



ATTEST SERVICES

Frederick County Government Towing Contract Services Performance Audit

May 6, 2019

Report #18-04

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I. Executive Summary

Background

SC&H Attest Services, P.C., a wholly owned affiliate of SC&H Group, Inc. (SC&H) has been engaged by the Frederick County Government (FCG, the County) Interagency Internal Audit Authority (IIAA) to conduct a performance audit (audit) of the Towing Contract Services (towing program). The audit was performed in two phases; a planning and risk assessment survey and a testing phase. The following is a summary of the overall towing program. Additional detailed process information is located in the Detailed Observation section of this report.

The Frederick County Sheriff Office (FCSO), Thurmont Police Department (TPD), and Brunswick Police Department (BPD) (together referenced as Law Enforcement) work with the County's Emergency Communications Center (ECC) to maintain a rotational list of approved towing vendors. While other County law enforcement agencies (Maryland State Police, Fort Detrick Police, and Frederick City Police) exist, they each manage their own towing list and process. 9-1-1 calls received related to these agencies are directed to the ECC, then transferred to the respective agency's Dispatchers for processing using a different towing list.

The towing program operates on a calendar year basis. The Department of Procurement and Contracting (DP&C) facilitates the towing program application process. Responsibilities include accepting and processing applications and participating in the Tow Oversight Committee (TOC). The TOC is comprised of representative of DP&C, FCSO, and the ECC. The TOC provides general oversight and compliance monitoring over the tow list. This includes investigating and resolving billing discrepancies, investigating complaints by Law Enforcement and/or vehicle owners, reviewing towing vendor performance, reviewing tow list rotations for potential issues, and performing Towing Handbook¹ compliance reviews and inspections.

Geographically, the County is divided into 10 areas (beats). Tow vendors who want to participate in the County's towing program are required to submit an application each calendar year. Tow vendors identify their beat requests and capable tow types on the application. There are four tow types; light (towed vehicle is 11,000 pounds or lighter), heavy (towed vehicle is 11,001 pounds or greater), AAA, and road service. The 2018 towing program included 16 light tow vendors. Four of the 16 are also heavy tow vendors. Approved heavy tow vendors are required to provide heavy tows County wide (all beats). 1,010 light tow events and 47 heavy tow events were performed between January and December 2018.

The towing program operates on a rotation basis, and there are 12 towing rotations. Each beat has multiple tow rotation lists for each tow type to dictate the vendor rotation order. Beats 5 and 6 each have two tow rotations (5a/5b and 6a/6b) due to their size. However, each "a" and "b" rotation has the same tow list. Once the tow list and rotation is approved, it is entered into the Intergraph Computer Aided Dispatch (CAD) system and managed by the ECC. The customer has

¹ The Tower's Handbook includes policies and procedures Towing Vendors must agree to and be in compliance with at the risk of suspension or removal from the tow listing.

the option to receive tow services from the next vendor in the County's rotation or can request a specific towing company of their preference. This type of tow is referred to as an owner's request.

Objectives

The following objectives for the testing phase were developed by SC&H based upon the understanding gained during the audit planning procedures and approved by the IIAA.

- A. Verify active towing vendors were approved and are compliant with the Towing Handbook requirements.
- B. Verify tows are processed in accordance with approved policies and procedures.
- C. Identify and assess the impact of tow calls performed outside of the rotational list program (Owner's request).
- D. Review CAD user access to ensure access is appropriately limited to current employees with a business need.
- E. Verify CAD configurations are functioning as intended.
- F. Assess the governance and oversight over the tow program for effectiveness.

Scope

The audit process was initiated in April 2018 and completed in December 2018. The audit focused on the County's Law Enforcement light and heavy towing contract services program and activities. The period in scope included towing activity between January 1, 2018 and October 31, 2018.

Methodology and Approach

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In order to obtain the necessary documentation to appropriately perform and conclude upon the objectives of this audit, SC&H conducted the following procedures.

Creation of Project Plan

Based on the understanding of the processes, risks, and related controls, SC&H developed an audit program to achieve the objectives. This program included detailed steps to address each objective with the goal of verifying the existence of internal controls and identifying opportunities for improvement.

