THE MEADOWS

WASHINGTON TROTTING ASSOCIATION, INC.

APPENDIX 30 – LOCAL IMPACT REPORT

APPENDIX 30
LOCAL IMPACT REPORT

This Local Impact Report has been prepared in connection with an application to the Pennsylvania Gaming Control Board by Washington Trotting Association, Inc. to be licensed as a Conditional Category 1 Slot Machine Operator.

Included in this Local Impact Report are several engineering studies that were completed in preparation for the construction of the slots' facility at The Meadows. The reports include a boundary and land title study, wetlands assessment, utility and topography study, an environmental study and an asbestos study. Also attached are various engineering studies associated with the construction of a new race paddock. The paddock will be relocated in order to create the footprint for the new slots facility.

Two traffic studies are included. The first study – approved by the Pennsylvania Department of Transportation ("PennDot") – combines the road improvements necessary for The Meadows' gaming project with the development of the Tanger Outlet Mall across Racetrack Road. The second study is for The Meadows only. Both studies contemplate a structure with 3,000 slot machines (permanent facility), and include an addendum permitted by PennDot contemplating 1,500 slot machines (temporary facility). The second study has been submitted to PennDot for review and approval.

No adverse impact on transportation, public transit or housing in the area is anticipated.

The North Strabane Municipal Authority, Pennsylvania American Water Company and Canonsburg Houston Joint Authority have each been contacted regarding the impact that the project will have on water and sewer capacity. Project flows have been determined and provided to each authority (copies of correspondence attached).

The North Strabane Township Police and Volunteer Fire Departments have provided letters relating the impact that they anticipate slots at The Meadows will have on their respective departments. The local Emergency Medical Service provider will provide the same letter in the near future (request attached).

A report on The Meadows' impact on existing tourism, including historical and cultural resources, is included in this Local Impact Report.

This Local Impact Report was submitted to North Strabane Township and to Washington County on December 13, 2005 in compliance with Section 441.3(c) of the Regulations.

Local Impact Report Index

A. Engineering Reports

The Meadows:

A-1. ALTA/ASCM Urban Land Title Survey – CEC, November 28, 2005
A-2. Wetlands Assessment – CEC, October 18, 2005
A-3. Utility Plan / Plan of Topography Study – CEC, November 19, 2004
A-4. Phase I Environmental Site Assessment – October 28, 2005
A-5. Asbestos Inspection Study, Grandstand & Several Other Buildings– WEC, June 7, 2005

Paddock Project:

A-6. PMC Air Testing Study, Administration Building - CEC, November 30, 2005
A-7. Erosion and Sedimentation Control Plan Adequacy Study, Paddock Building - WCCD, December 5, 2005
A-8. Asbestos Building Inspection, Administration Building – WEG, October 5 2005
A-9. Surface Investigation Report, Paddock Project – CEC, October 12, 2005

B. Traffic Studies

B-1. Meadows & Tanger Combined Study, approved by PennDot – PBSJ TriLine, May 5, 2005
B-2. Meadows Only Study, 1,500 & 3,000 slot machines, submitted to PennDot, PBSJ TriLine, December 14, 2005

C. Details of any Adverse Impact on:

C-1. *Water*
- Copy of letter sent to Pennsylvania American Water Company, along with confirmation of receipt

C-2. *Sewer*
- Copy of letter sent to the Canonsburg Houston Joint authority, along with confirmation of receipt
- Copy of letter sent to the North Strabane Municipal Authority, along with confirmation of receipt

D. Other Municipal Services

D-1. Police - Letter from the North Strabane Police Department
D-2. Fire - Letter from the North Strabane Volunteer Fire Department
D-3. Emergency Medical Services: Copies of letters sent to EMS providers Ambulance & Chair and Canonsburg Hospital

E. Existing Tourism including Historical and Cultural Resources

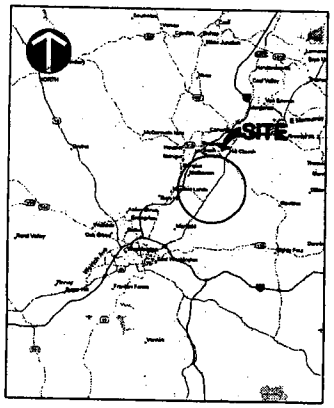
E-1. Tourism Impact, including Historical and Cultural Resources

F. Impact Study Submission to North Strabane Township and Washington County

F-1. North Strabane Township confirmation of receipt
F-2. Washington County confirmation of receipt

MEC PENNSYLVANIA
PENNSYLVANIA, INC.
NORTH STRABANE TOWNSHIP
WASHINGTON COUNTY, PENNSYLVANIA

REVISION RECORD	
DATE	DESCRIPTION

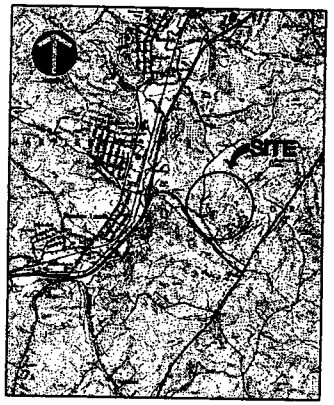


REFERENCE:
MICROSOFT EXPEDIA STREET 98
SCALE: N.T.S.

SITE VICINITY MAP

LIST OF DRAWINGS

DRAWING NO.	TITLE	SHEET NO.
041-501-SRV	TITLE SHEET	1 OF 5
041-501-SRV	ALTA/ASCM LAND TITLE SURVEY	2 OF 5
041-501-SRV	ALTA/ASCM LAND TITLE SURVEY	3 OF 5
041-501-SRV	ALTA/ASCM LAND TITLE SURVEY	4 OF 5
041-501-SRV	ALTA/ASCM LAND TITLE SURVEY	5 OF 5



REFERENCE:
WASHINGTON EAST QUADRANGLE
PHOTOINSPECTED 1977
SCALE: 1"=2000'

SITE LOCATION MAP

SURVEYORS CERTIFICATION

NOTES:

ALTA COMMITMENT
FIRST AMERICAN TITLE INSURANCE COMPANY
EXCEPTIONS – SCHEDULE B – SECTION I

PROPERTY DESCRIPTION

PA. ONE CALL SERIAL NO'S. 0556235, 1565901 & 565902

SCALE IN FEET
0 100 200

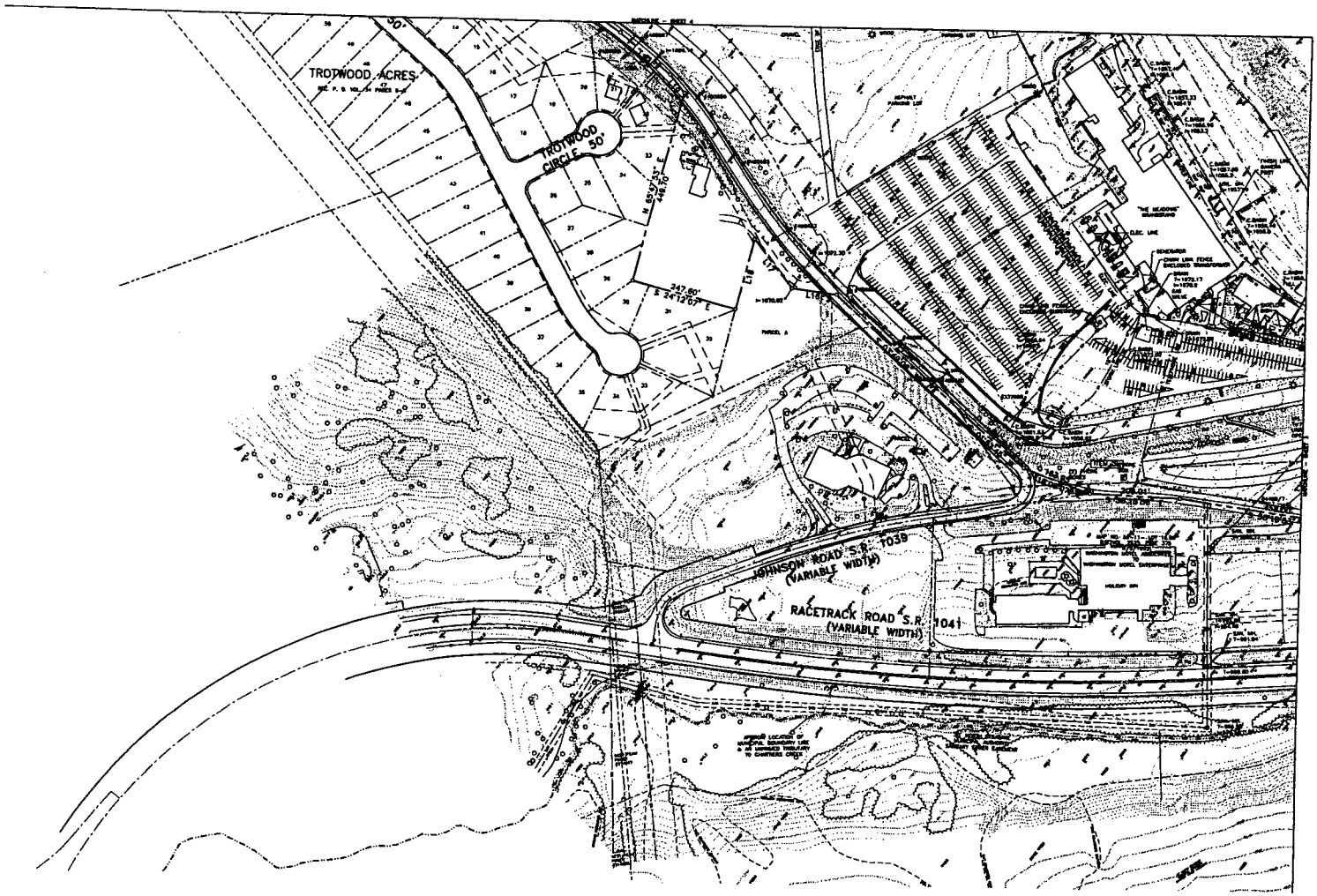
Civil & Environmental Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
(412) 429-2324 • (800) 365-2324
Chicago, IL • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

ALTA/ACSM URBAN
LAND TITLE SURVEY
Situate in
NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA
Made For
MEC PENNSYLVANIA,
RACING, INC.

DATE: 11/28/2005	SCALE: 1"=100'	SHEET 1 OF 5
DWN BY: EDB	APPROVED BY:	DRAWING NUMBER
CHKD. BY: EDB		041-501-SRV

A1

REVISION RECORD	
DATE	DESCRIPTION



LEGEND

EVAN D. BAKER JR.
PROFESSIONAL LAND SURVEYOR
REG. NO. 32715-E

TOTAL PLAN AREA
8,065,842.58 SQ. FT.
185.027 ACRES

SCALE IN FEET
0 100 200

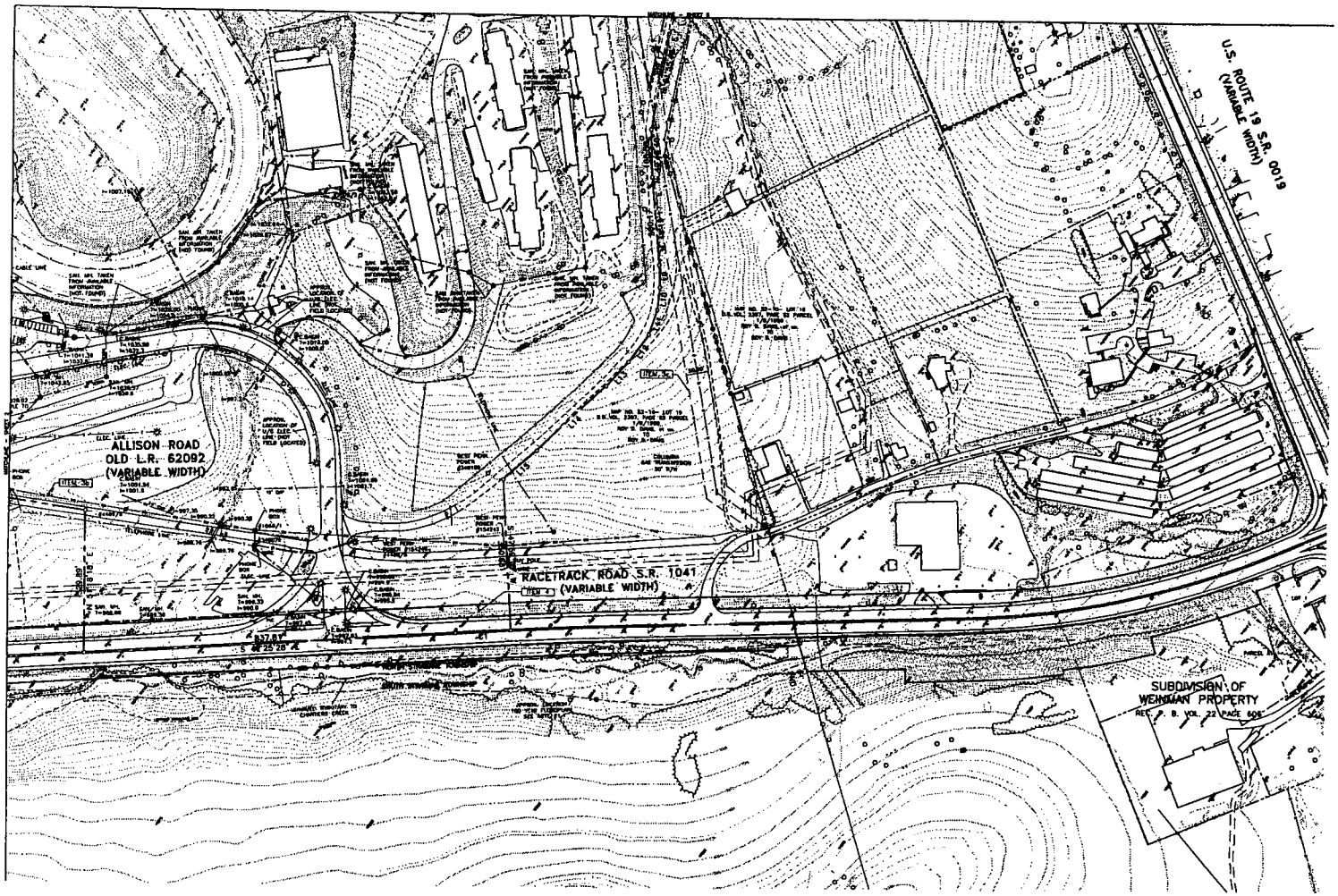
PA ONE CALL SERIAL NO'S. 0556235, 1565801 & 1565902

NOTES:

Civil & Environmental Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
(412) 429-2324 • (800) 365-2324
Chicago, IL • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

ALTA/ACSM URBAN
LAND TITLE SURVEY
Situate in
NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA
Made For
MEC PENNSYLVANIA,
RACING, INC.

DATE: 11/28/2005	SCALE 1"=100'	SHEET 2 OF 5
DWN BY: EDB	APPROVED BY:	DRAWING NUMBER
CHKD. BY: EDB		041-501-SRV



REVISION RECORD	
DATE	DESCRIPTION

LEGEND

EVAN D. BAKER JR.
PROFESSIONAL LAND SURVEYOR
REG. NO. 20016-E

TOTAL PLAN AREA
6,665,842.38 SQ. FT.
153.027 ACRES

SCALE IN FEET
0 150 300

PA ONE CALL SERIAL NO'S. 0558235, 1585801 & 565902

PENNSYLVANIA ACT 38 (1994) REQUIRES NO LESS THAN 3 WORKING DAYS NOTICE FOR MORE THAN 1 WORKING DAY'S NOTICE PRIOR EXCAVATORS WHO ARE ABOUT TO DIG, DRILL, BLAST, REMOVE OR DEMOLISH STRUCTURES OR TUNNEL SHOULD NOTIFY ALL UTILITIES WHICH IN THE CONSTRUCTION PHASE FOR LOCATION REQUESTED BY THE STATE ONE CALL SYSTEM, DIAL TOLL FREE 1-800-242-1776. UNDERGROUND UTILITIES HAVE BEEN SHOWN FROM AVAILABLE INFORMATION AND THE LOCATION MUST BE CONSIDERED APPROXIMATE. THERE MAY BE OTHERS EXISTING WHICH ARE NOT SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SUCH WHICH ARE NOT OF UTILITY LINES PRIOR TO THE TIME OF CONSTRUCTION. IF NO SHOW SHALL THE CONTRACTOR HOLD THE SURVEYOR RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

NOTES:

1. BENCH MARK ELEVATION NOTATIONS WERE FOUND = 1134.99, PROPERTY IS LOCATED IN FLOOD ZONE "A & A-14 (AREA OF 100-YEAR FLOOD) AS NOTED ON FLOOD INSURANCE RATE MAP 420106 0005 A, EFFECTIVE DATE 7/7/1981, REVISED TO REFLECT LOMR-F EFFECTIVE DATE 4/17/1986, TOWNSHIP OF SOUTH STRABANE, WASHINGTON COUNTY, PENNSYLVANIA. THE FLOOD LOCATION PLOTTED ON THE PLAN IS APPROXIMATE AND IS USED FROM AVAILABLE INFORMATION.

2. LOCATION OF MUNICIPAL BOUNDARY LINE BETWEEN NORTH AND SOUTH STRABANE TOWNSHIPS IS APPROXIMATE AND FOLLOWS THE CENTERLINE OF THE UNNAMED TRIBUTARY TO DAMPIERS CREEK.

3. LOCATIONS OF UNDERGROUND UTILITIES WERE TAKEN FROM NON-INTRUSIVE GEOPHYSICAL LOCATION SERVICES BY THE SUPERMENCH GROUP, LTD. AND FROM SURFACE EVIDENCE BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. EXPLORATORY EXCAVATIONS WILL BE REQUIRED TO CONFIRM ACTUAL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO ANY CONSTRUCTION.

Civil & Environmental Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
(412) 429-2324 • (800) 365-2324
Chicago, IL • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

ALTA/ACSM URBAN LAND TITLE SURVEY

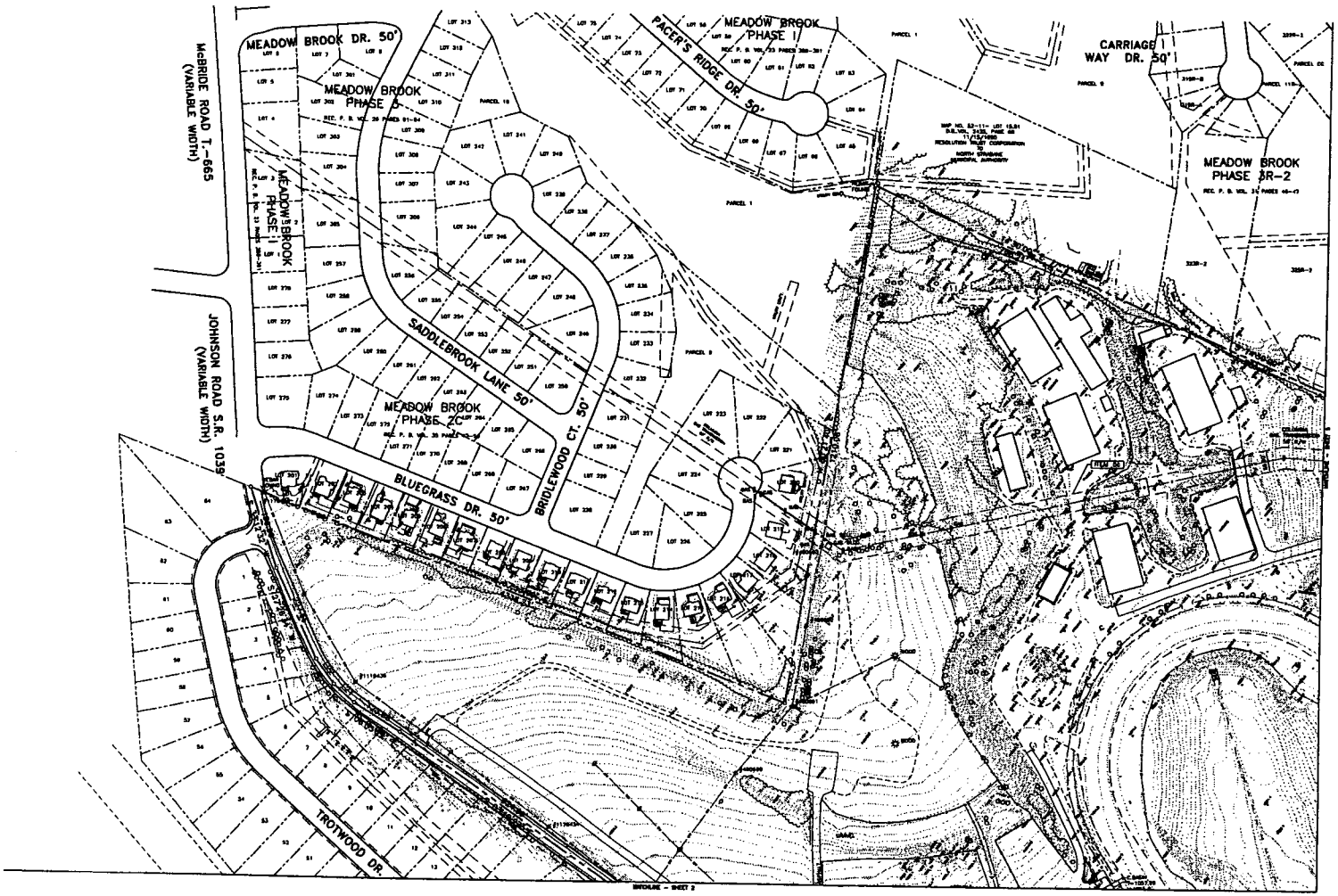
Situate in

NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA

Made For

MEC PENNSYLVANIA, RACING, INC.

DATE: 11/28/2005	SCALE: 1"=100'	SHEET 3 OF 5
DWN BY: EDB	APPROVED BY:	DRAWING NUMBER
CHKD. BY: EDB		041-501-SRV



REVISION RECORD	
DATE	DESCRIPTION

LEGEND

EVAN D. BAKER JR.
PROFESSIONAL LAND SURVEYOR
REG. NO. 30016-E

TOTAL PLAN AREA
6,680,843.34 SQ. FT.
153.027 ACRES

SCALE IN FEET
0 100 200

PA ONE CALL SERIAL NO'S. 0556235, 1585801 & 585802

NOTES:

Civil & Environmental Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
(412) 429-2324 • (800) 365-2324
Chicago, IL • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

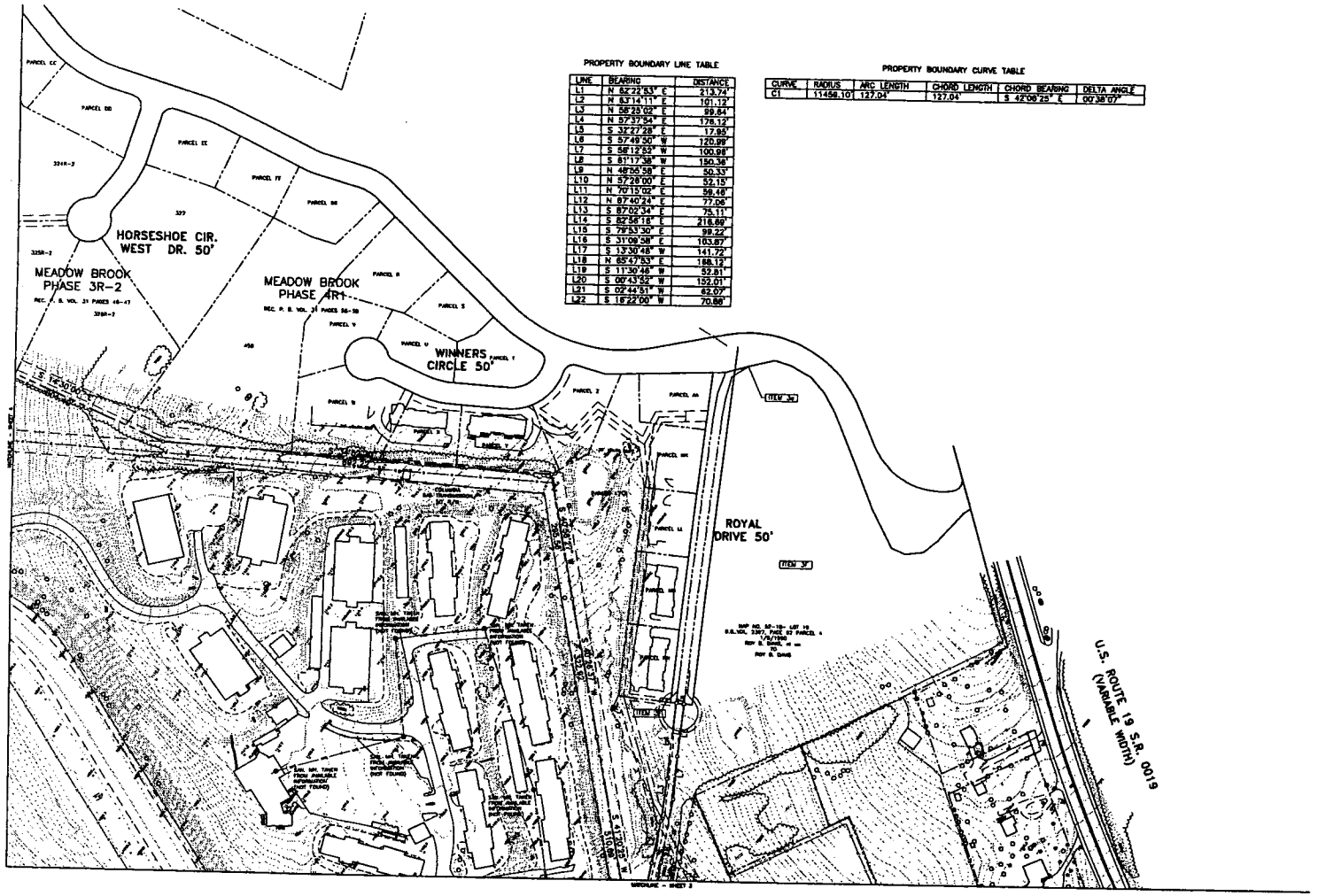
ALTA/ACSM URBAN LAND TITLE SURVEY

Situate in
NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA

Made For
MEC PENNSYLVANIA RACING, INC.

DATE: 11/28/2005	SCALE: 1"=100'	SHEET 4 OF 5
DWN BY: EDB	APPROVED BY:	DRAWING NUMBER 041-501-SRV
CHKD. BY: EDB		

REVISION RECORD	
DATE	DESCRIPTION



A 2

October 18, 2005

Mr. Michael Jeannot
The Meadow Lands
MEC Pennsylvania Racing
Racetrack Road, P.O. Box 499
Meadow Lands, Pennsylvania 15347

Dear Mr. Jeannot:

Subject: Wetland Assessment
The Meadow Lands, North Strabane Township
Washington County, Pennsylvania
CEC Project 041-501

This report presents the findings of a wetland assessment completed by Civil & Environmental Consultants, Inc. (CEC) within the proposed improvement areas of the property located at the Meadow Lands facility in North Strabane Township, Washington County, Pennsylvania. The site investigation boundary is approximately 108 acres of land with a horse race track, barns, out buildings, parking, and other facilities on the property. CEC's wetland services were completed in accordance with our proposal dated July 29, 2005 and your subsequent authorization to proceed.

METHODOLOGY

The wetland determination was based on CEC's professional judgment and interpretation of the technical criteria presented in the *1987 U.S. Army Corps of Engineers Wetlands Delineation Manual* (1987 Corps Manual).

CEC conducted both a literature review and field investigation to determine if jurisdictional wetlands were present at the site. First, CEC personnel reviewed the U.S. Geological Survey (USGS) topographic map, U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map, the U.S. Department of Agriculture, Soil Conservation Service (SCS) *Soil Survey of Greene and Washington Counties, Pennsylvania* (SCS 1983) shown on Figure 1, and the Washington County hydric soils list. These resources were utilized in conjunction with a field investigation to identify potential wetland areas at the site.

First, plant communities present on the site were identified. The dominant plant species within each community were identified and a determination made on whether the plant community was dominated by hydrophytic (wetland) plants. Next, a representative test site was located within the plant community and soils were sampled using a tile spade to determine if hydric soil indicators were present. Lastly, the test site was inspected to determine if indicators of wetland hydrology (e.g., ponding, soil saturation, etc.) were present. The data sheets used to record the vegetation, soils, and hydrology data for the five representative locations are provided in

Pittsburgh 333 Baldwin Road
Pittsburgh, Pennsylvania 15205
Phone 412/429-2324
Fax 412/429-2114
Toll Free 800/365-2324
E-mail info@cecinc.com

Chicago 877/963-6026
Cincinnati 800/759-5614
Columbus 888/598-6808
Export 800/899-3610
Indianapolis 877/746-0749
Nashville 800/763-2326
St. Louis 866/250-3679

Corporate Web Site http://www.cecinc.com

Appendix A and photographs are provided in Appendix B. CEC also noted other potential jurisdictional waters (streams, lakes, drainages). The locations of the test sites and the approximate location and extent of potential wetlands and other jurisdictional waters are shown on Figure 2.

FINDINGS

Literature Review

A review of the NWI map for the Washington East, Pennsylvania topographic quadrangle indicates that there are no wetlands on the subject property. A diked impoundment (PUBHf) is located just north of the study boundary.

A review of the *Soil Survey of Greene and Washington Counties, Pennsylvania* (1983) revealed seven soil mapping units within the site boundaries - Brooke silty clay loam, 15 to 25 percent slopes (BoD), Dormont silt loam, 8 to 15 percent slopes (DoC), Fluvaquents, loamy (Fa), Guernsey silt loam, 3 to 5 percent slopes (GeB), Newark silt loam, (Nw), Udorthents, smoothed, steep (UdF), and Urban Land (Us).

The Washington County hydric soils list identifies the Dormont silt loam (DoC), the Fluvaquents (Fa), and the Guernsey (GeB) as soil mapping unit as having hydric inclusions in wet spots, poorly drained areas, and wet areas, respectively.

Field Investigation

CEC performed the field investigation on September 23, 2005. The subject property generally slopes up from the southeast to northwest and becomes moderately steep from the edge of the upper parking lot to the roadway and housing development that surrounds the property to the northwest. The majority of the approximate 108 acre assessment area contains the Meadow Lands facility including the race track, barns, out buildings, several areas of maintained lawn, and several parking areas with small scrub/shrub areas along the fringes. Old field vegetation and wooded areas dominate the north to northeastern property area. There is an unnamed tributary to Little Chartiers Creek that bisects the site from north to south. A spring fed feeder tributary to the unnamed tributary was also observed. Additional observations include a dry stream bed and two drainage ditches, one located along a roadway that forms the western site boundary and the other just north of the race track.

CEC excavated six soil test sites: Test Site 1 sampled within a scrub/shrub area adjacent to maintained lawn along the unnamed tributary in the southern portion of the site indicated upland soils (10YR 4/3), Test Sites 2a and 2b sampled along the drainage ditch in the western portion of the site indicated a disturbed upland soil (2.5YR 5/4 with asphalt chunks), Test Site 3 sampled within the floodplain in a low lying area along the unnamed tributary in the northeast portion of the site indicated upland soils (10YR 4/2 and 2.5YR 6/4), Test Site 4 sampled along

the unnamed tributary in the race track infield indicated upland soils (10YR 7/2), and Test Site 5 sampled along a power line right of way in the north central portion of the site indicated hydric soils (2.5Y 5/3-2 with grey mottles). Specific soils identified within the test sites are provided on the wetland determination forms (Appendix A).

Vegetation observed in the wooded area included red maple (*Acer rubrum*), black locust (Robinia pseudoacacia), northern dewberry (*Rubus flagellaris*), jewelweed (*Impatiens capensis*), honeysuckle (*Lonicera sp.*), and sumac (*Rhus typhina*). The vegetation observed in the maintained lawn and scrub/shrub areas included bluegrass (*Poa* sp.), dandelion (*Taraxacum officinale*), common plantain (*Plantago major*), *Carex* sp., tall golden rod (*Solidago altissima*), and barnyard grass (*Echinochloa muricata*). Specific plant species identified within the wetland communities are provided on the wetland determination forms (Appendix A).

Wetland hydrology indicators were observed at Test Site 2a/b and at Test Site 5. Specific hydrology indicators observed within the wetland communities are provided on the wetland determination forms (Appendix A).

The approximate location and extent of potential wetland areas is illustrated on the attached Figure 2. Please note that Figure 2 does not represent a wetland delineation and that a detailed delineation may be needed prior to site development activities, if impacts to jurisdictional waters are proposed.

SUMMARY AND CONCLUSIONS

Only one location within the site survey area (TS-5) exhibited hydrophytic vegetation, hydric soils, and wetland hydrology at the time of the site visit. Therefore, it is CEC's opinion that a jurisdictional wetland may exist onsite. The potential wetland area is in the north central portion of the study area and may be outside of the proposed expansion boundary. This location was also along a power line right of way. Two other locations, TS-2a and 2b, exhibited hydrophytic vegetation and wetland hydrology. However, these areas are highly disturbed, are within a drainage ditch, and did not exhibit hydric soils. It is CEC's opinion that these areas are not jurisdictional wetlands. Additional investigation and coordination with the regulatory agencies may be required to determine the jurisdictional status of these areas. In addition, the unnamed tributary stream and feeder tributaries located within the property are potential jurisdictional waters.

If development activities are proposed for the TS-5 area and or any of the onsite tributaries then CEC would recommend that a wetland delineation and stream determination be conducted. CEC would also recommend a site visit with the DEP and the Corps to verify and determine if any of the potential wetland areas, unnamed tributary, or feeder tributaries would be considered jurisdictional and regulated at the state or federal level. The intent of the meeting would be to gain a clearer understanding of each agency's view of the jurisdictional status and associated permitting requirements (if any) for any potential jurisdictional waters.

CEC recommends the site development activities are designed first to avoid and then minimize wetland and stream impacts. Please be advised that the complexity and duration of the site permitting process increases with the amount of wetland or stream impacts. Small wetland encroachments may take more than one year to permit in Pennsylvania.

CEC appreciates the opportunity to provide you with this wetland assessment. Please call us at 412-429-2324 should you have any questions or require additional information.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Jeffrey J. Mihalik
Assistant Project Manager/ Wetland Scientist

Geoffrey B. Nara, P.E., L.A.
Senior Project Manager

Enclosures

LR-041-501.O18/W

REFERENCES

Cowardin, L. M., V. Carter, and F. C. Golet. 1979. *Classification of Wetlands and Deep Water Habitats of the United States.* U. S. Department of the Interior, Fish and Wildlife Service. Washington D. C.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual, Technical* Report Y-87-1, U.S. Army Engineer Waterway Experiment Station, Vicksburg, Mississippi.

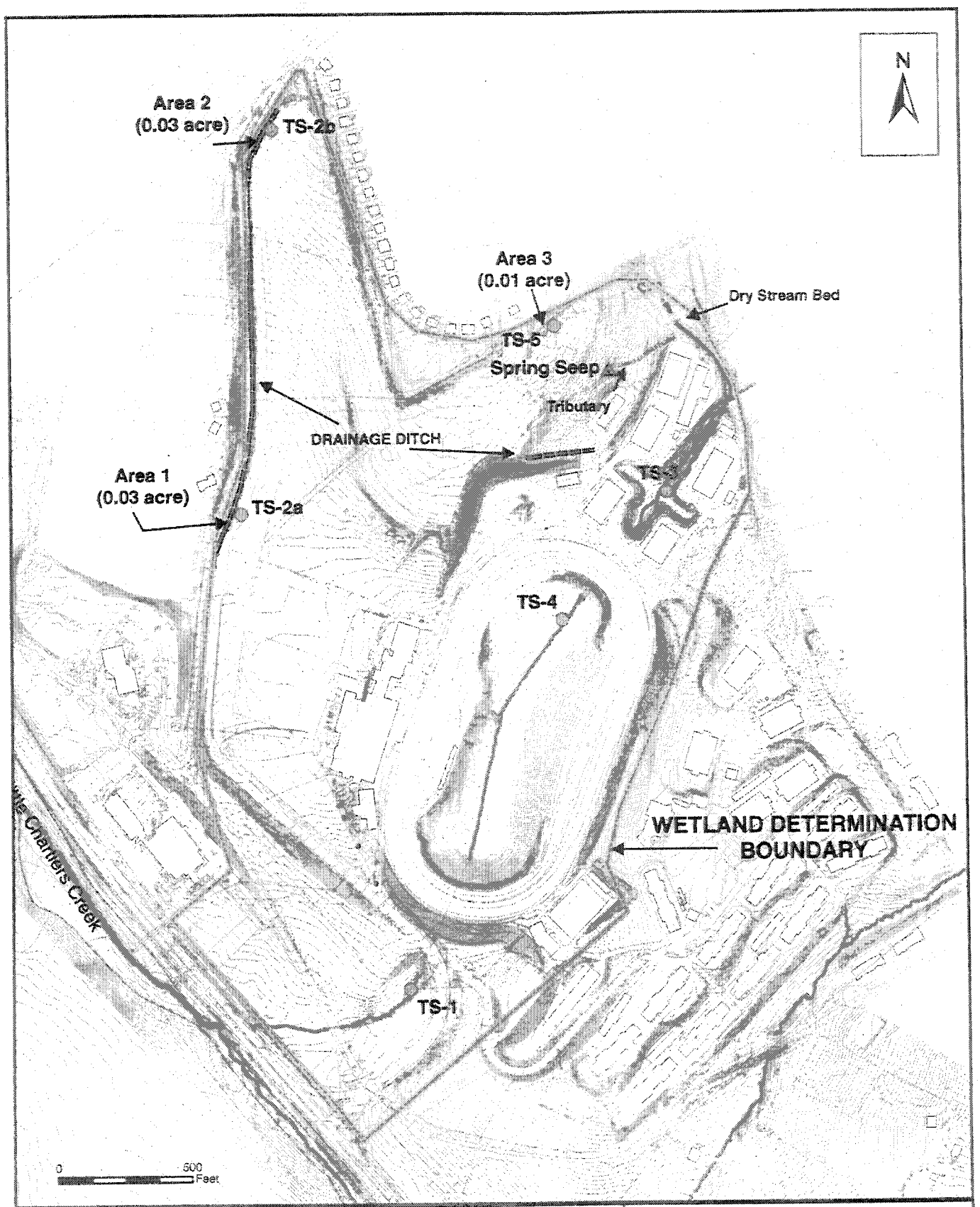
Reed, P.B., Jr. 1988. *National List of Plant Species that Occur in Wetlands: Pennsylvania.* U.S. Fish and Wildlife Service Biological Report.

United States Department of Agriculture Soil Conservation Service (USDA). 1991. *Hydric Soils of the United States, 1991.* In cooperation with the National Technical Committee for Hydric Soils. USDA-SCS, Washington, DC.

United States Department of Agriculture Soil Conservation Service (USDA). 1983. *Soil Survey of Greene and Washington Counties, Pennsylvania.* Soil Conservation Service. Washington, D.C.

United States Department of Agriculture Soil Conservation Service (USDA). *Hydric Soils - Washington County, Pennsylvania.* Soil Conservation Service. Washington, D.C., 2 pp.

FIGURES



TEST SITE LOCATIONS

Perennial (U.S.G.S.)

Dry Stream Bed

Tributary

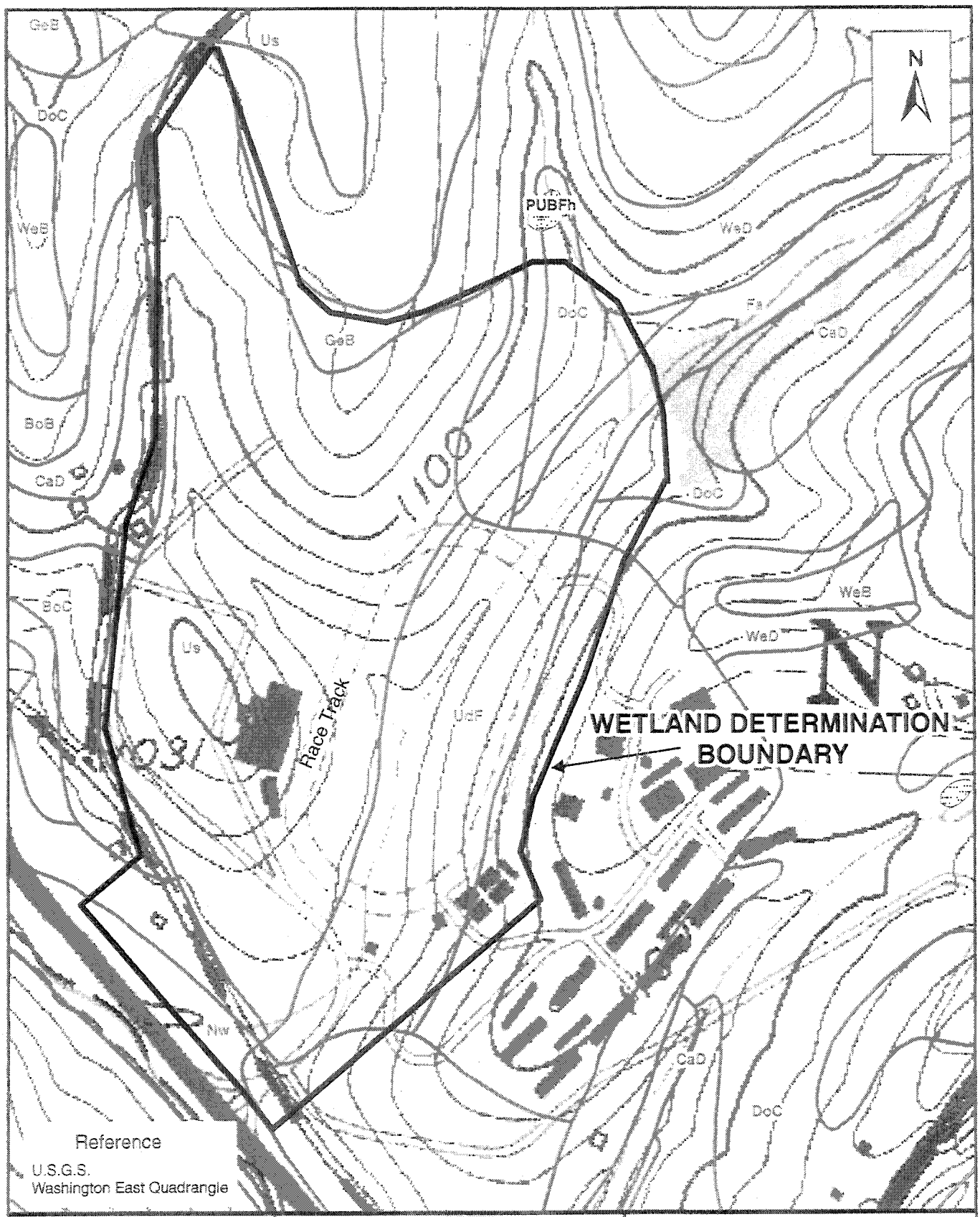
Drainage Ditch

ISSUED BY:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
333 Baldwin Road
Pittsburgh, PA 15205-9702
412-429-2324
Columbus, OH * Cincinnati, OH * Indianapolis, IN * Nashville, TN * Chicago, IL * St. Louis, MO

WETLAND DETERMINATION MAP
MEADOW LANDS
WASHINGTON COUNTY, PA.

DWN. BY: Jeff Mihalik	SCALE:	DATE:	PROJECT NO.:	FIGURE 2
CHK. BY: Geoff Nera	1" = 500'	10/18/05	041-501	



ISSUED BY:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
333 Baldwin Road
Pittsburgh, PA 15205-9702
412-429-2324
Columbus, OH * Cincinnati, OH * Indianapolis, IN * Nashville, TN * Chicago, IL * St. Louis, MO

SITE LOCATION,
NWI WETLANDS, USDA SOILS MAP
MEADOW LANDS
WASHINGTON COUNTY, PA.

DWN. BY: Jeff Mihalik	SCALE:	DATE:	PROJECT NO.:	FIGURE 1
CHK. BY: Geoff Nara	1" = 500'	10/18/05	041-501	

APPENDIX A

DATA FORMS

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetland Delineation Manual)

Project/Site:	Meadow Lands			**Date:** September 23. 2005
Applicant/Owner:	MEC			**County:** Washington
Investigator(s):	Jeff Mihalik			**State:** PA
Do normal circumstances exist on the site?	Yes x	No		**Community ID:**
Is the site significantly disturbed (Atypical?)	Yes	No x		Non-Wetland
Is the area a potential problem area?	Yes	No x		**Plot ID:**
(if needed, explain on reverse.)				Test Site 1

VEGETATION

Dominant Plant Species:	Stratum:	Indicator:	Dominant Plant Species:	Stratum:	Indicator:
1. *Poa sp.*	H	NA	11.		
2. *Dipsacus sylvestris*	H	NI	12.		
3. *Verbascum thapsus*	H	UPL	13.		
4. *Asclepias syriaca*	H	NI	14.		
5. *Solidago altissima*	H	FACU-	15.		
6. *Fagus grandifolia*	S	FACU	16.		
7.			17.		
8.			18.		
9.			19.		
10.			20.		

Percent of dominant species that are OBL. FACW or FAC (and excluding FAC-) = 0/3 = 0%

Remarks:

Less than 50% of the dominant plant species are hydrophytes: therefore. the hydrophytic vegetation criterion is not satisfied.

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ Stream, Lake, or Tide Gauge
_____ Aerial Photographs
__x__ No Recorded Data Available

Field Observations:

Depth of Surface Water: __-__ (inches)

Depth to Free Water in Pit: __>16__ (inches)

Depth to Saturated Soil: __>16__ (inches)

Wetland Hydrology Indicators:
Primary Indicators:
_____ Inundated
_____ Saturated in upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
_____ Drainage Patterns in Wetlands

Secondary Indicators:
_____ Oxidized Root Channels in Upper 12 Inches
_____ Water Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Others (Explain in Remarks)

Remarks:

No primary or secondary indicators of wetland hydrology were observed in the test pit. Therefore, the wetland hydrology criterion is not satisfied.

Project/Site: Meadow Lands
Site/Area ID: Test Site 1

SOILS

Map Unit Name:
(Series and Phase): Udorthents
(Taxonomy Subgroup): -
Drainage Class: Somewhat Poorley drained
Field Observations Confirm Mapped Type?
Yes x No

Profile Description:

Depth (inches):	Horizon:	Matrix Color (Munsell Moist):	Mottle Colors (Munsell Moist):	Mottle (Abundance/Size):	Texture, Concretions, Structure:
0-16	A	10YR 4/3			sandy loam

Hydric Soil Indicators:

	Histosol		Concretions
	Histic Epipedon		High Organic Content in Surface Layer in Sandy Soils
	Sulfidic Odor		Organic Streaking in Sandy Soil
	Aquic Moisture Regimes		Listed on Local Hydric Soils List
	Reducing Conditions		Listed on National Hydric Soils List
	Gleyed or Low Chroma Colors		Other (Explain in Remarks)

Remarks:

Hydric soil indicators were observed in the test pit. Therefore, the hydric soil criterion is satisfied.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes		No	x
Wetland Hydrology Present?	Yes		No	x
Hydric Soils Present?	Yes		No	x

Is this Sampling Point Within a Wetland?
Yes
No x

Remarks:

This area was determined not to be within a wetland due to the absence of hydrophytic vegetation, hydric soils, and wetland hydrology.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetland Delineation Manual)

Project/Site:	Meadow Lands		**Date:** September 23, 2005
Applicant/Owner:	MEC Pennsylvania Racing		**County:** Washington
Investigator(s):	Jeff Mihalik		**State:** PA
Do normal circumstances exist on the site?	Yes x	No	**Community ID:** Non-Wetland
Is the site significantly disturbed (Atypical?)	Yes	No x	**Plot ID:** Test Site 2
Is the area a potential problem area? (if needed, explain on reverse.)	Yes	No x	

VEGETATION

Dominant Plant Species:	Stratum:	Indicator:	Dominant Plant Species:	Stratum:	Indicator:
1. *Typha latifolia*	H	OBL	11.		
2. *Scirpus atrovirens*	H	OBL	12.		
3. *Solidago altissima*	H	FACU-	13.		
4. *Dipsacus sylvestris*	H	NI	14.		
5. *Vitis sp.*	V	NA	15.		
6. *Acer saccharinum*	T	FACW	16.		
7. *Salix nigra*	S	FACW+	17.		
8.			18.		
9.			19.		
10.			20.		

Percent of dominant species that are OBL, FACW or FAC (and excluding FAC-) = 4/5 = 80%

Remarks:

Greater than 50% of the dominant plant species are hydrophytes; therefore, the hydrophytic vegetation criterion is satisfied.

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ Stream, Lake, or Tide Gauge
_____ Aerial Photographs
x No Recorded Data Available

Field Observations:

Depth of Surface Water: - (inches)

Depth to Free Water in Pit: - (inches)

Depth to Saturated Soil: 10 (inches)

Wetland Hydrology Indicators:
Primary Indicators:
_____ Inundated
x Saturated in upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
_____ Drainage Patterns in Wetlands

Secondary Indicators:
_____ Oxidized Root Channels in Upper 12 Inches
_____ Water Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Others (Explain in Remarks)

Remarks:

Primary indicators of wetland hydrology were observed in the test pit. Therefore, the wetland hydrology criterion is satisfied.

Project/Site: Meadow Lands
Site/Area ID: Test Site 2

SOILS

Map Unit Name:
(Series and Phase): Brooke silty clay loam
(Taxonomy Subgroup): Mollic Hapludalfs
Drainage Class: Well drained
Field Observations Confirm Mapped Type?
Yes _____ No x

Profile Description:

Depth (inches):	Horizon:	Matrix Color (Munsell Moist):	Mottle Colors (Munsell Moist):	Mottle (Abundance/Size):	Texture, Concretions, Structure:
0-16	A	2.5YR 5/4			Disturbed (clayey w/chunks of tar)

Hydric Soil Indicators:

_____	Histosol	_____	Concretions
_____	Histic Epipedon	_____	High Organic Content in Surface Layer in Sandy Soils
_____	Sulfidic Odor	_____	Organic Streaking in Sandy Soil
_____	Aquic Moisture Regimes	_____	Listed on Local Hydric Soils List
_____	Reducing Conditions	_____	Listed on National Hydric Soils List
_____	Gleyed or Low Chroma Colors	_____	Other (Explain in Remarks)

Remarks:

Hydric soil indicators were not observed in the test pit. Therefore, the hydric soil criterion is not satisfied.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes x	No _____	Is this Sampling Point Within a Wetland?	
Wetland Hydrology Present?	Yes x	No _____	Yes _____	
Hydric Soils Present?	Yes _____	No x	No x	

Remarks:

This area was determined not to be within a wetland due to the absence of hydric soils.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetland Delineation Manual)

Project/Site:	Meadow Lands		**Date:** September 23, 2005
Applicant/Owner:	MEC		**County:** Washington
Investigator(s):	Jeff Mihalik		**State:** PA
Do normal circumstances exist on the site?	Yes x	No	**Community ID:**
Is the site significantly disturbed (Atypical?)	Yes	No x	Non-Wetland
Is the area a potential problem area?	Yes	No x	**Plot ID:**
(if needed, explain on reverse.)			Test Site 3

VEGETATION

Dominant Plant Species:	Stratum:	Indicator:	Dominant Plant Species:	Stratum:	Indicator:
1. *Phalaris arundinacea*	H	FACW+	11.		
2. *Dipsacus sylvestris*	H	NI	12.		
3.			13.		
4.			14.		
5.			15.		
6.			16.		
7.			17.		
8.			18.		
9.			19.		
10.			20.		

Percent of dominant species that are OBL, FACW or FAC (and excluding FAC-) = 1/1 = 100%

Remarks:

Greater than 50% of the dominant plant species are hydrophytes; therefore, the hydrophytic vegetation criterion is satisfied.

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ Stream, Lake, or Tide Gauge
_____ Aerial Photographs
x No Recorded Data Available

Field Observations:

Depth of Surface Water: - (inches)

Depth to Free Water in Pit: >16 (inches)

Depth to Saturated Soil: >16 (inches)

Wetland Hydrology Indicators:

Primary Indicators:
_____ Inundated
_____ Saturated in upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
_____ Drainage Patterns in Wetlands

Secondary Indicators:
_____ Oxidized Root Channels in Upper 12 Inches
_____ Water Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Others (Explain in Remarks)

Remarks:

No primary or secondary indicators of wetland hydrology were observed in the test pit. Therefore, the wetland hydrology criterion is not satisfied.

Project/Site: Meadow Lands
Site/Area ID: Test Site 3

SOILS

Map Unit Name:
(Series and Phase): Fluvaquents
(Taxonomy Subgroup): -
Drainage Class: Poorley drained
Field Observations Confirm Mapped Type?
Yes x No

Profile Description:

Depth (inches):	Horizon:	Matrix Color (Munsell Moist):	Mottle Colors (Munsell Moist):	Mottle (Abundance/Size):	Texture, Concretions, Structure:
0-5	A	10YR 4/2			sandy loam
5-8	B	2.5YR 6/4			clayey loam
8-16	C	10YR 4/2			sandy loam

Hydric Soil Indicators:

	Histosol		Concretions
	Histic Epipedon		High Organic Content in Surface Layer in Sandy Soils
	Sulfidic Odor		Organic Streaking in Sandy Soil
	Aquic Moisture Regimes		Listed on Local Hydric Soils List
	Reducing Conditions		Listed on National Hydric Soils List
	Gleyed or Low Chroma Colors		Other (Explain in Remarks)

Remarks:

Hydric soil indicators were not observed in the test pit. Therefore, the hydric soil criterion is not satisfied.

WETLAND DETERMINATION

			Is this Sampling Point Within a Wetland?
Hydrophytic Vegetation Present?	Yes x	No	
Wetland Hydrology Present?	Yes	No x	Yes
Hydric Soils Present?	Yes	No x	No x

Remarks:

This area was determined not to be within a wetland due to the absence of hydric soils, and wetland hydrology.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetland Delineation Manual)

Project/Site:	Meadow Lands			**Date:** September 23, 2005
Applicant/Owner:	MEC			**County:** Washington
Investigator(s):	Jeff Mihalik			**State:** PA
Do normal circumstances exist on the site?		Yes x	No	**Community ID:**
Is the site significantly disturbed (Atypical?)		Yes	No x	Non-Wetland
Is the area a potential problem area?		Yes	No x	**Plot ID:**
(if needed, explain on reverse.)				Test Site 4

VEGETATION

Dominant Plant Species:	Stratum:	Indicator:	Dominant Plant Species:	Stratum:	Indicator:
1. *Poa sp.*	H	NA	11.		
2. *Plantago major*	H	FACU	12.		
3. *Melilotus alba*	H	FACU-	13.		
4.			14.		
5.			15.		
6.			16.		
7.			17.		
8.			18.		
9.			19.		
10.			20.		

Percent of dominant species that are OBL, FACW or FAC (and excluding FAC-) = 0/2 = 0%

Remarks:

Less than 50% of the dominant plant species are hydrophytes; therefore, the hydrophytic vegetation criterion is not satisfied.

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ Stream, Lake, or Tide Gauge
_____ Aerial Photographs
x No Recorded Data Available

Field Observations:

Depth of Surface Water: - (inches)

Depth to Free Water in Pit: >16 (inches)

Depth to Saturated Soil: >16 (inches)

Wetland Hydrology Indicators:

Primary Indicators:
_____ Inundated
_____ Saturated in upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
_____ Drainage Patterns in Wetlands

Secondary Indicators:
_____ Oxidized Root Channels in Upper 12 Inches
_____ Water Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Others (Explain in Remarks)

Remarks:

No primary or secondary indicators of wetland hydrology were observed in the test pit. Therefore, the wetland hydrology criterion is not satisfied.

Project/Site: Meadow Lands
Site/Area ID: Test Site 4

SOILS

Map Unit Name:
(Series and Phase): Udorthents
(Taxonomy Subgroup): -
Drainage Class: Somewhat Poorley drained
Field Observations Confirm Mapped Type?
Yes x No

Profile Description:

Depth (inches):	Horizon:	Matrix Color (Munsell Moist):	Mottle Colors (Munsell Moist):	Mottle (Abundance/Size):	Texture, Concretions, Structure:
0-10 (resist)	A	10YR 7/2			sandy loam

Hydric Soil Indicators:

	Histosol		Concretions
	Histic Epipedon		High Organic Content in Surface Layer in Sandy Soils
	Sulfidic Odor		Organic Streaking in Sandy Soil
	Aquic Moisture Regimes		Listed on Local Hydric Soils List
	Reducing Conditions		Listed on National Hydric Soils List
	Gleyed or Low Chroma Colors		Other (Explain in Remarks)

Remarks:

Hydric soil indicators were not observed in the test pit. Therefore, the hydric soil criterion is not satisfied.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes		No	x
Wetland Hydrology Present?	Yes		No	x
Hydric Soils Present?	Yes		No	x

Is this Sampling Point Within a Wetland?
Yes
No x

Remarks:

This area was determined not to be within a wetland due to the absence of hydrophytic vegetation, hydric soils, and wetland hydrology.

DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetland Delineation Manual)

Project/Site:	Meadow Lands		**Date:** September 23, 2005
Applicant/Owner:	MEC		**County:** Washington
Investigator(s):	Jeff Mihalik		**State:** PA
Do normal circumstances exist on the site?	Yes _____	No x	**Community ID:** Wetland
Is the site significantly disturbed (Atypical?)	Yes _____	No x	**Plot ID:** Test Site 5
Is the area a potential problem area?	Yes _____	No x	
(if needed, explain on reverse.) Power line right of way			

VEGETATION

Dominant Plant Species:	Stratum:	Indicator:	Dominant Plant Species:	Stratum:	Indicator:
1. *Typha latifolia*	H	OBL	11.		
2. *Phalaris arundinacea*	H	FACW+	12.		
3. *Solidago rugosa*	H	FAC	13.		
4.			14.		
5.			15.		
6.			16.		
7.			17.		
8.			18.		
9.			19.		
10.			20.		

Percent of dominant species that are OBL, FACW or FAC (and excluding FAC-) = 3/3 = 100%

Remarks:

Greater than 50% of the dominant plant species are hydrophytes; therefore, the hydrophytic vegetation criterion is satisfied.

HYDROLOGY

_____ Recorded Data (Describe in Remarks)
_____ Stream, Lake, or Tide Gauge
_____ Aerial Photographs
x No Recorded Data Available

Field Observations:

Depth of Surface Water: - (inches)

Depth to Free Water in Pit: 10 (inches)

Depth to Saturated Soil: 9 (inches)

Wetland Hydrology Indicators:

Primary Indicators:
_____ Inundated
x Saturated in upper 12 inches
_____ Water Marks
_____ Drift Lines
_____ Sediment Deposits
x Drainage Patterns in Wetlands

Secondary Indicators:
_____ Oxidized Root Channels in Upper 12 Inches
_____ Water Stained Leaves
_____ Local Soil Survey Data
_____ FAC-Neutral Test
_____ Others (Explain in Remarks)

Remarks:

Two primary indicators of wetland hydrology were observed in the test pit. Therefore, the wetland hydrology criterion is satisfied.

Project/Site: Meadow Lands
Site/Area ID: Test Site 5

SOILS

Map Unit Name:
(Series and Phase): Urban land
(Taxonomy Subgroup): -
Drainage Class: -
Field Observations Confirm Mapped Type?
Yes x No

Profile Description:

Depth (inches):	Horizon:	Matrix Color (Munsell Moist):	Mottle Colors (Munsell Moist):	Mottle (Abundance/Size):	Texture, Concretions, Structure:
0-3	A	10YR 2/1			sandy loam
3-16	B	2.5 Y 5/3	5Gy 6/1	common/coarse	clayey loam

Hydric Soil Indicators:

	Histosol		Concretions
	Histic Epipedon		High Organic Content in Surface Layer in Sandy Soils
	Sulfidic Odor		Organic Streaking in Sandy Soil
	Aquic Moisture Regimes		Listed on Local Hydric Soils List
x	Reducing Conditions		Listed on National Hydric Soils List
x	Gleyed or Low Chroma Colors		Other (Explain in Remarks)

Remarks:

Hydric soil indicators were observed in the test pit. Therefore, the hydric soil criterion is satisfied.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes x	No		Is this Sampling Point Within a Wetland?
Wetland Hydrology Present?	Yes x	No		Yes x
Hydric Soils Present?	Yes x	No		No

Remarks:

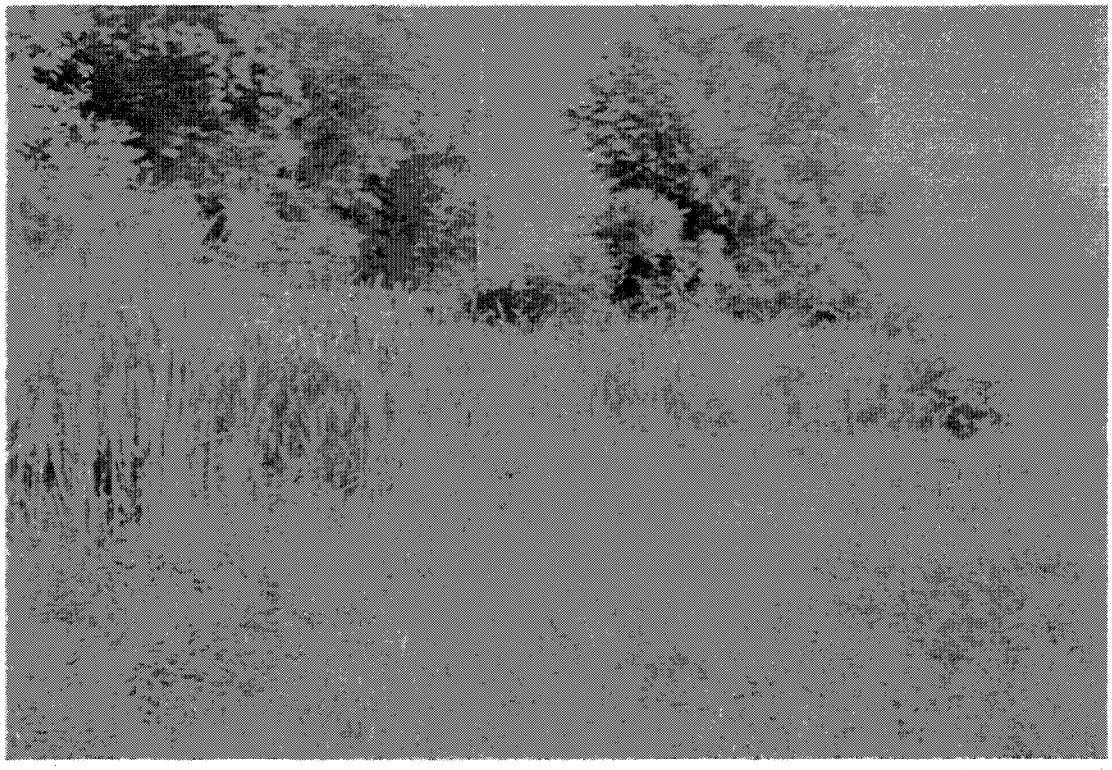
This area was determined to be within a wetland due to the presence of hydrophytic vegetation, hydric soils, and wetland hydrology.

APPENDIX B

SITE PHOTOGRAPHS

Meadow Lands
Wetland Delineation

Photograph 1: Non-Wetland TS-1, View to North

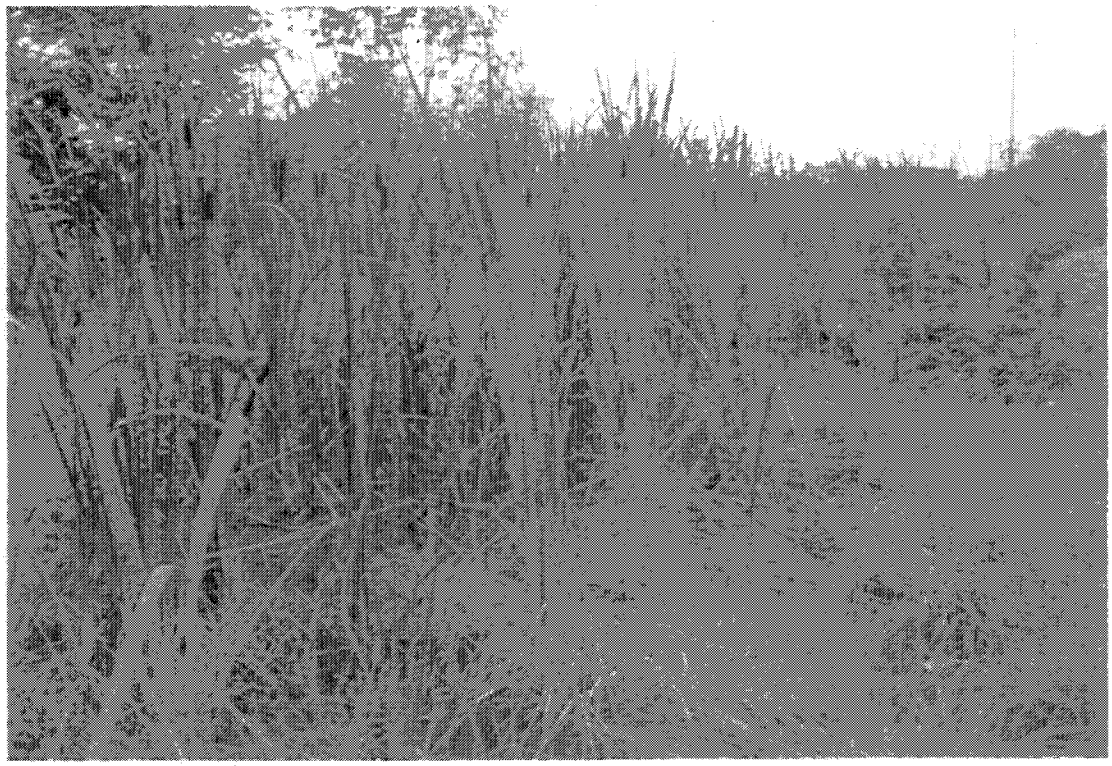


Photograph 2: Non-Wetland (TS-2a), View to the Northwest

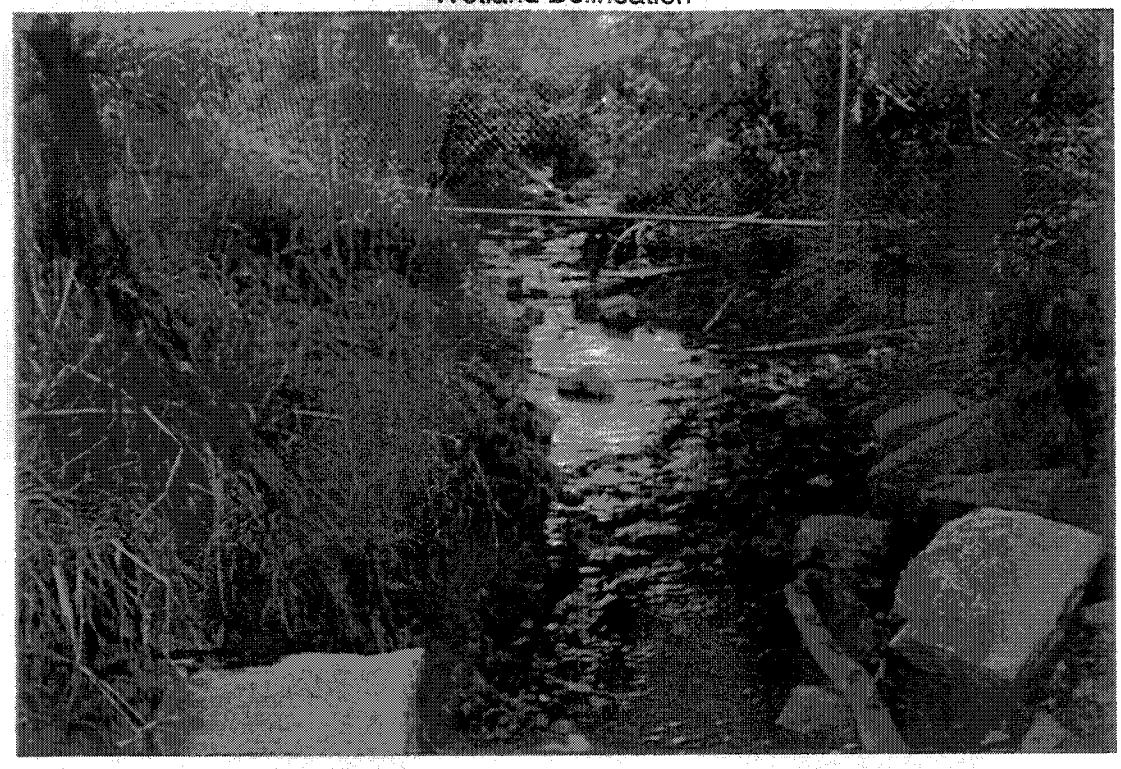
Photograph 3: Non-Wetland (TS-2b), View to the North

Photograph 4: Non-Wetland (TS-3), View to the East

Photograph 5: Non-Wetland (TS-4), View to the North



Photograph 6: Wetland A (TS-5), View to the Southeast



Photograph 7: U.S.G.S. Perennial Stream Near Northern Boundary, Looking Upstream

Photograph 8: Spring Source of Triburary to Unnamed Tributary

Photograph 9: Typical Maintained Lawn

Photograph 10: Former Road and Paved Areas along Northwest Property Boundary

NOTES:

1. EACH MAIN SUBDIVISION RESTRICTIVE AREA BLOCK - 574.4E PROPERTY IS LOCATED IN FLOOD ZONE X & A-16 (AREA OF 100-YEAR FLOOD) AS DEPICTED ON FLOOD INSURANCE RATE MAP #421161 0002 B, EFFECTIVE DATE 7/15/1983, TOWNSHIP OF NORTH STRABANE, WASHINGTON COUNTY, PENNSYLVANIA AND FLOOD INSURANCE RATE MAP #421161 0002 A, EFFECTIVE DATE 9/30/1977, TOWNSHIP OF SOUTH STRABANE, WASHINGTON COUNTY, PENNSYLVANIA. FLOODPLAIN LOCATION PLOTTED ON THE PLAN IS APPROXIMATE AND IS ONLY FROM AVAILABLE INFORMATION.

2. LOCATIONS OF MUNICIPAL BOUNDARY LINE BETWEEN NORTH AND SOUTH STRABANE TOWNSHIPS IS APPROXIMATE AND FOLLOWS THE CENTERLINE OF THE UNNAMED TRIBUTARY TO CHARTIERS CREEK.

3. LOCATIONS OF UNDERGROUND UTILITIES TAKEN FROM NON-INTRUSIVE GEOPHYSICAL LOCATION SURVEYS BY THE SUBDIVISION ENGINEER. THE RED PLAN INDICATES APPROXIMATE LOCATIONS OF GAS, ELECTRONIC, TELEPHONE, ETC., UTILITY/UTILITY ESTABLISHED WILL BE REQUIRED TO CONFIRM ACTUAL HORIZONTAL AND VERTICAL LOCATIONS PRIOR TO ANY CONSTRUCTION.

PA. ONE CALL SERIAL NO'S. 2825418 AND 2825460

(TWO BUSINESS DAYS NOTICE FROM EXCAVATION) STATE LAW REQUIRES ALL PERSONS WHO PLAN TO EXCAVATE, DRILL OR DEMOLISH ANYWHERE IN THE COMMONWEALTH OF PENNSYLVANIA TO NOTIFY ALL UNDERGROUND UTILITY COMPANIES THAT HAVE FACILITIES IN THE AREA OF THE PROPOSED EXCAVATION, DRILLING OR DEMOLITION. THIS NOTIFICATION MUST BE MADE AT LEAST THREE BUSINESS DAYS BUT NOT MORE THAN TEN BUSINESS DAYS BEFORE BEGINNING THE EXCAVATION, DRILLING OR DEMOLITION. THE PENNSYLVANIA ONE CALL SYSTEM, INC. OPERATES A STATEWIDE TOLL FREE NOTIFICATION SYSTEM. TO NOTIFY ALL UTILITIES, CALL 1-800-242-1776. (TWO BUSINESS DAYS NOTICE FROM EXCAVATION) STATE LAW REQUIRES ALL PERSONS WHO PLAN TO EXCAVATE, DRILL OR DEMOLISH ANYWHERE IN THE COMMONWEALTH OF PENNSYLVANIA TO NOTIFY ALL UNDERGROUND UTILITY COMPANIES THAT HAVE FACILITIES IN THE AREA OF THE PROPOSED EXCAVATION, DRILLING OR DEMOLITION. THIS NOTIFICATION MUST BE MADE AT LEAST THREE BUSINESS DAYS BUT NOT MORE THAN TEN BUSINESS DAYS BEFORE BEGINNING THE EXCAVATION, DRILLING OR DEMOLITION. THE PENNSYLVANIA ONE CALL SYSTEM, INC. OPERATES A STATEWIDE TOLL FREE NOTIFICATION SYSTEM. TO NOTIFY ALL UTILITIES, CALL 1-800-242-1776. THIS NOTIFICATION DOES NOT RELIEVE ANY EXCAVATOR FROM THE RESPONSIBILITY TO CONTACT ALL UTILITIES WHICH MAY NOT BE A MEMBER OF THE PENNSYLVANIA ONE CALL SYSTEM, INC. FURTHERMORE, THE EXCAVATOR HOLDS THE SUBDIVISION RESPONSIBLE FOR ANY UTILITY LOCATION SHOWN ON THIS PLAN.

153.9 Acres

RACETRACK ROAD S.R. 1041 (VARIABLE WIDTH)

REVISION RECORD	
DATE	DESCRIPTION

LEGEND

- 900 —— EXISTING CONTOUR
- —— DRAIN, RAIL
- —— FENCE
- —— TREE LINE
- —— G —— GAS LINE
- —— W —— DIA ENCASED POSEIN LINE
- —— SW —— SANITARY SEWER LINE
- —— S —— STORM SEWER LINE
- —— T —— UNDERGROUND TELEPHONE LINE
- —— E —— UNDERGROUND ELECTRIC LINE
- —— W —— WATER LINE
- GAS BOX
- GAS METER
- GROUND LIGHT
- ELECTRIC BOX
- LIGHT STANDARD
- TRAFFIC POLE
- UTILITY POLE
- WATER BOX
- WATER METER
- CATCH BASIN
- SANITARY MANHOLE
- STORM MANHOLE
- UTILITY MANHOLE
- VALVE BOX
- SPRINKER
- FIRE HYDRANT
- SIGN

EVAN G. BAKER JR.
PROFESSIONAL LAND SURVEYOR
REG. NO. SU016-E

SCALE IN FEET
0 100 200

Civil & Environmental Consultants, Inc.
333 Baldwin Road
Pittsburgh, PA 15205
(412) 429-2324 • (800) 365-2324
Cleveland, OH • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

UTILITY PLAN
PLAN OF TOPOGRAPHY

Situate in

NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA

Made For

MEC PENNSYLVANIA,
RACING, INC.

DATE: 11/19/2004	SCALE: 1"=100'	SHEET OF	1
DWN BY: MST	APPROVED BY:	DRAWING NUMBER	
CHKD. BY: EGB		041-501-SRV	

Phase I Environmental Site Assessment
The Meadows
Racetrack Road
Meadowlands, PA 15347
Date of Site Visit: August 23, 2005

Privileged and Confidential – Prepared
at Request of Legal Counsel

Submitted to:

Magna Entertainment Corporation
375 Magna Drive
Aurora, ON L4G 7L6

and MID Islandi sf.

Submitted by:

AMEC Earth & Environmental, Inc.
Wexford, PA

October 28, 2005

5-7177-0003-0002

amec

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LIST OF APPENDICES

Limitations of Findings

AMEC's professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the field of environmental site assessments (ESAs).

ESAs are limited in the sense that conclusions and recommendations are developed from personal interviews and information obtained from limited research and secondary sources. Except as set forth in the report, AMEC made no independent investigations as to the accuracy or completeness of the information provided by or derived from the secondary sources and personal interviews and has assumed that such information is accurate and complete. This report presents an overview of issues of environmental concern, reflecting AMEC's best judgement using information reasonably available at the site at the time of AMEC's site visit. AMEC has prepared this report using information understood to be factual and correct and shall not be responsible for conditions arising from information or facts that were concealed or not fully disclosed to AMEC at the time of the site visit.

This audit report has been prepared at the direction of legal counsel to provide advice to Magna Entertainment Corp. (MEC) and MID Islandi sf. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users. AMEC will not be responsible for the use of this report by any other party, or reliance on or any decision to be made based on it without the prior written consent of AMEC. AMEC accepts no responsibility for damages, if any, by any other party as a result of decisions or actions based on this report.

In completing the scope of work, AMEC did not conduct any intrusive investigations including sampling, testing or monitoring.

In addition, at the request of the client, AMEC was not permitted to interview or contact any persons outside of MEC. This included neighbors and government agencies. This did not allow AMEC to research and obtain historical aerial photographs, research on-site or off-site environmental issues, or interview neighbors or regulatory personnel.

EXECUTIVE SUMMARY

PROJECT INFORMATION			
AMEC Project #	5-7177-0003-0002		
Client Name	Magna Entertainment Corporation and MID Islandi sf		
Site Occupant / Name	The Meadows		
Site Address	Racetrack Road, Meadowlands, PA 15347		
AMEC Site Assessor	Michael Hansen	*AMEC Office Location*	Wexford, Pennsylvania
Date of Site Visit	August 23, 2005	*Full Access Obtained?*	Yes
SITE INFORMATION			
Existing Land Use Type	Commercial	*Primary On-Site Activity*	Harnessed horse racing and wagering
Standard Industrial Classification (SIC) Code	0752, 7948	*Property is Leased / Owned*	Owned by The Meadows
Multi-tenant / Single Occupant	Single	*Number of Tenants*	1
Date Site First Developed	1963	*Date of Occupancy by Client*	1963
Former Use of Site	Vacant land/agricultural farmland	*Site Area*	154 acres
Number of Buildings	41	*Buildings Footprint Area*	420,550- Estimation based on drawings
Number of Stories	Varies	*Total Buildings Area*	Unknown
Date Buildings Constructed	1963-1991	*Date Buildings Renovated*	Numerous
Basement / U/G Parking?	Varies	*Number of Levels U/G*	Varies
% Site Covered by Building	~5 %	*% Site Covered by Basement*	Unknown
Municipal Water Source?	PA American Water Company	*Heating Source*	Columbia Gas
Municipal Sewers?	North Strabane Municipal Authority	*Electrical Source*	Allegheny Power
Transformer On-Site?	Yes	*Electrical Generator On-Site?*	Yes
Groundwater Wells in Area?	No	*Inferred Groundwater Flow Direction*	Southwest
Depth to Groundwater	Unknown	*Groundwater Use?*	None Identified
Nearest Surface Water Body (direction / distance / type)	A small unnamed creek flows directly through the center of the site which empties into Chartiers Creek		

Previous Environmental Reports Available?	Yes; Heating Oil Tank Removal Near Tack Shop, United Environmental Group, Inc., December 20, 2000 Phase I Environmental Site Assessment & Operational Compliance Review, AMEC Earth & Environmental, November 20, 2000 Analysis for the (1) 1,000 Gallon Gasoline Underground Storage Tank, L.A.W. Environmental, November, 1992

SITE CHARACTERISTICS			
Current ASTs?	Yes	*Former ASTs?*	None Identified
Current USTs?	Yes	*Former USTs?*	Yes
Current Dry Cleaners?	No	*Former Dry Cleaners?*	None Identified
Current Gas Station?	No	*Former Gas Station?*	None Identified
Known / Suspected Soil Impact?	Yes	*Known / Suspected Groundwater Impact?*	Unknown
Evidence of Spills or Release?	Yes	*Type of Spill or Release?*	LUST, AST, Transformer, and other
Known / Suspected ACMs?	Yes	*Known / Suspected Lead-Based Paints?*	Unknown
Known / Suspected Methane?	No	*Known / Suspected ODSs?*	Yes
Known / Suspected PCBs?	No	*Known / Suspected Radon?*	No
Known / Suspected Radioactive Materials?	No	*Known / Suspected Soil Fill?*	Yes
Chemicals Used?	Yes; Antifreeze, Paint (oil), Paint (water), Paint (aerosol), Mineral Spirits, Detergents, Adhesives, CFC/HCFCs, Pesticides, Herbicides	*Hazardous Wastes Generated?*	Regulated Medical Waste
List of Liquid Wastes Generated	Used oil		
List of Solid/Regulated Wastes Generated	Animal manure/bedding material, paper and cardboard, general trash, medical wastes		

OFF-SITE ISSUES (WITHIN 500 FEET)			
Adjacent Land Use (north)	Residential housing development, publicly owned sewage treatment plant, and a storm water retention pond.		
Adjacent Land Use (east)	Residential housing development and pasture area.		
Adjacent land Use (south)	Holiday Inn Hotel, Racetrack Road, and undeveloped land.		
Adjacent Land Use (west)	Residential housing.		
Current / Former ASTs?	None Identified	*Direction / Distance*	N/A
Current / Former USTs?	None Identified	*Direction / Distance*	N/A
Current / Former Dry Cleaners?	None Identified	*Direction / Distance*	N/A
Current / Former Gas Station?	None Identified	*Direction / Distance*	N/A
Known Soil Impact?	None Identified	*Known Groundwater Impact?*	None Identified
Evidence of Spills or Releases?	None Identified	*Type of Spill or Release?*	N/A
COMPLIANCE ISSUES			
Air Permits Required?	No	*Hazardous Waste Status?*	Small Quantity Generator
Title V Permit Required?	No	*Section 311/312 Requirements?*	The facility does not file; however, large amounts of road salt were observed.
Wastewater NPDES Permit Required?	Yes	*Section 313/Form R Requirements?*	No
Wastewater Sewer Discharge Permit or Industrial Pre-treatment Permit Required?	Unknown	*Section 112r Requirements?*	No
Storm Water Permit Required *Storm Water Pollution Prevention Plan (SWPPP) Required?*	Yes Yes	*Spill Prevention Required?* *Spill Prevention Control and Countermeasure (SPCC) Plan Required?*	Yes Yes
SUMMARY			
Recognized Environmental Conditions - Onsite	1. On September 21 and 22, 1992, a 1,000-gallon underground storage tank (UST) previously containing gasoline was excavated and removed from the Property. After excavation, the tank was examined and it was noted that the tank was in good condition with no holes. However, soils surrounding the tank were impacted with petroleum and therefore excavated. Approximately 480 tons of soils were excavated and staged on 6-mil plastic sheeting. Contaminated soil was taken off site and disposed of by Waste Remedial Services and cleaned by Petro Cell in Columbus, Ohio. Once excavation was completed, soil samples from the excavation walls and		

	bottom were collected and submitted for laboratory analysis of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). Results of the soil analysis reported detected concentrations of TPH in the tank walls. The south wall had a TPH concentration level of 370 parts per million (ppm), the north wall had a TPH concentration of 70 ppm, and the North Plume had a concentration of 35 ppm. All other samples were less than the detection limit of 35 ppm. It was noted in the report provided by L.A.W Environmental that the south wall is comprised of an area 3 feet wide by 5 feet deep by 15 feet in length. It was also noted that this area could not be further excavated due to the close proximity of this soil to a newly installed underground storage tank. Therefore, these levels of contamination were left in-place. Based on these concentrations, the report concluded that "Level B" cleanliness had been reached for the site. The Pennsylvania Department of Environmental Protection (PADEP) no longer maintains cleanup levels for TPH, but utilizes chemical specific concentrations only. Although the L.A.W. Environmental report states regulatory personnel were notified of this UST removal, no documentation to or from the PADEP was available. In addition, no correspondence from PADEP regarding closure of this issue was available. 2. At some time in the past year, hydraulic fluids from a trash compactor leaked and flowed into a grate which discharges to the creek flowing through the Property. It is believed less than five gallons of hydraulic fluid leaked from the trash compactor. 3. In the Maintenance Building (Building 20) is an earthen floor on which equipment and vehicles is stored. Oil staining was noted on the floor. Because of the possibility of historic maintenance activities in this area oil leaks/spills may have impacted the surface and subsurface soils.
Potential Offsite Issues	• The EDR government database search identified a leaking UST at a BP Oil facility located at 505 Racetrack Road (between ¼- and ½-mile to the south of the Property). The leaking UST appears to be topographically down-gradient of the Property. The contents of this tank were not identified. According to the EDR report, the release occurred on October 5, 1994 and interim remedial actions have either been initiated or completed. No further information on this leaking UST was provided in the EDR report.
Potential Management / Operational Issues?	▪ The facility currently discharges wash water from its barns (generated from general barn washing and washing of the horses) to the creek running through the Property. However, the facility is currently involved with plans to connect all of the floor drains in barns, and other drains on the property, to the public sanitary system. All engineering plans are completed and are out to bid. All bids are due in September 2005. CAFO and NPDES permitting was completed and issued on August 11, 2005 and allows the facility until 2010 to complete all connecting of drains to the sanitary sewer.

	▪ Previous assessments have identified suspected asbestos-containing materials (ACM) on-site. As documented in the June 7, 2005 Asbestos Building Inspection, Weavertown Group identified friable ACM. An estimate of costs associated with the removal of ACM was produced and is documented in the report. ▪ Historically, racing programs were printed in a trailer on the Property. These operations have since been transferred off-site and the trailer is no longer present. There is the potential that chemicals, inks, and wastes associated with the printing process have impacted the Property. ▪ In a previous phase I ESA (dated November 20, 2000), a leaking transformer (located behind the Odds Board) was observed to have impacted a concrete pad and adjacent soils. According to a site contact, this transformer's oil did not contain PCBs and the impacted soils (to a depth of approximately 1 inch) were collected and disposed. According to the site contact, all PCB-containing transformers have been removed from the Property. Confirmatory sampling was not performed to ensure all contamination was removed. ▪ Various small piles of debris including empty containers, tires, tubing, and general rubbish were observed on the Property, including some items in surface water drainage ditches.
Assessment of Potential Liability	Potential liability is low to moderate due to documented findings of elevated levels of TPH on-site.
RECOMMENDATIONS	
Recommended Activities	▪ Contact PADEP to determine if the UST release ever attained closure or was classified as "No Further Action required." If not, consider additional investigation (Phase II) to determine if any contamination remains on-site and/or has impacted the ground water. ▪ Ensure that the leaking hydraulic line on the trash compactor has been properly repaired. Conduct regular inspections of the trash compactor to identify and correct potential problems prior to a release. Consider relocating the trash compactor to an area that is not near a storm drain or consider closing the storm drain. ▪ Consider surface and subsurface sampling in the Maintenance Building (Building 20) to determine if any impacts from historical operations have occurred. ▪ Determine all anticipated costs associated with the project to connect all drains on the site, including floor drains in the barns to the sanitary sewer system. Determine the permitting requirements for the project with the local sewer authority and obtain a discharge permit if necessary. ▪ Perform remediation to address ACM that is deteriorating or in poor condition and prepare an asbestos management plan to periodically monitor the location and condition of identified ACMs so that they can be properly managed and remediated when/if necessary.

