



ACT Project

CLIENT PERFORMANCE PROGRAM

FINAL REPORT

January 2005

PREPARED BY

Markham Building Standards Department

MARKHAM, ONTARIO

Program Partners:



PREFACE

The project documented in this report received a grant under the Affordability and Choice Today (ACT) program. ACT is a housing regulatory reform initiative sponsored by Canada Mortgage and Housing Corporation and jointly managed with the Federation of Canadian Municipalities (program administrator), the Canadian Home Builders' Association and the Canadian Housing and Renewal Association.

ACT, launched in 1990, encourages housing affordability and choice through regulatory reform. The United Nations Centre for Human Settlements recognized ACT in 1998 as one of the top global best practices for improving the living environment.

Over the years, ACT has created an impressive body of knowledge others can use to facilitate regulatory change in their communities. Projects range from innovative housing forms, secondary suites and streamlined approval procedures to NIMBY, alternative development and renovation standards, and more. ACT projects contribute in many ways to sustainable development. They have also served to enhance working relationships between local governments, the building industry and non-profit organizations.

In summary, ACT promotes regulatory reform through

- its database of solutions, which others may borrow from and adapt freely to meet their needs (see Web site address below).
- grants to local governments, builders, developers, architects, non-profit organizations and others across Canada to help facilitate the development of innovative solutions;
- other means of promoting regulatory solutions, such as workshops that highlight ACT solutions and address specific regulatory barriers.

For more information, visit the ACT Web site at www.actprogram.com, or contact:

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DISCLAIMER

This project was partially funded by the ACT Program. The contents, views and editorial quality of this report are the responsibility of the author(s), and the ACT Program and its partners accept no responsibility for them or any consequences arising from the reader's use of the information, materials or techniques described herein.

Program Partners:



General Project Overview

It is well recognized the performance of building regulators depends on the builders' performance. Previous ACT projects have sought to address this by licensing schemes ["Recognizing the Certified Residential Builder in the Approval Process" (CHBA of BC, May 1994)] and training programs ["How Cape Breton Regional Municipality Streamlined Residential Building Plans Approvals by Improving the Quality of Plans Submitted for Review" (Cape Breton Regional Municipality, June 1998)] Markham has been very active in training both its own staff and its builder clients with the publication of several books and compact discs covering various aspects of our programs and an innovative "Builder Excellence Award".. Recent technological advancement presents an opportunity to much more effectively promote client performance and refine regulatory service delivery.

Markham's Client Performance Program intends to record and weigh deficiencies in building permit applications, builder administrative compliance and construction. When a Markham building official encounters a deficiency in an application or a violation in the field, that deficiency is recorded and attributed to the responsible member of the client team. Ranking of builder performance is derived from the composite information and published. This information is helpful to prospective purchasers and its publication induces the ambition among lower performing builders to improve their standing. In this way, higher levels of compliance are achieved without adding resources to the enforcement program. Higher levels of compliance lead to higher builder profit promoting more competitive housing costs.

One of the motives for undertaking the project now is the importance of improving the cost effectiveness of building regulation. Effect July 1, 2005 Ontario building departments are required to consider permit applications within very short time frames, must justify fees in relation to costs and implement new common forms and procedures. These reforms are ultimately intended to improve the quality of construction. Although they required us to abandon the customization of permit requirements and fees to reflect client performance, the Provincial reforms otherwise align well with the objectives of the Client Performance Program

The Project Team consisted of Building Department managers representing plan review and inspection. High performing client builders were consulted and their input helped identify meaningful measures. Data management requirements dictated the involvement of corporate and private sector IT consultants.

The project involved the following main steps:

- identification of standard deficiencies associated with several activities
- testing and procurement of mobile computers to enable field data collection
- software modifications designed and implemented
- data analysis
- data publication

Additional measures of builder performance are continually under consideration and the program is expected to expand to more fairly reflect the ultimate quality of construction.

Central to the objective of improved on-site documentation of deficiencies is the deployment of mobile data entry tools and procedures. All of Markham's building inspectors have been issued with such tools and trained in their use (see attachment 1). In addition to enabling the efficient recording of deficiencies, these devices have been equipped with printers and site documents such as occupancy certificates are now issued in the field.

Housing construction is a very complex process and cataloguing the myriad deficiencies that are encountered by building officials proved more difficult than anticipated. Operational considerations

dictated how granular the deficiencies can be and emerging legislation also confined the approach taken. The catalogue was developed and integrated into AMANDA (Attachment 2), the permit and inspection management software used. The way AMANDA handles deficiencies and supports mobile data management continues to be improved as a result of this project. Many other municipalities using AMANDA will benefit from those improvements.

Weighting of deficiencies by importance and severity remains outstanding as does the automated ranking of various role players. The project has, however, produced meaningful measures of builder compliance that helps inform how services are delivered. Emerging legislation prevents us from adjusting inspection programs according to builder performance, but other incentives are under consideration that would reward the compliant builder in meaningful ways. Fee structures, for example will be informed by builder performance data and the quality of their submissions. A new fee bylaw has been drafted for enactment in June 2005 that includes significant new charges for submissions that require repetitive consideration.

By July 2005, Markham will implement an Internet-based permit submission alternative to the manual completion of paper forms. This will streamline the application process, especially for high-volume home builders. Although limited in its initial scope, the interface will grow to include the capacity for applicants to query application status and to submit inspection requests. Deficiency data will also be maintained and published as contemplated in the Client Performance Program project plan.

One very successful element of Markham's Client Performance Program is the Building Excellence Awards. They are now well established and recognized as an important marketing device. More information is available at <http://www.markham.ca/markham/channels/buildstd/buildexawards.htm> Recipients are displaying their award proudly and it is having an impact on builder performance. Here's an example from one recipient's promotional material:

home

Welcome to the Best Homes Experience.

Our ultimate goal is to build homes, not houses, that live up to your highest expectations.

Recognized internationally for building excellence and customer satisfaction, Best Homes is currently making its name in the Greater Toronto Area. As a proud winner of the "Markham Building Excellence Award" for 2003 & 2004 (Best Homes - Swallows Nest Project), Best Homes continues to expand across Southern Ontario.

With over 40 years of experience building new home communities, we at Best Homes understand what it takes to make a great home *Simply Better*.

Today, we are proud to be building the finest communities in the best locations across the GTA. Come see for yourself why more and more families are calling our communities home!

As a thank you to our loyal customers for helping us sell more than 100 homes in Phase 3 of Swallows Nest, and with the goal of providing our clients with better service, we have moved our sales office to a bigger location right on Kennedy Road. You will still enter the office from Castan Avenue, and the new office is hardly 100 feet from the old location.

7

CASTAN AVE

SOUTH UNIONVILLE AVE

HELEN AVE

CAROTO TRAIL

KENNEDY ROAD

407

UNIONVILLE

MARKHAM

401

REGISTER NOW

BH
BEST HOMES

Swallows Nest
NewsReel Summary
Feb 14th, 2005

Where Community Living Meets
Downtown Accessibility!
Phase 3, NEWSREEL

Main Street Unionville connecting to
Enterprise Drive!

VIVA RAPID TRANSIT SYSTEM TO
CONNECT YORK REGION!

Coming Soon - Townhomes
Close to Markham Centre!
Pre-Register Now!

REGISTERED BUILDING OFFICIAL
MARKHAM BUILDING EXCELLENCE AWARDS

MARKHAM BUILDING EXCELLENCE AWARDS
2003

www.newinhomes.com

webmaster contact us Disclaimer

Markham continues to work with AMANDA's vendor to refine its capability to manage complex deficiency information in a mobile environment.

One important lesson taken from this ambitious undertaking is the complexity of implementing such fundamental change.

Technology is inherently complex and innovative systems require extensive debugging and redesign. The real efficacy of such innovation cannot be evaluated until it is deployed to the end users. Even the most expert practitioners must alter entrenched behaviours to integrate the technology into their routine. Only after adequate training, procedural adjustments and a critical mass of closely managed experience can a credible assessment be done. Additional refinements and systemic defects are bound to emerge in this process. Improvement must be continuous with active engagement of the expert end users and their functional managers.

This process continues. It is hoped that other municipalities will benefit from and build on Markham's experience.

PAL AMANDA MOBILE Inspector Training

Pocket Amanda Link

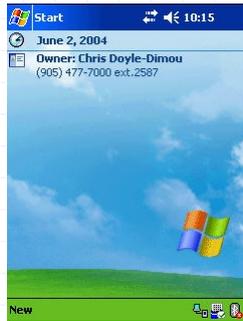


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PDA Set-Up



MAIN SCREEN

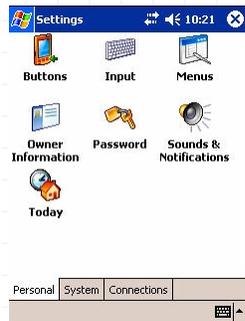
- Turn on your Pocket PC's on/off button
- Tap the Start label (top left, this figure)

PDA Set-Up



- Click on Settings
- Above icons in the PERSONAL tab allow you to customize PDA

PDA Set-Up – Personal TAB



- Buttons Icon:
 - Allows you to program your favorite programs to the program hardware buttons.
- Input Icon:
 - Specify how you want to enter information into your PDA.
- Menus Icon:
 - Select which items you want to appear in your START menu.
- Password Icon:
 - Lock your PDA with a password so that only you can use it.
- Sounds & Notifications Icon:
 - Set the volume & sound for your PDA.
- Today Icon:
 - 1) Appearance: Can set the background on your PDA.
 - 2) Items: Can set the items that appear on the Today screen.

