

City of Garden Grove

Review Comments on 90%???? Design plans for the OC Streetcar project.

The City of Garden Grove has conducted a review of the 90%???? drawings for the OC Streetcar project under design by the OCTA. The sets received did not include certain sections of Volume 2, although portions of the traffic control and landscaping were included from that volume, sections of Volume 3, 4 and 5. In addition, the city has not seen the specifications package for the project, nor has the water quality plan for this project been submitted for a review. With this third review, the city still has a number of concerns that should be addressed either by comment with the next return submittal, or should be reflected by further design and construction notes on the plan sets.

One of the questions raised by our review will be whether any survey plats, such as a Record of Survey, will be prepared for the properties where stops are constructed.

As this plan develops from 90%????, additional detailing and informational schedules need to be provided on the plan set for coordination during construction and management, especially to make sure that there is good coordination between the City of Garden Grove and the City of Santa Ana related to improvements adjacent to our mutual boundaries. These should include a listing of utility contacts for all impacted jurisdictions, a listing of jurisdictional reaches by station beginning and end with a key map and a schedule listing reaches and jurisdiction, contact listings for each jurisdiction for both the public and the contractor/contract management agents and signature blocks for impacted agency representatives.

Our previous 60% comments focused on primary general concerns, such as drainage, again more specifically related to the potential for hydro-modification along the alignment and the inlet/outlet points prior to interception of the drainage into regional facilities, but also in relation to drainage improvements at the station stop at Harbor Blvd, street improvements along Harbor Blvd. and Westminster Avenue, and the improvements along the Willowick Golf Course. As we noted before, the interception of existing drainage, including the diversion of drainage to points where drainage has not traditionally been directed, even when the flows remain in the same drainage areas, may pose problems the increase soils transport and erosion where it has not occurred before. Remediation of these conditions still needs to be analyzed and addressed in the design elements of the plans, as well as with backup analysis and/or calculations for comparison with existing and proposed conditions. The proposed Best Management Practices, both structural and non-structural, will need to be reviewed and accepted by the city prior to initiating the work. In addition, a Notice of Intent (NOI) along with Storm Water Pollution Prevention Plan will need to be made available to the City prior to permitting. The NOI number obtained from the state must be included on the plans prior to issuance of permits.

The General Notes on the plans need to clearly instruct the contractors and the agency field inspection teams as to the governing regulatory specifications that will govern the work in each jurisdiction. The City will want to review those specifications prior to signing off on the plans. The General Provisions and Special Provisions should be made available to review how the OCTA intends to incorporate the use of City of Garden Grove Design Standards, 2015 Edition and how they are employed and reflected in all construction notes, especially since the General Notes on the plan set are still very minimal at this

review. Also please note that the city has adopted the 2016 California Building Code, as well as the latest related codes for plumbing, fire and the Manual of Uniform Traffic Control Devices (MUTCD), California Edition. If possible, please include city specific provisions for public improvements that will be maintained by the city at completion of the work. If the design standards of the city need to be modified, please show the modified standard drawings, with all modifications of our standards, as a detail on the plans. General Notes for each impacted agency infrastructure that is being reconstructed or replaced needs to be included in the Volume 1 package.

Approval blocks for the plan sets need to be set up so that each agency is only approving those elements that are within, or adjacent to and part of a continuing structure or improvement along mutual boundaries. The notes on the cover sheet need to clearly outline the limitations of agency responsibility as appropriate.

Volume 1 Plan Set

It is our recommendation that the schedule used for the sheet index on Volume 1, and the first sheet of each succeeding volume, be expanded to show the relevant pages for each range of sheet names, such as AT01-02, pages 1 thru 2, or something similar. The size of this overall package and the variances between some of the sheet types and ranges makes some pieces difficult to find. Providing the page ranges will make maneuvering the package much easier during review and construction.

Again, the screen weight used in the drawings (all volumes) for existing culture and contouring was still too light to be of any use in identifying match up and mitigation needs. Please have your design consultants try to make all aspects of the plans clear and readable for future review and permitting.

Another consistent comment is identifying boundaries between the agencies clearly on all pertinent sheets. We have noted where these occur in each volume of concern.

