Kino to DeMoss-Petrie
138 Kilovolt Transmission Line Project
Historic District Analysis

for Tucson Electric Power Company

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the architecture company

Tierra Right of Way
A LAND SERVICES COMPANY

Kino to DeMoss-Petrie 138 Kilovolt Transmission Line Project: Historic District Analysis

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I. Introduction

As part of Tucson Electric Power's (TEP) planning process for the Kino to DeMoss-Petrie 138 kilovolt transmission line, a project designed to strengthen electric reliability and satisfy growing energy needs into central Tucson, Tierra Right of Way (TROW) and The Architecture Company (TAC) were commissioned by TEP to review TEP's proposed transmission line routes to determine which routes would have the least negative impact on the historic districts directly affected by the new transmission lines.

Starting in 2019 TEP held two public meetings and presented information to several neighborhood organizations, stakeholder groups and government agencies. Two additional public meetings were scheduled in 2020, but were suspended due to COVID-19 concerns. TEP received comments from the public meetings and has continued to receive comments in writing and electronically from residents in potentially affected historic districts. Numerous comments reflect a concern with the visual appearance of the electrical poles and the surrounding vistas, the potential negative impact on their community, the potential loss of property value, a desire for underground utility, and the potential de-listing of a historic contributing property. It was confirmed with the City of Tucson Historic Preservation Officer that no historic contributing property, individually listed property or historic district will be removed or delisted as a result of any power pole location. TEP invited the City of Tucson's Historic Preservation Officer and neighborhood associations to join the project's community working group to help inform the siting process and identify route(s) that will have the lowest possible impact on historic neighborhoods.

The proposed electrical poles would typically be 75' - 85' high and spaced approximately 750 +/- lineal feet apart. Depending on structural requirements, some poles will be mounted to a concrete foundation and have a 2' +/- diameter base and taper to a 9" diameter top, while other poles will be mounted to a larger concrete foundation with metal bolts and have a 3' +/- diameter and taper to a 9" diameter top. Recommending specific power pole locations are not part of this analysis.

TEP provided TAC and TROW four (4) different route options to connect the existing Kino Substation to the new University of Arizona (UA) North Substation, Routes 1, 2, 3 and 5, and four (4) different route options to connect the existing DeMoss-Petrie (DMP) substation to the new UA North Substation, Routes A, B, D and E. Below are the historic districts that are part of the National Register of Historic Places that the routes will bisect, are adjacent to or within an 800' buffer of the route:

Route 1 and 2: Blenman Elm, Catalina Vista, Jefferson Park, Rincon Heights and Sam Hughes Historic Districts.
Routes 3 and 5: Feldman's, Iron Horse, Jefferson Park, Pie Allen, Rincon Heights and West University Historic Districts.
Route A: Jefferson Park and Miracle Mile Historic Districts.
Route B: Feldman's, Jefferson Park and Miracle Mile Historic Districts.
Route D: Blenman-Elm, Catalina Vista, Jefferson Park and Miracle Mile Historic Districts.
Route E: Feldman's, Jefferson Park, John Spring Neighborhood, Miracle Mile and West University Historic Districts.

Refer to the Appendix for definitions of historic architectural terminology and the resource section to find additional historic information on these historic districts.

TAC has over 35 years of providing historic architectural services on the local and national level, performed over a dozen historic architectural surveys on over a 1000 structures, developed neighborhood design guidelines for historic neighborhoods, assisted in major street expansion configuration along major streets affecting historic districts and commercial businesses and currently provides consultation to City of Tucson as a historic design professional for the review of Neighborhood Preservation Zone (NPZ) and Historic Preservation Zone (HPZ) projects.

Tierra Right of Way has nearly 30 years of experience creating maps and utilizing geospatial data for archaeological and environmental projects. Tierra's GIS team regularly develops and maintains GIS databases for archaeological and environmental projects, creates cartographic products for reports, performs analyses of spatial data, creates 3D models for visual simulations, and creates custom GIS and spatial models.

II. Objective

The objective of this phase of study is to analyze the impact to the historic districts that the proposed routes pass through, and to determine which route(s) has the least impact and which routes(s) has the greatest impact to the historic district and neighborhood. TEP provided eight routes for TAC to analyze for historic architectural factors and recommend the best route combination options that connect the DMP and Kino Substations to the UA North Substation. TAC did not look at alternate streets or alleys outside the proposed TEP routes, but focused on the eight routes, an 800' buffer around the proposed routes and the possible route combinations between Kino Routes 1,2,3 and 5 and DMP Routes A,B,D and E.

Per TEP studies and research the following routes cannot be combined together:

1. Kino Routes 3 or 5 and DMP Route B
2. Kino Routes 3 or 5 and DMP Route E

III. Methodology

The information used to calculate the data in Kino Table 1 / DMP Table A through Kino Table 6 / DMP Table F and the maps in Sections V and VI were based on GIS data from Tucson Electric Power, City of Tucson and Pima County. Tierra Right of Way developed the maps and measurements from these resources. The data gathered from the GIS information was not visually verified.

To determine the best route options, the study area included an 800' buffer zone from the proposed transmission lines for each of the 12 route combinations. The study was comprised of collecting and analyzing a combination of GIS data and observations from a windshield survey of the neighborhoods. A list of measurable criteria, described below and in Section IV. Measurable Criteria Analysis, was developed to rank the different districts to determine which routes would least impact the surrounding historic districts and historic properties as a result of the new transmission line. The study maps depict the routes and these maps were used to develop a visual analysis along with a historic architectural analysis of the eight different routes.

1. Measurable Criteria Collection, Process and Analysis

In Section IV. Measurable Criteria Analysis, each measurable criteria using GIS and Google Earth was reviewed, analyzed and ranked. The measurable criteria include:

Kino Table 1 / DMP Table A: Bisecting versus Bordering Historic Districts

Kino Table 2 / DMP Table B: Street Designation

Kino Table 3 / DMP Table C: Historic Districts with 1 versus 2 Sides of the Route

Kino Table 4 / DMP Table D: Existing Power Poles Located on Route

Kino Table 5 / DMP Table E: Historic Light Fixtures within 800' Route Buffer

Kino Table 6 / DMP Table F: Historic Contributing Properties in 800' Route Buffer

Kino Table 7 / DMP Table G: Access of Historic Contributing Properties along Route

The routes were ranked on each of the criteria listed above based on a scale from zero to ten (0 to 10). A rank of zero (0) means that the historic district(s) are not impacted by that criteria; a ranking of one (1) represents the least degree of historic impact on the affected historic district(s); and a rank of ten (10) represents the greatest impact on the affected historic district(s). Each measurable criteria was evaluated as an independent criteria to determine the ranking. The Kino routes and DMP routes were evaluated separately and used the same measurable criteria and ranking system.

The measurable criteria ranking was subtotalled for each district. The final ranking of the route is the sum total of the affected district's ranking. The routes with the lower sum totals will have the least degree of impact on the historic districts. The routes with the higher sum totals will have more impact on the historic districts based on the criteria developed in this report. These sum totals of the routes from criteria in Kino Table 1 / DMP Table A through Kino Table 7 / DMP Table G are taken into consideration when analyzing the historic architectural criteria in Table 8 / Table H.

Only those portions of the routes that have historic districts or individually listed historic properties located within the 800' buffer were included in this study. The transmission line pathway of Routes 1 and 2 that affect the historic districts of Blenman-Elm, Catalina Vista, Jefferson Park, Rincon Heights and Sam Hughes, follow the same path through the neighborhoods, therefore these two routes were analyzed concurrently. The same method of analysis was applied to Routes 3 and 5 as they share the same pathway through the historic districts of Feldman's, Iron Horse Jefferson Park, Pie Allen and West University.

The data collected from these criteria were developed into tables and maps shown in Section V UA North Substation to Kino and Section VI UA North Substation to DeMoss-Petrie. TROW and TAC developed maps of each of the eight routes to visually reflect the measurable criteria identified. Developed for each route, is a full route map, as well as enlarged maps when the route is adjacent or passes through historic districts. Data tables were created from the GIS maps to quantify the measurable criteria in Kino Table 1 / DMP Table A through Kino Table 7 / DMP Table G to allow ranking of the individual each measurable criteria.

In developing the maps we were able to visually see the location of the historic districts, density of the contributing properties, general age of the contributing properties, where individually listed properties occur, type of street classification and location and height of existing power poles.

2. Historic Architectural Process and Analysis

Section IV. Measurable Criteria Analysis also includes the Historic Architectural Analysis. To develop the Historic Architectural Analysis, a windshield survey was performed following the proposed transmission line and an 800' buffer on each side of the potential transmission line, for each of the Kino Routes 1,2,3 and 5 and the DMP Routes A,B,D and E. General observations on each district are presented, followed by specific comments and observations that are relevant due to the potential impact of the transmission line and power poles. These observations include current architectural, landscape and historic features of the historic district and how the power poles might affect the district as a whole and it's effect on the sense of place.

The following factors were considered in the ranking of each historic district and further discussion of each of the criteria is presented in Section IV:

- Historic district integrity
- Scale of the street adjacent to a historic district
- Scale of adjacent historic and non-historic structures along the route
- Size of historic district impacted
- Historic Architectural Impression.

These factors were rated based on a scale from zero to ten (0 to 10). A rank of zero (0) means that the historic district(s) are not impacted by that criteria; a ranking of one (1) represents the least degree of historic impact on the affected historic district(s); and a ranking of ten (10) represents the greatest impact on the affected historic district(s).
The results of this analysis are presented in:

Kino Table 8 / DMP Table H: Historic Architectural Criteria

3. Summary of Measurable Criteria and Historic Architectural Analysis

A summary of the total ranking by historic district reflects the sum total of each of the seven measurable criteria and the five historic architectural criteria for the Kino Routes 1,2,3,5 and DMP Routes A,B,D,E. A total of eight (8) Tables are summarized into Kino Table 9 or DMP Table I. Kino Tables 1-8/ DMP Tables A - H show a summary of each historic district organized by each measurable criteria and historic architectural impact. This is reflected in:

Kino Table 9 / DMP Table I: Summary by Historic Districts in Section V and VI, respectively.

4. Combination of Routes

Not only are the routes ranked on their measurable criteria, and historic analysis, but also ranked based on the combination of routes, as a route from Kino must be combined with a DMP route. For example Kino Route 1 combined with DMP Route A; Kino Route 1 combined with DMP Route B; Kino Route 1 combined with DMP Route D, etc. The results of the three main areas of evaluation are summarized by route combinations and historic districts in:

Kino Table 10/ DMP Table I that is located in Section VII. Recommendations

Refer to the Appendix for definitions, abbreviations and resources mentioned in this study.

IV. Measurable Criteria and Historic Architectural Impact

The components of each of the nine (9) tables for UA North Substation to Kino (Kino Routes 1,2,3,5) and the nine (9) tables for UA North Substation to DMP (DMP Routes A,B,D,E) are described below. The same data collection process, method of analysis and ranking were applied to all the routes. Refer to Sections V. and VII. for the tables and maps.

1. **Objective:** This identifies the purpose of the criteria.

2. **Measurable Data Collection Process:** This section identifies the data source, organization of data into tables and the process of analyzing and ranking the data. The data collected on each of the criteria were organized by district and by route, except for Tables 3 / C - Historic Districts with 1 vs 2 sides of the Route, where the total measurements per route were more indicative of the transmission power pole impact than by district.

3. **Measurable Criteria Analysis & Results:** This section summarizes the results and rankings of each route. Tables reflecting the data and ranking of each criteria are organized by the UA North Substation to Kino for Routes 1, 2, 3 and 5, and UA North Substation to DMP for Routes A, B, D and E.

4. **Historic Architectural Impact Analysis & Result:** This analysis addresses the impact to each historic district by the individual route. This is organized by the UA North substation to Kino, Routes 1, 2, 3 and 5, and UA North Substation to DMP, Routes A, B, D and E.

Kino Table 1 / DMP Table A: Length of Route Bisecting vs Bordering Historic Districts.

1. **Objective:** To provide an objective comparison through a measurement of length, the impact a route would have on a historic district based on whether the transmission line 1) bisected a district, 2) bordered the side of a district, or 3) bisected and bordered a historic district.

2. **Measurable Data Collection Process:**

   i. **Data Source:** The lengths were measured through geospatial maps provided by PC, COT and TEP. A route length was considered “Bisecting” if the same historic district was on both sides of the street of the proposed route for the transmission line. If the historic district was only on one side of the route, the length was considered “Bordering.” For example, if a route had historic district “A” on one side and historic district “B” on the other side of the route, it would be considered “Bordering” a historic district. “Bisecting and Bordering” is the total length in feet within a historic district that is both Bisecting and Bordering. Any length of the route without any historic district directly bordering or bisecting the route was not included.

   ii. **Organization of Data:** The lengths are broken down by each individual historic district by 1) total length of the route bisecting a district, 2) the total length bordering a district and 3) the total length bisecting and bordering the district. Refer to the legend on the maps in Sections VI. and VII. to graphically see where the route bisects and borders the affected historic districts.

   iii. **Ranking Process:** A ranking of 10 (ten) is applied to the route with the longest bisecting length, as this places the greatest burden on an individual historic district. More favorable routes would have majority of the route bordering a historic district. In addition to analyzing the total length of bisecting and/ or bordering, a percentage was calculated to understand the degree of impact on each district. When a historic district does not have any portion of their district being bisected or bordered, they will have a ranking of 0. The higher the rank the greater the impact.

3. **Measurable Criteria Analysis & Results:**

   i. **UA North Substation to Kino, Routes 1, 2, 3 and 5**

      a. Routes 1 and 2 do not have any historic districts that are bisected by the transmission line route.

      b. Routes 3 and 5 are bisected by the transmission line in Feldman’s and West University Historic Districts with 1085.81’ and 1952.66’, respectively.

c. Routes 1,2,3,5 have nearly the same total length of the transmission line bisecting and/or bordering a historic district. Routes 1 and 2 has 203.52' more of total length of bisecting and/or bordering than Routes 3 and 5.

d. Route 1 and 2 are ranked as a 34. Route 3 and 5 are ranked as 47.

ii. <u>UA North Substation to DMP, Routes A, B, D and E</u>

a. Route E has the greatest length that is bisecting a historic district in comparison to Routes A, B and D. Route E has the longest bisecting and bordering length of all of the DMP Routes.

b. Route D has no historic districts that are bisected by the new transmission line. However four of the districts border Route D.

c. Jefferson Park is the most impacted in Routes A, B and D where the transmission line both bisects and/ or borders it's neighborhood.

d. Route B has the shortest distance of bisecting and bordering of the DMP routes.

e. Route A is ranked as 21, Route B as 13, Route D as 11 and Route E as 33.

Kino Table 2 / DMP Table B: Street Designations

1. Objective: To provide an objective comparison through a measurement of length, the impact a route would have on a historic district based on whether the transmission line is along a 1) Gateway Arterial Street, 2) Arterial Street, 3) Collector Street or 4) Residential Street.

2. Measurable Data Collection Process:

i. <u>Data Source:</u> The length of streets along the historic districts were measured through geospatial maps provided by PC, COT and TEP. The Gateway Arterial Streets, Arterial Streets and Collector Streets are as defined by the City of Tucson Major Streets and Routes Map. Gateway Arterial streets are defined by the City of Tucson as " A street or parkway that is a heavily traveled entrance to and through the City, and is designated as a Gateway Route on the Major Streets and Routes (MS&R) Plan map. These routes link major employment areas, shopping centers, and recreational areas used regularly by a large number of residents and visitors and present a visual impression of Tucson's character." An Arterial street is defined as "A street identified as an arterial or Interstate Route on the Major Streets and Routes (MS&R) Plan." A collector street is defined- as "A street identified as a collector on the Major Streets and Routes (MS&R) Plan" These definitions can be found in the City of Tucson Unified Development Code. The maps show additional route types that include Arizona Board of Regents, State Routes and Railroad. All other streets not identified as a Gateway Arterial, Arterial, Collector or Alley, are considered residential streets for the purpose of this study. The residential streets identified in this analysis are all streets that primarily have residences on both sides of the street. Where historic districts are on both sides of the street, the length of street is counted for each historic district. In the summary at the bottom of Kino Table 2 and DMP Table B, the total lengths reflects the total length of the street designation that occurs along each historic district.

ii. <u>Organization of Data:</u> The streets are broken down by 1) Gateway Arterial Street, 2) Arterial Street, 3) Collector Street or 4) Residential Street per each Historic District.

iii. <u>Ranking Process:</u> The route with the longest length along residential roads will have the highest rank of 10 as it will have a greater visual impact on residential homes and the scale would feel much more out of place than with any other type of street. Residential roads typically are narrower and have smaller, 1 or 2 story residential structures along their roads that are accessed directly from that road. A gateway arterial street will have a higher ranking than an arterial street as gateway streets reflect a visual impression of Tucson's Character. Arterial Streets are wider and have a mixture of residential and commercial structures. Lengths on Arterial Streets are given a ranking of 1. Although commercial roads are wider, more historically significant structures may occur on commercial streets. The scale the new transmission poles may have on a residential road in a historic district, can be measured objectively by knowing the length of transmission line by street category. Understanding which roads are Gateway Arterial streets also help to understand what the City of Tucson has identified as streets that are to provide a visual impression of Tucson's character.

3. Measurable Criteria Analysis & Results:

i. UA North Substation to Kino, Routes 1, 2, 3 and 5

a. Blenman-Elm, Rincon Heights and Sam Hughes districts are located along Campbell Boulevard, which is a Gateway Arterial Street for Routes 1 and 2. Although the gateway arterial street is meant to present a visual impression of Tucson's character, the width of Campbell is wider than the streets in Routes 3 and 5. We feel the width of Route 1 or 2 would allow the height of the power poles to have less of a negative impact on the historic districts. Refer to the City of Tucson Major Streets and Route Map in the appendix under resources for road width and type of street. Campbell Avenue is currently 6 lanes of traffic, with a landscaped median in the center and sidewalks on both sides of the street with bike lanes.

b. Feldman's Historic District has the highest ranking than all other districts due to the route being on a residential street in Feldman's.

c. Route 3 and 5 have most of their route along arterial streets.

d. Routes 1 and 2 have a ranking of 18. Routes 3 and 5 have a ranking of 16.

ii. UA North Substation to DMP, Routes A, B, D and E

a. Routes A, B and D primarily occur in Jefferson Park.

b. Route A has the most length occurring on a residential route. This is followed by Route D.

c. Route B has the greatest length of the route on a collector street

d. Route D has some of the route on Campbell, a Gateway Arterial Street.

e. Route E has some of the route on Oracle Road / Main Avenue, also a Gateway Arterial Street.

f. Route A has a rank of 7, Route B has a rank of 5, Route D has a rank of 7 and Route E has a rank of 11

Kino Table 3 / DMP Table C: Historic Districts on 1 vs. 2 sides of the Route

1. Objective: To provide an objective comparison between the different routes, the length of each route that has a historic district on one side versus both sides of the street.

2. Measurable Data Collection Process:

i. Data Source: The lengths were measured through geospatial maps provided by PC, COT and TEP. A route length was measured as one side having a historic district if the route was directly adjacent to a historic district and there was no other contributing, individually listed property or historic district on the opposite side of the road. If the route had contributing properties and/or historic districts on both sides of the street, this length was measured and noted as 2 sides. If there was no historic district directly adjacent to the route, that length of route was not included. Refer to the legend on the maps in Sections VI. and VII. to graphically see where the routes have historic districts on 1 side or 2 sides.

ii. Organization of Data: The lengths are broken down by 1) Route with Historic District on 1 Side, 2) Route with Historic Districts on 2 sides of the route and 3) the total length with 1 or 2 sides. The lengths are all in feet and percentages were calculated based on the total length with 1 or 2 sides to understand how much of the total route with historic districts had 1 side versus 2 sides.

iii. Ranking Process: The route with the greatest length with historic districts on 2 sides would be ranked as the least favorable as this would require the power pole to be located within a historic district. A route with a historic district on 1 side would be ranked lower as this allows the power pole to be located outside of a historic district. The total length was ranked based on the overall length, where the longer the route the higher the ranking.

3. Measurable Criteria Analysis & Results:

i. UA North Substation to Kino, Routes 1, 2, 3 and 5

a. All of the routes had almost the same total length in feet, approximately 7500'+/- with 1 or 2 historic district on a side(s) of the transmission line.

b. Routes 3 and 5 had almost double the length than Routes 1 and 2 of having historic districts on both sides of the route, making Routes 3 and 5 the most impacted.

c. Routes 1 and 2 have a ranking of 9. Routes 3 and 5 have a ranking of 13.

ii. UA North Substation to DMP, Routes A, B, D and E

a. Route B had the least length of route with historic districts on 2 sides and the shortest length of Routes A, B, D and E.

b. Route E had the longest total length of route with 1 or 2 sides with historic district as well as the longest length, with 2 sides of a historic district making Route E the least favorable route for this specific criteria.

c. Route A is ranked as 19, Route B as 8, Route D as 13 and Route E as 22.

Kino Table 4 / DMP Table D: Existing Power Poles Located on the Route

1. Objective: Identifying existing power poles located in historic districts directly on the route as well as their height and average spacing will show which neighborhoods are already affected by power poles. While in some cases, new higher electrical poles might help the street appear less cluttered by reducing the number of poles, the new poles could make the street feel more out of scale due to the increased height of the proposed electrical poles.

2. Measurable Data Collection Process:

i. Data Source: The height and spacing of the existing power poles were provided by TEP. Refer to the Power Pole Maps in Sections VI and VII for locations of all existing power poles and each pole's height along the route.

ii. Organization of Data: Kino Table 4 / DMP Table D shows the height range of poles, the average spacing of the poles and the total number of poles in each historic district along specific sections of the route. Only the streets with existing power poles within or adjacent to historic districts are listed. The *Street* listed under each historic district identifies the street that the route would be on, followed by identifying the streets between which the current power poles are located. For example, in Blenman-Elm Historic District, the *Street* is shown as *Campbell Avenue: Elm to Helen*. Campbell Avenue is the street that the power poles are located on. From Elm to Helen on Campbell Avenue, there are 12 existing power poles that range in height from 35'-55' and have an average pole spacing of 141.7'. The maps provide a visual of the actual location of the poles so specific pole spacing can be measured from the maps if needed. Where a street is listed with no number entered, there are no existing power poles along that length of route.

iii. Ranking Process: The streets that have the most existing power poles and poles that are closest to 75' tall will have the least impact from the new power poles. The streets where the majority of the route has less existing power poles or poles that are more spread out over the route, will have the greater impact and be ranked higher. The routes that have more power poles that are taller and closer together will have less impact and be ranked lower. The routes were ranked based on the total number of existing power poles and the pole height range, the lower the ranking the lower the impact of the new lines.

3. Measurable Criteria Analysis & Results:

i. UA North Substation to Kino, Routes 1, 2, 3 and 5

a. Existing power poles occur in all of the Historic Districts that are directly on the route. There are no blocks of the routes that do not have any existing power poles.

b. Routes 1 and 2 have poles that are slightly shorter than Routes 3 and 5.

c. Routes 1 and 2 have 13 more power poles than Routes 3 and 5.

d. Route 1 and 2 are ranked as a 20. Route 3 and 5 are ranked as 25.

ii. UA North Substation to DMP, Routes A, B, D and E

a. Routes A, B and D have about the same range of pole height between 30' to 99'. Route E pole heights are between 35' to 55'.

b. The power poles along Grant Road in the Jefferson Park Historic District are all over 82 feet with an average pole spacing of 237'. Jefferson Park has the most number of power poles, which mostly occur on Ring Road, in Routes A, B and D than the other DMP affected districts.

c. Route D has the most number of poles, which are mostly occurring on Ring Road.

d. For Routes A, B and D, most of the existing poles occur in Jefferson Park. For Routes A and D there are portions along Grant Road that do not have any existing power poles. The power poles in Jefferson Park tend to be shorter in height and more frequent.

e. Route E has minimal power poles in the Miracle Mile Historic District. The majority of power poles occur in Feldman's Historic District. Speedway Boulevard and Oracle Road have very few existing power poles.

f. Route B has 11, the least number of existing power poles.

g. Route A is ranked as 21, Route B as 23, Route D as 9 and Route E as 18

Kino Table 5 / DMP Table E: Historic Light Fixtures within 800' Route Buffer

1. Objective: To identify where and how many historic light fixtures would be within the 800' buffer of the route. The historic light fixtures tend to be small and to have a nearby 75' - 85' electrical pole would make the historic light fixture feel out of scale.

2. Measurable Data Collection Process:

i. Data Source: The number of historic fixtures were counted through geospatial maps provided by COT. Counts of historic light fixtures were not verified in person. It is assumed that the information provided by COT is up to date and reflecting the correct amounts and locations.

ii. Organization of Data: The historic light fixtures are counted within their respective historic districts.

iii. Ranking Process: The number of historic light fixtures were ranked based on the total number of light fixtures, where 1 to 5 light fixtures has a rank of 1, 6 to 10 light fixtures has a rank of 2 and etc.

3. Measurable Criteria Analysis & Results:

i. UA North Substation to Kino, Routes 1, 2, 3 and 5

a. Routes 3 and 5 had the most historic light fixtures, more than double the amounts in Routes 1 and 2.

b. Route 1 and 2 are ranked as a 4. Route 3 and 5 are ranked as 9.

ii. UA North Substation to DMP, Routes A, B, D and E

a. No historic light fixtures are located along Routes A, B and D. Route E had 26 historic light fixtures.

b. Route A is ranked as 0, Route B as 0, Route D as 0 and Route E as 6

Kino Table 6 / DMP Table F: Historic Contributing Properties within 800 feet from the Route and Age Range

1. Objective: To identify the total number of contributing properties that would be affected and if there are certain routes that have a greater number of contributing and older structures within the 800' buffer.

2. Measurable Data Collection Process:

i. **Data Source:** The number of contributing properties to a historic district, individually listed properties and landmark properties were counted through geospatial maps provided by PC, COT and TEP. The location, age and general footprint of the contributing structures on the maps, were determined from the geopatial maps and not verified in person. It has been assumed that the information provided by PC and COT reflect the latest information on landmark, individually listed, contributing and non-contributing properties as well as the age of the historic structure and was not verified in person during the windshield survey or through individual research of each residence within the 800' buffer. The National Register of Historic Places defines these different types of historic properties as: a contributing property is a structure that is part of a historic district and is not eligible or has not been nominated to be an individually listed property; an individually listed property is a structure or site that has greater historic significance than a contributing property, Historic Landmark properties are structures or sites that are recognized as being critical to preserve statewide. Historic Landmark properties have a greater historic importance than contributing and individually listed properties. All of the properties within an 800 foot buffer from the centerline of the street at the route's location were included. The general age of the contributing structures were also counted. The years were broken down from pre-1919, 1920 to 1949, 1950 to 1969 and post 1970.

ii. **Organization of Data:** The counts for the contributing properties are broken down by each individual historic district by 1) total number of historic contributing properties, 2) number of properties individually listed, 3) number of landmark properties, and 4) number of properties by the year as categorized above. Refer to the maps in Section VI for the locations and general age of the contributing structures and identification of individually listed structures.

iii. **Ranking Process:** The route(s) with the greatest number of the above listed attributes are the least favorable as those districts would have a greater burden on more residents and the overall historic district and therefore would be assigned a higher rank. Routes with individual listed or landmark properties would also rank higher as those structures have been identified as having greater historical importance by the NRHP.

3. Measurable Criteria Analysis & Results:

In all of the Kino and DMP routes there were no landmark properties located in the 800' buffer.

i. **UA North Substation to Kino, Routes 1, 2, 3 and 5**

a. Routes 1 and 2 have the majority of their contributing properties in the Sam Hughes District. The Sam Hughes District also has the most number of contributing properties within the 800' buffer for all of the UA North Substation to Kino routes.

b. Routes 3 and 5 have more contributing properties than Routes 1 and 2. Routes 3 and 5 also have older buildings and one (1) individually listed building, University Heights Elementary School, located at 1201 North Park Avenue.

c. West University has the most number properties built pre-1919 and has the most number of contributing properties of the historic districts within routes 3 and 5.

d. Routes 1 and 2 have a ranking of 63. Routes 3 and 5 have a ranking of 104.

ii. **UA North Substation to DMP, Routes A, B, D and E**

a. Route E had the most total contributing properties and the most number of properties built pre-1919 and from 1920 to 1949. This is followed by Route D. Route D has the most properties built between 1950 to 1969.

b. Most of the contributing structures occur in Jefferson Park of these DMP routes.

c. All of the routes have 2 individually listed structures, the Pascua Cultural Plaza and the Matus/Mesa House. Both properties are located in Old Pascua, the oldest of the Yaqui communities in Tucson, within the 800' buffer of the transmission routes.

d. Route E has an additional individually listed structure, the Sabedra-Herta House located at 1036-38 N. 13 Avenue, located as part of the John Spring Historic District.

e. Route A has a ranking of 33, Route B a ranking of 32, Route D a ranking of 42 and Route E a ranking of 70.

Kino Table 7 / DMP Table G: Direct Access of Historic Contributing Properties Along the Route

1. Objective: To identify how many structures would be directly affected with the transmission line by understanding how many contributing properties are located directly on the transmission line route and how many of those contributing properties have direct access from the route to their properties.

2. Measurable Data Collection Process:

i. Data Source: The number of historic contributing properties and individually listed properties were identified through geospatial maps provided by PC, COT and TEP. Once the contributing structures were determined, TAC reviewed in-person, through COT aerials and on Google Earth which structures were accessed directly from the street where the route would be located.

ii. Organization of Data: The number of contributing properties are broken down by each individual historic district by 1) the total number of structures facing the street with the primary access to the property from the street, 2) the total number of structures whose sides or back are to the street where the primary access occurs from an adjacent residential street or alley and 3) the total number of contributing structures directly on the route, a sum of items 1 and 2.

iii. Ranking Process: The route with the greatest number of residences facing the street will have the greatest negative impact, therefore assigned a higher ranking. The routes with the greatest total number of structures with direct access on the route are also assigned a higher ranking.

3. Measurable Criteria Analysis & Results:

i. UA North Substation to Kino, Routes 1, 2, 3 and 5

a. Routes 3 and 5 have six times more contributing properties with their primary access off of the route than Routes 1 and 2. Routes 3 and 5 also have almost double the number of contributing properties directly on the route. Feldman's Historic District has the most number of contributing properties facing the route than the other historic districts. This is followed closely by West University with 20 properties.

b. Routes 1 and 2 have a ranking of 15. Routes 3 and 5 have a ranking of 54

ii. UA North Substation to DMP, Routes A, B, D and E

a. Route E has the most contributing properties that face and are accessed directly from the route. The majority of these properties occured in Feldman's, however a significant number are also in Miracle Mile and West University.

b. Route D has the next most contributing properties that face and are accessed directly from the route, however the homes along Campbell Avenue have a landscaped median and residential street so they are not directly accessing their properties from Campbell Avenue. The properties in Catalina Vista and Jefferson Park are given lower rankings than other districts because they have a residential street off of Campbell Avenue that has landscaping and a site wall to protect their visibility from Campbell Avenue.

c. Route B has the least amount of properties facing the route and being accessed directly from the route.

d. Route A has a ranking of 11, Route B a ranking of 6, Route D a ranking of 11 and Route E a ranking of 50.

Kino Table 8 / DMP Table H: Historic Architectural Analysis

1. Objective: To analyze the routes based on a historic architectural viewpoint that takes into consideration all of the measurable criteria as well as the historic architect's observation from touring the historic districts.

2. Historic Architectural Analysis Process:

i. Data Source: The Historic Architectural analysis was collected by 1) a visual survey of the route and historic districts within the 800' buffer of the route by walking and driving and 2) research that included reviewing the historic guidelines and neighborhood design guidelines of the different historic neighborhoods where available, reviewing SHPO design requirements, reviewing the Historic District Nomination forms and reviewing individually listed properties. Refer to the resource section in the Appendix to find online sources for the information listed above. The placement of transmission lines along federally approved historic districts, individually listed and potentially historical structures will impact those who live, work and visit these structures. All of the contributing structures are a minimum of 50+ years old and many are twice that age, with some built as early as the mid-1870s. The Tucson community has previously identified these neighborhoods to be worthy of special attention by nominating these neighborhoods as historic districts to the National Register of Historic Places and by creating neighborhood preservation zones and historic preservation zones that requires any new designs or modifications to existing structures to be reviewed by the City. These historic districts contribute more value to our City's history with each passing year. The primary impact from the transmission poles to the historic structures adjacent to the route and within the 800' buffer of the neighborhood, from our observation, is the visual impact due to the height and size of the 75' - 85' power poles. The 75' - 85' tall poles will create a negative impact to the current scale of the historic districts with their surrounding city scape. The proposed 75' - 85' tall power poles will be visible to individuals that live in the structures or visitors walking or driving in the neighborhood. However, along the route or approaching neighborhood streets, and especially the homes that face the route will be the most impacted.

ii. Organization of Data: In the analysis, each route is organized by historic district. The historic district in each route was ranked by the factors described below.

iii. Ranking Process:

a. Historic District Integrity: This is based on our visual analysis of the route and review of the original historic district nominations to determine if the historic district still maintained the historic fabric, scale and design integrity that was originally described in the district nomination. The historic district integrity can be affected by new infill, demolition of existing contributing structures, addition of site walls that block the visibility of the contributing structure and additions or modifications to contributing structures that don't follow SHPO guidelines. Contributing homes were not reviewed to determine if their status should be changed. The visual survey analysis was based on the overall feel of the historic district and not a house-by-house analysis. The historic districts that maintained their historic fabric and scale were ranked as 10 as these districts would have the greatest impact from the transmission poles. The historic districts that have already had significant impact to their original historic fabric due to the factors listed above such as new infill or changes that deviate from SHPO guidelines,were ranked as 1.

b. Scale of the Street Adjacent to Historic District: This is based on our visual analysis of the route. This analyzed if the properties were located close to the road or had large front or side yards facing the route, if the road was narrow or wide at the location of the route, if the structures along the road were primarily residential or commercial, if there was mature landscape or no landscape and if there were existing utilities in the street or utilities creating a negative affect to the visual aesthetic of the neighborhood . For wide roads with contributing properties that had large front or side yards and mature landscaping, that were primarily used as commercial along the route, these historic districts were ranked as 1. For narrow roads with minimal landscaping, primarily residential use and no existing above ground utilities would receive a higher rank as these districts would be greatly impacted.

c. Scale of Adjacent Historic & Non-Historic Structures Along the Route: This is based on the height and size of both contributing and non-contributing structures along the route. High rise structures along the route are ranked as 1 as these multi-story structures have changed the original district scale. Single story structures are ranked higher as the transmission poles would create a greater impact to the current sense of scale.

d. Size of Historic District Impacted: This is based on the total area of the historic district. For historic districts where the 800' buffer encompasses most or all of the historic district, these districts were ranked as 10. For larger districts where a small percentage of the historic district would be affected were ranked as 1.

e. Historic Architectural Impression: This is based on our overall professional impression as historic architects since recommendations of historic structures by SHPO, COT and specific neighborhood design guidelines do not address how public utilities should respond to historic districts or historic structures.

