**Low fidelity prototype**

**1. Home Screen**

**Purpose:** Serves as the central hub from which users can navigate to different functionalities of the app.

**Elements:**

* **Data Display:**
  + **List of Recent Issues:** A scrollable list displaying recently reported local issues with icons indicating the type of issue (e.g., pothole, streetlight).
* **Interaction UI Elements:**
  + **Navigation Menu:** Located at the bottom or side with icons/buttons for Home, Report Issue, Vote, Solutions, Surveys, Volunteer, Track Progress, and Meetings.
  + **Floating Action Button (FAB):** A prominent button for quickly reporting a new issue.
* **User Gestures:**
  + **Tap:** To navigate to different sections.
  + **Swipe:** To scroll through the list of recent issues.
* **Graphical Elements:**
  + **Icons:** Simple line icons representing each menu item.
  + **Colors:** Use a consistent color scheme (e.g., blue for navigation, green for actions).

**2. Reporting Local Issues**

**Purpose:** Allows citizens to report problems in their neighborhood.

**Elements:**

* **Data Display:**
  + **Form Fields:** Text input for issue description, dropdown for issue type, and location picker (map or text input).
  + **Plain Text Instructions:** Brief instructions on how to report an issue.
* **Interaction UI Elements:**
  + **Buttons:** "Submit" and "Cancel."
  + **Dialog Window:** Confirmation dialog after submission.
* **User Gestures:**
  + **Tap:** To select issue type and submit the report.
  + **Drag & Drop:** For selecting location on a map.
* **Graphical Elements:**
  + **Icons:** Camera icon for attaching photos, location pin for map.
  + **Colors:** Highlight buttons with contrasting colors for visibility.

**3. Voting on Issues**

**Purpose:** Enables users to prioritize issues by upvoting or downvoting.

**Elements:**

* **Data Display:**
  + **List/Table of Issues:** Each issue displays title, description snippet, and current vote count.
* **Interaction UI Elements:**
  + **Buttons:** Upvote (↑) and Downvote (↓) buttons next to each issue.
* **User Gestures:**
  + **Tap:** To cast a vote.
* **Graphical Elements:**
  + **Icons:** Arrow icons for voting.
  + **Colors:** Green for upvote, red for downvote to indicate positive and negative actions.

**4. Proposing Solutions**

**Purpose:** Allows citizens to suggest solutions to reported issues.

**Elements:**

* **Data Display:**
  + **Form Fields:** Text input for solution description and optional file upload for supporting documents.
  + **List of Existing Solutions:** Displaying previously proposed solutions for reference.
* **Interaction UI Elements:**
  + **Buttons:** "Submit Solution" and "Back."
  + **Dialog Window:** Confirmation message upon submission.
* **User Gestures:**
  + **Tap:** To enter text and submit the solution.
  + **Swipe:** To browse through existing solutions.
* **Graphical Elements:**
  + **Icons:** Lightbulb icon for ideas, attachment icon for file uploads.
  + **Colors:** Neutral background with colored buttons for actions.

**5. Participating in Surveys and Polls**

**Purpose:** Enables users to voice their opinions on city projects through surveys and polls.

**Elements:**

* **Data Display:**
  + **Survey List:** Titles and brief descriptions of available surveys/polls.
  + **Survey Questions:** Multiple-choice or open-ended questions displayed one at a time.
* **Interaction UI Elements:**
  + **Buttons:** "Next," "Previous," and "Submit" for navigating and completing the survey.
* **User Gestures:**
  + **Tap:** To select answers and navigate through questions.
* **Graphical Elements:**
  + **Icons:** Checkmarks for selected answers, progress bar indicating survey completion.
  + **Colors:** Use contrasting colors for buttons to guide user actions.

