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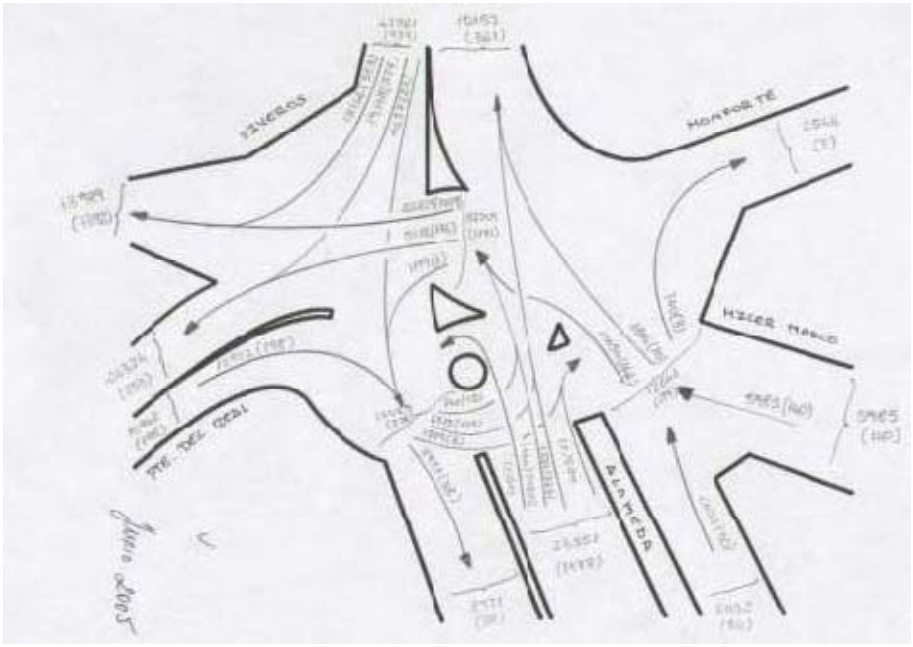
ROADS TO RESPECT PROGRAM

