



**CITY OF URBANA, ILLINOIS
DEPARTMENT OF PUBLIC WORKS**

ENGINEERING

M E M O R A N D U M

TO: Bruce K. Walden, Chief Administrative Officer

**FROM: William R. Gray, Public Works Director
Jennifer J. Selby, Civil Engineer**

DATE: January 19, 2006

**RE: Response to Resolution No. 2005-11-022R
A Resolution of Support for Improvements to Lincoln Avenue**

Introduction

The City of Urbana's Capital Improvement Plan has identified Lincoln Avenue between Pennsylvania Avenue and Nevada Street for improvements for the 2006 construction season. As a part of these improvements, the City expressed a desire to establish a safer environment for pedestrians, bicyclists, vehicles and buses in the improvement area.

The Campus Area Transportation Study and the City Engineer presented a 3-lane configuration between Pennsylvania Avenue and Nevada Street to City Council to increase pedestrian safety without a loss of traffic capacity. The City Council passed Resolution No. 2005-11-022R – A Resolution of Support for Improvements to Lincoln Avenue- on December 5, 2005 (see attached). This Resolution stated that the City Council supports the 3-lane concept. However, the City Council did ask that six (6) items be clarified and brought to the Council before construction begins on the Lincoln Avenue improvements.

Proposed Improvements

The proposed design for the South Lincoln Avenue Improvements (attached) involves resurfacing Lincoln Avenue from just north of Delaware Avenue to just south of California Street. The resurfaced pavement will be restriped to a 3-lane configuration (one northbound lane, one bi-directional center turn lane, and one southbound lane) between Pennsylvania Avenue and Nevada Street. This 3-lane configuration will be shifted to the west, which will allow striping of an approximately 8-foot wide loading zone along the east curb line of Lincoln Avenue. The existing 4-lane configuration will remain south of Vermont Avenue and north of Nevada Street.

The sidewalk ramps at all intersections will be reconstructed to meet current ADA standards. To decrease the number of locations at which pedestrians cross Lincoln Avenue, a ramp will be provided at only the north side of Michigan Avenue and the south side of Indiana Avenue, Ohio Street, and Iowa Street. The ramps to cross Lincoln on the other sides of the intersections will be removed and replaced with full height curb and grass. All areas of concrete between the existing sidewalk and back of curb and all curb cuts between the intersections will be removed to discourage crossing mid-block.

The intersections of Lincoln Avenue with Michigan Avenue and Indiana Avenue will be striped with high visibility crosswalks. High-visibility crosswalks will also be constructed just south of the intersections of Lincoln Avenue with Ohio Street and Iowa Street. These two intersections will also include additional striping to provide a pedestrian refuge area within the bi-directional turn lane. The ramps directly at the intersections will only allow north-south travel as the ramps to the west will be removed and replaced with grass.

A bus pull-off will be constructed along the west side of Lincoln Avenue between Ohio Street and Iowa Street, at the Lincoln Avenue Residence Hall (LAR). This bus pull-off will be located at the circle drive to LAR and will allow buses to completely pull off of Lincoln Avenue for loading and unloading.

The existing 6-foot wide sidewalk along the west side of Lincoln Avenue will be widened to 10-feet from Michigan Avenue to just south of Nevada Avenue. This widening will serve as a multi-use path for pedestrians and bicyclists.

The project will also involve installation of traffic signals at the intersections of Lincoln Avenue with Pennsylvania Avenue and Nevada Street, as well as new street lighting along the entire project length.

City Council Concerns

The proposed design took into account City Council's six (6) concerns associated with the improvements. These six (6) concerns are addressed below:

- 1) *That an agreement be developed with the University of Illinois and the CU-MTD creating bus pullouts on the west side of Lincoln in the area affected.*

Representatives from the City of Urbana Engineering Division met with representatives from the CU-MTD in mid-December to discuss the issue of a bus pull-off. The CU-MTD suggested the need for only one bus pull-off between Pennsylvania Avenue and Nevada Street. Based on their heaviest loading and unloading locations, they suggested this bus pull-off be located between Iowa Street and Ohio Street. The Engineering Division then met with representatives from the University of Illinois in early-January to discuss this proposed bus location. The University representatives agreed that the proposed location is acceptable and did not foresee any problems permitting the necessary use of University property to construct the bus pull-off.

