

Issued for: Review

Date Issued: May 3, 2016

Revised: August 25, 2016

Revised: September 21, 2016

Sheet Index

No.	Drawing Title
C-1	Title Sheet
C-2	Notes and Legend
C-3	Generalized Development Plan
C-4	Stormwater Management Concept Plan
C-5	Miscellaneous Details

Development Summary

Tax Map / Parcel No.:	Tax Map 35 ((A)) 119
Current Parcel Zoning:	R-1
Proposed Parcel Zoning:	C-2/With Special Use Permit
Site Area:	2.3645 Acres
Present Use:	Residential
Proposed Use:	Vehicle Sales, Rental and Ancillary Service Est.
Water:	Public
Sewer:	Public
Wetlands On Site:	No
Wetlands Permits Required:	No
Hydrologic Unit Code (HUC):	RA46 (Rappahannock River/Hazel Run)

Resource List

Natural Gas

Columbia Gas of Virginia  
Richmond, VA 23219  
1-800-544-5606

Miss Utility \*

Miss Utility of Virginia  
1-800-552-7001

\* Contractor To Notify 48 Hours  
Prior To Any Excavation, As  
Required By Law

Electric

Dominion Virginia Power  
980 Warrenton Road  
Fredericksburg, VA 22406  
1-888-667-3000

Water/Sewer

Spotsylvania Utilities Office  
600 Hudgins Road  
Spotsylvania, VA 22408  
1-540-786-2364

Cable TV

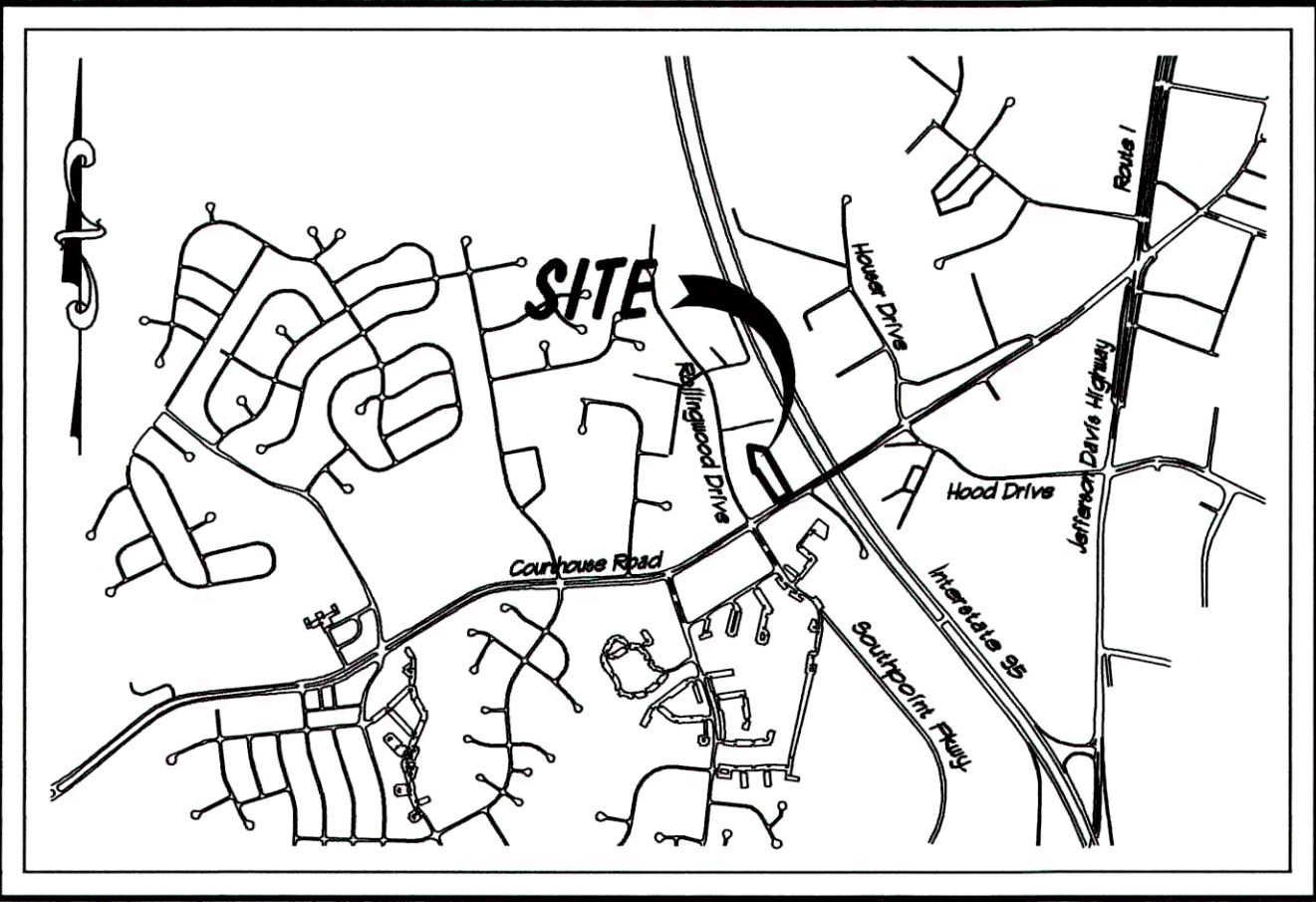
Comcast  
10841 Houser Drive  
Fredericksburg, VA 22408  
1-888-683-1000

Telephone

AT&T - Atlanta  
1-800-252-1133

Telephone

Fredericksburg Division  
Verizon of Virginia  
43 Bells Hill Road  
Stafford, VA 22554  
1-877-562-2253



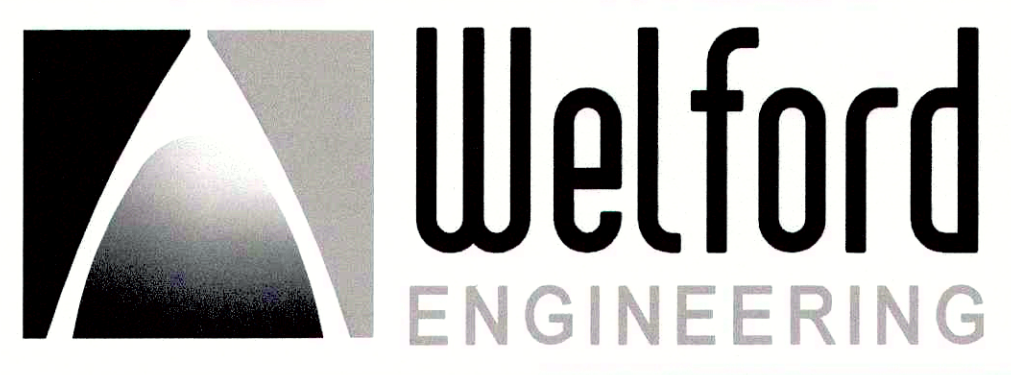
Vicinity Map

Scale : 1" = 2000'

Rezoning & Special Use Permit  
Generalized Development Plan  
Courthouse Road Auto Center  
Courtland Magisterial District  
Spotsylvania County, Virginia

Flood Plain:

The Parcel Delineated On This Plan Is In Zone "X" (Unshaded) Areas Determined to be  
Outside the 500 Year Flood Plain As Shown On FIRM Flood Insurance Rate Map  
Community Panel No. 510308 0200 C Effective Date February 18, 1998.



4545 Empire Court  
Fredericksburg, VA 22408  
Phone: 540-898-9330  
Fax: 540-898-9324

Owner/Applicant

Yonus Attar  
8801 Classic Lakes Way  
Nokesville, VA 20181  
540-710-4285



Site Plan Certificate:

I Hereby Certify To The Best of My Knowledge and Belief That  
This Plan Is Correct and Complies with Spotsylvania County Code  
and that I am a Qualified Professional Licensed in Virginia.

Christopher M. kowalski, P.E. Lic. No. 42594

Date

C-1

Sheet 1 of 5

1933-1 GDP C-1 Cover.dwg  
WEA Cad File Name

JOB NO.: 1933-1



## Legend

Exist	Prop	
---	---	PROPERTY LINE / BOUNDARY LINE
---	---	RIGHT-OF-WAY/PROPERTY LINE
---	---	EASEMENT
---	---	BUILDING SETBACK / BRL
---	---	ZONING LINE
---	---	GRAVEL ROAD
---	ROP	EDGE OF PAVEMENT
AS NOTED	AS NOTED	PAINTED CURB (FIRE LANE)
AS NOTED	AS NOTED	CONC. CURB AND GUTTER
AS NOTED	AS NOTED	CONC. CURB AND GUTTER (REVERSE)
---	---	LIMITS OF CONSTRUCTION
SNL	SNL	SOLID WHITE LINE
SYL	SYL	SOLID YELLOW LINE
BNL	BNL	BROKEN WHITE LINE
BYL	BYL	BROKEN YELLOW LINE
SNCHL	SNCHL	SOLID WHITE CHANNELIZING LINE
SYCHL	SYCHL	SOLID YELLOW CHANNELIZING LINE
DTL	DTL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
---	---	STEEL GUARD RAIL
---	---	WOOD GUARD RAIL
---	---	TREE LINE
---	---	CHAIN LINK FENCE
---	---	STONE WALL
---	---	HAY BALES
350	350	MINOR CONTOUR
360	360	MAJOR CONTOUR
---	---	BUILDING
---	---	BUILDING ENTRANCE
---	---	BOLLARD
---	---	SIGN
---	---	DOUBLE SIGN
---	---	PARKING METER
8	8	PARKING COUNT
---	---	CONC. PAVEMENT
---	---	NORMAL PAVEMENT
---	---	HEAVY DUTY PAVEMENT
---	---	HANDICAP RAMP
---	---	HANDICAP PARKING
---	---	VAN-ACCESSIBLE HANDICAP PARKING
21.25 21.00	21.25 21.00	TOP & BOTTOM ELEVATION
21.75 21.00	21.75 21.00	TOP & BOTTOM ELEVATION
21.75 21.00	21.75 21.00	SPOT ELEVATION w/LEADER
21.75 21.00	21.75 21.00	SPOT ELEVATION w/LEADER
21.75 21.00	21.75 21.00	SPOT ELEVATION
21.75 21.00	21.75 21.00	BORING LOCATION
21.75 21.00	21.75 21.00	TEST PIT LOCATION

