

On-Street Meter Auditing

Defending the "IRS"

Integrity of the Revenue Stream



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CHANCE
MANAGEMENT ADVISORS, INC.

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Ten (10) Topics

1. What **SHOULD** your Meter Revenue Be?
2. Organizational Safeguards
3. Types of Internal Controls
4. Standard Operating Procedures (SOPs)
5. Collection Equipment Inventory Controls
6. Accountability Transfers (the Weakest Link)

Ten (10) Topics

- 7. Revenue Projections, Safeguards, Reconciliations**
- 8. Inspecting for Signs of Compromise**
- 9. Steps in Recovering from a Loss**
- 10. Implementing an Audit Approach**

1. What **SHOULD** your Meter Revenue Be?

- Does not equate (only) to history
- Traditional Meter Revenue Formula
- Determine for Location and Period
- Conduct Paid Occupancy Surveys

# Meters		400
x		
Hours of Operation per Day		10
x		
Days per Week		5.5
x		
Weeks per Year		50
x		
Hourly Rate	\$	1.00
x		
Paid Legal Occupancy Rate		50%
=		
Meter Revenue	\$	550,000
Average Meter Revenue/Meter/Year	\$	1,375.00

1. What **SHOULD** your Meter Revenue Be? (cont'd)

- Location (hierarchy, bottom-up)
 - ◆ Parking space or meter
 - ◆ Blockface
 - ◆ Collection “segment” or “zone” = CANISTER
 - ◆ Collection Route (a number of segments)
 - ◆ Enforcement Patrol Beat
 - ◆ Contiguous area (neighborhood, Central Business District quadrant, CBD, etc.)
 - ◆ Meter Maintenance Route
 - ◆ City

1. What **SHOULD** your Meter Revenue Be? (cont'd)

■ Period

- ◆ Days
- ◆ Weeks
- ◆ Months
- ◆ Seasons
- ◆ Year
- ◆ Fluctuations in parking activity, enforcement staffing, special events, etc.

Fluctuations will occur

Projections can be made

Collection frequencies should be established so meter coin boxes are not overloaded or store excessive value

Revenue should be tracked by **time, location, etc.**

1. What **SHOULD** your Meter Revenue Be? (cont'd)

■ Fun Facts

Approximate maximum capacities for revenue boxes:

S/S regular coin box:	c. \$30 - \$35
S/S extended coin box:	c. \$60 - \$70
M/S coin box:	up to \$1,200?
M/S cash box:	\$1,000 in singles

One pound of mixed coin,
mostly quarter: c. \$17.75

One traditional collection canister: Hernia-city
c. 22.5 pounds for the canister; c. \$4,000 in coin (>220 lbs.)

1. What **SHOULD** your Meter Revenue Be?

(cont'd)

■ Paid Occupancy Surveys

- ◆ Peak, off-peak, evening, weekend, etc.
- ◆ Worth the time and money spent
- ◆ Collect the **Paid Legal** Parking Rate
- ◆ Collect **Unpaid Legal Parking** rate
 - ➔ Placard or plate: person with disability
 - ➔ Broken meters, etc.
- ◆ Collect **Violation Capture** rate
 - ➔ # of Unique Tickets / # of Unique Violations

1. What **SHOULD** your Meter Revenue Be? (cont'd)

SUGGESTED NORMS FOR ON-STREET PARKING ACTIVITY INDICATORS (updated October 2009)

Note: In the following table, the term "Space Hours" is abbreviated with "SpHr".

Indicator	Calculation	Observed Rate that is Lower May Be Caused By:	Typical Downtown "Balanced System"	Observed Rate that is Higher May Be Caused By:
Occupancy (O%)	$\frac{\# \text{ Occupied SpHr}}{\text{Total SpHr}}$	Regulated Duration too short; meter rates too high for area (esp. versus off-street)	93% - 95%	Insufficient legal parking supply or too few meters; rates too low for area (esp. versus off-street); possible need to evaluate necessity of safety regulations
Meter Paid Rate	$\frac{\# \text{ Paid SpHr}}{\text{Total SpHr}}$	Inefficient enforcement (capture rate too low); Meter rate too high or meter duration insufficient	60% - 85%	Rates too low; durations too long; insufficient enforcement
Meter Violation Rate	$\frac{\# \text{ Expired SpHr}}{\text{Total SpHr}}$	Meter rate too low, duration too long; ticket fine too low	3% - 5% - 7% (Multi-space to single-space electronic)	Meter fee excessive; duration too short
Unpaid Legal Meter Occupancy	$\frac{\# \text{ Unpaid Legal SpHr}}{\text{Total SpHr}}$	--	Up to 15%	Disabled parking abuse; inappropriate free parking policies; excessive meter outages
Meter Vacancy	$\frac{\# \text{ Vacant SpHr}}{\text{Total SpHr}}$	Excessive demand; meter fee too low; insufficient number of meters (perhaps inappropriate or unnecessary non-metered regulations)	5% to 7%	Insufficient demand; meter fee excessive
Meter Downtime	$\frac{\# \text{ Unique Failed Meters Observed}}{\# \text{ Unique Meters Surveyed}}$	Effective maintenance program; low vandalism	1%-2%	Inefficient maintenance; vandalism or intentional jamming
Rate of Meter Downtime	$\frac{\# \text{ Meter Downtime SpHr}}{\text{Total \# Meter SpHr}}$			