- 2) *That an agreement be developed with the CU-MTD limiting the number of bus stops on the east side and that serious efforts be made to develop some kind of pullout in the right of way and/or in conjunction with some property owner(s).*

At the mid-December meeting between the Engineering Division and the CU-MTD, the issue of limiting the number of bus stops was discussed. The CU-MTD agreed to limit northbound (east side) bus stops between Pennsylvania Avenue and Nevada Street to only three (3) locations: 1) Just south of Pennsylvania Avenue; 2) Between Ohio Street and Iowa Street, across from LAR and; 3) Just north of Nevada Street. The bus will be able to pull off into the loading zone at the location between Ohio Street and Iowa Street, allowing traffic to pass to the left.

The number of southbound (west side) bus stops between Pennsylvania Avenue and Nevada Street will also be limited to only three (3) locations: 1) Just north of Pennsylvania Avenue; 2) At the new bus pull-off between Ohio Street and Iowa Street and; 3) Just north of Nevada Street. The bus will be able to pull off into the loading zone at the Nevada Street location and will also be out of traffic at the bus pull-off location discussed in Issue 1.

- 3) *That crosswalk locations be carefully identified and that medians be constructed in such a way as to make their removal or relocation relatively easy with adequate lighting.*

The Engineering Division observed the pedestrian traffic crossing Lincoln Avenue for several time blocks throughout the day to determine the most logical locations for crosswalks. The majority of pedestrians cross Lincoln Avenue at Ohio Street and Iowa Street. Therefore, it was decided to paint pedestrian refuge islands at these two intersections. While the new street lighting will be staggered along Lincoln Avenue, two (2) lights will be placed across from each other at the intersections to provide ample lighting.

The construction of concrete medians to provide refuge for pedestrians was discussed at these two locations, however, due to obstruction concerns from the Fire and Police Departments, it was decided not to construct medians at the crosswalk locations. The Engineering Division also investigated the construction of “rumble” medians at these locations. However, studies have shown that this type of median is no more effective than simply painting a refuge island.

- 4) *That necessary steps are taken to identify the areas to be developed for deliveries and loading/unloading on side streets and a mechanism for preventing stops along Lincoln be determined.*

The proposed 3-lane configuration allows for a Loading Zone along the east side of Lincoln Avenue from Michigan Avenue to Nevada Street. This Loading Zone will prevent stops along Lincoln Avenue as well as allow large delivery trucks to unload from Lincoln Avenue instead of the side streets.

- 5) *That vehicle merge issues are completely identified and mechanisms to alleviate potential problems be developed.*

The proposed design will require two merging traffic areas, one for southbound Lincoln Avenue and one for northbound Lincoln Avenue. The first merge area (southbound) will be located north of Nevada Street. The existing two lanes of southbound Lincoln Avenue traffic will be merged into one through lane (inside lane) beginning at Oregon Street. A right-turn only lane (outside lane) will be created for southbound to westbound traffic at the intersection of Nevada Street.

The second merge area (northbound) will be located south of Vermont Avenue. The existing two lanes of northbound Lincoln Avenue traffic will be merged into one through/right-turn lane (outside lane) beginning just north of Delaware Avenue. A separate left-turn lane (inside lane) will be created for northbound to westbound traffic at the intersection of Pennsylvania Avenue.

Both merge areas occur prior to the signalized intersections of Nevada Street and Pennsylvania Avenue. Ideally, merge areas are preferred after the intersection, to maximize the amount of traffic through the intersection. However, merge areas located after both signalized intersections were evaluated and found to be prohibitive due to excessive merge lengths and taper ratios. These excessive merge lengths and taper ratios would only have allowed a 3-lane configuration between Iowa Street and Indiana Avenue (2 blocks). The blocks from Pennsylvania Avenue to Michigan Avenue and from Iowa Street to Nevada Street would have been the merge areas.

Providing the merge areas prior to the signalized intersections, while not ideal, will provide the best transition for the desired goal of reducing the number of lanes of Lincoln Avenue for the longest distance possible. The 3-lane configuration will exist from Michigan Avenue to Nevada Street (4 blocks). However, the merge lengths and taper ratios provided are not ideal.

- 6) *That locations for curb cuts for bicyclists to pull off of Lincoln from the shoulder areas at either end of the 3 lane configuration be identified.*

The original 3-lane configuration showed an approximately 4-foot wide “bicycle lane” along both the east and west sides of Lincoln Avenue. The now proposed 3-lane configuration eliminates these “bicycle lanes” from the pavement and instead provides an off-pavement multi-use path along the west side of Lincoln. Therefore, this issue is no longer relevant.

