

**NEW HANOVER TOWNSHIP
BOARD OF SUPERVISORS
Quarterly Meeting
June 23, 2014
6:30PM**

Call To Order: Chairman Douglas Muller

Salute the Flag

ITEMS FOR DISCUSSION

MS4 Presentation – Adam Supplee

Traffic Signalization Update – Sandy Koza

Wynstone / Town Center Update

Adjourn

Michael McGann

From: Koza, Sandy <skoza@mcmahonassociates.com>
Sent: Tuesday, May 13, 2014 9:20 AM
To: Michael McGann
Cc: McCourt, Patrick
Subject: PA 663-PA 73 Concepts and Estimates
Attachments: Cost Estimate Summary (2014-05-08).pdf; Concept Plans (Four Alternatives).pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Michael,

Attached are the concept plans illustrating the four alternatives to the signal installation that were discussed with Dave Adams at PennDOT along with an estimate of the engineering and construction costs:

- Alternative 1: Provide 75-foot left-turn lane along PA 73 - \$440,900
- Alternative 2: Provide 275-foot left-turn lane along PA 73 based upon Publication 46 requirements - \$619,600
- Alternative 3: Provide a bypass shoulder along PA 73 in lieu of a left-turn lane - \$144,900
- Alternative 4: Provide a 75-foot left-turn lane along PA 663 - \$187,000

We also provided a cost estimate for a fifth alternative, which is combining Alternatives 3 and 4. The price for this option is \$331,900. In comparing these prices to one another, we also estimate that the engineering and construction for the installation of the traffic control signal itself would be \$210,000, which can then be added onto any of the above alternatives. For example, if we were to combine installing the signal with the shoulder bypass lane, the project cost would then be \$354,900.

All of these prices are exclusive of required right-of-way acquisitions and/or grading, construction, or signal easements that would be needed. We have provided an estimate of the location of the existing legal right-of-way, which would need to be verified as part of the topographic survey task, since it is based on prior plans at this location. Typically, PennDOT requires that the legal right-of-way extend at least 5 feet beyond the edge of the cartway so that they can use that area for signage. The first three alternatives will all require right-of-way along the north side of PA 73, while the fourth alternative requires right-of-way along the west side of PA 663.

At this point, we should send the concept plans and the estimates over to Dave Adams to look over. We will then most likely need to set-up another meeting with him to review and discuss the options. Prior to that meeting, it will most likely be beneficial for us to know which way the Board would like to proceed with this in terms of a preferred alternative. This way we may be able to steer Dave towards the option/pricing that the Township can accommodate. Please let me know if you are okay with us forwarding the information on to Dave Adams at PennDOT. Thanks.

Sandy Koza, P.E., PTOE
Project Manager

McMahon Associates, Inc.
425 Commerce Drive, Suite 200
Fort Washington, Pennsylvania 19034



Preliminary Opinion of Cost
PA-663 and PA-73
New Hanover Township
813796.11

Cost Summary

<u>Alternative</u>	<u>Cost</u>
Alternative 1 - 75' Westbound Left-Turn Lane on PA-73	\$440,900
Alternative 2 - 275' Westbound Left-Turn Lane on PA-73	\$619,600
Alternative 3 - Westbound Bypass Shoulder on PA-73	\$144,900
Alternative 4 - 75' Northbound Left-Turn Lane on PA-663	\$187,000
Alternative 5 - WB Bypass Shoulder (Alt 3) and NB Left-Turn Lane (Alt 4)	\$331,900
Alternative 6 - Traffic Signal Installation	\$210,000

Assumptions:

Costs include 5% mobilization, 15% contingency, 20% engineering and 5% inspection

Costs exclude right-of-way acquisition



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Alternative 1 - 75' Westbound Left-Turn Lane on PA-73

DISCLAIMER: McM prepared this preliminary cost estimate based on conceptual layout plans and in no way should this estimate be considered a final cost. The estimated costs are subject to change based on final engineering design, field conditions, local or regional differences, changes to the design and/or changes to the unit costs. Final costs are dependant on actual bids from contractors. McM will not be held responsible for any discrepancies between this cost estimate and bid costs. This estimate does not include costs for right-of-way acquisition.

