

GEOMETRIC ARRANGEMENT PLAN ON 3 STREETS IN BAFRA DISTRICT

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ABSTRACT

The population of Bafra district, located in the west of Samsun province, is approximately 150,000. A geometric arrangement plan has been made at the intersections of Cumhuriyet Street, Ishakli Street and Yaka Cami Street in Bafra district, which is located on an area of 175 km². Along with the geometric arrangement plan, horizontal vertical marking plates were also designed at these intersections. Before the regulations, traffic counts were made at the intersections and the streets were monitored with camera images. In addition, one-way and two-way traffic directions of the streets have also been rearranged.

Keywords: Highway regulation, junction, intersection, pathway, parking pocket, crosswalk, traffic signs

INTRODUCTION

In this study, the intersection points and road arrangements of 3 streets in Bafra district are discussed. These streets; Cumhuriyet Street, Ishakli Street and Yaka Cami Street. Geometric arrangement work, traffic direction arrangement of side streets and horizontal vertical traffic markings were designed at 2 intersections located at the intersection of these 3 streets.

Before starting the project studies, traffic counts were made on these 3 streets, and the zoning map plans were examined in the computer environment. As a result of the analysis of the traffic counts and the examination of the zoning plans, the need for regulation in these streets arose.



Figure 1. Cumhuriyet Street, Ishakli Street, Yaka Cami Street Satellite Image

EDITING IN HIGHWAY GEOMETRY

Before making geometric arrangements at intersections, it is necessary to know some dynamics of that city, that district, that road. Driver and pedestrian behavior is very important in this. Every country, every city, every region's driver and pedestrian behaviors are different and this creates a unity within the system. In other words, I believe that before narrowing or widening a road at an intersection, it is necessary to drive as a driver on that road. Bafra district is one of the rural districts of Samsun. Its industry and agriculture are still growing. However, there are many rural neighborhoods in the

district. There are journeys from these neighborhoods to the center of the district. As a result, the driver in the rural area and the driver in the district center are now integrated.[3]

The zoning plan of the roads and side streets at the intersection of these 3 streets has been examined. It is aimed that Cumhuriyet Street and Ishakli Street will be added to two-way traffic, and Yaka Cami Street will be arranged with one-way traffic.[4]

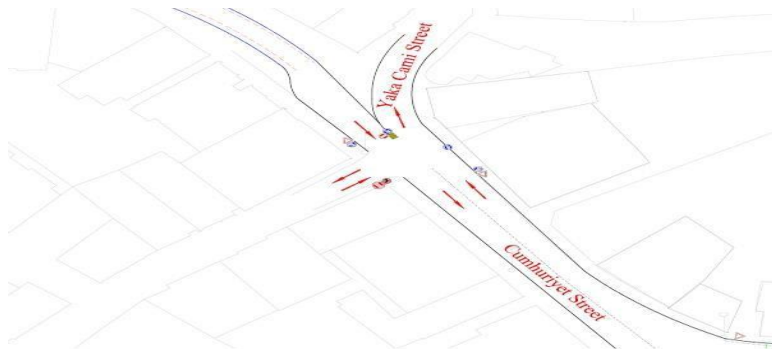


Figure 2. Zoning plan on 3 Streets

In the traffic counts made at the intersection of Cumhuriyet Street and Ishakli Street, two-way left and right turns are intense, so it is foreseen to build 1 intersection island at this intersection. Landmarks and traffic signs have also been designed specifically for this intersection. This intersection is planned as a non-signalized at-grade intersection.[12]

Pedestrian crossings with a width of 2 meters have also been designed on the island built into the intersection.

