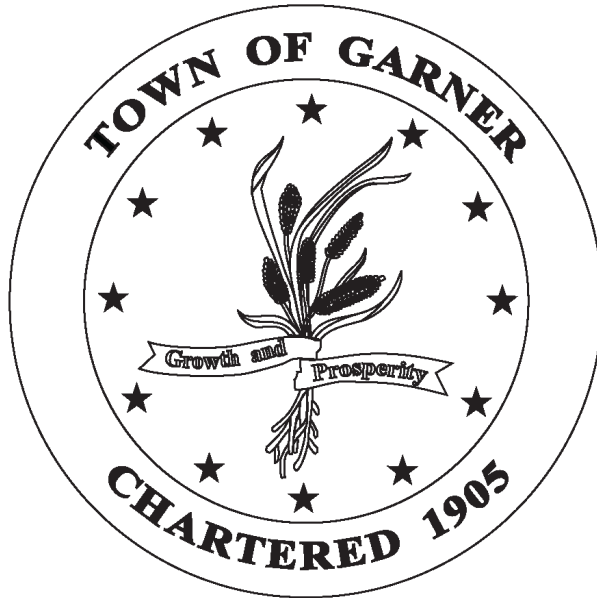


TOWN OF GARNER



Town Council Work Session

February 25, 2020
6:00 p.m.

Garner Town Hall
900 7th Avenue
Garner, NC 27529

**Town of Garner
Work Session Agenda
February 25, 2020**

Dinner will be served for town officials in the Conference Room at 5:15 p.m.

The Council will meet in a Work Session at 6:00 p.m. in the Council Chambers located at 900 7th Avenue.

- A. CALL MEETING TO ORDER/ROLL CALL: Mayor Ken Marshburn
- B. ADOPTION OF AGENDA
- C. PRESENTATIONS
- D. DISCUSSION/REPORTS
 - 1. Jones Sausage Road Feasibility Study.....Page 3
Presenter: Gaby Lontos-Lawlor, Senior Planner-Transportation

The Planning Department will provide an overview of the study, which was completed by HDR to advance planned improvements along Jones Sausage Road, from the Amazon Fulfillment Center site to just south of US 70. The project is expected to include widening of the existing two-lane facility to a four-lane divided facility. Additionally, it includes the realignment of Jones Sausage Road, from just south of Partlo Street to US 70.

Action: Report only; no action required
 - 2. UDO Re-Write Steering Committee.....Page 47
Presenter: Jeff Triezenberg, Planning Director

Request from the Planning Department to have up to two (2) Council Members nominated for appointment to the Steering Committee for the UDO Re-Write project.

Action: Consider nominating up to two (2) Council Members for appointment at regular meeting on March 2, 2020
 - 3. New Planning Technician Position Request.....Page 49
Jeff Triezenberg, Planning Director

Request from the Planning Department for additional staff resources to help restore an adequate level of staffing within the Department's Development Review Section that can better nurture a culture of excellent customer service for both the Section and the entire Department.

Action: Consider authorizing a second full-time Planning Technician in the Planning Department

4. Inspection Staffing Needs.....Page 55
Presenters: John Hodges, Asst. Town Manager-Development Services and Tony Beasley,
Inspections Director

To request mid-year staffing changes within the Inspection Department to meet current needs and mandates.

Action: Consider approving staffing changes within the Inspection Department

5. Third Quarter Budget Update.....Page 59
Presenter: Mike Franks, Budget & Special Projects Manager

Staff will provide an overview of the Third Quarter Review Process.

Action: Report only; no action required

E. MANAGER REPORTS

F. COUNCIL REPORTS

G. ADJOURNMENT

Town of Garner
Town Council Meeting
Agenda Form

Meeting Date: February 25, 2020		
Subject: Jones Sausage Road Feasibility Study		
Location on Agenda: Reports		
Department: Planning		
Contact: Gaby Lontos-Lawlor, Senior Planner - Transportation		
Presenter: Gaby Lontos-Lawlor, Senior Planner - Transportation		
<p>Brief Summary:</p> <p>The Planning Department will provide an overview of the study, which was completed by HDR to advance planned improvements along Jones Sausage Road, from the Amazon Fulfillment Center site to just south of US 70. The project is expected to include widening of the existing two-lane facility to a four-lane divided facility. Additionally, it includes the realignment of Jones Sausage Road, from just south of Partlo Street to US 70.</p>		
Recommended Motion and/or Requested Action:		
<p>Detailed Notes:</p> <p>See attached report</p>		
Funding Source:		
Cost:	One Time: <input type="radio"/>	Annual: <input type="radio"/> No Cost: <input checked="" type="radio"/>
Manager's Comments and Recommendations:		
Attachments Yes: <input checked="" type="radio"/> No: <input type="radio"/>		
Agenda Form Reviewed by:	Initials:	Comments:
Department Head:	JST	
Finance Director:		
Town Attorney:		
Town Manager:	RD	
Town Clerk:		



Feasibility Study Technical Memorandum

Jones Sausage Road (SR 5220) Improvements
Town of Garner

February 2020

**FEASIBILITY STUDY
TECHNICAL MEMORANDUM**

**JONES SAUSAGE ROAD (SR 5220) IMPROVEMENTS
GARNER, NORTH CAROLINA**

Prepared for:



Town of Garner

Prepared by:

HDR Engineering, Inc. of the Carolinas

555 Fayetteville Street, Suite 900

Raleigh, NC 27601

NC License No. F-0116

February 2020

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1 General Description

The Town of Garner, North Carolina desires to develop improvements for approximately 1.1 miles of SR 5220 (Jones Sausage Road) from south of the Amazon Fulfillment Center to just south of US 70. The project is expected to include widening an existing two-lane facility to a four-lane divided facility. Additionally, the project includes a new location piece, referred to as Jones Sausage Road Extension, from just south of Partlo Street to US 70. The Norfolk Southern line (both existing and future tracks), would be converted from an at-grade crossing to a grade-separated crossing. The existing Jones Sausage Road would terminate on either side of the existing at-grade railroad crossing. For the purpose of this report, the project is split into two phases. The first phase is the widening of Jones Sausage Road from the roadway improvements at the Amazon Fulfillment Center to the north side of East Garner Road. The second phase includes the East Garner Road and Jones Sausage Road intersection, the grade separation of the railroad, and the continuation of Jones Sausage Road Extension to US 70. HDR is conducting a feasibility study for the proposed Jones Sausage Road improvements. **Figure 1** displays the project area in relation to major thoroughfares within close vicinity.

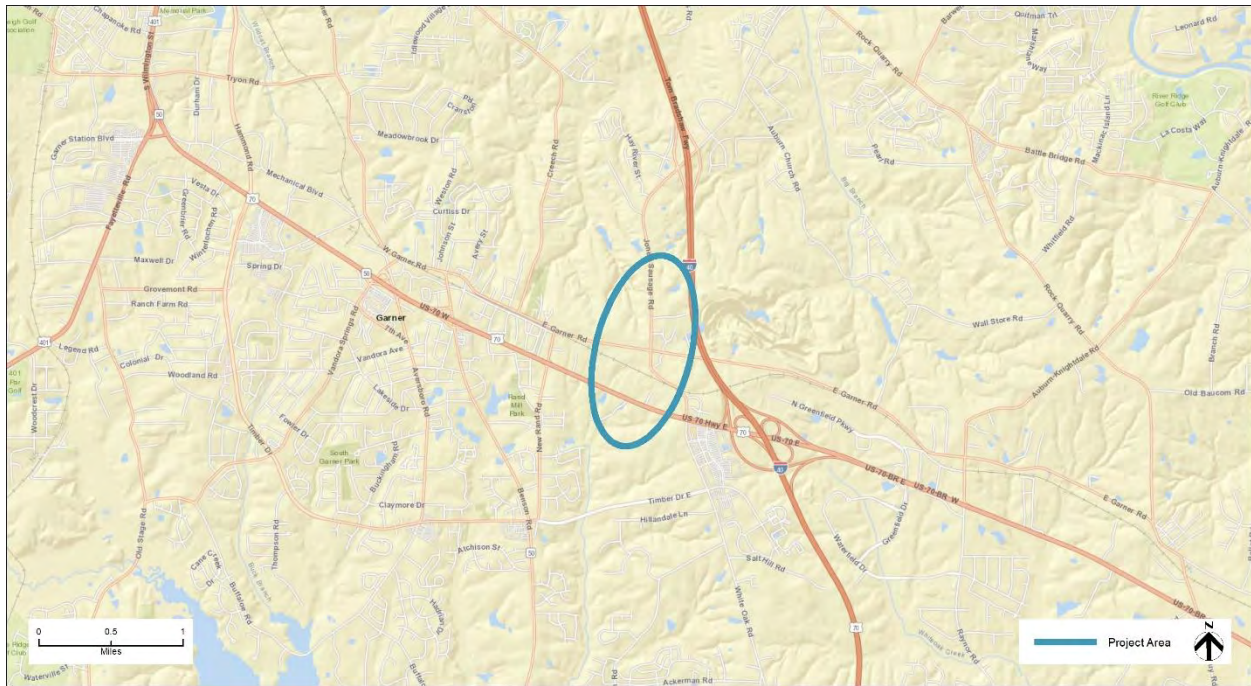


Figure 1. Vicinity Map

2 Background

This project was initiated in the Spring/Summer 2017 during the Southeast Area Study, sponsored by NC Capital Area Metropolitan Planning Organization (CAMPO). This study was a high-level “Hot Spot” analysis applied to the area. This initial study suggested that the road would need to go under the railroad. However, there was no detailed discussion with the NCDOT Rail Division at this time regarding operational implications.

The Jones Sausage Connector is identified in the 2045 CAMPO Metropolitan Transportation Plan that was adopted February 21, 2018. This plan includes the widening of Jones Sausage Road from two lanes to four lanes and includes the extension of Jones Sausage Road to US 70. This project is also included in the first amendment to the 2045 MTP Roadways Project List that was adopted on January 16, 2019.

The Garner Forward Transportation Plan adopted on June 12, 2018 also highlights Jones Sausage Road. This plan indicates several areas of improvement including an intersection/interchange redesign, a major widening of the corridor, and the addition of crosswalks and connected sidewalks.

2.1 Existing Roadway Network

The following are brief descriptions of the roadways located near the study area.

Table 1. Existing Roadways

Road Name	Route Number	Typical Cross Section	Speed Limit	2018 AADT (vpd)
Jones Sausage Road	SR 5220	2-lane undivided	45 mph	15,500
East Garner Road	SR 1004	2-lane undivided	45 mph	13,000
US 70	US 70	4-lane divided	45 mph	33,500

2.2 Planned Transportation Improvement Projects

NCDOT Highway Division 5 has several projects located adjacent to the study area.

- STIP I-5111: Add general purpose lanes in each direction along I-40 from I-440/US 64 (Exit 301) to NC 42 (Exit 312), this project is under construction.
- STIP U-6225: SR 2709 (Ackerman Road), SR 2547 (Hebron Church Road), and SR 2700 (White Oak Road), propose a multi-lane roundabout, with right-of-way acquisition and construction in Fiscal Year (FY) 2020.
- STIP B-5237: Replace Bridge 910248 over Mahler’s Creek, construction of this project is forecasted to commence in spring 2020.
- STIP B-5326: Replace Bridge 910247 over White Oak Creek, the right-of-way acquisition is in progress and construction in FY 2020.

3 Traffic

3.1 Introduction

HDR produced a desktop traffic forecast estimate and performed a cursory capacity analysis of the study area as part of this feasibility study. All major roadways in the study area are currently maintained by NCDOT. The study area includes the following existing intersections:

- Jones Sausage Road/East Garner Road (SR 1004) – signalized (existing/proposed)
- Jones Sausage Road Extension/US 70 – signalized (proposed)
- Jones Sausage Road Extension/Jones Sausage Road (serving East Garner Magnet Middle School) –stop controlled (proposed)



Figure 2. Project Study Area

3.2 Traffic Estimate

The traffic forecast estimates used for this analysis were completed by HDR in July 2019. Using prior-year AADT published by NCDOT, the 2045 Travel Demand Model, Traffic Impact Analyses, projected AM and PM peak hour turning movement counts were developed for the study area intersections (**Appendix A**). This data was used to complete the Capacity Analysis in **Section 3.3** below.

3.3 Capacity Analysis

3.3.1 Methodology

The intersection capacity analyses were performed using the traffic modeling software Synchro 10.1. This software packages is based on methodologies from the Highway Capacity Manual (HCM 2010) and is accepted by the NCDOT for evaluating signalized intersections. The parameters and assumptions used in the analyses were conducted in accordance with the latest NCDOT Congestion Management Unit's *Capacity Analysis Guidelines for Transportation Improvement Program (TIP) Projects*, dated July 2015. Traffic operations are quantified with Control Delay (seconds per vehicle), Volume-to-Capacity (v/c) ratio and the 95th Percentile Queue Length (feet), all of which are derived from Synchro for signalized and unsignalized intersections. Control delay dictates LOS. Projected queue lengths were also generated using both Synchro and the SimTraffic 10 software in order to determine the minimum recommended storage lengths for the turn lanes at each intersection.

3.3.2 2018 Existing Configuration and Analysis

Capacity analyses were conducted for the study area to identify potential failing movements in the vicinity of the project, using the roadway network described above. **Table 2** displays the LOS, delays, and volume to capacity ratios for each intersection.

Table 2. 2018 No Build LOS and Delays for Intersections

Node	Configuration	Intersection	Movement	AM Peak Hour			PM Peak Hour		
				LOS	Delay	V/C	LOS	Delay	V/C
2	Signalized	Jones Sausage Road at East Garner Road	EBL	E	56.7	0.85	C	30.4	0.60
			EBT	D	37.3	0.30	E	61.3	0.90
			WBL	C	25.9	0.21	C	28.6	0.37
			WBT	E	60.9	0.83	D	43.0	0.29
			WBR	C	25.6	0.05	C	29.2	0.03
			NBL	B	16.6	0.33	B	15.8	0.13
			NBT	C	25.3	0.47	C	23.4	0.25
			NBR	B	12.9	0.09	B	14.3	0.10
			SBL	B	13.4	0.02	B	14.7	0.05
			SBT	D	37.4	0.76	D	41.9	0.84
			Overall	D	38.2	0.85	D	40.0	0.90

As shown in **Table 2**, the existing study area intersection operates at an acceptable level.

