

Morgan Christopher
ART 578 - D01

RESEARCH PROJECT

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TOPIC
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My topic for the Research Project for this term is to design an app prototype for the Effingham County Water and Sewer department in the state of Georgia. Specifically to aid in the convenience of paying a water bill online, keeping track of trash days vs. recycling days, acceptable items to be included in the recycle bin, and pickup times and holidays throughout the county.

RATIONALE

My topic for the Research Project for this term is to design an app prototype for the Effingham County Water and Sewer department in the state of Georgia. Specifically, to aid in the convenience of paying a water bill online, keeping track of trash days versus recycling days, acceptable items to be included in the recycle bin, and pickup times and holidays throughout the county.

The current Effingham County website leaves much to be desired regarding design, functionality, and usability. The site is not intuitive and lacks the advanced technology that is available to website developers today. Screenshots of the current website are available on page eight of this document.

Logging into the water and sewer department website requires the users account number and the last name of the person on the account. The site does not have the capability to save the users login information for future access. Once the user is logged in, navigating to the correct page on the website to pay the water bill can be challenging. Naming conventions of buttons and pages are confusing for users. Once the user finally navigates to the correct page, the user is directed to a third-party site to make the payment. Payment information has to be entered each time the user pays the bill. The site does not have the capability to store the users payment method for future payments. The current water and sewer department website is also non responsive, meaning the site is not user friendly on mobile or wearable devices.

According to census.gov, there are an estimated 69,041 people living in Effingham County, Georgia. 26.3% of the population is under the age of 18. 12.5% is over the age of 65. 76.3% of the population owns their home. 94.8% of households own a computer and 79.1% of households have a broadband internet connection. 90.4% of the population who is 25 years of age or older graduated from high school. 24.1% of the population who is 25 years of age or older earned a bachelor's degree.

This information inclines us to make an educated guess that most users pay their water and sewer bill online. However, if the user does choose to write a check and mail in the water and sewer bill, the user will need to allow for 7-14 business days for the payment to reach the water and sewer department. According to the department, "the mail is slow out here." So, needless to say, some planning is required if the user opts to mail in their payment. If the payment is one day late, an automatic late fee of \$35 is added to the users account. There is now grace period for late payments.

Effingham County Georgia utilizes sanitation services from Atlantic Waste, based out of Savannah, GA. The company is the largest locally owned waste hauling and collection company in the Coastal Empire. Atlantic Waste runs routes throughout Effingham County Monday through Friday with alternating trash and recycling days. The company provides two schedules on their website, a green schedule and a yellow schedule. The green schedule represents the

garbage days. The yellow schedule represents the recycling days.

Providing an app for this service would be beneficial to the population of Effingham County Georgia because it would make paying water and sewer bills more convenient and readily available to all users. The app would be available on each users iOS mobile device and iOS wearable device. The app will include not only the convenient functionality of paying the water and sewer bill online, but it will also allow users to see trash and recycling schedules at the touch of a calendar, double check which items can be included in recycling bins in an easy-to-understand check list format, as well as track pick up times and holidays when trash will not be picked up.

Users will also have the option to setup notifications for the app to remind them to put the trash on the curb the night before or the morning of their trash day. Users can customize alerts as they wish.

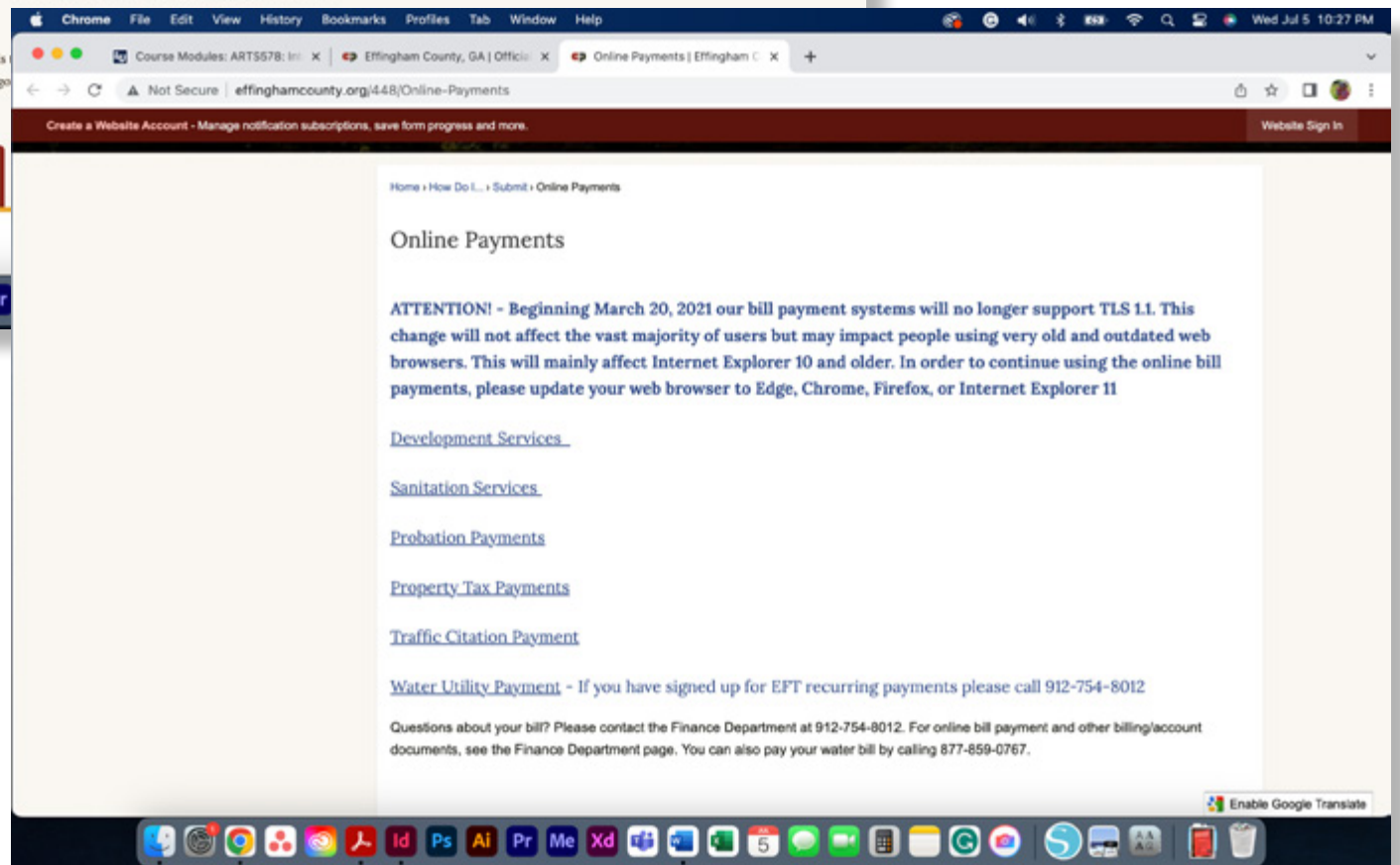
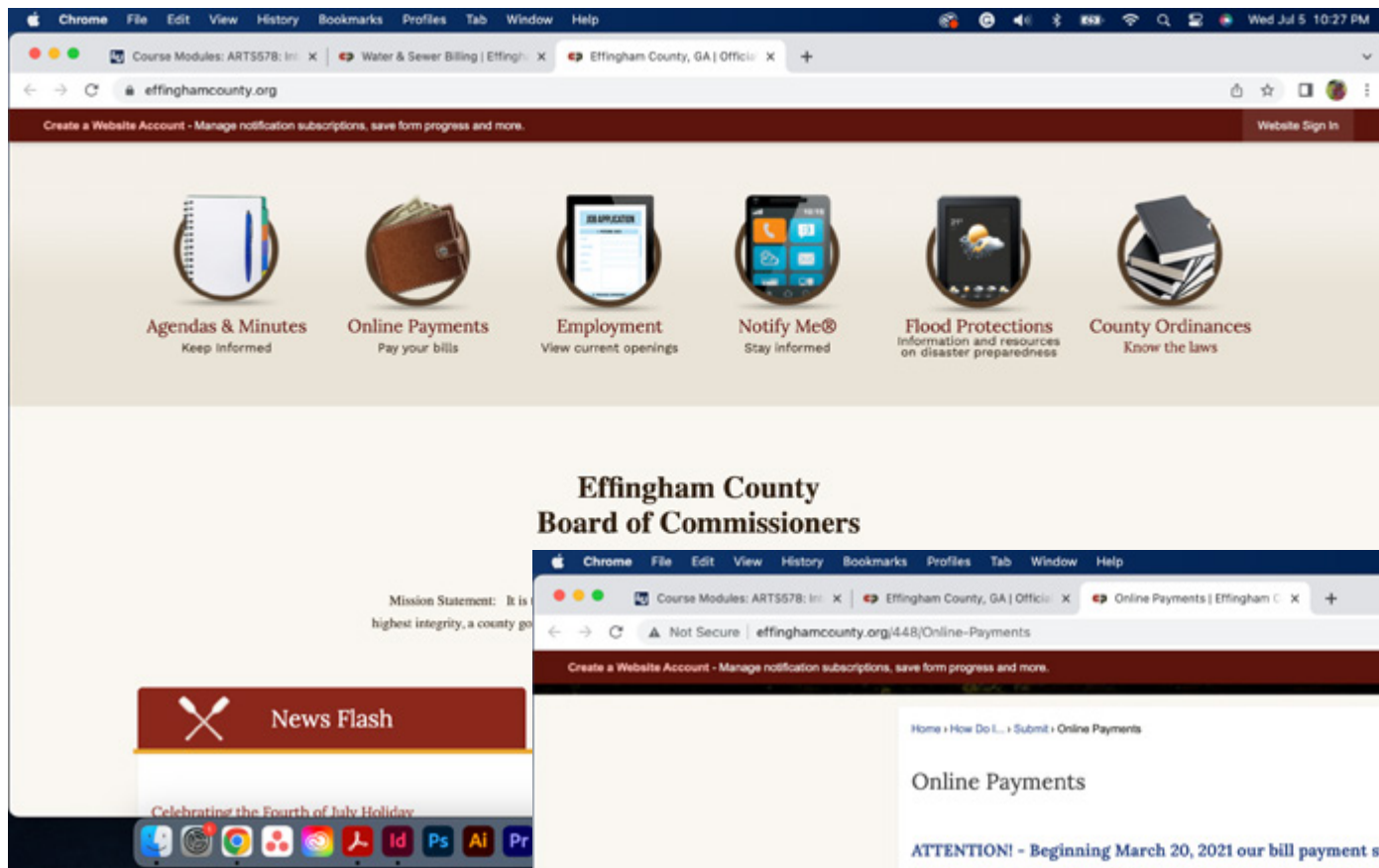
One disadvantage of designing an app for iOS mobile and wearable devices is the fact that it will not be available to Android users. However, according to gs.statcounter.com 57.4% of the American population uses an iOS device.

