

2022 IDM Webinar Questions & Responses

The 2022 Infrastructure Design Manual (IDM) webinar was held on August 22, 2022. It presented a high-level view of Houston Public works' (HPW) updates to the design and construction standards made during the 2021 - 2022 Standards Review Cycle. All questions asked during the presentation have been organized according to IDM chapter or standards category. Responses have been provided from HPW's service line experts. Helpful links to the webinar information can be found below.

Contact: HPWStandards@houstontx.gov

Webinar Video Part 1: <u>here</u> Webinar Video Part 2: <u>here</u>

2021-2022 Webinar Presentation: here

Design and Construction Standards Webpage: here

Date: September 20, 2022

Revision 0





COMMENT #	SECTION	QUESTION	RESPONSE
G-1	General	Will it be possible to get copies of the presentation slides for future reference?	Yes, a recording of this presentation and the slides will be made available on our website, under the Infrastructure Design Manual tab shortly after the event: https://www.houstonpermittingcenter.org/office-city-engineer/design-and-construction-standards#agency-links-1471
G-2	General	Has the 2022 IDM already been released?	Yes, the 2022 edition is currently available on the Design and Construction Standards website.
G-3	General	Will PDHs be provided?	We won't provide PDH certificates for today.
G-4	General	Do we need to meet the 2022 standards for projects that are currently at 90% design?	Capital projects that have not submitted a 60% review and Private/Public projects that have not submitted a substantially complete set of plans prior to October 1st, must comply with 2022 Infrastructure Design Manual (IDM) engineering requirements. 2022 Standard Construction Specifications and Standard Details are effective July 1, 2022 and must be used on all projects including the 60%, 90% and Mylar milestones. For more details refer to the executive summary, located on the first few pages of the IDM.
G-5	General	2022 standards meaning Engineering requirements or construction specifications?	Refer to G-7

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COMMENT #	SECTION	QUESTION	RESPONSE
G-6	General	Do we need to meet the 2022 standards for engineering requirements and/or construction details for projects that are currently at 90% design? To clarify, a 90% submittal to the city on 10/21/2022 will need to conform to the new 2022 standards, correct?	Refer to G-7
G-7	General	Can you clarify what you mean by saying projects in 60% submittals submitted prior to Oct 1 needing to follow new Standard Specifications, but not new IDM requirements? Did I mis-hear this?	For engineering design requirements, if the 60% was submitted prior to October 1st you won't have to comply with the new 2022 IDM requirements. The construction specifications are a different story, our construction contracts do require that the latest construction standard specifications be used on contracts when they bid. That's the reason the new standard specifications must be used and there is not a grace period for them. On a basic level, those construction specifications are construction requirements that affect the contractor and how infrastructure is constructed versus the infrastructure design manual requirements are engineering requirements for design and so new construction requirements may not necessarily impact design.
G-8	General	Do these updates include any of the current FEMA requirements?	No, this year's update didn't include anything from FEMA.
G-9	General	Does this apply for non-CIP projects?	Yes, non-CIP projects must comply with the new 2022 standards. Please review the executive summary for more details.

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COMMENT #	SECTION	QUESTION	RESPONSE
G-10	General	How do we get the redlined version of the manual? It seems the version on houstonpermitingcenter.org is the final version? Do I have to click the black lines on the left or am I in the wrong document?	There's a document that's on the Houston permitting website, on the Standard Review Committee sidebar on the left. Also you can follow the below link: https://www.houstonpermittingcenter.org/media/6496/download
G-11	General	Where can we get City organization charts?	Houston Permitting Center (HPC) is working on organization charts. We'll post them to the website soon. Right now we have our phone list for all the plan review sections which gives you a hint of what our org chart is, but we'll work on a more visual display to better clarify how the Houston permitting center works with our various partners and departments.
G-12	General	What is the difference between this COH IDM, and COH Code of Ordinances, where each should be applied, and are they interchangeable?	They are two different documents. Code of Ordinances is approved by City Council, whereas the IDM is design requirements that are approved by the City Engineer and the Director of Public Works. There may be some overlap between the two. Our goal in Design and Construction Standards group is to refer to the Ordinance instead of spelling out the requirements if they're in the IDM. That way we don't have a disagreement there. The Code of Ordinance could be considered as City law, where the IDM is a set of design requirements and they should not conflict with each other because we wouldn't want to conflict with the City law.
G-13	General	What is the limit of the application in relation to Harris County Regulations, COH Boundaries or ETJ?	This questions is very broad. We recommend that you work with your City of Houston contact/representative for project specific questions for limits of application of the City's requirements.

