buses that arrived in the first shift were staged at the curb for approximately 15-20 minutes. Buses that arrived in the second shift were only on-site for two to three minutes. Approximately 25-30 percent of the buses used Elm Avenue to load students, with the remaining buses using Park Avenue. Of the buses that loaded on Elm Avenue, 75 percent were observed to depart the campus by continuing west on Elm Avenue, with the remaining buses turning south on Park Avenue. Of the buses that loaded on Park Avenue, 50 percent turned east on Cossitt Avenue and the other 50 percent turned west on Cossitt.

Student Drop-off and Pick-Up

There is no specified drop-off and pick-up procedure at the North Campus. Further, due to temporary street closures on school days and posted parking regulations by District 204 and the Village of La Grange, there are no legal drop-off and pick-up locations adjacent to the school. The school utilizes minicades with Do Not Enter signs or Stop signs to restrict access to Elm Avenue (between Brainard Avenue and Park Avenue) and Park Avenue (between Cossitt Avenue and Elm Avenue) during bus arrival and departure times, which limits drop-off/pick-up activity on the west and south sides of the school. School policies and Village parking regulations prohibit parking, stopping, standing, and drop-off/pick-up on Cossitt Avenue (between Brainard Avenue and Park Avenue), which limits drop-off/pick-up activity on the north side of the school. Village parking regulations on Brainard Avenue prohibit drop-off/pick-up on the east side of the school, and parking regulations on Cossitt Avenue (west of Park Avenue), Elm Avenue, Blackstone Avenue, and Park Avenue restrict drop-off/pick-up activity further west and south of the school.

As a result of these temporary street closures and parking regulations, dropping off and picking up students close to the school can be challenging and results in these activities occurring in illegal locations, such as along Cossitt and in the striped lane on the east side of Brainard.

Observations performed on Wednesday, May 20, 2015 indicated that 163 drop-offs occurred on the section of Cossitt Avenue between Brainard Avenue and Park Avenue during the morning arrival period, as shown in **Figure 3**, while 246 pick-ups occurred on this section of Cossitt during the afternoon pick-up period. In the “no parking zone” on Cossitt Avenue to the west of Park Avenue, there were 28 drop-offs observed in the morning and 29 pick-ups observed in the afternoon. There were 69 drop-offs observed in the morning and 34 pick-ups observed in the afternoon in the “no parking zone” on Brainard Avenue.

Pedestrian Street Crossings

Since the two buildings on the North Campus are bisected by Cossitt Avenue, a substantial volume of students and staff cross Cossitt Avenue to travel between the two buildings and to reach the staff parking lot adjacent to the north (Vaughan) building, despite the pedestrian tunnel that exists between the two buildings. As noted previously, there are two unprotected crosswalks on Cossitt Avenue that are used by these pedestrians, one at Park Avenue and the other mid-block between Brainard Avenue and Park Avenue. Observations performed on Wednesday, May 20, 2015 indicated that there were a total of 920 pedestrian crossings on Cossitt Avenue during the morning arrival period and 815 pedestrian crossings on Cossitt during the afternoon dismissal period, as shown in Figure 3.

Further, since the east side of Brainard Avenue is used for drop-offs and pick-ups, a significant volume of students cross Brainard at the unprotected crosswalk at Elm Avenue. Observations from May 20, 2015 indicated that 142 pedestrians crossed this section of Brainard during the morning arrival period and 117 pedestrians crossed Brainard during the afternoon dismissal period.

KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

EXISTING DROP-OFF/PICK-UP TRAFFIC VOLUMES AND PEDESTRIAN CROSSING VOLUMES

FIGURE NO.
3

School Parking

There is one off-street parking lot at the North Campus, located immediately west of the Vaughan Building, that is currently reserved for staff and visitors. The lot contains 359 marked parking stalls. Students with cars must park off-campus and have the option of obtaining an Area H decal to park on Cossitt Avenue and Elm Avenue adjacent to the West Field athletic area, purchase a commuter parking decal from the Village to park in Lot 13 (immediately north of the Vaughan Building) or along Hillgrove Avenue, or find unregulated on-street parking more distant from the campus.

Significant Issues and Concerns

Based on our field observations of existing traffic and pedestrian patterns at the North Campus, there are several issues that should be addressed to reduce the potential for vehicular-pedestrian conflicts and to increase compliance with the posted parking regulations and school drop-off/pick-up policies. These issues are as follows:

- The lack of a dedicated student drop-off/pick-up zone(s) adjacent to the school results in drop-off/pick-up violations along Cossitt Avenue, parking violations along Brainard Avenue, and high volumes of pedestrians crossing Brainard Avenue at unprotected locations.
- The unprotected crosswalks on Cossitt Avenue and Brainard Avenue increase the potential for vehicular-pedestrian conflicts.
- The wide (30-foot) two-lane cross-section on Cossitt Avenue allows for illegal drop-off/pick-up activity to occur along the curb lane without impeding through traffic.
- Drop-offs/pick-ups near the mid-block crosswalk on Cossitt Avenue can block access to the crosswalk or impair the sight lines between motorists and pedestrians.
- Drop-off/pick-up traffic and afternoon school buses circulate through the heavily-utilized unprotected crosswalks on Cossitt Avenue when departing the campus.
- The school does not utilize traffic aides to assist bus operations, control traffic at the unprotected pedestrian crossings, or enforce the parking and drop-off/pick-up policies on Cossitt Avenue.

