



City of Richmond

Report to Committee

To: Planning Committee
From: A.L. (Rick) Bortolussi
Manager, Building Approvals Department
Re: **BUILDING APPROVALS DEPARTMENT
LEVELS OF SERVICE**

Date: June 7, 2002

File: -

Staff Recommendation

That the report from Building Approvals Department, dated June 7, 2002, regarding departmental levels of service be received for information.

A.L. (Rick) Bortolussi
Manager, Building Approvals Department

Att. 3

FOR ORIGINATING DIVISION USE ONLY

CONCURRENCE OF GENERAL MANAGER

Staff Report

Origin

At the February 25, 2002 Council Meeting, it was resolved:

"That each General Manager review with their appropriate Committee of Council, departmental programs and service levels prior to the start of the 2003 budget review process;"

This report is in response to that resolution regarding Building Approvals Department.

Analysis

Revenues and expenditures contained in the operating budget are principally driven by the level of service standard to which service is delivered.

Attached for information are the following documents:

Attachment 1 - Section from the service level document presented to Council as part of the 2002 budget deliberations regarding Building Approvals Department.

Attachment 2 - An organizational chart of Urban Development Division and Building Approvals Department showing the key areas of the department.

Attachment 3 - Building Approvals Department Staff Profile brochure providing a description of the various roles within the department.

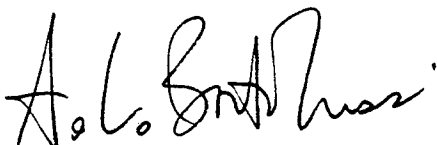
Financial Impact

The revenues are generated from construction permit demands while the level of service provided to those customers is based on a fee-for-service for not only the department's expenditures but also a portion of those internal services which support Building Approvals, such as the Permit Centre and Records Section.

The proposed levels of service for Building Approvals' services are currently accommodated in the 2002 budget. The Service Level Reviews will form a basis to the 2003 budget preparations.

Conclusion

The proposed levels of service provide a reasonable level of service for the plan review and inspection services pertaining to building, sprinkler, plumbing, gas and site service permits issued for private property in Richmond.