Improvement	Unit	Quantity	Unit Cost	Subtotal
Excavation	CY	1,000	\$30	\$30,000
Mill and Overlay	SY	2,400	\$15	\$36,000
Pavement	SY	1,350	\$70	\$94,500
Driveway Adjustment	LS	1	\$7,000	\$7,000
Curbing	LF	0	\$35	\$0
Signing & Striping	LS	1	\$6,720	\$6,720
Drainage	LS	1	\$58,800	\$58,800
Maintenance & Protection of Traffic	LS	1	\$33,600	\$33,600
Erosion & Sediment Control	LS	1	\$13,440	\$13,440
Soil/Seeding/Mulch/Landscaping	LS	1	\$8,000	\$8,000
Clearing and Grubbing	LS	1	\$16,800	\$16,800
Utility Relocations	LS	1	\$10,000	\$10,000
Subtotal				\$314,900
	Mobilization	5%		\$15,745
	Contingency	15%		\$47,235
	Engineering	20%		\$62,980
	Inspection	5%		\$15,745
	TOTAL			\$440,900



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Alternative 2 - 275' Westbound Left-Turn Lane on PA-73

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Improvement	Unit	Quantity	Unit Cost	Subtotal
Excavation	CY	1,300	\$30	\$39,000
Mill and Overlay	SY	3,250	\$15	\$48,750
Pavement	SY	1,875	\$70	\$131,250
Driveway Adjustment	LS	1	\$10,000	\$10,000
Curbing	LF	120	\$35	\$4,200
Signing & Striping	LS	1	\$11,650	\$11,650
Drainage	LS	1	\$74,560	\$74,560
Maintenance & Protection of Traffic	LS	1	\$39,610	\$39,610
Erosion & Sediment Control	LS	1	\$18,640	\$18,640
Soil/Seeding/Mulch/Landscaping	LS	1	\$12,000	\$11,650
Clearing and Grubbing	LS	1	\$23,300	\$23,300
Utility Relocations	LS	1	\$30,000	\$30,000
<i>Subtotal</i>				<i>\$442,600</i>
	Mobilization	5%		\$22,130
	Contingency	15%		\$66,390
	Engineering	20%		\$88,520
	Inspection	5%		\$22,130
	TOTAL			\$619,600



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Alternative 3 - Westbound Bypass Shoulder on PA-73

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Improvement	Unit	Quantity	Unit Cost	Subtotal
Excavation	CY	400	\$30	\$12,000
Mill and Overlay	SY	0	\$15	\$0
Pavement	SY	500	\$70	\$35,000
Driveway Adjustment	LS	1	\$3,000	\$3,000
Curbing	LF	0	\$35	\$0
Signing & Striping	LS	1	\$2,500	\$2,500
Drainage	LS	1	\$17,500	\$17,500
Maintenance & Protection of Traffic	LS	1	\$10,000	\$10,000
Erosion & Sediment Control	LS	1	\$5,000	\$5,000
Soil/Seeding/Mulch/Landscaping	LS	1	\$6,000	\$6,000
Clearing and Grubbing	LS	1	\$7,500	\$7,500
Utility Relocations	LS	1	\$5,000	\$5,000
Subtotal				\$103,500
	Mobilization	5%		\$5,175
	Contingency	15%		\$15,525
	Engineering	20%		\$20,700
	Inspection	5%		\$5,175
	TOTAL			\$144,900