	▪ Monitor the area where the old print shop trailer was located and ensure that there remain no signs of stained soil or stressed vegetation, which could indicate the presence of contamination. Should any evidence of contamination be observed, consider additional investigation to determine if contamination is present. However, based on our observations and the information received we do not believe this issue warrants further investigation (Phase II) at this time. ▪ Consider conducting confirmatory soil sampling in the area where the transformer leak occurred to ensure that all contaminated soils were removed. ▪ Continue to perform cleanups of the debris that accumulates throughout the property, especially in the areas in and adjacent to surface waters. ▪ Implement engineering controls to minimize impacts to the surface water adjacent to the manure storage area.

1.0 INTRODUCTION

AMEC Earth & Environmental, Inc. (AMEC) was retained by Magna Entertainment Corporation as requested by MID Islandi sf. to conduct a Phase I Environmental Site Assessment (ESA) of The Meadows facility located at Racetrack Road, Meadowlands, PA 15347 (the Site or the Facility). The Site is currently owned by Magna Entertainment Corp. and is operated as a facility for harnessed horse racing, wagering, and such activities associated with horse racing (including housing and care of horses).

Michael Hansen and Jason McCabe of AMEC visited the facility on August 23, 2005 to conduct a walk-through reconnaissance of the Site, evaluate potential on-site issues, and determine whether any surrounding land use activities could impact the environmental condition of the Site. During the August 23, 2005 site reconnaissance AMEC interviewed Mr. Dan Mangan and was also accompanied by Mr. Mangan during the site walk.

1.1 Purpose and Scope

The Phase I ESA was performed in accordance with the scope and limitations of the American Society of Testing and Materials (ASTM) Standard Practice E 1527-00. Any exceptions to, or deletions from, ASTM Standard Practice are described in Section 7.0 of this report. AMEC's work was completed in accordance with the terms and conditions outlined in the Master Services Agreement between Magna and AMEC dated March 1, 2004.

AMEC also retained a professional data search service, Environmental Data Resources, Inc. (EDR), to complete a review of various federal, state and local agencies that maintain environmental regulatory databases. AMEC reviewed the information that appeared in the most recent available databases. The EDR report also includes a list of sites deemed "orphan" or unmappable due to limited information available in the regulatory files. AMEC reviewed the list of "orphan" sites for any listing in the proximity of the site and included them for evaluation and assessment, where applicable.

AMEC's scope of services for the Phase I ESA consisted of the following activities:

- Review certain federal and state regulatory agency databases for the site and properties within a 1/8 to 1-mile radius around the site;
- Review and evaluate readily available historical records, including topographical maps, historical aerial photographs, and Sanborn fire insurance maps to determine site usage since first development, or 1940, whichever is earlier;
- Conduct a site reconnaissance to evaluate current site conditions and note visual evidence of recognized environmental conditions;
- Conduct a visual reconnaissance of properties within 1/2 mile of the site;
- Interview people with significant knowledge of the site; and
- Prepare a report summarizing AMEC's findings.

This Phase I ESA report is organized as follows. Site information is presented in Section 2.0. Information on the physiographic and geological setting is presented in Section 3.0. A historical review of the site and surrounding property is presented in Section 4.0. Regulatory review findings are presented in Section 5.0. Site reconnaissance findings are presented in Section 6.0. Deviations from the ASTM standard are presented in Section 7.0. Conclusions and recommendations are presented in Section 8.0. References are presented in Section 9.0. Information regarding the environmental professionals conducting the ESA is presented in Section 10.0. Site figures and photographs taken during the site reconnaissance are presented following the text. Appendix A contains a glossary of terms. A list of documents reviewed during the site visit and copies of relevant information supplied to AMEC by The Meadows are included in Appendix B (e.g., UST removal documentation, inspection forms, tank tightness test results, permits, and sampling results). A list of facility staff interviewed during the site visit is included in Appendix C. Appendix D contains the Historical Sanborn Fire Insurance map (no coverage letter). Appendix E contains historical aerial photographs. Appendix F contains historical topographic maps. Appendix G contains the EDR Radius Map Report and Detailed Site Report. Appendix H contains the historical Phase I ESA.

1.2 Definitions

For the purpose of this assignment, the following terms shall be defined as follows:

- *Site* – The Meadows facility, located at Racetrack Road, Meadowlands, PA 15347.
- *Project Area* - Refers to an approximate 1/2-mile radius around the site.
- *Adjoining Properties* - Any real property or properties, the border of which is contiguous or partially contiguous with that of the site, or that would be contiguous or partially contiguous with that of the site, but for a street, road, or other public thoroughfare separating them (per ASTM Standard Practice E 1527-00).
- *Recognized Environmental Condition* - The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies (per ASTM Standard Practice E 1527-00).
- *Hazardous Waste* - A waste or combination of wastes which, because of its quantity, concentration, or physical, chemical or infectious characteristics may – (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed (per ASTM Standard Practice E 1527-00).

- *Groundwater Flow Direction* - Refers to the direction of shallow groundwater flow, and is based on a review of topographic maps, surface water conditions in the project area, public documents, and/or interviews with knowledgeable people on the subject.
- *Internal Facilities* - All facilities, including process areas, warehouse, administrative, and social, which are located within the primary site building(s).
- *External Facilities* - All facilities, including process areas, fuel storage, materials and/or waste storage, and social, which are located outside of the primary site building. Any and all secondary structures, which are not part of the site buildings, are considered to be external facilities.

2.0 SITE INFORMATION/BACKGROUND

The following information was obtained during AMEC's site reconnaissance and from interviews with people knowledgeable about the Site.

2.1 Location and Legal Description

The Site is located within the County of Washington in the Township of North Strabane, Pennsylvania. According to EDR, the latitude of the site is 40.2202 degrees north and the longitude is 80.1996 degrees west. The site is bounded by Racetrack Road to the west. No information regarding a legal description of the property was available (AMEC was not permitted to visit or interview local government agencies to obtain this information).

2.2 Current Site and Process Description

2.2.1 Site Description

The Site includes approximately 154 acres of property utilized for the purposes of harness racing and associated activities, including the housing and care of horses, maintenance of grounds and racetrack, housing for some site personnel, wagering, dining, and viewing of the races. Horse racing is conducted year round and there are approximately 850 horses housed at the Site throughout the year. On-site structures include:

- A Grandstand building, which consists of an approximately four-story structure with seating for approximately 8,000 to 10,000 spectators, restaurants including the Adios Room, 2:00 Club, concession stands, administrative offices, Pennsylvania Horse Racing Commission offices, betting booths, press booth, jockey rooms, darkroom, sound room, several maintenance storage and service rooms, and a paddock area;
- Paved and gravel parking areas;
- A 5/8 mile oval horse racetrack;
- Administrative building (with a basement) and cafeteria;
- 25 horse stables/barns;
- Four dormitories including two that are currently in use and two that are abandoned (one of which is used for storage and maintenance activities);
- A Farmhouse (with a basement);
- A chapel;

- Three blacksmith shops;
- A small jogging track;
- Security/Pennsylvania Horse Racing Commission offices; and
- Three mobile trailers.

The Grandstand building is constructed of poured concrete and concrete block exterior walls on a concrete slab-on-grade foundation system. There is no basement, but the grade drops behind the building to a "walk-out" to ground level. The roof of the Grandstand building houses the air conditioning units for the Grandstand and consists of roll tar and fine gravel material. Interior finishes within the Grandstand building consist of carpet, ceramic tile or vinyl-covered flooring in the offices and common areas, painted sheetrock or concrete block walls, and adhered ceiling tiles, suspended ceiling tiles, or wood plank ceilings.

There are 25 horse stables/barns on-site. Horse stables are used for horse boarding, tack storage, and grooming. Barn construction typically consists of earth floors, concrete block exterior walls, and wooden trusses with sloped metal roofing.

A chain link fence surrounds the entire Site. Most of the Site is developed and includes buildings, parking areas, roadways, or landscaped areas. An unnamed tributary to Chartiers Creek bisects the property and site topography generally slopes towards this bisecting water body. A portion of the property (along the bisecting creek) has been identified as potential wetlands. A second tributary to Chartiers Creek is located to the east of the property.

The Facility maintains two 1,000-gallon above ground storage tanks for the purpose of storing diesel fuel, and one 300-gallon above ground tank for the purposes of storing waste oil. One of the 1,000-gallon tanks and the 300-gallon waste oil tank are within secondary containment, and the other 1,000-gallon tank is double-walled. The two diesel fuel tanks are located immediately adjacent to a steep incline leading to a creek. In addition, the Facility has one 2,000-gallon underground storage tank (UST) for the purposes of storing gasoline. The UST has cathodic protection, and an electronic leak detection system. Next to the UST is a ground water monitoring well, which according to the site contact has never been sampled. Further information on storage tanks is provided in Section 6.1.1.

2.3 Site Utilities

The site utilities are as follows:

Utility	Service Provided By
Water (potable)	Pennsylvania American Water Comp.
Electrical	Allegheny Power Company
Wastewater (sanitary)	North Strabane Township Mun. Auth.
Natural Gas	Columbia Gas
Refuse/Garbage	Waste Management, Inc.

Hardy Trucking, Inc. provides removal of horse manure/straw and transports the manure to Creek Side Mushroom Farm approximately every other day. Some manure however is transported to Waste Management's Arden Landfill.

2.4 Adjoining Property Use

As part of AMEC's Phase I ESA, a visual reconnaissance of the properties adjoining the Site was conducted. Major roadways/properties that adjoin the Site are as follows:

Direction from the Site	Adjoining Property/Roadway
North	Public Sewage Treatment Plant owned by North Strabane Municipal Authority; Residential housing community
East	Residential housing and grazing pasture
South	Holliday Inn Hotel, Racetrack Road, undeveloped land
West	Residential housing community

AMEC viewed the adjoining properties from the site and/or public roadways for visual evidence of significant chemical storage, improper waste disposal, or other outward indications of adverse environmental conditions. Surrounding land use is further discussed in Section 6.2.

2.5 Previous Environmental Investigation

Several environmental-related documents pertaining to the Site were reviewed for this Phase I ESA, including:

- A Tank Removal Report that was supplied to Ladbroke at the Meadows by United Environmental Group Inc. in December of 2000 in regards to a heating oil tank, which was removed from the site on December 1, 2000.

- A report titled "Analysis for the (1) 1,000 Gallon Gasoline Underground Storage Tank" that was provided by L.A.W. Environmental and describes the events that occurred between September 21, 1992 and November 2, 1992 including the removal of a 1,000 gallon underground storage tank along with contaminated soil which was sampled, excavated, and backfilled.

- A Phase I Environmental Site Assessment & Operational Compliance Review prepared for Magna Entertainment Corporation by AMEC Earth & Environmental on November 20, 2000.

Each of these reports is described in more detail in Section 6.0.

3.0 PHYSIOGRAPHIC AND GEOLOGICAL SETTING

The following subsections present information regarding the general physiographic, geologic and hydrogeologic conditions in the project area.

3.1 Surface Topography and Drainage

A search conducted by Environmental Data Resources (EDR) revealed a United States Geological Survey (USGS) Topographic Map, Washington East, Pennsylvania Quadrangle, 7.5 Minutes Series, dated 1977, indicates the Site is at an elevation of approximately 1,020 to 1,140 feet above mean sea level. The Site is located on the side of a hill with topography gently sloping to the southwest. Surface waters from the site drain into the unnamed tributary which flows directly through the center of the site in a southwesterly direction. Another unnamed tributary also flows in a southwesterly direction along the eastern side of the Site. Both tributaries ultimately empty into Chartiers Creek, located to the west of the Site.

3.2 Regional Geology

According to the U.S. Department of Agriculture Soil Conservation Service Soil Map for Washington County, Pennsylvania, soils at the Site are classified as the Udorthents-Urban land complex. This moderate to poorly drained soil is located on uplands and flood plains. Original soil was a dark brown silt loam to a depth of approximately 78 inches or more. Construction activities including cutting, grading, and significant amounts of artificial fill have drastically altered the original soils. Surface fill and soils are approximately 30 feet thick and underlain by a few hundred feet of the Monongahela Group Formation, which consists of a sequence on limestone, shale, sandstone, and coal.

3.3 Regional and Local Hydrogeology

Regional groundwater migration is strongly influenced by surface drainage, topography, and the permeability of subsurface materials. Regional and shallow groundwater is expected to flow west towards Chartiers Creek. Exact depth of shallow groundwater can only be confirmed through subsurface investigations.

4.0 HISTORICAL REVIEW

AMEC completed the site and surrounding land use history by reviewing information from the following sources:

- Historical USGS 7.5-minute series topographic map for the "Washington East, Pennsylvania Quadrangle" dated 1977
- Historical aerial photographs for the years 1975 and 1993;
- Historical Topographic Maps for the years 1904, 1953, 1953-1969, and 1977 obtained from EDR;
- Interviews with the site representatives; and
- Historical City Directory Report (no coverage letter).

4.1 Site History

Based on the review of historical information and personal interviews the site appears to have been used as agricultural farming land prior to its development in 1963. According to Mr. Quinton Patterson, prior to development of the racetrack, the land was known as the McCarol Farm and the Ross Farm. Since 1963, the Site has been used as The Meadows racetrack.

In December 2000, a 500-gallon underground storage tank containing heating oil was discovered and removed. According to site representatives, this heating oil tank existed prior to development of the site as a racetrack, and was likely associated with one of the farmhouses previously on-site. Further information regarding the removal of this UST is presented in Section 6.1.1.

Historically, racing programs were printed in a trailer on the Property. These operations have since been transferred off-site and the trailer is no longer present. There is the potential that chemicals, inks, and wastes associated with the printing process have impacted the Property.

According to a previous phase I ESA, dated November 2000, x-rays were previously developed on-site in the former groom's quarters of Building B. Developer and fixing solutions were stored in 5-gallon containers without secondary containment. Reportedly, the x-ray development system was connected to the floor drains which discharged to the sanitary sewer system. X-rays are no longer developed on-site.

In 2002, a barn in the backstretch caught fire and burned. Reportedly, 28 horses died in the fire. No further information on the fire was provided.

4.1.1 Historical Sanborn Fire Insurance Maps

AMEC retained the services of EDR for Sanborn historical map coverage of the site and surrounding area. According to EDR, no historical Sanborn map coverage is available for the site. A copy of the No Coverage letter is provided in Appendix D.

4.1.2 Historical Aerial Photographs

AMEC retained EDR to perform a search for historical aerial photographs covering the Site and adjoining properties. One aerial photograph, from 1975, was available for review.

The 1975 aerial photograph depicts the site track, grandstand building, and backstretch buildings. There is one business in the vicinity of the site, to the south, that appears to be a hotel. The surrounding vicinity appears to be mostly agricultural.

An additional aerial photograph was obtained from the Pennsylvania Spatial Data access for the year 1993. The 1993 photograph depicts the current Site conditions; however, the residential community, which was observed to the northeast and east, are not present in the aerial photo. The Holiday Inn, which is located to the southwest of the Site, is present.

Aerial photographs are presented in Appendix E.

4.1.3 Historical Topographic Maps

Historical topographic maps of the site and surrounding area were obtained from EDR for the years 1904, 1953, 1953-1969, and 1977. Historical topographic maps are provided in Appendix F.

The topographic map produced in 1904 shows the Site as being completely undeveloped. It also shows that many of the smaller roads used to access the Site at present day were also present in 1904. In addition, the unnamed tributary that bisects the site was also present. The topographic map does not depict any structures on-site in 1904.

The topographic map produced in 1953 depicts a more developed area surrounding the Site than the 1904 topographic map. This map also depicts a small structure located in the center of the Site, where the racetrack currently resides. This structure no longer resides on the Site and on-site personnel were not aware of its existence or purpose. The tributary, which runs outside the sites eastern boundary, is depicted in the 1953 topographic map but is not shown in the 1904 map. However, topography of the 1904 map shows evidence that this unnamed tributary may have existed at the time the map was created. Reasons for its absence are unknown.

The topographic map labeled 1953-1969 depicts a much more developed area of the Site and surrounding the Site. On-site the facility including the racetrack, grandstand, on-site access roads, and many of the stables, is depicted. This map verifies the information gathered from on-site personnel regarding the construction of the facilities on-site.

The topographic map created in 1977 is almost identical to the map labeled 1953-1969. However, the maintenance shop/buildings residing on the northern portion of the site are missing from this topographic map. In addition to the Maintenance shop/buildings there are other present day structures missing from this topographic map including the sewage plant and residential homes.

4.1.4 Interviews with the Site Representatives

AMEC interviewed two Site employees who had longstanding relationships with The Meadows and appeared knowledgeable regarding the daily operations and historical happenings of the Site.

Mr. Dan Mangan is the Backstretch Maintenance Manager and has been actively employed at the site since 1991. He is in charge of day-to-day operations of the entire backstretch. This includes coordination with outside vendors, supervision of maintenance personnel, resident director of all dormitories, and over seeing operations in stables.

Mr. Quinton Patterson is the Director of Building Services and has been associated with the Site, in one fashion or another, since 1961 and helped build the racetrack . He oversees day-to-day operations of the grandstand (including all facilities located within the grandstand), Adios Room, the 2:00 Club, and all other facilities located to the western side of the site.

These interviews are detailed in Section 6.3.

4.2 Surrounding Land Use History

The land use of the property currently adjacent to the site, excluding roadways is primarily residential housing. To the north is a publicly owned sewage treatment plant owned by the North Strabane Municipal Authority. Also to the north, and to the west are heavily developed residential housing communities. To east is a large grazing pasture and farmhouse that has no affiliation with the Site. To the south is a Holliday Inn Hotel, Racetrack Road, an unnamed tributary that empties into Chartiers Creek, and undeveloped, wooded land.

Prior to the development of the above areas, it is believed the entire area was used for farming.

To the southwest of the Site reside two retail gasoline stations. The first is Race Track Exxon, which, according to EDR findings, contains two underground storage tanks (USTs). Both USTs are currently in use and were inspected on April 7, 2004. The second retail gasoline station is BP Oil 07411. This station has three USTs currently in use which were last inspected on January 23, 2002. This facility is labeled as having a leaking underground storage tank (LUST) with a documented release date of October 5, 1994. The facility status is labeled as "interim remedial actions initiated or completed". This site is further documented in Section 5.2.3 of this report.

4.3 Results of Historical Review

An historical aerial photograph and historic topographic maps corroborate information on the site history provided by the site representatives. Essentially, the site and surrounding areas have been agricultural farmland up until 1963, at which time the racetrack was built. All buildings built on and associated with the Site were built between 1963 and present day.

As discussed above, a 500-gallon underground storage tank containing heating oil was discovered on-site. According to site representatives, this heating oil tank existed prior to development of the site as a racetrack, and was likely associated with one of the farmhouses previously on-site. Further information regarding the removal of this UST is presented in Section 6.1.1.

Historically, racing programs were printed in a trailer on the Property. These operations have since been transferred off-site and the trailer is no longer present. No staining was observed in this area. There is the potential that chemicals, inks, and wastes associated with the printing process have impacted the Property.

5.0 REGULATORY REVIEW FINDINGS

This section provides a summary of information obtained from various federal, state and local agencies that maintain environmental regulatory databases. These lists and databases contain information about facilities or sites that have reported incidents involving hazardous materials or inappropriate use, storage or transportation of such materials. This information was gathered by AMEC and EDR.

A discussion of the information reviewed is presented in the following subsections. The EDR Radius Map report is presented in Appendix G.

5.1 Federal Agency Databases/Records

AMEC reviewed a number of environmental databases that are maintained by federal agencies. These records, and the radius from the site that they cover, are described below.

5.1.1 National Priorities List

The federal National Priority List (NPL), or Superfund sites list, is the United States Environmental Protection Agency's (U.S. EPA's) database of uncontrolled or abandoned hazardous waste sites identified for priority investigations and, as appropriate, remedial actions under the Superfund Program.

A review of the July 2005 NPL database and the November 2004 Proposed NPL database indicates no listings for the Site or properties within a 1-mile search radius.

5.1.2 Comprehensive Environmental Response, Compensation and Liability Information System

The federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) legislation (also known as the "Superfund") was introduced to finance the cleanup of abandoned disposal sites throughout the United States. The federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) lists sites which are either proposed to be or are on the NPL, and sites which are in the screening and assessment phase for possible inclusion on the NPL. The information on each site includes a history of all pre-remedial, remedial, removal and community relations activities or events at the site, financial funding information for the events, and unrestricted enforcement activities.

A review of the June 2005 CERCLIS database indicates no listings for the Site or properties within a 1-mile search radius.

No Further Remedial Action Planned (NFRAP) sites may be properties where, following an investigation, no contamination was found, contamination was removed quickly, or the

contamination was not serious enough to require federal Superfund action or NPL consideration.

A review of the May 2005 CERCLIS-NFRAP database indicates no listings for the Site or properties within a 1-mile search radius.

5.1.3 Resource Conservation and Recovery Act Corrective Action Sites List

The U.S. EPA maintains the federal Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) list, which identifies facilities that are undergoing "corrective action" under RCRA. A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from an RCRA-regulated facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

A review of the June 2005 CORRACTS database indicates no listings for the Site or properties within a 1-mile search radius.

5.1.4 Treatment, Storage & Disposal Facilities

The federal RCRA Treatment, Storage & Disposal (TSD) facilities database, maintained by the U.S. EPA's RCRA Program, is a compilation of facilities that report generation, storage, transportation, treatment or disposal of hazardous waste. RCRA TSDs are facilities that treat, store and/or dispose of hazardous waste.

A search of the May 2005 TSD facilities database indicates no listings for the Site or properties within a 1-mile search radius.

5.1.5 Resource Conservation and Recovery Act Generators

The RCRA database maintained by the U.S. EPA lists facilities that have notified the U.S. EPA of hazardous waste activity. The notifiers may engage in the generation, transportation, treatment, storage and/or disposal of hazardous wastes.

There are three categories of hazardous waste generators under the RCRA:

- Generators of no more than 100 kilograms per month, known as conditionally-exempt small quantity generators (CESQGs);
- Generators of 100 to 1,000 kilograms per month, known as small quantity generators (SQGs); and
- Generators of 1,000 kilograms or more in a month, known as large quantity generators (LQGs).

A review of the May 2005 RCRA database indicates that the Site is listed as a SQG. There were no other sites in the RCRA database located within the search radius.

5.1.6 Emergency Response Notification System

The federal Emergency Response Notification System (ERNS) is a national database that compiles information on reported releases of petroleum and hazardous substances. This database contains information from spill reports made to federal authorities including the U.S. EPA, the U.S. Coast Guard, the National Response Center (NRC) and the U.S. Department of Transportation (DOT).

A review of the December 2004 ERNS database indicates no listings for the Site.

5.1.7 Facility Index System (FINDS)

FINDS contains both facility information and pointers to other sources that contain more detail. The following sources are referenced in this system PCS (Permit Compliance System), AIRS (Aeromatic Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket system used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STSTE (State Environmental Laws and Statutes), PADS (PCB Activity Data System).

A review of the July 2005 FINDS database indicates that the Site is listed in the database, under the Resource Conservation and Recovery Act information system. There is no listed violation or non-compliance issue related to the inclusion of the Site in this environmental database system.

5.1.8 Toxic Chemical Release Inventory System (TRIS)

The Toxic Release Inventory System (TRIS) identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313. A review of the December 2003 TRIS database indicates that the Site is not listed in the database.

5.2 State Agency Databases/Records

AMEC reviewed a number of environmental databases that were maintained by Pennsylvania State agencies. These records, and the radius from the site that they cover, are presented below.

5.2.1 State Hazardous Waste Sites

The State Hazardous Waste Sites (SHWS) list is a computer database maintained by the State of Pennsylvania Department of Environmental Protection (PADEP). It is the state's equivalent list to CERCLIS list. Sites on the SHWS may or may not already be listed on the federal CERCLIS list. Priority sites planned for clean up using state funds (state equivalent of Superfund) are identified along with sites where clean up will be paid for by potentially responsible parties.

A review of the May 2005 SHWS database indicates that there are no SHWS sites within a one-mile search radius.

5.2.2 Solid Waste Facilities/Landfill Sites

The Solid Waste Facilities/Landfill Sites (SWF/LF) database is maintained by PADEP and contains an inventory of solid waste disposal facilities and landfills in the state. A review of the June 2005 SWF/LF database indicates that there are no SWF/LF sites within a 1/2-mile search radius.

5.2.3 Underground Storage Tank and Leaking Underground Storage Tank Sites

The Underground Storage Tank (UST) facility list contains a list of registered underground storage tanks. USTs are regulated under Subtitle I of RCRA and must be registered with the state department responsible for administering the UST program (PADEP).

A review of the July 2005 UST list indicates that there are two registered UST sites within 1/2 mile of the facility:

Race Track Exxon
461 Race Track Road
Washington, PA 15301

BP Oil 07411
505 Racetrack Road
Washington, PA 15301

The facility labeled Race Track Exxon has three (3) registered USTs. The tank status on all of these is listed as "currently in use." Furthermore, there is no indication that there are any releases associated with these tanks. Therefore, this facility is not expected to have an impact on the site.

The facility labeled BP Oil 07411 has four (4) registered USTs. The tank status on all of these is listed as "currently in use." Of the four tanks located on-site, three are designated as gasoline and one is designated as diesel. This site is also documented in the LUST database (see below).

The Leaking Underground Storage Tank (LUST) database contains an inventory of reported leaking underground storage tank incidents. These data were compiled from the PADEP Underground Storage Tank Data list.

A review of the July 2005 LUST list indicates that there is one LUST sites within 1/2 mile of the site:

BP Oil 07411
505 Race Track Road
Washington, PA 15301

The facility type is reported as "Underground Storage Tank Containing Petroleum." According the LUST database this facility had a release on October 5, 1994 from one of the USTs. It is reported that interim remedial actions have been initiated or completed. This facility has a total of four USTs, all of which are categorized as "currently in use". Due to facility's location down gradient and lower relative elevation, this facility is not expected to have an impact on the Site.

6.0 SITE RECONNAISSANCE AND INTERVIEWS

The purpose of AMEC's site reconnaissance was to obtain visual information that would indicate the presence of recognized environmental conditions. Mr. Michael Hansen and Mr. Jason McCabe of AMEC visited the site on August 23, 2005. Observations were documented and pertinent features or areas of potential environmental concern were photographed.

6.1 Site Observations

A summary of each area assessed is presented below, according to pre-assigned topics of potential environmental concern. As appropriate, AMEC's observations are separated into "interior" or "exterior."

6.1.1 Storage Tanks

There are two aboveground storage tanks (ASTs) on-site, which are used for housing off-road diesel fuel and on-road diesel fuel. Each is a 1,000-gallon steel tank and both are in good condition. Both were installed in 1995 and are labeled appropriately. The tank used for on-road diesel is in dike containment but has no gauge. The tank used for off-road diesel is double walled and has a gauge. Both have automatic shut-off nozzles but do not have overfill protection. Interviews with site personnel indicated that there has never been any reported spills regarding these ASTs. The close proximity of these ASTs to the unnamed tributary that flows through the center of the Site was noted by AMEC personnel. It is recommended that The Meadows investigate a different location to house these tanks to be more protective of the environment in the event that a spill or leak does occur.

There is currently one underground storage tank (UST) used for the storage of gasoline at the Site. The UST is a STI-P3, 2,000 gallon steel tank. The tank was installed on October 30, 1992 after the removal of a 1,000-gallon leaking underground storage tank (LUST) and excavation of contaminated soil associated with the LUST. The tank has cathodic protection, and an electronic leak detection system and undergoes regular tank tightness tests. The tank has an automatic nozzle shut-off and an overfill protection device. A tank tightness test was performed on October 8, 2004 and passed all criteria set forth by the U.S. EPA. On April 1, 2005, the tank underwent an Underground Storage Tank Facility Operations Inspection, documented by the PADEP. This inspection included a cathodic test. The tank was found to be in compliance with all applicable requirements. Documentation regarding the tank tightness test and the inspection are provided in Appendix B1.

The historic 1,000-gallon UST was installed in 1969 and was removed on September 21, 1992. After excavation, the tank was examined and it was noted that the tank was in good condition with no holes. However, soils surrounding the tank were impacted with petroleum and therefore excavated. Approximately 480 tons of soils were excavated and staged on 6-mil plastic sheeting. Contaminated soil was taken off site and disposed of by Waste Remedial Services and cleaned by Petro Cell in Columbus, Ohio. Once excavation was completed, soil samples

from the excavation walls and bottom were collected and submitted for laboratory analysis of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). Results of the soil analysis reported detected concentrations of TPH in the tank walls. Thesouth wall had a TPH concentration level of 370 parts per million (ppm), the north wall had a TPH concentration of 70 ppm, and the "north plume" had a concentration of 35 ppm. All other samples were less than the detection limit of 35 ppm. It was noted in the report provided by L.A.W Environmental that the south wall is comprised of an area 3 feet wide by 5 feet deep by 15 feet in length. It was also noted that this area could not be further excavated due to the close proximity of this soil to a newly installed underground storage tank. Therefore, these levels of contamination were left in-place. Based on these concentrations, the report concluded that "Level B" cleanliness had been reached for the site. The Pennsylvania Department of Environmental Protection (PADEP) no longer maintains cleanup levels for TPH, but utilizes chemical specific concentrations only.

Although the L.A.W. Environmental report states regulatory personnel were notified of this UST removal, no documentation to or from the PADEP was available. In addition, no correspondence from PADEP regarding closure of this issue was available. Information obtained from the site contact regarding this UST removal is provided in Appendix B2.

On December 1, 2000 a 500 gallon steel heating oil UST was excavated and removed from the Site after its discovery during construction activities. It is unknown when the tank was installed, however site representatives stated the tank was most likely installed prior to development of the Site as a racetrack. The tank was unregistered/unregulated. During excavation of the tank, soil samples were monitored by use of a photoionization (PID) meter. After tank excavation was completed, soil samples were collected and submitted to an analytical laboratory for analysis for benzene, toluene, ethylbenzene, cumene, napthalene, fluorene, phenanthrene, and total solids. Analysis results showed concentrations of pollutants in all samples were below the detection limit. All excavated soils were backfilled. AMEC could not identify any regulatory agency documentation, including a site closure letter, despite the environmental consultant reporting that all appropriate personnel were notified. Information obtained from the site contact regarding this UST removal is provided in Appendix B3.

6.1.2 Chemical Use and Storage

Interior

No significant quantities of chemicals are maintained on-site. Two buildings house flammable cabinets, which contain relatively small quantities of paint, starter fluid, and penetrol. The maintenance building, which houses one of these flammable cabinets, also contains gasoline consuming machines including lawnmowers and chainsaws. It also contained a hydraulic jack hammer which was placed over what appeared to be an oil spot on the cement floor. When questioned, the maintenance staff stated that the oil spot was spilled GoJo which is a hand cleanser.

A second maintenance building, located to the northern end of the Site, housed work vehicles, a flammables cabinet, three (3) 55-gallon drums, and one (1) 150-gallon waste oil tank. The

flammables cabinet contained paint and enamels. One of the 55-gallon drums was full with motor oil while the other two were partially full with motor oil. The 300-gallon waste oil tank was partially full, properly labelled, and had secondary containment. Waste oil is collected and disposed of every six months and is tested for total halogens once per year. Total halogens tests have never detected any halogens in the oil. The floor of this maintenance building was partially soil but mostly cement with insignificant oil staining throughout from leaking work trucks. Photo documentation was made of such oil leaks.

The Facility submits annual Tier II reports under SARA Title III for gasoline, diesel, and rock salt.

Exterior

During AMEC's site reconnaissance, no exterior chemical storage was observed at the site. The site representative confirmed this observation.

6.1.3 Utility Areas, Heating, Ventilating and Air Conditioning System

Of the 41 buildings located on-site, only limited buildings have heat and air conditioning systems. Dormitory rooms are heated by electrical systems and each room has an individual air conditioning unit. The administration building is provided with heat through a natural gas-fired boiler located in the basement of the building.

The Grandstand Building is heated and cooled by approximately 12 HVAC systems, including natural gas-fired forced air heating systems and central air conditioning.

Listings of equipment containing ozone-depleting substances that have been removed and/or replaced are further documented in Appendix B4 of this report.

Next to the Grandstand Building is an outdoor padded area where communications and networking systems were previously located. Electrical conduits, concrete debris, and metal debris are located in this area.

6.1.4 Wells

According to the site representative, no drinking water wells are or have ever been located on Site. One tank field monitoring well, which was installed during the UST installation, is located near the UST. According to site personnel, the well has never been gauged or sampled.

6.1.5 Drywells/Storm Drains

A drywell is commonly constructed on selected sites for the controlled discharge of storm water into the subsurface. No drywells were observed during the site visit.

All storm water on-site flows to the unnamed tributary which flows through the center of the Site. In addition, drains located in the horse stables/barns, lead to this unnamed tributary. Wash

water from the washing of horses and the barns discharges through these drains. This unnamed tributary dispenses into another unnamed tributary before it is ultimately dispensed into the Chartiers Creek. AMEC visually examined the storm water outfall of the unnamed tributary that flows through the center of the Site before it reaches the unnamed tributary that flows to the Chartiers Creek. No staining, signs of stressed vegetation, or surface pollution were observed at the time of the site visit.

Due to the concentrated feeding operation currently taking place at the Site, Magna Entertainment Corp. has applied for and has been granted approval for a NPDES permit for Concentrated Animal Feeding Operations (CAFO). The permit number is PA0252905 and is effective September 1, 2005 and expires August 31, 2010. Pursuant to this permit, the Facility has until December 31, 2007 to connect drains in barns 13 through 24 to the sanitary sewer system, and until July 15, 2010 to connect drains in barns 1 through 11 to the sanitary sewer system (or if these barns are to be no longer used they may be disconnected to the storm water system). Magna Entertainment Corp. commissioned Widmer Engineering to complete engineering plans for construction of these connections. The plans for construction are currently out to bid and all bids are to be received by September 6, 2005. Costs associated with this connection are expected to be significant. A copy of the NPDES permit is provided in Appendix B5.

6.1.6 Surface Water

Surface water for almost the entire site, including storm water runoff, flows toward the bisecting, unnamed tributary in the center of the Site. In October 2004, this tributary was sampled by Mr. Dan Mangan for a variety of parameters including total suspended solids, ammonia nitrogen, nitrates, fecal coliform bacteria, pH, phosphorus, oil & grease, alkalinity, iron, and aluminum. Samples were collected from various points along the tributary, including upstream of the facility (near the outfall for the Sewage Treatment Plant). Samples were submitted to H&H Water Controls, Inc. for analysis. Test results are provided in Appendix B6 of this report.

AMEC observed some waste materials along the sides and in many of the drainage ditches that control and direct surface run off from the site. Waste material encountered included disposable drinking cups, discarded tires, plastic buckets, and other articles commonly deemed as solid refuse.

6.1.7 Floor Drains/Catch Basins/Sumps

AMEC observed several floor drains throughout the Grandstand Building and administration building. Site representatives believe that all floor drains are connected to the sanitary sewer system.

AMEC also observed floor drains within each of the barns, which collect water from the barns and the washing of horses. Site representatives indicate that these floor drains are tied into the storm water system on the site (see Section 6.1.5). These are believed to drain into the unnamed tributary of the Chartiers Creek located to the southwest of the Site. AMEC did not observe any sumps during the Site visit.

6.1.8 Pits/Ponds/Lagoons

AMEC did not observe and pits, ponds, or lagoons on the Site. However, a retention pond built by the developers of the housing plan to the north of the Site, is located approximately 50 feet from the Sites northern boundary. The retention pond showed no signs of pollution or contamination.

6.1.9 Surface Staining

Interior

Minor surface staining was observed on the floor of the Maintenance Building (Building 20), presumably from small oil spills and equipment leaks. In addition, staining was observed in the maintenance/boiler room areas of the Grandstand building (second floor). This staining appeared to be associated with two air compressors. One of the stains appeared to be approximately five feet by five feet in area.

Exterior

AMEC observed a surface staining line from the trash compactor, located outside the western face of the grandstand, to a storm water runoff catch basin (leading to the unnamed tributary bisecting the property). Site personnel informed AMEC that a hydraulic hose connected to the trash compactor had leaked. Site personnel estimated that approximately 5 gallons of hydraulic fluid had leaked out.

6.1.10 Stressed Vegetation

Surface vegetation can be indicative of subsurface conditions, and may show signs of stress where contaminants have been discarded. The majority of the unpaved portion of the site exterior is maintained with landscaped vegetation that includes grass, bushes, flowers, and trees. AMEC did not observe any signs of stressed vegetation while conducting the site reconnaissance. The site representative was not aware of the current or historical presence of stressed vegetation at the site.

6.1.11 Electrical Transformers and Equipment

Electrical power distribution transformers tend to be of two types; pole-mounted or pad-mounted. Some older electrical distribution transformers may contain dielectric fluids consisting of PCBs, which are regulated by the EPA under the Toxic Substances Control Act (TSCA).

EPA CFR Title 40, Part 761, governs the manufacturing, processing and distribution of PCBs. The guideline defines a PCB transformer as any transformer that contains 500 parts per million (ppm) PCBs. PCB-Contaminated Electrical Equipment is defined as "any electrical equipment including, but not limited to, transformers (including those used in railway locomotives and self-propelled cars), capacitors, circuit breakers, reclosers, voltage regulators, switches (including sectionalizers and motor starters), electromagnets, and cable, that contains PCBs at concentrations of 50 ppm and < 500 ppm in the contaminating fluid."

Any oil-filled electrical equipment with the exception of circuit breakers, reclosers and cable whose PCB concentration is not known, must be assumed to be PCB-contaminated. Section 40 CFR 761.2 states that any transformer (or electrical equipment) that was manufactured prior to July 2, 1979, or the date of manufacture is not known, should be assumed PCB-contaminated.

There are two power substations on-site owned by MEC. A review of records regarding the electrical transformers, indicated that the transformers at the Site were tested for PCB content in December 1986. The results of the testing indicated that several of the transformers did contain PCBs in excess of the regulatory limits for PCB-contaminated transformers. The transformers were then retrofitted or replaced in 1987.

In the maintenance building were three (3) 75 KVA transformers and three (3) 25 KVA transformers which were currently not in use. All transformers were non-PCB and none of them appeared to be leaking oil.

Information regarding the removal and replacement of on-site transformers is provided in Appendix B7.

AMEC observed fluorescent and mercury vapor light fixtures on the Site. Due to the date of construction of the Grandstand Building and other Site buildings (prior to 1980) it is likely that ballasts in the fixtures contain PCBs. However, the fixtures appear to be in good condition and were not observed to be leaking, therefore they do not pose a significant environmental concern at this time. When replaced, these fixtures must be disposed of in a responsible manner.

Records of a previous Phase I ESA performed on the Site identified a leaking transformer next to the Odds Board, which is located next to the racetrack.. The transformer reportedly did not contain PCBs. After discovery of this leak, the area was inspected and it was determined the staining was approximately one-inch deep. Impacted soils were collected and disposed of off-site. The transformer has since been replaced.

6.1.12 Hazardous/Regulated Wastes

Interior

AMEC visually assessed the interior of the Site building for the storage or disposal of hazardous or regulated wastes.

AMEC observed a waste oil tank within the Maintenance Building. According to the Site representatives, waste oil generated at the Site is removed from the Site every six months.

Discussions with Site personnel, indicated that the Pennsylvania Horse Racing Commission (PHRC) is identified as a small quantity generator of hazardous waste, due to disposal of regulated medical waste generated from drug testing activities prior to racing. The medical waste consists of 1 to 3 sharp containers. The medical waste is generated and then taken to the

PHRC/Security Building, until the waste is collected and disposed of by an independent, licensed contractor.

AMEC observed a 150-gallon tank used to store used oil located in the Maintenance Building (Building 20). According to site personnel the site produces approximately 350-400 gallons of used oil per year. The used oil is properly transported off-site for disposal on a regular basis. Waste oil is currently collected by Environmental Specialist, Inc.

Exterior

AMEC visually assessed the exterior of the site for the storage or disposal of hazardous and/or other regulated wastes and did not identify any hazardous waste storage or disposal areas. According to the site representative, the Site does not store hazardous or regulated wastes on the exterior of the facility.

6.1.13 Solid Waste

Solid wastes generated in the interior of the Site buildings generally consisted of domestic garbage, paper, cardboard, bottles, and cans. These materials are disposed of in covered dumpsters located south of the Grandstand Building or near the entrance to the stables. Waste Management, Inc. is contracted by the Site to remove these waste materials.

Grease generated from on-site restaurants and kitchens is placed in metal bins located within a walk-in refrigerator on the south side of the Grandstand Building or next to the horse owner and handler cafeteria.

Horse manure generated at the Site is collected daily in the stables by horse owners and caretakers. Horse manure is stored in a covered storage area. Horse manure containing straw is then transported to a covered storage area between Barns #18 and #16. The manure is transported off-site approximately every other day to Creekside Mushrooms Ltd. (a mushroom farm) located at One Moonlight Drive, Worthington, PA 16262. Manure that has sawdust mixed in it (sawdust is used as bedding) cannot go to the mushroom farm and is disposed of by Waste Management at their Arden Landfill in Washington County.

Considerable debris and waste materials are present in some of the dormitory rooms. These rooms should be cleaned and all waste materials properly disposed.

Two very rusty drums, neither of which were labeled, were observed near the harness repair shop. Although the contents of these drums could not be determined, it is believed they contained rain water. Other drums were also observed on-site used as waste receptacles.

6.1.14 Wastewater

Sanitary wastewater at the Site is directed to the North Strabane Municipal Authority.

Approximately once every six months an air compressor located in the maintenance building is discharged of its condensate into the storm water drains.

6.1.15 Air Quality

The Site does not operate any air emitting equipment/processes that would require air emissions permits or are cause for environmental concern.

6.1.16 Asbestos-Containing Materials

Asbestos-Containing Materials (ACMs) are fibrous hydrated silicates, and can be found in building materials as either "friable" or "non-friable" asbestos products. Friable asbestos refers to materials, which can be readily crumbled using hand pressure, separating asbestos fibers from the binding materials with which they are associated. Non-friable material refers to asbestos, which is associated with a binding agent (such as tar or cement), preventing ready release of airborne fibers. Friable asbestos is commonly found in boiler and pipe insulation. Non-friable or bound asbestos is typically found in roofing tars, floor and ceiling tiles and precast asbestos cement products commonly referred to as "transite."

Under 29 CFR 1926.1101 Occupational Safety and Health Administration (OSHA) Asbestos Standard for the Construction Industry, where a building owner knows, or an inspection has revealed the presence of asbestos within a building, an asbestos management and maintenance plan must be established. This section also requires that where ACMs are damaged or deteriorating, the building owner must take remedial action so as to protect the health and safety of the building occupants.

The use of ACMs were discontinued in the United States in the late 1970s to early 1980s, although non-friable asbestos is still found in many more recent buildings as ceiling tile, floor tiles, asbestos cement and in certain types of cementaceous pipe materials. Asbestos may become an issue during renovation, alteration, maintenance or demolition activities, or when ACMs are taken out-of-service. Materials identified as containing asbestos, which are in poor condition, should immediately be managed either by proper encapsulation or removal.

AMEC did not conduct an asbestos survey in conjunction with this Phase I ESA. An Asbestos Building Inspection, dated June 7, 2005, was performed by The Weavertown Group and positively identified both friable and non-friable forms of ACM within Site buildings. All findings, along with an approximated cost of remediation, were documented in this report. A copy of the report can be found in Appendix B8.

6.1.17 Lead-Based Paint

A lead-based paint (LBP) survey was not conducted as part of this ESA. Prior to the late 1970s many paints were used contained lead. When these paints become damaged, i.e., peeling or flaking, or the painted surface is renovated or demolished, lead can be released into the environment constituting an environmental and worker health hazard. Depending on the age of structures, the potential exists for the presence of lead based paint, either exposed, or covered

over with other paints or materials as a result of subsequent renovation. Any flaking or peeling paint that could be lead-based should be removed appropriately.

No deteriorated paint surfaces were observed during the site visit. According to site representatives, a lead paint survey has never been performed. Because the Site buildings were constructed prior to 1978, LBP may be present in the Site buildings. AMEC observed painted surfaces in the Site buildings generally to be in good condition (i.e., no peeling or flaking). Provided no renovation or demolition of the structures is planned, AMEC does not believe further investigation into the presence of LBP is required.

6.1.18 Radon and Methane Gas

Radon Gas

Radon gas is a colorless, odorless gas that occurs naturally from the breakdown of uranium. Radon can be found in high concentrations where there are soils and rocks containing high levels of uranium, granite, shale or phosphate. In open air or in areas with high air circulation, radon is not considered a health problem. However, in confined spaces (such as poorly ventilated basements), radon can concentrate and become a health hazard.

Using GeoCheck, a program that is run as part of the EDR database report, a radon check for the site and surrounding area was provided. Of the total 935 sites reported, 513 sites within zip code 15317 were tested and the average radon level for all 513 sites was 4.7 pCi/L, a level greater than the EPA action level. The county in which the Site resides, Washington County, is in a Zone 2 for indoor Radon

Radon is a concern in basement structures. Only two buildings were identified to have basements on site, including the administration building and a farmhouse. Personnel do not regularly work in either of these basement areas, and therefore radon is not expected to be a concern.

Methane Gas

Methane is a primary byproduct of decomposition of organic materials such as found in landfills or other areas where vegetation has been used as fill material. In fact, methane is one of the main constituents of landfill gas. In confined spaces (such as underground structures), the presence of methane can constitute a health and safety hazard. Consequently, the presence of active or inactive landfills or areas of significant fill materials located on-site or near the site could constitute an environmental issue.

Manure is removed from the Site every other day and the Site storage building for manure is wide open, therefore it is unlikely methane gases would accumulate to significant levels. As stated earlier in this report, fill material was most likely used for construction of the Site. It is unknown what fill material was used. In the unlikely event that vegetation/waste fill was used, then methane gas could be an issue. Given this along with the fact that there are few basements or underground structures at the site, AMEC does not expect methane gas to be a

significant environmental issue at the site. Methane sampling was not included in the Scope of Work for this project.

6.2 Surrounding Land Use Observations

During the site reconnaissance AMEC observed the current land uses of neighboring properties to assess any potential environmental impacts to the site that may arise from off-site operations. As noted in Section 2.0, properties in the general area surrounding the site are primarily residential. The inferred groundwater flow direction is southwest.

No significant environmental conditions were noted on adjacent properties. No above ground storage tanks or drums/containers were observed on adjacent properties. All surrounding land was well maintained and did not show any evidence of improper waste disposal. The BP gas station is the only potential off-site environmental issue but ground water direction and gradient indicate the potential impact for this adjacent property is limited.

6.3 Interviews

AMEC interviewed persons with knowledge of the site as part of the assessment. On August 23, 2005, AMEC interviewed Mr. Dan Mangan. Below is a summary of the key points made during AMEC's discussions with the Site representatives.

- The Site representatives were not aware of any present or past environmental concerns for the Site or any environmental liens filed against the Site.
- The racetrack was originally constructed in 1963. In 1991 the property was bought by Ladbrokes. In 2000, Magna bought the property and has been in possession of the operations since then.

7.0 DEVIATIONS FROM ASTM

This report was prepared in accordance with the ASTM Standard Practice E 1527-00. The only deviation from the standard is that a chain of title search documenting the property ownership history back to 1940 was not conducted.

In addition, at the request of the client, AMEC was not permitted to interview or contact any persons outside of MEC. This included neighbors and government agencies. This did not allow AMEC to research and obtain historical aerial photographs, research on-site or off-site environmental issues, or interview neighbors or regulatory personnel.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

AMEC has performed a Phase I ESA in conformance with the scope of work provided in the contract and the scope of limitations of ASTM Practice E 1527-00. As part of this investigation AMEC has reviewed general property information, observed adjacent properties, researched historical property information, reviewed environmental records and completed a site reconnaissance. Any exceptions to, or deletions from, accepted practice have been described under the appropriate Section(s) of this report.

AMEC's assessment has revealed the following issues in connection with the Site:

Recognized Environmental Conditions:

- On September 21 and 22, 1992, a 1000-gallon underground storage tank (UST) previously containing gasoline was excavated and removed from the Property. After excavation, the tank was examined and it was noted that the tank was in good condition with no holes. However, soils surrounding the tank were impacted with petroleum and therefore excavated. Approximately 480 tons of soils were excavated and staged on 6-mil plastic sheeting. Contaminated soil was taken off site and disposed of by Waste Remedial Services and cleaned by Petro Cell in Columbus, Ohio. Once excavation was completed, soil samples from the excavation walls and bottom were collected and submitted for laboratory analysis of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX). Results of the soil analysis reported detectedconcentrations of TPH in the tank walls. Thesouth wall hada TPH concentration level of 370 parts per million (ppm), the north wall had a TPH concentration of 70 ppm, and the North Plume had a concentration of 35 ppm. All other samples were less than the detection limit of 35 ppm. It was noted in the report provided by L.A.W Environmental that the south wall is comprised of an area 3 feet wide by 5 feet deep by 15 feet in length. It was also noted that this area could not be further excavated due to the close proximity of this soil to a newly installed underground storage tank. Therefore, these levels of contamination were left in-place. Based on these concentrations, the report concluded that "Level B" cleanliness had been reached for the site. The Pennsylvania Department of Environmental Protection (PADEP) no longer maintains cleanup levels for TPH, but utilizes chemical specific concentrations only. Although the L.A.W. Environmental report states regulatory personnel were notified of this UST removal, no documentation to or from the PADEP was available. In addition, no correspondence from PADEP regarding closure of this issue was available.

- At some time in the past year, hydraulic fluids from a trash compactor leaked and flowed into a grate which discharges to the creek flowing through the Property. It is believed less than five gallons of hydraulic fluid leaked from the trash compactor.

- In the Maintenance Building (Building 20) is an earthen floor on which equipment and vehicles is stored. Oil staining was noted on the floor. Because of the possibility of historic maintenance activities in this area oil leaks/spills may have impacted the surface and subsurface soils.

Other Potentially Significant On-Site Issues:

- The facility currently discharges wash water from its barns (generated from general barn washing and washing of the horses) to the creek running through the Property. However, the facility is currently involved with plans to connect all of the floor drains in barns, and other drains on the property, to the public sanitary system. All engineering plans are completed and are out to bid. All bids are due in September 2005. The cost for this program is anticipated to be high. CAFO and NPDES permitting was completed and issued on August 11, 2005 and allows the facility until 2010 to complete all connecting of drains to the sanitary sewer.

- Previous assessments have identified suspected asbestos-containing materials (ACM) on-site. As documented in the June 7, 2005 Asbestos Building Inspection, Weavertown Group identified friable ACM. An estimate of costs associated with the removal of ACM was produced and is documented in the report.

- Historically, racing programs were printed in a trailer on the Property. These operations have since been transferred off-site and the trailer is no longer present. There is the potential that chemicals, inks, and wastes associated with the printing process have impacted the Property.

- In a previous phase I ESA (dated November 20, 2000), a leaking transformer (located behind the Odds Board) was observed to have impacted a concrete pad and adjacent soils. According to a site contact, this transformer's oil did not contain PCBs and the impacted soils (to a depth of approximately 1 inch) were collected and disposed. According to the site contact, all PCB-containing transformers have been removed from the Property. Confirmatory sampling was not performed to ensure all contamination was removed.

- On December 1, 2000, an underground storage tank (UST) containing heating oil, previously discovered while installing a water line, was removed from the Property. Reportedly, no contamination was encountered during tank excavation and two soil samples collected from the tankfield area indicated levels were below Pennsylvania Department of Environmental Protection (PADEP) cleanup standards and Statewide Health Standards. According to a site contact, this tank existed prior to the development of the racetrack.

- During the site visit various small items of debris including empty containers, tires, tubing, and general rubbish were observed on the Property, including some items in surface water drainage ditches.

Potentially Significant Off-Site Issues:

- In EDR government database search, a leaking UST was identified at a BP Oil facility located at 505 Racetrack Road (between ¼- and ½-mile to the south of the Property). The leaking UST appears to be topographically down-gradient of the Property. The contents of this tank were not identified. According to the EDR report, the release occurred on October 5, 1994 and interim remedial actions have either been initiated or completed. No further information on this leaking UST was provided in the EDR report.

8.2 Recommendations

- Contact PADEP to determine if the UST release ever attained closure or was classified as "No Further Action required." If not, consider additional investigation (Phase II) to determine of any contamination remains on-site and/or has impacted the ground water.
- Ensure that the leaking hydraulic line on the trash compactor has been properly repaired. Conduct regular inspections of the trash compactor to identify and correct potential problems prior to a release. Consider relocating the trash compactor to an area that is not near a storm drain or consider closing the storm drain.
- Consider surface and subsurface sampling in the Maintenance Building (Building 20) to determine if any impacts from historical operations have occurred.
- Determine all anticipated costs associated with the project to connect all drains on the site, including floor drains in the barns to the sanitary sewer system. Determine the permitting requirements for the project with the local sewer authority and obtain a discharge permit if necessary.
- Perform remediation to address ACM that is deteriorating or in poor condition and prepare an asbestos management plan to periodically monitor the location and condition of identified ACMs so that they can be properly managed and remediated when/if necessary.
- Monitor the area where the old print shop trailer was located and ensure that there remain no signs of stained soil or stressed vegetation, which could indicate the presence of contamination. Should any evidence of contamination be observed, consider additional investigation to determine if contamination is present. However, based on our observations and the information received we do not believe this issue warrants further investigation (Phase II) at this time.
- Consider conducting confirmatory soil sampling in the area where the transformer leak occurred to ensure that all contaminated soils were removed.
- Continue to perform cleanups of the debris that accumulates throughout the property, especially in the areas in and adjacent to surface waters.
- Implement engineering controls to minimize impacts to the surface water adjacent to the manure storage area.

9.0 REFERENCES

The following agencies, offices, reports and publications were used as information sources in the preparation of this report.

9.1.1 Agencies and Offices

Environmental Data Resources, Inc.
Milford, Connecticut

Pennsylvania Spatial Data Access (PASDA)
www.pasda.psu.edu

Civil & Environmental Consultants, Inc.
Pittsburgh, Pennsylvania

Retrotex
Canton, Ohio

Sunohio Company
Canton, Ohio

Petro Environmental Technologies
Cincinnati, Ohio

L.A.W. Environmental
Midland, Pennsylvania

United Environmental Group Inc.
Sewickley, Pennsylvania

The Weavertown Group
Cecil, Pennsylvania

Pennsylvania Department of Environmental Protection
Harrisburg, Pennsylvania

United States Environmental Protection Agency
Washington, D.C.

9.1.2 Reports and Publications

Analysis for the (1) 1000 Gallon Gasoline Underground Storage Tank, L.A.W. Enviornmental, 1992.

Certification of Soil Treatment and Clean Levels, Petro Environmental Technologies, January, 1994.

Environmental Data Resources, Inc.; Radius Map with Geocheck, Historical Topographic Map Report, and Aerial Photography Print Service for The Meadows, Racetrack Road, Houston, PA.

Facility ID # NA/Non-Regulated Tank Site Assessment/Closure Report #C000392, United Environmental Group, Inc., 2000.

PCB Transformer Replacement and Disposal, Retrotex, December, 1986.

Preparedness, Prevention and Contingency Plan (PPC Plan) for MEC PA Racing, United Environmental Group, Inc., 2002.

Spill Prevention, Control, and Countermeasures Plan-PA Racing Meadowlands, PA, Environmental Resources Management, July, 2004.

The Meadows-Equipment for Disposal, Sunohio Company, July, 1987.

Asbestos Building Inspection for The Meadows, The Weavertown Group, June, 2005

United States Geological Survey (USGS) 7.5 Minute Topographical Map, Washington-East, Pennsylvania Quadrangle, 1977.

10.0ENVIRONMENTAL PROFESSIONAL(S) CONDUCTING ASSESSMENT

10.1 Signature

The following professional conducted the Phase I ESA and prepared this report.

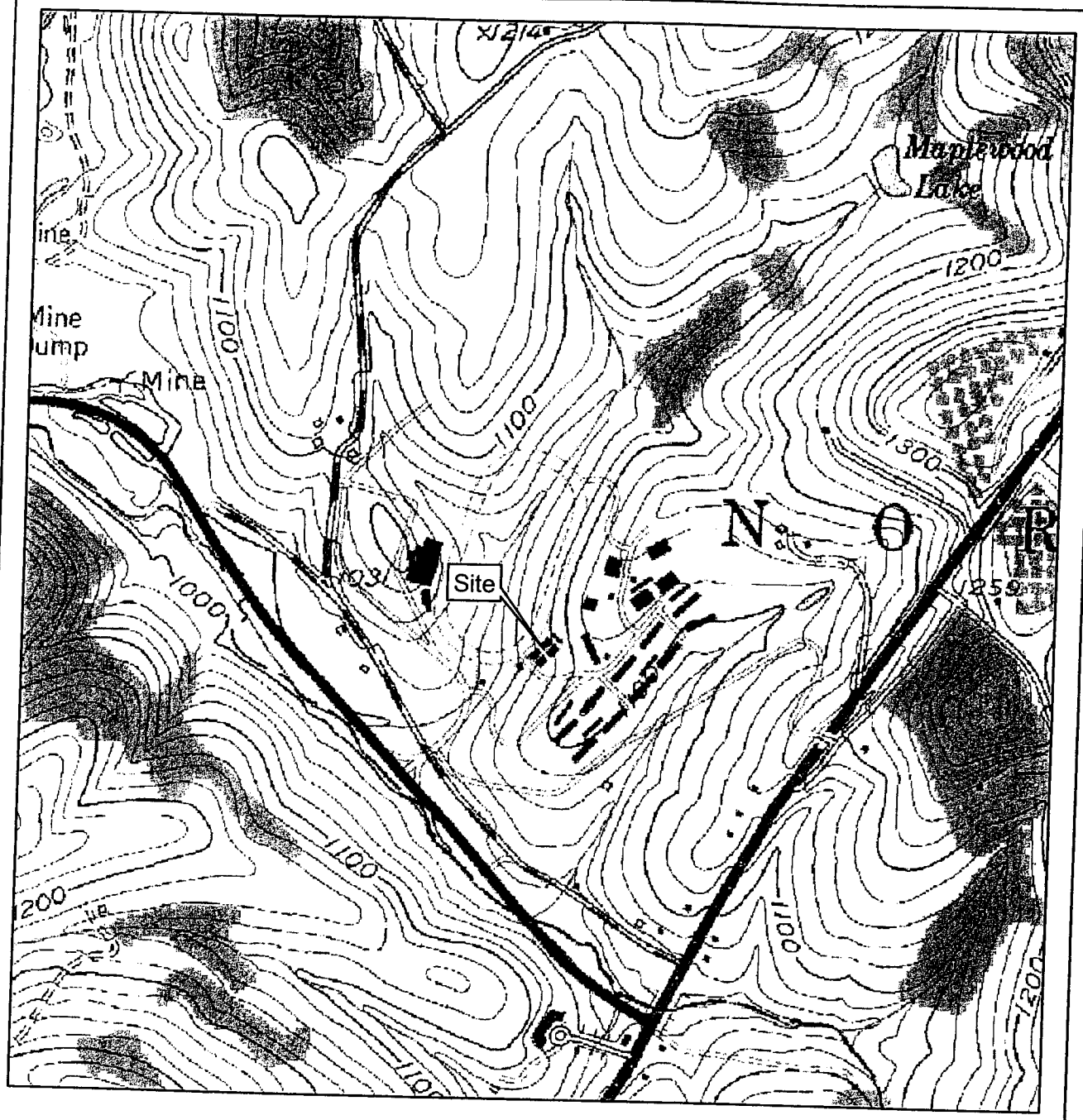
Michael Hansen
AMEC Earth & Environmental

10.2 Qualifications

Mr. Hansen is a Senior Environmental Scientist with AMEC Earth & Environmental, Inc. (AMEC) in the Pittsburgh, Pennsylvania office. He has over 14 years of environmental experience in both industry and consulting. Over the course of his career, he has managed a variety of environmental projects, including environmental compliance audits, permitting, remediation operation and maintenance, environmental due diligence, waste minimization, and Phase I and Phase II environmental site assessments. In addition, Mr. Hansen was previously an environmental compliance manager for a $1 billion ($US) operating division of a large corporation.

amec

FIGURES



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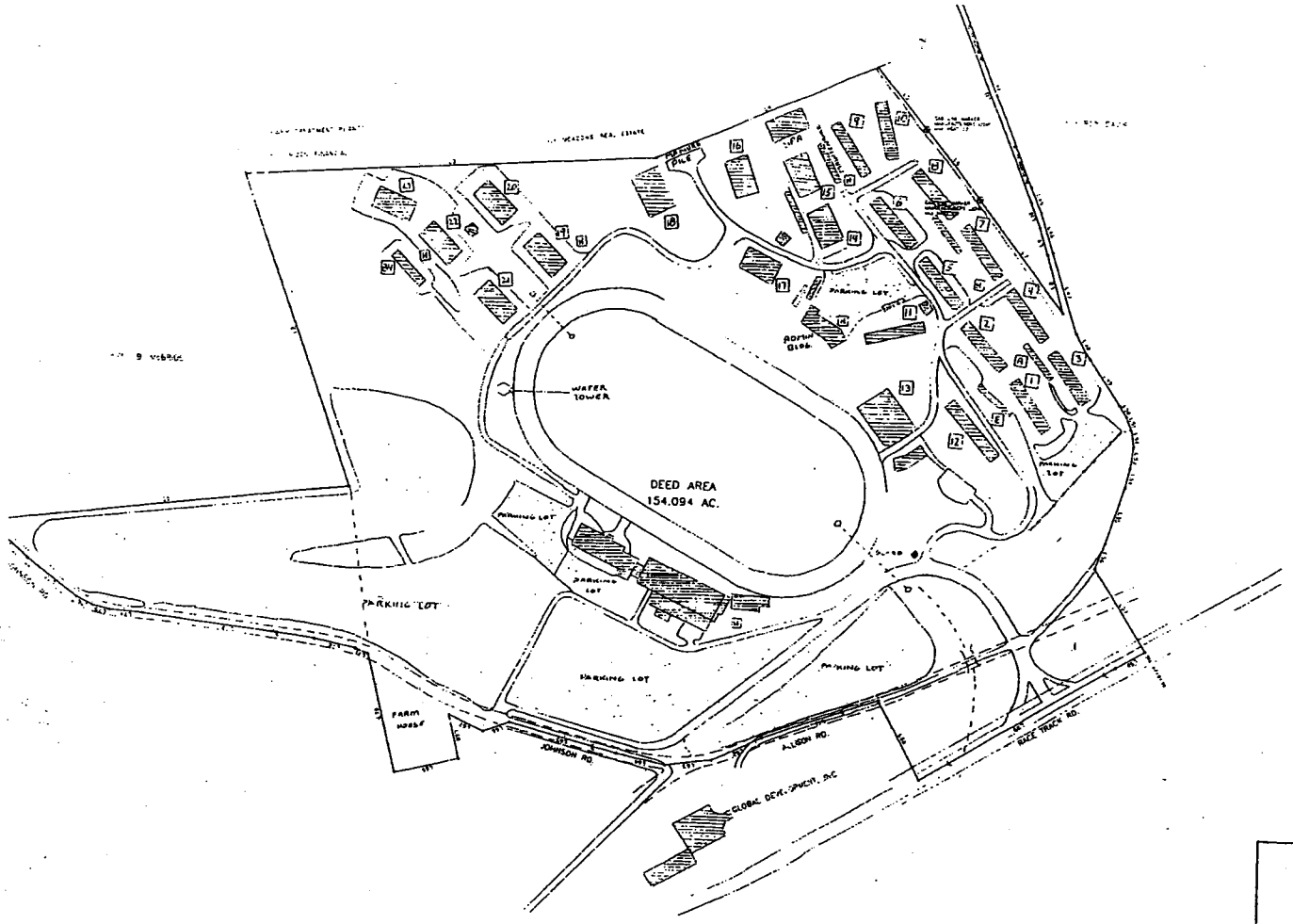
Digital Raster Graphics, 1:24,000. Published by United States Geological Survey. 1981.

Figure 1
Site Location Map

Meadowlands
Washington, PA

amec
Earth & Environmental, inc.
Wexford Professional Building III
11676 Perry Highway, Suite 3101
Wexford, Pennsylvania 15090



Note:
1. Source - Deed Plot, Meadow Real Estate, Inc. to Ladbroke Racing Pennsylvania, April 1991.
2. No scale available.

Meadows Racetrack
Meadow Lands, Washington County, PA

Figure 2
Site Plan

amec EARTH & ENVIRONMENTAL, INC
1777 SENTRY PARKWAY WEST, ABINGTON HALL, SUITE 300, BLUE BELL, PA 19422

The Weavertown Group

WEG engineering
Weavertown Environmental Group
www.wegengineering.com

WEG
Weavertown Environmental Group
www.weavertown.com

OPTIMAL TECHNOLOGIES AIR QUALITY SERVICES
www.optimaltech.com

June 7, 2005

Mr. Tom Reddy
The Meadows
201 South Johnson Road
Houston, Pennsylvania 15342
Telephone: (724) 225-9300

Re: Asbestos Building Inspection for The Meadows Grandstand & Clubhouse, Adios Room, Security Building, Unheated Ship in Barn, and the Feed Storage Shed
Racetrack Road, Meadow Lands, Pennsylvania
WEG Project No. E0201

Dear Mr. Reddy:

Results from the bulk sampling performed at the Meadows Race Track by Darrin Kuhn (certification # 028112) on May 9th, 10th, and 11th, 2005 indicate that ACM is present in the Clubhouse & Grandstand Building, the Audios Room, and the Security Building. WEG also conducted and inspection of the Ship in Barn and the Feed Storage Shed and found that no materials contained asbestos in those buildings. WEG has attached the chain of custody report and the laboratory analysis report.

Asbestos was found in the following samples:

Area	Sample No.	Sample Item	Percent & Friability	Quantity
Clubhouse & Grandstands	WEG-00 3B	Black Mastic/ Grandstand Clubhouse Rooftop Comm Room	10% Category I Non-friable	1,200 Square Feet
	WEG-004B	Black Mastic/ Grandstand Clubhouse Photo Finish Room	5% Category I Non-friable	Included in 003B
	WEG-006	Roof Top Transite Boiler Room Grandstand Clubhouse	60% Category II Non-friable	300 Lineal Feet

Area	Sample No.	Sample Item	Percent & Friability	Quantity
Clubhouse & Grandstands	WEG-014A	Black Floor Tile Grandstand Clubhouse	1.75% Category I Non-friable	20,000 Square Feet
	WEG-014B	Black Mastic Grandstand Clubhouse	10% Category I Non-friable	Included in 014A
	WEG-034B	Black Mastic Grandstand Clubhouse	8% Category I Non-friable	Included in 014A
	WEG-021	Pipe Fittings on Boilers Grandstand Clubhouse	5% Friable	20 Fittings
	WEG-040	Beige Insulation Dish Room	5% Friable	Included in 021
	WEG-039B	Black Mastic Under 12X12 Brown Tile Ground Floor	5% Category I Non-friable	20,000 Square Feet
	WEG-050	Grey Insulation Ground Floor/Pipe Loop	30% Friable	50 Fittings
	WEG-053	Beige Insulation Ground Floor/Money Room	20% Friable	Included with 050
200 Minute Club	WEG-055B	Black Mastic 2:00 Minute Club/ Under Bathroom Tile	10% Category I Non-friable	400 Square Feet
	WEG-056B	Black Mastic 2:00 Minute Club Under Kitchen Tile	5% Category I Non-friable	Included with 055B
	WEG-R005	Black Roofing 2:00 Minute club	30% Category I Non-friable	1200 Square Feet
Grandstands & Clubhouse	WEG-R007	Black Flashing Grandstand Restroom	25% Category I Non-friable	120 Linear feet

Area	Sample No.	Sample Item	Percent & Friability	Quantity
Adios Room	WEG-105b	Black Mastic Adios Room Storage Room Under Orange Tile	8% Category I Non-friable	200 Square Feet
	WEG-106b	Black Mastic Audios Room Dance Floor Under Dark Brown Tile	5% Category I Non-friable	1000 Square Feet
Security Building	WEG-203	Window Caulking Security Bldg Observation Room On Windows facing track	5% Category I Non-friable	25 Windows 1000 Linear Feet
	WEG-216	Window Glazing Security Building Lower Windows Locker Room Windows	5% Category II Non-friable	3 windows 100 Linear Ft

Asbestos Abatement and Demolition Options

Category I non-friable asbestos containing materials including floor tile, floor tile mastic, window caulking, and tar roofing materials can remain in place during demolition and can be disposed of as construction and demolition debris at a permitted landfill. The demolition contractor must have a certified asbestos supervisor on site during demolition with these materials.

Category II non-friable asbestos containing materials including transite pipe and window glazing must be removed prior to demolition.

Friable asbestos containing materials including pipe fittings must be removed prior to demolition.

Estimated Cost for Asbestos Abatement and Demolition Oversight
Pricing for an asbestos supervisor on site during demolition of Category I non-friable asbestos containing materials
$ 600.00/day Est. 15 days - $ 9,000.00

The estimated cost for removal, notification, transportation, and disposal of 3 windows from the security building would be approximately $1,450.00.

The estimated cost for removal, notification, transpiration, and disposal of 300 ft. of transite pipe and approximately 70 pipe fittings would be approximately $13,800.00.

TOTAL ESTIMATED COST $ 24,250.00

Respectfully,

Darrin Kuhn
Project Manager

Attachments

cc: File: L:\E0201\PTR060705.doc

BDK:nry

WEG

Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Chain of Custody Record

Grandstand & Clubhouse

Client: Meadows
Contact: Darrin Kuhr
Project/Job #:
Address: 421 S. Johnson Rd Hooston Pa

Phone: (724) 746-4850
Fax: (724) 746-9084
Site: Grandstands
P. O. No.:

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required	Remarks
901	Judges Offices - Ceiling Tile 2x4	5/9	1:00				PLM	Entry Room
902	Ceiling Tile 18x18							Judge Area
903	Rooftop Camera Room 12x12 Tile							Tile Brown
903B	Rooftop Camera Room [redacted]			Mastic	20x60	1200 SqFt		Mastic
904	Rooftop Photo Finish 12x12 Tile Beige							Tile
904B	Photo Finish Room Mastic							Mastic
905	Black Deck Pad on Roof Walkway							
906	Rooftop Transite Vent Pipe				Gravel Roof Has 6 Tar Roof Has 4		4 Transite 5 Metal	
907	Grandstand Area Upper Level Fire Proofing							Stairwell Area Wall
908	Grandstand Area Upper Level Fire Proofing Door							Door
909	" Stairwell Wall							Wall
910	Mud on Rear Wall I Beams Corner							Grandstands Rear Wall I Beam

	Date	Time			
Collected/Relinquished by: (1) Darrin Kuhr / B. C	5/9	1:00	Received By:	Shipping Carrier:	Samples Received Cold? Yes / No
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number:	Temperature °C:
Relinquished by: (3)	Date:	Time:	Received By:		Chain of Custody Seal: INTACT BROKEN ABSENT
Received by: (4)	Date:	Time:	Received For Laboratory By:	Requested Turnaround Time:	

Comments:
Reference
Job # on all - Invoices

White - Retain by Lab (Project File)

WEG

Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Chain of Custody Record

Grandstand & Clubhouse

Client: Meadown
Contact: Dorin Kuhn
Project/Job #:
Address: 201 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-9084
Site: 6 Grandstands
P. O. No.:

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required: PLM	Remarks
911	Mudon Rear Wall I Beams	5/9	1:00					Grandstand Rear Wall
912	Window Caulking Grandstands							
913a	Grandstand Entry Coved Base Block							Lawn
913b	Coved Base Adhesive							1
914a	12x12 Block/Brown Tile Grandstands to Bet. Areas							20,000 Sq Ft
914b	Mastic							
915	Ceiling Tile Coat Room Grandstands							
916	Ceiling Tile Clubhouse E Deck							
917	Drywall Clubhouse E Deck							
918a	12x12 Floor Tile Kitchen White							
918b	Mastic Kitchen ~~White~~							
919a	Ceiling Plaster Kitchen Skim Coat							Skim Coat
919b	Base Coat							Glass

Collected/Relinquished by: (1) Dorin Kuhn	Date: 5/9	Time: 1:00	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: / Reference / Job # on all - Invoices

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WEG
Weavertown Environmental Group
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Grandstand & Clubhouse

Chain of Custody Record

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: E0901
Address: 201 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-9024
Site: Grandstand
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required: PLM	Remarks
220	Pipe Fitting Boiler Room	5/9	1:00					
[redacted]	Pipe Fittings over Boilers							20 mud Fittings
222	12" Transition Material Metal-Transite over Boiler							80 ft 12" Transite
223a	12x12 white Floor Tile Mutual Offices							
223b	Mastic							
224a	12x12 white tile Mutual offices							
224b	Mastic							
2085	Mutual office Ceiling Tile							
226	Mutual office Catwalk Wall Fire Proofing							
227	"							
228	Mutual office Hall Ceiling Tile Smooth							
229	Catwalk Drywall							

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 5/9	Time: 1:00	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by [illegible]

WEG
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Chain of Custody Record

Grandstand & Clubhouse

Client: Meadows
Contact: Dawn Kuhn
Project/Job #: E0901
Address: 901 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-9024
Site: Grandstand
P. O. No.: T32086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required	Remarks
230a	Coul Base Mutual office	5/9	1:00					
230b	Mastic "							
231	Union office Roof Tar Paper							
232a	Speckled 8x12 Block Tile Deluxe Cafe							Black+White Speckled
232b	Mastic							
233	Smooth Block Tile Deluxe Cafe 12x12							
234a	Speckled White Main Floor Tile							
234b	Mastic							
235	Deluxe Cafe Joint Compound Main Floor							See #014
236	Main Area Ceiling Tile 12x12 Blocks White							
237	Guest Services Ceiling Tile 2x2							2x4 Tile
238	Clubhouse Mutual Line 12x12 Brown Floor Tile							

Collected/Relinquished by: (1) Dawn Kuhn	Date: 5/9	Time: 1:00	Received By:
Relinquished by: (2)	Date:	Time:	Received By:
Relinquished by: (3)	Date:	Time:	Received By:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:

Shipping Carrier:
Shipping Ticket Number:
Samples Received Cold? Yes / No
Temperature °C:
Chain of Custody Seal: INTACT BROKEN ABSENT
Requested Turnaround Time:
Comments:
Reference
Job # on all - Invoices

White - Retain by Lab

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Grandstand & Clubhouse

Chain of Custody Record

Client: Meadows
Contact: Darrin Kuhn
Project/Job #: E0901
Address: 201 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-9024
Site: Grandstands
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required	Remarks
239a	Ground Floor 12x12 Brown Floor Tile						PLM	
239b	Mastic							
240	Dish Room Hard Mud Fittings							20,000
241	Ground Floor Storage (old Restaurant)	12x12	Blue					
242	" Orng/Red							
243a	White Tile							
243b	Mastic							
[illegible]	Ground Floor Joint Compound							
245	Ground Floor Joint Compound							
246a	Ground Floor TV Room 12x12 white T.T.							
246b	Mastic							
247a	Ground Floor TV Room Stairwell 12x12 Orange Tile							
247b	Mastic							

Collected/Relinquished by: (1) Darrin Kuhn	Date: 5/9	Time: 1:00	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

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Grandstand & Clubhouse

Chain of Custody Record

Client: Meadows
Contact: Dorin Kuhn
Project/Job #: E0201
Address: 201 S. Johnson Rd
Houston PA

Phone: (724) 746-4858
Fax: (724) 746-5085
Site: Grandstand
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used	Analysis Required: PLM	Remarks
048a	Ground Floor TV Room Cove Base	5/9	1:00						
048b	Mastic								
049	Ground Floor TV Room 2x4 Ceiling Tile								
050	Ground Floor Pipe Mud Pipe Loop								
051	12x12 Tile Ground Floor Behind Betting Booth								
052	Ground Floor 6" Pipe Insulation								
053	Ground Floor Money Room Hard Fitting								5 Of Fitting Ground Flr
054	Ground Floor Ramp Fire Proofing								
055a	200 Club 12x12 Grey Tile Bathroom								
055b	Mastic								
056a	200 Club 12x12 Grey Tile Kitchen								200 → 400
056b	Mastic								200 Flr
057	200 Club 12x12 Blue Tile								

	Date:	Time:	Received By:
Collected/Relinquished by: (1) Dorin Kuhn	5/9	1:00	
Relinquished by: (2)	Date:	Time:	Received By:
Relinquished by: (3)	Date:	Time:	Received By:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:

Shipping Carrier:
Shipping Ticket Number:
Samples Received Cold? Yes / No
Temperature °C:
Chain of Custody Seal:
INTACT BROKEN ABSENT

Requested Turnaround Time:
Comments:
Reference
Job # on all - Invoices

White - Retain by Lab (Project File) Yellow - Return with Report

WEG
Weavertown Environmental Group
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Grandstand & Clubhouse

Chain of Custody Record

Client: Meadows
Contact: Damin Kuhn
Project/Job #: E0201
Address: 901 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-5025
Site: Grandstand
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required	Remarks
058	2:00 Club Window Caulk	5/9	1:00				PLM	
059	9:00 Club Rubber Floor Pad							
060a	Paddock Mens Locker Bloc Tile							
060b	Mastic							
061	Paddock Boiler Room Mud Fitting							
062	Paddock Kitchen Drywall							

Collected/Relinquished by: (1) Damin Kuhn	Date: 5/9	Time: 1:00	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by Lab (Project File)

WEG
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a Division of Weavertown Transport Leasing, Inc.

~~Audios~~ Audios

Chain of Custody Record

Client: Meadows
Contact: Darrin Kuhn
Project/Job #: E0201
Address: 201 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-4850
Fax: (724) 746-9024
Site: Audios Room
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used	Analysis Required: PLM	Remarks
101a	Beige + Orange 12x12 Floor Tile	5/9	1:00						
101b	Mastic								Entry Towards
102	Beige + Orange 12x12 Floor Tile								
103a	Brown 12x12 Tile								
103b	Mastic								
104	Brown 12x12 Tile								
105a	Orange 12x12 Tile Storage Area								
105b	Mastic								
106a	Dark Brown 12x12 Tile Dance Floor								200
106b	Mastic								
107	Dark Brown 12x12 Tile Dance Floor								1000
108	White 12x12 Tile Behind Betting Booth								

	Date:	Time:	Received By:	Shipping Carrier:	Samples Received Cold? Yes / No
Collected/Relinquished by: (1) Darrin Kuhn	5/9	1:00			Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number:	Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:	
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices	

White - Retain by Lab (Project File)

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Audios

Chain of Custody Record

Client: Meadows
Contact: Perri Kuhn
Project/Job #: E0201
Address: 301 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-9850
Fax: (724) 746-9024
Site: Audios
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required: PLM	Remarks
110	Ceiling Tile	5/9	1:00				+	

Collected/Relinquished by: (1) Perri Kuhn	Date: 5/9	Time: 1:00	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by Lab (Pastel Pink)

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Security Buildings

Chain of Custody Record

Client: Meadows
Contact: Dawn Kuhn
Project/Job #: E0201
Address: 201 S. Johnson Rd

Phone: (724) 746 4850
Fax: (724) 746-9094
Site: Security Buildings
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Required PLM	Remarks
01 a	Gray Floor tile 12x12 Observation area	5-10						
01 b	Mastic							
02	Window Glazing Observation	5/10						
03	Window Caulking							
04	Drywall observation Area							1000 Cln ft/Sam
05	Joint compound							
07	Utility Room Mud Fitting 5 Elbow							
08	Utility Room Mud Fitting Value							15 to 20 2"
09a	Brown/tan Floor tile Laundry Room							
09b	Mastic							
10a	Brown/tan Floor tile Laundry							
10b	Mastic							
11	Ceiling tile 2x4 Locker Room							

Collected/Relinquished by: (1) Dawn Kuhn	Date: 5-10	Time: 1130	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time: / Comments: / Reference / Job # on all - Invoices
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	

White - Retain by Lab (Project File)

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Security Buildings

Chain of Custody Record

Client: Meadows
Contact: Donna Kuhn
Project/Job #: E0201
Address: 201 S. Johnson Rd

Phone: (724) 746-4850
Fax: (724) 746-9024
Site: Security Buildings
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used	Analysis Required: PLM	Remarks
12a	Orange 12x12 Floortile Locker Room	5-10	13:30					X	
12b	Mastic								
13a	Orange 12x12 Floortile Lockers								
13b	Mastic								
14	Drywall Lockers								
15	Joint Compound Lockers								
16	Window Glazing Lockers								
17	Celotex Building Insulation Exterior								3 Windows
18a	Blue/Gray 12x12 Floortile								
18b	Mastic								
19	Red Shingles								
20	Tar Paper Under Red Shingles								
21	Tar Residual Under Main Roof								

Collected/Relinquished by: (1) Donna Kuhn	Date: 5-10	Time: 13:30	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by Lab (Project File) Yell...

WEG

Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Security

Chain of Custody Record

Client: Meadows
Contact: Dawn Kuhn
Project/Job #: E0201
Address: 2015 Johnson Rd

Phone: (724) 746-9850
Fax: (724) 746-9045
Site: Security
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Required: PLM	Remarks
92	Roofing Material	5-10	0930				X	
93	Roofing Material	"	"				X	

Collected/Relinquished by: (1) Dawn Kuhn / BLM — Date: 5-10 — Time: 0930 — Received By:

Relinquished by: (2) — Date: — Time: — Received By:

Relinquished by: (3) — Date: — Time: — Received By:

Relinquished by: (4) — Date: — Time: — Received For Laboratory By:

Shipping Carrier:

Samples Received Cold? Yes / No
Temperature °C:

Shipping Ticket Number:

Chain of Custody Seal:
INTACT BROKEN ABSENT

Requested Turnaround Time:
Comments:
Reference
Job # on all - Invoices

White - Retain by Lab (Project File)

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Chain of Custody Record

Unrooted Ship in Born

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: EQ201
Address: 201 S Johnson Rd Houston PA

Phone: (724) 746-4850
Fax: (724) 746-9084
Site: Ship in Born
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Requested: PLM	Remarks
301	Roofing Insulation on Trusses	5-10	19:30				X	
302	Roofing Material	↓	↓				X	

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 5-10	Time: 19:30	Received By:	Shipping Carrier: / Samples Received Cold? Yes / No / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by Lab (Project File) Yellow - Return

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Grandstand & Clubhouse

Chain of Custody Record

Client: Meadows
Contact: Dennis Kuha
Project/Job #: E0201
Address: 201 S. Johnson Rd
Houston PA 15342

Phone: (724) 746-5850
Fax: (724) 746-5074
Site: Grandstand
P. O. No.: 132086

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type (C = Comp, G = Grab)	Preservative Used / Analysis Required: PLM	Remarks
R-001	Grandstand Flashing by Elevator	5-11	12:00				X	Roofs of Buildings
R-002	Grandstand Tar+Chip Built up Roof	5-11						South End
R-003	Grandstand Built up Rolled Roof							North End Clubh
R004	Grandstand Front Rubber Roof all Lower Roofs							Entrance/Lower Roof
R005	2:00 Club Rubber Roof Insolation Tar Barrier			30 x 40 1200 Sq ft				
R006	Grandstand Restrooms Northend Tar+Chip							North End
R007	Grandstand Restrooms Flashing			120 Lin ft				
R008	Block Walkway Roof							Northend
R009	2:00 Club Flat Roof							
R010	2:00 Club Walk-in DOOR							Blue door

	Date:	Time:	Received By:	Shipping Carrier:	Samples Received Cold? Yes / No
Collected/Relinquished by: (1) Dennis Kuha	5-11	12:00			Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number:	Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:	
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices	

White - Retain by Lab (Project File) Yellow - Return to Client

ALLEGHENY ASBESTOS ANALYSIS, INC.
416 ANTHONY STREET
CARNEGIE, PENNSYLVANIA 15106
412-278-5400 FAX: 412-278-5404

Report Date: May 20, 2005
Job Number: 340-05-14841
Date Analyzed: May 11,16,17,2005

RESULTS OF POLARIZED LIGHT ANALYSIS

Client: Weavertown Environmental Group
Address: 201 South Johnson Road
Houston, PA 15342
Attention: Darrin Kuhn

Project: Meadows
Grandstands and Clubhouse

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01468	001	White and beige ceiling tile	5-9-05	ND	ND	Cellulose = 60% Glass Fiber = 10%	Opaques, Perlite, others = 30%
B01469	002	Off white ceiling tile	5-9-05	ND	ND	Cellulose = 10% Glass Fiber = 70%	Opaques, others = 20%
B01470	003a	Beige/tan floor tile	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01471	003b	Black mastic	5-9-05	Chrysotile = 10%	10%		Calcite, Opaques, Bitumen, others = 90%
B01472	004a	Beige/tan floor tile	5-9-05	ND	ND	Cellulose = 3%	Calcite, Opaques, Paint, others = 97%
B01473	004b	Black mastic	5-9-05	Chrysotile = 5%	5%	Cellulose = 10%	Opaques, Bitumen, others = 85%
B01474	005	Black rubber mat	5-9-05	ND	ND	Glass Fiber = 7%	Opaques, Bitumen, others = 93%
B01475	006	Gray transite	5-9-05	Chrysotile = 50% Crocidolite = 10%	60%		Calcite, Gypsum, Opaques, Paint, others = 40%
B01476	007	Gray and yellow insulation	5-9-05	ND	ND	Glass Fiber = 60%	Paint, others = 40%
B01477	008	Beige and gray insulation	5-9-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Paint, others = 40%
B01478	009	Beige and gray insulation	5-9-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Paint, others = 40%
B01479	010	Beige and gray insulation	5-9-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Paint, others = 40%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type & Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01480	011	Beige and gray insulation	5-9-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Paint, others = 40%
B01481	012	Gray and red caulking	5-9-05	ND	ND	Glass Fiber = 7%	Opaques, Paint, others = 93%
B01482	013a	Black and brown cove base	5-9-05	ND	ND	Cellulose = 2%	Opaques, Paint, others = 98%
B01483	013b	Brown mastic	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01484	014a	Black floor tile (Having Point Counted)	5-9-05	Chrysotile = 3%	3%	Cellulose = 3%	Calcite, Opaques, others = 94%
B01485	014b	Black mastic	5-9-05	Chrysotile = 10%	10%	Cellulose = 5%	Calcite, Opaques, Bitumen, others = 85%
B01486	015	Gray plaster	5-9-05	ND	ND	Cellulose = 5% Glass Fiber = 10%	Calcite, Gypsum, Opaques, others = 85%
B01487	016	Beige and gray ceiling tile	5-9-05	ND	ND	Cellulose = 45% Glass Fiber = 15%	Perlite, Opaques, others = 40%
B01488	017	White plasterboard	5-9-05	ND	ND	Cellulose = 6% Glass Fiber = 6%	Calcite, Gypsum, Opaques, others = 84%
B01489	018a	Off white floor tile	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01490	018b	Amber mastic	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01491	019a	White plaster skim coat	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, Paint, others = 98%
B01492	019b	Gray plaster base coat	5-9-05	ND	ND	Cellulose = 5%	Calcite, Gypsum, Perlite, Opaques, others = 95%
B01493	020	Beige insulation	5-9-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Calcite, Opaques, others = 40%
B01494	021	Beige insulation	5-9-05	Chrysotile = 5%	5%	Cellulose = 20% Glass Fiber = 20%	Calcite, Opaques, others = 55%
B01495	022	Off white cementitious material	5-9-05	ND	ND	Wollastonite = 5%	Calcite, Gypsum, Opaques, others = 95%
B01496	023a	Light beige floor tile	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01497	023b	Amber mastic	5-9-05	ND	ND	Cellulose = 7%	Calcite, Opaques, others = 93%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01516	038	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 88%
B01517	039a	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01518	039b	Black mastic	5-9-05	Chrysotile = 5%	5%	Cellulose = 10%	Calcite, Opaques, Bitumen, others = 85%
B01519	040	Beige insulation	5-9-05	Chrysotile = 5%	5%	Cellulose = 5% Glass Fiber = 40%	Calcite, Opaques, Paint, others = 50%
B01520	041	Gray floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01521	042	Orange floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01522	043a	Light gray floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01523	043b	Black mastic	5-9-05	ND	ND	Cellulose = 15%	Calcite, Opaques, Bitumen, others = 85%
B01524	045	White joint compound	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, Paint, others = 98%
B01525	046a	White floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01526	046b	Yellow mastic	5-9-05	ND	ND	Cellulose = 7%	Calcite, Opaques, others = 93%
B01527	047a	Brown floor tile	5-9-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%
B01528	047b	Amber mastic	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01529	048a	Gray cove base	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01530	048b	Yellow mastic	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01531	049	White and gray ceiling tile	5-9-05	ND	ND	Cellulose = 40% Glass Fiber = 20%	Calcite, Opaques, Perlite, others = 40%
B01532	050	Gray insulation	5-9-05	Chrysotile = 30%	30%	Cellulose = 15% Glass Fiber = 15%	Calcite, Opaques, others = 40%
B01533	051	Off white floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01534	052	Yellow and black insulation	5-9-05	ND	ND	Glass Fiber = 90%	Calcite, Opaques, others = 10%
B01535	053	Beige insulation	5-9-05	Chrysotile = 20%	20%	Cellulose = 10% Glass Fiber = 30%	Calcite, Opaques, others = 40%
B01536	054	Gray fireproofing	5-9-05	ND	ND	Cellulose = 20% Glass Fiber = 40%	Calcite, Opaques, Paint, others = 40%
B01537	055a	Light gray floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%
B01538	055b	Black mastic	5-9-05	Chrysotile = 10%	10%	Cellulose = 5%	Calcite, Opaques, Bitumen, others = 85%
B01539	056a	Light gray floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%
B01540	056b	Black mastic	5-9-05	Chrysotile = 5%	5%		Calcite, Opaques, Bitumen, others = 95%
B01541	057	Blue floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%
B01542	058	Gray caulking	5-9-05	ND	ND	Cellulose = 3%	Calcite, Opaques, others = 97%
B01543	059	Black floor pad	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01544	060a	Gray floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%
B01545	060b	Black mastic	5-9-05	ND	ND	Cellulose = 5%	Calcite, Opaques, Bitumen, others = 95%
B01546	061	Off white insulation	5-9-05	ND	ND	Glass Fiber = 50%	Calcite, Opaques, others = 50%
B01547	062	Beige drywall	5-9-05	ND	ND	Cellulose = 10% Glass Fiber = 10%	Calcite, Gypsum, Opaques, others = 80%

Samples are analyzed according to the U.S. EPA "Method for the Determination of Asbestos in Bulk Insulation Samples: EPA 600/R-93-116). Bulk sample report relates to only those items tested. All samples are retained for 90 days. Tile, Vinyl, Foam, Plastic and Fine Powder samples may contain Asbestos fibers of such small diameter that these fibers may not be detected by PLM. Such samples should be analyzed by XRD, TEM or SEM for greater certainty of Asbestos content. NVLAP LAB CODE NUMBER 901003

THIS REPORT SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF ALLEGHENY ASBESTOS ANALYSIS, INC.
THIS REPORT MUST NOT BE USED TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE UNITED STATES GOVERNMENT.