3. Historic Architectural Survey Results:

i. **<u>General Observations on each of the Historic Districts:</u>** Below are general comments and observations on each historic district in this study area. Specific comments and observations that are route specific follows this section. Refer to the Appendix in the resource section for how the National Register of Historic Places defines the historic integrity of a property. These aspects identified to evaluate individual properties are the same for evaluating a historic district. The period of significance for each neighborhood described below is information from each historic district's nomination form to SHPO. Refer to the resource section in the Appendix to find web links to each district's nomination form for more information on the architectural, landscape and historic features of each historic district.

a. Blenman-Elm Historic District: This historic district is located on the east side of Campbell Avenue, a gateway arterial street, between Speedway and Elm. The period of significance for this district is 1903 to 1952 and holds Tucson's earliest ranch style residential neighborhoods, with many houses designed by Josias Joesler, a prominent and well-known architect in Tucson. The historic district's integrity and scale are very much intact. The contributing homes within the 800' buffer of the route are well maintained and have kept many of the original historic features of the homes. The residences are primarily single story with well kept landscaping that helps to block some of the UA's Arizona Health Sciences Center buildings. The UA's campus to the west of Blenman-Elm has midrises and highrises that has formed a midrise scale. Overtime, Blenman-Elm has found a balance with the taller structures.

b. Catalina Vista Historic District: This historic district is located just north of the Blenman-Elm historic district. The period of significance for this district is 1924-1962. As described in this Historic District's nomination form, this was one of the first neighborhood developments to be designed based on the automobile and followed the City Beautiful movement, which is reflected in the small neighborhood parks, large roundabouts and landscaped medians. From Elm Street to Grant Road, the general architectural character is similar to Blenman-Elm with mostly one-story homes, larger homes, mature trees and miniparks. The architectural integrity and scale is very much intact. The view of taller buildings from the UA is farther south and less impactful.

c. Feldman's Historic District: This historic district is located north of Speedway Boulevard and west of Park Avenue. Feldman's is a Neighborhood Preservation Zone. The period of significance for this district is from 1901 to 1962. One of the key features of this district is the consistency in the size and setbacks of the residences. The contributing properties in the 800' buffer don't have as dense of vegetation as other historic districts reviewed for this report. The character of this neighborhood contains smaller homes on smaller lots. There are a few mature trees, but not enough to help block the view of some of the higher buildings surrounding Feldman's. The architectural integrity of the design period integrity is still intact.

d. Iron Horse Historic District: This is a very small historic district located on Euclid Avenue between 10th Street to 8th Street. The period of significance for this district is from 1880 to 1935, with the neighborhood starting with the arrival of the Southern Pacific railroad. The neighborhood consists of small homes built for the railroad workers. The mixed use neighborhood consists of homes, commercial use and multi-family housing. The mixed use has a nice scale. From this neighborhood, the surrounding neighborhoods and structures have a minimum impact to the historic integrity.

e. Jefferson Park Historic District: This historic district is located south of Grant Road to north of Chauncey Lane with Campbell Avenue on the east and Park Avenue on the west. Jefferson Park is a Neighborhood Preservation Zone. The period of significance for this district is from 1905 to 1945. Jefferson Park Historic District is notable as an independent rural subdivisions that was built out, one lot at a time. The type of development is reflected in the surrounding arterial streets that curve to incorporate the neighborhood. The homes have maintained their integrity. Many of the homes in the 800' buffer of this route are modest, single story residences. Much of Jefferson Park has been impacted along the edges of the district by the widening of Grant and the expansion of the UA Arizona Health Sciences Center Buildings. There are also been a number of minidorms that are typically 2 story, larger buildings. Most of the original minidorms

did not take into consideration the scale, materials, siting and design features, such as the entrance to homes within the historic contributing properties of Jefferson Park. The development of these minidorms prompted the neighborhood to develop guidelines and become a neighborhood preservation zone. New developments are now required to be reviewed by the Tucson Pima County Historic Commission and the City of Tucson Design Review Board. In our visual analysis of Jefferson Park, much of the historic fabric has been impacted by these minidorms and site walls built by adjacent properties to create additional privacy from the minidorms. The walls in front of the residences in Jefferson Park have started to limit the visibility of the historic structures in this neighborhood, which is starting to impact the overall historic fabric and representation of Jefferson Park. While it is not to the extent where the Historic District should be delisted, the residents of Jefferson Park and the City of Tucson should be cautious in how new buildings are located and how existing contributing properties are modified. Because of the stress that Jefferson Park has experienced in recent years due to many of their contributing properties being demolished or delisted, it is critical that the route taken through Jefferson Park have as little impact as possible. Several contributing structures in Jefferson Park have already been demolished in preparation for the Grant Road widening. Additional contributing structures have been demolished along Ring Road due to UA development. Although the installation of power poles will not remove any contributing property or delist a historic district, it is important to help this historic district remain a strong example of a historic district that shows independent rural subdivisions, slowly built over a span of 60 years.

f. John Spring Neighborhood Historic District: The period of significance for this district is from 1896 to 1940. This small neighborhood has modest, 1-story homes with narrow streets and mature trees that help block the views of some of the downtown high rises. Many of the structures date pre-1920 and are of adobe construction. Many of the original uses of the structures besides residential home, included grocery stores, churches and commercial uses. Today, most of the structures are residential. The contributing properties still have many of their historic features intact. The area of John Spring is a narrow district in the area just adjacent to Speedway Boulevard.

g. Miracle Mile Historic District: The period of significance for this district is from 1920 to 1963. Most of the contributing properties are comprised of commercial, industrial and motels that face the street. This historic district is unlike any other in Tucson, where it is based along specific routes rather than neighborhoods.

h. Pie Allen Historic District: This small historic district is located along Euclid Avenue from 10th Street to 6th Street. The period of significance for this historic district is 1874 to 1945. Similar to Iron Horse Historic District, this neighborhood was mostly developed to serve the railroad works of the Southern Pacific Railroad. Most of the homes are 1-story. Many of the structures are older, with most built pre-1925. Many structures are still visible from the neighborhood and reflect their original design features. The contributing properties are mostly single story bungalow style residences however some of the homes are only in fair condition and need general maintenance. Many of the residences appear to be student housing. Most houses appear to have mature vegetation. The houses on the edge of the district don't appear as well maintained.

i. Rincon Heights Historic District: The period of significance for this historic district is 1881-1962. This historic district is located along Campbell Avenue from Broadway Boulevard to 6th Street south of the UA campus. The character of this neighborhood is comprised of 1-story residences and some commercial and apartment buildings. This historic district is one of of Tucson's earliest subdivisions that were developed without deed restrictions which allowed for a diverse group of middle class ethnic and social minorities.

j. Sam Hughes Historic District. This large historic neighborhood is located on Campbell Avenue from Broadway Boulevard to Speedway Boulevard. The period of significance for this historic district is 1918 to 1953. The architectural integrity is very good in this district. The scale, historic fabric, landscape and the properties has been well maintained in the neighborhood. The mature trees are well kept and will help to block the visibility of the proposed power poles, just as many of the current poles are blocked or partially blocked. The neighborhood has a good visual of the U A mid-rises and high rises, including stadium lights that impact the neighborhood from time to time.

k. West University Historic District: This historic neighborhood is located on Euclid Avenue from 6th Avenue to Speedway Boulevard and from Stone Avenue to Park Avenue. West University is a Historic Preservation Zone. The period of significance for this historic district is 1890 to 1930. Many of the contributing properties in this district are older than contributing properties in other historic districts that are affected by the new transmission line route. Because of the older historic significance of West University and its proximity to the university, this historic district also has many structures designed by prominent architects as well as notable citizens that reside(d) in this district. Many of the homes in this district continue to be well main-

tained with minimal alterations to their original historic design. There has been new construction located within this historic district, however much of the original historic fabric is still present. Most homes are still visible from the street with mature and well kept landscaping. New student housing high rise construction has occurred outside of West University, which does impede visually on the historic district and the scale creates an uneasy relationship between the high rises and 1-story homes, but does not cause the district to lose its historic significance.

ii. UA North Substation to Kino, Routes 1 and 2

a. General: Many of the structures on Campbell Avenue from Broadway Boulevard to Elm Street are commercial structures that are not part of a historic district. The commercial and institutional structures range in height from small, single story structures to high rises. The style and materials of the architecture outside of the historic district range from typical stucco, strip mall to contemporary mid and high rise structures.

b. Blenman-Elm Historic District: Two of the homes directly along Campbell Avenue have built site walls to help block the noise and provide privacy from Campbell Avenue, a highly travelled road, as indicated by being a Gateway Arterial Street. In building the site walls, the historic fabric of that portion of the neighborhood is no longer visible, however this doesn't detract from the overall historic significance of the Blenman-Elm District as there are not many residences directly on Campbell as shown in Table 7, Access of Historic Contributing Properties along the Route. There are contributing homes between Mabel Street and Drachman Street that are well maintained, still visible from the street and small, single story structures. Saints Peter and Paul Catholic Church and School is located off of Campbell and is a contributing property to Blenman-Elm. The church is a higher structure that has a prominent presence from Campbell Avenue. Between Mabel Street and Elm Street on Campbell Avenue, power poles should be located to avoid blocking Saints Peter and Paul Catholic Church, to not compete with the taller structure of the Church and located to minimize the impact to the small residential homes along that portion of street. The power poles are currently located on the east side of Campbell adjacent to many of the contributing properties. Most of the existing power poles are wood and 55' in height, with some shorter poles. If the new power poles are located on the west side of Campbell, where there are no historic districts, and the power poles currently located on the east side of Campbell are removed, this would help the historic visibility of the current contributing structures and reduce the negative visual impact. Routes 1 and 2 affect Blenman-Elm only along Campbell Avenue. Because this is already a wide street with mature landscaping, the transmission line would have less of an impact to Blenman-Elm's overall historic district than districts where the route is going through a residential street, collector street or a narrow arterial street.

c. Catalina Vista Historic District: Route 1 and 2 has minimal impact on Catalina Vista as there are very few homes within the 800' buffer. The existing and mature landscaping within Catalina Vista will help to block the visibility of new power poles, especially if the poles are located on the west side of Campbell Avenue.

d. Jefferson Park Historic District: Many of the homes in the 800' buffer of this route are small, single story residences with generous front yards. The Church of Latter Day Saints has a tall bell tower and a taller single story structure. The landscape varies with some areas having denser, older vegetation that would help block the visibility of the power poles from existing historic structures. Many of the homes directly adjacent to Ring Road, a narrow residential road, have been demolished. Very few structures still remain and those that remain do not face into Ring Road. Catch basins have been constructed in locations where historic contributing structures were previously located. New landscaping and sidewalks have recently been installed. Residences located along Ring Road now feel out of place as the structures that once surrounded them are now gone. The tall university buildings also contrast the scale of the single story homes. The addition of 75' - 85' power poles along this portion of Jefferson Park would not add a great deal more impact to this already affected portion of Jefferson Park. The narrow width of the Ring Road, however would locate the power poles close to the residences remaining on Ring Road and make those structures feel more out of place. There are several existing power poles adjacent to Jefferson Park. The poles are short in height, with most around 30' tall. Car access from Ring Road into the Jefferson Park Neighborhood have also been blocked to vehicles, so Jefferson Park can no longer be accessed from Ring Road by car. Only a short length, approximately 1,100 ft of the historic district would be affected by the route.

e. Rincon Heights Historic District: The contributing homes within the 800' buffer of Route 1 and 2 are mostly maintained with some residences used for student housing. Many of the contributing properties are still visible from the streets. The residences are primarily single story, with some two story structures. The High School Wash that bisects the district has dense, natural vegetation, which will help block the visibility of the power poles to some of the contributing properties within the 800' buffer. Many of the residences along

Campbell Avenue have built site walls to help block the noise and provide privacy from Campbell Avenue. In building the site walls, the historic fabric of that portion of the neighborhood is no longer visible from Campbell Avenue, however this doesn't detract from the overall historic significance of the Rincon Heights District. There are also several vacant lots that are part of this historic district, located along Campbell Avenue. These vacant lots help provide a buffer between Campbell Avenue and the contributing properties. Most of the existing power poles adjacent or in the Rincon Heights Historic District are smaller wood power poles, around 35' to 40' tall. These smaller poles are not as visible due to the landscaping along Campbell, however the landscaping in Rincon Heights is much less than Blenman-Elm and Sam Hughes. There are not many tall commercial or institutional structures in or directly adjacent to this district. Because this is already a wide street the transmission line would have less of an impact to Rincon Heights' overall historic district than districts where the route is going through a residential or collector street.

f. Sam Hughes Historic District: The contributing homes within the 800' buffer of Routes 1 and 2 are well maintained and have kept many of the original historic features of the homes. Many of the contributing properties are still visible from the residential streets. The residences are primarily single story, with some two story structures and well kept, mature landscaping that helps block some of the higher surrounding buildings and existing power poles. The intersection of 3rd Street and Campbell Avenue, is a critical intersection to maintain the vista from the tree lined 3rd Street into the UA's East Gateway entry, Campus Mall and Old Main. 3rd Street not only adds to the intent of the City of Tucson's definition of a gateway arterial street, it is also a key historic feature of the Sam Hughes Historic District as noted in their SHPO nomination form. This tree lined street starts directly off of Campbell Avenue and is one of the major historic features of Sam Hughes and Tucson. Very few homes along Campbell Avenue have walls, allowing many of the contributing properties to remain visible from Campbell. Many of the homes are also located close to the street, and will have the greatest negative impact within their district. If possible power poles should be located on the west side of the street to reduce the impact to the residences along Campbell Avenue. From 6th Street to 1st Street, power poles are currently located on the east side of Campbell, adjacent to contributing properties. Most of the existing power poles are 55' tall wood poles. If the existing power poles could be removed and located on the west side of Campbell Avenue, this might help the visual impact to this historic district. The current power poles are not equally spaced, and some are adjacent to other poles. If poles are able to be spaced farther apart, that will help reduce the visual impact to this district. The University also has tall lights that are used to help light up the practice field at the north west corner of 6th Street and Campbell Avenue. The lights have a negative impact when they are in use, however their diameter is smaller than the proposed power poles. The A Loft hotel, a 7 story structure, approximately 80' tall can be viewed from many of the homes near the Speedway, Campbell intersection, within the 800' buffer. The Sam Hughes historic district from 6th Street to Broadway Boulevard has 5 contributing properties along that block and the border of Sam Hughes jogs away from Campbell Avenue, reducing the length of district directly along Campbell Avenue. Because Sam Hughes is not bisected by the route, the impact to Sam Hughes is less than historic districts that are bisected.

g. University of Arizona: Although this is not a designated historic district, the University of Arizona (UA) does have individual contributing properties and has identified a historic district on campus. Refer to the resources section for the University of Arizona Preservation Plan that has additional information on their preservation requirements and strategy. Although the UA mall is not part of the UA's historic district, the mall has been identified as a character defining feature of the UA. Key features at the UA mall is the open space and clear vista that visitors have from Campbell and 3rd to Old Main and the mountains beyond looking west. One of the University of Arizona Preservation Plan Goal's is to "Refine the East gateway at Campbell Avenue" (p. 52). By locating the transmission line directly in front of the mall, the power lines will interrupt the current character-defining vista which looks west from the campus boundary. The location of the 75' - 85' power poles should coordinate with the UA's plan for the refining of the east gateway

iii. UA North Substation to Kino, Routes 3 and 5

a. Feldman's Historic District: From the 800' buffer of Routes 3 and 5, the taller structures on and around the UA campus are visible. Many of the houses and apartment complexes appear to be student housing. Landscape and hardscape is not as well kept as in other historic districts. Most contributing structures are still visible from the street, allowing the historic fabric of the neighborhood to be expressed. Along Helen Street, a residential street where Routes 3 and 5 are being proposed, all of the homes are contributing and face the street. The landscape and hardscape along that street are a nice representation of that historic district. Most of the power poles on Helen Street are located on the south side of the street. To add 75' - 85' power poles along Helen Street would have a large negative impact on this district. Most of the route

through this district has power poles around 45' tall and are of wood. The route borders Feldman's along Park Ave from Helen Street to Lee Street. Along Helen Street and Park Avenue was the University Heights Elementary School, which has been adaptively reused and is now part of the Campus Crossings at University Heights Apartments, and remains an individually listed structure. If power poles are located along this route, care should be taken in the placement of the new power poles to not detract from this individually listed building. There are a few blocks from Mabel Street to Adams Street between Park Avenue and Euclid Avenue that have more non-contributing structures than other portions of the route going through Feldman's, which reduces the quality of the historic district in that area of the district. Along these blocks there is also a multistory UA project that is currently under construction, which will change the scale of the street from the previous feel. No historic districts are across Feldman's on Park Avenue, which would allow the new power poles to be located on the east side of Park Avenue, away from the historic district.

b. Iron Horse Historic District: Many of the structures in Iron horse were built pre-1925, with some of the oldest structures in comparison to the other historic districts that the proposed route passes through. The High School Wash passes through this district and provides dense vegetation that would help block the visibility of the power poles for certain contributing properties. Most of the structures are single story, with some two story structures. Some residences appear to be student housing, however most of the homes are still visible from the street and are in fair to good condition. The neighborhood has mature vegetation and the homes are densely located. Most of the existing power pole heights are unknown. They do not appear to be very tall, some of the power lines appear lower than the light poles and seem to be carrying cable only. A tall power pole is located in front of Tucson High School on the west side of Euclid Avenue. The pole is painted to match the color of Tucson High and is on a portion of the road that has more width between the faces of the buildings facing onto Euclid Avenue. This added width, painted color of the pole and height of the 3 story Tucson High building help detract from the visibility of the pole. Euclid Avenue is a narrow, arterial street with many of the contributing properties close to the street with minimal room to add landscaping. Many of the homes along Euclid Avenue are single story bungalow residences with low volcanic rock walls. Some of the homes have fences or walls that block the homes' visibility from the street. Most have their original designs intact, however some of the homes are only in fair condition and need general maintenance. This historic district spans from Hughes Street to 8th Street, however only a small portion directly borders the route. This is also a small historic district where almost half of the district is within the 800' buffer, resulting in a greater negative impact on the historic district than the larger historic districts.

c. Jefferson Park: Very few homes are impacted in this route option. This route has the least impact to Jefferson Park and its contributing properties.

d. Pie Allen Historic District: Many of the structures are older, with most built pre-1925. Many structures are still visible from the neighborhood and reflect their original design features. Many of the residences appear to be student housing. Most houses appear to have mature vegetation. The houses on the edge of the district don't appear as well maintained. Some of the homes have located fences or walls to block their visibility from the street. The contributing properties are mostly single story bungalow style residences. Most have their original designs intact, however some of the homes are only in fair condition and need general maintenance. Refer to Iron Horse Historic District above for description and impact of the existing power poles. The route borders Pie Allen from 10th Street to 6th Street on Euclid Avenue. A small portion from 10th Street to 9th Street that borders Pie Allen also borders Iron Horse Historic District on the opposite side of the street. On 6th Street and Euclid Avenue, Pie Allen is catty-corner to West University. Although Pie Allen is only bordering the route, the impact to this historic district will have a bigger visual impact than the larger historic districts as the 800' buffer includes almost all of the Pie Allen Historic District.

e. West University: New high rise construction has occurred outside of West University, which does impede visually on the historic district, but does not cause the district to lose their historic significance. This neighborhood has had to adjust to views of the UA buildings and the student apartment high-rise buildings. Many of the contributing properties directly along the route are accessed from Euclid Avenue and located very close to the street. There is minimal front yards for these contributing structures. Existing power poles are located along Euclid Avenue and are mostly 40' tall wood poles. They occur more frequently from 6th Street to University on Euclid Avenue. The current power poles detract from the historic fabric in that portion of the route as they are more frequent. If the 75' - 85' tall poles were located here with their wider base, this could impede more on the visual fabric of the historic district. The street car lines are also visible on University and Euclid, which detracts from the historic district. Although the height of the surrounding buildings could help hide the height of the power poles, the diameter of the poles would impact the contributing structures directly along the route due to the narrow width of the current road and sidewalk. A portion of the route bisects West University from 4th Street to Speedway Boulevard on Euclid Avenue, however

many of the contributing structures on the east side of Euclid Avenue have been demolished. There are also several noncontributing properties on the west side of the street. From 4th Street to University Boulevard, the entire block still has contributing properties where the route bisects the district. From 6th Street to 4th Street on Euclid Avenue, the historic district borders the proposed route.

iv. UA North Substation to DMP, Routes A

a. Jefferson Park Historic District: Some of the homes face the route, however once Grant Road is modified, the number of homes facing the route may change. Many of the homes along Vine Avenue have their side to Vine Avenue, which helps reduce the impact to those homes. There are also many site walls constructed along Vine Avenue to provide privacy. Because this route cuts through the center of Jefferson Park, this route has the most impact on contributing properties directly on the route in this historic district. There are minimal existing power poles along Grant Road, however once the new road is completed along Jefferson Park, the new power poles will be similar to the current poles located in the newly widened portion of Grant Road. There are existing wood power poles around 30' to 40' going down Vine Avenue. Power poles are located on both sides of the street and are fairly close together. Although the 75' - 85' tall poles could help reduce the frequency of the existing power poles, the size would feel overwhelming to the current scale of the neighborhood. Because of the impact the scale would have to this residential street, with very little sidewalk and structures located close to the road, the historic architectural impact would have the greatest negative impact in comparison to the other routes.

b. Miracle Mile Historic District: There are only 3 contributing properties that are within the 800' buffer and they are commercial structures, surrounded by commercial buildings. Grant Road already has tall power lines. As the new transmission line will have no additional impact to this historic district, the impact is negligable.

v. UA North Substation to DMP, Routes B

a. Jefferson Park Historic District: Some of the homes face the route. Many of the homes along Park Avenue have their side to the street, which helps reduce the impact to those homes. There are also many site privacy walls constructed along Park Avenue. As this route has very few sidewalk and curb along the road, if new power poles were located along this route, adding curbs, sidewalk and landscape would help reduce the impact to the historic district. There are minimal power poles along Grant Road. Park Avenue has existing power poles that range in height and spacing and are located on both sides of the street. The 75' - 85' power poles will impact the scale of the historic structures, however there are few contributing structures that will be impacted due to the configuration of Jefferson Park. Only a short length of the route is bordering Jefferson Park on Grant Road. Most of the Route B length is along Park Avenue which is a collector street. There is some sidewalk and curb near Grant Road, but most of the road has no curb or sidewalks. While Park Avenue is collector street, not a residential street, it is still a narrow road with mostly residential structures in the historic district along Park Avenue. Jefferson Park is bisected as the route goes down Park Avenue from Grant Road to Seneca Street. From Seneca Street to Chauncy Street on Park Avenue, the route is bordering Jefferson Park on the east side of the street. However, there is additional impact to the district within the 800' buffer on the west side of Park Avenue. This route bisects through the middle of the historic district, but it is not as severe as Route A. The portion along Park Avenue that is bordering Jefferson Park would be best if the new power poles were located along the west side of Park Avenue so that it is not immediately adjacent to the historic district.

b. Miracle Mile Historic District: Refer to the comments on Miracle Mile in Route A

vi. UA North Substation to DMP, Routes D

a. Blenman-Elm Historic District: The route turns from Campbell to Ring Road, in front of Blenman-Elm. Our assumption is this change in direction of the transmission line will require a larger power pole. If possible, the power pole should be located on the west side of Campbell Avenue so it is not directly in front of the single story contributing homes in Blenman-Elm and reduces the impact to the contributing homes within the 800' buffer of the route. If Route D is able to go down Lester Street, this will reduce the impact to Blenman-Elm, however it will increase the impact to Jefferson Park. Route D only has a minimal impact to Blenman-Elm due to the small length of route adjacent to Blenman-Elm.

b. Catalina Vista Historic District: The existing and mature landscaping within Catalina Vista will help to block

the visibility of new power poles, especially if the poles are located on the west side of Campbell Avenue. Many of the homes are on larger lots and face away from Campbell which will help reduce the impact of the power poles if they are located on this route. Although there is a high number of residences that face the route, there is a neighborhood street adjacent to Campbell Avenue that provides mature landscape and a stuccoed CMU site wall that blocks the sound from the traffic and creates privacy. This road and landscape configuration will also help to block some of the power poles. With the secondary neighborhood road off of Campbell Avenue, the impact of Campbell Avenue and having power poles along Campbell would have a minimal affect to this neighborhood. The neighborhood route also has large vegetation and walls that help block the noise and view of Campbell Avenue. From our observation and seeing the design and massing of the west edge of the district, we felt the impact to this district will be moderate.

c. Jefferson Park Historic District: This route has the most length bordering Jefferson Park, it also has a high number of contributing properties adjacent to the route. Similar to Catalina Vista, the street configuration along Campbell Avenue helps to reduce the impact to Jefferson Park. Although it would be best to leave existing streets that don't have power poles without them, the overall width of Campbell allows for the tall poles to be less overpowering to the mostly single story structures in Jefferson Park than locating the poles on Vine Avenue or Park Avenue. Ring Road is a residential street, see comments in Jefferson Park under Routes 1 and 3. While Route D still has a negative affect to Jefferson Park, the affect is not as significant as Routes A and B to this district.

d. Miracle Mile Historic District: Refer to the comments on Miracle Mile in Route A

vii. <u>UA North Substation to DMP, Route E</u>

a. General: There are very few existing power poles along this route. Our preference would be to locate the route where there are already existing power poles that could be removed or reduced to help improve the visual impact to the historic districts.

b. Feldman's Historic District: There are currently no existing power poles located directly on Speedway. Adding new power poles to streets that already have visible power poles would be preferred to adding power poles to streets that currently have no power poles. Refer to the Route 3 and 5 for the impact to Feldman's along Helen Street and Park Avenue. In addition to the impact to those streets, this route would also impact the district along Speedway Boulevard. Most of Speedway Boulevard has single story structures with primarily commercial uses. The structures tend to have small front yards and moderate landscaping. Part of Feldman's does step away from Speedway Boulevard from about 3rd Avenue to 6th Street, which helps reduce the number of contributing properties that this route impacts.

c. John Spring Neighborhood Historic District: There are three contributing structures along the route and one with access directly from the route. The one contributing structure that has direct access is commercial. The other two contributing structures are accessed by adjacent residential streets. The area of John Spring is a narrow district in the area just adjacent to Speedway Boulevard. The portion that is in the 800' buffer is minimal. Most of the residences are small, single story structures. Many of the structures date pre-1920 and are of adobe construction. The residential streets in the 800' buffer are narrow, with desert landscaping along the sides of the streets. Some of the residence have fences around their homes, but most residences are still visible. There are currently no power poles located on Speedway Boulevard in the area of this district.

d. Miracle Mile Historic District: The Miracle Mile Historic District's intent is to retain the existing architecture and streetscape that was developed from 1920 to 1963 as design for the automobile started to emerge and change how cities were designed. Due to the configuration of the Miracle Mile Historic District, almost all of the district from Grant Road to Speedway Boulevard is in the 800' route buffer. Most of the contributing structures are large commercial, single story structures with low profile designs. The landscape is also minimal along the street. Although the width of the street is wide and there are primarily commercial structures along the route, adding power poles would have a negative affect to a historic district that is attempting to preserve the mid-century auto culture that existed along Oracle Road. The configuration of this district has many jogs creating locations where contributing properties are on one side of the street and the opposite side of the street does not have any contributing properties or is not part of the district. If this is the chosen route, care should be taken in locating the power poles away from the contributing structures. The tall power poles would be much more noticeable on this street than a street that is well landscaped.

e. West University Historic District: While many of the contributing structures along Speedway Boulevard face the route, many are being used as offices or other commercial uses and student housing. Most of

the homes along Speedway Boulevard remain visible, where the single story bungalow style homes can still be viewed as people walk and drive down Speedway Boulevard. Many of the structures are still well maintained. De Anza Park at the corner of Stone Avenue and Speedway Boulevard is a contributing property and has large trees and a low wall constructed of volcanic rock. If power poles were to be located at this intersection, it would be important to try to allow for this space to remain unincumbered to allow the park to maintain its visually open green space. There are currently no existing power poles located directly on Speedway Boulevard in the West University Historic District. Adding new power poles to streets that already have visible power poles, would be preferred than adding power poles to streets that currently do not have any power poles. The street is wider and most of the structures face toward Speedway Boulevard. The route borders West University from Tyndall Avenue to Stone Avenue on Euclid Avenue, however much of the route is opposite to Feldman's Historic District. The lack of power poles creates a very clean visual condition that should be maintained.

Kino Table 9 / DMP Table I: Summary Table by Historic District

1. **Objective:** To review in summary tables how each historic district is impacted by route.

2. **Measurable Data Collection Process:**

   i. **Data Source:** The total ranking of each historic district are from Kino Tables 1 to 8 and DMP Tables A to H. .

   ii. **Organization of Data:** A total of 9 Tables are part of this Summary Table. Kino Tables 1-8 show a summary of each historic district organized by each measurable criteria and historic architectural impact. Kino Table 9 and DMP Table I are summaries organized by historic district of the total of all the rankings from Kino Tables Kino Tables 1, 2, 4, 5, 6, 7 and 8 and DMP Tables A, B, D, E, F, G, H. Kino Table 3 and DMP Table C are added in the final total under DMP Table I since Kino Table 3 and DMP Table C are not categorized by historic district.

   iii. **Ranking Process:** The total ranking for each district is shown in these summary tables. The historic district with the lowest total sum for all of the measurable criteria factors would experience the least impact from the transmission lines.

3. **Analysis & Results:**

   i. **UA North Substation to Kino, Routes 1, 2, 3 and 5**

      a. Routes 3 and 5 have a total overall greater negative impact for all of the measurable criteria developed in Tables 1 through 7.

      b. The summary ranking by district shows that Feldman's and West University will have the most negative impact.

      c. Rincon Heights and Jefferson Park are affected with Routes 1, 2 3 and 5.

      d. Routes 1 and 2 have a total ranking of 256. Routes 3 and 5 have a total ranking of 405.

   ii. **UA North Substation to DMP, Routes A, B, D and E**

      a. Route E has the greatest total negative impact. West University and John Spring Neighborhood are only affected by route E.

      b. Jefferson Park Historic District is impacted by all four route options.

      c. Blenman-Elm and Catalina Vista are only affected by Route D. Route D has the least impact.

      d. Feldman's is only affected by Route B.

      e. Route A has a total ranking of 163, Route B a total ranking of 138, Route D a total ranking of 135 and Route E has a total ranking of 295.

V. UA North Substation to Kino Maps and Tables

TROW and TAC developed maps of each route to visually depict the measurable criteria identified in Section III Methodology. Each route has a map of the full route as well as enlarged maps where the route is adjacent or passes through historic districts.

A. Route 1 Maps: UA North Substation to Kino

1. Figure V.A.1. Full Route
2. Figure V.A.2. Mountain Avenue to Warren Avenue
3. Figure V.A.3. Waverly Street to Speedway Boulevard
4. Figure V.A.4. Speedway Boulevard to Sixth Street
5. Figure V.A.5. Sixth Street to Broadway Boulevard

B. Route 2 Maps: Kino to UA North Substation

1. Figure V.B.1. Full Route
2. Figure V.B.2. Mountain Avenue to Warren Avenue
3. Figure V.B.3. Waverly Street to Speedway Boulevard
4. Figure V.B.4. Speedway Boulevard to Sixth Street
5. Figure V.B.5. Sixth Street to Broadway Boulevard

C. Route 3 Maps

1. Figure V.C.1. Full Route
2. Figure V.C.2. Warren Avenue to Santa Rita Ave
3. Figure V.C.3. Lester Street to Mabel Street
4. Figure V.C.4. Adams Street to 1st Street
5. Figure V.C.5. 1st Street to 5th Street
6. Figure V.C.6. 6th Street to Broadway Boulevard
7. Figure V.C.7. Fremont Avenue to Broadway Boulevard

D. Route 5 Maps

1. Figure V.D.1. Full Route
2. Figure V.D.2. Warren Avenue to Santa Rita Ave
3. Figure V.D.3. Lester Street to Mabel Street
4. Figure V.D.4. Adams Street to 1st Street
5. Figure V.D.5. 1st Street to 5th Street
6. Figure V.D.6. 6th Street to Broadway Boulevard
7. Figure V.D.7. Fremont Avenue to Broadway Boulevard

Figure V.A.1: ROUTE 1
UA NORTH SUBSTATION TO KINO: FULL ROUTE

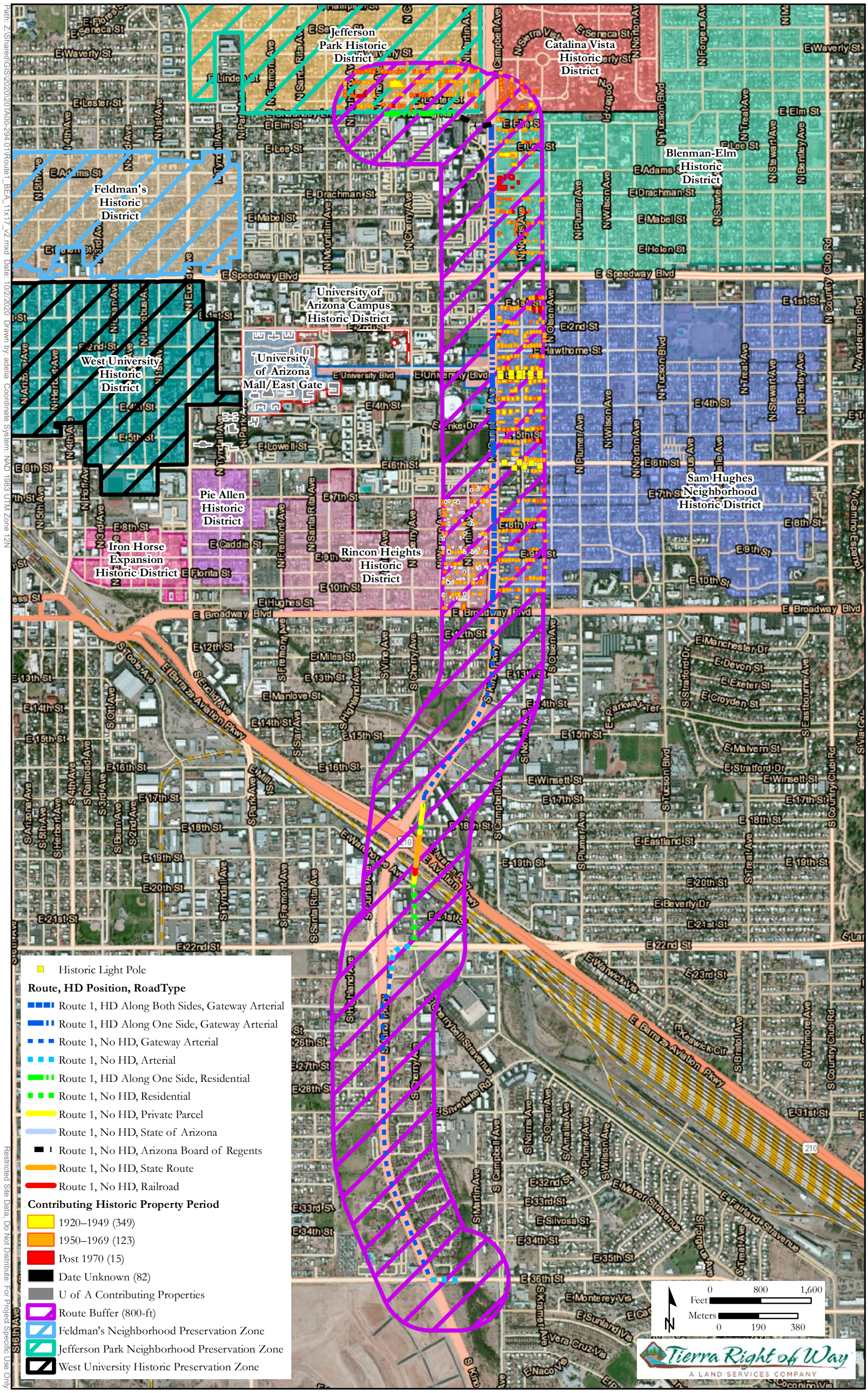

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Figure V.A.2: ROUTE 1
UA NORTH SUBSTATION TO KINO: MOUNTAIN AVE. TO WARREN AVE

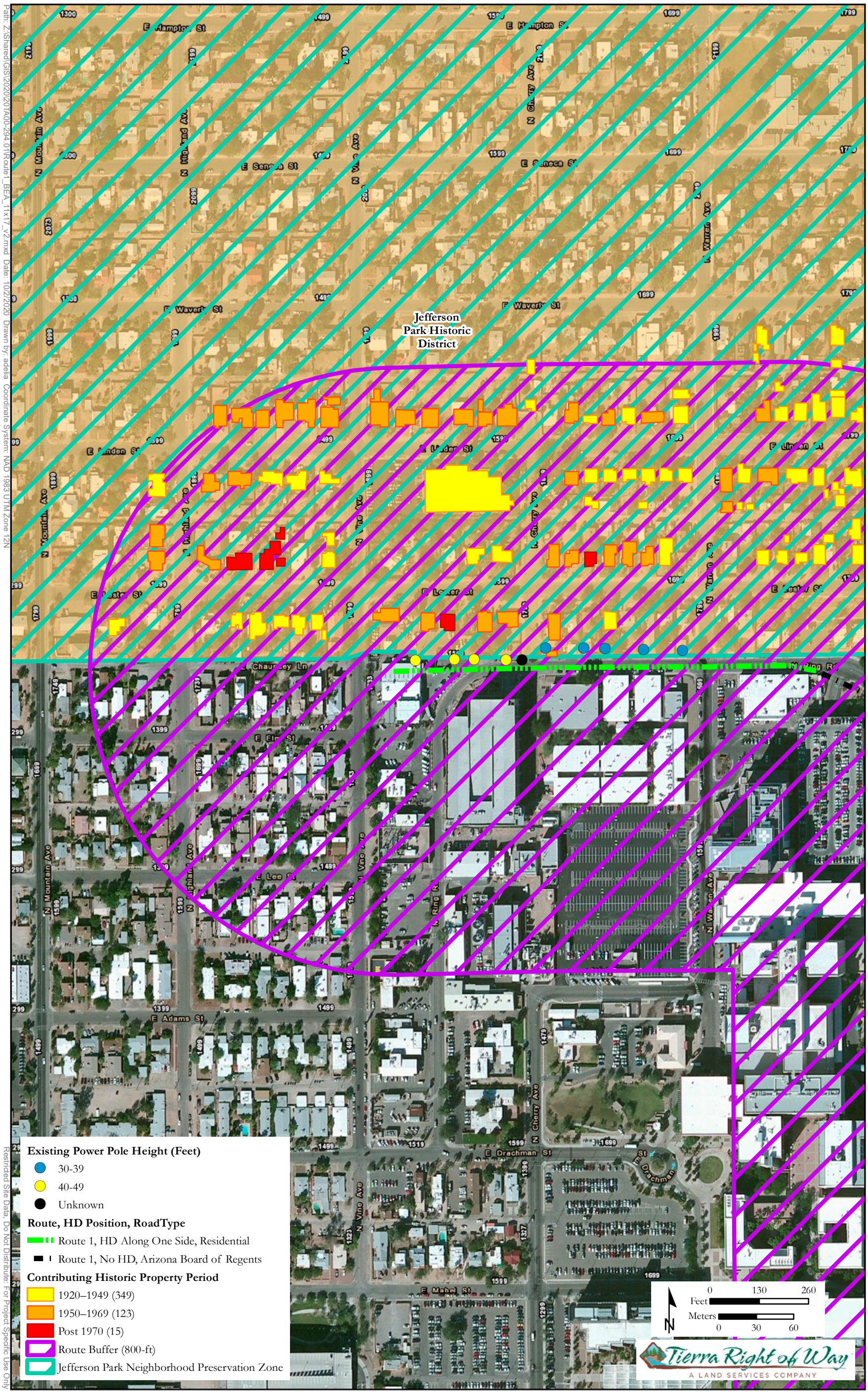

Figure V.A.3: ROUTE 1
UA NORTH SUBSTATION TO KINO: WAVERLY ST. TO SPEEDWAY BLVD.