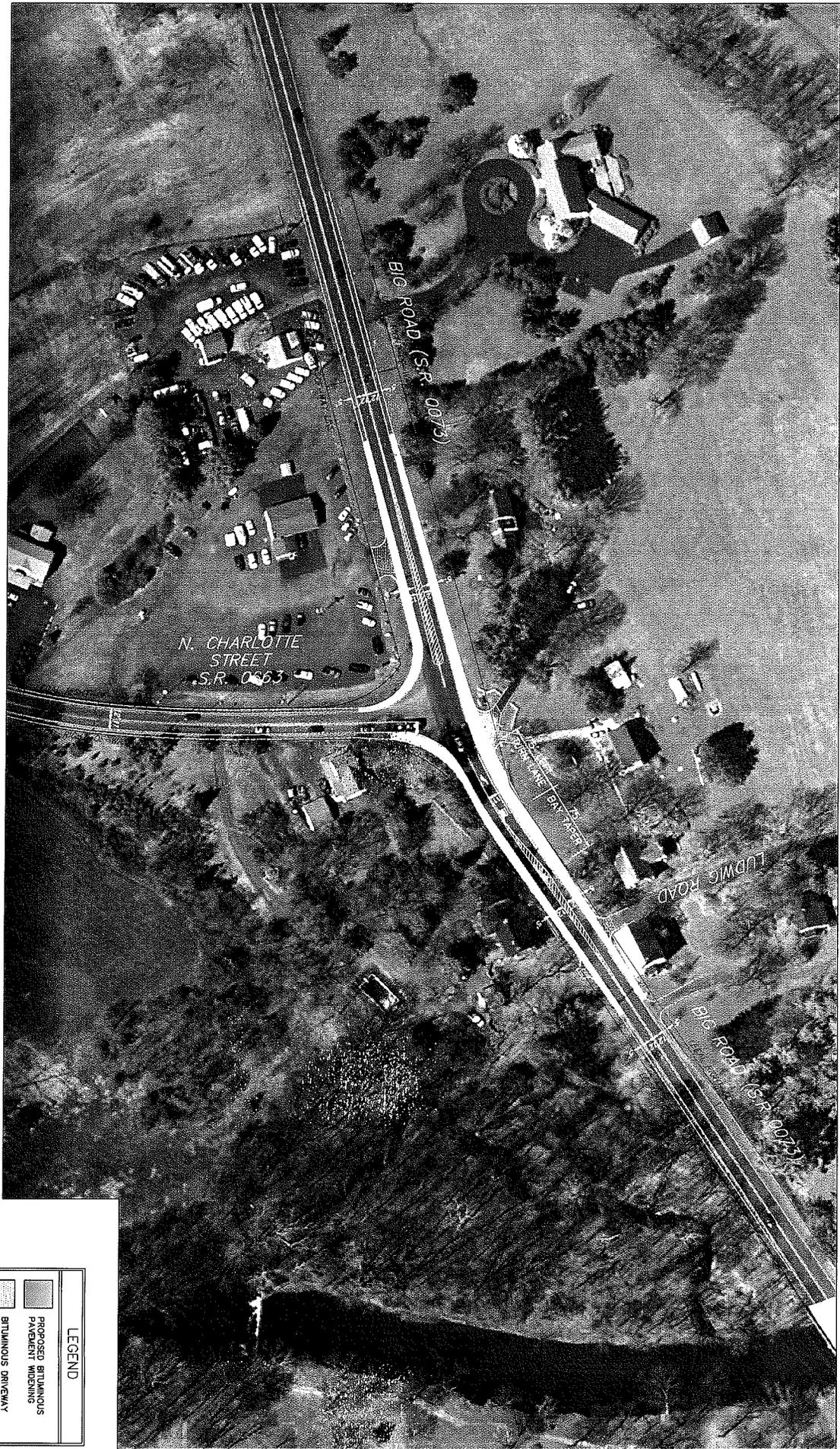


Preliminary Opinion of Cost
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Alternative 4 - 75' Northbound Left-Turn Lane on PA-663

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Improvement	Unit	Quantity	Unit Cost	Subtotal
Excavation	CY	400	\$30	\$12,000
Mill and Overlay	SY	740	\$15	\$11,100
Pavement	SY	535	\$70	\$37,450
Driveway Adjustment	LS	1	\$2,000	\$2,000
Curbing	LF	0	\$35	\$0
Signing & Striping	LS	1	\$3,780	\$3,780
Drainage	LS	1	\$18,900	\$18,900
Maintenance & Protection of Traffic	LS	1	\$12,600	\$12,600
Erosion & Sediment Control	LS	1	\$6,300	\$6,300
Soil/Seeding/Mulch/Landscaping	LS	1	\$3,150	\$3,150
Clearing and Grubbing	LS	1	\$6,300	\$6,300
Utility Relocations	LS	1	\$20,000	\$20,000
<i>Subtotal</i>				<i>\$133,600</i>
	Mobilization	5%		\$6,680
	Contingency	15%		\$20,040
	Engineering	20%		\$26,720
	Inspection	5%		\$6,680
	TOTAL			\$187,000



