



SOUTH FAYETTE T O W N S H I P

A Community Growing Together

January 22, 2026 - 7 P.M.

Planning Commission Meeting Agenda

1. CALL TO ORDER

2. ROLL CALL

Tom Iagnemma, Chairman
Doug Kaine, Secretary
Joseph Johnson
Jamey Noland
Danny Cerrone Jr.
Jason Paulovich, Gibson-Thomas Engineering
Chris Seymour, Dodaro, Matta & Cambest, P.C.

3. PLEDGE OF ALLEGIANCE

4. OLD BUSINESS

5. NEW BUSINESS

- A. Review And Discuss S-09-2025 South Fayette Township School District, Preliminary And Final Minor Subdivision/Consolidation Application, Parcels 327-E-1 & 404-C-1, Zoned CD-1, Conservation.

Consolidation of 2 parcels into 1.

Documents:

APPLICATION S-09-2025.PDF
AGENT AUTHORIZATION.PDF
SUBDIVISION-CONSOLIDATION.PDF
GTE REVIEW LETTER 1-15-2026.PDF
ALLEGHENY COUNTY REVIEW LETTER 1-7-2026.PDF
REVIEW REFERRAL S-09-2025 SOUTH FAYETTE TOWNSHIP PRIMARY
SCHOOL SUBDIVISION-CONSOLIDATION PLAN MATSF.DOC
DBV12530-113.PDF
DBV13087-134.PDF
PBV 272- PG66.PDF

6. ACCEPTANCE OF APPLICATIONS

- A. Review And Consider For Acceptance S-01-2026 Second Revision To The Kosky Plan Of Lots, Preliminary And Final Minor Subdivision Application, Parcels 256-L-2, 256-L-1, Zoned C-2.

Documents:

APPLICATION S-01-2026.PDF
AGENT AUTHORIZATION FORM.PDF
SUBDIVISION.PDF
DEED.PDF
SALES AGREEMENT.PDF

- B. Review And Consider For Acceptance SP-01-2026 Lafayette 180 Planned Shopping Center, Preliminary And Final Land Development Application, Parcels 256-L-2, 256-L-1, Zoned C-2.

Documents:

APPLICATION SP-01-2026.PDF
AGENT AUTHORIZATION FORM.PDF
LAND DEVELOPMENT PLANS (REDUCED SIZE).PDF
ELEVATION RENDERINGS.PDF
TIS ADDENDUM COMPLETE.PDF
TRAFFIC IMPACT STUDY_PROPOSED RETAIL - SOUTH FAYETTE TOWNSHIP TIS.PDF
2022-01-14 GEOTECHNICAL REVIEW MEMO.PDF
2026-01-12 NPDES MAJOR MODIFICATION APPROVAL.PDF
WETLAND DELINEATION.PDF
UTILITY AVAILABILTY LETTERS.PDF
DEED.PDF
SALES AGREEMENT.PDF

7. OPEN DISCUSSION

8. ADJOURNMENT



Plan Name:	South Fayette Township School District Primary School	File No.	S-09-2025
Plan Location:	Lt. Will Way, McDonald, PA 15057	Tax I.D. #	327-E-1 and 404-C-1
Project Description	The proposed project involves the Consolidation of Tax Parcels 327-E-1 and 404-C-1 into one lot for the South Fayette School District.		

Check Appropriate Box(es)

<input type="checkbox"/> Land Development Plan	<input type="checkbox"/> Subdivision Plan	<input checked="" type="checkbox"/> Conditional Use Plan
<input type="checkbox"/> Minor Subdivision	<input type="checkbox"/> Major Subdivision	<input checked="" type="checkbox"/> Open Space Plan
<input type="checkbox"/> Preliminary Plan Submission	<input type="checkbox"/> Final Plan Submission	<input checked="" type="checkbox"/>

Zoning District(s)	CD-1, Conservation	Property Acreage	147.6931 acres	No. Lots/Units	1
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Applicant's Name:	South Fayette Township School District - Michelle Miller, Superintendent of Schools	Phone No.	
Applicant's Address:	3680 Old Oakdale Road McDonald, PA 15057	Fax No.	
Applicant's E-Mail:			
Engineer Firm/Name	Civil & Environmental Consultants, Inc.	Phone No.	
Engineer's Address:	4350 Northern Pike, Suite 141 Monroeville, PA 15146	Fax No.	
Contact Person:	Anthony J-M. Simelis, P.E.	E-Mail Address	

The following items are reviewed as part of the South Fayette Township application process. Applications submitted WITHOUT these elements will NOT be reviewed by the township.

REQUIRED SUBMISSION ITEMS	Copies	✓ Yes	✓ No	✓ N/A
1) Completed Application Form	1	✓		
2) ACED Subdivision/Land Development Application	1	✓		
3) Maps and Plans				
• Plus PDF of drawings	1	✓		
• Sets Full-Size Plans (24" x 36")	5	✓		
• Sets Half-Size Plans (11" x 17")	5	✓		
4) Agent Authorization Form	1	✓		
5) Application Fee	1	✓		
6) Escrow – Engineer, Solicitor, Inspection	1	✓		
7) Stormwater Management Plan & Calculations (plus PDF)	2			✓
8) Erosion & Sedimentation Control Plan (plus PDF)	2			✓
9) Deed, Sales Agreement or Other Ownership	1	✓		

I have familiarized myself with and hereby agree to comply with the subdivision and zoning ordinance of the township as well as to all township rules, regulations and resolutions. I agree to pay the applicable fee(s).

Signature of Applicant: _____ **Date:** _____

If applicant is not the property owner, an Agent Authorization Form must be attached.



SOUTH FAYETTE
T O W N S H I P

A Community Growing Together

Agent Authorization
Form

www.southfayettepa.com

Name of Property Owners: South Fayette Township School District

Property Tax Map Number: 327-E-1 and 404-C-1 (for consolidation)

Property/Project(s): South Fayette Township School District Primary School

This application/phase only

All related applications and phases

The above named property owner hereby appoints: John J. Frydrych, P.E. of

Civil & Environmental Consultants, Inc.

as its agent and authorizes said agent to apply for and process the above mentioned development plan/variance on his/her behalf. Agent is further authorized to sign all necessary documentations for such purposes, including acceptance of conditions imposed by the Board of Commissioners upon arrival of the plan. This authorization shall remain in full force and effect until written notice of revocation is delivered to the South Fayette Township Manager.

SIGNED AND SEALED, intending to be legally bound on this date of:

11/25/25

Owner(s) Signature: *[Handwritten Signature]* (SEAL)

ALL SIGNATURES MUST BE MADE WITH A BLUE INK PEN

ALL SIGNATURES MUST BE MADE WITH A BLUE INK PEN

OWNER'S ADOPTION AND DEDICATION:

SOUTH FAYETTE SCHOOL DISTRICT

(A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)

KNOW ALL MEN BY THESE PRESENTS, THAT THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A MUNICIPAL CORPORATION INCORPORATED UNDER THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA, BY VIRTUE OF A RESOLUTION BY THE BOARD OF DIRECTORS, THEREOF, DOES HEREBY ADOPT THIS PLAN AS ITS PLAN OF LOTS OF ITS PROPERTY SITUATE IN SOUTH FAYETTE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA, AND FOR DIVERS ADVANTAGES ACCRUING TO IT, DOES HEREBY DEDICATE FOREVER, FOR PUBLIC USE AND FOR HIGHWAY PURPOSES, ALL SLOPE AREAS AND ALL DRIVES, ROADS, STREETS, LANES AND WAYS AND OTHER PUBLIC HIGHWAYS SHOWN UPON THE PLAN, WITH THE SAME FORCE AND EFFECT AS IF THE SAME HAD BEEN OPENED THROUGH LEGAL PROCEEDINGS, AND IN CONSIDERATION OF THE APPROVAL OF SAID PLAN, AND ANY FUTURE ACCEPTANCE OF SAID PUBLIC HIGHWAYS BY THE COMMONWEALTH OF PENNSYLVANIA, COUNTY OF ALLEGHENY, AND TOWNSHIP OF SOUTH FAYETTE. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT HEREBY COVENANTS AND AGREES TO AND BY THESE PRESENTS DOES RELEASE AND FOREVER DISCHARGE SAID COMMONWEALTH OF PENNSYLVANIA, COUNTY OF ALLEGHENY, AND TOWNSHIP OF SOUTH FAYETTE, THEIR SUCCESSORS OR ASSIGNS FROM ANY LIABILITY FOR DAMAGES ARISING AND TO ARISE FROM THE APPROPRIATION OF SAID GROUND FOR PUBLIC HIGHWAYS AND THE PHYSICAL GRADING THEREOF TO ANY GRADES THAT MAY BE ESTABLISHED. THIS DEDICATION AND RELEASE SHALL BE BINDING UPON THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, ITS SUCCESSORS AND ASSIGNS AND PURCHASERS OF LOTS IN THIS PLAN

IN WITNESS WHEREOF, THE SAID MUNICIPAL CORPORATION HAS CAUSED ITS CORPORATE SEAL TO BE AFFIXED BY THE HAND OF ITS PRESIDENT AND THE SAME TO BE ATTESTED BY ITS SECRETARY THIS ____ DAY OF _____, 20__

ATTEST:

SECRETARY _____ PRESIDENT _____ SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)

ACKNOWLEDGEMENT OF INDIVIDUAL OWNER'S ADOPTION AND DEDICATION:

COMMONWEALTH OF PENNSYLVANIA } SS: COUNTY OF ALLEGHENY }

BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC IN AND FOR SAID COMMONWEALTH AND COUNTY PERSONALLY APPEARED _____ PRESIDENT OF THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, WHO BEING DULY SWORN, DEPOSETH AND SAITH THAT HE WAS PERSONALLY PRESENT AT THE EXECUTION OF THE ADOPTION, RELEASE AND DEDICATION AND SAW THE COMMON AND CORPORATE SEAL OF SAID MUNICIPAL CORPORATION DULY AFFIXED AND THAT THE ABOVE RELEASE AND DEDICATION WAS DULY SIGNED AND SEALED BY AND AS FOR THE ACT AND DEED OF THE SAID SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT FOR THE USES AND PURPOSES THEREIN MENTIONED AND THAT THE NAME OF THIS DEponent SUBSCRIBED TO THE SAID RELEASE AND DEDICATION AS PRESIDENT OF SAID MUNICIPAL CORPORATION, IN ATTESTATION OF THE DUE EXECUTION AND DELIVERY OF SAID RELEASE AND DEDICATION IS THIS DEponent'S OWN AND PROPER RESPECTIVE HANDWRITING.

PRESIDENT _____ SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)

SWORN AND SUBSCRIBED BEFORE ME THIS DAY.

WITNESS MY HAND AND NOTARIAL SEAL THIS ____ DAY OF _____, 20__

MY COMMISSION EXPIRES THE ____ DAY OF _____, 20__

(SEAL) _____ NOTARY PUBLIC

CERTIFICATION OF TITLE AND NO MORTGAGE:

I, _____ PRESIDENT OF THE SOUTH FAYETTE SCHOOL DISTRICT, DO HEREBY CERTIFY THAT THE TITLE OF THIS PROPERTY IS IN THE NAME OF THE SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY) AS RECORDED IN THE FOLLOWING DEED BOOK VOLUME AND PAGES: 11242-167, 13087-134, 4833-261, 5182-365 AND 12530-113 IN THE DEPARTMENT OF REAL ESTATE, ALLEGHENY CO., PA. I FURTHER CERTIFY THAT THERE IS NO MORTGAGE, LIEN OR ENCUMBRANCE AGAINST THIS PROPERTY.

SECRETARY _____ PRESIDENT _____ SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)

SURVEYOR'S CERTIFICATION:

I CERTIFY THAT, TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF, THE SURVEY AND PLAN SHOWN HEREON ARE CORRECT AND ACCURATE TO THE STANDARDS REQUIRED.

December 8, 2025 DATE NAME Pete E. Brothers SU075238 REGISTRATION NUMBER

NOTARY PUBLIC LAND SURVEYOR LAND SURVEYOR EMBOSSED SEAL TOWNSHIP OF SOUTH FAYETTE ENGINEER TOWNSHIP OF SOUTH FAYETTE BOARD OF COMMISSIONERS TOWNSHIP OF SOUTH FAYETTE PLANNING COMMISSION DEPARTMENT OF ECONOMIC DEVELOPMENT DEPARTMENT OF REAL ESTATE

MUNICIPAL ENGINEER'S CERTIFICATION:

I CERTIFY THAT THIS PLAN MEETS ALL ENGINEERING AND DESIGN REQUIREMENTS OF THE APPLICABLE ORDINANCES OF THE TOWNSHIP OF SOUTH FAYETTE, EXCEPT AS DEPARTURES HAVE BEEN AUTHORIZED BY THE APPROPRIATE OFFICIALS OF THE MUNICIPALITY.

DATE _____ NAME _____ REGISTRATION NUMBER _____

THE TOWNSHIP OF SOUTH FAYETTE AGREES NOT TO ISSUE BUILDING PERMITS UNTIL THE 'PLANNING MODULE FOR LAND DEVELOPMENT' HAS BEEN APPROVED IN ACCORDANCE WITH THE REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

DATE _____ MUNICIPAL SECRETARY _____

TOWNSHIP OF SOUTH FAYETTE PLANNING COMMISSION :

REVIEWED BY THE PLANNING COMMISSION OF THE TOWNSHIP OF SOUTH FAYETTE, THIS ____ DAY OF _____, 20__

SECRETARY _____ CHAIRPERSON _____

TOWNSHIP OF SOUTH FAYETTE BOARD OF COMMISSIONERS :

THE TOWNSHIP OF SOUTH FAYETTE GIVES NOTICE THAT, IN APPROVING THIS PLAN FOR RECORDING, THE TOWNSHIP OF SOUTH FAYETTE ASSUMES NO OBLIGATION TO ACCEPT THE DEDICATION OF ANY STREETS, LAND, OR PUBLIC FACILITIES AND HAS NO OBLIGATION TO IMPROVE OR MAINTAIN SUCH STREETS, LAND OR FACILITIES.

SECRETARY _____ PRESIDENT OF THE BOARD OF COMMISSIONERS _____

APPROVED BY THE TOWNSHIP OF SOUTH FAYETTE BOARD OF COMMISSIONERS, THIS ____ DAY OF _____, 20__

SECRETARY _____ CHAIRPERSON/PRESIDENT _____

ALL CONDITIONS OF APPROVAL HAVE BEEN REVIEWED, AND THE PLAN SIGNED AND NOTED AS APPROVED, THIS ____ DAY OF _____, 20__

ALLEGHENY COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT :

REVIEWED BY THE ALLEGHENY COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT ON THIS ____ DAY OF _____, 20__

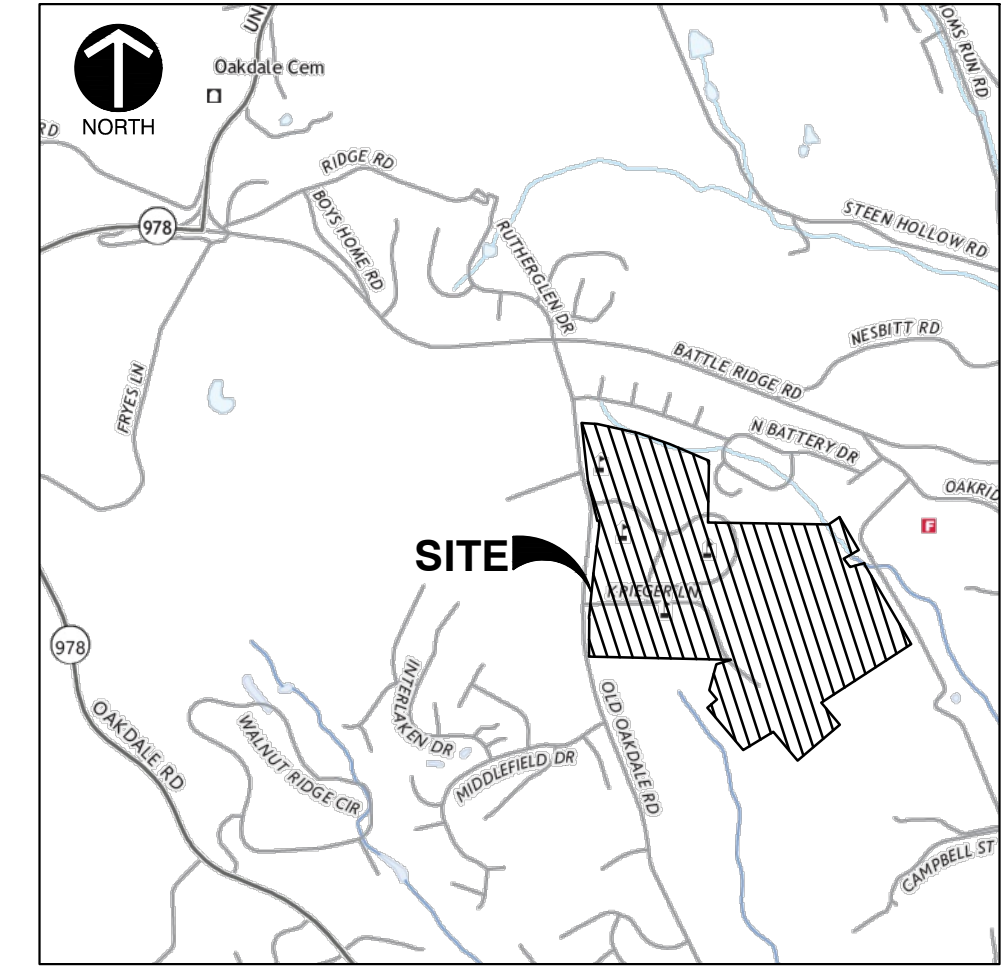
DIRECTOR _____

ALLEGHENY COUNTY DEPARTMENT OF REAL ESTATE:

RECORDED IN THE DEPARTMENT OF REAL ESTATE OF THE COUNTY OF ALLEGHENY, COMMONWEALTH OF PENNSYLVANIA, IN PLAN BOOK VOLUME _____, PAGE(S) _____

GIVEN UNDER MY HAND AND SEAL THIS ____ DAY OF _____, 20__

(SEAL) _____ MANAGER, DEPARTMENT OF REAL ESTATE



VICINITY MAP 1" = 2,000' (VICINITY MAP SHOWN PRODUCED BY THE USGS - THE NATIONAL MAP US TOPO)

ZONING:

THE SUBJECT PROPERTY IS LOCATED IN THE CD-1 (CONSERVATION) ZONING DISTRICT AS PER ZONING MAP DATED AUGUST 2017. § 240-76.11 AREA AND BULK REGULATIONS PER CHAPTER 240 ZONING ORDINANCE ADOPTED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE 6-20-2005 BY ORD. NO. 5-2005.

IN THE CD-1 CONSERVATION DISTRICT, ALL USES SHALL BE SUBJECT TO THE FOLLOWING REGULATIONS, EXCEPT AS THEY MAY BE MODIFIED BY THE EXPRESS STANDARDS AND CRITERIA FOR THE SPECIFIC CONDITIONAL USES AND USES BY SPECIAL EXCEPTION CONTAINED IN ARTICLE XV:

- A. MINIMUM LOT AREA: (1) GOLF COURSE; GOLF OR COUNTRY CLUB: 40 ACRES. (2) AGRICULTURE, CEMETERY; FORESTRY AND MINERAL REMOVAL: 10 ACRES. (3) SINGLE-FAMILY DWELLING: THREE ACRES. (4) ALL OTHER PERMITTED AND CONDITIONAL USES: ONE ACRE.

B. MINIMUM LOT WIDTH: 150 FEET.

C. MAXIMUM IMPERVIOUS SURFACE COVERAGE: 15%.

D. MINIMUM FRONT YARD: (1) PRINCIPAL AND ACCESSORY STRUCTURES: 50 FEET.

E. MINIMUM REAR YARD: (1) PRINCIPAL STRUCTURES: 30 FEET. (2) ACCESSORY STRUCTURES: SEE § 240-99C.

F. MINIMUM SIDE YARD: (1) PRINCIPAL STRUCTURES: 20 FEET. (2) ACCESSORY STRUCTURES: SEE § 240-99C.

G. SPECIAL YARD REQUIREMENTS: SEE § 240-99.

H. PERMITTED PROJECTIONS INTO REQUIRED YARDS: SEE § 240-100.

I. MAXIMUM HEIGHT: (1) PRINCIPAL STRUCTURES: 2 1/2 STORIES BUT NO MORE THAN 35 FEET. (2) ACCESSORY STRUCTURES: ONE STORY BUT NO MORE THAN 20 FEET.

J. HEIGHT EXCEPTIONS: SEE § 240-101.

NOTES:

- 1) THE PURPOSE OF THIS CONSOLIDATION PLAN IS TO CONSOLIDATE TAX PARCELS 404-C-1 AND 327-E-1 INTO ONE (1) PARCEL.
2) THE BASIS OF BEARING IS GRID NORTH DERIVED FROM POST PROCESSING METHODS USING THE NORTH AMERICAN DATUM OF 1983 (2011) STATE PLANE COORDINATES, PA SOUTH ZONE 5702. THE VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 ELEVATIONS BASED ON GEOID18.
3) FIELD SURVEY BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., DATED NOVEMBER 2025, NOVEMBER AND DECEMBER 2023, WITH SUPPLEMENTAL DATA FROM APRIL, MAY AND JULY 2020.
4) THE UTILITIES SHOWN HEREON HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES LOCATED HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. ALL UTILITIES SHOWN ON THE SURVEY ARE SHOWN BY PLAN. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES LOCATED ARE IN THE EXACT LOCATION INDICATED.
5) AREAS OF MAPPING WHERE THE GROUND SURFACE IS OBSCURED BY TALL VEGETATION AND/OR TREES ARE IDENTIFIED ON THE PLAN. CONTOURS MAY BE SHOWN, HOWEVER, A FIELD CHECK FOR ACCURACY IS HIGHLY RECOMMENDED.
6) AERIAL IMAGERY AND TOPOGRAPHY DERIVED FROM UNMANNED AERIAL PHOTOGRAMMETRY AND LIDAR DATA COLLECTED BY CEC, INC. ON 11/10/23.
7) CEC RETAINS TITLE TO ALL DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS ("WORK PRODUCT") FURNISHED TO THE CLIENT AND INTENDED FOR USE IN CONNECTION WITH PROJECTS UNDER OUR AGREEMENT WITH THE CLIENT. THE CLIENT IS GRANTED A LIMITED LICENSE TO USE AND REPRODUCE THE WORK PRODUCT PREPARED BY CEC FOR USE IN THE EXECUTION OF THE PROJECT(S) UNDER THE AGREEMENT. THE WORK PRODUCT IS NOT TO BE USED BY THE CLIENT OR OTHER CONSULTANTS, CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, OR OTHER THIRD PARTIES ON OTHER PROJECTS WITHOUT THE EXPRESS WRITTEN CONSENT OF CEC.

AREA TABULATION:

Table with 2 columns: Parcel Description and Area (SQ. FT. OR ACRES). Rows include Consolidation Parcel P.B.V. 272, PG. 66 (Tax Parcel No. 404-C-1), D.B.V. 12530, PG. 113 (Tax Parcel 327-E-1), and Consolidated Parcel.

REVISION RECORD table with columns: NO., DATE, DESCRIPTION.

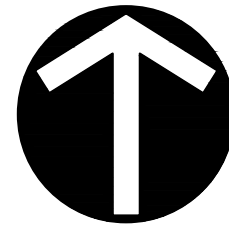
4350 Northern Pike Suite 141 Monroeville, PA 15146 Ph: 724.327.5200 www.cecinc.com Civil & Environmental Consultants, Inc.

SOUTH FAYETTE SCHOOL DISTRICT 1200 LT WILL WAY SOUTH FAYETTE TOWNSHIP ALLEGHENY COUNTY, PENNSYLVANIA

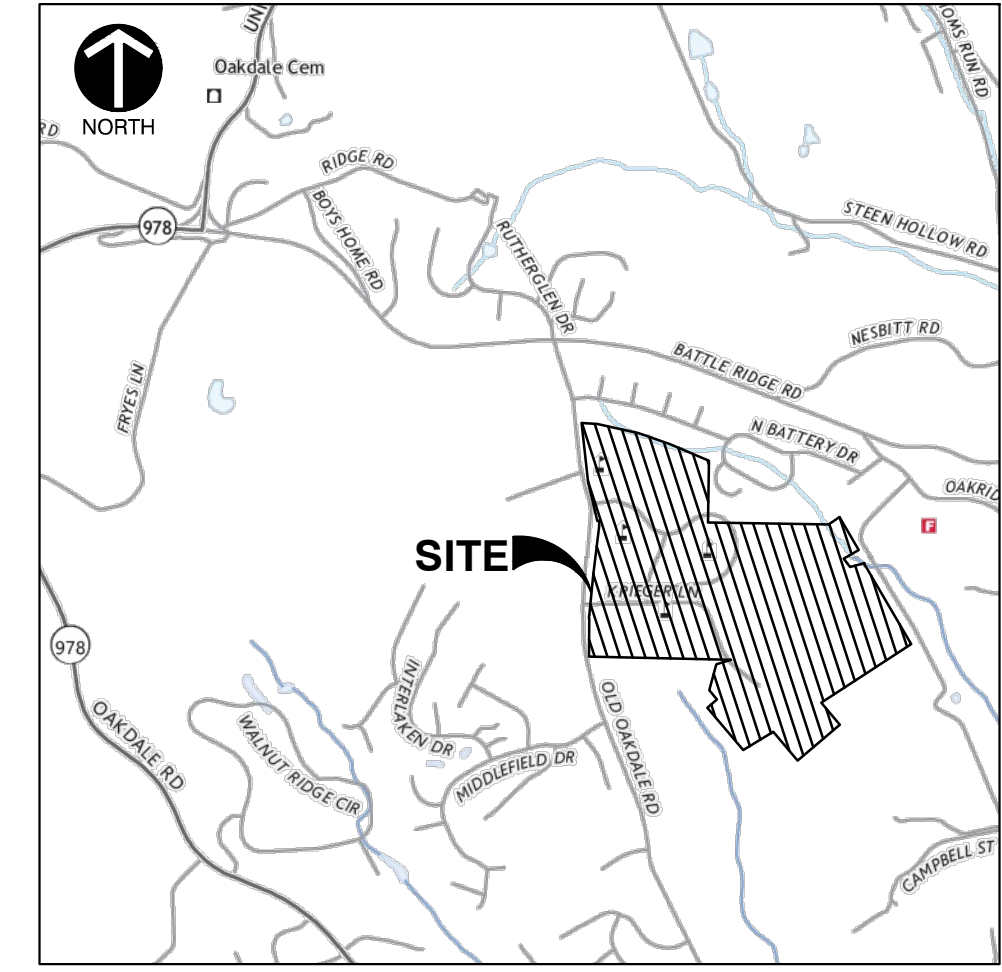
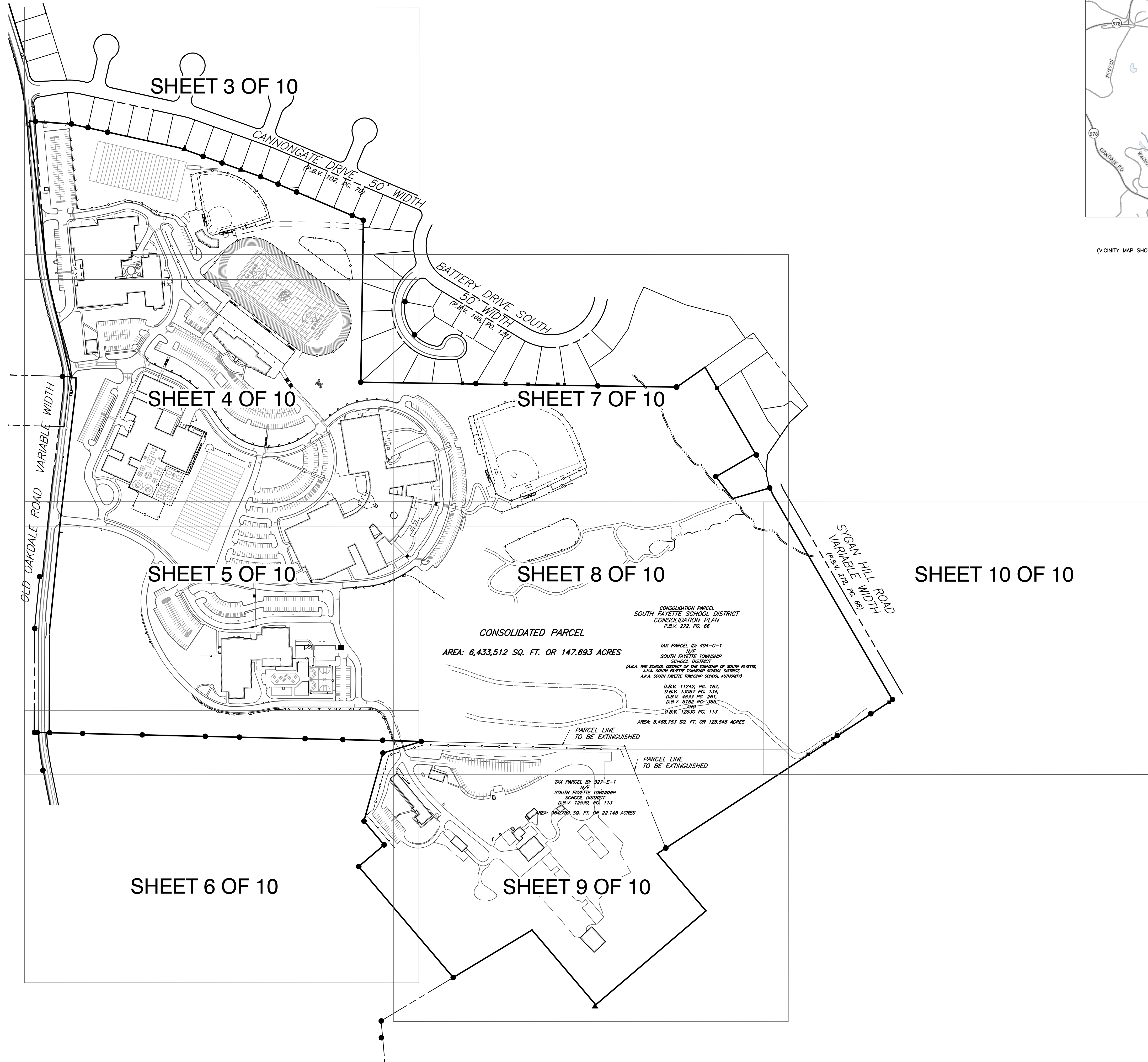
South Fayette School District Consolidation Plan. Date: December 8, 2025. Drawn by: N/A. Checked by: N/A. Project No: 336-102.3105. Approved by: [Signature]

DRAWING NO. SUB-01 SHEET 1 OF 10

Vertical text on the left margin: P:\130-1001\130-1001-Sump\Draw\130-1001-Sump-SUB.dwg (5/16/2025 7:52 AM) - Lp 12/7/2025 7:52 AM



NORTH



VICINITY MAP
1" = 2,000'
(VICINITY MAP SHOWN PRODUCED BY THE USGS - THE NATIONAL MAP US TOPO)

NO.	DATE	REVISION RECORD DESCRIPTION

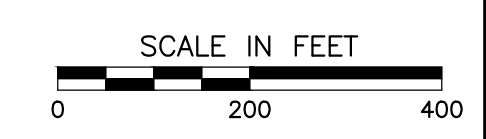
4350 Northern Pike
 Suite 141
 Monroeville, PA 15146
 Ph: 724.327.5200
 www.cecinco.com

Civil & Environmental
 Consultants, Inc.

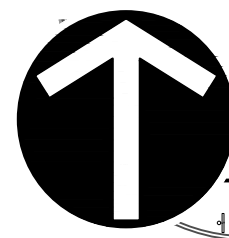
SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN

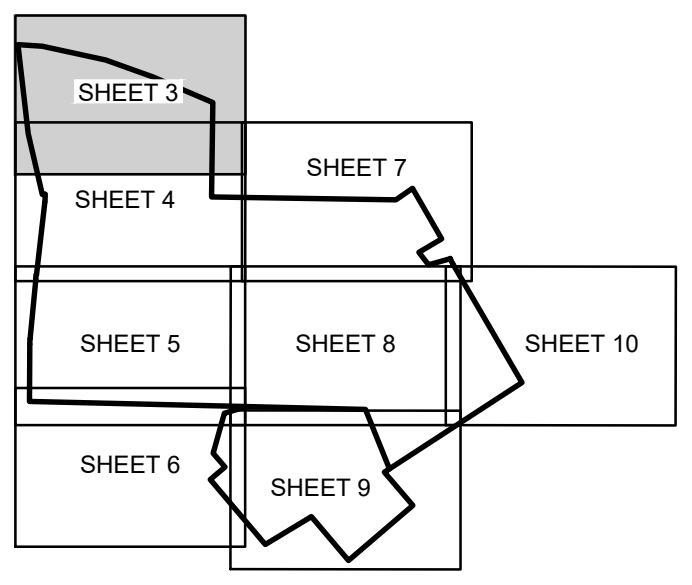
DATE: DECEMBER 5, 2025 | DRAWN BY: DJP
 DWG SCALE: 1"=200' | CHECKED BY: 336-102.3105
 PROJECT NO: 336-102.3105
 APPROVED BY: DRAFT



A:\130-1001\130-1001-Subp\Draw\130-1001-Subp.dwg | SHEET 21 LS(12/5/2025 - 09:00:00) - LP: 12/7/2025 7:52 PM

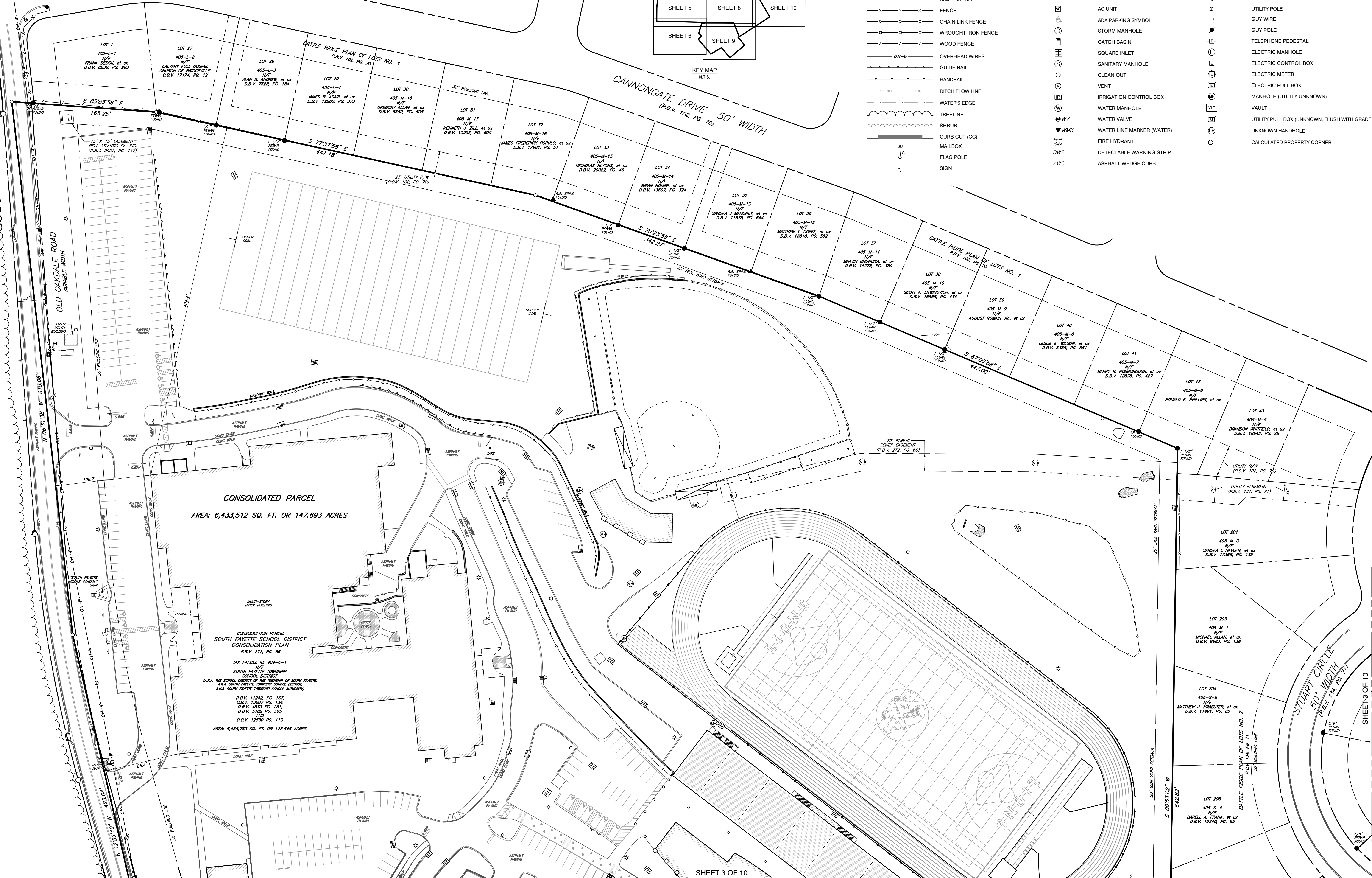


NORTH



EXISTING LEGEND:

- PROPERTY LINE
- - - ADJACENT PROPERTY LINE
- - - RIGHT-OF-WAY
- FENCE
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- WOOD FENCE
- OVERHEAD WIRES
- GUIDE RAIL
- HANDRAIL
- DITCH FLOW LINE
- WATERS EDGE
- TREELINE
- SHRUB
- CURB CUT (CC)
- MAILBOX
- FLAG POLE
- SIGN
- BOLLARD
- ☆ LIGHT STANDARD
- △ GROUND LIGHT
- AC UNIT
- ADA PARKING SYMBOL
- CATCH BASIN
- SQUARE INLET
- SANITARY MANHOLE
- CLEAN OUT
- VENT
- IRRIGATION CONTROL BOX
- WATER MANHOLE
- WATER VALVE
- WATER LINE MARKER (WATER)
- FIRE HYDRANT
- DETECTABLE WARNING STRIP
- ASPHALT WEDGE CURB
- GAS VALVE
- GAS LINE MARKER
- GAS METER
- UTILITY POLE
- GUY WIRE
- GUY POLE
- TELEPHONE PEDESTAL
- ELECTRIC MANHOLE
- ELECTRIC CONTROL BOX
- ELECTRIC METER
- ELECTRIC PULL BOX
- MANHOLE (UTILITY UNKNOWN)
- VAULT
- UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)
- UNKNOWN HANDHOLE
- CALCULATED PROPERTY CORNER



CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 66
TAX PARCEL ID: 404-C-1
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
(AKA THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)
D.B.V. 11242, PG. 167,
D.B.V. 12001, PG. 124,
D.B.V. 4833, PG. 261,
D.B.V. 5182, PG. 365
AND
D.B.V. 12320, PG. 113
AREA: 5,468,753 SQ. FT. OR 125.545 ACRES

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinc.com



SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

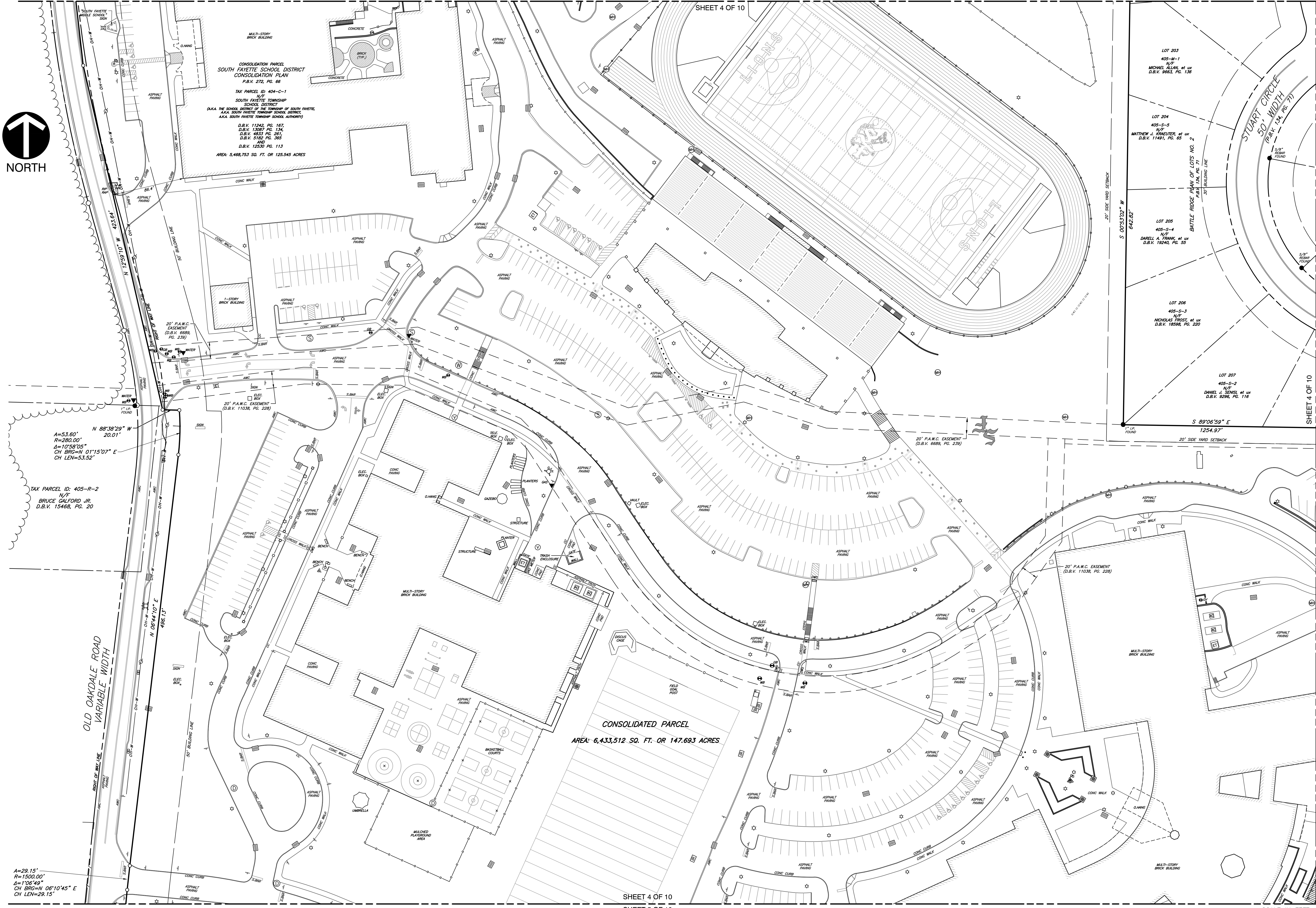
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
DRAWING NO. SUB-01
DATE: DECEMBER 5, 2025
DWG SCALE: 1"=50'
PROJECT NO: 336-102.3105
DRAFT
DJP
DRAWN BY:
CHECKED BY:
APPROVED BY:

REVISION RECORD
NO. DATE DESCRIPTION

SHEET 3 OF 10
SHEET 4 OF 10

SCALE IN FEET
0 50 100

PL130-1001 L300-1001 - Survey [Dwg] L300-1001-5101 - SUB-01.dwg [SHEET 3] LS12/25/2025 - 09:00:00 AM - LP: 12/27/2025 7:52 PM



MULTI-STORY BRICK BUILDING
CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 66
TAX PARCEL ID: 404-C-1
N/F
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY
D.B.V. 11242, PG. 167,
D.B.V. 13007, PG. 134,
D.B.V. 4633, PG. 261,
D.B.V. 5182, PG. 365
AND
D.B.V. 12530, PG. 113
AREA: 5,468,753 SQ. FT. OR 125.545 ACRES

CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

LOT 203
405-4-1
N/F
MICHAEL ALLAN, et ux
D.B.V. 9063, PG. 138

LOT 204
405-5-5
N/F
MATTHEW A. KOWALIC, et ux
D.B.V. 11491, PG. 65

LOT 205
405-5-4
N/F
DARRELL A. FRANK, et ux
D.B.V. 19240, PG. 55

LOT 206
405-5-3
N/F
NICHOLAS PROST, et ux
D.B.V. 18596, PG. 220

LOT 207
405-5-2
N/F
DANIEL J. SENIS, et ux
D.B.V. 9296, PG. 116

STUART CIRCLE
50' WIDTH
(P.B.V. 134, PG. 71)

S 89°06'59" E
1254.97'
20' SIDE YARD SETBACK

SHEET 4 OF 10
SHEET 7 OF 10

NO.	DATE	DESCRIPTION

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinc.com

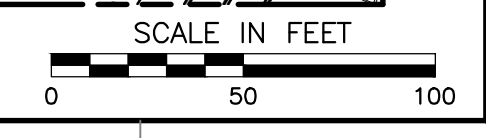
Civil & Environmental
Consultants, Inc.

**SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA**

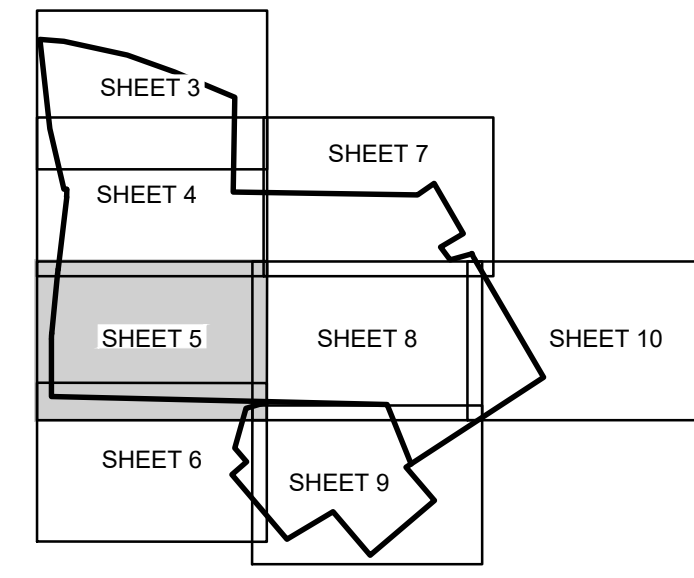
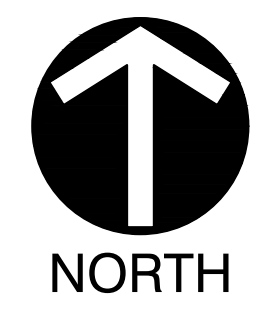
**SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN**

DRAWING NO. **SUB-01**

DATE:	DECEMBER 5, 2025	DRAWN BY:	DJP
DWG SCALE:	1"=50'	CHECKED BY:	DRAFT
PROJECT NO.:	336-102.3105	APPROVED BY:	DRAFT



F:\130-1001\130-1021\Survey\Draw\1306102-5107-508.dwg(SY01 SHEET 4) LS12/3/2025 - dpm\mky - LP 12/7/2025 7:52 PM



CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

EASEMENT AND RIGHT OF WAY RESERVATION FOR INGRESS AND EGRESS ON FOOT AND IN VEHICLES AS DESCRIBED IN D.B.V. 4592, PG. 101 (ON COMMON USE WITH THE UNITED STATES OF AMERICA, ITS SUCCESSORS AND ASSIGNS)

A=37.96'
R=402.00'
Δ=52°21'15"
CH BRG=N 02°54'13" E
CH LEN=37.95'

CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 68

TAX PARCEL ID: 404-C-1
1/2^{AC}
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
(A.K.A. THE SCHOOL DISTRICT OF SOUTH FAYETTE,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOLS AUTHORITY)
D.B.V. 11242, PG. 167,
D.B.V. 13087, PG. 134,
D.B.V. 4633, PG. 191,
D.B.V. 5162, PG. 365
AND
D.B.V. 12530, PG. 113
AREA: 5,466,783 SQ. FT. OR 125.545 ACRES

404-C-1
1/2^{AC}
MARK R. SPRAY, et al
D.B.V. 17921, PG. 26
LOT NO. 1-R
SPRAY PLAN OF LOTS NO. 3
P.B.V. 251, PG. 192

NO.	DATE	REVISION RECORD	DESCRIPTION

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinc.com

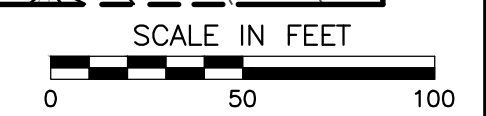


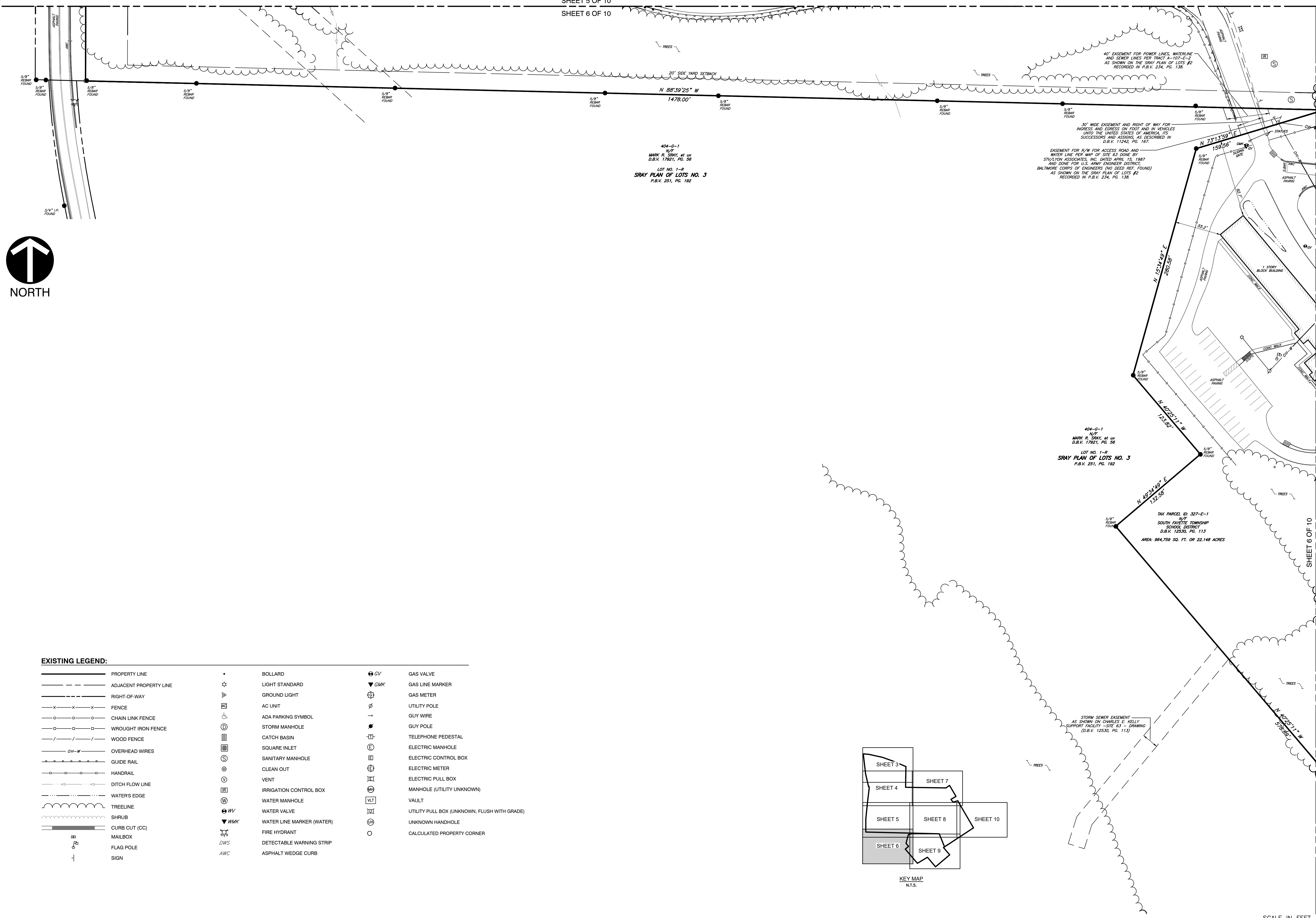
SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SOUTH FAYETTE SUBDIVISION
CONSOLIDATION PLAN

DATE: DECEMBER 6, 2025
DRAWN BY: DJP
DRAFT
PROJECT NO: 336-102.3105
1"=50'
CHECKED BY:
APPROVED BY:

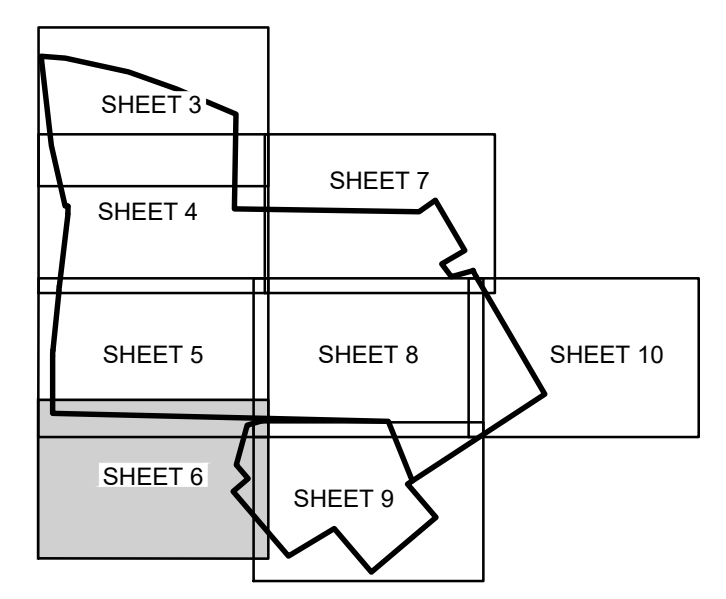
A:\130-1001\130-1021-Sump\Draw\130-1021-SUB-01.dwg (SHEET 5) LS(12/6/2025 - 09:40:44) - LP: 12/7/2025 7:52 PM





EXISTING LEGEND:

PROPERTY LINE	BOLLARD	GAS VALVE	GAS VALVE
ADJACENT PROPERTY LINE	LIGHT STANDARD	GAS LINE MARKER	GAS LINE MARKER
RIGHT-OF-WAY	GROUND LIGHT	GAS METER	GAS METER
FENCE	AC UNIT	UTILITY POLE	UTILITY POLE
CHAIN LINK FENCE	ADA PARKING SYMBOL	GUY WIRE	GUY WIRE
WROUGHT IRON FENCE	STORM MANHOLE	GUY POLE	GUY POLE
WOOD FENCE	CATCH BASIN	TELEPHONE PEDESTAL	TELEPHONE PEDESTAL
OVERHEAD WIRES	SQUARE INLET	ELECTRIC MANHOLE	ELECTRIC MANHOLE
GUIDE RAIL	SANITARY MANHOLE	ELECTRIC CONTROL BOX	ELECTRIC CONTROL BOX
HANDRAIL	CLEAN OUT	ELECTRIC METER	ELECTRIC METER
DITCH FLOW LINE	VENT	ELECTRIC PULL BOX	ELECTRIC PULL BOX
WATER'S EDGE	IRRIGATION CONTROL BOX	MANHOLE (UTILITY UNKNOWN)	MANHOLE (UTILITY UNKNOWN)
TREELINE	WATER MANHOLE	VAULT	VAULT
SHRUB	WATER VALVE	UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)	UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)
CURB CUT (CC)	WATER LINE MARKER (WATER)	UNKNOWN HANDHOLE	UNKNOWN HANDHOLE
MAILBOX	FIRE HYDRANT	CALCULATED PROPERTY CORNER	CALCULATED PROPERTY CORNER
FLAG POLE	DETECTABLE WARNING STRIP		
SIGN	ASPHALT WEDGE CURB		



KEY MAP
N.T.S.



REVISION RECORD

NO.	DATE	DESCRIPTION

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinc.com

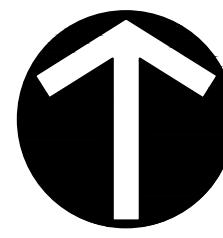
Civil & Environmental
Consultants, Inc.

**SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA**

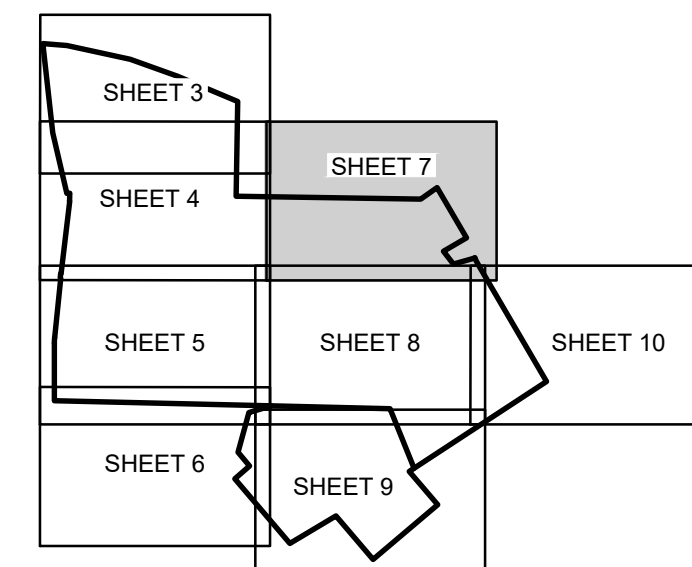
**SOUTH FAYETTE SUBDIVISION
CONSOLIDATION PLAN**

DATE: DECEMBER 5, 2025	DRAWN BY: DJP
DWG SCALE: 1"=50'	DRAFT
PROJECT NO: 336-102.3105	CHECKED BY:
APPROVED BY:	DRAFT

A:\130-1001\130-1021-Subp\130-1021-Subp.dwg (SHEET 6) L5/12/2025 7:52 PM
 A:\130-1001\130-1021-Subp\130-1021-Subp.dwg (SHEET 6) L5/12/2025 7:52 PM



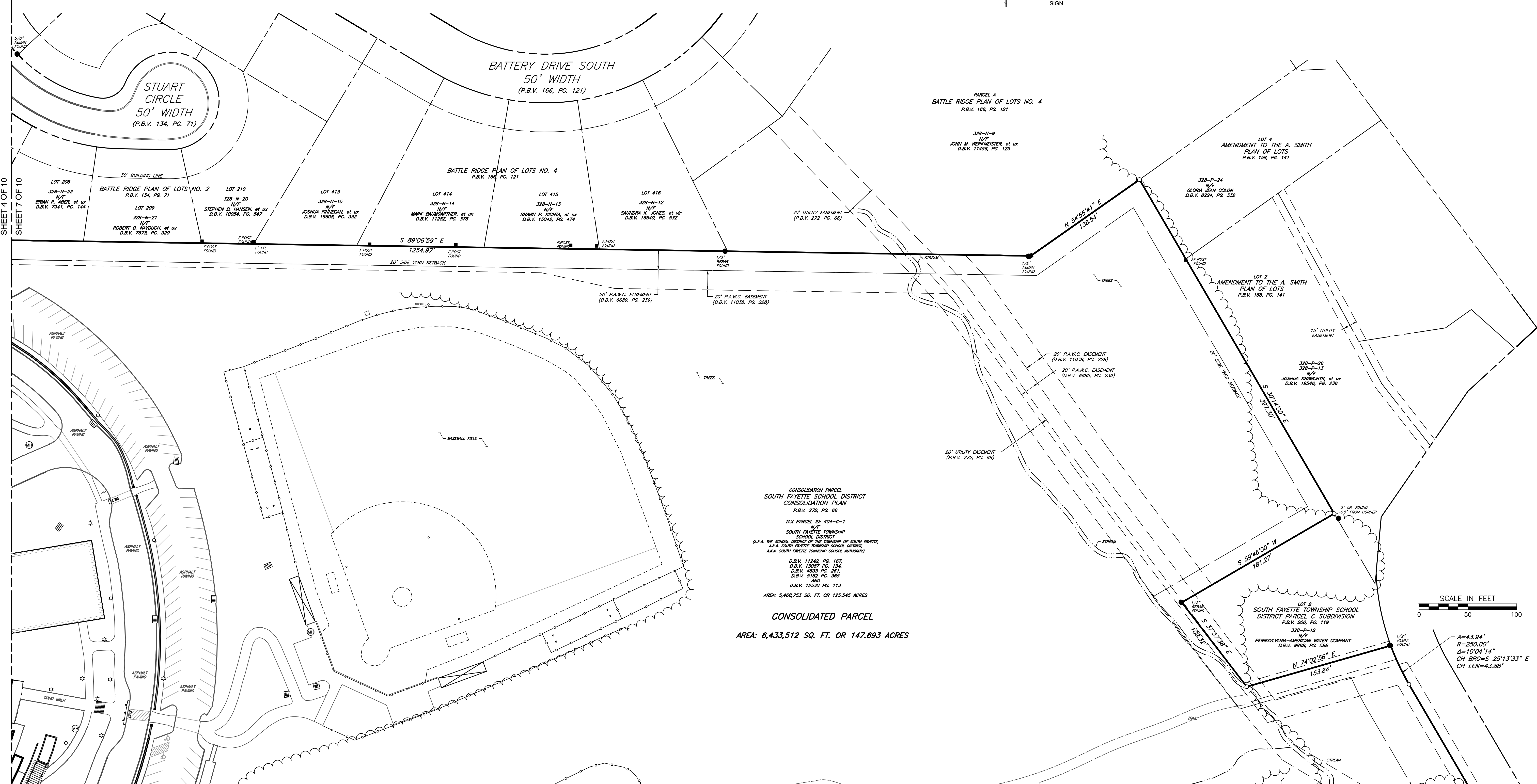
NORTH



KEY MAP
N.T.S.

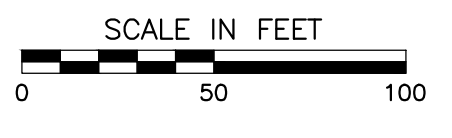
EXISTING LEGEND:

- | | | |
|------------------------|---------------------------|--|
| PROPERTY LINE | BOLLARD | GAS VALVE |
| ADJACENT PROPERTY LINE | LIGHT STANDARD | GAS LINE MARKER |
| RIGHT-OF-WAY | GROUND LIGHT | GAS METER |
| FENCE | AC UNIT | UTILITY POLE |
| CHAIN LINK FENCE | ADA PARKING SYMBOL | GUY WIRE |
| WROUGHT IRON FENCE | STORM MANHOLE | GUY POLE |
| WOOD FENCE | CATCH BASIN | TELEPHONE PEDESTAL |
| OVERHEAD WIRES | SQUARE INLET | ELECTRIC MANHOLE |
| GUIDE RAIL | SANITARY MANHOLE | ELECTRIC CONTROL BOX |
| HANDRAIL | CLEAN OUT | ELECTRIC METER |
| DITCH FLOW LINE | VENT | ELECTRIC PULL BOX |
| WATERS EDGE | IRRIGATION CONTROL BOX | MANHOLE (UTILITY UNKNOWN) |
| TREELINE | WATER MANHOLE | VAULT |
| SHRUB | WATER VALVE | UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE) |
| CURB CUT (CC) | WATER LINE MARKER (WATER) | UNKNOWN HANDHOLE |
| MAILBOX | FIRE HYDRANT | CALCULATED PROPERTY CORNER |
| FLAG POLE | DETECTABLE WARNING STRIP | |
| SIGN | ASPHALT WEDGE CURB | |



CONSOLIDATION PARCEL
 SOUTH FAYETTE SCHOOL DISTRICT
 CONSOLIDATION PLAN
 P.B.V. 272, PG. 86
 TAX PARCEL ID: 404-C-1
 N/T
 SOUTH FAYETTE TOWNSHIP
 SCHOOL DISTRICT
 (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE,
 A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
 A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)
 D.B.V. 11242, PG. 167
 D.B.V. 13091, PG. 134
 D.B.V. 4931, PG. 261
 D.B.V. 5102, PG. 302
 AND
 D.B.V. 10280, PG. 113
 AREA: 5,468,793 SQ. FT. OR 125.545 ACRES

CONSOLIDATED PARCEL
 AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

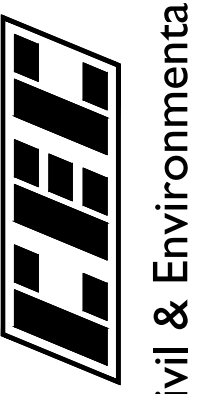


A=43.94'
 R=250.00'
 Δ=10°04'14"
 CH BRG=S 25°13'33" E
 CH LEN=43.88'

REVISION RECORD

NO.	DATE	DESCRIPTION

4350 Northern Pike
 Suite 141
 Monroeville, PA 15146
 Ph: 724.327.5200
 www.ccecinc.com



SOUTH FAYETTE SCHOOL DISTRICT
 1200 LT WILL WAY
 SOUTH FAYETTE TOWNSHIP
 ALLEGHENY COUNTY, PENNSYLVANIA

SOUTH FAYETTE SCHOOL DISTRICT
 CONSOLIDATION PLAN
 DATE: DECEMBER 5, 2025 | DRAWN BY: DJP
 DWS SCALE: 1"=50' | CHECKED BY: 336-102.3105
 PROJECT NO.: 336-102.3105
 APPROVED BY:



SHEET 5 OF 10
SHEET 6 OF 10

SHEET 8 OF 10
SHEET 10 OF 10

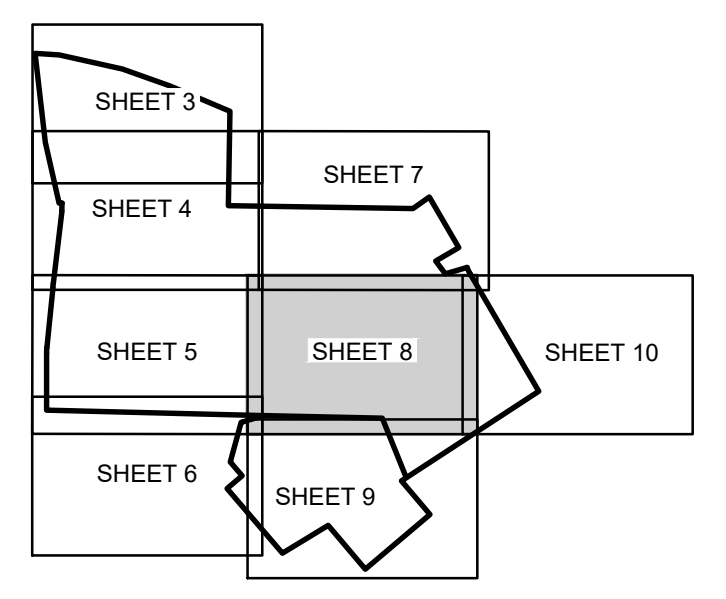
CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 66

TAX PARCEL ID: 404-C-1
N/T
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
(A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)
D.B.V. 11242, PG. 167
D.B.V. 13087, PG. 134
D.B.V. 4833, PG. 261
D.B.V. 5182, PG. 365
AND
D.B.V. 12530, PG. 113
AREA: 5,468,753 SQ. FT. OR 125.545 ACRES

EXISTING LEGEND:

	PROPERTY LINE		BOLLARD		GAS VALVE
	ADJACENT PROPERTY LINE		LIGHT STANDARD		GAS VALVE MARKER
	RIGHT-OF-WAY		GROUND LIGHT		GAS METER
	FENCE		AC UNIT		UTILITY POLE
	CHAIN LINK FENCE		ADA PARKING SYMBOL		GUY WIRE
	WROUGHT IRON FENCE		STORM MANHOLE		GUY POLE
	WOOD FENCE		CATCH BASIN		TELEPHONE PEDESTAL
	OVERHEAD WIRES		SQUARE INLET		ELECTRIC MANHOLE
	GUIDE RAIL		SANITARY MANHOLE		ELECTRIC CONTROL BOX
	HANDRAIL		CLEAN OUT		ELECTRIC METER
	DITCH FLOW LINE		VENT		ELECTRIC PULL BOX
	WATER'S EDGE		IRRIGATION CONTROL BOX		MANHOLE (UTILITY UNKNOWN)
	TREELINE		WATER MANHOLE		VAULT
	SHRUB		WATER VALVE		UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)
	CURB CUT (CC)		WATER LINE MARKER (WATER)		UNKNOWN HANDHOLE
	MAILBOX		FIRE HYDRANT		CALCULATED PROPERTY CORNER
	FLAG POLE		DETECTABLE WARNING STRIP		
	SIGN		ASPHALT WEDGE CURB		



KEY MAP
N.T.S.

SCALE IN FEET
0 50 100

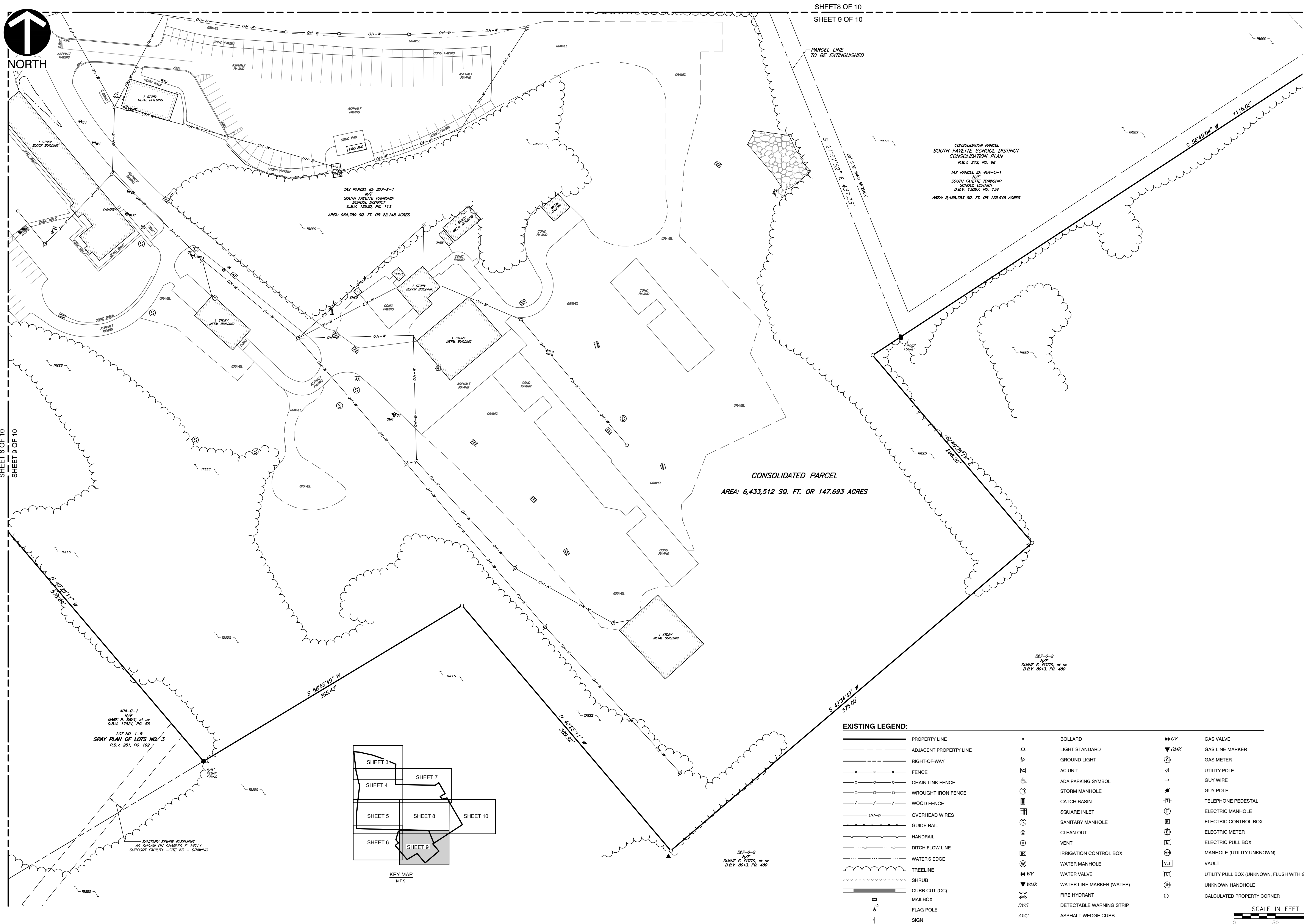
REVISION RECORD	
NO.	DATE

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.ccecinc.com

Civil & Environmental
Consultants, Inc.

SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SOUTH FAYETTE SCHOOL DISTRICT		CONSOLIDATION PLAN	
DATE:	DECEMBER 5, 2025	DRAWN BY:	DJP
DWG SCALE:	1"=50'	CHECKED BY:	336-102.3105
PROJECT NO.:	336-102.3105	APPROVED BY:	DRAFT



SHEET 8 OF 10
SHEET 9 OF 10

SHEET 6 OF 10
SHEET 9 OF 10

TAX PARCEL ID: 327-E-1
N/E
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
D.B.V. 12530, PG. 113
AREA: 964,759 SQ. FT. OR 22.148 ACRES

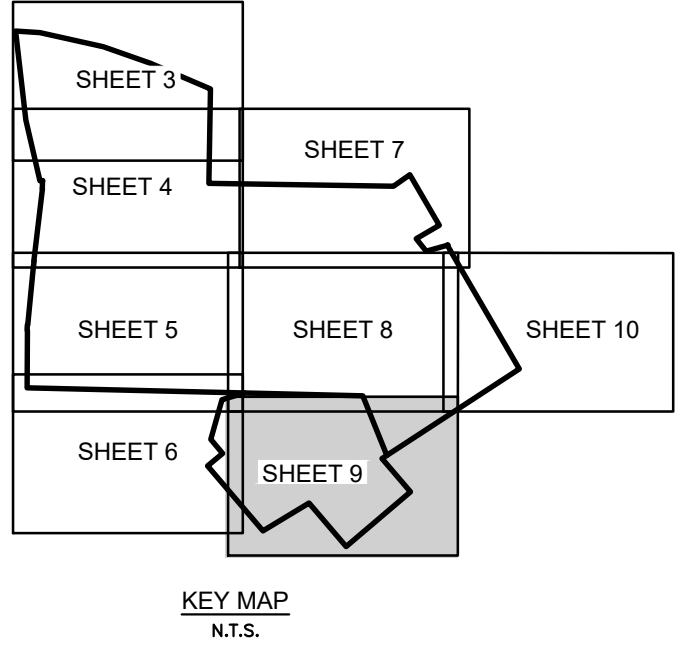
CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 66
TAX PARCEL ID: 404-C-1
N/E
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
D.B.V. 13097, PG. 134
AREA: 5,468,753 SQ. FT. OR 125.545 ACRES

CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

327-G-2
N/E
DUANE F. POTTS, et al
D.B.V. 8013, PG. 480

404-G-1
N/E
MARK R. SHINE, et al
D.B.V. 17821, PG. 58
LOT NO. 1-R
SPRAY PLAN OF LOTS NO. 3
P.B.V. 251, PG. 192

SANITARY SEWER EASEMENT
AS SHOWN ON CHARLES E. KELLY
SUPPORT FACILITY - SITE 63 - DRAWING



EXISTING LEGEND:

—	PROPERTY LINE	•	BOLLARD	⊕ G/V	GAS VALVE
- - -	ADJACENT PROPERTY LINE	☆	LIGHT STANDARD	▼ G/MK	GAS LINE MARKER
- - - - -	RIGHT-OF-WAY	⊕	GROUND LIGHT	⊕	GAS METER
- x - x - x -	FENCE	⊕	AC UNIT	⊕	UTILITY POLE
○ ○ ○ ○ ○	CHAIN LINK FENCE	⊕	ADA PARKING SYMBOL	⊕	GUY WIRE
□ □ □ □ □	WROUGHT IRON FENCE	⊕	STORM MANHOLE	⊕	GUY POLE
- / - / - / - /	WOOD FENCE	⊕	CATCH BASIN	⊕	TELEPHONE PEDESTAL
OH-W	OVERHEAD WIRES	⊕	SQUARE INLET	⊕	ELECTRIC MANHOLE
—	GUIDE RAIL	⊕	SANITARY MANHOLE	⊕	ELECTRIC CONTROL BOX
—	HANDRAIL	⊕	CLEAN OUT	⊕	ELECTRIC METER
—	DITCH FLOW LINE	⊕	VENT	⊕	ELECTRIC PULL BOX
—	WATERS EDGE	⊕	IRRIGATION CONTROL BOX	⊕	MANHOLE (UTILITY UNKNOWN)
—	TREELINE	⊕	WATER MANHOLE	⊕	VAULT
—	SHRUB	⊕	WATER VALVE	⊕	UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)
—	CURB CUT (CC)	⊕	WATER LINE MARKER (WATER)	⊕	UNKNOWN HANDHOLE
—	MAILBOX	⊕	FIRE HYDRANT	⊕	CALCULATED PROPERTY CORNER
—	FLAG POLE	⊕	DETECTABLE WARNING STRIP		
—	SIGN	⊕	ASPHALT WEDGE CURB		

SCALE IN FEET
0 50 100

NO.	DATE	REVISION RECORD	DESCRIPTION

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinc.com

Civil & Environmental
Consultants, Inc.

**SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA**

**SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN**

DATE: DECEMBER 5, 2025
DWS SCALE: 1"=50'
PROJECT NO: 336-102.3105
DRAWN BY: DJP
CHECKED BY: 1"=50'
DRAFT
APPROVED BY: DRAFT

DRAWING NO. **SUB-01**
SHEET 9 OF 10

A:\130-1001\130-1001-1021-Sump\Draw\130-1001-1021-508.dwg(SVP) SHEET 91 LS(12/5/2025 - 09:00:00) - LP: 12/7/2025 7:52 PM



20' UTILITY EASEMENT
(P.B.V. 272, PG. 66)

20' PARK EASEMENT
(D.B.V. 6689, PG. 239)

SYGAN HILL ROAD
VARIABLE WIDTH

CONSOLIDATION PARCEL
SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN
P.B.V. 272, PG. 66

TAX PARCEL ID: 404-C-1
N/F

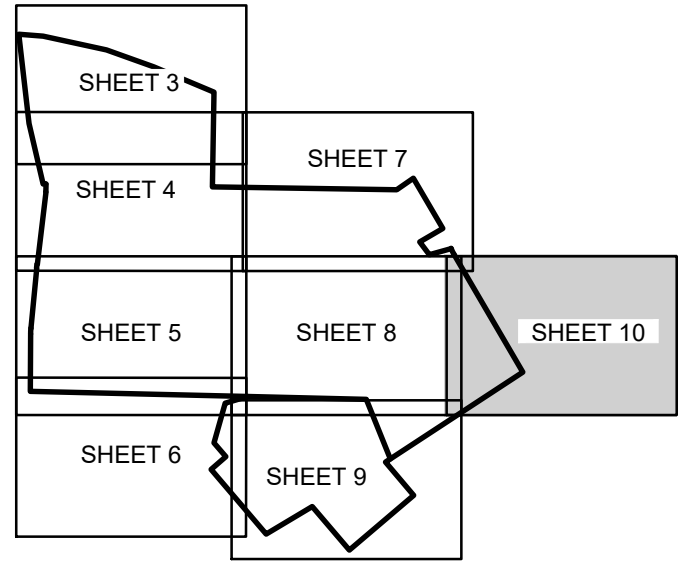
SOUTH FAYETTE TOWNSHIP
SCHOOL DISTRICT
(AKA THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE,
AKA SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
AKA SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY)

D.B.V. 11242, PG. 167,
D.B.V. 13057, PG. 134,
D.B.V. 4833, PG. 261,
D.B.V. 5162, PG. 368
AND
D.B.V. 12530, PG. 113

AREA: 5,468,793 SQ. FT. OR 125.945 ACRES

CONSOLIDATED PARCEL
AREA: 6,433,512 SQ. FT. OR 147.693 ACRES

SHEET 8 OF 10
SHEET 10 OF 10



KEY MAP
N.T.S.

EXISTING LEGEND:

	PROPERTY LINE		BOLLARD		GAS VALVE
	ADJACENT PROPERTY LINE		LIGHT STANDARD		GAS LINE MARKER
	RIGHT-OF-WAY		GROUND LIGHT		GAS METER
	FENCE		AC UNIT		UTILITY POLE
	CHAIN LINK FENCE		ADA PARKING SYMBOL		GUY POLE
	WROUGHT IRON FENCE		STORM MANHOLE		TELEPHONE PEDESTAL
	WOOD FENCE		CATCH BASIN		ELECTRIC MANHOLE
	OVERHEAD WIRES		SANITARY MANHOLE		ELECTRIC CONTROL BOX
	GUIDE RAIL		CLEAN OUT		ELECTRIC METER
	HANDRAIL		VENT		ELECTRIC PULL BOX
	DITCH FLOW LINE		IRRIGATION CONTROL BOX		MANHOLE (UTILITY UNKNOWN)
	WATER'S EDGE		WATER MANHOLE		VAULT
	TREELINE		WATER VALVE		UTILITY PULL BOX (UNKNOWN, FLUSH WITH GRADE)
	SHRUB		WATER LINE MARKER (WATER)		UNKNOWN HANDHOLE
	CURB CUT (CC)		FIRE HYDRANT		CALCULATED PROPERTY CORNER
	MAILBOX		DETECTABLE WARNING STRIP		
	FLAG POLE		ASPHALT WEDGE CURB		
	SIGN				

SCALE IN FEET
0 50 100

NO.	DATE	REVISION RECORD	DESCRIPTION

4350 Northern Pike
Suite 141
Monroeville, PA 15146
Ph: 724.327.5200
www.cecinco.com

Civil & Environmental
Consultants, Inc.

SOUTH FAYETTE SCHOOL DISTRICT
1200 LT WILL WAY
SOUTH FAYETTE TOWNSHIP
ALLEGHENY COUNTY, PENNSYLVANIA

SOUTH FAYETTE SCHOOL DISTRICT
CONSOLIDATION PLAN

DATE: DECEMBER 5, 2025
DWG SCALE: 1"=50'
PROJECT NO: 336-102.3105

DRAWN BY: DJP
DRAFT: DJP
CHECKED BY: []
APPROVED BY: []

DRAWING NO.:
SUB-01

SHEET 10 OF 10

P:\130-200\1306-1021-Sump\Draw\1306102a-SUB-01.dwg (5/1/2025 10:51:29 AM) - User: 10/27/2025 7:53 PM



Gibson-Thomas ENGINEERING

Pittsburgh Office
9951 Old Perry Highway
Wexford, PA 15090
Phone: **724-935-8188**
Fax: **724-935-8189**
www.gibson-thomas.com

January 15, 2026

GTE 18600

MEMO TO: Mr. John Barrett, Manager
South Fayette Township
100 Township Drive
South Fayette, PA 15017

FROM: Gibson-Thomas Engineering Co., Inc.
Brandon S. Wiltrout, PE, Planning Commission Representative
brandon.wiltrout@gibson-thomas.com

SUBJECT: Consolidation Plan – **Review #1**

PLAN NAME: South Fayette School District Consolidation Plan

APPLICATION NO.: S-09-2025

LOCATION: Old Oakdale Road
McDonald, PA 15057

ZONING: CD-1 Conservation District

MADE BY: Civil & Environmental Consultants, Inc.
4350 Northern Pike, Suite 141
Monroeville, PA 15146
(724) 327-5200

MADE FOR: South Fayette School District
1200 Lt Will Way
McDonald, PA 15057
(412) 221-4542

DATE OF PLAN: December 5, 2025

RECEIVED IN
GTE OFFICE: December 9, 2025

SUBMITTED
MATERIAL:

- Subdivision Plan (10 Sheets)
- Township Subdivision Application
- Agent Authorization Form

ESTABLISHED 1916

General Comments

1. Gibson-Thomas Engineering Co., on behalf of South Fayette Township, reserves the right to re-review ordinances, address and apply other existing ordinances as we deem necessary to assure compliance with any and all drawings, reports, and exhibits when submitted or resubmitted on behalf of the applicant.
2. When resubmitting the revised plan, a review response letter addressing the comments contained herein is required.
3. This project involves the consolidation of two commonly owned tax parcels, 404-C-1 and 327-E-1, into one parcel within the Township. Both parcels are currently developed and contain the South Fayette School District primary schools and bus garage. The original lot sizes of Parcel Nos. 404-C-1 and 327-E-1 are 125.545 acres and 22.148 acres, respectively. Following the proposed consolidation, the new lot size will be 147.693 acres.
4. The Applicant shall address any third-party review and comments prior to final approval. This includes, but is not limited to, the review submitted by Allegheny County Economic Development dated 01/07/2026.

Chapter 215 - Subdivision/Land Development Comments

1. § 215-10 – This project is being reviewed as a minor subdivision.
2. § 215-13.L.5 – The Applicant shall provide the setback lines for Parcel No. 327-E-1.
3. § 215-13.L.6 – The Applicant shall provide spot elevations for the existing buildings and structures.
4. § 215-13.L.13 – The Applicant shall provide the Deed Required Notification Clause.
5. § 215-16 – Upon approval of a final plat by the Board of Commissioners, the developer shall record such plat in the Office of the Allegheny County Recorder of Deeds either within 90 days of such final approval, or within 90 days after the date of delivery of an approved plat signed by the Board of Commissioners following completion of any conditions imposed for such approval in accordance with the terms of the development agreement, whichever is later.

Chapter 240 - Zoning Comments

1. § 240-76.11.I – The Applicant shall label any buildings exceeding the maximum height requirement as existing, legal, and non-conforming.

Sincerely,

GIBSON-THOMAS ENGINEERING CO., INC.



Brandon S. Wilttrout, PE
Project Manager

The plans have been reviewed for conformance to the South Fayette Township adopted ordinances only. Gibson Thomas Engineering reserves the right to provide further and additional comments on the submitted plans upon the request of the South Fayette Township. The review has been based on surveys and drawings prepared by others and assumes this information is correct and valid as submitted. The Applicant shall acknowledge that any and all comments from this letter and any successive letters must be addressed before final approval.

COUNTY OF



ALLEGHENY

SARA INNAMORATO
COUNTY EXECUTIVE

January 7, 2026

Gary Hartz
Planning Manager
South Fayette Township
100 Township Drive
South Fayette, PA 15017

Project: **South Fayette School District Consolidation Plan**
Location: 1200 Lt Will Way
Description: Consolidation (CD-1)
Area: 147.693 acres
ACED File#: 25-341 SU

Dear Mr. Hartz,

We received the above-referenced application on December 12, 2025, for a consolidation of parcel #404-C-1 and #327-E-1 into one lot on Lt Will Way in South Fayette Township. We reviewed the application, and we offer the following comments:

- A deed required notification clause should be added to the plan.
 - It appears the current deed for parcel #404-C-1 is not accurate to the current property.
- The setback lines should be added on the southern end of the property (sheet 9/10).

Should you have any questions, please contact Zoe Papernick at (412) 350-1361 or at zoe.papernick@alleghenycounty.us.

Sincerely,

Matthew T. Trepal, AICP
Manager, Planning Division

MTT:zmp



Plan Name: SFTWP School District Consolidation Plan	Plan File Number: S-09-2025
Location: Parcels 327-E-1 & 404-C-1	Application Type: Minor Subdivision
Zoning: CD-1, Conservation	Applicant: South Fayette Township School District Primary School Consolidation Plan

The Township of South Fayette requests your review and comment on the above referenced subdivision plan.

	Code Enf.	Public Works	wwWorks Police	Fire Dept.	EAC	SFSD	MATSF	ACED		Engr Cons.	Trfc Engr.
Reports: Environmental											
Geotechnical											
Traffic											
Plans:											
Other:											

Please forward your comments to South Fayette Township, 100 Township Drive, South Fayette, PA, 15017 or by calling (412) 221-8700.

Gary Hartz, Planning Director

12/9/2025
Date

Agency Comments: MATSF—No Comments

Nick Goettman
Agency Signature

12-15-25
Date



**Allegheny County
Valerie McDonald Roberts
Recorder of Deeds
Pittsburgh, PA 15219**

Instrument Number: 2005-24598

Recorded On: July 26, 2005 As-Deed

Parties: UNITED STATES AMERICA BY SEC ARMY

To SOUTH FAYETTE TWP SCHL DIST

of Pages: 32

Comment:

****DO NOT REMOVE-THIS PAGE IS PART OF THE RECORDED DOCUMENT****

Deed		99.00
	Pages > 4	27
	Names > 4	0
Total:		99.00

Realty Transfer Stamp

Affidavit Attached-Yes	Stamp Num-T230571
SOUTH FAYETTE TP	EXEMPT
Ward-99-NO WARD	
Blk/Lot-NONE	Value 0.00
Commonwealth of Pennsylvania	0.00
Munic-South Fayette Twp	0.00
School District-South Fayette	0.00
	0.00

Deed Registry Stamp

OFFICE OF PROPERTY ASSESSMENTS	- BLOCK AND LOT NUMBER
<i>Samuel Z. Wilson</i>	9946-X-884
Date: / / - Int. By:	KS
8-4-2005	

I hereby certify that the within and foregoing was recorded in the Recorder's Office in Allegheny County, PA

****DO NOT REMOVE-THIS PAGE IS PART OF THE RECORDED DOCUMENT****

File Information:

Document Number: 2005-24598
 Receipt Number: 493013
 Recorded Date/Time: July 26, 2005 04:02P
 Book-Vol/Pg: BK-DE VL-12530 PG-113
 User / Station: M Ward - Cash Super 12

Record and Return To:

TUCKER ARENSBERG P C
 ATTN CONNIE ORIENT
 1500 1 P P G PLACE
 PITTSBURGH PA 15222



Valerie McDonald Roberts
 Valerie McDonald-Roberts Recorder of Deeds

54

WHEN RECORDED, RETURN TO:

U.S.ARMY, CORPS OF ENGINEERS
BALTIMORE DISTRICT
ATTN: CENAB-RE-S
P.O. BOX 1715
BALTIMORE, MD 21203-1715

QUITCLAIM DEED

**CHARLES E. KELLY SUPPORT FACILITY
SITE 63
OAKDALE, PENNSYLVANIA**

THIS QUITCLAIM DEED, made and entered into this 24 day of June 2005, by and between the UNITED STATES OF AMERICA (hereinafter the "GRANTOR"), acting by and through the Deputy Assistant Secretary of the Army (Installations & Housing), pursuant to a delegation of authority from the SECRETARY OF THE ARMY (hereinafter the "ARMY"), under the authority of the provisions of the Federal Property and Administrative Services Act of 1949, approved June 30, 1949 (63 Stat. 377), 40 U.S.C. §101, et seq., as amended, the authority contained in United States Code, Title 10, Section 18240, as amended, and in furtherance of the Exchange Agreement ("hereinafter Exchange Agreement"), dated 22 October 2004, and **SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A COMMONWEALTH OF PENNSYLVANIA PUBLIC SCHOOL DISTRICT**, having its principal place of business at 2250 Old Oakdale Road, McDonald, Pennsylvania 15057-2580, and its successors and assigns (hereinafter the "GRANTEE").

WITNESSETH THAT:

WHEREAS, the GRANTOR is the owner of certain real property located at Old Oakdale Road, South Fayette Township, Allegheny County, Commonwealth of Pennsylvania, commonly known as Site 63, Pittsburgh Support Facility, formerly a part of the Pittsburgh Defense Area Nike Battery 62 (hereinafter the "Property"); and

WHEREAS, the Property is being transferred as an exchange for a parcel of land, comprised of 21.08 acres of land, more or less, located in Spring Township, Centre County, Pennsylvania, under the terms and conditions set forth in the Exchange Agreement between the United States and GRANTEE.

NOW THEREFORE, the GRANTOR for and in consideration of the parcel of land, totaling 21.08 acres of land, more or less, described in the Exchange Agreement, from the GRANTEE does hereby REMISE, RELEASE and forever QUITCLAIM unto GRANTEE, its successors and to its assigns, all its right, title, and interest in the Property situated, lying and being in the County of Allegheny, Commonwealth of Pennsylvania, containing approximately 24.65 acres (22.08 fee and 2.57 acres easement) as shown on Exhibit "A", attached hereto and made a part hereof.

SUBJECT TO all valid and existing restrictions, reservations, covenants, conditions, and easements, including but not limited to rights-of-way for highways, pipelines and public utilities, if any, whether of public record or not.

TO HAVE AND TO HOLD the property granted herein to the GRANTEE and its successors and assigns, together with all and singular appurtenances thereunto belonging or in anywise appertaining, and all the estate, right, title, interest, or claim whatsoever of the GRANTOR, either in law or in equity and subject to the terms, reservations, restrictions, covenants, and conditions set forth in this Deed.

I. NOTICES, RESTRICTIONS, AND COVENANTS

A. AND IT IS FURTHER AGREED AND UNDERSTOOD by and between the parties hereto that the GRANTEE, by its acceptance of this Deed, agrees that, as part of the consideration for this Deed, the GRANTEE covenants and agrees for itself, its successors, and assigns forever, that this Deed is made and accepted upon each of the following notices,

restrictions, and covenants, which notices, restrictions, and covenants shall be binding upon and enforceable against the GRANTEE, its successors, and assigns in perpetuity, and that the notices, covenants, and restrictions set forth herein Exhibit B to this Deed, are a binding servitude on the Property herein conveyed and shall be deemed to run with the land in perpetuity.

B. NO LIABILITY FOR NON-ARMY CONTAMINATION

The Army shall not incur liability for additional response action or corrective action, found to be necessary after the date of transfer, in any case in which the person or entity to whom the Property is transferred, or other non-Government entities, is identified as the party responsible for contamination of the Property.

II. CONDITION OF PROPERTY

The GRANTEE has inspected, knows, and accepts the condition and state of repair of the subject Property. The GRANTEE understands and agrees that the Property and any part thereof is offered "AS IS" and "WHERE IS" without any representation, warranty or guaranty by the GRANTOR as to quantity, quality, title, character, condition, size, or kind, or that the same is in condition or fit to be used for the purpose(s) intended by the GRANTEE, and no claim for allowance or deduction upon such grounds will be considered.

III. ANTI-DEFICIENCY ACT CLAUSE

The GRANTOR'S obligation to pay or reimburse any money under this Deed is subject to the availability of funds appropriated for this purpose to the Department of the Army, and nothing in this Deed shall be interpreted to require obligations or payments by the GRANTOR in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

IV. NO WAIVER

The failure of the Government to insist in any one or more instances upon complete performance of any of the said notices, covenants, conditions, restrictions, or reservations shall not be construed as a waiver or a relinquishment of the future performance of any such covenants, conditions, restrictions, or reservations; but the obligations of the GRANTEE, its successors and assigns, with respect to such future performance shall continue in full force and effect.

V. NOTICES

Any notice, demand, request, consent, approval or communications that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by mail, postage prepaid, addressed as follows:

GRANTOR:

Department of the Army
ATTN: CENAB-RE-S
C/o U.S. Army Engineer District
Baltimore, P.O. Box 1715
Baltimore, Maryland 21203-1715

GRANTEE:

C.O.R.
South Fayette Township School District
2250 Old Oakdale Road
McDonald, Pennsylvania 15057-2580

Paul J. White

The provisions of 10 U.S.C. Section 18233a have been complied with.

IN WITNESS WHEREOF, the GRANTOR has caused this Deed to be executed in its name by the Deputy Assistant Secretary of the Army (Installations & Housing) and the Seal of the Department of the Army to be hereunto affixed this 24 day of June 2005.

UNITED STATES OF AMERICA

BY: Joseph W. Whitaker
Joseph W. Whitaker
Deputy Assistant Secretary of the Army
(Installations and Housing)
OASA (I&E)

Signed and sealed and delivered
in the presence of:

Witness Betty B. Michelys

Witness Rudolf P. Wagon

ACCEPTANCE

SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT and its successors hereby accepts this Quitclaim Deed for itself, its successors and assigns, subject to all of the conditions, reservations, restrictions and terms contained therein.

IN WITNESS WHEREOF, SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT has caused these presents to be executed by its governing body and is within the scope of its legal powers.

SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT

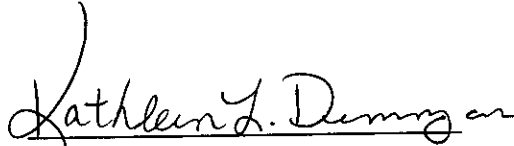
BY:  _____

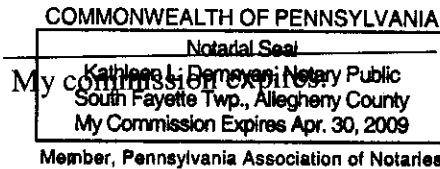
DATE: July 19, 2005

COMMONWEALTH OF PENNSYLVANIA)
) SS:
COUNTY OF ALLEGHENY)

On this 19th day of July 2005, before me, a Notary Public in
and for said County and State, personally appeared Vincent J. Lamberti,
personally known to me (or proven to me on the basis of satisfactory evidence) to be the
person whose name is subscribed to the within instrument, and acknowledged to me that
he executed same for and on behalf of SOUTH FAYETTE TOWNSHIP SCHOOL
DISTRICT.

WITNESS my hand and official seal.


Notary Public



CERTIFICATE OF GRANTEE'S ATTORNEY

I, W Theodore Brooks, acting as attorney for SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, herein referred to as the "GRANTEE", do hereby certify: that I have examined the foregoing Quitclaim Deed and the proceedings taken by the GRANTEE relating thereto, and find that the acceptance thereof by the GRANTEE as been duly authorized and that the execution thereof is in all respects due and proper and in accordance with the laws of the Commonwealth of Pennsylvania, and further that, in my opinion, the Quitclaim Deed constitutes a legal and binding compliance obligation of the GRANTEE in accordance with the terms thereof.

Dated at Pittsburgh Pa this 25th day of June 2005.

BY W Theodore Brooks

Title Solicitor

This Deed was prepared by Arthur Starr, Attorney at Law

U.S. Army Corps of Engineers, Baltimore District

EXHIBITS

A - Legal Description

B - Notice, Use Restrictions, and Restrictive Covenants

B-1 - Notification of Hazardous Substance Storage, Release, or Disposal

B-2 - Notification of Petroleum Products Storage, Release, or Disposal

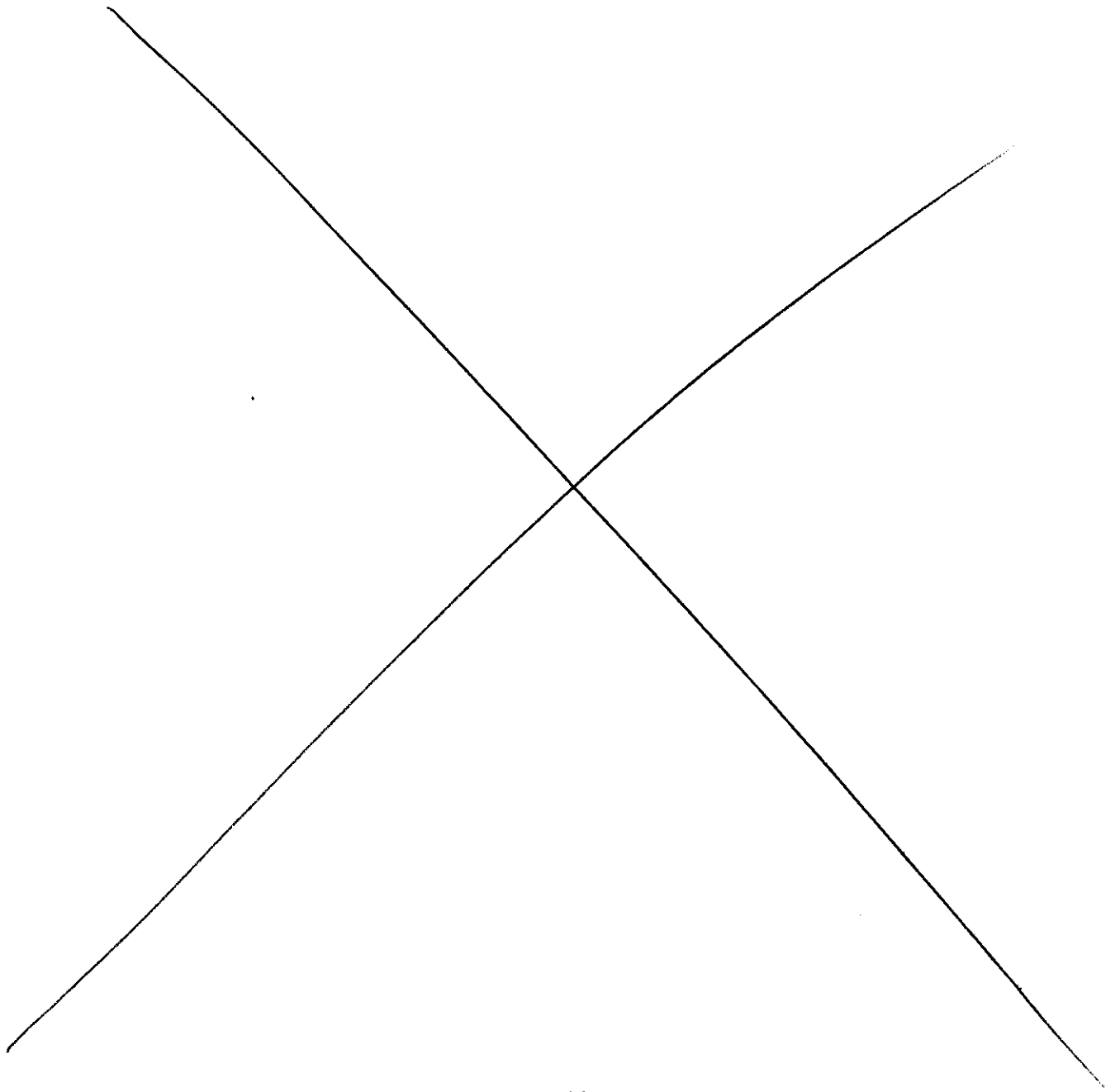


EXHIBIT A

LEGAL DESCRIPTION

CHARLES E. KELLY SUPPORT FACILITY

EXCESS AREA	PITTSBURGH SUPPORT FACILITY
TRACT NO: A	MILITARY RESERVATION
(All of former U.S. Tract Nos.	ALLEGHENY COUNTY,
A-106, A-107-1 and A-107-3)	PENNSYLVANIA

LAND DESCRIPTION

Situate in the State of Pennsylvania, County of Allegheny, South Fayette Township, being a part of Tract No. A of the Pittsburgh Support Facility, formerly Tract Nos. A-106, A-107-1 and A-107-3 of the Pittsburgh Defense Area Nike Battery 62 Project and more particularly described with bearings being referenced to the original acquisition documents for Pittsburgh Defense Area Nike Battery 62 Project, as follows:

Beginning at the common boundary of U.S. Tract No. A-107-1 and A-107-2 (lands conveyed to Jacob and Anna Vrtacnik by quitclaim deed dated 23 April 1965)) for the Pittsburgh Defense Area Nike Battery 62 Project, said corner being the southeast corner of Tract No. A-107-2 and being located approximately 1,450 feet southeast of the intersection of L.R. 02047 (a.k.a. Old Oakdale Road) and Will Way, thence with said common boundary the following two (2) courses:

North 36 degrees 30 minutes 00 seconds West 123.82 feet

North 19 degrees 30 minutes 00 seconds East 280.58 feet to a point in the north boundary of said Tract No. A-107-1; thence with said north boundary the following two (2) courses:

North 77 degrees 09 minutes 10 seconds East 159.56 feet

South 84 degrees 44 minutes 14 seconds East 799.20 feet to a point in the eastern boundary of said U.S. Tract No. A-107-1; thence with said eastern boundary the following two (2) courses:

South 18 degrees 10 minutes 04 seconds East 445.17 feet

South 62 degrees 51 minutes 00 seconds West 32.31 feet to a point in the common boundary to former U.S. Tract Nos. A-106 and A-107-1; thence with said common boundary the following three (3) courses:

EXCESS AREA
TRACT NO: A
(All of former U.S. Tract Nos.
A-106, A-107-1 and A-107-3)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
ALLEGHENY COUNTY,
PENNSYLVANIA

LAND DESCRIPTION (Cont'd)

South 36 degrees 30 minutes 00 seconds East 295.25 feet

South 53 degrees 30 minutes 00 seconds West 575.00 feet

North 36 degrees 30 minutes 00 seconds West 389.92 feet to point in the common boundary to former U.S. Tract Nos. A-107-3, said A-106, and said A-107-1; thence with said common boundary of former U.S. Tract No. A-107-3 the following three (3) courses:

South 62 degrees 51 minutes 00 seconds West 365.43 feet

North 36 degrees 30 minutes 00 seconds West 578.89 feet

North 53 degrees 30 minutes 00 seconds East 132.58 feet to the point of beginning, containing 22.08 acres, more or less.

17 August 2004, JEM

EXCESS AREA

TRACT NO: A

(All of former U.S. Tract Nos.
A-106, A-107-1 and A-107-3)

PITTSBURGH SUPPORT FACILITY

MILITARY RESERVATION

ALLEGHENY COUNTY,

PENNSYLVANIA

LAND DESCRIPTION (Cont'd)

The United States of America acquired the above-described tracts of land as follows:

U.S. Tract No. A-106: By Declaration of Taking in proceedings entitled United States of America vs. 32.22 acres of land, more or less, situate in the County of Allegheny, State of Pennsylvania, and Thomas Gordon, et al., filed 28 June 1954, in Civil Action Nos. 12430 to 12437 included, in the District Court of the United States of America for the Western District of Pennsylvania.

U.S. Tract No. A-107-1: By Declaration of Taking in proceedings entitled United States of America vs. 32.22 acres of land, more or less, situate in the County of Allegheny, State of Pennsylvania; and Thomas Gordon, et al., filed 28 June 1954, in Civil Action Nos. 12430 to 12437 included, in the District Court of the United States of America for the Western District of Pennsylvania.

U.S. Tract No. A-107-3: By Declaration of Taking in proceedings entitled United States of America vs. 3.43 acres of land, more or less, situate in Allegheny County, State of Pennsylvania; and Jacob Vrtacnik, et ux., filed 13 February 1957, in Civil Action No. 17630 & 17631, in the District Court of the United States of America for the Western District of Pennsylvania.

17 August 2004, JEM

TRACT NO. BE-5
(Formerly U.S. Tract No.
A-107E-5)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
EASEMENT
ALLEGHENY COUNTY,
PENNSYLVANIA

LAND DESCRIPTION

Situate in the State of Pennsylvania, County of Allegheny, South Fayette Township, being all of Tract No. BE-5 of the Pittsburgh Support Facility, formerly Tract No. A-107E-5 of the Pittsburgh Defense Area Nike Battery 62 Project and more particularly described with bearings being referenced to the original acquisition documents for Pittsburgh Defense Area Nike Battery 62 Project, as follows:

Commencing at point on the common boundary to U.S. Tract Nos. A-107-1 and A-107-3 of the Pittsburgh Defense Area Nike Battery 62 Project, said point being the southeast corner of Tract No. A-107-3; thence with said common boundary the following three (3) courses:

North 36 degrees 30 minutes 00 seconds West 307.08 feet

North 53 degrees 30 minutes 00 seconds East 132.58 feet

North 36 degrees 30 minutes 00 seconds West 130.54 feet;
thence crossing said Tract No. A-107-3

South 47 degrees 49 minutes 30 seconds West 133.23 feet to a point on the west line of said Tract No. A-107-3, being the Point of Beginning and being on the centerline of a strip of land twenty (20) feet in width, extending ten (10) feet on each side of the following described centerline:

South 47 degrees 49 minutes 30 seconds West 261.77 feet the point of termination, containing 0.12 acres, more or less.

17 August 2004, JEM

TRACT NO. BE-6
(Formerly U.S. Tract No.
A-107E-6)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
EASEMENT
ALLEGHENY COUNTY,
PENNSYLVANIA

LAND DESCRIPTION

Situate in the State of Pennsylvania, County of Allegheny, South Fayette Township, being all of Tract No. BE-6 of the Pittsburgh Support Facility, formerly Tract No. A-107E-6 of the Pittsburgh Defense Area Nike Battery 62 Project and more particularly described with bearings being referenced to the original acquisition documents for Pittsburgh Defense Area Nike Battery 62 Project, as follows:

Commencing at the common corner to Tract Nos. A-107-1, A-107-2 and A-107-3 of said Pittsburgh Defense Area Nike Battery 62 Project; thence with the common boundary of said Tract Nos. A-107-1 and A-107-3

South 36 degrees 30 minutes 00 seconds East 455.00 feet;
thence crossing said Tract No. A-107-3

South 53 degrees 30 minutes 00 seconds West 132.58 feet to the southwesterly line of said Tract No. A-107-3; thence along the southwesterly line of said Tract No. A-107-3

South 36 degrees 30 minutes 00 seconds East 197.8 feet to the Point of Beginning, said point being on the centerline of a strip of land twenty (20) feet in width, extending ten (10) feet on each side of the following described centerline:

South 43 degrees 30 minutes 00 seconds West 260.00 feet

South 21 degrees 30 minutes 00 seconds West 32.00 feet to the point of termination, said point being in the northwesterly line of lands now or formerly owned by Harold and Lois Potts, containing 0.13 acres, more or less. The sidelines of said twenty (20) foot easement are to be extended or shortened to meet at angle points.

17 August 2004, JEM

TRACT NOS. BE-7 and BE-8
(Formerly U.S. Tract Nos.
118E, 119E)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
EASEMENT
ALLEGHENY COUNTY
PENNSYLVANIA

LAND DESCRIPTION

Situate in the State of Pennsylvania, County of Allegheny, South Fayette Township, being all of Tract Nos. BE-7 and BE-8 of the Pittsburgh Support Facility, formerly Tract Nos. 118E and 119E of the Pittsburgh Defense Area Nike Battery 62 Project and more particularly described with bearings being referenced to the original acquisition documents for Pittsburgh Defense Area Nike Battery 62 Project, as follows:

Beginning at a point in the west boundary (Tract No. 108-1) of Nike Battery Site 62 and in the centerline of an access road constructed from the centerline of State Rural Route 02047 to Nike Site 62, said point also being South 85 degrees 40 minutes 30 seconds East 859.00 feet from the centerline of said Route 02047 and being in the centerline of a thirty (30) foot strip of land, and extending fifteen (15) feet on each side of the following described centerline:

South 85 degrees 40 minutes 30 seconds East 273.00 feet, more or less; thence along a curve to the right having a radius of 190.98 feet

Southeasterly 236.66 feet; thence

South 14 degrees 40 minutes 30 seconds East 342.00 feet to a point in the east boundary of Tract No. A-107-2, said point being referenced South 77 degrees 09 minutes 10 seconds West 92.00 feet, more or less, from the northeast corner of said Tract No. A-107-2, containing 1.14 acres, more or less. The sidelines of said thirty (30) foot easement are to be extended or shortened to meet at angle points.

23 August 2004, JEM

TRACT NO. BE-9
(Formerly U.S. Tract No.
A-108E-2)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
EASEMENT
ALLEGHENY COUNTY,
PENNSYLVANIA

LAND DESCRIPTION

Situate in the State of Pennsylvania, County of Allegheny, South Fayette Township, being all of Tract No. BE-9 of the Pittsburgh Support Facility, formerly Tract No. A-108E-2 of the Pittsburgh Defense Area Nike Battery 62 Project, being a portion of a right-of-way known as Will Way and more particularly described with bearings being referenced to the original acquisition documents for Pittsburgh Defense Area Nike Battery 62 Project, as follows:

Commencing at a common boundary corner to Tract Nos. A-108-1 and A-107-2 of the Pittsburgh Defense Area Nike Battery 62 Project, said corner being the southwest corner of Tract No. A-108-1 and the northwest corner of Tract No. A-107-2; thence with the west boundary of Tract No. A-108-1

North 07 degrees 30 minutes 00 seconds West 393.39 feet to the Point of Beginning; thence with the limits of said right-of-way

North 85 degrees 40 minutes 30 seconds West 546.85 feet

South 04 degrees 19 minutes 30 seconds West 10.00 feet

North 85 degrees 40 minutes 30 seconds West 200.00 feet

North 04 degrees 19 minutes 30 seconds East 10.00 feet

North 85 degrees 40 minutes 30 seconds West 50.00 feet

South 66 degrees 26 minutes 09 seconds West 53.03 feet to a point in the east right-of-way line of Legislative Route 02047; thence with said right-of-way line

North 09 degrees 07 minutes 30 seconds East 120.00 feet; thence leaving said right-of-way line

South 42 degrees 19 minutes 42 seconds East 50.65 feet

TRACT NO. BE-9
(Formerly U.S. Tract No.
A-108E-2)

PITTSBURGH SUPPORT FACILITY
MILITARY RESERVATION
ALLEGHENY COUNTY,
PENNSYLVANIA

LAND DESCRIPTION (Cont'd)

South 85 degrees 40 minutes 30 seconds East 50.00 feet

North 04 degrees 19 minutes 30 seconds East 5.00 feet

South 85 degrees 40 minutes 30 seconds East 300.00 feet

South 04 degrees 19 minutes 30 seconds West 15.00 feet

South 85 degrees 40 minutes 30 seconds East 300.00 feet

North 04 degrees 19 minutes 30 seconds East 5.00 feet

South 85 degrees 40 minutes 30 seconds East 146.85 feet to a point in the east boundary line of said Tract No. A-108-1; thence with said east boundary line

South 04 degrees 19 minutes 30 seconds West 55.00 feet, to the Point of Beginning, containing 1.18 acres, more or less.

23 August 2004, JEM

EXHIBIT B

NOTICES, USE RESTRICTIONS, AND RESTRICTIVE COVENANTS

1. INCLUSION OF PROVISIONS

The GRANTEE shall include the Notices, Restrictions, and Covenants set forth herein, verbatim or by express reference, in any deed or other legal instrument by which the GRANTEE, its successors, or assigns conveys fee simple title or any other lesser estate in this Property or any portion thereof.

2. CERCLA NOTIFICATION/COVENANTS

A. Pursuant to Section 120(h)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. Section 9620(h)(3) ("CERCLA"), the GRANTOR hereby notifies the GRANTEE, its successors, and assigns, of the storage, release and disposal of hazardous substances on the Property. For the purpose of this Deed, "hazardous substances" shall have the same meaning as Section 101(14) of CERCLA. Available information regarding the type, quantity, and location of such substances and the action taken is contained in the Environmental Baseline Study dated July 2003, which is a part of the Findings of Suitability to Transfer ("FOST") dated August 2004. The FOST has been provided to the GRANTEE, receipt of which the GRANTEE hereby acknowledges.

B. The GRANTOR warrants that all remedial action necessary to protect human health and the environment with respect to any hazardous substance remaining on the Property has been taken prior to the date of this conveyance.

C. The GRANTOR covenants that any remedial action found to be necessary after the date of this conveyance with respect to any hazardous substance remaining on the Property

herein conveyed shall be conducted by the United States. This covenant shall not apply in any case in which such remedial actions are caused by the activities of the GRANTEE, its successors, assigns, transferees, sublessees, tenants, or licensees of the GRANTEE.

3. CERCLA ACCESS CLAUSE

To enable the GRANTOR to meet its responsibilities under applicable laws and as provided for in this Deed, the GRANTOR reserves for itself, the U.S. Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (PADEP) and their officers, agents, employees, contractors, and subcontractors a perpetual and assignable right of access on, over, and through the Property, to access and enter upon the Property in any case in which an environmental response action or corrective action is found to be necessary, or such access and entrance is necessary to carry out a response action or corrective action on adjoining property; including, without limitation, to perform any additional environmental investigation, monitoring, sampling, testing, response action, corrective action, or any other action necessary for the GRANTOR to meet its responsibilities under applicable laws and as provided for in this Deed. This right of access shall be binding on the GRANTEE, its successors, and assigns, and shall run with the land. This reservation includes the right to access and use utilities on the Property at reasonable cost to the United States.

In exercising this right of access, the GRANTOR shall give the GRANTEE or the then record owner, reasonable notice of the intent to enter on the Property, except in emergency situations. GRANTOR shall use reasonable means, without significant additional cost to the GRANTOR, to avoid and/or minimize interference with the use of the Property. The GRANTEE or the then record owner(s) of the Property, and any other person shall have no claim against the GRANTOR or any officer, employee, or contractors thereof solely on account of any such interference resulting from actions taken under this Paragraph.

4. GROUNDWATER RESTRICTIONS

A. Restrictions and Conditions. The GRANTEE covenants for itself, its successors, and assigns not to access or use ground water underlying the Property for any purpose, the Property having been remediated only for commercial and industrial uses. For the purpose of this restriction, "ground water" shall have the same meaning as in section 101(12) of CERCLA. The GRANTEE, for itself, its successors or assigns covenants that it will not undertake nor allow any activity on or use of the Property that would violate the restrictions contained herein. These restrictions and covenants are binding on the GRANTEE, its successors and assigns; shall run with the land; and are forever enforceable.

B. Enforcement. The restrictions and conditions stated in Section A benefit the public in general and the territory surrounding the Property, including lands retained by the United States, and, therefore, are enforceable by the United States Government. The GRANTEE covenants for itself, its successors, and assigns that it shall include and otherwise make legally binding, the restrictions in Section A in all subsequent lease, transfer or conveyance documents relating to the Property subject hereto.

C. Army Access. The Army and its representatives shall, for all time, have access to the Property for the purpose of installing and/or removing groundwater monitoring wells, and to perform continued monitoring of groundwater conditions, allowing chemical and/or physical testing of wells to evaluate water quality and/or aquifer characteristics. The Property owner shall allow ingress and egress of all equipment necessary to accomplish the same.

5. LEAD-BASED PAINT WARNING AND COVENANT

A. The Property does not contain structures or buildings suitable for residential dwellings. The GRANTEE, and its successors and assigns, is hereby informed and does acknowledge that all

buildings on the property, which were constructed or rehabilitated prior to 1978, are presumed to contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Lead exposure is especially harmful to young children and pregnant women. Such property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems and impaired memory.

B. Available information concerning known lead-based paint and/or lead-based paint hazards, the location of lead-based paint and/or lead-based paint hazards, and the condition of painted surfaces is contained in the Environmental Baseline Study, which has been provided to the GRANTEE. Additionally, the FOST dated August 2004 has been provided to the GRANTEE. The GRANTEE has been provided with a copy of the federally approved pamphlet on lead poisoning prevention. The GRANTEE hereby acknowledges receipt of all of the information described in this paragraph.

C. A risk assessment or inspection by the GRANTEE, its successors and assigns, for possible lead-based paint hazards is recommended prior to the transfer of the Property. The GRANTEE, its successors and assigns, acknowledges that it has received the opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this Deed.

D. The GRANTEE, its successors or assigns, shall comply with all applicable federal, state, and local laws and regulations pertaining to lead-based paint and/or lead-based paint hazards. The GRANTEE shall not permit use of any buildings or structures on the Property for residential habitation without: (i) inspecting for the presence of lead-based paint and/or lead-based paint hazards; (ii) abating and eliminating lead-based hazards as required by and in accordance with all applicable laws and regulations; and (iii) complying with the notice and

disclosure requirements under applicable federal and state law. The GRANTEE agrees to be responsible for any future remediation of lead-based paint found to be necessary on the Property.