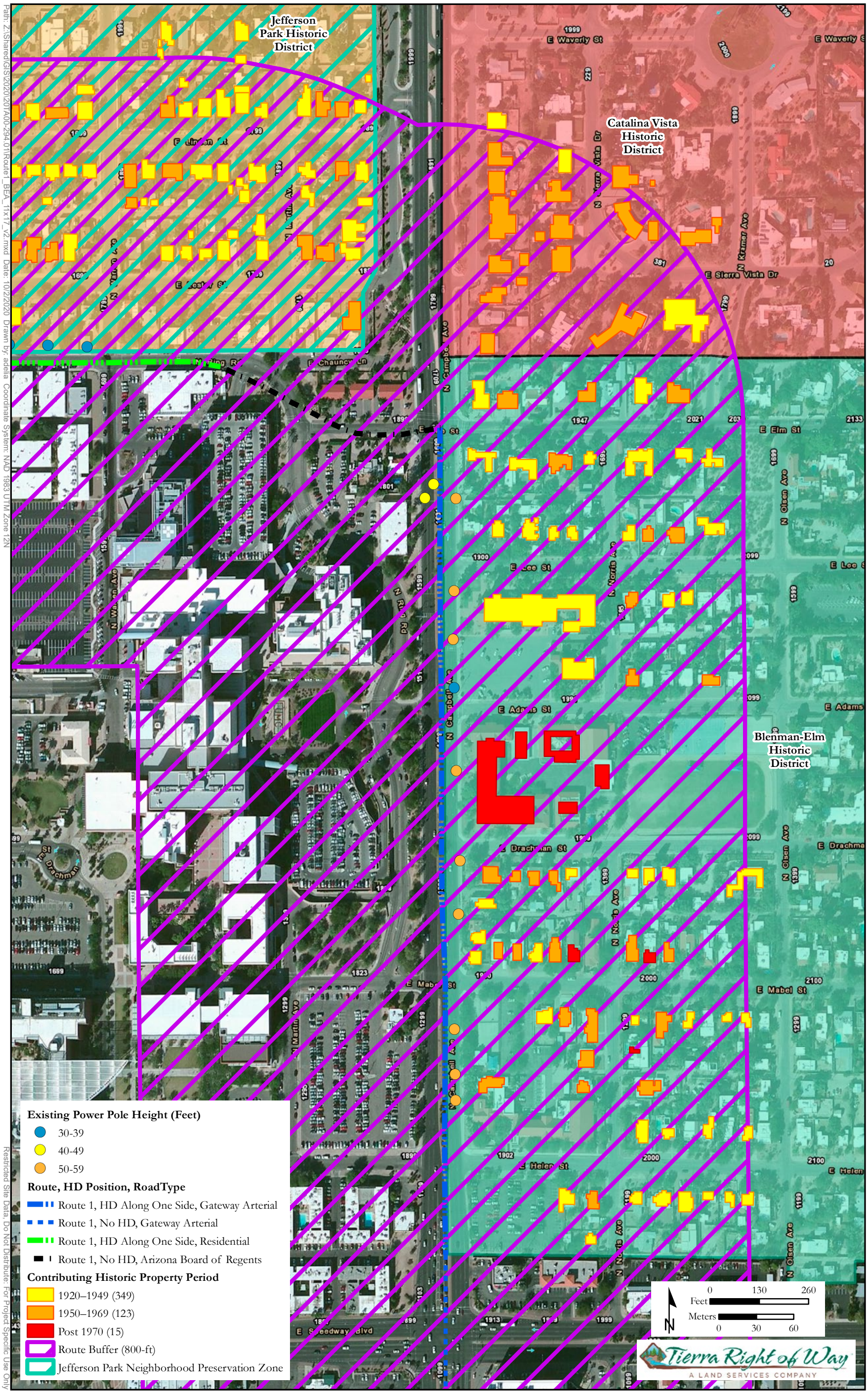

Figure V.A.4: ROUTE 1
UA NORTH SUBSTATION TO KINO: SPEEDWAY BLVD TO SIXTH ST

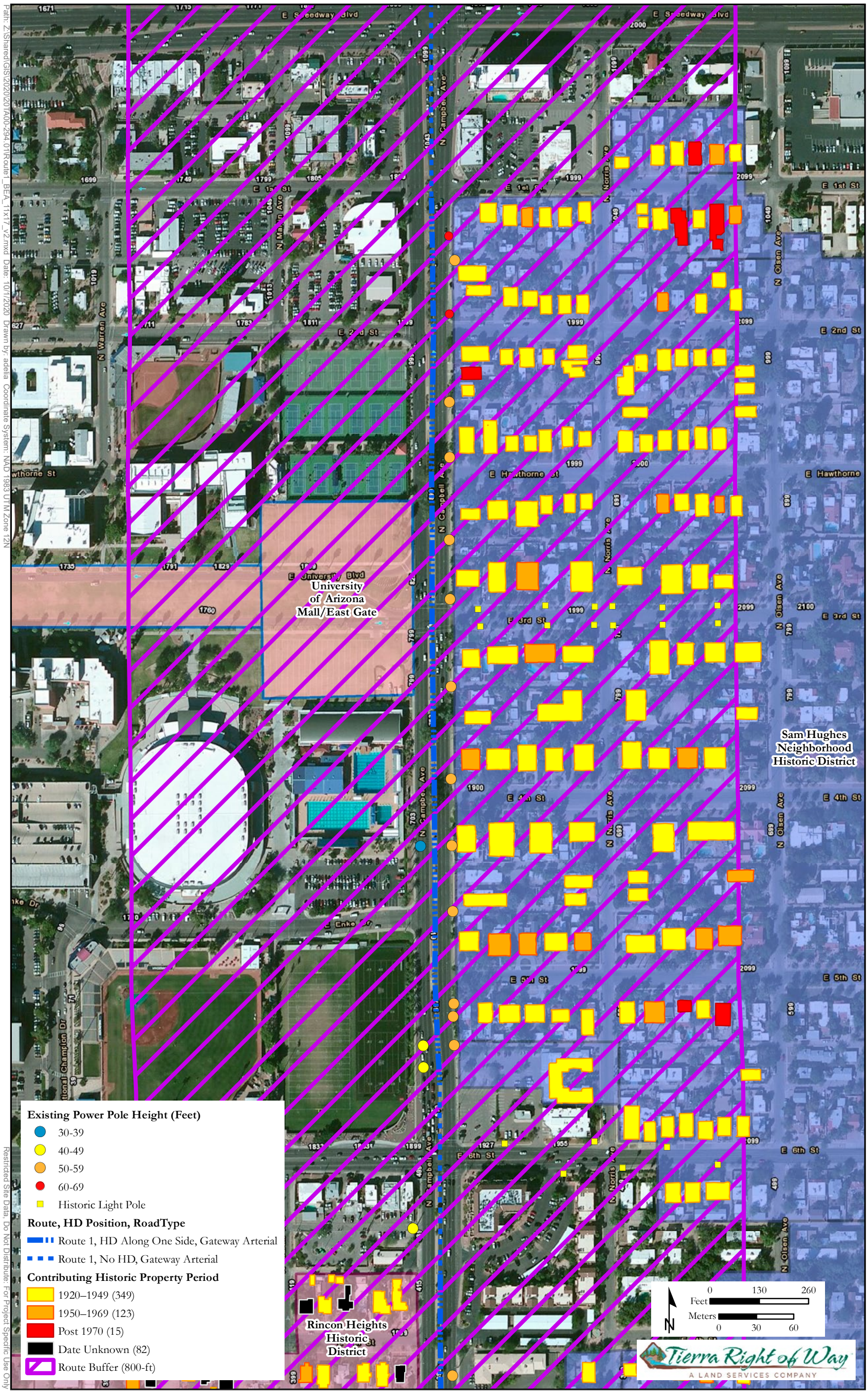

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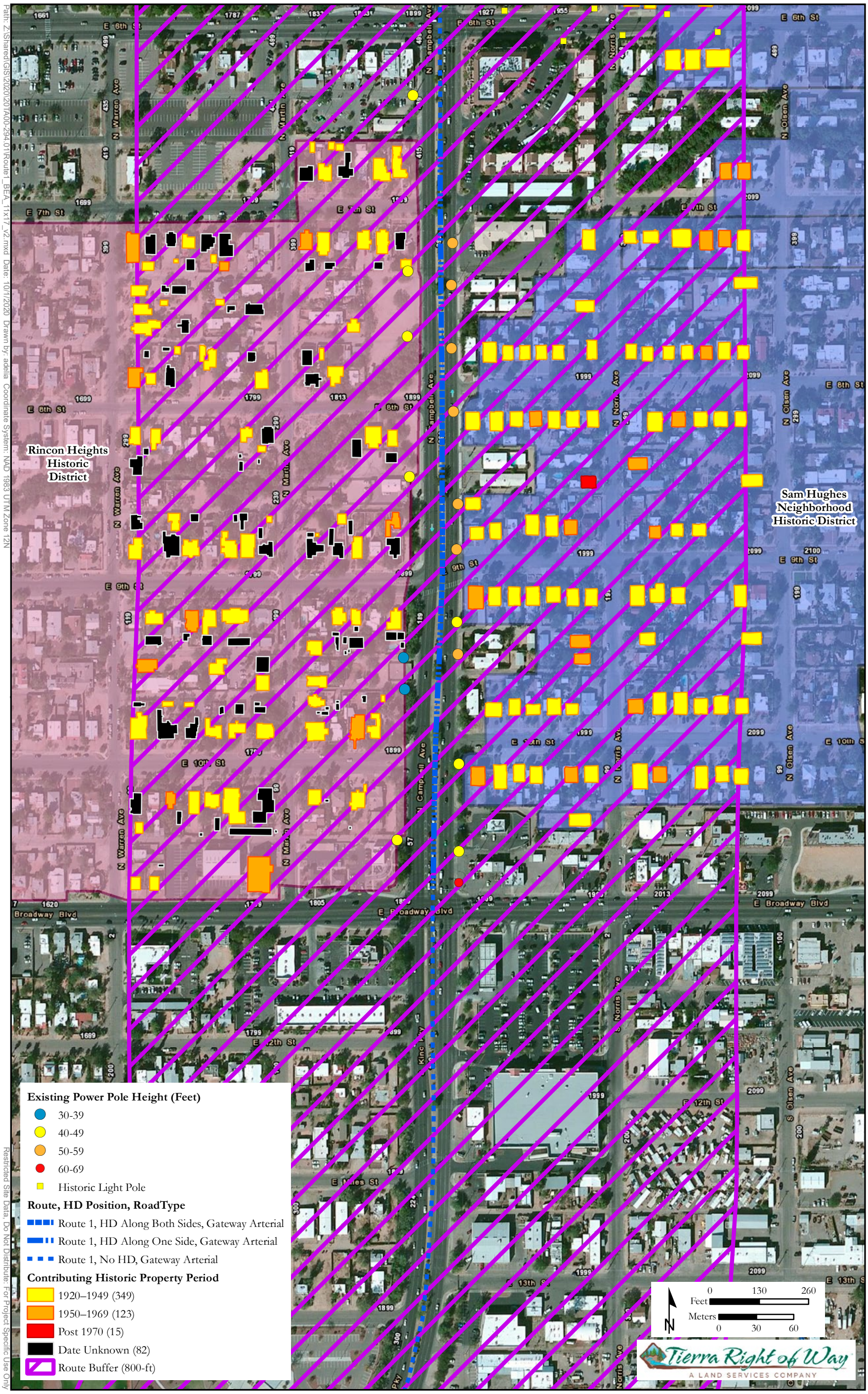
Figure V.A.5: ROUTE 1
UA NORTH SUBSTATION TO KINO: SIXTH ST TO BROADWAY BLVD



V. Kino to UA North Substation Maps and Tables

B. Route 2 Maps: Kino to UA North Substation

1. Figure V.B.1. Full Route
2. Figure V.B.2. Mountain Avenue to Warren Avenue
3. Figure V.B.3. Waverly Street to Speedway Boulevard
4. Figure V.B.4. Speedway Boulevard to Sixth Street
5. Figure V.B.5. Sixth Street to Broadway Boulevard

Figure V.B.1: ROUTE 2
UA NORTH SUBSTATION TO KINO: FULL ROUTE

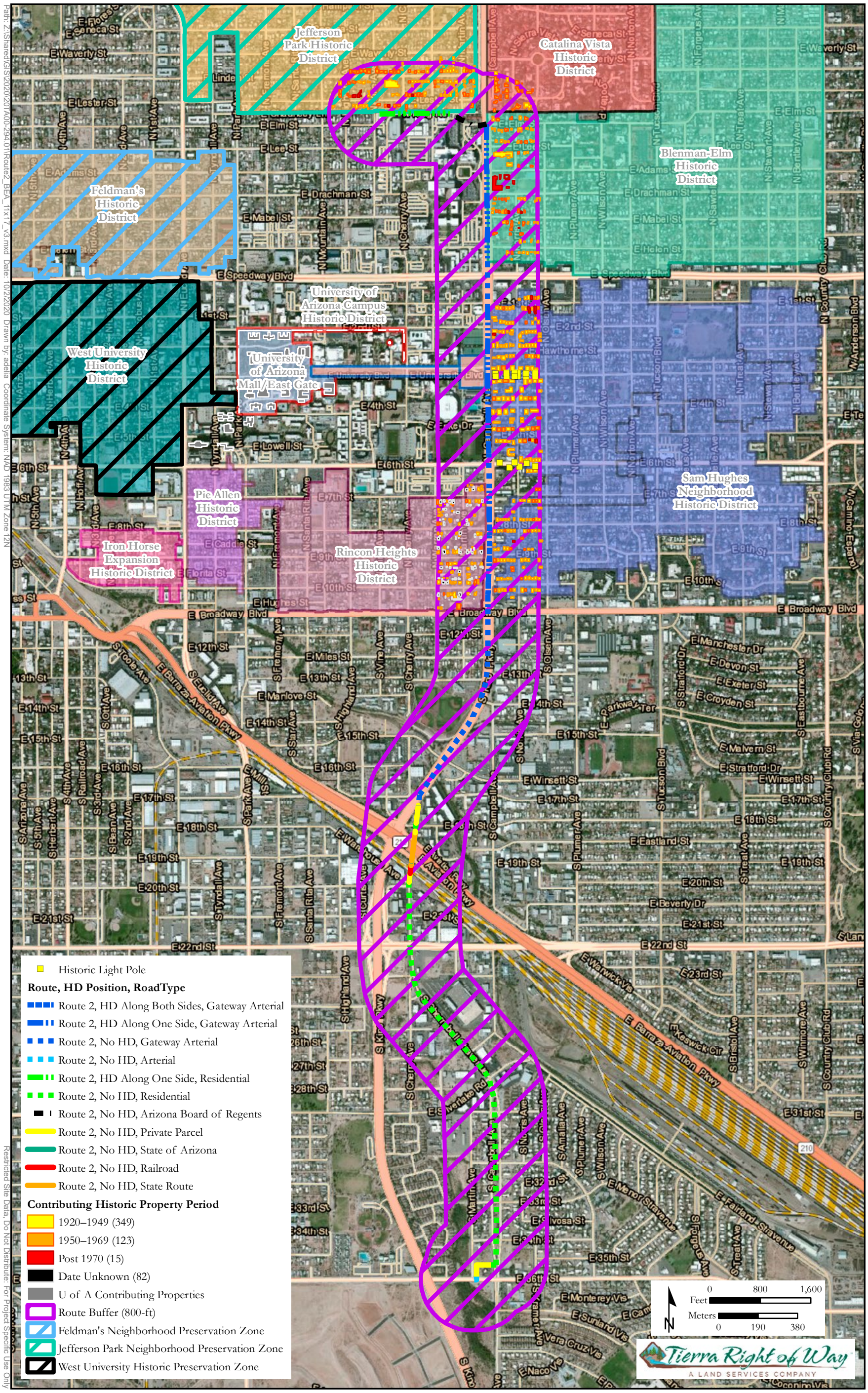


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Figure V.B.2: ROUTE 2
UA NORTH SUBSTATION TO KINO: MOUNTAIN AVE TO WARREN AVE

Figure V.B.3: ROUTE 2
UA NORTH SUBSTATION TO KINO: WAVERLY ST TO SPEEDWAY BLVD

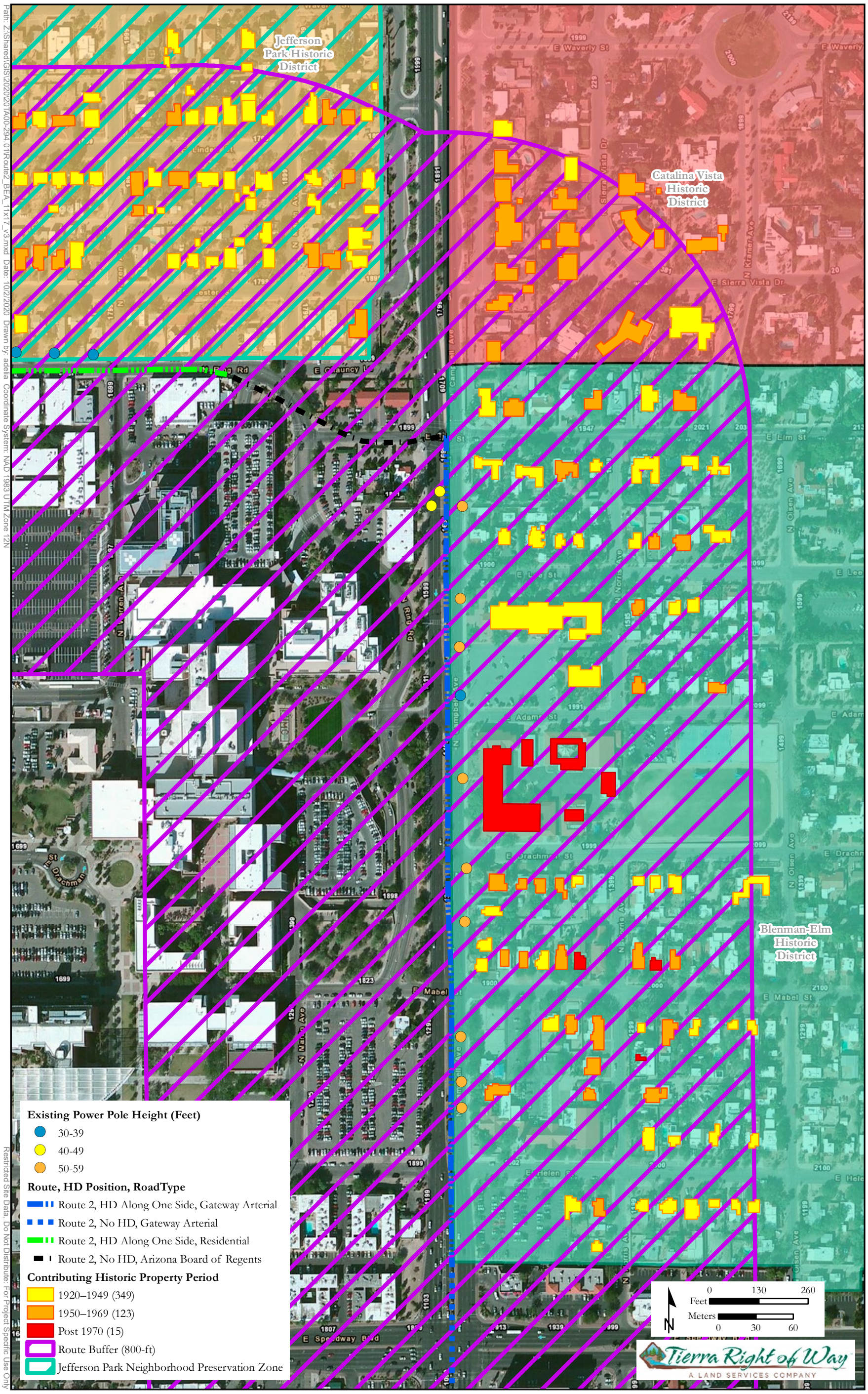

Figure V.B.4: ROUTE 2
UA NORTH SUBSTATION TO KINO: SPEEDWAY BLVD TO 6TH ST

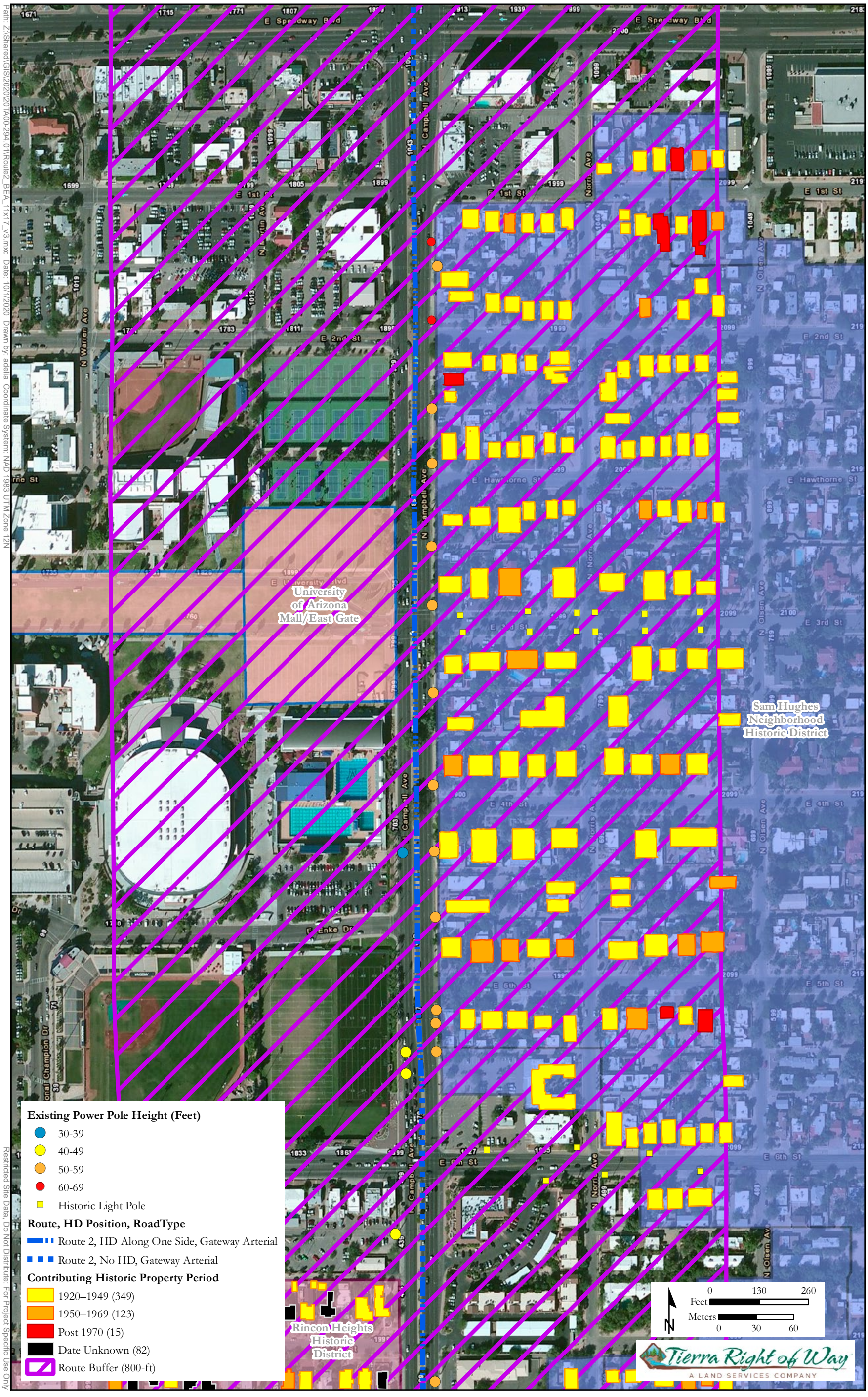

Figure V.B.5: ROUTE 2
UA NORTH SUBSTATION TO KINO: 6TH ST TO BROADWAY BLVD

V. UA North Substation to Kino Maps and Tables

TROW and TAC developed maps of each route to visually show the measurable criteria identified in Section III Methodology. Each route has a map of the full route as well as enlarged maps where the route is adjacent or passes through historic districts.

C. Route 3 Maps

1. Figure V.C.1. Full Route
2. Figure V.C.2. Warren Avenue to Santa Rita Ave
3. Figure V.C.3. Lester Street to Mabel Street
4. Figure V.C.4. Adams Street to 1st Street
5. Figure V.C.5. 1st Street to 5th Street
6. Figure V.C.6. 6th Street to Broadway Boulevard
7. Figure V.C.7. Fremont Avenue to Broadway Boulevard

Figure V.C.1: ROUTE 3
UA NORTH SUBSTATION TO KINO: FULL ROUTE

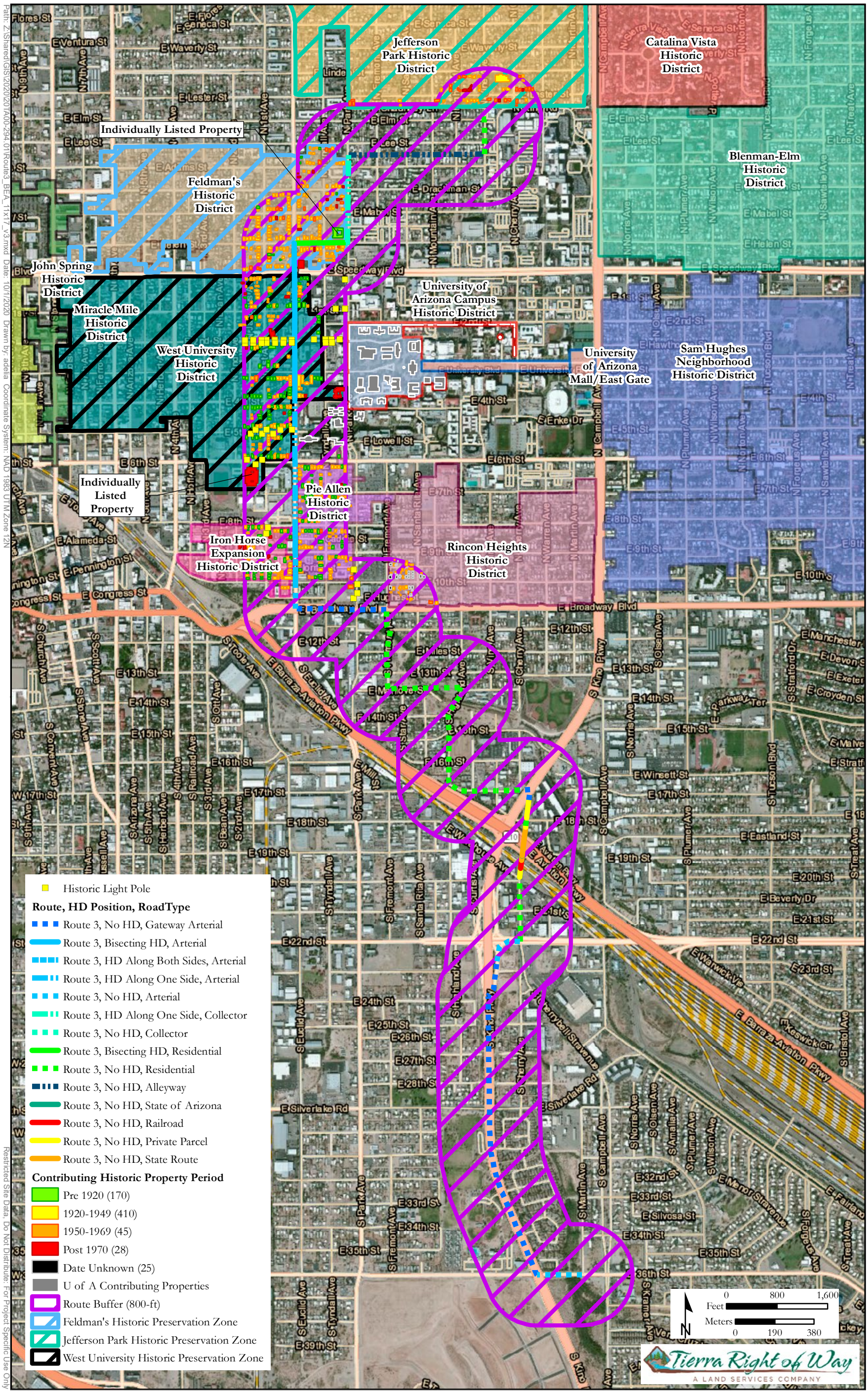

Figure V.C.2: ROUTE 3
UA NORTH SUBSTATION TO KINO: WARREN AVE TO SANTA RITA AVE

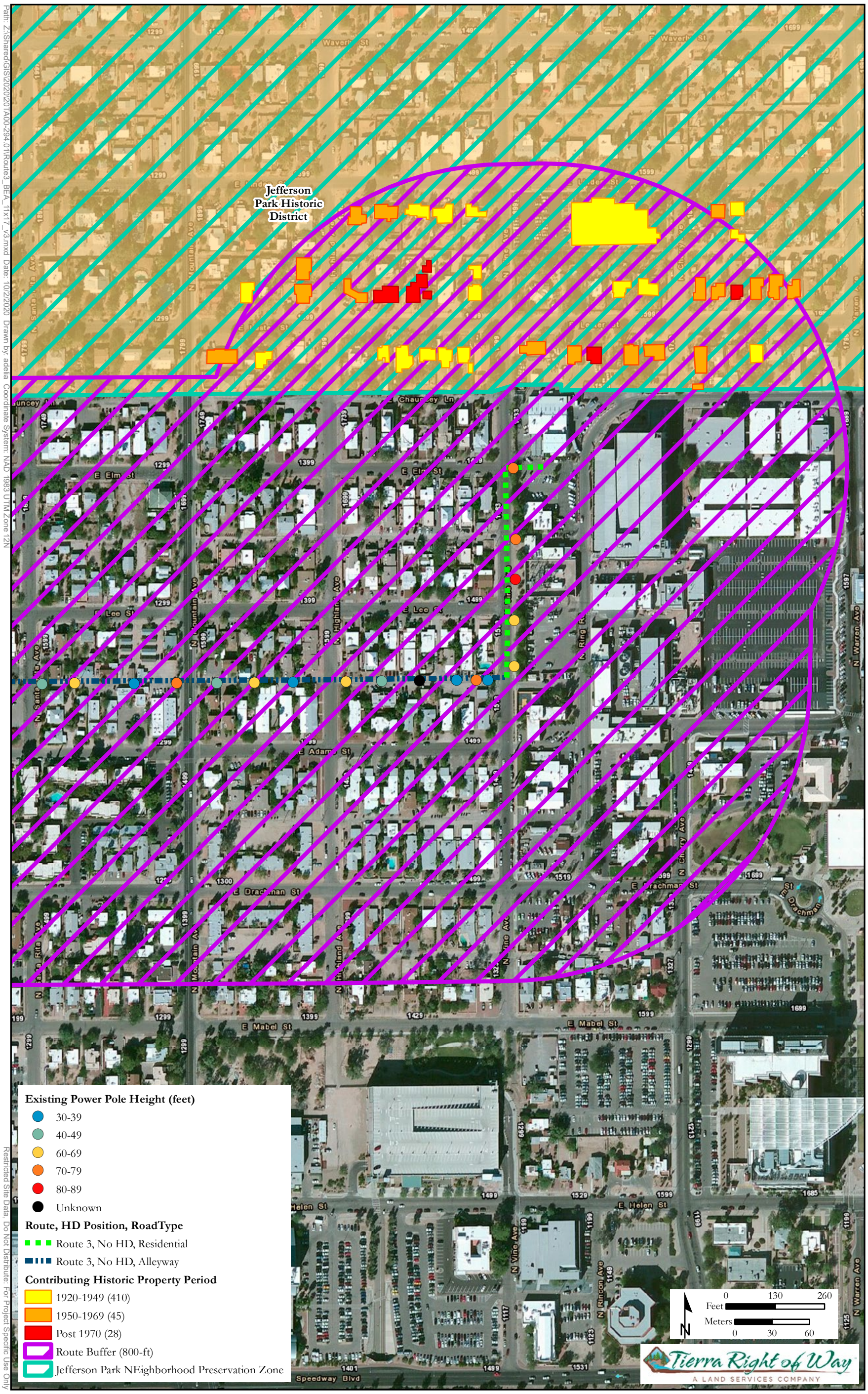

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Figure V.C.3: ROUTE 3
UA NORTH SUBSTATION TO KINO: LESTER ST TO MABEL ST

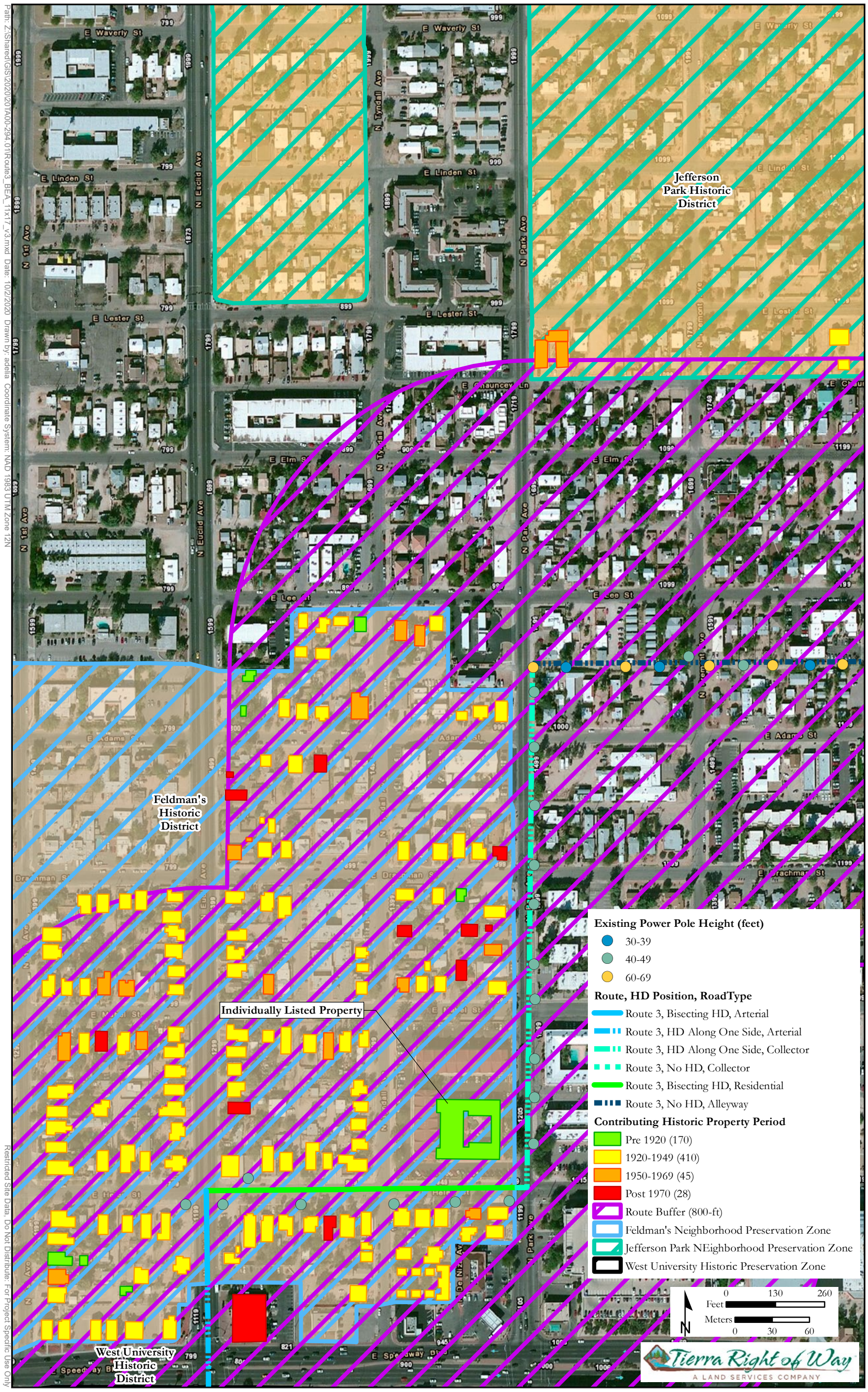

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Figure V.C.4: ROUTE 3
UA NORTH SUBSTATION TO KINO: ADAMS ST TO 1ST ST

