Business Requirements Document

National Zoo website rebuild

FINAL

Steering Committee

11/20/2014

v3.0

1.0	11/3/2014	Tom Sakell	Author's draft
1.1	11/7/2014	Tom Sakell	Placed first draft of assumptions, constraints, risks, requirements
1.2	11/7/2014	Tom Sakell	Revised draft of assumptions, constraints, risks, requirements
2.1	11/12/2014	Tom Sakell	Revised draft of constraints, requirements
2.2	11/14/2014	Tom Sakell	Populating text areas of document
2.3	11/18/2014	Tom Sakell	Final draft / incorporates all Steering Committee feedback
3.0	11/20/2014	Tom Sakell	**Final**

1. Executive Overview 3
2. Project Glossary 4
3. Defining Success 5
3.1 Project Mission 5
3.2 Needs 6
3.3 StafInf 7
3.4 Schedule 7
4. Scope 8
4.1 In scope 8
4.2 Out of scope 8
5. Key Assumptions and Constraints 9
6. Risk Analysis 10
7. Business Requirements 11
8. Reporting 15
8.1 Project Management 15
8.2 Web Analytics 15
8.3 SEO 15
9. Strategy Documents 15
10. Associated Documentation and References 15
11. Appendices 16

1. Executive Overview

Why. The National Zoo requires an updated online presence and functionality to match its position as a leader in zoo, science and conservation communities, while supporting the Smithsonian brand.

Satisfying additional needs. Building a web project team from multiple departments; building a scalable content management system; presenting a OneOrganization philosophy; engaging the online user in 21st Century methodology.

Resources. The web project will use only on-site staff (visual design, content, technical, user experience) and Smithsonian technical resources.

What will launch in Phase 1. The Soft Beta will be a limited launch:

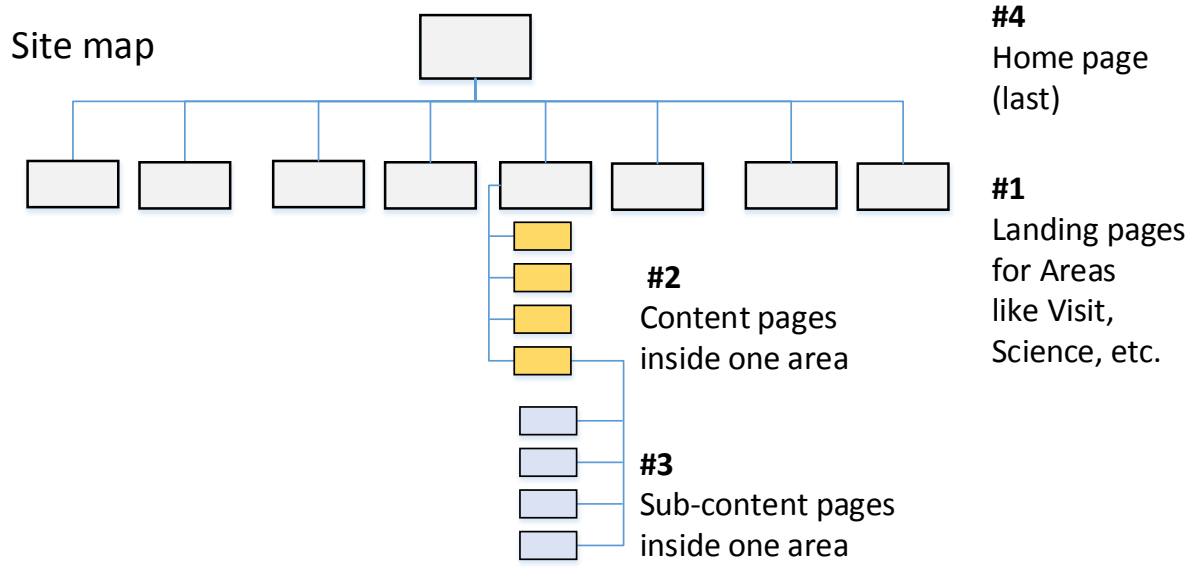
- a home page
- one landing page for each of the main areas
- and one completed area.

The Soft Beta is scheduled for October 2015.

During Phase 1, the Web Team will plan and strategize for the entire website. Additional content areas will roll out, according to scheduled phases.

Following the Soft Beta, the National Zoo website will continue to live as a hybrid site: part Drupal, part Cold Fusion. The ultimate goal is to have the entire website live on the Drupal platform.

Content Migration. The current website contains about 4,400 pages that have been indexed by Google. Present website content will be valued and migrated to Drupal.



2. Project Glossary

Roadmap terms

Strategy: Long-term, conceptual, and includes how the organization will interact with the outside world (C-level thinking)

Tactical: Short- to mid-term, and bridge the gap for how execution (individual actions taken/tasks completed) will add together for a larger effect to happen. It's resource management, or middle-management.

Execution: Actual doing of the thing. The people who do things are executors, not tacticians.

Soft Beta: What the organization will decide to produce on Launch Day. It may be as simple as a home page and 8 inside gateway pages (like a "homepage" for membership). It may be as intricate as a home page, gateway pages and a fully developed silo (example: an entire Visit section).

Platforms

Drupal

Open-source software platform that performs two functions:

- Provides front-end Content Management System (CMS), in which a Zoo Admin can contribute, edit and publish content to a public website
- Dynamically delivers content to a public website, using predetermined layouts

- **Roles**
    - **Web Admin:** IT staff who can affect change in framework and sitewide layouts and styles.
      OCIO, Greg G., Tom.

    - **Admin:** Any Zoo employee who can contribute content to the front-end of the Content Management System (CMS). The Admin will have been in trained in basic Drupal.
      None today. At least 6 by Soft Beta.

        - **Contributor:** Can upload and edit their own content in their predetermined area.
        - **Editor:** Can upload, edit, delete and publish any content in their predetermined area
            - **Publisher:** Communications staff will publish content

Complete Project Glossary (Appendix A)

3. Defining Success

3.1 Project Mission

- **Background**
  The current website was originally built in 2003 and has received no significant updates since 2007.

  The website has few trained managers and a growing need for content contribution from each corner of the zoo, conservation and science arenas. A modern content management system with editorial workflows and browser-based tools enables most Zoo staff to contribute to the website content pipeline.