PDA Set-Up – Owner Information



Owner Information	
Name:	Chris Doyle-Dimou
Company:	Town Of Markham
Address:	101 Town Centre Blvd. Markham, Ont. L3R 9W3
Telephone:	(905) 477-7000 ext.2587
E-mail:	cdoyledimou@markham.ca
<input type="checkbox"/> Show information when device is turned on	

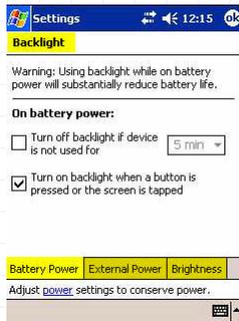
- Click on Owner Information

- Enter in your information in above fields.

PDA Set-Up – System TAB

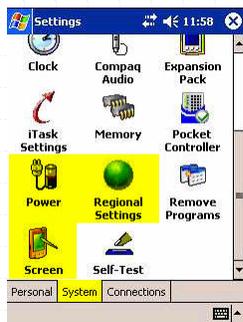


- Backlight Icon:
 - Allows you to program your favorite programs to the program hardware buttons.



- Battery Power:
 - Adjust the backlight to conserve battery power.
- External Power:
 - Adjust backlight to conserve external power.
- Brightness:
 - Can adjust backlight brightness level on PDA battery and power.

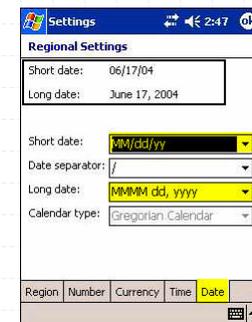
PDA Set-Up – System TAB



- Power Icon:
 - View the amount of battery power your PDA has.
 - Set the time to turn of the PDA.
- Screen Icon:
 - Set the screen alignment for the PDA to respond accurately to your screen taps.

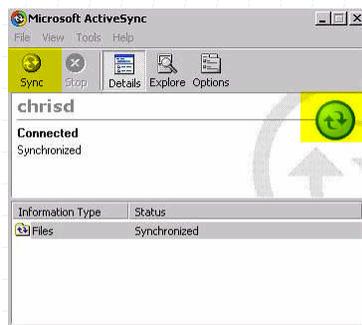


- Regional Settings:
 - Region TAB

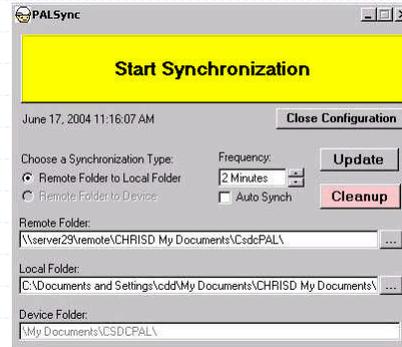


- Regional Settings:
 - Date TAB
 - Short Date – set to MM/dd/yy
 - Long Date – set to MMMM dd, yyyy

Synchronizing Scheduled Inspections



Microsoft Active Synch



PAL Synch

Synchronizing Scheduled Inspections

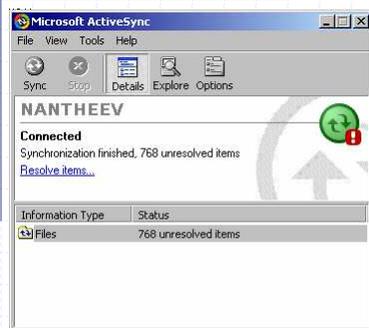
- Microsoft Active Synch
 - Click on either the green circle on the right side of the toolbar or the Microsoft Active Synch bar to open.
- PAL Synch
 - Click on the Pal Synch inspector on the right side of the toolbar to open.



Synchronizing Scheduled Inspections

- Turn the PDA on and insert into the cradle located on your desktop.
- The device will show that it has connected to your desktop.
- Microsoft ActiveSync is automatically enabled.
- To retrieve scheduled inspections:
 - 1) Double Click on the Pal Synch inspector icon on the right hand side of your tool bar on your desk top.
 - 2) Click the large rectangular START SYNCHRONIZATION button.

Synchronizing Scheduled Inspections Unresolved Items



- When Microsoft ActiveSync has difficulty reconciling the information from the handheld with the existing information in the full application, the Files are tagged with the message "Resolve Items". When this occurs, remove the handheld from the cradle and then reinsert (Gently!). Repeat if the message is still there.

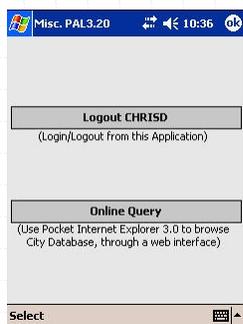
Starting PAL



- To start Pal:
 - click on the start button
 - scroll to PAL 3.20 and click
- Screen on your right hand side appears while the application is loading.

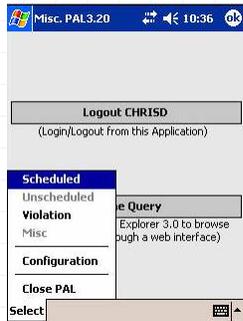


Misc. PAL 3.20



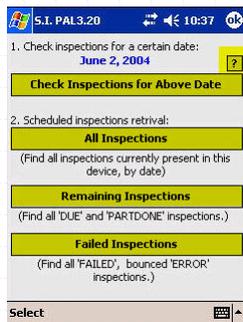
- Logout CHRISD (Log Out and Login)
 - 1) To turn off your PAL Pocket PC, on the PAL 3.20 Misc window tap the Logout button. The label on the button changes from Logout to Login. You can turn off your Pocket PC or you can login again.
 - 2) To login again, tap the Login button. The Login window displays in the middle of the PAL 3.20 window.
- Online Query – Currently Not Enabled.

Misc. PAL 3.20



- Scheduled
 - Starts a scheduled inspection
- Unscheduled
 - To start an unscheduled inspection – not enabled in this version
- Violation
 - To create a violation folder – not enabled in this version
- MISC
 - Screen on your right
 - Configuration
 - To change options
 - Close PAL
 - To exit the application

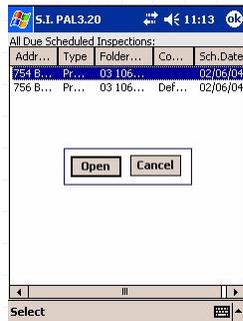
Scheduled Inspections



- Certain Date – To check for inspection requests for a specific date, click on the . On the calendar select the date you wish to check. On this PAL version you can only check for inspections for the next day.
- Check Inspections for Above Date – To check scheduled inspections for the date displaying above this button, click this button. To see the inspections status, drag the scroll bar to the right to see the status column.
- All Inspections – To see all of the dates with a scheduled inspection, tap this button. Do NOT use this field when entering inspection results. USE the REMAINING INSPECTIONS button.
- Remaining Inspections – To see uncompleted inspections, tap this button. This is the button you will tap when you are ready to enter your inspection results.
- Failed Inspections – To see completed inspections rejected by the ROBOT due to data error, tap this button.

Scheduled Inspections

Entering Attempt Results



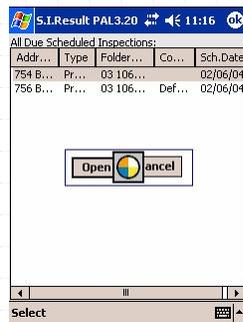
- On the S.I. Window tap the address of a property to be inspected. You see a window with two buttons: Open; Cancel. Tap the open button to proceed.

- After tapping the REMAINING INSPECTIONS button, the above screen appears.



Scheduled Inspections

Entering Attempt Results



- The following window appears while you are waiting for the inspection details to load.



Scheduled Inspections Entering Attempt Results

S.I.Result PAL3.20 11:19
754 Bur Oak Ave, Pre-Permit Water Pipe
Process Comment:
Attempt Comment:
Expenses: 0.00 Mileage: 0 Hours: 0
Reschedule: Assign to:
Result:

- After opening the selected property, this screen appears showing the properties address and the description of the type of inspection.
- Process Comment: Can manually enter in a process comment or click on [?] To select from the list – list is currently under development.
- Attempt Comment: Can manually enter in an attempt comment or click on [?] To select from the list – list is currently under development.
- Note: You can Cut and Paste Process Comments & Attempt Comments from one scheduled inspection to another.
- Expenses: Enter any expenses for the inspection – not being used.
- Mileage: Enter your mileage amount – not being used.
- Hours: Enter the amount of hours spent on the inspection – not being used.
- Reschedule: If applicable enter the date you wish to reschedule the inspection for.
- Assign to: If you are rescheduling the inspection the name of the inspector to conduct the inspection MUST be entered in this field. ONLY use this field when the inspection is being rescheduled. The ROBOT will not accept the inspection result if the ASSIGN TO field has an inspectors name without a reschedule date.
- Result: Enter the appropriate result for the inspection you conducted.