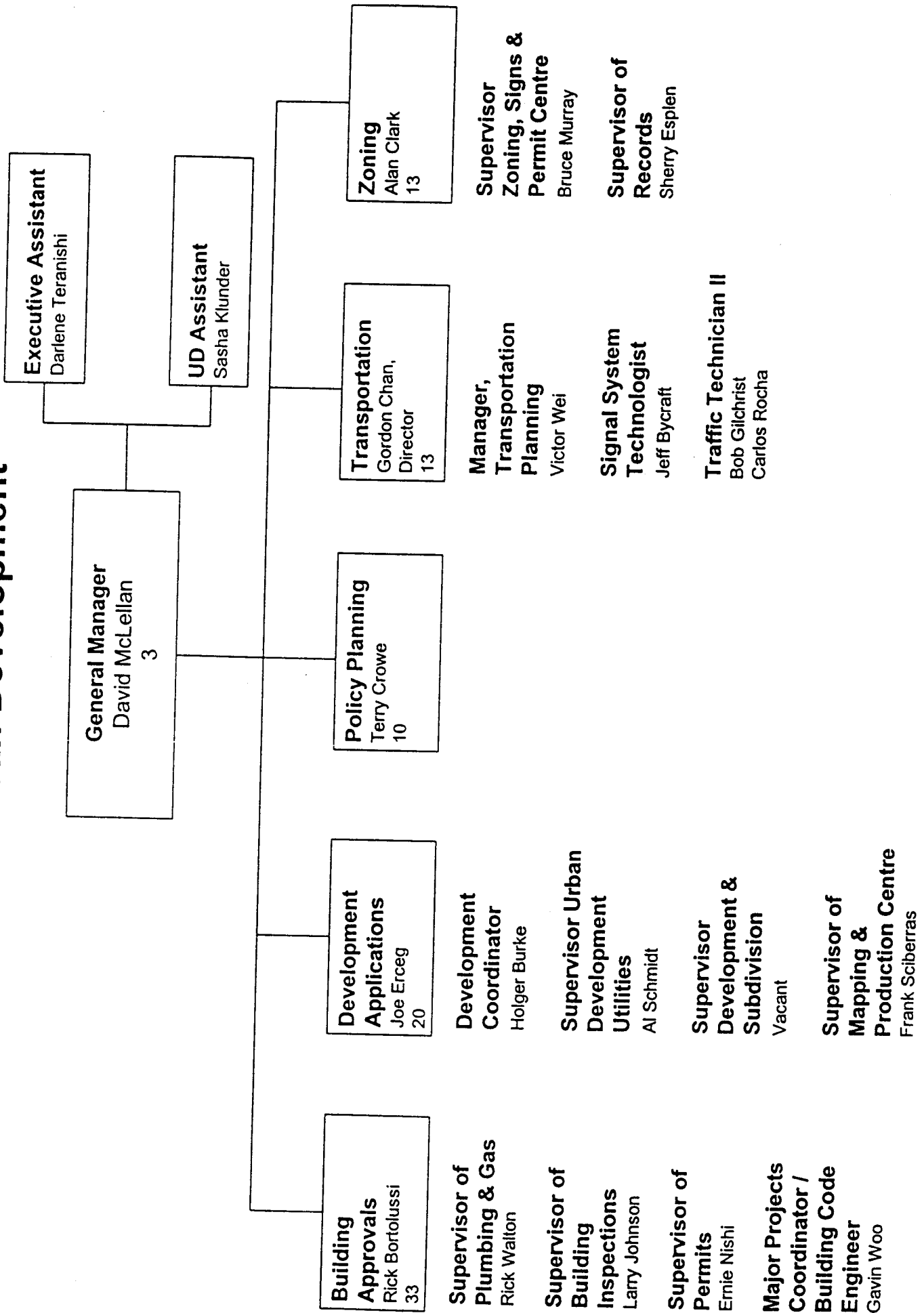


A.L. (Rick) Bortolussi
Manager, Building Approvals Department

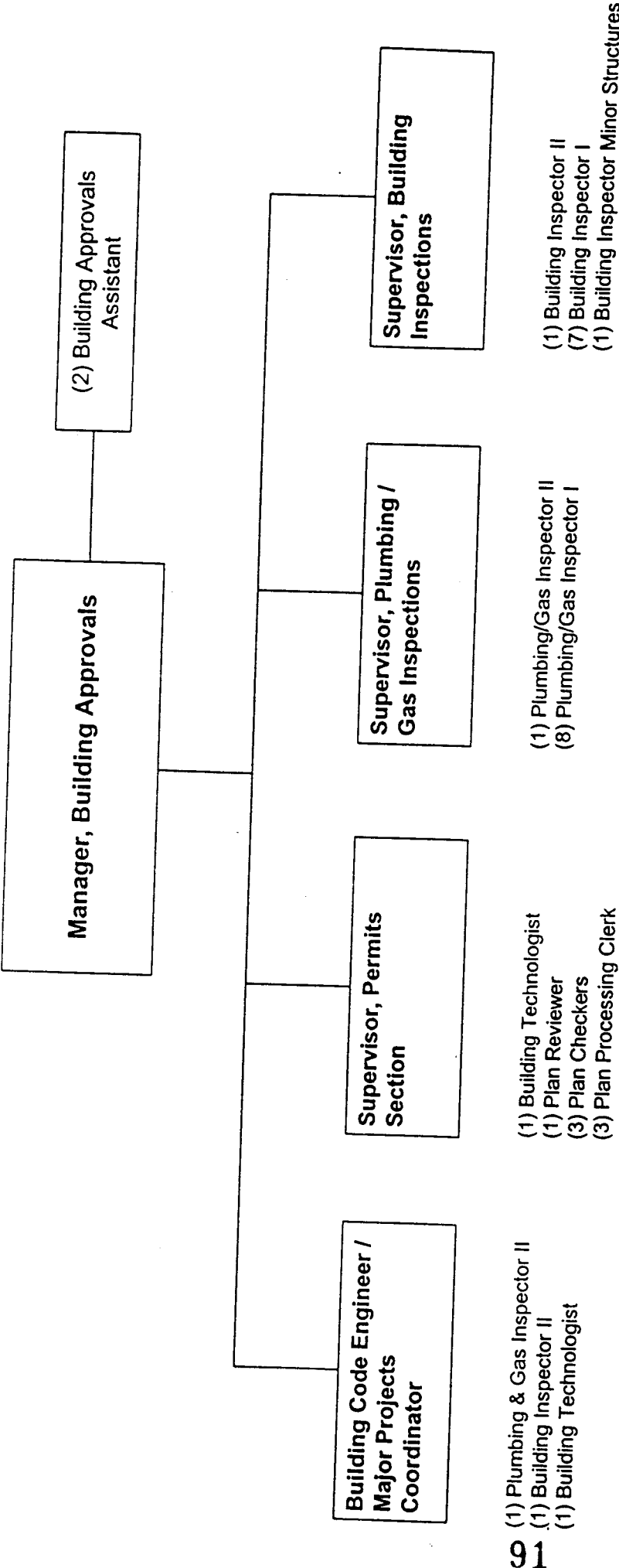
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Urban Development

