

# Redesigning DC's Permit Process: reducing review times by 10 days: A joint project of DCRA and AIA|DC

## Executive summary:

AIA|DC responded to a specific charge from DC to review to Job Class C+D and to address the most common mistakes. These permits are in the 1,000 – 4,000 square foot range and are the class of permits that have the most mistakes.

1. The first group of mistakes had to do with missing information from the **intake process**. AIA|DC recommended that the fields be made mandatory and that a question about the numbering and labeling conventions required by DCRA be added.
2. The **scope of work narrative** is often incomplete so we suggested a series of drop down menus described in detail within this report.
3. With the help of DCRA reviewers and other professionals we were able to suggest some specific changes, which at face value look small but have larger implications to speed up the entire permit process
  - a. Neighborhood notification
  - b. Snowdrift calculations
  - c. Accessory dwelling units and sprinklers
  - d. Backflow
  - e. Knowledge base
4. **Plans Index**. This will provide a table of contents for the plans so reviewers can easily find the plans for underpinning etc. or what fire code people are using. This will take hours off the review process.

## Introduction:

For several years the Washington Chapter of the American Institute of Architects (AIA|DC) has been working toward reducing the amount of time it takes to get a building permit. The slowness of DC's permit process is of great concern to the Chapter because it is not only frustrating for our members, it has become an impediment to economic development. The system is unpredictable, forcing builders and developers to have contingency budgets to handle the carrying costs of a project while they wait months, even years, for a permit. The city doesn't benefit because slow permitting delays the revenue from property taxes that new development would bring. In fact, nobody wins in this process; it raises the cost of everything in the city. It is entirely possible to reduce the cost of housing by fixing the permit process.

The Chapter has put forward several initiatives to improve the plans that our members send in to DCRA, chief among them is *The Bridge*, which lays out a very clearly documented design process that can help speed review as well. AIA|DC has received technical support from the National component of AIA and a grant to document this process from The Victor O. Schinnerer company, Inc, the CNA Insurance Companies and the AIA Trust, providers of AIA Trust Professional Liability Insurance and the Clark Construction Group.

Significant strides in customer service have been made since the arrival of Director Ernest Chrappah, but some underlying structural issues in the permit process still need to be addressed. In May 2019, the Chapter was asked by DCRA to work on a project to streamline the most problematic permits, those in the 1,000 to 4,000, known as Job Class C+D permits. These permits tend to have the most HFCs (Hold for Comment in DCRA lingo) and are often end up getting kicked back and put through multiple reviews. Along with asking AIA|DC to look at these particular permit classes, DCRA provided us with seven categories of the most frequent mistakes in these plan submittals (see Appendix A – DCRA Top 10).

The following report is in two parts. The first part outlines the process we went through and the conclusions from that process. The second part more specifically outlines where these changes might fit into DCRA’s current online system. We hope that these proposals will be implemented and tested within the C+D class so that if it speeds processing it can be broadened to include all classes of permits.

AIA|DC and DCRA would like to thank the following people for their hard work on this process

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Chris Cobb, PE	Anne Law	Will Teass, AIA
John Crump, AIA	Eric Mayl, PE	Charles Warren, AIA
Graham Davidson, FAIA	Kenz Meliani, PE	Michael Winn, AIA
Mary Fitch, AICP, Hon. AIA	John Peavy, PE	Keith Winston
Semere Hadera	Doug Smith	Christopher Woody
Ellen Hatton, AIA		

## Part 1: Process and Conclusions

### The easy part

The process of coming up with these recommendations was pretty straightforward. AIA|DC members met to go over the material and see what could be done quickly and what required some extra thought. We all agreed that an intake process that was more robust, included drop down menus and a SAVE button would benefit everyone. Very broadly, this enhanced intake process requires the customer to spend more time telling DCRA about the project on the front end so that the review of the plans can progress more easily.