Scheduled Inspections Entering Attempt Results

S.I.Result PAL3.20 11:31
754 Bur Oak Ave, Pre-Permit Water Pipe
Process Comment:
Attempt Comment:
Construction Not Ready As Requested
In Compliance
Not Applicable
Not In Compliance
Not Visible

- RESULT FIELD:
 - All inspection results available in Amanda desktop can be selected from the drop down.
- New Attempt Results:
 - Inspection Re-Assigned
 - Use to clear off from handheld if re-assigning an inspector or correcting an incorrectly scheduled inspector or inspection request day.
 - Inspection Cancelled
 - Use to clear off from handheld if inspection should not have been scheduled. Make a note in the attempt comment that the inspection was cancelled by the department. Eg. "Department Cancelled"



Scheduled Inspections

Entering Attempt Results – VIEW ITEMS

The screenshot shows the 'S.I.Result PAL 3.2.0' application window. The title bar includes the text '754 Bur Oak Ave, Pre-Permit Water Pipe' and 'Process Comment:'. Below the title bar, there is a 'Process Comment:' field. A 'View' menu is open, listing several options: Result, Checklist, Deficiency, Info, People, Attachment, Folder Details, History, Report, and View. The 'View' option is currently selected and highlighted.

- View: Allows you to enter or view information pertaining to the inspection
 - 1) Result – field you are currently in
 - 2) Checklist – not part of Markham Inspections.
 - 3) Deficiency – record deficiencies on construction project, also provides history of pre-existing deficiencies for the inspection process.
 - 4) Info – provides information on the permit description and value.
 - 5) Attachment – attach pictures located on PDA to the inspection and view/remove inspection report.
 - 6) Folder Details – provides the folder information details.
 - 7) History – provides the history of all the inspection processes and their applicable attempts.
 - 8) Report – Preview – allows you to view the report.
 - Final – allows you to save/attach the inspection report and print out the inspection report.

Scheduled Inspections

Entering Deficiencies

- **MANDATORY:** Each deficiency observed on a construction project must be recorded in PAL.
- Presently inspectors have the option of recording deficiencies in Pal using the deficiency module or in the attempt/process comment for the applicable inspection type.

Scheduled Inspections

Entering Deficiencies – Deficiency Module

- 3 Categories to choose from:
 - ✓ Building Code Deficiency
 - ✓ Building Code Act Violation
 - ✓ Building Standards Policy

- Minimum requirements for documenting a DEFICIENCY, VIOLATION or POLICY infraction are:
 - ✓ Deficiency – inspector may use the default, revise the default or type in new deficiency.
 - ✓ Remedy – is optional
 - ✓ Severity – low, medium and high

Low - indicates a situation that is minor in nature, correction is simple and the negative impact on the use or life of the building, if not corrected, is considered minimal.

Medium – indicates a situation that is substantial in nature, correction is moderately difficult and the negative impact on the use or life the building, if not corrected, is considered major.

High – indicates a situation that is complex in nature, correction is severely difficult, requiring reconstruction, and the negative impact on the use or life safety of the building is considered severe.

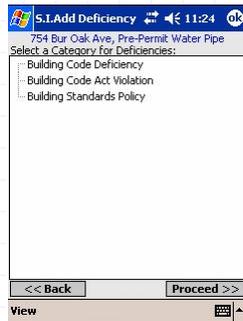
Scheduled Inspections

Entering Deficiencies – Deficiency Module

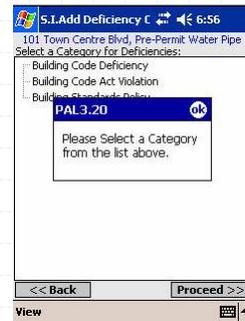
- ✓ Status – The status to be entered is exactly the same as AMANDA desk top, i.e. Open, Failed, Passed.
- ✓ Location – The location of the deficiency is important for communicating the problem to our clients and for re-inspection by other building inspection staff, i.e. first floor, second floor, roof, etc.
- ✓ Sub Location – The reasons for use are similar to the location but, helps to define a more exact area within a floor area, i.e. north, south, east, west etc.
- ✓ Comply By – it's use is optional
- ✓ Date Complied – it's use is optional

Scheduled Inspections

Entering Deficiencies – Deficiency Module



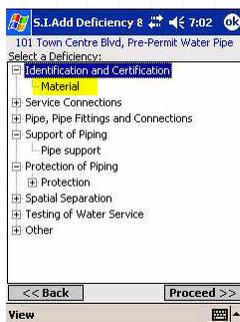
- To record a deficiency in your inspection result:
- 1) Click VIEW
- 2) Go to DEFICIENCY and click.
- 3) Select the deficiency category displayed on your right. And click PROCEED.



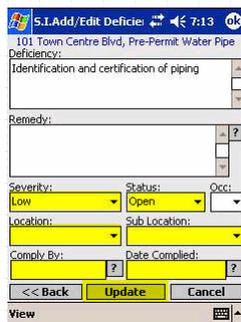
IF a deficiency category is not chosen the above message appears and you are not able to proceed.

Scheduled Inspections

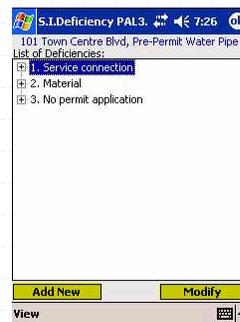
Entering Deficiencies – Deficiency Module



- 4) Click on the + sign, highlight the appropriate deficiency and click proceed.



- 5) After editing the appropriate fields in the deficiency ensure that you click UPDATE to save the deficiency.



New deficiencies can be added to the process as well as editing/modifying existing processes.

Scheduled Inspections Entering Deficiencies – Using Process Comment

S.I.Result PAL 3.20 10:54

16 Balsmano Rd, Framing - basement

Process Comment:
This permit is issued subject to development proceeding to the satisfaction of the Commissioner of Development Services with respect to all

Attempt Comment:

Expenses: Mileage: Hours:
0,00 0 0

Reschedule: Assign to:

Result:
Further Inspections Required

View

AMANDA - Checklist Entry - Process TEST

Folder # 04 017244 000 00 RFP Process STI Framing - basement

Property 16 Balsmano Rd

Display Order 1700 Mandatory Assign To: Assign To: Scheduled 129,342

COMMENTS
This permit is issued subject to development proceeding to the satisfaction of the Commissioner of Development Services with respect to all matters within the scope of site plan approval.

ProcessID#	Date	User	Comment	Penalty	Hours	Mileage	Expense
129,342	Nov 18, 2004	Amanda Dwyer	Further Inspection	0.00			\$0.00

- Process Comment: Entering the deficiency in this area allows you to view in PAL on the main screen for subsequently scheduled inspections.



Scheduled Inspections Entering Deficiencies – Using Attempt Comment

S.I.History PAL 3.21 12:05

18 Balsmano Rd, Occupancy Inspection

Process Summary:
(In Compliance)Pre-Permit Water Service P
(In Compliance)Pre-Permit Building Sewer-
(Still Under Construction)General Site Insp
(Closed)Water Service Discon - Inspection

Attempt Summary:
07/26/2004 Field Supervisor and Trainer Site visit
Attempt By: PIEROC
Attempt Comment: Site visit with Karen, follow

Deficiency Summary:

View

AMANDA - Checklist Entry - Attempt Comment TEST

Folder # 04 017250 000 00 RFP PH1127

Property 18 Balsmano Rd

Display Order 1700 Mandatory Assign To: Assign To: Scheduled 129,342

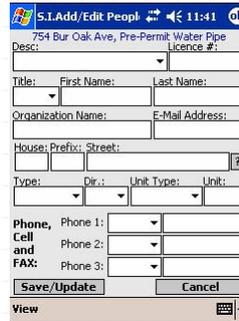
COMMENTS
Site visit with Karen, follow up builder's complaint excessive scrubby.

ProcessID#	Date	User	Comment	Penalty	Hours	Mileage	Expense
129,342	07/26/04	Pieroc	Site visit with Karen, follow up				

- Attempt Comment: Entering the deficiency in this area will only allow you to view in PAL using the history field. Click View -> click History -> scroll to the process and click on plus sign.



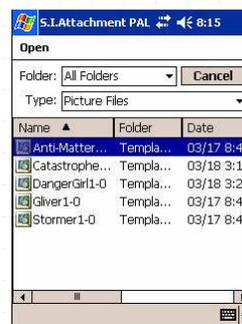
Scheduled Inspections People Window



- All the people associated with the property are grouped by category.
- New People can be Added and modifications can be made to existing people.



Scheduled Inspections Attachments Window – Adding a picture to your inspection



- Click the ADD button
- Select the picture to attach to the report



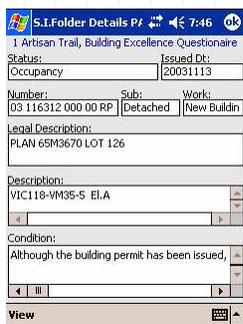
Scheduled Inspections Attachment Window – Removing Attachment



- Go to View -> Attachment
- Highlight the file in the attachment list that you want to remove.
- Click Remove



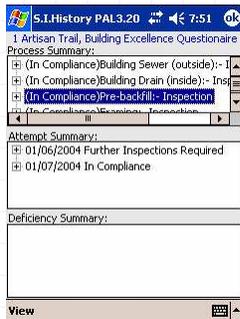
Scheduled Inspections Folder Detail



- This is a view only window, displaying the details about the folder.