EX 5TH DRAIN	5TH DRAIN	DRAINAGE LINE
EX ROOF DRAIN	ROOF DRAIN	ROOF DRAIN
EX SAN SEN	SAN SEN	SEWER LINE
---	---	OVERHEAD WIRE
EX W/L	W/L	WATER LINE
EX FIRE SERVICE	FIRE SERVICE	FIRE PROTECTION LINE
EX GAS MAIN	GAS MAIN	GAS LINE

## GENERAL

ABAN ABANDON  
ADJ ADJACENT  
APPROX APPROXIMATE  
BC BITUMINOUS CURB  
BOS BOTTOM OF SLOPE  
BNL BROKEN WHITE LINE  
BYL BROKEN YELLOW LINE  
CCB CAPE COD BERM  
DYL DOUBLE YELLOW LINE  
ELEV ELEVATION  
EXIST EXISTING  
FDN FOUNDATION  
GC GRANITE CURB  
MAX MAXIMUM  
MIN MINIMUM  
NIC NOT IN CONTRACT  
NTS NOT TO SCALE  
PCC PRECAST CONCRETE CURB  
PROP PROPOSED  
REMOVE REMOVE  
REMOD REMODEL  
RET RETAIN  
R&R REMOVE AND RESET  
R&S REMOVE AND STACK  
SGE SLOPED GRANITE EDGING  
SL STOP LINE  
TOS TOP OF SLOPE  
TYP TYPICAL  
SNL SINGLE WHITE LINE  
SNCHL SINGLE WHITE CHANNELIZING LINE  
SYL SINGLE YELLOW LINE  
SYCHL SINGLE YELLOW CHANNELIZING LINE  
VGC VERTICAL GRANITE CURB

## ABBREVIATIONS

## UTILITY

ACCOMP ASPHALT COATED CORRUGATED  
CAP CORRUGATED ALUMINUM PIPE  
CIP CAST IRON PIPE  
CIT CHANGE IN TYPE  
CLDI CEMENT LINED DUCTILE IRON PIPE  
CO CLEAN OUT  
COND CONDUIT  
CPP CORRUGATED POLYETHYLENE PIPE  
DI DRAIN INLET  
DIP DUCTILE IRON PIPE  
F&C FRAME AND COVER  
F&G FRAME AND GRATE  
FH FIRE HYDRANT  
INV INVERT ELEVATION  
MP METAL PIPE  
PVC POLYVINYLCHLORIDE PIPE  
PWH PAVED WATER WAY  
RCP REINFORCED CONCRETE PIPE  
TSV&B TAPPING SLEEVE, VALVE AND BOX  
UP UTILITY POLE  
VCP VITRIFIED CLAY PIPE

## GENERAL NOTES

- NO TITLE REPORT HAS BEEN FURNISHED, THEREFORE, THIS PLAN MAY NOT SHOW ALL ENCUMBRANCES ON THE PROPERTY.
- THIS PROJECT IS TO BE SERVED BY PUBLIC WATER AND SEWER.
- STORMWATER MANAGEMENT FOR THIS SITE WILL BE DESIGNED IN ACCORDANCE WITH THE CHESAPEAKE BAY PRESERVATION ACT AND ARTICLE 4 - STORMWATER MANAGEMENT OF THE SPOTSYLVANIA COUNTY DESIGN STANDARDS MANUAL.
- NO BURNING PERMITTED.
- ALL REFUSE WILL BE COLLECTED ON SITE BY A PRIVATE VENDOR.
- THERE ARE NO KNOWN HISTORIC BUILDINGS OR FEATURES WITHIN THE SITE AREA.
- THERE ARE NO KNOWN GRAVES, OBJECTS OR STRUCTURES MARKING PLACE OF BURIAL ON THIS SITE.
- THERE ARE NO CRITICAL RESOURCE PROTECTION AREAS WITHIN THE SITE AREA.
- CBPA NOTE: THE CBPA IS AN OVERLAY DISTRICT THAT ENCOMPASSES THE CHESAPEAKE BAY WATERSHED AND ALL OF SPOTSYLVANIA COUNTY. THE PARCEL DESCRIBED WITHIN THIS PLAN DOES NOT CONTAIN RESOURCE PROTECTION AREA (RPA) FEATURES.
- PROPERTY OWNERS ARE RESPONSIBLE FOR PRESERVING DRAINAGE EASEMENTS ONACROSS THEIR PROPERTY. SUCH EASEMENTS SERVING ROADWAYS MAINTAINED BY VDOT WILL BE MAINTAINED BY VDOT ONLY AS REQUIRED TO PROTECT THE ROADWAY FROM DAMAGE OR FLOODING.
- FINAL DESIGN PLANS TO BE APPROVED BY THE FIRE MARSHAL AND UTILITIES DEPARTMENT.
- FINAL DESIGN PLAN TO INCLUDE STORM SEWER SYSTEM DESIGNS IF REQUIRED.
- ALL SIGNAGE SHALL BE IN ACCORDANCE WITH VDOT AND SPOTSYLVANIA COUNTY STANDARDS (ARTICLE 5.6, S.C.D.S.M.)
- LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH THE STANDARDS IDENTIFIED IN ARTICLE 5 (5-7) OF THE SPOTSYLVANIA COUNTY DESIGN STANDARDS MANUAL AND THE ASSOCIATED PROFFER STATEMENT. THE APPLICANT RESERVES THE RIGHT TO DEVELOP A COMPREHENSIVE LIGHTING PLAN, SUBJECT TO THE APPROVAL OF SPOTSYLVANIA COUNTY.
- NO PUBLIC STREET ARE PROPOSED FOR THIS DEVELOPMENT.
- DIMENSIONS, AREAS, BUILDING SQUARE FOOTAGES, AND LAYOUT ARE APPROXIMATE IN NATURE AND SUBJECT TO FINAL ENGINEERING.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTAINING THE STORMWATER FACILITY(S), OPEN SPACE, AND PARKING LOT
- THE PROPERTY IS LOCATED WITHIN THE PRIMARY HIGHWAY CORRIDOR OVERLAY DISTRICT (HCOD).
- THE PROPOSED VEHICLE SALES, RENTAL AND ANCILLARY SERVICE ESTABLISHMENT WILL GENERATE APPROXIMATELY FIFTY-ONE (51) VEHICLE TRIPS PER DAY (VPD).
- EROSION AND SEDIMENT CONTROL FOR THE SITE WILL BE PROVIDED THROUGH ON-SITE MEASURES IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- THE PROPERTY IS LOCATED WITHIN THE AIRPORT PROTECTION OVERLAY DISTRICT.
- A WAIVER OF DSM 8-3.1.0 IS REQUIRED TO PERMIT A WOODEN DUMPSTER PAD ENCLOSURE. A WAIVER WE BE REQUESTED AT SITE PLAN SUBMISSION.
- ALL BUILDING CONSTRUCTION SHALL BE IN CONFORMANCE WITH SECTION 8-3.5 OF THE SPOTSYLVANIA COUNTY DSM UNLESS A WAIVER IS GRANTED BY THE PLANNING DIRECTOR AT SITE PLAN REVIEW.
- SITE LIGHTING AND SIGNS SHALL REQUIRE SEPARATE PERMITS.
- ALL SIGNS SHALL MEET ZONING REQUIREMENTS, INCLUDING SETBACKS.
- ALL FENCING AND/OR SCREENING WALLS SHALL BE CONSTRUCTED WITH THE FINISHED SIDE FACING EXTERNAL TO THE PROPERTY.
- BUILDING FACADES VISIBLE FROM THE HIGHWAY CORRIDOR MAY INCORPORATE A VARIETY OF MATERIALS SUCH AS WOOD, STUCCO, STONE, CEMENT SIDING (HARDI PLANK), FACE BRICK OR TEXTURED ARCHITECTURAL BRICK OR TINTED/TEXTURED CONCRETE MASONRY UNITS AND OTHER EQUIVALENT MATERIAL.

## SITE DATA TABULATIONS

PROJECT NAME:	GENERALIZED DEVELOPMENT PLAN COURTHOUSE ROAD AUTO CENTER	
APPLICANTS/OWNERS:	YONUS ATTAI 8801 CLASSIC LAKES WAY NOKESVILLE, VA 20181 540-710-4285	
ENGINEER:	WELFORD ENGINEERING ASSOCIATES, INC. 4545 EMPIRE COURT FREDERICKSBURG, VIRGINIA 22408 (540) 898-9330	
TOPOGRAPHY	TOPOGRAPHIC INFORMATION SHOWN HEREON WAS TAKEN FROM SPOTSYLVANIA COUNTY GIS.	
BOUNDARY:	BOUNDARY INFORMATION TAKEN FROM A PLAT ENTITLED "PLAT OF SURVEY TAX MAP 35 ((A)) 119" PREPARED BY SDI, DATED JULY 23, 2014.	
TAX MAP/PARCELS	TAX MAP 35 ((A)) 119	
ZONING:	EXISTING ZONING:	R-1
	PROPOSED ZONING:	C-2
PRESENT USE:	RESIDENTIAL	
PROPOSED USE:	VEHICLE SALES	
WETLANDS:	NO	
<b><u>PARKING TABULATION</u></b>		
PARKING REQUIREMENT:	1 SPACE PER 500 SF OF ENCLOSED SALES/RENTAL FLOOR AREA 1 SPACE PER 2,500 SF OF OPEN SALES/RENTAL DISPLAY LOT AREA 2 SPACES PER SERVICE BAY 1 SPACE PER EMPLOYEE, BUT NEVER LESS THAN FIVE (5)	
PARKING REQUIRED:	1,360 SF (ENCLOSED SALES AREA)/500 = 3 SPACES 16,500 SF (OPEN SALES AREA)/2,500 = 7 SPACES <u>5 EMPLOYEES x 1 = 5 SPACES</u>	
TOTAL SPACES REQ'D:	= 15 SPACES	
SPACES PROVIDED	= 15 SPACES	
<b><u>COMMERCIAL 2 (C-2) ZONING REQUIREMENTS:</u></b>		
MINIMUM LOT AREA:	20,000 SF	
EX./PROP. LOT AREA:	2.3645 AC. OR 102,998 SF	
MINIMUM LOT WIDTH:	100 FEET	
EX./PROP. LOT WIDTH:	162.17 FEET	
MAXIMUM BUILDING HEIGHT:	55 FEET	
EX./PROP. BUILDING HEIGHT:	35 FEET	
BUILDING SETBACKS:	FRONT YARD:	30 FEET
	SIDE YARD:	NONE
	REAR YARD:	20 FEET
MAXIMUM FLOOR AREA RATIO (FAR):	0.70	
PROPOSED FAR:	0.013	
REQUIRED OPEN SPACE:	15% OR 0.35 AC.	
PROPOSED OPEN SPACE:	1.5076 AC. OR 63.7%	
IMPERVIOUS SURFACE:	37,331 OR 0.8570 AC.	
IMPERVIOUS SURFACE RATIO:	0.8570 AC. / 2.3645 AC. = 36.2%	
LOT COVERAGE:	1,556 SF OR 0.0357 AC.	
LOT COVERAGE RATIO:	0.0357 AC. / 2.3645 AC. = 1.5%	
TRIP GENERATION:	ITE USE 841: 21.4 TRIPS PER EMPLOYEE 5 EMPLOYEES X 21.4 TRIPS = 105.7 OR 106 TRIPS PER DAY	