Execution of Audit Program

SC&H executed the audit plan by completing the following tasks:

Objective Area	Attribute Tested	Test Type	Test Description
Towing Handbook Compliance	Tow Vendor Applications	Inspection	Obtained and reviewed each tow vendor application (16). Verified application requirements are met, complete, accurate, reviewed, and approved.
	Tow Vendor Suspensions	Inquiry	Requested information related to all tow vendor suspensions that occurred during the tow year (three). Verified tow vendors were suspended timely in CAD and not granted tows during their suspension period.
	Tow Vendor Additions to CAD	Inspection	Due to limited reporting capabilities of the CAD system, reviewed year to date tow rotation reports to verify that tow vendors were added correctly into CAD (by beat and tow type). In instances where a vendor performed services in an unapproved beat, obtained an audit log to determine when the vendor was added to the incorrect area and verified proper resolution.
Tow Rotation Analysis	Tow Rotation Data Presentation	Data Analytics	<p>Performed data analytics to quantify the following trends:</p> <ul style="list-style-type: none"> a. Number of calls by tow vendor, area, and type b. Tow vendor and response/call code by month analytics c. Dispatcher to vendor to code analytics <p>Selected a sample of 60 targeted tow events based on the analytical procedures.</p>
	Call Audio Tow Rotation Evaluation	Inspection	Reviewed call audio for the 60 targeted towing events to determine if the rotation and call procedures were performed as intended. Verified the correct response code was entered into the CAD system.
	Evaluation of Assigned Beats	Inspection	Assessed the tow rotation analysis performed by the Director of IA.

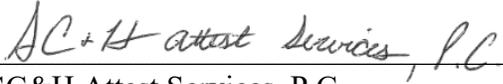
Objective Area	Attribute Tested	Test Type	Test Description
Owner's Request Analytics and Evaluation	Owner's Request Sample Selection	Data Analytics	<p>Performed data analytics on queried data of non-tow rotation calls from CAD for the period of January 1, 2017 and July 30, 2018. Quantified and trended the following:</p> <ul style="list-style-type: none"> a. Number of owner requests by Dispatcher b. Number of owner requests by Officer c. Combined analytics of A and B then trend. <p>Selected a sample of 24 targeted undocumented tow events based on the analytical procedures.</p>
	Owner's Request Evaluation	Inspection	Evaluated call audio for the 24 targeted undocumented towing events to determine if the tow rotation process was bypassed.
CAD User Access	Evaluation of users with Access to CAD	Inspection	<p>Requested the user access report from CAD to ensure the appropriateness of accesses granted to each user. Specifically, requested the ability to make edits to the tow list, rotation, and related rules/configurations.</p> <p>Scope limitation: A system generated report could not be exported or provided. As a result, a manual list was created and provided by ECC Management.</p>
CAD Operator Audit Log	Administrative Tow Rotation Rule Changes	Inspection	Verified that tow rotation changes made in CAD were conducted by authorized individuals.
Tow Oversight Committee Management	TOC Quarterly Meeting	Inspection	Reviewed two quarters of meeting agenda and minutes. Verified responsible parties were in attendance and issues were discussed and documented as appropriate.
	TOC Complaints	Inspection	Obtained the population of complaints made to the TOC regarding the misconduct and/or other issues reported to the County by customers or officers. Verified all complaints were discussed, and acted on/resolved timely.

Summary of Work

After reviewing the processes in place and evaluating the current control environment, SC&H concludes improvement opportunities exist to mitigate associated risks.

The following section provides detailed observations and recommendations regarding six topics.

We appreciate the assistance and cooperation of the management and staff of the DP&C, ECC, and other members of FCG who provided assistance in the performance of this audit. Please contact us if you have any questions or comments regarding any of the information contained in the performance audit report.



SC&H Attest Services, P.C.

Sparks, Maryland

May 6, 2019

II. Detailed Observations and Recommendations

Observation 1

The tow rotation is not consistently operating as configured within the CAD system.

Observation Detail

The County's towing program is intended to offer equal towing opportunities to approved vendors through a systematic rotation process. Once on scene, a police officer communicates the tow request to an ECC Dispatcher on behalf of the customer. The request indicates whether a light or heavy tow is needed and if the customer has a vendor preference. If a preference is not requested, the Dispatcher generates the next vendor on the tow list within CAD for the applicable beat and tow type.

