



The Wellfleet Bike & Walkways Committee Virtual Meeting – Zoom

Friday, May 7, 2021 at 10am

Meeting Minutes

Members Present: Pete Cook, Rebecca Brodwick Noble, Ned Oliver, Lance Miller, and Christie O’Campbell

Other Town Representatives Present: none

1. *Call to Order*: Pete calls the meeting to order at 10:03.
2. *Administrative matters*
 - a. *Meeting rules to invite public comment*: The committee invites public comment and input at the end of each agenda item with a one-minute limit for each speaker. We welcome more feedback through email, bikeandwalkways@wellfleet-ma.gov, as well as proposals to the committee that can become future agenda items.
 - b. *Review committee’s official charge*: Rebecca reads the official Bike and Walkways Committee Charge that is posted on the website and below (see *Attachment 1*).
 - c. *Near-term committee meeting calendar*: We’re on a bi-weekly meeting calendar with our next meeting scheduled for Friday, May 21 at 10am.
3. *Approve minutes from committee meeting on April 23, 2021*: Rebecca moves that we approve the April 23, 2021 meeting minutes, Lance seconds, and all vote in favor.
4. *Bikeway Analysis Preparation*
 - a. *Geospatial Information System (GIS) tools*: Terry Smith, Wellfleet resident and a Geoscientist and hydrographer who uses GIS professionally, has been putting an ArcGIS database of segments together for the Bike and Walkways Committee. She is focusing on three goals: digitizing the segments; providing geographic data for the analysis using publicly available datasets from the Cape Cod Commission (who receive information from the National Seashore and others), Mass GIS, and a few other sources; and providing a geospatial visual by creating overlays that can help committee members both with their assessment and present the results for the assessment. Terry presented her current version of the ArcGIS database, showing the different data layers such as miles, National Seashore land, land use (commercial, residential, evergreen forest...). She can illustrate where wetlands and vernal pools are located. She also created a slope visual from elevation data published by the Army Core of Engineers, which is accurate within 1 meter. In this draft, she has 108 segments for the three-mile extension, ranging from .2 miles and up. She is working to make a version that can be available to the committee members for visualization purposes. Committee members expressed their appreciation and excitement about the GIS database.
 - b. *Lessons learned from recent test segment analysis*: At the last meeting we agreed that we would each take three segments to score against the five-goals, using the 60 scoring criteria. This test was very useful in identifying the challenges in our process. Pete reviewed common themes than ran throughout all tester feedback, particularly criteria that felt difficult to assess within the field and identified 22 criteria that can be

better scored outside the field. *Attachment 2, "Lessons Learned from Test Scoring"* is shared which outlines seven of the criteria that are best scored using ArcGIS (like property ownership), five criteria that require external agency input (safety data from the Wellfleet Police Department), and ten criteria that are best scored after the segments have been stitched together. He also found that the scoring spread between individuals is close on the remaining 38 criteria. The instances with a wide range or N/A was often because a committee member had a different set of assumptions such as whether we are scoring based on road sharing, a separate pathway on the side of a road, etc. In the instances that a committee member felt that a score was N/A, it often means that the score is a 5 because it is not an issue. For instance, if a pathway is separate from the road, it will score a 5 for traffic disturbance. The group also engaged in a conversation about vistas, and how to clarify a shared definition of vistas. Pete's proposed way forward is to score the remaining 38 criteria in person, use ArcGIS and agency inputs for the other criteria and score the final ten as whole pathways. The Wellfleet Police Chief offered input earlier in our process, so Pete will zoom with them to get the feedback.