3.3.3 2045 Build Configuration and Analysis

The Synchro analysis was used to determine recommended lane configurations in order to maintain a target LOS D or better for the signalized intersections in the Build Scenario. The capacity analysis results are summarized in **Table 3**.



Table 3. 2045 Build LOS and Delays for Intersections

Node	Configuration	Intersection	Movement	AM Peak Hour			PM Peak Hour		
				LOS	Delay	V/C	LOS	Delay	V/C
2	Signalized	Jones Sausage Road at East Garner Road	EBL	D	49.9	0.71	D	44.9	0.80
			EBT	C	29.3	0.24	E	59.0	0.88
			EBR	C	28.6	0.14	D	38.8	0.53
			WBL	D	42.9	0.36	D	45.0	0.39
			WBT	E	55.6	0.87	D	53.2	0.61
			WBR	B	18.9	0.06	C	25.8	0.05
			NBL-U	E	59.1	0.85	D	45.3	0.41
			NBT	D	50.6	0.99	C	20.8	0.53
			NBR	B	10.5	0.08	A	9.5	0.07
			SBL	D	41.5	0.15	D	39.9	0.18
			SBT	D	54.5	0.95	D	51.9	1.00
			SBR	C	34.6	0.80	A	7.8	0.26
			Overall	D	48.2	0.99	D	40.4	1.00
4	TWSC	Jones Sausage Road at Jones Sausage Road Extension	WBR	F	82.8	1.01	B	12.4	0.13
			SBL	C	23.9	0.59	B	10.6	0.13
5	Signalized	Jones Sausage Road at US 70	EBL	D	54.2	0.84	D	44.3	0.70
			EBT	A	8.0	0.26	C	22.6	0.78
			WBT	D	36.7	0.93	C	34.3	0.63
			WBR	C	24.7	0.91	A	6.6	0.36
			SBL	C	33.1	0.46	C	30.9	0.77
			SBR	C	22.6	0.58	B	11.8	0.49
			Overall	C	29.7	0.93	C	25.8	0.78

The westbound right turn movement on the existing Jones Sausage Road coming from East Garner Magnet Middle School is anticipated to experience excessive delay and a LOS F during the AM peak. School drop-offs occurring during this period cause the poor LOS of the side street.

Minimum recommended storage lengths for each of the turn lanes in the Build scenario were determined using the 95th percentile queue lengths generated by Synchro or the maximum queue lengths generated by SimTraffic, whichever was higher.

4 Typical Section and Roadway Design

The conceptual design for Jones Sausage Road Feasibility Study accounts for widening the existing two-way two-lane curb and gutter with turn lanes to a divided two-way curb and gutter facility with a 5' striped median, 4.5' planting strips, and a 6' sidewalk on both sides as shown in **Figure 3**. The inside lane is 11', while the outside lane is 16' to accommodate a future bike lane.

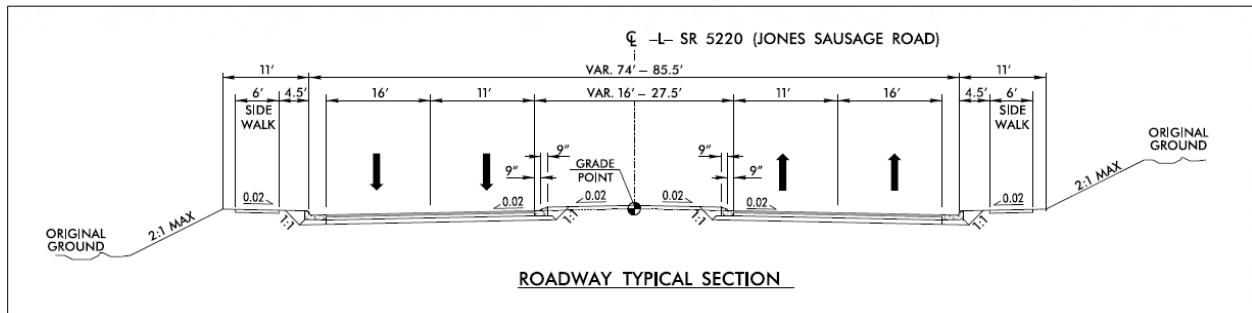


Figure 3. Jones Sausage Road Feasibility Study Roadway Typical Section

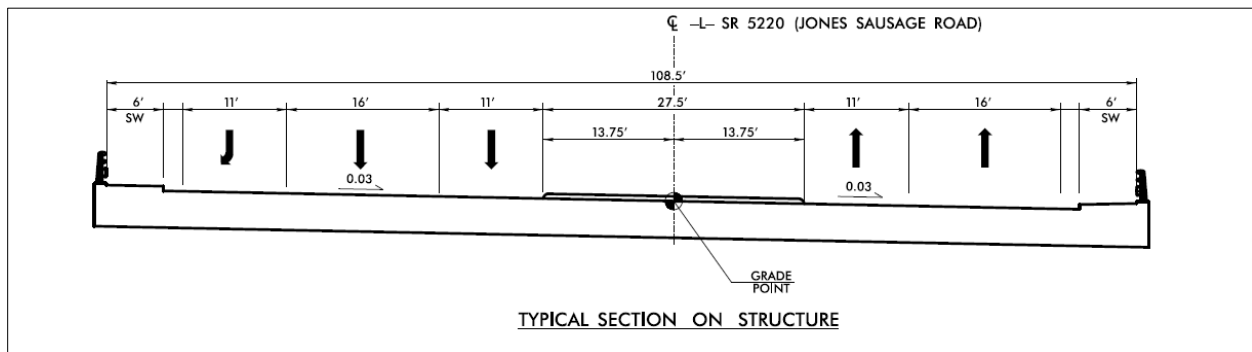


Figure 4. Jones Sausage Road Feasibility Study Structure Typical Section

The conceptual plans developed includes construction limits and proposed right-of-way, which reflect the impacts to adjacent commercial properties. The conceptual plans are included in **Appendix B** and proposed renderings can be seen in **Appendix C**.

Alternatives were considered for both carrying Jones Sausage Road over and under the railroad for this feasibility study. Both of these options would require the construction of retaining walls to reduce impacts to properties south of East Garner Road. Due to the differences in NCDOT requirements for cut and fill walls, if the team decided to go under the railroad, the right-of-way needed behind the wall would be greater than what is needed for going over.

Additionally, going under the railroad could pose potential drainage concerns. To keep the railroad at its existing elevation the grade needed on Jones Sausage Road would create a sag vertical curve in a cut section between East Garner Road and US 70, where the proposed low point would be under the railroad. This would increase the number of drainage structures needed along Jones Sausage Road and would increase the impacts

to properties around the railroad due to the need to have water drain to a lower elevation. The ideal alignment, going under the railroad, where water drains from East Garner Road to US 70 would require the railroad to be raised several feet higher than its existing elevation.

Given the railroad's stringent grade requirements, raising the grade at this location could impact the railroad bridge that goes over the interstate and at grade rail crossings to the West. There would also be an increase in construction time if the team decided to go under. This would be due to additional time needed to coordinate with North Carolina Railroad to provide an acceptable temporary detour for the existing track, so that the bridge over the new Jones Sausage Extension could be built without impacting railroad traffic. The longer construction time would lead to increased costs of the project.

Taking all of these factors into consideration and conversations with the NCDOT Rail Division, it is recommended to convey Jones Sausage Road via the roadway bridge over the railroad.

As the project progresses further into design, adjustments to the alignment and potentially the typical section can be considered in order to avoid or lessen impacts. An example of this would be removing the back entrance into East Garner Magnet Middle School. Removing this driveway would allow for overall project footprint to be reduced, particularly in the vicinity of the grade-separation. The typical section without the school access road is shown in **Figure 5**.

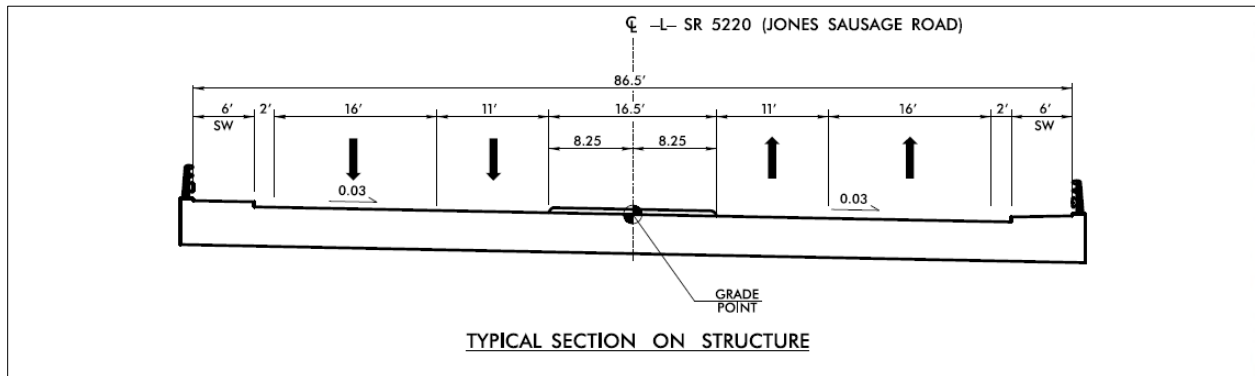


Figure 5. Jones Sausage Road Feasibility Study Structure Typical Section without the School Access Road

This bridge typical section has a total footprint of 86.5' compared to the 108.5' section with the school access road. Without the school access road, the right turn lane can be removed and the median can decrease from approximately 27.5' to 16.5'. This would lessen the impacts to the properties adjacent to the project.

5 Community Issues/Potential Social Effects

5.1 Stakeholder Coordination

5.1.1 NCDOT Rail Coordination Meeting

On September 30th, 2019 representatives from NCDOT Rail, CAMPO, Town of Garner, and HDR met to begin coordination on the Jones Sausage Road proposed grade separation. The rail line belongs to North Carolina Railroad Company (NCR) and is known as the H-line that runs between Greensboro and Goldsboro.

There will be continued coordination with NCR on the future four track configuration. NCDOT thought that the two future tracks would be on the US 70 side (south side) with one future track on the East Garner Road side (north side), then transition farther east as the tracks approached the bridge over I-40.

The proposed concept denotes the removal of the existing Jones Sausage Road at-grade crossing. Five percent of project costs for bridge and structure approaches will be contributed by NCR.

5.1.2 Stakeholder Meetings

On November 21st and November 25th, 2019 representatives from the Town of Garner and HDR met with developers and property owners to discuss the Jones Sausage Road extension and to listen to their feedback on the potential design.

The stakeholders were concerned that the road design requires more right-of-way than what they were initially asked to reserve for the project. This additional right-of-way would impact existing site plans.

After the stakeholder meetings, the Town of Garner listened to the feedback of the developers and property owners and considered tightening the radius of the curve, both going over and under the railroad, and the additional impacts of the entrance to East Garner Magnet Middle School.

The original conceptual design included a radius of 3,000 feet. Due to stakeholder feedback, HDR was asked to consider tightening the radius to reduce the impacts outside of the 50 foot right-of-way designation the property owners were initially asked to provide. The right-of-way impacts around the grade separation can be seen in **Appendix D**.

Through examination, the revised alignment includes a 2,300 foot radius curve. According to the AASHTO Green Book, a 2,290 foot radius is the sharpest curve for a three percent superelevation at 50 mph. Any curve sharper than this would result in a four percent cross slope on the bridge. Increasing to a four percent cross slope would also increase the grade needed to provide 23 feet of clearance over the railroad. This would result in a steeper grade on the East Garner Magnet Middle School access road, an increase in the grade change at East Garner Road, and increased impacts to the US 70 intersection.

5.2 Human Environment

GIS- level research and a preliminary site review were completed. An Environmental and Community Features Map can be found in **Appendix E**.

5.2.1 Land Use

There are several zoning districts along the corridor that promote a variety of uses. They include: Industrial, R-20 Single Family (20,000 square foot lots), R-9 Single Family (9,000 square foot lots), Office and Industrial, and Community Retail. There are also two overlay districts near the corridor: Interstate 40 Overlay and Garner Road Overlay. These overlay districts are situated along roads that pass through Garner's jurisdiction. Properties near these roads may be subject to further regulations such as restrictions on certain uses otherwise permitted in the base district.

5.2.2 Historic Sites

Records and maps of the North Carolina State Historic Preservation Office (NC SHPO) were reviewed using the NC SHPO GIS database for historic architectural resources. The database includes resources that had been identified in previous surveys or that were listed in or had been determined eligible for listing in the National Register of Historic Places. No historic sites are in the proposed right-of-way. The Downtown Garner Historic district is located to the west of the project.

5.2.3 Archaeological Resources

Because this Feasibility Study is not the product of an exhaustive environmental or design effort, but rather an initial step to this process, the environmental impacts are based on a screening of readily available GIS data. At this stage, Archaeological resources were not evaluated. It is assumed that a more detailed impacts analysis would be performed during the NEPA/SEPA planning phase.

5.2.4 Additional Facilities

There are no public parks, cemeteries, or places of worship within the vicinity of the project. There are two schools within the vicinity:

- East Garner Elementary School
 - Approximately 700 students
 - Just east of the corridor; 5545 Jones Sausage Road, Garner, NC 27529
- East Garner Magnet Middle School
 - Approximately 1,300 students
 - Just east of the corridor; 6301 Jones Sausage Road, Garner, NC 27529

There is also an Amazon Fulfillment Center under construction that is expected to open in late 2020.