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COMMENT #	SECTION	QUESTION	RESPONSE
G-14	General	Is there a variance process to the IDM?	For privately/publicly funded projects as defined in the IDM, variances shall be submitted to the Office of the City Engineer. You can find the IDM variance request forms for both City funded and privately funded projects on Houston Permitting Center website, by going here: https://www.houstonpermittingcenter.org/media/3906/download For projects with design contracts with the City, you have to follow a different process through the Capital Projects group.
G-15	General	Does COH plan on giving a presentation on document 00700 general conditions like you guys have for the IDM?	Houston Public Works does not plan to set a webinar for 700 document through the Office of the City Engineer by Design and Construction Standards Group.
G-16	General	2022 standards meaning Engineering requirements or construction specifications?	Refer to G-6
G-17	General	When will other IDM chapters be updated?	Chapters 15, 16, and 17 will be updated in the 2022-2023 review cycle. Chapter 9 will be updated in 2023-2024 review cycle.
G-18	General	How many requests for changes did the City receive for this review cycle?	We Received over 260 request for changes for the Review Cycle Standards.
G-19	General	Can the public request off-cycle changes to the Standards?	We don't address requests for changes from the public for standards that aren't up for review for the year. We do, however, make exceptions for public health and safety, in which we would forward that request to the appropriate service line for guidance.

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COMMENT #	SECTION	QUESTION	RESPONSE
1-1	Chapter 1	This means As-Built drawings will be required from now on to present to the COH and OCE?	The As-built drawings and Record drawings were updated in Definitions part of Chapter 1- General Requirements to match the City's Design Contract to use the similar terminology, and so that follows the same requirement with the design contract. Record drawings have always been required to be submitted to the City. This hasn't changed, just the terminologies.
1-2	Chapter 1	Is Final Design Stage a defined term?	Final Design Stage is not defined in chapter 1, although there are requirements for that stage in chapter 1. In the City's Design Contract, the final design stage is described and refers to 60%, 90% and Bid Ready Drawings. In Contracts for private development projects, Final Design means the drawings are complete and just need permitting approval on that design.
1-3	Chapter 1	Why contract and IDM are merged for Chapter 7, for Record drawings? will it be done to other chapters too?	The City's design contract requires the Contractor to submit "As-Built" drawings within a certain timeframe. The terminologies "As-Built" and "Record Drawings" are commonly used interchangeably by the industry. In an effort to align the IDM with the terminologies in the City's design contract, "As-Built" Drawings" will refer to construction contractor supplied drawings, while the term "Record Drawings" will used to refer to the drawings submitted by the Engineer with as-built modifications captured. Refer to IDM Chapter 1 for the defined terms. IDM Ch. 7 term was corrected based on these terminology updates. Updates to other chapter regarding these terminologies will be carried out in the coming review cycle years.
1-4	Chapter 1	When you say following the design contract are you referring to Public Works design contracts?	Yes.
1-5	Chapter 1	In the new definitions: Project Manager is the City Representative that manages the EOR for private development? Or public development?	The Project Manager term is defined in Chapter 1 as the City representative who manages the project and that's for City project specifically. For private developments, the Project Manager would be the Engineer of Record (EOR) and it's spelled out there in the definition section in Chapter 1.
1-6	Chapter 1	Will recorded plats be required in the ETJ?	The verbiage in the IDM was left the same and this requirement is currently being discussed within our departments for a future update.

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COMMENT #	SECTION	QUESTION	RESPONSE
1-7	Chapter 1	that the Office of the City Engineer uses? It	With ever changing technology, we kept the term electronic plan review in the event the system changes. Currently, the system is called ProjectDox and you can access it through HoustonPermittingCenter.org and then clicking the e-services tab.
1-8			Planning Department approves the plats. Office of the City engineer (OCE) is a partner that reviews the plats submitted to Planning Department.