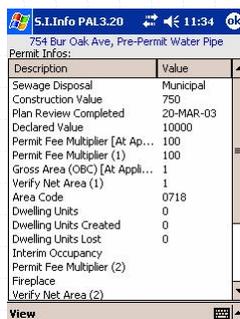


Scheduled Inspections History Window



- The history window allows you to review information already recorded about the inspection. You cannot edit the information you read in the History window.
- To read a record, tap its + sign.

Scheduled Inspections Info Window



- Info Values from the permit are viewable and editable.
- Note: DO NOT edit the Info Value Information.

Scheduled Inspections

Report Window – Saving/Attaching Inspection Report

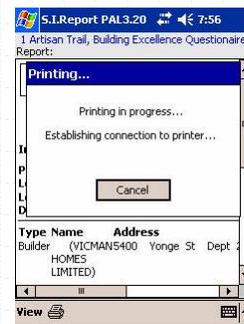
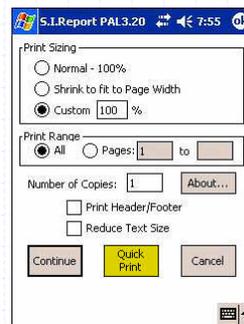
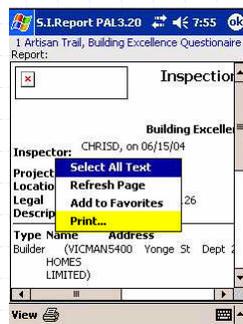


- To save/attach the inspection report to the process you **MUST** click the highlighted print icon.
- Note 1: This is not the same as recording an inspection result, this is the report that the builder will be provided upon request.
- Note 2: If you click the print icon twice, you will attach the report to the process twice. i.e. two copies of the same inspection will exist.



Scheduled Inspections

Report Window – Printing Inspection Report



- Hold the stylus down in the middle of the screen until the above message appears.
- Click Print
- Click Quick Print.
- If desired additional formatting of report is available with the Continue Option.
- Make sure the PDA is aimed at the printers infrared.
- Keep the PDA aimed at the printer until printing is completed.



Scheduled Inspections Report Window – Printing Inspection Report

MARKHAM Building Standards
General Offices: (905) 477-0880
333 Town Centre Blvd., Markham, ON L3R 9V3

Inspection Report

Inspector: CHRISL on 11/13/2014
Project: 109 Main St.
Location: PLAIN RD PART LOT 21, R5080710 PART 1
Building Details: Based on (Plan/Spec): 11/13/14 101-21
Folder #: 04 100312 100 20 HF

Type: Name: Street: Larry Williams () Address: 9 Ryals () Contact: 416 773 8800 (ext) 3054751436 (fw) ()

Attempt Status: Inspection Cancelled
Attempt Comment:

#	Deficiency	Severity	Location	Def. Date	Status
1.	The placement and location of piping does not protect it from mechanical or environmental (freezing) damage.	Low	First Floor/Scull	11/13/2014	Open
2.	Do not conceal construction until the deficiency(ies) has been corrected, and re-inspected by the building inspector.	Low	1st Basement/Rear	11/13/2014	Open
3.	Both coverboards at the entry to the building must be visible for inspection.	Low	1st Basement/Entr	11/13/2014	Open

Inspector Signature: _____

Caution: You are required to call for an inspection when the corrections have been made. Acceptance and approval by a building inspector is required. Construction may not be completed until the above deficiencies have been corrected by the issue of placement and approval by the building inspector. Failure to receive the outstanding concerns listed above may result in the issuance of an Order, including a Stop Work Order. To request an inspection, call (905) 477-0880 or the user request at (905) 477-7900. Requests will be made 24 hours in advance, 7 days a week. To discuss the inspection report, please contact the Building Inspector at (905) 477-7900 ext. 430 or 9:30 a.m. Monday to Friday.

- Inspection Reports generated by PAL are specific to an inspection process.
- All Inspection Reports generated by PAL must be saved as an attachment for future recall and viewing with AMANDA.
- Inspection Reports must be issued under the following conditions;
 1. For Housing projects, the Inspection Report shall be issued when the client specifically requests and
 2. For Non-housing projects the Inspection Report shall be issued when the client specifically requests, a deficiency was observed during the site visit or critical information about the construction project must be communicated to site personnel, i.e. required reports to be submitted, etc.
- Once the deficiencies have been entered, the Inspection Report can be issued at anytime in the future.



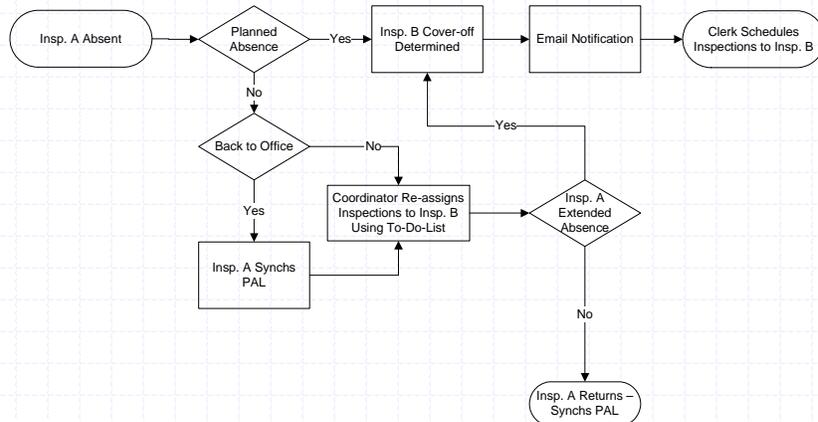
Scheduled Inspections Absences and Reassignments

- **Planned Absences:** The Team Coordinator will reassign the absent inspectors workload and forward via email to the Inspection Clerks the inspector(s) who will be performing the cover off.
- **Unplanned Absences:**
 - **Absent Inspector Can Return to Office:** Synchronize inspection results. Team coordinator reassigns inspections using To-Do-List the next day and each day of the absence. If absence is to be long-term a cover-off inspector is determined and emailed to the Inspection Clerks to schedule.
 - **Cannot Return to Office:** Team coordinator reassigns inspections using To-Do-List the next day and each day of the absence. If absence is to be long-term a cover-off inspector is determined and emailed to the Inspection Clerks to schedule.
- Please refer to flow chart .

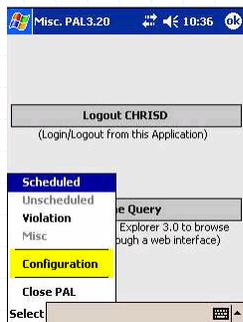


Scheduled Inspections Absences and Reassignments

PAL Employee Absence Process



Configuration



- The Configuration button located in the MISC. PAL 3.20 screen opens an administrative window.



Configuration – Setting Options

The screenshot shows the 'Config. PAL 3.20' application interface. It includes a status bar at the top with the time 8:27. The main content area contains several settings:

- 1. Set auto logon feature: CHRISD (selected) On/Off
- 2. Filter out processes: (empty field) On/Off
- 3. Set quickboot: (checked) On/Off
- 4. Set application debug: (unchecked) On/Off
- 5. Attach report to inspection: (checked) On/Off
- 6. Online Query URL: https://www.onestopgov.ca

Below these settings are buttons for 'Set', 'Free Up Memory Space', and 'Select'.

- In this window you can use these options:
- 1) Set auto logon feature.
By default you are required to enter a password each time you logon. To skip entering your password, follow these steps. Starting the next time you logon you will not be asked for your password.
 - In the 1. Set the auto logon feature field, tap the black triangle -> tap a user name.
 - Tap the check box beside On/Off to display a check mark.
 - Tap the Set Button.
- 2) Filter out processes:
You can filter the list of scheduled inspections to see only the scheduled inspections you want to see.
 - In the 2. Filter out processes field, enter the scheduled inspection descriptions that you do not want to see.
 - Separate each description with a comma, for example "framing, insulation, pre-backfill". Do not insert a space between each word. The words are also CASE SENSITIVE, e.g. Plumbing is right but plumbing is wrong.
- 3) Set quickboot:
- By default PAL starts with quickboot turned on (checkmark). Windows and components that you do not use immediately do not load until you use them. You can turn off quickboot but the result will be a longer boot time.
- 4) Set application debug:
- By default PAL does not show unhandled errors. This feature allows the PAL administrator to find the cause of errors.
- 5) Attach report to inspection:
This feature must be checked of in order for the inspection report to be attached to the process.



Configuration Completed Inspection Clean UP

This screenshot is identical to the one above, but the 'Free Up Memory Space' button is highlighted in yellow, indicating it is the focus of the current section.

- **Cleaning Up Completed Inspections**
 - All inspections must be entered into the PDA.
 - All completed inspections must first have been synchronized to Amanda desktop. This is **CRITICAL!!**
 - Tap the Free Up Memory Space button. Files with the Status DONE are deleted.



Fields

Filling & changing

- You can change the tool you use with your stylus to manually enter information in a window's field.
- On the window's right side you see either a keyboard icon or the stylus icon. The keyboard represents one option of entering text. The stylus icon represents two options of entering text.
- To see all three of these text-entering options, tap the black triangle beside the icon. To use a different text-entering option, tap that option.

Three Options:

- 1) Block Recognizer: The Result window's bottom third is covered with a window with abc in its left corner and 123 in its upper right corner. Draw alphabet letters one-by-one with your stylus.
- 2) Keyboard: The Result window's bottom third is covered with a keyboard. Tap keys with your stylus.
- 3) Letter Recognizer: The Result window's bottom third is covered with a window with ABC and abc and 123 spaced across its top. Draw alphabet letters one-by-one with your stylus.