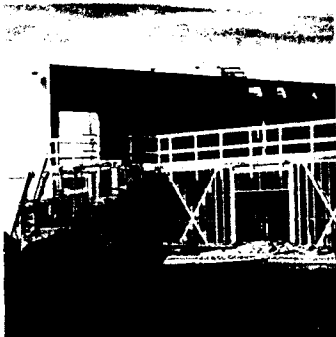


Building Approvals Department Organization Chart



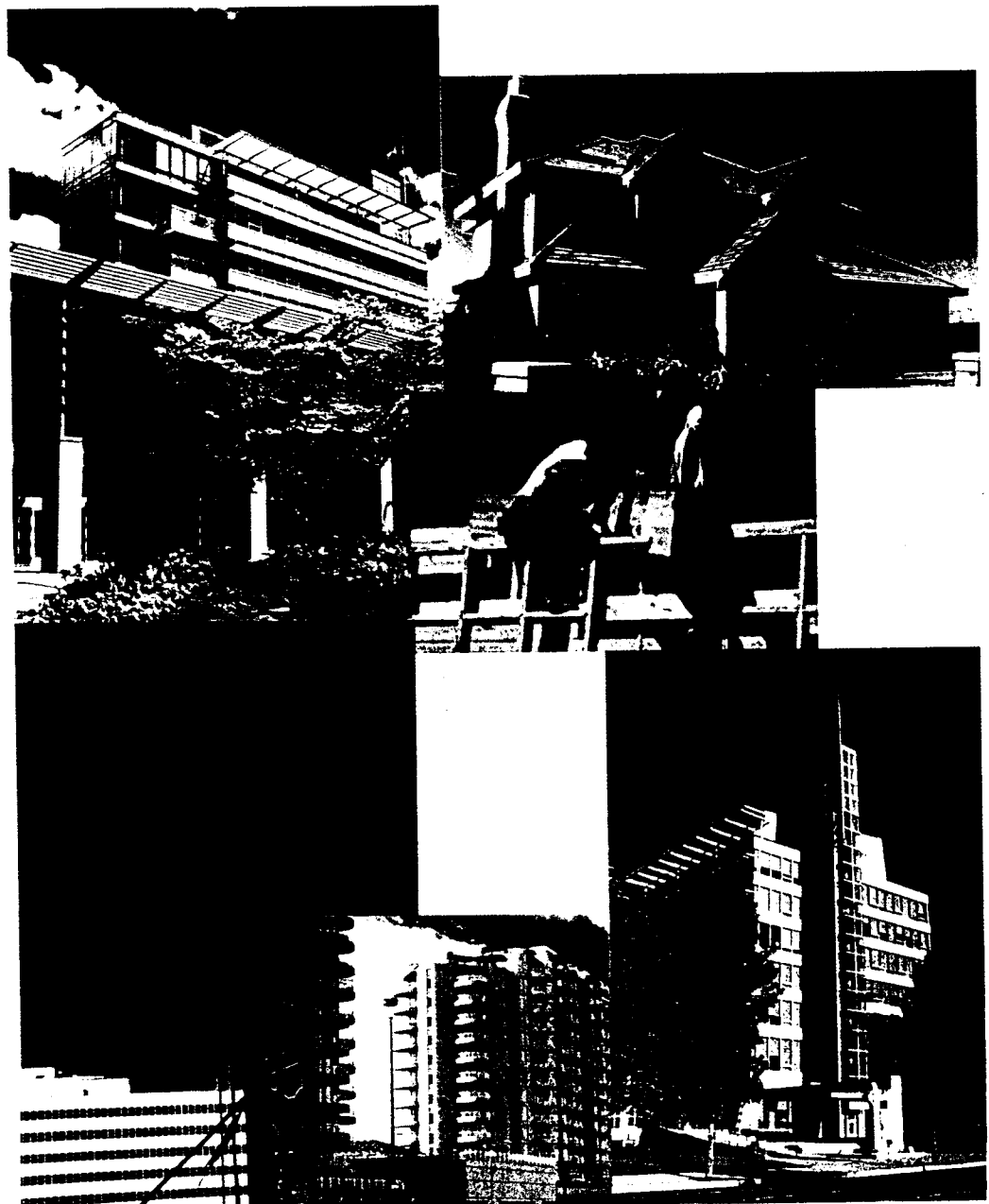
Building Approvals Department **STAFF PROFILE**

January 2002



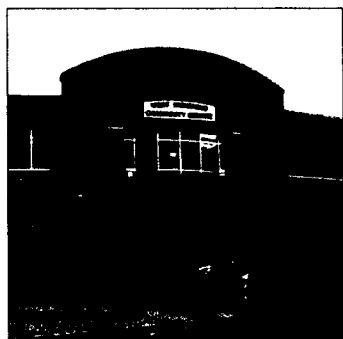
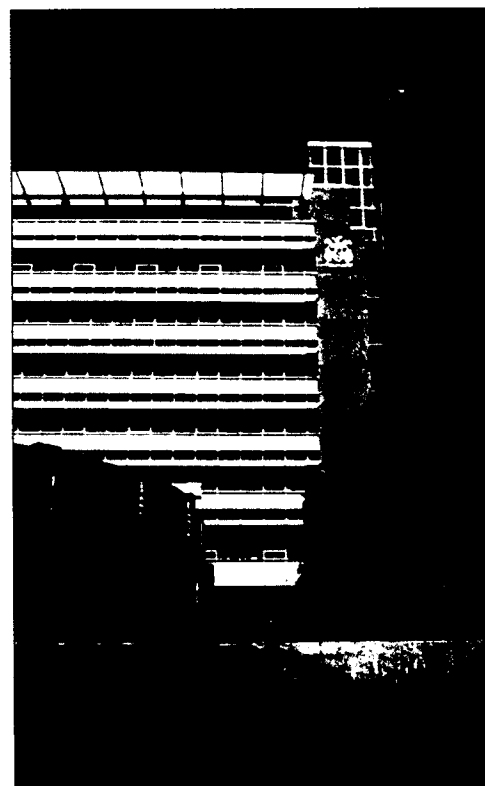
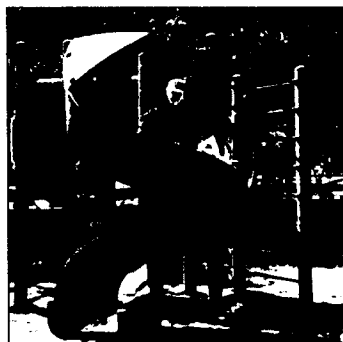
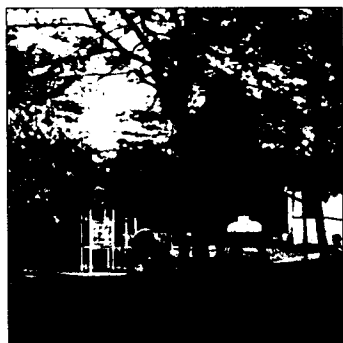
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OUR MANDATE

To provide the best possible service to promote livability and code compliance with fire, health and life safety standards, by working in partnership with our customers, for the benefit of the community.