**PROBLEM:** missing information at intake.

**SOLUTION:** Don’t accept the permit for review unless it has all the necessary information.

Sections 1-3 of what we called ‘DCRA’s Top 10’ had to do with incomplete application, submission requirements and incorrect code analysis. This can easily be solved by making all information mandatory. If the customer does not have all the required information, they should be encouraged to SAVE THEIR WORK and return when they do have the required information.

An improved intake might look like:

1. Contact Information (email etc.)
2. Property address/ lot and square
3. Your standing in the project (architect, owner, expediter with license numbers where applicable)
4. Letter from the owner authorizing whomever is filling out the application
5. Square or cubic footage – all costs to be calculated on square or cubic footage rather than construction cost
6. Building height
7. Lot occupancy
8. Any review by other agencies concurrent or previous – including tracking numbers.

In addition, AIA|DC recommends adding a question to the intake system which would read something like:

*Are you using the required naming and numbering requirements required by DCRA?* If yes, the process can continue. If No, a friendly note will pop up suggesting that they save their work and review page 18 of the project dox user guide. Having the documents in a clear and consistent format is critical for the reviewers to use their time efficiently. We recommend the following table, which has been updated:

Drawing Type	Discipline Header
General	NO LETTERS – JUST 001-999
Architectural	A
Civil	CIV
DDOE	DOEE
Demolition	D
Electrical	E
Elevator	ELV
Fire Protection	FP
Green/Energy	GEN
Interior Design	IN
Mechanical	M
Plumbing	P
Structural	S
Zoning	Z

In a fortunate bit of timing DCRA had already been working to include many of these items at intake as mandatory fields. In fact, many of these fields auto-populate with data already in DCRA’s system (the lot and square appear when the address is input, for example).

**Problem:** Projects in this size range are often submitted by professionals but might also be submitted by a home owner and it may be the one-and-only time they work with the system

**Solution:** The system should offer more help to those who are new to the process in clear and friendly way (not in Code speak). This could be accommodated by asking the customer to self-select their experience level: *This is my first permit application; I have filed 1 -10 applications; I have filed more than 10 applications.* Technology offers the option to tailor DCRA's interaction with the customer; It is no longer necessary to treat every customer the same way. Some might need more help and for that you might have some pop up videos and for those that know the system really well, none of the help needs to get in their way.

**Problem:** The Scope of Work Checklist is a narrative and is often the reason things get kicked back

Solution: Remove the scope of work section of ACA entirely and add to the General Permit Details Section with dropdown menus to include information such as:

**Is this an addition? Alteration? New Construction (only dropdowns pertaining to the permit type selected will show**

1. Zoning Use (drop down menu)
2. Construction use group (drop down menu)
3. Construction type (drop down menu)
4. Interior (yes/no)
5. Exterior (yes/no)
6. Accessory dwelling units - are you changing from 1 to 2 family? (yes/no)
  1. If Yes, should include information about sprinkler requirements
7. Underpinning (check box)
8. Structural Work along Party wall/lot line (check box)
9. Will your new addition include a roof that is a story higher than your neighbor's? (Yes/no)
  1. If yes, consider adding snowdrift info
10. Mechanical (check box)
11. Electrical(check box)
12. Plumbing (check box)
13. Fire Sprinkler/ type (drop down)
14. Fire Alarm (yes/no)
15. Elevator (yes/no)
16. Openings along the property line? (yes/no)

## Roundtables for more in-depth discussion

The next of set issues required more input. AIA|DC convened three roundtable discussions on three successive Fridays in August to discuss frequent problems with building code, mechanical plans and fire code. Some of these solutions might seem pretty specific, like the location of backflow valves, but they point to larger issues of data availability and collection that is at the root of many of these issues.

**Problem:** Neighbor notification is often incomplete and scary for neighbors.

**Solution:** Provide a standard location online (drop box?) where the plans reside. Neighbors should receive notification by email and/or postcard with a summary of the project, the location of where the plans reside and a way to make clear that they have received this notification. They could sign the postcard or simply click yes on the screen that they have reviewed the plans. In either case it should be abundantly clear that *by signing this you are acknowledging that you have been informed. You are not giving approval.*

DCRA is currenting going live with a website that contains data for neighbors. DCRA plans to have this running on October 1, 2019.