ND = None Detected
NA = Not Analyzed

ANALYST: _____

AUTHORIZED SIGNATURE: _____

ALLEGHENY ASBESTOS ANALYSIS, INC.
416 ANTHONY STREET
CARNEGIE, PENNSYLVANIA 15106
412-278-5400 FAX: 412-278-5404

Report Date: May 11, 2005
Job Number: 340-05-14842
Date Analyzed: May 11, 2005
Project Job #: E0201

RESULTS OF POLARIZED LIGHT ANALYSIS

Client: Weavertown Environmental Group
Address: 201 S. Johnson Road
Houston, PA 15342
Attention: Darrin Kuhn

Project: Meadows
Audios Room

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type & Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01446	101a	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others 98%
B01447	101b	Amber mastic	5-9-05	ND	ND	Cellulose = 7%	Calcite, Opaques, others = 93%
B01448	102	Beige floor tile	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01449	103a	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01450	103b	Amber mastic	5-9-05	ND	ND	Cellulose = 7%	Calcite, Opaques, others = 93%
B01451	104	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01452	105a	Orange floor tile – Storage Area	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others 99%
B01453	105b	Black mastic	5-9-05	Chrysotile = 8%	8%	Cellulose = 7%	Calcite, Opaques, Bitumen, others = 85%
B01454	106a	Beige floor tile – Dance Floor	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01455	106b	Black mastic	5-9-05	Chrysotile = 5%	5%	Cellulose = 10%	Calcite, Opaques, Bitumen, others = 85%
B01456	107	Beige floor tile	5-9-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
B01457	108	Off white floor tile – Behind Betting Booth	5-9-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01458	110	Tan and white ceiling tile	5-9-05	ND	ND	Cellulose = 90%	Opaques, others 10%

Samples are analyzed according to the U.S. EPA "Method for the Determination of Asbestos in Bulk Insulation Samples: EPA 600/R-93-116). Bulk sample report relates to only those items tested. All samples are retained for 90 days. Tile, Vinyl, Foam, Plastic and Fine Powder samples may contain Asbestos fibers of such small diameter that these fibers may not be detected by PLM. Such samples should be analyzed by XRD, TEM or SEM for greater certainty of Asbestos content. NVLAP LAB CODE NUMBER 901003

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ND = None Detected
NA = Not Analyzed

ANALYST: _____

AUTHORIZED SIGNATURE: _____

ALLEGHENY ASBESTOS ANALYSIS, INC.
416 ANTHONY STREET
CARNEGIE, PENNSYLVANIA 15106
412-278-5400 FAX: 412-278-5404

Report Date: May 23, 2005
Job Number: 340-05-14849
Date Analyzed: May 18, 2005
Project Job #: 132086

RESULTS OF POLARIZED LIGHT ANALYSIS

Client: Weavertown Environmental Group
Address: 201 S. Johnson Road
Houston, PA 15342
Attention: Darrin Kuhn

Project: Security Buildings

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01606	201a	Gray floor tile	5-10-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
B01607	201b	Yellow mastic	5-10-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01608	202	Gray glazing	5-10-05	ND	ND	Cellulose = 5%	Calcite, Gypsum, Opaques, others = 95%
B01609	203	Gray caulking	5-10-05	Chrysotile = 5%	5%		Calcite, Gypsum, Opaques, Paint, others = 95%
B01610	204	White plasterboard	5-10-05	ND	ND	Cellulose = 6% Glass Fiber = 8%	Calcite, Gypsum, Opaques, paint, others = 84%
B01611	205	White joint compound	5-10-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, Paint, others = 98%
B01613	207	Light beige insulation	5-10-05	ND	ND	Cellulose = 5% Glass Fiber = 45%	Calcite, Opaques, others = 50%
B01614	208	Light beige insulation	5-10-05	ND	ND	Cellulose = 5% Glass Fiber = 45%	Calcite, Opaques, others = 50%
B01615	209a	White and brown floor tile	5-10-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%
B01616	209b	Clear mastic	5-10-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01617	210a	White and brown floor tile	5-10-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%
B01618	210b	Clear mastic	5-10-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01619	211	White and beige ceiling tile	5-10-05	ND	ND	Cellulose = 30% Glass Fiber = 30%	Opaques, Perlite, others = 40%
B01620	212a	Reddish-brown floor tile	5-10-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01621	212b	Tan mastic	5-10-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01622	213a	Reddish-brown floor tile	5-10-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%
B01623	213b	Amber mastic	5-10-05	ND	ND	Cellulose = 5%	Calcite, Opaques, others = 95%
B01624	214	White plasterboard	5-10-05	ND	ND	Cellulose = 8% Glass Fiber = 8%	Calcite, Gypsum, Opaques, paint, others = 84%
B01625	215	White joint compound	5-10-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, Paint, others = 98%
B01626	216	Gray caulking	5-10-05	Chrysotile = 5%	5%		Calcite, Opaques, Paint, others = 95%
B01627	217	Brown fiberboard	5-10-05	ND	ND	Cellulose = 90%	Opaques, others = 10%
B01628	218a	Gray floor tile	5-10-05	ND	ND	Cellulose = 2%	Calcite, Gypsum, Opaques, others = 98%
B01629	218b	Amber mastic	5-10-05	ND	ND	Cellulose = 3%	Calcite, Opaques, others = 93%
B01630	219	Red and black shingle	5-10-05	ND	ND	Glass Fiber = 35%	Calcite, Opaques, Bitumen, others = 65%
B01631	220	Black tar paper	5-10-05	ND	ND	Cellulose = 80%	Opaques, Bitumen, others = 20%
B01632	221	Black roofing tar	5-10-05	ND	ND	Cellulose = 15%	Opaques, Bitumen, others = 85
B01633	222	Black roofing material	5-10-05	ND	ND	Cellulose = 35% Glass Fiber = 5%	Calcite, Opaques, Bitumen, others = 60%
B01634	223	Black roofing material	5-10-05	ND	ND	Cellulose = 35%	Opaques, Bitumen, others = 65%
B01635	301	Tan roofing material	5-10-05	ND	ND	Cellulose = 90%	Opaques, Bitumen, others = 10%
B01636	302	Black and gray roofing material	5-10-05	ND	ND	Cellulose = 50%	Opaques, Bitumen, others = 50

amples are analyzed according to the U.S. EPA "Method for the Determination of Asbestos in Bulk Insulation Samples: EPA 600/93-116). Bulk sample report relates to only those items tested. All samples are retained or 90 days. Tile, Vinyl, Foam, Plastic and Fine Powder samples may contain Asbestos fibers of such small diameter that these fibers may not be detected by PLM. Such samples should be analyzed by XRD, TEM or SEM or greater certainty of Asbestos content. NVLAP LAB CODE NUMBER 901003

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HIS REPORT MUST NOT BE USED TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE UNITED STATES GOVERNMENT.
D = None Detected
A = Not Analyzed

ANALYST: _____
AUTHORIZED SIGNATURE: _____

ALLEGHENY ASBESTOS ANALYSIS, INC.
416 ANTHONY STREET
CARNEGIE, PENNSYLVANIA 15106
412-278-5400 FAX: 412-278-5404

Report Date: May 23, 2005
Job Number: 340-05-14856
Date Analyzed: May 19, 2005
Project Job #: 132086

RESULTS OF POLARIZED LIGHT ANALYSIS

Client: Weavertown Environmental Group
Address: 201 S. Johnson Road
Houston, PA 15342
Attention: Darrin Kuhn

Project: Meadows
Grandstands and Clubhouse

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type &Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
B01638	R-001	Black and silver flashing	5-11-05	ND	ND	Cellulose = 10% Synthetic = 30%	Opaques, Bitumen, others = 60%
B01639	R-002	Black roofing	5-11-05	ND	ND	Cellulose = 10% Glass Fiber = 30%	Calcite, Opaques, Bitumen, others = 60%
B01640	R-003	Black roofing	5-11-05	ND	ND	Cellulose = 30% Glass Fiber = 10%	Calcite, Opaques, Bitumen, others = 60%
B01641	R-004	Black roofing	5-11-05	ND	ND	Cellulose = 30% Glass Fiber = 10%	Opaques, others = 60%
B01642	R-005	Black roofing	5-11-05	Chrysotile = 30%	30%	Cellulose = 20%	Opaques, Bitumen, others = 50%
B01643	R-006	Black roofing	5-11-05	ND	ND	Cellulose = 30%	Opaques, Perlite, Bitumen, others = 70%
B01644	R-007	Black flashing	5-11-05	Chrysotile = 25%	25%	Cellulose = 15%	Opaques, Bitumen, others = 60%
B01645	R-008	Black roofing	5-11-05	ND	ND	Cellulose = 40%	Opaques, Bitumen, others = 60%
B01646	R-009	Black roofing	5-11-05	ND	ND	Cellulose = 35%	Opaques, Bitumen, others = 65%
B01647	R-010	Tan door lining	5-11-05	ND	ND	Cellulose = 95%	Opaques, others = 5%

Samples are analyzed according to the U.S. EPA "Method for the Determination of Asbestos in Bulk Insulation Samples: EPA 600/R-93-116). Bulk sample report relates to only those items tested. All samples are retained for 90 days. Tile, Vinyl, Foam, Plastic and Fine Powder samples may contain Asbestos fibers of such small diameter that these fibers may not be detected by PLM. Such samples should be analyzed by XRD, TEM or SEM for greater certainty of Asbestos content. NVLAP LAB CODE NUMBER 901003

ND = None Detected
NA = Not Analyzed

ANALYST: _____

AUTHORIZED SIGNATURE: _____

Paddock

Project

WEAVERTOWN ENVIRONMENTAL GROUP

MEADOW RACETRACK
ADMINISTRATION BUILDING
KITCHEN AREA

PCM AIR TESTING

November 30, 2005

BY

W & A ANALYTICAL, INC

W & A Analytical
3349 National Pike
Farmington, PA 15437
Phone: (724) 322-1903
Fax: (724) 329-4063

November 30, 2005

Blaine D. Kuhn
Weavertown Environmental Group
2 Dorrington Road
Carnegie, PA 15106
PO # 9404

Subject: Meadows Racetrack
Administration Building /Kitchen

Dear Mr. Kuhn:

In accordance with the Scope of Work, W & A Analytical, Inc., has completed final air testing after asbestos abatement procedures. All samples were collected at the above-mentioned site on November 30, 2005. The final samples collected were analyzed by a W & A microscopist. Monitoring results for the airborne sampling program are attached.

MONITORING SUMMARY

Sampling and analyses were conducted in accordance with the NIOSH Manual of Analytical Methods, Method 7400. Samples were collected by drawing air through membrane filters using high-volume calibrated sampling pumps. The high-volume pumps were calibrated to 12 liters per minute. One hundred fields, or one hundred fibers, were counted for each sample and a fiber concentration computed. Pumps were calibrated prior to and after use in the field.

DISCUSSION OF ABATEMENT

Weavertown Environmental Group removed the asbestos containing material, floor tile and mastic from the 1st floor of the administration building kitchen area. Prior to the initiation of final air clearance sampling, a visual inspection was conducted in the work areas to ensure that removal was complete and cleanup procedures were performed adequately. When the removal work was deemed acceptable by W & A Analytical's visual inspection, clearance testing was performed to determine the overall cleanliness of the work area air. A final airborne fiber concentration of 0.01 fibers per cubic centimeter (f/cc) or less, as determined by PCM, was considered acceptable.

DISCUSSION OF RESULTS

Airborne fiber concentrations are summarized in the attachments.

ATTACHMENTS

- Air Monitoring Data
- Air Monitoring Sample Locations
- Daily Log

Should you have any questions pertaining to the data presented or need further assistance, please do not hesitate to contact us. W & A Analytical appreciates the opportunity of working with Weavertown Environmental Group and looks forward to serving on future assignments.

Sincerely,

William W. Stewart
Industrial Hygienist

- **Air Monitoring Data**

AIR MONITORING DATA TABULATION
PCM ANALYSIS
(NIOSH 7400)

PROJECT NO. WEG-05-032
CLIENT WEAVER TOWN ENVIRONMENTAL GROUP
LOCATION MEADOWS RACE TRACK
FILTER LOT NO. 5065 111 WN
GILBRATOR/ROTOMETER NO. 01

OLYMPUS – YHS – MICROSCOPE YHS
MICROSCOPE SERIAL NO. 777444
MICROSCOPE FIELD AREA (MM2) .00785
PERMIT NO. N/A

Date	Sample I.D. No.	Location Description	Pump No.	Sampling Period (Military Time) Start	Sampling Period (Military Time) Stop	Sample Time (Min.)	Calibration Flow Rate (Liters/Min.) Pre	Calibration Flow Rate (Liters/Min.) Post	Sample Volume (Liters)	Fibers Counted per 100 Fields	Airborne Result (Fibers/CC)	Detection Limit (Fibers/CC)
11/30/05	WEG-001	FINAL-INCONT #1 1ST FLOOR KITCHEN AREA	HV-01	0710	0850	100M	12.0	12.0	1200L	10/100	.004	.002
11/30/05	WEG-002	FINAL-INCONT #2 1ST FLOOR KITCHEN AREA	HV-02	0712	0852	100M	12.0	12.0	1200L	11.5/100	.004	.002
11/30/05	WEG-003	FIELD BLANK	/	/	/	/	/	/	/	0/100	/	/

SAMPLE TYPE SUFFIX: B - Field Blank P - Prelest D - During C - Clearance NA - Not Analyzed, Fibers Obscured due to Heavy Filter Loading * - Detection Limit Calculated using 5.5 Fibers per 100 Fields

Bill Stewart

QUALITY CONTROL - 10% or minimum one sample required per sheet

QC ID Number: _____ Date Analyzed: _____ Original Sample ID: _____ QC Analyzed By: _____
QC Results: _____ Original Results: _____ Results Reviewed By: _____

- **Air Monitoring Sample Location**

Computation Sheet

WED

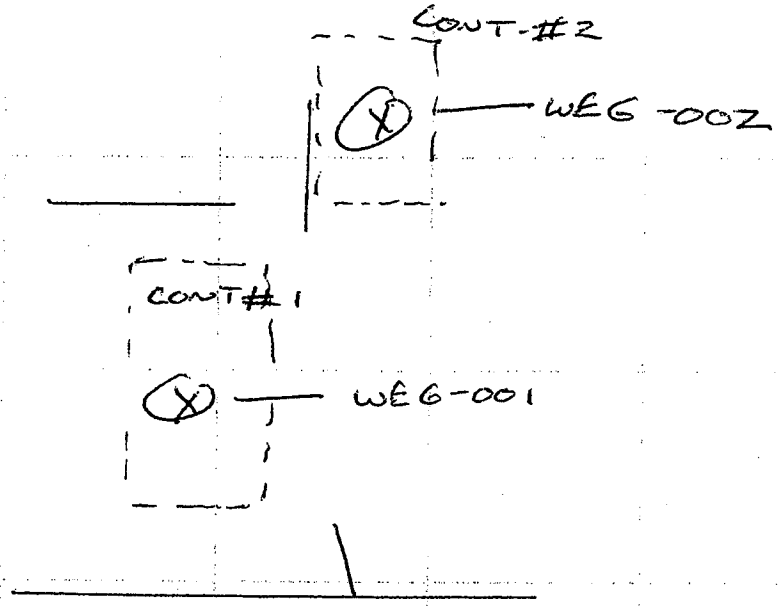
W & A Analytical, Inc.		By: WWS	Date: 11/30/05
Farmington, PA 15437	FINAL PCM AIR SAMPLE LOCATIONS	Chk: WWS	Date: 11/30/05
Phone: 724-322-1903		Sht.No.: 1	of 1
Fax: 724-329-4063		Job No.: WEG-05-032	

WEG

MEADOWS RACE TRACK

ADMIN BLDG

KITCHEN AREA 1ST FL. (NTS)



- **Daily Log**

DAILY LOG

W & A ANALYTICAL, INC.
3349 National Pike
Farmington, PA 15437-1211

PO 9404

WEG-05-032

WED.
11/30/05

WEG - MEADOWS RACETRACK
ADMIN BLDG. KITCHEN AREA
1ST. FLOOR

W&A ANALYTICAL IS ON SITE PROVIDING AIR MONITORING SERVICES AFTER ABATEMENT ACTIVITES AT THE ABOVE LISTED SITE.
2 CONTAINMENT AREAS ARE BEING TESTED FOR AIR CLEANLINESS. AFTER A VISUAL INSPECTION WAS ACCOMPLISHED, THE AREAS LOOKED CLEAN ENOUGH TO RUN FINAL PCM AIR TESTS.
ALL TESTS ARE CALIBRATED AND SETUP IN BOTH CONTAINMENT AREAS. DARRIN KUHN OF WEG IS ON SITE
0800- ALL TESTS ARE RUNNING IN THE PROPER MANNER
0830- ALL AIR TESTS ARE RUNNING IN A GOOD CONDITION. NO PROBLEMS HAVE OCCURED
0900- ALL PUMPS HAVE BEEN PULLED AND POST CALIBRATED

ALL RESULTS AND PROJECT DATA WILL BE INCLUDED IN THE FINAL REPORT TO WEG C/O MR. DARRIN KUHN

ON SITE MONITOR Bill Stewart

Washington County Conservation District
100 West Beau St., Suite 105
Washington, PA 15301-4447
Phone: 724-228-6774
Fax: 724-223-4682
e-mail: wccd@pulsenet.com

59 Years
1947 - 2006

December 5, 2005

To: MEC Pennsylvania Racing, Inc.

Subject: **Erosion and Sedimentation Control Plan Adequacy**

Site Location: North Strabane Township

Name of Site: Paddock Building at the Meadows

This plan has been reviewed by the Conservation District and has been found adequate to meet the requirements of PA. Title 25, Chapter 102, Erosion Control.

The Washington County Conservation District has reviewed this plan solely to determine whether it is adequate to satisfy the requirements of PA. Title 25, Code 102.1 et. Seq., which are the erosion control regulations of the Department of Environmental Protection. By a determination that the plan is adequate to meet these requirements, neither the Conservation District nor the County assumes any responsibility for the implementation of the plan. The design, structure, integrity, and the installation of the control measures are the sole responsibility of the landowner and/or earthmover. Before any construction or earthmoving activities may begin, the appropriate and required state permits MUST be secured from the PA Department of Environmental Protection.

A copy of the approved erosion control plan is required to be at the site of earthmoving during construction and until the entire site is permanently stabilized.

***Be reminded to contact the District office PRIOR to starting the project!**

Sincerely,

Jeremy Matinko
Erosion Control Technician

cc: WCCD Files
North Strabane Township
Jessica Chouteau, Gateway Eng.

EROSION AND SEDIMENTATION CONTROL PLAN NARRATIVE

Made For

PROPOSED PADDOCK BUILDING AT THE MEADOWS

Situate In

NORTH STRABANE TOWNSHIP WASHINGTON COUNTY, PA

THIS PLAN HAS BEEN REVIEWED
for the Department of Environmental Protection
By: _____ ,, CCD
Date: 12-5-05
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.

C-16708
Date: October 26, 2005
Revised: November 14, 2005

THE GATEWAY ENGINEERS, INC.
Prepared By: Jessica E. Chouteau, E.I.T.
Reviewed By: Patrick T. Cooper, P.E., P.L.S.

EROSION AND SEDIMENTATION CONTROL PLAN NARRATIVE

PLAN NAME: **PROPOSED PADDOCK BUILDING AT THE MEADOWS**

LOCATION: **North Strabane Township, Washington County, PA**

Chapter 93 Watershed Classification: connect to existing storm sewer, flows to unnamed tributary to Chartiers Creek, which is Classification: WWF

Past and Present Land Uses: The site is currently existing buildings and pavement adjacent to the racetrack.

The following narrative is accordance with PA Title 25, Chapter 102 Rules and Regulations, Section 102.5:

102.5 (b) The erosion and sedimentation control plan shall be designed to prevent accelerated erosion and sedimentation and shall consider all factors which contribute to erosion and sedimentation including, but not limited to, the following:

102.5(b)(1) The topographic features of the project area.

Existing contours are shown on the attached Erosion and Sedimentation Control Plan at 2 foot intervals.

102.5(b)(2) The types, depth, slope and aerial extent of the soils.

Refer to the Appendix and detail sheet for detailed on-site soils information.

102.5(b)(3) The proposed alteration to the area.

The proposed alterations to the 3.4+/- acre project area consists of the construction of a new paddock building and storage building with associated grading, pavement and installation of a permanent storm water management detention tank. The entire project will disturb approximately 3.4 acres.

(a) Explain erosion and sedimentation control function of permanent site features and/or facilities.

Any unpaved disturbed area will be seeded with a mixture specified in the planting specifications.

(b) Indicate how and where topsoil will be removed, temporarily stockpiled, and then replaced.

Topsoil will be stripped and stockpiled on-site at the location shown on the Erosion & Sedimentation Control Plan. Stockpiled topsoil will be utilized for landscaping on all non-paved areas of the site.

102.5 (b)(4) The amount of runoff from the project area and the upstream watershed area and the method of calculation used.

(a) Watershed boundaries on and off site.

The watershed boundaries are shown by the existing topography and proposed grades on the Erosion and Sedimentation Control Plan. The methods used to calculate runoff included the methods described in the DEP Erosion and Sediment Pollution Control Manual and the Rational Method.

(b) Show that all discharge points are in compliance with section 102.13 with regard to allowable velocity.

All runoff and proposed storm sewers will connect into an existing storm sewer system.

102.5 (b)(5) The staging of earthmoving activities.

(a) Construction Sequence

1. Stake out limit of disturbance for grading operations on site.
2. Install rock construction entrances according to the detail in the location as shown on plan.
3. Install silt fence as shown on the plan below construction of all proposed slopes as shown on the plan.
4. Clear site and begin demolition as necessary within the limit of disturbance as indicated on the plan.
5. Clear topsoil and stockpile at the location as shown on the plan. Immediately install filter fabric fence below topsoil stockpile.
6. Complete demolition of existing buildings and pavement.
7. Install proposed detention tank and storm sewers and connect to existing storm sewer system. Immediately install inlet protection as shown on plan.
8. Install remaining site utilities.
9. Complete remainder of grading operations and building construction.
10. Once final slopes and grades are achieved, immediately seed and mulch for stabilization in regular 20' vertical increments to promote early stabilization of the site.
11. Prepare areas for paving and install as per the details and specifications.
12. Remove the rock construction entrance as paving is complete.

13. Replace topsoil, seed and mulch all disturbed areas, using the specified seeding requirements found on the detail plan. All disturbed areas must be temporarily stabilized if remaining idle, or anticipated to remain idle. In the absence of a soil test, lime should be added at a rate of 275 lbs / 1000 s.f. Likewise, the fertilizer rates should be increased to 1250 lbs/ac. of 8-16-16 and 2000 lbs/ac. of 5-10-10.
14. Reseed all disturbed areas if vegetation is not established after 30 days.
15. Remove all filter fence and inlet protection following completion of the above steps and after the site has a uniform 70% perennial vegetative cover on unpaved areas.

UTILITY LINE INSTALLATION REQUIREMENTS

1. Advanced clearing and grubbing operations for strip utility line installations shall be limited to a distance equal to two times the length of pipe installation that can be completed in one day.
2. Work crews and equipment for trenching, placement of pipe, plug installation and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.
3. Daily trench excavation shall be limited to the length of pipe placement, plug installation and backfilling that can be completed the same day.
4. Water which accumulates in the open trench will be completely removed by pumping into a silt bag, prior to pipe placement or backfilling operations.
5. On the day following pipe placement and trench backfilling, the disturbed area shall be graded to final contours and appropriate temporary erosion and sediment pollution control measures/facilities will be installed. Seeding and mulching of all disturbed areas will be done at the end of each week.
6. In certain cases trenches cannot be backfilled until the pipe is hydrostatically tested, or anchors and other permanent features are installed. In these cases, requirement 5 is modified as follows:
   Daily backfilling of the trench may be delayed for six days. All pressure testing and the complete backfilling of the open trench must be completed by the seventh working day. If daily backfilling is delayed, the disturbed area will be graded to final contours, appropriate temporary erosion and sediment control measures/facilities will be installed, and the areas seeded and mulched within the next two calendar days.

102.5 (b)(6) Temporary control measures and facilities for use during earthmoving.

Control measures and facilities will include, filter fabric fence, rock construction entrance, inlet protection, and temporary seeding. These bmps will be utilized to control erosion and sedimentation and prevent sediment from leaving the site. See details included in the plans and details.

102.5 (b) (7) Permanent control measures and facilities for long term protection; and use during earthmoving.

Permanent control measures include permanent seeding. Vegetative surface stabilization specifications have been included on the attached Erosion and Sedimentation Control Detail Sheet.

102.5 (b)(8) A maintenance program for the control facilities including disposal of materials removed from the control facilities or project area.

A Maintenance Schedule for the erosion and sedimentation control measures and facilities is included in the attached plans and details.

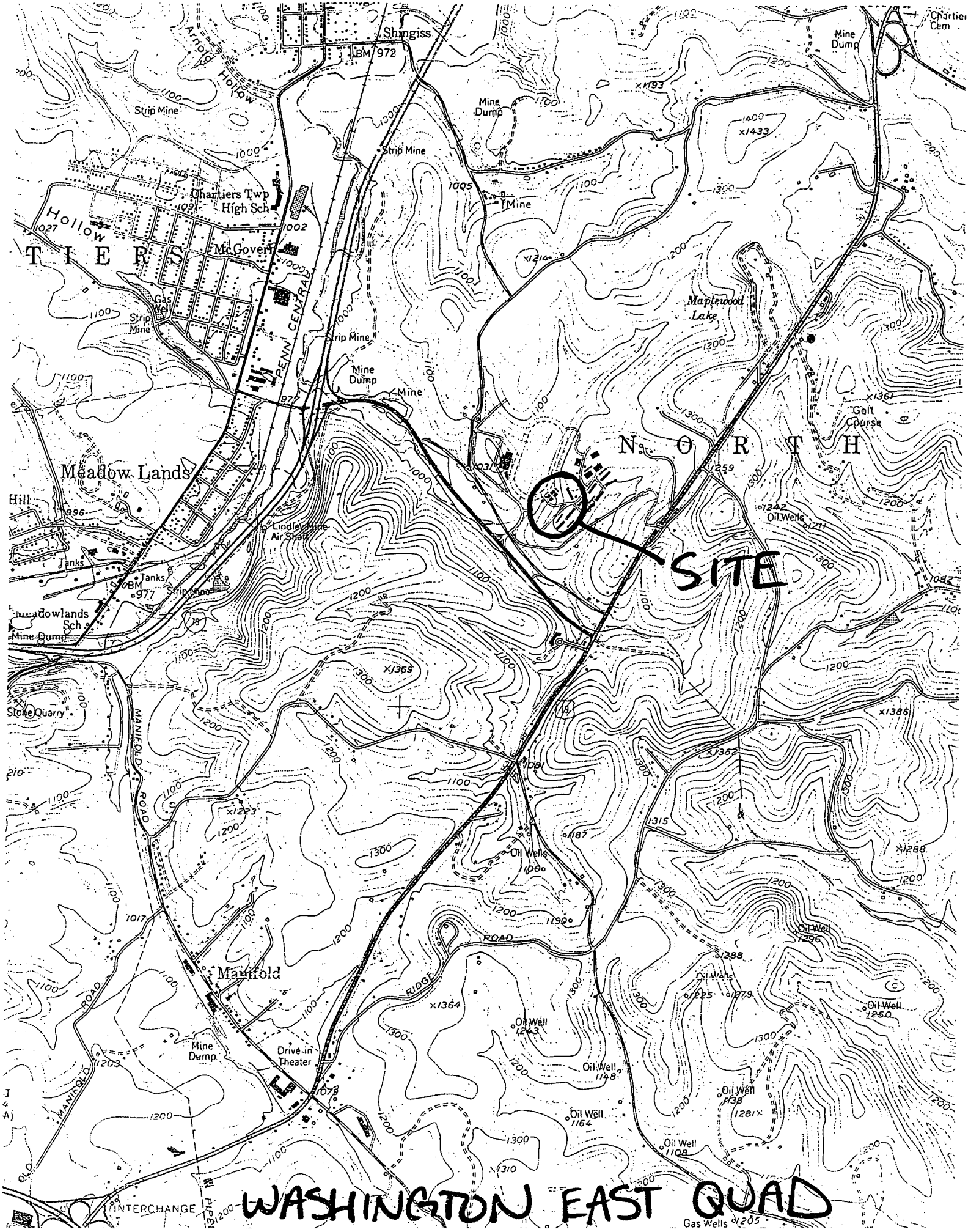
Procedures which ensure that the proper measures for the recycling or disposal of materials associated with or from the project site will be undertaken in accordance with Department regulations.

All construction wastes including, but not limited to, temporary BMPs must be disposed of properly at an approved DEP waste site.

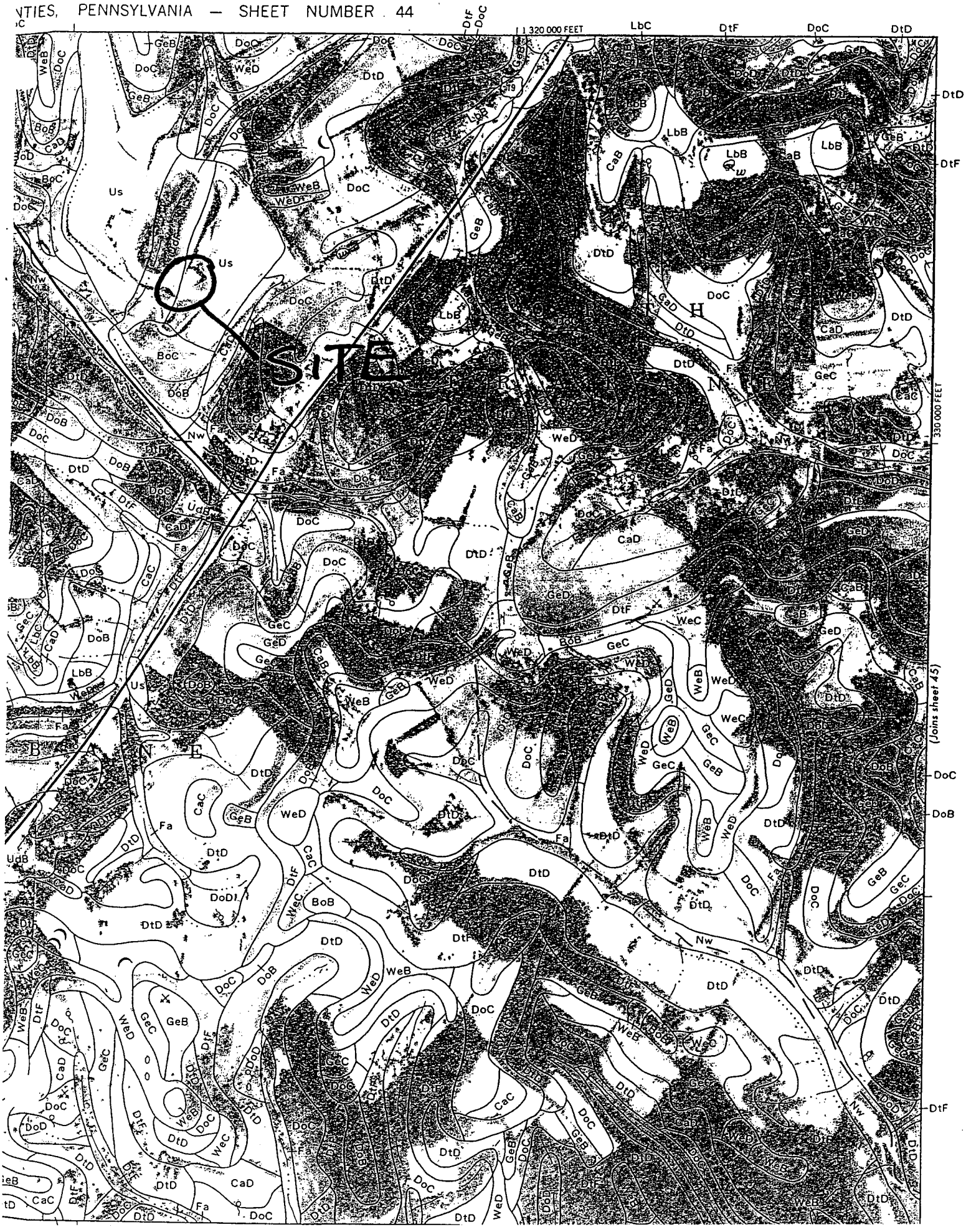
No offsite borrow or waste areas are anticipated due to a balanced site.

Appendices
Table of Contents

Appendix A


SITE
NORTH
WASHINGTON EAST QUAD
Shingiss
BM 972
Arnold Hollow
Strip Mine
Mine Dump
Mine
Chartiers Twp High Sch
McGovern
Hollow
TIERS
Gas Well
PENN CENTRAL
Maplewood Lake
Golf Course
Meadow Lands
Lindley Mine Air Shaft
Tanks
Meadowlands Sch
Stone Quarry
MANIFOLD ROAD
Manifold
RIDGE ROAD
Drive-in Theater
Oil Wells
Oil Well
Gas Wells
INTERCHANGE

Appendix B


1 320 000 FEET
330 000 FEET
SITE
BRANCH
NORTH
(Joins sheet 45)

Appendix C

EROSION AND SEDIMENTATION CONTROL PLAN

STANDARD WORKSHEET #2
RECORD OF TRAINING AND EXPERIENCE
IN EROSION AND SEDIMENTATION CONTROL METHODS AND TECHNIQUES

NAME OF PLAN PREPARER: Jessica E. Chouteau, E.I.T.

FORMAL EDUCATION:

The Ohio State University
September 1995 - June 2000
Civil Engineering - BSCE

EMPLOYMENT HISTORY:

Current Employer: The Gateway Engineers Inc.
Telephone: (412) 921-4030

Former Employer: Exxcel Contract Management Inc.
Telephone: (614) 621-4500

RECENT EROSION AND SEDIMENTATION CONTROL PLANS PREPARED:

Name of Project:	Boyce Mayview Environmental Education Center
County:	Allegheny
Municipality:	Township of Upper St. Clair
Permit Number:	PA-R10-A611
Approving Agency:	Allegheny County Conservation District

Name of Project:	Cook School Road Realignment
County:	Allegheny
Municipality:	Township of Upper St. Clair
Permit Number:	PAG-2-0005-0002-03-024
Approving Agency:	Allegheny County Conservation District

Name of Project:	Merante Property
County:	Allegheny
Municipality:	West Mifflin and Baldwin Boroughs
Permit Number:	PAG-2-0005-0002-03-022
Approving Agency:	Allegheny County Conservation District

The Weavertown Group

A8

WEG
Weavertown Environmental Group

OPTIMAL TECHNOLOGIES AIR QUALITY SERVICES

October 5, 2005

Mr. Tom Reddy
The Meadows
201 South Johnson Road
Houston, Pennsylvania 15342
Telephone: (724) 225-9300

Re: Asbestos Building Inspection for The Meadows Express Bet 1st Floor Kitchen, Cafateria, Office, & Basement

WEG Project No. E0201

Dear Mr. Reddy:

Sampling was performed in the 1st floor kitchen, cafeteria, 1st floor office, and basement of the Express Bet Building by Darrin Kuhn (certification # 028112) on October 3, 2005. Sampling was confined to areas that are scheduled for renovation and demolition. Sampling and asbestos analysis indicate that asbestos is present in green and white floor tile and mastic in the kitchen office and pantry, the mastic under the gray and grown tile in the rear track entrance to the kitchen & basement, and in the green floor tile at the bottom of the steps in the basement. WEG has attached the chain of custody and the laboratory analysis report.

Asbestos was found in the following samples:

Area	Sample No.	Sample Item	Percent & Friability	Estimated Quantity
Express Bet 1st floor Kitchen Office & Pantry	1001, 1003, 1005, 1006	Green 9 x 9 inch & White 9 x 9 inch floor tile in the kitchen office & pantry	5% Category I Non-friable	250 Square Feet (2 separate rooms)
Express Bet 1st floor Kitchen Office & Pantry	1002, 1004, 1007	Black Mastic under the Green 9 x 9 inch & White 9 x 9 inch floor tile in the kitchen office & pantry	12-15% Category I Non-friable	Included above 250 square feet
Express Bet 1st floor Track Side Entrance to Kitchen and Basement Stairs	1021	Gray & Brown 12 x 12 inch floor tile mastic/adhesive located at the track side entrance to the kitchen & basement under sample 1020	10% Category I Non-friable	300 square feet
Express Bet Basement	1032 & 1034	Green 9 x 9 inch floor tile at the bottom of the basement stairs on the basement floor	3% Category I Non-friable	250 square feet

Respectfully,

B. L C

Darrin Kuhn
Asbestos Inspector

WEG
Weaverlown Environmental Group
a Division of Weaverlown Transport Leasing, Inc.

Express Bet

Chain of Custody Reco

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: E0301
Address: 3 Dorrington Rd, Connellsville PA

Phone: (724) 746 4850
Fax: (412) 429-0919
Site: Express Bet
P. O. No.: 85165

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Required: PLM	Remarks
1001	Green 9x9 Floor tile - 1st Floor Office	10/3						250 sq ft
1002	Mastic + Foot Pantry							2 Rooms
1003	Green 9x9 Floor Tile - 1st Floor office +							
1004	Mastic Pantry							
1005	Green 9x9 Floor Tile - office -							
1006	White 9x9 Floor Tile - office - Pantry							
1007	Mastic							
1008	White 12x12 Floor tile - Kitchen Entrance							25x20
1009	Mastic							
1010	White 12x12 Floor Tile - Kitchen Entrance							
1011	Mastic							
1012	Yellow/Gold 12x12 Floor Tile South End Kitchen Cafeteria							
1013	Mastic							

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 10/3	Time:	Received By:	Shipping Carrier:	Samples Received Cold? Yes / No Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number:	Chain of Custody Seal: INTACT BROKEN ABSENT
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:	
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices	

White - Retain by Lab (Project File) Yellow - Return to Client Pink - Retain by Sampler Gold - File

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Express Bet

Chain of Custody Re

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: E0201
Address: 3 Dorrington Rd, Connellsville PA

Phone: (724) 746-4850
Fax: (412) 429-0919
Site: Express Bet
P. O. No.: 85265

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Required PLM	Remarks
1014	Yellow+Gold 12x12 Tile Kitchen+Cafeteria	10/3						
1015	Mastic							
1016	Pinkish Brown 12x12 Tile Main Seating Area							
1017	Mastic							
1018	Pinkish Brown 12x12 Tile Main Seating							
1019	Mastic							
1020	Gray & Brown 12x12 Tile Truck Entrance							
1021	Mastic							
1022	Gray & Brown 12x12 Tile Truck Entrance							
1023	Mastic							
1024	Whitish Green 12x12 Tile Office							
1025	Mastic							
1026/1027	Whitish Green Tile Office / Mastic							

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 10/3	Time: —	Received By:
Relinquished by: (2)	Date:	Time:	Received By:
Relinquished by: (3)	Date:	Time:	Received By:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:

Shipping Carrier:
Shipping Ticket Number:
Samples Received Cold? Yes /
Temperature °C:
Chain of Custody Seal:
INTACT BROKEN ABSEN
Requested Turnaround Time:
Comments:
Reference
Job # on all - Invoices

White - Retain by Lab (Project File) Yellow - Return to Client Pink - Retain by Sampler Gold - File

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc.

Express Bet

Chain of Custody Re

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: E0201
Address: Dorrington Rd, Connellsville PA

Phone: (724) 746-4850
Fax: (412) 429-0219
Site: Express Bet
P. O. No.: 85265

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used / Analysis Required PLM	Remarks
1028	Brown Painted Grey 9x9 Tile Basement	10/3						
1029	Mast.c							
1030	Brown Painted Grey 9x9 Tile Basement							
1031	Mast.c							
1032	Green 9x9 Tile Basement Bottom Stairs							
1033	Mast.c							
1034	Green 9x9 Tile Basement Bottom Stairs							
1035	Mast.c							
1036	Pipe Elbow 1" Pipe Basement							
1037	Pipe Elbow 1" Basement							
1038	Pipe Elbow 1" Basement							
1039	Pipe Union 2" Basement							
1040	Pipe Wrap over Fiberglass							

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 10/3	Time:	Received By:
Relinquished by: (2)	Date:	Time:	Received By:
Relinquished by: (3)	Date:	Time:	Received By:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:

Shipping Carrier:
Shipping Ticket Number:
Requested Turnaround Time:
Comments:
Reference
Job # on all - Invoices

Samples Received Cold? Yes /
Temperature °C:
Chain of Custody Seal:
INTACT BROKEN ABSEN

White - Retain by Lab (Project File) Yellow - Return to Client Pink - Retain by Sampler Gold - File

WEG
Weavertown Environmental Group
a Division of Weavertown Transport Leasing, Inc

Express Bet

Chain of Custody R

Client: Meadows
Contact: Dorrin Kuhn
Project/Job #: E0301
Address: 3 Dorrington Rd, Carnegie PA

Phone: (724) 746-4850
Fax: (412) 429-0219
Site: Express Bet
P. O. No.: 85165

Lab No.	Sample Identification	Date	Time	Matrix	Number of Containers	Sample Type C = Comp G = Grab	Preservative Used	Analysis Requested PLM	Remarks
1041	Freezer Door Insulation	10/3							
1042	Drywall By Cafeteria Office								
1043	Drywall + Joint Compound Basement								
1044	Drywall + Joint Compound 1st Floor Offices								
1045	Ceiling Tile 1st Floor								

Collected/Relinquished by: (1) Dorrin Kuhn	Date: 10/3	Time: —	Received By:	Shipping Carrier: / Samples Received Cold? Yes / Temperature °C:
Relinquished by: (2)	Date:	Time:	Received By:	Shipping Ticket Number: / Chain of Custody Seal: INTACT BROKEN ABSEN
Relinquished by: (3)	Date:	Time:	Received By:	Requested Turnaround Time:
Relinquished by: (4)	Date:	Time:	Received For Laboratory By:	Comments: Reference Job # on all - Invoices

White - Retain by Lab (Project File) Yellow - Return to Client Pink - Retain by Sampler Gold - File

ALLEGHENY ASBESTOS ANALYSIS, INC.
416 ANTHONY STREET
CARNEGIE, PENNSYLVANIA 15106
412-278-5400 FAX: 412-278-5404

Report Date: October 4, 2005
Job Number: 340-05-16175
Date Analyzed: October 4, 2005

RESULTS OF POLARIZED LIGHT ANALYSIS

Client: Weavertown Environmental
Address: 201 South Johnson Road
Houston, PA 15342
Attention: Darrin Kuhn

Project: Meadows – Express Bat

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type & Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
03243	1001	Green floor tile – 1st. Floor office & Pantry	10-3-05	Chrysotile = 5%	5%		Calcite, Opaques, others = 95%
03244	1002	Black mastic – 1st. Floor office & Pantry	10-3-05	Chrysotile = 15%	15%		Opaques, Bitumen, others = 85%
03245	1003	Green floor tile – 1st. Floor office & Pantry	10-3-05	Chrysotile = 5%	5%		Calcite, Opaques, others = 95%
03246	1004	Black mastic – 1st. Floor office & Pantry	10-3-05	Chrysotile = 15%	15%		Opaques, Bitumen, others = 85%
03247	1005	Green floor tile – 1st. Floor office	10-3-05	Chrysotile = 5%	5%		Calcite, Opaques, others = 95%
03248	1006	Gray/green floor tile – office & Pantry	10-3-05	Chrysotile = 5%	5%		Calcite, Opaques, others = 95%
03249	1007	Black mastic – office & Pantry	10-3-05	Chrysotile = 12%	12%		Opaques, Bitumen, others = 88%
03250	1008	White/beige floor tile – kitchen entrance	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03251	1009	Amber mastic – kitchen entrance	10-3-05	ND	ND	Cellulose = 10%	Opaques, others = 90%
03252	1010	White/beige floor tile – kitchen entrance	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03253	1011	Amber mastic – kitchen entrance	10-3-05	ND	ND	Cellulose = 10%	Opaques, others = 90%
03254	1012	Off white floor tile – south end kitchen and cafeteria	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03255	1013	Black mastic – south end kitchen and cafeteria	10-3-05	ND	ND	Cellulose = 15%	Opaques, Bitumen, others = 85%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type & Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
03256	1014	Off white floor tile – kitchen and cafeteria	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03257	1015	Black mastic – kitchen and cafeteria	10-3-05	ND	ND	Cellulose = 15%	Opaques, Bitumen, others = 85%
03258	1016	Beige & brown floor tile – Main seating area	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03259	1017	Yellow mastic – Main seating area	10-3-05	ND	ND	Cellulose = 7%	Opaques, others = 93%
03260	1018	Beige and brown floor tile – Main seating	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03261	1019	Yellow mastic – Main seating	10-3-05	ND	ND	Cellulose = 7%	Opaques, others = 93%
03262	1020	Light gray floor tile – Track entrance	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03263	1021	Black and yellow mastic – Track entrance	10-3-05	Chrysotile = 10%	10%	Cellulose = 5%	Calcite, Opaques, Bitumen others = 85%
03264	1022	Light gray floor tile – Track entrance	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03265	1023	Black and amber mastic – Track entrance	10-3-05	ND	ND	Cellulose = 7%	Opaques, Bitumen, others = 93%
03266	1024	Light gray floor tile - office	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03267	1025	Amber mastic - office	10-3-05	ND	ND	Cellulose = 5%	Opaques, others = 95%
03268	1026	Light gray floor tile - office	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03269	1027	Amber mastic - office	10-3-05	ND	ND	Cellulose = 5%	Opaques, others = 95%
03270	1028	Tan floor tile - basement	10-3-05	ND	ND	Cellulose = 2%	Calcite, Opaques, others = 98%
03271	1029	Black mastic - basement	10-3-05	ND	ND	Cellulose = 5%	Opaques, Bitumen, others = 95%
03272	1030	Tan floor tile - basement	10-3-05	ND	ND	Cellulose = 1%	Calcite, Opaques, others = 99%
03273	1031	Black mastic - basement	10-3-05	ND	ND	Cellulose = 5%	Opaques, Bitumen, others = 95%
03274	1032	Pale green floor tile – basement bottom stairs	10-3-05	Chrysotile = 3%	3%		Calcite, Opaques, others = 97%

LAB I.D.	SAMPLE NUMBER	SAMPLE DESCRIPTION	DATE RECEIVED	ASBESTOS FIBERS PRESENT (Type & Approximate Percent)	TOTAL PERCENT ASBESTOS PRESENT	OTHER FIBROUS MATERIAL PRESENT (Type & Approx %)	NON-FIBROUS MATERIAL (Type & Percent)
03275	1033	Brown mastic – basement bottom stairs	10-3-05	ND	ND	Cellulose = 5%	Opaques, others = 95%
03276	1034	Pale green floor tile – basement bottom stairs	10-3-05	Chrysotile = 3%	3%		Calcite, Opaques, others = 97%
03277	1035	Brown mastic – basement bottom stairs	10-3-05	ND	ND	Cellulose = 5%	Opaques, others = 95%
03278	1036	Light gray insulation - basement	10-3-05	ND	ND	Cellulose = 5% Glass Fiber = 40%	Calcite, Opaques, others = 55%
03279	1037	Light gray insulation - basement	10-3-05	ND	ND	Glass Fiber = 40%	Calcite, Opaques, others = 60%
03280	1038	Light gray insulation - basement	10-3-05	ND	ND	Glass Fiber = 40%	Calcite, Opaques, others = 60%
03281	1039	Light gray insulation - basement	10-3-05	ND	ND	Glass Fiber = 40%	Calcite, Opaques, others = 60%
03282	1040	Tan and silver jacketing – pipe wrap over fiberglass	10-3-05	ND	ND	Cellulose = 65%	Opaques, Bitumen, others = 35%
03283	1041	Tan and black insulation – freezer door insulation	10-3-05	ND	ND	Cellulose = 95%	Opaques, others = 5%
03284	1042	Light gray plaster board – drywall by cafeteria office	10-3-05	ND	ND	Cellulose = 10% Glass Fiber = 5%	Calcite, Gypsum, Opaques, Paint, others = 85%
03285	1043	White joint compound - basement	10-3-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, others = 97%
03286	1044	White joint compound - basement	10-3-05	ND	ND	Cellulose = 3%	Calcite, Gypsum, Opaques, Paint, others = 97%
03287	1046	White and gray ceiling tile – 1st. Floor	10-3-05	ND	ND	Cellulose = 40% Glass Fiber = 20%	Perlite, Opaques, others = 40%

Samples are analyzed according to the U.S. EPA "Method for the Determination of Asbestos in Bulk Insulation Samples: EPA 600/R-93-116). Bulk sample report relates to only those items tested. All samples are retained for 90 days. Tile, Vinyl, Foam, Plastic and Fine Powder samples may contain Asbestos fibers of such small diameter that these fibers may not be detected by PLM. Such samples should be analyzed by XRD. TEM or SEM for greater certainty of Asbestos content. NVLAP LAB CODE NUMBER 901003

THIS REPORT SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF ALLEGHENY ASBESTOS ANALYSIS, INC.
THIS REPORT MUST NOT BE USED TO CLAIM PRODUCT ENDORSEMENT BY NVLAP OR ANY AGENCY OF THE UNITED STATES GOVERNMENT.
ND = None Detected
NA = Not Analyzed

ANALYST: _____

AUTHORIZED SIGNATURE: _____

Mailing Address
199 South Johnson Rd., Suite 100
Houston, PA 15342
Phone (724) 746-4850
Fax (724) 746-5085
EIN 25-1404579

The Weavertown Group

engineering

WEG
Weavertown Environmental Group
www.weavertown.com

OPTIMAL TECHNOLOGIES

INVOICE

Remit Payment To:
P.O. Box 634512
Cincinnati, OH
45263-4512

DATE: 10/06/05

INVOICE NO.: 5004517
TERMS: NET 30

INVOICE TO: MEAD002

THE MEADOWS
201 SOUTH JOHNSON ROAD
HOUSTON PA 15342

SHIP TO:

THE MEADOWS
201 SOUTH JOHNSON ROAD
HOUSTON PA 15342

ORDER DATE: 10/03/05
CUST. ORDER:
SALESPERSON: DK

DATE SHIPPED: 10/03/05
SHIPPED VIA: WTG-rn
JOB NUMBER: 60201

ASBESTOS BUILDING INSPECTION

QUANTITY	ITEM	DESCRIPTION	UNIT	UNIT-PRICE	TOTAL
ASBESTOS BUILDING INSPECTION EXPRESS BET 1ST FLOOR KITCHEN, CAFETERIA, OFFICE & BASEMENT WORKDATES: 10/3/5 CONTACT: DARRIN KUHN					
1		ASBESTOS SAMPLING	SUM	600.000	600.00
45		SAMPLES	EACH	12.500	562.50
			NON-TAXABLE		1,162.50
NET 30/INT 1.5% MONTHLY/ALL LEGAL FEES			** TOTAL DUE		1,162.50

CONSTRUCTION
ENGINEERING
CONSULTANTS, INC.

SUBSURFACE INVESTIGATION REPORT

PROPOSED PADDOCK BUILDING
THE MEADOWS

WASHINGTON COUNTY, PENNSYLVANIA

Prepared For:

MEC Pennsylvania Racing Inc.
Building 2, Suite 201B
201 South Johnson Road
Houston, PA 15342

J-08470

CEC 101 133

October 12, 2005

2018 WAVERLY STREET
PITTSBURGH, PA 15218-2402
(412) 351-6465
FAX: (412) 351-6401
E-MAIL: lab@cectesting.com

INTRODUCTION

Authorization

This investigation and subsequent report has been performed in accordance with the cost estimate submitted to Mr. George Leasure of Nello Construction on September 12, 2005. The approval of this cost estimate and the authority to proceed was given by Mr. Thomas Reddy of M.E.C. Pennsylvania Racing on September 16, 2005.

Purpose and Scope of Work

The purpose of this investigation was to determine the stratigraphy and pertinent physical properties of the soils, rock and groundwater conditions which underlie the proposed Paddock Barn at The Meadows Racetrack in Washington County, Pennsylvania. This information was used to provide recommendations for the foundation design as well as site development.

The scope of the work included visual site inspection, subsurface exploration, laboratory soils testing and engineering analysis. The subsurface exploration was comprised of drilling eight (8) test borings. Samples obtained during the drilling of the test borings were used in laboratory tests in order to estimate soil parameters such as shear strength, compressibility and permeability. The information gathered from the field and laboratory tests was used to perform bearing capacity and settlement analysis under the proposed foundation system.

Project Description

The proposed development includes the construction of a thirty thousand square foot one-story Paddock Building on the site east of the existing track. An existing wooden structure currently occupies the site. In addition to the building, parking will be expanded and storage areas and dumpster facilities will be built. The site is just off of Racetrack Road in North Strabane Township, Washington County, Pennsylvania.

SUBSURFACE INVESTIGATION

Eight (8) standard test borings were drilled on the site between September 27th and 28th, 2005. The test boring locations were chosen and staked by Construction Engineering Consultants, Inc. These locations are shown on the drawing of the site included in Appendix A. They are designated as B-1 through B-4, B-5A, B-5B, B-6 and B-7.

The drilling and sampling was done as described below in accordance with test method ASTM D-1586. The test borings were driven through the overburden using continuous helical augers on a trailer mounted drilling rig. Soil samples were obtained for laboratory testing at three (3) foot center-to-center intervals using a two (2) inch OD split spoon sampler in accordance with ASTM D-1586. The split spoon sampler was first seated for six (6) inches to penetrate any loose soil and then was driven an additional twelve (12) inches with blows from a 140 pound hammer falling thirty (30) inches.

The number of blows required to drive the sampler through each six inch increment was recorded. The number of blows required to penetrate through the final twelve (12) inches is designated as the "Standard Penetration Resistance" or "N value" of the soil strata. The blow counts are included on the drilling logs in Appendix B. When more than fifty (50) blows are required to penetrate three (3) inches, this is termed split spoon sampler "Refusal". All samples obtained using the split spoon sampler were visually classified at the site. The samples were then sealed in glass jars and identified by test boring number and depth of sample in accordance with ASTM
D-420.

In Test Borings B-1, B-2, B-3, B-4, B-5A and B-6, between nine (9) and thirty (30) feet of rock was cored after auger refusal was encountered using an NX double tube, rigid type core barrel. The substantial rock coring in Boring B-2 was performed in order to determine the extent of the coal and mining operations under the site. A two (2) inch diameter sample is yielded. The rock cores were then identified visually. The amount of core recovery and accompanying Rock Quality Designation (RQD) values for each core run were recorded. The RQD of a cored section of rock is defined by the sum of the lengths of individual core pieces four (4) inches or longer divided by the total length of the core run. This ratio is expressed as a percentage.

The groundwater level was measured and recorded in each test boring if it was initially encountered and at the completion of the drilling. This information is noted on the boring logs in Appendix B.

LABORATORY SOIL TESTING

The laboratory testing program for this project included the following tests on selected samples obtained from the test borings:

1. Natural Moisture Content Determination (ASTM D-2216)
2. Soil Classification (ASTM D-2487)
3. Compressive Strength of Rock Cores (ASTM D-2938)

The objective for the testing program was to use the information from the tests to relate to the compressibility and shear strength of the soil. A brief description of the tests that were performed is given below:

Moisture Content Tests

Natural moisture content tests were performed on twelve (12) soil samples selected from the various jar samples in order to evaluate the water content of the in-situ soil. This condition is dependent on the amount of precipitation and will vary during the year. The data from these tests are included in Appendix C.

Classification Tests

Gradation tests and Atterberg Limits were performed on two (2) samples. These tests are used to classify the soils according to the Unified Soil Classification System. The results are used in empirical formulas to estimate compressibility, permeability and other structural characteristics of the soil. The resulting classification is listed on the classification curves in Appendix C.

Compressive Strength Tests

Six (6) of the individual rock cores were loaded uniaxially in compression until failure occurred. Test tests can be used to estimate the competency of the bearing strata where a deep foundation may be required. The data from these tests are included in Appendix C.

ANALYSIS AND DISCUSSION

Test Borings B-1 through B-5B were drilled within the footprint of the proposed building. Test Boring B-6 was drilled on the hillside north of the proposed building where the hay bins and dumpster may be located. Boring B-7 was drilled south of the proposed building where the parking is to be expanded.

All of the test borings except B-2 were initiated on the soil subgrade that surrounds the existing Paddock Building. Test Boring B-2 was initiated on asphalt that is adjacent to the existing small building that is next to the Paddock Building. The asphalt was approximately three and one-half (3.5) inches thick underlain by approximately eight (8) inches of gravel subbase. Test Boring B-5 was replaced by two borings (B-5A and B-5B) drilled outside the existing building since the drilling rig was too tall to drill inside the building.

All of the test borings except B-6 encountered fill soils at the surface. The fill is primarily composed of silty clay that has been placed during the original grading for the track. There are some large cobbles of limestone and sandstone mixed in the fill. In test boring B-4, the cobbles were large enough that they could not be augered and had to be cored. The thickness of the fill varies from as little as one (1) foot at Boring B-1 to nearly twenty-four (24) feet at Test Boring B-4. In general the fill is very thin at the northeast corner of the proposed building and becomes thicker at the southwest corner The consistency of the fill varies from soft to medium stiff based upon a scale of very soft, soft, medium stiff, stiff, very stiff and hard. The fill was damp to moist based on a possible scale of dry, damp, moist, wet and saturated. Laboratory test results indicated that the moisture content of the fill ranges from fifteen (15) to twenty-four (24) percent. Drying will be required in order to achieve compaction if the fill material is used as backfill for the building.

The exact depth at which the fill becomes a residual layer of clay is difficult to determine since the fill is composed of naturally occurring soils from the site. However, immediately below the fill and residual clay is a broken to massive layer of limestone. This site bedrock contains numerous clay seams with recoveries of the core runs ranging from thirty-six (36) to seventy-eight (78) percent. This means that when the rock is excavated, it will come out in large boulders. Compressive strength tests taken on selected rock cores ranged from 160 to 13,990 pounds per square inch (psi) with an average strength of 6,135 psi.

A typical shallow foundation system consisting of spread footings for column loads and strip footings for wall loads would lie in a combination of the limestone bedrock and the existing fill layer. This would lead to excessive long term total and differential settlements. The only way to eliminate these settlement stresses is through the use of a deep foundation system extending to the site bedrock along with shallow footings in the limestone. The most economical deep foundation option would be drilled cast-in-place piers (caissons). Caissons should be designed for a maximum end bearing pressure of twelve (12) tons per square foot (TSF). All caissons should be drilled to earth auger refusal in the limestone bedrock. All caissons should have a minimum diameter of thirty (30) inches to allow for visual inspection. Caisson bottoms should be relatively free of loose debris and water prior to concrete placement. Temporary steel liners will be needed in order to prevent sloughing of the caisson sidewalls and limit the amount of water infiltration. If groundwater infiltration cannot be controlled, caisson concrete will have to be placed by the tremie method. Shallow foundations that bear on limestone may be designed for a bearing pressure of ten thousand (10,000) pounds per square foot (PSF). The following table lists the depth to bedrock at each boring location within the building from the existing grade. Due to boulders in the fill, some coring of the rock may be necessary during the caisson installation.

Test Boring	Approximate Bedrock Depth (ft)
B-1	1.4
B-2	11.5
B-3	5.6
B-4	23.8
B-5A	3.1
B-5B	13.2

As an alternative to a deep foundation, a "modified" shallow foundation with a reduced bearing capacity is possible if the owner is willing to accept the risk of some differential settlements. Shallow foundations with a lowered bearing capacity can be used in conjunction with a footing undercut in order to provide a bridging layer over the existing soft fill. Additionally, footings that would normally bear on rock will need to be undercut and replaced with soil in order to give a cushion that would allow some settlements. These two measures along with using control joints at twenty (20) to twenty-five (25) foot centers along the exterior building wall should reduce the effects of the settlements to an acceptable level. A drawing showing the estimated location of the required undercuts is shown in Appendix A.

For the shallow foundation system, footings that would normally bear on the existing fill should be undercut three (3) feet and replaced with a consolidated crushed stone (not river gravel) to the planned bottom of footer elevation. The undercut should extend one (1) foot beyond each side of continuous footings and two (2) feet beyond each side for column footings. The stone should have a Penn DOT 2B grading and the stone should be consolidated in maximum one (1) foot thick lifts with a large backhoe attached plate tamper or vibratory roller trench compactor. The undercut stone should be drained in several locations on the perimeter footings with subsurface drains. Footings that would normally bear on the limestone bedrock should be undercut by two (2) feet. These undercuts only need to be the same width as the footing. The undercut should then be replaced by compacted soil. If this scheme is utilized, footings can then be designed with a reduced bearing capacity of two thousand (2000) pounds per square foot (PSF). To further reduce differential settlement stresses all continuous wall footings should contain both top and bottom reinforcement to span any localized soft areas.

Some undercutting of the building pad subgrade should be anticipated due to the loose nature of the fill. A thorough proofroll should be performed on the pad subgrade, and yielding areas should be undercut up to two (2) feet. Stabilization should be performed with AASHTO #1 or #2 crushed stone to the planned subgrade elevation. Additionally, a soil/bedrock transition zone should be installed where the limestone is at finish subgrade elevation as shown in the detail in Appendix E.

Test Boring B-6 was drilled in the vicinity of the proposed hay storage and dumpsters. Underlying twelve (12) feet of residual silty clay is the limestone bedrock. The approximate elevation of the top of this rock is 1078 feet. While the boring was drilled uphill from the proposed location for the hay storage and dumpsters, it is still anticipated that up to ten (10) feet of hard rock will need to be excavated to install the storage sheds as planned. Consideration should be given to moving their proposed location.

Test Boring B-7 was drilled in the vicinity of a proposed retaining wall for the expanded parking area. The entire drilled length of this boring was very soft clay fill. It should be anticipated that any retaining wall will require at least three (3) feet of undercut and replacement with stone in order to allow a bearing capacity of two thousand (2000) pounds per square foot (PSF).

A report was obtained from the Pennsylvania Department of Environmental Protection concerning the status of coal mines under the site. A copy of that report is attached. It indicates that the Pittsburgh Coal Seam was mined prior to 1935 under the site. The minimum amount of rock cover (under the southwest corner of the proposed building) is approximately 160 feet. Therefore, the risk of damage to structures built on the site due to mine subsidence is considered to be slight.

RECOMMENDATIONS

SITE WORK AND FILL

1. All proposed construction areas should be stripped of all organic or other unsuitable materials.

2. Proofroll the site using a compactor or other approved vehicle. Any yielding areas should be stabilized before fill or pavement placement proceeds. Stabilization should be performed with AASHTO #1 or #2 crushed stone. In addition, a soil/bedrock transition zone should be installed as shown in Appendix E.

3. Any materials to be used as fill must be approved before placement. All fill materials should make a maximum size 8 inches in any direction. **Large limestone boulders should be removed from the site.**

4. For filling areas to grade or replacing undercut areas of unsuitable material each lift thickness should be a maximum of eight (8) inches in the loose state and placed within plus or minus three (3) percent of the optimum moisture content as determined by the Modified Proctor (ASTM D-1557) for cohesive soils.

5. All fill placed using cohesive soils should be compacted to at least 95% of the maximum dry density as determined by the Modified Proctor (ASTM D-1557) or at least 70 percent of the relative density as determined by ASTM D-4253 and D-4254 for cohesionless soils.

6. Adequate site drainage should be maintained during all site work. Any areas where water ponds due to poor drainage must be drained and undercut to stable soil before further fill placement proceeds.

7. Utilize underground drains for any groundwater encountered during the excavation.

8. Some of the existing soils on the site contain moderately high amounts of silt. Silty soils breakdown and pump when they contain excessive moisture. If this condition occurs, the soil must be stabilized by drying and recompacting. **Moisture content tests indicate that drying will be required of some on site soils prior to compaction.**

BUILDING FOUNDATIONS AND SLABS ON GRADE

1. Support all proposed structures on a combination of shallow footings bearing on bedrock along with cast-in-place concrete piers (caissons) drilled to bedrock where the existing fill is too thick for shallow foundations. As an alternative, the bedrock can be undercut two (2) feet and replaced with soil while footings in fill should utilize a modified shallow foundation detailed below consisting of spread footings for columns and strip footings for walls. See additional comments concerning the foundation installation in the "**ANALYSIS AND DISCUSSION**" section of this report.

2. All exterior shallow foundations should be placed a minimum of three (3) feet below outside grade for frost protection.

3. If a shallow foundation is utilized, footers should be designed with an allowable bearing pressure of two thousand (2000) PSF. All footings normally bearing on existing fill should be undercut three (3) feet and replaced with compacted layers of crushed stone having a Penn DOT 2B grading. No river gravel should be utilized. Stone should be drained in several locations to prevent water accumulation. This construction method may produce small settlements that will result in minor cracking of masonry walls and settlements of columns. Footings that would normally bear on the limestone bedrock should be undercut by two (2) feet and backfilled with compacted soil.

4. If caissons are utilized, they should have a minimum diameter of thirty (30) inches and may be designed for an end bearing pressure of twelve (12) tons per square foot (TSF). All caissons should be drilled to earth auger refusal bearing on limestone.

5. All bearing surfaces should be free of water prior to the placement of concrete. Foundations should be placed as soon after excavation as possible and no concrete should be placed on frozen soil. The top ten (10) feet of caisson concrete should be consolidated with a vibrator. Temporary steel liners will be needed to limit groundwater infiltration and prevent sloughing of the sidewalls.

6. If shallow footings are used, footings should contain both top and bottom reinforcing and walls should contain control joints at a maximum of every twenty-five(25) feet in order to absorb differential settlements. If caissons are used, wall loads should be supported by grade beams that span the caissons.

7. Support floor slabs on grade using a minimum of five (5) inches of compacted granular fill under the slab with a vapor barrier between the fill and slab. Expansion joints should be used between the grade beams and floor slabs to minimize differential settlement stresses. The floor slab can be designed using a modulus of subgrade reaction (k) of 100 pci. All ACI 302 recommendations should be followed in the installation of the floor slabs.

8. The granular fill under the floor slab should consist of a Penn DOT 2A or 2B grading. Compaction to 95% of the maximum dry density as determined by ASTM D 1557 should be achieved prior to slab placement.

SEISMIC SITE CLASS

1. A seismic site class **"C"** as defined in Section 1615 of the 2003 International Building Code should be used in the foundation design.

GROUNDWATER

1. The groundwater level will fluctuate seasonally. In areas where water is encountered during the excavation for structures, the water will have to be removed immediately prior to the placement of concrete or fill materials. Temporary diversion trenches are likely to be needed to prevent water infiltration during fill operations.

2. The silty soils on the site are of a nature that will hold water from precipitation or surface runoff. Consideration should be given to the difficulties involved in the placement of fills with high moisture contents or the stabilizing of areas that are excavated to grade especially during wet periods of the year.

3. Temporary steel liners will be needed to stop water infiltration into the caisson prior to concrete placement.

4. For foundation undercuts, underdrains that outlet to the sites stormwater management system will be needed.

INSPECTION

1. During site preparation, a qualified soil inspector under the direction of one of our registered geotechnical engineers should be present at all times in order to identify unsuitable materials, monitor fill placement and inspect foundation bearings. It is highly recommended that our firm perform these inspections since we have the visual experience with existing soil types and would be able to discern any variations accurately. It is only with our inspection that we can assure that our recommendations are followed.

2. All fill densities should be tested using a nuclear densometer or other approved method at the rate of one test for every 3000 square feet of material placed on each lift.

RETAINING WALLS

1. The following parameters should be utilized for the design of any retaining wall at the southern end of the site for the parking lot expansion:

	Phi Angle	***Cohesion***	***Unit Wt.***
Retained Soil	25	100 PSF	110 PCF
Reinforced Soil*	28	200 PSF	120 PCF
Foundation Soil	25	100 PSF	110 PCF

*Existing fill after drying and recompaction.

2. A bearing capacity of two thousand (2000) PSF may be utilized for the foundation of the wall if the soil is undercut by three (3) feet and replaced with PennDOT 2B graded stone.

3. All walls should have a minimum of one (1) foot of free draining gravel behind the wall with outlets spaced every fifty (50) feet along the wall.

LIMITATIONS

1. The recommendations listed above are based on the information currently available about the proposed structures and site development and are applicable only to the client for which it was performed. Misinterpretation may occur by anyone other than whom the report was prepared. The report should only be presented in its entirety. Changes in the planned construction including size elevation, location or configuration of structures and site improvements may result in the recommendations becoming invalid.

2. This report assumes that the actual subsurface conditions do not differ significantly from the conditions observed during the test borings. Actual subsurface conditions can only be fully discerned once earthwork has begun. If during construction, it is determined that there are significant variations from the test borings, the recommendations listed above may have to be changed.

3. All of the above listed recommendations, specifications and comments contained in this report have been prepared in accordance with the generally accepted professional engineering practice of soil mechanics and foundation engineering. The geotechnical information included in this report are professional judgements based upon extrapolated data from specific locations on the site. Actual conditions between these locations may change more gradually or abruptly than the report indicates or could contain conditions not found at the test locations. No other warranties are expressed or implied. Additionally, no environmental aspects of the site were within the scope of this investigation.

Respectfully Submitted,

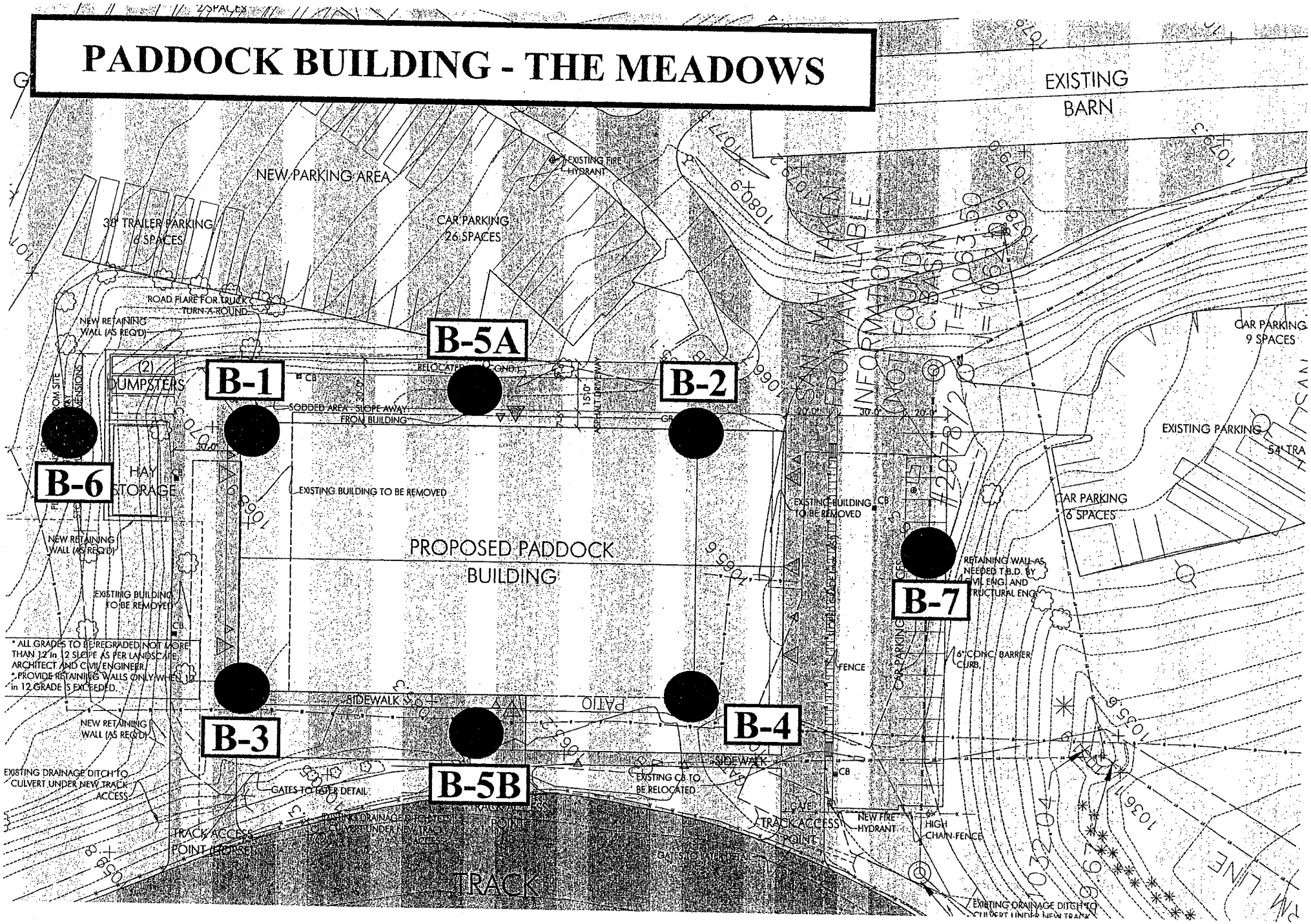
Construction Engineering Consultants, Inc.

Ralph Artuso, P.E.
Vice President

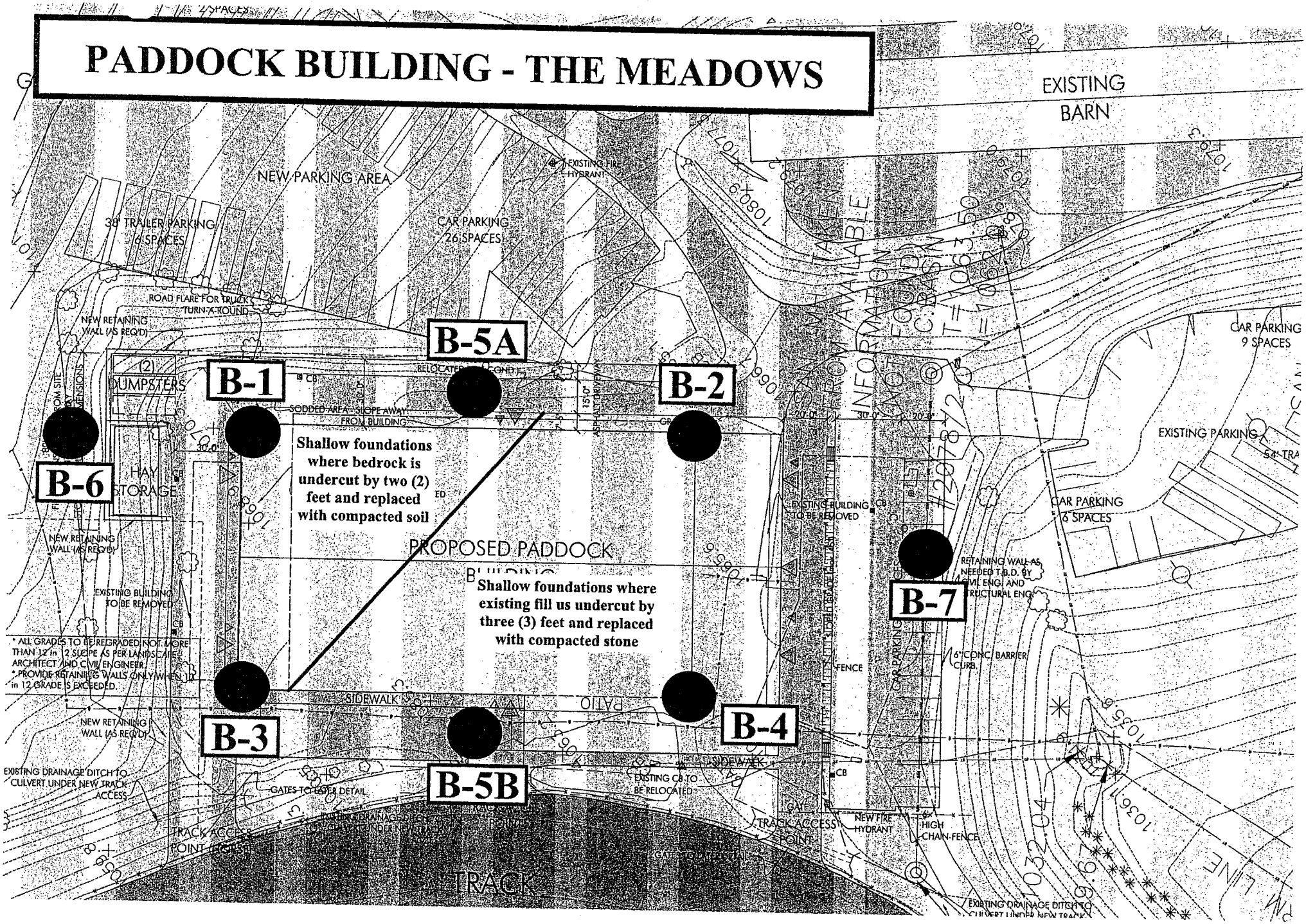
APPENDIX A

SITE DRAWING SHOWING LOCATIONS OF THE TEST BORINGS

PADDOCK BUILDING - THE MEADOWS



PADDOCK BUILDING - THE MEADOWS



APPENDIX B

TEST BORING LOGS

AND

CROSS SECTIONS

CONSTRUCTION ENGINEERING CONSULTANTS, INC.
2018 Waverly Street
Pittsburgh, PA 15218
(412) 351-6465

TEST BORING LOG

BORING NO.: B-1

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/27/05
DRILLER: W. EWING
SURFACE ELEVATION: 1070.05'
WATER LEVELS:
AT COMPLETION: 1.6
AT 24 HOURS: 1.8

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/27/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1070.1'	0.0'			FILL: Brown silty clay, with rock fragments, soft, damp	64%	1	3-3-50/0.04	0.0'-1.4'		
1068.8'	1.3'			LIMESTONE: Hard, damp						
1068.7'	1.4'			LIMESTONE: Gray, with interbedded clay seams, hard, broken to massive, damp						BEGIN CORING @ 1.4'
		2								
		4			70%	R1		1.4'-6.4'	42%	
		6								
		8			78%	R2		6.4'-11.4'	32%	
		10								
1058.7'	11.4'									Bottom of Boring @ 11.4'
		12								
		14								

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TEST BORING LOG

BORING NO.: B-2

PROJECT: PADDOCK BUILDING
CLIENT: MEC PA RACING
LOCATION: N. STRABANE TWP., PA
PROJECT NO.: J-08470
DATE STARTED: 9/27/05
DATE COMPLETED: 9/27/05
DRILLER: W. EWING
LOGGED BY: HSR
SURFACE ELEVATION: 1066.01'
LOG TYPE: ENGINEER'S
WATER LEVELS:
SPOON SIZE: 2 INCHES
AT COMPLETION: 3.6
HLW. STEM AGR.: 3.25 I.D.
AT 24 HOURS: 4.0

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1066.0'	0.0'			ASPHALT						
1065.7'	0.3'			GRAVEL SUBBASE						
1065.0'	1.0'			FILL: Brown silty clay, with rock fragments and limestone cobbles, medium stiff, damp	40%	1	17-5-5	0.0'-1.5'		
		4			40%	2	9-7-8	3.0'-4.5'		
		8			67%	3	8-2-3	6.0'-7.5'		
					87%	4	4-2-2	9.0'-10.5'		
1054.5'	11.5'	12		LIMESTONE: With interbedded clay seams, broken, hard, damp						BEGIN CORING @ 11.5'
					40%	R1		11.5'-16.5'	0%	
		16								
		20			42%	R2		16.5'-21.5'	0%	
1044.5'	21.5'									Bottom of Boring @ 21.5'
		24								
		28								

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TEST BORING LOG

BORING NO.: B-3

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/27/05
DRILLER: W. EWING
SURFACE ELEVATION: 1068.93'
WATER LEVELS:
AT COMPLETION: 1.8
AT 24 HOURS: 1.8

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/27/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1068.9'	0.0'			FILL: Brown silty clay, with rock fragments, medium stiff, damp	88%	1	4-50/0.3	0.0'-0.8'		
1068.1'	0.8'			SANDSTONE BOULDER						BEGIN CORING @ 0.8'
1067.2'	1.7'			FILL: Brown silty clay, with rock fragments, soft, damp	18%	R1		0.8'-5.8'	0%	
1063.3'	5.6'			LIMESTONE: Brown, weathered, broken to blocky, soft to medium hard, damp	58%	R2		5.8'-10.8'	0%	
					70%	R3		10.8'-15.8'	14%	
1053.1'	15.8'									Bottom of Boring @ 15.8'

3 6 9 12 15 18 21

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TEST BORING LOG

BORING NO.: B-4

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/27/05
DRILLER: W. EWING
SURFACE ELEVATION: 1062.08'
WATER LEVELS:
AT COMPLETION:
AT 24 HOURS:

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/27/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1062.1'	0.0'			FILL: Brown silty clay, with rock fragments, medium stiff, damp	80%	1	6-25-11	0.0'-1.5'		
					93%	2	6-4-6	3.0'-4.5'		
		6			33%	3	6-4-7	6.0'-7.5'		
1053.3'	8.8'									
1052.8'	9.3'			SANDSTONE COBBLE: Brown	0%	4	50/0.3	8.5'-8.8'		AUGER REFUSAL @ 8.8'—
				FILL: Brown silty clay, with rock fragments, soft, damp						
		12			8%	R1		8.8'-13.8'	0%	BEGIN CORING @ 8.8'
1048.2'	13.9'									
1047.7'	14.4'			LIMESTONE COBBLE: Hard, damp	0%	5	50/0.1	13.8'-13.9'		RESUME SAMPLING @ 13.8'
				FILL: Brown silty clay, with rock fragments and limestone cobbles, soft, damp	10%	R2		13.9'-18.8'	0%	RESUME CORING @ 13.9'
		18								
					32%	R3		18.8'-23.8'	0%	
1038.3'	23.8'	24		LIMESTONE: With interbedded clay seams, broken to blocky, soft to medium hard, damp	36%	R4		23.8'-28.8'	12%	
		30			76%	R5		28.8'-33.8'	20%	
		36			92%	R6		33.8'-38.8'	72%	
1023.3'	38.8'									Bottom of Boring @ 38.8'
		42								

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Pittsburgh, PA 15218
(412) 351-6465

TEST BORING LOG

BORING NO.: B-5A

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/27/05
DRILLER: W. EWING
SURFACE ELEVATION: 1067.49'
WATER LEVELS:
AT COMPLETION: 2.2
AT 24 HOURS: 2.2

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/27/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1067.5'	0.0'			FILL: Brown silty clay, with rock fragments, medium stiff, damp	60%	1	2-4-4	0.0'-1.5'		
1064.4'	3.1'			LIMESTONE: Brown, weathered, soft to medium hard, broken to blocky, damp	0%	2	50/0.1	3.0'-3.1'		BEGIN CORING @ 3.1'
					52%	R1		3.1'-8.1'	0%	
					50%	R2		8.1'-13.1'	0%	
					100%	R3		13.1'-16.0'	14%	
1051.5'	16.0'									Bottom of Boring @ 16.0'

3 6 9 12 15 18 21

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TEST BORING LOG

BORING NO.: B-5B

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/28/05
DRILLER: W. EWING
SURFACE ELEVATION: 1064.27'
WATER LEVELS:
AT COMPLETION: DRY
AT 24 HOURS: AS NOTED

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/28/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD. %	REMARKS
1064.3'	0.0'			FILL: Brown silty clay, with rock fragments and cobbles, medium stiff, damp	80%	1	5-8-9	0.0'-1.5'		
	2				87%	2	7-2-2	3.0'-4.5'		
	4				80%	3	7-4-3	6.0'-7.5'		
	6				100%	4	3-4-4	9.0'-10.5'		
	8				89%	5	3-50/0.4	12.0'-12.9'		
	10									
	12									
1051.1'	13.2'									AUGER REFUSAL @ 13.2'— Bottom of Boring @ 13.2'
	14									

WATER LEVEL - 1 HOUR - DRY

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TEST BORING LOG

BORING NO.: B-6

PROJECT: PADDOCK BUILDING
LOCATION: N. STRABANE TWP., PA
DATE STARTED: 9/28/05
DRILLER: W. EWING
SURFACE ELEVATION: 1096.26'
WATER LEVELS:
AT COMPLETION: 1.8
AT 24 HOURS: AS NOTED

CLIENT: MEC PA RACING
PROJECT NO.: J-08470
DATE COMPLETED: 9/28/05
LOGGED BY: HSR
LOG TYPE: ENGINEER'S
SPOON SIZE: 2 INCHES
HLW. STEM AGR.: 3.25 I.D.

ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1096.3'	0.0'			TOPSOIL						
1095.6'	0.7'		GM-GC	SILTY CLAY: Brown, with rock fragments, soft to medium stiff, damp	67%	1	3-4-3	0.0'-1.5'		
					53%	2	3-4-5	3.0'-4.5'		
					100%	3	3-3-4	6.0'-7.5'		
					100%	4	4-4-6	9.0'-10.5'		
1083.9'	12.4'			LIMESTONE: Brown, weathered, medium stiff, damp	100%	5	3-28-6	12.0'-13.5'		
					67%	6	8-11-8	15.0'-16.5'		
1078.7'	17.6'			LIMESTONE COBBLES	0%	7	50/0.2	18.0'-18.2'		
1075.2'	21.1'			LIMESTONE: Gray, blocky to broken, medium hard, damp	0%	8	50/0.1	21.0'-21.1'		BEGIN CORING @ 21.1'
					80%	R1		21.1'-26.1'	15%	
1070.2'	26.1'			SANDY SHALE: Gray, broken, soft to medium hard, damp	100%	R2		26.1'-30.0'	0%	
1066.3'	30.0'									Bottom of Boring @ 30.0'

5
10
15
20
25
30
35

WATER LEVEL - 3.5 HOURS - 1.8

CONSTRUCTION ENGINEERING CONSULTANTS, INC.
2018 Waverly Street
Pittsburgh, PA 15218
(412) 351-6465

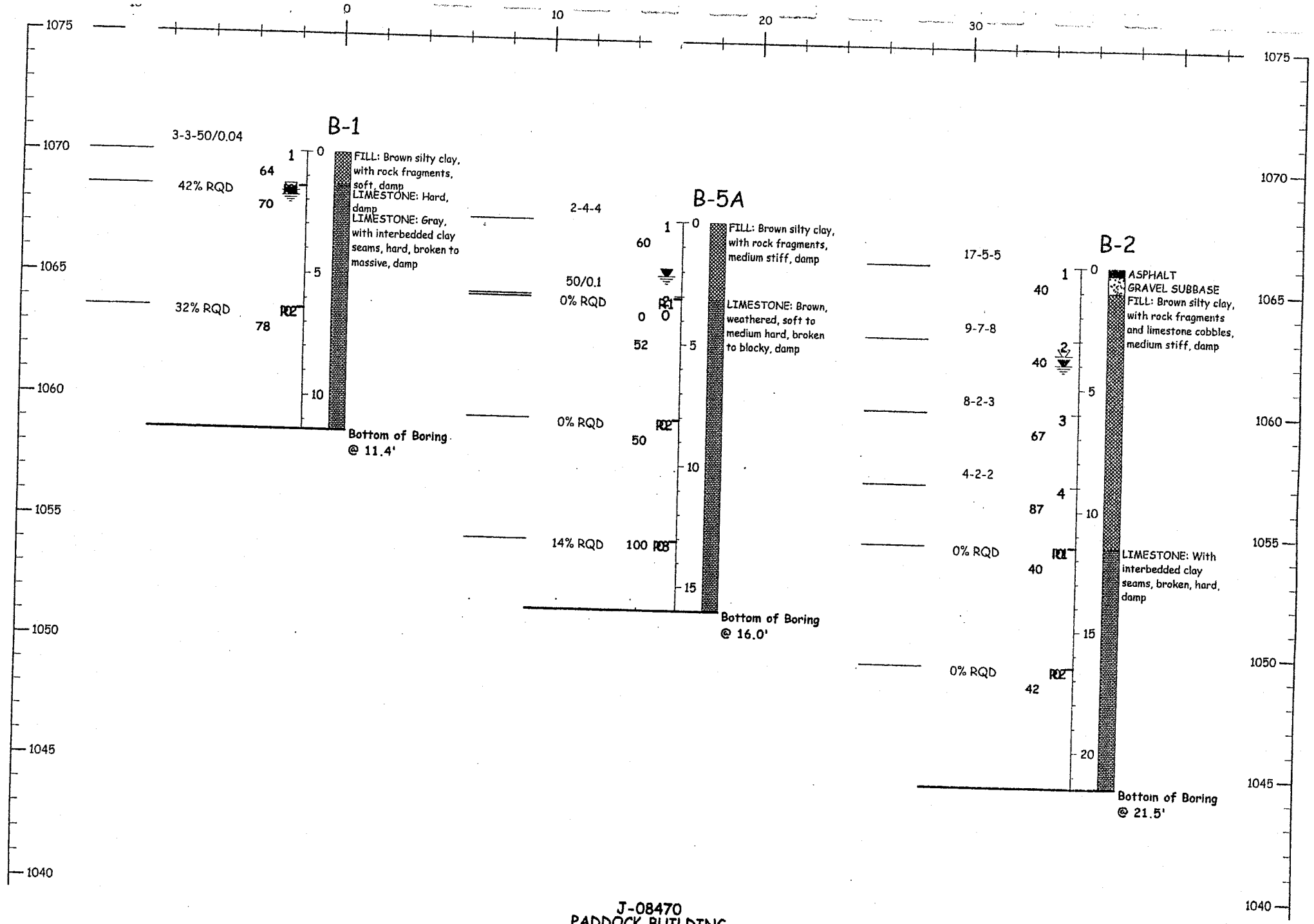
TEST BORING LOG

BORING NO.: B-7

PROJECT: PADDOCK BUILDING
CLIENT: MEC PA RACING
LOCATION: N. STRABANE TWP., PA
PROJECT NO.: J-08470
DATE STARTED: 9/28/05
DATE COMPLETED: 9/28/05
DRILLER: W. EWING
LOGGED BY: HSR
SURFACE ELEVATION: 1070.05'
LOG TYPE: ENGINEER'S
WATER LEVELS:
SPOON SIZE: 2 INCHES
AT COMPLETION: DRY
HLW. STEM AGR.: 3.25 I.D.
AT 24 HOURS: AS NOTED

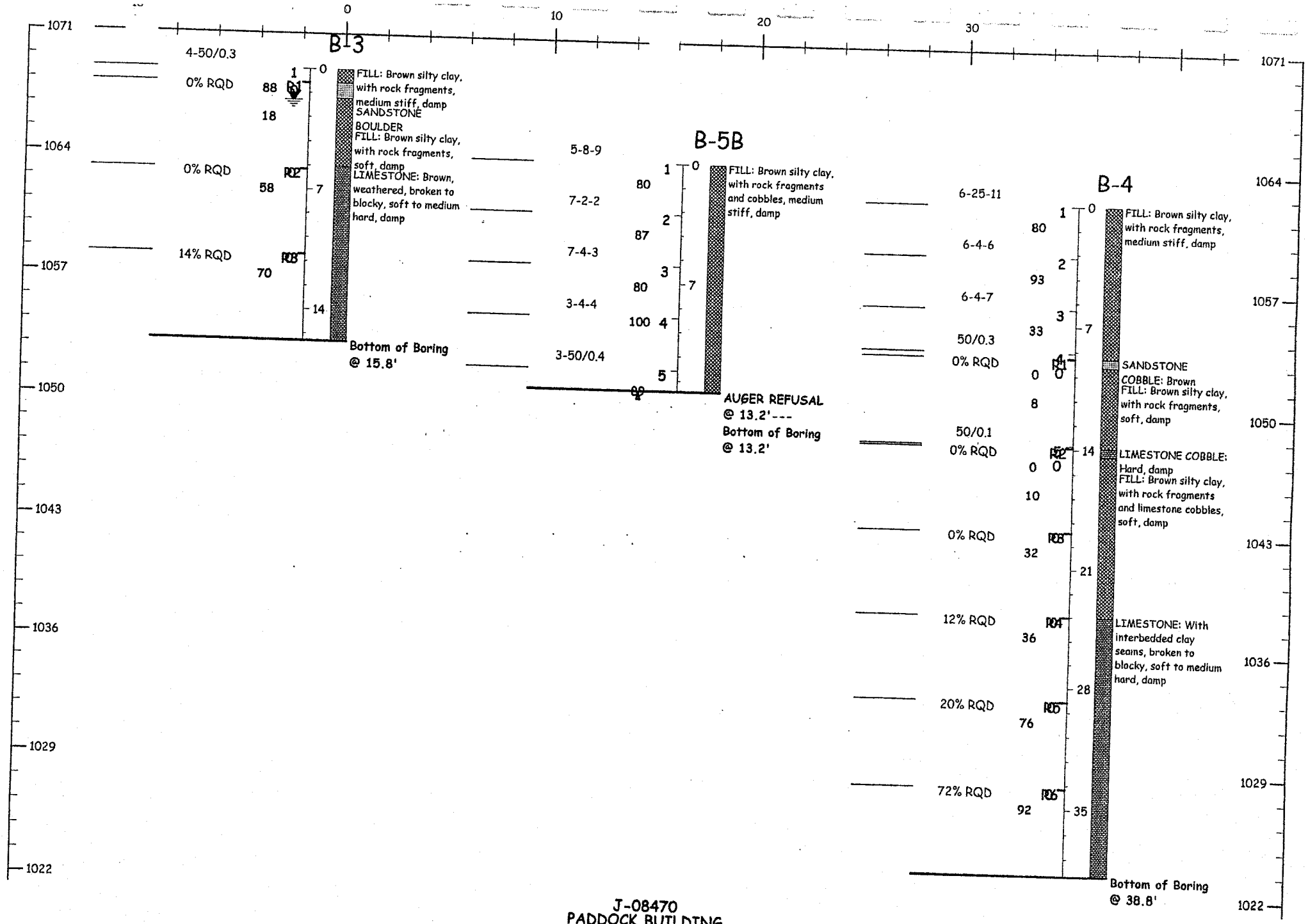
ELEVATION	DEPTH	LEGEND	SYMBOL	DESCRIPTION OF MATERIAL	RECOVERY (%)	SAMPLE NO.	SPOON BLOWS/6in.	THICKNESS OF SAMPLES	RQD, %	REMARKS
1070.1'	0.0'			FILL: Brown silty clay, with rock fragments and cobbles, soft to medium stiff, damp	73%	1	4-5-2	0.0'-1.5'		
		3			53%	2	2-3-2	3.0'-4.5'		
		6			100%	3	3-3-3	6.0'-7.5'		
		9			100%	4	2-3-2	9.0'-10.5'		
		12			100%	5	4-4-4	12.0'-13.5'		
		15			100%	6	3-6-9	15.0'-16.5'		
		18			73%	7	3-4-4	18.5'-20.0'		
1050.1'	20.0'	21								Bottom of Boring @ 20.0'

WATER LEVEL - 4 HOURS - DRY



CONSTRUCTION ENGINEERING CONSULTANTS, INC.

J-08470
PADDOCK BUILDING
N. STRABANE TWP., PA
MEC PA RACING



J-08470
PADDOCK BUILDING
N. STRABANE TWP., PA
MEC PA RACING

CONSTRUCTION ENGINEERING CONSULTANTS, INC.

APPENDIX C

LABORATORY TEST RESULTS

CONSTRUCTION ENGINEERING CONSULTANTS, INC.
2018 WAVERLY STREET
PITTSBURGH, PA 15218

REPORT OF: Moisture Content of Soils – ASTM D 2216

CLIENT: The Meadows

PROJECT: Paddock Building **JOB NUMBER:** J-08470

MATERIAL: Soil Borings

TEST RESULTS

SAMPLE NUMBER	SAMPLE LOCATION	DESCRIPTION	SAMPLE CONTENT %
SW-45741	B-1, S-1 0 – 1.4'	Gray and light brown silty clay	17.5
SW-45742	B-2, S-2 3 – 4.5'	Olive sandy clay with sandstone; trace of coal and a little gray silty clay	14.8
SW-45743	B-2, S-3 6 – 7.5'	Light brown/light gray mottled clayey silt	16.8
SW-45744	B-3, S-1 0 – 0.8'	Light greenish brown weathered sandy shale	18.0
SW-45745	B-4, S-1 0 – 1.5'	Light gray sandy silt with asphalt chunks	19.8
SW-45746	B-4, S-2 3 – 4.5'	Light brown light gray silty clay and weathered shale	12.0

David R. Mitrik
Lab Supervisor

CONSTRUCTION ENGINEERING CONSULTANTS, INC.
2018 WAVERLY STREET
PITTSBURGH, PA 15218

REPORT OF: Moisture Content of Soils – ASTM D 2216

CLIENT: The Meadows

PROJECT: Paddock Building **JOB NUMBER:** J-08470

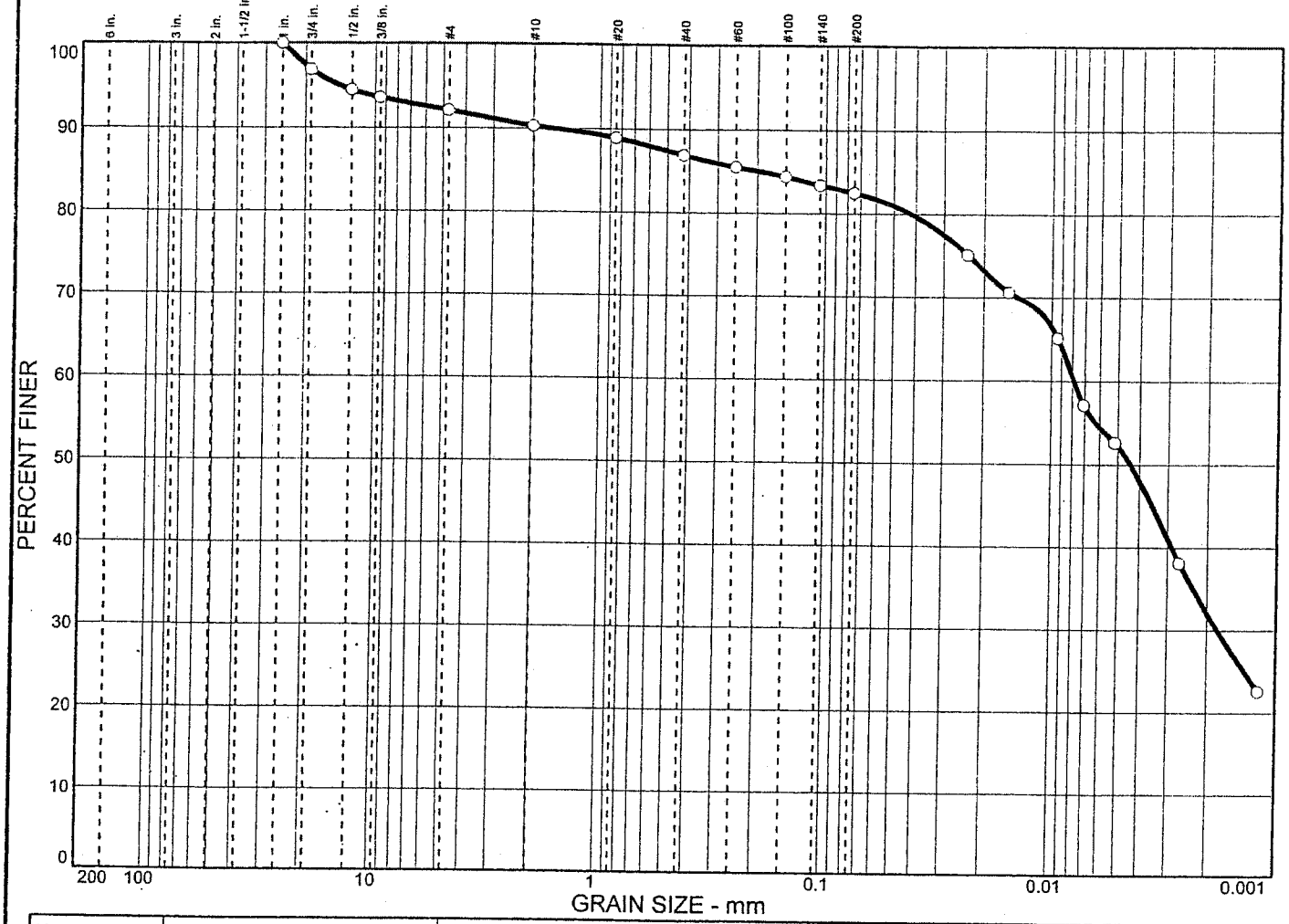
MATERIAL: Soil Borings

TEST RESULTS

SAMPLE NUMBER	SAMPLE LOCATION	DESCRIPTION	SAMPLE CONTENT %
SW-45747	B-5A, S-1 0 – 1.5'	Brown clayey silt with rock and brick fragments	16.3
SW-45748	B-5B, S-2 3 – 4.5'	Light brown and gray silty clay	21.3
SW-45749	B-6, S-1 0 – 1.5'	Light brown clayey silt with a trace of small roots	17.8
SW-45750	B-6, S-3 6 – 7.5'	Light brown and some light gray silty clay	24.0
SW-45751	B-7, S-3 6 – 7.5'	Brown and gray silty clay with a trace of rock	17.1
SW-45752	B-7, S-4 9 – 10.5'	Light brown, olive and some light gray silty clay	23.4

David R. Mitrik
Lab Supervisor

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	7.9	9.6	30.3	52.2

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	34	21	0.196	0.0079	0.0044	0.0018				

MATERIAL DESCRIPTION	USCS	AASHTO
○ YELLOW BROWN CLAYEY SILT	CL	A-6(10)

Project No. J-08470 **Client:** THE MEADOWS

Project: PADDOCK BUILDING

○ **Source:** B-6 BORING **Sample No.:** 5 & 6 **Elev./Depth:** 12.0'-16.5'

Remarks:

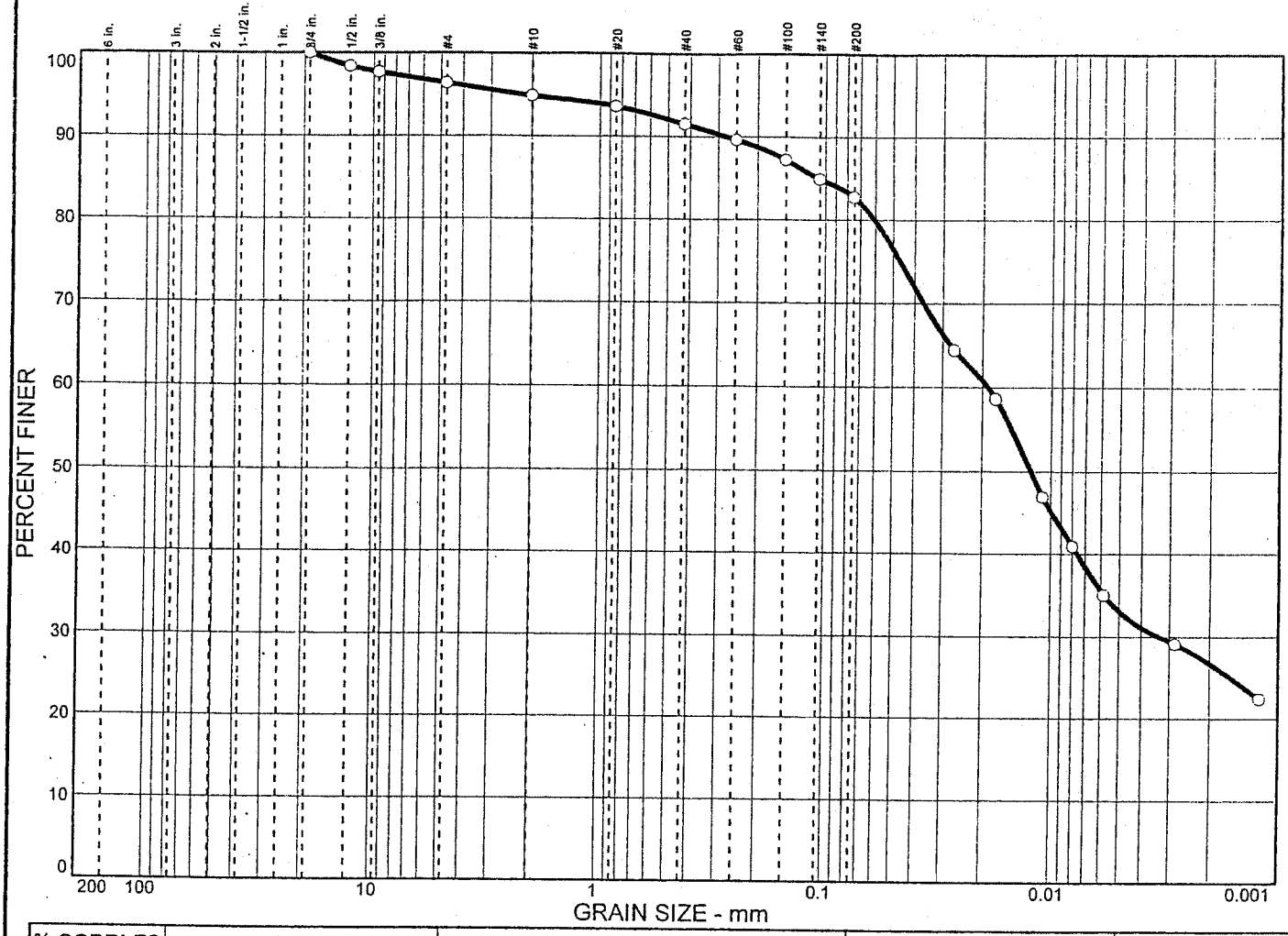
○ SW-45743

PARTICLE SIZE DISTRIBUTION TEST REPORT

CONSTRUCTION ENGINEERING CONSULTANTS

FIGURE 1

PARTICLE SIZE DISTRIBUTION TEST REPORT



	% COBBLES	% GRAVEL	% SAND	% SILT	% CLAY
○	0.0	3.6	13.7	49.7	33.0

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○	37	21	0.108	0.0190	0.0123	0.0033				

MATERIAL DESCRIPTION	USCS	AASHTO
○ ORANGE BROWN & GRAY SILTY CLAY	CL	A-6(13)

Project No. J-08470 **Client:** THE MEADOWS

Project: PADDOCK BUILDING

○ **Source:** B-7 BORING **Sample No.:** 6 & 7 **Elev./Depth:** 15.0'-20.0'

Remarks:

○ SW-45744

PARTICLE SIZE DISTRIBUTION TEST REPORT

CONSTRUCTION ENGINEERING CONSULTANTS

FIGURE 2

CONSTRUCTION ENGINEERING CONSULTANTS, INC.

REPORT OF TESTS OF ROCK CORES

CLIENT: The Meadows
PROJECT: Paddock Building
CORES OBTAINED FROM: Test Borings
CORES OBTAINED AND IDENTIFIED BY: Z. Whisel
DATE CORED: September, 2005

JOB NUMBER: J-08470
DESCRIPTION: 2' Rock Cores
TECHNICIAN: C. Snyder
REVIEWER:
DATE TESTED: October 4, 2005

TEST RESULTS

SPEC. ID	LOCATION	SPEC. LGTH. (IN)		SPEC. DIA. (IN)	AREA (IN^2)	ORIENTATION OF BORING TO HORIZ. PLANE	L/D	TOTAL LOAD	PSI	CORR. PSI*	TYPE FRACTURE
		BEFORE CAP	AFTER CAP								
SW 45755	B-1 @ 7.1'	3.81	3.94	1.99	3.11	Perpendicular	1.98	23,500	7560	7550	Columnar
SW 45756	B-2 @ 17.2'	2.78	2.95	1.99	3.11	Perpendicular	1.48	36,000	11,580	11,110	Columnar
SW 45757	B-3 @ 11.5'	3.41	3.58	1.99	3.11	Perpendicular	1.80	500	160	160	Shear
SW 45758	B-4 @ 36.5'	3.60	3.83	1.99	3.11	Perpendicular	1.92	7,500	2410	2400	Columnar
SW 45759	B-5 @ 9.5'	3.48	3.71	1.99	3.11	Perpendicular	1.86	5,000	1610	1600	Columnar
SW 45760	B-6 @ 21.6'	3.31	3.64	1.99	3.11	Perpendicular	1.83	44,000	14,150	13,990	Columnar

NOTES: (1) Moisture Condition at time of test: Air Dry

(2) Test Device I.D. Numbers: Forney L13-322

REMARKS: * PSI Corrected for L/D: As per ASTM D-2938-86

APPENDIX D

COAL MINE STATUS REPORT

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DISTRICT MINING OPERATIONS
25 Technology Drive
California Technology Park
Coal Center, PA 15423
(724) 769-1100 or MS Hotline 1-800-922-1678
www.pamsi.org

COAL STATUS REPORT

Construction
AME: Engineering Consultants, Inc.

DDRESS: 2018 Waverly Street
Pittsburgh, PA 15218

SITE ADDRESS: Meadowlands Race Track

MUNICIPALITY: North Strabane Twp.

COUNTY: Washington

URPOSE OF REPORT:

[ ] MSI [X] OTHER

SITE IS LOCATED 17.3 INCHES NORTH AND 10.5 INCHES WEST OF THE SOUTH EAST CORNER OF THE

WASHINGTON EAST USGS QUADRANGLE.

COAL SEAM RESEARCHED PITTSBURGH

SURFACE ELEVATION: 1080`± 1080 (ORIGINAL LOWEST CONTOUR)

MINE NAME: LINDLEY

COAL SEAM ELEVATION: 880`±

RATOR: LINDLEY COAL

COVER* (OVERBURDEN): 200`± 160'±

STRUCTURE ID: — PROPERTY ID: —

LAST MINING DATE: PRIOR TO 1935

MINING UNDER OR NEAR THIS SITE: [X] Yes [ ] No [ ] Future Possibility [ ] Unknown [ ] Coal Seam Non-Existent

REMARKS: THE SITE IS LOCATED OVER AN ABANDONED MINE AND MINING IS COMPLETE.

REFERENCE SOURCES CHECKED

[X] WPA MAPPING
[ ] DETAILED MINE MAP INDEX
[ ] DETAILED MINE MAP
[ ] COUNTY MINE MAP
[ ] OSM MICROFILM
[ ] BITUMINOUS COAL FIELDS OF PA PART II (SISLER)
[ ] OTHER _____

[ ] GEOLOGIC QUADRANGLE REPORTS
[ ] US GEOLOGICAL SURVEY FOLIOS
[ ] ATLAS SERIES
[ ] COUNTY REPORTS
[ ] BITUMINOUS COAL RESOURCES IN WEST. PA (MR#68)
[ ] COAL RESOURCES OF _____ COUNTY

ORT INFORMATION OBTAINED FROM: WPA ONELAY

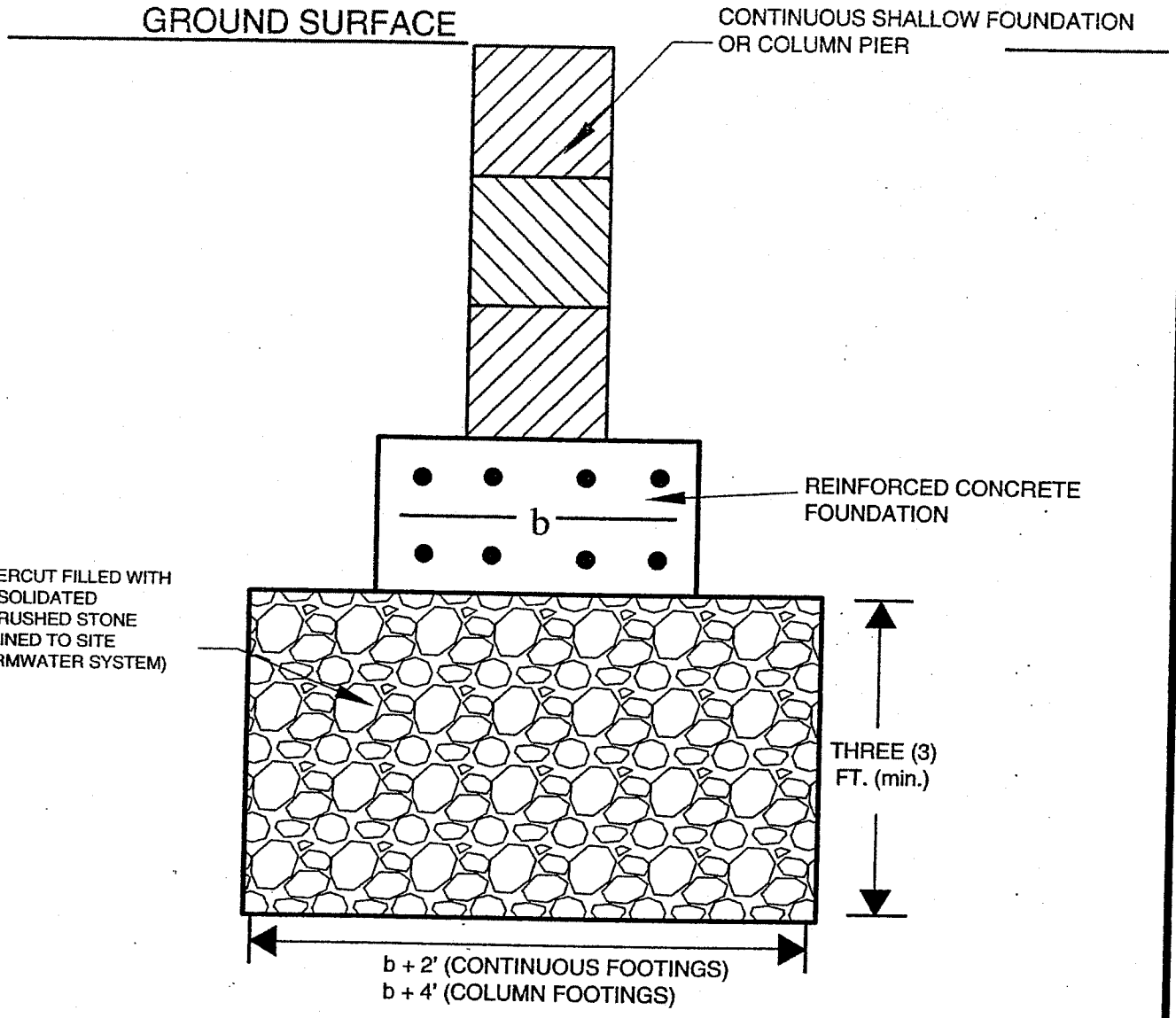
BY: MATTHEW CANONACO Matthew Canonaco DATE: 9/6/05

*COVER = Vertical distance between the ground surface and the coal seam.
The above information may be based on maps and plans obtained from various sources.
The Department assumes no responsibility for the accuracy or completeness of this information.

APPENDIX E

RECOMMENDED SITE CONSTRUCTION DETAILS

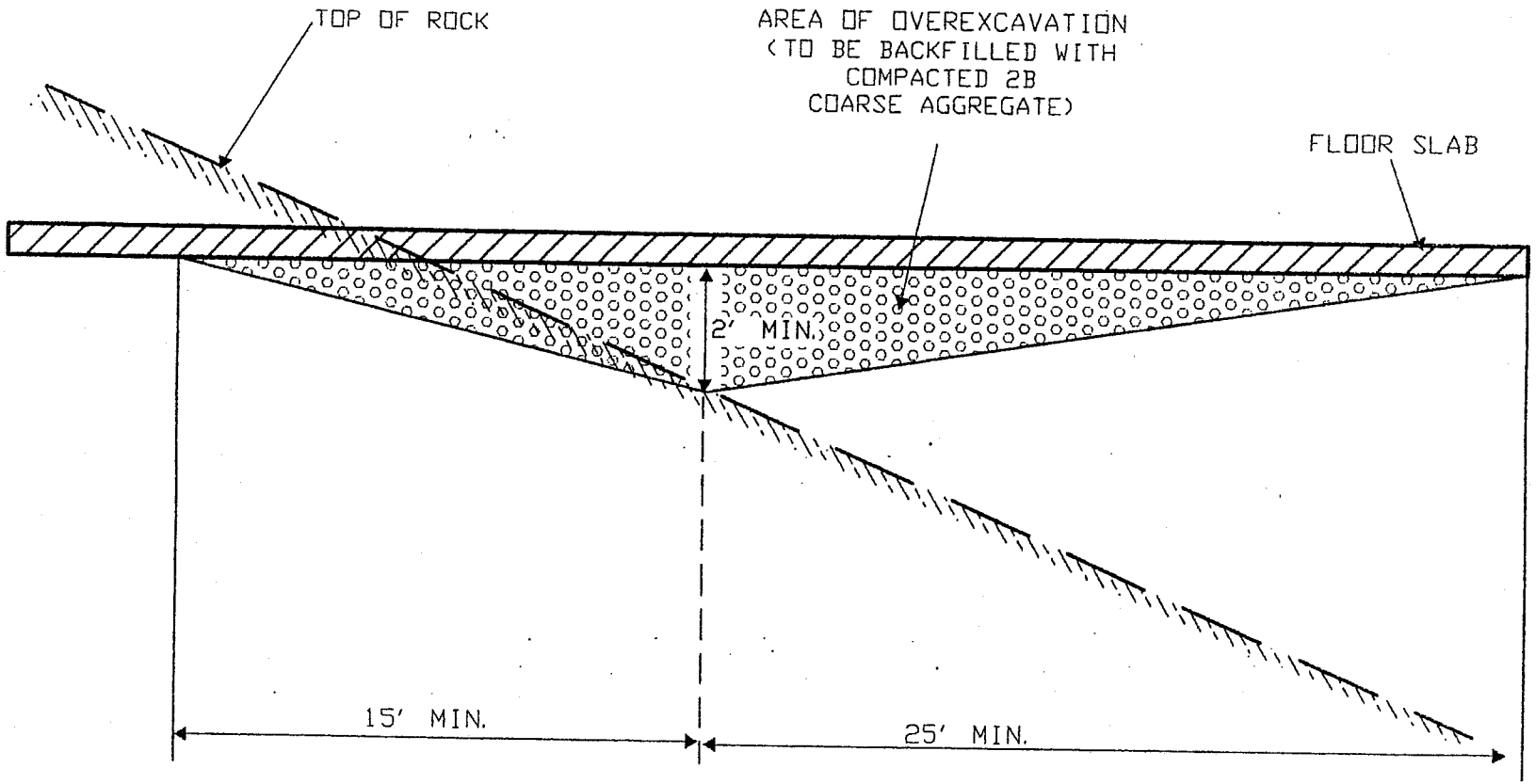
MEADOWS PADDOCK BARN



FOUNDATION UNDERCUT IN EXISTING FILL

CONSTRUCTION
ENGINEERING
CONSULTANTS, INC.

SOIL BEDROCK TRANSITION ZONE



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I. INTRODUCTION AND SUMMARY

Purpose of Report and Project Objectives

Tanger Factory Outlet Centers, Inc. is planning to develop a retail center in South Strabane Township, Washington County, Pennsylvania. Access to the site is proposed from Racetrack Road in North Strabane Township. In addition, MEC Pennsylvania Racing, Inc. is planning to apply for a license that will allow for the existing Meadows Harness Racing facility in North Strabane Township, Washington County, Pennsylvania to accommodate slot machines. The two (2) developments are planned to open at or around the same time. The purpose of this report is to:

1. Identify traffic impacts the proposed developments will have on the adjacent roadway system.
2. Determine mitigation measures necessary to address deficiencies identified.

Executive Summary

The following is a brief description of the study area, the results of the traffic analysis, and the mitigation measures necessary to address impacts:

SITE LOCATION

The Tanger Factory Outlet site consists of approximately 122 acres and is located in South Strabane Township, Washington County, Pennsylvania, as shown in Figure 1. The site lies on the southern side of Racetrack Road (SR 1041) and generally between Interstate 79 and Washington Road (SR 0019).

The Meadows site is located in North Strabane Township, Washington County, Pennsylvania, as shown in Figure 1. The site lies on the northern side of Racetrack Road (SR 1041), generally between Interstate 79 and Washington Road (SR 0019). The expansion is planned to occur on property owned by MEC Pennsylvania Racing, Inc. and will include facilities to accommodate 3,000 slot machines.

STUDY AREA

The study area has been established in accordance with requirements of the Pennsylvania Department of Transportation (PENNDOT) and includes key intersections along Washington Road (SR 0019) and Racetrack Road (SR 1041).

PLANNED DEVELOPMENT

The planned Tanger Factory Outlet development consists of a Factory Outlet Center with a hotel and five restaurants. The site plan is shown on Figure 2. Access to the development is proposed from a single driveway on Racetrack Road.

In addition to the planned Tanger Factory Outlet, Magna Corporation is planning to expand the existing Meadows Racetrack, located on the northern side of Racetrack Road, to include new grandstands and a building to provide facilities for approximately

3,000 slot machines. Based on information provided by Magna Corporation, the Meadows Expansion is expected to be constructed at or around the same time as the Tanger Factory Outlet. Accordingly, an analysis has been performed to identify impacts with the anticipated Tanger Factory Outlet and The Meadows Expansion combined. The site plan for The Meadows Expansion is shown on Figure 3.

PRINCIPAL FINDINGS AND RECOMMENDATIONS

Results of the analysis indicate certain mitigation measures will be required in order to maintain acceptable levels of service under future "Build Conditions" for the Tanger Factory Outlet combined with the planned Meadows Expansion. The required mitigation measures are identified on Figure 4.

II. PLANNED DEVELOPMENT

The planned Tanger Factory Outlet will consist of the following:

LAND USE	SIZE
• 1-Factory Outlet Center	446, 580 sq. ft.
• 1-Hotel	105 Rooms
• 1-Fast Food Restaurant	3400 sq. ft.
• 1-High Turnover Sit-down Restaurant	6170 sq. ft.
• 1-High Turnover Sit-down Restaurant	7300 sq. ft.
• 2-High Turnover Sit-down Restaurants	10,260 sq. ft. each

The planned Meadows Expansion will consist of the following:

LAND USE	SIZE
• 1-Slot Facility	3,000 slots

III. AREA CONDITIONS

Study Area

The study area has been established in accordance with the requirements of the Pennsylvania Department of Transportation (PENNDOT) and includes key intersections along Washington Road and Racetrack Road. The study area is shown on Figure 1 and includes the following intersections:

- **Racetrack Road (SR 1041) and I-79 SB on/off ramps**
- **Racetrack Road (SR 1041) and I-79 NB on/off ramps**
- **Racetrack Road (SR 1041) and Meadowlands Blvd.**
- **Racetrack Road (SR 1041) and Johnson Road (SR 1039)**
- **Racetrack Road (SR 1041) and Holiday Inn Drive**
- **Racetrack Road (SR 1041) and The Meadows Drive**

- Racetrack Road (SR 1041) and Washington Road (SR 0019)
- Washington Road (SR 0019) and Davis School Road (SR 1049)/Fisher Road
- Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1074)

These intersections were evaluated for the weekday PM and Saturday peak hours for the 2004, projected 2006 (anticipated opening year), and projected 2016 (10 year horizon) conditions with and without the planned development.

Site Accessibility

Access to the planned Tanger Factory Outlet development is proposed from a single full-access driveway on Racetrack Road (SR 1041) creating a plus intersection with Johnson Road (SR 1039).

Access to The Meadows development is proposed from Racetrack Road (SR 1041) via existing Meadows Drive.

EXISTING ROADWAY SYSTEM

The primary roads in the study area are Interstate 79, Washington Road (SR 0019), and Racetrack Road (SR 1041).

Interstate 79 is a four-lane limited access expressway, extending in a north-south direction. The posted speed limit is 55 mph in the study area. I-79 interchanges with Racetrack Road approximately 1,700 ft. west of the proposed driveway for the Tanger Factory Outlet(Tanger Blvd.) and approximately 4000 ft. west of the existing Meadows Drive.

Washington Road (SR 0019) is a four-lane urban principal arterial, extending in a north-south direction. The posted speed limit varies from 40 to 45 mph in the study area. Washington Road intersects with Racetrack Road approximately 4,600 ft. east of the proposed Tanger Blvd. and 2300 ft. east of the existing Meadows Drive.

Racetrack Road (SR 1041) is a four-lane urban principal arterial extending in an east-west direction. The posted speed limit is 45 mph in the study area. Racetrack Road interchanges with I-79 to the west of the planned development, and creates a "T" signalized intersection with Washington Road (SR 0019)to the east.

Traffic Volumes and Conditions

BACKGROUND TRAFFIC

The background traffic conditions in the study area have been based on turning movement counts conducted by PBS&J///TriLine during the weekday PM peak period (4 to 6 PM) and the Saturday peak period (11 AM to 1 PM) in January and February 2004.

The counts were conducted on Friday, January 23 and 30, 2004, and on Saturday, January 31 and February 7, 2004 at the following locations:

- Racetrack Road (SR 1041) and I-79 SB on/off ramps
- Racetrack Road (SR 1041) and I-79 NB on/off ramps
- Racetrack Road (SR 1041) and Meadowlands Blvd.
- Racetrack Road (SR 1041) and Johnson Road (SR 1039)
- Racetrack Road (SR 1041) and Holiday Inn Drive
- Racetrack Road (SR 1041) and The Meadows Drive
- Racetrack Road (SR 1041) and Washington Road (SR 0019)
- Washington Road (SR 0019) and Davis School Rd. (SR 1049)/Fisher Rd.
- Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1074)

The resultant 2004 weekday PM and Saturday peak hour background traffic volumes are shown on Figures 5 and 6, respectively.

Copies of the turning movement counts are included in the Appendix.

IV. PROJECTED TRAFFIC

Background Traffic Without the Proposed Development

The proposed developments are anticipated to be constructed in 2006, which has been considered as the "opening year" for analysis purposes. Accordingly, 2016 (10 years from the opening year) has been considered as the "design year."

The 2004 background traffic volumes were projected to 2006 by applying a 1.5% per year linear growth rate, as obtained from the Southwestern Pennsylvania Commission (SPC) and approved by PENNDOT. The projected 2006 traffic volumes are shown on Figures 7 and 8.

The projected 2006 background traffic volumes were further adjusted to include the traffic expected to be generated by a planned office development, known as Meadowpointe, located on Johnson Road and currently under construction. The Meadowpointe site generated traffic volumes are shown on Figures 9 and 10. The adjusted 2006 background traffic volumes, with the Meadowpointe development, are shown on Figures 11 and 12.

It should be noted that PENNDOT is currently planning to improve the I-79 Meadowlands Interchange to include a northbound on-ramp and a southbound off-ramp that will provide full access with Manifold Road. Based on information provided by PENNDOT District 12-0, construction is anticipated to be completed by 2008. In order to estimate traffic conditions in the study area upon completion of the interchange improvements, the 2004 background traffic volumes were projected to 2008 and adjusted to reflect the net changes in traffic flows as identified by SPC's database. The first step was to project the 2004 background traffic volumes traffic to 2008 by applying SPC's 1.5% per year linear growth rate. Results are shown on Figures 13 and 14. The next step was to adjust the projected 2008 background to account for the additional I-79 access ramps. The adjustment was based on data provided by SPC that identified the percent change in traffic volumes between the 2008 "no-build" and 2008 "build" conditions. The SPC's 2008 traffic projections, with and without the Meadowlands Interchange improvements are included in the Appendix. This net percent change was applied to the projected 2008 background traffic volumes and then redistributed to the study intersections. The percentage changes are summarized on Figure 15. The redistributed 2008 traffic volumes are shown on Figures 16 and 17. The redistributed 2008 traffic volumes were then projected to

2016 by applying the 1.5% per year linear growth rate. The resultant 2016 traffic volumes are shown on Figures 18 and 19. The Meadowpointe site generated traffic was then added to the projected 2016 volumes with the full Meadowlands Interchange. The resultant 2016 projected traffic volumes with Meadowpointe are shown on Figures 20 and 21.

Tanger Factory Outlet Traffic

TRIP GENERATION

Trips expected to be generated by the planned development have been estimated in accordance with the Institute of Transportation Engineers (ITE) Trip Generation Manual, 7th Edition, for similar land uses. Due to the type of development proposed (retail), site generated trips were estimated for the weekday PM and Saturday peak periods. The trip generation summary is shown in Table 1.

Table 1- Trip Generation Summary - Tanger Factory Outlet

Land Use (Sq. Ft.)	Land Use Code	Weekday PM Peak Hour						Saturday Peak Hour					
		Primary		Pass-By		Total		Primary		Pass-By		Total	
		Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Factory Outlet Center (446,580)	823	257	290	0	0	257	290	862[1]	831[1]	0	0	862[1]	831[1]
Hotel (105 Rooms)	310	33[1]	29[1]	0	0	33[1]	29[1]	42[1]	34[1]	0	0	42[1]	34[1]
High Turnover Sit-down Restaurant (6,170)	932	23[1]	15[1]	18[1]	11[1]	41[1]	26[1]	52[1]	31[1]	26[1,2]	15[1,2]	78[1]	46[1]
Fast Food Restaurant w/Drive-Thru (3,400)	934	30[1]	28[1]	31[1]	29[1]	61[1]	57[1]	61[1]	58[1]	42[1,2]	41[1,2]	103[1]	99[1]
High Turnover Sit-down Restaurant (10,260)	932	39[1]	25[1]	29[1]	19[1]	68[1]	44[1]	86[1]	51[1]	43[1,2]	25[1,2]	129[1]	76[1]
High Turnover Sit-down Restaurant (10,260)	932	39[1]	25[1]	29[1]	19[1]	68[1]	44[1]	86[1]	51[1]	43[1,2]	25[1,2]	129[1]	76[1]
High Turnover Sit-down Restaurant (7,300)	932	28[1]	18[1]	21[1]	13[1]	49[1]	31[1]	62[1]	36[1]	30[1,2]	18[1,2]	92[1]	54[1]
TOTAL		449	430	128	91	577	521	1251	1092	184	124	1435	1216

[1] Based on ITE Rates
[2] Assumed Pass-By Rate equal to PM Rate - 10%

TRIP SHARING

Due to the proximities of the Tanger Factory Outlet and The Meadows Racetrack, it is assumed that a portion of the trips generated by each development will be shared between sites. Discussions with PENNDOT District 12 indicate a maximum of 20% of the total trips generated by The Meadows Expansion can be considered "shared" with the proposed Tanger Factory Outlet, and with a future planned development known as the "Victory Centre"project. It is our understanding that the Victory Centre project will generally consist of approximately 1.7 million sq. ft. of mixed retail use and be located

adjacent to the Tanger Factory Outlet. Accordingly, the number of trips generated by the planned Meadows Expansion that could be considered "shared" with the Tanger Factory Outlet Center were determined by proportioning the 20% allowable trips, based on the relative sizes of those two projects (Tanger Factory Outlet Center and Victory Centre). A summary of the trips shared between The Meadows Expansion and the Tanger Factory Outlet Center, and their resultant total net trips are shown in Tables 2 and 4. The trip generation summary for the Victory Centre project is contained in the Appendix.

Table 2 - Tanger Factory Outlet - Shared Trip Summary

Scenario	Weekday PM Peak Hour								Saturday Peak Hour							
	Total		Shared		Primary		Pass-by		Total		Shared		Primary		Pass-by	
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Tanger Only	577	521	0	0	449	430	128	91	1435	1216	0	0	1251	1092	184	124
Tanger with Meadows	577	521	25[1,2]	31[1,2]	430	404	122	86	1435	1216	43[1,2]	50[1,2]	1214	1047	178	119

[1] *Based on reverse of The Meadows (with Tanger) shared trips.*
[2] *PM peak hour capture rate of 20% based on recommendations from PENNDOT District 12-0.*

TRIP DISTRIBUTION

The percentage of entering and exiting site generated trips has been based on information contained in the ITE Trip Generation Manual 7th Edition for each proposed land use.

The distribution of primary trips (home-based) was based on a gravity model developed by PBS&J///TriLine and subsequently approved by PENNDOT District 12-0. The model considered the relative location of the surrounding population centers within an approximate 120 minute travel time to the site, and the probable routes that could reasonably be used to access the site. It should be noted that some population centers within the 120 minute radius were excluded from consideration if a closer, (less travel time) outlet center facility was available (i.e., Prime Outlets in Grove City, PA). The outlet center area of attraction is included in the Appendix. Probable travel routes were based on PBS&J///TriLine's familiarity with the study area, and trips were assigned to the appropriate entry and exit nodes. The gravity model calculations are included in the Appendix. The resultant Trip Distribution percentages and entry and exit nodes are shown on Figure 22. The weekday PM and Saturday primary trips are shown on Figures 23 and 24, respectively.

The distribution percentage of pass-by trips was based on the existing traffic volumes on Racetrack Road in the vicinity of the proposed site. The weekday PM and Saturday peak hour pass-by trip distribution percentages are shown on Figure 25. The weekday PM and Saturday peak hour pass-by trips are shown on Figures 26 and 27, respectively.

The total weekday PM and Saturday peak hour site generated traffic volumes are shown on Figures 28 and 29, respectively.

The Meadows Traffic

TRIP GENERATION

As previously discussed, the Magna Corporation is planning to expand the existing Meadows Racetrack on Racetrack Road. Since the planned expansion is anticipated to open at or near the same time as the Tanger Factory Outlet, the impact of The Meadows traffic on the surrounding roadway network was included in this analysis.

Trips estimated to be generated by The Meadows Expansion have been based on the Institute of Transportation Engineers (ITE) Journal "Trip Generation characteristics of small to medium sized casinos." Due to the type of development proposed (entertainment), site generated trips were estimated for the weekday PM and Saturday peak periods. The trip generation summary is shown on Table 3. Excerpts used from the (ITE) Journal are included in the Appendix.

Table 3 - Trip Generation Summary - The Meadows Expansion

Land Use (Sq. Ft.)	Land Use Code	Weekday PM Peak Hour						Saturday Peak Hour					
		Total		Pass-by		Primary		Total		Pass-by		Primary	
		Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Casino (3000 slots)	473	930[1]	840[1]	0	0	930[1]	840[1]	1020[1]	900[1]	0	0	1020[1]	900[1]
Meadow Total Trips		930	840	0	0	930	840	1020	900	0	0	1020	900

[1] *Based on Average Rate Per Slot*

Table 4 - The Meadows Expansion - Shared Trip Summary[1]

Scenario	Weekday PM Peak Hour								Saturday Peak Hour							
	Total		Shared		Primary		Pass-by		Total		Shared		Primary		Pass-by	
	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Meadows only	930	840	0	0	930	840	0	0	1020	900	0	0	1020	900	0	0
Meadows with Tanger	930	840	31[1, 2]	25[1, 2]	899	815	0	0	1020	900	50[1, 2]	43[1, 2]	970	857	0	0

[1] *Shared trips based on* $\frac{\text{Tanger Total}}{\text{(Tanger Total + Victory Centre Total)}}$ *x (20% x Meadows Total)*

[2] *Shared trips based on 20% reduction recommendation from PENNDOT District 12-0.*

TRIP DISTRIBUTION

The percentage of entering and exiting site generated trips has been based on information contained in the ITE Journal for the proposed land use.

The distribution of primary trips (home-based) was based on a gravity model developed by PBS&J///TriLine and approved by PENNDOT for use on this project. The model

considered the relative location of the surrounding population centers within an approximate 120 minute travel time to the site, and the probable routes that could reasonably be used to access the site. It should be noted that some population centers within the 120 minute radius were excluded from consideration if a closer, (less travel time) slot facility was available (i.e., Mountaineer Gaming Resort, WV). Probable travel routes were based on PBS&J///TriLine's familiarity with the study area, and trips were assigned to the appropriate entry and exit nodes. The gravity model calculations are included in the Appendix. The resultant Trip Distribution percentages for The Meadows Expansion are shown on Figure 30. The weekday PM and Saturday primary trips are shown on Figures 31 and 32, respectively.

The weekday PM and Saturday total site generated traffic volumes for the Tanger Factory Outlet and The Meadows are shown on Figures 33 and 34, respectively.

Total Traffic

The 2006 Post Development traffic for the Tanger Factory Outlet and The Meadows Expansion has been determined by combining the 2006 Background Traffic with Meadowpointe (Figures 11 and 12) with the Total Site Generated Traffic for the Tanger Factory Outlet and The Meadows Expansion (Figures 33 and 34). The resultant Projected 2006 Peak Hour Volumes with development are shown on Figures 35 and 36.

The 2016 Post Development traffic for the Tanger Factory Outlet and The Meadows Expansion has been determined by combining the 2016 Background Traffic with Meadowpointe (Figures 19 and 20) with the Total Site Generated Traffic for the Tanger Factory Outlet and The Meadows Expansion (Figures 33 and 34). The resultant Projected 2016 Peak Hour Volumes with development are shown on Figures 37 and 38.

V. CAPACITY ANALYSES

Capacity analyses were performed for the weekday PM and Saturday peak hours using SYNCHRO, Version 6, computer software, HCM format. The study intersections were analyzed for the existing 2004, and the projected 2006 and 2016 conditions, with and without the proposed development. The results of these analyses are summarized in Table 5. Copies of the SYNCHRO HCM analyses are included in the Appendix.

Table 5- HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006						2016					
				Existing		No-Build*		No-Build		No-Build*		Tanger & Meadows Build		No-Build		No-Build*		Tanger & Meadows Build	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Racetrack Road (EB, WB) & I-79 SB On/Off Ramps (SB)	SB	SB	Left	F(ERR)	F(101.3)	C	B	F(ERR)	F(163.7)	C	B	C	D	F(ERR)	F(236.1)	C	B	D	E
			Right	C	B	B	B	C	B	C	B	C	B	C	B	B	B	C	C
	EB	EB	Thru/Right	A	A	C	B	A	A	C	B	NA	NA	A	A	C	B	NA	NA
			Thru	NA	NA	NA	NA	NA	NA	NA	NA	C	D	NA	NA	NA	NA	C	D
			Right	NA	NA	NA	NA	NA	NA	NA	NA	C	C	NA	NA	NA	NA	C	C
	WB	WB	Left	A	A	B	A	B	A	C	A	C	D	B	A	C	A	B	D
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A
	OVERALL INTERSECTION			NA	NA	B	B	NA	NA	C[3]	B[3]	C[1]	D[1]	NA	NA	C	B	C[1]	D[1]
Racetrack Road (EB, WB) & I-79 NB On/Off Ramps (NB)	NB	NB	Left	D	C	F(144.5)	C	F(84.6)	C	F(461.1)	D	NA	NA	F(133.6)	C	F(404.2)	D	NA	NA
			Left/Thru	NA	NA	NA	NA	NA	NA	NA	NA	C	C	NA	NA	NA	NA	C	C
			Right	C	B	D	B	D	B	F(114.7)	C	A	A	D	B	F(109.1)	C	A	A
	EB	EB	Left	NA	NA	NA	NA	NA	NA	NA	NA	C	D	NA	NA	NA	NA	C	D
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	WB	WB	Thru	A	A	A	A	A	A	A	A	B	B	A	A	A	A	A	A
	OVERALL INTERSECTION			NA	NA	NA	NA	NA	NA	NA	NA	A[2]	A[2]	NA	NA	NA	NA	B[2]	A[2]

Table 5- HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006						2016					
				Existing		No-Build*		No-Build		No-Build*		Tanger & Meadows Build		No-Build		No-Build*		Tanger & Meadows Build	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Racetrack Road (EB, WB) & Meadowlands Blvd. (SB)/ Wendy's Drive (NB)	NB	NB	Lt/Thru/Rt	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C
	SB	SB	Left/Thru	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C
			Right	B	B	B	B	B	C	B	C	C	C	B	C	B	C	C	C
	EB	EB	Left	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	D
			Thru/Right	A	A	A	A	A	A	A	A	B	B	A	A	A	A	A	A
	WB	WB	Left	C	B	C	B	C	C	C	C	C	C	C	C	C	C	C	D
			Thru/Right	B	A	B	A	B	A	B	A	B	B	B	B	B	B	C	A
	OVERALL INTERSECTION			B	A	B	A	B	B	B	B	B[3,4]	B[3,4]	B	B	B	B	C[3,4]	A[3,4]
Racetrack Road (EB, WB) & Johnson Road (SB)/ Tanger Blvd. (NB)	NB	EB	Left	NA	NA	NA	NA	NA	NA	NA	NA	C	F(168.2)	NA	NA	NA	NA	C	F(106.5)
			Thru/(Rt)	NA	NA	NA	NA	NA	NA	NA	NA	C	C	NA	NA	NA	NA	C	C
			Right	NA	NA	NA	NA	NA	NA	NA	NA	B	B	NA	NA	NA	NA	B	B
	SB	WB	Lt/(Thr)/Rt	B	B	B	B	C	C	C	C	NA	NA	C	C	C	C	NA	NA
			Left/Thru	NA	NA	NA	NA	NA	NA	NA	NA	C	D	NA	NA	NA	NA	C	D
			Right	NA	NA	NA	NA	NA	NA	NA	NA	C	C	NA	NA	NA	NA	C	C
	EB	SB	Left/Thru	A	A	A	A	A	A	A	A	NA	NA	A	A	A	A	NA	NA
			Left	NA	NA	NA	NA	NA	NA	NA	NA	D	C	NA	NA	NA	NA	C	C
			Thru	NA	NA	NA	NA	NA	NA	NA	NA	B	D	NA	NA	NA	NA	B	D
			Right	NA	NA	NA	NA	NA	NA	NA	NA	A	A	NA	NA	NA	NA	A	A
	WB	NB	Left	NA	NA	NA	NA	NA	NA	NA	NA	C	C	NA	NA	NA	NA	C	C
			Thru/Right	A	A	A	A	A	A	A	A	C	C	A	A	A	A	C	C
	OVERALL INTERSECTION			NA	NA	NA	NA	A[5]	A[5]	A[5]	A[5]	C[3,6]	D[3,6]	A[5]	A[5]	A[5]	A[5]	C[3,6]	D[3,6]
Racetrack Road (EB, WB) & Holiday Inn Drive (SB)	SB	SW	Right	A	A	A	A	A	A	A	A	B	B	A	A	A	A	B	B
	EB	SE	Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	WB	NW	Thru/Right	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Table 5- HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006						2016					
				Existing		No-Build*		No-Build		No-Build*		Tanger & Meadows Build		No-Build		No-Build*		Tanger & Meadows Build	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Racetrack Road (EB, WB) & Meadows Drive (SB)	SB	SW	Left	C	B	C	B	C	C	C	C	C	C	C	C	C	C	C	C
			Right	A	A	A	A	A	A	A	A	B	B	A	A	A	A	B	B
	EB	SE	Left/Thru	A	A	A	A	A	A	A	A	NA	NA	A	A	A	A	NA	NA
			Left	NA	NA	NA	NA	NA	NA	NA	NA	C	B	NA	NA	NA	NA	C	B
			Thru	NA	NA	NA	NA	NA	NA	NA	NA	A	A	NA	NA	NA	NA	A	A
	WB	NW	Thru/Right	A	A	A	A	A	A	A	A	C	A	A	A	A	A	C	B
	OVERALL INTERSECTION			NA	NA	NA	NA	NA	NA	NA	NA	C[7]	B[7]	NA	NA	NA	NA	C[7]	B[7]
Washington Road (NB, SB) & Racetrack Road (EB)	NB	NB	Left	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	C
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A
	SB	SB	Thru	B	B	B	B	B	B	B	B	C	C	C	B	C	B	C	C
			Right	A	A	A	A	A	A	A	A	B	C	A	A	A	A	C	C
	EB	EB	Left	C	B	C	B	C	B	C	B	C	C	C	B	C	B	C	B
			Right	A	A	A	A	A	A	A	A	B	B	A	A	A	A	B	B
	OVERALL INTERSECTION			B	B	B	B	B	B	B	B	B[8]	B[8]	B	B	B	B	B[8]	C[8]
Washington Road (NB, SB) & Fisher Road (EB)/ Davis School Road (WB)	NB	NB/NE	Left	A	A	A	A	A	A	A	A	C	C	B	A	B	A	C	C
			Thru/Right	A	A	A	A	A	A	A	A	B	B	A	A	A	A	B	B
	SB	SB/SW	Left	B	A	B	A	B	B	B	B	C	C	B	B	B	B	C	C
			Thru/Right	A	A	A	A	A	A	A	A	A	B	A	A	A	A	B	B
	EB	SE	Lt/Thru/Rt	E	D	E	D	E	D	E	D	C	C	F(72.7)	E	F(72.7)	E	C	C
	WB	NW	Lt/Thru/Rt	C	C	C	C	C	C	C	C	C	C	D	D	D	D	C	C
	OVERALL INTERSECTION			NA	NA	NA	NA	NA	NA	NA	NA	B[9]	B[9]	NA	NA	NA	NA	B[9]	B[9]

Table 5- HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006						2016					
				Existing		No-Build*		No-Build		No-Build*		Tanger & Meadows Build		No-Build		No-Build*		Tanger & Meadows Build	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Washington Road (NB, SB) & Manifold Road (EB)/ Cameron Road (WB)	NB	NB	Left	C	B	C	B	C	B	C	B	C	C	C	C	C	C	C	C
			Thru/Right	C	B	C	B	C	B	C	B	B	A	C	C	C	C	B	B
	SB	SB	Left	C	C	C	C	C	C	C	C	C	C	D	C	D	C	C	C
			Thru/Right	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	EB	SE	Lt/Thru/Rt	C	B	C	B	C	B	C	B	NA	NA	F(88.7)	B	F(88.7)	B	NA	NA
			Left/Thru	NA	NA	NA	NA	NA	NA	NA	NA	C	B	NA	NA	NA	NA	C	B
			Right	NA	NA	NA	NA	NA	NA	NA	NA	B	B	NA	NA	NA	NA	B	B
	WB	NW	Lt/Thru/Rt	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D
	OVERALL INTERSECTION			C	B	C	B	C	B	C	B	B[10]	B[10]	D	C	D	C	C[10]	C[10]

Note: Optimized signal timing was used for all scenarios.

* *Assumes the addition of traffic signals at Racetrack Road and the I-79 southbound ramps as background mitigation.*

[1] *With the construction of an additional 470 ft. westbound left-turn lane, an additional 300 ft. eastbound thru lane, a 170 ft. eastbound right-turn lane, and restriping to allow for two eastbound thru lanes on Racetrack Road; lengthening the existing southbound left-turn lane from 380 ft. to 650 ft., converting the existing southbound right-turn lane to a continuous left-turn lane, and constructing a 300 ft. southbound right-turn lane on the I-79 southbound off-ramp; constructing an additional 750 ft. lane on the I-79 southbound on-ramp, and the installation of traffic signals.*

[2] *With the relocation of the I-79 northbound off-ramp to form a "plus" intersection with the I-79 northbound on-ramp, construction of a 750 ft. free flow right-turn lane on the northbound off-ramp, and the installation of traffic signals.*

[3] *With the construction of an additional thru lane in each direction on Racetrack Road from the I-79 northbound ramps to east of Johnson Road.*

[4] *With traffic signal upgrades.*

[5] *With the installation of traffic signals by the Meadowpointe office complex developers.*

[6] *With the construction of a seven-lane Tanger Blvd. site drive (3 entering , 4 exiting), dual 145 ft. westbound left-turn lanes on Racetrack Road, a 275 ft. eastbound left-turn lane on Racetrack Road, a 200 ft. free flow eastbound right on Racetrack Road, a 100 ft. southbound right-turn lane on Johnson Road, and traffic signal upgrades.*

[7] *With the construction of 275 ft. eastbound dual left-turn lanes on Racetrack Road, widening and restriping Meadows Drive to provide an additional southbound left-turn lane and an additional entering lane, and the installation of traffic signals.*

[8] *With providing 230 ft. northbound dual left-turn lanes on Route 19, removal of existing mountable curb island on Racetrack Road, and upgrades to the traffic signal.*

[9] *With the installation of traffic signals.*

[10] *With the construction of a 165 ft. eastbound right-turn lane on Manifold Road and upgrades to the traffic signal.*

VI. TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted in accordance with PENNDOT Publication 201, Chapter E for the following intersections:

- **Racetrack Road and I-79 Southbound On/Off-Ramps - 2004 No-Build Conditions**
- **Racetrack Road and I-79 Northbound On/Off-Ramps - 2004 No-Build Conditions**
- **Racetrack Road and Johnson Road/Tanger Blvd. - Projected 2006 No-Build Conditions**
- **Racetrack Road and The Meadows Drive - Projected 2006 Build Conditions**
- **Washington Road and Davis School Road/Fisher Road - Projected 2006 No-Build Conditions**

The requirements of Warrant 11, Peak Hour Volume Warrant, were applied, and Table B was used since the posted speed limits along the major streets exceed 40 mph (45 mph posted). Results are summarized on Tables 6 through 10.

Table 6 - Traffic Signal Warrant Analysis-Racetrack Road and I-79 Southbound On/Off Ramps

Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street I-79 Ramps (2 or more lanes)	Major Street Racetrack Road (2 or more lanes)	Minor Street I-79 Ramps (2 or more lanes)
2004 No-Build/PM	900	180	1,084	592

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2004 NO-BUILD PM CONDITIONS

Table 7- Traffic Signal Warrant Analysis-Racetrack Road and I-79 Northbound On/Off Ramps

Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (1 lane)	Minor Street I-79 Ramps (2 or more lanes)	Major Street Racetrack Road (1 lane)	Minor Street I-79 Ramps (2 or more lanes)
2004 No-Build/PM	900	140	1,068	179

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2004 NO-BUILD PM CONDITIONS

Table 8- Traffic Signal Warrant Analysis-Racetrack Road and Johnson Road

Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street Johnson Road (1 lane)	Major Street Racetrack Road (2 or more lanes)	Minor Street Johnson Road (1 lane)
2006 No-Build/PM	800	170	920	256

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2006 NO-BUILD PM CONDITIONS

Table 9- Traffic Signal Warrant Analysis-Racetrack Road and The Meadows Drive				
Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street The Meadows Drive (2 lane or more lanes)	Major Street Racetrack Road (2 or more lanes)	Major Street The Meadows Drive (2 or more lanes)
2006 Build/PM	900	180	1911	901

RESULTS: REQUIREMENTS OF WARRANT II ARE SATISFIED FOR THE 2006 BUILD PM CONDITIONS

Table 10- Traffic Signal Warrant Analysis-Washington Road and Davis School Road/Fisher Road				
Period	Required Volumes		Projected Volumes	
	Major Street Washington Road (2 or more lanes)	Minor Street Davis School Road (1 lane)	Major Street Washington Road (2 or more lanes)	Minor Street Davis School Road (1 lane)
2006 No-Build/PM	1,300	75	1,668	75

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2006 NO-BUILD PM CONDITIONS

VII. QUEUING ANALYSIS

A queuing analysis was performed for the 2016 design year conditions. The "required" storage lengths were based on the SimTraffic Software Version 6 using the recommended average of the 95% queue for 10 one-hour simulations. The SYNCHRO and SimTraffic analyses are included in the Appendix. Results are summarized in Table 11.

Table 11- Storage Length Requirements - 2016 Conditions

Intersection	Movement	SYNCHRO Designation	Required Storage (Lane Feet)						Available Storage (Lane Feet)
			No-Build		No-Build *		Tanger & Meadows Build		
			PM	SAT	PM	SAT	PM	SAT	
Racetrack Road (EB,WB) & I-79 SB On/Off Ramps (SB)	Eastbound - Thru/(Right)[1]	EB	10	5	700	160	450[2]	855[2]	>1000, >1300[3]
	Eastbound - Right		NA	NA	NA	NA	110	170	170[3]
	Westbound - Left	WB	85	50	220	75	695[2]	705[2]	235[4], 705[3]
	Westbound - Thru		NA	NA	265	110	215	130	470[5]
	Southbound - Left	SB	415	110	425	135	505[2]	1275[2]	380, 1620[3]
	Southbound - Right		910	55	530	50	125	250	>500, 300[3]
Racetrack Road (EB,WB) & I-79 NB Off Ramp (NB)	Eastbound - Left	EB	NA	NA	NA	NA	135	85	165
	Eastbound - Thru		NA	NA	60	NA	40[2]	155[2]	940[5]
	Westbound - Thru	WB	NA	NA	70	NA	465[2]	455[2]	1600[5], >2400[3]
	Northbound - Left/Thru	NB	65	45	105	45	100	930	500, >1100[5]
	Northbound - Right		75	55	75	55	20	785	>1000, 750[3]
Racetrack Road (EB,WB) & Meadowlands Blvd. (SB)/ Wendy's Drive (NB)	Eastbound - Left	EB	115	115	130	115	160	145	195
	Eastbound - Thru/Right		150[2]	110[2]	170[2]	115[2]	615[6]	2480[6]	>1700, >2500[3]
	Westbound - Left	WB	55	50	55	50	75	70	105
	Westbound - Thru/Right		285[2]	165[2]	275[2]	170[2]	845[6]	650[6]	>1600, >2400[3]
	Northbound - Left/Thru/Right	NB	115	95	115	90	120	110	Site Drive
	Southbound - Left/Thru	SB	100	80	105	80	115	95	>400
	Southbound - Right		80	55	85	55	100	60	145
Racetrack Road (EB,WB) & Johnson Road (SB) Tanger Blvd. (NB)	Eastbound - Left	SB	NA	NA	NA	NA	200	275	275[3]
	Eastbound - (Left)[2]/Thru		220[2]	105[2]	255[2]	105[2]	615[6]	1220[6]	>1400, >2100[3]
	Westbound - Left	NB	NA	NA	NA	NA	200[2]	285[2]	290[3]
	Westbound - Thru/Right		150[2]	90[2]	145[2]	80[2]	580[6]	560[6]	>2000, >3000[3]
	Southbound - Left/Right	WB	140	55	150	55	NA	NA	>500
	Southbound - Left/Thru		NA	NA	NA	NA	80	25	>500
	Southbound-Right		NA	NA	NA	NA	100	45	100[3]
	Northbound - Left	EB	NA	NA	NA	NA	335[2]	1980[2]	Site Drive[3]
	Northbound - Thru		NA	NA	NA	NA	15	1125	Site Drive[3]
	Northbound - Right		NA	NA	NA	NA	90	200	220[3]
Racetrack Road**(EB,WB) & Holiday Inn Drive (SB)	Southbound - Right	SW	30	30	30	30	25	30	Site Drive
Racetrack Road* (EB,WB) & Meadows Drive (SB)	Eastbound - Left	SE	NA	NA	NA	NA	420[2]	550[2]	550[3]
	Eastbound - (Left)[4]/Thru		50[2]	45[2]	50[2]	45[2]	255[2]	210[2]	>1000
	Westbound -Thru	NW	NA	NA	NA	NA	355[2]	370[2]	>1000
	Southbound - Left	SW	55	50	55	50	250[2]	255[2]	Site Drive
	Southbound - Right		NA	NA	NA	NA	85	85	Site Drive

Table 11- Storage Length Requirements - 2016 Conditions

Intersection	Movement	SYNCHRO Designation	Required Storage (Lane Feet)						Available Storage (Lane Feet)
			No-Build		No-Build *		Tanger & Meadows Build		
			PM	SAT	PM	SAT	PM	SAT	
Washington Road (NB,SB) & Racetrack Road (EB)	Eastbound - Left	EB	145	85	160	85	225	155	>1000
	Eastbound - Right		NA	NA	NA	NA	20	NA	>1000
	Northbound - Left	NB	210	185	200	175	380[2]	460[2]	385, 460[3]
	Northbound - Thru		250[2]	185[2]	275[2]	200[2]	445[2]	280[2]	>2000
	Southbound - Thru	SB	335[2]	255[2]	375[2]	260[2]	615[2]	500[2]	>2000
Washington Road (NB,SB) & Fisher Road (EB)/ Davis School Road (WB)	Eastbound - Left/Thru/Right	SE	35	35	35	30	35	35	>1000
	Westbound - Left/Thru/Right	NW	55	50	55	50	115	115	>1000
	Northbound - Left	NB	20	15	20	15	65	30	195
	Northbound - Thru/Right		665[2]	5[2]	1365[2]	5[2]	545[2]	630[2]	>2000
	Southbound - Left	SB	55	40	55	40	160	210	215
	Southbound -Thru/Right		235[2]	55[2]	230[2]	55[2]	250[2]	765[2]	>2000
Washington Road (NB,SB) & Manifold Road (EB)/ Cameron Road (WB)	Eastbound - Left/Thru/Right	SE	1960	210	2500	235	NA	NA	>1000
	Eastbound - Left/Thru		NA	NA	NA	NA	205	130	>1000
	Eastbound - Right		NA	NA	NA	NA	160	110	165[3]
	Westbound - Left/Thru/Right	NW	1315	270	1470	260	330	485	>1000
	Northbound - Left	NB	220	250	220	230	155	185	210
	Northbound - Thru/Right		970[2]	765[2]	720[2]	670[2]	580[2]	565[2]	>2000
	Southbound - Left	SB	210	140	240	120	200	185	220
	Southbound - Thru/Right		3710[2]	615[2]	4810[2]	580[2]	810[2]	1145[2]	>2000

** *Unsignalized intersection*

[1] *Does not exist under Tanger and Meadows conditions*

[2] *Two lanes of storage*

[3] *To be constructed*

[4] *Under no-build conditions only*

[5] *With the relocation of the I-79 northbound off-ramp to align with the northbound on-ramp*

[6] *Three lanes of storage*

* *Assumes traffic signals at Racetrack Road and the I-79 southbound ramps as background mitigation.*

VIII. SIGHT DISTANCE MEASUREMENTS

Sight distance measurements were taken along Racetrack Road (SR 1041) at the proposed Tanger driveway (Tanger Blvd.) and at the existing Meadows driveway in accordance with Pennsylvania code, Title 67, Chapter 441, Access to and Occupancy of Highway by Driveways and Local Roads. Safe Stopping Sight Distance (SSD) was based on the formula $1.47Vt+(V^2/30(f+/-g))$. Required distances were based on a design speed of 5 mph over the posted speed. Results are indicated in Table 11. Sight distance measurements and the SSD table are included in the Appendix.

Table 12 - Sight Distance Summary

Location	Desing Speed (mph)	Approach Grade		Recommended Distance (Ft.)		Available Distance (Ft.)	
		LT	RT	LT	RT	LT	RT
Proposed Tanger Blvd.	50	+1%	- 1%	453	471	480	1500
Existing Meadows Dwy.	50	- 1%	+1%	471	453	>700	>700

As indicated, the recommended intersection sight distances along Racetrack Road at the proposed Tanger Blvd. and the existing Meadows driveway are satisfied.

The completed Forms M-9505 (Formula Sight Distance Measurements) are included in the Appendix.

IX. PROPOSED MITIGATION

Results of the analysis indicate certain mitigation measures will be required in order to maintain acceptable levels of service under the "existing" as well as the "projected" conditions. A summary of the analysis and mitigation measures are as follows:

I-79 Southbound Ramps and Racetrack Road (SR 1041)

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (101.3)

2004 No-Build - Signalized*

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

**Assumes the installation of traffic signals as background mitigation as directed by District 12-0.*

2006 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (163.7)

2006 No-build - Signalized*

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

**Assumes the installation of traffic signals as background mitigation as directed by District 12-0.*

2006 Build-Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS D
Required Mitigation:

With the construction of an additional 470 ft. westbound left-turn lane, an additional 300 ft. eastbound thru lane, a 170 ft. eastbound right-turn lane, restriping Racetrack Road to allow for two (2) eastbound thru lanes; lengthening the existing southbound left-turn lane from 380 ft. to 650 ft., converting the existing southbound right-turn lane to a continuous left-turn lane, constructing a 300 ft. southbound right-turn lane on the I-79 southbound off-ramp; constructing an additional 750 ft. lane on the I-79 southbound on-ramp, and installing traffic signals. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (236.1)

2016 No-build - Signalized*

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

**Assumes the installation of traffic signals as background mitigation as directed by District 12-0..*

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS D
Required Mitigation:

With mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is proposed. A LOS Waiver request will be submitted for this intersection.

I-79 Northbound Ramps and Racetrack Road (SR 1041)

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS D
Saturday Peak - LOS C

2004 No-Build - Unsignalized*

Worst Movement Operation
PM Peak Hour - LOS F (144.5)
Saturday Peak - LOS C

**Assumes the installation of traffic signals as background mitigation as directed by District 12-0..*

2006 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (84.6)
Saturday Peak - LOS C

2006 No-build - Unsignalized*

Worst Movement Operation
PM Peak Hour - LOS F (461.1)
Saturday Peak - LOS D

**Assumes the installation of traffic signals as background mitigation as directed by District 12-0.*

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

With the relocation of the I-79 northbound off-ramp to form a "plus" intersection with the I-79 northbound on-ramp, construction of a 750 ft. free flow right-turn lane on the relocated I-79 northbound off ramp, and the installation of traffic signals. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (133.6)
Saturday Peak - LOS C

2016 No-build - Unsignalized*

Worst Movement Operation
PM Peak Hour - LOS F (404.2)
Saturday Peak - LOS D

*Assumes the installation of traffic signals as background mitigation as directed by District 12-0.

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A
Required Mitigation:

With mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is proposed.

Racetrack Road (SR 1041) and Meadowlands Blvd.

2004 Existing - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A

2006 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

Construction of an additional through lane in each direction on Racetrack Road from the I-79 northbound ramps to east of Johnson Road and upgrade traffic signals. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS A
Required Mitigation:

With mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is required.

Racetrack Road (SR 1041) and Johnson Road/Tanger Blvd.

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2006 No-build - Signalized*

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

**Assumes the installation of traffic signals by the developer of the Meadowpointe Office Complex.*

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS D
Required Mitigation:

With the construction of an additional thru lane in each direction on Racetrack Road from the I-79 northbound ramps to east of Johnson Road, a seven (7) lane Tanger Blvd. site drive (3 entering/4 exiting), dual 145 ft. westbound left-turn lanes on Racetrack Road, a 275 ft. eastbound left-turn lane on Racetrack Road, a 200 ft. free flow eastbound right on Racetrack Road, a 100 ft. southbound right-turn lane on Johnson Road, and traffic signal upgrades. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Signalized*

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

**Assumes the installation of traffic signals by the developer of the Meadowpointe Office Complex.*

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS D
Required Mitigation:

With mitigation required for the 2006 Tanger and Meadows build conditions, no further mitigation is proposed. A LOS Waiver will be requested for this intersection.

Racetrack Road (SR 1041) and Holiday Inn Drive

2004 Existing - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A

2006 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A

2006 Build - Tanger and Meadows - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2016 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A

2016 Build - Tanger and Meadows - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

Racetrack Road (SR 1041) and The Meadows Drive

2004 Existing - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

2006 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:

With the construction of 275 ft. eastbound dual left-turn lanes on Racetrack Road, the widening and restriping of Meadows Drive to provide an additional exiting left-turn lane and an additional entering lane, and the installation of traffic signals. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:

With the mitigation required by the 2006 Tanger and Meadows Build conditions, no further mitigation is required.

Washington Road (SR 0019) and Racetrack Road (SR 1041)

2004 Existing - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2006 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

With providing 230 ft. northbound dual left-turn lanes on Washington Road, removal of existing mountable curb island on Racetrack Road, and upgrades to the traffic signals. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS C
Required Mitigation:
With mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is required.

Washington Road (SR 0019) and Davis School Road (SR 1049)/Fisher Road

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS E
Saturday Peak - LOS D

2006 No-build – Unsignalized

Worst Movement Operation
PM Peak Hour - LOS E
Saturday Peak - LOS D

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
With the installation of traffic signals.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (72.7)
Saturday Peak - LOS E

2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
With the mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is required.

Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1047)

2004 Existing - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

2006 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

2006 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

With the construction of a 165 ft. eastbound right-turn lane on Manifold Road and upgrades to the traffic signal. The developers have indicated their willingness to perform the required mitigation at this intersection.

2016 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS D
Saturday Peak - LOS C

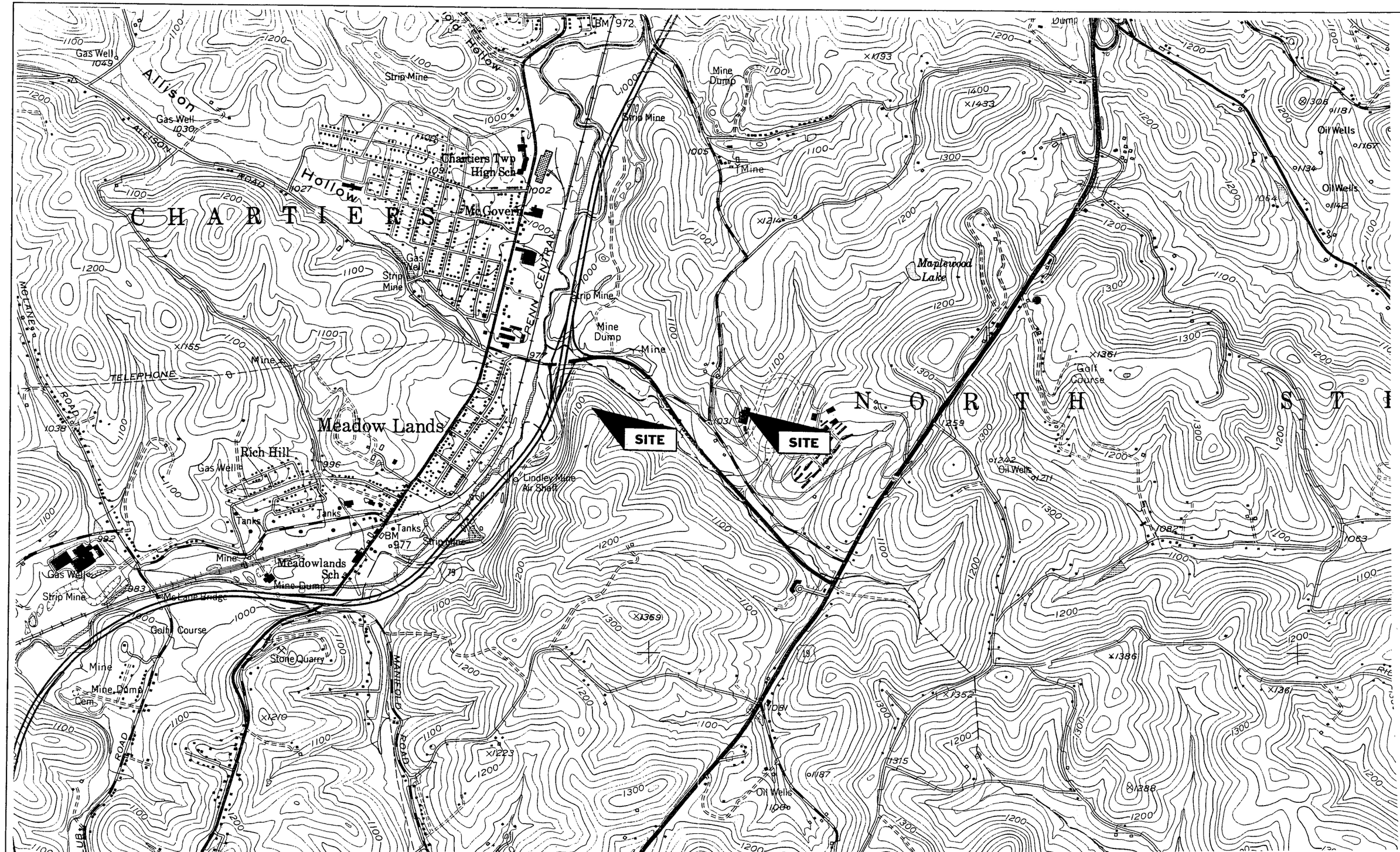
2016 Build - Tanger and Meadows - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C
Required Mitigation:

With the mitigation required for the 2006 Tanger and Meadows Build conditions, no further mitigation is required.

