CITY OF BETHLEHEM

Department of Community and Economic Development

Interoffice Memo

TO: J. William Reynolds, City Council President

FROM: Darlene Heller, Director of Planning and Zoning

RE: 2018 – 2022 Capital Improvement Program

Attached is the draft Capital Improvement Program for the years 2018 through 2022.

The Planning Commission voted unanimously to recommend approval of the Capital Plan to City Council at its September 25, 2017 meeting.

Please schedule the Plan for City Council Review at an upcoming meeting.

DATE: September 26, 2017

Darlene L. Heller, AICP
Director of Planning and Zoning

cc: Mayor Donchez
City Council Members
City Clerk
D. Brong
M. Sivak
Department Heads
M. Dorner
J. Persa

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
SUMMARY SHEET
(2018-2022)

FUNDING	2018	2019	2020	2021	2022	TOTALS
BOND (2013)	314,700	-	-	-	-	314,700
BOND (2015)	292,200	-	-	-	-	292,200
BOND (2017)	3,604,644	460,000	-	460,000	-	4,524,644
BOND	-	9,849,336	-	8,460,000	-	18,309,336
CDBG (2016)	37,500	-	-	-	-	37,500
CDBG (2017)	246,616	-	-	-	-	246,616
CDBG (2018)	500,000	475,000	375,000	532,000	429,000	2,311,000
FEDERAL	600,000	700,000	1,100,000	1,200,000	-	3,600,000
STATE	962,500	-	-	-	-	962,500
FEMA GRANT	285,000	-	-	-	-	285,000
LIQUID FUELS	1,768,704	883,000	1,066,000	350,000	360,000	4,427,704
OTHER	1,036,250	1,646,362	1,385,000	2,913,181	2,485,000	
TOTALS	**$ 9,648,114**	**$ 14,013,698**	**$ 3,926,000**	**$ 13,915,181**	**$ 3,274,000**	**$ 44,776,993**

SPENDING SCHEDULE	2018	2019	2020	2021	2022	TOTAL
	9,423,114	11,013,017	7,001,681	10,532,681	6,806,500	$ 44,776,993

LAST REVISED 09/26/17

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE 2018-2022
PUBLIC SAFETY

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Ambulance Replacement/Remount Plan	SPENDING SCHEDULE	135,000	135,000	135,000	135,000	135,000	675,000
	FUNDING						
	BOND	-	135,000	-	135,000		270,000
	OTHER	135,000	-	135,000	-	135,000	405,000
2. Fire Apparatus Replacement Plan Ladder Truck Aerial Tower	SPENDING SCHEDULE	297,183	-	-	-	-	297,183
	FUNDING						
	BOND 2017	297,183	-	-	-	-	297,183
3. Fire Apparatus Replacement Plan - Quint Ladder Truck	SPENDING SCHEDULE	-	363,181	363,181	363,181		1,089,543
	FUNDING						
	OTHER	-	726,362	-	363,181	-	1,089,543
4. Fire Apparatus Replacement Plan - Rescue Engine Replacement	SPENDING SCHEDULE	-	165,000	165,000	165,000	165,000	660,000
	FUNDING						
	BOND	-	330,000	-	330,000	-	660,000
5. Self-Contained Breathing Apparatus Replacement Plan	SPENDING SCHEDULE	580,967	100,000	-	-	-	680,967
	FUNDING						
	BOND	-	100,000	-	-	-	100,000
	BOND 2017	295,967	-	-	-	-	295,967
	FEMA GRANT	285,000	-	-	-	-	285,000
6. Body Cameras	SPENDING SCHEDULE	-	40,000	35,000	40,000	35,000	150,000
	FUNDING						
	BOND	-	75,000	-	75,000	-	150,000
	BOND 2017	-	-	-	-	-	-
7. Fire Apparatus Replacement Plan- Engine Replacement #1	SPENDING SCHEDULE	-	145,000	145,000	145,000	145,000	580,000
	FUNDING						
	BOND	-	290,000	-	290,000	-	580,000
8. Fire Apparatus Replacement Plan- Engine Replacement #2	SPENDING SCHEDULE	-	-	-	145,000	145,000	290,000
	FUNDING						
	BOND	-	-	-	290,000	-	290,000

PUBLIC SAFETY		2018	2019	2020	2021	2022	TOTAL
	SPENDING SCHEDULE	1,013,150	948,181	843,181	993,181	625,000	4,422,693
	FUNDING						
	BOND	-	930,000	-	1,120,000	-	2,050,000
	BOND 2017	593,150	-	-	-	-	593,150
	OTHER	135,000	726,362	135,000	363,181	135,000	1,494,543
	FEMA GRANT	285,000	-	-	-	-	285,000
	TOTALS	1,013,150	1,656,362	135,000	1,483,181	135,000	4,422,693

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - TRAFFIC

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. TR/Isolated Intersections	SPENDING SCHEDULE	388,896	320,000	40,000	320,000	40,000	1,108,896
	FUNDING						
	BOND (2017)	388,896	360,000	-	360,000	-	1,108,896
2. TR/Traffic Safety Imprv.	SPENDING SCHEDULE	70,000	50,000	50,000	50,000	50,000	270,000
	FUNDING						
	BOND (2017)	70,000	100,000	-	100,000	-	270,000
3. Route 412 Lighting Upgrade	SPENDING SCHEDULE	-	150,000	-	-	-	150,000
	FUNDING						
	BOND	-	150,000	-	-	-	150,000
PUBLIC WORKS -TRAFFIC		**2018**	**2019**	**2020**	**2021**	**2022**	**TOTAL**
	SPENDING SCHEDULE	458,896	520,000	90,000	370,000	90,000	1,528,896
	FUNDING						
	BOND	-	150,000	-	-	-	150,000
	BOND (2017)	458,896	460,000	-	460,000	-	1,378,896
	TOTALS	458,896	610,000	-	460,000	-	1,528,896

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - STREETS

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Carlton Avenue	SPENDING SCHEDULE	265,000	265,000	265,000	-	-	795,000
Broadway to Summit St.	FUNDING						
	CDBG	265,000	265,000	265,000	-	-	795,000
2. West Garrison Street	SPENDING SCHEDULE	75,000	-	-	-	-	75,000
Main Street to N. New Street	FUNDING						
	BOND (2017)	75,000	-	-	-	-	75,000
3. City Hall Complex Parking	SPENDING SCHEDULE	140,000	-	-	-	-	140,000
Lay-bys Reconstruction	FUNDING						
Phase III	BOND (2017)	140,000	-	-	-	-	140,000
4. New Street - 3rd to 4th Streets	SPENDING SCHEDULE	80,000	-	-	-	-	80,000
(Turnback project)	FUNDING						
	OTHER	80,000	-	-	-	-	80,000
5. Public Works Engineering	SPENDING SCHEDULE	10,000	10,000	10,000	10,000	10,000	50,000
Costs for CDBG Eligible	FUNDING						
Street Projects	CDBG	10,000	10,000	10,000	10,000	10,000	50,000
6. West Broad Street	SPENDING SCHEDULE	-	50,000	-	-	-	50,000
(Mangan Street west to old Coke	FUNDING						
Plant-curb and sidewalk)	OTHER	-	50,000	-	-	-	50,000
7. Fourth Avenue	SPENDING SCHEDULE	-	-	50,000	-	-	50,000
Prospect Ave. to Kichline St.	FUNDING						
	OTHER	-		50,000	-	-	50,000
8. Lehigh Way	SPENDING SCHEDULE	60,000	-	-	-	-	60,000
	FUNDING						
	BOND (2017)	60,000	-	-	-	-	60,000
9. West Packer Ave	SPENDING SCHEDULE	-	-	-	322,000	-	322,000
Montclair Ave to Brodhead Ave	FUNDING						
	CDBG	-	-	-	322,000	-	322,000