  Search engine optimization and mobile-first experience are lacking. The volcanic growth in mobile user experience need and expectation has created a demand for a Zoo website that can deliver information quickly in an attractive fashion, regardless of screen size, is essential.

  Simply, the site needs to scale with low IT effort and a simpler content delivery method. With few resources, an open-source software solution backed by a robust online community of developers is essential.

- **Goals**
  - Create a cross-functional web project team
  - Build a content management system to deliver content to a dynamic website
  - Use open-source software and platforms
  - Engage the online visitor in the 21st Century
    - Focus on the user
    - Close business loops

    Complete Goals (Appendix B)

- **Objectives**

  - **Directors**
    - Increase visitation
    - Advance Science
    - Promote Advancement

  - **FONZ**
    - Grow membership
    - Inform members
    - Transform conversation > conservation
    - Help user make a buying decision (Events)

        - Promote Education Programs

    - **Advancement**
        - Zoo, FONZ, SCBI are ONE ZOO. Collective impact of both, and of the community of donors.
        - We need a much more prominent, robust and cohesive Donate section.
        - Campaign presence. Impact stories.

    - **Web**
        - Build a responsive design website in Drupal
        - Think Mobile First
        - Use an user-centered approach
        - Build the best possible conservation website

- **Project Dependencies**
    - Success of Support campaigns
    - Increased awareness and membership growth
    - Events and classes registration
    - On-site visitation
    - Online streaming camera views
    - Job, internship, volunteer applications
    - Promotion of the Smithsonian brand

3.2 Needs

- **Audience** (Personas)
    - **Supporters**
        - Online
        - FONZ prospects and members
        - Donors

    - **Visitors**
        - Online
        - On-site

    - **Learners**
        - Student
        - Teacher
        - Researcher

Full Personas Profiles (Appendix C)

- **Stakeholders Requirements**
  In the Discovery phase of this project, the Web Team surveyed stakeholders through the Zoo, FONZ and SCBI. The most popular requests were:
    - Simple navigation throughout the site
    - Updated daily calendar
    - Clean, clear design
    - Dynamic delivery of content

Full Personas Profiles (Appendix D)

3.3 Staff

- **Steering Committee**:
    - Pamela Baker-Masson
    - Lesli Creedon
    - Carol Fiertz
    - Greg Melanson
    - Will Pitt
    - Scott Posey
    - Tom Sakell

- **Project Teams**
  The following comprises the internal and external stakeholders whose requirements are represented by this document:
    - Planning
    - Project Management
    - Business
    - Web Strategy
    - Visual Experience
        - Visual Design
        - User Experience
    - Technical
    - Content
    - Testing

Full Staff listing (Appendix E)

3.4 Schedule

Q4 2014	Creation of cross-functional web team Business Requirements Document (approved)
Q1 2015	Functional Requirements Document (approved)
Q2-3 2015	Technical Build (approved)
Q4 2015	Site Testing (approved) Soft Beta (approved) Post-launch testing Phase *2* implementation

Complete Project Schedule (Appendix F)

4. Scope

4.1 In scope

- Web project team
- Content Management System
- Rebuilding the public website in a mobile-first format
    - responsive design
    - content tagging
- ***Partial* content migration**
    - **All** present website content will be evaluated in Phase 1.
    - Content Strategy will create a schedule to edit, delete, combine or publish as is.
    - CS will define what content will be *migrated* in Phase 1, and what will be migrated or entered in Phase *n*.

4.2 Out of scope

- Shopping carts
- Email delivery services
- Intranet
- Portals, log-in screens
    - Gateways will be considered during the strategy phase.
- 3rd-party sites
    - Websites and groups that have distinct design, layouts, processes, confirmations and analytic.
- *Full* content migration
    - **All** present website content will be evaluated in Phase 1.
    - Content Strategy will define what content will be migrated in Phase *n*.

Complete Scope (Appendix G)

5. Key Assumptions and Constraints

Assumption: Factors considered to be true without proof in the planning phase.
Constraint: business policy or technical limitation that is limiting choices in the build.

#	Assumptions
1	Project is mission driven: Engagement to spur actions to save species is goal.
3	Science/Conservations/SCBI is assumed as NZP. More robust site to serve science.
4	Evaluate tradeoffs / employ latest tech @ lowest cost?
6	Only NZP/OCIO staff will work on web project teams. This includes FONZ.
7	All web work will be part of regular responsibilities while on web project team. Ideal workload and regular workload.
8	Senior managers will incorporate web responsibilities into web project teams performance plans.
#	**Business Constraint**
1	NZP does not have a permanent operating budget for the web.
4	NZP does not have current website permanent staff
#	**Technical Constraint**
1	Present NZP staff is too thin to build and operate an enterprise-level website.

Complete Assumptions, Constraints (Appendix H)

6. Risk Analysis

Assumption: Factors that might prevent project completion.

Risk	**Potential Impact on Project Success** L/M/H	**Likelihood of Occurrence** L/M/H	**Mitigation Plan** strongly recommended for H/H, H/M and M/H recommended for M/M
We have ensured the process for archiving all the appropriate material is properly managed. It requires training.	M	M	Ensure training plan is written early
Only NZP staff will work on web project teams. This includes FONZ	H	H	The art team will be created from on-campus staff, across departments. Risk is do they have ability to build enterprise-level website. See Gap Analysis
OCIO will not be ready for Technical Build in mid-March	H	H	Regular communication with OCIO. Status: ready
Technical Build takes longer to produce than expected	M	m	Regular communication with OCIO. Status: ready
No website redesign budget	H	H	w/o access to a highly experienced, digital agency, there is high risk in achieving responsive design and mobile-first principles. Plan: • constant monitoring of staff training and progress to ensure goals. • May need to down size expectations. • Will keep Champions informed monthly.
Content migration	H	H	Current site contains about 4,400 pages, 1/2 of which are dynamically created. Require 1-3 migration solutions. Plan: value content, copy to holding area, investigate methods to dynamically ingest content into Drupal. Fall back: manual insertion.

