

CHAPTER 22

Business Practices

Learning Objectives

Upon completion of this chapter, students will be able to:

1. Establish and operate a gas contracting business legally and professionally
2. Prepare accurate estimates and quotes for gas fitting work
3. Build and maintain positive customer relationships
4. Maintain comprehensive documentation and records
5. Understand legal and ethical obligations in business operations
6. Develop effective marketing strategies for business growth
7. Manage business finances and cash flow effectively
8. Build a reputation for quality and reliability
9. Hire, train, and retain qualified staff
10. Plan for sustainable business growth and succession

22.1 Starting a Gas Contracting Business

Establishing a successful gas contracting business requires careful planning and compliance with numerous requirements.

Foundation for Success

Starting a gas contracting business involves more than technical skills—it requires business acumen, regulatory compliance, and strategic planning.

Pre-Launch Considerations

Market Analysis:

- Local competition assessment
- Service area definition
- Customer demographics
- Growth potential
- Niche opportunities
- Pricing research

Skills Assessment:

Technical Skills	Business Skills
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Gas fitting expertise	Financial management
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Code knowledge	Marketing
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Technical Skills

Troubleshooting

Safety practices

Equipment operation

Business Skills

Customer service

Project management

Communication

Financial Planning:

- Start-up capital needs
- Operating expenses
- Revenue projections
- Break-even analysis
- Emergency reserves
- Growth funding

Licensing Requirements

Proper licensing legitimizes your business and ensures legal operation.

Technical Licenses**Individual Certification:****Province License Requirements**

Ontario G1, G2, or G3 certificate

Alberta Journeyman Gasfitter

BC Class A or B Gas Fitter

Quebec TAG licenses

Manitoba Gas Fitter License

Business Licenses:

- Master license holder
- Contractor registration
- Provincial requirements
- Municipal business license
- Trade association membership

Registration Process:

1. Verify technical qualifications
2. Complete application forms
3. Pay required fees
4. Provide insurance proof
5. Submit supporting documents

6. Await approval
7. Display license prominently

Additional Requirements

Special Authorizations:

- Propane handling (if applicable)
- Oil burner technician
- Refrigeration (if combined)
- Electrical permits
- Plumbing crossover

Renewal Requirements:

Item	Frequency
Technical license	1-3 years
Business license	Annual
Insurance	Annual
Bonds	As required
Municipal permit	Annual

Compliance Tracking:

- Expiration dates calendar
- Renewal reminders
- Document organization
- Fee budgeting
- Update procedures

Business Structure Options

Choosing the right business structure affects liability, taxes, and operations.

Sole Proprietorship

Characteristics:

- Simplest structure
- Personal liability
- Single owner
- Direct taxation
- Minimal paperwork

Advantages:

- Easy to establish
- Low cost
- Complete control
- Simple tax filing
- Quick decisions

Disadvantages:

- Unlimited personal liability
- Harder to raise capital
- Limited life span
- All responsibility
- No tax advantages

Best For:

- Starting out
- Single technician
- Low risk tolerance
- Minimal investment
- Testing market

Partnership

Types:

Type	Liability	Management
General	Unlimited all partners	Shared
Limited	Limited for silent partners	General partners
Limited Liability (LLP)	Limited for all	Equal or designated

Key Considerations:

- Partnership agreement essential
- Profit sharing arrangement
- Decision-making process
- Exit strategies
- Dispute resolution

Agreement Contents:

1. Capital contributions
2. Profit/loss distribution
3. Management responsibilities
4. Decision authority

5. Withdrawal provisions
6. Succession planning
7. Dissolution terms

Corporation

Incorporation Benefits:

- Limited liability protection
- Perpetual existence
- Easier capital raising
- Tax planning options
- Professional image
- Transferable ownership

Requirements:

Element	Details
Name	Unique, approved
Directors	Minimum one
Shareholders	Can be one
Articles	Filed with government
Bylaws	Internal rules
Minute book	Required records

Ongoing Obligations:

- Annual filings
- Corporate tax returns
- Director meetings
- Record keeping
- Registered office
- Corporate formalities

Tax Implications:

- Small business deduction
- Income splitting potential
- Expense deductions
- Retirement planning
- Estate planning benefits

Insurance Needs

Comprehensive insurance protects your business, employees, and customers.

Essential Coverage

General Liability Insurance:

Coverage Includes:

- Bodily injury claims
- Property damage
- Personal injury
- Advertising injury
- Medical payments
- Legal defense costs

Typical Limits:

Coverage	Amount
Per occurrence	\$2 million
Aggregate	\$4 million
Deductible	\$1,000-2,500

Premium Factors:

- Business size
- Claims history
- Coverage limits
- Location
- Risk controls

Professional Liability (E&O):

What It Covers:

- Design errors
- Code violations
- Faulty workmanship
- Negligent advice
- Missed deadlines
- Documentation errors

Importance:

- Protects against mistakes
- Covers legal costs
- Maintains reputation
- Customer confidence

- Contract requirement

Commercial Vehicle Insurance

Coverage Types:

Coverage	Purpose
Liability	Third-party claims
Collision	Vehicle damage
Comprehensive	Theft, vandalism
Equipment	Tools coverage
Rental	Temporary replacement

Fleet Considerations:

- Multiple vehicle discounts
- Driver records impact
- Usage classifications
- Territorial ratings
- Deductible options

Additional Coverage Options

Property Insurance:

- Building coverage
- Contents/inventory
- Equipment breakdown
- Business interruption
- Crime coverage

Workers' Compensation:

- Provincial requirements
- Industry classification
- Experience rating
- Claims management
- Safety programs

Cyber Liability:

- Data breach coverage
- Ransomware protection
- Business interruption
- Privacy liability

- Increasing importance

Umbrella Policy:

- Additional liability limits
- Broader coverage
- Gap filling
- Asset protection
- Peace of mind

Bonding Requirements

Bonds provide financial guarantees for performance and compliance.

