1
00:00:00,000 --> 00:00:13,680
2
00:00:13,680 --> 00:00:15,810
SPEAKER 1: All right.
3
00:00:15,810 --> 00:00:20,950
Welcome to the
Avenza Maps workshop.
4
00:00:20,950 --> 00:00:23,780
5
00:00:23,780 --> 00:00:27,066
And Frank, just to be
sure, you're hearing me OK?
6
00:00:27,066 --> 00:00:27,960
FRANK: Yep.
7
00:00:27,960 --> 00:00:30,010
Loud and clear.
8
00:00:30,010 --> 00:00:34,620
SPEAKER 1: OK Now,
everyone is muted.
9
00:00:34,620 --> 00:00:38,580
If anyone who is watching
has trouble hearing or seeing
10
00:00:38,580 --> 00:00:40,980
anything in the
presentation, please
11
00:00:40,980 --> 00:00:44,460
send Frank a chat
message and he'll
12
00:00:44,460 --> 00:00:45,780
make sure that we fix that.
13
00:00:45,780 --> 00:00:48,910
14
00:00:48,910 --> 00:00:53,100
So today, I'm going to be
going over, not only Avenza,
15
00:00:53,100 --> 00:00:55,810
but how to make a map and
get that map into Avenza,
16
00:00:55,810 --> 00:00:59,860
and then and then all the major
features of the Avenza app,

17
00:00:59,860 --> 00:01:03,580
which is something you can put
on your phone or your tablet.
18
00:01:03,580 --> 00:01:08,020
19
00:01:08,020 --> 00:01:11,720
So I think this
app is phenomenal.
20
00:01:11,720 --> 00:01:14,980
When I first came across it
three years ago-- and I have to
21
00:01:14,980 --> 00:01:19,750
I have to give credit to Jess
Weikel, who told me about it.
22
00:01:19,750 --> 00:01:21,220
She's also the one
who convinced me
23
00:01:21,220 --> 00:01:26,110
in 2012 to buy a smartphone
for the first time.
24
00:01:26,110 --> 00:01:30,080
Both were really
smart decisions to do.
25
00:01:30,080 --> 00:01:34,175
To me, it's revolutionized how
I do mapping on a daily basis.
26
00:01:34,175 --> 00:01:37,030
27
00:01:37,030 --> 00:01:39,570
So great maps made from scratch.
28
00:01:39,570 --> 00:01:40,980
That's what today's all about.
29
00:01:40,980 --> 00:01:45,990
30
00:01:45,990 --> 00:01:48,270
Even though I have
everyone muted,
31
00:01:48,270 --> 00:01:50,640
please use the chat box
throughout the presentation
32
00:01:50,640 --> 00:01:52,500

to send in any
questions you have.
33
00:01:52,500 --> 00:01:55,890
And that chat box would be in
the menu bar at the bottom.
34
00:01:55,890 --> 00:02:02,240
It says Chat and has a
little, like, message symbol.
35
00:02:02,240 --> 00:02:05,100
And hopefully you all
have seen those before
36
00:02:05,100 --> 00:02:06,550
or can quickly figure that out.
37
00:02:06,550 --> 00:02:09,440
38
00:02:09,440 --> 00:02:12,560
If you do have Avenza already
loaded on your phone or tablet,
39
00:02:12,560 --> 00:02:14,270
please go ahead
and have it open.
40
00:02:14,270 --> 00:02:15,140
Might be helpful.
41
00:02:15,140 --> 00:02:17,330
You can play around
with it while I talk.
42
00:02:17,330 --> 00:02:21,690
43
00:02:21,690 --> 00:02:23,700
This presentation
is being recorded
44
00:02:23,700 --> 00:02:26,190
and will be available on the
Connecticut DEEP Forestry
45
00:02:26,190 --> 00:02:27,670
main page.
46
00:02:27,670 --> 00:02:31,740
So if you want to go back into
this and look at a part of it
47
00:02:31,740 --> 00:02:34,740
that you want to review

again, it'll be there.
48
00:02:34,740 --> 00:02:38,590
49
00:02:38,590 --> 00:02:41,470
And if I have technical
difficulties--
50
00:02:41,470 --> 00:02:44,130
and I hopefully won't--
51
00:02:44,130 --> 00:02:47,560
and something goes wrong,
just please stay tuned.
52
00:02:47,560 --> 00:02:50,790
I mean, worst case scenario
I'd have to reboot my computer.
53
00:02:50,790 --> 00:02:53,660
But I don't plan
on that happening.
54
00:02:53,660 --> 00:02:56,320
But if it does happen
and it blanks out,
55
00:02:56,320 --> 00:03:01,100
Frank will entertain you
while I bring it back up.
56
00:03:01,100 --> 00:03:05,312
FRANK: I'm a great juggler,
so I can always do that.
57
00:03:05,312 --> 00:03:09,350
SPEAKER 1: [LAUGHS] And I want
to thank Frank for co-hosting.
58
00:03:09,350 --> 00:03:11,760
So Frank will be--
59
00:03:11,760 --> 00:03:14,780
he's the guy below my image.
60
00:03:14,780 --> 00:03:19,310
He will be fielding
chat box questions
61
00:03:19,310 --> 00:03:22,130
throughout the presentation.
62
00:03:22,130 --> 00:03:23,990
And if he doesn't

get to your question
63
00:03:23,990 --> 00:03:26,000
during the presentation,
we will definitely
64
00:03:26,000 --> 00:03:29,140
get to your questions when
the presentation is finished.
65
00:03:29,140 --> 00:03:33,130
66
00:03:33,130 --> 00:03:35,230
So first, we're going
to create a map.
67
00:03:35,230 --> 00:03:41,110
And this will be the map that
you'll use in the Avenza app.
68
00:03:41,110 --> 00:03:43,690
And we're going to do
that in ArcView GIS,
69
00:03:43,690 --> 00:03:47,340
but there are other programs
you can use to create a map.
70
00:03:47,340 --> 00:03:51,340
We'll talk about potential
map layers that you can use.
71
00:03:51,340 --> 00:03:53,010
And these layers are sort of--
72
00:03:53,010 --> 00:03:56,560
the ones that I'm going to
talk about are ones that I use,
73
00:03:56,560 --> 00:03:59,940
which might be more oriented
to the foresters who
74
00:03:59,940 --> 00:04:01,230
are attending.
75
00:04:01,230 --> 00:04:04,860
But this invitation was also
sent out to land trusts,
76
00:04:04,860 --> 00:04:07,770
and hopefully this part
will also be helpful to you.
77

00:04:07,770 --> 00:04:11,010
I think these layers would be
helpful to both land trusts
78
00:04:11,010 --> 00:04:12,900
and to foresters.
79
00:04:12,900 --> 00:04:14,730
And to foresters who
work for land trusts.
80
00:04:14,730 --> 00:04:18,079
81
00:04:18,079 --> 00:04:21,529
Creating a map from
a template, so I'm
82
00:04:21,529 --> 00:04:24,410
going to leave the PowerPoint
presentation at that point
83
00:04:24,410 --> 00:04:27,533
and I'm going to do
a live ArcView make
84
00:04:27,533 --> 00:04:28,325
a map from scratch.
85
00:04:28,325 --> 00:04:30,940
86
00:04:30,940 --> 00:04:33,820
And then, I'll go back
into the PowerPoint
87
00:04:33,820 --> 00:04:35,620
to go through
using Avenza, which
88
00:04:35,620 --> 00:04:39,820
will be a mix of screen
captures from my phone
89
00:04:39,820 --> 00:04:43,330
and some videos I
took of using Avenza.
90
00:04:43,330 --> 00:04:48,330
91
00:04:48,330 --> 00:04:50,610
First, we'll talk
about getting your map
92
00:04:50,610 --> 00:04:53,280
that you've made into

Avenza, which is important.
93
00:04:53,280 --> 00:04:54,690
Avenza won't work without a map.
94
00:04:54,690 --> 00:04:57,670
95
00:04:57,670 --> 00:05:00,520
Then, we'll talk about
making tracks, waypoints,
96
00:05:00,520 --> 00:05:03,220
and taking photos and
putting those into Avenza.
97
00:05:03,220 --> 00:05:08,620
Tracks are our lines that
you have walked or driven,
98
00:05:08,620 --> 00:05:12,580
waypoints are points that you
want to map specific points,
99
00:05:12,580 --> 00:05:18,742
and then photos you can tag on
to both tracks and waypoints.
100
00:05:18,742 --> 00:05:20,450
We'll talk about the
different navigating
101
00:05:20,450 --> 00:05:25,240
methods using Avenza, and
there's many of those.
102
00:05:25,240 --> 00:05:29,230
And geofences, which
is a very cool feature,
103
00:05:29,230 --> 00:05:31,540
and I think you'll
find that you might
104
00:05:31,540 --> 00:05:33,250
want to use that in the future.
105
00:05:33,250 --> 00:05:35,290
That basically
alerts you to when
106
00:05:35,290 --> 00:05:39,220
you're within a certain
buffer from a polygon, a line,
107

00:05:39,220 --> 00:05:41,358
or a waypoint.

108
00:05:41,358 --> 00:05:43,150
And then, lastly, we'll
talk about bringing

109
00:05:43,150 --> 00:05:48,460
in photos from your photo
album into your Avenza map.

110
00:05:48,460 --> 00:05:49,905
And then questions.

111
00:05:49,905 --> 00:05:52,640

112
00:05:52,640 --> 00:05:55,280
As I said before, this
phone mapping technology

113
00:05:55,280 --> 00:05:58,170
is truly amazing.

114
00:05:58,170 --> 00:06:02,130
There's a lot to absorb
in this presentation.

115
00:06:02,130 --> 00:06:07,350
For those of you who might be
less familiar with using GIS,

116
00:06:07,350 --> 00:06:09,240
I apologize ahead of time.

117
00:06:09,240 --> 00:06:12,900
Hopefully it's not too
over your head, or at least

118
00:06:12,900 --> 00:06:15,865
I'll inspire you to
learn more about GIS.

119
00:06:15,865 --> 00:06:19,880

120
00:06:19,880 --> 00:06:22,040
So creating the
inventory map, or what

121
00:06:22,040 --> 00:06:23,990
I call the inventory
map, or you could call it

122
00:06:23,990 --> 00:06:26,810
just your plain map.

123
00:06:26,810 --> 00:06:29,360
The more you can do ahead
of time, in my opinion,

124
00:06:29,360 --> 00:06:32,600
before you head off into
the field or into the woods,

125
00:06:32,600 --> 00:06:34,370
the more efficient
your woods time is

126
00:06:34,370 --> 00:06:36,740
and the more you can
concentrate on other things

127
00:06:36,740 --> 00:06:37,700
besides mapping.

128
00:06:37,700 --> 00:06:41,910

129
00:06:41,910 --> 00:06:45,900
Regular ArcView GIS is $1,500
for a license for one computer,

130
00:06:45,900 --> 00:06:47,790
they charge more for
multiple computers.

131
00:06:47,790 --> 00:06:50,610

132
00:06:50,610 --> 00:06:53,460
I've always been
fortunate enough

133
00:06:53,460 --> 00:06:57,390
to have access to ArcView GIS.

134
00:06:57,390 --> 00:07:00,460
But if you don't and $1,500
is out of your budget,

135
00:07:00,460 --> 00:07:03,750
there is a free QGIS that I'm
told works perfectly fine.

136
00:07:03,750 --> 00:07:09,910

137
00:07:09,910 --> 00:07:12,730
And when you save the map,
whether you're using ArcView,

138
00:07:12,730 --> 00:07:16,150

QGIS, or something
else, make sure
139
00:07:16,150 --> 00:07:20,890
your map is being saved
as a georeferenced PDF.
140
00:07:20,890 --> 00:07:23,260
In the older 9.3
version of ArcView
141
00:07:23,260 --> 00:07:26,410
you actually had to change the
settings to make it do that.
142
00:07:26,410 --> 00:07:28,990
In the newer 10.4
version, you don't.
143
00:07:28,990 --> 00:07:31,810
It automatically saves
the georeference.
144
00:07:31,810 --> 00:07:34,450
But whatever mapping
application you're using,
145
00:07:34,450 --> 00:07:35,950
you'll want to go
into your settings
146
00:07:35,950 --> 00:07:40,000
and make sure it saves the
PDF files as georeferenced.
147
00:07:40,000 --> 00:07:44,715
148
00:07:44,715 --> 00:07:50,140
I get all my shapefiles from
the CT ECO Uconn website.
149
00:07:50,140 --> 00:07:52,420
And are also called
the CLEAR website.
150
00:07:52,420 --> 00:07:55,380
So all these layers that
I'm going to show you now
151
00:07:55,380 --> 00:07:56,445
are on the CLEAR website.
152
00:07:56,445 --> 00:08:00,060
153

00:08:00,060 --> 00:08:02,760
Streets.

154
00:08:02,760 --> 00:08:08,620
Now you can see a little arrow
there with streets Hey, Frank,

155
00:08:08,620 --> 00:08:12,290
I just sort of
covering the arrow.

156
00:08:12,290 --> 00:08:18,010
Is there a way for you to
get rid of the video on the?

157
00:08:18,010 --> 00:08:18,510
FRANK: Yeah.

158
00:08:18,510 --> 00:08:23,070
If you go-- the
window that shows

159
00:08:23,070 --> 00:08:26,520
the speaker's face, and then
the other video that are active.

160
00:08:26,520 --> 00:08:29,160
There's a couple in the
top left hand corner.

161
00:08:29,160 --> 00:08:31,440
There's an option for
hide the thumbnail video,

162
00:08:31,440 --> 00:08:34,215
or the second option is
sort of a single rectangle,

163
00:08:34,215 --> 00:08:36,090
and then there's a double
rectangle, and then

164
00:08:36,090 --> 00:08:37,409
multiple rectangles.

165
00:08:37,409 --> 00:08:39,299
So if you'd like,
you could either

166
00:08:39,299 --> 00:08:42,090
hide the thumbnail
video, or you could just

167
00:08:42,090 --> 00:08:43,230

hit the first rectangle.
168
00:08:43,230 --> 00:08:47,050
And that turns it into
a very small display.
169
00:08:47,050 --> 00:08:47,860
SPEAKER 1: Oh.
170
00:08:47,860 --> 00:08:49,540
Are you able to do that?
171
00:08:49,540 --> 00:08:53,110
FRANK: I don't think I
can do that for anyone.
172
00:08:53,110 --> 00:08:56,800
But any individual person can
set it however they'd like.
173
00:08:56,800 --> 00:09:00,800
174
00:09:00,800 --> 00:09:01,300
So--
175
00:09:01,300 --> 00:09:02,420
SPEAKER 1: Oh, I see.
176
00:09:02,420 --> 00:09:03,950
So each of us set it for--
177
00:09:03,950 --> 00:09:04,450
OK.
178
00:09:04,450 --> 00:09:07,460
179
00:09:07,460 --> 00:09:08,030
FRANK: Yeah.
180
00:09:08,030 --> 00:09:08,808
It's sort of a--
181
00:09:08,808 --> 00:09:10,850
I guess it's a personal
preference type of thing.
182
00:09:10,850 --> 00:09:12,830
But in this case, it
might be best for everyone
183
00:09:12,830 --> 00:09:15,050
to hide the thumbnail
video so that you
184

00:09:15,050 --> 00:09:16,430
can see the full screen.
185
00:09:16,430 --> 00:09:18,830
Because there's going
to be a lot of images
186
00:09:18,830 --> 00:09:22,010
that Dave is going to
be describing for us.
187
00:09:22,010 --> 00:09:23,010
SPEAKER 1: OK.
188
00:09:23,010 --> 00:09:23,510
Yeah.
189
00:09:23,510 --> 00:09:25,510
If you to go to the top
of the thumbnail videos,
190
00:09:25,510 --> 00:09:28,100
there's a Minimize
button that'll
191
00:09:28,100 --> 00:09:30,050
appear when you move
your cursor to the top.
192
00:09:30,050 --> 00:09:32,000
And you can minimize
those thumbnail videos,
193
00:09:32,000 --> 00:09:36,180
which I just did if you have
those same things showing up.
194
00:09:36,180 --> 00:09:41,510
So now I'm looking at a full
screen without the thumbnails.
195
00:09:41,510 --> 00:09:45,260
Are you seeing a full screen
without the thumbnails, Frank?
196
00:09:45,260 --> 00:09:45,830
FRANK: Yes.
197
00:09:45,830 --> 00:09:46,790
Yep.
198
00:09:46,790 --> 00:09:48,632
SPEAKER 1: OK, perfect.
199

00:09:48,632 --> 00:09:50,090
If you're having
trouble with that,
200
00:09:50,090 --> 00:09:51,900
send a chat box
request to Frank.
201
00:09:51,900 --> 00:09:53,310
And maybe he can help you out.
202
00:09:53,310 --> 00:09:53,810
All right.
203
00:09:53,810 --> 00:09:54,852
Back to the presentation.
204
00:09:54,852 --> 00:09:55,380
So streets.
205
00:09:55,380 --> 00:09:57,890
So you can see the arrow
at the bottom right hand
206
00:09:57,890 --> 00:09:59,960
corner pointing to the streets.
207
00:09:59,960 --> 00:10:02,630
They're white and they're
labeled in this case.
208
00:10:02,630 --> 00:10:07,280
209
00:10:07,280 --> 00:10:10,210
Critical habitat.
210
00:10:10,210 --> 00:10:14,620
So there's a critical habitat
on the left hand side of the map
211
00:10:14,620 --> 00:10:16,330
here.
212
00:10:16,330 --> 00:10:20,260
This one is a Spring Fen.
213
00:10:20,260 --> 00:10:23,020
This layer's updated
periodically by the National
214
00:10:23,020 --> 00:10:29,980
Diversity Database people at DEP
This is a nice layer to put on.
215

00:10:29,980 --> 00:10:31,540
Basically, it's a
vegetation layer
216
00:10:31,540 --> 00:10:34,760
that shows unusual vegetation.
217
00:10:34,760 --> 00:10:38,670
If you do use it, you will want
to update it on your computer
218
00:10:38,670 --> 00:10:42,470
once a year because it
is periodically changed.
219
00:10:42,470 --> 00:10:44,390
Hydrography.
220
00:10:44,390 --> 00:10:47,360
So the lake on the right,
and the stream in the middle
221
00:10:47,360 --> 00:10:49,970
that the pointers are
at, that's hydrography.
222
00:10:49,970 --> 00:10:55,750
It shows major body of waters
and major rivers and streams.
223
00:10:55,750 --> 00:10:57,730
Parcels.
224
00:10:57,730 --> 00:11:01,630
So that's the little
red lines on this map.
225
00:11:01,630 --> 00:11:06,700
That layer is for most towns
but not all towns unfortunately.
226
00:11:06,700 --> 00:11:09,370
227
00:11:09,370 --> 00:11:12,520
If you're working at a town
that does not have the parcel
228
00:11:12,520 --> 00:11:16,870
layer in the
Connecticut ECO layers,
229
00:11:16,870 --> 00:11:19,870
you can go to the town
websites and often

230
00:11:19,870 --> 00:11:22,300
either download those
layers into your computer

231
00:11:22,300 --> 00:11:24,940
or ask the assessor to
email you the layers,

232
00:11:24,940 --> 00:11:30,400
which I've had assessors
help me with that.