- Approximately 1,500 employees
- Just north of the project limits; 4851 Jones Sausage Road, Garner, NC 27529

5.2.5 Demographic Data

A brief review of the demographic data within a 1,000-foot buffer of the corridor was conducted using the NCDOT Demographic Tool. Error! Reference source not found. highlights the boundaries for the census tracts and block groups that intersect the 1,000-foot buffer. The initial data can be seen in **Table 4** and **Table 5**. Census data indicates that there is a notable presence of minority and low income populations. Additional community studies are recommended based on this information.

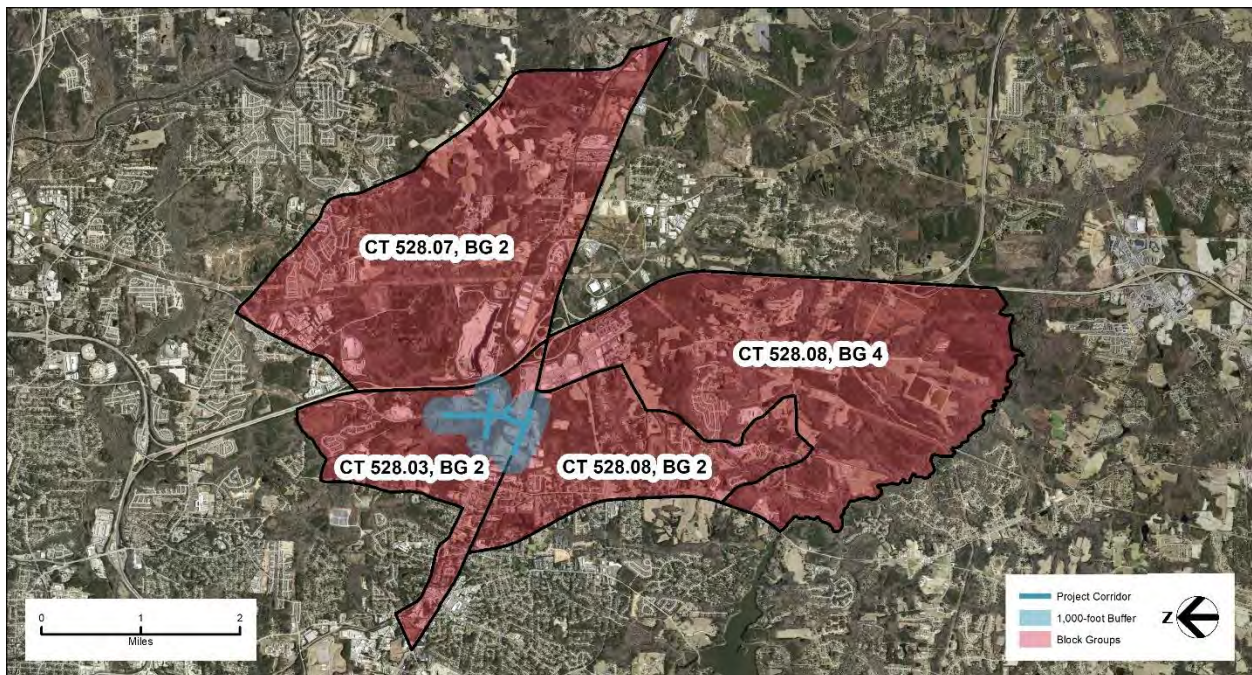


Figure 6. Census Tracts and Block Groups within a 1,000-foot Buffer of the Corridor



Table 4. Minority Population Demographic Data

Geography	Total Population	White, Non-Hispanic		Minority Population*		Meets Thresholds	
		#	%	#	%	50%	10% over County
CT 528.03, BG 2	2,190	616	28.1%	1,574	71.9%	Yes	Yes
CT 528.07, BG 2	3,520	665	18.9%	2,855	81.1%	Yes	Yes
CT 528.08, BG 2	3,558	1,473	41.4%	2,085	58.6%	Yes	Yes
CT 528.08, BG 4	2,705	1,614	59.7%	1,091	40.3%	No	No
DSA	11,973	4,368	36.5%	7,605	63.5%	Yes	N/A
Wake County	1,023,811	620,364	60.6%	403,447	39.4%		
North Carolina	10,052,564	6,397,460	63.6%	3,655,104	36.4%		

* Minority population includes all races that are Non-White and Hispanic populations that are also White.
Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table B03002, "Hispanic or Latino Origin by Race."

Table 5. Low-Income Demographic Data

Geography	Total Population	Below Poverty Level		Under 50% of Poverty Level		Between 100% and 149% of Poverty Level		Meets Thresholds	
		#	%	#	%	#	%	25%	5% over County
CT 528.03, BG 2	2,190	439	20.0%	38	1.7%	440	20.1%	No	Yes
CT 528.07, BG 2	3,502	111	3.2%	30	0.9%	461	13.2%	No	Yes
CT 528.08, BG 2	3,558	514	14.4%	238	6.7%	396	11.1%	No	No
CT 528.08, BG 4	2,659	265	10.0%	15	0.6%	82	3.1%	No	No
DSA	11,909	1,329	11.2%	321	2.7%	1,379	11.6%	No	N/A
Wake County	1,001,332	101,256	10.1%	43,834	4.4%	69,223	6.9%		
North Carolina	9,783,738	1,579,871	16.1%	688,118	7.0%	1,016,581	10.4%		

Source: US Census Bureau, American Community Survey 5-year Estimates (2013-2017), Table C17002, "Ratio of Income to Poverty Level in the Past 12 Months."

6 Natural Environment Issues

GIS level research and a preliminary site review were completed. An Environmental and Community Features Map can be found in **Appendix E**.

6.1 Geoenvironmental Review

The Division of Waste Management Site Locator Tool indicated the presence of two underground storage tank incidents within a 1,000-foot buffer of the corridor. They are listed in **Table 6** below.

Table 6. Underground Storage Tank Incidents

Facility Name	Facility Address	Facility ID
East Garner Magnet Middle School	900 East Garner Road	#23866
R.W. Moore Equipment Co	1128 Hwy 70 W	#26107

6.2 Water Quality Resources

The project is located in the Neuse River Basin and riparian buffer rules will apply. Based on GIS-level information, there are no waters with Outstanding Resource Water (ORW) or High Quality Water (HQW) designations located in the project area.

6.3 Jurisdictional Features

Jurisdictional “Waters of the United States”, including wetlands, are protected under Section 404 of the Clean Water Act (CWA). Any action that proposes impacts to waters of the United States falls under the jurisdiction of the US Army Corps of Engineers (USACE) through Section 404 of the Clean Water Act (33 U.S.C. 1344) and under the jurisdiction of the NC Department of Environmental Quality (NCDEQ) through the Section 401 Water Quality Certification Process (NC General Statutes Chapter 143 Article 21, Part 1). Encroachments into areas determined as subject under CWA must be reviewed and approved by the USACE through the Section 404 program.

A Natural Resource Technical Report will be prepared during project development to fully identify and evaluate impacts to these resources. For the purpose of this report, the US Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) data for wetlands and NCDEQ’s online mapping for streams or other water bodies that may be present within a 1,000-foot buffer of the corridor were reviewed. Based on a preliminary review of NWI mapping, NCDEQ’s online mapping for streams, and conceptual ROW limits, Mahler’s Creek and other wetlands are near the study area. Neither the creek nor the wetlands are anticipated to be impacted by the proposed right-of-way.

6.4 Federal Emergency Management Agency (FEMA) Resources

Protection of floodways and floodplains is required under 23 CFR 650A; Executive Order 11988, Floodplain Management; and US Department of Transportation (USDOT) Order 550.2, Floodplain Management and Protection. The intent of these regulations is to avoid or minimize highway encroachments within the 100-year (base) floodplains or regulatory floodway, where practicable, and to avoid supporting land use development that is incompatible with floodplain values.

Based on a preliminary review of data available on the North Carolina Flood Risk Information System, this project will not involve construction activities on or adjacent to FEMA-regulated streams.

6.5 Protected Species and Natural Communities

Species with the federal status of endangered (E), or threatened (T) are protected under provisions of the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et. seq.). Any action likely to adversely affect a species classified as federally protected will be subject to review by the United States Fish and Wildlife Service (USFWS). There will be coordination with the United States Fish and Wildlife Service (USFWS) to determine whether the project is likely to impact any of the protected species, during the NEPA/SEPA planning phase of the project.

As of June 27, 2018, the United States Fish and Wildlife Service (USFWS) lists seven federally protected species for Wake County shown in **Table 7**.

Table 7. Wake County Federally Protected Species

Common Name	Scientific Name	Federal Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Bald and Golden Eagle Protection Act
Cape Fear Shiner	<i>Notropis mekistocholas</i>	Endangered
Red-cockaded Woodpecker	<i>Picoides borealis</i>	Endangered
Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	Endangered
Tar River Spiny mussel	<i>Parvaspina steinstansana</i>	Endangered
Yellow Lance	<i>Elliptio lanceolata</i>	Threatened
Michaux's Sumac	<i>Rhus michauxii</i>	Endangered

6.6 Natural Heritage Areas

No Natural Heritage Areas which contain natural habitats and communities for indigenous wildlife and plant species were identified within the project study area per a search of the Natural Heritage Program's database.

7 Project Build Impacts and Cost Estimates

7.1 Construction Cost Estimates

Construction cost estimates can be found in **Appendix F**. Estimates are based on functional designs and should be considered a high-level planning estimate and are subject to change.

The project is split into two phases. The first phase is the widening of Jones Sausage Road from the roadway improvements at the Amazon Fulfillment Center to the north side of East Garner Road. The second phase includes the East Garner Road and Jones Sausage Road intersection, the grade separation of the railroad, and the continuation of Jones Sausage Road to US 70. **Table 8** below highlights the proposed costs for the design and construction and distinguishes the costs of Phases 1 and 2.

Table 8. Functional Cost Estimates

Cost Item	Phase 1	Phase 2	Total Cost (Phase 1 + Phase 2)
Construction Cost	\$2,895,000	\$25,647,000	\$28,542,000
ROW Cost	\$1,001,000	\$1,957,000	\$2,958,000
Total Cost (Construction + ROW)	\$3,896,000	\$27,604,000	\$31,500,000

8 Recommendations

The Feasibility Study evaluated improvements for approximately 1.1 miles of SR 5220 (Jones Sausage Road) from south of the Amazon Fulfillment Center to just south of US 70. The project is expected to include widening an existing two-lane facility to a four-lane divided facility. Additionally, the project includes a new location piece, referred to as Jones Sausage Road Extension, from just south of Partlo Street to US 70. The Norfolk Southern line (both existing and future tracks), would be converted from an at-grade crossing to a grade-separated crossing. The existing Jones Sausage Road would terminate on either side of the existing at-grade railroad crossing.

Conceptual plans were developed, which identify the impacts to the adjacent commercial and residential properties. The conceptual design accounted for symmetrical widening north of East Garner Road. The original conceptual design included a radius of 3,000 feet. Due to stakeholder feedback, HDR was asked to consider tightening the radius to minimize the impacts outside of the 50 foot right-of-way designation the property owners were asked to provide. Through examination, the revised alignment includes a 2,300 foot radius curve, which reduced the impacts to the adjacent property owners. Additional adjustments to the alignment and potentially the typical section can be considered as the design progresses in order to avoid or lessen impacts.

Based on the analysis completed as part of this study, the Jones Sausage Road Extension bridged over the railroad appears feasible from an engineering and environmental perspective. It is recommended that future project planning and design activities are developed. It is also recommended that additional coordination is held with Town of Garner, CAMPO, NCDOT, and NCRR.

Input from the community and stakeholders should be solicited. As the investigations occur and more information is gathered about the project, a public event should be conducted to provide information pertaining to the project and solicit input. Input that is provided by the community and stakeholders should be considered, as the design for the project progresses.

9 Appendices

- Appendix A – Traffic Estimate
- Appendix B – Conceptual Plans
- Appendix C – Proposed Renderings
- Appendix D – Right-of-Way Impacts
- Appendix E – Environmental & Community Features Map
- Appendix F – Construction Cost Estimate Spreadsheets

Appendix A – Traffic Estimate

Memo

Date: Friday, July 12, 2019

Project: Town of Garner, Jones Sausage Road Feasibility Study

To: Jeff Triezenberg, Planning Director

From: HDR

Subject: Jones Sausage Road Traffic Projections

The Town of Garner, North Carolina desires to develop improvements for Jones Sausage Road (SR 5220) from just south of the Amazon Fulfillment Center to just south of US 70, approximately 1.1 miles. The project is expected to include widening from an existing two-lane facility to a four-lane. The road will also be realigned from just south Partlo Street to a new location on US 70 (four-lane facility). The alignment is expected to include a proposed railroad bridge over future Jones Sausage Road. The existing Jones Sausage Road would terminate on either side of the existing at-grade railroad crossing. **Figure 1** shows the existing and proposed facilities.

In order to evaluate future traffic operations in the upcoming capacity analysis, an annual growth rate needs to be derived to apply to existing year volumes to project future year volumes. Data used in analysis for deriving a growth rate include a review of historical North Carolina Department of Transportation (NCDOT) Annual Average Daily Traffic (AADT), projections from several traffic impact analyses (TIAs) as well as output from the TransCAD Triangle Regional Model.

Historic Growth

NCDOT historically collects and publishes AADT at locations within the project vicinity. NCDOT provided data for years 1990 through 2017, but only years 2005 through 2017 were analyzed in order to achieve a more accurate trend line since the White Oak shopping center, located just south of US 70 and Jones Sausage Road, opened in 2003. **Table 1** summarizes all of the AADT data that was analyzed and the resulting growth trends that were calculated.