Types of Bonds

License Bonds:

Purpose:

- Required for licensing
- Protects consumers
- Ensures compliance
- Financial guarantee
- Professional standard

Typical Requirements:

Province	Bond Amount
Ontario	\$10,000-25,000
Alberta	Varies by municipality
BC	\$10,000-20,000
Others	Check locally

Performance Bonds:

When Required:

- Large projects
- Commercial work
- Government contracts
- Customer request
- Competitive advantage

Cost Factors:

- Bond amount
- Credit score
- Business history
- Financial strength
- Claims history

Obtaining Bonds

Application Process:

1. Select surety company
2. Complete application
3. Financial statements
4. Credit check
5. References
6. Underwriting review
7. Bond issuance

Improving Bondability:

- Strong financials
- Good credit
- Industry experience
- Professional references
- Clean claims record
- Business plan

Business Planning

A comprehensive business plan guides success and secures financing.

Business Plan Components

Executive Summary:

Key Elements:

- Business concept
- Mission statement
- Success factors
- Financial highlights
- Growth strategy
- Funding needs

Length: 1-2 pages maximum

Company Description:

- History/background
- Services offered
- Market served
- Competitive advantages
- Business philosophy
- Legal structure

Market Analysis

Research Areas:

Category	Information Needed
Industry	Size, growth, trends
Target market	Demographics, needs
Competition	Strengths, weaknesses
Market share	Potential capture
Barriers	Entry challenges

Service Area Analysis:

- Geographic boundaries
- Population density
- Income levels
- Housing stock
- Growth projections
- Competition mapping

Marketing Plan:

- Target customer profile
- Service positioning
- Pricing strategy
- Promotion methods
- Sales process
- Customer retention

Operations Plan

Daily Operations:

- Service delivery process
- Quality control
- Inventory management

- Scheduling system
- Emergency response
- Customer service

Facilities and Equipment:

Category	Requirements
Shop/Office	Location, size, layout
Vehicles	Number, type, cost
Tools	Essential equipment list
Technology	Software, hardware
Inventory	Parts, materials

Supplier Relationships:

- Primary suppliers
- Credit terms
- Delivery schedules
- Backup sources
- Volume discounts

Management Structure:

- Organizational chart
- Key personnel
- Responsibilities
- Compensation
- Training plans
- Succession planning

Financial Projections

Start-up Costs:

Item	Estimated Cost
Licenses/permits	\$2,000-5,000
Insurance	\$5,000-10,000
Vehicle	\$30,000-50,000
Tools/equipment	\$10,000-20,000
Marketing	\$5,000-10,000
Working capital	\$20,000-30,000
Total	\$72,000-125,000

Revenue Projections:

Year 1: Conservative estimates Year 2: 25-40% growth Year 3: 20-30% growth Year 4-5: Stabilization

Cash Flow Analysis:

- Monthly projections
- Seasonal variations
- Payment terms impact
- Growth financing
- Emergency reserves

Break-even Analysis:

- Fixed costs
- Variable costs
- Contribution margin
- Break-even point
- Safety margin

22.2 Estimating and Quoting

Accurate estimating ensures profitability while maintaining competitiveness.

Material Takeoff

Systematic material quantification prevents costly oversights.

Takeoff Process

Preparation Steps:

1. Review plans thoroughly
2. Visit site if possible
3. Check code requirements
4. Verify existing conditions
5. Note special requirements
6. Identify unknowns

Documentation Review:

Document	Information Extracted
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Floor plans	Equipment locations, runs
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Specifications	Material grades, types
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Document	Information Extracted
Details	Connection methods
Schedules	Equipment sizes
Notes	Special requirements

Systematic Approach:

- Start at meter/tank
- Follow main runs
- Branch lines next
- Equipment connections
- Venting systems
- Accessories/fittings

Quantity Calculation

Piping Materials:

Measurement Methods:

- Linear feet of pipe
- Number of fittings
- Valves and controls
- Hangers and supports
- Insulation if required

Waste Factors:

Material	Waste Allowance
Pipe	5-10%
Fittings	10-15%
Consumables	15-20%
Small items	20-25%

Equipment Lists:

- Primary equipment
- Controls and safeties
- Venting materials
- Combustion air provisions
- Accessories
- Installation materials

Material Pricing

Price Sources:

- Supplier quotes
- Price lists
- Historical data
- Online catalogs
- Quantity discounts

Price Adjustments:

- Inflation factors
- Market conditions
- Availability issues
- Seasonal variations
- Currency fluctuations

Cost Tracking Sheet:

Item	Quantity	Unit Cost	Extended	Markup	Sell Price
1" pipe	100 ft	\$8.50	\$850	40%	\$1,190
1" elbows	12	\$4.25	\$51	40%	\$71.40
Gas valve	1	\$125	\$125	35%	\$168.75

Labor Estimation

Accurate labor estimation is critical for profitability.

Time Estimation Methods

Historical Data:

Average Installation Times:

Task	Hours
Furnace replacement	4-6
Water heater	2-3
Meter set	2-3
Run 100' pipe	4-5
Vent installation	2-4

Adjustment Factors:

- Access difficulty: 1.2-1.5×
- Occupied space: 1.1-1.3×

- Height work: 1.3-1.5×
- Winter conditions: 1.2-1.4×
- Renovation: 1.3-1.6×

Flat Rate Pricing:

- Predetermined prices
- Task-based
- Customer clarity
- Efficiency incentive
- Consistent pricing

Labor Categories

Skill Levels:

Level	Rate/Hour	Utilization
Apprentice	\$25-35	Assistant tasks
Journeyman	\$35-50	Primary work
Master	\$50-75	Complex/supervision

Crew Composition:

- Simple tasks: Single tech
- Standard: Journeyman + helper
- Complex: Master + journeyman
- Large: Multiple crews

Productivity Factors:

- Experience level
- Task complexity
- Site conditions
- Tool availability
- Weather impact

Labor Burden

Beyond Wages:

Component % of Wage

Payroll taxes	12-15%
Benefits	15-25%
Insurance	8-12%

Component % of Wage

Training	2-3%
Tools	3-5%
Total burden	40-60%

True Labor Cost:

Base wage \times (1 + burden rate) = True cost

Example: \$40/hr \times 1.50 = \$60/hr true cost

Overhead and Profit

Understanding and applying appropriate markups ensures business sustainability.

