Task Analysis

City of Ann Arbor
http://www.ci.ann-arbor.mi.us

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Executive Summary

Task analyses were conducted for the *ci.ann-arbor.mi.us* website. For these analyses the multi-page processes for Permit and Property and Land searches, Parks and Recreation Registration, Golf Course Reservations, CodeRED Signup and the Citizen Request form were deconstructed to identify areas where streamlining and optimization could occur. Storyboards were also created to accompany the reconstructed tasks, showing the various screens as users move through the redesigned tasks.

The improvements in the multi-page processes included:

- **Reducing the steps or number of pages needed to navigate through involved in all of the aforementioned processes.** Where possible the number of pages users needed to click through to complete a task were reduced to one or two.

- **Reducing clutter in the Signup and Search Processes.** Too much information was provided throughout all the processes and was often repeated on multiple pages. The revised interfaces incorporate the shortened pages and number of steps needed to complete a task.

- **Supporting the user after selections are made.** Incorporating a link to allow users to return to results or modify/edit their selections before submitting was added for the users convenience.

- **Simplifying search parameters by omitting programming terminology.** Users are no longer required to use operators in the search field and are able to search by entering a choice from a dropdown menu.

In addition to the multiple page processes, wireframes were created to show interface redesigns for numerous forms. The primary goals in creating the storyboards were to establish a consistent interface design for forms, while simplifying and shortening the form content.

Processes

Property & Land Search: Task Analysis

There is one multi-page path users can take to conduct a Property and Land search. Any errors are indicated in parentheses at that step in the task.

Current Path:
1. Create account – fill out form
2. Click email link to activate account
3. Return to page – logged in
4. Search by owner name, address, or parcel number (asterisks next to required fields, but no notes indicating they are required), enter street name and number
5. View results list, choose parcel
6. View parcel property information page
   a. Expand Building Information (in checkbox at bottom, once box is checked page refreshed and scrolls back to top, after scrolling down, building information contains new field that is not expanded, must then expand field to view information)
   b. View parcel on map
7. Check "Add to My Parcels" checkbox
   Notes:
   - Taskbar indicator cycles briefly but no full page refresh, no other confirmation that parcel was saved
   - Prominently displayed "Add to Favorites" button just above this is very confusing
8. View saved parcels, by clicking "View my Parcels" in lower left side

Redesigned Path:
1. Create account, submit (confirmation email sent, but not required to confirm)
2. Login
3. Search by owner name, address, or parcel number
4. View results list, choose parcel
5. View parcel property information page
   a. Building Information section checkbox eliminated, this information will be included at top and grouped with "View parcel on map", and information will be displayed by expanding the content area with "+" sign located next to it

      b. "View parcel on map" will display embedded in an overlay
6. Add parcel checkbox is replaced by an "Add Parcel" button located in the bottom right
7. "View my Parcels" is relocated to the top right navigation bar, along with login/logout and profile

      Notes:
- Other navigation links unrelated to this section are removed, such as "Change Unit", "Add to Favorites" and "Home"

Property & Land Search: Interface Changes

- Creating an account first is no longer required before conducting a search.

- Search was reduced to two pages to reduce user fatigue.

- Search option were reorganized from general to more specific options enabling users to search by selecting address, owner name or parcel number from a drop-down menu.

- Users can now click a text link next to the parcel number on the results page to view it on a map or click on a building information text link to view more information on the building.

- Additional changes to alignment and labeling shown in storyboards.

Property & Land: Search (Step 1)

Logo	Top Navigation

Property and Land Search

Step 1: **Create an Account**   *optional

Step 2: | Choose Search Option ▽ | | 🔍

Step 3: Property and Land Search Results

Results sorted by Parcel Number

Search Results from 1-5		
Parcel Number	Owner Name	Address
01-02-03-04	Doe, John	123 Briarwood Ct.
02-02-03-04	Smith, Adam	125 Briarwood Ct.
03-02-03-04	Gonzales, Julio	127 Briarwood Ct.
04-02-03-04	Johnson, Mr. & Mrs.	129 Briarwood Ct.
05-02-03-04	Doe, Jane	131 Briarwood Ct.

