



ENERGY & CLIMATE COMMITTEE

AGENDA - AMENDED

Wednesday, November 2, 2022, 8:00 AM

City Hall, Second Floor Council Chambers

Members:

Peter Hansel, Chair
Zach Luse, Vice Chair
Diana Duffy
Jake Pipp
Councilor Raleigh Ormerod
Jude Nuru
Paul Roth
Clair Oursler

Linsey Edmunds
Councilor Bryan Lake
Beth Campbell
Chuck Redfern, Alternate

Staff:

Mari Brunner, Senior Planner

1. Call to Order and Roll Call
2. Approval of Minutes – September 7, 2022 and October 5, 2022
3. Energy Plan Work Group Report-outs
 - a. Weatherization / Window Dressers
 - b. Electric Vehicles
 - c. Community Solar
 - d. Renewable Energy Loans
 - e. Outreach and Education / Keene Energy Week
4. Downtown Reconstruction Project
5. Community Power Update
6. Committee Membership
7. New Business
8. Next Meeting: Wednesday, December 7, 2022 – 8:00 am
9. Adjourn

Link to ECC Google Drive Folder:

<https://drive.google.com/drive/folders/1O1WIR0fADTNijRt13v3DU7k2FwXDcGs?usp=sharing>

1 City of Keene
2 New Hampshire

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5 ENERGY AND CLIMATE COMMITTEE
6 MEETING MINUTES
7

Wednesday, September 7, 2022

8:00 AM

Council Chambers,
City Hall

Members Present:

Peter Hansel, Chair
Councilor Raleigh Ormerod
Councilor Bryan Lake
Jake Pipp
Jude Nuru
Paul Roth
Diana Duffy
Beth Campbell
Clair Oursler, Alternate

Staff Present:

Mari Brunner, Senior Planner

Members Not Present:

Zach Luse, Vice Chair
Linsey Edmunds

8
9
10 **1) Call to Order and Roll Call**

11 Chair Hansel called the meeting to order at 9:01 AM.

12
13 **2) Approval of Minutes**

14
15 Diana Duffy asked when outside organizations are referred to in the minutes, is it assumed that
16 the reader knows who they are? She questioned if the minute taker should be identifying them,
17 providing context and history on their organization or including links for the reader.

18
19 Ms. Duffy also noted on Page 3, line 76, the consultant stated something “was horribly high”, but
20 those exact words were not put into quotation. She expressed concern about an outside person
21 assuming that is the opinion of the group rather than the opinion of the speaker and wondered the
22 group’s stance regarding putting statements like that into quotes.

23
24 Chair Hansel responded that minute taker might not even know consultant’s relationship/
25 background, etc. Mari Brunner added that as the staff liaison, she can go in and edit to provide
26 context. Chair Hansel added that his interpretation of the minutes was that the whole paragraph
27 was from the consultant’s presentation (Mr. Hayden’s) and added that the minute takers usually

28 identify when someone new is speaking allowing for attribution of the statement to the respective
29 speaker.

30

31 Chair Hansel asked for any further comments on the minutes. With no further comments or
32 approved amendments, a motion to approve was put forth by Paul Roth and seconded by Jake
33 Pipp. A Roll call vote was conducted for unanimous approval.

34

35 **Energy Plan Work Group Report-outs**

36

37 **A) Weatherization**

38 Jake Pipp provided an update for the Window Dressers program. He said they have about 8
39 people from Bensonwood, Habitat for Humanity, this committee and others in the community
40 who are going to go around to the homes that have signed up to measure. When the volunteers
41 do the measuring, they will take payment that day to lock people in. The very last day for
42 measuring and getting payments in is October 17th, but they are hoping to have the measuring
43 done well in advance. They have numerous people signed up and are now reaching out those
44 individuals to ensure that are actually appropriate for the inserts. The days of the build are
45 planned for October 27th-November 3rd. Mr. Pipp added that they received a generous donation
46 from Keene Rotary Club to help defer the costs of the inserts and any associated expenses. The
47 location has been locked down at 310 Marlboro Street and the insurance paper work has been
48 completed.

49

50 Councilor Raleigh Ormerod asked if the group was still accepting new people. Mr. Pipp clarified
51 that people interested in paid inserts will start to be placed on a waiting list. He added they have
52 one person signed up for thirty plus inserts and they have to investigate further to determine if
53 that is a rental with three individual homes, are all in one home and what the specifics are to
54 determine if all those windows are suitable for inserts. Depending on what they determine, that
55 might free up quite a bit of space and allow them to produce more inserts and take on a few
56 additional people.

57

58 The group is still looking for people who are eligible for the free or reduced cost inserts and they
59 are trying to work with Southwestern Community Services to determine who might qualify and
60 get the information out to those individuals.

61

62 Chair Peter Hansel asked how many total they were looking to build. Mr. Pipp responded that the
63 Window Dressers program recommends not to go over two hundred inserts for first time builds,
64 and for experienced builds they recommend not going over two hundred and fifty.

65

66 Chair Hansel asked if there was a requirement that a certain percentage of customers be from
67 middle to low income. Mr. Pipp said there is not a requirement, but they do allocate twenty
68 percent to people who qualify as low income, which is across the entire organization for all of
69 their builds held across the region. Many of those other locations are rather well off so many
70 customers do not qualify for free or reduced cost and the program has told them they are willing

71 to allow Keene to go up to fifty percent free or reduced cost inserts based on other communities
72 not needing or using their allocated twenty percent. They are hoping to reach out and find people
73 to take and use those.

74
75 Chair Hansel asked what would be the average someone would pay for inserts if they did not
76 qualify for reduced cost or free inserts. Mr. Pipp said the average medium sized window is about
77 forty dollars. The software program used allows them to enter the exact measurements and
78 obtain an exact cost. There are frame options that, depending on preference, might add additional
79 cost. The white pre-painted option, for example, has an additional cost of roughly eight dollars.

80

81 **B) Electric Vehicles**

82 Councilor Bryan Lake provided an update on the electric vehicles. The group discussed the
83 option of looking to see if they could install solar canopies over the charging locations for the
84 electric vehicles. Another topic discussed were the guidelines that Ms. Diana Duffy helped draft
85 and provided a starting point. Mr. Roth added that they also talked about streetscape, which is
86 the project that the City has to enhance Main Street. They also addressed the need to get into the
87 five-year infrastructure plan that they City has developed. They discussed dealerships and
88 potential for that but did not have further information. Mari Brunner added that the infrastructure
89 project is to replace the entire underground infrastructure, which is in poor condition. Since the
90 roads will be torn up, it provided the City with opportunity to address how it is to be put back
91 and the City has hired a consulting firm, Stantec, to assist with possible design solutions.

92 Chair Hansel asked if there were any other questions for the workgroup. Mr. Clair Oursler asked
93 if Home Health, Hospice and Community Services (HCS) had been approached about changing
94 to electric busses. Chair Hansel responded that he has a bit of input from a different group that he
95 is involved in that is studying mini-commuting. Mini-commuting involves people ordering a van
96 to take them around wherever they need to go. In one of the meetings, they brought up that they
97 should consider using electric vehicles at least for that option. He did not remember whether it
98 was pointed out by HCS if they had or were looking into electric vehicles. He added that it is
99 something to monitor especially given the new money possibly coming down from the federal
100 government.

101
102 Councilor Ormerod asked Ms. Brunner if she had any prospective on a meeting that he and
103 Councilor Lake were asked to attend, but never took place. Councilor Ormerod clarified that it
104 had been taken off his calendar. Ms. Brunner said they were expecting him at the meeting so she
105 is assuming that it was a communication mistake. She offered to reach out and try to get that set-
106 up again.

107
108 Chair Hansel asked if there were any further questions. With no further questions, the discussion
109 moved onto community solar.

110

111 **C) Community Solar**

112 Jude Nuru reported that the work group met last month and discussed the need to look at
113 installing solar on city parking lots. Councilor Lake had previously expressed interest in

114 participating in the group and also attended. Mr. Nuru did an investigation and discovered that
115 the cost to install on a parking lot was twice that of any other regular installation.

116
117 They have identified a number of parking lots with potential for solar and will likely engage a
118 developer for a quotes. Given the cost, the work-group thought that it would make the most sense
119 to revisit that discussion in the face of incentives announced as part of the inflation reduction act
120 to allow municipalities to undertake renewable energy programs and be eligible for some rebate.
121 They have a number of sites in Keene (Rose lane, Ashuelot Green Space, 560 Lower Main St)
122 that they will be assessing in the short term and in anticipation of SB 270 to develop a system
123 and be ready for installation.

124
125 Mr. Nuru said he was supposed to be in Concord for a hearing today on the rule making for SB
126 270, but was not able to attend due to some childcare issues. His colleagues attended in his place.
127 The act has already been passed, but they are trying to form the rules and work towards
128 determining the implementation process.

129
130 The workgroup also discussed low and moderate income (LMI) projects in the area of Keene
131 Housing, Timberlane, and housing units that they felt could be potential for community solar.
132 Community solar is typically driven by incentives and legislation. The group is happy to see
133 some transformation in that landscape and are confident that the community solar is something
134 they can start to work on. Hopefully, allowing them to be ready for when the rule making for
135 implementation of SB270 has been completed and released.

136
137 Councilor Ormerod asked for clarification regarding building the solar parking arrays and
138 questioned whether those arrays would tie into community power. Chair Hansel added that he
139 did not believe it would affect our standing with community power and the contract itself, but
140 would need to get additional clarification. Ms. Brunner added that her understanding was that
141 renewable energy can be incorporated locally into a renewable energy program and the City
142 would just need to include that in the contract with the energy supplier.

143
144 Ms. Duffy noted that the public stakeholder session #1 had a significant number of topics to be
145 discussed. She asked Mr. Nuru which specific topic he was interested in. He responded that he
146 was interested in all of them as they all matter, but he has particular interest in the ones that
147 relate to the customer impact.

148
149 **D) Renewable Energy Loans**

150 Chair Hansel moved on to the update for the renewable energy loans work group. He noted there
151 has been a little bit of activity in that, he recently met with the new Monadnock Economic
152 Development Corporation (MEDC) Director, Cody Morrison. They spoke of various subjects,
153 but in particular, a revolving loan fund they are hoping to put together. This loan fund would
154 offer loans to entities that are looking at offering renewable energy services.

155

156 They hope to see some applications before the end of the year and hope to start to process them
157 in early 2023. Chair Hansel also had a meeting with the Peterborough energy group, who are also
158 investigating renewable energy loans. It was a productive conversation and they discussed
159 various models, including one in Brooklyn area, where outside investors provide revolving loans
160 for individual's homeowners to obtain energy efficiency products for their homes.

161
162 They also discussed the concept of a green bank to try to fund these types of enterprises. After
163 those conversations, Chair Hansel renewed his conversations with local companies, Savings
164 Bank of Walpole (SBW) and Mascoma Savings Bank and expressed his interest in moving
165 forward. He questioned the organizations on whether their level of interest would increase if they
166 could come up with some sort of loan protection for their loans. Both companies expressed
167 interest and are presently doing their own further research.

168
169 Mr. Ormerod asked if the city would need to come up with funding or serve as guarantors. Chair
170 Hansel explained that other communities have taken the money from different places (municipal
171 funds, local sources of funding, etc.). The overarching idea is that the City or County would set
172 aside some money for people who would not normally qualify.

173
174 **E) Outreach and Education/Keene Energy Week**

175 Mr. Pipp offered to speak, but noted that Mr. Zach Luse will likely have a more detailed report
176 out next month. Mr. Pipp provided a quick update that Keene Energy week is coming up in
177 October. The Button-Up workshop is being offered through Keene Energy team either during
178 that week or just before. They do not have the exact dates just yet. The energy audit initiatives
179 and the window dressers initiative will also be involved in the Keene Energy week. Mr. Pipp
180 mentioned that Zach Luse is also looking for other organizations to table and present. One of the
181 presenting groups is Arrow Barrier, which is an organization Mr. Luse used to plug holes in the
182 building where his business is located on Court St.

183
184 Ms. Brunner said last year the committee had asked the Mayor to do a proclamation for energy
185 month. If the committee wishes to do that again this year, it would require getting a draft to the
186 Mayor before the first city council meeting. Chair Hansel suggested the outreach group discuss
187 that at their next meeting.

188
189 Ms. Duffy noted that the website agenda currently available is not updated and not entirely
190 conclusive, but imagines that it will be updated shortly.

191
192

193 **3) Community Power Update**

194 Chair Hansel asked Ms. Brunner to report. The Joint Legislative Committee on Administrative
195 Rules, often referred to by members as JLCAR, was supposed to meet in August to discuss the
196 rules. Ms. Brunner said her understanding was that it got pushed off. She is not entirely sure how
197 much impact that will have given the PUC rules were adopted. The City did submit their plan

198 about a month ago to the PUC and they are about halfway through the 60-day timeline for the
199 PUC to approve or disapprove the plan.

200

201 **4) Discussion: Home Energy Labeling Pilot Program**

202 Chair Hansel stated that this item was brought forward by Mike Metell, who is one of the
203 members of the Keene Home Energy Labeling committee. Mr. Metell said that the purpose of his
204 presentation today is to ask the Energy & Climate Committee (ECC) to put support into labelling
205 again. There has been some behind-the-scenes effort that has been happening and might make it
206 appropriate again.

207 Mr. Metell noted that part of the reason the group was placed on hold was due to three of the
208 Energy and Climate Committee members who were labeling work group members resigning
209 from the Committee. As a result, they lost the critical mass necessary to have a group function.
210 The group was placed on hold and some of the work was folded into the Weatherization Work
211 Group.

212 Prior to being put on hold, the work group was working on several items. They were in the
213 process of putting a program and a plan together. This included benchmarking various industry
214 groups, such as NEEP, NHSaves and Montpelier VHEP. In that process, they completed a trial
215 use of the Vermont Energy model to determine if it would work in Keene. The group found that
216 it did a nice job and could potentially work for Keene.

217 The goals were developed by the City Council and passed down as directives for the group. They
218 discussed strategies to approach realtors as well as identified the top five broker/owners they
219 wishes to approach. They determined the best option to get their concurrence was to have a
220 fundraiser.