Overhead Calculation**Fixed Overhead:****Annual Costs:**

Category	Annual Amount
Rent/lease	\$24,000
Insurance	\$15,000
Licenses	\$3,000
Vehicle payments	\$18,000
Office expenses	\$6,000
Marketing	\$8,000
Professional fees	\$5,000
Total	\$79,000

Variable Overhead:

- Fuel costs
- Maintenance
- Supplies
- Communications
- Banking fees
- Bad debt

Overhead Recovery:

Annual overhead \div Billable hours = Hourly overhead

Example: $\$79,000 \div 1,800 \text{ hours} = \$44/\text{hour}$

Profit Margins

Industry Standards:

Component	Typical Markup
Materials	35-50%
Labor	50-65%
Subcontractors	10-15%
Equipment rental	20-30%

Net Profit Targets:

- Minimum: 8-10%
- Good: 12-15%
- Excellent: 18-20%
- Before taxes

Pricing Strategies:

- Cost-plus pricing
- Market-based pricing
- Value pricing
- Premium positioning
- Competitive matching

Written Quotes

Professional quotes build trust and prevent disputes.

Quote Components

Header Information:

- Company name/logo
- License numbers
- Contact information
- Quote number
- Date issued
- Expiry date

Customer Information:

- Name

- Service address
- Contact details
- Reference information

Scope of Work:

Detailed Description:

1. Work to be performed
2. Materials included
3. Equipment specifications
4. Code compliance
5. Permits included
6. Timeline

Exclusions:

- Clearly stated
- Potential extras
- Owner responsibilities
- Access requirements
- Existing conditions

Pricing Breakdown

Presentation Options:

Detailed Breakdown:

Item	Amount
Labor	\$1,200
Materials	\$800
Equipment	\$1,500
Permits	\$150
Subtotal	\$3,650
Tax (13%)	\$475
Total	\$4,125

Lump Sum:

- Single price
- Includes everything
- Simpler presentation
- Less negotiation

- Professional appearance

Payment Terms:

- Deposit requirements
- Progress payments
- Completion terms
- Payment methods
- Late payment charges

Terms and Conditions**Standard Terms:**

1. Quote validity period
2. Price basis
3. Work hours
4. Warranty terms
5. Change order process
6. Cancellation policy
7. Limitation of liability

Legal Protection:

- Clear language
- Binding acceptance
- Dispute resolution
- Governing law
- Insurance requirements

Professional Presentation:

- Clean formatting
- Clear organization
- Professional language
- Complete information
- Branded documents

Change Orders

Managing scope changes protects profitability and relationships.

Change Order Process**Identification:**

Common Changes:

Type	Frequency
Equipment upgrade	High
Additional work	High
Code requirements	Medium
Unforeseen conditions	Medium
Customer preferences	High

Documentation Requirements:

1. Original scope reference
2. Change description
3. Cost impact
4. Time impact
5. Customer approval
6. Written confirmation

Pricing Changes:

Calculation Methods:

- Time and materials
- Fixed price
- Unit pricing
- Cost plus markup
- Negotiated amount

Markup Considerations:

- Higher for small changes
- Disruption factor
- Material availability
- Schedule impact
- Risk assessment

Communication

Customer Discussion:

Key Points:

1. Explain necessity
2. Present options
3. Provide pricing

4. Timeline impact
5. Get written approval

Documentation:

- Written change order
- Customer signature
- Photo documentation
- Email confirmation
- File records

Avoiding Disputes:

- Immediate notification
- Clear communication
- Detailed documentation
- Fair pricing
- Professional approach

22.3 Customer Relations

Excellence in customer relations drives business success and growth.

Professional Conduct

Professionalism sets the foundation for customer trust.

Appearance Standards**Personal Presentation:**

Aspect	Standard
Uniforms	Clean, company branded
Grooming	Neat, professional
ID badges	Visible, current
Safety gear	When required
Vehicle	Clean, marked

Behavior Standards:

- Punctuality
- Courtesy
- Respect for property
- Clear communication
- Problem-solving attitude

- Safety consciousness

On-Site Conduct:

1. Call before arrival
2. Park considerately
3. Use drop cloths
4. Minimize disruption
5. Clean work area
6. Complete walkthrough

Professional Boundaries**Appropriate Behavior:**

- Business-focused conversation
- Respectful distance
- Professional language
- Ethical conduct
- Confidentiality

Avoiding Issues:

- Personal opinions
- Controversial topics
- Inappropriate comments
- Accepting gratuities
- Personal relationships

Communication Skills

Effective communication builds trust and prevents misunderstandings.

Verbal Communication**Key Principles:**

- Clear explanations
- Active listening
- Appropriate terminology
- Patient responses
- Positive language

Technical Translation:

Technical Term	Customer Language
Heat exchanger cracked	Dangerous condition requiring replacement
Inducer motor failed	Exhaust fan broken
Flame sensor dirty	Safety device needs cleaning
Condensate blocked	Drainage system clogged

Question Handling:

1. Listen completely
2. Acknowledge concern
3. Provide clear answer
4. Confirm understanding
5. Follow up if needed

Written Communication

Professional Writing:

- Clear and concise
- Proper grammar
- Professional tone
- Complete information
- Branded materials

Document Types:

Document	Purpose	Key Elements
Estimates	Price work	Scope, price, terms
Invoices	Request payment	Work done, amount
Service reports	Document work	Findings, recommendations
Follow-up letters	Maintain contact	Thank you, reminders

Digital Communication:

- Professional emails
- Text messaging etiquette
- Social media responses
- Online reviews
- Website content

Managing Expectations

Clear expectations prevent disappointment and disputes.