E. The Army assumes no liability for remediation or damages for personal injury, illness, disability, or death, to the GRANTEE, its successors and assigns, subleases or to any other person, including members of the general public, arising from or incident to possession and/or use of any portion of the Property containing lead-based paint. The GRANTEE, its successors and assigns, further agrees to indemnify and hold harmless the GRANTOR, its officers, agents and employees, from and against all suits, claims, demands, or actions, liabilities, judgments, costs and attorneys' fees arising out of, or in any manner predicated upon personal injury, death or property damage resulting from, related to, caused by or arising out of the possession and/or use of any portion of the Property containing lead-based paint. The obligation of the GRANTEE, its successors and assigns shall apply whenever the United States incurs costs or liabilities for actions giving rise to liability under this section.

6. NOTICE OF THE PRESENCE OF ASBESTOS AND COVENANT

A. The GRANTEE is hereby informed and does acknowledge that non-friable asbestos or asbestos-containing materials (ACM) have been found on the Property, as described in the final base-wide Environmental Baseline Survey (EBS), dated July 2003. The ACM on the Property does not currently pose a threat to human health or the environment.

B. The GRANTEE covenants and agrees that its use and occupancy of the Property will be in compliance with all applicable laws relating to asbestos; and that the GRANTOR assumes no liability for future remediation of asbestos or damages for personal injury, illness, disability, or death, to the GRANTEE, its successors or assigns, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with

asbestos on the Property, whether the GRANTEE, its successors or assigns have properly warned or failed to properly warn the individual(s) injured. The GRANTEE agrees to be responsible for any future remediation of asbestos found to be necessary on the Property.

C. Unprotected or unregulated exposures to asbestos in product manufacturing, shipyard, and/or building construction workplaces have been associated with asbestos-related diseases. Both Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) regulate asbestos because of the potential hazards associated with exposure to airborne asbestos fibers. Both OSHA and EPA have determined that such exposure increases the risk of asbestos-related diseases, which include certain cancers and which can result in disability or death.

D. The GRANTEE acknowledges that it has inspected the Property as to its asbestos content and condition and any hazardous or environmental conditions relating thereto. The GRANTEE shall be deemed to have relied solely on its own judgment in assessing the overall condition of all or any portion of the Property, including, without limitation, any asbestos hazards or concerns.

E. No warranties, either expressed or implied, are given with regard to the condition of the Property, including, without limitation, whether the Property does or does not contain asbestos or is or is not safe for a particular purpose. The failure of the GRANTEE to inspect, or to be fully informed as to the condition of all or any portion of the Property, will not constitute grounds for any claim or demand against the United States.

7. NOTICE OF UXO CLEARANCE

Based upon a review of existing records and available information, none of the land proposed for transfer is known to contain unexploded ordnance (UXO). In the event that the GRANTEE, its successors, and assigns should discover any ordnance on the Property, it shall not

attempt to remove or destroy it, but shall immediately notify the local Police Department and the US Army 99th Regional Readiness Command, and competent GRANTOR or GRANTOR-designated explosive ordnance personnel will be dispatched promptly to dispose of such ordnance at no expense to the GRANTEE.

8. PCB-CONTAINING EQUIPMENT NOTIFICATION

A. The GRANTEE is hereby informed and does acknowledge that equipment containing polychlorinated biphenyls (PCBs) formerly existed on the property to be conveyed. All PCB containing equipment has been properly removed in accordance with applicable law and regulation to provide notification to future users. Any PCB contamination or spills related to such equipment has been properly remediated prior to conveyance. No PCB equipment currently exists on the property to be conveyed.

B. Upon request, the Army agrees to furnish to the GRANTEE any and all records in its possession related to such PCB equipment necessary for the continued compliance by the GRANTEE with applicable laws and regulations related to the use and storage of PCBs or PCB-containing equipment.

C. The GRANTEE covenants and agrees that its continued possession, use and management of any PCB containing equipment will be in compliance with all applicable laws relating to PCBs and PCB-containing equipment, and that the Army assumes no liability for the future remediation of PCB contamination or damages for personal injury, illness, disability, or death to the GRANTEE, its successors or assigns, or to any other person, including members of the general public arising from or incident to future use, handling, management, disposition, or other activity causing or leading to contact of any kind whatsoever with PCBs or PCB-containing equipment, whether the GRANTEE, its successors or assigns have properly warned or failed to

properly warn the individual(s) insured. The GRANTEE agrees to be responsible for any future remediation of PCBs or PCB-containing equipment found to be necessary on the Property.

9. RESTRICTED TO COMMERCIAL/INDUSTRIAL USE

The Department of the Army has undertaken careful environmental study of the property and concluded, to which the GRANTEE agrees, that the highest and best use of the Property is limited by its environmental condition to commercial and industrial uses. In order to protect human health and the environment and further the common environmental objectives and land use plans of the United States, State of Pennsylvania and GRANTEE, the covenants and restrictions shall be included to assure the use of the Property is consistent with environmental condition of the Property. These following restrictions and covenants benefit the lands retained by the GRANTOR and the public welfare generally and are consistent with state and federal environmental statutes.

A. Restrictions and Conditions

The GRANTEE covenants for itself, its successors, and assigns not to use the Property for residential purposes, the Property having been remediated only for commercial and industrial uses. The GRANTEE, for itself, its successors or assigns covenants that it will not undertake nor allow any activity on or use of the Property that would violate the restrictions contained herein. These restrictions and covenants are binding on the GRANTEE, its successors and assigns; shall run with the land; and are forever enforceable. Nothing contained herein shall preclude the GRANTEE from undertaking, in accordance with applicable laws and regulations and without any cost to the GRANTOR, such additional remediation necessary to allow for residential use of the Property. Upon completion of such remediation required to allow residential use of the Property and upon the GRANTEE's obtaining the approval of the Pennsylvania Department of Environmental Protection and, if required, any other regulatory agency. The GRANTOR agrees,

without cost to the United States, to release or, if appropriate, modify this restriction by recordation of an amendment hereto.

B. Enforcement

The restrictions and conditions stated in Section A benefit the public in general and the territory surrounding the Property, including lands retained by the United States, and, therefore, are enforceable by the United States government. The GRANTEE covenants for itself, its successors, and assigns that it shall include and otherwise make legally binding, the restrictions in Section A in all subsequent lease, transfer or conveyance documents relating to the Property subject hereto.

10. NOTICE OF RADON TESTING

The Property has not been fully tested for the presence of radon. However, radon is identifiable in the area. All existing buildings and structures at the Charles E. Kelly Support Facility Site 63 are built on slab foundations with no existing basements. The only sub-terrain excavations are the three existing missile silos. The silos are not deemed acceptable for occupancy.

EXHIBIT B-1

**NOTIFICATION OF HAZARDOUS SUBSTANCE STORAGE,
RELEASE OR DISPOSAL**

Former HAZMAT Storage Areas

Building Number	Former Use	Current Use
63053	HAZMAT Storage	Vacant
63054	Missile Testing and Assembly / Vehicle Maintenance	Vacant
63055	Generator Building / Dispatch	Vacant
63060	Battery Charging	Vacant
63064	HAZMAT Storage	Vacant
63131	WWTP Control	WWTP Control

EXHIBIT B-2

**NOTIFICATION OF
PETROLEUM PRODUCTS STORAGE, RELEASE OR DISPOSAL**

Former POL Storage Areas

Location	Former Use	POLs Stored	Current Use
63053	HAZMAT Storage	Lube Oil / Hydraulic Oil	Vacant
63054	Missile Testing and Assembly / Vehicle Maintenance	Lube Oil / Hydraulic Oil	Vacant
63057	Missile Silo / Storage	Hydraulic Oil	Vacant
63058	Missile Silo / Storage	Hydraulic Oil	Vacant
63059	Missile Silo / Storage	Hydraulic Oil	Vacant
63060	Battery Charging	Various Used POLs	Vacant
63064	HAZMAT Storage	Various	Vacant
63065	HAZMAT Storage	Lube Oil / Brake Fluid	Vacant
Drum Storage Area	Used Drum Storage	Various Used POLs	Vacant
Oil Dispensing Rack	New Product Storage and Dispensing	Lube Oil / Hydraulic Oil	Vacant
Pole-Mounted Transformers (3) near Bldg. 63054	Electrical Transformers	Transformer Oil	Removed and Replaced in May 2003
Medium Pole-Mounted Transformer near WWTP	Electrical Transformer	Transformer Oil	Removed and Replaced in May 2003
Small Pole-Mounted Transformer near WWTP	Electrical Transformer	Transformer Oil	Removed and Replaced in May 2003

QUITCLAIM DEED

from

UNITED STATES OF AMERICA

to

**SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,
a Commonwealth of Pennsylvania Public School District**

MAIL TO:

**Tucker Arensberg, P.C.
1500 One PPG Place
Pittsburgh, PA 15222
Attn: Connie Orient**

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF REVENUE
BUREAU OF INDIVIDUAL TAXES
DEPT. 280603
HARRISBURG, PA 17128-0603

**REALTY TRANSFER TAX
STATEMENT OF VALUE**

See Reverse for Instructions

RECORDER'S USE ONLY	
State Tax Paid	12530
Book Number	113
Page Number	Jul 24, 2005
Date Recorded	

Complete each section and file in duplicate with Recorder of Deeds when (1) the full value/consideration is not set forth in the deed, (2) when the deed is without consideration, or by gift, or (3) a tax exemption is claimed. A Statement of Value is not required if the transfer is wholly exempt from tax based on: (1) family relationship or (2) public utility easement. If more space is needed, attach additional sheet(s).

A CORRESPONDENT - All inquiries may be directed to the following person:

Name Tucker Arensberg, P.C. - W. Theodore Brooks		Telephone Number: Area Code 412-594-5514	
Street Address 1500 One PPG Place	City Pittsburgh	State Pennsylvania	Zip Code 15222

B TRANSFER DATA

Grantor(s)/Lessor(s) United States of America		Date of Acceptance of Document	
Street Address P.O. Box 1715		Grantee(s)/Lessee(s) South Fayette Township School District	
City Baltimore	State MD	Zip Code 21203	Street Address 2250 Old Oakdale Road
			City McDonald
			State PA
			Zip Code 15057

C PROPERTY LOCATION

Street Address Old Oakdale Road		City, Township, Borough South Fayette Township	
County Allegheny	School District South Fayette	Tax Parcel Number 9946-X-884	

D VALUATION DATA

1. Actual Cash Consideration \$1.00	2. Other Consideration + 0	3. Total Consideration = \$1.00
4. County Assessed Value \$692,800.00	5. Common Level Ratio Factor X 1.10	6. Fair Market Value = \$762,080.00

E EXEMPTION DATA

1a. Amount of Exemption Claimed 100%	1b. Percentage of Interest Conveyed 100%
---	---

2. Check Appropriate Box Below for Exemption Claimed

- Will or intestate succession _____
(Name of Decedent) (Estate File Number)
- Transfer to Industrial Development Agency.
- Transfer to a trust. (Attach complete copy of trust agreement identifying all beneficiaries).
- Transfer between principal and agent. (Attach copy of agency/straw trust agreement).
- Transfers to the Commonwealth, the United States, and Instrumentalities by gift, dedication, condemnation or in lieu of condemnation.
(If condemnation or in lieu of condemnation, attach copy of resolution).
- Transfer from mortgagor to a holder of a mortgage in default. Mortgage Book Number _____, Page Number _____.
- Corrective or confirmatory deed. (Attach complete copy of the prior deed being corrected or confirmed.)
- Statutory corporate consolidation, merger or division. (Attach copy of articles).
- Other (Please explain exemption claimed, if other than listed above.) Transfer from The United States of America to South Fayette Township School District, a Pennsylvania public school district pursuant to Section 1102-C.2.

Under penalties of law, I declare that I have examined this Statement, including accompanying information, and to the best of my knowledge and belief, it is true, correct and complete.

Signature of Correspondent or Responsible Party 	Date Jul 24, 2005
--	----------------------

FAILURE TO COMPLETE THIS FORM PROPERLY OR ATTACH APPLICABLE DOCUMENTATION MAY RESULT IN THE RECORDER'S REFUSAL TO RECORD THE DEED.



60 2006 00041520

Allegheny County
Valerie McDonald Roberts
Recorder of Deeds
Pittsburgh, PA 15219

Instrument Number: 2006-41520

Recorded On: December 13, 2006 As-Deed

Parties: COMMUNITY WEST BANK N A

To SOUTH FAYETTE TWP SCHL DIST

of Pages: 5

Comment:

**** DO NOT REMOVE-THIS PAGE IS PART OF THE RECORDED DOCUMENT ****

Deed 45.00

Pages > 4 0

Names > 4 0

Total: 45.00

Realty Transfer Stamp

Affidavit Attached-No	Stamp Num-T285176
SOUTH FAYETTE TP	
Ward-99-NO WARD	
Blk/Lot-9946X84258	Value 45,000.00
Commonwealth of Pennsylvania	450.00
Munic-South Fayette Twp	225.00
School District-South Fayette	225.00
	900.00

Deed Registry Stamp

OFFICE OF PROPERTY ASSESSMENTS	BLOCK AND LOT NUMBER
<i>Valerie McDonald Roberts</i>	404-C-1
Date: Int. By:	

I hereby certify that the within and foregoing was recorded in the Recorder's Office in Allegheny County, PA

**** DO NOT REMOVE-THIS PAGE IS PART OF THE RECORDED DOCUMENT ****

File Information:

Document Number: 2006-41520

Receipt Number: 818856

Recorded Date/Time: December 13, 2006 04:04:34P

Book-Vol/Pg: BK-DE VL-13087 PG-134

User / Station: D Dobbs - Cash Super 07

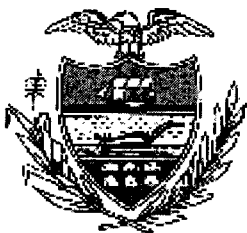
Record and Return To:

TUCKER ARENSBURG P C

CONNIE ORIENT

1500 ONE P P G PL

PITTSBURGH PA 15222



Valerie McDonald-Roberts Recorder of Deeds

THIS INDENTURE

Made the 07th day of December, 2006,

Between

COMMUNITY WEST BANK, N.A.

(hereinafter called "Grantor")

AND

SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT,

(hereinafter called "Grantee")

Witnesseth, That the said Grantor in consideration of-----

FORTY FIVE THOUSAND AND NO/100-----(\$45,000.00)-----Dollars,

paid to the Grantor by the Grantee, receipt of which is hereby acknowledged, does grant, bargain, sell and convey to the said Grantee its successors and assigns:

All that lot or parcel of land, located in the Township of South Fayette, County of Allegheny, Commonwealth of Pennsylvania, being Parcel B of the South Fayette Township School District Subdivision as of record in the Office of the Recorder of Deeds of Allegheny County in Plan Book Volume 137, Page 65.

Tax Parcel: 9946-X-84258

Being the same premises which William P. Mullen Chief Deputy Sheriff, by his deed dated September 28, 2006 and to be recorded of even date herewith, granted and conveyed unto Community West Bank, N.A.

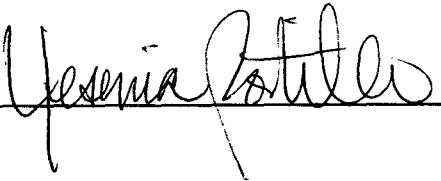
with the appurtenances: *To Have and To Hold* the same to and for the use of the said Grantee, its successors and assigns forever, and the Grantor for its successors and assigns hereby covenants and agrees that it will WARRANT Specially the property hereby conveyed.

NOTICE - THIS DOCUMENT (MAY NOT/DOES NOT) SELL, CONVEY, TRANSFER, INCLUDE OR INSURE THE TITLE TO THE COAL AND RIGHT OF SUPPORT UNDERNEATH THE SURFACE LAND DESCRIBED OR REFERRED TO HEREIN, AND THE OWNER OR OWNERS OF SUCH COAL (MAY HAVE/HAVE) THE COMPLETE LEGAL RIGHT TO REMOVE ALL OF SUCH COAL AND, IN THAT CONNECTION, DAMAGE MAY RESULT TO THE SURFACE OF THE LAND AND ANY HOUSE, BUILDING OR OTHER STRUCTURE ON OR IN SUCH LAND. THE INCLUSION-OF THIS NOTICE DOES NOT ENLARGE, RESTRICT OR MODIFY ANY LEGAL RIGHTS OR ESTATES OTHERWISE CREATED, TRANSFERRED, EXCEPTED OR RESERVED BY THIS INSTRUMENT. [This notice is set forth in the manner provided in Section 1 of the Act of July 17, 1957, P. L. 984, as amended, and is not intended as notice of unrecorded instruments, if any.]

Witness the hand and seal of the said Grantor.

ATTEST:


COMMUNITY WEST BANK, N.A.



 (SEAL)
By: EDWARD PRINZ, Vice-President

NOTICE THE UNDERSIGNED, AS EVIDENCED BY THE SIGNATURE(S) TO THIS NOTICE AND THE ACCEPTANCE AND RECORDING OF THIS DEED, (IS, ARE) FULLY COGNIZANT OF THE FACT THAT THE UNDERSIGNED MAY NOT BE OBTAINING THE RIGHT OF PROTECTION AGAINST SUBSIDENCE, AS TO THE PROPERTY HEREIN CONVEYED, RESULTING FROM COAL MINING OPERATIONS AND THAT THE PURCHASED PROPERTY, HEREIN CONVEYED, MAY BE PROTECTED FROM DAMAGE DUE TO MINE SUBSIDENCE BY A PRIVATE CONTRACT WITH THE OWNERS OF THE ECONOMIC INTEREST IN THE COAL. THIS NOTICE IS INSERTED HEREIN TO COMPLY WITH THE BITUMINOUS MINE SUBSIDENCE AND LAND CONSERVATION ACT OF 1966, AS AMENDED 1980, OCT. 10, P.L. 874, NO. 156 & 1.

WITNESS:


.....
.....

State of California

)

County of Santa Barbara

)

ss

)

On DECEMBER 7, 2006, before me, SEANG L A, NOTARY PUBLIC,
Name and Title of Officer (e.g. "Jane Doe, Notary Public")

personally appeared Edward Prinz, Vice President of Community West Bank, N.A.

personally known to me

proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.

Place Notary Seal Above

Signature of Notary Public

CERTIFICATE OF RESIDENCE

I hereby certify that the precise residence of the Grantee herein is: *South Fayette Township School District, 3660 Old Oakdale Road, McDonald, PA 15057.*

For Grantee

DEED

from

COMMUNITY WEST BANK, N.A.

to

SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT

MAIL TO:

**Tucker Arensberg, P.C.
1500 One PPG Place
Pittsburgh, PA 15222
Attn: Connie Orient**

ALL SIGNATURES MUST BE MADE WITH A BLACK FELT TIP MARKING PEN

SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY.)

KNOW ALL MEN BY THESE PRESENTS, THAT THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A MUNICIPAL CORPORATION INCORPORATED UNDER THE LAWS OF THE COMMONWEALTH OF PENNSYLVANIA, BY VIRTUE OF A RESOLUTION BY THE BOARD OF DIRECTORS, THEREOF, DOES HEREBY ADOPT THIS PLAN AS ITS PLAN OF LOTS OF ITS PROPERTY SITUATE IN SOUTH FAYETTE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA, AND FOR DIVERS ADVANTAGES ACCORDING TO IT, DOES HEREBY DEDICATE FOREVER FOR PUBLIC USE AND FOR HIGHWAY PURPOSES, ALL SLOPE AREAS AND ALL DRIVES, ROADS, STREETS, LANES AND WAYS AND OTHER PUBLIC HIGHWAYS SHOWN UPON THE PLAN, WITH THE SAME FORCE AND EFFECT AS IF THE SAME HAD BEEN OPENED THROUGH LEGAL PROCEEDINGS, AND IN CONSIDERATION OF THE APPROVAL OF SAID PLAN, AND ANY FUTURE ACCEPTANCE OF SAID PUBLIC HIGHWAYS BY THE COMMONWEALTH OF PENNSYLVANIA, COUNTY OF ALLEGHENY, AND TOWNSHIP OF SOUTH FAYETTE, SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT HEREBY COVENANTS AND AGREES TO AND BY THESE PRESENTS DOES RELEASE AND FOREVER DISCHARGE SAID COMMONWEALTH OF PENNSYLVANIA, COUNTY OF ALLEGHENY, AND TOWNSHIP OF SOUTH FAYETTE, THEIR SUCCESSORS OR ASSIGNS FROM ANY LIABILITY FOR DAMAGES ARISING AND TO ARISE FROM THE APPROPRIATION OF SAID GROUND FOR PUBLIC HIGHWAYS AND THE PHYSICAL GRADING THEREOF TO ANY GRADES THAT MAY BE ESTABLISHED. THIS DEDICATION AND RELEASE SHALL BE BINDING UPON THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, ITS SUCCESSORS AND ASSIGNS AND PURCHASERS OF LOTS IN THIS PLAN.

IN WITNESS WHEREOF, THE SAID MUNICIPAL CORPORATION HAS CAUSED ITS CORPORATE SEAL TO BE AFFIXED BY THE HAND OF ITS PRESIDENT AND THE SAME TO BE ATTESTED BY ITS SECRETARY THIS 24 DAY OF AUGUST, 2011.

ATTEST:
Brian T. Coy SECRETARY (SEAL)
David J. Fennell PRESIDENT
SOUTH FAYETTE SCHOOL DISTRICT
(A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY.)

I, LEONARD M. ANSELLA PRESIDENT OF THE SOUTH FAYETTE SCHOOL DISTRICT, DO HEREBY CERTIFY THAT THE TITLE OF THIS PROPERTY IS IN THE NAME OF THE SOUTH FAYETTE SCHOOL DISTRICT (A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY.) AS RECORDED IN THE FOLLOWING DEED BOOK VOLUME AND PAGES: 11242-167, 13087-134, 4833-261, 5182-365 DEPARTMENT OF REAL ESTATE, ALLEGHENY CO., PA. I FURTHER CERTIFY THAT THERE IS NO MORTGAGE, LIEN OR ENCUMBRANCE AGAINST THIS PROPERTY.

Brian T. Coy WITNESS
David J. Fennell PRESIDENT
SOUTH FAYETTE SCHOOL DISTRICT
(A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY.)

COMMONWEALTH OF PENNSYLVANIA: } (SS)
COUNTY OF ALLEGHENY: }

BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC IN AND FOR SAID COMMONWEALTH AND COUNTY PERSONALLY APPEARED LEONARD M. ANSELLA, PRESIDENT OF THE SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, WHO BEING DULY SWORN, DEPOSETH AND SAITH THAT HE WAS PERSONALLY PRESENT AT THE EXECUTION OF THE ADOPTION, RELEASE AND DEDICATION AND SAW THE COMMON AND CORPORATE SEAL OF SAID MUNICIPAL CORPORATION DULY AFFIXED AND THAT THE ABOVE RELEASE AND DEDICATION WAS DULY SIGNED AND SEALED BY AND AS FOR THE ACT AND DEED OF THE SAID SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT FOR THE USES AND PURPOSES THEREIN MENTIONED AND THAT THE NAME OF THIS DEPONENT SUBSCRIBED TO THE SAID RELEASE AND DEDICATION AS PRESIDENT OF SAID MUNICIPAL CORPORATION, IN ATTESTATION OF THE DUE EXECUTION AND DELIVERY OF SAID RELEASE AND DEDICATION IS THIS DEPONENT'S OWN AND PROPER RESPECTIVE HANDWRITING.

David J. Fennell PRESIDENT
SOUTH FAYETTE SCHOOL DISTRICT
(A.K.A. THE SCHOOL DISTRICT OF THE TOWNSHIP OF SOUTH FAYETTE, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT, A.K.A. SOUTH FAYETTE TOWNSHIP SCHOOL AUTHORITY.)

SWORN AND SUBSCRIBED BEFORE ME THIS DAY.
WITNESS MY HAND AND NOTARIAL SEAL THIS 24th DAY OF AUGUST, 2011.
MY COMMISSION EXPIRES THE 22 DAY OF APRIL, 2012.

Janet E. Robinson NOTARY PUBLIC
COMMONWEALTH OF PENNSYLVANIA
Notary Seal
Janet E. Robinson, Notary Public
City of Pittsburgh, Allegheny County
My Commission Expires April 22, 2012
Member, Pennsylvania Association of Notaries

SOUTH FAYETTE TOWNSHIP

THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE, HEREBY GIVES PUBLIC NOTICE THAT IN APPROVING THIS PLAN FOR RECORDING PURPOSES ONLY, THE TOWNSHIP OF SOUTH FAYETTE ASSUMES NO OBLIGATIONS, LEGAL OR OTHERWISE, EXPRESSED OR IMPLIED EITHER TO ACCEPT SAID STREETS AS TOWNSHIP STREETS OR ROADS OR GRADES, PAVE AND CURB THE STREETS IN SAID PLAN, OR TO CONSTRUCT SEWERS THEREIN OR TO INSTALL ANY SUCH SERVICE ORDINARILY INSTALLED IN TOWNSHIP STREETS OR ROADS.

Thomas Gray SECRETARY (SEAL) PRESIDENT OF THE BOARD OF COMMISSIONERS
APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE, THIS 15th DAY OF AUGUST, 2011.
Thomas Gray SECRETARY (SEAL) PRESIDENT OF THE BOARD OF COMMISSIONERS

ALL CONDITIONS OF APPROVAL HAVE BEEN REVIEWED, AND THE PLAN SIGNED AND NOTED AS APPROVED, THIS 12th DAY OF SEPTEMBER, 2011.

REVIEWED BY THE TOWNSHIP OF SOUTH FAYETTE PLANNING COMMISSION, THIS 28th DAY OF JULY, 2011.
Don C. Baker SECRETARY (SEAL) CHAIRMAN

IN ACCORDANCE WITH SECTION 513.(G) OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, THE FULLY EXECUTED MYLAR IS RELEASED FOR RECORDING THIS 16th DAY OF AUGUST, 2011.

RELEASED BY: *Thomas Gray* TOWNSHIP MANAGER/ SECRETARY

TOWNSHIP ENGINEER

John C. Maury A REGISTERED PROFESSIONAL ENGINEER FOR THE TOWNSHIP OF SOUTH FAYETTE DO HEREBY CERTIFY THAT THIS PLAN MEETS ALL THE ENGINEERING REQUIREMENTS OF THE TOWNSHIP SUBDIVISION AND ZONING ORDINANCE, EXCEPT AS DEPARTURES HAVE BEEN AUTHORIZED BY THE APPROVAL AUTHORITY.
9/8/11 DATE PE-055647 REG. NO.
John C. Maury TOWNSHIP ENGINEER

SURVEYOR

I CERTIFY THAT, TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF THE SURVEY AND PLAN SHOWN HEREON ARE CORRECT AND ACCURATE TO THE STANDARDS REQUIRED.
8-19-11 DATE 7089-E REG. NO.
Lawrence R. Elliott SURVEYOR
LAWRENCE R. ELLIOTT, P.L.S.
REG. NO. 7089-E

ALLEGHENY COUNTY AND DEPARTMENT OF REAL ESTATE

REVIEWED BY THE ALLEGHENY COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT THIS 14th DAY OF SEPTEMBER, 2011.
Michael J.... DEPUTY DIRECTOR

RECORDED IN THE OFFICE OF THE DEPARTMENT OF REAL ESTATE OF THE COUNTY OF ALLEGHENY, COMMONWEALTH OF PENNSYLVANIA, IN PLAN BOOK 260 PAGE(S) 106.
GIVEN UNDER MY HAND AND SEAL THIS 16th DAY OF SEPTEMBER, 2011.
Lawrence R. Elliott MANAGER, DEPARTMENT OF REAL ESTATE

ZONING: CD-1 CONSERVATION DISTRICT
A. MINIMUM LOT AREA:
1) GOLF COURSE; GOLF OR COUNTRY CLUB: 40 ACRES
2) AGRICULTURE; CEMETERY; FORESTRY & MINERAL REMOVAL: 10 ACRES
3) SINGLE FAMILY DWELLINGS: 3 ACRES
4) ALL OTHER PERMITTED & CONDITIONAL USES: 1 ACRE
B. MINIMUM LOT WIDTH: 150 FEET
C. MAXIMUM IMPERVIOUS SURFACE COVERAGE: 15%
D. MINIMUM FRONT YARD: 50 FEET
E. MINIMUM REAR YARD
1) PRINCIPAL STRUCTURES: 30 FEET
2) ACCESSORY STRUCTURES: SEE SECTION 240-99C
F. MINIMUM SIDE YARD:
1) PRINCIPAL STRUCTURES: 20 FEET
2) ACCESSORY STRUCTURES: SEE SECTION 240-99C
G. SPECIAL YARD REQUIREMENTS: SEE SECTION 240-99
H. PERMITTED PROJECTIONS INTO REQUIRED YARDS: SEE SECTION 240-100
I. MAXIMUM HEIGHT:
1) ALL PRINCIPAL STRUCTURES: 2 1/2 STORIES BUT NO MORE THAN 35 FEET
2) ALL ACCESSORY STRUCTURES: ONE STORY BUT NO MORE THAN 20 FEET
J. HEIGHT EXCEPTIONS: SEE SECTION 240-101
SECTION 1203B - PARKING AND LOADING: SEE ARTICLE XVII
SECTION 1204B - SIGNS: SEE ARTICLE XVII
SECTION 1205B - BUFFER AREAS AND LANDSCAPING: SEE SECTION 240-98
SECTION 1206B - STORAGE: SEE SECTION 240-104

FLOOD PLAN ZONE X
AREAS DETERMINED TO BE OUTSIDE 500 YEAR FLOODPLAIN.
AS SHOWN ON FLOOD INSURANCE RATE MAP, PANEL 318 OF 558, MAP NUMBER 42003C0318. EFFECTIVE DATE: 10-4-1995 AND PANEL 431 OF 558, MAP NUMBER 42003C0431 E. EFFECTIVE DATE: 10-4-1995.
GENERAL NOTES:
1) WETLANDS AS SHOWN ARE AS DELINEATED ON TOPOGRAPHIC AND BOUNDARY SURVEY DATED NOVEMBER 1997.
2) BEARINGS ARE ROTATED FROM ORIGINAL SURVEY 070°4'44" TO MATCH CURRENT PA STATE PLANE COORDINATES.
3) PRIOR TO ANY CONSTRUCTION, EXCAVATION, OR GRADING WITHIN DOMINION PEOPLES NATURAL GAS R/W WRITTEN APPROVAL WILL BE REQUIRED FROM HENRY GLANZMAN, MANAGER, TRANSMISSION AND STORAGE PROJECTS AT 1201 PITT STREET, PITTSBURGH, PA 15221.
4) EXISTING GRADING AND EARTHWORK CURRENTLY ONGOING AT HIGH SCHOOL BASEBALL FIELD AS NOTED.
5) HORIZONTAL DATUM IS REFERENCED TO PA SOUTH STATE PLANE COORDINATES ND 83. VERTICAL DATUM IS REFERENCED TO NATIONAL VERTICAL GEODETIC DATUM 1929.
6) ALL UTILITY LINES AND LOCATIONS ARE SHOWN APPROXIMATE FROM INFORMATION SUPPLIED BY THE PA ONECALL SYSTEM (SEE PAOC NOTE BELOW) AND INFORMATION SUPPLIED BY SOUTH FAYETTE SCHOOL DISTRICT. UTILITIES MUST BE FIELD LOCATED AND MARKED PRIOR TO ANY EXCAVATING.

ALLEGHENY COUNTY TAX PARCEL IDENTIFICATION NUMBERS:
405-R-1
404-C-10
327-B-6
404-C-2
404-1
404-C-1
OWNER & PROPERTY ADDRESS:
SOUTH FAYETTE SCHOOL DISTRICT
3540-3700 OLD OAKDALE RD
MCDONALD, PA 15057

PA DEP - FORM B - NON BUILDING WAIVER NOTE:
AS OF THE DATE OF THIS PLOT PLAN RECORDING, THE PROPERTY DESCRIBED HEREIN IS AND SHALL BE DEDICATED FOR THE EXPRESS PURPOSE OF WOODLANDS USE. NO PORTION OF THESE PARCELS HAS BEEN APPROVED BY SOUTH FAYETTE TOWNSHIP OR THE DEPARTMENT OF ENVIRONMENTAL RESOURCES FOR THE INSTALLATION OF SEWAGE DISPOSAL FACILITIES. NO SEWAGE PERMIT WILL BE ISSUED FOR THE INSTALLATION, CONSTRUCTION, CONNECTION TO OR USE OF ANY SEWAGE COLLECTION, CONVEYANCE, TREATMENT OR DISPOSAL SYSTEM (EXCEPT FOR REPAIRS TO EXISTING SYSTEMS) UNLESS THE MUNICIPALITY AND THE DEP HAVE BOTH APPROVED SEWAGE FACILITIES PLANNING FOR THE PROPERTY DESCRIBED HEREIN IN ACCORDANCE WITH THE PENNSYLVANIA SEWAGE FACILITIES ACT (35 P.S. SECTIONS 750.1 ET SEQ) AND REGULATIONS PROMULGATED THEREUNDER. PRIOR TO SIGNING, EXECUTING, IMPLEMENTING OR RECORDING ANY SALES CONTRACT OR SUBDIVISION PLAN, ANY PURCHASER OR SUBDIVIDER OF ANY PORTION OF THIS PROPERTY SHOULD CONTACT APPROPRIATE OFFICIALS OF SOUTH FAYETTE TOWNSHIP, WHICH IS CHARGED WITH ADMINISTERING THE SEWAGE FACILITIES ACT TO DETERMINE WHAT SEWAGE FACILITIES PLANNING IS REQUIRED AND THE PROCEDURE AND REQUIREMENTS FOR OBTAINING APPROPRIATE PERMITS OR APPROVALS.

- PA ONE-CALL LIST OF UTILITIES:
- PENNSYLVANIA AMERICAN WATER COMPANY (WE): LINES MARKED. 410 COOKE LANE PITTSBURGH, PA 15234-1414 MR. DANIEL G. RESOVICH (412) 343-0200
 - COMCAST CABLE COMMUNICATIONS INC (NL1): DID NOT RESPOND THROUGH PA ONE CALL.
 - COLUMBIA GAS OF PA. DESIGN (CGD): CONFLICT. LINES NEARBY DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.
 - PEOPLES NATURAL GAS 1315 GRINGO ROAD ALIQUIPPA, PA 15001 ATTN: LANE ECHEMMENT (724) 857-2128
 - PEOPLES GAS DESIGN HOPEWELL (PVD): DID NOT RESPOND THROUGH PA ONE CALL.
 - ALLEGHENY POWER COMPANY WASHINGTON (WZ): CLEAR - NO FACILITIES
 - SOUTH FAYETTE TWP. MUNICIPAL AUTHORITY LINES MARKED. P.O. BOX 171 MORGAN, PA 15064
 - VERIZON PENNSYLVANIA INC (BD): CONFLICT. LINES NEARBY. DIRECT CONTACT TO FOLLOW BY FACILITY OWNER.
 - EQUITABLE GAS COMPANY (AG4): DID NOT RESPOND THROUGH PA ONE CALL.
 - EQUITABLE GAS COMPANY SOUTH DISTRICT (EAS): INSUFFICIENT INFORMATION. DO NOT DIG.
 - EQUITABLE GAS COMPANY 4 SOUTH 9TH STREET PITTSBURGH, PA 15203 CONTACT: DOUG WAYNER (412) 395 - 2159

PAOC SERIAL NUMBER = 20101272124

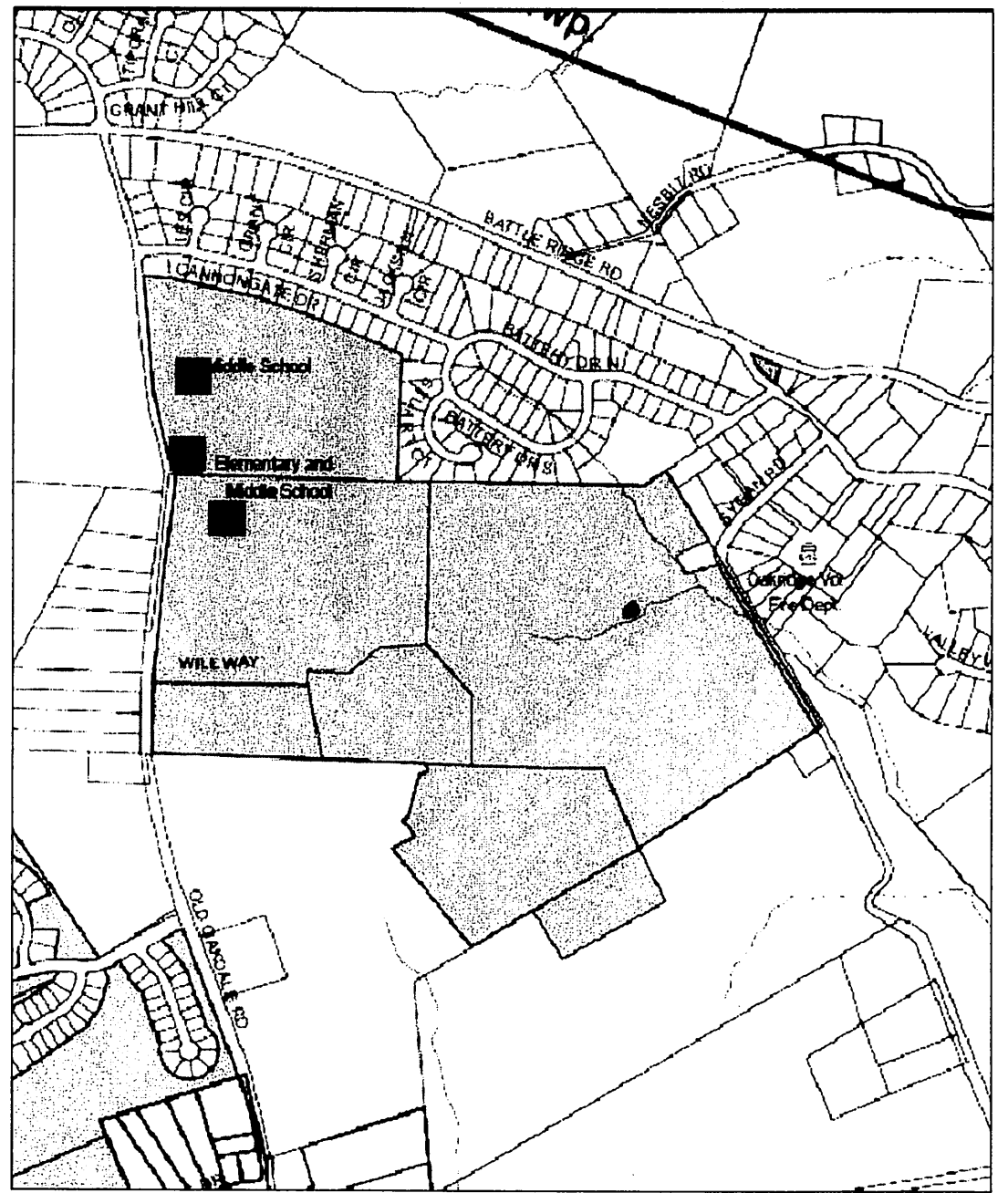


Know what's below. Call before you dig.

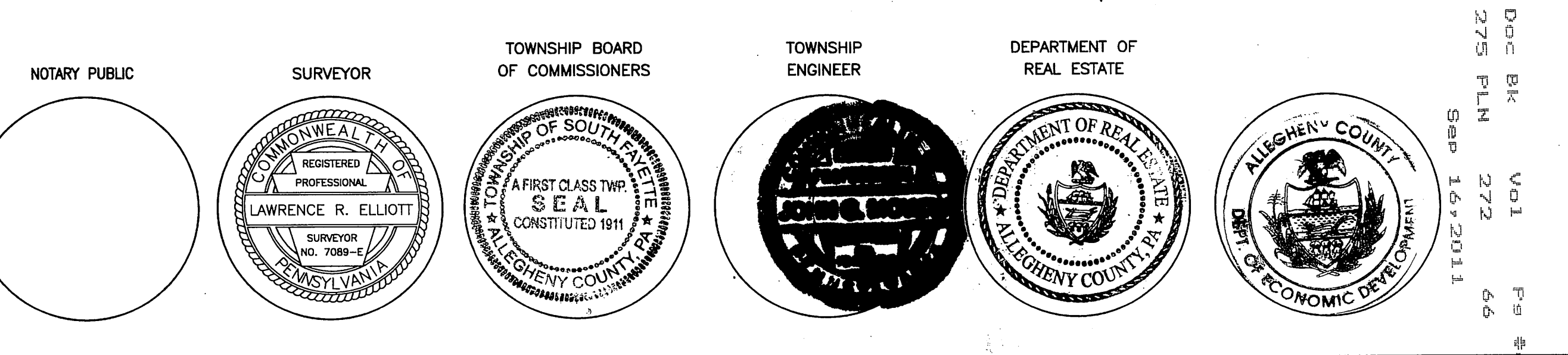
NOTE: The utility locations shown on this plan are approx. locations only as per utility company information and information supplied by the PA One Call System.

*Before you dig anywhere in Pennsylvania STOP! Call PA. One-Call at 811 or 1-800-242-1776 Toll Free for actual field utility locations.

Pennsylvania Act 38 (1991) requires no less than 3 working days notice nor more than 10 working days notice from excavators who are about to dig, drill, blast, auger, bore, grade, trench, or demolish when in the construction phase. A designer is required to give no less than 10 working days nor more than 90 working days notice when engaged in the design phase. Both of these conditions involve the entire Commonwealth.



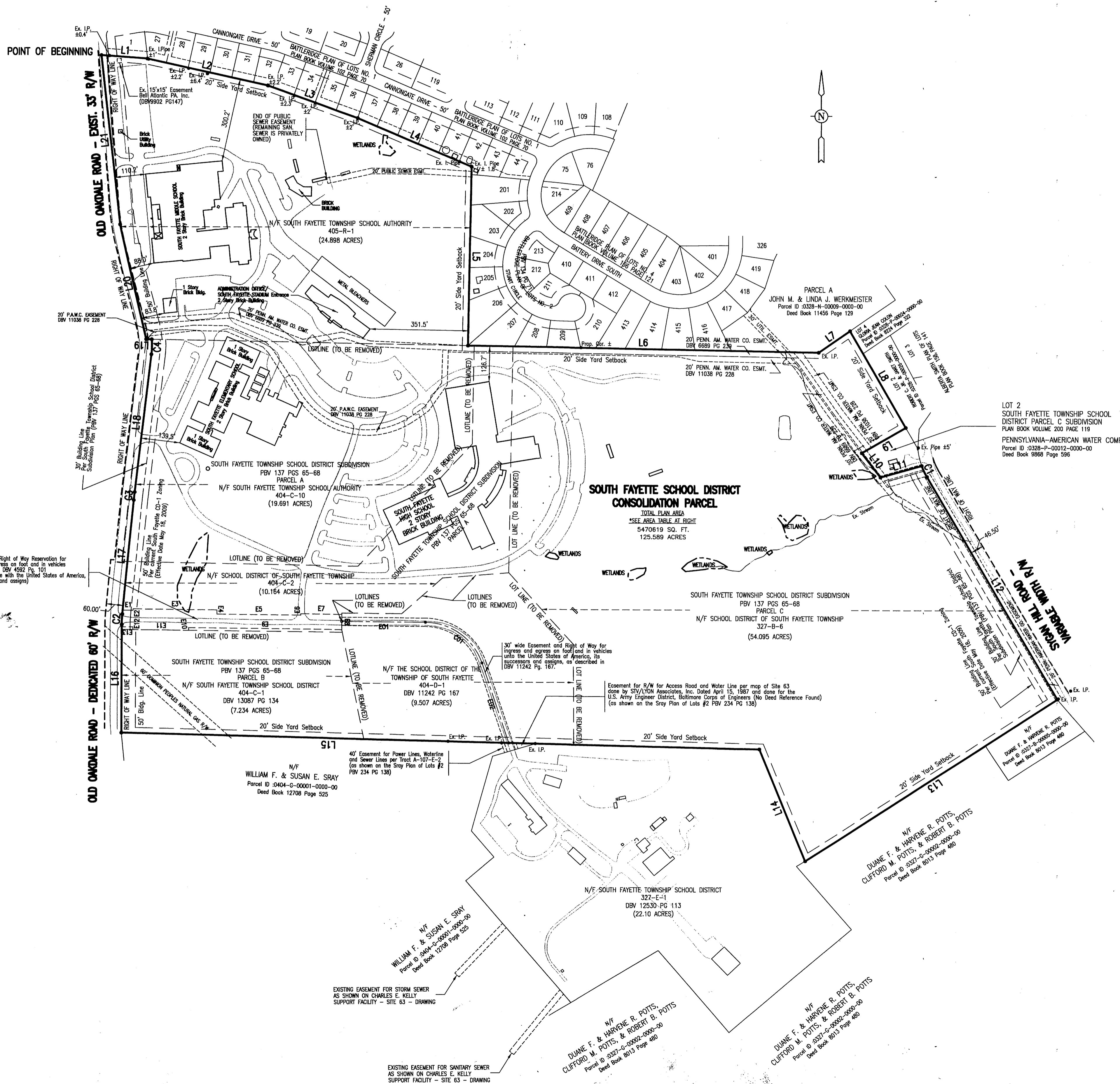
TAKEN FROM SOUTH FAYETTE TOWNSHIP ZONING MAP LOCATION MAP SCALE: NTS



Doc Bk 275 Pln 272
Vol 66
Ps 8 of 8
2
Sep 16 2011

DATE	BY	DESCRIPTION
7-26-11	JB	REVISE PER KLH ENGINEERS LETTER DATED 7-19-11

SOUTH FAYETTE SCHOOL DISTRICT CONSOLIDATION PLAN
BEING A CONSOLIDATION OF TAX PARCELS: 405-R-1, 404-C-10, 327-B-6, 404-C-1, 404-C-2, AND 404-D-1. ALL PROPERTIES BEING OWNED BY SOUTH FAYETTE SCHOOL DISTRICT.
SITUATE IN
SOUTH FAYETTE TOWNSHIP, ALLEGHENY CO., PA
FOR
SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT
SCALE: NTS JULY 2011
Lawrence R. Elliott Surveying Inc.
Land Surveyors & Development Design
608 E. McMurray Rd., Suite 104
McMurray, PA 15317
(724) 942-3144 Fax (724) 942-3430
SHEET 1 OF 2
536, 536A - O - 5137



AREA TABLE

405-R-1	1084557 SQ. FT. (24.898 ACRES)
404-C-1	315093 SQ. FT. (7.234 ACRES)
404-C-10	857750 SQ. FT. (19.691 ACRES)
404-C-2	442715 SQ. FT. (10.164 ACRES)
404-D-1	414133 SQ. FT. (9.507 ACRES)
327-B-6	2356371 SQ. FT. (54.095 ACRES)

TOTAL PLAN AREA

5470619 SQ. FT.
125.589 ACRES

PROPERTY BOUNDARY LINE AND CURVE TABLE

LINE	BEARING	DISTANCE
L1	S 85°50'04" E	165.24'
L2	S 77°34'04" E	441.18'
L3	S 70°23'04" E	342.27'
L4	S 66°57'04" E	443.00'
L5	S 00°56'56" W	642.82'
L6	S 89°03'05" E	1264.07'
L7	N 54°59'35" E	136.54'
L8	S 30°10'06" E	397.30'
L9	S 59°49'54" W	181.27'
L10	S 37°33'44" E	106.32'
L11	N 74°06'50" E	153.84'
L12	S 30°11'46" E	928.38'
L13	S 56°52'58" W	1075.84'
L14	N 21°54'48" W	437.79'
L15	N 88°41'42" W	2284.73'
L16	N 00°15'00" E	393.16'
L17	N 05°41'15" E	407.88'
L18	N 05°48'04" E	496.13'
L19	N 85°34'35" W	20.01'
L20	N 12°55'16" W	423.84'
L21	N 06°27'44" W	610.06'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	250.00'	43.94'	43.88'	N 55°09'35" W	10°04'14"
C2	400.00'	37.96'	37.95'	N 02°58'08" E	05°26'15"
C3	1500.00'	28.15'	28.15'	N 06°09'56" E	01°06'49"
C4	280.00'	53.60'	53.52'	S 01°19'02" W	10°58'05"

EASEMENT/ R/W #1

LINE	BEARING	DISTANCE
E1	S 89°25'40" E	37.33'
E2	N 00°34'20" E	5.00'
E3	S 89°25'40" E	300.00'
E4	S 00°34'20" W	15.00'
E5	S 89°25'40" E	300.00'
E6	N 00°34'20" E	5.00'
E7	S 89°25'40" E	146.85'
E8	S 00°34'20" W	55.00'
E9	N 89°25'40" W	548.40'
E10	S 00°34'40" E	10.00'
E11	N 89°25'40" W	200.00'
E12	N 00°34'20" E	10.00'
E13	N 89°25'40" W	40.40'

EASEMENT/ R/W #2

LINE	BEARING	DISTANCE
EO1	S 89°30'24" E	299.40'
EO2	S 18°21'24" E	304.45'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
CO1	215.00'	266.99'	250.16'	S 53°55'53" E	71°09'03"

SOUTH FAYETTE SCHOOL DISTRICT CONSOLIDATION PLAN

BEING A CONSOLIDATION OF TAX PARCELS: 405-R-1, 404-C-10, 327-B-6, 404-C-1, 404-C-2, AND 404-D-1. ALL PROPERTIES BEING OWNED BY SOUTH FAYETTE SCHOOL DISTRICT.

SITUATE IN

SOUTH FAYETTE TOWNSHIP, ALLEGHENY CO., PA

FOR

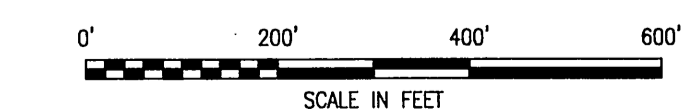
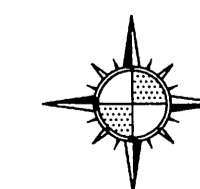
SOUTH FAYETTE TOWNSHIP SCHOOL DISTRICT

SCALE: 1"=200'

JULY 2011

Lawrence R. Elliott Surveying Inc.

Land Surveyors & Development Design
608 E. McMurray Rd., Suite 104
McMurray, PA 15317
(724) 942-3144 Fax (724) 942-3430



DATE	BY	DESCRIPTION
7-26-11	JB	REVISE PER KJH ENGINEERS LETTER DATED 7-19-11
		REVISIONS



Plan Name:	Lafayette 180	File No.	S-01-2026
Plan Location:	Newbury Drive	Tax I.D. #	0256-L-00002, 0256-L-00001, 0256-L-00009
Project Description	Proposed planned shopping center with parking lot and associated utilities.		

Check Appropriate Box(es)

Land Development Plan		Subdivision Plan		Conditional Use Plan	
Minor Subdivision	X	Major Subdivision		Open Space Plan	
Preliminary Plan Submission		Final Plan Submission			X

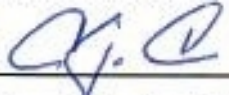
Zoning District(s)	C-2	Property Acreage	5.48 acres	No. Lots/Units	
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Applicant's Name:	Craig Cozza	Phone No.	
Applicant's Address:	295 Myoma Road, Mars, PA 16046	Fax No.	
Applicant's E-Mail:			
Engineer Firm/Name	The Gateway Engineers, Inc.	Phone No.	
Engineer's Address:	100 McMorris Road, Pittsburgh, PA	Fax No.	
Contact Person:	Joseph Galbraith	E-Mail Address	

The following items are reviewed as part of the South Fayette Township application process. Applications submitted WITHOUT these elements will NOT be reviewed by the township.

REQUIRED SUBMISSION ITEMS	Copies	✓ Yes	✓ No	✓ N/A
1) Completed Application Form	1			
2) ACED Subdivision/Land Development Application	1			
3) Maps and Plans				
• Plus PDF of drawings	1			
• Sets Full-Size Plans (24" x 36")	5			
• Sets Half-Size Plans (11" x 17")	5			
4) Agent Authorization Form	1			
5) Application Fee	1			
6) Escrow – Engineer, Solicitor, Inspection	1			
7) Stormwater Management Plan & Calculations (plus PDF)	2			
8) Erosion & Sedimentation Control Plan (plus PDF)	2			
9) Deed, Sales Agreement or Other Ownership	1			

I have familiarized myself with and hereby agree to comply with the subdivision and zoning ordinance of the township as well as to all township rules, regulations and resolutions. I agree to pay the applicable fee(s).

Signature of Applicant:  **Date:** 01/14/2026

If applicant is not the property owner, an Agent Authorization Form must be attached.



SOUTH FAYETTE T O W N S H I P

A Community Growing Together

Agent Authorization

Form

www.southfayettepa.com

Name of Property Owners: Craig Cozza

Property Tax Map Number: 0256-L-00002, 0256-L-000001, 026-L-00009

Property/Project(s): Lafayette 180 - Planned Shopping Center

This application/phase only

All related applications and phases

The above named property owner hereby appoints: The Gateway Engineers, Inc.

as its agent and authorizes said agent to apply for and process the above mentioned development plan/variance on his/her behalf. Agent is further authorized to sign all necessary documentations for such purposes, including acceptance of conditions imposed by the Board of Commissioners upon arrival of the plan. This authorization shall remain in full force and effect until written notice of revocation is delivered to the South Fayette Township Manager.

SIGNED AND SEALED, intending to be legally bound on this date of:

Craig J. Cozza

Owner(s) Signature:  (SEAL)

ALL SIGNATURES MUST BE MADE WITH A BLUE INK PEN

THE CE-SF, LP, OWNER OF THE LAND SHOWN ON THE SECOND REVISION TO THE KOSKY PLAN OF LOTS HEREBY ADOPTS THIS PLAN AS ITS PLAN OF LOTS AND IRREVOCABLY DEDICATES ALL STREETS AND OTHER PROPERTY IDENTIFIED FOR IDENTIFICATION ON THE PLAN TO THE TOWNSHIP OF SOUTH FAYETTE. THIS ADOPTION AND DEDICATION SHALL BE BINDING UPON THE PARTNERSHIP AND UPON ITS HEIRS, EXECUTORS, AND ASSIGNS.

IN WITNESS OF WHICH, TO THIS I SET MY HAND AND SEAL THIS ____ DAY OF _____, 20 ____

ATTEST:

NOTARY PUBLIC CRAIG J. COZZA

BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC IN AND FOR THE COMMONWEALTH OF PENNSYLVANIA AND COUNTY OF ALLEGHENY, PERSONALLY APPEARED THE ABOVE NAMED CRAIG J. COZZA, A PARTNER IN THE FIRM OF CE-SF, LP, AND ACKNOWLEDGED THE FOREGOING ADOPTION AND DEDICATION TO BE THE ACT OF THE PARTNERSHIP.

WITNESS MY HAND AND NOTARIAL SEAL THIS ____ DAY OF _____, 20 ____.

MY COMMISSION EXPIRES THE ____ DAY OF _____, 20 ____.

(SEAL)

NOTARY PUBLIC

I HEREBY CERTIFY THAT THE TITLE TO THE PROPERTY CONTAINED IN THE SECOND REVISION TO THE KOSKY PLAN OF LOTS IS IN THE NAME OF CE-SF, LP AND IS RECORDED IN DEED BOOK VOLUME _____, PAGE _____, DEED BOOK VOLUME _____, PAGE _____, AND DEED BOOK VOLUME _____, PAGE _____.

WITNESS CRAIG J. COZZA

S&T BANK, MORTGAGEE OF THE PROPERTY CONTAINED IN THE SECOND REVISION TO THE KOSKY PLAN OF LOTS CONSENTS TO THE RECORDING OF SAID PLAN AND TO THE DEDICATIONS AND ALL OTHER MATTERS APPEARING ON THE PLAN.

WITNESS NAME, TITLE, AND MORTGAGEE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT WE UNDERSTAND THE FOLLOWING:

1. THAT RECORDING A PLAN DOES NOT TRANSFER TITLE OF PROPERTY BETWEEN LANDOWNERS.
2. THAT A DEED MUST BE RECORDED IN ORDER TO TRANSFER THE TITLE OF PROPERTY FROM ONE LANDOWNER TO ANOTHER LANDOWNER.
3. THAT THE PLAN AND DEED MUST BE RECORDED IN THE SAME YEAR IN ORDER FOR THE REVALUATION OF THE PROPERTY TO BE COMPLETED AND TAX BILLS TO BE ADJUSTED ACCORDINGLY BY THE FOLLOWING YEAR.

WITNESS CRAIG J. COZZA

I CERTIFY THAT, TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF, THE SURVEY AND PLANS SHOWN HEREON ARE CORRECT AND ACCURATE TO THE STANDARDS REQUIRED.

DRAFT

DATE SCOTT A. WELLS, PLS
REG. NO. SU-075231

(SEAL)

I CERTIFY THAT THIS PLAN MEETS ALL ENGINEERING AND DESIGN REQUIREMENTS OF THE APPLICABLE ORDINANCES OF THE TOWNSHIP OF SOUTH FAYETTE, EXCEPT AS DEPARTURES HAVE BEEN AUTHORIZED BY THE APPROPRIATE OFFICIALS OF THE MUNICIPALITY.

DATE NAME
(SEAL) REGISTRATION NUMBER

THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE GIVES NOTICE THAT, IN APPROVING THIS PLAN FOR RECORDING, THE TOWNSHIP OF SOUTH FAYETTE ASSUMES NO OBLIGATION TO ACCEPT THE DEDICATION OF ANY STREETS, LAND, OR PUBLIC FACILITIES AND HAS NO OBLIGATION TO IMPROVE OR MAINTAIN SUCH STREETS, LAND OR FACILITIES.

TOWNSHIP MANAGER PRESIDENT, BOARD OF COMMISSIONERS

THE TOWNSHIP OF SOUTH FAYETTE AGREES NOT TO ISSUE BUILDING PERMITS UNTIL THE 'PLANNING MODULE FOR LAND DEVELOPMENT' HAS BEEN APPROVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

DATE AUTHORIZED MUNICIPAL OFFICIAL

REVIEWED BY THE PLANNING COMMISSION OF THE TOWNSHIP OF SOUTH FAYETTE, THIS ____ DAY OF _____, 20 ____.

TOWNSHIP MANAGER CHAIRPERSON, PLANNING COMMISSION

APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE, BY RESOLUTION, THIS ____ DAY OF _____, 20 ____.

TOWNSHIP MANAGER PRESIDENT, BOARD OF COMMISSIONERS

(SEAL)

REVIEWED BY THE ALLEGHENY COUNTY DEPARTMENT OF ECONOMIC DEVELOPMENT ON THIS ____ DAY OF _____, 20 ____.

(SEAL) DIRECTOR

AS OF THE DATE OF THIS PLAN'S APPROVAL BY THE APPROVING AUTHORITY, NO DEVELOPMENT OF ANY LAND CONTAINED IN THIS SUBDIVISION OR LAND DEVELOPMENT FOR ANY PURPOSE REQUIRING SANITARY SEWAGE FACILITIES IS PLANNED. NO PORTION OF THIS PROPERTY HAS BEEN APPROVED BY THE MUNICIPALITY OR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR THE INSTALLATION OF SEWAGE DISPOSAL FACILITIES. NO SEWAGE PERMIT WILL BE ISSUED FOR THE INSTALLATION, CONSTRUCTION, CONNECTION TO OR USE OF ANY SEWAGE COLLECTION, CONVEYANCE, TREATMENT OR DISPOSAL SYSTEM UNLESS THE MUNICIPALITY AND THE DEP HAVE BOTH APPROVED SEWAGE FACILITIES PLANNING FOR THE PROPERTY INCLUDED IN THIS PLAN IN ACCORDANCE WITH THE PENNSYLVANIA SEWAGE FACILITIES ACT (35 P.S. § 750.1 ET SEQ.) AND REGULATIONS PROMULGATED THEREUNDER. PRIOR TO THE TRANSFER OF ANY LOT OR PROPERTY INCLUDED IN THIS PLAN, ANY PURCHASER SHOULD CONTACT APPROPRIATE OFFICIALS OF THE MUNICIPALITY, WHICH IS CHARGED WITH ADMINISTERING THE SEWAGE FACILITIES ACT, TO DETERMINE WHAT SEWAGE FACILITIES PLANNING IS REQUIRED AND THE PROCEDURE AND REQUIREMENTS FOR OBTAINING APPROPRIATE PERMITS OR APPROVALS.

A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE 'STATE HIGHWAY LAW' BEFORE DRIVEWAY ACCESS TO A STATE HIGHWAY IS PERMITTED.

REVISION RECORD		
NO	DATE	DESCRIPTION
1	10-17-2023	REVISED PER SOUTH FAYETTE TOWNSHIP AND ALLEGHENY COUNTY COMMENTS

RECORDED IN THE OFFICE OF THE DEPARTMENT OF REAL ESTATE OF THE COUNTY OF ALLEGHENY, COMMONWEALTH OF PENNSYLVANIA, IN PLAN BOOK VOLUME _____, PAGE(S) _____.

GIVEN UNDER MY HAND AND SEAL THIS ____ DAY OF _____, 20 ____.

(SEAL)

DEPARTMENT OF REAL ESTATE

BEING A SUBDIVISION AND CONSOLIDATION PLAN OF REVISED PARCEL A-1 OF THE FIRST REVISION TO THE KOSKY PLAN OF LOTS RECORDED IN P.B.V. 274, PG. 44; LOT 2 OF THE SCHNEIDER PLAN RECORDED IN P.B.V. 130, PG. 133; AND TAX PARCEL 256-L-1 RECORDED IN D.B.V. 10562, PG. 390.



Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.ccecinc.com

**SECOND REVISION TO THE
KOSKY PLAN OF LOTS
TOWNSHIP OF SOUTH FAYETTE
ALLEGHENY COUNTY, PENNSYLVANIA**

DRAWN BY: RWO CHECKED BY: CMM APPROVED BY: SAW
DATE: 07-14-2023 DWG SCALE: N/A PROJECT NO: 333-642

PREPARED FOR:
CE-SF, LP

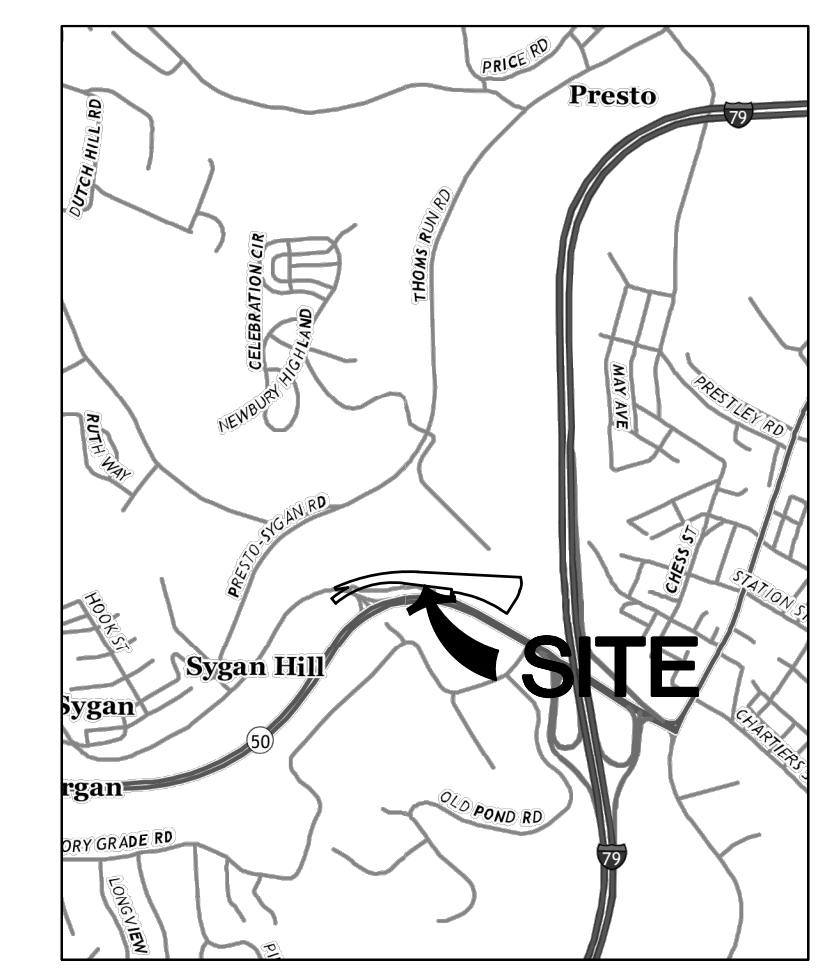
DRAWING NO.:

SUB

SHEET 1 OF 3

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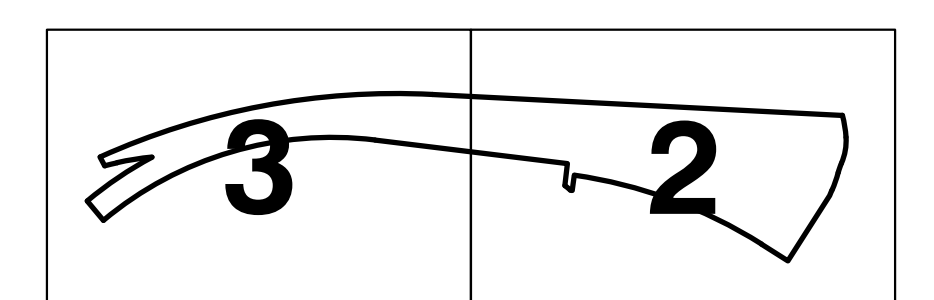
REVISION RECORD		
NO	DATE	DESCRIPTION
1	10-17-2023	REVISED PER SOUTH FAYETTE TOWNSHIP AND ALLEGHENY COUNTY COMMENTS
2		
3		
4		



VICINITY MAP
SCALE: 1" = 200'

SURVEYORS NOTES:

- PLAN NORTH IS BASED UPON PENNSYLVANIA STATE PLANE NAD83-2011, SOUTH ZONE, AS DETERMINED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., USING SURVEY GRADE GPS MEASUREMENTS AND OPUS POST-PROCESSING.
- PROPERTY IS LOCATED IN FLOOD ZONE AE (REGULATORY FLOODWAY); ZONE AE (SPECIAL FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATIONS DETERMINED); ZONE X (OTHER AREAS OF FLOOD HAZARD; 0.2% ANNUAL CHANCE FLOOD HAZARD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTH LESS THAN ONE FOOT OR WITH DRAINAGE AREAS OF LESS THAN ONE SQUARE MILE); AND ZONE X (AREA OF MINIMAL FLOOD HAZARD) AS DEPICTED ON FLOOD INSURANCE RATE MAP 49993C0453H AND 42003C0451H, EFFECTIVE DATE 09-26-2014, ALLEGHENY COUNTY, PENNSYLVANIA. THE FLOOD ZONE SHOWN ARE SCALED FROM THE F.I.R.M. COMMUNITY PANEL AND ARE APPROXIMATE.
- SEE COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF TRANSPORTATION DRAWINGS ESTABLISHING AND RE-ESTABLISHING LIMITED ACCESS HIGHWAY AND AUTHORIZING AND RE-AUTHORIZING CONDEMNATION OF RIGHT OF WAY OF LEG. ROUTE 1198, SECTION 1 RW DATED SEPTEMBER 1974.
- THE APPROXIMATE LOCATION OF SANITARY SEWER EASEMENTS ON LOT 2 ARE SHOWN BASED ON D.B.V. 17543 PG. 349



KEY MAP
1" = 500'

DRAFT



BEING A SUBDIVISION AND CONSOLIDATION PLAN OF REVISED PARCEL A-1 OF THE FIRST REVISION TO THE KOSKY PLAN OF LOTS RECORDED IN P.B.V. 274, PG. 44; LOT 2 OF THE SCHNEIDER PLAN RECORDED IN P.B.V. 130, PG. 133; AND TAX PARCEL 256-L-1 RECORDED IN D.B.V. 10562, PG. 390.



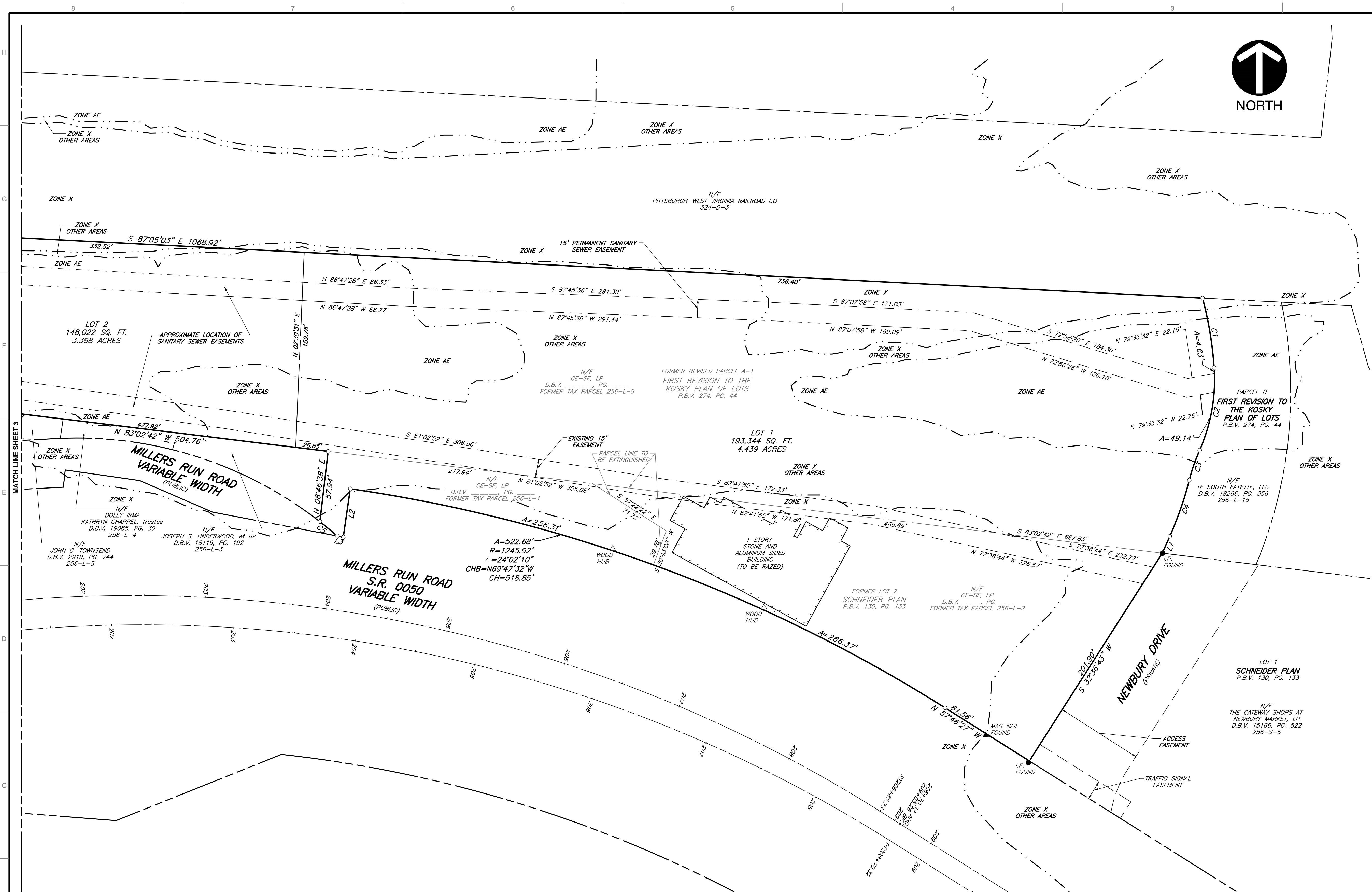
Civil & Environmental Consultants, Inc.
700 Cherrington Parkway · Moon Township, PA 15108
Ph: 412.429.2324 · 800.365.2324 · Fax: 412.429.2114
www.cecinc.com

**SECOND REVISION TO THE
TOWNSHIP OF SOUTH FAYETTE
ALLEGHENY COUNTY, PENNSYLVANIA**

DRAWN BY: **RWO** CHECKED BY: **CMM** APPROVED BY: **SAW**
DATE: **07-14-2023** DWG SCALE: **1" = 40'** PROJECT NO: **333-642**

PREPARED FOR:
CE-SF, LP

DRAWING NO.:
SUB
SHEET **2** OF **3**



**ZONING INFORMATION-TOWNSHIP OF SOUTH FAYETTE
ZONED C-2 - HIGHWAY COMMERCIAL DISTRICT
PLANNED SHOPPING DISTRICT**

	C-2	C-2 (PLANNED SHOPPING CENTER)
MINIMUM LOT AREA	20,000 SQ. FT.	5 ACRES
MINIMUM LOT WIDTH	60 FT.	200 FT.
MINIMUM FRONT YARD	25 FT.	50 FT.
MINIMUM SIDE YARD	20 FT.	20 FT.
MINIMUM REAR YARD	40 FT.	50 FT.
MAXIMUM BUILDING HEIGHT	60 FT.	60 FT.
MAXIMUM LOT COVERAGE	70%	70%

ORIGINAL AREA TABULATION

	SQ. FT.	ACRES
FORMER TAX PARCEL 256-L-1	10,757	0.247
FORMER LOT 2 FORMER TAX PARCEL 256-L-2	45,527	1.045
FORMER REVISED PARCEL A-1 FORMER TAX PARCEL 256-L-9 (INCLUDES RIGHT OF WAY)	285,082	6.545
TOTAL	341,366	7.837

AREA TABULATION

	SQ. FT.	ACRES
LOT 1	193,344	4.439
LOT 2	148,022	3.398
TOTAL	341,366	7.837

CURVE TABLE

CURVE #	RADIUS	DELTA	LENGTH	CHL	CHB
C1	301.00'	11°01'48"	57.95'	57.86'	S 09°22'41" E
C2	143.00'	27°40'42"	69.08'	68.41'	S 09°58'35" W
C3	157.00'	9°28'17"	25.95'	25.92'	S 19°04'47" W
C4	289.00'	9°39'42"	48.73'	48.68'	S 19°10'29" W
C5	322.68'	3°15'47"	18.38'	18.37'	N 50°20'38" W

LINE TABLE

LINE #	DIRECTION	LENGTH
L1	S 24°00'20" W	15.07'
L2	S 08°11'23" W	40.00'
L3	N 79°08'22" W	5.14'

SURVEYOR:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
700 CHERRINGTON PARKWAY
MOON TOWNSHIP, PA 15108
CONTACT: SCOTT A. WELLS, P.L.S.
PHONE NUMBER: 412-429-2324
EMAIL: SWELLS@CECINC.COM

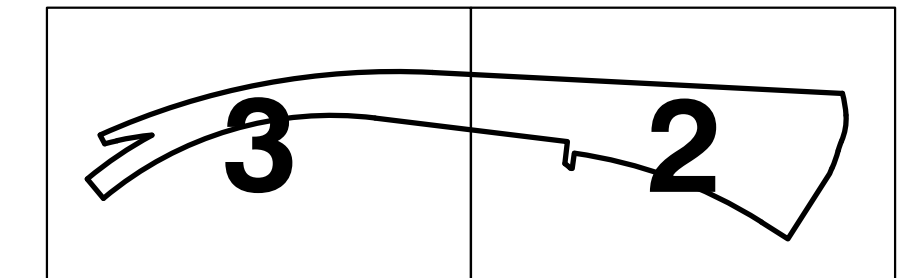
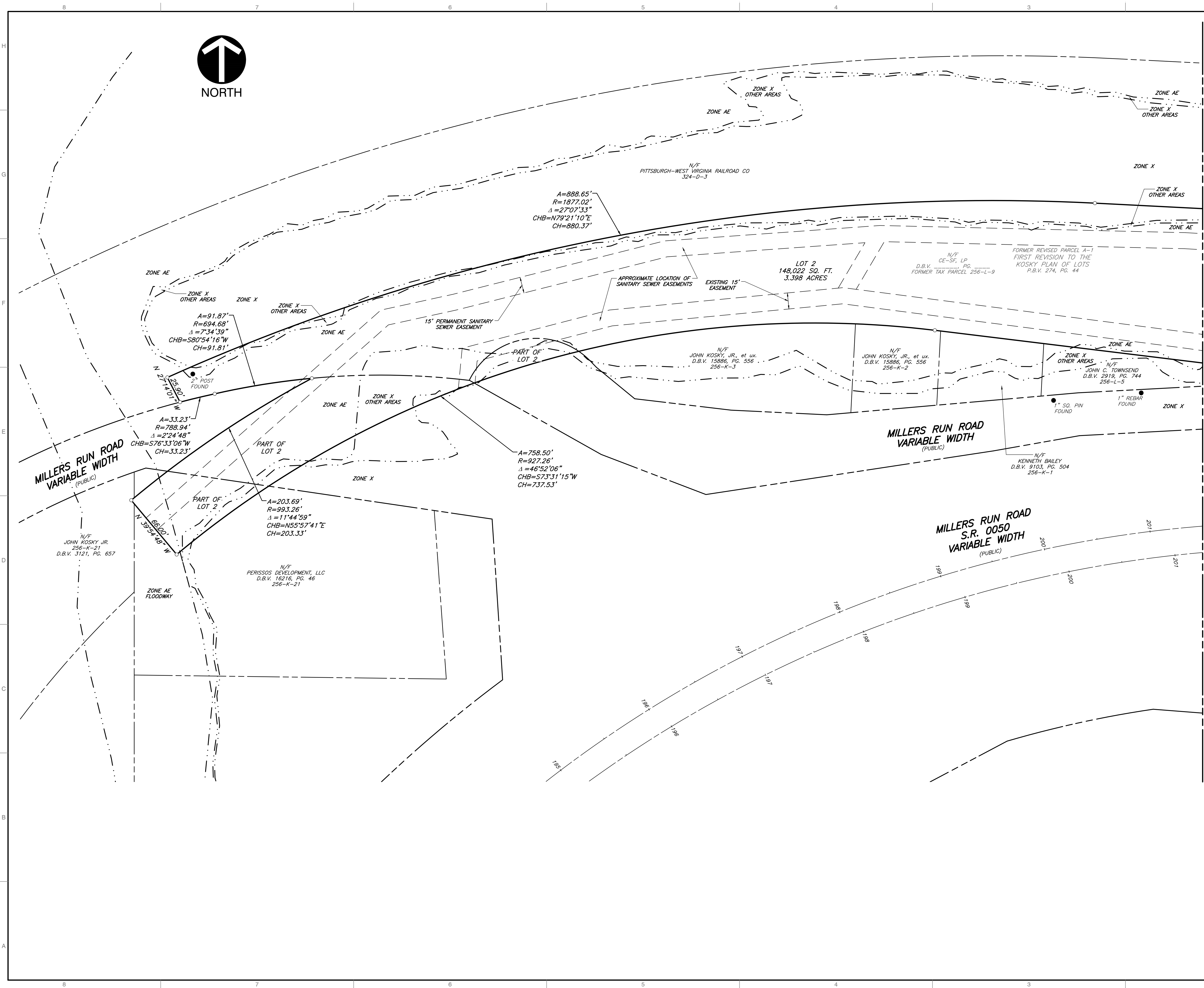
PROPERTY OWNER:

CE-SF, LP
295 MYOMA ROAD
MARS, PA 16046
CONTACT: CRAIG J. COZZA
PHONE NUMBER: (412)-381-7002

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REVISION RECORD		
NO	DATE	DESCRIPTION
1	10-17-2023	REVISED PER SOUTH FAYETTE TOWNSHIP AND ALLEGHENY COUNTY COMMENTS



KEY MAP
1" = 500'

DRAFT



BEING A SUBDIVISION AND CONSOLIDATION PLAN OF REVISED PARCEL A-1 OF THE FIRST REVISION TO THE KOSKY PLAN OF LOTS RECORDED IN P.B.V. 274, PG. 44; LOT 2 OF THE SCHNEIDER PLAN RECORDED IN P.B.V. 130, PG. 133; AND TAX PARCEL 256-L-1 RECORDED IN D.B.V. 10562, PG. 390.



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www.cecinc.com

**SECOND REVISION TO THE
KOSKY PLAN OF LOTS
TOWNSHIP OF SOUTH FAYETTE
ALLEGHENY COUNTY, PENNSYLVANIA**

DRAWN BY:	RWO	CHECKED BY:	CMM	APPROVED BY:	SAW
DATE:	07-14-2023	DWG SCALE:	1" = 40'	PROJECT NO.:	333-642

PREPARED FOR:
CE-SF, LP

DRAWING NO.:
SUB

SHEET 3 OF 3

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THIS DEED

MADE the 14th day of January, 2022

BETWEEN

C. Hackett Holdings, LLC, a Pennsylvania limited liability company
(hereinafter called "Grantor")

AND

CE-S.F. One, LP, a Pennsylvania limited partnership
(hereinafter called "Grantee")

WITNESSETH, that the said Grantor in consideration of One Million Five Hundred Sixty-Nine Thousand Two Hundred Fifty and no/100 Dollars (\$1,569,250.00), paid to the Grantor by the Grantee, receipt of which is hereby acknowledged, does grant, bargain, sell, and convey to the said Grantee, its successors and assigns, all of the Grantor's right, title, and interest in and to the following property:

ALL THAT CERTAIN lot or tract of land situate in the Township of South Fayette, County of Allegheny and Commonwealth of Pennsylvania, being known as Lot No. 2, as shown on a certain plan entitled Schneider Plan, recorded in the Department of Real Estate Office of Allegheny County, Pennsylvania in Plan Book Volume 130, Page 133.

AND

ALL THAT CERTAIN lot or piece of ground situate in the Township of South Fayette, County of Allegheny and Commonwealth of Pennsylvania, bounded and described as follows:

BEGINNING at a point on the Northeasterly side of State Highway L.R. 545 (also known as Traffic Route 28) at the corner of land now or late of Humble Oil and Refining Co.; thence along the Northeasterly side of said State Highway, Northwestwardly by the arc of a circle curving to the left, having a radius of 3367.10 feet, an arc distance of 297.75 feet to a point on line of land now or late of Anelita Ferri and Angelina Mals; thence by said land North 19 degrees, 05 minutes, 35 seconds East, 102.41 feet to a point on line of land now or late of Humble Oil and Refining Company; thence by said land the following two courses and distances; South 58 degrees, 59 minutes, 55 seconds East 310.50 feet to a point; thence South 25 degrees, 57 minutes, 05 seconds West 55.77 feet to the Northeasterly side of said State Highway at the place of beginning.

SUBJECT TO the condemnation of a portion of the subject property by the Commonwealth of Pennsylvania, Department of Transportation of right of way for Legislative Route 1138 of the Court of Common Pleas of Allegheny County, Pennsylvania, at No. 1717 October Term, 1971.

ALSO DESCRIBED AS all that certain lot or parcel of land situate in the Township of South Fayette, County of Allegheny, Commonwealth of Pennsylvania, being a portion of Block and Lot No. 256-L-2, more particularly bounded and described as follows:

Beginning at a point on the northerly right of way line of Miller Run Road, S.R. 0050, variable width, said point being at the southeast corner of property now or formerly Anthoni Mals Peterson (Tax Parcel 256-L-1); thence along the dividing line of property now or formerly Anthoni Mals Peterson and property herein described, North 20°43'08" East, 29.76' to a point on the former southerly line of Lot 2 of the Schneider Plan, recorded in Plan Book Volume 130, Page 133; thence along the former southerly line of Lot 2 of the Schneider Plan and through property now or formerly C. Hackett Holdings, LLC, (Tax Parcel 256-L-2), South 57°22'22" East, 225.98' to a point on the northerly right of way line of Miller Run Road, S.R. 0050, variable width; thence along the northerly right of way line of Miller Run Road, S.R. 0050, by an arc of a circle deflecting to the left in a northwestwardly direction, having a radius of 1245.92', an arc distance of 222.05' (chord bearing and distance, North 64°55'04" West, 221.76') to a point at the place of beginning.

Bearings based on First Revision to the Kosky Plan of Lots, recorded in Plan Book Volume 274, Page 44.

Contains 2,559 Sq. Ft. or 0.0587 Acres

THE ABOVE DESCRIBED PROPERTY TOGETHER BEING BLOCK AND LOT 256-L-2.

TOGETHER with and subject to all rights, duties and obligations set forth in the certain Easement Agreement, dated December 14, 2015, and recorded January 13, 2016, in Plan Book Volume 16256, page 110, being an Access Drive Easement.

BEING the same property which Richard Schneider and Jane Schneider, husband and wife, by Corrective Deed dated January 10, 2022 and recorded on January ____, 2022 in the Department of Real Estate of Allegheny County, Pennsylvania, in Deed Book Volume _____, Page _____ granted and conveyed C. Hackett Holdings, LLC.

UNDER AND SUBJECT TO coal and mining rights and all rights and privileges incident to the mining of coal heretofore conveyed, excepted, or reserved by instruments of record; the right of surface, lateral, or subjacent support; or any surface subsidence; oil and gas and minerals and all rights incident to the extraction or development of oil and gas or minerals heretofore conveyed, leased, excepted, or reserved by instruments of record; and all easements, rights of way, and restrictions as contained in prior instruments of record and/or as installed or located on the premises and all other matters of record appearing prior hereto.

With the appurtenances thereto: **TO HAVE AND TO HOLD** the same to and for the use of the said Grantee, its successors and assigns forever, and the Grantor for its successors and assigns hereby covenants and agrees that it will **SPECIALLY** warrant title to the property hereby conveyed.

NOTICE: THIS DOCUMENT MAY NOT/DOES NOT SELL, CONVEY, TRANSFER, INCLUDE, OR INSURE THE TITLE TO THE COAL AND RIGHT OF SUPPORT UNDERNEATH THE SURFACE LAND DESCRIBED OR REFERRED TO HEREIN, AND THE OWNER OR OWNERS OF SUCH COAL MAY HAVE/HAVE THE COMPLETE LEGAL RIGHT TO REMOVE ALL OF SUCH COAL AND, IN THAT CONNECTION, DAMAGE MAY RESULT TO THE SURFACE OF THE LAND AND ANY HOUSE, BUILDING, OR OTHER STRUCTURE ON OR IN SUCH LAND. THE INCLUSION OF THIS NOTICE DOES NOT ENLARGE, RESTRICT, OR MODIFY ANY LEGAL RIGHTS OR ESTATES OTHERWISE CREATED, TRANSFERRED, EXCEPTED, OR RESERVED BY THIS INSTRUMENT. [This notice is set forth in the manner provided in Section 1 of the Act of July 17, 1957, P.L. 984, as amended, and is not intended as notice of unrecorded instruments, if any.]

WITNESS the hand and seal of the said Grantor.

WITNESS:

C. Hackett Holdings, LLC

[Signature]

By [Signature]
Charles Hackett, Member

Commonwealth of Pennsylvania)
) ss:
County of Allegheny)

On this, the 14th day of January, 2022, before me, a Notary Public, the undersigned officer, personally appeared Charles Hackett, who acknowledged himself to be the Member of C. Hackett Holdings, LLC, a Pennsylvania limited liability company, and that he as such Member, being authorized to do so, executed the foregoing deed for the purposes therein contained by signing the name of the corporation by himself as such Member.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

[Signature]
Notary Public

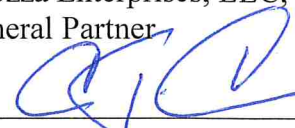
My commission expires:

Commonwealth of Pennsylvania - Notary Seal Thomas H. Ayoub III, Notary Public Allegheny County My commission expires February 21, 2025 Commission number 1004840 Member, Pennsylvania Association of Notaries
--

NOTICE: THE UNDERSIGNED, AS EVIDENCED BY THE SIGNATURE[S] TO THIS NOTICE AND THE ACCEPTANCE AND RECORDING OF THIS DEED, IS/ARE FULLY COGNIZANT OF THE FACT THAT THE UNDERSIGNED MAY NOT BE OBTAINING THE RIGHT OF PROTECTION AGAINST SUBSIDENCE, AS TO THE PROPERTY HEREIN CONVEYED, RESULTING FROM COAL MINING OPERATIONS AND THAT THE PURCHASED PROPERTY, HEREIN CONVEYED, MAY BE PROTECTED FROM DAMAGE DUE TO MINE SUBSIDENCE BY A PRIVATE CONTRACT WITH THE OWNERS OF THE ECONOMIC INTEREST IN THE COAL. THIS NOTICE IS INSERTED HEREIN TO COMPLY WITH THE BITUMINOUS MINE SUBSIDENCE AND LAND CONSERVATION ACT OF 1966, AS AMENDED 1980, OCT. 10, P.L. 874, NO. 156, § 1.

WITNESS:



CE-S.F. One, LP
By: Cozza Enterprises, LLC,
its General Partner
By: 
Craig J. Cozza, Managing Member

CERTIFICATE OF RESIDENCE

I hereby certify that (1) FOR THE PURPOSE OF DELIVERY OF TAX STATEMENTS ONLY, the precise residence of the Grantee is P.O. Box 453, Carnegie, PA 15106,

and (2) FOR ALL OTHER PURPOSES (including delivery of assessment change notices) the precise residence of Grantee is P.O. Box 453, Carnegie, PA 15106.

Witness the due execution hereof this 14th day of January, 2022



Grantee/Agent for Grantee

AFTER RECORDING, PLEASE RETURN TO:

Pioneer Land Settlement, Inc.
710 Fifth Ave. – Suite 2000
Pittsburgh, PA 15219

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT ("Agreement") by and between PETERSON ANTHONI MALS ("Seller") and CE-South Fayette, LP or related assigns, a limited liability company ("Purchaser") is made and entered into as of the last date this Agreement is executed by Seller or Purchaser (the "Effective Date").

Recitals:

WHEREAS, Seller is the owner of a certain property identified as Millers Run Rd in the City of Bridgeville, County of 946 South Fayette, Commonwealth of Pennsylvania identified as Block and Lot Parcel ID 0256-L-00001-0000-00, as such property is more fully described at Deed Book Volume 10562, page 390 (the "Property"); and

WHEREAS, Seller desires to sell and Purchaser desires to purchase the Property, pursuant to the terms, provisions, and conditions herein.

NOW, THEREFORE, intending to be legally bound the parties hereto agree as follows:

1. PURCHASE AND SALE OF PROPERTY.

Seller agrees to sell to Purchaser, and Purchaser agrees to purchase from Seller, subject to the terms and conditions of this Agreement, the Property. The Property shall be conveyed together with all privileges, rights, easements and appurtenances belonging to such land, and all right, title and interest (if any) of Seller in and to any streets, alleys, passages, and other rights-of-way or appurtenances included in, adjacent to or used in connection with such land, and all right, title and interest (if any) of Seller in all mineral and development rights appurtenant to such land and with all of the rights and privileges attributable to ownership of the Property.

2. PURCHASE PRICE AND DEPOSIT.

2.1 The purchase price for the Property shall be [REDACTED] (the "Purchase Price").

2.2 Within three (5) days of the Effective Date, Purchaser shall deposit with Pioneer Land Settlement, Inc. (hereinafter "Title Company") as escrow agent, a deposit in the amount of [REDACTED] (the "Deposit") to be held in a non-interest bearing account.

2.3 At Closing, the Deposit shall be applied to the Purchase Price.

3. TITLE.

3.1 Title to the Property shall be conveyed to Purchaser at Closing in fee simple by general Warranty Deed, in a form and substance satisfactory to Purchaser's counsel.

3.2 Purchaser shall obtain a Commitment for Title Insurance from the Title Company, committing to insure upon the payment of a requisite premium at standard rates that Purchaser shall own good and indefeasible fee simple title to the Property, subject only to the

Permitted Exceptions, as defined herein.

3.3 The term "Permitted Exceptions", as used herein, shall mean (i) the lien of real estate taxes not yet due and payable, (ii) all matters revealed in the Title Commitment obtained by Purchaser and approved by Purchaser, (iii) all existing building, zoning and other city, state, county or federal laws, codes and regulations affecting the Property, (iv) any existing general utility easements serving the Property, provided such existing utility easements would not materially interfere with Purchaser's intended use of the Property as determined by Purchaser in its sole discretion, and (v) any title exception created directly by any act or omission of Purchaser or its representatives, agents, employees or invitees.

3.4 Notwithstanding anything to the contrary in this agreement, Seller shall pay all costs of clearing title.

4. DUE DILIGENCE PERIOD.

4.1 Purchaser, at Purchaser's sole expense, shall have the right for a period of _____ days from the Effective Date (the "Due Diligence Period"), at any time, to perform any due diligence at its sole cost and expense that it deems proper, including but not limited to, survey and title review, environmental review, structural review, roof evaluation, electrical and plumbing review, and zoning review. Purchaser may elect, at its sole discretion, during the Due Diligence Period, to terminate this Agreement for any reason (or for no reason whatsoever) and receive the prompt refund of the Deposit. Purchaser shall elect to terminate this Agreement by providing written notice delivered to Seller prior to the expiration of the Due Diligence Period notifying Seller that Purchaser is terminating this Agreement. In the absence of such notice, this Agreement shall remain in full force and effect.

4.2 Seller shall provide to Purchaser, within five (5) days after the Effective date of this Agreement, to the extent such are available to Seller, a copy of all plans, drawings, and blueprints pertaining to the Property, any existing title insurance policies covering the Property, a copy of any site plans and/or surveys for the Property, and a copy of any environmental reports.

4.3 The Purchaser shall have one (1) successive option to extend the term of the Due Diligence Period for periods of thirty (30) days each. To exercise an option to extend the term of the Due Diligence Period, Purchaser must notify Seller in writing to be received by Seller on or before the end of the Due Diligence Period, as extended, pursuant to the notice provisions set forth below in this Agreement.

5. REPRESENTATIONS AND WARRANTIES OF SELLER.

Seller hereby represents and warrants the following to the Purchaser as of the date Seller signs this Agreement and as of the Closing:

5.1 Seller is the record owner in fee simple of the Property, and the Property will be on the Closing date free and clear of all liens and encumbrances except for Permitted Exceptions, as defined herein.

5.2 Seller possesses all requisite power and authority to enter into and perform this Agreement and to carry out the transactions contemplated herein. The execution and delivery by Seller of this Agreement and the performance and consummation by Seller of the transaction

contemplated by this Agreement have been duly and validly authorized by all requisite and necessary company and other internal action on the part of Seller.

5.3 No suit, action, arbitration, or legal, administrative, or other proceedings, including but not limited to condemnation proceeding, is pending or has been threatened against the Property or against the Seller with respect to the Property.

5.4 No bankruptcy, insolvency, rearrangement, or similar action or proceedings, whether voluntary or involuntary, is pending or threatened against Seller, or any partner of Seller and Seller has no intention of filing or commencing any such action or proceeding.

5.5 There are no existing or pending contracts of sale, leases, options to purchase, or rights of first refusal (or the like) with respect to the Property.

5.6 Seller is not a "foreign person" as defined in the Foreign Investment in Real Property Tax Act of 1980, as amended.

5.7 The Property is not subject to any protest or appeal proceedings related to real property taxes.

5.8 Seller has not received any written notice indicating that the Property is in violation, or that with the giving of notice or the passage of time would be in violation, of any applicable law, enactment, statute, code, ordinance, rule, regulation, judgment, writ, injunction, authorization, covenant, condition, restriction or agreement, or other direction or requirement of any governmental authority.

5.9 Neither Seller nor any affiliate or agent or contractor of Seller has disposed of or otherwise released any Hazardous Substances on the Property. To the best of Seller's knowledge, there are no Hazardous Substances present on the Property. Seller further warrants that until termination of this Agreement or delivery of possession of the Property to Purchaser, neither Seller nor any agent of Seller will cause or permit any Hazardous Substance to be disposed of or released or present on, over, beneath, in or upon the Property or to exist on or within any portion of the Property. "Hazardous Substances" shall mean asbestos (including asbestos in friable form), polychlorinated biphenyls, petroleum products, any flammable explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances or related materials as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §9601, et seq.), the Hazardous Materials Transportation Act, as amended, (49 U.S.C. §1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §6901, et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §2601, et seq.), any Environmental Laws. "Environmental Laws" means any federal, state or local statutes, laws, regulations, rules, decrees, orders, judgments, stipulations, ordinances, policies or common law related to the protection of human health and the environment or the use, handling, treatment, storage, disposal, release, remediation or transportation, or exposure of persons to, Hazardous Substances.

5.10 The representations and warranties of this Section 5 shall survive Closing.

6. CLOSING.

6.1 The consummation of the contemplated transaction (the "Closing") shall be held at the offices of Pioneer Land Settlement, Inc., in Pittsburgh, Pennsylvania, not later than thirty (30) days after expiration of the Due Diligence Period, including any extensions, time being of the essence. The exact date and time of the Closing shall be designated by mutual agreement of the Seller and Purchaser upon notice to Seller of not less than five (5) days. The Title Company shall be responsible at the Closing for preparing the settlement statement, causing all documents to be recorded, disbursing all closing proceeds, and otherwise conducting settlement.

6.2 The following apportionments shall be made between the parties at the Closing:

(a) Real estate taxes, personal property taxes, special assessments, if any, on the basis of the fiscal or calendar period for which assessed.

(b) Water and sewer service charges and charges for gas, electricity, telephone and all other public utilities. If there are meters measuring the consumption of water, gas or electric current, Seller shall, not more than one day prior to the Closing date, if possible, cause such meters to be read, and shall pay all utility bills for which Seller is liable upon receipt of statements therefor. Purchaser shall be responsible for causing such utilities and services to be changed to its name and shall be liable for and shall pay all utility bills for services rendered after the Closing.

(c) All other charges and fees customarily prorated and adjusted in similar transactions in Pennsylvania.

6.3 At the Closing, Seller shall deliver to Purchaser, the following:

(a) A recordable Warranty Deed as required by Section 3.1 of this Agreement, conveying the Property in fee simple to Purchaser.

(b) A certificate, dated as of the Closing date, to establish that Seller is not a foreign person for the purposes of the Foreign Investment in Real Property Tax Act.

(c) Exclusive physical possession of the Property in its "AS IS" condition with all personal property removed, together with all books and records in Seller's possession or control and all keys.

(d) Such customary owner's title affidavits and gap indemnities as may be required by the Title Company in order to issue the title policy subject only to the Permitted Exceptions and without exception for parties in possession, mechanics' or materialmen's liens, unrecorded easements or matters first appearing of record after the effective date of the most recent Title Commitment but prior to the conveyance of the Property to Purchaser.

(e) If Seller is a business entity other than an individual, a Pennsylvania Good Standing Certificate, copies of the organizational documents for the Seller, and resolutions of Seller approving this Agreement and the transaction contemplated hereby and authorizing the execution and delivery of this Agreement, the completion of the transaction contemplated hereby and the execution and delivery of all documents required to be executed and delivered by Seller.

(f) Such other documents, instruments and affidavits as may be reasonably requested by Purchaser or the Title Company to effectuate the transaction contemplated by this Agreement and to induce the Title Company to insure title to the Property as described herein.

6.4 At the Closing, Purchaser shall deliver to Seller, the following:

(a) The balance of the Purchase Price, less the Deposit and subject to the prorations and credits set forth herein, payable in certified funds or by Federal Reserve Bank wire transfer to the Title Company on or prior to Closing.

(b) Such other documents, instruments and affidavits as may be reasonably requested by Seller or the Title Company to effectuate the transaction contemplated by this Agreement and to induce the Title Company to insure title to the Property as described herein.

6.5 Purchaser shall pay the costs and expenses associated with the following: (i) all costs of Purchaser's due diligence, including fees due its consultants and attorneys, (ii) all lenders' fees related to any financing to be obtained by Purchaser, (iii) all recording and filing charges in connection with the instruments by which Seller conveys the Property, (iv) all premiums and charges of the Title Company for the Title Commitment and the Owner's (and any mortgagee's) Title Policy (including endorsements), (v) the cost of the Survey, (vi) one-half of the transfer taxes, documentary stamp taxes and similar charges, if any, applicable to the transfer of the Property to Purchaser. The obligations of the Purchaser under this Section 6.5 shall survive the Closing (and not be merged therein) or any earlier termination of this Agreement.

6.6 Seller shall pay the costs and expenses associated with the following: (i) all fees due its attorneys and consultants, (ii) all reasonable costs incurred in connection with causing the Title Company to remove any title objections required to be removed or otherwise cured by Seller, (iii) all costs incurred in connection with the satisfaction of monetary liens on the Property, including any costs related to recording of any satisfaction or termination documents, and (iv) one-half of the transfer taxes, documentary stamp taxes and similar charges, if any, applicable to the transfer of the Property to Purchaser, and (v) a customary and reasonable settlement fee. The obligations of the Seller under this Section 6.6 shall survive the Closing (and not be merged therein) or any earlier termination of this Agreement.

7. RISKS OF LOSS; MAINTENANCE OF PROPERTY.

Risk of loss of the Property shall remain upon the Seller until Closing and delivery of possession to Purchaser. Seller shall maintain the Property in as good condition as it is now, except for ordinary wear and tear, until delivery of the same to Purchaser. Seller shall maintain such fire and casualty insurance as it has in force at this time. Purchaser understands that Purchaser may have an insurable interest in the Property upon the signing of this Agreement and, in order to protect Purchaser's own interest in the Property, Purchaser may retain or place in force adequate fire and casualty insurance with extended coverage on the Property as of the Effective Date of this Agreement.

8. EMINENT DOMAIN; CASUALTY.

After the Effective Date, in the event Seller receives any notice of any condemnation proceedings, or other proceedings in the nature of eminent domain, or if any part

of the Property is damaged or destroyed by casualty, Seller will forthwith notify Purchaser of same, and Purchaser shall have the option to: (i) proceed under this Agreement and obtain by assignment or otherwise all damages to which the owner of the Property may be entitled pursuant to the Pennsylvania Eminent Domain Code, or under any insurance policy of Seller, as applicable; or (ii) void this Agreement whereupon no party shall have any further duty or liability to the other. Notwithstanding the foregoing, if the Property is damaged by fire or casualty, and such damage can be repaired or reconstructed prior to the Closing in a good and workmanlike manner to the reasonable satisfaction of Purchaser, the Purchaser shall not have the right to terminate the Agreement.

9. REMEDIES.

9.1 In the event Seller materially fails to perform or breaches any of its representations, warranties or covenants to be performed by Seller under this Agreement, or Seller materially misrepresents any fact or circumstance, Purchaser shall be entitled (a) to enforce specific performance of this Agreement; (b) to bring suit for all damages suffered by reason of such failure and all of Purchaser's costs and expenses, including reasonable attorneys' fees; or (c) to terminate this agreement and have the Deposit and any Additional Deposit returned to Purchaser. Each remedy under this Section 9.1 may be cumulative and not exclusive.

9.2 If Purchaser defaults in its performance of any term, covenant, condition, or obligation under this Agreement, including the obligation of Purchaser to purchase the Property if all conditions precedent to such obligations have been satisfied, Seller shall be entitled to receive as complete liquidated damages the Deposit and any Additional Deposit as liquidated damages. The parties acknowledge that the Deposit and any Additional Deposit represents a reasonable effort to ascertain the damages to Seller in the event of a Purchaser default, which damages are difficult or impossible to quantify. Seller waives all other remedies.

9.3 A failure by either party to perform any act required by it under this Agreement, other than the requirement to close if all conditions have been met, shall not be deemed a default under this Agreement until such party has received written notice from the other party setting forth the alleged failure, and such failure has not been cured within five (5) days of receipt of such notice.

10. BROKERAGE COMMISSION.

Purchaser and Seller acknowledge that no brokerage commission is payable in connection with this transaction. Each of the parties hereto agrees to indemnify and hold the other harmless from claims made by any other broker, attorney or finder claiming through such party for a commission, fee or compensation in connection with this Agreement or the sale of the Property hereunder. The provisions of this Section 10 shall survive Closing.

11. ASSIGNMENT.

11.1 Neither party shall assign or transfer or permit the assignment or transfer of its rights or obligations under this Agreement without the prior written consent of the other, any such assignment or transfer without such prior consent being hereby declared to be null and void; provided, however, that Purchaser shall have the right to assign this Agreement to an Affiliate, whose direct or indirect ownership is at least 51% of the ownership of the Purchaser,

upon written notice to Seller no later than two (2) days prior to the Closing date, and such assignee(s) shall assume Purchaser's rights and obligations under this Agreement.

11.2 In the event either party consents to an assignment of this Agreement by the other for which consent is required, no further assignment shall be made without another written consent from the consenting party, unless the assignment may otherwise be made without consent under this Agreement. An assignment by either Seller or Purchaser of its interest in this Agreement shall not relieve Seller or Purchaser, as the case may be, from its obligations, but this Agreement shall then inure to the benefit of, and be binding on, the assignee's successors, heirs, legal representatives and assigns.

11.3 If Seller or Purchaser reasonably determine that an assignment of this Agreement may be subject to the imposition of realty transfer tax or other applicable taxes, then the parties shall terminate this Agreement effective prior to Closing. In the event of such termination, the parties hereby agree that Seller and Purchaser (or Purchaser's assignee) shall enter into a new purchase agreement immediately following the termination of this Agreement, which shall contain the same terms and conditions as this Agreement, except as otherwise agreed by the parties in advance. In addition to the foregoing, the parties hereby acknowledge and agree that any termination of this Agreement as contemplated by this Section 11.3 shall not constitute a default under this Agreement or result in the disbursement of any portion of the Deposit and any Additional Deposit, and, upon such termination, the Deposit and Any Additional Deposit shall be treated as if they were delivered to Purchaser and repaid to the Title Company. The parties shall execute and deliver such additional documents, instruments and certificates as may be reasonably requested by either party to evidence the transactions described in this Section 11.3.

12. GENERAL PROVISIONS.

12.1 The terms and conditions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, successors, assigns, and legal representatives.

12.2 Notices and other communications required by this Agreement shall be in writing and (i) delivered by hand with receipt; (ii) sent by recognized overnight delivery service; (iii) sent by certified or registered mail, postage prepaid, with return receipt requested; or (iv) by electronic mail with a confirmation copy sent by another method permitted under this Section. All notices shall be addressed as follows:

If to the Seller:	PETERSON ANTHONI MALS 754 Windows Road, Smicksburg, PA 16256
If to the Purchaser:	Cozza Enterprises LLC 295 Myoma Rd Mars, PA 16046
With Copy To:	Thomas H. Ayoob III, Esquire Thomas H. Ayoob III & Associates, LLC 710 Fifth Avenue, Suite 2000

Pittsburgh, PA 15219
e-mail: tom@pioneerls.com

Notices shall be deemed to be effective upon receipt or refusal of the addressee to accept delivery.

12.3. Whenever used herein, unless expressly provided otherwise, the term "days" shall mean consecutive calendar days, except that if the expiration of any time period measured in days occurs on a Saturday, Sunday, legal holiday, such expiration shall automatically be extended to the next business day.

12.4 This Agreement constitutes the entire agreement between the parties concerning the Property and supersedes all prior agreements or undertakings.

12.5 This Agreement may not be modified except by the written agreement of the parties.

12.6 In the event any one or more of the provisions contained in this Agreement are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability will not affect any other provisions hereof, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein.

12.7 The parties acknowledge that each party and its counsel of choice if so desired has had an opportunity to review and revise this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any amendment or modification hereof or any of the closing documents delivered by Seller or Purchaser hereunder.

12.8 Any paragraph headings or captions contained in this Agreement shall be for convenience of reference only and shall not affect the construction or interpretation of any provisions of this Agreement.

12.9 This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

12.10 The parties hereby agree to indemnify and defend the Title Company in its role as escrow agent from any and all suits, actions or claims if the Title Company in its role as escrow agent acts in good faith on the written notice and direction of the parties delivered in accordance with the terms hereof.

12.11 The individuals executing this Agreement represent and warrant that they have full authority and/or have been duly authorized by their respective parties to do so on behalf of such parties.

12.12 This Agreement may be executed in separate counterparts, none of which need contain the signatures of all parties, each of which shall be deemed to be an original, and all of which taken together constitute one and the same instrument. It shall not be necessary in making proof of this Agreement to produce or account for more than the number of counterparts containing the respective signatures of, or on behalf of, all of the parties hereto. The exchange of executed copies of this Agreement by electronic mail, portable document format (.pdf) or other

electronic transmission method will constitute effective execution and delivery of this Agreement as to the parties for all purposes, and electronic signatures of the parties shall be deemed to be their original signatures for all purposes.

12.13 NOTICE--THIS DOCUMENT MAY NOT SELL, CONVEY, TRANSFER, INCLUDE OR INSURE THE TITLE TO THE COAL AND RIGHT OF SUPPORT UNDERNEATH THE SURFACE LAND DESCRIBED OR REFERRED TO HEREIN, AND THE OWNER OR OWNERS OF SUCH COAL MAY HAVE THE COMPLETE LEGAL RIGHT TO REMOVE ALL OF SUCH COAL, AND, IN THAT CONNECTION, DAMAGE MAY RESULT TO THE SURFACE OF THE LAND AND ANY HOUSE, BUILDING OR OTHER STRUCTURE ON OR IN SUCH LAND, THE INCLUSION OF THIS NOTICE DOES NOT ENLARGE OR RESTRICT OR MODIFY ANY LEGAL RIGHTS OR ESTATES OTHERWISE CREATED, TRANSFERRED, EXCEPTED OR RESERVED BY THIS INSTRUMENT. (This notice is set forth in the manner provided in Section 1 of the Act of July 17, 1957, P.L. 984, as amended, and is not intended as notice of unrecorded instruments, if any.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates written below.

Date: 6/23/23

SELLER:

Anthony Mels Peterson

Date: 6/20/23

PURCHASER:

LJC QJ@



Plan Name:	Lafayette 180	File No.	SP-01-2026
Plan Location:	Newbury Drive	Tax I.D. #	0256-L-00002, 0256-L-000001, 0256-L-00009
Project Description	Proposed planned shopping center with parking lot and associated utilities.		

Check Appropriate Box(es)

Land Development Plan	<input checked="" type="checkbox"/>	Subdivision Plan	<input type="checkbox"/>	Conditional Use Plan	<input type="checkbox"/>
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Minor Subdivision	<input type="checkbox"/>	Major Subdivision	<input type="checkbox"/>	Open Space Plan	<input type="checkbox"/>
Preliminary Plan Submission	<input type="checkbox"/>	Final Plan Submission	<input checked="" type="checkbox"/>		

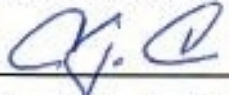
Zoning District(s)	C-2	Property Acreage	5.48 acres	No. Lots/Units	
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Applicant's Name:	Craig Cozza	Phone No.	
Applicant's Address:	295 Myoma Road, Mars, PA 16046	Fax No.	
Applicant's E-Mail:			
Engineer Firm/Name	The Gateway Engineers, Inc.	Phone No.	
Engineer's Address:	100 McMorris Road, Pittsburgh, PA	Fax No.	
Contact Person:	Joseph Galbraith	E-Mail Address	

The following items are reviewed as part of the South Fayette Township application process. Applications submitted WITHOUT these elements will NOT be reviewed by the township.

REQUIRED SUBMISSION ITEMS	Copies	✓ Yes	✓ No	✓ N/A
1) Completed Application Form	1			
2) ACED Subdivision/Land Development Application	1			
3) Maps and Plans				
• Plus PDF of drawings	1			
• Sets Full-Size Plans (24" x 36")	5			
• Sets Half-Size Plans (11" x 17")	5			
4) Agent Authorization Form	1			
5) Application Fee	1			
6) Escrow – Engineer, Solicitor, Inspection	1			
7) Stormwater Management Plan & Calculations (plus PDF)	2			
8) Erosion & Sedimentation Control Plan (plus PDF)	2			
9) Deed, Sales Agreement or Other Ownership	1			

I have familiarized myself with and hereby agree to comply with the subdivision and zoning ordinance of the township as well as to all township rules, regulations and resolutions. I agree to pay the applicable fee(s).

Signature of Applicant:  Date: 01/14/2026

If applicant is not the property owner, an Agent Authorization Form must be attached.



SOUTH FAYETTE T O W N S H I P

A Community Growing Together

Agent Authorization Form

www.southfayettepa.com

Name of Property Owners: Craig Cozza

Property Tax Map Number: 0256-L-00002, 0256-L-000001, 026-L-00009

Property/Project(s): Lafayette 180 - Planned Shopping Center

This application/phase only

All related applications and phases

The above named property owner hereby appoints: The Gateway Engineers, Inc.

as its agent and authorizes said agent to apply for and process the above mentioned development plan/variance on his/her behalf. Agent is further authorized to sign all necessary documentations for such purposes, including acceptance of conditions imposed by the Board of Commissioners upon arrival of the plan. This authorization shall remain in full force and effect until written notice of revocation is delivered to the South Fayette Township Manager.

SIGNED AND SEALED, intending to be legally bound on this date of:

Craig J. Cozza

Owner(s) Signature:  (SEAL)

NOTE:

1. THESE PLANS AS SUBMITTED ARE INTENDED TO COMPLY WITH ALL REGULATIONS, STANDARDS, AND ORDINANCES OF THE SOUTH FAYETTE TOWNSHIP. ANY DEVIATION FROM THOSE REGULATIONS, STANDARDS AND ORDINANCES IS UNINTENTIONAL AND AS SUCH, IN THE EVENT THAT A CONFLICT IS DISCOVERED, IT IS UNDERSTOOD AND AGREED THAT THE SOUTH FAYETTE TOWNSHIP'S REGULATIONS, STANDARDS AND ORDINANCES WILL APPLY.

LAFAYETTE 180 - VARIANCES GRANTED:

SIGNATURE OF PROJECT ENGINEER

ON JULY 26, 2023 A VARIANCE HAS BEEN GRANTED BY THE SOUTH FAYETTE TOWNSHIP ZONING HEARING BOARD TO SECTION 240-51(A)(1) TO ALLOW THE LOT AREA OF 4.4 ACRES DEPARTURE FROM THE REQUIRED 5.0 ACRES FOR A PLANNED SHOPPING CENTER.

ON JULY 26, 2023 A VARIANCE HAS BEEN GRANTED BY THE SOUTH FAYETTE TOWNSHIP ZONING HEARING BOARD TO SECTION 240-111(J)(2) REDUCING THE SETBACK ON MILLERS RUN ROAD SIDE PARKING SETBACK FROM 20-FEET TO 1-FOOT.

ON JULY 26, 2023 A VARIANCE HAS BEEN GRANTED BY THE SOUTH FAYETTE TOWNSHIP ZONING HEARING BOARD TO SECTION 240-111(J)(3) REDUCING THE FRONT YARD PARKING SETBACK FROM 20-FEET TO 8-FEET, AS IT RELATED TO NEWBURY DRIVE.

ON JULY 26, 2023 A VARIANCE HAS BEEN GRANTED BY THE SOUTH FAYETTE TOWNSHIP ZONING HEARING BOARD TO SECTION 240-51(C) TO ALLOW EXCEEDANCE OF MAXIMUM IMPERVIOUS SURFACE AREA FROM THE REQUIRED TO PERCENT TO 84 PERCENT.

LAFAYETTE 180

NEWBURY DRIVE
CUDDY, PA 15031

PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16046

I CERTIFY THAT, TO THE BEST OF MY INFORMATION, KNOWLEDGE AND BELIEF THE SURVEY AND PLAN SHOWN HEREON ARE CORRECT AND ACCURATE TO THE STANDARDS REQUIRED.

DATE _____ NAME _____ REGISTRATION NO. _____

_____, A REGISTERED PROFESSIONAL ENGINEER FOR THE TOWNSHIP OF SOUTH FAYETTE DO HEREBY CERTIFY THAT THIS SUBDIVISION PLAN MEETS ALL THE ENGINEERING REQUIREMENTS OF THE TOWNSHIP SUBDIVISION AND ZONING ORDINANCE, EXCEPT AS DEPARTURES HAVE BEEN AUTHORIZED BY THE APPROVAL AUTHORITY.

DATE _____ NAME _____ REGISTRATION NO. _____

REVIEWED BY THE TOWNSHIP OF SOUTH FAYETTE PLANNING COMMISSION, THIS _____ DAY OF _____, 2023.

SECRETARY _____ (SEAL) _____ CHAIRPERSON _____

THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE HEREBY GIVES PUBLIC NOTICE IN APPROVING THIS PLAN FOR RECORDING PURPOSES ONLY, THE TOWNSHIP OF SOUTH FAYETTE ASSUMES NO OBLIGATIONS, LEGAL OR OTHERWISE, EXPRESSED OR IMPLIED EITHER TO ACCEPT SAID STREETS AS TOWNSHIP STREETS OR ROADS OR GRADES, PAVE AND CURB THE STREETS IN SAID PLAN OR TO CONSTRUCT SEWERS THEREIN OR TO INSTALL ANY OTHER SUCH SERVICE ORDINARILY INSTALLED IN TOWNSHIP STREETS OR ROADS.

THE TOWNSHIP OF SOUTH FAYETTE AGREES NOT TO ISSUE BUILDING PERMITS UNTIL THE "PLANNING MODULE FOR LAND DEVELOPMENT" HAS BEEN APPROVED IN ACCORDANCE WITH THE REGULATIONS OF THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

APPROVED BY THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF SOUTH FAYETTE THIS _____ DAY OF _____, 2023.