BUILDING ELEVATION



4545 Empire Court  
Fredericksburg, VA 22408  
Phone: 540-898-9330  
Fax: 540-898-9324

GENERALIZED DEVELOPMENT PLAN  
COURTHOUSE ROAD  
AUTO CENTER

COURTLAND MAGISTERIAL DISTRICT  
SPOTSYLVANIA COUNTY, VIRGINIA

NO.	REVISION	DATE	APP.
1		9/21/16	
2		8/25/16	
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DESIGNED BY: CMK

DRAWN BY: HOSS

CHECKED BY: CMK

SCALE: NO SCALE

DATE: 5/3/2016

PROFESSIONAL SEAL

COMMONWEALTH OF VIRGINIA

CHRISTOPHER M. KOWALSKI

Lic. No. 42694

09/21/16

PROFESSIONAL ENGINEER

DRAWING TITLE

NOTES  
AND  
LEGEND

C-2

SHEET 2 OF 5

1933-1 GDP C-2 Notes & Legend.dwg  
WEA Cad File Name

JOB NO.: 1933-1



**GENERALIZED DEVELOPMENT PLAN  
COURTHOUSE ROAD  
AUTO CENTER**

COURTLAND MAGISTERIAL DISTRICT  
SPOTSYLVANIA COUNTY, VIRGINIA

NO.	REVISION	DATE	APP.
1	10/1/16	9/2/16	
2	10/1/16	9/2/16	
3	10/1/16	9/2/16	
4	10/1/16	9/2/16	
5	10/1/16	9/2/16	
6	10/1/16	9/2/16	
7	10/1/16	9/2/16	
8	10/1/16	9/2/16	
9	10/1/16	9/2/16	
10	10/1/16	9/2/16	

DESIGNED BY: CMK

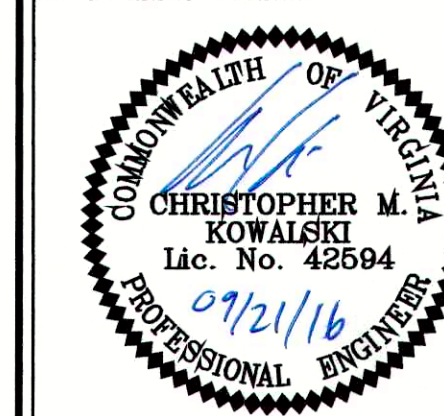
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SCALE: 1" = 30'

DATE: 5/3/2016

PROFESSIONAL SEAL



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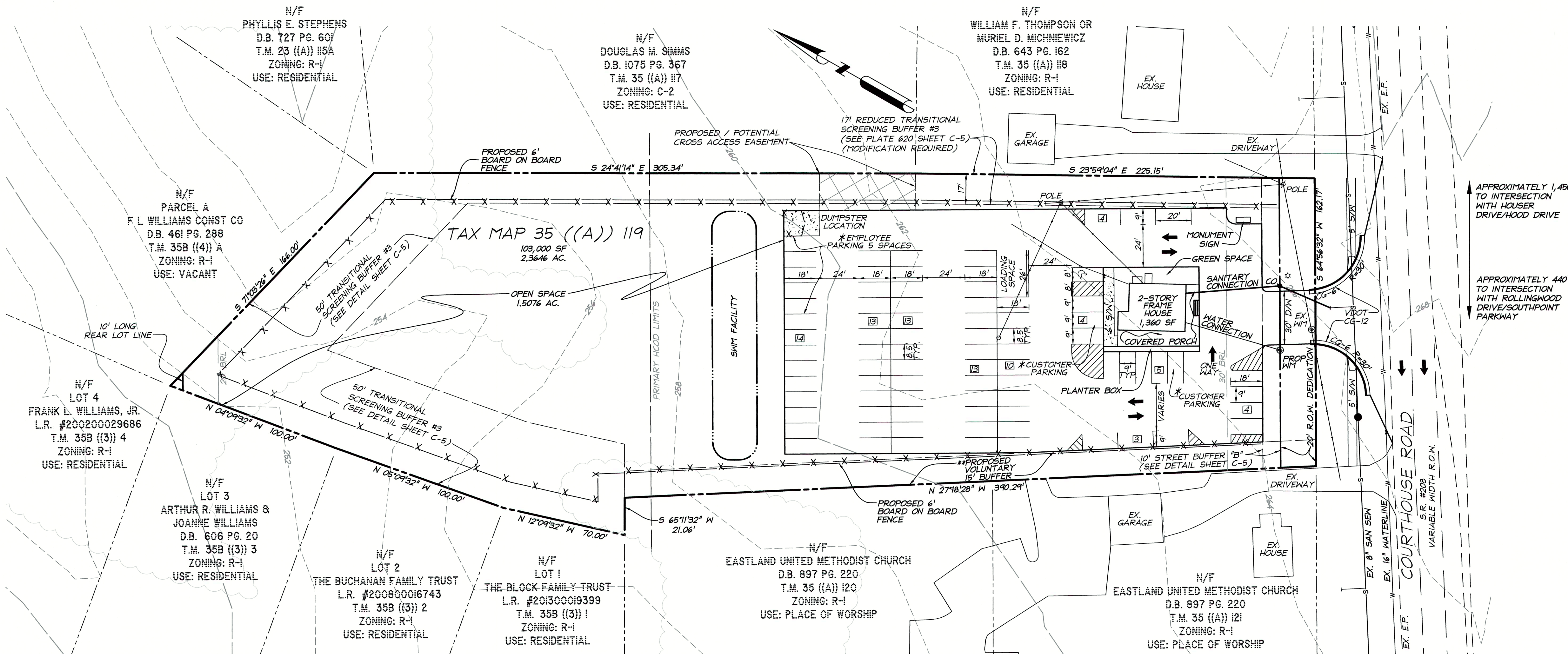
**GENERALIZED  
DEVELOPMENT  
PLAN**