APPENDIX

FIGURES



PBSJ // TRILINE
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

PROJECT LOCATION

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 1 | SCALE: NONE

LEGEND		DOOR NO.	TOTAL AREA (S.F.)
	EXISTING CONFIGURATION		77,363
	EXISTING TARPAULIN	4	649,889
	PROPOSED PARKING	1	1,310,303
	EXISTING RAMP	35	280,101
	EXISTING DORMITORY	3	19,914
	OTHER BUILDINGS	15	27,311
	SANITARY SEWER	--	--
	WATER SUPPLY	--	--
	ELECTRIC LINE	--	--
	STREAM	--	--

	ON GRADE PARKING LOTS	TOTAL AREA (SQ. FT.)	NO. PARKING SPACES	REMARKS
1	NO USED			
2	PARKING LOT 2	71,731	223	
3	PARKING LOT 3	167,540	445	
4	PARKING LOT 4	197,222	565	
5	PARKING LOT 5	316,154	617	
6	PARKING LOT 6	240,570	781	
7	PARKING LOT 7	1 1,402	224	
	TOTAL PARKING SPACES		2,910	

THE MEADOWS

MEC
Magna Entertainment Corporation

MASTER SITE PLAN

PRELIMINARY

CONSTRUCT A 300' ADDITIONAL EASTBOUND THRU LANE AND A 170' EASTBOUND RIGHT TURN LANE

INSTALL TRAFFIC SIGNALS

WIDEN ON-RAMP TO ALLOW FOR 2 LANES FOR 750' AND TAPER TO 1 LANE BEFORE GORE POINT

RE-STRIPE RACETRACK ROAD TO ALLOW FOR TWO EASTBOUND THRU LANES THROUGH THE INTERCHANGE

CONSTRUCT AN ADDITIONAL CONTINUOUS WESTBOUND LEFT TURN LANE

INSTALL TRAFFIC SIGNALS

REALIGN THE I-79 NB OFF RAMP TO FORM A 'PLUS' INTESECTION WITH THE I-79 NB ON RAMP AND CONSTRUCT A 750' NORTHBOUND FREE FLOW CHANNELIZED RIGHT TURN LANE

LENGTHEN THE EXISTING SOUTHBOUND LEFT TURN LANE FROM 380' TO 650'. CONVERT THE EXISTING SOUTHBOUND RIGHT TURN LANE TO A CONTINUOUS LEFT TURN LANE, AND CONSTRUCT A 300' SOUTHBOUND RIGHT TURN LANE

I-79

UPGRADE SIGNALS

MEADOWLANDS BLVD

WENDY'S/EXXON DRIVE

CONSTRUCT AN ADDITIONAL THRU LANE IN EACH DIRECTION ON RACETRACK ROAD FROM THE I-79 NORTHBOUND RAMPS TO EAST OF JOHNSON ROAD

CONSTRUCT A 100' RIGHT TURN LANE ON JOHNSON ROAD

TRAFFIC SIGNALS FOR MEADOWPOINTE OFFICE COMPLEX TO BE INSTALLED (BY OTHERS)

CONSTRUCT A FREE FLOW CHANNELIZED RIGHT INTO THE SITE AND CONSTRUCT A 275' EASTBOUND LEFT TURN LANE INTO JOHNSON ROAD

JOHNSON ROAD

CONSTRUCT 145' DUAL WESTBOUND LEFT TURN LANES INTO THE SITE

UPGRADE SIGNALS

CONSTRUCT A 7 LANE SITE DRIVE (3 ENTERING, 4 EXITING)

TANGER BLVD.

HOLIDAY INN DRIVE

WIDEN AND RESTRIPE TO PROVIDE AN ADDITIONAL EXITING LEFT TURN LANE AND AN ADDITIONAL ENTERING LANE

RACETRACK ROAD
(SR 1041)

CONSTRUCT 275' DUAL LEFT TURN LANES INTO THE MEADOWS

THE MEADOWS DRIVE

INSTALL TRAFFIC SIGNALS

REMOVE EXISTING MOUNTABLE CURB ON RACETRACK ROAD TO ALLOW FOR DUAL NORTHBOUND LEFTS

SR 0019

UPGRADE TRAFFIC SIGNALS

PROVIDE 230' DUAL NORTHBOUND LEFT TURN LANES ON ROUTE 19

INSTALL TRAFFIC SIGNALS

DAVIS SCHOOL ROAD

FISHER ROAD

UPGRADE TRAFFIC SIGNALS

MANIFOLD ROAD

CAMERON ROAD

CONSTRUCT A 165' RIGHT TURN LANE ON MANIFOLD ROAD

SR 0019

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400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

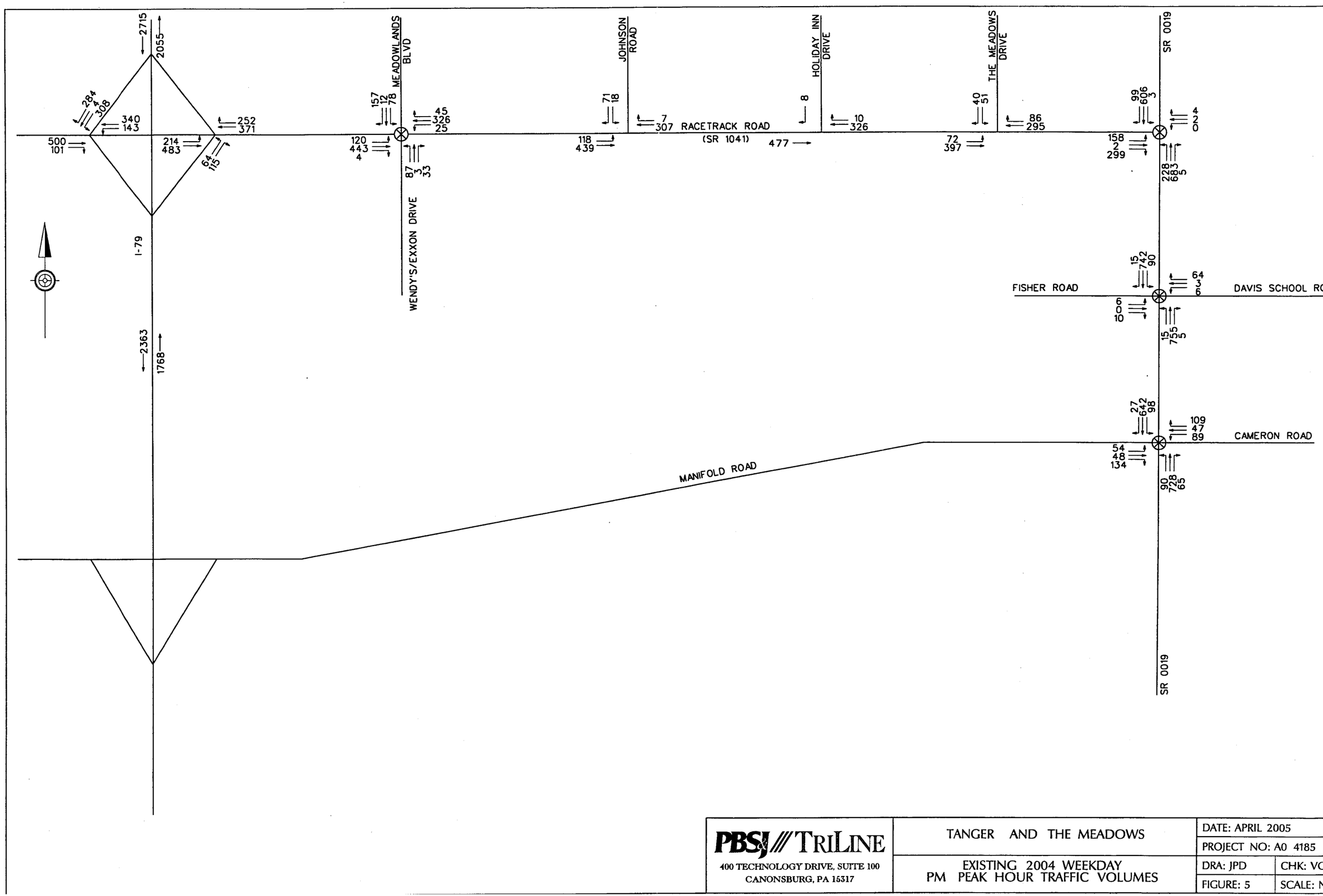
REQUIRED MITIGATION – BUILD CONDITIONS W/TANGER FACTORY OUTLET AND THE MEADOWS

DATE: APRIL 2005

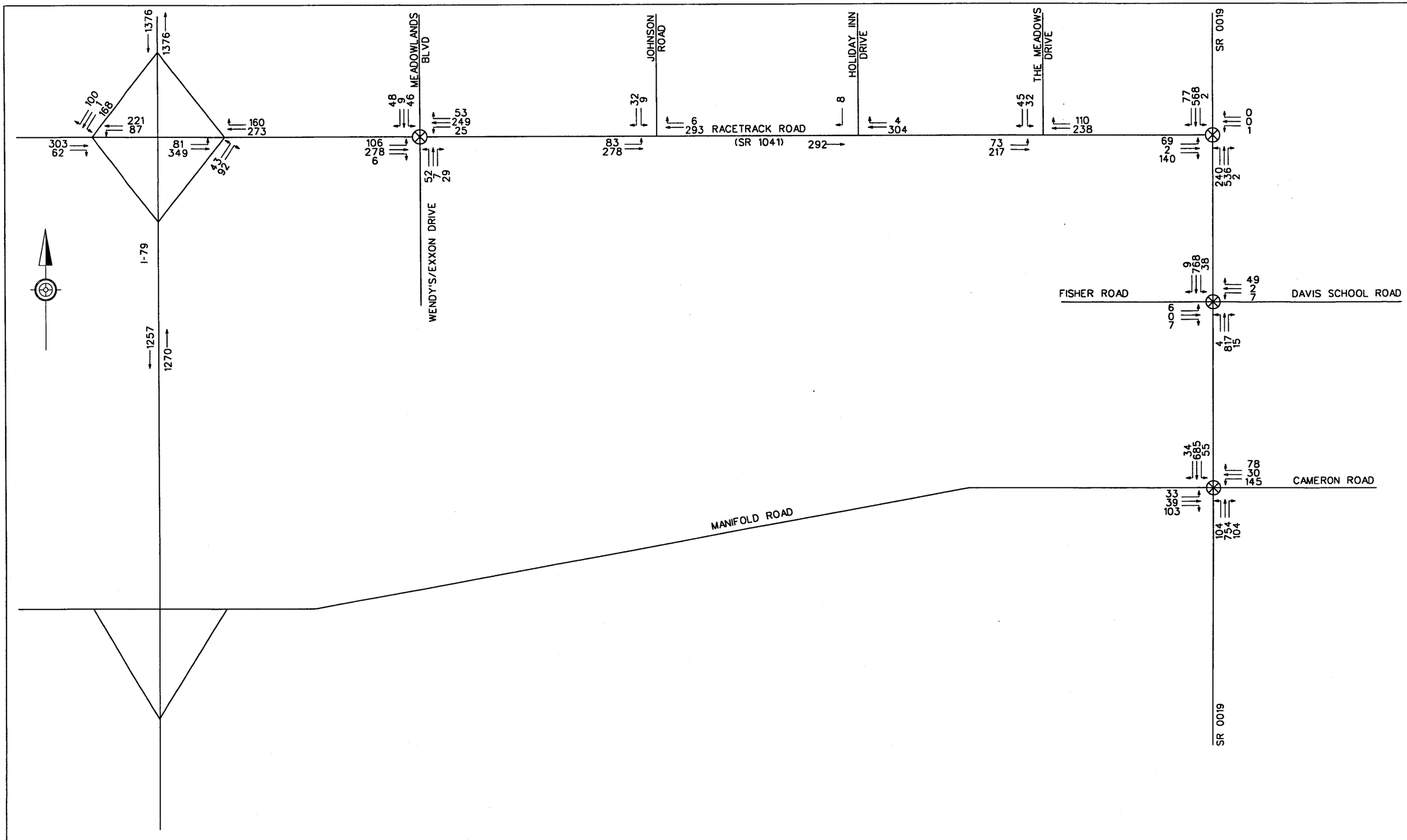
PROJECT NO: A0 4185

DRA: JPD | CHK: VGY

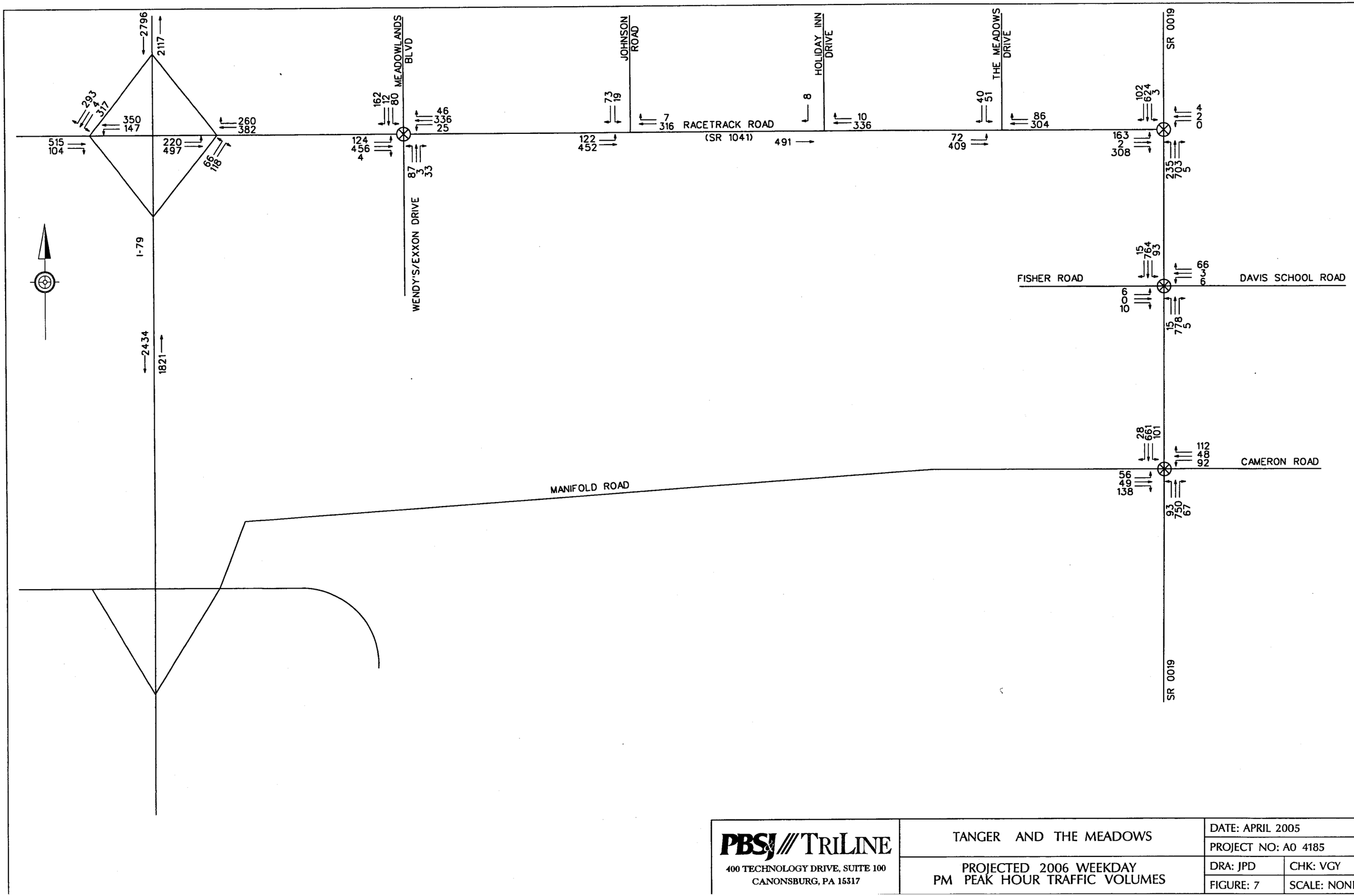
FIGURE: 4 | SCALE: NONE



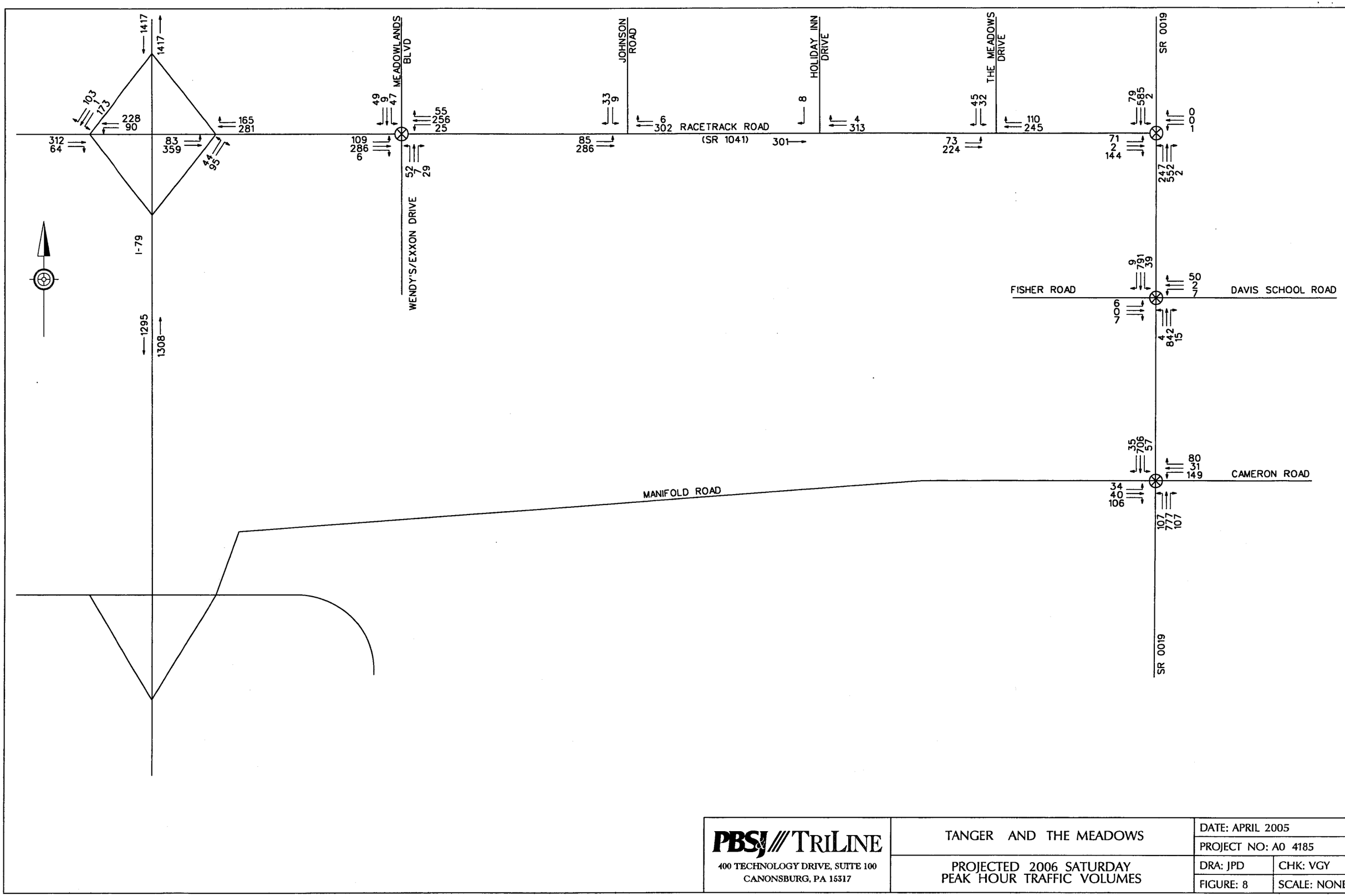
PBS&J /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	EXISTING 2004 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 5 / SCALE: NONE



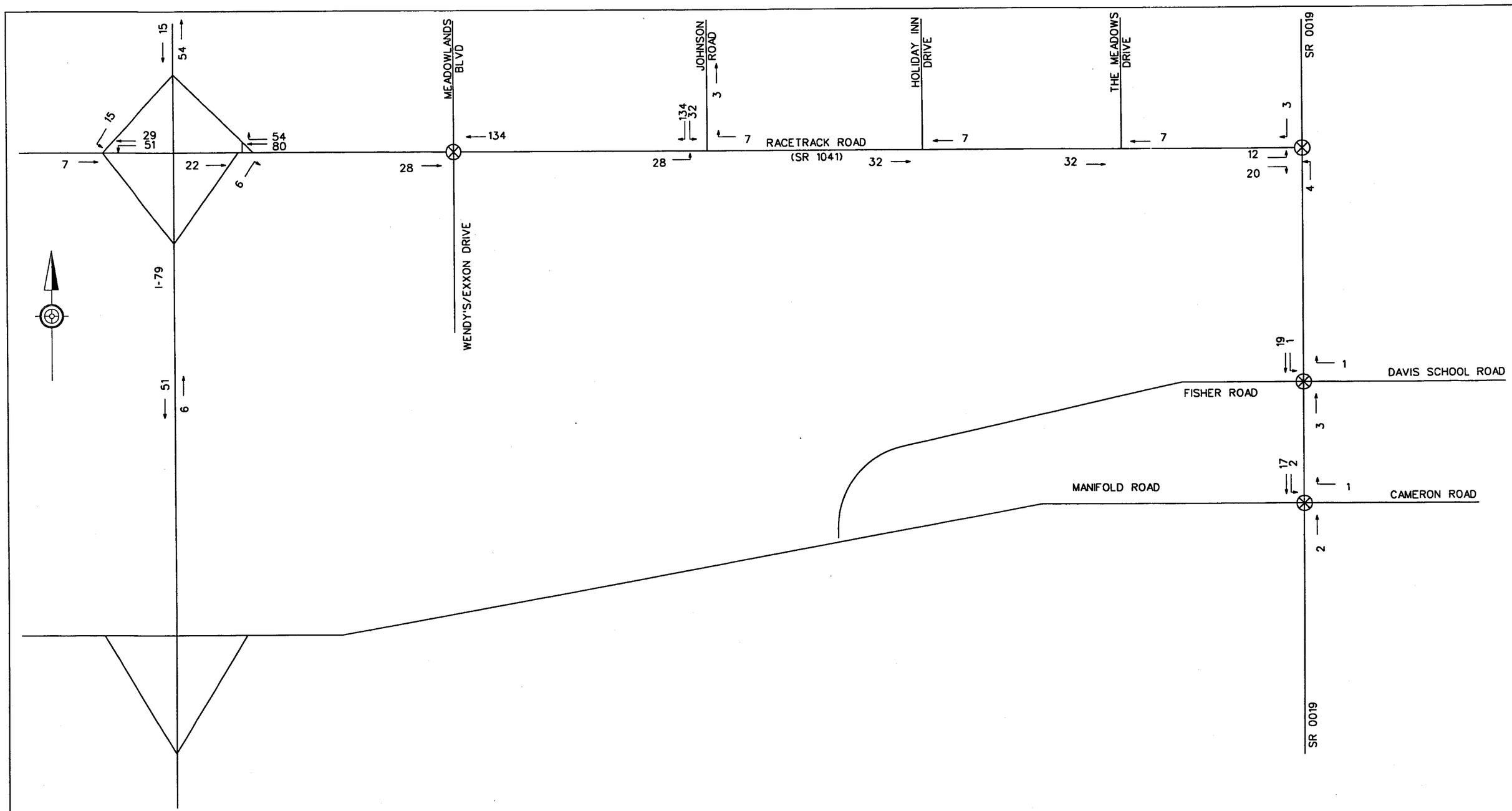
PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	EXISTING 2004 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 6 / SCALE: NONE



PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005	
		PROJECT NO: A0 4185	
	PROJECTED 2006 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DRA: JPD	CHK: VGY
		FIGURE: 7	SCALE: NONE

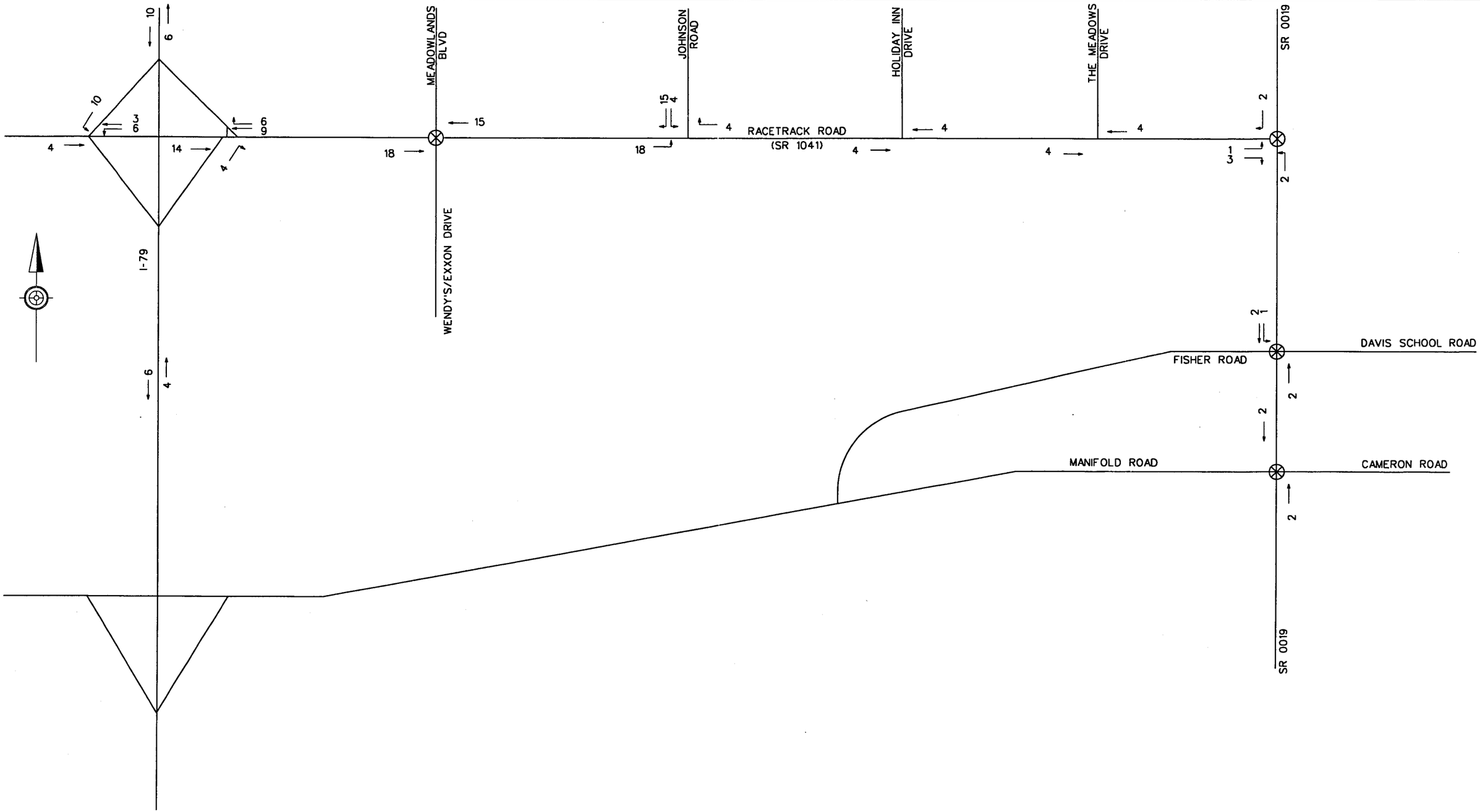


PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2006 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 8 / SCALE: NONE



NOTE: MEADOWPOINTE VOLUMES BASED ON PENNDOT'S FEBRUARY 10, 2004 MEMO STATING THAT THE OFFICE COMPLEX WOULD BE 112,000 SQ. FT. OF GENERAL OFFICE AND USING ITE'S TRIP GENERATION 7TH EDITION. DISTRIBUTION WAS PERFORMED BASED ON THE MEADOWPOINTE TRAFFIC IMPACT STUDY PERFORMED BY TRANS ASSOCIATES

PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	MEADOWPOINTE SITE GENERATED TRAFFIC WEEKDAY PM PEAK HOUR	DRA: JPD / CHK: VGY
		FIGURE: 9 / SCALE: NONE



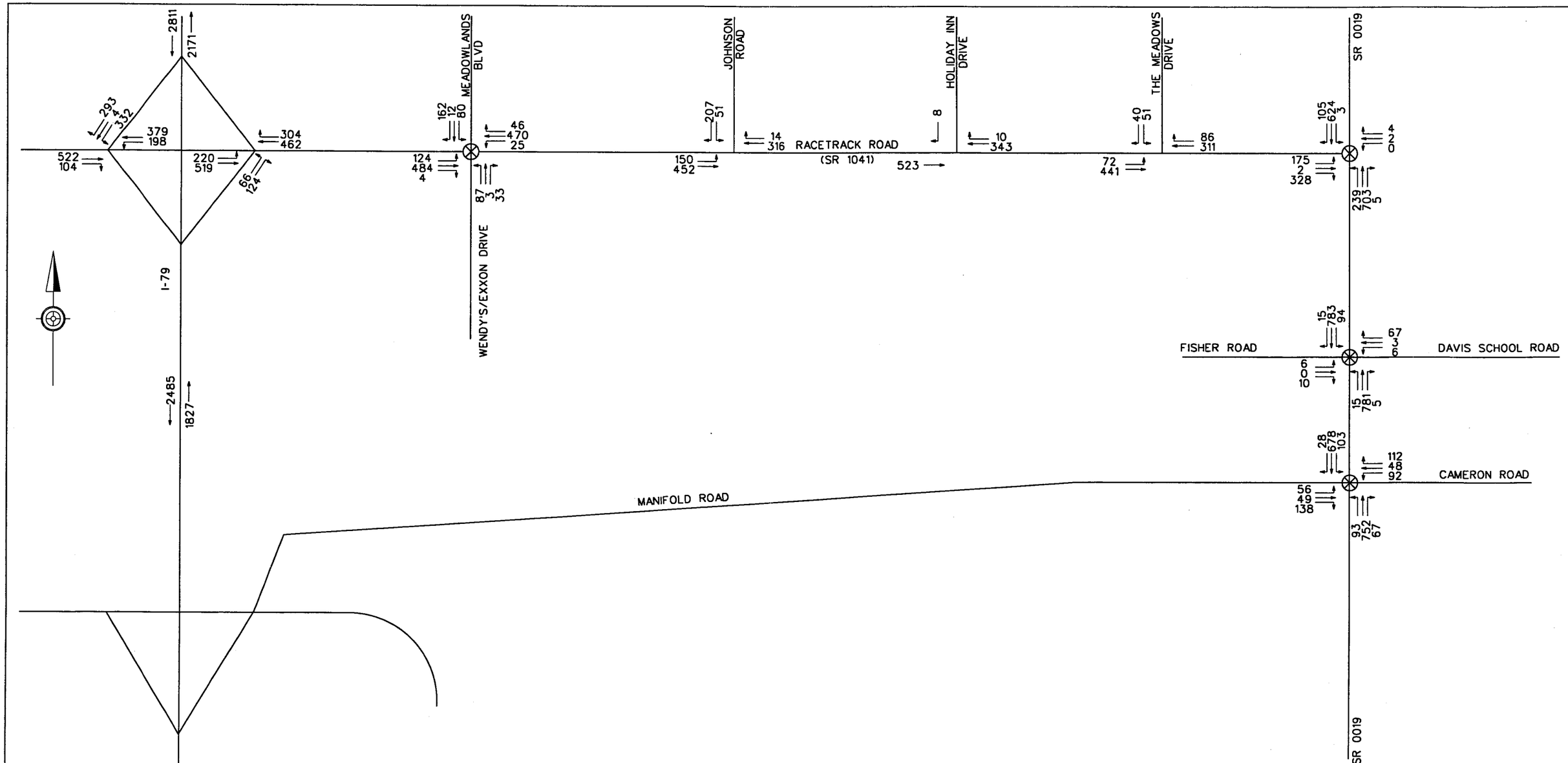
NOTE: MEADOWPOINTE VOLUMES BASED ON PENNDOT'S FEBRUARY 10, 2004 MEMO STATING THAT THE OFFICE COMPLEX WOULD BE 112,000 SQ. FT. OF GENERAL OFFICE AND USING ITE'S TRIP GENERATION 7TH EDITION. DISTRIBUTION WAS PERFORMED BASED ON THE MEADOWPOINTE TRAFFIC IMPACT STUDY PERFORMED BY TRANS ASSOCIATES

PBSJ /// TRILINE
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

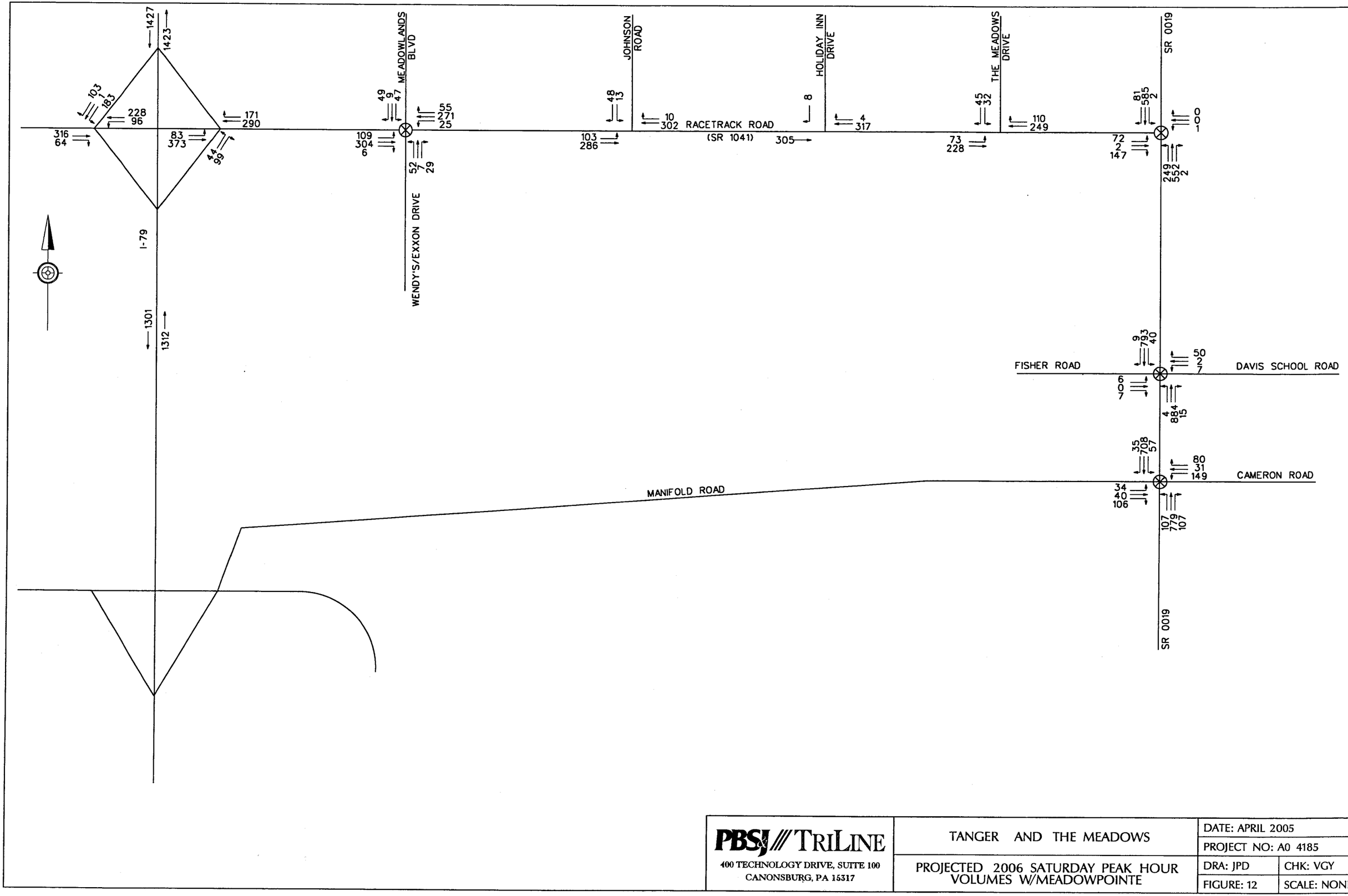
TANGER AND THE MEADOWS

MEADOWPOINTE SITE GENERATED TRAFFIC
SATURDAY PEAK HOUR

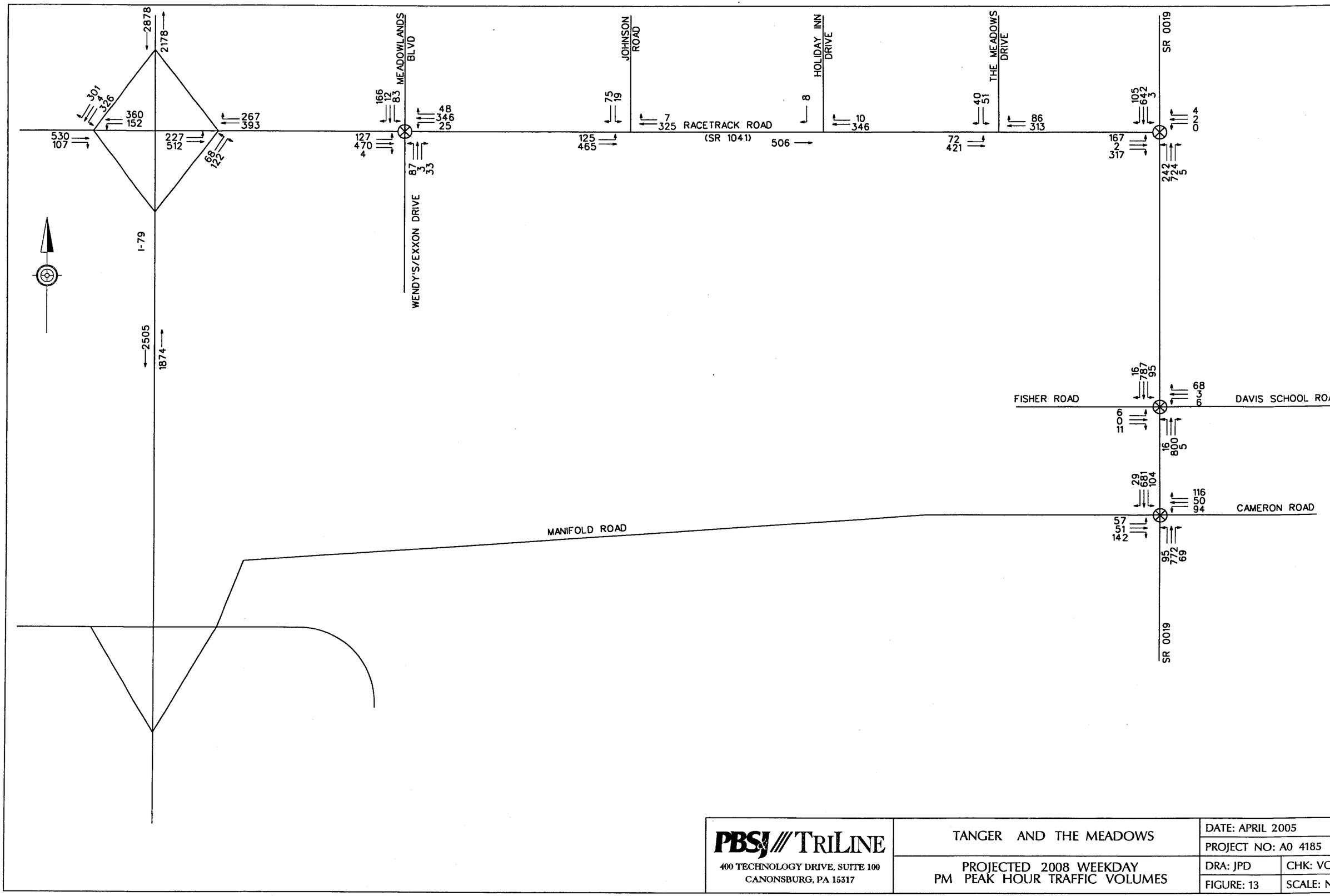
DATE: APRIL 2005	
PROJECT NO: A0 4185	
DRA: JPD	CHK: VGY
FIGURE: 10	SCALE: NONE



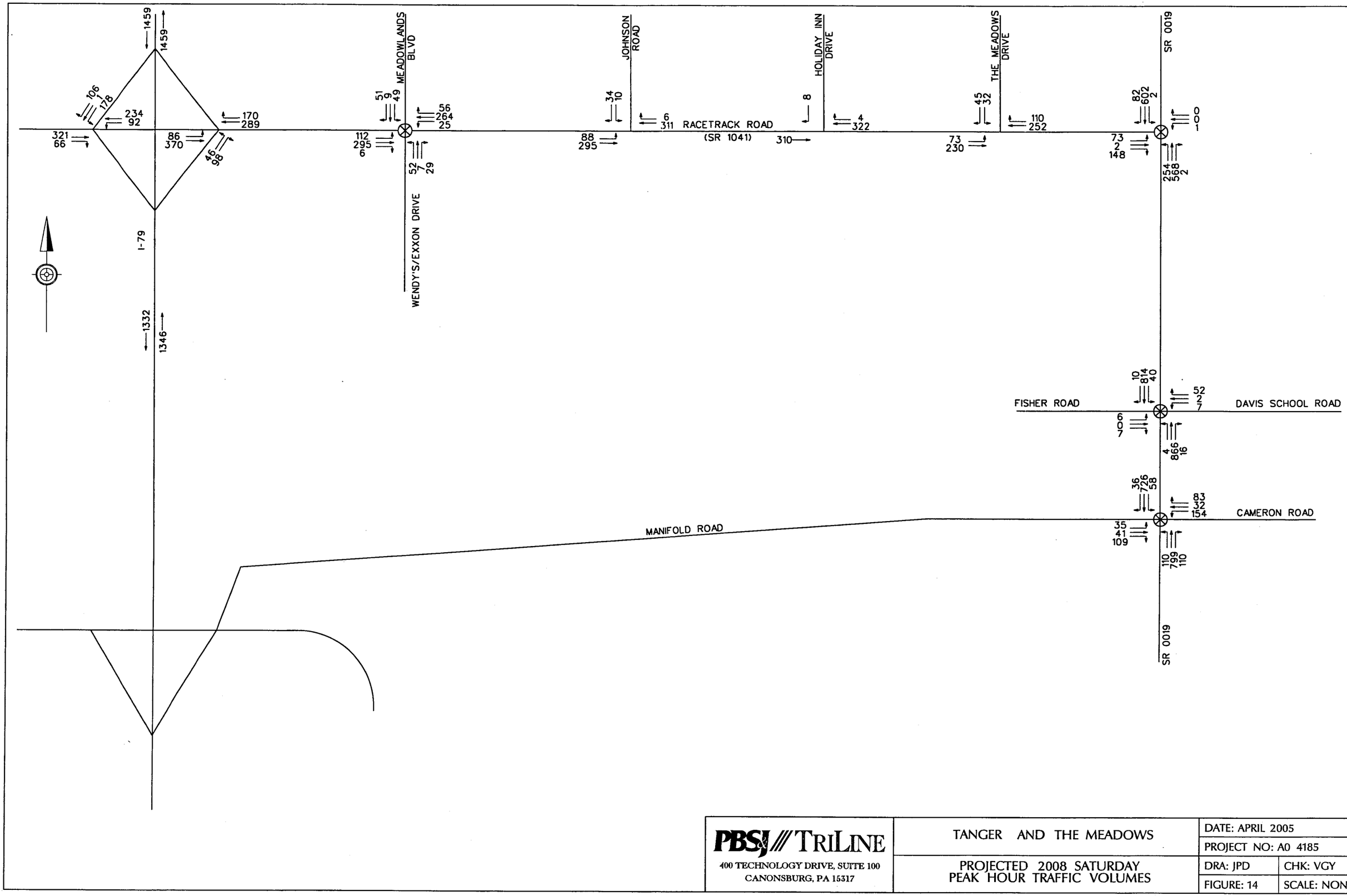
PBS&J /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2006 WEEKDAY PM PEAK HOUR VOLUMES W/MEADOWPOINTE	DRA: JPD / CHK: VGY
		FIGURE: 11 / SCALE: NONE



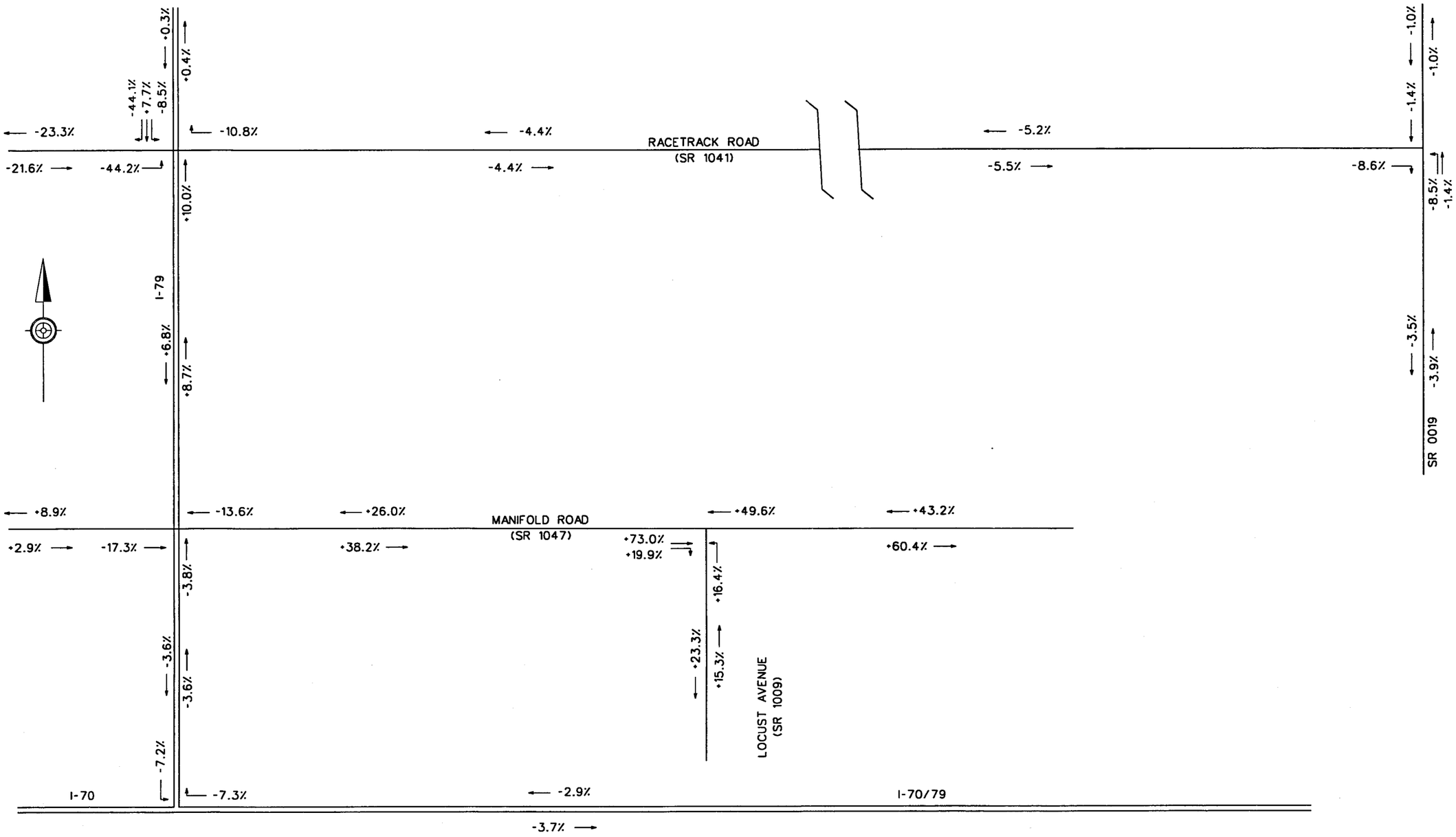
PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2006 SATURDAY PEAK HOUR VOLUMES W/MEADOWPOINTE	DRA: JPD / CHK: VGY
		FIGURE: 12 / SCALE: NONE



PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2008 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 13 / SCALE: NONE



PBSJ // TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2008 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 14 / SCALE: NONE



NOTE:

1. PERCENTAGES ARE A COMPARISON OF 2008 BUILD AND NO BUILD DESIGN HOUR VOLUMES (PM) FROM THE SOUTHWESTERN PENNSYLVANIA COMMISSION STUDY: I-79/SR. 1009 INTERCHANGE STUDY CHARTIES, NORTH AND SOUTH STRABANE TOWNSHIPS, WASHINGTON COUNTY (7/02).

2. IT IS ASSUMED PM PEAK HOUR PERCENTAGE CHANGE IS THE SAME AS SATURDAY PEAK HOUR PERCENTAGE CHANGE.

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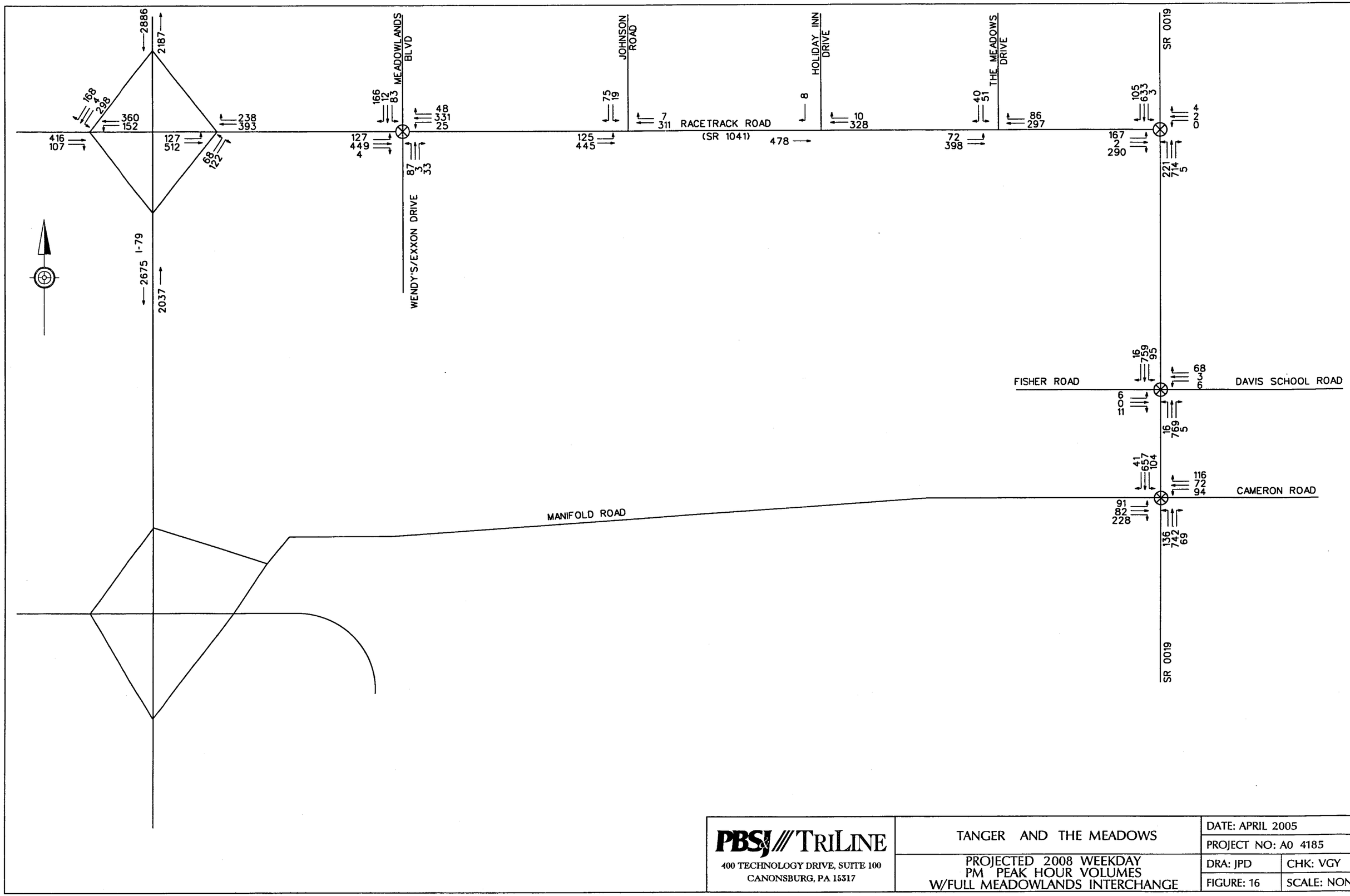
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

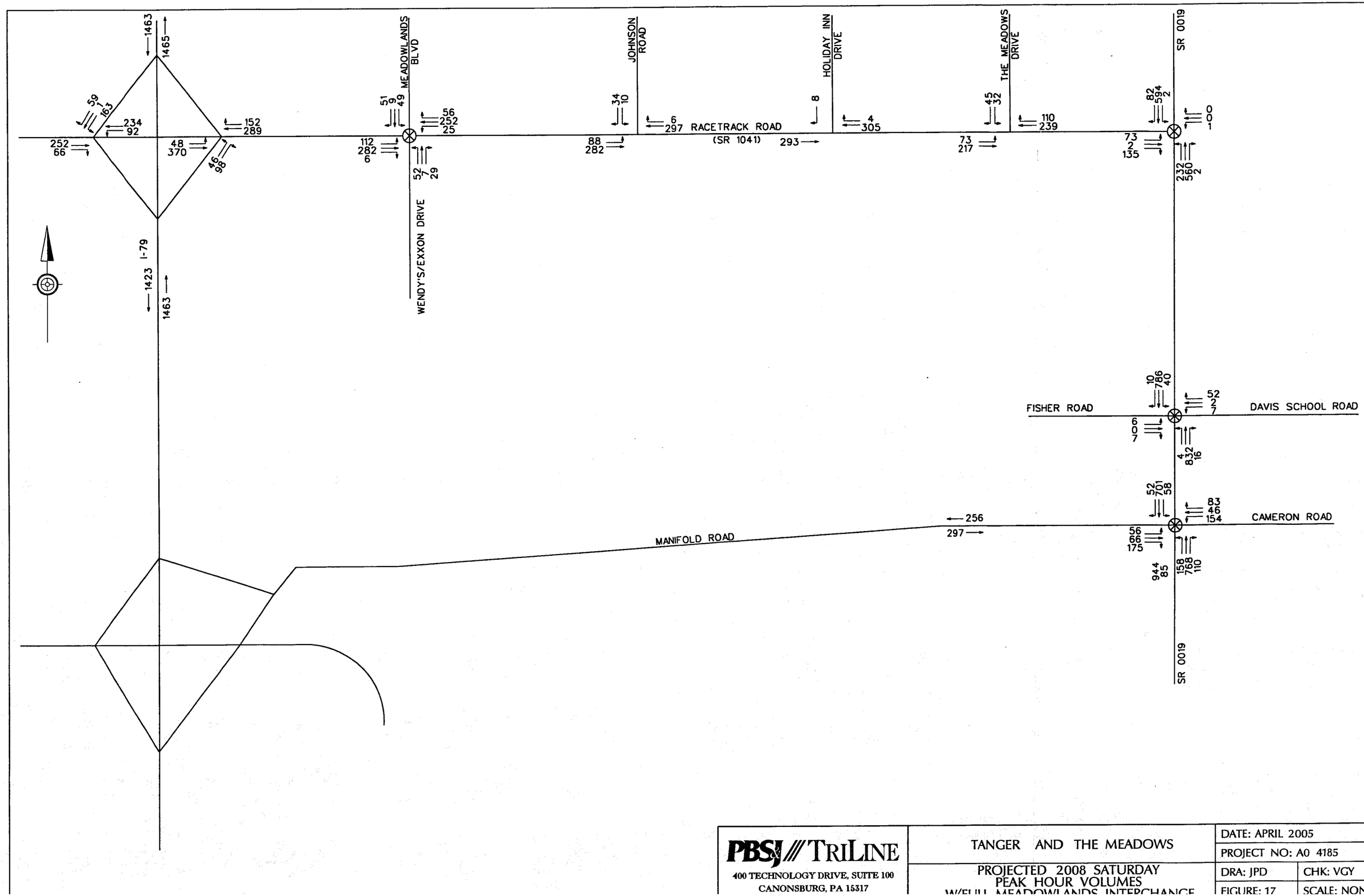
TANGER AND THE MEADOWS

PERCENT PEAK HOUR CHANGE
FOR FULL MEADOWLANDS INTERCHANGE

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JWW | CHK: VGY
FIGURE: 15 | SCALE: NONE



PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2008 WEEKDAY PM PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE	DRA: JPD / CHK: VGY
		FIGURE: 16 / SCALE: NONE



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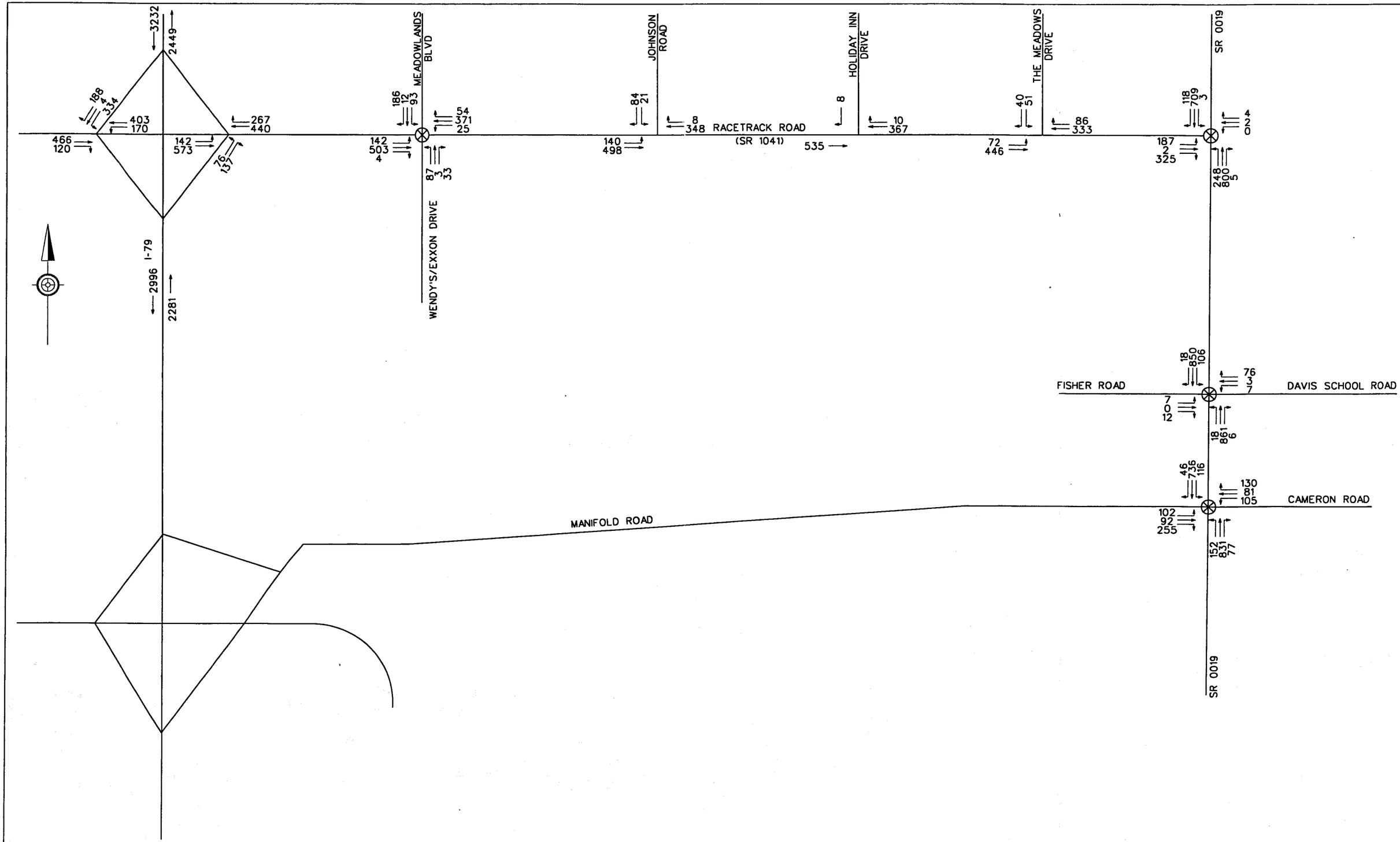
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

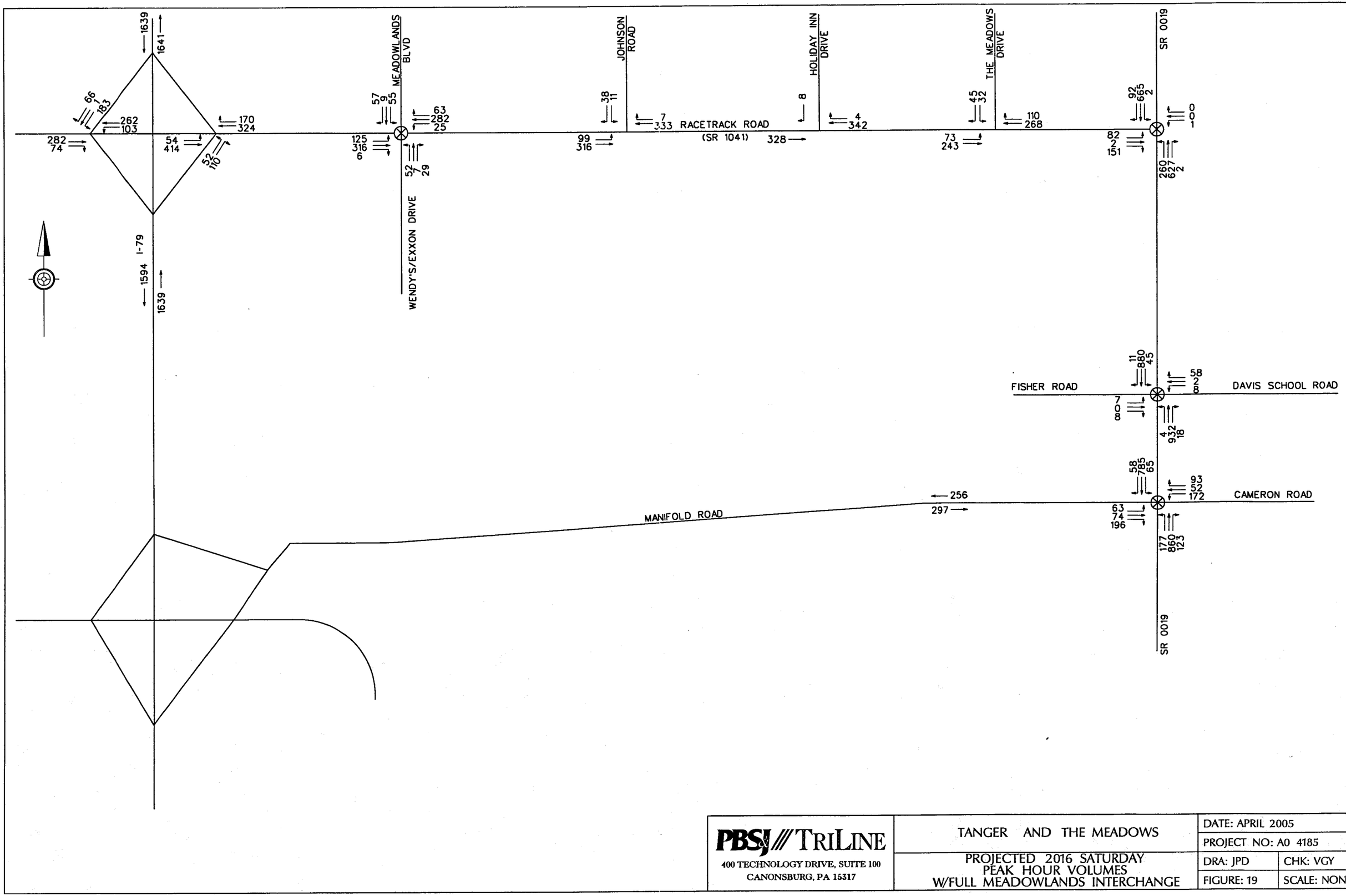
TANGER AND THE MEADOWS

PROJECTED 2008 SATURDAY
PEAK HOUR VOLUMES
W/FULL MEADOWLANDS INTERCHANGE

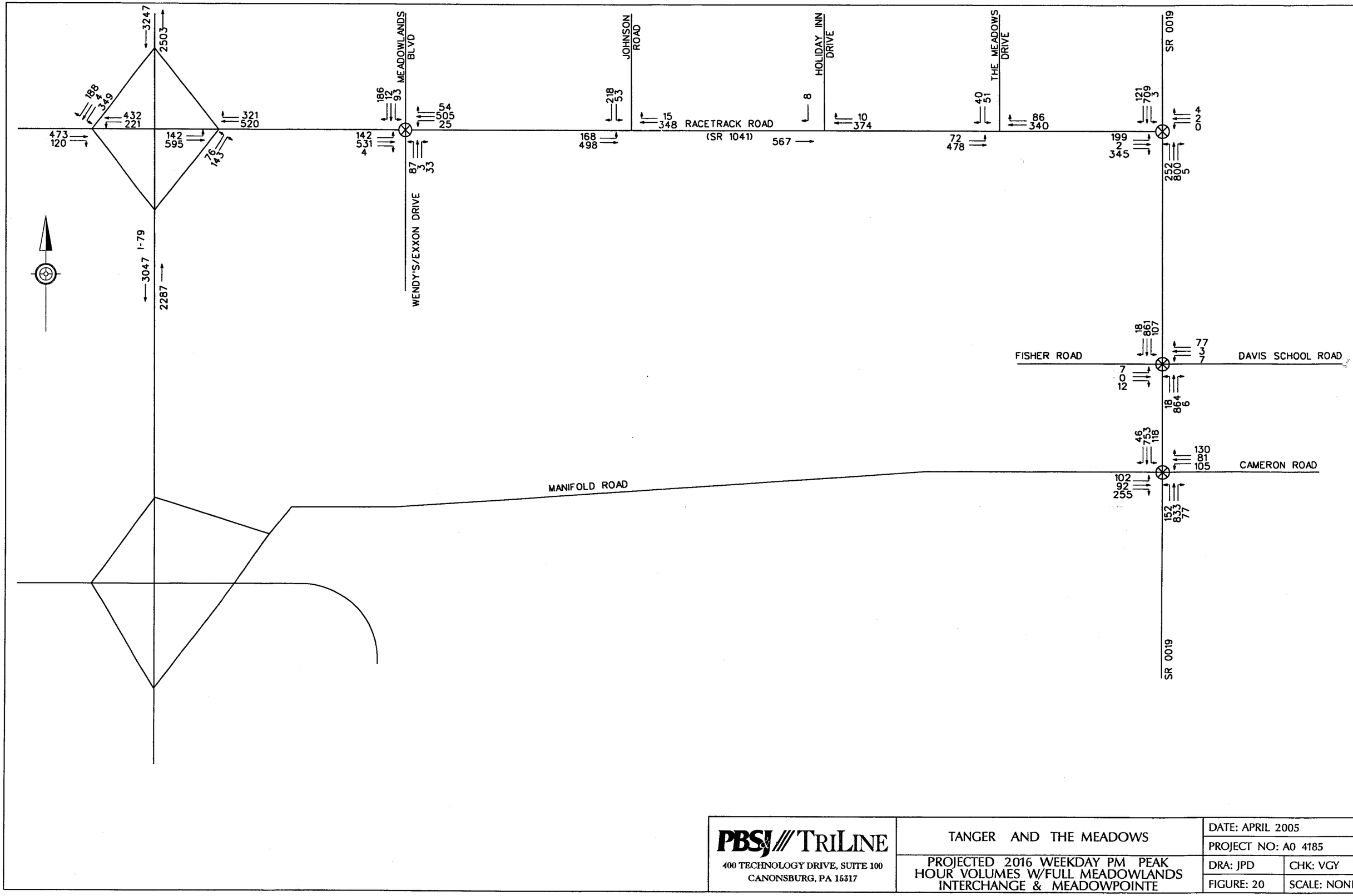
DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 17 | SCALE: NONE



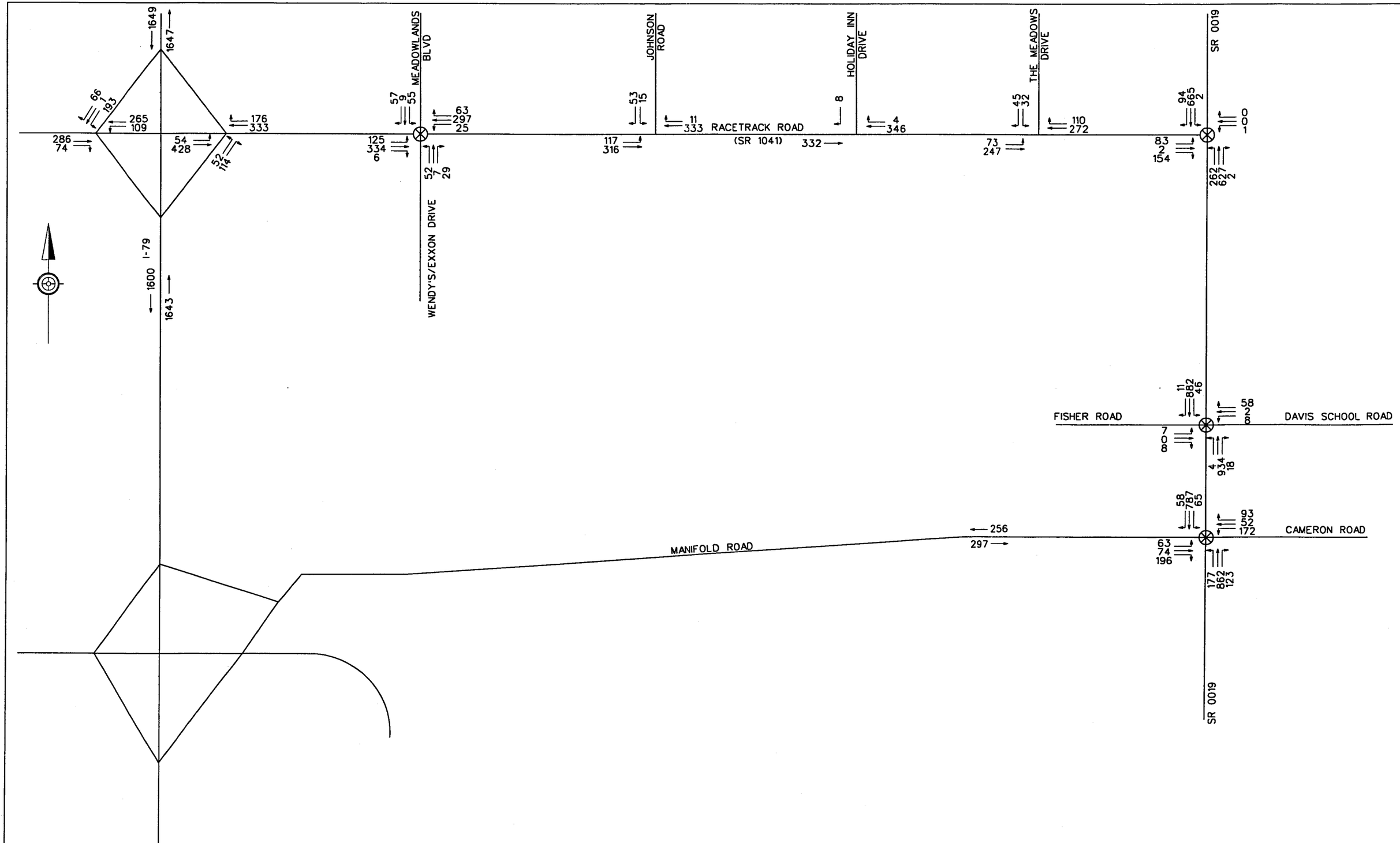
PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2016 WEEKDAY PM PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE	DRA: JPD / CHK: VGY
		FIGURE: 18 / SCALE: NONE



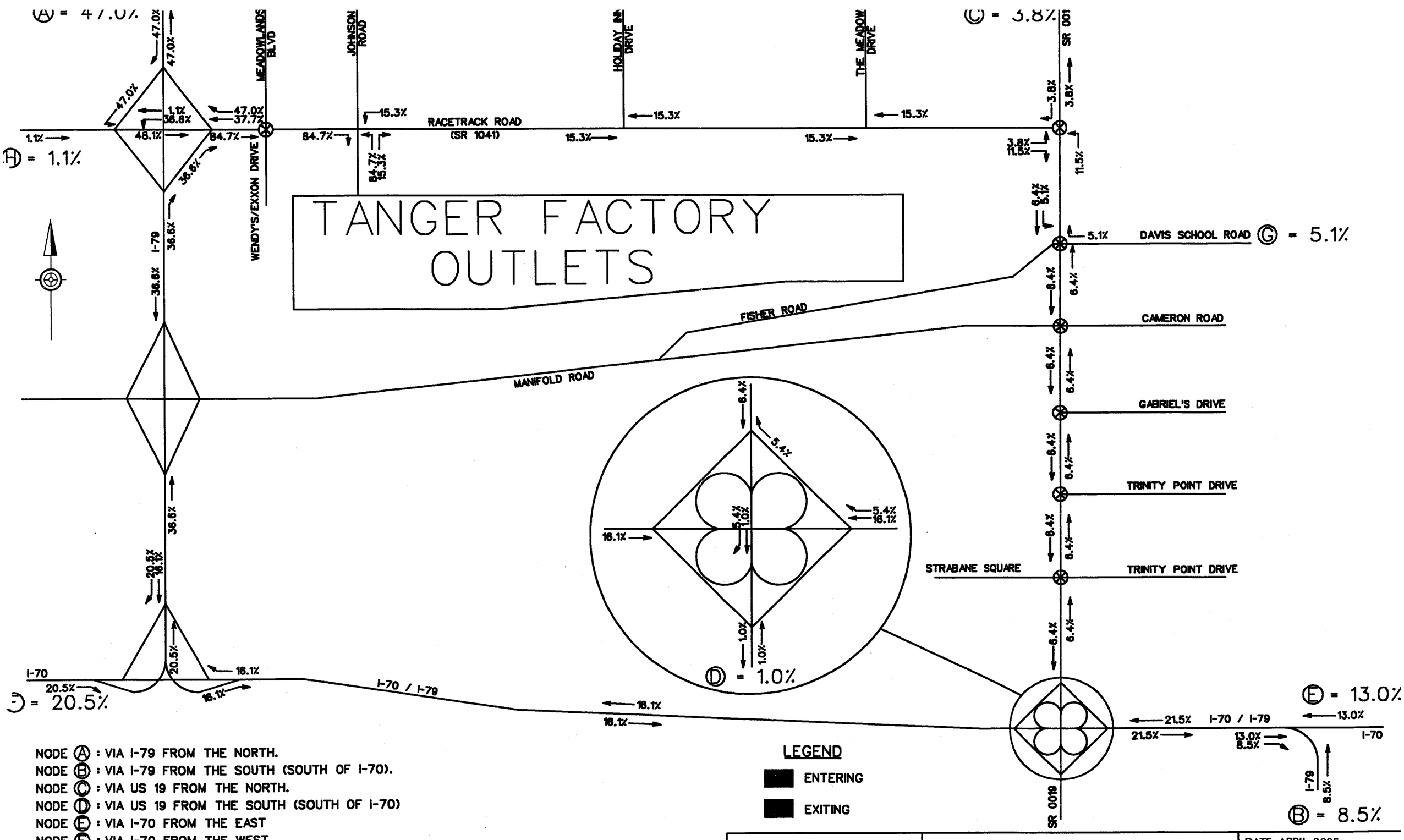
PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2016 SATURDAY PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE	DRA: JPD / CHK: VGY
		FIGURE: 19 / SCALE: NONE



PBS&J /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2016 WEEKDAY PM PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE & MEADOWPOINTE	DRA: JPD / CHK: VGY
		FIGURE: 20 / SCALE: NONE



PBS&J / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2016 SATURDAY PEAK HOUR VOLUMES WITH FULL MEADOWLANDS INTERCHANGE & MEADOWPOINTE	DRA: JPD / CHK: VGY
		FIGURE: 21 / SCALE: NONE



NODE Ⓐ : VIA I-79 FROM THE NORTH.
NODE Ⓑ : VIA I-79 FROM THE SOUTH (SOUTH OF I-70).
NODE Ⓒ : VIA US 19 FROM THE NORTH.
NODE Ⓓ : VIA US 19 FROM THE SOUTH (SOUTH OF I-70)
NODE Ⓔ : VIA I-70 FROM THE EAST
NODE Ⓕ : VIA I-70 FROM THE WEST
NODE Ⓖ : VIA A LOCAL ROAD ONTO US 19 FROM THE EAST (I.E. DAVIS SCHOOL ROAD)
NODE Ⓗ : VIA A LOCAL ROAD FROM THE WEST (I.E. ALLISON HOLLOW ROAD OR PIKE STREET)

LEGEND

ENTERING

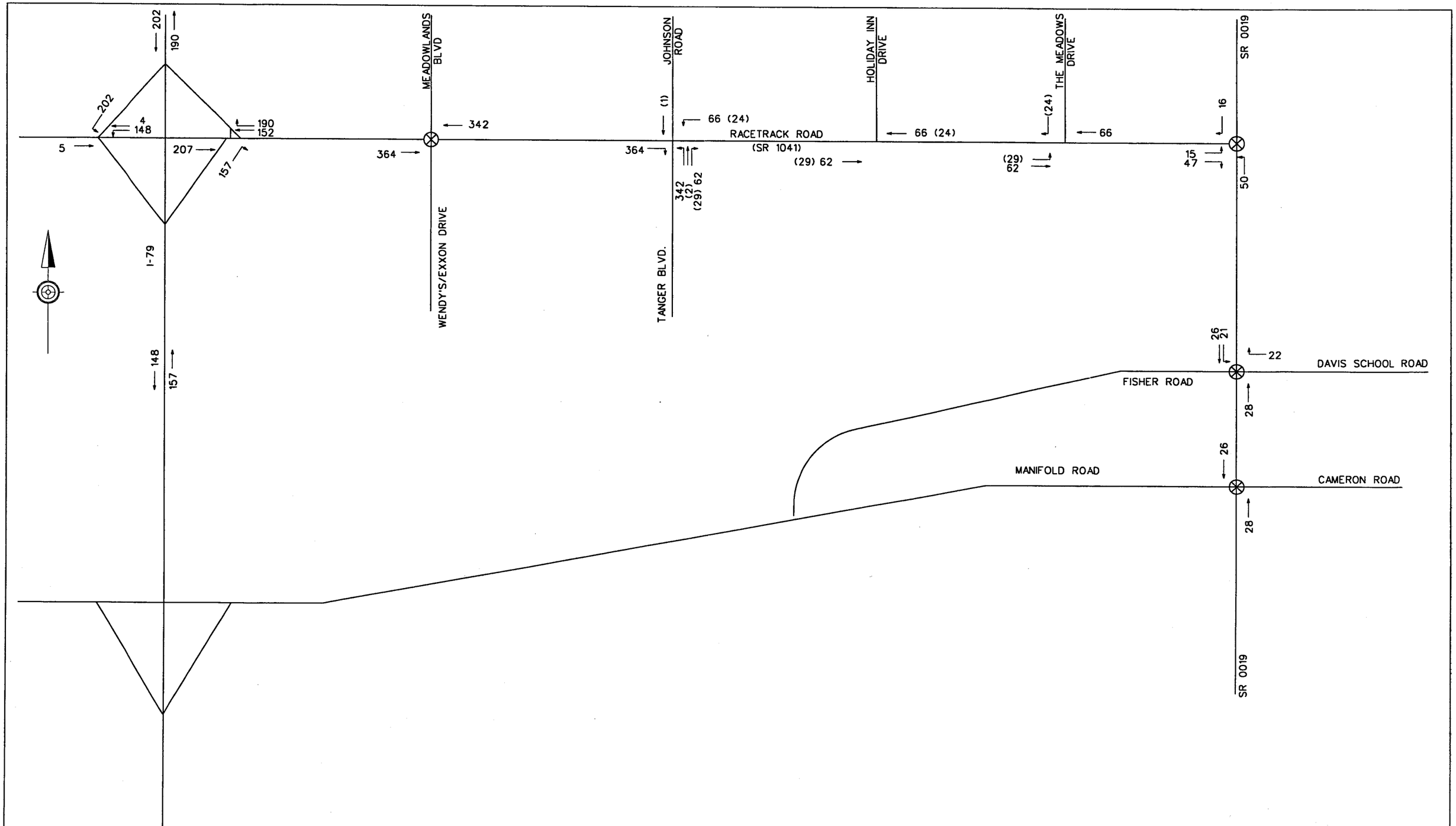
EXITING

PBSJ /// TRILINE
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS GRAVITATIONAL MODEL

PERCENT TRAFFIC ENTERING/EXITING PROPOSED SITE – TANGER

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 22 | SCALE: NONE



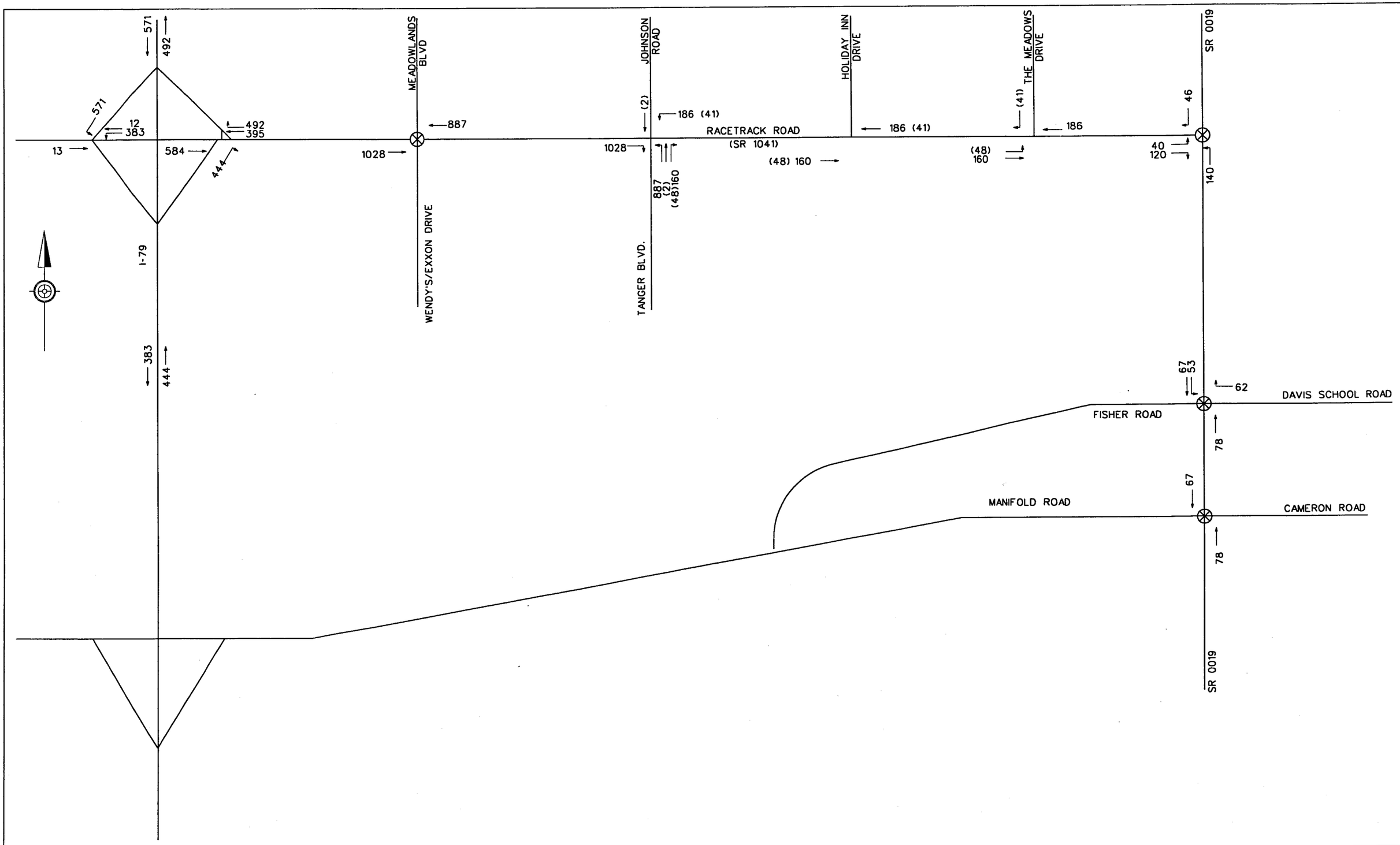
( ) – DENOTES TRIPS SHARED WITH THE MEADOWS

PBS&J /// TRILINE
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

WEEKDAY PM PEAK HOUR
PRIMARY TRIPS
TANGER (WITH THE MEADOWS)

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 23 | SCALE: NONE



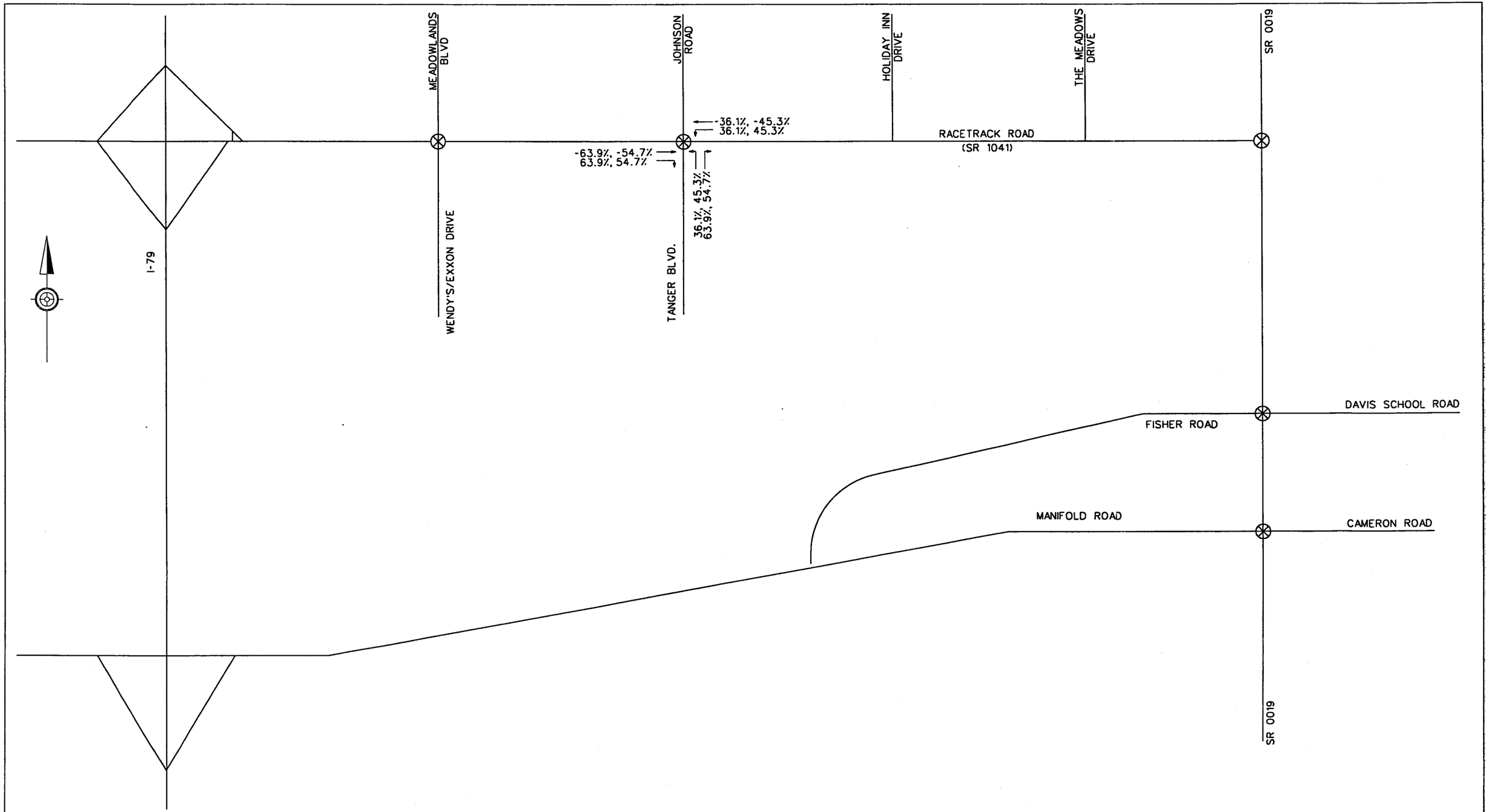
( ) – DENOTES TRIPS SHARED WITH THE MEADOWS