ATTEST:

SECRETARY _____ (SEAL) _____ PRESIDENT OF THE BOARD OF COMMISSIONERS

LIST OF UTILITIES	
PEOPLES GAS COMPANY LLC 338 E CUMMINGHAM STREET BUTLER, PA 16001 CONTACT: MICHAEL DENNY 724-431-1498 michael.denny@peoples-gas.com	
VERIZON PENNSYLVANIA LLC 1026 HAY STREET PITTSBURGH, PA 15221 CONTACT: DEBORAH BARUM 412-344-4390 deborah.d.delia@verizon.com	
COLUMBIA GAS OF PA INC 1600 DUBLIN ROAD COLUMBUS, OH 43215 CONTACT: LISA COLLINS 614-325-5586 ldugan@nsource.com	
SOUTH FAYETTE TWP MUNICIPAL AUTHORITY 900 PRESTO SYGAN ROAD BRIDGEVILLE, PA 15017 CONTACT: NICK GOETTMAN 412-257-7510 EXT. 5 ngoettman@sftwp.com	
FIRSTENERGY CORPORATION 21 S MAIN STREET AKRON, OH 44308 CONTACT: MELLYSSA ADAMS 330-604-4407 madams@firstenergycorp.com	
COMCAST 1241 BUSINESS RT 66 GREENSBURG, PA 15601 CONTACT: LLOYD CRAGO 878-295-5899 lloyd_crago@cable.comcast.com	
SOUTH FAYETTE TOWNSHIP 515 MILLERS RUN ROAD MORGAN, PA 15064 CONTACT: PEGGY PATTERSON 412-221-187 EXT. 210 PPATTERSON@SFTWP.COM	
PENNSYLVANIA AMERICAN WATER 500 NOBLESTOWN ROAD CARNEGIE, PA 15106 CONTACT: LUCIAN CAPPETTA 412-401-1187 lucian.cappetta@amwater.com	



ZONING REQUIREMENTS		
SITE ZONING: C-2 HIGHWAY COMMERCIAL		
USE:		
TOWNSHIP STANDARD	REQUIRED	PROVIDED
USE	PLANNED SHOPPING CENTER	PLANNED SHOPPING CENTER
BUILDING HEIGHT	NO MORE THAN 60 FT	
LOT AREA	5 Acres	4.4 Acres (Variance Granted)
SETBACKS		
FRONT YARD	50 Ft	58 Ft
REAR YARD	50 Ft	52 Ft
SIDE YARD	20 Ft	53 Ft
PARKING		
PLANNED SHOPPING CENTER TOTAL AREA: 54,420 S.F.		
TOTAL	1 SPACE PER 200 S.F. (272)	273
ADA ACCESSIBLE	7	7
LAND COVERAGES		
OPEN SPACE	20%	16%
IMPERVIOUS	80%	84% (Variance Requested)
PERMIT REQUIREMENTS		
REVIEWING AGENCY		
N.P.D.E.S PERMIT	ALLEGHENY COUNTY CONSERVATION DISTRICT	
PLANNING FACILITIES PLANNING MODULE	PA DEPT. OF ENVIRONMENTAL PROTECTION	
HIGHWAY OCCUPANCY PERMIT (HOP)	PA DEPT. OF TRANSPORTATION	
STORMWATER MANAGEMENT MAINTENANCE PROGRAM		
THE OWNERS SHALL BE RESPONSIBLE FOR INSPECTING THE STORMWATER DETENTION FACILITIES ON A SEMI-ANNUAL BASIS (JANUARY 2 AND JULY 2 OF EACH YEAR), PLUS AFTER EACH SIGNIFICANT RAINFALL. ANY DEBRIS WHICH MIGHT IMPEDE FLOW AT OR THROUGH THE OUTLET STRUCTURE SHALL BE REMOVED. ANY SEDIMENT WHICH ACCUMULATES WITHIN THE FACILITIES SHALL BE REMOVED.		

SHEET INDEX	
NO.	TITLE
C000	COVER SHEET
C050	EXISTING CONDITIONS AND DEMOLITION PLAN
C100	SITE PLAN
C101	FIRE TRUCK TEMPLATE
C200	GRADING PLAN
C300	LUTILITY PLAN
C400	EROSION AND SEDIMENTATION CONTROL PLAN
C401	EROSION AND SEDIMENTATION CONTROL DETAILS
C402	EROSION AND SEDIMENTATION CONTROL DETAILS
C403	EROSION AND SEDIMENTATION CONTROL DETAILS
C404	EROSION AND SEDIMENTATION CONTROL DETAILS
C500	STORM PROFILES
C501	SANITARY PROFILES
C600	CONSTRUCTION DETAILS
C601	CONSTRUCTION DETAILS
C602	CONSTRUCTION DETAILS
C603	CONSTRUCTION DETAILS
C700	POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
C701	POST CONSTRUCTION STORMWATER MANAGEMENT NOTES
C702	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
C703	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
C704	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
L100	LANDSCAPE PLAN
L101	LANDSCAPE PLAN DETAIL
L200	LIGHTING PLAN
L201	LIGHTING DETAIL

I, JOSEPH M. CALBRAITH, P.E. DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 P.S. SEC. 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE INFORMATION CONTAINED IN THE ACCOMPANYING PLANS, SPECIFICATIONS AND REPORTS HAS BEEN PREPARED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICE, IS TRUE AND CORRECT, AND IS IN CONFORMANCE WITH CHAPTER 105 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



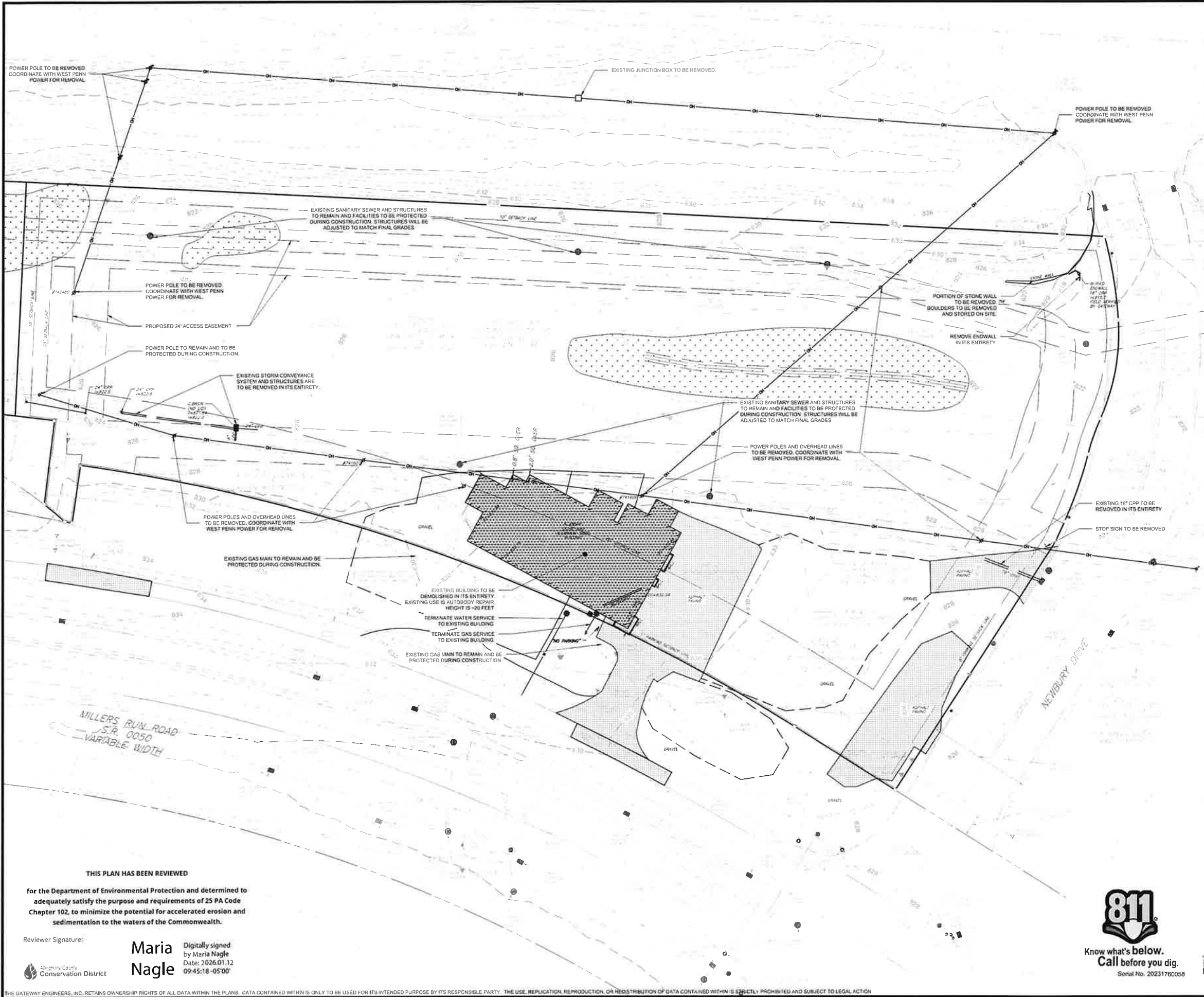
Know what's below.
Call before you dig.
Serial No. 20231760058



Date	No.	Description
2025-11-11	01	WPP Updates
2025-12-16	02	ACCD TECHNICAL NPDES RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16046

COVER SHEET
Project Number: C-12199-0029
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
C000



DEMOLITION LEGEND

	EXISTING FEATURES TO REMAIN
	EXISTING FEATURES TO BE REMOVED
	REMOVE BITUMINOUS PAVEMENT, CONCRETE PAVEMENT, CURBING, AND SUBBASE IN ITS ENTIRETY.
	EXISTING STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY. REFER TO ARCHITECTURAL/STRUCTURAL DEMOLITION PLANS BY OTHERS.

- GENERAL DEMOLITION NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING LOCAL AND STATE PERMITS REQUIRED FOR DEMOLITION WORK HAVE BEEN OBTAINED.
 2. THE CONTRACTOR SHALL INDemnIFY AND HOLD HARMLESS THE OWNER AND/OR ENGINEER FOR ANY AND ALL INJURIES AND OR DAMAGES TO PERSONAL EQUIPMENT AND/OR EXISTING FACILITIES IN THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
 3. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL IN NATURE AND DO NOT INCLUDE MISCELLANEOUS ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINING THE SITE PRIOR TO BIDDING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF EXISTING CONDITIONS ARE SIGNIFICANTLY DIFFERENT THAN SHOWN ON THE PLANS.
 4. ALL SALVAGEABLE ITEMS MUST BE STORED BY THE CONTRACTOR AND PROTECTED FROM DAMAGE THEFT OR DELIVERED TO AN AREA APPROVED BY THE OWNER.
 5. UNLESS OTHERWISE NOTED ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
 6. ALL UTILITY REMOVAL, RELOCATION, CAPPING AND/OR ABANDONMENT IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY. CONTRACTOR SHALL AT ALL TIMES PROTECT ADJACENT STRUCTURES AND ITEMS FROM DAMAGE DUE TO DEMOLITION ACTIVITIES.
 7. SAW CUT ALL PAVEMENT PRIOR TO EXCAVATION. SAW CUT PAVEMENT FULL DEPTH WHERE PAVEMENT IS TO BE REMOVED AND WHERE IT ADJUTS PAVEMENT TO REMAIN. PAVEMENT REMOVAL INCLUDES SURFACE MATERIALS. SAW CUT CONCRETE PAVEMENT TO THE NEXT NEAREST EXISTING JOINT.
 8. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THE CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.
 9. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCH MARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE THEM RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
 10. DEMOLITION CONTRACTOR SHALL COORDINATE EXISTING FACILITIES UTILITY DISCONNECTS WITH THE OWNER AND THE RESPECTIVE UTILITY PROVIDER A MINIMUM OF 7 DAYS PRIOR TO ANTICIPATED DEMOLITION OF STRUCTURES.
 11. CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE PENNDOT PUBLICATION 213 "WORK ZONE TRAFFIC CONTROL" (LATEST REVISION) AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE THE LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
 12. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR GETS WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
 13. EROSION AND SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE INSTALLED PRIOR TO INITIATION OF DEMOLITION ACTIVITIES. REFER TO EES PLAN FOR DETAILS.
 14. ASBESTOS OR HAZARDOUS MATERIALS IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
 15. ALL DISTURBANCES WITHIN PUBLIC AREAS SHALL BE RESTORED TO THE EXISTING CONDITIONS. ALL STREET AND SIDEWALK DISTURBANCES MUST BE RESTORED PER CURRENT MUNICIPAL SPECIFICATIONS AND REGULATIONS.
 16. REMOVE TREES AND SHRUBS IN THEIR ENTIRETY, INCLUDING THE ROOT BALL.
 17. UTILITIES MAY NOT BE PUBLICLY OWNED AND MAINTAINED. THEREFORE IT WILL BE NECESSARY FOR THE CONTRACTOR TO LOCATE PRIVATE UTILITIES IN ADVANCE OF ANY EXCAVATIONS.
 18. CONTRACTOR SHALL HAVE A SUBSURFACE UTILITY INVESTIGATION PERFORMED IN ADVANCE OF ANY EXCAVATIONS IN AREAS OF WORK.
 19. CONTRACTOR SHALL PROTECT EXISTING TREES TO REMAIN IN ACCORDANCE WITH TREE PROTECTION REQUIREMENTS AND MUST CONSULT WITH AN ARBORIST WHERE NOTED.



REVISION RECORD

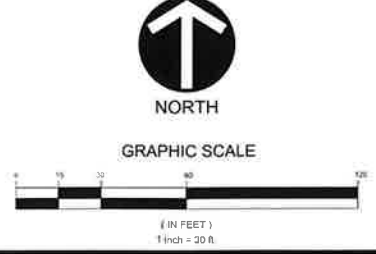
No.	Date	Description
01	2025-11-11	WPP Update
02	2025-12-16	ACC'D TECHNICAL NPDES RESPONSE
03		
04		
05		
06		
07		
08		
09		
10		

LAFAYETTE 180
 NEWBURY DRIVE
 CUDDY, PA 15031
 PREPARED FOR:
CE - SF, LP
 295 MYOMA ROAD
 MARS, PA 16646

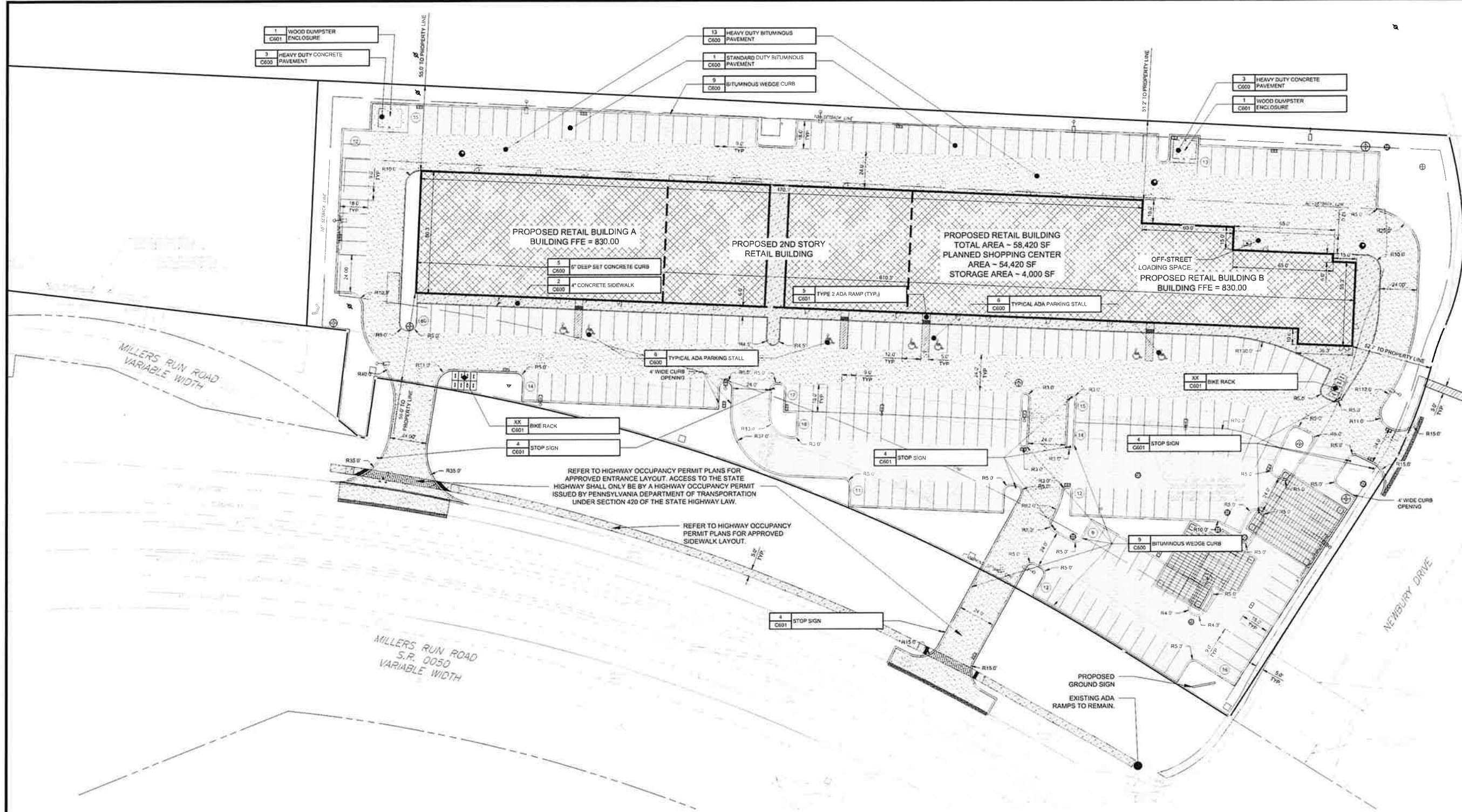
EXISTING CONDITIONS AND DEMOLITION PLAN
 Project Number: C-12199-0025
 Drawing Scale: 1" = 30'
 Date Issued: JAN 2025
 Index Number:
 Drawn By: MCL/RRR
 Checked By: JMG
 Project Manager: JMG
C050

THIS PLAN HAS BEEN REVIEWED
 for the Department of Environmental Protection and determined to adequately satisfy the purpose and requirements of 25 PA Code Chapter 102, to minimize the potential for accelerated erosion and sedimentation to the waters of the Commonwealth.

Reviewer Signature:
Maria Nagle
 Digitally signed by Maria Nagle
 Date: 2026.01.12 09:45:18 -05'00'



2025-11-11 10:00:00 AM C:\Users\mcl\OneDrive\Documents\Projects\C050 - Existing Conditions and Demolition Plan.dwg
 2025-12-16 10:00:00 AM C:\Users\mcl\OneDrive\Documents\Projects\C050 - Existing Conditions and Demolition Plan.dwg
 2025-12-16 10:00:00 AM C:\Users\mcl\OneDrive\Documents\Projects\C050 - Existing Conditions and Demolition Plan.dwg



1 WOOD DUMPSTER ENCLOSURE
C601

3 HEAVY DUTY CONCRETE PAVEMENT
C600

13 HEAVY DUTY BITUMINOUS PAVEMENT
C600

1 STANDARD DUTY BITUMINOUS PAVEMENT
C600

9 BITUMINOUS WEDGE CURB
C600

3 HEAVY DUTY CONCRETE PAVEMENT
C600

1 WOOD DUMPSTER ENCLOSURE
C601

PROPOSED RETAIL BUILDING A
BUILDING FFE = 830.00

PROPOSED 2ND STORY
RETAIL BUILDING

PROPOSED RETAIL BUILDING
TOTAL AREA - 58,420 SF
PLANNED SHOPPING CENTER
AREA - 54,420 SF
STORAGE AREA - 4,000 SF

OFF-STREET
LOADING SPACE
PROPOSED RETAIL BUILDING B
BUILDING FFE = 830.00

5 6" DEEP SET CONCRETE CURB
C600

2 4" CONCRETE SIDEWALK
C601

5 TYPE 2 ADA RAMP (TYP.)
C601

8 TYPICAL ADA PARKING STALL
C600

XX BIKE RACK
C601

4 STOP SIGN
C601

REFER TO HIGHWAY OCCUPANCY PERMIT PLANS FOR APPROVED ENTRANCE LAYOUT. ACCESS TO THE HIGHWAY SHALL ONLY BE BY A HIGHWAY OCCUPANCY PERMIT ISSUED BY PENNSYLVANIA DEPARTMENT OF TRANSPORTATION UNDER SECTION 420 OF THE STATE HIGHWAY LAW.

REFER TO HIGHWAY OCCUPANCY PERMIT PLANS FOR APPROVED SIDEWALK LAYOUT.

4 STOP SIGN
C601

4 STOP SIGN
C601

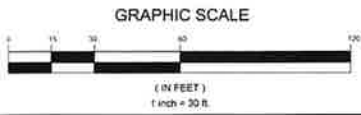
4 STOP SIGN
C601

PROPOSED GROUND SIGN
EXISTING ADA RAMP TO REMAIN.

SITE LEGEND

○	5	PROPOSED STORM MANHOLE
○	CTM4	
○	SD-010	PROPOSED 48" SANITARY MANHOLE
○	C604	
+	2	PROPOSED CLEANOUT
+	CTM4	
⊖	1	PROPOSED TYPE 'M' INLET
⊖	CTM4	
⊖	3	PROPOSED HYDRANT
⊖	C601	
*	XX	PROPOSED LIGHT STANDARD
*	C600	
♿	10	PROPOSED ADA SYMBOL
♿	C600	
⊞	7	PROPOSED CONCRETE WHEEL STOP
⊞	C600	
●	2	PROPOSED BOLLARD
●	C601	
—	2	PROPOSED DEPRESSED CURB
—	C601	

▨	2	PROPOSED CONCRETE SIDEWALK
▨	C600	
▨	3	PROPOSED HEAVY DUTY CONCRETE PAVEMENT
▨	C600	
▨	1	PROPOSED STANDARD DUTY BITUMINOUS PAVEMENT
▨	C600	
▨	13	PROPOSED HEAVY DUTY BITUMINOUS PAVEMENT
▨	C600	
▨	XX	PROPOSED PAVEMENT PATCH
▨	C600	
⊞		PROPOSED UTILITY POLE
○		PROPOSED PARKING COUNT
⊞		PROPOSED SIGN



REVISION RECORD

No.	Date	Description
01	2025-11-11	WPP Updates
02	2025-12-16	ACCD TECHNICAL NPDES RESPONSE
03	2026-01-14	TOWNSHIP SUBMISSION
04		
05		
06		
07		
08		

LAFAYETTE 180
NEWBURY DRIVE
CLUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARRS, PA 16046

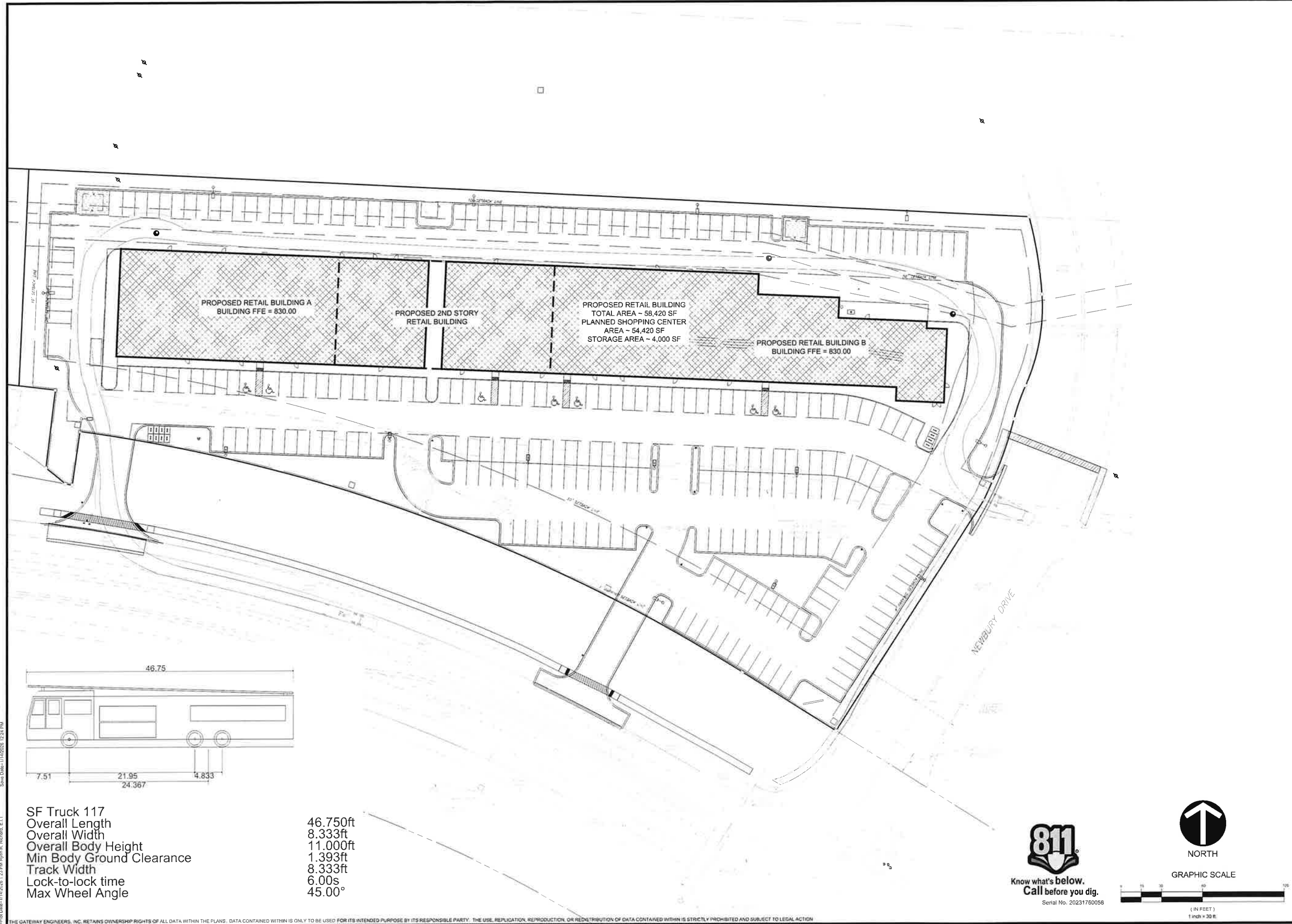
SITE PLAN

Project Number: C-12199-0028
Drawing Scale: 1/2"=30'
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C100

Plot & File Name: C:\Projects\12000\12199\KOB\12199-0028\Drawings\SitePlan.dwg
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Plotter: HP DesignJet T1200 Series
Save Date: 11/14/2025 1:27 PM

THE GATEWAY ENGINEERS, INC. RETAINS OWNERSHIP RIGHTS OF ALL DATA WITHIN THE PLANS. DATA CONTAINED WITHIN IS ONLY TO BE USED FOR ITS INTENDED PURPOSE BY ITS RESPONSIBLE PARTY. THE USE, REPLICATION, REPRODUCTION, OR REDISTRIBUTION OF DATA CONTAINED WITHIN IS STRICTLY PROHIBITED AND SUBJECT TO LEGAL ACTION.

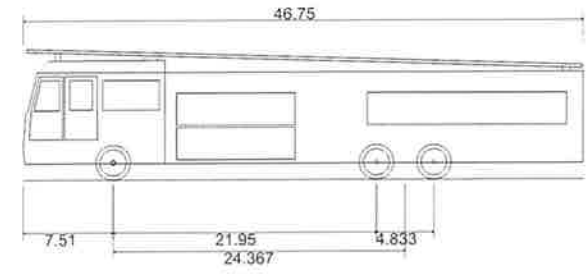


PROPOSED RETAIL BUILDING A
BUILDING FFE = 830.00

PROPOSED 2ND STORY
RETAIL BUILDING

PROPOSED RETAIL BUILDING
TOTAL AREA ~ 58,420 SF
PLANNED SHOPPING CENTER
AREA ~ 54,420 SF
STORAGE AREA ~ 4,000 SF

PROPOSED RETAIL BUILDING B
BUILDING FFE = 830.00



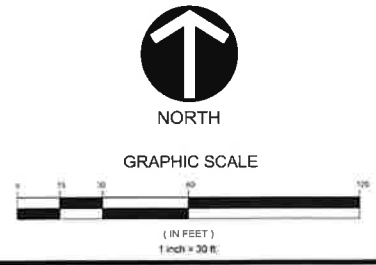
SF Truck 117
Overall Length 46.750ft
Overall Width 8.333ft
Overall Body Height 11.000ft
Min Body Ground Clearance 1.393ft
Track Width 8.333ft
Lock-to-lock time 6.00s
Max Wheel Angle 45.00°

REVISION RECORD

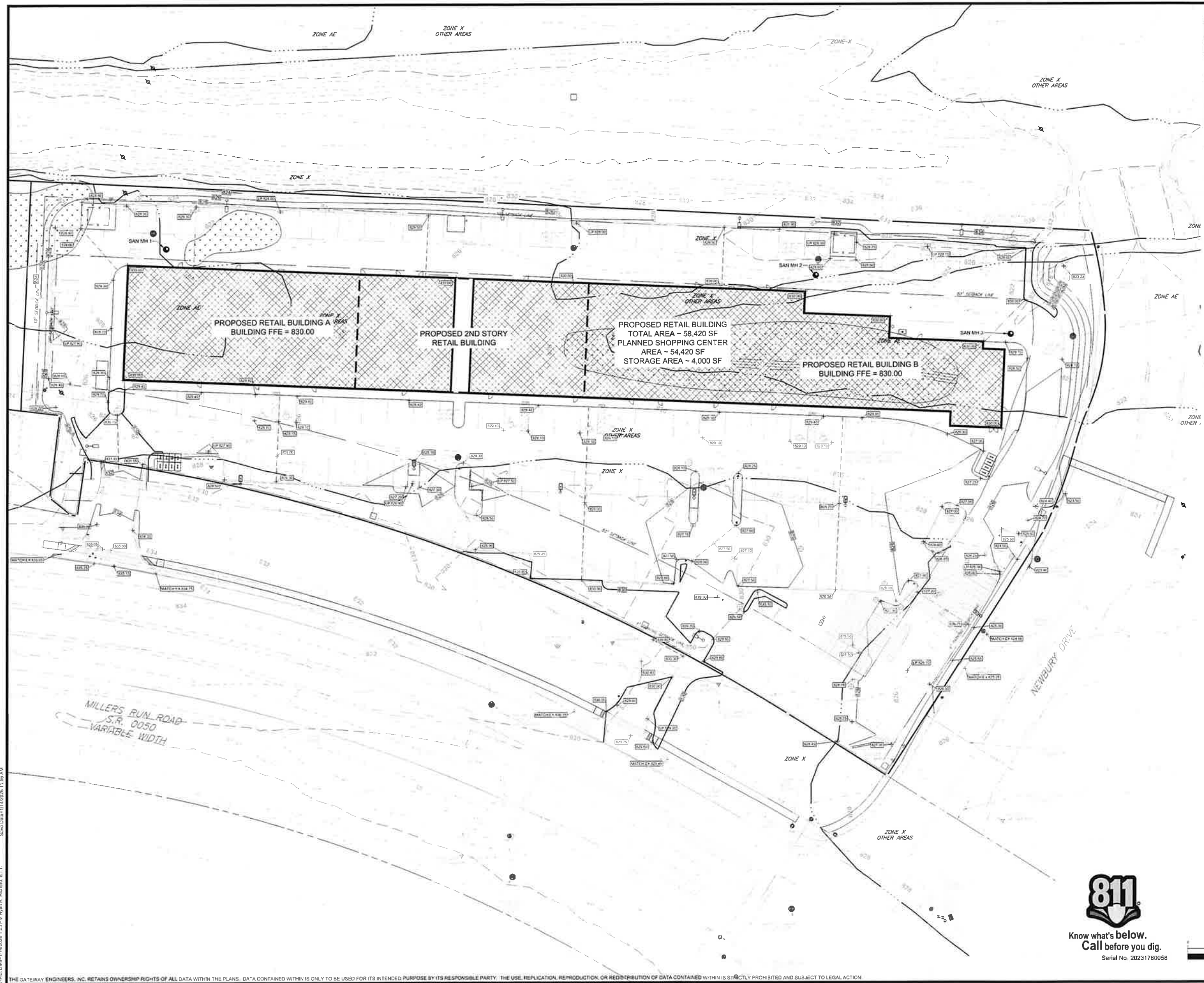
Date	No.	Description
2025-11-11	01	WPP Update
2025-12-16	02	ACCO TECHNICAL RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARKS, PA 16046

FIRE TRUCK
TEMPLATE
Project Number: C-12199-0025
Drawing Scale: 1"=30'
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
C101



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GRADING LEGEND

	PROPOSED SPOT GRADE
	FEMA FLOODPLAIN LINE

SPOT GRADE ABBREVIATIONS

TC	TOP CURB
BC	BOTTOM CURB
TC/BC	TOP CURB/ BOTTOM CURB
TW	TOP WALL
BW	BOTTOM WALL
HP	HIGH POINT
LP	LOW POINT

- GRADING PLAN NOTES:**
- ALL SITE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS PREPARED BY THE GATEWAY ENGINEERS, INC. THE CURRENT REQUIREMENTS OF THE MUNICIPALITY AND ALL OTHER PERTINENT FEDERAL AND STATE LAWS.
 - CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT PREPARED BY HSH DATED MAY 3, 2023 PRIOR TO INITIATION OF ANY EARTHWORK ACTIVITY.
 - THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS, AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-54), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
 - BEFORE EXCAVATIONS, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PENNSYLVANIA ONE CALL SYSTEMS, INC. AT 811. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
 - ALL SLOPES SHALL BE 2:1 (HORIZONTAL: VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
 - ALL AREAS NOT PAVED SHALL BE TOP SOLED, SEEDED, MULCHED OR LANDSCAPED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS, SITE SPECIFICATIONS OR INSTRUCTED BY THE OWNER.
 - SPOT ELEVATIONS ARE LOCATED AT THE TOP OF PAVEMENT.
 - THE CONTRACTOR SHALL REMOVE ANY EXCESS TOPSOIL OFFSITE TO A PA DEP APPROVED WASTE SITE, OR SPREAD UNIFORMLY ON SITE. THE ACQUISITION OF AN APPROVED WASTE SITE IS THE CONTRACTOR'S RESPONSIBILITY.
 - THE CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS, AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
 - AN AS-BUILT DRAWING OF THE STORMWATER DETENTION FACILITY PREPARED AND SEALED BY A PROFESSIONAL LAND SURVEYOR IS REQUIRED TO BE SUBMITTED TO THE PROJECT ENGINEER.



REVISION RECORD

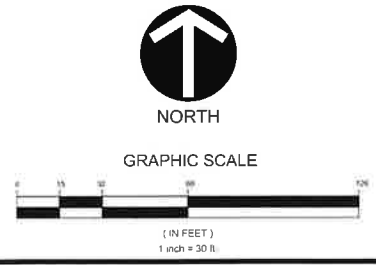
Date	No.	Description
2025-11-11	01	WPP Updates
2025-12-16	02	ACCD TECHNICAL AIDES RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
 NEWBURY DRIVE
 CUDDY, PA. 15031
 PREPARED FOR:
CE - SF, LP
 295 MYOMA ROAD
 MARS, PA. 16046

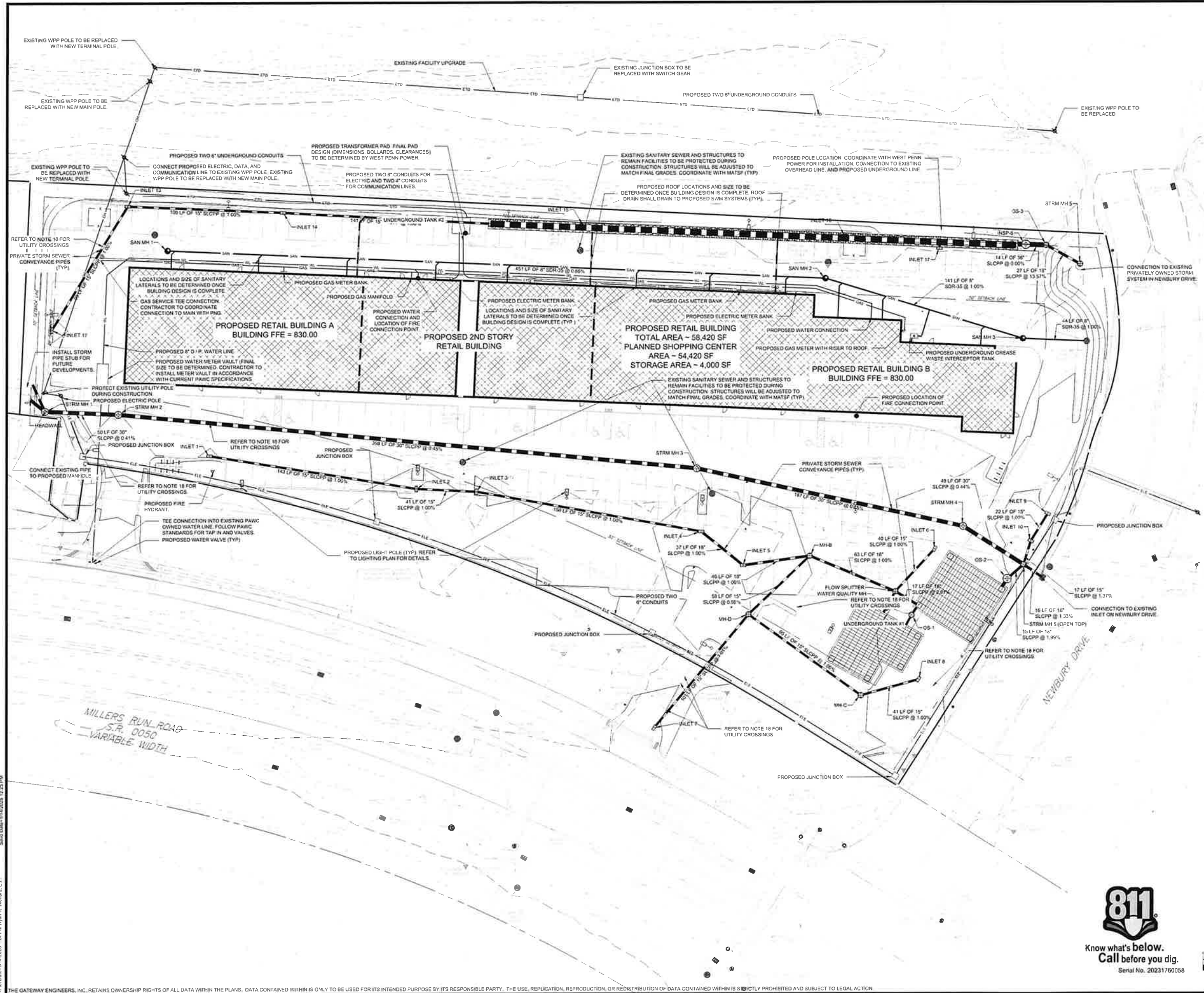
GRADING PLAN

Project Number: C-12199-0025
 Drawing Scale: 1" = 30'
 Date Issued: AUG 2025
 Index Number: _____
 Drawn By: MCL/RRR
 Checked By: JMG
 Project Manager: JMG

C200



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UTILITY LEGEND

— SAN —	PROPOSED SANITARY LINE
— SAN — SAN —	PROPOSED SANITARY LATERAL
— S — S —	PROPOSED STORM LINE
— WL —	PROPOSED WATER LINE
— WL — WL —	PROPOSED WATER LATERAL
— DAT —	PROPOSED DATA LINE
— EL —	PROPOSED ELECTRIC LINE
— ETD —	PROPOSED ELECTRIC, TELEPHONE, & DATA LINE
— TEL —	PROPOSED TELEPHONE LINE
— OHE —	PROPOSED OVERHEAD ELECTRIC
— OH —	PROPOSED OVERHEAD LINE
— GAS —	PROPOSED GAS LINE
— U —	PROPOSED UTILITY POLE
— FH —	PROPOSED FIRE HYDRANT
— GV —	PROPOSED GAS VALVE
— WV —	PROPOSED WATER VALVE
— T —	PROPOSED TEE

UTILITY ABBREVIATIONS

STM	STORM
SAN	SANITARY
MH	MANHOLE
OS	OUTLET STRUCTURE
CD	CLEANOUT
RD	RDDF DRAIN
HW	HEADWALL
EW	ENDWALL

- UTILITY PLAN NOTES:**
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS AND POLICIES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-594), FEDERAL REGISTER, CHAPTER 191, PART 191.16 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF A BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
 - BEFORE EXCAVATION ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL CONTACT PENNSYLVANIA ONE CALL SYSTEMS INC. AT 8-1-1. THE LOCATION OF UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
 - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN ACCORDANCE TO APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF PROPOSED UTILITIES CONSTRUCTION.
 - UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENGINE UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.
 - ALL CABLE, ELECTRIC, GAS, STORM AND SANITARY SEWER TELEPHONE AND WATER SERVICE LINE, FRENCHES LOCATED UNDER PROPOSED PAVEMENT AREAS SHALL BE BACKFILLED WITH 100% STONE MATERIAL TO THE PROPOSED PAVING SECTION IN ACCORDANCE WITH THE DETAIL SHOWN ON THE CONSTRUCTION DETAIL SHEETS.
 - THERE SHALL BE NO CONSTRUCTION OF ELECTRIC TRANSFORMERS, TELEPHONE OR CABLE JUNCTION BOXES, GAS METERS OR BARLAK DEVICES PLACED OVER ANY OTHER UNDERGROUND UTILITY.
 - CONTRACTOR TO PROVIDE SHOP DRAWINGS ON ALL STORM SEWER MANHOLES AND INLETS.
 - AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.
 - ALL STORM PIPE SHALL BE HDPE, SMOOTH INTERIOR, CORRUGATED POLYETHYLENE PIPE UNLESS OTHERWISE NOTED. ALL STORM SEWER CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH PENNDOT SPECIFICATIONS. ALL JOINTS SHALL BE WATER TIGHT.
 - THE CONTRACTOR SHALL ASSURE THAT THERE IS POSITIVE DRAINAGE TO THE EXISTING INLETS UPON PLACEMENT OF NEW PAVEMENT.
 - CONTRACTOR TO COORDINATE WITH THE BUILDING PLUMBING AND SITE ELECTRICAL PLANS TO ASSURE ACCURACY OF THE UTILITY CONNECTIONS TO THE BUILDING.
 - CONDUIT LOCATIONS TO SITE LIGHT POLES TO BE COORDINATED WITH THE SITE ELECTRICAL PLAN.
 - THE ALLEGHENY COUNTY HEALTH DEPARTMENT SHALL BE CONTACTED FOR INSPECTION OF ALL PRIVATE SANITARY SEWERS, WATER LINES, AND STORM SEWER LINES WHERE THEY COINCIDE TO A PUBLIC SEWER SYSTEM. ALL WATER AND SEWER LINES MUST BE INSTALLED BY A REGISTERED PLUMBER.
 - THE ROOF COLLECTOR SYSTEM SHALL BE TRAPPED PRIOR TO CONNECTING TO THE SITE STORM SEWER SYSTEM.
 - THE WATERLINE SHALL HAVE A MINIMUM OF 48" OF COVER AND BE AT LEAST 1 FOOT ABOVE THE SANITARY SEWER IF WITHIN 10 FEET OF THE HORIZONTAL DISTANCE OF THE SEWER.
 - CONTRACTOR MUST COORDINATE ALL UTILITY CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANIES. POTENTIAL EXISTING UTILITIES AT ALL PROPOSED CROSSINGS TO DETERMINE PROPER CLEARANCES. NOTIFY ENGINEER WITH ANY CONFLICTS.

GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

Date	No.	Description
2025-11-11	01	WPP Updates
2025-12-16	02	ACCD TECHNICAL RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
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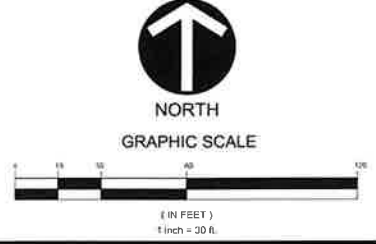
LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031

PREPARED FOR:
CE - SF, LP
295 WYOMA ROAD
MARS, PA 16646

UTILITY PLAN

Project Number: C-12199-0025
Drawing Scale: 1" = 30'
Date Issued: JAN 2025
Index Number: —
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C300



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 Date: 1/16/2025 1:28 PM
 User: Ryan R. Richard, E.I.T.
 Scale: 1/8" = 30'

CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE:

THE NPDES PERMIT COVERS THE MOVING, DEPOSITING, STOCKPILING OR STORING OF SOIL, ROCK OR EARTH MATERIALS. IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR RESPONSIBLE FOR EARTHMOVING OPERATIONS.

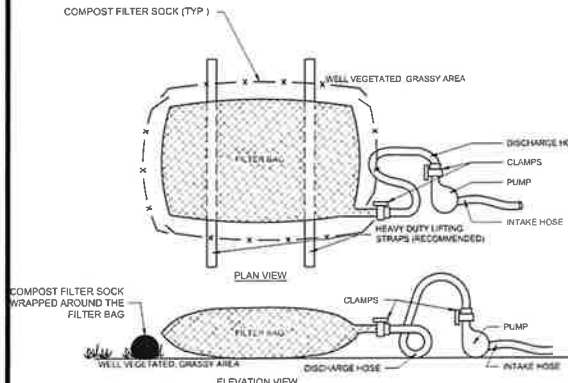
ENVIRONMENTAL DUE DILIGENCE MEANS PERFORMING INVESTIGATIVE TECHNIQUES FOR THE IMPORTED MATERIAL. THIS INCLUDES, BUT IS NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANDBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, AND ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) POLICY MANAGEMENT OF FILL. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEP MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25 PA CODE, CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

CLEAN FILL IS DEFINED AS UNCONTAMINATED NON-WATER SOLUBLE, NON-DECOMPOSABLE INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM USED ASPHALT DOES NOT INCLUDE MILD ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)

1 CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE C402

- UPON COMPLETION OF THE PROJECT, RECYCLING OR DISPOSAL OF ALL MATERIALS WHICH COULD CAUSE POLLUTION SHALL BE THE RESPONSIBILITY OF THE EARTHMOVING CONTRACTOR.
- CONSTRUCTION WASTE INCLUDES, BUT IS NOT LIMITED TO, EXCESS SOIL MATERIALS, SILT REMOVED FROM EROSION CONTROL FACILITIES, EXCESS BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, AND OBSOLETE EROSION CONTROL MATERIALS (SILT FENCE, SILT SACKS, ETC.).
- SILT REMOVED FROM SEDIMENT CONTROL FACILITIES SHALL BE SPREAD ON THE TOPSOIL STOCKPILE, OR IN LAWN OR LANDSCAPE AREAS.
- OBSOLETE EROSION CONTROL MATERIALS AND EXCESS BUILDING MATERIALS MUST BE DISPOSED OF AT A DEP APPROVED SITE.
- THERE WERE NO KNOWN NATURALLY OCCURRING GEOLOGIC FORMATIONS OR SOIL CONDITIONS LOCATED ON THE SITE THAT HAVE THE POTENTIAL TO CAUSE POLLUTION DURING CONSTRUCTION. IF SUCH CONDITIONS ARE ENCOUNTERED, STOP WORK AND CONTACT THE GEOGRAPHICAL ENGINEER AND/OR DEP GEOLOGICAL FORMATIONS OR SOIL CONDITIONS THAT ARE IDENTIFIED BY THE GEOTECHNICAL ENGINEER ON SITE AS HAZARDOUS TO DEGRADE WATER QUALITY WILL BE ISOLATED IN PLACE OR WILL BE RELOCATED ON SITE FOLLOWED BY APPROPRIATE CAPPING WITH AN IMPERVIOUS SURFACE SUCH AS PAVEMENT OR A BUILDING. OR WILL BE EXCAVATED AND REMOVED TO AN OFF-SITE DISPOSAL AREA APPROVED TO HANDLE HAZARDOUS WASTE. DEPENDING ON THE LEVEL OF CONTAMINATION, BLENDING OF SOIL MAY ACHIEVE ACCEPTABLE STANDARDS.

2 RECYCLING AND WASTE DISPOSAL C402

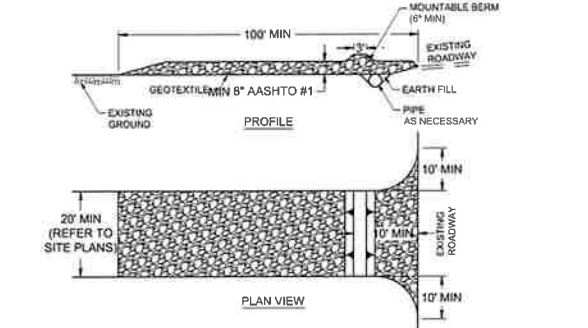


NOTES:
1. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED 1" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS MAY BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARDS
AVERAGE TENSILE STRENGTH	ASTM D-1675	200 LBS
TENSILE ELONGATION	ASTM D-1675	25%
TENSILE ELONGATION	ASTM D-1675	15%
TEAR STRENGTH	ASTM D-1675	100 LBS
TEAR ELONGATION	ASTM D-1675	10%
COEFFICIENT OF FRICTION	ASTM D-1675	0.5
PERMEABILITY	ASTM D-1675	100%
ULTRAVIOLET STABILITY	ASTM G-155	100%
MINIMUM FUNCTIONAL LONGEVITY	ASTM G-155	1 YEAR

- A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY HAVE BECOME 1/2 FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. IT IS RECOMMENDED THAT BAGS BE PLACED ON STRIPS TO FACILITATE REMOVAL.
- BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE EROSION RESISTANT AREAS WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 3% FOR SLOPES EXCEEDING 3% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.
- NO DOWN SLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHOULD BE INSTALLED BELOW BAGS LOCATED WITHIN 5' OF RECEIVING STREAM OR WHERE GRASSY AREA IS NOT AVAILABLE. A COMPOST BERM OR COMPOST FILTER SOCK SHALL BE PLACED BELOW ANY BAG DISCHARGING TO A SPECIAL PROTECTION SURFACE WATER.
- THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.
- THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 12" THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
- FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.
- FILTER BAGS SHALL BE PLACED ON A FLAT AND VEGETATED OR PERMANENTLY STABILIZED GROUND. THE FILTERED WATER BEING PUMPED FROM THE BAG SHALL PASS THROUGH AN ADDITIONAL BAG CONTROL PRIOR TO LEAVING THE SITE.
- WHEN LOCATED WITHIN A STREAM THAT HAS IMPAIRMENTS THAT REQUIRE ABACT BAPS, A 12" COMPOST FILTER SOCK SHALL BE PLACED AROUND THE FILTER BAG AT ALL TIMES.

6 PUMPED WATER FILTER BAG C402



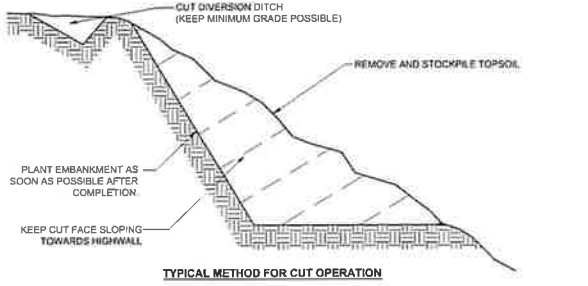
NOTES:

- TOPSOIL SHALL BE REMOVED PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE.
- EXTEND ROCK OVER WIDTH OF ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.
- MOUNTABLE BERM SHOULD BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED. PIPE TO BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.
- REFER TO SITE PLANS FOR SIZE AND LOCATION WHERE APPLICABLE, REFER TO HOP PLANS FOR SIZE AND LOCATION ON STATE ROADWAYS.

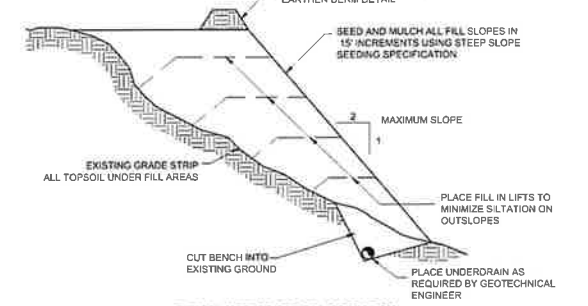
MAINTENANCE:

- ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE.
- ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 5' INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSIT INTO THE ROADWAY DITCHES, CULVERTS, OR OTHER DRAINAGE WAYS IS NOT ACCEPTABLE.

3 ROCK CONSTRUCTION ENTRANCE C402



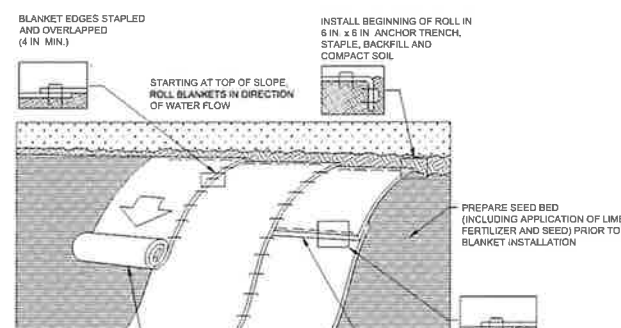
TYPICAL METHOD FOR CUT OPERATION



TYPICAL METHOD FOR FILL OPERATION

- REFER TO GEOTECHNICAL REPORT FOR RECOMMENDATIONS, RECOMMENDATIONS IN THE REPORT WILL SUPERSEDE THESE DETAILS.

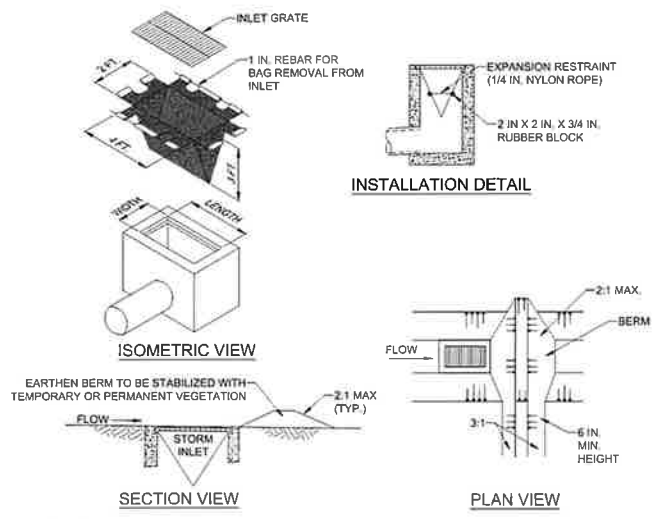
7 TYPICAL METHOD FOR CUT OR FILL OPERATION C402



NOTES:

- SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.
- PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
- BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
- THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 1 CALENDAR DAYS.

4 EROSION CONTROL BLANKET C402

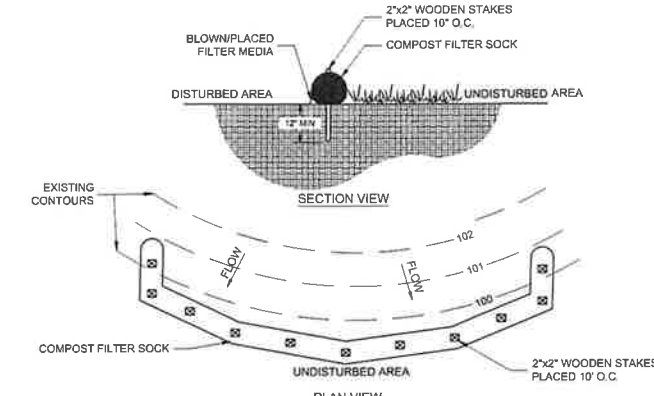


INSTALLATION DETAIL

- NOTES:
MAXIMUM DRAINAGE AREA = 1/2 ACRE.
- INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
- ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

- AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS., A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
- INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
- DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

8 INLET PROTECTION C402



NOTES:

- SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTO-DEGRADABLE SOCKS AFTER ONE YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- SILT SOCK FABRIC MATERIAL SHALL BE MULTI-FILAMENT POLYPROPYLENE (MFFP), MINIMUM FUNCTIONAL LONGEVITY ONE YEAR.

TABLE 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFFP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFFP)
	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12", 18"	12", 18", 24", 32"	12", 18", 24", 32"	12", 18", 24", 32"	12", 18", 24", 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIG. STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMAL FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

TWO-PLY SYSTEMS

	HDPE BIAXIAL NET CONTINUOUSLY WOUND FUSION-WELDED JUNCTURES	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
	INNER CONTAINMENT NETTING	
OUTER FILTRATION MESH		3/16" MAX. APERTURE SIZE

SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.

TABLE 4.2 COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
PH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30%-50% PASS THRU 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 g/5ml (mmhg/cm) MAXIMUM

5 COMPOST FILTER SOCK C402

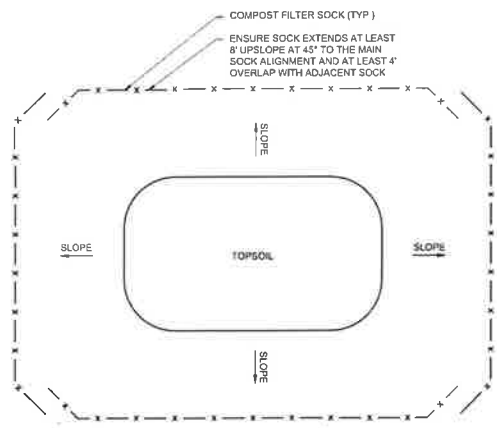


REVISION RECORD

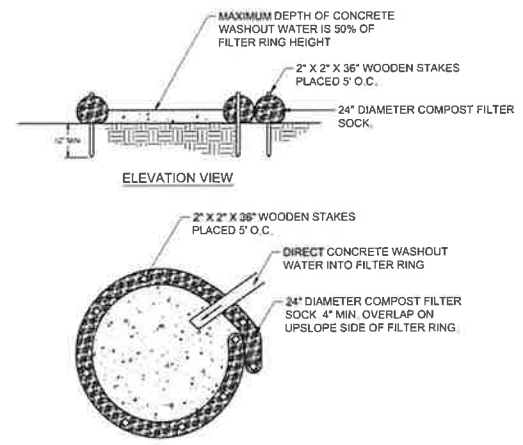
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01	2025-11-11	JMG	WPP Update
02	2025-12-16	JMG	ACCD TECHNICAL RESPONSE
03			
04			
05			
06			
07			
08			

180 LAFAYETTE
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MTRS, PA 16046

EROSION AND SEDIMENTATION CONTROL DETAILS
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: ...
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
C402

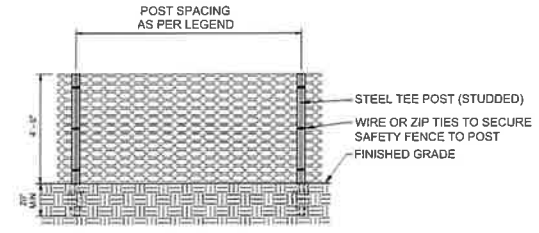


- NOTES:**
1. TOPSOIL STOCKPILE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION PER SITE PHASING. ADDITIONAL COORDINATION WITH THE ALLEGHENY COUNTY CONSERVATION DISTRICT MAY BE REQUIRED FOR APPROVAL OF STOCKPILE LOCATIONS.
 2. THE AREA DOWNSLOPE FROM THE COMPOST FILTER SOCK MAY NOT BE UNDER DEVELOPMENT OR OTHERWISE DISTURBED, UNLESS DOWNSLOPE PERIMETER BMPs ARE PROVIDED.
 3. ENSURE DOWNSLOPE COVERAGE ON ALL SIDES OF TOPSOIL STOCKPILE.
 4. COMPOST FILTER SOCK SIZE SHALL BE PROVIDED IN ACCORDANCE WITH FIGURE 4.2.

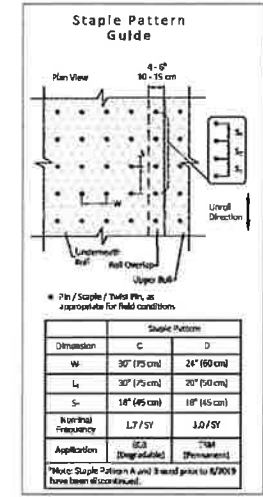


- NOTES:**
1. INSTALL ON FLAT GRADE FOR OPTIMAL PERFORMANCE.
 2. 16" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
 3. A SUITABLE IMPERVIOUS GEOMEMBRANE LINER SHALL BE PLACED AT THE LOCATION PRIOR TO THE INSTALLING THE SOCKS.
 4. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FT OF STORM DRAINS, OPEN DITCHES, OR SURFACE WATERS.

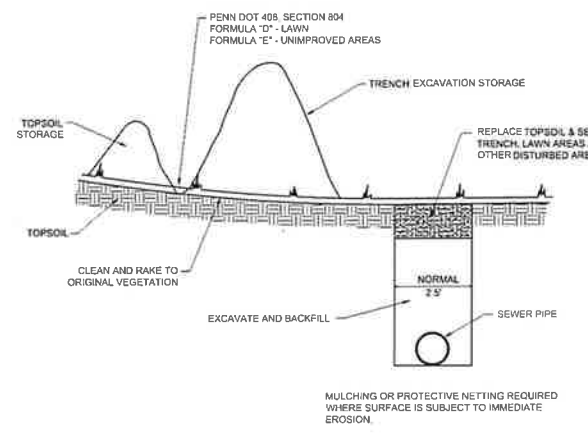
48" SAFETY FENCE, 72" T-POSTS	
SAF12	48" ORANGE FENCE, 12 FEET O.C.
SAF11	48" ORANGE FENCE, 11 FEET O.C.
SAF10	48" ORANGE FENCE, 10 FEET O.C.
SAF9	48" ORANGE FENCE, 9 FEET O.C.
SAF8	48" ORANGE FENCE, 8 FEET O.C.
SAF7	48" ORANGE FENCE, 7 FEET O.C.
SAF6	48" ORANGE FENCE, 6 FEET O.C.



- NOTES:**
1. ORANGE CONSTRUCTION FENCE SHALL BE PLACED AROUND ALL ENVIRONMENTAL FEATURES TO BE PROTECTED ON THE SITE.
 2. SAFETY FENCE SHOULD BE FASTENED SECURELY TO THE T-POSTS.
 3. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION. ANY CHANGE OF THE PROTECTIVE FENCING MUST BE APPROVED.



4 STAPLE PATTERN FOR EROSION CONTROL BLANKET



6 EROSION CONTROL FOR SEWER TRENCHES

1 TOPSOIL STOCKPILE DETAIL

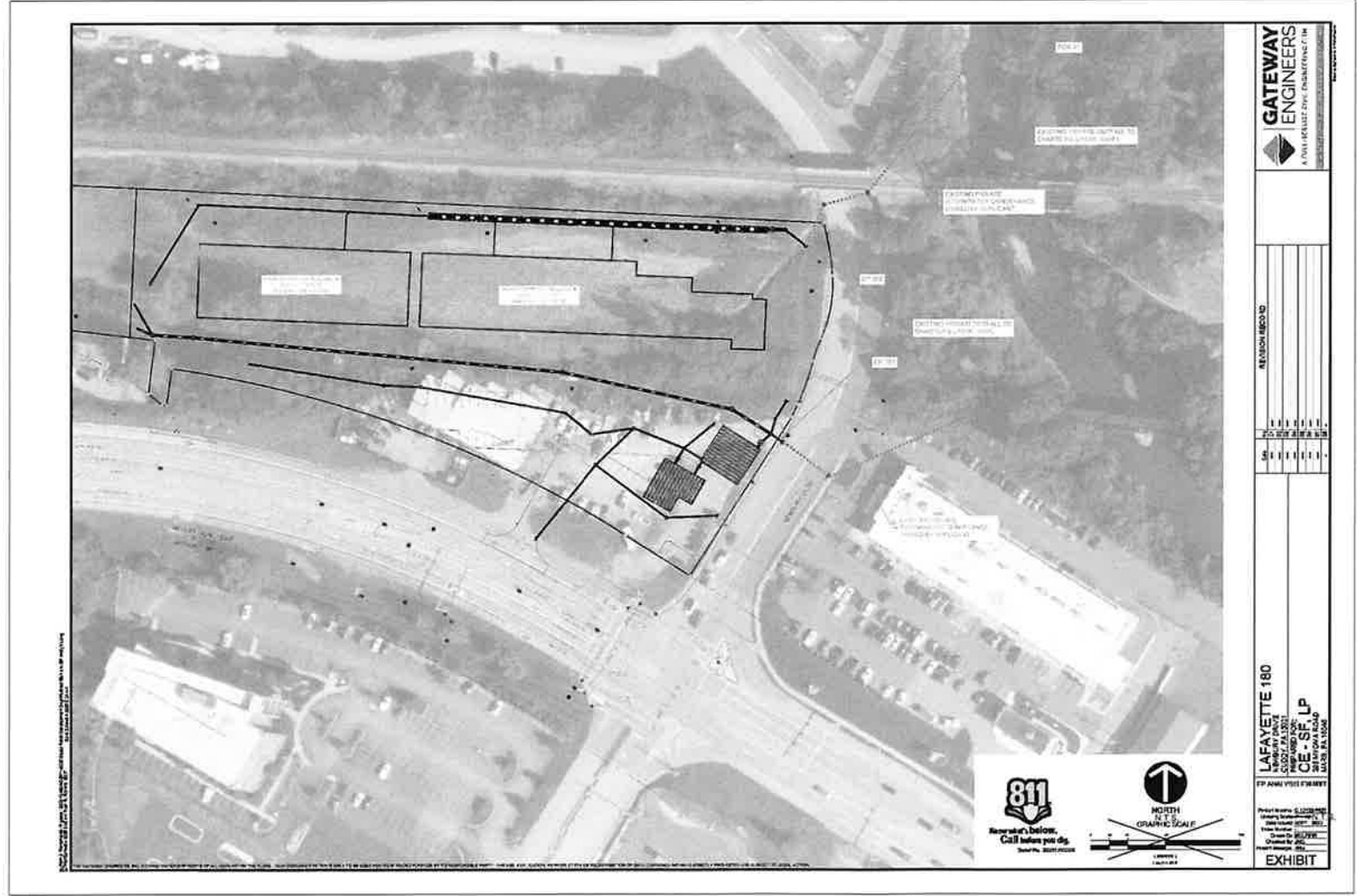
2 CONCRETE WASHOUT AREA

3 ORANGE CONSTRUCTION FENCE

SITE SOIL TYPES:				
SYMBOL	DESCRIPTION	SLOPE	LIMITATIONS	REMEDIAL ACTIONS
UB	URBAN LAND	GENTLY	<ul style="list-style-type: none"> CUTBANKS CAVE CORROSIVE TO CONCRETE AND STEEL HAZARD OF EROSION SEASONAL HIGH WATER TABLE PERMEABILITY LANDSLIDES SLOW PERCOLATION PIPING POOR SOURCES OF TOPSOIL FROST ACTION SHRINK SWELL POTENTIAL SINKHOLE SLOPE SUSCEPTIBILITY TO SLIPS 	<p>SOILS SUSCEPTIBLE TO HIGH WATER TABLES AND/OR PIPING AND SEEPING:</p> <ul style="list-style-type: none"> PROVIDE PUMPED WATER SEDIMENT REMOVAL FACILITIES USE CLAY EMBANKMENT CORES UTILIZE ANTI-SEEP COLLARS OR GRAVEL PACKS <p>SOILS SUSCEPTIBLE TO MODERATE OR HIGH EROSION POTENTIAL:</p> <ul style="list-style-type: none"> LIMIT TIME OF EXPOSURE USE EROSION CONTROL BLANKETS SELECTION OF SEED MIXTURES WITH RAPIDLY GERMINATING SPECIES SODDING USE OF SPECIAL STABILIZATION PRODUCTS (E.G. CELLULAR GRIDS, INTERLOCKING CONCRETE BLOCKS,) <p>SOILS SUSCEPTIBLE TO SLIPS & LANDSLIDES:</p> <ul style="list-style-type: none"> PREVENT SATURATION OF SLOPES PROVIDE ANCHORING OR RETAINING SYSTEMS PROVIDE BENCHING TO CATCH FALLING DEBRIS SEE GEOTECHNICAL NOTE BELOW <p>SOILS SUSCEPTIBLE TO CUTBANKS CAVE:</p> <ul style="list-style-type: none"> PREVENT SATURATION OF SLOPES PROVIDE ANCHORING OR RETAINING SYSTEMS PROVIDE BENCHING TO CATCH FALLING DEBRIS PROVIDE TRENCH BOXES FOR UTILITY INSTALLATION <p>SOILS CORROSIVE TO CONCRETE/STEEL:</p> <ul style="list-style-type: none"> MINIMIZE THE AMOUNT OF SOIL DISTURBANCE PROVIDE PROTECTIVE COATING TO CONCRETE AND STEEL PROVIDE EXTRA CONCRETE AND STEEL THICKNESS <p>SOILS THAT ARE POOR SOURCES OF TOPSOIL:</p> <ul style="list-style-type: none"> PERFORM SOIL TESTS TO DETERMINE PROPER APPLICATION OF SOIL AMENDMENTS AND PROPER MOISTURE CONTENT FOR PROPOSED VEGETATIVE COVER IMPORT TOPSOIL AS NEEDED

NOTE:
A GEOTECHNICAL ENGINEER WILL REVIEW THE SOIL CAPABILITY OF THE SITE AND MAKE RECOMMENDATIONS TO THE OWNER. SOILS HAVING UNSTABLE COMPOSITION, SUP AND LANDSLIDE POTENTIAL ARE NOT TO BE PLACED AS FILL MATERIAL AT AREAS HAVING 2:1 SLOPES OR NEAR PROXIMITY TO SUCH SLOPES. LOADING PLANES OF SUCH PLACED FILLS SHALL BEAR ON SUITABLE SOILS KEYED INTO VIRGIN SOILS. REFER TO CUTFILL DETAILS ON PLANS. ALL CUT SITUATIONS THAT EXPOSE SUCH SOILS TO UNSUPPORTED BEARING BASE REQUIRE THOSE SOILS TO BE EXCAVATED AND REPLACED WITH SUITABLE SOILS THAT DO NOT HAVE THE MENTIONED CHARACTERISTICS.

5 SITE SOIL DATA



- NOTES:**
1. DETAIL NOT TO SCALE
 2. FOR MORE INFORMATION SEE EROSION POTENTIAL ANALYSIS MEMO INCLUDED IN NPDES SUBMITTAL.

7 EROSION POTENTIAL ANALYSIS EXHIBIT

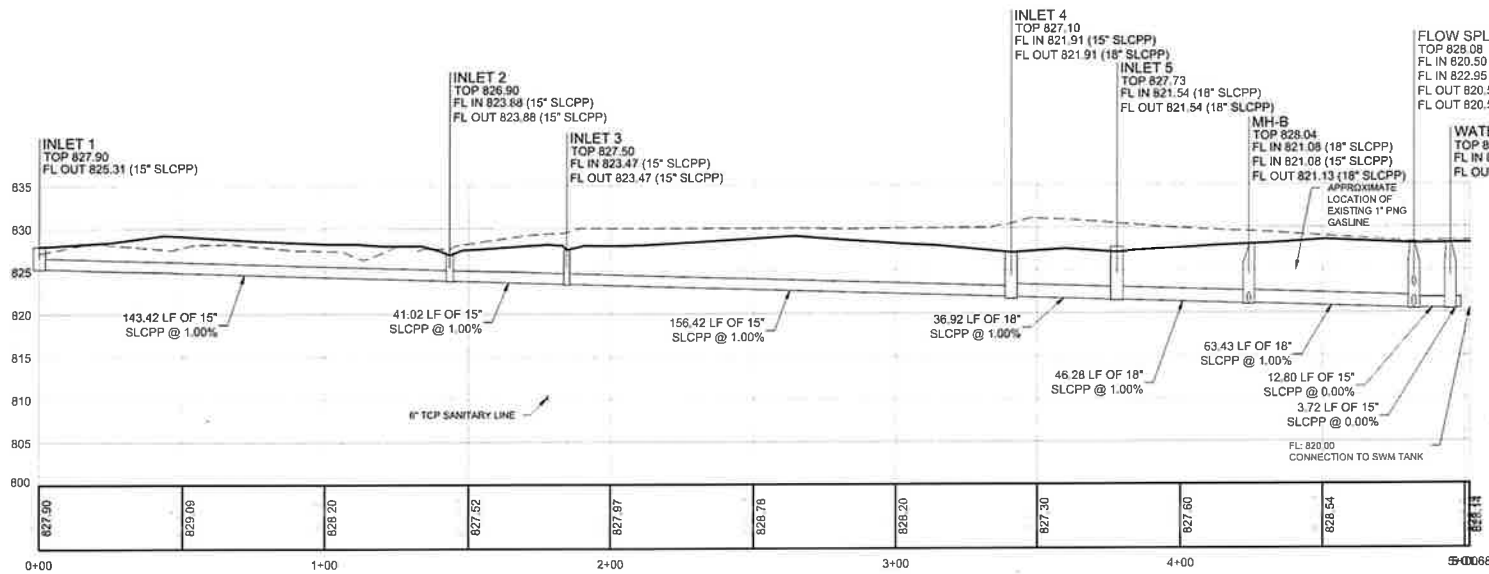


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02	2025-12-16
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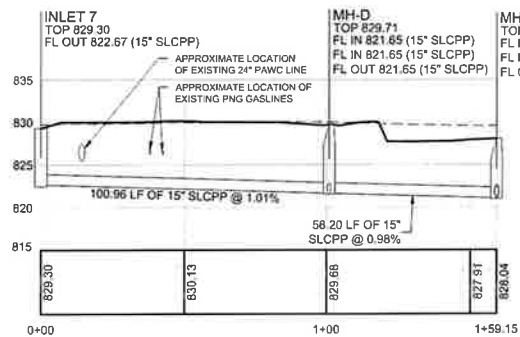
LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARKS, PA 16046

EROSION AND SEDIMENTATION CONTROL DETAILS
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: ---
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
C403

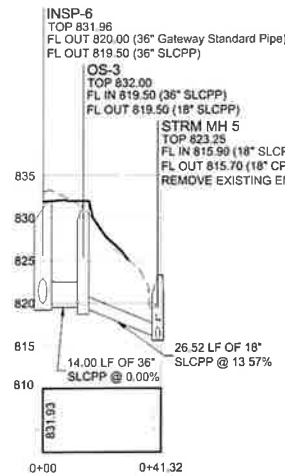
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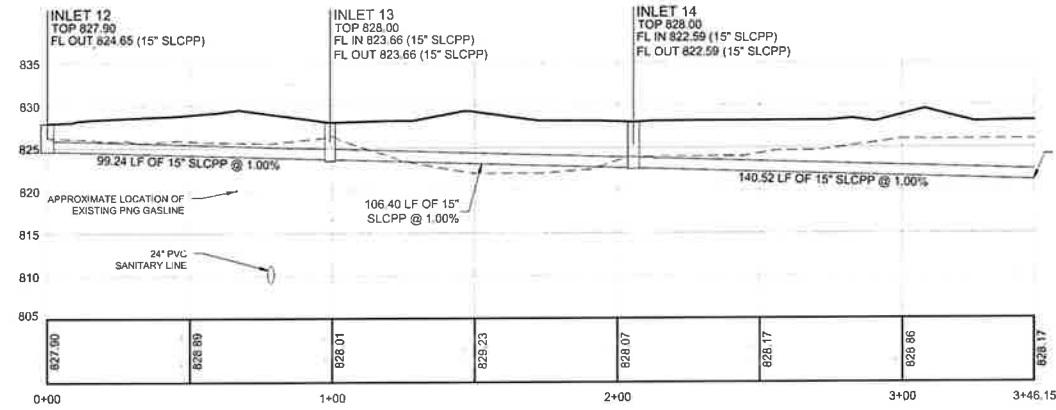
INLET 1 TO TANK PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



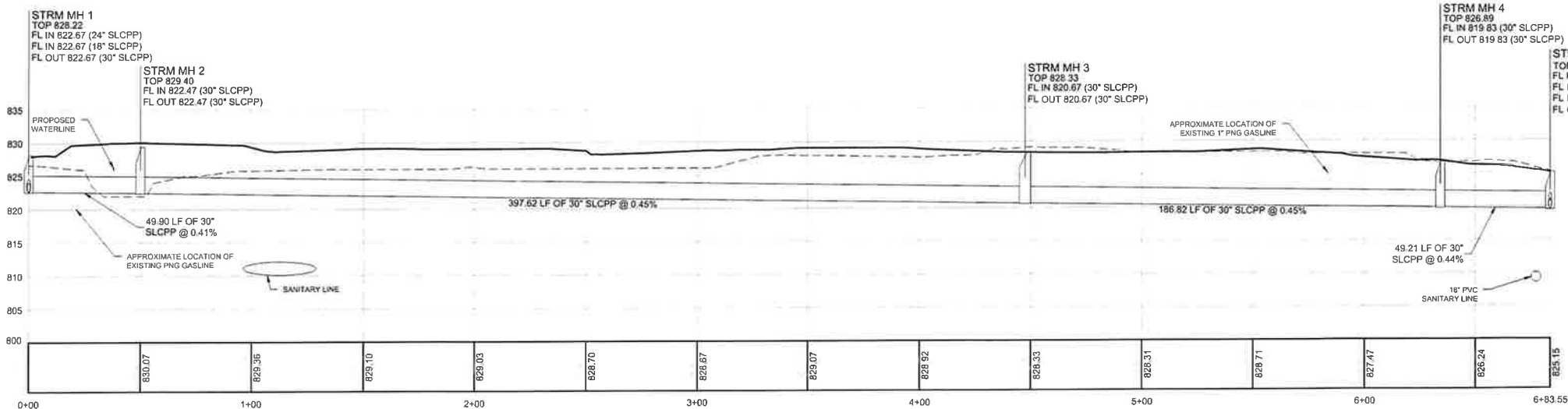
INLET 7 TO MH-B PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



TANK 2 TO MH-5 PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



INLET 12 TO TANK 2 PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



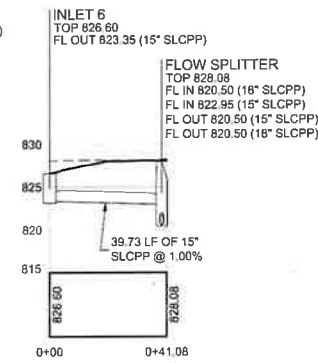
STRM MH 1 TO INLET 12 (TYPE 4) PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

PROFILE NOTES:

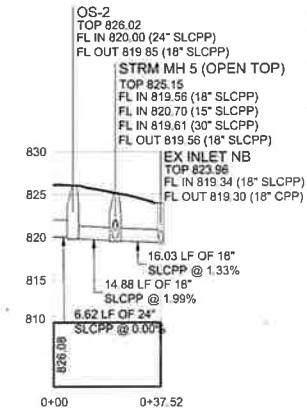
- THE LENGTHS (LF) SHOWN ON THIS PLAN ARE CENTERLINE STRUCTURE TO CENTERLINE STRUCTURE AND DO NOT ACCOUNT FOR SLOPES OR DEFINE ACTUAL LENGTHS OF PIPE.

PROFILE STRUCTURE ABBREVIATIONS

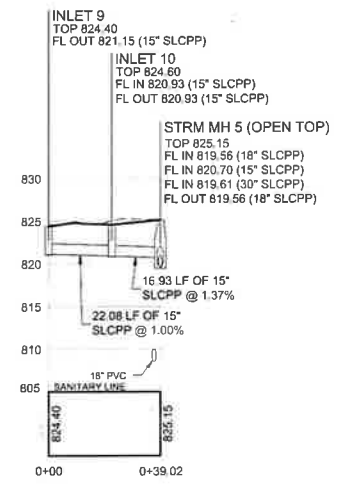
STM	STORM
SM	SANITARY
MH	MANHOLE
OS	OUTLET STRUCTURE
CO	CLEANOUT
HW	HEADWALL
EW	ENDWALL



INLET 6 TO FLOW SPLITTER PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



INSP-4 TO EX INLET NB PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'



INLET 9 TO STRM MH-5 PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

REVISION RECORD

DATE	NO.	DESCRIPTION
2025-11-11	01	WPP Updates
2025-12-16	02	ACCD TECHNICAL RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE-SF, LP
295 MYOMA ROAD
MARS, PA 16046

STORM PROFILES

Project Number: C-12199-0025
Drawing Scale: AS NOTED
Date Issued: AUG 2025
Index Number: _____
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG



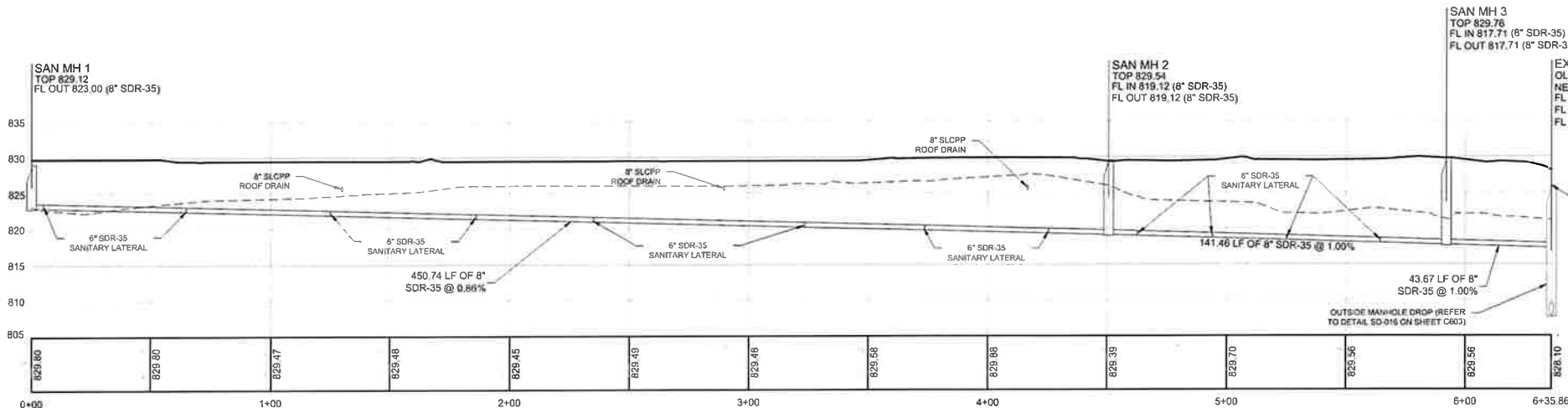
Know what's below.
Call before you dig.

Serial No. 20231760058

C500



L:\Projects\2025\11\11\180\180-C500-COAS\Road Development\0205-Storm and Sanitary Sewer Profiles.dwg
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 Plot: 11/14/2025 12:51 PM



PROFILE NOTES:

1. THE LENGTHS (LF) SHOWN ON THIS PLAN ARE CENTERLINE STRUCTURE TO CENTERLINE STRUCTURE, AND DO NOT ACCOUNT FOR SLOPES OR DEFINE ACTUAL LENGTHS OF PIPE.

PROFILE STRUCTURE ABBREVIATIONS

STM	STORM
SAN	SANITARY
MH	MANHOLE
OS	OUTLET STRUCTURE
CO	CLEANOUT
HW	HEADWALL
EW	ENDWALL

SAN MH 1 TO EX SAN MH PROFILE
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

Date	No.	Description
2025-11-11	01	MPP Update
2025-12-16	02	ACCD TECHNICAL APDES RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16646

SANITARY PROFILES

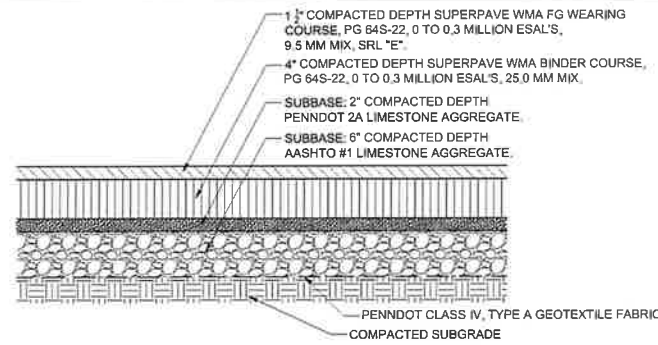
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Drawing Scale: AS NOTED
Date Issued: AUG 2025
Index Number:
Drawn By: MCL/RHR
Checked By: JMG
Project Manager: JMG



Know what's below.
Call before you dig.

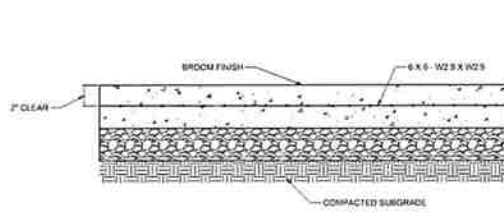
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C501

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Bent Data: 11/14/2025 12:51 PM



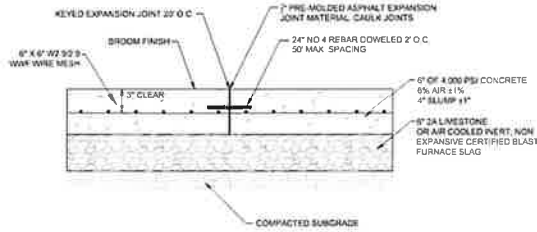
- NOTES:**
1. THE CONTRACTOR SHALL SEAL THE GUTTER LINE WITH PG 64-22 ASPHALT CEMENT BY OVERLAPPING 3" ONTO THE WEDGE CURB AND EXTENDING 9" ONTO THE CARTWAY IN ACCORDANCE WITH PENNDOT PUBLICATION 408 AFTER THE COMPLETION OF THE FINAL WEARING COURSE.
 2. SUBGRADE DRAINS MAY BE REQUIRED WHERE UNDERGROUND WATER IS ENCOUNTERED.
 3. SUBGRADE SHALL BE COMPACTED TO VISUAL NON-MOVEMENT PRIOR TO PLACEMENT OF FABRIC AND SUBBASE.
 4. SUBBASE SHALL BE COMPACTED TO 70% RELATIVE DENSITY PER ASTM D4253 AND ASTM D4254.
 5. CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO PENNDOT PUBLICATION 408 UNLESS OTHERWISE INDICATED.

1 STANDARD DUTY BITUMINOUS PAVEMENT
C600



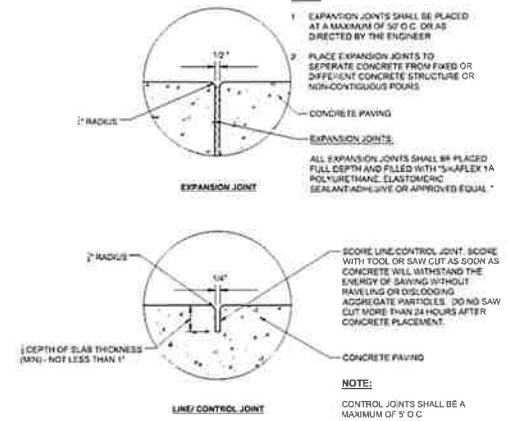
- NOTES:**
1. CONTRACTOR SHALL PLACE CONTROL JOINTS AT INTERVALS EQUAL TO THE PAVEMENT WIDTH NOT TO EXCEED 12'
 2. EXPANSION JOINTS SHALL BE INSTALLED AT 50' MAXIMUM INTERVALS
 3. CURING SHALL BE BY ABSORPTIVE COVER, MOISTURE RETAINING COVER, OR APPROVED CURING COMPOUND. CONTRACTOR SHALL SUBMIT PROPOSED CURING METHOD TO OWNER FOR APPROVAL PRIOR TO CONCRETE INSTALLATION.
 4. APPLY WATER BASED 40% SLANE PENETRATING SEALER AFTER A MINIMUM OF 28 DAYS PER MANUFACTURER'S RECOMMENDATIONS
 5. PROVIDE MINIMUM CROSS SLOPE OF 1.5% TO MAXIMUM CROSS SLOPE OF 2%

2 4" THICK CONCRETE SIDEWALK
C600



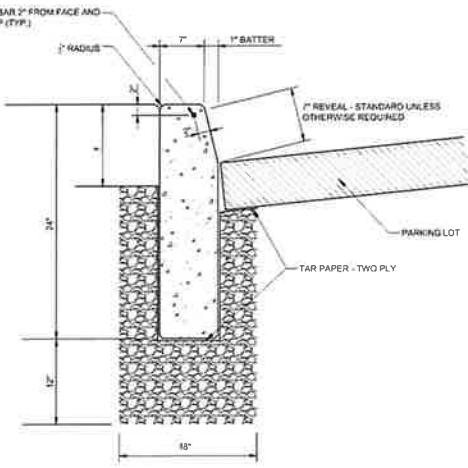
- NOTE:**
1. A CONTRACTOR SHALL PLACE A TOOLED JOINT AT EVERY 20' O.C. MINIMUM
 2. APPLY LIQUID MEMBRANE FORMING CURING COMPOUND MEETING ASTM C 309 TYPE 1, CLASS A AND B PER MANUFACTURER'S RECOMMENDATIONS. APPLY WATER BASED 40% SLANE PENETRATING SEALER AFTER A MINIMUM OF 28 DAYS PER MANUFACTURER'S RECOMMENDATIONS.

3 6" CONCRETE PAVEMENT
C600



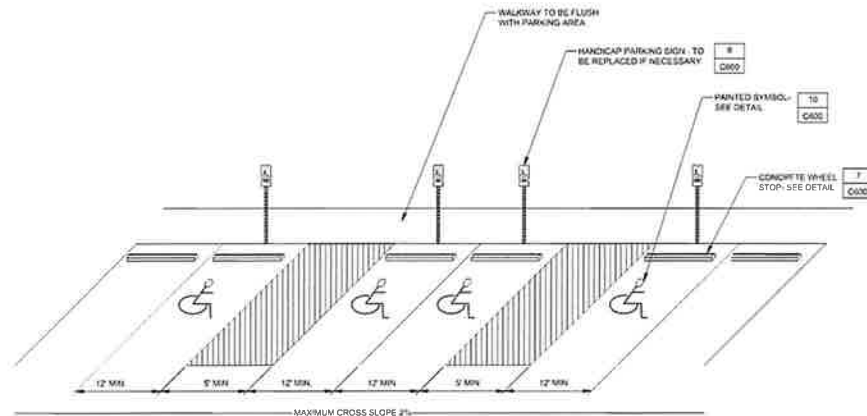
- NOTE:**
1. EXPANSION JOINTS SHALL BE PLACED AT A MAXIMUM OF 30' O.C. DEAS DIRECTED BY THE ENGINEER
 2. PLACE EXPANSION JOINTS TO SEPARATE CONCRETE FROM FIXED OR DIFFERENT CONCRETE STRUCTURE OR NON-CONTIGUOUS POURS
- ALL EXPANSION JOINTS SHALL BE PLACED FULL DEPTH AND FILLED WITH 3/4" X 1/4" POLYURETHANE ELASTOMERIC SEALANT ADHESIVE OR APPROVED EQUAL.
- NOTE:**
- SCORE LINE CONTROL JOINT. SCORE WITH TOOL OR SAW CUT AS SOON AS CONCRETE WILL WITHSTAND THE ENERGY OF SAWING WITHOUT RAUPLING OR DISLODGING AGGREGATE PARTICLES. DO NOT SAW CUT MORE THAN 24 HOURS AFTER CONCRETE PLACEMENT.
- NOTE:**
- CONTROL JOINTS SHALL BE A MAXIMUM OF 3' O.C.

4 CONCRETE EXPANSION/SCORE LINE/ CONTROL JOINT
C600



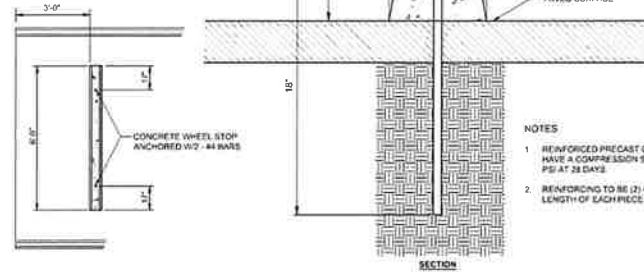
- NOTE:**
- CURB CONSTRUCTION JOINTS SHALL COINCIDE WITH TRANSVERSE JOINTS IN PAVEMENT OR BASE. MAXIMUM LENGTH 10' - 0"

5 CONCRETE DEEP CURB (7" INCH REVEAL)
C600



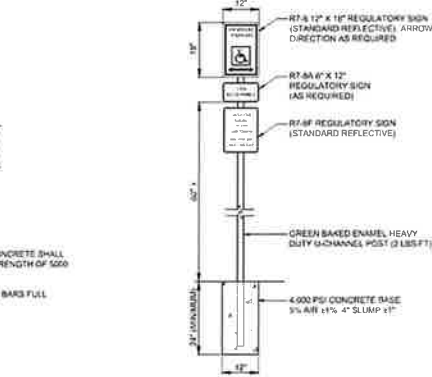
- NOTES:**
1. REFER TO SITE PLAN FOR ADDITIONAL INFORMATION

6 TYPICAL HANDICAP PARKING
C600

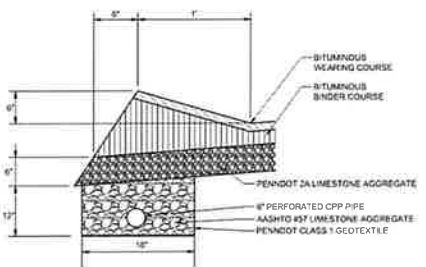


- NOTES:**
1. REINFORCED PRECAST CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS
 2. REINFORCING TO BE (2) 4B BARS FULL LENGTH OF EACH PIECE.

7 CONCRETE WHEEL STOP
C600

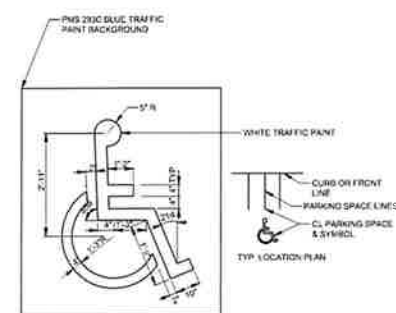


8 ACCESSIBLE PARKING SIGN
C600



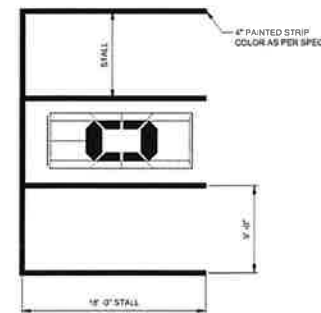
- NOTES:**
1. THE CONTRACTOR SHALL SEAL THE CUTTER LINE WITH PG 64-22 ASPHALT CEMENT BY OVERLAPPING 2" ONTO THE WEDGE CURB AND EXTENDING 9" ONTO THE CARTWAY IN ACCORDANCE WITH PENNDOT PUBLICATION 408 AFTER THE COMPLETION OF THE FINAL WEARING COURSE.
 2. SUBGRADE DRAINS MAY BE REQUIRED WHERE UNDERGROUND WATER IS ENCOUNTERED.
 3. CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO PENNDOT PUBLICATION 408 UNLESS OTHERWISE INDICATED.
 4. PLACE BITUMINOUS WEDGE CURB DRAINS AS DIRECTED BY OWNER.

9 BITUMINOUS WEDGE CURB
C600

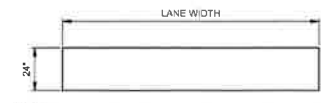


- NOTE:**
- SEE SITE PLAN FOR LOCATIONS

10 ADA SYMBOL
C600

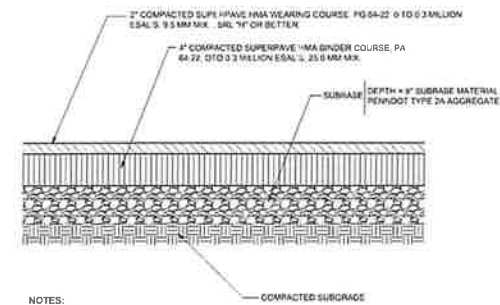


11 PARKING STALL DETAIL
C600



- NOTE:**
- STOP LINES ARE SOLID WHITE LINES THAT COMPLETELY TRAVERSE EACH TRAFFIC LANE. AT AN INTERSECTION WITH A STOP SIGN, THE STOP LINE SHOULD BE PLACED AT A LOCATION NOT LESS THAN 4' OR MORE THAN 30' FROM THE NEARST EDGE OF THE INTERSECTING ROADWAY TO ENSURE MAXIMUM SIGHT DISTANCE TO VEHICLES ON THE CROSSING ROUTE. WHEN USED ON MULTILANE APPROACH TO A SIGNALIZED INTERSECTION, THE STOP LINE MAY BE ANCHORED TO ASSIST TURNING VEHICLES AND TO IMPROVE SIGHT DISTANCE FOR MOTORIST DESIRING TO MAKE A TURN ON RED.

12 STOP BAR
C600



- NOTES:**
1. ONCE THE FINAL WEARING COURSE OF BITUMINOUS PAVING IS PLACED, THE CONTRACTOR SHALL SEAL THE GUTTER LINE WITH PG 64-22 ASPHALT CEMENT BY OVERLAPPING 3" ONTO THE WEDGE CURB OR 1" FOR CONCRETE CURB AND EXTENDING 9" ONTO THE CARTWAY IN ACCORDANCE WITH PENNDOT PUBLICATION 408
 2. SUBGRADE DRAINS MAY BE REQUIRED WHERE UNDERGROUND WATER IS ENCOUNTERED
 3. CONSTRUCTION MATERIALS AND INSTALLATION MUST CONFORM TO PENNDOT 408

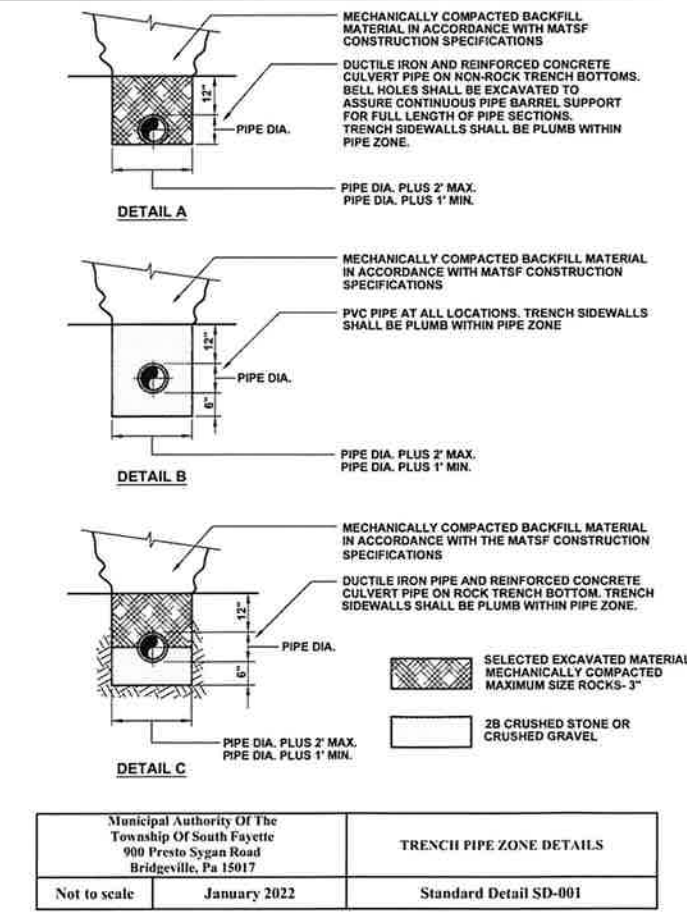
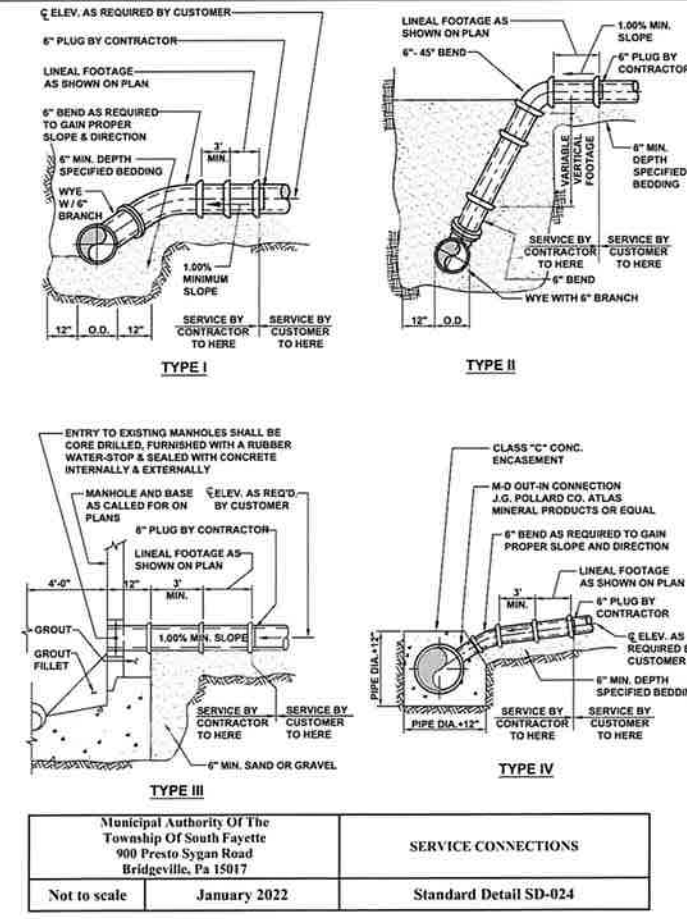
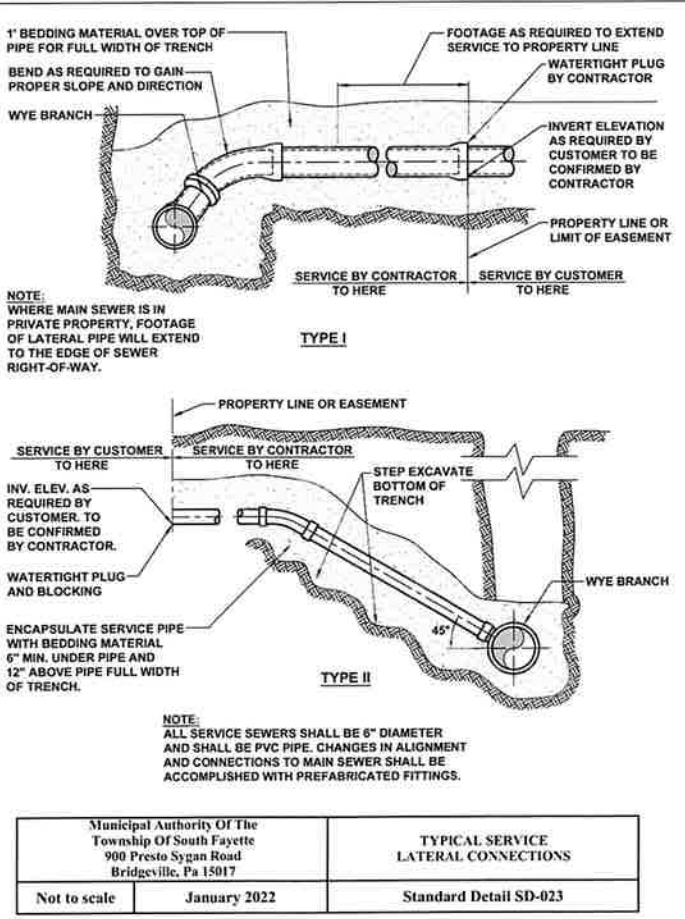
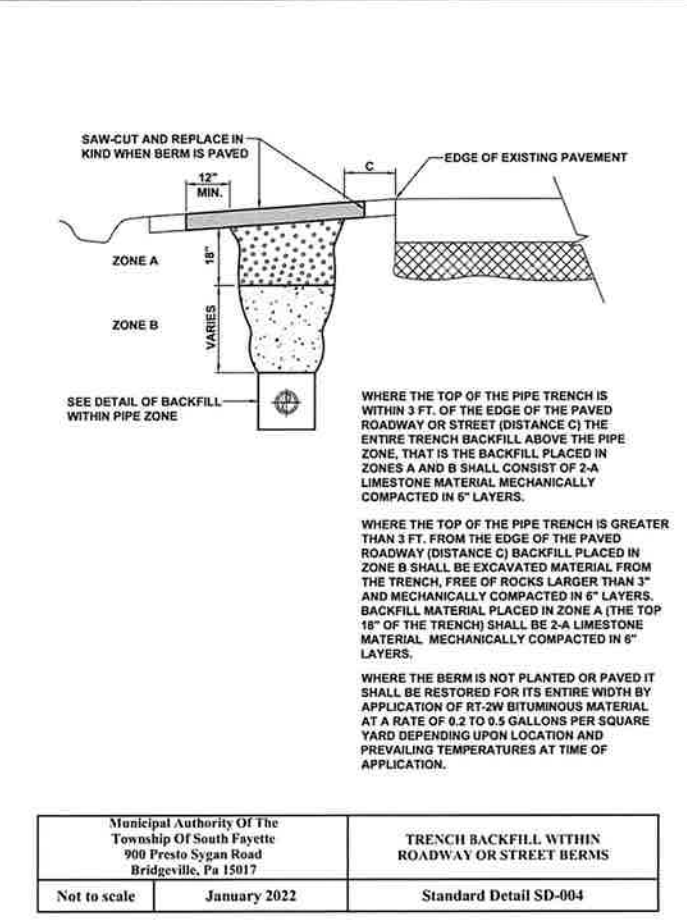
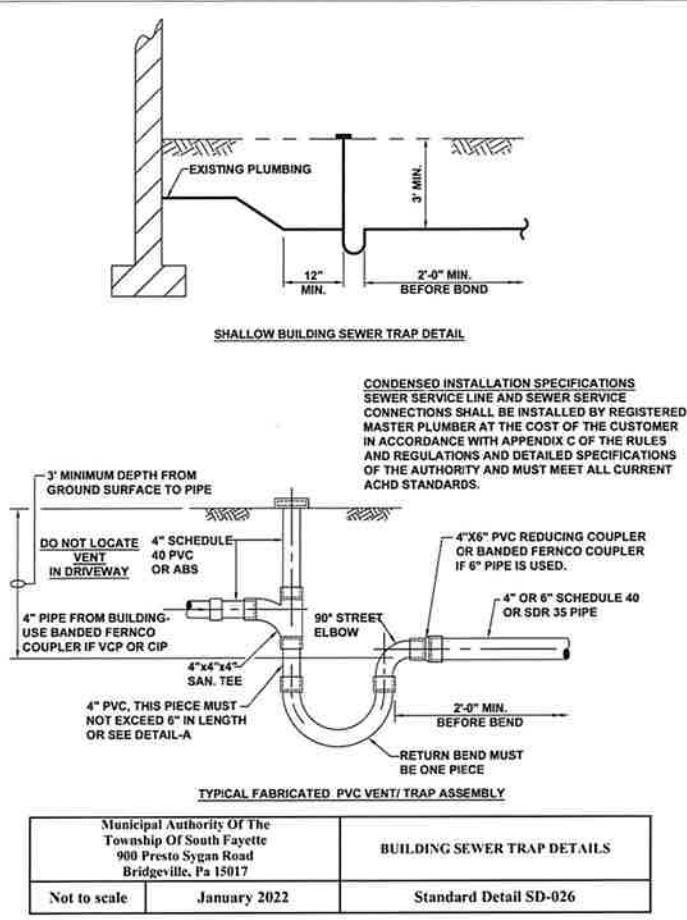
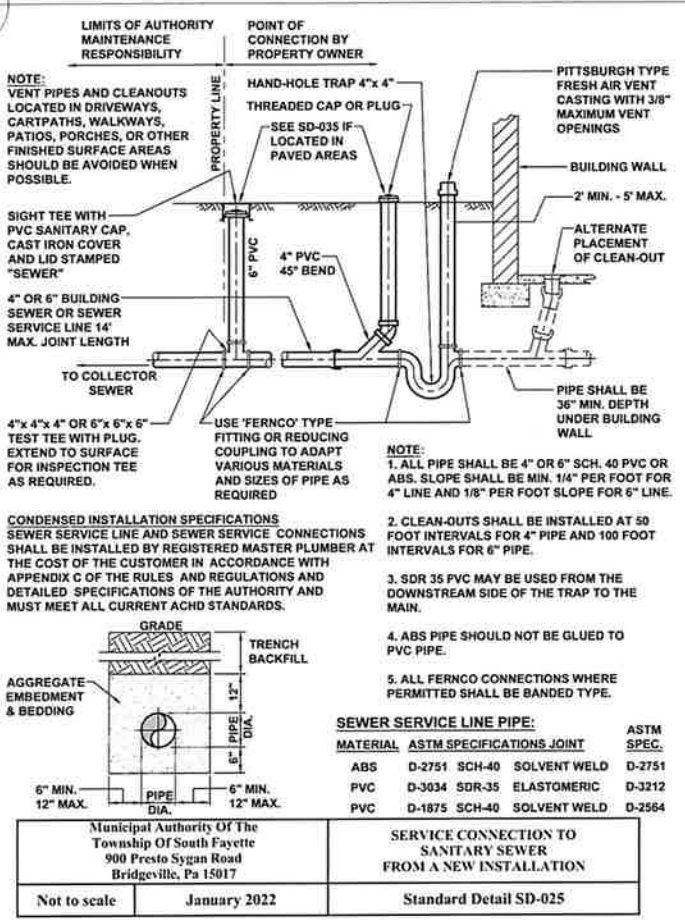
13 HEAVY DUTY BITUMINOUS PAVEMENT
C600

REVISION RECORD	
No.	Date
01	2025-11-11
02	2025-12-16
03	2026-01-14
04	
05	
06	
07	
08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
CE - SF, LP
295 MYOMA ROAD
MARS, PA 15046

CONSTRUCTION DETAILS
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number:
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C600



Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	TYPICAL SERVICE LATERAL CONNECTIONS
Not to scale	Standard Detail SD-023

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	SERVICE CONNECTIONS
Not to scale	Standard Detail SD-024

Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	TRENCH PIPE ZONE DETAILS
Not to scale	Standard Detail SD-001

GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
No. 100777
EXPIRES 12/31/2025

REVISION RECORD

No.	Date	Description
01	2025-11-11	WPP UPGRADES
02	2025-12-16	ACCD TECHNICAL NOTES RESPONSE
03	2025-01-14	TOWNSHIP SUBMISSION
04		
05		
06		
07		
08		

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031

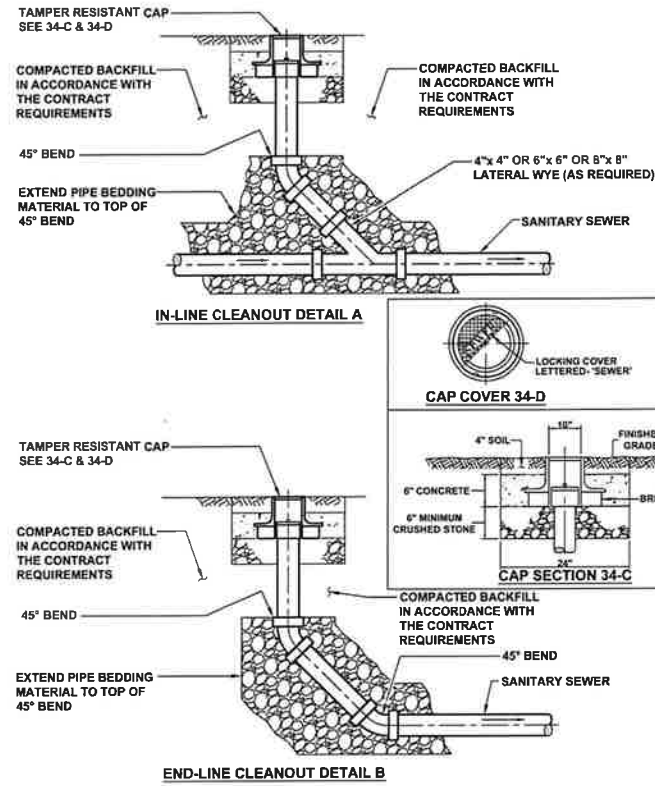
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARKS, PA 16046

CONSTRUCTION DETAILS

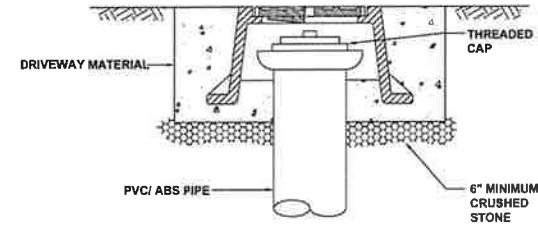
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C602

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 3. Plot User: jmg
 4. Plot Scale: 1/8" = 1'-0"
 5. Plot Orientation: Landscape
 6. Plot Color: Black
 7. Plot Lineweight: 0.25
 8. Plot Font: Arial, 10pt
 9. Plot Title: Standard Detail SD-023
 10. Plot Sheet: 1 of 1
 11. Plot Status: Final
 12. Plot Date: 11/14/2025 1:01 PM
 13. Plot User: jmg

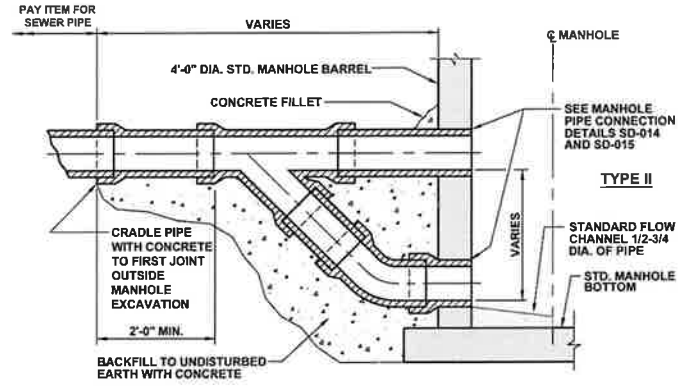
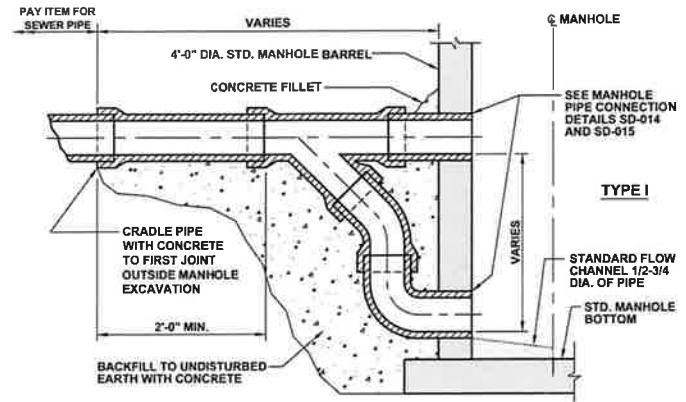


Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	MAIN LINE, IN-LINE, AND END LINE CLEANOUT FOR 6" AND 8" PVC SEWER
Not to scale	January 2022
Standard Detail SD-034	

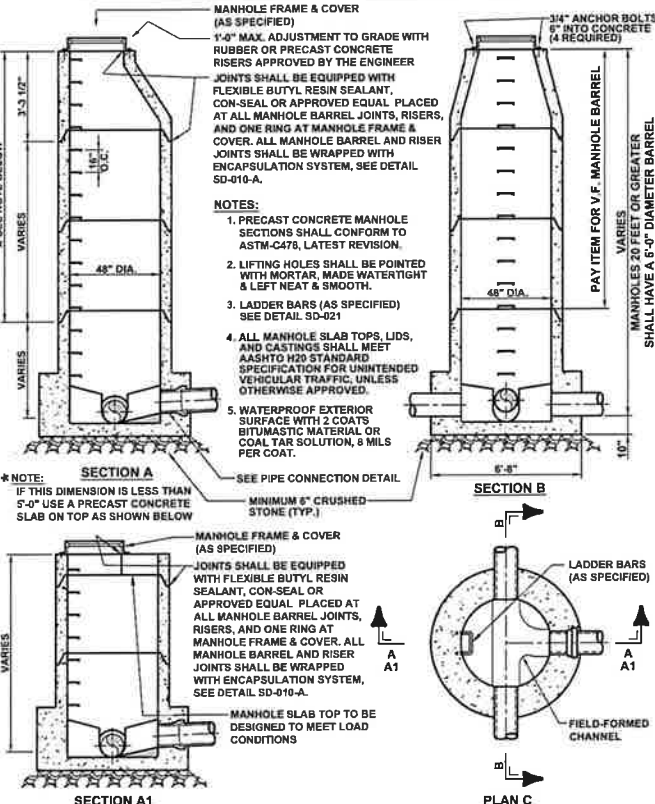


NOTE:
FRAME & COVER SHALL BE VALVCO INC. #668 OR APPROVED EQUAL.