233
00:11:30,400 --> 00:11:35,140
Or you can just take a
picture of those layers

234
00:11:35,140 --> 00:11:42,160
on the assessor website, and
then re-input it to your map.

235
00:11:42,160 --> 00:11:43,240
Trails.

236
00:11:43,240 --> 00:11:45,820
Major trails like
the blue trails.

237
00:11:45,820 --> 00:11:50,500
And there's one on this map.

238
00:11:50,500 --> 00:11:53,730
That brown line.

239
00:11:53,730 --> 00:11:56,040
Protected open space.

240
00:11:56,040 --> 00:11:58,650
So that green area
is state land.

241
00:11:58,650 --> 00:12:03,030
And then the brown area
below is land trust land.

242
00:12:03,030 --> 00:12:05,040
That's a good layer to have.

243
00:12:05,040 --> 00:12:09,420
And again, that's updated
periodically by the DEP.

244
00:12:09,420 --> 00:12:16,290
And then the base layer on this

map is the 2016 Ortho photos.
245
00:12:16,290 --> 00:12:18,570
And all these labels
that I'm bringing up

246
00:12:18,570 --> 00:12:22,300
are exactly how they appear on
the Connecticut ECO website.

247
00:12:22,300 --> 00:12:25,650
Some of them have a kind
of weird title to them.

248
00:12:25,650 --> 00:12:28,590
So Images Ortho 2016 tiled.

249
00:12:28,590 --> 00:12:30,217
And then that's an
early spring photo.

250
00:12:30,217 --> 00:12:31,800
And the great thing
about those photos

251
00:12:31,800 --> 00:12:36,510
is that you can see
barberry leafed out, which

252
00:12:36,510 --> 00:12:38,617
is really nice to map that.

253
00:12:38,617 --> 00:12:40,950
And you can tell it's early
spring because sometimes you

254
00:12:40,950 --> 00:12:43,680
run across a patch of snow.

255
00:12:43,680 --> 00:12:47,460
Images/Ortho photo 2019
which recently came out,

256
00:12:47,460 --> 00:12:49,140
I don't I don't
really like them.

257
00:12:49,140 --> 00:12:51,990
They're not nearly as good
looking as the 2016 photos.

258
00:12:51,990 --> 00:12:53,490
But they are really
good if you need

259
00:12:53,490 --> 00:12:55,110
to look at something
that happened

260
00:12:55,110 --> 00:13:02,670
on your property
between 2016 and 2019.

261
00:13:02,670 --> 00:13:03,300
Soil.

262
00:13:03,300 --> 00:13:05,310
So this is a soils map.

263
00:13:05,310 --> 00:13:09,450
And the white lines
are the soil boundaries

264
00:13:09,450 --> 00:13:12,270
for different types of soils.

265
00:13:12,270 --> 00:13:15,150
I like the farmland soils layer.

266
00:13:15,150 --> 00:13:17,160
It's often where you'll
find invasive species.

267
00:13:17,160 --> 00:13:20,190
And it shows you
the richest soils.

268
00:13:20,190 --> 00:13:24,240
And that is the yellow
and the green layers.

269
00:13:24,240 --> 00:13:26,760
There's different colors because
there are different kinds

270
00:13:26,760 --> 00:13:29,310
of farmland soils.

271
00:13:29,310 --> 00:13:31,335
Inland wetland
soils is the purple.

272
00:13:31,335 --> 00:13:34,400

273
00:13:34,400 --> 00:13:36,830
Of course it's good to
know where those are.

274

00:13:36,830 --> 00:13:39,938
And some other layers that I
use, which aren't on this map,
275
00:13:39,938 --> 00:13:41,480
is the county index
layer which shows
276
00:13:41,480 --> 00:13:43,933
you the county boundaries.
277
00:13:43,933 --> 00:13:46,100
The Connecticut Towns layer
which shows you the town
278
00:13:46,100 --> 00:13:47,180
boundaries.
279
00:13:47,180 --> 00:13:49,070
And the Railroad
Master, which shows you
280
00:13:49,070 --> 00:13:50,180
where the railroads are.
281
00:13:50,180 --> 00:13:54,380
282
00:13:54,380 --> 00:13:57,050
So this map shows contours.
283
00:13:57,050 --> 00:14:03,000
And the contours layer's
called CT 2000 Contours.
284
00:14:03,000 --> 00:14:05,780
You have a choice between
20 foot contours, 10 foot
285
00:14:05,780 --> 00:14:07,205
contours, and 2 foot contours.
286
00:14:07,205 --> 00:14:10,700
287
00:14:10,700 --> 00:14:14,690
And then this map also shows
the National Diversity Database
288
00:14:14,690 --> 00:14:16,790
Area, which is
periodically updated.
289
00:14:16,790 --> 00:14:19,430
And that's the black cross.
290

00:14:19,430 --> 00:14:22,070
Little thin black cross hatches.
291
00:14:22,070 --> 00:14:25,500
This entire map is within a
Natural Diversity Database
292
00:14:25,500 --> 00:14:26,000
Area.
293
00:14:26,000 --> 00:14:28,550
So the entire map
is crosshatched.
294
00:14:28,550 --> 00:14:31,760
But normally you would
see like a big circle
295
00:14:31,760 --> 00:14:34,675
your circular blob
for NDDB Area.
296
00:14:34,675 --> 00:14:36,800
And these are areas where
threatened and endangered
297
00:14:36,800 --> 00:14:40,460
species might occur.
298
00:14:40,460 --> 00:14:43,830
Not necessarily do occur.
299
00:14:43,830 --> 00:14:48,300
And then Elevation/Hillshade.
300
00:14:48,300 --> 00:14:49,920
I'll go into this more later.
301
00:14:49,920 --> 00:14:51,780
This layer is pretty awesome.
302
00:14:51,780 --> 00:14:55,290
And you can see on here that
this was a heavily farmed area.
303
00:14:55,290 --> 00:14:58,440
A lot of those lines on there
that are in 90 degree angles
304
00:14:58,440 --> 00:15:00,270
and straight are stone walls.
305
00:15:00,270 --> 00:15:02,490
And some of the lines on

there that are more curvy
306
00:15:02,490 --> 00:15:03,390
are trails
307
00:15:03,390 --> 00:15:06,580
308
00:15:06,580 --> 00:15:11,110
There's two
Elevation/Hillshade layers.
309
00:15:11,110 --> 00:15:15,470
The regular Elevation/Hillshade,
which works 90% of the time,
310
00:15:15,470 --> 00:15:18,070
it does have a
darkening on slopes
311
00:15:18,070 --> 00:15:22,210
on the east and
south sides of hills.
312
00:15:22,210 --> 00:15:26,740
That's because when they
did the LIDAR photograph,
313
00:15:26,740 --> 00:15:32,420
they were doing it
from as the sun sets.
314
00:15:32,420 --> 00:15:34,940
Like an afternoon position.
315
00:15:34,940 --> 00:15:41,030
Where the south and eastern
side of the hills were shady.
316
00:15:41,030 --> 00:15:45,050
So they did a second
photo shoot in the morning
317
00:15:45,050 --> 00:15:47,660
where the southeast
layers were not shady.
318
00:15:47,660 --> 00:15:50,150
And that's really
helpful because sometimes
319
00:15:50,150 --> 00:15:53,330
on a really steep slope,
it'll be totally black.
320

00:15:53,330 --> 00:15:55,910
You can't make out any
of this information.
321
00:15:55,910 --> 00:15:59,060
And that's when you turn on
the Elevation/Hillshade SE,
322
00:15:59,060 --> 00:16:01,667
and it comes to light literally.
323
00:16:01,667 --> 00:16:05,010
324
00:16:05,010 --> 00:16:06,900
So I just went through
all the shapefiles
325
00:16:06,900 --> 00:16:10,023
you can get off CT ECO
website and download
326
00:16:10,023 --> 00:16:10,815
into your computer.
327
00:16:10,815 --> 00:16:15,920
328
00:16:15,920 --> 00:16:20,450
These are the shapefiles I like
to create for each property
329
00:16:20,450 --> 00:16:21,650
that I work on.
330
00:16:21,650 --> 00:16:23,420
And you, of course,
will have your own
331
00:16:23,420 --> 00:16:25,610
that you would like to create.
332
00:16:25,610 --> 00:16:26,880
Boundaries.
333
00:16:26,880 --> 00:16:30,620
And again, I always
check assessor websites.
334
00:16:30,620 --> 00:16:33,500
They're usually more accurate
than what the Connecticut ECO
335
00:16:33,500 --> 00:16:35,150
layer has.
336

00:16:35,150 --> 00:16:37,910
And a lot of the assessors
now have full GIS online.
337
00:16:37,910 --> 00:16:41,340
And you can get a lot of
good information there.
338
00:16:41,340 --> 00:16:42,690
Streams.
339
00:16:42,690 --> 00:16:44,040
Trails and roads.
340
00:16:44,040 --> 00:16:47,820
Wetlands-- marsh, swamp,
vernal pool, pond.
341
00:16:47,820 --> 00:16:49,470
Stone walls.
342
00:16:49,470 --> 00:16:50,070
Buildings.
343
00:16:50,070 --> 00:16:50,910
Old foundations.
344
00:16:50,910 --> 00:16:52,470
And charcoal mounds.
345
00:16:52,470 --> 00:16:56,010
And I try to make basic
forest stands or forest
346
00:16:56,010 --> 00:16:59,650
types with the acreages before
I go out into the woods.
347
00:16:59,650 --> 00:17:01,120
It's a good starting point.
348
00:17:01,120 --> 00:17:03,480
It probably won't
be totally accurate.
349
00:17:03,480 --> 00:17:05,428
But at least that way
you know the acreage,
350
00:17:05,428 --> 00:17:07,470
and you know how many
inventory points to put in.
351
00:17:07,470 --> 00:17:10,630

352
00:17:10,630 --> 00:17:14,579
So creating a new map from
a template, which is I

353
00:17:14,579 --> 00:17:16,589
think the fastest way
to do it rather than

354
00:17:16,589 --> 00:17:19,611
start from total nothingness.

355
00:17:19,611 --> 00:17:21,569
It's better to have a
template already prepared

356
00:17:21,569 --> 00:17:28,313
that you sort of catered for
your needs over the years.

357
00:17:28,313 --> 00:17:29,980
So once you have that
template, you just

358
00:17:29,980 --> 00:17:31,900
copy the files from
your template folder

359
00:17:31,900 --> 00:17:34,270
into your new project folder.

360
00:17:34,270 --> 00:17:37,680
Rename your new map.

361
00:17:37,680 --> 00:17:42,117
Open and remove the
shapefiles from that.

362
00:17:42,117 --> 00:17:43,950
And replace them with
the copied shapefiles.

363
00:17:43,950 --> 00:17:46,110
If you don't do that,
which I've done many times,

364
00:17:46,110 --> 00:17:48,835
you end up editing your template
rather than the new project

365
00:17:48,835 --> 00:17:49,710
that you're creating.

366
00:17:49,710 --> 00:17:51,990

And then you have to
fix your template later.
367
00:17:51,990 --> 00:17:55,530
And it's kind of a
pain in the butt.
368
00:17:55,530 --> 00:17:59,370
And I'm going to demonstrate
all this in ArcView.
369
00:17:59,370 --> 00:18:02,700
So right now this may
seem kind of esoteric.
370
00:18:02,700 --> 00:18:05,790
But you'll see it
in real life soon.
371
00:18:05,790 --> 00:18:09,500
Again, if you don't do this,
it will change your template.
372
00:18:09,500 --> 00:18:10,700
And then you also--
373
00:18:10,700 --> 00:18:13,610
unfortunately, the
formatting of layers
374
00:18:13,610 --> 00:18:15,860
does not transfer when
you copy and paste.
375
00:18:15,860 --> 00:18:19,550
So you'll have to format
the appearance of each layer
376
00:18:19,550 --> 00:18:22,120
when you create a new map.
377
00:18:22,120 --> 00:18:22,620
All right.
378
00:18:22,620 --> 00:18:26,960
So let's make a
field map in GIS.
379
00:18:26,960 --> 00:18:28,710
And I'm going to go
out of the PowerPoint.
380
00:18:28,710 --> 00:18:40,570
381

00:18:40,570 --> 00:18:41,070
OK.
382
00:18:41,070 --> 00:18:45,320
So I've already made a folder
here to save time called, Test.
383
00:18:45,320 --> 00:18:47,650
So you want to make a folder.
384
00:18:47,650 --> 00:18:50,840
I'm going to open up Test.
385
00:18:50,840 --> 00:18:53,570
And I'm going to open
up my ArcMap template
386
00:18:53,570 --> 00:18:56,840
folder over here.
387
00:18:56,840 --> 00:18:57,710
Drag this over.
388
00:18:57,710 --> 00:19:01,500
389
00:19:01,500 --> 00:19:04,330
I'm going to select all my--
390
00:19:04,330 --> 00:19:06,890
and you can see at the top
here I have Burlington Parcels.
391
00:19:06,890 --> 00:19:10,575
So the assessor was nice
enough to email me all the tax
392
00:19:10,575 --> 00:19:12,700
parcels for Burlington,
which is one of those towns
393
00:19:12,700 --> 00:19:15,040
that Connecticut
ECO does not have.
394
00:19:15,040 --> 00:19:18,050
395
00:19:18,050 --> 00:19:21,795
Select everything in my
ArcMap template folder.
396
00:19:21,795 --> 00:19:25,485
I'm going to drag and drop it
into my new project folder.
397

00:19:25,485 --> 00:19:25,985
Copy.
398
00:19:25,985 --> 00:19:30,690
399
00:19:30,690 --> 00:19:31,190
OK.
400
00:19:31,190 --> 00:19:36,670
Now they got that done,
I can get rid of this.
401
00:19:36,670 --> 00:19:39,610
And then I will open
up my template map,
402
00:19:39,610 --> 00:19:40,465
which is right here.
403
00:19:40,465 --> 00:19:43,670
404
00:19:43,670 --> 00:19:45,770
This takes a while to load.
405
00:19:45,770 --> 00:19:48,140
So if you have
questions, we have
406
00:19:48,140 --> 00:19:50,450
sort of a blank space here.
407
00:19:50,450 --> 00:19:52,010
Feel free to send them to Frank.
408
00:19:52,010 --> 00:19:54,740
409
00:19:54,740 --> 00:19:57,260
So once this gets
loaded, I'm going
410
00:19:57,260 --> 00:19:58,670
to do exactly what
I talked about
411
00:19:58,670 --> 00:20:00,180
in the PowerPoint presentation.
412
00:20:00,180 --> 00:20:04,105
I'm going to remove
all the layers.
413
00:20:04,105 --> 00:20:05,480
Because right now,
I'm opening up

414
00:20:05,480 --> 00:20:09,980
a template map, which all of its
layers are the template layers.

415
00:20:09,980 --> 00:20:11,640
And I don't want
to mess with those.

416
00:20:11,640 --> 00:20:13,015
So I'm going to
get rid of those,

417
00:20:13,015 --> 00:20:16,250
and bring in the layers, the
shapefiles, that I just copied.

418
00:20:16,250 --> 00:20:25,370

419
00:20:25,370 --> 00:20:27,890
FRANK: Dave, we got
a quick question

420
00:20:27,890 --> 00:20:33,250
asking if most assessors
readily share their shapefiles?

421
00:20:33,250 --> 00:20:36,340
Or is it a some
assessors type situation?

422
00:20:36,340 --> 00:20:37,870
I don't know if
they're required to,

423
00:20:37,870 --> 00:20:39,430
or if it's just
kind of something

424
00:20:39,430 --> 00:20:40,760
that they do as a courtesy.

425
00:20:40,760 --> 00:20:44,763

426
00:20:44,763 --> 00:20:46,680
SPEAKER 1: They're
definitely not required to.

427
00:20:46,680 --> 00:20:49,770

428
00:20:49,770 --> 00:20:52,770
I would just be very
polite, and sweet talk them

429

00:20:52,770 --> 00:20:55,140
into doing that if they can.
430
00:20:55,140 --> 00:20:59,850
Not all of them will be
able to do that for you.
431
00:20:59,850 --> 00:21:03,000
It's certainly worth giving it
a shot, and giving them a call.
432
00:21:03,000 --> 00:21:06,090
And seeing if they're
willing to email you the tax
433
00:21:06,090 --> 00:21:07,260
parcels for the town.
434
00:21:07,260 --> 00:21:12,090
435
00:21:12,090 --> 00:21:12,590
All right.
436
00:21:12,590 --> 00:21:13,430
We're opened up.
437
00:21:13,430 --> 00:21:15,125
So we're in the template file.
438
00:21:15,125 --> 00:21:18,650
439
00:21:18,650 --> 00:21:20,510
This is the template
I use for all my maps.
440
00:21:20,510 --> 00:21:23,120
And I make many maps every week.
441
00:21:23,120 --> 00:21:28,023
And this is how it always
looks when I open it up.
442
00:21:28,023 --> 00:21:29,440
So the first thing
I'm going to do
443
00:21:29,440 --> 00:21:31,900
is I'm going to do a Save As.
444
00:21:31,900 --> 00:21:34,800
And I'm going to save it
as the project name, which
445
00:21:34,800 --> 00:21:36,030

in this case is Test.
446
00:21:36,030 --> 00:21:39,940
447
00:21:39,940 --> 00:21:41,920
If you don't do the Save
As, you're basically
448
00:21:41,920 --> 00:21:43,060
writing over your template.
449
00:21:43,060 --> 00:21:45,770
450
00:21:45,770 --> 00:21:46,270
All right.
451
00:21:46,270 --> 00:21:52,932
Now I'm going to get rid of the
layers from the template map.
452
00:21:52,932 --> 00:21:53,720
Hit Remove.
453
00:21:53,720 --> 00:21:57,728
454
00:21:57,728 --> 00:21:59,770
And then I'm going to hit
the Plus button up here
455
00:21:59,770 --> 00:22:05,560
to add layers that I just
copied into the test folder.
456
00:22:05,560 --> 00:22:07,840
And that is not the test folder.
457
00:22:07,840 --> 00:22:09,370
So I have to find
the test folder.
458
00:22:09,370 --> 00:22:27,950
459
00:22:27,950 --> 00:22:28,860
Oh, not that.
460
00:22:28,860 --> 00:22:33,060
461
00:22:33,060 --> 00:22:33,870
There we go.
462
00:22:33,870 --> 00:22:34,710
OK.
463
00:22:34,710 --> 00:22:36,850

Now we're in-- see,
it says Home GIS Test.
464
00:22:36,850 --> 00:22:38,500
So now I'm in the Test folder.
465
00:22:38,500 --> 00:22:40,167
These are the layers
that I just copied.
466
00:22:40,167 --> 00:22:42,320
467
00:22:42,320 --> 00:22:43,460
And then I'm going to Add.
468
00:22:43,460 --> 00:22:46,600
469
00:22:46,600 --> 00:22:49,530
And they appear.
470
00:22:49,530 --> 00:22:52,395
For some reason, the streets
in the Connecticut contours
471
00:22:52,395 --> 00:22:54,270
embed themselves in the
middle of the layers.
472
00:22:54,270 --> 00:22:56,100
And the first thing
I do after this is I
473
00:22:56,100 --> 00:23:02,660
drag those down below the layers
that we're going to be editing.
474
00:23:02,660 --> 00:23:03,160
OK.
475
00:23:03,160 --> 00:23:05,440
So the next step is to
actually find the property
476
00:23:05,440 --> 00:23:07,420
that you're mapping.
477
00:23:07,420 --> 00:23:13,438
So right now, all we're
looking at is a 2016 air photo.
478
00:23:13,438 --> 00:23:14,480
So I'm going to zoom out.
479
00:23:14,480 --> 00:23:23,780

480
00:23:23,780 --> 00:23:25,880
And I sort of know where
I'm going because I

481
00:23:25,880 --> 00:23:27,230
know where this project is.