The CAD system is configured to access the pre-loaded tow rotation and retrieve the next vendor on the list. CAD selects the next vendor on the list based on the oldest date time stamp (DTS) related to their last time used. The vendor with the "oldest" DTS for the applicable beat is selected. Tow vendors are considered to have had their turn in the rotation and are moved to the bottom of the tow list for the following response codes: accepted the tow, did not answer, not available, refused/turned down, and no response. A tow vendor keeps its place at the top of the rotation if when contacted, its line is busy, the vendor requests to be considered temporarily out of service, the opportunity was cancelled by the customer while the vendor was in route, or the tow was cancelled while on the vendor was on scene.

Findings

The tow rotation program does not consistently or accurately rotate tow opportunities to approved vendors. Our review included separating regular and heavy tow events by beat and reconciling the tow activity to the approved tow rotation order. Errors were counted for each cycle of the rotation related to: vendors' receiving tow calls out of order, skipped vendor opportunities, and consecutive tow opportunities. Based on an analysis of tow activity between January 1, 2018 and October 31, 2018:

- Seven of 40 (17.5%) of heavy tow events did not follow the tow rotation as expected.
- 171 of 810 (21%) light tow events did not follow the tow rotation as expected. *See Tables 1 through 13 within Appendix A* for a breakdown of regular tow opportunities by beat.
 - Approximately 56 instances of tow vendors being skipped or receiving consecutive tow opportunities.
- Tow vendor returning from suspension do not always return to their place in the rotation.
- There is no formalized methodology for determining the order of the rotation within CAD.
- A process is not in place to "trial" and "troubleshoot" the rotation prior to the active tow year within a CAD test environment.

Risks

- CAD system rules and configurations are not operating as intended, resulting in an inaccurate assignment of tows.

- There is the potential that towing vendors may not be appropriately assigned to beats, resulting in vendors receiving less or more tow opportunities than entitled.

Recommendation 1.1

The TOC should consider modifying the design and structure of the towing program to reduce the opportunities for error and lessen the administrative burden required to manage the program. This can include simplifying the towing program by reducing the number of beats. For regular tows, the TOC should consider operating on a single County wide rotation or two beat structure. Further, the TOC should consider consolidating heavy tows into a “one beat” county wide rotation.

Management’s Action Plan and Implementation Date

TOC is currently in the process of reviewing this new structure (reducing the number of beats) for potential inclusion in the 2020 tow rotation schedule. Currently, the Frederick County Sheriff’s Office (FCSO) requires vehicles to be moved within a 35 minute timeframe. Limiting the Tow List to only one or two beats would require that the FCSO requirements be changed accordingly as TOC would have to allow 45 minutes as response time for all calls. Heavy tows are currently on one beat countywide (however the beats still rotate, ECC will look into if they can create a single rotating beat for the 2020 year) and allow for 45 minute response time.

Recommendation 1.2

The TOC should consider implementing a process to randomize the rotation list of tow vendors for each beat and tow type to reduce a vendor advantage of receiving additional tows for being listed first in each beat, unless the beat structure is reduced/simplified to two or less beats.

Management’s Action Plan and Implementation Date

TOC is limited by the listserv available in the CAD system which does not allow for randomization of the rotation list. This is not an ability of the current CAD system; however, it may be a requirement for any future system that the County may procure. If in 2020 the County reduces the number of beats then the issue of randomization will not be necessary.

Recommendation 1.3

The TOC should consider scheduling the tow vendor application and approval process timeframe for each calendar year with the consideration of providing the ECC sufficient time to load the vendor rotation and to test the accuracy of the rotation within a “test” environment of CAD. The TOC should coordinate with the ECC to determine the expected amount of time to complete this task.

Management’s Action Plan and Implementation Date

The process for selection of a new towing rotation has been historically begun in October; however, it has been determined that the process for 2020 will begin in September for award in late October.

Recommendation 1.4

The ECC should consider implementing a formal recurring process to perform trial rotations within the CAD test environment to ensure the rotation is working as intended. Any errors identified should be documented, researched, and resolved.

Management's Action Plan and Implementation Date

ECC intends to begin testing immediately when entry of the new towing rotation list into the system is completed.

Observation 2

CAD does not prevent the ECC Dispatchers from assigning a tow to the wrong tow vendor.

Observation Detail

The ECC uses the CAD system to facilitate the tow rotation process. An ECC Dispatcher processes a tow request within CAD and prompts the system to generate the next vendor for the beat and tow type requested. The Dispatcher clicks the 'Next Available Tower' button in order to obtain and contact the next tower. Once the vendor is identified, the Dispatcher calls the tower. If accepted, light towers are required to arrive at the scene within 35 minutes of notification by the ECC. Heavy tows are required to arrive at the scene within 45 minutes. Based on the tower's response, the Dispatcher records a response code in CAD.