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COMMENT #	SECTION	QUESTION	RESPONSE
2-1	Chapter 2	Does the City use a low distortion projection system?	Currently the city does not use a low distortion projection (LDP) system. However, a low distortion projection system has been defined for the Houston metro area as part of the new state plane coordinate system (SPCS2022). We anticipate using that LDP once they are officially released and adopted by the City of Houston.
2-2	Chapter 2	Does the Chief Surveyor review during process of the preliminary plat submittals? or is this a separate review?	They will be routed through Plat Tracker. No additional process.
2-3	Chapter 2	When will the city move to the new State Plane Coordinate system? It should be out soon.	Once the new system is officially released by the National Geodetic Society, we will determine how to phase it in. At that time, we will change the Code of Ordinances accordingly.
2-4	Chapter 2	Why has the limit for survey increased for proposed ROW? What if we can't get access?	1)The limits were increased to capture more information to be used in appraisal. 2)The IDM specifically says "where accessible". Right of Entry may need to be arranged.
2-5	Chapter 2	Why do surveyors have to submit the same CAD files they send to the Engineer of Record (EOR)?	So we have a record of what the surveyor produced without any changes made by the Engineer of Record (EOR).

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COMMENT #	SECTION	QUESTION	RESPONSE
3-1	Chapter 3	What happens when the revisions, delete a requirementsuch as changing from 12" to 6"doesn't COH require the EOR to apply for a variance?	The City Engineer's office would require a variance for these types of modification.
3-2	Chapter 3	Do the drawings need to reference calculation sheets for items such as federally funded projects?	For projects under the City's jurisdiction, references to calculations sheets must be as required by the appropriate section of the IDM and City engineer. Drawing requirements for Federally funded project requirements must also be upheld. Please work with your City of Houston contact person for guidance on your project specific inquires.
3-3	Chapter 3	How come the color templates didn't consider matching up with the https://texas811.org/utility-color-code	The standards review committee (SRC) decided not to use the Texas Utility color code to define the color of existing utilities on drawings. The SRC chose colors to match the colors used in GeoLink, the City's GIS system. This was done so that it would be easier to compare existing utilities shown in GeoLink and on the drawings.
3-4	Chapter 3	Is there any thought to going to national CAD standards and not a color table?	We have noticed that AutoCAD's RGBs don't match the national CAD standards table AutoCAD index in some cases. AutoCAD .DWG is currently the drawing format accepted by the City on its engineering design contracts. That said, the AutoCAD color index was selected to present the color requirements. However, to help those that use other CAD software, we have updated our CAD tools to include the RGBs for the existing utilities required to the be in color.
3-5	Chapter 3	What happens to the original PE who signed the dwgs? what happens to the next MOD?	HPW coordination pending; please check back for update.
3-6	Chapter 3	The current COH dwt file has the wrong unit setting for Civil 3D - the units are international feet	Thank you for this observation, we'll review the template and make modifications as required.
3-7	Chapter 3	How will City of Houston handle 3-D models.	Currently the standard details for the City are in 2D and the IDM requirements are based on 2D drawing requirements. 3-D model requirements have yet to be established by the City as a whole.

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COMMENT #	SECTION	QUESTION	RESPONSE
3-8	Chapter 3	Do we need to show existing utilities (survey) in color (color code) or just black and white?	Please provide more context regarding this question, please e-mail the Standards Review Committee at HPWstandards@houstontx.gov
3-9	Chapter 3	When will the City post all .DWG files on the HPC website?	The city intends to add the .DWG to the website as we work through each review cycle and therefore it may take up to about five years to complete that task.
3-10	Chapter 3	If there are any errors identified in the City's CAD tools, who to we contact for correction?	Please send your requests to the Standard Review Committee (SRC) inbox. These tools are evolving and can be corrected as needed. New proposals however will have to wait until the next time chapter 3 shows up in a review cycle.