RIGHT-OF-WAY INFORMATION IS APPROXIMATE AND BASED ON PRELIMINARY ROADWAY IMPROVEMENT PLANS FOR S.R. 0663 AND S.R. 0073 PREPARED BY LARSON ENGINEERING

THE LOCATION:
 425 COMMENCE DRIVE
 SUITE 200
 STATE WASHINGTON, PA 19034
 TELE: (215)-283-3444
 FAX: (215)-283-3447

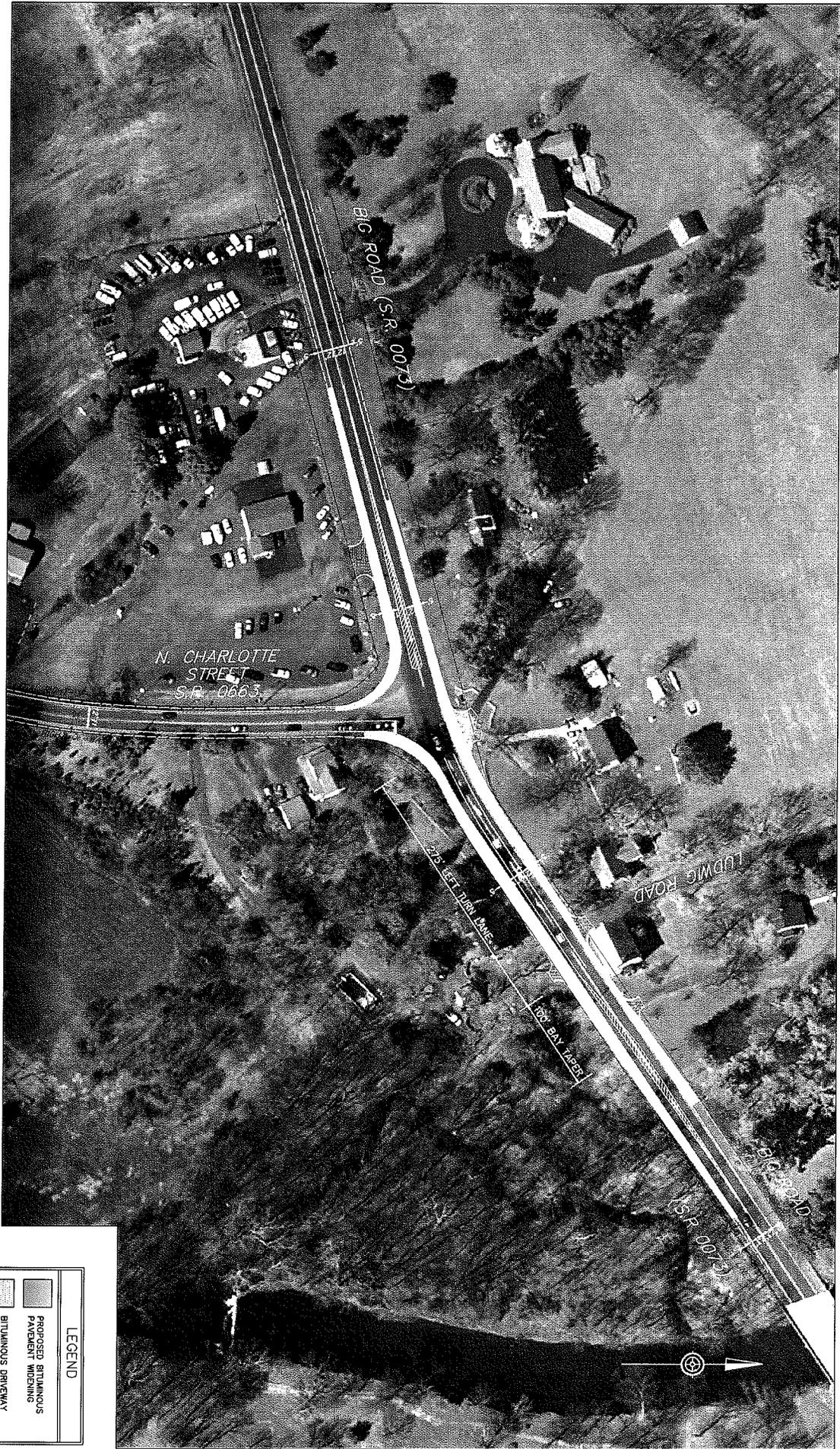
SECTION 811 BIDD
 DESIGN BY: RMM
 CHECKED BY: DAC