Works Cited

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“QuickFacts Effingham County Georgia.” U.S. Census Bureau, 1 Jul. 2022, www.census.gov/quickfacts/fact/table/effinghamcountygeorgia/PST045222. Accessed 6 Jul. 2023.

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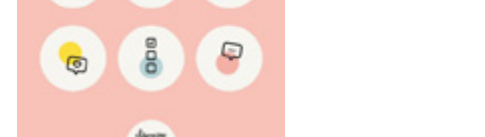
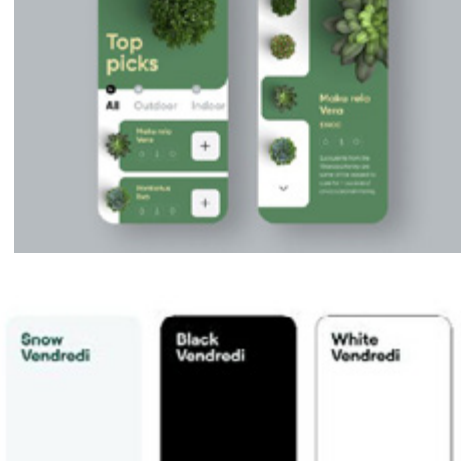
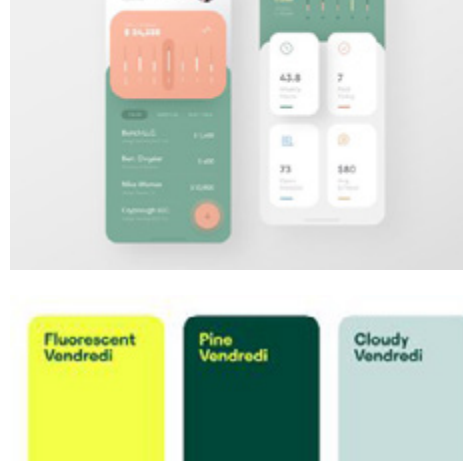
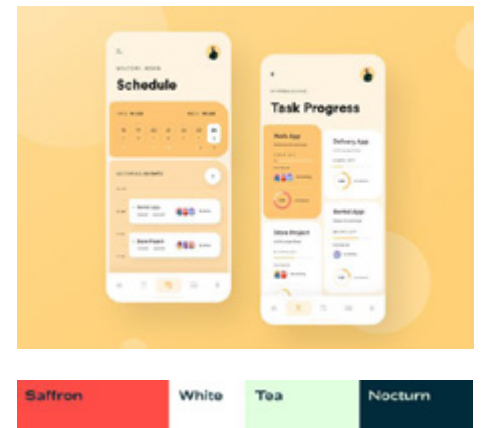
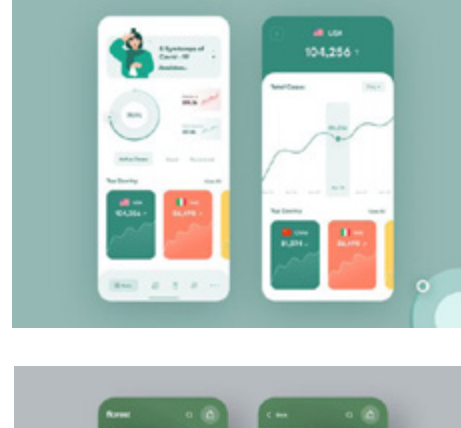
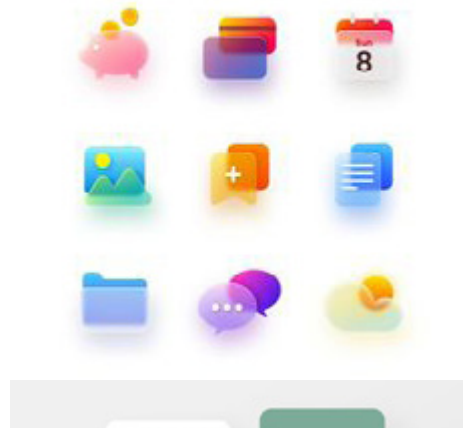
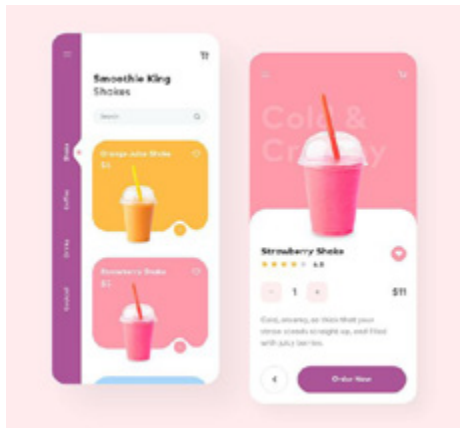
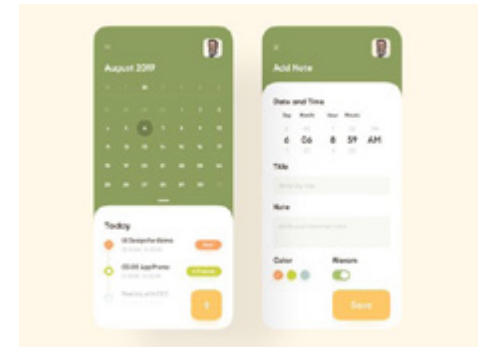
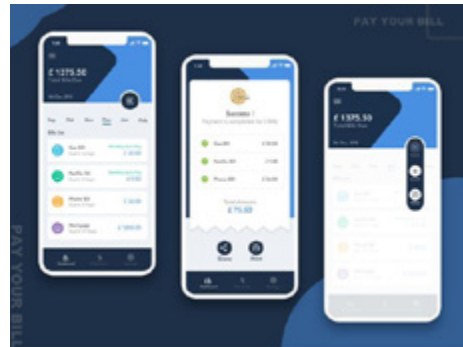
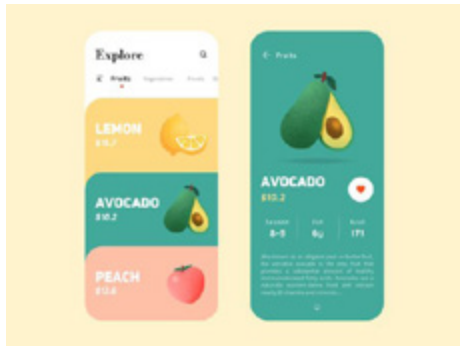
TARGET AUDIENCE