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COMMENT #	SECTION	QUESTION	RESPONSE
4-1	Chapter 4	Will an exception to the plat requirement for plan approval be allowed for projects that are in the JRC process?	No exceptions are granted for JRC process and a plat is still required.
4-2	Chapter 4	Are there advantages to processing street ROW dedications via 584?	Where Right-of-Way (ROW) dedication is required by separate instrument (development plats), the process was very similar to a mini-project. An ESA was required, approved metes and bounds and survey, title reports, title curative, any necessary recordings and it was at the expense of the grantor. By doing the dedication via 584 process, the process is truncated. Metes and bounds and survey still need to be approved and Legal approves the form of the easement. Once those are complete, we record the dedication easement.
4-3	Chapter 4	What is the significance of the city boundary in 1870?	It is the boundary of the official map of the City of Houston and contains the street reference monuments defined in chapter 2 of the IDM. As such those street reference monuments are used to reconstruct the location of our Rights of Way.
4-4	Chapter 4	Where can I find the 584 form to submit to the City?	Use the following address and search 584 form in the search box: https://www.houstonpermittingcenter.org/resources

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COMMENT #	SECTION	QUESTION	RESPONSE
5-1	Chapter 5	I want to confirm that asphalt parking can be constructed on top of a water line easement.	In this case, an encroachment application for "Consent to Encroach Over City Easement" must be completed and submitted with original signatures for processing. Please refer to Easement Encroachments tab under the Engineering Services Group on HPC website for more information: https://www.houstonpermittingcenter.org/infrastructure-development-services/engineering-services-group
5-2	Chapter 5	When you have a water line behind the curb and a storm sewer parallel behind the water line how do you fit both in front of the building line when most building lines are no greater than 25'. Does the city now allow overlapping easements?	Water line easements are dedicated only to water lines. The IDM doesn't allow overlapping easements. The Engineer of Record (EOR) shall design utility alignments that meet the IDM requirements and any variance to the IDM will need to be submitted for approval.
5-3	Chapter 5	All-Weather Access is mentionedis there a minimum width that the driveway needs to be?	The minimum width for the access roads and driveway are variable based on vehicle access needs to properly maintain and operate the facility. That said, it is recommended to work with your City project manager/contact on a project by project basis for minimum requirements.
5-4	Chapter 5	Are existing fire hydrants located in a water line easement required to be relocated if the property is being submitted for a site development permit?	There are many variables in consideration of this question. We request that you work with your City contact person to discuss project specific site development permit requirements.
5-5	Chapter 5	Does existing 10' WLE need to be upgraded to 15' WLE when an existing 12" water line or smaller must be replaced in a reconstruction project?	Yes, the proposed water line must meet the current IDM.
5-6	Chapter 5	Is Telecom equipment allowed within COH utility easements?	No other utility will be allowed in a water line utility easement unless approved via an easement encroachment request.

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COMMENT #	SECTION	QUESTION	RESPONSE
5-7		· · · · · · · · · · · · · · · · · · ·	Easement requirements are required for areas set aside for installation, operation, and maintenance of utilities by public and private utility operators. That includes easements located in the ETJ.
5-8	Chapter 5	Side-lot easements seem to be allowed for water lines if they eliminate a dead-end. Will the city allow back-lot easements for water lines?	No, back-lot easement are not allowed for water lines.

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COMMENT #	SECTION	QUESTION	RESPONSE
7-1		requirements for a combined water meter that serve as domestic and fire water lines? (We're getting conflicting comments from different reviewers on different projects.)	The IDM requirements are intended to protect the public and any public utilities (i.e. publicly maintained and owned infrastructure) and so the public reviewers in the City Engineer's office are most likely asking for an RPZ for these types of connections. This is to protect the public system from any cross-contamination from the entire private development. Building Code Enforcement, the group that reviews only within the private property, may be looking at more isolated backflow prevention to each building so they may be asking for different backflow prevention as it relates to that type of protection.