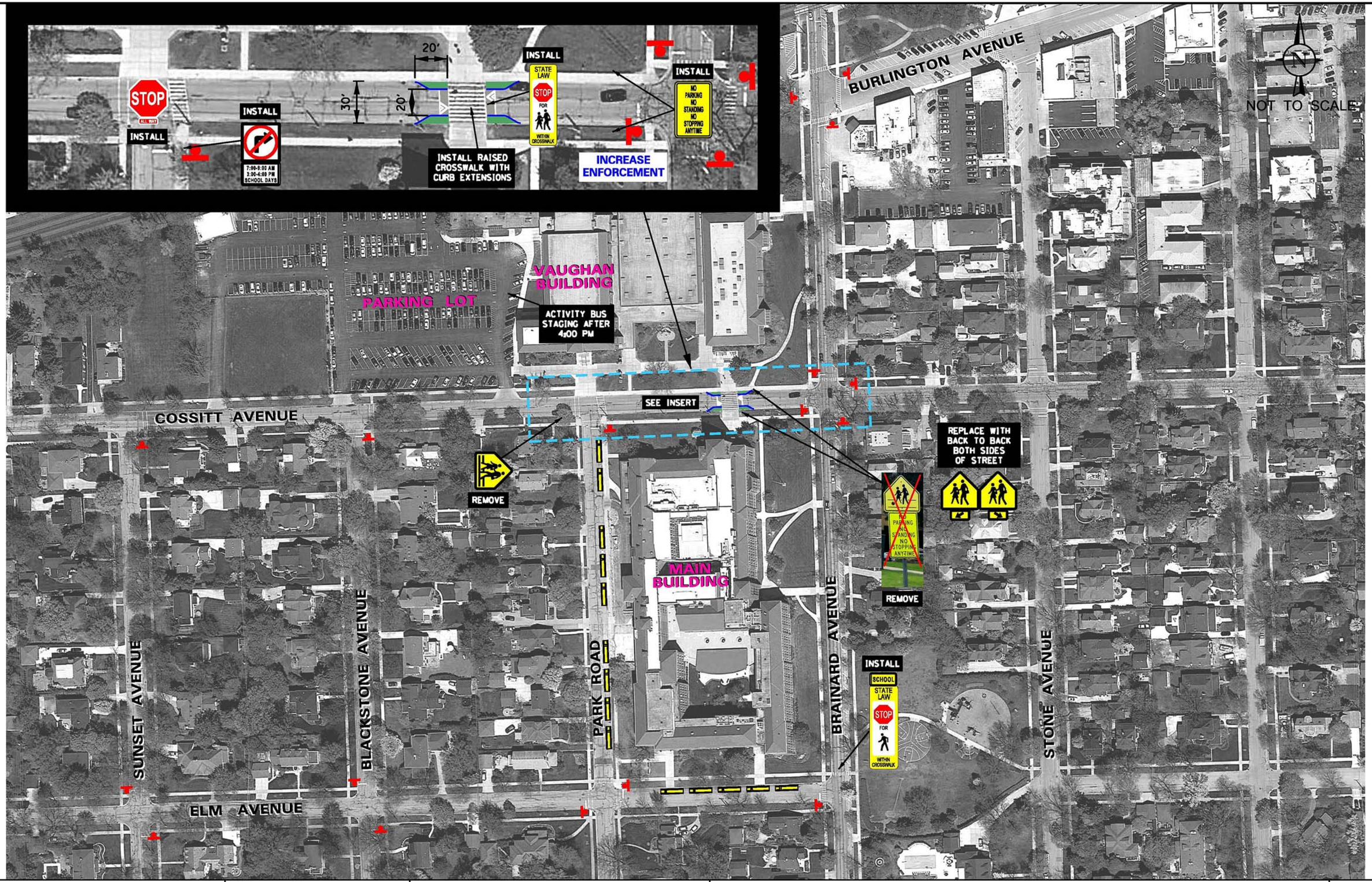
3.
Circulation Options / Pedestrian Safety Measures

Recommendations to address the significant issues and concerns observed at the North Campus have been developed in the form of three options. Each of the three options has a different area of focus, including pedestrian measures, drop-off/pick-up accommodations, and school bus circulation/staging. The intent is to achieve consensus on a preferred solution to better organize vehicular circulation on campus while reducing vehicular-pedestrian conflicts and increasing pedestrian safety. It is anticipated that the preferred solution may be a hybrid reflecting a combination of various elements from one or more of the options. The details of each option are highlighted below.