My target audience for this project homeowners in Effingham County Georgia. According to census.gov that is around 76.3% of the population.

PLATFORM

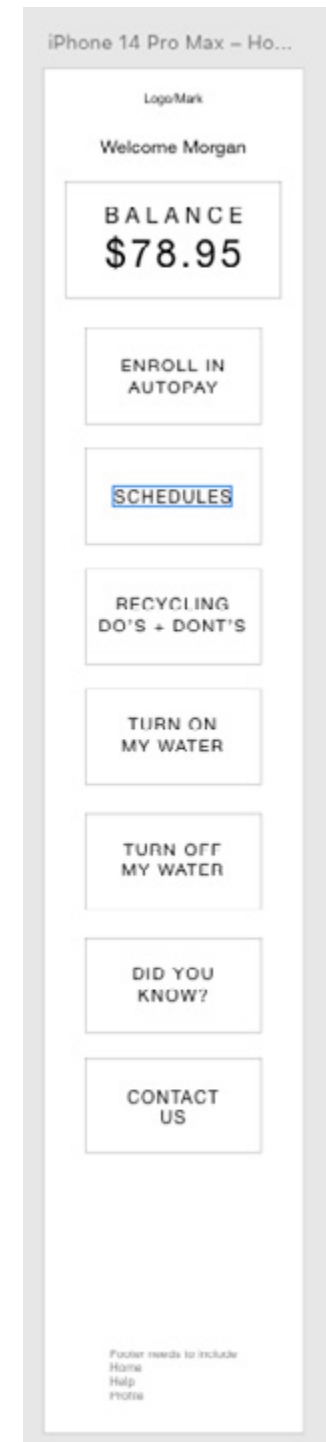
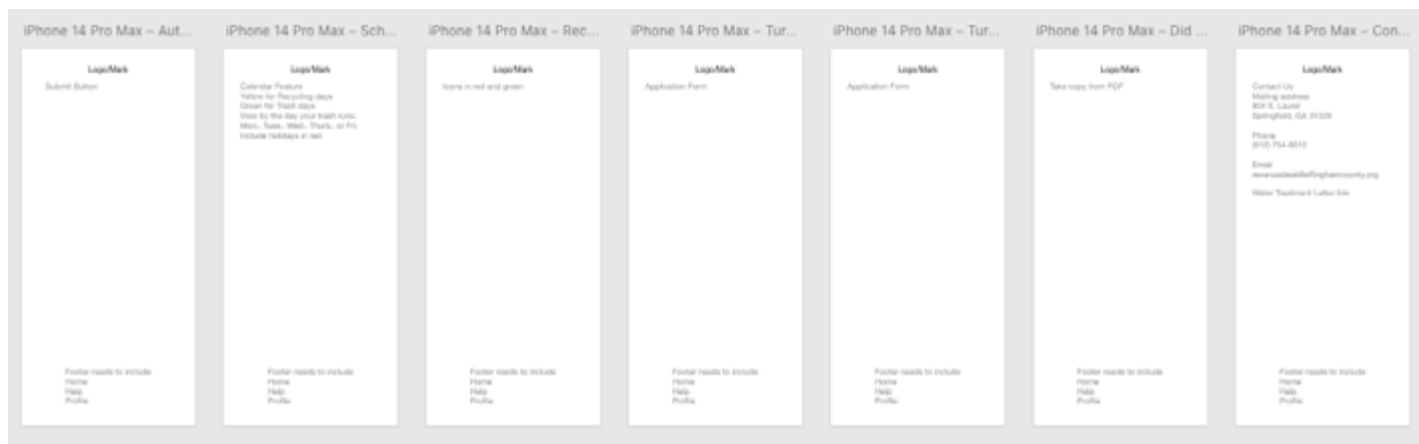
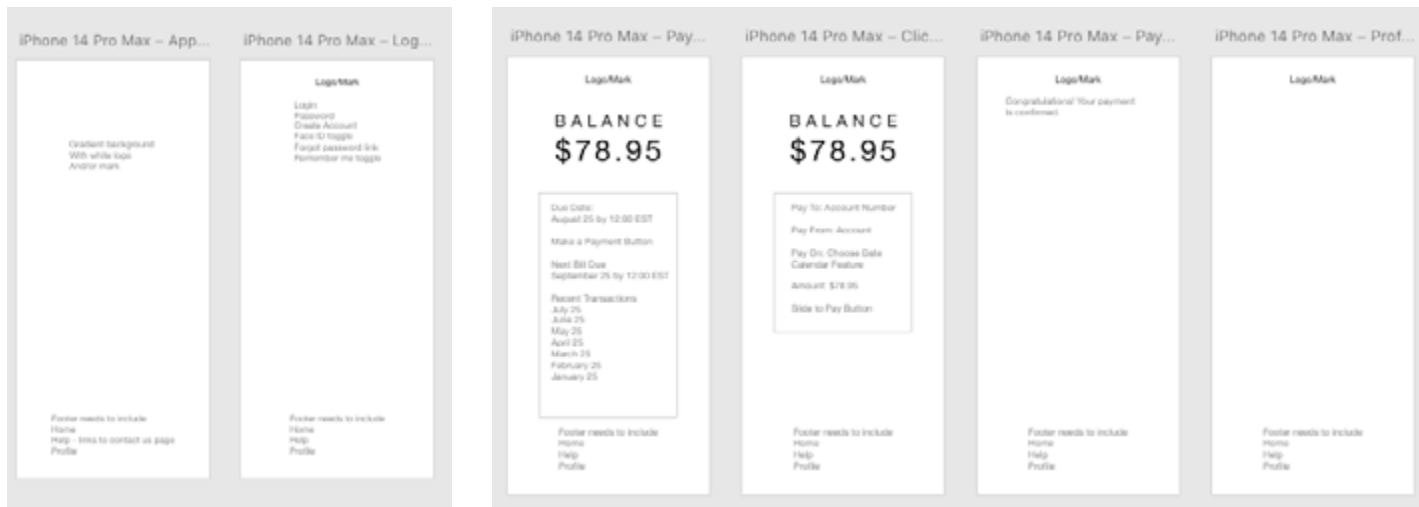
The app prototype will be designed for iOS mobile devices (touch) and iOS smart watches (wearable).

