## CLAIMS

1. A vehicle traffic control system, comprising:

an emitter configured to emit electromagnetic radiation into a detection area;

a detector configured to detect retro-reflected electromagnetic radiation resulting from retro-reflection of the emitted electromagnetic radiation from retro-reflective markers within the detection area, wherein the detector comprises one or more optical filters configured to filter wavelengths of electromagnetic radiation that do not correspond to the electromagnetic radiation emitted by the emitter such that optical detection features of the detector receive substantially only those wavelengths of electromagnetic radiation that include the electromagnetic radiation emitted and retro-reflected to the detector;

control circuitry communicatively coupled to the emitter and the detector, wherein the control circuitry is configured to monitor the retro-reflected electromagnetic radiation detected by the detector and evaluate information relating to one or more vehicles within a detection area based on the monitored retro-reflected electromagnetic radiation;

an automated device communicatively coupled to the control circuitry and configured to provide a user-perceivable indication relating to the one or more vehicles in the detection area, wherein the control circuitry is configured to cause the automated device to provide specific user-perceivable indications based on the evaluated information relating to the one or more vehicles;

a parking structure having a parking space, wherein the parking space comprises the retro-reflective markers positioned within an area corresponding to an expected location of a vehicle when the vehicle is parked within the parking space; and

wherein the parking space corresponds to at least a portion of the detection area, and the control circuitry is configured to determine whether the parking space is occupied by the vehicle based on retro-reflection by the retro-reflective markers.

2. The system of claim 1, wherein the automated device comprises a light, a communication device, a sign, or any combination thereof, associated with the parking space, wherein the control circuitry is configured to trigger the light, the communication device, the sign, or the combination thereof, based on the occupancy of the parking space.

3. The system of claim 2, wherein the control circuitry is configured to:

correlate the retro-reflected electromagnetic radiation to the retro-reflective markers positioned within the area corresponding to the expected location;

monitor the retro-reflected electromagnetic radiation for changes in retro-reflection by the retro-reflective markers within the area corresponding to the expected location; and

associate changes in retro-reflection by the retro-reflective markers with a coverage of the markers by a vehicle parked within the parking space to determine whether the parking space is occupied.

4. A method of tracking and controlling the movement of vehicles, comprising:

flooding a detection area with electromagnetic radiation using an emitter, wherein the detection area corresponds to a portion of a parking structure;

detecting electromagnetic radiation that is retro-reflected from retro-reflective markers within the detection area using a detector, wherein a parking space of the parking structure comprises the retro-reflective markers positioned within an area corresponding to an expected location of a vehicle when the vehicle is parked within the parking space, wherein one or more optical filters filter wavelengths of electromagnetic radiation that do not correspond to the electromagnetic radiation emitted by the emitter such that optical detection features of the detector receive substantially only those wavelengths of electromagnetic radiation that include the electromagnetic radiation emitted and retro-reflected to the detector;

monitoring the retro-reflected electromagnetic radiation to evaluate whether the parking space is occupied by the vehicle using control circuitry communicatively coupled to at least the detector; and

controlling an automated device based, at least in part, on the occupancy of the parking space using the control circuitry to affect movement of the vehicle within the detection area.

5. The method of claim 4, wherein monitoring the retro-reflected electromagnetic radiation to evaluate information relating to one or more vehicles within the detection area comprises:

monitoring the retro-reflected electromagnetic radiation for changes indicative of retro-reflective markers no longer retro-reflecting the emitted electromagnetic radiation;

correlating the markers no longer retro-reflecting the emitted electromagnetic radiation to specific parking spaces within the parking structure to determine parking space occupation data; and

wherein controlling the automated device based, at least in part, on the occupancy of the parking space using the control circuitry to affect movement of the vehicle within the detection area comprises providing a user-perceivable parking space recommendation within the parking structure, or outside of the parking structure and along a pathway leading to the parking structure, using a display communicatively coupled to the control circuitry.