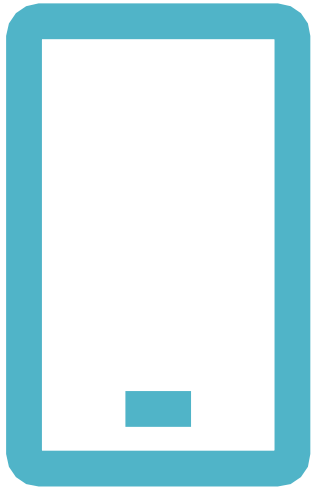
Integration of Citizen Mobile Reporting App for Smart City Asset Management

-Simaant Patil



Syracuse
New York

Cityworks®
Empowering GIS

Overview

- The aim of the project is to develop a mobile application to support the already established system developed by DPW called as “Cityline”
- This would help the citizens to report problems about roads, snow pickup and similar issues by sending images and using GPS through effective integration with the Cityworks system
- This newly established system with the mobile app will help the authorities to track the issues in real-time and make the problem solving process more agile.

Overview

- **Product Deliverables**

1. An integrated system, combining the mobile application and the existing Cityworks system
2. A mobile application which would allow its users to upload pictures and location of the issue
3. Giving the residents of the city the ability to report the issues directly to DPW and also the track the progress of the work undertaken

Overview

- **Process Deliverables**

1. Project Charter
2. Project Schedule and Plan
3. Work Breakdown Structure
4. Status Reports
5. Prototype testing
6. Training for end users

Vision of the Project

- The vision of the project is to improve the existing system in place with the help of a mobile application and to solve the problems of the city efficiently
- Strategically, it could be helpful as :

1. Implementing the project as a part of “Syracuse Surge” plan, to make Syracuse a smart city would give this project greater importance and also backing from the Mayor
2. The application would allow DPW to process requests from users smoothly and efficiently as it would reduce manual work

Technology Outcomes

- DPW staff would have to undergo training to understand the new application and also to learn its integration with Cityworks
- Development of the application would lead the formation of a team to look after the maintenance and updates for the application which could open up new roles and lead to recruitment
- The mobile application would help the residents of the city to get their issues addressed rapidly and keep them in the loop till the issue is resolved
- There could also be more automation inside DPW as systems would needed to be develop for data storage, maintenance and monitoring of the issues that come up and thus would require more digital and automated systems

Scheduling Assumptions

The following are the scheduling assumptions:

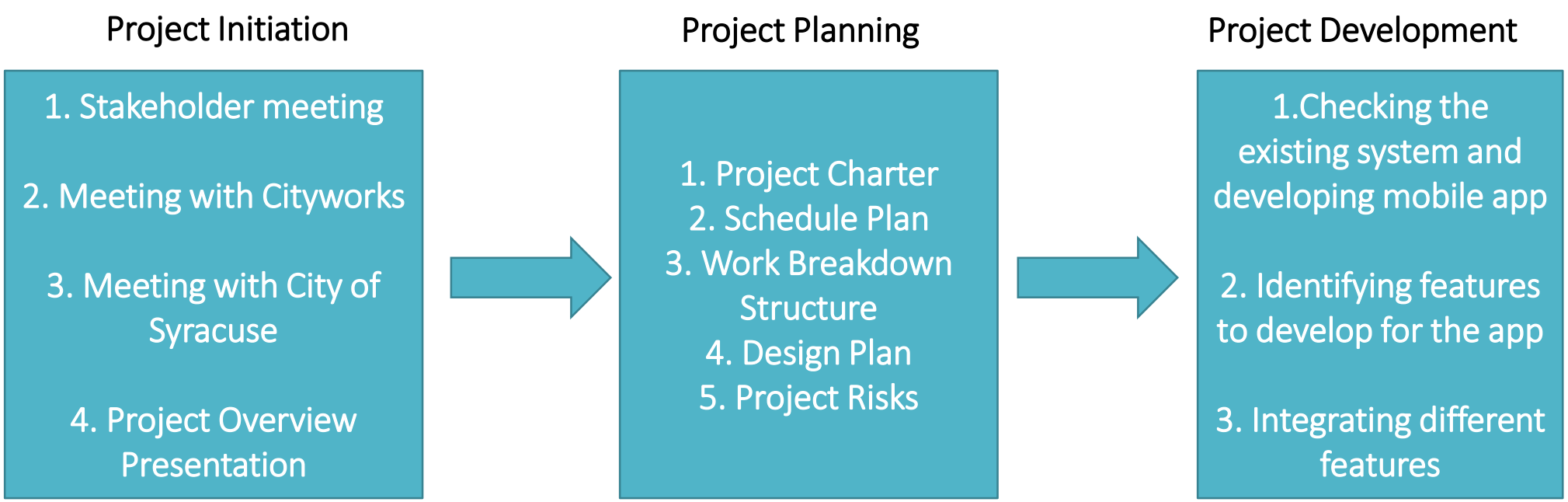
- The project completion time depends on the cooperation from the Cityworks staff
- Members from both the teams of the project are available at all times during the duration of the project
- All approvals for going into the next stages of the project are sanctioned in time and requirements are informed in advance
- Constant communication is kept between the teams at DPW and Cityworks so that all the critical information is communicated on time