Findings

There is no system automated control in place to prevent the ECC Dispatchers from selecting the 'Next Available Tower' option in CAD multiple consecutive times. Further, a system control is not in place to manage tower compliance with arrival time requirements.

Risks

- Vendors could potentially be inappropriately skipped, resulting in tow rotation errors and missed vendor opportunities.
- Kickbacks could potentially be paid to parties involved for directing tow opportunities.

Recommendation 2.1

CAD should be configured to require a tow call response code prior to moving to the next tower. FCG should work with the CAD vendor to disable the ability to click the 'Next Available Tower' button multiple times.

Management's Action Plan and Implementation Date

ECC will work with the CAD vendor to learn the potential of adding the "Next Available Tower" selection option, as well as to determine the reporting options for this new selection. This determination will be made and, if possible, included for the 2020 Tow List.

Recommendation 2.2

ECC should consider working with the CAD vendor to implement a system timer that can be started upon tow vendor acceptance of a tow and stopped upon arrival to the scene. Currently, compliance with this requirement is only measured through citizen, officer, or other complaints. Further, the TOC should consider simplifying the arrival time rule to one standard requirement.

Management's Action Plan and Implementation Date

The current CAD system does not offer a timing system for tow calls; however, this may be a requirement for any future system that the County may procure. As previously stated in response to Recommendation 1.1, currently, FCSO requires vehicles to be moved within a 35 minute

timeframe. Limiting the Tow List to only one or two beats would require that the FCSO requirements be changed accordingly as TOC would have to allow 45 minutes as response time for all calls. Heavy tows are currently on one beat countywide and allow for 45 minute response time. TOC is currently in the process of reviewing a one-beat structure for potential inclusion in the 2020 tow rotation schedule.

Observation 3

There is no formal process in place to capture, document, and monitor owner requested tows.

Observation Detail

Police Officers respond to calls in the field and communicate tow requests to the ECC Dispatchers based on the needs of customers. The customer has the option to receive tow services from the next vendor in the County's rotation or can request a specific towing company of their preference. This type of tow is referred to as an owner's request. An owner's request is recorded in CAD, but does not follow same standard operating procedures in place for the tow rotation. Dispatchers are encouraged to document free handed notes related to the events of the call, however this level of documentation is not summarized in reports generated for review.

Findings

There is no formalized process to document and capture the population of tow events deemed an owner's request. These tow events are not consistently documented in the same traceable manner within CAD. Further, there is currently no owner request tow oversight or monitoring functions. During our review, a CAD Report request was made to query for key words such as "Owner's Request", "Owner Requ", and "Own Req" in an effort to identify a population and quantify the frequency of this type of tow event. The query generated 66 unique tow events, of which a sample of 24 events were selected to review call audio. Specifically, our review noted:

- All 24 events reviewed were linked to the normal County tow rotations.
 - 21 tow events were incorrectly included (e.g. owner requested next on list, owner Req NOL, etc.)
 - Three events were owner request related activity, of which:
 - Two events started as an owner request, however based on the estimated time of arrival communicated by the vendor, the requestor changed to next on list.
 - One event was related to a two car accident, one involved party requested a specific tower, and the other requested next on the rotation list.

Risks

Kickbacks could potentially be paid to parties involved for directing tow opportunities.

Recommendation 3.1

FCG should work with the CAD vendor to add a method for coding or labeling a tow call as an owner's request.

Management's Action Plan and Implementation Date

ECC has contacted the CAD vendor to determine if this is available and at what cost this might be added to the existing software. This determination will be made before the 2020 Tow List goes into effect. The owners request feature has been added to the Testing environment and will be tested through the work flow process to determine its functionality before being placed into a live environment.

Recommendation 3.2

Once a formal method for capturing and identifying the population of owner requests has been implemented, FCG should consider implementing a formal monitoring control. On a periodic basis (at least quarterly), high level analytics should be performed to identify potential patterns or trends. This includes identifying potential dispatcher, tow vendor, and police unit trends. Outliers should be researched and resolved in a timely manner.

Management's Action Plan and Implementation Date

Should a new "Owner Request" selection be added, ECC will thoroughly test its capacity and the resulting reports to determine if analytics are available. If the analytics are available and outliers are identified, TOC will research any such outlier immediately upon recognition of an issue.