Setting Expectations

Initial Contact:

Information to Provide:

1. Arrival window
2. Service duration
3. Costs involved
4. Work process
5. Potential disruptions
6. Payment expectations

Service Delivery:

- Explain findings
- Discuss options
- Timeline clarity
- Cost transparency
- Quality assurance

Timeline Management:

Project Phase	Communication
Scheduling	Confirmation, window
Arrival	Call ahead
During work	Progress updates
Delays	Immediate notice
Completion	Walkthrough

Managing Difficulties

Common Challenges:

- Unexpected problems
- Cost increases
- Timeline delays
- Equipment availability
- Weather impacts

Response Strategies:

1. Immediate communication
2. Explain situation
3. Provide options

4. Negotiate solutions
5. Document agreement

Under-Promise, Over-Deliver:

- Conservative timelines
- Realistic expectations
- Pleasant surprises
- Exceeded expectations
- Customer delight

Handling Complaints

Professional complaint resolution protects reputation and relationships.

Complaint Response

Initial Response:

Steps to Follow:

1. Listen without interrupting
2. Acknowledge feelings
3. Apologize for situation
4. Ask clarifying questions
5. Summarize understanding
6. Propose solution

Active Listening:

- Full attention
- No defensiveness
- Take notes
- Ask questions
- Confirm understanding
- Show empathy

Common Complaints:

Complaint	Response Strategy
High price	Explain value, options
Delay	Apologize, expedite
Mess	Clean immediately
Damage	Document, repair/compensate
Quality	Inspect, correct

Resolution Process

Investigation:

1. Visit if necessary
2. Document thoroughly
3. Photograph evidence
4. Interview involved parties
5. Review documentation
6. Determine fault

Solution Options:

- Repair/redo work
- Partial refund
- Full refund
- Compensation
- Future discount
- Apology only

Follow-Up:

- Confirm resolution
- Check satisfaction
- Document outcome
- Learn from issue
- Prevent recurrence

Escalation Management

When to Escalate:

- Legal threats
- Media involvement
- Regulatory complaints
- Significant damages
- Unresolvable disputes

Professional Help:

- Legal counsel
- Insurance company
- Mediation services
- Trade association
- Regulatory body

Building Repeat Business

Satisfied customers become long-term revenue sources.

Customer Retention

Value of Retention:

Metric	Impact
Acquisition cost	5× retention cost
Repeat revenue	60-70% of business
Referral source	Best new customers
Profit margin	Higher on repeat
Marketing cost	Lower/none

Retention Strategies:

1. Exceed expectations
2. Regular communication
3. Loyalty programs
4. Preferred scheduling
5. Special pricing
6. Personal attention

Service Agreements:

- Annual maintenance
- Priority service
- Discount pricing
- Regular contact
- Predictable revenue

Customer Database

Information to Track:

Customer Details:

- Contact information
- Service history
- Equipment details
- Preferences
- Communication log
- Payment history

Equipment Records:

Data	Purpose
Make/model	Service information
Install date	Replacement timing
Service dates	Maintenance schedule
Warranty info	Coverage tracking
Issues	Pattern identification

Communication Schedule:

- Annual maintenance reminders
- Seasonal tips
- Holiday greetings
- Special offers
- Industry updates

Referral Programs

Program Structure:

Incentive Options:

1. Cash rewards
2. Service credits
3. Gift cards
4. Discounts
5. Free services
6. Charity donations

Program Rules:

- Clear terms
- Easy process
- Prompt rewards
- Thank you notes
- Recognition

Tracking Success:

- Referral sources
- Conversion rates
- Program costs
- ROI calculation
- Customer feedback

22.4 Documentation and Record Keeping

Comprehensive documentation protects businesses and ensures compliance.

Work Orders

Work orders initiate and track service delivery.

Work Order Creation

Essential Information:

Field	Purpose
Customer info	Contact and location
Date/time	Scheduling
Work description	Scope definition
Assigned technician	Responsibility
Equipment needed	Preparation
Special instructions	Site requirements

Work Order Flow:

1. Customer contact
2. Order creation
3. Scheduling
4. Dispatch
5. Completion
6. Review/approval
7. Invoicing

Digital Systems:

- Cloud-based access
- Mobile apps
- Real-time updates
- GPS tracking
- Photo integration
- Signature capture

Job Tracking

Status Management:

Status Categories:

- Scheduled
- Dispatched
- In progress
- Completed
- Invoiced
- Paid
- Closed

Performance Metrics:

Metric	Target
First-call resolution	>85%
On-time arrival	>90%
Customer satisfaction	>95%
Invoice accuracy	>98%
Collection rate	>97%

Quality Control:

- Work review process
- Customer callbacks
- Inspection requirements
- Documentation standards
- Correction procedures

Invoicing

Professional invoicing ensures prompt payment and clear communication.

Invoice Components

Header Section:

- Company information
- License numbers
- Invoice number
- Invoice date
- Payment terms
- Due date

Customer Section:

- Bill to name/address
- Service address
- Contact information

- Purchase order (if applicable)

Work Description:

Detail Level:

Option	When to Use
Detailed	Complex work, commercial
Summary	Simple repairs, repeat customers
Flat rate	Standard services

Line Items:

1. Labor hours and rates
2. Materials with markup
3. Equipment costs
4. Permits/inspections
5. Travel charges (if applicable)
6. Subtotal
7. Taxes
8. Total due

Payment Processing

Payment Options:

- Cash
- Check
- Credit/debit cards
- Electronic transfer
- Financing
- Online payment

Terms and Conditions:

Term	Typical
Due date	Net 30 days
Late charge	1.5% monthly
Service charge	\$35 NSF
Collection costs	Customer pays

Collection Process:

1. Invoice sent promptly

2. Reminder at 30 days
3. Call at 45 days
4. Final notice at 60 days
5. Collection agency at 90 days
6. Legal action if necessary

Warranty Information

Clear warranty documentation prevents disputes and builds trust.