221 Of the five brokers mentioned, three were contacted and the conversations were starting to elicit
222 support.

223 The group was also able to identify liability risks and form some questions and answers that
224 would help address them. The model, if used, would make these liabilities much less potent.

225 Lastly, the group identified potential tools in moving the information forward to the public.
226 Tools discussed included radio, energy fairs and flyers.

227 Ms. Brunner had been contacted by the Northeast Energy Efficiency Partnership (NEEP) and
228 asked if any members were interested in participating in their Cohort group. Mr. Metell
229 expressed interest and has been participating in this group for about four to five months since the
230 retreat.

231 During the course of his participation in the Cohort, he learned that City Council's development
232 of the goals made it a bit easier as the work group did not have to create them from scratch. Most
233 of the other participants in the Cohort require or run mandatory programs, which are harder to
234 implement, but often allow for better tracking.

235 In conversations with his peers in the Cohort group, many promoted the realtor/owner/broker
236 strategy he previously mentioned as a successful model. Mr. Metell added that New Hampshire
237 is the only New England state that does not fund The New England Partnership, which creates a
238 challenge if we want to borrow an aspect of their programming.

239 He then presented a short video from the Vermont Labelling program. Mr. Metell narrated the
240 video and process due to technical issues. The benefit of the program model is that it is easy to
241 use and useful in terms of the information gathered as well as the types of suggested
242 improvements/products.

243 Chair Hansel reminded everyone that this home labelling is one of the high-priority strategies
244 outlined in the Sustainable Energy Plan. The company that makes the labelling software (Clearly
245 Energy) usually works directly with the state through NEEP. In this case, the City would be
246 stepping out from the State and independently pursuing the software. Chair Hansel mentioned that
247 Mr. Metell has reached out to the company as to what the cost would be for implementation.
248 They envision that it would start as a pilot program to get an idea of what is involved, how to use
249 it going forward and allowing opportunity to interpret how the realtors receive this process.

250 Mr. Metell pointed out that they do not have time limits, but there are binders. They made the
251 initial contacts and some of the realtors talked to others, spreading word and interest. The
252 brokers expressed interest and a few requested a presentation. The status of the workgroup
253 resulted in Mr. Metell having to reject the request. He is concerned that continual rejection may
254 result in a lack of interest on behalf of the realtor/broker.

255 Diana Duffy thanked him for his presentation. She had multiple questions and was concerned
256 about time. Chair Hansel noted that there was not enough time remaining to address questions in
257 detail. He suggested Mr. Metell get back to them once he hears on the quote and the group can
258 go from there. Mr. Metell said he does not expect a response until October.

259

260 **5) Committee Membership**

261 Chair Hansel asked Ms. Brunner what the status was for Clair's request to become a full
262 member. At the last city council meeting, she believed Clair was moved to a regular member and
263 Chuck Redfern was nominated as an alternate. Chair Hansel noted that committee still did have
264 openings and if anyone knew of interested individuals to mention it to him.

265

266 **6) Upcoming Dates of Interest**

267

268 **A) Radically Rural- September 21-22, 2022**

269 **B) Keene Energy Week- October 16-22, 2022**

270 **C) Window Dressers Community Build- October 27-November 3, 2022**

271 **D) Chamber Regional Issues Series- October 27, 2022, 8:00am, Cheshire County
272 Courthouse Delegation Room**

273 **E) Drive electric event at Franklin Piece University- Saturday, September 24
274 from 12-4pm.**

275

276 7) **New Business**

277

278 8) **Next Meeting: Wednesday, October 5, 2022- 8:00am**

279

280 9) **Adjournment**

281

282 There being no further business, Chair Hansel adjourned the meeting at 9:16 AM.

283

284 Respectfully submitted by,

285 Amanda Trask, Minute Taker

286

287 Reviewed and edited by,

288 Mari Brunner, Senior Planner

1 **City of Keene**
2 **New Hampshire**

3
4
5 **ENERGY AND CLIMATE COMMITTEE**
6 **MEETING MINUTES**
7

Wednesday, October 5, 2022

8:00 AM

**Council Chambers,
City Hall**

Members Present:

Peter Hansel, Chair
Zach Luse, Vice Chair
Councilor Raleigh Ormerod
Councilor Bryan Lake
Jake Pipp
Jude Nuru
Diana Duffy
Beth Campbell
Clair Oursler
Charles Redfern, Alternate

Staff Present:

Jesse Rounds, Community Development
Director

Members Not Present:

Paul Roth
Linsey Edmunds

8 **1) Call to Order and Roll Call**

9 Chair Hansel called the meeting to order at 8:02 AM.

10
11 **2) Approval of Minutes- September 7, 2022**

12 Minutes were approved by unanimous approval.

13
14 **3) Keene 21 in 21 Program- Keith Thibault, Southwestern Community Services**

15 Mr. Keith Thibault, Southwestern Community Services spoke to the committee about the 21 in
16 21 program. He started by providing background explaining that program was the result of
17 discussions going back 10-15 years with Rhett Lamb, Med Kopczynski, and previous and current
18 City managers about how important city neighborhoods are. Many of these neighborhoods are
19 within walking distance to downtown and the business district. Many have decently sized
20 properties with decently sized lots. He noted that roughly, 900-1000 of them are in Keene's east
21 side.

22
23 Over the years, the focus went away from these particular neighborhoods and into the more
24 trendy subdivisions and newer housing units. As a result, many of these neighborhoods became
25 rental properties and did not receive as much attention as some other areas.

26 Recently, efforts have been made to try to revitalize and support these neighborhoods and bring
27 the focus back on them. The creation of Pat Russel Park has been of major importance, as has the
28 reopening of Robin Hood Park. These both serve as an attempt to support the East Side, but more
29 broadly Keene's most robust stock of middle class neighborhoods.

30
31 Mayor Hansel wanted to coalesce this more. In talking with Southwestern Community Services
32 (SCS) energy services program services director, they hatched the idea of targeting resources in
33 these neighborhoods, in particular, the weatherization program that SCS controls. At the same
34 time of meeting a local need, this program also met a statewide initiative and urging to do more
35 of these collaborative efforts within the communities. Mr. Thibault noted that while there is
36 limited funding, they have been running it successfully since 1975. They receive yearly
37 allocations, but usually run out of resources about nine months into the year. While the program
38 is not huge, it is effective. The weatherization program typically does 25-30 homes per year. To
39 try to support the 21 in 21 program, they were able to offer to commit resources within these
40 particular neighborhoods. The City worked with them to prioritize neighborhoods within the East
41 Side. With that information, SCS planned the 21 in 21 program. Late last year, they sent the first
42 solicitation to fifty different property owners representing seventy-seven homes. From that, they
43 worked directly with four homeowners consisting of two single family, a duplex and a triplex in
44 that neighborhood. At least one residence had insulation work and air attic sealing. Additionally,
45 the program was able to get some state tax credits (approximately \$470,000) that allowed them
46 to do repairs to the homes that generally as a program they would not be able to do (roofs,
47 heating systems, ventilation system repairs, etc.).

48
49 The 21 in 21 program performs a housing quality standards check or inspection as well as a
50 weatherization assessment looking particularly at basic safety concerns. At the end of the day,
51 the goal is to walk away from the home knowing it has been weatherized and it meets basic HUD
52 Housing quality standards.

53
54 At the request of the city, 21 in 21 did a second solicitation in the same area. It had been noted
55 that a number of the homes had changed ownership. As a result of that second solicitation, they
56 got another three homes, all new owners since original solicitation.

57
58 Mr. Thibault reported that right now, they have fourteen homes they are working on with HEA
59 federal weatherization dollars (income eligible) in six different buildings. All are located in the
60 Water Street, Grove Street, Willow Street/ Court, Gardner Street, and Foster Street area. He
61 noted that Utility companies also have programs available and often people, who are found
62 ineligible for weatherization, may be eligible for the utility company programs, which 21 in 21
63 can help facilitate.

64
65 In Mr. Thibault's opinion, there appears to be a transformation happening locally where
66 properties are returning to private ownership. In a macro sense, what 21 in 21 would like to do is
67 to see the owner occupants move back in. He added that ideally, you revitalize without
68 occupancy for greatest ease, which would hopefully lead to private investment. The 21 in 21

69 community action program is tiny, especially in comparison to others. The private capital is
70 really going to be what will transform these neighborhoods.

71
72 There is a private bank in the area that has invested, and a number of other organizations that are
73 vested in improving the community and neighborhoods. SCS and 21 in 21 is looking to continue
74 what the City has been trying to do, with reinvesting, refocusing and putting infrastructure value
75 back into these middle class neighborhoods.

76
77 Mr. Thibault spoke of a gentleman, David Lablond, who owns a 3 family property on 27 Willow
78 Court. He is not interested in renting to students. As his occupants are eligible, SCS plans to
79 weatherize his property. He added they will be doing extensive work in there and Mr. Lablond
80 has now bought 19 Willow and is currently interested in 22 Willow as well. He sees these
81 neighborhoods for their value and is bringing money in from the outside to help revitalize it.

82
83 SCS and 21 in 21 would like to continue doing this as much as possible. While Mr. Thibault
84 cannot say they will automatically be eligible for more money if they hit their mark, local and
85 state partners are certainly watching.

86
87 An add on to this program has been the formation of the Window Dressers program that are
88 building inserts into some of these 21 in 21 homes. Ten inserts can save up to one hundred
89 gallons of oil, which is not a small change.

90
91 They have a few more tax credits to place but even though this program is small, Mr. Thibault
92 said it is big in how it was put together with collaboration and the human aspect of it. Ms. Beth
93 Campbell asked whether this program was separate from the HCS program. Mr. Thibault noted
94 that it was separate. He expanded to say that the weatherization program is a subset of the heat
95 assistance program. The way to get into the program is for individuals to apply to the SWCS
96 home heating fuel assistance program. As long as 50% of the residents in the building qualify
97 and are eligible (they do not have to take the heating assistance), they are then eligible for the
98 weatherization program. He noted that they have that exact situation on Foster Street in a duplex.
99 The upstairs tenant meets the qualifications, the downstairs tenant does not, but since 50% of the
100 tenants qualify, the building is eligible.

101
102 Increasing knowledge and awareness of NH Saves and their available resources is something Mr.
103 Thibault sees as only being beneficial. The more that is known about what the utility companies
104 can offer, the more citizens and programs like this can take full advantage and really start to
105 move the bar in a positive direction.

106
107 While the income limit is what generally qualifies the home for weatherization, he noted that it is
108 about 2/3 to 1/3; that is, of the people they have gotten postcards back, 2/3 are not eligible for the
109 weatherization, but they are eligible for the utility programs. The 21 in 21 program is serving to
110 make those resource connections. The other way a household could become eligible is through

111 the usage of energy in that home. If the energy company evaluates, then they can recognize the
112 inefficiency and can put money in towards improving the efficiency.

113
114 He added that while it is a small program, it is intended to be a catalyst for other programs and
115 connection to resources.

116
117 Chair Hansel asked whether and how they are addressing the contractor shortage. Mr. Thibault
118 responded that they have been buying time up front from contractors. They use a particular
119 company for insulation and weather sealing and to make sure they have contractor availability,
120 they will buy hundreds of hours in advance. Even just finding general contractors for repairs has
121 been challenging and the labor element is definitely a hurdle.

122
123 Chair Hansel noted that Mr. Thibault had mentioned changing the heating system. He asked if
124 the program identifies that a customer has an inefficient heating system, do they get involved in
125 the decision making process to convert? Mr. Thibault responded that in many of these
126 neighborhoods you have Liberty (Utility) in terms of options available. Generally, it will depend
127 on current heating infrastructure, access, availability and what is available. High efficiency gas is
128 one thing they are replacing in some of these locations. In some cases, their options are limited.

129
130 Chair Hansel asked if there were any other questions from board members. Mr. Zach Luse said
131 that while he had no real question, he just wanted to add how impressed he was with the
132 program, the money and the collaborative efforts being made.

133
134 Mr. Thibault added that the purpose of community action programs is to serve the needs of the
135 community. The needs of different communities are very different but they can morph them and
136 the program is nimble enough to move where the needs are. When he started this 25 years ago,
137 availability of housing was at the top of the heap in terms of concern. He noted that they work in
138 conjunction with Keene housing and previously, Cheshire Housing, now Brookbend.

139
140 Chair Hansel asked if Mr. Thibault saw any potential for scaling this up. Mr. Thibault responded
141 that he could certainly see this becoming a pilot that becomes replicated. There is certainly
142 potential to ramp the program up, but unfortunately, they are capped in the available funding
143 from the ATA Weatherization money. He added if the community partnerships continue to
144 resonate when they are done, the potential is there, but it is always hard to predict with the
145 future. Community power, renewables, and reduction of dependence on fossil fuels is not going
146 away and he firmly believes this is the right thing to put resources and collaboration in.

147
148 Mr. Jake Pipp noted Mr. Thibault had said that if people do not qualify for all programs, utility
149 programs step in. He was curious to what extent do they really help- is it more discounted
150 lightbulbs or is it whole house weatherization? Mr. Thibault said it all depends on the house
151 itself. The future is really on the utility companies themselves and the options they provide. He
152 hopes that those options available will broaden with time.

153

154 **4) Request for Sponsorship of NH Saves Button Up Workshop- Clean Energy Team**

155 Nancy Gillard, Reservoir St, Keene addressed the Committee, and stated they are doing a
156 Button Up workshop on the 12th for Keene Energy Week in collaboration with the Clean
157 Energy Team. It will be held at the Keene Recreation Center from 6:30-8:00 PM. Mr. Andy
158 Duncan will be the presenter and Mr. Bob Eldridge (previous presenter) will be there as a
159 resource.

160
161 Ms. Gillard asked the Committee to serve as a co-sponsor for the workshop. She noted nothing
162 was required from committee other than promoting it and thanked the group for all the
163 promotion of energy week. Ms. Diane Duffy confessed that she had no idea what is done in a
164 90-minute Button Up workshop. Ms. Gillard responded and said every time she goes she learns
165 something new. Topics covered include everything from changing lightbulbs, rebates on
166 appliances to home audits and what is required for application, process, etc. It is a structured
167 education seminar and the way she understands it, Mr. Duncan will do a PowerPoint.
168 Attendance ranges, as the largest group was a little over 50 down to just over 25 attendees.