Inspection Request Scheduling

- When the Builder requests an inspection from the list in the table on the right hand side, the Inspection Clerk also schedules the associated inspections if they have not been closed.

Procedure For Scheduling Inspection Requests		
Requested Inspection	Schedule Following Inspections	Process Code
Framing	Framing	510
	HVA/C Rough-In	520
	Plumbing Rough-In	522
	Fire Separations/Resistance Ratings	535
Occupancy	Occupancy Inspection	596
	Framing - Basement	511
	Exterior Final	600
	Fire Separations/Resistance Ratings	535
Exterior Final	Exterior Final	600
	Issue Certificate of Completion - Housing	733
	Occupancy Inspection	596
Sewer	Building Sewer	503
	Water Service Pipe	502
Insulation	Insulation	555
	Framing	510
	HVA/C Rough-In	520
	Plumbing Rough-In	522
	Fire Separations/Resistance Ratings	535
	Insulation - garage (Steve W.)	556

*Note: If an inspection is requested not located in column 1, only schedule the request.



Inspection Request Scheduling

- Adding an Inspection Request:
 - Enter the permit number and retrieve
 - click inspection request tab
 - right click and enter request information
 - enter requesters name & phone
 - select process
 - enter date of inspection in "requested for" field
 - enter inspectors name
 - copy requesters name & phone into "comment field"
 - click schedule process (bottom box)

NOTE: When prompted that dependent processes have not been scheduled, or when there are previous processes still open in the drop down, schedule those processes. When the department schedules these inspections, make a note in the comment section: "Department Request"



Inspection Request Scheduling

- Changing an Incorrectly Scheduled Inspection Request:
 - 1- Go into the inspection request screen
 - 2- If the row is showing that a date HAS NOT been inserted under the schedule field, then delete the row.
 - 3a- If the row is showing that a date HAS been inserted under the schedule field, then go to the appropriate process, & remove the check mark in the schedule box - click update.
 - 3b- Go into the inspection request screen & enter a new row with the correct information.

Note: This includes incorrect day, process or inspector.



Status Inspections

- PAL will provide us with a vehicle to continue with our Status Inspection program. Status inspections will appear on your hand held on a regular basis. In accordance with Standard Practice no. 98-002, the objective in performing status inspections is;
To properly discharge the duty of care owed to persons whose interests in the inspection program could be reasonably seen to be at stake.
- Status inspections help to prevent the accumulation of work load and liability that results from dormant project folders.
- Status inspections occur on an inspector's workload at a predetermined number of days after the permit is issued and/or after the last conducted building inspection for a building permit.

Status Inspections

- When a STATUS INSPECTION appears on an inspectors hand held, the inspector has one of three basic options to perform;
 1. Perform an inspection to determine the present status of construction and then enter the result 'Inspection Conducted' **OR**
 2. Not perform the inspection because the inspector is already up to date on the construction activity and enter the attempt result 'Inspection Not Conducted' **OR**
 3. Not perform an inspection due to the number of requested inspections for the day exceeding their ability to perform the status inspection and therefore enter the attempt result 'Inspection Not Conducted'
- Entering an attempt result of "Inspection Conducted" or "Inspection Not Conducted" will end the process and automatically reschedule the Status Inspection for 30, 90 or 130 working days later.

Deficiency Table

Category	Code	Deficiency	SubCategory
100	5	Material	Not every length of pipe and fitting has been marked to indicate proper compliance with the relevant standard.
100	10	Service connections	The water service pipe is not properly connected to the public systems.
100	15	Pipe, Fittings and Connections	The layout of the pipe and associated fittings do not permit proper operation of the water service.
100	20	Pipe support	The support of piping (bedding) is inadequate
100	25	Protection	The protection of piping from damage due to freezing temperatures is inadequate
100	30	Spatial separation	The installation of the water service pipe does not protect it from being contaminated.
100	35	Testing	Testing of the water service is required
100	40	Other	
105	45	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
105	50	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
105	55	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
105	60	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
105	65	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
105	70	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
105	71	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
105	75	Other	
110	80	No permit application	An application for a building permit has not been made
110	81	Not ending in building	Water service pipe must end within the dwelling unit
110	82	Water pipe not visible for inspection	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
110	83	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
110	84	Other	
115	89	Identification and certification	Not every length of pipe and fitting has been marked to indicate proper compliance with the relevant standard.
115	90	Service connection	The building storm and sanitary sewer have not been properly connected to the public systems and may have created a cross connection.
115	95	Pipe, Fittings and Connections	The layout of the pipe and associated fittings do not permit the proper operation and discharge of sanitary and storm sewage to the street laterals.
115	100	Cleanouts, fittings and floor drains	The cleanouts, fittings and floor drains have not been installed correctly, prohibiting the cleaning and drainage of the plumbing systems.
115	105	Slope, length and size	The minimum slope, length and size of the drainage pipes does not permit adequate flow of the sewage.
115	110	Pipe support	The support of drainage piping (bedding) does not permit the unobstructed flow of sewage to its' intended place of discharge.
115	115	Protection from freezing and damage	The placement and location of piping does not protect it from mechanical or environmental (freezing) damage.
115	120	Spatial separation	The installation of the drainage piping will cause contamination of the water in the water service pipe.
115	125	Testing	The testing of the drainage system is required to confirm the discharge of sewage without leaking.
115	130	Other	
120	135	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code.
120	140	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
120	145	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
120	150	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.

Deficiency Table

Category	Code	Deficiency	SubCategory
120	155	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
120	160	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
120	161	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
120	165	Other	
125	170	No permit application	An application for a building permit has not been made.
125	171	Sewer pipe not visible for inspection	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
125	172	Visible Connection	At least one connection at the property must be visible for inspection.
125	173	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
125	174	Other	
130	175	Identification and certification	Not every length of pipe and fitting has been marked to indicate proper compliance with the relevant standard.
130	180	Service connection	The water service pipe is not properly connected to the public systems.
130	185	Pipe, Fittings and Connections	The layout of the pipe and associated fittings do not permit proper operation of the water service.
130	190	Pipe support	The support of piping (bedding) is inadequate
130	195	Protection	The protection of piping from damage due to freezing temperatures is inadequate
130	200	Spatial separation	The installation of the water service pipe does not protect it from being contaminated.
130	205	Testing	Testing of the water service is required.
130	210	Other	
135	215	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
135	220	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
135	225	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
135	230	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
135	235	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
135	240	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
135	241	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
135	245	Other	
140	250	Not ending in building	Water service pipe must end within the dwelling unit.
140	251	Water pipe not visible for inspection	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
140	252	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
140	253	Other	
145	255	Material	Not every length of pipe and fitting has been marked to indicated proper compliance with the relevant standard.
145	260	Service connection	The building storm and sanitary sewer has not been properly connected to the public systems and has created a cross connection.
145	265	Pipe, Fittings and Connections	The layout of the pipe and associated fittings do not permit the proper operation and discharge of sanitary and storm sewage to the street laterals.
145	270	Cleanouts, fittings and floor drains	The cleanouts, fittings and floor drains have not been installed correctly, prohibiting the cleaning and drainage of the plumbing systems.

Deficiency Table

Category	Code	Deficiency	SubCategory
145	275	Slope, length and size	The minimum slope, length and size of the drainage pipes does not permit adequate flow of the sewage.
145	280	Pipe support	The support of drainage piping (bedding) does not permit the unobstructed flow of sewage to its' intended place of discharge.
145	285	Protection from freezing and damage	The placement and location of piping does not protect it from mechanical or environmental (freezing) damage.
145	290	Spatial separation	The installation of the drainage piping will cause contamination of the water in the water service pipe.
145	295	Testing	The testing of the drainage system is required to confirm the discharge of sewage without leaking.
145	300	Other	
150	305	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
150	310	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
150	315	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
150	320	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
150	325	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
150	330	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
150	331	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
150	335	Other	
155	340	Visible connection	At least one connection at the property must be visible for inspection.
155	341	Concealed construction	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
155	342	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
155	343	Other	
160	345	Material	Not every length of pipe and fitting has been marked to indicated proper compliance with the relevant standard.
160	350	Service connection	The building storm and sanitary sewer has not been properly connected to the public systems and has created a cross connection.
160	355	Pipe, Fittings and Connections	The layout of the pipe and associated fittings do not permit the proper operation and discharge of sanitary and storm sewage to the street laterals.
160	360	Cleanouts, fittings and floor drains	The cleanouts, fittings and floor drains have not been installed correctly, prohibiting the cleaning and drainage of the plumbing systems.
160	365	Slope, length and size	The minimum slope, length and size of the drainage pipes does not permit adequate flow of the sewage.
160	370	Pipe support	The support of drainage piping (bedding) does not permit the unobstructed flow of sewage to its' intended place of discharge.
160	375	Protection from freezing and damage	The placement and location of piping does not protect it from mechanical or environmental (freezing) damage.
160	380	Spatial separation	The installation of the drainage piping will cause contamination of the water in the water service pipe.
160	385	Testing	The testing of the drainage system is required to confirm the discharge of sewage without leaking.
160	390	Other	
165	395	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code.
165	400	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
165	405	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
165	410	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
165	415	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.

