CITY OF
WOODSTOCK
GEORGIA

2019 GEORGIA SMART COMMUNITIES CHALLENGE

SMARTWoodstock

Citywide Strategy & Downtown Corridor Study

MIDTERM REPORT
March 26, 2020

SMARTWoodstock

OVERALL PROJECT FRAMEWORK

YEAR ONE
PLANNING

Visioning & Goal Setting
Community Engagement
Research & Data Collection
Strategy Recommendations
Focused Corridor Study
Specific Tech Recommendations

YEAR TWO
PILOT PROJECTS

Pilot Project Programming
Community Engagement
Bids & Purchasing
Implementation
Evaluation

YEAR THREE
FULL PLAN IMPLEMENTATION

Ongoing Pilot Projects & Experiments
Creation of 5-Year Work Plan
Installation of Permanent Solutions
Smart Corridor Ready

SMARTWoodstock

PROJECT OVERVIEW (YEAR 1)

Smart Woodstock Citywide Strategy

- A planning document to set overarching goals & vision
- Objective: Answer the question "What are we trying to achieve by becoming a Smart City?"

Smart Woodstock Downtown Corridor Study

- A more specific planning document with an identified study area
- Outlines issues in the corridor and recommends specific technical solutions
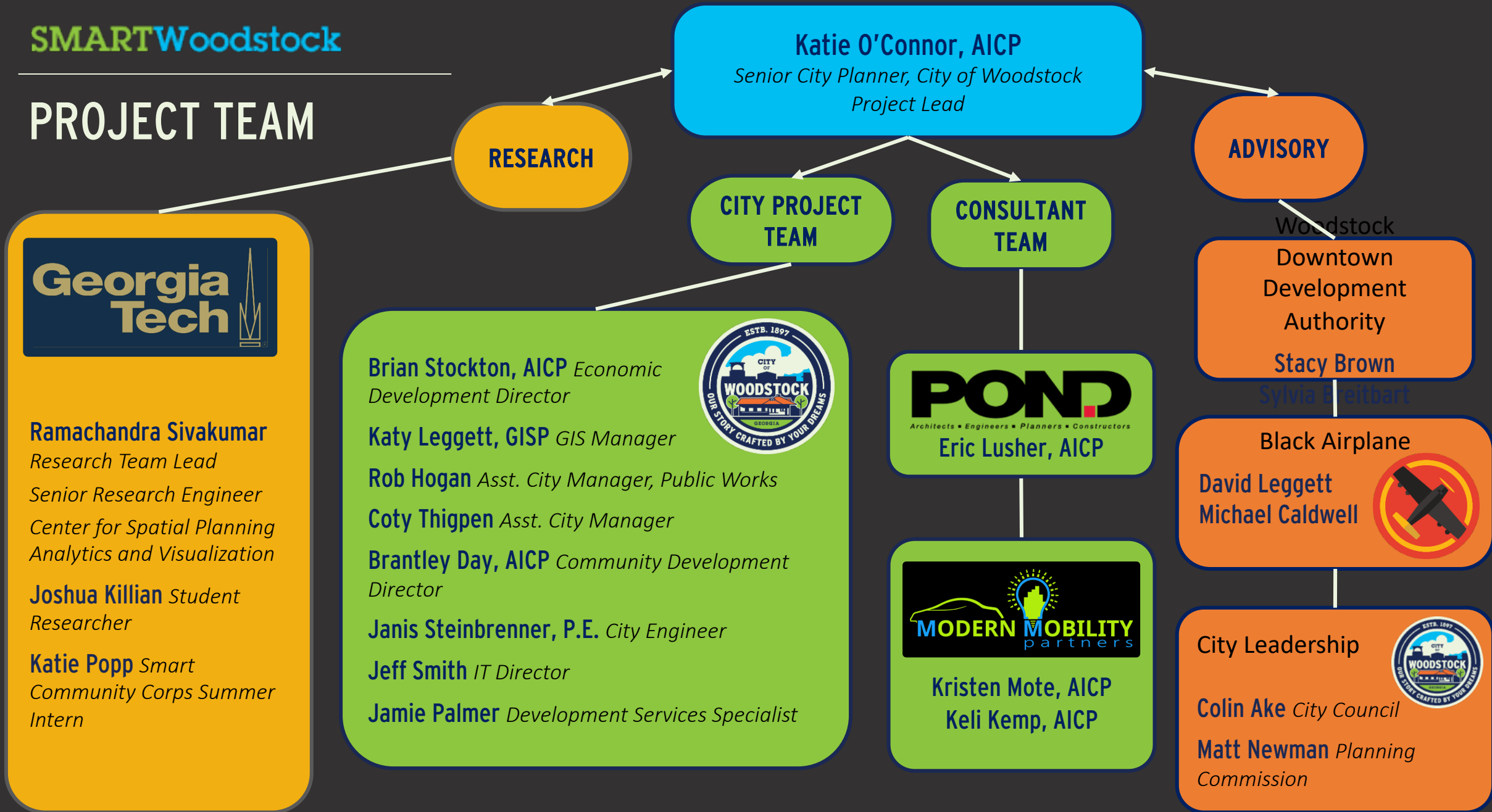- Objective: Readiness to put technology on the ground in year 2