PBS&J / TRILINE
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

SATURDAY PEAK HOUR
PRIMARY TRIPS –
TANGER (WITH THE MEADOWS)

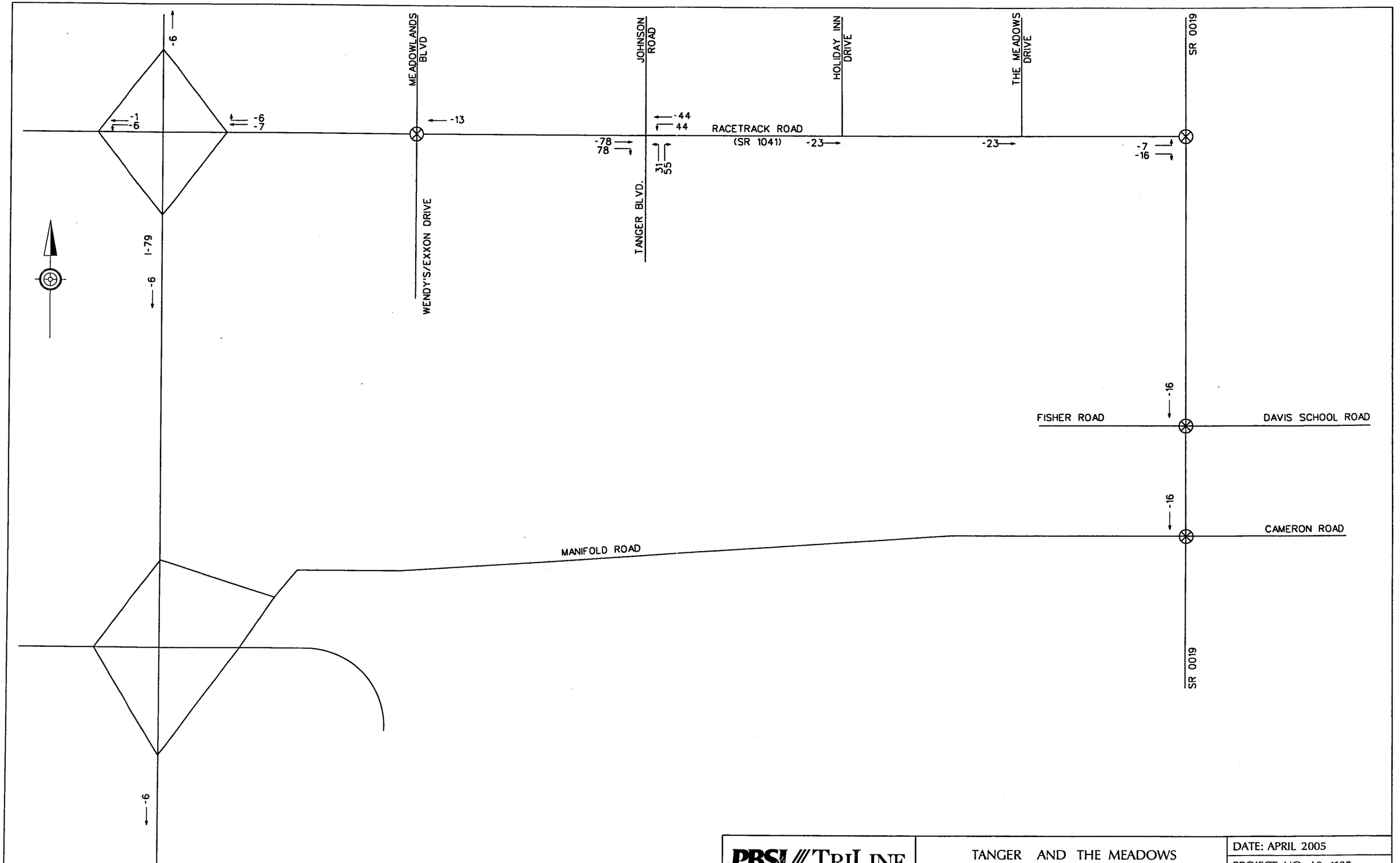
DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 24 | SCALE: NONE



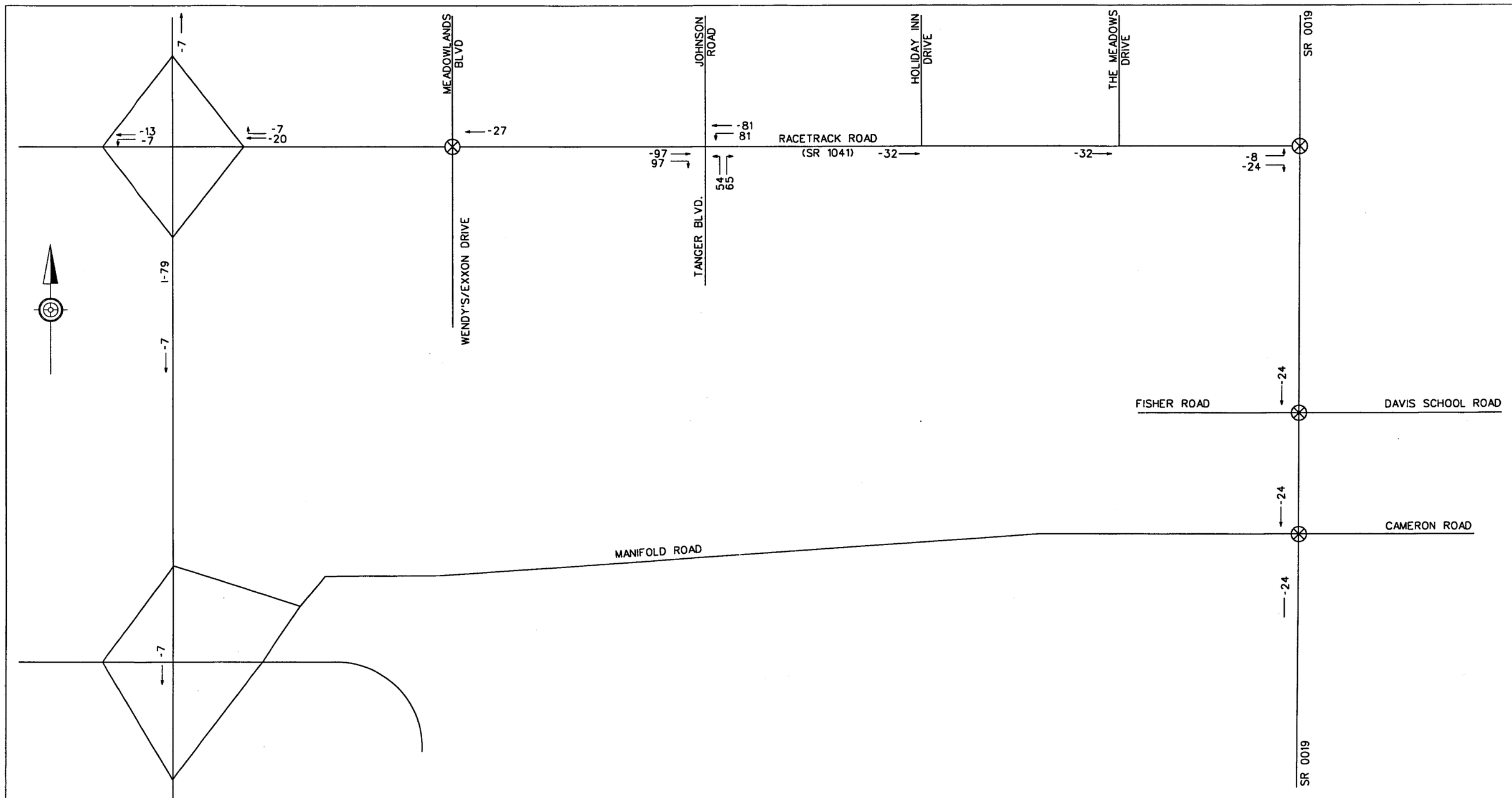
LEGEND

PM, SAT

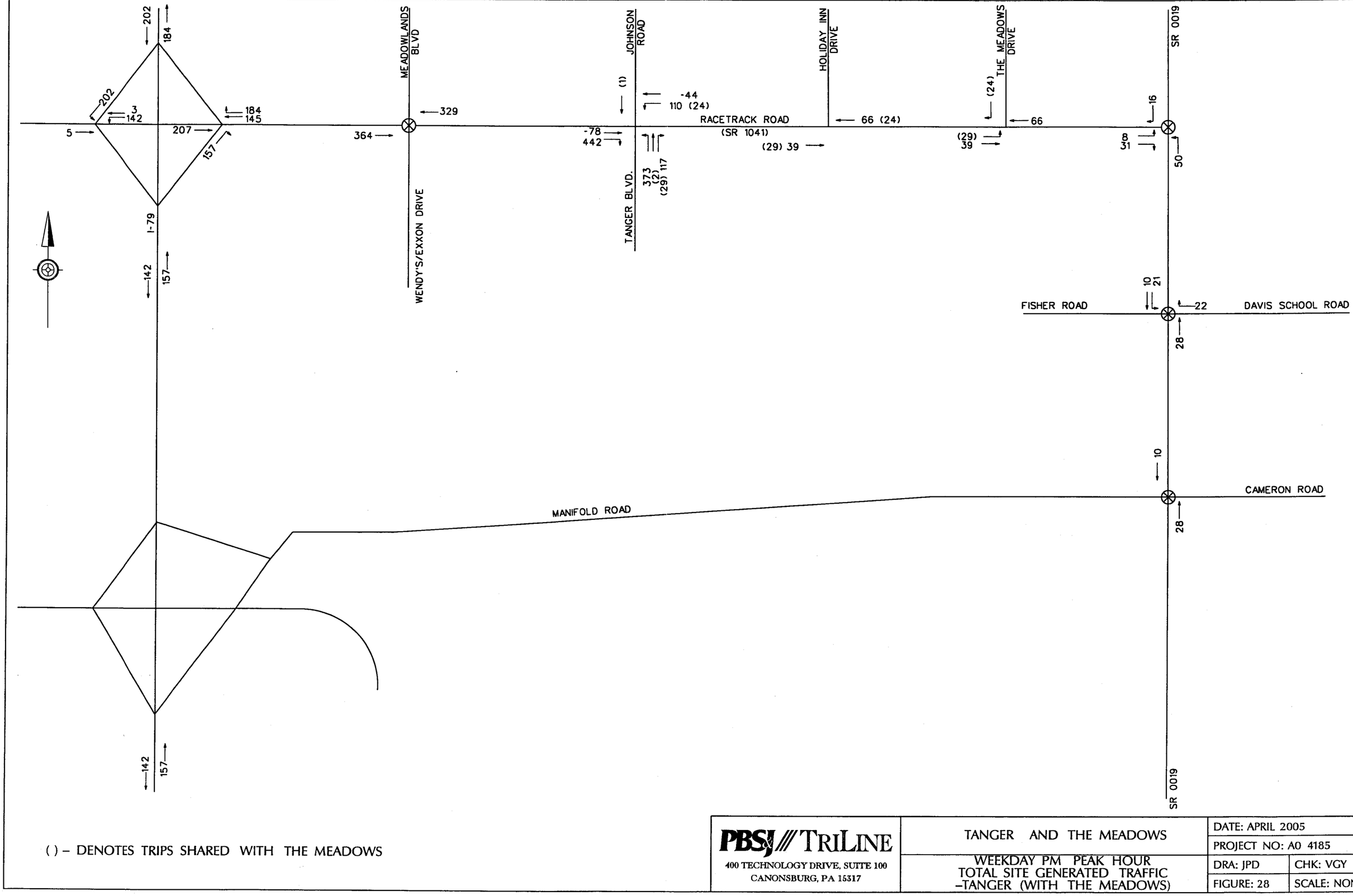
PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	WEEKDAY PM AND SATURDAY PEAK HOUR PASS-BY TRIP DISTRIBUTION PERCENTAGES – TANGER	DRA: JPD / CHK: VGY
		FIGURE: 25 / SCALE: NONE



PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS WEEKDAY PM PEAK HOUR PASS–BY TRIPS –TANGER (WITH THE MEADOWS)	DATE: APRIL 2005 PROJECT NO: A0 4185 DRA: JPD / CHK: VGY FIGURE: 26 / SCALE: NONE

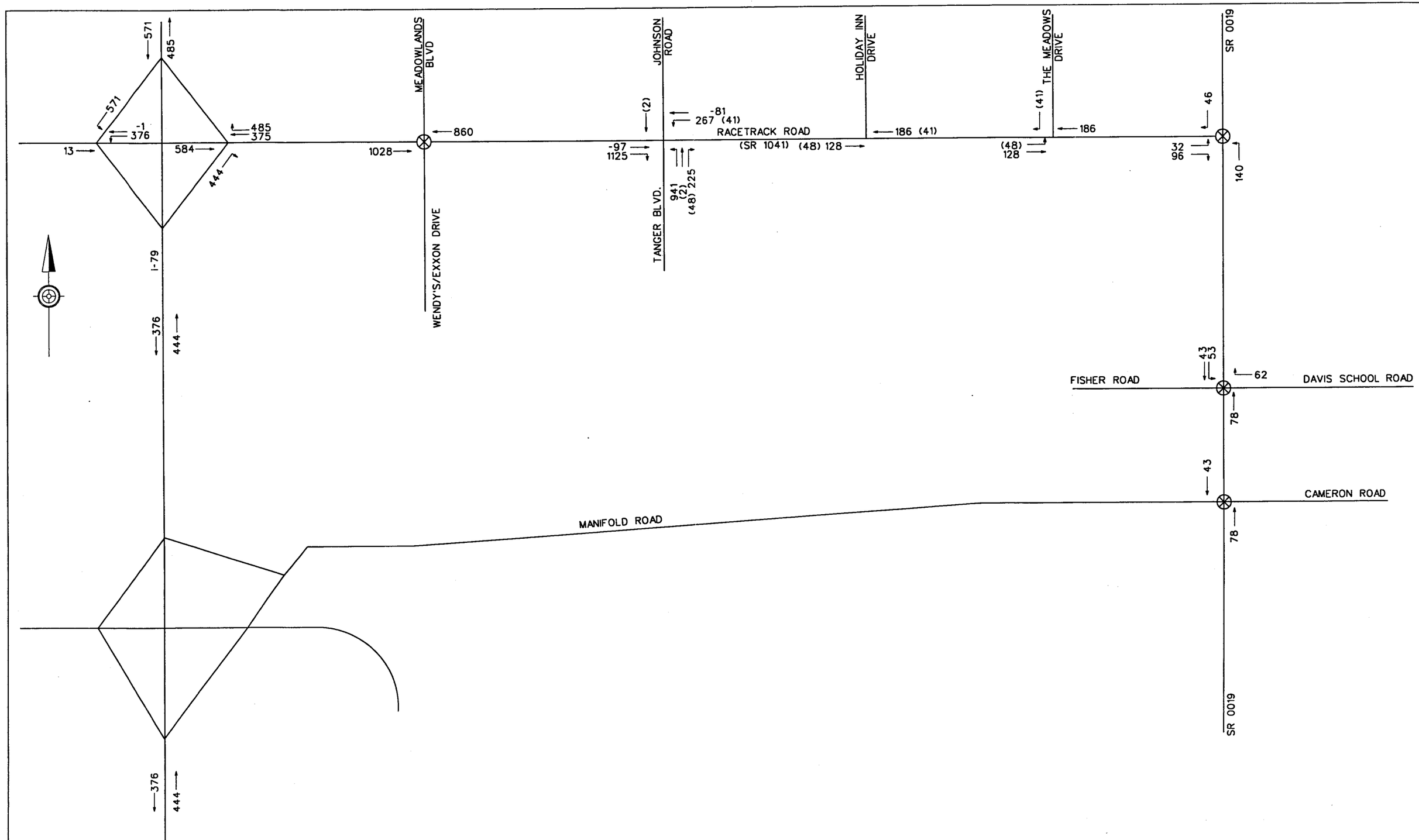


PBSJ / TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS SATURDAY PEAK HOUR PASS-BY TRIPS – TANGER (WITH THE MEADOWS)	DATE: APRIL 2005 PROJECT NO: A0 4185 DRA: JPD / CHK: VGY FIGURE: 27 / SCALE: NONE



( ) – DENOTES TRIPS SHARED WITH THE MEADOWS

PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	WEEKDAY PM PEAK HOUR TOTAL SITE GENERATED TRAFFIC –TANGER (WITH THE MEADOWS)	DRA: JPD / CHK: VGY
		FIGURE: 28 / SCALE: NONE



( ) – DENOTES TRIPS SHARED WITH THE MEADOWS

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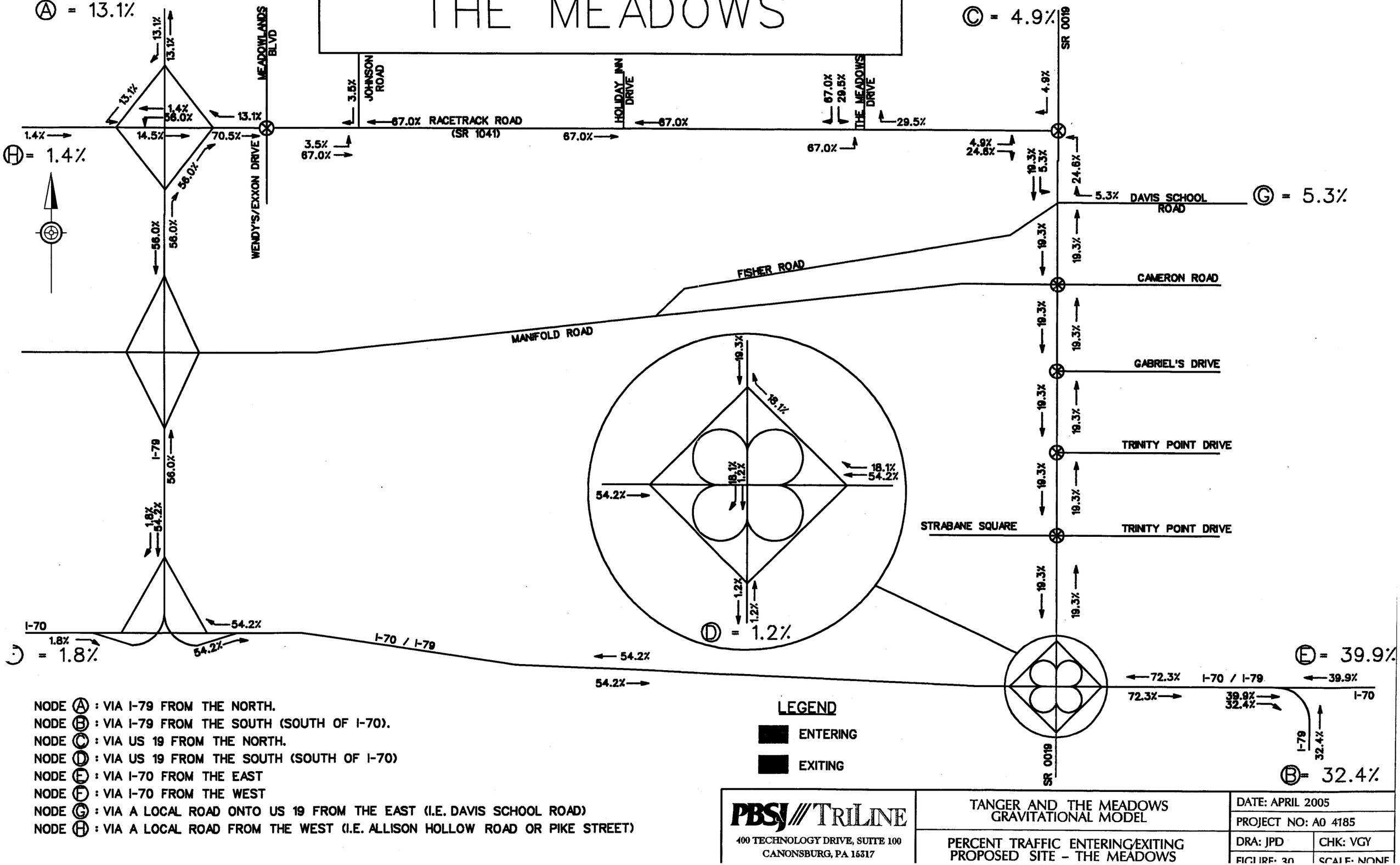
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

TANGER AND THE MEADOWS
SATURDAY PEAK HOUR
TOTAL SITE GENERATED TRAFFIC
–TANGER (WITH THE MEADOWS)

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 29 | SCALE: NONE

THE MEADOWS



NODE Ⓐ : VIA I-79 FROM THE NORTH.
NODE Ⓑ : VIA I-79 FROM THE SOUTH (SOUTH OF I-70).
NODE Ⓒ : VIA US 19 FROM THE NORTH.
NODE Ⓓ : VIA US 19 FROM THE SOUTH (SOUTH OF I-70)
NODE Ⓔ : VIA I-70 FROM THE EAST
NODE Ⓕ : VIA I-70 FROM THE WEST
NODE Ⓖ : VIA A LOCAL ROAD ONTO US 19 FROM THE EAST (I.E. DAVIS SCHOOL ROAD)
NODE Ⓗ : VIA A LOCAL ROAD FROM THE WEST (I.E. ALLISON HOLLOW ROAD OR PIKE STREET)

LEGEND

ENTERING

EXITING

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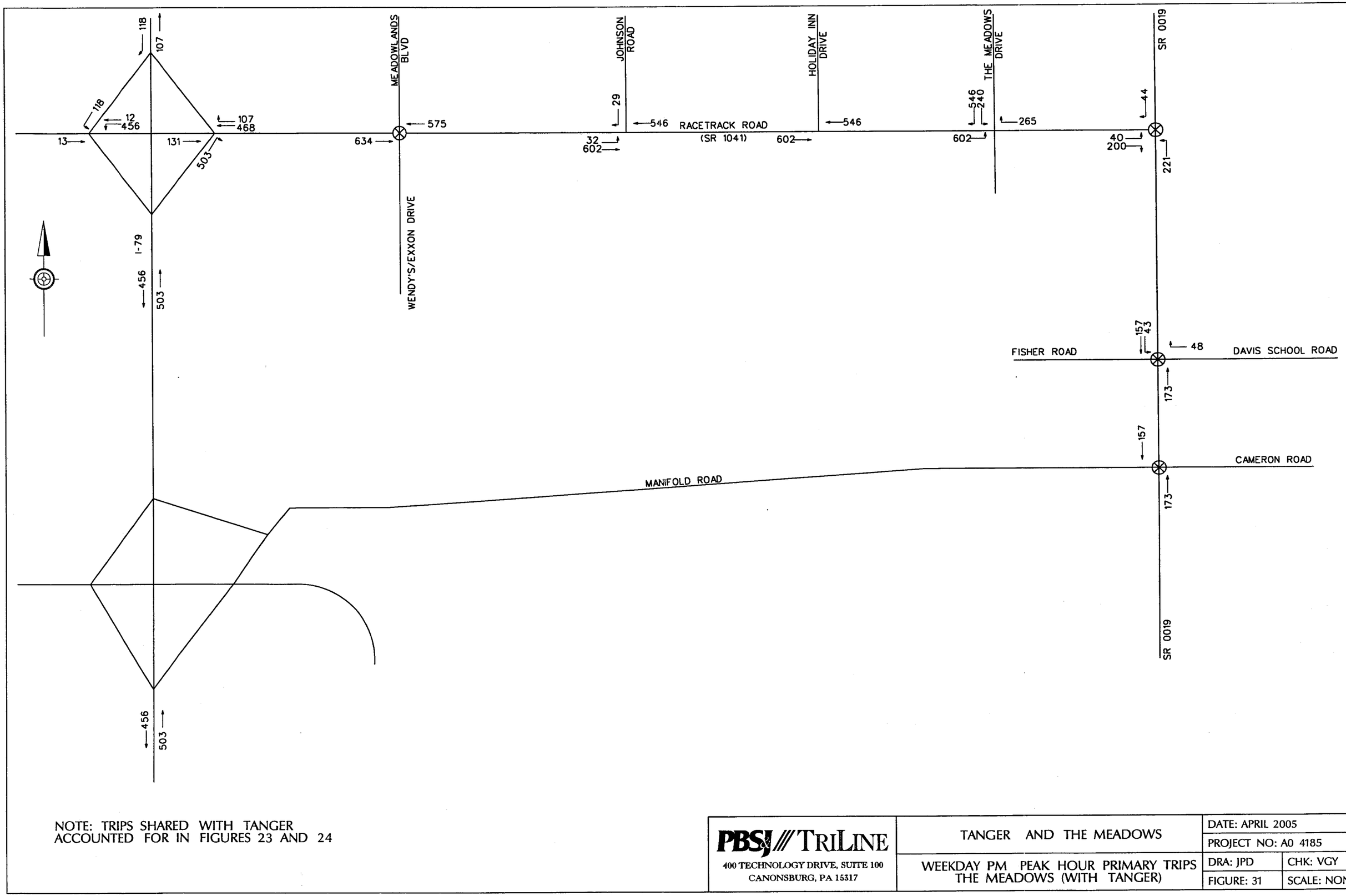
TANGER AND THE MEADOWS
GRAVITATIONAL MODEL

PERCENT TRAFFIC ENTERING/EXITING
PROPOSED SITE - THE MEADOWS

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 30 | SCALE: NONE



NOTE: TRIPS SHARED WITH TANGER ACCOUNTED FOR IN FIGURES 23 AND 24

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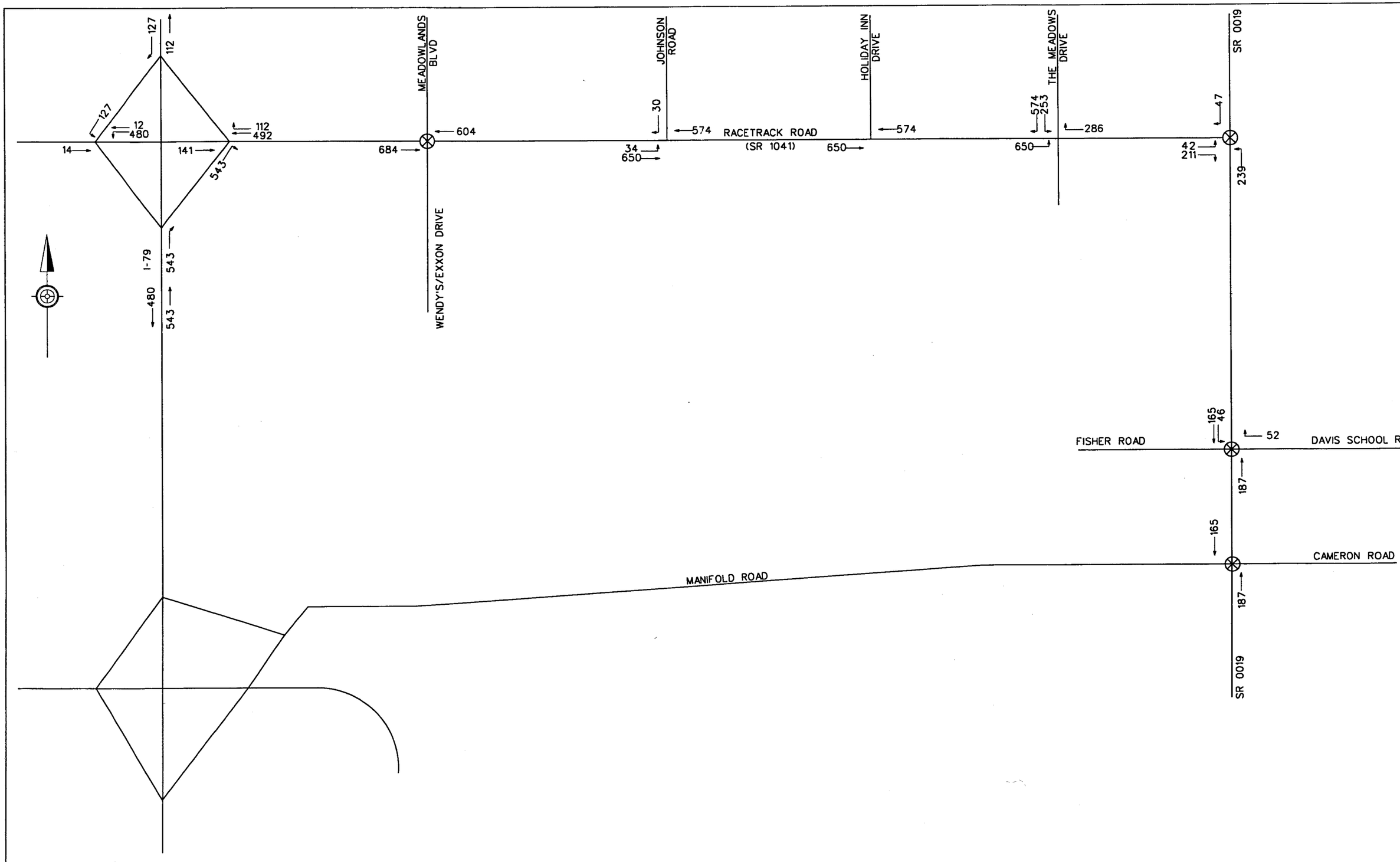
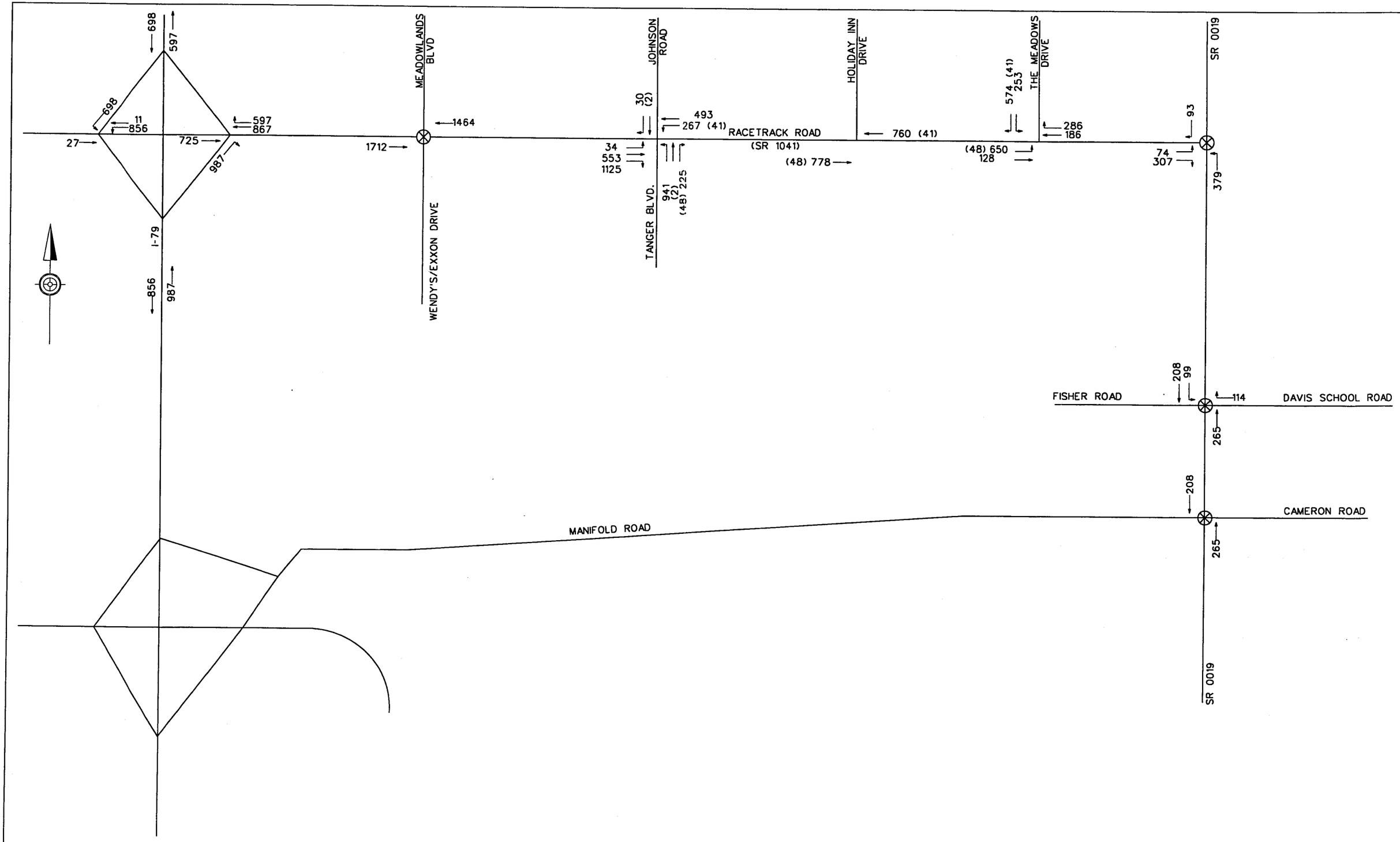
TANGER AND THE MEADOWS	DATE: APRIL 2005
	PROJECT NO: A0 4185
WEEKDAY PM PEAK HOUR PRIMARY TRIPS THE MEADOWS (WITH TANGER)	DRA: JPD / CHK: VGY
	FIGURE: 31 / SCALE: NONE



NOTE: TRIPS SHARED WITH TANGER ACCOUNTED FOR IN FIGURES 23 AND 24

PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	SATURDAY PEAK HOUR PRIMARY TRIPS THE MEADOWS (WITH TANGER)	DRA: JPD / CHK: VGY
		FIGURE: 32 / SCALE: NONE



( ) – DENOTES TRIPS SHARED BETWEEN THE MEADOWS AND TANGER

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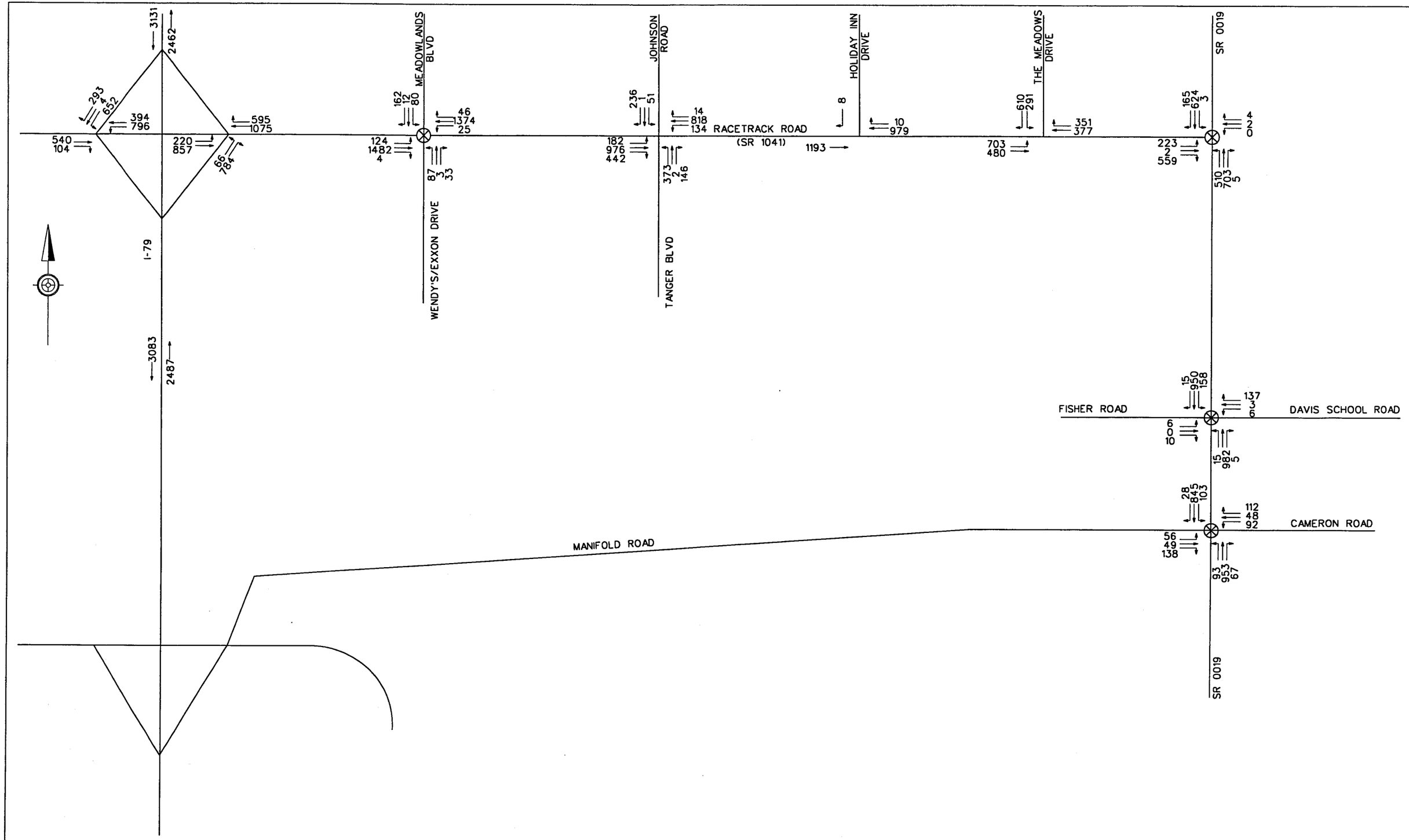
TANGER AND THE MEADOWS

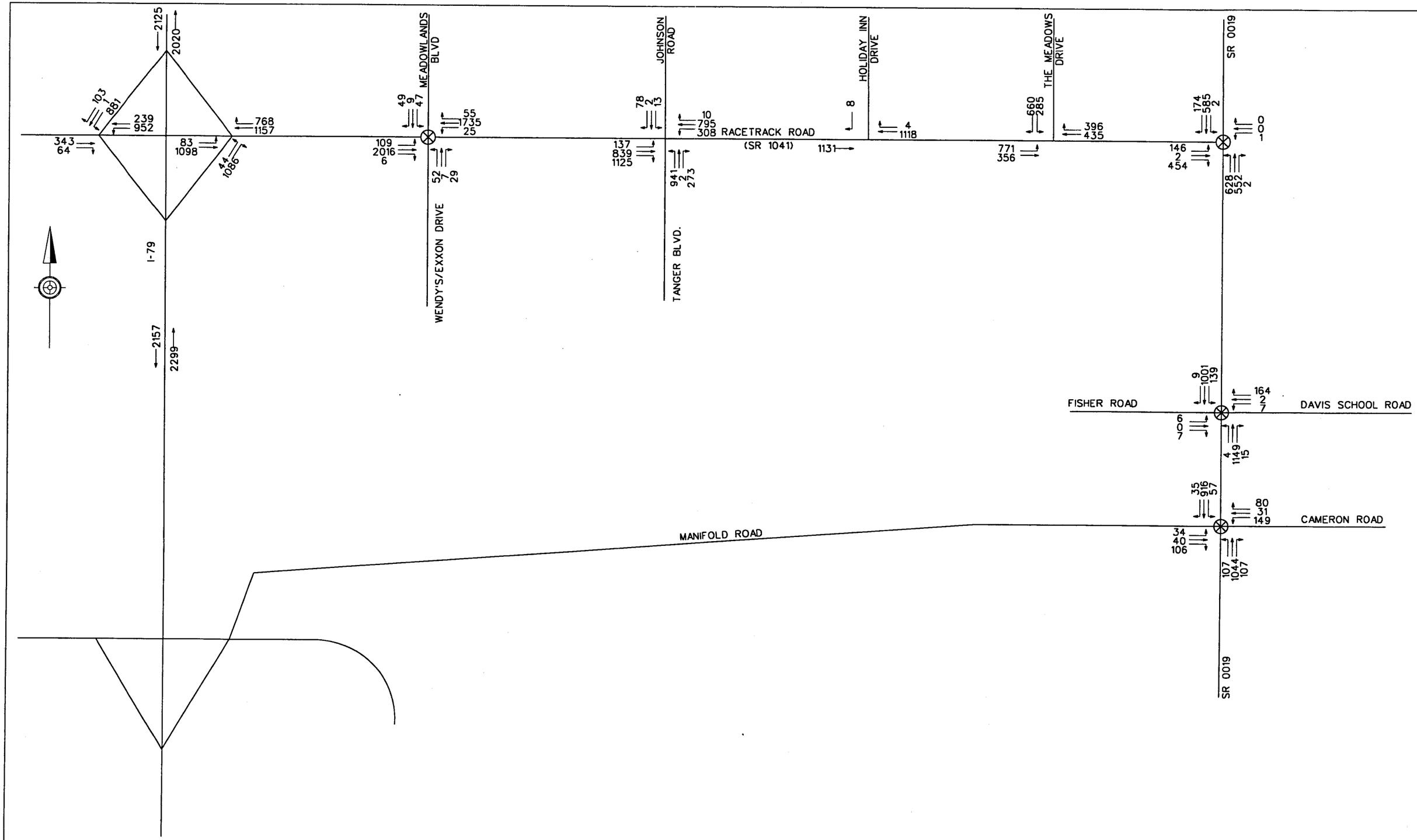
SATURDAY PEAK HOUR
TOTAL SITE GENERATED TRAFFIC
TANGER AND THE MEADOWS

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 34 | SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC

PBSJ /// TRILINE 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	TANGER AND THE MEADOWS	DATE: APRIL 2005
		PROJECT NO: A0 4185
	PROJECTED 2006 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES WITH TANGER AND THE MEADOWS	DRA: JPD / CHK: VGY
		FIGURE: 35 / SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC

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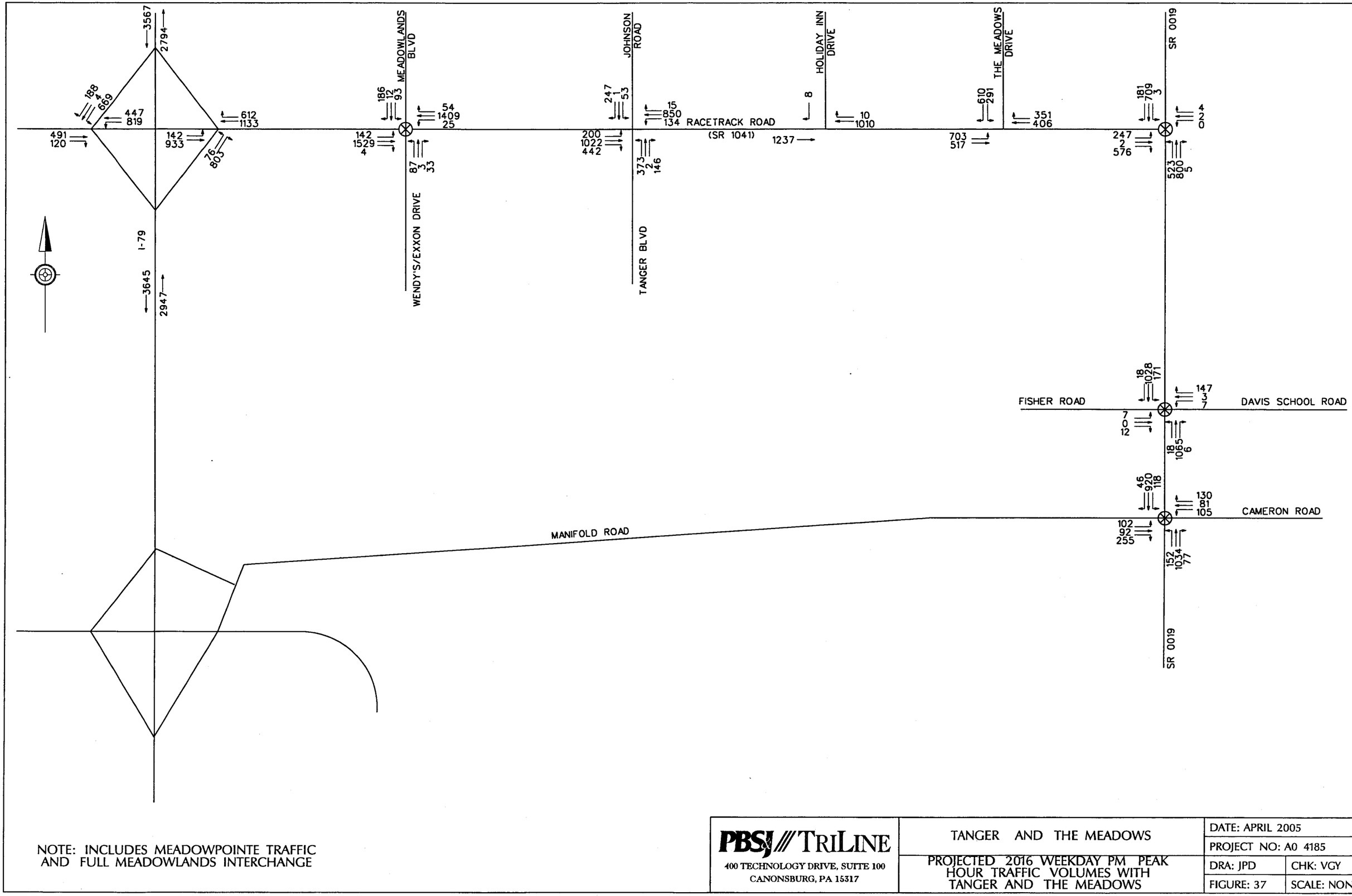
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

PROJECTED 2006 SATURDAY PEAK HOUR TRAFFIC VOLUMES WITH TANGER AND THE MEADOWS

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 36 | SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC AND FULL MEADOWLANDS INTERCHANGE

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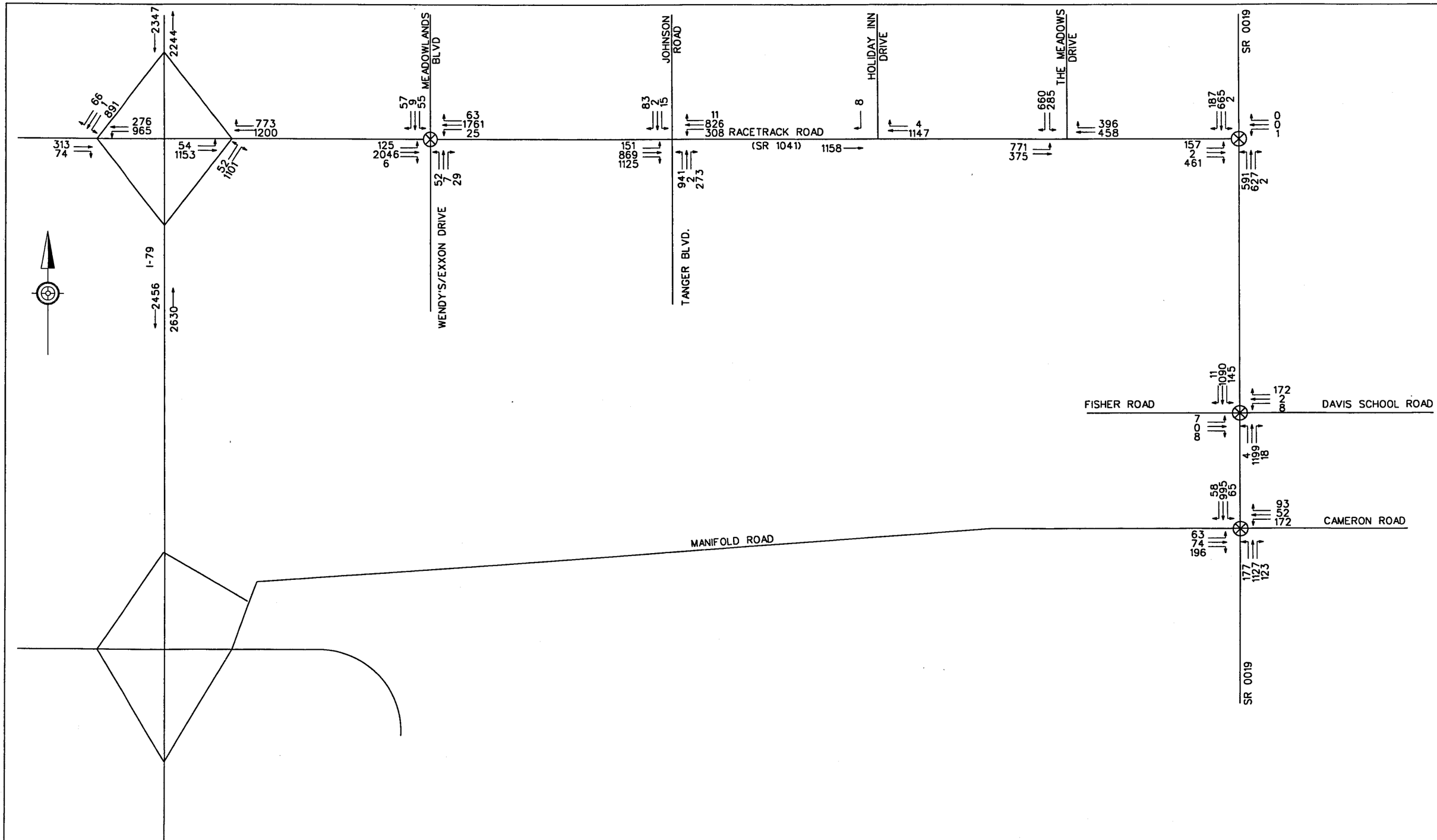
CANONSBURG, PA 15317

TANGER AND THE MEADOWS

PROJECTED 2016 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES WITH TANGER AND THE MEADOWS

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 37 | SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC AND FULL MEADOWLANDS INTERCHANGE

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TANGER AND THE MEADOWS

PROJECTED 2016 SATURDAY PEAK HOUR TRAFFIC VOLUMES WITH TANGER AND THE MEADOWS

DATE: APRIL 2005
PROJECT NO: A0 4185
DRA: JPD | CHK: VGY
FIGURE: 38 | SCALE: NONE

BL

TRAFFIC IMPACT STUDY
for
THE MEADOWS EXPANSION
in
NORTH STRABANE TOWNSHIP
WASHINGTON COUNTY, PENNSYLVANIA

Prepared for:

MEC Pennsylvania Racing, Inc.
Racetrack Road, P. O. Box 499
Meadowlands, PA 15347
Phone: 724-225-9300

Prepared by:

PBS&J
400 Technology Drive, Suite 100
Canonsburg, PA 15317
Phone: 724-514-9000

DECEMBER 2005

Raymond F. Caruso, P.E.

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I. INTRODUCTION AND SUMMARY

Purpose of Report and Project Objectives

MEC Pennsylvania Racing, Inc. is planning to apply for a license that will allow for the existing Meadows Harness Racing Facility in North Strabane Township, Washington County, Pennsylvania to accommodate slot machines. The purpose of this report is to:

1. Identify traffic impacts the proposed expansion will have on the adjacent roadway system.
2. Determine mitigation measures necessary to address deficiencies identified.

Executive Summary

The following is a brief description of the study area, the results of the traffic analysis, and the mitigation measures necessary to address impacts:

SITE LOCATION

The site is located in North Strabane Township, Washington County, Pennsylvania, as shown in Figure 1. The site lies on the northern side of Racetrack Road (SR 1041), generally between Interstate 79 and Washington Road (SR 0019). The expansion is planned to occur on property owned by MEC Pennsylvania Racing, Inc. and will include facilities to accommodate 3,000 slot machines.

STUDY AREA

The study area has been established in accordance with requirements of the Pennsylvania Department of Transportation (PENNDOT) and includes key intersections along both Washington and Racetrack Roads.

PLANNED DEVELOPMENT

The planned expansion will include upgrades to the existing racetrack and construction of a new building to accommodate 3,000 slot machines. The initial construction will include 1,500 slot machines, and will be considered Phase I of the project. The remaining 1,500 slot machines will be installed as part of Phase II. The site plan is shown on Figure 2. Access to the development is proposed from Racetrack Road via existing Meadows Drive.

PRINCIPAL FINDINGS AND RECOMMENDATIONS

Results of the analysis indicate certain mitigation measures will be required in order to maintain acceptable levels of service under the "Build Conditions" for Phase I, and for Phase II. The required mitigation measures are identified on Figure 3.

II. PLANNED DEVELOPMENT

MEC is considering the possibility of constructing The Meadows expansion in two Phases. Phase I would consist of upgrades to the existing racetrack, including relocating the dining areas, along with a new facility to accommodate 1,500 slot machines. Phase II of the expansion would consist of installing an additional 1,500 slot machines, for a total of 3,000 slot machines. For purposes of this report, the analysis has been performed for installing 1,500 slot machines initially, as well as for 3,000 slot machines.

III. AREA CONDITIONS

Study Area

The study area has been established in accordance with the requirements of the Pennsylvania Department of Transportation (PENNDOT) and includes key intersections along Washington Road and Racetrack Road. The study area is shown on Figure 1, and includes the following intersections:

- Racetrack Road (SR 1041) and I-79 Interchange
- Racetrack Road (SR 1041) and Meadowlands Blvd.
- Racetrack Road (SR 1041) and Johnson Road (SR 1039)
- Racetrack Road (SR 1041) and Holiday Inn Drive
- Racetrack Road (SR 1041) and The Meadows Drive
- Racetrack Road (SR 1041) and Washington Road (SR 0019)
- Washington Road (SR 0019) and Davis School Road (SR 1049)/Fisher Road
- Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1047)

These intersections were evaluated for the weekday PM and Saturday peak hours for the 2004, projected 2006 (anticipated opening year), and projected 2016 (10 year horizon) conditions with and without the planned development. The projected 2006 conditions(anticipated opening year) was analyzed for both the Phase I (1,500 slot machines) and Phase II (3,000 slot machines), while the projected 2016 (10 year horizon) was analyzed for the Phase II conditions, only.

Site Accessibility

Access to the planned development is proposed from the existing full-access driveway on Racetrack Road (SR 1041), serving the existing Meadows racetrack, referred to as Meadows Drive.

EXISTING ROADWAY SYSTEM

The primary roads in the study area are Interstate 79, Interstate 70, Washington Road (SR 0019), and Racetrack Road (SR 1041).

Interstate 79 is a four-lane limited access expressway, extending in a north-south direction. The posted speed limit is 55 mph in the study area. I-79 interchanges with Racetrack Road and is approximately 4,200 ft. west of Meadows Drive.

Interstate 70 is a four-lane limited access expressway, extending in an east-west direction. The posted speed limit is 55 mph in the study area. I-70 interchanges with Washington Road (SR 0019) and is approximately 13,000 ft. south of Racetrack Road.

Washington Road (SR 0019) is a four-lane rural principal arterial, extending in a north-south direction. The posted speed limit varies from 40 to 45 mph in the study area. Washington Road intersects with Racetrack Road approximately 2,400 ft. east of Meadows Drive.

Racetrack Road (SR 1041) is a four-lane urban principal arterial extending in an east-west direction. The posted speed limit is 45 mph in the study area. Racetrack Road intersects with I-79 4,200 ft. west of Meadows Drive, and with Washington Road (SR 0019) 2,400 ft. east of Meadows Drive.

Traffic Volumes and Conditions

BACKGROUND TRAFFIC

The background traffic conditions in the study area have been based on turning movement counts conducted by PBS&J during the weekday PM peak period (4 to 6 PM) and the Saturday peak period (11 AM to 1 PM) in January and February 2004.

The counts were conducted on Friday, January 23 and 30, 2004, and on Saturday, January 31 and February 7, 2004 at the following locations:

- Racetrack Road (SR 1041) and I-79 Interchange
- Racetrack Road (SR 1041) and Meadowlands Blvd.
- Racetrack Road (SR 1041) and Johnson Road (SR 1039)
- Racetrack Road (SR 1041) and Holiday Inn Drive
- Racetrack Road (SR 1041) and The Meadows Drive
- Racetrack Road (SR 1041) and Washington Road (SR 0019)
- Washington Road (SR 0019) and Davis School Road (SR 1049)/Fisher Road
- Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1047)

The resultant 2004 weekday PM and Saturday peak hour background traffic volumes are shown on Figures 5 and 6, respectively.

Copies of the turning movement counts are included in the Appendix.

IV. PROJECTED TRAFFIC

Background Traffic Without the Proposed Development

The proposed development is anticipated to be constructed by 2006, which has been considered as the "opening year" for analysis purposes. The "opening year" has been evaluated for 1,500 slot machines, as well as 3,000 slot machines. The "design year" (10 years from the opening year) has been analyzed for the 3,000 slot machines only."

The 2004 background traffic volumes were projected to 2006 by applying a 1.5% per year linear growth rate, as obtained from the Southwestern Pennsylvania Commission (SPC) and approved by PENNDOT. The projected 2006 traffic volumes are shown on Figures 7 and 8.

The projected 2006 background traffic volumes were further adjusted to include the traffic expected to be generated by a planned office development, known as Meadowpointe, located on Johnson Road and currently under construction. The Meadowpointe site generated traffic volumes are shown on Figures 9 and 10. The adjusted 2006 background traffic volumes, with the Meadowpointe development, are shown on Figures 11 and 12.

It should be noted that PENNDOT is currently planning to improve the I-79 Meadowlands Interchange to include a northbound on-ramp and a southbound off-ramp that will provide full access with Manifold Road. Based on information provided by PENNDOT District 12-0, construction is anticipated to be completed by 2008. In order to estimate traffic conditions in the study area upon completion of the interchange improvements, the 2004 background traffic volumes were projected to 2008 and adjusted to reflect the net changes in traffic flows as identified by SPC's database. The first step was to project the 2004 background traffic volumes traffic to 2008 by applying SPC's 1.5% per year linear growth rate. Results are shown on Figures 13 and 14. The next step was to adjust the projected 2008 background traffic to account for the additional I-79 access ramps. The adjustment was based on data provided by SPC that identified the percent change in traffic volumes between the 2008 "no-build" and 2008 "build" conditions. The SPC's 2008 traffic projections, with and without the Meadowlands Interchange improvements are included in the Appendix. This net percent change was applied to the projected 2008 background traffic volumes and then redistributed to the study intersections. The percentage changes are summarized on Figure 15. The redistributed 2008 traffic volumes are shown on Figures 16 and 17. The redistributed 2008 traffic volumes were then projected to 2016 by applying the 1.5% per year linear growth rate. The resultant 2016 traffic volumes are shown on Figures 18 and 19. The Meadowpointe site generated traffic was then added to the projected 2016 volumes with the full Meadowlands interchange. The resultant 2016 projected traffic volumes with Meadowpointe are shown on Figures 20 and 21.

The Meadows Traffic

TRIP GENERATION

Trips estimated to be generated by The Meadows expansion have been based on the Institute of Transportation Engineers (ITE) Journal "Trip Generation Characteristics of small to medium sized Casinos." Due to the type of development proposed (entertainment), site generated trips were estimated for the weekday PM and Saturday peak periods. The trip generation summary is shown on Table 1. As indicated all trips have been considered "Primary Trips" (home-based), and no consideration has been given to pass-by trips. Excerpts from the ITE Journal are included in the Appendix.

Table 1 - Trip Generation Summary - The Meadows Expansion													
Land Use (Sq. Ft.)	Land Use Code	Weekday PM Peak Hour						Saturday Peak Hour					
		Total		Pass-by		Primary		Total		Pass-by		Primary	
		Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit	Enter	Exit
Phase I-Casino (1,500 slots)	473	465[1]	420[1]	0	0	465[1]	420[1]	510[1]	450[1]	0	0	510[1]	450[1]
Phase II-Casino (3,000 slots)	473	930[1]	840[1]	0	0	930[1]	840[1]	1020[1]	900[1]	0	0	1020[1]	900[1]

[1] *Based on Average Rate Per Slot*

TRIP DISTRIBUTION

The percentage of entering and exiting site generated trips has been based on information contained in the ITE Journal for the proposed land use.

The distribution of primary trips (home-based) was based on Gravity model developed by PBS&J and subsequently approved by PENNDOT District 12-0 for use on this project. The model considers the relative location of the surrounding population centers within an approximate 120 minute travel time to the site, and the probable routes that could reasonably be used to access the site. It should be noted that some population centers within the 120 minute radius were excluded from consideration if a closer, (less travel time) slot facility was available (i.e., Mountaineer Gaming Resort, WV). Probable travel routes were based on PBS&J's familiarity with the study area, and trips were assigned to the appropriate entry and exit nodes. The gravity model calculations are attached. The resultant Trip Distribution percentages, and entry and exit nodes are shown on Figure 22. The Weekday PM and Saturday Total Peak Hour Volumes for Phase I (with 1,500 slots) are shown on Figures 23 and 24, respectively. The Weekday PM and Saturday Total Peak Hour Volumes for Phase II (with 3,000 slots) are shown on Figures 25 and 26.

Total Traffic

The 2006 Post development traffic for Phase I of The Meadows Expansion has been determined by combining the 2006 Background Traffic with Meadowpointe (Figures 11 and 12) with The Meadows Expansion Peak Hour Total Site Generated Traffic for 1,500 slots (Figures 23 and 24). The resultant Projected 2006 Peak Hour Volumes with Phase I (1,500 slots) of the development are shown on Figures 27 and 28.

The 2006 Post development traffic for Phase II of The Meadows Expansion has been determined by combining the 2006 background traffic with Meadowpointe (Figures 11 and 12) with The Meadows Expansion Peak Hour Total Site Generated Traffic for 3,000 slots (Figure 25 and 26). The resultant Projected 2006 Peak Hour Volumes with Phase II (3,000 slots) of the development are shown on Figures 29 and 30.

The 2016 Post development traffic for Phase II of The Meadows Expansion has been determined by combining the 2016 Background Traffic with Meadowpointe (Figures 20 and 21) with the Total Site Generated Traffic for 3,000 slots (Figures 25 and 26). The resultant 2016 Projected Peak Hour Volumes, with Phase II (3,000 slots) of the development are shown in Figures 31 and 32.

V. CAPACITY ANALYSES

Capacity analyses were performed for the weekday PM and Saturday peak hours using SYNCHRO, Version 6, computer software, HCM format. The study intersections were analyzed for the 2004 and the projected 2006 and 2016 conditions with and without the proposed development. The 2006 build conditions were analyzed for Phase I (1,500 slot machines) and for Phase II (3,000 slot machines). The results of these analyses are summarized in Table 2. Copies of the SYNCHRO, HCM analyses are included in the Appendix.

Table 2 - HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006								2016					
				Existing		No-Build*		No-Build		No-Build*		Meadows Build Phase I (1,500 slots)		Meadows Build Phase II (3,000 slots)		No-Build		No-Build*		Meadows Build Phase II (3,000 slots)	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Racetrack Road (EB, WB) & I-79 SB On/Off Ramps (SB)	SB	SB	Left	F(ERR)	F(101.3)	C	B	F(ERR)	F(163.7)	C	B	D	C	C	C	F(ERR)	F(236.1)	C	B	C	C
			Left/Right	NA	NA	NA	NA	NA	NA	NA	NA	D	C	C	C	NA	NA	NA	NA	C	C
			Right	C	B	B	B	C	B	C	B	NA	NA	NA	NA	C	B	B	B	NA	NA
	EB	EB	Thru/Right	A	A	C	B	A	A	C	B	D	C	C	C	A	A	C	B	C	C
	WB	WB	Left	A	A	B	A	B	A	C	A	D	C	C	B	B	A	C	A	C	B
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A
	OVERALL			NA	NA	B*	B*	NA	NA	C*	B*	C[1]	C[1]	C[2]	B[2]	NA	NA	C*	B*	C[2]	B[2]
Racetrack Road (EB, WB) & I-79 NB On/Off Ramps (NB)	NB	NB	Left	D	C	F(144.5)	C	F(84.6)	C	F(461.1)	D	NA	NA	NA	NA	F(133.6)	C	F(404.2)	D	NA	NA
			Left/Thru	NA	NA	NA	NA	NA	NA	NA	NA	C	B	C	B	NA	NA	NA	NA	C	C
			Right	C	B	D	B	D	B	F(114.7)	C	A	A	A	A	D	B	F(109.1)	C	A	A
	EB	EB	Left	NA	NA	NA	NA	NA	NA	NA	NA	C	C	C	C	NA	NA	NA	NA	C	C
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	WB	WB	Thru	A	A	A	A	A	A	A	A	B	C	B	B	A	A	A	A	A	A
	OVERALL			NA	NA	NA	NA	NA	NA	NA	NA	B[3]	B[3]	A[3]	B[3]	NA	NA	NA	NA	A[3]	A[3]
Racetrack Road (EB, WB) & Meadowlands Blvd. (SB)/Wendy's Drive (NB)	NB	NB	Lt/Thru/Rt	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	SB	SB	Left/Thru	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
			Right	B	B	B	B	B	C	B	C	B	C	C	C	B	C	B	C	C	C
	EB	EB	Left	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
			Thru/Right	A	A	A	A	A	A	A	A	B	A	B	A	A	A	A	A	B	A
	WB	WB	Left	C	B	C	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
			Thru/Right	B	A	B	A	B	A	B	A	B	B	C	B	B	B	B	B	C	A
	OVERALL			B	A	B	A	B	B	B	B	B	B	C	B	B	B	B	B	C	B

Table 2 - HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006								2016					
				Existing		No-Build*		No-Build		No-Build*		Meadows Build Phase I (1,500 slots)		Meadows Build Phase II (3,000 slots)		No-Build		No-Build*		Meadows Build Phase II (3,000 slots)	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Racetrack Road (EB, WB) & Johnson Road (SB)	SB	WB	Left/Right	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
	EB	SB	Left/Thru	A	A	A	A	A	A	A	A	NA	NA	NA	NA	A	A	A	A	NA	NA
			Left	NA	NA	NA	NA	NA	NA	NA	NA	C	C	C	C	NA	NA	NA	NA	C	C
			Thru	NA	NA	NA	NA	NA	NA	NA	NA	A	A	A	A	NA	NA	NA	NA	A	A
	WB	NB	Thru/Right	A	A	A	A	A	A	A	A	B	A	B	B	A	A	A	A	B	B
	OVERALL			NA	NA	NA	NA	A[4]	A[4]	A[4]	A[4]	B[5]	A[5]	B[5]	B[5]	A[4]	A[4]	A[4]	A[4]	B[5]	B[5]
Racetrack Road (EB, WB) & Holiday Inn Drive (SB)	SB	SW	Right	A	A	A	A	A	A	A	A	B	B	B	B	A	A	A	A	B	B
	EB	SE	Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	WB	NW	Thru/Right	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Racetrack Road (EB, WB) & Meadows Drive (SB)	SB	SW	Left	C	B	C	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C
			Right	A	A	A	A	A	A	A	A	A	A	A	B	A	A	A	A	A	B
	EB	SE	Left/Thru	A	A	A	A	A	A	A	A	NA	NA	NA	NA	A	A	A	A	NA	NA
			Left	NA	NA	NA	NA	NA	NA	NA	NA	C	C	C	C	NA	NA	NA	NA	C	C
			Thru	NA	NA	NA	NA	NA	NA	NA	NA	A	A	B	A	NA	NA	NA	NA	B	A
	WB	NW	Thru/Right	A	A	A	A	A	A	A	A	C	B	C	C	A	A	A	A	C	C
	OVERALL			NA	NA	NA	NA	NA	NA	NA	NA	B[6]	B[6]	B[7]	B[7]	NA	NA	NA	NA	C[7]	B[7]
Washington Road (NB, SB) & Racetrack Road (EB)	NB	NB	Left	C	C	C	C	C	C	C	C	C	C	B	B	C	C	C	C	B	B
			Thru	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B	B
	SB	SB	Thru	B	B	B	B	B	B	B	B	C	C	C	B	C	B	C	B	C	C
			Right	A	A	A	A	A	A	A	A	B	B	B	B	A	A	A	A	B	B
	EB	EB	Left	C	B	C	B	C	B	C	B	C	C	C	B	C	B	C	B	C	B
			Right	A	A	A	A	A	A	A	A	A	B	B	A	A	A	A	A	B	A
	OVERALL			B	B	B	B	B	B	B	B	B	B	B[8]	B[8]	B	B	B	B	B[8]	B[8]

Table 2 - HCM Capacity Analysis Summary

Intersection	Approach	SYNCHRO Designation	Movement	2004				2006								2016					
				Existing		No-Build*		No-Build		No-Build*		Meadows Build Phase I (1,500 slots)		Meadows Build Phase II (3,000 slots)		No-Build		No-Build*		Meadows Build Phase II (3,000 slots)	
				PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT	PM	SAT
Washington Road (NB, SB) & Fisher Road (EB)/ Davis School Road (WB)	NB	NB/NE	Left	A	A	A	A	A	A	A	A	C	C	C	C	B	A	B	A	C	C
			Thru/Right	A	A	A	A	A	A	A	A	B	A	A	B	A	A	A	A	B	A
	SB	SB/SW	Left	B	A	B	A	B	B	B	B	C	C	B	C	B	B	B	B	C	C
			Thru/Right	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	EB	SE	Lt/Thru/Rt	E	D	E	D	E	D	E	D	C	C	C	C	F(72.7)	E	F(72.7)	E	C	C
	WB	NW	Lt/Thru/Rt	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	C	C
	OVERALL			NA	NA	NA	NA	NA	NA	NA	NA	B[9]	A[9]	A[9]	B[9]	NA	NA	NA	NA	B[9]	A[9]
Washington Road (NB, SB) & Manifold Road (EB)/ Cameron Road (WB)	NB	NB	Left	C	B	C	B	C	B	C	B	C	C	C	C	C	C	C	C	C	C
			Thru/Right	C	B	C	B	C	B	C	B	B	B	B	B	C	C	C	C	B	C
	SB	SB	Left	C	C	C	C	C	C	C	C	C	C	D	C	D	C	D	C	D	C
			Thru/Right	B	B	B	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C
	EB	SE	Lt/Thru/Rt	C	B	C	B	C	B	C	B	C	B	C	B	F(88.7)	B	F(88.7)	B	NA	NA
			Left/Thru	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	C	B
			Right	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	B	B
	WB	NW	Lt/Thru/Rt	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	C
	OVERALL			C	B	C	B	C	B	C	B	B	C	B	C	D	C	D	C	C[10]	C[10]

**Assumes the installation of traffic signals at the I-79 southbound on/off ramps.*

Note: Optimized signal timing was used for all scenarios.

1 *With the construction of an additional 300 ft. eastbound through lane that carries through the interchange, re-striping Racetrack Road to allow for a 470 ft. continuous westbound left turn lane, converting the existing lanes on the I-79 southbound off ramp to a left and a left/thru/right, and the installation of traffic signals.*

2 *With the construction of an additional 300 ft. eastbound through lane on Racetrack Road, an additional 470 ft. continuous westbound left-turn lane on Racetrack Road, widening the I-79 southbound on-ramp to two lanes for 750 ft., re-striping Racetrack Road to allow for two eastbound through lanes through the interchange, converting the existing lanes on the I-79 southbound off-ramp to a left and a left/thru/right, and the installation of traffic signals.*

3 *With the relocation of the I-79 northbound off-ramp to form a "plus" intersection with the northbound on-ramp, providing a 200 ft. free flow channelized right off of the northbound off-ramp for 500 ft., and the installation of traffic signals.*

4 *With the installation of traffic signals by the Meadowpointe office complex .*

5 *With the construction of a 160 ft. eastbound left-turn lane on Racetrack Road and traffic signal upgrades.*

6 *With the construction of a 270 ft. eastbound left-turn lane on Racetrack Road, and the installation of traffic signals.*

7 *With the construction of 240 ft. eastbound dual left-turn lanes on Racetrack Road, restriping Meadows Drive to allow for the eastbound dual left-turn lanes, and the installation of traffic signals.*

8 *With the construction of an additional 200 ft. northbound left-turn lane on Washington Road, removal of the existing mountable curb on Racetrack Road to allow for the northbound dual left-turn lanes, and traffic signal upgrades.*

9 *With the installation of traffic signals.*

10 *With the construction of a 140 ft. eastbound right-turn lane on Manifold Road and traffic signal upgrades.*

VI. TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis has been conducted in accordance with PENNDOT Publication 201, Chapter E for the following intersections:

- **Racetrack Road and I-79 Northbound On/Off-Ramps**
- **Racetrack Road and I-79 Southbound On/Off-Ramps**
- **Racetrack Road and Johnson Road/Tanger Blvd.**
- **Racetrack Road and Meadows Drive**
- **Washington Road and Davis School Road/Fisher Road**

The requirements of Warrant 11, Peak Hour Volume Warrant were applied, and Table B was used since the posted speed limit along the major road exceeds 40 mph (45 mph posted). Results are summarized on Tables 3 through 7.

Table 3 - Traffic Signal Warrant Analysis/Racetrack Road and I-79 Southbound On/Off Ramps				
Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street I-79 Ramps (2 or more lanes)	Major Street Racetrack Road (2 or more lanes)	Minor Street I-79 Ramps (2 or more lanes)
2004 Existing	900	180	1,084	592

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2004 EXISTING PM CONDITIONS

Table 4 - Traffic Signal Warrant Analysis/Racetrack Road and I-79 Northbound On/Off Ramps				
Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (1 lane)	Minor Street I-79 Ramps (2 or more lanes)	Major Street Racetrack Road (1 lane)	Minor Street I-79 Ramps (2 or more lanes)
2004 Existing	900	140	1,068	179

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2004 EXISTING PM CONDITIONS

Table 5 - Traffic Signal Warrant Analysis/Racetrack Road and Johnson Road				
Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street Johnson Road (1 lane)	Major Street Racetrack Road (2 or more lanes)	Minor Street Johnson Road (1 lane)
2006 No-Build/PM	800	170	920	256

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2006 NO-BUILD PM CONDITIONS

Table 6 - Traffic Signal Warrant Analysis/Racetrack Road and Meadows Drive				
Period	Required Volumes		Projected Volumes	
	Major Street Racetrack Road (2 or more lanes)	Minor Street Meadows Drive (1 lane)	Major Street Racetrack Road (2 or more lanes)	Minor Street Meadows Drive (1 lane)
2006 Phase I Build/PM	800	170	825	496

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2006 BUILD PM CONDITIONS

Table 7 - Traffic Signal Warrant Analysis/Washington Road and Davis School Road/Fisher Road				
Period	Required Volumes		Projected Volumes	
	Major Street Washington Road (2 or more lanes)	Minor Street Davis School Road (1 lane)	Major Street Washington Road (2 or more lanes)	Minor Street Davis School Road (1 lane)
2006 No-Build/PM	1,300	75	1,668	75

RESULTS: REQUIREMENTS OF WARRANT 11 ARE SATISFIED FOR THE 2006 NO-BUILD PM CONDITIONS

VII. QUEUING ANALYSIS

A queuing analysis was performed for the 2006 (Phase I) and 2016 (Phase II) design year conditions. The required storage length for all intersections was based on the SimTraffic Software Version 6 using the recommended average 95% queue for 10 one-hour simulations. The SYNCHRO and SimTraffic analyses are included in the Appendix. Results are summarized in Table 8.

Table 8 - Storage Length Requirements - (Lane Feet)

Intersection	Movement	SYNCHRO Designation	2006 Phase I (1,500 slots) Build		2016 No-Build		2016 No-Build*		2016 Phase II (3,000 slots) Build		Available Storage (Lane Feet)
			PM	SAT	PM	SAT	PM	SAT	PM	SAT	
Racetrack Road (EB,WB) & I-79 SB On/Off Ramps (SB)	Eastbound - Thru/Right	EB	476[4]	243[4]	10	5	700	160	560[4]	255[4]	>1000, >1300[6]
	Westbound - Left	WB	318	407	85	50	220	75	610[4]	485[4]	235[2],470[3],705[6]
	Westbound - Thru		189	107	NA	NA	265	110	170	155	470[3]
	Southbound - Left	SB	264	133	415	110	425	135	215	165	380
	Southbound - Left/Right		320	139	NA	NA	NA	NA	225	145	>500
	Southbound - Right		NA	NA	910	55	530	50	NA	NA	>500
Racetrack Road (EB,WB) & I-79 NB Off Ramp (NB)	Eastbound - Left	EB	174	98	NA	NA	NA	NA	155	90	165,200[3]
	Eastbound - Thru		194[4]	231[4]	NA	NA	60	NA	40[4]	400[4]	940[3]
	Westbound - Thru	WB	410[4]	470[4]	NA	NA	70	NA	485[4]	830[4]	1600[3]
	Northbound - Left/Thru	NB	70	57	65	45	105	45	80	80	500, >1100[3]
	Northbound - Right		NA	NA	75	55	75	55	10	30	>1000, 200[1]
Racetrack Road (EB,WB) & Meadowlands Blvd. (SB)/Wendy's Drive (NB)	Eastbound - Left	EB	107	120	115	115	130	115	145	150	195
	Eastbound - Thru/Right		259[4]	254[4]	150[4]	110[4]	170[4]	115[4]	410[4]	435[4]	>1700
	Westbound - Left	WB	49	57	55	50	55	50	75	55	105
	Westbound - Thru/Right		406[4]	315[4]	285[4]	165[4]	275[4]	170[4]	650[4]	575[4]	>1600
	Northbound - Left/Thru/Right	NB	106	86	115	95	115	90	130	90	Site Drive
	Southbound - Left/Thru	SB	93	77	100	80	105	80	110	85	>400
	Southbound - Right		75	52	80	55	85	55	105	70	145
Racetrack Road (EB,WB) & Johnson Road (SB)	Eastbound - Left	SB	131	116	NA	NA	NA	NA	155	130	160[1]
	Eastbound - (Left)[2]/Thru		225[4]	107[4]	220[4]	105[4]	255[4]	105[4]	340[4]	225[4]	>1400
	Westbound - Thru/Right	NB	341[4]	240[4]	150[4]	90[4]	145[4]	80[4]	520[4]	365[4]	>2000
	Southbound - Left/Right	WB	153	47	140	55	150	55	210	65	>500
Racetrack Road* (EB,WB) & Holiday Inn Drive (SB)	Southbound - Right	SW	25	25	30	30	30	30	25	25	Site Drive
Racetrack Road* (EB,WB) & Meadows Drive (SB)	Eastbound - Left	SE	249	269	NA	NA	NA	NA	450[4]	470[4]	270[1], 480[5]
	Eastbound - (Left)[2]/Thru		203[4]	249[4]	50[4]	45[4]	50[4]	45[4]	210[4]	155[4]	2000
	Westbound -Thru	NW	276[4]	249[4]	NA	NA	NA	NA	1880[4,5]	1525[4,5]	>2000
	Southbound - Left	SW	158	151	55	50	55	50	260	250	Site Drive
	Southbound - Right		NA	NA	NA	NA	NA	NA	30	75	Site Drive
Washington Road (NB,SB) & Racetrack Road (EB)	Eastbound - Left	EB	145	108	145	85	160	85	185	120	>1000
	Eastbound - Right		NA	NA	NA	NA	NA	NA	NA	NA	>1000

Table 8 - Storage Length Requirements - (Lane Feet)

Intersection	Movement	SYNCHRO Designation	2006 Phase I (1,500 slots) Build PM	2006 Phase I (1,500 slots) Build SAT	2016 No-Build PM	2016 No-Build SAT	2016 No-Build* PM	2016 No-Build* SAT	2016 Phase II (3,000 slots) Build PM	2016 Phase II (3,000 slots) Build SAT	Available Storage (Lane Feet)
	Northbound - Left	NB	250	311	210	185	200	175	355[4]	365[4]	385, >370[6]
	Northbound - Thru		288[4]	213[4]	250[4]	185[4]	275[4]	200[4]	375[4]	270[4]	>2000
	Southbound - Thru	SB	457[4]	373[4]	335[4]	255[4]	375[4]	260[4]	455[4]	395[4]	>2000
Washington Road (NB,SB) & Fisher Road (EB)/ Davis School Road (WB)	Eastbound - Left/Thru/Right	SE	30	26	35	35	35	30	35	30	>1000
	Westbound - Left/Thru/Right	NW	65	73	55	50	55	50	90	75	>1000
	Northbound - Left	NB	34	20	20	15	20	15	40	20	195
	Northbound - Thru/Right		334[4]	357[4]	665[4]	5[4]	1365[4]	5[4]	445[4]	455[4]	>2000
	Southbound - Left	SB	112	83	55	40	55	40	140	95	185
	Southbound -Thru/Right		226[4]	190[4]	235[4]	55[4]	230[4]	55[4]	190[4]	275[4]	>2000
Washington Road (NB,SB) & Manifold Road (EB)/ Cameron Road (WB)	Eastbound - Left/Thru/Right	SE	176	144	1960	210	2500	235	NA	NA	>1000
	Eastbound - Left/Thru		NA	NA	NA	NA	NA	NA	220	145	>1000
	Eastbound - Right		NA	NA	NA	NA	NA	NA	135	90	140[6]
	Westbound - Left/Thru/Right	NW	176	201	1315	270	1470	260	365	335	>1000
	Northbound - Left	NB	100	125	220	250	220	230	155	270	210
	Northbound - Thru/Right		960[4]	1346[4]	970[4]	765[4]	720[4]	670[4]	1005[4]	1005[4]	>2000
	Southbound - Left	SB	112	94	210	140	240	120	145	140	220
	Southbound - Thru/Right		388[4]	520[4]	3710[4]	615[4]	4810[4]	580[4]	560[4]	715[4]	>2000

* *Unsignalized intersection*
[1] *To be constructed in Phase I*
[2] *Under no-build conditions only*
[3] *With the relocation of the I-79 northbound off-ramp to align with the northbound on-ramp*
[4] *Two lanes of storage*
[5] *This large queue is not shown in the simulation or the SYNCHRO software.*
[6] *To be constructed in Phase II*

VIII. SIGHT DISTANCE MEASUREMENTS

Sight distance measurements were taken along Racetrack Road (SR 1041) at the existing Meadows Driveway in accordance with Pennsylvania code, Title 67, Chapter 441, Access to and Occupancy of Highway by Driveways and Local roads. Safe Stopping Sight Distance (SSD) was based on the formula 1.47Vt+(V²/30(f+/-g)). Recommended sight distances were based on a design speed of 5 mph over the posted speed. Results are indicated in Table 9. Sight distance measurements are included in the Appendix.

Table 9 - Sight Distance Summary[1]

Location	Posted Speed (mph)	Approach Grade LT	Approach Grade RT	Recommended Distance (Ft.) LT	Recommended Distance (Ft.) RT	Available Distance (Ft.) LT	Available Distance (Ft.) RT
Meadows Drive	45	- 1%	1%	390	376	>700	>700

[1] *Sight distance requirements taken from PENNDOT Chapter 441, Access to and Occupancy of Highways by Driveways and Local Roads, January 1982, pg. 1296.53.*

As indicated, the recommended intersection sight distance along Racetrack Road at the existing Meadows driveway is satisfied.

A completed Form M-9505 (Formula Sight Distance Measurements) is included in the Appendix.

IX. PROPOSED MITIGATION

Results of the analysis indicate certain mitigation measures will be required in order to maintain acceptable levels of service under the "existing" as well as the "projected" conditions. A summary of the analysis and mitigation measures are as follows:

I-79 Southbound Ramps and Racetrack Road (SR 1041)

2004 Existing Conditions - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (101.3)
Required Mitigation:
No mitigation considered.

2004 No-Build Conditions - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Assumes the installation of traffic signals.

2006 No-build Conditions - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (163.7)
Required Mitigation:
No mitigation considered.

2006 No-Build Conditions - Signalized
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Assumes the installation of traffic signals.

2006 Build- Meadows Only (1,500 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C
Required Mitigation:

Construct an additional 300 ft. eastbound through-lane on Racetrack Road to carry through the interchange, re-stripe Racetrack Road to allow for a 470 ft. continuous westbound left-turn lane, convert the existing lanes of the I-79 southbound off-ramp to a left and a left/thru/right, and install traffic signals.

2006 Build- Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:

Construct an additional 300 ft. eastbound through-lane on Racetrack Road, an additional 470 ft. continuous westbound left-turn lane on Racetrack Road, widening the I-79 southbound on ramp to two lanes for 750 ft., re-stripe Racetrack Road to allow for two eastbound through lanes through the interchange, converting the existing lanes on I-79 southbound off-ramp to a left and a left/thru/right and install traffic signals.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (ERR)
Saturday Peak - LOS F (236.1)
Required Mitigation:

No mitigation considered.

2016 No-Build Conditions - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B

Assumes the installation of traffic signals.

2016 Build-Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:

With mitigation required for the 2006 Meadows (3,000 slots) build conditions, no further mitigation would be required.

I-79 Northbound Ramps and Racetrack Road (SR 1041)

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS D
Saturday Peak - LOS C
Required Mitigation:
No mitigation required.

2004 No-Build Conditions - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (144.5)
Saturday Peak - LOS C

Assumes the installation of traffic signals at the I-79 southbound ramps.

2006 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (84.6)
Saturday Peak - LOS C
Required Mitigation:
No mitigation considered.

2006 No-Build Conditions - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (461.1)
Saturday Peak - LOS D

Assumes the installation of traffic signals at the I-79 southbound ramps.

2006 Build-Meadows Only (1,500 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
Relocate the I-70 northbound off-ramp to form a "plus" intersection with the I-70 northbound on-ramp, construct a free flow channelized right on the northbound off-ramp for 500 ft. on Racetrack Road.

2006 Build-Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS B
Required Mitigation:
Relocate the I-70 northbound off-ramp to form a "plus" intersection with the I-70 northbound on-ramp, construct a free flow channelized right on the northbound off-ramp and 500 ft. on Racetrack Road.

2016 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (133.6)
Saturday Peak - LOS C
Required Mitigation:
No mitigation considered.