JOB NO. 813796.3A
 DATE: 5/6/14
 CONCEPT 1

NEW HANOVER TOWNSHIP
 2843 NORTH CHARLOTTE STREET
 CHARLOTTE, NC 28225
 (704) 323-5173

N. CHARLOTTE STREET (S.R. 0663) & BIG ROAD (S.R. 0073)
 CONCEPTUAL LAYOUT - ALTERNATIVE 1
 MONTCOMERY COUNTY





RIGHT-OF-WAY INFORMATION IS APPROXIMATE AND BASED ON PRELIMINARY ROADWAY IMPROVEMENT PLANS FOR S.R. 0663 AND S.R. 0073 PREPARED BY CARSON ENGINEERING

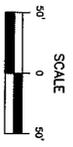
FILE LOCATION: 425 CAMMERCE DRIVE
 SUITE 200 HANOVER, PA 17034
 TELE: (717)-262-9444
 FAX: (717)-263-9447

DESIGN BY: BDD
 DRAWN BY: RMM
 CHECKED BY: DAC

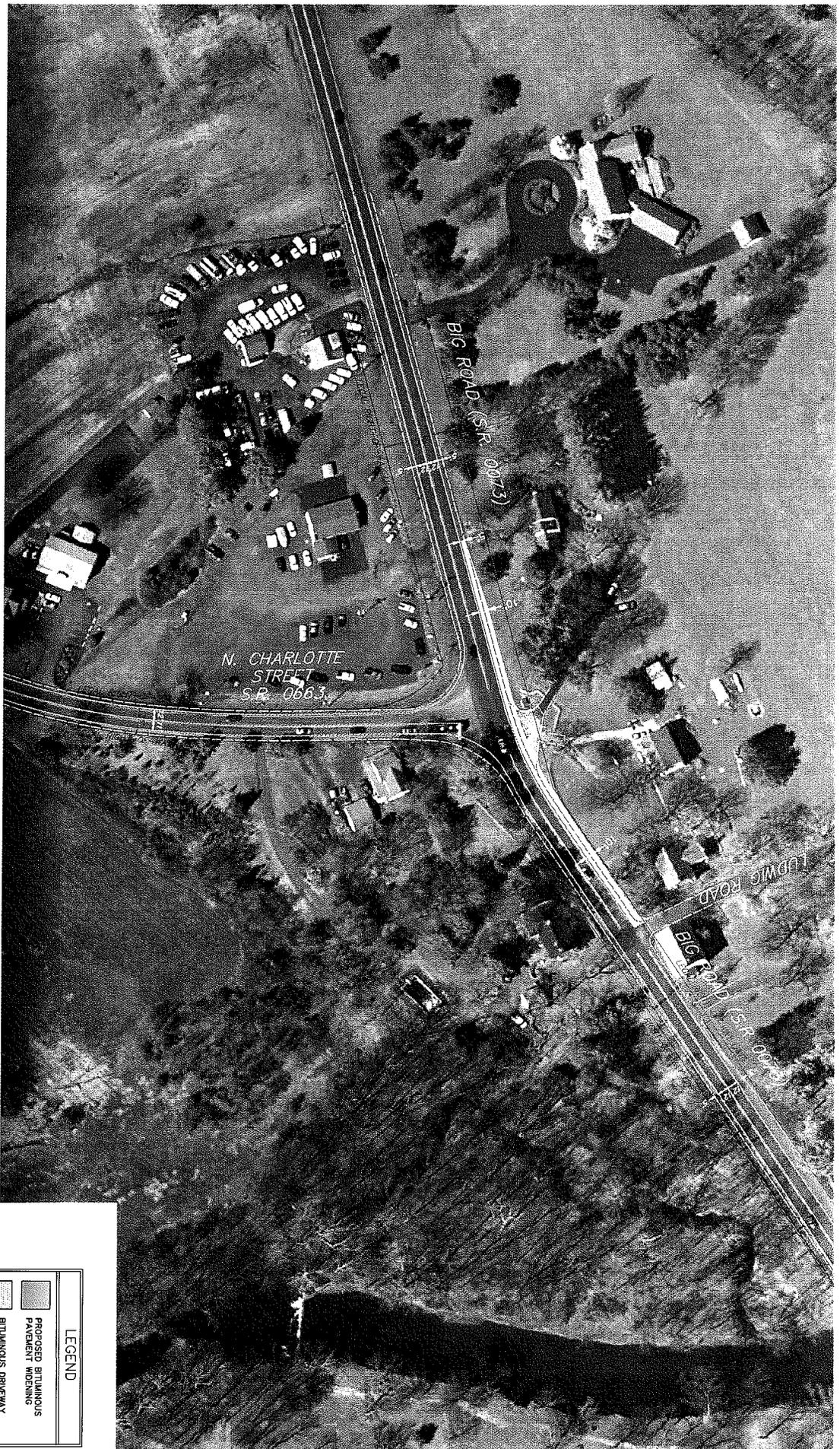
JOB NO.: 813796.3A
 DATE: 5/6/14
 CONCEPT 4