**Problem:** Snowdrift calculations can slow residential permits.

**Solution:** Make sure this is in the drop down menu so customers know they have to deal with it. Provide a way for the customer to solve the problem for the adjacent neighbors and run those permits concurrently. There is a pretty straightforward decking solution that could be included as an example on DCRA's website (see Knowledge base below).

**Problem:** Confusion about when to provide sprinklers for accessory dwelling units.

**Solution:** In addition and alteration drop down's make sure to add "are you changing from one to two family?" If yes – have a video link of what you need to do. Since DCRA reviewers are so busy it might also be cost effective to have an intern or consultant study the whole process of ADUs since this might likely to be the only permit a homeowner might ever file. If there was a clear, straightforward path with everything they needed to know there would be a lot less confusion.

**Problem:** Code requires that venting must be 10 feet away from adjacent property. That is not always possible in a densely settled city like DC.

**Solution:** DCRA needs to come up with very clear answer as to what is acceptable and what is not. It can't be a technical bulletin that requires sign off from every department. It needs to be an acceptable standard that can be quickly communicated.

**Problem:** Requirement for backflow valves – how do you know if you need one?

**Solution:** There is data out there showing the location and elevation of manhole covers. Suggest that DCRA hire an intern to add this data (and any other similar critical locational data like this) to PIVS.

**Knowledge Base:** DCRA has lots of great information but no running record.

**Solution:** Create a knowledge base starting with all the questions from the stakeholders meetings and keep it running. **Make it somebody's job** to keep it current and have the latest FAQs. This would seem

to AIA|DC to be the best use of a communications team, to keep the public and professionals informed, quickly and clearly on changes to interpretations and processes within the agency, particularly, as referenced elsewhere in this report, things are changing so quickly. This should be accessible to the public and the staff as we have found through this process that there is critical information that the staff is not privy to (like the location of the SAVE button). This knowledge base should also include a running record of updates on all DCRA efforts. This can be started pretty simply with the minutes/results of the last stakeholders meeting and added to.

**Problem:** Applications that make the rounds three or four or more times.

**Solution:** Require a meeting after two uploads. This is already DCRA policy but the computer system (which in this case would be Project Dox and not ACA) should flag anything coming in for a third time without a meeting and send it back.

## Part 2 – Changes that need to be made various systems

First thing: How familiar are you with this process? A) its my first time B) I've filed 1-10 applications) c) I've filed more than 10 applications

**Step 1: Step 1 > Address/Parcel/Owner** \* indicates a required field.

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### Address

If you search for and select the address of the first lot, the Parcel will be automatically retrieved in the property ID. **HINT - Enter street number and street name only, then click "Search and Validate".**

*Street No.:	St Fraction	*Street Name:	Street Type:	Unit No.:
<input type="text" value="1100"/>	<input type="text" value="Example: 1/2"/>	<input type="text" value="4TH"/>	<input type="text" value="ST"/>	<input type="text"/>

Quadrant	Zip:
<input type="text" value="SW"/>	<input type="text" value="20024"/>

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### Parcel

You must provide the correct Square, Suffix and Lot for the first lot in your request. If you are not certain about the Square and Lot numbers, you may search for them by address from the [PIVS <https://pivsservices.dcrd.dc.gov/PIVS/Search.asp>](https://pivsservices.dcrd.dc.gov/PIVS/Search.asp) website.

\* Square Suffix Lot :

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### Owner

* Owner Name:	<input type="text" value="USGBF WATERFRONT STATION LLC"/>		
* Address Line 1:	<input type="text" value="USAA REAL ESTATE COMPANY"/>		
* City:	* State:	* Zip:	Country:
<input type="text" value="SAN ANTONIO"/>	<input type="text" value="TX"/>	<input type="text" value="782302209"/>	<input type="text" value="--Select--"/>
* Email:	Cell Phone:		
<input type="text" value="doug.smith2@dc.gov"/>	<input type="text" value="202-494-9895"/>		

Need upload box for letter of authorization from owner

Request a Building Permit, Shop Drawing Approval, or Survey Plat    Schedule an Inspection

### Addition Alteration Repair Permit

1 Step 1	2 Step 2	3 Step 3	4 Step 4	5 Review	6	7
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### Step 2 : Step 2 > Other Contacts

\* indicates a required field.