Council Action

City staff seeks concurrence on the aforesaid described project improvements via a council motion in support of the proposed design and to proceed with construction.

RESOLUTION NO. 2005-11-022R

**A RESOLUTION
OF SUPPORT FOR IMPROVEMENTS
TO LINCOLN AVENUE
(Lincoln Avenue Traffic Signals and Striping)**

WHEREAS, the City of Urbana has expressed its commitment to the establishment of a safer environment for pedestrians, bicyclists, vehicles and buses in the University District and the city in general; and

WHEREAS, the residential area along and east of Lincoln Avenue has significant student and university employee population resulting in large numbers of pedestrian and bicycle crossings of Lincoln Avenue; and

WHEREAS, the City has determined that improvements to Lincoln Avenue are necessary and identified as part of the city's Capital Improvement Plan, and the University of Illinois and the State of Illinois have awarded the city grant funds in support of these improvements; and

WHEREAS, the Council recognizes that Lincoln Avenue is a major North-South transportation corridor and balance needs to be found between various modes of transportation; and

WHEREAS, a 3-lane configuration with shoulders between Pennsylvania and Nevada Avenues will increase pedestrian safety without a loss of traffic capacity, demonstrated by generally accepted scientific studies based on the experiences of other cities; and

WHEREAS, traffic signalization will improve traffic flow and reduce traffic delays, changing Nevada and Pennsylvania from failing Level of Service ratings to fair and good ratings; and

WHEREAS, the Council Resolved, in a 9/14/2004 Sense of the Council Motion, calling for study of reducing the crossing distance and reducing the number of lanes of Lincoln Avenue;

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF URBANA, ILLINOIS, as follows:

Section 1. The City Council finds and determines that the facts contained in the above recitations are true and supports the 3 lane concept put forth by the Campus Area Transportation study and the City Engineer..

Section 2. The City Council requests that these items be clarified and answers brought to the Council before proceeding with construction:

- a) That an agreement be developed with the University of Illinois and the CU MTD creating bus pullouts on the west side of Lincoln in the area affected;
- b) That an agreement be developed with the CUMTD limiting the number of bus stops on the east side and that serious efforts be made to develop some kind of pullout in the right of way and/or in conjunction with some property owner(s);

- c) That crosswalk locations be carefully identified and that medians be constructed in such a way as to make their removal or relocation relatively easy with adequate lighting provided;
- d) That necessary steps are taken to identify the areas to be developed for deliveries and loading/unloading on side streets and a mechanism for preventing stops along Lincoln be determined;
- e) That vehicle merge issues are completely identified and mechanisms to alleviate potential problems be developed;
- f) That locations for curb cuts for bicyclists to pull off of Lincoln from the shoulder areas and at either end of the 3 lane configuration be identified.

Section 3. The provision of a shared use area for bicycles shall not be finalized until the Mayor and the Council have additional information from the Legal Department about the policies and practices of other communities with such mixed use plans. Further, the Public Works Department is directed to evaluate the feasibility of expanding the shared use area of the Lincoln Avenue improvements to meet State and National standards for bicycle traffic. These questions shall be answered prior to the commencement of construction, and should be accorded high priority by both the Legal Department and the Public Works Department.

Section 4. That the Urbana City Council does hereby authorize the Mayor to submit any grant requests on behalf of the City to the State of Illinois to help cover any construction and improvement costs and to enter into negotiations with the University of Illinois (UIUC) and the Champaign-Urbana Mass Transit District (CUMTD) to determine ways of minimizing the impact of bus traffic to the aforementioned section of Lincoln Avenue.

PASSED by the City Council this 5th day of December, 2005.

Ayes:

Nays:

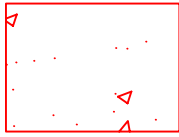
Abstains:

Phyllis D. Clark, City Clerk

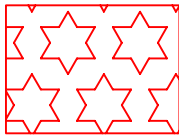
APPROVED by the Mayor this 7th day of December, 2005.

