

**PENN TOWNSHIP BOARD OF SUPERVISORS**  
**MEETING AGENDA**  
**June 11, 2018**  
**97 North Penryn Road, Manheim, PA 17545**

**Call to Order and Pledge of Allegiance - 7 P.M.**

**Public Comment/Guest Recognition:** Len Spencer, Sewage Enforcement Officer

**Approval of May 29, 2018 Meeting Minutes**

**Treasurer's Reports**

**Approval to Pay Invoices**

**Reports:**

**Building, Zoning, and Property Maintenance**

**Planning**

**Public Works**

**Sewage Enforcement Officer**

**Manager**

**Communications:**

- Non-Uniformed Pension Plan Actuarial Report

**Subdivision, Land Development, and Stormwater Management:**

- Pleasant View Retirement Community Parking Lot SWM Plan (Project No. 18-006) – Request for plan approval
- Rufus Brubaker Refrigeration SWM Plan (Project No. 17-005) – Request for release of financial security in the amount of \$500.00

**Old Business:**

- Bucknoll Road Speeding Complaint
- Possible Park Rules Including No Parking Overnight

**New Business:**

- Manheim Plaza Time Extension Request
- Authorize Solicitor to Draft Stormwater Management Ordinance Amendment for High Tunnel Agricultural Structures
- Cedar Hollow Phase 2 Street Light Fee Notice
- Schoolway Drive Speeding Complaint

**Other Business:**

**Executive Session (if needed)**

**Adjournment**

**Upcoming Meetings/Events:**

Zoning Hearing Board, June 13 *cancelled*

NLCRPD, 7pm, Thursday, June 14

MAWSA, 7pm, Thursday, June 14

NWLCA, 7pm, Tuesday, June 19

Board of Supervisors, 7pm, Monday, June 25

Penn IDA, 2pm, Tuesday, June 26

Planning Commission, 7pm, Monday, July 2

**PENN TOWNSHIP  
BOARD OF SUPERVISORS  
MINUTES**

DATE & TIME:

May 29, 2018

7:00 PM

**BOARD ATTENDANCE:**

Benjamin Bruckhart  
Jill Groff  
Ronald Krause  
Dick Shellenberger

**ABSENT:**

Richard Landis

**OTHERS IN ATTENDANCE:**

Mark Hiester, Township Manager  
Sharyn Young, Township Planner  
Doug Zook, Inframark  
Dave Kraft, resident  
Fred Hammond, resident

Randy Sweitzer, resident  
Daniel Bolling, Walnut Run Farm  
John Phillips, resident  
Justin Stoltzfus, LNP  
Connie Weidle, Recording Secretary

**Call to Order and Pledge of Allegiance—7 P.M., Benjamin Bruckhart, Chairperson**

**Public Comment/Guest Recognition:**

Randy Sweitzer inquired about the rules concerning the discharging of firearms in the township. M. Hiester responded that the police department should be contacted about any concerns with firearms discharge and they will handle the situation.

**Approval of May 14, 2018 Meeting Minutes**

A motion was made by D. Shellenberger, with a second by R. Krause, to approve the May 14, 2018 Meeting Minutes as presented. The motion passed unanimously.

**Treasurer's Reports**

The Treasurer's Report was presented. The full report can be obtained at the Township Office.

A motion was made by R. Krause, with a second by J. Groff, to accept the Treasurer's Report as presented. The motion passed unanimously.

**Approval to Pay Invoices**

A motion was made by D. Shellenberger, with a second by R. Krause, to approve the payment of invoices submitted to the Board. The motion passed unanimously.

**Reports:**

**Northern Lancaster County Regional Police Department**

M. Hiester and R. Krause reported from the recent commission meeting that the receipt of stray dog fees has been increasing and that constables are no longer directing traffic.

**The monthly reports from the following organizations were reviewed by the Board:**

Penryn Fire Department  
Northwest Emergency Medical Services  
Manheim Area Water and Sewer Authority  
Manheim Community Library  
Lititz Rec Center-

D. Shellenberger reported that the finances and the cash flow for the RecCenter are good. By 2019 they are hoping to have the debt down to less than a million. They have lowered fees for the Manheim pool to help manage the pool's expenses.

## **Northwestern Lancaster County Authority**

D. Zook presented his monthly report to the Board and highlighted the following items:

- The communication issues with the water tower were due to a router issue and were fixed today.
- Pump #4 failed and has been repaired. There has been discussion about possibly switching pump brands.
- The Automatic Transfer Switch at Pump Station #1 has been replaced.
- The flow pump at the Brookshire Development has been repaired.
- A sewage pump at the water treatment plant failed. Repair estimates indicate that replacing the pump with a new one would be prudent.
- A new Operator, Dustin Forbes, was hired on April 23, 2018.
- The Township swapped out the 2000 GMC 2500 pickup truck for a 2010 F-250 pickup truck.
- The water treatment plant was run on emergency power on April 3, 2018 due to blown PP&L transformer fuses. PP&L has made the repairs.
- Discussion took place relative to the truck traffic that is turning around in the water treatment plant driveway. The concern is that the trucks are too close to the fire hydrant. Options to correct the problem will be looked into.

### **Subdivision, Land Development, and Stormwater Management:**

- A motion was made by D. Shellenberger, with a second by R. Krause, to grant conditional approval for the Lot Add-On Plan for NWLCA Pump Station 1 (Project No. 18-002) located on Lancaster Road, conditioned upon the items mentioned in the Township Planner's letter dated May 23, 2018 and the Township Solicitor's letter dated May 1, 2018. The motion passed unanimously.
- Walnut Run Farms SWM Plan (Project No. 16-015A) – Request for modification of SWM Ordinance Section 23-503. S. Young explained that a modification was necessary to allow the plan to be constructed and financial security to be posted in phases. The first phase of the project will include improvements required by DEP. A motion was made by J. Groff, with a second by R. Krause, to conditionally approve the modification of the SWM Ordinance Section 23-503 for the Walnut Run Farms SWM Plan (Project No. 16-015A), conditioned upon the items mentioned in the Township Planner's letter dated May 23, 2018 and the TeamAg letter dated May 22, 2018. The motion passed unanimously.
- S. Young reported that all of the streetlights in the Cedar Hollow Development have been installed by PP&L. Dave Kraft, resident of Cedar Hollow Development, commented as to the ponding of water in the swale behind his and several other properties. He requested to know a time-frame as to when the repairs to the swale will be done. S. Young commented that the developer's engineer is not able to share the as-built plans with the township and he also said the swale work is not planned to be done until all of the construction in the development is completed. At that time the basins and swales will be repaired. Discussion took place as to what is a reasonable amount of time to have the work completed and the Board directed S. Young to ask the developer for the as-built plans.

### **Old Business:**

- A motion was made by J. Groff, with a second by R. Krause, to accept the Revised Consent Agreement for 1478 Lancaster Road Zoning Violation contingent upon the Agreement being signed by the property owner and payment being made by the property owner. The motion passed unanimously.

### **New Business:**

- Discussion took place relative to extending the LititzRec Center Intermunicipal Agreement. The Board members expressed their opinions of the RecCenter needs and the facility. John Philips, resident, shared his appreciation of the RecCenter and the future of the RecCenter. The Board directed M. Hiester to find out more information about the Warwick Recreation Commission Meeting and possibly attending the meeting.
- A motion was made by R. Krause, with a second by D. Shellenberger, to authorize staff to install PennDOT recommended improvements at the West Newport and West Lexington Roads Intersection. The motion passed unanimously.

- Discussion took place relative to the Bucknoll Road widening complaint that vehicle speeding has increased. M. Hiester commented that this is a police enforcement issue and they have looked into this issue. The speed studies show that they do not need a higher level of enforcement at this time. M. Hiester noted that a citizen asked for the white outside lane lines be painted on Bucknoll Road.

**Other Business:**

- A motion was made by J. Groff, with a second by D. Shellenberger, to authorize the submission of the Traffic Signal and Intersection Mylar Plans to PennDOT for the Fruitville Pike and Temperance Hill and Holly Tree Roads. The motion passed unanimously.
- A motion was made by J. Groff, with a second by D. Shellenberger, to authorize the opening of a checking account with Ephrata National Bank to replace a similar account at PNC Bank. The motion passed unanimously.
- A motion was made by R. Krause, with a second by J. Groff, to authorize the Annual CM High Traffic Signal Maintenance Agreement for \$2,025, the same amount as in the last year. The motion passed unanimously.

**Adjournment**

A motion was made by R. Krause, with a second by J. Groff, to adjourn the Meeting at 8:20 p.m. The motion passed unanimously.

Respectfully Submitted,  
Connie Weidle, Recording Secretary

	<u>BEGINNING BALANCE</u>			<u>ENDING BALANCE</u>
	<u>5/30/18</u>	<u>REVENUES</u>	<u>EXPENDITURES</u>	<u>6/11/18</u>
<u>GENERAL FUND</u>	\$2,030,230.64	\$480,900.74	\$45,424.56	\$2,465,706.82
<u>SEWER &amp; WATER</u>	\$2,319,169.85	\$92,559.20	\$73,549.21	\$2,338,179.84
<u>PARKS AND RECREATION</u>	\$38,215.48	\$0.00	\$4,787.60	\$33,427.88
<u>ESCROW</u>	\$110,901.95	\$0.00	\$11,213.67	\$99,688.28
<u>G.O. BONDS 2009 - NWLCA WATER PROJECT</u>	\$313,992.14	\$0.00	\$0.00	\$313,992.14
<u>STORMWATER MANAGEMENT</u>	\$63,849.75	\$0.00	\$316.77	\$63,532.98
<u>STREET IMPROVEMENT</u>	\$801,203.53	\$0.00	\$4,307.50	\$796,896.03
<u>AGRICULTURAL PRESERVATION</u>	\$596,388.48	\$0.00	\$0.00	\$596,388.48
<u>STATE HIWAY AID</u>	\$528,825.48	\$0.00	\$0.00	\$528,825.48
<u>CAPITAL RESERVE</u>	\$1,143,905.18	\$0.00	\$0.00	\$1,143,905.18
<u>TOTALS</u>	\$7,946,682.48	\$573,459.94	\$139,599.31	\$8,380,543.11

## 2009 PENN TOWNSHIP GENERAL FUND

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
Ordinary Income/Expense			
Income			
300.06 · STREET LIGHT TAX	7,395.49	23,000.00	32.2%
301 · REAL PROPERTY TAXES			
301.10 · REAL ESTATE TAXES CURRENT & DUP	1,084,488.21	1,100,000.00	98.6%
301.20 · REAL ESTATE TAXES PRIOR/DEL COL	3,549.90	10,000.00	35.5%
301.60 · REAL ESTATE TAXES INTERIM	16,182.18	7,000.00	231.2%
Total 301 · REAL PROPERTY TAXES	1,104,220.29	1,117,000.00	98.9%
310 · LOCAL TAX ENABLING ACT			
310.10 · REAL ESTATE TRANSFER TAX	92,669.59	200,000.00	46.3%
310.21 · EARNED INCOME	522,905.88	970,000.00	53.9%
310.51 · LOCAL SERVICES TAX	115,216.05	204,000.00	56.5%
Total 310 · LOCAL TAX ENABLING ACT	730,791.52	1,374,000.00	53.2%
321 · BUSINESS LICENSES & PERMITS			
321.80 · CABLE TELEVISION FRANCHISE	56,132.87	104,000.00	54.0%
Total 321 · BUSINESS LICENSES & PERMITS	56,132.87	104,000.00	54.0%
322 · NON BUSINESS LICENSES & PERMITS			
322.20 · DEMOLITION PERMIT	0.00	100.00	0.0%
322.30 · DRIVEWAY PERMIT	0.00	100.00	0.0%
322.82 · STREET ENCROACHMENTS	60.00	100.00	60.0%
Total 322 · NON BUSINESS LICENSES & PERMITS	60.00	300.00	20.0%
331 · FINES			
331.10 · COURT-DISTRICT MAGISTRATE	7,908.88	17,000.00	46.5%
331.12 · VIOLATION OF ORD Zoning_Burning	5,121.50	2,000.00	256.1%
331.13 · STATE POLICE FINES	3,460.03	5,000.00	69.2%
331.14 · PARKING VIOLATIONS	0.00	200.00	0.0%
Total 331 · FINES	16,490.41	24,200.00	68.1%
332 · FORFEITS	0.00	0.00	0.0%
341 · INTEREST EARNINGS			
341.01 · INTEREST	879.55	1,700.00	51.7%
Total 341 · INTEREST EARNINGS	879.55	1,700.00	51.7%
354 · STATE CAPITAL/OPERATING GRANTS			
354.03 · FEMA & PEMA DISASTER EMERGENCY	0.00	0.00	0.0%
354.15 · RECYCLING /ACT 101	0.00	8,000.00	0.0%
Total 354 · STATE CAPITAL/OPERATING GRANTS	0.00	8,000.00	0.0%
355 · STATE SHARED REVENUE & ENTITLEM			
355.01 · PUBLIC UTILITY REALTY TAX PURTA	0.00	3,000.00	0.0%
355.04 · ALCOHOLIC BEVERAGES LICENSES	400.00	125.00	320.0%
355.05 · GENERAL MUN PENSION SYSTEM AID	0.00	43,000.00	0.0%
355.07 · FOREIGN FIRE INSURANCE PREMIUM	0.00	61,000.00	0.0%
Total 355 · STATE SHARED REVENUE & ENTITLEM	400.00	107,125.00	0.4%
356 · STATE PAYMENTS IN LIEU OF TAXES			
356.01 · FOREST LANDS	0.00	20.00	0.0%
356.02 · GAME COMMISSION LANDS	0.00	2,965.00	0.0%
Total 356 · STATE PAYMENTS IN LIEU OF TAXES	0.00	2,985.00	0.0%
361.245 · SALE OF STREET SIGNAGE	0.00	0.00	0.0%
361.30 · ZONING & SUBDIVISION & LAND DEV			
361.31 · PRELIM/FINAL SUB DIV /APP FEES	500.00	2,000.00	25.0%
361.32 · REVIEW FEES FOR PLANS	5,220.00	3,000.00	174.0%
361.33 · ZONING PERMITS	1,505.00	4,000.00	37.6%
361.34 · ZONING HEARING BOARD FEES	3,000.00	5,000.00	60.0%
361.341 · CONDITIONAL USE HEARING FEES	600.00	0.00	100.0%
361.342 · REZONING FEES	0.00	0.00	0.0%
Total 361.30 · ZONING & SUBDIVISION & LAND DEV	10,825.00	14,000.00	77.3%
361.501 · SALE OF ADS MAP PUBLICATION	2,750.00	15,000.00	18.3%
362 · PUBLIC SAFETY			
362.10 · POLICE SERV AUCTION/SRO/FOOTBAL	218,238.40	254,270.08	85.8%
362.41 · BUILDING PERMITS	6,595.50	11,000.00	60.0%
362.44 · SEWAGE PERMITS	6,717.50	13,000.00	51.7%
362.47 · BUILDING CODE APPEALS FEE	0.00	0.00	0.0%
Total 362 · PUBLIC SAFETY	231,551.40	278,270.08	83.2%
372.56 · SALE OF SRECS & PPL CASHOUT	429.75	1,200.00	35.8%
380 · INSURANCE DIVIDENDS			
380.10 · INSURANCE DIVIDENDS	3,594.89	15,000.00	24.0%
Total 380 · INSURANCE DIVIDENDS	3,594.89	15,000.00	24.0%