2. Organizational Safeguards

- Security staff (ROI)
 - ◆ Reporting relationship: to the TOP
- Meter program manager
- Maintenance staff
 - ◆ Traditional: 1 to 2,000 meters
 - ◆ Electronic / multi-space
 - program, city, geography-specific
 - vendor input
 - local conditions
 - program status

2. Organizational Safeguards (cont'd)

- Meter planning analysts!!!
 - ◆ Program-specific
 - ◆ Major area of city
 - ◆ Determine tasks: outreach, monitoring, revenue analysis, etc.
- Key control
 - ◆ Secure storage, controlled access
 - ◆ Vested in “disinterested party”
 - ◆ Counter-signatures, verifications, etc.

2. Organizational Safeguards (cont'd)

- Consider the capital investment
- Consider the potential revenue
- Consider NOT investing in security and revenue analysis
 - ◆ the negative press
 - ◆ damage to the parking program
 - ◆ public embarrassment to the organization
 - ◆ embarrassment to elected officials, the mayor, etc.

3. Types of Internal Controls

- Administrative / Procedural
- Physical
- Revenue / Accounting
- FOUR Categories of each
 - ◆ Exist on paper
 - ◆ In effect
 - ◆ Absent
 - ◆ You wish you had

3. Types of Internal Controls (cont'd)

■ Administrative / Procedural Controls include

- ◆ Who, what, when, where, **WHY**, how, and how often
- ◆ Responsibility assignments ↓
- ◆ **In WRITING**

Responsibility Assignments Cover

Maintaining
Assigning
Issuing
Receiving
Counting
Reporting
Transferring
Verifying
Inspecting
Observing

Rotating (collector)

3. Types of Internal Controls (cont'd)

WHAT SHOULD BE COVERED

Keys to vehicles

Keys to meters

Coin boxes

Collection canisters

Collection carts

Vehicles

Manifests

Other equipment

Crew assignments

Security procedures

3. Types of Internal Controls (cont'd)

■ Physical Controls include

- ◆ Locks (meters, spare inventory)
- ◆ Locks (collection canisters)
- ◆ Keys (maintenance and collections)
- ◆ Tamper-evident seals (numbered and/or bar-coded)
- ◆ Flash bags
- ◆ Bar-code or RFID equipment
- ◆ Locking key rings
- ◆ Pocket-less garments
- ◆ Forms, handhelds, etc.
- ◆ Baffle/bladder
- ◆ Cameras, video, two-way glass
- ◆ Ultraviolet solutions and lights

Inventory records
Issuance / receipt records
Inspection documentation
Discrepancy reports

3. Types of Internal Controls (cont'd)

■ Revenue / Accounting

- ◆ Collection Route, zone, segment, area **projections**
- ◆ Daily reporting and comparison with history and projections
- ◆ Item counts and weights in/out/received
- ◆ Maintaining piece count history
- ◆ Deposit ticket preparation, tracking and reconciling
- ◆ Bank statement reconciliations: coin and electronic (credit card, cell-phone) transactions
 - ➔ area analysis

3. Types of Internal Controls (cont'd)

■ **FOUR CATEGORIES** of each TYPE of internal control

- ◆ *Exist on paper*
- ◆ *In effect and are working*
- ◆ *Absent or missing*
- ◆ *You wish you had after a mishap*

4. Standard Operating Procedures

- Should be written for each function
 - ◆ Collection crew member, crew leader, supervisor, manager
 - ◆ Equipment set-up staff (may be counting room staff, or other)
 - ◆ Security / surveillance staff and leader (inspections)
 - ◆ Key control, etc.
- Top of meter revenue (recovery)
- Issuance and receipt of keys and canisters
- Equipment transfers in the field
- Revenue reconciliation (for deposits, etc.)
- Communications (radio reporting protocols, etc.)