#### Contractor

Enter applicant information or click on the Select from Account button to populate the fields with the information you registered with.

[Select from Account](#) [Add New](#)

#### Engineer

Enter applicant information or click on the Select from Account button to populate the fields with the information you registered with.

[Select from Account](#) [Add New](#)

#### Architect

To enter licensed professional, click the Add New button. To find a licensed professional, click the Look Up button.

[Add New](#) [Look Up](#)

[Continue Application »](#)

[Save and resume later](#)

## Step 2: Step 2 > Description of Work

\* indicates a required field.

### Description of Work

Please provide a brief, but detailed description of the proposed construction; for example: upgrade existing electrical and plumbing only; or renovate lower level to create a second unit.

Example for Addition including new kitchen

Phrases such as: a requirement, as p

Remove this entirely. At best its repetitive; at worst its inaccurate

at all levels

cy

\* Detailed Description

### General Information

#### General Information

\* Enter all floors involved in proposed construction.:

\* Total work area affected by proposed construction:

SQFT

Is this Property located in a FloodPlain Zone?:

\* Is this Project being submitted for a 3rd Party Review?:

 ?  Yes  No

\* Was the property under Stop Work Order (SWO) or is there a current SWO applied? (If YES, please provide the SWO Release):

 Yes  No

[Continue Application »](#)

[Save and resume later](#)

Search...

Home **Building** Licenses

Request a Building Permit, Shop Drawing Approval, or Survey Plat    Schedule an Inspection

**Addition Alteration Repair Permit**

1 Step 1	2 Step 2	<b>3 Step 3</b>	4 Step 4	5 Review	6	7
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**Step 3 : Step 3 > General Permit Details** \* indicates a required field.

**Permit Information**

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**ADDITION / ALTERATION & REPAIR**

\* Existing Use of Building or Property:

\* Existing Number of Stories of Building:

Existing Stories Plus:

Existing Penthouse:

\* Existing Number of Dwelling Units:

\* Proposed Use of Building or Property:

\* Proposed Number of Stories of Building:

Proposed Stories Plus:

Proposed Penthouse:

\* Proposed Number of Dwelling Units:

Starting Date (mm/dd/yyyy):  

Completion Date of Work (mm/dd/yyyy):  

Method for Removing Construction Debris: \*

Add in the information from page 3. We suggest a careful analysis of the flow of the document so that it is easy to fill out using the plans the customer is about to upload. More specific information like “disposal method of construction debris” might make more logical sense at the end.

Once the information is entirely filled out the program should create a document that forms a [table of contents or index](#) for the reviewers. For example, they will be able to quickly verify that this project has underpinning and indeed there are plans for underpinning named appropriately.

Since the system is currently unable to create this index, we recommend that applicants be required to provide an index. DCRA could strongly suggest for the 2020 and then require it in 2021. If it improves the efficiency of the reviewers as it is intended to, customers will very quickly alter accommodate its inclusion. A sample index is included in Appendix B.