INSPIRATION





PROJECT MILESTONE 1



PEER FEEDBACK

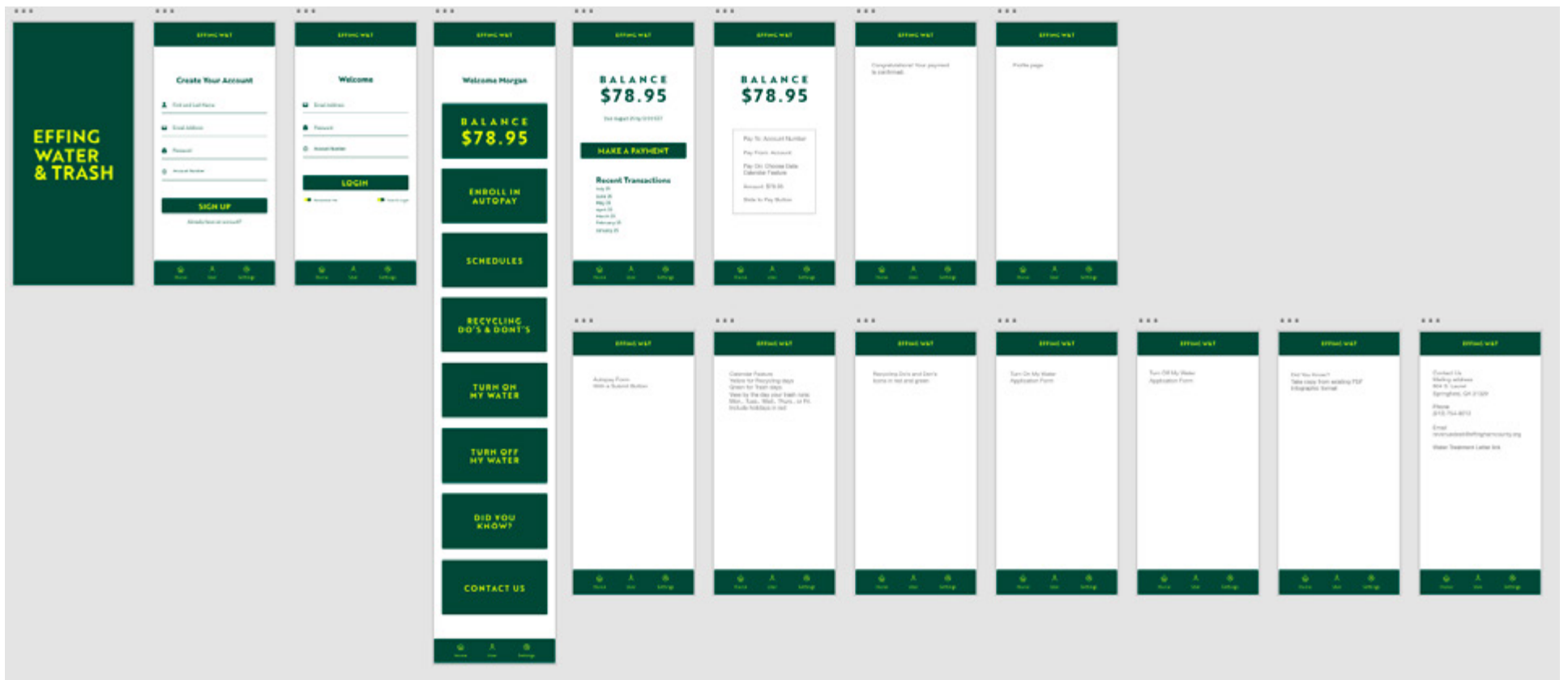
From Beth:

Hi Morgan, I think you've got a great idea for your app. I took a peek at the current website, and it definitely leaves a lot to be desired. It seems like you've already got a really solid foundation built for your app. I like that you are going to make it so that people can pay bills online, that will be very convenient for users. I think it's a really good idea to include information about trash pickup and recycling. I know the town I live in mostly communicates on Facebook, and it caused a lot of confusion, especially for older people who don't use computers when they stopped doing trash pickups on holidays this year. I also love your idea of adding notifications to remind people when their trash pickup is. This would be really helpful for a lot of people.

From Daniel:

I like your concept of having a dedicated application for the utilities and trash services in your area. When I clicked on the link you provided, the website loaded well enough but eventually kind of crashed before I could scroll anywhere. Just from that very short interaction, I can feel and understand your frustration with it. It could definitely benefit from a modernization overhaul. It also appears to be the main website for the entire county's services and not just utilities, that seem overly confusing and unnecessary to me. I think that the quick layouts that you have thrown together would be much more appealing to use than the current option. For your color choices, I feel that using the colors of the local utility company would be beneficial in quickly allowing people to associate it with that function. I think that you have a great head start in the right direction, keep up the good work!