## 2009 PENN TOWNSHIP GENERAL FUND

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
387 · CONTRIBUTIONS & DONATIONS			
387.10 · GENERAL CONTRIBUTIONS/DONATIONS	10,488.33	10,000.00	104.9%
387.11 · MAA HOST FEE	270,916.67	270,916.69	100.0%
Total 387 · CONTRIBUTIONS & DONATIONS	281,405.00	280,916.69	100.2%
Total Income	2,446,926.17	3,366,696.77	72.7%
Gross Profit	2,446,926.17	3,366,696.77	72.7%
Expense			
400 · LEGISLATIVE			
400.05 · SUPERVISORS SALARIES	6,000.00	12,500.00	48.0%
400.192 · FICA/MEDICARE	459.00	956.00	48.0%
400.42 · DUES/SUBSCRIPTIONS/MEMBERSHIPS	1,944.00	2,230.00	87.2%
400.46 · EDUCATION & TRAINING	370.00	1,000.00	37.0%
Total 400 · LEGISLATIVE	8,773.00	16,686.00	52.6%
402 · FINANCIAL ADMINISTRATION			
402.05 · ELECTED AUDITORS	300.00	300.00	100.0%
402.31 · PROFESSIONAL AUDITING SERVICES	11,315.00	11,315.00	100.0%
402.45 · PAYROLL PROCESSING SERVICES	1,239.04	3,500.00	35.4%
Total 402 · FINANCIAL ADMINISTRATION	12,854.04	15,115.00	85.0%
403 · TAX COLLECTION			
403.31 · TAX COLLECTION	0.00	1,800.00	0.0%
Total 403 · TAX COLLECTION	0.00	1,800.00	0.0%
404 · SOLICITOR /LEGAL SERVICES			
404.31 · GENERAL SOLICITOR/LEGAL EXPENSE	10,244.66	20,000.00	51.2%
Total 404 · SOLICITOR /LEGAL SERVICES	10,244.66	20,000.00	51.2%
405 · ADMINISTRATION			
405.12 · ADMIN SALARY & WAGES	70,870.52	167,690.25	42.3%
405.18 · ADMINISTRATION OVERTIME	856.29	1,400.00	61.2%
405.191 · UNIFORM ALLOWANCE	0.00	255.00	0.0%
405.192 · FICA / MEDICARE	5,381.91	11,419.11	47.1%
405.194 · UNEMPLOYMENT COMPENSATION	297.52	292.50	101.7%
405.196 · HEALTH INSURANCE MED/DENTAL/VIS	23,684.00	57,234.52	41.4%
405.198 · DISABILITY /LIFE INSURANCE	855.42	1,960.00	43.6%
405.21 · OFFICE SUPPLIES	2,157.17	5,000.00	43.1%
405.23 · POSTAGE (GENERAL)	758.25	1,800.00	42.1%
405.28 · NEWSLETTERS (INCLUDES POSTAGE)	0.00	2,400.00	0.0%
405.32 · WIRELESS SERVICE (NEXTEL)	412.42	1,000.00	41.2%
405.34 · ADVERTISING & PRINTING	2,977.14	8,000.00	37.2%
405.342 · MAP (INCLUDES POSTAGE)	4,462.11	5,000.00	89.2%
405.42 · DUES, SUBSCRIPTIONS/MEMBERSHIP	88.73	2,000.00	4.4%
405.46 · EDUCATION & TRAINING	200.00	1,000.00	20.0%
405.49 · MISCELLANEOUS	101.00	1,000.00	10.1%
Total 405 · ADMINISTRATION	113,102.48	267,451.38	42.3%
406 · OTHER GENERAL GOV'T ADMIN			
406.39 · BANK SERVICE CHARGE / FEES	0.00	50.00	0.0%
406.49 · ORDINANCE CODIFICATION	3,293.95	3,600.00	91.5%
Total 406 · OTHER GENERAL GOV'T ADMIN	3,293.95	3,650.00	90.2%
407 · DATA PROCESSING			
407.28 · GENERAL SOFTWARE/HARDWARE	14,789.60	17,000.00	87.0%
407.37 · OFFICE EQUIP /IT REPAIRS & MAIN	3,125.00	14,000.00	22.3%
407.48 · WEBSITE DESIGN	5,898.00	7,000.00	84.3%
407.49 · ELECTRONIC DOC STORAGE/SCANNING	0.00	0.00	0.0%
Total 407 · DATA PROCESSING	23,812.60	38,000.00	62.7%
408 · ENGINEERING SERVICES			
408.313 · GENERAL ENGINEERING SERVICES	4,039.09	17,000.00	23.8%
408.319 · SEWAGE ENFORCEMENT SERVICES	10,550.00	20,000.00	52.8%
408.49 · SLD ORDINANCE/ZONING ORD AMEND	0.00	5,000.00	0.0%
Total 408 · ENGINEERING SERVICES	14,589.09	42,000.00	34.7%
409 · GENERAL GOVERNMENT BUILDING			
409.32 · PHONE & INTERNET	1,845.82	4,500.00	41.0%
409.361 · P P & L	718.34	2,000.00	35.9%
409.362 · UGI	6,480.00	9,000.00	72.0%
409.364 · SEWER & WATER SERVICES	608.76	1,000.00	60.9%
409.367 · TRASH & RECYCLING	1,020.00	2,500.00	40.8%
409.368 · FIRE HYDRANTS (MAWSA)	2,448.00	5,000.00	49.0%
409.37 · REPAIR, MAINTENANCE, SECURITY	5,739.49	36,000.00	15.9%
409.44 · CLEANING SERVICE	4,200.00	9,000.00	46.7%
409.49 · MEETING BEVERAGES/WATER/COFFEE	572.67	700.00	81.8%
Total 409 · GENERAL GOVERNMENT BUILDING	23,633.08	69,700.00	33.9%

## 2009 PENN TOWNSHIP GENERAL FUND

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
<b>410 · POLICE</b>			
410.55 · NORTHERN LANC CO REGIONAL PD	828,172.09	1,656,144.20	50.0%
<b>Total 410 · POLICE</b>	<b>828,172.09</b>	<b>1,656,144.20</b>	<b>50.0%</b>
<b>411 · FIRE / AMBULANCE</b>			
411.540 · PENRYN FIRE CO DONATION	13,089.57	52,358.25	25.0%
411.541 · MANHEIM FIRE CO DONATION	7,597.02	30,388.05	25.0%
411.542 · NORTHWEST EMS	7,980.75	16,923.00	47.2%
411.543 · FOREIGN FIRE INSURANCE	0.00	61,000.00	0.0%
411.700 · FIRE DEPT CAPITAL PURCHASES ESC	75,000.00	0.00	100.0%
<b>Total 411 · FIRE / AMBULANCE</b>	<b>103,667.34</b>	<b>160,669.30</b>	<b>64.5%</b>
<b>413 · UCC AND CODE ENFORCEMENT</b>			
413.19 · SEO EXPENSES	349.09	500.00	69.8%
413.21 · OFFICE SUPPLIES	145.85	100.00	145.9%
413.24 · OPERATING SUPPLIES /INCL EQUIP	0.00	250.00	0.0%
413.32 · WIRELESS SERVICE (NEXTEL)	275.00	660.00	41.7%
413.33 · VEHICLE FUEL	51.33	100.00	51.3%
413.375 · REPAIRS & MAINTENANCE-VEHICLE	0.00	1,000.00	0.0%
413.42 · DUES/SUBSCRIPTIONS/MEMBERSHIPS	0.00	200.00	0.0%
413.45 · 3RD PARTY COMMERCIAL INSPECT	190.00	500.00	38.0%
413.46 · EDUCATION & TRAINING	0.00	750.00	0.0%
<b>Total 413 · UCC AND CODE ENFORCEMENT</b>	<b>1,011.27</b>	<b>4,060.00</b>	<b>24.9%</b>
<b>414 · PLANNING AND ZONING</b>			
414.10 · PLANNING COMMISSION STIPEND	375.00	875.00	42.9%
414.11 · ZONING HEARING BOARD STIPEND	0.00	2,400.00	0.0%
414.12 · PLANNING AND ZONING WAGES	52,264.43	123,540.77	42.3%
414.131 · ZONING HEARING LEGAL COUNSEL	888.00	4,000.00	22.2%
414.132 · ZONING HEARING STENOGRAPHER	550.00	2,000.00	27.5%
414.18 · OVERTIME	455.32	1,300.00	35.0%
414.191 · UNIFORM AND SHOE ALLOWANCE	0.00	275.00	0.0%
414.192 · FICA / MEDICARE	3,948.94	9,550.32	41.3%
414.194 · UNEMPLOYMENT COMPENSATION	199.98	202.50	98.8%
414.196 · HEALTH INSURANCE(INC MED/DEN/VI	19,449.90	53,127.28	36.6%
414.198 · DISABILITY/LIFE INSURANCE	675.94	1,600.00	42.2%
414.24 · OPERATING SUPPLIES-ZONING	129.74	500.00	25.9%
414.313 · ENGINEERING/LEGAL FEES(REIMB)	0.00	0.00	0.0%
414.317 · CONTRACTED SVS-ZONING ENFORCEME	23.99	300.00	8.0%
414.32 · WIRELESS SERVICE	0.00	600.00	0.0%
414.34 · ZONING HEARING LEGAL NOTICE	380.60	1,000.00	38.1%
414.42 · DUES, SUBSCRIPTIONS, MEMBERSHIP	412.00	600.00	68.7%
414.46 · EDUCATION AND TRAINING	775.04	500.00	155.0%
<b>Total 414 · PLANNING AND ZONING</b>	<b>80,528.88</b>	<b>202,370.87</b>	<b>39.8%</b>
<b>415 · EMERGENCY MANAGEMENT</b>			
415.20 · GENERAL SUPPLIES/OPERATING EXP	0.00	500.00	0.0%
415.32 · WIRELESS SERVICE (NEXTEL)	58.67	150.00	39.1%
<b>Total 415 · EMERGENCY MANAGEMENT</b>	<b>58.67</b>	<b>650.00</b>	<b>9.0%</b>
<b>430 · HIGHWAY - GENERAL</b>			
430.12 · PUBLIC WORKS WAGES	111,686.81	265,004.81	42.1%
430.18 · PUBLIC WORKS OVERTIME	14,495.94	20,000.00	72.5%
430.191 · UNIFORM & SHOE ALLOWANCE	1,093.93	1,825.00	59.9%
430.192 · FICA / MEDICARE	9,388.76	21,712.61	43.2%
430.194 · UNEMPLOYMENT COMPENSATION	508.94	472.50	107.7%
430.196 · HEALTH INS (INCL MED/DENTAL/VIS	48,624.75	117,163.45	41.5%
430.198 · DISABILITY /LIFE INSURANCE	1,500.20	3,500.00	42.9%
430.32 · WIRELESS SERVICE (NEXTEL)	1,185.73	2,400.00	49.4%
430.33 · VEHICLE FUEL	7,763.85	22,500.00	34.5%
430.34 · VEHICLE PURCHASE	132,075.08	135,000.00	97.8%
430.46 · EDUCATION & TRAINING	300.00	1,000.00	30.0%
430.470 · CDL DRUG & ALCOHOL	270.00	750.00	36.0%
430.49 · MISCELLANEOUS	111.90	500.00	22.4%
<b>Total 430 · HIGHWAY - GENERAL</b>	<b>329,005.89</b>	<b>591,828.37</b>	<b>55.6%</b>
<b>432 · HIGHWAY SNOW</b>			
432.245 · MATERIALS & SUPPLIES	6,793.92	11,000.00	61.8%
432.317 · CONTRACTED SERVICES	0.00	500.00	0.0%
<b>Total 432 · HIGHWAY SNOW</b>	<b>6,793.92</b>	<b>11,500.00</b>	<b>59.1%</b>
<b>433 · HIGHWAY-TRAFFIC CONTROL DEVICES</b>			
433.245 · MATERIALS AND SUPPLIES	10,065.05	19,000.00	53.0%
433.361 · P P & L - TRAFFIC SIGNALS	1,479.20	2,800.00	52.8%
433.370 · REPAIRS & MAINTENANCE SERVICES	0.00	4,000.00	0.0%
<b>Total 433 · HIGHWAY-TRAFFIC CONTROL DEVICES</b>	<b>11,544.25</b>	<b>25,800.00</b>	<b>44.7%</b>
<b>434 · STREET LIGHTING</b>			
434.361 · STREET LIGHTING	17,132.53	35,000.00	49.0%
<b>Total 434 · STREET LIGHTING</b>	<b>17,132.53</b>	<b>35,000.00</b>	<b>49.0%</b>



## 2009 PENN TOWNSHIP GENERAL FUND

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
437 · HIGHWAY - TOOLS - MACHINERY			
437.245 · MATERIALS & SUPPLIES	3,427.73	6,000.00	57.1%
437.260 · SMALL TOOLS & MINOR EQUIPMENT	7,824.87	10,000.00	78.2%
437.374 · REPAIRS & MAINTENANCE SERVICES			
374.01 · 2010 FORD F-250	873.75		
374.03 · 2008 FORD F-550	129.50		
374.05 · 1996 INTERNATIONAL DUMP	42.36		
374.07 · 2003 FREIGHTLINER DUMP	5,590.90		
374.08 · 2006 FREIGHTLINER DUMP	1,201.81		
374.09 · 2003 CAT BACKHOE	408.36		
374.10 · 2001 JD LOADER 544H	473.97		
374.11 · 2010 JD LOADER 544K	1,244.26		
374.13 · 2014 NH TRACTOR	2,076.90		
374.15 · 2009 CRAFTCO PATCHER	3,095.30		
374.17 · SKAG MOWER	18.92		
374.18 · 2014 TIGER ROAD BANK MOWER	460.83		
374.26 · 2003 POWER BOOM (BACKHOE)	1,175.13		
374.27 · TRAILERS	109.45		
374.28 · 2018 FORD F-350	981.50		
374.29 · 2018 FORD F-550 DUMP	80.00		
437.374 · REPAIRS & MAINTENANCE SERVICES - Other	7,614.33	30,000.00	25.4%
Total 437.374 · REPAIRS & MAINTENANCE SERVICES	25,577.27	30,000.00	85.3%
437.74 · CAPITAL PURCHASES	0.00	0.00	0.0%
Total 437 · HIGHWAY - TOOLS - MACHINERY	36,829.87	46,000.00	80.1%
438 · HIGHWAY-ROADS AND BRIDGES			
438.245 · MATERIALS AND SUPPLIES	28,205.59	113,500.00	24.9%
438.317 · CONTRACTED SERVICES/EQUIPMENT	0.00	3,000.00	0.0%
Total 438 · HIGHWAY-ROADS AND BRIDGES	28,205.59	116,500.00	24.2%
452 · RECREATION			
452.543 · LITITZ REC CENTER	7,500.00	15,000.00	50.0%
Total 452 · RECREATION	7,500.00	15,000.00	50.0%
456 · LIBRARY			
456.540 · MANHEIM COMMUNITY LIBRARY	6,250.00	25,000.00	25.0%
456 · LIBRARY - Other	0.00	0.00	0.0%
Total 456 · LIBRARY	6,250.00	25,000.00	25.0%
457 · COMMUNITY DAY			
457.540 · MANHEIM FARM SHOW	1,343.00	1,343.00	100.0%
Total 457 · COMMUNITY DAY	1,343.00	1,343.00	100.0%
465.540 · MANHEIM HISTORICAL SOCIETY	1,343.00	1,343.00	100.0%
471 · DEBT PRINCIPAL			
471.001 · SERIES 09-03 SEWER BOND REFUND	370,000.00	370,000.00	100.0%
471.003 · SERIES 2009 -STREETSCAPE	65,000.00	65,000.00	100.0%
471.004 · SERIES 2009-WATER TREATMENT FAC	100,000.00	100,000.00	100.0%
471.007 · GO NOTE 2017-1 (2012BOND-WATER)	0.00	20,000.00	0.0%
471.008 · GO NOTE 2017-2 (2014 LOAN-ROAD)	165,000.00	165,000.00	100.0%
Total 471 · DEBT PRINCIPAL	700,000.00	720,000.00	97.2%
472 · DEBT INTEREST			
472.001 · 2003 SEWER BOND REFUNDING-PLANT	27,276.25	49,002.50	55.7%
472.003 · SERIES 2009 STREETSCAPE	4,862.50	8,750.00	55.6%
472.004 · SERIES 2009 WATER TREATMENT	46,873.75	92,247.50	50.8%
472.007 · GO NOTE 2017-1(2012BOND-WATER)	0.00	92,692.50	0.0%
472.008 · GO NOTE 2017-2(2014 LOAN-ROAD)	11,986.25	22,198.75	54.0%
Total 472 · DEBT INTEREST	90,998.75	264,891.25	34.4%
483 · PENSION CONTRIBUTION			
483.30 · NON-UNIFORM PENSION CONTRIBUTIO	0.00	61,130.00	0.0%
Total 483 · PENSION CONTRIBUTION	0.00	61,130.00	0.0%
484 · WORKERS COMP INSURANCE			
484.01 · SMT WORKERS COMP TRUST	5,407.00	13,687.89	39.5%
484.195 · SWIF- Volunteer Fire	6,400.00	17,000.00	37.6%
Total 484 · WORKERS COMP INSURANCE	11,807.00	30,687.89	38.5%
486 · INSURANCE/CASUALTY/SURETY			
486.01 · MRM PROPERTY & LIABILITY TRUST	20.00	50,437.00	0.0%
486.40 · INSURANCE-PUBLIC OFFICIALS	0.00	8,061.00	0.0%
486.60 · FIDELITY & SURETY BONDS	1,426.00	3,373.65	42.3%
486.70 · EMPLOYMENT PRACTICES LIABILT	0.00	2,142.00	0.0%
Total 486 · INSURANCE/CASUALTY/SURETY	1,446.00	64,013.65	2.3%
Total Expense	2,473,940.95	4,508,333.91	54.9%
Net Ordinary Income	-27,014.78	-1,141,637.14	2.4%