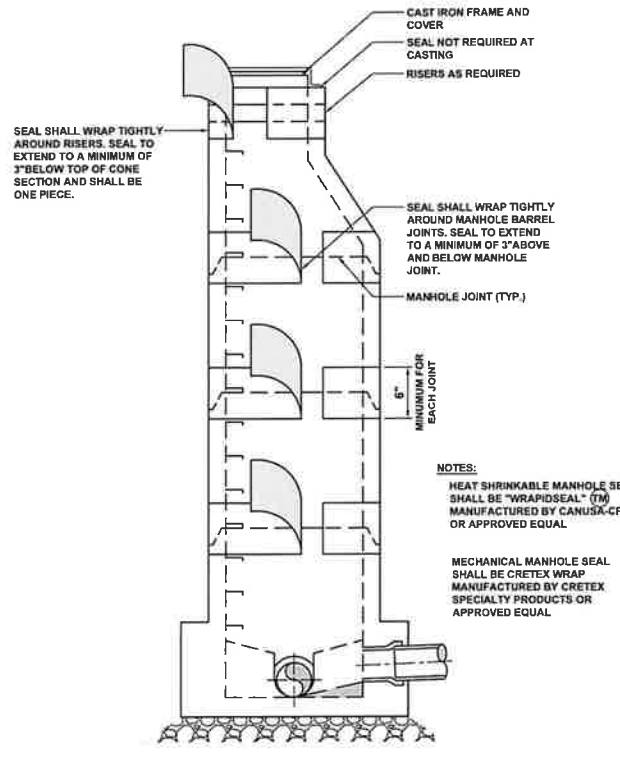
Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	LATERAL SITE TEE/CLEANOUT IN PAVED AREAS
Not to scale	January 2022
Standard Detail SD-035	



Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	OUTSIDE MANHOLE DROP CONNECTION
Not to scale	January 2022
Standard Detail SD-016	



Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	PRECAST CONCRETE MANHOLE FOR SEWERS 8" TO 18"
Not to scale	January 2022
Standard Detail SD-010	



Municipal Authority Of The Township Of South Fayette 900 Presto Sygan Road Bridgeville, Pa 15017	MANHOLE JOINT ENCAPSULATION SYSTEM
Not to scale	January 2022
Standard Detail SD-010-A	

REVISION RECORD

No.	Date	Description
01	10/20/20	ISSUE FOR CONSTRUCTION
02	11/11/20	WPP UPDATES
03	12/10/20	ACCD TECHNICAL NPDES RESPONSE
04	01/14/21	TOWNSHIP SUBMISSION
05		
06		
07		
08		

LAFAYETTE 180
NEWBURY DRIVE
CLUDDY, PA 15031
PREPARED FOR:
CE-SF, LP
295 MYCMA ROAD
MARKS, PA 16046

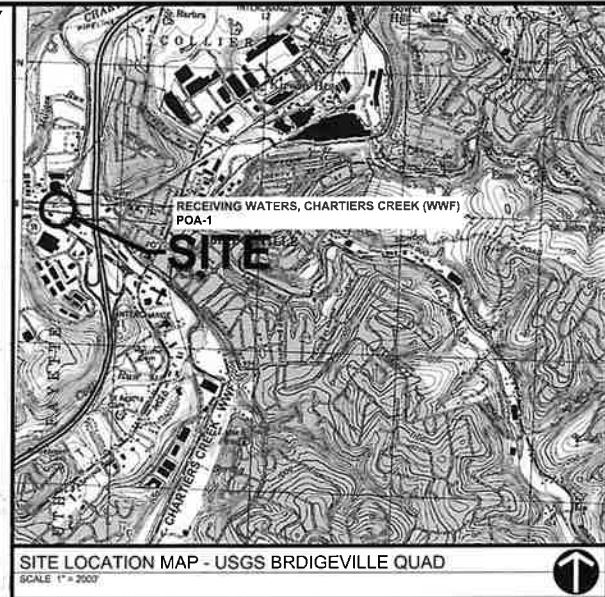
CONSTRUCTION DETAILS

Project Number: C-12159-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: --
Drawn By: MCLR/R
Checked By: JMG
Project Manager: JMG

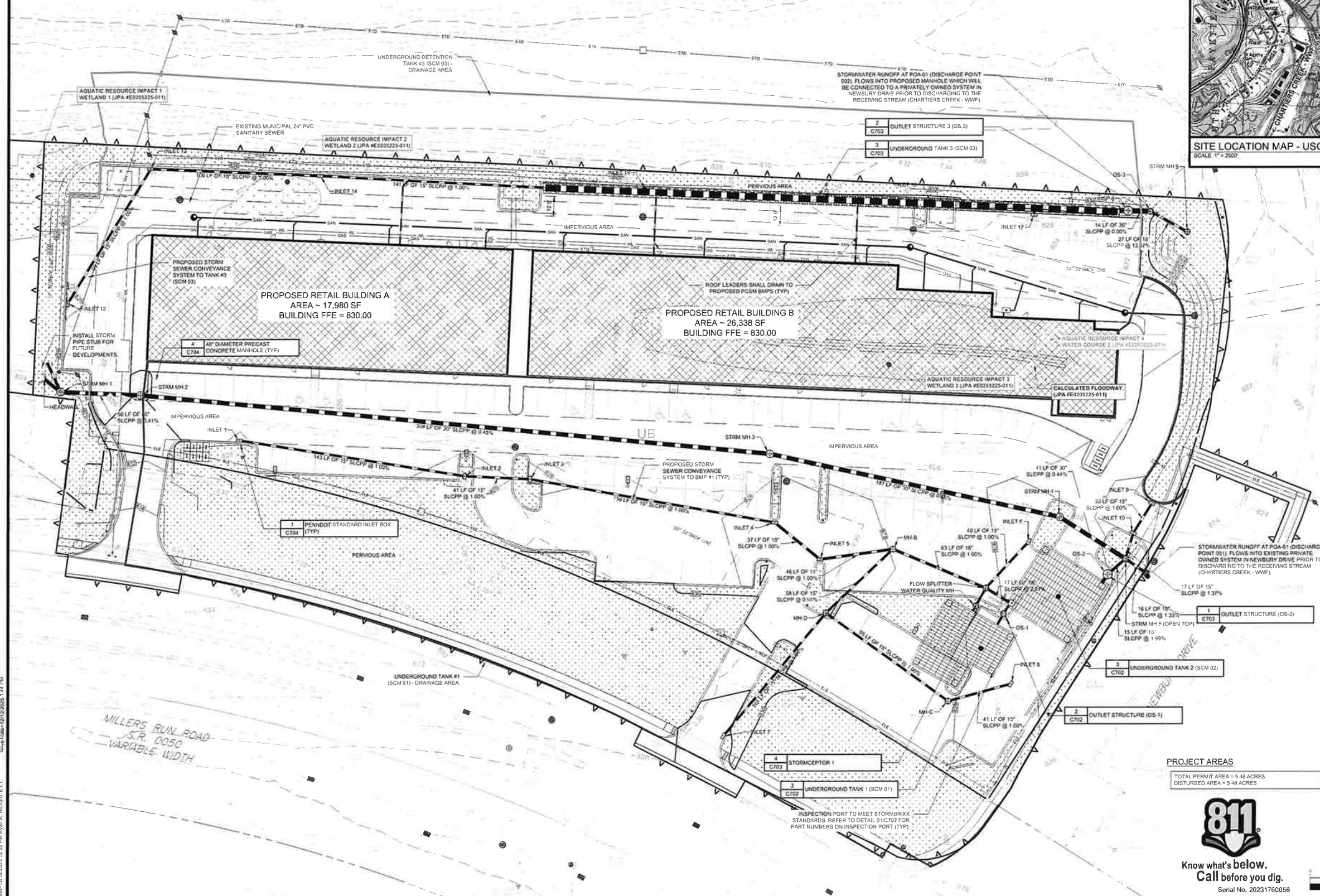
C603

THE GATEWAY ENGINEERS, INC. RETAINS OWNERSHIP RIGHTS OF ALL DATA WITHIN THE PLANS. DATA CONTAINED WITHIN IS ONLY TO BE USED FOR ITS INTENDED PURPOSE BY ITS RESPONSIBLE PARTY. THE USE, REPLICATION, REPRODUCTION, OR REDISTRIBUTION OF DATA CONTAINED WITHIN IS STRICTLY PROHIBITED AND SUBJECT TO LEGAL ACTION.

THIS PLAN IS FOR POST CONSTRUCTION STORMWATER MANAGEMENT PURPOSES ONLY



GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM



POST CONSTRUCTION STORMWATER MANAGEMENT LEGEND

1	PENNDOT STANDARD INLET BOX (C704)
2	CLEANOUT (C704)
3	PROPOSED 48" STORM MANHOLE (C704)
4	PROPOSED STORM LINE
5	SOIL BOUNDARIES
6	LIMITS OF DISTURBANCE / PERMIT BOUNDARY
7	AREAS TO BE PERMANENTLY SEEDDED
8	AQUATIC RESOURCE WETLANDS
9	AQUATIC RESOURCE WATER COURSE
10	AQUATIC RESOURCE FLOODWAY

POST CONSTRUCTION STORMWATER MANAGEMENT NOTES:

- THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS AND POLICIES GOVERNING SAFETY AND HEALTH INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-594) FEDERAL REGISTER, CHAPTER XVI, PART 503 OF TITLE 29 REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF THE BID. SUBMISSION OF A BID SHALL BE CONSTRUED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
- BEFORE EXCAVATION, ALL UNDERGROUND UTILITIES SHALL BE LOCATED IN THE FIELD BY THE PROPER AUTHORITIES. THE CONTRACTOR SHALL NOTIFY PENNSYLVANIA ONE CALL SYSTEMS, INC. AT 1-800-4A-1178. THE LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES.
- CONTRACTOR TO PROVIDE SHOP DRAWINGS ON ALL STORM SEWER MANHOLES, INLETS AND DETENTION SYSTEMS.
- AN AS-BUILT DRAWING OF NEW UTILITY SERVICES SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.
- ALL STORM PIPE SHALL BE HDPE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE UNLESS OTHERWISE NOTED. ALL STORM SEWER CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH PENNDOT SPECIFICATIONS. ALL JOINTS SHALL BE WATER-TIGHT.
- CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION.
- THE CONTRACTOR SHALL ASSURE THAT THERE IS POSITIVE DRAINAGE TO THE INLETS UPON PLACEMENT OF NEW PAVEMENT.
- INLETS MUST BE SIZED TO ACCEPT THE SPECIFIED PIPE SIZES WITHOUT KNOCKING OUT ANY OF THE INLET CORNERS. ALL PIPES ENTERING OR EXISTING INLETS SHALL BE CUT FLUSH WITH THE INSIDE WALL OF THE INLET.
- NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OR ALTER ANY SWM BMPs, FACILITIES, AREAS, OR STRUCTURES WITHOUT THE WRITTEN APPROVAL OF THE TOWNSHIP.
- CONTRACTOR IS REQUIRED TO NOTIFY AN ENVIRONMENTAL PROFESSIONAL (EP) PRIOR TO ANY EXCAVATION AND HAVE THEM ON-SITE TO OVERSEE ALL EXCAVATION AND HANDLING OF MATERIAL. THE CONTRACTOR SHALL REFER TO THE SOIL MANAGEMENT PLAN / MATERIAL MANAGEMENT PLAN PREPARED BY CHIRBA & ASSOCIATES, LLC, AND THE ON-SITE EP FOR THE REQUIRED SOIL HANDLING, STOCKPILE, DISPOSAL, ETC. PROCEDURES.

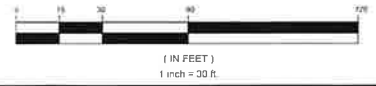
PROJECT AREAS
TOTAL PERMIT AREA = 5.48 ACRES
DISTURBED AREA = 5.48 ACRES



Know what's below.
Call before you dig.
Serial No. 20231760058



NORTH



REVISION RECORD

No.	Date	By	Rev.	Description
1	2025-11-11	CI	1	WPPP Update
2	2025-12-16	CE	1	ACCD TECHNICAL IMPROVEMENT RESPONSE
3		UI		
4		UI		
5		UI		
6		UI		
7		UI		
8		UI		

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16046

POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
Project Number: C-12199-0023
Drawing Scale: 1" = 30'
Date Issued: AUG 2025
Index Number:
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
C700

N:\Data & Drawings\GIS\Projects\12199-0023\12199-0023-CADD\12199-0023-Stormwater Management Post-Construction Stormwater Management Plan.dwg
C:\Users\jmg\OneDrive\Documents\12199-0023-Stormwater Management Post-Construction Stormwater Management Plan.dwg
Scale: 1" = 30' (1/2" = 15')

PERMANENT SEEDING SPECIFICATIONS

- MANAGEMENT OF SOIL
REUSE OF THE CONSTITUENTS OF CONCERN (COCs) DETECTED IN SOIL SAMPLES COLLECTED AT THE SITE.
EXCAVATED SOIL THAT IS DETERMINED TO BE POTENTIALLY IMPACTED...
TOPSOIL
LIMESTONE
COMMERCIAL FERTILIZER
INOCULANT
MULCH
SEED MIXTURE
PERMANENT SEEDING
PREPARATION OF SEEDING

- MANAGEMENT OF SOIL
CONTAMINATED SOILS MUST BE STORED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF 25 PA CODE §299.101-299.154 OF THE WASTE MANAGEMENT REGULATIONS...
DISPOSAL OF SOIL
PRIOR TO DISPOSAL OF POTENTIALLY CONTAMINATED SOIL, AN EVALUATION MUST BE CONDUCTED TO DETERMINE WHETHER THE SOIL CAN BE USED AS CLEAN FILL OR IF IT MUST BE MANAGED AS REGULATED FILL...

- DISPOSAL OF SOIL
PRIOR TO DISPOSAL OF POTENTIALLY CONTAMINATED SOIL, AN EVALUATION MUST BE CONDUCTED TO DETERMINE WHETHER THE SOIL CAN BE USED AS CLEAN FILL OR IF IT MUST BE MANAGED AS REGULATED FILL...
IN THE MANAGEMENT OF FILL POLICY DOCUMENT "CLEAN FILL" IS DEFINED AS "UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT SOLID MATERIAL USED TO LEVEL AND AREA OR BRING AN AREA TO GRADE..."
PURSUANT TO 25 PA. CODE 273.101(b)(1) AND 287.101(b)(1)(i), USE OF CLEAN FILL DOES NOT REQUIRE A PERMIT UNDER THE SWMA OR THE MUNICIPAL OR RESIDUAL WASTE REGULATIONS...

- STEEP SLOPE SEEDING SPECIFICATIONS:
(STEEP SLOPE MIX - SLOPES STEEPER THAN 3:1)
TOPSOIL
LIMESTONE
COMMERCIAL FERTILIZER
INOCULANT
MULCH
SEED MIXTURE
SEEDING RATES

- STEEP SLOPE SEEDING SPECIFICATIONS:
(STEEP SLOPE MIX - SLOPES STEEPER THAN 3:1)
ALL AREAS TO BE SEED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF AT LEAST THREE INCHES PARALLEL TO THE CONTOURS BY MECHANICAL MEANS AS APPROVED BY THE LANDSCAPE ARCHITECT...
MULCH SEEDING AREAS IMMEDIATELY AFTER SEEDING.

Table with 3 columns: Description, Slope, Remedial Actions. Contains data for Urban Land and Symbol UB.

CONSTRUCTION STAGING
NOTE FOR ALL DISTURBED AREAS, AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE THEY MUST BE STABILIZED...
CONSTRUCTION STAGING
NOTE FOR ALL DISTURBED AREAS, AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE THEY MUST BE STABILIZED...

CONSTRUCTION STAGING
NOTE FOR ALL DISTURBED AREAS, AS SOON AS SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE THEY MUST BE STABILIZED...
CONSTRUCTION STAGING
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CONSTRUCTION STAGING
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- CONSTRUCTION SEQUENCE
THE LAFAYETTE 180 PROJECT WILL CONSIST OF A NEW PLANNED SHOPPING CENTER, PARKING LOTS, ACCESS DRIVES, UTILITY INSTALLATION, LANDSCAPING, AND 885/PCSM BMPs...
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REVISION RECORD table with columns for Date, Description, and Reviser. Contains revision history for the plan.

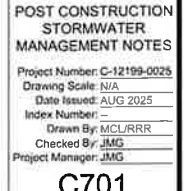
6 C701 CONSTRUCTION SEQUENCE

STORMWATER MANAGEMENT SYSTEM OPERATION AND MAINTENANCE SCHEDULE
CEP, LP IS RESPONSIBLE FOR THE SHORT AND LONG TERM OWNERSHIP, OPERATIONS, AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM...

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POST CONSTRUCTION STORMWATER MANAGEMENT NOTES
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: -
Drawn By: MCLR/RR
Checked By: JMG
Project Manager: JMG

Plan Name: Stormwater Management Plan; Drawing Number: C701; Date: 12/20/2025; 12:00 PM; Author: J. Robinson; Scale: 1/1; Plot Date: 12/20/2025 12:00 PM

THE GATEWAY ENGINEERS, INC. RETAINS OWNERSHIP RIGHTS OF ALL DATA WITHIN THE PLANS. DATA CONTAINED WITHIN IS ONLY TO BE USED FOR ITS INTENDED PURPOSE BY ITS RESPONSIBLE PARTY. THE USE, REPLICATION, REPRODUCTION, OR REDISTRIBUTION OF DATA CONTAINED WITHIN IS STRICTLY PROHIBITED AND SUBJECT TO LEGAL ACTION.



REVISION RECORD

Date	No.	Description
2025-11-11	01	WPP Updates
2025-12-16	02	ACQD TECHNICAL RESPONSE
	03	
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031

PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16046

POST CONSTRUCTION
STORMWATER
MANAGEMENT DETAILS

Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number:
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C702

FILL CHART				CONSTRUCTION EQUIPMENT CHART			COVER CHART	
Material Location	Description	Material Classification	Compaction/Density Requirement (NOTE 3)	Equipment Make (NOTE 5)	Maximum Gross Vehicle Weight (Gross Vehicle Weight) (lb)	Minimum Fill Depth (min) (ft)	Min Loading Condition	Cover Thickness (Inches)
FINAL FILL (fill starting from the top of the embedment fill layer. (NOTE 1 and 2))	Suitable Fill Materials as noted in the Project Geotechnical Report and noted on the Site Design Engineer's Plans	See Project Geotechnical Report and Site Design Engineer's Plans	Place Compact or Stratified Fill layer 15" to density fill. Use at least two full passes of the equipment to level the layer. Compact to 34 inches of total fill thickness. Have been placed above the tank. For AASHTO M33, a minimum of 90% of the Standard Proctor Maximum Dry Density is recommended.	Packer Compactor	5,000	3"	Non-Turbulent (New S.A. Inlet Pipe)	12"
				Compaction Plate	2,000	3"	Passenger Vehicle Parking Lot	18"
EMBEDMENT FILL (fill immediately surrounding the sides and top of tank (NOTE 2))	Sand Gravel Mixtures on Open Graded or Closed Aggregate Blends	AASHTO M43 A-1, A-2, A-3, A-4	After 24 inches of fill is placed, place fill in accordance with the engineer's records relative compaction requirement or to 90% of the Standard Proctor Maximum Dry Density, whichever is greater.	Low Ground Impact (Load) (NOTE 6)	20,000	3"	Passenger Vehicle Parking Lot with one wheel AASHTO H-19	20"
High Ground Impact (Load) (NOTE 6)				30,000	3"	Passenger Vehicle Parking Lot with one wheel AASHTO H-20	24"	
BEDDING FILL (fill immediately below the tank (NOTE 3))				Roller - Single Drum	10,000	3"	Tractor (on Soft Ground)	28"

DETAIL A: PIPE WRAP

Remove Access Cover (Part #14113) or Seal (Part #14112) - See NOTE 1
Expansion Shaft (Part #14115)
Consult Load Description Plate by Others - See NOTE 2
Remove Access Plate (Part #14111) - See NOTE 3

6 in Non-Woven Geotextile (under) around entire tank by Others

6 in Non-Woven Geotextile (over) around entire tank by Others

SIDE PANEL PIPE DIAMETER CHART

Inlet/Outlet Pipe Diameter	Minimum	Maximum
18"	18"	18"
24"	24"	24"
30"	30"	30"
36"	36"	36"
42"	42"	42"

NOTE 1: Confirm inlet pipe size to tank and outlet pipe size.
NOTE 2: Confirm ACO for pipe size for inlet/outlet pipes larger than 18 inch diameter.

FRAME AND COVER

NOTE: EXCEPT AS NOTED, ALL MANHOLE FRAMES AND COVERS SHALL BE MEXHEM FOUNDRY FRAME AND COVER PATTERN NO. R-1753-A, AND LABELED "PRIVATE STORM".

2 LAYER 600HD INFILTRATION CROSS SECTION

NOTE 1: The minimum width of setback behind is 12' or larger enough to accommodate selected compaction equipment, whichever is greater.

2 LAYER 600HD ACCESS POINT CROSS SECTION

NOTE 1: Ventilation may be crucial to reducing the pressure built up within the system. If solid access covers are used, alternative methods of ventilation are recommended.
NOTE 2: Concrete Load Plate not required for ungravel applications. Consult Engineer of Record for requirements.
NOTE 3: The Weircrete Access Plate is approximately the size of half a half-module. The half-module at the top of the tank may be cut in half to accommodate the Weircrete Access Plate.

2 LAYER 600HD PIPE INSTALLATION

NOTE: Cut hole based on pipe diameter and pipe in inlet pipe. See Pipe Diameter Chart.

STORMBRIXX STANDARD DETAILS

600HD SYSTEM - 2 LAYER - INFILTRATION

DRAWN BY A Frye	CHECKED BY J Jonke
DATE 12/23/2024	REV. 1

ACO, INC.

WEST SALES OFFICE 205 W BIRCHMOUNT ST CASA GRANDE, AZ 85322 (602) 490-9552 Fax (520) 421-8889	EAST SALES OFFICE 3425 WINDING SPRING HENTON, OH 44862 Tel (800) 541-4764 Fax (440) 539-7235	SOUTHEAST SALES OFFICE 483 S. WINDY RIDGE DRIVE FORT MILL, SC 29715 Tel (803) 520-7292 Fax (803) 522-1932
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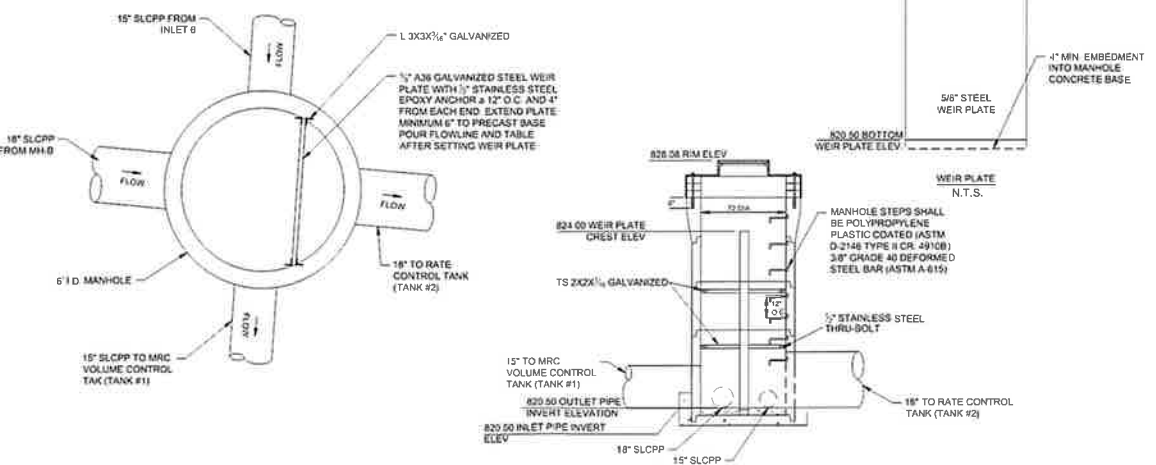
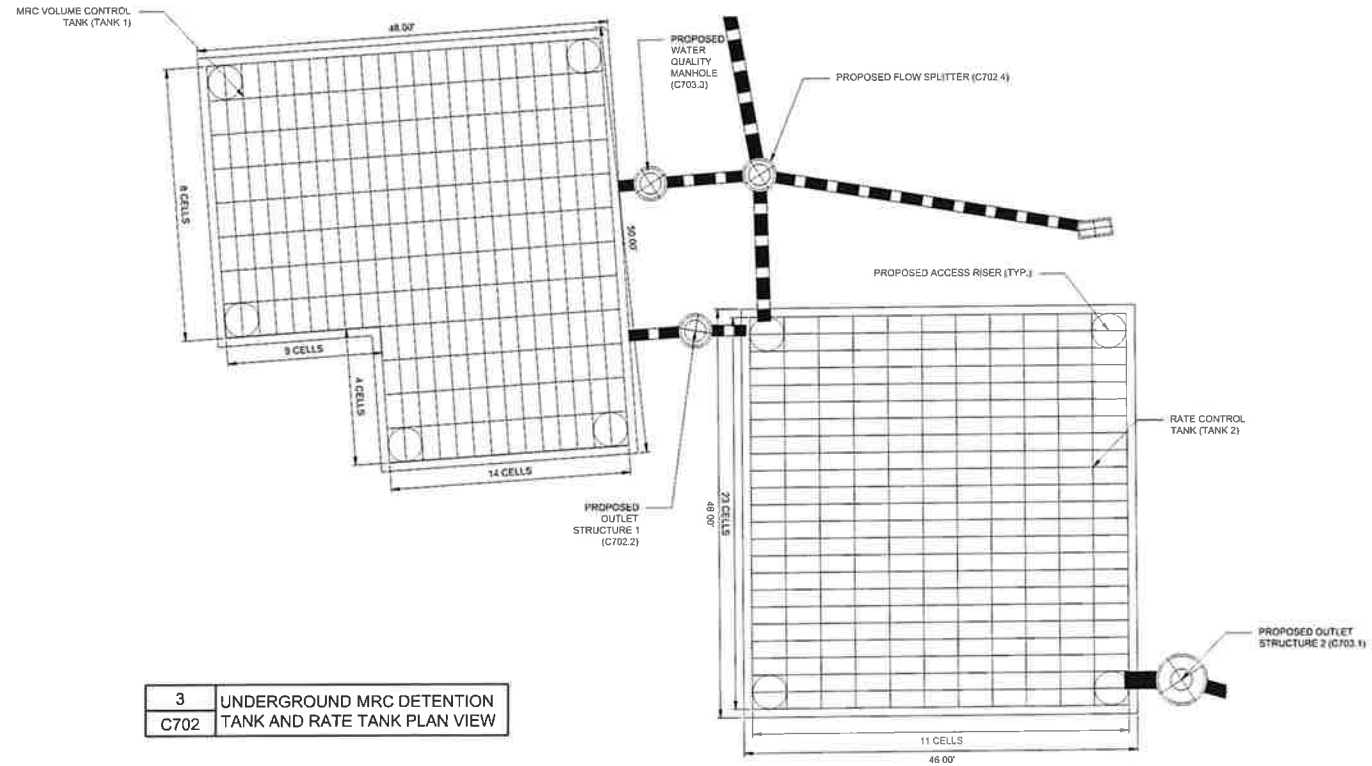
WWW.ACOBRIXX.COM

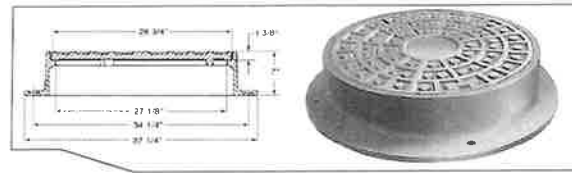
1 UNDERGROUND TANK 1 AND 2
C702

2 OUTLET STRUCTURE 1 (OS 1)
C702

3 UNDERGROUND MRC DETENTION TANK AND RATE TANK PLAN VIEW
C702

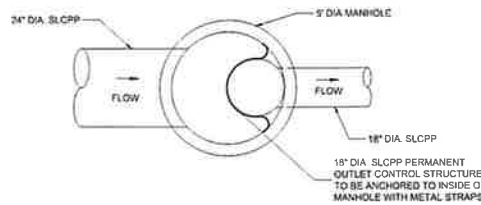
4 TYPICAL FLOW SPLITTER STRUCTURE
C702



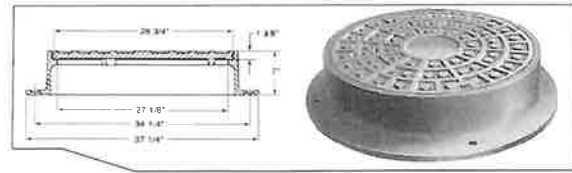


EXCEPT AS NOTED, ALL MANHOLE FRAMES AND COVERS SHALL BE NEENAH FOUNDRY FRAME AND COVER PATTERN NO. R-1753-A AND LABELED "PRIVATE STORM"

FRAME AND COVER

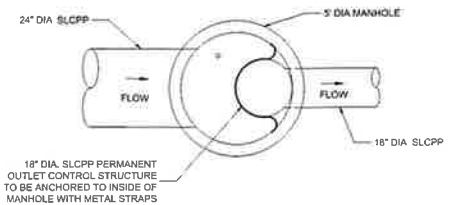


TOP VIEW

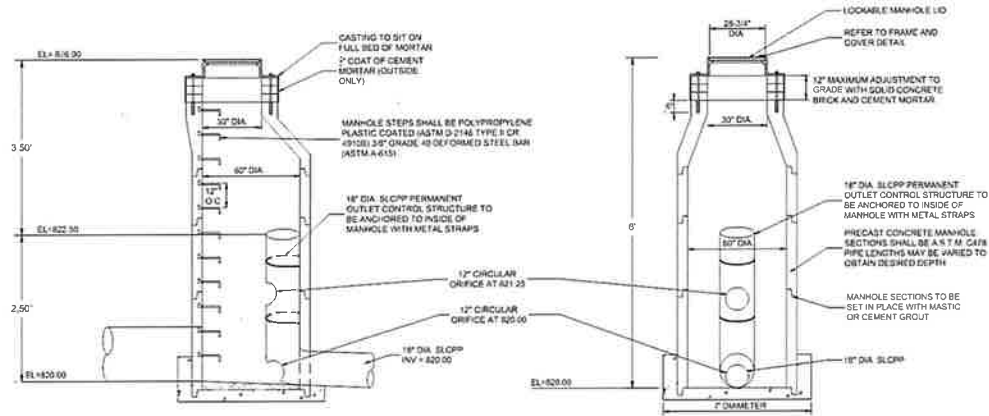


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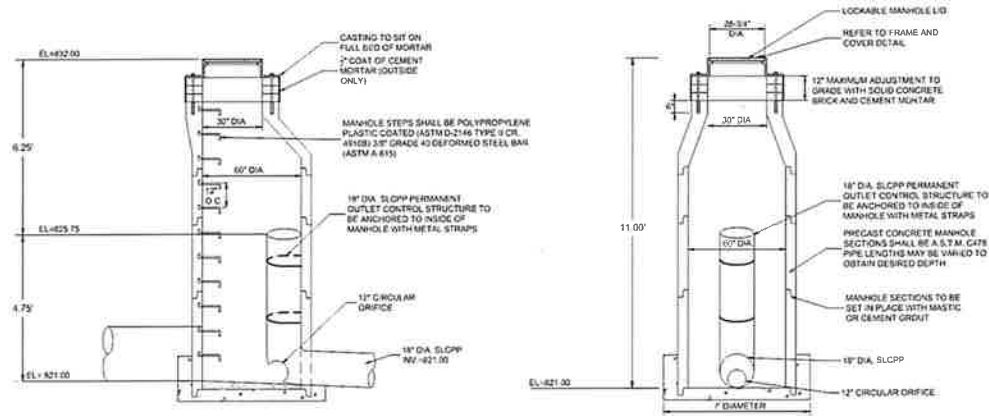
FRAME AND COVER



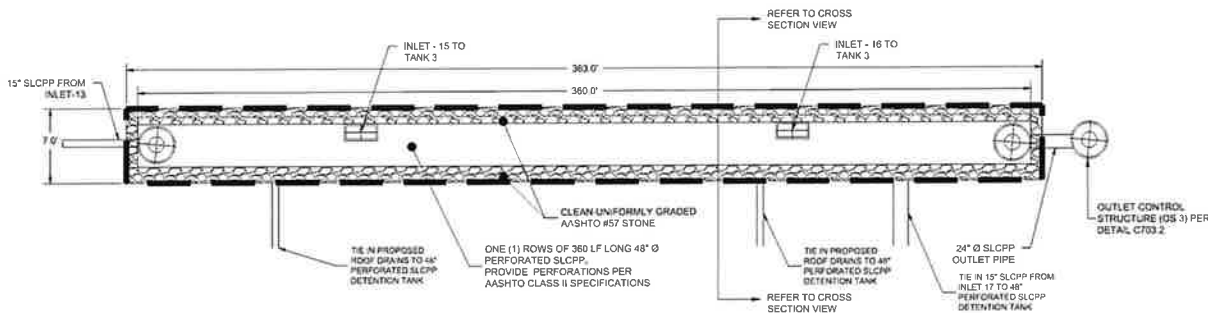
TOP VIEW



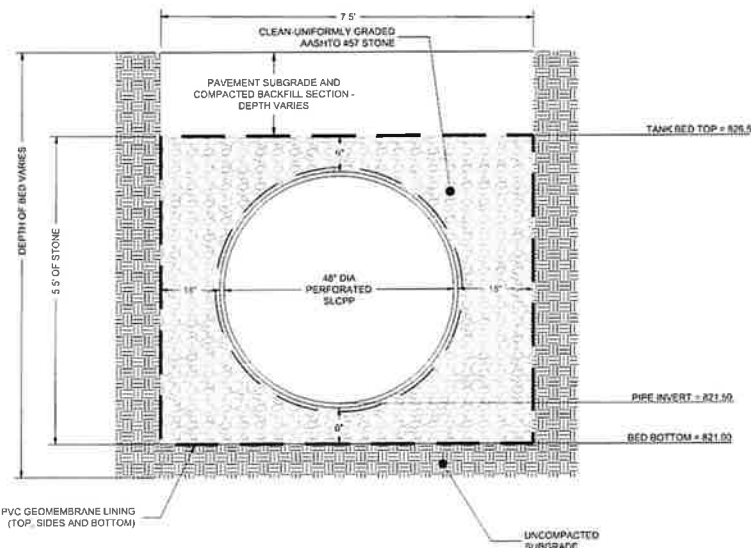
1
C703 OUTLET CONTROL STRUCTURE 2 (OCS 2)



2
C703 OUTLET STRUCTURE 3 (OS 3)



PLAN VIEW
NOT TO SCALE



3
C703 UNDERGROUND TANK 3

PLAN VIEW
TOP SLAB NOT SHOWN

STORMCEPTOR DESIGN NOTES

THE STANDARD STC450I CONFIGURATION WITH ROUND, SOLID FRAME AND COVER, AND INLET PIPE IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

GRADED INLET ONLY AND INLET PIPE
GRADED INLET WITH INLET PIPE OR PIPES
CURB INLET ONLY AND INLET PIPE
CURB INLET WITH INLET PIPE OR PIPES

SECTION A-A

FRAME AND COVER
(MAY VARY)
NOT TO SCALE

FRAME AND GRATE
(MAY VARY)
NOT TO SCALE

GENERAL NOTES

- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH TABLED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE.
- STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONSULT WITH CONTECH ENGINEERED SOLUTIONS FOR ANY CHANGES TO THIS DRAWING.
- STORMCEPTOR STRUCTURE SHALL MEET AASHTO #57 GRADE AND FINISH. ALLOWANCE FOR EARTH COVER OF 1'-2" FROM GROUNDWATER ELEVATION AT OR BELOW THE OUTLET PIPE INVERT ELEVATION. CONTRACTOR TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M270 AND BE CAST WITH THE CONTECH LOGO.
- STORMCEPTOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C408 AND AASHTO LOAD FACTOR DESIGN METHOD.
- ALTERNATE UNITS ARE SHOWN IN MILLIMETERS (MM).

INSTALLATION NOTES

- ANY SURFACE, SHOULDER, OR FINISH DEPTH AND/OR WIDTH PROVISIONS ARE SITE SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMCEPTOR MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLY STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES TO MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINE TO MATCH PIPES OFFERING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT - HOLDING WATER TO FLOW ONE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

CONTECH
ENGINEERED SOLUTIONS LLC
www.contech.com
800.766.1111 • 419.444.7000 • 419.444.7001 FAX

STC450I
STORMCEPTOR
STANDARD DETAIL

4
C703 STORMCEPTOR 1 (STC 450I)



REVISION RECORD

No.	Date	Description
01	2025-11-11	WPP Updates
02	2025-12-18	ACCD TECHNICAL NOTES RESPONSE
03		
04		
05		
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08		

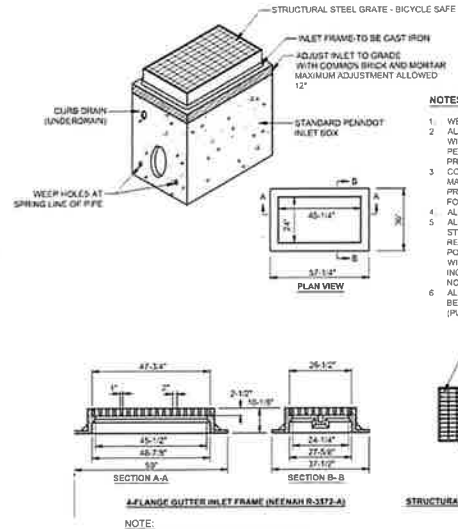
LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16046

POST CONSTRUCTION
STORMWATER
MANAGEMENT DETAILS

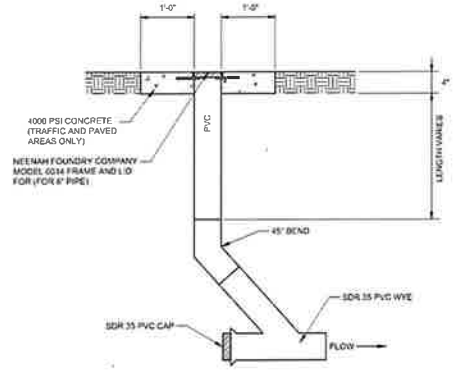
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

C703

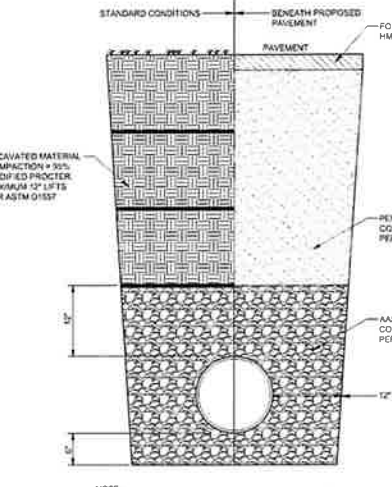
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 Save Date: 12/18/2025 1:44:16 PM



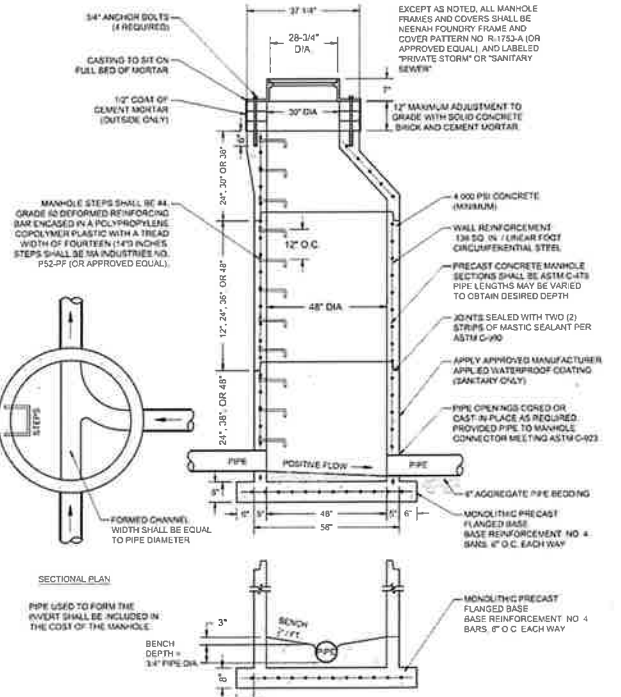
1 PENNDOT STANDARD INLET BOX WITH TYPE M FRAME AND BIKE SAFE GRATE
C704



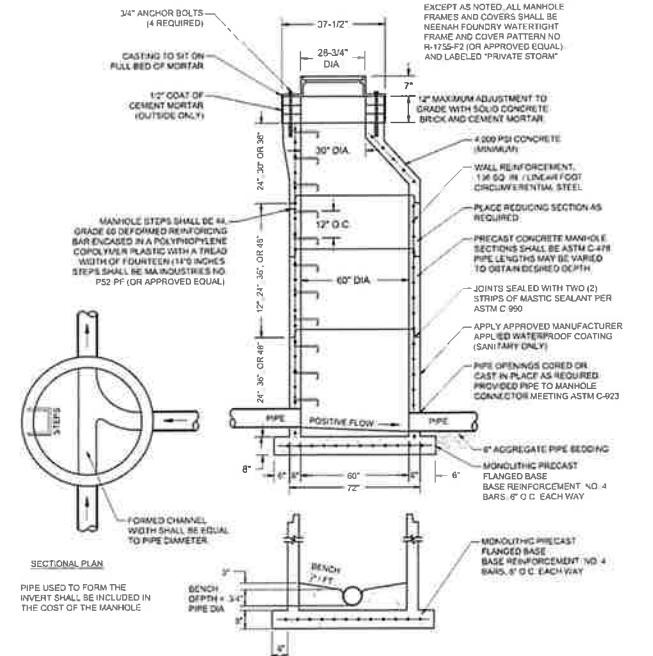
2 CLEANOUT
C704



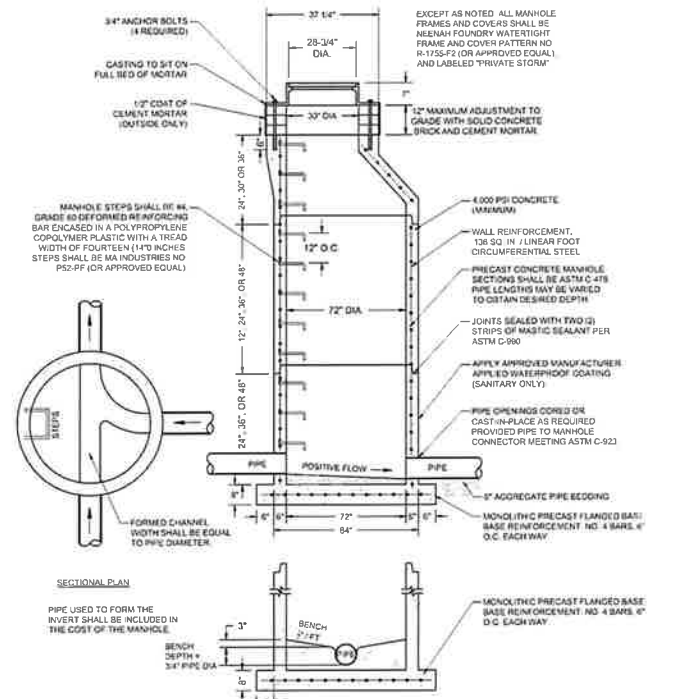
3 UNDERGROUND PIPE OR CONDUIT BACKFILL
C704



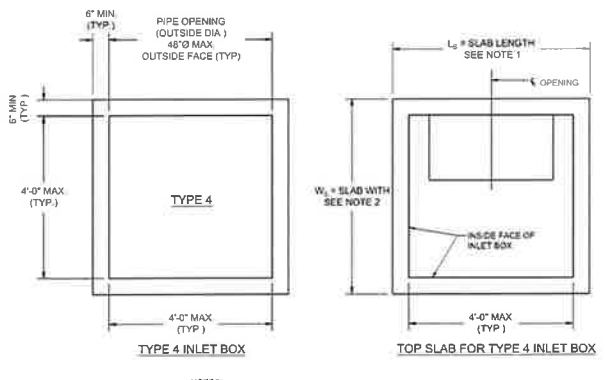
4 48" DIAMETER PRECAST CONCRETE MANHOLE
C704



5 60" DIAMETER PRECAST CONCRETE MANHOLE (STORM)
C704



6 72" DIAMETER PRECAST CONCRETE MANHOLE (STORM)
C704



7 PENNDOT TYPE 4 INLET BOX
C704



NO.	DATE	DESCRIPTION
01	2025-11-11	WPP Updates
02	2025-12-16	ACCD TECHNICAL RESPONSE
03		
04		
05		
06		
07		
08		

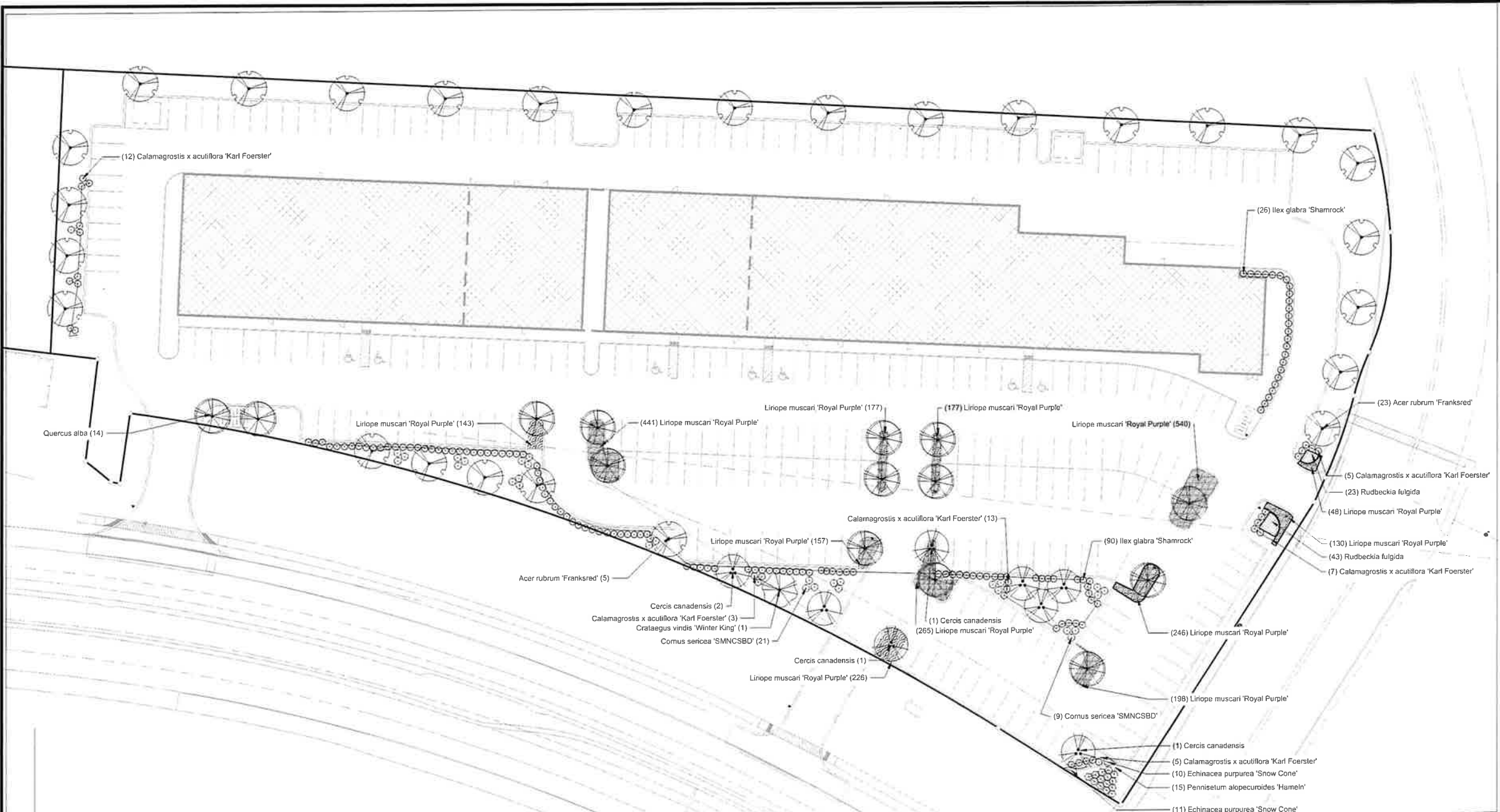
LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARKS, PA 16846

POST CONSTRUCTION
STORMWATER
MANAGEMENT DETAILS
Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number: -
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG



REVISION RECORD

No.	Date	Description
01	2024-11-11	ISSUE FOR BIDDING
02	2025-12-16	ACCD TECHNICAL INFOS RESPONSE
03	2026-01-14	TOWNSHIP SUBMISSION
04		
05		
06		
07		
08		



LANDSCAPE NOTES:

- THE CONTRACTOR SHALL COMPLY AT ALL TIMES WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, PROVISIONS AND ORDINANCES GOVERNING SAFETY AND HEALTH, INCLUDING THE FEDERAL CONSTRUCTION SAFETY ACT (PUBLIC LAW 91-58), FEDERAL REGISTER, CHAPTER XVII, PART 1926 OF TITLE 29, REGULATIONS, OCCUPATIONAL SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, AND SUBSEQUENT PUBLICATIONS UPDATING THESE REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING THE AREAS AND CONDITIONS UNDER WHICH THE PROJECT IS TO BE CONSTRUCTED PRIOR TO THE SUBMISSION OF THE BID. SUBMISSION OF A BID SHALL BE CONSIDERED TO MEAN THE CONTRACTOR HAS REVIEWED THE SITE AND IS FAMILIAR WITH CONDITIONS AND CONSTRAINTS OF THE SITE.
- PRIOR TO THE INSTALLATION OF PLANT MATERIAL, THE CONTRACTOR SHALL ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES, INCLUDING ALL RECENTLY INSTALLED UTILITIES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS WITH THE PLANT MATERIAL. ANY UTILITIES DAMAGED AS A RESULT OF PLANTING ACTIVITIES SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
- TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION OR LAND DISTURBANCE.
- NO CHANGES TO THE LANDSCAPE DESIGN SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT.**
- ALL PLANTS INDICATED ON PLANS SHALL BE GROWN IN CLIMATES SIMILAR TO PROJECT AREA.
- PLANT QUANTITIES ARE FOR REFERENCE ONLY.** THE CONTRACTOR IS REQUIRED TO FULFILL THE INTENT OF THE DRAWINGS. ANY DISCREPANCIES IN THE NUMBER OF PLANTS SHOWN ON THE DRAWING AND THE PLANT LIST SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER PRIOR TO SUBMITTING A BID OR BEGINNING INSTALLATION.
- ALL PLANT MATERIAL SHALL CONFORM TO OR EXCEED THE AMERICAN STANDARD FOR NURSERY STOCK (LATEST EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN. **DO NOT INSTALL DAMAGED, WILTING OR UNSOUND PLANTS.**
- IN THE EVENT THAT A PROPOSED PLANT CANNOT BE ACQUIRED, SUBSTITUTION FOR GENUS, SIZE OR SPECIES SPECIFIED SHALL ONLY BE SUBSTITUTED WITH AN EQUIVALENT PLANT WHICH MUST BE APPROVED BY THE LANDSCAPE ARCHITECT IN WRITING.
- PLANTING MAY ONLY OCCUR DURING THE FOLLOWING PERIODS: MARCH 15 - JUNE 15 AND SEPTEMBER 15 - NOVEMBER 15. EXCEPTIONS WILL BE MADE BUT MUST BE APPROVED IN WRITING PRIOR TO ANY INSTALLATION. PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING.
- A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO THE SHRUB BEDS AND MULCH AREAS PRIOR TO THE INSTALLATION OF PLANT MATERIAL. HERBICIDES TO BE APPLIED PER MANUFACTURER'S SPECIFICATIONS. **PROPOSED HERBICIDE SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO APPLICATION.**
- TOPSOIL SHALL MEET ASTM A516, HAVE A PH RANGE OF 5.5-7.0, CONTAIN A MINIMUM OF 4% ORGANIC MATERIAL, AND BE FREE OF ANY STONES OVER 7" IN ANY DIRECTION AND FREE OF DEBRIS AND NON-ORGANIC MATERIAL. A SOIL SAMPLE SHALL BE TAKEN BY THE CONTRACTOR PRIOR TO PLANTING AND SENT TO A SOIL TESTING LABORATORY APPROVED BY THE STATE DEPARTMENT OF AGRICULTURE. IF REQUIRED, SOIL AMENDMENT TYPES AND QUANTITIES TO BE SUBMITTED FOR REVIEW.**
- PRIOR TO INSTALLATION OF ANY PLANT MATERIAL, THE CONTRACTOR SHALL CONFIRM ADEQUATE DRAINAGE IN ALL PITS AND PLANT BEDS. NOTIFY THE LANDSCAPE ARCHITECT IF BEDROCK IS ENCOUNTERED OR IF PROPER DRAINAGE CANNOT BE ACHIEVED.
- PLANT TREES AND SHRUBS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING LAWNS UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
- PLANTING MIXES: PLANTING MIX FOR BACKFILLING PLANT PITS OF DECIDUOUS TREES AND SHRUBS SHALL BE IN THE PROPORTION OF FOUR PARTS BY VOLUME OF TOPSOIL AND ONE PART BY VOLUME OF PEAT MOSS PLUS ONE POUND OF 10-4 FERTILIZER PER CUBIC YARD. PLANTING MIX FOR BACKFILLING PLANT PITS OF NEEDLE EVERGREEN PLANTS SHALL BE IN THE PROPORTION OF TWO PARTS BY VOLUME OF TOPSOIL AND ONE PART BY VOLUME OF PEAT MOSS PLUS ONE POUND OF 10-4 FERTILIZER PER CUBIC YARD. ALL AMENDMENTS SHALL BE THOROUGHLY MIXED.
- REFER TO EROSION AND SEDIMENTATION CONTROL PLAN FOR LIMITS OF DISTURBANCE. ALL DISTURBED AREAS SHALL BE FINE GRADED AND SEEDED WITH PERMANENT SEED MIX UNLESS OTHERWISE NOTED ON PLANS. PRIOR TO INSTALLATION OF SOIL OR SEED, ALL LAWN AREAS SHALL RECEIVE TOPSOIL TO A DEPTH OF 4" AFTER LIGHT ROLLING. DO NOT COMPACT. THE AREAS SHALL BE DISKED AND RAKED SMOOTH TO A UNIFORM GRADE AS SHOWN ON THE GRADING PLAN.
- A 3" THICK DOUBLE SHREDDED HARDWOOD MULCH BED SHALL BE PROVIDED IN ALL AREAS CONTAINING TREES, SHRUBS AND UNDER BUILDING OVERHANGS.
- PLANT IDENTIFICATION TAGS SHALL BE LEFT ON UNTIL INSTALLED PLANTINGS ARE INSPECTED BY THE LANDSCAPE ARCHITECT. ALL TAGS SHALL BE REMOVED AFTER APPROVAL.
- WARRANTY PERIOD FOR TREES AND SHRUBS IS ONE YEAR. WARRANTY PERIOD FOR GROUNDCOVER, LAWNS, GRASSES AND PERENNIALS IS 6 MONTHS. WARRANTY PERIOD FOR REPLACEMENTS SHALL BE EQUAL TO THE ORIGINAL WARRANTY PERIOD.
- A SATISFACTORY LAWN IS DEFINED AS A HEALTHY, UNIFORM GLASS STAND OF GRASS FREE OF WEEDS AND BRICE. IRREGULARITIES WITH COVERAGE EXCEEDING 90% OVER 10 SQUARE FEET WITH NO BARE SPOTS EXCEEDING A 5'x5' SQUARE.
- REFER TO LANDSCAPE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION PERTAINING TO INSTALLATION OF LANDSCAPE INCLUDING BUT NOT LIMITED TO MULCHING, STAKING AND SETTING SPACING OF PLANTS.

SOUTH FAYETTE TOWNSHIP LANDSCAPE REQUIREMENTS:

- §240-98 J (4) BUFFER AREAS AND LANDSCAPING**
IN ANY NONRESIDENTIAL DEVELOPMENT, DECIDUOUS TREES SHALL BE PLANTED IN ACCORDANCE OF THE FOLLOWING SCHEDULE. THESE TREES SHALL BE IN ADDITION TO THE TREES PROVIDED IN ANY REQUIRED BUFFER OR PARKING AREA.

BUILDING FOOTPRINT	REQUIREMENT
30,001 - 75,000 ft^2	A MINIMUM OF 30 TREES PLUS 1 TREE FOR EACH 3,000 ft^2 OF BUILDING FOOTPRINT IN EXCESS OF 30,000 ft^2
45,126 ft^2 BUILDING:	35 TREES REQUIRED 35 TREES PROVIDED + 16 ADDITIONAL TREES

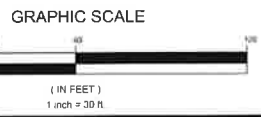
THE TREES SHALL BE PLANTED IN CLUSTERS ON THE SITE AND SHALL BE DISTRIBUTED THROUGHOUT THE SITE TO ENHANCE THE OPEN SPACE.
- §240-98 J (6)**
ALL TREES WHICH ARE REQUIRED TO BE PLANTED AS PER THE REGULATIONS OF THIS SUBSECTION J SHALL BE A MINIMUM OF TWO INCHES IN DIAMETER AT A POINT ONE FOOT ABOVE THE GROUND AT THE TIME OF PLANTING MEASURED ALONG THE TRUNK OF A PLANTED TREE, WHICH THE TREE SHALL BE PLANTED IN ACCORDANCE WITH ACCEPTED CONSERVATION PRACTICES.
PROVIDED

PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONDITION	SIZE
	27	Acer rubrum 'Franksred' / Red Sunburst Maple	BAB	2" CAL.
	8	Cercis canadensis / Eastern Redbud	BAB	2" CAL.
	1	Crataegus viridis 'Winter King' / Winter King Hawthorn	BAB	2" CAL.
	14	Quercus alba / White Oak	BAB	2" CAL.
	15	Ilex glabra 'Shamrock' / Shamrock Holly	BAB	2" CAL.
	45	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	#2 Cont.	18" HL.
	39	Cornus sericea 'SMNCSBD' / Arctic Fire® Yellow Dogwood	#5 Cont.	30" HT.
	115	Ilex glabra 'Shamrock' / Shamrock Holly	#5 Cont.	30" HT.
	15	Pennisetum alopecuroides 'Hameln' / Hameln Fountain Grass	#2 Cont.	
	21	Echinacea purpurea 'Snow Cone' / Snow Cone Purple Coneflower	1 gill	16" o.c.
	2,661	Liriope muscari 'Royal Purple' / Royal Purple Liriyup	1 gill	12" o.c.
	66	Rudbeckia fulgida / Coneflower	1 gill	16" o.c.

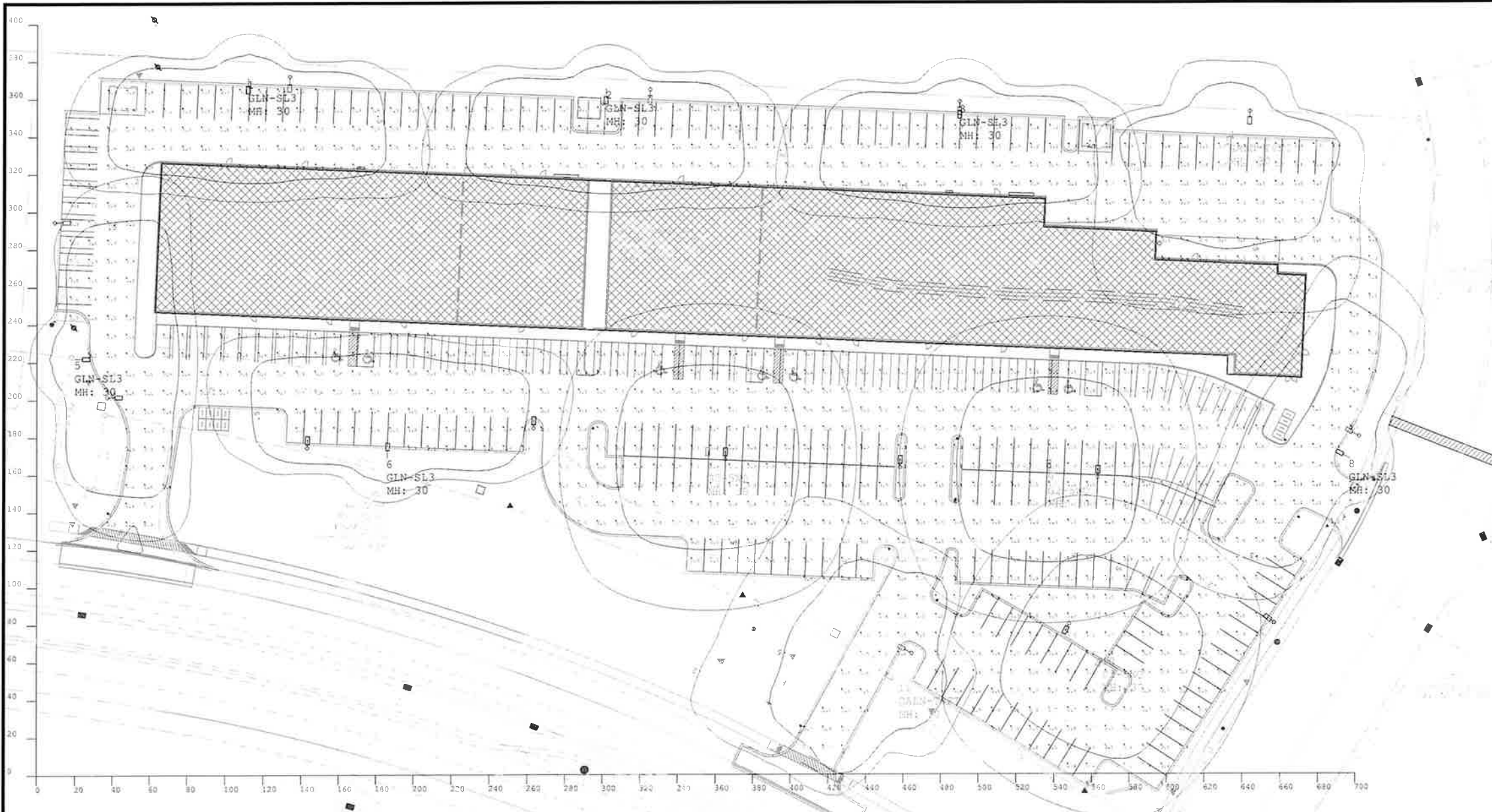


Know what's below.
Call before you dig.
Serial No. 20231760058



LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF LP
295 MYONAR ROAD
IMARS, PA 16048

LANDSCAPE PLAN
Project Number: C-12199-0025
Drawing Scale: 1" = 30'
Date Issued: AUG 2025
Issue Number: 1
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
L100



Symbol	Qty	Label	Arrangement	Description	LLF	Luminaire Lumens	Luminaire Watts	Total Watts
	3	G2-5WQ	Single	GALN-SA2C-740-U-5WQ	0.912	14797	108	324
	2	GALN-T4FT	Single	GALN-SA2C-740-U-T4FT	0.912	14107	108	216
	6	GLN-SL3	Single	GALN-SA2C-740-U-SL3	0.912	14013	108	648

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Parking Lot	Illuminance	Fc	0.79	3.4	0.2	3.95	17.00

RP-8-21 Recommended Maintained Illuminance Values
Parking Lots (basic requirements, not for security lighting)

Application and Use	Grid Size	Description	Target Illuminance (fc)	Target Illuminance (Lux)	Recommended Luminaire Spacing
All Parking Lots	0 Grids	Open Parking Facilities Type Four of Parking Garage All Activity Levels	0.30 FC @ 0.4'	0.30 FC @ 0.4'	30'
Drive Aides Parking Areas	0 Grids	Open Parking Facilities All Activity Levels	0.30 FC @ 0.4'	0.30 FC @ 0.4'	30'
Transaction Areas Pedestrian & Vehicle	0 Grids	Areas surrounding 1/2 hour lapped transaction area in all directions or curbs, periphery, bins, or structure	0.30 FC Min - Post-curve 0.20 FC Min - Post-curve	0.30 FC Min - Post-curve 0.20 FC Min - Post-curve	15'
Transaction Machines General Areas	Varies	Vertical illuminance over entire front face of any machines. Coordinate with any machine lighting requirements.	0.30 FC Min - Post-curve 0.20 FC Min - Post-curve	0.30 FC Min - Post-curve 0.20 FC Min - Post-curve	15'

LumNo	Label	Insertion Point			Orient
		X	Y	Z	
1	GLN-SL3	112	371	30	268.452
2	GLN-SL3	302	365	30	268.452
3	GLN-SL3	490	357	30	268.452
4	GALN-T4FT	633	343	30	268.409
5	GLN-SL3	20	222	30	0
6	GLN-SL3	186	169	30	87.436
7	G2-5WQ	356	168	30	90
8	GLN-SL3	697	168	30	151.699
9	G2-5WQ	537	161	30	90
10	G2-5WQ	566	63	30	242.103
11	GALN-T4FT	458	49	30	151.858

Applications, tasks or viewing specific encountered on any given project may be different than these and may necessitate different criteria.
Table 17.2 RP-8-21

Date	No	Revision
2025-11-11	01	WPP Updates
2025-12-16	02	ACCD TECHNICAL APDES RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARKS, PA 16046

LIGHTING PLAN
Project Number: C-12199-0025
Drawing Scale: 1" = 30'
Date Issued: AUG 2025
Index Number: --
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG
L200



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 User: MCL/RRR
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 Plot Range: All
 Plot Color: Black
 Plot Lineweight: 0.20
 Plot Font: Arial, 10
 Plot Background: None
 Plot Title: LAFAYETTE 180
 Plot Subtitle: NEWBURY DRIVE
 Plot Author: MCL/RRR
 Plot Date: 11/11/2025 1:28 AM
 Plot User: MCL/RRR
 Plot Printer: HP DesignJet T1100e
 Plot Plotter: HP DesignJet T1100e
 Plot Status: Success



REVISION RECORD

Date	No.	Description
2025-11-11	01	MPP Updates
2025-12-16	02	ACCD TECHNICAL INFOS RESPONSE
2026-01-14	03	TOWNSHIP SUBMISSION
	04	
	05	
	06	
	07	
	08	

LAFAYETTE 180
NEWBURY DRIVE
CUDDY, PA 15031
PREPARED FOR:
CE - SF, LP
295 MYOMA ROAD
MARS, PA 16846

LIGHTING DETAIL

Project Number: C-12199-0025
Drawing Scale: N/A
Date Issued: AUG 2025
Index Number:
Drawn By: MCL/RRR
Checked By: JMG
Project Manager: JMG

L201

McGraw-Edison GALN Galleon II

Area / Site Luminaire

Product Features

- Interactive Menu
 - Ordering Information
 - Mounting Details
 - Optical Distributions
 - Product Specifications
 - Energy and Performance Data
 - Control Options
- Quick Facts
 - Lumen packages range from 3,300 - 73,500 (33W - 552W)
 - 17 optical distributions
 - Efficiency up to 159 lumens per watt
- Connected Systems
 - WaveLux Lite
 - WaveLine

Product Certifications

Dimensions

Lighting Diagrams

McGraw-Edison GALN Galleon II

Mounting Details

Pole Configuration Options

Pole Drilling Patterns

Type 'N'

Type 'M'

Quick Mount Universal Arm (QU)

Quick Mount Mast Arm (QMA)

Pole Mount Arm with Quick Mount Adapter (QMA)

Mast Arm, Fixed (MA)

Wall Mount, Fixed (WA)

Street Arm (SA)

McGraw-Edison GALN Galleon II

Mounting Details

Wall Mount, Adjustable (WA)

Adjustable Arm Range of Motion

- Includes SP (SP) and PS (PS) mounting options
- Adjustable in increments of 5°
- Must be installed at the factory

2" Slighter, Adjustable (SP)

2-1/2" Slighter, Adjustable (SP)

Pole Mount, Adjustable Arm (PA)

Fiber Weights and BPA's

Wattage	Fiber Weight	BPA's
3.3	33.0 (11.7 ft)	0.55
6.6	66.0 (23.4 ft)	1.10
10.0	100.0 (35.1 ft)	1.65
13.3	133.0 (46.8 ft)	2.20
16.7	166.7 (58.5 ft)	2.75
20.0	200.0 (70.2 ft)	3.30
23.3	233.0 (81.9 ft)	3.85
26.7	266.7 (93.6 ft)	4.40
30.0	300.0 (105.3 ft)	4.95
33.3	333.0 (117.0 ft)	5.50
36.7	366.7 (128.7 ft)	6.05
40.0	400.0 (140.4 ft)	6.60
43.3	433.0 (152.1 ft)	7.15
46.7	466.7 (163.8 ft)	7.70
50.0	500.0 (175.5 ft)	8.25

McGraw-Edison GALN Galleon II

Optical Distributions

Product Specifications

Construction

- Die-cast aluminum housing and top cap
- Thru-housing seal, rated to 300 mmHg

Optics

- High efficiency injection molded Acrylic LED Optical Lens
- 17 beam distributions for area and roadway
- All sizes suitable for round or square pole installation
- 3 lighting options include ISS, GBS and PS
- ISA certified (IP66) and some only level mounting option

Electrical

- Removable power entry assembly enclosure covers, easy to install and covers recesses for ease of maintenance and serviceability
- Standard with 10W control
- Standard with 18W surge module, optional 20W surge module

Typical Applications

- Outdoor Lighting: Lot, Warehouse, Roadways, Backyard Area
- Five year limited warranty

Energy and Performance Data

Lumen Maintenance Data

Temp (°C)	L90 (%)	L80 (%)	L70 (%)	Hours to 50% (hrs)
25°C	98.4%	99.2%	98.5%	> 2,000
40°C	98.7%	98.9%	97.4%	> 1,000
50°C	99.2%	97.2%	96.6%	> 851,000
35°C	99.4%	99.0%	98.2%	> 2,000
40°C	99.6%	97.9%	98.7%	> 1,200

McGraw-Edison GALN Galleon II

Control Options

WaveLux Lite and WaveLine

WaveLux Lite

WaveLine

Dimensions

Lighting Diagrams

Energy and Performance Data

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3D View 1
SCALE:



3D View 2
SCALE:



FRONT 3D VIEW 3
SCALE:



3D View 4
SCALE:



3D View 5
SCALE:



3D View 6
SCALE:



Project: New Retail Plaza - Shell Construction
LAFAYETTE 180
180 Miller's Run Road
(Bridgeville 15017)
South Fayette Township, PA

Title: 3D Perspective

No. 2025-15
Date: 12/19/2025
Revised:

A900



323 North Shore Drive
Suite 300
Pittsburgh, PA 15212

Ph: (412) 921 - 3303

January 14, 2026

Mr. John M. Barrett
Township Manager
South Fayette Township
100 Township Drive
South Fayette, PA 15017

Reference: TIS Addendum for the Proposed Retail Development in South Fayette Township, Allegheny County, PA (ePS No. 323385)

Dear Mr. Barrett:

David E. Wooster and Associates, LLC (Wooster) prepared a Transportation Impact Study (TIS) dated November 28, 2023 for a proposed retail development located on the northwest corner of the intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive in South Fayette Township, Allegheny County, Pennsylvania. By way of correspondence dated December 28, 2023, PennDOT Engineering District 11-0 (PennDOT) approved the TIS, which contemplated the construction of ~45,126 SF of retail space. Access to the site was (and is still) proposed to consist of three (3) site accesses:

- Two (2) right-in / right-out access site drives (Site Drives A and B) along the northern side of Millers Run Road (SR 0050).
- One (1) full access site drive (Site Drive C) along the western side of Newbury Drive.

Since that time, the applicant has modified the plan to include an additional ~13,000 SF of second-story office and warehousing/storage space. The overall building footprint and access to the site has not changed.

As such, the purpose of this correspondence is to demonstrate that the site plan change will not impact the results, findings, or conclusions of the approved TIS.

APPROVED STUDY CONDITIONS

The approved daily trips (ADT), morning (AM), evening (PM), and Saturday midday (SAT) peak hour trips associated with the ~45,126 SF of retail space are summarized in **Table 1** below. The data utilized to populate Table 1 is taken directly from Table 2 of the approved *Transportation Impact Study for the Proposed Retail Development* dated November 28, 2023 (2023 TIS) and is based on the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 11th Edition:

Table 1
Trip Generation Summary
Approved 2023 TIS Trips

TIME PERIOD	ANTICIPATED TRIP GENERATION		
	IN	OUT	TOTAL
LUC #821 – Shopping Plaza (40-150k) without Supermarket – 45,126 SF			
ADT	1,524	1,524	3,048
AM Peak Hour	48	30	78
PM Peak Hour	115	119	234
SAT Peak Hour	131	120	251

PROPOSED CONDITIONS

To evaluate traffic impacts associated with the site plan modification, Wooster utilized the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 12th Edition to re-evaluate the total trip generation potential of the site, as currently proposed. Specifically, Land Use Codes (LUCs) #821 – *40-150k Shopping Center without Supermarket*, #150 – *Warehouse*, and #710 – *General Office Building* were utilized. These trips are summarized in **Table 2** on the following page.

A copy of the trip generation calculations utilized to populate Table 2 can be found in the enclosures section at the end of this correspondence.

Table 2
Trip Generation Summary
Current Site Plan (2026)

TIME PERIOD	ANTICIPATED TRIP GENERATION		
	IN	OUT	TOTAL
LUC #821 – Shopping Plaza (40-150k) without Supermarket – 46,046 SF			
ADT	1,506	1,506	3,012
AM Peak Hour	45	28	73
PM Peak Hour	107	112	219
SAT Peak Hour	122	113	235
LUC #150 – Warehouse – 4,000 SF			
ADT	3	3	6
AM Peak Hour	0	0	0
PM Peak Hour	0	1	1
SAT Peak Hour	0	0	0
LUC #710 – General Office Building – 8,374 SF			
ADT	33	33	66
AM Peak Hour	9	1	10
PM Peak Hour	2	8	10
SAT Peak Hour	4	3	7
TOTAL			
ADT	1,542	1,542	3,084
AM Peak Hour	54	29	83
PM Peak Hour	109	121	230
SAT Peak Hour	126	116	242

TRIP GENERATION COMPARISON

Table 3 below depicts the net change in site-generated trips associated with the proposed site plan change.¹

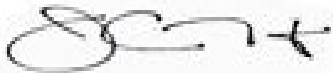
Table 3
Trip Generation Comparison

TIME PERIOD	ANTICIPATED TRIP GENERATION		
	IN	OUT	TOTAL
ADT	+18	+18	+36
AM Peak Hour	+6	-1	+5
PM Peak Hour	-6	+2	-4
SAT Peak Hour	-5	-4	-9

As demonstrated in the table, the change in projected daily and peak hour trips associated with the site plan change is *de minimis* and will therefore have no impact on the results, findings, or conclusions of the 2023 TIS.²

We trust that this correspondence has been submitted in the proper form. If you have any questions or require additional information, please feel free to contact me.

Sincerely,



Joshua A. Haydo, P.E., PTOE
Senior Traffic Engineer / Deputy COO

Enclosures: ITE Trip Generation Calculations

W:\4392 011426 TIS Addendum

¹ Trips depicted in Table 3 were derived by subtracting the approved TIS trips (Table 1) from the trips associated with the current plan (Table 2).

² Despite the increase in overall square footage, some analysis periods experience a *decrease* in projected site-generated trips. This is due to modifications to various trip generation rates in the 12th Edition of the ITE *Trip Generation Manual* (the 2023 TIS utilized the 11th Edition, which was the current version of the manual at that time).

Shopping Plaza (40-150k) - Supermarket - No (821)

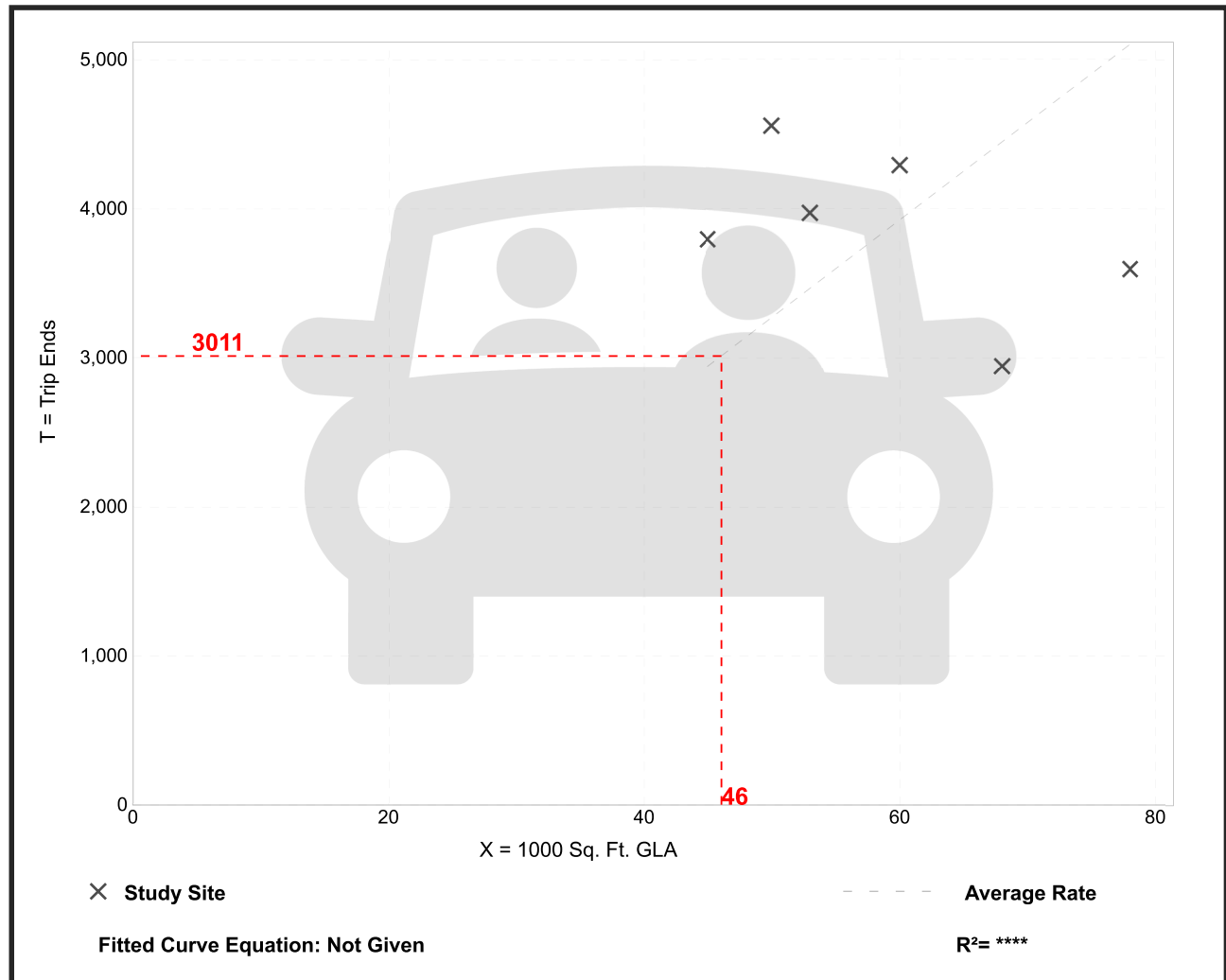
Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 6
Avg. 1000 Sq. Ft. GLA: 59
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
65.38	43.29 - 91.06	20.03

Data Plot and Equation



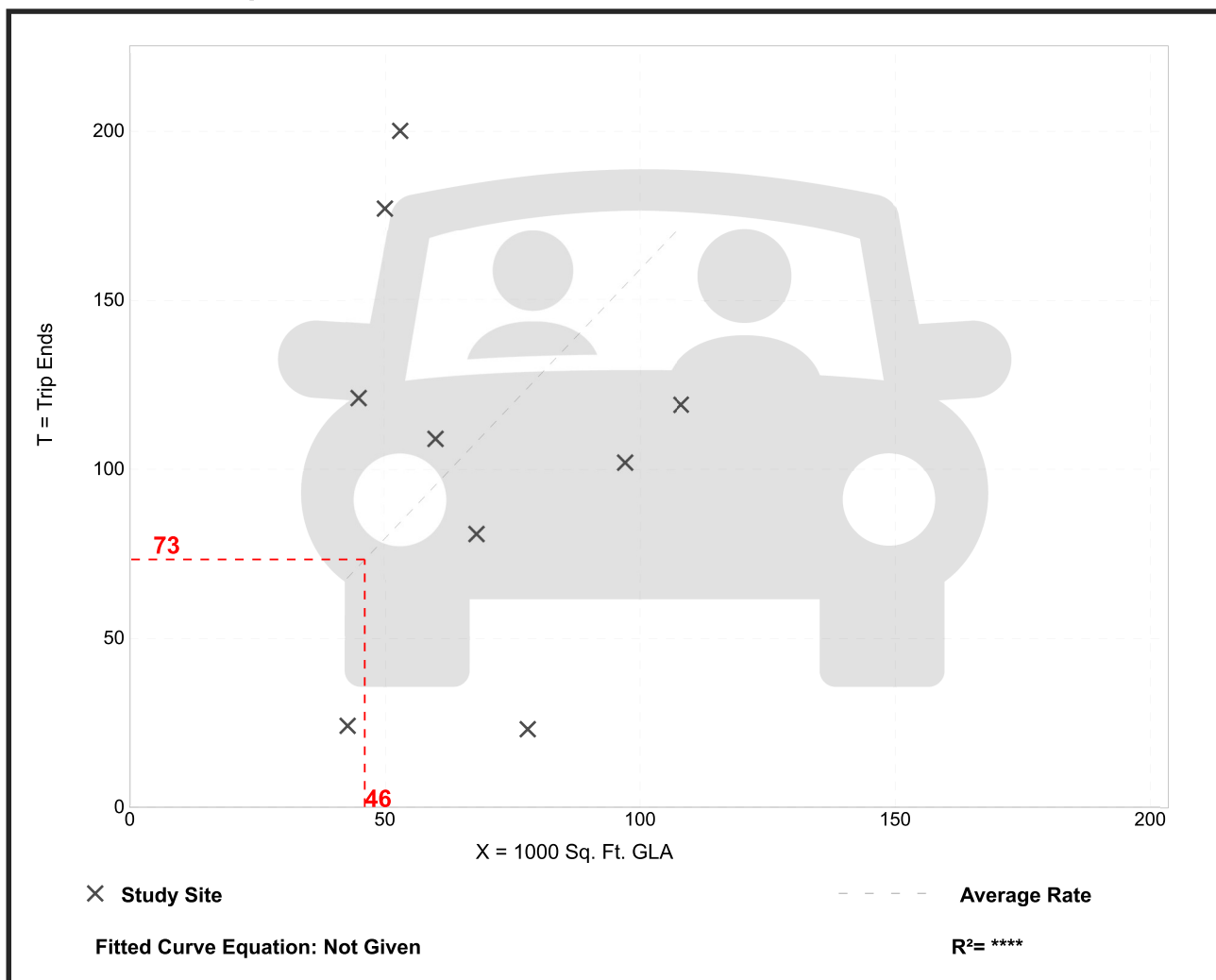
Shopping Plaza (40-150k) - Supermarket - No (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 9
 Avg. 1000 Sq. Ft. GLA: 67
 Directional Distribution: 62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
1.59	0.29 - 3.77	1.18

Data Plot and Equation



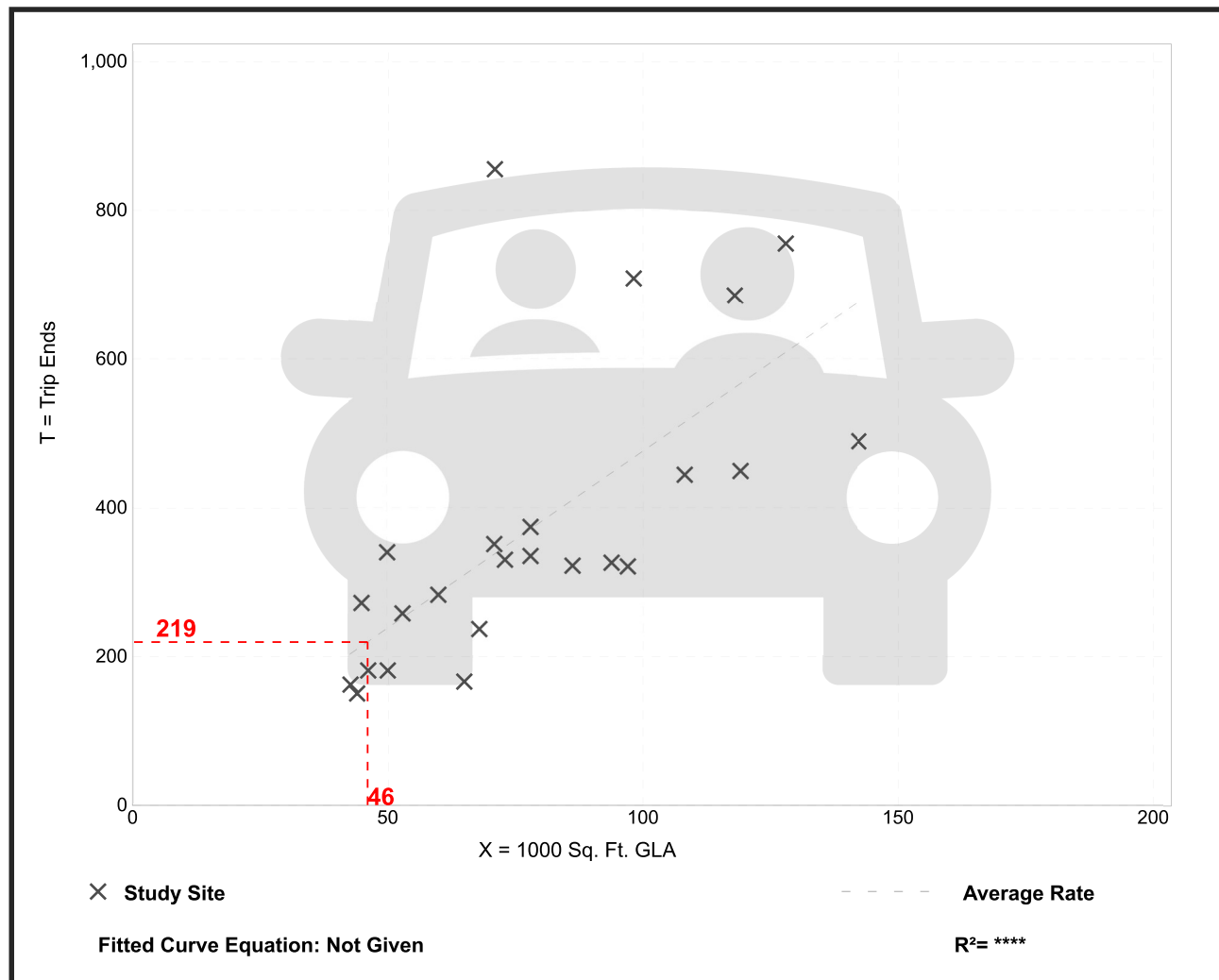
Shopping Plaza (40-150k) - Supermarket - No (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 4 and 6 p.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 24
 Avg. 1000 Sq. Ft. GLA: 79
 Directional Distribution: 49% entering, 51% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.76	2.55 - 12.04	1.89

Data Plot and Equation



Shopping Plaza (40-150k) - Supermarket - No (821)

Vehicle Trip Ends vs: 1000 Sq. Ft. GLA
 On a: Saturday, Peak Hour of Generator

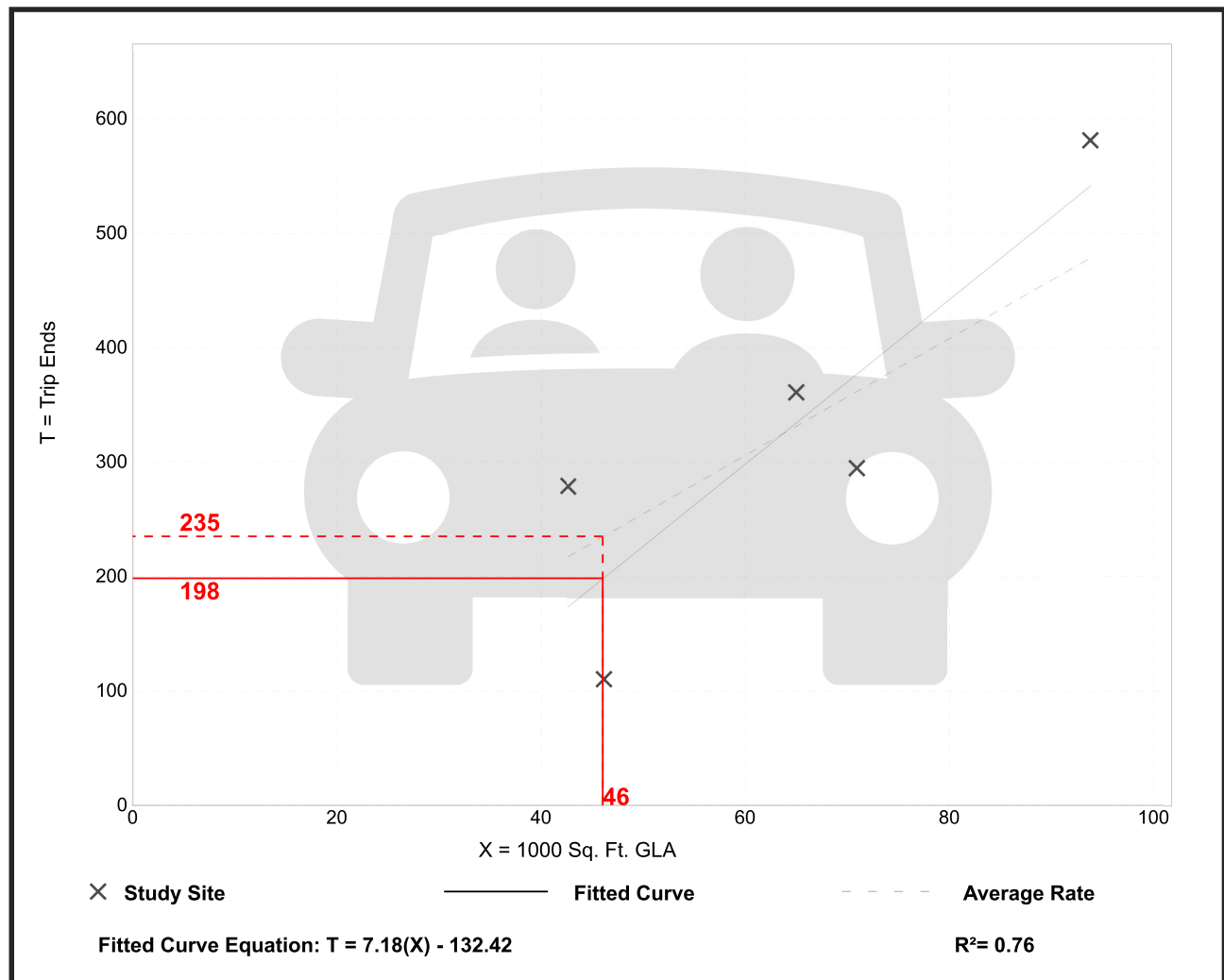
Setting/Location: General Urban/Suburban
 Number of Studies: 5
 Avg. 1000 Sq. Ft. GLA: 64
 Directional Distribution: 52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
5.10	2.38 - 6.53	1.56

Data Plot and Equation

Caution – Small Sample Size



Warehouse (150)

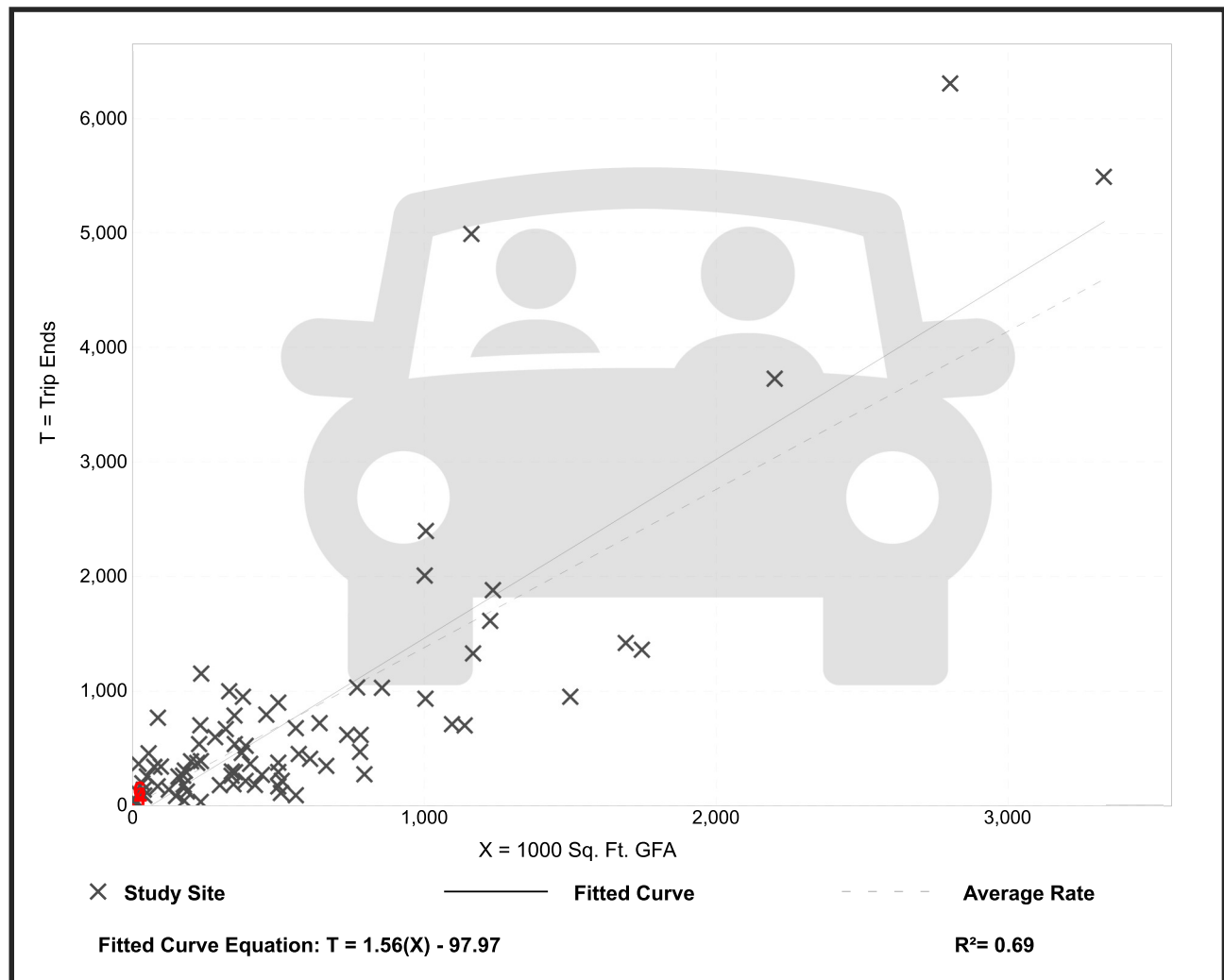
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 81
Avg. 1000 Sq. Ft. GFA: 554
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.38	0.15 - 16.93	1.05

Data Plot and Equation



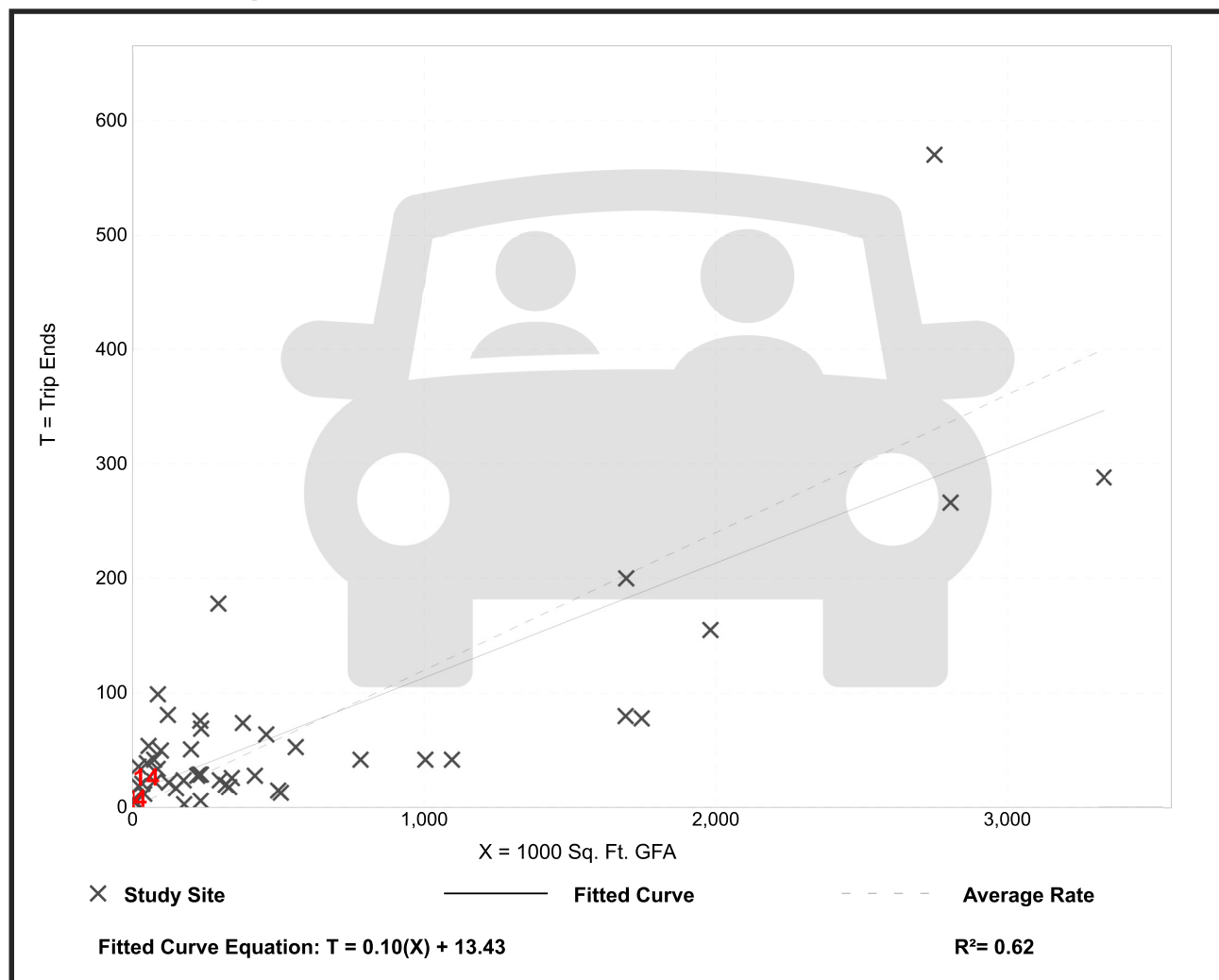
Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 47
 Avg. 1000 Sq. Ft. GFA: 559
 Directional Distribution: 77% entering, 23% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.12	0.02 - 1.80	0.14

Data Plot and Equation



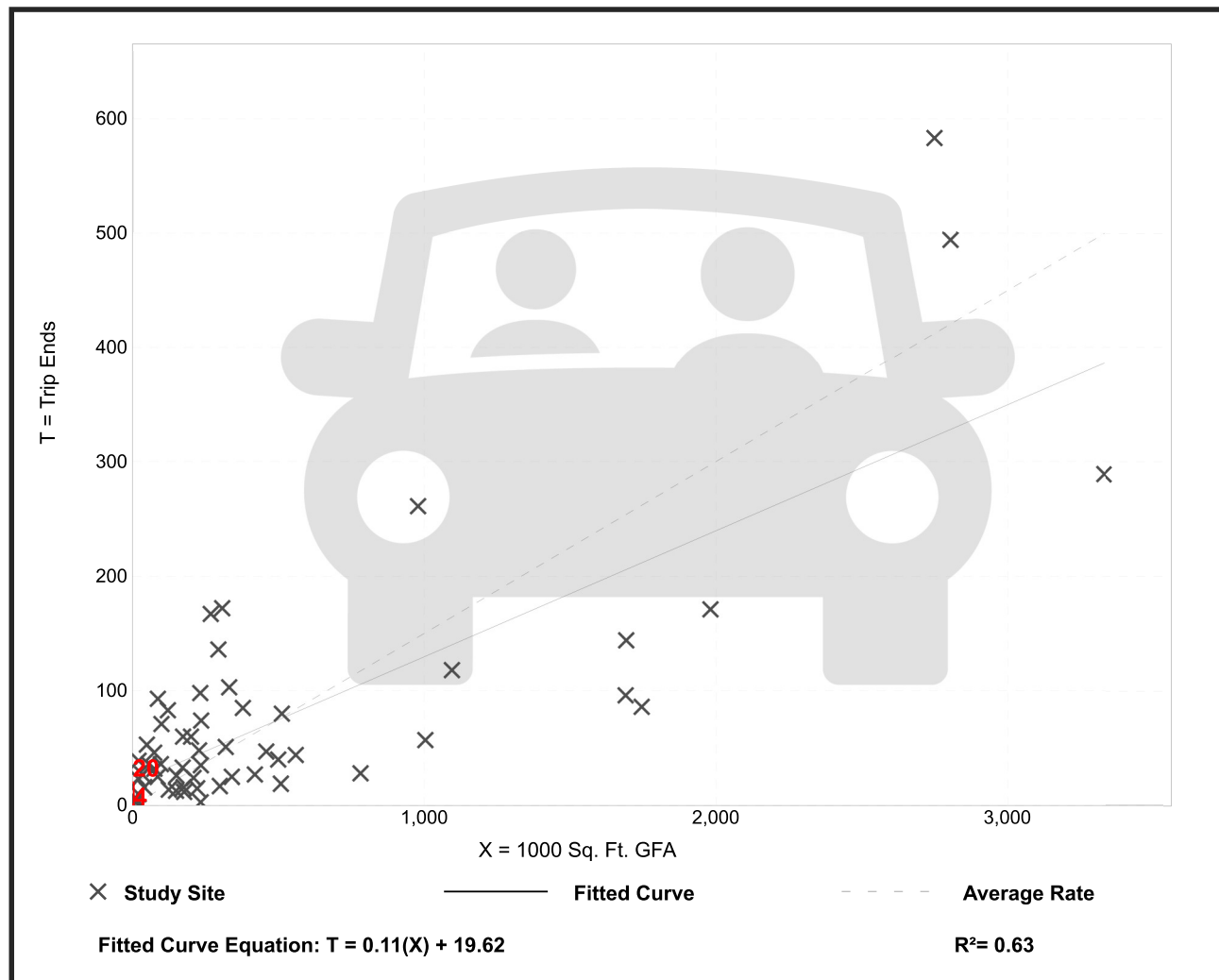
Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 58
 Avg. 1000 Sq. Ft. GFA: 503
 Directional Distribution: 28% entering, 72% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.01 - 1.80	0.15

Data Plot and Equation



Warehouse (150)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

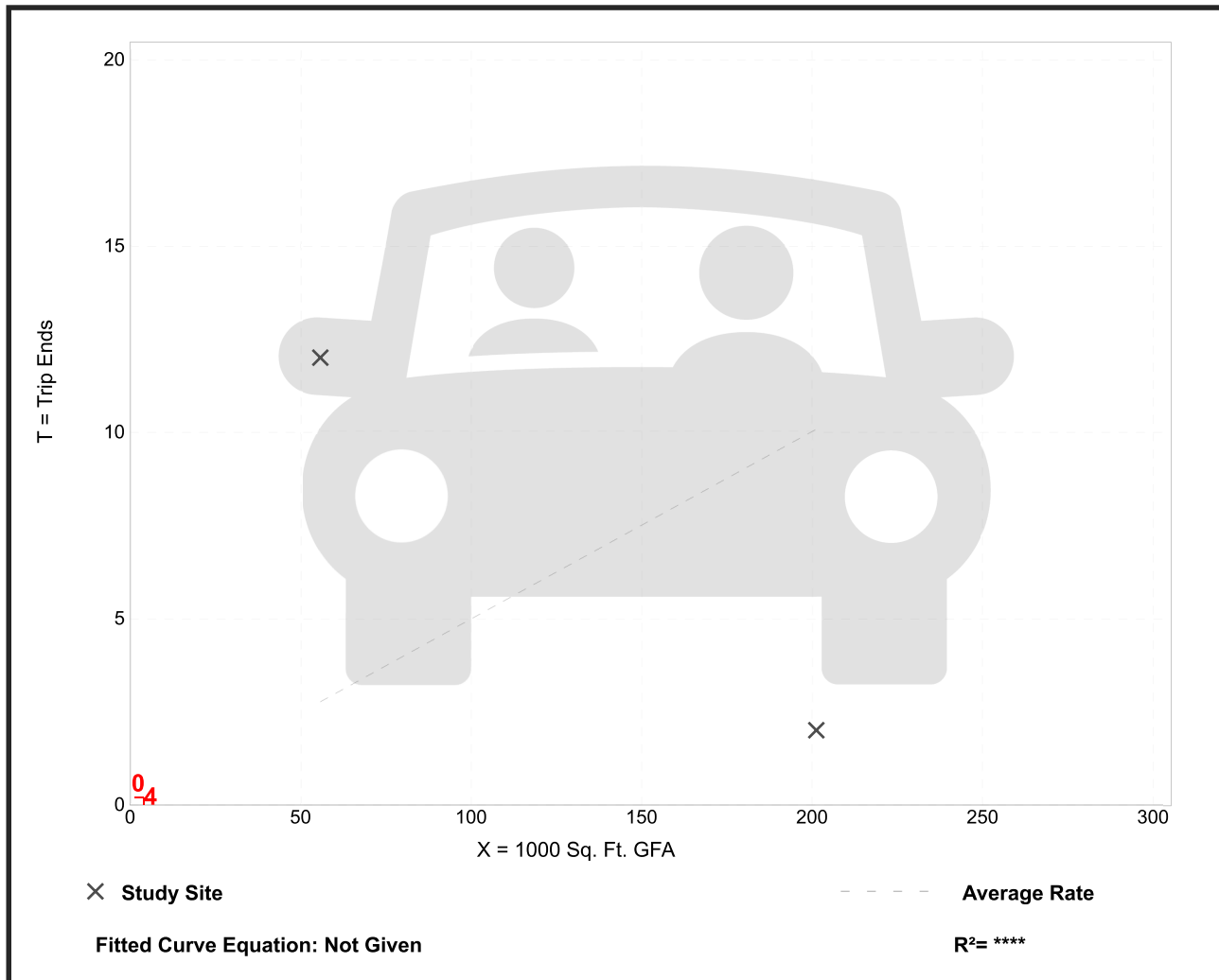
Setting/Location: General Urban/Suburban
 Number of Studies: 2
 Avg. 1000 Sq. Ft. GFA: 129
 Directional Distribution: 64% entering, 36% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.05	0.01 - 0.22	*

Data Plot and Equation

Caution – Small Sample Size



General Office Building (710)

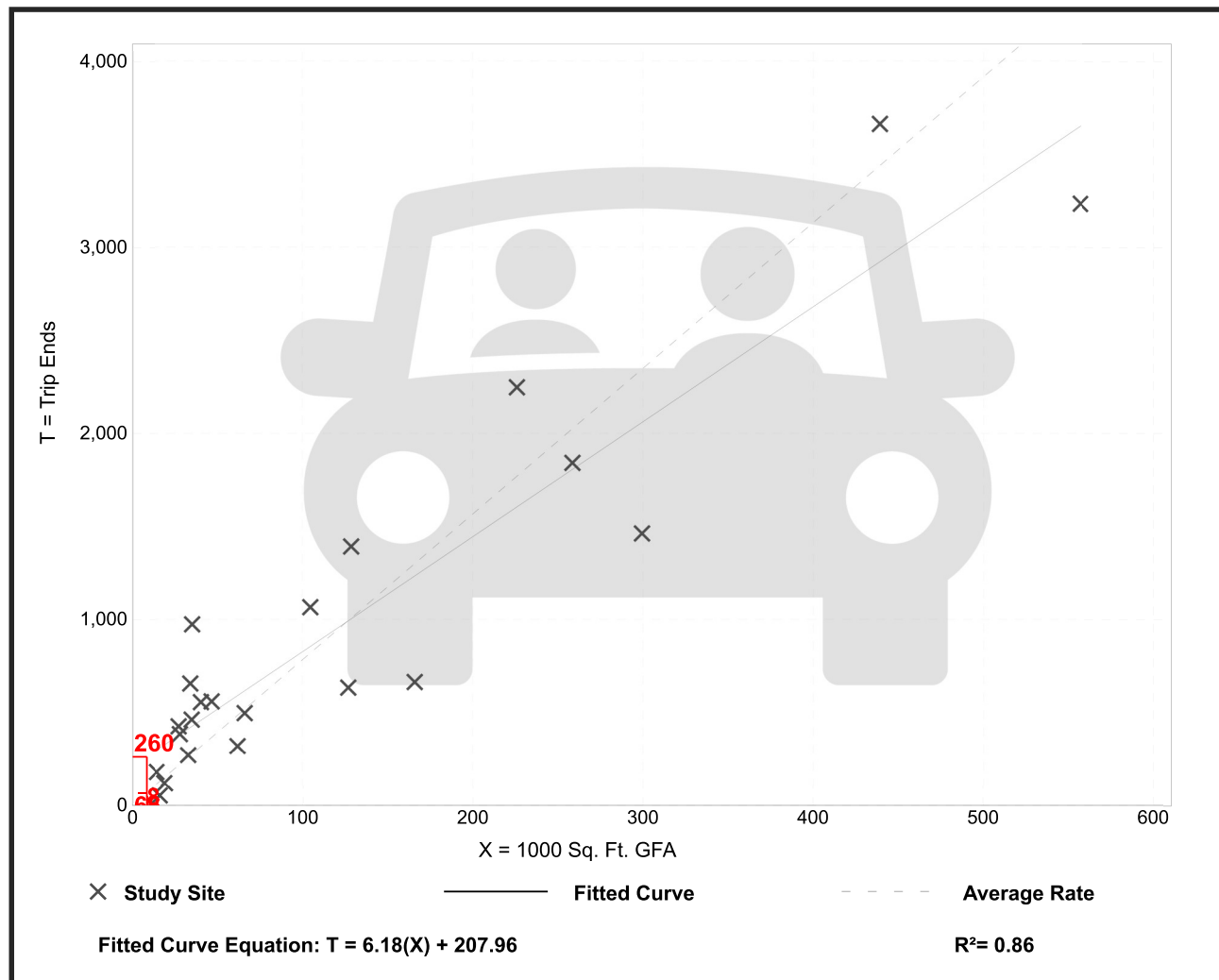
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 22
Avg. 1000 Sq. Ft. GFA: 126
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.83	3.27 - 27.56	3.71

Data Plot and Equation



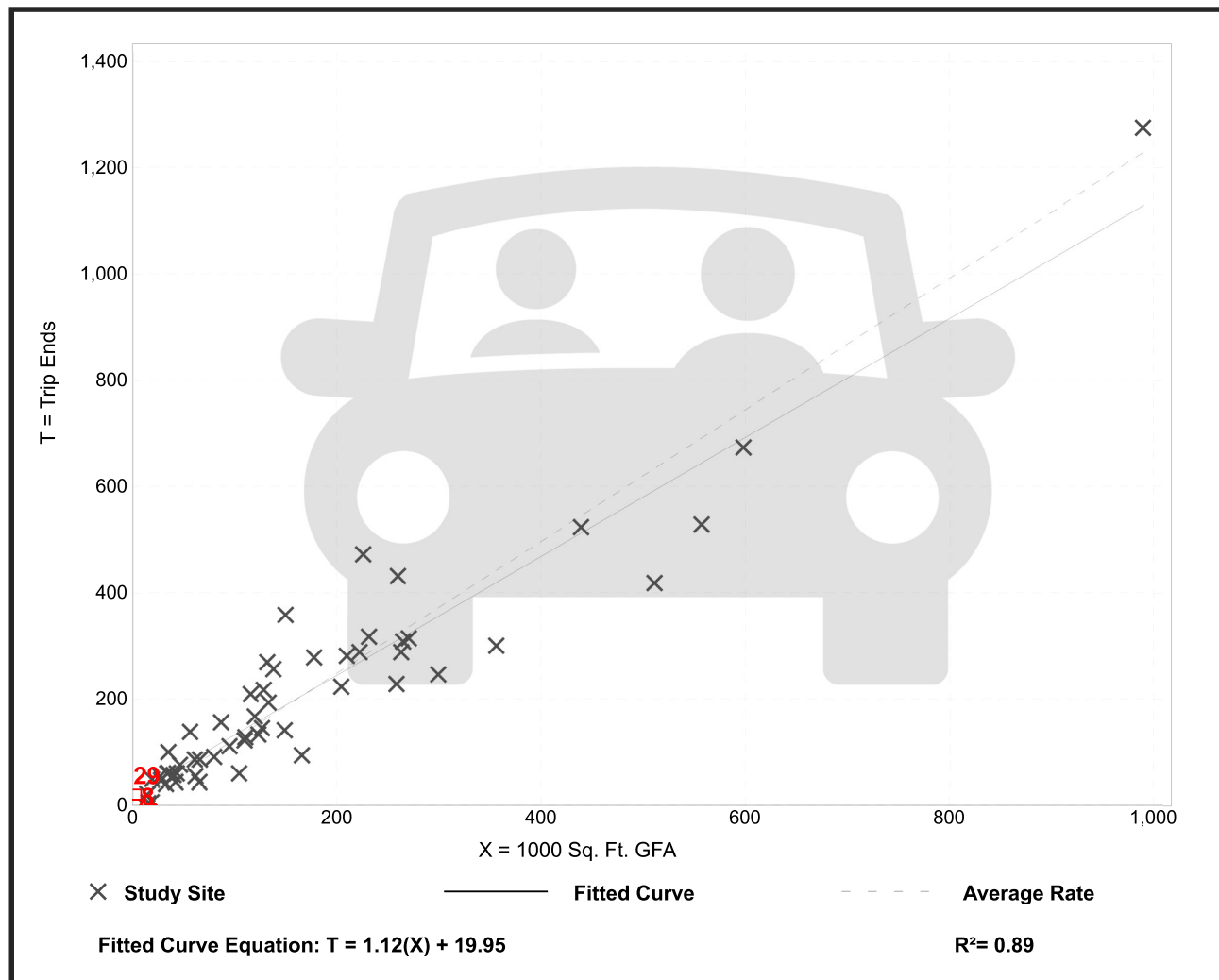
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 54
 Avg. 1000 Sq. Ft. GFA: 170
 Directional Distribution: 88% entering, 12% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.24	0.32 - 2.83	0.40

Data Plot and Equation



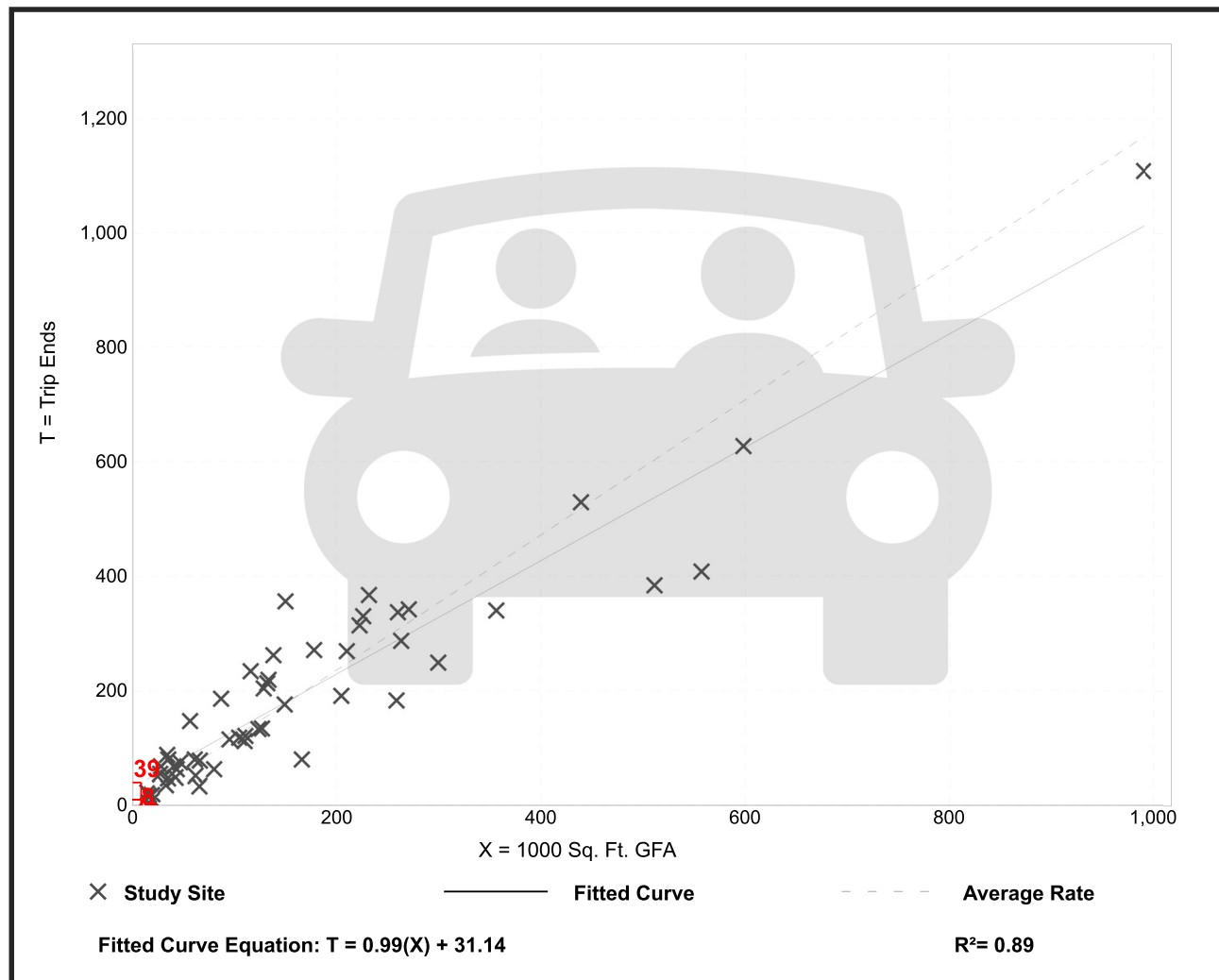
General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 53
 Avg. 1000 Sq. Ft. GFA: 166
 Directional Distribution: 16% entering, 84% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.18	0.26 - 2.59	0.41

Data Plot and Equation



General Office Building (710)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

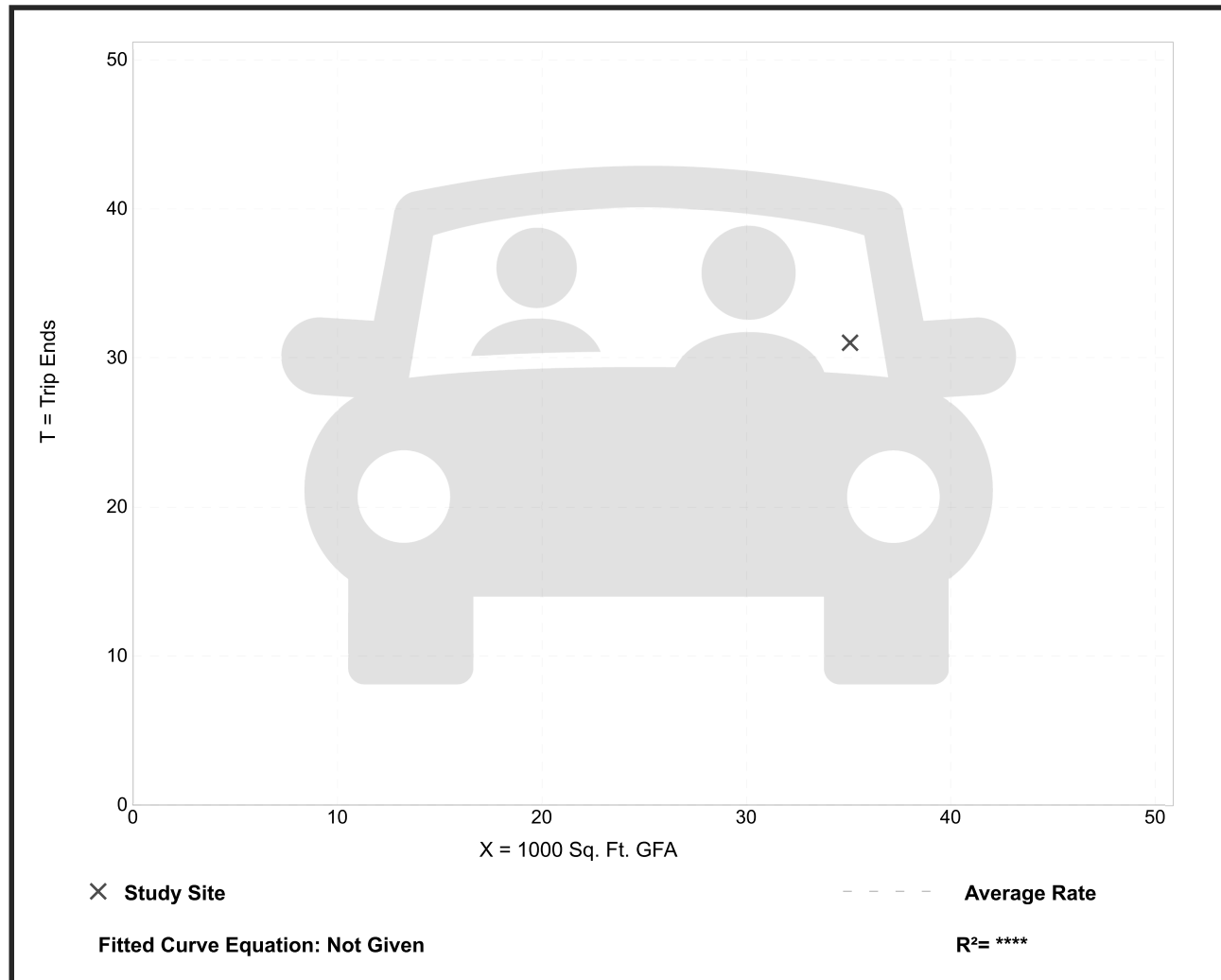
Setting/Location: General Urban/Suburban
 Number of Studies: 1
 Avg. 1000 Sq. Ft. GFA: 35
 Directional Distribution: 54% entering, 46% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.88	0.88 - 0.88	*

Data Plot and Equation

Caution – Small Sample Size



**TRANSPORTATION
IMPACT STUDY**

for the proposed

**RETAIL
DEVELOPMENT**

South Fayette Township, Allegheny County, Pennsylvania

October 17, 2023

TRANSPORTATION IMPACT STUDY

for the proposed

RETAIL DEVELOPMENT

South Fayette Township, Allegheny County, PA

October 17, 2023

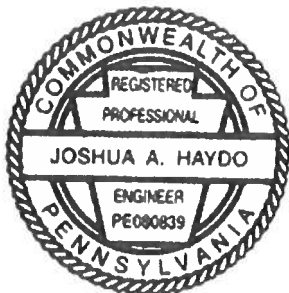
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Two East Crafton Avenue
Pittsburgh, PA 15205

Project Engineer(s): Jesse Nelson & Suleiman A. Swai, P.E.