Click on Parcel Number to view results

Bottom Navigation and Seals

Property & Land: Results (Step 2)

Logo	Top Navigation

Property and Land Search Results: login ⋅ View my Parcels

General Property Information
Parcel: 02-02-03-04   View this parcel on a map

+ Building Information

Property Address	[collapse]
125 Briarwood Ct. Ann Arbor, MI 48103	

Owner Information	[collapse]
Smith, Adam 125 Briarwood Ct. Ann Arbor, MI 48103	

Taxpayer Information	[collapse]
See Owner Information	

Add Parcel

Bottom Navigation and Seals

View Permit Information: Task Analysis

There is one multi-page path users can take to conduct a Permit Information search. Any errors are indicated in parentheses at that step in the task.

Current Path:
1. Select permit search
2. Search by field permit number, address, or contractor name
   Notes:
   - Search function is composed using programming terminology
   - An operator must be chosen with options EQUALS, AT LEAST, AT MOST, BEGINS WITH, CONTAINS, and NOT EQUALS
   - The search box is labeled "Search String"
3. Search results page (mouse cursor changes when hovering over results, single click highlights the listing, however double click is required to see entry details)
4. View map (link to view map does not seem like a link since an underline does not appear on hover, like other links on page, after delay pop up window with map appears)
5. View Contacts
6. View Reviews

Redesigned Path:
1. Select permit search
2. Search only requires choice of permit number, address, or contractor name and search box will allow standard operator characters instead (ie. " ,*)
3. Search results page (links will be single click to view entry details)
4. View map (interactivity added to link and map overlay will appear)
5. View Contacts

View Permit Information: Interface Changes

- Search option were reorganized from general to more specific options enabling users to search by selecting address, permit number or contractor name from a drop-down menu.

- Links on results page are single click to view further entry details if desired.

- Link to view contacts and interactive map was added.

- Additional changes to alignment and labeling shown in storyboards.

View Permit Information: Search & Results (Step 1)

Logo	Top Navigation

Permits Search   login

Access online permits to find up-to-date property record information including: Building and trade permits, inspection results and scheduling, rental property information, site plan/annexations/zoning/other planning project information, and civil engineering plans.

Step 1: | Choose Search Option ▽ | [   ] 🔍

Search Results:

Permit Number	Address	Contractor Name
123456	XXXXXXXXXXXXX	XXXXXXXXXXXXX
234567	XXXXXXXXXXXXX	XXXXXXXXXXXXX
345678	XXXXXXXXXXXXX	XXXXXXXXXXXXX
456789	XXXXXXXXXXXXX	XXXXXXXXXXXXX

*Click Results for further details

Bottom Navigation and Seals

View Permit Information: Detail Page (Step 2)

Logo	Top Navigation

Permits Search

login

Permit Number: 234567

Return to Results

Site Information: View on Map

Modify Search

Permit Information:

```
        Permit #:  BLDG12-0313
            Type:  BUILDING
         Subtype:  DEMOLITION
     Description:  Demo 2 Steel Buildings
          Status:  ISSUED
   Applied Date:  3/13/12
    Issued Date:  3/13/12
 Approved Date:  3/13/12
    Finaled Date:
Expiration Date:  9/9/12
```

+ Inspections

+ Reviews: (5)

+ Contacts: (4)   (New Search)

Bottom Navigation and Seals

Parks & Recreation Registration: Task Analysis

There is one multi-page path users can take for Parks and Recreation Registration. Any errors are indicated in parentheses at that step in the task.

Current Path:
1. Create new account, automatically logged in after submitting form
2. Select a program
3. View list of options
4. Choose course and view course information
5. View details in pop up window
6. Add course, pop up box appears (must select Client in dropdown in top left), once that is selected, page updates
7. Check out

Redesigned Path:
1. Create new account, automatically logged in after submitting form
2. Select a course
3. Check out

Parks & Recreation: Interface Changes

- Users are able to choose a course at the time of account creation rather than having to login after creating an account first.

- Users are able to click on a course and view the details in a popup window rather than being taken to another page.

- Search was reduced to one page to reduce user fatigue.

- A View My Courses text link was added at top of page so that users can easily view all the courses they've registered for with the single click of a text link.

- Additional changes to alignment and labeling shown in storyboards.