Midpoint progress:

- Wrapping up a robust community engagement process
- Diving deeper into the corridor study
- Considering recommendations for technical solutions specific to the corridor

Study Area: Main Street, Arnold Mill Road, and Towne Lake Parkway, and the busiest intersection in town where they converge

SMARTWoodstock

PROJECT TEAM

Katie O'Connor, AICP
Senior City Planner, City of Woodstock
Project Lead

RESEARCH

CITY PROJECT TEAM

CONSULTANT TEAM

ADVISORY

Georgia Tech

Ramachandra Sivakumar
Research Team Lead
Senior Research Engineer
Center for Spatial Planning Analytics and Visualization

Joshua Killian *Student Researcher*

Katie Popp *Smart Community Corps Summer Intern*

Brian Stockton, AICP *Economic Development Director*

Katy Leggett, GISP *GIS Manager*

Rob Hogan *Asst. City Manager, Public Works*

Coty Thigpen *Asst. City Manager*

Brantley Day, AICP *Community Development Director*

Janis Steinbrenner, P.E. *City Engineer*

Jeff Smith *IT Director*

Jamie Palmer *Development Services Specialist*

POND
Architects • Engineers • Planners • Constructors

Eric Lusher, AICP

MODERN MOBILITY partners

Kristen Mote, AICP
Keli Kemp, AICP

Woodstock Downtown Development Authority

Stacy Brown
Sylvia Breitbart

Black Airplane

David Leggett
Michael Caldwell

City Leadership

Colin Ake *City Council*

Matt Newman *Planning Commission*

SMARTWoodstock

WOODSTOCK'S MOTIVATION TO BECOME SMART

The need to balance **pedestrian comfort & safety** with vehicular efficiency & **commuter throughput** in a booming walkable urban center

Downtown Activity: It is estimated that over 100,000 people attended events in DT in 2018. Amphitheater, Farmer's Markets, Scarecrow Invasion, Friday Night Live

Commuter Traffic: Main Street has 18,400 vehicles per day and Arnold Mill Road has 12,700 vehicles per day

SMARTWoodstock

PROJECT PROGRESS: PUBLIC ENGAGEMENT

Citywide Strategy Survey

- Project-defining question: When it comes to smart technology, which potential benefits are most important to you?

- 469 total responses

- 95 in-person Intercept Interview sessions

- 374 online survey responses
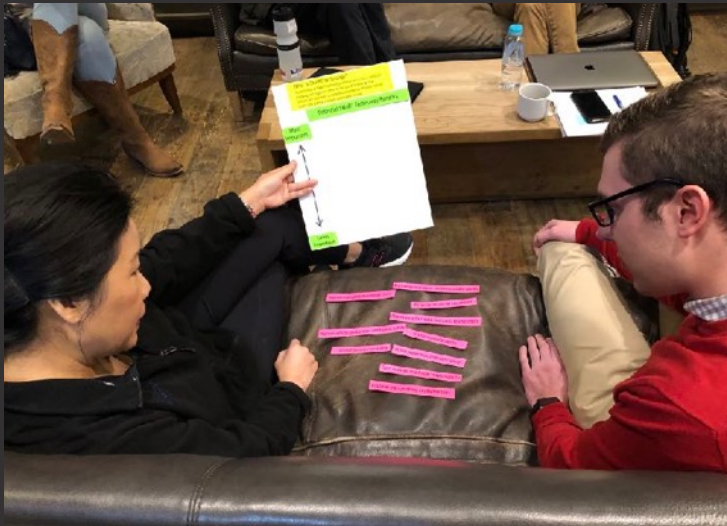
What is SMART technology?
The definition of SMART technology is broad and in many ways still emerging, but in general refers to the use of technology that collects and uses data to autonomously improve efficiecy, reduce waste, and operate in a more sustainable manner.