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
10. West Packer Ave Carlton to Montclair	SPENDING SCHEDULE	-	-	-	-	219,000	219,000
	FUNDING						
	CDBG	-	-	-		219,000	219,000
11. Street Overlay Program	SPENDING SCHEDULE	1,321,168	740,000	950,000	1,050,000	1,060,000	5,121,168
	FUNDING						
	BOND	-	1,000,000	-	1,400,000		2,400,000
	BOND (2017)	474,135	-	-	-	-	474,135
	CDBG (2017)	101,179	-	-	-	-	101,179
	CDBG (2018)	25,000	-	-	-	-	25,000
	LIQUID FUELS	720,854	340,000	350,000	350,000	360,000	2,120,854
12. Streets Mack Heavy Duty Medium Dump Truck	SPENDING SCHEDULE	-	195,000	-	-	-	195,000
	FUNDING						
	BOND	-	195,000	-	-	-	195,000
	LIQUID FUELS	-	-	-	-	-	-
13. Streets Leaf Loaders ODB Extreme Vac-Model SCL65TM5	SPENDING SCHEDULE	-	76,000	76,000	-	-	152,000
	FUNDING					-	
	BOND	-	76,000	-	-	-	76,000
	LIQUID FUELS	-	-	76,000	-	-	76,000
14. Caterpillar Model 930M Wheel Loader	SPENDING SCHEDULE	-	-	-	195,000	-	195,000
	FUNDING						
	BOND	-	-	-	195,000	-	195,000
15. John Deere Model 624K Wheel Loader	SPENDING SCHEDULE	-	230,000	-	-	-	230,000
	FUNDING						
	BOND	-	230,000	-	-	-	230,000
16. GMC Pickup Trucks	SPENDING SCHEDULE	70,000	73,000	-	-	-	143,000
	FUNDING						
	LIQUID FUELS	70,000	73,000	-	-	-	143,000
17. GMC Small Dump Truck	SPENDING SCHEDULE	120,000	-	-	-	-	120,000
	FUNDING						
	LIQUID FUELS	120,000	-	-	-	-	120,000

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
18. 2018 P385B Weiler Track Asphalt Paver	SPENDING SCHEDULE	212,000	-	-	-	-	212,000
	FUNDING						
	LIQUID FUELS	212,000	-	-	-	-	212,000
19. Elgin Pelican Broom Sweepers	SPENDING SCHEDULE	-	230,000	240,000	-	-	470,000
	FUNDING						
	LIQUID FUELS	-	230,000	240,000	-	-	470,000
20. Kodiak Model LMSSC3036 Snow Blower for 624K Wheel Loader	SPENDING SCHEDULE	-	165,000	-	-	-	165,000
	FUNDING						
	BOND	-	165,000	-	-	-	165,000
21. Aqua Tech B-10 Vac Truck	SPENDING SCHEDULE	-	303,336	-	-	-	303,336
	FUNDING						
	BOND	-	303,336	-	-	-	303,336
PUBLIC WORKS - STREETS		**2018**	**2019**	**2020**	**2021**	**2022**	**TOTAL**
	SPENDING SCHEDULE	2,353,168	2,337,336	1,591,000	1,577,000	1,289,000	9,147,504
	FUNDING						
	BOND	-	1,969,336	-	1,595,000	-	3,564,336
	BOND (2017)	749,135	-	-	-	-	749,135
	CDBG (2017)	101,179	-	-	-	-	101,179
	CDBG (2018)	300,000	275,000	275,000	332,000	229,000	1,411,000
	OTHER	80,000	50,000	50,000	-	-	180,000
	LIQUID FUELS	1,122,854	643,000	666,000	350,000	360,000	3,141,854
	TOTALS	2,353,168	2,937,336	991,000	2,277,000	589,000	9,147,504

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - STORM SEWERS

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. West Broad St	SPENDING SCHEDULE	200,000	-	-	-	-	200,000
1st Ave to 2nd Ave	FUNDING						
	LIQUID FUELS	200,000	-	-	-	-	200,000
2. West Laurel Street to	SPENDING SCHEDULE	225,000	-	-	-	-	225,000
the Monocacy Creek	FUNDING						
	LIQUID FUELS	78,750	-	-	-	-	78,750
	OTHER (MORAV COL)	146,250	-	-	-	-	146,250
3. Linden Street Storm	SPENDING SCHEDULE	229,000	-	-	-	-	229,000
Sewer Upgrade/Repl.	FUNDING						
	LIQUID FUELS	33,100	-	-	-	-	33,100
	BOND (2013)	34,700	-	-	-	-	34,700
	BOND (2015)	161,200	-	-	-	-	161,200
4. Standford Rd - Storm Sewer Extension	SPENDING SCHEDULE	100,000	-	-	-	-	100,000
	FUNDING						
	LIQUID FUELS	100,000	-	-	-	-	100,000
5. East Boulevard	SPENDING SCHEDULE	234,000	-	-	-	-	234,000
Boyd Street Southwardly	FUNDING						
to Landsdale Avenue	LIQUID FUELS	234,000	-	-	-	-	234,000
6. Old Brick Sewer on Broadway -	SPENDING SCHEDULE	-	-	200,000	-	-	200,000
Jischke St to 3rd St	FUNDING						
	LIQUID FUELS	-	-	200,000	-	-	200,000
7. Millside Drive & Traveller Avenue -	SPENDING SCHEDULE	-	120,000	-	-	-	120,000
Drainage Improvements	FUNDING						
	LIQUID FUELS	-	120,000	-	-	-	120,000
8. Stefko Drainage Swale	SPENDING SCHEDULE	-	-	1,000,000	250,000	-	1,250,000
	FUNDING						
	LIQUID FUELS	-	-	200,000	-	-	200,000
	OTHER	-	-	800,000	250,000	-	1,050,000
9. West Goepp Street -	SPENDING SCHEDULE	-	-	250,000	-	-	250,000
Masslich Street to New Street	FUNDING						
	OTHER	-	-	250,000	-	-	250,000
10. Fifth Street - Buchanan to	SPENDING SCHEDULE	-	220,000	-	-	-	220,000
Fillmore Street	FUNDING						
	OTHER	-	220,000	-		-	220,000
11. Creek Road Culvert Repl.	SPENDING SCHEDULE	-	-	-	-	200,000	200,000
	FUNDING						
	OTHER	-	-	-	-	200,000	200,000
12. Johnston Drive	SPENDING SCHEDULE	-	-	-	-	1,000,000	1,000,000
Swale Improvements	FUNDING						
	OTHER	-	-	-	-	1,000,000	1,000,000

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
13. Easton Ave to Stefko Blvd Storm Sewer System upgrades - various locations Phase I&II	SPENDING SCHEDULE	-	-	-	1,900,000	1,000,000	2,900,000
	FUNDING						
	OTHER	-	-	-	1,900,000	1,000,000	2,900,000
14. Miscellaneous Drainage Structures	SPENDING SCHEDULE	118,650	87,500	87,500	87,500	87,500	468,650
	FUNDING						
	BOND (2017)	118,650	-	-	-	-	118,650
	BOND	-	175,000	-	175,000	-	350,000
15. W. North Street Storm Sewer Replacement	SPENDING SCHEDULE	-	120,000	-	-	-	120,000
	FUNDING						
	LIQUID FUELS	-	120,000	-	-	-	120,000
PUBLIC WORKS - STORM SEWERS		**2018**	**2019**	**2020**	**2021**	**2022**	**TOTAL**
	SPENDING SCHEDULE	1,106,650	547,500	1,537,500	2,237,500	2,287,500	7,716,650
	FUNDING						
	BOND	-	175,000	-	175,000	-	350,000
	BOND (2013)	34,700	-	-	-	-	34,700
	BOND (2015)	161,200	-	-	-	-	161,200
	BOND (2017)	118,650	-	-	-	-	118,650
	LIQUID FUELS	645,850	240,000	400,000	-	-	1,285,850
	OTHER	146,250	220,000	1,050,000	2,150,000	2,200,000	5,766,250
	TOTALS	1,106,650	635,000	1,450,000	2,325,000	2,200,000	7,716,650