## Appendix A DCRA's Top 10 – Frequent Mistakes for Job Class C+D permits

1. Incomplete application
  - a. No intercommunication between Owner, Developer, LLC, Expediter, Design Professional
  - b. Missing
    - i. Contact information
    - ii. Email address
    - iii. Email address of the actual owner
    - iv. Scope of work
    - v. Cost or incorrect cost
    - vi. Missing the signed and sealed and (dated)
    - vii. Applicant applies for the wrong permit type
2. Submission requirements
  - a. Submission to sister agencies application processes – Required other agency committee approvals: BZA, Public Space, CFA, DDOT, etc.
3. Code analysis incorrect
  - a. Construction type
  - b. Fire ratings
  - c. Sprinkler system required
  - d. Occupancy
  - e. Occupancy new vs existing
  - f. Missing Plats “signed”
4. Building Code issues.
  - a. Improper use of sprinkler system maximum height increase and reduction of construction type.
  - b. Inaccurate accessible unit calculation or completely omitted. (if omitted should reject)
  - c. Failure to provide all neighbor notification documents (if omitted should reject)
  - d. Improper structural design of eccentric footing design.
  - e. Openings or windows at or along a property line
  - f. Egress requirements for a single story residential building
  - g. Emergency egress requirements and when to omit them
  - h. Fire separation and independent use of a flat
  - i. When a sprinkler system is required for an addition of the space in which an addition is open too
5. Fire
  - a. Incorrect sprinkler system installed for mixed use building.
  - b. Shaft penetrations ratings, openings, uses

- c. Smoke removal, plenums and use of plenum spaces
- d. FDC connection tread sizing
- e. Second means of egress unprotected

6. MEP

- a. Missing risers and Backwater valves (both Sanitary & Storm)
- b. Plumbing Fixture counts wrong or missing (also: sometimes confusing occupant load issues)
- c. Inlet/outlet Location of exhausts, vents & intakes @ property lines, openings, & each other.
- d. Location of liquid disposal (sanitary vs. storm): elevators, condensate (both types), etc. (most often: not disclosed at all).
- e. Missing or Incomplete; Panel schedules; Riser diagrams: Load calculation (can't the system reject if not included?)
- f. Missing electrical items on the floor layouts such as disconnects, outlet, mono oxide detectors,
- g. Undersized current carrying conductors and grounding conductors
- h. Details of electrical equipment penetrated fire rated assemblies (typically on the 4 units or less conversions )
- i. Panels/overcurrent protection devices being readily accessible to all occupants of a dwelling unit.

7. Green (this section was not considered as Job Class C+D are 4,000 square feet or under and the requirements for Green Review, at this moment, do not kick in until 10,000 square feet )

- a. Improperly of not filled out GEC Green Energy Compliance sheet
- b. Wrong code used; Energy Conservation Code, Green Construction Code, Green Building Act, ASHRE, (LEED not a code)
- c. Poorly defined thermal envelope & Poorly defined air barrier
- d. Calculating thermal value of walls, for instance, impact of girts on thermal bridging
- e. Understanding when to apply Energy models & H/AC load sizing: Architects do not use energy models or H/AC load sizing software for design, but rather for compliance. They use these tools to try and pass buildings that are not designed with the goals of energy efficiency. (Is this an editorial comment that they wanted to include?!) )

Index for 1908 Avenida Street, NW **1** LOCATION

**4** PROJECT TEAM W/ CONTACT INFO

**2** BRIEF SCOPE OF WORK  
**3** OTHER REVIEWS

Addition and Alteration  
 Square 0005/ Lot 0004  
 ~20,000 square feet  
 Building Height: 25 feet  
 Lot Occupancy: 40%  
 Other Agency Reviews:  
 DDOT: 12345  
 DOEE: s12345  
 DC Water: ###

Project Team  
**Architect**  
 Magnificent Architect  
 Address  
 Phone  
 Email