Observation 4

Administrative access within CAD DBM is not restricted to appropriate personnel.

Observation Detail

CAD is used by the ECC to perform their job responsibilities of dispatching. CAD pulls data from the Database Management (DBM), which is the database that stores towing information content used to generate information for CAD. Administrative access to CAD DBM is managed by the ECC management.

Findings

Based on a review of a CAD DBM user access list, 12 employees have full administrative access to edit the tow rotation and towing program rules. Of those 12 employees, three require the administrative level access to the CAD tow rotation module. A review CAD DBM Operator Audit Log of edits made within the system between January 1, 2018 and August 31, 2018 confirmed all changes were processed by one of the three employees that appropriately have administrative access.

Risks

In some situations, system access is not restricted, resulting in unauthorized manipulation of CAD rules, configurations, and rotation.

Recommendation 4.1

FCG should remove administrator level access/tow rotation edit rights to CAD DBM from unnecessary users. Users should receive only have the level of access required to perform their job responsibilities.

Management's Action Plan and Implementation Date

ECC has already removed unnecessary access from users who do not require access in order to perform their job responsibilities.

Observation 5

A suspended tower was not removed from the rotation timely within CAD.

Observation Detail

To be eligible to participate in the County's towing program, all tow vendors must sign a memorandum of understanding acknowledging and agreeing to abide by Towing Handbook's. Towing program vendors must remain compliant with the rules and regulations. The TOC can suspend any tow vendor if deemed non-complaint with the Towing Handbook. Suspension reasons include, but are not limited to: three refusals of service with a 90 day period, repeated failure to respond on-scene timely, inability to provide proof of insurance, and conduct complaints from the public. Depending on the infraction, suspensions can be issued after formal review by the TOC or directly by the DP&C. Once a decision is made, the ECC is notified of the suspension, and instructed to remove the vendor from all active rotations. Suspended towing vendors are not permitted to perform towing services until the suspension is resolved and removed.

Findings

In calendar year 2018, three tow vendors were suspended. One tower suspension was not processed timely in CAD, resulting in the vendor receiving two unauthorized tow calls. Notification of the suspension was communicated by DP&C on June 7, 2018. However, the vendor was not updated in CAD until June 12, 2018.

Risks

Suspensions may not be processed timely, resulting in unauthorized vendors receiving County tows.

Recommendation 5.1

The TOC should consider requiring evidence (system print-screen) as a response from the ECC as a positive confirmation for timeliness. If a response is not received within 24 hours, the TOC should follow-up with the ECC via e-mail to urge timeliness.

Management's Action Plan and Implementation Date

TOC will rely upon an email confirmation from the ECC administrator that the removal of any towers has been completed and, if that confirmation has not been received in 24 hours, TOC will escalate the request to the Division Director.

Observation 6

Monthly reports or metrics related to the distribution of tows by beat and tow type is not proactively offered to the public.

Observation Detail

In 2017, the County became aware of administrative challenges related to the functional accuracy of the towing program. The County has committed time and resources to reduce and eliminate tow rotation errors. The TOC is responsible for addressing external or internal complaints related to the towing program or tow vendors. The TOC addresses complaints, takes action to resolve, and responds to the complainant.

Findings

A process is not in place to publicly share reports or metrics related to the distribution of tows by beat and tow type.

Risks

Lack of transparent public reporting can result in reduced public confidence.

Recommendation 6.1

FCG should consider implementing a process to periodically publish a report detailing the effectiveness of the towing program and the net distribution of tow opportunities by vendor, beat, and tow type. This creates a control of added review opportunities by the public and impacted tow companies.

Management's Action Plan and Implementation Date

TOC considered this recommendation; however, due to the low incidence of requests for that information and the amount of time required to produce, proof and then upload the information to a public portal, it has been determined that it will continue to be provided only upon request. However, this item will be included for discussion and potential reevaluation in the annual meeting to update the Handbook.

Recommendation 6.2

The TOC should consider generating and reviewing summarized beat activity by vendor (similar to the tables included in the appendices to assist with disparities and beats requiring review and attention.

Management's Action Plan and Implementation Date

TOC reviews reports quarterly to determine disparities and vendor issues. Summarized activity by vendor will be added to the quarterly review.