482
00:23:27,230 --> 00:23:37,710

483
00:23:37,710 --> 00:23:38,730
OK.

484
00:23:38,730 --> 00:23:40,930
That green blob is my project.

485
00:23:40,930 --> 00:23:41,970
So I'm going to zoom in.

486
00:23:41,970 --> 00:23:54,800

487
00:23:54,800 --> 00:23:57,050
So I'm going to quickly go
through each of the layers.

488
00:23:57,050 --> 00:23:59,840

489
00:23:59,840 --> 00:24:02,740
So you have your Streets layer.

490
00:24:02,740 --> 00:24:04,000
And I just turned that on.

491
00:24:04,000 --> 00:24:05,083
And there are the streets.

492
00:24:05,083 --> 00:24:07,430

493
00:24:07,430 --> 00:24:10,653
I'm going to turn that on.

494
00:24:10,653 --> 00:24:12,070
The landowner who
agreed to let me

495
00:24:12,070 --> 00:24:16,000
use their property
keep this private.

496
00:24:16,000 --> 00:24:18,520
The Contour layer.

497
00:24:18,520 --> 00:24:19,360
Turn that on.

498
00:24:19,360 --> 00:24:24,210
499
00:24:24,210 --> 00:24:28,650
And right now, if I open
up the menu for that,
500
00:24:28,650 --> 00:24:32,140
I have 10 foot contours checked.
501
00:24:32,140 --> 00:24:34,260
If I click the 2
foot contour level,
502
00:24:34,260 --> 00:24:36,540
it'll bring in the two foot.
503
00:24:36,540 --> 00:24:40,870
That is very computer intense.
504
00:24:40,870 --> 00:24:42,760
It takes a long time
for the computers
505
00:24:42,760 --> 00:24:44,160
to draw the 2 foot contour.
506
00:24:44,160 --> 00:24:47,910
So I only do that if I really
need those 2 foot contours.
507
00:24:47,910 --> 00:24:50,290
But 2 foot contours are great
for engineering projects
508
00:24:50,290 --> 00:24:55,510
or mapping specific stream
course or something like that.
509
00:24:55,510 --> 00:25:02,560
510
00:25:02,560 --> 00:25:04,210
Soils.
511
00:25:04,210 --> 00:25:08,490
There's a soil layer where
the soils boundaries.
512
00:25:08,490 --> 00:25:11,850
And if you use the
information tool up here,
513
00:25:11,850 --> 00:25:14,940
and you click on one of those

layers, you should get-- yeah,

514
00:25:14,940 --> 00:25:16,860
you should get-- so
that's rock outcrops

515
00:25:16,860 --> 00:25:19,320
tall as 45% to 60% slopes.

516
00:25:19,320 --> 00:25:24,240

517
00:25:24,240 --> 00:25:25,590
Critical habitat.

518
00:25:25,590 --> 00:25:27,960
We talked about that earlier.

519
00:25:27,960 --> 00:25:30,560
There is no critical habitat
in this project area.

520
00:25:30,560 --> 00:25:33,850

521
00:25:33,850 --> 00:25:34,705
Farmland soils.

522
00:25:34,705 --> 00:25:37,350

523
00:25:37,350 --> 00:25:40,380
There is some farmland
soils in this project area.

524
00:25:40,380 --> 00:25:44,070
And you can see the yellow is
state wide important farmlands.

525
00:25:44,070 --> 00:25:45,780
The green are prime farmlands.

526
00:25:45,780 --> 00:25:48,467

527
00:25:48,467 --> 00:25:49,800
I don't know what color that is.

528
00:25:49,800 --> 00:25:52,440
The pinkish color is
locally important farmlands,

529
00:25:52,440 --> 00:25:56,940
which there aren't any
in this project area.

530
00:25:56,940 --> 00:25:59,400
Click that off.

531
00:25:59,400 --> 00:26:00,510
Inland wetlands soils.
532
00:26:00,510 --> 00:26:07,890
533
00:26:07,890 --> 00:26:08,390
Yep.
534
00:26:08,390 --> 00:26:11,360
So there's some
inland wetland soils.
535
00:26:11,360 --> 00:26:14,540
The two types are
poorly drained,
536
00:26:14,540 --> 00:26:16,430
which is the darker purple.
537
00:26:16,430 --> 00:26:20,720
And the lighter purple is
alluvial and floodplain.
538
00:26:20,720 --> 00:26:23,790
Hydrography layer.
539
00:26:23,790 --> 00:26:26,745
So we could see a
stream over here.
540
00:26:26,745 --> 00:26:29,970
541
00:26:29,970 --> 00:26:32,790
And a river over here.
542
00:26:32,790 --> 00:26:35,870
543
00:26:35,870 --> 00:26:37,040
Parcel layers.
544
00:26:37,040 --> 00:26:41,950
So there's all the tax parcels
in the small red lines.
545
00:26:41,950 --> 00:26:43,540
National Diversity Database.
546
00:26:43,540 --> 00:26:45,140
I click on that.
547
00:26:45,140 --> 00:26:47,680
There's some over here
in the upper right hand

548
00:26:47,680 --> 00:26:48,580
corner of the screen.
549
00:26:48,580 --> 00:26:52,170
550
00:26:52,170 --> 00:26:53,700
Public trails.
551
00:26:53,700 --> 00:26:55,440
Nothing here for public trails.
552
00:26:55,440 --> 00:26:57,810
Protected open space.
553
00:26:57,810 --> 00:27:00,990
No protected open space.
554
00:27:00,990 --> 00:27:04,140
I know that there's no
county or town lines here.
555
00:27:04,140 --> 00:27:05,370
And there's no railroads.
556
00:27:05,370 --> 00:27:08,210
557
00:27:08,210 --> 00:27:11,180
So I'm going to keep
that parcels layer on.
558
00:27:11,180 --> 00:27:15,020
And right here in front of
me, I have the information
559
00:27:15,020 --> 00:27:20,690
I need from the landowner to
know which parcels they own.
560
00:27:20,690 --> 00:27:25,390
And I'm going to hit the
Start Editing button.
561
00:27:25,390 --> 00:27:28,710
And when you do this, you can
click on any of your layers
562
00:27:28,710 --> 00:27:30,490
that you are making.
563
00:27:30,490 --> 00:27:32,370
So I'm just going to
click on driveways.
564

00:27:32,370 --> 00:27:35,970
And the layers will
automatically show up
565
00:27:35,970 --> 00:27:38,400
on the right hand side menu.
566
00:27:38,400 --> 00:27:43,660
And then you choose these based
on which ones you want to edit.
567
00:27:43,660 --> 00:27:47,640
So I'm going to go
ahead and choose Stands.
568
00:27:47,640 --> 00:27:51,460
Or you could call
that boundaries.
569
00:27:51,460 --> 00:27:57,170
Because my formatting
didn't save when I copied,
570
00:27:57,170 --> 00:28:00,100
the formatting that it gives you
automatically is not very good.
571
00:28:00,100 --> 00:28:02,420
So I'm going to go
ahead and change
572
00:28:02,420 --> 00:28:05,840
the formatting for the layers
that we're going to use.
573
00:28:05,840 --> 00:28:08,600
While I do that, if
there's any questions,
574
00:28:08,600 --> 00:28:13,210
there will be a bit of a
lag here while I do that.
575
00:28:13,210 --> 00:28:16,030
And this-- I mean you can
use any formatting you want.
576
00:28:16,030 --> 00:28:20,660
This is my standard formatting
that I use for all my maps.
577
00:28:20,660 --> 00:28:23,370
578
00:28:23,370 --> 00:28:28,130

So for wetlands, I do a hollow
polygon with a blue outline.
579
00:28:28,130 --> 00:28:33,290
For stands I do a hollow
polygon with a black outline
580
00:28:33,290 --> 00:28:35,180
that's a width of two.
581
00:28:35,180 --> 00:28:38,300
I like the width of
two for most stuff.
582
00:28:38,300 --> 00:28:40,820
The privacy layers to
block out the owner's house
583
00:28:40,820 --> 00:28:44,000
so you don't know where we are.
584
00:28:44,000 --> 00:28:44,515
Woods roads.
585
00:28:44,515 --> 00:28:52,030
586
00:28:52,030 --> 00:28:53,030
Actually, you know what?
587
00:28:53,030 --> 00:28:56,600
We're not going to bother
because I don't think
588
00:28:56,600 --> 00:28:58,670
there are any woods roads here.
589
00:28:58,670 --> 00:29:00,950
There are trails.
590
00:29:00,950 --> 00:29:03,350
So we'll make a trails layer.
591
00:29:03,350 --> 00:29:06,550
592
00:29:06,550 --> 00:29:07,870
We use the dash line.
593
00:29:07,870 --> 00:29:13,900
594
00:29:13,900 --> 00:29:15,460
Streams.
595
00:29:15,460 --> 00:29:17,137
I don't want my

streams to be green.
596
00:29:17,137 --> 00:29:18,220
They're made out of water.
597
00:29:18,220 --> 00:29:19,330
I want them to be blue.
598
00:29:19,330 --> 00:29:23,900
599
00:29:23,900 --> 00:29:26,860
I like the-- stone walls.
600
00:29:26,860 --> 00:29:31,380
I like my stone walls to
really pop on the map.
601
00:29:31,380 --> 00:29:34,680
To me, making maps is as
much a technical thing
602
00:29:34,680 --> 00:29:35,750
as an artistic thing.
603
00:29:35,750 --> 00:29:39,870
604
00:29:39,870 --> 00:29:41,760
We don't have any
driveways on this map.
605
00:29:41,760 --> 00:29:43,170
We don't have any vernal pools.
606
00:29:43,170 --> 00:29:46,340
607
00:29:46,340 --> 00:29:48,120
But we do have charcoal mounds.
608
00:29:48,120 --> 00:29:49,350
I know that ahead of time.
609
00:29:49,350 --> 00:29:50,390
So I'm going to change.
610
00:29:50,390 --> 00:29:54,413
If you have something that you
don't have in your template,
611
00:29:54,413 --> 00:29:55,830
you can just change
it right here.
612
00:29:55,830 --> 00:29:58,040
So I'm going to I'm going

to change vernal pools.
613
00:29:58,040 --> 00:30:03,450
I'm going to type in
charcoal mounds.
614
00:30:03,450 --> 00:30:07,780
615
00:30:07,780 --> 00:30:10,105
And I'm going to
make that into a--
616
00:30:10,105 --> 00:30:14,458
617
00:30:14,458 --> 00:30:17,820
I like the size 12
for most points.
618
00:30:17,820 --> 00:30:21,045
And I'm going to
make that purple.
619
00:30:21,045 --> 00:30:23,890
620
00:30:23,890 --> 00:30:29,080
And then one other thing we
do have is we have buildings.
621
00:30:29,080 --> 00:30:32,860
So I'm going to change
seeps into buildings.
622
00:30:32,860 --> 00:30:38,840
623
00:30:38,840 --> 00:30:41,600
And I like my buildings
to be a black square.
624
00:30:41,600 --> 00:30:47,610
625
00:30:47,610 --> 00:30:48,150
OK.
626
00:30:48,150 --> 00:30:48,650
OK.
627
00:30:48,650 --> 00:30:50,110
I got all the formatting done.
628
00:30:50,110 --> 00:30:52,950
Now let's actually
draw some stuff.
629
00:30:52,950 --> 00:30:54,660

So I have stands chosen.
630
00:30:54,660 --> 00:30:57,780
And then down here
you choose polygon.
631
00:30:57,780 --> 00:31:00,660
And then you should be
able to start mapping.
632
00:31:00,660 --> 00:31:03,770
633
00:31:03,770 --> 00:31:08,885
Luckily with ArcView 10.4, as
soon as you get near a vertex,
634
00:31:08,885 --> 00:31:13,870
it automatically goes
right to that vertex,
635
00:31:13,870 --> 00:31:15,240
which saves a lot of time.
636
00:31:15,240 --> 00:31:19,140
So you can do these tracing
things really quick.
637
00:31:19,140 --> 00:31:25,240
638
00:31:25,240 --> 00:31:26,980
If you don't want it
to go to a vertex,
639
00:31:26,980 --> 00:31:30,250
a little thing I recently
learned from Dan Perachio--
640
00:31:30,250 --> 00:31:34,240
thank you Dan-- is that if
you hold the space bar down
641
00:31:34,240 --> 00:31:41,710
while you are doing this, your
vertex will not automatically
642
00:31:41,710 --> 00:31:43,450
go to corners.
643
00:31:43,450 --> 00:31:45,460
And that will come
in handy later.
644
00:31:45,460 --> 00:31:53,820
645

```
00:31:53,820 --> 00:31:54,570
Why is this?
646
00:31:54,570 --> 00:32:03,560
647
00:32:03,560 --> 00:32:04,060
Oh, no.
648
00:32:04,060 --> 00:32:04,570
It's OK.
649
00:32:04,570 --> 00:32:05,070
All right.
650
00:32:05,070 --> 00:32:05,710
Nevermind.
651
00:32:05,710 --> 00:32:08,909
It looked like it wasn't going
to have the proper formatting.
652
00:32:08,909 --> 00:32:22,400
653
00:32:22,400 --> 00:32:26,490
So if you mess up
like I just did,
654
00:32:26,490 --> 00:32:31,490
you can do this and make
Vertexes on the fly.
655
00:32:31,490 --> 00:32:37,380
656
00:32:37,380 --> 00:32:37,880
All right.
657
00:32:37,880 --> 00:32:39,810
That's close enough.
658
00:32:39,810 --> 00:32:46,320
And then he also owns--
659
00:32:46,320 --> 00:32:47,070
where did that go?
660
00:32:47,070 --> 00:32:50,140
661
00:32:50,140 --> 00:32:51,226
There you are.
662
00:32:51,226 --> 00:32:53,170
OK.
663
00:32:53,170 --> 00:32:56,770
```

He also owns a
little piece here.
664
00:32:56,770 --> 00:32:57,280
There.
665
00:32:57,280 --> 00:32:58,960
OK.
666
00:32:58,960 --> 00:32:59,890
Just ignore that part.
667
00:32:59,890 --> 00:33:01,932
I'm not going to take the
time to mess with that.
668
00:33:01,932 --> 00:33:04,310
669
00:33:04,310 --> 00:33:06,340
So here we're looking
at the 2016 photo
670
00:33:06,340 --> 00:33:09,290
just so you know
what it looks like.
671
00:33:09,290 --> 00:33:11,450
I'm going to turn off 2016.
672
00:33:11,450 --> 00:33:16,170
I'm going to bring up 2019.
673
00:33:16,170 --> 00:33:19,190
So this takes a
little while to load.
674
00:33:19,190 --> 00:33:20,020
Come on.
675
00:33:20,020 --> 00:33:22,495
Any questions while this loads?
676
00:33:22,495 --> 00:33:29,330
677
00:33:29,330 --> 00:33:29,830
So anyway.
678
00:33:29,830 --> 00:33:31,622
They're bringing this
up to show it to you.
679
00:33:31,622 --> 00:33:35,200
I won't use it again today
just to show you that it

680
00:33:35,200 --> 00:33:40,840
doesn't look as good as 2016.
681
00:33:40,840 --> 00:33:43,350
If this doesn't load, you may
have to take my word on it.
682
00:33:43,350 --> 00:33:47,900
683
00:33:47,900 --> 00:33:48,520
That's weird.
684
00:33:48,520 --> 00:33:52,030
685
00:33:52,030 --> 00:33:54,160
There's 2016.
686
00:33:54,160 --> 00:33:56,210
Turn that off.
687
00:33:56,210 --> 00:33:58,770
And 2019 is not loading.
688
00:33:58,770 --> 00:33:59,270
All right.
689
00:33:59,270 --> 00:34:00,390
Whatever.
690
00:34:00,390 --> 00:34:00,890
Yeah.
691
00:34:00,890 --> 00:34:02,973
Just take my word that it
doesn't look that great.
692
00:34:02,973 --> 00:34:05,340
693
00:34:05,340 --> 00:34:05,840
OK.
694
00:34:05,840 --> 00:34:11,600
So in the air photo mode
you can do [INAUDIBLE]..
695
00:34:11,600 --> 00:34:17,030
And I can turn on the
contours to see where there
696
00:34:17,030 --> 00:34:18,920
might be depressions
where streams would be
697

00:34:18,920 --> 00:34:20,610
and that sort of thing.
698
00:34:20,610 --> 00:34:23,820
So you can sort of see there's
a pretty significant depression
699
00:34:23,820 --> 00:34:24,320
here.
700
00:34:24,320 --> 00:34:25,820
That might have a stream.
701
00:34:25,820 --> 00:34:28,070
And there might be
another one here where
702
00:34:28,070 --> 00:34:29,000
there's a depression.
703
00:34:29,000 --> 00:34:34,120
704
00:34:34,120 --> 00:34:37,260
Turn that off.
705
00:34:37,260 --> 00:34:42,284
And I'm going to zoom
in to the whole thing.
706
00:34:42,284 --> 00:34:46,620
707
00:34:46,620 --> 00:34:49,830
I like to map with
Elevation/Hillshade.
708
00:34:49,830 --> 00:34:52,060
So I'm going to turn that on.
709
00:34:52,060 --> 00:34:52,560
OK.
710
00:34:52,560 --> 00:34:53,889
There we go.
711
00:34:53,889 --> 00:34:56,130
And you can see it in the
regular Elevation/Hillshade
712
00:34:56,130 --> 00:35:01,680
layer that this hillside
here the faces east is dark.
713
00:35:01,680 --> 00:35:05,280
If I turn on

Elevation/Hillshade Southeast,
714
00:35:05,280 --> 00:35:08,340
that southeast slope will
go from dark to light.
715
00:35:08,340 --> 00:35:13,440
716
00:35:13,440 --> 00:35:13,940
OK.
717
00:35:13,940 --> 00:35:15,420
So there's Elevation Southeast.
718
00:35:15,420 --> 00:35:18,920
And now that slope is light,
and you can see features.
719
00:35:18,920 --> 00:35:20,510
And now this slope
over here, which
720
00:35:20,510 --> 00:35:23,880
is a Northwest or a
Southwest slope is dark.
721
00:35:23,880 --> 00:35:26,490
But like I said,
for 90% of mapping
722
00:35:26,490 --> 00:35:31,290
the regular Elevation/Hillshade
will work out fine.
723
00:35:31,290 --> 00:35:33,570
So I see a bunch of
features here that we can
724
00:35:33,570 --> 00:35:35,490
map without even zooming in.
725
00:35:35,490 --> 00:35:39,120
726
00:35:39,120 --> 00:35:43,770
Oh, if we go--
727
00:35:43,770 --> 00:35:44,715
zoom in like this.
728
00:35:44,715 --> 00:35:48,610
729
00:35:48,610 --> 00:35:49,110
All right.
730