Deficiency Table

Category	Code	Deficiency	SubCategory
165	420	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
165	421	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
165	425	Other	
170	430	Install cleanouts	The cleanouts must be installed on the stacks at the time of inspection.
170	435	Both connections at front of dwelling not visible for inspection	Both connections at the entry to the building must be visible for inspection.
170	436	Concealed construction	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
170	437	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
170	438	Other	
175	440	Support of footings	The support of footings will not sustain the loads presented by the building.
175	445	Footing forms	The width, layout or depth of the footing forms are incorrect.
175	450	Foundation wall thickness	The thickness of the foundation wall will not resist the lateral pressures imposed on it by backfilled earth and/or be able to transfer the vertical loads to the footings.
175	455	Reduction in thickness	The foundation wall has an incorrect reduction in thickness and will not be able to perform the its' intended function.
175	460	Joist and beam support	Adequate support for the joist and beam has not been incorporated into the construction of the foundation.
175	470	Finishing below grade	The parging applied to the concrete block does not provide a smooth and consistent surface to apply dampproofing.
175	475	Form ties and segregation	Foundation contains open form tie slots and/or concrete has segregated and therefore, the foundation is subject to leakage.
175	480	Dampproofing material	Dampproofing as installed will not prevent soil moisture from entering the foundation through capillary action.
175	485	Exterior concrete stairs	Foundation required for exterior concrete stairs or attached to the foundation wall.
175	490	Foundation wall drainage	The installation of the foundation wall drainage (weeping tile and drainage layer) will not minimize basement leakage.
175	495	Placement of backfill	Placement of backfill shall not exceed 1200 mm or brace foundation walls prior to backfilling.
175	500	Location of insulation	Insulation below grade required to be installed and/or corrected
175	505	Lateral support	Foundation wall requires proper lateral support prior to backfilling
175	510	Anchorage of building frames	Insufficient anchor bolts installed to adequately fasten building superstructure to the foundation, resist uplift and lateral forces acting on the building.
180	515	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
180	520	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
180	525	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
180	530	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
180	535	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
180	540	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
180	541	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
180	545	Other	
185	550	Bracing of foundation wall or first floor installed	The foundation wall is not laterally supported, maximum 1200 mm backfill
185	551	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be

Deficiency Table

Category	Code	Deficiency	SubCategory
185	552	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
185	553	Other	
190	555	Columns	The installation of column(s) is not sufficient to transfer loads to the footing, foundation wall or other structural element.
190	560	Beams	The installation of the beam(s) are not properly assembled or supported.
190	565	Floor joists	The method and material installation of the floor joist assembly is not in compliance with the building permit documents and/or the Building Code.
190	570	Fire separation, collapse and reduction	The construction supporting the fire separation will not ensure it's integrity.
190	575	Header and trimmer joists	The installation of the header and/or trimmer joists around a floor opening are not framed to safely distribute the loads from the interrupted joists.
190	580	Support walls	The support of the non-load bearing walls and load bearing walls is not adequate for compliance with the building code.
190	585	Wall studs	The installation of the wall studs is inadequate to convey structural loads and/or to facilitate the application of cladding and finishes.
190	590	Wall plates	The installation of the wall plates will not adequately transfer loads to and from the wall studs.
190	595	Lintels	The installation of the lintels do not adequately transfer the loads applied upon them.
190	600	Windows	The windows have not been installed to provide the minimum area required for natural lighting, egress and/or limiting the glazed area in close proximity to property lines.
190	605	Roof joists, rafters and intermediate support	The material and installation of the roof joists, rafters and/or collar ties do not comply with their structural requirements.
190	610	Roof sheathing	The installation of the roof sheathing does not provide the necessary structural diaphragm for the framing members and an appropriate base for roofing.
190	615	Roof spaces - ventilation	The construction of the roof space ventilation will not ensure moisture from the building does not accumulate in the roof and attic spaces.
190	620	Wood roof trusses	The installation of the wood roof trusses are not installed according to their design shop drawings.
190	625	Fire stopping	The installation of or missed fire stopping will not prevent the spread of fire via concealed spaces.
190	630	Fire separation between dwelling units	The construction of the fire separation between dwelling units does not ensure it's integrity against fire and smoke.
190	635	Firewalls	The construction of the firewall does not prevent the spread of fire and/or may permit the abutting construction to collapse.
190	640	Egress and travel limit	The egress and travel limit to an exit doorway is not in compliance with the Building Code and/or permit documents.
190	645	Above-Grade Masonry	The structural adequacy of the masonry and its' components are not in compliance with the building code.
190	650	Stairs	The geometry and construction of the stairs do not meet the minimum standards of safety of the Building Code.
190	655	Ceramic tile reinforcement	The installation of the ceramic tile reinforcement is not in compliance and will not adequately prevent deflection of the floor sheathing.
195	660	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
195	665	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
195	670	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
195	675	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
195	680	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
195	685	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
195	686	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
195	690	Other	
200	695	Framing inspection not performed on basement level	No access to basement provided, framing inspection to be conducted at a later date

Deficiency Table

Category	Code	Deficiency	SubCategory
200	700	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
200	701	The plumbing, heating and electrical services are incomplete	The plumbing, heating and electrical services are required to be completed prior to performing a framing inspection. This is necessary in order to verify that the structural sufficiency has not been compromised by drilling and cutting of framing members.
200	702	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
200	706	Other	
205	710	Columns	The installation of column(s) is not sufficient to transfer loads to the footing, foundation wall or other structural element.
205	715	Beams	The installation of the beam(s) are not properly assembled or supported.
205	720	Floor joists	The method and material installation of the floor joist assembly is not in compliance
205	725	Fire separation, collapse and reduction	The construction supporting the fire separation will not ensure it's integrity.
205	730	Header and trimmer joists	The installation of the header and/or trimmer joists around a floor opening are not framed to safely distribute the loads from the interrupted joists.
205	735	Support walls	The support of the non-load bearing walls and load bearing walls is not adequate for compliance with the building code.
205	740	Wall studs	The installation of the wall studs is inadequate to convey structural loads and to facilitate the application of cladding and finishes.
205	745	Wall plates	The installation of the wall plates will not adequately transfer loads to and from wall studs.
205	750	Lintels	The installation of the lintels do not adequately transfer the loads applied upon them.
205	755	Windows	The windows have not been installed to provide the minimum area required for natural lighting, egress and limiting the glazed area in close proximity to property lines.
205	760	Roof joists, rafters and intermediate support	The material and installation of the roof joists, rafters and collar ties do not comply with their structural requirements.
205	765	Roof sheathing	The installation of the roof sheathing does not provide the necessary structural diaphragm for the framing members and an appropriate base for roofing.
205	770	Roof spaces - ventilation	The construction of the roof space ventilation will not ensure moisture from the building does not accumulate in the roof and attic spaces.
205	775	Wood roof trusses	The installation of the wood roof trusses are not installed according to their design.
205	778	Fire stopping	The installation of or missed fire stopping will not prevent the spread of fire via concealed spaces.
205	780	Fire separation between dwelling units	The construction of the fire separation between dwelling units does not ensure it's integrity against fire and smoke.
205	782	Firewalls	The construction of the firewall does not prevent the spread of fire and may permit the abutting construction to collapse.
205	784	Egress and travel limit	The egress and travel limit to an exit doorway is not in compliance with the building code.
205	786	Above-Grade Masonry	The structural adequacy of the masonry and its' components are not in compliance with the building code.
205	788	Stairs	The geometry and construction of the stairs do not meet the minimum standards of safety.
205	789	Ceramic tile reinforcement	The installation of the ceramic tile reinforcement is not in compliance and will not adequately prevent deflection of the floor sheathing.
205	791	Other	
210	792	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
210	795	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
210	800	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
210	805	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
210	810	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.

Deficiency Table

Category	Code	Deficiency	SubCategory
210	815	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
210	816	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
210	820	Other	
215	825	Concealing possible	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
215	830	The plumbing, heating and electrical services are incomplete	The plumbing, heating and electrical services are required to be completed prior to performing a framing inspection. This is necessary in order to verify that the structural sufficiency has not been compromised by drilling and cutting of framing members
215	832	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
215	835		
220	840	Size of ducts	Size of supply ducts are not in conformance with permit documents.
220	840	Location of ducts	Location of supply ducts are not in conformance with permit documents.
220	840	Condition of ducts	Ducts are required to be smooth, undamaged, straight and short as possible and non-combustible.
220	840	Fastening of ducts	Ducts must be properly fastened; round ducts are tight fitting and lapped a minimum of 25 mm.
220	840	Damper installation	Balancing dampers must be installed at each register and at trunk take-offs.
220	840	Support of ducts	Ducts must be securely supported by metal hangers, straps, lugs or brackets from the structure.
220	840	Protection and head clearance	Foamed plastic insulation must be covered with sheet metal or gypsum board and clearance beneath ducts is a minimum of 1.95 m at one location.
220	840	In-ground	Ducts placed in concrete slabs must be water tight and corrosion, decay and mildew resistant.
220	840	Vertical or horizontal duct	Horizontal flexible ducts do not exceed 4000 mm, vertical flexible ducts are not permitted.
220	840	Thermal insulation	Ductwork located in unheated spaces must be insulated with a minimum of R-12 thermal insulation.
220	840	Excessive number of elbows	Minimize the number of 90 degree elbows installed to accommodate the change in direction.
220	845	Location of returns	At least one return air must be provided in each storey, but must not be located in a garage, washroom, kitchen or laundry room.
220	845	Backing of chase	Return air chases must be backed with metal, gypsum board or plywood.
220	845	Fire stopping	Unused portion of return air chases must be fire stopped by tight fitting metal stops or wood blocking.
220	845	Solid fuel fired	Return air ducts serving a solid fuel-fired furnace must be constructed of non-combustible material.
220	845	Openings in vertical duct	Vertical return air ducts cannot contain more than one opening per floor.
220	845	Floor level exceed 900 mm	A return air must be provided on all floors where the difference in floor levels exceeds 900 mm.
220	845	Obstructions	Obstructions in a return air chase must be limited to facilitate proper operation.
220	845	Rooms over unheated space	A return air outlet is required in all rooms over a garage or an unheated space with a minimum of 50% of the room floor area is over the cold portion.
220	845	Insulation	All return air ducts exposed or passing through an unheated spaces must be insulated with a material with a minimum R-12 thermal resistance.
220	850	Insulation	Exhaust ducts must be wrapped with insulation and vapour barrier for a minimum of 1200 mm from the outside wall and entirely through an unheated space.
220	850	Back draft	Provision is required to prevent back drafting of exhaust fan duct.
220	850	Location of exhaust intake	An exhaust air intake or exhaust fan must be installed in each kitchen, bathroom and water closet room.
220	850	Kitchen exhaust	The kitchen exhaust ducts must be installed so that the entire duct can be cleaned when not equipped with a filter at the intake end.