Option 1 – Pedestrian Safety Enhancements

The intent of Option 1 is to minimize changes to the current bus staging and student drop-off/pick-up operation while implementing measures to maximize pedestrian safety. Option 1 is illustrated in **Figure 4** and involves the following measures:

- Install a raised crosswalk at the mid-block pedestrian crossing on Cossitt Avenue with curb extensions that narrow the crossing width to 20 feet.
- Alternatively, extend the curbline by 5 feet along both sides of Cossitt Avenue for the full length of the block between Park Avenue and Brainard Avenue to narrow the pedestrian crossing width to 20 feet and reduce the potential for motorists to drop-off and pick-up along the curb (see **Figure 5**). Crosswalk would not be raised.
- Replace the existing school crossing signage at the mid-block crossing on Cossitt Avenue with the most current standards from the *Manual on Uniform Traffic Control Devices* (MUTCD), including school crossing signage with a diagonal downward pointing arrow. These signs should be posted back-to-back on each side of the crossing so that the signs on both sides of the street face both directions of travel on Cossitt Avenue.
- Install an In-Street Schoolchildren Crossing sign on the centerline of the raised crosswalk.
- Install an additional “No Parking, No Standing, No Stopping Anytime” sign on both sides of Cossitt Avenue between the mid-block crossing and Brainard Avenue.



KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

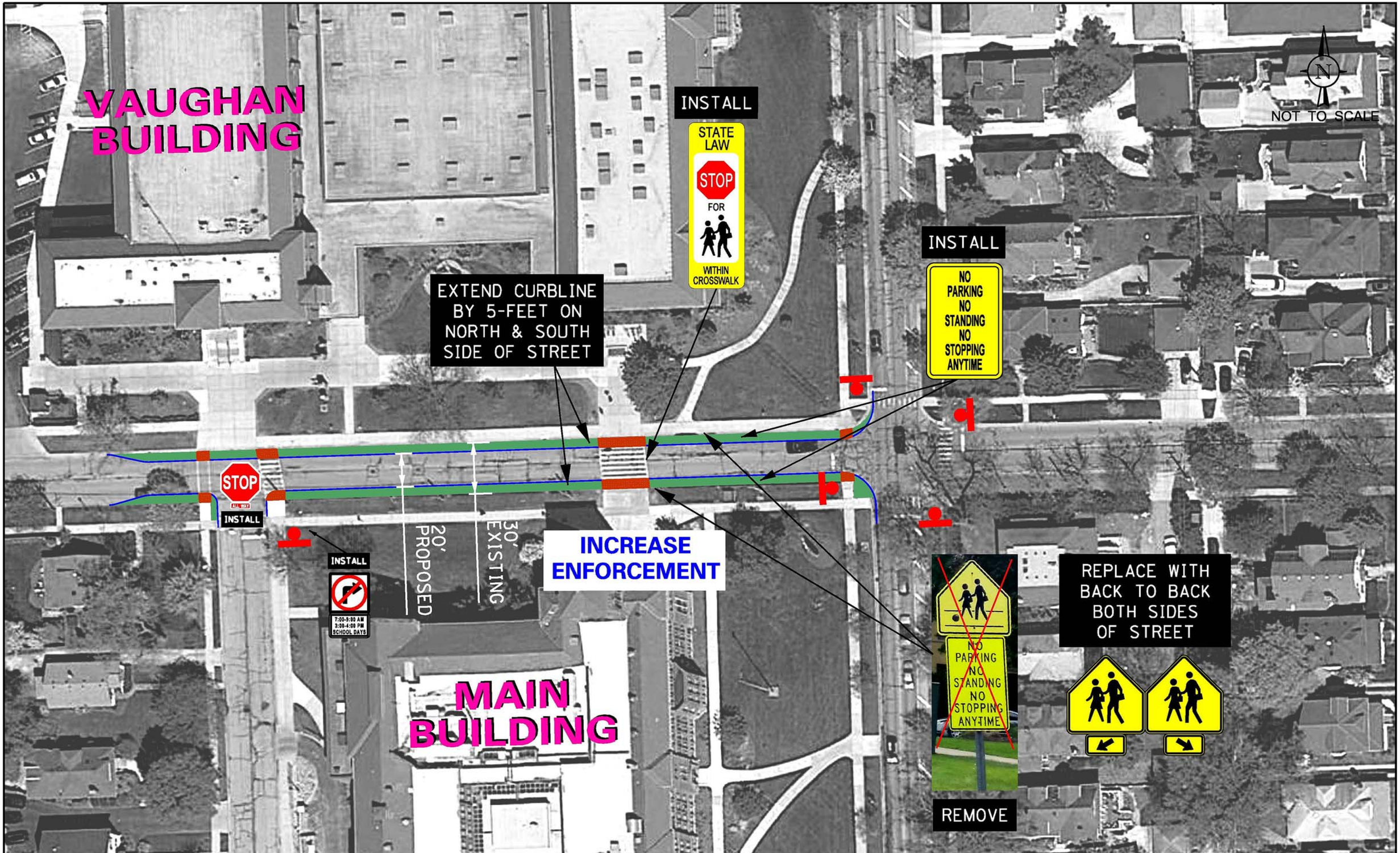
PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

PROPOSED CIRCULATION & BUS STAGING PLAN
OPTION 1 – PEDESTRIAN SAFETY ENHANCEMENTS ONLY

FIGURE NO.
4



KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

PROPOSED CIRCULATION & BUS STAGING PLAN
OPTION 1 – (ALTERNATE COSSITT AVE CURB TREATMENT)