169
170 Chair Hansel added that he went to one some time ago and said it is usually a presentation
171 followed by a question and answer session. His biggest take-away was the ABC's- attic,
172 basement, core. He learned that while one might think new windows are in order, much of the
173 energy efficiency could be improved by addressing the ABC's.

174
175 Chair Hansel made a motion to approve sponsoring. Mr. Pipp motioned to approve and Mr.
176 Luse seconded the motion. The group provided unanimous approval.

177
178

179 **5) Energy Plan Work Group Reports-outs**

180 **A) Weatherization-**

181 Mr. Luse reported that the Window Dressers is moving along. They ran into a home or two that
182 was not suitable, but probably have somewhere just north of 100 inserts that they are anticipating
183 right now. While it is not where they want to be, it is a good step in the right direction. He added
184 that Habitat for Humanity has been great at filling in volunteer spaces and he believes they are
185 going to be in good shape. Keene Rotary Club has offered 100 free inserts for those that qualify.
186 If they do not dip into that number, they can roll that into the next community build. Everything
187 has to be measured and paid for by the 17th. He added that they have a good core group of
188 measurers that are going out and doing this.

189
190 Chair Hansel asked of the hundred inserts that were ordered, what percentage are low to middle
191 income? Mr. Luse responded that they do not know yet as they have not all been measured.

192
193 Mr. Pipp addressed the group that if they or anyone they know if are looking for inserts, to put an
194 order in and as long as it is received by the end of this week, there will still be turnaround time.
195 He added that anyone interested can go to windowdressers.org and the signup and links are all
196 there on the website.

197 Chair Hansel asked if there was anything else the committee could do to promote that. An
198 audience member suggested posting on the numerous area Facebook pages. Clair Oursler also
199 suggested a public service announcement with Danny Mitchel at WKBK.
200

201 **B) Electric Vehicles**

202 Councilor Bryan Lake provided an update and said they came up with a few different drafts and
203 recommendations after discussing the guidelines. They are currently looking to work with city
204 staff and incorporate it into city staff review for new construction. While it would not be a
205 requirement, it would at least allow the staff to look at the recommendations when considering
206 new projects. They hope to have an update coming soon. Councilor Raleigh Ormerod added that
207 he did meet with city staff this past week and also found about 5-6 dealers who are willing to
208 help. They are waiting for City to give specification on when and where. The Downtown Group
209 is figuring out where they are going to be. There is definite community interest, but it lies with
210 the infrastructure now. He noted they are going to regroup in early December.
211

212 Chair Hansel introduced Charles Redfern, the new alternate and suggested if he had any interest
213 in any of the work groups, to let him know and he will facilitate him getting involved.
214

215 **C) Community Solar- Jude Nuru**

216 Mr. Jude Nuru provided an update on the community solar workgroup. He thought the
217 community power win is good across New Hampshire. Every town or city is in discussion of
218 how to move forward. This group is very focused on community solar. When they met the last
219 time, they looked at ways to make this happen in Keene. The discussion, in particular, focused
220 on parking canopies. In the last meeting, they looked at potential implementation locations and
221 methods. They then talked with schools to see if there were any available parking lots for use. In
222 their research, they discovered that it is much more expensive to do small-scale canopies. In the
223 face of incentives, it might be doable. They still have it on the agenda and are certainly not
224 giving up. As such, the group is focusing on larger parking lots to be able to get the appropriate
225 scale. He added that they also discussed zoning in the last meeting and are hoping to get support
226 from two councilors on the committee to push through the zoning approval for the cemetery.
227

228 The group intends to do a site walk on lower Main Street to assess the site and see what they can
229 do in readiness regarding SB 270. They also looked at potential grant programs, grant/loan
230 programs, other funding programs and potential sites that would be appropriate. While there is
231 not a lot to say about it currently, the hope is that something will come through with these
232 additional opportunities.
233

234 Chair Hansel pointed out that in the upcoming events, the local business or groups will be
235 discussing what they are doing to promote their green energy initiatives. Councilor Ormerod
236 suggested if Mr. Nuru wants city councilors to help on things, it would be beneficial to know
237 where they are. Chair Hansel added he believed Mr. Nuru was more interested to find out what is
238 needed and where things stand. He believes it is just a matter of monitoring that and moving it
239 forward.

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D) Renewable Energy Loans

Chair Hansel said there was not a lot to report. He had another meeting with Peterborough Energy Group, who are also looking into this process for their community. He is currently waiting to hear back from two banks- Walpole and Mascoma. There are some restrictions on what banks can do and what kind of loans they can generate, but it is moving along. He will be meeting with them again soon and will get further clarification on it.

E) Outreach and Education/ Keene Energy Week

Mr. Luse reported that Keene Energy Week is coming together and thanked the Energy Team for their work. Tomorrow night, October 6th, Peter is accepting the proclamation from Mayor. NH Saves Button-Up Workshop is happening on the 12th as Nancy mentioned. Clean Energy is doing a solar tour again on October 15 and will be virtual for the remainder of the week. There is also a Clean energy Expo, but had to move the date because of the pumpkin fest. They will be looking for people to help on Saturday, October 15th, 11am-2pm with tabling and talking about the clean energy plan. Clean Energy is also putting together a climate café on October 19th. All dates and times are on Keeneenergy.com. The Keene Public Library is hosting a movie night with a showing of the movie, Kiss the Ground. The Chamber is doing a regional issue series October 27th with a tour of Mr. Luse’s space afterwards. Events end at end of the month with the Window Dressers build.

6) Upcoming Dates of Interest

- A) **NH Saves Button Up Workshop- October 12, 2022, 6:00-7:30pm at Keene Parks and Recreation, 312 Washington Street**
- B) **Keene Energy Week- October 16-22, 2022- keeneenergyweek.com**
- C) **Clean Energy Expo-October 15, 11am-2pm- Railroad Square**
- D) **Window Dressers Community Build- October 27-November 3, 2022, 310 Marlboro Street**
- E) **Chamber Regional Issues Series- October 27, 2022, 8:00am at the Cheshire County Courthouse Delegation Room**

7) Community Power Update

Chair Hansel mentioned Ms. Mari Brunner is away, but she provided a summary and noted there was a good article in paper last night on community power in which Ms. Brunner answered many of the questions we might have had. Chair Hansel suggested Ms. Brunner’s summary be entered into the minutes as an attachment. Chair Hansel then opened it up to community discussion and questions.

With no questions, Chair Hansel summarized Ms. Brunner’s notes saying it looks like the Public Utilities Commission (PUC) has given approval, but there are some things that have to happen before the City can go out to bid for energy and some of that has to do with getting information from Eversource. They have thirty days to get that information to the group and the consultant and then there will be a period for review. Following approval, it can then go out to

283 bid with the objective for selecting a supplier and going on line in April. This is a very exciting
284 prospect, particularly with the cost of energy going up so high. He added that it will be an opt-
285 out program, in other words, everyone is in unless they specifically opt-out and there will be
286 several levels of energy options that people can select. Ultimately, the objective is once
287 community power gets going and operating over time, the amount of renewables that the City
288 can purchase at an affordable rate will increase more and more as time goes on and will allow
289 the City to reach their goal of 100% by 2030.

290

291 Mr. Redfern asked if Keene State had signed up for community power. Chair Hansel responded
292 that to his knowledge no one has signed up at this point. Businesses may already have contracts
293 with suppliers that they have to fulfill. As those contracts expire, they will have to make
294 decisions.

295

296 Mr. Nuru noted Chair Hansel said the program would be opt out. He asked if that would be for
297 residents only and not businesses. Chair Hansel responded that he did not remember whether
298 businesses were included, but knows that residents are automatically in and have to specifically
299 opt out.

300

301 **8) New Business**

302 No new business

303

304 **9) Next Meeting: Wednesday, November 2, 2022- 8:00am**

305

306 **10) Adjournment**

307

308 There being no further business, Peter Hansel adjourned the meeting at 9:17 AM.

309

310 Respectfully submitted by,
311 Amanda Trask, Minute Taker

312

313 Reviewed and edited by,
314 Mari Brunner, Senior Planner

From: [Chuck Redfern](#)
To: [Mari Brunner](#)
Cc: [Chuck Redfern](#)
Subject: Request to add agenda item
Date: Thursday, October 27, 2022 11:31:04 AM

Hi Mari,

As discussed, please add to the agenda of the Energy & Climate Committee, a review and recommendation for the Downtown Revitalization Program to be submitted to the Mayor and City Council. This request pertains to the authority to advise the city manager, mayor and city council as it relates to the Sustainable Energy Plan, Transportation Sector.

Hopefully, this matter can be addressed no later than the November meeting of the committee. It is my hope that the chair will relay the recommendations of the committee to the above noted parties in the form of a letter.

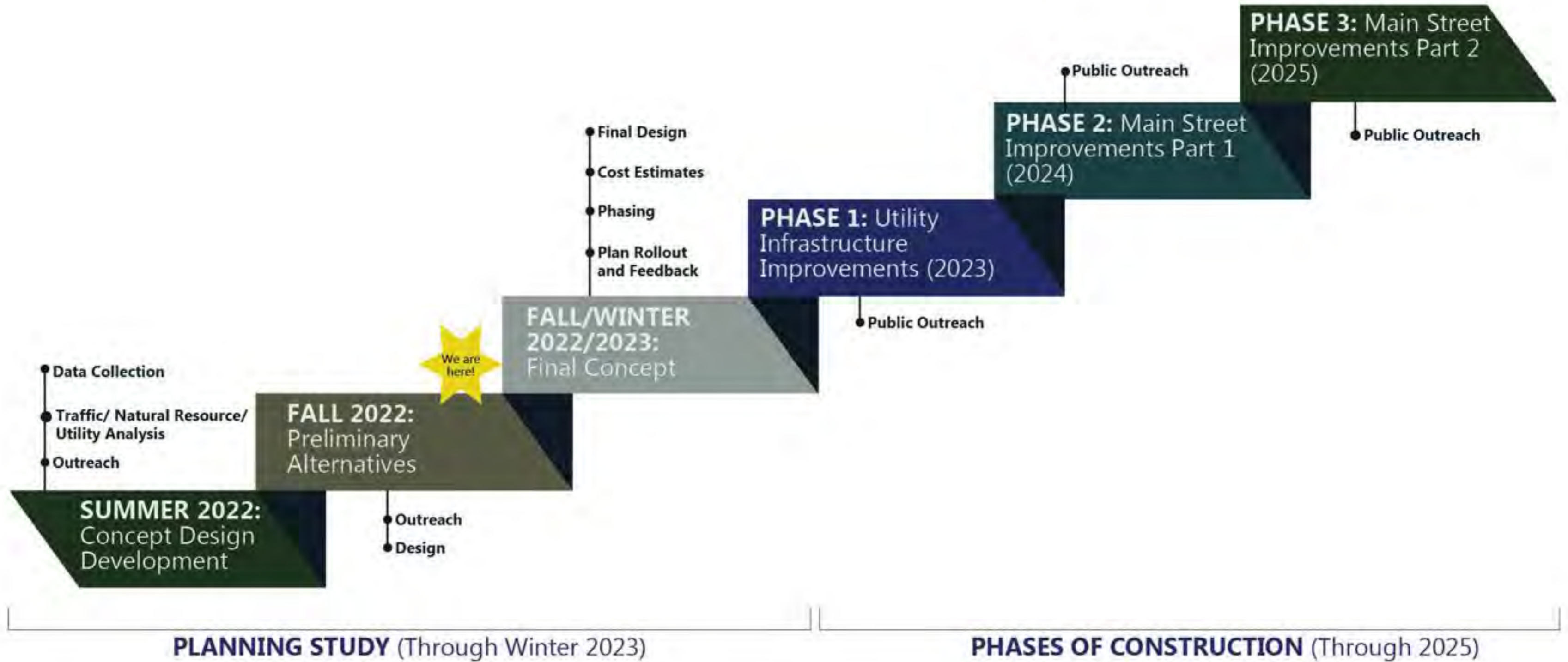
Thank you greatly!
Chuck

To view the full presentation, click [here](#)