Potential SMART Technology Benefits

Most Important

Crime prevention and monitoring
Improve vehicle, pedestrian, and bicycle safety
Environmental benefits
Cost savings and fiscal responsibility
Improve transparency in government
Infrastructure monitoring
Potential return on investment
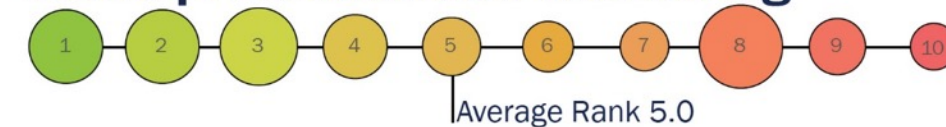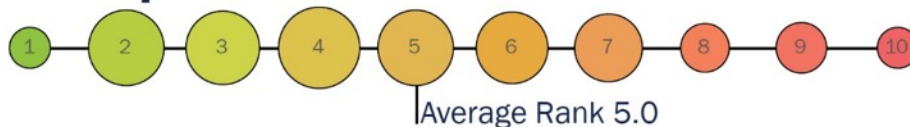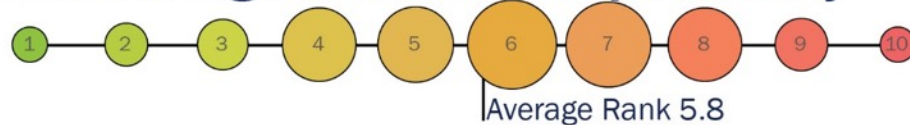
Opportunity to create economic development
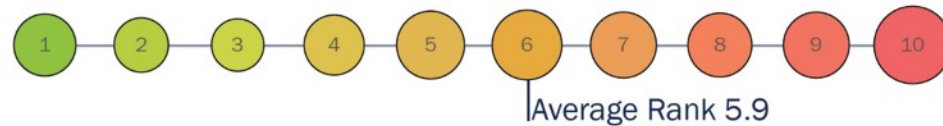
Technology that won't become obsolete quickly
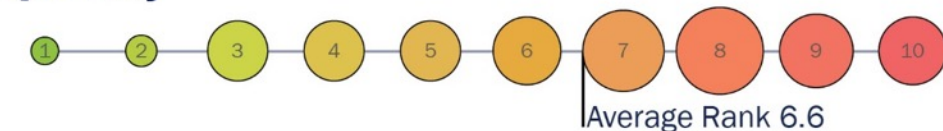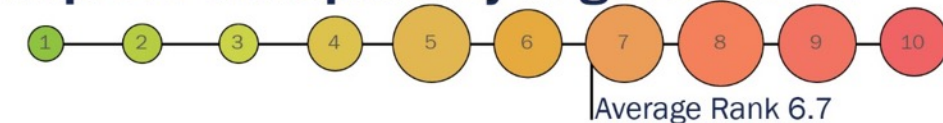
Improve transportation travel times

Least Important

Results from the Citywide Strategy Survey, now closed
469 Responses
Graphic produced by Pond

SMARTWoodstock
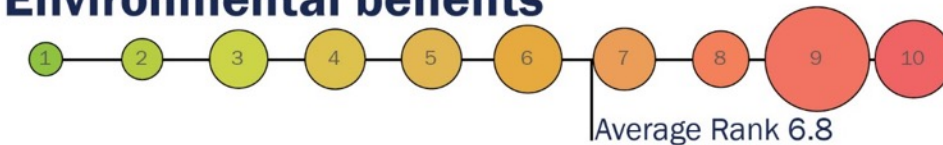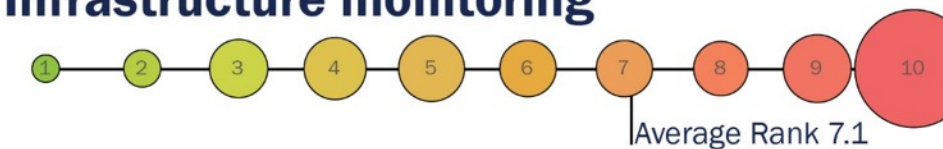
PROJECT PROGRESS: PUBLIC ENGAGEMENT

Downtown Corridor Study Survey

- This longer survey is ongoing, currently 75 responses

- Mapping feature with commenting and ability to vote on comments is popular, currently 162 comments, not including up and down voting on comments

- Survey publicized with small sticker-flyers

- Please visit smartwoodstock.com or wdstk.ga/smart to access the survey

- You can read map comments without answering the survey if you are unfamiliar with Woodstock