- c. *Consideration of alternative approach to analysis: Attachment 3: "Choices for Analysis going Forward"* is screenshared. Lance raises some concerns to the committee about the methodology and the substantial time commitment involved. The 60 criteria were developed with the idea that they would be measuring people's subjective experience over an entire pathway. They were not intended to be used to measure short segments, which are an average of about .4 miles. His proposed alternative includes reducing the amount of human judgements (potentially an 8% error rate) by reducing the criteria number to 15 - possible by utilizing GIS and finding as many quantitative measures as possible (such as a certain number of curb cuts per mile).
- d. *Decision on moving forward to execute analysis:* The committee discussed possibilities to address the time issue: Pete's proposal did lessen the criteria to 38; the committee could pair up and divide up the segments (rather than each individually rating every segment); back to the vista conversation – Christie mentioned that spaces to gather and relax can also be as positive as a beautiful vista and Pete suggested that we move that criteria to the route level; Rebecca wondered whether we can lower the criteria numbers a little more and Christie wondered if we should consider the idea of scoring pathways instead of segments; Terry wondered if we could take out the very small segments and rather than score them, call them connectors; Pete mentions that scoring all the segments allows the scores to speak for themselves to maintain a high integrity analysis that is comprehensive, objective and rigorous. Discussion about the pros and cons of assessing segments or taking out the pathways with fatal flaws ensues. There is agreement about the strategy of pairing up and splitting up the segments. Pete proposes that the committee moves forward with his proposed plan with the addition of working in pairs and moving the vista criteria from consideration at the segment level to the route level. Rebecca agrees, Lance opposes, and Christie has hesitations and hopes for more compromise. Ned suggests that we attempt Pete's proposed plan for a week and see how it goes. Christie agrees with Ned and changes her vote. Lance says he will change his vote, knowing that there will be a review in two weeks.

5. *Other bike and walkway issues in Wellfleet:* none

6. *Other business not reasonably anticipated 48 hours prior to the meeting:* none

7. *Adjournment:* Pete moves to adjourn the meeting at 12:11, Ned seconds and all vote in favor.

Attachment 1: Bike and Walkways Committee Charge

Attachment 2: Lessons Learned from Test Scoring

Attachment 3: Choices for Analysis going Forward

Bike and Walkways Committee, bikeandwalkways@wellfleet-ma.gov

CHARGE

The Bike and Walkways Committee is hereby established to consider ways to provide safe areas for biking and walking. The Board of Selectmen believes that these activities should be available seasonally and year-round as they are an important means of local transportation, are popular activities in the town, and promote good health.

The Bike and Walkway Committee is charged with the following tasks:

1. To work with the Cape Cod National Seashore, the Towns of Provincetown and Truro and the Cape Cod Commission to establish the continuation of the bike trail northward into Provincetown.
2. To prepare a plan for future bike and walking routes throughout the town of Wellfleet.

Attachment 2: Lessons Learned from Test Scoring

Proposed Incorporation of Lessons from Test Segment Scoring

Lessons Learned

- We can reduce in-person segment scoring criteria by 22
 - Seven are best scored using ArcGIS
 - Rights of way, undeveloped land use, private land, wildlife areas, pond proximity, historic properties, private property access
 - Five require agency inputs
 - Road traffic safety, road easements, town land purposes, protected building proximity, impact to National Seashore
 - Ten criteria are best scored after the segments are stitched together
 - End-to-end path length, end-to-end availability of terrain vistas, public parking proximity, end-to-end access to Wellfleet town destinations, convenient directness, balanced end-to-end connectivity, network improvement potential
- Our scoring spread is close on the remaining criteria
 - Will get even better
- Sometimes criteria seem N/A
 - Score them as "5" on the 1-to-5 scale
 - Rationale: 5 denotes absence of an issue

Way Forward

- Score the segments in person using 38 criteria
- Use ArcGIS and agency inputs for the other criteria
- Apply final ten criteria to each alternative path using ArcGIS after segments are stitched together

Attachment 3: Choices for Analysis going Forward

The screenshot shows an Excel spreadsheet with the title "CHOICES FOR ANALYSIS GOING FORWARD" centered in the top row. Below the title, a yellow rectangular box contains the following text:

ISSUES AND CONCERNS ABOUT HOW TO ANALYZE SEGMENTS AND PATHS

1. We have developed 60 goal-based criteria for full 6-mile paths, for people to make considered ratings taking in the whole thing
2. We recently shifted to a segment-based approach, looking at 100+ segments out of which to compose full paths.
3. As our next step - "Current Plan" - we aim to apply the 60 criteria to all 100+ segments and then to the ~40 candidate paths.
-> Let's pause for a moment and take stock:
4. There are issues with doing this plan that need to be considered.
5. There are other approaches to look at and make a choice.