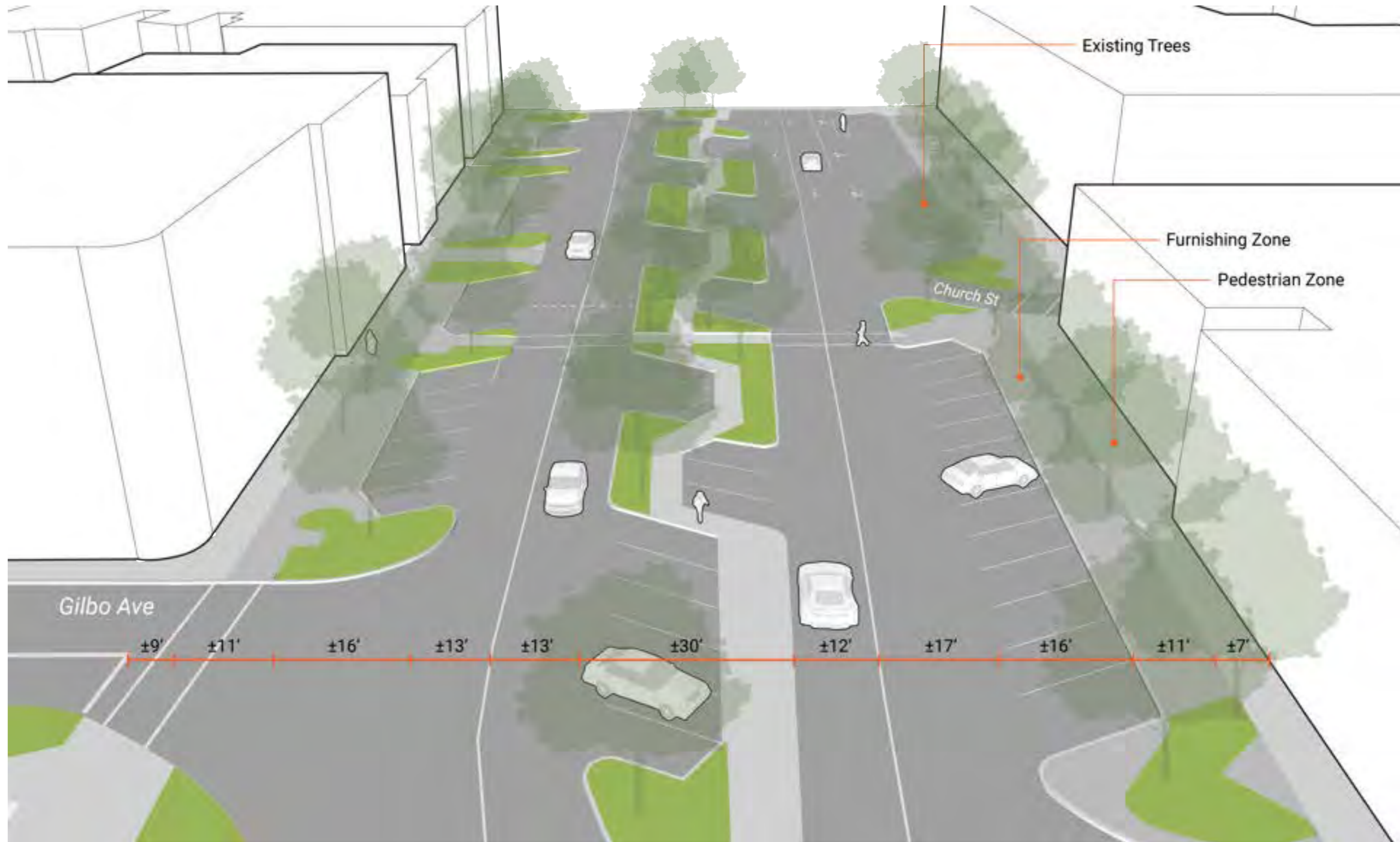
KEENE DOWNTOWN INFRASTRUCTURE IMPROVEMENT & RECONSTRUCTION PROJECT

PUBLIC WORKSHOP #2 PRESENTATION

KEENE DOWNTOWN IMPROVEMENTS PROJECT TIMELINE



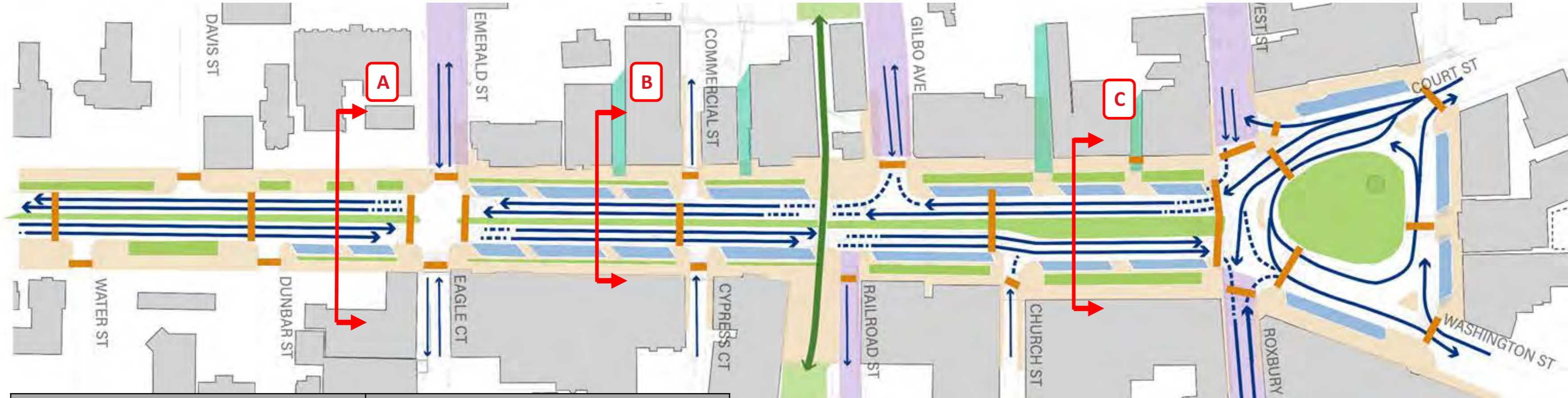
KEENE DOWNTOWN IMPROVEMENTS EXISTING PERSPECTIVE SECTION



KEENE DOWNTOWN IMPROVEMENTS

MAIN ST OPTION 1 - MINIMAL

Expanded Pedestrian Zone | Angled Parking | Parking Removed in Center Median



Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●○○	Better walking connection at Gilbo Expanded sidewalk to south
Support a More Sustainable Built Environment and Transportation Choices	●○○	Improvements to walking, esp. near bus stop at Gilbo
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk
Expand Flexible Open Space	●●○	Sidewalk expansion at CS creates more space for events
Improve Multimodal Transportation Access	●○○	Sidewalk improvements No bike connection
Provide Adequate Parking	●●●	No change, parking may remain underutilized
Upgrade Walking Environment	●●○	Decreased crossing distances "Double-threat" crossing concern

Parking Analysis

Existing – 167 spaces
Proposed – 167± spaces

Crosswalk Analysis

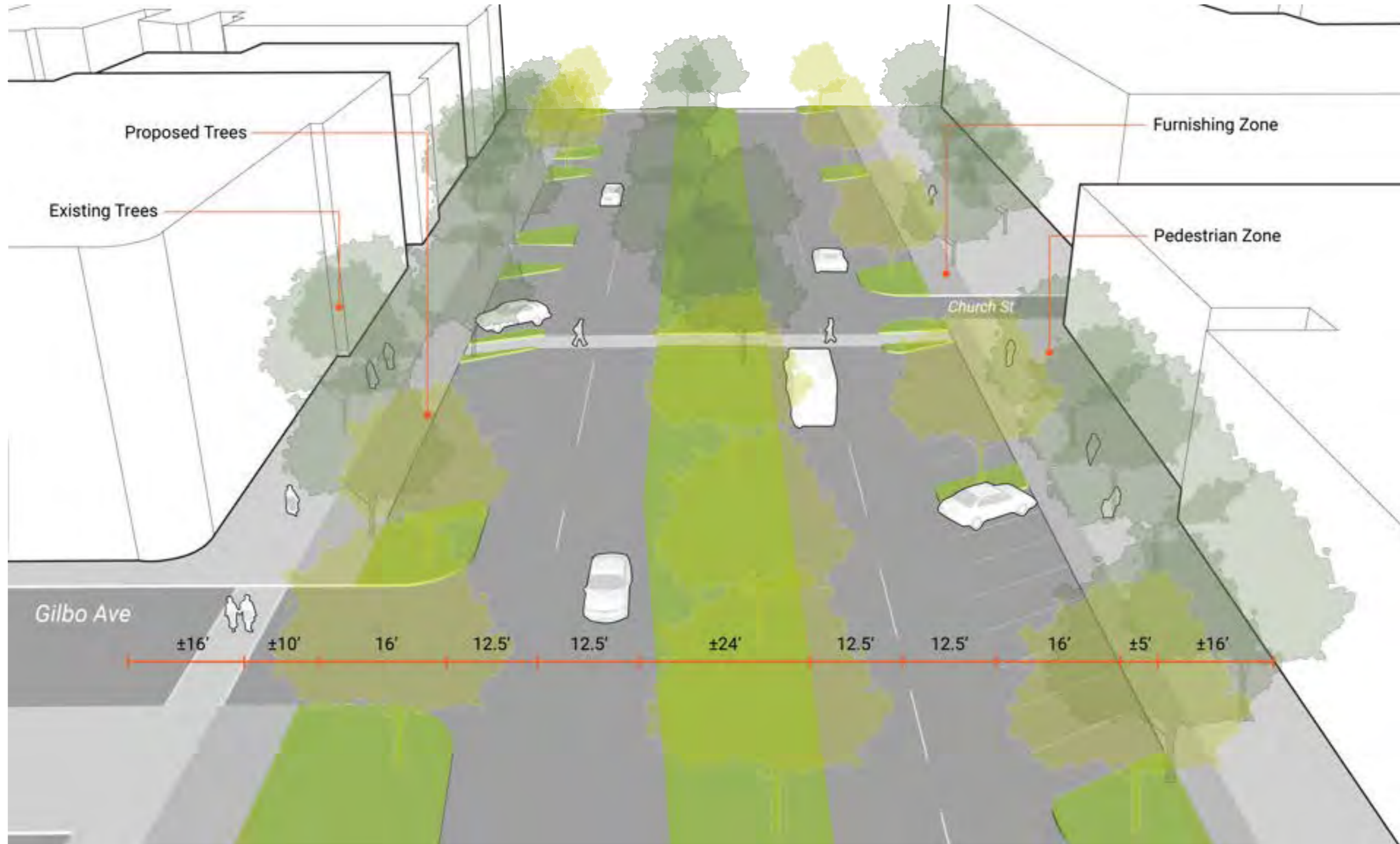
Main St – 8 midblock crosswalks
Side Streets – 20 crosswalks
Longest on Main St – 78'±
Average on Main St – 63'±



KEENE DOWNTOWN IMPROVEMENTS

OPTION 1 MINIMAL | PERSPECTIVE SECTION

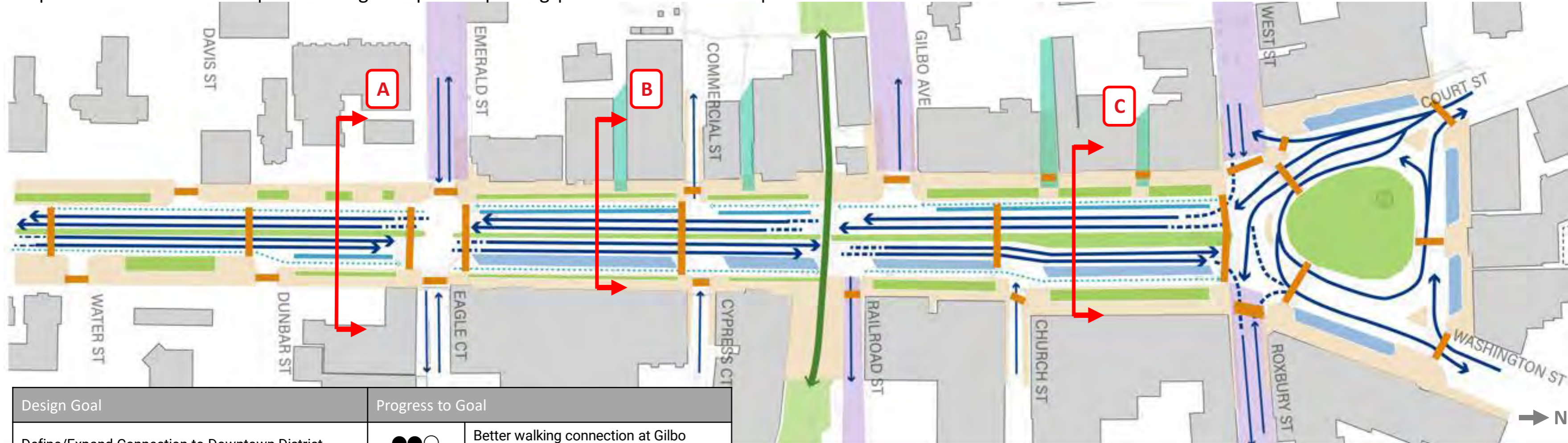
Expanded Pedestrian Zone | Angled Parking | Parking Removed in Center Median



KEENE DOWNTOWN IMPROVEMENTS

MAIN ST OPTION 2 - MULTI-MODAL

Expanded Pedestrian Zone | Combo angled + parallel parking | Dedicated Bike Lanes | Planted center median



Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●●○	Better walking connection at Gilbo Bicycle connection
Support a More Sustainable Built Environment and Transportation Choices	●●●	Improvements to walking, esp. near bus stop at Gilbo Elevates biking access
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk Ties rail-trail character into downtown
Expand Flexible Open Space	●○○	Sidewalk expansion at CS creates more space for events
Improve Multimodal Transportation Access	●●●	Sidewalk improvements Bicycle connection
Provide Adequate Parking	●●●	Decrease in space for parking on Main, can be absorbed elsewhere
Upgrade Walking Environment	●●○	Decreased crossing distances "Double-threat" crossing concern

Parking Analysis

Existing – 167 spaces
Proposed – 140± spaces

Crosswalk Analysis

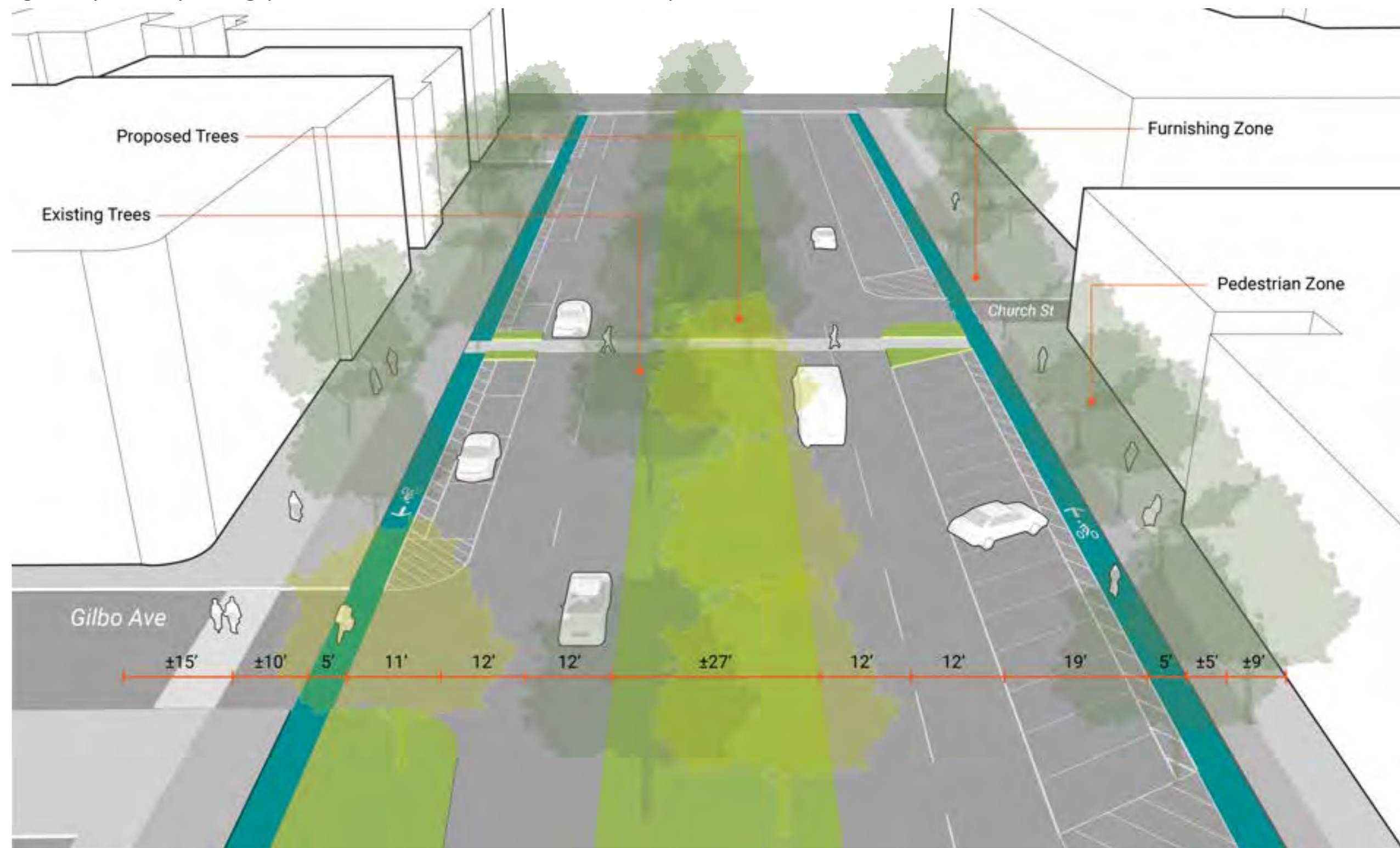
Main St – 8 midblock crosswalks
Side Streets – 20 crosswalks
Longest on Main St – 76'±
Average on Main St – 63'±