Complete Risk Analysis (Appendix I)

7. Business Requirements

- **Business requirements:** critical activities of an enterprise that must be performed to meet the organizational objectives while remaining solution dependent.
- **Phase:** When in the project plan business can complete this task
    - **Phase 1:** will be completed by October 2015
        - If a requirement is not in this document it cannot be added to Phase 1.
    - **Phase 2:** During Technical Build, requirements may be deemed too difficult to complete in Phase 1 and will drop to Phase 2.
        - If a requirement does not have a deadline declared in Phase 2, it will drop to Phase *n.*
    - **Future State:** A time when the business will address determined and undetermined requirements
    - **Phase *n*:** Determined requirements that have a plan, but lesser priority.
        - Basically, Phases 3+.
    - **Parking lot:** A place for good ideas with no determined requirements.
- **LOE:** Level of effort for a project team to complete requirement.
    - Example: Webcam budget and implementation. The project team has a Low level of effort to implement new webcams. The Executive Team would have a High level of effort to raise the funds for the budget.
- **Requirement:** Detailed task requested by Stakeholders or Users.
- **(x):** If a requirement was requested by more than one Stakeholder, it is noted here.
- **Comments:** Author's note

The following sections document the various business requirements of this project.

#	Category	Requirement	Comments
1.00	**Audience**		
1.10	**Personas**	The website will tailor content and user experience for three personas: Supporter, Visitor, Learner	
2.00	**Delivery**		
2.10	Mobile first	Display content that will always display well for the mobile user	
2.20	Responsive design	Design the website so it responds to the screen size of the device	
2.30	**Platform**		
2.31	website	Create website using Drupal 7 platform	
2.32	CMS	Create Content Management system using Drupal 7 platform	

2.33	CMS users	Create a distributed CMS for multiple users and publishers (editors)	
2.40	Taxonomy	CMS will deliver ability to tag specific content with attributes, which can place content dynamically on pages.	
2.100	Daily calendar	Website will allow multiple users to add information to a database, which will populate information on daily events.	laudable goal, no short-term solution
3.00	**Website Structure**		
3.10	Navigation	Website will offer clean, clear navigation for users on both global and area levels	
3.20	User paths	Web Teams will create users paths for personas, to simply deliver visitors to destination pages	
3.30	Transactions	Website will deliver visitors to transactions and forms pages on 3rd-party websites.	
3.40	**Engagement**		
3.40.1	Inside Page template	Deliver content dynamically from databases, using CMS Images delivered from DAMS and Flickr Video delivered from YouTube	
3.40.2	/visit/		
3.40.3	/animals/	Ability to condense content, using javascript tools like accordians, hide/collapse, horizontal tabs.	
3.40.4	/membership/	Ability to create a space for third-party registration inside an SI-hosted web page	
3.40.7	/conservation/		
3.40.11	/education/	Ability to create a space for third-party registration inside an SI-hosted web page	
3.40.12	/events/	Ability to create a space for third-party registration for events vendors inside an SI-hosted web page	
3.51	Taxonomy search	Site will produce a Search Results Page, based on taxonomy terms used by visitors when clicking on a hyperlinked, taxonomy keyterm *on the website.*	
3.60	Shop	Website will deliver Shopping prospects to a third-party website for financial transactions.	
3.70	Donations	Website will deliver Donation prospects to a third-party website for financial transactions.	

3.80	Membership	Website will deliver Membership prospects to a third-party website for financial transactions.	
3.90	Registrations	Website will deliver Registration prospects to a third-party website for completing and validating forms.	
3.11	Cross-link strategy	Web Team will search for and create opportunities for driving visitors laterally through a website, using a a cross-link strategy.	
4.00	**Visual Experience**		
4.10	Logo	Logo will represent four key elements: sun, Smithsonian, National Zoological Park, Conservation Biology Institute	
4.20	Visual Design	Zoo Art Team will create visual design, look/feel for website.	
4.21	Discovery Communication	Zoo Art Team will consult prototypes created by Discovery Communications as a starting point for website design.	
4.40	Streaming video	Website will allow streaming videos for animal exhibits with cameras.	
4.50	On-demand video	Website will provided embeded code opportunities to present on-demand videos.	
5.00	**Analytics**		
5.20	performance evaluation	Zoo staff will monitor and evaluate performance of the website using Google Analytics	

5.21	metrics	visits unique visitors most visited pages most visited animals pages visitors by country / metro area page entrances page exits bounce rate traffic sources referrals /visit/ /animals/ /webcam/ /membership/ /advancement/ /science/ /conservation/ /newsroom/ /education/ /events/ /opportunities/ /exhibits/ /webcam/ traffic vs/ non-/webcam/ traffic returning visitor vs. new visitor > /webcam/ traffic vs/ non-/webcam/ traffic > /visit/ > /animals/ > /membership/ > /advancement/	
5.31	SEO strategy	Web Team will devise keyword strategy to capture specific keyterms, and optimize landing pages to capture search engine traffic.	
6.00	**Technical**		
6.20	DAMS	OCIO and IT will write and provide scripts (some may already be written) will deliver images from DAMS to server to browser, then dynamically resize images, according to device dimension.	
6.30	web platform	IT will develop website and CMS in OCIO-approved web platform (Drupal 7).	

Complete Business Requirements (Appendix I)

8. Reporting

8.1 Project Management

- Thursday weekly reports
- Monthly Champion meetings
- Committee meetings
- Team meetings

8.2 Web Analytics

- Metrics
- Dashboard
- Stakeholder feedback

8.3 SEO

- Keyterm Requests
- Keyterm Rankings
- Interior Search Rankings

9. Strategy Documents

- Web Strategy
- Visual Design (Visual Experience)
- User Experience (Visual Experience)
- Content Strategy
- Technical Strategy
- Testing Strategy

Complete Strategy Documents (Appendix K)

10. Associated Documentation and References

- Project Charter
- Strategy Roadmap
- Personas
- Project Schedule
- Gap Analysis
- Web Project Team Roster
- Weekly PM Report template

11. Appendices

Appendix A

Glossary

Roadmap terms

Strategy: Long-term, conceptual, and includes how the organization will interact with the outside world (C-level thinking)

Tactical: Short- to mid-term, and bridge the gap for how execution (individual actions taken/tasks completed) will add together for a larger effect to happen. It's resource management, or middle-management.

Execution: Actual doing of the thing. The people who do things are executors, not tacticians.