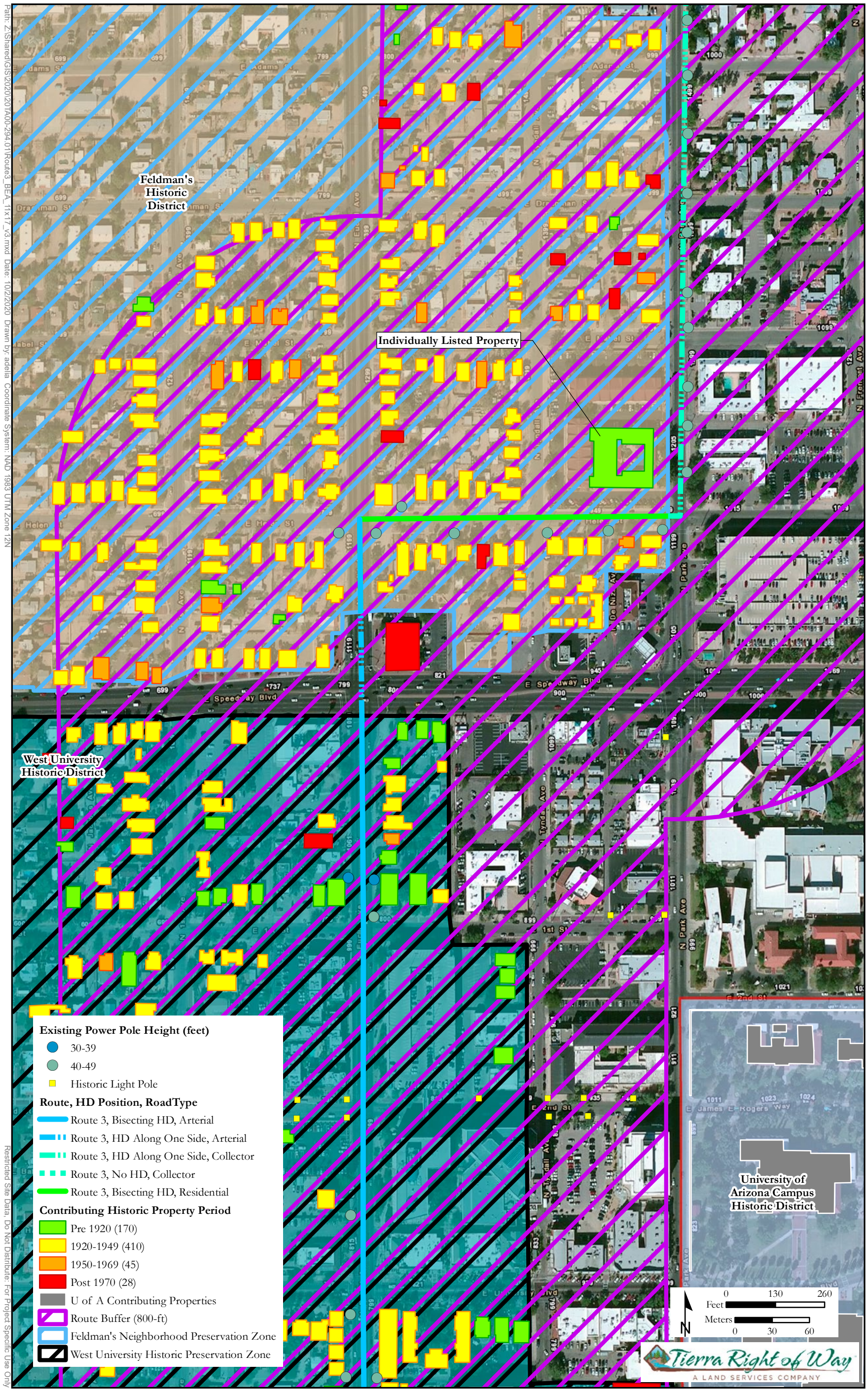


Figure V.C.5: ROUTE 3
UA NORTH SUBSTATION TO KINO: 1ST ST TO 5TH ST

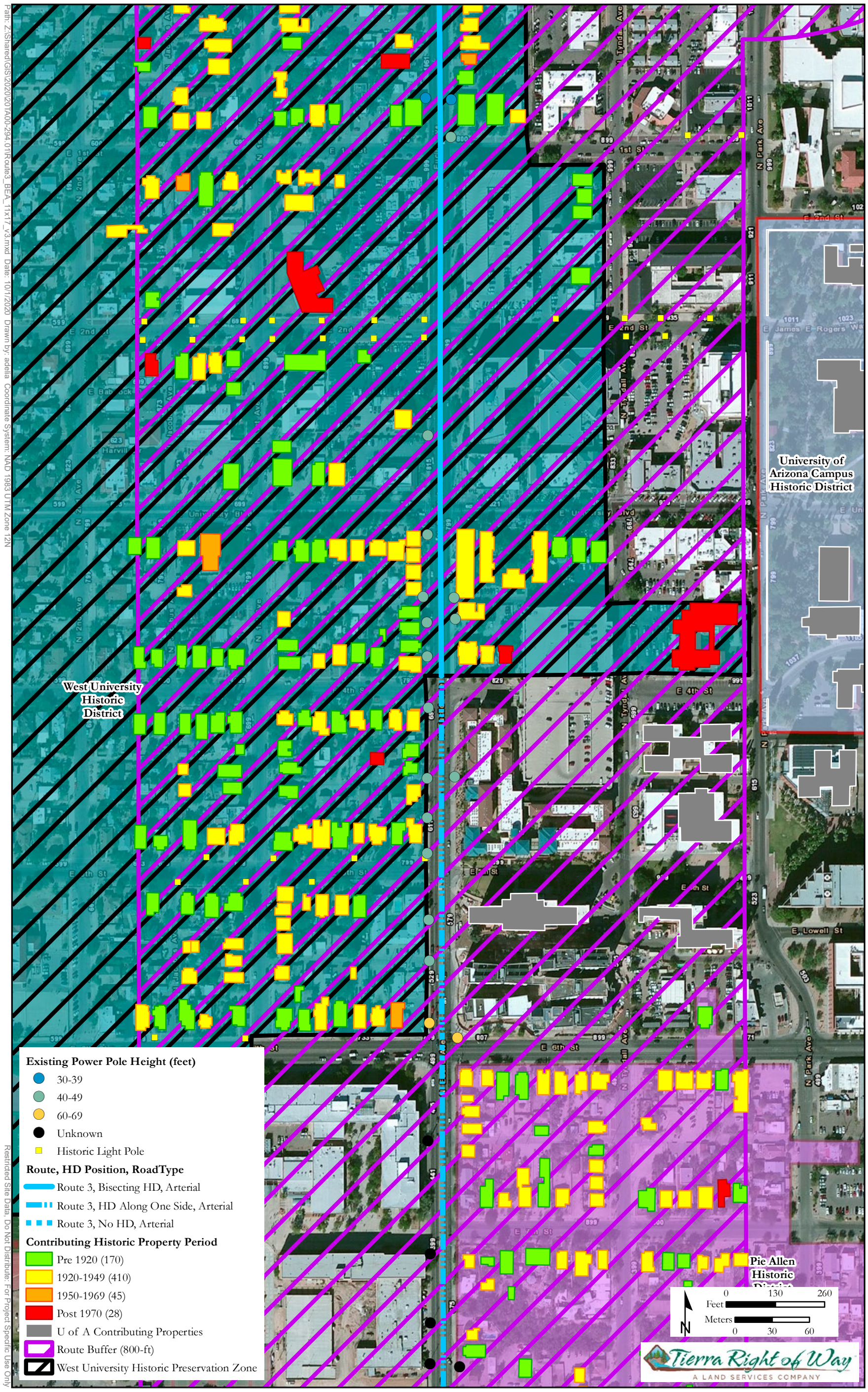


Figure V.C.6: ROUTE 3
UA NORTH SUBSTATION TO KINO: 6TH ST TO BROADWAY BLVD

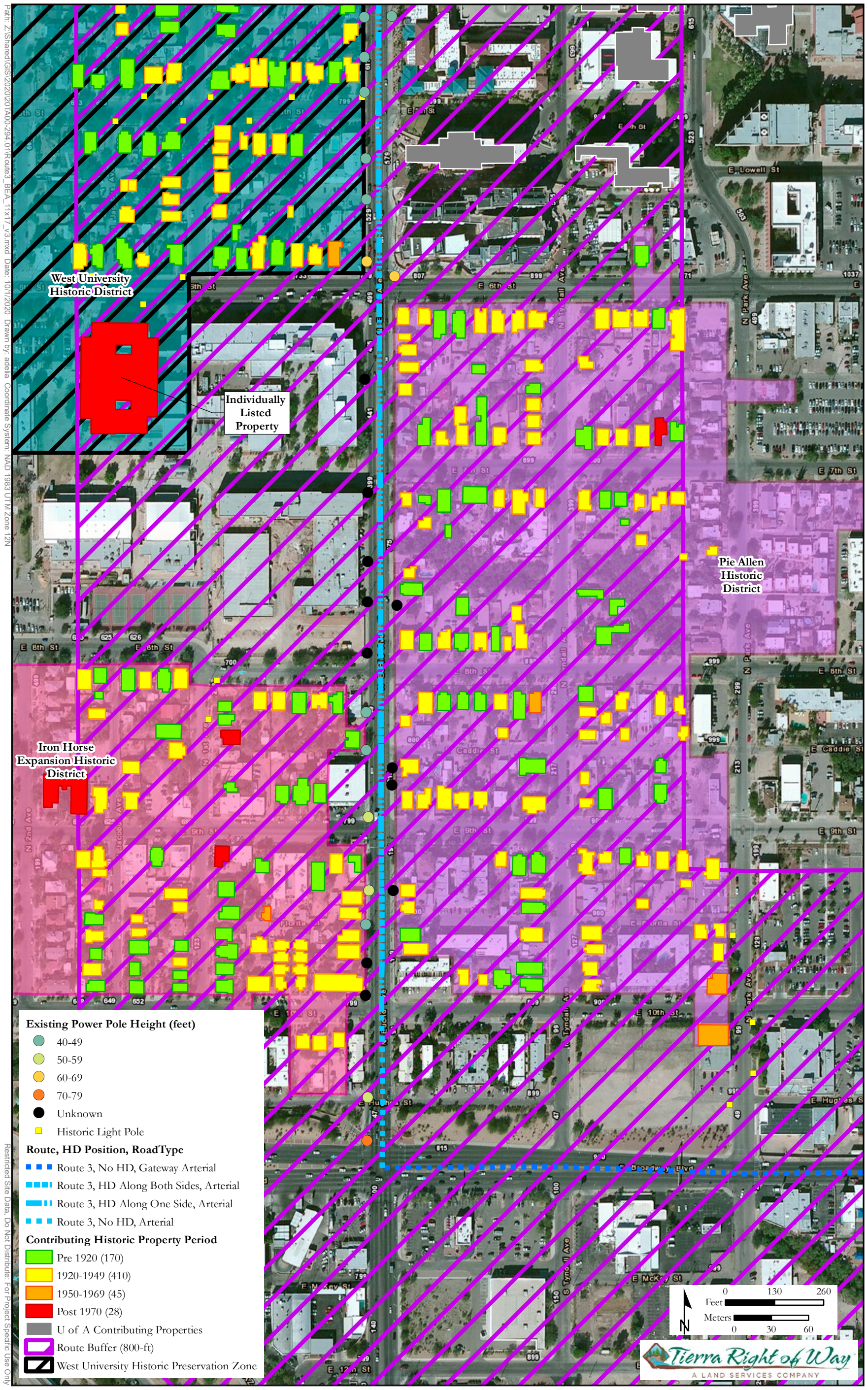
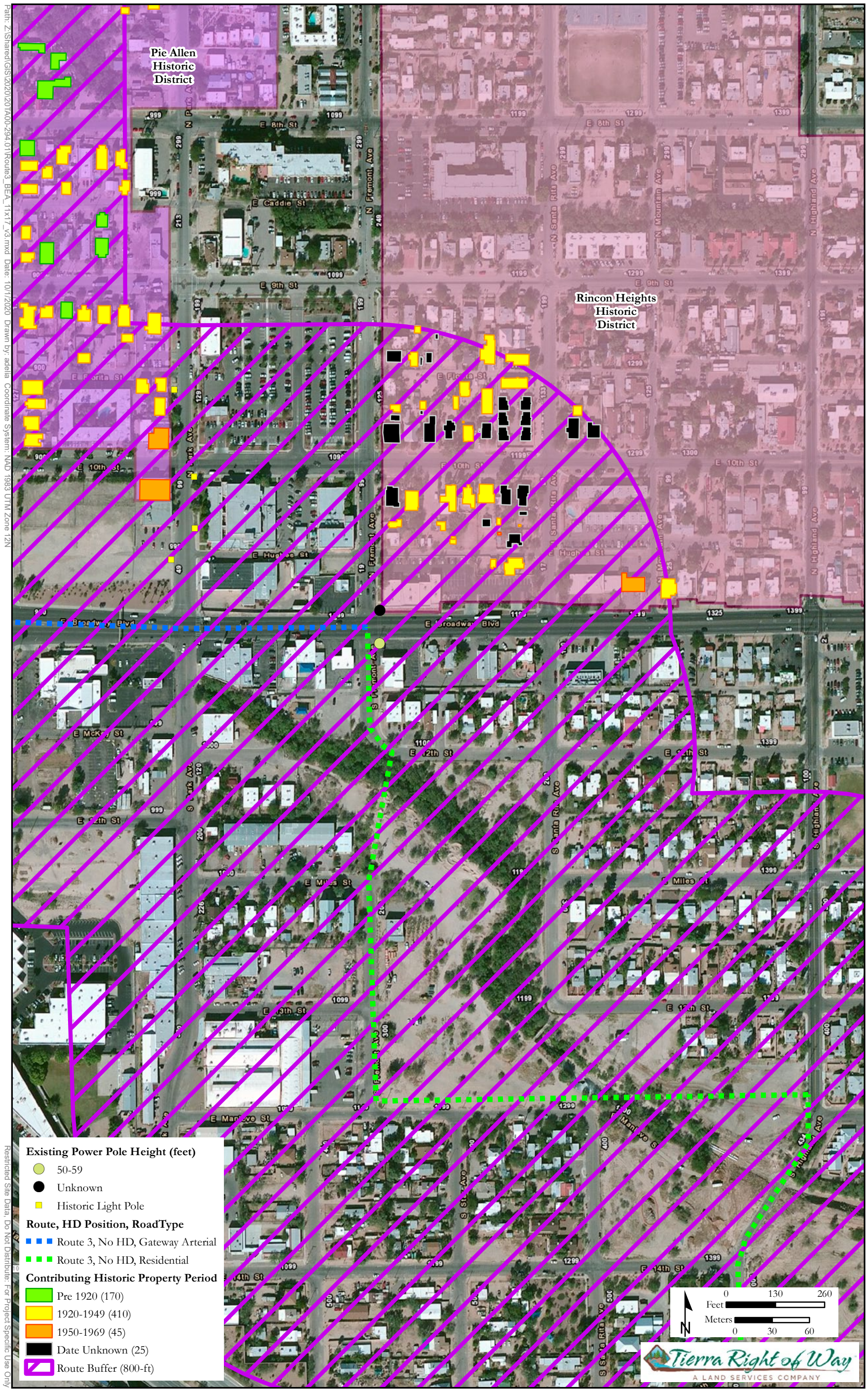


Figure V.C.7: ROUTE 3
UA NORTH SUBSTATION TO KINO: FREMONT AVE TO BROADWAY BOULEVARD



V. UA North Substation to Kino Maps and Tables

D. Route 5 Maps

1. Figure V.D.1. Full Route
2. Figure V.D.2. Warren Avenue to Santa Rita Ave
3. Figure V.D.3. Lester Street to Mabel Street
4. Figure V.D.4. Adams Street to 1st Street
5. Figure V.D.5. 1st Street to 5th Street
6. Figure V.D.6. 6th Street to Broadway Boulevard
7. Figure V.D.7. Fremont Avenue to Broadway Boulevard

Figure V.D.1: ROUTE 5
KINO TO UA NORTH SUBSTATION: FULL ROUTE

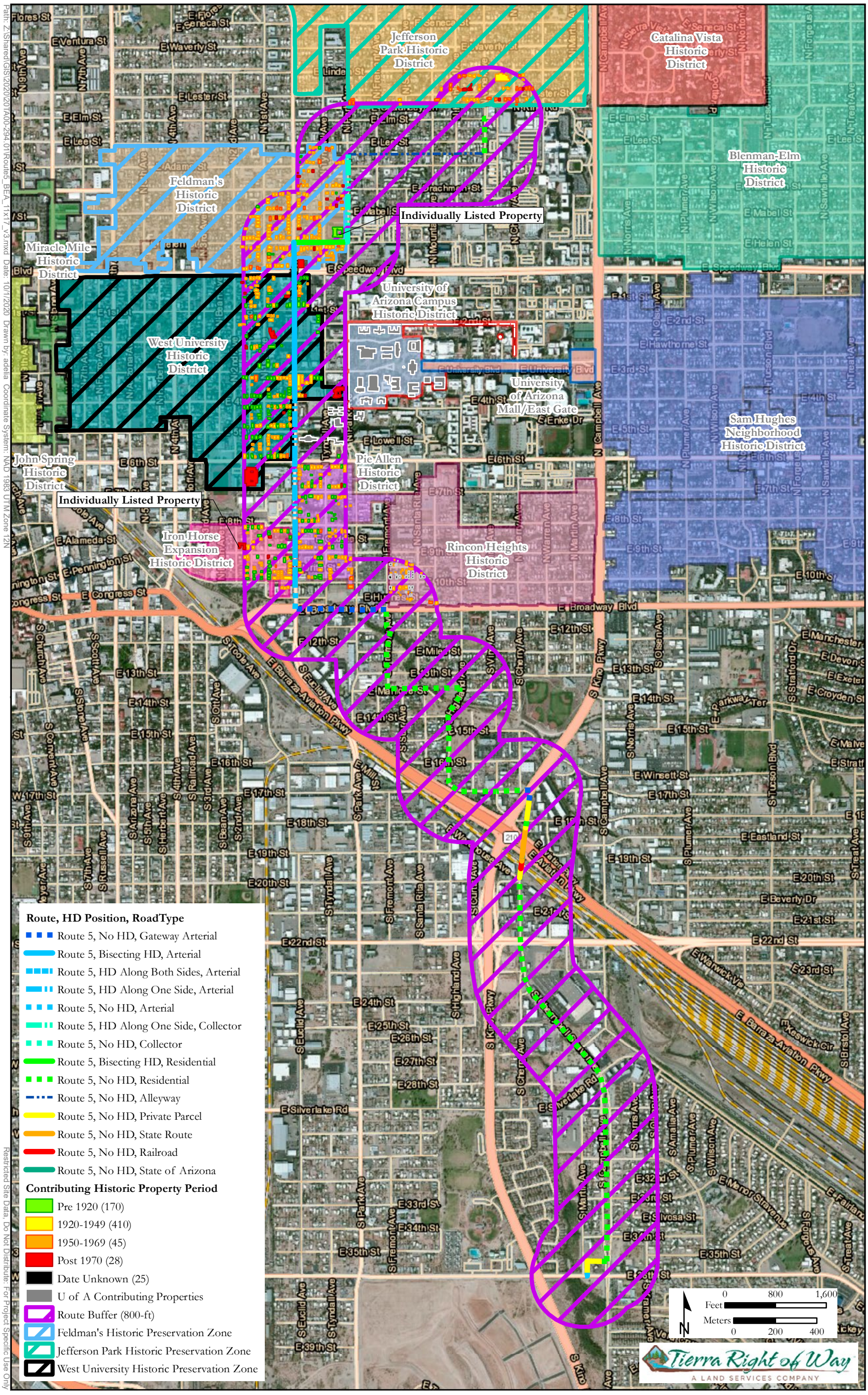


Figure V.D.2: ROUTE 5
UA NORTH SUBSTATION TO KINO: WARREN AVE TO SANTA RITA AVE

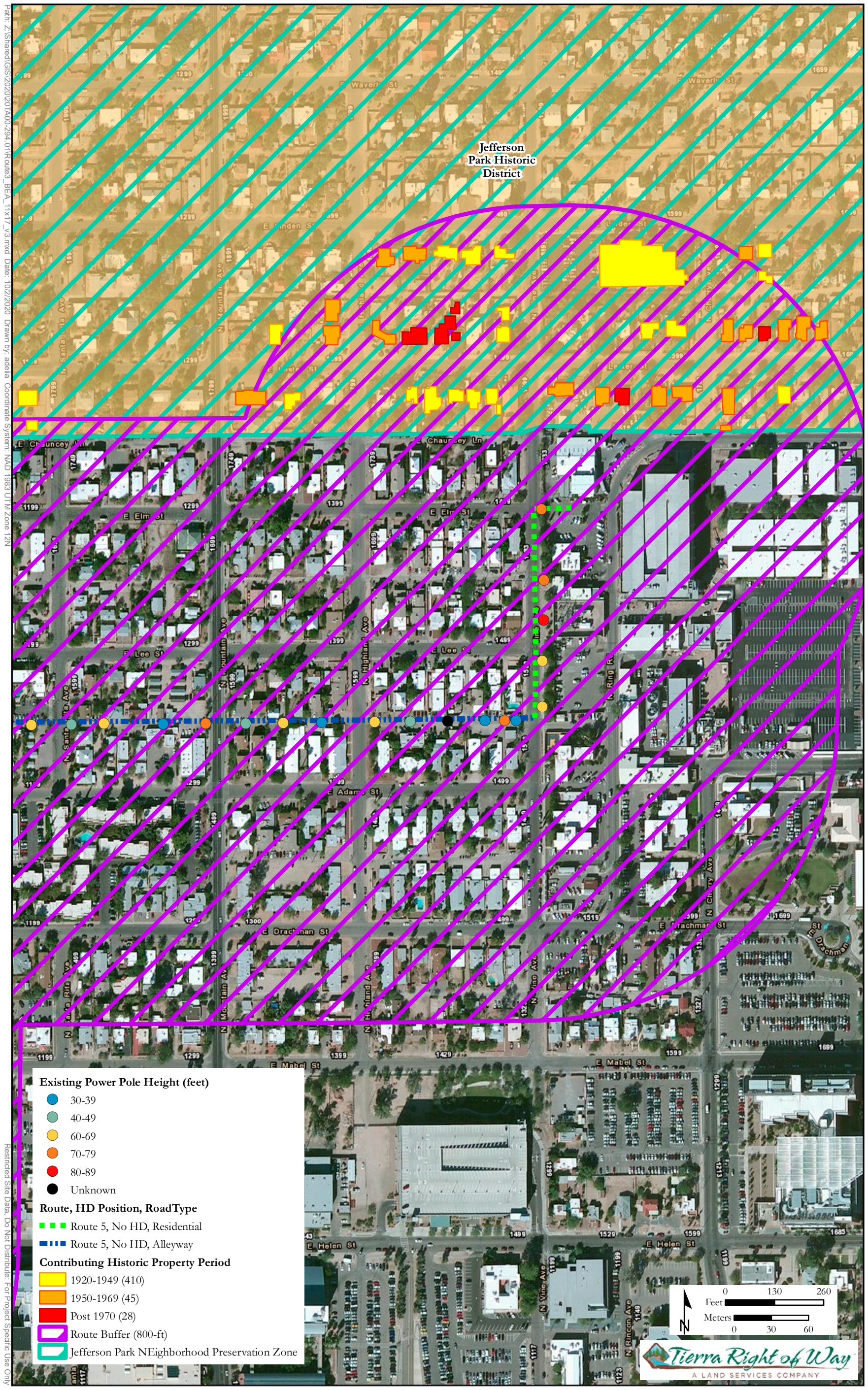


Figure V.D.3: ROUTE 5
UA NORTH SUBSTATION TO KINO: LESTER ST TO MABEL ST

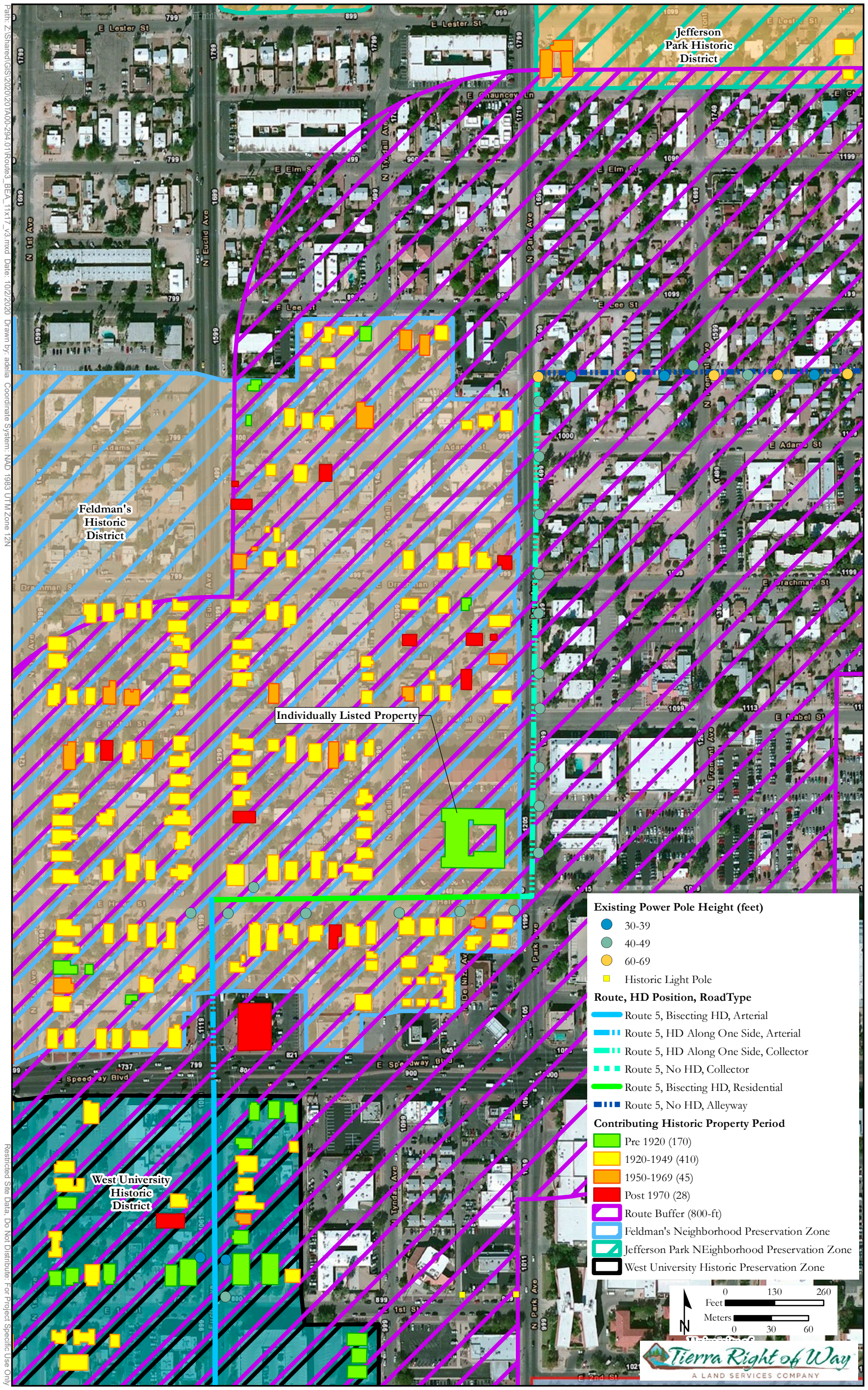


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Figure V.D.4: ROUTE 5
UA NORTH SUBSTATION TO KINO: ADAMS ST TO 1ST S T

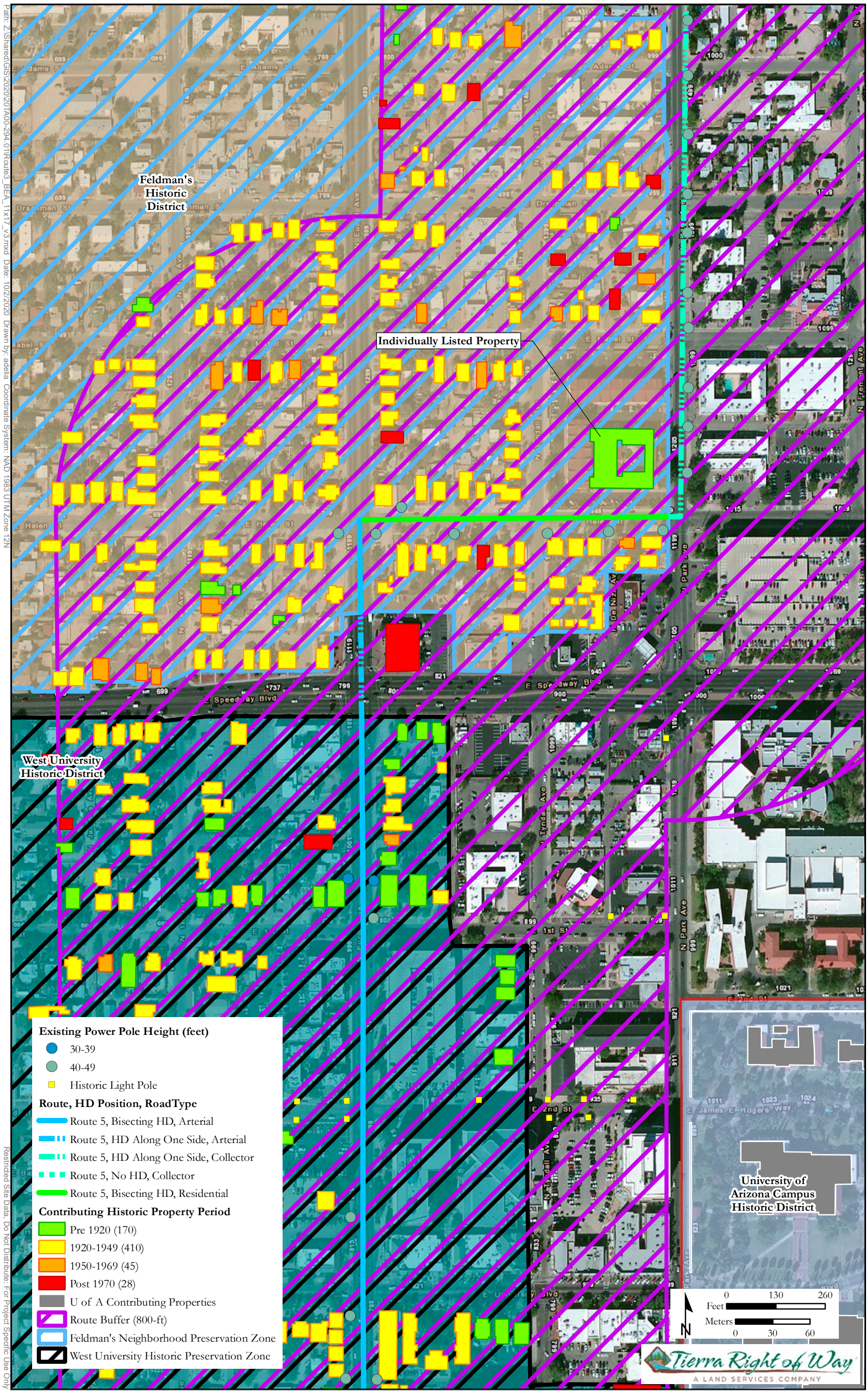


Figure V.D.5: ROUTE 5
UA NORTH SUBSTATION TO KINO: 1ST ST TO 5TH ST

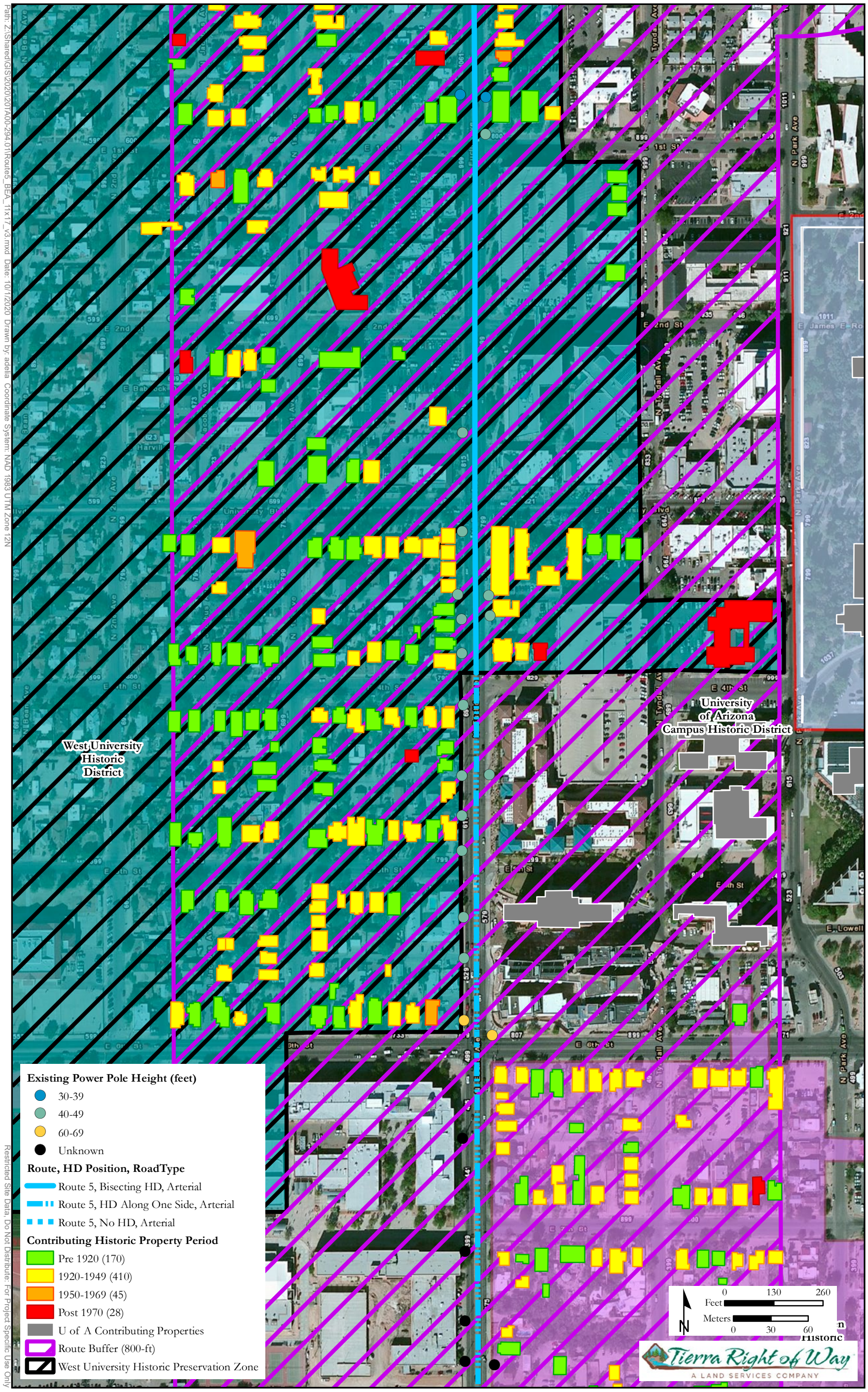


Figure V.D.6: ROUTE 5
UA NORTH SUBSTATION TO KINO: 6TH ST TO BROADWAY BLVD

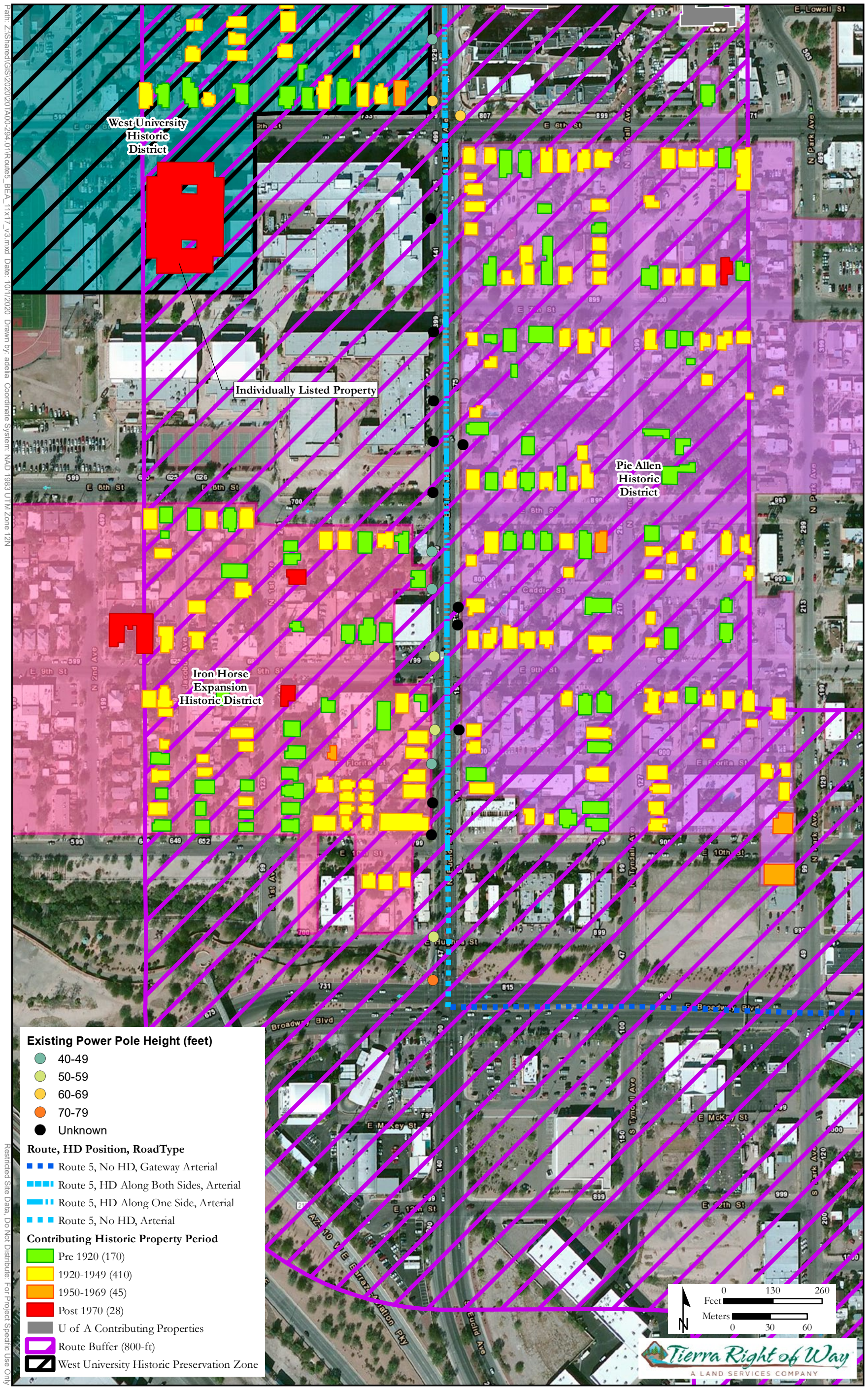
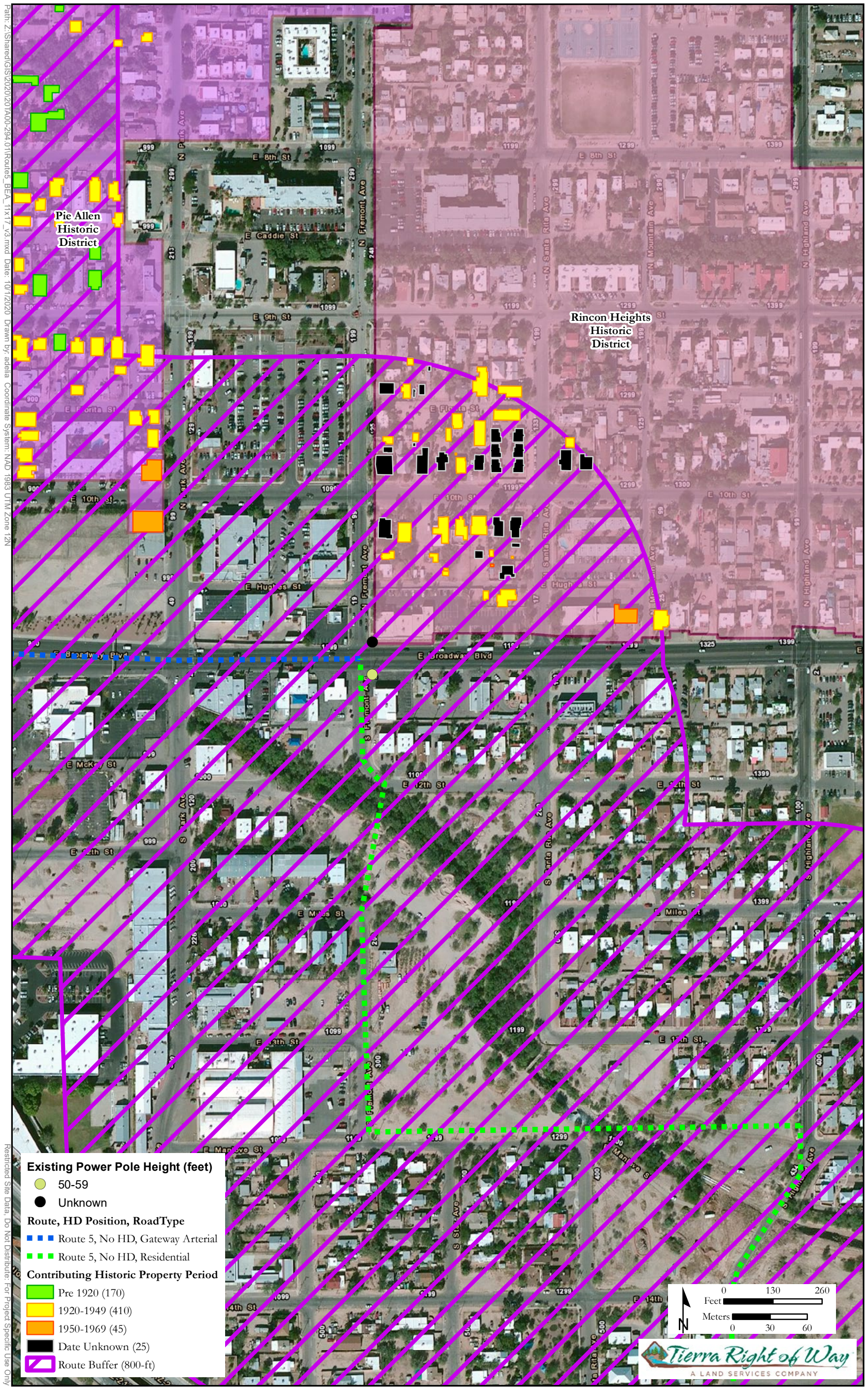


Figure V.D.7: ROUTE 5
UA NORTH SUBSTATION TO KINO: FREMONT AVE TO BROADWAY BLVD



V. UA North Substation to Kino Maps and Tables

C. Routes 1, 2, 3 and 5 Tables

Kino Table 1: Bisecting versus Bordering Historic Districts
Kino Table 2: Street Designation
Kino Table 3: Historic Districts with 1 versus 2 Sides of the Route
Kino Table 4: Existing Power Poles Located on Route
Kino Table 5: Historic Light Fixtures within 800' Route Buffer
Kino Table 6: Historic Contributing Properties in 800' Route Buffer
Kino Table 7: Access of Historic Contributing Properties along Route
Kino Table 8: Historic Architectural Criteria
Kino Table 9: Summary by Historic Districts

KINO TABLE 1	Routes from Kino											
Bisecting vs Bordering Historic Districts	1			2			3			5		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
Blenman-Elm Historic District												
Bisecting Historic District	0.00	0%		0.00	0%		0.00	-		0.00	-	
Bordering Historic District	2178.88	100%	5	2178.88	100%	5	0.00	-		0.00	-	
Bisecting + Bordering	2178.88		1	2178.88		1	0.00			0.00		
District Rank Subtotal			6			6			0			0
Catalina Vista Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	-		0.00	-	
Bordering Historic District	0.00	-		0.00	-		0.00	-		0.00	-	
Bisecting + Bordering	0.00			0.00			0.00			0.00		
District Rank Subtotal			0			0			0			0
Feldman's Historic District												
Bisecting Historic District	0.00	-		0.00	-		1085.81	40%	5	1085.81	40%	5
Bordering Historic District	0.00	-		0.00	-		1627.75	60%	4	1627.75	60%	4
Bisecting + Bordering	0.00			0.00			2713.56		7	2713.56		7
District Rank Subtotal			0			0			16			16
Iron Horse Expansion Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	0%		0.00	0%	
Bordering Historic District	0.00	-		0.00	-		537.92	100%	1	537.92	100%	1
Bisecting + Bordering	0.00			0.00			537.92		1	537.92		1
District Rank Subtotal			0			0			2			2
Jefferson Park Historic District												
Bisecting Historic District	0.00	0%		0.00	0%		0.00	-		0.00	-	
Bordering Historic District	1115.18	100%	2	1115.18	100%	2	0.00	-		0.00	-	
Bisecting + Bordering	1115.18		2	1115.18		2	0.00			0.00		
District Rank Subtotal			4			4			0			0
Pie Allen Residential Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	0%		0.00	0%	
Bordering Historic District	0.00	-		0.00	-		1729.69	100%	5	1729.69	100%	5
Bisecting + Bordering	0.00			0.00			1729.69		5	1729.69		5
District Rank Subtotal			0			0			10			10
Rincon Heights Historic District												
Bisecting Historic District	0.00	0%		0.00	0%		0.00	-		0.00	-	
Bordering Historic District	1978.63	100%	5	1978.63	100%	5	0.00	-		0.00	-	
Bisecting + Bordering	1978.63		5	1978.63		5	0.00			0.00		
District Rank Subtotal			10			10			0			0
Sam Hughes Residential Historic District												
Bisecting Historic District	0.00	0%		0.00	0%		0.00	-		0.00	-	
Bordering Historic District	3060.44	100%	7	3060.44	100%	7	0.00	-		0.00	-	
Bisecting + Bordering	3060.44		7	3060.44		7	0.00			0.00		
District Rank Subtotal			14			14			0			0
West University Historic District												
Bisecting Historic District	0.00	-		0.00	-		1952.66	67%	10	1952.66	67%	10
Bordering Historic District	0.00	-		0.00	-		946.84	33%	1	946.84	33%	1
Bisecting + Bordering	0.00			0.00			2899.50		8	2899.50		8
District Rank Subtotal			0			0			19			19
SUMMARY OF BISECTING + BORDERING												
Bisecting Historic District	0.00	0%		0.00	0%		3038.47	39%	15	3038.47	39%	15
Bordering Historic District	8333.13	100%	19	8333.13	100%	19	4842.20	61%	11	4842.20	61%	11
Bisecting + Bordering	8333.13		15	8333.13		15	7880.67		21	7880.67		21
Route Rank Subtotal			34			34			47			47