Parks and Recreation: Registration (Step 1)

Logo	Top Navigation

Parks and Recreation Registration   Login | View My Courses

Create New Account

Name	Gender	Birth Date
	F ▽	01 ▽ 01 ▽ 1980 ▽

Address [   ]   Apt./Suite [   ]

City [   ] State [▽] Zip [   ]

Phone [   ] [   ] [   ] Email [   ]

Bottom Navigation and Seals

Parks and Recreation: Registration (Step 2)

Logo	Top Navigation

Course Options

Choose a Course		
Class	Dates	Location
Swimming	From: 05-01-12 To: 05-26-12	123 Main St. Ann Arbor, MI 48103
Yoga	From: 06-01-12 To: 06-26-12	123 Main St. Ann Arbor, MI 48103
Landscape Painting	From: 07-01-12 To: 07-26-12	123 Main St. Ann Arbor, MI 48103

*Click on Course to view course Information in Pop-Up window

Check Out

Bottom Navigation and Seals

Parks and Recreation: Payment (Step 3)

Logo	Top Navigation

Check Out

Client: John Waters

14491 - Hockey Spring League
Dates & Times: 03-06-2012 - 05-01-2012 6:00 - 11:00PM

Total Cost: $198.00

Enter Credit Card Info:

Card Type: [Visa Debit ▽]

Card Number: [   ]

Exp. Date: [▽] [▽] (Submit)

Bottom Navigation and Seals

Ann Arbor Golf Course Reservations: Task Analysis

There is one multi-page path users can take for Golf Course Reservations. Any errors are indicated in parentheses at that step in the task.

Current Path:
1. Fill out form and register
2. Alert box informs that username and password were sent to email
3. Click ok – returns to form where username is phone number and password is filled out and encrypted – no need to go to email
4. Reserve a tee time
5. Select date from month-view calendars for current month & next month (date to right auto-populates), choose time below date by hour and minute in 5 minute increments
6. Search availability (back button disabled, it stays on page)
7. Return to search goes to previous page, but clears out choices
8. A message appears in red at top indicating any missed fields
9. Confirm tee time
10. Show page w/ confirmation number & relevant info, no payment options
11. Option to print confirmation
12. Modify/cancel
13. Choose course – All or either other golf course
14. Lists all tee times currently reserved w/ option to modify/cancel
15. Gives one more confirmation before full cancellation

Redesigned Path:
1. Reserve a tee time, login, or register (eliminate need to require registration first)
2. Select date from month-view calendars for current month & next month, choose time below date by hour and minute
3. Search to determine availability of tee time (enable back button and offer modify search option that retains previously inputted search information)
4. If already registered and logged in, confirm reservation, otherwise fill out registration form, log user in (confirmation that username and password were sent to email) and confirm reservation
5. Confirmation page with reservation number, relevant info, but no payment options
6. Option to print confirmation
7. Modify/cancel
8. Choose course – All or individual golf course

9. Lists all tee times currently reserved w/ option to modify/cancel
10. Gives one more confirmation before full cancellation

Ann Arbor Golf Course: Interface Changes

- Users are no longer required to register first before reserving a tee time.

- Users select an available day from a calendar, choose a time and are then taken to a confirmation page.

- Text links to print confirmation page, modify/cancel and view reservations were added to the confirmation page.

- Member and Current Reservation information is viewable for users to review before clicking the confirm reservation button.

- Additional changes to alignment and labeling shown in storyboards.

Ann Arbor Golf Course: Choose Tee Time (Step 1)

Logo	Top Navigation

Ann Arbor Golf Course Reservations   login | Register

Reserve a Tee Time

Select Date from Calendar below

May 12						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
April 30	May 1	2	3	4	5	6
	X					
7	8	9	10	11	12	13
14	15	16	17	18	19	20
		X				
21	22	23	24	25	26	27
	X					
28	29	30	31	June 1	2	3

(X denotes day not available)

Double Click Day to View Tee Time Availability

Bottom Navigation and Seals

Ann Arbor Golf Course: Confirm Reservation (Step 2)

Logo	Top Navigation

Ann Arbor Golf Course Reservations

View Reservations

Tee Time Reservation Confirmation Number: 9912563395

Tee Time: Wednesday May 12th, 2012 From 2:00 – 4:00 PM

Print Confirmation

Modify/Cancel Reservation

Current Reservations
April 23rd, 2012 from 8:00 AM – 10:00 AM
April 27th, 2012 from 4:00 PM – 6:00 PM
May 12th, 2012 from 2:00 PM – 4:00 PM

*Payment due on or before Tee Date Reservation

Member: John Doe

Address: 123 State St. Ann Arbor, MI 48103

Reservation No.:   9912563395

Confirm Reservation

Bottom Navigation and Seals

CodeRED Signup: Task Analysis

There is currently one path a user can take to locate the CodeRED emergency notification system signup form. Frequently occurring errors or optional statuses are indicated in parentheses at that step in the task. An asterisk indicates required fields.