FIGURE NO.
5

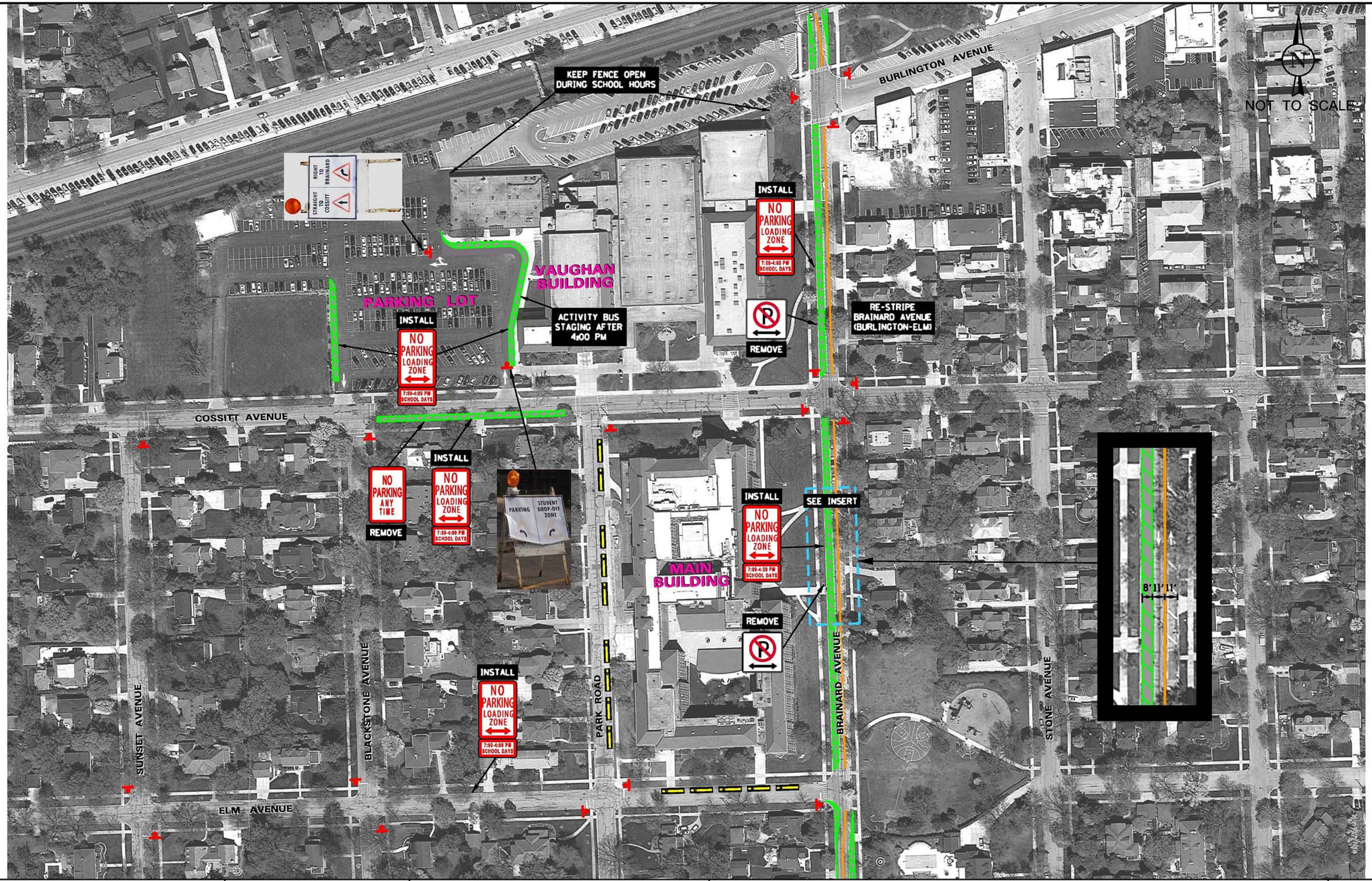
- Utilize school staff to enforce the "No Parking, No Standing, No Stopping Anytime" regulations along Cossitt Avenue between Park Avenue and Brainard Avenue.
- Install stop signs on both approaches of Cossitt Avenue at Park Avenue to create a multiway stop condition that provides protected pedestrian crossings at the intersection.
- Install "No Right Turn" signage on Park Avenue at Cossitt Avenue with supplementing signage indicating that the regulation is in effect on School Days from 7:00-9:00 A.M. and from 3:00-4:00 P.M.
- Remove the existing pedestrian crossing sign on eastbound Cossitt Avenue at Park Avenue.
- After 4:00 P.M., relocate the afternoon activity bus staging to the parking lot. Use the east curb adjacent to the Vaughan Building.
- Install an In-Street Pedestrian Crossing sign with School plaque on the centerline of the Brainard Avenue crosswalk at Elm Avenue.

Option 1 would result in no parking loss within the school's parking lot and no changes in traffic operations or parking regulations on Brainard Avenue and Elm Avenue.