Laurel Lunt Prussing, Mayor
Danielle Chynoweth, Mayor Pro-tem

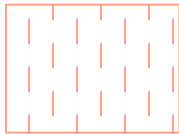
LEGEND



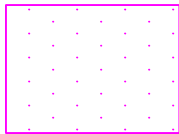
6" Concrete Sidewalk



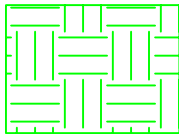
8" Concrete Sidewalk



8" Concrete Pavement



Curb and Gutter



Grass



SOUTH LINCOLN AVENUE IMPROVEMENTS

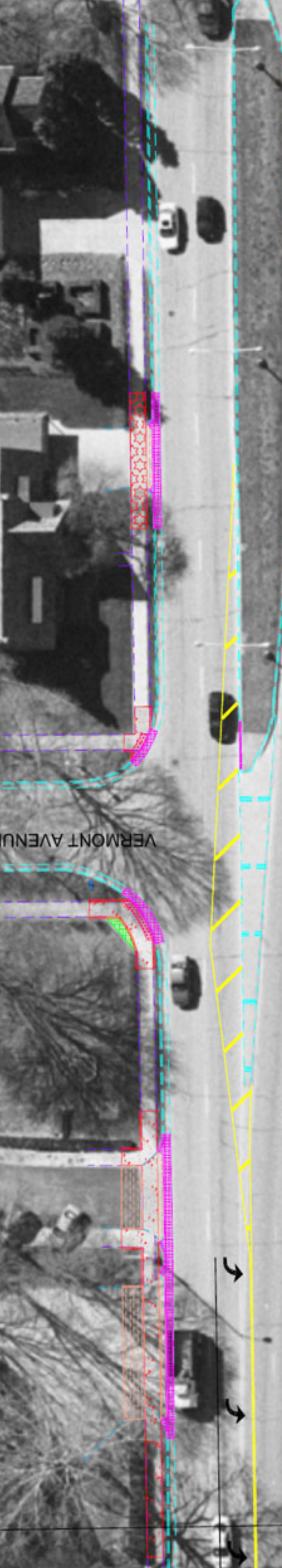
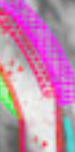
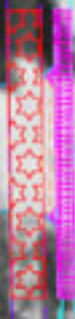
Section 06-00426-00-RS