NEW HANOVER TOWNSHIP
 2943 NORTH CHARLOTTE STREET
 HANOVER, PA 17033
 (717) 262-3112

N. CHARLOTTE STREET (S.R. 0663) & BIG ROAD (S.R. 0073)
 CONCEPTUAL LAYOUT - ALTERNATIVE 2
 MONTGOMERY COUNTY
 NEW HANOVER TOWNSHIP



LEGEND	
	PROPOSED BITUMINOUS PAVEMENT WIDENING
	BITUMINOUS DRIVEWAY ADJUSTMENT
	LEGAL R/W LINE



RIGHT-OF-WAY INFORMATION IS APPROXIMATE AND BASED ON PRELIMINARY ROADWAY IMPROVEMENT PLANS FOR S.R. 0663 AND S.R. 0073 PREPARED BY LARSON ENGINEERING

PROJECT LOCATION:
 425 COMMERCE DRIVE
 SUITE 400
 STATE WASHINGTON, PA 19034
 TELE: (215)-283-9444
 FAX: (215)-283-9447

DESIGNER:
 DESIGN BY: RMM
 CHECKED BY: DMC

JOB NO.: 813796.3A
 DATE: 5/6/14

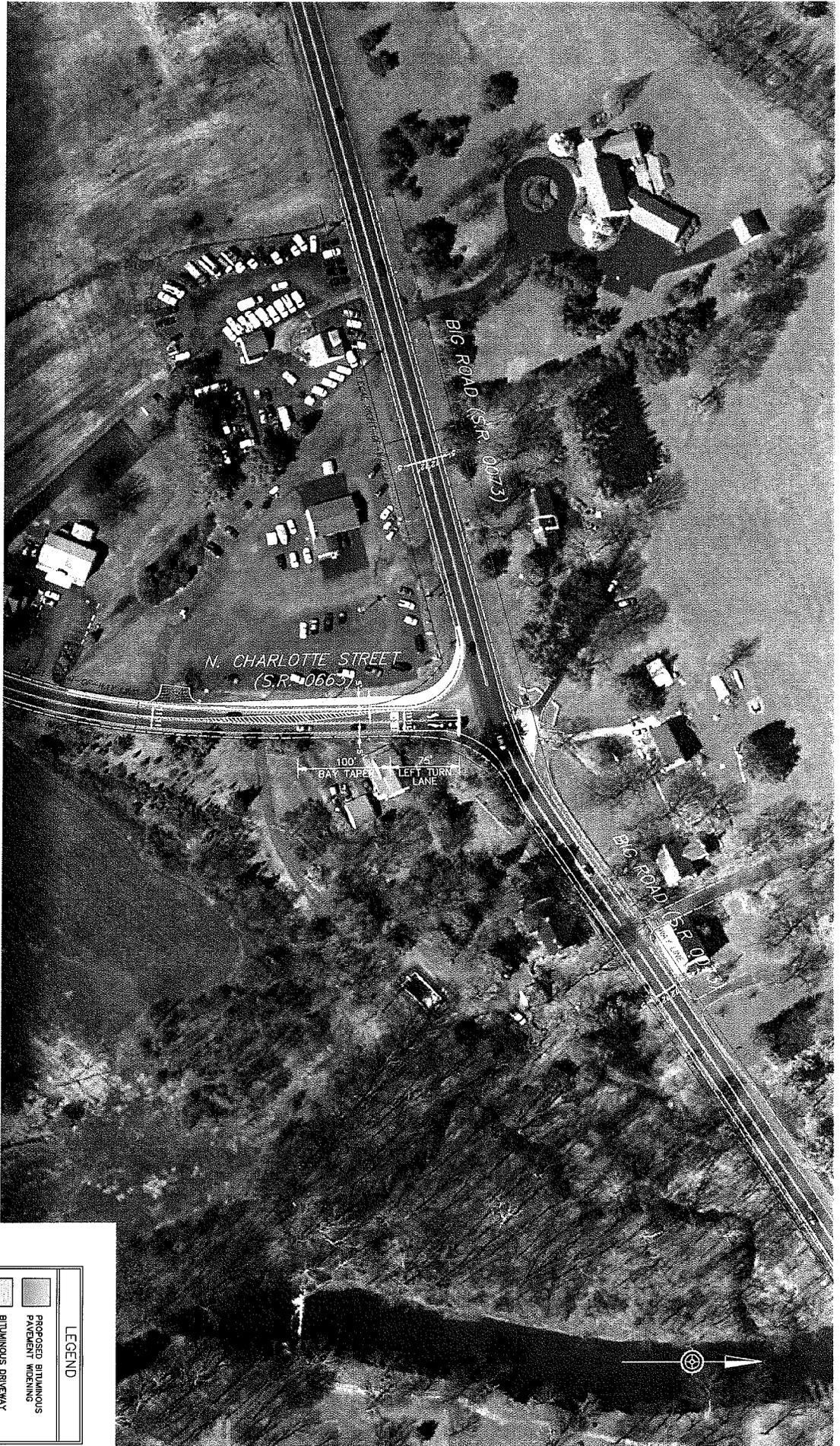


OWNER:
 NEW HANOVER TOWNSHIP
 2843 NORTH CHARLOTTE STREET
 SUITE 200
 NEW HANOVER, NC 27855
 (610) 323-5173

PROJECT TITLE:
 N. CHARLOTTE STREET (S.R. 0663) & BIG ROAD (S.R. 0073)