Option 2 – Designated Drop-off/Pick-up Zones

The intent of Option 2 is to minimize changes to the current bus staging operation while creating designated student drop-off/pick-up zones along the school frontage or as proximate to the school frontage as possible. Option 2 is illustrated in **Figure 6** and involves the following measures:

- Relocate the striped out lane on Brainard Avenue from the east side of the street to the west side of the street between Burlington Avenue and Elm Avenue. Utilize pavement markings on Brainard Avenue to the north of Burlington Avenue and to the south of Elm Avenue to transition the striped lane back to the east side of the street.
- Install signage along the striped lane on Brainard Avenue designating the lane as a school loading zone on school days from 7:00 A.M.-4:00 P.M. The loading zone would accommodate approximately 17 cars to the north of Cossitt Avenue and 25 cars to the south of Cossitt Avenue.
- Install similar pavement striping on the south side of Cossitt Avenue (between Park Avenue and Blackstone Avenue) and on the north side of Elm Avenue (between Park Avenue and Blackstone Avenue) and install similar signage designating these lanes as school loading zones on school days. The loading zone would accommodate approximately 11 cars on Cossitt Avenue and 11 cars on Elm Avenue.
- Remove "No Parking" signs from the west side of Brainard Avenue (Burlington Avenue-Elm Avenue), south side of Cossitt Avenue (Park Avenue-Blackstone Avenue), and north side of Elm Avenue (Park Avenue-Blackstone Avenue).



KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

PROPOSED CIRCULATION & BUS STAGING PLAN
OPTION 2 – DESIGNATED DROP-OFF/PICK-UP ZONES

FIGURE NO.
6

- Within the parking lot, replace the 28 parking spaces along the curb adjacent to the Vaughan Building with diagonal pavement striping. Install signage designating the lane as a school loading zone on school days from 7:00 A.M.-4:00 P.M. The loading zone would accommodate approximately 13 cars.

- Use the Cossitt Avenue east drive for entry to the parking lot school loading zone and the Cossitt Avenue center drive (opposite Blackstone Avenue) for exit from the parking lot.

- Open the fence to the service drive on the north side of the Vaughan Building during school arrival and dismissal times to give drop-off/pick-up traffic in the parking lot the option of exiting directly onto Brainard Avenue (opposite Burlington Avenue).

- Utilize signage at the west end of the parking lot loading zone to guides drop-off/pick-up traffic to either the Cossitt Avenue exit or the Brainard Avenue exit.

- Within the parking lot, install signage along the striped lane on the Cossitt Avenue center drive designating the lane as a school loading zone on school days from 7:00 A.M.-4:00 P.M. The loading zone would accommodate approximately 8 cars.

- After 4:00 P.M., relocate the afternoon activity bus staging to the parking lot. Use the east curb adjacent to the Vaughan Building.

The proposed school loading zones in Option 2 would provide curb space for a total of approximately 85 vehicles to drop-off or pick-up students at any given time. It should be noted that District 204 implemented a similar school loading zone within the parking lot during Summer 2015 while Cossitt Avenue was being resurfaced.

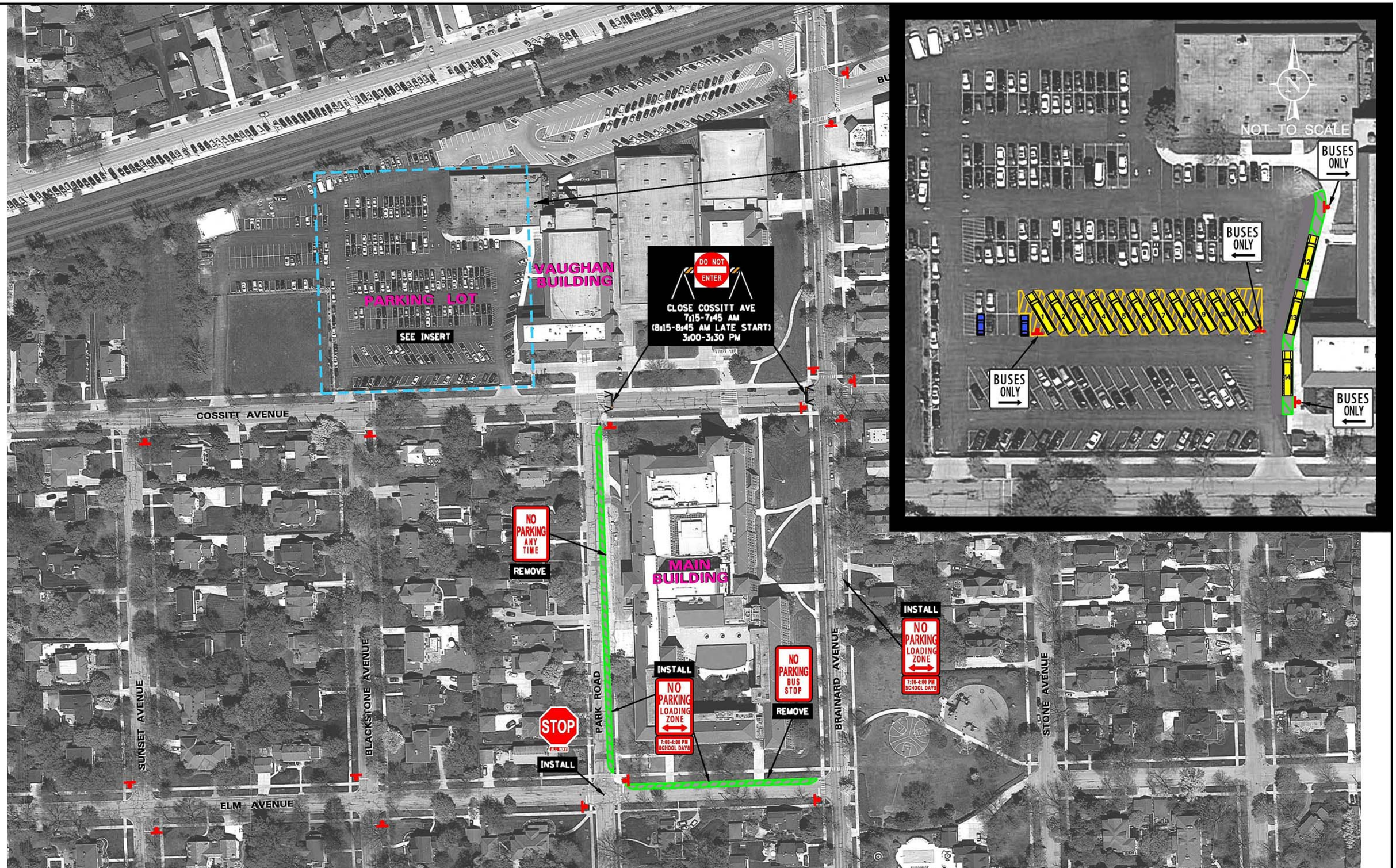
Option 2 would result in the loss of 28 spaces in the parking lot. Based on a faculty/staff size of 275 people of which 95 percent drive to campus, there is a need for 261 staff parking spaces. The lot also provides nine visitor parking spaces and eight reserved spaces for school vans and grounds keeping vehicles. Assuming that the visitor parking supply is sufficient and school policies will continue to restrict students from parking in the lot, the North Campus would have a minimum parking need for 278 spaces. The loss of 28 parking spaces in the lot would reduce the parking capacity of the lot to 331 spaces, which would still be more than adequate to meet the needs of the school.