III. Appendices

Appendix A

The below tables illustrate the vendors within each beat and the disparity of tow opportunities between vendors across the rotation. Towing opportunities are defined as the number of times a vendor is contacted and requested to provide a tow service as part of the tow rotation program. For purposes of the tables below, a tow opportunity was not included if the customer or police officer in the field cancelled the request while the vendor was in route or cancelled while on scene. Alternatively, instances of when a vendor is unavailable or refuses a tow, the event is counted. The order in which the vendors are listed within each table reflects the assigned tow rotation order.

TABLE 1 Beat 1 Tow Rotation - Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	8	26%
Derek's Towing ²	SUSPENDED	0%
Mike's Autobody	12	39%
Bill's Autobody	8	26%
Roger's Towing	1*	3%
Vinny's Towing & Recovery	1*	3%
Grimm's Automovation	1*	3%
TOTAL	31	100%

**Three vendors received tow opportunities in error as they were not approved for this beat. The ECC identified this error during the tow year and made a correction in CAD timely.*

TABLE 2 Beat 2 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	1	4%
Geyer's Towing	4	17%
Bussard's Auto Repair	4	17%
Derek's Towing ²	Suspended	0%
Mike's Autobody	3	13%
Bill's Autobody	3	13%
Roger's Towing ²	3	13%
Vinny's Towing & Recovery	3	13%

² Derek's Towing was suspended on January 29, 2018 for the remainder of the calendar year. Roger's towing was to be suspended as of June 7, 2018, however it was not processed until June 12, 2018. The suspension was removed on August 1, 2018. Grimm's Automovation was suspended on July 3, 2018 through July 10, 2018.

TABLE 2 Beat 2 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
Grimm’s Automovation ²	3	13%
TOTAL	24	100%

TABLE 3 Beat 3 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	5	15%
Geyer’s Towing	5	15%
Bussard’s Auto Repair	5	15%
Derek’s Towing ²	Suspended	0%
Mike’s Autobody	3	9%
Bill’s Autobody	4	12%
Roger’s Towing ²	3	9%
Vinny’s Towing & Recovery	4	12%
Grimm’s Automovation ²	4	12%
TOTAL	33	100%

TABLE 4 Beat 4 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	12	9%
Geyer’s Towing	14	11%
Bussard’s Auto Repair	13	10%
Ally Cat Towing	12	9%
Derek’s Towing ²	Suspended	0%
Mark’s Equipment Service	12	9%
Mike’s Autobody	12	9%
Bill’s Autobody	12	9%
Roger’s Towing ²	10	8%
Stup’s Towing	11	8%
Vinny’s Towing & Recovery	11	8%
Grimm’s Automovation ²	12	9%
TOTAL	131	100%

TABLE 5 Beat 5A Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	14	9%
Geyer’s Towing	13	8%
Bussard’s Auto Repair	12	8%
Alley Cat	11	7%
Derek’s Towing ²	1 (Suspended)	1%
Harrison’s Towing	11	7%
Ingram’s Towing	12	8%
Mark’s Equipment Service	12	8%
Mike’s Autobody	12	8%
Roger’s Towing ²	10	6%
Stoke’s Towing	12	8%
Stup’s Towing	11	7%
Vinny’s Towing & Recovery	12	8%
Grimm’s Automovation ²	11	7%
TOTAL	154	100%

TABLE 6 Beat 5B Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	13	9%
Geyer’s Towing	11	7%
Bussard’s Auto Repair	11	7%
Ally Cat	11	7%
Derek’s Towing ²	1 (Suspended)	1%
Harrison’s Towing	11	7%
Ingram’s Towing	12	8%
Mark’s Equipment Service	12	8%
Mike’s Autobody	13	9%
Roger’s Towing ²	11	7%
Stoke’s Towing	12	8%
Stup’s Towing	11	7%
Vinny’s Towing & Recovery	11	7%
Grimm’s Automovation ²	11	7%
TOTAL	151	100%

TABLE 7 Beat 6A Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	15	8%
Geyer’s Towing	17	9%
Bussard’s Auto Repair	16	8%
Ally Cat Towing	16	8%
Derek’s Towing ²	1 (Suspended)	1%
Harrison’s Towing	17	9%
Ingram’s Towing	16	8%
Mark’s Equipment Service	15	8%
Roger’s Towing ²	14	7%
Stoke’s Towing	17	9%
Stup’s Towing	15	8%
Vinny’s Towing & Recovery	17	9%
Grimm’s Automovation ²	16	8%
TOTAL	192	100%