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - FACILITIES

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Facilities Capital Improvement	SPENDING SCHEDULE	-	400,000	400,000	400,000	400,000	1,600,000
	FUNDING						
	BOND	-	800,000	-	800,000	-	1,600,000
2. Rodgers Street Maintenance Facility Replacement	SPENDING SCHEDULE	-	-	-	350,000	350,000	700,000
	FUNDING						
	BOND	-	-	-	700,000	-	700,000
3. City Emergency Service Facility	SPENDING SCHEDULE	-	40,000	160,000	-	-	200,000
	FUNDING						
	BOND	-	200,000	-	-	-	200,000
4. City Center Improvements	SPENDING SCHEDULE	162,102	200,000	200,000	400,000	350,000	1,312,102
	FUNDING						
	BOND	-	400,000	-	750,000	-	1,150,000
	BOND (2017)	162,102	-	-	-	-	162,102
5. Fan Coil Replacements	SPENDING SCHEDULE	-	180,000	-	-	-	180,000
	FUNDING						
	BOND	-	180,000	-	-	-	180,000
6. Chiller Replacement	SPENDING SCHEDULE	-	180,000	-	-	-	180,000
	FUNDING						
	BOND	-	180,000	-	-	-	180,000
7. City Hall Plaza Drainage Pipe Replacement	SPENDING SCHEDULE	-	-	-	100,000	-	100,000
	FUNDING						
	BOND	-	-	-	100,000	-	100,000
8. Superior Boiler Replacement	SPENDING SCHEDULE	-	-	-	200,000	-	200,000
	FUNDING						-
	BOND	-	-	-	200,000	-	200,000
9. Police Forensics and DUI Area Heat Pump System	SPENDING SCHEDULE	-	80,000	-	-	-	80,000
	FUNDING						-
	BOND	-	80,000	-	-	-	80,000
10. Library Exterior Column Repair	SPENDING SCHEDULE	-	400,000	-	400,000	-	800,000
	FUNDING						
	BOND	-	400,000	-	400,000	-	800,000
11. City Hall Garage Structural Concrete Repair	SPENDING SCHEDULE	-	200,000	-	-	-	200,000
	FUNDING						
	BOND	-	200,000	-	-	-	200,000
12. City Hall Garage Floor Repair	SPENDING SCHEDULE	-	200,000	200,000	200,000	200,000	800,000
	FUNDING						
	BOND	-	400,000	-	400,000	-	800,000
13. Domestic Water Tank Repl.	SPENDING SCHEDULE	-	110,000	-	-	-	110,000
	FUNDING						
	BOND	-	110,000	-	-	-	110,000

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
14. Fire House Improvements	SPENDING SCHEDULE	60,000	50,000	40,000	40,000	50,000	240,000
	FUNDING						
	BOND (2017)	60,000	-	-	-	-	60,000
	BOND	-	90,000	-	90,000	-	180,000
15. Roof/Safety/Code Requirements	SPENDING SCHEDULE	50,000	120,000	120,000	120,000	120,000	530,000
	FUNDING						
	BOND (2017)	50,000	-	-	-	-	50,000
	BOND	-	240,000	-	240,000	-	480,000
PUBLIC WORKS - FACILITIES		**2018**	**2019**	**2020**	**2021**	**2022**	**TOTAL**
	SPENDING SCHEDULE	272,102	2,160,000	1,120,000	2,210,000	1,470,000	7,232,102
	BOND (2017)	272,102	-	-	-	-	272,102
	BOND	-	3,280,000	-	3,680,000	-	6,960,000
	TOTALS	272,102	3,280,000	-	3,680,000	-	7,232,102

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - GROUNDS

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Grounds Capital Improvements	SPENDING SCHEDULE	301,148	175,000	175,000	175,000	175,000	1,001,148
	FUNDING						
	BOND	-	150,000	-	150,000	-	300,000
	BOND (2017)	55,711	-	-	-	-	55,711
	CDBG (2013-2017)	145,437	-	-	-	-	145,437
	CDBG (2018)	100,000	100,000	100,000	100,000	100,000	500,000
2. Greenway/Saucon Park Ballfield Connections	SPENDING SCHEDULE	880,000	-	-	-	-	880,000
	FUNDING						
	STATE	450,000	-	-	-	-	450,000
	BOND (2013)	280,000	-	-	-	-	280,000
	OTHER	150,000	-	-	-	-	150,000
3. Vehicle/Equipment Acquisition/Replacement (Garbage Truck)	SPENDING SCHEDULE	-	-	-	250,000	-	250,000
	FUNDING						
	BOND	-	-	-	250,000	-	250,000
4. Greenway - Plaza Development	SPENDING SCHEDULE	400,000	-	-	-	-	400,000
	FUNDING						
	STATE	200,000	-	-	-	-	200,000
	OTHER	200,000	-	-	-	-	200,000

PUBLIC WORKS - GROUNDS

	2018	2019	2020	2021	2022	TOTAL
SPENDING SCHEDULE	1,581,148	175,000	175,000	425,000	175,000	2,531,148
FUNDING						
BOND (2013)	280,000	-	-	-	-	280,000
BOND (2017)	55,711	-	-	-	-	55,711
BOND	-	150,000	-	400,000	-	550,000
CDBG (2017)	145,437	-	-	-	-	145,437
CDBG (2018)	100,000	100,000	100,000	100,000	100,000	500,000
STATE	650,000	-	-	-	-	650,000
OTHER	350,000	-	-	-	-	350,000
TOTALS	1,581,148	250,000	100,000	500,000	100,000	2,531,148

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
PUBLIC WORKS - OTHER PROJECTS

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Lynn Ave. Bridge	SPENDING SCHEDULE	750,000	-	-	-	-	750,000
	FUNDING						
	CDBG	-	-	-	-	-	-
	CDBG (2016)	37,500	-	-	-	-	37,500
	FEDERAL	600,000	-	-	-	-	600,000
	STATE	112,500	-	-	-	-	112,500
2. W Broad St Lighting 3rd Ave to 5th Ave	SPENDING SCHEDULE	285,000	-	-	-	-	285,000
	FUNDING						
	BOND (2017)	85,000	-	-	-	-	85,000
	STATE	200,000	-	-	-	-	200,000
3. Bridge Repairs	SPENDING SCHEDULE	191,000	70,000	70,000	70,000	70,000	471,000
	FUNDING						
	BOND	-	140,000	-	140,000	-	280,000
	BOND (2015)	51,000	-	-	-	-	51,000
	BOND (2017)	140,000	-	-	-	-	140,000
4. Route 378 Pole Replacement	SPENDING SCHEDULE	-	700,000	400,000		-	1,100,000
	FUNDING						
	BOND	-	-	-	-	-	-
	FED/STATE	-	700,000	400,000	-	-	1,100,000

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
5. Geographic Information System	SPENDING SCHEDULE	80,000	-	-	-	-	80,000
	FUNDING						
	BOND (2015)	80,000	-	-	-	-	80,000
6. Citywide Wayfinding Signage	SPENDING SCHEDULE	100,000	-	-	-	-	100,000
	FUNDING						
	BOND (2017)	100,000	-	-	-	-	100,000
7. Aerial Bucket Truck Electrical Bureau	SPENDING SCHEDULE	-	150,000	-	-	-	150,000
	FUNDING						
	BOND	-	150,000	-	-	-	150,000
8. Service Truck (new) Mechanical Bureau	SPENDING SCHEDULE	-	80,000	-	-	-	80,000
	FUNDING						
	BOND	-	80,000	-	-	-	80,000
9. Mechanical Bureau-Replacement of Garage Doors	SPENDING SCHEDULE	-	75,000	-	-	-	75,000
	FUNDING						
	BOND	-	75,000	-	-	-	75,000
10. Flood Control System	SPENDING SCHEDULE	-	-	600,000	1,200,000	-	1,800,000
	FUNDING						
	FEDERAL	-	-	600,000	1,200,000	-	1,800,000
11. Trunking System Radios	SPENDING SCHEDULE	-	650,000	-	650,000	-	1,300,000
	FUNDING						
	BOND	-	650,000	-	650,000	-	1,300,000

PUBLIC WORKS - OTHER PROJECTS		2018	2019	2020	2021	2022	TOTAL
	SPENDING SCHEDULE	1,406,000	1,725,000	1,070,000	1,920,000	70,000	6,191,000
	BOND (2017)	325,000	-	-	-	-	325,000
	BOND (2015)	131,000	-	-	-	-	131,000
	BOND	-	1,095,000	-	790,000	-	1,885,000
	CDBG (2016)	37,500	-	-	-	-	37,500
	CDBG (2017)	-	-	-	-	-	-
	FEDERAL	600,000	700,000	1,000,000	1,200,000	-	3,500,000
	STATE	312,500	-	-	-	-	312,500
TOTALS		1,406,000	1,795,000	1,000,000	1,990,000	-	6,191,000