On pages TA01-02 we noted that key wall details are missing from the set. These include 04 thru 06.

Sheets TA07 thru TA10, the city boundary line cannot be identified from the other lines shown.

Volume 2 Plan Set

On Sheet HG02, please show the city boundaries along the alignment for both Garden Grove and Santa Ana. This also affects succeeding sheets, such as RN04-05, CA06-07, etc.

On sheets CA01-02, we have indicated changes to the driveways called out so that the Garden Grove 2015 Standard B-120, Option 2 is used. We recommend that drainage features on the site be clear as to where surface swales versus subgrade piping is employed. The BMP structures should also be clear, and conveyed on the drainage plans in later parts of the volume sets.

Again, the screen weight used in the drawings for existing culture and contouring is still too light to be readable. Please adjust the screening for denser line weight to make it readable. All line work needs to be depicted in legends on the sheets where used (see sheet CA06), and where feasible, labeled as to ownership and status. Jurisdictional impacts need to be clear on every sheet. We also noted that there are still problems with overlapping text and screens on some sheets. As we indicated in our prior comments, the location of any monument controlling these boundaries, should be indicated if found or not found and whether it is to be protected, tied out, etc. The Geodetic Control and R/W Maps provides

those locations on a very small map, but the California Building Code, Section 107, clearly indicates that how the boundaries are established for the project need to be established by survey markers.

On Sheet CD07, there is supposed to be a detail for the Garden Grove C-8 curb, however we could not identify it on the details. (See sheet CN01). Please address this item on the detail sheet.

On Sheets QN16-17, please identify clearly where city boundaries are in relation to all work.

On Sheet QD01, the water quality details are vague, at best. Although the Landscaping Plan will address the vegetation, the plan we have reviewed at this time provides no guide to how the proposed landscaping functions as a BMP. Additionally, the city will some type of filter installation at the inlet to the undersidewalk drains to be installed along Harbor Boulevard and Westminster Avenue to treat water before outletting to the public street.

Sheets CU01, 04, and 05 needs additional location of city boundary designations.

Please add appropriate Construction Notes as used on each sheet of the Channelization Plan JN01-14.

On sheet JN14, add the IS Construction Note to the right turn only sign at the southerly driveway.

Volume 3 plan set

On sheet DN01 & 04, NN01 thru NN09 please identify city boundaries and label each side.

Please make sure all notes are complete on sheet NG01, NN01.

The screening on some of the sheets in Volume 3 is very light and difficult to read.

Volume 5 plan set

Sheet U-DBN02 (page 551), is the duct system being run through the bridge structure or is this to be an installation subgrade across Westminster Avenue?

On sheets U-OCSN02 t U-OCSN11 please make sure city jurisdictions are indicated.

On sheets U-TSN02 & U-TSN10, show City of Garden Grove above and below ROW limits.

Again, all sheets in this volume, the screening is too light to read for existing topo and contouring.

Volume 6 plan set

Again, as we commented before, due to the flat nature of key areas, it is unclear from the sections how adjacent improvements to existing function together with drainage, etc. Can this be clarified more effectively on these sections by showing across from ROW limits?

Traffic Control Volume

Segment 1, Stage 1, 2 and 3, sheets FN01-05; The city will expect traffic control for Harbor Blvd. during any work in the ROW, especially during frontage work along parkway, etc. See redlined comments. Sheets FN06-75 were not in the package. For FN76-77, the city will want to see written specifications governing the street closure for Fairview Detour. It will be helpful to have explicit instructions for noticing, both written to the public, as well as how all advance street notices are controlled.

Other sheets

Sheets LN01-0, 2, LN31-32, IN01-02 show city jurisdictions as noted in prior volumes.

General comments

As we had noted before, Geotechnical and hydrology/hydrologic findings and recommendations have not been provided with these plans. Backup documentation to show how drainage improvements are sized and designed to accommodate runoff needs to be provided. Also, areas where groundwater may be an issue, or dewatering for structural subgrade improvements needs to be addressed.

As noted in our opening comments, backup information, including specifications and other information critical to design elements should accompany further submittals as deemed necessary to provide adequate support for design.