Deficiency Table

Category	Code	Deficiency	SubCategory
220	850	Outside hood placement	The outside exhaust hood must be placed a minimum of 450 mm above grade and 1800 mm from any fresh air supply intake.
220	850	Exhaust directly	Exhaust ducts must discharge directly to the outdoors and not into attics, garages, crawlspaces, etc. Kitchen range hoods must not be connected to an HRV system.
220	850	Bathroom exhaust	Bathroom fans that exhaust directly to the outside, must be constructed of a moisture resistant material and certified for such use.
220	850	Laundry exhaust	Laundry exhaust ducts cannot be connected to other exhaust ducts.
220	850	Special equipment exhaust	Provision of make-up air supply is required as per manufacturer's instructions or the building permit drawings.
220	855	Type of fuel-fired appliances	The type of fuel-fired appliance or other space heating equipment is not the same classification as stated on the building permit documents.
220	855	Categorization of dwelling	The categorization of the dwelling unit (Type I, II, III or IV) does not correspond with the type of fuel-fired appliance or space heating equipment installed.
220	855	Number of bedrooms	The number of built bedrooms exceeds the number on the building permit drawings, revision required.
220	855	HRV installation	The required HRV and associated dampers, switches, ductwork have not been installed in conformance with the Building Code.
220	855	Principal exhaust fan	The installation of the principal exhaust fan does not conform to the Building Code.
220	855	Supplemental exhaust fans	Exhaust air intake with a manual switch must be installed in each kitchen, bathroom and water closet room.
220	855	Fan certification	All required principal and supplemental fans must be certified to CAN/CSA-C260 for fan airflow rating and are HVI certified for maximum fan sound ratings.
220	855	Depressurization test	In Type III dwellings, a test for excessive de-pressurization is required as an appliance that exhausts more air from the dwelling that was originally approved has been installed.
220	855	Make-up air	Make-up air must be tempered and installed as approved by the appliance manufacturer.
225	860	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
225	865	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
225	870	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
225	875	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
225	880	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
225	885	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
225	886	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
225	890	Other	
230	895	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
230	900	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
230	905	Other	
235	910	Identification and certification	Not every length of pipe and fitting has been marked or can be identified to indicate proper compliance with the relevant standard.
235	915	Cleanouts	Cleanouts have not been installed to permit cleaning of the sanitary and storm drainage systems.
235	920	Joints and connections in drainage systems	Drainage pipe is required to have the proper type of joint installed for the piping material used and an air or liquid connection.
235	925	Connections to drainage systems	Fixture(s) in a plumbing system have not been connected to a drainage system that facilitates proper flow, disposal and protect the occupant's health.
235	930	Arrangement of drainage piping and fittings	An improper arrangement of drainage system piping has been installed and will not permit the proper operation and maintenance of the plumbing system.

Deficiency Table

Category	Code	Deficiency	SubCategory
235	935	Minimum slope, length and size of drainage pipes	Drainage piping has been installed that will not permit adequate flow of sewage, prevent accumulation of waste within the drainage pipe and not provide for self cleaning of the walls of the piping.
235	940	Support of piping	Improper support of piping has been provided and will not permit unobstructed flow of sewage to it's intended place of discharge by maintaining the proper pipe slope.
235	945	Stack venting and modified stack venting	The stack vented fixtures do not permit adequate source of air supply from the exterior to enter the plumbing system to allow waste to drain properly from the dwelling.
235	950	Vent pipes for soil or waste stacks	The vent pipe for the soil or waste stack will not permit adequate source of air supply to enter the plumbing system and allow the waste to drain properly.
235	955	Arrangement of vent pipes	The arrangement of vent pipes will not introduce the proper amount of outside air and eliminate the possibility of a vacuum being created in the drainage piping or siphoning of traps.
235	960	Vent pipe sizes	The correct size of vent pipe for the fixture it serves has not been provided to maintain adequate drainage flow.
235	965	Vent pipe lengths	The correct length of vent pipe for the fixture it serves has not been provided to maintain adequate drainage flow.
235	970	Vent pipe sizes for wet venting	The correct length and size of wet vent pipe for the fixture it serves has not been provided to maintain adequate drainage flow.
235	975	Identification and Certification	Not every length of pipe and fitting has been marked or can be identified to indicate proper compliance with the relevant standard.
235	975	Arrangement of piping	The installation of the potable water systems will not permit satisfactory operation and maintenance.
235	975	Protection from contamination	The potable water system shall be protected from contamination by; removing all non-compliant appliances, fixtures, materials or any product that has not been approved by the Building Code and eliminating all cross-connections
235	980	Testing of drainage, venting and water distribution systems	Systems were not ready prior to inspection. Fill/pressurize the drainage and venting system and maintain the water or air for at least 15 minutes. Visible signs of water leakage requires; repair, retesting and reinspection. The water distribution syste
240	985	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
240	990	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
240	995	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
240	1000	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
240	1005	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
240	1010	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
240	1011	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
240	1015	Other	
245	1020	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
245	1025	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
245	1030	Other	
250	1035	Fire stopping	Fire stopping is required to prevent the spread of fire via concealed spaces.
250	1040	Fire separation between dwelling units	The construction of the fire separation between dwelling units does not provide the necessary integrity.
250	1045	Firewalls	The construction of the firewall will not prevent the spread of fire.
250	1050	Fire-resistance rating of walls	The construction of the exposing building face (exterior wall) does not provide the required fire-resistance rating.
255	1055	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
255	1060	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
255	1065	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.

Deficiency Table

Category	Code	Deficiency	SubCategory
255	1070	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
255	1075	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
255	1080	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
255	1081	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
255	1085	Other	
260	1090	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
260	1095	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
260	1100	Other	
265	1105	Insulation certification	The type of insulation installed does not have Building Code or other acceptable agency approval.
265	1110	Location	The location of the insulation does not ensure all heated spaces are adequately insulated.
265	1115	Minimum thermal resistance	Sufficient insulation has not been installed to prevent condensation and comply with the energy conservation standards of the Building Code.
265	1120	Installation of insulation	The method of installation of the insulating materials do not provide the minimum insulating values required by the building code.
265	1125	Air barrier systems	The installation of the air barrier system does not minimize the exchange of conditioned interior air and exterior air.
265	1130	Vapour barriers	The installation of the vapour barrier does not prevent the diffusion of water vapour through the insulated assemblies.
265	1135	Other	
270	1140	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
270	1145	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
270	1150	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
270	1155	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
270	1160	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
270	1165	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
270	1166	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
270	1170	Other	
275	1175	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
275	1180	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
275	1185	Services and framing deficiencies incomplete	Prior to performing an insulation inspections, the deficiencies associated with the framing, plumbing and heating must be completed and re-inspected.
275	1190	Other	
280	1195	Insulation certification	The type of insulation installed does not have building code or other acceptable agency approval.
280	1200	Location	The location of the insulation does not ensure all heated spaces are adequately insulated.
280	1205	Minimum thermal resistance	Sufficient insulation has not been installed to prevent condensation and comply with the energy conservation standards of the building code.
280	1210	Installation of insulation	The method of installation of the insulating materials do not provide the minimum insulating values required by the building code.