00:35:49,110 --> 00:35:56,490
So here, this sort
of depression line,
731
00:35:56,490 --> 00:35:59,660
looks like a depression in the
topography, that is definitely
732
00:35:59,660 --> 00:36:01,940
a trail are a woods road.
733
00:36:01,940 --> 00:36:08,480
And then this depression
here, which is more narrow,
734
00:36:08,480 --> 00:36:11,780
that's where we thought based on
the topography there might be--
735
00:36:11,780 --> 00:36:13,280
whoops.
736
00:36:13,280 --> 00:36:14,290
Don't do that.
737
00:36:14,290 --> 00:36:20,355
738
00:36:20,355 --> 00:36:21,980
See this is the
excitement that happens
739
00:36:21,980 --> 00:36:25,040
when you try to do something
live rather than do PowerPoint
740
00:36:25,040 --> 00:36:26,141
with everything.
741
00:36:26,141 --> 00:36:32,220
742
00:36:32,220 --> 00:36:32,720
OK.
743
00:36:32,720 --> 00:36:34,440
Now we're back to normal.
744
00:36:34,440 --> 00:36:36,307
So I think that
might be a stream.
745
00:36:36,307 --> 00:36:38,390
This looks like it might
be some sort of building.
746

00:36:38,390 --> 00:36:41,420
I'm not sure.
747
00:36:41,420 --> 00:36:43,415
So we'll go ahead
and do some mapping.
748
00:36:43,415 --> 00:36:46,350
749
00:36:46,350 --> 00:36:48,190
So I'm going to zoom
out a little bit.
750
00:36:48,190 --> 00:36:51,250
751
00:36:51,250 --> 00:36:53,240
So I'm going to
first do this trail.
752
00:36:53,240 --> 00:36:55,040
I'm going to hold
the spacebar down
753
00:36:55,040 --> 00:36:58,760
so it doesn't automatically
shoot over to other layers.
754
00:36:58,760 --> 00:37:00,200
If I don't hold
the spacebar down,
755
00:37:00,200 --> 00:37:04,310
it keeps wanting to go over to
the edge of these red parcel
756
00:37:04,310 --> 00:37:06,110
boundaries even though
I don't want it to.
757
00:37:06,110 --> 00:37:08,510
But I hold the spacebar
down and it won't.
758
00:37:08,510 --> 00:37:11,950
So I can map it
nice and accurately.
759
00:37:11,950 --> 00:37:15,665
So right now, I'm
mapping the trail layer.
760
00:37:15,665 --> 00:37:17,040
And for the sake
of time, I'm not

761
00:37:17,040 --> 00:37:18,510
going to be real
picky about this.
762
00:37:18,510 --> 00:37:21,360
763
00:37:21,360 --> 00:37:24,790
And I'm actually not
going to map everything.
764
00:37:24,790 --> 00:37:26,560
But I'll map enough
so you get the idea.
765
00:37:26,560 --> 00:37:33,575
766
00:37:33,575 --> 00:37:35,950
You can see right below at
the bottom of the screen here,
767
00:37:35,950 --> 00:37:38,115
there's a circular area.
768
00:37:38,115 --> 00:37:41,710
769
00:37:41,710 --> 00:37:44,200
That is a charcoal
mound for sure.
770
00:37:44,200 --> 00:37:51,810
771
00:37:51,810 --> 00:37:57,270
So I can go ahead and choose
my charcoal mound layer,
772
00:37:57,270 --> 00:38:00,150
and map those.
773
00:38:00,150 --> 00:38:06,760
774
00:38:06,760 --> 00:38:08,380
I feel like that guy
who does that art
775
00:38:08,380 --> 00:38:11,380
show who's really laid back.
776
00:38:11,380 --> 00:38:12,060
Bob Ross?
777
00:38:12,060 --> 00:38:13,310
Is that the guy's name?
778

00:38:13,310 --> 00:38:15,843
FRANK: A happy charcoal mound.
779
00:38:15,843 --> 00:38:16,510
SPEAKER 1: Yeah.
780
00:38:16,510 --> 00:38:19,477
A happy charcoal mound.
781
00:38:19,477 --> 00:38:21,060
Just because I'm
obsessive compulsive,
782
00:38:21,060 --> 00:38:24,110
I'm going to go ahead
and finish this trail.
783
00:38:24,110 --> 00:38:33,950
784
00:38:33,950 --> 00:38:34,450
OK.
785
00:38:34,450 --> 00:38:36,460
So we mapped some
charcoal mounds.
786
00:38:36,460 --> 00:38:38,410
Whoops.
787
00:38:38,410 --> 00:38:39,460
No, I don't want that.
788
00:38:39,460 --> 00:38:45,490
789
00:38:45,490 --> 00:38:48,580
I got some streams
here, I think.
790
00:38:48,580 --> 00:38:52,700
So I'm going to go ahead
and map the streams.
791
00:38:52,700 --> 00:38:55,200
And of course, I'm
totally guessing,
792
00:38:55,200 --> 00:38:57,118
but I like to guess
as much as possible
793
00:38:57,118 --> 00:38:58,160
before I go in the woods.
794
00:38:58,160 --> 00:39:02,688

And I can always just cross it
out with my pen on my clipboard
795
00:39:02,688 --> 00:39:03,480
when I'm out there.
796
00:39:03,480 --> 00:39:06,230
It looks like there might be
two streams next to each other,
797
00:39:06,230 --> 00:39:07,100
and there might not.
798
00:39:07,100 --> 00:39:11,850
799
00:39:11,850 --> 00:39:13,630
Looks like we have a
building right here.
800
00:39:13,630 --> 00:39:15,172
So I'm going to put
a building there.
801
00:39:15,172 --> 00:39:18,900
802
00:39:18,900 --> 00:39:22,340
And it looks like if I zoom in--
803
00:39:22,340 --> 00:39:26,775
804
00:39:26,775 --> 00:39:28,400
I'm going to turn
off the parcels layer
805
00:39:28,400 --> 00:39:31,470
just to make it easier to see.
806
00:39:31,470 --> 00:39:33,620
It looks like there
might be a trail
807
00:39:33,620 --> 00:39:36,140
here off the property that
comes into the property
808
00:39:36,140 --> 00:39:36,860
a little ways.
809
00:39:36,860 --> 00:39:39,760
810
00:39:39,760 --> 00:39:43,450
So we go ahead and map that.
811
00:39:43,450 --> 00:39:45,870

And then right about there,
it looks like it disappears.
812
00:39:45,870 --> 00:39:49,570
813
00:39:49,570 --> 00:39:55,360
Right here, it sort
of looks the opposite
814
00:39:55,360 --> 00:40:00,160
of an indented stream or trail.
815
00:40:00,160 --> 00:40:01,780
What's the word I'm looking for?
816
00:40:01,780 --> 00:40:04,660
It's the opposite of indented.
817
00:40:04,660 --> 00:40:05,457
Frank, help me out?
818
00:40:05,457 --> 00:40:06,790
What's the opposite of indented?
819
00:40:06,790 --> 00:40:07,390
Raised.
820
00:40:07,390 --> 00:40:08,350
It's raised.
821
00:40:08,350 --> 00:40:12,850
There's a raised
line right here.
822
00:40:12,850 --> 00:40:14,200
I think that's a stone wall.
823
00:40:14,200 --> 00:40:16,960
And I can tell you
for a fact that when
824
00:40:16,960 --> 00:40:18,580
I did this property
without seeing it,
825
00:40:18,580 --> 00:40:20,380
I did map this as a stone wall.
826
00:40:20,380 --> 00:40:22,930
827
00:40:22,930 --> 00:40:25,118
I'm not cheating even
though I know where
828

00:40:25,118 --> 00:40:26,410
everything is on this property.
829
00:40:26,410 --> 00:40:30,620
830
00:40:30,620 --> 00:40:33,110
And then up here, I talked
about how the topo lines
831
00:40:33,110 --> 00:40:36,110
looked like there was a stream.
832
00:40:36,110 --> 00:40:38,840
So you can sort of see
the stream starts there.
833
00:40:38,840 --> 00:40:40,130
Goes down through this valley.
834
00:40:40,130 --> 00:40:44,510
And then here, it gets
all crumpled looking.
835
00:40:44,510 --> 00:40:46,220
That is a wetland.
836
00:40:46,220 --> 00:40:51,650
And you see that sort of fine
textured crumpled look thing.
837
00:40:51,650 --> 00:40:53,240
That's a wetland.
838
00:40:53,240 --> 00:40:54,740
So I'm going to
make that a wetland.
839
00:40:54,740 --> 00:40:57,450
840
00:40:57,450 --> 00:41:00,330
I'm just going to
outline the edges.
841
00:41:00,330 --> 00:41:02,670
It looks like it hits
a road right there.
842
00:41:02,670 --> 00:41:03,170
Whoops.
843
00:41:03,170 --> 00:41:06,400
844
00:41:06,400 --> 00:41:07,160
Try that again.

845
00:41:07,160 --> 00:41:21,520
846
00:41:21,520 --> 00:41:22,020
All right.
847
00:41:22,020 --> 00:41:26,680
848
00:41:26,680 --> 00:41:36,250
I think that's enough
mapping for now
849
00:41:36,250 --> 00:41:41,280
with the
Elevation/Hillshade layer.
850
00:41:41,280 --> 00:41:44,370
And now I'm going to go
back to the Ortho photo.
851
00:41:44,370 --> 00:41:50,240
852
00:41:50,240 --> 00:41:53,100
Hey, OK.
853
00:41:53,100 --> 00:41:57,770
There's a 2019 air photo.
854
00:41:57,770 --> 00:41:59,750
Really not that great.
855
00:41:59,750 --> 00:42:00,760
Turn that off.
856
00:42:00,760 --> 00:42:05,280
Go back to 2016 air photo.
857
00:42:05,280 --> 00:42:06,630
Much better.
858
00:42:06,630 --> 00:42:09,310
I can see there's like
a conifer stand here.
859
00:42:09,310 --> 00:42:12,180
And like I said, I like
to do the stands as much
860
00:42:12,180 --> 00:42:13,500
as I can before heading out.
861
00:42:13,500 --> 00:42:16,140
You can always draw
them on your clipboard,

862
00:42:16,140 --> 00:42:19,350
and then redraw them
later in the office.
863
00:42:19,350 --> 00:42:22,210
So I'm going to go
ahead and make a stand.
864
00:42:22,210 --> 00:42:23,840
I'm going to do the cut feature.
865
00:42:23,840 --> 00:42:27,070
So highlight the polygon.
866
00:42:27,070 --> 00:42:27,955
Go the Cut tool.
867
00:42:27,955 --> 00:42:32,890
868
00:42:32,890 --> 00:42:36,860
What do you mean
you're not editable?
869
00:42:36,860 --> 00:42:39,470
That's weird.
870
00:42:39,470 --> 00:42:42,950
Never had that happen before.
871
00:42:42,950 --> 00:42:43,970
Let's try that again.
872
00:42:43,970 --> 00:42:55,910
873
00:42:55,910 --> 00:42:57,760
So I'm outlining
this conifer stand.
874
00:42:57,760 --> 00:42:59,070
It looks like it's pine trees.
875
00:42:59,070 --> 00:43:02,630
876
00:43:02,630 --> 00:43:06,030
So there we have
a separate stand.
877
00:43:06,030 --> 00:43:09,660
And of course to know
how many points to do,
878
00:43:09,660 --> 00:43:11,920
you want to know how

much acreage you have.
879
00:43:11,920 --> 00:43:13,740
So if I go over to
stands and right click.
880
00:43:13,740 --> 00:43:15,670
Open Attribute table.
881
00:43:15,670 --> 00:43:18,210
Highlight ID.
882
00:43:18,210 --> 00:43:20,790
Right click.
883
00:43:20,790 --> 00:43:23,820
Calculate geometry, and
then you can do square feet.
884
00:43:23,820 --> 00:43:26,220
I do acres.
885
00:43:26,220 --> 00:43:30,090
And then you can see that
the pine stand is 9 acres,
886
00:43:30,090 --> 00:43:32,850
and the remaining of
those areas is 47 acres.
887
00:43:32,850 --> 00:43:39,490
888
00:43:39,490 --> 00:43:39,990
OK.
889
00:43:39,990 --> 00:43:49,330
So now I'm going to bring
in the actual layers that
890
00:43:49,330 --> 00:43:50,770
were ground truth.
891
00:43:50,770 --> 00:43:54,400
And we can see how close
we were to reality.
892
00:43:54,400 --> 00:44:14,680
893
00:44:14,680 --> 00:44:15,200
All right.
894
00:44:15,200 --> 00:44:16,200
I just got to find them.
895

00:44:16,200 --> 00:44:20,020
896
00:44:20,020 --> 00:44:20,630
There we go.
897
00:44:20,630 --> 00:44:21,130
OK.
898
00:44:21,130 --> 00:44:24,970
These are the layers
that were edited
899
00:44:24,970 --> 00:44:26,275
after I visited the property.
900
00:44:26,275 --> 00:44:35,023
901
00:44:35,023 --> 00:44:36,565
So these are the
ground truth layers.
902
00:44:36,565 --> 00:44:40,920
903
00:44:40,920 --> 00:44:41,580
All right.
904
00:44:41,580 --> 00:44:46,710
So this red dotted line is the
trail, and I got that good.
905
00:44:46,710 --> 00:44:49,147
These red dots are
the charcoal mounds,
906
00:44:49,147 --> 00:44:50,730
and they are covering
up my blue dots.
907
00:44:50,730 --> 00:44:51,990
So those are good.
908
00:44:51,990 --> 00:44:55,170
The real property line
is the green outline.
909
00:44:55,170 --> 00:44:59,850
And it obviously does not
match the assessor's parcel
910
00:44:59,850 --> 00:45:01,110
boundaries.
911
00:45:01,110 --> 00:45:07,110
But I did, with the help of the

landowner, I did remap that.
912
00:45:07,110 --> 00:45:09,300
So just to let you know,
sometimes these layers
913
00:45:09,300 --> 00:45:11,790
that you get from either
the assessor or the state
914
00:45:11,790 --> 00:45:14,950
are not going to
be exactly correct.
915
00:45:14,950 --> 00:45:17,370
You can see that this part
of the stream does exist.
916
00:45:17,370 --> 00:45:19,920
This part that I mapped
here to the right,
917
00:45:19,920 --> 00:45:21,500
does not actually exist.
918
00:45:21,500 --> 00:45:22,350
It was not a stream.
919
00:45:22,350 --> 00:45:24,680
It was just a valley.
920
00:45:24,680 --> 00:45:26,960
You can see here that this
stone wall was actually
921
00:45:26,960 --> 00:45:32,820
longer than what we could
see on the Hillside layer.
922
00:45:32,820 --> 00:45:35,790
And that building that
I put there is actually
923
00:45:35,790 --> 00:45:36,520
not a building.
924
00:45:36,520 --> 00:45:38,430
It's actually a
raised bed garden.
925
00:45:38,430 --> 00:45:41,550
There is a cabin right there
where that red square is,
926

00:45:41,550 --> 00:45:43,440
and we missed that.
927
00:45:43,440 --> 00:45:44,970
The wetland was
pretty much correct.
928
00:45:44,970 --> 00:45:47,740
And the stream was
pretty much correct.
929
00:45:47,740 --> 00:45:50,867
And I ended up
mapping the pine stand
930
00:45:50,867 --> 00:45:52,450
a little bit different
than what I did
931
00:45:52,450 --> 00:45:53,881
before going out to the woods.
932
00:45:53,881 --> 00:45:56,690
933
00:45:56,690 --> 00:45:57,190
All right.
934
00:45:57,190 --> 00:45:59,210
So back to--
935
00:45:59,210 --> 00:46:01,250
Oh, before I move on,
any questions on this
936
00:46:01,250 --> 00:46:04,940
because we're going to
go back into PowerPoint
937
00:46:04,940 --> 00:46:07,740
and leave ArcView GIS?
938
00:46:07,740 --> 00:46:08,240
Oh, no.
939
00:46:08,240 --> 00:46:10,130
One big huge thing
you should know.
940
00:46:10,130 --> 00:46:11,420
So you need to save--
941
00:46:11,420 --> 00:46:13,970
you need to view layout.
942

00:46:13,970 --> 00:46:21,310
943
00:46:21,310 --> 00:46:26,090
I'm not going to take the
time to mess with this,
944
00:46:26,090 --> 00:46:29,450
but you can see I have a
legend, a title block, down here
945
00:46:29,450 --> 00:46:34,880
my information with a date, a
north arrow, and a scale bar.
946
00:46:34,880 --> 00:46:35,840
I can neaten this up.
947
00:46:35,840 --> 00:46:39,360
I'm not going to take the
time to do this at the moment.
948
00:46:39,360 --> 00:46:42,480
I should make that legend--
949
00:46:42,480 --> 00:46:42,980
whoops.
950
00:46:42,980 --> 00:46:48,970
951
00:46:48,970 --> 00:46:49,470
There.
952
00:46:49,470 --> 00:46:50,947
Bring that down there.
953
00:46:50,947 --> 00:46:51,530
That's better.
954
00:46:51,530 --> 00:46:56,320
955
00:46:56,320 --> 00:46:59,950
I'm going to do a
File Export Map.
956
00:46:59,950 --> 00:47:00,790
This is key.
957
00:47:00,790 --> 00:47:02,050
File, Export Map.
958
00:47:02,050 --> 00:47:05,390
959
00:47:05,390 --> 00:47:18,000
And I'm going to save it as a

PDF in the Avenza GIS Workshop
960
00:47:18,000 --> 00:47:18,500
folder.
961
00:47:18,500 --> 00:47:22,340
962
00:47:22,340 --> 00:47:24,220
And hit Save.
963
00:47:24,220 --> 00:47:26,080
And that's the PDF
file that you're
964
00:47:26,080 --> 00:47:29,140
going to email to yourself
to open it up in Avenza.
965
00:47:29,140 --> 00:47:32,080
And we'll go through that next.
966
00:47:32,080 --> 00:47:41,550
So again, before I move on from
using ArcView, any questions?
967
00:47:41,550 --> 00:47:43,770
FRANK: There's a question
about if you could just
968
00:47:43,770 --> 00:47:47,430
clarify a little bit what
you mean by at the assessor's
969
00:47:47,430 --> 00:47:48,770
map isn't always correct.
970
00:47:48,770 --> 00:47:54,330
So the like the parcels that
you download from the assessor
971
00:47:54,330 --> 00:47:56,952
or from CT ECO might
not always line up
972
00:47:56,952 --> 00:47:58,410
with what's going
on in the ground.
973
00:47:58,410 --> 00:48:01,022
974
00:48:01,022 --> 00:48:01,730
SPEAKER 1: Right.
975
00:48:01,730 --> 00:48:02,840