SMART WOODSTOCK
CITYWIDE STRATEGY & CORRIDOR STUDY

POND.
Architects • Engineers • Planners • Constructors

i
ABOUT

DOWNTOWN SMART CORRIDOR SURVEY

Downtown SMART Corridor Survey

Downtown SMART Corridor Survey

1. Where do you live?
○ In Downtown Woodstock
○ In the City of Woodstock, but not downtown
○ I have a Woodstock address but I am not a City resident
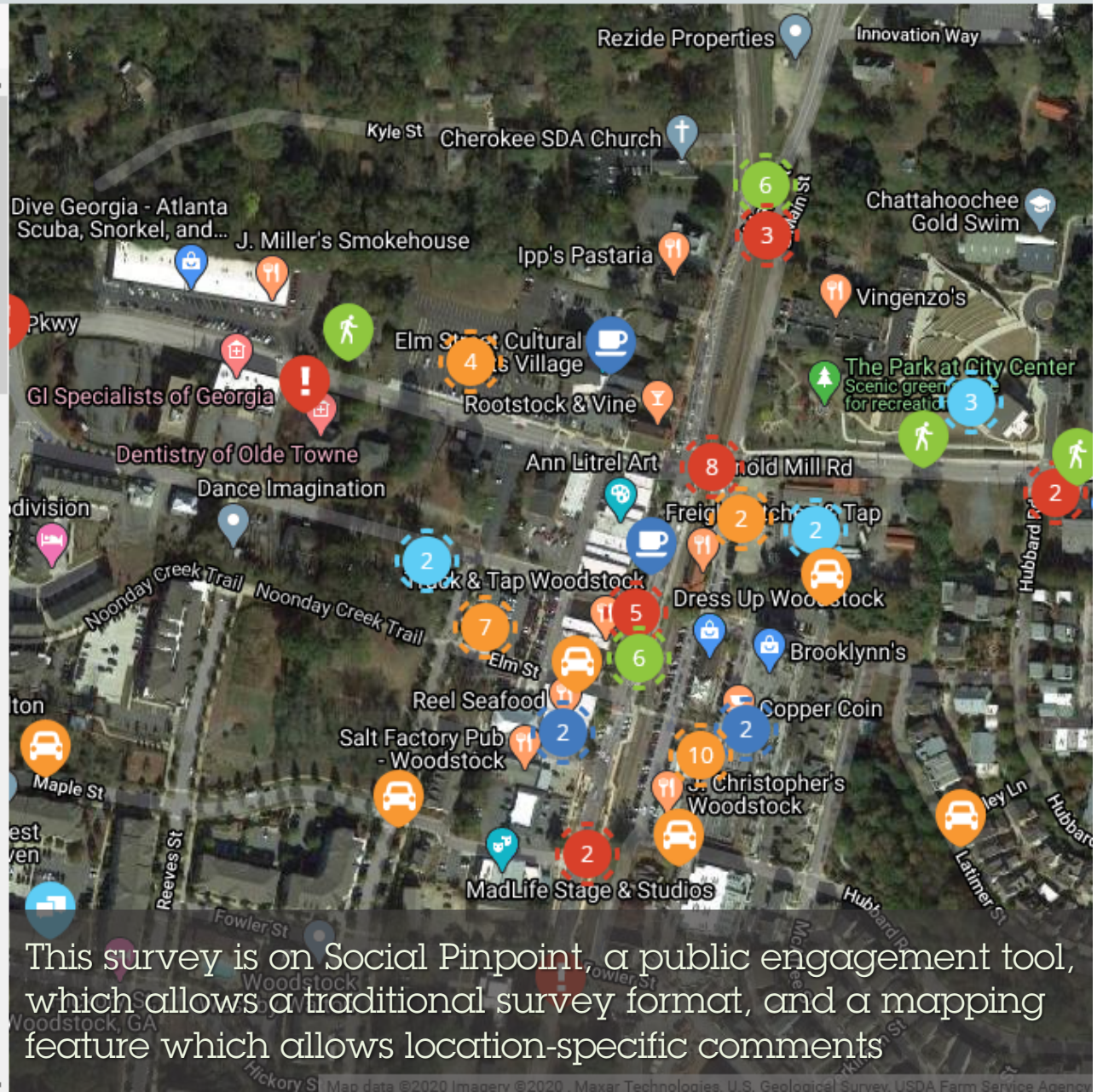○ Elsewhere

2. What is your primary mode of travel?
○ Car
○ Walking
○ Biking
○ Bus or Train

3. What best describes your car?
○ Gas Engine
○ Electric
○ Hybrid
○ I do not own a car

4. How often do you visit the various businesses, restaurants, and other points of interest in Downtown Woodstock?
○ At least once a day
○ Multiple times a week
○ Once a week
○ Once a month

social pinpoint

This survey is on Social Pinpoint, a public engagement tool, which allows a traditional survey format, and a mapping feature which allows location-specific comments

SMART WOODSTOCK
CITYWIDE STRATEGY & CORRIDOR STUDY

Drag to comment >

(!) Traffic Congestion!