Soft Beta: What the organization will decide to produce on Launch Day. It may be as simple as a home page and 8 inside gateway pages (like a "homepage" for membership). It may be as intricate as a home page, gateway pages and a fully developed silo (example: an entire Visit section).

Staff

Champion(s): Executive leadership and ultimate authority; will approve, decline or revise new and emerging goals; guide Steering and Technical committees into new and next actions; the final word. **Bob, Dennis.**

Web Development Team Lead: Organizes, plans project direction**;** prepares research for Champions, Steering and Technical committees; keeps group focused and on task. **Tom.**

Project Manager: creates schedule milestones creates tasks, actionable exercises and leads steering committee through them to achieve goals; reports progress, achievements, impediments to Champions; assigns tasks; makes recommendations and creates next actions. **Tom.**

Brand and Content Director: Responsible for the development of new web content, updating existing web content, liaison for FONZ content, editor, photo editor, oversees graphic design and layout. Organizes, plans and directs revision of existing web content.-Serves as primary content liaison with NZP/ SCBI /FONZ, photo editor. Ensures website meets Smithsonian standards. **Amy.**

FONZ Content Manager: Responsible for the development of new web content for FONZ sections, updating existing FONZ web content, and serves as FONZ liaison with Brand and Content Director for content and Project Manager for technical issues. **Mark.**

Steering Committee: Convenes a group of motivated , senior leaders working in collaboration to define and achieve project goals; based on these decisions, Tactical, Execution staffs will complete tasks. **Greg, Lesli, Pamela, Scott, Tom, Will.**

Steering Committee Scribe: Attends Steering Committee meetings; captures insights, completed exercises, meeting notes and forwards to Web Team Lead; not a participant. **Lori Beth.**

Art Director. Starting with Discovery Communications project artwork, leads artistic concepts and visual design for website, including look/feel, color palette and style guide for the future website. **John Davis.**

Art Team: Creates website visual design for future website. **John, Benin Noble, Michelle Staudenmeier, Joan Diehl.** Business owner: **Tom > Amy.**

Drupal Themer (creative): Combines technical, creative skillsets; Drupal software expert, who understands creative concepts; implements creative into technical framework. **No one at the Zoo can fill this role. OCIO is currently hiring such a position.**

Technical Committee: Convenes a group of motivated , technical leaders working in collaboration to define and achieve project goals; based on these decisions, Tactical, Execution staffs will complete tasks. **Greg G, Mark, OCIO, Paul, Tom, possible vendors.** (Amy)

Technical Committee Scribe: Attends Technical Committee meetings; captures insights, completed exercises, meeting notes and forwards to Web Team Lead; not a participant. **TBD.**

Technical Review Board: OCIO group that guides, advises and approves technical projects under the Smithsonian umbrella. **OCIO.**

Platforms

Drupal

Open-source software platform that performs two functions:

- Provides front-end Content Management System (CMS), in which a Zoo Admin can contribute, edit and publish content to a public website
- Dynamically delivers content to a public website, using predetermined layouts

- **Roles**
    - **Web Admin:** IT staff who can affect change in framework and sitewide layouts and styles.
      OCIO, Greg G., Tom.

    - **Admin:** Any Zoo employee who can contribute content to the front-end of the Content Management System (CMS). The Admin will have been in trained in basic Drupal.
      None today. At least 6 by Soft Beta.

- **Contributor:** Can upload and edit their own content in their predetermined area.
- **Editor:** Can upload, edit, delete and publish any content in their predetermined area
    - **Publisher:** Communications staff will publish content

Web project definitions

Content Management Systems: Front-end system into which an Admin can input content (text, images, code).

Governance: Managing an online presence in a controlled & orderly way. Sometimes creates, always enforces processes.

Living web playbook:

- Web content style guide for entire website
- Technical resources
- Web standards (file size, SEO, etc.)
- Standard Operating Procedures (SOPs) on how to do web tasks

Soft Beta: What the organization will decide to produce on Launch Day. It may be as simple as a home page and 8 inside gateway pages (like a "homepage" for membership). It may be as intricate as a home page, gateway pages and a fully developed silo (example: an entire Visit section).

User Experience

- **UX simple definition:**
    1. Learn about a problem and how it affects people;
    2. Design the best solution
- **UX Design:** Patterns, components, page types, grids, typography, editorial guidelines, color, code.
- **UX Library:** Rules, guidelines, tookits.
- **Technology Strategy:** Identifying platforms, standards, technologies.

Web Teams

- **Abstract design:** Information architecture + interaction design turn strategic objectives into a conceptual framework for final user experience.
- **User research:** Understanding user behavior, often through raw observations.
- **Concrete design:** Follows abstract design. Technical details of interfaces, navigation, information design and visual design.
- **Content Production:** Collecting, writing, editing, editorial workflows.
- **Content strategy:** understanding what content to offer site user's expectations, and when.
- **Technology implementation:** creating a CMS and website platform.

- **Project Management:** Driving the project through milestones, meetings and reports to completion.
- **Site strategy:** common understanding of site's purpose for our organization and prioritizing each of the site's goals.
- **Technology Strategy:** Identifying platforms, standards, technologies.

Roles

- **User:** web visitor
- **Admin:** someone who has rights to log into the SI CMS
    - **Contributor:** Has rights to add, modify content in specific areas of website
    - **Editor:** Has rights to add, modify, delete content in specific areas of website
        - **Publish:** Can push content to the live website (an Editor function)
- **Web Admin:** Administers the site and can make global site changes, and template modifications

Technical definitions

- **DMZ:** Demilitarized Zone (area between the SINET firewalls that allows visitors limited access to SINET servers.
- **DRUSH:** Drupal Shell (command shell for scripting)
- **FONZ:** Friends of the National Zoo
- **HDC:** Herndon Data Center
- **LAMP:** Linux-Apache-mySQL-PHP
- **NZP:** National Zoological Park
- **OCIO:** Office of the Chief Information Officer

Appendix B

Complete Project Goals

- **Create a cross-functional web project team.** Fewer resources and staff force the Zoo to be creative in identifying and working with web talent, regardless of the department. Selected staff will devote a portion of their time to creating an user-centric online experience for Zoo web visitors.