Table 1: AADT Count Summary and Analysis

Roadway	Segments			NCDOT AADT Counts							
	From	To	NCDOT Data Station ¹	2005	2007	2009	2011	2013	2015	2017	Growth Rate
Jones Sausage Road	Wilmington Road	East Garner Road (SR 1004)	9100153	11,000	12,000	12,000	11,000	12,000	15,000	N/A	3.2%
	East Garner Road SR 1004	Partlo St	9100154	5,300	6,000	6,100	N/A	6,800	8,900	10,000	5.4%
	US 70	South of Conservation Drive	9103410	5,200	6,000	5,500	5,600	7,100	8,400	9,600	5.2%
Old Garner Road (SR 1004)	New Rand Rd	Jones Sausage Road	9100155	11,000	12,000	11,000	11,000	10,000	13,000	13,000	1.4%
	Jones Sausage Road	High Hope Ln	9100152	6,500	5,800	4,300	4,300	4,300	5,500	5,800	-0.9%

¹ <https://connect.ncdot.gov/resources/State-Mapping/Pages/Traffic-Volume-Maps.aspx>

Traffic impact analyses (TIAs) were reviewed as a part of the investigation of traffic growth in the area, including the TIA for the Amazon Facility (Project Axis) north of the project area, and the Avenue at White Oak Townhomes development, just west of the project area. Both the Project Axis TIA and the Avenue at White Oak Townhomes development used a 3.0% growth rate to grow the background traffic in their respective areas. While these rates are lower than historic trends presented in this memo, a noticeable increase in growth has occurred in the study area in recent years which resulted in higher background growth rates than assumed in either of these studies.

The Triangle Regional Forecasting Model (TransCAD 6.0, Build 9250) existing and future year volume forecasts were also reviewed to determine projected growth rates. The year 2045 Triangle Regional Forecasting Model assumes several regional and local projects that influence traffic within the study area, including widening and expansion of I-40 and new roadway connections such as extending Wilmington Road. The model also assumes Jones Sausage Road would be four lanes between the I-40 interchange and US 70, and includes the realignment on a new location. The year 2045 model volumes are shown in **Table 2**. These volumes were compared with the historic AADT, and growth rates were calculated from the model data. It should also be noted that the forecast model indicated a four-lane Jones Sausage Road would operate acceptably and would not likely benefit from additional widening.

Table 2. TransCAD Triangle Regional Model Summary

Roadway	Segments		Triangle Regional Model Outputs		
	From	To	2013	2045	Growth Rate
Jones Sausage Road	Wilmington Road	East Garner Road (SR 1004)	7,466	27,621	4.2%
	East Garner Road SR 1004	Railroad	4,918	27,691	5.5%

Growth Rate

Based on a review of historic and projected growth rates, growth along Jones Sausage Road could be from 3.2 percent to 5.5 percent; however, it is unlikely a high growth rate will be sustained in to the future. Furthermore, the additional capacity projects in the study area would attract trips from Jones Sausage Road and would likely result in lower than indicated growth. Therefore, growth rates ranging from 3.0%, north of East Garner Road, to 4.0%, south of East Garner Road, were chosen for the project after consultation with the Town of Garner.

Traffic Projections

Table 3 shows the traffic projections based upon the growth rate of 3.0% and 4.0%. The 3.0% growth rate only applies to traffic north of East Garner Road, the 4.0% growth rate applies south of East Garner Road due to the new connection to US 70. NCDOT recommends on a planning level, that all two-lane roads have a capacity of 15,000-20,000 vehicles per day. Using the growth rates indicated above, AADT projections on Jones Sausage Road are expected to be between 22,000 and 35,000 vehicles. On some segments, the AADT volumes are expected to be higher than forecasted in the Triangle Regional Forecast Model.

Table 3. Future Year AADT for Project Segments

Segment	2018 AADT Volumes (a)	Growth Rate (b)	2045 Projected Traffic Volumes (c)	2045 AADT Volumes ^a	2045 Model Traffic Volumes ^b
Jones Sausage Road North of East Garner Road (SR 1004) ^a	15,600	3.0%	34,652	35,000	27,621
Jones Road South of East Garner Rd (SR 1004)	10,400	4.0%	29,987	30,000	27,691
Jones Sausage Rd Extension South of Jones Sausage Rd Existing	N/A	N/A	N/A	22,000	21,807
Jones Sausage Rd Extension at US 70	N/A	N/A	N/A	27,000	26,984

Note: $c = a * (1+b)^{27}$

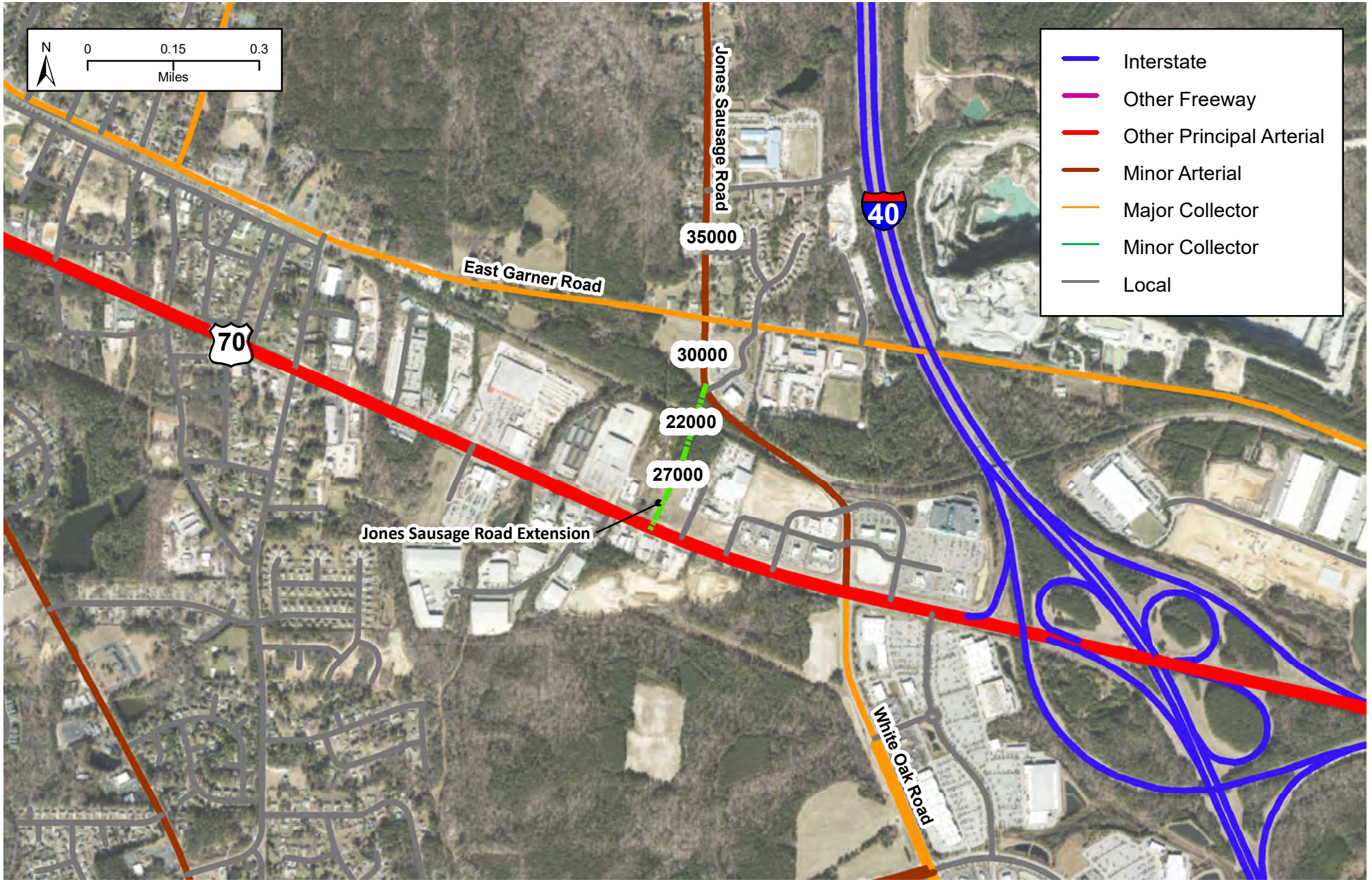
^a2045 AADT Volumes are rounded up to the nearest 1,000 vehicles

^b2045 AADT Volumes are direct model output from the TransCAD Triangle Regional Model

Summary

HDR, on behalf of the Town of Garner, is conducting a feasibility study along Jones Sausage Road from just south of the Amazon Fulfillment Center to a new location along US 70. Currently Jones Sausage Road is a two-lane road, and substantial growth in the study area is expected with a new Amazon Fulfillment Center and additional development near US 70.

Using a 3.0% to 4.0% compound annual growth rate, traffic volumes are expected to be in the range of 22,000 to 35,000 by 2045. Based upon these projections, it is recommended to widen Jones Sausage Road to four-lane divided facility in the study area.



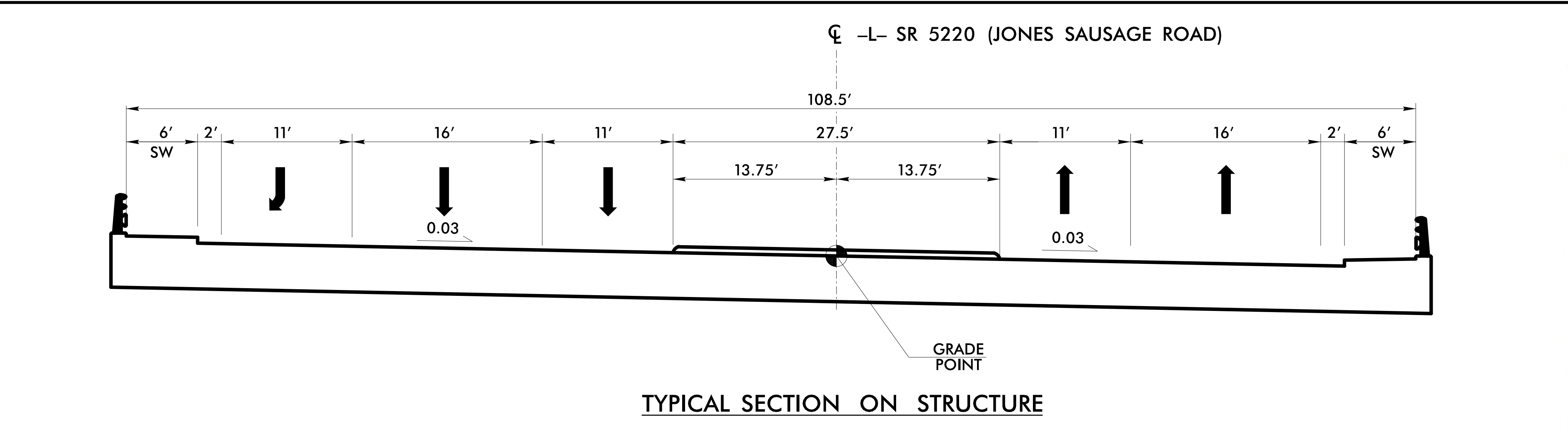
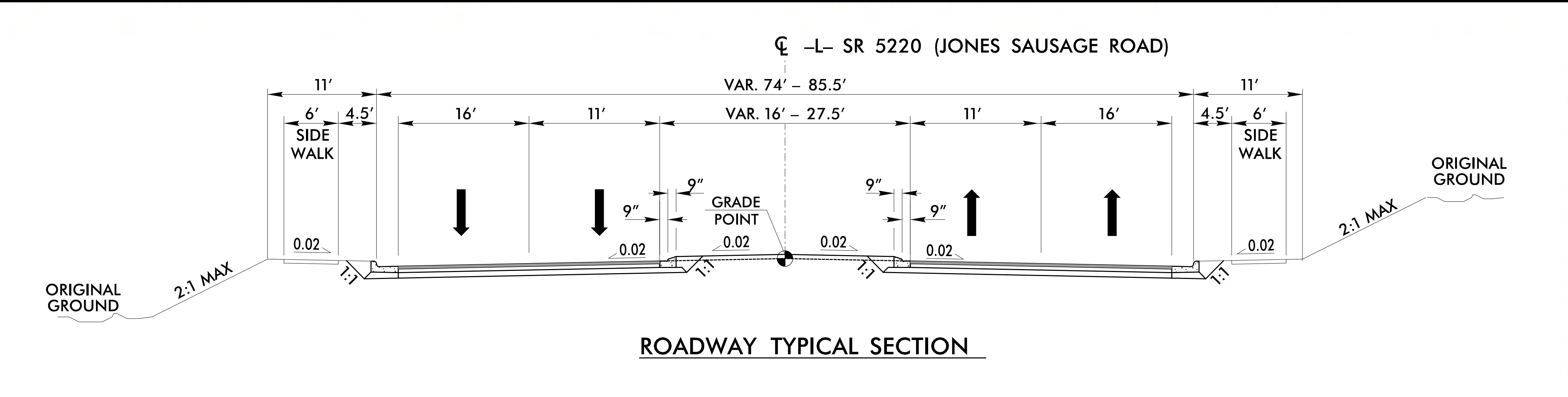
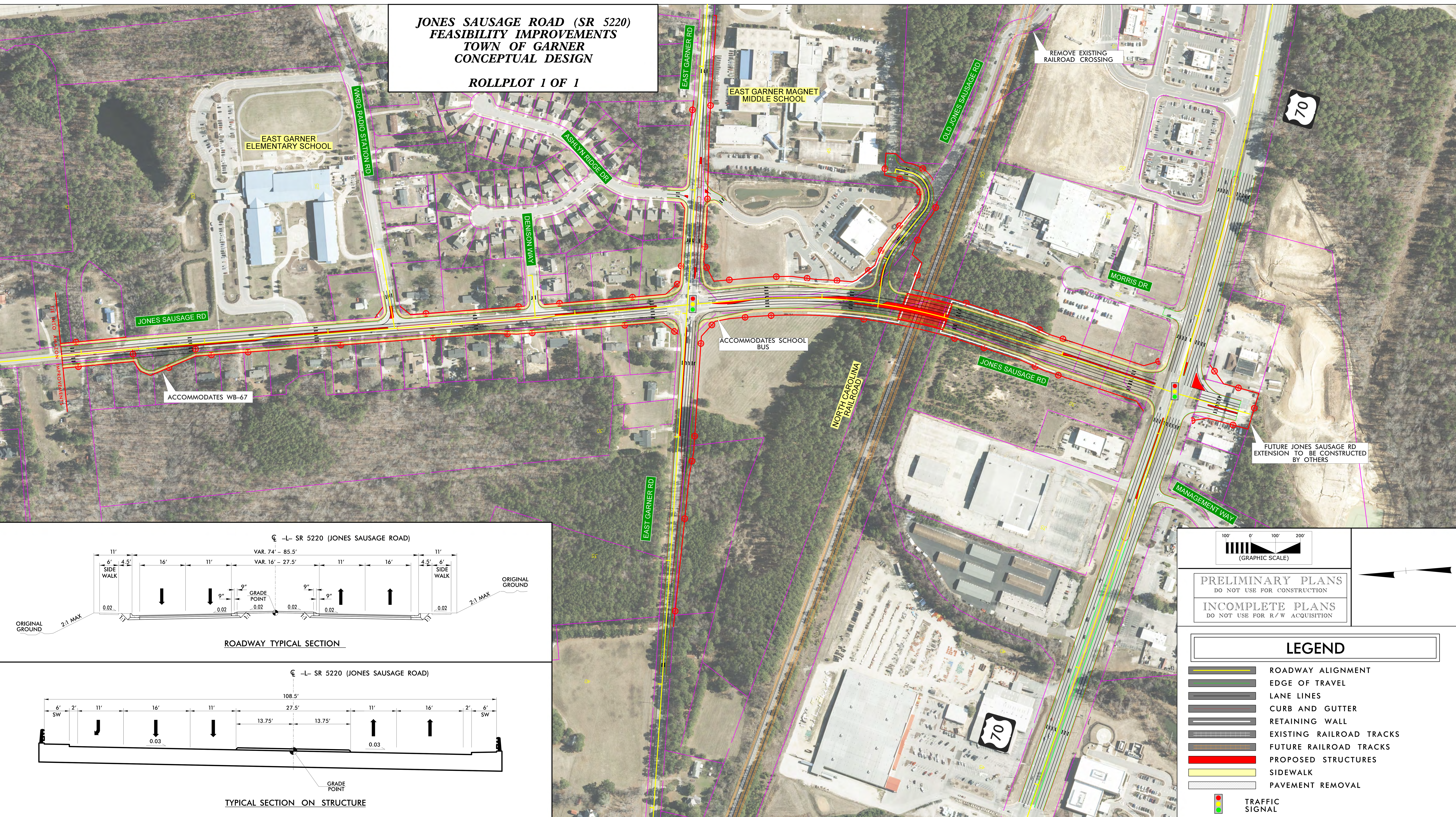
TOWN OF GARNER, NC
 JONES SAUSAGE ROAD 2045 TRAFFIC VOLUME ESTIMATIONS