2016 No-Build Conditions - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS F (404.2)
Saturday Peak - LOS D
Assumes the installation of traffic signals at the I-79 southbound ramps.

2016 Build-Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:
With mitigation required for the 2006 Meadows (3,000 slots) Build conditions, no further mitigation would be required.

Racetrack Road (SR 1041) and Meadowlands Blvd.

2004 Existing - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A
Required Mitigation:
No mitigation required.

2006 No-build - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 Build- Meadows Only (1,500 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:

No mitigation required.

2016 No-build Conditions - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2016 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

Racetrack Road (SR 1041) and Johnson Road

2004 Existing - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 No-build - Signalized
Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:
With installation of traffic signals by the Meadowpointe Office Complex, no further mitigation is required.

2006 Build - Meadows Only (1,500 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A
Required Mitigation:
Construct 160 ft. eastbound left-turn lane on Racetrack Road, and upgrade the traffic signal upgrades.

2006 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
Construct 160 ft. eastbound left-turn lane on Racetrack Road, and upgrade the traffic signal upgrades.

2016 No-build Conditions - Signalized

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

With installation of traffic signals by the Meadowpointe Office Complex, no further mitigation is required.

2016 Build - Meadows (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

With mitigation required for the 2006 Meadows (3,000 slots) Build conditions, no further mitigation would be required.

Racetrack Road (SR 1041) and Holiday Inn Drive

2004 Existing - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

No mitigation required.

2006 No-build - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:

No mitigation required.

2006 Build - Meadows Only (1,500 slots) - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

No mitigation required.

2006 Build - Meadows Only (3,000 slots) - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:

No mitigation required.

2016 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS A
Saturday Peak - LOS A
Required Mitigation:
No mitigation required.

2016 Build - Meadows Only (3,000 slots) - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

Racetrack Road (SR 1041) and The Meadows Drive

2004 Existing - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (1,500 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
Construct a 270 ft. eastbound left-turn lane on Racetrack Road and install traffic signals.

2006 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
Construct 240 ft. dual eastbound left-turn lanes on Racetrack Road, re-stripe Meadows Drive to allow for the eastbound dual left-turn lanes, and install traffic signals.

2016 No-build Conditions - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C
Required Mitigation:
No mitigation required.

2016 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:
With the mitigation required by 2006 Meadows (3,000 slots) Build conditions, no further mitigation is required.

Washington Road (SR 0019) and Racetrack Road (SR 1041)

2004 Existing - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 No-build - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (1,500 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
Construct an additional 200 ft. northbound left-turn lane on Washington Road, remove existing mountable curb island on Racetrack Road, and upgrade the traffic signals.

2016 No-build Conditions - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2016 Build - Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS B
Required Mitigation:
With the mitigation required by 2006 Meadows (3,000 slots) Build conditions, no further mitigation would be required.

Washington Road (SR 0019) and Davis School Road (SR 1049)/Fisher Road

2004 Existing Conditions - Unsignalized

Worst Movement Operation
PM Peak Hour - LOS E
Saturday Peak - LOS D
Required Mitigation:
No mitigation required.

2006 No-build – Unsignalized

Worst Movement Operation
PM Peak Hour - LOS E
Saturday Peak - LOS D
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (1,500 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A
Required Mitigation:
Install traffic signals.

2006 Build - Meadows Only (3,000 slots) - Signalized

Overall Intersection Operation
PM Peak Hour - LOS A
Saturday Peak - LOS B
Required Mitigation:
Install traffic signals.

2016 No-build - Unsignalized
Worst Movement Operation
PM Peak Hour - LOS F (72.7)
Saturday Peak - LOS E
Required Mitigation:
No mitigation considered.

2016 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS A
Required Mitigation:
With the mitigation required for the 2006 Meadows (3,000 slots) Build conditions, no further mitigation is required.

Washington Road (SR 0019) and Cameron Road/Manifold Road (SR 1047)

2004 Existing Conditions - Signalized
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 No-build Conditions - Signalized
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS B
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (1,500 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS C
Required Mitigation:
No mitigation required.

2006 Build - Meadows Only (3,000 slots) - Signalized
Overall Intersection Operation
PM Peak Hour - LOS B
Saturday Peak - LOS C
Required Mitigation:
No mitigation required.

2016 No-build Conditions - Signalized

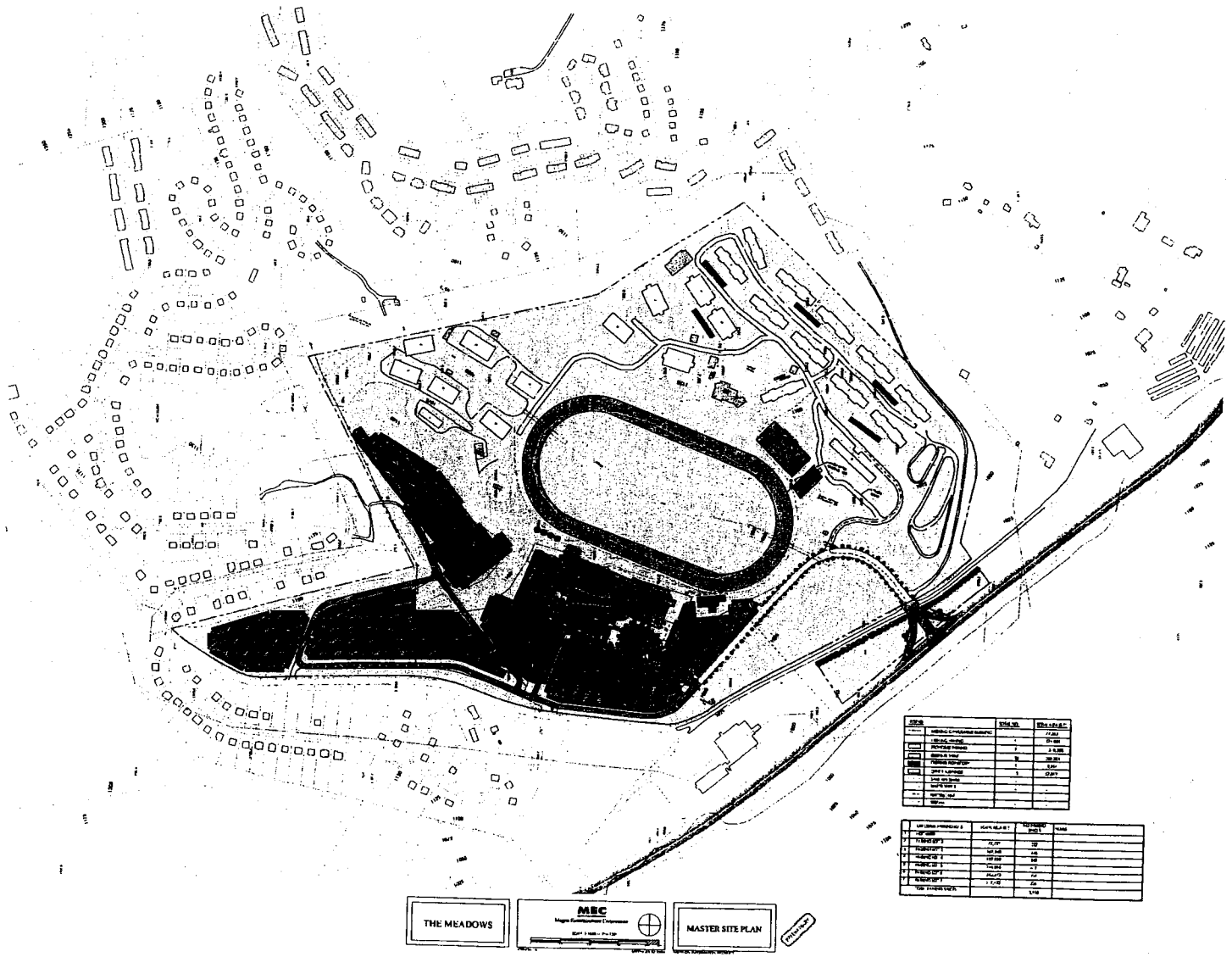
Overall Intersection Operation
PM Peak Hour - LOS D
Saturday Peak - LOS C
Required Mitigation:

No mitigation required.

2016 Build - Meadows Only (3,000 slots) - Signalized

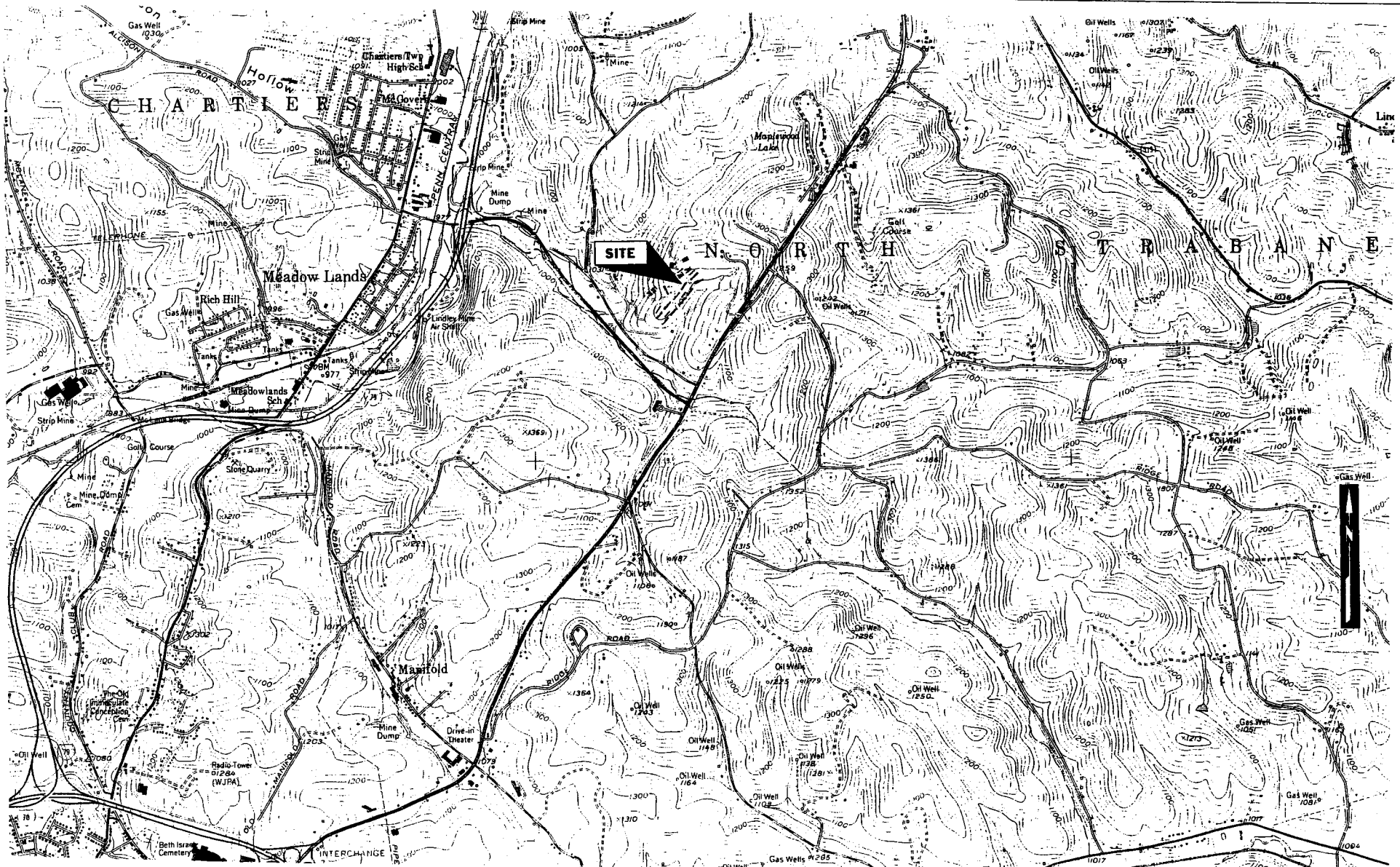
Overall Intersection Operation
PM Peak Hour - LOS C
Saturday Peak - LOS C
Required Mitigation:

Construct a 140 ft. eastbound right-turn lane on Manifold Road and upgrade the traffic signal.

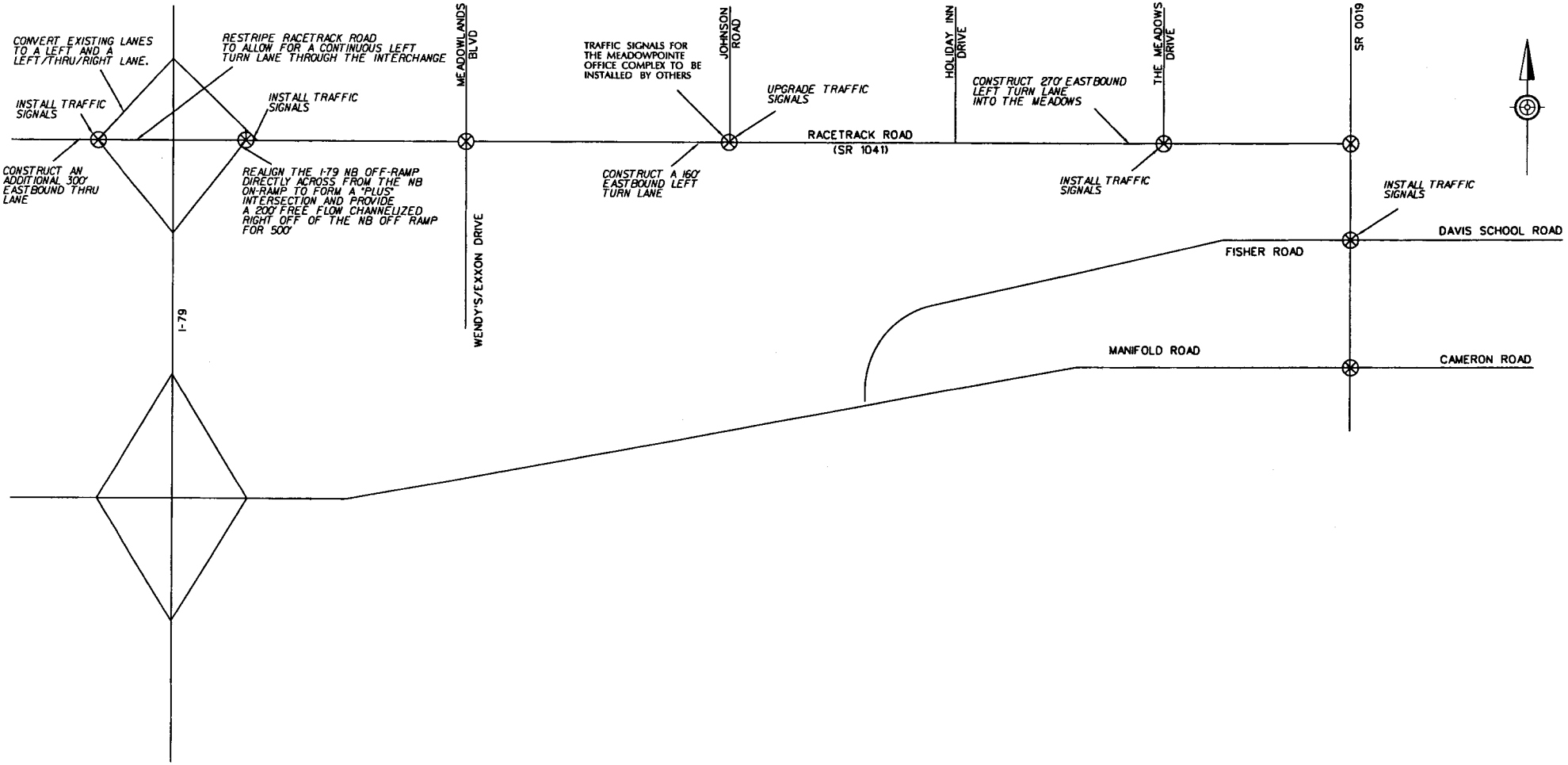


PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	SITE PLAN	DRA: JPD / CHK: VGY
		FIGURE: 2 / SCALE: NONE

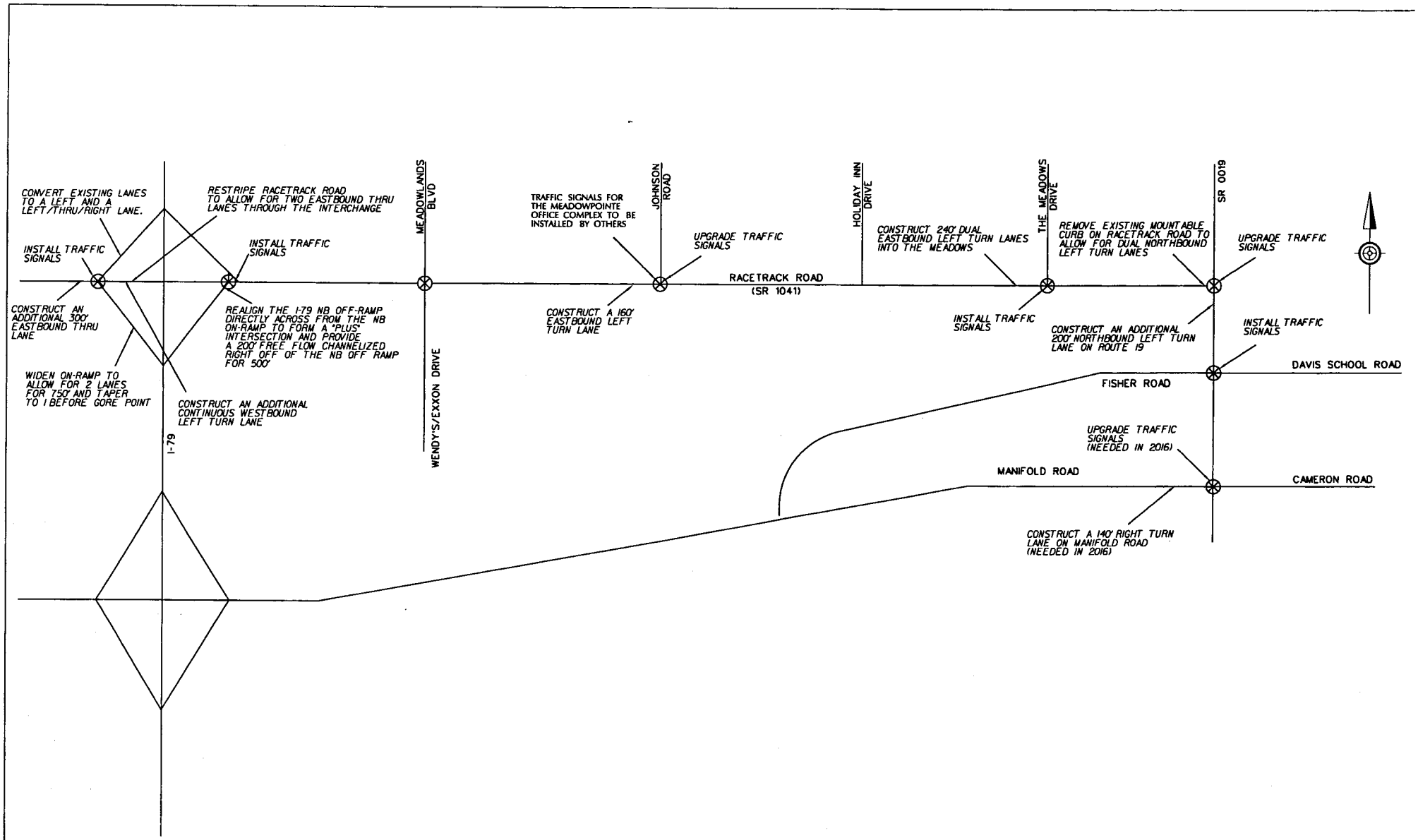
R:\A04231\12-05-FIGS.dgn 12/12/2005 5:01:45 PM



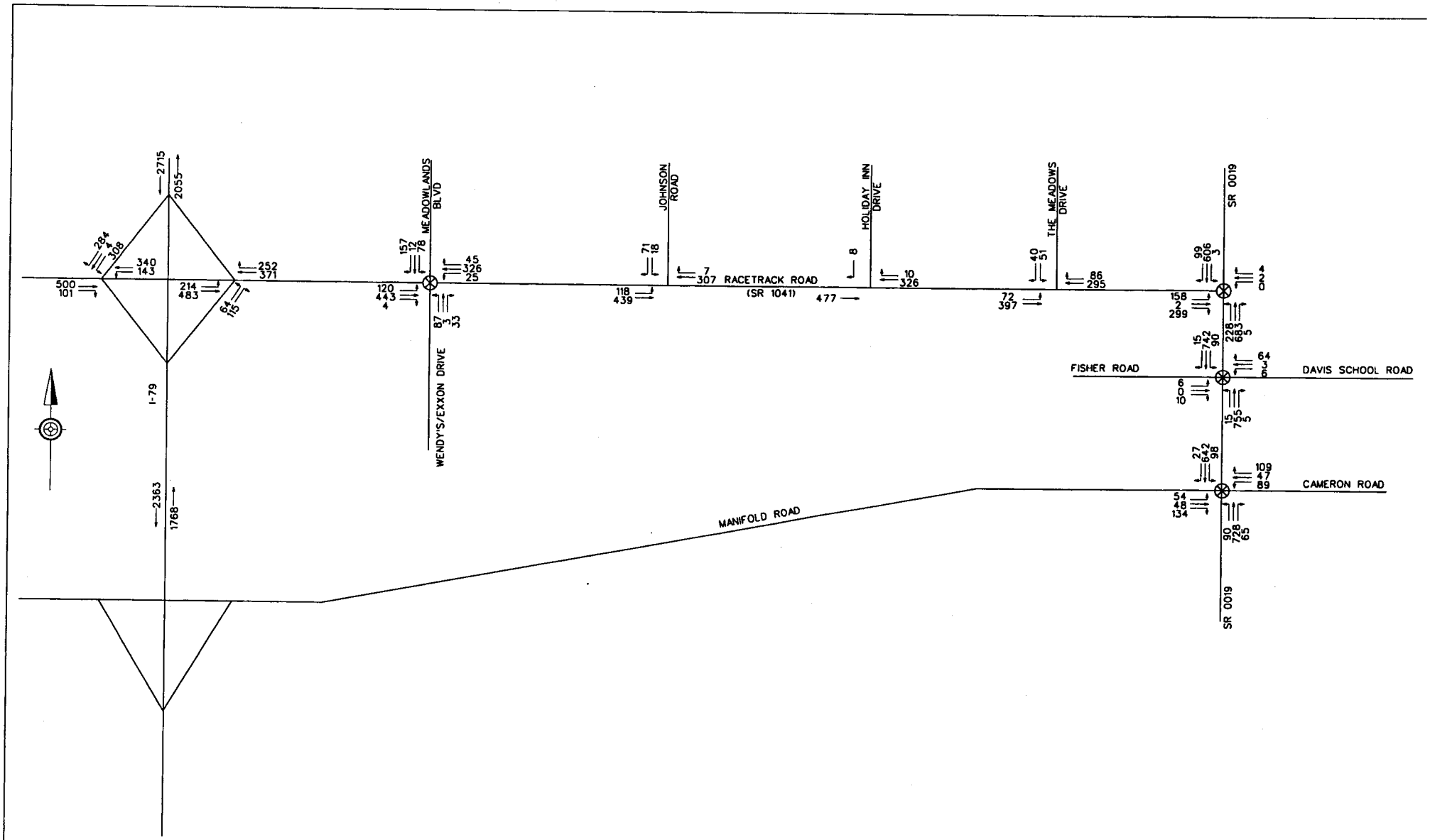
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	PROJECT LOCATION	DRA: JPD	CHK: VGY
		FIGURE: 1	SCALE: NONE



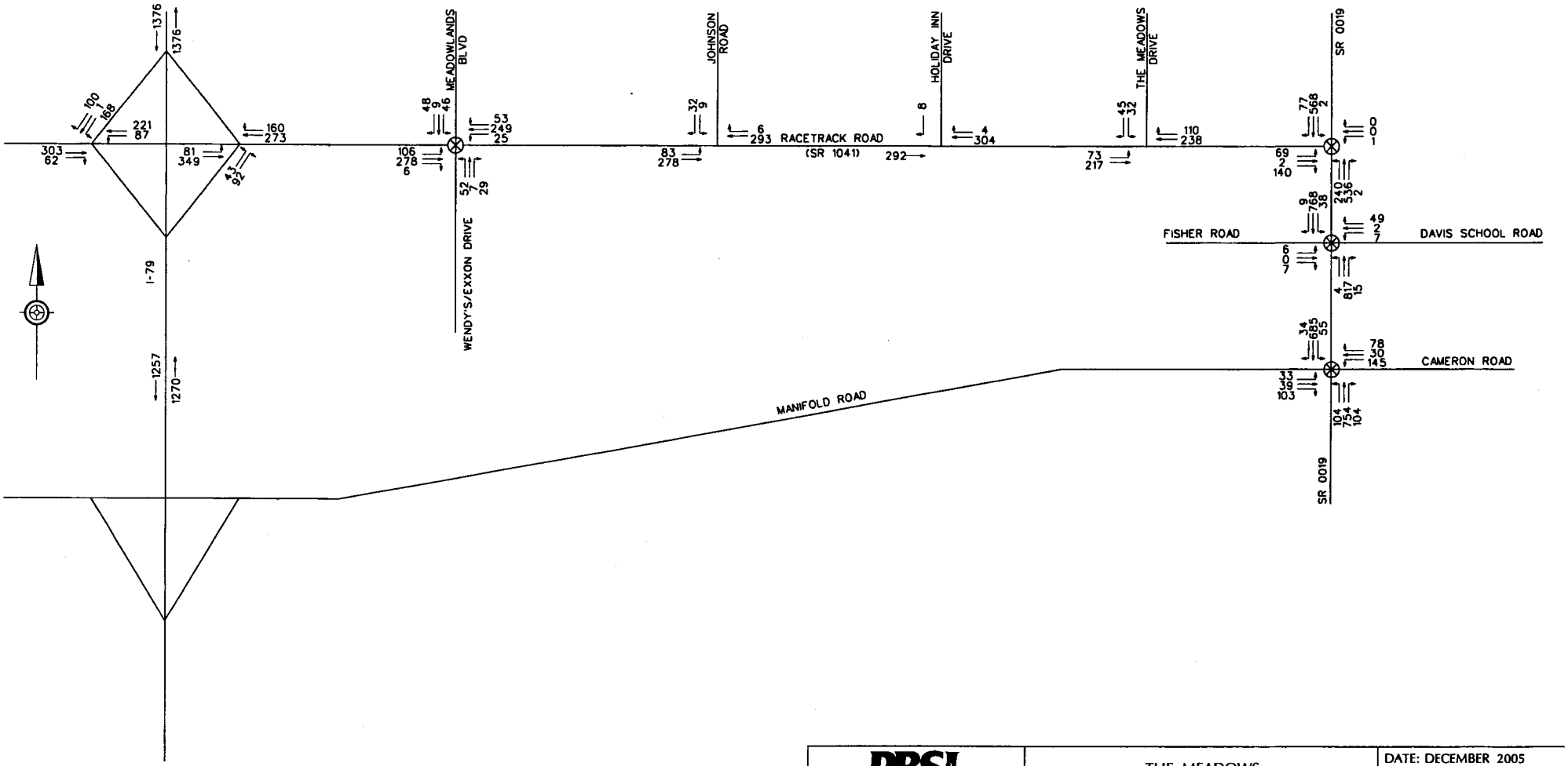
PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS REQUIRED MITIGATION–BUILD CONDITIONS WITH THE MEADOWS 1500 SLOT MACHINE EXPANSION ONLY	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 3 / SCALE: NONE



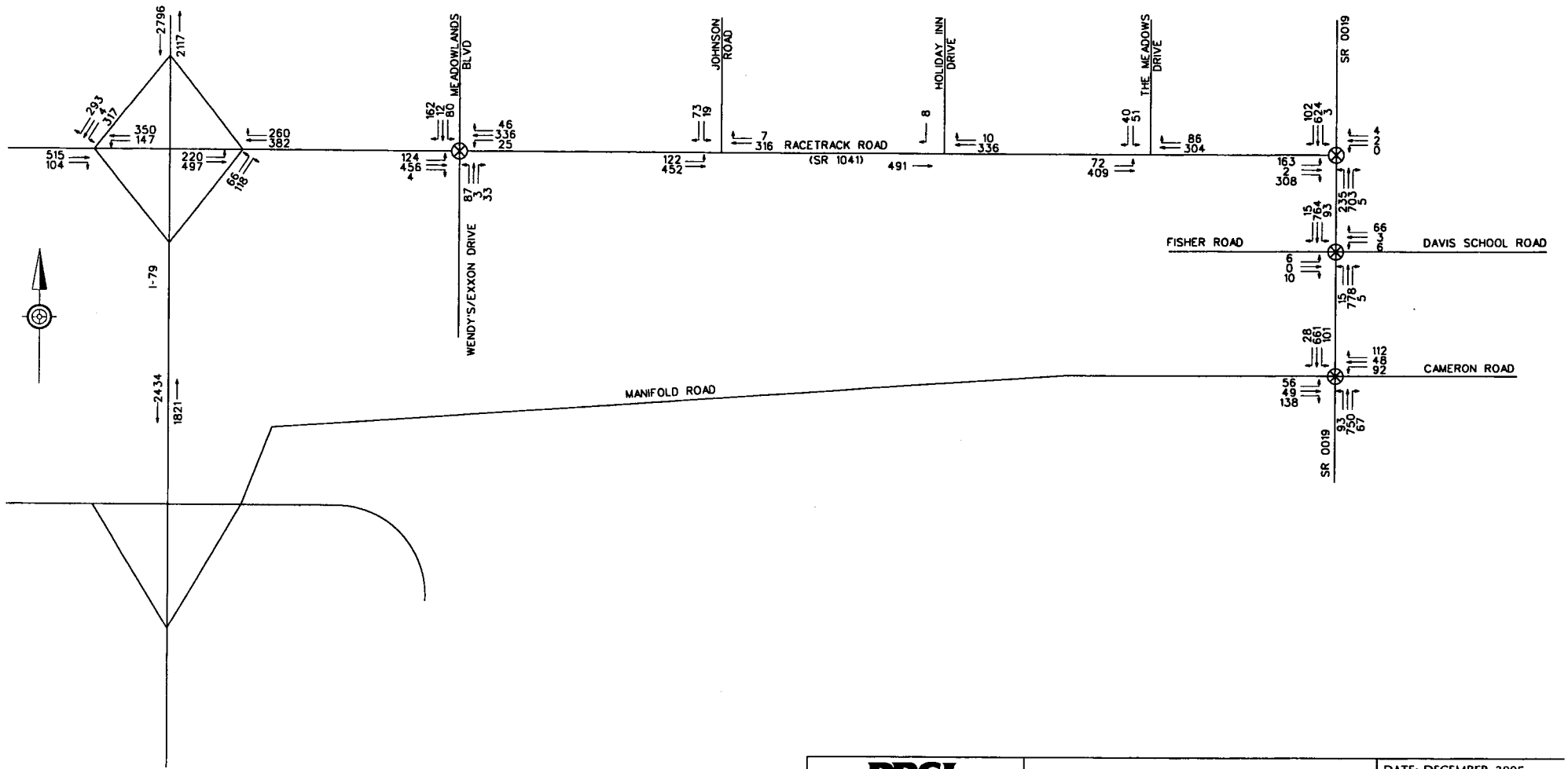
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS REQUIRED MITIGATION–BUILD CONDITIONS WITH THE MEADOWS 3000 SLOT MACHINE EXPANSION ONLY	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 4 / SCALE: NONE



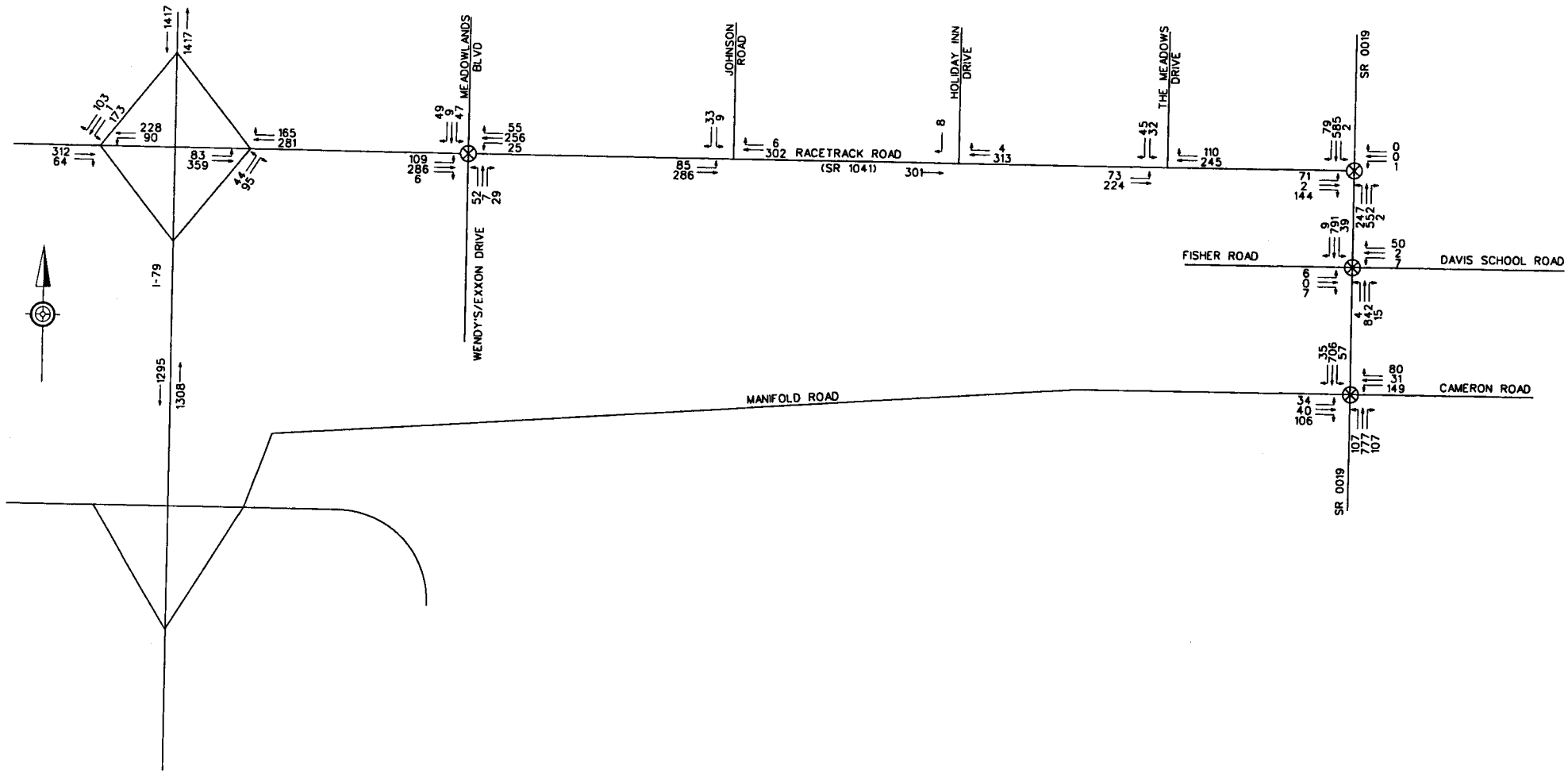
PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	EXISTING 2004 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 5 / SCALE: NONE



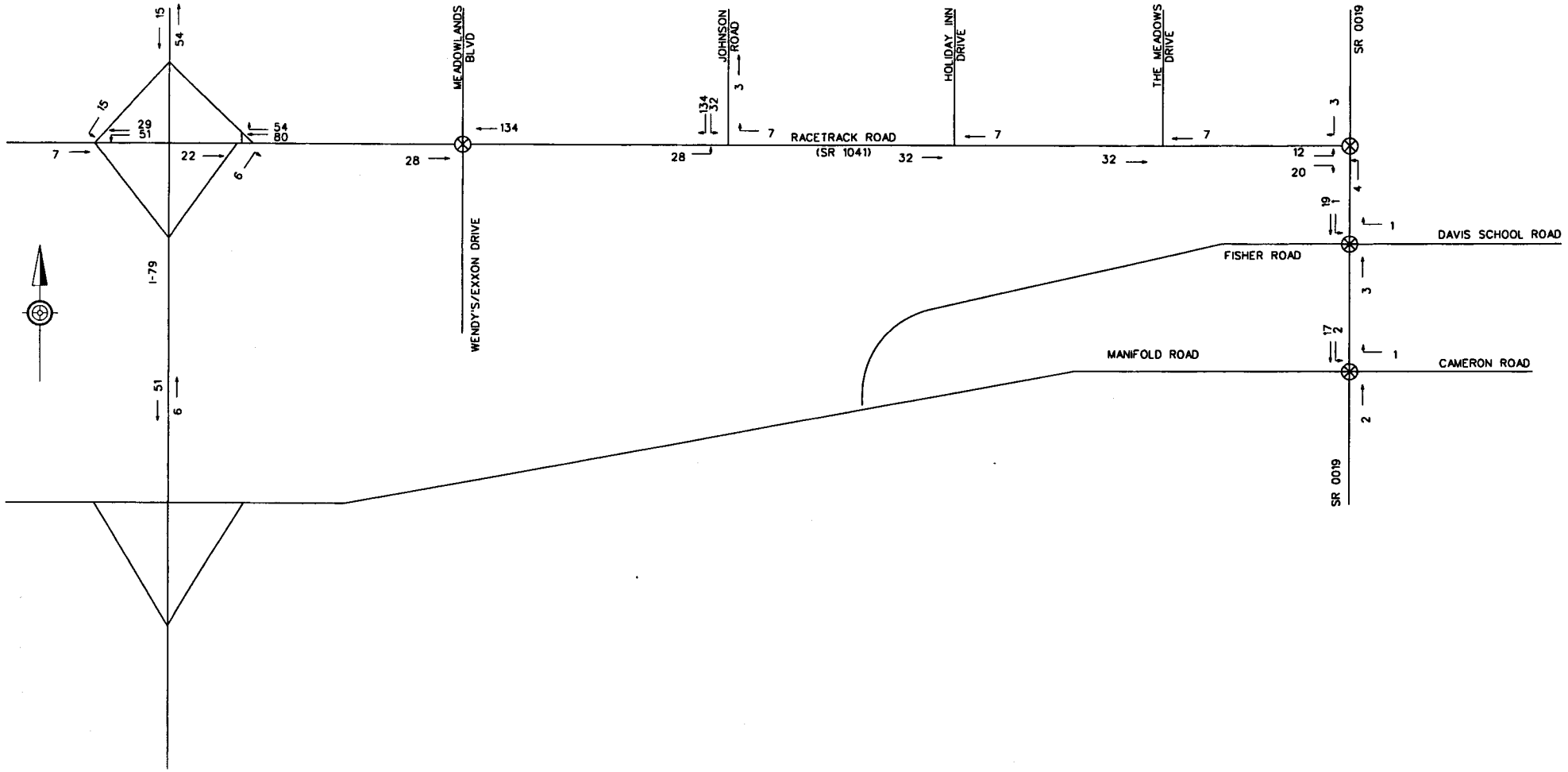
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	EXISTING 2004 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DRA: JPD	CHK: VGY
		FIGURE: 6	SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD | CHK: VGY FIGURE: 7 | SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD | CHK: VGY FIGURE: 8 | SCALE: NONE



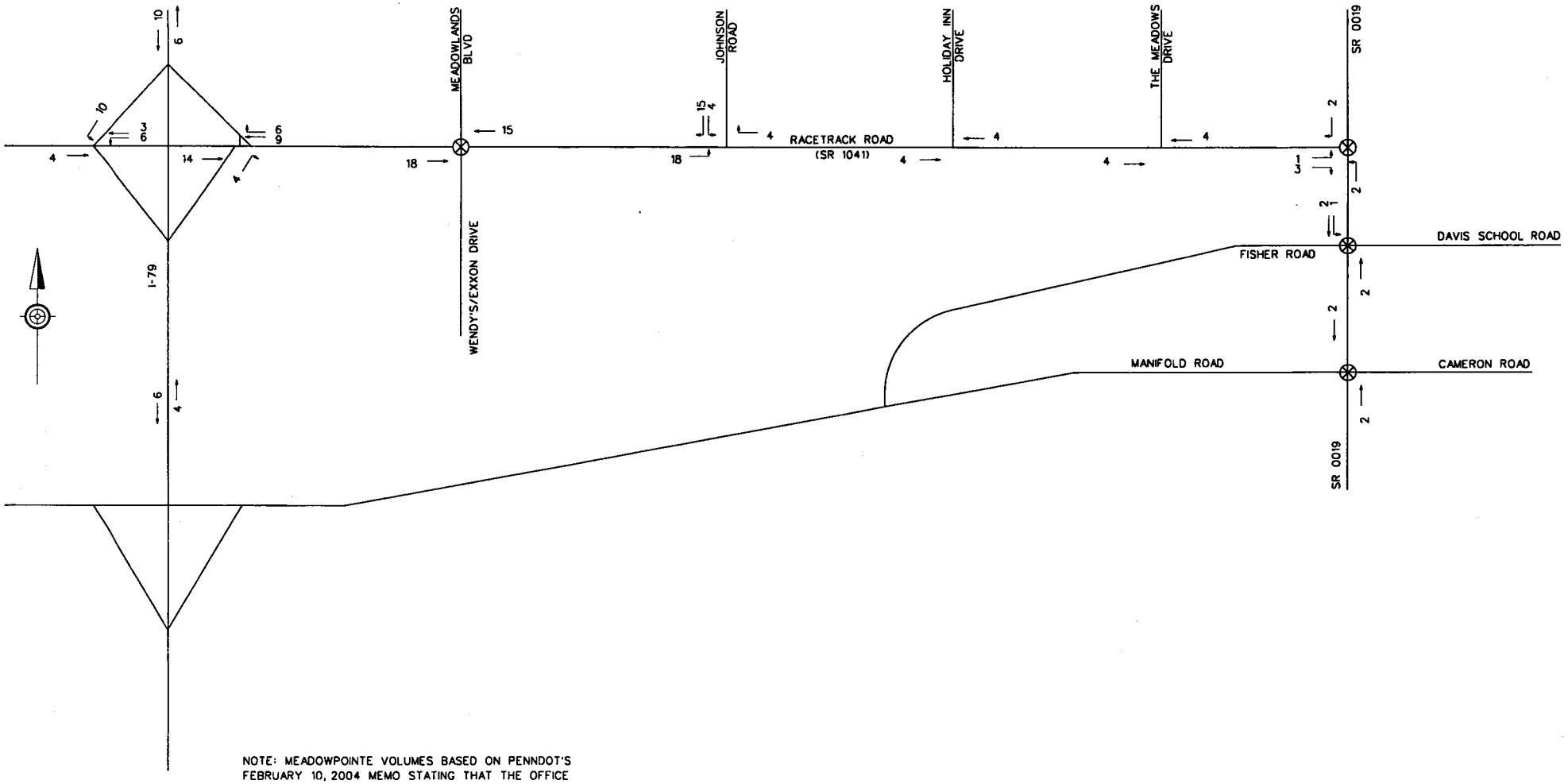
NOTE: MEADOWPOINTE VOLUMES BASED ON PENNDOT'S FEBRUARY 10, 2004 MEMO STATING THAT THE OFFICE COMPLEX WOULD BE 112,000 SQ. FT. OF GENERAL OFFICE AND USING ITE'S TRIP GENERATION 7TH EDITION. DISTRIBUTION WAS PERFORMED BASED ON THE MEADOWPOINTE TRAFFIC IMPACT STUDY PERFORMED BY TRANS ASSOCIATES

PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

MEADOWPOINTE SITE GENERATED TRAFFIC
WEEKDAY PM PEAK HOUR

DATE: DECEMBER 2005	
PROJECT NO: A0 4231	
DRA: JPD	CHK: VGY
FIGURE: 9	SCALE: NONE



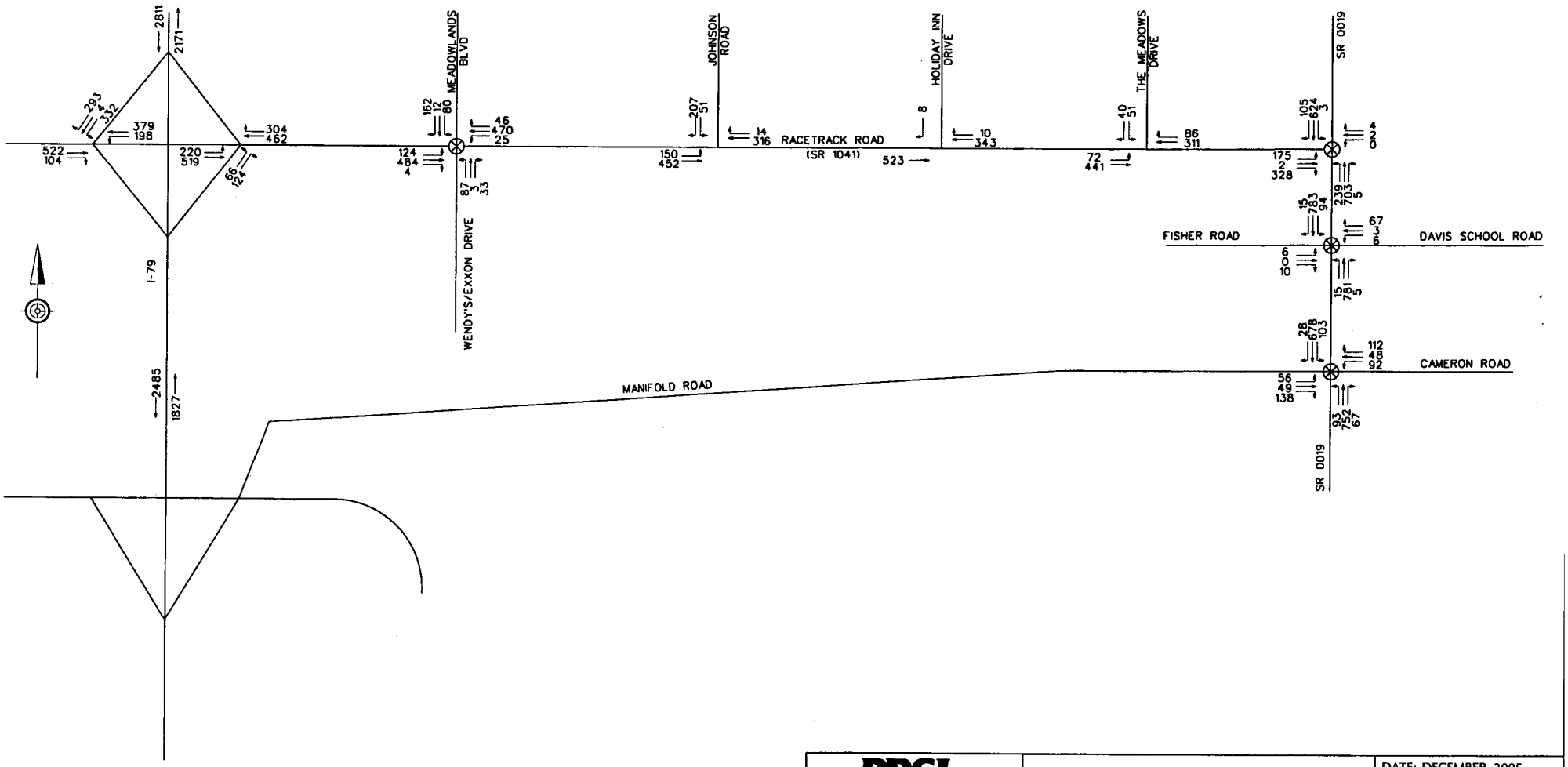
NOTE: MEADOWPOINTE VOLUMES BASED ON PENNDOT'S FEBRUARY 10, 2004 MEMO STATING THAT THE OFFICE COMPLEX WOULD BE 112,000 SQ. FT. OF GENERAL OFFICE AND USING ITE'S TRIP GENERATION 7TH EDITION. DISTRIBUTION WAS PERFORMED BASED ON THE MEADOWPOINTE TRAFFIC IMPACT STUDY PERFORMED BY TRANS ASSOCIATES

PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

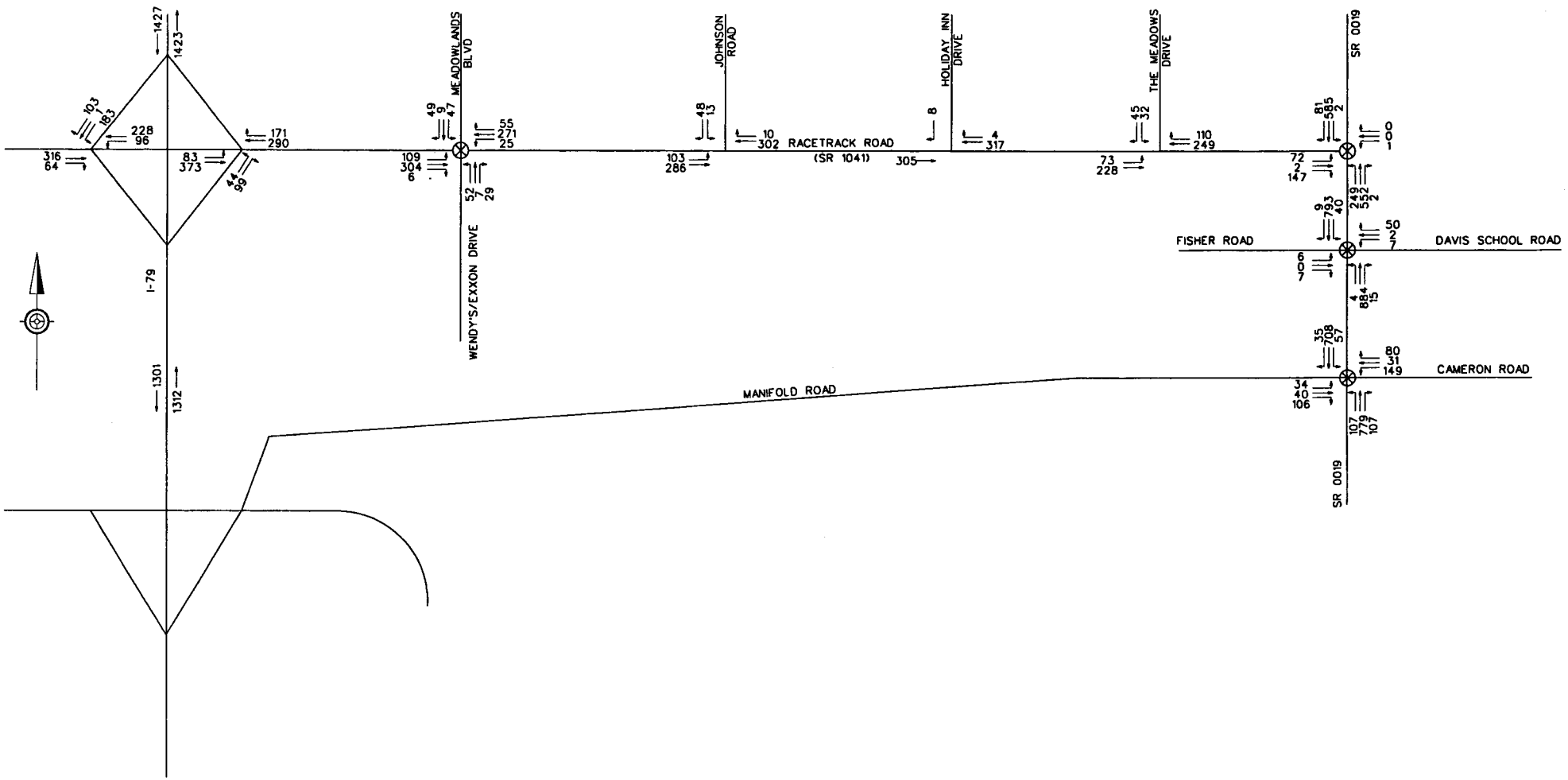
THE MEADOWS

MEADOWPOINTE SITE GENERATED TRAFFIC
SATURDAY PEAK HOUR

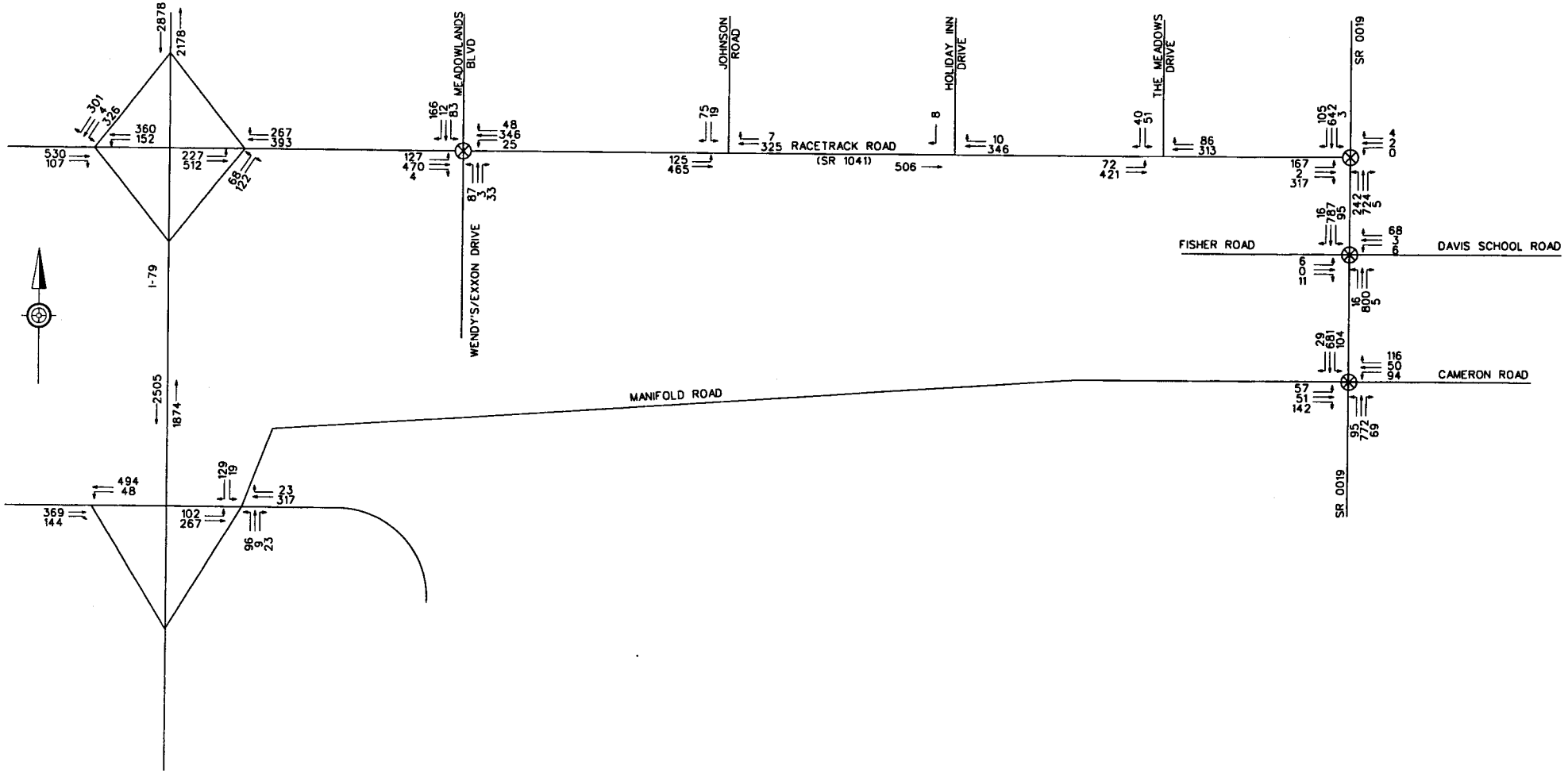
DATE: DECEMBER 2005	
PROJECT NO: A0 4231	
DRA: JPD	CHK: VGY
FIGURE: 10	SCALE: NONE



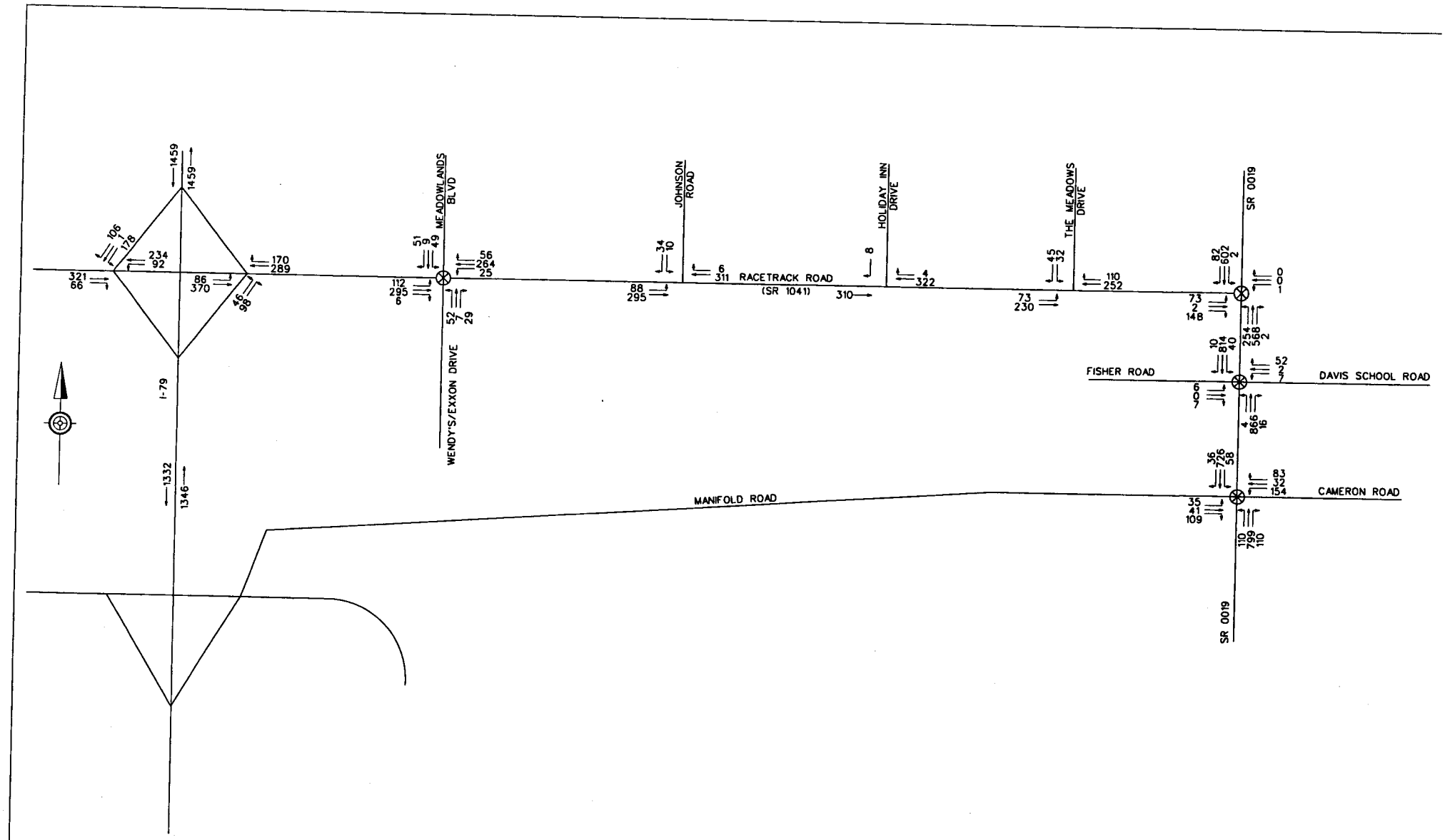
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 WEEKDAY PM PEAK HOUR VOLUMES W/MEADOWPOINTE	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 11 / SCALE: NONE



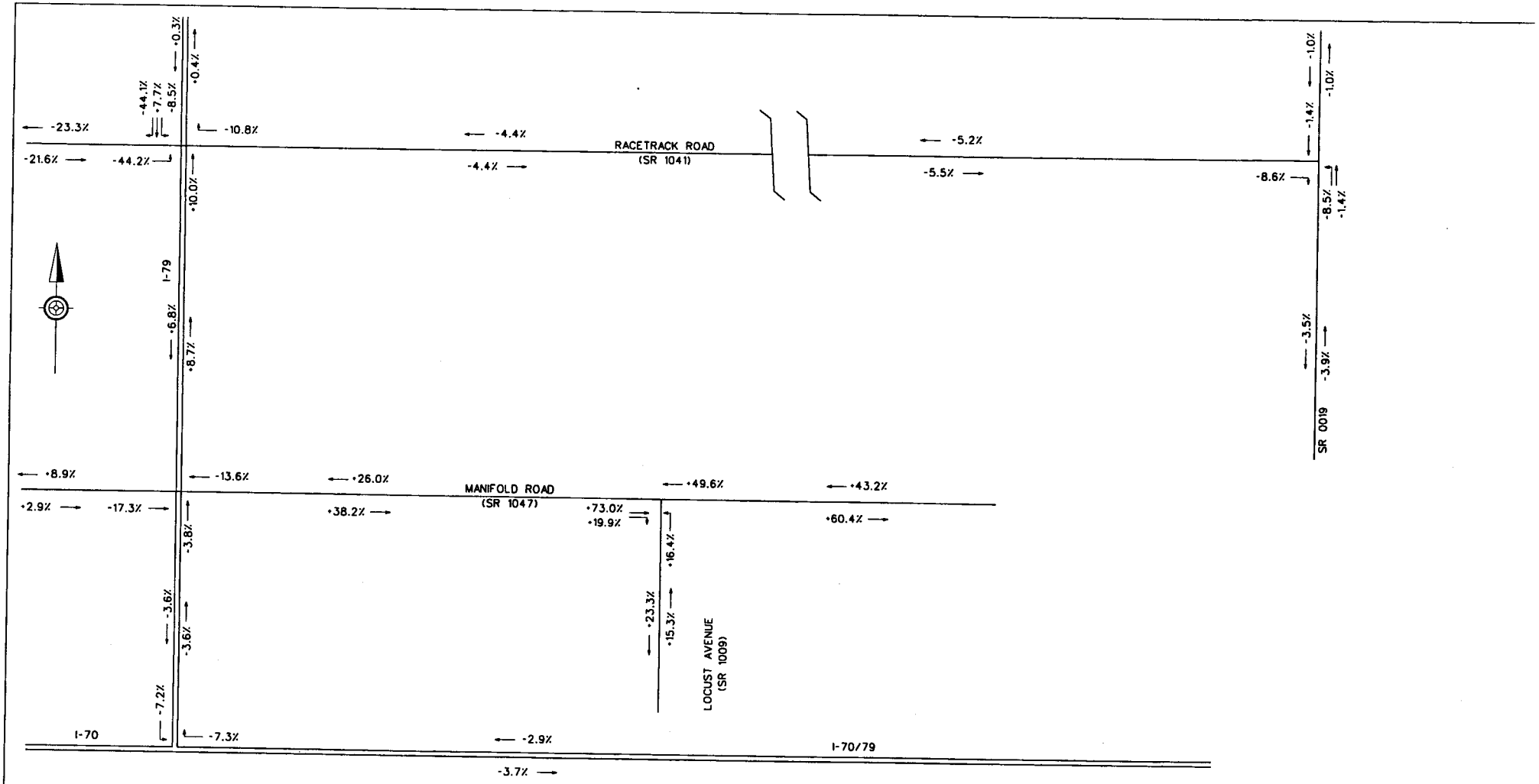
PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 SATURDAY PEAK HOUR VOLUMES W/MEADOWPOINTE	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD | CHK: VGY FIGURE: 12 | SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	PROJECTED 2008 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES	DRA: JPD / CHK: VGY
		FIGURE: 13 / SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2008 SATURDAY PEAK HOUR TRAFFIC VOLUMES	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 14 / SCALE: NONE



NOTE:

1. PERCENTAGES ARE A COMPARISON OF 2008 BUILD AND NO BUILD DESIGN HOUR VOLUMES (PM) FROM THE SOUTHWESTERN PENNSYLVANIA COMMISSION STUDY: I-79/SR. 1009 INTERCHANGE STUDY CHARTIES, NORTH AND SOUTH STRABANE TOWNSHIPS, WASHINGTON COUNTY (7/02).

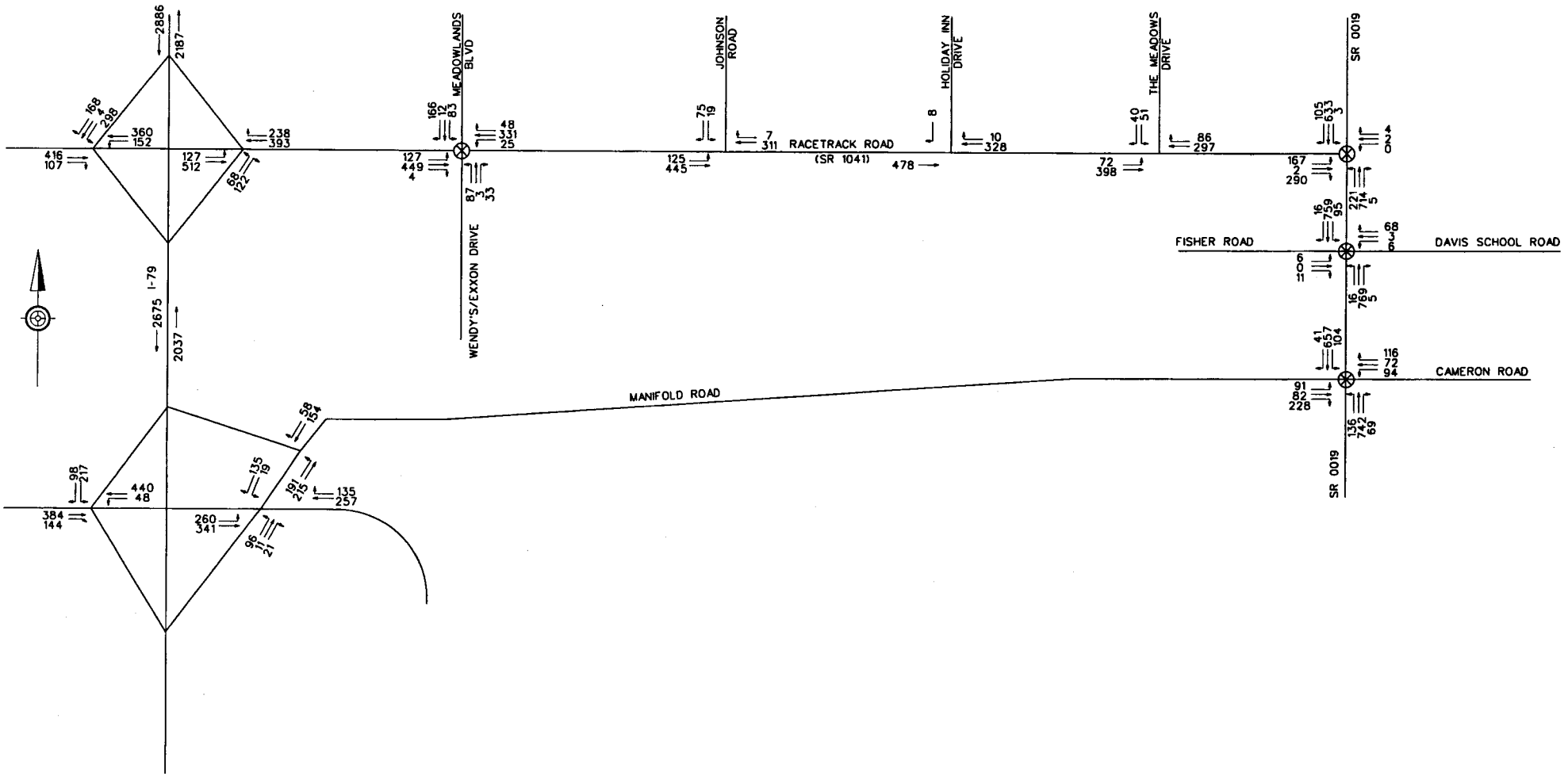
2. IT IS ASSUMED PM PEAK HOUR PERCENTAGE CHANGE IS THE SAME AS SATURDAY PEAK HOUR PERCENTAGE CHANGE.

PBS&J
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

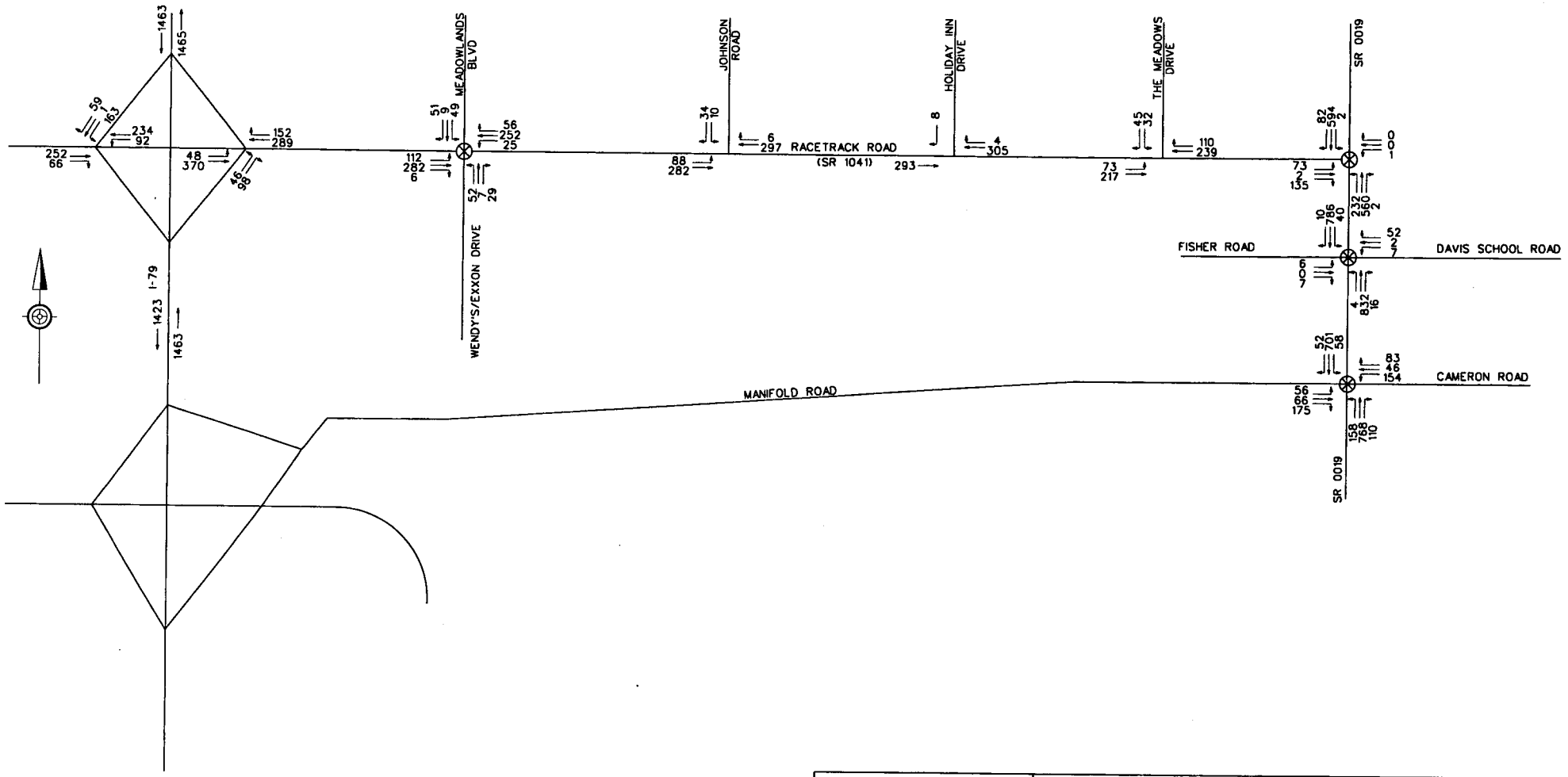
THE MEADOWS

PERCENT PEAK HOUR CHANGE
FOR FULL MEADOWLANDS INTERCHANGE

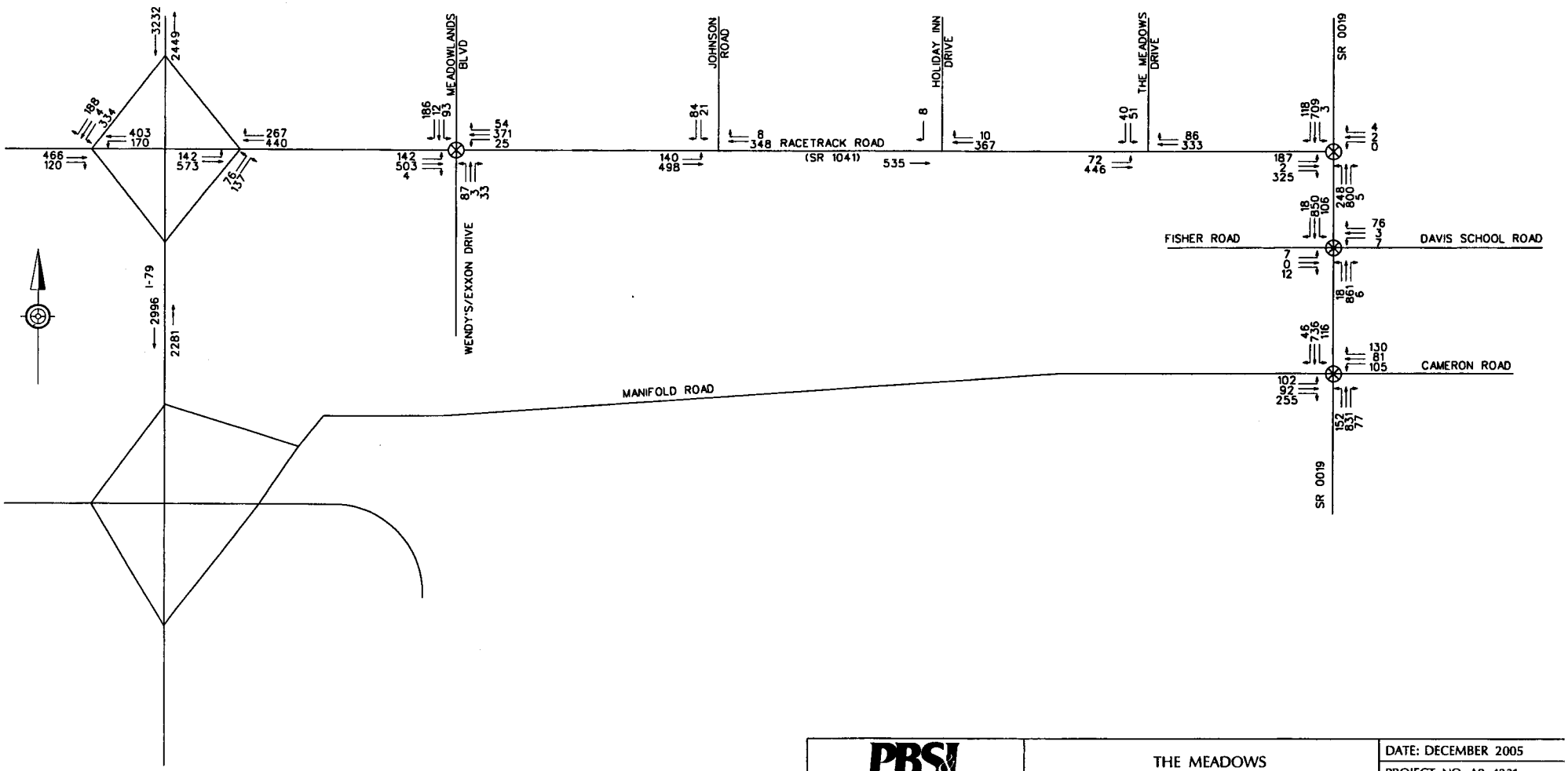
DATE: DECEMBER 2005	
PROJECT NO: A0 4231	
DRA: JWW	CHK: VGY
FIGURE: 15	SCALE: NONE



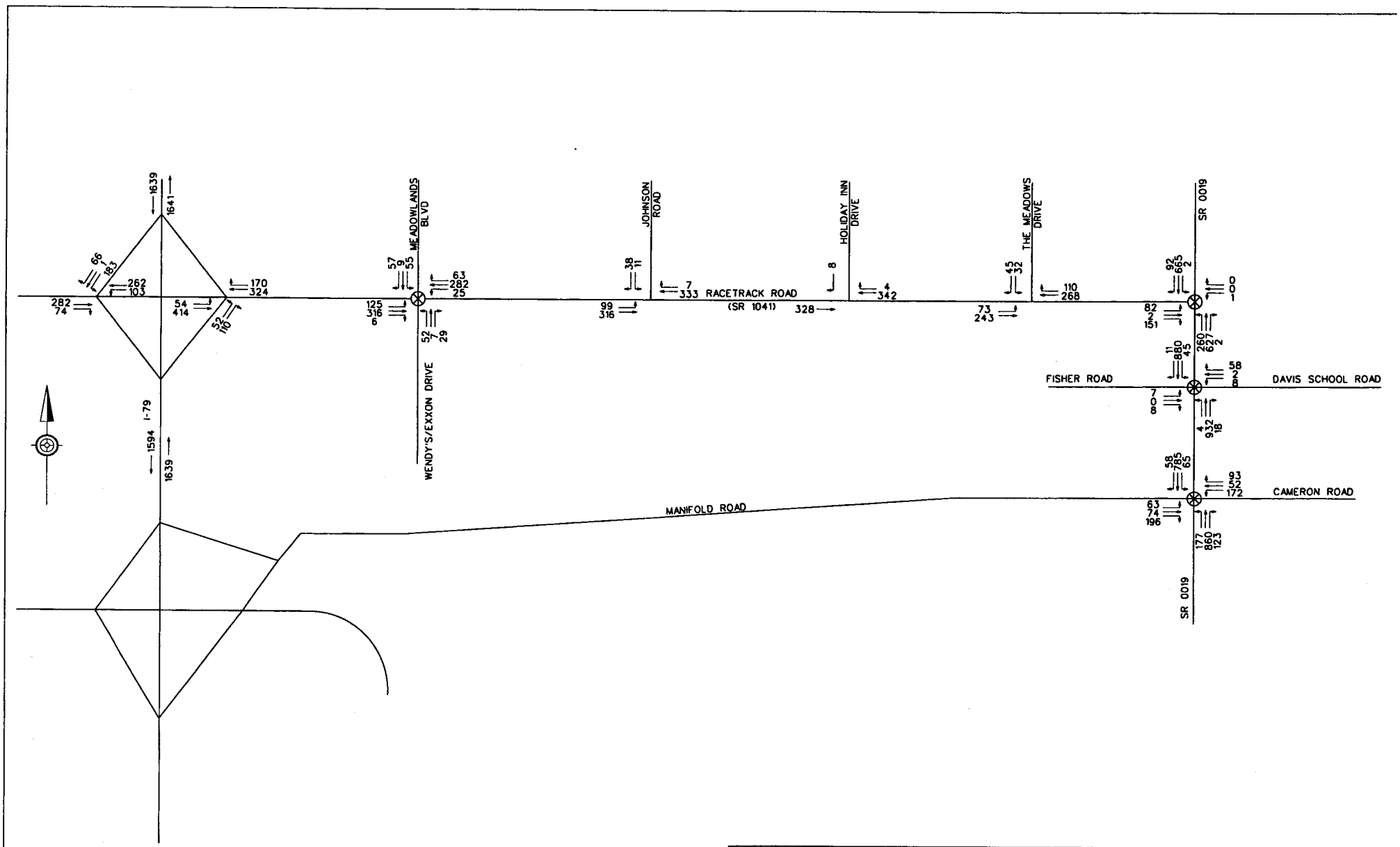
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	PROJECTED 2008 WEEKDAY PM PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE	DRA: JPD	CHK: VGY
		FIGURE: 16	SCALE: NONE



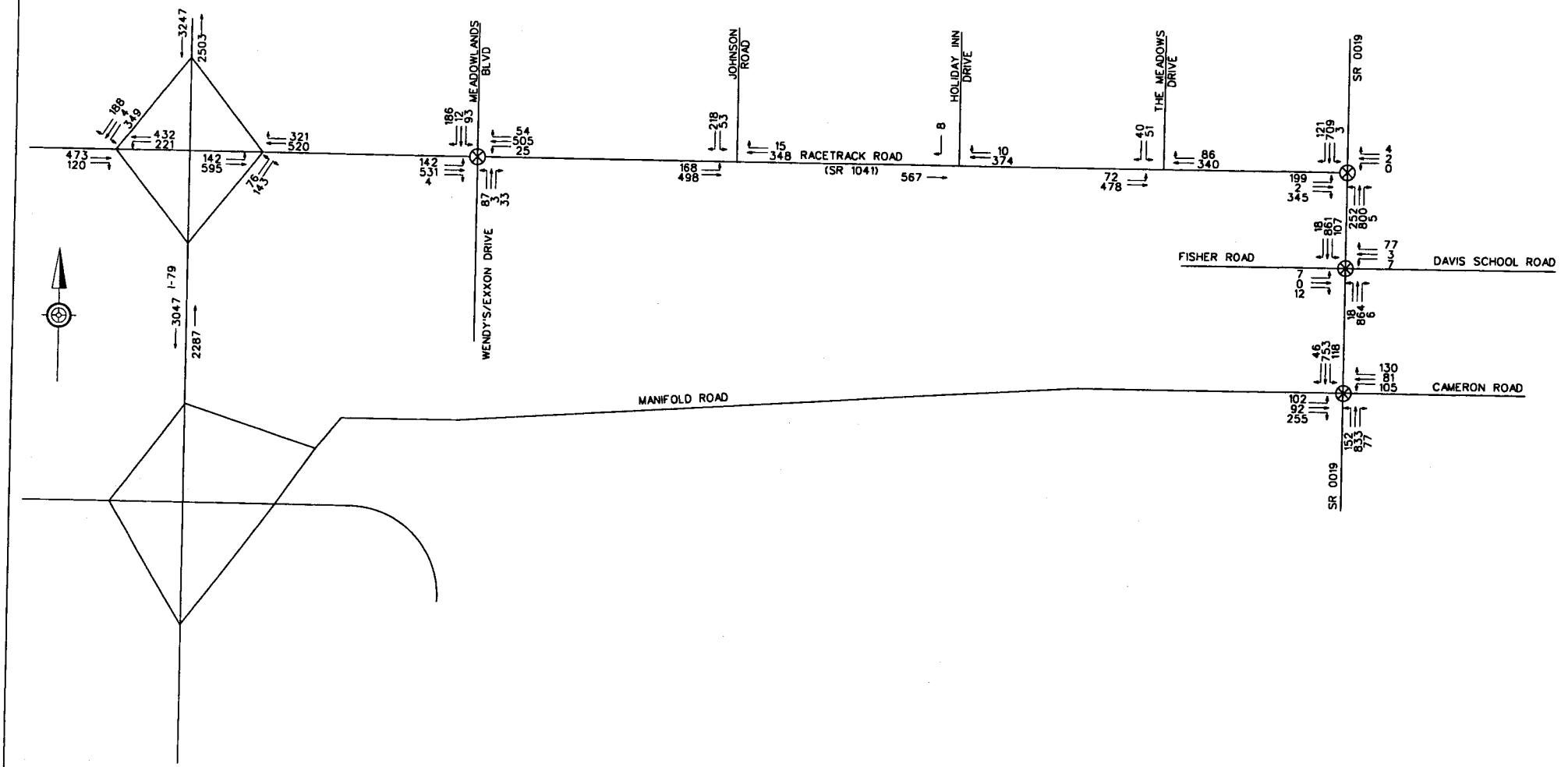
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	PROJECTED 2008 SATURDAY PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE	DRA: JPD / CHK: VGY
		FIGURE: 17 / SCALE: NONE



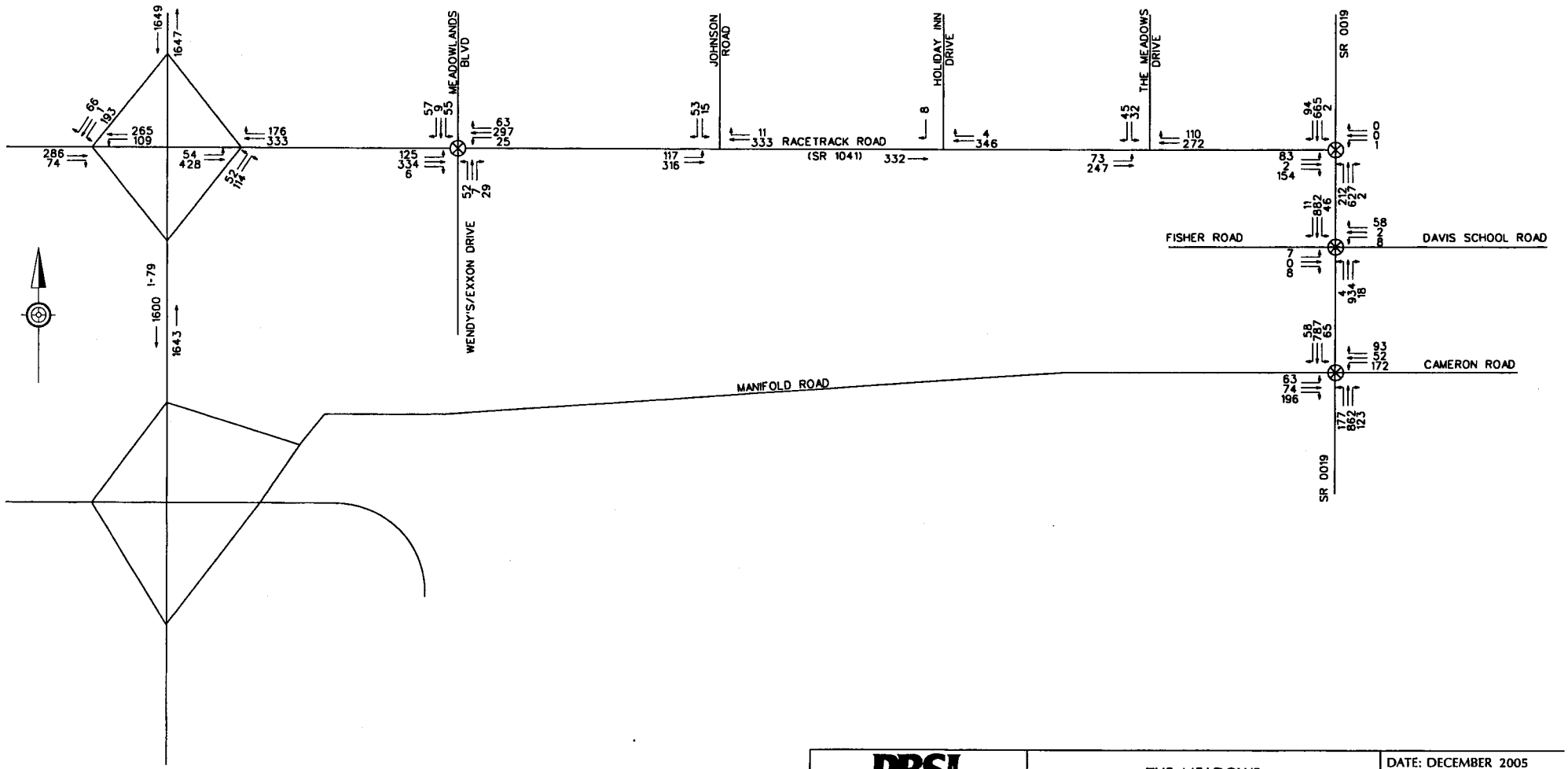
PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	PROJECTED 2016 WEEKDAY PM PEAK HOUR VOLUMES W/ FULL MEADOWLANDS INTERCHANGE	DRA: JPD	CHK: VGY
		FIGURE: 18	SCALE: NONE