**C-3**

SHEET 3 OF 5

1933-1 GDP C3 Generalized Development Plan.dwg  
WEA Cad File Name

JOB NO.: 1933-1

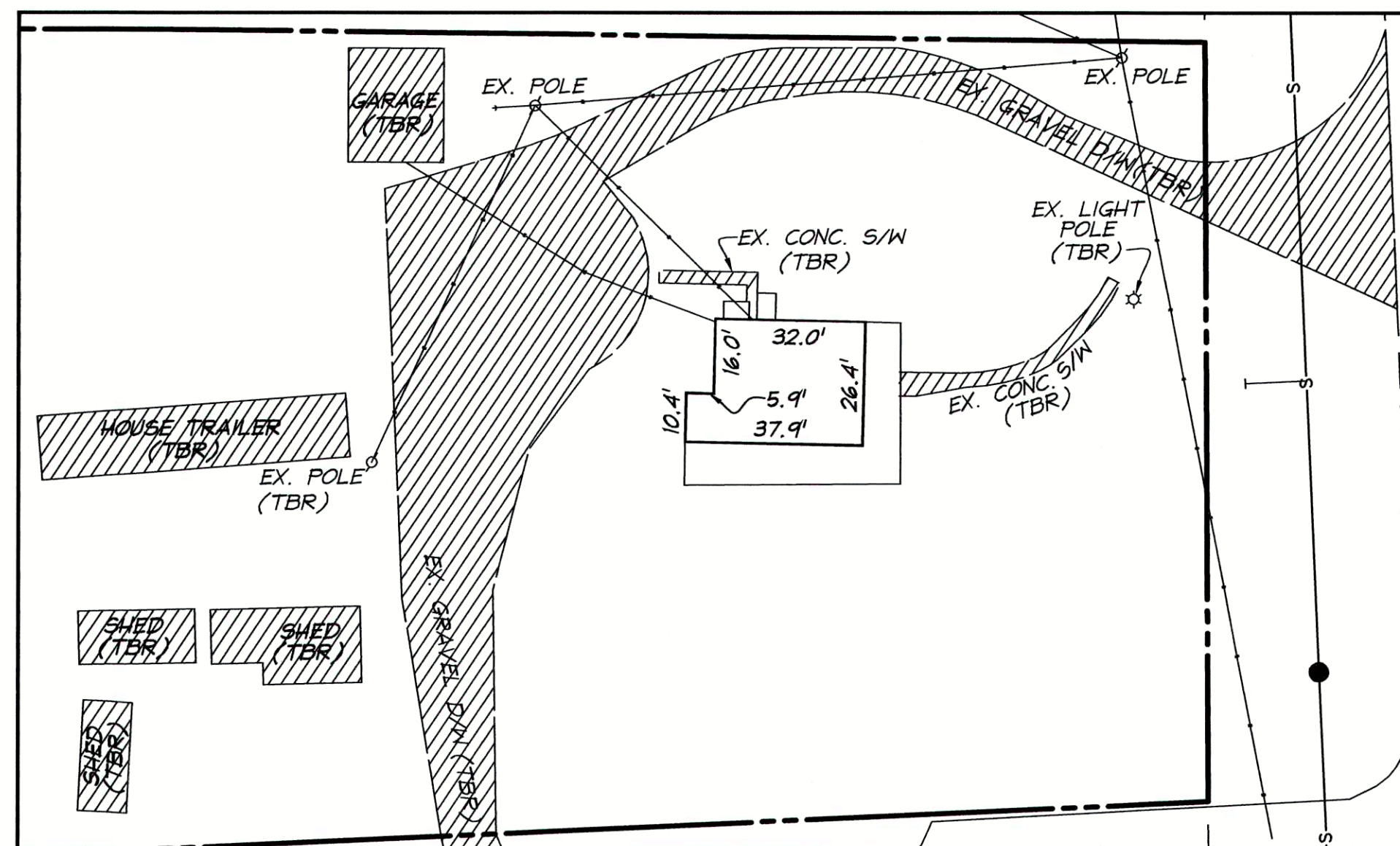


**\* PARKING NOTES**  
5 SPACES - EMPLOYEE  
9 SPACES - CUSTOMER  
64 SPACES - OPEN VEHICLE DISPLAY

**\*\* THE PROPOSED 15' VOLUNTARY BUFFER IS PROPOSED ADJACENT TO EASTLAND UNITED METHODIST CHURCH W/V WHICH THE APPLICANT PROPOSES TO PLANT USING THE STANDARDS OF A TRANSITIONAL SCREEN 1 AS SHOWN ON DETAIL PLATE 6-18 PROVIDED ON SHEET C-4.**

**NOTES:**

- THE STREET BUFFER SHALL INCLUDE ADDITIONAL STREET TREES.
- BUFFER YARD PLANTINGS WILL BE DONE IN ACCORDANCE WITH THE SPOTSYLVANIA COUNTY DSM. BUFFER YARD MODIFICATIONS ARE NECESSARY AND WILL BE REQUESTED AT SITE PLAN REVIEW.
- THE BOARD ON BOARD FENCE SHALL BE LOCATED WITHIN THE REQUIRED LANDSCAPE BUFFER WITH PLANTINGS ON BOTH SIDES OF THE FENCE TO SOFTEN THE IMPACT ON ADJOINING PROPERTIES.
- THE CROSS ACCESS EASEMENT SHALL REMAIN LANDSCAPED AND SCREENED UNTIL SUCH TIME AS THE NEED FOR THE CONNECTION ON THE ADJACENT PROPERTY ARISES.
- THE MODIFICATION TO THE TRANSITIONAL SCREENING IS NECESSARY TO PERMIT A REDUCTION IN THE BUFFER YARD WIDTH AND TO ALLOW THE USE OF A BOARD ON BOARD FENCE IN LIEU OF A MASONRY WALL.
- THE ENTRANCE SIGHT DISTANCE LEFT (SDL) MEETS OR EXCEEDS 530' (THE MINIMUM REQUIREMENT FOR A DESIGN SPEED OF 45 MPH). THIS INFORMATION SHALL BE PROVIDED ON THE SITE PLAN.



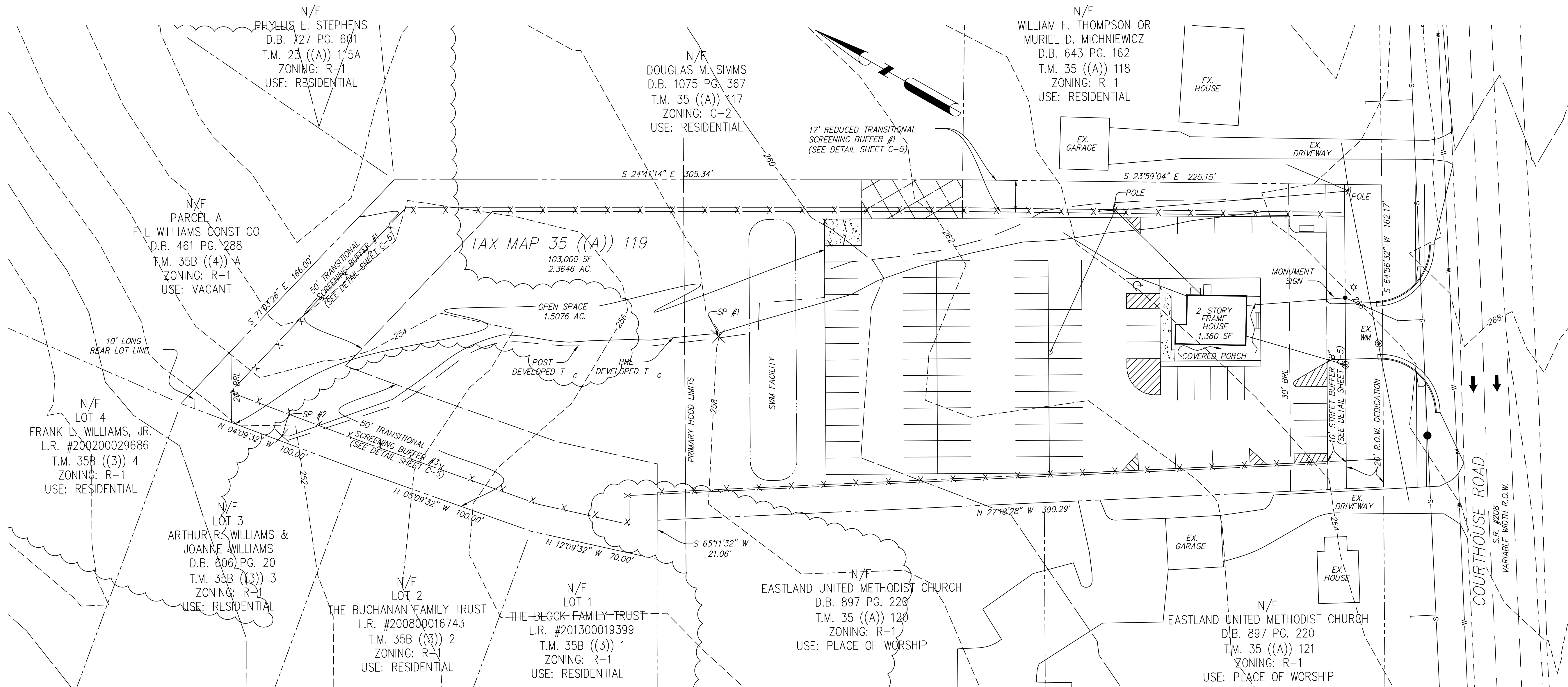
**DEMOLITION PLAN**

SCALE: 1" = 30'

TO BE REMOVED (TBR)

30 0 30 60  
SCALE IN FEET





**COURTHOUSE ROAD AUTO CENTER  
STORMWATER MANAGEMENT CONCEPT PLAN NARRATIVE**

THE COURTHOUSE ROAD AUTO CENTER IS LOCATED ON THE NORTH SIDE OF COURTHOUSE ROAD, JUST WEST OF THE I-95 OVERPASS. THE EXISTING PROPERTY CONSISTS OF A VACANT SINGLE FAMILY HOME AND SEVERAL OUT BUILDINGS. THE OWNERS WISH TO CONVERT THE EXISTING HOME INTO A SALES OFFICE AND CONSTRUCT A PARKING LOT FOR A USED CAR DEALERSHIP.

THE TOPOGRAPHY OF THE SITE IS GENTLY SLOPING TO THE NORTH/NORTHWEST. THE SITE IS SURROUNDED BY A CHURCH TO THE WEST, EXISTING RESIDENTIAL LOTS TO THE NORTH AND EAST AND COURTHOUSE ROAD TO THE SOUTH. THE SOILS CONSIST PRIMARILY OF HYDROLOGIC SOIL GROUP (HSG) "C" SOILS. THIS PROPERTY DRAINS TO STUDY POINT 2 AT THE BACK OF THE SITE.

THE DEVELOPMENT OF THIS SITE WILL CONVERT THE SOUTHERN PORTION OF THE SITE FROM GRASS OPEN SPACE TO A PARKING LOT WITH TURF OPEN SPACE. THE BACK PORTION OF THE SITE, TO THE NORTH, WILL REMAIN UNDEVELOPED IN ITS EXISTING STATE.

INCREASES IN RUNOFF FOR THE 1 AND 10 YEAR STORM EVENTS WILL OCCUR DUE TO THE CHANGE FROM OPEN SPACE TO PARKING LOT. THE FOLLOWING HYDROGRAPHS OUTLINE THE EXPECTED CHANGES IN RUNOFF HYDROLOGY:

**ENTIRE SITE:**  
1 YEAR PRE-DEVELOPMENT: 2.88 CFS  
1 YEAR POST-DEVELOPMENT: 3.43 CFS  
10 YEAR PRE-DEVELOPMENT: 8.16 CFS  
10 YEAR POST-DEVELOPMENT: 8.38 CFS

**STUDY POINT #1:**  
1 YEAR PRE-DEVELOPMENT: 1.84 CFS  
1 YEAR POST-DEVELOPMENT: 3.12 CFS  
10 YEAR PRE-DEVELOPMENT: 4.94 CFS  
10 YEAR POST-DEVELOPMENT: 6.51 CFS