**6. Joining Local Volunteer Programs**

**Purpose:** Allows users to sign up for various volunteer activities in their community.

**Elements:**

* **Data Display:**
  + **List of Volunteer Opportunities:** Each with title, description, date, and required commitment.
* **Interaction UI Elements:**
  + **Buttons:** "Join" and "Details" for each volunteer opportunity.
  + **Dialog Window:** Registration confirmation upon joining.
* **User Gestures:**
  + **Tap:** To view details or join a program.
  + **Swipe:** To scroll through available opportunities.
* **Graphical Elements:**
  + **Icons:** Hands or heart icons representing volunteering.
  + **Colors:** Use green or blue to signify positive action.

**7. Tracking Issue Resolution Progress**

**Purpose:** Allows users to monitor the status of their reported issues.

**Elements:**

* **Data Display:**
  + **Issue Status List:** Each issue displays current status, estimated resolution time, and recent updates.
* **Interaction UI Elements:**
  + **Buttons:** "Refresh" to update status and "View Details" for more information.
* **User Gestures:**
  + **Tap:** To refresh status or view detailed progress.
* **Graphical Elements:**
  + **Icons:** Status indicators (e.g., gears for in-progress, checkmark for resolved).
  + **Colors:** Use color-coding (e.g., yellow for pending, green for resolved).

**8. Attending Community Meetings Virtually**

**Purpose:** Provides access to live streams or recordings of community meetings.

**Elements:**

* **Data Display:**
  + **Upcoming Meetings List:** Titles, dates, and brief descriptions.
  + **Recorded Meetings Library:** Archived videos with titles and dates.
* **Interaction UI Elements:**
  + **Buttons:** "Join Live" and "Watch Recording."
  + **Video Player Controls:** Play, pause, and volume adjustments for recordings.
* **User Gestures:**
  + **Tap:** To join live meetings or play recordings.
  + **Drag:** To seek within the video playback.
* **Graphical Elements:**
  + **Icons:** Video camera for live meetings, playback icons for recordings.
  + **Colors:** Use clear, neutral colors to keep the focus on content.

**Design Specifications Alignment**

* **Consistency:** Ensure that navigation menus, buttons, and icons are consistent across all screens.
* **Simplicity:** Keep interfaces uncluttered with a focus on essential elements to enhance usability.
* **Accessibility:** Use readable fonts, sufficient color contrast, and intuitive icons to make the app accessible to all users.
* **Responsiveness:** Design layouts that adapt seamlessly to different screen sizes (mobile and web).

**Innovative User Experience Elements (Bonus)**

* **Interactive Map Integration:** Incorporate an interactive map on the Home and Report Issue screens where users can visualize reported issues geographically.
* **Voice Commands:** Allow users to report issues or navigate the app using voice commands for hands-free interaction.
* **Real-Time Notifications:** Implement notifications to alert users about updates on their reported issues or upcoming community meetings.

**Prototype Evaluation Steps**

1. **Navigate to Home Screen:** Ensure all navigation elements are visible and functional.
2. **Report a Local Issue:** Test the reporting form, including location selection and submission confirmation.
3. **Vote on an Issue:** Verify that voting buttons are responsive and update vote counts appropriately.
4. **Propose a Solution:** Submit a solution and check for proper confirmation and display in the solutions list.
5. **Participate in a Survey:** Complete a survey to ensure questions navigate correctly and submissions are acknowledged.
6. **Join a Volunteer Program:** Register for a volunteer opportunity and confirm registration success.
7. **Track Issue Progress:** Access the tracking feature and verify that status updates are displayed accurately.
8. **Attend a Community Meeting:** Join a live meeting or watch a recording to ensure video functionality.

**Tools for Creating the Prototype**

* **Paper Sketches:** Draw each screen layout on paper, clearly labeling each UI element and interaction.
* **Digital Tools:**
  + **Figma:** Create wireframes with draggable components and interactive links between screens.
  + **Adobe XD:** Design detailed mockups with interactive prototypes for user testing.
  + **Moqups or Pencil:** Utilize built-in UI libraries to quickly assemble interface components.