KEENE DOWNTOWN IMPROVEMENTS

OPTION 2A MULTI-MODAL | PERSPECTIVE SECTION – Bike Lane on Road Grade

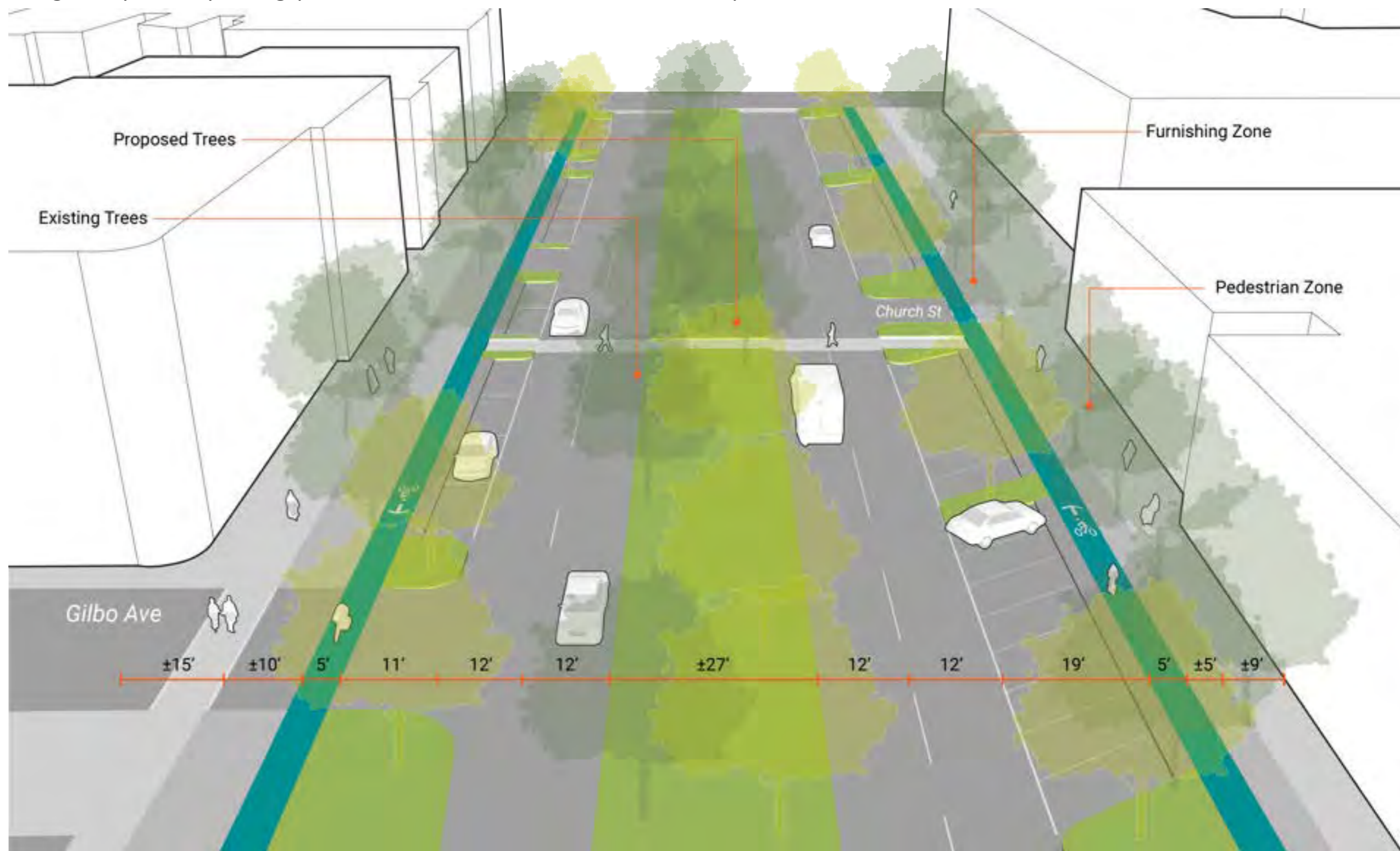
Expanded Pedestrian Zone | Combo angled + parallel parking | Protected Bike Lane on Road Grade | Planted center median



KEENE DOWNTOWN IMPROVEMENTS

OPTION 2B MULTI-MODAL | PERSPECTIVE SECTION - Bike Lane on Sidewalk Grade

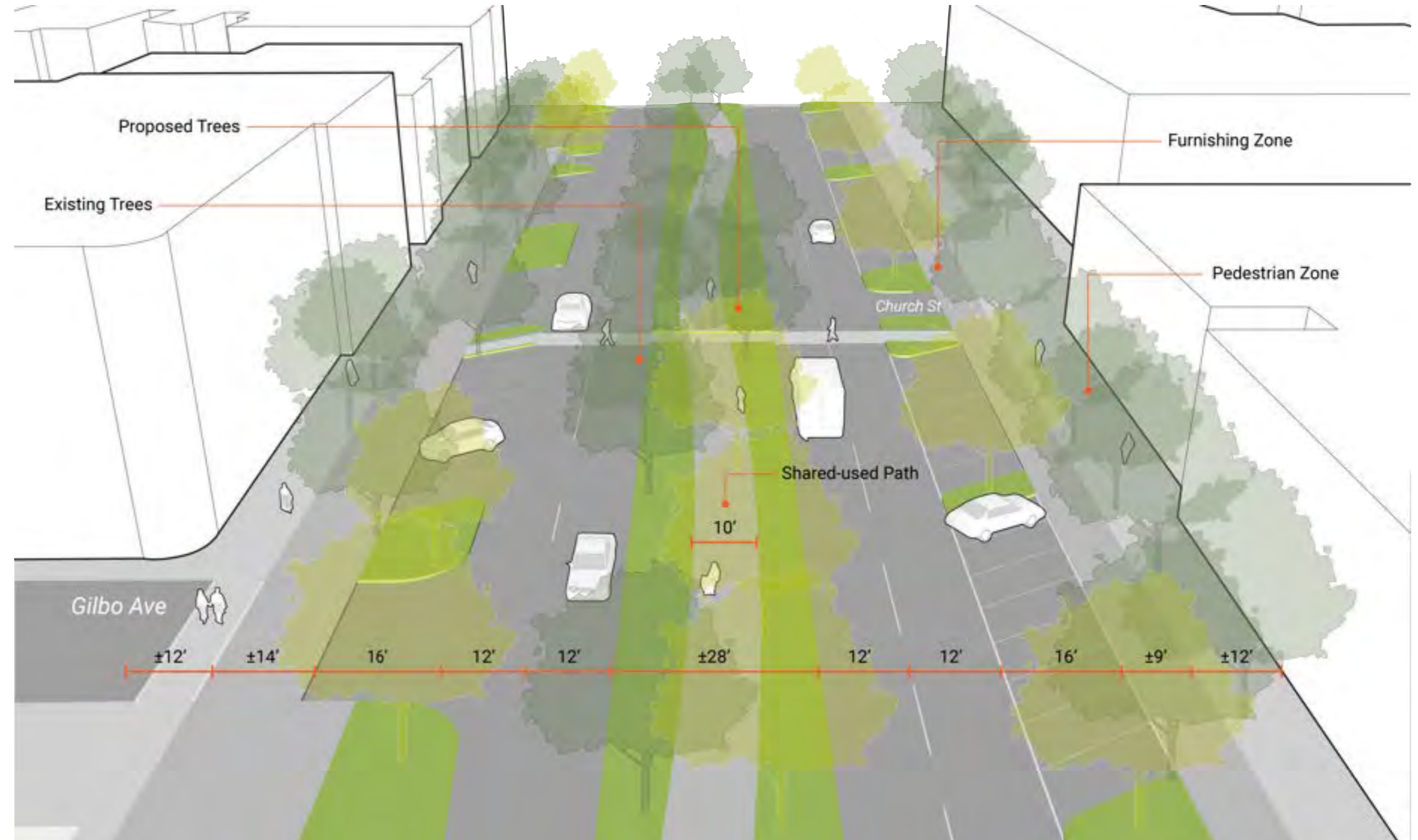
Expanded Pedestrian Zone | Combo angled + parallel parking | Protected Bike Lane on Sidewalk Grade | Planted center median



KEENE DOWNTOWN IMPROVEMENTS

OPTION 2C MULTI-MODAL | PERSPECTIVE SECTION - Bike Lane in Center Median

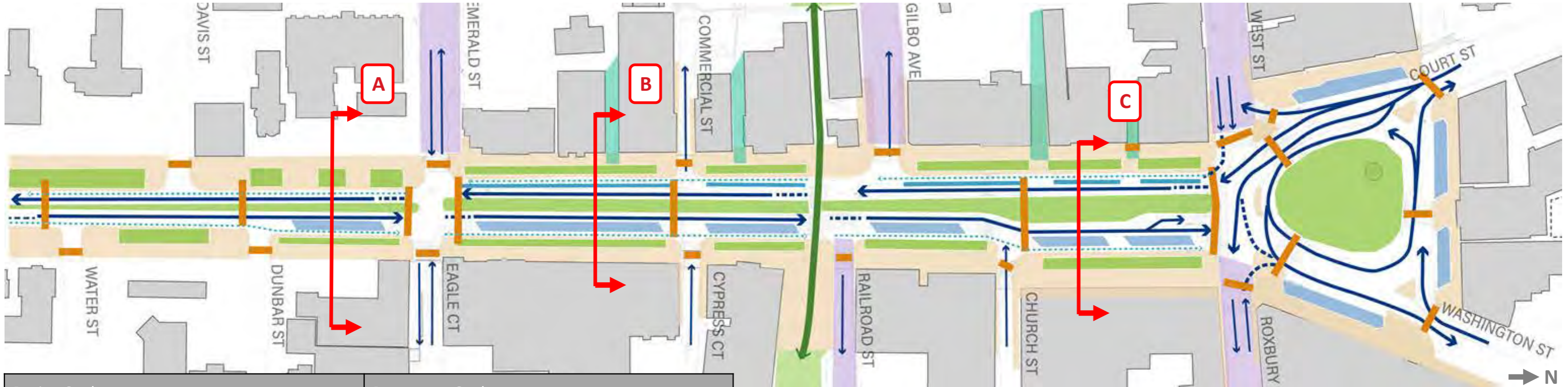
Expanded Pedestrian Zone | Angled parking | Protected Bike Lane in Center Median | Planted center median



KEENE DOWNTOWN IMPROVEMENTS

MAIN ST OPTION 3 - SINGLE LANE + MULTI-MODAL

Expanded Pedestrian Zone | Single Travel Lane | Combo Angled + Parallel Parking | Protected Bike Lane



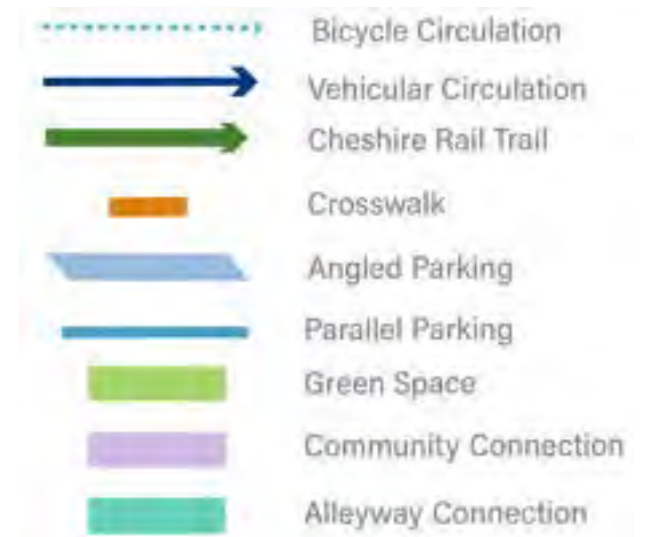
Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●●●	Better walking connection at Gilbo Bicycle connection to rail-trail
Support a More Sustainable Built Environment and Transportation Choices	●●●	Improvements to walking, esp. near bus stop at Gilbo Elevates biking access
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk Ties rail-trail character into downtown
Expand Flexible Open Space	●●○	Largest increase in green space (+35' at CS)
Improve Multimodal Transportation Access	●●●	Sidewalk improvements Bicycle connection
Provide Adequate Parking	●●●	Decrease in space for parking on Main, can be absorbed elsewhere
Upgrade Walking Environment	●●●	Decreased crossing distances No "double threat" of crossing