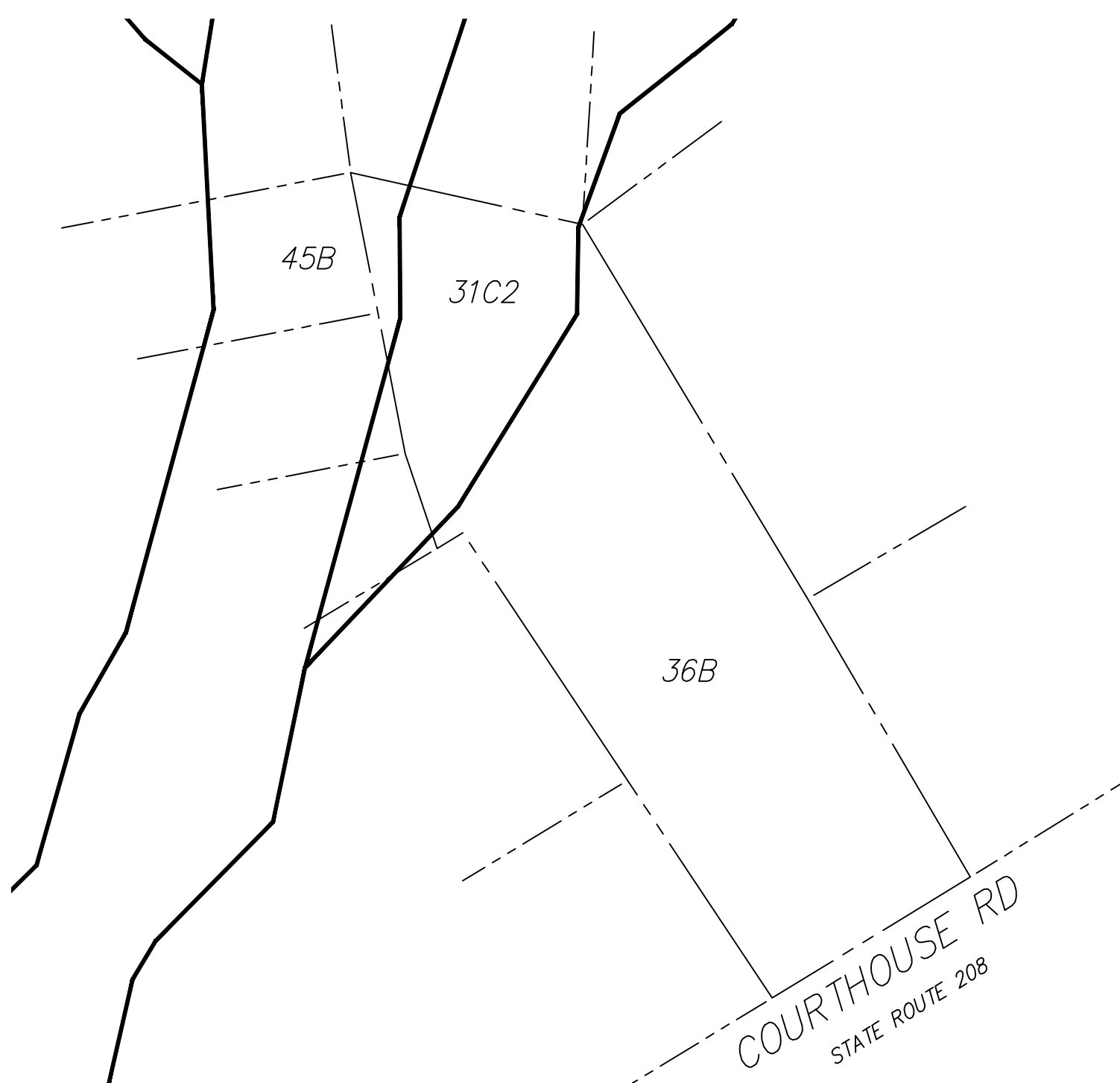
TO ADDRESS THESE INCREASES, WE INTEND TO CONSTRUCT A LARGE BIO-FACILITY AT THE EDGE OF THE PARKING LOT THAT WILL RECEIVE RUNOFF FROM THE LARGE MAJORITY OF THE IMPERVIOUS SURFACES ON THE PROPERTY. THE BIOFACILITY WILL BE A TYPE II BIOFACILITY THAT WILL LIKELY BE DESIGNED TO ALLOW FOR ADDITIONAL STORAGE TO ADDRESS ANY REQUIREMENTS STEMMING FROM THE ENERGY BALANCE EQUATION RESULTS. IF THIS APPROACH IS NOT FEASIBLE, WE WILL LIKELY PROPOSE A BIOFACILITY AT THE EDGE OF THE PARKING LOT THAT DISCHARGES INTO A SMALL EXTENDED DETENTION FACILITY THAT WILL HANDLE THE WATER QUANTITY REQUIREMENTS FOR THE PROJECT.

**SITE (TO SP#2)**

PRE-DEVELOPMENT CN: 76  
POST-DEVELOPMENT CN: 82  
PRE-DEVELOPMENT Tc: 19.92 MIN.  
POST-DEVELOPMENT Tc: 21.48 MIN.

**TO SP#1**

PRE-DEVELOPMENT CN: 78  
POST-DEVELOPMENT CN: 89  
PRE-DEVELOPMENT Tc: 18.18 MIN.  
POST-DEVELOPMENT Tc: 19.86 MIN.



**SOILS INFORMATION:**

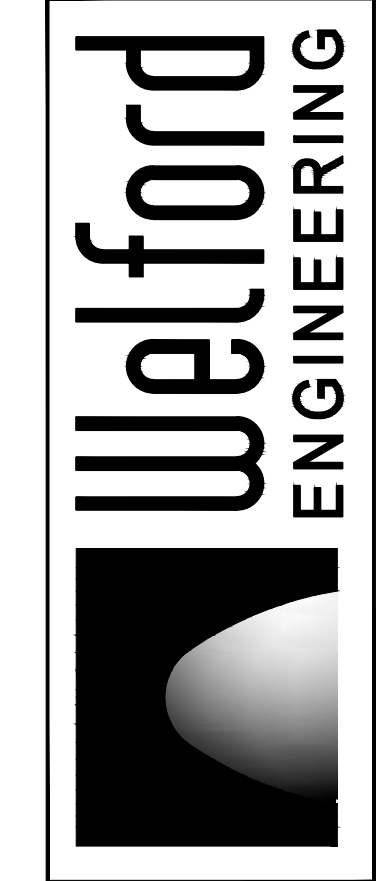
31C2-MATTAPONI SANDY CLAY LOAM, 7 TO 15 PERCENT SLOPES, ERODED.  
THIS IS A DEEP, SLOPING, MODERATELY WELL DRAINED SOIL ON NARROW CONVEX RIDGETOPS, POINTS OF RIDGES, AND CONVEX SIDE SLOPES. THE AREAS OF THIS SOIL COMMONLY ARE IRREGULARLY ROUNDED OR ARE LONG AND WINDING. THEY RANGE IN SIZE FROM 2 TO ABOUT 10 ACRES. HSG C.

36B-SAVANNAH SANDY LOAM, 2 TO 7 PERCENT SLOPES.  
THIS IS A DEEP, GENTLY SLOPING, MODERATELY WELL DRAINED SOIL ON BROAD CONVEX RIDGETOPS. THE RIDGES ARE ABOUT 400 TO 1,600 FEET WIDE. THE AREAS OF THIS SOIL COMMONLY ARE ELONGATED OR IRREGULARLY RECTANGULAR. THEY RANGE IN SIZE FROM 2 TO ABOUT 40 ACRES OR MORE. HSG C.

45B-UDORTHENTS-UDIFLUENTS COMPLEX, GENTLY SLOPING.  
THE SOILS MAKING UP THIS COMPLEX ARE DEEP, GENTLY SLOPING, AND WELL DRAINED TO SOMEWHAT POORLY DRAINED. THEY ARE ALONG DRAINAGEWAYS AND SMALL STREAMS. THE AREAS OF THESE SOILS ARE SO INTERMINGLED THAT IT WAS NOT PRACTICAL TO MAP THE SOILS SEPARATELY. THE MAPPED AREAS ARE LONG AND WINDING AND RANGE FROM 2 TO ABOUT 50 ACRES OR MORE IN SIZE. THE SLOPES COMMONLY RANGE FROM 2 TO 7 PERCENT. THE COMPLEX CONSISTS OF ABOUT 50 PERCENT UDORTHENTS, 35 PERCENT UDIFLUENTS, AND 15 PERCENT OTHER SOILS. HSG C.

**SOILS DATA**

SCALE: 1" = 100'



4545 Empire  
Fredericksburg  
Phone:  
Fax:

**GENERALIZED DEVELOPMENT PLAN  
COURTHOUSE ROAD  
AUTO CENTER**

COURTLAND MAGISTERIAL DISTRICT  
SPOTSVANIA COUNTY, VIRGINIA

NO.	REVISION	DATE	APP.
1	1007 COMMENTS	9/21/16	
2	COUNTY COMMENTS	8/25/16	

DESIGNED BY: CMK

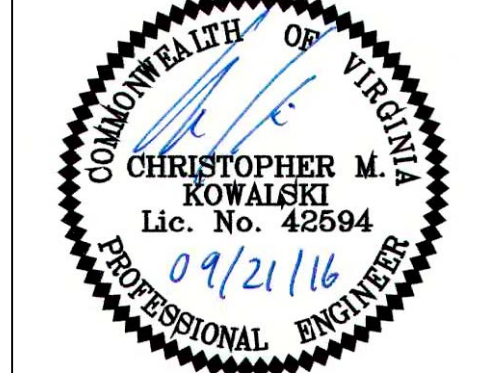
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SCALE: 1" = 30'