PROJECT MILESTONE 2



PEER FEEDBACK

From Tanner:

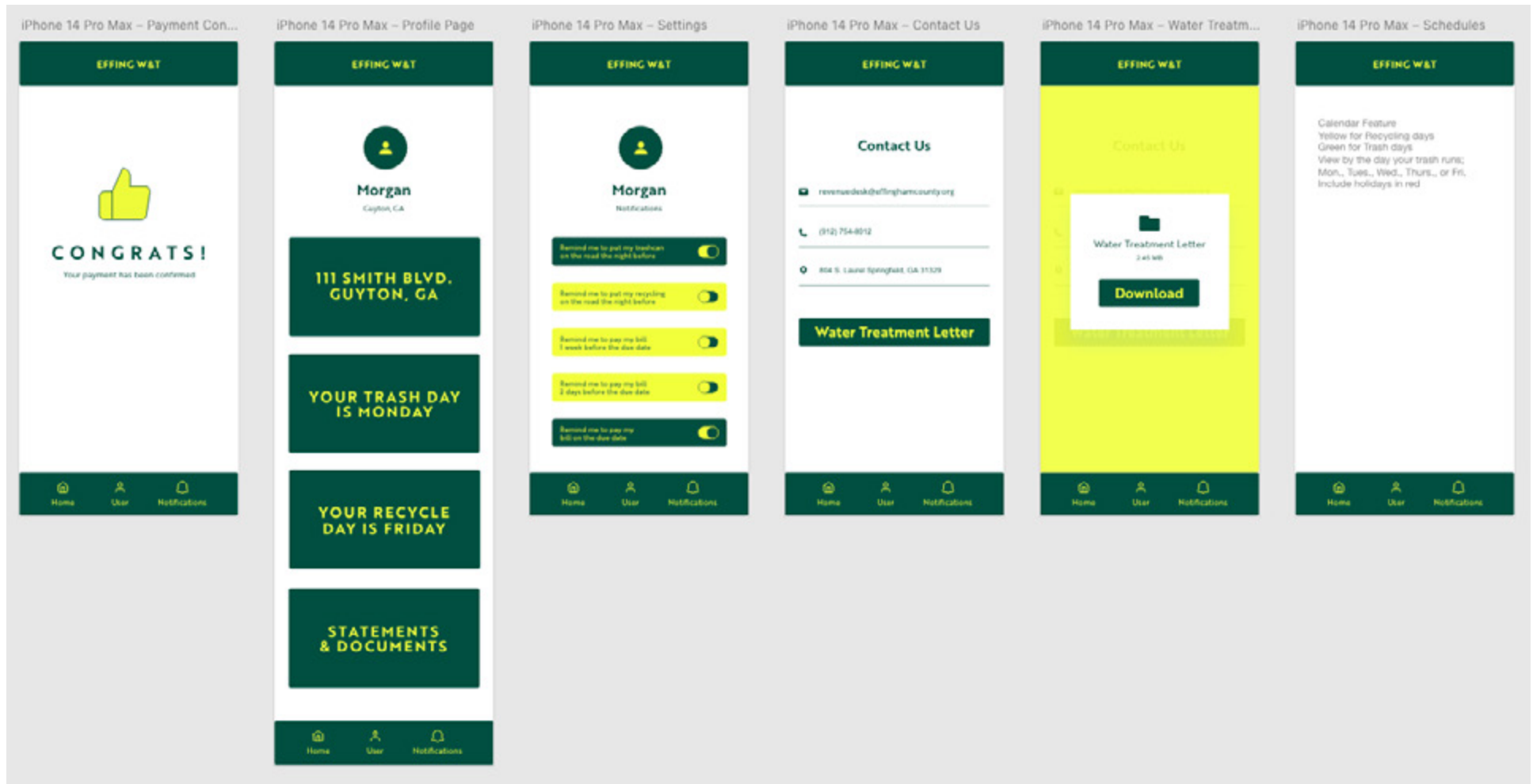
Hey Morgan!

I love the name of the app and I think you should go for it. Obviously, you'll never be able to please everyone, but I think the target audience would really enjoy it. Especially if it's a local joke that other businesses and people are in on. With an app centered around utilities or bills you don't expect to have the chance to include humor. Adding a little bit of humor to what many expect to be a mundane task is a great idea. And on top of that I think the app you've designed is awesome. The layouts are clear and straight forward. Even older users that might typically have trouble navigating an app would be able to follow along. I like the color palette you've selected. It's enough color to be inviting and fun, but not overwhelming. I struggle with being indecisive when it comes to colors. You've inspired me to look at my color palette and see how I can balance it out more. I can't wait to see more of your app!

From Bethl:

Hi Morgan, you've made some really good progress this week! I really like the color palette you are working with! I'm not sure exactly what it is about this palette, but I think it works really well for a city's app like this. I also think you've done a great job picking out a font. It's really simple, but also isn't super boring to look at. I also love the name. I think it's hilarious, and if other businesses in the area have done a similar thing with names/slogans, then I think it works really well. Great work and I'm looking forward to seeing how your project progresses.

PROJECT MILESTONE 3



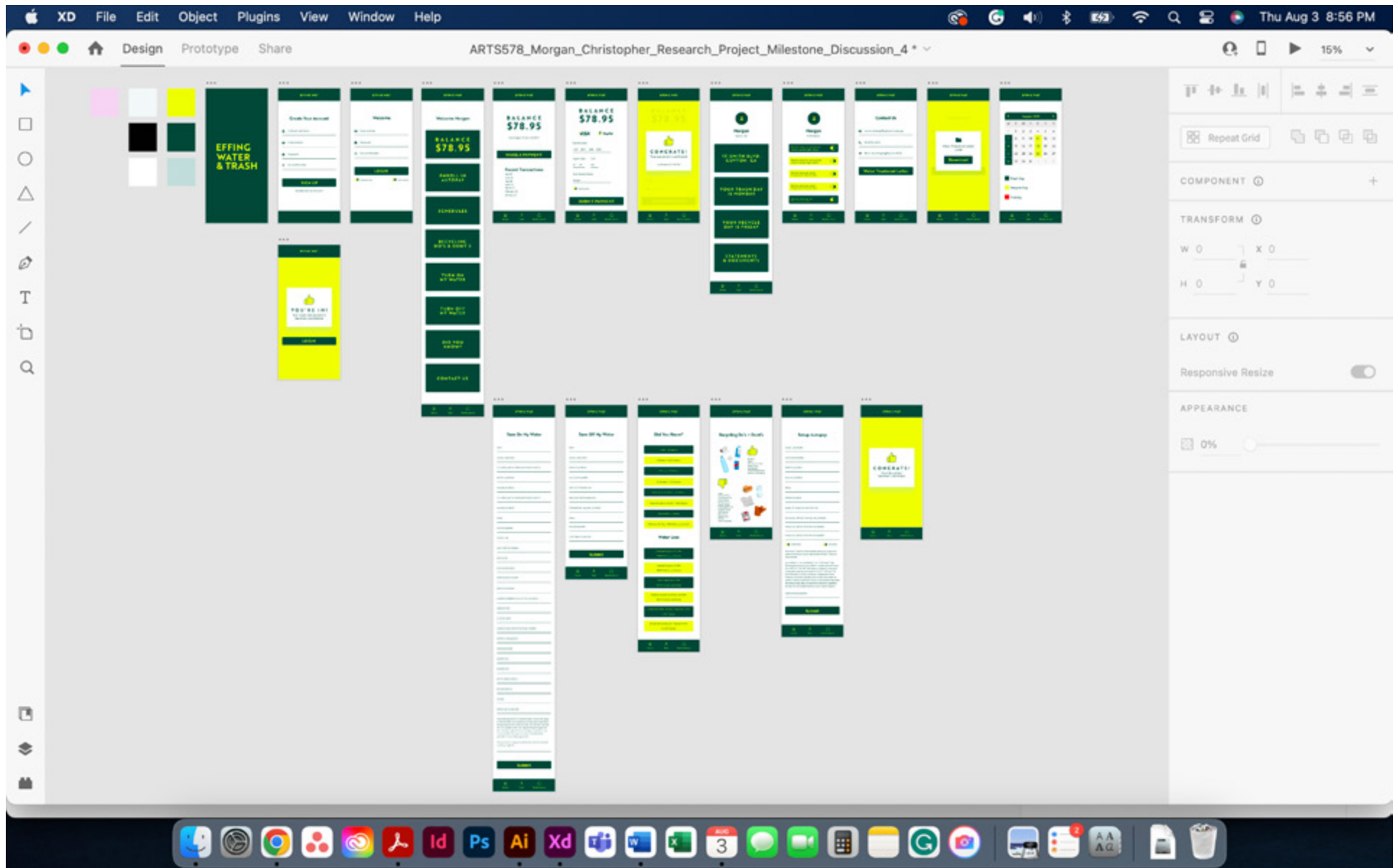
PEER FEEDBACK

From Daniel:

Hey Morgan!