Warranty Documentation

Manufacturer Warranties:

Registration Process:

1. Complete online/mail registration
2. Record serial numbers
3. Note start dates
4. File documentation
5. Provide customer copy
6. Set reminder for expiration

Coverage Details:

Component	Typical Coverage
Heat exchanger	10-20 years or lifetime
Parts	5-10 years
Labor	Varies by installer
Compressor	5-10 years
Controls	1-5 years

Labor Warranties:

Company Policy:

- Standard term (1-2 years typical)
- Coverage scope
- Exclusions
- Claim process
- Response time
- Documentation required

Warranty Certificate:

- Customer name/address
- Installation date
- Equipment details
- Coverage terms
- Installer information
- Terms and conditions

Warranty Service

Claim Handling:

1. Verify coverage
2. Schedule promptly
3. Diagnose issue
4. Determine coverage
5. Perform repair
6. Document service
7. File claims if applicable

Manufacturer Claims:

- Online submission
- Required documentation
- Photo requirements
- Parts return
- Labor reimbursement
- Processing time

Permit Documentation

Proper permit records ensure compliance and protect against liability.

Permit Management

Application Records:

Document	Retention
Permit applications	7 years
Approved permits	Permanent
Inspection reports	7 years
Corrections	Until resolved
Certificates	Permanent

Permit Tracking:

1. Application submitted
2. Permit issued
3. Work commenced
4. Inspection scheduled
5. Inspection completed
6. Corrections (if any)
7. Final approval
8. Certificate issued

Digital Organization:

- Scan all documents
- Organize by project
- Cloud backup
- Easy retrieval
- Share with customer

Inspection Records

Inspection documentation provides evidence of compliance.

Inspection Documentation

Pre-Inspection:

- Checklist review
- Site preparation
- Document gathering
- Access arrangements
- Customer notification

During Inspection:

- Inspector notes
- Photos of issues
- Measurements taken
- Corrections required
- Timeline given

Post-Inspection:

Result	Action Required
Pass	File certificate
Conditional	Complete items, re-inspect
Fail	Major corrections, full re-inspect

Follow-Up:

- Correction completion
- Re-inspection scheduling
- Documentation update
- Customer notification
- File closure

Customer Files

Comprehensive customer records support service excellence.

File Organization

Physical Files:

File Structure:

- Customer folder
- Contact information
- Service history
- Equipment records
- Correspondence
- Invoices/payments

Storage System:

- Alphabetical filing
- Active/inactive separation
- Annual archiving
- Secure storage
- Fire protection

Digital Records:

Database Fields:

Category	Information
Personal	Name, address, phone, email
Property	Type, age, occupancy
Equipment	All installed equipment
Service	Complete history
Financial	Invoices, payments, credit
Notes	Preferences, issues

Benefits:

- Quick access
- Search capability
- Report generation
- Marketing integration
- Backup protection

Privacy Protection**Data Security:**

- Password protection
- Encryption
- Access controls
- Backup procedures
- Disposal protocols

Privacy Policy:

- Information collected
- Use limitations
- Sharing restrictions
- Customer rights
- Security measures

Retention Requirements

Legal and practical retention periods for business documents.

Regulatory Requirements**Government Mandated:**

Document Type	Retention Period
Tax records	7 years
Payroll records	7 years
GST/HST records	6 years
Corporate records	Permanent
Safety records	7 years

Industry Specific:

- Permits: 7-10 years
- Gas tests: 10 years

- Incident reports: Permanent
- Training records: Current + 5 years
- Warranties: Duration + 2 years

Business Needs

Practical Retention:

Document	Suggested Period
Quotes	2 years
Customer correspondence	5 years
Supplier invoices	7 years
Equipment manuals	While owned
Insurance policies	Permanent

Disposal Procedures:

1. Review retention schedule
2. Identify expired documents
3. Check for holds
4. Secure destruction
5. Document disposal
6. Update indices

22.5 Legal and Ethical Considerations

Understanding legal and ethical obligations protects businesses and maintains professional standards.

Contract Basics

Well-drafted contracts prevent disputes and clarify obligations.

Contract Elements

Essential Components:

Element	Description
Offer	Proposal to do work
Acceptance	Agreement to terms
Consideration	Exchange of value
Capacity	Legal ability to contract
Legal purpose	Lawful objectives

Written vs. Verbal:

- Written preferred
- Verbal enforceable but difficult
- Email contracts valid
- Text agreements problematic
- Always document

Contract Terms

Standard Clauses:

1. **Scope of Work:**
 - Detailed description
 - Inclusions
 - Exclusions
 - Standards
 - Timeline
2. **Payment Terms:**
 - Amount
 - Schedule
 - Methods
 - Late charges
 - Collection costs
3. **Warranties:**
 - Labor warranty
 - Material warranties
 - Limitations
 - Claim process
4. **Liability Limitations:**
 - Consequential damages
 - Maximum liability
 - Insurance requirements
 - Indemnification

Change Provisions:

- Change order process
- Pricing methods
- Approval requirements
- Documentation
- Dispute resolution

Contract Enforcement

Breach of Contract:

Common Breaches:

Party	Type of Breach
Contractor	Non-performance, delays, quality
Customer	Non-payment, access denial
Both	Terms violation

Remedies:

- Specific performance
- Damages
- Cancellation
- Restitution
- Negotiated settlement

Dispute Resolution:

1. Direct negotiation
2. Mediation
3. Arbitration
4. Small claims court
5. Superior court

Lien Legislation

Construction liens protect contractors' payment rights.