Places and Businesses I Visit

Bicycle or Pedestrian Issue

Where I Try to Park My Car

Other Ideas and Comments

Downtown SMART Corridor Survey

ABOUT

DOWNTOWN SMART CORRIDOR SURVEY

Downtown SMART Corridor Survey

1. Where do you live?
- In Downtown Woodstock
- In the City of Woodstock, but not downtown
- I have a Woodstock address but I am not a City resident
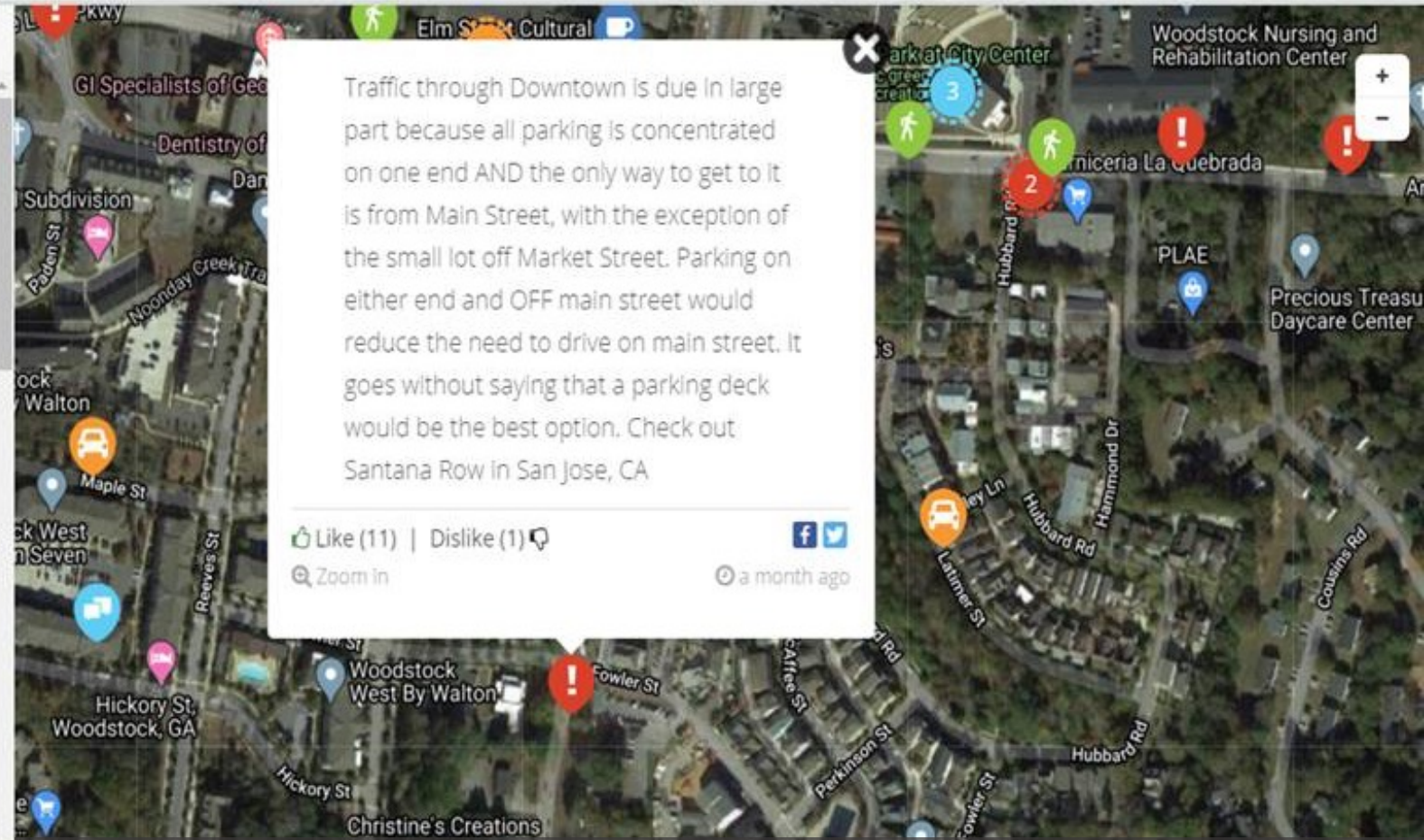- Elsewhere

2. What is your primary mode of travel?
- Car
- Walking
- Biking
- Bus or Train

3. What best describes your car?
- Gas Engine
- Electric
- Hybrid
- I do not own a car

4. How often do you visit the various businesses, restaurants, and other points of interest in Downtown Woodstock?
- At least once a day
- Multiple times a week

Traffic through Downtown is due in large part because all parking is concentrated on one end AND the only way to get to it is from Main Street, with the exception of the small lot off Market Street. Parking on either end and OFF main street would reduce the need to drive on main street. It goes without saying that a parking deck would be the best option. Check out Santana Row in San Jose, CA

👍 Like (11) | Dislike (1) 👎

🔍 Zoom in   🕐 a month ago

The comments function also allows up and down voting by others. This will allow a weighted evaluation of the comments, factoring in the likes and dislikes. 162 different comments have been made so far.

social pinpoint

PROJECT PROGRESS: STRATEGY

Table: Proposed technologies were ranked based on which community goals they were tagged in and by applying a weighting system to those goals using the survey responses from the online Citywide Strategy and intercept interviews.