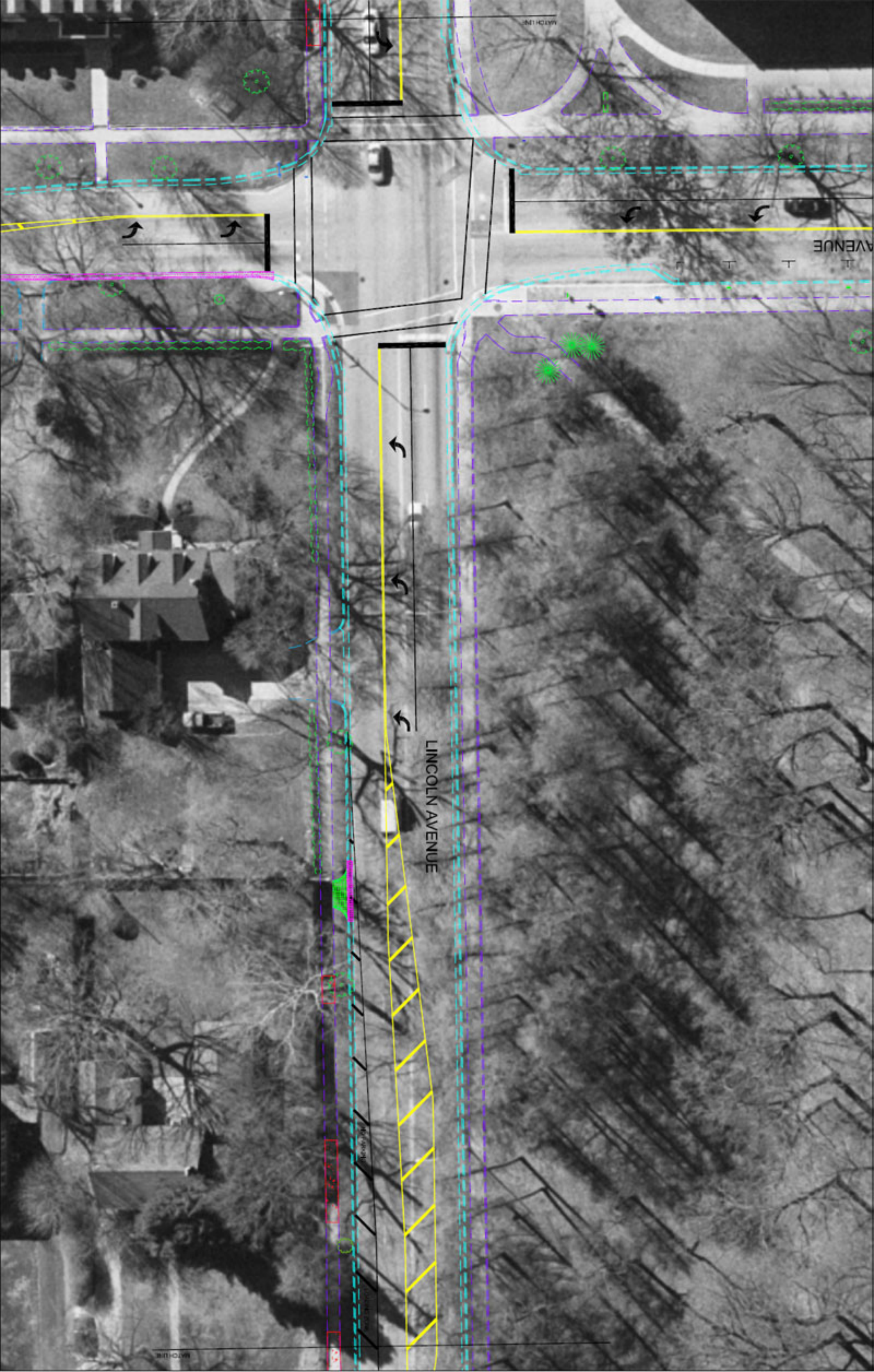


LINCOLN AVENUE

VERMONT AVENUE

MATCH LINE





LINCOLN AVENUE

AVENUE

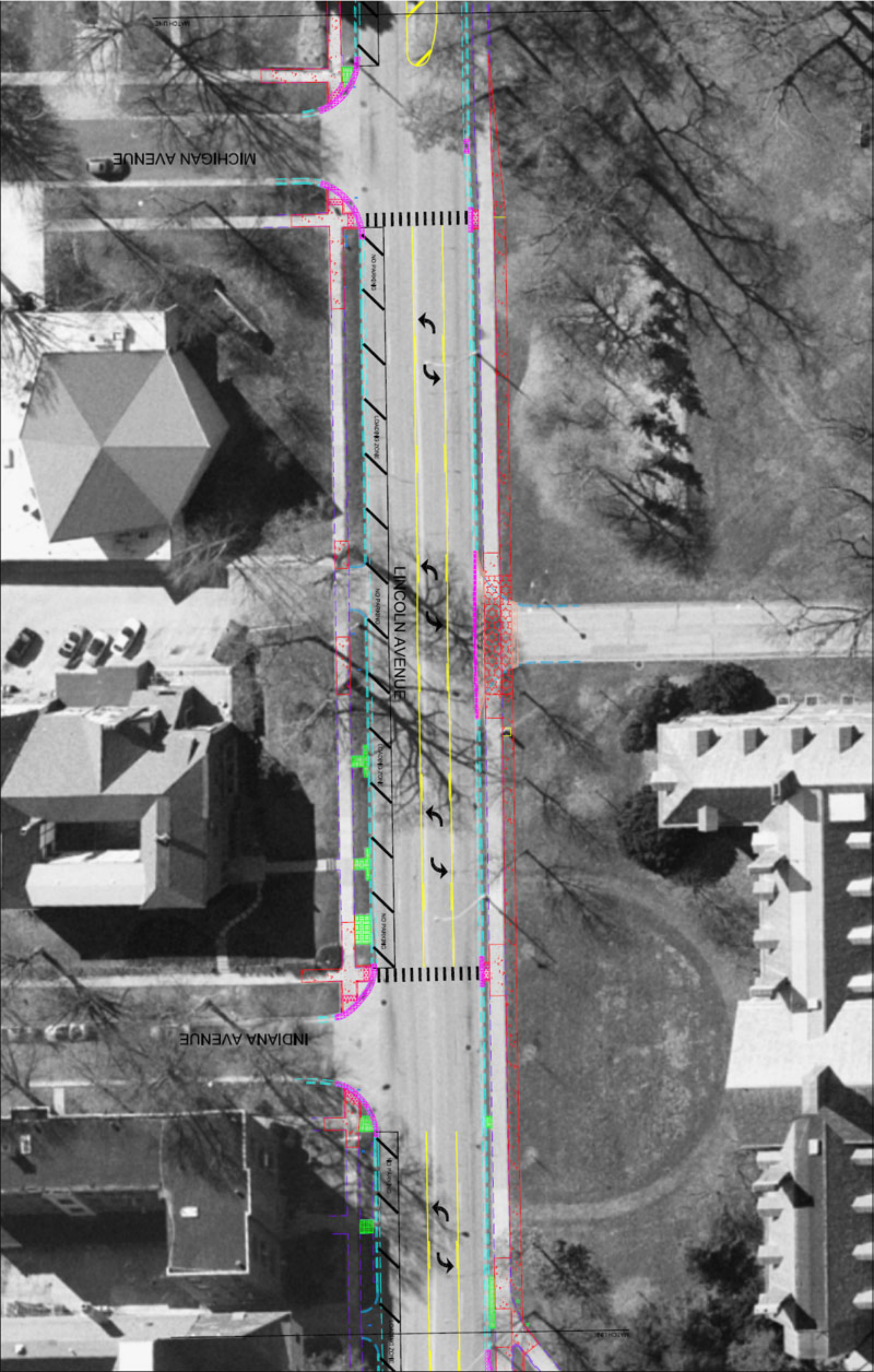
MATCHLINE

MATCHLINE

100000

100000

100000



MICHIGAN AVENUE

LINCOLN AVENUE

INDIANA AVENUE

NO PARKING

LOAD ZONE

NO PARKING

LOAD ZONE

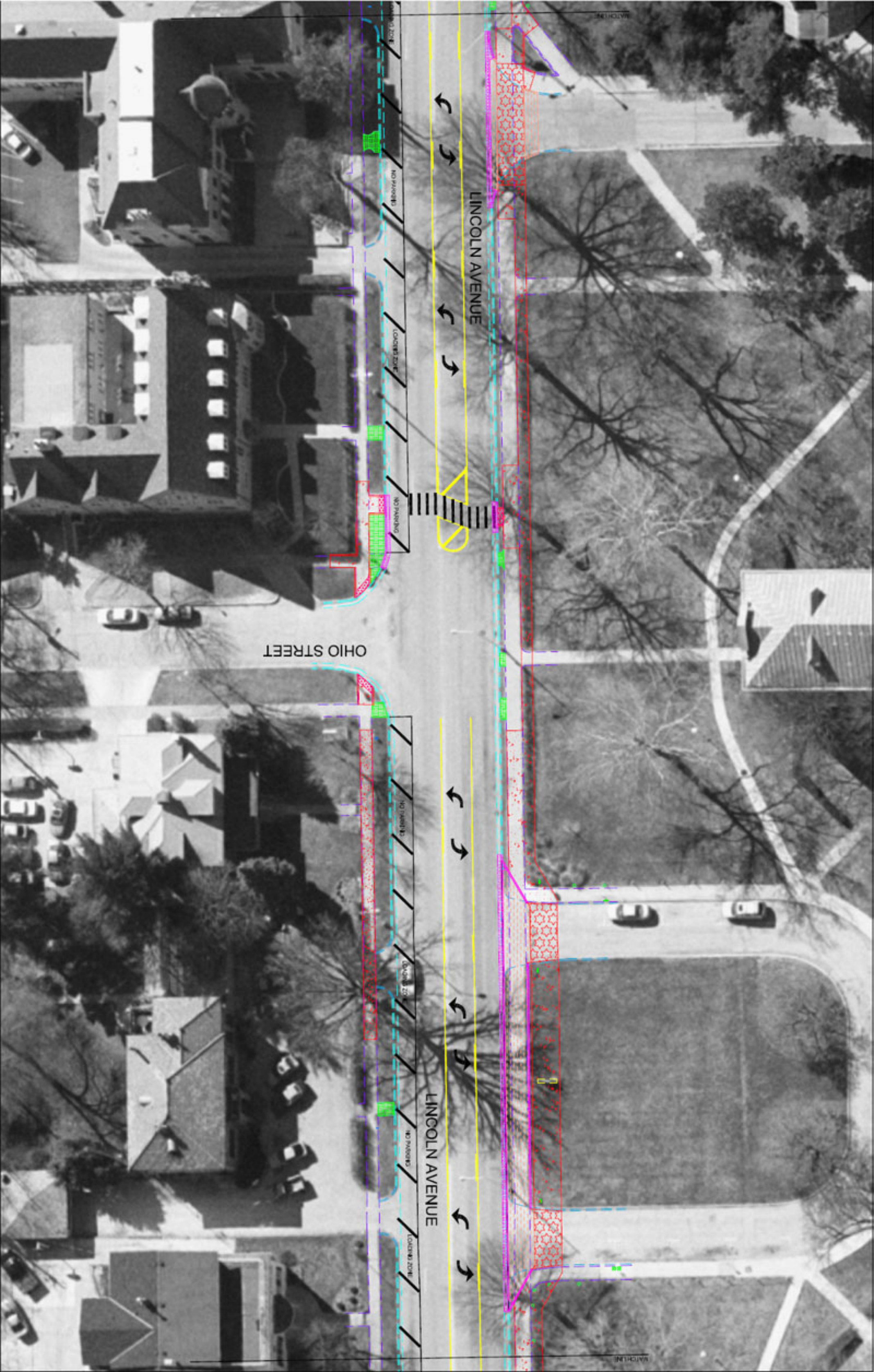
NO PARKING

NO PARKING

NO PARKING