Option 3 – Relocation of Bus Staging

The intent of Option 3 is to relocate the bus staging operation to create a designated student drop-off/pick-up zone along the school frontage without modifying the pavement striping pattern on Brainard Avenue. Option 3 is illustrated in **Figure 7** and involves the following measures:

- Relocate the bus loading and unloading operations to the school's parking lot.

- Replace 41 of the spaces within the parking lot's southernmost perpendicular parking bay with 11 bus loading spaces. Install signage designating the spaces for "Buses Only".



KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

PROPOSED CIRCULATION & BUS STAGING PLAN
OPTION 3 – RELOCATION OF BUS STAGING

FIGURE NO.
7

- Within the parking lot, replace the 16 parking spaces along the east curb adjacent to the Vaughan Building with diagonal pavement striping. Install signage designating the lane for "Buses Only". The lane would provide space for 3-4 buses at a time and would be the preferred location for bus unloading in the morning.

- Buses would use the Cossitt Avenue east drive for entry to the parking lot and the Cossitt Avenue center drive (opposite Blackstone Avenue) for exit from the lot. **Figure 8** shows an example of the school bus maneuvers into and out of the angled loading spaces.

- Alternatively, extend the 8-foot wide sidewalk on the south side of the Applied Technology/Industrial Arts wing of the Vaughan building 170 feet to the west to create a longer protected loading zone for school buses. This extended space could accommodate up to 11 buses. In addition, replace the landscaping on the west side of the parking lot's center drive (opposite Blackstone Avenue) with an 8-foot wide sidewalk, and use this space for additional bus loading in the afternoon. The space could support up to 4 buses. This alternative is illustrated in **Figure 9**. This alternate would allow the parking lot to be re-striped for improved circulation and efficiency.

- Utilize portable traffic barricades to close Cossitt Avenue between Park Avenue and Brainard Avenue for a 30-minute period during the school arrival and dismissal times (7:15-7:45 A.M.; 3:00-3:30 P.M.) to eliminate vehicular conflicts with the large volume of pedestrians crossing Cossitt Avenue to travel to and from the bus staging area in the parking lot.

- Install diagonal pavement striping on the north side of Elm Avenue (between Park Avenue and Brainard Avenue) and on the east side of Park Avenue (between Cossitt Avenue and Elm Avenue). Install signage designating these lanes as school loading zones on school days. The loading zone would accommodate approximately 14 cars on Elm Avenue and 29 cars on Park Avenue.