Project Type	Improve Vehicle, Pedestrian, and Bicycle Safety	Improve Transportation Travel Times	Crime Prevention & Monitoring	Opportunity to Create Economic Development	Cost Savings & Fiscal Responsibility	Potential Return on Investment	Technology That Won't Become Obsolete	Improve Transparency in Government	Environmental Benefits	Infrastructure Monitoring	PRELIMINARY SCORE
Average Survey Rank (as of 2/18/20)	3	3	5	5	5.8	6	6.6	6.7	6.7	7.1	n/a
Score Allotment (Differential from 10)	7	7	5	5	4.2	4	3.4	3.3	3.3	2.9	n/a
Automated traffic monitoring/detection	7	7	5	5	0	4	3.4	3.3	0	2.9	37.6
Shared Mobility	7	7	5	5	4.2	0	3.4	0	3.3	0	34.9
Signal pre-emption (emergency vehicles)	7	7	5	5	0	4	3.4	3.3	0	0	34.7
Trash receptacle sensors	7	0	5	5	4.2	0	3.4	3.3	3.3	2.9	34.1
Integrated data exchange	7	7	5	5	0	0	3.4	3.3	0	2.9	33.6
Cameras/license plate readers	7	7	5	5	0	0	3.4	3.3	0	2.9	33.6
Automated Parking Systems (garage or outdoor system)	7	7	0	5	4.2	4	0	0	3.3	2.9	33.4

It is important for Woodstock to incorporate community support and feedback in the development of the Citywide Strategy and implementation of smart technologies

POND
Architects • Engineers • Planners • Constructors

MODERN MOBILITY partners

SMARTWoodstock

PROJECT PROGRESS: RESEARCH TEAM ENGAGEMENT THUS FAR

- Participated in Smart City Atlanta Expo

- Participated in all project meetings on site at Woodstock

- Co-developed strategy and corridor survey instrument

- Conducted intercept surveys along with Woodstock project team

- Researched and reviewed several relevant plans, reports, and studies conducted by Woodstock in recent years

- Engaged in Woodstock site visit planning and preparations

- Participated in Macon site visit

- Provided status updates during monthly GA Smart monthly meeting reviews

- Presented GA Smart program require webinar in October
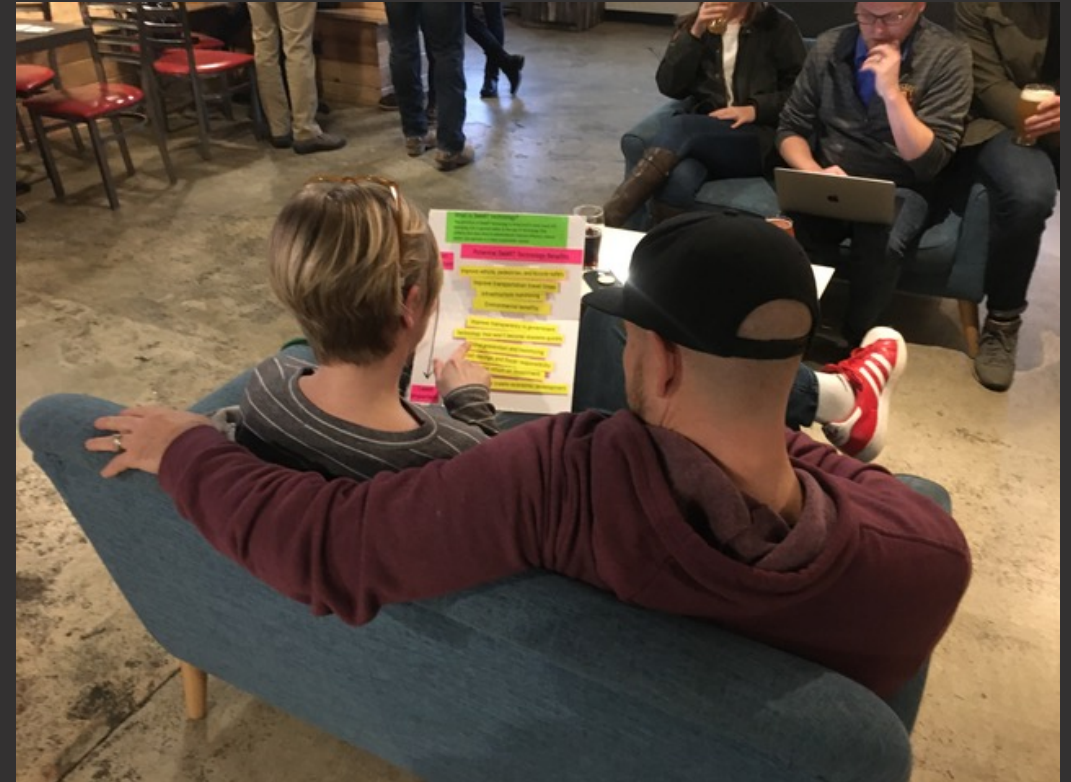
Above: Intercept Interview respondents at Reformation Brewery in January 2020

Georgia Tech

Retail, dining, and wellness establishments are primarily within 1/4 mile of the center of Downtown Woodstock.