Parking Analysis

Existing – 167 spaces
Proposed – 145± spaces

Crosswalk Analysis

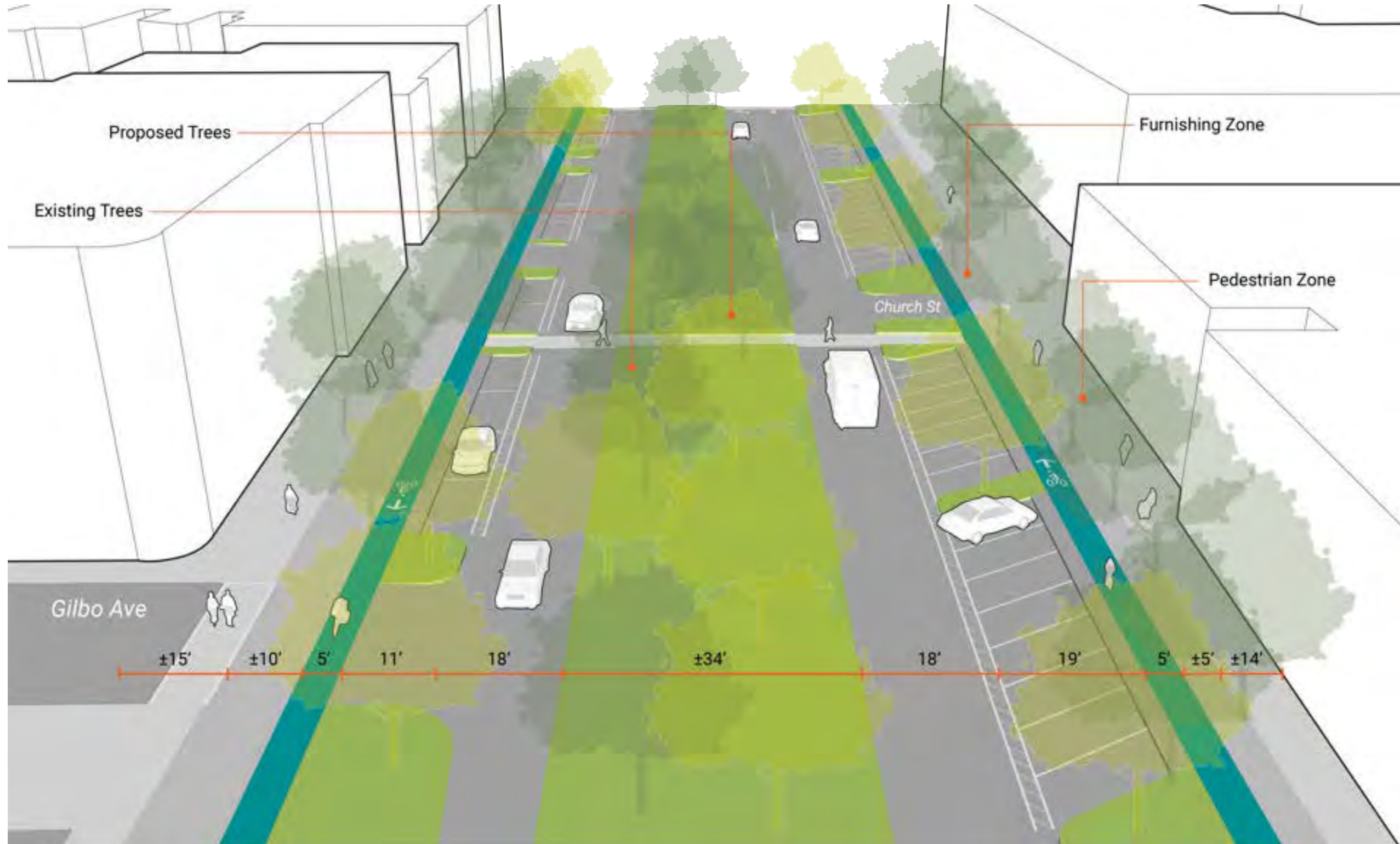
Main St – 8 midblock crosswalks
Side Streets – 20 crosswalks
Longest on Main St – 76'±
Average on Main St – 45'±



KEENE DOWNTOWN IMPROVEMENTS

OPTION 3 SINGLE LANE + MULTI-MODAL | PERSPECTIVE SECTION

Expanded Pedestrian Zone | Single Travel Lane | Combo Angled + Parallel Parking | Protected Bike Lane on Sidewalk Grade

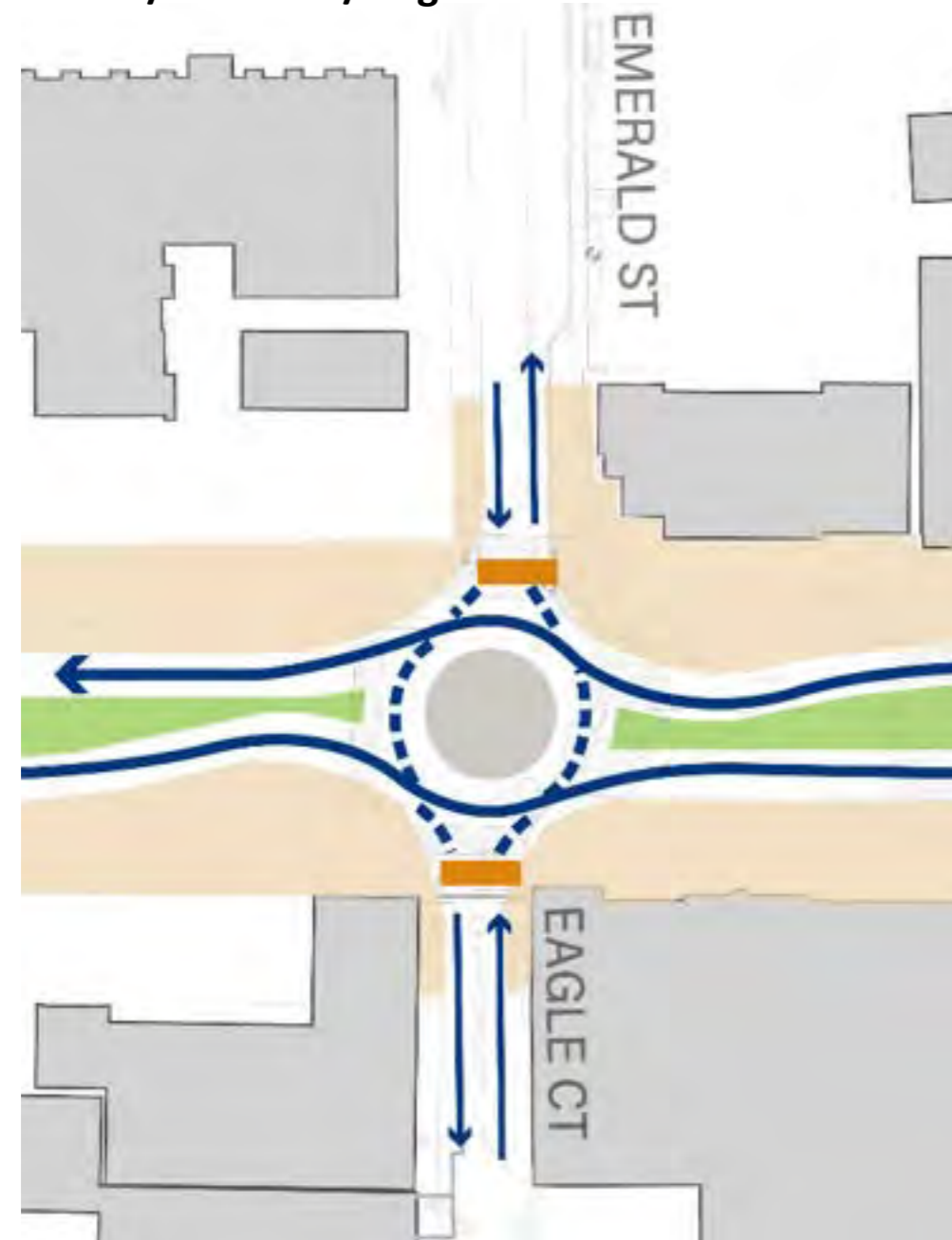


KEENE DOWNTOWN IMPROVEMENTS

SINGLE LANE INTERSECTION ALTERNATIVES

Compact Roundabouts for Single Lane Operation Only

Main / Emerald / Eagle



Main / Gilbo / Railroad



KEENE DOWNTOWN IMPROVEMENTS

MAIN STREET CONCEPT SUMMARY

Design Goal	Alternative 1	Alternative 2	Alternative 3
Define/Expand Connection to Downtown District	●○○	●●○	●●●
Support a More Sustainable Built Environment and Transportation Choices	●○○	●●●	●●●
Strengthen Image and Character, Including Arts and History	●●○	●●○	●●○
Expand Flexible Open Space	●○○	●○○	●●○
Improve Multimodal Transportation Access	●○○	●●●	●●●
Provide Adequate Parking	●●●	●●●	●●●
Upgrade Walking Environment	●●○	●●○	●●●

OPTION 1 – MINIMAL

Two Lane Travel
 Expanded Pedestrian Zone
 Parking Removed in Center Median
 No Dedicated Bike Lane

Angled Parking
 +/- 167 spaces

Crosswalks
Longest on Main St – 78'±
Average on Main St – 63'±

OPTION 2 – MULTI-MODAL

Two Lane Travel
 Expanded Pedestrian Zone
 Planted Center Median
 Protected Bike Lane

Angled Parking East Main + Parallel Parking West Main
 +/- 140 spaces

Crosswalks
Longest on Main St – 76'±
Average on Main St – 63'±

OPTION 3 – SINGLE LANE + MULTI-MODAL

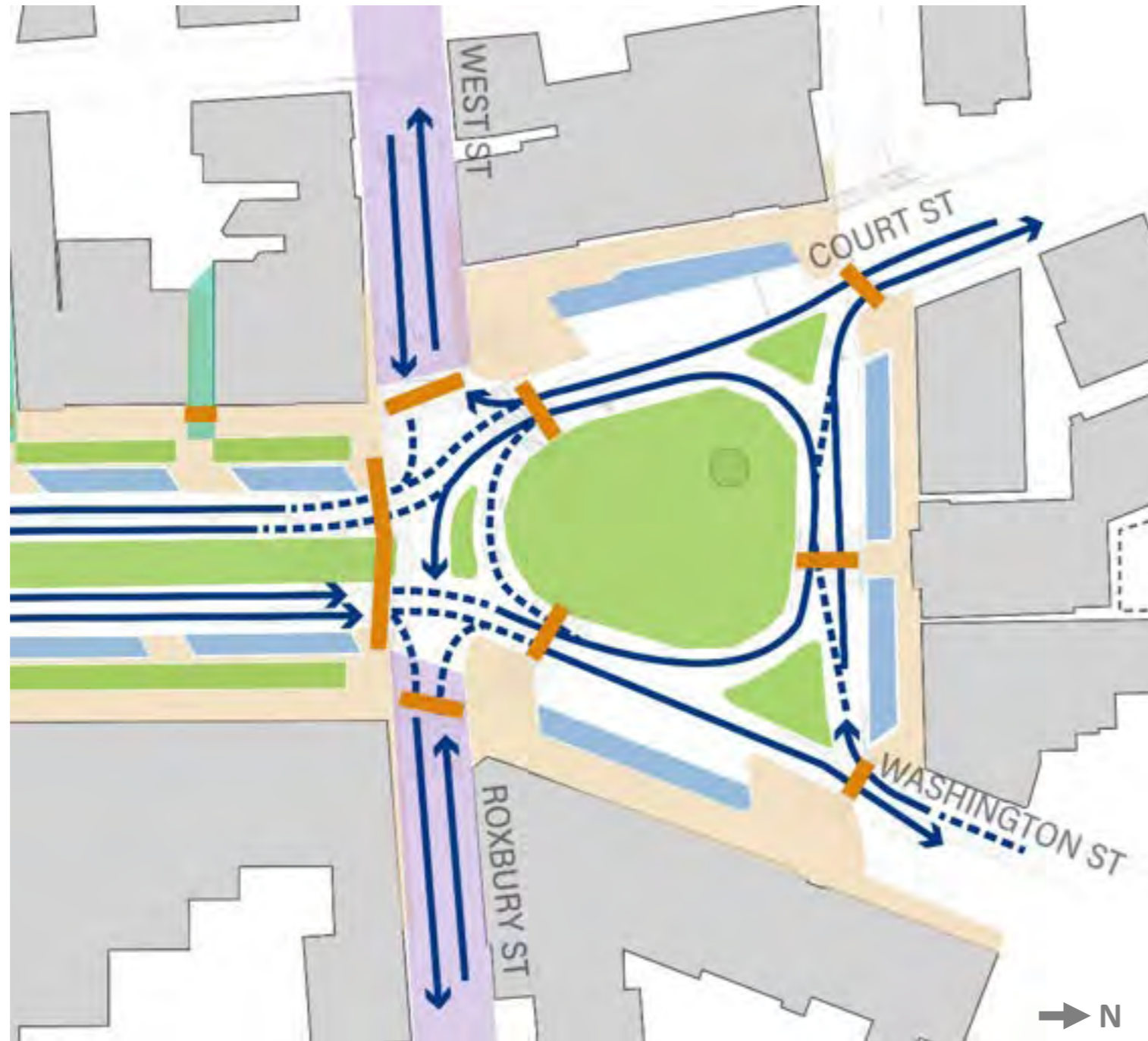
Single Lane Travel
 Expanded Pedestrian Zone
 Expanded Center Median
 Protected Bike Lane