Constraints

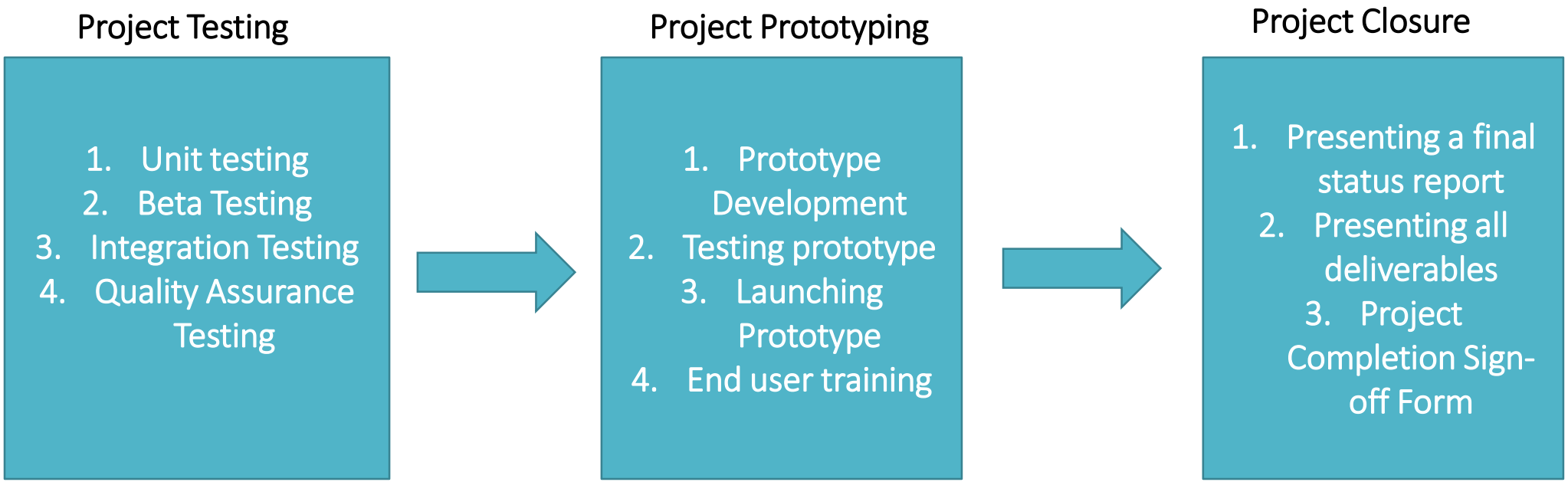
The following are the constraints:

- Draft of the Project Overview Presentation to be submitted to Mayor Ben Walsh on **November 7th, 2019**
- Presenting the Project Overview to Commisioner of the city, Key stakeholders and executives of Cityworks on **Novermber 12th, 2019**
- Incorporating features for reporting repair issues like potholes, broken sidewalks or sewer/flooding by **March 9th, 2020**
- Completion of mobile application by **October 30th, 2020**

Project Stages



Project Stages (contd.)