MATCHLINE

MATCHLINE



LINCOLN AVENUE

OHIO STREET

LINCOLN AVENUE

WATCHLINE

WATCHLINE



IOWA STREET

LINCOLN AVENUE

LINCOLN AVENUE

DRIVEWAY

DRIVEWAY

LOADING

LOADING

LOADING

LOADING

LOADING

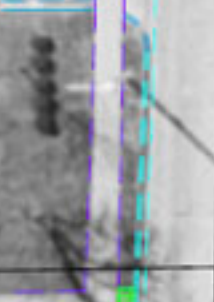
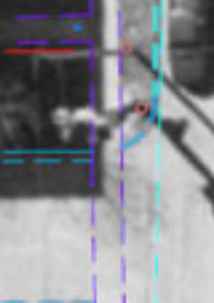
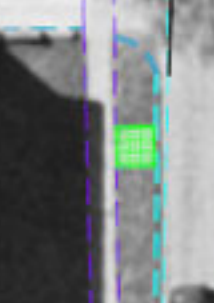
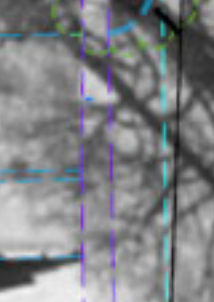
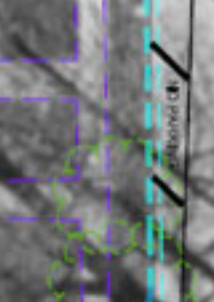
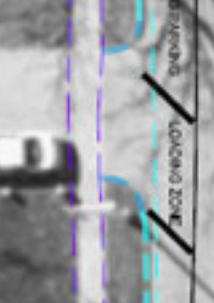
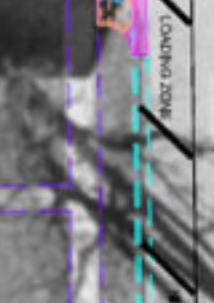
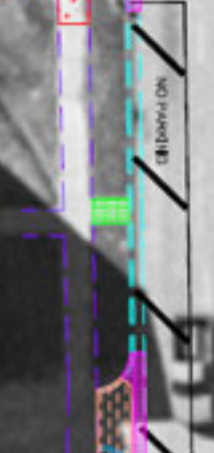
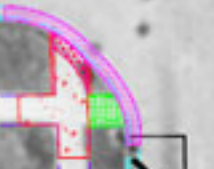
LOADING

LOADING

LOADING

MATCHLINE

MATCHLINE





LINCOLN AVENUE

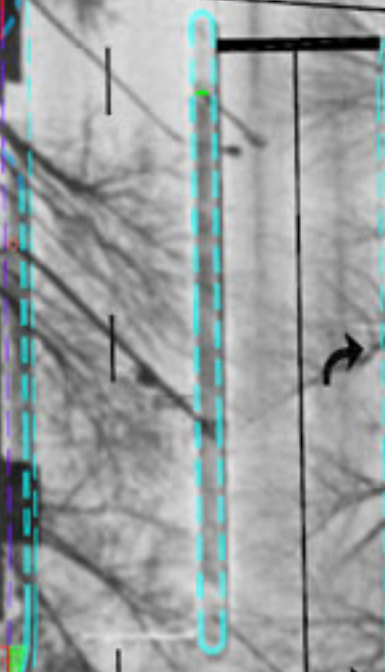
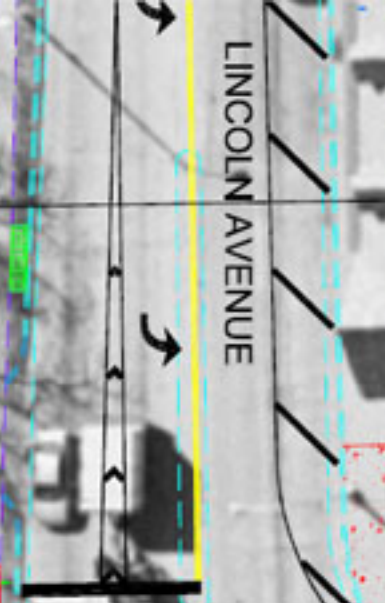
NEVADA STREET