TABLE 8 Beat 6B Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	7	9%
Geyer’s Towing	6	8%
Bussard’s Auto Repair	7	9%
Ally Cat Towing	6	8%
Derek’s Towing ²	Suspended	0%
Harrison’s Towing	7	9%
Ingram’s Towing	6	8%
Mark’s Equipment Service	6	8%
Roger’s Towing ²	6	8%
Stoke’s Towing	6	8%
Stup’s Towing	6	8%
Vinny’s Towing & Recovery	6	8%
Grimm’s Automovation ²	6	8%
TOTAL	75	100%

TABLE 9 Beat 7 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	6	9%
Bussard’s Auto Repair	5	8%
Ally Cat Towing	5	8%
Derek’s Towing ²	1 (Suspended)	2%
Harrison’s Towing	6	9%
Ingram’s Towing	6	9%
Mark’s Equipment Service	5	8%
Roger’s Towing ²	5	8%
South Mountain Collision	5	8%
Stoke’s Towing	5	8%
Stup’s Towing	5	8%
Vinny’s Towing & Recovery	5	8%
Grimm’s Automovation ²	5	8%
TOTAL	64	100%

TABLE 10 Beat 8 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	6	13%
Bussard’s Auto Repair	5	11%
Derek’s Towing ²	1 (Suspended)	2%
Ingram’s Towing	5	11%
Mark’s Equipment Service	5	11%
Bills Autobody	5	11%
Roger’s Towing ²	5	11%
South Mountain Collision	5	11%
Vinny’s Towing & Recovery	5	11%
Grimm’s Automovation ²	4	9%
TOTAL	46	100%

TABLE 11 Beat 9 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	8	12%
Bussard's Auto Repair	6	9%
Ally Cat Towing	7	11%
Derek's Towing ²	1 (Suspended)	2%
Mark's Equipment Service	6	9%
Mike's Autobody	7	11%
Bill's Autobody	7	11%
Roger's Towing ²	6	9%
South Mountain Collision	6	9%
Vinny's Towing & Recovery	6	9%
Grimm's Automovation ²	6	9%
TOTAL	66	100%

TABLE 12 Beat 10 Tow Rotation – Light January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	4	9%
Bussard's Auto Repair	2	5%
Ally Cat Towing	5	12%
Derek's Towing ²	Suspended	0%
Harrison's Towing	4	9%
Ingram's Towing	3	7%
Mark's Equipment Service	3	7%
Mike's Autobody	3	7%
Roger's Towing ²	4	9%
Stoke's Towing	4	9%
Stups Towing	3	7%
Vinny's Towing & Recovery	4	9%
Grimm's Automovation ²	4	9%
TOTAL	43	100%

TABLE 13 Towing Opportunities by Beat – Light Tows January 1, 2018 through December 31, 2018		
BEAT	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
1	31	3%
2	24	2%
3	33	3%
4	131	13%
5A	154	15%
5B	151	15%
6A	192	19%
6B	75	7%
7	64	6%
8	46	5%
9	66	7%
10	43	4%
TOTAL	1,010	100%

TABLE 14 All Beats - Heavy Tows January 1, 2018 through December 31, 2018		
TOWING VENDOR	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
Geyer's Towing	17	36%
Mark's Equipment Service	14	30%
Vinny's Towing & Recovery	8	17%
Grimm's Automovation ²	8	17%
TOTAL	47	100%

TABLE 15 All Beats – Light Tow Rotation January 1, 2018 through December 31, 2018			
Tower	# of Beats	TOWING OPPORTUNITIES	% OF TOTAL OPPORTUNITIES
40 West Auto Care	10	99	10%
Bussard's Auto Repair	9	86	9%
Vinny's Towing & Recovery	10	85	8%
Grimm's Automation	9	82	8%
Rogers	10	78	8%
Marks Equipment Service	7	76	8%
Ally Cat Towing	6	73	7%
Geyer's	6	71	7%
Mike's Auto body	7	65	6%
Stups Garage	5	62	6%
Ingram's Towing LLC	5	60	6%
Harrison's Towing	4	56	6%
Stokes Towing	5	56	6%
Bill's Autobody	6	39	4%
South Mountain Collision	3	16	2%
Derek's Towing*	10	6	1%
		1,010	100%