**Client/Owner**  
 Imaginary Developer  
 Address  
 Phone  
 Email

**Civil**  
 Best Civil Engineer  
 Address  
 Phone  
 Email

**Structural**  
 Amazing Structural Engineers  
 Address  
 Phone  
 Email

**MEP**  
 Astounding MEP Service  
 Address  
 Phone  
 Email

Giant empty square  
 for permit approval  
 stamp

new sheet

x 001	Index	A 034	Exterior Balcony and Deck Details	M 004	Mechanical Details
x 002	Code Summary	A 035	Exterior Stair and Rail Details	P 001	Plumbing Cover Sheet
x 003	Egress + Accessibility Plans	A 036	Roof Details	P 002	Plumbing Floor Plans
x 004	Accessibility Diagrams	A 037	Roof Details	P 003	Plumbing Floor Plans
x 005	Accessibility Diagrams Continued	A 038	Roof Details	P 004	Plumbing risers
x 006	Gross Building Area and Unit Area Tabulations	CIV 001	DC Water Supplemental Info	S 001	General Notes
x A 001	Door Schedule	CIV 002	Site Plan	S 002	General Notes
x A 002	Window Schedule	CIV 003	Site Details	S 003	Cellar Foundation Floor
x A 003	Schedules and Typ. Mounting Details	CIV 004	Permeable Paver Details	S 004	Typical Foundation Details
x A 004	Specifications	CIV 005	Utility Plan	S 005	Ground + Second Floor Framing
x A 005	Layout Plan - Cellar + Ground	CIV 006	Utility Profiles	S 006	Third + Roof Floor Framing
x A 006	Layout Plan Second + Roof	CIV 007	Utility Details	S 007	Typical Details
x A 007	Reflected Ceiling plan	CIV 008	DC Water Plumbing Forms	S 008	Typical Details Openings
x A 008	Reflected Ceiling plan	CIV 009	Sediment Control Plan	S 009	Underpinning General Notes
x A 009	North Elevation proposed and existing	CIV 010	Sediment Control Notes	S 010	Underpinning Layout and Section
x A 010	South Elevation proposed and existing	CIV 011	Sediment Control Notes		
x A 011	Proposed Elevation -West	CIV 012	Sediment Control Notes		
x A 012	Proposed Elevation -East	D 001	Demolition Plan		
x A 013	Proposed Building Section	D 002	Site Demolition Plan		
x A 014	Proposed Building Section	D 003	Site Demolition Plan		
x A 015	Proposed Building Section	D 004	Demolition Plan cellar + Ground		
x A 016	Enlarged Plans Exterior Stairs	D 005	Demolition Plan Second + Roof		
x A 017	Exterior Details	E 001	Electrical Cover Sheet		
x A 018	Foundation Details	E 002	Electrical Floor Plans		
x A 019	Cladding Details	E 003	Electrical Floor Plans		
x A 020	Cladding Details	E 004	Power Riser and Lighting Diagram		
x A 021	Window Details	GEN 01	Energy Verification Sheets		
x A 022	Window Details	GEN 02	Energy Verif & Air Barrier Guidelines		
x A 023	Door Details	IN 001	Typical Interior Details		
x A 024	Exterior Balcony and Deck Details	IN 002	Fire Penetrations		
x A 025	Proposed Building Section	IN 003	Interior Stair and Railing Details		
x A 026	Enlarged Plans Exterior Stairs	IN 004	Interior Trim Details		
x A 027	Exterior Details	IN 005	Cabinet and Millwork Details		
x A 028	Foundation Details	IN 006	Assemblies Vertical		
x A 029	Cladding Details	IN 007	Assemblies Horizontal		
x A 030	Cladding Details	IN 008	Assemblies Vertical Exterior		
x A 031	Window Details	M 001	Mechanical Coversheet		
x A 032	Window Details	M 002	Mechanical Floor Plans		
x A 033	Door Details	M 003	Mechanical Floor Plans		

Architecture

CIVIL

DEMO

GREEN/ENERGY

INTERIOR

- MECHANICAL

- PLUMBING

STRUCTURAL

**5** SHEET NUMBERING  
 IN THE PAST DCRA REQUIRED ALL PLANS FOR A PARTICULAR FLOOR TO BE NUMBERED IN A SPECIFIC WAY (ie all 4th floor plans would be numbered 004). THAT REALLY DOESN'T HELP ANYBODY.

JUST PUT YOUR PLANS IN ORDER AND KEEP GOING. YOU HAVE 999 SHEET NUMBERS IN EACH CATEGORY.

THIS INDEX DOES NOT HAVE TO MATCH ANY OTHER IT IS SIMPLY A NAVIGATION TOOL FOR THIS SET!

SAMPLE INDEX
001