I think that you have a really good design and direction for your application. I like how you have kept it simple and easy to navigate and find what you need. There are a few suggestions I would make or at least play around with. To start, I feel like the colors you have chosen are extremely close to Waste Management's colors (WM). Obviously, it is a utilities application and if this was part of your goal then disregard. But I would recommend maybe choosing a yellow that is a little less highlighter yellow or a bit more mellow. For the congratulations page, I feel that it is a bit too high on the page. Also, to help make it a little more "Hey, you paid your bill, good job!" a radial gradient of yellow with a white center that has some opacity, so it isn't overwhelming. I have quickly whipped up an example of what I am saying in Illustrator to help you visualize what I am saying. Aside from those, I feel like you are right on track to making a successful utilities application! Keep up the great work!

PROJECT MILESTONE 4



PEER FEEDBACK

From Benjamin:

Hey, Morgan.

You have put in a lot of work into your app. There's so much content within it. The color palette is working well and I appreciate that you have maintained a branded look throughout. I did notice that in Recycling Do's and Don'ts the "looks" changes from what is used in other parts of the apps. The lists are really small and hard to see, plus "Dont's" should be spelled "Don'ts". I also wonder if you would want to lock in your lower menu items so that they are always present while the user is scrolling through the content. This way they don't have to scroll all the way to the bottom before they can go to a difference section. I do appreciate that you took the time to develop screens for registration, acceptance, and then logging in so that we could get the entire experience. It is possible that I missed it, but is there a log out option? I dug through the User options and could not see where I could do that. Maybe another link below Statements and Documents? It is obvious that you have put in some hours to make this and I love how you have taken the time to add so much content making it seem very legitimate.

From Beth:

Hi Morgan, your app is really coming together! I like the simple, yet fun color scheme you've chosen and I really like the font too. Your app is simple and minimalist, and it has really clear navigation. I like how bright and colorful your confirmation screens are. It makes it really obvious that the payment or whatever other action they are doing was successful. I also like the "Dos & Don'ts" page and the "Did you know." They clearly provide a lot of helpful information that many people don't know and don't know how to find. One small suggestion for some of the pages that have more information (like "Turn on my water" or "Turn off my water." It would be nice if the navigation menu from the bottom was locked in position, or there was some kind of back button. I'm kind of the "tech support" for my extended family, and if they get to a page and can't figure out how to get off right away, they often will just get frustrated and not scroll down far enough to see the home button. Great work overall, I'm excited to see the finished product.

Morgan Christopher

From Daniel:

Hey Morgan!

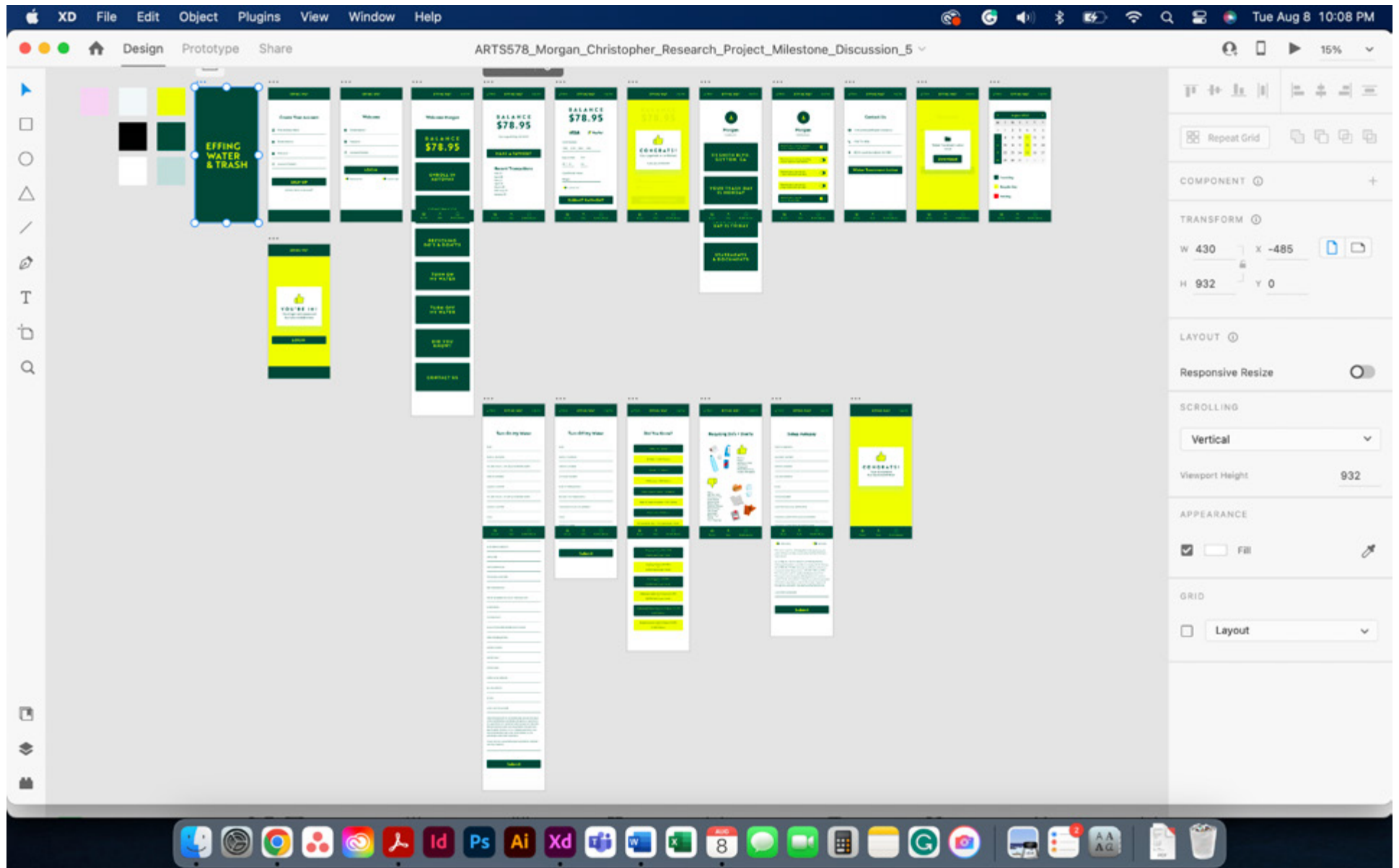
Your application is looking like it is coming together very well! Something that did stick out to me though was that there does not seem to be any sort of back button. I would get several menus in and want to go back to choose something else in that section but could not without having to back out to the main page. I think that something simple up top would make things run a little smoother. I do like how you have the main navigation menu down on the bottom though, that definitely helps when jumping through the main sections of the application. Overall though it looks very well done, keep up the good work!