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
RECREATION

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. General Pool Improvements	SPENDING SCHEDULE	59,000	50,000	50,000	50,000	50,000	259,000
	FUNDING						
	BOND 2017	59,000	-	-	-	-	59,000
	BOND	-	100,000	-	100,000	-	200,000
2. Municipal Ice Rink	SPENDING SCHEDULE	100,000	100,000	100,000	50,000	50,000	400,000
	FUNDING						
	BOND	-	200,000	-	100,000	-	300,000
	BOND 2017	100,000	-	-	-	-	100,000
3. Memorial Pool Project Complex Improvements	SPENDING SCHEDULE	87,000	2,000,000	-	200,000	200,000	2,487,000
	FUNDING						
	BOND	-	1,500,000	-	-	-	1,500,000
	BOND 2017	87,000	-	-	-	-	87,000
	OTHER	-	500,000	-	400,000	-	900,000
4. Neighborhood Pool Conversion	SPENDING SCHEDULE	-	-	-	100,000	100,000	200,000
	FUNDING						
	BOND	-	-	-	200,000	-	200,000
5. Parks System Master Plan	SPENDING SCHEDULE	176,000	-	-	-	-	176,000
	FUNDING						
	BOND 2017	176,000	-	-	-	-	176,000

RECREATION		2018	2019	2020	2021	2022	TOTAL
	SPENDING SCHEDULE	422,000	2,150,000	150,000	400,000	400,000	3,522,000
	BOND 2017	422,000	-	-	-	-	422,000
	BOND	-	1,800,000	-	400,000	-	2,200,000
	OTHER	-	500,000	-	400,000	-	900,000
	TOTALS	422,000	2,300,000	-	800,000	-	3,522,000

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
ADMINISTRATION

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. IT Improvement Plan	SPENDING SCHEDULE	260,000	-	-	-	-	260,000
	FUNDING						
	BOND (2017)	260,000	-	-	-	-	260,000

ADMINISTRATION		2018	2019	2020	2021	2022	TOTAL
	SPENDING SCHEDULE	260,000	-	-	-	-	260,000
	FUNDING						
	BOND (2017)	260,000	-	-	-	-	260,000
	TOTALS	260,000	-	-	-	-	260,000

CITY OF BETHLEHEM
NON UTILITY CAPITAL IMPROVEMENT PROGRAM
FUNDING/SPENDING SCHEDULE
DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT

PROJECT DESCRIPTION		2018	2019	2020	2021	2022	TOTAL
1. Blighted Property Acquisition	SPENDING SCHEDULE	550,000	450,000	425,000	400,000	400,000	2,225,000
	FUNDING						
	BOND 2017	350,000	-	-	-	-	350,000
	BOND	-	300,000	-	300,000	-	600,000
	CDBG	100,000	100,000	100,000	100,000	100,000	500,000
	OTHER	325,000	150,000	150,000	-	150,000	775,000

C&ED		2018	2019	2020	2021	2022	TOTAL
	SPENDING SCHEDULE	550,000	450,000	425,000	400,000	400,000	2,225,000
	FUNDING						
	BOND 2017	350,000	-	-	-	-	350,000
	BOND	-	300,000	-	300,000	-	600,000
	CDBG	100,000	100,000	100,000	100,000	100,000	500,000
	OTHER	325,000	150,000	150,000	-	150,000	775,000
	TOTALS	775,000	550,000	250,000	400,000	250,000	2,225,000

NON-UTILITY CAPITAL IMPROVEMENT PROGRAM
2018-2022
PROJECT DESCRIPTION
Last revised September 28, 2017

I. PUBLIC SAFETY

1. Ambulance Replacement / Remounting Plan (EMS)

The plan is to replace/remount ambulances as necessary to maintain a fully operational fleet of seven (7) ambulances, minimizing breakdowns and expenses incurred from heavy usage and high mileage. The plan involves the on-going replacement or remounting from BOND, CDBG or other alternate funding sources.
The mechanical bureau will determine which ambulance will need to be replaced / remounted regardless of age based on warranty information, mechanical maintenance records and visual inspections of the fleet at the time of replacement.

2. Fire Apparatus Replacement Plan – Ladder Tower Aerial Truck

The Bethlehem Fire Department purchased a new Ladder Tower Aerial Truck. This vehicle replaced an aging 1997 Sutphen Aerial Tower that has exceeded its useful service life, and was in constant need of repair. The tower was delivered in August of 2016. The manufacturing company is Pierce Fire Apparatus, Ohio. This ladder tower should serve the residents and businesses in the City of Bethlehem for the next 15-20 years. There is one remaining lease payment for 2018.

3. Fire Apparatus Replacement Plan – Quint Ladder Truck

Quint Ladder Truck – Our back-up ladder truck is in need of replacement. By 2019 the existing Quint, Engine #5 will be 23 years old. The new Quint would replace a Quint purchased in 1997 that has 78,000 miles recorded and 8,000 hours of run time. The City garage should be consulted on the life expectancy of this vehicle in the fire fleet. The replacement apparatus would have both a ladder and fire pump which can serve dual roles within the department. By having a fire pump with the ladder, the need for a second vehicle to feed water to the unit is not necessary. With the development of the 412corridor, the need for aerial capabilities is becoming more paramount. The total cost of the vehicle is $1,027,002 that could be spaced over 5 years.

4. Fire Apparatus Replacement Plan – Rescue Engine Replacement

Rescue Engine Replacement – Our current Rescue Engine #6 will need to be replaced in the next few years. Rescue Engine #6 responds to all fires in every section of the City of Bethlehem and is showing its wear and tear. While this unit was purchased in 2009, there have been numerous problems with the emission systems and motor. As of 2017, there has been $68,000 spent on repairs in the last 5 years to keep the vehicle on the road. At present, there is 42,000 miles logged with 6,800 hours of running time. This engine should be removed from the fleet as a rescue engine due to the reliability issues the department has experienced in the past. The cost of this vehicle is $960,000 that could be spaced over 5 years. Consideration should be taken into refurbishing the motor and emission control systems to keep this vehicle as a reserve piece of apparatus when on the of the front line pieces is out of service.

5. Self-Contained Breathing Apparatus

The Bethlehem Fire Department is in the second phase of replacing outdated SCBA that has met the end of its service life. In 2017 all fire department SCBA will be

replaced with new equipment that meet the current NFPA requirements in addition to the filling system. As part of our SCBA program, the Bethlehem Police Department has several packs that are coming to the end of their service life. It is essential that the police department air packs be compatible with the fire department SCBA program so that filling empty bottles, fit testing, minor repairs and interagency use of spare bottles does not impede public safety. The primary use of the BPD SCBA would be used for Emergency Response Team operations when individuals pose a threat using chemical or biological hazards. Law enforcement packs are designed with less audible alarms so as to not give away an officers position during an operation unlike the multiple alarms on a fire service pack.

6. **Police Body Cameras**

In the beginning of 2017, the BPD implemented Phrase I of our initiative to update all marked police cruisers with in-car video camera systems and also to initiate a body camera system to be worn by all uniform officers and certain specialized Units. With Phrase I (updating of in-car video systems) to be completed in late fall 2017, we are about to start Phrase II (police body cameras) of this two Phrase approved initiative.

Not a day goes by where someone accuses a police officer of misconduct or excessive force somewhere in the United States. U.S. Department of Justice statistics have proven that the majority of these complaints are unfounded when body cameras were utilized by Officers. Thousands of dollars in potential liability has been saved by municipalities.

Currently BPD has no body cameras. This proposal is for funds to support the purchase of body cameras for BPD Officers. This proposal would cover the purchase of 150 body cameras. The budgeted strength of BPD is 154 officers. With the purchase of these body cameras, we should be able to outfit all BPD uniform officers and some others. These cameras would greatly enhance policing in this city and also bring BPD up to modern DOJ standards that are being recommended for all departments across the country.

The average price of a body cameras ranges from $500 to $1000 each. Some are more. Some are less. Testing and analysis would be done by the department to ascertain the best camera that fits our needs. This proposal is for $175,000.00 over a five year period.

Total cost $150,000.00 over 5 years.
Secure Server for Data Storage - $25,000.00

TOTAL $175,000.00

7. **Fire Apparatus Replacement Plan – Engine Replacement #1**

Engine Replacement – The Fire Department's fleet of front line equipment is getting older and is starting to show its age through wear and tear. By 2019 two of these vehicles will have reached the 19 year mark as both were purchased in 2000 and need to be considered for replacement. This line item is the first of these two vehicles. These engines would not be removed from the fleet, but be put into reserve status to replace 1997 Engines in reserve status that are used when equipment is down or put

into service during multi alarm events. The cost of these vehicles and the two in items 3 and 4 could be considered for leasing with the cost spread over three or four years.