Exactly.
976
00:48:02,840 --> 00:48:03,950
The question is correct.
977
00:48:03,950 --> 00:48:06,440
And I would say
regarding accuracy
978
00:48:06,440 --> 00:48:10,730
of different sources
of information,
979
00:48:10,730 --> 00:48:19,410
your most accurate will be a
survey or a deed description.
980
00:48:19,410 --> 00:48:22,260
Your second most accurate
might be the landowner.
981
00:48:22,260 --> 00:48:26,760
Unless they're crazy, then then
it might not be the landowner.
982
00:48:26,760 --> 00:48:33,940
And the third most accurate
would be the assessor's maps
983
00:48:33,940 --> 00:48:37,580
either printed or online.
984
00:48:37,580 --> 00:48:41,900
And then the one
that's probably going
985
00:48:41,900 --> 00:48:45,740
to be likely the least accurate
would be the Connecticut ECO
986
00:48:45,740 --> 00:48:50,070
website layers for tax parcels.
987
00:48:50,070 --> 00:48:51,420
Does that answer the question?
988
00:48:51,420 --> 00:48:53,100
You can use a chat
to respond to that.
989
00:48:53,100 --> 00:49:02,420
990
00:49:02,420 --> 00:49:05,885
FRANK: It seems like I think

you addressed the question.
991
00:49:05,885 --> 00:49:09,520
992
00:49:09,520 --> 00:49:12,040
Well, and then
there's a follow up
993
00:49:12,040 --> 00:49:14,290
how to establish
accurate boundaries.
994
00:49:14,290 --> 00:49:18,360
995
00:49:18,360 --> 00:49:21,020
SPEAKER 1: Oh, sure.
996
00:49:21,020 --> 00:49:23,790
How to establish
accurate boundaries.
997
00:49:23,790 --> 00:49:24,290
Yes.
998
00:49:24,290 --> 00:49:27,800
So when you go out with your map
in Avenza, the beauty of Avenza
999
00:49:27,800 --> 00:49:30,650
is you can take away points
if you find property corner
1000
00:49:30,650 --> 00:49:31,590
monuments.
1001
00:49:31,590 --> 00:49:33,860
So you stand at the monument,
and you take a waypoint
1002
00:49:33,860 --> 00:49:35,428
I'll be showing
you how to do that.
1003
00:49:35,428 --> 00:49:37,220
And then you bring that
back to the office,
1004
00:49:37,220 --> 00:49:43,100
and you can correct your map to
be more accurate using Avenza.
1005
00:49:43,100 --> 00:49:48,750
And you can even walk
the entire property line

1006
00:49:48,750 --> 00:49:50,670
and then record a track.
1007
00:49:50,670 --> 00:49:55,770
And then use that recording
to make the property boundary
1008
00:49:55,770 --> 00:49:58,350
map more accurate.
1009
00:49:58,350 --> 00:50:01,560
So that's a big part
of the advantage
1010
00:50:01,560 --> 00:50:03,990
of using Avenza in the
field is that you can really
1011
00:50:03,990 --> 00:50:05,940
map these things accurately.
1012
00:50:05,940 --> 00:50:07,950
And Avenza is
essentially the same
1013
00:50:07,950 --> 00:50:10,470
as using a GPS
recorder like a Garmin,
1014
00:50:10,470 --> 00:50:13,630
or Trimble, or
something like that.
1015
00:50:13,630 --> 00:50:17,310
But I went to a workshop
like 10 years ago,
1016
00:50:17,310 --> 00:50:24,180
and the GIS expert said that the
phones nowadays are as accurate
1017
00:50:24,180 --> 00:50:26,963
or more accurate than most of
the GPS units that you would
1018
00:50:26,963 --> 00:50:27,630
buy at Cabela's.
1019
00:50:27,630 --> 00:50:30,250
1020
00:50:30,250 --> 00:50:33,760
And after using my
phone exclusively

1021
00:50:33,760 --> 00:50:39,970
for now three years, and the
GPS unit has collected dust,

1022
00:50:39,970 --> 00:50:40,870
I agree.

1023
00:50:40,870 --> 00:50:43,370
They're very accurate.

1024
00:50:43,370 --> 00:50:46,570
The only time I've ever had
run into trouble with the phone

1025
00:50:46,570 --> 00:50:51,640
not being accurate is under a
dense conifer layer above you.

1026
00:50:51,640 --> 00:50:53,860
Then it can have trouble.

1027
00:50:53,860 --> 00:50:57,515

1028
00:50:57,515 --> 00:50:58,890
And if there's no
more questions,

1029
00:50:58,890 --> 00:51:01,265
I'm going to head back to
PowerPoint and get into Avenza,

1030
00:51:01,265 --> 00:51:04,080
and leave GIS.

1031
00:51:04,080 --> 00:51:06,370
FRANK: Could you
also show, Dave,

1032
00:51:06,370 --> 00:51:12,590
if there's the option for
setting the georeference PDF?

1033
00:51:12,590 --> 00:51:16,330
Or how to set it to
export a georeference map?

1034
00:51:16,330 --> 00:51:20,500

1035
00:51:20,500 --> 00:51:23,080
SPEAKER 1: Good question.

1036
00:51:23,080 --> 00:51:26,490
I don't know where

that feature is in GIS
1037
00:51:26,490 --> 00:51:31,920
because in this version of
GIS, it automatically saves
1038
00:51:31,920 --> 00:51:34,515
all maps as georeference maps.
1039
00:51:34,515 --> 00:51:37,230
1040
00:51:37,230 --> 00:51:39,810
And it would depend on what
version of ArcView you have,
1041
00:51:39,810 --> 00:51:44,760
or whether you have QGIS, or
some other mapping program.
1042
00:51:44,760 --> 00:51:45,800
So I'm sorry.
1043
00:51:45,800 --> 00:51:49,730
I don't know the technical
answer to that question.
1044
00:51:49,730 --> 00:51:50,230
FRANK: OK.
1045
00:51:50,230 --> 00:51:50,740
No problem.
1046
00:51:50,740 --> 00:51:59,660
1047
00:51:59,660 --> 00:52:03,280
SPEAKER 1: So back
to PowerPoint.
1048
00:52:03,280 --> 00:52:07,190
Startup slide show.
1049
00:52:07,190 --> 00:52:09,040
So getting your field
map into Avenza.
1050
00:52:09,040 --> 00:52:10,850
So we just finished
showing you how
1051
00:52:10,850 --> 00:52:14,075
to export it into a PDF file.
1052
00:52:14,075 --> 00:52:17,980
1053

00:52:17,980 --> 00:52:22,630
And then you want to email
that PDF file to yourself
1054
00:52:22,630 --> 00:52:24,940
as an attachment.
1055
00:52:24,940 --> 00:52:26,520
So this is a screen capture.
1056
00:52:26,520 --> 00:52:30,810
I'm going to be showing you off
screen captures of my phone.
1057
00:52:30,810 --> 00:52:34,260
This is a screen capture
of my email on my phone.
1058
00:52:34,260 --> 00:52:40,500
And you can see the map
PDF 1.9 megabytes is there
1059
00:52:40,500 --> 00:52:46,750
attached to the email that I
emailed to myself right there.
1060
00:52:46,750 --> 00:52:52,180
And then when I press the
attachment, a image of the map
1061
00:52:52,180 --> 00:52:55,808
will show up on my phone screen.
1062
00:52:55,808 --> 00:52:58,350
And then if I hit the Download
button in the upper right hand
1063
00:52:58,350 --> 00:53:00,643
corner--
1064
00:53:00,643 --> 00:53:02,310
depending on what
kind of phone you use,
1065
00:53:02,310 --> 00:53:03,685
this might be
slightly different.
1066
00:53:03,685 --> 00:53:06,510
This is for an iPhone.
1067
00:53:06,510 --> 00:53:10,170
Once I hit the Download
button, I hit Share file via.

1068
00:53:10,170 --> 00:53:13,620
1069
00:53:13,620 --> 00:53:15,570
And then it'll give
you things you can do.
1070
00:53:15,570 --> 00:53:17,700
Texting it to people,
emailing it to people,
1071
00:53:17,700 --> 00:53:18,702
all sorts of things.
1072
00:53:18,702 --> 00:53:20,160
You're going to
want to scroll down
1073
00:53:20,160 --> 00:53:22,160
until you find Avenza
Maps, which you've already
1074
00:53:22,160 --> 00:53:23,850
loaded on your phone.
1075
00:53:23,850 --> 00:53:26,940
So there's Avenza
Maps, and click that.
1076
00:53:26,940 --> 00:53:31,350
1077
00:53:31,350 --> 00:53:33,620
And then once you click that,
it's loaded into Avenza.
1078
00:53:33,620 --> 00:53:39,055
So you open up your Avenza app
once you're out in the woods.
1079
00:53:39,055 --> 00:53:40,430
And as soon as
you open it up, it
1080
00:53:40,430 --> 00:53:42,000
will show you this
menu of the maps
1081
00:53:42,000 --> 00:53:44,730
that you have on your Avenza.
1082
00:53:44,730 --> 00:53:47,490
If you do not have the pro
version, which the Connecticut
1083

00:53:47,490 --> 00:53:49,240
DEP does not have
the pro version,
1084
00:53:49,240 --> 00:53:53,730
you can only put up to
three maps on your phone.
1085
00:53:53,730 --> 00:53:55,713
But if you pay for
the pro version,
1086
00:53:55,713 --> 00:53:57,630
you can put as many as
you want on your phone.
1087
00:53:57,630 --> 00:54:01,240
1088
00:54:01,240 --> 00:54:03,880
So there's the map
of the property
1089
00:54:03,880 --> 00:54:07,570
we were just looking at, And
as soon as I click on it,
1090
00:54:07,570 --> 00:54:09,400
an image comes up on the Avenza.
1091
00:54:09,400 --> 00:54:12,260
1092
00:54:12,260 --> 00:54:13,820
And then this is real important.
1093
00:54:13,820 --> 00:54:16,580
Down here, on the bottom
right, these three dots--
1094
00:54:16,580 --> 00:54:17,850
that's your menu.
1095
00:54:17,850 --> 00:54:20,417
And from that menu,
you can go to any
1096
00:54:20,417 --> 00:54:21,500
of the features in Avenza.
1097
00:54:21,500 --> 00:54:26,170
1098
00:54:26,170 --> 00:54:29,870
In this screen capture I
was not on the property.
1099

00:54:29,870 --> 00:54:33,840
If I was on the property, you
would see a little blue dot
1100
00:54:33,840 --> 00:54:35,650
wherever I'm standing.
1101
00:54:35,650 --> 00:54:39,680
And I'll show you that later.
1102
00:54:39,680 --> 00:54:40,180
OK.
1103
00:54:40,180 --> 00:54:41,980
So I'm going to play a video.
1104
00:54:41,980 --> 00:54:45,310
And Frank, if for some reason
there's no sound, let me know.
1105
00:54:45,310 --> 00:54:48,170
But hopefully, this
will work well.
1106
00:54:48,170 --> 00:54:51,790
So this is a screen
capture video
1107
00:54:51,790 --> 00:54:56,230
of my phone downloading
Avenza into my phone.
1108
00:54:56,230 --> 00:54:59,123
It's prerecorded.
1109
00:54:59,123 --> 00:54:59,790
[VIDEO PLAYBACK]
1110
00:54:59,790 --> 00:55:04,110
- Once you've emailed
yourself the completed map,
1111
00:55:04,110 --> 00:55:06,270
open up your email on
your phone or tablet.
1112
00:55:06,270 --> 00:55:09,060
1113
00:55:09,060 --> 00:55:10,260
Go to your sent folder.
1114
00:55:10,260 --> 00:55:14,530
1115
00:55:14,530 --> 00:55:17,020

And then open up the email
that you just sent yourself
1116
00:55:17,020 --> 00:55:19,640
with the map attached.
1117
00:55:19,640 --> 00:55:21,050
Then click on the map.
1118
00:55:21,050 --> 00:55:24,190
1119
00:55:24,190 --> 00:55:25,400
And it will appear.
1120
00:55:25,400 --> 00:55:29,910
And then you want to hit
the Download button up
1121
00:55:29,910 --> 00:55:31,740
in the upper right hand corner.
1122
00:55:31,740 --> 00:55:35,250
And hit Share File Via.
1123
00:55:35,250 --> 00:55:40,520
And scroll over to
choose Avenza Maps.
1124
00:55:40,520 --> 00:55:43,190
You'll download into Avenza.
1125
00:55:43,190 --> 00:55:47,130
And it'll say its
name that you gave it.
1126
00:55:47,130 --> 00:55:50,300
And if you're on the map,
which I currently on the map
1127
00:55:50,300 --> 00:55:54,213
that I just made,
it'll say on map.
1128
00:55:54,213 --> 00:55:55,880
If you're not on the
map, it'll tell you
1129
00:55:55,880 --> 00:55:57,360
how far you are from the map.
1130
00:55:57,360 --> 00:55:59,000
So another map I
have on here says
1131

00:55:59,000 --> 00:56:02,210
I'm 34 miles from that map.
1132
00:56:02,210 --> 00:56:04,790
Just click on it once.
1133
00:56:04,790 --> 00:56:09,380
And there you are on the
map that you just made.
1134
00:56:09,380 --> 00:56:12,011
And you would be the blue dot.
1135
00:56:12,011 --> 00:56:16,430
As I am the blue
right now on this map.
1136
00:56:16,430 --> 00:56:21,860
If you want to focus
the blue in the center,
1137
00:56:21,860 --> 00:56:26,120
hit this little triangle
in the lower left corner.
1138
00:56:26,120 --> 00:56:27,185
And you are centered.
1139
00:56:27,185 --> 00:56:39,630
[END PLAYBACK]
1140
00:56:39,630 --> 00:56:42,940
SPEAKER 1: Frank, did
that video play, OK?
1141
00:56:42,940 --> 00:56:46,917
FRANK: Yeah it was
smooth on my end.
1142
00:56:46,917 --> 00:56:47,750
SPEAKER 1: Good, OK.
1143
00:56:47,750 --> 00:56:50,540
1144
00:56:50,540 --> 00:56:51,650
All right.
1145
00:56:51,650 --> 00:56:56,600
So now we have our map in our
phone into the app Avenza.
1146
00:56:56,600 --> 00:56:59,460
Now we're going
to start tracking.

1147
00:56:59,460 --> 00:57:01,400
And whenever I'm on
a property I like

1148
00:57:01,400 --> 00:57:04,120
to keep the tracking
feature on all the time.

1149
00:57:04,120 --> 00:57:09,570
It shows you everywhere
that you go during the day.

1150
00:57:09,570 --> 00:57:13,650
The tracking feature does
use up battery very quickly,

1151
00:57:13,650 --> 00:57:15,020
especially on a cold day.

1152
00:57:15,020 --> 00:57:16,520
So you might want
to bring a battery

1153
00:57:16,520 --> 00:57:19,940
pack to charge your phone
halfway through the day.

1154
00:57:19,940 --> 00:57:22,190
I actually leave my
phone in airplane mode

1155
00:57:22,190 --> 00:57:24,950
when I'm tracking
to save the battery.

1156
00:57:24,950 --> 00:57:28,120
And you can track perfectly
fine in airplane mode.

1157
00:57:28,120 --> 00:57:31,100
The phone does not
need cell towers

1158
00:57:31,100 --> 00:57:34,800
to do all this,
which is amazing.

1159
00:57:34,800 --> 00:57:37,430
So I mean, basically
you're using satellites.

1160
00:57:37,430 --> 00:57:40,460
You're using silicon

chips in your phone.
1161
00:57:40,460 --> 00:57:43,710
And you're using some
really amazing software
1162
00:57:43,710 --> 00:57:44,600
to do all this.
1163
00:57:44,600 --> 00:57:48,430
1164
00:57:48,430 --> 00:57:52,820
So there's the map
on your phone screen.
1165
00:57:52,820 --> 00:57:53,930
Hit the Menu bar.
1166
00:57:53,930 --> 00:57:57,630
Menu button is in the
bottom right hand corner.
1167
00:57:57,630 --> 00:58:00,100
There's the menu.
1168
00:58:00,100 --> 00:58:02,765
And we will go through all
these items in the menu.
1169
00:58:02,765 --> 00:58:06,217
So you're going to
hit Record GPS Tracks.
1170
00:58:06,217 --> 00:58:08,050
And then when you hit
the Record GPS Tracks,
1171
00:58:08,050 --> 00:58:11,810
this screen shows
up with a compass.
1172
00:58:11,810 --> 00:58:15,050
Then you're going to
hit Start Tracking.
1173
00:58:15,050 --> 00:58:18,650
Then to see your map, which you
probably want to do right away,
1174
00:58:18,650 --> 00:58:22,840
you just slide down with
that shallow arrow thing.
1175
00:58:22,840 --> 00:58:25,112

Slide that down to the
bottom of your phone screen,
1176
00:58:25,112 --> 00:58:26,570
and then you'll
see your whole map.
1177
00:58:26,570 --> 00:58:29,810
And if you want to bring
up this compass again,
1178
00:58:29,810 --> 00:58:32,390
just slide it up from the
bottom of your phone screen back
1179
00:58:32,390 --> 00:58:35,680
into your main screen.
1180
00:58:35,680 --> 00:58:38,760
So swipe up and it's back.
1181
00:58:38,760 --> 00:58:42,870
And you can see you can use
this feature as a compass.
1182
00:58:42,870 --> 00:58:44,370
It'll tell you the
speed that you're
1183
00:58:44,370 --> 00:58:47,010
moving, how long
you've been tracking,
1184
00:58:47,010 --> 00:58:48,660
and the distance
that you've traveled.
1185
00:58:48,660 --> 00:58:52,410
1186
00:58:52,410 --> 00:58:56,610
And also tell you your
latitude and longitude
1187
00:58:56,610 --> 00:58:59,732
at any given time.
1188
00:58:59,732 --> 00:59:02,190
And you can stop tracking with
the red button at the bottom
1189
00:59:02,190 --> 00:59:04,350
when you're done for the day.
1190
00:59:04,350 --> 00:59:06,870

If you don't do that, you'll
see a line heading off
1191
00:59:06,870 --> 00:59:08,790
the map as you drive away.
1192
00:59:08,790 --> 00:59:11,850
And it'll keep trying to
track you all your way home
1193
00:59:11,850 --> 00:59:14,660
on your drive.
1194
00:59:14,660 --> 00:59:17,240
I've done that many times.
1195
00:59:17,240 --> 00:59:21,110
To create a waypoint, you
need to center your position.
1196
00:59:21,110 --> 00:59:28,520
And this gunshot thing
is the center of the map.
1197
00:59:28,520 --> 00:59:32,630
So to center your position, you
hit that hollow triangle arrow
1198
00:59:32,630 --> 00:59:36,030
thing in the bottom
left hand corner.
1199
00:59:36,030 --> 00:59:37,630
And that will center
your position.
1200
00:59:37,630 --> 00:59:39,047
If you don't center
your position,
1201
00:59:39,047 --> 00:59:40,740
it'll record a waypoint
someplace where
1202
00:59:40,740 --> 00:59:44,250
you are not presently located.
1203
00:59:44,250 --> 00:59:48,690
And then hit that little pin,
and it'll create a waypoint.
1204
00:59:48,690 --> 00:59:49,890
It'll bring up this menu.
1205