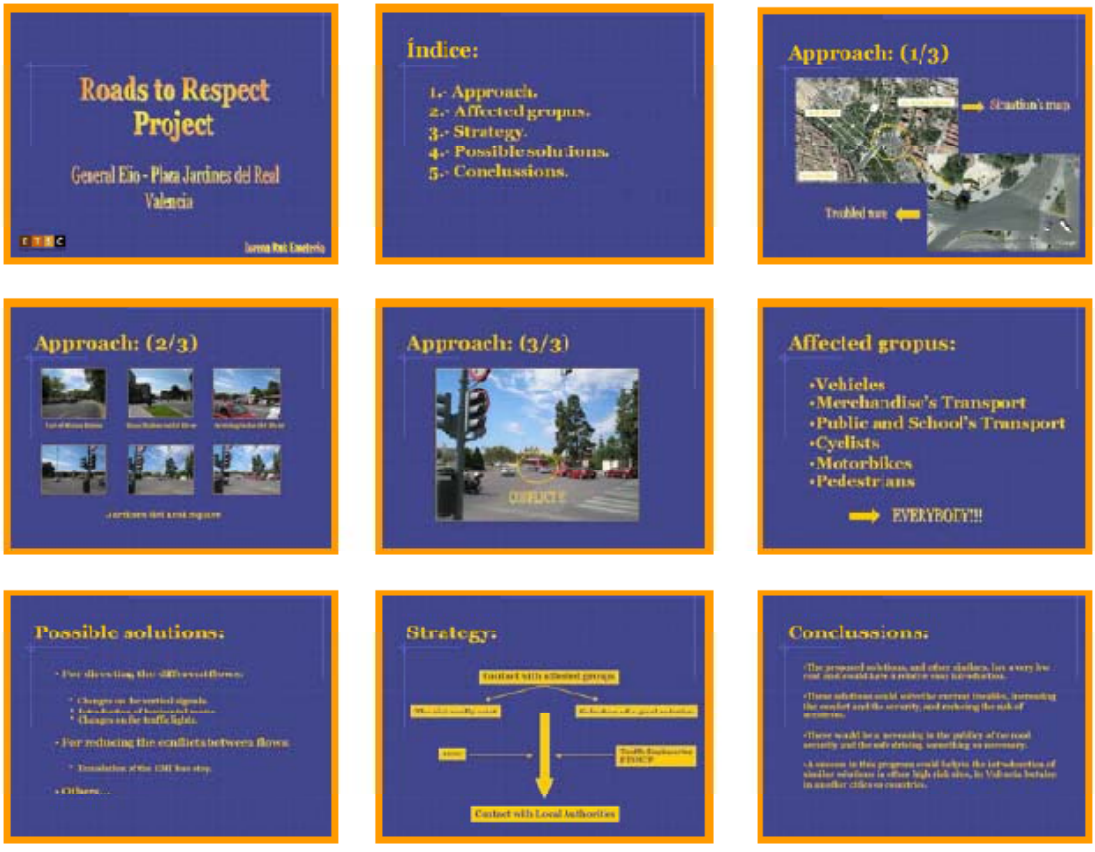
JARDINES DEL REAL SQUARE - VALENCIA

DESCRIPTION OF THE SITE AND HOW I IDENTIFIED IT

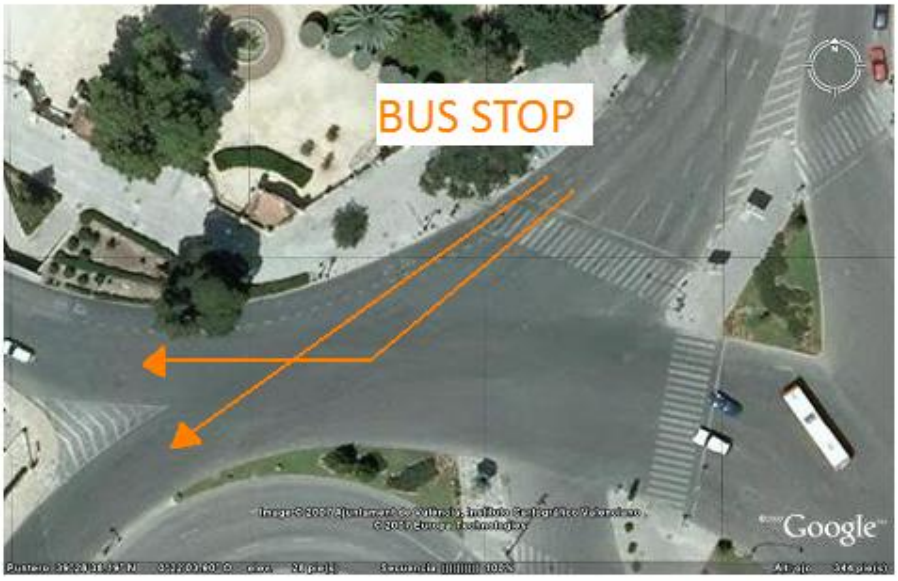
The high risk site I propose is a complicated junction in the centre of Valencia. It carries some of the main traffic flows of the city. I identified it asking people for a high risk site. A lot of them talked me about this site, the Jardines del Real Square. I had suffered it too. The junction connects avenues like Blasco Ibañez with the Boulevard close the old river and the old part of the city. Also connects the east part of the city with the west one. In the following photo you can see the situation of the junction. The graph bellow shows the medium flows inside of it (I get it from the Capacity's Department of the City Hall).



In the following presentation you can see the situation created in the zone. I did it for helping me to make advertising of my project.



The main problem is the mixture of the flows that come from Blasco Ibañez. The biggest flow of the junction. There are a lot of buses that stop at the bus stop and want to go straight by the bridge to the centre, but at the same time the greater part of the vehicles in the same direction wants to turn right. This situation generates a high risk inside the square, as you can see in the next photo I took.



After talking with some users of the different kinds of transport involved, the conclusion was that the problem affects drivers, bus users, bus drivers, cyclists, pedestrians… everybody!! Most of them wanted to turn the junction into a roundabout, and almost all wanted to move the bus stop, even the bus drivers!

STEPS I HAVE TAKEN

The steps I followed to fix the junction were:

1.- Field study: I went to the zone to take photos and make interviews to the different actors on the scene.

2.- Mails and letters to press, teachers and Local Authorities: I had no answer from press and teachers, but I got an answer from the City Hall.

3.- Contact with the Municipal Company of Transport (EMT) for trying to solve the problem with the bus stop.

4.- Contacts with Javier Soriano Ferriol, teacher of Traffic Engineering in the UPV and member of the Traffic Department of the City Hall.

5.- Designing solution: changes in traffic lights and use of little barriers.

6.- Interviews with Ruth López, Director of the Control Room of Traffic.