8. **Fire Apparatus Replacement Plan – Engine Replacement #2**

Engine Replacement – The Fire Department's fleet of front line equipment is getting older and is starting to show its age through wear and tear. By 2019 two of these vehicles will have reached the 19 year mark as both were purchased in 2000 and need to be considered for replacement. This line item is the first of these two vehicles. These engines would not be removed from the fleet, but be put into reserve status to replace 1997 Engines in reserve status that are used when equipment is down or put into service during multi alarm events. The cost of these vehicles and the two in items 3 and 4 could be considered for leasing with the cost spread over three or four years. This is the second of these two vehicles.

II. PUBLIC WORKS

A. TRAFFIC

1. **TR/Isolated Intersections**
Install new or upgrade existing signals at various locations. Each intersection costs between $150,000 and $180,000. Proposed potential new signal locations include East Boulevard & Linden Street, Butztown Road & Easton Avenue, Linden Street & Elmhurst Avenue, and Third Avenue & Union Boulevard. Needed upgrade locations include Goepp and Center Streets, Goepp and New Streets, Goepp and Main Streets, Broad and Linden Streets, Market and Center Streets, Market and New Streets, Center and Church Streets and Linden and Goepp Streets. Design and construction of the new traffic signals at the intersections of Broad & Main Streets and Broad & Center Streets (Broad & Linden was replaced with Broad & Main which delayed design and permitting completion in 2017) will be completed in 2018 at an estimated cost of $160,000 each for construction and $40,000 for design. Design work for the new traffic signals at the intersections of Linden & Goepp Streets and Main & Goepp Streets will be completed in 2018 if funding is available.

2. **TR/Traffic Safety Improvements**
Replacement of outdated traffic controllers and cabinets at various locations for our 128 signalized intersections and flashers. Purchase of uninterrupted power supply units (UPS) and video detection cameras to replace damaged or broken in-roadway traffic loop detection is also budgeted under this item.

3. **Route 412 Street Lighting Upgrade**
The City continues to undergo complete transition from HPS cobra head fixtures to LED, including decorative lighting. This project is to replace the existing 116 High Pressure Sodium lamps with energy efficient LED lamps. This was proposed during the construction of the Route 412 project as a change order to be paid for by the Project or by the City, but PennDOT did not agree. We now own the system and have the opportunity to make the change. The City will start recouping the annual savings of 60% on our energy bill, which will offset the cost of the upgrade over the next few years. The total cost is estimated at $150,000.00 for materials and labor.

III. STREETS

1. **Carlton Avenue - Broadway to Summit Street**
Remove and reconstruct curb, sidewalk, and road reconstruction due to extensive water

and sewer upgrades. Remove existing and plant new street trees. Water and sewer replacement was completed in 2016. This project is planned in three (3) phases.

2. **West Garrison Street Reconstruction – Main Street to N. New Street**
Reconstruction of W. Garrison Street to alleviate crowning and badly settled gutter flowlines on this concrete surface road. Fix numerous utility trenches, mill and overlay and replace water service lines. Water service line work will be budgeted separately. Design and bid completed in 2017 with construction in 2017 & 2018.

3. **City Hall Complex Parking Lay-bys Reconstruction (Phase III)**
Reconstruction of deteriorated Granite block Lay-bys on New Street (east side of City Center). This project was done in phases. The final phase was projected to occur in 2017 but only received one bid which was too high. Project will be re-bid and construction will take place in 2018.

4. **New Street – Third Street to Fourth Street**
This project is for improvements to this section of roadway in connection with a turnback to the city from Penn DOT. In exchange for the turnback, the city received payment for the repairs/improvements needed to bring the road up to acceptable condition. The work would include mill and overlay, trench and base repair, upgraded curb ramps, and new pavement markings. This work has been postponed due to ongoing construction and excavation by the ongoing development along New Street.

5. **Public Works Engineering Costs for CDBG Eligible Street Projects**
Design costs/fees for street reconstruction projects.

6. **West Broad Street – Mangan Street west to Old Coke Plant**
Replace curb and sidewalk and plant trees.

7. **Fourth Avenue – Prospect Avenue to Kichline Street**
Replace curb and sidewalks. Remove and replace street trees.

8. **Lehigh Way**
This project is for reconstruction of portions of Lehigh Way to address long standing drainage issues. Design and bidding completed in 2017 with construction in 2017 & 2018.

9. **West Packer Avenue – Montclair to Brodhead Avenue**
Remove and reconstruct curb, sidewalk, overlay and water service lines. Remove and plant new street trees. Water service lines and tree work budgeted separately. Road was repaved in 2011 due to heavily deteriorated conditions and hence the sidewalk work will be postponed to the later years due to that and budget constraints.

10. **West Packer Avenue – Carlton Avenue to Montclair Avenue**
Replace curb, sidewalks, overlay, and renew water service lines. Water service lines work budgeted separately. Road was repaved in 2011 due to heavily deteriorated conditions and hence the sidewalk work will be postponed to the later years due to that and continued budget constraints.

11. **Street Overlay Program**
Overlay various streets throughout the City in accordance with our road management program. Proper upkeep/maintenance of the City's 260 miles plus of roadway would require well over $2,000,000 in annual expenditures. CDBG funding includes ADA curb ramps.

12. **Streets Mack Heavy Duty Medium Dump Truck**
This is to replace Unit #196, a 2001 Chevy dump truck that is used for plowing, pulling leaf loaders, clean up, and assist in the streets paving operation. This truck is in poor condition and needs to be replaced.

13. **Streets Leaf Loaders – ODB Extreme Vac Model SCL65TMS**
This is a plan for the periodic replacement of our leaf loaders as needed based on their age and condition. The current cost estimate of each loader is $76,000. One is currently planned in 2019 to replace a 2000 American loader and one in 2020 to replace a 2005 Giant Vac.

14. **Caterpillar Model 930M Wheel Loader**
This unit would replace Unit #723/2006 CAT front end wheel loader that is used for loading salt into trucks during winter operations, to load fallen trees during storms, and for road construction during our paving operations.

15. **John Deere Model 624K Wheel Loader**
This unit would replace Unit #715/2008 John Deere front end wheel loader that is used for loading salt into trucks during winter operations, to load fallen trees during storms, and for road construction during our paving operations.

16. **GMC Pickup Trucks**
This is to replace Unit #169, a 2002 Chevy pickup used for plowing and road maintenance in 2018, and the second is listed under 2019 to replace Unit #173, a 2006 Chevy pickup.

17. **2018 GMC Small Dump Truck**
This will replace Unit #153/2004 GMC small dump truck used for cleanup and road maintenance work. The existing unit is worn out and in need of replacement.

18. **2018 P385B Weiler Track Asphalt Paver**
This is to replace our 2011 Leeboy 8816B track paver, Unit #729. Over the last three years this unit has not been reliable and needs to be replaced to continue our in-house paving program. The actual money spent will be less than $212,000 due to trade in of current paver and the savings will be reprogrammed in Liquid Fuels when known.

19. **2020 Elgin Pelican Broom Sweepers**
This will replace Unit #717/1998 Elgin street sweeper and Unit #707/2005 Elgin street sweeper that are used to clean the City's curb lines and sweep streets prior to being paved.

20. **Kodiak Model LMSSC3036 Snow Blower for 624K Wheel Loader**
This is an attachment snow blower for snow removal used to load snow into trucks during our snow removal operations. This would help cut down the cost on getting contractors in to remove snow and make operations more efficient in key areas.

21. **Aqua Tech B-10 Vac Truck**
This is to replace Unit #152, a 2010 Vac-all truck that is undersized. This unit is used to clean out all storm basins throughout the City.

IV. STORM SEWERS

1. **West Broad Street - 1st Ave to 2nd Ave**
This project is for the replacement of an old section of Storm Sewer that frequently clogs requiring significant regular maintenance and backs up causing temporary shallow street flooding. Design and bidding completed in 2017 with construction in 2018.

2. **West Laurel Street to the Monocacy Creek**
This project is for a new storm sewer to connect the existing system at Moravian Hillside Townhouses, along West Laurel Street, along and across Mauch Chunk Road to the Monocacy Creek. The existing system currently discharges to the surface of West Laurel Street and frequently causes flooding by Damper Design. Moravian College has previously committed to pay for the design and 65% of construction costs. Moravian College purchased the Damper Design property in 2016 and this Storm Sewer Improvements project will now be completed in conjunction with the development of that property in 2018.