KINO TABLE 2	Routes from Kino											
Street Designation	**1**			**2**			**3**			**5**		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
Blenman-Elm Historic District												
Gateway Arterial Street (length in ft)	2178.88	100%	5	2178.88	100%	5	0.00	-		0.00	-	
Arterial Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Collector Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Residential Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
District Rank Subtotal	2178.88		5	2178.88		5	0.00		0	0.00		0
Catalina Vista Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	-		0.00	-	
Arterial Street	0.00	-		0.00	-		0.00	-		0.00	-	
Collector Street	0.00	-		0.00	-		0.00	-		0.00	-	
Residential Street	0.00	-		0.00	-		0.00	-		0.00	-	
District Rank Subtotal	0.00		0	0.00		0	0.00		0	0.00		0
Feldman's Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	0%		0.00	0%	
Arterial Street	0.00	-		0.00	-		518.81	19%	1	518.81	19%	1
Collector Street	0.00	-		0.00	-		1350.20	50%	5	1350.20	50%	5
Residential Street	0.00	-		0.00	-		844.54	31%	7	844.54	31%	7
District Rank Subtotal	0.00		0	0.00		0	2713.55		13	2713.55		13
Iron Horse Expansion Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	0%		0.00	0%	
Arterial Street	0.00	-		0.00	-		537.92	100%	1	537.92	100%	1
Collector Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	537.92		1	537.92		1
Jefferson Park Historic District												
Gateway Arterial Street (length in ft)	0.00	0%		0.00	0%		0.00	-		0.00	-	
Arterial Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Collector Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Residential Street	1115.17	100%	8	1115.17	100%	8	0.00	-		0.00	-	
District Rank Subtotal	1115.17		8	1115.17		8	0.00		0	0.00		0
Pie Allen Residential Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	0%		0.00	0%	
Arterial Street	0.00	-		0.00	-		1729.68	100%	1	1729.68	100%	1
Collector Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	1729.68		1	1729.68		1
Rincon Heights Historic District												
Gateway Arterial Street (length in ft)	1978.62	100%	2	1978.62	100%	2	0.00	-		0.00	-	
Arterial Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Collector Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Residential Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
District Rank Subtotal	1978.62		2	1978.62		2	0.00		0	0.00		0
Sam Hughes Residential Historic District												
Gateway Arterial Street (length in ft)	3060.44	100%	3	3060.44	100%	3	0.00	-		0.00	-	
Arterial Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Collector Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
Residential Street	0.00	0%		0.00	0%		0.00	-		0.00	-	
District Rank Subtotal	3060.44		3	3060.44		3	0.00		0	0.00		0
West University Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	0%		0.00	0%	
Arterial Street	0.00	-		0.00	-		2899.50	100%	1	2899.50	100%	1
Collector Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	0%		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	2899.50		1	2899.50		1
SUMMARY OF STREET DESIGNATIONS												
Gateway Arterial Street (length in ft)	7217.94	87%	10	7217.94	87%	10	0.00	0%	0	0.00	0%	0
Arterial Street	0.00	0%	0	0.00	0%	0	5685.91	72%	4	5685.91	72%	4
Collector Street	0.00	0%	0	0.00	0%	0	1350.20	17%	5	1350.20	17%	5
Residential Street	1115.17	13%	8	1115.17	13%	8	844.54	11%	7	844.54	11%	7
Route Rank Subtotal	8333.11		18	8333.11		18	7880.65		16	7880.65		16

KINO TABLE 3	Routes from Kino											
Historic Districts with 1 vs 2 sides of the Route	**1**			**2**			**3**			**5**		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
All Districts												
Length of Route with historic district on 1 side	6903.41	91%	6	6903.41	91%	6	4051.61	54%	4	4051.61	54%	4
Length of Route with historic district on 2 sides	714.85	9%	1	714.85	9%	1	3433.77	46%	8	3433.77	46%	8
Total Length of Route with historic district on 1 or 2 sides	7618.26		2	7618.26		2	7485.38		1	7485.38		1
Route Rank Subtotal			9			9			13			13

KINO TABLE 4			Routes from Kino					Routes from Kino					Routes from Kino			
Existing Power Poles located on Route			**1**	**2**	**3**	**5**		**1**	**2**	**3**	**5**		**1**	**2**	**3**	**5**
Blenman-Elm Historic District																
Street	Campbell Ave: Elm to Helen	Pole Height Range (ft)	35'-55'	35'-55'			Avg. Pole Spacing (ft)	141.7	141.7			Number of Poles	12	12		
		Data Rank	4	4	0	0		1	1	0	0		1	1	0	0
		District Rank Subtotal	4	4	0	0		1	1	0	0		1	1	0	0
Catalina Vista Historic District																
Street		Pole Height Range (ft)					Avg. Pole Spacing (ft)					Number of Poles				
		Data Rank	0	0	0	0		0	0	0	0		0	0	0	0
		District Rank Subtotal	0	0	0	0		0	0	0	0		0	0	0	0
Feldman's Historic District																
Street	Helen St: Euclid to Park	Pole Height Range (ft)			40'-45'	40'-45'	Avg. Pole Spacing (ft)			122.0	122.0	Number of Poles			7	7
Street	Park Ave: Lee to Helen	Pole Height Range (ft)			40'-65'	40'-65'	Avg. Pole Spacing (ft)			141.3	141.3	Number of Poles			11	11
		Data Rank	0	0	2	2		0	0	1	1		0	0	1	1
		District Rank Subtotal	0	0	2	2		0	0	1	1		0	0	1	1
Iron Horse Expansion Historic District																
Street	Euclid Ave: 6th to Brdway	Pole Height Range (ft)			unknown, 45'-75'		Avg. Pole Spacing (ft)			116.8	116.8	Number of Poles			10	10
		Data Rank	0.00	0.00	1	1		0	0	1	1		0	0	2	2
		District Rank Subtotal	0	0	1	1		0	0	1	1		0	0	2	2
Jefferson Park Historic District																
Street	Ring Dr: Vine to Campbell	Pole Height Range (ft)	30'-45'	30'-45'			Avg. Pole Spacing (ft)	71.0	71.0			Number of Poles	10	10		
		Data Rank	4	4	0	0		1	1	0	0.00		1	1	0	0
		District Rank Subtotal	4	4	0	0		1	1	0	0		1	1	0	0
Pie Allen Residential Historic District																
Street	Euclid Ave: 6th to Brdway	Pole Height Range (ft)			unknown, 45'-75'		Avg. Pole Spacing (ft)			116.8	116.8	Number of Poles			15	15
		Data Rank	0	0	1	1		0	0	1	1		0	0	2	2
		District Rank Subtotal	0	0	1	1		0	0	1	1		0	0	2	2
Rincon Heights Historic District																
Street	Campbell Ave: 6th to Brdway	Pole Height Range (ft)	65'-45'	65'-45'			Avg. Pole Spacing (ft)	280.0	280.0			Number of Poles	6	6		
Street	Campbell Ave: 7th to Brdway*	Pole Height Range (ft)	45'-68'	45'-68'			Avg. Pole Spacing (ft)	153.4	153.4			Number of Poles	11	11		
Street	Broadway Blvd & Fremont	Pole Height Range (ft)			50'	50'	Avg. Pole Spacing (ft)			86.0	86.0	Number of Poles			1	1
		Data Rank	3	3	2	2		1	1	1	1		1	1	6	6
		District Rank Subtotal	3	3	2	2		1	1	1	1		1	1	6	6
Sam Hughes Residential Historic District																
Street	Campbell Ave: 1st st to 6th st	Pole Height Range (ft)	30'-60'	30'-60'			Avg. Pole Spacing (ft)	165.8	165.8			Number of Poles	17	17		
Street	Campbell Ave 7th to Brdway*	Pole Height Range (ft)	45'-68'	45'-68'			Avg. Pole Spacing (ft)	153.4	153.4			Number of Poles	11	11		
		Data Rank	1	1	0	0		1	1	0	0		1	1	0	0
		District Rank Subtotal	1	1	0	0		1	1	0	0		1	1	0	0
West University Historic District																
Street	Euclid Ave: 1st to 6th	Pole Height Range (ft)			30'-65'	30'-65'	Avg. Pole Spacing (ft)			130.0	130.0	Number of Poles			10	10
		Data Rank	0	0	1	1		0	0	1	1		0	0	2	2
		District Rank Subtotal	0	0	1	1		0	0	1	1		0	0	2	2
SUMMARY																
		Pole Height Range (ft)	30'-68'	30'-68'	30'-75'	30'-75'	Avg. Pole Spacing (ft)	71'-280'	71'-280'	86'-141.3'	86'-141.3	Total # of Poles	67	67	54	54
		Data Rank Subtotal	12	12	7	7		4	4	5	5		4	4	13	13
		Route Rank Subtotal	12	12	7	7		4	4	5	5		4	4	13	13
												Total Route Ranking	20	20	25	25

* Poles are located between Sam Hughes and Rincon Heights Historic Districts

KINO TABLE 5	Routes from Kino											
Historic Light fixtures within 800' Route Buffer	**1**			**2**			**3**			**5**		
	# of Lights	%	Rank	# of Lights	%	Rank	# of Lights	%	Rank	# of Lights	%	Rank
Blenman-Elm Historic District		0%			0%			0%			0%	
Catalina Vista Historic District		0%			0%			0%			0%	
Feldman's Historic District		0%			0%			0%			0%	
Iron Horse Expansion Historic District		0%			0%		1	3%	1	1	3%	1
Jefferson Park Historic District		0%			0%			0%			0%	
Pie Allen Residential Historic District		0%			0%			0%			0%	
Rincon Heights Historic District		0%			0%			0%			0%	
Sam Hughes Residential Historic District	14	78%	3	14	78%	3		0%			0%	
West University Historic District		0%			0%		25	63%	5	25	63%	5
Outside of Historic District	4	22%	1	4	22%	1	14	35%	3	14	35%	3
Data Subtotal	18		4	18		4	40		9	40		9
Route Rank Subtotal			4			4			9			9

KINO TABLE 6	Routes from Kino											
Historic Contributing Properties in 800' Route Buffer	**1**			**2**			**3**			**5**		
	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank
Blenman-Elm Historic District												
Number of properties Individually Listed		0%			0%			-			-	
Number of landmark properties		0%			0%			-			-	
Number of properties built between pre 1919		0%			0%			-			-	
Number of properties built between 1920 to 1949	43	62%	4	43	62%	4		-			-	
Number of properties built between 1950 to 1969	26	38%	3	26	38%	3		-			-	
Number of properties post 1970		0%			0%	0		-			-	
Total of all Contributing properties per District	69		3	69		3	0			0		
District Rank Subtotal			10			10			0			0
Catalina Vista Historic District												
Number of properties Individually Listed		0%			0%			-			-	
Number of landmark properties		0%			0%			-			-	
Number of properties built between pre 1919		0%			0%			-			-	
Number of properties built between 1920 to 1949	3	15%	1	3	15%	1		-			-	
Number of properties built between 1950 to 1969	13	65%	1	13	65%	1		-			-	
Number of properties post 1970	4	20%	1	4	20%	1		-			-	
Total of all Contributing properties per District	20		1	20		1	0			0		
District Rank Subtotal			4			4			0			0
Feldman's Historic District												
Number of properties Individually Listed		-			-		1	1%	8	1	1%	8
Number of landmark properties		-			-			0%		0	0%	0
Number of properties built between pre 1919		-			-		8	4%	1	8	4%	1
Number of properties built between 1920 to 1949		-			-		148	80%	10	148	80%	10
Number of properties built between 1950 to 1969		-			-		17	9%	2	17	9%	2
Number of properties post 1970		-			-		10	5%	1	10	5%	1
Total of all Contributing properties per District	0			0			184		7	184		7
District Rank Subtotal			0			0			29			29
Iron Horse Expansion Historic District												
Number of properties Individually Listed		-			-			0%			0%	
Number of landmark properties		-			-			0%			0%	
Number of properties built between pre 1919		-			-		33	42%	3	33	42%	3
Number of properties built between 1920 to 1949		-			-		41	53%	4	41	53%	4
Number of properties built between 1950 to 1969		-			-		1	1%	1	1	1%	1
Number of properties post 1970		-			-		3	4%	1	3	4%	1
Total of all Contributing properties per District	0			0			78		3	78		3
District Rank Subtotal			0			0			12			12
Jefferson Park Historic District												
Number of properties Individually Listed		0%			0%			0%			0%	
Number of landmark properties		0%			0%			0%			0%	
Number of properties built between pre 1919		0%			0%			0%			0%	
Number of properties built between 1920 to 1949	48	52%	4	48	52%	4	17	44%	2	17	44%	2
Number of properties built between 1950 to 1969	40	43%	4	40	43%	4	18	46%	2	18	46%	2
Number of properties post 1970	4	4%	1	4	4%	1	4	10%	1	4	10%	1
Total of all Contributing properties per District	92		5	92		5	39		1	39		1
District Rank Subtotal			14			14			6			6
Pie Allen Residential Historic District												
Number of properties Individually Listed		-			-			0%			0%	
Number of landmark properties		-			-			0%			0%	
Number of properties built between pre 1919		-			-		42	32%	4	42	32%	4
Number of properties built between 1920 to 1949		-			-		87	65%	8	87	65%	8
Number of properties built between 1950 to 1969		-			-		3	2%	1	3	2%	1
Number of properties post 1970		-			-		1	1%	1	1	1%	1
Total of all Contributing properties per District	0			0			133		7	133		7
District Rank Subtotal			0			0			21			21
Rincon Heights Historic District												
Number of properties Individually Listed		0%			0%			0%			0%	
Number of landmark properties		0%			0%			0%			0%	
Number of properties built between pre 1919		0%			0%			0%			0%	
Number of properties built between 1920 to 1949	67	87%	6	67	87%	6	22	92%	3	22	92%	3
Number of properties built between 1950 to 1969	10	13%	1	10	13%	1	2	8%	1	2	8%	1
Number of properties post 1970		0%		0	0%	0		0%		0	0%	0
Total of all Contributing properties per District	77		4	77		4	24		1	24		1
District Rank Subtotal			11			11			5			5
Sam Hughes Residential Historic District												
Number of properties Individually Listed		0%			0%			-			-	
Number of landmark properties		0%			0%			-			-	
Number of properties built between pre 1919		0%			0%			-			-	
Number of properties built between 1920 to 1949	188	82%	10	188	82%	10		-			-	
Number of properties built between 1950 to 1969	34	15%	3	34	15%	3		-			-	
Number of properties post 1970	7	3%	1	7	3%	1		-			-	
Total of all Contributing properties per District	229		10	229		10	0			0		
District Rank Subtotal			24			24			0			0
West University Historic District												
Number of properties Individually Listed		-			-			0%			0%	
Number of landmark properties		-			-			0%			0%	
Number of properties built between pre 1919		-			-		87	45%	10	87	45%	10
Number of properties built between 1920 to 1949		-			-		95	49%	10	95	49%	10
Number of properties built between 1950 to 1969		-			-		4	2%	1	4	2%	1
Number of properties post 1970		-			-		9	5%	1	9	5%	1
Total of all Contributing properties per District	0			0			195		9	195		9
District Rank Subtotal			0			0			31			31
SUMMARY OF CONTRIBUTING PROPERTIES												
Number of properties Individually Listed	0	0%	0	0	0%	0	1	0%	8	1	0%	8
Number of landmark properties	0	0%	0	0	0%	0	0	0%	0	0	0%	0
Number of properties built between pre 1919	0	0%	0	0	0%	0	170	26%	18	170	26%	18
Number of properties built between 1920 to 1949	349	72%	25	349	72%	25	410	63%	37	410	63%	37
Number of properties built between 1950 to 1969	123	25%	12	123	25%	12	45	7%	8	45	7%	8
Number of properties post 1970	15	3%	3	15	3%	3	27	4%	5	27	4%	5
Total of all Contributing properties per District	487		23	487		23	653		28	653		28
Route Rank Subtotal			63			63			104			104

KINO TABLE 7

Access of Historic Contributing Properties along Route	Routes from Kino											
	1			2			3			5		
	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank
Blenman-Elm Historic District												
Contributing properties: face the route & access directly from route	2	25%	1	2	25%	1		-			-	
Contributing properities whose side of the structure face the route	6	75%	1	6	75%	1		-			-	
Total Contributing properties directly on the route	8		1	8		1	0			0		
District Rank Subtotal			3			3			0			0
Catalina Vista Historic District												
Contributing properties: face the route & access directly from route		-			-			-			-	
Contributing properities whose side of the structure face the route		-			-			-			-	
Total Contributing properties directly on the route	0			0			0			0		
District Rank Subtotal			0			0			0			0
Feldman's Historic District												
Contributing properties: face the route & access directly from route		-			-		23	85%	10	23	85%	10
Contributing properities whose side of the structure face the route		-			-		4	15%	1	4	15%	1
Total Contributing properties directly on the route	0			0			27		10	27		10
District Rank Subtotal			0			0			21			21
Iron Horse Expansion Historic District												
Contributing properties: face the route & access directly from route		-			-		4	57%	2	4	57%	2
Contributing properities whose side of the structure face the route		-			-		3	43%	1	3	43%	1
Total Contributing properties directly on the route	0			0			7		1	7		1
District Rank Subtotal			0			0			4			4
Jefferson Park Historic District												
Contributing properties: face the route & access directly from route		0%			0%			-			-	
Contributing properities whose side of the structure face the route	6	100%	1	6	100%	1		-			-	
Total Contributing properties directly on the route	6		1	6		1	0			0		
District Rank Subtotal			2			2			0			0
Pie Allen Residential Historic District												
Contributing properties: face the route & access directly from route		-			-		12	75%	5	12	75%	5
Contributing properities whose side of the structure face the route		-			-		4	25%	1	4	25%	1
Total Contributing properties directly on the route	0			0			16		2	16		2
District Rank Subtotal			0			0			8			8
Rincon Heights Historic District												
Contributing properties: face the route & access directly from route		0%			0%			-			-	
Contributing properities whose side of the structure face the route	9	100%	2	9	100%	2		-			-	
Total Contributing properties directly on the route	9		1	9		1	0			0		
District Rank Subtotal			3			3			0			0
Sam Hughes Residential Historic District												
Contributing properties: face the route & access directly from route	8	42%	4	8	42%	4		-			-	
Contributing properities whose side of the structure face the route	11	58%	2	11	58%	2		-			-	
Total Contributing properties directly on the route	19		1	19		1	0			0		
District Rank Subtotal			7			7			0			0
West University Historic District												
Contributing properties: face the route & access directly from route		-			-		20	74%	10	20	74%	10
Contributing properities whose side of the structure face the route		-			-		7	26%	1	7	26%	1
Total Contributing properties directly on the route	0			0			27		10	27		10
District Rank Subtotal			0			0			21			21
SUMMARY OF ACCESS DIRECTLY FROM ROUTE												
Contributing properties: face the route & access directly from route	10	24%	5	10	24%	5	59	77%	27	59	77%	27
Contributing properities whose side of the structure face the route	32	76%	6	32	76%	6	18	23%	4	18	23%	4
Total Contributing properties directly on the route	42		4	42		4	77		23	77		23
Route Rank Subtotal			15			15			54			54

KINO TABLE 8

Historic Architectural Criteria	Routes from Kino 1 Rank	2 Rank	3 Rank	5 Rank
Blenman-Elm Historic District				
Historic District Integrity	8	8		
Scale of the Street Adjacent to Historic District	1	1		
Scale of Adjacent Historic & Non-Historic Structures Along Route	3	3		
Size of Historic District Impacted	3	3		
Historic Architectural Impression	8	8		
District Rank Subtotal	23	23	0	0
Catalina Vista Historic District				
Historic District Integrity	8	8		
Scale of the Street Adjacent to Historic District	1	1		
Scale of Adjacent Historic & Non-Historic Structures Along Route	2	2		
Size of Historic District Impacted	1	1		
Historic Architectural Impression	6	6		
District Rank Subtotal	18	18	0	0
Feldman's Historic District				
Historic District Integrity			6	6
Scale of the Street Adjacent to Historic District			6	6
Scale of Adjacent Historic & Non-Historic Structures Along Route			7	7
Size of Historic District Impacted			6	6
Historic Architectural Impression			7	7
District Rank Subtotal	0	0	32	32
Iron Horse Expansion Historic District				
Historic District Integrity			7	7
Scale of the Street Adjacent to Historic District			5	5
Scale of Adjacent Historic & Non-Historic Structures Along Route			6	6
Size of Historic District Impacted			6	6
Historic Architectural Impression			5	5
District Rank Subtotal	0	0	29	29
Jefferson Park Historic District				
Historic District Integrity	1	1	1	1
Scale of the Street Adjacent to Historic District	2	2	1	1
Scale of Adjacent Historic & Non-Historic Structures Along Route	1	1	1	1
Size of Historic District Impacted	2	2	1	1
Historic Architectural Impression	2	2	1	1
District Rank Subtotal	8	8	5	5
Pie Allen Residential Historic District				
Historic District Integrity			7	7
Scale of the Street Adjacent to Historic District			6	6
Scale of Adjacent Historic & Non-Historic Structures Along Route			7	7
Size of Historic District Impacted			10	10
Historic Architectural Impression			8	8
District Rank Subtotal	0	0	38	38
Rincon Heights Historic District				
Historic District Integrity	3	3	3	3
Scale of the Street Adjacent to Historic District	1	1	1	1
Scale of Adjacent Historic & Non-Historic Structures Along Route	6	6	1	1
Size of Historic District Impacted	4	4	1	1
Historic Architectural Impression	5	5	1	1
District Rank Subtotal	19	19	7	7
Sam Hughes Residential Historic District				
Historic District Integrity	8	8		
Scale of the Street Adjacent to Historic District	1	1		
Scale of Adjacent Historic & Non-Historic Structures Along Route	5	5		
Size of Historic District Impacted	4	4		
Historic Architectural Impression	7	7		
District Rank Subtotal	25	25	0	0
West University Historic District				
Historic District Integrity			8	8
Scale of the Street Adjacent to Historic District			5	5
Scale of Adjacent Historic & Non-Historic Structures Along Route			1	1
Size of Historic District Impacted			7	7
Historic Architectural Impression			5	5
District Rank Subtotal	0	0	26	26
SUMMARY OF HISTORIC ARCHITECTURAL RANKING				
Historic District Integrity	28	28	32	32
Scale of the Street Adjacent to Historic District	6	6	24	24
Scale of Adjacent Historic & Non-Historic Structures Along Route	17	17	23	23
Size of Historic District Impacted	14	14	31	31
Historic Architectural Impression	28	28	27	27
Route Rank Total	93	93	137	137

KINO SUMMARY TABLES 1 TO 8	Routes from Kino			
KINO TABLE 1	**1**	**2**	**3**	**5**
Bisecting vs Bordering Historic Districts	Rank	Rank	Rank	Rank
Blenman-Elm Historic District	6	6	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	16	16
Iron Horse Expansion Historic District	0	0	2	2
Jefferson Park Historic District	4	4	0	0
Pie Allen Residential Historic District	0	0	10	10
Rincon Heights Historic District	10	10	0	0
Sam Hughes Residential Historic District	14	14	0	0
West University Historic District	0	0	19	19
Route Rank	34	34	47	47
KINO TABLE 2				
Street Designation				
Blenman-Elm Historic District	5	5	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	13	13
Iron Horse Expansion Historic District	0	0	1	1
Jefferson Park Historic District	8	8	0	0
Pie Allen Residential Historic District	0	0	1	1
Rincon Heights Historic District	2	2	0	0
Sam Hughes Residential Historic District	3	3	0	0
West University Historic District	0	0	1	1
Route Rank	18	18	16	16
KINO TABLE 3				
Historic Districts with 1 vs 2 sides of the Route				
Route Rank	9	9	13	13
KINO TABLE 4				
Existing Power Poles located on Route				
Blenman-Elm Historic District	6	6	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	4	4
Iron Horse Expansion Historic District	0	0	4	4
Jefferson Park Historic District	6	6	0	0
Pie Allen Residential Historic District	0	0	4	4
Rincon Heights Historic District	5	5	9	9
Sam Hughes Residential Historic District	3	3	0	0
West University Historic District	0	0	4	4
Route Rank	20	20	25	25
KINO TABLE 5				
Historic Light fixtures within 800' Route Buffer				
Blenman-Elm Historic District	0	0	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	0	0
Iron Horse Expansion Historic District	0	0	1	1
Jefferson Park Historic District	0	0	0	0
Pie Allen Residential Historic District	0	0	0	0
Rincon Heights Historic District	0	0	0	0
Sam Hughes Residential Historic District	3	3	0	0
West University Historic District	0	0	5	5
Outside of Historic District	1	1	3	3
Route Rank	4	4	9	9
KINO TABLE 6				
Historic Contributing Properties in 800' Route Buffer				
Blenman-Elm Historic District	10	10	0	0
Catalina Vista Historic District	4	4	0	0
Feldman's Historic District	0	0	29	29
Iron Horse Expansion Historic District	0	0	12	12
Jefferson Park Historic District	14	14	6	6
Pie Allen Residential Historic District	0	0	21	21
Rincon Heights Historic District	11	11	5	5
Sam Hughes Residential Historic District	24	24	0	0
West University Historic District	0	0	31	31
Route Rank	63	63	104	104
KINO TABLE 7				
Access of Historic Contributing Properties along Route				
Blenman-Elm Historic District	3	3	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	21	21
Iron Horse Expansion Historic District	0	0	4	4
Jefferson Park Historic District	2	2	0	0
Pie Allen Residential Historic District	0	0	8	8
Rincon Heights Historic District	3	3	0	0
Sam Hughes Residential Historic District	7	7	0	0
West University Historic District	0	0	21	21
Route Rank	15	15	54	54
KINO TABLE 8				
Historic Architectural Criteria				
Blenman-Elm Historic District	23	23	0	0
Catalina Vista Historic District	18	18	0	0
Feldman's Historic District	0	0	32	32
Iron Horse Expansion Historic District	0	0	29	29
Jefferson Park Historic District	8	8	5	5
Pie Allen Residential Historic District	0	0	38	38
Rincon Heights Historic District	19	19	7	7
Sam Hughes Residential Historic District	25	25	0	0
West University Historic District	0	0	26	26
Route Rank Total	93	93	137	137

KINO TABLE 9	Routes			
SUMMARY BY HISTORIC DISTRICTS FOR KINO ROUTES	1	2	3	5
Blenman-Elm Historic District	53	53	0	0
Catalina Vista Historic District	22	22	0	0
Feldman's Historic District	0	0	115	115
Iron Horse Expansion Historic District	0	0	53	53
Jefferson Park Historic District	42	42	11	11
Pie Allen Residential Historic District	0	0	82	82
Rincon Heights Historic District	50	50	21	21
Sam Hughes Residential Historic District	79	79	0	0
West University Historic District	0	0	107	107
Outside of Historic District	1	1	3	3
Total by District, Tables 1,2,4,5,6,7,8	247	247	392	392
Total including Kino Table 3	256	256	405	405

VI. UA North Substation to DeMoss-Petrie Maps and Tables

TROW and TAC developed maps of each route to visually show the measurable criteria identified in Section III Methodology. Each route has a map of the full route as well as enlarged maps where the route is adjacent or passes through historic districts.

A. Route A Maps

1. Figure VI.A.1. Full route
2. Figure VI.A.2. Waverly Street to Adams Street
3. Figure VI.A.3. Grant Road to Waverly Street
4. Figure VI.A.4. 1st Avenue to Vine Avenue
5. Figure VI.A.5. Fariview Avenue to 10th Avenue

B. Route B Maps

1. Figure VI.B.1. Full Route
2. Figure VI.B.2. Lester Street to Mabel Street
3. Figure VI.B.3. Hampton Street to Elm Street
4. Figure VI.B.4. Grant Road to Seneca Street
5. Figure VI.B.5. Fairview Avenue to 10th Avenue

C. Route D Maps

1. Figure VI.C.1. Full route
2. Figure VI.C.2. Waverly Street to Adams Street
3. Figure VI.C.3. Grant Road to Waverly Street
4. Figure VI.C.4. 1st Avenue to Vine Avenue
5. Figure VI.C.5. Fairview Avenue to 10th Avenue

D. Route E Maps

1. Figure VI.D.1. Full route
2. Figure VI.D.2. Park Avenue to Warren Avenue
3. Figure VI.D.3. Elm Street to Helen Street
4. Figure VI.D.4. 2nd Avenue to Santa Rita Avenue
5. Figure VI.D.5. Stone Avenue to 2nd Avenue
6. Figure VI.D.6. 14th Avenue to Stone Avenue
7. Figure VI.D.7. Elm Street to Helen Street
8. Figure VI.D.8. Rillito Street to Elm Street
9. Figure VI.D.9. Fairview Avenue to Oracle Road

Figure VI.A.1: ROUTE A
UA NORTH SUBSTATION TO DMP: FULL ROUTE

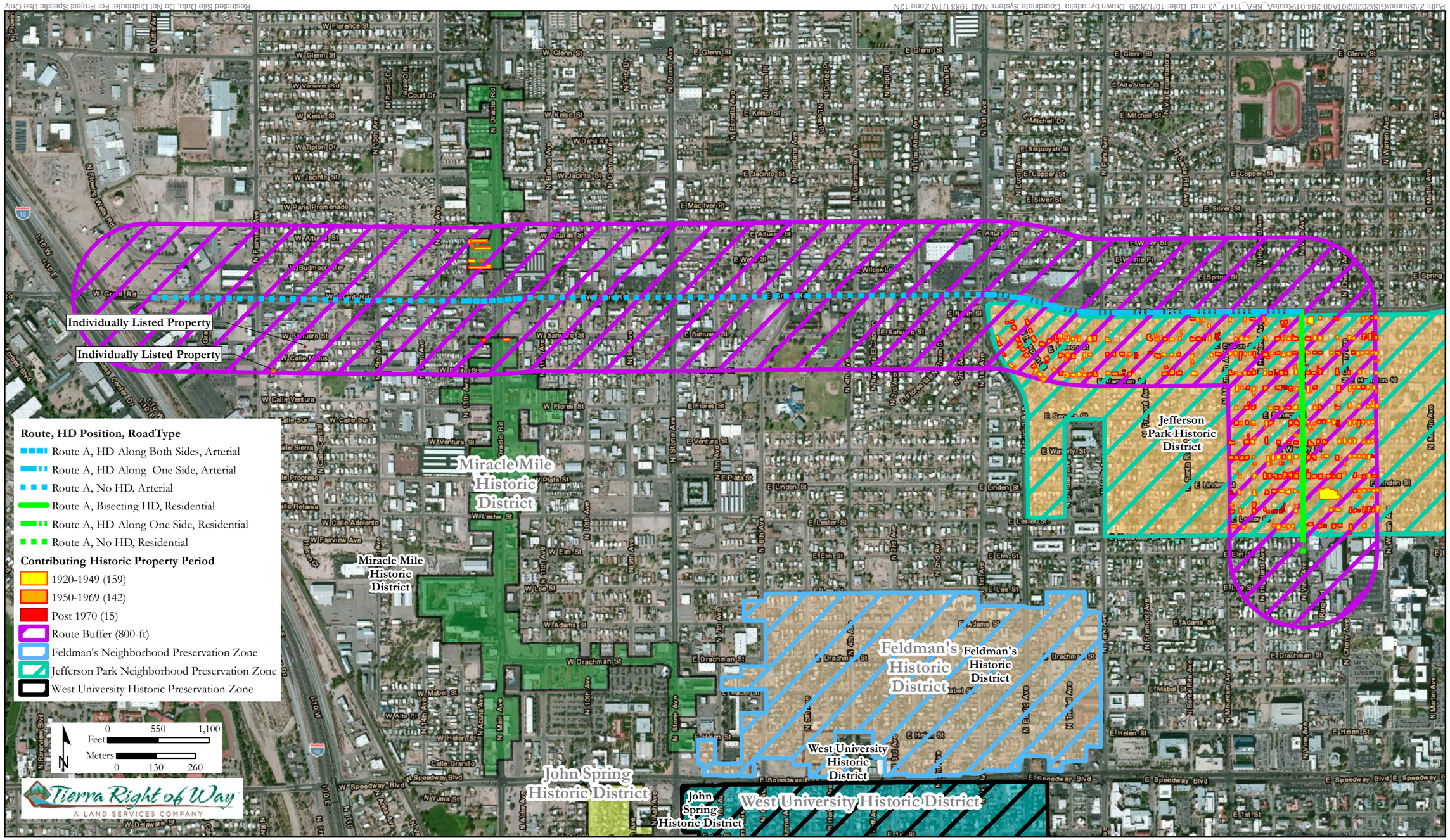


Figure VI.A.2: ROUTE A
UA NORTH SUBSTATION TO DMP: WAVERLY ST TO ADAMS ST

Path: Z:\Shared\GIS\2020\20TA00-294.01\Route_BEA_11x17_v3.mxd Date: 10/1/2020 Drawn by: adella Coordinate System: NAD 1983 UTM Zone 12N

Figure VI.A.3: ROUTE A
UA NORTH SUBSTATION TO DMP: GRANT RD TO WAVERLY ST

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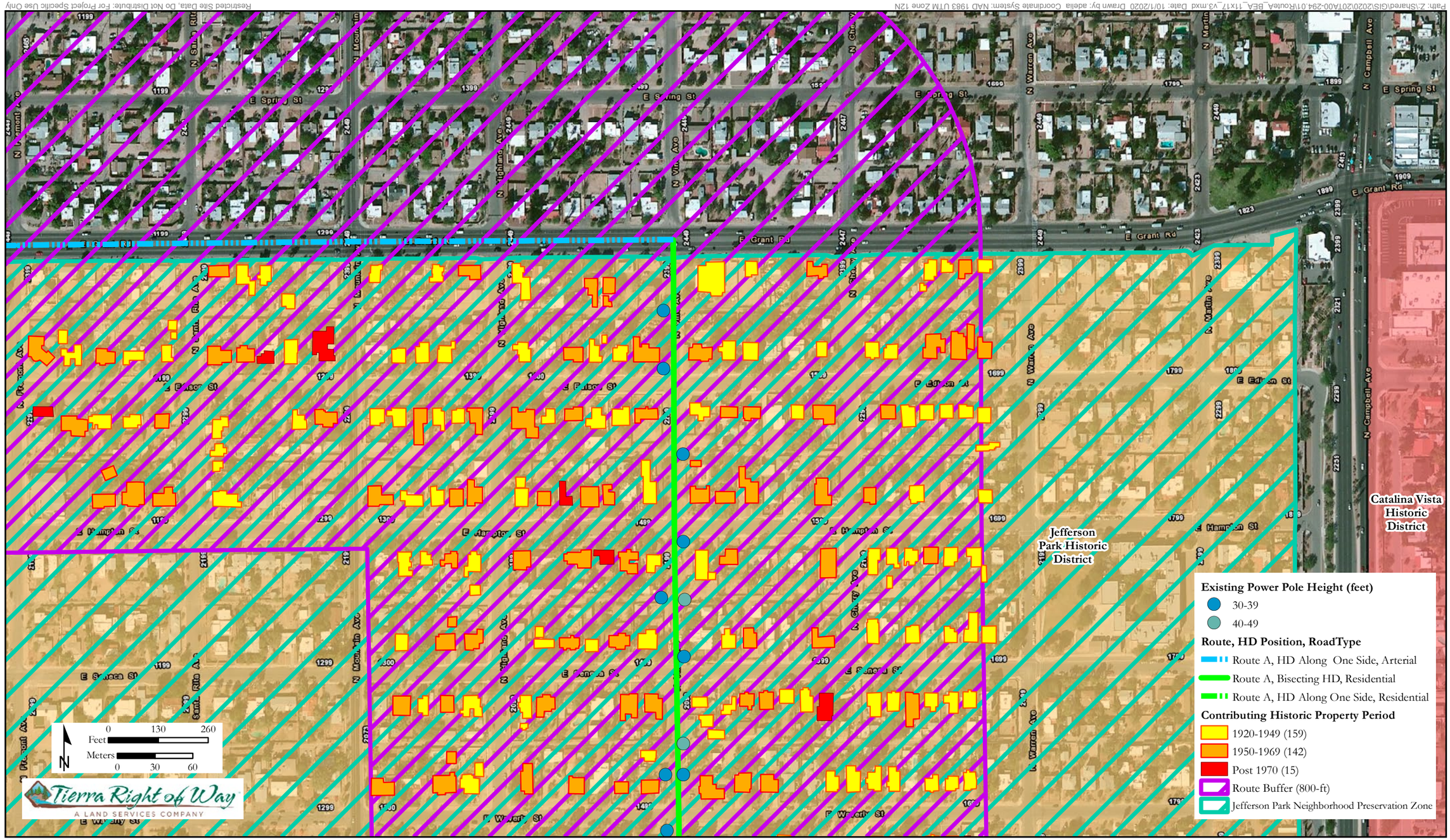

Figure VI.A.4: ROUTE A
UA NORTH SUBSTATION TO DMP: 1ST AVE TO VINE AVE

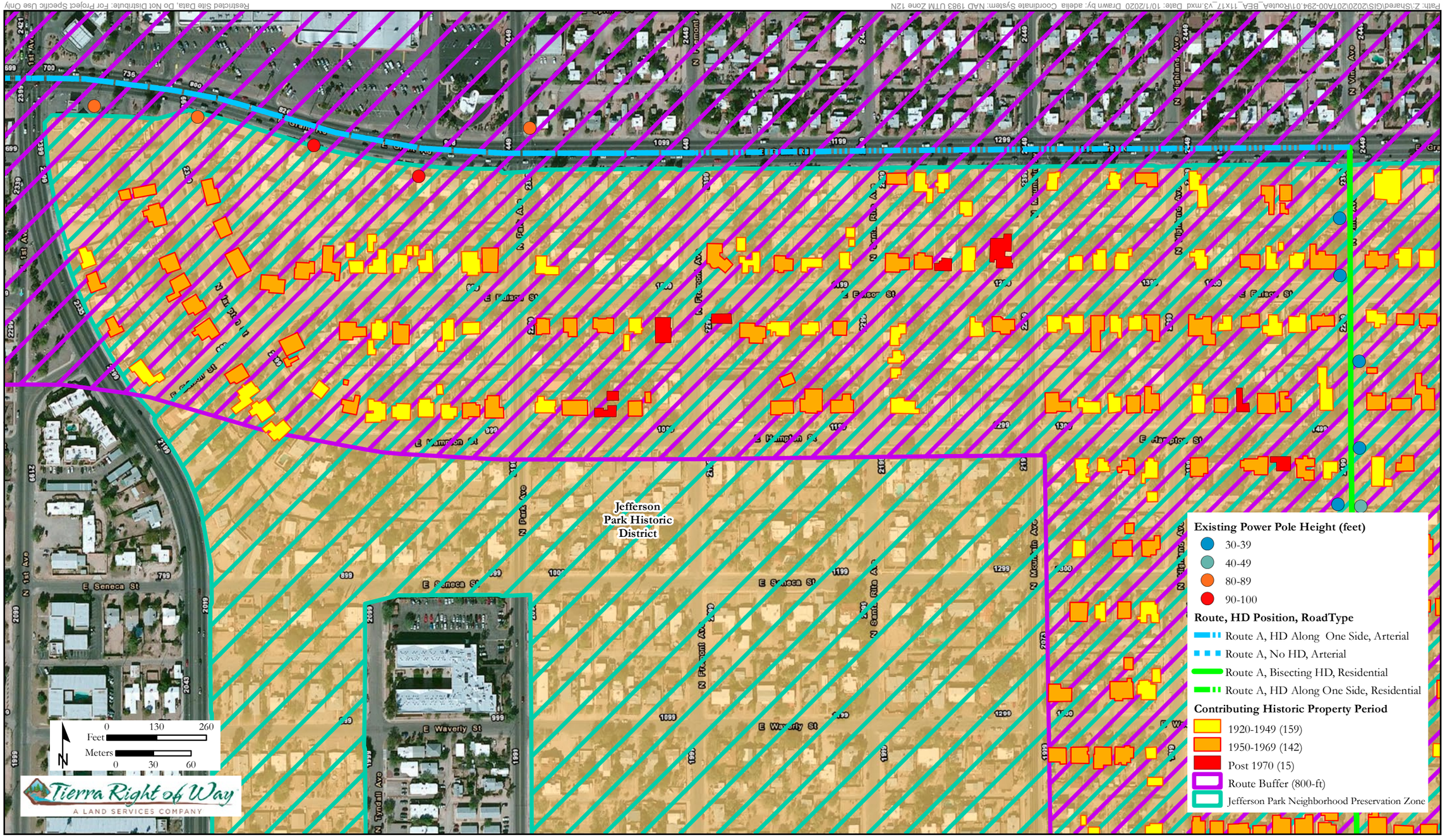

Figure VI.A.5: ROUTE A
UA NORTH SUBSTATION TO DMP: FAIRVIEW AVE TO 10TH AVE

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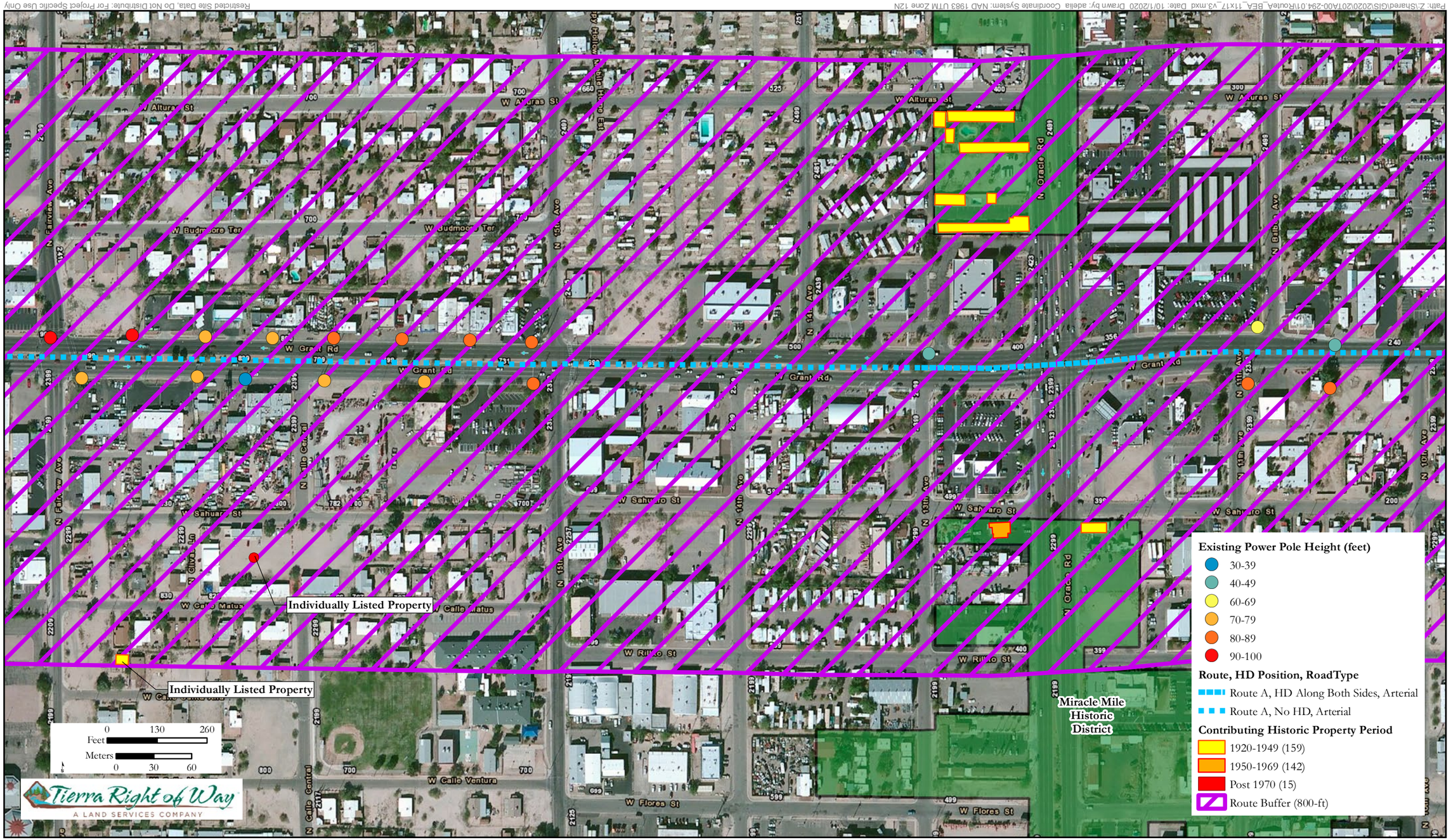