5. Collection Equipment Controls

- Begin with a physical inventory
- Separately number each piece of equipment – traditional or bar-coded labels
- Document condition with digital photos
- Establish database of ALL equipment items
- Maintain in secure surveillance area
- Require counter-signatures on equipment transfers

5. Collection Equipment Controls (cont'd)

- For collection canisters
 - ◆ Check for presence and condition of baffle and receptacle sleeve
- Ensure coin box doors can not turn outside of the sleeve
- Do NOT use any “off-the-shelf” locks
 - ◆ Use special locks and keys obtained for your program
- Use one-way or other non-duplicable security seals on collection canisters always

6. Accountability Transfers

■ This IS the Weakest Link

- ◆ All collection equipment items, including vehicles
- ◆ Establish and enact procedures...
 - ➔ Always document (forms) – even electronic records can disappear
 - ➔ Require countersignatures and verification of item counts on all transfers
 - ➔ Instruct in notation of condition
 - ➔ Line by line, not all at once
 - ➔ Observe in the shop and in the field
 - ➔ Conduct surprise inspections
 - ➔ Document any instance of non-compliance
 - ➔ Provide refreshers

7. Revenue Projections, Safeguards and Reconciliations

- Conduct daily and trend-based analysis of revenue by collection hierarchy, whether automated or manual
- Compare with projections
- Institute “Top of Meter” coin recovery procedures
 - ◆ Technicians do NOT deposit loose coins in vault
 - ◆ Issue numbered coin boxes to technicians daily
 - ◆ Count receipts daily
- Conduct overt and covert surveillance (safety of all concerned)

7. Revenue Projections, Safeguards and Reconciliations (cont'd)

- Track maintenance response times
- Examine technicians' reports
 - ◆ Too many or not enough repair actions?
- Examine collector and maintenance tech. vacation schedules
 - ◆ He's always here, what a guy!
 - ◆ Ensure vacation time is used

7. Revenue Projections, Safeguards and Reconciliations (cont'd)

- Plant and recover “salted” coins in vaults and tops
- Check for loose meters on poles, bent poles
 - ◆ Field special maintenance crews
- Respond IMMEDIATELY to vandalism
- SUBJECT MATTER FOR Q&A, but...

7. Revenue Projections, Safeguards and Reconciliations (cont'd)

■ ESTABLISH DAILY CONTINUITY OF COLLECTION ACTIVITY

- ◆ From the collector
- ◆ To the canister used
- ◆ To the route segment collected

8. Inspecting for Compromised \$

- Supporting Infrastructure – The Big Picture
 - ◆ Poor sign maintenance / conditions
 - ◆ Rusted meter housings, faded domes
 - ➔ Conveys inattention to the program, non-payment increases
 - ◆ Ticket complaints for meter outages

- Conduct post-collection audits
 - ◆ Was everything collected?
 - ◆ Open vault doors, missing coin boxes, etc.

The Big Picture - Examples



8. Inspecting for Compromised \$ (cont'd)

- Check for damaged collection equipment items
 - ◆ Start with a reliable inventory, note condition and any damages daily
 - ◆ Determine responsibility for damage
 - ◆ Question EVERY CHANGE in condition
 - ◆ Keys, canisters, heads, baffles, coin boxes

- Routinely inspect upper and lower housings (single-space meters)
 - ◆ Loose coins, foreign objects, missing elements
 - ◆ Can be a two-person inspection

9. Recovering from a Loss

■ PREVENTION FIRST

- ◆ Develop comprehensive, preventive security checklists and operating procedures
- ◆ Check daily for adherence by staff

■ PLAN FOR THE WORST

- ◆ Develop ER (Emergency Response procedures in advance)

9. Recovering from a Loss (cont'd)

■ Planning for the worst

- ◆ Collector assault or robbery
- ◆ Stolen truck
- ◆ **Lost key in the field** or during inventory
- ◆ Missing or lost canister / coin box
- ◆ Unaccounted-for item (lock, coin bag, locking key bag, etc.)
- ◆ Etc.

ER procedure should identify actions and a game plan to be executed: notification chain, timeframe of response, steps to be taken...

9. Recovering from a Loss (cont'd)

- ALL HANDS ON DECK and EVERY OTHER THING STOPS during the contingency
 - ◆ Example: lost collection key, immediate lock (until 2:00 a.m.)
- Conduct investigation
 - ◆ Two-person interviews / statements
 - ◆ Internal security leads, police if needed

9. Recovering from a Loss (cont'd)

■ Prepare after-action memo

- ◆ Recounting of incident
- ◆ Identify cause and responsibility
 - Failure to follow SOP?
 - Supervisory/managerial culpability?
 - Negligence?
 - Accidental?
- ◆ Revise procedures
- ◆ Progressive discipline

10. Implementing an Audit Approach

■ Preliminary steps

- ◆ Identify key players and responsibilities
- ◆ Identify resources needed
- ◆ Secure top-level commitment to the overall audit approach
- ◆ Ensure training and time will be made available within the organization for participants

10. Implementing an Audit Approach (cont'd)

- Develop and Implement the Revenue Stream Audit Plan
 - ◆ Develop a schedule for initial tests and inspections by type and frequency
 - ➔ External checks beyond the normal everyday inspections
 - ◆ Develop checklists for ease of documentation
 - ◆ Conduct the inspections
 - ◆ Document findings
 - ◆ Identify causes for any non-compliance
 - ◆ Develop recommendations for corrective action with a timeframe
 - ◆ Prepare a report of the Audit



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