3. **Linden Street Storm Sewer Upgrade/Replacement**
Replacement of the existing stormwater system providing service to Linden Street between East Boulevard and Santee Mill Road. This system is comprised of the original CMP installed by PennDOT in conjunction with the roadway, which is severely corroded and beginning to collapse in some areas. Since most of this system exists underneath Linden Street, roadway collapse has been a concern and has already occurred in areas along this trunkline. This system will continue to cause problems, specifically reduced service capacity and roadway collapse due to pipe failure, unless addressed and replaced within the next few years. This project will be done in phases due to funding constraints. Phase I will begin on the east side of Linden Street approximately 500' south of East Boulevard and continue north to a point 250' north of East Blvd. Phase II will begin where Phase I ends and cross over to the west side of Linden Street. From there the work continues 1150' north ending at the northwest intersection of Santee Mill Road. Phase I was completed in 2014 and Phase II (final) was designed in-house, permitted, and began in 2017 and will be completed in 2018.

4. **Stanford Road - Storm Sewer Extension**
This project is to extend the storm sewer along Stanford Road west of Ralston Road to drain the low street areas that have ponded water during heavy rain events.

5. **East Boulevard – Boyd Street to Lansdale Avenue**
The storm sewer needs to be extended due to the flooding at the intersection of East Boulevard and Boyd Street.

6. **Old Brick Sewer on Broadway - Jischke to Third Street**
This project is to rehabilitate or repair an old 8-foot diameter brick sewer on Broadway from Jischke Street to Third Street.

7. **Millside Drive & Traveler Avenue - Drainage Improvements**
This project is to replace an undersized and poorly sloped storm sewer from the intersection of Millside Drive and Traveler Avenue to the Saucon Creek. This area (grass and street) frequently backs up during heavy rains.

8. **Stefko Drainage Swale**
This project was originally designed to upgrade the existing drainage channel between Broad Street and Lehigh River to eliminate flooding at the former Bethlehem Steel

Power Plant and to reclaim existing city owned property for future use. Due to changed conditions, this project has been re-evaluated to principally include a possible culvert under Lehigh Canal and selected improvements along the swale to reduce erosion and sediment transport to the river. A Growing Greener grant was received in 2013 for design. Engineering/design was completed in 2016 with planned construction work in 2019 and 2020. Once the design is finalized, we will seek grant funding for the construction.

9. **W. Goepp Street – Masslich Street to New Street**
Upgrade storm water system (inlets and/or main) to address flooding along this street (south side curbline) during heavy rain (anything greater than a 6-month storm). Additional investigations will be performed to identify potential issues with the existing system and we will conduct a detailed H&H study to define the final scope of work.

10. **E. Fifth Street Storm Sewer Replacement**
This project is to replace the existing clay pipe along E. Fifth Street from Buchanan to Fillmore and along Fillmore from Fifth to Packer. The existing clay pipe was installed in the 1950s and video inspection shows the pipe is deteriorating and has holes in the invert. Considering the age of the pipe, continued deterioration is anticipated. The proposed replacement of the system will eliminate the exfiltration and prevent future damage to the road and adjacent utilities.

11. **Creek Road Culvert Replacement**
The Creek Road Culvert project is to replace the existing deteriorated culvert along Creek Road north of Friedensville Road. The culvert has been damaged by repeated flooding and the roadway is often overtopped during storms. In addition, the existing culvert is narrow, allowing only a single lane to cross. The replacement culvert will be sized to allow two lanes of traffic and reduce flooding of the road. The guiderail also needs to be upgraded to meet current safety standards. The culvert replacement project was bid in 2015 but the bids came in significantly above the available funding. We completed repairs to address the most urgent issues, including guiderail and concrete deterioration in 2015/2016, and defer the full replacement of the culvert until 2021 due to the interim improvements.

12. **Johnston Drive Swale Improvement**
Improvement of an open swale south of Johnston Drive from East Boulevard, under Shakespeare Road, to the City/Bethlehem Township line. The City has problems in maintaining this swale, which is often the subject of dumping of debris. Preliminary plans call for enclosure of this swale.

13. **Easton Avenue to Stefko Blvd Storm Sewer Upgrades (Various locations – Phase I and II)**
This project is to replace and upgrade the storm sewer from Easton Avenue, down Barbara Street, Sycamore Street, Walters Street, Minsi Trail Street, and Wallace Street, to Stefko Boulevard and Pembroke Road. The flow then discharges into the Stefko Swale and ultimately into the Lehigh River. In heavy storms there have been drainage issues along this run. Phase I would be the addition of a second pipe in the lower end of the system from Washington Avenue to Stefko Boulevard. Phase II would be collection system improvements to the system from Easton Avenue to Washington Avenue. Estimated costs are very preliminary as they are not yet based on a detailed analysis.

14. **Miscellaneous Drainage Structures**
These funds are used to make repairs to catch basins, headwalls, culverts, pipes, etc. throughout the City's extensive storm sewer system. We will also replace storm sewer at Santee Mill Road ($12,000), and at Keim Street ($65,000). The Santee Mill Road project is for the replacement of a deteriorated section of pipe. The Keim Street project is to extend the storm sewer from Barbara Street to drain Keim Street.

15. **North Street Storm Sewer Replacement**
This project is for the replacement of the existing deteriorated terra cotta storm sewer along North Street between Main and Guetter Streets.

V. PUBLIC WORKS - FACILITIES

1. **Facilities Capital Improvements**
Funding to cover improvements as a result of the comprehensive evaluation as well as already identified needs of City facilities other than City Center improvements which are budgeted separately later on in this plan. Some details and costs yet to be determined. Already identified small capital improvements include Ice House Porch and Steps Replacement, HVAC Replacement at Ice House, DAR House Roof Replacement, and replacement of air handlers, heat exchangers, cooling towers, pumps, pneumatic controls, air filters, condensers and pumps at various facilities.

2. **Rodgers' Street Facility Replacement**
The City's Grounds Maintenance Bureau and Traffic Maintenance Bureau both work out of the facility at Rodgers and Lewis Streets. This is a former Naval Reserve Center built in 1950 and is in poor condition and not suitable or cost effective for the current use. The structure will be demolished and replaced with a new pole barn structure better suited to the City's operations and needs.

3. **City Emergency Services Facility**
This project is the construction of a pole building which would be attached to BFD Company #5 on Easton Avenue. This building would be a storage area for Police, Fire, EMS, Emergency Management supplies, equipment and vehicles. The building would be an "emergency service facility" that would be utilized by all City Emergency Services. Currently, these vehicles are spread all over the City, indoor and outdoor at all times of the year. Having these vehicles in one central location, in a secure indoor facility is instrumental on the wear and tear of the technical equipment in them and also on the life duration of each unit. Attaching the pole building next to a fire station enables a 24 hour security presence. The building would also include an elevated area which would be a joint Fire, Police, EMS and EM training area. This would be a simple classroom style room with two small offices for Fire and Police Specialized Units, i.e.: ERT and EOD Units. With the construction of this building, the City's Emergency Services; Police, Fire, EMS and EM, would be able to consolidate, secure and protect the specialized equipment they utilize in the City. Several vehicles have to stay plugged into a power source when not in use. Currently, some are outside in the weather attached to a power source by extension cords (EX: BPD Command Center, plugged in outside City Garage). With the amount of festivals, races, minor and major events, Casino events and shows, that bring over a million or more people to this City each year, this update or this emergency safety facility building is a needed project in the long term response and protection of the City from a man-made or natural emergency or event.

4. **City Center Improvements**
Funding to support already identified and unexpected major necessary capital improvements to the City Center over the 2-year bond issue. Currently identified improvements include exterior improvements to sidewalks and steps, railings, landscaping, new windows on ground floor for the Police Department, , HVAC component replacements, building security upgrades, replacement of asbestos floor tiles, and replacement of pavers on the plaza.

5. **Fan Coil Replacements**
This project is to finish the replacement of fan coil units on the second and third floors of the Public Safety Building. The fan coils in the Administration Building and parts of the Public Safety Building were completed previously. This will complete the upgrades for the City Hall Complex.

6. **Chiller Replacement**
City Hall is served by two 230 ton chillers. The chillers utilize R-22 refrigerant and were installed in 1998. R-22 is being phased out and will not be available in the future. Both chillers have needed repairs in the recent past and chiller #2 had a re-gasketing and refrigerant fill in 2017 due to leakage. Chiller #1 will be replaced with a quieter, more energy efficient chiller that uses environmentally friendly refrigerant.