- **Build a content management system to deliver content to a dynamic website.** A Drupal CMS will allow multiple users to contribute content to the site. By tagging and valuing content, related content can appear on multiple pages.

- **Use open-source software and platforms.** Again, staff and resource restrictions push the Zoo to embrace online communities to use and re-use sources developed and tested at no course. The software also places us in alignment with other Smithsonian web teams and the OCIO.

- **Engage the online visitor in the 21st Century.** The Zoo offers the most desired exhibit in the world and an overwhelming image library. Responsive web design will offer the best possible presentation and a Mobile-first approach will push content into information chunks for the online visitor.

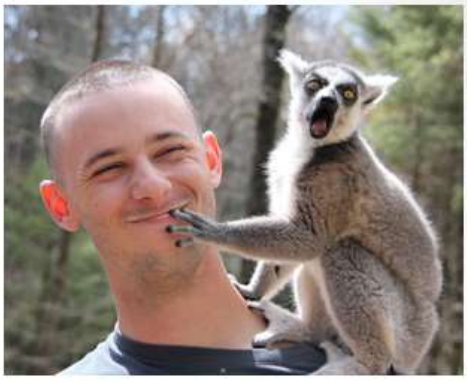
- **Focus on the user.** In a user-centric design, the site will revolve around the user's primary needs: planning a visit, viewing animals through live stream cameras, learning about science.

- **Close business loops.** In the past two years, different departments have built minisites off the main site for ease of use and, simply, to quickly complete business transactions. The new Zoo website will afford content and design opportunities – all on one, main website. Whether visitors are learning about camps, membership or bison, their focus will be on one, consistent website.

Appendix C

Full Personas Profile

Supporter



- Online user who wants to engage with the Zoo
- FONZ prospect or member who wants to keep up with Zoo and spend less money to park
- Donors who want to be a part of conservation efforts, and be part of a longer journey.

Motivators

- Compassion
- Connection
- Parking

Value propositions

Atruism
Activity
Inclusiveness

Actions

- Support
- Donate
- Join
- Visit

Visitor

On-site visitors

- Experience outdoors and parks
- See and engage animals
- Attend events
- Cheap date

Online visitors

- View animals through live streaming

Motivators

- Video viewing
- Memories
- Connection
- Adventure

Value propositions

- Activity
- Entertainment
- Learning
- Refreshment

Actions

- View
- Visit
- Share

Learner

Student

- Online homework
- Live animal camera viewing
- Casual learning

- **Specific attributes**
  - Click to learn
  - View

Teacher

- Online lesson planning
- Finding information for teaching opportunities

- **Specific attributes**
  - Click to learn
  - Seeking trusted source

Researcher

- Peer learning
- Staying current with newest information

- **Specific attributes**
  - Seeking trusted source
  - Learning
  - Teaching
  - Engaging/ contributing with information

Appendix D

Stakeholder survey results

IT LOE	requirement	comments
n/a	best-in-class Advancement area (minus 3rd party registration)	
n/a	interactive storytelling/ advancement	
H	break down the walls: One Organization(2)	
n/a	interactive storytelling/ science (2)	
L	visually stunning image presentation	
L	Front Royal visual display	
H	keep daily calendars current online (4)	would need to gather all feeds into one area
M	cross link strategy (3)	how to drive online visitors through user paths
M	(IT) taxonomy (2)	
M	Drupal 7 build	
H	responsive design	
M	mobile first experience (2)	
L	RSS feeds (3)	
M	content publication schedule (2)	
L	Internal communication to editors that content is available for publishing	publishing workflow
M	re-organize Science area	
M	clean, clear navigation (10)	
M	user paths	
M	moderated workflow	
n/a	one integrated social media platform	
L	clean, clear design (4)	
M	user centric	
	create educational user path, starting on webcam pages	
M	grant non-VC staff Contributor status	publishing workflow

L	Publish scientific journals in rapid fashion	simple through SI Libraries
L	webcam budget	
H	portals (3)	volunteers, FONZ members, facilities
L	blogs	contribute from staff, publish through Comm
M	more Science Journalism (2)	staff, presentation
M	scalable, easily-updatable photo galleries	images continue to run through DAMS
M	eateries as visitor info	Menus can be PDFs, simply updatable by non-technical staff
M	camera views from YouTube in Drupal channels on site	
M	SEO strategy	