Deficiency Table

Category	Code	Deficiency	SubCategory
280	1215	Air barrier systems	The installation of the air barrier system does not minimize the exchange of conditioned interior air and exterior air.
280	1220	Vapour barriers	The installation of the vapour barrier does not prevent the diffusion of water vapour through the insulated assemblies.
280	1225	Other	
285	1230	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
285	1235	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
285	1240	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
285	1245	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
285	1250	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
285	1255	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
285	1256	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
285	1258	Other	
290	1260	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
290	1265	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
290	1270	Services and framing deficiencies incomplete	Prior to performing an insulation inspections, the deficiencies associated with the framing, plumbing and heating must be completed and re-inspected.
290	1275	Other	
295	1280	Stairs	The installed stairs do not present a level of safety and convenience prescribed by the Building Code.
295	1285	Handrails	The handrail(s) does not provide a secure hand hold while using stairs or ramps.
295	1290	Guards	The structure and geometry of the guard(s) is incomplete or does not provide the required protection against a person falling over or crawling through it.
295	1295	Wall, ceiling and floor finishes	The interior finishes do not necessarily provide the required fire, sound and/or water resistance surfaces that are appropriate for the room's use and protection of the substrate materials.
295	1300	Doors	The door(s) as installed do not have the ability to provide the required level of security, privacy and/or thermal resistance.
295	1305	Windows	The installed windows do not have the characteristics necessary to provide natural ventilation, natural lighting, required emergency escape resistance to forced entry, resistance to air leakage and/or resistance to heat loss.
295	1310	Fire Protection	The smoke alarm(s), carbon monoxide detector(s), fire separations, barrier to gas and exhaust fumes from attached garage and/or fire stopping are incomplete.
295	1315	Electrical facilities	Electrical facilities (required lighting) are not been installed.
295	1320	Plumbing facilities	Plumbing facilities are incomplete and/or not operational.
295	1325	Heating and mechanical ventilation facilities	The heating and/or mechanical ventilation facilities are incomplete and/or not operational.
295	1330	Other	
300	1335	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
300	1340	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
300	1345	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
300	1350	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
300	1355	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
300	1360	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.

Deficiency Table

Category	Code	Deficiency	SubCategory
300	1361	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
300	1365	Other	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
305	1370	Construction concealed	
305	1375	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
305	1380	Furnace sticker	The Occupancy sticker must be applied on the return air plenum at the furnace where it can be readily seen from the basement interior.
305	1385	Fencing at adjacent construction site	Erect and maintain fencing between this dwelling and the adjacent property with construction. Call for an inspection once the fencing has been erected.
305	1390	Furnace operation	The furnace must be operational between September 30th and April 1st.
305	1395	Other	The ground surface adjacent to the building does not slope away from the building.
310	1400	Drainage	
310	1405	Stairs	The installed stairs do not present a level of safety and convenience prescribed by the Building Code and/or do not have adequate foundations.
310	1410	Handrails	The handrail(s) does not provide a secure hand hold while using stairs or ramps.
310	1415	Guards	The structure and geometry of the guard(s) is incomplete or does not provide the required protection against a person falling over or crawling through it.
310	1420	Cladding	The installed exterior cladding and related components will not resist penetration by snow, rain or wind and/or will not allow for the release of moisture from within the assembly.
310	1425	Fire protection - cladding	The exposing building face does not have the required fire resistance rating and/or must be of non-combustible material.
310	1430	Flashing and cladding	The building envelope as constructed will not shed precipitation and moisture that may accumulate within the structure.
310	1435	Roofing and venting	The roofing as installed will not effectively shed water and snow from the building and/or the ventilation of the roof space is not adequate to prevent moisture damage to the structure.
310	1440	Other	Construction has not been built in conformance with the permit drawings and the Building Code
315	1445	Building code & permit drawings not followed	
315	1450	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
315	1455	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
315	1460	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
315	1465	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
315	1470	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
315	1471	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
315	1475	Other	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
320	1480	Construction concealed	
320	1485	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
320	1490	Fencing at adjacent construction site	Erect and maintain fencing between this dwelling and the adjacent property with construction. Call for an inspection once the fencing has been erected.

Deficiency Table

Category	Code	Deficiency	SubCategory
320	1495	Exterior cladding incomplete	The exterior building envelope is incomplete and must be completed prior to the issuance of an official Certificate of Occupancy by the Town of Markham.
320	1500	Other	
325	1505	Site evaluation	The clearances to the structures, neighbours wells, etc. have not been maintained, P. Eng. report required to be submitted.
325	1510	Vertical elevations	The following information is required; benchmark elevation established on permanent structure and recorded, elevation of base cut of native soil and recorded on System Layout Sheet provided by Markham
325	1510	Track mounted equipment	Track mounted equipment was not used to excavate top soil, submit P. Eng. report on soil conditions.
325	1510	Base and side of trenches	Base and sides of trenches have been smeared and must be scarified.
325	1510	Filter bed levelness	The levelness of the filter bed area varies by more than 300 mm
325	1515	Leaching bed slope	The leaching bed has been located in an area with an average slope of greater than 1:4, P. Eng. report required to be submitted.
325	1520	Other	
330	1525	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
330	1530	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
330	1535	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
330	1540	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
330	1545	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
330	1550	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
330	1551	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
330	1555	Other	
335	1560	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
335	1565	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
335	1567	Other	
340	1570	Leaching bed fill	The leaching bed must comply with the following; native soil for in-ground or partially raised bed requires soil test results to verify T-time, submit lab test reports and delivery tickets to verify leaching bed fill T-time, heavy equipment not on mantle
340	1575	Conventional in-ground leaching bed	The leaching bed must comply with the following; trenches approx. same length, max. 30 m, size and layout of bed as per permit documents, at least 500 mm and not more than 1000 mm in width, at least 600 mm and not > 900 mm in depth from bottom of trench t
340	1575	Fill Based Absorption Trenches (partially raised)	The leaching bed must comply with the following; size and layout of bed and trenches as per permit documents, fill or native soil with T = 1-50 at least 250 mm in depth, fill extends min. 15 m into mantle, min. 900 mm between absorption trench and native
340	1575	Filter beds (sand filter bed)	The size (effective area) must comply with the layout as per the permit documents and the following; submit lab test reports to confirm sand filter gradation limits, base of filter 250 mm min., filter medium is 750 mm min. below stone layer, surface of fi
340	1580	Distribution pipe	The length and layout of distribution pipe must comply with the permit drawings and the following; headers and distribution boxes to be installed level, distribution pipe to be evenly spaced, not less than 3" trade size (gravity), perforations to be facin
340	1580	Stone	Distribution pipe must be laid on a layer of stone at 150 mm depth and 500 mm in width, 19 mm clear aggregate washed of fine material, clean gravel screened to between 19 mm to 50 mm in size, distribution pipe covered with stone below the pipe to a minim

Deficiency Table

Category	Code	Deficiency	SubCategory
340	1585	Septic tanks	The installation of septic tanks must conform to the following; conform to CAN3-B66 and labelled, tank is level and on undisturbed soil or compacted fill, Manu. Instr. to be followed for fiberglass or plastic tanks, tank anchorage as per Manu. Instr., 2% s
340	1585	Treatment units	The type of treatment unit installed must comply with permit documents, Manuf. Instr. and any approval agency (BMEC) rulings.
340	1590	Pump and pump chamber	The pump and chamber must be installed in accordance with the permit documents, including; the size of the pump, when pipe exceeds 150 m pump installed and operating to dose leaching bed 75% of the storage volume of pipes.
340	1595	Other	
345	1600	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
345	1605	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
345	1610	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
345	1615	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
345	1620	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
345	1625	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
345	1626	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.
345	1630	Other	
350	1635	Construction concealed	Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be
350	1640	Construction not ready as requested	An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised
350	1645	Other	
355	1650	Vertical elevations	The elevation of the top of the finished surface must be a maximum of 600 mm measured from the top of the filter bed. For a raised filter bed system the min. backfill of 600 mm and max. 900 mm from the bottom of absorption trench to finished ground. For
355	1655	Occupant warnings and literature	Audible and visible warning alarms must be installed to warn occupants (installed in the dwelling) of a mechanical part failure associated with the treatment unit. Printed literature for the operation of the treatment unit must be left with the occupant
355	1660	Pump and pump chamber	The float must be operating and regulate the pump for consistent level of sewage in the chamber. An alarm should be installed to alert occupants when the pump fails.
355	1665	Final backfilling and grading	Backfilling material must be porous, submit a report for suspect soils, the septic tank must be covered with soil as per the manufacturer specifications, ensure no visible depressions in the leaching bed, leaching bed must be stabilized against erosion, s
355	1670	Other	
360	1675	Building code & permit drawings not followed	Construction has not been built in conformance with the permit drawings and the Building Code
360	1680	Concealing possible	Do not conceal construction until the deficiency(s) has been corrected and re-inspected by the building inspector.
360	1685	Do not occupy	Do not occupy the building until official written approval has been provided by the Town of Markham Building Standards Department.
360	1690	Submit report	Submit for review a report from a professional engineer that comments on the deficiency(s) identified in this report.
360	1695	Builder's role not maintained	The builder has not used appropriate building techniques to achieve compliance with the Building Code or Act.
360	1700	Owner's role not maintained	The owner has not used appropriate building techniques to achieve compliance with the Building Code or Act.
360	1701	Post building permit card	The building permit card must be posted at all times during construction and may not be removed until a certificate of completion has been issued by the Building Standards Department.

Deficiency Table

<i>Category</i>	<i>Code</i>	<i>Deficiency</i>	<i>SubCategory</i>
360	1705 Other		
365	1710 Construction concealed		
365	1715 Construction not ready as requested		
365	1720 Other		

Submit a report prepared by a P. Eng. or Architect that certifies that the hidden components meet the requirements of the Building Code, and that any deficiencies previously noted have been remedied. Such professional inspection and certification must be

An inspection was requested and it has been determined that construction has not been sufficiently completed to properly and correctly inspect all the components of construction within the scope of the type of inspection requested. You are hereby advised