7. **City Hall Plaza Drainage Pipe Replacement**
The drain pipes for the plaza run through the garage and are galvanized steel. The pipes are corroding, frequently clog, and gather calcium deposits which causes backups in the plaza drains and likely contributes to or causes the existing leaks in the facility. The piping is jetted annually, but the problems persists. The drain piping in the garage will be replaced with larger diameter pvc pipe which will not collect the calcium deposits as readily as the galvanized steel. In addition, some of the existing piping has asbestos insulation that will be abated.

8. **Superior Boiler Replacement**
City Hall was originally served by two Superior Boilers. A Lochinvar Boiler was installed in 2013. Superior Boiler #2 no longer functions and Superior Boiler #1 is original to the building as well and has exceeded its useful life. If Boiler #1 breaks down there will be no back up. The new boiler, to replace boiler #2, will be a new gas fired boiler similar to the Lochinvar.

9. **Police Forensics and DUI Area Heat Pump System**
The Forensics and DUI Center located in the basement are not connected to the central air handling system. Temporary units were installed in the past and are inadequate and have exceeded their useful life. A heat pump system will be added to address these areas.

10. **Library Exterior Column Repair**
The 38 steel columns around the perimeter of the Library are corroded at the bases. Several columns had repairs made in the recent past, but the repairs are beginning to corrode. The concrete slab will be removed below the columns down to the beam and new piers will be built to support the steel column base. This project will be completed in phases to address the repairs in order of need. Some repairs (4-5 columns) should be done as soon as possible (2018) and funding from City Center Improvements will be utilized.

11. **City Hall Garage Structural Concrete Repair**
The concrete beam in the garage below the front of the Library Entrance is spalling and rebar is exposed and corroding. This beam carries much of the load from the front façade of the Library. Temporary shoring will be necessary to support the beam while the deteriorated concrete is removed. Corroded reinforcing steel will be repaired and the repair material will be dowelled into the existing concrete.

12. **City Hall Garage Floor Repair**
The floor in the City Hall Garage has deteriorated over the years due to deicing salts, studded tires and other impacts. This has caused significant spalling of the concrete resulting in various degrees of roughness and tripping hazard. This will be a phased project to address the deterioration, beginning with the worst areas.

13. **Domestic Water Tank Replacements**
This project is for the replacement of two large domestic water tanks with hot water heat exchangers. These tanks are original to the building and are insulated with asbestos. The circulating pumps, controls, and heat exchangers are all beyond their expected life and in need of replacement. The asbestos will be abated and the tanks replaced with smaller, gas fired, condensing water heaters.

14. **Fire House Improvements**
Improvements/renovations to interior/exterior of the City's Fire Houses as identified during the course of the 2-year bond issue focusing on functional concerns of the facilities and energy efficiency improvements. Work already identified/known includes the installation of emergency generators at several north-side Fire Stations, replacing/upgrading heating/cooling/ventilation systems, paving, replacement of doors/windows, other facility interior/exterior improvements and renovations, and purchases for living areas.

15. **Roof/Safety and Code Requirements**
Address safety concerns and code issues as identified by Public Works, Safety Committee, Fire Department, and Inspections. Projects for city-owned facilities may include roof renovations/replacement, exhaust/air systems to improve air quality, emergency lighting, renovation/replacement of unsafe structures, purchase of special equipment as deemed necessary to handle safety/code requirements, and other unforeseen repairs/improvements to facilities/equipment to extend the life of a capital asset.

VI. PUBLIC WORKS - GROUNDS

1. **Grounds Capital Improvements**
Funding in this item is to cover smaller capital project needs already identified such as improvements and renovations to athletic fields (grading, aerating, topsoil, and backstops), tennis court resurfacing, landscaping, tree removal/replacements, playground equipment, fencing, lighting, signage, parking lot improvements, sidewalk replacements, pathway improvements, pavilion improvements, parks buildings, and equipment.

2. **Greenway/Saucon Park Ball Fields Connection**
This project provides for an extension of the Greenway to the ball fields at the north end of Saucon Park off of Millside Drive, along with storm water improvements. Design was completed in 2016 and permitting was completed in 2017. Construction is anticipated in 2018.

3. **Vehicles/Equipment - Acquisition/Replacement**
Purchase of a 16-cubic yard rear load garbage /packer truck to replace Unit #095, a 2011 garbage truck which is nearing 100,000 miles.

4. **Greenway – Plaza Development**
Grant funds were received for two additional plaza areas along the greenway. One will be an active area for children located behind Holy Infancy School and Boys & Girls Club. The other will be a Memorial Plaza located at the southern end of Founder's Way.

VII. OTHER PROJECTS

1. **Lynn Avenue Bridge**
Remove and replace structurally deficient bridge. The scope is a single span that will span the existing LVRM track and a portion of the greenway. Final design was completed December 31, 2014. Delays have occurred with the acquisition of the necessary easements due to the death of a property owner and subsequent set up of the estate. This project is nearing completion of construction in 2017 with some payments occurring in 2018.

2. **W Broad Street Lighting-3rd Ave to 5th Ave**
A Multimodal Transportation Fund Grant was applied for and received for this work. This project is for the installation of decorative street lights along West Broad Street from 3rd Avenue to 5th Avenue (application was for 3rd Avenue to 8th Avenue, but award of grant was not in full and project was scaled back). This is a continuation of previous work from 1st Avenue to 3rd Avenue completed as a part of the Elm Street Program. Design was completed in 2017 and construction will be in 2018.

3. **Bridge Repairs**
The project is for repair of nine (9) bridges the City is responsible for maintaining. Two of our bridges are going through the design process to be replaced in the near future (Lynn Avenue and High Street). All but one of the remaining bridges is in need of significant repairs. The City receives regular inspection reports through the National Bridge Inspection System (NBIS). These reports detail needed repairs including concrete repair, deck overlay, deck and bearing rehabilitation and painting. The Public Works Department annually completes repairs that are within our expertise utilizing in-house forces. Much of the more complex work requires specialized bridge contractors. In addition, the NBIS inspections sometimes result in "Priority 1" repairs which must be addressed within a few months. Failure to make these repairs may result in further deterioration and greater future costs, as well as possible closures in extreme instances. Fire Lane Bridge improvements ($140,000) have been designed and permitted and construction completed in 2017. Additional projects are being evaluated for 2018.

4. **Route 378 Lighting Replacement (Phase 1& 2)**
The scope of this project has been significantly reduced based on a design to only light the on and off ramps. Tests have been conducted starting in late 2015 by turning off the lights that are not located at the ramps. The results were found to be acceptable. Further evaluation and design will be conducted to finalize the plan to remove the unnecessary poles, replace the ramp poles and the underground electrical in a phased approach at a reduced cost to both the city and the state. There are currently 218 light poles along Route 378 and the light poles and electrical system conduits were installed in the early 1960s and have outlasted their expected lifespan. This replacement will be done in two phases. Phase 1 is to replace damaged light poles and break-a-way bases and remove unnecessary light poles. 107 light poles are anticipated to remain in service upon

completion. Phase 1 will be funded and completed in 2019. Phase 2 is the replacement of the underground electrical system. Phase 2 will be completed in 2020. Some of the pole structures are rusted and the metal has deteriorated at the bases from years of weather and salt causing them to become structurally unsound. All of the underground electrical system in PA 378 from the Hill to Hill Bridge to the PA 22 interchange including all of the ramps and overpasses is failing. There are 338 light poles on PA Route 378. The City owns the light poles and equally shares the maintenance and replacement costs with the State. We are requesting this project be placed on the TIP for federal/state funding. The revised project cost estimate is very preliminary, including pole replacements and underground electrical system upgrades, and will be refined during final design.

5. **Geographic Information System**

This project is the development of a Geographic Information System (GIS) for the City. The GIS will include City infrastructure and comprehensive data that will enable all departments to use it for analysis, monitoring of performance and work flow improvements. Next phase will include updating the server and viewer software, development of certificate of occupancy addressing, continue development of the storm sewer and water systems networks, base map maintenance, integration with the SunGard Software, tools, training, and various workflow applications. Additional tasks for future phases are being considered. Currently, GIS data is being migrated to the local government model. Once complete, updates to the storm sewer layer can be completed.