VI. UA North Substation to DeMoss-Petrie Maps and Tables

B. Route B Maps

1. Figure VI.B.1. Full Route
2. Figure VI.B.2. Lester Street to Mabel Street
3. Figure VI.B.3. Hampton Street to Elm Street
4. Figure VI.B.4. Grant Road to Seneca Street
5. Figure VI.B.5. Fairview Avenue to 10th Avenue

Figure VI.B.1: ROUTE B
UA NORTH SUBSTATION TO DMP: FULL ROUTE

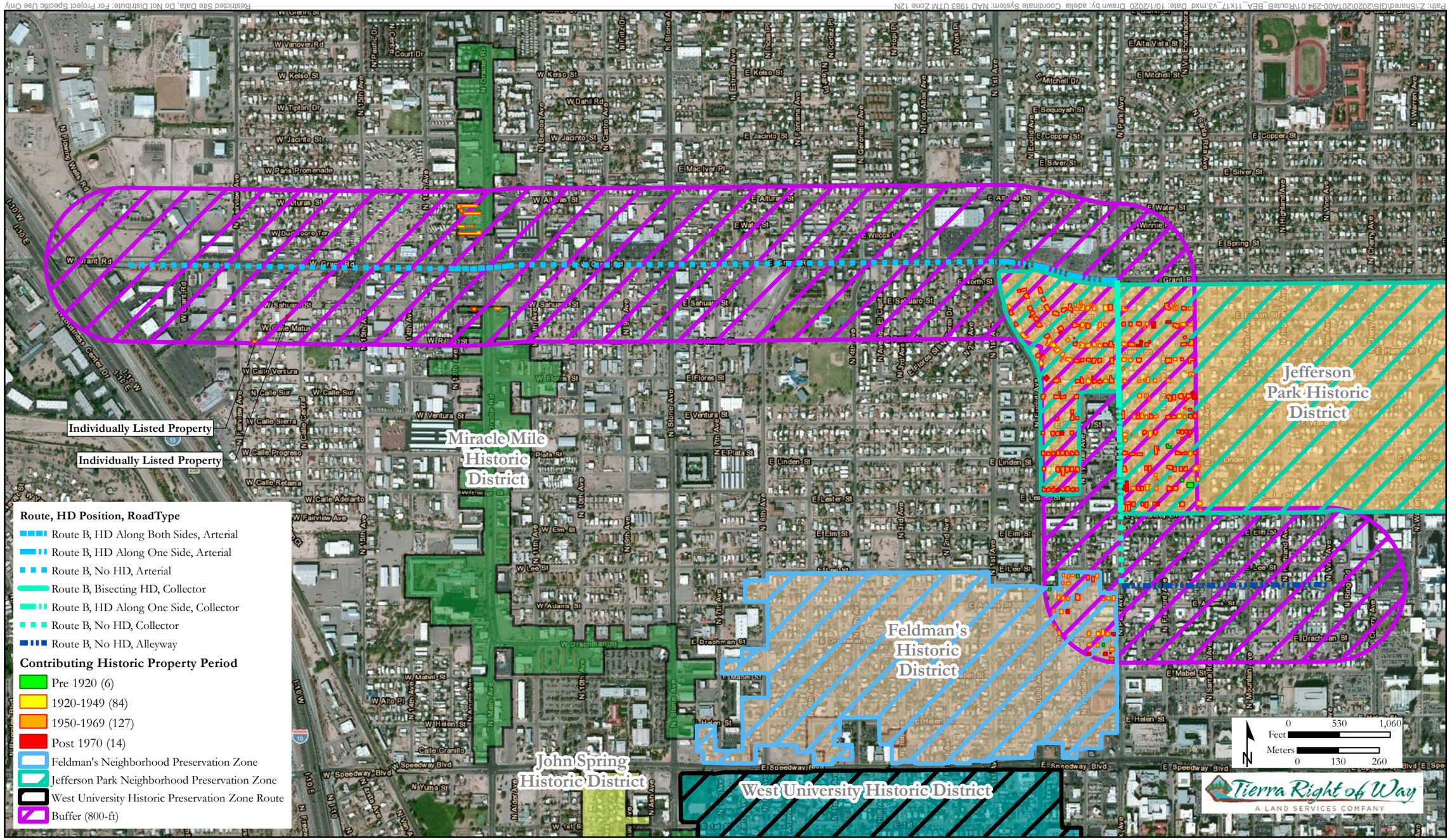

Figure VI.B.2: ROUTE B
UA NORTH SUBSTATION TO DMP: LESTER ST TO MABEL ST

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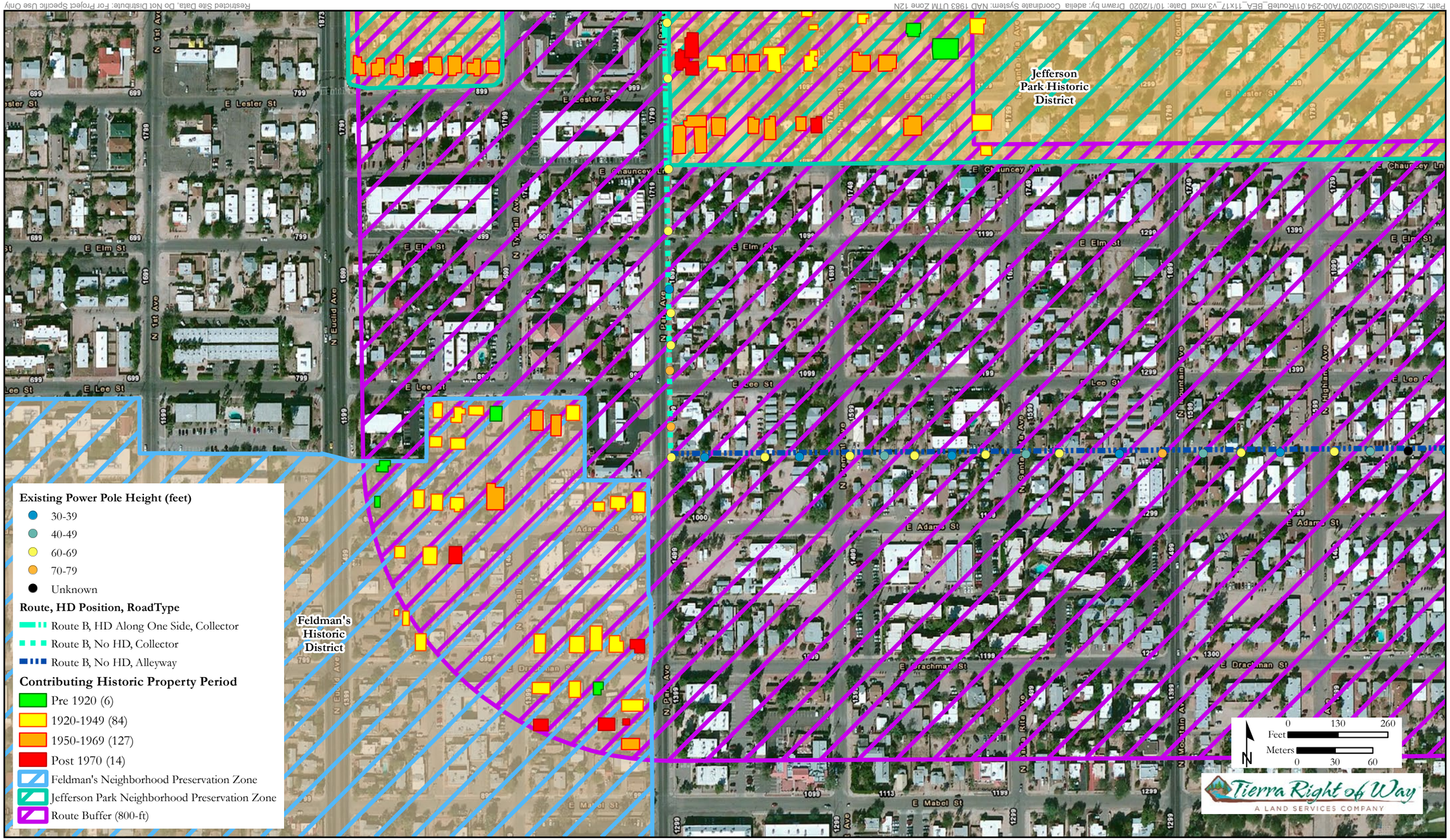


Figure VI.B.3: ROUTE B
UA NORTH SUBSTATION TO DMP: HAMPTON ST TO ELM ST

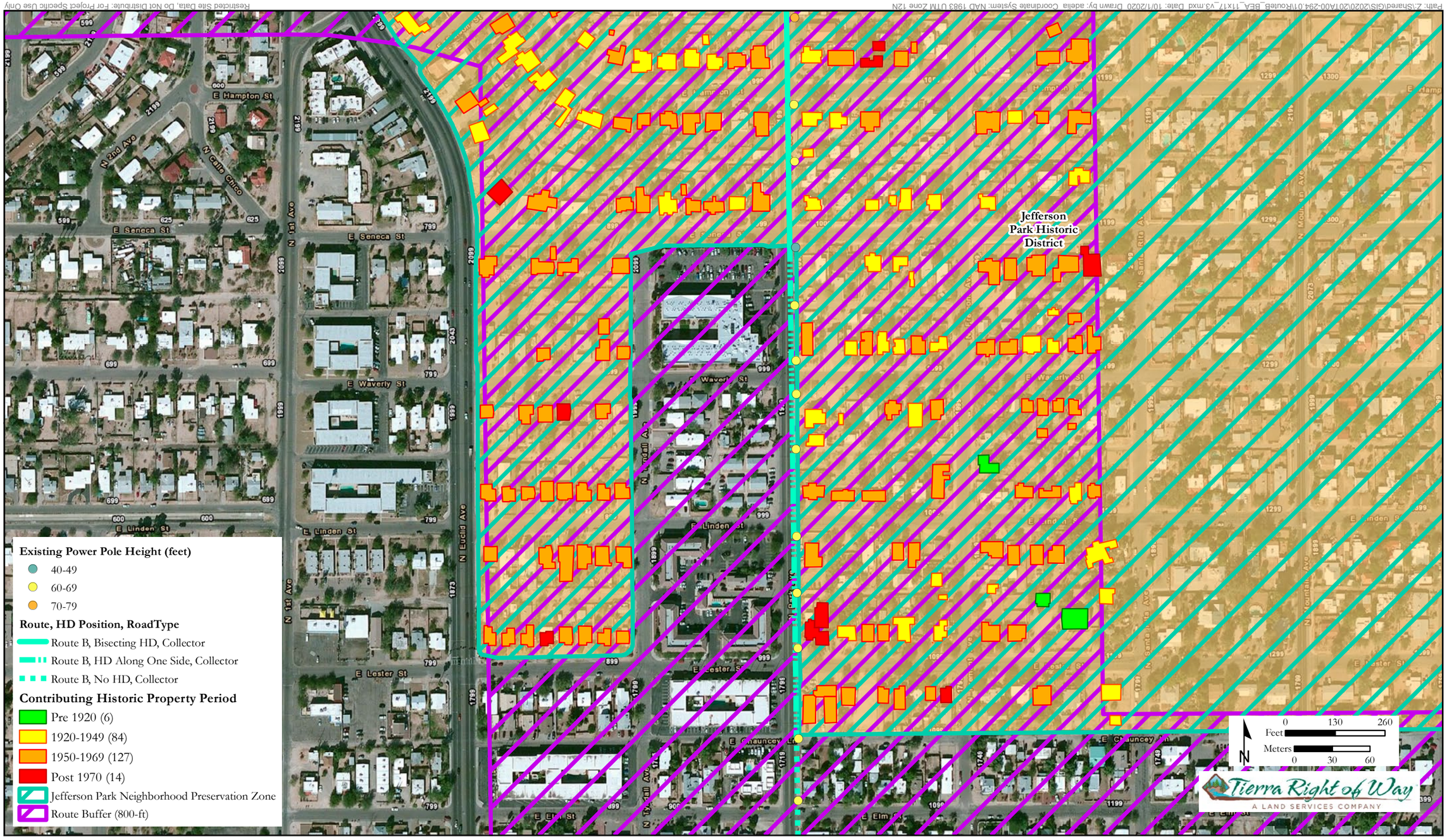


Figure VI.B.4: ROUTE B
UA NORTH SUBSTATION TO DMP: GRANT RD TO SENECA ST

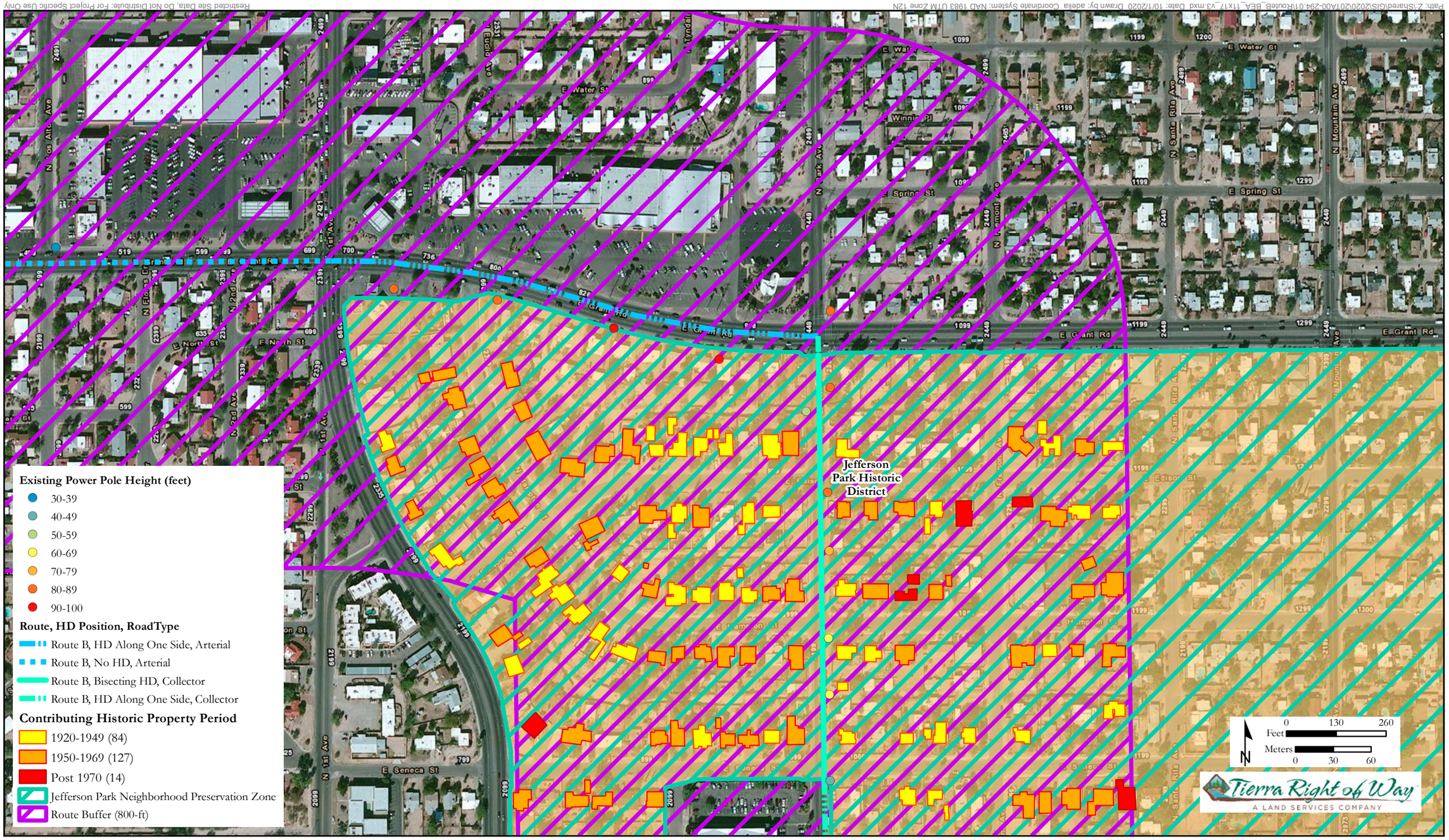
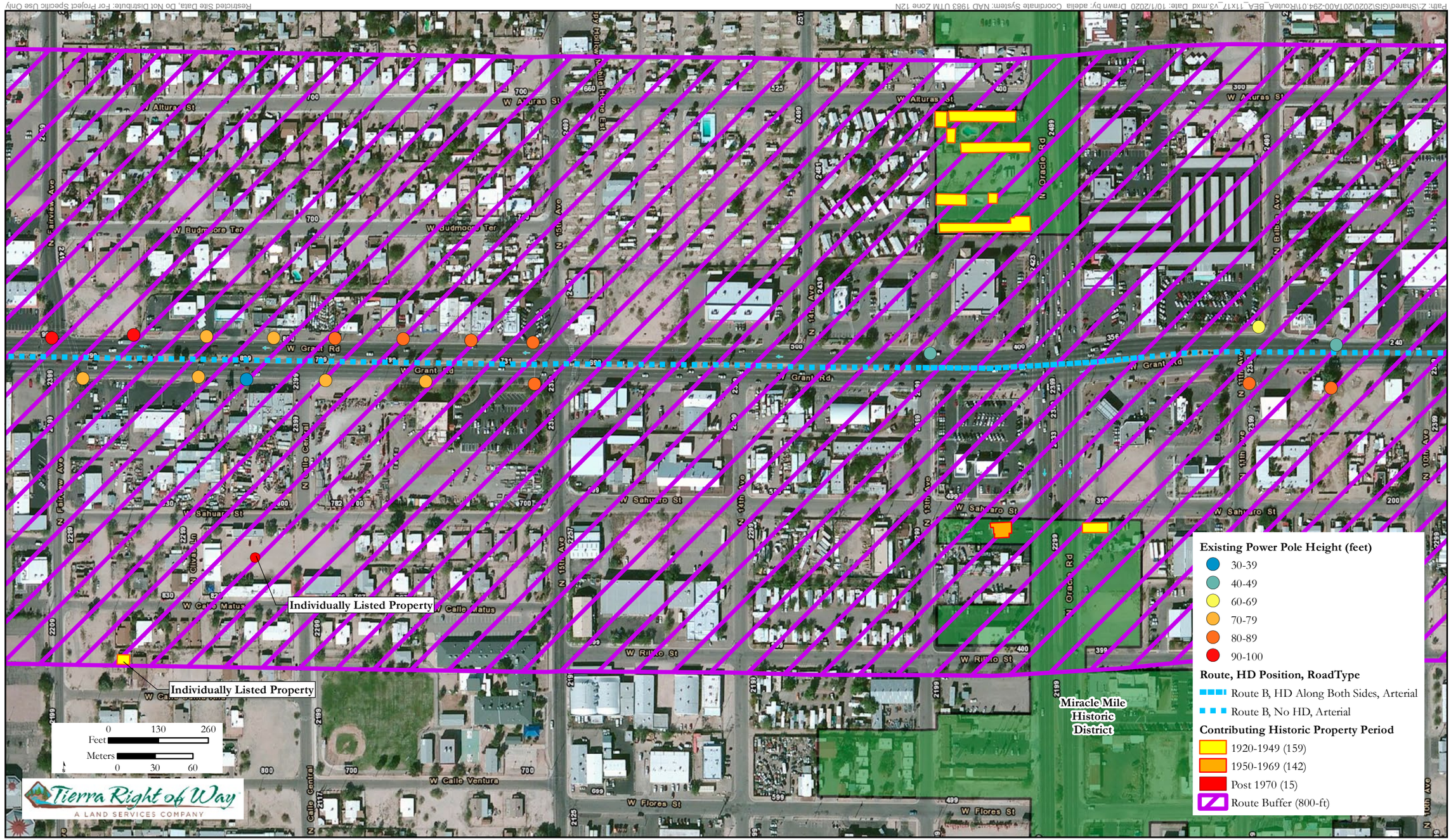


Figure VI.B.5: ROUTE D
UA NORTH SUBSTATION TO DMP: FAIRVIEW AVE TO 10TH AVE



VI. UA North Substation to DeMoss-Petrie Maps and Tables

C. Route D Maps

1. Figure VI.C.1. Full route
2. Figure VI.C.2. Waverly Street to Adams Street
3. Figure VI.C.3. Grant Road to Waverly Street
4. Figure VI.C.4. 1st Avenue to Vine Avenue
5. Figure VI.C.5. Fairview Avenue to 10th Avenue

Figure VI.C.1: ROUTE D
UA NORTH SUBSTATION TO DMP: FULL ROUTE

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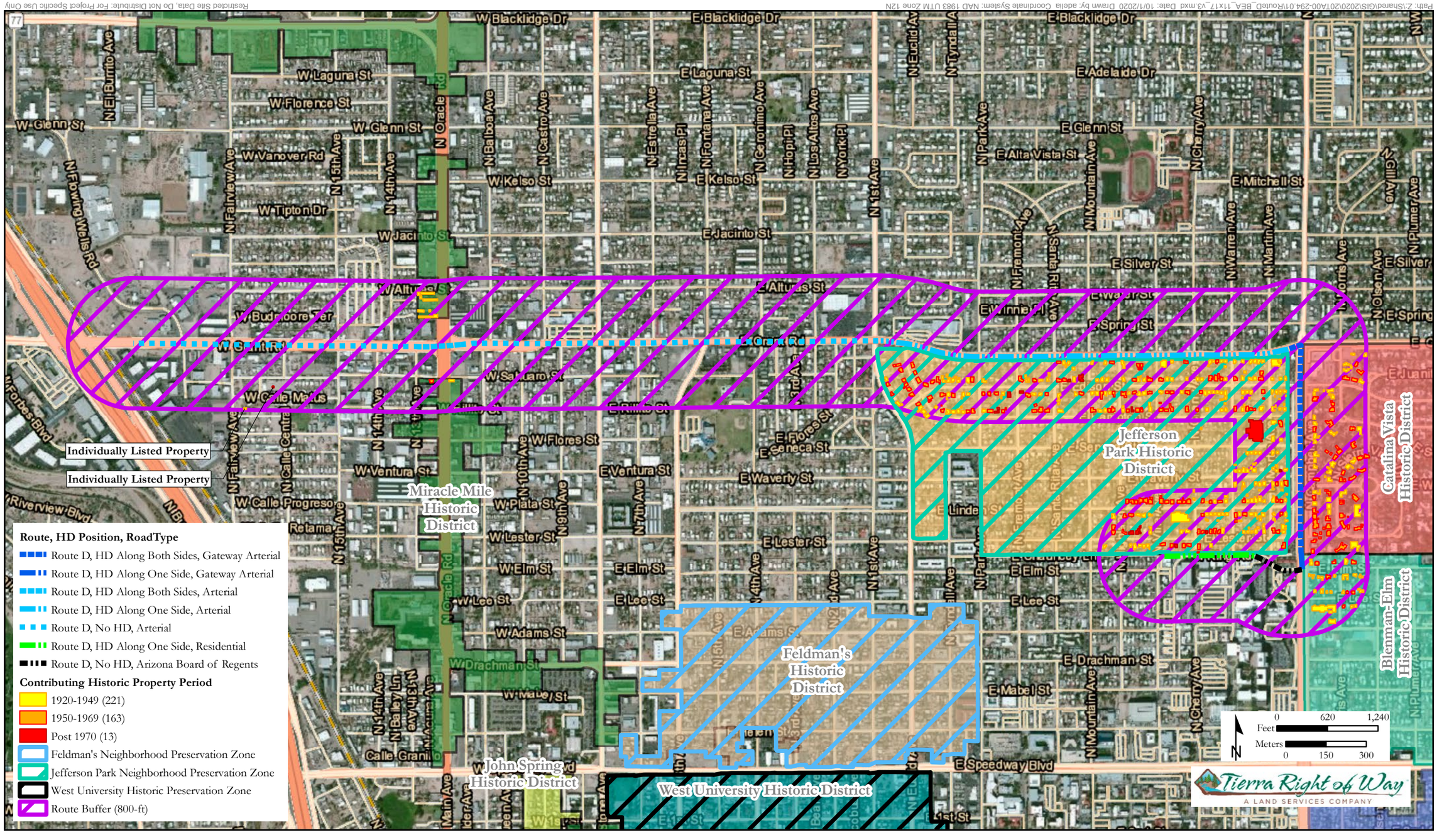

Figure VI.C.2: ROUTE D
UA NORTH SUBSTATION TO DMP: WAVERLY ST TO ADAMS ST

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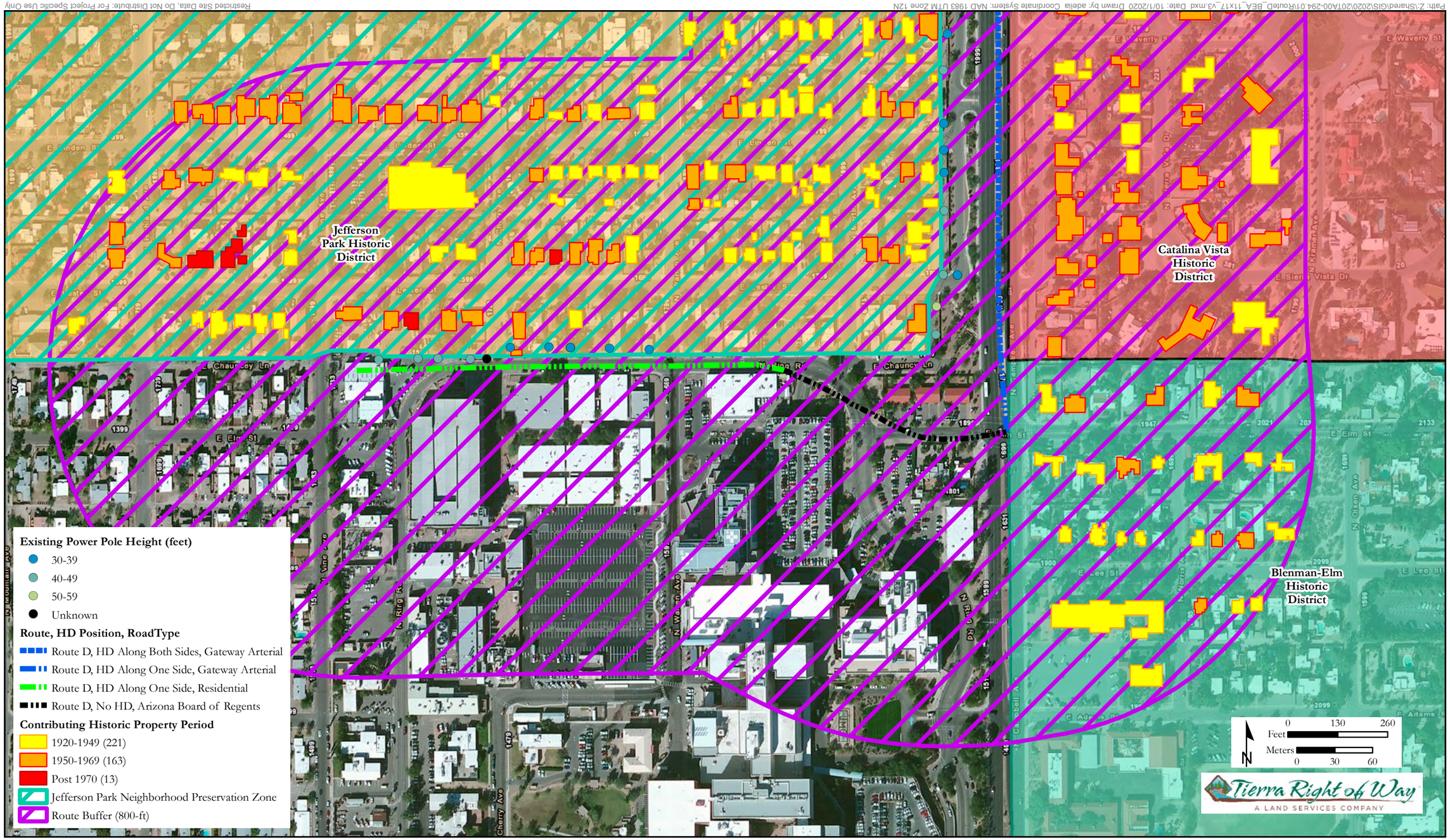

Figure VI.C.3: ROUTE D
UA NORTH SUBSTATION TO DMP: GRANT RD TO WAVERLY ST

Figure VI.C.4: ROUTE D
UA NORTH SUBSTATION TO DMP: 1ST AVE TO VINE AVE

Figure VI.C.5: ROUTE D
UA NORTH SUBSTATION TO DMP: FAIRVIEW AVE TO 10TH AVE

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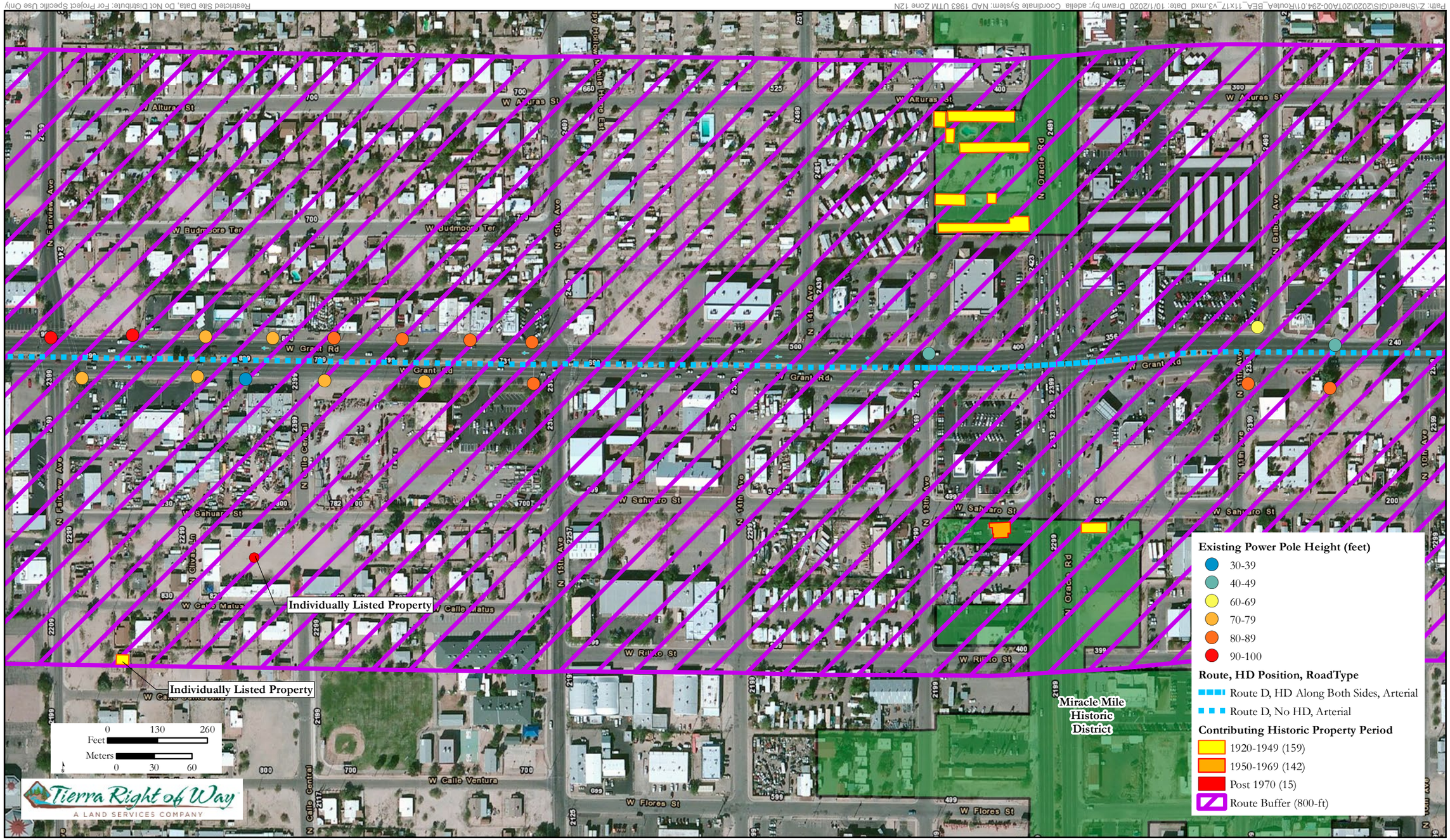

VI. UA North Substation to DeMoss-Petrie Maps and Tables

D. Route E Maps

1. Figure VI.D.1. Full route
2. Figure VI.D.2. Park Avenue to Warren Avenue
3. Figure VI.D.3. Elm Street to Helen Street
4. Figure VI.D.4. 2nd Avenue to Santa Rita Avenue
5. Figure VI.D.5. Stone Avenue to 2nd Avenue
6. Figure VI.D.6. 14th Avenue to Stone Avenue
7. Figure VI.D.7. Elm Street to Helen Street
8. Figure VI.D.8. Rillito Street to Elm Street
9. Figure VI.D.9. Fairview Avenue to Oracle Road

Figure VI.D.1: ROUTE E
UA NORTH SUBSTATION TO DMP: FULL ROUTE

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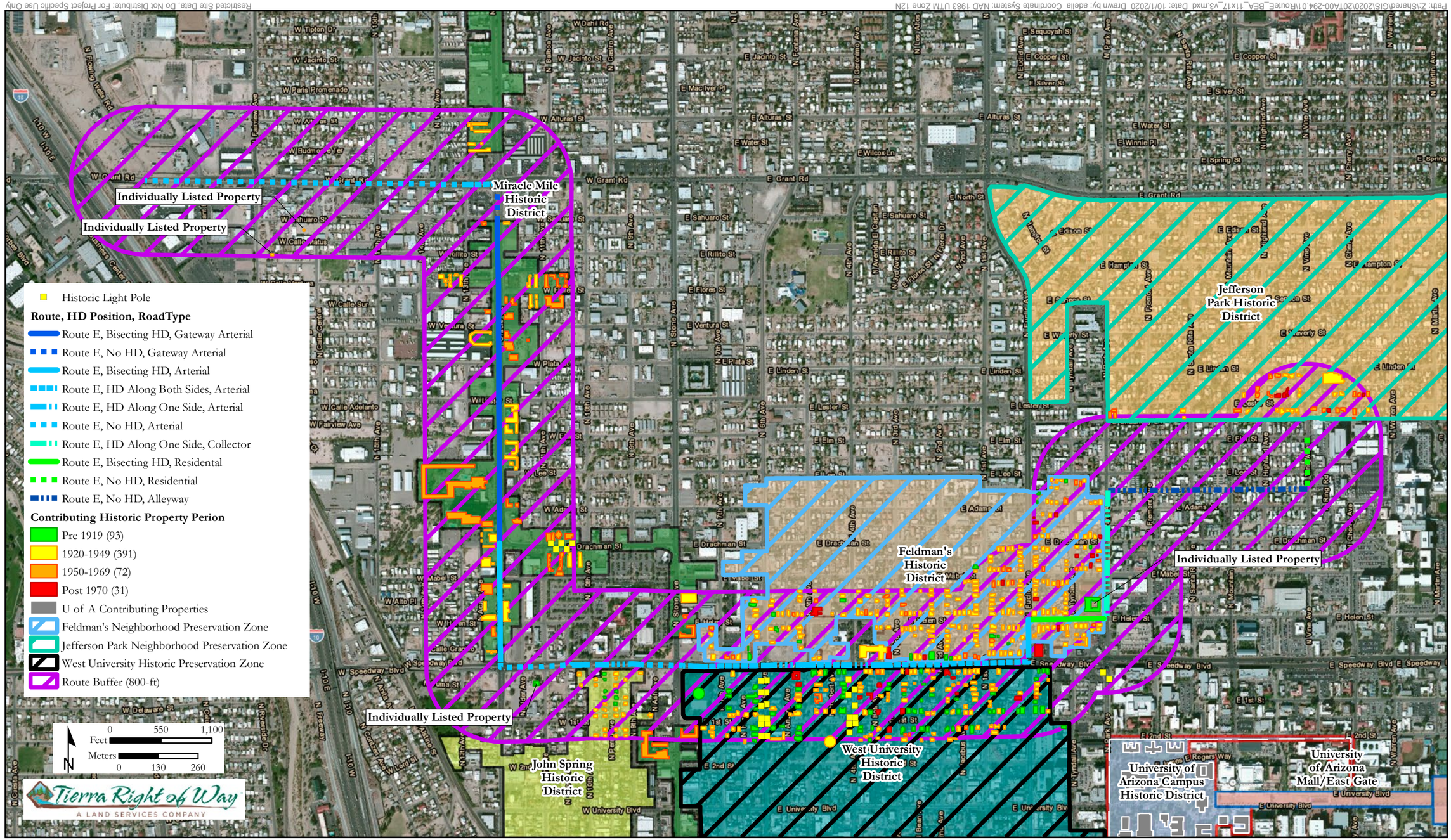