## 2009 PENN TOWNSHIP GENERAL FUND

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
Other Income/Expense			
Other Income			
391 · PROCEEDS GEN FIXED ASSET DISPOS			
391.10 · SALE OF GENERAL FIXED ASSETS	551.20	500.00	110.2%
Total 391 · PROCEEDS GEN FIXED ASSET DISPOS	551.20	500.00	110.2%
392 · INTERFUND TRANSFERS			
392.09 · TRANSFER FROM SEWER/WATER	554,941.31	769,160.78	72.1%
392.36 · TRANSFER FROM CAPITAL RESERVE	32,623.00		
Total 392 · INTERFUND TRANSFERS	587,564.31	769,160.78	76.4%
Total Other Income	588,115.51	769,660.78	76.4%
Other Expense			
492 · OTHER INTERFUND TRANSFERS			
492.191 · TRANSFER TO ST IMP/HWY PROJECT	0.00	201,260.00	0.0%
492.300 · TRANSFER TO CAPITAL RESERVE			
492.304 · TRANS TO CAP RES-PW CAPITAL EQU	75,000.00	75,000.00	100.0%
492.305 · MANHEIM FIRE DEPT CAP EQUIPMENT	14,126.00	14,126.00	100.0%
492.306 · PENRYN FIRE DEPT CAP EQUIPMENT	0.00	42,377.00	0.0%
492.307 · MUNICIPAL BLDG CAP RESERVE	25,000.00	25,000.00	100.0%
492.300 · TRANSFER TO CAPITAL RESERVE - Other	0.00	0.00	0.0%
Total 492.300 · TRANSFER TO CAPITAL RESERVE	114,126.00	156,503.00	72.9%
492.454 · TRANSFER TO PARKS & REC	40,000.00	40,000.00	100.0%
492.500 · TRANSFER TO STORMWATER MGMT	0.00	461,000.00	0.0%
Total 492 · OTHER INTERFUND TRANSFERS	154,126.00	858,763.00	17.9%
Total Other Expense	154,126.00	858,763.00	17.9%
Net Other Income	433,989.51	-89,102.22	-487.1%
Net Income	406,974.73	-1,230,739.36	-33.1%

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Cash Basis

## 2009 PENN TOWNSHIP GENERAL FUND

### Balance Sheet

As of June 11, 2018

	Jun 11, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100 · BANK ACCOUNTS	
102.00 · INTEGRITY BANK	2,464,414.87
110.00 · PETTY CASH	1,291.95
Total 100 · BANK ACCOUNTS	2,465,706.82
Total Checking/Savings	2,465,706.82
Total Current Assets	2,465,706.82
<b>TOTAL ASSETS</b>	<b>2,465,706.82</b>
<b>LIABILITIES &amp; EQUITY</b>	0.00

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Cash Basis

2009 PENN TOWNSHIP GENERAL FUND  
CHECK BOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100 - BANK ACCOUNTS						2,030,230.64
102.00 - INTEGRITY BANK						2,028,938.69
05/30/2018	3996	AMERICAN UNITED LIFE INSURANCE COMPANY	POLICY # G 00615194 INV 5/17/18		604.93	2,028,333.76
05/30/2018			Deposit	925.00		2,029,258.76
05/31/2018			Deposit	241,176.73		2,270,435.49
05/31/2018			Deposit	31,363.17		2,301,798.66
06/01/2018	DD	JETPAY/A D COMPUTER CORPORATION	INVOICE #2690407		71.25	2,301,727.41
06/01/2018	100795	KRAUSE RONALD H			166.56	2,301,560.85
06/01/2018	100796	MORGAN~STANLEY~WEALTH~MNGMT ~			107.67	2,301,453.18
06/01/2018	D 4411	GRABLE BARBARA H			983.04	2,300,470.14
06/01/2018	D 4412	WEIDLE CONSTANCE M			1,377.06	2,299,093.08
06/01/2018	D 4413	HIESTER MARK			2,414.40	2,296,678.68
06/01/2018	D 4414	BRUCKHART BENJAMIN OJ			176.56	2,296,502.12
06/01/2018	D 4415	GROFF JILL M			176.56	2,296,325.56
06/01/2018	D 4416	LANDIS RICHARD E			176.56	2,296,149.00
06/01/2018	D 4417	SHELLENBERGER RICHARD M			176.56	2,295,972.44
06/01/2018	D 4418	REESER MATTHEW R			1,731.12	2,294,241.32
06/01/2018	D 4419	YOUNG SHARYN E			1,991.17	2,292,250.15
06/01/2018	D 4420	FITTERY NEIL H			1,740.69	2,290,509.46
06/01/2018	D 4421	IEHLE KEITH S			1,378.38	2,289,131.08
06/01/2018	D 4422	LEFEVER DARYL J			2,077.93	2,287,053.15
06/01/2018	D 4423	MARTIN SHANNON L			1,321.68	2,285,731.47
06/01/2018	D 4424	NEWCOMER DAVID W			1,182.29	2,284,549.18
06/01/2018	JETPA...	JetPay-PTF			6,496.66	2,278,052.52
06/05/2018			Deposit	3,460.03		2,281,512.55
06/05/2018			Deposit	11,423.33		2,292,935.88
06/07/2018			Deposit	2,576.50		2,295,512.38
06/07/2018			Deposit	5,443.31		2,300,955.69
06/07/2018			Deposit	21,590.26		2,322,545.95
06/07/2018			Deposit	162,942.41		2,485,488.36
06/07/2018	DD	PENN TWP SEWER & WATER DEPT	QUARTERLY INVOICE 2/22/18		304.38	2,485,183.98
06/11/2018	3997	BECKER ENGINEERING, LLC	MONTHLY INVOICES		488.75	2,484,695.23
06/11/2018	3998	BLUE RIDGE COMMUNICATIONS	INV DATE 5/24/18		294.80	2,484,400.43
06/11/2018	3999	CONNECTIVITY SYSTEMS INC.	INVOICE 2018-06-7384		779.00	2,483,621.43
06/11/2018	4000	CRYSTAL SPRINGS	ACCOUNT 730248216624731 INV 16624731 060218		139.55	2,483,481.88
06/11/2018	4001	FOUR SEASONS SPORTS TURF	INVOICE #1629 5/7/18		161.31	2,483,320.57
06/11/2018	4002	GOOD'S DISPOSAL SERVICE, INC	ACCT 5841457 INV 2892329		120.00	2,483,200.57
06/11/2018	4003	HOFFMAN COMPUTER ASSOCIATES	INV 180516 INV DATE 5/30/18		350.00	2,482,850.57
06/11/2018	4004	KLUXEN & NEWCOMER	INVOICE 5/1/18 ZONING HEARING BOARD		336.00	2,482,514.57
06/11/2018	4005	LANCO LANDSCAPE MANAGEMENT INC	INVOICE 5/31/18		245.00	2,482,269.57
06/11/2018	4006	MAHER DUESSEL	INV 473231 5/29/18		2,315.00	2,479,954.57
06/11/2018	4007	MAWSA	ACCT. 30PT00550 INV 1729433		408.00	2,479,546.57
06/11/2018	4008	PARDUN BRENDA J	INV DATE 5/30/18 ZHB CASE #898		130.00	2,479,416.57
06/11/2018	4009	PPL	4 ACCTS.		3,154.77	2,476,261.80
06/11/2018	4010	SELECT SECURITY	CUST 4476 INV 1445918 INV DATE 6/1/18		272.01	2,475,989.79
06/11/2018	4011	SPENCER SEO SERVICES, LLC	INVOICE #18067 5/31/18		3,218.75	2,472,771.04
06/11/2018	4012	SZWAST & SZWAST LLC	INV 8059 INV DATE 6/1/18		99.90	2,472,671.14
06/11/2018	4013	VERIZON WIRELESS	ACCT 923349440-00001 INV 9808119719		246.25	2,472,424.89
06/11/2018	4014	WOGO AMERIGREEN	INV 003252-1815101 5/31/18		197.89	2,472,227.00

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Cash Basis

2009 PENN TOWNSHIP GENERAL FUND  
CHECK BOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
06/11/2018	4015	BOMBERGER'S STORE	CUST 928736 INV 998444		287.99	2,471,939.01
06/11/2018	4016	HOSLER'S HARDWARE	INV 10012028 5/30/18		15.00	2,471,924.01
06/11/2018	4017	CHEMUNG SUPPLY CORP.	CUST 102586 3 INVOICES		940.76	2,470,983.25
06/11/2018	4018	CLEVELAND BROTHERS EQUIP. CO. INC.	CUST 6123000 INV INPP2669926		1,175.13	2,469,808.12
06/11/2018	4019	CRAFCO, INC.	INVOICE #9401841842		3,095.30	2,466,712.82
06/11/2018	4020	DEER COUNTRY	CUST PENNT001 INV P61646		10.63	2,466,702.19
06/11/2018	4021	DRESSEL WELDING SUPPLY, INC	CUST 54950 LEASE RENEWAL		157.00	2,466,545.19
06/11/2018	4022	G & S SAFETY PRODUCTS	INV 76511 INV DATE 5/30/18		215.85	2,466,329.34
06/11/2018	4023	HONDRU FORD INC	ACCT. NUMBER 1120-6093		42.50	2,466,286.84
06/11/2018	4024	JIM'S WELDING & AUTOMOTIVE INC	INV 18745 5/14/18		45.40	2,466,241.44
06/11/2018	4025	LONGENECKER'S TRUE VALUE	ACCT 54508 STMT DATE 5/31/18		95.32	2,466,146.12
06/11/2018	4026	NOLT'S FACTORY WAREHOUSE INC	ACCT. NO. 1221 STATEMENT DATE 5/31/18		36.60	2,466,109.52
06/11/2018	4027	PENNSY SUPPLY INC	CUST 157150 INV 2859343		1,694.65	2,464,414.87
Total 102.00 - INTEGRITY BANK				480,900.74	45,424.56	2,464,414.87
110.00 - PETTY CASH						1,291.95
Total 110.00 - PETTY CASH						1,291.95
Total 100 - BANK ACCOUNTS				480,900.74	45,424.56	2,465,706.82
<b>TOTAL</b>				<b>480,900.74</b>	<b>45,424.56</b>	<b>2,465,706.82</b>

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## 2009 PENN TOWNSHIP GENERAL FUND

## Deposit Detail

May 30 through June 11, 2018

Type	Num	Date	Name	Account	Amount
Deposit		05/30/2018		102.00 · INTEGRITY BANK	925.00
			BRADLEY EBERLY	361.34 · ZONING HEARING BOARD FEES	-600.00
			HEATHER CARTER	361.33 · ZONING PERMITS	-50.00
			HQ HOMES LLC	362.41 · BUILDING PERMITS	-100.00
			WARFEL CONSTRUCTION CO	362.41 · BUILDING PERMITS	-120.00
			COUNTY OF LANCASTER	387.10 · GENERAL CONTRIBUTIONS/DONATIONS	-55.00
TOTAL					-925.00
Deposit		05/31/2018		102.00 · INTEGRITY BANK	241,176.73
			LANCASTER CO TAX COLLECTION BUREAU	310.21 · EARNED INCOME	-193,852.12
			LANCASTER CO TAX COLLECTION BUREAU	310.51 · LOCAL SERVICES TAX	-47,324.61
TOTAL					-241,176.73
Deposit		05/31/2018		102.00 · INTEGRITY BANK	31,363.17
			CARLOS PEREZ	361.33 · ZONING PERMITS	-100.00
			ELM RIDGE CONSTRUCTION INC	362.41 · BUILDING PERMITS	-120.00
			COUNTY OF LANCASTER	301.20 · REAL ESTATE TAXES PRIOR/DEL COL	-1,596.40
			BLUE RIDGE CABLE TECHNOLOGIES, INC.	321.80 · CABLE TELEVISION FRANCHISE	-29,492.42
			PENN TOWNE CENTER LLC	433.361 · P P & L - TRAFFIC SIGNALS	-54.35
TOTAL					-31,363.17
Deposit		06/05/2018		102.00 · INTEGRITY BANK	3,460.03
			COMMONWEALTH OF PENNA	331.13 · STATE POLICE FINES	-3,460.03
TOTAL					-3,460.03
Deposit		06/05/2018		102.00 · INTEGRITY BANK	11,423.33
			J DAVID ROSS	361.33 · ZONING PERMITS	-50.00
			GREGORY LEHMAN	331.12 · VIOLATION OF ORD Zoning_Burning	-75.00
			PLEASANT VIEW RETIREMENT COMMUNITY	387.10 · GENERAL CONTRIBUTIONS/DONATIONS	-10,433.33
			KEYSTONE CUSTOM DECKS	362.41 · BUILDING PERMITS	-70.00
			LANDSCAPE IMPRESSIONS	361.33 · ZONING PERMITS	-25.00
			R REMODEL	362.41 · BUILDING PERMITS	-70.00
			HQ HOMES LLC	362.41 · BUILDING PERMITS	-100.00
			HORST & SON INC	362.41 · BUILDING PERMITS	-600.00
TOTAL					-11,423.33
Deposit		06/07/2018		102.00 · INTEGRITY BANK	2,576.50
			MICHAEL J FAHNESTOCK	331.12 · VIOLATION OF ORD Zoning_Burning	-2,506.50
			RUSSELL A PAYNE	362.41 · BUILDING PERMITS	-70.00
TOTAL					-2,576.50
Deposit		06/07/2018		102.00 · INTEGRITY BANK	5,443.31
			VALLEY POOLS INC	362.41 · BUILDING PERMITS	-70.00
			MAGISTERIAL DISTRICT COURT 02-2-08	331.10 · COURT-DISTRICT MAGISTRATE	-1,042.06
			MATTHEW E HERR	362.44 · SEWAGE PERMITS	-590.00
			STEPHEN P LUTZ	362.44 · SEWAGE PERMITS	-638.75
			GREINER INDUSTRIES INC	362.44 · SEWAGE PERMITS	-1,106.25
			T & D EXCAVATING	362.44 · SEWAGE PERMITS	-1,191.25
			HALDEMAN'S EXCAVATING	362.44 · SEWAGE PERMITS	-375.00
			T & D EXCAVATING	362.41 · BUILDING PERMITS	-360.00
			BEARTOWN BUILDERS	362.41 · BUILDING PERMITS	-70.00
TOTAL					-5,443.31
Deposit		06/07/2018		102.00 · INTEGRITY BANK	21,590.26
			COUNTY OF LANCASTER	310.10 · REAL ESTATE TRANSFER TAX	-21,590.26
TOTAL					-21,590.26