Supervising Engineer: Joshua A. Haydo, P.E., PTOE

Seal



JCH

10/17/23

Date

TABLES

Table 1 – Level-of-Service Summaries

- 1A – Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive
- 1B – Newbury Drive with Plaza Access / Site Drive C
- 1C – Millers Run Road (SR 0050) with Site Drive A
- 1D – Millers Run Road (SR 0050) with Site Drive B

Table 2 – Trip Generation Summary

Table 3 – Queuing Summaries

- 3A – Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive
- 3B – Newbury Drive with Plaza Access / Site Drive C
- 3C – Millers Run Road (SR 0050) with Site Drive A
- 3D – Millers Run Road (SR 0050) with Site Drive B

FIGURES

Figure 1 – Site Location Graphic

Figure 2 – Preliminary Site Plan

Figure 3a – Existing Year 2023 Condition Peak Hour Traffic Volumes

Figure 3b – Existing Year 2023 Condition Peak Hour LOS

Figure 4 – Opening Year 2024 Base Condition Peak Hour Volumes

Figure 5 – Design Year 2029 Base Condition Peak Hour Volumes

Figure 6a – Primary Trip Distribution Percentages (The Piazza Retail Development)

Figure 6b – Primary Trips (The Piazza Retail Development)

Figure 7a – Pass-By Trip Distribution Percentages (The Piazza Retail Development)

Figure 7b – Pass-By Trips (The Piazza Retail Development)

Figure 8a – Primary Trip Distribution Percentages (South Fayette Commons Development)

Figure 8b – Primary Trips (South Fayette Commons Development)

Figure 9a – Primary Trip Distribution Percentages (Newbury: Cigar Lounge, Bar & Restaurant Development)

Figure 9b – Primary Trips (Newbury: Cigar Lounge, Bar & Restaurant Development)

Figure 10 – Total Background Trips

Figure 11a – Opening Year 2024 Without Development Condition Peak Hour Volumes

Figure 11b – Opening Year 2024 Without Development Condition Peak Hour LOS

Figure 12a – Design Year 2029 Without Development Condition Peak Hour Volumes

Figure 12b – Design Year 2029 Without Development Condition Peak Hour LOS

Figure 13a – Primary Trip Distribution Percentages

Figure 13b – Site-Generated Primary Trips

Figure 14 – Intersection Distribution Percentages

Figure 15a – Pass-By Trip Distribution Percentages (from North)

Figure 15b – Pass-By Trip Distribution Percentages (from South)

Figure 15c – Pass-By Trip Distribution Percentages (from East)

Figure 15d – Pass-By Trip Distribution Percentages (from West)

Figure 16a – Pass-By Trip Distribution Percentages (Total)

Figure 16b – Site-Generated Pass-By Trips

Figure 17 – Total Site-Generated Trips

Figure 18a – Opening Year 2024 With Development Condition Peak Hour Volumes

Figure 18b – Opening Year 2024 With Development Condition Peak Hour LOS

Figure 19a – Design Year 2029 With Development Condition Peak Hour Volumes

Figure 19b – Design Year 2029 With Development Condition Peak Hour LOS

APPENDICES

- A. TIS Scoping Checklist
- B. Turning Movement Count Data
- C. Photo Log of Existing Study Intersections
- D. Traffic Signal Permit Plans
- E. Level of Service (LOS) Criteria Summary
- F. Synchro Printouts – *Existing Year 2023 Condition*
- G. HCM Printouts – *Existing Year 2023 Condition*
- H. Source Data for Background Developments
- I. Synchro Printouts – *Opening Year 2024 Without Development Condition*
- J. HCM Printouts – *Opening Year 2024 Without Development Condition*
- K. Synchro Printouts – *Design Year 2029 Without Development Condition*
- L. HCM Printouts – *Design Year 2029 Without Development Condition*
- M. Trip Generation Calculations
- N. Synchro Printouts – *Opening Year 2024 With Development Condition*
- O. HCM Printouts – *Opening Year 2024 With Development Condition*
- P. Synchro Printouts – *Design Year 2029 With Development Condition*
- Q. HCM Printouts – *Design Year 2029 With Development Condition*
- R. Radar Speed Study
- S. Sight Distance Photo Log
- T. SimTraffic Printouts – *Design Year 2029 Without Development Condition*
- U. SimTraffic Printouts – *Design Year 2029 With Development Condition*

**Transportation Impact Study
Proposed Retail Development
South Fayette Township, Allegheny County, Pennsylvania**

EXECUTIVE SUMMARY

Project Description

The proposed project is located on the northwestern corner of the intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive in South Fayette Township, Allegheny County, Pennsylvania. The development is proposed to consist of ~45,126-square foot of retail space.

This report analyzes the impact of this project on the traffic operations of the adjacent roadway network under:

- Existing Year 2023 Condition
- Opening Year 2024 Without and With Development Conditions
- Design Year 2029 Without and With Development Conditions

Existing and Future Without Development Conditions

A linear growth rate of 1.00% was obtained from a representative of the Southwestern Pennsylvania Commission (SPC) for South Fayette Township. This rate was applied to the Existing Year 2023 Condition peak hour traffic volumes to develop the Opening Year 2024 and Design Year 2029 Base Condition traffic volumes.

Trip Generation and Distribution

Trip Generation

The Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 11th Edition, was used to determine the trip generation rates associated with the proposed development and background development trips (specifically, Land Use Codes #821 – *Shopping Plaza 40k-150k without Supermarket*, #931 – *Fine Dining Restaurant*, #932 – *High-Turnover Sit-Down Restaurant*, and #934 – *Fast Food Restaurant with Drive-Through Window*). The rates for LUC #821 were utilized to determine the additional trips anticipated to be generated by the proposed development on a typical weekday and during the AM, PM, and SAT peak hours, which are summarized as follows:

- 3,048 additional vehicles during a typical weekday (1,524 entering and 1,524 existing)

- 78 additional vehicles during the AM peak hour (48 entering and 30 exiting)
- 234 additional vehicles during the PM peak hour (115 entering and 119 exiting)
- 251 additional vehicles during the SAT peak hour (131 entering and 120 exiting)

Trip Distribution

The trip generation data, the distribution of traffic at the existing study intersections, and the location of the proposed development were all used to assign the site-generated traffic to the study area roadway network.

List of Study Intersections

The study area for this project includes two (2) existing intersections and two (2) proposed intersections:

- Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive
- Newbury Drive with Plaza Access / Site Drive C
- Millers Run Road (SR 0050) with Site Drive A
- Millers Run Road (SR 0050) with Site Drive B

Conclusions and Recommendations

The proposed retail development in South Fayette Township, Allegheny County, Pennsylvania is not anticipated to impact traffic operations in the study area. The following is a summary of the results and recommended improvements at each of the study intersections:

Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive

- Impacts to this intersection will be minimal with increases in average overall intersection delay of less than 2.0 seconds per vehicle during the AM, PM, and SAT peak hours.
- No roadway improvements are recommended.

Newbury Drive with Plaza Access / Site Drive C

- Impacts to this intersection will be minimal with increases in average overall intersection delay of less than 10.0 seconds per vehicle during the AM, PM, and SAT peak hours.
- Construct a full access site drive (Site Drive C) along the western side of Newbury Drive, as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

Millers Run Road (SR 0050) with Site Drive A

- Construct a right-in / right-out access site drive (Site Drive A) along the northern side of Millers Run Road (SR 0050), as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

Millers Run Road (SR 0050) with Site Drive B

- Construct a right-in / right-out access site drive (Site Drive B) along the northern side of Millers Run Road (SR 0050), as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

**Transportation Impact Study
Proposed Retail Development
South Fayette Township, Allegheny County, Pennsylvania**

1.0 INTRODUCTION / PROJECT SUMMARY

David E. Wooster and Associates (Wooster) has completed a Transportation Impact Study (TIS) to determine the impacts to traffic operations resulting from the construction of a proposed retail development located on the northwestern corner of the intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive in South Fayette Township, Allegheny County, Pennsylvania. The development is proposed to consist of ~45,126-square foot of retail space.

A site location graphic is shown on **Figure 1** and a preliminary Site Plan can be seen on **Figure 2** in the Figures section at the end of this report. The project is anticipated to open by the end of 2024. As such, this report analyzes the impact of this project on the traffic operations of the adjacent roadway network under:

- Existing Year 2023 Condition
- Opening Year 2024 Without and With Development Conditions
- Design Year 2029 Without and With Development Conditions

Traffic volumes have been developed for each scenario, capacity analyses have been performed, and the results have been reported in terms of both Level-of-Service (LOS) and average delay per vehicle. The capacity analyses contained in this report were performed using Synchro Software Version 11 (Synchro).

A virtual TIS Scoping Meeting was held on Thursday, September 14, 2023 and was attended by representatives of PennDOT Engineering District 11-0 (PennDOT), South Fayette Township, the applicant, and Wooster. A copy of the TIS Scoping Checklist has been included in **Appendix A** at the end of this report.

2.0 DATA COLLECTION

2.1 Turning Movement Counts

Turning movement counts were performed at the existing study intersections on a typical weekday (Tuesday through Thursday) between the hours of 7:00 a.m. and 9:00 a.m. and between the hours of 4:00 p.m. and 6:00 p.m. Counts were also performed on a typical Saturday between the hours of 11:00 a.m. and 2:00 p.m. These times were chosen because they typically reflect the morning (AM), evening (PM), and Saturday midday (SAT) peak hours for vehicular traffic. These counts were performed in September 2023.

Summaries of the turning movement counts can be found in **Appendix B** at the end of this report. This information was then utilized to determine the Existing Year 2023 Condition peak hour traffic volumes, which can be seen graphically on **Figure 3a**.

2.2 *Crash Data*

Copies of crash data summaries for the five (5) most recent calendar years were obtained from the Pennsylvania Department of Transportation (PennDOT) Crash Information Tool (PCIT) for the existing study intersections. As the crash data is property of PennDOT, a summary of the identified crashes and the corresponding crash reports are included in a separately-bound appendix to this report.

3.0 STUDY AREA CONDITIONS

3.1 *Study Area*

The study area for this project includes two (2) existing intersections and two (2) proposed intersections:

- Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive
- Newbury Drive with Plaza Access / Site Drive C
- Millers Run Road (SR 0050) with Site Drive A
- Millers Run Road (SR 0050) with Site Drive B

3.2 *Existing Study Intersection Descriptions*

3.2.1 *Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive*

The intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive is a signalized intersection with four (4) approaches. The eastbound approach (Millers Run Road) consists of an exclusive left turn lane, an exclusive through lane, and a shared through / right turn lane. The westbound approach (Millers Run Road) consists of an exclusive left turn lane, two (2) exclusive through lanes, and an exclusive, channelized right turn lane, which is yield controlled. The posted speed limit on Millers Run Road (SR 0050) is 40 mph. The northbound approach (Todd A. Miller Drive) consists of an exclusive left turn lane, an exclusive through lane, and an exclusive, channelized right turn lane, which is yield controlled. There is no posted speed limit on Todd A. Miller Drive.¹ The southbound approach (Newbury Drive) consists of two (2) exclusive left turn lanes and a shared through / right turn lane. There is no posted speed limit on Newbury Drive.

¹ HCM 6th Edition supports only speed limits within the range of 25-55 mph. As such, a speed limit of 25 mph was assumed for all roadways without a posted speed limit or a speed limit less than 25 mph.

3.2.2 Newbury Drive with Plaza Access / Site Drive C

The intersection of Newbury Drive with Plaza Access / Existing Site Access² is an unsignalized intersection with four (4) approaches. The eastbound approach (Existing Site Access) consists of a single lane that is used to perform all possible movements and is stop-controlled. There is no posted speed limit on the Existing Site Access. The westbound approach (Plaza Access) consists of a single lane that is used to perform all possible movements and is stop-controlled. There is no posted speed limit on the Plaza Access. The northbound approach (Newbury Drive) consists of a shared left turn / through lane and a shared through / right turn lane, which operate under free-flow conditions. The southbound approach (Newbury Drive) consists of a shared left turn / through lane and a shared through / right turn lane, which operate under free-flow conditions. There is no posted speed limit on Newbury Drive.

A complete photo log of the existing study intersections can be found in **Appendix C** at the end of this report.

3.3 Signal Permit Plans

Traffic signal permit plans were requested for the signalized study intersection from a representative of PennDOT. The signal permit plans were utilized to model the Existing Year 2023 Condition in Synchro.

Copies of the signal permit plans have been included in **Appendix D** at the end of this report.

3.4 Existing Condition Capacity Analysis

The capacity analyses contained in this report were performed using Synchro Software Version 11 (Synchro) HCM 6th Edition reports. Using the traffic volumes developed for each scenario, Synchro assigns a Level of Service (LOS) for each approach to each study intersection. These LOS range from “A” to “F”, similar to a school’s grading system, with LOS A being the best possible traffic operation conditions and LOS F being the worst. A summary of these guidelines has been included in **Appendix E** at the end of this report.

The Existing Year 2023 Condition capacity analyses show acceptable overall intersection and movement / lane group LOS (LOS D or better) at the existing study intersections during the AM, PM, and SAT peak hours.

² Existing Site Access will become the proposed Site Drive C.

Tables 1A and 1B in the Tables section at the end of this report show the Existing Year 2023 Condition AM, PM, and SAT peak hour LOS for the existing study intersection. The Existing Year 2023 Condition peak hour LOS can be seen graphically on **Figure 3b**.

Synchro and HCM printouts for the Existing Year 2023 Condition can be found in **Appendix F** and **Appendix G**, respectively, at the end of this report.

4.0 OPENING YEAR 2024 WITHOUT DEVELOPMENT CONDITION

4.1 Base Condition Traffic Volume Development

A linear growth rate of 1.00% was applied to the Existing Year 2023 Condition peak hour traffic volumes (Figure 3a) to develop the Opening Year 2024 and Design Year 2029 Base Condition traffic volumes, which can be seen graphically on **Figure 4** and **Figure 5**, respectively.

4.2 Background Developments (Piazza Retail, South Fayette Commons, and Newbury: Cigar Bar & Restaurant Developments)

Trips associated with several developments that have not yet been constructed (or fully constructed) were added to the Opening Year 2024 Base Condition to develop the Opening Year 2024 Without Development Condition. These developments are discussed in the following sections. Source data for these developments (i.e. email correspondence, development descriptions, site plans, TIA/TIS figures, etc.) can be found in **Appendix H** at the end of this report.

The background developments include the construction of the Piazza Retail, South Fayette Commons, and Newbury (specifically, the Cigar Lounge, Bar & Restaurant) developments.

- The Piazza Retail development consists of a 8,250-SF Fast Food Restaurant with a Drive-Through and a 6,800-SF High-Turnover (Sit-Down) Restaurant.
- The South Fayette Commons development consists of a 10,500-SF Specialty Retail Center and a 3,000-SF High-Turnover (Sit-Down) Restaurant.
- The Newbury Cigar Lounge, Bar, & Restaurant development consists of a 9,377-SF Fine Dining Restaurant.

Trips associated with these developments that anticipated to travel through the study area during the AM, PM, and SAT peak hours can be seen graphically on **Figure 6a** through **Figure 10**.

4.3 Without Development Condition Traffic Volume Development

The background development trips (Figure 10) were added to the Opening Year 2024 Base Condition traffic volumes (Figure 4) to develop the Opening Year 2024 Without Development Condition traffic volumes, which can be seen graphically on **Figure 11a**.

4.4 Capacity Analysis

The analysis performed for the Opening Year 2024 Without Development Condition assumed the same intersection geometry and traffic control used in the Existing Year 2023 Condition analysis.

The Opening Year 2024 Without Development Condition capacity analyses show acceptable overall intersection and movement / lane group LOS (LOS D or better) at the existing study intersections during the AM, PM, and SAT peak hours.

Tables 1A and **1B** in the Tables section at the end of this report show the Opening Year 2024 Without Development Condition AM, PM, and SAT peak hour LOS for the existing study intersection. The Opening Year 2024 Without Development Condition peak hour LOS can be seen graphically on **Figure 11b**.

Synchro and HCM printouts for the Opening Year 2024 Without Development Condition can be found in **Appendix I** and **Appendix J**, respectively, at the end of this report.

5.0 DESIGN YEAR 2029 WITHOUT DEVELOPMENT CONDITION

5.1 Traffic Volume Development

Once again, background development trips (Figure 10) were added to the Design Year 2029 Base Condition traffic volumes (Figure 5) to develop the Design Year 2029 Without Development Condition traffic volumes, which can be seen graphically on **Figure 12a**.

5.3 Capacity Analysis

The analysis performed for the Design Year 2029 Without Development Condition assumed the same intersection geometry and traffic control used in the Existing Year 2023 Condition analysis.

The Design Year 2029 Without Development Condition capacity analyses show acceptable overall intersection and movement / lane group LOS (LOS D or better) at the existing study intersections during the AM, PM, and SAT peak hours.

Tables 1A and 1B in the Tables section at the end of this report show the Design Year 2029 Without Development Condition AM, PM, and SAT peak hour LOS for the existing study intersection. The Design Year 2029 Without Development Condition peak hour LOS can be seen graphically on **Figure 12b**.

Synchro and HCM printouts for the Design Year 2029 Without Development Condition can be found in **Appendix K** and **Appendix L**, respectively, at the end of this report.

6.0 DEVELOPMENT DESCRIPTION

6.1 Proposed Development

The development is proposed to consist of ~45,126-square foot of retail space.

6.2 Proposed Access

Access to the site is proposed via three (3) site drives:

- Two (2) right-in / right-out access site drives (Site Drives A and B) along the northern side of Millers Run Road (SR 0050).
- One (1) full access site drive (Site Drive C) along the western side of Newbury Drive.

6.3 Trip Generation

The Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 11th Edition, was used to determine the trip generation rates associated with the proposed development and background development trips (specifically, Land Use Codes #821 – *Shopping Plaza 40k-150k without Supermarket*, #931 – *Fine Dining Restaurant*, #932 – *High-Turnover Sit-Down Restaurant*, and #934 – *Fast Food Restaurant with Drive-Through Window*). The rates for LUC #821 were utilized to determine the additional trips anticipated to be generated by the proposed development on a typical weekday and during the AM, PM, and SAT peak hours, which are summarized as follows:

- 3,048 additional vehicles during a typical weekday (1,524 entering and 1,524 existing)
- 78 additional vehicles during the AM peak hour (48 entering and 30 exiting)
- 234 additional vehicles during the PM peak hour (115 entering and 119 exiting)
- 251 additional vehicles during the SAT peak hour (131 entering and 120 exiting)

The site-generated trips were then split into primary trips and pass-by trips. The pass-by trip percentages were determined using the information contained in ITE's *Trip Gen Web-Based App* and are summarized as follows:

ITE Land Use Code #821 – Shopping Plaza

- AM peak hour – 30% reduction (PM-10%)
- PM peak hour – 40% reduction (2021 Pass-By Rates)
- SAT peak hour – 31% reduction (2021 Pass-By Rates)

Table 2 in the Tables section at the end of this report summarizes the traffic anticipated to be generated by the proposed development. Copies of the trip generation calculations can be found in **Appendix M** at the end of this report.

6.4 Trip Distribution

6.4.1 Primary Trips

The trip generation data, the distribution of traffic at the existing study intersections, and the location of the proposed development were all used to assign the site-generated traffic to the study area roadway network. Additionally, site drive selection was governed generally³ by the following assumptions:

- 30% of inbound trips originating from the east were assumed to utilize Site Drive A; 60% were assumed to utilize Site Drive B; the remaining 10% were assumed to utilize Site Drive C.
- 45% of outbound trips destined to the west were assumed to utilize Site Drive A; 45% were assumed to utilize Site Drive B; the remaining 10% were assumed to utilize Site Drive C.

The projected primary trip distribution and primary trips associated with the proposed GetGo can be seen graphically on **Figure 13a** and **Figure 13b**, respectively.

6.4.2 Pass-By Trips

In order to project the pass-by trip distribution for the site-generated traffic, the turning movement count data at the existing intersections were utilized. Additionally, site drive selection was once again governed generally by the same assumptions utilized for the primary trip distribution (Section 6.4.1).

³ Engineering judgment was also utilized in estimating the distribution of both primary and pass-by trips. As such, the percentages listed in Section 6.4.1 may not be reflected exactly in the report figures, and may differ somewhat between the primary and pass-by distributions based on motorists' origins and destinations, which differ depending on whether their trip is primary or pass-by in nature.

The existing intersection distribution percentages can be seen graphically on **Figure 14**. The pass-by trip distribution percentage for each approach to the site (from the east, west, north, and south) can be seen graphically on **Figures 15a** through **15d**. Each movement on each approach was evaluated separately.

The individual (i.e. directional) pass-by trip distribution percentages were then combined to develop the overall pass-by trip distribution, which can be seen graphically on **Figure 16a**. The projected site-generated pass-by trips associated with the proposed development can be seen graphically on **Figure 16b**.

The site-generated primary trips (Figure 13b) and pass-by trips (Figure 16b) were then combined onto **Figure 17**, which depicts the total site-generated traffic associated with the proposed development.

7.0 OPENING YEAR 2024 WITH DEVELOPMENT CONDITION

7.1 Traffic Volume Development

To develop the Opening Year 2024 With Development Condition traffic volumes, the proposed site-generated trips (Figure 17) were added to the Opening Year 2024 Without Development Condition traffic volumes (Figure 11a). The resulting Opening Year 2024 With Development Condition traffic volumes can be seen graphically on **Figure 18a**.

7.2 Capacity Analysis

The analysis performed for the Opening Year 2024 With Development Condition assumed the same intersection geometry and traffic control used in the Opening Year 2024 Without Development Condition analysis.

The Opening Year 2024 With Development Condition capacity analyses show acceptable overall intersection and movement / lane group LOS (LOS D or better) at the study intersections during the AM, PM, and SAT peak hours.

Additionally, the capacity analyses show minimal increases in average delay (less than 10.0 seconds per vehicle) under the Opening Year 2024 With Development Condition when compared to the Opening Year 2024 Without Development Condition at the existing study intersections during the AM, PM, and SAT peak hours.

Tables 1A through **1D** in the Tables section at the end of this report show the Opening Year 2024 With Development Condition AM, PM, and SAT peak hour LOS for the study

intersections. The Opening Year 2024 With Development Condition peak hour LOS can be seen graphically on **Figure 18b**.

Synchro and HCM printouts for the Opening Year 2024 With Development Condition can be found in **Appendix N** and **Appendix O**, respectively, at the end of this report.

8.0 DESIGN YEAR 2029 WITH DEVELOPMENT CONDITION

8.1 *Traffic Volume Development*

Similar to the Opening Year 2024 With Development Condition, the proposed site-generated trips (Figure 17) were added to the Design Year 2029 Without Development Condition traffic volumes (Figure 12a) to determine the Design Year 2029 With Development Condition traffic volumes, which can be seen graphically on **Figure 19a**.

8.2 *Capacity Analysis*

The analysis performed for the Design Year 2029 With Development Condition assumed the same intersection geometry and traffic control used in the Design Year 2029 Without Development Condition analysis.

The Design Year 2029 With Development Condition capacity analyses show acceptable overall intersection and movement / lane group LOS (LOS D or better) at the study intersections during the AM, PM, and SAT peak hours.

Additionally, the capacity analyses show minimal increases in average delay (less than 10.0 seconds per vehicle) under the Design Year 2029 With Development Condition when compared to the Design Year 2029 Without Development Condition at the existing study intersections during the AM, PM, and SAT peak hours.

Tables 1A through **1D** in the Tables section at the end of this report show the Design Year 2029 With Development Condition AM, PM, and SAT peak hour LOS for the study intersections. The Design Year 2029 With Development Condition peak hour LOS can be seen graphically on **Figure 19b**.

Synchro and HCM printouts for the Design Year 2029 With Development Condition can be found in **Appendix P** and **Appendix Q**, respectively, at the end of this report.

9.0 SIGHT DISTANCE EVALUATION

Sight distance requirements were evaluated at the proposed site drives in accordance with PennDOT Title 67, Chapter 441, *Access To And Occupancy Of Highways by Driveways and Local Roads*.

Sight distance requirements were based on observed 85th percentile speeds or a design speed (posted speed limit plus 5 mph) on the abutting roadway(s), whichever is greater. The observed 85th percentile speeds along Newbury Drive were obtained via a radar speed study. The radar speed data can be found in **Appendix R** at the end of this report. Appropriate friction factors from Table B of PennDOT Publication 212 were also utilized, where appropriate, to determine the required minimum sight distances.

A complete photo log of the existing sight distance at the proposed site drives can be found in **Appendix S** at the end of this report. The results of the sight distance analyses are summarized in the table below:

Sight Line	Approach Grade (%)	Required Sight Distance (feet)	Available Sight Distance (feet)
Millers Run Road (SR 0050) with Site Drive A			
Speed Limit = 40 mph			
Corner Sight Distance Looking Left	N/A ⁴	383'	>1,000'
Millers Run Road (SR 0050) with Site Drive B			
Speed Limit = 40 mph			
Corner Sight Distance Looking Left	N/A	383'	>1,000'
Newbury Drive with Site Drive C			
Speed Limit = Not Posted; 85th Percentile Speed (NB/SB) = 24 mph / 28 mph			
Corner Sight Distance Looking Left	-2.2%	176'	~270'
Corner Sight Distance Looking Right	-1.8%	201'	~270'
Stopping Sight Distance Looking Ahead	-2.8%	177'	~290'
Stopping Sight Distance from Behind	-1.8%	201'	~250'

⁴ Because available sight line is greater than 1,000 feet, approach grade is inconsequential. Assumed 0.0% for calculations/table.

As demonstrated in the table, adequate sight distance is available at all of the proposed site drives.

***** UNLESS OTHERWISE NOTED, THE AVAILABLE SIGHT DISTANCES REPORTED IN THIS STUDY ASSUME THAT ON-SITE CLEARING AND/OR GRADING WILL BE PERFORMED, AS NECESSARY, IN ORDER TO MAXIMIZE SIGHT LINES TO THE EXTENT POSSIBLE *****

10.0 QUEUING ANALYSIS

Queuing analyses were performed to compare pre-development and post-development queuing at the study intersections. The Design Year 2029 Without and With Development Conditions were modeled in Synchro and transferred to SimTraffic. Five (5) separate 60-minute simulations (utilizing a ten-minute seeding interval) were performed for each individual peak hour.

Queue reports from SimTraffic for the Design Year 2029 Without and With Development Conditions can be found in **Appendix T** and **Appendix U**, respectively, at the end of this report. Spreadsheets summarizing the 95th percentile queue averages are also included. The results for the Design Year 2029 Without and With Development Condition queues are summarized in **Tables 3A** through **3D** for the AM, PM, and SAT peak hours.

As can be seen in the Tables, queue lengths are generally not anticipated to increase significantly (no more than 1-2 car lengths) under the Design Year 2029 With Development Condition when compared to the Design Year 2029 Without Development Condition.

In addition, queue lengths are not projected to exceed their respective storage capacities under the Design Year 2029 Without or With Development Conditions during the AM, PM, or SAT peak hours.

11.0 SUMMARY AND CONCLUSIONS

In conclusion, the proposed development in South Fayette Township, Allegheny County, Pennsylvania is not anticipated to impact traffic operations in the study area. The following is a summary of the results and recommended improvements at each of the study intersections:

Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive

- Impacts to this intersection will be minimal with increases in average overall intersection delay of less than 10.0 seconds per vehicle during the AM, PM, and SAT peak hours.
- No roadway improvements are recommended.

Newbury Drive with Plaza Access / Site Drive C

- Impacts to this intersection will be minimal with increases in average overall intersection delay of less than 10.0 seconds per vehicle during the AM, PM, and SAT peak hours.
- Construct a full access site drive (Site Drive C) along the western side of Newbury Drive, as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

Millers Run Road (SR 0050) with Site Drive A

- Construct a right-in / right-out access site drive (Site Drive A) along the northern side of Millers Run Road (SR 0050), as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

Millers Run Road (SR 0050) with Site Drive B

- Construct a right-in / right-out access site drive (Site Drive B) along the northern side of Millers Run Road (SR 0050), as depicted on the site plan.
- Maintain clear sight lines by way of on-site clearing and grading, as necessary.
- No additional roadway improvements recommended.

REPORT TABLES

Table 1A - Level-of-Service Summary

Intersection		AM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn	C (24.8)	C (26.9)	C (26.2)	NM	C (27.4)	C (26.9)	NM
	Through							
	Right Turn	B (14.4)	B (17.0)	B (17.1)	NM	B (17.2)	B (17.4)	NM
	Approach	B (14.8)	B (17.3)	B (17.7)	NM	B (17.6)	B (17.9)	NM
Westbound	Left Turn	C (23.5)	C (25.2)	C (25.3)	NM	C (25.8)	C (25.9)	NM
	Through	B (11.6)	B (11.8)	B (12.7)	NM	B (11.9)	B (12.8)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	B (13.2)	B (15.1)	B (15.7)	NM	B (15.2)	B (15.9)	NM
Newbury Drive / Todd A. Miller Drive		North/South Roadway						
Northbound	Left Turn	C (33.9)	C (25.1)	C (25.2)	NM	C (25.8)	C (25.9)	NM
	Through	C (28.3)	C (26.3)	C (26.5)	NM	C (27.0)	C (27.2)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	C (29.8)	C (25.5)	C (25.8)	NM	C (26.2)	C (26.3)	NM
Southbound	Left Turn	C (21.0)	C (22.9)	C (22.8)	NM	C (23.4)	C (23.3)	NM
	Through							
	Right Turn	B (19.2)	C (23.2)	C (22.9)	NM	C (23.6)	C (23.3)	NM
	Approach	C (20.8)	C (22.9)	C (22.8)	NM	C (23.4)	C (23.3)	NM
Overall Intersection		B (15.4)	B (18.0)	B (18.3)	NM	B (18.2)	B (18.6)	NM

NM = No Mitigation

Intersection		PM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn	C (24.5)	C (25.8)	C (26.4)	NM	C (26.0)	C (27.1)	NM
	Through							
	Right Turn	B (14.0)	B (16.0)	B (16.5)	NM	B (16.4)	B (16.7)	NM
	Approach	B (14.8)	B (16.8)	B (17.7)	NM	B (17.1)	B (18.0)	NM
Westbound	Left Turn	C (24.7)	C (26.7)	C (27.3)	NM	C (26.9)	C (27.9)	NM
	Through	B (14.9)	B (15.3)	B (17.0)	NM	B (15.8)	B (17.3)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	B (15.4)	B (16.8)	B (18.2)	NM	B (17.2)	B (18.6)	NM
Newbury Drive / Todd A. Miller Drive		North/South Roadway						
Northbound	Left Turn	C (27.2)	C (25.4)	C (25.9)	NM	C (25.5)	C (26.4)	NM
	Through	C (25.6)	C (25.7)	C (26.2)	NM	C (25.9)	C (26.7)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	C (26.2)	C (25.5)	C (26.0)	NM	C (25.7)	C (26.5)	NM
Southbound	Left Turn	C (20.8)	C (22.1)	C (22.2)	NM	C (22.1)	C (22.6)	NM
	Through							
	Right Turn	B (19.1)	C (22.0)	C (21.5)	NM	C (21.9)	C (21.8)	NM
	Approach	C (20.5)	C (22.1)	C (22.1)	NM	C (22.1)	C (22.4)	NM
Overall Intersection		B (16.5)	B (18.3)	B (19.3)	NM	B (18.6)	B (19.6)	NM

NM = No Mitigation

Intersection		SAT Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn	C (24.7)	C (26.6)	C (27.9)	NM	C (26.7)	C (27.8)	NM
	Through							
	Right Turn	B (13.9)	B (17.4)	B (17.9)	NM	B (17.8)	B (18.4)	NM
	Approach	B (14.7)	B (18.1)	B (19.3)	NM	B (18.6)	B (19.7)	NM
Westbound	Left Turn	C (25.5)	C (27.1)	C (27.7)	NM	C (27.3)	C (27.8)	NM
	Through	B (14.3)	B (15.3)	B (17.0)	NM	B (15.7)	B (17.6)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	B (14.8)	B (17.3)	B (18.7)	NM	B (17.6)	B (19.1)	NM
Newbury Drive / Todd A. Miller Drive		North/South Roadway						
Northbound	Left Turn	C (31.0)	C (26.1)	C (26.7)	NM	C (26.3)	C (26.9)	NM
	Through	C (27.7)	C (26.4)	C (26.9)	NM	C (26.6)	C (27.1)	NM
	Right Turn	YIELD	YIELD	YIELD	NM	YIELD	YIELD	NM
	Approach	C (28.9)	C (26.2)	C (26.8)	NM	C (26.4)	C (27.0)	NM
Southbound	Left Turn	C (20.6)	C (22.4)	C (22.5)	NM	C (22.4)	C (22.6)	NM
	Through							
	Right Turn	B (18.4)	C (22.1)	C (21.7)	NM	C (22.0)	C (21.6)	NM
	Approach	C (20.3)	C (22.3)	C (22.3)	NM	C (22.3)	C (22.4)	NM
Overall Intersection		B (16.3)	B (19.4)	C (20.3)	NM	B (19.6)	C (20.6)	NM

NM = No Mitigation

Table 1B - Level-of-Service Summary

Intersection		AM Peak Hour						
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn			B (10.1)	NM		B (10.2)	NM
	Through							
	Right Turn							
	Approach			B (10.1)	NM		B (10.2)	NM
Westbound	Left Turn	B (11.6)	B (11.9)	B (13.4)	NM	B (12.0)	B (13.7)	NM
	Through							
	Right Turn							
	Approach	B (11.6)	B (11.9)	B (13.4)	NM	B (12.0)	B (13.7)	NM
Newbury Drive		North/South Roadway						
Northbound	Left Turn			A (7.8)	NM		A (7.9)	NM
	Through	FREE	FREE	A (0.1)	NM	FREE	A (0.1)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	FREE	FREE	A (0.7)	NM	FREE	A (0.7)	NM
Southbound	Left Turn	A (7.9)	A (7.9)	A (7.9)	NM	A (7.9)	A (7.9)	NM
	Through			A (0.1)	NM		A (0.1)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	A (0.7)	A (0.7)	A (0.7)	NM	A (0.7)	A (0.6)	NM
Overall Intersection		A (1.3)	A (1.3)	A (2.0)	NM	A (1.3)	A (2.0)	NM

NM = No Mitigation

Intersection		PM Peak Hour						
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn			B (13.3)	NM		B (13.6)	NM
	Through							
	Right Turn							
	Approach			B (13.3)	NM		B (13.6)	NM
Westbound	Left Turn	B (13.7)	B (14.5)	C (19.6)	NM	B (15.0)	C (20.6)	NM
	Through							
	Right Turn							
	Approach	B (13.7)	B (14.5)	C (19.6)	NM	B (15.0)	C (20.6)	NM
Newbury Drive		North/South Roadway						
Northbound	Left Turn			A (8.3)	NM		A (8.4)	NM
	Through	FREE	FREE	A (0.2)	NM	FREE	A (0.2)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	FREE	FREE	A (1.0)	NM	FREE	A (0.9)	NM
Southbound	Left Turn	A (8.2)	A (8.3)	A (8.3)	NM	A (8.3)	A (8.3)	NM
	Through			A (0.1)	NM		A (0.1)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	A (0.4)	A (0.4)	A (0.4)	NM	A (0.4)	A (0.4)	NM
Overall Intersection		A (1.6)	A (1.5)	A (3.3)	NM	A (1.5)	A (3.2)	NM

NM = No Mitigation

Intersection		SAT Peak Hour						
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn			C (15.9)	NM		C (16.4)	NM
	Through							
	Right Turn							
	Approach			C (15.9)	NM		C (16.4)	NM
Westbound	Left Turn	C (20.3)	C (24.5)	F (59.1)	NM	D (26.0)	F (67.5)	NM
	Through							
	Right Turn							
	Approach	C (20.3)	C (24.5)	F (59.1)	NM	D (26.0)	F (67.5)	NM
Newbury Drive		North/South Roadway						
Northbound	Left Turn			A (8.5)	NM		A (8.5)	NM
	Through	FREE	FREE	A (0.3)	NM	FREE	A (0.3)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	FREE	FREE	A (1.0)	NM	FREE	A (1.0)	NM
Southbound	Left Turn	A (8.6)	A (8.8)	A (8.8)	NM	A (8.9)	A (8.8)	NM
	Through			A (0.1)	NM		A (0.1)	NM
	Right Turn			A (0.0)	NM		A (0.0)	NM
	Approach	A (0.6)	A (0.5)	A (0.5)	NM	A (0.5)	A (0.5)	NM
Overall Intersection		A (3.1)	A (3.3)	A (8.3)	NM	A (3.3)	A (9.0)	NM

NM = No Mitigation

Table 1C - Level-of-Service Summary

Intersection		AM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive A						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			A (9.8)	NM		A (9.9)	NM
	Right Turn			A (9.8)	NM		A (9.9)	NM
	Approach			A (9.8)	NM		A (9.9)	NM
Overall Intersection				A (9.8)	NM		A (9.9)	NM

NM = No Mitigation

Intersection		PM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive A						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			B (11.7)	NM		B (11.9)	NM
	Right Turn			B (11.7)	NM		B (11.9)	NM
	Approach			A (9.1)	NM		A (9.1)	NM
Overall Intersection				A (9.1)	NM		A (9.1)	NM

NM = No Mitigation

Intersection		SAT Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive A						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			B (10.8)	NM		B (11.0)	NM
	Right Turn			B (10.8)	NM		B (11.0)	NM
	Approach			A (9.1)	NM		A (9.1)	NM
Overall Intersection				A (9.1)	NM		A (9.1)	NM

NM = No Mitigation

Table 1D - Level-of-Service Summary

Intersection		AM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive B						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			A (9.8)	NM		A (9.9)	NM
	Right Turn			A (9.8)	NM		A (9.9)	NM
	Approach			A (9.8)	NM		A (9.9)	NM
Overall Intersection				A (0.0)	NM		A (0.0)	NM

NM = No Mitigation

Intersection		PM Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive B						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			B (11.8)	NM		B (12.0)	NM
	Right Turn			B (11.8)	NM		B (12.0)	NM
	Approach			B (11.8)	NM		B (12.0)	NM
Overall Intersection				A (0.2)	NM		A (0.2)	NM

NM = No Mitigation

Intersection		SAT Peak Hour						
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Site Drive B						
		East/West Roadway						
Direction	Approach / Movement	Existing Year 2023	Opening Year 2024 - Without Development	Opening Year 2024 - With Development	Opening Year 2024 - With Development & Mitigation	Design Year 2029 - Without Development	Design Year 2029 - With Development	Design Year 2029 - With Development & Mitigation
Eastbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Westbound	Left Turn							
	Through			FREE	NM		FREE	NM
	Right Turn							
	Approach			FREE	NM		FREE	NM
Site Drive A		North/South Roadway						
Northbound	Left Turn							
	Through							
	Right Turn							
	Approach							
Southbound	Left Turn							
	Through			B (11.0)	NM		B (11.1)	NM
	Right Turn			B (11.0)	NM		B (11.1)	NM
	Approach			B (11.0)	NM		B (11.1)	NM
Overall Intersection				A (0.1)	NM		A (0.1)	NM

Table 2
Trip Generation Summary

TIME PERIOD	ANTICIPATED TRIP GENERATION		
	IN	OUT	TOTAL
LUC #821 – Shopping Plaza (40-150k) without Supermarket – 45,126 SF			
ADT	1,524	1,524	3,048
AM Peak Hour	48	30	59
<i>Primary Trips</i>	<i>34</i>	<i>21</i>	<i>55</i>
<i>Pass-By Trips (26%)</i>	<i>14</i>	<i>9</i>	<i>13</i>
PM Peak Hour	115	119	234
<i>Primary Trips</i>	<i>69</i>	<i>71</i>	<i>140</i>
<i>Pass-By Trips (36%)</i>	<i>46</i>	<i>48</i>	<i>94</i>
SAT Peak Hour	131	120	251
<i>Primary Trips</i>	<i>90</i>	<i>83</i>	<i>173</i>
<i>Pass-By Trips (26%)</i>	<i>41</i>	<i>37</i>	<i>78</i>

Table 3A - Queue Summary

Intersection		AM Peak Hour		
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive		
		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn	225'	50'	81'
	Through		194'	195'
	Through			
	Right Turn		171'	172'
Westbound	Left Turn	200'	113'	126'
	Through		125'	133'
	Through		74'	95'
	Right Turn	350'	11'	25'
Newbury Drive / Todd A. Miller Drive		North/South Roadway		
Northbound	Left Turn		74'	72'
	Through		64'	69'
	Right Turn		37'	29'
Southbound	Left Turn	375'	115'	110'
	Left Turn		142'	134'
	Through			
	Right Turn		91'	81'

Intersection		PM Peak Hour		
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive		
		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn	225	73'	99'
	Through		170'	163'
	Through			
	Right Turn		135'	148'
Westbound	Left Turn	200'	121'	112'
	Through		202'	217'
	Through		159'	178'
	Right Turn	350	32'	52'
Newbury Drive / Todd A. Miller Drive		North/South Roadway		
Northbound	Left Turn		87'	86'
	Through		69'	67'
	Right Turn		48'	43'
Southbound	Left Turn	375	154'	171'
	Left Turn		181'	198'
	Through			
	Right Turn		116'	124'

Intersection		SAT Peak Hour		
Millers Run Road (SR 0050)		Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive		
		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn	225	79'	109'
	Through		169'	163'
	Through			
	Right Turn		147'	142'
Westbound	Left Turn	200'	104'	103'
	Through		178'	188'
	Through		124'	146'
	Right Turn	350'	49'	58'
Newbury Drive / Todd A. Miller Drive		North/South Roadway		
Northbound	Left Turn		91'	91'
	Through		72'	70'
	Right Turn		34'	44'
Southbound	Left Turn	375	155'	176'
	Left Turn		180'	202'
	Through			
	Right Turn		116'	118'

Table 3B - Queue Summary

Intersection		AM Peak Hour		
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C		
Plaza Access / Site Drive C		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			17'
	Through			
	Right Turn			
Westbound	Left Turn		39'	49'
	Through			
	Right Turn			
Newbury Drive		North/South Roadway		
Northbound	Left Turn		0'	24'
	Through			
	Through			
	Right Turn			
Southbound	Left Turn		30'	20'
	Through			
	Through			
	Right Turn			

Intersection		PM Peak Hour		
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C		
Plaza Access / Site Drive C		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			39'
	Through			
	Right Turn			
Westbound	Left Turn		60'	68'
	Through			
	Right Turn			
Newbury Drive		North/South Roadway		
Northbound	Left Turn		0'	44'
	Through			
	Through			
	Right Turn			
Southbound	Left Turn		37'	23'
	Through			
	Through			
	Right Turn			

Intersection		SAT Peak Hour		
Plaza Access / Site Drive C		Newbury Drive with Plaza Access / Site Drive C		
Plaza Access / Site Drive C		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			47'
	Through			
	Right Turn			
Westbound	Left Turn		92'	143'
	Through			
	Right Turn			
Newbury Drive		North/South Roadway		
Northbound	Left Turn		0'	51'
	Through			
	Through			
	Right Turn			
Southbound	Left Turn		51'	37'
	Through			
	Through			
	Right Turn			

Table 3C - Queue Summary

Intersection		AM Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			
	Through			0'
	Through			0'
Westbound	Right Turn			
	Left Turn			
	Through			0'
Site Drive A	Through			0'
	Right Turn			
	Left Turn			
Northbound	Through			
	Right Turn			
	Left Turn			
Southbound	Through			
	Right Turn			
	Left Turn			0'

Intersection		PM Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			
	Through			0'
	Through			0'
Westbound	Right Turn			
	Left Turn			
	Through			0'
Site Drive A	Through			0'
	Right Turn			
	Left Turn			
Northbound	Through			
	Right Turn			
	Left Turn			
Southbound	Through			
	Right Turn			
	Left Turn			7'

Intersection		SAT Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 Without Development 95th Percentile Queue Length	Design Year 2029 With Development 95th Percentile Queue Length
Eastbound	Left Turn			
	Through			0'
	Through			0'
Westbound	Right Turn			
	Left Turn			
	Through			0'
Site Drive A	Through			0'
	Right Turn			
	Left Turn			
Northbound	Through			
	Right Turn			
	Left Turn			
Southbound	Through			
	Right Turn			
	Left Turn			5'

Table 3D - Queue Summary

Intersection		AM Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 <u>Without</u> Development 95th Percentile Queue Length	Design Year 2029 <u>With</u> Development 95th Percentile Queue Length
Eastbound	Left Turn			0'
	Through			0'
	Right Turn			
Westbound	Left Turn			0'
	Through			0'
	Right Turn			
Site Drive B		North/South Roadway		
Northbound	Left Turn			
	Through			
	Right Turn			
Southbound	Left Turn			
	Through			
	Right Turn			0'

Intersection		PM Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 <u>Without</u> Development 95th Percentile Queue Length	Design Year 2029 <u>With</u> Development 95th Percentile Queue Length
Eastbound	Left Turn			0'
	Through			0'
	Right Turn			
Westbound	Left Turn			0'
	Through			0'
	Right Turn			
Site Drive B		North/South Roadway		
Northbound	Left Turn			
	Through			
	Right Turn			
Southbound	Left Turn			
	Through			
	Right Turn			8'

Intersection		SAT Peak Hour		
Millers Run Road (SR 0050)		East/West Roadway		
Direction	Approach / Movement	Available Storage Length	Design Year 2029 <u>Without</u> Development 95th Percentile Queue Length	Design Year 2029 <u>With</u> Development 95th Percentile Queue Length
Eastbound	Left Turn			0'
	Through			0'
	Right Turn			
Westbound	Left Turn			0'
	Through			0'
	Right Turn			
Site Drive B		North/South Roadway		
Northbound	Left Turn			
	Through			
	Right Turn			
Southbound	Left Turn			
	Through			
	Right Turn			9'

REPORT FIGURES

Proposed Development

South Fayette Township, Allegheny County, Pennsylvania

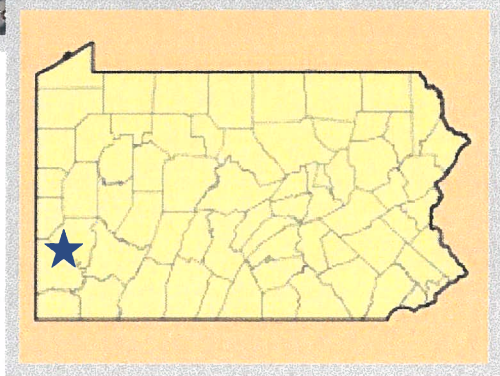
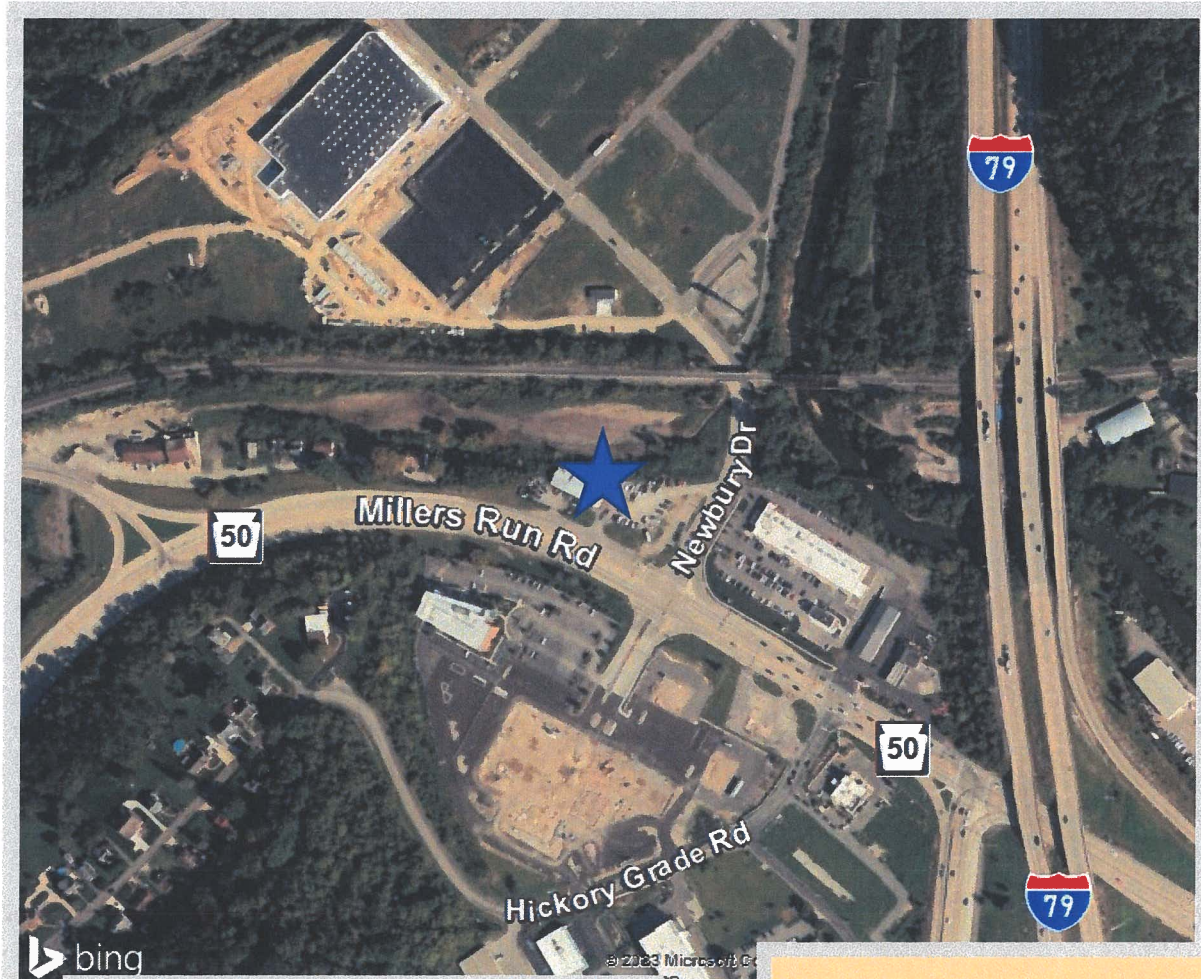
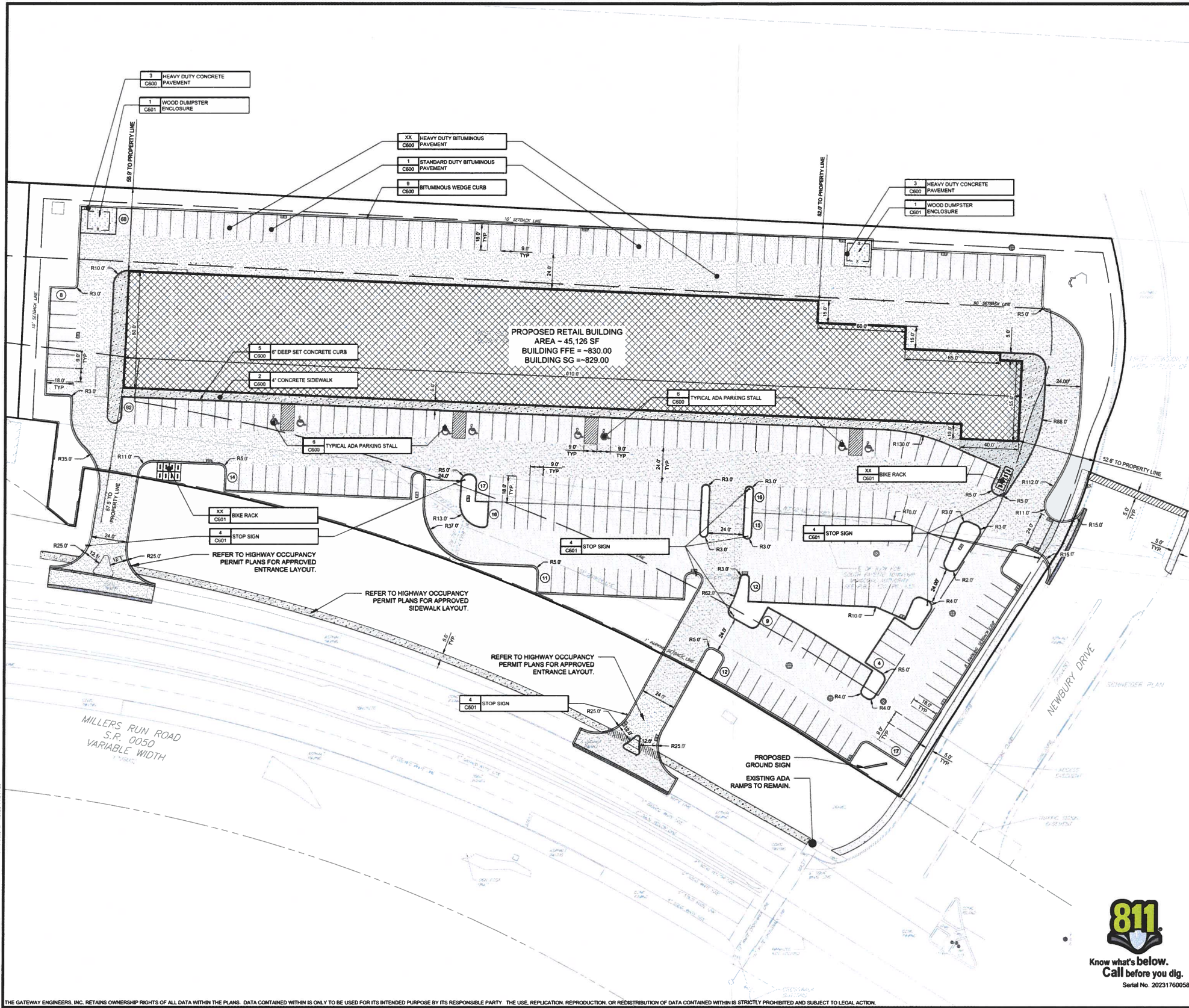


Figure 1



SITE LEGEND

●	3	PROPOSED 48" STORM MANHOLE
○	C703	
○	0	PROPOSED 48" SANITARY MANHOLE
○	C600	
●	3	PROPOSED CLEANOUT
○	C703	
⊖	1	PROPOSED TYPE 'M' INLET
○	C703	
⌒	7	PROPOSED HEADWALL/ENDWALL
○	C403	
⊖	15	PROPOSED HYDRANT
○	C601	
*	XX	PROPOSED LIGHT STANDARD
○	C200	
♿	10	PROPOSED ADA SYMBOL
○	C600	
⊖	7	PROPOSED CONCRETE WHEEL STOP
○	C600	
○	14	PROPOSED BOLLARD
○	C601	
○	XX	PROPOSED WALL
○	C200	
○	0	PROPOSED DEPRESSED CURB
○	C600	
▨	2	PROPOSED CONCRETE SIDEWALK
○	C600	
▨	XX	PROPOSED HEAVY DUTY CONCRETE PAVEMENT
○	C200	
▨	1	PROPOSED STANDARD DUTY BITUMINOUS PAVEMENT
○	C600	
▨	XX	PROPOSED HEAVY DUTY BITUMINOUS PAVEMENT
○	C200	
▨	XX	PROPOSED PAVEMENT PATCH
○	C600	
○	U	PROPOSED UTILITY POLE
○	○	PROPOSED PARKING COUNT
○	○	PROPOSED SIGN

- SITE PLAN NOTES:**
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF UTILITY ENTRANCES, BUILDING DIMENSIONS, ROOF LEADERS, EXIT DOORS, EXIT RAMPS AND PORCHES.
 - ALL DIMENSIONS ARE TO BUILDING FACE, FACE OF CURB OR EDGE OF SIDEWALK UNLESS NOTED OTHERWISE.
 - CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS FOR THE INSTALLATION OF SIGNAGE AND PAVEMENT MARKINGS AS SHOWN ON THE CONSTRUCTION PLANS.
 - LABELLED DIMENSIONS OVERRIDE SCALED DIMENSIONS.
 - ALL NEW MATERIALS AND CONSTRUCTION METHODS MUST MEET PADOT PUBLICATION 408 STANDARDS.
 - CONTRACTOR TO WORK AROUND EXISTING UTILITIES, IF ADJUSTMENTS ARE NECESSARY, WORK WILL BE CONSIDERED INCIDENTAL.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE NECESSARY SAFETY MEASURES TO SECURE THE SITE DURING CONSTRUCTION ACTIVITIES.
 - THE GATEWAY ENGINEERS, INC. IS NOT RESPONSIBLE TO INSPECT PROJECT SITES TO ENSURE COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS.
 - TACK COAT SHALL BE REQUIRED IF PAVING LIFTS ARE NOT COMPLETED WITHIN 3 DAYS OF EACH OTHER. TACK COAT VERTICAL SURFACES ALONG SAW CUT LIMITS.
 - ALL NON-LANDSCAPED ISLANDS SHALL BE PAINTED WITH STRIPES 4" WIDE, AT 45° AND 2 FEET O.C. UNLESS OTHERWISE SPECIFIED. USE ALTYDRESE TYPE, READY MIX COMPLYING WITH MSMT00100A, TYPE I COLOR WHITE.
 - WITHIN THE LIMITS OF THE PROPOSED DRIVEWAYS THE CONTRACTOR SHALL SAW CUT AND REMOVE THE EXISTING PAVEMENT AND THE EXISTING CURB AND SHOULDER. THE CURB SECTION OF THE PROPOSED DRIVEWAY SHALL BE DEPRESSED ACROSS THE LIMITS OF EACH DRIVEWAY. THE PROPOSED CURB SHALL MATCH INTO THE EXISTING PAVEMENT AT ALL DRIVEWAY LOCATIONS. THE CONTRACTOR SHALL CLEAN CONTACT SURFACES OF ALL EXISTING DRIVEWAYS BEFORE PLACEMENT OF PROPOSED ADJACENT PAVEMENT. ALL JOINTS SHALL BE SEALED WITH A 4-INCH STOP OF PS-64-52.
 - THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH PA DOT PUBLICATION 213 "WORK ZONE TRAFFIC CONTROL (LATEST REVISION) AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT, AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.

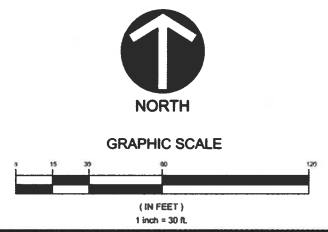


REVISION RECORD

NO.	DATE	DESCRIPTION
01	2023-06-09	GRADING PERMIT RESUBMISSION
02	2023-06-12	VARIANCE SUBMISSION
03	2023-06-14	LAND DEVELOPMENT SUBMISSION
04		
05		
06		
07		

LAFAYETTE 180
 NEWBURY DRIVE
 CUDDY, PA 15031
 PREPARED FOR:
COZZA ENTERPRISES LLC
 1215 BRIGHTON ROAD
 PITTSBURGH, PA 15233

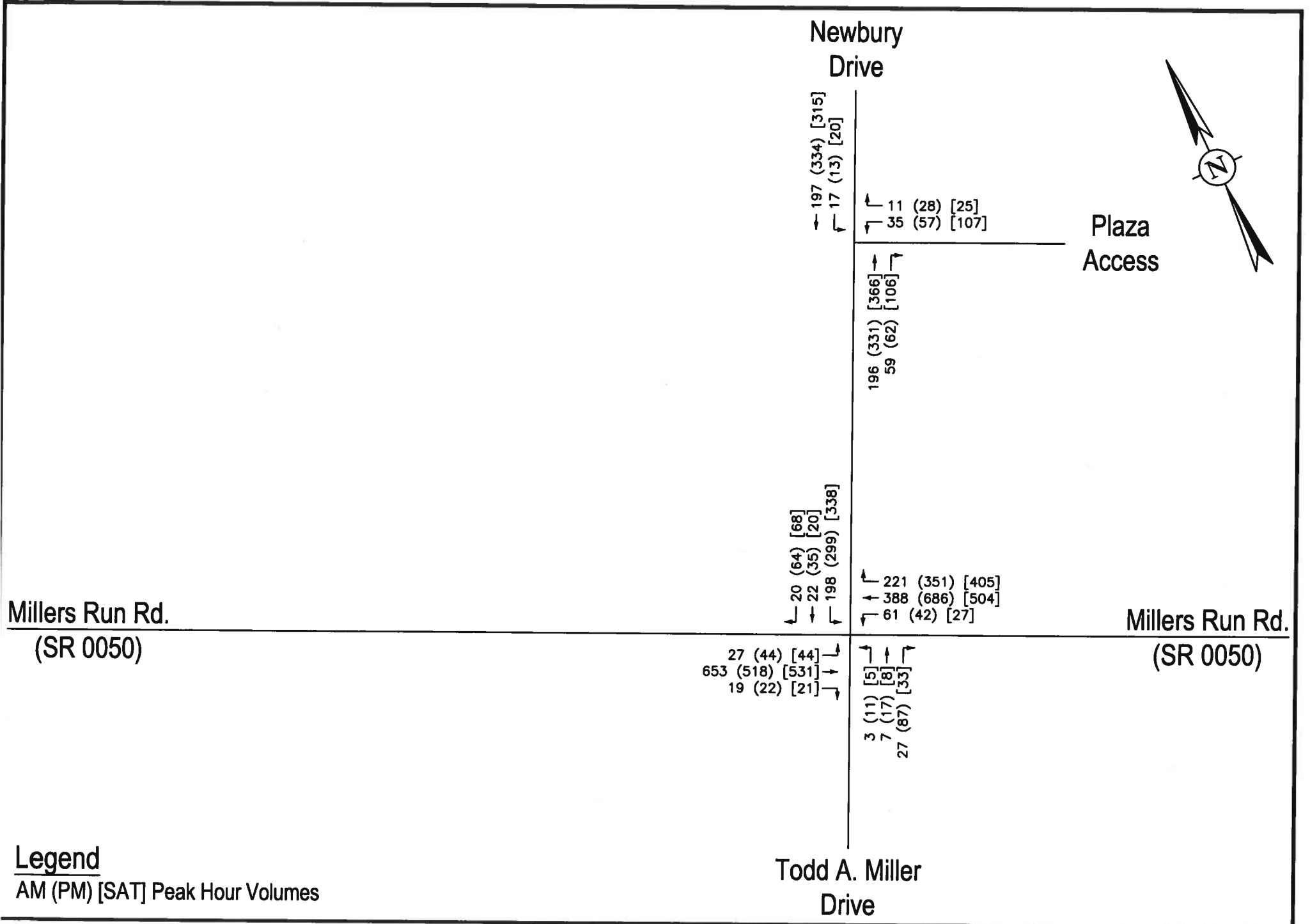
SITE PLAN
 Project Number: C-21199-0025
 Drawing Scale: 1"=30'
 Date Issued: AUGUST 2023
 Index Number: -
 Drawn By: LSR
 Checked By: JMG
 Project Manager: JMG
C100



C:\Users\lwooster\OneDrive\Documents\Projects\180 Lafayette\180 Lafayette - Site Plan.dwg
 2023-06-14 11:18:48 AM
 LAFAYETTE 180 - 11/18/23
 THE GATEWAY ENGINEERS, INC. RETAINS OWNERSHIP RIGHTS OF ALL DATA WITHIN THE PLANS. DATA CONTAINED WITHIN IS ONLY TO BE USED FOR ITS INTENDED PURPOSE BY ITS RESPONSIBLE PARTY. THE USE, REPLICATION, REPRODUCTION, OR REDISTRIBUTION OF DATA CONTAINED WITHIN IS STRICTLY PROHIBITED AND SUBJECT TO LEGAL ACTION.

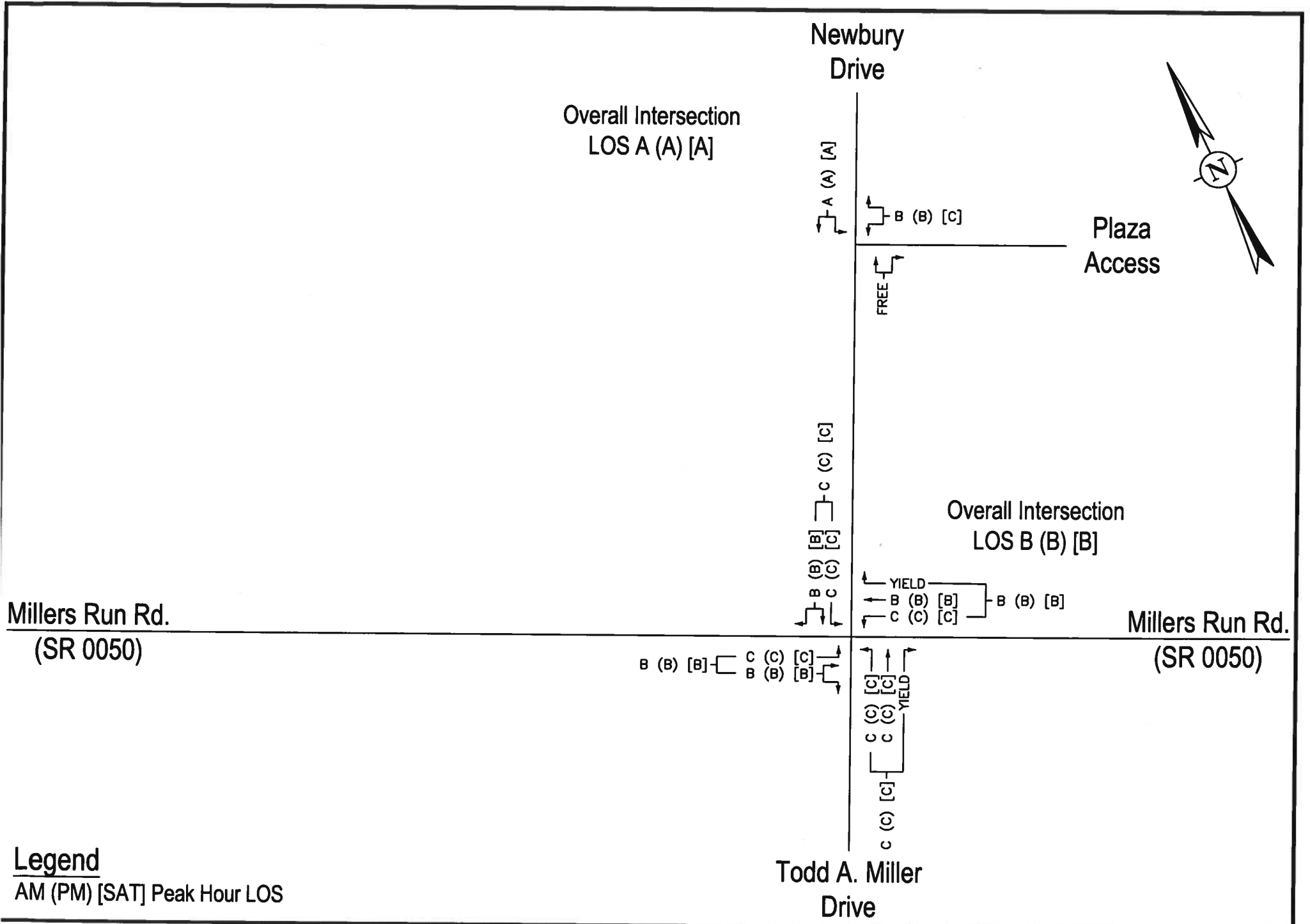
NOTE:
 NOT TO SCALE

**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Preliminary Site Plan**



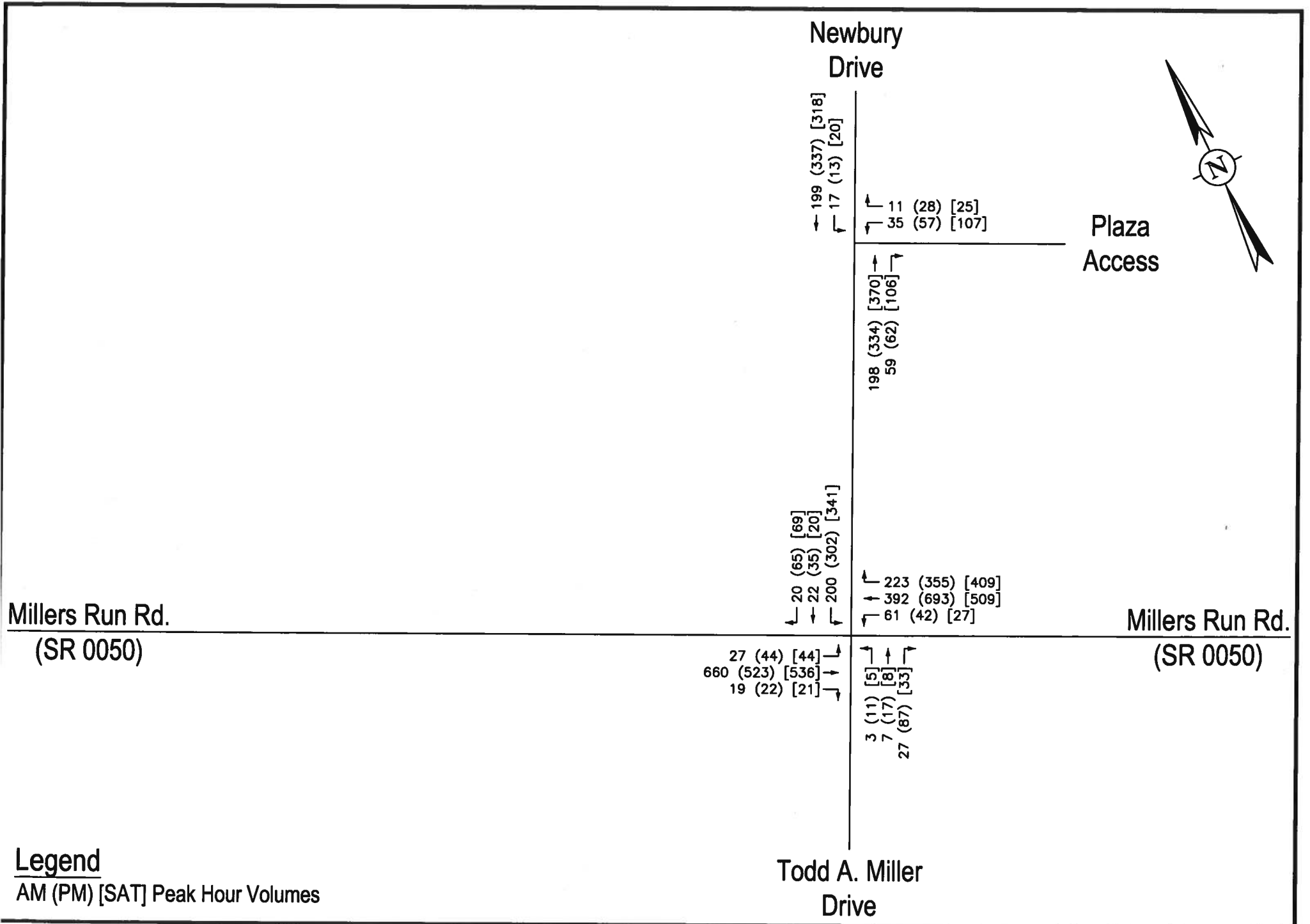
Legend
 AM (PM) [SAT] Peak Hour Volumes

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Existing Year 2023 Condition Peak Hour Traffic Volumes

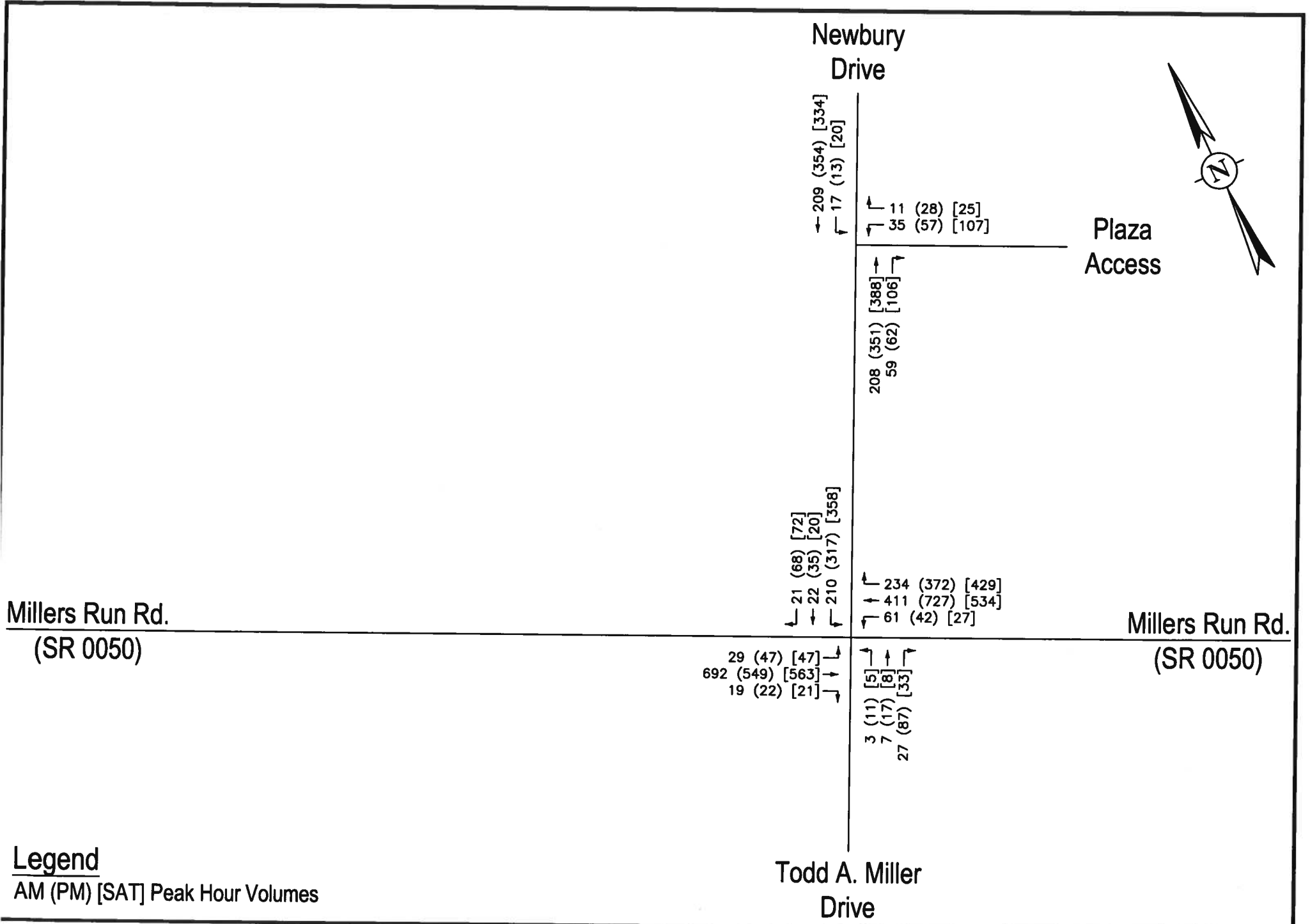


Legend
 AM (PM) [SAT] Peak Hour LOS

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Existing Year 2023 Condition Peak Hour LOS

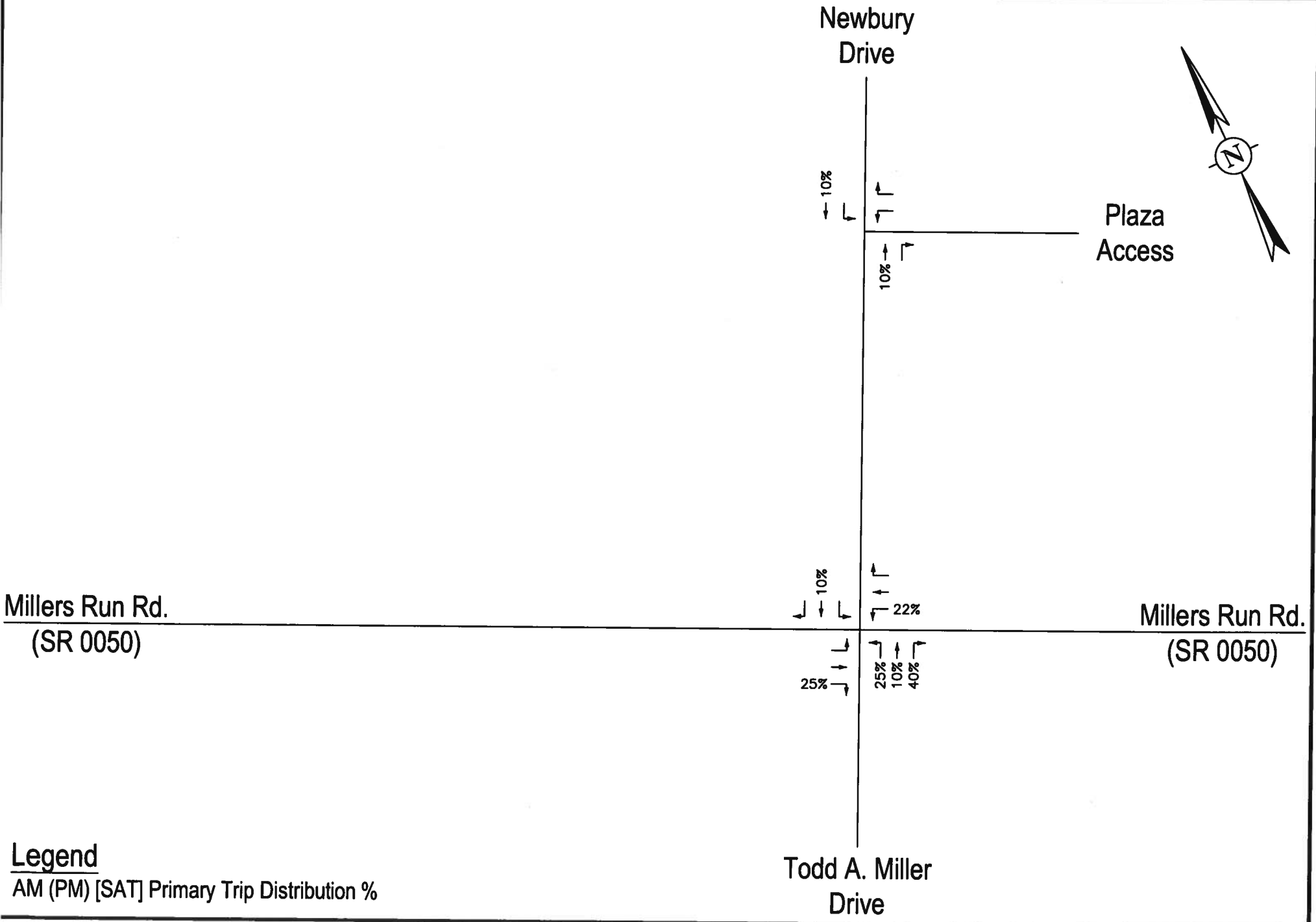
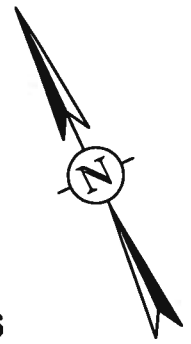


PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Opening Year 2024 Base Condition Peak Hour Traffic Volumes



Legend
 AM (PM) [SAT] Peak Hour Volumes

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Design Year 2029 Base Condition Peak Hour Traffic Volumes



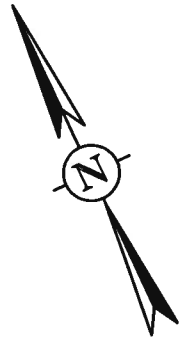
Legend
AM (PM) [SAT] Primary Trip Distribution %

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Primary Trip Distribution Percentages (The Piazza Retail Development)

Trip Generation Summary

	<u>IN</u>	<u>OUT</u>
AM	120	111
PM	119	104
SAT	210	201

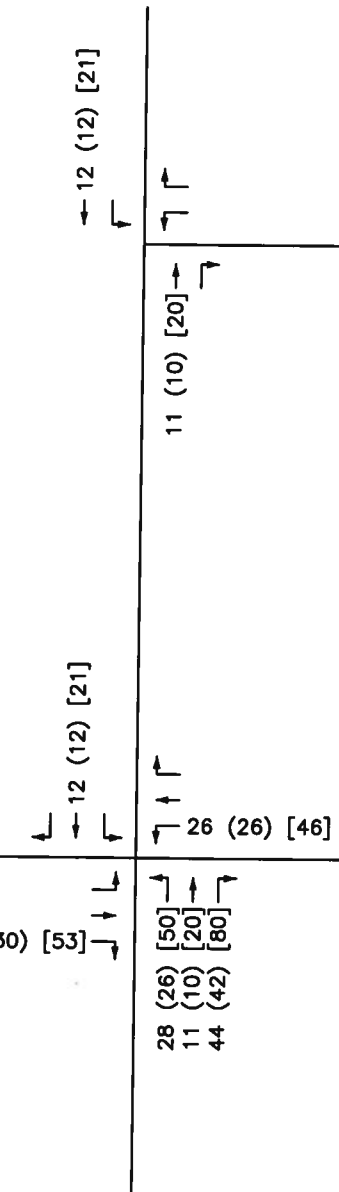
Newbury Drive



Plaza Access

**Millers Run Rd.
(SR 0050)**

**Millers Run Rd.
(SR 0050)**

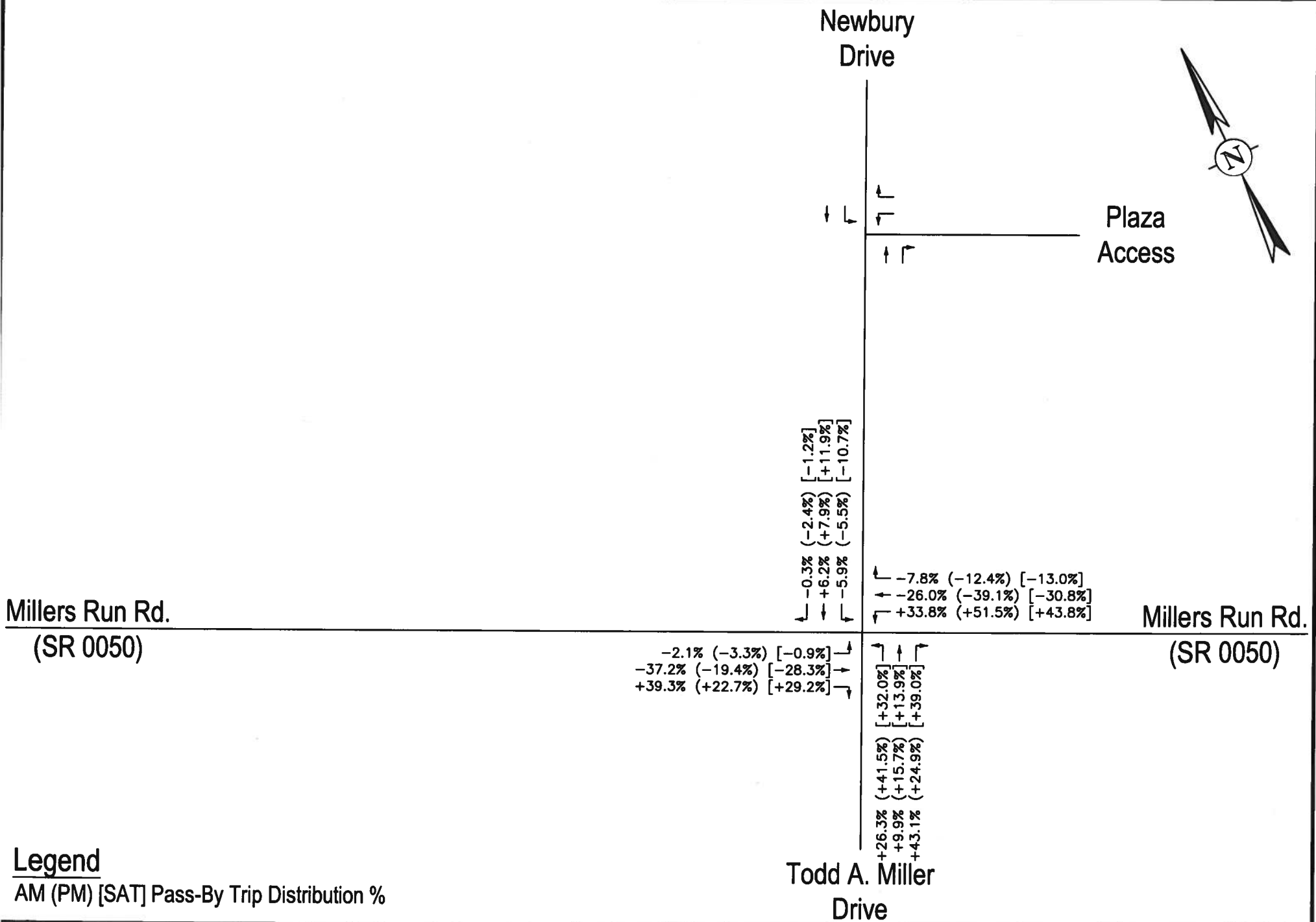
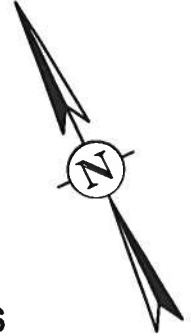


Todd A. Miller Drive

Legend

AM (PM) [SAT] Primary Trips

**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Primary Trips (The Piazza Retail Development)**



Legend

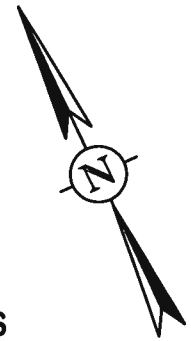
AM (PM) [SAT] Pass-By Trip Distribution %

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Pass-By Trip Distribution Percentages (The Piazza Retail Development)

Trip Generation Summary

	<u>IN</u>	<u>OUT</u>
AM	104	98
PM	60	51
SAT	62	59

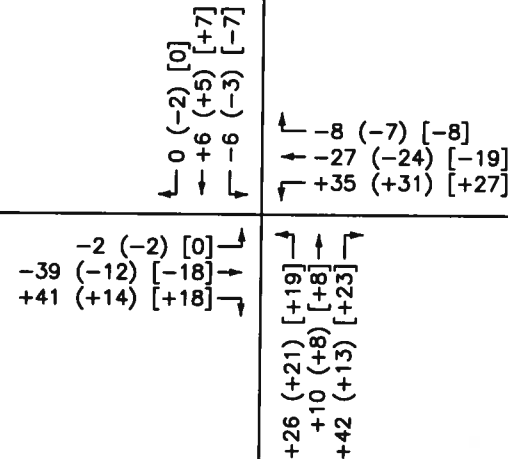
Newbury Drive



Plaza Access

Millers Run Rd.
(SR 0050)

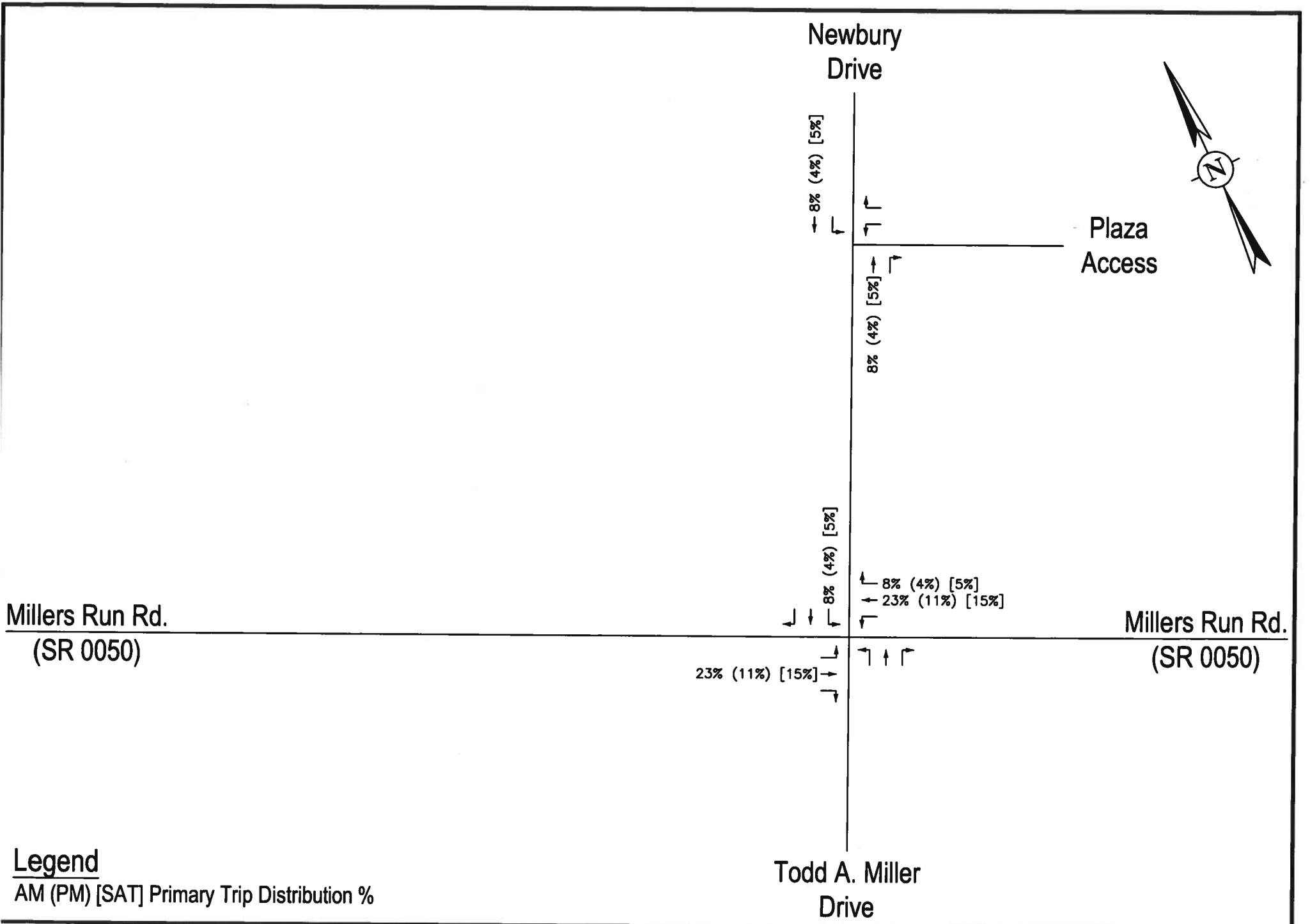
Millers Run Rd.
(SR 0050)



Legend

AM (PM) [SAT] Pass-By Trips

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Pass-By Trips (The Piazza Retail Development)

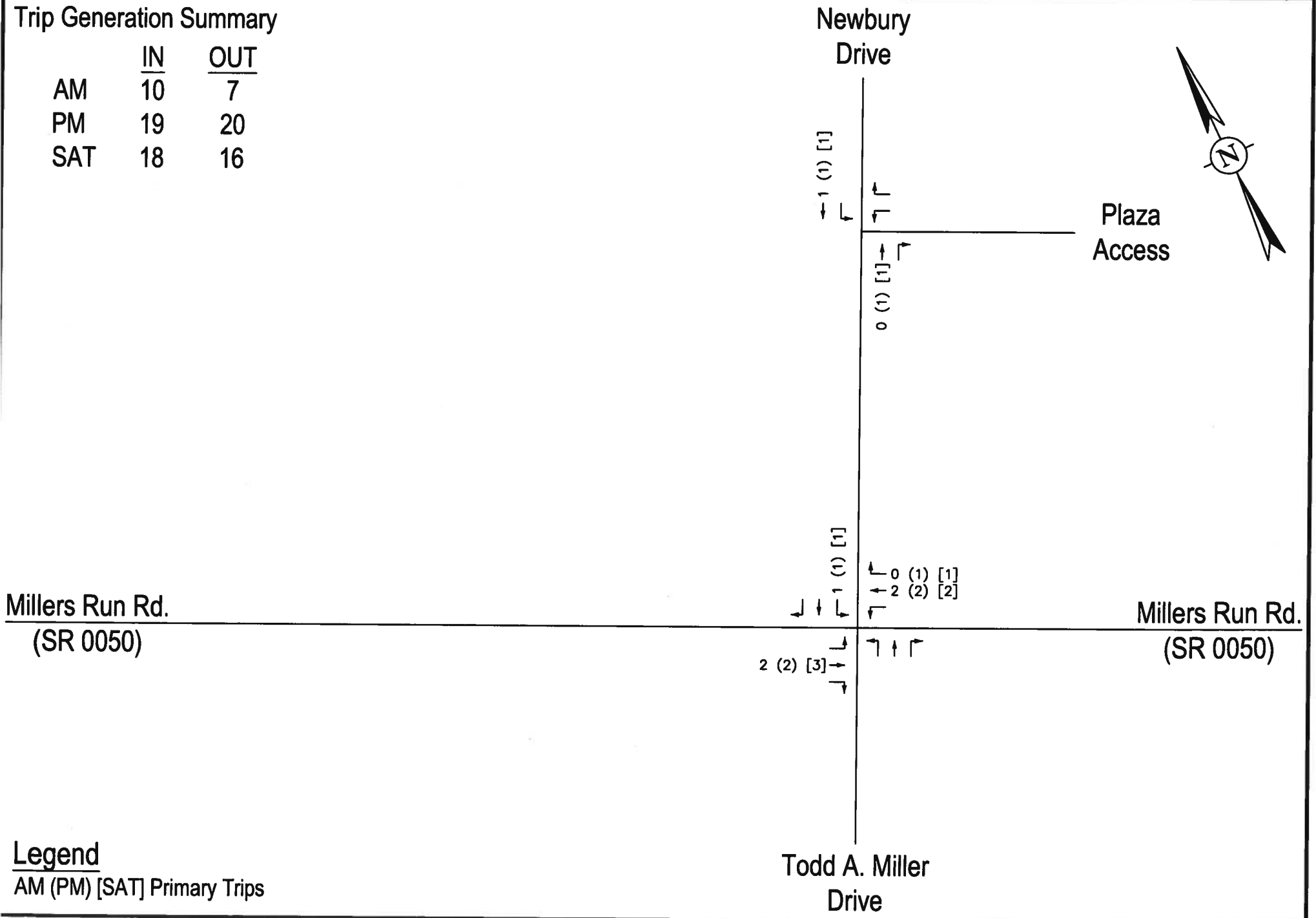
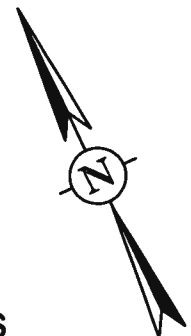


Legend
 AM (PM) [SAT] Primary Trip Distribution %

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Primary Trip Distribution Percentages (South Fayette Commons Development)

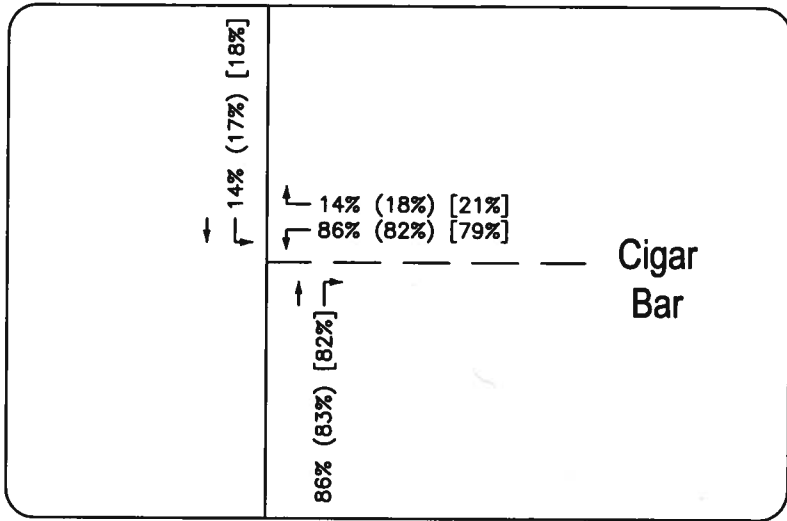
Trip Generation Summary

	<u>IN</u>	<u>OUT</u>
AM	10	7
PM	19	20
SAT	18	16



Legend
 AM (PM) [SAT] Primary Trips

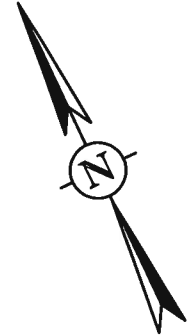
**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Primary Trips (South Fayette Commons Development)**



14% (17%) [18%]
214 (347) [335]

Newbury Drive

207 (359) [391]
14% (18%) [21%]



27% (37%) [31%]
411 (761) [577]

Millers Run Rd.
(SR 0050)

699 (584) [596]
44% (29%) [32%]

27% (37%) [31%]
59% (45%) [48%]

44% (29%) [32%]

Todd A. Miller Drive

86% (82%) [79%]

86% (83%) [82%]
42% (54%) [50%]

Plaza Access

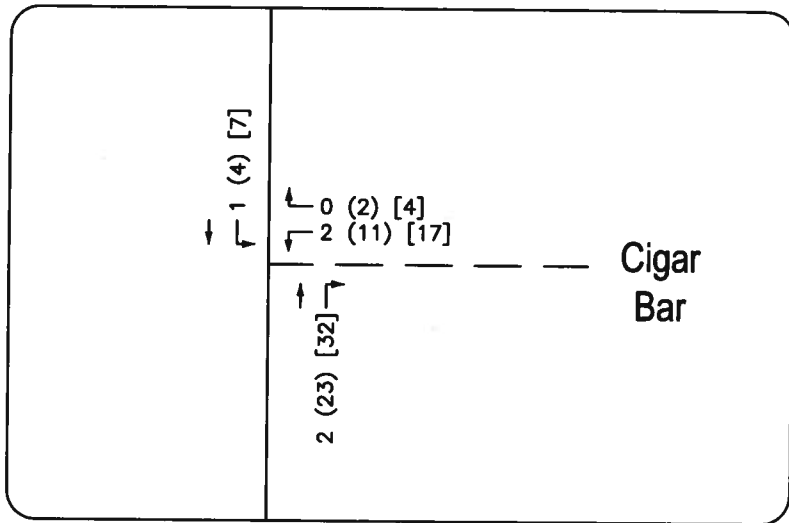
42% (54%) [50%]
670 (1079) [936]

Millers Run Rd.
(SR 0050)

878 (904) [902]
59% (45%) [48%]

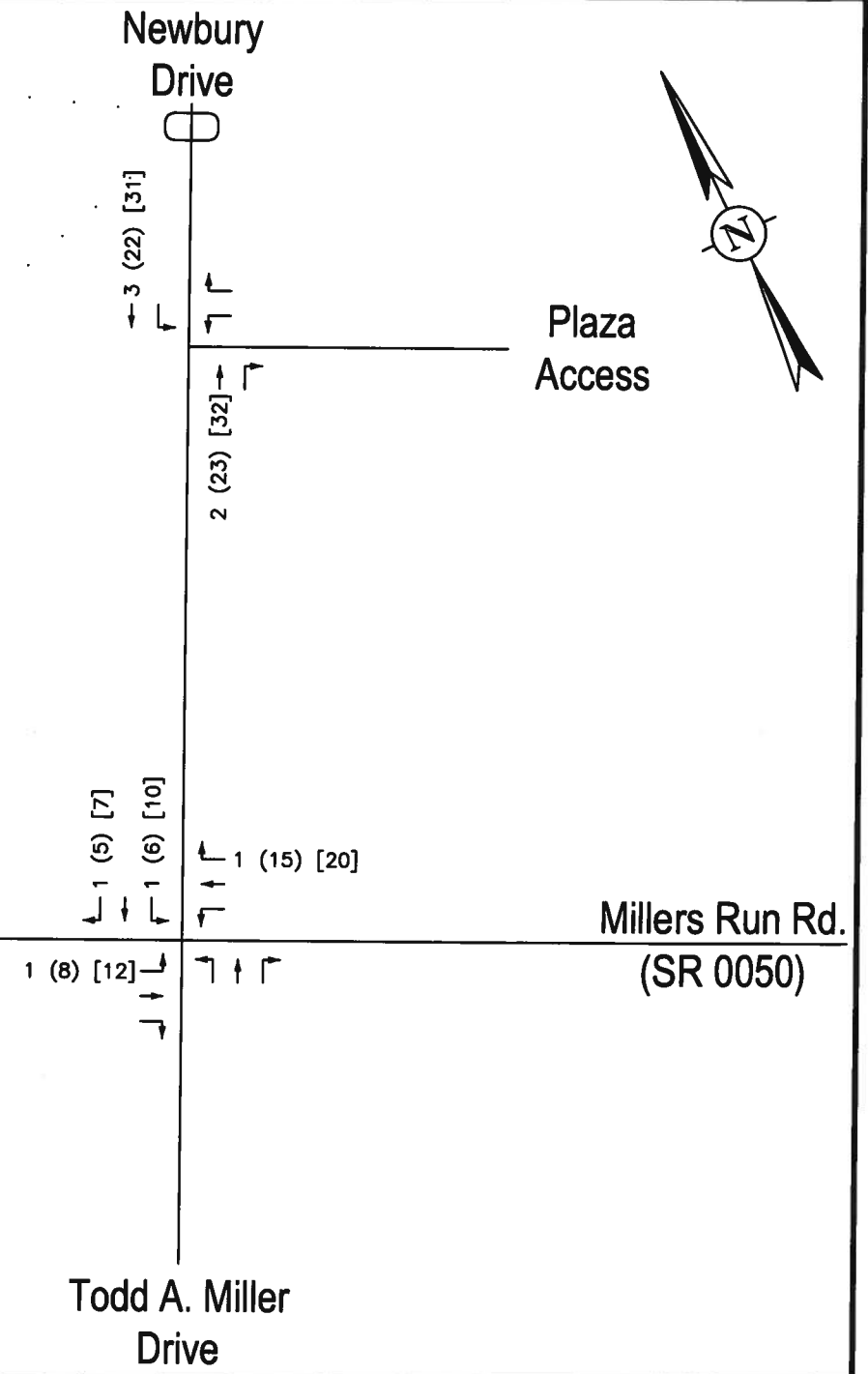
Legend
AM (PM) [SAT] Primary Trip Distribution %

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Primary Trip Distribution Percentages (Cigar Lounge, Bar & Restaurant Development)



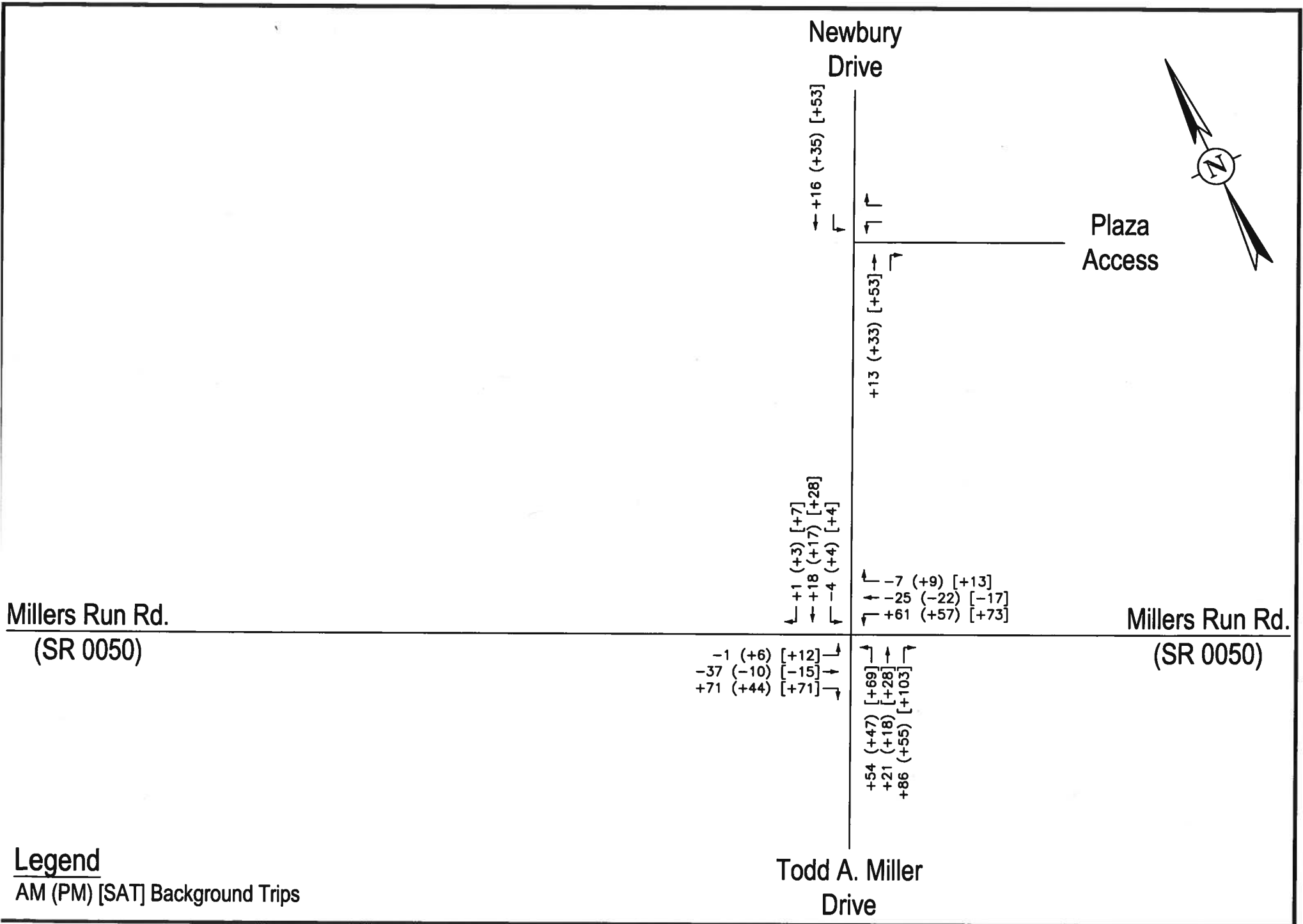
Trip Generation Summary

	<u>IN</u>	<u>OUT</u>
AM	3	2
PM	27	13
SAT	39	21



Legend
 AM (PM) [SAT] Primary Trips

**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Primary Trips (Cigar Lounge, Bar & Restaurant Development)**



PROPOSED RETAIL DEVELOPMENT - South Fayette Township
Total Background Trips



Newbury Drive

← 215 (372) [371]
↓ 17 (13) [20]

↑ 11 (28) [25]
↘ 35 (57) [107]

Plaza Access

211 (367) [423]
59 (62) [106]

↓ 21 (68) [76]
↓ 40 (52) [48]
↓ 196 (306) [345]

↑ 216 (364) [422]
↑ 367 (671) [492]
↘ 122 (99) [100]

Millers Run Rd.
(SR 0050)

Millers Run Rd.
(SR 0050)

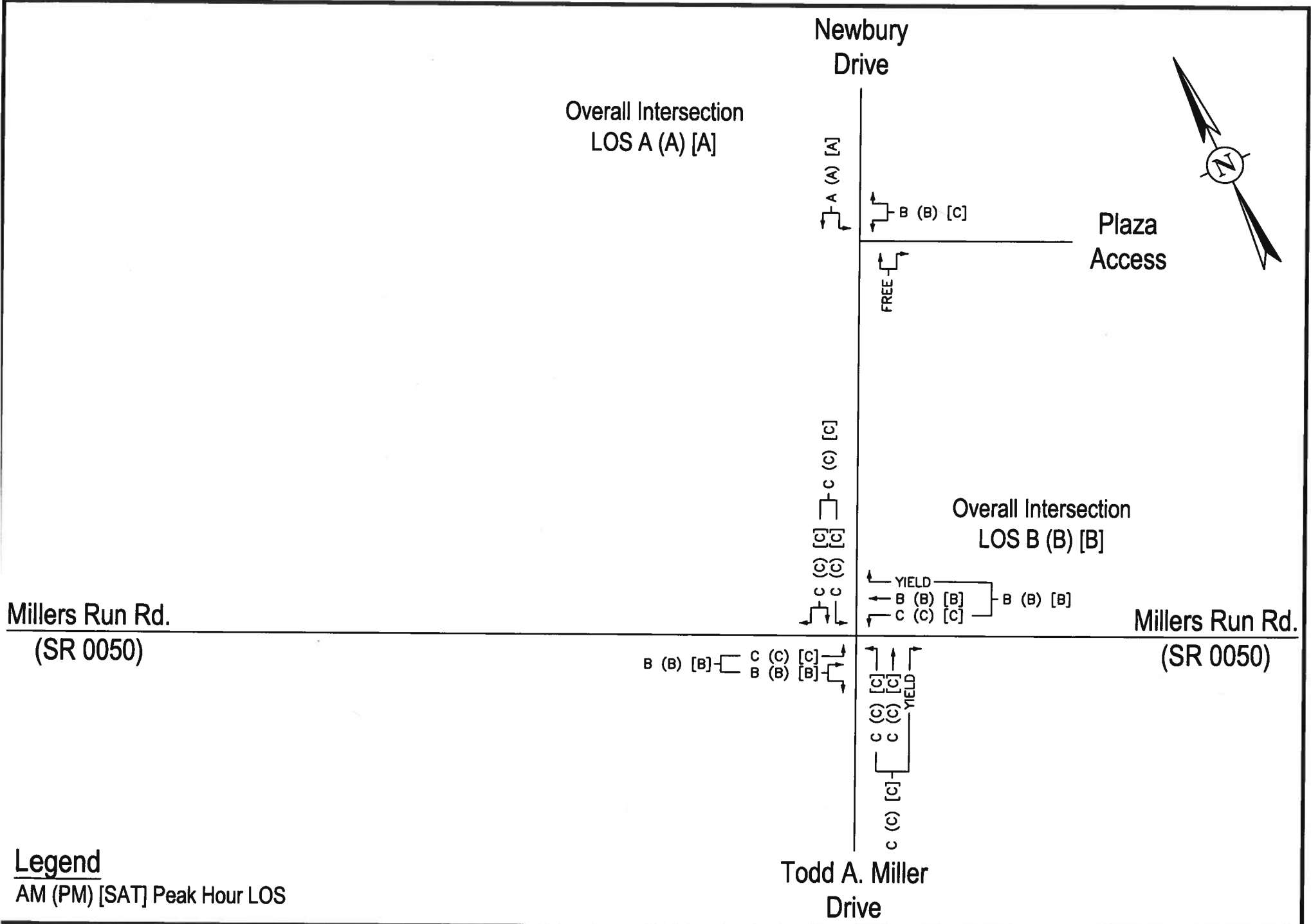
26 (50) [56]
623 (513) [521]
90 (66) [92]

↑ 57 (58) [74]
↑ 28 (35) [36]
113 (142) [136]

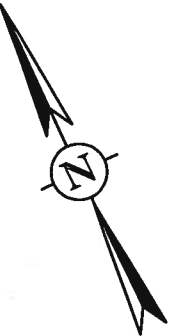
Todd A. Miller Drive

Legend
AM (PM) [SAT] Peak Hour Volumes

PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Opening Year 2024 Without Development Condition Peak Hour Traffic Volumes



PROPOSED RETAIL DEVELOPMENT - South Fayette Township
 Opening Year 2024 Without Development Condition Peak Hour LOS



Newbury Drive

← 225 (389) [387]
← 17 (13) [20]

↑ 11 (28) [25]
↑ 35 (57) [107]

Plaza Access

← 221 (384) [441]
← 59 (62) [106]

← 22 (71) [79]
← 40 (52) [48]
← 206 (321) [362]

↑ 227 (381) [442]
↑ 386 (705) [517]
↑ 122 (99) [100]

Millers Run Rd.
(SR 0050)

Millers Run Rd.
(SR 0050)

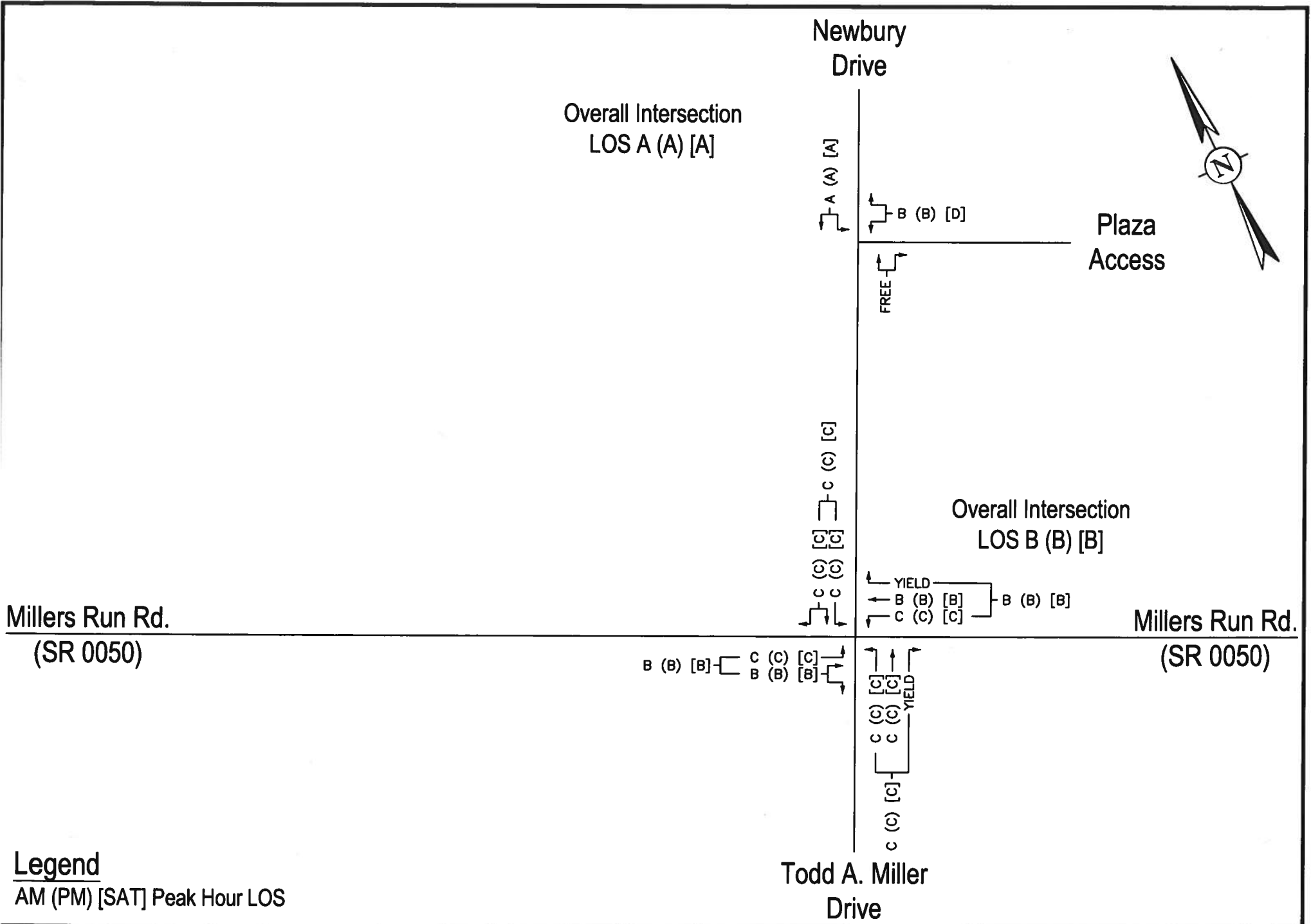
← 28 (53) [59]
← 655 (539) [548]
← 90 (66) [92]

↑ 57 (98) [74]
↑ 28 (35) [36]
↑ 113 (142) [136]

Todd A. Miller Drive

Legend
AM (PM) [SAT] Peak Hour Volumes

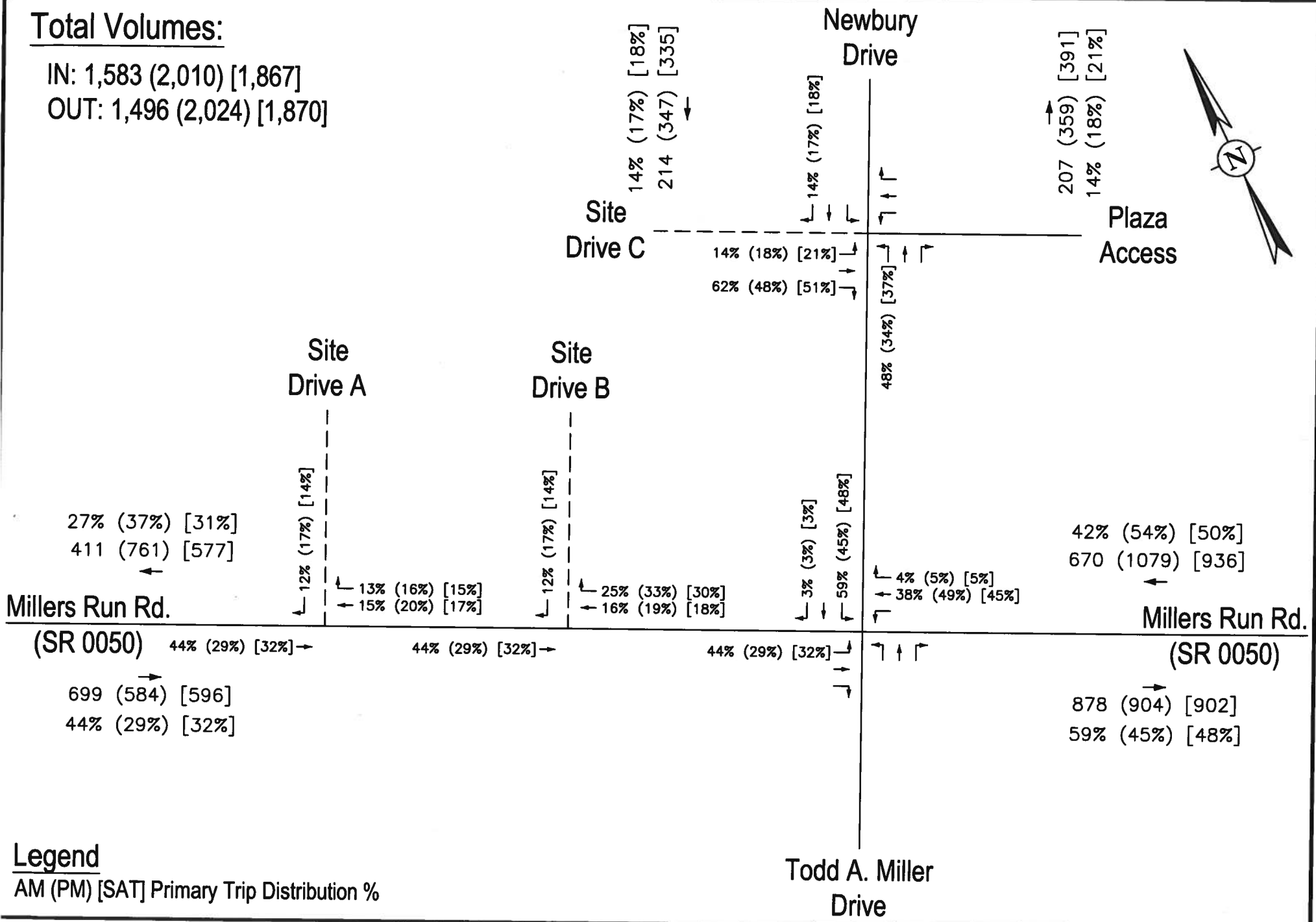
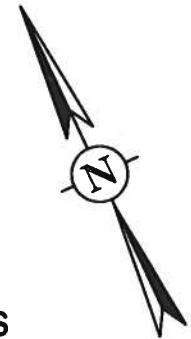
PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Design Year 2029 Without Development Condition Peak Hour Traffic Volumes