Angled Parking East Main + Parallel Parking West Main
 +/- 145 spaces

Crosswalks
Longest on Main St – 76'±
Average on Main St – 45'±

KEENE DOWNTOWN IMPROVEMENTS

CENTRAL SQUARE OPTION 1 - SMALLER CIRCULAR INTERSECTION

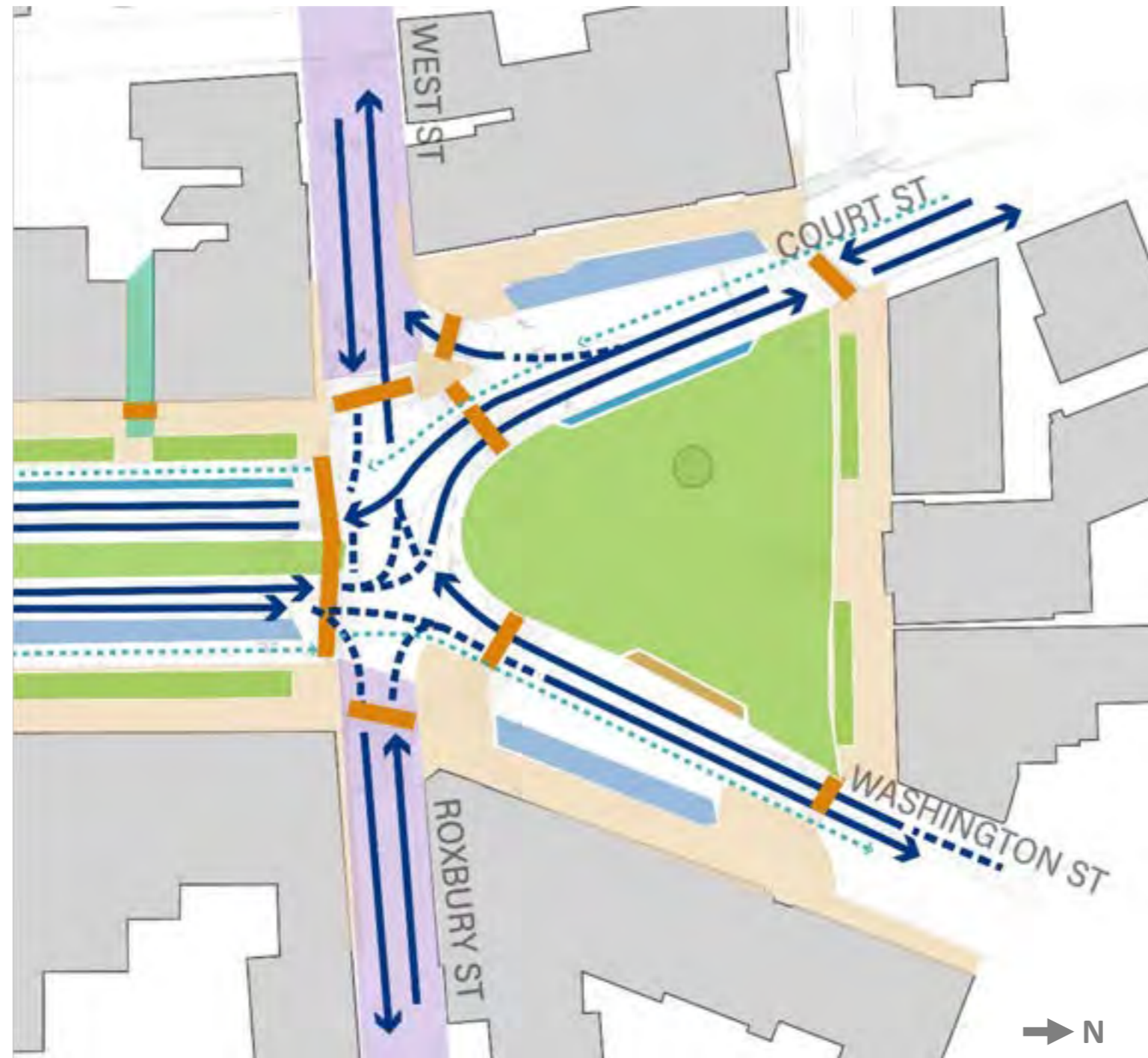


Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●○○	Better walking connections but still relatively hard to cross
Support a More Sustainable Built Environment and Transportation Choices	●●○	Improves walking comfort, decreases x-ing distances
Strengthen Image and Character, Including Arts and History	●○○	More space for art on sidewalk
Expand Flexible Open Space	●○○	Increase in green space
Improve Multimodal Transportation Access	●●○	Improves walking comfort
Provide Adequate Parking	●●●	Remains consistent
Upgrade Walking Environment	●●○	Decreased crossing distances



KEENE DOWNTOWN IMPROVEMENTS

CENTRAL SQUARE OPTION 2 - NORTH EXPANSION MAIN ST TWO LANE

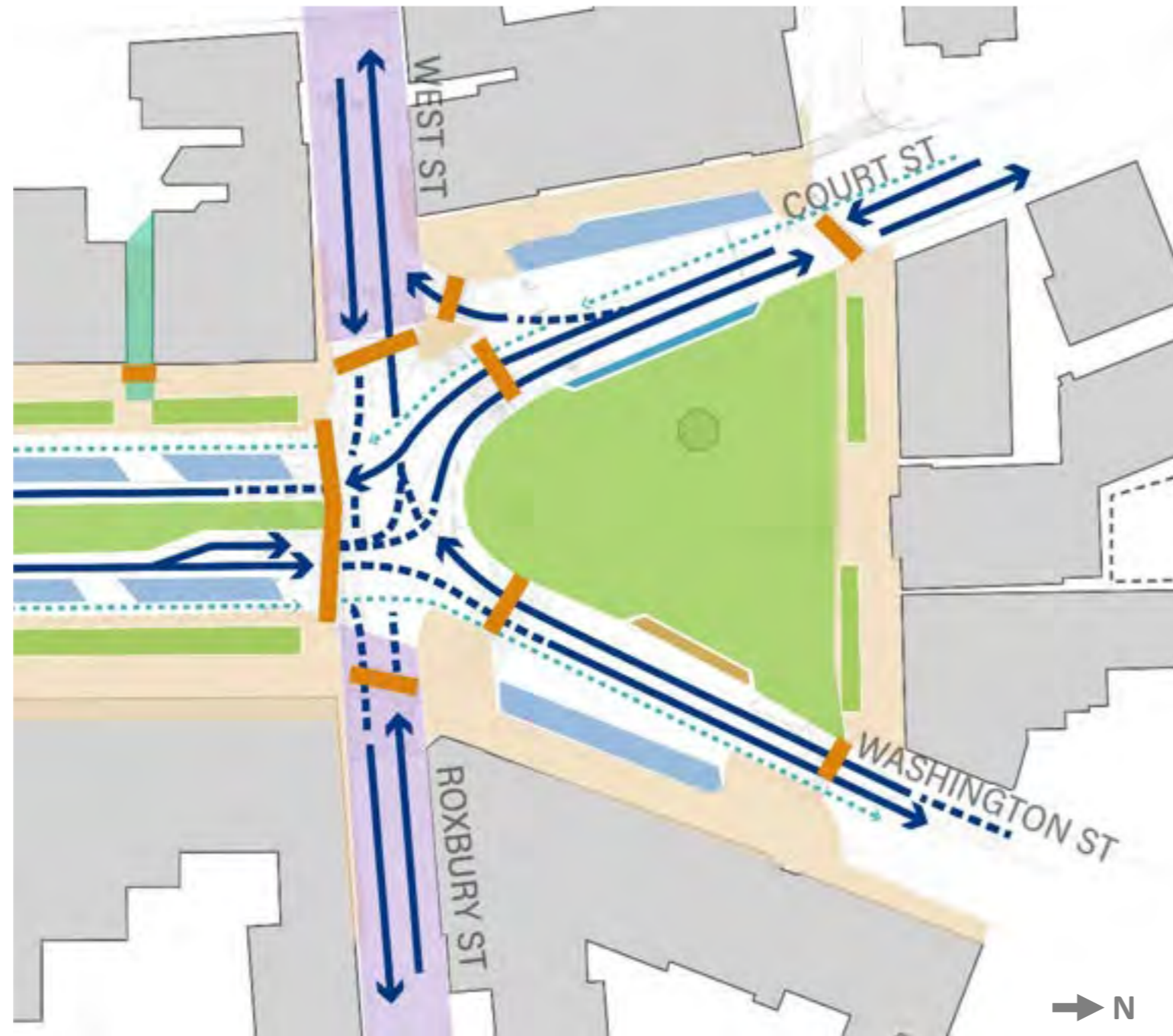


Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●●○	Better walking connections More space to gather
Support a More Sustainable Built Environment and Transportation Choices	●●○	Improves walking comfort, decreases x-ing distances
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk Changes historic street
Expand Flexible Open Space	●●●	Creates new green space
Improve Multimodal Transportation Access	●●○	Improves walking comfort
Provide Adequate Parking	●●○	Slight decrease in parking, parking available nearby
Upgrade Walking Environment	●●●	Decreased and less crossings required in the area



KEENE DOWNTOWN IMPROVEMENTS

CENTRAL SQUARE OPTION 3 - NORTH EXPANSION MAIN ST SINGLE LANE

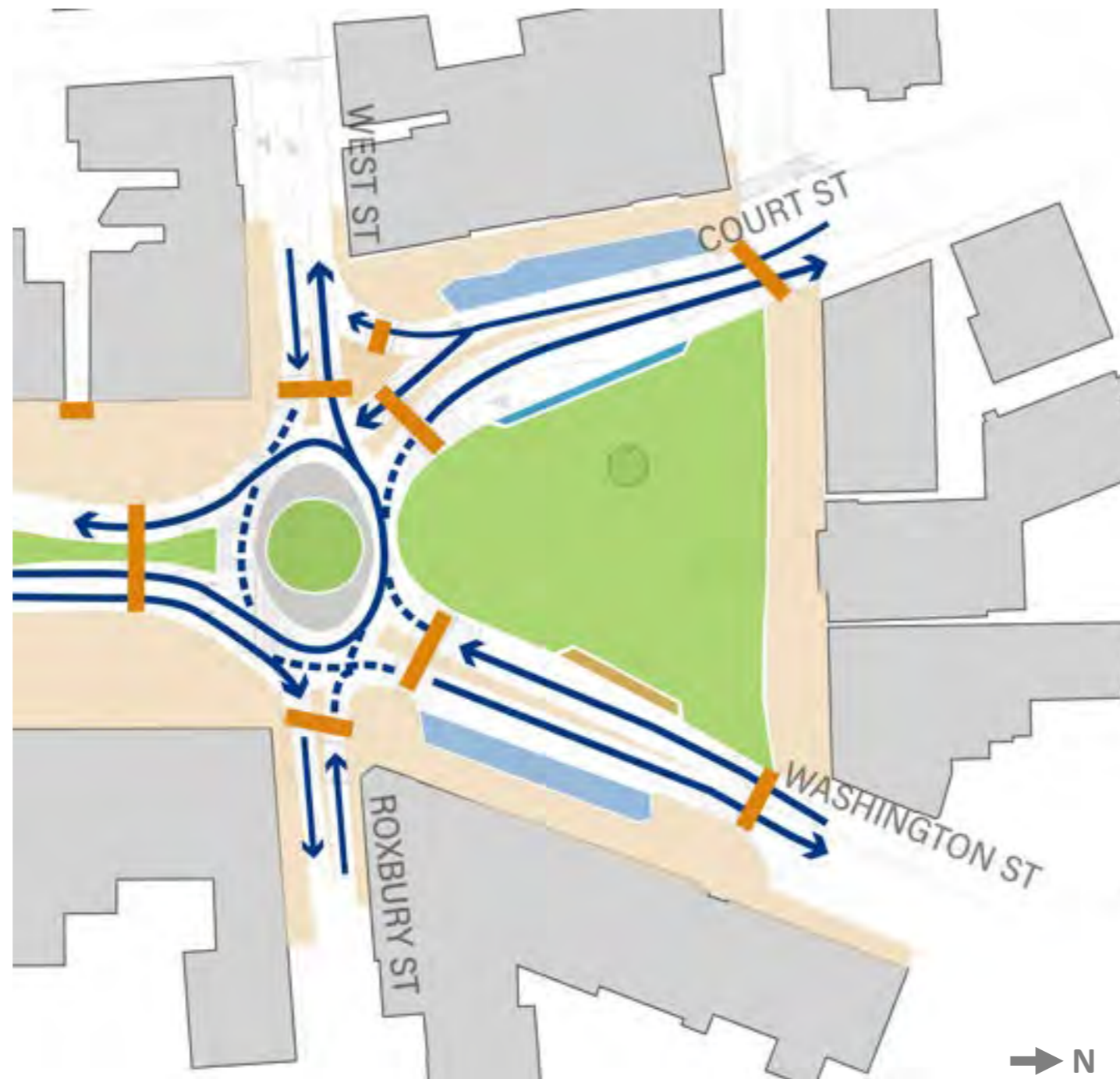


Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●●○	Better walking connections More space to gather
Support a More Sustainable Built Environment and Transportation Choices	●●○	Improves walking comfort, decreases x-ing distances
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk Changes historic street
Expand Flexible Open Space	●●●	Creates new green space
Improve Multimodal Transportation Access	●●○	Improves walking comfort
Provide Adequate Parking	●●○	Slight decrease in parking, parking available nearby
Upgrade Walking Environment	●●●	Decreased and less crossings required in the area