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COMMENT #	SECTION	QUESTION	RESPONSE
9-1	Chapter 9	9.2.01.H.2.c It says if you disturb/improve even a tiny piece of a City alley, then you need to provide detention for the entire alley, is that block to block. Can you put the detention in the City alley way? Even for one home in the middle of the block you need detention?	It is not a statement in Section 9.2.01.H.2.c., this review cycle, <u>no</u> change and modification applied to the detention or impervious area calculation of alleyway. In respond to this question, it depends if the alley is a public alleyway or private alleyway. For the private alleyway if you have detention, you can put it into the private alleyway for your detention. For the public alleyway we don't recommend to do that, so you have to keep your detention in your private property. For one home in the middle of the block, Yes, detention is always required, If you have any impervious area, you must provide the detention.
9-2	Chapter 9	9.2.01.D.4c states fences cannot be built across a drainage easement. Why is that if you do underground detention only and all of it is tied into the underground system, so no sheet flow where fences would be. (For easements: the fence doesn't impact the drainage, but excavation to maintain the underground drainage/detention would require all obstructing structures above ground to be removed.)	This question is unclear, but in general you couldn't build your fence across easement. No sheet flow is allowed from one property to another property or to the City Right-of-Way. You have to detain your sheet flow in your private side.
9-3	Chapter 9	Does the new rule apply for any Single Family Residential (SFR) lots in subdivision?	No. This change is not applicable for the subdivision detention calculation. There is a separate calculation for subdivision detention.
9-4	Chapter 9	If each lot is a different size, do we divide shared/common driveway proportionally to calculate impervious area?	No, it will be divided equally.
9-5	Chapter 9	Is there a guide to help me calculate storm detention?	Yes, a couple of weeks ago we posted some detention calculation examples over HPC website. Use the following link to download the document titled "Detention Examples FAQ_Final_20220722": https://www.houstonpermittingcenter.org/media/7031/download

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COMMENT #	SECTION	QUESTION	RESPONSE
13-1	Chapter 13	Does geospatial submittal require for all CIP projects?	Yes.
13-2	Chapter 13	Who is responsible for submitting the file geodatabase?	The Engineer of Record (EOR) is responsible for submitting the file geodatabase. See sections 3 and 5 of chapter 13 for more details on GIS data collection and deliverables.
13-3	Chapter 13	When will the new deliverable process take effect?	The new deliverables process has already taken effect. The webpage is up and running, ready for submittals at any time. The requirements for electronic deliverable submission will go into effect when the 2022 IDM takes effect.
13-4	Chapter 13	What software should we use to create the file geodatabase?	There's actually no need to create a file geodatabase for yourself. You have to download a file geodatabase template for the different datasets from the new electronic deliverable site, load your data into the geodatabase template, Go back to the site where you can find a link that would allow you to upload those files or databases containing your data for your project.
13-5	Chapter 13	Are geodatabases required for private projects?	Per chapter 1 of the IDM, GIS data deliverables are required for projects that are proposing or modifying assets identified in Chapter 13 that are or will be operated and/or maintained by the City.
13-6	Chapter 13	How often will the guide be updated?	The guide will be updated on an as needed basis. Updates for the guide won't follow the standard review cycle like the IDM will. The goal is to communicate specific changes in the schema and the feature class information to the public as soon as they occur.

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COMMENT #	SECTION	QUESTION	RESPONSE
13-7		later on? either about chapter 13,or the new properties guide or the deliverables	For questions about the documentation presented here either chapter 13 or the new properties guide, email: HPWStandards@houstontx.gov For questions regarding GIS data, specific schema, or questions related to the deliverable process, email: GeoLinkCustomers.Help@houstontx.gov
13-8	Chanter 13	infrastructure currently in chapter 13 of the	All GIS requirements for private and public GIS data are located in chapter 13 of the IDM, and now in the newly created properties guide and between those two documents you should be able to find all the information on the GIS requirements.