OUR TEAM



Major Project Team members discuss project implementation

The Building Approvals Department's customer service team consists of permit processing experts, plan review specialists, field inspection professionals and skilled administration staff.

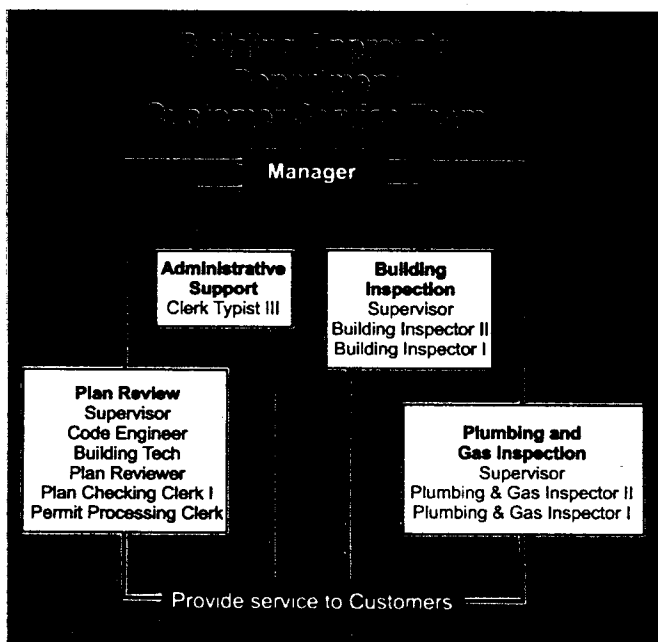
The team processes permits, reviews drawings and undertakes inspections for building, sprinkler, plumbing, gas and site service permits applied for and issued in Richmond.

Processing:

Three permit processing clerks coordinate the essential front counter and back of the house internal processing of permit applications.

Plan Processing:

One Major Projects Coordinator/Building Code Engineer, one Permits and Plan Review Supervisor, one Building Technologist, one Plan Reviewer along with three Plan Checking Clerk I's and one Plumbing Gas Inspector II examine all plans and documents submitted for compliance to the applicable codes, bylaws and regulations.



Inspection:

One Supervisor Building Inspections, one Building Inspector II, six Building Inspector I's, team with one Supervisor Plumbing and Gas Inspections, two Plumbing and Gas Inspector II's and six Plumbing and Gas Inspector I's to conduct all required inspections on all construction projects.

Administration:

Two Clerk Typist III's provide administrative services for this team. One Manager - Building Approvals administers the whole group of up to 32 high performing individuals.

OUR CUSTOMERS

Range from homeowners, property owners, strata title holders, tenants, lessees, contractors, suppliers, developers, designers, to registered professionals, such as architects, engineers and fire protection consultants, and internal City staff.