Quality Planning, Quality Assurance and Quality Control

To maintain the quality of the project, the following steps could be undertaken:

- The application is developed as a sequence of modules or features and each feature is tested before going to the next step
- The functionalities of all features meet user requirements and are user friendly
- The customer data obtained from the app is secured and it is assured that its integrity is maintained
- Unit testing and regression testing is performed
- Regular updates are released for smooth functioning of the application

Quality Planning, Quality Assurance and Quality Control

Moreover, the following tasks could also be undertaken to ensure quality control:

- The development of the application should be checked and monitored by placing specific check points along the way
- The application should be developed along the required standards and guidelines
- Feedback is taken from stakeholders at regular intervals about the functionalities of the application

Executive Involvement and Support Needed

City of Syracuse IT Team:

1. Simaant Patil – Project Manager
2. David Pajak – Director of IT
3. Sagar Mohan – Business Systems Analyst
4. Charles Hilderbrant – Senior Programmer
5. Lin-Min Wang – Programmer
6. JoAnne Sudderth – Database Administrator
7. Nina Stevens – Senior Testing Specialist
8. Mary Papero – Testing Specialist

Executive Involvement and Support Needed

City of Syracuse, Department of Public Works (DPW) Team:

1. Phillip Grome – Business Analyst
2. Samuel Edelstein – Chief Data Officer
3. Jeremy Robinson – Project Sponsor

Executive Involvement and Support Needed

Cityworks Team:

1. David K. Jaffe – Information Security Analyst
2. Christine Johnson – User Interface Analyst
3. Samuel T. Moore – Asset Management Systems Specialist

Executive Involvement and Support Needed

Project Stage	People Involved	Tasks
Project Initiation	Simaant Patil David Pajak	The project is given to the project manager, Simaant Patil
Stakeholder Meeting	David Pajak Simaant Patil Jeremy Robinson	All the requirements and deliverables are discussed with the project manager
IT Team Meeting	Simaant Patil David Pajak Sagar Mohan Charles Hilderbrant Lin-Min Wang JoAnne Sudderth Nina Stevens Mary Papero	The project requirements and tasks are shared with the team and roles are assigned to each member of the team depending on their area of expertise. Regular meeting times are discussed

Executive Involvement and Support Needed

Project Stage	People Involved	Tasks
Meeting with Cityworks	Simaant Patil David K. Jaffe Christine Johnson Samuel T. Moore	The project requirements are discussed with the Cityworks team and meeting timings are discussed
Planning	Simaant Patil Cityworks team Rest of IT Team City of Syracuse, DPW Team	All the requirements are discussed between all the teams and project charter, schedule plan along with the work breakdown structure is discussed. Possible risks are also discussed
Development of different features	Simaant Patil Cityworks team Rest of IT Team City of Syracuse, DPW Team	Coordination between the teams is established so that different features are developed in an orderly manner and in an iterative way

Executive Involvement and Support Needed

Project Stage	People Involved	Tasks
Testing	Simaant Patil Cityworks team Rest of IT Team City of Syracuse, DPW Team	Testing of each feature and integrated testing of the entire system is carried out to check the quality and performance
Prototype	Simaant Patil Cityworks team Rest of IT Team City of Syracuse, DPW Team	System prototype to reviewed by all the members of the teams for deploying the final product
Final Documentation	Simaant Patil Cityworks team Rest of IT Team City of Syracuse, DPW Team	A final document specifying the functionalities of the app and the features and its integration with Cityworks needs to be created
Closure	Simaant Patil David Pajak Jeremy Robinson	The project sign-off needs to be done by the project manager and even needs to be signed by David Pajak and Jeremy Robinson

Questions

Questions regarding development of different features of the application and its integration with Cityworks software along with queries at different stages of the project can be answered now