DATE: 5/3/2016

PROFESSIONAL SEAL



DRAWING TITLE

**STORMWATER  
MANAGEMENT  
CONCEPT PLAN**

**C-4**

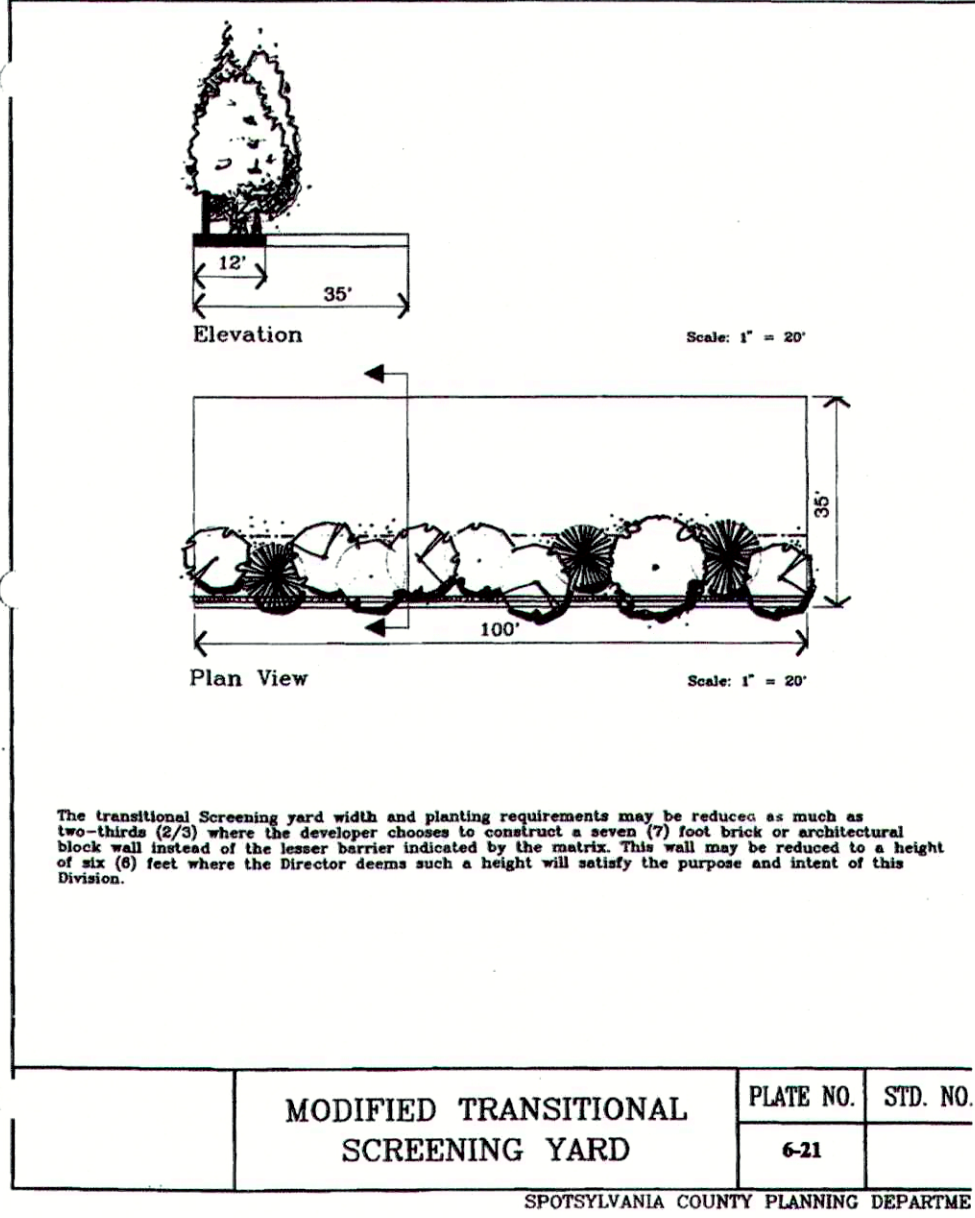
SHEET 4 OF 5

1933-1 GDP C4 SWM Concept Plan.dwg  
WEA Cad File Name

JOB NO.: 1933-1

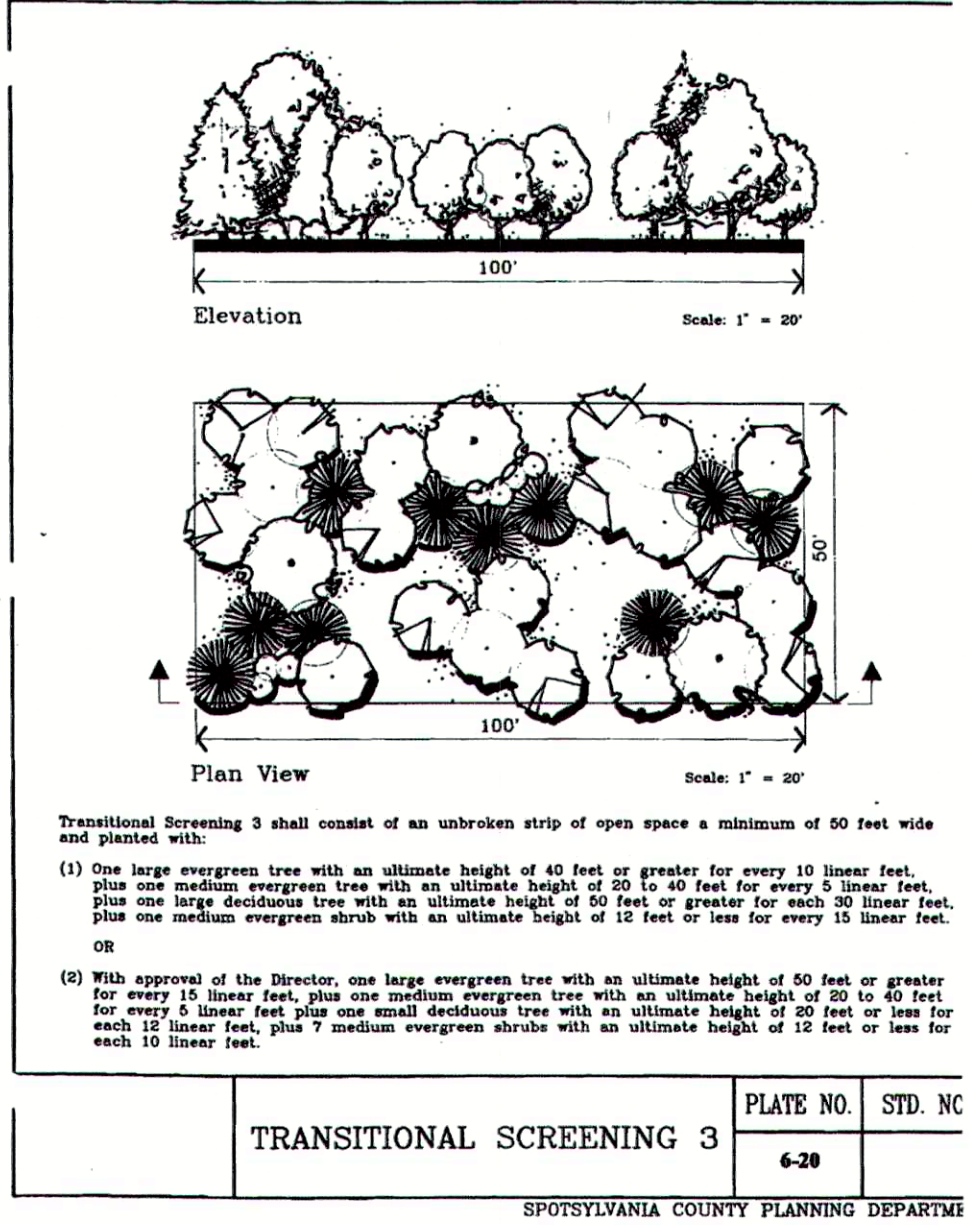


Spotsylvania County Design Standards Manual



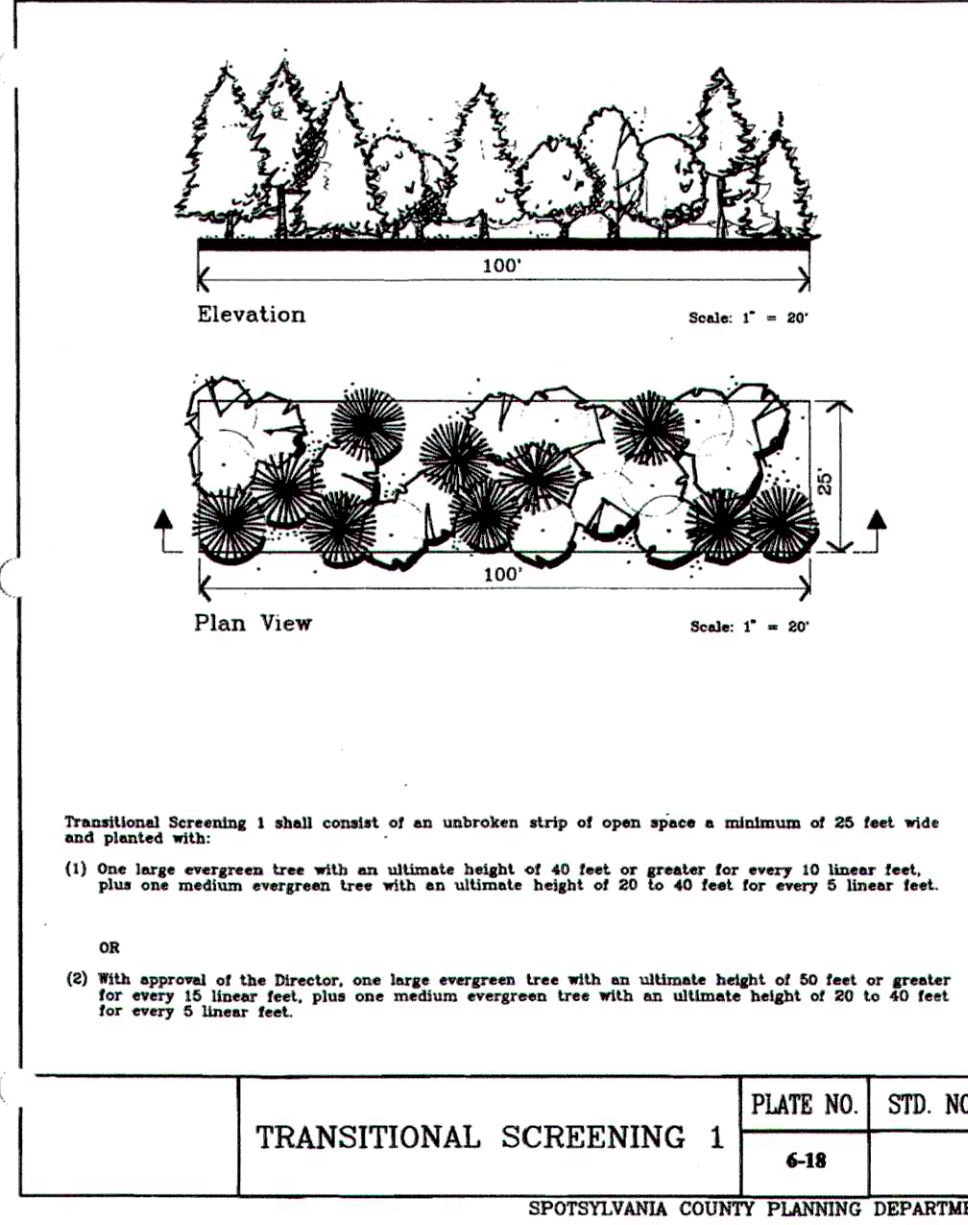
Spotsylvania County Design Standards Manual 6-86