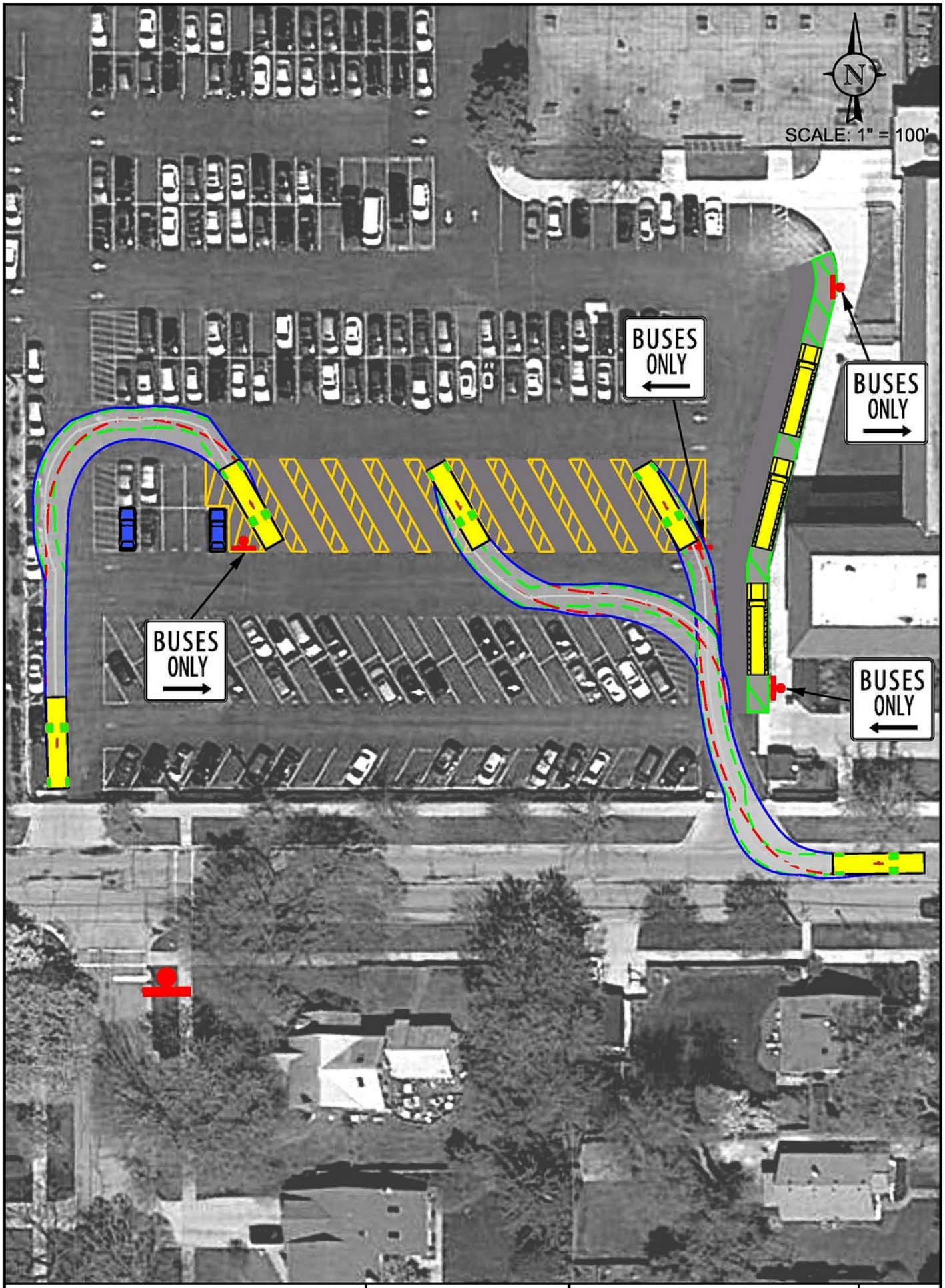
- Remove "No Parking Bus Stop" signs from the north side of Elm Avenue (Park Avenue-Brainard Avenue) and replace them with the school loading zone signage.

- Remove the "No Parking Any Time" signs from the east side of Park Avenue (Cossitt Avenue-Elm Avenue) and replace them with the school loading zone signage.

- Discontinue use of the portable Do Not Enter/Stop signs on Elm Avenue and Park Avenue to allow drop-off/pick-up circulation on these blocks.

- Utilize the striped lane on the east side of Brainard Avenue (Cossitt Avenue-Elm Avenue) as a school loading zone by removing the "No Parking Any Time" signs and replacing them with school loading zone signage. The loading zone would accommodate approximately 17 cars.

- Install stop signs on both approaches of Park Avenue at Elm Avenue to create a multiway stop condition at a location that has a significant number of pedestrian crossings and will experience heavier drop-off/pick-up traffic activity.