00:59:49,890 --> 00:59:55,000
1206
00:59:55,000 --> 00:59:57,540
You're going to click
with your finger
1207
00:59:57,540 --> 01:00:00,360
the place is this
place mark two.
1208
01:00:00,360 --> 01:00:02,240
And you're going
to change the name.
1209
01:00:02,240 --> 01:00:04,860
In this case, I'm
making a waypoint
1210
01:00:04,860 --> 01:00:06,540
at the cabin on the property.
1211
01:00:06,540 --> 01:00:07,650
And type in cabin.
1212
01:00:07,650 --> 01:00:10,420
1213
01:00:10,420 --> 01:00:14,770
And then hit Submit after you've
done that in the upper right.
1214
01:00:14,770 --> 01:00:17,860
And there's your waypoint
pin for the cabin.
1215
01:00:17,860 --> 01:00:23,210
1216
01:00:23,210 --> 01:00:25,660
When you're all done,
like I said, swipe up.
1217
01:00:25,660 --> 01:00:27,460
Hit Stop Tracking.
1218
01:00:27,460 --> 01:00:29,080
And there you can
see for the property
1219
01:00:29,080 --> 01:00:31,000
that we just looked
at in ArcView,
1220
01:00:31,000 --> 01:00:33,040
that is my actual
screen capture from when

1221
01:00:33,040 --> 01:00:36,010
I inventoried that property.
1222
01:00:36,010 --> 01:00:38,470
And you can see all the
tracks and waypoints
1223
01:00:38,470 --> 01:00:43,140
from that period of time.
1224
01:00:43,140 --> 01:00:44,600
As soon as I'm
done for the day I
1225
01:00:44,600 --> 01:00:49,838
like to make a screen capture of
that, and save it to my photos.
1226
01:00:49,838 --> 01:00:52,380
And then when I get back to the
office., I enter it into GIS.
1227
01:00:52,380 --> 01:00:55,170
1228
01:00:55,170 --> 01:00:57,960
Unfortunately, I have
not learned how to,
1229
01:00:57,960 --> 01:00:59,460
and I don't have
the ability because
1230
01:00:59,460 --> 01:01:03,180
of the way our computers
are set up at the state--
1231
01:01:03,180 --> 01:01:06,360
I don't know how to,
and I am not able to,
1232
01:01:06,360 --> 01:01:11,370
download my events of
recordings directly into GIS.
1233
01:01:11,370 --> 01:01:12,970
But I know it is possible.
1234
01:01:12,970 --> 01:01:15,540
And you might need to buy
the pro version in order
1235
01:01:15,540 --> 01:01:16,890
to be able to do that.

1236
01:01:16,890 --> 01:01:18,180
I just mouse everything in.
1237
01:01:18,180 --> 01:01:20,550
I feel that's plenty accurate
enough for my purposes.
1238
01:01:20,550 --> 01:01:23,460
1239
01:01:23,460 --> 01:01:23,960
OK.
1240
01:01:23,960 --> 01:01:25,820
Videos on tracking.
1241
01:01:25,820 --> 01:01:29,630
And then the second video
will be on using your camera
1242
01:01:29,630 --> 01:01:32,170
to take photos at waypoints.
1243
01:01:32,170 --> 01:01:34,450
And again, if you
don't hear the video,
1244
01:01:34,450 --> 01:01:37,330
or it's not working
properly, please let me know.
1245
01:01:37,330 --> 01:01:39,660
[VIDEO PLAYBACK]
1246
01:01:39,660 --> 01:01:42,150
- This lesson is on recording
tracks and waypoints.
1247
01:01:42,150 --> 01:01:45,840
Waypoints are single
points on a map.
1248
01:01:45,840 --> 01:01:49,110
Tracks are lines on a
map that you've traveled.
1249
01:01:49,110 --> 01:01:50,970
So first, we're going
to do a waypoint.
1250
01:01:50,970 --> 01:01:54,300
You want to center your
bull's eye on your location
1251

01:01:54,300 --> 01:01:57,600
before you record a waypoint.
1252
01:01:57,600 --> 01:02:00,150
So to do that I hit
to the hollow triangle
1253
01:02:00,150 --> 01:02:01,500
in the bottom left corner.
1254
01:02:01,500 --> 01:02:07,560
1255
01:02:07,560 --> 01:02:08,060
All right.
1256
01:02:08,060 --> 01:02:09,140
Now I'm centered.
1257
01:02:09,140 --> 01:02:12,950
Now I'm going to hit the
pin next to that triangle
1258
01:02:12,950 --> 01:02:14,075
to record a waypoint.
1259
01:02:14,075 --> 01:02:19,630
1260
01:02:19,630 --> 01:02:20,830
Says place mark three.
1261
01:02:20,830 --> 01:02:23,110
I'm going to rename
that Town Hall.
1262
01:02:23,110 --> 01:02:27,250
So I'm going to hit the X to
the right of placemark three.
1263
01:02:27,250 --> 01:02:30,700
I'm just going to call it Town.
1264
01:02:30,700 --> 01:02:33,010
Then hit Submit.
1265
01:02:33,010 --> 01:02:35,620
And there you go.
1266
01:02:35,620 --> 01:02:38,410
If I touch the map
outside of that waypoint,
1267
01:02:38,410 --> 01:02:40,695
the Town label will disappear.
1268

01:02:40,695 --> 01:02:41,500
All right.
1269
01:02:41,500 --> 01:02:43,630
Now I'm going to record a track.
1270
01:02:43,630 --> 01:02:47,420
So I'm going to hit the menu
in the bottom right corner.
1271
01:02:47,420 --> 01:02:51,400
1272
01:02:51,400 --> 01:02:55,680
Now I'm going to hit,
Record GPS Tracks.
1273
01:02:55,680 --> 01:02:58,800
Hit the green Start Tracking.
1274
01:02:58,800 --> 01:03:02,220
I'm going to slide this
down so I can see my map.
1275
01:03:02,220 --> 01:03:03,300
There we go.
1276
01:03:03,300 --> 01:03:06,300
Now I'm going to start walking.
1277
01:03:06,300 --> 01:03:12,120
And as I'm walking,
it'll record my route.
1278
01:03:12,120 --> 01:03:15,570
And you can start seeing it
now-- the little orange line
1279
01:03:15,570 --> 01:03:16,710
that's beginning to form.
1280
01:03:16,710 --> 01:03:24,570
1281
01:03:24,570 --> 01:03:25,070
OK.
1282
01:03:25,070 --> 01:03:30,170
So I've just walked down from
town hall to the playground.
1283
01:03:30,170 --> 01:03:33,200
I'm going to slide
up the menu again.
1284
01:03:33,200 --> 01:03:35,195

I'm going to hit the
red Stop Tracking.
1285
01:03:35,195 --> 01:03:38,517
1286
01:03:38,517 --> 01:03:39,600
And I'm going to say, yes.
1287
01:03:39,600 --> 01:03:42,280
I want to stop tracking.
1288
01:03:42,280 --> 01:03:45,390
So now I have a
waypoint and a track.
1289
01:03:45,390 --> 01:03:53,620
If I click on the
track and highlight it,
1290
01:03:53,620 --> 01:03:55,330
I can name the track also.
1291
01:03:55,330 --> 01:03:56,680
I hit the little i button.
1292
01:03:56,680 --> 01:03:59,530
1293
01:03:59,530 --> 01:04:02,230
Hit the X next to track one.
1294
01:04:02,230 --> 01:04:05,200
I can name it Play Ground.
1295
01:04:05,200 --> 01:04:08,660
1296
01:04:08,660 --> 01:04:12,760
I can also change the
style to a different color.
1297
01:04:12,760 --> 01:04:15,350
Make it red.
1298
01:04:15,350 --> 01:04:17,210
I can change the line thickness.
1299
01:04:17,210 --> 01:04:21,080
1300
01:04:21,080 --> 01:04:23,420
It'll tell me when I
recorded the track down
1301
01:04:23,420 --> 01:04:24,710
below under time.
1302

01:04:24,710 --> 01:04:27,170
I can see a graph of the
elevation and distance.
1303
01:04:27,170 --> 01:04:30,500
1304
01:04:30,500 --> 01:04:32,240
And at the very
bottom, I can delete it
1305
01:04:32,240 --> 01:04:34,370
with the trash
can at the bottom.
1306
01:04:34,370 --> 01:04:36,890
I'm going to hit Close.
1307
01:04:36,890 --> 01:04:38,960
So now it's labeled Playground.
1308
01:04:38,960 --> 01:04:43,580
And with the waypoint, if
I click on the waypoint
1309
01:04:43,580 --> 01:04:50,110
and hit the little i button,
I can change the symbol
1310
01:04:50,110 --> 01:04:51,030
to different colors.
1311
01:04:51,030 --> 01:04:53,530
So I can make it green.
1312
01:04:53,530 --> 01:04:55,870
And it also has stats
on when it was recorded
1313
01:04:55,870 --> 01:05:00,440
and its coordinates
of its location.
1314
01:05:00,440 --> 01:05:04,160
To get rid of it, I
hit the Trash button.
1315
01:05:04,160 --> 01:05:05,370
Says, do you to delete it?
1316
01:05:05,370 --> 01:05:07,340
Yes, delete it.
1317
01:05:07,340 --> 01:05:08,780
And now the waypoint's gone.

1318
01:05:08,780 --> 01:05:15,207
[END PLAYBACK]
1319
01:05:15,207 --> 01:05:15,790
SPEAKER 1: OK.
1320
01:05:15,790 --> 01:05:19,270
Now on to using your
camera with waypoints.
1321
01:05:19,270 --> 01:05:21,730
And this is a demo of using
a camera with waypoints.
1322
01:05:21,730 --> 01:05:25,390
But you can also attach
your photos from your camera
1323
01:05:25,390 --> 01:05:31,873
to polygons and lines or tracks.
1324
01:05:31,873 --> 01:05:32,540
[VIDEO PLAYBACK]
1325
01:05:32,540 --> 01:05:34,580
- I'm at the playground again.
1326
01:05:34,580 --> 01:05:37,082
I'm going to record a waypoint.
1327
01:05:37,082 --> 01:05:38,165
Hit the pen at the bottom.
1328
01:05:38,165 --> 01:05:42,530
1329
01:05:42,530 --> 01:05:47,750
And this time, I'm
going to add a photo.
1330
01:05:47,750 --> 01:05:50,905
So I'm going to hit the
square under the word, photos.
1331
01:05:50,905 --> 01:05:54,230
1332
01:05:54,230 --> 01:05:56,471
Hit the plus.
1333
01:05:56,471 --> 01:05:59,360
I'm going to hit, Camera.
1334
01:05:59,360 --> 01:06:01,370
I'm going to take a

photo of the playground.
1335
01:06:01,370 --> 01:06:04,268
1336
01:06:04,268 --> 01:06:05,435
I'm going to say, use photo.
1337
01:06:05,435 --> 01:06:10,070
1338
01:06:10,070 --> 01:06:10,635
Hit Back.
1339
01:06:10,635 --> 01:06:14,200
1340
01:06:14,200 --> 01:06:18,490
Hit Submit for my waypoint.
1341
01:06:18,490 --> 01:06:22,160
And now my waypoint has a
photo connected with it.
1342
01:06:22,160 --> 01:06:24,940
So if I hit the
little i, you can
1343
01:06:24,940 --> 01:06:29,960
see that connected to
that waypoint is a photo.
1344
01:06:29,960 --> 01:06:32,345
And if I hit the photo,
I get the full photo.
1345
01:06:32,345 --> 01:06:39,690
1346
01:06:39,690 --> 01:06:42,390
If I go to my photo
library, it automatically
1347
01:06:42,390 --> 01:06:44,160
puts it in my
photo library also.
1348
01:06:44,160 --> 01:07:00,950
[END PLAYBACK]
1349
01:07:00,950 --> 01:07:02,692
SPEAKER 1: Hey, Frank,
did that break up
1350
01:07:02,692 --> 01:07:03,900
for you guys towards the end?
1351
01:07:03,900 --> 01:07:04,460

That video?
1352
01:07:04,460 --> 01:07:07,620
1353
01:07:07,620 --> 01:07:09,180
FRANK: No.
1354
01:07:09,180 --> 01:07:11,310
It was pretty smooth.
1355
01:07:11,310 --> 01:07:12,930
SPEAKER 1: OK, good.
1356
01:07:12,930 --> 01:07:16,160
On my end, it kind
of got choppy.
1357
01:07:16,160 --> 01:07:16,740
All right.
1358
01:07:16,740 --> 01:07:19,110
So other features besides
waypoints, trackings,
1359
01:07:19,110 --> 01:07:21,370
and photos.
1360
01:07:21,370 --> 01:07:25,940
If you swipe up on your phone,
you'll get this menu here
1361
01:07:25,940 --> 01:07:26,665
with the compass.
1362
01:07:26,665 --> 01:07:27,790
And you have three choices.
1363
01:07:27,790 --> 01:07:30,130
Location, tracking,
and navigation.
1364
01:07:30,130 --> 01:07:33,100
If you hit location,
you get the compass,
1365
01:07:33,100 --> 01:07:35,540
which we've seen before.
1366
01:07:35,540 --> 01:07:37,670
And in this case, it also
will give you altitude.
1367
01:07:37,670 --> 01:07:40,030
It'll give you the accuracy

based on the satellites
1368
01:07:40,030 --> 01:07:41,200
are connected to.
1369
01:07:41,200 --> 01:07:44,500
So right now, when I
did the screen capture,
1370
01:07:44,500 --> 01:07:47,620
I was getting a 15 foot
accuracy and an 11 foot
1371
01:07:47,620 --> 01:07:50,140
vertical or elevation accuracy.
1372
01:07:50,140 --> 01:07:53,620
1373
01:07:53,620 --> 01:07:57,400
For the navigation menu,
for this swipe up menu,
1374
01:07:57,400 --> 01:08:00,100
you have four choices
to choose from.
1375
01:08:00,100 --> 01:08:02,157
Project, destination,
navigate the feature,
1376
01:08:02,157 --> 01:08:03,740
enter coordinates,
and create a route.
1377
01:08:03,740 --> 01:08:06,655
And we'll go through
all of those.
1378
01:08:06,655 --> 01:08:10,310
All these choices are
also in the main menu,
1379
01:08:10,310 --> 01:08:17,067
which is that three dot thing
at the bottom right hand corner.
1380
01:08:17,067 --> 01:08:18,609
And again, if you
hit the three dots,
1381
01:08:18,609 --> 01:08:22,600
you get the main menu, which has
everything in the swipe up menu
1382

01:08:22,600 --> 01:08:23,439
plus more.
1383
01:08:23,439 --> 01:08:26,630
1384
01:08:26,630 --> 01:08:28,029
So moving on to other features.
1385
01:08:28,029 --> 01:08:30,310
Draw and measure.
1386
01:08:30,310 --> 01:08:31,450
There's our main menu.
1387
01:08:31,450 --> 01:08:33,310
Choose Draw and Measure.
1388
01:08:33,310 --> 01:08:35,920
Tap anywhere to add a
vertex at the cross hair.
1389
01:08:35,920 --> 01:08:42,020
So you tap at the gun point
thing with your finger.
1390
01:08:42,020 --> 01:08:45,439
And then with your
finger you slide
1391
01:08:45,439 --> 01:08:47,569
the image of the
map in the direction
1392
01:08:47,569 --> 01:08:50,620
you want to draw a line.
1393
01:08:50,620 --> 01:08:52,620
When you do that,
it creates a line.
1394
01:08:52,620 --> 01:08:54,149
And up on the top,
it'll tell you
1395
01:08:54,149 --> 01:08:57,750
the distance that you've
made with your finger
1396
01:08:57,750 --> 01:09:02,229
and the azimuth that you've
made with your finger.
1397
01:09:02,229 --> 01:09:05,710
And you can do multiple lines

that connect to each other.
1398
01:09:05,710 --> 01:09:07,590
However you want to do it.
1399
01:09:07,590 --> 01:09:11,290
It's sort of like finger
painting on a map.
1400
01:09:11,290 --> 01:09:12,970
And then you hit
the check mark when
1401
01:09:12,970 --> 01:09:14,770
you're done making your line--
1402
01:09:14,770 --> 01:09:16,359
drawing your line.
1403
01:09:16,359 --> 01:09:19,668
If you click on the line,
you have some choices
1404
01:09:19,668 --> 01:09:21,460
where you can change
the style of the line,
1405
01:09:21,460 --> 01:09:22,377
the color of the line.
1406
01:09:22,377 --> 01:09:23,740
You can give the line a name.
1407
01:09:23,740 --> 01:09:27,520
1408
01:09:27,520 --> 01:09:32,120
So there's a video
on draw and measure.
1409
01:09:32,120 --> 01:09:33,870
It's called draw and
measure because you're
1410
01:09:33,870 --> 01:09:38,603
drawing a feature, and then it's
giving you the measurements.
1411
01:09:38,603 --> 01:09:39,270
[VIDEO PLAYBACK]
1412
01:09:39,270 --> 01:09:42,300
- From your menu,
choose Draw and Measure.
1413

01:09:42,300 --> 01:09:46,060
1414
01:09:46,060 --> 01:09:49,920
You can move the vertex around
that circular thing with a dot.
1415
01:09:49,920 --> 01:09:51,700
But I'm going to
move it back to where
1416
01:09:51,700 --> 01:09:55,419
I am, which is the blue dot.
1417
01:09:55,419 --> 01:09:59,060
I'm going to tap the
center of the vertex.
1418
01:09:59,060 --> 01:10:01,505
[END PLAYBACK]
1419
01:10:01,505 --> 01:10:03,880
SPEAKER 1: I'm going to stop
the video here for a moment.
1420
01:10:03,880 --> 01:10:08,446
You can see there's a light
blue halo around the blue dot.
1421
01:10:08,446 --> 01:10:12,580
That light blue halo will
change in size over time.
1422
01:10:12,580 --> 01:10:14,410
It tends to get bigger
when you're moving,
1423
01:10:14,410 --> 01:10:16,810
and smaller when
you're not moving.
1424
01:10:16,810 --> 01:10:18,790
And that light blue
halo is giving you
1425
01:10:18,790 --> 01:10:22,030
a statistical sort
of measurement of how
1426
01:10:22,030 --> 01:10:24,190
accurate your position is.
1427
01:10:24,190 --> 01:10:25,990
So it's saying that
you could be anywhere

1428
01:10:25,990 --> 01:10:28,300
within that light blue halo.
1429
01:10:28,300 --> 01:10:30,160
If the light blue
halo disappears,
1430
01:10:30,160 --> 01:10:36,370
that means you are within the
whatever prescribed distance
1431
01:10:36,370 --> 01:10:39,550
you've put in the
settings of Avenza.
1432
01:10:39,550 --> 01:10:45,270
So when I'm within
30 feet of whatever--
1433
01:10:45,270 --> 01:10:48,210
when I'm within 30
feet of reality,
1434
01:10:48,210 --> 01:10:50,468
my light blue halo disappears.
1435
01:10:50,468 --> 01:10:52,510
And that's something you
can put in the settings.
1436
01:10:52,510 --> 01:10:54,593
You can make it 50 feet,
you can make it 100 feet,
1437
01:10:54,593 --> 01:10:57,880
you can make it two feet.
1438
01:10:57,880 --> 01:10:59,173
Back to the video.
1439
01:10:59,173 --> 01:10:59,840
[VIDEO PLAYBACK]
1440
01:10:59,840 --> 01:11:00,910
- Just once.
1441
01:11:00,910 --> 01:11:06,320
And then I'm going to measure a
distance from there to the road
1442
01:11:06,320 --> 01:11:09,734
intersection.
1443

01:11:09,734 --> 01:11:11,240
Then I'm going to tap again.
1444
01:11:11,240 --> 01:11:15,460
1445
01:11:15,460 --> 01:11:18,900
And it says it's
364 feet from where
1446
01:11:18,900 --> 01:11:22,650
I am to the road intersection.
1447
01:11:22,650 --> 01:11:25,040
Down here, if I
hit the check mark,
1448
01:11:25,040 --> 01:11:30,240
it will close doing
draw and measure.
1449
01:11:30,240 --> 01:11:38,130
And then if I click on the
line, and hit the Info button,
1450
01:11:38,130 --> 01:11:40,620
I get information about that.
1451
01:11:40,620 --> 01:11:44,820
The distance, which it
showed before as 364 feet.
1452
01:11:44,820 --> 01:11:46,050
The time and date.
1453
01:11:46,050 --> 01:11:48,030
I did the draw and measure.
1454
01:11:48,030 --> 01:11:51,690
I can change the style of the
line to, I don't know, red.
1455
01:11:51,690 --> 01:11:55,470
1456
01:11:55,470 --> 01:11:57,900
And I can even give
it a description.
1457
01:11:57,900 --> 01:11:59,770
And I can give it a name.
1458
01:11:59,770 --> 01:12:05,060
1459
01:12:05,060 --> 01:12:05,560
Road.