Spotsylvania County Design Standards Manual



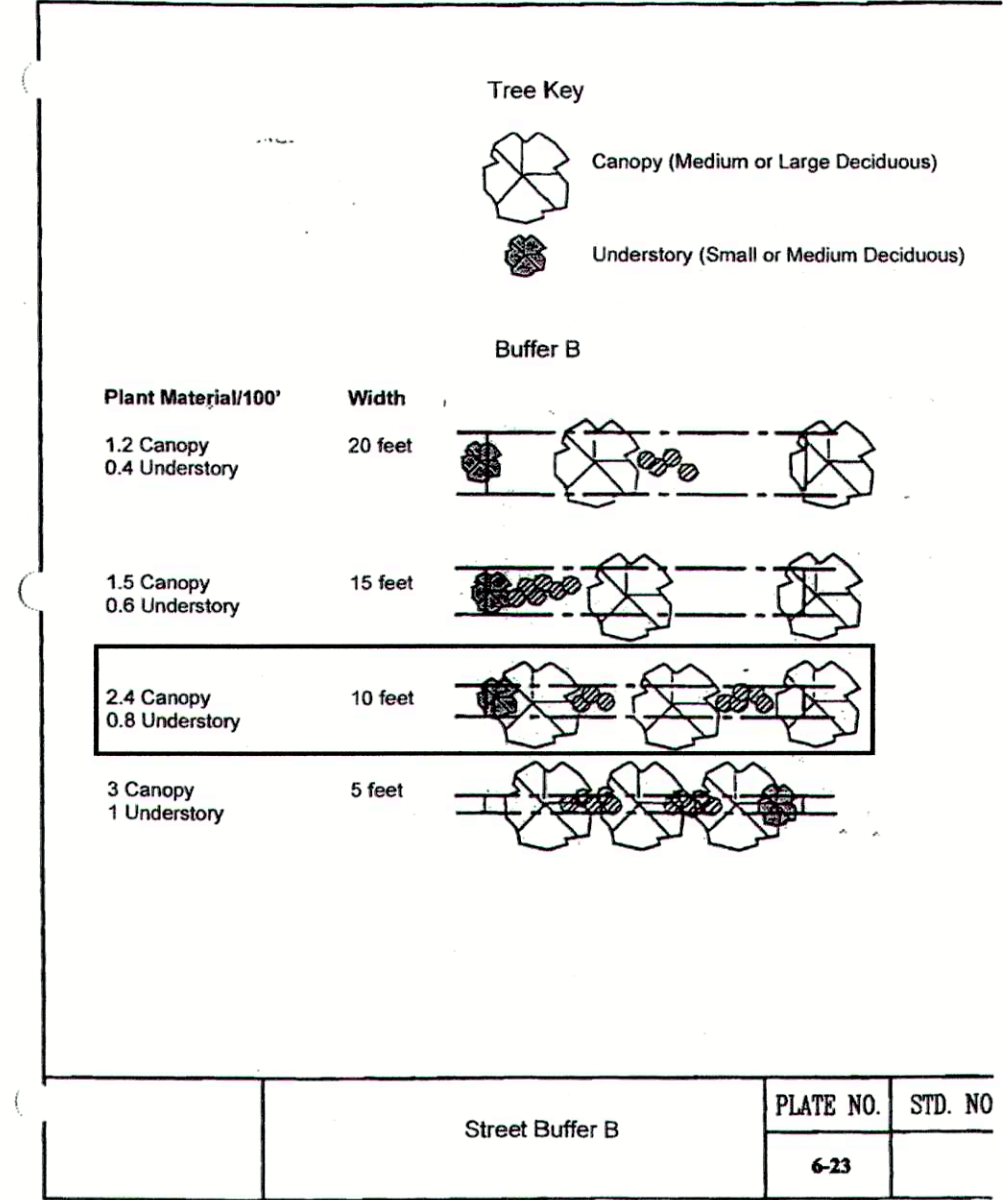
Spotsylvania County Design Standards Manual 6-85

Spotsylvania County Design Standards Manual

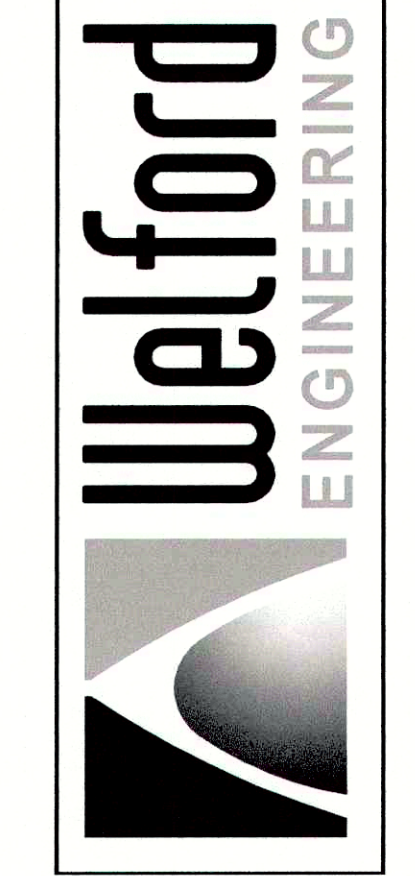
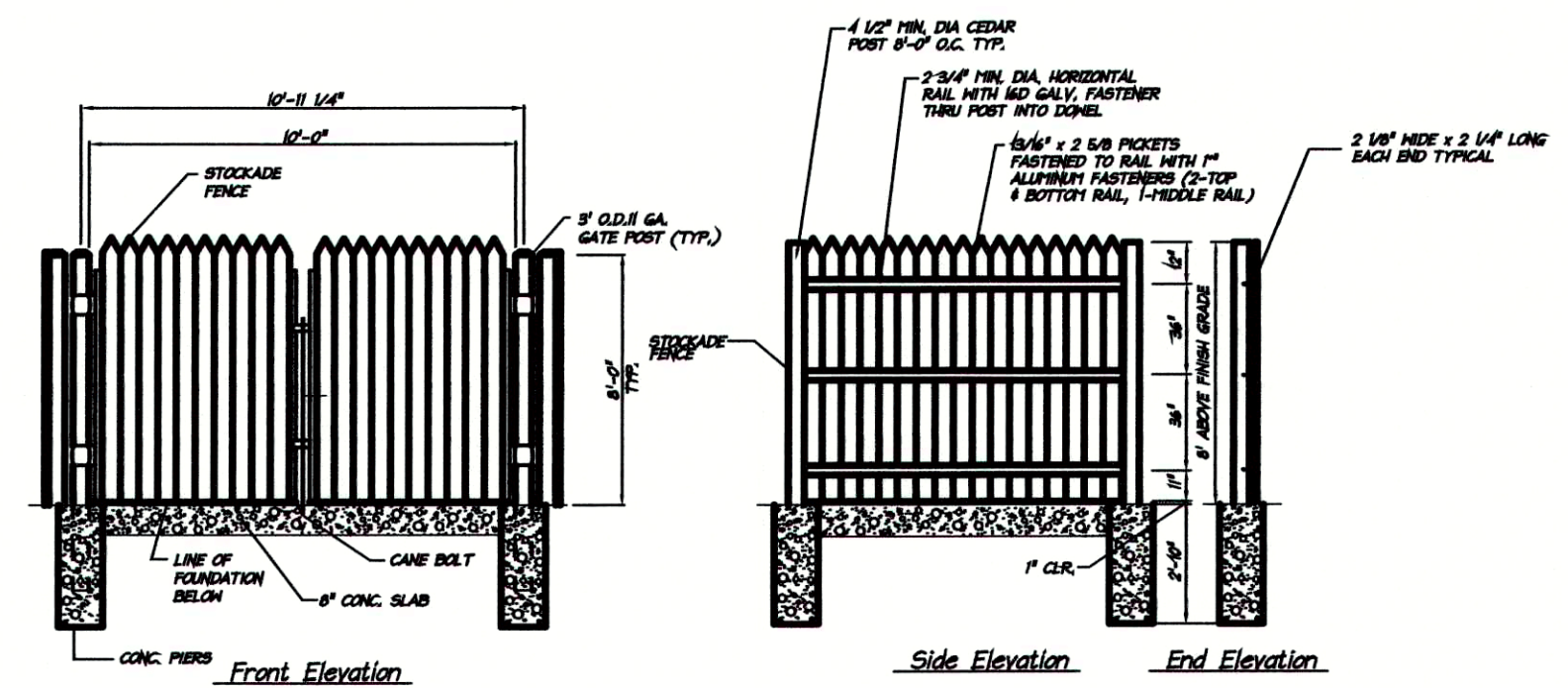


Detail changing

Spotsylvania County Design Standards Manual 6-83



Spotsylvania County Design Standards Manual 6-88

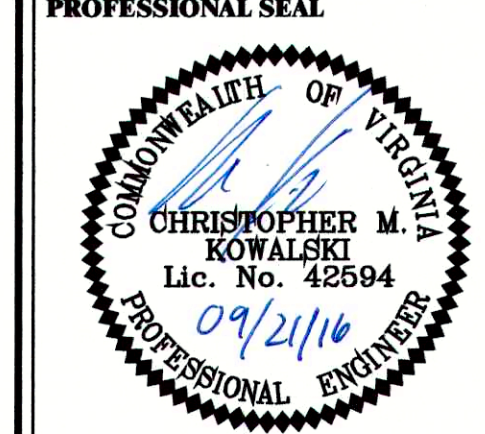


GENERALIZED DEVELOPMENT PLAN  
COURTHOUSE ROAD  
AUTO CENTER

COURTLAND MAGISTERIAL DISTRICT  
SPOTSYLVANIA COUNTY, VIRGINIA

NO.	REVISION	DATE	APP.
1		9/2/16	
2		8/25/16	
3			
4			
5			
6			
7			
8			
9			
10			

DESIGNED BY: CMK  
DRAWN BY: HOSS  
CHECKED BY: CMK  
SCALE: NO SCALE  
DATE: 5/3/2016



DRAWING TITLE  
MISCELLANEOUS  
DETAILS

C-5  
SHEET 5 OF 5  
1933-1 GDP C-5 Misc Details.dwg  
WEA Cad File Name  
JOB NO.: 1933-1

