

**Castor Avenue (SR 1005) Safety and Streetscape Improvements
SR 1005 Oxford Circle to Cottman Avenue
Philadelphia County, PA**

PROJECT DESCRIPTION

This project involves safety and streetscape improvements along the Castor Avenue Corridor from just north of Oxford Circle to Cottman Avenue in Philadelphia County, Pennsylvania.

The safety improvements will include new raised concrete bus boarding islands, a road diet including a reduction of Castor Avenue to a single through lane in each direction, rewiring of overhead catenary systems, mill and overlay, and traffic signal upgrades.

The streetscape improvements will include curb and sidewalk replacement along Castor Avenue, pedestrian scale lighting, tree and shrub pits, 6' grass buffers between the curb and the reconstructed sidewalk, a combination of tree and shrub pits and grass buffers, proposed ADA complaint curb ramps at unsignalized mid-block side streets and planted medians. Reconstruction of select portions of deteriorated sidewalk will occur.

The following work is proposed to take place for the entire limits of work extending from just north of Oxford Circle up to and including Cottman Avenue:

1. Re-stripping of pavement lines to reduce Castor Avenue from a 4-lane undivided cross section down to a single lane in each direction with raised concrete medians proposed between each intersection.
2. Mill and pave
3. Pavement line re-stripping including the addition of bicycle lanes
4. Planting of street trees within the existing vegetated buffer
5. Installation of pedestrian scale lighting

The proposed improvements along Castor Avenue corridor include the following intersection improvements.

1. Castor Avenue and Comly Street

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Installation of a new signal controller cabinet in the southwest corner.
- d. Addition of pedestrian countdown signal heads mounted to the new signal poles.
- e. Construction of curb bump-outs/bus boarding island in the northeastern and southeastern quadrants.
- f. Reconstruction of existing ADA curb ramps at all four corners of the intersection.
- g. Installation of additional lighting / retrofitting existing lights with LED heads.

2. Castor Avenue and Benner Street

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Installation of a new ground mounted controller cabinet on the southwest corner.
- d. Installation of additional lighting / retrofitting existing lights with LED heads.

3. Castor Avenue and Devereaux Avenue

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Near side bus boarding islands along Castor Avenue northbound and southbound.
- c. ADA complaint curb ramps at all four corners of the intersection for Castor Avenue crosswalks.
- d. Addition of pedestrian countdown signal heads mounted to new signal poles.
- e. Replacement of existing pedestal mounted signals with new mast arm mounted signals, retroreflective backplates and the addition of emergency pre-emption
- f. Installation of a new ground mounted controller cabinet on the northwest corner.
- g. Installation of additional lighting / retrofitting existing lights with LED heads.

4. Castor Avenue and Levick Street (SR 1008)

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Construction of curb bump-outs/bus boarding islands along Castor Avenue northbound and southbound.
- c. ADA complaint curb ramps at the northeast and northwest corner of the intersection for Castor Avenue crosswalk.
- d. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- e. Addition of pedestrian countdown signal heads mounted to new signal poles.
- f. Installation of a ground mounted controller cabinet on the northwest corner.
- g. Installation of additional lighting / retrofitting existing lights with LED heads.

5. Castor Avenue and Hellerman Street

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Addition of pedestrian countdown signal heads mounted to new signal poles.
- d. Installation of a new ground mounted controller cabinet on the southwest corner.
- e. Installation of additional lighting / retrofitting existing lights with LED heads.

6. Castor Avenue and Magee Avenue/Everett Avenue

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Construction of curb bump-outs/bus boarding island along Castor Avenue northbound and southbound.
- c. ADA complaint curb ramps at the southeast and southwest corner of the intersection for Castor Avenue crosswalk.
- d. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- e. Addition of pedestrian countdown signal heads mounted to new signal poles.
- f. Installation of a new ground mounted controller cabinet on the northwest corner.
- g. Installation of additional lighting / retrofitting existing lights with LED heads.
- h. Installation of video detection for Everett Ave to improve efficiency and safety.

7. Castor Avenue and Unruh Avenue

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Addition of pedestrian countdown signal heads mounted to the new signal poles.
- d. Installation of a new ground mounted controller cabinet on the southwest corner.
- e. Installation of additional lighting / retrofitting existing lights with LED heads.

8. Castor Avenue and Knorr Street

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Construction of curb bump-outs/bus boarding islands along Castor Avenue northbound and southbound.
- c. Reconstruction of existing ADA curb ramps at all four corners of the intersection for Castor Avenue crosswalks.
- d. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- e. Addition of pedestrian countdown signal heads to new signal poles.
- f. Installation of a new ground mounted controller cabinet on the northwest corner.

9. Castor Avenue and Longshore Avenue

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Addition of pedestrian countdown signal heads mounted to the new signal poles.
- d. Installation of a new ground mounted controller cabinet on the northwest corner.
- e. Installation of additional lighting / retrofitting existing lights with LED heads.

10. Castor Avenue and Tyson Avenue

- a. Re-stripping of pavement markings at the intersection to include a left turn lane with appropriate storage length from northbound and southbound Castor Avenue to Knorr Street, a right turn lane from northbound Castor Avenue to Tyson Avenue and left turn lanes from eastbound Tyson Avenue to northbound and southbound Castor Avenue.
- b. Construction of curb bump-outs/bus boarding islands along Castor Avenue northbound and southbound including ADA complaint curb ramps.
- c. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.

11. Castor Avenue and Princeton Avenue

- a. Re-stripping of pavement markings at the intersection to include left turn lanes on Castor Avenue in each direction of traffic.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Addition of pedestrian countdown signal heads mounted to the new signal poles.
- d. Installation of a new ground mounted controller cabinet on the northeast corner.
- e. Installation of additional lighting / retrofitting existing lights with LED heads.

12. Castor Avenue and St. Vincent Street

- a. Re-stripping of pavement markings at the intersection to include a left turn lane with appropriate storage length from northbound and southbound Castor Avenue to St. Vincent Street, a right turn lane from northbound Castor Avenue to Tyson Avenue and left turn lanes from eastbound Tyson Avenue to northbound and southbound Castor Avenue.
- b. Near side bus boarding islands along Castor Avenue northbound and southbound.
- c. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- d. Addition of pedestrian countdown signal heads mounted to the new signal poles.
- e. Installation of a new ground mounted controller cabinet on the northeast corner.
- f. Installation of additional lighting / retrofitting existing lights with LED heads.

13. Castor Avenue and Cottman Avenue

- a. Left and right turn lane with appropriate storage length from northbound Castor Avenue to Cottman Avenue.
- b. Replacement of existing pedestal mounted signals with new mast arm mounted 12" signals, retroreflective backplates and the addition of emergency pre-emption.
- c. Proposed installing SEPTA OCS strain poles