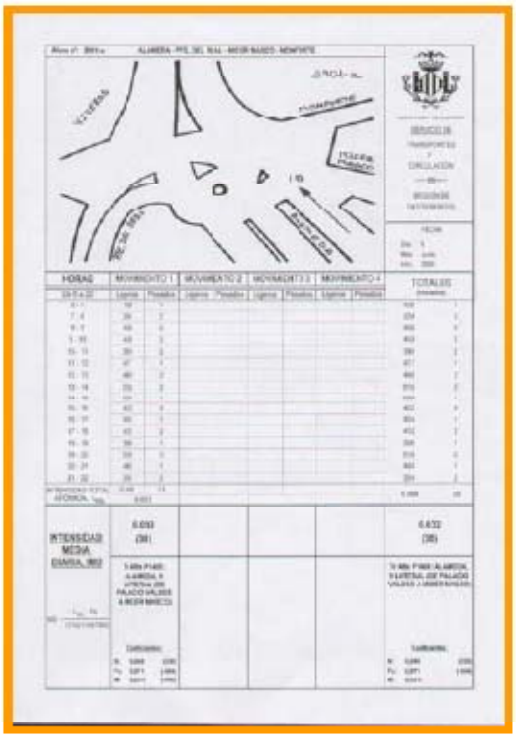
After all my visits to the main zone I started to send letters and emails to different places and organizations:

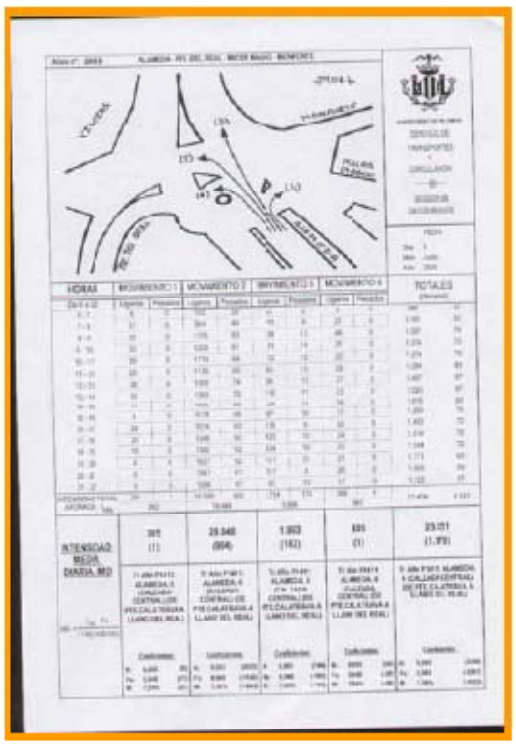
- I sent emails including my presentation and the news release from the ETSC to different press publications, but I never had an answer from them.
- The same with teachers. Only one who redirected me to another one called Javier Soriano Ferriol, teacher of the Traffic Engineering who has an excellent post in the Traffic Department of the City Hall. I had contacts with them later, but he didn't helped me so much, only some suggestions.
- And I made an official request to the Local Authorities with my project, asking for databases and other information or help. In a few days I had answer from the Capacities Department of

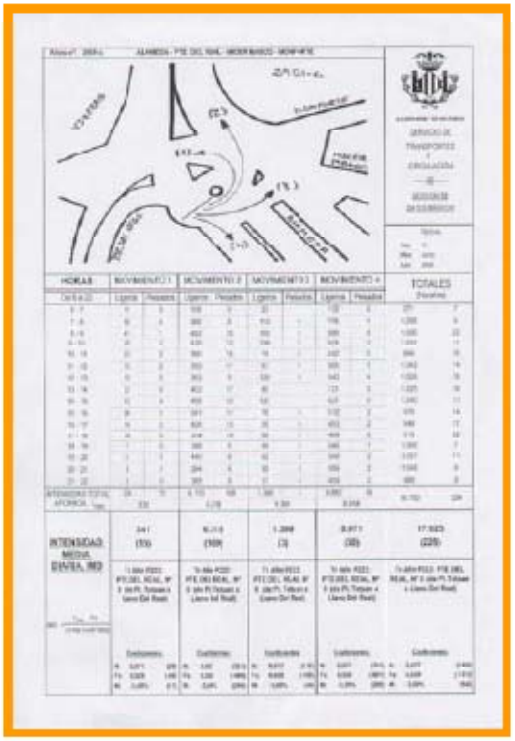
the Authorities. Samuel Sáez, Director of the Department started to collaborate with me sending me information on the traffic flows in the junction.