(FIGURE 1)

Appendix B – Conceptual Plans

**JONES SAUSAGE ROAD (SR 5220)
FEASIBILITY IMPROVEMENTS
TOWN OF GARNER
CONCEPTUAL DESIGN**

ROLLPLOT 1 OF 1



(GRAPHIC SCALE)

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

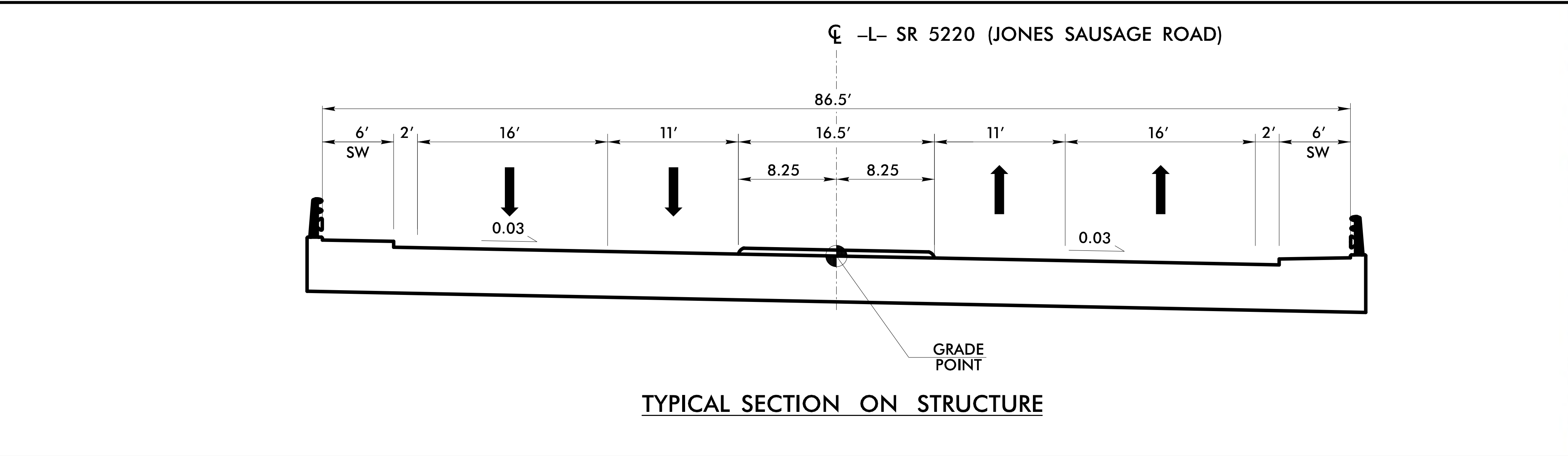
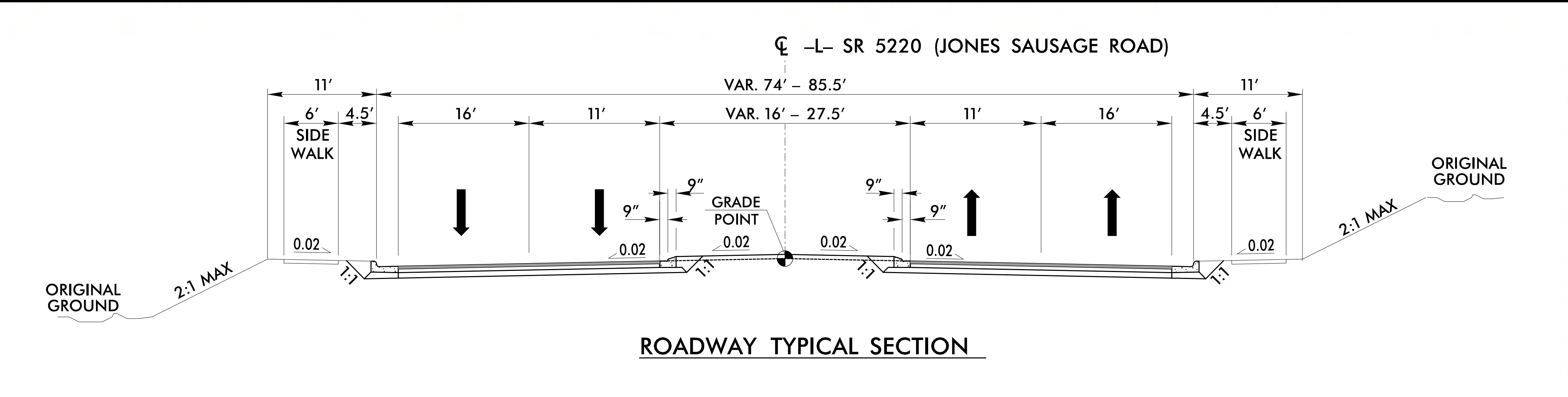
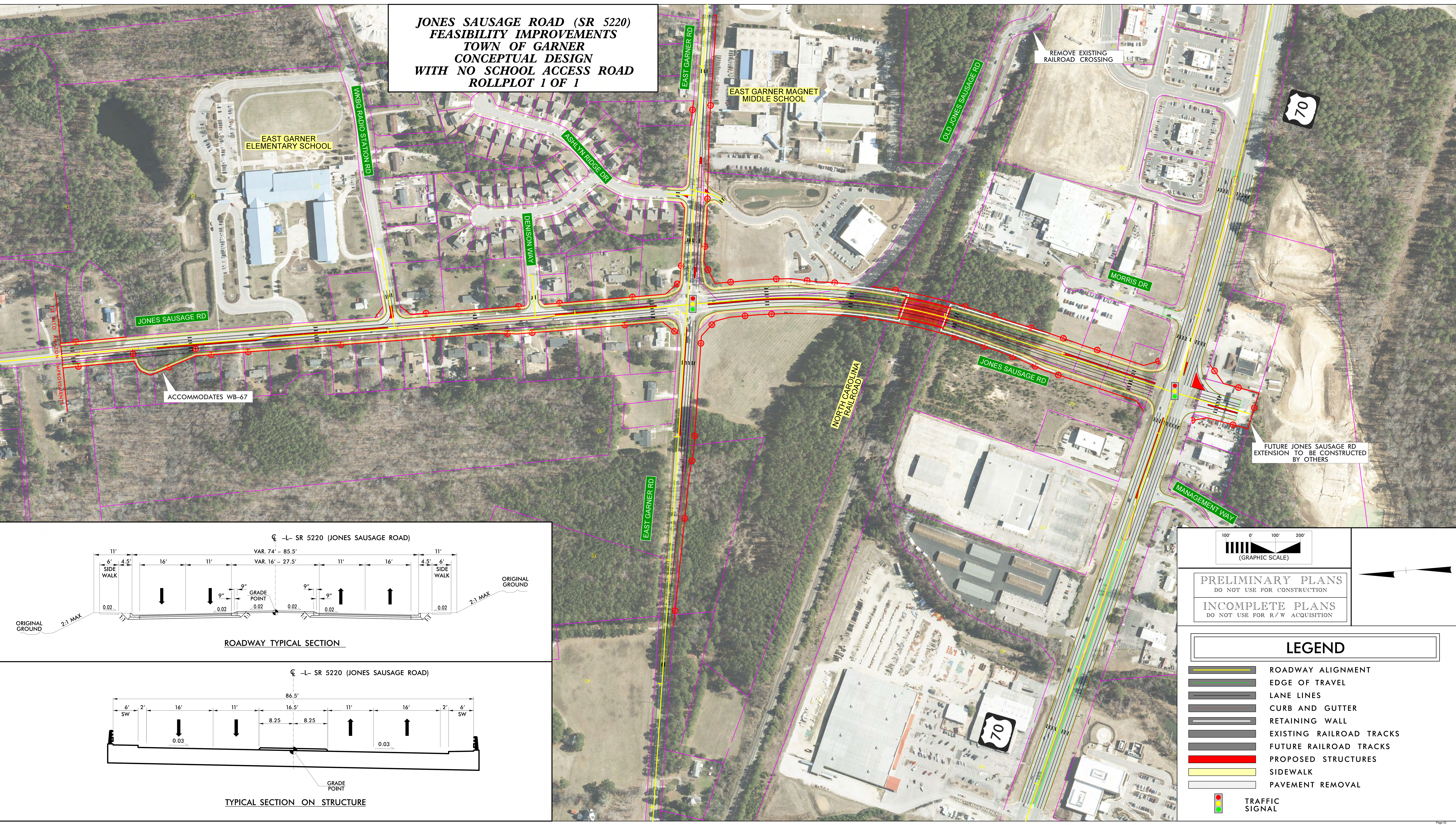
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

LEGEND

- ROADWAY ALIGNMENT
- EDGE OF TRAVEL
- LANE LINES
- CURB AND GUTTER
- RETAINING WALL
- EXISTING RAILROAD TRACKS
- FUTURE RAILROAD TRACKS
- PROPOSED STRUCTURES
- SIDEWALK
- PAVEMENT REMOVAL

TRAFFIC SIGNAL

**JONES SAUSAGE ROAD (SR 5220)
FEASIBILITY IMPROVEMENTS
TOWN OF GARNER
CONCEPTUAL DESIGN
WITH NO SCHOOL ACCESS ROAD
ROLLPLOT 1 OF 1**



100' 0' 100' 200'
(GRAPHIC SCALE)

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

LEGEND

- ROADWAY ALIGNMENT
- EDGE OF TRAVEL
- LANE LINES
- CURB AND GUTTER
- RETAINING WALL
- EXISTING RAILROAD TRACKS
- FUTURE RAILROAD TRACKS
- PROPOSED STRUCTURES
- SIDEWALK
- PAVEMENT REMOVAL
- TRAFFIC SIGNAL