Appendix E

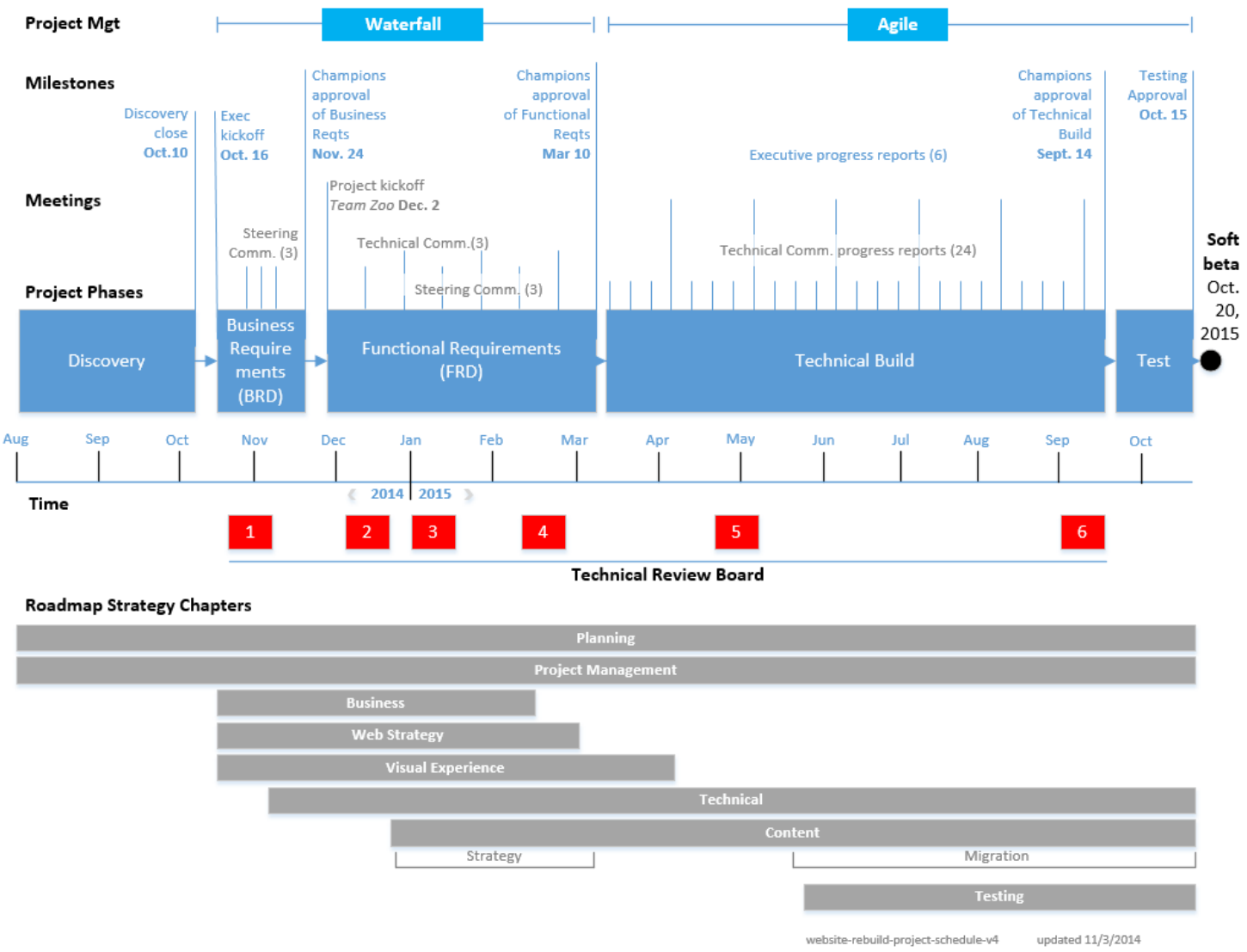
Web Project Team Roster

name	dept	mgr	approval	testing	content		technical	visual experience	web strategy	business	pm	planning
					migration	strategy						
ibrahim	FONZ	fisk	yes	x	x	x	x	x				
miller	FONZ	fisk	yes	x	x	x		x				
davis	PE	posey	yes	x				x	x			
noble	PE	posey	yes	x				x	x			
staudenmeier	FONZ	melanson	yes	x				x	x			
diehl	FONZ	melanson	yes	x				x	x			
enchelmeyer	COMM	PBM	yes	x	x	x		x	x	x	x	x
meyer	COMM	PBM	yes	x	x	x		x	x			
gough	IT	shoop	yes	x	x	x	x	x	x			
thorpe	IT	shoop	yes	x								
lacy (Colin)	EXEC	kelly	n/a	x			x	x				x
aspa (Hellinic)	IT	sakell	yes	x			x	x				x

updated 11/18 :: v4

Appendix F

Complete Project Schedule



Appendix G

In Scope

This project will focus solely on creating:

- Web project team
- Content Management System
- Rebuilding the public website in a mobile-first format, using responsive design and content tagging
- Partial content migration. As decided by Steering and Technical Committees, Content and Technical.

Project Scope Exclusions

- **Shopping carts.** All services that handle financial transactions on behalf of membership, donations, or catalogs.
- **Email delivery services.** All services that send blast communication to Zoo membership lists or the public.
- **Intranet.** ZooNet is not part of this scope.
- **Portals, log-in screens.** While these will be considered during the strategy phase of this project, they are not part of this scope.
- **3rd-party sites.** Websites and groups that have distinct design, layouts, processes, confirmations and analytics are not part of this scope.
- **Full content migration.** In this project, all present website content will be evaluated. The Content Strategy will create a schedule to edit, delete, combine or publish as is. The Content Strategy will define what content will be migrated in Phase 1, and what will be migrated or entered in Phase *n*.

Final decisions on scope determination will be discussed and finalized with the Steering and Technical committees, Executives and approved by the Champions.

Appendix H

Complete Assumptions, Constraints

Assumption: Factors considered to be true without proof in the planning phase.

Constraint: business policy or technical limitation that is limiting choices in the build.

#	Assumptions
1	Project is mission driven: Engagement to spur actions to save species is goal.
2	Online retail will be managed by se and integrated into nzp/fonz website
3	Science/Conservations/SCBI is assumed as NZP. More robust site to serve science.
4	Evaluate tradeoffs / employ latest tech @ lowest cost?
5	Content is going to be lighter in some areas and heavier in other areas. We'll establish a protocol for determining the lifespan of content. This is something Comm will be able to address soon.
6	Only NZP/OCIO staff will work on web project teams. This includes FONZ.
7	All web work will be part of regular responsibilities while on web project team. Ideal workload and regular workload.
8	Senior managers will incorporate web responsibilities into web project teams performance plans.
9	All participants will come to the project positively and work in a collaborative manner
#	**Business Constraint**
1	NZP does not have a permanent operating budget for the web.
2	Content "Principals" what is posted, where, when, how long.
3	Brand confusion
4	NZP does not have current website permanent staff
#	**Technical Constraint**
1	Present NZP staff is too thin to build and operate an enterprise-level website.

Appendix I

Risk Analysis

Risk	**Potential Impact on Project Success** L/M/H	**Likelihood of Occurrence** L/M/H	**Mitigation Plan** strongly recommended for H/H, H/M and M/H recommended for M/M
SE shopping site will not be ready in time for website soft Beta launch	L	L	new website will point to either 3rd party site: present catalog or future
We have ensure the process for archiving all the appropriate material is properly managed. It requires training.	M	M	Ensure training plan is written early
Only NZP staff will work on web project teams. This includes FONZ	H	H	The art team will be created from on-campus staff, across departments. Risk is do they have ability to build enterprise-level website. See Gap Analysis
OCIO will be fully staffed for Technical Build	H	L	Regular communication with OCIO. Status: ready
OCIO will not be ready for Technical Build in mid-March	H	H	Regular communication with OCIO. Status: ready
Technical Build takes longer to produce than expected	M	m	Regular communication with OCIO. Status: ready
Build in Drupal 7; Drupal 8 launches sometime in 2015	M	M	Drupal 8 may/may not launch in 2015. OCIO recommends D7 build, and upgrade 9+ months after D8 release