Lien Rights

Provincial Variations:

Province	Lien Period	Holdback
Ontario	60 days	10%
Alberta	45 days	10%
BC	45 days	10%
Quebec	30 days	Different system

Preservation Requirements:

1. Timely filing
2. Proper form
3. Correct parties
4. Accurate amount
5. Property description

Lien Process:

1. Complete work
2. Invoice sent
3. Payment default
4. Lien filed
5. Notice served
6. Enforcement action

Protecting Rights

Best Practices:

- Know deadlines
- Document everything
- File promptly
- Serve properly
- Seek legal advice

Holdback Management:

- Understand requirements
- Track payments
- Release properly
- Document releases
- Protect position

Priority Issues:

- Secured creditors
- Other liens
- Trust claims
- Set-offs
- Deficiencies

Code of Ethics

Professional ethics guide business conduct and build trust.

Professional Standards

Core Principles:

Principle	Application
Integrity	Honest dealings always
Competence	Work within abilities

Principle	Application
Confidentiality	Protect customer information
Professionalism	Maintain standards
Safety	Never compromise

Ethical Obligations:

1. Truthful communication
2. Fair pricing
3. Quality workmanship
4. Regulatory compliance
5. Environmental responsibility
6. Social responsibility

Industry Codes:

- Trade association standards
- Manufacturer requirements
- Regulatory expectations
- Professional guidelines
- Best practices

Customer Relations Ethics

Fair Treatment:

- No discrimination
- Equal service
- Respectful interaction
- Honest advice
- Reasonable pricing

Vulnerable Populations:

- Elderly customers
- Disabled individuals
- Language barriers
- Financial hardship
- Emergency situations

Ethical Selling:

- Need-based recommendations
- Full disclosure
- Option presentation

- No pressure tactics
- Customer's best interest

Business Ethics

Competition:

- Fair competition
- No disparagement
- Honest advertising
- Respect territories
- Professional courtesy

Employment:

- Fair wages
- Safe workplace
- Training opportunities
- No discrimination
- Proper classification

Environmental:

- Proper disposal
- Recycling efforts
- Efficiency promotion
- Regulatory compliance
- Sustainability

Scope of Practice

Working within authorized scope protects licenses and public safety.

License Limitations

Work Authorization:

License Level	Permitted Work
G3	Up to 400,000 BTU
G2	Any BTU rating
G1	All gas work
OBT	Oil equipment
Electrical	Limited to gas equipment

Crossing Trades:

- Plumbing overlap
- Electrical connections
- HVAC integration
- Permit requirements
- Coordination needed

Supervision Requirements:

- Apprentice limitations
- Direct supervision
- Ratio requirements
- Documentation
- Responsibility

Liability Issues

Exceeding Scope:

Consequences:

1. License suspension/revocation
2. Insurance void
3. Personal liability
4. Criminal charges
5. Civil lawsuits
6. Reputation damage

Common Violations:

- Electrical work
- Structural modifications
- Plumbing connections
- Refrigeration work
- Unauthorized equipment

Protection Strategies:

- Know limitations
- Subcontract properly
- Document handoffs
- Maintain licenses
- Insurance verification

Confidentiality

Protecting customer information is legal and ethical requirement.

Information Protection

Confidential Information:

Type	Examples
Personal	Financial, medical, family
Property	Security, valuables, schedules
Business	Trade secrets, operations

Protection Measures:

- Secure storage
- Limited access
- No unnecessary sharing
- Proper disposal
- Employee training

Privacy Legislation:

- PIPEDA requirements
- Provincial laws
- Industry standards
- Consent requirements
- Breach notification

Disclosure Limits

Permitted Disclosure:

- Legal requirements
- Safety issues
- Insurance claims
- With consent
- Business necessity

Prohibited Sharing:

- Competitors
- Unnecessary parties
- Social media
- Personal benefit
- Gossip

Employee Obligations:

- Confidentiality agreements
- Training requirements
- Violation consequences
- Ongoing obligation
- Post-employment

Conflicts of Interest

Managing conflicts maintains integrity and trust.

Identifying Conflicts

Common Situations:

Situation	Conflict Type
Family member customer	Personal
Supplier kickbacks	Financial
Competitor information	Business
Inspector relationships	Regulatory
Insurance claims	Financial

Disclosure Requirements:

1. Identify conflict
2. Disclose to parties
3. Document disclosure
4. Obtain consent
5. Manage appropriately
6. Monitor ongoing

Management Strategies:

- Avoidance
- Disclosure
- Recusal
- Third party
- Transparency

Supplier Relations

Ethical Issues:

- Kickbacks
- Gifts
- Entertainment

- Preferential treatment
- Exclusive dealing

Best Practices:

- Transparent relationships
- Multiple suppliers
- Competitive bidding
- Documentation
- Fair treatment

Professional Boundaries:

- Customer relationships
- Employee relationships
- Competitor interactions
- Regulatory dealings
- Community involvement

22.6 Marketing and Growth

Strategic marketing and planned growth build sustainable businesses.

Marketing Strategies

Effective marketing attracts customers and builds brand awareness.

Market Positioning

Unique Selling Proposition:

Differentiation Options:

Factor	Example
Price	Best value guarantee
Quality	Premium service
Speed	Same-day service
Specialization	Historic homes expert
Technology	Advanced diagnostics

Target Market:

- Demographics
- Geographic area
- Property types

- Income levels
- Service preferences

Brand Development:

1. Business name
2. Logo design
3. Color scheme
4. Tagline
5. Consistent messaging
6. Professional image

Traditional Marketing

Print Advertising:

- Yellow pages (declining)
- Local newspapers
- Community newsletters
- Direct mail
- Door hangers

Vehicle Marketing:

- Professional lettering
- Contact information
- Services listed
- Clean appearance
- Moving billboard

Referral Marketing:

Source	Strategy
Customers	Incentive programs
Suppliers	Reciprocal referrals
Complementary trades	Cross-referrals
Real estate agents	Relationship building
Insurance companies	Preferred contractor

Community Involvement:

- Sponsorships
- Charity work
- Trade shows
- Home shows

- Educational seminars

Digital Marketing

Website Development:

Essential Elements:

1. Professional design
2. Mobile responsive
3. Contact information
4. Service descriptions
5. Coverage area
6. Credentials displayed
7. Customer testimonials
8. Online booking

Search Engine Optimization (SEO):

- Keyword research
- Content creation
- Local SEO
- Meta descriptions
- Site speed
- Mobile optimization

Pay-Per-Click (PPC):

- Google Ads
- Facebook Ads
- Budget management
- Conversion tracking
- ROI measurement

Online Presence

Digital presence is essential for modern business success.