Current Path:
1. Click on 'Click here to register', 'Registration' or 'CodeRED' (there are three different links to the registration form on this page)
2. Enter Location Details, Contact Information, Alert Type, and optional Account
3. Click 'Continue' button
4. Edit location, contact and alert type details if desired
5. Click 'submit' and user is finished

Redesigned Path:
1. Click 'CodeRED Signup' from home page and be taken directly to the form
2. Enter Location Details, Contact Information and Alert Type
3. Submit form and give user prompt to review/edit submitted information and enter optional Account Creation Information if desired

CodeRED Signup: Interface Changes

- Users are now taken directly to the CodeRed Signup form after clicking the link on the home page rather than being taken to an about page first where the link to the form was difficult for users to locate and much of the information was redundant.

- Amount of text was significantly reduced and redundant information was omitted.

- Additional changes to alignment and labeling shown in storyboards.

- After submitting the form users will receive a promt to review submitted information and enter additional account creation information if desired.

CodeRED Signup: Signup (Step 1)

Logo	Top Navigation

Code Signup   login

Please take a moment to fill in the appropriate information
below to be notified by your local emergency response team
in the event of emergency situations or critical community
alerts. * Denotes required fields.

Location Details

Address to be monitored [   ]   Apt./Suite/Unit [   ]

City [   ]   State [▽] Zip [   ]

Residential ○   Business ○

Contact Information

Name [   ]   Email [   ]

Phone [   ] [   ] [   ]   Mobile ☐   TDD/TTY Device ☐

Alert Type

Emergency Notifications ☐   General Notifications ☐

(**Submit**)

Bottom Navigation and Seals

Citizen Request System: Task Analysis

There is currently one path a user can take to locate the 'Citizen Request' signup form. Frequently occurring errors or optional statuses are indicated in parentheses at that step in the task. *Indicates Required fields.

Current Path:
1. Click 'Click here and follow the instructions on the right menu bar to create a new request'
2. Step 1: Click location on map or enter address into field
3. Step 2: Select request type from dropdown menu
4. Step 3 & 4 answer optional questions/provide comments
5. Step 5: Provide Contact Info.: name, address, phone, email
6. Step 6: enter Captcha
7. Click 'submit request' or 'reset form'

Redesigned Path:
1. Click 'Citizen Request Signup' from home page and be taken directly to the form
2. Click location on map or enter address into field
3. Select request type from dropdown menu
4. Provide Contact Info
5. Click 'Submit Request'

Citizen Request: Interface Changes

- Users now click link to Citizen Request Signup from home page and are taken directly to the form rather than first being sent to an about page.

- Text links to view requests or login have been added to the top of the page.

- Amount of text was significantly reduced and redundant information was omitted shortening the process to only one page.

- Additional changes to alignment and labeling shown in storyboards.

Citizen Request: Enter Request (Step 1)

Logo	Top Navigation

Citizen Request System I Check Status   View Requests   I   login
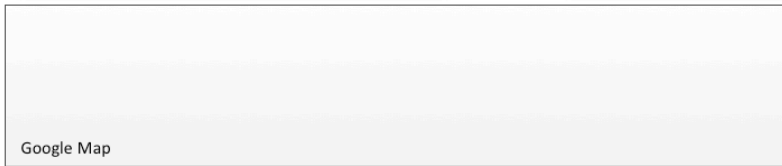
The City of Ann Arbor is pleased to present our online Service Request System. Please use the map and forms below to submit service requests to the City.

Step 1:   Enter location address or select from map

| 123 Main St. Ann Arbor, MI 48103 | (Find Service Location)

Google Map

Step 2: | Select Request Type   ▽ |

Step 3: Provide Contact Information

Name [   ]   Address [   ]

City [   ] State [▽]   Zip [   ]

Phone [   ] [   ] [   ]   Email [   ]   (Submit Request)

| Bottom Navigation and Seals |