6. **Citywide Wayfinding Signage**

A comprehensive effort to install a network of wayfinding signage is underway in both downtown areas and at several gateway entrances to the City. This project brands Bethlehem and provides improved wayfinding for tourists and visitors. Phase I was completed in early 2017 and Phase II is currently in design. Additional funds are needed to complete installation of the overall project and replace and enhance the program as the project progresses. Operating costs will be affected long term, but the signs are designed with durability and efficient maintenance in mind.

7. **Aerial Bucket Trucks for Electrical Bureau**

In 2014 we began phasing in the replacement of the Electrical Bureau's four (4) 42-foot bucket trucks (estimated cost of $140,000-$160,000 per truck), which have exceeded their 10-year recommended replacement intervals. These vehicles are used daily and are developing signs of failure, stress, and increased maintenance costs. Due to safety and reliability concerns, these vehicles need to be replaced at a much higher frequency compared to most fleet vehicles. The final truck will be replaced in 2019.

8. **Service Truck-Mechanical Bureau (New)**

The Mechanical Bureau is requesting a replacement service truck. Currently the truck that is called a "service truck" is a 2000 Chevy pick-up truck with a fuel tank in the bed. It has no air compressor and there are no provisions for tools. Equipment items transported must be placed on the seat or behind the seat and must be transferred in and out as needed. This is time consuming and inefficient, especially for emergency call-outs. The Mechanical Bureau must perform maintenance and repair work on vehicles and equipment at various facilities and locations around the city as well as emergency repairs and refueling on the road. Ideally, to perform these tasks in an efficient, timely manner a service truck, designed and equipped with the proper tools and materials, is needed. This truck would be on a heavy-duty pick-up chassis with a mechanic service body. This body will incorporate cabinets and drawers for gas cans, jacks, tools, fluids, consumable aerosols and other items needed for on-site repairs. It would be equipped

with an auxiliary fuel tank and pump for refueling pavers and heavy equipment at construction sites and fire apparatus at fire scenes and refilling several small refueling sites at bureaus around the city. It would also be equipped with a heavy-duty air compressor for repairing tires on the road and for running multiple air tools including impact guns to remove lugs on large rims. It includes a lift gate to help transport large tires, oil drums and other heavy parts and is four-wheel drive for all weather use. A municipality responsible for maintaining a public works and emergency services fleet as large as ours must provide a professional, competent support structure and purchasing this unit is an important step in the continued revamping of the Mechanical Bureau.

9. **Mechanical Bureau-Replacement of Garage Doors**

The overhead doors, openers, and tracks at the Mechanical Bureau are all original equipment installed at the facility in 1978. Being 40 years old, parts have become obsolete and have to be custom made. This causes extended down time with loss of use in whatever bay is affected.

8. **Flood Control System**

The City inherited the responsibility for maintaining the Flood Control dike, buildings, the electrical system, pumps and motors at the Flood Control Station on the South Side on the Lehigh River from Bethlehem Steel. This account is to provide for capital expenditures for maintenance of this system. As a result of mounting needs (replacement of transformers and possibly pumps) and historical use of the pump house component of the station, the City re-evaluated the need for this component and recommended de-commissioning to the Corp of Engineers. In 2009 the Corp of Engineers and FEMA agreed that the pump component is not providing additional flood protection. Nevertheless, a re-delineation of the 100-year floodplain since abandoning the pumps is a change to the Flood Control System. The re-delineation results in minor additional shallow flooding areas, all within the former Bethlehem Steel plant, due primarily to storm sewer system capacity limitation, which exists regardless of the status of the pump stations. Although we are confident the pumping component of the Flood Control Station is no longer needed, this line item budgets for upgraded design and replacement in the event the City desires to restore the pump component of the system and restore the system to acceptable status under USACE regulations. Funds may be used for repairs to the remaining system and, in the event the pumps are permanently abandoned, funds may be used to abandon parts of the system.

9. **Public Safety Trunking System Radios**

The XTS 5000 portable radios used by EMS, Police, and Fire are 11 years old, will no longer be manufactured, and will not be supported past 2018. There is currently only limited factory support and limited replacement parts. These portable radios have passed their (10) year recommended serviceability for first responders and public safety officers. Fire will require 32 radios, EMS will require 35 radios and Police will require 180 radios. This project is to replace all the radios and the new radios acquired will be equipped as to be able to function on any system in anticipation of the mandated consolidation of 911. The acquisition will be phased and radios taken out of service in 2019 will be "cannibalized" until the rest of the radios are acquired in 2021. Public Works, Water/Sewer, and other departments' radios required for operations and communications with the 911 Center have been and will continue to be replaced gradually as they are no longer supported, via operating budgets, and they cost substantially less than those for public safety.

VIII. RECREATION

1. General Pool Improvements

Improvements/renovations will be allocated to pools, bathhouses, filter systems and related buildings based on analysis of the Park and Pool Study of 2017. Other unforeseen repairs/improvements to facilities/equipment to extend the life of a capital asset.

2. Municipal Ice Rink

Improvements/emergency repairs/ purchases of equipment as needed for operations and capital upgrades to extend the life of a capital asset. 2018 – upgrade of computer and technical maintenance system.

3. Memorial Pool Complex Improvements

The City will undergo a Master Plan and Feasibility Study for the substantial upgrade and improvement of this pool complex. Design costs are reflected in 2018 and construction costs are reflected in outlying years.

4. Neighborhood Pool Conversion

The Parks System Master Plan, which will be initiated in fall of 2017, will outline recommendations for future park improvements including all of the City pools. The pool conversion program will only be initiated following the completion of the Parks System Master Plan and will implement the Plan recommendations for all of the City pools.

5. Parks System Master Plan

As a follow-up to the recently completed inventory of all parks facilities, the Recreation Bureau is initiating a Parks System Master Plan in 2017. The Plan will review the entire parks system including usage and need and will provide specific recommendations for future park renovation, development and investment.

IX. ADMINISTRATION

1. IT Improvement Projects – 2018-2022 Total: $ 260,000

The upgrade of the New World Public Safety System as well as the SunGard Finance+ and Community+ applications have been completed. The items listed below are requested in order to improve Mobile Networking capabilities as well as designing system interfaces to address duplication of data across systems.

Field Network Reporting Applications **$ 110,000**

As part of the SunGard upgraded all applications will be running in a browser based language and will now be mobile device friendly. This will allow us to explore applications that can be run on mobile devices out in the field without having to rely on bulky laptops. In addition, there are 3rd party vendors who partner with SunGard to provide field applications which will interface with our newly upgraded versions of software.

TraCS to New World Interface **$ 25,000**

TraCS is a Police Digital Citation System which is being championed by the state of PA. It will allow us to take advantage of digital technology to process Citations and eliminate all manual data entry. However, an interface will need to be written which

will transfer the data collected in the field into our current New World system so we will not have to search (2) different systems for Citation information.

SunGard C+ to New World Interface **$ 25,000**
Currently our Inspectors collect information found while out in the field and this information is entered into our SunGard C+ applications. However, there currently is no automated method to transfer this information from the SunGard C+ application into the New World system. Therefore, this is being done manually which is not timely and causes errors. A well designed interface will update the information in a much timelier manner and eliminate human intervention and errors.

Virtual Cloud Hardware Upgrade/Replacement **$ 60,000**
Our virtual hardware components are around 4 years old. In addition, all of our servers run in our virtual environment. With so much being expected of our virtual environment it is wise to replace our hardware about every 5-7 years in order to take advantage of newer faster technology improvements.

SunGard Business License Application **$ 40,000**
We currently track our City Business Licenses using a work-around in the software which is one way to track them but not the correct way. Purchasing this application will give us the ability to process the license applications, integrate with the General Ledger process as well as the common Entity database and manage the inspections related to the license.

X. COMMUNITY & ECONOMIC DEVELOPMENT

1. Blighted Building Acquisition Funds

Capital funds are needed to acquire buildings that have been deemed as blighted per the Blighted Property Review Committee and Planning Commission. Without funding to purchase buildings, owners of these properties tend to retain them as they fall further into disrepair, and negatively affect neighborhoods. Funds will be used to conduct the necessary appraisals, due diligence and finally purchase the property. Properties will be subject to sale to qualified developers for a below market price, but at a price high enough to help replenish this initial funding. Grant funding from the BB&T/Lehigh Valley Community Foundation has been reflected in the "other" funding line along with recaptured funds from sales. These will be reincorporated in to available funds for blighted property acquisition.