New Car Sales  
(841)

Average Vehicle Trip Ends vs: Employees  
On a: Weekday,  
P.M. Peak Hour of Generator

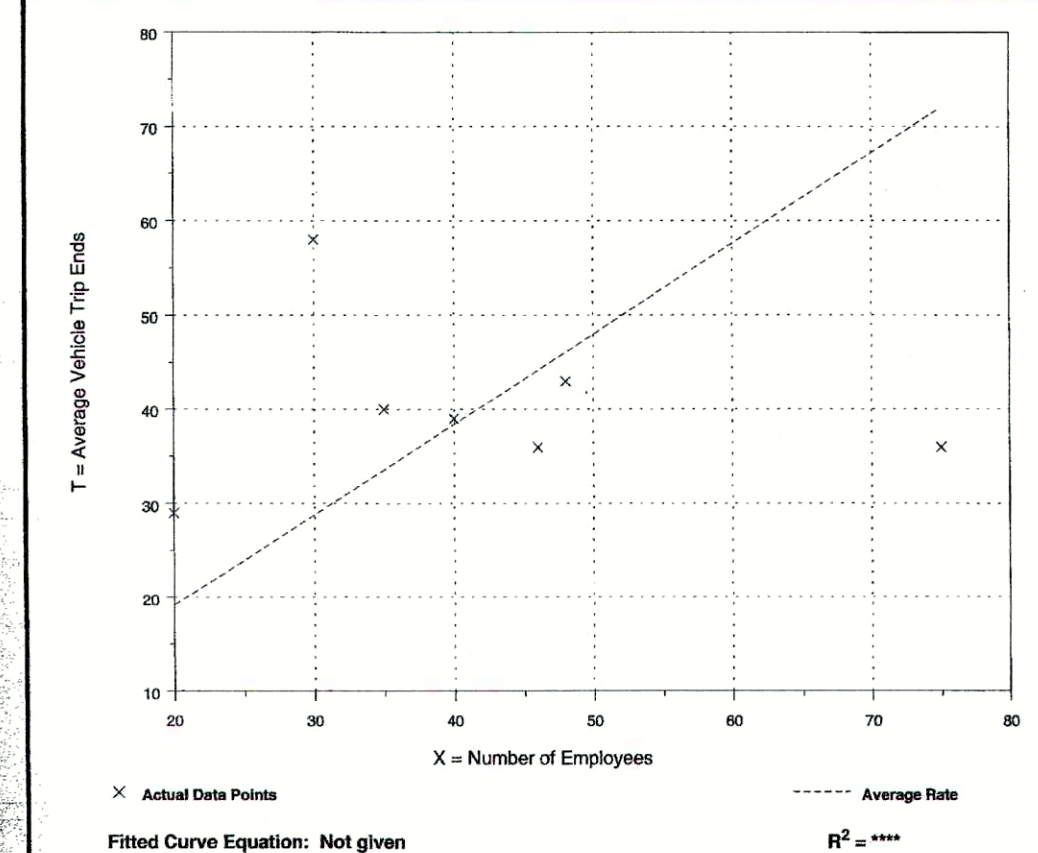
Number of Studies: 7  
Avg. Number of Employees: 42  
Directional Distribution: 48% entering, 52% exiting

Trip Generation per Employee

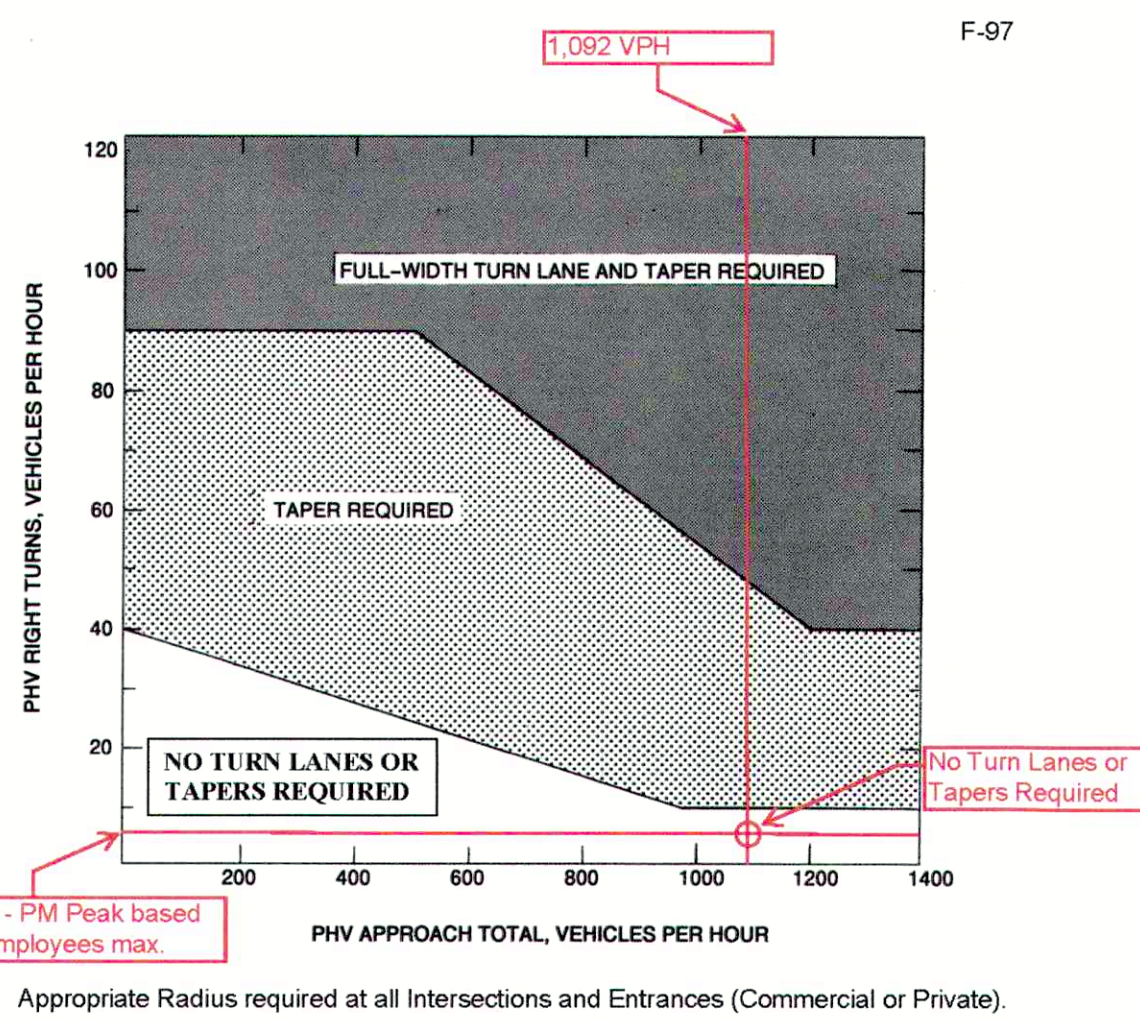
Average Rate	Range of Rates	Standard Deviation
0.96	0.48 - 1.93	1.06

Employees x P.M. Peak Hour Rate = P.M. Peak Hour Trips  
5 x 0.96 = 4.8 or 5 P.M. peak Hour Trips

Data Plot and Equation



Trip Generation, 7th Edition 1473 Institute of Transportation Engineers



Appropriate Radius required at all Intersections and Entrances (Commercial or Private).

LEGEND  
PHV - Peak Hour Volume (also Design Hourly Volume equivalent)  
Adjustment for Right Turns  
If PHV is not known use formula: PHV = ADT x K x D  
K = the percent of ADT occurring in the peak hour  
D = the percent of traffic in the peak direction of flow  
Note: An average of 11% for K x D will suffice.

When right turn facilities are warranted, see Figure 3-1 for design criteria.  
FIGURE 3-27 WARRANTS FOR RIGHT TURN TREATMENT (4-LANE HIGHWAY)

Rev. 1/15

Virginia Department of Transportation Traffic Engineering Division 2015 Annual Average Daily Traffic Volume Estimates by Section of Route Spotylvania Maintenance Area																									
Route	Jurisdiction	Length	ADT	OA	4 Tire	Bus	Truck					OC	K Factor	DR Factor	AADWT	CW									
							2-Axle	3-Axle	4-Axle	5+ Axle															
208 Courthouse Rd	Spotylvania County	2.25	328 328	0	97%	0%	1%	1%	1%	0%	F	0.281	0.561	24000	G										
208 Courthouse Rd	Spotylvania County	0.75	42000	0	97%	0%	1%	1%	1%	0%	F	0.085	0.612	44000	G										
208 Courthouse Rd	Spotylvania County	2.43	2800	0	92%	0%	1%	2%	4%	0%	C	0.065	0.624	2900	G										
208 Courthouse Rd	Spotylvania County	3.41	3100	0	90%	0%	1%	2%	4%	0%	F	0.095	0.505	3200	G										
208 Courthouse Rd	Spotylvania County	0.54	7600	0	93%	0%	1%	2%	4%	0%	F	0.065	0.525	8100	G										
208 Courthouse Rd	Spotylvania County	0.71	5200	0	93%	0%	1%	2%	4%	0%	F	0.069	0.504	5500	G										
222 Zachary Taylor Hwy	Spotylvania County	1.01	5200	0	92%	0%	1%	2%	5%	0%	C	0.067	0.533	3400	G										
222 Zachary Taylor Hwy	Spotylvania County	0.84	3600	0	92%	0%	1%	2%	5%	0%	F	0.069	0.534	3100	G										