PROPOSED RETAIL DEVELOPMENT - South Fayette Township
 Design Year 2029 Without Development Condition Peak Hour LOS

Total Volumes:

IN: 1,583 (2,010) [1,867]
 OUT: 1,496 (2,024) [1,870]



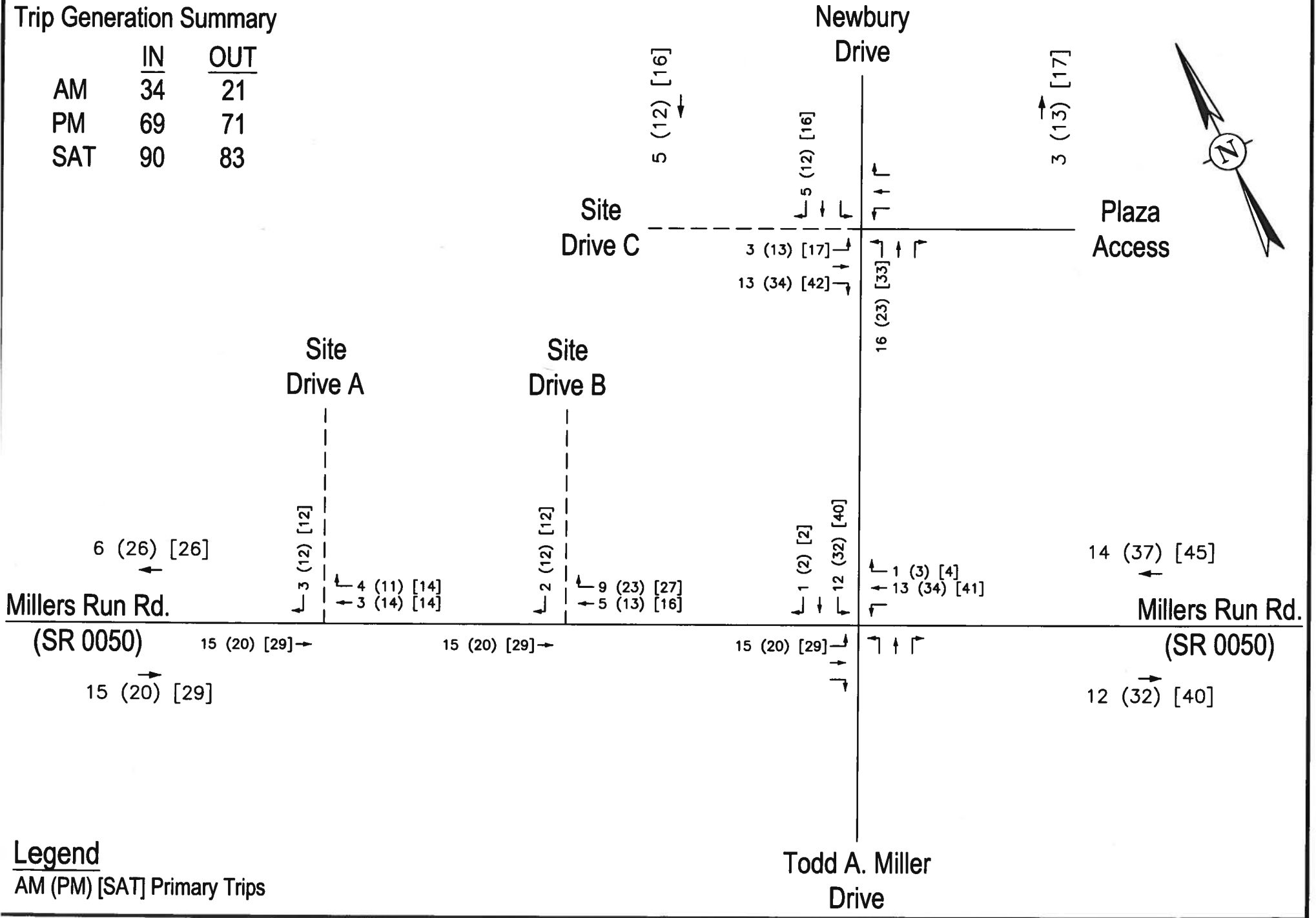
Legend

AM (PM) [SAT] Primary Trip Distribution %

PROPOSED RETAIL DEVELOPMENT - South Fayette Township
 Primary Trip Distribution Percentages

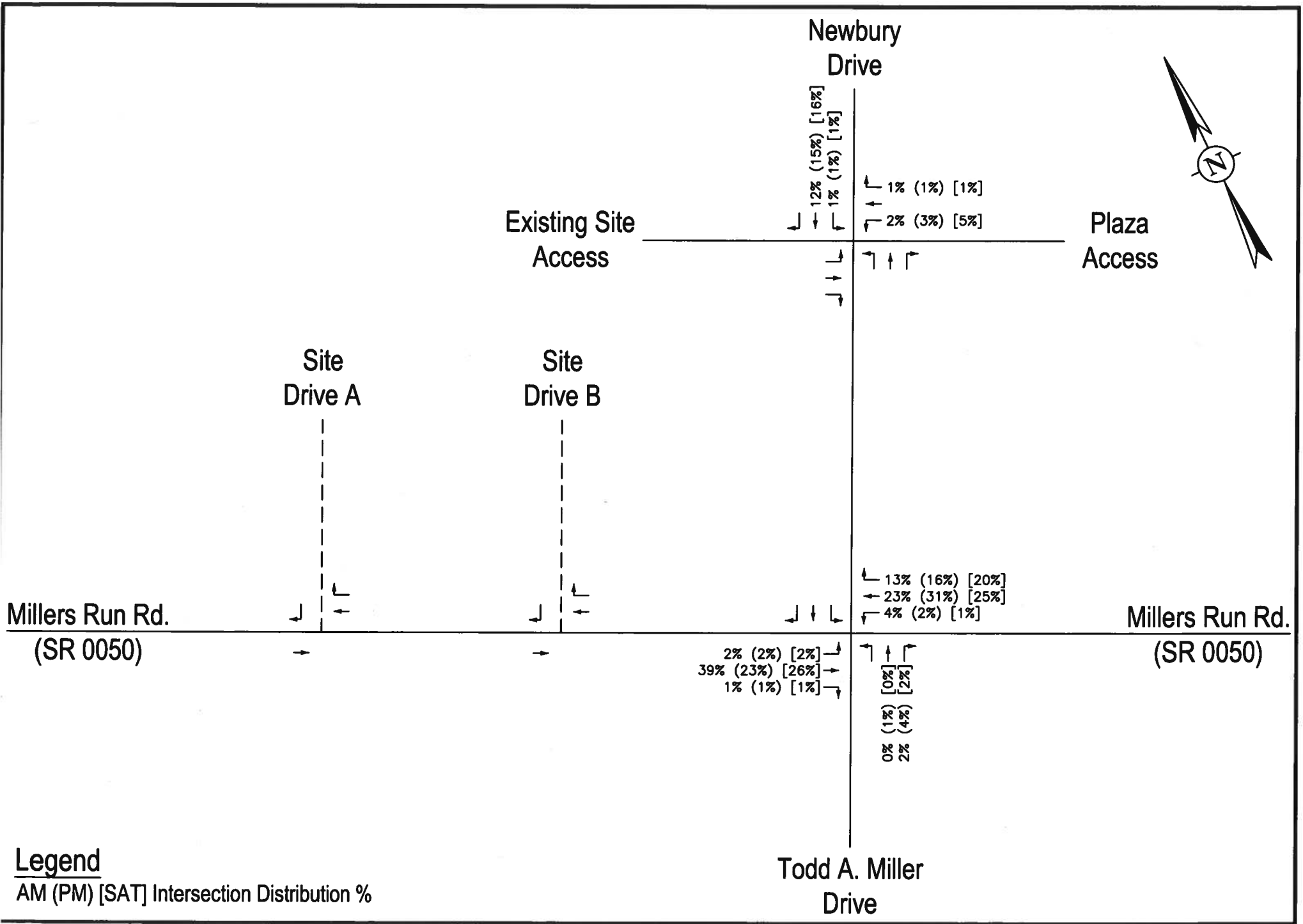
Trip Generation Summary

	<u>IN</u>	<u>OUT</u>
AM	34	21
PM	69	71
SAT	90	83

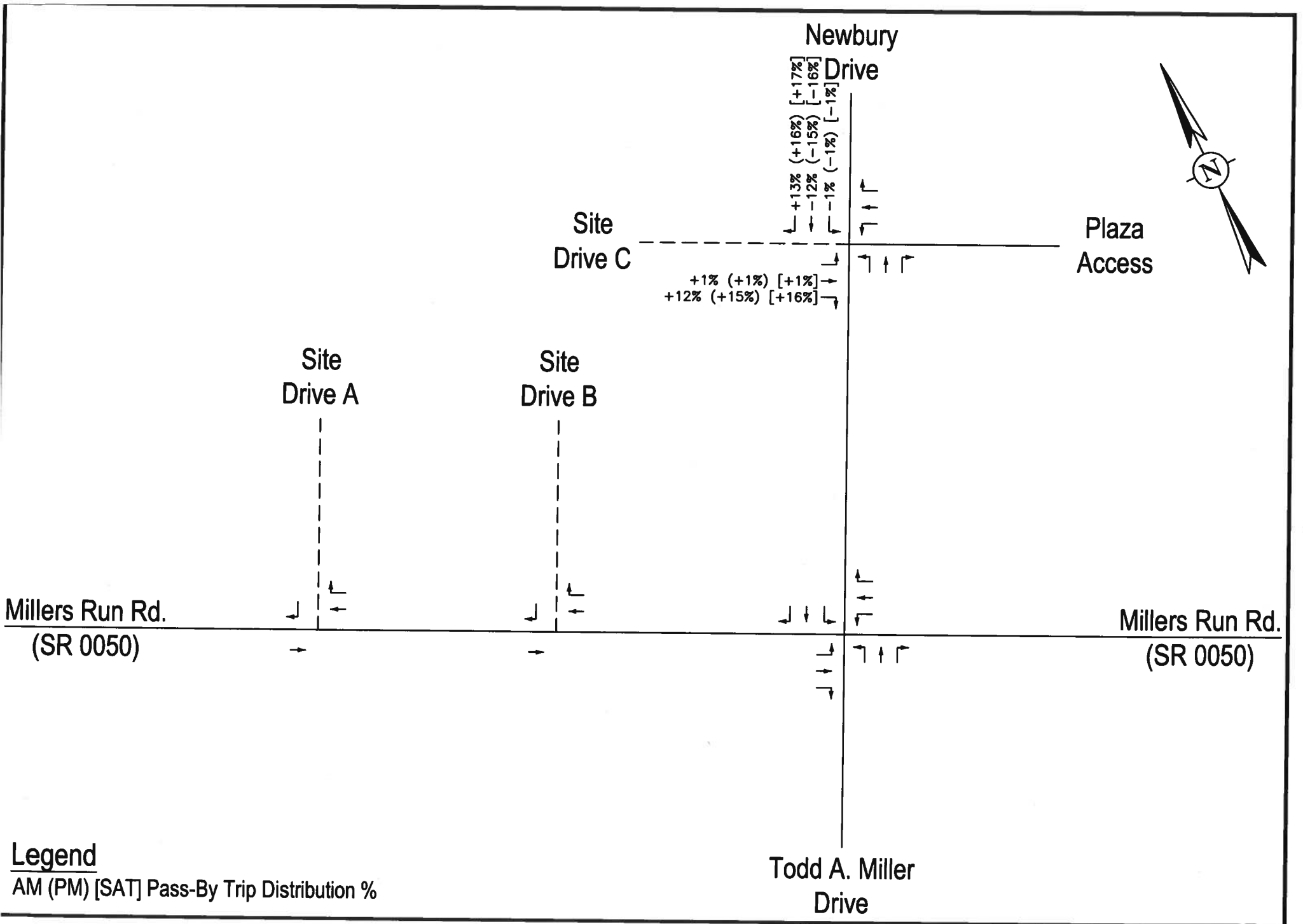


Legend
 AM (PM) [SAT] Primary Trips

**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Site-Generated Primary Trips**

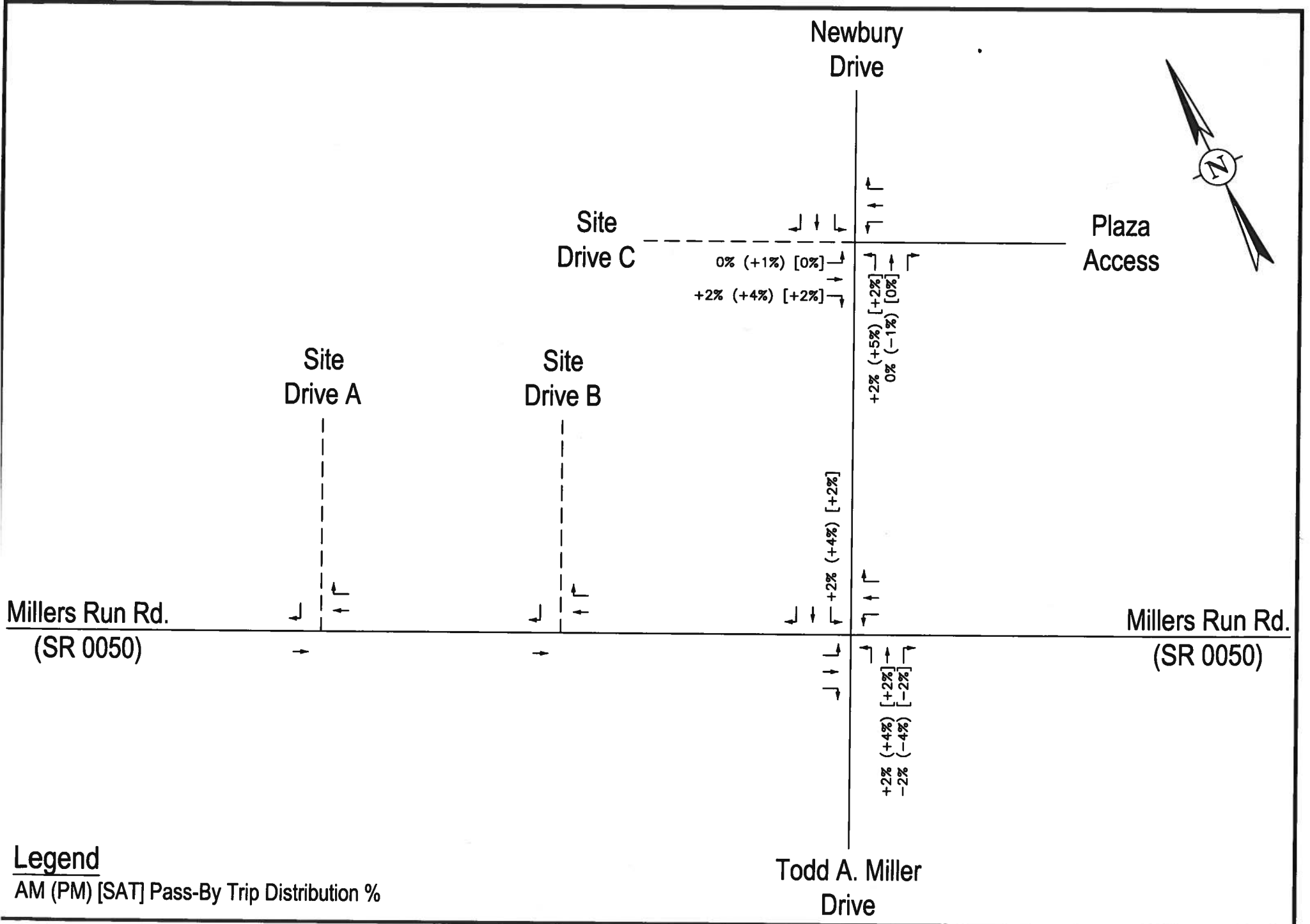


PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Intersection Distribution Percentages

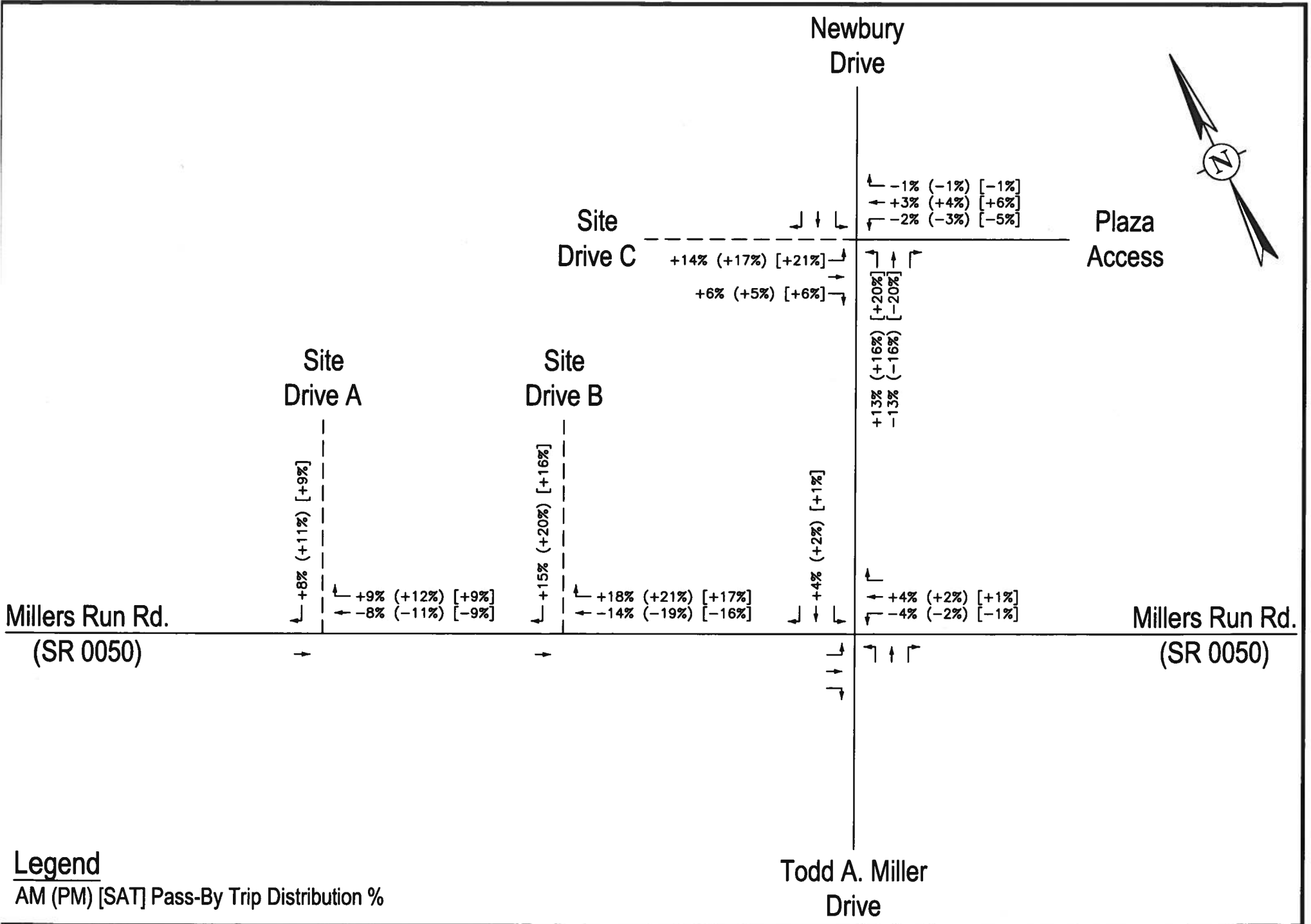
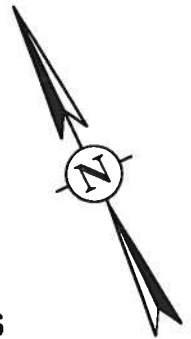


Legend
 AM (PM) [SAT] Pass-By Trip Distribution %

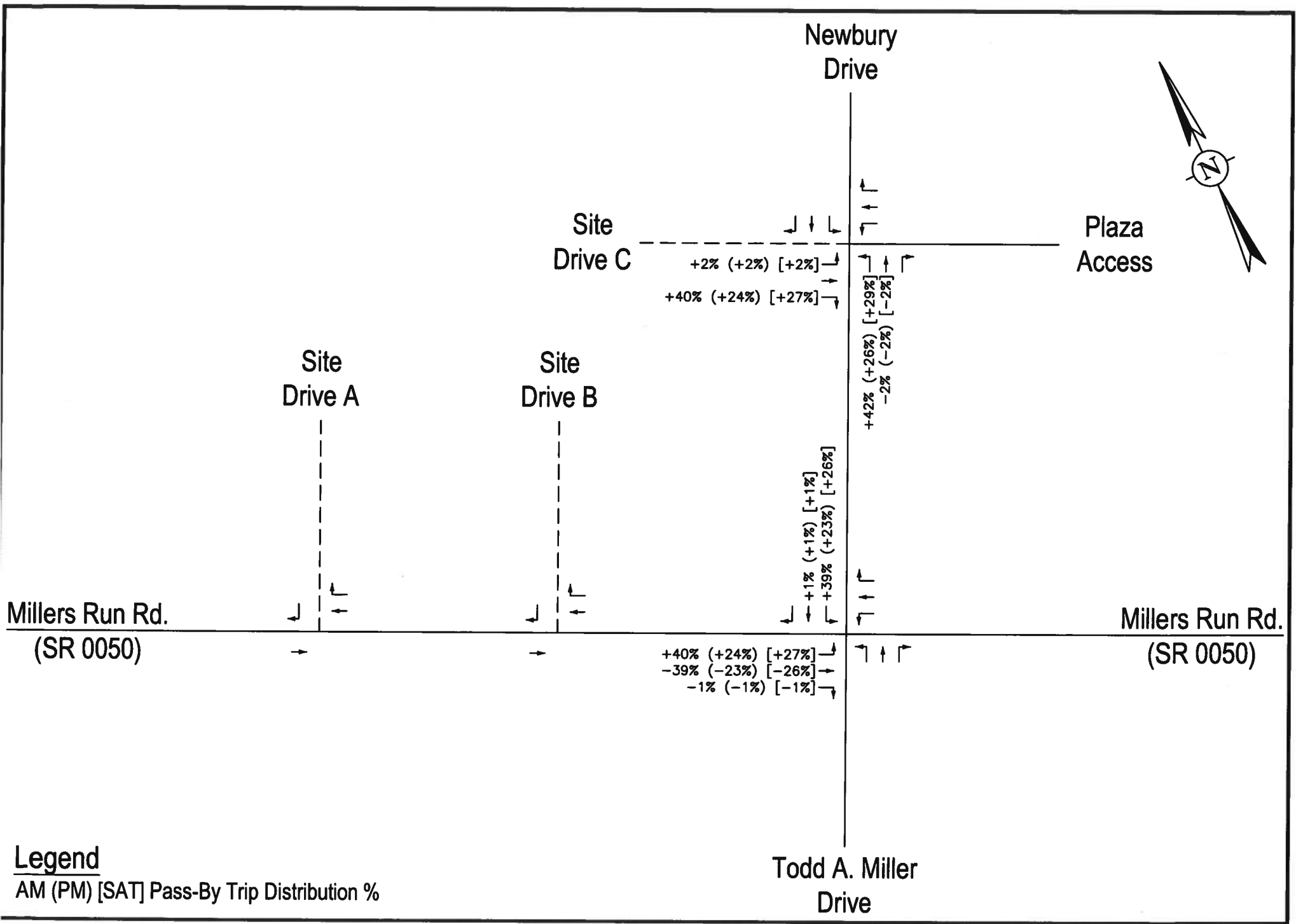
PROPOSED RETAIL DEVELOPMENT - South Fayette Township
Pass-By Trip Distribution Percentages (From North)



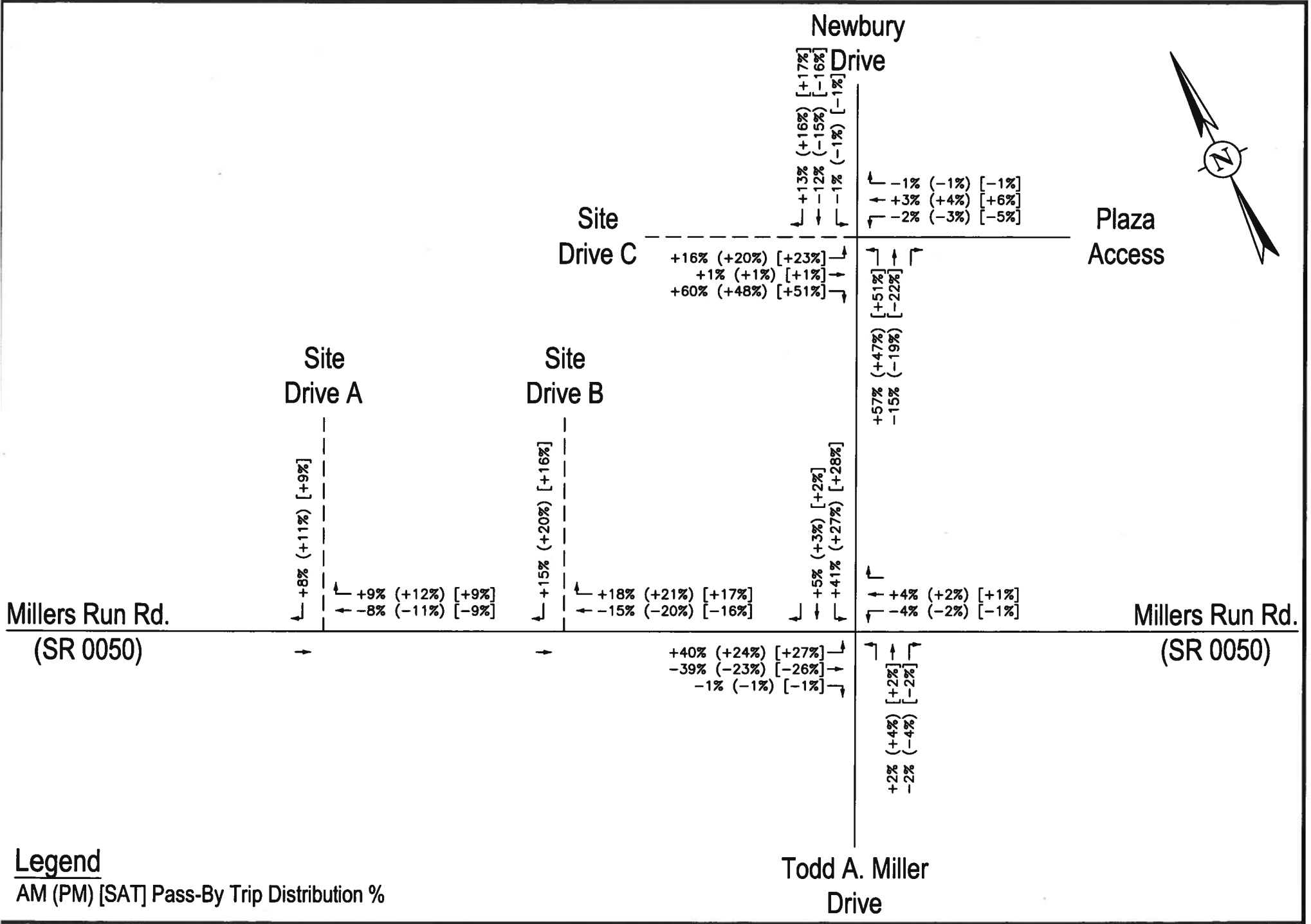
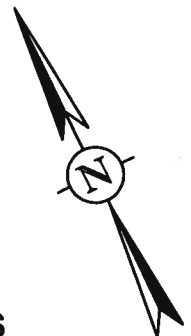
PROPOSED RETAIL DEVELOPMENT - South Fayette Township
Pass-By Trip Distribution Percentages (From South)



PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Pass-By Trip Distribution Percentages (From East)



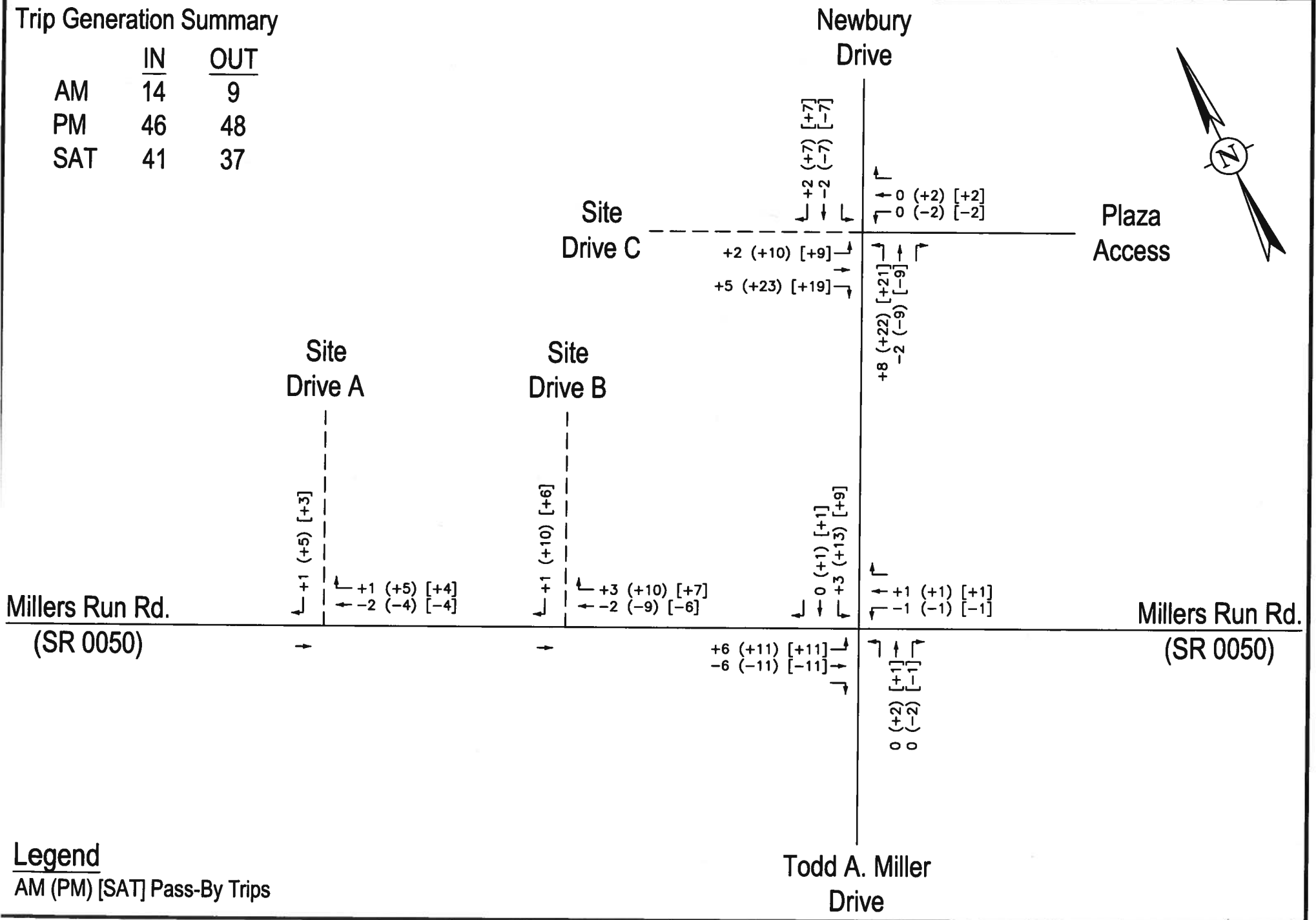
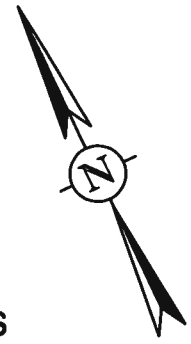
PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Pass-By Trip Distribution Percentages (From West)



PROPOSED RETAIL DEVELOPMENT - South Fayette Township
Pass-By Trip Distribution Percentages (Total)

Trip Generation Summary

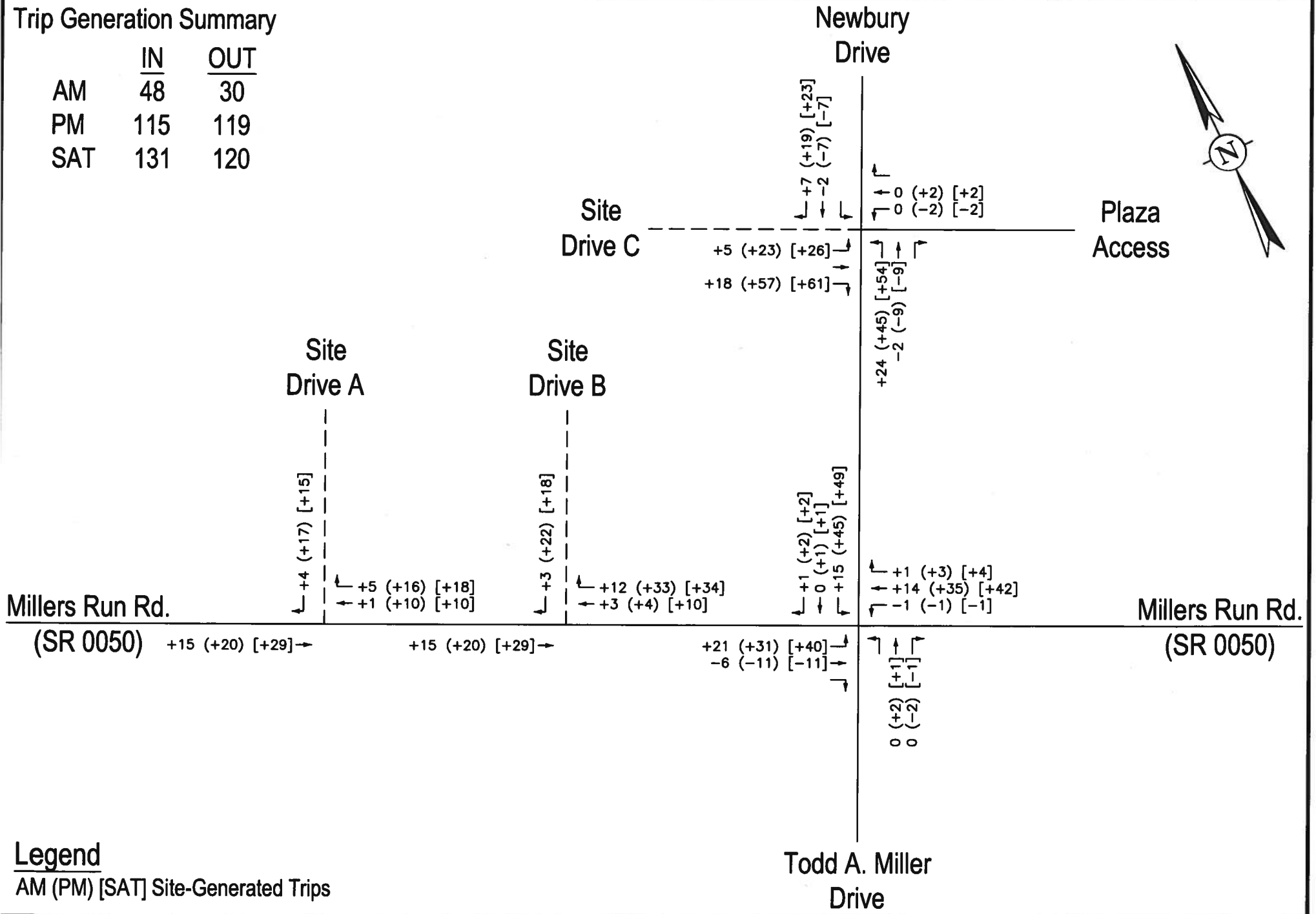
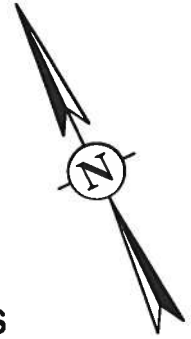
	IN	OUT
AM	14	9
PM	46	48
SAT	41	37



PROPOSED RETAIL DEVELOPMENT - South Fayette Township
 Site-Generated Pass-By Trips

Trip Generation Summary

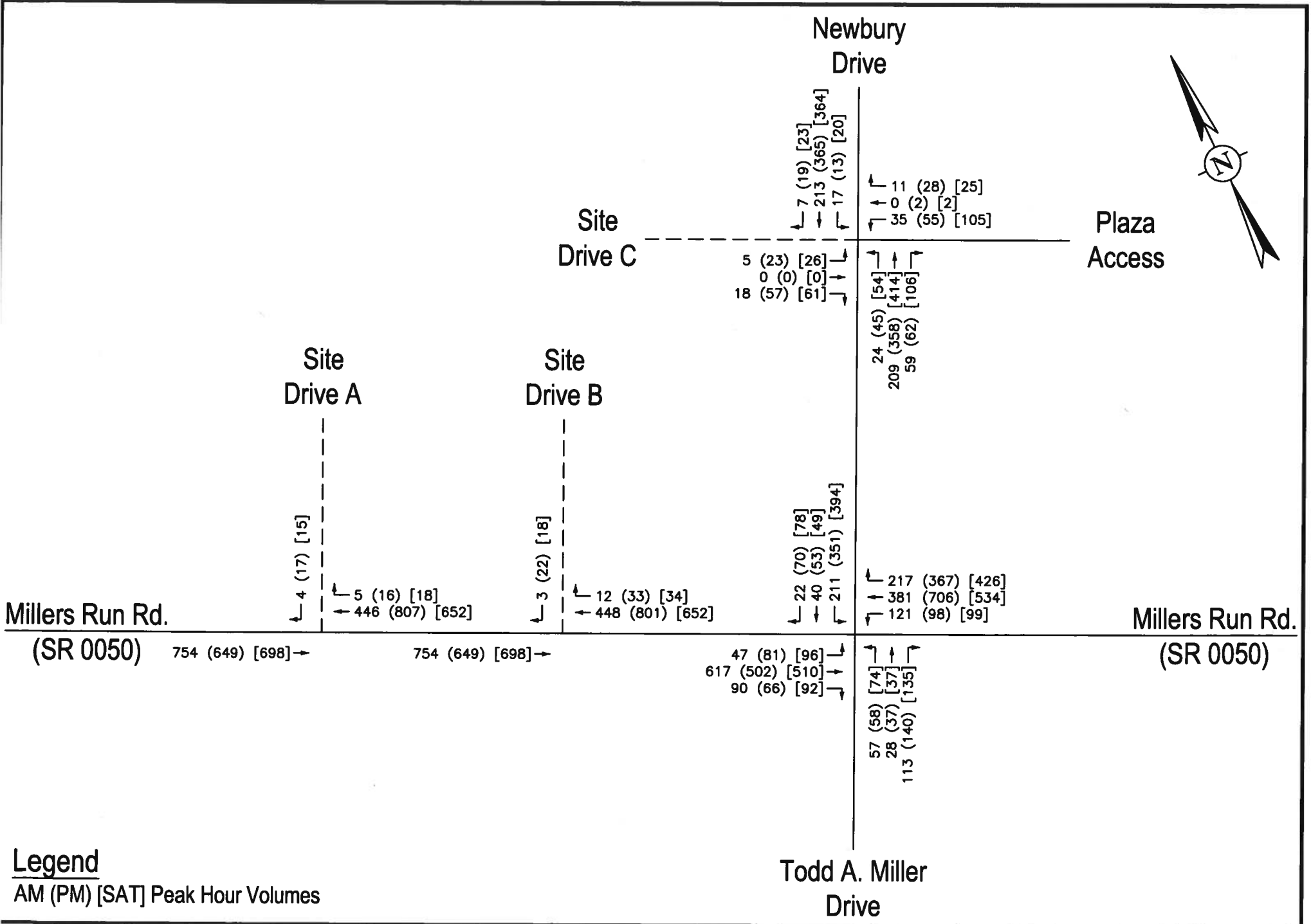
	<u>IN</u>	<u>OUT</u>
AM	48	30
PM	115	119
SAT	131	120



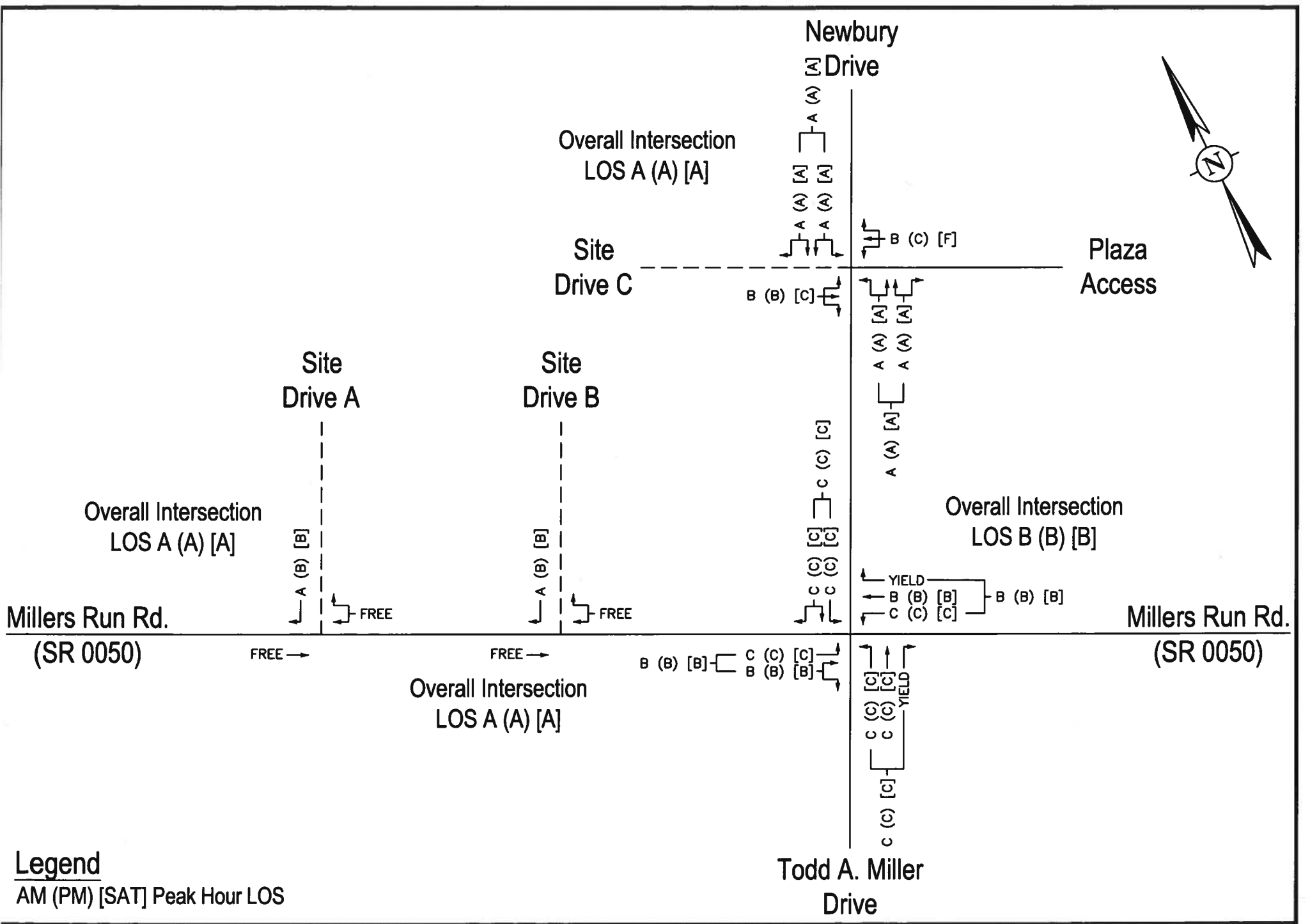
Legend

AM (PM) [SAT] Site-Generated Trips

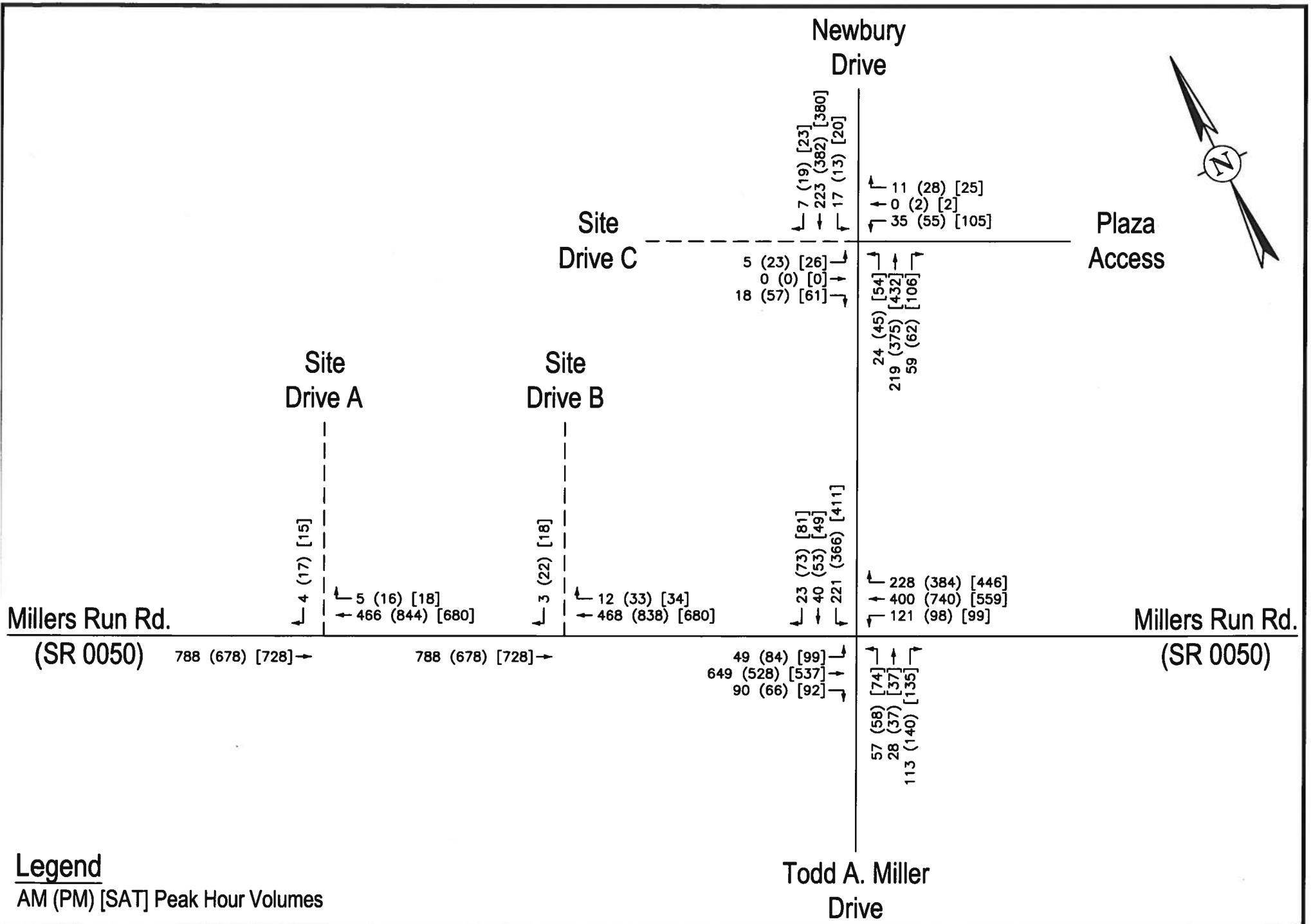
**PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Total Site-Generated Trips**



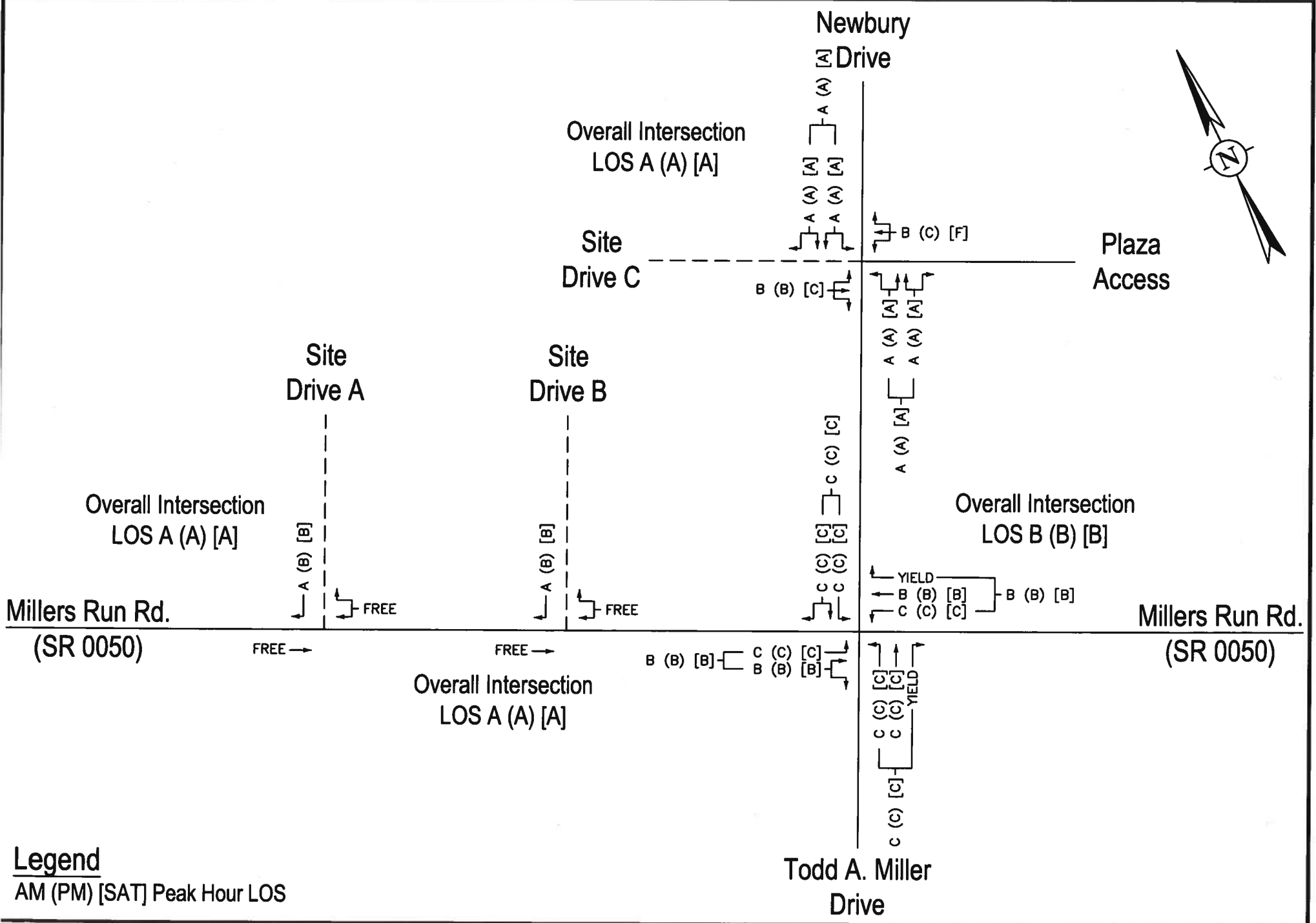
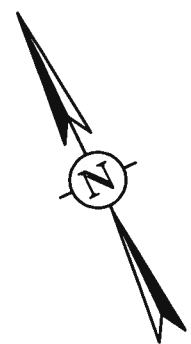
PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Opening Year 2024 With Development Condition Peak Hour Traffic Volumes



PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Opening Year 2024 With Development Condition Peak Hour LOS



PROPOSED RETAIL DEVELOPMENT – South Fayette Township
Design Year 2029 With Development Condition Peak Hour Traffic Volumes



PROPOSED RETAIL DEVELOPMENT – South Fayette Township
 Design Year 2029 With Development Condition Peak Hour LOS

APPENDICES

APPENDIX A

TIS Scoping Checklist

**TRANSPORTATION IMPACT STUDY (TIS)
SCOPING MEETING CHECKLIST**

Scoping Meeting Date: Thursday, September 14, 2023 – 10:00 AM – via Microsoft Teams

Applicant: Cozza Enterprises, LLC

Applicants Consultant: David E. Wooster and Associates, LLC Phone: 412-921-3303

Applicant's Primary Contact: Craig Cozza Phone: 412-417-9700

(1) LOCATION OF PROPOSED DEVELOPMENT:

*Site location map is attached to this checklist.

PennDOT Engineering Dist.: 11-0 County: Allegheny

Municipality: South Fayette Township

State Route(s): SR 0050

From Segment / Offset: 0090 / 1000

To Segment / Offset: 0090 / 1359

(2) DESCRIPTION OF PROPOSED DEVELOPMENT:

*Preliminary site plan attached to this checklist.

Proposed site access: Two (2) right-in right-out only (RIRO) site access proposed along the northern side of Millers Run Road (SR 0050); full access site drive along the western side of Newbury Drive.

Proposed land uses: Retail

Community linkages: Sidewalk requirements per South Fayette Township ordinances (if any); no additional bus stops proposed; no new cross easements proposed; pedestrian accommodations (if any) in the study area to be maintained.

(3) DEVELOPMENT SCHEDULE AND STAGING:

Anticipated Opening Date: 2024

Full Buildout Date: -

Describe Proposed Development Schedule/Staging:

None.

(4) TRIP GENERATION:

Trip generation for the proposed development will be based on:

ITE Trip Generation Manual

- LU Code #821 (Shopping Plaza 40-150k without Supermarket) with gross floor area as the independent variable.

Other independent surveys

List land development and trip generation information, as appropriate. If necessary, attach additional sheets to indicate additional land uses or development phases.

Land Use(s)	Size	ADT (In / Out)	Peak Hour Trips (In / Out)		
			AM Peak	PM Peak	SAT Peak
#821	~ 45,126 SF	3,048 (1,524 / 1,524)	78 (48 / 30)	234 (115 / 119)	251 (131 / 120)
		<i>Primary</i>	55 (34 / 21)	140 (69 / 71)	173 (90 / 83)
		<i>Pass-By</i>	23 (14 / 9)	94 (46 / 48)	78 (41 / 37)
	Totals	3,048 (1,524 / 1,524)	78 (48 / 30)	234 (115 / 119)	251 (131 / 120)

*The 11th Edition of the Trip Generation Manual was used.

(5) ESTIMATED DAILY TRIP GENERATION/DRIVEWAY CLASSIFICATION:

- (a) Estimated Daily Trip Generation of Proposed Development – Assuming One Access Point and Full Buildout/Occupancy of Entire Tract: **3,048** trips/day

(b) Driveway Classification Based on Trip Generation and One Access Point:

Minimum Use: _____ Medium Volume: _____

Low Volume: _____ High Volume: X

(6) TRAFFIC IMPACT STUDY REQUIRED?

 No

 X Yes, based on: X 3,000 or more vehicle trips/day generated
 X During any one-hour time period, 100 or more new (added)
vehicle trips generated entering or 100 or more new (added)
vehicle trips generated exiting development

 Other considerations described below:

(7) TRAFFIC IMPACT ASSESSMENT REQUIRED?

 X No
 Yes

If a TIS or TIA is required, the following sections of this checklist will be discussed at the TIS Scoping Meeting. The applicant may provide preliminary information.

(8) TIS STUDY AREA:

(a) Roadway and Study Intersections

- **Millers Run Road (SR 0050) with Newbury Drive/Todd A. Miller Drive – Existing Signalized**
- **Proposed Site Drives**

(b) Land Use Context

Suburban Corridor

(c) Known Congestion Areas

- **Millers Run Road (SR 0050) with Newbury Drive/Todd A. Miller Drive**
- **Proposed Cane's Restaurant (Concern by Township/PennDOT)**

(d) Known Safety Concerns

None.

(e) Known Environmental Constraints

None.

(f) Pedestrian / Bike Review

Not Applicable.

(g) Transit Review

Not Applicable.

(9) STUDY AREA TYPE Urban X Rural

(10) TIS ANALYSIS PERIODS AND TIMES:

**Existing Year 2023 Condition
Opening Year 2024 Without and With Development
Design Year 2029 Without and With Development**

(11) TRAFFIC ADJUSTMENT FACTORS:

(a) Seasonal Adjustment:

No Seasonal Adjustment proposed. Counts will be performed during a typical weekday.
Source

(b) Annual Base Traffic Growth: 1.00% %/yr (linear) SPC – 4/25/2023

(c) Pass-By Trips:

<u>Land Use</u>	<u>%</u>	<u>Source – ITETripGen Web-based App</u>
#821	30% AM	PM – 10% 2021 Pass-By Rates (PM) 2021 Pass-By Rates (SAT)
	40% PM	
	31% SAT	

(d) Captured Trips for Multi-Use Sites:

Not Applicable.

(e) Modal Split Reductions:

Not Applicable.

(f) Other Reductions:

Not Applicable.

(12) OTHER PROJECTS WITHIN STUDY AREA TO BE ADDED TO BASE TRAFFIC:

- **The Piazza Development**
 - **6,800 SF High-Turnover (Sit-Down) Restaurant**
 - **4,000 SF Fast Food Restaurant with Drive-Through Window**
 - **4,250 SF Fast Food Restaurant with Drive-Through Window (Cane's)**
- **South Fayette Commons Development**
- **Cigar, Bar, & Restaurant (Newbury)**

(13) TRIP DISTRIBUTION AND ASSIGNMENT:

Distribution of the development trips will be based on the turning movement count data at the existing study intersection, as well as engineering judgment relative to the convenience of accessing the site from various directions.

(14) APPROVAL OF DATA COLLECTION ELEMENTS AND METHODOLOGIES:

<u>Location</u>	<u>Period</u>	<u>Type</u>
Existing intersection(s) listed in Section (8a) above	7:00-9:00 am (T-Th) 4:00-6:00 pm (T-Th) 11:00 am-2:00 pm (Sat)	Turning Movement Counts

(15) CAPACITY/LOS ANALYSES:

<u>Location</u>	<u>Period</u>	<u>Type</u>
Intersections listed in Section (8a)	AM, PM, & SAT Peak Hours	HCM 6 th Ed. Synchro 11

(16) ROADWAY IMPROVEMENTS/MODIFICATIONS BY OTHERS TO BE INCLUDED:

None.

(17) OTHER NEEDED ANALYSES:

(a) Sight Distance Analyses:

Yes – at all proposed site accesses.

(b) Signal Warrant Analysis:

If/as necessary.

(c) Required Signal Phasing/Timing Modifications:

If/as necessary.

(d) Traffic Signal Corridor/Network Analyses:

If/as necessary.

(e) Analyses of the Need for Turning Lanes:

Wooster will compare forecasted traffic volumes at the proposed site access with criteria outlined in Publication 46, Chapter 11 Traffic Studies, dated 2012 for the consideration of auxiliary turn lanes under future With Development conditions.

(f) Turning Lane Lengths:

Length of any required turn lanes will be based on criteria outlined in Publication 46, Chapter 11 Traffic Studies, dated 2012, which includes SimTraffic (queuing) analyses. Existing turn lane lengths will be evaluated to ensure that they are equipped to adequately accommodate projected traffic volumes.

(g) Left Turn Signal Phasing Analyses:

If/as necessary.

(h) Queuing Analyses:

Yes – queue analyses will be performed using SimTraffic to determine if existing turn lanes are of sufficient length to accommodate the projected traffic. To perform these analyses, five (5) separate 60-minute simulations with a 10-minute seeding interval will be evaluated for each peak hour and averaged.

(i) Gap Studies:

Not Applicable.

(j) Crash Analyses:

Yes – reportable crash data will be obtained from the Pennsylvania Department of Transportation (PennDOT) Pennsylvania Crash Information Tool (PCIT) for the study area.

(k) Weaving Analyses:

Not Applicable.

(l) Other Required Studies:

None.

(18) ADDITIONAL COMMENTS OR RECOMMENDATIONS RELATIVE TO THE SCOPE OF THE TIS:

None.



Joshua A. Haydo, P.E., PTOE

Date: 10-11-2023

Signature of Applicant's Engineer
Wooster and Associates

Date: _____

Signature of District Traffic PennDOT Representative
PennDOT District 11-0

Date: _____

Signature of District Permit PennDOT Representative
PennDOT District 11-0

Date: _____

Signature of Municipal Representative
South Fayette Township

APPENDIX B

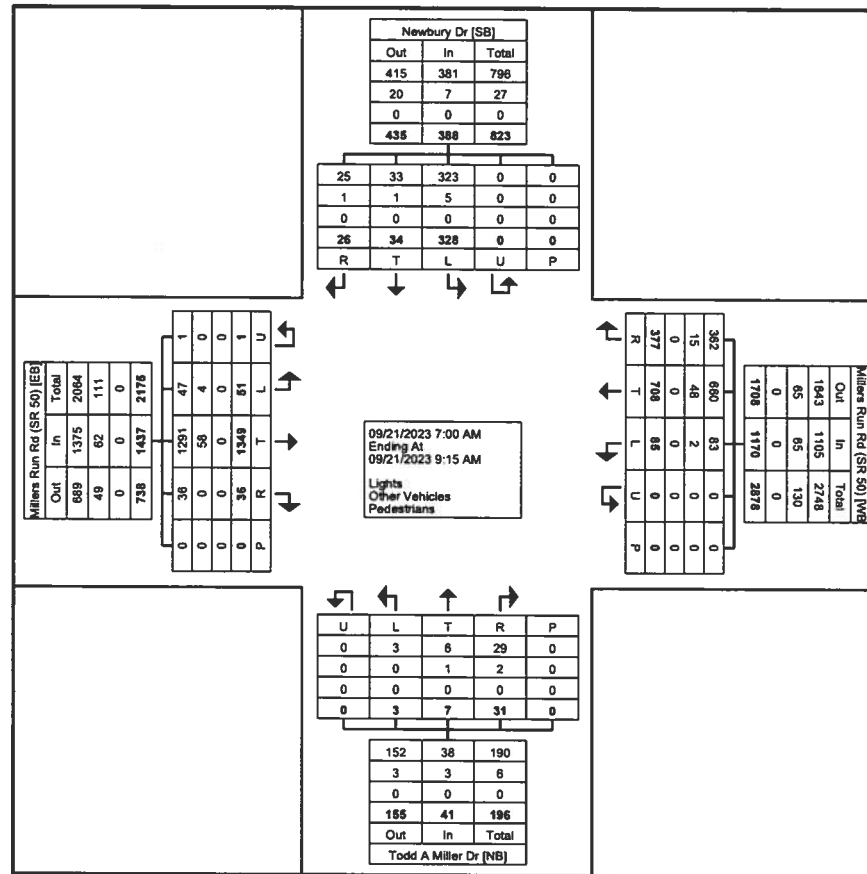
Turning Movement Counts



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (7-9 am)
Site Code: 4392
Start Date: 09/21/2023
Page No: 2



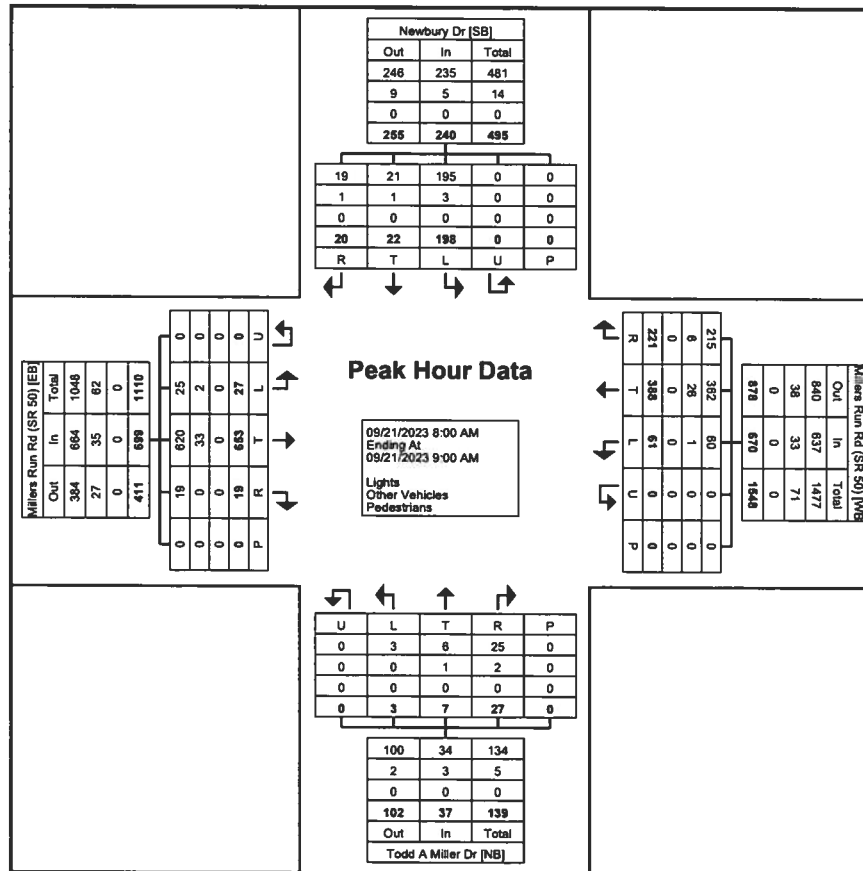
Turning Movement Data Plot



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (7-9 am)
Site Code: 4392
Start Date: 09/21/2023
Page No: 4



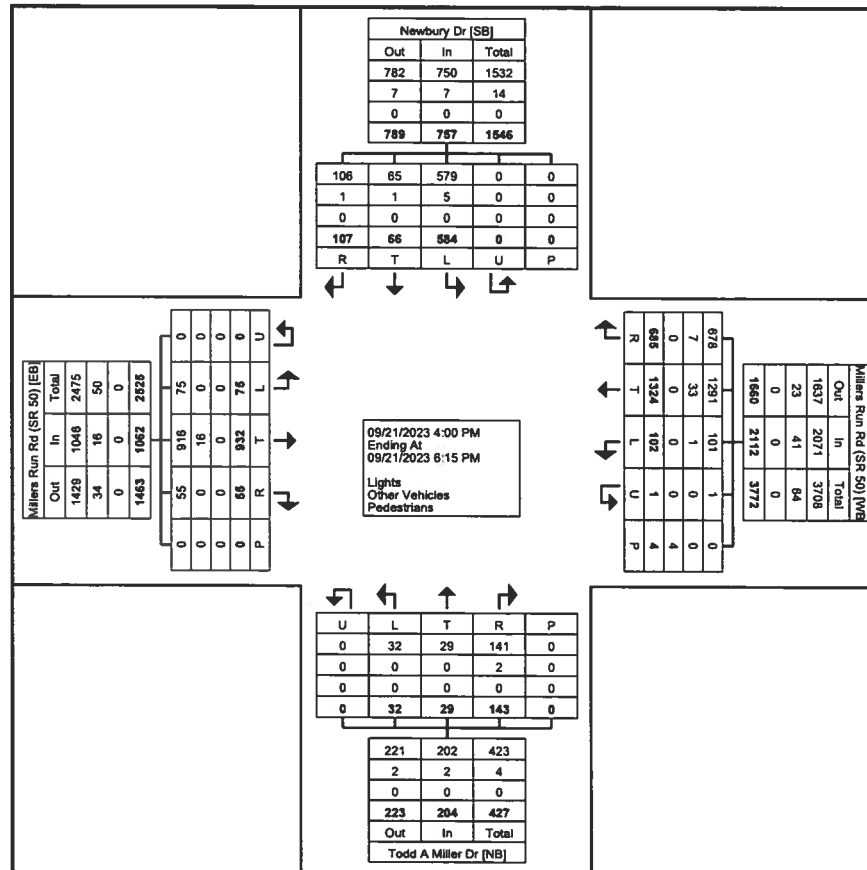
Turning Movement Peak Hour Data Plot (8:00 AM)



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 | nelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (4-6 pm)
Site Code: 4392
Start Date: 09/21/2023
Page No: 2



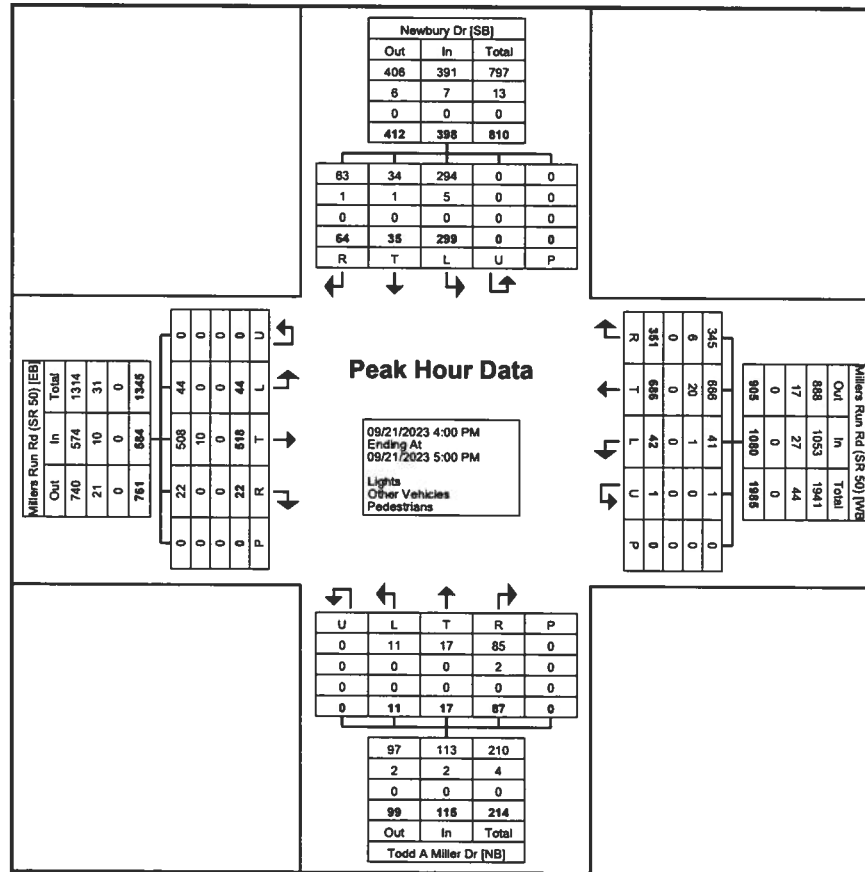
Turning Movement Data Plot



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (4-6 pm)
Site Code: 4392
Start Date: 09/21/2023
Page No: 4



Turning Movement Peak Hour Data Plot (4:00 PM)



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (SAT 11-2)
Site Code: 4392
Start Date: 09/23/2023
Page No: 1

Turning Movement Data

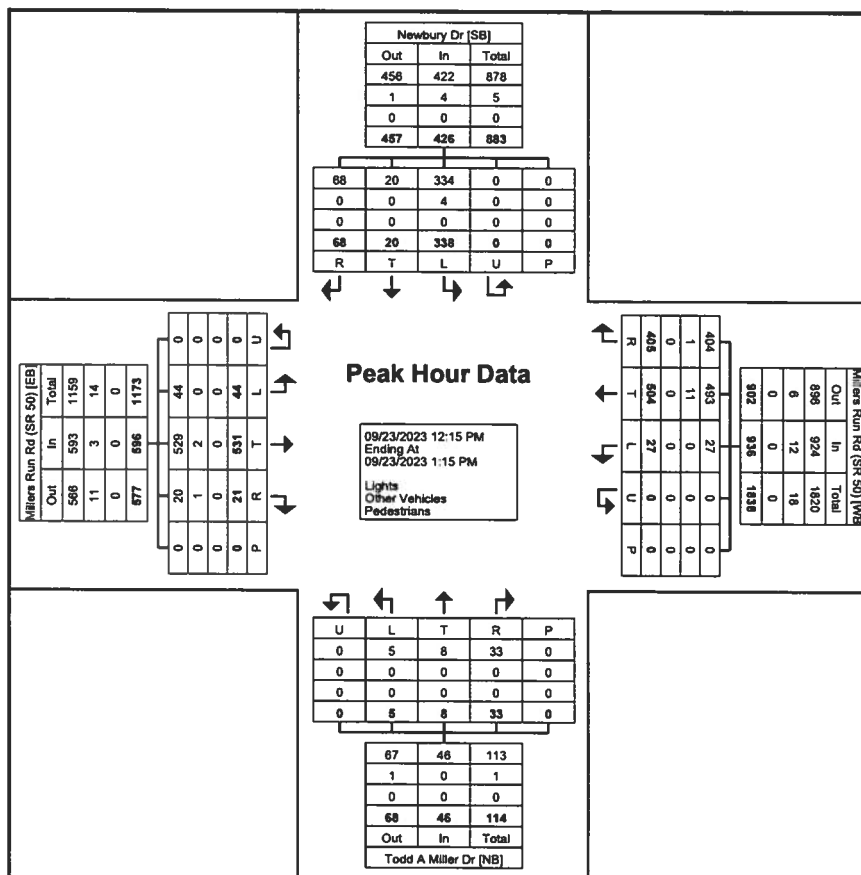
Start Time	Millers Run Rd (SR 50) Eastbound							Millers Run Rd (SR 50) Westbound							Todd A Miller Dr Northbound							Newbury Dr Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
11:00 AM	0	16	116	2	0	0	134	1	2	121	79	24	0	227	0	0	1	3	5	0	9	0	64	8	2	5	0	79	449
11:15 AM	0	10	130	4	0	0	144	0	7	138	62	17	0	224	0	0	1	5	5	0	11	0	88	8	3	9	0	108	487
11:30 AM	0	13	108	2	0	0	123	0	9	78	96	15	0	198	0	2	0	0	2	0	4	0	73	1	4	10	0	88	413
11:45 AM	0	12	119	6	0	0	137	0	12	111	71	22	0	216	0	2	3	2	6	0	13	0	100	9	4	8	1	121	487
Hourly Total	0	51	473	14	0	0	538	1	30	448	308	78	0	865	0	4	5	10	18	0	37	0	325	26	13	32	1	396	1836
12:00 PM	0	9	132	3	0	0	144	0	7	117	57	15	0	196	0	1	6	5	3	0	15	0	71	3	5	7	0	86	441
12:15 PM	0	10	171	5	2	0	188	0	6	113	82	19	0	220	0	2	1	2	6	0	11	0	81	7	5	3	0	96	515
12:30 PM	0	14	130	9	2	0	155	0	5	115	78	21	0	219	0	2	0	4	2	0	8	0	75	3	5	9	0	92	474
12:45 PM	0	11	122	1	0	0	134	0	6	142	70	38	0	256	0	1	5	3	5	0	14	0	104	4	14	16	0	138	542
Hourly Total	0	44	555	18	4	0	621	0	24	487	287	93	0	891	0	6	12	14	16	0	48	0	331	17	29	35	0	412	1972
1:00 PM	0	9	108	2	0	0	119	0	10	134	74	23	0	241	0	0	2	9	2	0	13	0	78	6	9	7	0	100	473
1:15 PM	0	11	106	3	1	0	121	0	8	124	65	30	0	227	0	1	1	3	5	0	10	0	77	4	4	3	0	88	446
1:30 PM	0	19	129	4	0	0	152	0	6	140	86	32	0	264	0	4	2	8	12	0	26	0	83	2	5	5	0	95	537
1:45 PM	0	15	114	4	0	0	133	0	6	114	64	25	0	209	0	1	2	3	10	0	16	0	78	0	6	10	0	94	452
Hourly Total	0	54	457	13	1	0	525	0	30	512	289	110	0	941	0	6	7	23	29	0	65	0	316	12	24	25	0	377	1908
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	149	1485	45	5	0	1684	1	84	1447	884	281	0	2697	0	16	24	47	63	0	150	0	972	55	66	92	1	1185	5716
Approach %	0.0	8.8	88.2	2.7	0.3	-	-	0.0	3.1	53.7	32.8	10.4	-	-	0.0	10.7	16.0	31.3	42.0	-	-	0.0	82.0	4.6	5.6	7.8	-	-	-
Total %	0.0	2.6	26.0	0.8	0.1	-	29.5	0.0	1.5	25.3	15.5	4.9	-	47.2	0.0	0.3	0.4	0.8	1.1	-	2.6	0.0	17.0	1.0	1.2	1.6	-	20.7	-
Lights	0	149	1478	44	5	-	1676	1	84	1428	880	281	-	2674	0	16	24	47	63	-	150	0	965	55	66	92	-	1178	5678
% Lights	-	100.0	99.5	97.8	100.0	-	99.5	100.0	100.0	98.7	99.5	100.0	-	99.1	-	100.0	100.0	100.0	100.0	-	100.0	-	99.3	100.0	100.0	100.0	-	99.4	99.3
Other Vehicles	0	0	7	1	0	-	8	0	0	19	4	0	-	23	0	0	0	0	0	-	0	0	7	0	0	0	-	7	38
% Other Vehicles	-	0.0	0.5	2.2	0.0	-	0.5	0.0	0.0	1.3	0.5	0.0	-	0.9	-	0.0	0.0	0.0	0.0	-	0.0	-	0.7	0.0	0.0	0.0	-	0.6	0.7
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: SR 50 & Newbury Dr. (SAT 11-2)
Site Code: 4392
Start Date: 09/23/2023
Page No: 4



Turning Movement Peak Hour Data Plot (12:15 PM)



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: Newbury Dr. & Plaza Access (7-9 am)
Site Code: 4392
Start Date: 09/21/2023
Page No: 1

Turning Movement Data

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	37	7	0	44	0	0	32	0	0	32	77
7:15 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	21	15	0	36	0	2	25	0	0	27	68
7:30 AM	0	0	0	0	0	0	0	5	0	0	0	5	0	0	29	6	0	35	0	1	37	0	0	38	78
7:45 AM	0	0	0	0	0	0	0	4	0	2	0	6	0	0	46	20	0	66	0	2	47	0	0	49	121
Hourly Total	0	0	0	0	0	0	0	14	0	3	0	17	0	0	133	48	0	181	0	5	141	0	0	146	344
8:00 AM	0	0	0	0	0	0	0	10	0	3	0	13	0	0	35	15	0	50	0	4	37	0	0	41	104
8:15 AM	0	0	0	0	0	0	0	6	0	4	0	10	0	0	46	13	0	59	0	5	42	0	0	47	116
8:30 AM	0	0	0	0	0	0	0	11	0	1	0	12	1	0	57	16	0	74	0	3	63	0	0	66	152
8:45 AM	0	0	0	0	0	0	0	8	0	3	2	11	0	0	58	15	0	73	0	5	55	0	0	60	144
Hourly Total	0	0	0	0	0	0	0	35	0	11	2	46	1	0	196	59	0	256	0	17	197	0	0	214	516
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	49	0	14	2	63	1	0	329	107	0	437	0	22	338	0	0	360	860
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	77.8	0.0	22.2	-	-	0.2	0.0	75.3	24.5	-	-	0.0	6.1	93.9	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	5.7	0.0	1.6	-	7.3	0.1	0.0	38.3	12.4	-	50.8	0.0	2.6	39.3	0.0	-	41.9	-
Lights	0	0	0	0	-	0	0	48	0	14	-	62	1	0	310	107	-	418	0	22	330	0	-	352	832
% Lights	-	-	-	-	-	-	-	98.0	-	100.0	-	98.4	100.0	-	94.2	100.0	-	95.7	-	100.0	97.6	-	-	97.8	96.7
Other Vehicles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	19	0	-	19	0	0	8	0	-	8	28
% Other Vehicles	-	-	-	-	-	-	-	2.0	-	0.0	-	1.6	0.0	-	5.8	0.0	-	4.3	-	0.0	2.4	-	-	2.2	3.3
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: Newbury Dr. & Plaza Access (7-9 am)
Site Code: 4392
Start Date: 09/21/2023
Page No: 3

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
8:00 AM	0	0	0	0	0	0	0	10	0	3	0	13	0	0	35	15	0	50	0	4	37	0	0	41	104
8:15 AM	0	0	0	0	0	0	0	6	0	4	0	10	0	0	46	13	0	59	0	5	42	0	0	47	116
8:30 AM	0	0	0	0	0	0	0	11	0	1	0	12	1	0	57	16	0	74	0	3	63	0	0	66	152
8:45 AM	0	0	0	0	0	0	0	8	0	3	2	11	0	0	58	15	0	73	0	5	55	0	0	60	144
Total	0	0	0	0	0	0	0	35	0	11	2	46	1	0	196	59	0	256	0	17	197	0	0	214	516
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	76.1	0.0	23.9	-	-	0.4	0.0	76.6	23.0	-	49.6	0.0	7.9	92.1	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	6.8	0.0	2.1	-	8.9	0.2	0.0	38.0	11.4	-	49.6	0.0	3.3	38.2	0.0	-	41.5	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.795	0.000	0.688	-	0.885	0.250	0.000	0.845	0.922	-	0.865	0.000	0.850	0.782	0.000	-	0.811	0.849
Lights	0	0	0	0	-	0	0	34	0	11	-	45	1	0	187	59	-	247	0	17	193	0	-	210	502
% Lights	-	-	-	-	-	-	-	97.1	-	100.0	-	97.8	100.0	-	95.4	100.0	-	96.5	-	100.0	98.0	-	-	98.1	97.3
Other Vehicles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	9	0	-	9	0	0	4	0	-	4	14
% Other Vehicles	-	-	-	-	-	-	-	2.9	-	0.0	-	2.2	0.0	-	4.6	0.0	-	3.5	-	0.0	2.0	-	-	1.9	2.7
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

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Count Name: Newbury Dr. & Plaza Access (4-6 pm)
Site Code: 4392
Start Date: 09/21/2023
Page No: 1

Turning Movement Data

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	0	0	0	0	0	0	10	0	9	0	19	0	0	75	11	0	86	0	4	115	0	0	119	224
4:15 PM	0	0	0	0	0	0	0	17	0	7	0	24	0	0	64	12	0	76	0	6	80	0	0	86	186
4:30 PM	0	0	0	0	0	0	0	15	0	5	0	20	0	0	101	17	0	118	0	1	65	0	0	66	204
4:45 PM	0	0	0	0	0	0	0	15	0	7	0	22	0	0	91	22	0	113	0	2	74	0	0	76	211
Hourly Total	0	0	0	0	0	0	0	57	0	28	0	85	0	0	331	62	0	393	0	13	334	0	0	347	825
5:00 PM	0	0	0	0	0	0	0	19	0	9	0	28	0	0	82	15	0	97	0	4	76	0	0	80	205
5:15 PM	0	0	0	0	0	0	0	18	0	8	0	26	0	0	69	15	0	84	0	5	66	0	0	71	181
5:30 PM	0	0	0	0	0	0	0	7	0	8	0	15	0	0	89	18	0	107	0	0	81	0	0	81	203
5:45 PM	0	0	0	0	0	0	0	11	0	2	0	13	3	0	82	17	0	102	0	3	78	0	0	81	196
Hourly Total	0	0	0	0	0	0	0	55	0	27	0	82	3	0	322	65	0	390	0	12	301	0	0	313	785
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	112	0	55	0	167	3	0	653	127	0	783	0	25	635	0	0	660	1610
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	67.1	0.0	32.9	-	-	0.4	0.0	83.4	16.2	-	-	0.0	3.8	96.2	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	7.0	0.0	3.4	-	10.4	0.2	0.0	40.6	7.9	-	48.6	0.0	1.6	39.4	0.0	-	41.0	-
Lights	0	0	0	0	-	0	0	112	0	54	-	166	3	0	645	127	-	775	0	25	628	0	-	653	1594
% Lights	-	-	-	-	-	-	-	100.0	-	98.2	-	99.4	100.0	-	98.8	100.0	-	99.0	-	100.0	98.9	-	-	98.9	99.0
Other Vehicles	0	0	0	0	-	0	0	0	0	1	-	1	0	0	8	0	-	8	0	0	7	0	-	7	16
% Other Vehicles	-	-	-	-	-	-	-	0.0	-	1.8	-	0.6	0.0	-	1.2	0.0	-	1.0	-	0.0	1.1	-	-	1.1	1.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
412-921-3303 jnelson@dewooster.com

Count Name: Newbury Dr. & Plaza Access (4-6 pm)
Site Code: 4392
Start Date: 09/21/2023
Page No: 3

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	0	0	0	0	0	0	10	0	9	0	19	0	0	75	11	0	86	0	4	115	0	0	119	224
4:15 PM	0	0	0	0	0	0	0	17	0	7	0	24	0	0	64	12	0	76	0	6	80	0	0	86	186
4:30 PM	0	0	0	0	0	0	0	15	0	5	0	20	0	0	101	17	0	118	0	1	65	0	0	66	204
4:45 PM	0	0	0	0	0	0	0	15	0	7	0	22	0	0	91	22	0	113	0	2	74	0	0	76	211
Total	0	0	0	0	0	0	0	57	0	28	0	85	0	0	331	62	0	393	0	13	334	0	0	347	825
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	67.1	0.0	32.9	-	-	0.0	0.0	84.2	15.8	-	-	0.0	3.7	96.3	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	6.9	0.0	3.4	-	10.3	0.0	0.0	40.1	7.5	-	47.6	0.0	1.6	40.5	0.0	-	-	42.1
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.838	0.000	0.778	-	0.885	0.000	0.000	0.819	0.705	-	0.833	0.000	0.542	0.726	0.000	-	-	0.729
Lights	0	0	0	0	-	0	0	57	0	28	-	85	0	0	323	62	-	385	0	13	327	0	-	-	340
% Lights	-	-	-	-	-	-	-	100.0	-	100.0	-	100.0	-	-	97.6	100.0	-	98.0	-	100.0	97.9	-	-	-	98.0
Other Vehicles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	8	0	-	8	0	0	7	0	-	-	7
% Other Vehicles	-	-	-	-	-	-	-	0.0	-	0.0	-	0.0	-	-	2.4	0.0	-	2.0	-	0.0	2.1	-	-	-	2.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
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Count Name: Newbury Dr. & Plaza Access (SAT 11-2)
Site Code: 4392
Start Date: 09/23/2023
Page No: 1

Turning Movement Data

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
11:00 AM	0	0	0	0	0	0	0	14	0	7	0	21	0	1	87	28	0	116	0	4	68	0	0	72	209
11:15 AM	0	0	0	0	0	0	0	29	0	3	0	32	0	0	74	18	0	92	0	3	79	0	0	82	206
11:30 AM	0	0	0	0	0	0	0	24	0	7	0	31	0	0	95	33	0	128	0	5	65	0	0	70	229
11:45 AM	0	0	0	0	0	0	0	22	0	10	0	32	0	0	71	31	0	102	0	4	98	0	0	102	236
Hourly Total	0	0	0	0	0	0	0	89	0	27	0	116	0	1	327	110	0	438	0	16	310	0	0	326	880
12:00 PM	0	0	0	0	0	0	0	24	0	4	0	28	1	0	67	21	0	89	0	4	66	0	0	70	187
12:15 PM	0	0	0	0	0	0	0	22	0	8	2	30	0	0	78	36	4	114	0	3	71	0	0	74	218
12:30 PM	0	0	0	1	0	1	0	26	0	5	0	31	0	0	91	24	0	115	0	3	66	0	0	69	216
12:45 PM	0	0	0	0	0	0	0	36	0	9	0	45	0	0	91	31	0	122	0	6	104	0	0	110	277
Hourly Total	0	0	0	1	0	1	0	108	0	26	2	134	1	0	327	112	4	440	0	16	307	0	0	323	898
1:00 PM	0	0	0	0	0	0	0	19	0	8	0	27	1	0	88	22	0	111	0	3	76	0	0	79	217
1:15 PM	0	0	0	0	0	0	0	27	0	1	0	28	0	0	85	20	0	105	0	4	62	0	0	66	199
1:30 PM	0	0	0	0	0	0	0	25	0	7	0	32	0	0	102	33	0	135	0	7	73	0	0	80	247
1:45 PM	0	0	0	0	0	0	0	26	0	3	0	29	0	0	89	16	0	105	0	6	71	0	0	77	211
Hourly Total	0	0	0	0	0	0	0	97	0	19	0	116	1	0	364	91	0	456	0	20	282	0	0	302	874
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	294	0	72	2	366	2	1	1018	313	4	1334	0	52	899	0	0	951	2652
Approach %	0.0	0.0	0.0	100.0	-	-	0.0	80.3	0.0	19.7	-	-	0.1	0.1	76.3	23.5	-	-	0.0	5.5	94.5	0.0	-	35.9	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	11.1	0.0	2.7	-	13.8	0.1	0.0	38.4	11.8	-	50.3	0.0	2.0	33.9	0.0	-	35.9	-
Lights	0	0	0	0	-	0	0	293	0	71	-	364	2	0	1014	310	-	1326	0	52	893	0	-	945	2635
% Lights	-	-	-	0.0	-	0.0	-	99.7	-	98.6	-	99.5	100.0	0.0	99.6	99.0	-	99.4	-	100.0	99.3	-	-	99.4	99.4
Other Vehicles	0	0	0	1	-	1	0	1	0	1	-	2	0	1	4	3	-	8	0	0	6	0	-	6	17
% Other Vehicles	-	-	-	100.0	-	100.0	-	0.3	-	1.4	-	0.5	0.0	100.0	0.4	1.0	-	0.6	-	0.0	0.7	-	-	0.6	0.6
Pedestrians	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



David E. Wooster and Associates : Main Account
2 East Crafton Ave.

Pittsburgh, Pennsylvania, United States 15205
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Count Name: Newbury Dr. & Plaza Access (SAT 11-2)
Site Code: 4392
Start Date: 09/23/2023
Page No: 3

Turning Movement Peak Hour Data (12:45 PM)

Start Time	Eastbound Approach Eastbound						Plaza Access Westbound						Newbury Dr Northbound						Newbury Dr Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
12:45 PM	0	0	0	0	0	0	0	36	0	9	0	45	0	0	91	31	0	122	0	6	104	0	0	110	277
1:00 PM	0	0	0	0	0	0	0	19	0	8	0	27	1	0	88	22	0	111	0	3	76	0	0	79	217
1:15 PM	0	0	0	0	0	0	0	27	0	1	0	28	0	0	85	20	0	105	0	4	62	0	0	66	199
1:30 PM	0	0	0	0	0	0	0	25	0	7	0	32	0	0	102	33	0	135	0	7	73	0	0	80	247
Total	0	0	0	0	0	0	0	107	0	25	0	132	1	0	366	106	0	473	0	20	315	0	0	335	940
Approach %	0.0	0.0	0.0	0.0	-	-	0.0	81.1	0.0	18.9	-	-	0.2	0.0	77.4	22.4	-	-	0.0	6.0	94.0	0.0	-	-	-
Total %	0.0	0.0	0.0	0.0	-	0.0	0.0	11.4	0.0	2.7	-	14.0	0.1	0.0	38.9	11.3	-	50.3	0.0	2.1	33.5	0.0	-	35.6	-
PHF	0.000	0.000	0.000	0.000	-	0.000	0.000	0.743	0.000	0.694	-	0.733	0.250	0.000	0.897	0.803	-	0.876	0.000	0.714	0.757	0.000	-	0.761	0.848
Lights	0	0	0	0	-	0	0	106	0	24	-	130	1	0	366	104	-	471	0	20	313	0	-	333	934
% Lights	-	-	-	-	-	-	-	99.1	-	96.0	-	98.5	100.0	-	100.0	98.1	-	99.6	-	100.0	99.4	-	-	99.4	99.4
Other Vehicles	0	0	0	0	-	0	0	1	0	1	-	2	0	0	0	2	-	2	0	0	2	0	-	2	6
% Other Vehicles	-	-	-	-	-	-	-	0.9	-	4.0	-	1.5	0.0	-	0.0	1.9	-	0.4	-	0.0	0.6	-	-	0.6	0.6
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX C

Photo Log of Existing Study Intersections



On Todd A .Miller Drive, looking north toward the intersection with Millers Run Road (SR 0050) / Newbury Drive



On Newbury Drive, looking south toward the intersection with Millers Run Road (SR 0050) / Todd A .Miller Drive





On Newbury Drive, looking north toward the intersection with the Plaza Access / Proposed Site Drive C



On Newbury Drive, looking south toward the intersection with the Plaza Access / Proposed Site Drive C



APPENDIX D

Traffic Signal Permit Plans

SIGNS

PLAN SYMBOL	SERIES DESIGNATION	SIZE W x H	DESCRIPTION	QTY.
A	R10-3EL	9"x15"	EDUC. PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER SIGN	4
B	R10-3ER	9"x15"	EDUC. PUSH BUTTON FOR WALK SIGNAL WITH COUNTDOWN TIMER SIGN	4
C	R3-5L	30"x36"	LEFT TURN	5
D	R3-5S	30"x36"	STRAIGHT THRU	4
E	R3-5R	30"x36"	RIGHT TURN	2
F	R3-6SR	30"x36"	OPTIONAL RIGHT TURN	2
G	D3-4*	**	Millers Run Rd	2
H	D3-5*	**	Newbury Dr Municipal Dr	1
I	D3-5*	**	Municipal Dr Newbury Dr	1
J	R1-2	36"x36"	YIELD	2
K	R1-5L	18"x18"	YIELD HERE TO PEDESTRIANS	2
L	R10-10L	30"x36"	LEFT TURN SIGNAL	5
M	OM1-3	18"x18"	OBJECT MARKER	1
N	R4-7	24"x30"	KEEP RIGHT	1
O	R4-102	30"x36"	LEFT LANE NO TRUCKS	1

SIGNAL ASSEMBLY NOTES:

EQUIP VEHICLE SIGNALS WITH SCOOP TUNNEL VISORS.
 EQUIP ALL VEHICLE SIGNALS WITH METAL LOUVERED REFLECTIVE BACK PLATES.
 ALL SIGNALS L.E.D. MODULES.
 MIN/MAX HEIGHT FOR VEHICULAR SIGNALS OVER ROADWAY SHALL BE 17' / 18'.
 MIN/MAX HEIGHT FOR PEDESTRIAN SIGNALS SHALL BE 10' / 15'.
 ALL PEDESTRIAN SIGNALS SINGLE UNIT, HAND/MAN OVERLAY, EQUIPPED WITH L.E.D. LENSES.
 FINAL PLACEMENT OF SIGNALS DETERMINED BY REPRESENTATIVE OF TRAFFIC ENGINEERING UNIT.
 LASH SIGNAL CABLE TO SPAN. NO CABLE TIES PERMITTED.

NOTES:

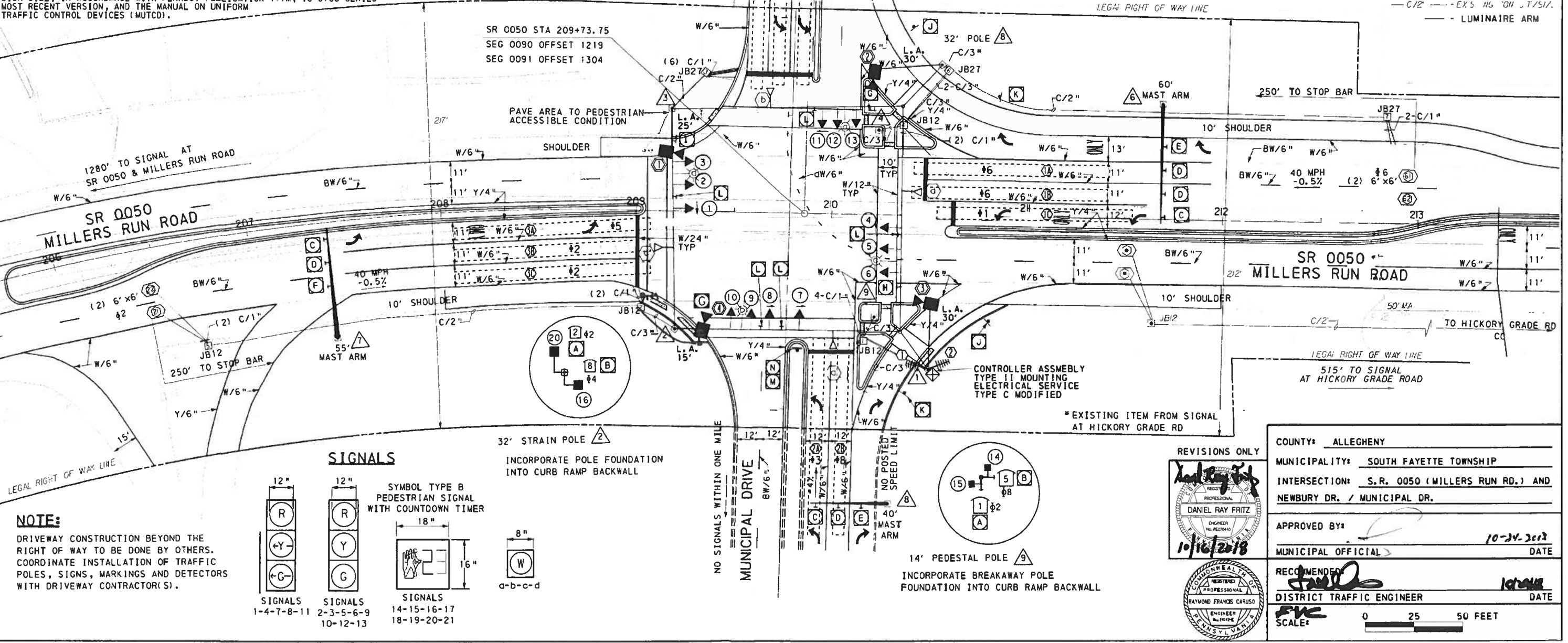
- SEE SHEET 2 OF 20 FOR:
 - DETECTOR LAYOUT DETAIL
 - ELECTRICAL SERVICE TYPE B MODIFIED DETAIL
 - ELECTRICAL SERVICE TYPE B MODIFIED DETAIL
 - TYPICAL SIGNAL SUPPORT GROUNDING DETAIL
 - GENERAL NOTES
- SEE SIGNING, PAVEMENT MARKING & DELINEATION PLANS FOR ADDITIONAL INFORMATION

LEGEND

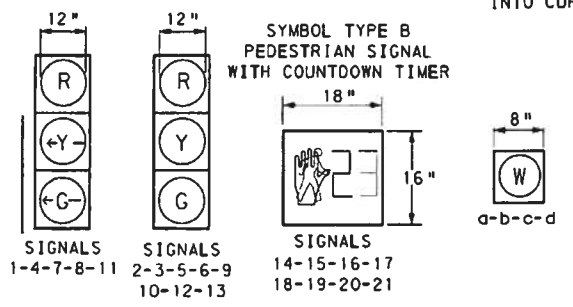
- DY/4" - DOUBLE YELLOW/WIDTH
- BW/6" - BROKEN WHITE LINE/WIDTH
- W/6" - SOLID WHITE LINE/WIDTH
- Y/4" - SOLID YELLOW LINE/WIDTH
- dw/6" - DASHED WHITE LINE/WIDTH
- 6" - MAST ARM
- 2" - STRAIN POLE
- 2" - PEDESTAL POLE
- C/2" - CONDUIT/SIZE
- ☒ - CONTROLLER ASSEMBLY
- ☐ - DETECTABLE WARNING SURFACE
- - WORK DONE BY OTHERS
- - RADIO COMMUNICATION ANTENNA
- ☐ - VEHICLE VIDEO DETECTOR
- ☐ - VIDEO DETECTION ZONE
- ⑭ - PEDESTRIAN SIGNAL HEAD
- ④ - VEHICULAR SIGNAL HEAD
- ⓐ - SIGN
- ④ - VEHICLE DETECTOR
- ④ - PEDESTRIAN PUSH BUTTON
- ④ - JUNCTION BOX
- ④ - PREEMPTION DETECTOR
- ☉ - CONFIRMATION LIGHT
- - EXISTING FENCE
- - EXISTING VEHICLE DETECTOR
- - EXISTING SIGN
- - EXISTING JUNCTION BOX
- - EXISTING SIGN ON JUNCTION BOX
- - LUMINAIRE ARM

WHITE LEGEND ON GREEN BACKGROUND
 THE CONTRACTOR IS RESPONSIBLE TO PROVIDE SHOP DRAWINGS, DETAILING THE REQUIRED SIGN SIZE, IN ACCORDANCE WITH PENNDOT PUBLICATION 111M, TC-8700 SERIES MOST RECENT VERSION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

OPERATOR: cshaker
 FILE NAME: N:\35013-000\CA000\Traffic\2015 GLG 127 - South Fayette\Final\Permit Plans\26-003-35013-TSP (SR 50 AT MUNICIPAL DR AND NEWBURY DR).dgn
 PLOTTED: 9/17/2018 2:53:11 PM
 REVISION: 10-04



SIGNALS



NOTE:
 DRIVEWAY CONSTRUCTION BEYOND THE RIGHT OF WAY TO BE DONE BY OTHERS. COORDINATE INSTALLATION OF TRAFFIC POLES, SIGNS, MARKINGS AND DETECTORS WITH DRIVEWAY CONTRACTOR(S).

COUNTY: ALLEGHENY
 MUNICIPALITY: SOUTH FAYETTE TOWNSHIP
 INTERSECTION: S.R. 0050 (MILLERS RUN RD.) AND NEWBURY DR. / MUNICIPAL DR.
 APPROVED BY: *[Signature]* 10-24-2018
 MUNICIPAL OFFICIAL: _____ DATE: _____
 RECOMMENDED BY: *[Signature]* 10/24/2018
 DISTRICT TRAFFIC ENGINEER: _____ DATE: _____
 SCALE: 0 25 50 FEET

REVISIONS ONLY

OPERATOR: cbooker
 FILE NAME: N:\35013-000\CADD\Traffic\2015 GLG 127 - South Fayette\in\Permit Plans\26-004-35013-TSP (SR 50 AT MUNICIPAL DR AND NEWBURY DR).cadd.dwg
 PERMITTED: 9/17/2018
 PLOTTED: 9/17/2018
 2:53:30 PM

NEMA
 RACKMOUNT
 CONTROLLER
 WITH
 MANUAL CORD
 UPS AND
 BATTERY BACKUP

PHASING DIAGRAM

SIGNALS	PHASE 1+5				PHASE 1+6				PHASE 2+5				PHASE 2+6				PHASE 3+7				PHASE 3+8				PHASE 4+7				PHASE 4+8				PREEMPT 1+6				PREEMPT 2+5				PREEMPT 3+8				PREEMPT 4+7				EMERGENCY FLASHING								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		1	2	3	4				
1	G	Y	R		G	Y	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	OFF	
2-3	R	R	R		G	G	Y	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	Y					
4	G	Y	R		R	R	R		G	G	Y	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	OFF					
5-6	R	R	R		R	R	R		G	G	Y	R	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	Y					
7-8	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	OFF					
9-10	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	OFF					
11	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	OFF					
12-13	R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R		R	R	R	R					
14-19	DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW	OFF	
15-16	DW	DW	DW		DW	DW	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW		W	FD	DW	OFF					
17-18	DW	DW	DW		W	FD	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW	OFF					
20-21	DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW		DW	DW	DW	OFF					
a	OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF	OFF									
b	OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF	OFF									
c	OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF	OFF									
d	OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF		OFF	OFF	OFF	OFF									
FIXED	X		4	2	X		4	2	X		4	2	X		4	2	X		3	3	X		3	3	X		3	3	X		3	3	X		4	2	X		4	2	X		3	3	X		3	3									
MIN. INITIAL	5				5				5				15				5				5				5																																
SEC. ACT.													2.1																																												
MAX. INITIAL													25																																												
PASSAGE	2				2				2				10				2				2				2				2				(1)				(1)				(1)				(1)												
BEFORE RED.													15																																												
TO REDUCE.													10																																												
MIN. GAP													6																																												
MAX. I	25				25				10				60				20				20				20				35																												
MAX. II	25				25				10				60				20				20				20				35																												
PEDESTRIAN					P				P				7	23							P2				P2				7	23																											
MEMORY	L				L				L				MN				L				L				L				NL																												

MEMORY INCLUDES

MAX I - ALL OTHER TIMES
 MAX II - 0600 TO 0900, MON THRU FRI
 MAX III - 1500 TO 1800, MON THRU FRI

P UPON PEDESTRIAN ACTIVATION, OTHERWISE "DON'T WALK" AT ALL TIMES.
 P TIMING WILL BE AS SHOWN IN PHASE 2+6. IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 2+6.
 P2 TIMING WILL BE AS SHOWN IN PHASE 4+8. IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 4+8.
 X DURATION OF EMERGENCY VEHICLE ACTUATION OR MAXIMUM OF 60 SECONDS.

COORDINATION NOTES

CONTROLLERS INTERCONNECTED USING WIRELESS RADIO COMMUNICATION SYSTEM AND ARE PART OF AN ADAPTIVE SIGNAL SYSTEM AT THE FOLLOWING INTERSECTIONS:
 S.R. 0050 AT S.R. 3026 (MILLERS RUN RD)
 S.R. 0050 AT MUNICIPAL DR & NEWBURY DR
 S.R. 0050 AT HICKORY GRADE RD
 S.R. 0050 AT I-79 SB RAMPS
 S.R. 0050 AT I-79 NB RAMPS
 S.R. 0050 AT S.R. 3003 (WASHINGTON PIKE)
 S.R. 0050 AT S.R. 3034 (CHARTIERS ST) & CHURCH ST
 S.R. 3003 (WASHINGTON PIKE) AT DANIELL DR

EMERGENCY VEHICLE PREEMPTION NOTES

EMERGENCY PREEMPTION MAY OCCUR DURING ANY INTERVAL OF THE NORMAL CONTROLLER OPERATION. DEPENDING ON THE DIRECTION OF TRAVEL OF THE EMERGENCY VEHICLE, ONE OF THE FOLLOWING SHALL BE DISPLAYED: EMERGENCY PREEMPT PHASE 1+6, 2+5, 3+8, OR 4+7. THE SYSTEM SHALL PROVIDE SERVICE ON A FIRST-COME-FIRST-SERVED BASIS. ONCE THE FIRST PRIORITY VEHICLE CALLS THE SYSTEM, OTHER PREEMPTIVE VEHICLES SHALL BE PREVENTED FROM ENTERING CALLS UNTIL THE FIRST EMERGENCY VEHICLE RELEASES CONTROL AND CLEARS THE INTERSECTION.

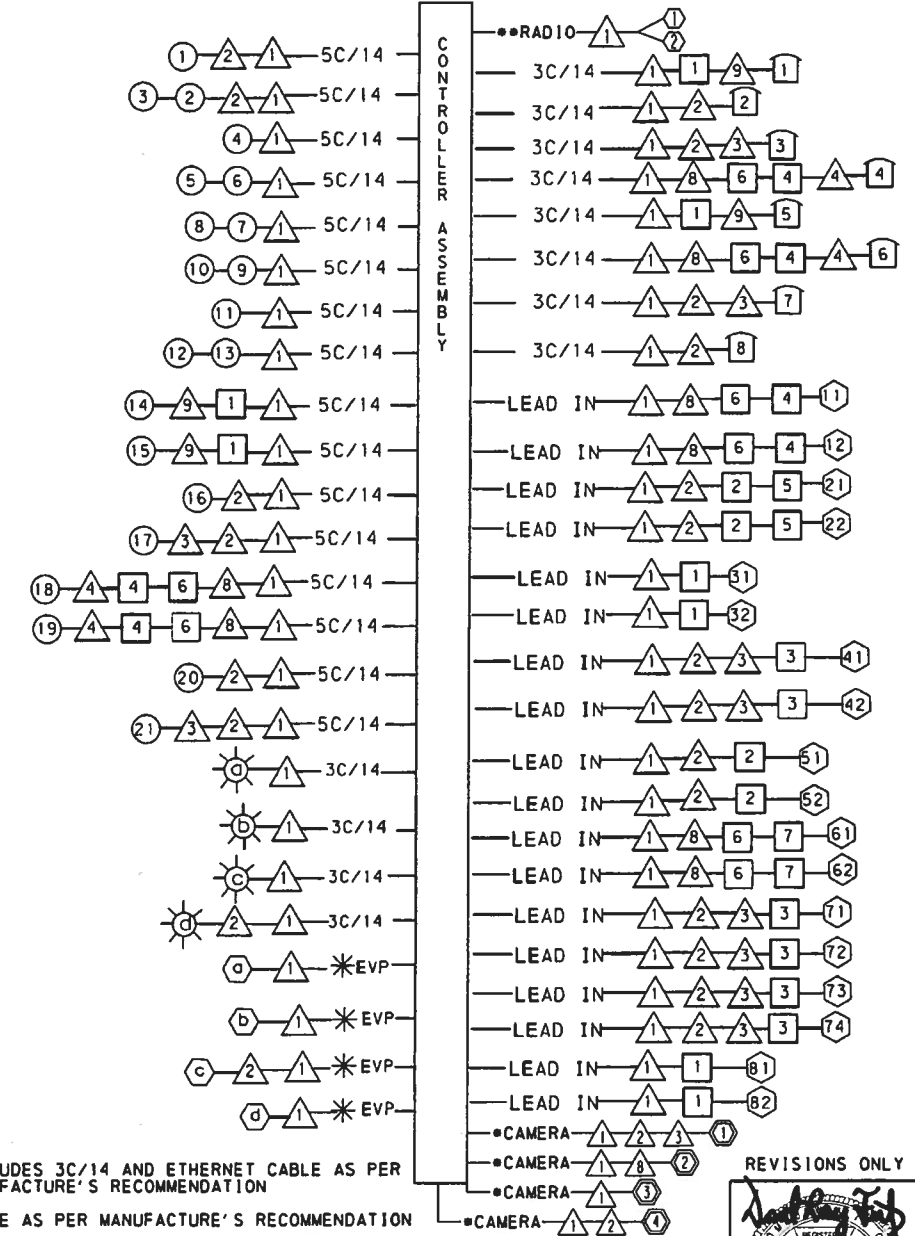
UPON ACTIVATION OF AN EMERGENCY VEHICLE:
 1. IF THE CONTROLLER OPERATION IS IN INTERVAL 1 OF A NON-PREEMPTION PHASE, THE CONTROLLER SHALL TERMINATE THE INTERVAL IMMEDIATELY AND PROCEED NORMALLY THROUGH THE YELLOW AND ALL RED INTERVALS PROCEEDING TO THE PREEMPTION PHASES.
 2. IF THE CONTROLLER OPERATION IS IN INTERVAL 1 OF A PREEMPTION PHASE, THE CONTROLLER SHALL REMAIN IN THAT INTERVAL.
 3. IF THE CONTROLLER OPERATION IS IN THE YELLOW OR ALL RED INTERVAL OF ANY PHASE, THE CONTROLLER SHALL TIME OUT THOSE INTERVALS NORMALLY BEFORE PROCEEDING TO THE PREEMPTION PHASES.
 4. PROVIDE A FAIL SAFE INDICATION CONSISTING OF A FLASHING WHITE LIGHT FOR THE DIRECTION ON WHICH THE EMERGENCY VEHICLE IS APPROACHING. WHEN A CALL IS RECEIVING, THE FAIL SAFE INDICATION SHALL BE ACTIVATED. FLASH AT A RATE NOT LESS THAN 50 NOT MORE THAN 60 TIMES PER MINUTE.
 5. UPON TERMINATION OF THE PREEMPTION PHASES, THE CONTROLLER SHALL PROCEED NORMALLY THROUGH THE YELLOW AND ALL RED INTERVALS TO NORMAL "PHASE NEXT" OPERATION.
 6. ANY WALK INDICATION SHALL TERMINATE IMMEDIATELY FOLLOWED BY A FLASHING DON'T WALK INDICATION FOR THE NORMAL PEDESTRIAN CLEARANCE INTERVAL BEFORE PROCEEDING TO THE EMERGENCY PREEMPTION ROUTINE IN NOTES 1 & 2.
 7. DISPLAY ANY FLASHING DON'T WALK INDICATION FOR NORMAL PEDESTRIAN CLEARANCE INTERVAL BEFORE PROCEEDING TO THE EMERGENCY PREEMPTION ROUTINE IN NOTES 1 & 2.
 8. THE PREEMPTION PHASE GREEN INTERVAL SHALL BE 10 SECONDS AND THEN EXTEND FOR THE LENGTH OF THE PREEMPTION ACTUATION OR A MAXIMUM OF 60 SECONDS.
 9. IF THE PREEMPTION OCCURS DURING CONFLICT/TIME CLOCK FLASH THE TRAFFIC SIGNAL SHALL CONTINUE FLASHING.
 10. PREEMPT TO COORDINATION: USED WHEN EMERGENCY PREEMPTION IS ACTIVATED DURING COORDINATION OPERATION TO ALLOW THE NEXT PERMISSIVE PHASE IN THE COORDINATION CYCLE TO BE SERVICED FOLLOWING PREEMPTION.

PHASING NOTES

1 - G - IF PHASE 1+6 FOLLOWS
 2 - G - IF PHASE 1+5 FOLLOWS
 3 - G - IF PHASE 2+5 FOLLOWS
 4 - G - IF PHASE 2+6 FOLLOWS
 5 - G - IF PHASE 1+6 FOLLOWS
 6 - G - IF PHASE 2+5 FOLLOWS
 7 - G - IF PHASE 4+7 FOLLOWS
 8 - G - IF PHASE 3+7 FOLLOWS
 9 - G - IF PHASE 3+8 FOLLOWS
 10 - G - IF PHASE 4+8 FOLLOWS
 11 - PASSAGE TIME EQUALS THE TIME THE EMERGENCY VEHICLE ACTUATION IS IN CONTROL OF THE INTERSECTION.
 X - DURATION OF EMERGENCY VEHICLE ACTUATION OR MAXIMUM OF 60 SECONDS.

PERMIT NO. 1-105-14 SHEET 3 OF 3
 DATE ISSUED _____ DATE REVISED 9/10/2018

WIRING DIAGRAM
DISPLAYS DETECTORS



LEGEND

5C/14 - CABLE. (NO. OF CONDUCTORS/SIZE AWG.)
 △ SIGNAL SUPPORT
 ○ SIGNAL HEAD
 ○ DETECTOR
 ☼ CONFIRMATION LIGHT
 ⊙ PREEMPTION DETECTOR
 □ JUNCTION BOX
 □ PEDESTRIAN PUSH BUTTON
 ○ VIDEO DETECTOR
 ○ RADIO COMMUNICATION ANTENNA

REVISIONS ONLY

10/16/2018
 DANIEL RAY FRITZ
 ENGINEER

COUNTY: ALLEGHENY
 MUNICIPALITY: SOUTH FAYETTE TOWNSHIP
 INTERSECTION: S.R. 0050 (MILLERS RUN RD.) AND NEWBURY DR. / MUNICIPAL DR.

APPROVED BY: _____
 MUNICIPAL OFFICIAL: _____ DATE: 10-24-2018

RECOMMENDED BY: _____
 DISTRICT TRAFFIC ENGINEER: _____ DATE: _____

RAYMOND FRANCES CARUSO
 ENGINEER
 P.E.

APPENDIX E

Level of Service (LOS) Criteria Summary

LEVEL-OF-SERVICE CRITERIA SIGNALIZED INTERSECTIONS

Level-of-Service for signalized intersections is defined in terms of delay. Delay is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Specifically, Level-of-Service criteria are stated in terms of the average stopped delay per vehicle for a 15-minute analysis period.

Level-of-Service A describes operations with very low delay, i.e., less than 10.0 seconds per vehicle.

Level-of-Service B describes operations with delay in the range of 10.1 to 20.0 seconds per vehicle.

Level-of-Service C describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle.

Level-of-Service D describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle.

Level-of-Service E describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay.

Level-of-Service F describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers.

UNSIGNALIZED INTERSECTIONS

AVERAGE TOTAL DELAY (sec/veh)	LEVEL OF SERVICE	EXPECTED DELAY TO MINOR STREET TRAFFIC
≤ 10	A	Little or no delay
>10 and ≤15	B	Short traffic delays
>15 and ≤25	C	Average traffic delays
>25 and ≤35	D	Long traffic delays
>35 and ≤50	E	Very long delays
>50	F	*

* -- When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvements to the intersection.