(only 3 dense pages)

At the bottom of the spreadsheet, the text "ISSUES WITH CURRENT PLAN" is visible, followed by "ScoreSheet" and "Your Raw Data (Rev1)". The status bar at the bottom indicates "Page: 1 of 10".

The screenshot shows an Excel spreadsheet with the title "ISSUES WITH CURRENT PLAN" centered in the top row. Below the title, the following text is visible:

1. Applying all 60 criteria to all 100+ segments and then to ~40 full paths takes an excessive amount of time. - an estimated 2300 hours.
2. The criteria were not designed for short segments (.4 mi ave.) - they were intended to elicit overall impressions for a 6-mile full path.
 - * 6000 segment judgments are needed per person, then 2400 path judgments per person - 42,000 in all.
 - * These types of judgments are difficult to apply to segments.
 - * Also, the great variability among segments make judgments even harder - the shortest is 100 feet, the longest 11,000 feet.
 - * The judgments need to happen in daylight, which may be difficult.
 - * In all likelihood they will lead to "bunching" of scores at either end of the "goodness" scale.
 - * This is because the presence of a strong plus or minus feature can have too strong an impact.
 - * There are also lots of human errors that can occur, the more judgments the more possible errors.
 - * Errors take a lot of time to check for, catch, discuss and repair.
3. The envisioned analyst has a disproportionate load - 1000+ hrs, 47% of the total. This is at a time when this analyst needs to step back some.
4. In view of this, 3 alternative plans have been roughly developed for the committee to consider.

At the bottom of the spreadsheet, the text "ISSUES WITH CURRENT PLAN" is visible, followed by "ScoreSheet" and "Your Raw Data (Rev1)". The status bar at the bottom indicates "Page: 1 of 10".

AutoSave Choices For Analysis Going Forward 06 May 21[2708] - Read-Only - Excel Search

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	A	C	D	E	F	G	H	I	J	K	L	
37	WHAT ARE THE ALTERNATIVES?											
38	1. The goal is to find the most promising segments to compose good candidates for the best path through Wellfleet											
39	2. Whatever we do, we should put the GIS tool at the center of the work - it is heaven-sent.											
40	3. The main objective is to reduce the number of human judgments.											
41	4. There are at least three alternatives to the Current Plan that should be considered, two of them call for a reduced set of criteria (15-20)											
42	* Such a reduced set of "adjusted criteria" would all be traceable back to existing criteria											
43	* Maybe as many as half of these can be found by GIS or in DBs, or possibly quantified - all such can greatly reduce times.											
44	* Actual selection needs to be done by several persons.											
45												
46	5. The three proposed alternatives are:											
47	a. Modified Current Plan - Develop the reduced set of criteria, apply them to the segments to find the best segments to build paths out of											
48	* GIS will be used to facilitate the work and minimize the need for field inspection											
49	* This is estimated to cut the human judgments by 80+% and reduce total time to 33% of the Current Plan.											
50												
51	b. Guided Metric-Guided Plan (Example below) - Derive an objective metric for each criteria based on segment features.											
52	* Members use GIS or inspection to count/locate these features then enter into the segment DB											
53	* Scoring is pre-planned and automatic given the metric and the DB information.											
54	* My rough estimates of the time for this plan suggest it could reduce the total time to 39% of the Current Plan. Note: no time involves scoring segs.											
55												
56	c. Modified Path Plan - Use the number of GIS and other measures of the segments we have now (e.g., tax map) to <i>informally</i> pick best segments.											
57	* Do not formally evaluate the segments											
58	* Spend time elaborating our Big Plusses and Big Minusses list and the Fatal Flaw criteria to eliminate unacceptable segments.											
59	* Use the best-found segments to compose promising paths											
60	* Traverse the best of these and try to improve their segments by substituting better ones.											
61	* Evaluate outside 25 plans against these and against our list of minuses and flaws. Retain for further examination only those that have no problems											
62	* Formally evaluate the final candidates using the reduced set of criteria (possibly enlarged) on these final candidates											
63	* My guess is that this could reduce the total time to 25% of the Current Plan											
64												

ScoreSheet Your Raw Data (Rev1) +

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