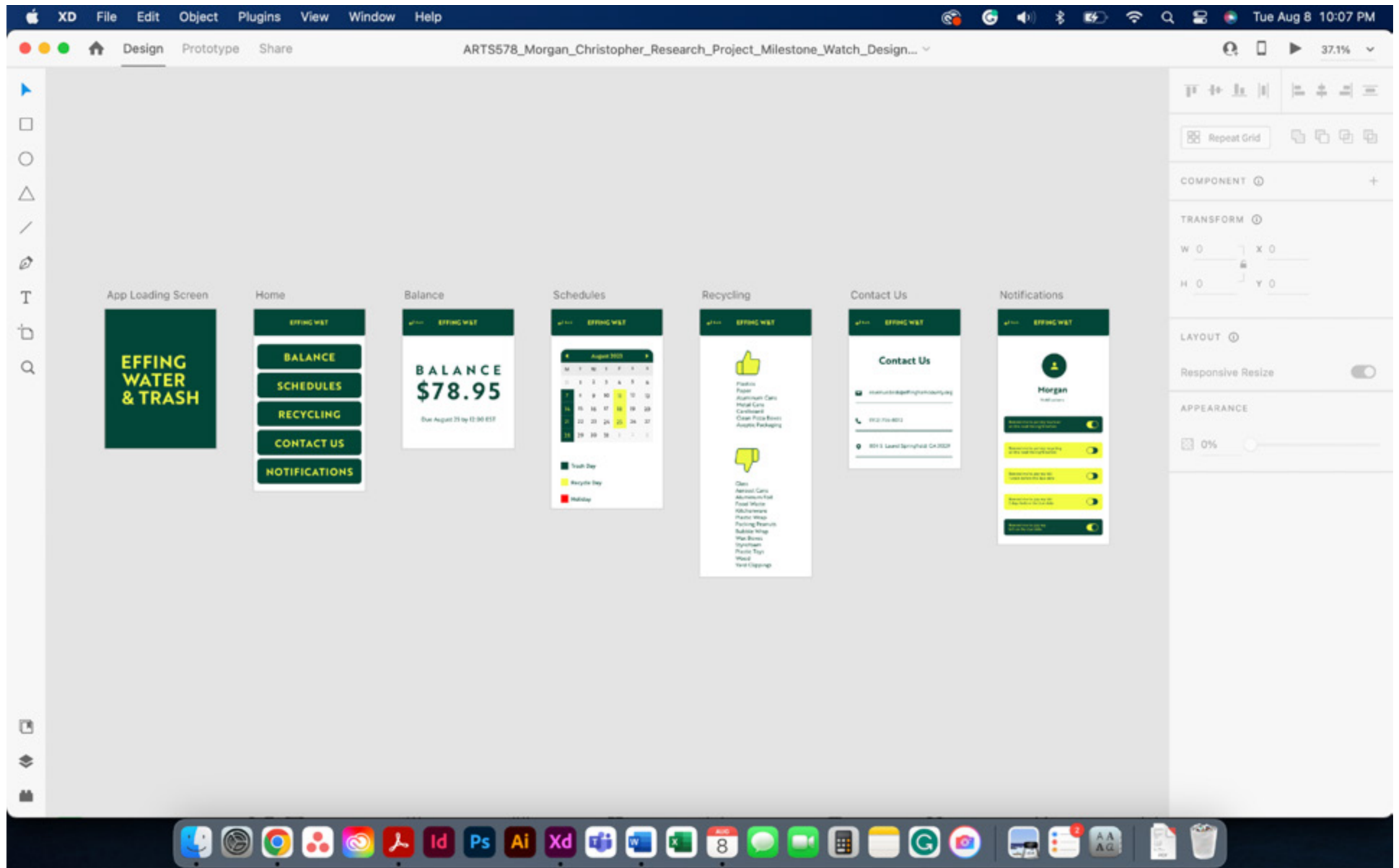
From Tanner:

Hi Morgan!

You're app looks great! I'm so glad you kept the name; it makes me laugh every time I see it. You did such a great job with the prototyping, navigating it was super straightforward. The layouts of the pages are clear, I really liked the profile page. It's so smart to list the trash and recycling days. I recently moved and that was one of the most frustrating parts, I kept forgetting the new days and putting out the trash on my old ones. The recycling info page is also nice because recycling rules are so different from town to town! Having a centralized resource for citizens that provides all the information is really smart. Overall, your app just works really well. All the colors, the type, icons, etc. fit with each other. I can't wait to see how your app develops even more!