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2009 PENN TOWNSHIP GENERAL FUND

Deposit Detail

May 30 through June 11, 2018

Type	Num	Date	Name	Account	Amount
Deposit		06/07/2018		102.00 · INTEGRITY BANK	162,942.41
			COUNTY OF LANCASTER	301.10 · REAL ESTATE TAXES CURRENT & DUP	-152,907.91
			COUNTY OF LANCASTER	301.60 · REAL ESTATE TAXES INTERIM	-10,034.50
TOTAL					-162,942.41

**2009 PENN TOWNSHIP WATER & SEWER  
Budget vs. Actual**

06/07/18

Cash Basis

January 1 through December 30, 2018

	Jan 1 - Dec 30, 18	Budget	% of Budget
<b>Ordinary Income/Expense</b>			
<b>Income</b>			
332 · LIEN PROCEEDS	510.47	0.00	100.0%
341 · INTEREST EARNINGS			
341.01 · INTEREST ON CHECKING	1,095.83	0.00	100.0%
341.02 · INTEREST ON SAVINGS	115.01	0.00	100.0%
341 · INTEREST EARNINGS - Other	0.00	1,000.00	0.0%
<b>Total 341 · INTEREST EARNINGS</b>	<b>1,210.84</b>	<b>1,000.00</b>	<b>121.1%</b>
364 · WASTEWATER SYSTEM			
364.11 · SEWER CONNECTION/TAP IN FEES	199,653.41	99,750.00	200.2%
364.12 · SEWER USE CHARGES	533,715.93	1,593,633.16	33.5%
364.14 · NUTRIENT CREDIT SALE	0.00	500.00	0.0%
364.90 · MISCELLANEOUS	1,193.91	8,000.00	14.9%
<b>Total 364 · WASTEWATER SYSTEM</b>	<b>734,563.25</b>	<b>1,701,883.16</b>	<b>43.2%</b>
372 · ELECTRIC REVENUES			
372.44 · STREETLIGHT USER FEES	14,075.45	27,000.00	52.1%
372.56 · PPL CASH OUT	1,594.85	2,500.00	63.8%
<b>Total 372 · ELECTRIC REVENUES</b>	<b>15,670.30</b>	<b>29,500.00</b>	<b>53.1%</b>
378 · WATER SYSTEM			
378.10 · WATER USE CHARGES	101,134.12	298,742.56	33.9%
378.11 · METERED SALE-BULK WATER TO CUST	7,379.42	16,000.00	46.1%
378.90 · WATER CONNECTION/TAP IN FEES	2,499.94	4,440.00	56.3%
378.92 · MISCELLANEOUS	2,108.74	5,000.00	42.2%
<b>Total 378 · WATER SYSTEM</b>	<b>113,122.22</b>	<b>324,182.56</b>	<b>34.9%</b>
<b>Total Income</b>	<b>865,077.08</b>	<b>2,056,565.72</b>	<b>42.1%</b>
<b>Gross Profit</b>	<b>865,077.08</b>	<b>2,056,565.72</b>	<b>42.1%</b>
<b>Expense</b>			
400 · GOVERNING BODY			
400.110 · AUTHORITY BOARD SALARIES	175.00	1,500.00	11.7%
400.42 · DUES, SUBSCRIPTIONS, MEMBERSHIP	995.00	1,500.00	66.3%
<b>Total 400 · GOVERNING BODY</b>	<b>1,170.00</b>	<b>3,000.00</b>	<b>39.0%</b>
406 · OTHER GEN GOVERNMENT ADMIN			
406.39 · BANK SERVICE CHARGES/FEES	38.00	50.00	76.0%
<b>Total 406 · OTHER GEN GOVERNMENT ADMIN</b>	<b>38.00</b>	<b>50.00</b>	<b>76.0%</b>
429 · WASTEWATER SYSTEM EXPENSES			
429.365 · SLUDGE DISPOSAL	44,096.03	60,000.00	73.5%
429.370 · SEWER FACILITIES PROPERTY MAINT	1,015.00	3,000.00	33.8%
429.60 · CAPITAL CONSTRUCTION			
429.601 · WWTF DO SYSTEM	86.25	108,963.00	0.1%
429.606 · WWTF EFFLUENT FLOW METERING	0.00	92,575.00	0.0%
429.607 · PUMPING STATION #1	3,350.00	15,000.00	22.3%
429.608 · HOLLY TREE/TEMPERANCE HILL SEWR	2,036.98	324,600.00	0.6%
<b>Total 429.60 · CAPITAL CONSTRUCTION</b>	<b>5,473.23</b>	<b>541,138.00</b>	<b>1.0%</b>
429.664 · I & I INSPECTION & REPAIR	17,897.13	285,378.00	6.3%
429.74 · CAPITAL PURCHASE			
429.741 · SCADA	0.00	50,000.00	0.0%
429.750 · MISCELLANEOUS MAINTENANCE	23,109.23	14,000.00	165.1%
<b>Total 429.74 · CAPITAL PURCHASE</b>	<b>23,109.23</b>	<b>64,000.00</b>	<b>36.1%</b>
<b>Total 429 · WASTEWATER SYSTEM EXPENSES</b>	<b>91,590.62</b>	<b>953,516.00</b>	<b>9.6%</b>
448 · WATER SYSTEM EXPENSES			
448.220 · STATE DRINKING WATER FEE	0.00	4,000.00	0.0%
448.225 · LABORATORY/TESTING SUPPLIES	0.00	10,000.00	0.0%
448.366 · BULK PURCHASE WTR-CITY OF LANC	6,695.00	13,000.00	51.5%
448.370 · WATER STORAGE TANK MAINTENANCE	0.00	1,000.00	0.0%
448.371 · WATER FACILITIES PROPERTY MAINT	1,825.50	14,000.00	13.0%
448.60 · CAPITAL CONSTRUCTION			
448.605 · DOE RUN RD WTR-WEST END TO BORO	0.00	239,835.00	0.0%
448.666 · SWPP ROADSIDE SIGNS WITH MAWSA	0.00	2,600.00	0.0%
448.750 · MISCELLANEOUS MAINTENANCE	4,247.00	7,000.00	60.7%
<b>Total 448.60 · CAPITAL CONSTRUCTION</b>	<b>4,247.00</b>	<b>249,435.00</b>	<b>1.7%</b>
<b>Total 448 · WATER SYSTEM EXPENSES</b>	<b>12,767.50</b>	<b>291,435.00</b>	<b>4.4%</b>
486 · INSURANCE, CASUALTY, SURETY			
486.60 · FIDELITY AND SURETY BONDS	0.00	100.00	0.0%
<b>Total 486 · INSURANCE, CASUALTY, SURETY</b>	<b>0.00</b>	<b>100.00</b>	<b>0.0%</b>
493 · JOINT OPERATING EXPENSES			
493.150 · PART-TIME STAFF SALARY & WAGES	10,693.85	45,216.78	23.7%
493.215 · POSTAGE / POSTCARDS	3,114.91	6,000.00	51.9%
493.222 · CHEMICALS	17,805.29	48,000.00	37.1%
493.239 · PA ONE CALL	218.52	425.00	51.4%
493.240 · METERS	1,491.92	89,250.00	1.7%



**2009 PENN TOWNSHIP WATER & SEWER  
Budget vs. Actual**

06/07/18

Cash Basis

January 1 through December 30, 2018

	Jan 1 - Dec 30, 18	Budget	% of Budget
493.250 · REPAIR AND MAINTENANCE	24,000.00	50,000.00	48.0%
493.280 · SOFTWARE / HARDWARE	750.00	1,600.00	46.9%
493.310 · OPERATION & MAINTENANCE SERVICE	237,126.68	463,404.00	51.2%
493.311 · ACCOUNTING & AUDITING SERVICES	2,290.00	2,290.00	100.0%
493.313 · ENGINEERING SERVICES	20,762.53	50,000.00	41.5%
493.314 · SOLICITOR / LEGAL SERVICES	3,997.37	2,000.00	199.9%
493.360 · PUBLIC UTILITIES	71,431.13	160,000.00	44.6%
493.375 · REPAIRS & MAINTENANCE-VEHICLES			
375.02 · 2000 GMC 3/4 TON PICK-UP YELLOW	53.65	0.00	100.0%
375.03 · 2010 FORD F-250	54.76	0.00	100.0%
493.375 · REPAIRS & MAINTENANCE-VEHICLES - Other	0.00	2,000.00	0.0%
<b>Total 493.375 · REPAIRS &amp; MAINTENANCE-VEHICLES</b>	<b>108.41</b>	<b>2,000.00</b>	<b>5.4%</b>
493.490 · MISCELLANEOUS	0.00	2,000.00	0.0%
<b>Total 493 · JOINT OPERATING EXPENSES</b>	<b>393,790.61</b>	<b>922,185.78</b>	<b>42.7%</b>
<b>Total Expense</b>	<b>499,356.73</b>	<b>2,170,286.78</b>	<b>23.0%</b>
<b>Net Ordinary Income</b>	<b>365,720.35</b>	<b>-113,721.06</b>	<b>-321.6%</b>
<b>Other Income/Expense</b>			
<b>Other Income</b>			
393 · PROCEEDS GENERAL LONG-TERM DEBT			
393.10 · G.O. BOND AND NOTE PROCEEDS	0.00	311,000.00	0.0%
<b>Total 393 · PROCEEDS GENERAL LONG-TERM DEBT</b>	<b>0.00</b>	<b>311,000.00</b>	<b>0.0%</b>
<b>Total Other Income</b>	<b>0.00</b>	<b>311,000.00</b>	<b>0.0%</b>
<b>Other Expense</b>			
471 · DEBT PRINCIPAL			
471.20 · DEBT PRINCIPAL WATER SYST	100,000.00	100,000.00	100.0%
471.35 · DEBT PRINCIPAL WASTEWATER SYST	370,000.00	370,000.00	100.0%
471.36 · GO NOTE 2017-1(2012 BOND-WATER)	20,000.00	20,000.00	100.0%
<b>Total 471 · DEBT PRINCIPAL</b>	<b>490,000.00</b>	<b>490,000.00</b>	<b>100.0%</b>
472 · DEBT INTEREST			
472.20 · WATER TREATMENT FACILITY	46,873.75	92,248.00	50.8%
472.35 · DEBT INTEREST WASTEWATER SYST	27,276.25	49,003.00	55.7%
472.36 · GO NOTE 2017-1(2012 BOND-WATER)	46,473.75	92,693.00	50.1%
<b>Total 472 · DEBT INTEREST</b>	<b>120,623.75</b>	<b>233,944.00</b>	<b>51.6%</b>
475.00 · BOND ISSUANCE COSTS	500.00	1,000.00	50.0%
492 · INTERFUND TRANSFERS			
492.01 · TRANSFER TO GENERAL FUND	7,395.49	26,000.00	28.4%
<b>Total 492 · INTERFUND TRANSFERS</b>	<b>7,395.49</b>	<b>26,000.00</b>	<b>28.4%</b>
<b>Total Other Expense</b>	<b>618,519.24</b>	<b>750,944.00</b>	<b>82.4%</b>
<b>Net Other Income</b>	<b>-618,519.24</b>	<b>-439,944.00</b>	<b>140.6%</b>
<b>Net Income</b>	<b>-252,798.89</b>	<b>-553,665.06</b>	<b>45.7%</b>

## 2009 PENN TOWNSHIP WATER &amp; SEWER

## Balance Sheet

As of June 11, 2018

	Jun 11, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100 · BANK ACCOUNTS	
100.02 · PNC CHECKING	44,218.93
100.03 · INTEGRITY BANK	2,195,569.67
107.04 · INTEGRITY-CASH MANAGEMENT	98,391.24
Total 100 · BANK ACCOUNTS	2,338,179.84
Total Checking/Savings	2,338,179.84
Total Current Assets	2,338,179.84
<b>TOTAL ASSETS</b>	<b>2,338,179.84</b>
<b>LIABILITIES &amp; EQUITY</b>	
Equity	
30000 · Opening Bal Equity	1,404,145.23
32000 · Retained Earnings	1,186,833.50
Net Income	-252,798.89
Total Equity	2,338,179.84
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>2,338,179.84</b>