1460
01:12:05,560 --> 01:12:10,193
1461
01:12:10,193 --> 01:12:10,860
So there you go.
1462
01:12:10,860 --> 01:12:13,020
Now it's red, and it
says it's labeled, road.
1463
01:12:13,020 --> 01:12:22,277
[END PLAYBACK]
1464
01:12:22,277 --> 01:12:22,860
SPEAKER 1: OK.
1465
01:12:22,860 --> 01:12:24,600
So everything I've
done so far is
1466
01:12:24,600 --> 01:12:29,170
stuff I've been doing on
a regular basis for years.
1467
01:12:29,170 --> 01:12:31,020
When I started making
this presentation,
1468
01:12:31,020 --> 01:12:33,750
I started going
down the rabbit hole
1469
01:12:33,750 --> 01:12:37,440
and trying to learn as much as
I could about Avenza features
1470
01:12:37,440 --> 01:12:40,870
that I've never
bothered to mess with.
1471
01:12:40,870 --> 01:12:44,220
So this is all new stuff for
me that I've learned just
1472
01:12:44,220 --> 01:12:45,780
for making this presentation.
1473
01:12:45,780 --> 01:12:47,850
And some of this stuff I
think I will definitely
1474
01:12:47,850 --> 01:12:51,210
integrate into my
regular work activities.

1475
01:12:51,210 --> 01:12:54,010
1476
01:12:54,010 --> 01:12:57,260
So under other features,
navigate to a destination.
1477
01:12:57,260 --> 01:13:00,110
1478
01:13:00,110 --> 01:13:02,150
There's multiple
ways to do that.
1479
01:13:02,150 --> 01:13:05,270
And we're going to
go through each one.
1480
01:13:05,270 --> 01:13:08,240
Navigate to a project
destination, to a feature,
1481
01:13:08,240 --> 01:13:11,240
to coordinates that you
enter, and navigate a route.
1482
01:13:11,240 --> 01:13:13,820
1483
01:13:13,820 --> 01:13:16,148
Project destination.
1484
01:13:16,148 --> 01:13:17,690
So when you hit,
Project Destination,
1485
01:13:17,690 --> 01:13:20,440
you'll get this compass.
1486
01:13:20,440 --> 01:13:22,120
You're going to want
to move your phone
1487
01:13:22,120 --> 01:13:23,580
in a horizontal position.
1488
01:13:23,580 --> 01:13:26,080
Sort of swivel it around till
it's pointing in the direction
1489
01:13:26,080 --> 01:13:29,500
that you want to go just
like a regular compass.
1490
01:13:29,500 --> 01:13:32,410
Once it's in the heading or

direction that you want to go,
1491
01:13:32,410 --> 01:13:34,072
and you can read
the heading change
1492
01:13:34,072 --> 01:13:35,530
as you move the
compass if you want
1493
01:13:35,530 --> 01:13:37,510
to go to a specific heading.
1494
01:13:37,510 --> 01:13:40,660
And right now, you can change
you can change back and forth
1495
01:13:40,660 --> 01:13:45,080
between azimuth and quadrant
bearings in your settings.
1496
01:13:45,080 --> 01:13:47,830
You can also change between
true and magnetic north,
1497
01:13:47,830 --> 01:13:49,030
and give it a declination.
1498
01:13:49,030 --> 01:13:52,890
1499
01:13:52,890 --> 01:13:55,920
So once you have it on
the heading that you want,
1500
01:13:55,920 --> 01:13:58,250
you hit Lock Compass.
1501
01:13:58,250 --> 01:13:59,990
Enter the distance
that you want to go.
1502
01:13:59,990 --> 01:14:02,720
1503
01:14:02,720 --> 01:14:04,620
And then this
screen will come up
1504
01:14:04,620 --> 01:14:05,870
for you to enter the distance.
1505
01:14:05,870 --> 01:14:10,320
1506
01:14:10,320 --> 01:14:12,980
You're going to swipe

the keyboard down.
1507
01:14:12,980 --> 01:14:15,670
Get it out of the way so you
can hit the Navigate button.
1508
01:14:15,670 --> 01:14:18,810
1509
01:14:18,810 --> 01:14:21,300
And then once you do that,
it'll come up with a compass.
1510
01:14:21,300 --> 01:14:27,420
And that little blue area arrow
over the top of the number 613,
1511
01:14:27,420 --> 01:14:31,590
that's the bearing
that you just entered.
1512
01:14:31,590 --> 01:14:34,080
And as you start
moving, it will tell you
1513
01:14:34,080 --> 01:14:37,950
how far you are from the
distance that you entered.
1514
01:14:37,950 --> 01:14:44,300
You can swipe the compass
down to use a map.
1515
01:14:44,300 --> 01:14:47,420
And truthfully, I found the
compass really annoying.
1516
01:14:47,420 --> 01:14:50,750
I much prefer using
the map to navigate.
1517
01:14:50,750 --> 01:14:54,310
But maybe you like the compass.
1518
01:14:54,310 --> 01:14:56,620
And then when you get
close to your destination--
1519
01:14:56,620 --> 01:14:59,200
and I have it set for 30 feet--
1520
01:14:59,200 --> 01:15:00,970
your phone will alert you.
1521
01:15:00,970 --> 01:15:02,710

It'll buzz.
1522
01:15:02,710 --> 01:15:06,820
It'll make a little bell sound,
and a little message screen
1523
01:15:06,820 --> 01:15:11,090
will come up saying you have
reached your destination.
1524
01:15:11,090 --> 01:15:12,530
Navigating to a feature.
1525
01:15:12,530 --> 01:15:15,230
A feature is something you
already have on your map
1526
01:15:15,230 --> 01:15:17,467
that you want to navigate to.
1527
01:15:17,467 --> 01:15:19,050
So when you hit
Navigate to a Feature,
1528
01:15:19,050 --> 01:15:21,110
it will come up with this.
1529
01:15:21,110 --> 01:15:22,760
And you click on Layer.
1530
01:15:22,760 --> 01:15:24,770
And these are layers
that are in the map
1531
01:15:24,770 --> 01:15:26,430
that I'm currently using.
1532
01:15:26,430 --> 01:15:29,030
So I can navigate to
a track or a waypoint.
1533
01:15:29,030 --> 01:15:31,220
I'm going to navigate
to this waypoint.
1534
01:15:31,220 --> 01:15:32,780
Again, the same
compass will come up
1535
01:15:32,780 --> 01:15:37,330
with the same blue
arrow to follow.
1536
01:15:37,330 --> 01:15:39,970

Or you can swipe it
down, and use the map.
1537
01:15:39,970 --> 01:15:41,690
And again, it'll
do the same thing.
1538
01:15:41,690 --> 01:15:42,710
You have reached
your destination.
1539
01:15:42,710 --> 01:15:44,350
It will alert you
when you get there.
1540
01:15:44,350 --> 01:15:47,340
1541
01:15:47,340 --> 01:15:49,230
Another way you can
navigate is to enter
1542
01:15:49,230 --> 01:15:51,570
the exact coordinates--
latitude and longitude of where
1543
01:15:51,570 --> 01:15:53,460
you want to navigate to.
1544
01:15:53,460 --> 01:15:56,040
And you can change the
different kinds of coordinates
1545
01:15:56,040 --> 01:15:58,092
in the settings.
1546
01:15:58,092 --> 01:16:00,050
There's so many different
kinds of coordinates.
1547
01:16:00,050 --> 01:16:02,660
I don't even know half of them.
1548
01:16:02,660 --> 01:16:05,510
1549
01:16:05,510 --> 01:16:07,490
And then hit Navigate.
1550
01:16:07,490 --> 01:16:10,300
The same blue arrow
compass comes up.
1551
01:16:10,300 --> 01:16:12,410
And we can swipe it
down to use the map,

1552
01:16:12,410 --> 01:16:16,800
and navigate to the coordinates
that you just entered.
1553
01:16:16,800 --> 01:16:20,510
And you have reached a
destination when you get there.
1554
01:16:20,510 --> 01:16:21,010
Route.
1555
01:16:21,010 --> 01:16:22,510
This one's pretty cool.
1556
01:16:22,510 --> 01:16:24,800
A little bit more complicated.
1557
01:16:24,800 --> 01:16:26,830
So if you choose,
Create a Route,
1558
01:16:26,830 --> 01:16:28,590
this screen will come up.
1559
01:16:28,590 --> 01:16:31,030
So the tap anywhere in the
vertex at the cross hairs
1560
01:16:31,030 --> 01:16:33,460
and hold a specific distance.
1561
01:16:33,460 --> 01:16:37,230
Basically, you're doing the same
thing as drawing and measuring.
1562
01:16:37,230 --> 01:16:40,520
The same exact thing.
1563
01:16:40,520 --> 01:16:43,540
So I'm going to tap the cross
hairs in the middle there--
1564
01:16:43,540 --> 01:16:46,570
the gunshot gunsighting thing.
1565
01:16:46,570 --> 01:16:50,740
And then I'm just going
to slide with my finger
1566
01:16:50,740 --> 01:16:53,320
the length and
distance I want to go.
1567

01:16:53,320 --> 01:16:56,050
Then I'll tap when I get
to where I want to go.
1568
01:16:56,050 --> 01:16:59,200
And then I can slide another
segment, and tap again.
1569
01:16:59,200 --> 01:17:01,720
And I can make a route with
as many turns, and twists,
1570
01:17:01,720 --> 01:17:04,170
and lengths as you want.
1571
01:17:04,170 --> 01:17:07,183
When you're done, hit the
check mark at the bottom.
1572
01:17:07,183 --> 01:17:09,100
It'll say, do you want
to navigate this route?
1573
01:17:09,100 --> 01:17:11,410
And you'll say, yes.
1574
01:17:11,410 --> 01:17:12,820
It'll give you the blue compass.
1575
01:17:12,820 --> 01:17:15,970
You can use that to navigate
this convoluted route
1576
01:17:15,970 --> 01:17:17,890
that you've made.
1577
01:17:17,890 --> 01:17:19,720
Or you can use the map.
1578
01:17:19,720 --> 01:17:23,260
And when you get to each vertex,
your phone will alert you.
1579
01:17:23,260 --> 01:17:27,360
1580
01:17:27,360 --> 01:17:34,320
Find by coordinates, which
is the fourth menu option.
1581
01:17:34,320 --> 01:17:39,890
So when you hit that,
it brings up your map.
1582
01:17:39,890 --> 01:17:43,310

And you have the option to
enter coordinates at the top
1583
01:17:43,310 --> 01:17:45,120
that you want to find.
1584
01:17:45,120 --> 01:17:47,510
So you have to type them in.
1585
01:17:47,510 --> 01:17:50,390
And then hit the Search button.
1586
01:17:50,390 --> 01:17:54,110
And the gunshot crosshairs
thing will automatically
1587
01:17:54,110 --> 01:17:57,550
locate those coordinates.
1588
01:17:57,550 --> 01:18:00,020
And I'm not sure the
purpose of that one.
1589
01:18:00,020 --> 01:18:02,690
But that's what it does.
1590
01:18:02,690 --> 01:18:03,310
Next one.
1591
01:18:03,310 --> 01:18:04,650
Monitor geofences.
1592
01:18:04,650 --> 01:18:05,610
This one's really cool.
1593
01:18:05,610 --> 01:18:07,693
And this one I definitely
am going to start using.
1594
01:18:07,693 --> 01:18:10,080
1595
01:18:10,080 --> 01:18:12,820
Under Find by Coordinates
is Plot GPS Average.
1596
01:18:12,820 --> 01:18:15,610
I'm not able to do that because
I don't have the pro version
1597
01:18:15,610 --> 01:18:17,500
so I don't know what that is.
1598
01:18:17,500 --> 01:18:21,930
We're going down here to

the fifth or sixth option
1599
01:18:21,930 --> 01:18:25,320
here-- monitor geofences.
1600
01:18:25,320 --> 01:18:29,430
And if I say georeferences
by mistake, I'm sorry.
1601
01:18:29,430 --> 01:18:33,330
I get geofences and
georeferences mixed up.
1602
01:18:33,330 --> 01:18:36,050
But this is geofences.
1603
01:18:36,050 --> 01:18:38,707
And I didn't make
screen captures
1604
01:18:38,707 --> 01:18:40,290
because it's too
complicated for that.
1605
01:18:40,290 --> 01:18:42,380
So instead, I made a video.
1606
01:18:42,380 --> 01:18:44,900
But give you a little
summary before the video,
1607
01:18:44,900 --> 01:18:47,690
basically, this
feature will alert you
1608
01:18:47,690 --> 01:18:51,650
when you're within a certain
distance that you tell Avenza.
1609
01:18:51,650 --> 01:18:53,780
Like 50 feet, 30 feet,
10 feet, whatever.
1610
01:18:53,780 --> 01:18:57,110
It'll alert you when you
get to that distance.
1611
01:18:57,110 --> 01:18:59,700
It's creating a
geographic fence for you.
1612
01:18:59,700 --> 01:19:01,700
And when you get
to that distance,

1613
01:19:01,700 --> 01:19:05,420
a little message will
come up on your screen.

1614
01:19:05,420 --> 01:19:08,420
Your phone will ring, and
if you have vibrate mode on,

1615
01:19:08,420 --> 01:19:09,610
your phone will vibrate.

1616
01:19:09,610 --> 01:19:11,630
So I mean if you
have an inventory

1617
01:19:11,630 --> 01:19:15,437
point you're walking towards,
and you're doing monitor

1618
01:19:15,437 --> 01:19:18,020
geofences at the time, and you
have your phone in your pocket,

1619
01:19:18,020 --> 01:19:19,400
you'll feel it
vibrate when you get

1620
01:19:19,400 --> 01:19:20,630
within 30 feet of the point.

1621
01:19:20,630 --> 01:19:23,300

1622
01:19:23,300 --> 01:19:25,550
In hindsight, this would
have been a great thing

1623
01:19:25,550 --> 01:19:29,630
to use for making a
buffer along a blue trail.

1624
01:19:29,630 --> 01:19:31,610
Or any sort of
buffer activity you

1625
01:19:31,610 --> 01:19:33,770
wouldn't have to have a
second person with you.

1626
01:19:33,770 --> 01:19:36,890
You could do it on
your own just by having

1627
01:19:36,890 --> 01:19:40,468

that feature in your phone,
and then using geofences.
1628
01:19:40,468 --> 01:19:42,510
And you wouldn't even need
to look at your phone.
1629
01:19:42,510 --> 01:19:44,600
You could just
use the vibrations
1630
01:19:44,600 --> 01:19:47,060
to make sure you stay
on that buffer boundary.
1631
01:19:47,060 --> 01:19:52,080
1632
01:19:52,080 --> 01:19:52,720
All right.
1633
01:19:52,720 --> 01:19:53,640
Whoops.
1634
01:19:53,640 --> 01:19:54,810
Go back.
1635
01:19:54,810 --> 01:19:55,670
Hit the wrong thing.
1636
01:19:55,670 --> 01:20:05,360
1637
01:20:05,360 --> 01:20:06,290
OK.
1638
01:20:06,290 --> 01:20:07,180
Video.
1639
01:20:07,180 --> 01:20:07,830
There we go.
1640
01:20:07,830 --> 01:20:08,497
[VIDEO PLAYBACK]
1641
01:20:08,497 --> 01:20:11,180
- The geofences feature
allows the phone
1642
01:20:11,180 --> 01:20:16,310
to tell you when you're certain
distance from a feature.
1643
01:20:16,310 --> 01:20:19,280
So you open up the menu.
1644

01:20:19,280 --> 01:20:20,610
Choose Monitor Fences.
1645
01:20:20,610 --> 01:20:24,950
1646
01:20:24,950 --> 01:20:28,270
Hit the Plus button.
1647
01:20:28,270 --> 01:20:33,620
You can choose either a
point, a line, or a polygon.
1648
01:20:33,620 --> 01:20:35,630
In this case, we're going
to do a point, which
1649
01:20:35,630 --> 01:20:39,050
is called place mark.
1650
01:20:39,050 --> 01:20:41,720
Hit Layer.
1651
01:20:41,720 --> 01:20:45,507
And then I'm going to hit
the one place mark I have,
1652
01:20:45,507 --> 01:20:46,340
which is a waypoint.
1653
01:20:46,340 --> 01:20:54,970
1654
01:20:54,970 --> 01:20:56,410
Now you can change the distance.
1655
01:20:56,410 --> 01:21:01,300
It automatically
default to 32.81.
1656
01:21:01,300 --> 01:21:04,480
I'm going to make it 40.
1657
01:21:04,480 --> 01:21:09,720
Then we hit the Back button
on the upper left hand corner.
1658
01:21:09,720 --> 01:21:12,810
It says its geofence
is turned on.
1659
01:21:12,810 --> 01:21:15,270
I'm going to hit Close.
1660
01:21:15,270 --> 01:21:17,280
There is a map.