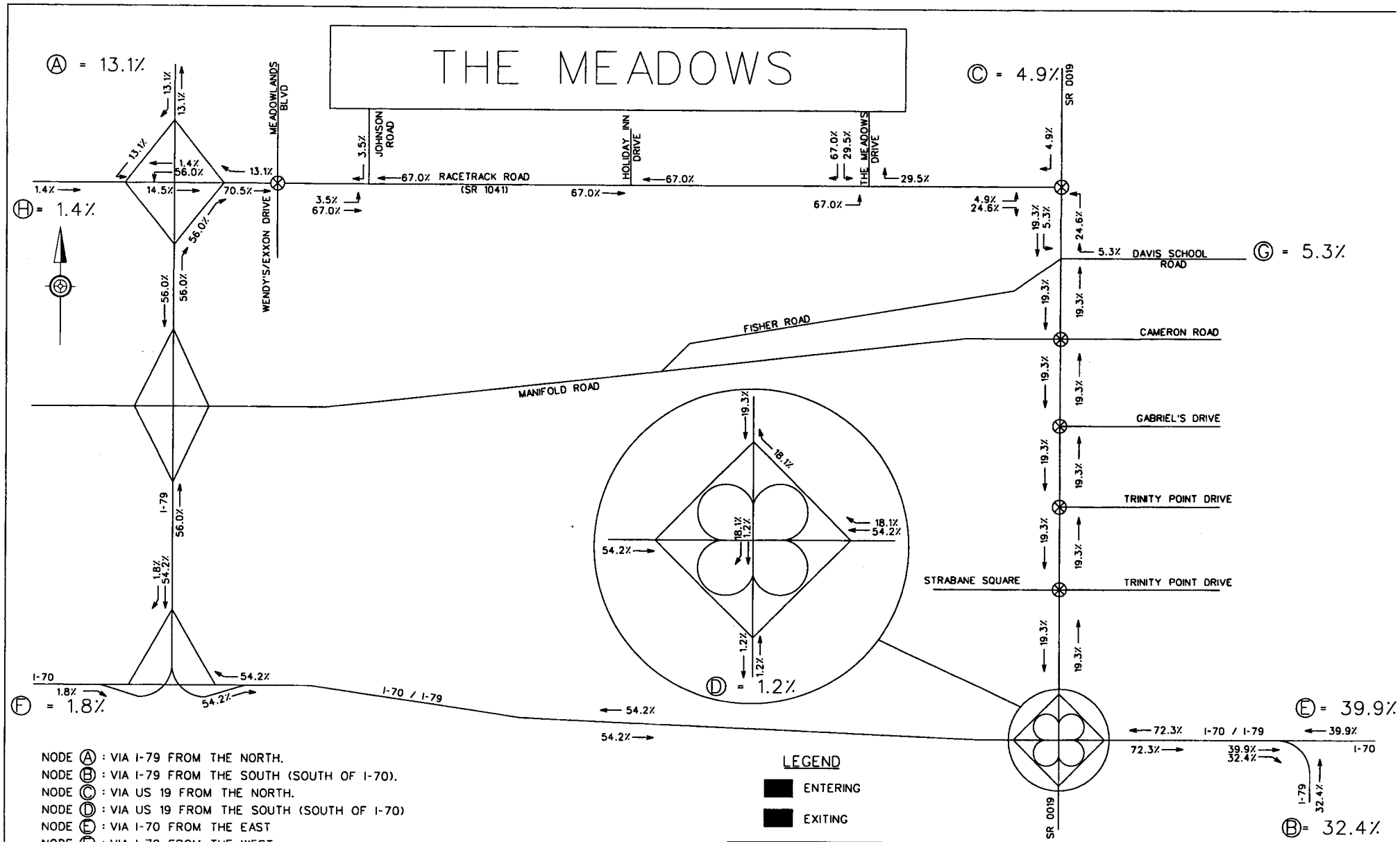
PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	PROJECTED 2016 SATURDAY PEAK HOUR VOLUMES W/ FULL MEADOWLANDS INTERCHANGE	DRA: JPD / CHK: VGY
		FIGURE: 19 / SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2016 WEEKDAY PM PEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE & MEADOWPOINTE	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD | CHK: VGY FIGURE: 20 | SCALE: NONE



PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005
		PROJECT NO: A0 4231
	PROJECTED 2016 SATURDAYPEAK HOUR VOLUMES W/FULL MEADOWLANDS INTERCHANGE & MEADOWPOINTE	DRA: JPD / CHK: VGY
		FIGURE: 21 / SCALE: NONE

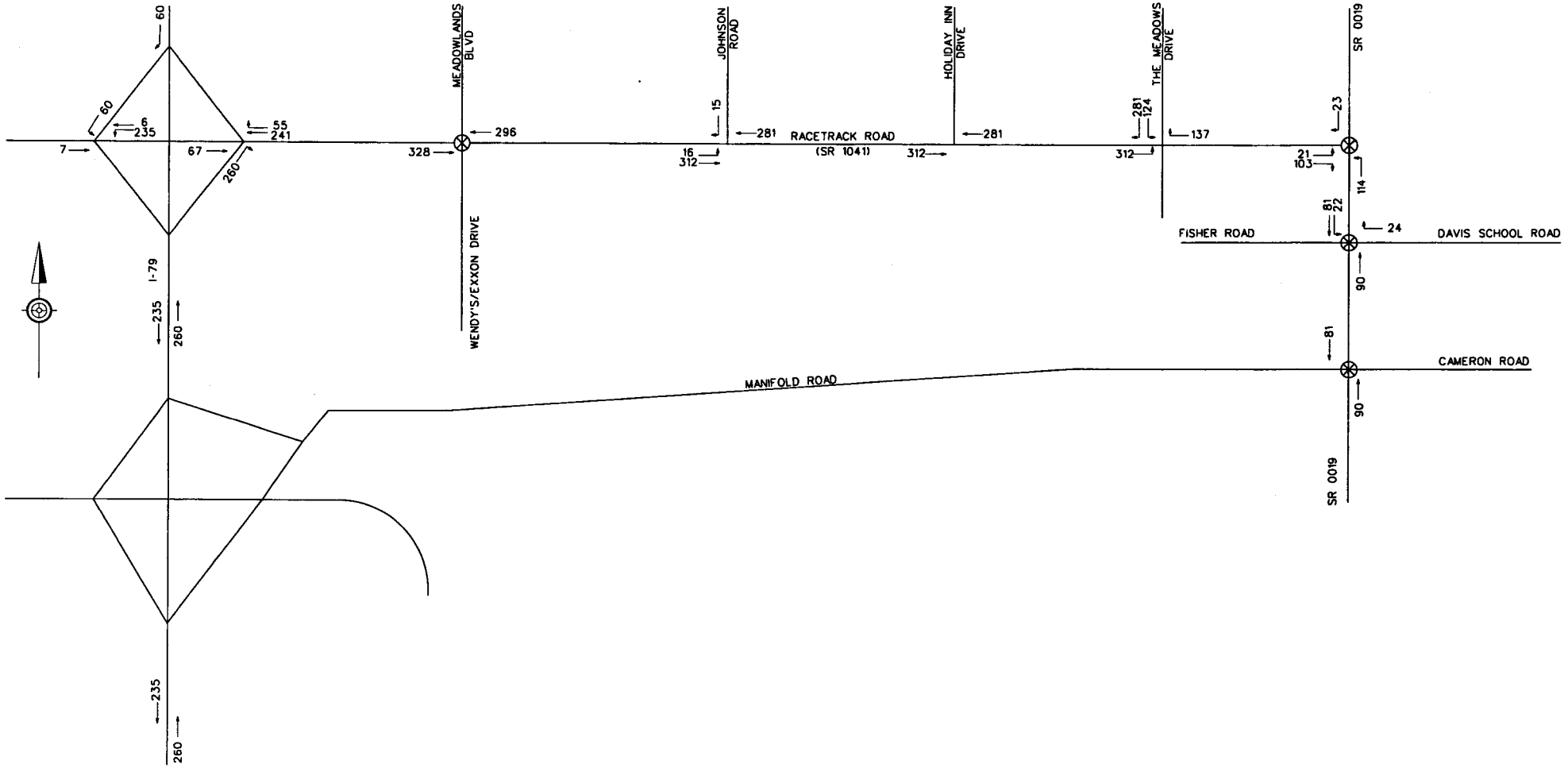


PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS GRAVITATIONAL MODEL

PERCENT TRAFFIC ENTERING/EXITING
PROPOSED SITE – THE MEADOWS ONLY

DATE: DECEMBER 2005
PROJECT NO: A0 4231
DRA: JPD | CHK: VGY
FIGURE: 22 | SCALE: NONE

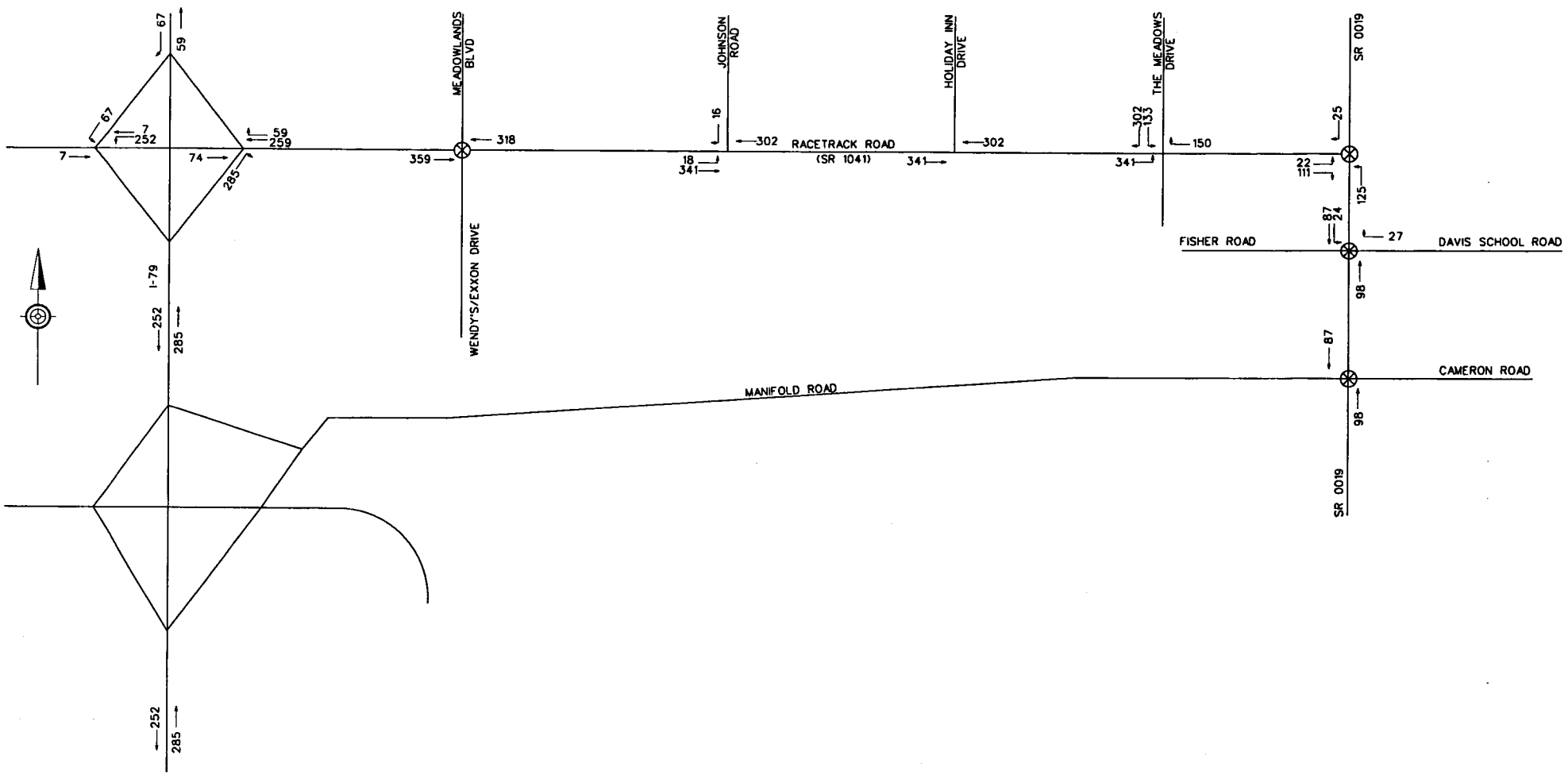


PBS&J
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

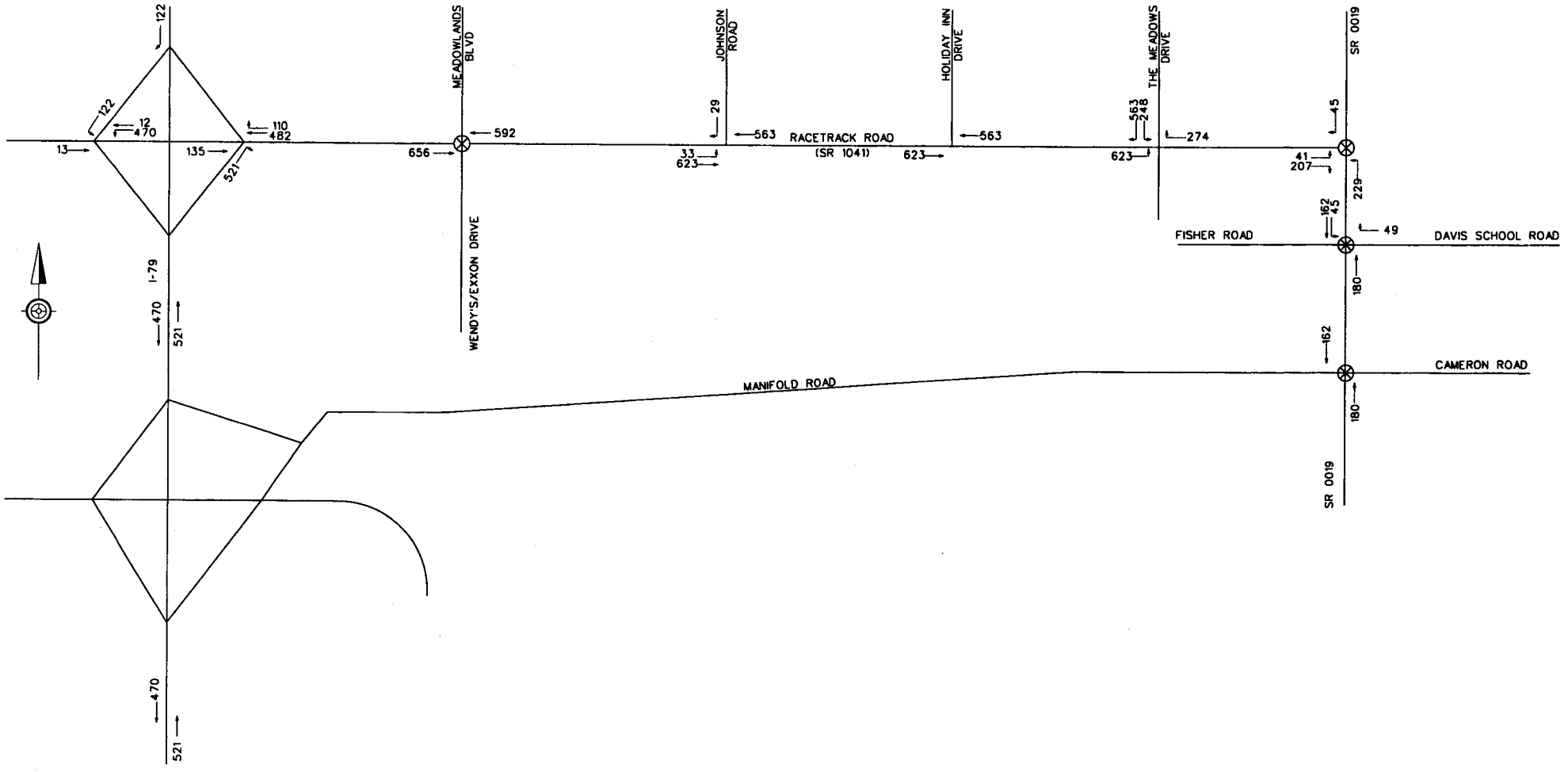
THE MEADOWS

TOTAL WEEKDAY PM PEAK HOUR VOLUMES
THE MEADOWS (WITH 1500 SLOTS) ONLY

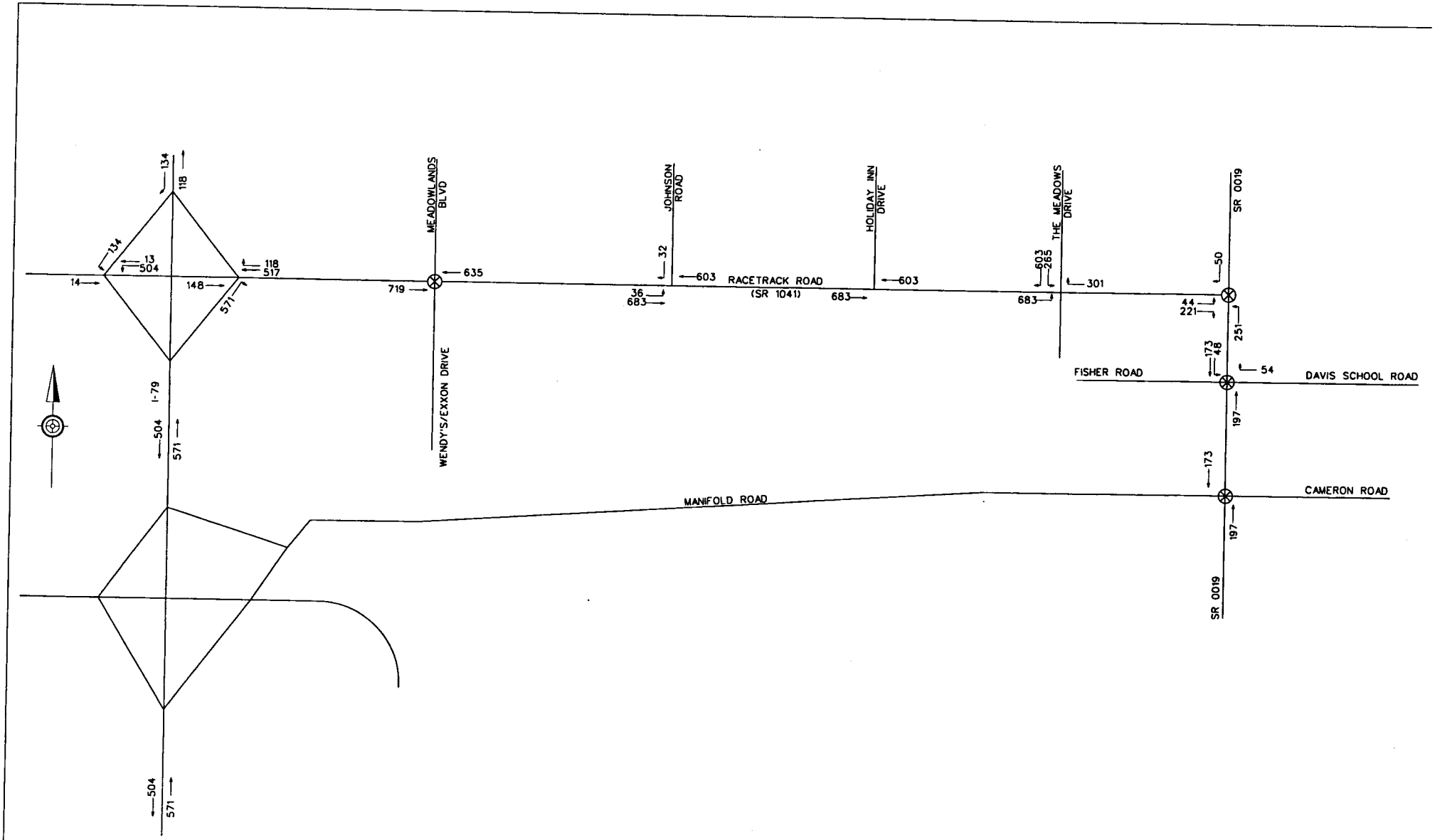
DATE: DECEMBER 2005	
PROJECT NO: A0 4231	
DRA: JPD	CHK: VGY
FIGURE: 23	SCALE: NONE



PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	TOTAL SATURDAY PEAK HOUR VOLUMES THE MEADOWS (1500 SLOTS) ONLY	DRA: JPD	CHK: VGY
		FIGURE: 24	SCALE: NONE



PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS	DATE: DECEMBER 2005	
		PROJECT NO: A0 4231	
	TOTAL WEEKDAY PM PEAK HOUR VOLUMES THE MEADOWS (WITH 3000 SLOTS) ONLY	DRA: JPD	CHK: VGY
		FIGURE: 25	SCALE: NONE

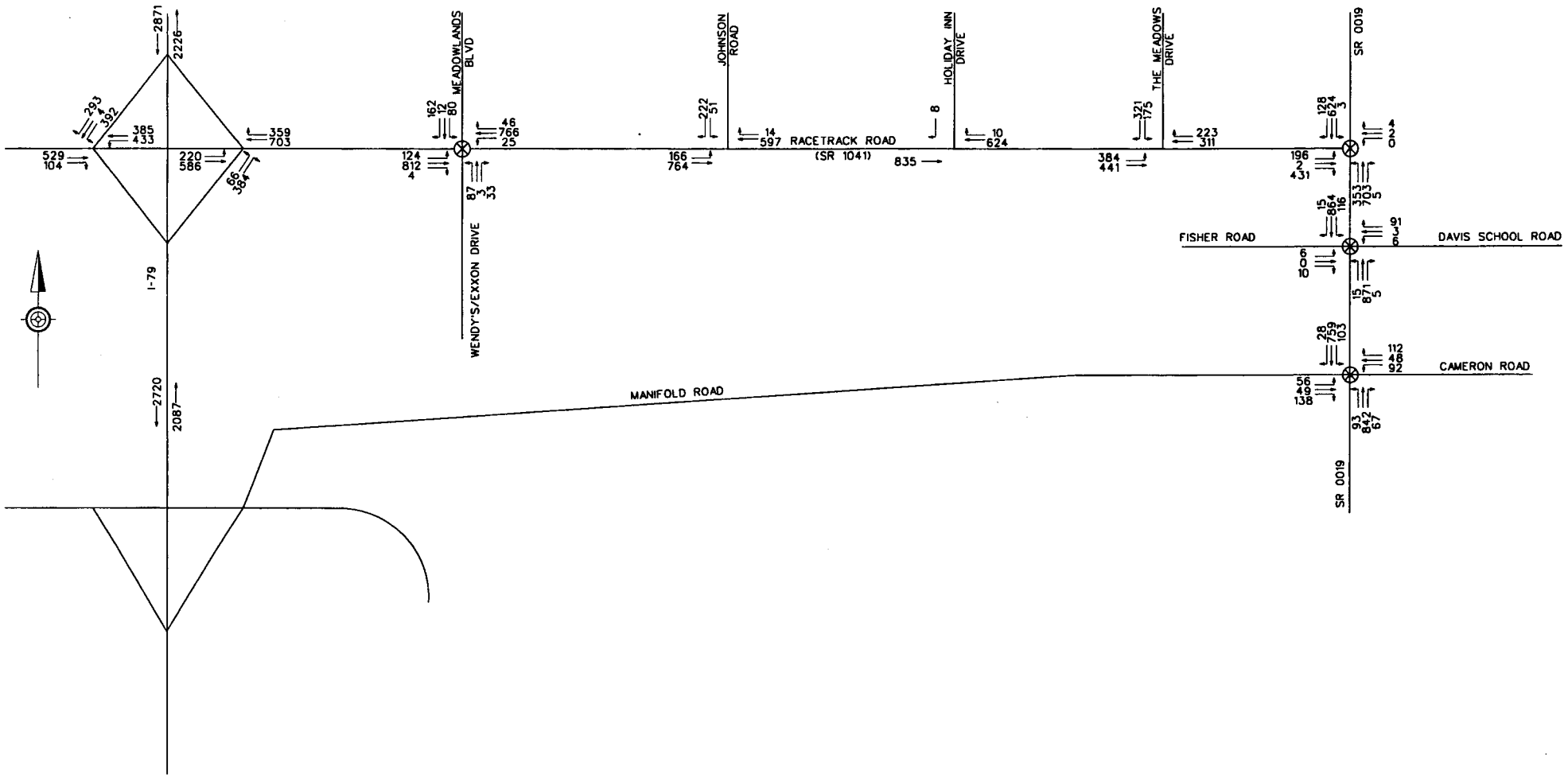


PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

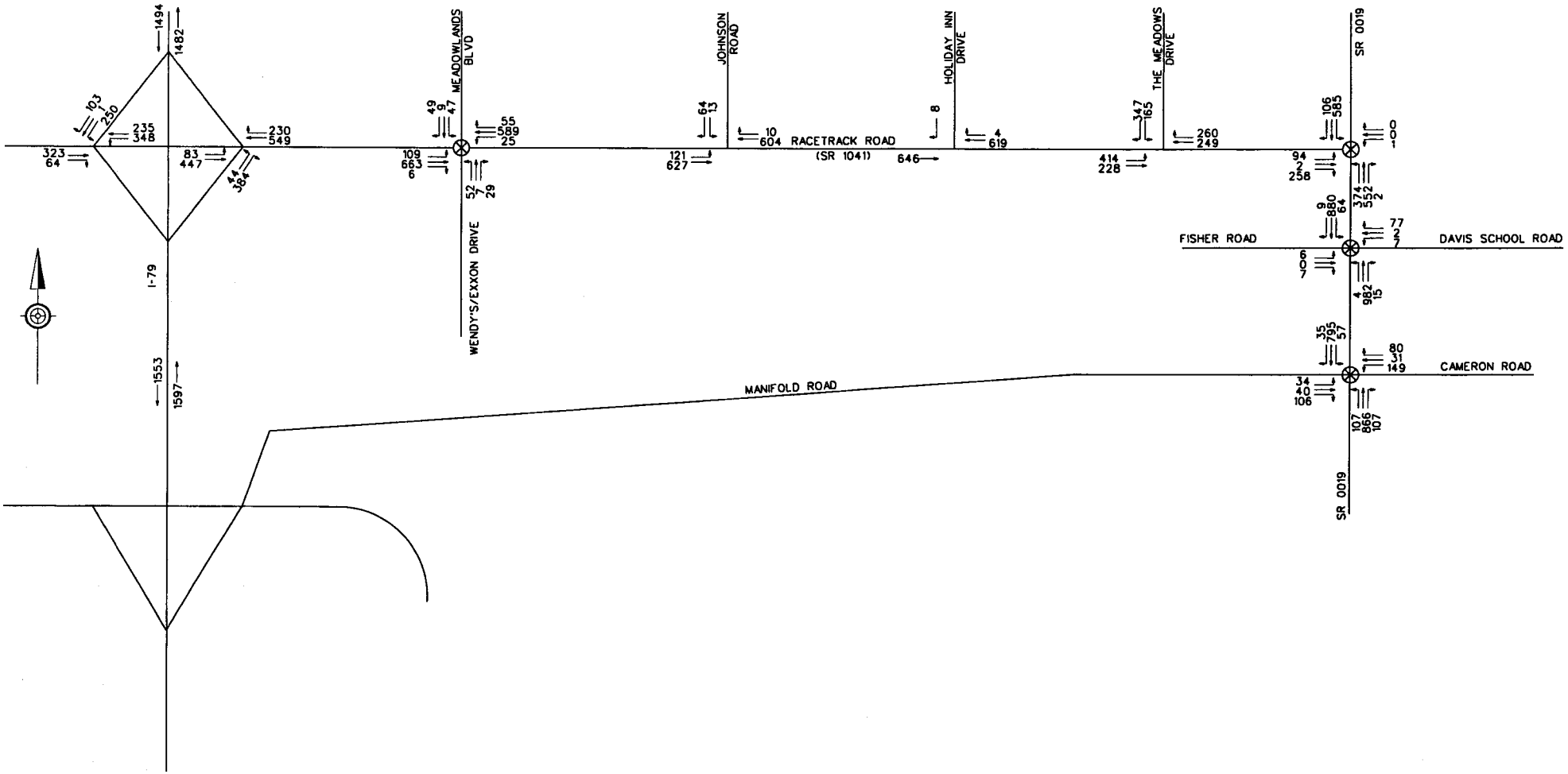
TOTAL SATURDAY PEAK HOUR VOLUMES
THE MEADOWS (WITH 3000 SLOTS) ONLY

DATE: DECEMBER 2005
PROJECT NO: A0 4231
DRA: JPD | CHK: VGY
FIGURE: 26 | SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC

PBSJ 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES WITH THE MEADOWS ONLY (1500 SLOTS)	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 27 / SCALE: NONE



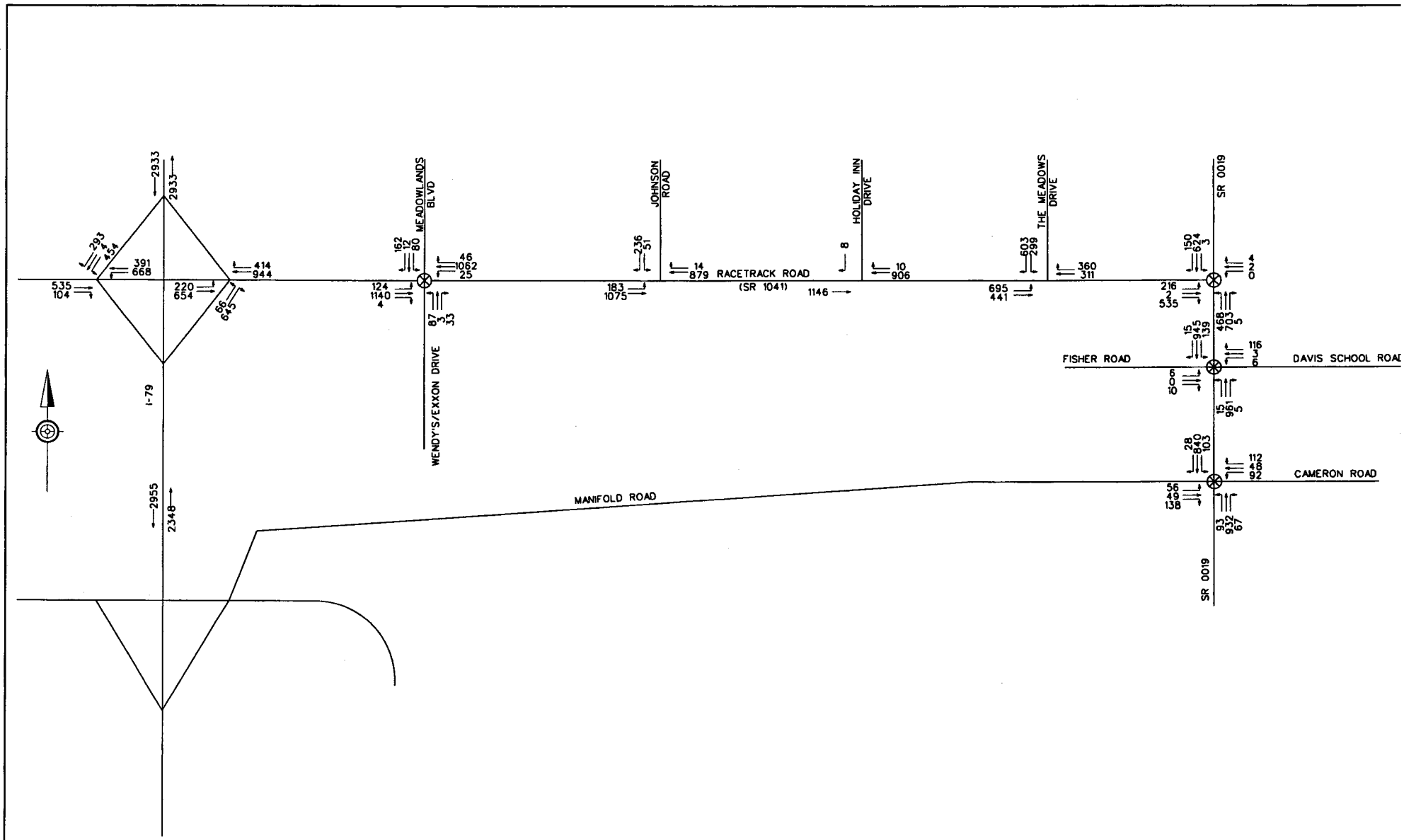
NOTE: INCLUDES MEADOWPOINTE TRAFFIC

PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

PROJECTED 2006 SATURDAY
PEAK HOUR TRAFFIC VOLUMES
WITH THE MEADOWS ONLY (1500 SLOTS)

DATE: DECEMBER 2005	
PROJECT NO: A0 4231	
DRA: JPD	CHK: VGY
FIGURE: 28	SCALE: NONE



NOTE: INCLUDES MEADOWPOINTE TRAFFIC

PBSJ
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

PROJECTED 2006 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES WITH THE MEADOWS (WITH 3000 SLOTS) ONLY

DATE: DECEMBER 2005
PROJECT NO: A0 4231
DRA: JPD | CHK: VGY
FIGURE: 29 | SCALE: NO

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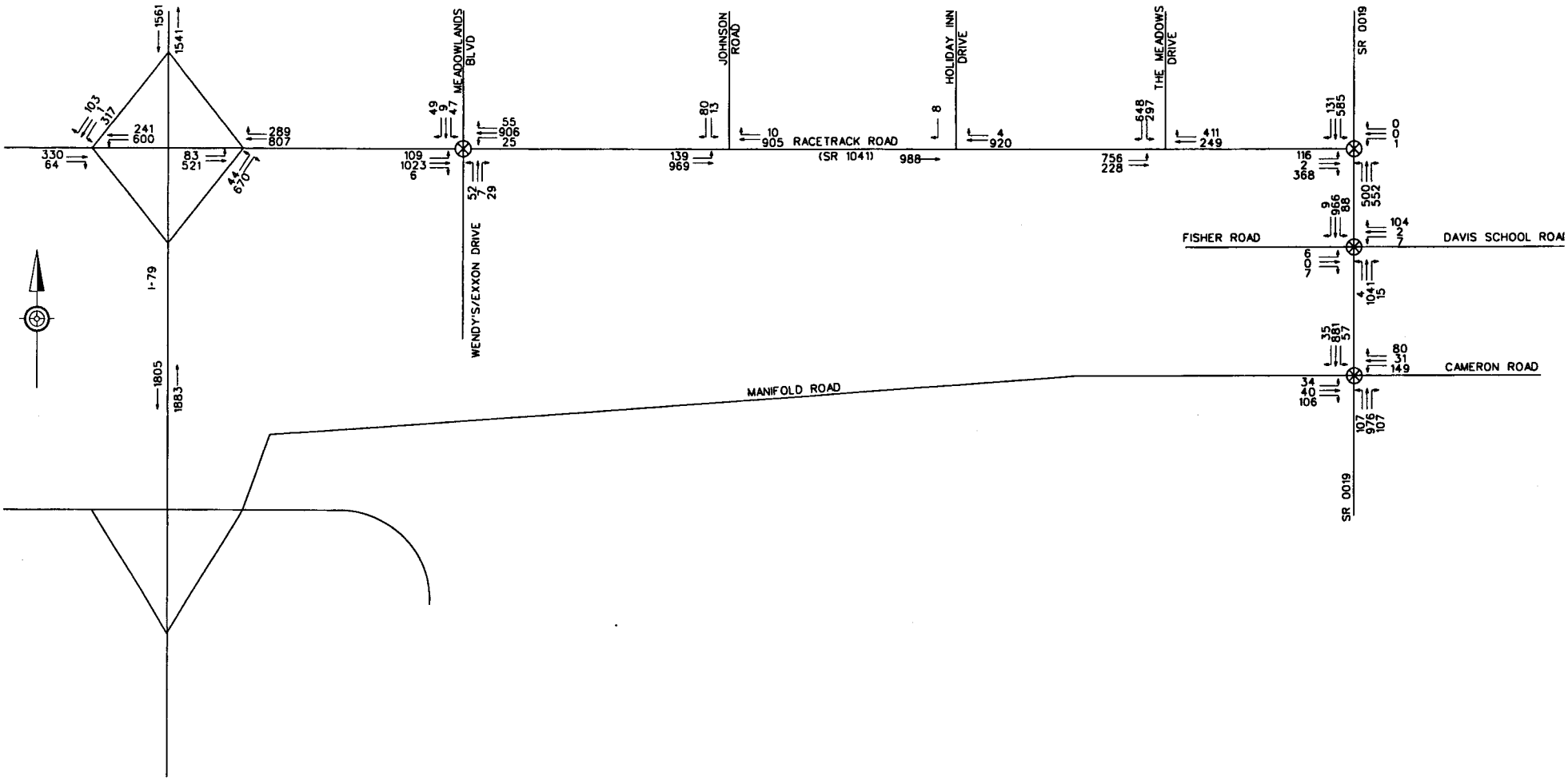
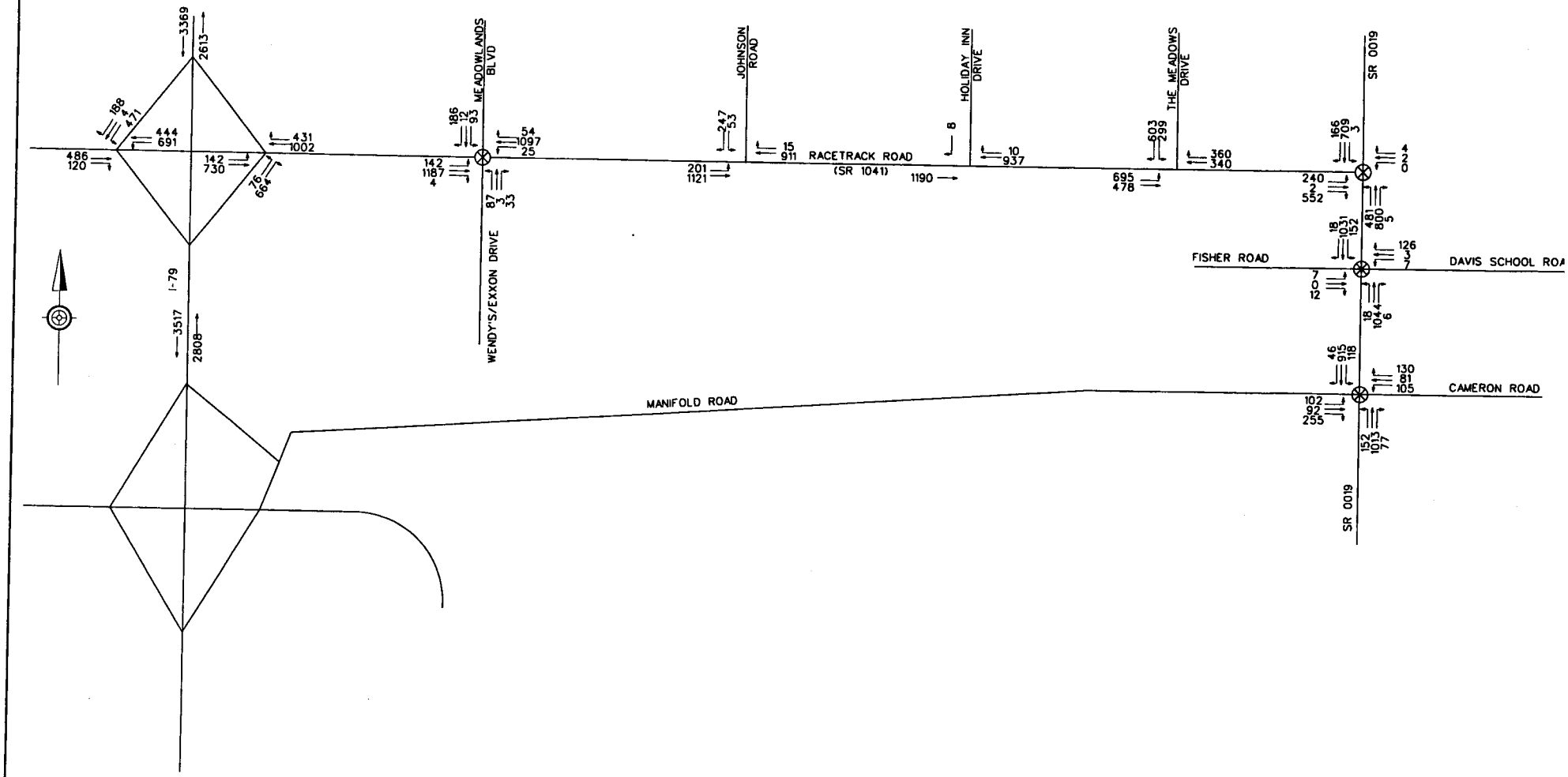


NOTE: INCLUDES MEADOWPOINTE TRAFFIC

PBS&J 400 TECHNOLOGY DRIVE, SUITE 100 CANONSBURG, PA 15317	THE MEADOWS PROJECTED 2006 SATURDAY PEAK HOUR TRAFFIC VOLUMES WITH THE MEADOWS (WITH 3000 SLOTS) ONLY	DATE: DECEMBER 2005 PROJECT NO: A0 4231 DRA: JPD / CHK: VGY FIGURE: 30 / SCALE: NO

R:\A04231\12-05-FIGS.dgn 12/8/2005 5:09:48 PM



NOTE: INCLUDES MEADOWPOINTE TRAFFIC AND FULL MEADOWLANDS INTERCHANGE

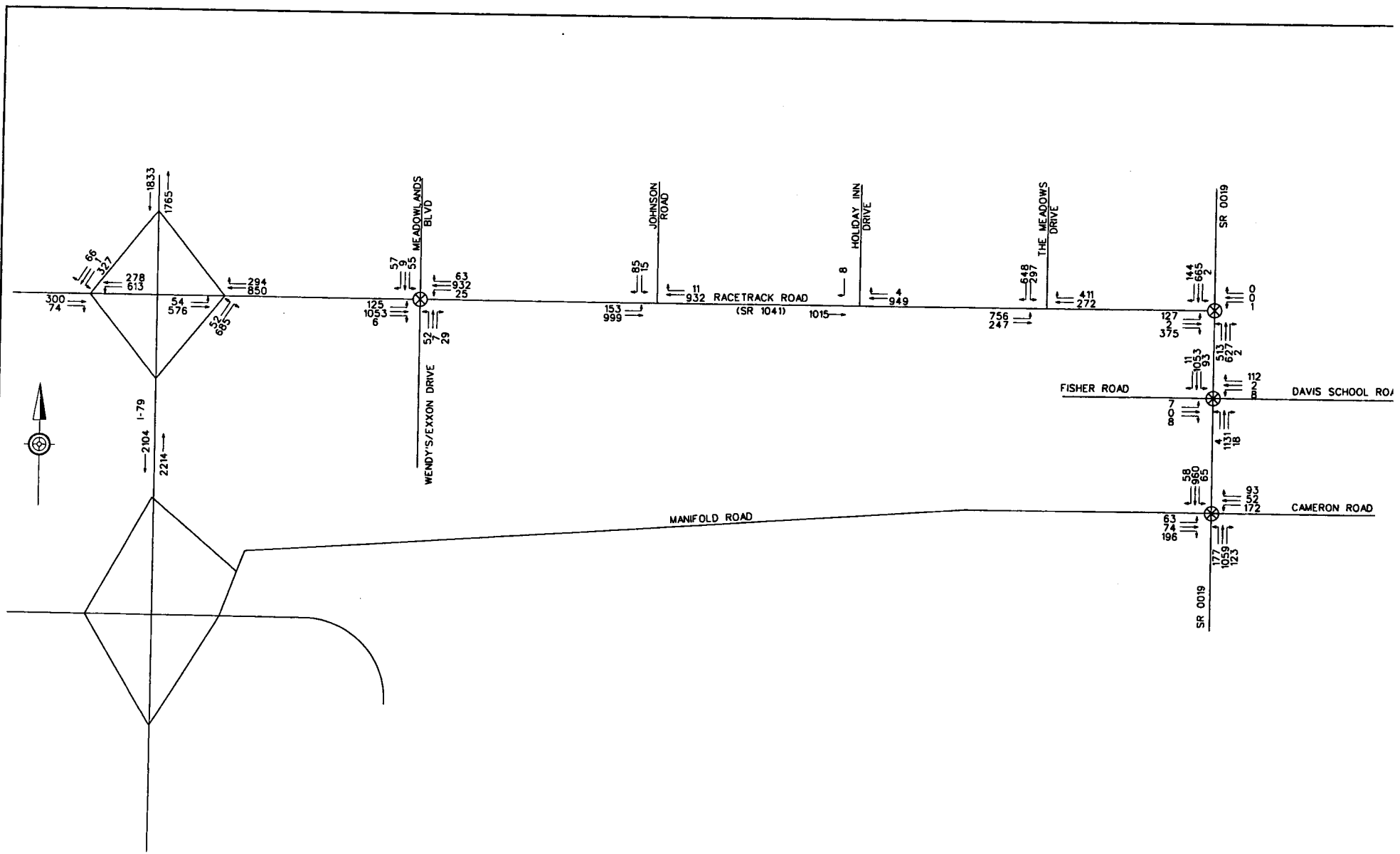
PBS&J
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

PROJECTED 2016 WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES WITH THE MEADOWS (WITH 3000 SLOTS) ONLY

DATE: DECEMBER 2005
PROJECT NO: A0 4231
DRA: JPD | CHK: VGY
FIGURE: 31 | SCALE: NO

R:\A04231\12-05-FIGS.dgn 12/8/2005 5:10:00 PM



NOTE: INCLUDES MEADOWPOINTE TRAFFIC AND FULL MEADOWLANDS INTERCHANGE

PBS&J
400 TECHNOLOGY DRIVE, SUITE 100
CANONSBURG, PA 15317

THE MEADOWS

PROJECTED 2016 SATURDAY PEAK HOUR TRAFFIC VOLUMES WITH THE MEADOWS (WITH 3000 SLOTS)ONLY

DATE: DECEMBER 2005
PROJECT NO: A0 4231
DRA: JPD | CHK: VGY
FIGURE: 32 | SCALE: NO

R: \A04231\12-05-FIGS.dgn 12/8/2005 5: 10: 05 PM

B2

PBS&J /// TRILINE

FINAL
TRAFFIC IMPACT STUDY
for the
TANGER FACTORY OUTLET
and
THE MEADOWS EXPANSION
in
NORTH/SOUTH STRABANE TOWNSHIPS
WASHINGTON COUNTY, PENNSYLVANIA

Volume I of II

Prepared for:

Tanger Factory Outlet Centers, Inc.
3200 Northline Ave., Suite 360
Greensboro, NC 27408
Phone: 336-292-3010

and

MEC Pennsylvania Racing, Inc.
Racetrack Road, P. O. Box 499
Meadowlands, PA 15347
Phone: 724-225-9300

April 2005

Raymond F. Caruso, P.E.

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"MEADOWS AND TANGER"

Roadway

Racetrack West of 79 - LT (12')	420 LF * $190/LF =	$79,800.00	Concrete
Racetrack West of 79 - RT (24')	690 LF * $380/LF =	$262,200.00	Concrete
Racetrack at Interchange - LT (6')	660 LF * $95/LF =	$62,700.00	Concrete
Racetrack at Interchange - RT (6')	660 LF * $95/LF =	$62,700.00	Concrete
Racetrack Interchange to Business - LT (12')	1000 LF * $190/LF =	$190,000.00	Concrete
Racetrack Interchange to Business - RT (12')	1000 LF * $190/LF =	$190,000.00	Concrete
Racetrack Business Park to Johnson - LT (24')	1540 LF * $380/LF =	$585,200.00	Concrete
Racetrack Business Park to Johnson - RT (24')	1000 LF * $380/LF =	$380,000.00	Concrete
Racetrack Business Park to Johnson - RT (12')	250 LF * $190/LF =	$47,500.00	Concrete
Racetrack Johnson to Meadows - RT (24')	2490 LF * $380/LF =	$946,200.00	Concrete
1 1/2" Mill, Overlay, Stripe Racetrack Road	27735 SY * $7.00/SY =	$194,145.00	
NB Off-Ramp (15')	1150 LF * $207.5/LF =	$238,625.00	Asphalt
NB Off-Ramp (12')	850 LF * $166/LF =	$141,100.00	Asphalt
NB Off-Ramp Extension (15')	450 LF * $207.5/LF =	$93,375.00	Asphalt
Paved Shoulder - 4' Type 1-I	511 SY * $40/sy =	$20,440.00	
Paved Should - 10' Type 1-I	1944 SY * $40/sy =	$77,760.00	
SB Off-Ramp (12')	670 LF * $166/LF =	$111,220.00	Asphalt
Paved Should - 10' Type 1-I	856 SY * $40/sy =	$34,240.00	
SB On-Ramp (12')	1290 LF * $166/LF =	$214,140.00	Asphalt
Paved Should - 10' Type 1-I	1433 SY * $40/sy =	$57,320.00	
Tanger Site Drive Seven Lanes 12' W - 150' L	1050 LF * $141/LF =	$148,050.00	Driveway
RT19 and Manifold/Cameron Road			
EB Right Turn Lane on Manifold Road (12')	165 LF * $141/LF =	$23,265.00	Sideroad
Taper for Turn Lane	420 LF * $70.50/LF =	$29,610.00	Sideroad
RT19 and Racetrack Road			
Add'l NB Left Turn Lane (12')	230 LF * $190/LF =	$43,700.00	Concrete
Taper for Turn Lane	450 LF * $95/LF =	$42,750.00	Concrete
Shoulder (6' W x 450' L)	300 SY * $40/sy =	$12,000.00	
Mountable Curb	1360 lf * $15/lf =	$20,400.00	
4" PCCP (680' L x 4' W)	302 sy * $40/sy =	$12,080.00	
Meadows Driveway			
Mountable Curb	80 lf * $15/lf =	$1,200.00	
Remove Existing Curb	80 lf * $7.50/lf	$600.00	
Widen Driveway (6')	80 LF * $70.5/LF =	$5,640.00	Driveway
Mill and overlay	445 sy * $7/SY =	$3,115.00	
Eradicate/Line Stripe	1 $250.00	$250.00	

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"MEADOWS AND TANGER"

Bridges

Racetrack Near Pike St (75' W * 70' L) #	5250 sf * $150/sf =	$787,500.00
Demo Existing Bridge	1 $100,000.00	$100,000.00

Culverts

NB Off-Ramp (Small Box Culvert)	50 lf * $1000/lf =	$50,000.00
SB Off-Ramp (Large Diameter Pipe)	30 lf * $225/lf =	$6,750.00
Racetrack/Meadows (Large Box Culvert)	50 lf * $2,000/lf =	$100,000.00

Retaining Walls

Johnson Road (400' L x 20' H)	8000 sf * $50/sf =	$400,000.00
SR 0019 (400' L x 10' H)	4000 sf * $50/sf =	$200,000.00
Race Track Road (200' L x 4' H)	800 sf * $50/sf =	$40,000.00

Misc.

Mountable Curb (Racetrack Road)	11944 lf * $15/lf =	$179,160.00
4" PCCP (Race Track Road)	11901 sy * $40/sy =	$476,040.00
Curb Gutter (Race Track Road)	3277 sy * $80/sy =	$262,160.00
Remove Existing NB Off Ramp	600 lf * $46/lf =	$27,600.00
Remove Existing Mountable Curb/PCCP	3115 lf * $10/lf =	$31,150.00

Signals

Racetrack/I-79 SB OH Lane Controls	1	$7,500.00	$7,500.00
Racetrack/I-79 NB OH Lane Controls	1	$7,500.00	$7,500.00
Signal at Racetrack and NB & SB Ramps	2	$150,000.00	$300,000.00
Signal Upgrade Wendy's Dr/Meadowlands Blvd	1	$75,000.00	$75,000.00
OH Sign Control Johnson/Tanger	2	$7,500.00	$15,000.00
Signal upgrade Johnson/Tanger	1	$75,000.00	$75,000.00
Signal Racetrack and Meadows	1	$150,000.00	$150,000.00
Signal Upgrade Racetrack and Route 19	1	$75,000.00	$75,000.00
Signal at Rt 19 Davis/Fisher Road	1	$150,000.00	$150,000.00
Signal upgrade RT 19 and Manifold/Cameron Road	1	$75,000.00	$75,000.00
Timing Adj. Other Locations	3	$2,500.00	$7,500.00
			$7,929,185.00

Additional Costs

Engineering		$990,500.00
Right-of-Way		$200,000.00
Contingency	10.00%	$792,918.50
		$9,912,603.50

Total replacement. Price includes demo of existing structure.
* Asphalt Pavement - $83/SY for 6' W, $166/SY for 12' W, and $332/SY for 24' W
** Concrete Pavement - $95/SY for 6' W, $190/SY for 12' W, and $380/SY for 24' W
*** Driveway/Sideroad Pavement - $70.50/SY for 6' W, $141/SY for 12' W, and $282/SY for 24' W

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"MEADOWS ONLY"

Roadway

Racetrack Road and I-79 Southbound Ramps			
One - 300' EB Thru Lane	300	LF * $190/LF =	$57,000.00
Taper for Thru Lane - 540'	540	LF * $95.00/LF =	$51,300.00
One - 750' SB On-Ramp Lane	750	LF * $166/LF =	$124,500.00
Taper for SB Lanes - 540'	540	LF * $83/LF =	$44,820.00
Remove/Replace Mountable Curb	470	LF * $22.50/LF	$10,575.00
Line Stripping	1	LS @ $1,000 =	$1,000.00
Racetrack Road and I-79 Northbound Ramps			
One - 500' Deceleration Lane for Off Ramp	500	LF * $190/LF =	$95,000.00
Taper for Off Lane - 540'	540	LF * $95.00/LF =	$51,300.00
New Ramp Lanes NB Off Ramp	900	LF * $166/LF =	$149,400.00
Shoulders for New Ramp Lanes	700	LF * $65.00/LF	$45,500.00
Remove Existing NB Off-Ramp - 500'	500	LF * $46.00/LF =	$23,000.00
Install Mountable Curb Island for Right Turn	90	LF * $100.00/LF =	$9,000.00
Racetrack Road and Johnson Road			
One - 185' EB Left Turn Lane	185	LF * $190/LF =	$35,150.00
Taper for Turn Lane - 480'	480	LF * $95.00/LF =	$45,600.00
Racetrack Road and Meadows Drive			
Two - 240' EB Left Turn Lanes	480	LF * $190/LF =	$91,200.00
Taper for Turn Lane - 480'	480	LF * $95.00/LF =	$45,600.00
One - 300' Right Turn Lane	300	LF * $190/LF =	$57,000.00
One - 150' Lane for Driveway Widening	150	LF * $190/LF =	$28,500.00
Racetrack Road and Route 19			
Route 19			
One - 200' Add'l NB Left Turn Lane	200	LF * $190/LF =	$38,000.00
Racetrack Road			
Remove Existing Mountable Curb Island	50	LF * $50.00/LF =	$2,500.00
Restriping	1	LS @ $250.00 =	$250.00
Route 19 and Manifold Road/Cameron Road			
One - 150' EB Right Turn Lane (Needed 2016)	150	LF * $190/LF =	$28,500.00
Taper for Turn Lane - 420' (Needed 2016)	420	LF * $95.00/LF =	$39,900.00

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"MEADOWS ONLY"

Bridges			
Racetrack Near Pike St (75' W * 70' L)	5250	sf * $150/sf =	$787,500.00
Demo Existing Bridge	1	$100,000.00	$100,000.00
Culverts			
NB Off-Ramp (Small Box Culvert)	50	lf * $1000/lf =	$50,000.00
SB Off-Ramp (Large Diameter Pipe)	30	lf * $225/lf =	$6,750.00
Racetrack/Meadows (Large Box Culvert)	50	lf * $2,000/lf =	$100,000.00
Retaining Walls			
Johnson Road (400' L x 20' H)	8000	sf * $50/sf =	$400,000.00
Race Track Road (200' L x 4' H)	800	sf * $50/sf =	$40,000.00
Signals			
Racetrack/I-79 SB OH Lane Controls	1	$7,500.00	$7,500.00
Racetrack/I-79 NB OH Lane Controls	1	$7,500.00	$7,500.00
Signal at Racetrack and NB & SB Ramps	2	$150,000.00	$300,000.00
Signal upgrade Johnson/Tanger	1	$75,000.00	$75,000.00
Signal Racetrack and Meadows	1	$150,000.00	$150,000.00
Signal Upgrade Racetrack and Route 19	1	$75,000.00	$75,000.00
Signal at Rt 19 Davis/Fisher Road	1	$150,000.00	$150,000.00
Signal Upgrade Rt 19 and Manifold/Cameron Road	1	$75,000.00	$75,000.00
Timing Adj. Other Locations	4	$2,500.00	$10,000.00
			$3,408,845.00
Additional Costs			
Engineering		10.00%	$340,884.50
Right-of-Way			$200,000.00
Contingency		10.00%	$340,884.50
			$4,290,614.00

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"TANGER ONLY"

Roadway

Racetrack Road and I-79 Southbound Ramps			
One - 150' SB Right Turn on Ramp	150	LF * $190.00/LF =	$28,500.00
Taper for on Ramp - 540'	540	LF * $95.00/LF =	$51,300.00
One - 750' SB On-Ramp Lane	750	LF * $166/LF =	$124,500.00
Taper for SB Lanes - 540'	540	LF * $83/LF =	$44,820.00
One - 200' WB Left Turn Lane	200	LF * $190.00/LF =	$38,000.00
Taper for Turn Lane - 540'	540	LF * $95.00/LF =	$51,300.00
Remove/Replace Mountable Curb	470	LF * $22.50/LF =	$10,575.00
Line Stripping	1	LS @ $1000.00 =	$1,000.00
Racetrack Road and I-79 Northbound Ramps			
One - 500' Deceleration Lane for Off Ramp	500	LF * $190/LF =	$95,000.00
Taper for Off Lane - 540'	540	LF * $95.00/LF =	$51,300.00
New Ramp Lanes NB Off Ramp	1200	LF * $166/LF =	$199,200.00
Shoulders for New Ramp Lanes	700	LF * $65.00/LF =	$45,500.00
Remove Existing NB Off-Ramp - 650'	650	LF * $46.00/LF =	$29,900.00
Install Mountable Curb Island for Right Turn	90	LF * $100.00/LF =	$9,000.00
Racetrack Road and Johnson Road/Tanger Blvd			
Six - 150' Lanes for Driveway	900	LF * $141.00/LF =	$126,900.00
Two - 135' WB Turn Lanes	270	LF * $190.00/LF =	$51,300.00
Tapers for WB Turn Lane - 540'	540	LF * $95.00/LF =	$51,300.00
One - 185' EB Left Turn Lane	185	LF * $190.00/LF =	$35,150.00
Taper for EB Left Turn Lane - 540'	540	LF * $95.00/LF =	$51,300.00
One - 200' EB Right Turn Lane	200	LF * $190.00/LF =	$38,000.00
Taper for EB Right Turn Lane - 540'	540	LF * $95.00/LF =	$51,300.00
Two Islands	1	LS @ $8500.00 =	$8,500.00
Route 19 and Manifold Road/Cameron Road			
One - 100' Right Turn Lane	100	LF * $190.00/LF =	$19,000.00
Taper for Right Turn Lane - 420'	420	LF * $95.00/LF =	$39,900.00

Bridges

Racetrack Near Pike St (75' W * 70' L)	5250	sf * $150/sf =	$787,500.00
Demo Existing Bridge	1	$100,000.00	$100,000.00

Culverts

NB Off-Ramp (Small Box Culvert)	50	lf * $1000/lf =	$50,000.00
SB Off-Ramp (Large Diameter Pipe)	30	lf * $225/lf =	$6,750.00

PRELIMINARY COST ESTIMATE
2016 MITIGATION
"TANGER ONLY"

Retaining Walls

Johnson Road (400' L x 20' H)	8000	sf * $50/sf =	$400,000.00
Race Track Road (200' L x 4' H)	800	sf * $50/sf =	$40,000.00

Signals			
Racetrack/I-79 SB OH Lane Controls	1	$7,500.00	$7,500.00
Racetrack/I-79 NB OH Lane Controls	1	$7,500.00	$7,500.00
Signal at Racetrack and NB & SB Ramps	2	$150,000.00	$300,000.00
Signal upgrade Johnson/Tanger	1	$75,000.00	$75,000.00
Signal at Rt 19 Davis/Fisher Road	1	$150,000.00	$150,000.00
Signal Upgrade Rt 19 and Manifold/Cameron Roac	1	$75,000.00	$75,000.00
Timing Adj. Other Locations	4	$2,500.00	$10,000.00
			$3,261,795.00

Additional Costs		
Engineering	10.00%	$326,179.50
Right-of-Way		$200,000.00
Contingency	10.00%	$326,179.50
		$4,114,154.00

* Traffic signal at Racetrack Road and Johnson Road to be installed by Meadowpointe Office Complex ($150,000).

The Meadows

December 8, 2005

Pennsylvania American Water Company
300 Galley Road
McMurray, PA 15317

VIA FEDERAL EXPRESS & UNITED STATES POSTAL SERVICE

Attention: Rob Frost

The Meadows' application for a Conditional/Category 1 Slot Gaming License mandates that the applicant provide a *"local impact report, including...details of adverse impact on ... water and sewer systems or other municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 - Gaming Application and Disclosure Information Form.

In order to satisfy this requirement, I am asking you to provide a letter stating that the current water facilities will be able to handle the increased flow, or outline the improvements that may be needed.

The additional water flow projections are attached. A return envelope is enclosed for your convenience. As the gaming application is due towards the end of this month, I appreciate your attention to this matter.

Should you have any questions, I can be reached at (412) 719-7898 or you can contact my assistant, Nancy Haines at (724) 229-6929.

Sincerely,

Mike Jeannot
Vice President

The Meadows Water Projections

Current Use with Slot Facility and Backside Improvements Added

Water Usage (gallons)

	Meadows	*Slots Facility*	*TOTAL*
2004 (actual)	23,106,500		23,106,500
2006	23,106,500		23,301,500
2007	23,106,500	14,600,000	37,706,500
2008	23,106,500	29,200,000	52,306,500

NOTES:

- A temporary slot facility with 1,500 machines is planned to open in the Fall of 2006 pending the issuance of a conditional license by the Pennsylvania Gaming Control Board.
- The permanent operation with 3,000 machunes is scheduled to open late 2007 or early 2008 pending the same approvals mentioned above.

Jeannot, Mike

From: Haines, Nancy
Sent: Friday, December 09, 2005 1:29 PM
To: Jeannot, Mike
Subject: FW: FedEx Shipment 792458261200 Delivered

-----Original Message-----
From: TrackingUpdates@fedex.com [mailto:TrackingUpdates@fedex.com]
Sent: Friday, December 09, 2005 1:21 PM
To: Haines, Nancy
Subject: FedEx Shipment 792458261200 Delivered

This tracking update has been requested by:

Name: 'not provided by requestor'

E-mail: 'not provided by requestor'

Our records indicate that the following shipment has been delivered:

Tracking number:	792458261200
Ship (P/U) date:	Dec 8, 2005
Delivery date:	Dec 9, 2005 12:10 PM
Sign for by:	R.RESPAT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.5 LB

Shipper Information
Nancy Haines
MEC PA Racing Inc
201 S. Johnson Rd, Ste 201B
Fox Point Center
Houston
PA
US
15342

Recipient Information
Rob Frost
PA American Water Co.
300 Galley Road
McMurray
PA
US
15317

Special handling/Services:
Deliver Weekday

Please do not respond to this message. This email was sent from an unattended mailbox.
This report was generated at approximately 11:34 AM CST on 12/09/2005.

To learn more about FedEx Express, please visit our website at fedex.com.

All weights are estimated.

To track the status of this shipment online, please use the following:
https://www.fedex.com/fedexiv/us/findit/nrp.jsp?tracknumbers=792458261200
&language=en&opco=FX&clientype=ivpodalrt

This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the

The Meadows

December 8, 2005

Canonsburg Houston Joint Authority
183 Pike Street
Canonsburg, PA 15317

VIA FEDERAL EXPRESS & UNITED STATES POSTAL SERVICE

Attention: Diane Autland

The Meadows' application for a Conditional/Category 1 Slot Gaming License mandates that the applicant provide a *"local impact report, including...details of adverse impact on ... water and sewer systems or other municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 - Gaming Application and Disclosure Information Form.

In order to satisfy this requirement, I am asking you to provide a letter stating that the current sewage facilities are sufficient to handle the increased flow or state the improvements that may be needed.

The projected additional sewage flows generated by the new construction and improvements to the property are listed on the attached page. A return envelope is enclosed for your convenience. As the gaming application is due towards the end of this month, I appreciate your attention to this matter.

Should you have any questions, I can be reached at (412) 719-7898 or you can contact my assistant, Nancy Haines at (724) 229-6929.

Sincerely,

Mike Jeannot
Vice President

MEC Pennsylvania Racing
Building 2 • Suite 200 • 199 S. Johnson Road • Houston, PA 15342
Phone (724) 225-9300 • (412) 563-1224

The Meadows Sewer Projections

Current Use with Slot Facility and Backside Improvements Added

Sewer Usage (gallons)

	Meadows	*Backside*	*Slots Facility*	*TOTAL*
2004 (actual)	5,702,400			5,702,400
2006	5,702,400	195,000		5,897,400
2007	5,702,400	1,425,500	14,600,000	21,727,900
2008	5,702,400	1,980,000	29,200,000	36,882,400

NOTES:

- A temporary slot facility with 1,500 machines is planned to open in the Fall of 2006 pending the issuance of a conditional license by the Pennsylvania Gaming Control Board.
- The permanent operation with 3,000 machines is scheduled to open late 2007 or early 2008 pending the same approvals mentioned above.
- Eleven barns will be hooked into the sanitary sewer system during 2006 and 2007.

Jeannot, Mike

From: Haines, Nancy
Sent: Friday, December 09, 2005 11:07 AM
To: Jeannot, Mike
Subject: FW: FedEx Shipment 791802929399 Delivered

-----Original Message-----
From: TrackingUpdates@fedex.com [mailto:TrackingUpdates@fedex.com]
Sent: Friday, December 09, 2005 11:01 AM
To: Haines, Nancy
Subject: FedEx Shipment 791802929399 Delivered

This tracking update has been requested by:

Name: 'not provided by requestor'

E-mail: 'not provided by requestor'

Our records indicate that the following shipment has been delivered:

Tracking number:	791802929399
Ship (P/U) date:	Dec 8, 2005
Delivery date:	Dec 9, 2005 10:32 AM
Sign for by:	D.ATLAND
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.5 LB

Shipper Information	Recipient Information
Nancy Haines	Diane Autland
MEC PA Racing Inc	Canonsburg Houston Jt Authority
201 S. Johnson Rd, Ste 201B	183 Pike Street
Fox Point Center	Canonsburg
Houston	PA
PA	US
US	15317
15342	

Special handling/Services:
Deliver Weekday

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This report was generated at approximately 9:53 AM CST on 12/09/2005.

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All weights are estimated.

To track the status of this shipment online, please use the following:
https://www.fedex.com/fedexiv/us/findit/nrp.jsp?tracknumbers=791802929399
&language=en&opco=FX&clientype=ivpodalrt

This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the

The Meadows

December 8, 2005

North Strabane Municipal Authority
North Strabane Township Building
1929B Route 519 South
Canonsburg, PA 15317

VIA FEDERAL EXPRESS & UNITED STATES POSTAL SERVICE

The Meadows' application for a Conditional/Category 1 Slot Gaming License mandates that the applicant provide a *"local impact report, including...details of adverse impact on ... water and sewer systems or other municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 - Gaming Application and Disclosure Information Form.

In order to satisfy this requirement, I am asking you to provide a letter stating that the current sewage facilities will be able to handle the increased flow, or state the improvements that may be needed due to the added capacity.

The projected additional sewage flows generated by the new construction and improvements to the property are listed on the attached page. A return envelope is enclosed for your convenience. As the gaming application is due towards the end of this month, I appreciate your attention to this matter.

Should you have any questions, I can be reached at (412) 719-7898 or you can contact my assistant, Nancy Haines at (724) 229-6929.

Sincerely,

Mike Jeannot
Vice President

The Meadows Sewer Projections

Current Use with Slot Facility and Backside Improvements Added

Sewer Usage (gallons)

	Meadows	*Backside*	*Slots Facility*	*TOTAL*
2004 (actual)	5,702,400			5,702,400
2006	5,702,400	195,000		5,897,400
2007	5,702,400	1,425,500	14,600,000	21,727,900
2008	5,702,400	1,980,000	29,200,000	36,882,400

NOTES:

- A temporary slot facility with 1,500 machines is planned to open in the Fall of 2006 pending the issuance of a conditional license by the Pennsylvania Gaming Control Board.
- The permanent operation with 3,000 machines is scheduled to open late 2007 or early 2008 pending the same approvals mentioned above.
- Eleven barns will be hooked into the sanitary sewer system during 2006 and 2007.

Jeannot, Mike

From: Haines, Nancy
Sent: Friday, December 09, 2005 11:41 AM
To: Jeannot, Mike
Subject: FW: FedEx Shipment 792458257457 Delivered

-----Original Message-----
From: TrackingUpdates@fedex.com [mailto:TrackingUpdates@fedex.com]
Sent: Friday, December 09, 2005 11:20 AM
To: Haines, Nancy
Subject: FedEx Shipment 792458257457 Delivered

This tracking update has been requested by:

Name: 'not provided by requestor'

E-mail: 'not provided by requestor'

Our records indicate that the following shipment has been delivered:

Tracking number:	792458257457
Ship (P/U) date:	Dec 8, 2005
Delivery date:	Dec 9, 2005 10:47 AM
Sign for by:	D.OPEL
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.5 LB

Shipper Information	Recipient Information
Nancy Haines	To Whom it May Concern
MEC PA Racing Inc	N. Strabane Municipal Auth
201 S. Johnson Rd, Ste 201B	1929B Route 519 South
Fox Point Center	Canonsburg
Houston	PA
PA	US
US	15317
15342	

Special handling/Services:
Deliver Weekday

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&language=en&opco=FX&clientype=ivpodalrt

This tracking update has been sent to you by FedEx on the behalf of the Requestor noted above. FedEx does not validate the authenticity of the requestor and does not validate, guarantee or warrant the authenticity of the request, the requestor's message, or the

NORTH STRABANE TOWNSHIP POLICE DEPARTMENT
WASHINGTON COUNTY, PENNSYLVANIA
1929 ROUTE 519 SOUTH
CANONSBURG, PENNSYLVANIA 15317

PHONE: (724) 746-8474
FAX: (724) 745-0652

Dan L. Strimel
Chief of Police

D1

November 21, 2005

Pennsylvania Gaming Control Board
Post Office Box 69060
Harrisburg, Pennsylvania 17106-9060

Gaming Control Board,

I am submitting this letter of reference on behalf of the Meadows Racetrack and MEC Pennsylvania Racing, which is located in North Strabane Township, 499 Racetrack Road Washington Pennsylvania.

This letter serves to address the potential effects and increased demands that Slot Gaming will have on public safety in North Strabane Township.

Currently, the North Strabane Township Police Department has yet to be informed of what our area of responsibility will consist of once Slot Gaming is introduced at the Meadows. Until our responsibilities are outlined or established by the Gaming Board or other agency, we are unable to provide what additional resources will be needed to handle incidents, on-site at the Meadows. The North Strabane Township Police Department anxiously awaits details concerning our anticipated role with handling these on-site related incidents and crimes.

The North Strabane Police Department believes that with the introduction of Slots Gaming at the Meadows there will be an increase in demand for services, off-site. As a proactive measure the North Strabane Township Police Department has begun hiring additional officers in order to handle the anticipated increased activity in the area of the Meadows. This activity includes traffic related incidents, increased patrol function, criminal activity and the influx of transient customers to this area. As a result we have also began the process of upgrading our technology in order to handle this increase in activity.

The North Strabane Township Police Department has enjoyed a good working relationship with the Meadows Security in the past. We are aware the Meadows will substantial increase its Security as it incorporates Gaming to its venue. We look forward in working together to address the needs of ensuring not only the safety of the patrons but also the residents of North Strabane Township.

Should the Board have any questions regarding this letter please contact me personally at 724-746-8474.

Thank you for your cooperation regarding this matter.

Sincerely,

Dan L. Strimel

Chief Dan L Strimel

NORTH STRABANE TOWNSHIP
VOLUNTEER FIRE DEPARTMENT

2550 Washington Road
Canonsburg, PA 15317

November 21, 2005

I have been asked to write a letter on behalf of The Meadows to comply with Appendix 34(9). This is in regards increased demands or adverse effects on the North Strabane Volunteer Fire Department.

We have been working with The Meadows during my entire career. I know that The Meadows does take fire prevention and training very seriously. We have had numerous joint trainings with The Meadows. The Meadows staff also holds their own in-house training. I know this first hand from being with the North Strabane Volunteer Fire Department for 22 years and also a former security officer at The Meadows facility. At the present time we currently have two firemen working as security officers; one of which holds the rank of 1st Assistant Chief. Furthermore, I do know of other security officers that are currently or form members of other fire departments, as well The Meadows has its own on site Fire Marshall.

I have been in contact with The Meadows Director of Security, Art Richardson, on many occasions on the progress and plans being proposed for the track. As Chief of the North Strabane Volunteer Fire Department, I do not foresee any increasing demands and/or effects as a result of the Gaming at the Meadows facility. The proposed new buildings at the Meadows facility will be up to current codes; nothing would be grandfathered in as the existing structure currently is.

Respectfully,

Donald W Kozak

Donald W. Kozak, Chief
North Strabane Volunteer Fire Department

The Meadows

December 13, 2005

Billie Morris
Ambulance and Chair
75 Braden Street
Washington, PA 15301

Dear Billie,

The Meadows' application for a Conditional/Category 1 slots gaming license mandates that the applicant provide a *"local impact report, including...details of adverse impact on ...municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 - Gaming Application and Disclosure Information Form.

In order to satisfy this requirement, I am asking you to provide a letter that will be included in our gaming application stating how you anticipate current emergency medical services being impacted.

As the gaming application is due towards the end of this month, I appreciate your attention to this matter. Should you have any questions, I can be reached at (412) 719-7898 or you can contact Art Richardson at (724) 225-9299, ext. 2396.

Sincerely,

Mike Jeannot
Vice President

cc: A. Richardson

The Meadows

December 13, 2005

Eric Zaney
Paramedic Coordinator
Canonsburg Hospital
100 Medical Boulevard
Canonsburg, PA 15317

Dear Eric,

The Meadows' application for a Conditional/Category 1 slots gaming license mandates that the applicant provide a *"local impact report, including...details of adverse impact on ...municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 - Gaming Application and Disclosure Information Form.

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Sincerely,

Mike Jeannot
Vice President

cc: A. Richardson

Appendix 30
Local Impact Report E-1
Existing Tourism including Historical and Cultural Resources

Washington County hosts numerous tourism amenities for residents and visitors alike to enjoy. Since its opening day in 1963, The Meadows Racetrack has been the local centerpiece of these tourism options, which include historical sites, arts and entertainment, shopping venues, covered bridges, pony and minor league baseball, and antique and agricultural fairs. The economic benefits of slots coming to The Meadows will only multiply the existing tourism benefits to the region.

Since opening day in 1963, The Meadows business has attracted attendances ranging from 400,000 to over 1,000,000 visitors each year. The Meadows Racetrack is the largest rural community structure and among the top five venues in our region behind inner-city facilities Heinz Field, PNC Park, Mellon Arena and the AJ Palumbo Center.

Professional sports have been a major attraction to the Pittsburgh region for decades. Harness Racing at The Meadows has added to the area's sports reputation. In addition to the professional sports teams and horseracing, the competitive spirit runs deeper through the area through events such as our annual hosting of the PONY baseball world series, the Washington Wild Things minor league baseball team, the Riverhounds soccer franchise, the Iceplex at Southpointe (the official training center of the Pittsburgh Penguins), championship caliber golf courses and abundant hunting and fishing options.

The Washington County Tourism Agency leads specific promotional programs, and also provides developmental assistance for local tourism businesses, attractions, and events. The WCTA is the lead agency in undertaking programs aimed at the future growth of tourism in Washington County, and through that, enhancing the quality of life. Executive Director Mark Tallarico comments, "For over 40 years, The Meadows has been a cornerstone to Washington County's destination resources. The expansion of gaming is expected to further augment the tourism value The Meadows brings to our region, county and agency."

The Meadows is home to many special events during the year. With a racing schedule that runs year-round, The Meadows is able to take advantage of many holidays with special events for the whole family. During the second week of August, for example, the $1,000,000 Coors Delvin Miller Adios Week is held. This series of major harness stakes races culminates with the $500,000 'Adios Pace for the Orchids' – Pennsylvania's richest harness racing stakes race. The inaugural Adios was held in 1967, with Romulus Hanover and driver Billy Haughton crossing the wire first to receive the purple orchids.

The famed race is named after Adios - a world champion harness racing sire. The son of Hal Dale and the mare Adioo Volo, Adios was born on January 3, 1940 at Two Gaits Farm, in Carmel, Indiana. Despite his racing success for owner Harry Warner of Warner Brothers, it is his offspring that he is famous for. In 1948, Adios was purchased by harness driver Delvin Miller, the founder of The Meadows, to stand stud at his Meadow Lands farm near Washington, Pennsylvania. Adios sired eight Little Brown Jug winners – more than any other horse – and had a total of five hundred and eighty-nine offspring.

After Delvin Miller fulfilled his vision of opening The Meadows in 1963, the evolution of pari-mutuel wagering legislation in Pennsylvania and changes in management interests greatly influenced the history of the business. In 1983, legislation permitting telephone wagering passed and was launched from the Meadows in the brand of Call-a-Bet. The Meadows racetrack and telephone wagering business was sold in 1989 to Ladbroke Racing on the eve of intrastate simulcast wagering legislation in 1990. This began the series of off-track betting site openings which included New Castle, Harmar, Moon, Johnstown and Greensburg.

The introduction of full card simulcasting legislation in 1995 greatly expanded product options to Pennsylvanians, with the West Mifflin OTB opening to satisfy heightened market demand. In 1998, online wagering was approved by the Pennsylvania State Harness Racing Commission. Magna Entertainment Corporation purchased the business from Ladbroke Racing in 2001 in anticipation of expanding both OTB and account wagering opportunities. In July of 2004, Act 71 was passed permitting slot machine gaming in Pennsylvania.

Surrounded by urban sprawl, Washington County maintains a reputation of preserving the green space that local farmers, horse breeders and trainers call home. The Meadows Racetrack and Casino is proud to be part of a countryside culture embedded as a hub to metropolitan America. Meadowcroft Museum of Rural Life, a museum of the Historical Society of Western Pennsylvania, preserves the history of life on the land of Western Pennsylvania over the past 16,000 years. Delvin Miller, the founder of The Meadows, is also the founder of Meadowcroft, a National Historic Landmark that is one of the earliest places of human habitation in North America and one of its most influential planned communities.

The Meadows
Established in 1963

December 13, 2005

LOCAL IMPACT REPORT
DELIVERED TO NORTH STRABANE MUNICIPAL OFFICE

Received by:

Signature

Name

Delivered by:

Signature

JOHN THOMAS

Name

12-13-05 / 2:00 PM

Date / Time

The Meadows
Established in 1963

December 13, 2005

LOCAL IMPACT REPORT
DELIVERED TO WASHINGTON COUNTY OFFICE

Received by:

Susan Orrick
Signature

SUSAN ORRICK
Name

Delivered by:

Signature

JOHN THOMAS
Name

12-13-05 12:30 P.M.
Date / Time

Washington Trotting Association, Inc.
Conditional/Category 1 Gaming Application

Appendix 30

Index for Local Impact Report Additional Materials

1. C-1 Letter from Pennsylvania American Water – December 20, 2005 and 3 copies

2. C-2 Letter to Chartiers Twp. Municipal Officer regarding sewer capacity – December 22, 2005 and three copies

3. C-2 Receipt for Letter to Chartiers Twp. Municipal Letter and three copies

4. D-3 Letter from Canonsburg Hospital regarding EMS – December 20, 2005 and three copies

5. D-3 Receipt for letter to "Ambulance & Chair", EMS provider – December 14, 2005 and three copies

Pennsylvania American Water®

December 20, 2005

Mike Jeannot
MEC Pennsylvania Racing
Building 2 Suite 200
199 S. Johnson Road
Houston, Pa. 15342

Re: Impact on Water System of proposed Slot Facilities at The Meadows

Dear Mike:

Current water facilities of Pennsylvania-American Water (PAW) can handle the increased flow requirements projected for proposed slot facilities at The Meadows. Service is currently provided form a twelve inch ductile iron main and an eight inch service. These facilities are adequate to provide projected water usage.
The facility currently has a six inch water meter. Maximum flow from a six inch meter is 2, 500 gallons per minute. If the option to keep the temporary building for an entertainment venue is made and fire flow requirements are estimated to be 2, 800 gallons per minute. This would require update the meter to an eight inch. An eight inch meter would require the installation of a larger size vault to house the increased sized meter. Installation of a larger vault is the customer's responsibility.

All installations must be made in accordance with Pennsylvania-American Water Company Rules and Regulations as approved by the Pennsylvania Public Utility Commission.

Please do not hesitate to call me directly at (724) 873-3662 if you have any questions or need any additional information.

Very truly yours,

Robert Frost

Robert Frost
Network Supervisor

cc: J. R. Lucas
G. F. Hlasnick
M. A. Cain

December 22, 2005

Alice Trokopovitch
Township Manager
Chartiers Township Municipal Office
2 Buccaneer Drive
Houston, PA 15342

VIA FEDERAL EXPRESS & UNITED STATES POSTAL SERVICE

The Meadows' application for a Conditional/Category 1 Slot Gaming License mandates that the applicant provide a *"local impact report, including...details of adverse impact on...water and sewer systems or other municipal resources"*. The complete reference can be found on the Gaming Board's website at www.pgcb.state.pa.us on page 18, appendix 30 of the Conditional/Category 1 – Gaming application and Disclosure Information Form.

In order to satisfy this requirement, I am asking you to provide a letter stating that the current sewage facilities will be able to handle the increased flow, or state the improvements that may be needed due to the added capacity.

The projected additional sewage flows generated by the new construction and improvements to the property are listed on the attached page. A return envelope is enclosed for your convenience. As the gaming application is due towards the end of this month, I appreciate your attention to this matter.

Should you have any questions, I can be reached at (412) 719-7898 or you can contact my assistant, Nancy Haines at (724) 229-6929.

Sincerely,

Mike Jeannot
Vice President

Haines, Nancy

From: TrackingUpdates@fedex.com
Sent: Wednesday, December 28, 2005 12:59 PM
To: Haines, Nancy
Subject: FedEx Shipment 791816891630 Delivered

This tracking update has been requested by:

Name: 'not provided by requestor'

E-mail: 'not provided by requestor'

Our records indicate that the following shipment has been delivered:

Tracking number:	791816891630
Ship (P/U) date:	Dec 22, 2005
Delivery date:	Dec 28, 2005 12:49 PM
Sign for by:	W.WILLIAMS
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Priority Overnight
Packaging type:	FedEx Envelope
Number of pieces:	1
Weight:	0.5 LB

Shipper Information	Recipient Information
Nancy Haines	Alice Trokopovitch
MEC PA Racing Inc	Chartiers Township
201 S. Johnson Rd, Ste 201B	2 Buccaneer Drive
Fox Point Center	Houston
Houston	PA
PA	US
US	15342
15342	

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Thank you for your business.

REC'D DEC 2 2 2005

CANONSBURG
GENERAL HOSPITAL

WEST PENN ALLEGHENY HEALTH SYSTEM

100 MEDICAL BOULEVARD, CANONSBURG, PA 15317
724-745-6100
ADMINISTRATION FAX: 724-743-7211
MEDICAL STAFF FAX: 724-746-6320

December 20, 2005

Mike Jeannot
Vice President
The Meadows
Building 2, Suite 200
199 South Johnson Road
Houston, PA 15342

Dear Mr. Jeannot:

The Canonsburg Ambulance Service is prepared to respond to the anticipated impact in emergency medical response. We have been providing emergency medical services to The Meadows for over 30 years and currently have in place the appropriate advanced life support staffing of Paramedics and Emergency Medical Technicians to handle an increase in call volume due to community growth.

The Canonsburg Ambulance Service maintains a fleet of four Mobile Intensive Care Ambulances, along with four support vehicles for non-emergency transport, evacuation or other related duties. All personnel maintain the highest level of certification from the Pennsylvania Department of Health EMS Division and receive Medical Command from the Canonsburg General Hospital.

Canonsburg General Hospital is also preparing for community growth. The hospital is in the process of expanding the Emergency Department to an 18-bed unit. The Emergency Department has a scheduled completion date of June 2006.

Should you have any questions, I can be reached at (724) 873–5879.

Sincerely,

Terry Wiltrout
Director of Operations

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Billie Morris
Ambulance & Chairs
75 Braden St.
Washington PA 15301

2. Article Number
(Transfer from service label)

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X
☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery
12-14-05

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

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Certified Fee	2.30
Return Reciept Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$4.42

GREENSBURG, PA
DEC 13 2005
USPS
Postmark Here

Sent To: Billie Morris
Street, Apt. No.; or PO Box No.: 75 Braden St
City, State, ZIP+4: Washington PA 15301

PS Form 3800, June 2002 See Reverse for Instructions