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06/07/18  
Cash Basis

2009 PENN TOWNSHIP WATER & SEWER  
CHECKBOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100 · BANK ACCOUNTS						2,319,169.85
100.02 · PNC CHECKING						43,823.14
05/30/2018			Deposit	96.01		43,919.15
05/30/2018			Deposit	299.78		44,218.93
Total 100.02 · PNC CHECKING				395.79	0.00	44,218.93
100.03 · INTEGRITY BANK						2,176,955.47
05/30/2018			Deposit	1,691.56		2,178,647.03
05/30/2018			Deposit	31,500.00		2,210,147.03
05/30/2018			Deposit	11,029.82		2,221,176.85
05/30/2018			Deposit	5,857.52		2,227,034.37
05/31/2018			Deposit	145.21		2,227,179.58
05/31/2018			Deposit	143.75		2,227,323.33
05/31/2018			Deposit	79.61		2,227,402.94
05/31/2018			Deposit	153.89		2,227,556.83
05/31/2018			Deposit	344.69		2,227,901.52
05/31/2018			Deposit	234.09		2,228,135.61
05/31/2018			Deposit	104.21		2,228,239.82
05/31/2018			Deposit	225.00		2,228,464.82
06/01/2018			Deposit	600.86		2,229,065.68
06/01/2018			Deposit	9,135.80		2,238,201.48
06/05/2018			Deposit	12,802.27		2,251,003.75
06/05/2018			Deposit	7,439.21		2,258,442.96
06/05/2018			Deposit	2,676.20		2,261,119.16
06/07/2018			Deposit	304.38		2,261,423.54
06/07/2018			Deposit	60.34		2,261,483.88
06/07/2018			Deposit	7,635.00		2,269,118.88
06/11/2018	1856	BECKER ENGINEERING	MONTHLY INVOICES		6,096.24	2,263,022.64
06/11/2018	1857	HERSHEY SURVEYING INC	INV #3560 AND INV #3616		2,230.00	2,260,792.64
06/11/2018	1858	INFRAMARK, LLC	INVOICE 30907 6/8/18 AND INVOICE 31012		53,382.00	2,207,410.64
06/11/2018	1859	LANCO LANDSCAPE MANAGEMENT INC	INVOICE 5/31/18		1,425.00	2,205,985.64
06/11/2018	1860	LNP MEDIA GROUP INC	ACCT. NO. 20036383 AD #3945823		476.24	2,205,509.40
06/11/2018	1861	LONGENECKER'S TRUE VALUE	ACCT 54508 5/31/18		225.50	2,205,283.90
06/11/2018	1862	MAHER DUESSEL	INVOICE NO. 473197 5/23/18		2,290.00	2,202,993.90
06/11/2018	1863	MAWSA	ACCOUNT NUMBER 30518000		57.67	2,202,936.23
06/11/2018	1864	MUNIBILLING	INVOICE #6994		518.25	2,202,417.98
06/11/2018	1865	PPL UTILITIES CORPORATION	ACCT #96341-27002		6,758.72	2,195,659.26
06/11/2018	1866	SWIFTREACH NETWORKS, INC.	ACCOUNT #200845 5/31/18		53.30	2,195,605.96
06/11/2018	1867	VERIZON	IPAD AND METER READINGS		36.29	2,195,569.67
Total 100.03 · INTEGRITY BANK				92,163.41	73,549.21	2,195,569.67

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Cash Basis

2009 PENN TOWNSHIP WATER & SEWER  
CHECKBOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
107.04		INTEGRITY-CASH MANAGEMENT				98,391.24
Total 107.04		INTEGRITY-CASH MANAGEMENT				98,391.24
Total 100		BANK ACCOUNTS		92,559.20	73,549.21	2,338,179.84
TOTAL				92,559.20	73,549.21	2,338,179.84

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## 2009 PENN TOWNSHIP WATER &amp; SEWER

## Deposit Detail

May 30 through June 11, 2018

Type	Date	Name	Memo	Account	Amount
Deposit	05/30/2018		Deposit	100.03 · INTEGRITY ...	1,691.56
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/23/18	364.12 · SEWER US...	-1,381.72
			BULK WATER PAYMENTS REC'D. 5/23/18	378.11 · METERED S...	-309.84
TOTAL					-1,691.56
Deposit	05/30/2018		Deposit	100.02 · PNC CHECK...	96.01
		CUSTOMERS	SEWER PAYMENT REC'D. 5/22/18	364.12 · SEWER US...	-96.01
TOTAL					-96.01
Deposit	05/30/2018		Deposit	100.03 · INTEGRITY ...	31,500.00
		HORST & SON INC	6 SEWER PERMITS - 352,354,356,358,360,362 CEDAR HOLLOW	364.11 · SEWER CO...	-31,500.00
TOTAL					-31,500.00
Deposit	05/30/2018		Deposit	100.03 · INTEGRITY ...	11,029.82
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/29/18	364.12 · SEWER US...	-7,441.90
		CUSTOMERS	WATER PAYMENTS REC'D. 5/29/18	378.10 · WATER USE...	-3,219.88
		CUSTOMERS	BULK WATER PAYMENTS REC'D. 5/29/18	378.11 · METERED S...	-189.24
		CUSTOMERS	S L PAYMENTS REC'D. 5/29/18	372.44 · STREETLIG...	-178.80
TOTAL					-11,029.82
Deposit	05/30/2018		Deposit	100.03 · INTEGRITY ...	5,857.52
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/29/18	364.12 · SEWER US...	-5,723.81
		CUSTOMERS	WATER PAYMENTS REC'D. 5/29/18	378.10 · WATER USE...	-133.71
TOTAL					-5,857.52
Deposit	05/30/2018		Deposit	100.02 · PNC CHECK...	299.78
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/29/18	364.12 · SEWER US...	-192.02
		CUSTOMERS	WATER PAYMENTS REC'D. 5/29/18	378.10 · WATER USE...	-99.76
		CUSTOMERS	S L PAYMENTS REC'D. 5/29/18	372.44 · STREETLIG...	-8.00
TOTAL					-299.78
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	145.21
		CUSTOMERS	SEWER PAYMENT REC'D. 5/23/18	364.12 · SEWER US...	-145.21
TOTAL					-145.21
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	143.75
		CUSTOMERS	SEWER PAYMENT REC'D. 5/23/18	364.12 · SEWER US...	-143.75
TOTAL					-143.75
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	79.61
		CUSTOMERS	SEWER PAYMENT REC'D. 5/23/18	364.12 · SEWER US...	-79.61
TOTAL					-79.61
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	153.89
		CUSTOMERS	SEWER PAYMENT REC'D. 5/25/18	364.12 · SEWER US...	-153.89
TOTAL					-153.89
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	344.69
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/29/18	364.12 · SEWER US...	-281.61
			BULK WATER PAYMENTS REC'D. 5/29/18	378.11 · METERED S...	-63.08
TOTAL					-344.69
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	234.09
		CUSTOMERS	SEWER PAYMENT REC'D. 5/30/18	364.12 · SEWER US...	-153.41
			WATER PAYMENT REC'D. 5/30/18	378.10 · WATER USE...	-80.68
TOTAL					-234.09

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## 2009 PENN TOWNSHIP WATER &amp; SEWER

## Deposit Detail

May 30 through June 11, 2018

Type	Date	Name	Memo	Account	Amount
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	104.21
		CUSTOMERS	SEWER PAYMENT REC'D. 5/31/18	364.12 · SEWER US...	-104.21
TOTAL					-104.21
Deposit	05/31/2018		Deposit	100.03 · INTEGRITY ...	225.00
		CUSTOMERS	SEWER PAYMENT REC'D. 5/31/18	364.12 · SEWER US...	-225.00
TOTAL					-225.00
Deposit	06/01/2018		Deposit	100.03 · INTEGRITY ...	600.86
		PORTNOFF LAW ASSOCIATES...	SEWER PAYMENT REC'D. 5/24/18 - LASDIN 349 HOLLOW VIEW	364.12 · SEWER US...	-83.43
		PORTNOFF LAW ASSOCIATES...	S L PAYMENT REC'D. 5/24/18 - LASDIN 349 HOLLOW VIEW	372.44 · STREETLIG...	-6.96
		PORTNOFF LAW ASSOCIATES...	DELINQUENT LIEN FEES, INTEREST AND COSTS REC'D. 5/24/18...	332 · LIEN PROCEEDS	-510.47
TOTAL					-600.86
Deposit	06/01/2018		Deposit	100.03 · INTEGRITY ...	9,135.80
		CUSTOMERS	SEWER PAYMENTS REC'D. 5/31/18	364.12 · SEWER US...	-5,898.33
			WATER PAYMENTS REC'D. 5/31/18	378.10 · WATER USE...	-2,981.59
			BULK WATER PAYMENTS REC'D. 5/31/18	378.11 · METERED S...	-71.88
			S L PAYMENTS REC'D. 5/31/18	372.44 · STREETLIG...	-184.00
TOTAL					-9,135.80
Deposit	06/05/2018		Deposit	100.03 · INTEGRITY ...	12,802.27
		CUSTOMERS	SEWER PAYMENTS REC'D. 6/4/18	364.12 · SEWER US...	-8,469.75
			WATER PAYMENTS REC'D. 6/4/18	378.10 · WATER USE...	-4,103.56
			S L PAYMENTS REC'D. 6/4/18	372.44 · STREETLIG...	-228.96
TOTAL					-12,802.27
Deposit	06/05/2018		Deposit	100.03 · INTEGRITY ...	7,439.21
		CUSTOMERS	SEWER PAYMENTS REC'D. 6/4/18	364.12 · SEWER US...	-4,933.82
			WATER PAYMENTS REC'D. 6/4/18	378.10 · WATER USE...	-2,367.60
			BULK WATER PAYMENTS REC'D. 6/4/18	378.11 · METERED S...	-117.79
			S L PAYMENTS REC'D. 6/4/18	372.44 · STREETLIG...	-20.00
TOTAL					-7,439.21
Deposit	06/05/2018		Deposit	100.03 · INTEGRITY ...	2,676.20
		CUSTOMERS	SEWER PAYMENTS REC'D. 6/4/18	364.12 · SEWER US...	-1,731.26
			WATER PAYMENTS REC'D. 6/4/18	378.10 · WATER USE...	-807.35
			BULK WATER PAYMENTS REC'D. 6/4/18	378.11 · METERED S...	-93.59
			S L PAYMENTS REC'D. 6/4/18	372.44 · STREETLIG...	-44.00
TOTAL					-2,676.20
Deposit	06/07/2018		Deposit	100.03 · INTEGRITY ...	304.38
		PENN TOWNSHIP	SEWER PAYMENTS REC'D. 6/7/18	364.12 · SEWER US...	-200.22
		PENN TOWNSHIP	WATER PAYMENTS REC'D. 6/7/18	378.10 · WATER USE...	-104.16
TOTAL					-304.38
Deposit	06/07/2018		Deposit	100.03 · INTEGRITY ...	60.34
		CUSTOMERS	WATER TAPPING FEE AGREEMENT - NYE 258 GRANDVIEW DR	378.90 · WATER CO...	-60.34
TOTAL					-60.34
Deposit	06/07/2018		Deposit	100.03 · INTEGRITY ...	7,635.00
		CUSTOMERS	SEWER PAYMENTS REC'D. 6/7/18	364.12 · SEWER US...	-5,022.94
		CUSTOMERS	WATER PAYMENTS REC'D. 6/7/18	378.10 · WATER USE...	-2,459.26
		CUSTOMERS	S L PAYMENTS REC'D. 6/7/18	372.44 · STREETLIG...	-152.80
TOTAL					-7,635.00

## 2009 PENN TOWNSHIP PARKS AND RECREATION

06/07/18

## Budget vs. Actual

Cash Basis

January through December 2018

	Jan - Dec 18	Budget	% of Budget
<b>Ordinary Income/Expense</b>			
<b>Income</b>			
<b>341 · INTEREST EARNINGS</b>			
341.01 · INTEREST ON CHECKING	0.61	60.00	1.0%
<b>Total 341 · INTEREST EARNINGS</b>	0.61	60.00	1.0%
<b>Total Income</b>	0.61	60.00	1.0%
<b>Expense</b>			
<b>454 · PARK EXPENSES</b>			
454.361 · ELECTRIC	441.40	760.00	58.1%
454.370 · REPAIRS & MAINTENANCE			
370.1 · Sweetbriar Park	3,120.50		
370.2 · Cedar Hollow Park	2,676.69		
370.3 · Barons Ridge	568.87		
454.370 · REPAIRS & MAINTENANCE - Other	0.00	39,375.00	0.0%
<b>Total 454.370 · REPAIRS &amp; MAINTENANCE</b>	6,366.06	39,375.00	16.2%
<b>454.44 · CLEANING</b>	600.00	2,500.00	24.0%
<b>Total 454 · PARK EXPENSES</b>	7,407.46	42,635.00	17.4%
<b>Total Expense</b>	7,407.46	42,635.00	17.4%
<b>Net Ordinary Income</b>	-7,406.85	-42,575.00	17.4%
<b>Other Income/Expense</b>			
<b>Other Income</b>			
<b>392 · INTERFUND OPERATING TRANSFERS</b>			
392.01 · TRANSFER FROM GENERAL FUND	40,000.00	40,000.00	100.0%
<b>Total 392 · INTERFUND OPERATING TRANSFERS</b>	40,000.00	40,000.00	100.0%
<b>Total Other Income</b>	40,000.00	40,000.00	100.0%
<b>Net Other Income</b>	40,000.00	40,000.00	100.0%
<b>Net Income</b>	<b>32,593.15</b>	<b>-2,575.00</b>	<b>-1,265.8%</b>

10:50 AM  
06/07/18  
Cash Basis

2009 PENN TOWNSHIP PARKS AND RECREATION  
**Balance Sheet**  
As of June 11, 2018

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	<u>Jun 11, 18</u>
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100.00 · BANK ACCOUNTS	
100.02 · INTEGRITY BANK	<u>33,427.88</u>
Total 100.00 · BANK ACCOUN...	<u>33,427.88</u>
Total Checking/Savings	<u>33,427.88</u>
Total Current Assets	<u>33,427.88</u>
<b>TOTAL ASSETS</b>	<u><b>33,427.88</b></u>
<b>LIABILITIES &amp; EQUITY</b>	0.00



10:51 AM  
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Cash Basis

2009 PENN TOWNSHIP PARKS AND RECREATION  
**CHECK BOOK LEDGER**  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100.00 · BANK ACCOUNTS						38,215.48
100.02 · INTEGRITY BANK						38,215.48
06/11/2018	1153	FOUR SEASONS SPORTS TURF	INV. 1624,1625,1626,1627,1628		2,105.06	36,110.42
06/11/2018	1154	LANCO LANDSCAPE MANAGEME...	INVOICE 5/31/18		2,600.00	33,510.42
06/11/2018	1155	PPL ELECTRIC UTILITIES	ACCT. #95445-67007 and ACCT. #37395-51013		82.54	33,427.88
Total 100.02 · INTEGRITY BANK				0.00	4,787.60	33,427.88
Total 100.00 · BANK ACCOUNTS				0.00	4,787.60	33,427.88
TOTAL				0.00	4,787.60	33,427.88

10:53 AM

06/07/18

Cash Basis

**PENN TOWNSHIP ESCROW**

**Escrow Balance Sheet**

As of June 11, 2018

	Jun 11, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100 · BANK ACCOUNTS	
101.03 · INTEGRITY BANK	91,555.16
101.04 · SWEETBRIAR TURF-INTEGRITY BANK	8,133.12
Total 100 · BANK ACCOUNTS	99,688.28
Total Checking/Savings	99,688.28
Total Current Assets	99,688.28
<b>TOTAL ASSETS</b>	<b>99,688.28</b>
<b>LIABILITIES &amp; EQUITY</b>	0.00

10:54 AM  
06/07/18  
Cash Basis

PENN TOWNSHIP ESCROW  
ACCOUNT TRANSACTIONS  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100 · BANK ACCOUNTS						110,901.95
101.03 · INTEGRITY BANK						102,768.83
06/11/2018	1204	JOHN DROBNAK	RELEASE OF REMAINING ESCROW FUNDS		2,297.50	100,471.33
06/11/2018	1205	BECKER ENGINEERING	MONTHLY INVOICES		5,651.17	94,820.16
06/11/2018	1206	BECKER ENGINEERING	MONTHLY INVOICES		3,265.00	91,555.16
Total 101.03 · INTEGRITY BANK				0.00	11,213.67	91,555.16
101.04 · SWEETBRIAR TURF-INTEGRITY BANK						8,133.12
Total 101.04 · SWEETBRIAR TURF-INTEGRITY BANK						8,133.12
Total 100 · BANK ACCOUNTS				0.00	11,213.67	99,688.28
TOTAL				0.00	11,213.67	99,688.28