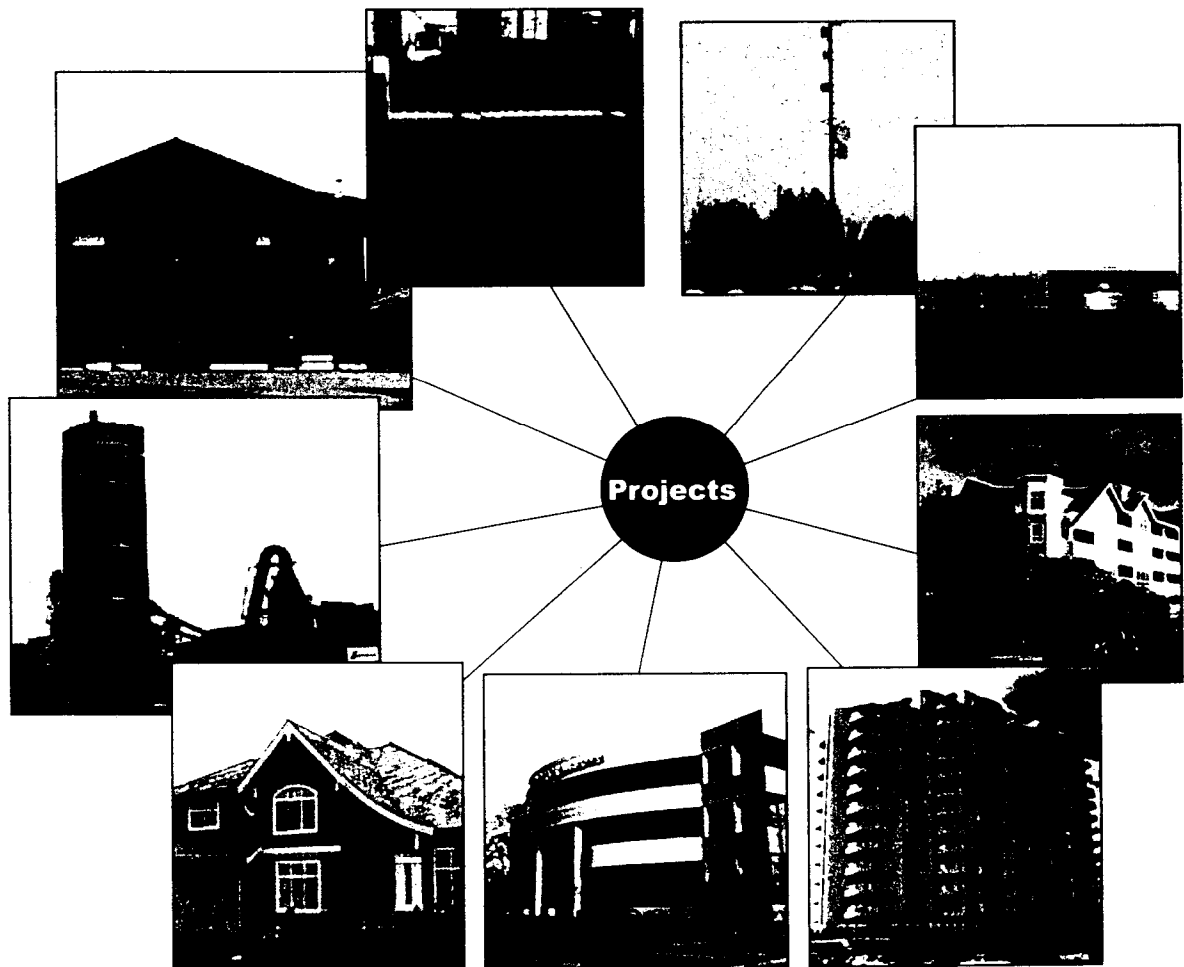
Customers



OUR PROJECTS

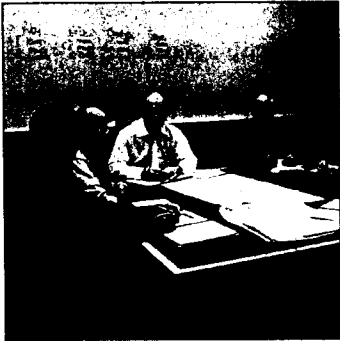
Vary from Commercial to residential including:

Minor home improvements and additions and small accessory buildings like garden sheds to mobile homes, to new homes large and small, building envelope and fire damage repairs, awnings and sign structures, to interior finishing for additions and new commercial office, retail, industrial, buildings, to multi-function residential office/retail complexes, public buildings such as recreational facilities, special structures related to telecommunication installations, portable buildings, cross connection control, gas fireplace installation, piers and wharves, farm buildings, greenhouses, site service works, plumbing, sprinkler and fire alarm system upgrades and installations. Business licences are also reviewed and site inspection performed to determine compliance.



OUR ATTITUDE

Professional, motivated, enthusiastic and conscientious, Building Approvals Department staff exercise considerable independent judgement in processing, reviewing, and inspecting projects to address fire, health and life safety, including structural sufficiency of buildings, for Richmond's citizens and visitors.



Building Approvals Staff meeting with Architects to discuss building code issues

Building Approvals Department staff make public relations our personal responsibility even though our job is regulatory in nature. Thus, as 'the authority having jurisdiction' our reasonable nature enables us to work in partnership with our customers.

Building Approvals Department staff strive to assist the customers to meet the code and the bylaw requirements through problem solving, listening and communication skills. We identify and respond to the challenges of a wide variety of customer needs in a courteous, expedient manner.



Building Approvals Staff responding to an Engineer's inquiry at the front counter.

Building Approvals Department staff coordinate efforts to communicate with and treat project owners and their agents consistently in a fair, organized, efficient manner, from the minute an applicant walks in the door to inquire about a permit to the day a project is completed and ready for occupancy.

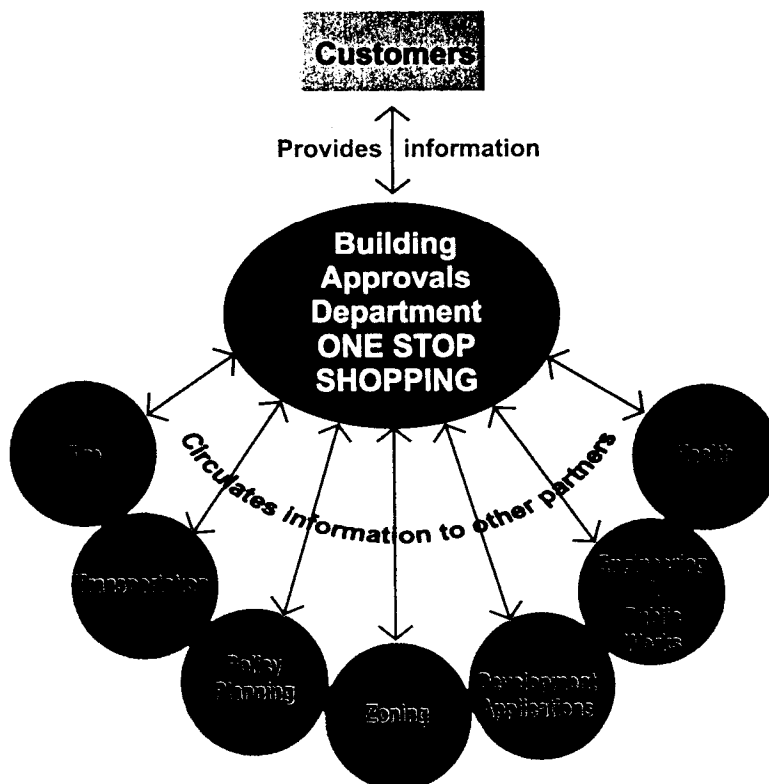
Building Approvals Department has established a City appeals process which is available to customers, prior to the Provincial process. This improves the speed of service and offers a choice to the customers in a fair and unbiased procedure.

OUR PARTNERS

Building Approvals Department's commitment to service and convenience for our customers means we provide a "one stop shopping" opportunity. Rather than the applicants spending extra time taking permit applications that require review by other municipal and provincial authorities and departments, we do it for them.