1661
01:21:17,280 --> 01:21:18,255
I'm the blue dot.
1662
01:21:18,255 --> 01:21:20,820
As I get closer to my
georeference, which
1663
01:21:20,820 --> 01:21:26,640
is the red pin, it'll
eventually tell me
1664
01:21:26,640 --> 01:21:28,350
when I'm within 40 feet.
1665
01:21:28,350 --> 01:21:37,890
1666
01:21:37,890 --> 01:21:38,580
There we go.
1667
01:21:38,580 --> 01:21:39,540
I'm in.
1668
01:21:39,540 --> 01:21:40,740
I'm within 40 feet.
1669
01:21:40,740 --> 01:21:46,680
1670
01:21:46,680 --> 01:21:51,490
[END PLAYBACK]
1671
01:21:51,490 --> 01:21:53,240
SPEAKER 1: So when
you're using geofences,
1672
01:21:53,240 --> 01:21:55,160
you'll see this screen.
1673
01:21:55,160 --> 01:21:59,510
There's a toggle here to turn on
and off your geofence feature.
1674
01:21:59,510 --> 01:22:10,008
If you hit Edit, you can
delete the geofence feature.
1675
01:22:10,008 --> 01:22:12,550
If you don't delete it, it'll
always be stored in your phone.
1676
01:22:12,550 --> 01:22:16,920
1677
01:22:16,920 --> 01:22:18,360
Up here on the

right, if you click
1678
01:22:18,360 --> 01:22:22,390
on that little bell with
a crosshair through it,
1679
01:22:22,390 --> 01:22:24,240
It has a crosshair
through it on this image
1680
01:22:24,240 --> 01:22:26,170
because right now the
sound is turned off.
1681
01:22:26,170 --> 01:22:27,587
But if you click
on that bell, you
1682
01:22:27,587 --> 01:22:31,140
can turn on sound notification
for when you hit the geofence.
1683
01:22:31,140 --> 01:22:37,660
1684
01:22:37,660 --> 01:22:39,780
Moving on to the next feature--
1685
01:22:39,780 --> 01:22:43,290
or next menu feature.
1686
01:22:43,290 --> 01:22:44,790
Open View in Maps App.
1687
01:22:44,790 --> 01:22:47,400
If you click on
that, it comes up
1688
01:22:47,400 --> 01:22:51,780
with a large map showing your
location on a much bigger map.
1689
01:22:51,780 --> 01:22:55,220
And it automatically does it.
1690
01:22:55,220 --> 01:22:55,730
That's it.
1691
01:22:55,730 --> 01:22:56,670
That's all it does.
1692
01:22:56,670 --> 01:22:57,545
But it's pretty neat.
1693
01:22:57,545 --> 01:23:00,440

I mean, in case you
forget where you are.
1694
01:23:00,440 --> 01:23:03,590
1695
01:23:03,590 --> 01:23:06,300
Plot photos.
1696
01:23:06,300 --> 01:23:09,410
This plot photos feature
is kind of convoluted.
1697
01:23:09,410 --> 01:23:11,840
I'd rather use my camera,
and take the photo,
1698
01:23:11,840 --> 01:23:15,290
and connect it with the
waypoint in the field.
1699
01:23:15,290 --> 01:23:18,020
But if for some reason you
aren't able to do that,
1700
01:23:18,020 --> 01:23:21,980
you can at a later date
connect to your photos
1701
01:23:21,980 --> 01:23:23,690
to lines and points.
1702
01:23:23,690 --> 01:23:26,110
And this is how you do that.
1703
01:23:26,110 --> 01:23:29,740
So choose Plot
Photos at the bottom.
1704
01:23:29,740 --> 01:23:32,680
Would you like Avenza
to access your photos?
1705
01:23:32,680 --> 01:23:35,110
You've going to click
Select More Photos.
1706
01:23:35,110 --> 01:23:39,730
Then you choose the photos
that you want Avenza to plot.
1707
01:23:39,730 --> 01:23:41,260
And now whenever
you take a photo--
1708

01:23:41,260 --> 01:23:44,020
and I think this is true
nowadays with all phones--
1709
01:23:44,020 --> 01:23:46,330
they automatically
record the location
1710
01:23:46,330 --> 01:23:47,650
that that photo is taken.
1711
01:23:47,650 --> 01:23:50,530
They record the location, and
they record the elevation,
1712
01:23:50,530 --> 01:23:54,070
and they record the time
and date that you took it.
1713
01:23:54,070 --> 01:23:56,890
So Avenza can use
that information back
1714
01:23:56,890 --> 01:23:58,810
in the office for you
to plot as many photos
1715
01:23:58,810 --> 01:24:02,020
as you want assuming those
photos were taken on the map
1716
01:24:02,020 --> 01:24:03,130
that you were using.
1717
01:24:03,130 --> 01:24:05,682
So I choose two photos here.
1718
01:24:05,682 --> 01:24:07,205
Hit Done.
1719
01:24:07,205 --> 01:24:08,580
Then it comes up
with this thing.
1720
01:24:08,580 --> 01:24:11,220
It says there are no geotag
photos in this photo library
1721
01:24:11,220 --> 01:24:13,140
within the extent of this map.
1722
01:24:13,140 --> 01:24:15,690
That's not true.
1723

01:24:15,690 --> 01:24:17,495
So just close out
this weird screen.
1724
01:24:17,495 --> 01:24:20,020
1725
01:24:20,020 --> 01:24:22,240
Once you close it out,
you're back to your map.
1726
01:24:22,240 --> 01:24:24,840
Hit the menu bar again.
1727
01:24:24,840 --> 01:24:26,740
Hit Plot Photos again.
1728
01:24:26,740 --> 01:24:27,240
All right.
1729
01:24:27,240 --> 01:24:30,330
Then there's the
photos that you chose.
1730
01:24:30,330 --> 01:24:31,460
You can choose them again.
1731
01:24:31,460 --> 01:24:36,280
So at this point,
hit Select All.
1732
01:24:36,280 --> 01:24:37,870
They're selected.
1733
01:24:37,870 --> 01:24:41,450
Then you're going to hit Import.
1734
01:24:41,450 --> 01:24:44,390
It'll say two photo place
marks added to your map.
1735
01:24:44,390 --> 01:24:45,740
Hit OK.
1736
01:24:45,740 --> 01:24:47,450
And there they are.
1737
01:24:47,450 --> 01:24:50,487
It just put those
photos on your map.
1738
01:24:50,487 --> 01:24:52,070
And it won't put the
photo on your map
1739

01:24:52,070 --> 01:24:56,030
if your photo was taken
outside of your map, obviously.
1740
01:24:56,030 --> 01:24:59,210
And if you click on those,
you can see the photos.
1741
01:24:59,210 --> 01:25:00,770
And they basically
are also creating
1742
01:25:00,770 --> 01:25:02,780
two waypoints when you do this.
1743
01:25:02,780 --> 01:25:07,370
1744
01:25:07,370 --> 01:25:07,870
All right.
1745
01:25:07,870 --> 01:25:10,570
So I've gone through
all the menus.
1746
01:25:10,570 --> 01:25:12,220
I've scratched the surface.
1747
01:25:12,220 --> 01:25:17,380
There's a lot more that you
could learn with Avenza.
1748
01:25:17,380 --> 01:25:18,680
Especially in the settings.
1749
01:25:18,680 --> 01:25:22,220
There's so many things that
you can change in the settings.
1750
01:25:22,220 --> 01:25:24,950
So this is solely
an introduction.
1751
01:25:24,950 --> 01:25:25,940
Go play around with it.
1752
01:25:25,940 --> 01:25:26,780
Discover more.
1753
01:25:26,780 --> 01:25:29,860
1754
01:25:29,860 --> 01:25:32,290
Now on Avenza's
website, they said
1755

01:25:32,290 --> 01:25:34,210
if you use Avenza
for professional use,

1756
01:25:34,210 --> 01:25:36,520
you must pay $130 per year.

1757
01:25:36,520 --> 01:25:40,090
If you use it for
recreational use, it's free.

1758
01:25:40,090 --> 01:25:43,210
If you do pay $130 a
year, you get Avenza Pro,

1759
01:25:43,210 --> 01:25:44,740
which has more
features and allows

1760
01:25:44,740 --> 01:25:47,820
you to store more than
three maps on your phone.

1761
01:25:47,820 --> 01:25:52,510

1762
01:25:52,510 --> 01:25:55,480
Again, I want to remind you
that this presentation is being

1763
01:25:55,480 --> 01:25:58,660
recorded, and will be available
on Connecticut DEP Forestry

1764
01:25:58,660 --> 01:25:59,780
main page.

1765
01:25:59,780 --> 01:26:02,280
if you want to watch it again.

1766
01:26:02,280 --> 01:26:05,230
And best of all, when you
watch it again, or watch it

1767
01:26:05,230 --> 01:26:07,570
for the first time,
you can skip around.

1768
01:26:07,570 --> 01:26:09,820
And a really fun thing to
do that my daughter taught

1769
01:26:09,820 --> 01:26:13,180
me is you can hit the
double playback speed,

1770
01:26:13,180 --> 01:26:16,000
and I will sound like
one of the Chipmunks.
1771
01:26:16,000 --> 01:26:22,060
1772
01:26:22,060 --> 01:26:25,998
Any Avenza questions, If
you are a land trust person
1773
01:26:25,998 --> 01:26:28,540
or landowner out there, and want
a 10 acre forest evaluation,
1774
01:26:28,540 --> 01:26:29,165
give me a call.
1775
01:26:29,165 --> 01:26:31,180
That's what I do
as long as you own
1776
01:26:31,180 --> 01:26:33,780
more than 10 acres of forest.
1777
01:26:33,780 --> 01:26:36,992
And of course call, or text me,
or email me with any questions
1778
01:26:36,992 --> 01:26:37,700
on Avenza or GIS.
1779
01:26:37,700 --> 01:26:41,710
1780
01:26:41,710 --> 01:26:45,610
And if you are watching
this to get CEUs,
1781
01:26:45,610 --> 01:26:48,700
we are recording
who is watching this
1782
01:26:48,700 --> 01:26:50,272
and how long they watched it.
1783
01:26:50,272 --> 01:26:51,730
If you watched it
for five minutes,
1784
01:26:51,730 --> 01:26:54,880
you won't get the CEUs.
1785
01:26:54,880 --> 01:26:59,860
Just email me, and I'll email

you back the CEU certificate
1786
01:26:59,860 --> 01:27:02,010
that you need.
1787
01:27:02,010 --> 01:27:06,420
FRANK: It would also be helpful
if anyone is watching for CEUs,
1788
01:27:06,420 --> 01:27:10,500
if your name on the
participant list
1789
01:27:10,500 --> 01:27:12,090
is something other
than your full name
1790
01:27:12,090 --> 01:27:15,120
as it appears on your
license, please just say
1791
01:27:15,120 --> 01:27:16,800
your name into the chat box.
1792
01:27:16,800 --> 01:27:18,860
If it's just your
first name, I mean
1793
01:27:18,860 --> 01:27:20,280
we can probably figure it out.
1794
01:27:20,280 --> 01:27:24,130
But it would make
our lives easier
1795
01:27:24,130 --> 01:27:26,260
if you just say your
name in the chat box
1796
01:27:26,260 --> 01:27:29,770
so we know exactly who you are.
1797
01:27:29,770 --> 01:27:31,830
Thanks.
1798
01:27:31,830 --> 01:27:32,840
SPEAKER 1: Yeah.
1799
01:27:32,840 --> 01:27:33,869
Good call, Frank.
1800
01:27:33,869 --> 01:27:41,210
1801
01:27:41,210 --> 01:27:41,720

OK.
1802
01:27:41,720 --> 01:27:46,100
So I'll open it up to any
more questions if there are.
1803
01:27:46,100 --> 01:27:48,830
1804
01:27:48,830 --> 01:27:52,280
FRANK: We've got a couple that
came in on the chat box here.
1805
01:27:52,280 --> 01:27:58,600
1806
01:27:58,600 --> 01:28:02,770
Question about if
there are any other--
1807
01:28:02,770 --> 01:28:05,110
if you could use other
PDFs besides those
1808
01:28:05,110 --> 01:28:07,960
made with ArcView in Avenza?
1809
01:28:07,960 --> 01:28:11,540
1810
01:28:11,540 --> 01:28:12,770
SPEAKER 1: Yes.
1811
01:28:12,770 --> 01:28:18,710
You can use a map PDF
from any mapping software
1812
01:28:18,710 --> 01:28:20,660
as long as it's georeferenced.
1813
01:28:20,660 --> 01:28:29,660
And in fact, you can get a lot
of maps commercially or even
1814
01:28:29,660 --> 01:28:34,340
searching the web for free that
are georeferenced maps that you
1815
01:28:34,340 --> 01:28:36,260
could download into Avenza.
1816
01:28:36,260 --> 01:28:39,470
Like some of the state
parks have geofrefernced
1817
01:28:39,470 --> 01:28:41,475
downloadable maps.

1818
01:28:41,475 --> 01:28:42,990
And I've done this before.
1819
01:28:42,990 --> 01:28:46,760
You can download that
trail map into your Avenza
1820
01:28:46,760 --> 01:28:49,310
and use it when you're hiking.
1821
01:28:49,310 --> 01:28:51,410
And if you go to
the Avenza website,
1822
01:28:51,410 --> 01:28:54,380
they have all sorts of maps
that they want to sell you.
1823
01:28:54,380 --> 01:28:56,780
There's all sorts of
maps you can get there.
1824
01:28:56,780 --> 01:28:59,060
But I believe you
can use any mapping
1825
01:28:59,060 --> 01:29:03,680
program as long as
it's able to save it
1826
01:29:03,680 --> 01:29:05,990
as a georeferenced file.
1827
01:29:05,990 --> 01:29:09,200
If you try to download a map
that's not georeferenced,
1828
01:29:09,200 --> 01:29:11,733
it will come up
in your map menu.
1829
01:29:11,733 --> 01:29:13,650
But you won't be able
to open it up in Avenza.
1830
01:29:13,650 --> 01:29:18,400
1831
01:29:18,400 --> 01:29:21,730
FRANK: And Laurie
Gianotti also reminds us
1832
01:29:21,730 --> 01:29:24,340
that a lot of the

state park maps
1833
01:29:24,340 --> 01:29:26,990
are available in the Avenza
store for purchase as well.
1834
01:29:26,990 --> 01:29:30,197
You can search for DEEP
in the Avenza store.
1835
01:29:30,197 --> 01:29:31,030
SPEAKER 1: Oh, cool.
1836
01:29:31,030 --> 01:29:32,730
OK.
1837
01:29:32,730 --> 01:29:35,710
FRANK: There's another
question about how much memory
1838
01:29:35,710 --> 01:29:38,560
is required on the
phone to use the app.
1839
01:29:38,560 --> 01:29:42,870
1840
01:29:42,870 --> 01:29:44,790
SPEAKER 1: Oh, I don't know.
1841
01:29:44,790 --> 01:29:50,400
I mean I use the iPhone SE.
1842
01:29:50,400 --> 01:29:51,870
I have a newer phone now.
1843
01:29:51,870 --> 01:29:55,320
I still can use it on
my older phone that's
1844
01:29:55,320 --> 01:29:59,820
five years old that's a SE.
1845
01:29:59,820 --> 01:30:02,100
I don't think you need
the latest and greatest.
1846
01:30:02,100 --> 01:30:05,400
I don't think this would
work on a flip phone.
1847
01:30:05,400 --> 01:30:07,860
I'm sure it works fine
on the Samsung Galaxy
1848

01:30:07,860 --> 01:30:10,350
or what other phones are there?
1849
01:30:10,350 --> 01:30:13,110
But I'm sure it works
fine on most phones that
1850
01:30:13,110 --> 01:30:16,680
have been purchased within
the past five years.
1851
01:30:16,680 --> 01:30:18,840
I'm not sure how old of
a phone can handle it.
1852
01:30:18,840 --> 01:30:25,060
1853
01:30:25,060 --> 01:30:25,560
FRANK: OK.
1854
01:30:25,560 --> 01:30:28,978
Oh, the state park
maps are free.
1855
01:30:28,978 --> 01:30:30,020
Laurie sent us an update.
1856
01:30:30,020 --> 01:30:32,013
So that's cool.
1857
01:30:32,013 --> 01:30:32,680
SPEAKER 1: Yeah.
1858
01:30:32,680 --> 01:30:35,350
Your taxpayer dollars
going to work.
1859
01:30:35,350 --> 01:30:35,850
It's good.
1860
01:30:35,850 --> 01:30:41,020
1861
01:30:41,020 --> 01:30:43,710
FRANK: I believe that
that is all the questions
1862
01:30:43,710 --> 01:30:46,695
we have in the chat box.
1863
01:30:46,695 --> 01:30:58,990
1864
01:30:58,990 --> 01:31:00,960
SPEAKER 1: All right.
1865

01:31:00,960 --> 01:31:04,440
Then I will-- or Frank will.
1866
01:31:04,440 --> 01:31:05,570
I guess that's Frank's job.
1867
01:31:05,570 --> 01:31:10,820
Frank will shut down the
[Zoom] or whatever.
1868
01:31:10,820 --> 01:31:14,950
And thanks for coming.
1869
01:31:14,950 --> 01:31:18,940
Again, this will be
available on the DEP website
1870
01:31:18,940 --> 01:31:22,340
maybe not immediately, but at
some point in the near future
1871
01:31:22,340 --> 01:31:26,020
if you want to reference
it to look at parts of it.
1872
01:31:26,020 --> 01:31:30,130
And I will be doing the same
exact presentation a week
1873
01:31:30,130 --> 01:31:32,050
from today at the same time.
1874
01:31:32,050 --> 01:31:38,410
And that will be for town
hall land use department
1875
01:31:38,410 --> 01:31:42,450
staff and commissions.
1876
01:31:42,450 --> 01:31:44,760
And that will be recorded also.
1877
01:31:44,760 --> 01:31:47,240
But I don't think it'll
change from what I just did.
1878
01:31:47,240 --> 01:31:51,438
1879
01:31:51,438 --> 01:31:51,980
FRANK: Great.
1880
01:31:51,980 --> 01:31:52,480
OK.
1881

01:31:52,480 --> 01:31:54,020
Well, thanks,
everybody for coming.
1882
01:31:54,020 --> 01:31:59,420
We've got a bunch of thanks in
the chat box as well, Dave.
1883
01:31:59,420 --> 01:32:03,400
So yeah.
1884
01:32:03,400 --> 01:32:04,090
I think that's--
1885
01:32:04,090 --> 01:32:05,200
SPEAKER 1: Yeah.
1886
01:32:05,200 --> 01:32:07,270
This thing's amazing.
1887
01:32:07,270 --> 01:32:08,790
Go use it.
1888
01:32:08,790 --> 01:32:09,450
It's fun.
1889
01:32:09,450 --> 01:32:11,932
You'll have a good time with it.
1890
01:32:11,932 --> 01:32:13,515
It's amazing what
you can do nowadays.
1891
01:32:13,515 --> 01:32:21,710
1892
01:32:21,710 --> 01:32:25,470
FRANK: I'm going
to stop recording.
1893
01:32:25,470 --> 01:32:26,000