Appendix C – Proposed Renderings

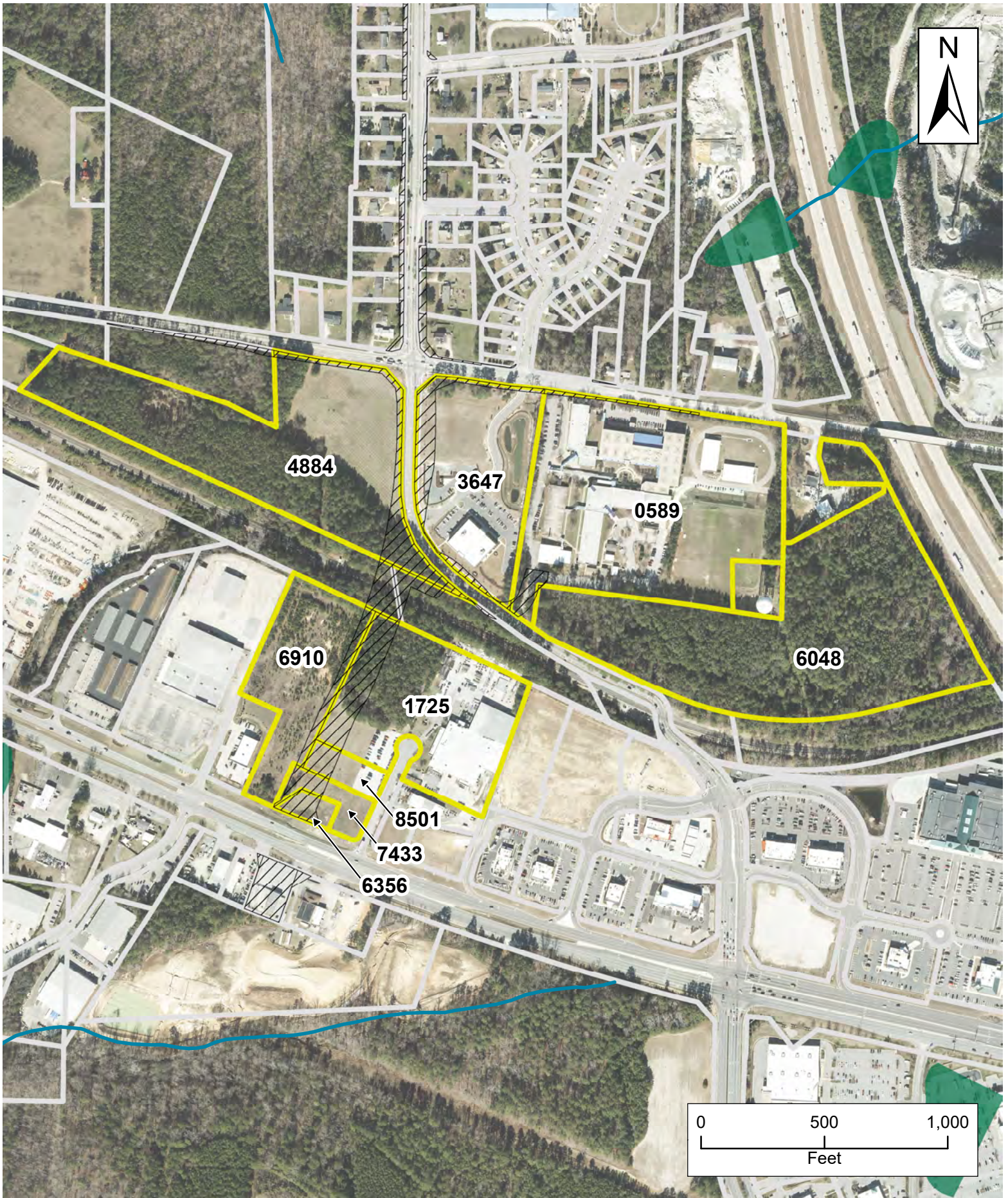
Jones Sausage Road Rendering








**Jones Sausage Road Rendering
(without school access road)**



Appendix D – Right-of-Way Impacts



-  River/Stream/Creek
-  Wetland
-  ROW Impact
-  Impacted Parcel
-  Parcel

RIGHT OF WAY IMPACTS MAP
JONES SAUSAGE ROAD
WAKE COUNTY

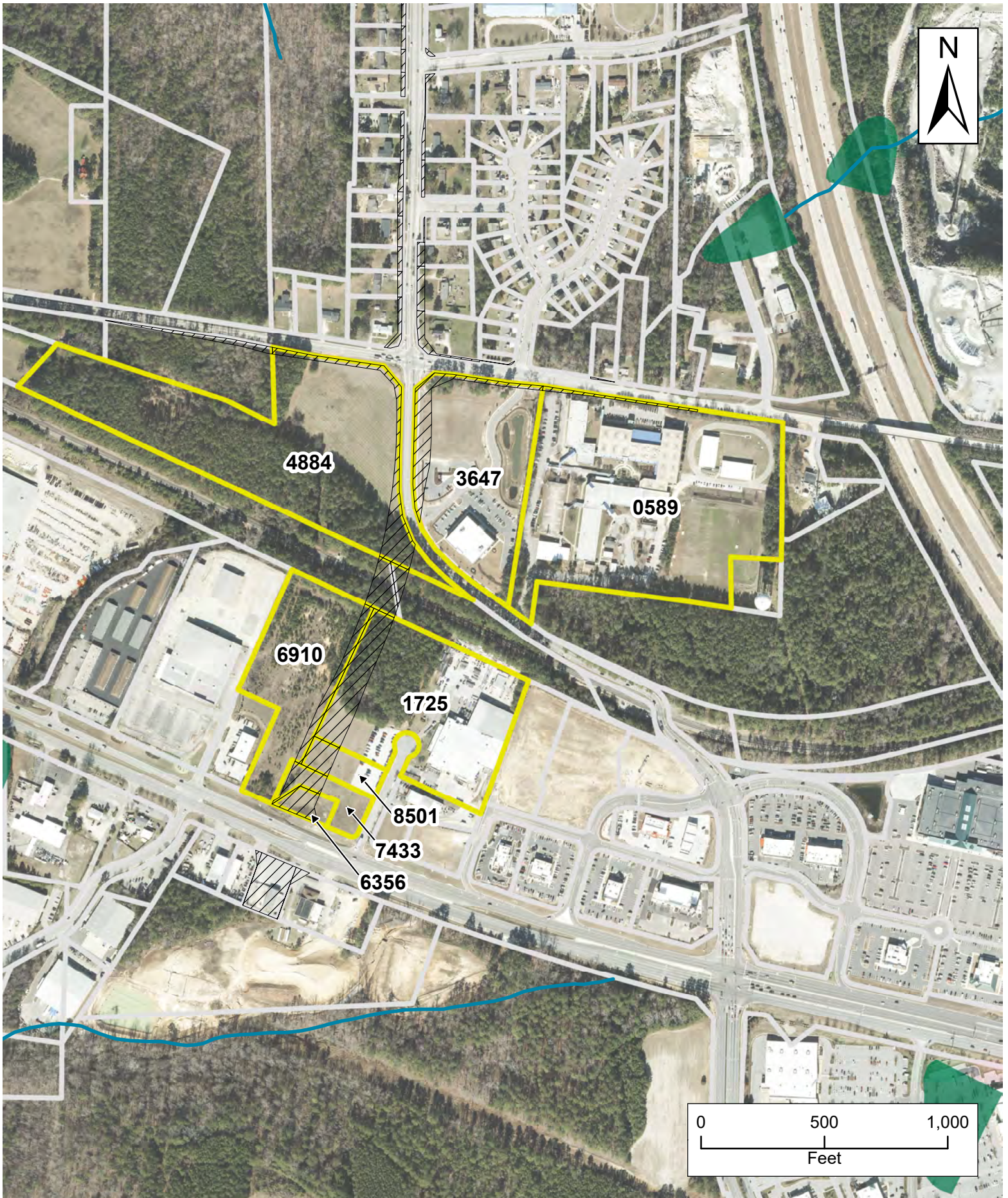







Parcels Affected by Proposed Right of Way

Jones Sausage Road

Wake County

Parcel ID	Total Acres	Impacted Acres	Remaining Acreage	% of Parcel Impacted	Owner Name	Site Address
1721104884	15.48	1.38	14.09	8.9%	North Sea Alliance LLC	Jones Sausage Road
1721203647	8.27	1.27	7.00	15.3%	East Garner LLC	100 Partlo Street
1721300589	17.95	0.50	17.45	2.8%	Wake County Board of Education	6301 Jones Sausage Road
1721306048	20.85	0.00	20.85	0.0%	Yeargan, Sherman A. Jr.	East Garner Road
1720196910	5.73	0.54	5.19	9.4%	Simmons, Patricia F. and Simmons, Clyde E.	545 US 70 Hwy. E.
1720291725	9.14	1.49	7.65	16.3%	Morris & Associates Inc.	803 Morris Drive
1720198501	0.94	0.33	0.61	35.3%	Morris & Associates Inc.	Morris Drive
1720197433	1.07	0.33	0.73	31.2%	Morris & Associates Inc.	Morris Drive
1720196356	0.52	0.34	0.18	66.3%	Morris & Associates Inc.	US 70 Hwy. E.
TOTAL	79.95	6.19				



-  River/Stream/Creek
-  Wetland
-  ROW Impact
-  Impacted Parcel
-  Parcel

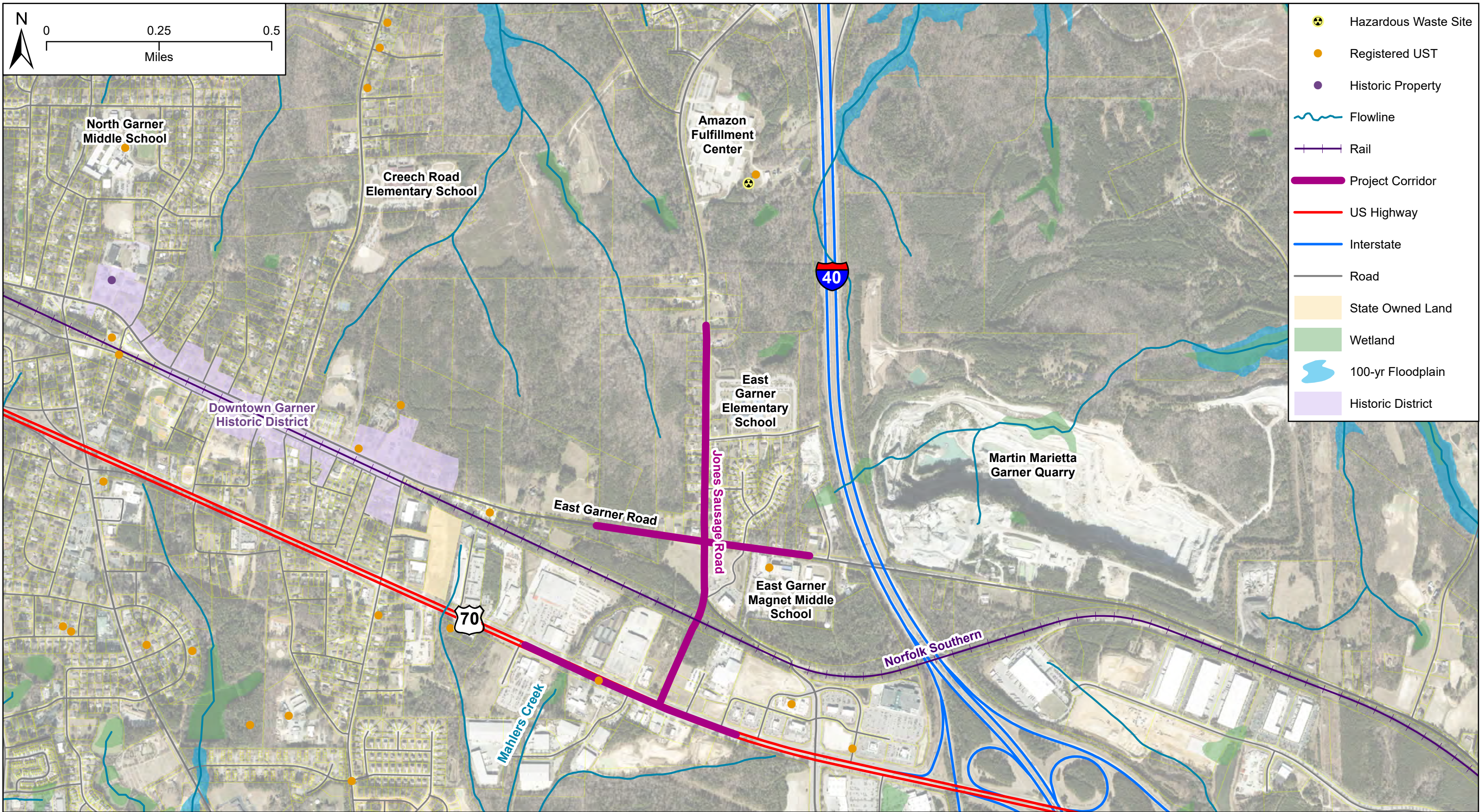
RIGHT OF WAY IMPACTS MAP
WITHOUT SCHOOL ACCESS ROAD
JONES SAUSAGE ROAD
WAKE COUNTY



**Parcels Affected by Proposed Right of Way
Jones Sausage Road without School Access Road
Wake County**

Parcel ID	Total Acres	Impacted Acres	Remaining Acreage	% of Parcel Impacted	Owner Name	Site Address
1721104884	15.48	1.03	14.45	6.7%	North Sea Alliance LLC	Jones Sausage Road
1721203647	8.27	0.97	7.30	11.7%	East Garner LLC	100 Partlo Street
1721300589	17.95	0.16	17.79	0.9%	Wake County Board of Education	6301 Jones Sausage Road
1720196910	5.73	0.50	5.23	8.8%	Simmons, Patricia F. and Simmons, Clyde E.	545 US 70 Hwy. E.
1720291725	9.14	1.37	7.77	15.0%	Morris & Associates Inc.	803 Morris Drive
1720198501	0.94	0.33	0.61	35.3%	Morris & Associates Inc.	Morris Drive
1720197433	1.07	0.33	0.73	31.2%	Morris & Associates Inc.	Morris Drive
1720196356	0.52	0.34	0.18	66.3%	Morris & Associates Inc.	US 70 Hwy. E.
TOTAL	59.10	5.04				

Appendix E – Environmental & Community Features Map



**TOWN OF GARNER, NC
JONES SAUSAGE ROAD FEASIBILITY STUDY**

Appendix F – Construction Cost Estimate Spreadsheets

North Carolina Department of Transportation
Preliminary Estimate

TIP No. Jones Sausage Road **Conceptual**
 Route SR-5220 (Jones Sausage Road)
 From Amazon Limits to E Garner Rd (Phase 1)

County: WAKE

CONSTR. COST
\$2,895,000

Typical Section 4- Lane Divided Facility
 Prepared By: HDR 1/24/20
 Requested By:

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	1.4	Acre	\$ 40,000.00	\$ 56,000.00
			Supplemental Clearing and Grubbing	1	Acre	\$ 5,000.00	\$ 5,000.00
			Unclassified Excavation	5,540	CY	\$ 15.00	\$ 83,100.00
			Borrow Excavation	3,250	CY	\$ 11.00	\$ 35,750.00
			Drainage 4-Ln	0.56	Miles	\$ 475,000.00	\$ 266,000.00
			Drainage 3-Ln	0.50	Miles	\$ 300,000.00	\$ 150,000.00
			Fine Grading	8,925	SY	\$ 3.00	\$ 26,775.00
			New Asphalt Pavement	1,035	SY	\$ 55.00	\$ 56,925.00
			Resurfacing	14,335	SY	\$ 11.00	\$ 157,685.00
			Remove Existing Asphalt Pavement	1,550	SY	\$ 6.00	\$ 9,300.00
			Subgrade Stabilization	2,902	SY	\$ 15.00	\$ 43,530.00
			5" Monolithic Conc. Island	680	SY	\$ 62.00	\$ 42,160.00
			1'-6" Curb and Gutter	1,925	LF	\$ 16.00	\$ 30,800.00
			2'-6" Curb and Gutter	5,915	LF	\$ 20.00	\$ 118,300.00
			4" Sidewalk	3,700	SY	\$ 43.00	\$ 159,100.00
			Erosion Control	2.7	Acres	\$ 25,000.00	\$ 67,500.00
			Upgrade Existing Signal	1	Each	\$ 100,000.00	\$ 100,000.00
			Signing	1	LS	\$ 2,500.00	\$ 2,500.00
			Traffic Control	1	LS	\$ 300,000.00	\$ 300,000.00
			Thermo and Markers (4-Ln)	0.56	Miles	\$ 25,000.00	\$ 14,000.00
			Thermo and Markers (3-Ln)	0.50	Miles	\$ 22,500.00	\$ 11,250.00
			Utility Construction				
			Per Utility Section	1	LS		\$ -
			Misc. & Mob (15% Str & Utilities)	1	LS		
			Misc. & Mob (45% Rdwy)	1	LS		\$ 781,000.00

Lgth 0.56 Mi.		Contract Cost	\$ 2,517,000.00
		E. & C. 15%	\$ 378,000.00
		Construction Cost	\$ 2,895,000.00
		ROW Cost	\$ 1,001,000.00
		TOTAL COST	\$ 3,896,000.00

North Carolina Department of Transportation
Preliminary Estimate

TIP No.
Route
From

Jones Sausage Road Feasibility Study
SR-5220 (Jones Sausage Road)
East Garner Road to US 70 (Phase 2)

Conceptual

County: **WAKE**

CONSTR. COST
\$25,647,000

Typical Section
Prepared By:
Requested By:

4- Lane Divided Facility
HDR

1/24/20

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	4.7	Acre	\$ 40,000.00	\$ 188,800.00
			Supplemental Clearing and Grubbing	0	Acre	\$ 5,000.00	\$ -
			Unclassified Excavation	3,020	CY	\$ 15.00	\$ 45,300.00
			Borrow Excavation	281,340	CY	\$ 11.00	\$ 3,094,740.00
			Drainage 6-Ln	0.50	Miles	\$ 600,000.00	\$ 300,000.00
			Drainage 4-Ln	0.34	Miles	\$ 475,000.00	\$ 161,500.00
			Drainage 3-Ln	0.00	Miles	\$ 300,000.00	\$ -
			Drainage 2-Ln	0.30	Miles	\$ 100,000.00	\$ 30,000.00
			Fine Grading	55,395	SY	\$ 3.00	\$ 166,185.00
			New Asphalt Pavement	42,090	SY	\$ 55.00	\$ 2,314,950.00
			Resurfacing	29,005	SY	\$ 11.00	\$ 319,055.00
			Remove Existing Asphalt Pavement	8,945	SY	\$ 6.00	\$ 53,670.00
			Break Existing Asphalt Pavement	8,590	SY	\$ 4.00	\$ 34,360.00
			Subgrade Stabilization	44,543	SY	\$ 15.00	\$ 668,145.00
			5" Monolithic Conc. Island	2,320	SY	\$ 62.00	\$ 143,840.00
			1'-6" Curb and Gutter	5,045	LF	\$ 16.00	\$ 80,720.00
			2'-6" Curb and Gutter	15,310	LF	\$ 20.00	\$ 306,200.00
			4" Sidewalk	3,090	SY	\$ 43.00	\$ 132,870.00
			Steel Beam Guardrail	1,688	LF	\$ 16.00	\$ 27,000.00
			GRAU, Type III	4	Each	\$ 1,780.00	\$ 7,120.00
			GREU, CAT-1	3	Each	\$ 720.00	\$ 2,160.00
			GREU, AT-1	1	Each	\$ 600.00	\$ 600.00
			GREU, Type TL-3	2	Each	\$ 3,060.00	\$ 6,120.00
			Erosion Control	12.5	Acres	\$ 25,000.00	\$ 313,000.00
			Upgrade Existing Signal	1	Each	\$ 100,000.00	\$ 100,000.00
			Signing	1	LS	\$ 2,500.00	\$ 2,500.00
			Traffic Control	0	LS	\$ 300,000.00	\$ -
			Thermo and Markers (6-Ln)	0.50	Miles	\$ 30,000.00	\$ 15,000.00
			Thermo and Markers (4-Ln)	0.34	Miles	\$ 25,000.00	\$ 8,500.00
			Thermo and Markers (3-Ln)	0.00	Miles	\$ 22,500.00	\$ -
			Thermo and Markers (2-Ln)	0.30	Miles	\$ 20,000.00	\$ 6,000.00
			Structures				
			Bridge over NC RR 109.5'Wx 189.8' L (New Location)	20,795	SF	\$ 120.00	\$ 2,495,400.00
			Approach Slabs 2 @ 109.5x25'	5,475	SF	\$ 25.00	\$ 136,875.00
			Retaining Wall	44,500	SF	\$ 135.00	\$ 6,007,500.00
			Utility Construction				
			Per Utility Section	1	LS		\$ -
			Misc. & Mob (15% Str & Utilities)	1	LS		\$ 1,296,000.00
			Misc. & Mob (45% Rdwy)	1	LS		\$ 3,838,000.00

Lgth **0.3 Mi.**

Contract Cost	\$ 22,302,000.00
E. & C. 15%	\$ 3,345,000.00
Construction Cost	\$ 25,647,000.00
ROW Cost	\$ 1,957,000.00
TOTAL COST	\$ 27,604,000.00

Town of Garner
Town Council Meeting
Agenda Form

Meeting Date: February 25, 2020		
Subject: UDO Re-Write Steering Committee		
Location on Agenda: Discussion		
Department: Planning		
Contact: Jeff Triezenberg, AICP, GISP; Planning Director		
Presenter: Jeff Triezenberg		
<p>Brief Summary:</p> <p>Request from the Planning Department to have up to two (2) Council Members nominated for appointment to the Steering Committee for the UDO Re-Write project.</p>		
<p>Recommended Motion and/or Requested Action:</p> <p>Nominate up to two (2) Council Members for appointment at regular meeting on March 2, 2020.</p>		
<p>Detailed Notes:</p> <p>See attached staff report. First meeting date is expected for a 1.5-2 hour block of time in the late afternoon/early evening of Thursday, March 5, 2020.</p>		
Funding Source:		
Cost:	One Time: <input type="radio"/>	Annual: <input type="radio"/> No Cost: <input checked="" type="radio"/>
Manager's Comments and Recommendations:		
Attachments Yes: <input checked="" type="radio"/> No: <input type="radio"/>		
Agenda Form Reviewed by:	Initials:	Comments:
Department Head:	JST	
Finance Director:		
Town Attorney:		
Town Manager:	RD	
Town Clerk:		

TO: Rodney Dickerson, Town Manager

FROM: Jeff Triezenberg, Planning Director

SUBJECT: ***Nominations of Council Members for Appointment to UDO Re-Write Steering Committee***

DATE: February 25, 2020

In preparation for formal appointment of a Steering Committee to guide the re-write of the Town's Unified Development Ordinance, the Planning Department invites the Council to ask questions and consider nominating up to two (2) of their members to serve alongside identified staff, citizen volunteers and Planning Commission designees. The Planning Department anticipates requesting formal appointment of all Steering Committee members at the Council's regular meeting of March 2, 2020.

At their regular meeting in November, the Planning Commission nominated the following members to serve on the Steering Committee:

- Mr. Jon Blasco
- Mr. Dean Fox
- Mr. Vang Moua

Consulting staff from Stewart will gather a list of possible citizen volunteers during their stakeholder meetings being held on the 19th and 20th of February. They hope to identify three (3) volunteers from the development community, including one (1) with an interest/experience in downtown or transit-oriented development; as well as two (2) volunteers from the general public.

The Steering Committee is expected to meet 13 times on an approximate monthly basis beginning in March 2020. The initial meeting has been identified to take place in the late afternoon/early evening of Thursday, March 5. During this initial meeting, the consulting team will lead discussions related to schedule and Steering Committee roles and responsibilities. Regular attendance from both Planning Department and Engineering Department staff will occur; and attendance from Inspections Department, Fire Department, Public Works Department, Parks & Recreation Department, Economic Development Department, Downtown Development Office and City of Raleigh Public Utilities Department staff will be coordinated as needed.

Town of Garner
Town Council Meeting
Agenda Form

Meeting Date: February 25, 2020		
Subject: New Planning Technician Position Request		
Location on Agenda: Discussion		
Department: Planning		
Contact: Jeff Triezenberg, AICP, GISP; Planning Director		
Presenter: Jeff Triezenberg		
<p>Brief Summary:</p> <p>Request from the Planning Department for additional staff resources to help restore an adequate level of staffing within the Department's Development Review Section that can better nurture a culture of excellent customer service for both the Section and the entire Department.</p>		
<p>Recommended Motion and/or Requested Action:</p> <p>Authorize a second full-time Planning Technician in the Planning Department.</p>		
<p>Detailed Notes:</p> <p>See attached staff report.</p>		
<p>Funding Source:</p> <p>General Fund</p>		
Cost: \$49,700 (Salary)	One Time: <input type="radio"/>	Annual: <input checked="" type="radio"/> No Cost: <input type="radio"/>
<p>Manager's Comments and Recommendations:</p> <p>I support this request as a means to improve customer service.</p>		
<p>Attachments Yes: <input checked="" type="radio"/> No: <input type="radio"/></p>		
Agenda Form Reviewed by:	Initials:	Comments:
Department Head:	JST	
Finance Director:		
Town Attorney:		
Town Manager:	RD	
Town Clerk:		

Planning Department Memorandum

TO: Rodney Dickerson, Town Manager

FROM: Jeff Triezenberg, Planning Director

SUBJECT: ***Additional Planning Technician Position – Mid-Year Request***

DATE: February 25, 2020

With over a year under our belts with our revised departmental structure and having allowed time for everyone to settle into their duties, the Development Review Section and I have determined that it would be prudent to request this additional position sooner than the typical budget process would allow. As evidenced in the following discussion, the contributing factors are most acutely impacting the workloads at the Planner I position. The excessive workloads at this level (the lowest level currently within the Development Review Section) has necessitated assistance from the Planner II and Principal Planner which has, in turn, created delays and backlogs within their core duties as well. The primary factors that have contributed to the acute realization of this need during calendar year 2019 are as follows:

1. Suspension of water/sewer allocation policy and reliance on zoning conditions for single-family development;
2. The exponential increase in new residential building permits and development activity overall;
3. Planner I's comp time being maxed out in an attempt to keep up with the pace;
4. Growing inability to meet self-imposed deadlines for development review due to the increase in overall activity;
5. Statutory requirements to keep single-family residential building permit review within a specified time window; and
6. A perceived reduction in levels of customer service because there is no staff member who has time to monitor the department's main line as was once the case.

These factors are more fully detailed in the pages following this report.

Director's Recommendation

This new entry-level Planning Technician position (*Level 20, salary range \$38,230 - \$59,322, and under the supervision of the Principal Planner*) would be physically stationed at the vacant cubicle behind the front counter adjacent to the two (2) permit clerks and become the

welcoming face of the Planning Department. Presently, both the Planner I in the Development Review Section and the Planning Technician in the Planning & Zoning Section serve as primary points of contact for front counter assistance.

Additionally, the department's main phone line would be programmed to that location so that callers can have an opportunity to talk to someone prior to leaving a message with the appropriate staff member.

Finally, the physical proximity to Inspections will also allow for easier coordination of residential building permit review – a core job duty (and one significantly requiring more time) to be assumed from the Planner I – and allow for cross-training to assist the Inspections permit clerks when needed. A more detailed job description is attached.

Thank you for your consideration of this request. Please advise if you would like additional information.

DETAIL OF CONTRIBUTING FACTORS

1. *Water/Sewer Allocation Policy Suspension*

While the move to zoning conditions for single-family residential development was a prudent move away from trying to enforce design criteria through the previous water/sewer policy, zoning conditions lack the uniformity of the criteria that had been standardized in the Town-controlled policy. Today, each subdivision has its own set of zoning conditions that must be reviewed and enforced. While many are similar, no two sets are exactly alike; thus requiring Development Review Section staff to make sure they are applying the correct set of conditions to each new single-family building permit that comes in for review. While staff understood the time this would add to the review process, the sheer volume of reviews has pushed this additional time beyond what can be accommodated in the hours available with current staffing levels.

2. *Increase in Building Permits / Development Activity*

In the first half of 2018, the department added a Planner I to the Development Review Staff to assist with site plan and subdivision review (both actual review and the overall administration of the Technical Review Committee process – which would free up bandwidth for the Planner II and Principal Planner to take on more plan review and inspection duties) in addition to taking on the responsibility of reviewing new residential building permits. Other primary duties included acting as the secretary to the Board of Adjustment and coordination of final plat review. Looking at the past five (5) calendar years, we have witnessed the following growth:

	New Residential Permits	% Change	Number of Final Plats	% Change
2015	58	n/a	28	n/a
2016	82	42%	53	89%
2017	201	145%	49	-8%
2018	252	25%	47	-4%
2019	358	42%	70	49%
2020	500+?		85+?	