PROJECT MILESTONE 5



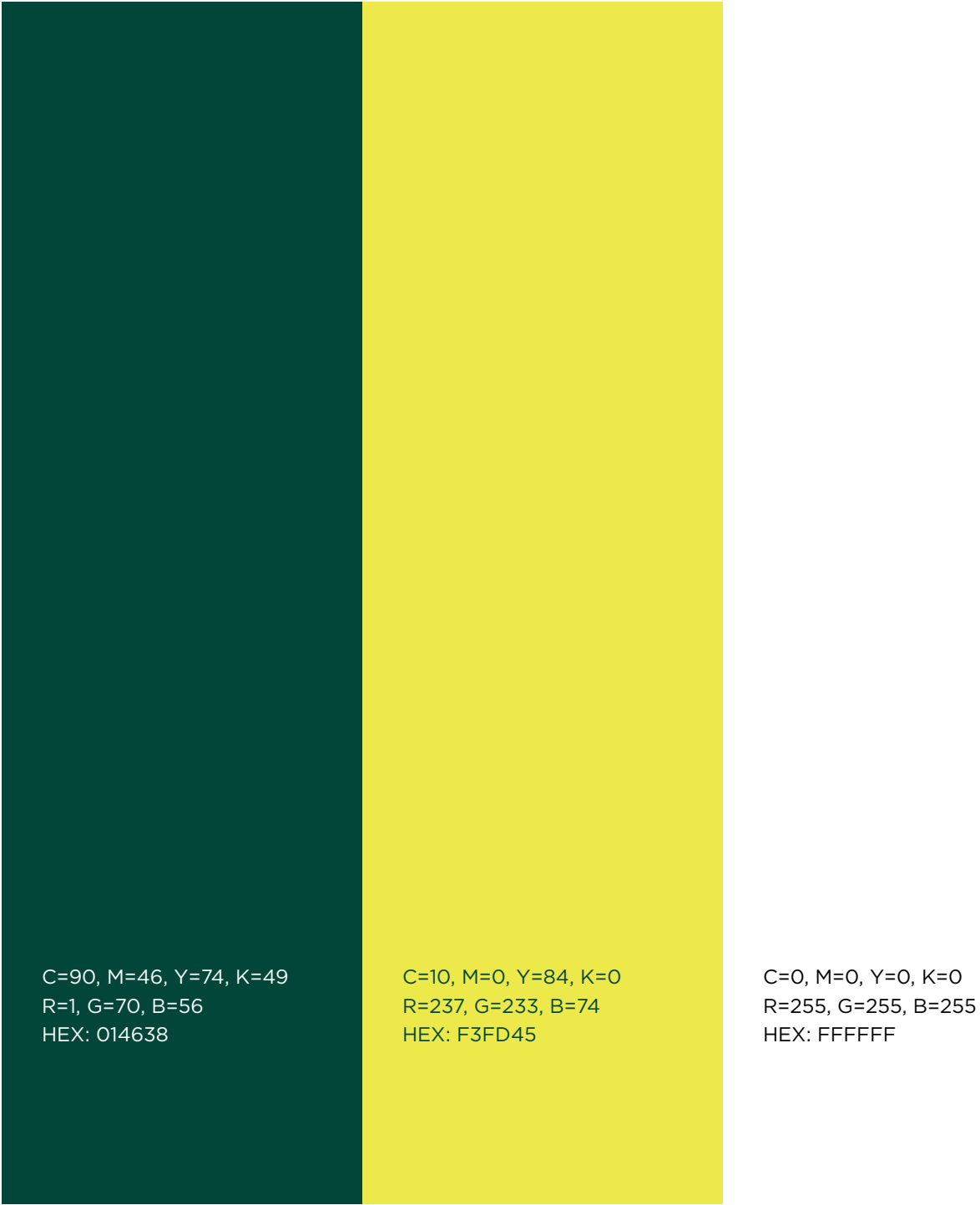


PEER FEEDBACK

From Benjamin:

Great work, Morgan! The changes you have made make the app easily navigable. Reducing the back arrow and adding the curved arrow is a nice touch. I don't think I have really looked at your watch app version. It seems to flow very well. Not having a watch I am not sure what to expect with the UX side of things, but the UI looks great and ties in nicely with the phone app. I love how you stuck with the brand look throughout and the flat icon choices make it easy to identify their purposes providing an easy UX flow.

FINAL APP BRANDING



C=90, M=46, Y=74, K=49
R=1, G=70, B=56
HEX: 014638

C=10, M=0, Y=84, K=0
R=237, G=233, B=74
HEX: F3FD45

C=0, M=0, Y=0, K=0
R=255, G=255, B=255
HEX: FFFFFFFF

Brother 1816

Bold

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789

Brother 1816

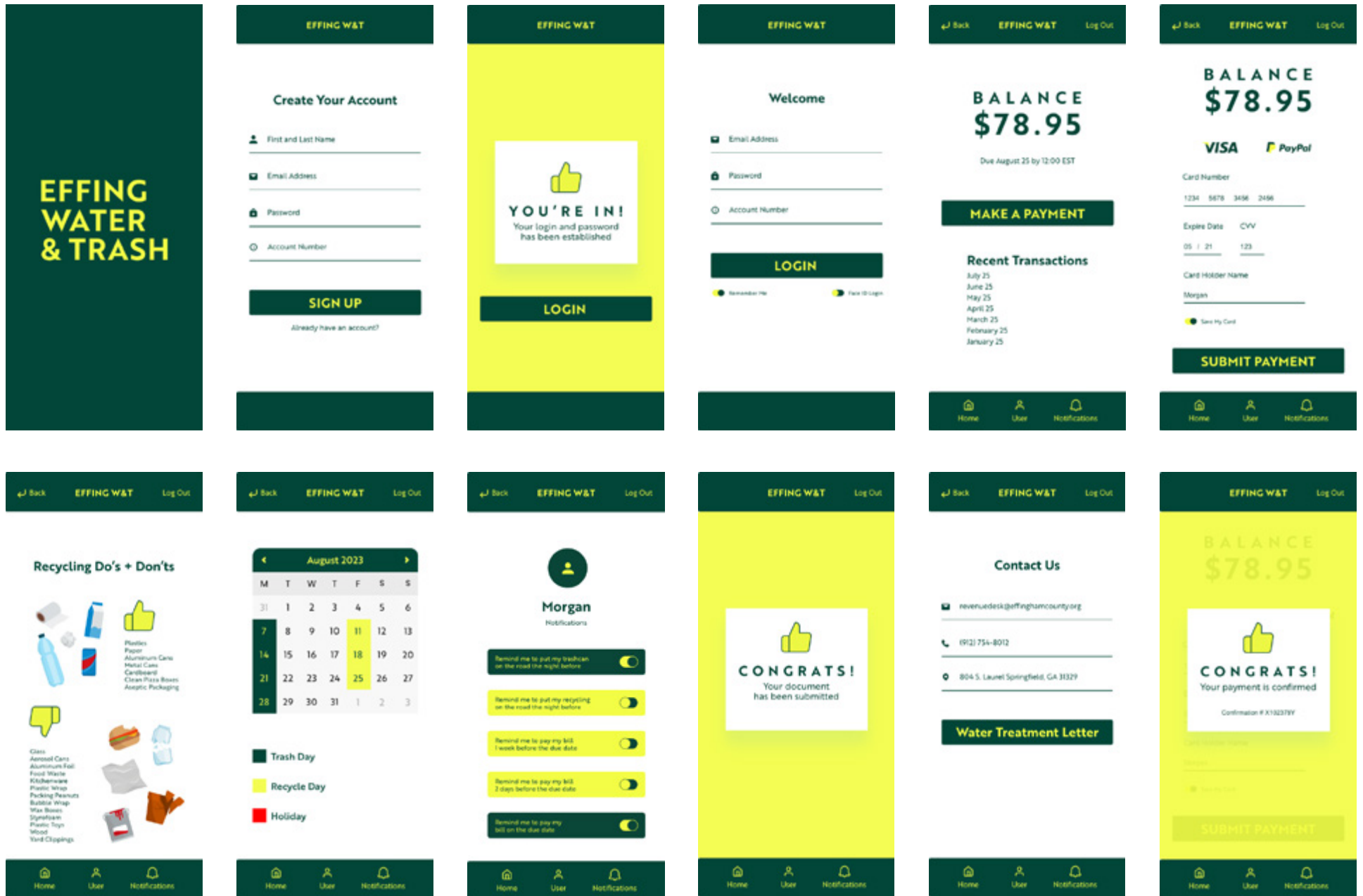
Regular

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789

FINAL APP DESIGN

Click Here to interact with the app design





FINAL WEARABLE DESIGN

Click Here to interact with the wearable design



EFFING WATER & TRASH

- EFFING W&T
- BALANCE
- SCHEDULES
- RECYCLING
- CONTACT US
- NOTIFICATIONS

Back EFFING W&T

BALANCE
\$78.95

Due August 25 by 12:00 EST

Back EFFING W&T

August 2023						
M	T	W	T	F	S	S
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

- Trash Day
- Recycle Day
- Holiday

Back EFFING W&T



Plastics
Paper
Aluminum Cans
Metal Cans
Cardboard
Clean Pizza Boxes
Aseptic Packaging



Glass
Aerosol Cans
Aluminum Foil
Food Waste
Kitchenware
Plastic Wrap
Packing Peanuts
Bubble Wrap
Wax Boxes
Styrofoam
Plastic Toys
Wood
Yard Clippings

Back EFFING W&T

Back EFFING W&T

Contact Us

revenue@effinghamcounty.org

(912) 754-8012

804 S. Laurel Springfield, GA 31329



Morgan
Notifications

- Remind me to put my trashcan on the road the night before
- Remind me to put my recycling on the road the night before
- Remind me to pay my bill 1 week before the due date
- Remind me to pay my bill 2 days before the due date
- Remind me to pay my bill on the due date