No website redesign budget	H	H	w/o access to a highly experienced, digital agency, there is high risk in achieving responsive design and mobile-first principles.
			Plan:
			• constant monitoring of staff training and progress to ensure goals.
			• May need to down size expectations.
			• Will keep Champions informed monthly.
Content migration	H	H	Current site contains about 4,400 pages, 1/2 of which are dynamically created. Require 1-3 migration solutions. Plan: value content, copy to holding area, investigate methods to dynamically ingest content into Drupal. Fall back: manual insertion.
lack of staff training	h	M	only w/ adequate training can staff accomplish CMS duties. Plan: identify early the staff, create training plans, implement
lack of IT testing	H	H	pre-launch testing requires 4 weeks and at least 12 testers. Plan: identify early the staff, create testing plans, implement

Appendix J

Complete Business Requirements

#	Category	Requirement	Comments
1.00	**Audience**		
1.10	**Personas**	The website will tailor content and user experience for three personas: Supporter, Visitor, Learner	
1.11	**Supporter**		
		Online user who wants to engage with the Zoo FONZ prospect or member who wants to keep up with Zoo and spend less money to park Donors who want to be a part of conservation efforts, and be part of a longer journey.	
1.12	**Visitor**		
	On-site visitor	Experience outdoors and parks See and engage animals Attend events Cheap date	
	Online visitor	Views animals through live streaming	
1.13	**Learner**		
	Student	Online homework Live animal camera viewing Casual learning	
	Teacher	Online lesson planning Finding information for teaching opportunities	
	Researcher	Peer learning Staying current with newest information	
2.00	**Delivery**		
2.10	Mobile first	Display content that will always display well for the mobile user	
2.20	Responsive design	Design the website so it responds to the screen size of the device	
2.21	Break points	Design website so layouts respond for five screen sizes: desktop, tablet (horizontal and vertical) and phone (horiztontal and vertical)	
2.22	Flexibility	The website will deliver flexible versions of images and text across devices.	
2.23	Legibility	Regardless of device, text must always be legible in size and color	
2.30	**Platform**		

2.31	website	Create website using Drupal 7 platform	
2.32	CMS	Create Content Management system using Drupal 7 platform	
2.33	CMS users	Create a distributed CMS for multiple users and publishers (editors)	
2.40	Taxonomy	CMS will deliver ability to tag specific content with attributes, which can place content dynamically on pages.	
2.41	Related content	When requested, website can deliver related content to a specific web page. Example: Cheetah page can have a content block of Related Cheetah content, which will be dynamically pulled from Drupal database.	
2.50	DAMS	Website photos will be delivered from the DAMS photo server	
2.60	SEO	Zoo Staff will devise and implement a Search Engine Optimization strategy to see Search Engine traffic and deliver to targeted landing pages.	
2.70	Printing	When visitors print a page, Drupal will create a PDF of the main content of the page.	
2.80	Browsers	Website will appear and function well in all mainstream browsers, including specific versions of Internet Explorer, Chrome, Firefox, Safari.	
2.81	Mobile browsers	Website will appear and function well in all mainstream mobile browsers, including IOS and Android.	
2.90	Accessibility	Website will follow accessibity guidelines as listed in SD 950 (http://prism2.si.edu/SIOrganization/OCFO/OPMB/SD/SD950.pdf).	
2.10	Daily calendar	Website will allow multiple users to add information to a database, which will populate information on daily events.	laudable goal, no short-term solution
3.00	**Website Structure**		
3.10	Navigation	Website will offer clean, clear navigation for users on both global and area levels	
3.20	User paths	Web Teams will create users paths for personas, to simply deliver visitors to destination pages	

3.30	Transactions	Website will deliver visitors to transactions and forms pages on 3rd-party websites.	
3.40	**Engagement**		
3.40.1	Inside Page template	Deliver content dynamically from databases, using CMS Images delivered from DAMS and Flickr Video delivered from YouTube	
3.40.2	/visit/		
3.40.3	/animals/	Ability to condense content, using javascript tools like accordians, hide/collapse, horizontal tabs.	
3.40.4	/membership/	Ability to create a space for third-party registration inside an SI-hosted web page	
3.40.5	/advancement/		
3.40.6	/science/		
3.40.7	/conservation/		
3.40.8	/newsroom/	requires a summary page	
3.40.9	/about us/		
3.40.10	/contact-us/		
3.40.11	/education/	Ability to create a space for third-party registration inside an SI-hosted web page	
3.40.12	/events/	Ability to create a space for third-party registration for events vendors inside an SI-hosted web page	
3.40.13	/opportunities/	jobs, internships, volunteers	
3.40.14	/legal/		
3.40.15	/social media/	Ability to create a space for third-party social media integration inside an SI-hosted web page	
3.40.16	/search/		
3.40.17	/shop/		
3.40.18	/webcam/		
3.40.19	/photo-galleries/		
3.40.20	/exhibits/		

3.50	internal search	Site will produce a Search Results Page, based on keyterms used by visitors while using the Search form *on the website.*	
3.51	Taxonomy search	Site will produce a Search Results Page, based on taxonomy terms used by visitors when clicking on a hyperlinked, taxonomy keyterm *on the website.*	
3.60	Shop	Website will deliver Shopping prospects to a third-party website for financial transactions.	
3.70	Donations	Website will deliver Donation prospects to a third-party website for financial transactions.	
3.80	Membership	Website will deliver Membership prospects to a third-party website for financial transactions.	
3.90	Registrations	Website will deliver Registration prospects to a third-party website for completing and validating forms.	
3.10	User Paths	Website will deliver visitors for specified tasks (membership, webcam, supporters) through an optimized, specific user path.	
3.11	Cross-link strategy	Web Team will search for and create opportunities for driving visitors laterally through a website, using a a cross-link strategy.	
4.00	**Visual Experience**		
4.10	Logo	Logo will represent three key elements: Smithsonian, National Zoological Park, Conservation Biology Institute	
4.20	Visual Design	Zoo Art Team will create visual design, look/feel for website.	
4.21	Discovery Communication	Zoo Art Team will consult prototypes created by Discovery Communications as a starting point for website design.	
4.30	Images	Responsive Design will create approximately six different sizes for photos/images on the website.	
4.40	Streaming video	Website will allow streaming videos for animal exhibits with cameras.	
4.50	On-demand video	Website will provided embeded code opportunities to present on-demand videos.	