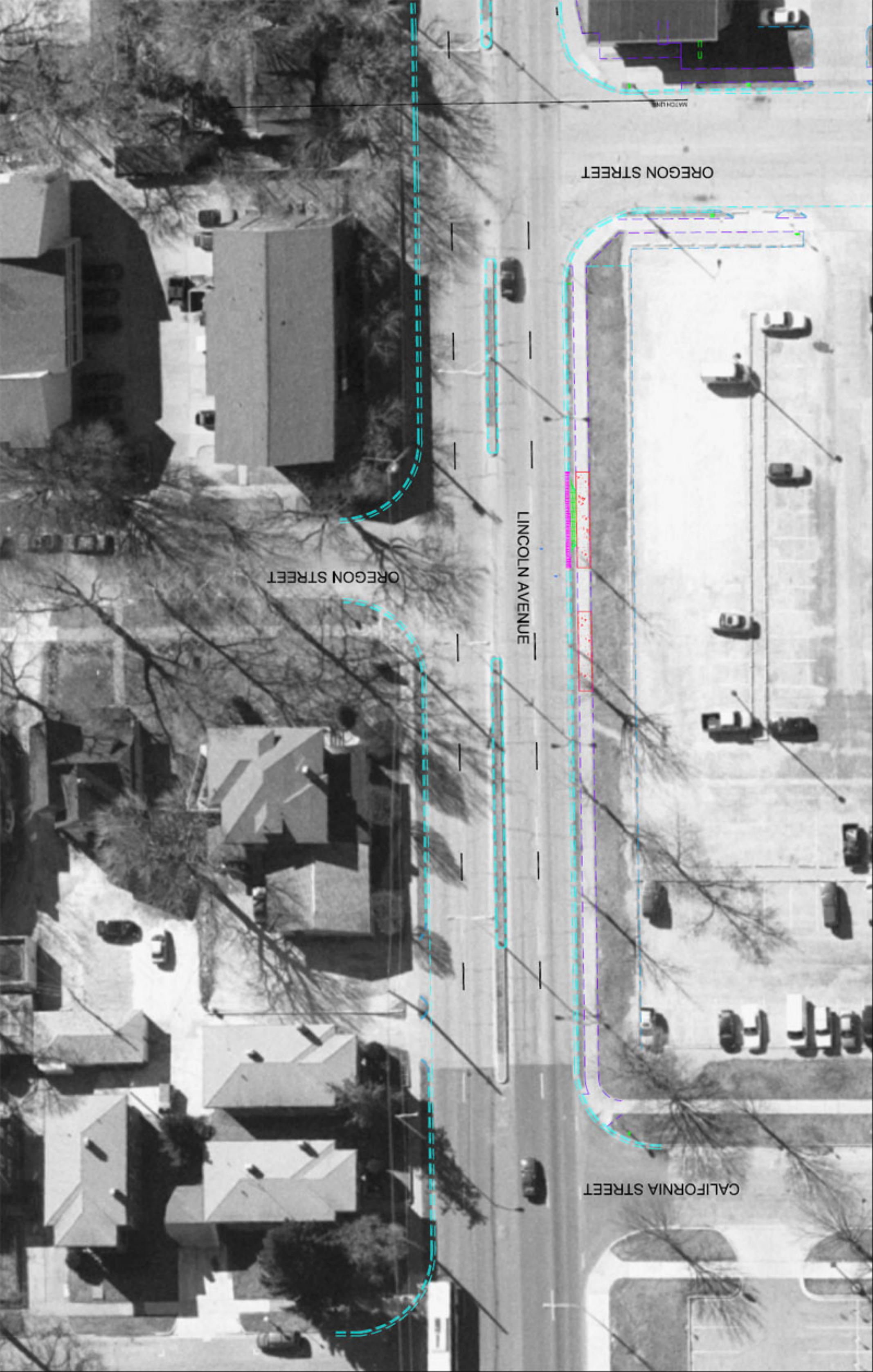
LINCOLN AVENUE

NEVADA STREET

MATCHLINE

MATCHLINE





OREGON STREET

LINCOLN AVENUE

CALIFORNIA STREET

OREGON STREET

MATCHLINE



PENNSYLVANIA AVENUE

LINCOLN A

PENNSYLVANIA AVENUE