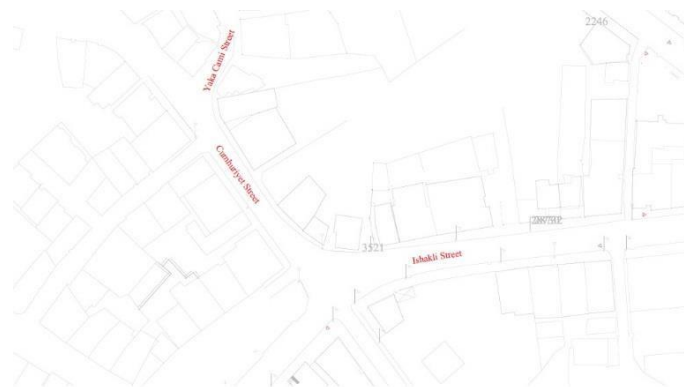


Figure 3 . Development Plan of Cumhuriyet Street and Ishakli Street Intersection Before the Arrangement

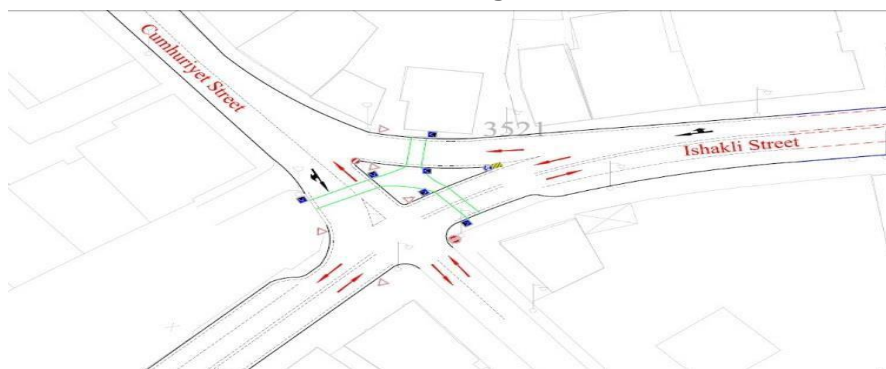


Figure 4. Arrangement at the Intersection of Cumhuriyet Street and Ishakli Street

PROJECT WORK

At the same time, the intersection of Cumhuriyet Street and Yaka Cami Street was also arranged. A one-way traffic arrangement is planned from the direction of Cumhuriyet Street to the north of Yaka Cami Street to the south. Yaka Cami Street, on the other hand, is planned as a one-way to the north. Traffic signs and traffic directions at this intersection have been designed.[11]

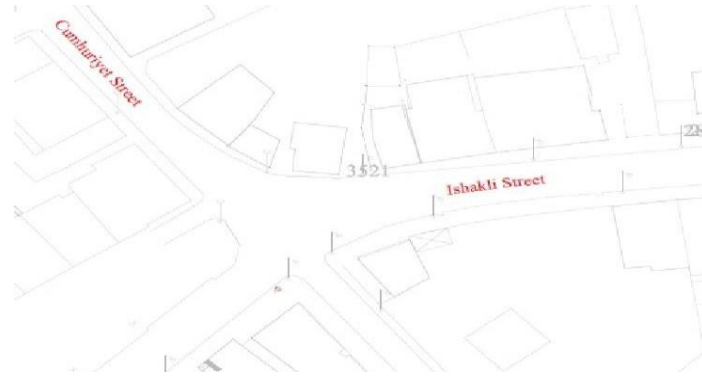


Figure 5. Arrangement at the Intersection of Cumhuriyet Street and Yaka Cami Street

CONCLUSION

In this study, arrangements were made at 2 intersections at the intersection of 3 streets (Cumhuriyet Caddesi, Ishakli Caddesi, Yaka Cami Caddesi) in Bafra district of Samsun province. These regulations have been arranged together with traffic counts and detailed on-site analysis studies. As a result of the zoning plans analysis, geometric arrangements were designed at the intersections.

At the same time, lane widths, pavement widths, traffic one-way and two-way regulations, pedestrian crossings, road traffic signs were also designed. It has been submitted to the district municipality and will be implemented on-site as soon as possible.

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