## Budget vs. Actual

### January through December 2018

	Jan - Dec 18	Budget	% of Budget
Ordinary Income/Expense			
Income			
341 · INTEREST EARNINGS			
341.01 · INTEREST ON CHECKING	55.74	100.00	55.7%
Total 341 · INTEREST EARNINGS	55.74	100.00	55.7%
361.35 · STORM WATER MANAGEMENT FEES	3,164.90	22,565.57	14.0%
361.36 · STORMWATER PLAN APPLICATION FEES	450.00	810.00	55.6%
361.37 · SMALL PROJECT APPLICATION FEES	120.00	651.40	18.4%
Total Income	3,790.64	24,126.97	15.7%
Expense			
436.24 · GENERAL OPERATING SUPPLIES	175.62	1,500.00	11.7%
436.25 · REPAIRS, MAINTENANCE & SUPPLIES	0.00	5,000.00	0.0%
436.31 · PROFESSIONAL SERVICES	2,722.50	40,000.00	6.8%
436.37 · REPAIRS, MAINTENANCE & SERVICES	1,775.39	3,000.00	59.2%
436.39 · MS4 CONSTRUCTION	0.00	395,000.00	0.0%
436.46 · EDUCATION AND TRAINING	0.00	1,000.00	0.0%
436.49 · MISCELLANEOUS	0.00	500.00	0.0%
461.54 · CONTRIBUTION - WATERSHED GROUPS	1,275.00	1,250.00	102.0%
Total Expense	5,948.51	447,250.00	1.3%
Net Ordinary Income	-2,157.87	-423,123.03	0.5%
Other Income/Expense			
Other Income			
392.01 · TRANSFER FROM GENERAL FUND	0.00	461,000.00	0.0%
Total Other Income	0.00	461,000.00	0.0%
Net Other Income	0.00	461,000.00	0.0%
Net Income	<b>-2,157.87</b>	<b>37,876.97</b>	<b>-5.7%</b>

11:11 AM

06/07/18

Cash Basis

# PENN TOWNSHIP STORM WATER MANAGEMENT

## Balance Sheet

As of June 11, 2018

	Jun 11, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100 · BANK ACCOUNTS	
102.00 · INTEGRITY BANK	63,532.98
Total 100 · BANK ACCOUNTS	63,532.98
Total Checking/Savings	63,532.98
Total Current Assets	63,532.98
<b>TOTAL ASSETS</b>	<b>63,532.98</b>
<b>LIABILITIES &amp; EQUITY</b>	0.00

11:12 AM  
06/07/18  
Cash Basis

PENN TOWNSHIP STORM WATER MANAGEMENT  
CHECK BOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100 · BANK ACCOUNTS						63,849.75
102.00 · INTEGRITY BANK						63,849.75
06/11/2018	1066	BECKER ENGINEERING LLC	INVOICE 15390		287.50	63,562.25
06/11/2018	1067	VERIZON WIRELESS	INVOICE NO. 9808119719		29.27	63,532.98
Total 102.00 · INTEGRITY BANK				0.00	316.77	63,532.98
Total 100 · BANK ACCOUNTS				0.00	316.77	63,532.98
TOTAL				0.00	316.77	63,532.98

11:46 AM

06/07/18

Cash Basis

## 2009 PENN TOWNSHIP STREET IMPROVEMENT

## Budget vs. Actual

January through December 2018

	Jan - Dec 18	Budget	% of Budget
<b>Ordinary Income/Expense</b>			
<b>Income</b>			
341 · INTEREST EARNINGS			
341.01 · INTEREST ON CHECKING	705.33	1,000.00	70.5%
341.04 · PCARD REBATE	0.00	0.00	0.0%
<b>Total 341 · INTEREST EARNINGS</b>	<b>705.33</b>	<b>1,000.00</b>	<b>70.5%</b>
<b>Total Income</b>	<b>705.33</b>	<b>1,000.00</b>	<b>70.5%</b>
<b>Expense</b>			
438.245 · MAINTENANCE PROJECTS			
245.029 · SCHOOLWAY DRIVE	0.00	0.00	0.0%
245.030 · SENSEI DRIVE	0.00	0.00	0.0%
245.031 · ANDREA DRIVE	0.00	0.00	0.0%
245.032 · AUDREY DRIVE	0.00	0.00	0.0%
245.033 · HIVEVIEW DRIVE	0.00	0.00	0.0%
245.037 · CAROLE LANE	0.00	0.00	0.0%
245.038 · CHRISTINE AVENUE	0.00	0.00	0.0%
245.039 · DAVE CIRCLE	0.00	0.00	0.0%
245.040 · GREEN RIDGE DRIVE	0.00	0.00	0.0%
245.041 · JERRY LANE	0.00	0.00	0.0%
245.042 · KAREN AVENUE	0.00	0.00	0.0%
245.043 · KEITH LANE	0.00	0.00	0.0%
245.044 · PENN AVENUE	0.00	0.00	0.0%
245.045 · ROHEN RIDGE DRIVE	0.00	0.00	0.0%
245.046 · ANTHONY DRIVE	0.00	0.00	0.0%
<b>Total 438.245 · MAINTENANCE PROJECTS</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>
439 · HIGHWAY CONST & REBUILDING PROJ			
439.245 · CONSTRUCTION PROJECTS			
245.006 · WOODLOT RD	0.00	153,000.00	0.0%
245.008 · ELM ROAD	0.00	0.00	0.0%
245.011 · DOE RUN RD/PENRYN RD INTERSEC	0.00	0.00	0.0%
245.012 · POWER ROAD BRIDGE REPLACEMENT	0.00	0.00	0.0%
245.014 · BUCKNOLL ROAD	0.00	0.00	0.0%
245.016 · NORTH PENRYN ROAD	828.75	20,000.00	4.1%
245.018 · FAIRVIEW ROAD	0.00	0.00	0.0%
245.020 · ROUTE 72/BUCKNOLL ROAD	0.00	0.00	0.0%
245.021 · FRUITVILLE PK/TEMPERANCE HILL..	24,954.15	256,457.70	9.7%
245.022 · DOE RUN PEDESTRIAN ENHANCEMENT	2,374.90	263,394.08	0.9%
245.023 · MT HOPE ROAD	0.00	0.00	0.0%
245.024 · OAK LANE	0.00	0.00	0.0%
245.025 · GRANDVIEW DRIVE	0.00	0.00	0.0%
245.026 · SCHOOLWAY DRIVE	0.00	0.00	0.0%
245.027 · STRUCTURES EVALUATION	0.00	0.00	0.0%
245.028 · MEADOW ROAD	0.00	0.00	0.0%
245.034 · HOLLY TREE ROAD	2,261.20	8,000.00	28.3%
245.035 · NORTHVIEW ROAD	0.00	3,000.00	0.0%
245.036 · WHITE OAK ROAD	0.00	0.00	0.0%
245.047 · W LEXINGTON & MEMORIAL INTERSEC	4,785.76	8,000.00	59.8%
245.048 · WOODLOT & LITITZ RDS PIPE	7,706.32	10,000.00	77.1%
245.049 · N PENRYN & OAK LN INTERSECTION	5,545.75	7,500.00	73.9%
245.050 · N PENRYN & OAK LN PIPE & INLET	2,904.80	6,000.00	48.4%
245.051 · HIVEVIEW PIPE TO CREEK	3,126.04	10,000.00	31.3%
<b>Total 439.245 · CONSTRUCTION PROJECTS</b>	<b>54,487.67</b>	<b>745,351.78</b>	<b>7.3%</b>
<b>Total 439 · HIGHWAY CONST &amp; REBUILDING PROJ</b>	<b>54,487.67</b>	<b>745,351.78</b>	<b>7.3%</b>
<b>Total Expense</b>	<b>54,487.67</b>	<b>745,351.78</b>	<b>7.3%</b>
<b>Net Ordinary Income</b>	<b>-53,782.34</b>	<b>-744,351.78</b>	<b>7.2%</b>
<b>Other Income/Expense</b>			
<b>Other Income</b>			
392 · INTERFUND OPERATING TRANSFERS			
392.01 · TRANSFER FROM GENERAL FUND	0.00	201,260.00	0.0%
392.03 · TRANSFER FROM SEWER & WATER	0.00	0.00	0.0%
392.36 · TRANSFER FROM CAPITAL RESERVE	0.00	21,000.00	0.0%
<b>Total 392 · INTERFUND OPERATING TRANSFERS</b>	<b>0.00</b>	<b>222,260.00</b>	<b>0.0%</b>
<b>Total Other Income</b>	<b>0.00</b>	<b>222,260.00</b>	<b>0.0%</b>
<b>Net Other Income</b>	<b>0.00</b>	<b>222,260.00</b>	<b>0.0%</b>
<b>Net Income</b>	<b>-53,782.34</b>	<b>-522,091.78</b>	<b>10.3%</b>

11:47 AM

## 2009 PENN TOWNSHIP STREET IMPROVEMENT

06/07/18

### Balance Sheet

Cash Basis

As of June 11, 2018

	Jun 11, 18
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
100.00 · BANK ACCOUNTS	
100.02 · INTEGRITY BANK	796,896.03
Total 100.00 · BANK ACCOUNTS	796,896.03
Total Checking/Savings	796,896.03
Total Current Assets	796,896.03
<b>TOTAL ASSETS</b>	<b>796,896.03</b>
<b>LIABILITIES &amp; EQUITY</b>	<b>0.00</b>



11:47 AM  
06/07/18  
Cash Basis

2009 PENN TOWNSHIP STREET IMPROVEMENT  
CHECK BOOK LEDGER  
As of June 11, 2018

Date	Num	Name	Memo	Debit	Credit	Balance
100.00 · BANK ACCOUNTS						801,203.53
100.02 · INTEGRITY BANK						801,203.53
06/11/2018	1139	BECKER ENGINEERING	MONTHLY INVOICES		4,307.50	796,896.03
Total 100.02 · INTEGRITY BANK				0.00	4,307.50	796,896.03
Total 100.00 · BANK ACCOUNTS				0.00	4,307.50	796,896.03
TOTAL				0.00	4,307.50	796,896.03

## **PUBLIC WORKS DIRECTORS REPORT: MAY 2018**

Sweetbriar Park Updates/Cedar Hollow Park Updates/Mallard Ponds/Barons Ridge Park: **Mulch to be blown into the playground areas in June. Playground inspections are scheduled.**

Sustainability site - Water Plant: **Cleaned up the rain garden and water plant site. Mowed all the thistles.**

Fertilization and spraying: Met with Jonathon Ott, of Four Seasons Sports Turf, to go over a plan for the 2018 season. Looking to aerate the Sweetbriar Park ballfield area in 2018 and less fertilization rate and applications. Grass on the two park ballfields are growing/thickening really well. **Broad leaf spraying was completed.**

Fruitville Pike/ Temperance Hill Road Intersection: **Working to get the HOP from Penn DOT.**

Bids: **Opened bids for Reclaiming of Evans Road and the Widening of Woodlot Road. The bids were awarded to Martin Paving, for both projects. Evans Road: Full depth reclamation at \$1.55 sq/yd for a total of \$12,400.00 and Woodlot Road: Widening project at \$8.11 sq/yd for a total of \$49,795.40.**

Multi – Municipal Bidding: **(No change from the April report)**

Multi – Municipal Purchases: **Working on creating the inter-municipal agreement with Rapho Township and then maybe Manheim Boro and Warwick Twp.**

Storm water management program and policies: **Working through the mapping of all our storm water pipes and inlets on the C. S. Datem program. Making sure all of the information is correct. Continuing with updates.**

Sign Reflectivity Program: **Everything is pretty much up to date on sign reflectivity.**

MS – 4 Program: **Constantly a work in progress**

Low Volume Roads Program: **(No change from the April report)**

Miscellaneous Projects around Penn Township:

Facilities: **Cleaned up all dead grass in the Parks and office property.**

Personnel:

Discussion items: **Mowing contract discussion!**

Equipment Discussion: **Partnership on a Hydro seeder with Rapho Township. I know that the Board of Supervisors and I have had the discussion on the joint purchase of a used hydro-seeder last year. Rapho Township did purchase the used hydro-seeder in 2017. Throughout the year, spring, summer, and fall, we do a lot of shoulder disturbance, whether it's filling in shoulders from a widening project, to shoulder work associated with installing storm pipe, to cleaning shoulders to get positive water flow during rain events. I think in the interest of time saving, we can be more efficient with our time using the hydro-seeder.**

Public Works Department: **Patching cracks: Cool Spring Road, Meadow Road, Gish Road, Pleasant View Road, Limerock Road, and Indian Village Road; Road Bank Mowing; Road Surface Repair – various roads; Shop work: Servicing and repair - Equipment and Trucks; Shoulder cleaning: various roads; Miscellaneous small projects; Miscellaneous sign work**

# Roadway Striping as a Traffic Calming Option

**IN LIEU OF TRADITIONAL TRAFFIC CALMING, ROADWAY STRIPING AS A TRAFFIC CALMING OPTION IS A VIABLE, LOW-COST ALTERNATIVE TO TRADITIONAL VERTICAL/HORIZONTAL ROADWAY DESIGN FEATURES. THE ROADWAY STRIPING ALTERNATIVES HAVE LESS DETRIMENTAL IMPACT TO EMERGENCY SERVICES, ARE LESS COSTLY TO CONSTRUCT, AND CAN SUCCESSFULLY REDUCE SPEEDS FROM TWO TO MORE THAN SEVEN MILES PER HOUR.**

**BY ROBERT KAHN, P.E. AND ALLISON KAHN GOEDECKE, MBA**

## INTRODUCTION

Traditional traffic calming techniques include vertical and horizontal displacement of the roadway surface, which can be effective in reducing speeds and cut-through traffic on roadways. These roadway design features can include speed humps, cushions, chokers, chicanes, medians, mini traffic circles, diverters, and full/partial roadway closures. While these features can have significant benefits to a community, they are sometimes difficult to implement as a result of potential negative impacts to local residents, emergency service departments, and persons with disabilities and may not be consistent with public agency policies.

In lieu of many of the traditional traffic calming devices, roadway striping can be implemented as a traffic calming option that is a viable, low-cost alternative to vertical/horizontal displacement traffic calming features. The roadway striping alternatives

- Have less detrimental impacts upon emergency services;
- Are less costly to construct;
- Provide greater flexibility to meet future changes;
- Have no adverse impact to highway drainage;
- Are recognized by local residents as standard traffic control devices;
- Can provide bike/parking lanes;
- Can successfully reduce speeds from one to more than seven miles per hour. Even greater speed reductions have been documented in some case studies; and

- Can be implemented quickly.

A number of roadway striping calming alternatives have been successfully installed in Southern California with positive results. In many cases, these have been implemented on private streets and have resulted in reduced speeds in these communities. These private streets have been designed to pub-

lic street standards. Traffic calming striping has also been used on public streets in Southern California. The calming alternatives that have been implemented follow standard *California Manual on Uniform Traffic Control Devices* (CMUTCD) requirements. These traffic calming options have been implemented in a timely and cost-effective manner and are easily understood by the local residents and driving public. They have resulted in some speed reductions, which were desired by the local residents. While more traditional traffic calming devices (e.g., speed humps) may be required in certain instances to obtain greater speed or volume reductions, roadway striping is a viable traffic calming option in many cases.