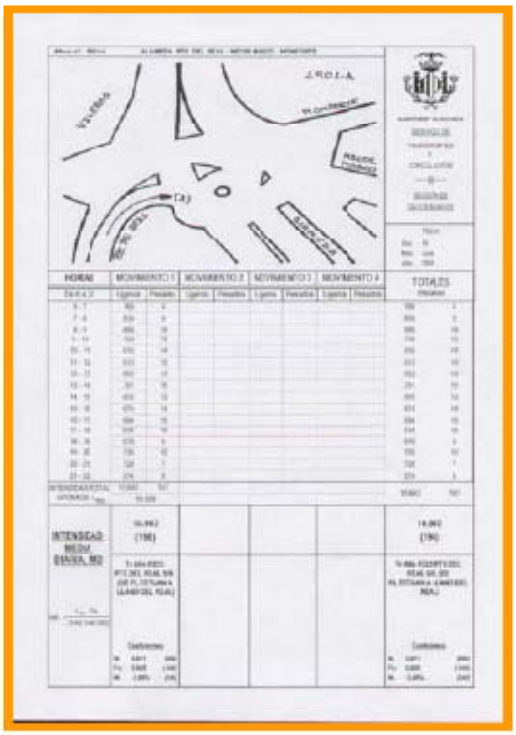
- Also I sent letters for some organizations of cyclists and pedestrians that I knew since a lot of time like 'Valencia en bici' (you can see www.valenciaenbici.net that collaborates with campaigns like the last one promoted by the Ministry of Environtment www.mejorconbici.com). They are very interested in my program, but, at the moment, they can only help me trying to find some person inside the authorities who can help us to make a bigger publicity of our intentions.

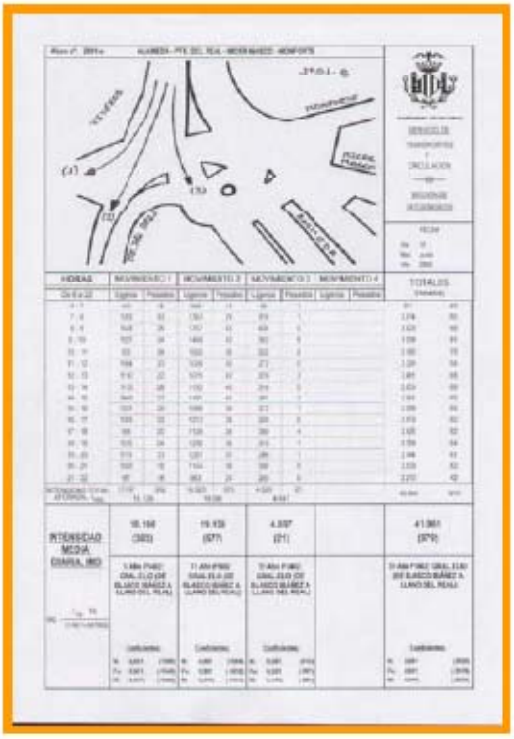
The problem of all the information from the Administration is that the available databases are so old, and there isn't any good information about accidents on the site (the local police is preparing a little database for me). You can see some of this information in the following tables, which show the medium intensities of the traffic flows involved in the junction (June 2005).