These departments include:

- Zoning
- Development Applications
- Public Works
- Richmond Health
- Business Licences
- Richmond Fire



Building Approvals Department also receives application forms issued by the Homeowner Protection Office, checks them for completeness of information, and forwards them to the Homeowner Protection Office.



The flowchart illustrates the process for plan processing and review, starting with **Customers** at the top. A thick black arrow points from the left side of the diagram to the **Customers** oval, and another thick black arrow points from the **Customers** oval to the right side. Below **Customers**, the text "Apply for Building, Sprinkler Plumbing, or Gas Permit" is followed by a downward arrow. This leads to a box labeled **(1) Plan Processing**, which contains the text "Process plans to various department for review". To the right of this box is the word **Administration**. Below **(1) Plan Processing**, another downward arrow leads to a box labeled **(2) Plan Review**, which contains the text "Review plans for compliance to fire, life safety, health standards". To the right of this box is the text "Issue Permit". Below **(2) Plan Review**, a downward arrow leads to a box labeled **(3) Inspection**. A thick black arrow points from the bottom of the diagram back to the left side, completing the cycle. On the far left, vertical text reads "Field inspection of construction and final inspection". On the far right, vertical text reads "Issue Permit".

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graph TD; Customers([Customers]) --> PlanProcessing["(1) Plan Processing"]; PlanProcessing --> PlanReview["(2) Plan Review"]; PlanReview --> Inspection["(3) Inspection"]; Inspection --> Customers;
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Process

Customers

Apply for Building, Sprinkler Plumbing, or Gas Permit

(1) Plan Processing

Process plans to various department for review

Administration

(2) Plan Review

Review plans for compliance to fire, life safety, health standards

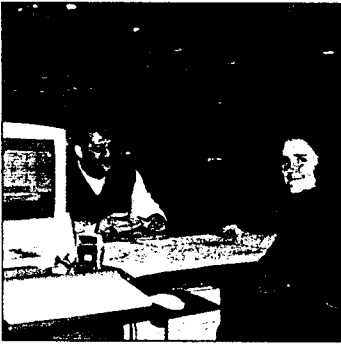
(3) Inspection

Field inspection of construction and final inspection

Issue Permit

(1) BUILDING PERMIT APPLICATIONS

Our customers first encounter our “Front of the House” customer service experts, the Permit Processing Clerks, who play a very important role in processing permit applications.



Permit Processing Clerk receives building permit application.

Qualifications:

Permit Processing Clerks are friendly, helpful people, dedicated to high quality customer service, who are always ready to listen and meet customers needs.

Besides possessing extensive knowledge of Building Approvals Department procedures, Permit Processing Clerks are familiar with requirements of many other City Departments such as Finance, Zoning, Development Applications, etc.

Computer related skills, as well as blueprint reading are essential for these positions but the Plans Processing Clerks also seek education in related areas such as record-keeping and the B.C. Building Code, as well as on going further customer service training.

Roles and Responsibilities:

Permit Processing Clerks are critical in facilitating the smooth running of Building Approvals Department operations.

Customers inquiring about application requirements, permit fees, application status, etc., are given correct, appropriate information to make wise planning and budgeting decisions. If further information is required, quick referrals are made to the correct contact person.



Permit Processing Clerk enters building permit application into the computer.

When a new application or revised information for an existing file is submitted, a Plans Processing Clerk enters it into our computer system. This process includes address verification, which also involves creating the permit, entering the application details, evaluating and collecting fees, producing invoices, setting review processes and updating computer records.



Permit Processing Clerk prepares application drawings for review.

With speed and accuracy, the Permit Processing Clerks prepare applications for review and dispatch plans and documentation to various applicable departments for all the required reviews. The overall turnaround time for processing an application is kept as short as possible, recognizing the clients need for efficient processing timeframes.

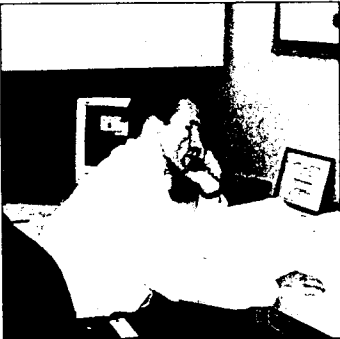
Once all reviews are complete, the Plans Processing Clerk contacts the applicant to pick up the permit. If necessary, they will resolve any outstanding administrative issues such as contractor business licences to be obtained and finally, issue the permit.

Additional Responsibilities:

- Test computer permit system updates before they are introduced for general use
- Transfer notes for commercial and residential plans
- Prepare routine correspondence related to files
- File drawings and route all related permit documentation to record keeping staff for future retrieval; and
- Follow up on files that are ready to expire or to cancel due to either failure to start of a construction or lack of progress in the construction process, as well as calling for building checks where work has been done without permits.

(2) BUILDING PERMIT PLAN REVIEWS

The Permit Processing Clerk next directs all permit plans and documents to plan review staff who make a major contribution to the process of issuing a permit for customers.



Building Technologist communicates with the applicant about their design.

Plan review staff are highly trained, competent, technically oriented people committed to life safety and efficiency, who work diligently in partnership with the customer's design team to facilitate permit issuance.

Qualification:

Plan review staff possess University degrees in Engineering, Diplomas in Building Technology from an Institute of Technology or Certificate of Qualification as a journeyman plumber. Education is ongoing in areas such as Part 3 and Part 9 of the BC Building Code, Justice Institute Bylaw Enforcement, Sprinkler Design, Residential Framing, BOABC seminars, etc.