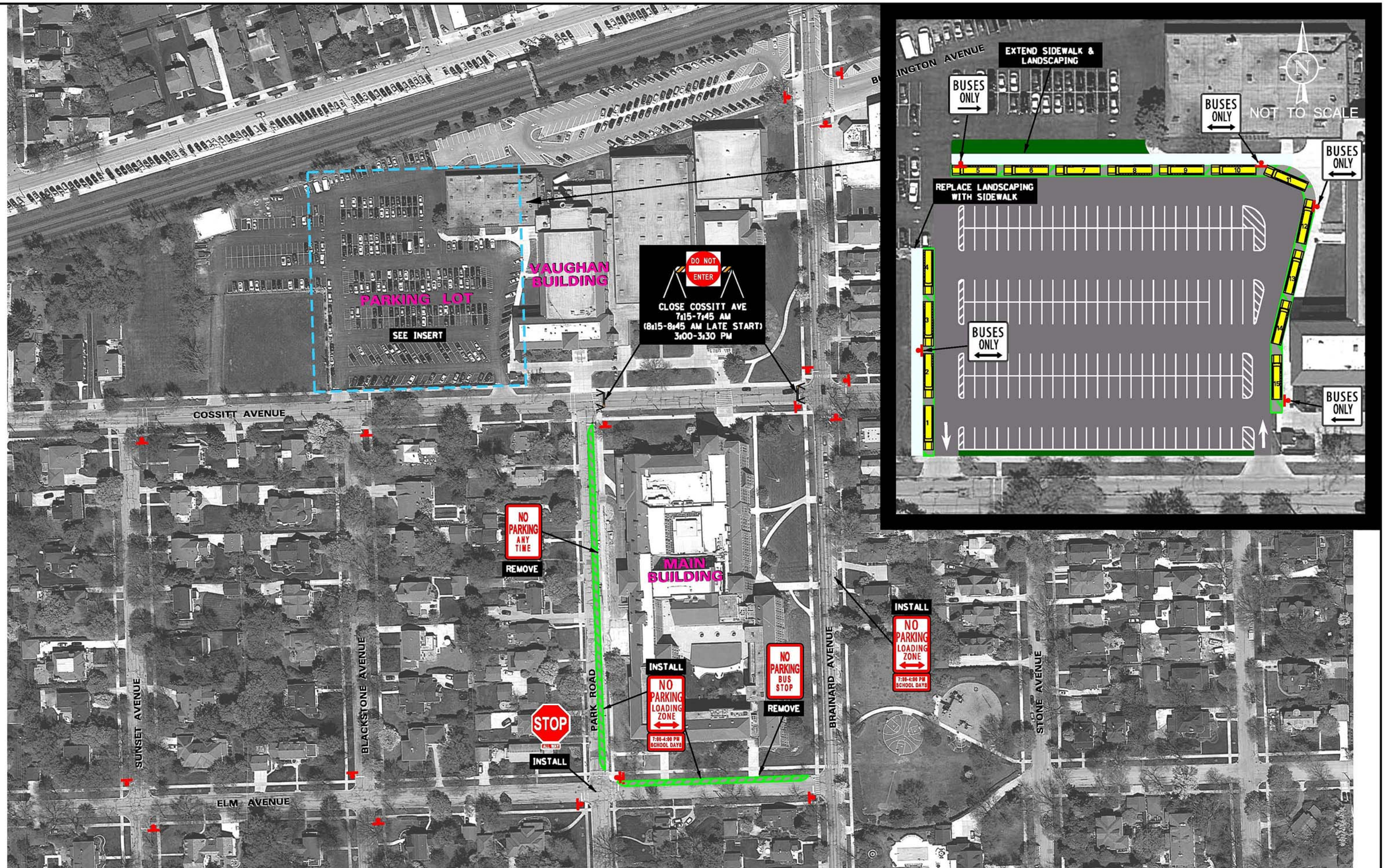
KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.
9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

SCHOOL BUS MANUEVERING DIAGRAM
(OPTION 3)

EXHIBIT NO.
8



KLOA
Kenig,Lindgren,O'Hara,Aboona,Inc.

9575 West Higgins Road, Suite 400
Rosemont, Illinois 60018
P: (847) 518-9990 F: (847) 518-9987

PROJECT # 15-120

DRAWN	-	MD
CHECKED	-	EDR
DATE	-	07-22-2015

LYONS TOWNSHIP HIGH SCHOOL
NORTH CAMPUS
LA GRANGE, ILLINOIS

PROPOSED CIRCULATION & BUS STAGING PLAN
OPTION 3 – (ALTERNATE BUS STAGING ARRANGEMENT)

FIGURE NO.
9

The proposed school loading zones in Option 3 would provide curb space for a total of approximately 60 vehicles to drop-off or pick-up students at any given time. It should be noted that the east side of Brainard Avenue is already being used as a drop-off/pick-up zone despite the posted “No Parking Any Time” regulations.

Option 3 would result in the loss of 56 spaces in the parking lot, which would reduce the parking capacity of the lot to 303 spaces, which would still be adequate to meet the minimum parking needs (278 spaces) of the school. The alternate bus staging configuration in Option 3 would result in the loss of 42 spaces in the parking lot, or the loss of 35 spaces if the space on the north side of the sidewalk extension was used for parallel parking instead of green space.

4.
Conclusions and Next Steps

This Traffic Circulation and Pedestrian Safety Study for the North Campus of Lyons Township High School includes three potential options to reconfigure the drop-off/pick-up circulation, relocate the bus staging operation, and/or reduce vehicular-pedestrian conflicts while increasing pedestrian safety on Cossitt Avenue, Brainard Avenue, Elm Avenue, and Park Avenue.

The parking impacts that would result from the three options range from no loss of parking in the school's 359-space parking lot to the loss of up to 56 parking spaces in the lot. In all cases, however, it appears that an adequate quantity of parking would remain in the lot to meet the minimum parking needs of the school (278 spaces).

Traffic impacts from the various options would include the potential closure of Cossitt Avenue between Park Avenue and Brainard Avenue for a 30-minute period around the school start and dismissal times, increased delay from multiway stop control at the Park Avenue intersections with Cossitt Avenue and Elm Avenue, right-turn restrictions on Park Avenue at Cossitt Avenue, and/or the potential shifting in traffic patterns on Brainard Avenue.

The intent of the development of three circulation options is to generate discussion on potential solutions and to achieve consensus on a preferred solution to better organize vehicular circulation on campus while reducing vehicular-pedestrian conflicts and increasing pedestrian safety. It is anticipated that the preferred solution may be a hybrid reflecting a combination of various elements from one or more of the options.

The next step is to discuss the circulation options and reach consensus on the elements of a preferred solution. If desired, KLOA, Inc. will develop a final circulation plan that reflects the preferences of District 204.