Distance from City Center	Retail	Dining	Wellness
Up to 1/16 mi (330 ft.)	15	8	2
Up to 1/8 mi (660 ft.)	19	20	6
Up to 1/4 mi (1320 ft.)	27	23	11
Up to 1/2 mi (2640 ft.)	30	24	12
Up to 1 mi (5280 ft.)	31	25	13

Within 1/4 mile radius, 83% of streets have a sidewalk on at least one side.
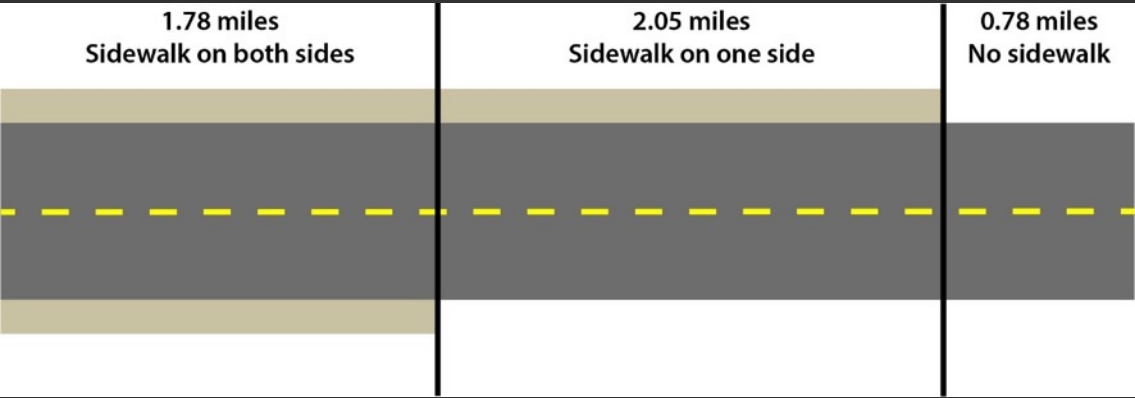
Stakeholder input:
63% related to at least one of the following: too much traffic, lack of parking, or unsafe pedestrian conditions.

1.78 miles Sidewalk on both sides	2.05 miles Sidewalk on one side	0.78 miles No sidewalk

Percent of Responses Related to Select Topics for ¼ Mile Radius from City Center

	70%	60%	50%	40%	30%	20%	10%	0%

Too Much Traffic | Lack of Parking | Unsafe for Pedestrians | At Least One of the Three

Georgia Tech

Downtown parking on a weekday (Wed) reaches its peak in the evening hours.

Downtown parking on a Saturday remains busy throughout the day.
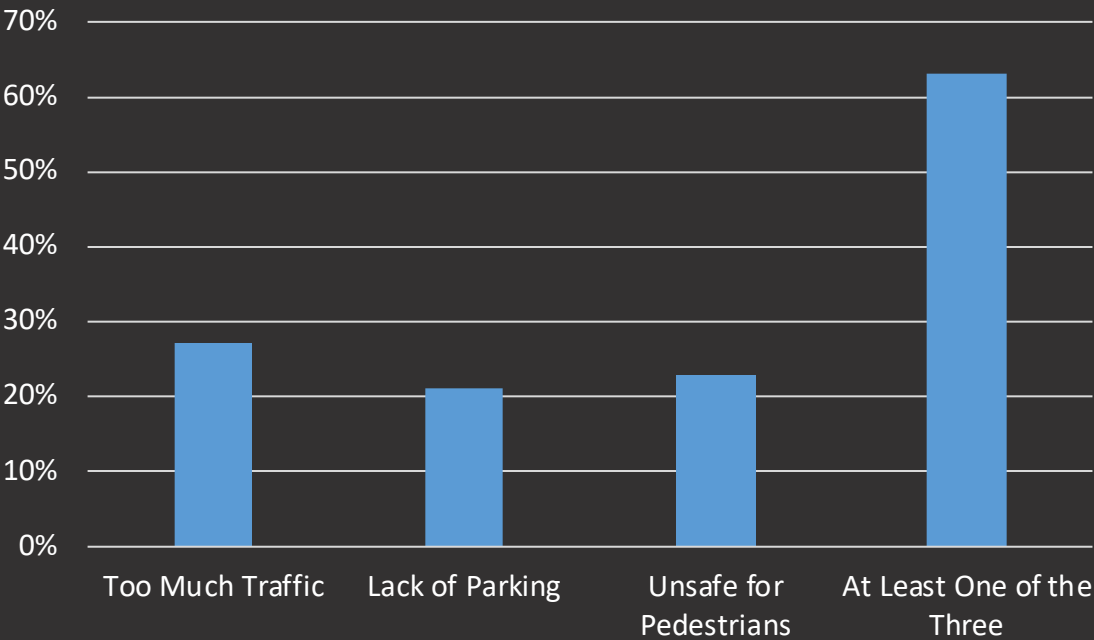
Street Lighting Infrastructure in Woodstock