Plan review staff are members of the Building Officials' Association of BC and participate in the BOABC Certification Program. They also must write or be eligible to write a series of Building Code exams to become Registered Building Officials (RBO).



Plan Reviewer conducts a "cursory review" at the front counter.

At a practical level, Plan reviewers must also be familiar with construction methods, materials and practices.

Roles and Responsibilities:

Even before applications are submitted, customer inquiries are referred to Plan Review staff in order to identify permit requirements or to obtain code interpretations, either formally through the development application process or informally at the counter.

Plan Review staff are happy to spend time consulting with the public, short of actually designing projects, to improve the quality of applications submitted, reducing the review time and making it more efficient to obtain permits.

The actual Plan Review Process starts within minutes of the customer walking in the door with a permit application or proposal. Building permit plans and documents are immediately checked for completeness.

In the case of commercial tenant improvements, plan review staff perform a “cursory review”. In some cases, non-complex applications can be reviewed “at the counter” and within an hour, the applicant may be issued a permit.

Time lines vary with the type and complexity of the building referenced in the permit application, but all plans and documents are carefully examined by plan review staff for compliance to the BC Building Code and applicable City bylaws. Any concerns discovered are quickly communicated to the applicant.

Corrections at the plan review stage are usually a matter of revising plans or documents. Plan review staff are conscientious about identifying any issues they observe. Resolving issues at this stage is often less expensive and much easier for customers than if something is actually constructed before a compliance error is observed.

Making suggestions to achieve compliance is also part of the plan review. Staff’s contribution can be invaluable due to their experience and expertise, often resulting in time and money savings for customers.

Plan review staff also ensure other documents submitted with the permit application, such as a code analysis, hydraulic calculations for sprinkler systems, soils reports, assurance letters, equivalencies, etc. are acceptable.

Efficient, thorough plan reviews contribute positively to the safety and well-being of people and property in Richmond. As well there is a constant emphasis and effort to optimize turnaround times to avoid construction delays and expedite business and residential development in Richmond.

Most important, by providing a third party review of construction projects, independent of



Plan Review staff discuss a code interpretation.



Plan Review staff review policy with Supervisor.



Plumbing & Gas Inspector II reviews plans for plumbing permit.



Building Approvals staff review the IVR (Integrated Voice Response) for implementation to increase efficiency.

the owner or designer, plan reviewers provide objective representation in the best interest of Richmond citizens. The final responsibility for meeting code and bylaw requirements lies with the property owner and the customer's design team, the plan review process monitors the design to ensure that the design team has undertaken sufficient consideration to critical fire, health and life safety concerns in a number of areas, including structural seismic sufficiency.

Plan review staff are responsible for the following:

Building Code Engineer: Structural including Geotechnical, Fire Suppression Systems and Mechanical systems for commercial buildings.

Building Technologist/Plan Reviewer: Occupant Safety, Fire Protection, and Accessibility for commercial buildings.

Plan Checker I: Residential Housing and Small Buildings for Structural and Code concerns.

Plumbing Gas Inspector II: Site services, Plumbing and Gas for commercial and multiple unit residential buildings.

Additional Responsibilities:

Plan review staff are also responsible for the following:

- Contribute to the development of regulatory material such as codes and advice and guidance to other Divisions on regulatory matters, departmental policies and procedures;
- Review of procedures continuously to identify and implement efficiency improvements particularly in the area of customer service;
- Prepare public bulletins;
- Listen and respond to customer comments and complaints;
- Conduct a cursory review within minutes of a customer arriving with a permit application. Customers with simple projects can come in early one day, get a permit within an hour. Once the permit is issued, the customer can call for inspections and have the project inspected the next business day;
- Set up meetings with inspection staff prior to issuing major projects or unusual or complex projects to inform inspectors of any special circumstances; and
- Respond to inquiries submitted on the web site.

(3) INSPECTIONS

Once permits are issued inspectors commence a series of required inspections at different stages of construction when customer requests are received.



Plumbing & Gas Inspector reviews drawings prior to field inspection.

Qualifications:

Inspectors generally have extensive hands-on experience in the construction industry as well as detailed code knowledge gained from both work and study. They are technically competent and trained to deal effectively and courteously with their customers, such as, homeowners, contractors, and professionals to resolve field problems arising during construction. Building Inspectors possess diplomas or certificates from an Institute of Technology and/or are Journeyman Carpenters. They are members of the Building Officials' Association of BC and may take exams to achieve Registered Building Official status.

Plumbing/Gas Inspectors possess Journeyman Plumber Certificates of Qualification and Grade B Gas Certificate of Competency. They are Registered Plumbing Officials with the Plumbing Officials' Association of British Columbia and take certification exams.

Roles and Responsibilities:

Inspection staff work with the customer to provide fair, consistent information, options and suggestions for field solutions to achieve code compliance. This service assists to prevent construction delays and facilitates building completion and occupancy.



Inspector reviews construction drawing with the Contractor on site.

Inspectors provide independent third party inspections of construction, emphasizing health, fire and life safety and structural sufficiency to protect Richmond citizens and visitors while still appreciating and keeping in mind the aesthetic, time management, financial and other concerns of owners, designers, and contractors.



Plumbing & Gas Inspectors prepare inspection list.