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2022 IDM Webinar Questions/Responses Section: Specifications

COMMENT #	SECTION	QUESTION	RESPONSE
S-1	General	Is public works going to update the City of Houston Division 0 and Division 1 to the current CSI numbering format?	Design and Construction Standards group is aware of CSI's updated numbering format. There are other departments within the city that use the updated format, although discussions have been happening within the City, we are not looking to update numbering yet. Once there's an agreement between our departments, this could be considered for updates in the future.
S-2	Guide Specifications	Do you maintain the guide specification in HPC's website? Where do we find details of every guide specifications?	Design and Construction Standards Group does not maintain Guide Specifications. The Guide Specifications are maintained by capital Projects. We help them by providing a table of contents on our website to inform public of the Guide Specifications that are available.
S-3	1581	The construction sign spec. 01581- Excavation in public way permit sign, doesn't mention measurement of payment, should we pay for it under mobilization bid item during construction?	The total compensation for required unit price work shall be included in unit price bid in Document 00410B. If the work is not included on Document 00410 – Bid Form, include the cost for construction of such work in unit price for other related items.
S-4	General	Is this the first year the Engineer of Record (EOR) can change a standard spec.?	The standard specifications can be modified by the Engineer of Record (EOR) as a project specific supplement to that specification. Work with your City Project Manager for signature and acceptance of supplements. Process for design projects through the City requires a signature from Capital Projects.
S-5	Guide Specifications	Were there any Guide Specifications updated this review cycle?	No, this year no Guide Specifications were updated through the review cycle process.
S-6	General	How many specifications were updated this year in total.	This year a total of 12 Specifications had Major updates. Although, Many of the updates were in division-1 specifications, there are Div. 2-16 specifications such as Microtunneling that were updated as well.

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2022 IDM Webinar Questions/Responses Section: Specifications

COMMENT#	SECTION	QUESTION	RESPONSE
S-7	2441, 2445	Do the updates to 02441 and 02445 change the payment terms for sanitary sewer installations?	The payment term for both specifications has not changed. The Payment for line installed would be per linear foot.
S-8	2441	Does the updated Microtunneling specification cover Curved Microtunneling installations?	As the industry has evolved for the last 20 years, curved Microtunneling installations are used especially in the North America. City of Houston has used curved installation for 60-inch HOBAS pipe in one of it's projects as well. As part of design, we are not planning to design a project at this point with a curved Microtunneling, however, we will be open to value engineering to be submitted or contractor can propose, if that's something they can do as part of a project.
S-9	2441, 2445, 2447	Can the method of installation be changed or modified during construction?	The purpose of this amendment to the specification is to limit some of the changes we have been seeing in construction. That was the whole purpose of modifying the specification. At least we can provide clear direction during bidding for contractors to bid accordingly. That means if it is a Microtunneling installation, it will stay as Microtunneling installation. If 2445, Jack and bore, Jack and mine, pilot tube specification is referenced for installation, that can be done with those specific equipment as well. But sometimes contractors propose a value engineering to eliminate some additional shaft or to minimize impact to the public. We will be open to review any proposed changes during construction, but it is strongly recommended that contractors follow the general condition in which they do have only 90 days to submit proposals for review and approval.
S-10	2441	Does it require a specialist (licensed contractor) to work on Microtunneling construction?	Yes, this is a very specialized installation and those contractors who qualify shall have the resources and experience to do the job. City of Houston don't pre-qualify contractors, but it is strongly recommended that the contractors with similar past work experience bid projects with microtunneling installations.

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COMMENT #	SECTION	QUESTION	RESPONSE
D-1	1582-01	Why wasn't the other construction identification signs standard details retired?	Other COH departments, not including HPW, may require the other construction identification signs. That's why they were not retired.
D-2	1582-01	Two sizes are proposed for Build Houston Forward sign; who decides what sign size shall be used?	The engineer of record will decide the appropriate sign size for each project.
D-3	1302 01	Re-build Houston sign, and Build Houston	The main visual change that can be identified easily is the difference between the shapes of the signs. The previous sign was rectangular, but the new sign is circular and has a QR code to the Build Houston Forward website.
D-4	1582-01	Is the sign made by a private fabricator, or will the sign be made by the City?	The sign will be made by the City. The sign coordinator will coordinate all the details and the contractor shall receive it from the City shop.
D-5	General	I'm guessing that 3D models as details are not part of the current manual as drawings are DWG in 2D	Currently the standard details for the City are in 2D and the IDM requirements are based on 2D drawing requirements.

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