Adequate density of street lights

Minimal coverage gaps

Provide saturated coverage for most popular parking areas

Potential for co-locating multiple prioritized smart edge solutions

> Variable lighting
> Public safety
> Parking management devices
> Public wi-fi

However, height of existing street lights needs evaluation for housing smart solutions

SMARTWoodstock

PROJECT PROGRESS: CORRIDOR STUDY

We are now in the early stages of the Corridor Study. Project team members identified the following technologies that Pond & MMP will explore further for application in the study area.

- Shared Mobility
- Camera/License Plate Readers (for parking)
- Smart Dots in Centerlines
- Micro-delivery
- Roadside Sensors
- Flexible Curbside Mgmt.
- Adaptive Traffic Control
- Mobility as a Service
- Micro-Mobility
- Smart Parking Meters
- Vehicle to Infrastructure, Vehicle to Vehicle
- Signal Pre-Emption
- Curb/Lane Flexibility

SMARTWoodstock

CHALLENGES & LESSONS LEARNED

- **Challenge:** The nebulous nature of this project because it is a plan rather than a pilot project creates confusion with how to move forward and makes determining concrete roles difficult for the different entities involved - who can do what and to what extent?

- **Challenge:** Time constraints for city staff who have other full time duties. Smaller cities have fewer employees

- **Lesson:** Identify our internal subject matter experts earlier. For us it's the Directors of Economic Development, Public Works, and Community Development. Creating a sub-committee or smaller project team with these vital people would make for faster decision-making.

- **Lesson:** We need a recommended internal infrastructure for city operations to support whatever is going to happen; we need to plan for the staff and technological resources needed to be able to actually push this project forward.

SMARTWoodstock

FUTURE PLANS

YEAR 1 FUTURE ACTIVITIES

- Use results from the Citywide Strategy & input from Corridor Survey to further drive smart technology recommendations

- Develop action plan of initiatives for consideration in following years

- Smart Community Corps Student to refine action plan, focused on funding and opportunities

- Produce final deliverable to include Strategy, Corridor Study, Research, and Final Recommendations for Year 1

YEAR 2 FUTURE ACTIVITIES
Pilot Projects

YEAR 3 FUTURE ACTIVITIES
Full Plan Implementation

SMARTWoodstock

APPENDIX

SMARTWoodstock

GRANT MONIES FINANCIAL REPORTING

Expense	Date	Label	Value	Description
Pond	1/14/20	Consulting	$2800 (not including $700 local match)	Public Involvement and Smart Woodstock Strategy activities
Pond	3/11/20	Consulting	$2400 (not including $600 local match)	Public Involvement and Smart Woodstock Strategy activities
Total			$5,200.00	

SMARTWoodstock

COMMUNITY MATCH FINANCIAL REPORTING

The Community Match for this project is $12,500 (20% of ARC funding) in cash and $37,500 in-kind

Expense	Date	Label	In-Kind	Cash	Description
Smart Cities Conference, Denver, CO	8/14/19 – 8/15/19	Training	$4047*		Conference registration, airfare, meals, parking, and lodging for 2 attendees, Katie O'Connor and Katy Leggett*
Pond	1/14/20	Consulting		$700	Public Involvement and Smart Woodstock Strategy (20% match)
Pond	3/11/20	Consulting		$600	Public Involvement and Smart Woodstock Strategy (20% match)
Salary for Project Lead Katie O'Connor	Sept 2019 – Mar 2020	Portion of Project Lead's Salary	$9656		30% of working time spent managing this project. 30% of salary/month for 6 months
Salary for Project Lead Alternate, Katy Leggett	Sept 2019 – Mar 2020	Portion of Project Lead Alternate's Salary	$7818		20% of working time spent helping to manage this project. 20% of salary/month for 6 months
Public Notification	Feb 2020	Printing of sticker-flyers	$120		Includes shipping
Public Notification	Jan 2020	Website domain name	$30		Smartwoodstock.com
Totals			$21,671	$1,300	

Cost for 1 person: Registration for Conference: $1195; Airfare: $226.96; Mileage reimbursement: $33.98; Parking Fees at hotel: $20.00; Airport Parking: $75.00; Meal reimbursement: $105.00; Lodging at Hyatt: $368.09