Figure VI.D.2: ROUTE E
UA NORTH SUBSTATION TO DMP: PARK AVE TO WARREN AVE

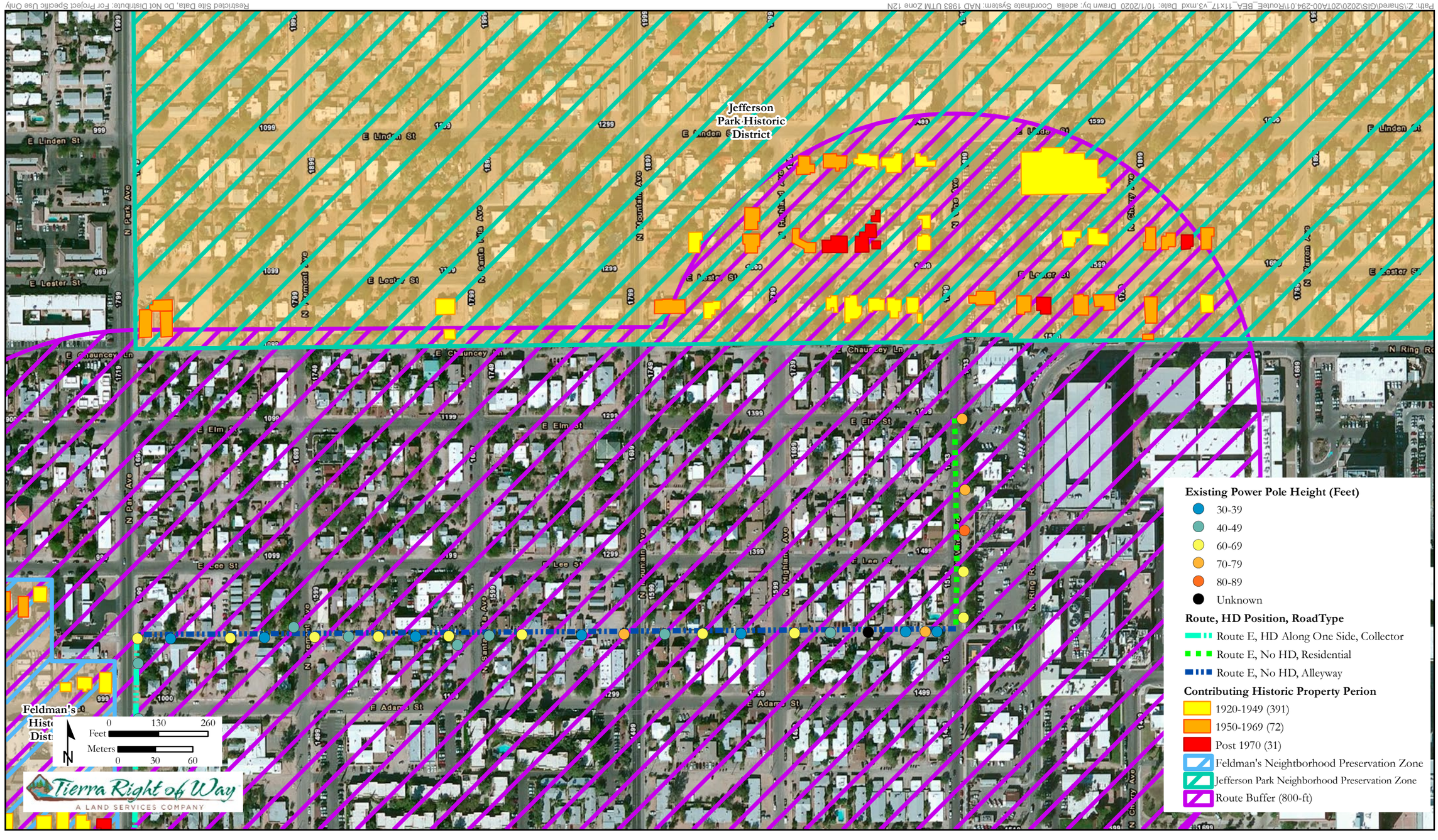

Figure VI.D.3: ROUTE E
UA NORTH SUBSTATION TO DMP: ELM ST TO HELEN ST

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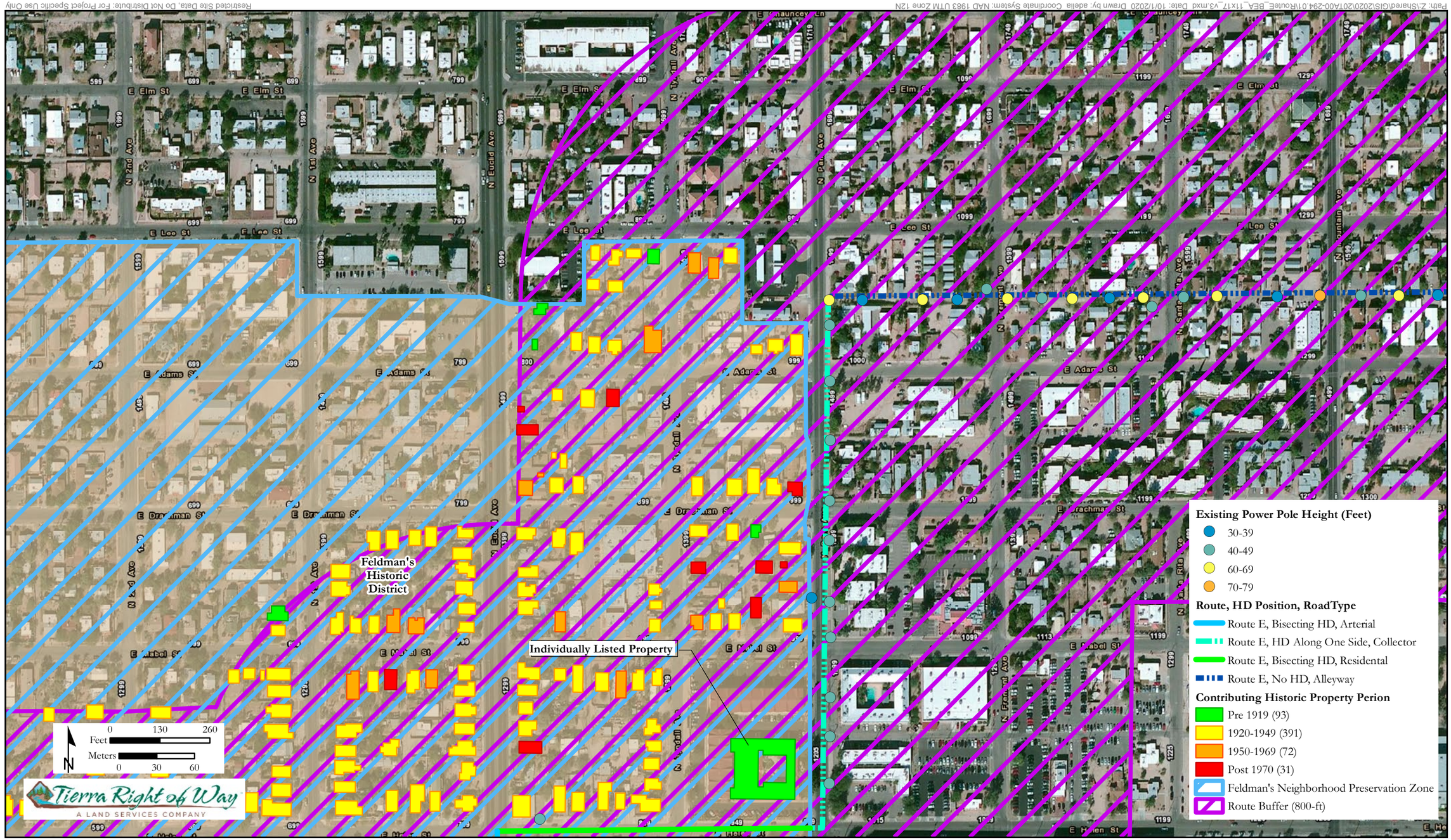

Figure VI.D.4: ROUTE E
UA NORTH SUBSTATION TO DMP: 2ND AVE TO SANTA RITA AVE

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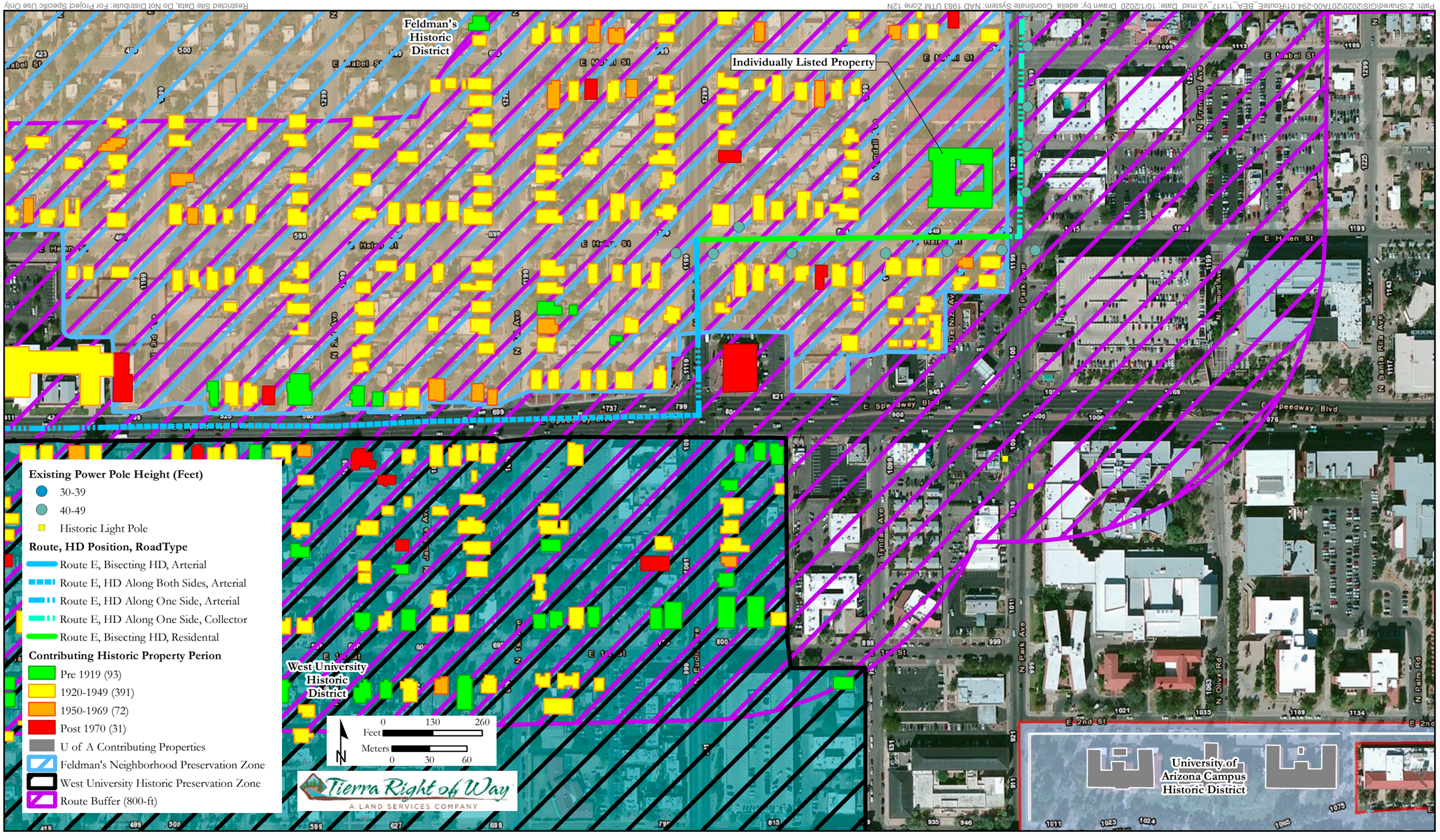


Figure VI.D.5: ROUTE E
UA NORTH SUBSTATION TO DMP: STONE AVE TO 2ND AVE

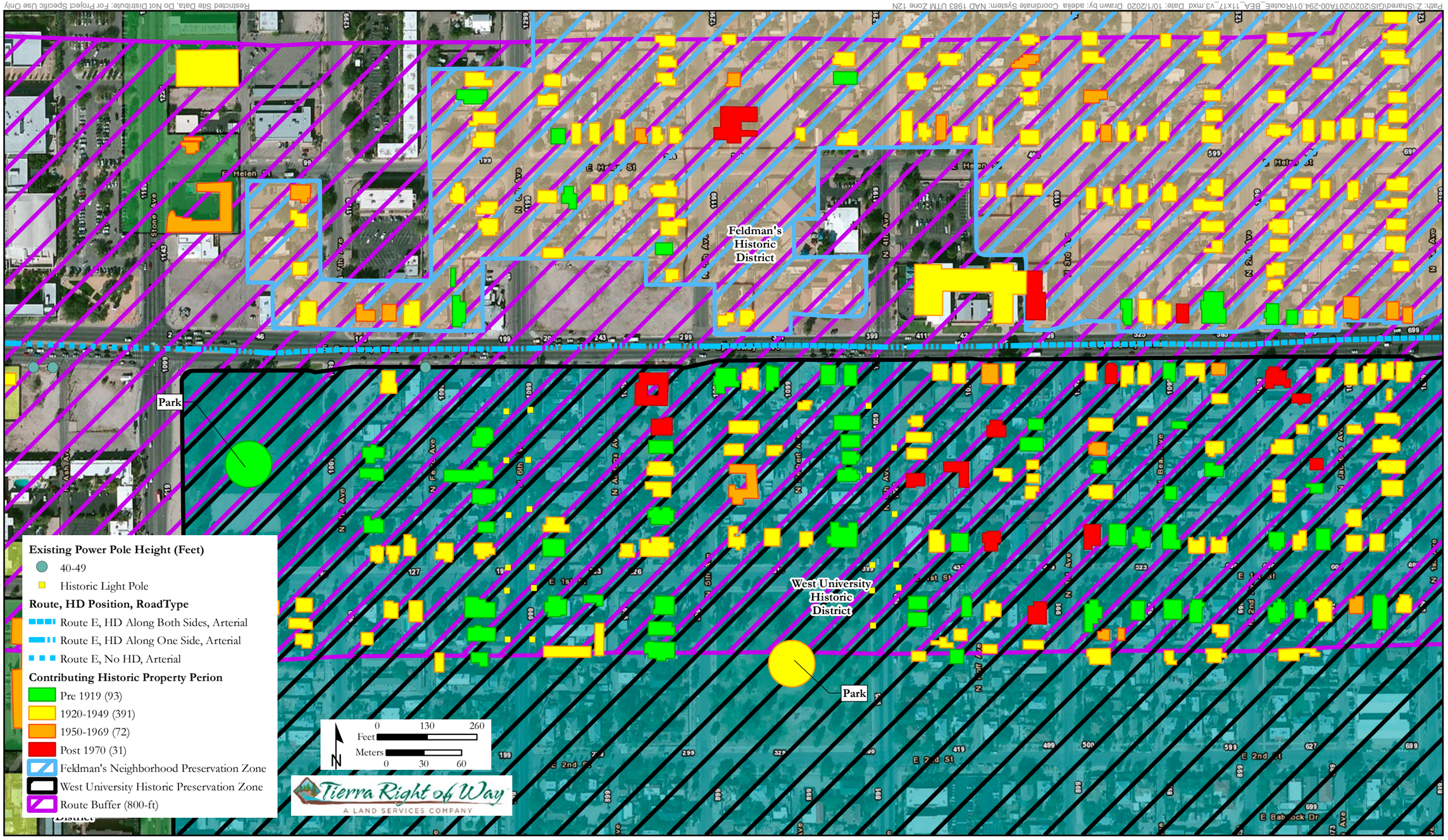


Figure VI.D.6: ROUTE E POWER POLES
UA NORTH SUBSTATION TO DMP: 14TH AVE TO STONE AVE

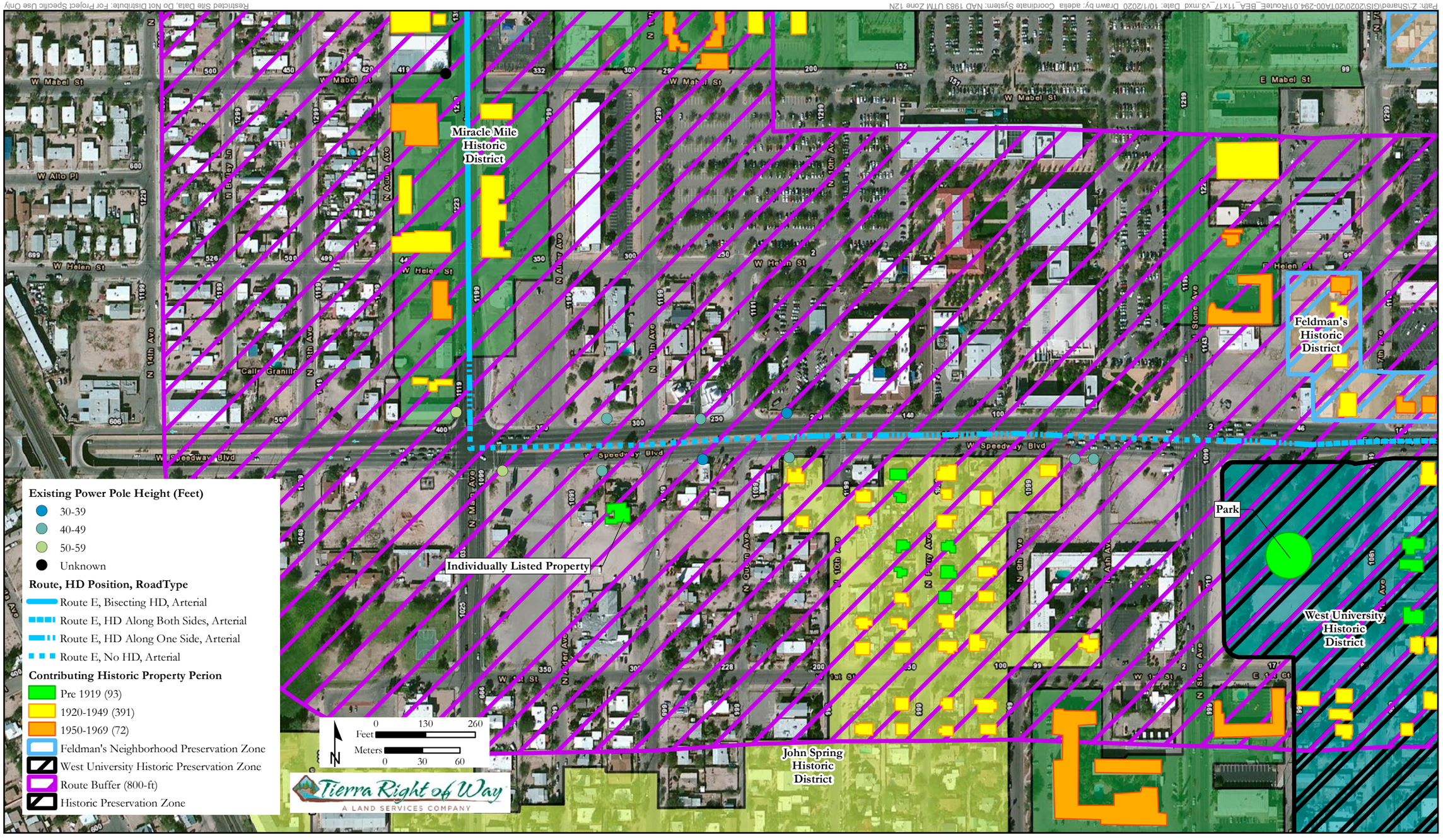


Figure VI.D.7: ROUTE E POWER POLES
DMP TO UA NORTH SUBSTATION: ELM ST TO HELEN ST

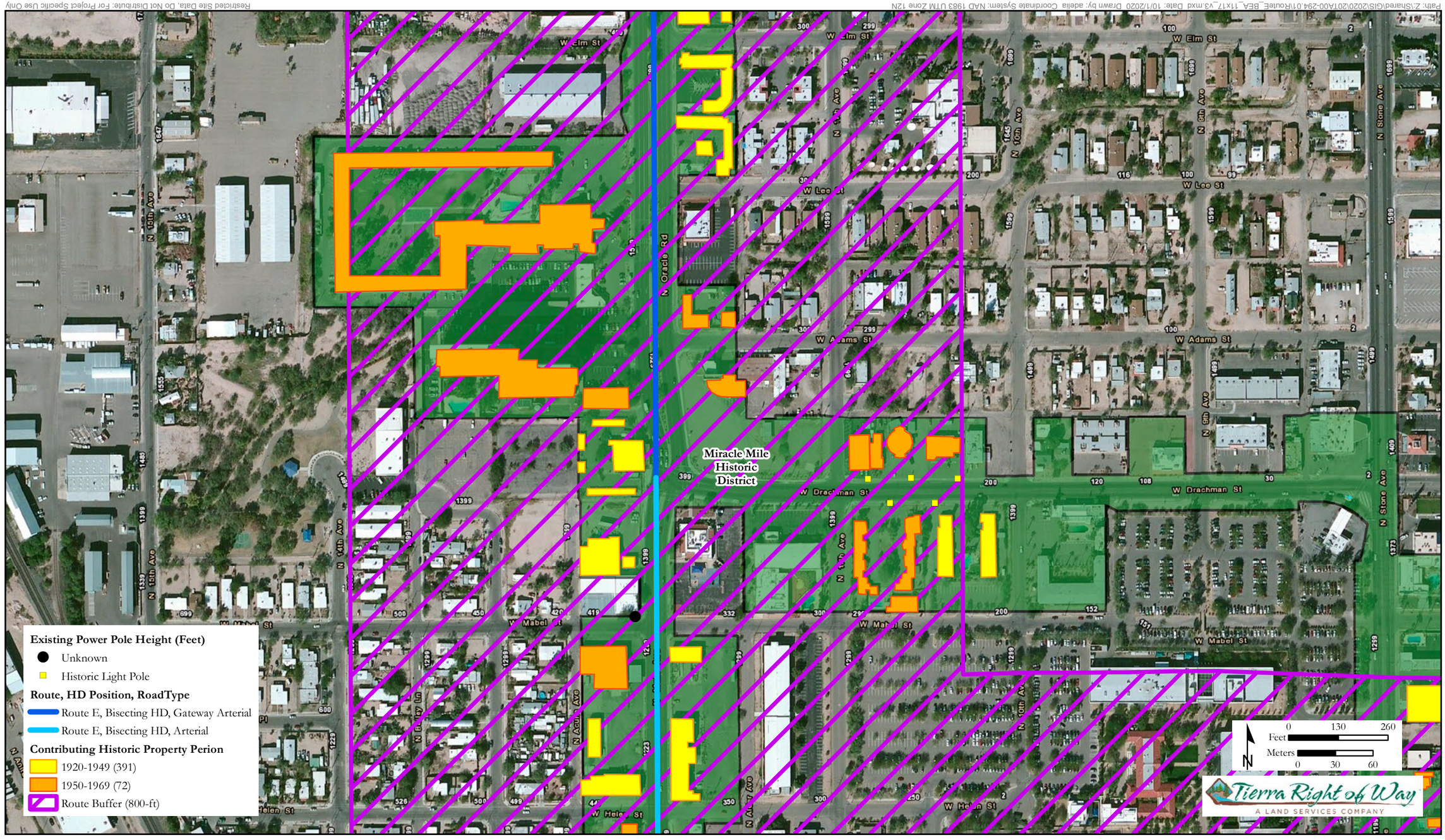
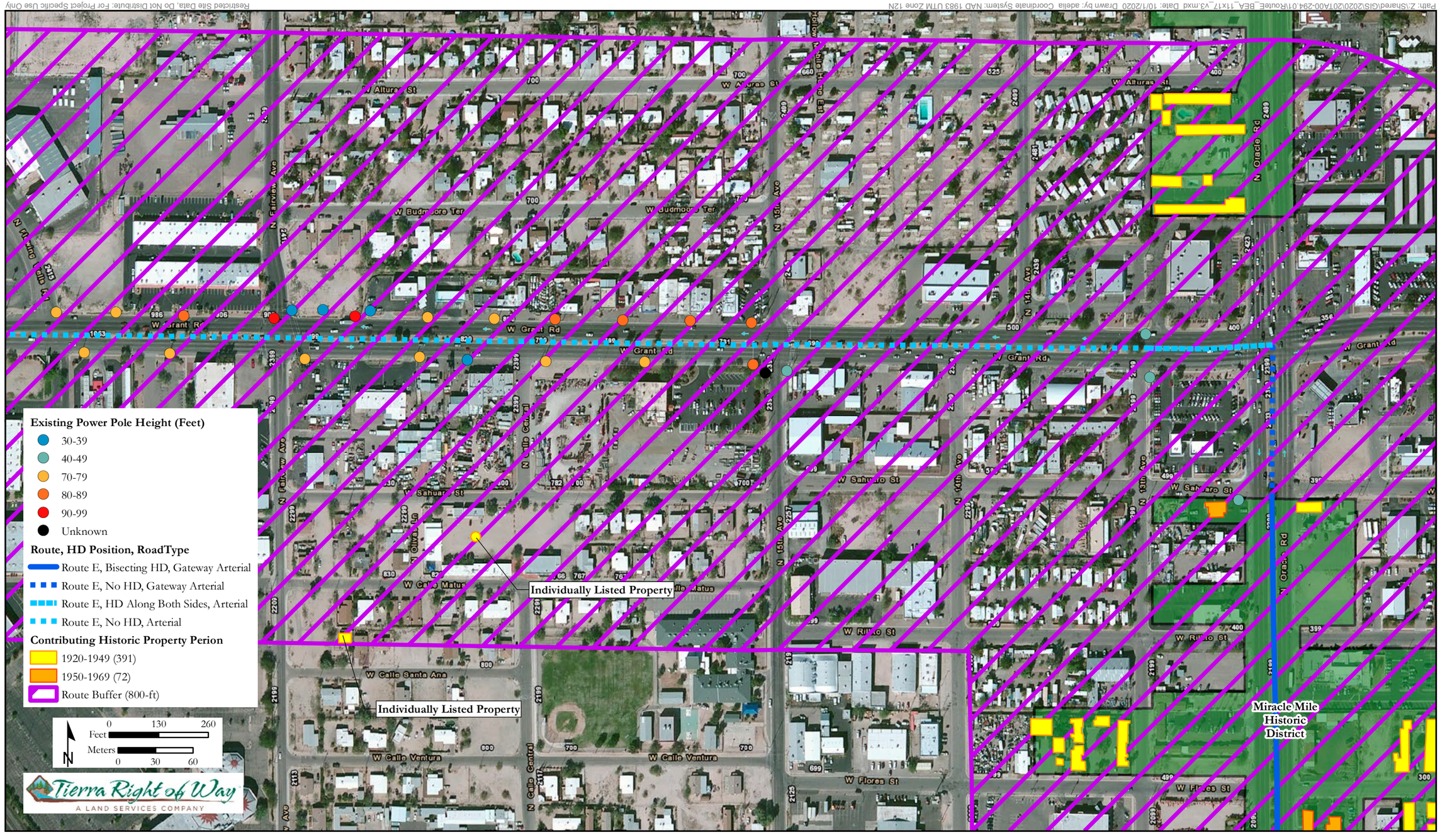


Figure VI.D.8: ROUTE E
DMP TO UA NORTH SUBSTATION: RILLITO ST TO ELM ST

Figure VI.D.9: ROUTE E
DMP TO UA NORTH SUBSTATION: FAIRVIEW AVE TO ORACLE RD



VI. UA North Substation to DeMoss-Petrie Maps and Tables

E. Routes A, B, D and E Tables

DMP Table A: Bisecting versus Bordering Historic Districts

DMP Table B: Street Designation

DMP Table C: Historic Districts with 1 versus 2 Sides of the Route

DMP Table D: Existing Power Poles Located on Route

DMP Table E: Historic Light Fixtures within 800' Route Buffer

DMP Table F: Historic Contributing Properties in 800' Route Buffer

DMP Table G: Access of Historic Contributing Properties along Route

DMP Table H: Historic Architectural Criteria

DMP Table I: Summary by Historic Districts

DMP TABLE A	Routes from DeMoss-Petrie											
Bisecting vs Bordering Historic Districts	**A**			**B**			**D**			**E**		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
Blenman-Elm Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	0%		0.00	-	
Bordering Historic District	0.00	-		0.00	-		189.57	100%	1	0.00	-	
Bisecting + Bordering	0.00			0.00			189.57		0	0.00		
District Rank Subtotal			0			0			1			0
Catalina Vista Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	0%		0.00	-	
Bordering Historic District	0.00	-		0.00	-		2720.33	100%	1	0.00	-	
Bisecting + Bordering	0.00			0.00			2720.33		1	0.00		
District Rank Subtotal			0			0			2			0
Feldman's Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	-		1055.34	20%	4
Bordering Historic District	0.00	-		0.00	-		0.00	-		4155.20	80%	3
Bisecting + Bordering	0.00			0.00			0.00			5210.54		4
District Rank Subtotal			0			0			0			11
Jefferson Park Historic District												
Bisecting Historic District	4820.11	41%	10	1105.44	30%	4	0.00	0%		0.00	-	
Bordering Historic District	6985.35	59%	3	2616.87	70%	2	8936.52	100%	4	0.00	-	
Bisecting + Bordering	11805.46		8	3722.31		7	8936.52		4	0.00		
District Rank Subtotal			21			13			8			0
John Spring Neighborhood Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	-		0.00	0%	
Bordering Historic District	0.00	-		0.00	-		0.00	-		575.34	100%	1
Bisecting + Bordering	0.00			0.00			0.00			575.34		0
District Rank Subtotal			0			0			0			1
Miracle Mile Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	-		4587.61	96%	10
Bordering Historic District	0.00	-		0.00	-		0.00	-		175.85	4%	1
Bisecting + Bordering	0.00			0.00			0.00			4763.46		5
District Rank Subtotal			0			0			0			16
West University Historic District												
Bisecting Historic District	0.00	-		0.00	-		0.00	-		0.00	0%	
Bordering Historic District	0.00	-		0.00	-		0.00	-		3739.59	100%	4
Bisecting + Bordering	0.00			0.00			0.00			3739.59		1
District Rank Subtotal			0			0			0			5
SUMMARY OF BISECTING + BORDERING												
Bisecting Historic District	4820.11	41%	10	1105.44	30%	4	0.00	0%	0	5642.95	39%	14
Bordering Historic District	6985.35	59%	3	2616.87	70%	2	11846.42	100%	6	8645.98	61%	9
Bisecting + Bordering	11805.46		8	3722.31		7	11846.42		5	14288.93		10
Route Rank Subtotal			21			13			11			33

DMP TABLE B	Routes from DeMoss-Petrie											
Street Designation	**A**			**B**			**D**			**E**		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
Blenman-Elm Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		189.57	100%	1	0.00	-	
Arterial Street	0.00	-		0.00	-		0.00	0%		0.00	-	
Collector Street	0.00	-		0.00	-		0.00	0%		0.00	-	
Residential Street	0.00	-		0.00	-		0.00	0%		0.00	-	
District Rank Subtotal	0.00		0	0.00		0	189.57		1	0.00		0
Catalina Vista Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		2720.32	100%	1	0.00	-	
Arterial Street	0.00	-		0.00	-		0.00	0%		0.00	-	
Collector Street	0.00	-		0.00	-		0.00	0%		0.00	-	
Residential Street	0.00	-		0.00	-		0.00	0%		0.00	-	
District Rank Subtotal	0.00		0	0.00		0	2720.32		1	0.00		0
Feldman's Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	-		0.00	0%	
Arterial Street	0.00	-		0.00	-		0.00	-		2940.60	57%	1
Collector Street	0.00	-		0.00	-		0.00	-		1415.86	27%	3
Residential Street	0.00	-		0.00	-		0.00	-		814.08	16%	1
District Rank Subtotal	0.00		0	0.00		0	0.00		0	5170.54		5
Jefferson Park Historic District												
Gateway Arterial Street (length in ft)	0.00	0%		0.00	0%		2720.62	30%	1	0.00	-	
Arterial Street	6937.98	59%	1	1289.63	35%	1	5101.01	57%	1	0.00	-	
Collector Street	0.00	0%		2432.67	65%	4	0.00	0%	0	0.00	-	
Residential Street	4867.47	41%	6	0.00	0%		1115.17	12%	3	0.00	-	
District Rank Subtotal	11805.45		7	3722.30		5	8936.80		5	0.00		0
John Spring Neighborhood Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	-		0.00	0%	
Arterial Street	0.00	-		0.00	-		0.00	-		575.34	100%	1
Collector Street	0.00	-		0.00	-		0.00	-		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	-		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	0.00		0	575.34		1
Miracle Mile Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	-		4587.61	90%	3
Arterial Street	0.00	-		0.00	-		0.00	-		500.46	10%	1
Collector Street	0.00	-		0.00	-		0.00	-		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	-		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	0.00		0	5088.07		4
West University Historic District												
Gateway Arterial Street (length in ft)	0.00	-		0.00	-		0.00	-		0.00	0%	
Arterial Street	0.00	-		0.00	-		0.00	-		1259.07	100%	1
Collector Street	0.00	-		0.00	-		0.00	-		0.00	0%	
Residential Street	0.00	-		0.00	-		0.00	-		0.00	0%	
District Rank Subtotal	0.00		0	0.00		0	0.00		0	1259.07		1
SUMMARY OF STREET DESIGNATIONS												
Gateway Arterial Street (length in ft)	0.00	0%	0	0.00	0%	0	5630.51	48%	3	4587.61	38%	3
Arterial Street	6937.98	59%	1	1289.63	35%	1	5101.01	43%	1	5275.47	44%	4
Collector Street	0.00	0%	0	2432.67	65%	4	0.00	0%	0	1415.86	12%	3
Residential Street	4867.47	41%	6	0.00	0%	0	1115.17	9%	3	814.08	7%	1
Route Rank Subtotal	11805.45		7	3722.30		5	11846.69		7	12093.02		11

DMP TABLE C	Routes from DeMoss-Petrie											
Historic Districts with 1 vs 2 sides of the Route	**A**			**B**			**D**			**E**		
	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank	Feet	%	Rank
All Districts												
Length of Route with historic district on 1 side	6985.35	59%	4	2616.87	70%	1	6405.76	66%	3	3644.95	30%	2
Length of Route with historic district on 2 sides	4820.11	41%	6	1105.46	30%	3	3284.43	34%	4	8448.12	70%	10
Total Length of Route with historic district on 1 or 2 sides	11805.46		9	3722.33		4	9690.19		6	12093.07		10
Route Rank Subtotal			19			8			13			22

DMP TABLE D			Routes from DeMoss-Petrie					Routes from DeMoss-Petrie					Routes from DeMoss-Petrie			
Existing Power Poles located on Route			**A**	**B**	**D**	**E**		**A**	**B**	**D**	**E**		**A**	**B**	**D**	**E**
Blenman-Elm Historic District																
Street	Campbell Ave: Elm to Helen	Pole Height Range (ft)					Avg. Pole Spacing (ft)					Number of Poles				
		Data Rank	0	0	0	0		0	0	0	0		0	0	0	0
		District Rank Subtotal	0	0	0	0		0	0	0	0		0	0	0	0
Catalina Vista Historic District																
Street	Campbell Ave: Grant to Elm	Pole Height Range (ft)			40.00		Avg. Pole Spacing (ft)			82.0		Number of Poles			1	
		Data Rank	0	0	1	0		0	0	1	0		0	0	1	0
		District Rank Subtotal	0	0	1	0		0	0	1	0		0	0	1	0
Feldman's Historic District																
Street	Helen St. Park to Euclid	Pole Height Range (ft)				40-45	Avg. Pole Spacing (ft)				122.0	Number of Poles				7
Street	Park Ave: Adams to Helen	Pole Height Range (ft)				35-45	Avg. Pole Spacing (ft)				141.3	Number of Poles				12
Street	Speedway Blvd: Stone to Euclid	Pole Height Range (ft)				0.00	Avg. Pole Spacing (ft)					Number of Poles				0
		Data Rank	0	0	0	2		0	0	0	1		0	0	0	1
		District Rank Subtotal	0	0	0	2		0	0	0	1		0	0	0	1
Jefferson Park Historic District																
Street	Grant Rd: 1st to Park	Pole Height Range (ft)	85'-95.5'	85'-99.5'	85-99.5		Avg. Pole Spacing (ft)	237.2	237.2	237.2		Number of Poles	5	5	5	
Street	Grant Rd: Park to Vine	Pole Height Range (ft)	0.00		0.00		Avg. Pole Spacing (ft)					Number of Poles	0			
Street	Grant Rd:Vine to Campbell	Pole Height Range (ft)			0.00		Avg. Pole Spacing (ft)					Number of Poles			0	
Street	Vine Ave: Grant to Elm	Pole Height Range (ft)	30'-78'				Avg. Pole Spacing (ft)	135.0				Number of Poles	17			
Street	Park Ave: Grant to Adams	Pole Height Range (ft)		50-82			Avg. Pole Spacing (ft)		135.4			Number of Poles		6		
Street	Campbell Ave: Grant to Elm	Pole Height Range (ft)			30'-51'		Avg. Pole Spacing (ft)			82.0		Number of Poles			26	
Street	Park Ave & Grant	Pole Height Range (ft)			82.00		Avg. Pole Spacing (ft)			135.4		Number of Poles			1	
Street	Ring Dr: Vine to Campbell	Pole Height Range (ft)			Unknown, 40' - 45'		Avg. Pole Spacing (ft)			71.0		Number of Poles			2	
		Data Rank	9	7	3	0		5	6	2	0		7	10	1	0
		District Rank Subtotal	9	7	3	0		5	6	2	0		7	10	1	0
John Spring Neighborhood Historic District																
Street	Speedway Blvd 10th to Main	Pole Height Range (ft)				35-45	Avg. Pole Spacing (ft)				188.0	Number of Poles				2
		Data Rank	0	0	0	2		0	0	0	1		0	0	0	1
		District Rank Subtotal	0	0	0	2		0	0	0	1		0	0	0	1
Miracle Mile Historic District																
Street	Main Ave & Speedway	Pole Height Range (ft)				55.00	Avg. Pole Spacing (ft)				0.0	Number of Poles				1
Street	Main Ave & Mabel St	Pole Height Range (ft)				unknown	Avg. Pole Spacing (ft)				0.0	Number of Poles				1
Street	Oracle & Sahuaro	Pole Height Range (ft)				45.00	Avg. Pole Spacing (ft)				0.0	Number of Poles				1
Street	Oracle & Ventrua	Pole Height Range (ft)				40.00	Avg. Pole Spacing (ft)				159.0	Number of Poles				2
		Data Rank	0	0	0	2		0	0	0	1		0	0	0	3
		District Rank Subtotal	0	0	0	2		0	0	0	1		0	0	0	3
West University Historic District																
Street	Speedway Blvd Ferro to 9th	Pole Height Range (ft)				40.00	Avg. Pole Spacing (ft)				0.0	Number of Poles				1
		Data Rank	0	0	0	2		0	0	0	1		0	0	0	1
		District Rank Subtotal	0	0	0	2		0	0	0	1		0	0	0	1
SUMMARY																
		Pole Height Range (ft)	30'-95.5'	50'-99.5	30'-99.5	35'-55'	Avg. Pole Spacing (ft)	135'-237'	135.4'-237	71'-237.2'	122'-188'	Total # of Poles	22	11	35	27.00
		Data Rank Subtotal	9	7	4	8		5	6	3	4		7	10	2	6
		Route Rank Subtotal	9	7	4	8		5	6	3	4		7	10	2	6
												Total Route Ranking	21	23	9	18

DMP TABLE E	Routes from DMP											
Historic Light fixtures within 800' Route Buffer	**A**			**B**			**D**			**E**		
	# of Lights	%	Rank	# of Lights	%	Rank	# of Lights	%	Rank	# of Lights	%	Rank
Blenman-Elm Historic District		-			-			-			0%	
Catalina Vista Historic District		-			-			-			0%	
Feldman's Historic District		-			-			-			0%	
Iron Horse Expansion Historic District		-			-			-			0%	
Jefferson Park Historic District		-			-			-			0%	
Miracle Mile Historic District		-			-			-		5	19%	1
West University Historic District		-			-			-		20	77%	4
OUTSIDE OF HISTORIC DISTRICT		-			-			-		1	4%	1
Data Subtotal	0		0	0		0	0		0	26		6
Route Rank Subtotal			0			0			0			6