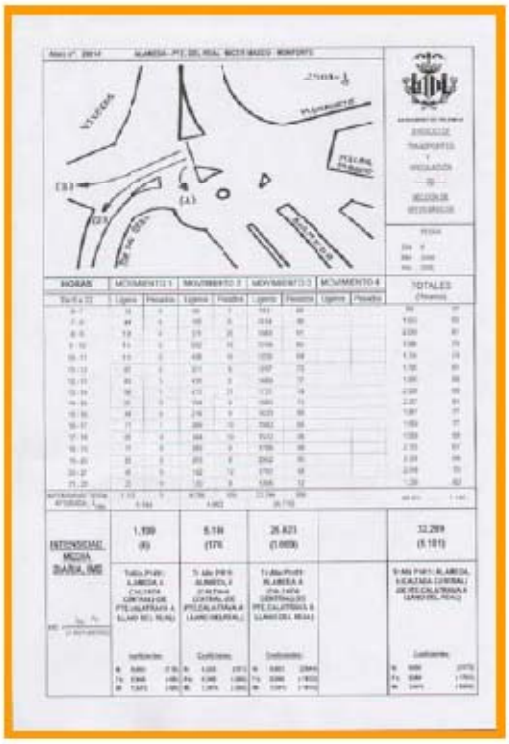


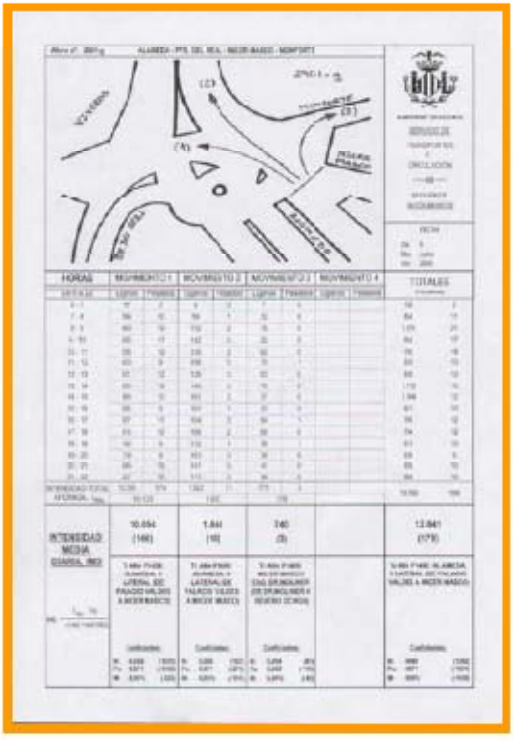












I started designing the engineering solution with this piece of information. Paying attention at the big flows, the logical solution would be to turn the junction into a roundabout, but I have known the Authorities have rejected the same request so many times for years (I don't exactly know why!).

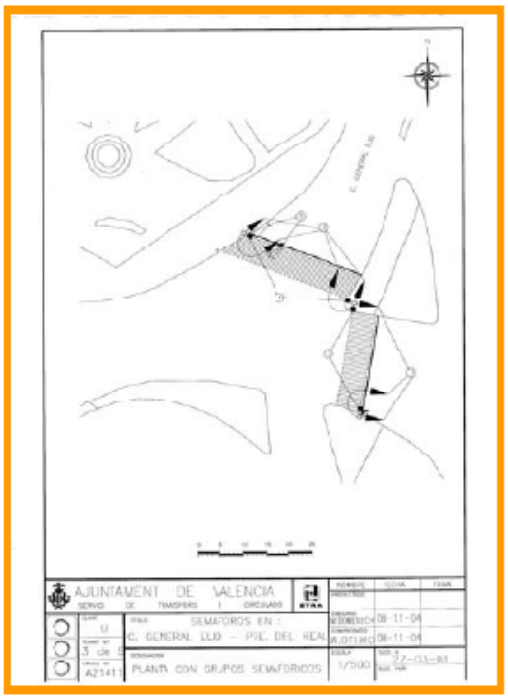
The second solution studied was to move the bus stop. If it is situated at the middle of the street, the bus will have enough distance to get into the line on the left for going straight. I talked with the teacher Javier Soriano about this idea, but he told me he is the person who won't authorize the change. The reason was there's a rule followed in Valencia that doesn't permit to locate a bus stop more than a definite number of meters from a pedestrian crossing. This rule prevents pedestrians from crossing by the middle of the street. A solution for this problem could be to eliminate the bus stop. In a few contacts by mail with the administration of the Municipal Company of Transport (EMT) it seems to be impossible to do that. I'm still studying the idea because I think the bus stops near it, at the end of Av.Blasco Ibáñez, is useful for that zone. The users of the bus and the bus drivers I have talked with think the same.

After this I found another solution: change the traffic lights turns. There are two possibilities: put a different turn for each direction or put a turn for the bus and another turn for the rest of the vehicles. At this point I started contacts with Ruth López, Director of the Control Room of Traffic.