Google My Business

Profile Optimization:

Element	Importance
Business name	Exact match
Address	Accurate

Element	Importance
Phone	Local number
Hours	Current
Photos	Professional
Categories	Relevant

Management:

- Regular updates
- Post offers
- Answer questions
- Respond to reviews
- Add photos
- Track insights

Social Media:

Platform Strategy:

- Facebook: Community engagement
- Instagram: Visual content
- LinkedIn: B2B networking
- Twitter: Customer service
- YouTube: Educational content

Content Calendar:

- Educational posts
- Seasonal tips
- Promotions
- Company news
- Industry updates

Online Directories

Key Listings:

1. Yelp
2. HomeStars
3. Better Business Bureau
4. Angie's List
5. Trade associations
6. Local directories

Consistency Requirements:

- Name (exact)
- Address (format)
- Phone number
- Website
- Hours
- Services

Reputation Management

Online reputation significantly impacts business success.

Review Management

Encouraging Reviews:

Best Practices:

1. Ask satisfied customers
2. Make it easy
3. Provide links
4. Follow up
5. Incentivize carefully
6. Thank reviewers

Platform Priorities:

Platform	Importance	Response Time
Google	Critical	24 hours
Facebook	High	24 hours
HomeStars	High	48 hours
Yelp	Medium	48 hours
BBB	Medium	24 hours

Response Strategy:

Positive Reviews:

- Thank reviewer
- Mention specifics
- Reinforce positives
- Professional tone
- Invite return

Negative Reviews:

1. Respond quickly
2. Stay professional
3. Acknowledge concern
4. Apologize if appropriate
5. Offer resolution
6. Take offline

Crisis Management

Reputation Threats:

- Major complaint
- Safety incident
- Media attention
- Viral negative review
- Legal issues

Response Plan:

1. Assess situation
2. Gather facts
3. Craft response
4. Consistent messaging
5. Monitor reactions
6. Follow through

Reputation Building:

- Consistent quality
- Exceed expectations
- Community involvement
- Professional appearance
- Prompt communication

Hiring and Training

Building a strong team enables growth and improves service.

Recruitment Process

Finding Candidates:

Source	Effectiveness
Trade schools	High
Online job boards	Medium

Source	Effectiveness
Industry contacts	High
Social media	Medium
Employee referrals	Very high

Job Posting Elements:

1. Clear title
2. Responsibilities
3. Requirements
4. Compensation range
5. Benefits
6. Company culture
7. Application process

Screening Process:

1. Resume review
2. Phone screening
3. Technical assessment
4. In-person interview
5. Reference checks
6. Background check
7. Job offer

Interview Best Practices

Question Categories:

Technical Skills:

- Trade knowledge
- Code understanding
- Tool proficiency
- Safety awareness
- Problem-solving

Soft Skills:

- Communication
- Customer service
- Teamwork
- Reliability
- Attitude

Legal Considerations:

- Prohibited questions
- Consistent process
- Documentation
- Fair treatment
- Privacy protection

Onboarding and Training**Orientation Program:****Week 1:**

Day	Focus
1	Paperwork, policies
2	Safety training
3	Systems and procedures
4	Tool and vehicle
5	Shadow experienced tech

Ongoing Training:

1. Manufacturer training
2. Code updates
3. Safety refreshers
4. Customer service
5. New technology
6. Skill advancement

Performance Management:

- Clear expectations
- Regular feedback
- Performance reviews
- Goal setting
- Recognition programs
- Corrective action

Retention Strategies**Compensation and Benefits:**

Element	Importance
Competitive wages	Critical
Health benefits	High
Retirement plan	Medium
Vehicle/tools	High
Training opportunities	High
Advancement path	Critical

Culture Building:

- Team meetings
- Recognition programs
- Social events
- Open communication
- Fair treatment
- Work-life balance

Career Development:

- Apprenticeship programs
- License advancement
- Leadership training
- Cross-training
- Mentoring
- Succession planning

Business Development

Strategic growth requires planning and execution.

Growth Strategies

Organic Growth:

Methods:

1. Service area expansion
2. Service line additions
3. Customer base growth
4. Capacity increases
5. Efficiency improvements

Metrics:

Metric	Target
Annual revenue growth	15-25%
Customer retention	>80%
New customer acquisition	20-30/month
Average ticket increase	5-10%
Market share	Growing

Strategic Partnerships:

- Complementary trades
- Suppliers
- Manufacturers
- Real estate companies
- Property managers

Acquisition Opportunities

Buying Considerations:

1. Customer base value
2. Equipment assets
3. Skilled employees
4. Market position
5. Financial performance
6. Cultural fit

Due Diligence:

- Financial review
- Legal review
- Customer analysis
- Equipment assessment
- Employee evaluation
- Market analysis

Integration Process:

1. Communication plan
2. System integration
3. Culture alignment
4. Customer retention
5. Employee retention
6. Brand decisions

Exit Planning

Succession Options:

Option	Considerations
Family succession	Training, fairness
Employee buyout	Financing, structure
Third-party sale	Valuation, terms
Asset sale	Simpler, lower value
Gradual transition	Income, control

Business Valuation:

- Asset approach
- Income approach
- Market approach
- Multiple methods
- Professional appraisal

Preparation Timeline:

- 5 years: Begin planning
- 3 years: Improve value
- 1 year: Active preparation
- 6 months: Marketing
- Closing: Transition

Chapter Review

Summary

This chapter covered essential business practices for gas contractors:

Business Foundation:

- Proper licensing and structure
- Adequate insurance and bonding
- Comprehensive business planning
- Financial management
- Legal compliance

Customer Excellence:

- Professional conduct standards
- Effective communication
- Expectation management
- Complaint resolution

- Relationship building

Operational Excellence:

- Accurate estimating
- Professional documentation
- Systematic processes
- Quality control
- Continuous improvement

Growth and Sustainability:

- Marketing effectiveness
- Online presence
- Reputation management
- Team building
- Strategic planning

Key Business Principles:

1. Professionalism in all interactions
2. Accurate estimating ensures profitability
3. Documentation protects all parties
4. Customer satisfaction drives growth
5. Legal compliance is non-negotiable
6. Ethics guide all decisions
7. Marketing requires consistency
8. Online reputation matters
9. Employees are key assets
10. Planning enables success

Business Planning Exercises

Exercise 1: Start-up Budget

Calculate Initial Investment:

Category	Amount
Licenses and permits	\$3,000
Insurance (annual)	\$8,000
Vehicle (down payment)	\$10,000
Tools and equipment	\$15,000
Marketing	\$5,000
Working capital	\$25,000
Office setup	\$3,000

Category	Amount
Professional fees	\$2,000
Total Required	\$71,000

Exercise 2: Break-Even Analysis

Monthly Costs:

- Fixed costs: \$8,000
- Average job profit: \$400
- Break-even: 20 jobs/month
- Target: 30 jobs/month
- Profit at target: \$4,000

Estimating Practice Problems

Problem 1: Furnace Replacement

Given:

- 80,000 BTU furnace
- 25 feet of venting
- New thermostat
- Disposal of old unit

Solution:

Item	Cost	Markup	Sell
Furnace	\$1,200	40%	\$1,680
Venting	\$150	40%	\$210
Thermostat	\$120	40%	\$168
Labor (5 hrs)	\$300	65%	\$495
Disposal	\$50	50%	\$75
Total			\$2,628

Problem 2: Service Call

Diagnostic fee: \$99 **Repair found:** Flame sensor cleaning **Time:** 30 minutes **Part:** None

Pricing Options:

1. Diagnostic only: \$99
2. Flat rate repair: \$189
3. Time and material: \$99 + \$75

Customer Scenario Responses

Scenario 1: Price Complaint

Customer: "Your price is too high!"

Response: "I understand price is important. Let me explain what's included: licensed technician, warranty protection, code compliance, insurance coverage, and guaranteed work. We may not be the cheapest, but we provide excellent value and peace of mind."

Scenario 2: Emergency After Hours

Customer: "My heat is out and it's freezing!"

Response: "I understand this is an emergency. We can have a technician there within 2 hours. Our after-hours rate is time-and-a-half, with a two-hour minimum. Should I dispatch someone immediately?"

Scenario 3: Warranty Dispute

Customer: "This should be covered under warranty!"

Response: "Let me review your warranty coverage. I see the parts are covered, but the warranty excludes problems caused by lack of maintenance. However, I'd like to help. I can offer a 20% discount on the repair as a courtesy."

Documentation Examples

Professional Quote Format:

ABC GAS SERVICES LTD.
License #G1-12345
123 Main Street
Toronto, ON M1M 1M1
(416) 555-1234

QUOTE #2024-1234
Date: November 1, 2024
Valid Until: November 30, 2024

TO: John Smith
456 Oak Avenue
Toronto, ON M2M 2M2

RE: Furnace Replacement

SCOPE OF WORK:
- Remove and dispose of existing furnace
- Install new 96% efficient 80,000 BTU furnace
- Install new programmable thermostat

- Modify venting as required
- Obtain all permits
- Complete all required inspections

INVESTMENT: \$4,250.00 plus HST

TERMS:

- 50% deposit required
- Balance due on completion
- 10-year parts, 2-year labor warranty
- Price valid 30 days

Authorized by: _____ Date: _____

Service Report Template:

SERVICE REPORT

Customer: _____ Date: _____
Address: _____ Tech: _____

FINDINGS:

- ☐ System operating properly
- ☐ Maintenance performed
- ☐ Repairs completed
- ☐ Safety concern identified

WORK PERFORMED:

RECOMMENDATIONS:

Parts Used: _____ Amount: \$ _____
Labor: _____ Amount: \$ _____
Total: _____

Customer Signature: _____

Key Terms and Definitions

Billable Hours: Actual hours that can be charged to customers.

Business Plan: Comprehensive document outlining business strategy.

Change Order: Written authorization for scope changes.

Corporation: Legal entity separate from owners.

Estimate: Approximate cost projection.

Gross Margin: Revenue minus direct costs.

Liability Insurance: Coverage for third-party claims.

Lien: Legal claim against property for unpaid work.

Marketing: Activities to attract and retain customers.

Net Profit: Revenue minus all expenses.

Overhead: Indirect business costs.

Partnership: Business owned by two or more people.

Professional Liability: Coverage for errors and omissions.

Quote: Fixed price offer.

Retention: Keeping existing customers.

ROI: Return on investment.

Scope of Work: Detailed description of work to be performed.

USP: Unique Selling Proposition.

Work Order: Authorization to perform work.

End of Chapter 22

This comprehensive chapter on Business Practices provides essential knowledge for establishing and operating a successful gas contracting business. Understanding these principles enables technicians to transition from employees to successful business owners while maintaining professional standards and building sustainable enterprises.

Students should recognize that technical skills alone don't ensure business success. Professional business practices, ethical conduct, effective marketing, and sound financial management are equally important. The ability to estimate accurately, communicate effectively, and deliver exceptional customer service distinguishes successful contractors from those who struggle or fail.

As the industry evolves with new technologies, regulations, and customer expectations, successful contractors must adapt their business practices while maintaining core principles of professionalism, integrity, and service excellence. Continuous learning in both technical and business aspects ensures long-term success in the competitive gas contracting industry.