APPENDIX F

Synchro Printouts – *Existing Year 2023 Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	653	19	61	388	221	3	7	27	198	22	20
Future Volume (vph)	27	653	19	61	388	221	3	7	27	198	22	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.996				0.850			0.850		0.928	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1639	3331	0	1778	3278	1613	1841	1700	1540	3416	1656	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1639	3331	0	1778	3278	1613	1841	1700	1540	3416	1656	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				243			117		22	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	0%	2%	7%	4%	0%	14%	7%	2%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	30	718	21	67	426	243	3	8	30	218	24	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	739	0	67	426	243	3	8	30	218	46	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	6.8	24.8		8.0	31.2	31.2	5.8	5.9	5.9	9.9	12.8	
Actuated g/C Ratio	0.11	0.38		0.12	0.48	0.48	0.09	0.09	0.09	0.15	0.20	
v/c Ratio	0.18	0.58		0.30	0.27	0.27	0.02	0.05	0.12	0.42	0.13	
Control Delay	37.7	19.8		36.6	12.9	3.3	38.3	38.1	1.0	32.2	18.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	37.7	19.8		36.6	12.9	3.3	38.3	38.1	1.0	32.2	18.6	
LOS	D	B		D	B	A	D	D	A	C	B	
Approach Delay		20.5			11.9			11.0			29.8	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	13	139		28	47	0	1	3	0	46	8	
Queue Length 95th (ft)	44	226		76	118	42	11	19	0	94	42	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	554	2678		601	2635	1344	458	877	851	851	865	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.28		0.11	0.16	0.18	0.01	0.01	0.04	0.26	0.05	

Intersection Summary
























Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 64.6
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 18.1
 Intersection Capacity Utilization 50.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 PM Peak Hour Condition

10/11/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	518	22	42	686	351	11	17	87	299	35	64
Future Volume (vph)	44	518	22	42	686	351	11	17	87	299	35	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.994				0.850			0.850		0.903	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3420	0	1778	3405	1644	1841	1938	1599	3416	1657	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3420	0	1778	3405	1644	1841	1938	1599	3416	1657	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				362			117		59	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	3%	2%	0%	0%	3%	2%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	45	534	23	43	707	362	11	18	90	308	36	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	557	0	43	707	362	11	18	90	308	102	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.5	31.1		7.4	31.0	31.0	6.1	6.3	6.3	13.7	19.2	
Actuated g/C Ratio	0.10	0.42		0.10	0.42	0.42	0.08	0.08	0.08	0.18	0.26	
v/c Ratio	0.25	0.39		0.24	0.50	0.40	0.07	0.11	0.37	0.49	0.22	
Control Delay	44.2	16.5		44.2	18.0	3.2	45.3	45.1	9.6	36.6	17.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	44.2	16.5		44.2	18.0	3.2	45.3	45.1	9.6	36.6	17.8	
LOS	D	B		D	B	A	D	D	A	D	B	
Approach Delay		18.6			14.2			18.3			31.9	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	22	105		21	143	0	6	9	0	76	16	
Queue Length 95th (ft)	66	156		64	206	47	26	35	31	154	78	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	524	2559		531	2547	1321	405	885	793	753	788	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.09	0.22		0.08	0.28	0.27	0.03	0.02	0.11	0.41	0.13	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 74.4
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 18.8
 Intersection Capacity Utilization 53.3%
 Analysis Period (min) 15

Intersection LOS: B
ICU Level of Service A

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	531	21	27	504	405	5	8	33	338	20	68
Future Volume (vph)	44	531	21	27	504	405	5	8	33	338	20	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.994				0.850			0.850		0.884	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3478	0	1814	3438	1677	1841	1938	1647	3450	1671	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3478	0	1814	3438	1677	1841	1938	1647	3450	1671	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				440			117		74	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	48	577	23	29	548	440	5	9	36	367	22	74
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	600	0	29	548	440	5	9	36	367	96	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.2	24.4		6.4	21.5	21.5	5.7	5.7	5.7	15.6	17.0	
Actuated g/C Ratio	0.11	0.39		0.10	0.34	0.34	0.09	0.09	0.09	0.25	0.27	
v/c Ratio	0.24	0.45		0.16	0.47	0.51	0.03	0.05	0.14	0.43	0.19	
Control Delay	36.1	16.5		36.8	19.3	4.3	37.8	37.5	1.2	27.8	11.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.1	16.5		36.8	19.3	4.3	37.8	37.5	1.2	27.8	11.6	
LOS	D	B		D	B	A	D	D	A	C	B	
Approach Delay		17.9			13.3			11.4			24.4	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	18	81		11	104	0	2	3	0	68	5	
Queue Length 95th (ft)	63	163		45	155	53	14	21	0	#162	57	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	588	2878		608	2844	1463	455	992	901	853	892	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.21		0.05	0.19	0.30	0.01	0.01	0.04	0.43	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 63.1
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 17.0
 Intersection Capacity Utilization 50.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
























25 s	60 s	20 s	35 s
25 s	60 s	20 s	35 s

APPENDIX G

HCM Printouts – *Existing Year 2023 Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 AM Peak Hour Condition

10/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	653	19	61	388	221	3	7	27	198	22	20
Future Volume (veh/h)	27	653	19	61	388	221	3	7	27	198	22	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1834	1864	1939	1909	1834	1954	2057	1847	1952	1864	1820	1790
Adj Flow Rate, veh/h	30	718	21	67	426	0	3	8	0	218	24	7
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	5	0	2	7	4	0	14	7	2	5	7
Cap, veh/h	60	1115	33	113	1202		8	19		353	148	43
Arrive On Green	0.03	0.32	0.32	0.06	0.34	0.00	0.00	0.01	0.00	0.10	0.11	0.11
Sat Flow, veh/h	1747	3514	103	1818	3485	1656	1959	1847	1654	3445	1354	395
Grp Volume(v), veh/h	30	362	377	67	426	0	3	8	0	218	0	31
Grp Sat Flow(s),veh/h/ln	1747	1771	1846	1818	1743	1656	1959	1847	1654	1722	0	1749
Q Serve(g_s), s	0.8	8.3	8.3	1.7	4.3	0.0	0.1	0.2	0.0	2.9	0.0	0.8
Cycle Q Clear(g_c), s	0.8	8.3	8.3	1.7	4.3	0.0	0.1	0.2	0.0	2.9	0.0	0.8
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	60	562	586	113	1202		8	19		353	0	191
V/C Ratio(X)	0.50	0.64	0.64	0.60	0.35		0.37	0.41		0.62	0.00	0.16
Avail Cap(c_a), veh/h	702	2023	2108	731	3981		580	1133		1020	0	1073
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	13.8	13.8	21.6	11.6	0.0	23.5	23.2	0.0	20.3	0.0	19.1
Incr Delay (d2), s/veh	2.4	0.6	0.5	1.9	0.1	0.0	10.4	5.1	0.0	0.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	2.6	2.8	0.7	1.3	0.0	0.1	0.1	0.0	1.1	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	14.4	14.4	23.5	11.6	0.0	33.9	28.3	0.0	21.0	0.0	19.2
LnGrp LOS	C	B	B	C	B		C	C		C	A	B
Approach Vol, veh/h		769			493			11			249	
Approach Delay, s/veh		14.8			13.2			29.8			20.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	21.0	6.2	11.2	7.6	22.3	10.8	6.5				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+I1), s	3.7	10.3	2.1	2.8	2.8	6.3	4.9	2.2				
Green Ext Time (p_c), s	0.1	3.0	0.0	0.1	0.0	1.9	0.3	0.0				

Intersection Summary

HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 PM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	518	22	42	686	351	11	17	87	299	35	64
Future Volume (veh/h)	44	518	22	42	686	351	11	17	87	299	35	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1909	1939	1909	1894	1986	2057	2057	2012	1864	1850	1850
Adj Flow Rate, veh/h	45	534	20	43	707	0	11	18	0	308	36	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	2	3	2	0	0	3	2	3	3
Cap, veh/h	86	1101	41	82	1106		28	46		456	125	114
Arrive On Green	0.05	0.31	0.31	0.05	0.31	0.00	0.01	0.02	0.00	0.13	0.14	0.14
Sat Flow, veh/h	1847	3566	133	1818	3599	1683	1959	2057	1705	3445	889	814
Grp Volume(v), veh/h	45	271	283	43	707	0	11	18	0	308	0	69
Grp Sat Flow(s),veh/h/ln	1847	1814	1885	1818	1800	1683	1959	2057	1705	1722	0	1703
Q Serve(g_s), s	1.2	5.9	6.0	1.1	8.3	0.0	0.3	0.4	0.0	4.2	0.0	1.8
Cycle Q Clear(g_c), s	1.2	5.9	6.0	1.1	8.3	0.0	0.3	0.4	0.0	4.2	0.0	1.8
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	86	560	582	82	1106		28	46		456	0	239
V/C Ratio(X)	0.52	0.48	0.49	0.52	0.64		0.40	0.39		0.68	0.00	0.29
Avail Cap(c_a), veh/h	719	2006	2085	708	3981		562	1222		988	0	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.7	13.7	13.7	22.8	14.6	0.0	23.9	23.5	0.0	20.2	0.0	18.8
Incr Delay (d2), s/veh	1.8	0.3	0.3	1.9	0.3	0.0	3.4	2.0	0.0	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.0	2.0	0.5	2.7	0.0	0.1	0.2	0.0	1.6	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	14.0	14.0	24.7	14.9	0.0	27.2	25.6	0.0	20.8	0.0	19.1
LnGrp LOS	C	B	B	C	B		C	C		C	A	B
Approach Vol, veh/h		599			750			29			377	
Approach Delay, s/veh		14.8			15.4			26.2			20.5	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	21.1	6.7	12.8	8.3	21.0	12.5	7.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+1), s	3.1	8.0	2.3	3.8	3.2	10.3	6.2	2.4				
Green Ext Time (p_c), s	0.0	2.1	0.0	0.2	0.0	3.4	0.4	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
Existing Year 2023 SAT Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	531	21	27	504	405	5	8	33	338	20	68
Future Volume (veh/h)	44	531	21	27	504	405	5	8	33	338	20	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1939	1849	1939	1909	2017	2057	2057	2057	1879	1894	1894
Adj Flow Rate, veh/h	48	577	19	29	548	0	5	9	0	367	22	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	0	2	0	0	0	0	1	0	0
Cap, veh/h	90	1163	38	61	1102		13	24		519	100	163
Arrive On Green	0.05	0.32	0.32	0.03	0.30	0.00	0.01	0.01	0.00	0.15	0.15	0.15
Sat Flow, veh/h	1847	3640	120	1847	3628	1709	1959	2057	1743	3472	646	1058
Grp Volume(v), veh/h	48	292	304	29	548	0	5	9	0	367	0	58
Grp Sat Flow(s),veh/h/ln	1847	1842	1918	1847	1814	1709	1959	2057	1743	1736	0	1704
Q Serve(g_s), s	1.3	6.3	6.3	0.8	6.1	0.0	0.1	0.2	0.0	5.0	0.0	1.5
Cycle Q Clear(g_c), s	1.3	6.3	6.3	0.8	6.1	0.0	0.1	0.2	0.0	5.0	0.0	1.5
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	90	588	613	61	1102		13	24		519	0	263
V/C Ratio(X)	0.53	0.50	0.50	0.47	0.50		0.38	0.37		0.71	0.00	0.22
Avail Cap(c_a), veh/h	711	2015	2097	711	3968		556	1208		985	0	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	13.6	13.6	23.4	14.1	0.0	24.4	24.2	0.0	20.0	0.0	18.3
Incr Delay (d2), s/veh	1.8	0.3	0.3	2.1	0.2	0.0	6.6	3.5	0.0	0.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.1	2.2	0.3	2.0	0.0	0.1	0.1	0.0	1.9	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	13.9	13.9	25.5	14.3	0.0	31.0	27.7	0.0	20.6	0.0	18.4
LnGrp LOS	C	B	B	C	B		C	C		C	A	B
Approach Vol, veh/h		644			577			14			425	
Approach Delay, s/veh		14.7			14.8			28.9			20.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	21.8	6.3	13.6	8.4	21.0	13.4	6.6				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	2.8	8.3	2.1	3.5	3.3	8.1	7.0	2.2				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.2	0.0	2.5	0.5	0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

5: Newbury Drive & Plaza Access
Existing Year 2023 AM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh 1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			↑↑
Traffic Vol, veh/h	35	11	196	59	17	197
Future Vol, veh/h	35	11	196	59	17	197
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	0	5	0	0	2
Mvmt Flow	41	13	231	69	20	232

Major/Minor

	Minor1	Major1	Major2		
Conflicting Flow All	422	150	0	0	300
Stage 1	266	-	-	-	-
Stage 2	156	-	-	-	-
Critical Hdwy	6.86	6.9	-	-	4.1
Critical Hdwy Stg 1	5.86	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-
Follow-up Hdwy	3.53	3.3	-	-	2.2
Pot Cap-1 Maneuver	557	876	-	-	1273
Stage 1	751	-	-	-	-
Stage 2	853	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	547	876	-	-	1273
Mov Cap-2 Maneuver	547	-	-	-	-
Stage 1	751	-	-	-	-
Stage 2	838	-	-	-	-

Approach

	WB	NB	SB
HCM Control Delay, s	11.6	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt

	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	601	1273
HCM Lane V/C Ratio	-	-	0.09	0.016
HCM Control Delay (s)	-	-	11.6	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

5: Newbury Drive & Plaza Access
Existing Year 2023 PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			↑↑
Traffic Vol, veh/h	57	28	331	62	13	334
Future Vol, veh/h	57	28	331	62	13	334
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	62	30	360	67	14	363

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	604	214	0
Stage 1	394	-	-
Stage 2	210	-	-
Critical Hdwy	6.8	6.9	-
Critical Hdwy Stg 1	5.8	-	-
Critical Hdwy Stg 2	5.8	-	-
Follow-up Hdwy	3.5	3.3	-
Pot Cap-1 Maneuver	435	797	-
Stage 1	656	-	-
Stage 2	811	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	428	797	-
Mov Cap-2 Maneuver	428	-	-
Stage 1	656	-	-
Stage 2	799	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	505	1143
HCM Lane V/C Ratio	-	-	0.183	0.012
HCM Control Delay (s)	-	-	13.7	8.2
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0

5: Newbury Drive & Plaza Access
Existing Year 2023 SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	3.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			←↑
Traffic Vol, veh/h	107	25	366	106	20	315
Future Vol, veh/h	107	25	366	106	20	315
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	2	0	1
Mvmt Flow	126	29	431	125	24	371

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	728	278	0	0	556
Stage 1	494	-	-	-	-
Stage 2	234	-	-	-	-
Critical Hdwy	6.82	6.98	-	-	4.1
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.34	-	-	2.2
Pot Cap-1 Maneuver	361	713	-	-	1025
Stage 1	582	-	-	-	-
Stage 2	786	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	351	713	-	-	1025
Mov Cap-2 Maneuver	351	-	-	-	-
Stage 1	582	-	-	-	-
Stage 2	763	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	388	1025
HCM Lane V/C Ratio	-	-	0.4	0.023
HCM Control Delay (s)	-	-	20.3	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.9	0.1

APPENDIX H

Source Data for Background Developments

From: Michael J. Haberman, P.E. <mhaberman@gatewayengineers.com>

Sent: Tuesday, October 3, 2023 2:54 PM

To: Josh Haydo <jhaydo@dewooster.com>

Cc: Mark Szewcow <mark.szewcow@gibson-thomas.com>; Paone, Talia <tpaone@pa.gov>; John M. Barrett <JBarrett@sftwp.com>; Eileen Botti <eileen.botti@gibson-thomas.com>; Simmons, Michael (PENNDOT) <MICSIMMONS@pa.gov>; Miller, Ed M. <edmille@pa.gov>; Siewe, Emmanuel <esiewe@pa.gov>; Fedio, Daniel <dafedio@pa.gov>; Jesse Nelson <nelson@dewooster.com>; Suleiman Swai <sswai@dewooster.com>; Joseph M. Galbraith, P.E. <jgalbraith@gatewayengineers.com>

Subject: RE: [External] #4392 - Retail Development - Former Pro Bike + Run - TIS Scoping

Josh,

A formal study was not completed for the Raising Cane's. The developer's consultant submitted a trip generation addendum for the purposes of developing an updated amount for traffic impact fees. I've attached the original TIS for The Piazza development, the trip generation addendum for the Raising Cane's, and the amended site plan for The Piazza with the removal of the drive-in bank and inclusion of the Raising Cane's (note that the final size of the Raising Cane's is 4,250 s.f., not what is show on the plan). Note the following as it relates to The Piazza development:

- To date, the following uses within The Piazza are built/occupied:
 - 11,700 s.f. of high-turnover sit-down restaurants (building #1 and Building #4 on site plan)
 - 21,200 s.f. of shopping center (building #3 and part of building #5 on site plan)
 - 3,000 s.f. fast-food restaurant without drive-through (within building #5 on site plan)
- The following uses within The Piazza are not yet constructed/occupied:
 - 6,800 s.f. of high-turnover sit-down restaurant (building #2 on site plan)
 - 4,000 s.f. fast-food restaurant with drive-through (building #6 on site plan)
 - 4,250 s.f. fast-food restaurant with drive-through (Raising Cane's)

You'll need to use the above summary and attached reports to establish the additional approved background trips for your study associated with The Piazza.

As for the South Fayette Commons development (Dunkin Donuts and Washington Federal), I've attached the original approved TIS for that development (prepared by Wooster) and the trip generation for the Taco Bell (prepared by Wooster). To date, the only uses that have been constructed are the Dunkin Donuts and the Washington Federal Bank. The Taco Bell is approved and under construction. To simplify the trip generation and background trips associated with South Fayette Commons, I would recommend taking the difference between the total trips in the approved TIS and the estimated trips associated with the Dunkin Donuts and Washington Federal Bank and adding those to the study area. That way the trips associated with the Taco Bell and the remainder of the development will be included in the background for this study. If PennDOT and/or Gibson Thomas feel differently about that approach, I will defer to them.

There is no study for the Cigar Bar that I am aware of, so you'll have to estimate the trips associated with that land use as well.

Let me know if you want to discuss any of this in more detail or if you have any questions.

Thanks,
Mike

From: Mark Szewcow

Sent: Friday, September 15, 2023 11:31 AM

To: Paone, Talia <tpaone@pa.gov>; John M. Barrett <JBarrett@sftwp.com>; Eileen Botti <eileen.botti@gibson-thomas.com>; Josh Haydo <haydo@dewooster.com>; Simmons, Michael (PENNDOT) <MICSIMMONS@pa.gov>; Miller, Ed M. <edmille@pa.gov>; Siewe, Emmanuel <esiewe@pa.gov>; Fedio, Daniel <dafedio@pa.gov>

Subject: RE: [External] #4392 - Retail Development - Former Pro Bike + Run - TIS Scoping

Hello all,

I wanted to follow up on some issues that were discussed at the meeting yesterday. After talking with John Barrett, here is a summary of the responses from the Township.

- 1.) The Township agrees to only add traffic from developments that are currently approved but not yet constructed in the Newberry Site. There is currently a 9,377 SF Cigar Bar and Restaurant approved to be constructed near Top Golf.
- 2.) The Township is agreeable to the intersections and time periods to be studied.

If anybody has any questions concerning this matter, please do not hesitate to call or email me.

Thanks

Mark Szewcow, PE

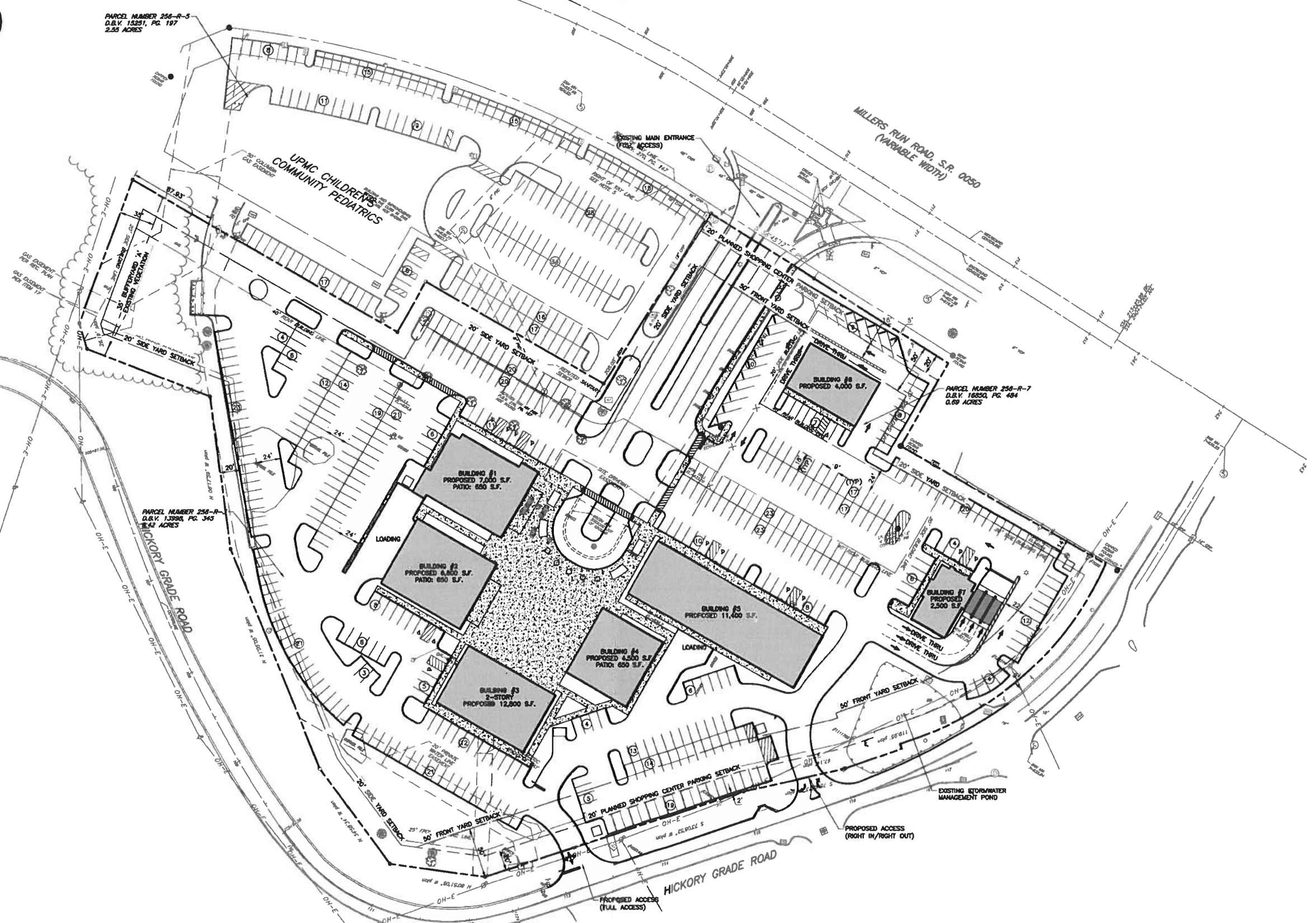
Phone: 724-539-8562

Cell: 412-417-7712

mark.szewcow@gibson-thomas.com



PARCEL NUMBER 256-R-5
O.B.V. 13281, PG. 197
2.35 ACRES



PARCEL NUMBER 256-R-4
O.B.V. 13988, PG. 345
3.42 ACRES

PARCEL NUMBER 256-R-7
O.B.V. 16250, PG. 484
0.69 ACRES

P:\2019\191-730\191-730\191-730-TR02-Figures-11x17.dwg[SITE PLAN] LS:(5/5/2020 - qberkey) - LP: 5/5/2020 12:27 PM



Civil & Environmental Consultants, Inc.

333 Baldwin Road · Pittsburgh, PA 15205

412-429-2324 · 800-365-2324

www.cecinc.com

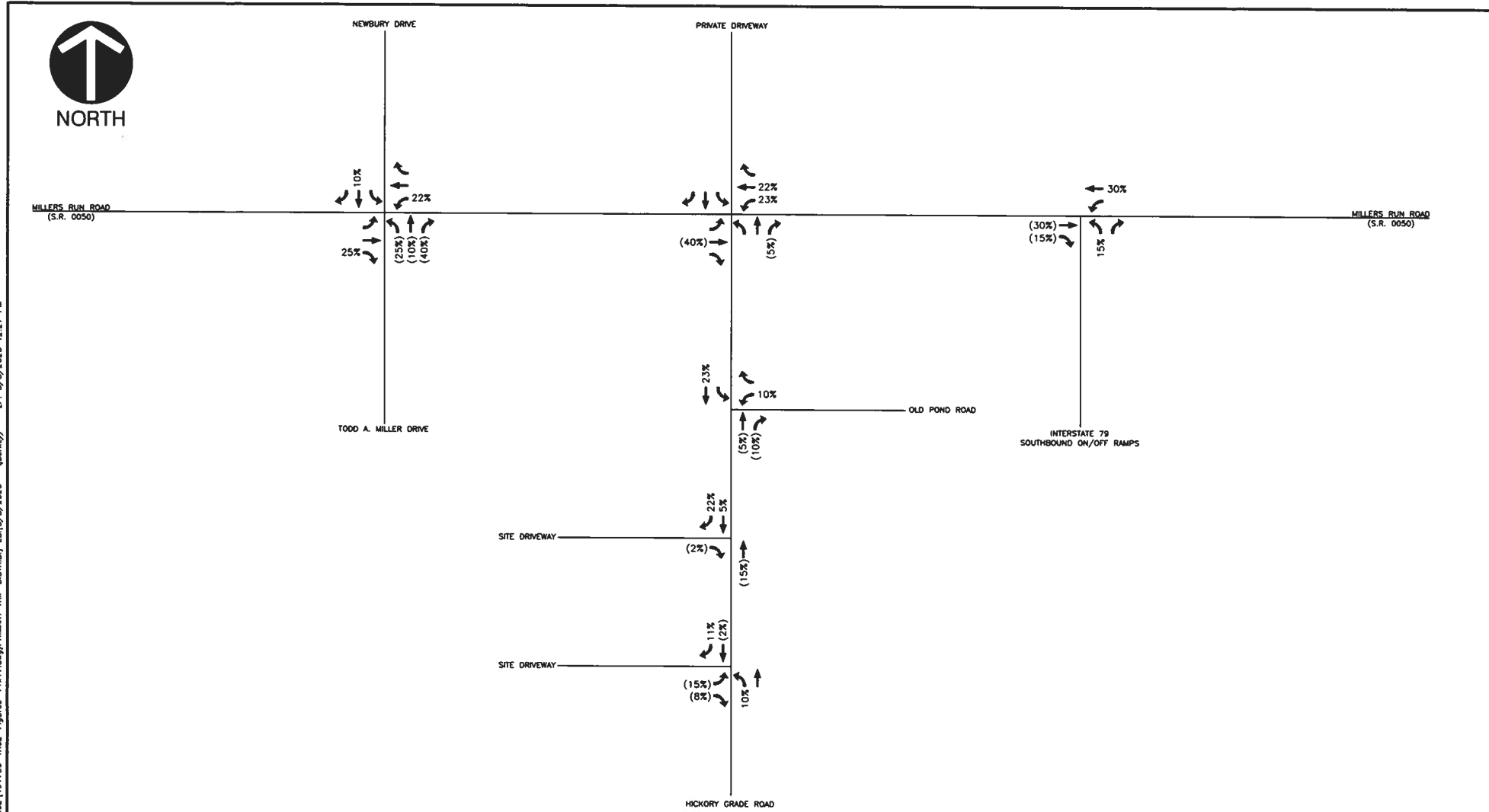
THE PIAZZA RETAIL DEVELOPMENT
TRAFFIC IMPACT STUDY
SOUTH FAYETTE TOWNSHIP,
ALLEGHENY COUNTY, PENNSYLVANIA

SITE PLAN

DRAWN BY:	QAB	CHECKED BY:	JRT	APPROVED BY:	JMD	FIGURE NO.:	2
DATE:	APRIL 2020	DWG SCALE:	NOT TO SCALE	PROJECT NO.:	191-730		



P:\2019\191-7301-0000\0001\0021\01720-PROJ-FIGURES-11x17.dwg\PRIMARY TRIP DISTRIB.] LS:(5/5/2020 - ebrtesy) - LP: 3/2/2020 12:27 PM



LEGEND

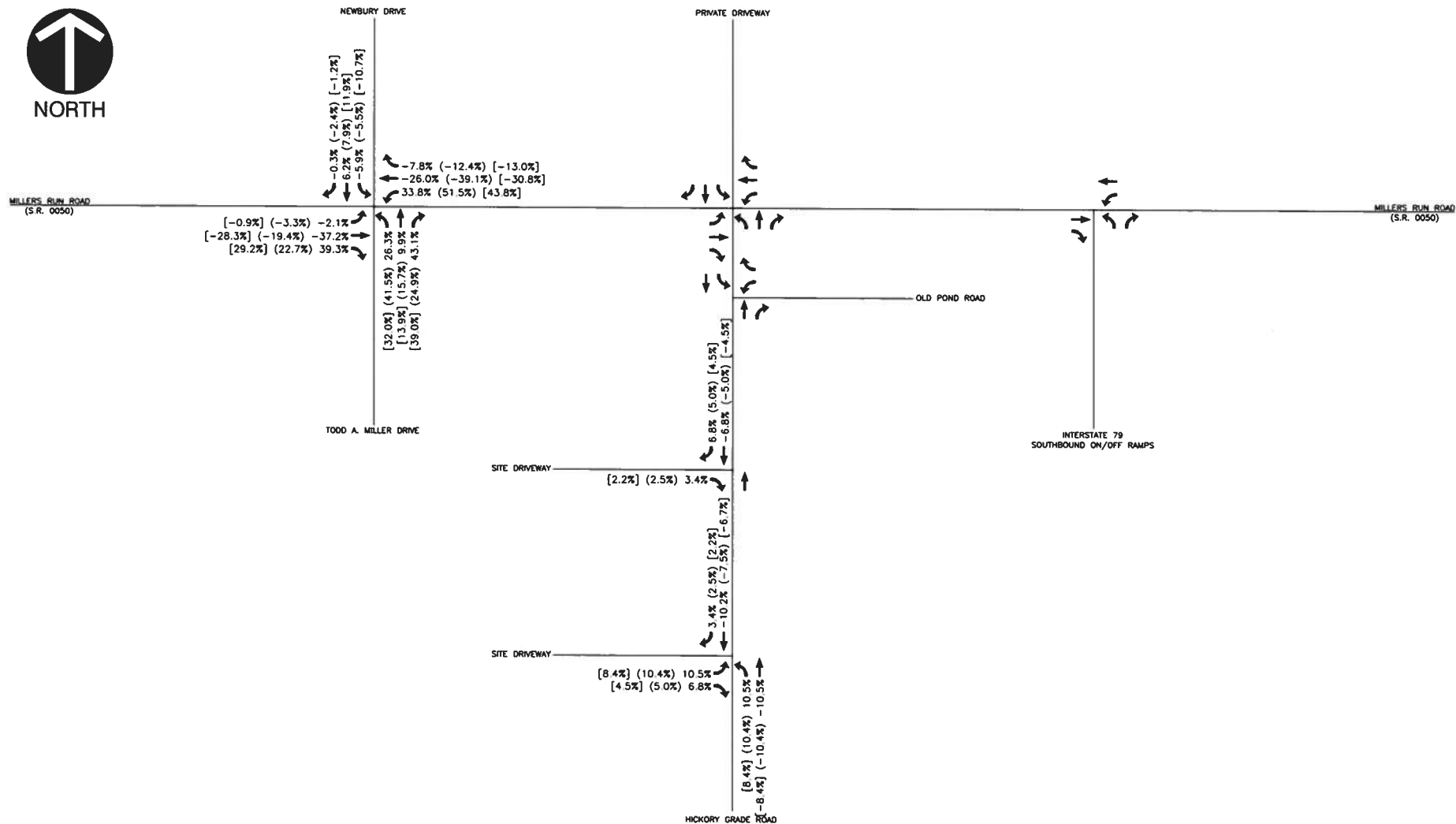
12% Arrival Trip Distribution

(12%) Departure Trip Distribution

<p>Civil & Environmental Consultants, Inc. 333 Baldwin Road · Pittsburgh, PA 15205 412-429-2324 · 800-365-2324 www.cecinc.com</p>		<p>THE PIAZZA RETAIL DEVELOPMENT TRAFFIC IMPACT STUDY SOUTH FAYETTE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA</p>	
		<p>SITE GENERATED PRIMARY TRIP DISTRIBUTION</p>	
DRAWN BY: QAB DATE: APRIL 2020	CHECKED BY: JRT DWG SCALE: NOT TO SCALE	APPROVED BY: JMD PROJECT NO: 191-730	FIGURE NO.: 15



P:\2019\191-7301-CADD\Draw\191730-TR02-TR02-Figures-11x17.dwg\PASS BY TRIP DISTRIBUTION.LS (5/5/2020 - 4:27 PM) - (P: 5/5/2020 12:27 PM)



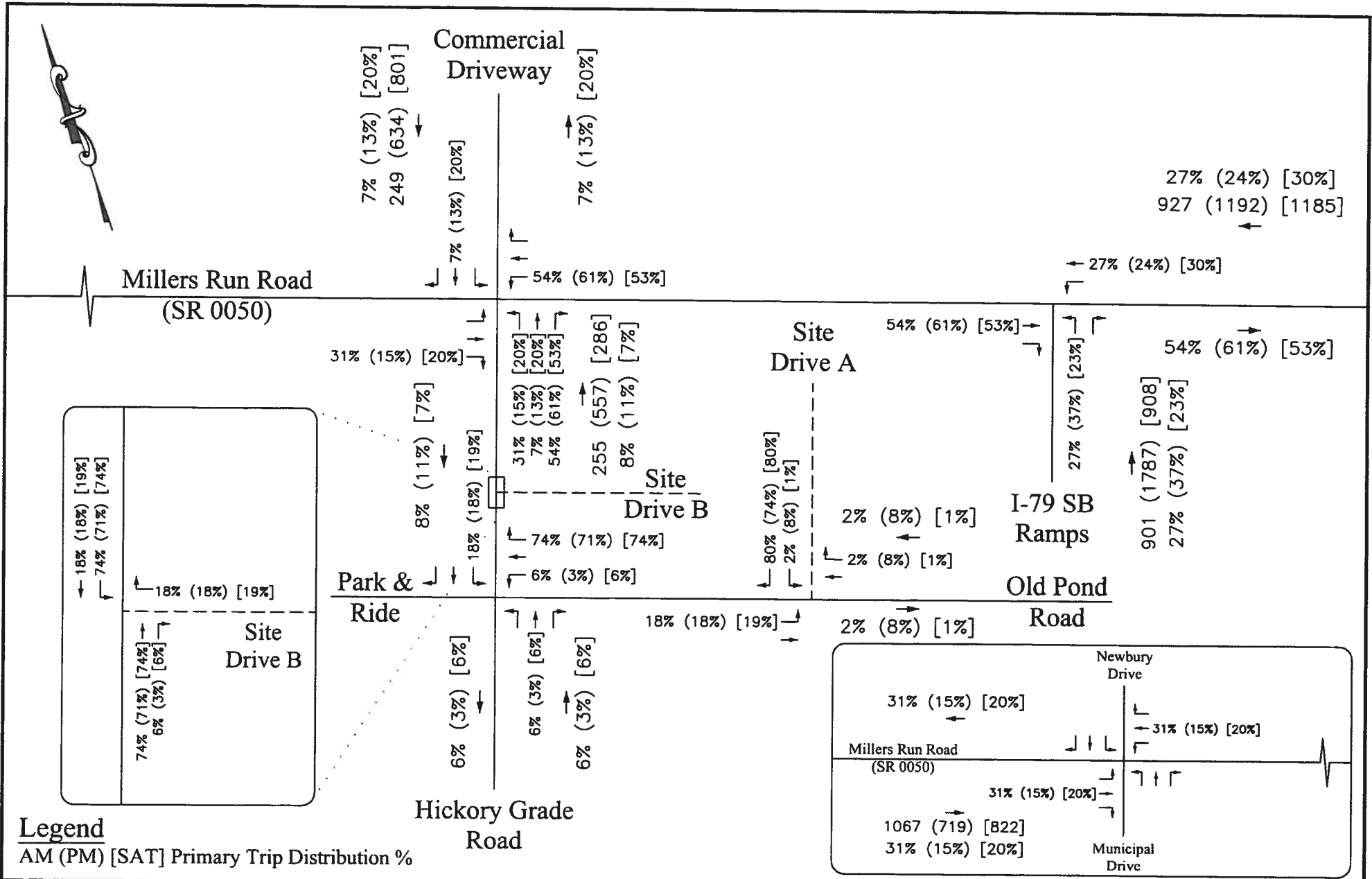
LEGEND

- 12% A.M. Trip Distribution Percentage
- (12%) P.M. Trip Distribution Percentage
- [12%] Saturday Trip Distribution Percentage

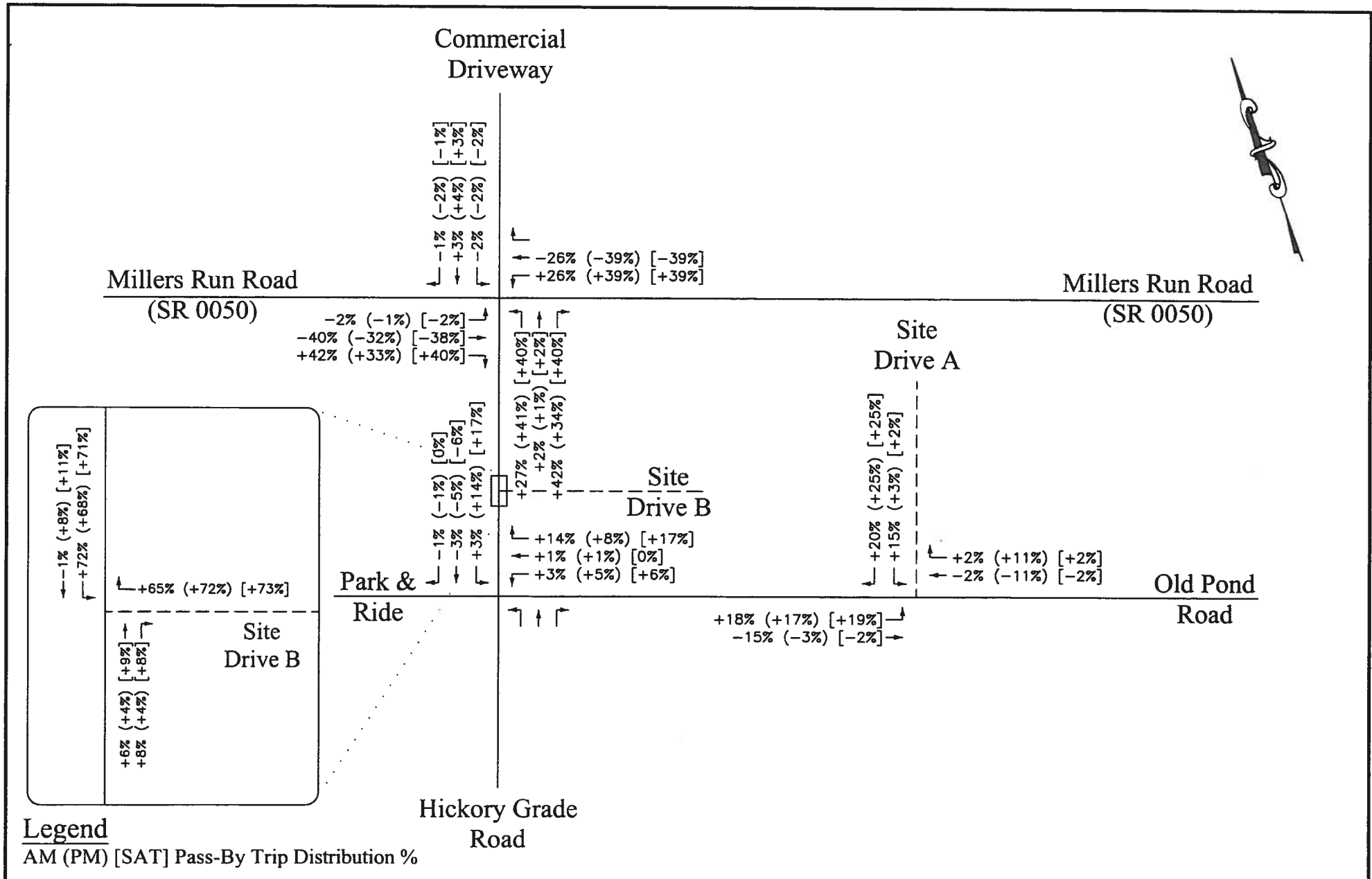
<p>Civil & Environmental Consultants, Inc. 333 Baldwin Road · Pittsburgh, PA 15205 412-429-2324 · 800-365-2324 www.cecinc.com</p>		<p>THE PIAZZA RETAIL DEVELOPMENT TRAFFIC IMPACT STUDY SOUTH FAYETTE TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA SITE GENERATED PASS-BY TRIP DISTRIBUTION</p>	
DRAWN BY: QAB	CHECKED BY: JRT	APPROVED BY: JMD	FIGURE NO.: 16
DATE: APRIL 2020		PROJECT NO.: 191-7301	

Table 2
Trip Generation Summary

Time Period	Anticipated Trip Generation		
	In	Out	Total
LU Code #826 - Specialty Retail Center - 10,500 SF			
ADT	244	244	488
AM Peak Hour	0	0	0
Internal Trips (18%)	0	0	0
Primary Trips	0	0	0
Pass-By Trips (0%)	0	0	0
PM Peak Hour	21	26	47
Internal Trips (40%)	8	10	18
Primary Trips	13	16	29
Pass-By Trips (0%)	0	0	0
SAT Peak Hour	23	21	44
Internal Trips (53%)	12	11	23
Primary Trips	11	10	21
Pass-By Trips (0%)	0	0	0
LU Code #912 - Drive-in Bank - 3 drive-in lanes			
ADT	209	209	418
AM Peak Hour	17	11	28
Internal Trips (18%)	3	2	5
Primary Trips	9	6	15
Pass-By Trips (37%)	5	3	8
PM Peak Hour	49	51	100
Internal Trips (40%)	20	20	40
Primary Trips	15	16	31
Pass-By Trips (47%)	14	15	29
SAT Peak Hour	42	44	86
Internal Trips (53%)	22	23	45
Primary Trips	13	13	26
Pass-By Trips (37%)	7	8	15
LU Code #932 - High-Turnover (Sit-Down) Restaurant - 3,000 SF			
ADT	191	191	382
AM Peak Hour	18	14	32
Internal Trips (18%)	3	3	6
Primary Trips	10	7	17
Pass-By Trips (33%)	5	4	9
PM Peak Hour	18	12	30
Internal Trips (40%)	7	5	12
Primary Trips	6	4	10
Pass-By Trips (43%)	5	3	8
SAT Peak Hour	22	20	42
Internal Trips (53%)	12	11	23
Primary Trips	7	6	13
Pass-By Trips (33%)	3	3	6
LU Code #934 - Fast-Food Restaurant with Drive-Through Window - 2,800 SF			
ADT	695	695	1,390
AM Peak Hour	65	62	127
Internal Trips (18%)	12	11	23
Primary Trips	27	26	53
Pass-By Trips (49%)	26	25	51
PM Peak Hour	47	44	91
Internal Trips (40%)	19	18	37
Primary Trips	14	13	27
Pass-By Trips (50%)	14	13	27
SAT Peak Hour	84	81	165
Internal Trips (53%)	45	43	88
Primary Trips	23	23	46
Pass-By Trips (40%)	16	15	31
Total Trip Generation			
ADT	1,339	1,339	2,678
AM Peak Hour	100	87	187
Internal Trips	18	16	34
Primary Trips	46	39	85
Pass-By Trips	36	32	68
PM Peak Hour	135	133	268
Internal Trips	54	53	107
Primary Trips	48	49	97
Pass-By Trips	33	31	64
SAT Peak Hour	171	166	337
Internal Trips	91	88	179
Primary Trips	54	52	106
Pass-By Trips	26	26	52



PROPOSED COMMERCIAL DEVELOPMENT – South Fayette Township, PA
Primary Trip Distribution Percentages


























PROPOSED COMMERCIAL DEVELOPMENT – South Fayette Township, PA
Total Pass-By Trip Distribution Percentages

APPENDIX I

Synchro Printouts – Opening Year 2024 Without Development Condition

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development AM Peak Hour Condition

10/11/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	623	90	122	367	216	57	28	113	196	40	21
Future Volume (vph)	26	623	90	122	367	216	57	28	113	196	40	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.981				0.850			0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1639	3296	0	1778	3278	1613	1841	1700	1540	3416	1698	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1639	3296	0	1778	3278	1613	1841	1700	1540	3416	1698	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				237			124		17	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	0%	2%	7%	4%	0%	14%	7%	2%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	29	685	99	134	403	237	63	31	124	215	44	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	784	0	134	403	237	63	31	124	215	67	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	6.5	28.9		11.5	39.7	39.7	7.8	6.8	6.8	10.3	8.7	
Actuated g/C Ratio	0.08	0.35		0.14	0.48	0.48	0.09	0.08	0.08	0.12	0.11	
v/c Ratio	0.22	0.68		0.54	0.26	0.26	0.36	0.22	0.52	0.51	0.35	
Control Delay	46.6	25.9		45.1	14.6	2.9	46.4	45.6	17.1	41.5	36.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.6	25.9		45.1	14.6	2.9	46.4	45.6	17.1	41.5	36.5	
LOS	D	C		D	B	A	D	D	B	D	D	
Approach Delay		26.6			16.3			29.6			40.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	14	168		64	67	0	31	15	0	53	24	
Queue Length 95th (ft)	49	287		150	119	41	85	52	56	113	78	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	395	2263		428	2247	1180	327	625	645	607	635	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.07	0.35		0.31	0.18	0.20	0.19	0.05	0.19	0.35	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 82.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 25.0
 Intersection Capacity Utilization 54.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1 25 s	O2 60 s	O3 20 s	O4 35 s
O5 25 s	O6 60 s	O7 20 s	O8 35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	513	66	99	671	364	58	35	142	306	52	68
Future Volume (vph)	50	513	66	99	671	364	58	35	142	306	52	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.983				0.850			0.850		0.915	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3387	0	1778	3405	1644	1841	1938	1599	3416	1679	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3387	0	1778	3405	1644	1841	1938	1599	3416	1679	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				375			146		42	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	3%	2%	0%	0%	3%	2%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	529	68	102	692	375	60	36	146	315	54	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	597	0	102	692	375	60	36	146	315	124	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.6	28.6		10.0	30.7	30.7	7.8	7.2	7.2	13.5	11.3	
Actuated g/C Ratio	0.09	0.35		0.12	0.38	0.38	0.10	0.09	0.09	0.17	0.14	
v/c Ratio	0.32	0.50		0.47	0.54	0.44	0.34	0.21	0.53	0.56	0.46	
Control Delay	47.6	22.2		47.0	21.4	3.7	47.3	45.1	15.9	40.6	33.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	47.6	22.2		47.0	21.4	3.7	47.3	45.1	15.9	40.6	33.5	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		24.2			17.9			28.0			38.6	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	26	123		51	143	0	30	18	0	79	39	
Queue Length 95th (ft)	77	203		128	226	51	86	58	60	#178	118	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	448	2373		454	2382	1262	346	755	712	643	680	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.25		0.22	0.29	0.30	0.17	0.05	0.21	0.49	0.18	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 81.6
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 24.2
 Intersection Capacity Utilization 53.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	521	92	100	492	422	74	36	136	345	48	76
Future Volume (vph)	56	521	92	100	492	422	74	36	136	345	48	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.977				0.850			0.850		0.908	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3396	0	1814	3438	1677	1841	1938	1647	3450	1717	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3396	0	1814	3438	1677	1841	1938	1647	3450	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				459			148		52	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	61	566	100	109	535	459	80	39	148	375	52	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	666	0	109	535	459	80	39	148	375	135	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.7	24.4		9.7	29.2	29.2	8.4	7.3	7.3	14.5	16.3	
Actuated g/C Ratio	0.10	0.30		0.12	0.36	0.36	0.10	0.09	0.09	0.18	0.20	
v/c Ratio	0.37	0.64		0.50	0.43	0.51	0.42	0.22	0.52	0.60	0.35	
Control Delay	45.1	26.7		44.7	21.4	4.2	44.9	41.4	14.6	38.7	26.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	45.1	26.7		44.7	21.4	4.2	44.9	41.4	14.6	38.7	26.0	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		28.2			16.5			27.6			35.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	28	140		49	105	0	36	18	0	84	35	
Queue Length 95th (ft)	83	237		127	179	60	101	57	58	#210	115	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	428	2360		442	2384	1303	331	722	706	620	672	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.14	0.28		0.25	0.22	0.35	0.24	0.05	0.21	0.60	0.20	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 80.8
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 24.6
 Intersection Capacity Utilization 56.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

01	02	03	04
25 s	60 s	20 s	35 s
05	06	07	08
25 s	60 s	20 s	35 s

APPENDIX J

HCM Printouts – *Opening Year 2024 Without Development Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development AM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	623	90	122	367	216	57	28	113	196	40	21
Future Volume (veh/h)	26	623	90	122	367	216	57	28	113	196	40	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1834	1864	1939	1909	1834	1954	2057	1847	1952	1864	1820	1790
Adj Flow Rate, veh/h	29	685	99	134	403	0	63	31	0	215	44	8
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	5	0	2	7	4	0	14	7	2	5	7
Cap, veh/h	58	935	135	176	1270		113	64		342	114	21
Arrive On Green	0.03	0.30	0.30	0.10	0.36	0.00	0.06	0.03	0.00	0.10	0.08	0.08
Sat Flow, veh/h	1747	3106	448	1818	3485	1656	1959	1847	1654	3445	1499	272
Grp Volume(v), veh/h	29	390	394	134	403	0	63	31	0	215	0	52
Grp Sat Flow(s),veh/h/ln	1747	1771	1784	1818	1743	1656	1959	1847	1654	1722	0	1771
Q Serve(g_s), s	0.8	10.1	10.1	3.7	4.3	0.0	1.6	0.8	0.0	3.1	0.0	1.4
Cycle Q Clear(g_c), s	0.8	10.1	10.1	3.7	4.3	0.0	1.6	0.8	0.0	3.1	0.0	1.4
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	58	533	537	176	1270		113	64		342	0	135
V/C Ratio(X)	0.50	0.73	0.73	0.76	0.32		0.56	0.48		0.63	0.00	0.38
Avail Cap(c_a), veh/h	648	1867	1880	674	3673		535	1046		941	0	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	16.1	16.1	22.6	11.7	0.0	23.5	24.3	0.0	22.2	0.0	22.5
Incr Delay (d2), s/veh	2.5	0.9	0.9	2.6	0.1	0.0	1.6	2.1	0.0	0.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	3.4	3.5	1.5	1.3	0.0	0.7	0.4	0.0	1.2	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	17.0	17.0	25.2	11.8	0.0	25.1	26.3	0.0	22.9	0.0	23.2
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		813			537			94			267	
Approach Delay, s/veh		17.3			15.1			25.5			22.9	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	21.4	9.0	9.9	7.7	24.7	11.1	7.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+I1), s	5.7	12.1	3.6	3.4	2.8	6.3	5.1	2.8				
Green Ext Time (p_c), s	0.1	3.3	0.0	0.1	0.0	1.8	0.3	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development PM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	513	66	99	671	364	58	35	142	306	52	68
Future Volume (veh/h)	50	513	66	99	671	364	58	35	142	306	52	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1909	1939	1909	1894	1986	2057	2057	2012	1864	1850	1850
Adj Flow Rate, veh/h	52	529	65	102	692	0	60	36	0	315	54	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	2	3	2	0	0	3	2	3	3
Cap, veh/h	94	944	116	135	1129		109	80		456	118	81
Arrive On Green	0.05	0.29	0.29	0.07	0.31	0.00	0.06	0.04	0.00	0.13	0.12	0.12
Sat Flow, veh/h	1847	3253	398	1818	3599	1683	1959	2057	1705	3445	1023	701
Grp Volume(v), veh/h	52	294	300	102	692	0	60	36	0	315	0	91
Grp Sat Flow(s),veh/h/ln	1847	1814	1838	1818	1800	1683	1959	2057	1705	1722	0	1724
Q Serve(g_s), s	1.4	7.1	7.2	2.8	8.4	0.0	1.5	0.9	0.0	4.5	0.0	2.5
Cycle Q Clear(g_c), s	1.4	7.1	7.2	2.8	8.4	0.0	1.5	0.9	0.0	4.5	0.0	2.5
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	94	526	533	135	1129		109	80		456	0	199
V/C Ratio(X)	0.55	0.56	0.56	0.75	0.61		0.55	0.45		0.69	0.00	0.46
Avail Cap(c_a), veh/h	679	1894	1919	668	3759		531	1154		933	0	967
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	15.5	15.6	23.5	15.1	0.0	23.8	24.3	0.0	21.4	0.0	21.4
Incr Delay (d2), s/veh	1.9	0.4	0.4	3.2	0.2	0.0	1.6	1.5	0.0	0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	2.5	1.2	2.8	0.0	0.7	0.4	0.0	1.7	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	16.0	16.0	26.7	15.3	0.0	25.4	25.7	0.0	22.1	0.0	22.0
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		646			794			96			406	
Approach Delay, s/veh		16.8			16.8			25.5			22.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.8	21.0	8.9	12.0	8.6	22.2	12.8	8.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	4.8	9.2	3.5	4.5	3.4	10.4	6.5	2.9				
Green Ext Time (p_c), s	0.1	2.3	0.0	0.3	0.0	3.3	0.4	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 Without Development SAT Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	521	92	100	492	422	74	36	136	345	48	76
Future Volume (veh/h)	56	521	92	100	492	422	74	36	136	345	48	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1939	1849	1939	1909	2017	2057	2057	2057	1879	1894	1894
Adj Flow Rate, veh/h	61	566	96	109	535	0	80	39	0	375	52	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	0	2	0	0	0	0	1	0	0
Cap, veh/h	103	888	150	144	1102		128	85		516	117	101
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.00	0.07	0.04	0.00	0.15	0.12	0.12
Sat Flow, veh/h	1847	3153	533	1847	3628	1709	1959	2057	1743	3472	937	811
Grp Volume(v), veh/h	61	330	332	109	535	0	80	39	0	375	0	97
Grp Sat Flow(s),veh/h/ln	1847	1842	1843	1847	1814	1709	1959	2057	1743	1736	0	1748
Q Serve(g_s), s	1.7	8.3	8.4	3.1	6.4	0.0	2.1	1.0	0.0	5.5	0.0	2.7
Cycle Q Clear(g_c), s	1.7	8.3	8.4	3.1	6.4	0.0	2.1	1.0	0.0	5.5	0.0	2.7
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.46
Lane Grp Cap(c), veh/h	103	519	519	144	1102		128	85		516	0	218
V/C Ratio(X)	0.59	0.64	0.64	0.76	0.49		0.63	0.46		0.73	0.00	0.44
Avail Cap(c_a), veh/h	659	1868	1869	659	3679		515	1120		913	0	952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	16.7	16.8	24.1	15.1	0.0	24.3	25.0	0.0	21.6	0.0	21.6
Incr Delay (d2), s/veh	2.0	0.6	0.6	3.1	0.2	0.0	1.9	1.4	0.0	0.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.0	3.0	1.3	2.2	0.0	1.0	0.5	0.0	2.1	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	17.3	17.4	27.1	15.3	0.0	26.1	26.4	0.0	22.4	0.0	22.1
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		723			644			119			472	
Approach Delay, s/veh		18.1			17.3			26.2			22.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.1	21.0	9.5	12.6	9.0	22.2	13.9	8.2				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+1), s	5.1	10.4	4.1	4.7	3.7	8.4	7.5	3.0				
Green Ext Time (p_c), s	0.1	2.6	0.1	0.3	0.0	2.4	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

5: Newbury Drive & Plaza Access
 Opening Year 2024 Without Development AM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			↑↑
Traffic Vol, veh/h	35	11	211	59	17	215
Future Vol, veh/h	35	11	211	59	17	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	0	5	0	0	2
Mvmt Flow	41	13	248	69	20	253

Major/Minor	Minor1	Major1	Major2	Major3	Major4	Major5
Conflicting Flow All	450	159	0	0	317	0
Stage 1	283	-	-	-	-	-
Stage 2	167	-	-	-	-	-
Critical Hdwy	6.86	6.9	-	-	4.1	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	535	864	-	-	1255	-
Stage 1	737	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	525	864	-	-	1255	-
Mov Cap-2 Maneuver	525	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	579	1255
HCM Lane V/C Ratio	-	-	0.093	0.016
HCM Control Delay (s)	-	-	11.9	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

5: Newbury Drive & Plaza Access

Opening Year 2024 Without Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	57	28	367	62	13	372
Future Vol, veh/h	57	28	367	62	13	372
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	62	30	399	67	14	404

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	663	233	0	0	466
Stage 1	433	-	-	-	-
Stage 2	230	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	399	775	-	-	1106
Stage 1	627	-	-	-	-
Stage 2	792	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	393	775	-	-	1106
Mov Cap-2 Maneuver	393	-	-	-	-
Stage 1	627	-	-	-	-
Stage 2	779	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	469	1106
HCM Lane V/C Ratio	-	-	0.197	0.013
HCM Control Delay (s)	-	-	14.5	8.3
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.7	0

5: Newbury Drive & Plaza Access
 Opening Year 2024 Without Development SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↓			↑↑
Traffic Vol, veh/h	107	25	423	106	20	371
Future Vol, veh/h	107	25	423	106	20	371
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	2	0	1
Mvmt Flow	126	29	498	125	24	436

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	827	312	0	0	623
Stage 1	561	-	-	-	-
Stage 2	266	-	-	-	-
Critical Hdwy	6.82	6.98	-	-	4.1
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.34	-	-	2.2
Pot Cap-1 Maneuver	312	678	-	-	968
Stage 1	538	-	-	-	-
Stage 2	757	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	302	678	-	-	968
Mov Cap-2 Maneuver	302	-	-	-	-
Stage 1	538	-	-	-	-
Stage 2	732	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.5	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	337	968
HCM Lane V/C Ratio	-	-	0.461	0.024
HCM Control Delay (s)	-	-	24.5	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.3	0.1

APPENDIX K

Synchro Printouts – Design Year 2029 Without Development Condition

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	655	90	122	386	227	57	28	113	206	40	22
Future Volume (vph)	28	655	90	122	386	227	57	28	113	206	40	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.982				0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1639	3299	0	1778	3278	1613	1841	1700	1540	3416	1694	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1639	3299	0	1778	3278	1613	1841	1700	1540	3416	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				249			124		18	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	0%	2%	7%	4%	0%	14%	7%	2%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	31	720	99	134	424	249	63	31	124	226	44	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	819	0	134	424	249	63	31	124	226	68	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	6.7	30.9		11.7	41.7	41.7	7.9	6.8	6.8	10.7	9.0	
Actuated g/C Ratio	0.08	0.36		0.14	0.49	0.49	0.09	0.08	0.08	0.13	0.11	
v/c Ratio	0.24	0.68		0.55	0.26	0.27	0.37	0.23	0.52	0.53	0.35	
Control Delay	48.4	26.0		46.9	14.6	2.9	48.0	47.3	17.5	43.2	37.3	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.4	26.0		46.9	14.6	2.9	48.0	47.3	17.5	43.2	37.3	
LOS	D	C		D	B	A	D	D	B	D	D	
Approach Delay		26.8			16.3			30.6			41.8	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	16	181		67	73	0	32	16	0	58	25	
Queue Length 95th (ft)	53	304		154	125	41	87	52	57	122	80	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	383	2198		416	2194	1162	317	607	629	589	616	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.08	0.37		0.32	0.19	0.21	0.20	0.05	0.20	0.38	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 85.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 25.3
 Intersection Capacity Utilization 55.3%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	539	66	99	705	381	58	35	142	321	52	71
Future Volume (vph)	53	539	66	99	705	381	58	35	142	321	52	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.984				0.850			0.850		0.914	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3391	0	1778	3405	1644	1841	1938	1599	3416	1678	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3391	0	1778	3405	1644	1841	1938	1599	3416	1678	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				393			146		44	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	3%	2%	0%	0%	3%	2%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	55	556	68	102	727	393	60	36	146	331	54	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	624	0	102	727	393	60	36	146	331	127	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.8	32.3		10.1	34.3	34.3	7.9	7.3	7.3	14.4	11.5	
Actuated g/C Ratio	0.09	0.38		0.12	0.40	0.40	0.09	0.08	0.08	0.17	0.13	
v/c Ratio	0.35	0.49		0.49	0.54	0.44	0.36	0.22	0.54	0.58	0.48	
Control Delay	49.7	21.7		49.7	21.2	3.5	49.5	46.6	16.2	42.8	34.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	49.7	21.7		49.7	21.2	3.5	49.5	46.6	16.2	42.8	34.7	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		24.0			17.9			29.0			40.5	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	29	131		54	154	0	32	19	0	88	42	
Queue Length 95th (ft)	81	215		128	243	52	87	58	61	#194	120	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	420	2255		426	2260	1223	325	709	678	603	642	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.28		0.24	0.32	0.32	0.18	0.05	0.22	0.55	0.20	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 86
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 24.5
 Intersection Capacity Utilization 57.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	548	92	100	517	442	74	36	136	362	48	79
Future Volume (vph)	59	548	92	100	517	442	74	36	136	362	48	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.978				0.850			0.850		0.907	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3401	0	1814	3438	1677	1841	1938	1647	3450	1715	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3401	0	1814	3438	1677	1841	1938	1647	3450	1715	0
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		16				480			148		54	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1114			644			295			551	
Travel Time (s)		19.0			11.0			8.0			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	596	100	109	562	480	80	39	148	393	52	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	696	0	109	562	480	80	39	148	393	138	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development SAT Peak Hour Condition

10/11/2023

Lane Group												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	8.0	26.2		10.0	31.1	31.1	8.5	7.5	7.5	14.6	16.5	
Actuated g/C Ratio	0.10	0.31		0.12	0.37	0.37	0.10	0.09	0.09	0.18	0.20	
v/c Ratio	0.38	0.65		0.50	0.44	0.52	0.43	0.23	0.52	0.65	0.36	
Control Delay	47.3	26.6		46.5	21.4	4.1	46.9	43.2	14.8	41.4	27.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	47.3	26.6		46.5	21.4	4.1	46.9	43.2	14.8	41.4	27.1	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		28.3			16.5			28.6			37.7	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	30	148		50	112	0	37	18	0	92	37	
Queue Length 95th (ft)	89	254		134	192	60	106	59	59	#246	122	
Internal Link Dist (ft)		1034			564			215			471	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	418	2309		432	2329	1290	323	705	693	605	658	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.15	0.30		0.25	0.24	0.37	0.25	0.06	0.21	0.65	0.21	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 83.4
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 25.2
 Intersection Capacity Utilization 58.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Q1	Q2	Q3	Q4
25 s	60 s	20 s	35 s
Q5	Q6	Q7	Q8
25 s	60 s	20 s	35 s

APPENDIX L

HCM Printouts – *Design Year 2029 Without Development Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development AM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	655	90	122	386	227	57	28	113	206	40	22
Future Volume (veh/h)	28	655	90	122	386	227	57	28	113	206	40	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1834	1864	1939	1909	1834	1954	2057	1847	1952	1864	1820	1790
Adj Flow Rate, veh/h	31	720	99	134	424	0	63	31	0	226	44	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	5	0	2	7	4	0	14	7	2	5	7
Cap, veh/h	60	970	133	175	1296		112	64		353	117	24
Arrive On Green	0.03	0.31	0.31	0.10	0.37	0.00	0.06	0.03	0.00	0.10	0.08	0.08
Sat Flow, veh/h	1747	3128	430	1818	3485	1656	1959	1847	1654	3445	1466	300
Grp Volume(v), veh/h	31	407	412	134	424	0	63	31	0	226	0	53
Grp Sat Flow(s),veh/h/ln	1747	1771	1787	1818	1743	1656	1959	1847	1654	1722	0	1766
Q Serve(g_s), s	0.9	10.8	10.9	3.8	4.6	0.0	1.6	0.9	0.0	3.3	0.0	1.5
Cycle Q Clear(g_c), s	0.9	10.8	10.9	3.8	4.6	0.0	1.6	0.9	0.0	3.3	0.0	1.5
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	60	549	554	175	1296		112	64		353	0	141
V/C Ratio(X)	0.51	0.74	0.74	0.76	0.33		0.56	0.48		0.64	0.00	0.38
Avail Cap(c_a), veh/h	631	1818	1835	657	3578		522	1019		917	0	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	16.3	16.3	23.2	11.8	0.0	24.2	24.9	0.0	22.7	0.0	23.0
Incr Delay (d2), s/veh	2.5	0.9	0.9	2.6	0.1	0.0	1.6	2.1	0.0	0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.7	3.7	1.6	1.4	0.0	0.8	0.4	0.0	1.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	17.2	17.2	25.8	11.9	0.0	25.8	27.0	0.0	23.4	0.0	23.6
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		850			558			94			279	
Approach Delay, s/veh		17.6			15.2			26.2			23.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	22.3	9.0	10.2	7.8	25.6	11.4	7.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	5.8	12.9	3.6	3.5	2.9	6.6	5.3	2.9				
Green Ext Time (p_c), s	0.1	3.5	0.0	0.1	0.0	1.9	0.3	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development PM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	539	66	99	705	381	58	35	142	321	52	71
Future Volume (veh/h)	53	539	66	99	705	381	58	35	142	321	52	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1909	1939	1909	1894	1986	2057	2057	2012	1864	1850	1850
Adj Flow Rate, veh/h	55	556	65	102	727	0	60	36	0	331	54	40
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	2	3	2	0	0	3	2	3	3
Cap, veh/h	97	944	110	135	1115		109	80		472	119	88
Arrive On Green	0.05	0.29	0.29	0.07	0.31	0.00	0.06	0.04	0.00	0.14	0.12	0.12
Sat Flow, veh/h	1847	3273	382	1818	3599	1683	1959	2057	1705	3445	987	731
Grp Volume(v), veh/h	55	307	314	102	727	0	60	36	0	331	0	94
Grp Sat Flow(s),veh/h/ln	1847	1814	1841	1818	1800	1683	1959	2057	1705	1722	0	1718
Q Serve(g_s), s	1.5	7.6	7.6	2.9	9.1	0.0	1.6	0.9	0.0	4.8	0.0	2.6
Cycle Q Clear(g_c), s	1.5	7.6	7.6	2.9	9.1	0.0	1.6	0.9	0.0	4.8	0.0	2.6
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	97	523	531	135	1115		109	80		472	0	207
V/C Ratio(X)	0.57	0.59	0.59	0.76	0.65		0.55	0.45		0.70	0.00	0.45
Avail Cap(c_a), veh/h	675	1883	1911	664	3737		527	1147		927	0	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	15.9	15.9	23.6	15.5	0.0	23.9	24.4	0.0	21.4	0.0	21.3
Incr Delay (d2), s/veh	1.9	0.5	0.5	3.2	0.3	0.0	1.6	1.5	0.0	0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.6	2.7	1.2	3.1	0.0	0.7	0.4	0.0	1.8	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	16.3	16.4	26.9	15.8	0.0	25.5	25.9	0.0	22.1	0.0	21.9
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		676			829			96			425	
Approach Delay, s/veh		17.1			17.2			25.7			22.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	21.0	8.9	12.3	8.7	22.1	13.1	8.0				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	4.9	9.6	3.6	4.6	3.5	11.1	6.8	2.9				
Green Ext Time (p_c), s	0.1	2.4	0.0	0.3	0.0	3.5	0.4	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 Without Development SAT Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	548	92	100	517	442	74	36	136	362	48	79
Future Volume (veh/h)	59	548	92	100	517	442	74	36	136	362	48	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1939	1849	1939	1909	2017	2057	2057	2057	1879	1894	1894
Adj Flow Rate, veh/h	64	596	96	109	562	0	80	39	0	393	52	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	0	2	0	0	0	0	1	0	0
Cap, veh/h	106	889	143	144	1089		127	85		534	118	109
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.00	0.06	0.04	0.00	0.15	0.13	0.13
Sat Flow, veh/h	1847	3179	511	1847	3628	1709	1959	2057	1743	3472	907	837
Grp Volume(v), veh/h	64	345	347	109	562	0	80	39	0	393	0	100
Grp Sat Flow(s),veh/h/ln	1847	1842	1847	1847	1814	1709	1959	2057	1743	1736	0	1743
Q Serve(g_s), s	1.8	8.9	8.9	3.1	6.9	0.0	2.1	1.0	0.0	5.8	0.0	2.8
Cycle Q Clear(g_c), s	1.8	8.9	8.9	3.1	6.9	0.0	2.1	1.0	0.0	5.8	0.0	2.8
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.48
Lane Grp Cap(c), veh/h	106	515	517	144	1089		127	85		534	0	226
V/C Ratio(X)	0.60	0.67	0.67	0.76	0.52		0.63	0.46		0.74	0.00	0.44
Avail Cap(c_a), veh/h	655	1856	1861	655	3654		512	1113		907	0	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	17.1	17.1	24.2	15.5	0.0	24.4	25.1	0.0	21.7	0.0	21.5
Incr Delay (d2), s/veh	2.1	0.7	0.7	3.1	0.2	0.0	1.9	1.5	0.0	0.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.2	3.3	1.3	2.4	0.0	1.0	0.5	0.0	2.3	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	17.8	17.8	27.3	15.7	0.0	26.3	26.6	0.0	22.4	0.0	22.0
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		756			671			119			493	
Approach Delay, s/veh		18.6			17.6			26.4			22.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	21.0	9.5	13.0	9.1	22.1	14.2	8.2				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+I1), s	5.1	10.9	4.1	4.8	3.8	8.9	7.8	3.0				
Green Ext Time (p_c), s	0.1	2.8	0.1	0.3	0.0	2.6	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

5: Newbury Drive & Plaza Access
 Design Year 2029 Without Development AM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	1.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	35	11	221	59	17	225
Future Vol, veh/h	35	11	221	59	17	225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	3	0	5	0	0	2
Mvmt Flow	41	13	260	69	20	265

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	468	165	0	0	329
Stage 1	295	-	-	-	-
Stage 2	173	-	-	-	-
Critical Hdwy	6.86	6.9	-	-	4.1
Critical Hdwy Stg 1	5.86	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-
Follow-up Hdwy	3.53	3.3	-	-	2.2
Pot Cap-1 Maneuver	521	857	-	-	1242
Stage 1	727	-	-	-	-
Stage 2	837	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	511	857	-	-	1242
Mov Cap-2 Maneuver	511	-	-	-	-
Stage 1	727	-	-	-	-
Stage 2	821	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	566	1242
HCM Lane V/C Ratio	-	-	0.096	0.016
HCM Control Delay (s)	-	-	12	7.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

5: Newbury Drive & Plaza Access
 Design Year 2029 Without Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	1.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	57	28	384	62	13	389
Future Vol, veh/h	57	28	384	62	13	389
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	62	30	417	67	14	423

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	691	242	0	0	484
Stage 1	451	-	-	-	-
Stage 2	240	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	383	765	-	-	1089
Stage 1	614	-	-	-	-
Stage 2	783	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	376	765	-	-	1089
Mov Cap-2 Maneuver	376	-	-	-	-
Stage 1	614	-	-	-	-
Stage 2	770	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	452	1089
HCM Lane V/C Ratio	-	-	0.204	0.013
HCM Control Delay (s)	-	-	15	8.3
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.8	0

5: Newbury Drive & Plaza Access
 Design Year 2029 Without Development SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	107	25	441	106	20	387
Future Vol, veh/h	107	25	441	106	20	387
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	-1	-	-	1
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	1	4	0	2	0	1
Mvmt Flow	126	29	519	125	24	455

Major/Minor	Minor1	Major1	Major2	Major2	Major2
Conflicting Flow All	858	322	0	0	644
Stage 1	582	-	-	-	-
Stage 2	276	-	-	-	-
Critical Hdwy	6.82	6.98	-	-	4.1
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.34	-	-	2.2
Pot Cap-1 Maneuver	298	668	-	-	951
Stage 1	525	-	-	-	-
Stage 2	749	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	288	668	-	-	951
Mov Cap-2 Maneuver	288	-	-	-	-
Stage 1	525	-	-	-	-
Stage 2	724	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	323	951
HCM Lane V/C Ratio	-	-	0.481	0.025
HCM Control Delay (s)	-	-	26	8.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	2.5	0.1

APPENDIX M
Trip Generation Calculations

South Fayette Commons Trip Generation Summary

Time Period	Anticipated Trip Generation		
	In	Out	Total
LU Code #826 - Specialty Retail Center - 10,500 SF			
ADT	244	244	488
AM Peak Hour	0	0	0
<i>Internal Trips (18%)</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Primary Trips</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>Pass-By Trips (0%)</i>	<i>0</i>	<i>0</i>	<i>0</i>
PM Peak Hour	21	26	47
<i>Internal Trips (40%)</i>	<i>8</i>	<i>10</i>	<i>18</i>
<i>Primary Trips</i>	<i>13</i>	<i>16</i>	<i>29</i>
<i>Pass-By Trips (0%)</i>	<i>0</i>	<i>0</i>	<i>0</i>
SAT Peak Hour	23	21	44
<i>Internal Trips (53%)</i>	<i>12</i>	<i>11</i>	<i>23</i>
<i>Primary Trips</i>	<i>11</i>	<i>10</i>	<i>21</i>
<i>Pass-By Trips (0%)</i>	<i>0</i>	<i>0</i>	<i>0</i>
LU Code #932 - High-Turnover (Sit-Down) Restaurant - 3,000 SF			
ADT	191	191	382
AM Peak Hour	18	14	32
<i>Internal Trips (18%)</i>	<i>3</i>	<i>3</i>	<i>6</i>
<i>Primary Trips</i>	<i>10</i>	<i>7</i>	<i>17</i>
<i>Pass-By Trips (33%)</i>	<i>5</i>	<i>4</i>	<i>9</i>
PM Peak Hour	18	12	30
<i>Internal Trips (40%)</i>	<i>7</i>	<i>5</i>	<i>12</i>
<i>Primary Trips</i>	<i>6</i>	<i>4</i>	<i>10</i>
<i>Pass-By Trips (43%)</i>	<i>5</i>	<i>3</i>	<i>8</i>
SAT Peak Hour	22	20	42
<i>Internal Trips (53%)</i>	<i>12</i>	<i>11</i>	<i>23</i>
<i>Primary Trips</i>	<i>7</i>	<i>6</i>	<i>13</i>
<i>Pass-By Trips (33%)</i>	<i>3</i>	<i>3</i>	<i>6</i>
Remaining Development Trips			
ADT	435	435	870
AM Peak Hour	18	14	32
<i>Internal Trips</i>	<i>3</i>	<i>3</i>	<i>6</i>
<i>Primary Trips</i>	<i>10</i>	<i>7</i>	<i>17</i>
<i>Pass-By Trips</i>	<i>5</i>	<i>4</i>	<i>9</i>
PM Peak Hour	39	38	77
<i>Internal Trips</i>	<i>15</i>	<i>15</i>	<i>30</i>
<i>Primary Trips</i>	<i>19</i>	<i>20</i>	<i>39</i>
<i>Pass-By Trips</i>	<i>5</i>	<i>3</i>	<i>8</i>
SAT Peak Hour	45	41	86
<i>Internal Trips</i>	<i>24</i>	<i>22</i>	<i>46</i>
<i>Primary Trips</i>	<i>18</i>	<i>16</i>	<i>34</i>
<i>Pass-By Trips</i>	<i>3</i>	<i>3</i>	<i>6</i>

The Piazza Development Trip Generation Summary

Time Period	Anticipated Trip Generation		
	In	Out	Total
LU Code #932 - High-Turnover (Sit-Down) Restaurant - 6,800 SF			
ADT	365	365	730
AM Peak Hour	36	29	65
Primary Trips	24	19	43
Pass-By Trips (33%)	12	10	22
PM Peak Hour	38	24	62
Primary Trips	22	14	36
Pass-By Trips (43%)	16	10	26
SAT Peak Hour	39	37	76
Primary Trips	26	25	51
Pass-By Trips (33%)	13	12	25
LU Code #934 - Fast-Food Restaurant with Drive-Through Window - 8,250 SF			
ADT	1,929	1,929	250
AM Peak Hour	188	180	368
Primary Trips	96	92	188
Pass-By Trips (49%)	92	88	180
PM Peak Hour	141	131	272
Primary Trips	97	90	187
Pass-By Trips (31%)	44	41	85
SAT Peak Hour	233	223	456
Primary Trips	184	176	360
Pass-By Trips (21%)	49	47	96
Total Trip Generation			
ADT	2,294	2,294	980
AM Peak Hour	224	209	433
Primary Trips	120	111	231
Pass-By Trips	104	98	202
PM Peak Hour	179	155	334
Primary Trips	119	104	223
Pass-By Trips	60	51	111
SAT Peak Hour	272	260	532
Primary Trips	210	201	411
Pass-By Trips	62	59	121

TRIP GENERATION

David E. Wooster and Associates, LLC
 2 East Crafton Avenue
 Pittsburgh, PA 15205

County : Allegheny County
 Municipality : South Fayette Township
 Client Code: #4392

Land Use Code: 821
 Description: Shopping Plaza (40-150k) without Supermarket

SF Gross Leasable Area: 45,126
 X = 1,000 Square Feet Gross Leasable Area

Page: 212 ADT

Equation: Not Given *Average Rate = 67.52*
 T = 3,048 ADT
 50% entering = 1,524
 50% exiting = 1,524

Page: 213 AM Peak Hour (adjacent street between 7 and 9 a.m.)

Equation: Not Given *Average Rate = 1.73*
 T = 78 AM Peak
 62% entering = 48
 38% exiting = 30

Table E.9	
Primary	Pass-by (30%)*
34	14
21	9

Page: 214 PM Peak Hour (adjacent street between 4 and 6 p.m.)

Equation: Not Given *Average Rate = 5.19*
 T = 234 PM Peak
 49% entering = 115
 51% exiting = 119

Table E.9	
Primary	Pass-by (40%)
69	46
71	48

Page: 218 Saturday (Peak hour of generator)

Equation: T = 7.75 (X) - 98.93 *R² = 0.58*
 T = 251 SAT Peak
 52% entering = 131
 48% exiting = 120

Table E.10	
Primary	Pass-by (31%)
90	41
83	37

* PM peak hour minus 10%

TRIP GENERATION

David E. Wooster and Associates, LLC
 2 East Crafton Avenue
 Pittsburgh, PA 15205

County : Allegheny County
 Municipality : South Fayette Township
 Client Code: #4392

Land Use Code: 932
 Description: High-Turnover (Sit-Down) Restaurant

SF Gross Floor Area: 6,800
 X = 1,000 Square Feet Gross Floor Area

PIAZZA BACKGROUND TRIPS

Page: 673 ADT

Equation: Not Given Average Rate = 107.20
 T = 730 ADT
 50% entering = 365
 50% exiting = 365

Page: 674 AM Peak Hour (adjacent street between 7 and 9 a.m.)

Equation: Not Given Average Rate = 9.57
 T = 65 AM Peak
 55% entering = 36
 45% exiting = 29

Table E.30	
Primary	Pass-by (33%)*
24	12
19	10

Page: 675 PM Peak Hour (adjacent street between 4 and 6 p.m.)

Equation: Not Given Average Rate = 9.05
 T = 62 PM Peak
 61% entering = 38
 39% exiting = 24

Table E.30	
Primary	Pass-by (43%)
22	16
14	10

Page: 682 Saturday (peak hour of generator)

Equation: Not Given Average Rate = 11.19
 T = 76 SAT Peak
 51% entering = 39
 49% exiting = 37

Table E.30	
Primary	Pass-by (33%)*
26	13
25	12

* PM peak hour minus 10%

TRIP GENERATION

David E. Wooster and Associates, LLC
 2 East Crafton Avenue
 Pittsburgh, PA 15205

County : Allegheny County
 Municipality : South Fayette Township
 Client Code: #4392

Land Use Code: 934
 Description: Fast-Food Restaurant with Drive-Through Window

SF Gross Floor Area: 8,250
 X = 1,000 Square Feet Gross Floor Area

PIAZZA BACKGROUND TRIPS

Page: 725 ADT

Equation: Not Given *Average Rate = 467.48*
 T = 3,858 ADT
 50% entering = 1,929
 50% exiting = 1,929

Page: 726 AM Peak Hour (adjacent street between 7 and 9 a.m.)

Equation: Not Given *Average Rate = 44.61*
 T = 368 AM Peak
 51% entering = 188
 49% exiting = 180

Table E.31	
Primary	Pass-by (49%)
96	92
92	88

Page: 727 PM Peak Hour (adjacent street between 4 and 6 p.m.)

Equation: Not Given *Average Rate = 33.03*
 T = 272 PM Peak
 52% entering = 141
 48% exiting = 131

Table E.32	
Primary	Pass-by (31%)
97	44
90	41

Page: 731 Saturday (peak hour of generator)

Equation: Not Given *Average Rate = 55.25*
 T = 456 SAT Peak
 51% entering = 233
 49% exiting = 223

Table E.32	
Primary	Pass-by (21%)*
184	49
176	47

* PM peak hour minus 10%

TRIP GENERATION

David E. Wooster and Associates, LLC
 2 East Crafton Avenue
 Pittsburgh, PA 15205

County : Allegheny County
 Municipality : South Fayette Township
 Client Code: #4392

Land Use Code: 931
 Description: Fine Dining Restaurant

SF Gross Floor Area: 9,377
 X = 1,000 Square Feet Gross Floor Area

NEWBURY CIGAR LOUNGE, BAR, AND RESTAURANT

Page: 646 ADT

Equation: Not Given Average Rate = 83.84
 T = 788 ADT
 50% entering = 394
 50% exiting = 394

Page: 647 AM Peak Hour (adjacent street between 7 and 9 a.m.)

Equation: Not Given Average Rate = 0.73
 T = 7 AM Peak
 **50% entering = 4
 **50% exiting = 3

Table E.29	
Primary	Pass-by (34%)*
3	1
2	1

Page: 648 PM Peak Hour (adjacent street between 4 and 6 p.m.)

Equation: Not Given Average Rate = 7.80
 T = 73 PM Peak
 67% entering = 49
 33% exiting = 24

Table E.29	
Primary	Pass-by (44%)
27	22
13	11

Page: 652 Saturday (peak hour of generator)

Equation: Not Given Average Rate = 10.68
 T = 100 SAT Peak
 59% entering = 59
 41% exiting = 41

Table E.29	
Primary	Pass-by (34%)*
39	20
21	20

**-Directional Distribution Not Available. Distribution Assumed.
























* PM peak hour minus 10%

APPENDIX N

Synchro Printouts – Opening Year 2024 With Development Condition

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development AM Peak Hour Condition

10/11/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	617	90	121	381	217	57	28	113	211	40	22
Future Volume (vph)	47	617	90	121	381	217	57	28	113	211	40	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.981				0.850			0.850		0.947	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1639	3297	0	1778	3278	1613	1841	1700	1540	3416	1694	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1639	3297	0	1778	3278	1613	1841	1700	1540	3416	1694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				238			124		18	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	0%	2%	7%	4%	0%	14%	7%	2%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	678	99	133	419	238	63	31	124	232	44	24
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	777	0	133	419	238	63	31	124	232	68	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.7	28.8		11.5	35.8	35.8	7.8	6.7	6.7	10.6	8.9	
Actuated g/C Ratio	0.09	0.35		0.14	0.43	0.43	0.09	0.08	0.08	0.13	0.11	
v/c Ratio	0.34	0.67		0.54	0.30	0.29	0.36	0.22	0.52	0.53	0.34	
Control Delay	47.0	25.9		45.3	17.1	3.3	46.3	45.6	17.0	41.6	35.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	47.0	25.9		45.3	17.1	3.3	46.3	45.6	17.0	41.6	35.8	
LOS	D	C		D	B	A	D	D	B	D	D	
Approach Delay		27.2			17.7			29.5			40.3	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	25	167		64	74	0	31	15	0	57	24	
Queue Length 95th (ft)	75	284		148	130	43	86	51	57	121	77	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	394	2260		428	2243	1179	326	625	644	606	634	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.34		0.31	0.19	0.20	0.19	0.05	0.19	0.38	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 82.8
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 25.8
 Intersection Capacity Utilization 54.3%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	502	66	98	706	367	58	37	140	351	53	70
Future Volume (vph)	81	502	66	98	706	367	58	37	140	351	53	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.983				0.850			0.850		0.915	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3388	0	1778	3405	1644	1841	1938	1599	3416	1679	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3388	0	1778	3405	1644	1841	1938	1599	3416	1679	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12				378			144		42	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	3%	2%	0%	0%	3%	2%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	518	68	101	728	378	60	38	144	362	55	72
Shared Lane Traffic (%)												
Lane Group Flow (vph)	84	586	0	101	728	378	60	38	144	362	127	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	9.3	33.5		10.1	37.6	37.6	7.8	7.4	7.4	14.6	17.3	
Actuated g/C Ratio	0.10	0.37		0.11	0.41	0.41	0.09	0.08	0.08	0.16	0.19	
v/c Ratio	0.47	0.47		0.51	0.52	0.42	0.38	0.24	0.55	0.66	0.36	
Control Delay	52.1	22.0		51.9	21.8	3.5	51.7	48.3	16.7	46.0	31.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	52.1	22.0		51.9	21.8	3.5	51.7	48.3	16.7	46.0	31.9	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		25.8			18.6			30.3			42.4	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	45	121		54	160	0	32	21	0	99	43	
Queue Length 95th (ft)	114	202		131	257	54	89	62	61	#233	125	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	384	2115		389	2121	1166	297	648	630	551	589	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.22	0.28		0.26	0.34	0.32	0.20	0.06	0.23	0.66	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 90.7
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 26.0
 Intersection Capacity Utilization 58.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	510	92	99	534	426	74	37	135	394	49	78
Future Volume (vph)	96	510	92	99	534	426	74	37	135	394	49	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.977				0.850			0.850		0.908	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3395	0	1814	3438	1677	1841	1938	1647	3450	1717	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3395	0	1814	3438	1677	1841	1938	1647	3450	1717	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				463			147		52	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	104	554	100	108	580	463	80	40	147	428	53	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	654	0	108	580	463	80	40	147	428	138	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.2	27.1		10.2	30.3	30.3	8.7	7.8	7.8	14.8	16.9	
Actuated g/C Ratio	0.12	0.32		0.12	0.36	0.36	0.10	0.09	0.09	0.17	0.20	
v/c Ratio	0.50	0.60		0.50	0.48	0.52	0.43	0.23	0.52	0.71	0.36	
Control Delay	48.4	25.5		48.0	23.4	4.3	48.5	44.6	14.9	44.6	28.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.4	25.5		48.0	23.4	4.3	48.5	44.6	14.9	44.6	28.6	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		28.7			18.0			29.4			40.7	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	47	137		48	122	0	36	18	0	98	37	
Queue Length 95th (ft)	136	239		140	213	62	112	63	61	#301	131	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	413	2280		427	2304	1276	320	697	686	599	651	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.25	0.29		0.25	0.25	0.36	0.25	0.06	0.21	0.71	0.21	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 85.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 26.8
 Intersection Capacity Utilization 57.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

O1	O2	O3	O4
25 s	60 s	20 s	35 s
O5	O6	O7	O8
25 s	60 s	20 s	35 s

APPENDIX O

HCM Printouts – *Opening Year 2024 With Development Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development AM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	617	90	121	381	217	57	28	113	211	40	22
Future Volume (veh/h)	47	617	90	121	381	217	57	28	113	211	40	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1834	1864	1939	1909	1834	1954	2057	1847	1952	1864	1820	1790
Adj Flow Rate, veh/h	52	678	99	133	419	0	63	31	0	232	44	9
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	5	0	2	7	4	0	14	7	2	5	7
Cap, veh/h	89	925	135	174	1196		113	64		362	121	25
Arrive On Green	0.05	0.30	0.30	0.10	0.34	0.00	0.06	0.03	0.00	0.11	0.08	0.08
Sat Flow, veh/h	1747	3101	452	1818	3485	1656	1959	1847	1654	3445	1466	300
Grp Volume(v), veh/h	52	387	390	133	419	0	63	31	0	232	0	53
Grp Sat Flow(s),veh/h/ln	1747	1771	1783	1818	1743	1656	1959	1847	1654	1722	0	1766
Q Serve(g_s), s	1.5	10.1	10.1	3.7	4.6	0.0	1.6	0.8	0.0	3.3	0.0	1.5
Cycle Q Clear(g_c), s	1.5	10.1	10.1	3.7	4.6	0.0	1.6	0.8	0.0	3.3	0.0	1.5
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	89	528	532	174	1196		113	64		362	0	145
V/C Ratio(X)	0.58	0.73	0.73	0.76	0.35		0.56	0.48		0.64	0.00	0.36
Avail Cap(c_a), veh/h	644	1857	1869	671	3654		533	1040		936	0	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.9	16.2	16.2	22.7	12.6	0.0	23.6	24.4	0.0	22.1	0.0	22.4
Incr Delay (d2), s/veh	2.3	0.9	0.9	2.6	0.1	0.0	1.6	2.1	0.0	0.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.4	3.5	1.5	1.5	0.0	0.8	0.4	0.0	1.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	17.1	17.1	25.3	12.7	0.0	25.2	26.5	0.0	22.8	0.0	22.9
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		829			552			94			285	
Approach Delay, s/veh		17.7			15.7			25.6			22.8	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.9	21.4	9.0	10.2	8.6	23.7	11.4	7.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+1), s	5.7	12.1	3.6	3.5	3.5	6.6	5.3	2.8				
Green Ext Time (p_c), s	0.1	3.2	0.0	0.1	0.0	1.9	0.3	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development PM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	502	66	98	706	367	58	37	140	351	53	70
Future Volume (veh/h)	81	502	66	98	706	367	58	37	140	351	53	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1909	1939	1909	1894	1986	2057	2057	2012	1864	1850	1850
Adj Flow Rate, veh/h	84	518	65	101	728	0	60	38	0	362	55	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	2	3	2	0	0	3	2	3	3
Cap, veh/h	124	924	116	133	1047		109	83		503	132	94
Arrive On Green	0.07	0.28	0.28	0.07	0.29	0.00	0.06	0.04	0.00	0.15	0.13	0.13
Sat Flow, veh/h	1847	3244	406	1818	3599	1683	1959	2057	1705	3445	1007	714
Grp Volume(v), veh/h	84	289	294	101	728	0	60	38	0	362	0	94
Grp Sat Flow(s),veh/h/ln	1847	1814	1836	1818	1800	1683	1959	2057	1705	1722	0	1721
Q Serve(g_s), s	2.3	7.1	7.2	2.9	9.5	0.0	1.6	1.0	0.0	5.3	0.0	2.6
Cycle Q Clear(g_c), s	2.3	7.1	7.2	2.9	9.5	0.0	1.6	1.0	0.0	5.3	0.0	2.6
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	124	516	523	133	1047		109	83		503	0	226
V/C Ratio(X)	0.68	0.56	0.56	0.76	0.70		0.55	0.46		0.72	0.00	0.42
Avail Cap(c_a), veh/h	666	1859	1882	656	3689		521	1132		915	0	947
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.0	16.0	16.0	24.0	16.6	0.0	24.2	24.7	0.0	21.5	0.0	21.0
Incr Delay (d2), s/veh	2.4	0.4	0.4	3.3	0.4	0.0	1.6	1.4	0.0	0.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.5	2.6	1.2	3.3	0.0	0.7	0.5	0.0	2.0	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	16.5	16.5	27.3	17.0	0.0	25.9	26.2	0.0	22.2	0.0	21.5
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		667			829			98			456	
Approach Delay, s/veh		17.7			18.2			26.0			22.1	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	21.0	8.9	12.9	9.5	21.3	13.7	8.1				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	4.9	9.2	3.6	4.6	4.3	11.5	7.3	3.0				
Green Ext Time (p_c), s	0.1	2.3	0.0	0.3	0.1	3.5	0.4	0.1				

Intersection Summary
























HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Opening Year 2024 With Development SAT Peak Hour Condition

10/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	510	92	99	534	426	74	37	135	394	49	78
Future Volume (veh/h)	96	510	92	99	534	426	74	37	135	394	49	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1939	1849	1939	1909	2017	2057	2057	2057	1879	1894	1894
Adj Flow Rate, veh/h	104	554	96	108	580	0	80	40	0	428	53	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	0	2	0	0	0	0	1	0	0
Cap, veh/h	137	867	150	142	1012		126	86		567	130	115
Arrive On Green	0.07	0.28	0.28	0.08	0.28	0.00	0.06	0.04	0.00	0.16	0.14	0.14
Sat Flow, veh/h	1847	3141	543	1847	3628	1709	1959	2057	1743	3472	926	821
Grp Volume(v), veh/h	104	324	326	108	580	0	80	40	0	428	0	100
Grp Sat Flow(s),veh/h/ln	1847	1842	1842	1847	1814	1709	1959	2057	1743	1736	0	1746
Q Serve(g_s), s	3.0	8.4	8.5	3.1	7.5	0.0	2.2	1.0	0.0	6.4	0.0	2.8
Cycle Q Clear(g_c), s	3.0	8.4	8.5	3.1	7.5	0.0	2.2	1.0	0.0	6.4	0.0	2.8
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.47
Lane Grp Cap(c), veh/h	137	509	508	142	1012		126	86		567	0	245
V/C Ratio(X)	0.76	0.64	0.64	0.76	0.57		0.63	0.47		0.75	0.00	0.41
Avail Cap(c_a), veh/h	646	1831	1831	646	3606		505	1098		895	0	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	17.3	17.3	24.6	16.8	0.0	24.8	25.4	0.0	21.7	0.0	21.3
Incr Delay (d2), s/veh	3.2	0.6	0.6	3.1	0.2	0.0	1.9	1.5	0.0	0.8	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.1	3.1	1.3	2.6	0.0	1.0	0.5	0.0	2.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	17.9	17.9	27.7	17.0	0.0	26.7	26.9	0.0	22.5	0.0	21.7
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		754			688			120			528	
Approach Delay, s/veh		19.3			18.7			26.8			22.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	21.0	9.5	13.6	10.0	21.2	14.9	8.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	5.1	10.5	4.2	4.8	5.0	9.5	8.4	3.0				
Green Ext Time (p_c), s	0.1	2.6	0.1	0.3	0.1	2.7	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

7: Millers Run Road & Site Drive A
 Opening Year 2024 With Development AM Peak Hour Condition

10/05/2023

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	754	446	5	0	4
Future Vol, veh/h	0	754	446	5	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	2	0	2
Mvmt Flow	0	820	485	5	0	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	755
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	755
HCM Lane V/C Ratio	-	-	-	0.006
HCM Control Delay (s)	-	-	-	9.8
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

7: Millers Run Road & Site Drive A
 Opening Year 2024 With Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	649	807	16	0	17
Future Vol, veh/h	0	649	807	16	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	705	877	17	0	18

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	559
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	559
HCM Lane V/C Ratio	-	-	-	0.033
HCM Control Delay (s)	-	-	-	11.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

7: Millers Run Road & Site Drive A
 Opening Year 2024 With Development SAT Peak Hour Condition

10/05/2023

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Vol, veh/h	0	698	652	18	0	15
Future Vol, veh/h	0	698	652	18	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	1	2	2	0	2
Mvmt Flow	0	759	709	20	0	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	- 365
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	- 3.32
Pot Cap-1 Maneuver	0	-	-	-	0 632
Stage 1	0	-	-	-	0 -
Stage 2	0	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	- 632
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	632
HCM Lane V/C Ratio	-	-	-	0.026
HCM Control Delay (s)	-	-	-	10.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

5: Millers Run Road & Site Drive B
 Opening Year 2024 With Development AM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh 0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	754	448	12	0	3
Future Vol, veh/h	0	754	448	12	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	2	0	2
Mvmt Flow	0	820	487	13	0	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	750
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR SBLn1
Capacity (veh/h)	-	-	750
HCM Lane V/C Ratio	-	-	0.004
HCM Control Delay (s)	-	-	9.8
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0

5: Millers Run Road & Site Drive B
 Opening Year 2024 With Development PM Peak Hour Condition

10/05/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↓			↑
Traffic Vol, veh/h	0	649	801	33	0	22
Future Vol, veh/h	0	649	801	33	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	0	2
Mvmt Flow	0	705	871	36	0	24

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	553
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR SBLn1
Capacity (veh/h)	-	-	553
HCM Lane V/C Ratio	-	-	0.043
HCM Control Delay (s)	-	-	11.8
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

5: Millers Run Road & Site Drive B
 Opening Year 2024 With Development SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	698	652	34	0	18
Future Vol, veh/h	0	698	652	34	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	1	2	2	0	2
Mvmt Flow	0	759	709	37	0	20

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	624
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	624
HCM Lane V/C Ratio	-	-	-	0.031
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

10: Newbury Drive & Site Drive C/Plaza Access
 Opening Year 2024 With Development AM Peak Hour Condition

10/05/2023

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	0	18	35	0	11	24	209	59	17	213	7
Future Vol, veh/h	5	0	18	35	0	11	24	209	59	17	213	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	3	2	0	2	5	0	0	2	2
Mvmt Flow	6	0	21	41	0	13	28	246	69	20	251	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	474	666	130	503	636	158	259	0	0	315	0	0
Stage 1	295	295	-	337	337	-	-	-	-	-	-	-
Stage 2	179	371	-	166	299	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.56	6.54	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.56	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.56	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.53	4.02	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	474	379	896	449	394	866	1303	-	-	1257	-	-
Stage 1	689	668	-	648	640	-	-	-	-	-	-	-
Stage 2	805	618	-	817	665	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	451	362	896	423	376	866	1303	-	-	1257	-	-
Mov Cap-2 Maneuver	451	362	-	423	376	-	-	-	-	-	-	-
Stage 1	671	655	-	631	623	-	-	-	-	-	-	-
Stage 2	772	602	-	783	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	13.4	0.7	0.7
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1303	-	-	738	482	1257	-	-
HCM Lane V/C Ratio	0.022	-	-	0.037	0.112	0.016	-	-
HCM Control Delay (s)	7.8	0.1	-	10.1	13.4	7.9	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	0	-	-

10: Newbury Drive & Site Drive C/Plaza Access
 Opening Year 2024 With Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔				↔	
Traffic Vol, veh/h	23	0	57	55	2	28	45	358	62	13	365	19
Future Vol, veh/h	23	0	57	55	2	28	45	358	62	13	365	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	2	0	2	2	0	0	2	2
Mvmt Flow	25	0	62	60	2	30	49	389	67	14	397	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	730	990	209	748	967	228	418	0	0	456	0	0
Stage 1	436	436	-	521	521	-	-	-	-	-	-	-
Stage 2	294	554	-	227	446	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.5	6.54	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.5	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.5	4.02	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	310	245	797	305	253	781	1138	-	-	1115	-	-
Stage 1	569	578	-	512	530	-	-	-	-	-	-	-
Stage 2	690	512	-	761	572	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	279	227	797	266	235	781	1138	-	-	1115	-	-
Mov Cap-2 Maneuver	279	227	-	266	235	-	-	-	-	-	-	-
Stage 1	536	569	-	482	499	-	-	-	-	-	-	-
Stage 2	622	482	-	691	563	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3	19.6	1	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	520	338	1115	-	-
HCM Lane V/C Ratio	0.043	-	-	0.167	0.273	0.013	-	-
HCM Control Delay (s)	8.3	0.2	-	13.3	19.6	8.3	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	1.1	0	-	-

10: Newbury Drive & Site Drive C/Plaza Access
 Opening Year 2024 With Development SAT Peak Hour Condition

10/05/2023

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔				↔	
Traffic Vol, veh/h	26	0	61	105	2	25	54	414	106	20	364	23
Future Vol, veh/h	26	0	61	105	2	25	54	414	106	20	364	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	1	2	4	2	0	2	0	1	2
Mvmt Flow	31	0	72	124	2	29	64	487	125	24	428	27

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	863	1230	228	940	1181	306	455	0	0	612	0	0
Stage 1	490	490	-	678	678	-	-	-	-	-	-	-
Stage 2	373	740	-	262	503	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.52	6.54	6.98	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.52	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.52	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.51	4.02	3.34	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	248	176	775	220	189	684	1102	-	-	977	-	-
Stage 1	529	547	-	411	450	-	-	-	-	-	-	-
Stage 2	620	421	-	723	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	213	155	775	181	166	684	1102	-	-	977	-	-
Mov Cap-2 Maneuver	213	155	-	181	166	-	-	-	-	-	-	-
Stage 1	481	529	-	374	410	-	-	-	-	-	-	-
Stage 2	537	383	-	634	522	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB		
HCM Control Delay, s	15.9		59.1		1		0.5		
HCM LOS	C		F						
























Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1102	-	-	433	210	977	-	-
HCM Lane V/C Ratio	0.058	-	-	0.236	0.739	0.024	-	-
HCM Control Delay (s)	8.5	0.3	-	15.9	59.1	8.8	0.1	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	4.9	0.1	-	-

APPENDIX P

Synchro Printouts – Design Year 2029 With Development Condition

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development AM Peak Hour Condition

10/11/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	649	90	121	400	228	57	28	113	221	40	23
Future Volume (vph)	49	649	90	121	400	228	57	28	113	221	40	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frnt		0.982				0.850			0.850		0.946	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1639	3299	0	1778	3278	1613	1841	1700	1540	3416	1692	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1639	3299	0	1778	3278	1613	1841	1700	1540	3416	1692	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				251			124		18	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	7%	5%	0%	2%	7%	4%	0%	14%	7%	2%	5%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	54	713	99	133	440	251	63	31	124	243	44	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	812	0	133	440	251	63	31	124	243	69	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development AM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.8	30.8		11.7	37.8	37.8	7.9	6.8	6.8	11.0	9.3	
Actuated g/C Ratio	0.09	0.36		0.14	0.44	0.44	0.09	0.08	0.08	0.13	0.11	
v/c Ratio	0.36	0.68		0.55	0.30	0.29	0.37	0.23	0.53	0.55	0.35	
Control Delay	48.8	26.1		47.0	17.1	3.2	48.1	47.3	17.5	43.2	37.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.8	26.1		47.0	17.1	3.2	48.1	47.3	17.5	43.2	37.0	
LOS	D	C		D	B	A	D	D	B	D	D	
Approach Delay		27.5			17.7			30.6			41.8	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	27	181		67	80	0	32	16	0	62	25	
Queue Length 95th (ft)	78	300		152	137	43	88	53	57	129	80	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	382	2193		415	2175	1154	316	605	628	587	614	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.14	0.37		0.32	0.20	0.22	0.20	0.05	0.20	0.41	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 85.5
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 26.2
 Intersection Capacity Utilization 55.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Ø1	Ø2	Ø3	Ø4
25 s	60 s	20 s	35 s
Ø5	Ø6	Ø7	Ø8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	528	66	98	740	384	58	37	140	366	53	73
Future Volume (vph)	84	528	66	98	740	384	58	37	140	366	53	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.983				0.850			0.850		0.913	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3387	0	1778	3405	1644	1841	1938	1599	3416	1676	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3387	0	1778	3405	1644	1841	1938	1599	3416	1676	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11				396			144		44	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	3%	2%	0%	0%	3%	2%	3%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	87	544	68	101	763	396	60	38	144	377	55	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	612	0	101	763	396	60	38	144	377	130	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development PM Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	9.5	35.6		10.2	39.6	39.6	7.9	7.5	7.5	14.7	17.5	
Actuated g/C Ratio	0.10	0.38		0.11	0.43	0.43	0.08	0.08	0.08	0.16	0.19	
v/c Ratio	0.49	0.47		0.52	0.53	0.43	0.39	0.24	0.55	0.70	0.37	
Control Delay	53.9	21.9		53.6	21.9	3.5	53.3	49.4	16.9	49.0	32.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	53.9	21.9		53.6	21.9	3.5	53.3	49.4	16.9	49.0	32.7	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		25.9			18.6			31.0			44.8	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	49	130		56	172	0	34	22	0	109	46	
Queue Length 95th (ft)	117	213		131	274	56	89	61	61	#248	127	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	374	2062		380	2069	1154	289	632	619	538	576	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.23	0.30		0.27	0.37	0.34	0.21	0.06	0.23	0.70	0.23	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 93.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 26.5
 Intersection Capacity Utilization 59.7%
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.























Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Q1	Q2	Q3	Q4
25 s	60 s	20 s	35 s
Q5	Q6	Q7	Q8
25 s	60 s	20 s	35 s

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development SAT Peak Hour Condition

10/11/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	99	537	92	99	559	446	74	37	135	411	49	81
Future Volume (vph)	99	537	92	99	559	446	74	37	135	411	49	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	12	11	13	12	12	12	12	12	12
Grade (%)		-1%			-1%			-4%			1%	
Storage Length (ft)	225		0	200		350	0		0	375		0
Storage Lanes	1		0	1		1	1		1	1		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Ped Bike Factor												
Frt		0.978				0.850			0.850		0.906	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1754	3400	0	1814	3438	1677	1841	1938	1647	3450	1713	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1754	3400	0	1814	3438	1677	1841	1938	1647	3450	1713	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16				485			147		54	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		472			644			295			539	
Travel Time (s)		8.0			11.0			8.0			14.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	6%	0%	2%	0%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	108	584	100	108	608	485	80	40	147	447	53	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	684	0	108	608	485	80	40	147	447	141	0
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases						6			8			
Detector Phase	5	2		1	6	6	3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	21.0		11.0	21.0	21.0	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	25.0	60.0		25.0	60.0	60.0	20.0	35.0	35.0	20.0	35.0	
Total Split (%)	17.9%	42.9%		17.9%	42.9%	42.9%	14.3%	25.0%	25.0%	14.3%	25.0%	
Maximum Green (s)	19.0	54.0		19.0	54.0	54.0	14.0	29.0	29.0	14.0	29.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.1		2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development SAT Peak Hour Condition

10/11/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	6.0		3.0	6.0	6.0	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	15.0		0.0	15.0	15.0	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	10.0		0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	Min		None	Min	Min	None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	10.5	30.4		10.3	30.2	30.2	8.9	8.0	8.0	14.9	17.1	
Actuated g/C Ratio	0.12	0.34		0.12	0.34	0.34	0.10	0.09	0.09	0.17	0.19	
v/c Ratio	0.52	0.58		0.51	0.52	0.55	0.44	0.23	0.52	0.78	0.38	
Control Delay	51.1	24.8		50.9	24.5	4.5	51.3	46.7	15.1	49.8	30.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	51.1	24.8		50.9	24.5	4.5	51.3	46.7	15.1	49.8	30.0	
LOS	D	C		D	C	A	D	D	B	D	C	
Approach Delay		28.4			18.8			30.7			45.1	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)	57	147		57	131	0	42	21	0	123	44	
Queue Length 95th (ft)	143	252		143	227	62	114	64	62	#328	134	
Internal Link Dist (ft)		392			564			215			459	
Turn Bay Length (ft)	225			200		350				375		
Base Capacity (vph)	397	2195		410	2212	1252	307	669	665	575	627	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.27	0.31		0.26	0.27	0.39	0.26	0.06	0.22	0.78	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 89.1
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 28.0
 Intersection Capacity Utilization 59.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Q1	Q2	Q3	Q4
25 s	60 s	20 s	35 s
Q5	Q6	Q7	Q8
25 s	60 s	20 s	35 s

APPENDIX Q

HCM Printouts – *Design Year 2029 With Development Condition*

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development AM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	649	90	121	400	228	57	28	113	221	40	23
Future Volume (veh/h)	49	649	90	121	400	228	57	28	113	221	40	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1834	1864	1939	1909	1834	1954	2057	1847	1952	1864	1820	1790
Adj Flow Rate, veh/h	54	713	99	133	440	0	63	31	0	243	44	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	7	5	0	2	7	4	0	14	7	2	5	7
Cap, veh/h	90	960	133	174	1225		112	64		373	123	28
Arrive On Green	0.05	0.31	0.31	0.10	0.35	0.00	0.06	0.03	0.00	0.11	0.09	0.09
Sat Flow, veh/h	1747	3124	433	1818	3485	1656	1959	1847	1654	3445	1435	326
Grp Volume(v), veh/h	54	404	408	133	440	0	63	31	0	243	0	54
Grp Sat Flow(s),veh/h/ln	1747	1771	1786	1818	1743	1656	1959	1847	1654	1722	0	1761
Q Serve(g_s), s	1.6	10.8	10.8	3.8	5.0	0.0	1.7	0.9	0.0	3.6	0.0	1.5
Cycle Q Clear(g_c), s	1.6	10.8	10.8	3.8	5.0	0.0	1.7	0.9	0.0	3.6	0.0	1.5
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	90	545	549	174	1225		112	64		373	0	151
V/C Ratio(X)	0.60	0.74	0.74	0.76	0.36		0.56	0.49		0.65	0.00	0.36
Avail Cap(c_a), veh/h	628	1809	1825	654	3561		519	1014		912	0	966
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	16.4	16.4	23.3	12.7	0.0	24.3	25.1	0.0	22.6	0.0	22.8
Incr Delay (d2), s/veh	2.3	0.9	0.9	2.6	0.1	0.0	1.7	2.1	0.0	0.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	3.8	1.5	1.6	0.0	0.8	0.4	0.0	1.4	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	17.4	17.4	25.9	12.8	0.0	25.9	27.2	0.0	23.3	0.0	23.3
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		866			573			94			297	
Approach Delay, s/veh		17.9			15.9			26.3			23.3	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.1	22.3	9.0	10.5	8.7	24.6	11.7	7.8				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+1), s	5.8	12.8	3.7	3.5	3.6	7.0	5.6	2.9				
Green Ext Time (p_c), s	0.1	3.4	0.0	0.2	0.0	2.0	0.3	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development PM Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	528	66	98	740	384	58	37	140	366	53	73
Future Volume (veh/h)	84	528	66	98	740	384	58	37	140	366	53	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1909	1939	1909	1894	1986	2057	2057	2012	1864	1850	1850
Adj Flow Rate, veh/h	87	544	65	101	763	0	60	38	0	377	55	42
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	2	0	2	3	2	0	0	3	2	3	3
Cap, veh/h	125	949	113	132	1065		108	83		516	131	100
Arrive On Green	0.07	0.29	0.29	0.07	0.30	0.00	0.06	0.04	0.00	0.15	0.13	0.13
Sat Flow, veh/h	1847	3264	389	1818	3599	1683	1959	2057	1705	3445	973	743
Grp Volume(v), veh/h	87	302	307	101	763	0	60	38	0	377	0	97
Grp Sat Flow(s),veh/h/ln	1847	1814	1839	1818	1800	1683	1959	2057	1705	1722	0	1716
Q Serve(g_s), s	2.5	7.6	7.6	2.9	10.2	0.0	1.6	1.0	0.0	5.6	0.0	2.8
Cycle Q Clear(g_c), s	2.5	7.6	7.6	2.9	10.2	0.0	1.6	1.0	0.0	5.6	0.0	2.8
Prop In Lane	1.00		0.21	1.00		1.00	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	125	527	535	132	1065		108	83		516	0	232
V/C Ratio(X)	0.70	0.57	0.57	0.76	0.72		0.56	0.46		0.73	0.00	0.42
Avail Cap(c_a), veh/h	653	1823	1848	643	3616		510	1110		897	0	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	16.2	16.2	24.5	16.9	0.0	24.8	25.2	0.0	21.8	0.0	21.3
Incr Delay (d2), s/veh	2.6	0.4	0.4	3.4	0.4	0.0	1.7	1.5	0.0	0.8	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	2.7	1.2	3.5	0.0	0.8	0.5	0.0	2.2	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	16.7	16.7	27.9	17.3	0.0	26.4	26.7	0.0	22.6	0.0	21.8
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		696			864			98			474	
Approach Delay, s/veh		18.0			18.6			26.5			22.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.9	21.6	9.0	13.3	9.6	21.9	14.0	8.2				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	4.9	9.6	3.6	4.8	4.5	12.2	7.6	3.0				
Green Ext Time (p_c), s	0.1	2.4	0.0	0.3	0.1	3.7	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

1: Todd A. Miller Drive/Newbury Drive & Millers Run Road
 Design Year 2029 With Development SAT Peak Hour Condition

10/05/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	537	92	99	559	446	74	37	135	411	49	81
Future Volume (veh/h)	99	537	92	99	559	446	74	37	135	411	49	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1939	1939	1849	1939	1909	2017	2057	2057	2057	1879	1894	1894
Adj Flow Rate, veh/h	108	584	96	108	608	0	80	40	0	447	53	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	6	0	2	0	0	0	0	1	0	0
Cap, veh/h	142	869	142	142	995		126	86		585	131	123
Arrive On Green	0.08	0.27	0.27	0.08	0.27	0.00	0.06	0.04	0.00	0.17	0.15	0.15
Sat Flow, veh/h	1847	3169	520	1847	3628	1709	1959	2057	1743	3472	896	846
Grp Volume(v), veh/h	108	339	341	108	608	0	80	40	0	447	0	103
Grp Sat Flow(s),veh/h/ln	1847	1842	1846	1847	1814	1709	1959	2057	1743	1736	0	1742
Q Serve(g_s), s	3.1	9.0	9.0	3.1	8.0	0.0	2.2	1.0	0.0	6.7	0.0	2.9
Cycle Q Clear(g_c), s	3.1	9.0	9.0	3.1	8.0	0.0	2.2	1.0	0.0	6.7	0.0	2.9
Prop In Lane	1.00		0.28	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	142	505	506	142	995		126	86		585	0	254
V/C Ratio(X)	0.76	0.67	0.67	0.76	0.61		0.64	0.47		0.76	0.00	0.41
Avail Cap(c_a), veh/h	641	1818	1822	641	3580		501	1090		888	0	923
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.7	17.7	17.7	24.7	17.3	0.0	25.0	25.6	0.0	21.7	0.0	21.2
Incr Delay (d2), s/veh	3.1	0.7	0.7	3.1	0.3	0.0	2.0	1.5	0.0	0.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.3	3.3	1.3	2.8	0.0	1.0	0.5	0.0	2.6	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	18.4	18.4	27.8	17.6	0.0	26.9	27.1	0.0	22.6	0.0	21.6
LnGrp LOS	C	B	B	C	B		C	C		C	A	C
Approach Vol, veh/h		788			716			120			550	
Approach Delay, s/veh		19.7			19.1			27.0			22.4	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	21.0	9.5	14.0	10.2	21.0	15.2	8.3				
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0				
Max Green Setting (Gmax), s	19.0	54.0	14.0	29.0	19.0	54.0	14.0	29.0				
Max Q Clear Time (g_c+l1), s	5.1	11.0	4.2	4.9	5.1	10.0	8.7	3.0				
Green Ext Time (p_c), s	0.1	2.7	0.1	0.4	0.1	2.8	0.5	0.1				

Intersection Summary

HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

7: Millers Run Road & Site Drive A
 Design Year 2029 With Development AM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	788	466	5	0	4
Future Vol, veh/h	0	788	466	5	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	2	0	2
Mvmt Flow	0	857	507	5	0	4

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	743
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	743
HCM Lane V/C Ratio	-	-	-	0.006
HCM Control Delay (s)	-	-	-	9.9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

7: Millers Run Road & Site Drive A
 Design Year 2029 With Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↓			↑
Traffic Vol, veh/h	0	678	844	16	0	17
Future Vol, veh/h	0	678	844	16	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	0	737	917	17	0	18

Major/Minor

	Major1	Major2	Minor2	
Conflicting Flow All	-	0	-	0
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	542
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach

	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt

	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	542
HCM Lane V/C Ratio	-	-	-	0.034
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

7: Millers Run Road & Site Drive A
 Design Year 2029 With Development SAT Peak Hour Condition

10/05/2023

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↑
Traffic Vol, veh/h	0	728	680	18	0	15
Future Vol, veh/h	0	728	680	18	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	1	2	2	0	2
Mvmt Flow	0	791	739	20	0	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	- 380
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	- 3.32
Pot Cap-1 Maneuver	0	-	-	-	0 618
Stage 1	0	-	-	-	0 -
Stage 2	0	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	- 618
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	618
HCM Lane V/C Ratio	-	-	-	0.026
HCM Control Delay (s)	-	-	-	11
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

5: Millers Run Road & Site Drive B
 Design Year 2029 With Development AM Peak Hour Condition

10/05/2023

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↓			↗
Traffic Vol, veh/h	0	788	468	12	0	3
Future Vol, veh/h	0	788	468	12	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	5	7	2	0	2
Mvmt Flow	0	857	509	13	0	3

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	- 0
Stage 1	-	-	- -
Stage 2	-	-	- -
Critical Hdwy	-	-	- 6.94
Critical Hdwy Stg 1	-	-	- -
Critical Hdwy Stg 2	-	-	- -
Follow-up Hdwy	-	-	- 3.32
Pot Cap-1 Maneuver	0	-	- 0 738
Stage 1	0	-	- 0 -
Stage 2	0	-	- 0 -
Platoon blocked, %	-	-	- -
Mov Cap-1 Maneuver	-	-	- - 738
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	738
HCM Lane V/C Ratio	-	-	-	0.004
HCM Control Delay (s)	-	-	-	9.9
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q(veh)	-	-	-	0

5: Millers Run Road & Site Drive B
 Design Year 2029 With Development PM Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑			↗
Traffic Vol, veh/h	0	678	838	33	0	22
Future Vol, veh/h	0	678	838	33	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	2	0	2
Mvmt Flow	0	737	911	36	0	24

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	537
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	537
HCM Lane V/C Ratio	-	-	-	0.045
HCM Control Delay (s)	-	-	-	12
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

5: Millers Run Road & Site Drive B
 Design Year 2029 With Development SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↓			↗
Traffic Vol, veh/h	0	728	680	34	0	18
Future Vol, veh/h	0	728	680	34	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-1	1	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	1	2	2	0	2
Mvmt Flow	0	791	739	37	0	20

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	3.32
Pot Cap-1 Maneuver	0	-	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	611
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	611
HCM Lane V/C Ratio	-	-	-	0.032
HCM Control Delay (s)	-	-	-	11.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

10: Newbury Drive & Site Drive C/Plaza Access
 Design Year 2029 With Development AM Peak Hour Condition

10/05/2023

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	5	0	18	35	0	11	24	219	59	17	223	7
Future Vol, veh/h	5	0	18	35	0	11	24	219	59	17	223	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	3	2	0	2	5	0	0	2	2
Mvmt Flow	6	0	21	41	0	13	28	258	69	20	262	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	491	689	135	520	659	164	270	0	0	327	0	0
Stage 1	306	306	-	349	349	-	-	-	-	-	-	-
Stage 2	185	383	-	171	310	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.56	6.54	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.56	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.56	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.53	4.02	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	461	367	889	437	382	858	1290	-	-	1244	-	-
Stage 1	679	660	-	638	632	-	-	-	-	-	-	-
Stage 2	799	610	-	811	658	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	438	350	889	412	365	858	1290	-	-	1244	-	-
Mov Cap-2 Maneuver	438	350	-	412	365	-	-	-	-	-	-	-
Stage 1	661	647	-	621	615	-	-	-	-	-	-	-
Stage 2	766	594	-	777	645	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	13.7	0.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1290	-	-	726	470	1244	-	-
HCM Lane V/C Ratio	0.022	-	-	0.037	0.115	0.016	-	-
HCM Control Delay (s)	7.9	0.1	-	10.2	13.7	7.9	0.1	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	0	-	-

10: Newbury Drive & Site Drive C/Plaza Access
 Design Year 2029 With Development PM Peak Hour Condition

10/05/2023

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Traffic Vol, veh/h	23	0	57	55	2	28	45	375	62	13	382	19
Future Vol, veh/h	23	0	57	55	2	28	45	375	62	13	382	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	2	0	2	2	0	0	2	2
Mvmt Flow	25	0	62	60	2	30	49	408	67	14	415	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	757	1027	218	776	1004	238	436	0	0	475	0	0
Stage 1	454	454	-	540	540	-	-	-	-	-	-	-
Stage 2	303	573	-	236	464	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.5	6.54	6.9	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.5	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.5	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.5	4.02	3.3	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	297	233	786	291	240	769	1120	-	-	1098	-	-
Stage 1	555	568	-	499	519	-	-	-	-	-	-	-
Stage 2	681	502	-	752	562	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	267	215	786	253	222	769	1120	-	-	1098	-	-
Mov Cap-2 Maneuver	267	215	-	253	222	-	-	-	-	-	-	-
Stage 1	522	558	-	469	488	-	-	-	-	-	-	-
Stage 2	612	472	-	681	552	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	20.6	0.9	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1120	-	-	504	323	1098	-	-
HCM Lane V/C Ratio	0.044	-	-	0.173	0.286	0.013	-	-
HCM Control Delay (s)	8.4	0.2	-	13.6	20.6	8.3	0.1	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	1.2	0	-	-

10: Newbury Drive & Site Drive C/Plaza Access
 Design Year 2029 With Development SAT Peak Hour Condition

10/05/2023

Intersection

Int Delay, s/veh	9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	26	0	61	105	2	25	54	432	106	20	380	23
Future Vol, veh/h	26	0	61	105	2	25	54	432	106	20	380	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-1	-	-	1	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	1	2	4	2	0	2	0	1	2
Mvmt Flow	31	0	72	124	2	29	64	508	125	24	447	27

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	892	1270	237	971	1221	317	474	0	0	633	0	0
Stage 1	509	509	-	699	699	-	-	-	-	-	-	-
Stage 2	383	761	-	272	522	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.52	6.54	6.98	4.14	-	-	4.1	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.52	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.52	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.51	4.02	3.34	2.22	-	-	2.2	-	-
Pot Cap-1 Maneuver	237	167	764	209	179	673	1084	-	-	960	-	-
Stage 1	515	536	-	399	440	-	-	-	-	-	-	-
Stage 2	611	412	-	713	529	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	203	146	764	171	157	673	1084	-	-	960	-	-
Mov Cap-2 Maneuver	203	146	-	171	157	-	-	-	-	-	-	-
Stage 1	467	518	-	362	399	-	-	-	-	-	-	-
Stage 2	527	374	-	624	511	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	67.5	1	0.5
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1084	-	-	418	199	960	-	-
HCM Lane V/C Ratio	0.059	-	-	0.245	0.78	0.025	-	-
HCM Control Delay (s)	8.5	0.3	-	16.4	67.5	8.8	0.1	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	5.4	0.1	-	-

APPENDIX R

Radar Speed Study



Weather: Clouds & Sun/ 70's
Study By: J.K. (Spot Radar Speed)
Road: Newbury Dr. NB/SB approaches
Day: Wednesday, May 20, 2023 (3:30 pm)

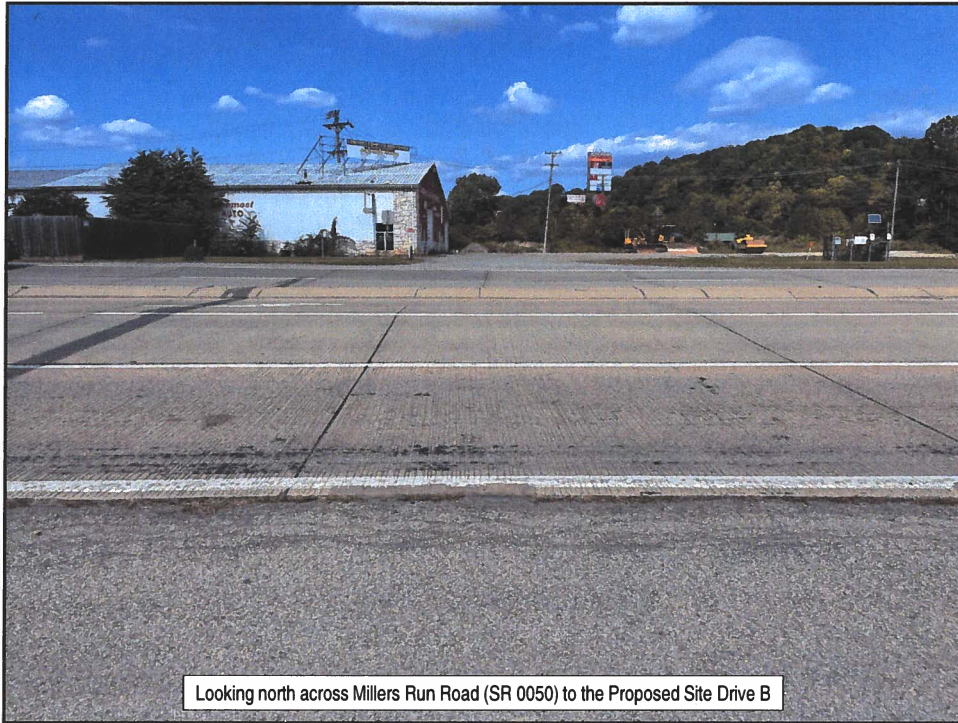
#	SB app	NB app
1	27	22
2	23	22
3	27	17
4	30	20
5	23	23
6	24	22
7	34	22
8	26	17
9	27	26
10	25	22
11	28	24
12	26	21
13	23	25
14	27	24
15	28	17
16	30	20
17	21	24
18	20	19
19	25	22
20	23	21
21	30	27
22	23	18
23	24	27
24	28	21
25	23	23
26		

Class	Vehicle Count	Average Speed	85 Percentile
SB app	25	26	28
NB app	25	22	24
Summary	50	24	27

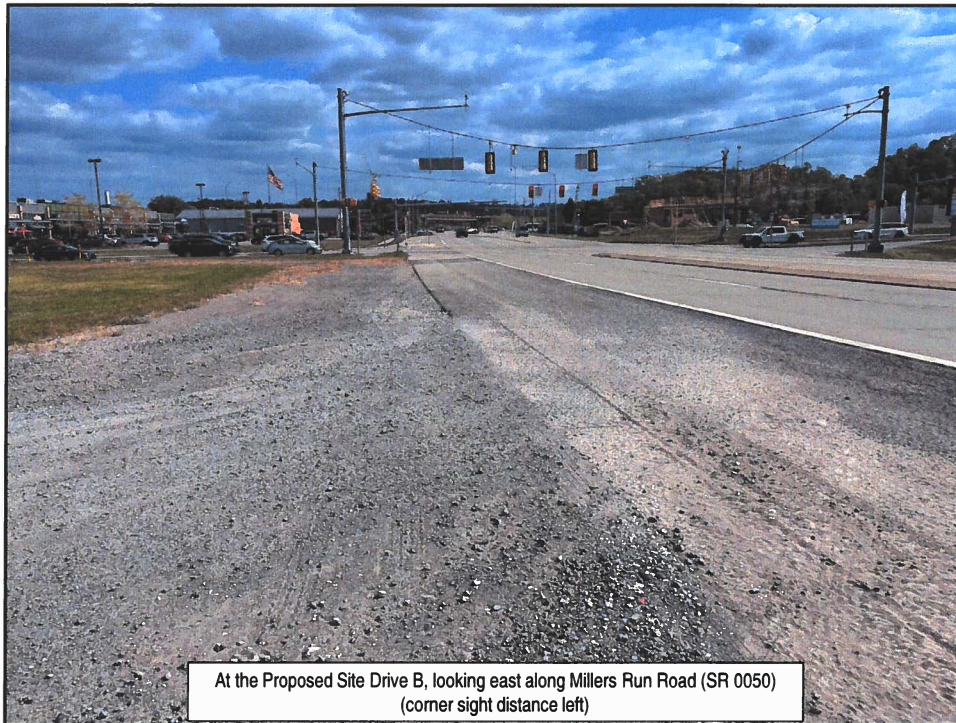
APPENDIX S

Sight Distance Photo Log

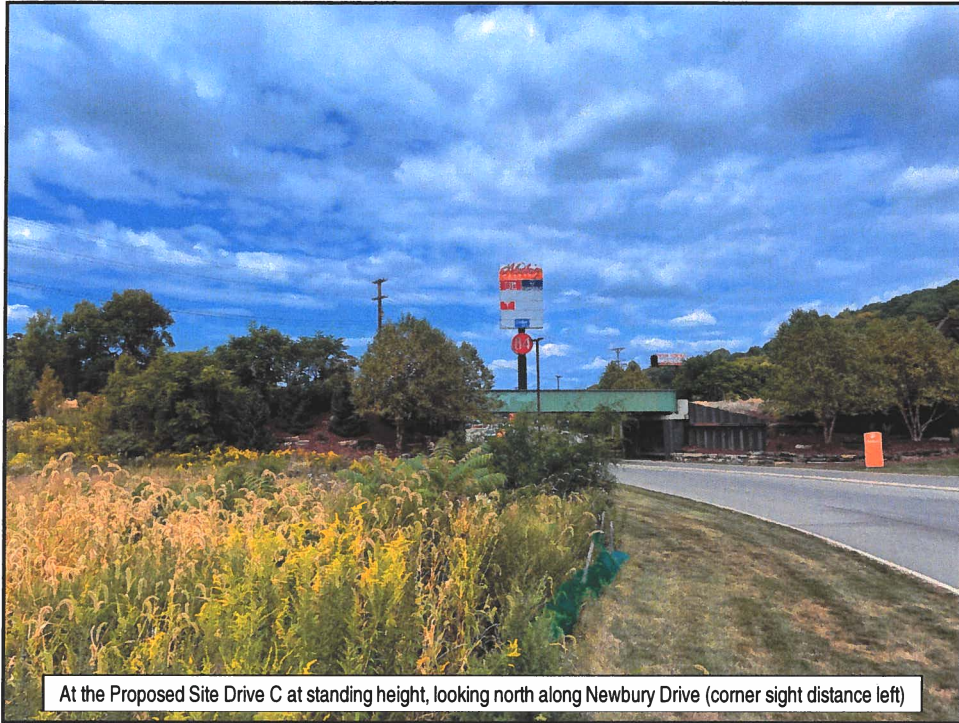




Looking north across Millers Run Road (SR 0050) to the Proposed Site Drive B



At the Proposed Site Drive B, looking east along Millers Run Road (SR 0050)
(corner sight distance left)



At the Proposed Site Drive C at standing height, looking north along Newbury Drive (corner sight distance left)



At the Proposed Site Drive C, looking south along Newbury Drive (corner sight distance right)



Forward view of a northbound, left turning vehicle from Newbury Drive into the Proposed Site Drive C (stopping sight distance ahead)



Rear view of a northbound, left turning vehicle from Newbury Drive into the Proposed Site Drive C (stopping sight distance behind)

APPENDIX T

SimTraffic Printouts – *Design Year 2029 Without Development Condition*

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	61	207	195	132	141	86	16	97	82	59	146	167
Average Queue (ft)	21	127	96	66	68	33	1	39	26	7	51	86
95th Queue (ft)	50	194	171	113	125	74	11	74	64	37	115	142
Link Distance (ft)		1063	1063		591	591		249	249	249		451
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)		0										
Queuing Penalty (veh)		0										

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	118
Average Queue (ft)	47
95th Queue (ft)	91
Link Distance (ft)	451
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Newbury Drive & Plaza Access

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	56	4	48
Average Queue (ft)	18	0	6
95th Queue (ft)	39	3	30
Link Distance (ft)	284	451	396
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	86	187	157	138	234	182	51	106	88	80	171	201
Average Queue (ft)	36	111	67	66	129	80	5	44	31	10	85	119
95th Queue (ft)	73	170	135	121	202	159	32	87	69	48	154	181
Link Distance (ft)		1063	1063		591	591		249	249	249		451
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)		0			1							
Queuing Penalty (veh)		0			1							

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	151
Average Queue (ft)	61
95th Queue (ft)	116
Link Distance (ft)	451
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Newbury Drive & Plaza Access

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	89	66
Average Queue (ft)	28	8
95th Queue (ft)	60	37
Link Distance (ft)	284	396
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	90	189	173	125	201	156	73	110	104	65	177	208
Average Queue (ft)	41	109	83	57	110	57	11	50	31	5	87	120
95th Queue (ft)	79	169	147	104	178	124	49	91	72	34	155	180
Link Distance (ft)		1063	1063		591	591		249	249	249		451
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)					0							
Queuing Penalty (veh)					0							

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	141
Average Queue (ft)	65
95th Queue (ft)	116
Link Distance (ft)	451
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Newbury Drive & Plaza Access

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	115	22	78
Average Queue (ft)	48	1	13
95th Queue (ft)	92	9	51
Link Distance (ft)	284	451	396
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 0

APPENDIX U

SimTraffic Printouts – *Design Year 2029 With Development Condition*

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	108	214	209	151	163	140	49	84	85	38	120	144
Average Queue (ft)	37	127	103	69	72	39	2	37	28	4	50	84
95th Queue (ft)	81	195	172	126	133	95	25	72	69	29	110	134
Link Distance (ft)		399	399		593	593		249	249	249		454
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)		0		0	0							
Queuing Penalty (veh)		0		0	0							

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	100
Average Queue (ft)	43
95th Queue (ft)	81
Link Distance (ft)	454
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Millers Run Road & Site Drive B

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 7: Millers Run Road & Site Drive A

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 10: Newbury Drive & Site Drive C/Plaza Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LT	LT
Maximum Queue (ft)	13	54	31	38
Average Queue (ft)	7	23	5	4
95th Queue (ft)	17	49	24	20
Link Distance (ft)	210	298	454	363
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	110	185	171	137	229	195	82	116	77	56	189	206
Average Queue (ft)	53	107	85	62	141	95	11	44	33	9	102	135
95th Queue (ft)	99	163	148	112	217	178	52	86	67	43	171	198
Link Distance (ft)		399	399		593	593		249	249	249		454
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)					1							
Queuing Penalty (veh)					1							

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	171
Average Queue (ft)	66
95th Queue (ft)	124
Link Distance (ft)	454
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Millers Run Road & Site Drive B

Movement	SB
Directions Served	R
Maximum Queue (ft)	16
Average Queue (ft)	1
95th Queue (ft)	8
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Millers Run Road & Site Drive A

Movement	SB
Directions Served	R
Maximum Queue (ft)	13
Average Queue (ft)	0
95th Queue (ft)	7
Link Distance (ft)	232
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Newbury Drive & Site Drive C/Plaza Access

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	51	89	52	4	47	7
Average Queue (ft)	18	35	16	0	4	0
95th Queue (ft)	39	68	44	3	23	3
Link Distance (ft)	210	298	454	454	363	363
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 1

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	L	T	R	L	L
Maximum Queue (ft)	137	206	182	129	206	159	89	103	82	64	197	230
Average Queue (ft)	62	104	80	55	115	76	14	49	32	9	107	134
95th Queue (ft)	109	163	142	103	188	146	58	91	70	44	176	202
Link Distance (ft)		399	399		593	593		249	249	249		454
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			200			350				375	
Storage Blk Time (%)		0			0							
Queuing Penalty (veh)		0			0							

Intersection: 1: Todd A. Miller Drive/Newbury Drive & Millers Run Road

Movement	SB
Directions Served	TR
Maximum Queue (ft)	143
Average Queue (ft)	62
95th Queue (ft)	118
Link Distance (ft)	454
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Millers Run Road & Site Drive B

Movement	SB
Directions Served	R
Maximum Queue (ft)	17
Average Queue (ft)	1
95th Queue (ft)	9
Link Distance (ft)	223
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Millers Run Road & Site Drive A

Movement	SB
Directions Served	R
Maximum Queue (ft)	7
Average Queue (ft)	0
95th Queue (ft)	5
Link Distance (ft)	232
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: Newbury Drive & Site Drive C/Plaza Access

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	68	204	56	9	65	17
Average Queue (ft)	21	66	20	0	9	1
95th Queue (ft)	47	143	51	5	37	6
Link Distance (ft)	210	298	454	454	363	363
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 0

**CRASH DATA
APPENDIX**

for the proposed

**RETAIL
DEVELOPMENT**

South Fayette Township, Allegheny County, Pennsylvania

October 17, 2023

CRASH DATA APPENDIX

for the proposed

RETAIL DEVELOPMENT

South Fayette Township, Allegheny County, PA

October 17, 2023

Prepared for: **Cozza Enterprises, LLC**
PO Box 453
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Prepared by: **David E. Wooster and Associates, LLC**
Two East Crafton Avenue
Pittsburgh, PA 15205

Project Engineer(s): **Jesse Nelson & Suleiman A. Swai, P.E.**

Supervising Engineer: **Joshua A. Haydo, P.E., PTOE**

Confidential – Traffic Engineering and Safety Study

This document is the property of the Commonwealth of Pennsylvania, Department of Transportation. The data and information contained herein are part of a traffic engineering and safety study. This safety study is only provided to those official agencies or persons who have responsibility in the highway transportation system and may only be used by such agencies or persons for traffic safety-related planning or research. The document and information are confidential pursuant to 75 Pa. C.S. §3754 and 23 U.S.C. §409 and may not be published, reproduced, released or discussed without the written permission of the Pennsylvania Department of Transportation.

**Crash Data Appendix
Proposed Retail Development
South Fayette Township, Allegheny County, Pennsylvania**

1.0 PROJECT DESCRIPTION

The proposed project is located on the northwestern corner of the intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive in South Fayette Township, Allegheny County, Pennsylvania. The development is proposed to consist of ~45,126-square foot of retail space.

The study area for this project includes two (2) existing intersections:

- Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive
- Newbury Drive with Plaza Access

2.0 OBTAINING CRASH DATA

Copies of crash data summaries for the five (5) most recent calendar years were obtained from the Pennsylvania Department of Transportation (PennDOT) Pennsylvania Crash Information Tool (PCIT) for the existing study intersections.

As the crash data is property of PennDOT, a summary of the identified crashes and the corresponding crash reports have been provided in this separately-bound appendix.

3.0 CRASH DATA SUMMARY

3.1 Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive

At the intersection of Millers Run Road (SR 0050) with Newbury Drive / Todd A. Miller Drive, eight (8) reportable crashes occurred between January 1, 2018 and December 31, 2022. Of the crashes, three (3) occurred in 2020, two (2) occurred in 2021, and three (3) occurred in 2022. Of the crashes four (4) were rear-end collisions, two (2) were opposite direction side-swipe collisions, one (1) involved a motorist striking a curb, and one (1) involved a motorist striking a traffic island/pole. None of the crashes involved fatalities.

3.2 Newbury Drive with Plaza Access

PCIT does not contain crash information for the intersection of Newbury Drive with Plaza Access.

4.0 SUMMARY / CONCLUSIONS

Based on a review of the crash data, five or more crashes of types susceptible to correction by traffic control or geometric improvements were not reported within a twelve-month period at any of the study intersections.

Copies of the crash data provided by PennDOT have been included in the Enclosures section of this appendix.

PENNDOT CRASH DATA

Pennsylvania Crash Information Tool

Millers Run Road (SR 0050) with Newbury Drive

Date Range: 01/01/2018 to 12/31/2022

USER ID / QUERY ID:
b-sswai / 0320231006133



MONTH OF YEAR								DAY OF WEEK					
	JAN	FEB	APR	MAY	JUN	AUG	NOV	TOTAL	SUN	MON	TUE	FRI	TOTAL
CRASHES	1	1	1	1	1	1	2	8	1	4	2	1	8
PCT	13%	13%	13%	13%	13%	13%	25%	100%	13%	50%	25%	13%	100%

HOUR OF DAY									
	05	07	08	13	16	17	18	19	TOTAL
CRASHES	1	1	1	1	1	1	1	1	8
PCT	13%	13%	13%	13%	13%	13%	13%	13%	100%

YEAR	CRASHES	PCT
2020	3	38%
2021	2	25%
2022	3	38%
TOTAL	8	100%

COLLISION TYPE	CRASHES	PCT
REAR END	4	50%
HIT FIX OBJ	2	25%
OPP DIR SS	2	25%
TOTAL	8	100%

CRASH SEVERITY LEVEL	CRASHES	PCT
POSSIBLE INJURY	1	13%
UNK IF INJURED	1	13%
PDO	6	75%
TOTAL	8	100%

SEVERITY COUNT	PERSONS
FATALITIES	0
SUSPECTED SERIOUS	0
SUSPECTED MINOR	0
POSSIBLE INJURY	1
UNK SEVERITY	0
UNK IF INJURED	2

DRIVER ACTIONS	ACTIONS	PCT
NO CONTRIBUTING ACTION	7	39%
DRIVER WAS DISTRACTED	5	28%
FAILURE TO RESPOND TCD	1	6%
IMPROPER/CARELESS TURN	1	6%
OTHER IMPROPER DRIVING	1	6%
RUNNING RED LIGHT	1	6%
SUDDEN SLOWING/STOP	1	6%
TAILGATING	1	6%
TOTAL	18	100%

VEHICLE TYPE	VEHICLES	PCT
AUTOMOBILE	6	38%
SUV	4	25%
SMALL TRUCK	3	19%
VAN	2	13%
BUS	1	6%
TOTAL	16	100%

ROAD CONDITION	CRASHES	PCT
DRY	7	88%
WET	1	13%
TOTAL	8	100%

ILLUMINATION	CRASHES	PCT
DAYLIGHT	6	75%
STREET LIGHTS	2	25%
TOTAL	8	100%

WEATHER	CRASHES	PCT
CLEAR	7	88%
RAIN	1	13%
TOTAL	8	100%

ENVIR/ROADWAY FACTORS	FACTORS	PCT
NONE	7	88%
OTHER WEATHER COND	1	13%
TOTAL	8	100%

IMPORTANT: This traffic engineering and safety study is confidential pursuant to 75 Pa. C.S. §3754 and 23 U.S.C. §407 and may not be disclosed or used in litigation without written permission from PennDOT.

NOTES:

1 Injury Severity Disclaimer

Please note that beginning January 1, 2016, PennDOT adopted the Federal standard for collecting injury severity data. The field descriptions and definitions changed from the state standard that had been in use for decades. This resulted in a substantial shift in severity levels. Therefore, comparison of the "Suspected Serious Injury", "Suspected Minor Injury" and "Possible Injury" categories will not be consistent for crashes taking place before versus after the adoption of the new standard.

REPORT PARAMETERS:

Query ID: 0320231006133

User ID: b-sswai

Title: Millers Run Road (SR 0050)

Date Range: 01/01/2018 to 12/31/2022

Filter Characteristics:

Selected Shapes : NO NAME RD x MILLERS RUN RD,NO NAME RD x MILLERS RUN RD - Buffer (250 feet)

This report counts the number of crashes.



Date Range: 01/01/2018 to 12/31/2022*

CRASH SEVERITY LEVEL BY YEAR

	2020 CRASHES	2021 CRASHES	2022 CRASHES	ALL YEARS CRASHES
POSSIBLE INJURY	1	0	0	1
UNKNOWN IF INJURED	0	0	1	1
PROPERTY DMG ONLY	2	2	2	6
TOTAL	3	2	3	8

CRASH DESCRIPTION TYPES BY YEAR

	2020 CRASHES	2021 CRASHES	2022 CRASHES	ALL YEARS CRASHES
HIT FIXED OBJECT	0	1	1	2
OPP DIRECTION SIDESWIPE	2	0	0	2
REAR END	1	1	2	4
TOTAL	3	2	3	8

PERSON INJURY SUMMARY BY YEAR

	2020 PERSONS	2021 PERSONS	2022 PERSONS	ALL YEARS PERSONS
FATALITIES	0	0	0	0
SUSPECTED SERIOUS INJURIES	0	0	0	0
SUSPECTED MINOR INJURIES	0	0	0	0
POSSIBLE INJURIES	1	0	0	1
UNKNOWN SEVERITY	0	0	0	0
UNKNOWN IF INJURED	0	0	2	2

* **PLEASE NOTE:** Years which do not appear in the report contain zero crashes for this request.

* Complete records of reportable crashes are available in PCIT for the following years: 2003 - 2022

* Crash information for 2023 is incomplete at the time of this printing. As such, data for 2023 is not included in this report.

IMPORTANT: The information contained in this document is drawn from raw data and should not be interpreted as representing an engineering judgement or determination made by the Department of Transportation as to the type and severity of accidents noted herein.

Print Date: 10/06/2023

Pennsylvania Crash Information Tool

Print Date: 10/06/2023

PCIT - PUBLIC REQUEST / PRESS INQUIRY REPORT (01-07)

NOTES:

1 Injury Severity Disclaimer

Please note that beginning January 1, 2016, PennDOT adopted the Federal standard for collecting injury severity data. The field descriptions and definitions changed from the state standard that had been in use for decades. This resulted in a substantial shift in severity levels. Therefore, comparison of the "Suspected Serious Injury", "Suspected Minor Injury" and "Possible Injury" categories will not be consistent for crashes taking place before versus after the adoption of the new standard.

REPORT PARAMETERS:

Query ID: 0320231006134

User ID: b-sswai

Title: Millers Run Road (SR 0050)

Date Range : 01/01/2018 to 12/31/2022

Selected Shapes : NO NAME RD x MILLERS RUN RD,NO NAME RD x MILLERS RUN RD - Buffer (250 feet)

Filter Characteristics:

This report counts the number of crashes.

Pennsylvania Crash Information Tool

Millers Run Road (SR 0050) with Newbury Drive

Sorted by Crash Date

Date Range: 01/01/2018 to 12/31/2022

USER ID / QUERY ID:

b-sswai / 0320231006135



CRN	CO	DATE	DAY	TIME	LIGHTING	ROAD SURF	WEATHER	FAT	INJ	PED	VEH	MAX SEVERITY
1	<u>2020004800</u>	02	01/13/2020	MON	08:08	DAYLIGHT	DRY CLEAR	0	0	0	2	PROP DMG ONLY OPP DIR SIDESW
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 BUS TRAVELING EAST IN RIGHT OF TRAFFICWAY TURNING RIGHT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: OTHER IMPROPER DRIV ACTIONS VEH: 2 VAN TRAVELING EAST IN RIGHT LANE GOING STRAIGHT VEH EVENTS: STRUCK BY UNIT 01 DVR ACTIONS: NO CONTRIBUTING ACTION												
2	<u>2020097116</u>	02	11/13/2020	FRI	18:02	STREET LT	DRY CLEAR	0	0	0	2	PROP DMG ONLY REAR-END
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 SMALL TRUCK TRAVELING WEST IN LEFT LANE GOING STRAIGHT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: TAILGATING DRIVER WAS DISTRACTED VEH: 2 SMALL TRUCK TRAVELING WEST IN LEFT LANE GOING STRAIGHT VEH EVENTS: STRUCK BY UNIT 01 DVR ACTIONS: NO CONTRIBUTING ACTION												
3	<u>2020098335</u>	02	11/17/2020	TUE	07:40	DAYLIGHT	WET RAIN	0	1	0	2	POSSIBLE INJURY OPP DIR SIDESW
ENV RDWY FACTORS: OTHER WEATHER CONDITIONS 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 SUV TRAVELING WEST IN ONCOMING TRAFFIC LANE TURNING LEFT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: NO CONTRIBUTING ACTION VEH: 2 SUV TRAVELING EAST IN LEFT LANE GOING STRAIGHT VEH EVENTS: STRUCK BY UNIT 01 DVR ACTIONS: RUNNING RED LIGHT												
4	<u>2021041821</u>	02	05/09/2021	SUN	05:01	STREET LT	DRY CLEAR	0	0	0	1	PROP DMG ONLY HIT FIXED OBJ
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 AUTOMOBILE TRAVELING EAST IN RIGHT LANE TURNING RIGHT VEH EVENTS: HIT CURB DVR ACTIONS: IMPROPER/CARELESS TURN												
5	<u>2021059885</u>	02	06/28/2021	MON	13:06	DAYLIGHT	DRY CLEAR	0	0	0	2	PROP DMG ONLY REAR-END
ENV RDWY FACTORS: NONE T-INT 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 AUTOMOBILE TRAVELING WEST IN RIGHT TURN LANE TURNING RIGHT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: DRIVER WAS DISTRACTED VEH: 2 AUTOMOBILE TRAVELING WEST IN RIGHT TURN LANE TURNING RIGHT VEH EVENTS: STRUCK BY UNIT 01 DVR ACTIONS: NO CONTRIBUTING ACTION												

Pennsylvania Crash Information Tool

Millers Run Road (SR 0050) with Newbury Drive

Sorted by Crash Date

Date Range: 01/01/2018 to 12/31/2022

USER ID / QUERY ID:

b-sswai / 0320231006135



CRN	CO	DATE	DAY	TIME	LIGHTING	ROAD SURF	WEATHER	FAT	INJ	PED	VEH	MAX SEVERITY
6	<u>2022015432</u>	02 02/07/2022	MON	16:15	DAYLIGHT	DRY	CLEAR	0	0	0	1	PROP DMG ONLY
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 SMALL TRUCK TRAVELING WEST IN RIGHT LANE GOING STRAIGHT VEH EVENTS: HIT TRAFFIC ISLAND / CHANNELIZATOTHER POST, POLE, OR SUPPORT DVR ACTIONS: DRIVER WAS DISTRACTED HIT FIXED OBJ												
7	<u>2022032948</u>	02 04/04/2022	MON	19:20	DAYLIGHT	DRY	CLEAR	0	0	0	2	UNK IF INJURED
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 SUV TRAVELING EAST IN RIGHT LANE GOING STRAIGHT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: DRIVER WAS DISTRACTED FAILURE TO RESPOND TO TCD VEH: 2 VAN TRAVELING EAST IN RIGHT LANE SLOWING OR STOPPING IN LANE VEH EVENTS: STRUCK BY UNIT 01 DVR ACTIONS: SUDDEN SLOWING / STOPPING REAR-END												
8	<u>2022079619</u>	02 08/30/2022	TUE	17:40	DAYLIGHT	DRY	CLEAR	0	0	0	4	PROP DMG ONLY
ENV RDWY FACTORS: NONE 4WAY 0050/0090/1242 0050/0091/1312 NEWBURY DR TODD A MILLER DR VEH: 1 AUTOMOBILE TRAVELING EAST IN OTHER FWD MOVING LANE GOING STRAIGHT VEH EVENTS: HIT UNIT 02 DVR ACTIONS: DRIVER WAS DISTRACTED VEH: 2 AUTOMOBILE TRAVELING EAST IN OTHER FWD MOVING LANE STOPPED IN TRAFFIC LANE VEH EVENTS: HIT UNIT 03 DVR ACTIONS: NO CONTRIBUTING ACTION VEH: 3 AUTOMOBILE TRAVELING EAST IN OTHER FWD MOVING LANE STOPPED IN TRAFFIC LANE VEH EVENTS: HIT UNIT 04 DVR ACTIONS: NO CONTRIBUTING ACTION VEH: 4 SUV TRAVELING EAST IN OTHER FWD MOVING LANE STOPPED IN TRAFFIC LANE VEH EVENTS: STRUCK BY UNIT 03 DVR ACTIONS: NO CONTRIBUTING ACTION												

Pennsylvania Crash Information Tool

Millers Run Road (SR 0050) with Newbury Drive

Sorted by Crash Date

NOTES:

- 1 **Injury Severity Disclaimer**
Please note that beginning January 1, 2016, PennDOT adopted the Federal standard for collecting injury severity data. The field descriptions and definitions changed from the state standard that had been in use for decades. This resulted in a substantial shift in severity levels. Therefore, comparison of the "Suspected Serious Injury", "Suspected Minor Injury" and "Possible Injury" categories will not be consistent for crashes taking place before versus after the adoption of the new standard.

REPORT PARAMETERS:

Query ID: 0320231006135

User ID: b-sswai

Title: Millers Run Road (SR 0050)

Date Range: 01/01/2018 to 12/31/2022

Selected Shapes: NO NAME RD x MILLERS RUN RD,NO NAME RD x MILLERS RUN RD - Buffer (250 feet)

Filter Characteristics:

This report counts the number of crashes.

January 14, 2022
C-12199-0020

Cozza Enterprises, LLC
P.O. Box 453
Carnegie, PA 15106

Attn: Craig Cozza

Subject: Geotechnical Engineering Review
Proposed Building Addition
180 Millers Run Road, South Fayette Township
Allegheny County, Pennsylvania

As authorized, we have completed our review of subsurface conditions at the above-referenced site. This report describes the findings of the review and presents recommendations for the design and construction of foundations to support the proposed building addition.

SITE LOCATION AND CONDITIONS

The subject site consists of Lot 256-L-2 as reported on the Allegheny County Real Estate website, and is situated north of Millers Run Road, north of its intersection with Newbury Drive, in South Fayette Township, Allegheny County, Pennsylvania. It is mostly covered with stone and vegetation around an existing single-story building. The ground surface in the area investigated generally plateaued at about 830 feet, as as estimated from Google Earth. The elevations referenced appear to be based on North American Vertical Datum of 1988 (NAVD88).

GEOLOGIC RECONNAISSANCE

Geologically, the site is located on the east flank of the south-trending Carnegie Syncline (a trough-like fold in the bedrock strata) about 0.4 miles from its axis. Surficial bedrock strata at the site dip, and groundwater in the bedrock migrates, gently south on a grade of about 1.2 percent (1.2 ft in vertical rise in 100 feet horizontal distance).

The Pennsylvania Department of Environmental Resources, Mineral Resource Report 89, Coal Resources of Allegheny County, Pennsylvania, Part 1, dated 1986, indicates that the base of the Pittsburgh Coal seam horizon - a significant marker bed in this locale - lies at about elev 800, or at least 30 feet below the site, and has been deep mined south of Millers Run Road and the subject site. In addition, mining maps available on the Pennsylvania Mine Map Portal (minemaps.psu.edu/) of the U.S. Steel National Mine No. 1 (attached), indicate the subject site is north of the old alignment of Millers Run Road and the mine workings. These resources do not indicate any other coal seams below the site. Therefore, mine subsidence is not a factor for this project.

Bedrock at the site represents the Casselman Formation, Conemaugh Group, Pennsylvanian System, consisting of sandstones and shales, with some limestone and coal seams. This formation is overlain by alluvial soil deposited by Millers Run and Chartiers Creek.

AERIAL AND USGS QUADRANGLE RECONNAISSANCE

Based on the review of historical aerials dated back to 1949 and topographic maps dated back to 1904, the subject site has existed at the current surface elevation since 1904. A structure was first built by the late 1940s, as 1940 and 1944 updates to the 1904 quadrangle illustrate no structure on the north side of Millers Run until that time. "Scott's Ponds", which are the surface ponds indicated on the U.S. Steel mine mapping were backfilled starting in the late 1940s. This is notable, as the ponds are a consistent physical barrier between the mine limits and the subject site. USGS mapping from 1904 and 1953 are attached.

DISCUSSION AND RECOMMENDATIONS

Based on our understanding, the project will consist of the construction of an addition to the existing building on the property which will require foundation and floor slab construction. No cut or filling for slopes will be performed.

FOUNDATION BEARING CAPACITY AND SETTLEMENT CONSIDERATIONS

Based on our review of the site, there may exist thick variable layers of imported fill and alluvial soil. These materials may be of variable density and compressibility, which can negatively impact the performance of the proposed foundations and floor slab. Therefore, prior to foundation and floor slab construction, at least four test pits should be performed within the proposed footprint of the building addition. The test pits should extend to a depth of 10 feet or bedrock, whichever first occurs. The test pits should be observed and logged by a licensed professional geotechnical engineer or their representative. The engineer should compare and contrast the test pit information and the considerations provided below. Should the soil and rock conditions observed not support the considerations provided, then better informed recommendations should be prepared and the report revised consistent with those recommendations.

In general, to prepare for shallow foundation and floor slab construction, all topsoil, vegetation, soft to medium soils, and other deleterious materials should be removed from the subgrade areas. The areas shall consist of the width of the footing plus 3-ft wide strips inside and outside the footing to facilitated proofrolling by a ride-on vibratory roller compactor.

The exposed subgrades should be proof-rolled with a minimum of ten passes with a vibratory roller compactor, such as a Catapillar CS56, or equal. Soft or loose zones delineated by the proof-rolling should be undercut to competent material or to an additional depth of one foot, whichever first occurs. Should the additionally undercut subgrade remain unsuitable, it should be stabilized with suitable, inert (non-carbonaceous, non-pyritiferous, non-expansive, and non-slag) American Association of State Transportation Officials (AASHTO) No. 1 stone. The vacated volume can then be backfilled to final subgrade level with suitable, inert, on- or off-site borrow that is compacted as described below, in the Fill/Backfill Considerations section.

Fill/Backfill Considerations

It is recommended that borrow soil used as backfill be either placed and compacted as soon as possible to limit its exposure to rainfall events, or protected with plastic tarps if the construction activity requires multiple days.

Cohesive fill should be compacted to a minimum of 95 percent of the maximum modified proctor dry density as determined by ASTM International Test Designation: D1557-12, at water contents within three percent ($\pm 3\%$) of the optimum water content established by that test.

Granular fill should be compacted to at least 70 percent relative density as determined by ASTM International Test Designations: D4253- and 4254-16.

QUALITY VERIFICATION/CONSIDERATIONS

It should be noted that this is a cursory review of the project conditions and test borings or pits should be excavated prior to construction. It is essential that all test pits, foundation construction, floor slab subgrade preparation, and fill/backfill operations be monitored on a full-time basis by our personnel to verify that the recommended bearing horizons/materials and fill/backfill compaction requirements are consistently implemented. All recommendations presented herein are contingent upon such field verification.

This report has been prepared using cursory review methods conforming to commonly accepted local geotechnical engineering practices. All recommendations and/or conclusions herein pertain only to this specific project and should not be used or interpreted by others for modifications to this project, unless reviewed and approved by us, or for other projects or sites. Even within the project context, subsurface conditions can only be determined by boring or test pits, and actual conditions between/beyond borings or test pits may vary. Due in part to such variability in subsurface conditions, the implementation of the recommended measures must be informed and validated by the recommended test pits and inspected by our personnel to confirm that the subsurface conditions encountered during construction are consistent with the borings or test pits and our engineering analysis, and to verify that the subgrades, backfills, and all other geomaterials used are behaving as anticipated. Some conditions or material/subgrade behavior and/or performance may require modifications to our recommendations, which can typically only be determined "on-the-spot" during full-time inspections by one of our soil technicians, under the direct supervision of our professional (licensed) geotechnical engineers.

Not only could the interpretation and field inspection of our recommendations by others result in a structure that does not perform as intended, but inspection by individuals not qualified and/or

not under the direct supervision of a professional geotechnical engineer could result in structure failures. We therefore will not be responsible nor professionally liable for the performance and/or suitability of any structures affected by geotechnical elements of the project inspected by others. The selected inspection agency must take full responsibility for proper implementation and performance of the project geotechnical recommendations for this site.

We sincerely appreciate the opportunity to be of service to you on this project. Should you have any questions regarding our findings or recommendations, please do not hesitate to contact us.



Respectfully submitted,

THE GATEWAY ENGINEERS, INC.

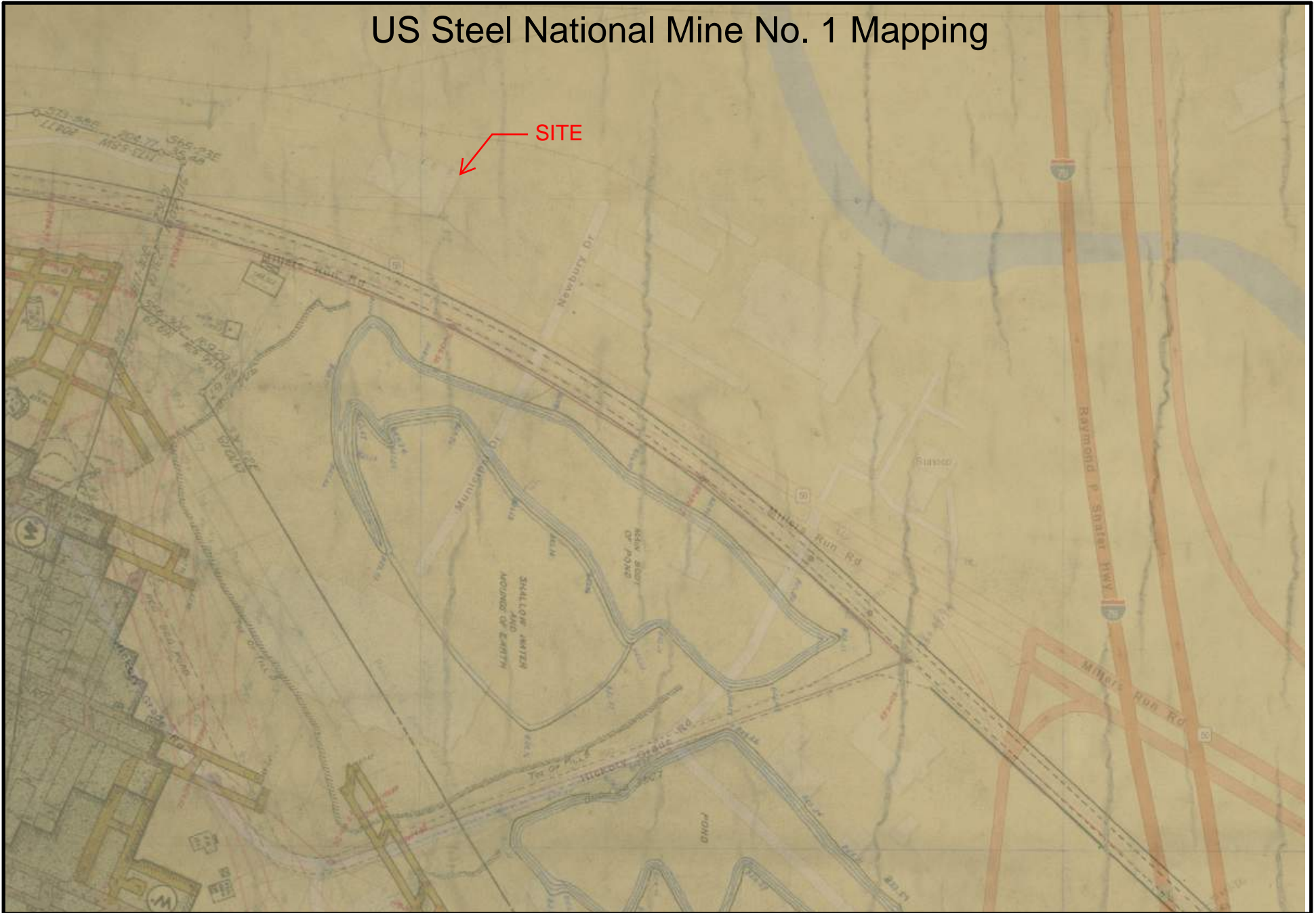
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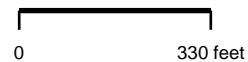
Nathaniel S. Hayes, P.E.
Project Manager

IUPASG_00431 Close Up

US Steel National Mine No. 1 Mapping



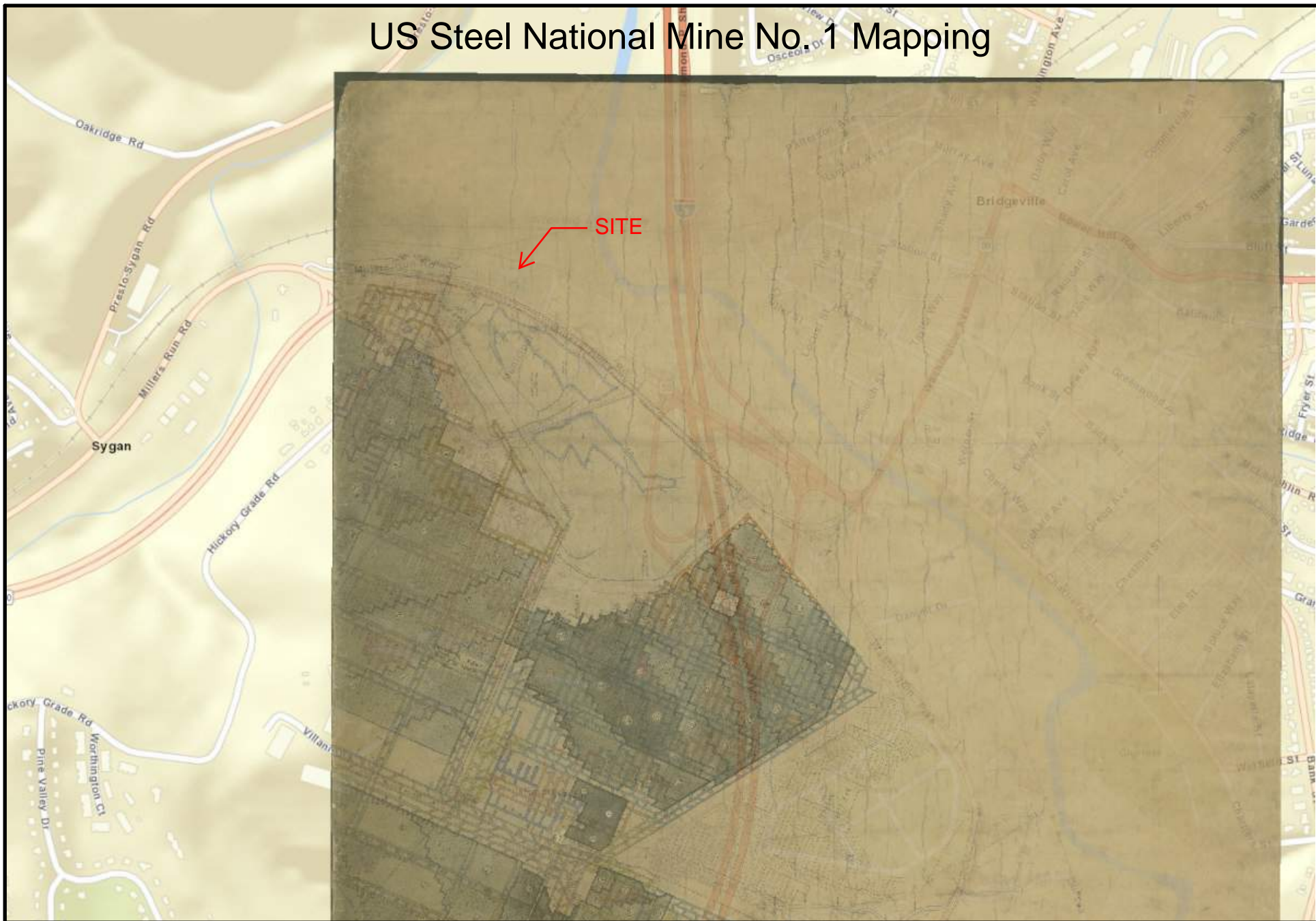
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Created on: 01/12/22

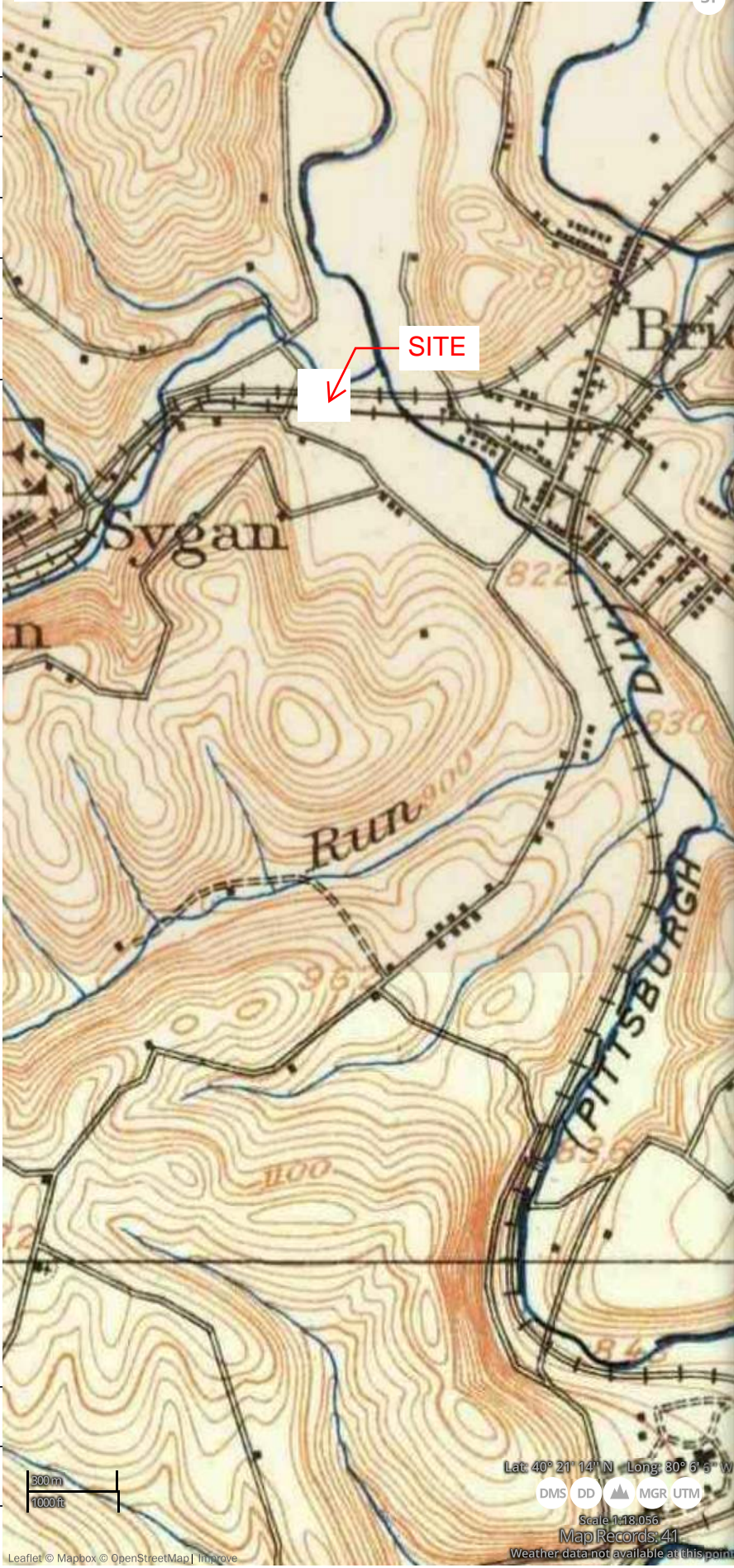


US Steel National Mine No. 1 Mapping



1904 Carnegie USGS Quadrangle

31



Location | Map Name

Search by location

1880 2021

All 250K 100K 63K 48K 24K | HTMC UST All

31 maps here | Scale: All, Date: 1880-2021, Series: All
Elevation @ 40.359, -80.123 is 831 ft. (253 m)

Filter records Name Date Scale State

Carnegie, PA

1904 (HTMC, 1954 ed.) Scale 1:62500

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KMZ (4 MB) GeoPDF (10 MB)

HIDE INFO ZOOM PAN PIN FIX

MAP TRANSPARENCY

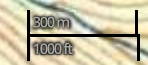
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1906 (HTMC, 1906 ed.) Scale 1:62500
- Carnegie, PA
1906 (HTMC, 1913 ed.) Scale 1:62500
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1906 (HTMC, 1920 ed.) Scale 1:62500
- Carnegie, PA
1906 (HTMC, 1927 ed.) Scale 1:62500
- Carnegie, PA
1906 (HTMC, 1935 ed.) Scale 1:62500
- Carnegie, PA
1906 (HTMC, 1940 ed.) Scale 1:62500
- Carnegie, PA
1906 (HTMC, 1944 ed.) Scale 1:62500
- Carnegie, PA
1908 (HTMC, 1910 ed.) Scale 1:62500
- Canton, OH

Map navigation controls:

- Zoom in (+)
- Zoom out (-)
- Full screen
- Previous view
- Next view
- Help (?)
- Location

Map information and sharing:

- Info (i)
- Share
- Print



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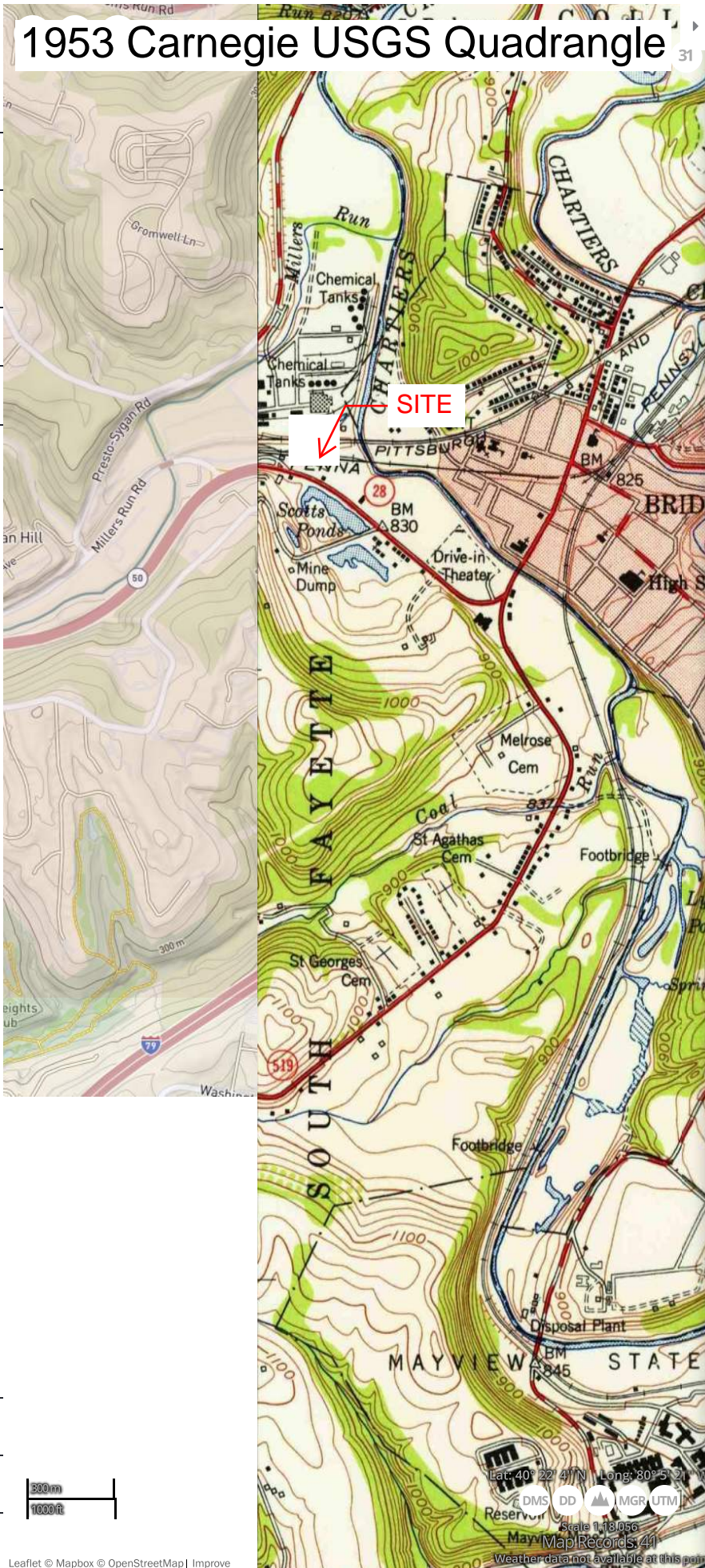
DMS DD MGR UTM

Scale: 1:62,500

MapRecords: 41

Weather data not available at this point

1953 Carnegie USGS Quadrangle



Location | Map Name

Search by location



1880 ————— 2021

All 250K 100K 63K 48K 24K | HTMC UST All

31 maps here | Scale: All, Date: 1880-2021, Series: All
Elevation @ 40.359, -80.123 is 831 ft. (253 m)

Filter records | X Name Date Scale State

Bridgeville, PA

1953 (HTMC, 1955 ed.) Scale 1:24000

JPEG (4 MB) GeoTiff (14 MB)
KMZ (4 MB) GeoPDF (14 MB)

X I Q H P PIN FIX

MAP TRANSPARENCY

Canton, OH

1957 (HTMC, 1971 ed.) Scale 1:250000

Canton, OH

1957 (HTMC, 1978 ed.) Scale 1:250000

Canton, OH

1957 (HTMC, 1978 ed.) Scale 1:250000

Bridgeville, PA

1960 (HTMC, 1961 ed.) Scale 1:24000

Bridgeville, PA

1960 (HTMC, 1966 ed.) Scale 1:24000

Bridgeville, PA

1960 (HTMC, 1971 ed.) Scale 1:24000

Bridgeville, PA

1960 (HTMC, 1979 ed.) Scale 1:24000

Bridgeville, PA

1960 (HTMC, 1984 ed.) Scale 1:24000



**PAG-02
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR DISCHARGES OF
STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES**

NPDES PERMIT NO: PAC021240

In compliance with the provisions of the Clean Water Act, 33 U.S.C.A. §§ 1251--1387 and the Clean Streams Law, as amended, 35 P.S. §§ 691.1--691.1001,

**Craig Cozza
CE-SF, LP
295 Myoma Road
Mars, PA 16046**

(permittee) is authorized to discharge from a project site known as **Lafayette 180**, located in **South Fayette Township, Allegheny County** to **Chartiers Creek** in accordance with the effluent limitations, monitoring and reporting requirements, best management practices (BMPs), stormwater control measures (SCMs) and other conditions set forth in Parts A, B, and C herein.

APPROVAL OF COVERAGE TO DISCHARGE UNDER THIS GENERAL NPDES PERMIT IS AUTHORIZED BEGINNING ON JANUARY 12, 2026 AND WILL EXPIRE ON DECEMBER 7, 2029. WHEN THE GENERAL PERMIT IS RENEWED, REISSUED OR MODIFIED, THE FACILITY OR ACTIVITY COVERED BY THE APPROVAL FOR COVERAGE MUST COMPLY WITH THE FINAL RENEWED, REISSUED OR MODIFIED GENERAL PERMIT.

Coverage and authorization to discharge under the PAG-02 NPDES General Permit ("General Permit") are subject to the following conditions:

1. The permittee's Notice of Intent (NOI), Erosion and Sediment Control (E&S) Plan, and Post-Construction Stormwater Management (PCSM) Plan are incorporated into this approval of coverage.
2. If there is a conflict between the requirements in the NOI or its supporting documents and the terms and conditions of the General Permit, the permittee must comply with the terms and conditions of the General Permit.
3. The permittee's failure to comply with the terms, conditions, and effluent limitations of the General Permit is grounds for the Department of Environmental Protection (DEP) and/or a delegated county conservation district (CCD) to take an enforcement action, and/or to terminate or revoke coverage under this General Permit.

Coverage under the PAG-02 General Permit is authorized by:

Matt Gordon

**Matt Gordon
Regulatory Team Director
Allegheny County Conservation District**



GATEWAY

On Call. On Time. On Target.

C-12199-0025

October 2023

Cozza Commercial Building

South Fayette Township
Allegheny County, Pennsylvania

PREPARED FOR
Cozza Enterprises, LLC
P.O. Box 453
Carnegie, PA 15106

SUBMITTED BY

Adam Greathouse
Permitting Specialist

The Gateway Engineers, Inc.
100 McMorris Road
Pittsburgh, PA 15205
412.275.3793 PHONE
412.921.9960 FAX

www.gatewayengineers.com
agreathouse@gatewayengineers.com



A FULL-SERVICE CIVIL ENGINEERING FIRM

WETLAND DELINEATION AND STREAM IDENTIFICATION REPORT

ENVIRONMENTAL

Project Name: Cozza Commercial Building
Client: Cozza Enterprises, LLC
Project Number: C-12199-0025
Prepared By: Adam Greathouse

The Gateway Engineers, Inc. (Gateway), on behalf of Cozza Enterprises, LLC (Cozza), conducted an environmental investigation to identify wetlands and streams for a proposed commercial development in South Fayette Township, Allegheny County, Pennsylvania; hereafter, referred to as the ‘study area’ (Attachment 1 – Site Location Maps). The investigation was conducted as part of the planning stage of the project to identify any wetlands or streams that occur within the study area of the proposed re-route.

The wetland delineation was conducted by Gateway on October 4, 2023, in accordance with the procedures provided in the U.S. Army Corps of Engineers (USACE) *Corps of Engineers Wetland Delineation Manual* (1987)¹ and the USACE’s *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)*². The study area included an approximate five (5)-acre area that encompassed the proposed development. The existing land use of the study area is comprised of existing residential area, a graded commercial pad with some presence of herbaceous vegetation and a narrow and forested strip that included a dense scrub/shrub undergrowth consisting of invasive shrubs. The investigation of the study area identified no (0) wetlands and no (0) streams. For verification of a completed delineation, three (3) test pit data forms (TP-1 – TP-3) can be found in Attachment 4 – Data Forms.

The study area is located within the Upper Ohio watershed (HUC 05030101), which drains 1,950 square miles and the PA Water Plan identified watershed 20F – Ohio River. Drainage from the study area flows into Chartiers Creek – Warm Water Fishes (WWF)³. Chartiers Creek flows north-northeast before flowing into the Ohio River (WWF) in McKees Rocks, Pennsylvania.

Zero (0) National Wetland Inventory (NWI)⁴ wetlands were indicated within close proximity to the study area boundaries (Attachment 2 – NWI Map). As a result, no impacts to NWI wetlands are anticipated for the proposed project.

The Soil Survey(s) of Allegheny County⁵, in conjunction with PA DEP’s “Limitations of Pennsylvania Soils Pertaining to Earthmoving Projects,” indicate that no (0) soil series with hydric inclusions occur within the study area (Attachment 3 - USDA/NRCS Soil Map).

The following items are attached to provide further information: Attachment 1 – Site Location Maps; Attachment 2 – NWI Map; Attachment 3 – USDA/NRCS Soil Map; Attachment 4 – Data Forms; Attachment 5 – Personnel Résumés.

¹U.S. Army Corps of Engineers. 1987. *Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1.

²U.S. Army Corps of Engineers. April 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)*. EDRC/EL TR-12-9.

³ WWF – Warm Water Fishes, as classified by PA Code Title 25, Chapter 93.

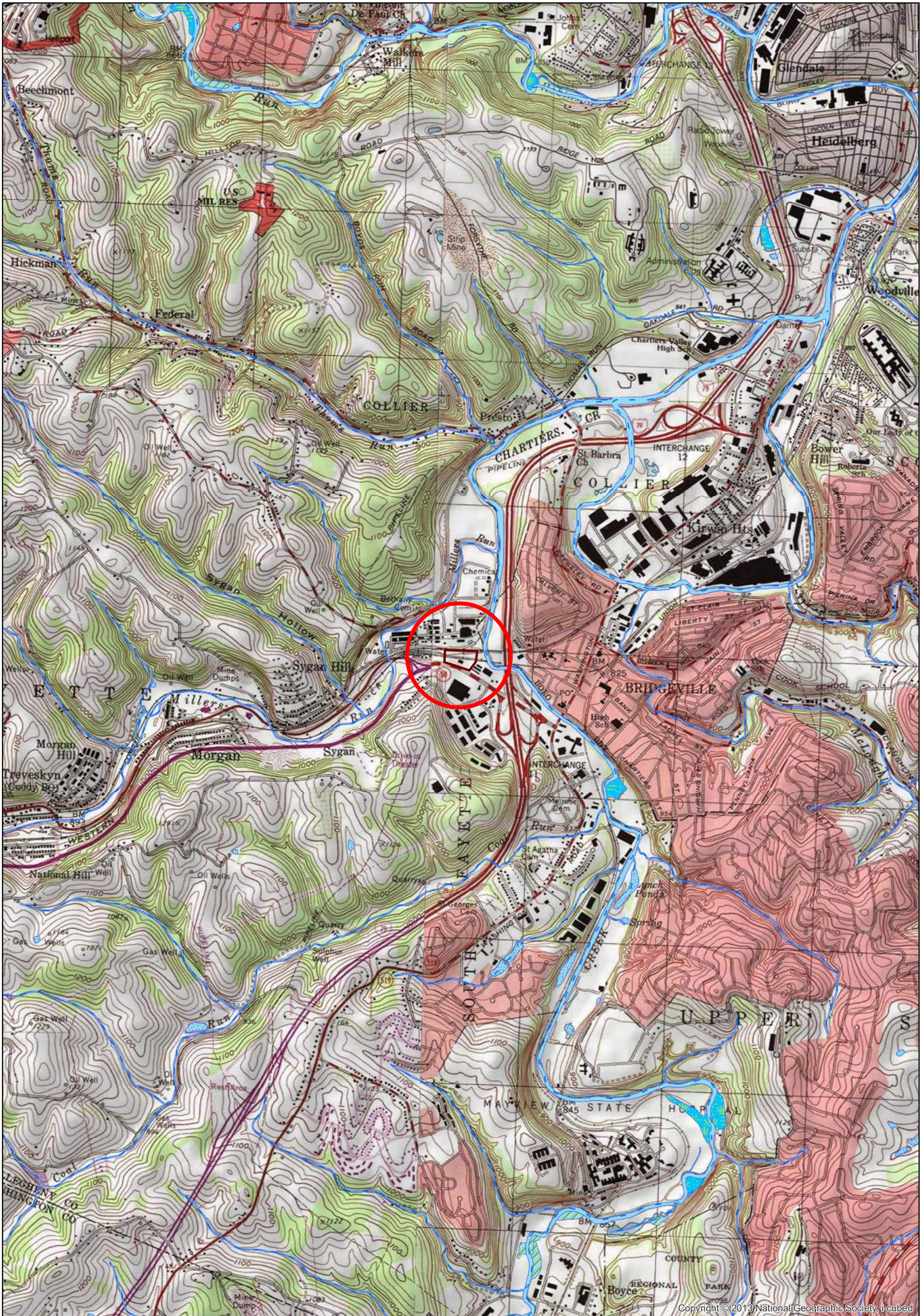
⁴United States fish and Wildlife Service. 2008. *National Wetlands Inventory for Pennsylvania*. Pennsylvania Spatial Data Access. www.pasda.psu.edu

⁵United States Department of Agriculture, Natural Resources Conservation Service. 2008. *Soil Survey Geographic Database for Allegheny County, Pennsylvania*. <http://SoilDataMart.nrcs.usda.gov>. Accessed October 2023.

Cozza Enterprises, LLC
Cozza Commercial Building
South Fayette Township, Allegheny County, PA

ATTACHMENT 1

SITE LOCATION MAPS



Copyright © 2013 National Geographic Society, i-cubed

Figure 1 - USGS Site Location Map



100 McMorris Road Pittsburgh, PA 15205
 Phone: 856-634-9284 - Fax 412-921-9960
 http://www.gatewayengineers.com

- National Wetland Inventory
- Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetlands
 - Freshwater Pond
 - River/Lake
 - Other
 - Study Area
 - Chapter93 Streams



1 inch = 2,000 feet

Date: October 12, 2023

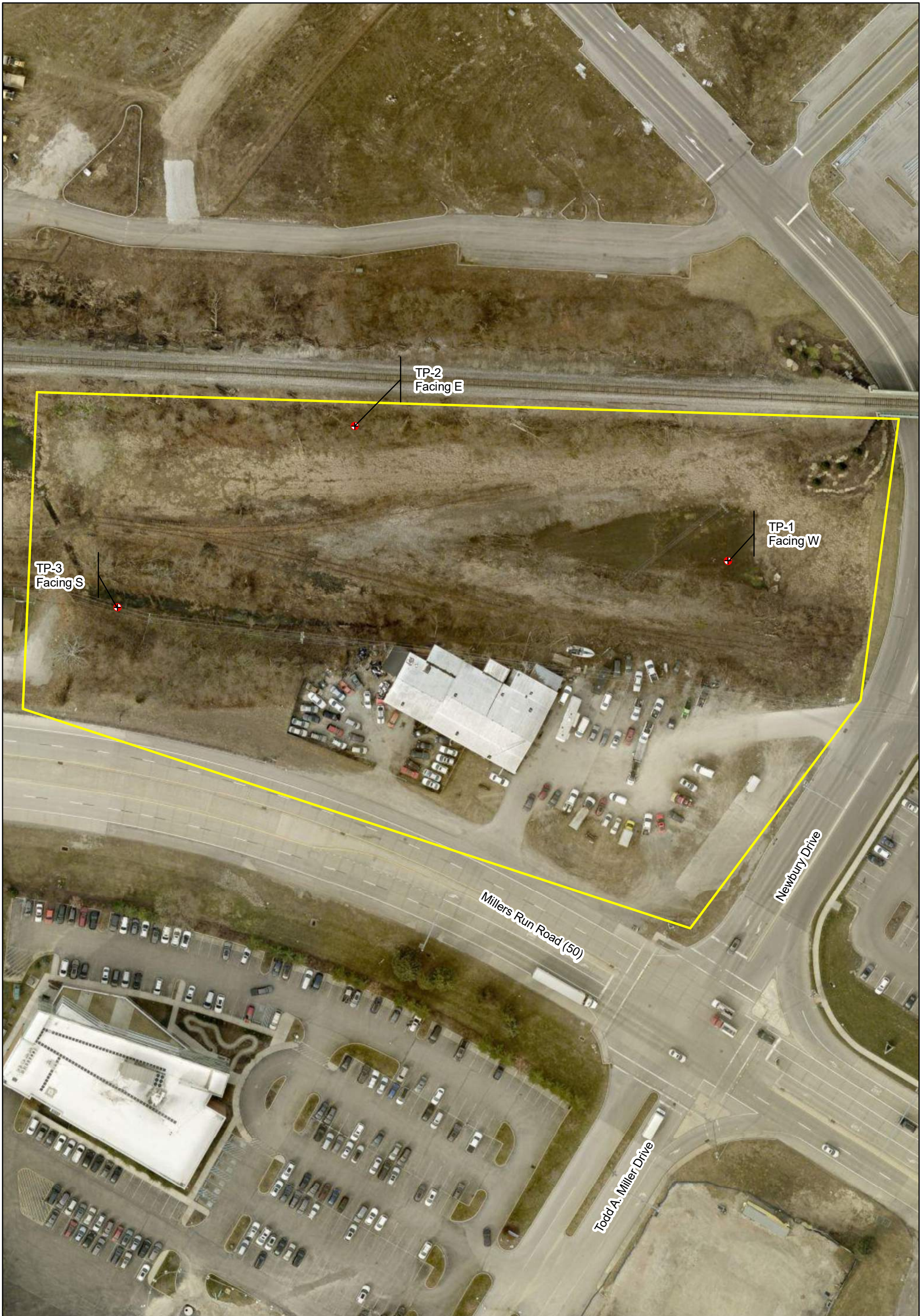


Figure 2 - Aerial Site Location Map

GPS Streams	GPS Data	National Wetland Inventory	
Ephemeral Stream	GPS Wetlands	Freshwater Emergent Wetland	Study Area
Intermittent Stream	Upland Data Point	Freshwater Forested/Shrub Wetlands	Chapter 93 Streams
Perennial Stream	Wetland Data Point	Freshwater Pond	Culvert
	Test Pit	River/Lake	
		Other	



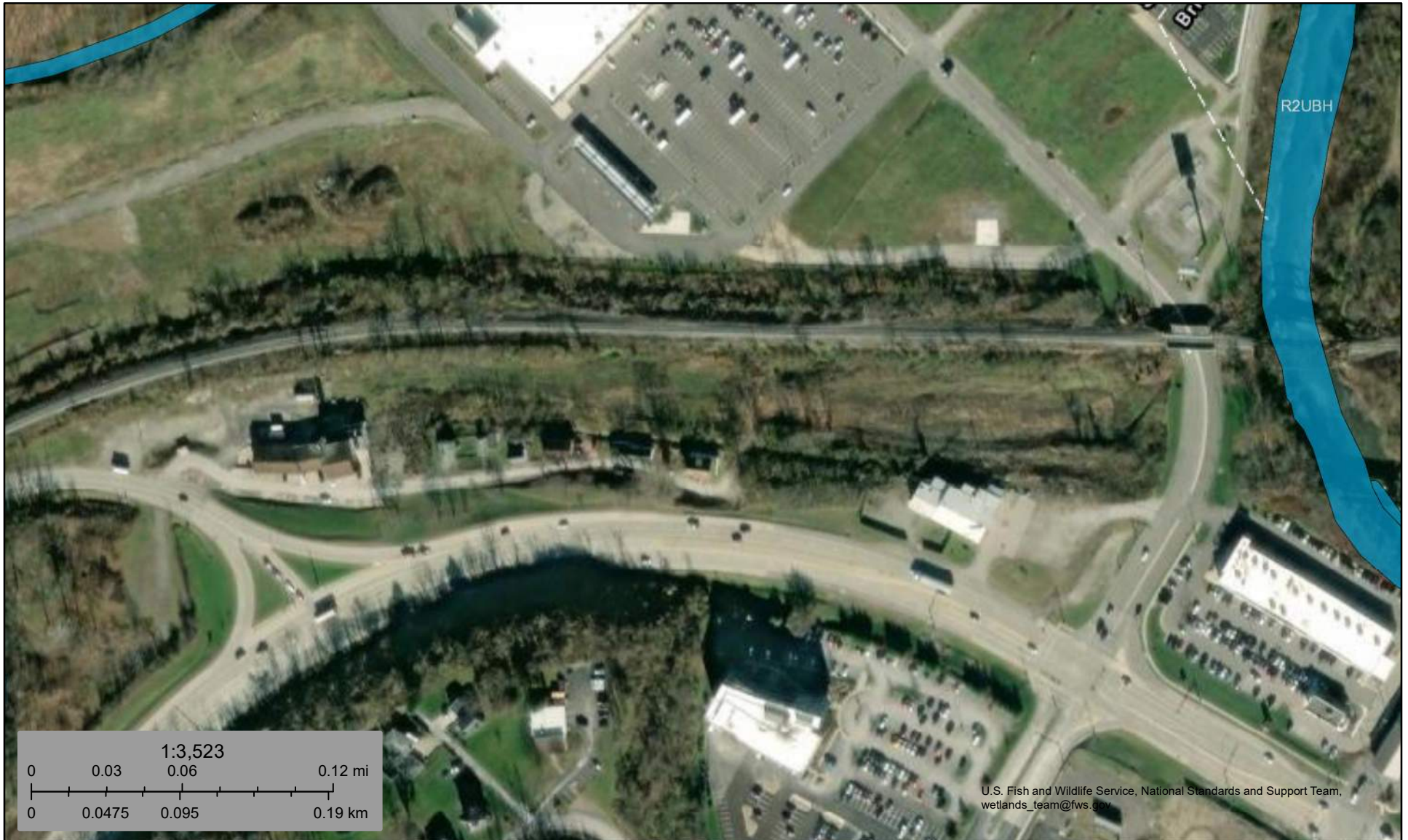
100 McMorris Road Pittsburgh, PA 15205
 Phone: 855-634-9284 - Fax 412-921-9960
<http://www.gatewayengineers.com>

1 inch = 75 feet

Date: October 12, 2023








Cozza Enterprises, LLC
Cozza Commercial Building
South Fayette Township, Allegheny County, PA

ATTACHMENT 2
NWI MAP



October 4, 2023

Wetlands

- | | | |
|--|---|--|
|  Estuarine and Marine Deepwater |  Freshwater Emergent Wetland |  Lake |
|  Estuarine and Marine Wetland |  Freshwater Forested/Shrub Wetland |  Other |
| |  Freshwater Pond |  Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

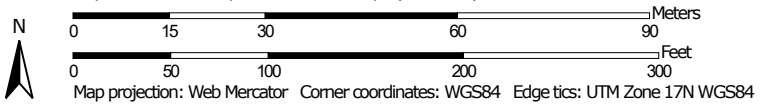
Cozza Enterprises, LLC
Cozza Commercial Building
South Fayette Township, Allegheny County, PA

ATTACHMENT 3
USDA/NRCS SOIL MAP

Soil Map—Allegheny County, Pennsylvania
(Cozza Commercial Building)




Map Scale: 1:1,180 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Allegheny County, Pennsylvania

Survey Area Data: Version 19, Sep 4, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2021—Sep 19, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UB	Urban land	5.1	100.0%
Totals for Area of Interest		5.1	100.0%

Cozza Enterprises, LLC
Cozza Commercial Building
South Fayette Township, Allegheny County, PA

ATTACHMENT 4

DATA FORMS

Project/Site: Cozza Commercial Building City/County: Bridgeville, Allegheny Sampling Date: 10/4/2023
 Applicant/Owner: Cozza Enerprises, LLC State: PA Sampling Point: TP-1
 Investigator(s): ALG Section, Township, Range: South Fayette Twp
 Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.358815 Long: -80.121804 Datum: NAD83
 Soil Map Unit Name: UB - Urban Land NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: TP-1 located amongst a graded site; some vegetation has grown in; however, the soil consists of fill dirt	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 surface soil cracks observed; no other signs of hydrology present. Site is graded to towards a small depression where soil cracks were observed.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: TP-1

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Sapling Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Setaria faberi</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>
2. <u>Echinochloa crus-galli</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
3. <u>Panicum capillare</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
4. <u>Phleum pratense</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
50 =Total Cover			
50% of total cover: <u>25</u>		20% of total cover: <u>10</u>	

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
=Total Cover			
50% of total cover: _____		20% of total cover: _____	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>20</u>	x 5 = <u>100</u>
Column Totals: <u>50</u> (A)	<u>195</u> (B)
Prevalence Index = B/A = <u>3.90</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - X 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes	<u>X</u>	No
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Remarks: (Include photo numbers here or on a separate sheet.)
Lots of open space between vegetation; the ground is not 100% covered.

SOIL

Sampling Point: TP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/2	100					Loamy/Clayey	Fill dirt

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____ Rock _____
 Depth (inches): _____ 9 _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area has been previously graded; much of the soil is disturbed and there's not a lot of vegetation present.



TP-1 Facing West

Project/Site: Cozza Commercial Building City/County: Bridgeville, Allegheny Sampling Date: 10/4/2023
 Applicant/Owner: Cozza Enerprises, LLC State: PA Sampling Point: TP-2
 Investigator(s): ALG Section, Township, Range: South Fayette Twp
 Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.359107 Long: -80.122952 Datum: NAD83
 Soil Map Unit Name: UB - Urban Land NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: TP-2 located amongst a graded site; some vegetation has grown in; however, the soil consists of fill dirt	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 surface soil cracks observed; no other signs of hydrology present. Site is graded to towards a small depression where soil cracks were observed.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: TP-2

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Prunus serotina</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>15</u> =Total Cover			
50% of total cover: <u>8</u>		20% of total cover: <u>3</u>	

Sapling Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Robinia pseudoacacia</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
<u>10</u> =Total Cover			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>	

Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
_____ =Total Cover			
50% of total cover: _____		20% of total cover: _____	

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cyperus odoratus</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Setaria faberi</u>	<u>5</u>	<u>No</u>	<u>UPL</u>
3. <u>Panicum capillare</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
4. <u>Erechtites hieraciifolius</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
<u>65</u> =Total Cover			
50% of total cover: <u>33</u>		20% of total cover: <u>13</u>	

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera japonica</u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
<u>10</u> =Total Cover			
50% of total cover: <u>5</u>		20% of total cover: <u>2</u>	

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>45</u>	x 2 = <u>90</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>5</u>	x 5 = <u>25</u>
Column Totals: <u>100</u> (A)	<u>305</u> (B)
Prevalence Index = B/A = <u>3.05</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes	No
<u> </u>	<u>X</u>

SOIL

Sampling Point: TP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/6	100					Loamy/Clayey	Fill dirt

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____ Rock _____
 Depth (inches): _____ 6 _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area has been filled and graded. The commercial pad drains towards depression at the base of the slope below the railroad.



TP-2 Facing East

Project/Site: Cozza Commercial Building City/County: Bridgeville, Allegheny Sampling Date: 10/4/2023
 Applicant/Owner: Cozza Enerprises, LLC State: PA Sampling Point: TP-3
 Investigator(s): ALG Section, Township, Range: South Fayette Twp
 Landform (hillside, terrace, etc.): Hill Slope Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR or MLRA): LRR N Lat: 40.358667 Long: -80.123662 Datum: NAD83
 Soil Map Unit Name: UB - Urban Land NWI classification: N/A
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation Y, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No X
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: TP-3	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water Table Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation Present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u> </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 surface soil cracks observed; no other signs of hydrology present. Site is graded to towards a small depression where soil cracks were observed.

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: TP-3

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	=Total Cover		
50% of total cover: _____	20% of total cover: _____		

Sapling Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Ailanthus altissima</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
2. <u>Robinia pseudoacacia</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
3. <u>Acer negundo</u>	<u>15</u>	<u>Yes</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	<u>45</u> =Total Cover		
50% of total cover: <u>23</u>	20% of total cover: <u>9</u>		

Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera maackii</u>	<u>20</u>	<u>Yes</u>	<u>UPL</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
	<u>20</u> =Total Cover		
50% of total cover: <u>10</u>	20% of total cover: <u>4</u>		

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Cyperus odoratus</u>	<u>10</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Setaria faberi</u>	<u>10</u>	<u>Yes</u>	<u>UPL</u>
3. <u>Panicum capillare</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>
4. <u>Hackelia virginiana</u>	<u>5</u>	<u>No</u>	<u>FACU</u>
5. <u>Verbesina alternifolia</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
6. <u>Toxicodendron radicans</u>	<u>5</u>	<u>No</u>	<u>FAC</u>
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	<u>45</u> =Total Cover		
50% of total cover: <u>23</u>	20% of total cover: <u>9</u>		

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lonicera japonica</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	<u>15</u> =Total Cover		
50% of total cover: <u>8</u>	20% of total cover: <u>3</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>35</u>	x 3 = <u>105</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>125</u> (A)	<u>475</u> (B)
Prevalence Index = B/A = <u>3.80</u>	

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present?

Yes	<u> </u>	No	<u>X</u>
-----	-----------	----	----------

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: TP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 4/4	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (**LRR N**)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (**MLRA 147, 148**)
- Thin Dark Surface (S9) (**MLRA 147, 148**)
- Loamy Mucky Mineral (F1) (**MLRA 136**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (**LRR N, MLRA 136**)
- Umbric Surface (F13) (**MLRA 122, 136**)
- Piedmont Floodplain Soils (F19) (**MLRA 148**)
- Red Parent Material (F21) (**MLRA 127, 147, 148**)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (**MLRA 147**)
- Coast Prairie Redox (A16) (**MLRA 147, 148**)
- Piedmont Floodplain Soils (F19) (**MLRA 136, 147**)
- Red Parent Material (F21) (**outside MLRA 127, 147, 148**)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____ Rock _____
 Depth (inches): _____ 6 _____

Hydric Soil Present? Yes _____ No X

Remarks:



TP-3 Facing South

Cozza Enterprises, LLC
Cozza Commercial Building
South Fayette Township, Allegheny County, PA

ATTACHMENT 5
PERSONNEL RESUME/S



Project Team Resume

Adam L. Greathouse

Permitting Specialist

Years of Experience

15 Years conducting stream delineations, 6 years conducting wetland delineations

Education

Pennsylvania State University – University Park, Pennsylvania
B.S. in Wildlife and Fisheries Science, 2007

Pennsylvania State University – DuBois, Pennsylvania
Associate in Wildlife Technology, 2005

Registrations / Certifications

N/A

Affiliations

NA

Training

36-Hour Wetland Delineation Training, Gailey Environmental LLC, 2020

Primary Headwater Stream Assessment Training, EnviroScience, Inc., 2022

Endangered Species Act Consultation, Swamp School, LLC, 2023

Memberships

N/A

General Qualifications

Mr. Greathouse joined the Gateway Engineers, Inc as a full time employee in August, 2023, after working as an environmental scientist for two other multi-disciplined environmental engineering firms since 2008. He has experience performing the following tasks: freshwater wetland identification, delineation and functional assessment analysis; preparation of PA and OH state and federal permits; stream classification and delineation, aquatic macroinvertebrate identification to family; backpack electrofishing with fish identification; and client relations.

REPRESENTATIVE PROJECTS

Erosion and Sedimentation Projects

Erosion and Sedimentation Control Inspections – Client: Multiple

- Responsibilities included: Walking the project area assessing the E&S controls, coordinating with the project manager/contractor; compiled inspection reports and worked with clients to address concerns.

Wetland Delineation and Stream Identification Projects

Stream Restoration PRP Design – Client: Various Municipalities

- Responsibilities included: Conduct detailed wetland delineation and stream identification studies within a stream corridor; compile the associated environmental reports and compile the associated permits for submission to the PADEP and/or the county conservation district.

Residential Land Development – Client: Maronda Homes LLC, PA/OH/KY

- Responsibilities included: Conduct detailed wetland delineation and stream identification studies at multiple locations; compile the associated environmental reports and compile the associated permits for submission to the PADEP and/or the county conservation district.

Commercial Development for GetGo/WetGo – Client: Giant Eagle, Inc., PA/OH

- Responsibilities included: Conduct detailed wetland delineation and stream identification studies at multiple locations; compile the associated environmental reports and compile the associated permits for submission to the PADEP and/or the county conservation district.

Waterline Expansion Project – New Sewickley Township Municipal Authority, PA

- Responsibilities included: Conduct detailed wetland delineation and stream identification studies along a 3-mile line; compile the associated environmental reports and compile the associated permits for submission to the PADEP and/or the county conservation district.

Underground Mining Areas – Client: Multiple Mining Clients, Greene County, PA

- Responsibilities included: Conduct pre- and post-mining stream and wetland assessments; complete macroinvertebrate sampling; compile the associated reports and data forms for submission to PADEP; and compile applicable permitting for submission to PADEP.

Endangered Species Surveys

Indiana Bat Tree Evaluation – Client: Alpha Natural Resources

- Responsibilities included: complete tree surveys within plot areas identified in GIS; measure and identify all trees greater than 3” DBH; and compile data forms per plot area.



Peoples Natural Gas Company LLC
375 North Shore Drive
Pittsburgh, PA 15212

August 10, 2023

Joseph Chirumbolo
Utilities Specialist, Safety Tier 2
The Gateway Engineers, Inc.
100 McMorris Road
Pittsburgh, PA 15205

Subject: Letter of Gas Availability for **“Lafayette 180” – located at 180 Millers Run Road in Bridgeville, PA.**

Dear Joseph:

Thank you for your interest in the Peoples Natural Gas Company. We have reviewed your request and have determined that natural gas service is available to serve the “proposed” project known as **“Lafayette 180” – located at 180 Millers Run Road in Bridgeville, PA.**

Please be aware that any time we extend our mainline or increase our capacity, a possibility exists that there may be a cost to you, the requesting party. The determination of cost will be made once a gas application and formal site plans have been submitted.

At a high level we would be able to provide these units service, but we cannot guarantee this until we have processed a formal application.

To submit a gas application, you will need to:

- Please provide the following items to complete your application for gas service:
 - Service Address
 - Approval Letter Name/Address
 - Billing Name/Address
 - Gas equipment and load information (BTUs)
 - Pressure Requirements
 - AutoCAD file of Site Plans (.dwg file)

If you have any questions about submitting your gas application, please call us at (866) 654-4660.

Sincerely,

Peoples Natural Gas Company



August 10, 2023

Mr. Joseph Chirumbolo
Gateway Engineers, Inc.
100 McMorris Rd
Pittsburgh, PA 15205

RE: LaFayette 180 – Cozza Development

Dear Mr. Chirumbolo

This letter is to inform you of the availability of natural gas service from Columbia Gas of Pennsylvania, Inc. (CPA) for the above-referenced project. CPA has existing natural gas facilities along Route 50 in Bridgeville, PA. Please be advised that while gas service is located close to the site, this letter should not be interpreted as a commitment to serve until a more thorough engineering review has been completed. Once CAD development drawings and connected load information are received, our engineering group will begin the design of a gas system to serve this development.

Please keep me updated on the timing and construction progress for this project so we may coordinate the installation of the natural gas facilities to meet your development timeline. I look forward to working with you to assist in securing natural gas service to this new building.

Best regards,

Jc Danhires

Jc Danhires.
Sr. Lead Development Manager
724-610-8378
JDanhires@NiSource.com



Joseph E. Chirumbolo
Utilities Specialist, Safety Tier 2
100 McMorris Road,
Pittsburgh, PA 15205

Attn: Joseph E. Chirumbolo

RE: Will Serve request for availability of Comcast communication services.

Property Address: Development located at 150 Millers Run Road, Bridgeville, PA 15017
Date of Issue: August 09, 2023.

Dear Joseph,


In response to your request for service, we have determined that based on our initial investigation, Comcast Cable Communications Management LLC has the ability to construct and install certain wires, cables, and other equipment over, under, across and along the property located at 150 Millers Run Road, Bridgeville, PA 15017.

A preliminary plan if available, may be provided with this "Will Serve" letter. Notwithstanding the determination that Comcast may provide services at the Property, this letter does not represent any binding agreement for service. Additionally, this letter is non-transferrable and expires one hundred and eighty days from the issue date

If you have any questions or need more information, feel free to contact us.

*Jodi Alberta D.X.P.
Market Development & Expansion
Business Development Organization
Keystone Regional Office
15 Summit Park Drive
Pittsburgh, PA 15275
724.554.4270 Cell*



Authorized by  _____
7018182702564021

Name: Jodi Alberta
Market Development & Expansion

Gateway Engineers

Joseph Chirumbolo

Mr. Chirumbolo:

Please be advised that Verizon has existing facilities near Lafayette 180, Cuddy, PA Commercial Development and will provide service to this location.

If you have any questions, I can be reached at 724 229-0695.

Sincerely

Keith Fowler

Verizon Outside Plant Engineer



MUNICIPAL AUTHORITY
TOWNSHIP OF SOUTH FAYETTE

C. Kenneth Chambon, Chairman
Charles L. Rothermel, Vice-Chairman
Robert Zedreck, Secretary
Glenn Davis, Treasurer
John Alan Kosky, Assistant Secretary/Treasurer

900 Presto Sygan Road
Bridgeville PA 15017
412-257-5100 phone
412-257-5125 fax
sewerbilling@sftwp.com
www.matsf.net

September 5, 2023

Shannon L. McCullough
100 McMorris Road
Pittsburgh PA, 15205

Subject: LaFayette 180

Dear Shannon:

I am in receipt of your request dated September 5, 2023, requesting service availability for the old Foremost Auto property. Please accept this correspondence confirming the availability of sanitary sewer service. The plans do not show how the building will connect but sanitary sewer is available in the front and rear of the proposed building.

Don't hesitate to contact me should you have any questions in this regard.

Sincerely,

THE MUNICIPAL AUTHORITY OF
THE TOWNSHIP OF SOUTH FAYETTE

Nick Goettman
Operations Manger



Joseph Chirumbolo of Gateway Engineers
Mailing Address: 100 McMorris Road Pittsburgh, PA 15205
Date: October 17, 2023

Point of Service Description: Lafayette 180 Newbury Drive Cuddy, PA 15031

Dear Requestor:

In response to your recent request for service on the subject property, the following information is provided regarding the process for obtaining electric service from West Penn Power ("WPP").

It has been determined that the subject property is within WPP's service territory. Electric service will be provided in accordance with WPP's Tariff for Service which is on file with and approved by the Pennsylvania Board of Public Utilities. Completion of your request for service is contingent upon your obtaining all required approvals from appropriate authorities and agencies, including, but not limited to, permits for construction. It will be your responsibility to provide WPP with complete electric load information and site plans for review, approvals, and engineering, etc. well in advance of construction of the proposed facility.

The Applicant/Customer is responsible for compliance with all Federal, State and Local Codes. This includes but is not limited to the National Electric Code and the National Electric Safety Code. WPP reserves the right to refuse connection to customer premises that are not in compliance with applicable Codes.

The exact method of service to the point of delivery will be determined subject to the above-requested information and approval by our Regional Engineering Process. This may require the Applicant/Customer to pay for a prorated portion of the cost to upgrade system facilities or add other necessary equipment to the electrical infrastructure to meet your requirements.

Thank you for your inquiry. If you wish to proceed with this project, you'll need to apply for service by calling 1-800-686-0021. We look forward to working with you.

Reference Number: PA-WPP-2023 05 17-202305170587

THIS DEED

MADE the 14th day of January, 2022

BETWEEN

C. Hackett Holdings, LLC, a Pennsylvania limited liability company
(hereinafter called "Grantor")

AND

CE-S.F. One, LP, a Pennsylvania limited partnership
(hereinafter called "Grantee")

WITNESSETH, that the said Grantor in consideration of One Million Five Hundred Sixty-Nine Thousand Two Hundred Fifty and no/100 Dollars (\$1,569,250.00), paid to the Grantor by the Grantee, receipt of which is hereby acknowledged, does grant, bargain, sell, and convey to the said Grantee, its successors and assigns, all of the Grantor's right, title, and interest in and to the following property:

ALL THAT CERTAIN lot or tract of land situate in the Township of South Fayette, County of Allegheny and Commonwealth of Pennsylvania, being known as Lot No. 2, as shown on a certain plan entitled Schneider Plan, recorded in the Department of Real Estate Office of Allegheny County, Pennsylvania in Plan Book Volume 130, Page 133.

AND

ALL THAT CERTAIN lot or piece of ground situate in the Township of South Fayette, County of Allegheny and Commonwealth of Pennsylvania, bounded and described as follows:

BEGINNING at a point on the Northeasterly side of State Highway L.R. 545 (also known as Traffic Route 28) at the corner of land now or late of Humble Oil and Refining Co.; thence along the Northeasterly side of said State Highway, Northwestwardly by the arc of a circle curving to the left, having a radius of 3367.10 feet, an arc distance of 297.75 feet to a point on line of land now or late of Anelita Ferri and Angelina Mals; thence by said land North 19 degrees, 05 minutes, 35 seconds East, 102.41 feet to a point on line of land now or late of Humble Oil and Refining Company; thence by said land the following two courses and distances; South 58 degrees, 59 minutes, 55 seconds East 310.50 feet to a point; thence South 25 degrees, 57 minutes, 05 seconds West 55.77 feet to the Northeasterly side of said State Highway at the place of beginning.

SUBJECT TO the condemnation of a portion of the subject property by the Commonwealth of Pennsylvania, Department of Transportation of right of way for Legislative Route 1138 of the Court of Common Pleas of Allegheny County, Pennsylvania, at No. 1717 October Term, 1971.

ALSO DESCRIBED AS all that certain lot or parcel of land situate in the Township of South Fayette, County of Allegheny, Commonwealth of Pennsylvania, being a portion of Block and Lot No. 256-L-2, more particularly bounded and described as follows:

Beginning at a point on the northerly right of way line of Miller Run Road, S.R. 0050, variable width, said point being at the southeast corner of property now or formerly Anthoni Mals Peterson (Tax Parcel 256-L-1); thence along the dividing line of property now or formerly Anthoni Mals Peterson and property herein described, North 20°43'08" East, 29.76' to a point on the former southerly line of Lot 2 of the Schneider Plan, recorded in Plan Book Volume 130, Page 133; thence along the former southerly line of Lot 2 of the Schneider Plan and through property now or formerly C. Hackett Holdings, LLC, (Tax Parcel 256-L-2), South 57°22'22" East, 225.98' to a point on the northerly right of way line of Miller Run Road, S.R. 0050, variable width; thence along the northerly right of way line of Miller Run Road, S.R. 0050, by an arc of a circle deflecting to the left in a northwestwardly direction, having a radius of 1245.92', an arc distance of 222.05' (chord bearing and distance, North 64°55'04" West, 221.76') to a point at the place of beginning.

Bearings based on First Revision to the Kosky Plan of Lots, recorded in Plan Book Volume 274, Page 44.

Contains 2,559 Sq. Ft. or 0.0587 Acres

THE ABOVE DESCRIBED PROPERTY TOGETHER BEING BLOCK AND LOT 256-L-2.

TOGETHER with and subject to all rights, duties and obligations set forth in the certain Easement Agreement, dated December 14, 2015, and recorded January 13, 2016, in Plan Book Volume 16256, page 110, being an Access Drive Easement.

BEING the same property which Richard Schneider and Jane Schneider, husband and wife, by Corrective Deed dated January 10, 2022 and recorded on January __, 2022 in the Department of Real Estate of Allegheny County, Pennsylvania, in Deed Book Volume _____, Page _____ granted and conveyed C. Hackett Holdings, LLC.

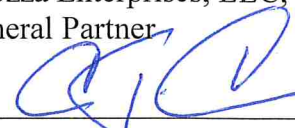
UNDER AND SUBJECT TO coal and mining rights and all rights and privileges incident to the mining of coal heretofore conveyed, excepted, or reserved by instruments of record; the right of surface, lateral, or subjacent support; or any surface subsidence; oil and gas and minerals and all rights incident to the extraction or development of oil and gas or minerals heretofore conveyed, leased, excepted, or reserved by instruments of record; and all easements, rights of way, and restrictions as contained in prior instruments of record and/or as installed or located on the premises and all other matters of record appearing prior hereto.

With the appurtenances thereto: **TO HAVE AND TO HOLD** the same to and for the use of the said Grantee, its successors and assigns forever, and the Grantor for its successors and assigns hereby covenants and agrees that it will **SPECIALLY** warrant title to the property hereby conveyed.

NOTICE: THE UNDERSIGNED, AS EVIDENCED BY THE SIGNATURE[S] TO THIS NOTICE AND THE ACCEPTANCE AND RECORDING OF THIS DEED, IS/ARE FULLY COGNIZANT OF THE FACT THAT THE UNDERSIGNED MAY NOT BE OBTAINING THE RIGHT OF PROTECTION AGAINST SUBSIDENCE, AS TO THE PROPERTY HEREIN CONVEYED, RESULTING FROM COAL MINING OPERATIONS AND THAT THE PURCHASED PROPERTY, HEREIN CONVEYED, MAY BE PROTECTED FROM DAMAGE DUE TO MINE SUBSIDENCE BY A PRIVATE CONTRACT WITH THE OWNERS OF THE ECONOMIC INTEREST IN THE COAL. THIS NOTICE IS INSERTED HEREIN TO COMPLY WITH THE BITUMINOUS MINE SUBSIDENCE AND LAND CONSERVATION ACT OF 1966, AS AMENDED 1980, OCT. 10, P.L. 874, NO. 156, § 1.

WITNESS:



CE-S.F. One, LP
By: Cozza Enterprises, LLC,
its General Partner
By: 
Craig J. Cozza, Managing Member

CERTIFICATE OF RESIDENCE

I hereby certify that (1) FOR THE PURPOSE OF DELIVERY OF TAX STATEMENTS ONLY, the precise residence of the Grantee is P.O. Box 453, Carnegie, PA 15106,

and (2) FOR ALL OTHER PURPOSES (including delivery of assessment change notices) the precise residence of Grantee is P.O. Box 453, Carnegie, PA 15106.

Witness the due execution hereof this 14th day of January, 2022



Grantee/Agent for Grantee

AFTER RECORDING, PLEASE RETURN TO:

Pioneer Land Settlement, Inc.
710 Fifth Ave. – Suite 2000
Pittsburgh, PA 15219

PURCHASE AND SALE AGREEMENT

THIS PURCHASE AND SALE AGREEMENT ("Agreement") by and between PETERSON ANTHONI MALS ("Seller") and CE-South Fayette, LP or related assigns, a limited liability company ("Purchaser") is made and entered into as of the last date this Agreement is executed by Seller or Purchaser (the "Effective Date").

Recitals:

WHEREAS, Seller is the owner of a certain property identified as Millers Run Rd in the City of Bridgeville, County of 946 South Fayette, Commonwealth of Pennsylvania identified as Block and Lot Parcel ID 0256-L-00001-0000-00, as such property is more fully described at Deed Book Volume 10562, page 390 (the "Property"); and

WHEREAS, Seller desires to sell and Purchaser desires to purchase the Property, pursuant to the terms, provisions, and conditions herein.

NOW, THEREFORE, intending to be legally bound the parties hereto agree as follows:

1. PURCHASE AND SALE OF PROPERTY.

Seller agrees to sell to Purchaser, and Purchaser agrees to purchase from Seller, subject to the terms and conditions of this Agreement, the Property. The Property shall be conveyed together with all privileges, rights, easements and appurtenances belonging to such land, and all right, title and interest (if any) of Seller in and to any streets, alleys, passages, and other rights-of-way or appurtenances included in, adjacent to or used in connection with such land, and all right, title and interest (if any) of Seller in all mineral and development rights appurtenant to such land and with all of the rights and privileges attributable to ownership of the Property.

2. PURCHASE PRICE AND DEPOSIT.

2.1 The purchase price for the Property shall be [REDACTED] (the "Purchase Price").

2.2 Within three (5) days of the Effective Date, Purchaser shall deposit with Pioneer Land Settlement, Inc. (hereinafter "Title Company") as escrow agent, a deposit in the amount of [REDACTED] (the "Deposit") to be held in a non-interest bearing account.

2.3 At Closing, the Deposit shall be applied to the Purchase Price.

3. TITLE.

3.1 Title to the Property shall be conveyed to Purchaser at Closing in fee simple by general Warranty Deed, in a form and substance satisfactory to Purchaser's counsel.

3.2 Purchaser shall obtain a Commitment for Title Insurance from the Title Company, committing to insure upon the payment of a requisite premium at standard rates that Purchaser shall own good and indefeasible fee simple title to the Property, subject only to the

Permitted Exceptions, as defined herein.

3.3 The term "Permitted Exceptions", as used herein, shall mean (i) the lien of real estate taxes not yet due and payable, (ii) all matters revealed in the Title Commitment obtained by Purchaser and approved by Purchaser, (iii) all existing building, zoning and other city, state, county or federal laws, codes and regulations affecting the Property, (iv) any existing general utility easements serving the Property, provided such existing utility easements would not materially interfere with Purchaser's intended use of the Property as determined by Purchaser in its sole discretion, and (v) any title exception created directly by any act or omission of Purchaser or its representatives, agents, employees or invitees.

3.4 Notwithstanding anything to the contrary in this agreement, Seller shall pay all costs of clearing title.

4. DUE DILIGENCE PERIOD.

4.1 Purchaser, at Purchaser's sole expense, shall have the right for a period of [REDACTED] days from the Effective Date (the "Due Diligence Period"), at any time, to perform any due diligence at its sole cost and expense that it deems proper, including but not limited to, survey and title review, environmental review, structural review, roof evaluation, electrical and plumbing review, and zoning review. Purchaser may elect, at its sole discretion, during the Due Diligence Period, to terminate this Agreement for any reason (or for no reason whatsoever) and receive the prompt refund of the Deposit. Purchaser shall elect to terminate this Agreement by providing written notice delivered to Seller prior to the expiration of the Due Diligence Period notifying Seller that Purchaser is terminating this Agreement. In the absence of such notice, this Agreement shall remain in full force and effect.

4.2 Seller shall provide to Purchaser, within five (5) days after the Effective date of this Agreement, to the extent such are available to Seller, a copy of all plans, drawings, and blueprints pertaining to the Property, any existing title insurance policies covering the Property, a copy of any site plans and/or surveys for the Property, and a copy of any environmental reports.

4.3 The Purchaser shall have one (1) successive option to extend the term of the Due Diligence Period for periods of thirty (30) days each. To exercise an option to extend the term of the Due Diligence Period, Purchaser must notify Seller in writing to be received by Seller on or before the end of the Due Diligence Period, as extended, pursuant to the notice provisions set forth below in this Agreement.

5. REPRESENTATIONS AND WARRANTIES OF SELLER.

Seller hereby represents and warrants the following to the Purchaser as of the date Seller signs this Agreement and as of the Closing:

5.1 Seller is the record owner in fee simple of the Property, and the Property will be on the Closing date free and clear of all liens and encumbrances except for Permitted Exceptions, as defined herein.

5.2 Seller possesses all requisite power and authority to enter into and perform this Agreement and to carry out the transactions contemplated herein. The execution and delivery by Seller of this Agreement and the performance and consummation by Seller of the transaction

contemplated by this Agreement have been duly and validly authorized by all requisite and necessary company and other internal action on the part of Seller.

5.3 No suit, action, arbitration, or legal, administrative, or other proceedings, including but not limited to condemnation proceeding, is pending or has been threatened against the Property or against the Seller with respect to the Property.

5.4 No bankruptcy, insolvency, rearrangement, or similar action or proceedings, whether voluntary or involuntary, is pending or threatened against Seller, or any partner of Seller and Seller has no intention of filing or commencing any such action or proceeding.

5.5 There are no existing or pending contracts of sale, leases, options to purchase, or rights of first refusal (or the like) with respect to the Property.

5.6 Seller is not a "foreign person" as defined in the Foreign Investment in Real Property Tax Act of 1980, as amended.

5.7 The Property is not subject to any protest or appeal proceedings related to real property taxes.

5.8 Seller has not received any written notice indicating that the Property is in violation, or that with the giving of notice or the passage of time would be in violation, of any applicable law, enactment, statute, code, ordinance, rule, regulation, judgment, writ, injunction, authorization, covenant, condition, restriction or agreement, or other direction or requirement of any governmental authority.

5.9 Neither Seller nor any affiliate or agent or contractor of Seller has disposed of or otherwise released any Hazardous Substances on the Property. To the best of Seller's knowledge, there are no Hazardous Substances present on the Property. Seller further warrants that until termination of this Agreement or delivery of possession of the Property to Purchaser, neither Seller nor any agent of Seller will cause or permit any Hazardous Substance to be disposed of or released or present on, over, beneath, in or upon the Property or to exist on or within any portion of the Property. "Hazardous Substances" shall mean asbestos (including asbestos in friable form), polychlorinated biphenyls, petroleum products, any flammable explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances or related materials as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §9601, et seq.), the Hazardous Materials Transportation Act, as amended, (49 U.S.C. §1801, et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. §6901, et seq.), the Toxic Substances Control Act, as amended (15 U.S.C. §2601, et seq.), any Environmental Laws. "Environmental Laws" means any federal, state or local statutes, laws, regulations, rules, decrees, orders, judgments, stipulations, ordinances, policies or common law related to the protection of human health and the environment or the use, handling, treatment, storage, disposal, release, remediation or transportation, or exposure of persons to, Hazardous Substances.

5.10 The representations and warranties of this Section 5 shall survive Closing.

6. CLOSING.

6.1 The consummation of the contemplated transaction (the "Closing") shall be held at the offices of Pioneer Land Settlement, Inc., in Pittsburgh, Pennsylvania, not later than thirty (30) days after expiration of the Due Diligence Period, including any extensions, time being of the essence. The exact date and time of the Closing shall be designated by mutual agreement of the Seller and Purchaser upon notice to Seller of not less than five (5) days. The Title Company shall be responsible at the Closing for preparing the settlement statement, causing all documents to be recorded, disbursing all closing proceeds, and otherwise conducting settlement.

6.2 The following apportionments shall be made between the parties at the Closing:

(a) Real estate taxes, personal property taxes, special assessments, if any, on the basis of the fiscal or calendar period for which assessed.

(b) Water and sewer service charges and charges for gas, electricity, telephone and all other public utilities. If there are meters measuring the consumption of water, gas or electric current, Seller shall, not more than one day prior to the Closing date, if possible, cause such meters to be read, and shall pay all utility bills for which Seller is liable upon receipt of statements therefor. Purchaser shall be responsible for causing such utilities and services to be changed to its name and shall be liable for and shall pay all utility bills for services rendered after the Closing.

(c) All other charges and fees customarily prorated and adjusted in similar transactions in Pennsylvania.

6.3 At the Closing, Seller shall deliver to Purchaser, the following:

(a) A recordable Warranty Deed as required by Section 3.1 of this Agreement, conveying the Property in fee simple to Purchaser.

(b) A certificate, dated as of the Closing date, to establish that Seller is not a foreign person for the purposes of the Foreign Investment in Real Property Tax Act.

(c) Exclusive physical possession of the Property in its "AS IS" condition with all personal property removed, together with all books and records in Seller's possession or control and all keys.

(d) Such customary owner's title affidavits and gap indemnities as may be required by the Title Company in order to issue the title policy subject only to the Permitted Exceptions and without exception for parties in possession, mechanics' or materialmen's liens, unrecorded easements or matters first appearing of record after the effective date of the most recent Title Commitment but prior to the conveyance of the Property to Purchaser.

(e) If Seller is a business entity other than an individual, a Pennsylvania Good Standing Certificate, copies of the organizational documents for the Seller, and resolutions of Seller approving this Agreement and the transaction contemplated hereby and authorizing the execution and delivery of this Agreement, the completion of the transaction contemplated hereby and the execution and delivery of all documents required to be executed and delivered by Seller.

(f) Such other documents, instruments and affidavits as may be reasonably requested by Purchaser or the Title Company to effectuate the transaction contemplated by this Agreement and to induce the Title Company to insure title to the Property as described herein.

6.4 At the Closing, Purchaser shall deliver to Seller, the following:

(a) The balance of the Purchase Price, less the Deposit and subject to the prorations and credits set forth herein, payable in certified funds or by Federal Reserve Bank wire transfer to the Title Company on or prior to Closing.

(b) Such other documents, instruments and affidavits as may be reasonably requested by Seller or the Title Company to effectuate the transaction contemplated by this Agreement and to induce the Title Company to insure title to the Property as described herein.

6.5 Purchaser shall pay the costs and expenses associated with the following: (i) all costs of Purchaser's due diligence, including fees due its consultants and attorneys, (ii) all lenders' fees related to any financing to be obtained by Purchaser, (iii) all recording and filing charges in connection with the instruments by which Seller conveys the Property, (iv) all premiums and charges of the Title Company for the Title Commitment and the Owner's (and any mortgagee's) Title Policy (including endorsements), (v) the cost of the Survey, (vi) one-half of the transfer taxes, documentary stamp taxes and similar charges, if any, applicable to the transfer of the Property to Purchaser. The obligations of the Purchaser under this Section 6.5 shall survive the Closing (and not be merged therein) or any earlier termination of this Agreement.

6.6 Seller shall pay the costs and expenses associated with the following: (i) all fees due its attorneys and consultants, (ii) all reasonable costs incurred in connection with causing the Title Company to remove any title objections required to be removed or otherwise cured by Seller, (iii) all costs incurred in connection with the satisfaction of monetary liens on the Property, including any costs related to recording of any satisfaction or termination documents, and (iv) one-half of the transfer taxes, documentary stamp taxes and similar charges, if any, applicable to the transfer of the Property to Purchaser, and (v) a customary and reasonable settlement fee. The obligations of the Seller under this Section 6.6 shall survive the Closing (and not be merged therein) or any earlier termination of this Agreement.

7. RISKS OF LOSS; MAINTENANCE OF PROPERTY.

Risk of loss of the Property shall remain upon the Seller until Closing and delivery of possession to Purchaser. Seller shall maintain the Property in as good condition as it is now, except for ordinary wear and tear, until delivery of the same to Purchaser. Seller shall maintain such fire and casualty insurance as it has in force at this time. Purchaser understands that Purchaser may have an insurable interest in the Property upon the signing of this Agreement and, in order to protect Purchaser's own interest in the Property, Purchaser may retain or place in force adequate fire and casualty insurance with extended coverage on the Property as of the Effective Date of this Agreement.

8. EMINENT DOMAIN; CASUALTY.

After the Effective Date, in the event Seller receives any notice of any condemnation proceedings, or other proceedings in the nature of eminent domain, or if any part

of the Property is damaged or destroyed by casualty, Seller will forthwith notify Purchaser of same, and Purchaser shall have the option to: (i) proceed under this Agreement and obtain by assignment or otherwise all damages to which the owner of the Property may be entitled pursuant to the Pennsylvania Eminent Domain Code, or under any insurance policy of Seller, as applicable; or (ii) void this Agreement whereupon no party shall have any further duty or liability to the other. Notwithstanding the foregoing, if the Property is damaged by fire or casualty, and such damage can be repaired or reconstructed prior to the Closing in a good and workmanlike manner to the reasonable satisfaction of Purchaser, the Purchaser shall not have the right to terminate the Agreement.

9. REMEDIES.

9.1 In the event Seller materially fails to perform or breaches any of its representations, warranties or covenants to be performed by Seller under this Agreement, or Seller materially misrepresents any fact or circumstance, Purchaser shall be entitled (a) to enforce specific performance of this Agreement; (b) to bring suit for all damages suffered by reason of such failure and all of Purchaser's costs and expenses, including reasonable attorneys' fees; or (c) to terminate this agreement and have the Deposit and any Additional Deposit returned to Purchaser. Each remedy under this Section 9.1 may be cumulative and not exclusive.

9.2 If Purchaser defaults in its performance of any term, covenant, condition, or obligation under this Agreement, including the obligation of Purchaser to purchase the Property if all conditions precedent to such obligations have been satisfied, Seller shall be entitled to receive as complete liquidated damages the Deposit and any Additional Deposit as liquidated damages. The parties acknowledge that the Deposit and any Additional Deposit represents a reasonable effort to ascertain the damages to Seller in the event of a Purchaser default, which damages are difficult or impossible to quantify. Seller waives all other remedies.

9.3 A failure by either party to perform any act required by it under this Agreement, other than the requirement to close if all conditions have been met, shall not be deemed a default under this Agreement until such party has received written notice from the other party setting forth the alleged failure, and such failure has not been cured within five (5) days of receipt of such notice.

10. BROKERAGE COMMISSION.

Purchaser and Seller acknowledge that no brokerage commission is payable in connection with this transaction. Each of the parties hereto agrees to indemnify and hold the other harmless from claims made by any other broker, attorney or finder claiming through such party for a commission, fee or compensation in connection with this Agreement or the sale of the Property hereunder. The provisions of this Section 10 shall survive Closing.

11. ASSIGNMENT.

11.1 Neither party shall assign or transfer or permit the assignment or transfer of its rights or obligations under this Agreement without the prior written consent of the other, any such assignment or transfer without such prior consent being hereby declared to be null and void; provided, however, that Purchaser shall have the right to assign this Agreement to an Affiliate, whose direct or indirect ownership is at least 51% of the ownership of the Purchaser,

upon written notice to Seller no later than two (2) days prior to the Closing date, and such assignee(s) shall assume Purchaser's rights and obligations under this Agreement.

11.2 In the event either party consents to an assignment of this Agreement by the other for which consent is required, no further assignment shall be made without another written consent from the consenting party, unless the assignment may otherwise be made without consent under this Agreement. An assignment by either Seller or Purchaser of its interest in this Agreement shall not relieve Seller or Purchaser, as the case may be, from its obligations, but this Agreement shall then inure to the benefit of, and be binding on, the assignee's successors, heirs, legal representatives and assigns.

11.3 If Seller or Purchaser reasonably determine that an assignment of this Agreement may be subject to the imposition of realty transfer tax or other applicable taxes, then the parties shall terminate this Agreement effective prior to Closing. In the event of such termination, the parties hereby agree that Seller and Purchaser (or Purchaser's assignee) shall enter into a new purchase agreement immediately following the termination of this Agreement, which shall contain the same terms and conditions as this Agreement, except as otherwise agreed by the parties in advance. In addition to the foregoing, the parties hereby acknowledge and agree that any termination of this Agreement as contemplated by this Section 11.3 shall not constitute a default under this Agreement or result in the disbursement of any portion of the Deposit and any Additional Deposit, and, upon such termination, the Deposit and Any Additional Deposit shall be treated as if they were delivered to Purchaser and repaid to the Title Company. The parties shall execute and deliver such additional documents, instruments and certificates as may be reasonably requested by either party to evidence the transactions described in this Section 11.3.

12. GENERAL PROVISIONS.

12.1 The terms and conditions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, successors, assigns, and legal representatives.

12.2 Notices and other communications required by this Agreement shall be in writing and (i) delivered by hand with receipt; (ii) sent by recognized overnight delivery service; (iii) sent by certified or registered mail, postage prepaid, with return receipt requested; or (iv) by electronic mail with a confirmation copy sent by another method permitted under this Section. All notices shall be addressed as follows:

If to the Seller:	PETERSON ANTHONI MALS 754 Windows Road, Smicksburg, PA 16256
If to the Purchaser:	Cozza Enterprises LLC 295 Myoma Rd Mars, PA 16046
With Copy To:	Thomas H. Ayoob III, Esquire Thomas H. Ayoob III & Associates, LLC 710 Fifth Avenue, Suite 2000

Pittsburgh, PA 15219
e-mail: tom@pioneerls.com

Notices shall be deemed to be effective upon receipt or refusal of the addressee to accept delivery.

12.3. Whenever used herein, unless expressly provided otherwise, the term "days" shall mean consecutive calendar days, except that if the expiration of any time period measured in days occurs on a Saturday, Sunday, legal holiday, such expiration shall automatically be extended to the next business day.

12.4 This Agreement constitutes the entire agreement between the parties concerning the Property and supersedes all prior agreements or undertakings.

12.5 This Agreement may not be modified except by the written agreement of the parties.

12.6 In the event any one or more of the provisions contained in this Agreement are held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability will not affect any other provisions hereof, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had not been contained herein.

12.7 The parties acknowledge that each party and its counsel of choice if so desired has had an opportunity to review and revise this Agreement and that the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement or any amendment or modification hereof or any of the closing documents delivered by Seller or Purchaser hereunder.

12.8 Any paragraph headings or captions contained in this Agreement shall be for convenience of reference only and shall not affect the construction or interpretation of any provisions of this Agreement.

12.9 This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania.

12.10 The parties hereby agree to indemnify and defend the Title Company in its role as escrow agent from any and all suits, actions or claims if the Title Company in its role as escrow agent acts in good faith on the written notice and direction of the parties delivered in accordance with the terms hereof.

12.11 The individuals executing this Agreement represent and warrant that they have full authority and/or have been duly authorized by their respective parties to do so on behalf of such parties.

12.12 This Agreement may be executed in separate counterparts, none of which need contain the signatures of all parties, each of which shall be deemed to be an original, and all of which taken together constitute one and the same instrument. It shall not be necessary in making proof of this Agreement to produce or account for more than the number of counterparts containing the respective signatures of, or on behalf of, all of the parties hereto. The exchange of executed copies of this Agreement by electronic mail, portable document format (.pdf) or other

electronic transmission method will constitute effective execution and delivery of this Agreement as to the parties for all purposes, and electronic signatures of the parties shall be deemed to be their original signatures for all purposes.

12.13 NOTICE--THIS DOCUMENT MAY NOT SELL, CONVEY, TRANSFER, INCLUDE OR INSURE THE TITLE TO THE COAL AND RIGHT OF SUPPORT UNDERNEATH THE SURFACE LAND DESCRIBED OR REFERRED TO HEREIN, AND THE OWNER OR OWNERS OF SUCH COAL MAY HAVE THE COMPLETE LEGAL RIGHT TO REMOVE ALL OF SUCH COAL, AND, IN THAT CONNECTION, DAMAGE MAY RESULT TO THE SURFACE OF THE LAND AND ANY HOUSE, BUILDING OR OTHER STRUCTURE ON OR IN SUCH LAND, THE INCLUSION OF THIS NOTICE DOES NOT ENLARGE OR RESTRICT OR MODIFY ANY LEGAL RIGHTS OR ESTATES OTHERWISE CREATED, TRANSFERRED, EXCEPTED OR RESERVED BY THIS INSTRUMENT. (This notice is set forth in the manner provided in Section 1 of the Act of July 17, 1957, P.L. 984, as amended, and is not intended as notice of unrecorded instruments, if any.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the dates written below.

Date: 6/23/23

SELLER:

Anthony Mels Peterson

Date: 6/20/23

PURCHASER:

LJC QJ@