 CONCEPTUAL LAYOUT - ALTERNATIVE 3
 MONTGOMERY COUNTY



LEGEND	
	PROPOSED BITUMINOUS PAVEMENT WIDENING
	BITUMINOUS DRIVEWAY ADJUSTMENT
	LEGAL R/W LINE



RIGHT-OF-WAY INFORMATION IS APPROXIMATE AND BASED ON PRELIMINARY ROADWAY IMPROVEMENT PLANS FOR S.R. 0663 AND S.R. 0073 PREPARED BY LANGON ENGINEERING

PROJECT LOCATION: 429 COMMERCIAL DRIVE, SUITE 200, LANGFORD, PA 18034
 PHONE: (215) 283-9444
 FAX: (215) 283-9447

DESIGN BY: BDD
 DRAWN BY: RMM
 CHECKED BY: DAC

APP NO: 813796.3A
 PHASE: CONCEPT 4
 DATE: 5/6/14



OWNER: NEW HANOVER TOWNSHIP
 2843 NORTH CHARLOTTE STREET
 LANGFORD, PA 18034
 PHONE: (610) 323-5712

N. CHARLOTTE STREET (S.R. 0663) & BIG ROAD (S.R. 0073)
 CONCEPTUAL LAYOUT - ALTERNATIVE 4
 MONTGOMERY COUNTY
 NEW HANOVER TOWNSHIP



LEGEND	
	PROPOSED BITUMINOUS PAVEMENT WIDENING
	BITUMINOUS DRIVEWAY ADJUSTMENT
	LEGAL R/W LINE