4.51	On-demand playlists	Website will use Drupal websites to create specific playlists for specific videos on specific pages (examples: sloth bear videos available on sloth bear page).	
4.52	On-demand video hosting	SI servers will not host video files. Website will draw video from YouTube feeds	
4.60	Photo galleries	Website will provide Drupal-specific photo galleries which will play in all forms of Responsive Design.	
4.61	Photo gallery maintenance	Drupal CMS will offer a photo gallery player that can be maintained by mutliple CMS users.	
5.00	**Analytics**		
5.10	Google Analytics	Google Analytics will be the preferred website analytics program for the website.	
5.20	performance evaluation	Zoo staff will monitor and evaluate performance of the website using GA	

5.21	metrics	visits unique visitors most visited pages most visited animals pages visitors by country / metro area page entrances page exits bounce rate traffic sources referrals /visit/ /animals/ /webcam/ /membership/ /advancement/ /science/ /conservation/ /newsroom/ /education/ /events/ /opportunities/ /exhibits/ /webcam/ traffic vs/ non-/webcam/ traffic returning visitor vs. new visitor > /webcam/ traffic vs/ non-/webcam/ traffic > /visit/ > /animals/ > /membership/ > /advancement/	
5.30	SEO monitoring	Web Team will monitor and evaluate performance of the search engine traffic referrals	
5.31	SEO strategy	Web Team will devise keyword strategy to capture specific keyterms, and optimize landing pages to capture search engine traffic.	
6.00	**Technical**		
6.10	Servers	IT will host website using Apache servers, housed by OCIO's Herndon Data Center (HC) in Virginia server farm	

6.20	DAMS	OCIO and IT will write and provid scripts (some may already be written) will deliver images from DAMS to server to browser, then dynamically resize images, according to device dimension.	
6.30	web platform	IT will develop website and CMS in OCIO-approvode web platform (Drupal 7).	
6.32	web platform maintenance	IT will manage assignment of CMS rights	
6.33	CMS assignments	Using Active Directory, IT will assign individuals to Drupal content roles (contributor, editor).	
6.40	OCIO	OCIO, in conjunction with IT, will lead the technical build of the website	
6.50	Technical testing	IT will be responsible for full technical testing prior to soft beta launch.	
6.60	Web standards maintenance	IT will develop or ensureStandard Operating Procedures (SOP) for common website editing / updating tasks	
6.70	Development environment	OCIO and IT will ensure a development and a production web environment will be built and utilized per SOPs	

Appendix K

Complete Strategy Documents

Web Strategy

- Mobile First Strategy
- Search Engine Optimization
    - Interior content
    - <meta> data
    - Headline structure
    - Keyterms
    - Strategy
    - Placement
    - reporting
- Site Architecture
    - Site map
- Information Architecture
    - Global navigation
    - Second-level navigation
    - Mobile navigation
- Forms
    - Design
    - Database flow
    - Reporting
- 3rd-party Integration
    - Constant Contact
        - Workflow
        - Design
        - Data pass
        - Tracking Script
        - Troubleshooting
        - Reporting
    - Blackbaud
        - Workflow
        - Design
        - Data pass
        - Tracking Script
        - Troubleshooting
        - Reporting

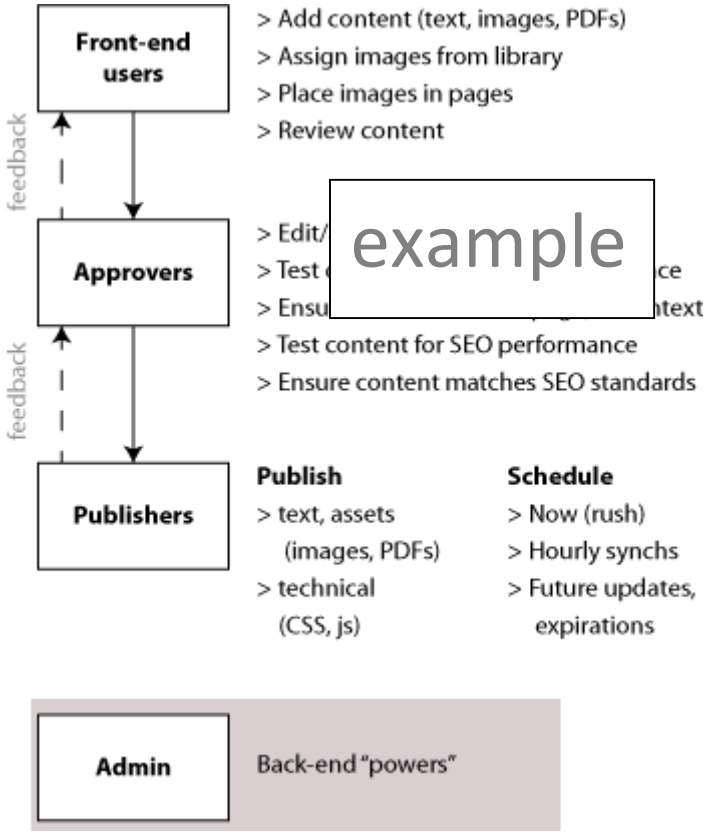
Visual Design (Visual Experience)

- Style Tiles
- Visual Design Style Guide
- Wireframes / Layout

User Experience (Visual Experience)

Content Strategy

- Taxonomy
- Web Site Search (Internal)
- "featured" content first
- Cross-link Strategy
- Migration Plan
- Editorial Workflow
    - Roles
    - Responsibilities
    - Schedule
    - Content Calendar
- Social Media Marketing
- Content Style Guides



example

Technical Strategy

- Approach
- Requirements
- Devices
- Page load
- Server load
- Responsive workflow
- Drupal platform
- Cascading Style Sheets
- Wireframes / Responsive Strategy
- Page Templates
- Content Synchronization
- Live server > backup

Content delivery

- Modules
- Content Blocks
- Related Content

- Images
- Video
- Multimedia
- Blogs

Testing Strategy

- Requirements
- Test Scripts
- Test workflow
- Bug List
- Fix workflow