## TRAFFIC STRIPING AS AN ALTERNATIVE TO STANDARD TRAFFIC CALMING TECHNIQUES

Striping as a traffic calming technique has less disruption to emergency service vehicles, since no vertical or horizontal displacement occurs within the roadway surface. Emergency service requirements are a major barrier to the installation of many traffic calming projects. Roadway striping that is used for traffic calming is universally recognized by the traveling public and emergency agencies. Traffic calming striping gives the visual impression that roadway width has been reduced, which has been shown to slow vehicles down while traveling along a roadway. This type of striping will not slow down emergency service vehicles utilizing the roadway or adversely affect traffic operations. Other types of traffic calming devices are new to some drivers, particularly out-of-the-area drivers who are not familiar with a particular area that has the traffic calming devices.

In addition, there is considerably less cost to striping than other traffic calming techniques. As opposed to \$2,500-\$3,500 USD per installation for speed humps

or speed cushions, the same segment of roadway can be striped for only \$500 to \$1,000 USD. Another advantage of traffic striping as a traffic calming option is future flexibility. Traffic striping can easily be changed in the future by sandblasting the painted striping, if a particular installation is unsuccessful in meeting its goals or needs to be changed. Furthermore, traffic striping can be implemented quickly through conventional construction techniques by existing in-house public works staff or contract services.

Another significant benefit of traffic striping is that it does not adversely affect drainage. Many traffic calming devices such as speed humps, roadway chokers/curb extensions, medians, and chicanes can adversely affect roadway drainage. These devices can constrict normal drainage patterns within the roadway surface, which could affect drainage for the roadways. This can require additional roadway maintenance for local public works departments.

Traffic striping as a traffic calming device can effectively reduce speeds on a roadway. This is particularly effective on long, straight roadways where there are wide travel lanes for long distances. Before-and-after speed surveys by RK Engineering Group, Inc., with which the author is affiliated, have shown that speed reductions in the range of one to more than seven miles per hour are easily accomplished through roadway striping, especially for wide local streets with a curb-to-curb width of 36 to 40 feet. Another advantage of roadway striping is that it can provide for bike lanes or parking areas adjacent to the travel lanes as part of the "complete streets" system. These bike or parking lanes are used to define the various functions of the roadway: not only vehicular travel but also vehicle access to the neighborhood, parking, and accommodations for other modes of transportation, such as bicycles.

## STRIPING ALTERNATIVES

There are numerous striping alternatives that can be used for traffic calming. The basic concept of traffic calming striping is to reduce the driver's perceived width of the roadway. By doing this, the drivers tend to reduce speed and may also be diverted from a particular route as a

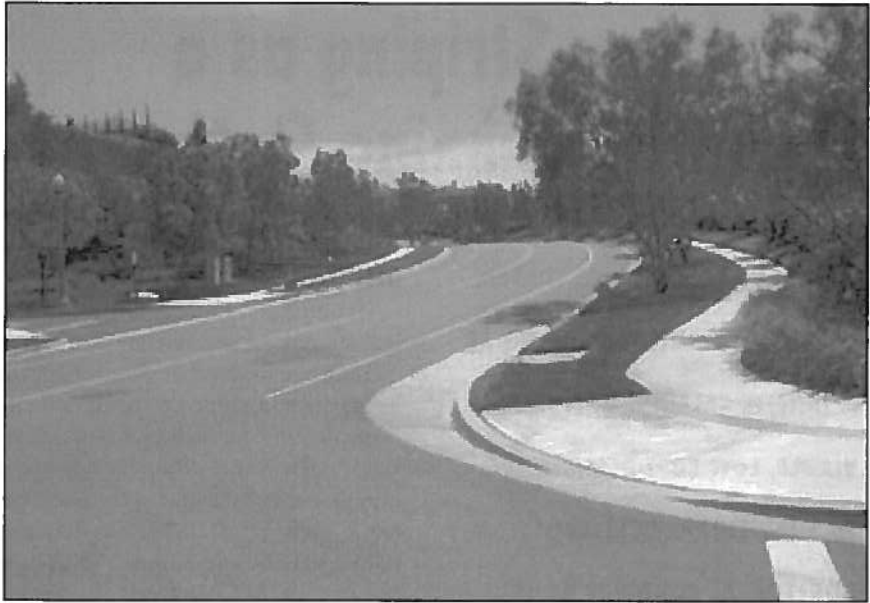


Figure 1. Typical traffic calming striping.

result of the reduced speed. The striping alternatives can consist of adding the following:

- Centerline stripe;
- Edge lines;
- Centerline plus edge line;
- Striped median;
- Striped choker or chicane;
- Striped speed hump without the raised speed hump; and
- Psycho-perceptive striping.

**Centerline** striping consists of adding a typical double-yellow centerline stripe or single-dash yellow line in the roadway. This separates the direction of traffic and reduces the roadway width of the travel lane to the driver. White 4-inch **edge lines** can be added to the right and left side of the roadway where there is sufficient width for the 8-foot parking lane. The parking lane can be provided and separated by the 4-inch white edge line. A combination of both centerline and edge line striping is the most effective method of reducing the overall travel way width of the roadways. This can be provided on typical local streets and will provide for 10-12 foot travel lanes and 7-8 foot parking lanes. A sample of this design is shown in Figure 1.

Another method of reducing the roadway width is by providing a **striped median**. The median can be provided by double-yellow centerline stripes or can

be a two-way left-turn lane, which provides left turns from the roadway to the adjacent properties or across the roadway itself. Another option for reducing roadway width is **striping chokers or chicanes**. These can be striped with a white 8-inch channel to provide the delineation of the choker or chicane. Although not as prominent as the raised curbing of a typical choker or chicane, it does provide some of the same operational features as the raised curbing for chokers or chicanes by requiring the driver to slow while traveling the traffic calming area.

Another traffic calming option is to provide "**striped**" **speed humps** across the roadway. These can be effective where normal speed humps cannot be implemented, such as a hilly area or where grades exceed 8 percent. While limited operational data is available on this type of striping, it can give the impression of a speed hump in the roadway area, therefore slowing vehicles. "**Psycho-perceptive**" striping has also been used in conjunction to implementation of speed humps. This type of striping is shown in CMUTCD (Figure 3B - 31). Smaller stripes are provided, initially going to larger stripes when approaching the traffic calming device. A photo of this type of striping is included in Figure 2. The evaluation of the effectiveness of optical speed bars was presented in the November 2001 (Eric Meyers) and March 2009



Figure 2. UCI example of psycho-perspective striping.

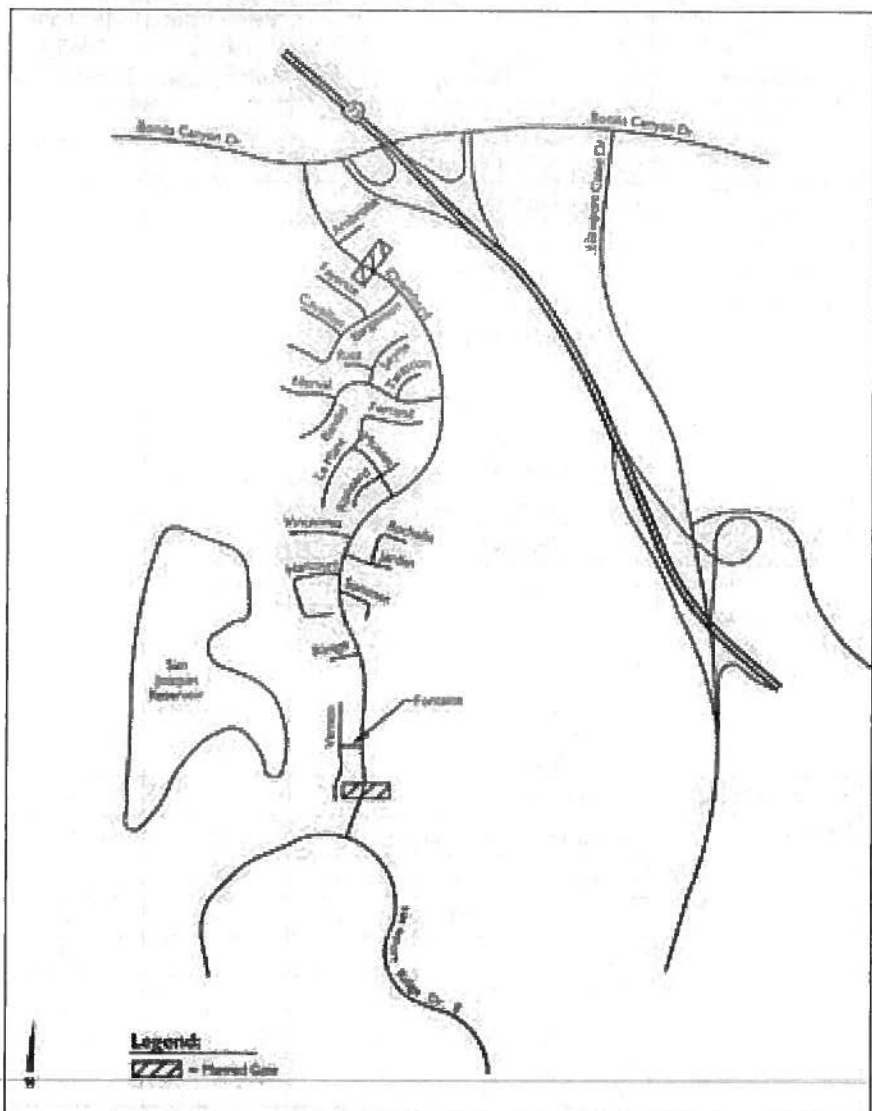


Figure 3. Newport Ridge North, Newport Beach.

(Steven P. Latoski) issues of *ITE Journal*. These studies did show promising results in speed reduction with these types of pavement markings.

### TRAFFIC CALMING STRIPING CASE STUDIES

RK Engineering Group, Inc. has been involved in several case studies involving traffic calming striping as an alternative traffic calming device. These studies have been primarily completed for private communities; however, the private roadways and streets were constructed to city standards. In nearly all cases, the roadways were 36- to 40-foot curb-to-curb width and in many cases were long, straight streets, which encouraged speeding. The implementation of traffic calming striping effectively reduced speed on these roadways and had a positive reception by the community and local agencies, including emergency service departments.

#### Case Study No. 1 (June 2005–June 2006)

The Newport Ridge North Community is a manned-gated community in the city of Newport Beach, California, USA. The community consists of high-end, single-family detached homes, which are served by a primary collector road (Chambord Road). Chambord Road is a 40-foot curb-to-curb roadway with sidewalks on both sides of the street. The roadway is oriented in a north-south direction (as shown in Figure 3) and has a length of approximately 1.31 miles.

The steep grades along Chambord did not allow for typical traffic calming techniques, such as speed humps or speed cushions. In addition, the community was concerned with the construction of these types of traffic calming devices and their effects on traffic operations and vehicle damage. There was also pedestrian activity near the community recreation center and pool located at the center portion of Chambord Road and a community tennis court facility located on the north end of the street.

Photos of Chambord before the traffic calming striping was implemented are shown in Figure 4. This wide 40-foot curb-to-curb street with an undefined travel way encouraged speeding throughout the roadway. Before the implementation of

traffic calming striping, the 85th percentile speed along Chambord ranged from 45 to 47 miles per hour, and the average speeds ranged from 40 to 41 miles per hour.

Traffic calming striping was implemented along the entire length of Chambord. This included a double-yellow centerline and 4-inch edge line stripes 8 feet from the curb face. After the traffic calming striping was implemented, the 85th percentile speed was reduced to 37 to 39 miles per hour and the average speed decreased to 35 to 36 miles per hour throughout the length of Chambord as shown in Table 1.

*Case Study No. 2*  
(August 2005–December 2007)

Traffic calming striping was implemented in south Orange County within the city of San Clemente, California, USA at the Reserve Community Association. This project consists of a large number of single-detached family dwelling units with a recreation center located in the southern portion of the community. The project has four electronic gates, which provide access to an adjacent arterial highway (Camino Vera Cruz). This community had four roadways serving a series of cul-de-sacs throughout the community, both north and south of Camino Vera Cruz.

The main roadways serving the community south of Camino Vera Cruz were 40-foot curb-to-curb width streets and those roadways serving the northerly section of the community had a curb-to-curb width of 36 to 38 feet. Existing traffic volume and speeds were collected throughout the community before traffic calming was implemented. The 85th percentile speeds ranged from 23 to 34 miles per hour prior to the implementation of traffic calming striping. Before-and-after 85th percentile speeds are summarized in Table 1.

Traffic calming striping consisted of adding double-yellow centerlines and white 4-inch edge lines on the wider roadways and the striping of edge lines only for the narrower roadways. The 85th percentile was reduced to some degree after the implementation of traffic calming striping. The 85th percentile speeds were reduced to 22–33 miles per hour, with some minor reductions after the implementation of the striping. The rec-



Figure 4. Chambord Road before restriping.

Table 1. Before-and-after speed surveys.

Location	Roadway	85th% Speed	
		Before Traffic Calming Striping (mph)	After Traffic Calming Striping (mph)
Case Study #1 Newport Ridge North (Newport Beach)	• Chambord N/O Rivay	46	37
	• Chambord S/O Musset	47	39
	• Chambord S/O Baryemon	45	39
Case Study #2 The Reserve (San Clemente)	• Montana del Sol N/O Camino Vera Cruz	23	22
	• Colina Rodante S/O Camino Vera Cruz	32	30
	• Calle de Los Arboles N/O Camino Vera Cruz	27	26
	• Calle de Los Arboles S/O Camino Vera Cruz	34	33
Case Study #3 Oak Creek (Irvine)	• Eagle Creek W/O Indigo	37	31
	• Eagle Creek W/O Palm Wood	38	27
Case Study #4 Summit at Turtle Ridge (Irvine)	• Garden Terrace E/O Hedgewood	31	30
	• Crest Terrace N/O Blue Summit	29	29
	• Canyon Terrace N/O Cezanne Valley	33	31
	• Valley Terrace S/O Climbing Vine	30	28
Summit at Turtle Ridge (Irvine)	• Garden Terrace N/O Summit Park	31	30
	• Crest Terrace W/O Summit Park	29	29
	• Canyon Terrace N/O Summit Park	33	31
	• Valley Terrace N/O Summit Park	30	28
	• Summit Park Drive at Valley Terrace	46	44
	• Summit Park Drive W/O View Terrace	44	44
	• Summit Park Drive E/O Garden Terrace	43	42
	• Summit Park Drive at Garden Terrace	39	39

ommended speed limits ranged from 25 to 35 miles per hour depending on the location and the 85th percentile speed. Although not as significant of a reduction in comparison to the Newport Ridge North Community, speeds were reduced 1 to 2 miles per hour with the traffic calming striping. The smaller reduction in speed was probably caused by the fact that the true existing speeds before the traffic calming measures were implemented were lower than the existing speeds in the Newport Ridge North Community.

*Case No. 3 (June 2002–December 2009)*

The Oakcreek Village Community located in the city of Irvine, California, USA also implemented traffic calming striping. This is a private community with two sets of electronic gates located at the east and west ends of the project. The roadway layout for the Oakcreek Development is a linear alignment with very little curvature. The Oakcreek Development is served by a single roadway (Eagle Creek) which has direct access to driveways and homes along its entire length of 0.50 miles. The Oakcreek Village Community is served by two electronic gates located on the northwest and southeast end of Eagle Creek.