DMP TABLE F

Historic Contributing Properties in 800' Route Buffer	Routes from DeMoss-Petrie											
	A			B			D			E		
	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank
Blenman-Elm Historic District												
Number of properties Individually Listed		-			-			0%			-	
Number of landmark properties		-			-			0%			-	
Number of properties built between pre 1919		-			-			0%			-	
Number of properties built between 1920 to 1949		-			-		17	71%	1		-	
Number of properties built between 1950 to 1969		-			-		7	29%	1		-	
Number of properties post 1970		-			-			0%			-	
Total of all Contributing properties per District	0			0			24		2	0		
District Rank Subtotal			0			0			4			0
Catalina Vista Historic District												
Number of properties Individually Listed		-			-			0%			-	
Number of landmark properties		-			-			0%			-	
Number of properties built between pre 1919		-			-			0%			-	
Number of properties built between 1920 to 1949		-			-		30	45%	2		-	
Number of properties built between 1950 to 1969		-			-		36	55%	1		-	
Number of properties post 1970		-			-			0%			-	
Total of all Contributing properties per District	0			0			66		3	0		
District Rank Subtotal			0			0			6			0
Feldman's Historic District												
Number of properties Individually Listed		-			0%			-			0%	
Number of landmark properties		-			0%			-			0%	
Number of properties built between pre 1919		-		4	12%	1		-		18	6%	2
Number of properties built between 1920 to 1949		-		21	64%	1		-		231	80%	6
Number of properties built between 1950 to 1969		-		4	12%	1		-		26	9%	2
Number of properties post 1970		-		4	12%	1		-		13	5%	1
Total of all Contributing properties per District	0			33		2	0			288		7
District Rank Subtotal			0			6			0			18
Jefferson Park Historic District												
Number of properties Individually Listed		0%			0%			0%			0%	
Number of landmark properties		0%			0%			0%			0%	
Number of properties built between pre 1919		0%		2	1%	1		0%			0%	
Number of properties built between 1920 to 1949	155	50%	7	59	31%	3	170	56%	7	16	46%	2
Number of properties built between 1950 to 1969	141	45%	6	122	64%	5	119	40%	5	15	43%	1
Number of properties post 1970	14	5%	1	9	5%	1	12	4%	1	4	11%	1
Total of all Contributing properties per District	310		8	192		5	301		8	35		2
District Rank Subtotal			22			15			21			6
John Spring Neighborhood Historic District												
Number of properties Individually Listed		-			-			-		1	3%	3
Number of landmark properties		-			-			-			0%	
Number of properties built between pre 1919		-			-			-		8	22%	1
Number of properties built between 1920 to 1949		-			-			-		27	75%	2
Number of properties built between 1950 to 1969		-			-			-			0%	
Number of properties post 1970		-			-			-			0%	
Total of all Contributing properties per District	0			0			0			36		2
District Rank Subtotal			0			0			0			8
Miracle Mile Historic District												
Number of properties Individually Listed		0%			0%			0%			0%	
Number of landmark properties		0%			0%			0%			0%	
Number of properties built between pre 1919		0%			0%			0%			0%	
Number of properties built between 1920 to 1949	3	75%	1	3	75%	1	3	75%	1	17	43%	2
Number of properties built between 1950 to 1969	1	25%	1	1	25%	1	1	25%	1	23	58%	2
Number of properties post 1970		0%			0%			0%			0%	
Total of all Contributing properties per District	4		1	4		1	4		1	40		2
District Rank Subtotal			3			3			3			6
West University Historic District												
Number of properties Individually Listed		-			-			-			0%	
Number of landmark properties		-			-			-			0%	
Number of properties built between pre 1919		-			-			-		67	36%	6
Number of properties built between 1920 to 1949		-			-			-		98	52%	10
Number of properties built between 1950 to 1969		-			-			-		8	4%	1
Number of properties post 1970		-			-			-		14	7%	1
Total of all Contributing properties per District	0			0			0			187		5
District Rank Subtotal			0			0			0			23
Outside of Historic District												
Number of properties Individually Listed	2	100%	7	2	100%	7	2	100%	7	2	50%	7
Number of landmark properties		0%			0%			0%			0%	
Number of properties built between pre 1919		0%			0%			0%			0%	
Number of properties built between 1920 to 1949		0%			0%			0%		2	50%	1
Number of properties built between 1950 to 1969		0%			0%			0%			0%	
Number of properties post 1970		0%			0%			0%			0%	
Total of all Contributing properties per District	2		1	2		1	2		1	4		1
District Rank Subtotal			8			8			8			9
SUMMARY OF CONTRIBUTING PROPERTIES ALONG THE ROUTE												
Number of properties Individually Listed	2	1%	7	2	1%	7	2	1%	7	3	1%	10
Number of landmark properties	0	0%	0	0	0%	0	0	0%	0	0	0%	0
Number of properties built between pre 1919	0	0%	0	6	3%	2	0	0%	0	93	16%	9
Number of properties built between 1920 to 1949	158	50%	8	83	36%	5	220	55%	11	391	66%	23
Number of properties built between 1950 to 1969	142	45%	7	127	55%	7	163	41%	8	72	12%	6
Number of properties post 1970	14	4%	1	13	6%	2	12	3%	1	31	5%	3
Total of all Contributing properties per District	316		10	231		9	397		15	590		19
Route Rank Subtotal			33			32			42			70

DMP TABLE G	Routes from DeMoss-Petrie											
Access of Historic Contributing Properties along Route	**A**			**B**			**D**			**E**		
	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank	# of Prop	%	Rank
Blenman-Elm Historic District												
Contributing properties: face the route & access directly from route		-			-			-			-	
Contributing properities whose side of the structure face the route		-			-			-			-	
Total Contributing properties directly on the route	0			0			0			0		
District Rank Subtotal			0			0			0			0
Catalina Vista Historic District												
Contributing properties: face the route & access directly from route		-			-		20	95%	3		-	
Contributing properities whose side of the structure face the route		-			-		1	5%	0		-	
Total Contributing properties directly on the route	0			0			21		1	0		
District Rank Subtotal			0			0			4			0
Feldman's Historic District												
Contributing properties: face the route & access directly from route		-			-			-		50	91%	10
Contributing properities whose side of the structure face the route		-			-			-		5	9%	1
Total Contributing properties directly on the route	0			0			0			55		7
District Rank Subtotal			0			0			0			18
Jefferson Park Historic District												
Contributing properties: face the route & access directly from route	15	43%	3	4	25%	1	24	77%	3		-	
Contributing properities whose side of the structure face the route	20	57%	3	12	75%	2	7	23%	1		-	
Total Contributing properties directly on the route	35		5	16		3	31		3	0		
District Rank Subtotal			11			6			7			0
John Spring Neighborhood Historic District												
Contributing properties: face the route & access directly from route		-			-			-			0%	
Contributing properities whose side of the structure face the route		-			-			-		4	100%	1
Total Contributing properties directly on the route	0			0			0			4		1
District Rank Subtotal			0			0			0			2
Miracle Mile Historic District												
Contributing properties: face the route & access directly from route		-			-			-		22	100%	5
Contributing properities whose side of the structure face the route		-			-			-			0%	
Total Contributing properties directly on the route	0			0			0			22		10
District Rank Subtotal			0			0			0			15
West University Historic District												
Contributing properties: face the route & access directly from route		-			-			-		25	100%	5
Contributing properities whose side of the structure face the route		-			-			-			0%	0
Total Contributing properties directly on the route	0			0			0			25		10
District Rank Subtotal			0			0			0			15
SUMMARY OF ACCESS DIRECTLY FROM ROUTE												
Contributing properties: face the route & access directly from route	15	43%	3	4	25%	1	44	85%	6	97	92%	20
Contributing properities whose side of the structure face the route	20	57%	3	12	75%	2	8	15%	1	9	8%	2
Total Contributing properties directly on the route	35		5	16		3	52		4	106		28
Route Rank Subtotal			11			6			11			50

DMP TABLE H	Routes from DMP			
Historic Architectural Criteria	**A**	**B**	**D**	**E**
	Rank	Rank	Rank	Rank
Blenman-Elm Historic District				
Historic District Integrity			8	
Scale of the Street Adjacent to Historic District			1	
Scale of Adjacent Historic & Non-Historic Structures Along Route			1	
Size of Historic District Impacted			1	
Historic Architectural Impression			1	
District Rank Subtotal	0	0	12	0
Catalina Vista Historic District				
Historic District Integrity			8	
Scale of the Street Adjacent to Historic District			1	
Scale of Adjacent Historic & Non-Historic Structures Along Route			1	
Size of Historic District Impacted			1	
Historic Architectural Impression			1	
District Rank Subtotal	0	0	12	0
Feldman's Historic District				
Historic District Integrity		6		6
Scale of the Street Adjacent to Historic District		1		4
Scale of Adjacent Historic & Non-Historic Structures Along Route		1		4
Size of Historic District Impacted		1		7
Historic Architectural Impression		2		7
District Rank Subtotal	0	11	0	28
Jefferson Park Historic District				
Historic District Integrity	1	1	1	1
Scale of the Street Adjacent to Historic District	10	6	1	1
Scale of Adjacent Historic & Non-Historic Structures Along Route	10	6	1	1
Size of Historic District Impacted	10	8	4	1
Historic Architectural Impression	10	9	1	1
District Rank Subtotal	41	30	8	5
John Spring Neighborhood Historic District				
Historic District Integrity				8
Scale of the Street Adjacent to Historic District				1
Scale of Adjacent Historic & Non-Historic Structures Along Route				2
Size of Historic District Impacted				2
Historic Architectural Impression				3
District Rank Subtotal	0	0	0	16
Miracle Mile Historic District				
Historic District Integrity	6	6	6	6
Scale of the Street Adjacent to Historic District	1	1	1	1
Scale of Adjacent Historic & Non-Historic Structures Along Route	1	1	1	3
Size of Historic District Impacted	1	1	1	3
Historic Architectural Impression	1	1	1	3
District Rank Subtotal	10	10	10	16
West University Historic District				
Historic District Integrity				8
Scale of the Street Adjacent to Historic District				1
Scale of Adjacent Historic & Non-Historic Structures Along Route				2
Size of Historic District Impacted				5
Historic Architectural Impression				4
District Rank Subtotal	0	0	0	20
SUMMARY OF HISTORIC ARCHITECTURAL RANKING				
Historic District Integrity	7	13	23	29
Scale of the Street Adjacent to Historic District	11	8	4	8
Scale of Adjacent Historic & Non-Historic Structures Along Route	11	8	4	12
Size of Historic District Impacted	11	10	7	18
Historic Architectural Impression	11	12	4	18
Route Rank Total	51	51	42	85

DMP Summary Tables A to G	Routes from DMP			
DMP TABLE A	**A**	**B**	**D**	**E**
Bisecting vs Bordering Historic Districts	Rank	Rank	Rank	Rank
Blenman-Elm Historic District	0	0	1	0
Catalina Vista Historic District	0	0	2	0
Feldman's Historic District	0	0	0	11
Jefferson Park Historic District	21	13	8	0
John Spring Neighborhood Historic District	0	0	0	1
Miracle Mile Historic District	0	0	0	16
West University Historic District	0	0	0	5
Route Rank	21	13	11	33
DMP TABLE B				
Street Designation				
Blenman-Elm Historic District	0	0	1	0
Catalina Vista Historic District	0	0	1	0
Feldman's Historic District	0	0	0	5
Jefferson Park Historic District	7	5	5	0
John Spring Neighborhood Historic District	0	0	0	1
Miracle Mile Historic District	0	0	0	4
West University Historic District	0	0	0	1
Route Rank	7	5	7	11
DMP TABLE C				
Historic Districts with 1 vs 2 sides of the Route				
Route Rank	19	8	13	22
DMP TABLE D				
Existing Power Poles located on Route				
Blenman-Elm Historic District	0	0	0	0
Catalina Vista Historic District	0	0	3	0
Feldman's Historic District	0	0	0	4
Jefferson Park Historic District	21	23	6	0
John Spring Neighborhood Historic District	0	0	0	4
Miracle Mile Historic District	0	0	0	6
West University Historic District	0	0	0	4
Route Rank	21	23	9	18
DMP TABLE E				
Historic Light fixtures within 800' Route Buffer				
Blenman-Elm Historic District	0	0	0	0
Catalina Vista Historic District	0	0	0	0
Feldman's Historic District	0	0	0	0
Jefferson Park Historic District	0	0	0	0
John Spring Neighborhood Historic District	0	0	0	0
Miracle Mile Historic District	0	0	0	1
West University Historic District	0	0	0	4
Outside of Historic District	0	0	0	1
Route Rank	0	0	0	6
DMP TABLE F				
Historic Contributing Properties in 800' Route Buffer				
Blenman-Elm Historic District	0	0	4	0
Catalina Vista Historic District	0	0	6	0
Feldman's Historic District	0	6	0	18
Jefferson Park Historic District	22	15	21	6
John Spring Neighborhood Historic District	0	0	0	8
Miracle Mile Historic District	3	3	3	6
West University Historic District	0	0	0	23
Outside of Historic District	8	8	8	9
Route Rank	33	32	42	70
DMP TABLE G				
Access of Historic Contributing Properties along Route				
Blenman-Elm Historic District	0	0	0	0
Catalina Vista Historic District	0	0	4	0
Feldman's Historic District	0	0	0	18
Jefferson Park Historic District	11	6	7	0
John Spring Neighborhood Historic District	0	0	0	2
Miracle Mile Historic District	0	0	0	15
West University Historic District	0	0	0	15
Route Rank	11	6	11	50
DMP TABLE H				
SUMMARY OF HISTORIC ARCHITECTURAL RANKING				
Blenman-Elm Historic District	0	0	12	0
Catalina Vista Historic District	0	0	12	0
Feldman's Historic District	0	11	0	28
Jefferson Park Historic District	41	30	8	5
John Spring Neighborhood Historic District	0	0	0	16
Miracle Mile Historic District	10	10	10	16
West University Historic District	0	0	0	20
Route Rank Total	51	51	42	85

DMP TABLE I	Routes			
SUMMARY BY HISTORIC DISTRICTS FOR DMP ROUTES	**A**	**B**	**D**	**E**
Blenman-Elm Historic District	0	0	18	0
Catalina Vista Historic District	0	0	28	0
Feldman's Historic District	0	17	0	84
Jefferson Park Historic District	123	92	55	11
John Spring Neighborhood Historic District	0	0	0	32
Miracle Mile Historic District	13	13	13	64
West University Historic District	0	0	0	72
Outside of Historic District	8	8	8	10
Total by District, Tables A, B, D, E, F, G, H	144	130	122	273
Total including DMP Table C	163	138	135	295

VIII. Recommendations

We recommend that TEP locate the new transmission line following Route 1 or 2 for the UA North Substation to Kino and Route D for the UA North Substation to DMP over all of the other route combinations included in this study. If Route 1 or 2 are not able to be combined with Route D, our next recommendation would be Route 1 or 2 for the UA North Substation to Kino and Route B for the UA North Substation to DMP.

A. Rationale for Recommendations of Kino Route 1 or 2 with DMP Route D

1. **Recommendation based on Measurable criteria:**
   - i. Per Kino Table 1 Length of Route Bisecting versus Bordering Historic Districts: Routes 1 and 2 do not bisect any historic district, all of the historic districts are bordered. If D is combined with Routes 1 or 2, Route D, TEP might locate the transmission line along Lester Street, one block north of Ring Road, instead of Ring Road to prevent Routes 1 or 2 and D from both occurring on Ring Road. If this occurs, Lester would bisect Jefferson Park, however very few contributing properties remain between Lester Street and Ring Road.
   - ii. Per Kino Table 2 Street Designation: Routes 1 and 2 are primarily located along Campbell Avenue, a gateway arterial street, which means it is a wide street with additional landscape, hardscape, landscaped medians and other street functions such as bike routes and bus stops.
   - iii. Per DMP Table B Street Designation: Route D is primarily located on Grant Road, an arterial street that is currently being widened and has new landscaping and sidewalks. Route D is also located on Campbell Avenue, between Jefferson Park and Catalina Vista where Campbell Avenue's width includes additional side streets to provide greater separation between the neighborhoods and Campbell Ave. The width of Campbell Avenue between these two neighborhoods is wider than Campbell Avenue between Sam Hughes and Rincon Heights due to these additional neighborhood side streets.
   - iv. Per Kino Table 3 and DMP Table C Length of Route with Historic Districts on 1 Side versus 2 Sides: Routes 1 and 2 and D have the least length of transmission line where both sides of the route affected historic districts.
   - v. Per Kino Table 4 and DMP Table D Existing Power Poles in Historic Districts Located Along the Route: Routes 1 and 2 and D have the greatest number of existing light poles, which means they have the least impact in terms of power poles already being visible along the route.
   - vi. Per Kino Table 5 and DMP Table E Number of Historic Light Fixtures Located within 800' from the Route: Route 1 and 2 had the least number of historic light fixtures. Route D has no historic light fixtures.
   - vii. Per Kino Table 6 Historic Contributing Properties within 800 feet from the Route and Age Range: Route 1 and 2 have the least number of contributing properties within the 800' buffer.
   - viii. Per DMP Table F Historic Contributing Properties within 800 feet from the Route and Age Range: Route D has the second highest number of contributing properties within the 800' buffer. Although Route D was not the lowest ranking, based on the findings in Tables A through E and Table H, Route D offers the best solution of the DMP routes.
   - ix. Per Kino Table 7 Direct Access of Historic Contributing Properties from the Route: Routes 1 and 2 have the least number of properties directly on the route and the least number of properties that face the route.
   - x. Per Table G Direct Access of Historic Contributing Properties from the Route: Route D has the second highest number of contributing properties that face the route and that are directly on the route. However, much of Route D that borders Jefferson Park will be along Grant Road, and because this is an arterial street with high traffic along with the widening of this road, new taller poles have already been installed along Grant Road, we felt that most of the homes facing Grand Road in Jefferson Park will not have an additional negative impact from the new power poles to those contributing properties directly on Grant Road. On Campbell Avenue, both Catalina Vista and Jefferson Park have contributing properties directly along the route. Catalina Vista has most of their homes facing the route, however, the additional neighborhood side streets along Campbell Avenue, reduces the impact of the proposed power poles to those contributing structures directly on the route at Campbell Avenue.

2. **Recommendations Based on Historic Architectural Analysis**
   i. Routes 1, 2 and D have the lowest architectural ranking as shown on Kino Table 8 and DMP Table H Historic Architectural Analysis.
   ii. Grant Road and Campbell Avenue are wide streets with more room to absorb the impact of the 75' - 85' high power poles, especially in comparison to Route 3 and 5.
   iii. Both Routes 1 & 2 and 3 & 5 are adjacent to or have a view of the University of Arizona or nearby high rise structures. Route 1 & 2 with Route D seems to have more open space to take on the impact of the 75' - 85' tall power poles and would have less impact on the primarily single story historic structures.
   iv. Route 1 & 2 with D consists of larger historic districts than the neighborhoods along Route 3 & 5. From our observations, the smaller the historic districts will have a greater impact from the transmission line due to more of their district being affected.
   v. Perhaps the most important variable is the fact that Route 1 and 2 do not bisect a historic neighborhood.
   vi. By combining Route 1 or 2 with D, it reduces the impact to the areas that will be affected by the transmission line. Route 1 and 2 takes the transmission line north on Campbell Avenue to Elm Street. Route D takes the transmission line south on Campbell Avenue from Grant Road to Elm Street. This allows the transmission line to only affect Campbell Avenue. To combine Route D with Route 3, 5 or E would result in a greater number of historic districts to be affected and increase the locations of tall power poles.

B. Rationale for Recommendation of DMP Route B

We recommend Route B if TEP determines route D cannot be combined with Routes 1 or 2.

1. **Recommendation based on Measurable criteria:**
   i. Per Table A Length of Route Bisecting versus Bordering Historic Districts: Route B has the second least amount of historic districts being bisected. Jefferson Park is bisected in this option.
   ii. Per Table B Street Designations: Route B doesn't have any of the route on residential streets, where Routes A and E have routes that bisect historic districts on residential streets.
   iii. Per Table C Length of Route with Historic Districts on 1 Side versus 2 Sides: Route B has the shortest route length of historic district affected over the historic districts in Routes A, D and E.
   iv. Per Table D Existing Power Poles in Historic Districts Located Along the Route: Route B has the least number of power poles, however, Park Ave does have existing power poles, which could to reduce the impact to Jefferson Park if the existing power poles can be removed and replaced with fewer, taller power poles.
   v. Per Table E Number of Historic Light Fixtures Located within 800' from the Route: Route B has no historic light fixtures.
   vi. Per Table F Historic Contributing Properties within 800 feet from the Route and Age Range: Route B has the least number of contributing properties in the 800' buffer
   vii. Per Table G Direct Access of Historic Contributing Properties from the Route: Route B has the least number of contributing properties facing or directly on the route.

2. **Recommendations Based on Historic Architectural Analysis**
   i. Per Table H Historic Architectural Analysis: Route B has the same historic architectural ranking as Route A. It is our professional opinion that Route B is a better option than Route A because Route B does not bisect Jefferson Park on a residential street.

C. Table 10 Kino and DMP Route Combinations

This table compares the ranking of various route combination which formed the basis of the recommendation for Kino Route 1 or 2 with DMP Route D as the best recommendation. This is followed by the recommendation of Kino Route 1 or 2 with DMP Route B as the next recommendation.

Table 10 Kino and DMP Route Combination

Alternative Route Combination	1A	1B	1D	1E	2A	2B	2D	2E	3A	3D	5A	5D
Bisecting vs Bordering Historic Districts	55	47	45	67	55	47	45	67	68	58	68	58
Street Designation	25	23	25	29	25	23	25	29	23	23	23	23
Historic Districts with 1 vs 2 sides of the Route	28	17	22	31	28	17	22	31	32	26	32	26
Existing Power Poles located on Route	41	43	29	38	41	43	29	38	46	34	46	34
Historic Light fixtures within 800' Route Buffer	4	4	4	10	4	4	4	10	9	9	9	9
Historic Contributing Properties in 800' Route Buffer	96	95	105	133	96	95	105	133	137	146	137	146
Access of Historic Contributing Properties along Route	26	21	26	65	26	21	26	65	65	65	65	65
Historic Architectural Impact Rank	144	144	135	178	144	144	135	178	188	179	188	179
Total Alternative Route Combination Rank	**419**	**394**	**391**	**551**	**419**	**394**	**391**	**551**	**568**	**540**	**568**	**540**

	Kino Routes					DMP Routes			
Measurable Criteria & Historic Architectural Impact Ranking	1	2	3	5		A	B	D	E
Bisecting vs Bordering Historic Districts	34	34	47	47		21	13	11	33
Street Designation	18	18	16	16		7	5	7	11
Historic Districts with 1 vs 2 sides of the Route	9	9	13	13		19	8	13	22
Existing Power Poles located on Route	20	20	25	25		21	23	9	18
Historic Light fixtures within 800' Route Buffer	4	4	9	9		0	0	0	6
Historic Contributing Properties in 800' Route Buffer	63	63	104	104		33	32	42	70
Access of Historic Contributing Properties along Route	15	15	54	54		11	6	11	50
Historic Architectural Impact Ranking	93	93	137	137		51	51	42	85
Totals	256	256	405	405		163	138	135	295

D. General Recommendations for all routes:

We understand these 75' - 85' power poles will have a visual impact on the any of the routes chosen, however our objective is to offer recommendations and ideas that could help decrease the visual impact to the residents of the historic neighborhoods and its visitors. Recommendations of historic structures by SHPO, COT and specific neighborhood design guidelines do not address how utilities need respond to historic districts or historic structures. The recommendations we have developed are based on our historic architectural experience and through our visual analysis of the routes.

For all of the routes we recommend the following:

i. Locate power poles away from contributing commercial buildings that help create the street fabric.
ii. Locate power poles away from residences that directly face the route.
iii. Locate power poles away from locations with historic light fixtures.
iv. Locate poles around existing landscape where possible to allow the pole base to be less visible.
v. Provide additional landscaping along the route and into the historic districts to help hide the visibility of the power poles directly from the route and from within the 800' buffer.
vi. Space poles as far apart from each other as possible.
vii. Work with the arts and culture community groups to develop art projects around the transmission poles. Perhaps art that shares stories about the historic districts.
viii. Although we suggest that painting the poles to create less contrast with the space around them would help reduce the visibility of the poles, TEP is unable to paint the poles due to future maintenance issues, such as having to de-energize power to the pole in order to repaint the pole. The rust colored power poles on Grant Road tend to have greater visibility than power poles that are painted tan or grey. If TEP is unable to paint the poles, we recommend using galvanized steel poles where historic districts occur.
ix. Although TEP cannot control the schedule of other utilities that currently use their existing power poles, it is recommended that TEP coordinate with the other utility companies, possibly with the help of City of Tucson and Major and Council, to relocate their utilities when TEP installs the new power poles to allow the many existing power poles that TEP no longer needs to be removed from the route. By removing as many existing power poles as possible, it will help make the route cleaner and reduce the impact that the neighborhoods are feeling from the 75' -85' power poles.

E. Suggested Recommendations for Route 1 or 2 with Route D:

i. Locate the power poles on the west side of the street on Campbell Avenue.
ii. Locate the power poles to allow the UA Campus mall and 3rd Street to maintain as much of an open vista to Old Main as possible.
iii. Use landscape elements to help reduce the impact and visibility of the pole bases by using walkability elements, such as trees for shade, artwork and landscape to develop islands of respite and help bring interest towards eye level.
iv. Plant large trees that will grow to be tall, in the center median of Campbell Avenue to shield the power poles from Catalina Vista, Blenmen-Elm, Rincon Heights and Sam Hughes.
v. Possibly locate the power poles in the center of the landscape median to treat the poles more as art rather than as a utility that is typically on the side of the street.
vi. Add additional landscape, site walls, accessible sidewalks and if there is the space, neighborhood side streets on Campbell Avenue from Broadway boulevard to 6th Street, similar to the neighborhoods streets along Campbell Avenue from Grant Road to Elm Street, to help reduce the impact to Rincon Heights Historic District and allow a more walkable path from Broadway Boulevard to Grant Road, as both streets are currently being widened with accessible sidewalks and increased landscape.
vii. Although there is an additional cost to locate the transmission line underground, and we understand that it is not TEP's preference and may not be constructible or feasible, we strongly recommend locating the portion on Campbell Avenue from 6th Street to Speedway Boulevard, underground to maintain a clear air space, especially where the UA campus mall occurs at Campbell Avenue and 3rd Street.

F. Additional Recommendations for Route B:

i. Locate the power poles on the east side of the street on Park Avenue so that they replace the existing wood power poles currently on the east side of the street.
ii. Install sidewalks, curbs, accessible sidewalks and landscape for shade along Park Avenue to help improve the walkability of the street and to reduce the visual impact to the historic district.

IX. Appendix

A. Definitions
B. Abbreviations
C. Resources
D. Exhibit A: TEP Route Combination Map

A. Definitions

Arterial Street: An Arterial street is defined as "A street identified as an arterial or Interstate Route on the Major Streets and Routes (MS&R) Plan." This definition can be found in the City of Tucson Unified Development Code.

City Historic Landmark: The City of Tucson has individual properties that the City has defined as locally historically significant that the Mayor and Council must approve. A City Historic Landmark is not necessarily a National Historic Landmark.

City of Tucson Historic Preservation Office: The City Historic Preservation Office works with City of Tucson departments and Arizona State Historic Preservation Office (AZSHPO) to determine requirements for structures that have been identified as having historic significance, such as be a contributing property, individually listed, or a historic landmark.

City of Tucson Historic Preservation Zone: Per the City of Tucson's Unified Development Code, section 5.8.1, "The purpose of the Historic Preservation Zone (HPZ) and Historic Landmark (HL) designation is to promote the educational, cultural, economic, and general welfare of the community and to ensure the harmonious growth and development of the municipality by encouraging the preservation and rehabilitation of significant historic districts, neighborhoods, buildings, structures, sites, objects, and archaeological resources. These designations are intended to ensure the preservation of significant historic and archaeological resources, and to keep them in active use or management in their historic appearance, settings, and locations. It is also intended that new or remodeled buildings or structures located within HPZs or HL properties be designed and constructed to harmonize and be compatible with existing buildings and structures within the sites and development zones in order to preserve property values, provide for appropriate future development, and promote an awareness of the heritage of Tucson among both residents and visitors to the community." The City of Tucson requires that a project within a HPZ, follow additional design standards and additional review processes by the Tucson Pima County Historic Commissions and City of Tucson Historic Preservation Office.

Collector Street: A collector street is define as "A street identified as a collector on the Major Streets and Routes (MS&R) Plan" This definition can be found in the City of Tucson Unified Development Code.

Contributing Property: The National Register of Historic Places defines a contributing property is a structure that is part of a historic district and is not eligible or has not been nominated to be an individually listed property. The City of Tucson defines contributing property as "A property within a Historic Preservation Zone, Neighborhood Preservation Zone, or National Register Historic District that contributes to the historic significance and visual character of the zone or district, and has sufficient integrity to convey that significance and those visual character defining features in terms of location, design, setting, material, workmanship, character, or association. Contributing Properties are historic sites or non-historic compatible properties."

Gateway Arterial Street: defined by the City of Tucson in the City of Tucson Unified Development Code as " A street or parkway that is a heavily traveled entrance to and through the City, and is designated as a Gateway Route on the Major Streets and Routes (MS&R) Plan map. These routes link major employment areas, shopping centers, and recreational areas used regularly by a large number of residents and visitors and present a visual impression of Tucson's character."

Historic Districts: Historic Districts are listed in the National Register of Historic Places and identify a group of structures that represent a period of historic significance at the local, state or national level. The City of Tucson defines our National Register of Historic Districts as, "Tucson's nationally designated historic districts meet the criteria for, and have been listed in, the National Register of Historic Places (NRHP). A NRHP historic district is composed of multiple contributing properties that—as a collective whole—convey significance in terms of one or more of the following aspects of American history: (A) Association with historic events or activities, (B) Association with an important person in history, (C) Distinctive design or physical character, or (D) Potential to provide important information about prehistory or history. Each contributing property in a NRHP historic district must maintain enough of its original qualities to visibly convey its significance. These qualities of integrity include: location, design, setting, materials, workmanship, feeling, and association. A National Register Historic District must contain a minimum of 51 percent contributing properties within its boundaries."

Historic Landmarks Zone: Refer to Historic Preservation Zone

Historic Preservation Zone: Per the City of Tucson Unified Development Code section 5.8, "The purpose of the HPZ and HL designation is to promote the educational, cultural, economic, and general welfare of the community and

to ensure the harmonious growth and development of the municipality by encouraging the preservation and rehabilitation of significant historic districts, neighborhoods, buildings, structures, sites, objects, and archaeological resources. These designations are intended to ensure the preservation of significant historic and archaeological resources, and to keep them in active use or management in their historic appearance, settings, and locations. It is also intended that new or remodeled buildings or structures located within HPZs or HL properties be designed and constructed to harmonize and be compatible with existing buildings and structures within the sites and development zones in order to preserve property values, provide for appropriate future development, and promote an awareness of the heritage of Tucson among both residents and visitors to the community."

Historic Site or Historic Structure: City of Tucson defines this in the Unified Development Code section 11.4.9 as "a building, structure, object, or site, including vegetation or signs located on the premises, that: Dates from a particular significant period in Tucson's history, i.e., prehistoric, native indigenous, Pre-Colonial (before 1775), Spanish Frontier (Colonial) (1775-1821), Mexican Frontier (1821-1853), Territorial (1854-1912), Post-Territorial (1912-1920), or Post-World War I Development (1920-1945), or relates to events, personages, or architectural styles that are at least 50 years old; however, outstanding examples less than 50 years old should be evaluated on their own merits; Is associated with the lives of outstanding historic personages; Is associated with significant historic events or occurrences; Exemplifies the architectural period in which it was built and has distinguishing characteristics of an architectural style or method of construction or is the notable work of a master builder, designer, or architect whose individual genius influenced his/her age; Contributes information of archaeological, historic, cultural, or social importance relating to the heritage of the community; or, Relates positively to buildings in its immediate vicinity in terms of scale, size, massing, etc., such that its removal would be an irreparable loss to the setting."

Individually Listed Property: The National Register of Historic Places defines an individually listed property as a structure or site that has greater historic significance than a contributing property and can be listed independently of a historic district. The City of Tucson defines this as, "Tucson's individually designated historic properties meet the criteria for, and have been listed in, the National Register of Historic Places. An individually designated historic property derives its significance from one or more of the following aspects of American history: (A) Association with historic events or activities, (B) Association with an important person in history, (C) Distinctive design or physical character, or (D) Potential to provide important information about prehistory or history. An individually designated historic property also maintains enough of its original qualities that make it significant. These qualities of integrity include: location, design, setting, materials, workmanship, feeling, and association."

National Historic Landmark Property: The National Register of Historic Places defines landmark properties as structures or sites that are recognized as being critical to preserve statewide. Landmark properties have a greater historic importance than contributing and individually listed properties. The City of Tucson defines Historic Landmarks as "A historic site or structure of the highest historic, cultural, architectural, or archaeological importance to Tucson that if demolished or significantly altered would constitute an irreplaceable loss to the quality and character of Tucson. A Historic Landmark is an outstanding or unique example of architectural style; is associated with a major historic event, activity, or person; or has unique visual quality and identification. A Historic Landmark may be located within the boundaries of or outside a historic district."

National Register of Historic Places: The National Register of Historic Places as defined by the National Park Services, "is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources." The National Park Services, under the US Department of Interior, manages and evaluates the National Register of Historic Places for all of the United States.

Neighborhood Preservation Zone: Per the City of Tucson's Unified Development Code, section 5.10.1, "Preserving and enhancing Tucson's established neighborhoods is critical to conserving the cultural and historic heritage of the City. The purposes of the Neighborhood Preservation Zone (NPZ) are: A. To provide a process for the establishment of NPZ districts to preserve, protect and enhance the unique character and historical resources of established City neighborhoods; and, B. To provide for the creation and establishment of a neighborhood-specific design manual for each NPZ district, containing architectural and design standards and guidelines to ensure that development is compatible with the neighborhood character overall, as well as with the character of the applicable Development Zone." The City of Tucson requires that a project in a NPZ follow specific design requirements for that specific neighborhood and is required to follow additional review processes by the Tucson Pima County Historic Commission and City of Tucson Historic Preservation Office.

Non-Contributing Property: A once Contributing Property could be delisted due to alterations of the existing structure that causes a loss of integrity or character-defining features, based on the seven aspects of NRHP integrity, refer to the resource section in the appendix under Historic Architectural Integrity Definition and Explanation. This study did

not evaluate whether a Contributing property may have changed sufficiently to be considered Noncontributing or contributing.

State Historic Preservation Office: The Arizona State Historic Preservation Office is a division of the Arizona State Parks. The purpose of SHPO is to identify and evaluate historic structures and archaeological sites, nominate eligible historic and archaeological properties to the National Register of Historic Places, and to assist in preserving heritage resources for the benefit of Arizonans.

B. Abbreviations

AZSHPO: Arizona State Historic Preservation Office

COT: City of Tucson

DMP: DeMoss-Petrie

GIS: Geographic Information System

HL: Historic Landmark

NRHP: National Register of Historic Places

NPZ: Neighborhood Preservation Zone

HPZ: Historic Preservation Zone

PC: Pima County

SHPO: State Historic Preservation Office

TAC: The Architecture Company

TEP: Tucson Electric Power Company

TPCHC: Tucson-Pima County Historical Commission

TROW: Tierra Right of Way

UA: University of Arizona

C. Resources

General Resources

City of Tucson Major Street and Route Map: A PDF of the Major Streets and Routes developed by the City of Tucson. This map was used to determine street designations for Kino Table 2 / DMP Table B: Street Designations.

https://www.tucsonaz.gov/files/pdsd/plans/MSR_Map.pdf

City of Tucson Historic Preservation Office: For general information about the City of Tucson Historic Preservation Office

https://www.tucsonaz.gov/historic-preservation

City of Tucson Historic GIS Map: For an interactive map showing historic properties and districts within the City of Tucson

https://maps2.tucsonaz.gov/html5viewer/?viewer=historicproperties

National Register of Historic Places: For general information about the National Register of Historic Places

https://www.nps.gov/subjects/nationalregister/index.htm

State of Arizona Historic Preservation Office: For general information about the State of Arizona Historic Preservation Office

https://azstateparks.com/shpo/

Historic Architectural Terminology

Architectural Styles in Tucson's Historic Neighborhood: A publication by Drachman Institute with the University of Arizona:

http://www.downtowntucson.org/wp-content/uploads/2011/05/THS_map_FP.pdf

Historic Architectural Integrity Definition and Explanation: Refer to page 44. This pdf report also explains how criteria is evaluated by the National Park Services to be included on the National Register of Historic Places:

https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf

Historic District Nominations and SHPO Forms

City of Tucson National Register Historic Districts Nomination Applications: This website lists Tucson's nationally designated historic districts that meet the criteria for, and have been listed in, the National Register of Historic Places (NRHP). This lists the Map, Nomination Form which includes a brief description, detailed description of significance, inventory of contributing properties and photos.

https://www.tucsonaz.gov/preservation/national-register-historic-districts

Here you can find the information for the following historic districts in this study:

Blenman-Elm Historic District
Catalina Vista Historic District
Feldman's Historic District
Iron Horse Historic District
Jefferson Park Historic District
John Spring Neighborhood Historic District
Miracle Mile Historic District
Pie Allen Residential Historic District
Rincon Heights Historic District
Sam Hughes Residential Historic District
West University Historic District

City of Tucson Map of National Register Historic Districts and Historic Zoning: A link to a PDF map showing all of the Nationally Registered Historic Districts in the City of Tucson as well as City of Tucson Historic Zoning

https://www.tucsonaz.gov/files/pdsd/Preservation/22x34_NRHDs_Zones_index_121917.pdf

Individually designated historic properties: This website links to the SHPO form for the individually designated historic properties in this study area.

https://www.tucsonaz.gov/preservation/individually-designated-historic-properties

Feldman's Historic District: University Heights Elementary School
John Spring Neighborhood: Sabedra-Huerta House
Near Grant Rd and Fair View Ave: Matus, Antonio, House and Property, 856 W. Calle Santa Ana; Pascua Cultural Plaza, 785 W. Sahuaro St.

Design Guidelines

Neighborhood Design Guidelines: The following websites are links to the historic district's design guidelines or design manual, should they exist.

Blenman-Elm Historic District: https://blenmanelm.wordpress.com/neighborhood/neighborhood-plan/

Catalina Vista Historic District: https://blenmanelm.wordpress.com/neighborhood/neighborhood-plan/

Feldman's Historic District: https://www.tucsonaz.gov/pdsd/feldman%E2%80%99s-neighborhood-preservation-zone

Iron Horse Historic District: No Design Guidelines or Manuals identified

Jefferson Park Historic District: http://www.jeffersonpark.info/neighborhood-manuals.html

John Spring Neighborhood Historic District: http://dunbarspring.org/documents/dunbarspring-community-development-plan-1995

Miracle Mile Historic District: No Design Guidelines or Manuals identified

Pie Allen Residential Historic District: No Design Guidelines or Manuals identified

Rincon Heights Historic District: No Design Guidelines or Manuals identified

Sam Hughes Residential Historic District: No Design Guidelines or Manuals identified, only a Neighborhood Plan: https://www.tucsonaz.gov/files/pdsd/plans/shughes.pdf

West University Historic District: https://www.tucsonaz.gov/preservation/city-historic-designations-and-design-review

SHPO Design Guidelines: All Contributing properties in historic districts and individually listed properties are required to follow SHPO design guidelines in order to maintain their contributing status. SHPO design guidelines can be found here:

https://www.nps.gov/tps/standards.htm

University of Arizona Preservation Plan: For a PDF of the UA Preservation Plan

https://pdc.arizona.edu/file/UA_Preservation_Plan_June_2006_final_0.pdf

E. TEP ROUTE COMBINATION MAP

Map below provided by TEP to show current routes that cannot be combined.