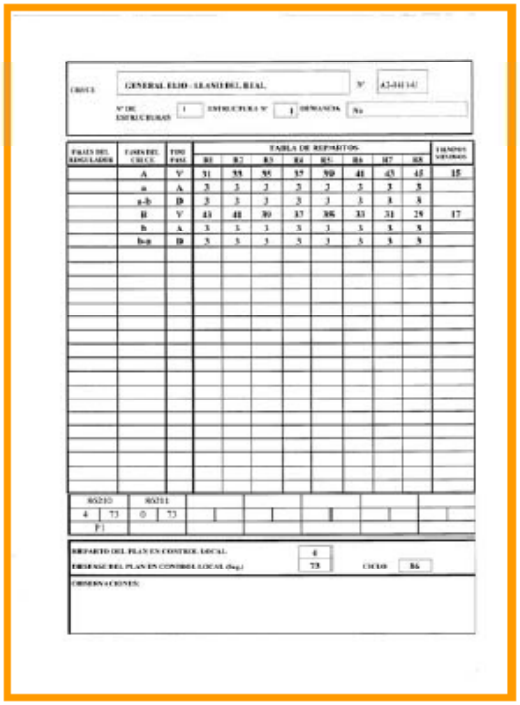
After a personal meeting with Ruth López and Samuel Sáez we concluded that the best solution seems to be to put a little island with a barrier in front of the bus stop to force the vehicles to be in their line. In the island there would be a traffic light only for buses. In this traffic light the green turn would start before the green turn of the traffic light for vehicles. With this solution the buses could clear the junction before the vehicles start to run, because with the capacities of the tables showed before I concluded that everytime the traffic light is red minimum one bus is waiting for green.

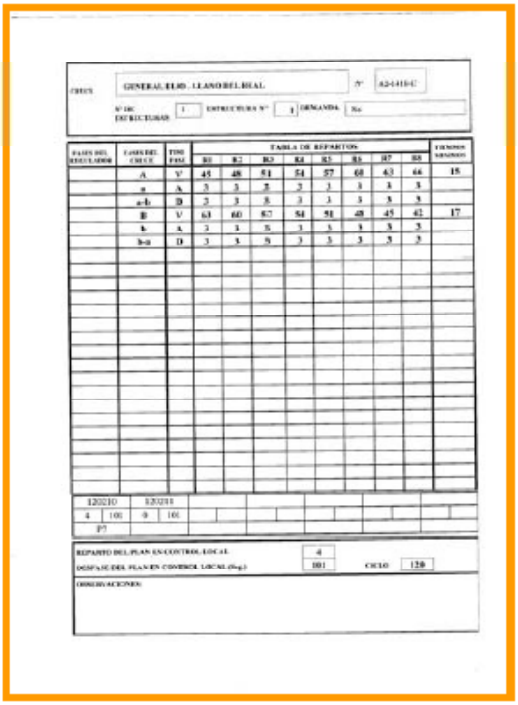
I thought to introduce horizontal marks, but in one meeting in the City Hall they explain me that there isn't any arrow because there are a lot of directions from that point, and the arrows could confuse the drivers.

In the next documentation from the Control Room you can see the current situation of the traffic lights.



The turns at the traffic lights, with the two cycles used in Valencia (86s and 120s), are the following:

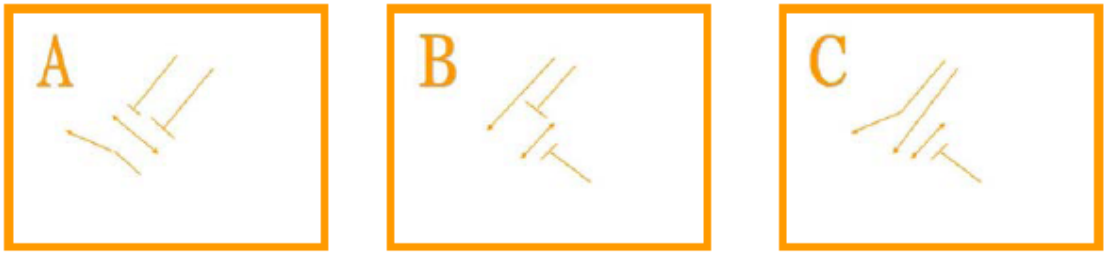




At this point, the members of the Administration I have talked with have invited me to present a formal request with my project!

Now I'm designing the new places and turns of the traffic lights, and also the little island and the barrier needed, attending to the capacity of the street near the junction. For this I have to study the rules applied in Valencia for these things, related to the minimum space for store the vehicles, the cycles of 86s and 120s needed, times for clears, and things like that.

The graphics bellow show the new turns in the junction:



I only have to fix the time for each of them. I have to calculate two situations: one for the cycle of 120s for days (more traffic) and another one for 86s for nights and weekends (less traffic).

Now I'm working in the design of the infrastructure: dimensions and situation of the island, type of barriers and kind of traffic light. The basic text for it is the 'Highway Capacity Manual – HCM 2000', used in Valencia also for urban traffic.

I will continue working on the solution and present it to the administration when it is ready.

For more information about the project you can contact the members of the Administration I met:

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