KEENE DOWNTOWN IMPROVEMENTS

CENTRAL SQUARE OPTION 4 - MINI ROUNDABOUT



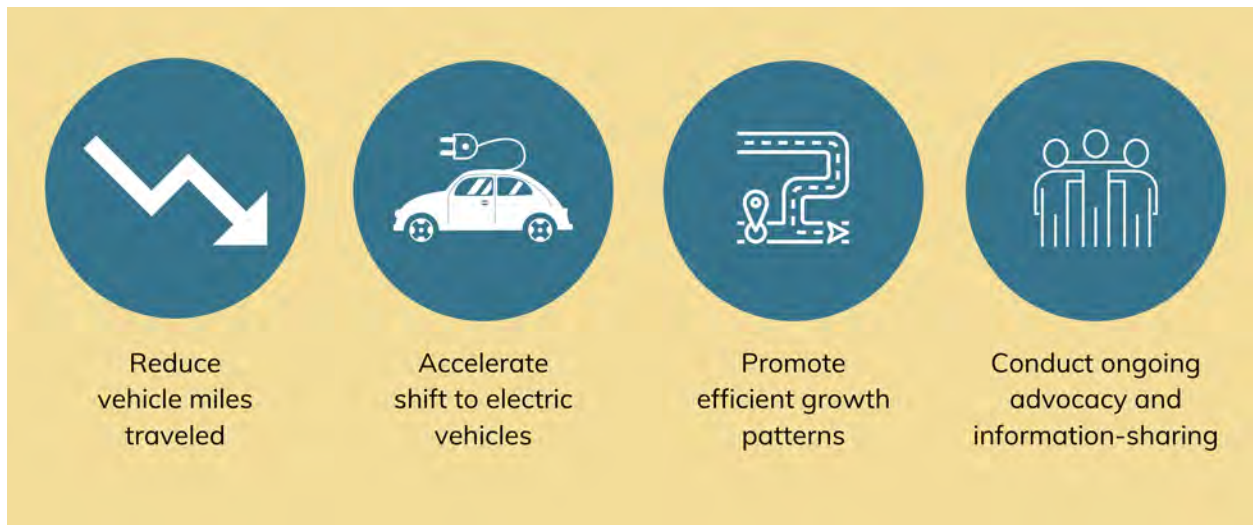
Design Goal	Progress to Goal	
Define/Expand Connection to Downtown District	●●○	Better walking connections More space to gather
Support a More Sustainable Built Environment and Transportation Choices	●●○	Improves walking comfort, decreases x-ing distances
Strengthen Image and Character, Including Arts and History	●●○	More space for art on sidewalk Changes historic street
Expand Flexible Open Space	●●○	Creates new green space, space in roundabout not really useable
Improve Multimodal Transportation Access	●●○	Improves walking comfort
Provide Adequate Parking	●●○	Slight decrease in parking, parking available nearby
Upgrade Walking Environment	●○○	Makes more challenging ped environment where cars don't necessarily stop



TRANSPORTATION

The Transportation Sector currently relies heavily on fossil fuels. In 2015, ground transportation in Keene accounted for almost half (46%) of all greenhouse gas emissions. The majority of these emissions were generated by on-road gasoline use (84%) followed by on-road diesel use (16%). Only a small fraction, about 0.1%, were attributable to the City Express bus service and the Friendly Bus Service operated by Home, Healthcare, Hospice and Community Services (HCS).⁶

Vehicle emissions are generally a function of three variables: fuel carbon content, vehicle efficiency, and how much people drive (i.e. vehicle miles traveled, or VMT). At the national scale, gains in vehicle efficiency have been more than offset by increases in VMT. From 1990-2020, the US population grew by 32%, whereas VMT grew 51%.⁷ According to the U.S. Environmental Protection Agency (EPA), over that same time period, transportation emissions increased about 23% despite overall increases in vehicle efficiency.⁸ This trend suggests that the City should focus on reducing overall VMT and switching to carbon-free fuels in order to reach the City's goal to source 100% of all transportation energy consumption from renewable sources by 2050.



Reduce vehicle miles traveled

Accelerate shift to electric vehicles

Promote efficient growth patterns

Conduct ongoing advocacy and information-sharing

Pathway 1: Reduce vehicle miles traveled

Enabling people to get around without a car can significantly reduce fossil fuel consumption while providing many co-benefits, such as reducing transportation costs, increasing physical activity, improving air quality, and providing access to jobs and other necessities for people who either cannot afford or choose not to own a car. Increasing transportation choices to encourage more walking, bicycling, and public transit use within City limits is a well-established goal in Keene. The 2010 Comprehensive Master Plan refers to this concept as a “park and walk community.”

Examples of strategies and actions that can help reduce VMT include improving public transportation access and service, improving walkability, and improving bikeability. These strategies encourage people to choose alternate modes of travel. In addition, land use strategies such as increasing density, promoting mixed uses, and increasing local and regional access to jobs can help reduce VMT by reducing trip distances and promoting carpooling and non-car travel modes. Land use strategies are discussed further under Pathway #3, “Promote Efficient Growth Patterns.”

Priority implementation strategies and actions that fall within this pathway include the following:

- I. Promote active transportation (walking, bicycling, and other “human-powered” transportation modes.
 - A. Incorporate the adopted City of Keene Complete Streets Design Guidelines (2015) into the City’s street standards for new streets, and develop Complete Streets standards for re-construction of existing streets.
- II. Promote intracity and intercity transit options.
 - A. Increase financial support for the City Express and Friendly Bus programs, and encourage HCS to expand services/routes.
 - B. Work with Southwest Region Planning Commission and other community partners to explore options for a multi-modal transportation center in Keene and promote intercity transit options.

“Other alternatives should be explored to reduce fuel use by reducing vehicle miles traveled, such as rideshare programs, car-share programs, and the exploration of an official community Zip Car or Segway Safe program. All of these have potential to assist in moving people in a more economical, environmentally friendly way, which will assist in creating a sustainable community as well as highlighting Keene’s creative problem-solving mentality.”

–Keene Comprehensive Master Plan (2010)

Pathway 2: Accelerate the shift to EVs and other alternative fuel vehicles

Electric Vehicles (EVs) are becoming more widely available and affordable, and as a result, EV market adoption is expected to increase. The Bloomberg NEF “Electric Vehicle Outlook 2020” report predicts that 500 EV models will be available globally by 2022, and by 2040, over half of all passenger vehicles sold will be electric.⁹ However, the long average lifetime of vehicles, which in 2019 was 11.8 years in the U.S., can lead to a significant lag between increases in EV sales and increases in the total number of EVs on the road.¹⁰ For this reason, it is important to begin increasing the adoption of EVs now to ensure that a majority of passenger vehicles on the road in 2050 are EVs or other alternative vehicles that use renewable energy sources.

Priority implementation strategies and actions that fall within this pathway include the following:

- I. Install EV charging stations (level 2 and fast-charge) in on-street parking areas and in public parking lots or structures.
- II. Adopt solar PV and electric vehicle (EV) ready guidelines to encourage or require new developments to be built in a manner that accommodates future solar and EV charging station installations.
- III. Work with the Keene School District and local school bus company to encourage the switch to electric school buses. Explore “battery to grid” programs to increase financial viability of electric buses and improve the resilience of the electricity grid.



Figure 2.2. An EV was on display in Keene in August 2019 as part of the NH Department of Environmental Services Air Quality Day, an education event where residents got an opportunity to try out battery-powered lawn equipment and view an EV up close.

Transportation Pathway 3: Promote efficient grown patterns

As discussed above under Pathway 1: Reduce Vehicle Miles Traveled, reducing driving could generate many public benefits in addition to reducing fossil fuel consumption, such as improving public health through improved air quality, better individual health due to increased exercise from walking and biking, increasing access and equity for low and moderate income people, and enhancing interactions within our communities. However, reducing VMT will require coordinated land use and transportation planning. Local land use policies have the potential to shape and rearrange the origins and destinations of travel and can either support or hinder accessibility and mobility. For example, allowing a mix of land uses, providing thoughtful parking requirements, and permitting an increase in land use densities can decrease distances between different destinations, leading to shorter trip distances, a blend of jobs and housing within a community, and an increase in alternative modes of transportation. On the flip side, local policies that separate out land uses, provide inflexible or high minimum parking requirements, and/or reduce density have the opposite effect and lead to car-dependent communities.

The City of Keene has already taken steps to promote a mixed-use, walkable environment in the downtown and surrounding neighborhoods. For example, there are no minimum parking requirements in the core of the downtown, and as part of the Land Development Code project, the City is considering expanding the area where there are no parking minimums, allowing for shared parking and offsite parking arrangements, and offering parking reductions on a case-by-case basis. The City is also in the process of exploring form-based zoning in Downtown Keene in order to ensure that future development is compatible with historic development patterns and continues to foster a pedestrian-friendly environment, and for many years, the City has promoted a context-sensitive approach to street design through the implementation of a complete streets program. The City should continue to coordinate land use and transportation planning, and prioritize local policies that promote efficient growth patterns.



Pathway 4: Conduct ongoing advocacy and information-sharing

Although there are many actions the City can take to work towards increasing the share of renewable energy within the transportation sector, the City cannot get there on its own without state and federal action to support EVs, public transportation, and other alternative transportation modes. In addition, the City will need to prioritize education and sharing information and resources in order to help residents and fleet managers make informed choices about transportation mode choices and alternative vehicle adoption.

Priority implementation strategies and actions that fall within this pathway include the following:

- I.** Advocate for more funding at the state and federal levels for transportation, including funding for transit and “alternative” transportation options (in addition to funding to maintain / repair bridges, roads, and other infrastructure development and maintenance).
- II.** Advocate for state allocation of funding through the federal Transportation Alternatives Program for “non-infrastructure” Safe Routes to School projects (Education, Encouragement, and Evaluation programs).
- III.** Advocate for state-level policies, programs, and incentives for electric vehicles and other alternative vehicle technologies.
- IV.** Inform community members about the environmental, public health, and social benefits of public transportation and active transportation.
- V.** Promote EVs through education and marketing campaigns. For example, “drive electric” events can be leveraged as opportunities to educate Keene residents about the benefits of EVs as well as existing rebate programs and incentives to reduce costs of buying EVs.

Endnotes

- 1 New Hampshire Public Utilities Commission. Residential (Accessed 2020). <https://www.puc.nh.gov/consumer/Residential%20Suppliers.html>
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- 3 Eversource. Interconnected PV in Keene, New Hampshire. (Accessed April 24, 2020).
- 4 U.S. Department of Energy, February 2012. Energy Storage: The Key to a Reliable, Clean Electricity Supply. (Accessed 2020). <https://www.energy.gov/articles/energy-storage-key-reliable-clean-electricity-supply>
- 5 Filtrine Manufacturing Company website. Filtrine Reduces Its Use of Fossil Fuel by 90% with a New Wood Chip Boiler (Accessed 2020). <https://www.filtrine.com/company-news/filtrine-reduces-its-use-of-fossil-fuel-by-90-with-a-new-wood-chip-boiler/>
- 6 City of Keene 1995-2015 Greenhouse Gas Emissions Inventory. 2018.
- 7 U.S. Department of Transportation, Federal Highway Administration (2020). Highway Statistics 2018 (Accessed 2020). <https://www.fhwa.dot.gov/policyinformation/statistics/2018/>
- 8 U.S. Environmental Protection Agency (2020). Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018.
- 9 Bloomberg NEF. Electric Vehicle Outlook 2020 (Accessed 2020). <https://about.bnef.com/electric-vehicle-outlook>
- 10 U.S. Department of Transportation Bureau of Transportation Statistics. Average Age of Automobiles and Trucks in Operation in the United States (Accessed 2020). <https://www.bts.gov/content/average-age-automobiles-and-trucks-operation-united-states>

	Tool / Strategy	Description	Sector(s)	Lead	Partners	Timeframe
Energy Efficiency	Benchmarking Program	Encourage building owners of certain sizes or in certain districts to report energy use data to the City.	Electricity, Thermal	City of Keene	Business community, large energy users	1-2 years
	Home Energy Labeling Program	Encourage energy efficiency disclosure for existing and new residential properties at the time a property is listed for rent or sale.	Electricity, Thermal	City of Keene	Association of Realtors, NEEP	1-2 years
	Weatherization Program	Partner with existing weatherization programs to enhance public outreach and education, amplify impact, and increase capacity.	Electricity, Thermal	ECC/ City of Keene	SCS, Eversource, Keene Housing	1-2 years
	Complete Streets Program	Incorporate the adopted City of Keene Complete Streets Design Guidelines (2015) into the City's street standards for new streets, and develop Complete Streets standards for re-construction of existing streets.	Transportation	City of Keene	SWRPC, MAST, BPPAC	3-5 years
	City Express Bus	Increase financial support for the City Express and Friendly Bus programs, and encourage HCS to expand services/routes.	Transportation	HCS	City of Keene, SWRPC	3-5 years
	Multi-Modal Transportation Center	Work with community partners to construct a multi-modal transportation center in Keene and promote inter-city transit options.	Transportation	City of Keene	SWRPC, Greyhound, HCS	5-10 years
	Advocacy for Public Transportation & Active Transportation	Advocate at the federal and state level for more funding to support public transportation and active transportation.	Transportation	ECC/City of Keene	MAST, MRCC	1-2 years
Renewable Energy	Community Power Program	Establish a Community Power Program to aggregate community load and purchase electricity from an alternate electricity supplier.	Electricity	City of Keene	Cheshire County, Other towns	1-2 years
	Virtual Power Purchase Agreement	Enter into a long-term, fixed price contract for renewable energy from a specific project (i.e. agree to a contract for differences, or CfD).	Electricity	City of Keene		3-5 years
	Pilot Battery Storage Program	Collaborate with Eversource to provide a pilot batter storage program for residents and businesses to reduce demand on the grid during peak times.	Electricity	Eversource	City of Keene	3-5 years
	Renewable Energy Loans	Partner with a local financial institution to create a loan product to finance renewable energy installations targeted at businesses or residents.	Electricity, Thermal	Financial Institution(s)	City of Keene	3-5 years
	Solar & EV Ready Guidelines	Adopt Solar & EV Ready Guidelines to encourage new buildings to be built in a way that accommodates future solar installations.	Electricity, Thermal, & Transportation	City of Keene		1-2 years

	Tool / Strategy	Description	Sector(s)	Lead	Partners	Timeframe
Fuel Switching	Heatsmart Campaign	Host a "Heatsmart" campaign to encourage the installation of renewable thermal technologies for space heating and cooling or for hot water heating through targeted local out-reach efforts and bulk discount prices.	Thermal	ECC / Community Volunteers	City of Keene, Local contractors	1-2 years
	Public EV Charging Stations	Install public EV charging stations (level 2 and fast-charge) in on-street parking areas and in public parking lots or structures.	Transportation	City of Keene	Eversource	1-2 years
	Electric Buses	Work with the Keene School District/local school bus company and HCS (City Express and Friendly Bus) to encourage switch to electric buses.	Transportation	First Student / HCS	SAU 29	5-10 years
	Advocacy for EVs and Alternative Fuel Vehicles	Advocate at the federal and state level for more funding to support EVs and other alternative fuel technologies.	Transportation	ECC/City of Keene	MAST	1-2 years
	Renewable District Heating system	Commission a study to assess the potential for a renewable district heating system in Keene to understand what areas of the city would have the appropriate demand characteristics to justify a district energy system, as well as what local renewable sources are available and at what potential and likely cost.	Electricity (co-generation), Thermal	City of Keene		3-5 years

Table 5.1 Priority implementation strategies and actions for the Keene Sustainable Energy Plan.