Eagle Creek is a two-lane, undivided street with a curb-to-curb width of 36 feet with sidewalks on both sides of the street. The 85th percentile speed on Eagle Creek before traffic calming striping was 37 to 38 miles per hour. The community felt that this was excessive, since the prima facie speed limit is 25 miles per hour for this type of roadway. Also, there was a concern that the crosswalk across Eagle Creek served an adjoining elementary school where there was a significant amount of pedestrian crossing.

The traffic calming striping consisted of a double-yellow centerline stripe along with white 4-inch edge lines on both sides of the street. Initially this was constructed with a 7-foot parking lane on each side of the roadway and 11-foot travel lanes in each direction. Since the original implementation of traffic calming striping, the travelway has been reduced further to 10 feet and parking lanes were increased in width to 8 feet. The 85th percentile speed after the traffic calming ranged from 31 to 27 miles per hour (see Table 1). The

## **ANOTHER ADVANTAGE**

## **OF TRAFFIC STRIPING**

## **AS A TRAFFIC CALMING**

## **OPTION IS FUTURE**

## **FLEXIBILITY. TRAFFIC**

## **STRIPING CAN EASILY BE**

## **CHANGED IN THE FUTURE**

## **BY SANDBLASTING THE**

## **PAINTED STRIPING,**

## **IF A PARTICULAR**

## **INSTALLATION IS**

## **UNSUCCESSFUL IN**

## **MEETING ITS GOALS OR**

## **NEEDS TO BE CHANGED.**

traffic calming measures implemented by the community of Oak Creek Village have been successful in reducing speeds as much as 6 to 11 miles per hour. After careful review, the original recommended striping was modified to create 10-foot-wide travel lanes and an 8-foot-wide parking lane. This should further reduce traffic speeds in the area.

*Case Study No. 4 (April 2008–April 2010)*

The community of the Summit at Turtle Ridge in the city of Irvine requested traffic calming to reduce the vehicle speeds on some of its local streets. The Summit at Turtle Ridge is a private manned-gated

community with a primary collector road (Summit Park Drive). This hillside community included numerous cul-de-sac streets where speeds were generally low and consistent with what would be expected in the local street system. However, the local community association felt that these speeds were too high and traffic calming options should be investigated.

For this study, RK surveyed four local streets in the community. This included Garden Terrace, where the 85th percentile speed was 31 miles per hour before the implementation of traffic calming striping and was reduced to 30 miles per hour after implementation. On Crest Terrace the 85th percentile speed was only 29 miles per hour before traffic calming striping and remained at 29 miles per hour after the implementation of the striping. Canyon Terrace was the location with the highest speeds in the community on the local streets, where the 85th percentile speed was 33 miles per hour. This speed was reduced to 31 miles per hour after the implementation of traffic calming striping. The final location where traffic calming was implemented was Valley Terrace Street. This cul-de-sac had a speed of 30 miles per hour before implementation of the striping and 28 miles per hour after traffic striping was implemented.

In the community of the Summit at Turtle Ridge, the speeds were already low and generally consistent with what would be expected for local residential streets. However, the community was concerned with the speeds; therefore, rather than placing more aggressive traffic calming devices (e.g., speed humps, chokers, and so forth), traffic calming striping was utilized as the preferred option within the community. The recommended traffic calming striping included centerline and edge line striping with parking on one or both sides of the street depending on whether the streets were 32- or 36-feet wide. Although the speed reductions were not substantial within the community, the community was satisfied with the reduction of speeds as a result of the implementation of traffic calming striping. The relationship of speed reduction with traffic calming striping can be seen in Figure 5.

One conclusion that can be reached from the various case studies is that if local streets are operating at speeds typical for



these types of roadways (i.e. 25-32 mph), then only minor speed reductions can be obtained by traffic calming striping. Where speeds are significantly higher (i.e., more than 35 mph), then much greater speed reductions can be achieved from traffic calming striping.

### COMPARISON TO OTHER TRAFFIC CALMING TECHNIQUES

The use of traffic calming striping compares favorably to other traffic calming techniques. Although speed reduction can vary from site to site, positive speed reductions can be anticipated with the traffic calming, depending on the specific roadway configurations and the width of travel way. There are significant pros and cons to all types of traffic calming devices, as summarized in Table 2.

As can be seen from Table 2, traffic calming striping can typically result in speed reductions of approximately one to seven miles per hour depending on the situation. Speed hump and speed cushions have considerable speed reduction capabilities of approximately 8 miles per hour. Chokers and chicanes can reduce speeds 3 to 6 miles per hour, and medians and pavement texture can result in 2 to 3 miles per hour reduction. When there are situations that require speed reductions on local roadways, traffic calming striping can be considered the first step in the traffic calming process. More aggressive traffic calming devices such as speed humps/speed cushions, chokers, chicanes, medians, and pavement textures can cost considerably more but can be utilized in the event that the traffic calming striping is not successful in reaching the speed-reduction goals set by the community.

### COST COMPARISON

One of the major advantages of traffic calming striping is its cost. Not only can traffic calming striping be implemented less expensively than many other options, but it also can be modified or removed without major cost implications. An approximate cost comparison of various traffic calming devices is included in Table 2.

### SAFETY CONSIDERATIONS

There are numerous safety considerations for implementing traffic calming

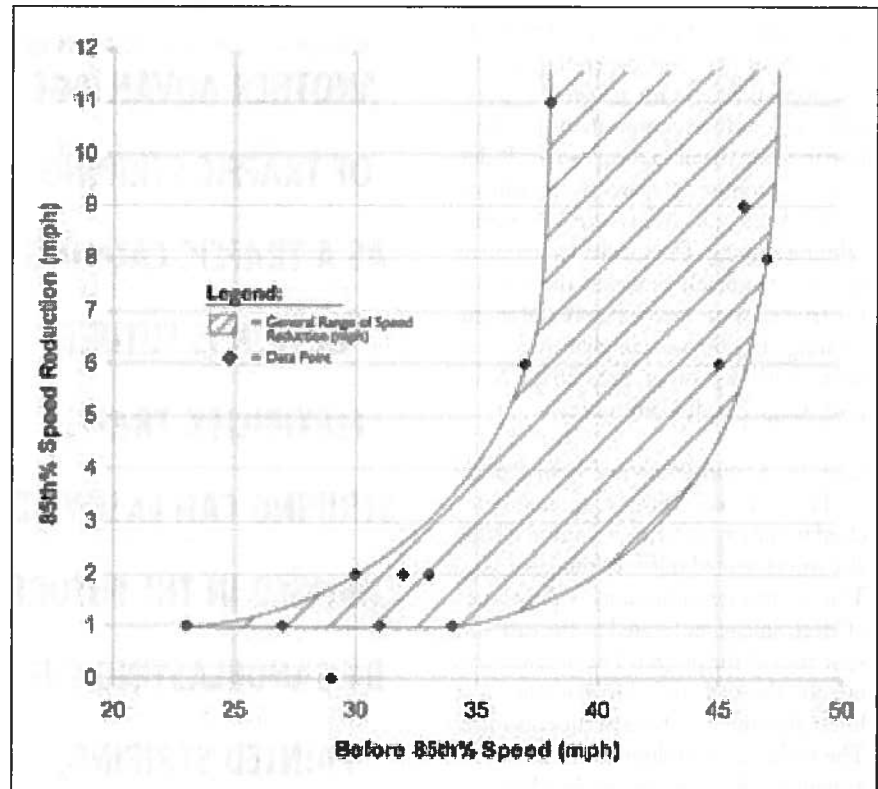


Figure 5. Speed reduction with traffic calming striping.

devices. Anytime that the vertical or horizontal displacement of the roadway surface occurs, there is a potential for vehicles going out of control, hitting objects, or other actions which could be detrimental to the safety of the driver and passengers of the vehicle. Furthermore, impacts to emergency service vehicles can indirectly affect safety when responding to emergency events.

Generally, traffic calming striping minimizes safety considerations, since they follow standard traffic engineering practices pursuant to the CMUTCD. Drivers are familiar with these types of traffic control features and respond accordingly. This is true not only for local residents who are familiar with the traffic calming implemented in an area but also for drivers from outside the area that are unfamiliar with the traffic calming installations.

Speed humps do reduce vehicle speed if properly designed and when adequate signage/pavement markings are provided. Speed humps can have an adverse affect on safety—but only if drivers ignore them and if reduced speeds do not occur. Speed humps can also reduce travel times for

emergency service vehicles, which have an indirect impact on safety.

Speed cushions have a similar effect on safety as speed humps. However, they can be traversed better by larger vehicles, including emergency service vehicles, which can travel through the speed cushions at a normal speed as opposed to a typical speed hump. This is a major advantage of speed cushions over speed humps.

Chokers can affect safety if they are hit by vehicles. Proper signage and pavement markers are necessary to ensure that this does not occur. Chokers can improve safety for pedestrians by providing a shorter walking distance for crosswalks. Chicanes, similar to chokers, can have a safety impact if a vehicle strikes them while traversing through the traffic calming device area. Implementation of sharp curb-width transitions can result in vehicle collision with the curb, causing vehicle damage and possible out-of-control vehicle operations.

Medians have been shown to improve safety by separating the direction of travel of vehicles. However, when implemented in only selective areas, vehicles can hit the ends of medians, causing damage to the



**Table 2. Comparison of traffic calming devices.**

Traffic Calming Technique	Pros	Cons	Speed Reduction (mph)	Cost <sup>2</sup>
Speed Hump	<ul style="list-style-type: none"> <li>Effectively reduces speed by approximately 8 mph.</li> <li>Can cause some diversion of excess traffic volumes.</li> </ul>	<ul style="list-style-type: none"> <li>Not accepted by many local jurisdictions and emergency service agencies.</li> <li>Improper driving can cause vehicle damage and can cause vehicles to go out of control.</li> <li>Moderate cost considerations.</li> <li>Can impact bicycles/motorcycles.</li> <li>Difficult to remove.</li> </ul>	8	\$1,500 to \$3,000
Speed Cushion	<ul style="list-style-type: none"> <li>Effective in reducing speeds up to 5 miles per hour.</li> <li>More acceptable to public agencies / emergency service agencies, because can slow normal size vehicles but allows larger emergency vehicles to pass without speed reductions.</li> </ul>	<ul style="list-style-type: none"> <li>Some agencies and emergency service agencies do not support these devices.</li> <li>Cost for construction is moderate.</li> <li>Difficult to remove.</li> <li>May impact bicycles/motorcycles.</li> </ul>	5	\$2,500 to \$3,500
Chokers and Chicanes	<ul style="list-style-type: none"> <li>Effectively reduces traffic speeds approximately 3 miles per hour.</li> <li>Can reduce roadway width to reduce walking distance for pedestrian (which is a safety benefit).</li> <li>Can be enhanced with landscaping to improve aesthetics.</li> </ul>	<ul style="list-style-type: none"> <li>Expensive to implement.</li> <li>Can cause drainage issues.</li> <li>Difficult to remove in the future if not effective.</li> <li>Some loss of parking.</li> <li>Can impact bicycles.</li> </ul>	3-5 Up to 6	\$7,000- \$15,000 per pair \$10,000- \$15,000
Medians	<ul style="list-style-type: none"> <li>Can reduce speeds to some degree.</li> <li>Can provide aesthetic benefits to the community.</li> </ul>	<ul style="list-style-type: none"> <li>Costly to implement.</li> <li>Difficult to remove if not successful.</li> <li>Can cause additional maintenance costs.</li> <li>Water overall on pavement.</li> <li>May lose parking.</li> </ul>	2-3	\$5,000- \$15,000
Pavement Texture	<ul style="list-style-type: none"> <li>Can cause minor reduction in speed.</li> <li>Can be aesthetically pleasing.</li> <li>Can be tied into crosswalks or intersections to define channelized areas for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>Costly to implement.</li> <li>Difficult to remove.</li> <li>Can effect some types of pedestrians crossing the street.</li> <li>Can cause noise impacts.</li> </ul>	Limited data	\$5-\$16 per sq. ft.
Mini Traffic Circles	<ul style="list-style-type: none"> <li>Minor reduction in speed.</li> <li>Improves aesthetics.</li> <li>Slows traffic through the intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Costly to implement.</li> <li>Can confuse drivers regarding which way to travel through an intersection.</li> <li>May affect bicycles and pedestrians.</li> <li>Can impact left turns for large vehicles.</li> <li>Can slow emergency service vehicles.</li> </ul>	4-6	\$10,000- \$60,000
Traffic Calming Striping	<ul style="list-style-type: none"> <li>Effective in reducing speeds from 1 to 7+ miles per hour.</li> <li>Accepted by many public agencies and emergency service agencies because they are standard traffic control.</li> <li>Easy to change if required in the future.</li> <li>Less costly option to install</li> <li>Installation can be implemented quickly.</li> <li>Can be removed more easily than other options (sand blast).</li> </ul>	<ul style="list-style-type: none"> <li>Some limitations in speed reduction.</li> <li>Less effective when speeds are already low.</li> </ul>	1-7 +	\$500- \$1,000 per 500-feet

vehicles, driver/passenger, and can also cause vehicles to go out of control. If medians are not properly designed, they can cause water to flow into the pavement. This can cause pavement deterioration and loss of control of vehicles.

Pavement texture has limited impact on safety, although vehicles can possibly lose traction, depending on the type of texture during wet conditions. Pedestrians crossing on pavement texture can trip or slip depending on the pavement type and condition. In addition, pedestrians (especially children) may not see the textured pavement as a part of the "street," which make them less aware of traffic.

Mini traffic circles can cause vehicles to hit the curbs or cause other accidents. Also, if such traffic circles are not properly designed, trucks can have a difficult time navigating the intersection and could hit objects in the roadway.

Traffic calming striping generally has a positive impact from a traffic safety standpoint. Traffic calming striping should be implemented pursuant to the CMUTCD requirements with respect to location, type, and placement of the striping. Where used as transitions, striping should be properly designed based upon the operating speed of the vehicles on that segment roadway.

## COMMUNITY ACCEPTANCE

The community acceptance of any traffic calming measure is critical in long-term implementation and effectiveness. The vast majority of the professional literature indicates that at least two-thirds of the community must support the traffic calming techniques in order for them to be implemented within the community.

In many cases, vertical and horizontal displacement of traffic calming devices are heavily resisted by the local community and driving public. This is one of the major advantages of traffic calming striping, since it is readily acceptable to the local community because it is already implemented on most roadways throughout communities. Traffic calming striping is understood by the driving public throughout local communities. It causes little damage to vehicles and drivers/pedestrians of the community. It does not adversely effect the operation of vehicles for emergency service agencies. Traffic

calming striping is not permanent and can easily be changed if required in the future. As a result of this, traffic calming striping can be less controversial than more restrictive devices.

## CONCLUSIONS

RK Engineering Group, Inc. has completed a review of traffic calming striping as an alternative to vertical or horizontal displacement traffic calming devices such as speed humps, speed cushions, chokers, medians, pavement textures, and other roadway design features. Traffic calming striping has been shown to reduce speeds effectively as a first step of a traffic calming process. Striping is a low-cost traffic calming solution that can have major benefits to the community compared to other vertical/horizontal displacement traffic calming devices, yet still provides substantial benefits in terms of reducing traffic speeds on the roadways.

In conclusion, traffic calming striping is an effective measure in a traffic/transportation engineer's toolbox of traffic calming devices. These roadway striping techniques follow standard design practice, which reduces future tort liability. Traffic striping is a cost-effective and efficient traffic calming method that can be implemented quickly to reduce speeds on roadways. ■

### Resources for further information

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