The on-boarding of the Planner I in early 2018 was able to absorb the increases in residential building permit reviews that had grown 4-fold since 2015 along with a 2-fold increase in plat reviews. But already, in 2019, the Department has added over 100 residential building permits along with another 50% growth in plat reviews (which is an early indicator of the following year's growth in building permits – see 89% growth of plats in 2016 resulting in 145% growth of building permits in 2017).

3. *Comp Time Maximized*

In an attempt to keep pace with the growth in 2019, the current Planner I, had to work additional hours which resulted in the maximization of comp time accrual. So as not to exceed policy allowances and salary budget line items, staff resorted to alternative measures in the interim so as not to fall too far behind. These measures included:

- Providing assistance with dedicated hours from the newly transferred Senior Planner – Zoning position. As this position was transferred mid-year and involved a 6-month training plan, some hours for assistance with residential building plan review were able to be incorporated into the plan. This allowed the Senior Planner to perform some cross-training and familiarize themselves with departmental operations more fully. However, with the growing needs for zoning enforcement, these hours will need to be programmed away from Development Review duties in the very near future.
- Extending plan and plat review timelines (see following section).

4. *Inability to Meet Advertised Deadlines for Internal Review*

The 2020 calendar review timelines formally put into place what had already become practice during the second half of 2019. 3 to 4 months of review for site and subdivision plans is now advertised as 4 to 5 months of review. Final plat reviews were extended from 1 week to 3 weeks. Without this new position, it is highly likely that we will find ourselves in the same position in mid-2020 of having to extend review timelines further. At this point, I feel fairly confident that we are offering a level of service that is at least no lengthier than any other Wake County municipality; however, further extensions, along with additional review time being asked for by the Planning Commission, will hinder this perceived advantage by the development community that projects take much less time in Garner to receive final approval.

5. *Statutory Limitations of Length of Time for Residential Permit Review*

While it is unclear if time restrictions for residential building permit review apply to agencies outside of the Inspections Department, there is at least, an expectation that builders receive a determination of compliance with zoning conditions in that initial time frame. Given the ease with which the HBA seems to be able to alter statutory requirements, we would like to avoid delays in our review of the zoning conditions which is already difficult to complete in a timely fashion as evidenced by the Planner I’s comp time being maximized.

6. *Customer Service*

Finally, with the growth of volume in work department wide, we have attempted to maximize our use of technology to streamline customer service for the public. This has included use of descriptive menu trees in the telephone system and a service-based staff directory on the Town’s website. However, there still are many folks who are simply not satisfied with having a message returned within 24 hours. Additionally, there is rarely time when a Planning member is not needed at the front counter to assist a member of the public or accept incoming permit submittals. At times, this creates additional burden for the permit clerks in Inspections by distracting them from their primary duties.

For comparison, the ratio of planners to estimated population for mid-size jurisdictions in the area are provided in the following table. The ratio takes into account those positions that are found across jurisdictions (administration, GIS, long-range planning, transportation planning, plan review). It does not include code enforcement, historic preservation or other

specialists. Presently, the only community with a more challenging planner to citizen ratio is the Town of Wake Forest.

Jurisdiction	Planning FTEs	'18 Population Est.	Ratio
Apex	13.5	52,842	1 : 3,914
Clayton	7.0	21,158	1 : 3,023
Fuquay-Varina	8.0	26,924	1 : 3,366
Garner**	7.5	30,783	1 : 4,104
Holly Springs	9.0	34,068	1 : 3,785
Knightdale	5.0	15,305	1 : 3,061
Morrisville	10.0	26,041	1 : 2,604
Wake Forest*	8.0	37,279	1 : 4,659

The addition of another position would bring Garner’s ratio to 1 : 3,621 – which would be more in line with our population ranking among the communities. It would still not be as low as Clayton, Fuquay-Varina, Knightdale or Morrisville (all smaller than Garner); but would be lower than Apex, Holly Springs and Wake Forest (all larger than Garner).

*Having spoken with the new Planning Director in Wake Forest (previously the Director in Morrisville), she is asking for a minimum of two (2) new positions in the upcoming budget.

**Mr. Buie’s position is counted as 0.5 FTE due to at least half of his time being involved with code enforcement.

Town of Garner
Town Council Meeting
Agenda Form

Meeting Date: February 25, 2020		
Subject: Inspection Staffing Needs		
Location on Agenda: Discussion		
Department: Inspections		
Contact: Tony Beasley		
Presenter: John Hodges and Tony Beasley		
Brief Summary: To request mid-year staffing changes within the inspection department to meet current needs and mandates.		
Recommended Motion and/or Requested Action: To approve staffing changes to the Inspection Department		
Detailed Notes: See attached summary.		
Funding Source: Current Budget		
Cost: \$23,615	One Time: <input checked="" type="radio"/>	Annual: <input type="radio"/> No Cost: <input type="radio"/>
Manager's Comments and Recommendations: I support this request as a means to improve customer service.		
Attachments Yes: <input type="radio"/> No: <input checked="" type="radio"/>		
Agenda Form Reviewed by:	Initials:	Comments:
Department Head:	TEB	
Finance Director:		
Town Attorney:		
Town Manager:	RD	
Town Clerk:		



02/19/2020

To: John Hodges, ATM Development Services

From: Tony Beasley, Director of Inspections

Re: Field Inspector Position and Fire Inspector Conversion

Background

The Town continues to see double digit increases in the number of permits and inspections over the previous years. Permits and inspections are at an all-time high and there is no reason to anticipate a decline in the foreseeable future. All this growth comes at a time the inspection department is struggling to meet mandates and provide quality service to the development community. Our full-time field inspectors are committed to serving the citizens and developers but the impacts of growing inspection rates with increased demands placed on our staff legislatively by the general assembly, it continues to be a struggle to meet demands.

During the 2017/18 budget one additional position was approved and it took approximately 9 months to find a person to hire for the job in the current market demands all local government inspections departments are facing. We were appreciative for that position and the continued support of the supplemental positions and hours for all our trades. During the 2018/19 budget cycle, a second supplemental inspector was approved, and \$20,000 dollars was budgeted for those hours and position. Due to the Amazon project and growth of residential construction and the inability to hire a person for those hours, council approved an upgrade to fill a fulltime position. It took an additional 4 months to fill the position. We were grateful for that position.

Since filling the position, we still have a large presence at Amazon that will wrap up around June of this year. The inspector assigned to the project continues to assist the pent-up demand in the commercial inspection arena with projects on Hwy 70, Greenfield, and White Oak. Hopefully by that time the other approved projects begin construction, approved hotels and 2 nursing/senior living facilities, we will be able to program him into these projects.

We continue to be challenged with how to fill the need we have to meet our legislative obligations and the demands on the department staff within the current budget and staffing levels.



Review

The additional supplemental position that was budgeted has been advertised for over 90 days and we received 3 applications and only one of them met the minimum requirements for the job. Unfortunately, the applicant was not a fit for Garner. We are now at a point to possibly consider a market-place contract inspector but at a substantial cost per hour compared to the budgeted monies.

We are limited by federal law related to the number of hours per week we can work a supplemental employee. The one employee in the role for building inspections is a huge asset for us but we cannot utilize him to the extent needed to meet workflow demands and forecasted demand in the immediate near future. This now has a significant bearing on the current situation.

As stated in the background, we have already been on the market for a supplemental position for over 3 months and have not been able to find a candidate to hire and no additional applicants in the last 30 days has applied. From experience filling our full-time position in 2017 and 2018 and current local hiring conditions, we are seeing an average of six plus months to find qualified candidates for senior roles and basic field inspectors as a trend. Based on the number of lots still coming on-line, the pending retirement of a seasoned inspector within 24 months and the timeline to fill a position, we need to take a different look at our current needs and long term needs to be able to provide a basic level of mandated service.

We also have a unique opportunity to convert a supplemental fire inspector to a full-time inspector. The position has previously been approved as a full-time position, but a decision was made to budget and fill it as supplemental because of an available part-time resource. This position would be needed full-time in the upcoming budget cycle, but we may not have the opportunity to retain a talented, trained employee who is interested in working full-time for the Town.

Another important consideration is the restrictions placed on Inspection Department generated revenue by the state. Based on recent changes at the state level, all revenue generated by a local inspections department must be expended on inspection related functions. Staff currently anticipates the inspections department to generate approximately \$800,000 in excess revenue. Based on the limitations placed on this revenue, staff believes it is prudent to utilize it to cover the costs associated with these positions.

Recommendation

I'd like to seek approval to convert one of the supplemental building inspector positions to a full-time position as a mid-year budget adjustment and staffing change. I also request to promote a supplemental fire inspector to an already approved fire inspection position in our department.

According to Michael Franks, Budget Analyst, the additional net cost of converting the supplemental building inspector in FY 20 would be \$10,462. The additional net cost to convert the supplemental fire inspector would be \$13,153. He believes both of these costs could be absorbed within the existing budget due to savings in temporary salaries. The full year impact would be \$57,775 and \$60,466. We



and capital cost items in the current budget. The only exception would be for the phone plan, but we can absorb that in the current year and adjust the 20/21 budget accordingly.

We will evaluate the workload at the time any inspector retires and make a determination whether to rehire the position.

Town of Garner
Town Council Meeting
Agenda Form

Meeting Date: February 25, 2020		
Subject: Third Quarter Review		
Location on Agenda: Discussion		
Department: Administration		
Contact: Mike Franks, Budget Manager		
Presenter: Mike Franks, Budget Manager		
Brief Summary: Staff will provide an overview of the Third Quarter Review Process.		
Recommended Motion and/or Requested Action: N/A		
Detailed Notes: In the coming weeks, staff will finalize recommendations associated with the FY 2019 - 2020 Third Quarter Review Process. This presentation is designed to provide Council an overview of the process in advance of being required to take action.		
Funding Source: N/A		
Cost: N/A	One Time: <input type="radio"/>	Annual: <input type="radio"/> No Cost: <input checked="" type="radio"/>
Manager's Comments and Recommendations:		
Attachments Yes: <input checked="" type="radio"/> No: <input type="radio"/>		
Agenda Form Reviewed by:	Initials:	Comments:
Department Head:	MR	
Finance Director:		
Town Attorney:		
Town Manager:	RD	
Town Clerk:		

FY 2019 -20 Third Quarter Review Process

Third Quarter Review

- Implemented in FY 2018 – 2019
- Staff reviews the Town's financial position and provides a summary to Council
- Provides staff an opportunity to revise revenues and expenditures as part of a single process
- Consolidates fiscal adjustments and provides an opportunity to meet one-time requirements

Third Quarter Review – Expenditure Estimates

PW Admin FY 2020 Payroll Projection										
	Regular Salaries	OT	Temp	Longevity	FICA	Group Insurance	Retirement	Total	PP Total	Avg. Cost
FY 2018 (Actuals)	\$232,816	\$0	\$11,696	\$3,115	\$17,393	\$52,070	\$30,223	\$347,313	26	\$13,358.19
FY 2019 (Actuals)	\$246,772	\$842	\$12,670	\$3,427	\$18,527	\$56,365	\$32,131	\$370,734	26	\$14,259.00
FY 2020 (Current Bud	\$253,358	\$0	\$18,127	\$3,493	\$19,754	\$57,356	\$36,004	\$388,092	26	\$14,926.62
6/24/19 - 7/7/19	\$5,048				\$5	\$1,005	\$706	\$6,764	0.5	\$13,528.00
7/8/19 - 7/21/19	\$9,940				\$721	\$2,089	\$1,391	\$14,141	1	\$14,141.00
7/22/19 - 8/4/19	\$9,877		\$175		\$728	\$2,010	\$1,382	\$14,172	1	\$14,172.00
8/8/19 - 8/18/19	\$9,532	\$80	\$619	\$3,271	\$994	\$2,090	\$1,802	\$18,388	1	\$18,388.00
8/19/19 - 9/1/19	\$9,532	\$57	\$516		\$732	\$2,010	\$1,342	\$14,189	1	\$14,189.00
9/2/19 - 9/15/19	\$9,101		\$377		\$686	\$1,835	\$1,273	\$13,272	1	\$13,272.00
9/16/19 - 9/29/19	\$8,423	\$36	\$397		\$637	\$1,655	\$1,183	\$12,331	1	\$12,331.00
9/30/19 - 10/13/19	\$7,832	\$64	\$417		\$597	\$1,600	\$1,105	\$11,615	1	\$11,615.00
10/14/19 - 10/27/19	\$7,857		\$551		\$603	\$1,537	\$1,099	\$11,647	1	\$11,647.19
10/28/19 - 11/10/19	\$8,272		\$717		\$649	\$1,600	\$1,112	\$12,350	1	\$12,350.00
11/11/19 - 11/24/19	\$9,683		\$712		\$781	\$0	\$1,355	\$12,531	1	\$12,531.00
11/25/19 - 12/8/19	\$9,688		\$712		\$755	\$2,010	\$1,355	\$14,520	1	\$14,520.00
12/9/19 - 12/22/19	\$16,059		\$712		\$1,285	\$2,091	\$2,321	\$22,468	1	\$22,468.00
12/23/19 - 1/5/20	\$8,975		\$577	\$483	\$696	\$1,843	\$1,256	\$13,830	1	\$13,830.00
1/6/20 - 1/19/20	\$10,000		\$700		\$819	\$2,100	\$1,399	\$15,018	1	\$15,017.55

Payroll Summary	
Budgeted	\$388,092
Projected	\$384,697
Surplus/(Balance)	\$3,395

Items Funded

- Recreation Center Reserve
- Transportation Design Software
- WRAL campaign
- Security system at Avery Street
- Asset Management System in Public Works