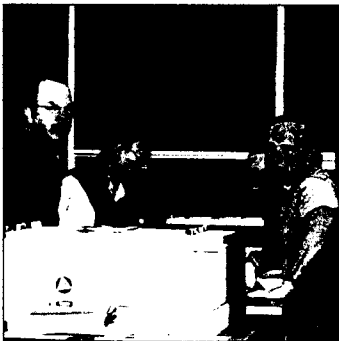
Inspectors monitor construction compliance with the issued permit drawings and applicable regulations. This means reviewing reports from professionals; studying product certification labels; scrutinizing materials documentation; checking installation methods; measuring critical dimensions for safety items such as, handrails; grab bars etc; comparing permit drawings with construction in progress; observing questionable practices, issuing stop work orders for serious violations of Building Code or Bylaw requirements. By their actions, inspectors demonstrate they hold paramount the safety and welfare of the people in Richmond.

Inspectors are required to do inspections, to monitor the different stages of construction. The owner or his agent is responsible for requesting these inspections as well as ultimate project compliance with all applicable codes and regulations. Inspectors work with owners and their agents assisting them as necessary, to meet this responsibility. The required inspections depend on a number of factors: whether a project is commercial or residential, the code requirements for the building, if it is a new building, alteration, addition or tenant improvement or interior finishing.

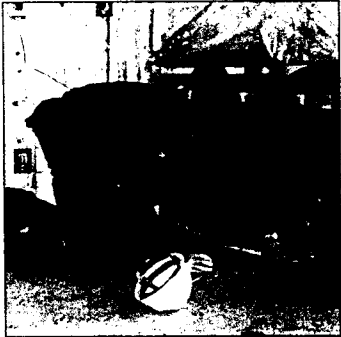
Building Inspections:

The various inspection stages as well as some of the important items inspectors look for are listed below:

- Geo-technical Letter when a Geotechnical Engineer or Geoscientist is required regarding site preparation including soil conditions;
- Form Inspection including dimensions of forms and siting of building on the property, reinforcement steel installation, methane gas barrier certificate where applicable;
- Survey Certificate including setbacks, spatial separation setbacks (to prevent spread of fire), location of right-of ways or City property and applicable geodetic elevations;
- Heating including design heat loss calculations, and system compliance certificate;
- Elevation as related to Flood Plain restrictions, combined with a Vapour Barrier Inspection below slabs and inside perimeter of foundation walls;
- Crawlspace Inspection if under 600mm deep prior to apply sub-floor;



Building Inspectors discuss reports received from professionals.



Plumbing & Gas Inspector checking fireplace installation.

- Frame Inspection which must be preceded by successful rough plumbing, gas B-vent, and electrical wiring inspections;
- Fire Alarm Systems;
- Sheathing Inspection;
- Truss Certificates or other structural components such as engineered beams, columns and footings;
- Insulation and Vapour Barrier Inspection between any heated and unheated space such as slab on ground, walls below grade, crawlspaces, walls, roofs before slabs or crawl space ground seals are placed, ceiling and wall panels are applied, etc;
- Ductwork Inspection on completion of all ducts before covering;
- Chimney Inspection of masonry or factory built chimneys before covering;
- Sprinkler Rough-In Inspection ;
- Standpipe System;
- Trades List verifying contractor's business licences for all trades working on Richmond projects;
- Sprinkler Final;
- Equivalency Final Field Review Letter;
- Final Building Inspection after all trade construction, such as plumbing, gas, electrical, oil and propane installations are complete with applicable trade inspection approvals obtained.



Plumbing & Gas Inspector inspecting underground pipes.

Plumbing & Gas Inspections:

The various inspection stages as well as some of the important items inspectors look for are listed below:

Site Services

- Underground plumbing;
- Rough Plumbing Inspection of all drains, vents and water piping.

Cross Connection

- Water/Fire Main where water connection is new or being increased;
- Sanitary Sewer before piping is covered ;
- Infiltration Test to be ready for Sanitary Sewer inspection (Residential Guidelines differ);
- Storm Sewer System including roof, perimeter and site drainage;
- Final Site Services;

- Final Plumbing Inspection when all the fixtures have been installed and the other plumbing inspections are complete.

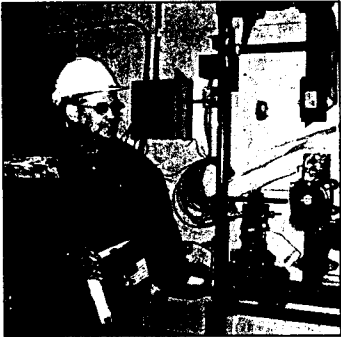
Gas

- Gas vents including B-Vents with all the required framing and fire-stopping;
- Visual Air Test for multifamily dwellings and commercial;
- Test Certificate only for Single Family Dwellings ;
- Final Gas Inspection when piping complete and new appliances installed or existing ones replaced.

Additional Responsibilities

Inspectors are also responsible for the following:

- Administer cross connection control program to ensure that drinking water in the City of Richmond is protected from contamination due to cross connection;
- Investigate and report on site conditions for the plan review staff if information submitted differs from City records or is incomplete ;
- Provide input into permits at the plan review stage particularly for equivalencies or special projects expediting major commercial or industrial building permit applications;
- Coordinate with other inspectors on the job including the Fire Prevention Officer, Environmental Health Inspector, Electrical Inspectors, and other Municipal and Provincial Authorities to carry out city inspections efficiently;
- Investigate complaints regarding bylaw violations such as work without a permit which often requires educating the people involved as to the reasons and requirements for obtaining a permit as well as following through to ensure permits are obtained for all construction;
- Inspect premises for business licence applications to ensure compliance with applicable regulations;
- Develop bulletins/guides to assist public;
- Prepares reports and gives evidence in court when necessary.



Plumbing & Gas Inspector checking mechanical room.