

GENERAL DEVELOPMENT PLAN
SOUTH RIDGE CHURCH
T.M. NO. 44-119L

FALMOUTH ELECTION DISTRICT, STAFFORD COUNTY, VIRGINIA

OWNER / APPLICANT:

SOUTH RIDGE CHURCH INC.
C/O: JEFF GEYER
428 HARTWOOD ROAD
FREDERICKSBURG, VA 22407
PHONE: 469-713-7970

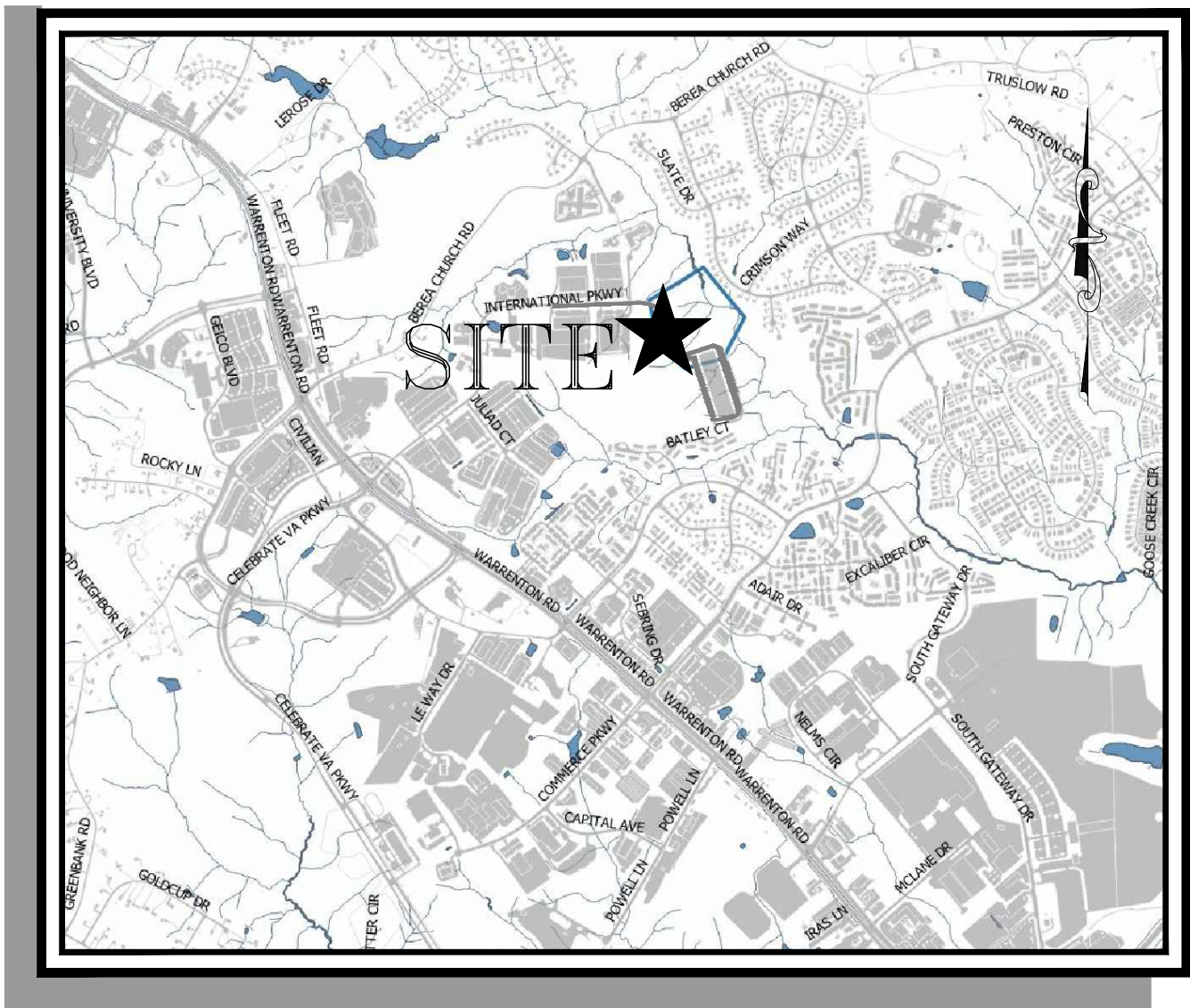
ENGINEER:



Freeland Engineering, PC
10814 Courthouse Road
Fredericksburg, Virginia 22408
Phone: 540.898.3092 Fax: 877.658.7735
www.FreelandEngineeringPC.com

SITE DATA:

OWNER: SOUTH RIDGE CHURCH, INC.
APPLICANT: JEFFREY GEYER
ADDRESS: 428 HARTWOOD ROAD
FREDERICKSBURG, VA 22406
PHONE: 469-713-7970
PLAN PREPARER: FREELAND ENGINEERING, PC
ADDRESS: 10814 COURTHOUSE ROAD
FREDERICKSBURG, VA 22408
PHONE: 540-898-3092
TAX MAP: 44-119L
PROPOSED BUILDING: 10,963 S.F.
ZONING DISTRICT: M-1 (LIGHT INDUSTRIAL)
SETBACKS: FRONT: 40' SIDE: 15' REAR: 15'
MAX BLDG HEIGHT: < 55'
MIN. LOT AREA: 2.45 AC
CURRENT USE: VACANT
PROPOSED USE: CHURCH BUILDING
SITE ADDRESS: 2020 INTERNATIONAL PARKWAY
FREDERICKSBURG, VA 22406
FLOODPLAIN ON SITE: Y
FIRM #: 5101540182E (DATED: 02/04/2005)
ZONE: "X"
WETLANDS ON SITE: Y SOURCE: COUNTY GIS PERMIT REQUIRED: N
RPA ON SITE: Y
VAHUG: RA46
WATERSHED NAME: RAPPAHANNOCK RIVER-HAZEL RUN
FLOOR AREA RATIO: $\frac{\text{STRUCTURE AREA}}{\text{LOT AREA}} = \frac{10,963}{106,722} = 0.1\%$
IMPERVIOUS SURFACES: STRUCTURES = 10,963 S.F.
DRIVEWAY, S/W, = 4,697 S.F.
PARKING LOT = 35,480 S.F.
TOTAL IMP. AREA = 51,140 S.F.
IMPERVIOUS SURFACE RATIO: $\frac{\text{IMPERVIOUS AREA}}{\text{SITE AREA}} = \frac{51,140 \text{ S.F.}}{106,722} = 0.48\%$
OPEN SPACE RATIO: $106,722 - 51,140 = 55,582 \text{ S.F.} = 1.27 \text{ ACRES} = 1.27/2.45 = 0.52 \text{ OF ALL AREA}$
DISTURBED AREA: 75,359 S.F. OR 1.735 AC.
PARKING REQUIRED: 3 SPACE PER 10 SEATS AT THE CHURCH AUDITORIUM/120 SEATS
REQUIRED SPACES 120/10 X 3 = 36 REQUIRED SPACES
1 HANDICAP SPACE REQUIRED PER 25 SPACES --> 2 HANDICAP SPACE REQUIRED
54 SPACES AND 4 HANDICAP SPACE PROVIDED
LOADING SPACES REQUIRED: 1 SPACE PER 10,000 S.F. --> LOADING ZONE NOT REQUIRED- 20'X25' DESIGNATED AS LOADING SPACE
PROVIDED
MOST VEHICLE TRIP/DAY GENERATED ON SUNDAYS FOR PRAYER: AS PER ITE TRIP GENERATION, 10TH EDITION ITE NO. 560
CHURCH (SUNDAY/SUNDAY PEAK) = UNIT (NO. OF SEATS) X DAILY RATE = 120 X 1.21 = 145 ADT
NOTE: ANY AND ALL ASPHALT, CONCRETE OR OTHER DRIVING SURFACES, WHERE NEW OR REPLACED MUST BE ABLE TO SUPPORT A TOTAL
IMPOSED LOAD OF FIRE APPARATUS WEIGHING AT LEAST 75,000 LBS.



CAROLINE COUNTY, VIRGINIA
VICINITY MAP
SCALE: 1"=2000'



PLAN DATE: OCTOBER 26, 2020

CERTIFICATE OF TITLE:

I HEREBY CERTIFY THAT THE 2.88 ACRES AND 7.25 ACRES OF
LAND SHOWN HEREON AS TM 56-A-138 NOW OR FORMERLY IN THE
NAME OF BRANDYWINE CORP/OREX PLAZA II, L.P., AS RECORDED
AMONG THE LAND RECORDS OF STAFFORD COUNTY, VIRGINIA AT
INSTRUMENT NO. 060002841.
RAYMOND P. FREELAND, PE 10/26/2020
DATE

RESOURCE PROTECTION AREA (RPA) NOTE:
PART OF THE SITE IS LOCATED IN THE RPA

SHEET DESCRIPTION

1	COVER SHEET
2	EXISTING CONDITIONS
3	SITE PLAN
4	GRADING PLAN
5	LANDSCAPING PLAN
6	BOUNDARY SURVEY PLAT

TRAFFIC DATA:

INTERNATIONAL PARKWAY:
IS A DEAD END AND THE MAIN ENTRANCE FOR STAFFORD INDUSTRIAL PARK. 5 PARCELS
LOCATED ON THE DEAD END INCLUDING PROJECT SITE AND PARCEL 10 THAT IS ALREADY
DEVELOPED.
ITE TRIP GENERATION 10TH EDITION:
AVG. DAILY TRIPS GENERATED (LAND USE DESCRIPTION) INDUSTRIAL PARK ITE NO. 130
AT THE PROPOSED PROJECT SITE = UNIT X DAILY RATE = KSF X 3.37
KSF (UNIT) ESTIMATED AT 180,000 SF OF BUILDINGS FOR THE 5 PARCELS AT DEVELOPED
STAGE = 180
ADT = 180 X DAILY RATE (3.37) = 606.6 AVERAGE DAILY TRIPS
PEAK HOUR OF ADJUSTMENT STREET RATE AM (0.44) PM (0.42) :
PEAK AM (7-9) = UNIT X DAILY RATE X 0.44 = KSF(180) X 3.37 X 0.40 = 266.9
= 267 PHV OR VPH
PEAK PM (4-6) = UNIT X DAILY RATE X 0.42 = KSF(180) X 3.37 X 0.42 = 254.77 =
255 PHV OR VPH
ITE TRIP GENERATION (ADT) AT THE SITE ENTRANCE:
CHURCH(SUNDAY/SUNDAY PRAYER) INSTITUTIONAL ITE 10TH EDITION ITE # 560
ADT = NUMBER OF SEATS IN AUDITORIUM (UNIT) X DAILY RATE
= 120 SEATS X 1.21 = 145.2 = 146 ADT (AVERAGE DAILY TRIPS)
PEAK HOUR OF ADJUSTMENT STREET RATE:
PEAK AM(VPH) = 0.54 X UNIT X DAILY RATE = 0.54 X 120 X 1.21 = 74.4 = 75 PHV
OR VPH
PEAK PM(VPH) = 0.54 X UNIT X DAILY RATE = 0.54 X 120 X 1.21 = 74.4 = 75 PHV
OR VPH
PEAK SATURDAY = N/A NO CHURCH SERVICE ON SATURDAY
PHV RIGHT TURN = ADT X 11% = 145 X 11% = 16
ENTRANCE IS CLASSIFIED AS A "STANDARD COMMERCIAL ENTRANCE"
(146 MORE THAN 50 TRIPS GENERATED)
THEREFORE, STANDARD COMMERCIAL ENTRANCE DESIGN SHALL APPLY.
NO TURN LANES OR TAPER PER VDOT FIGURE 3-26, APPENDIX F.
WILL BE WARRANTED (SEE CHART) PHV APPROACH VS. PHV RIGHT TURN LANE FOR SITE

APPROVAL BLOCK

AGENT, BOARD OF SUPERVISORS

DATE

NOTES:

1. THIS TOPOGRAPHIC BASESHEET HAS BEEN COMPLETED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THEREFORE, EASEMENTS, RIGHT-OF WAYS AND RESTRICTIVE COVENANTS OF RECORD MAY NOT NECESSARILY BE SHOWN.

2. THE PROPERTY SHOWN HEREON IS LOCATED ON THE STAFFORD COUNTY TAX ASSESSMENT MAP AS TAX MAP NO. 44-119L. THE PROPERTY APPEARS TO BE ZONED M-1 (INDUSTRIAL LIGHT) PER THE COUNTY REAL ESTATE ASSESSMENT OFFICE. AS A PRE-REQUISITE TO ANY FUTURE ENGINEERING OR DESIGN TASKS ASSOCIATED WITH THIS SURVEY - THE CURRENT ZONING AND PUBLISHED SETBACKS SHOULD BE VERIFIED.

3. THE PROPERTY SHOWN HEREON IS NOW OR FORMERLY IN THE NAME OF BRANDYWINE CORPOREX PLAZA II, L.P., AS RECORDED AMONG THE LAND RECORDS OF STAFFORD COUNTY, VIRGINIA AT INSTRUMENT NO. 060002847.

4. THE CURRENT ADDRESS FOR THIS PROPERTY IS 2020 INTERNATIONAL PARKWAY, FREDERICKSBURG, VIRGINIA 22406.

5. THE BOUNDARY INFORMATION AS SHOWN HEREON IS BASED ON DEEDS AND PLATS OF RECORD AND DOES NOT REPRESENT A CURRENT FIELD RUN BOUNDARY SURVEY PERFORMED BY THIS FIRM.

6. THE NORTH ORIENTATION SHOWN HEREON HAS BEEN TIED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83) VIRGINIA STATE GRID NORTH.

7. THE PLAT SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD SURVEY WHICH TIES THIS BOUNDARY BY A RTK SMARTNET GPS VIRTUAL REFERENCE STATION.

THE GRID FACTOR (ELEVATION FACTOR X SCALE FACTOR) THAT HAS BEEN APPLIED TO THE FIELD DISTANCE TO DERIVE THE REFERENCED COORDINATES IS 0.99994549. UNLESS OTHERWISE STATED, THE PLAT DISTANCES SHOWN ARE INTENDED TO BE HORIZONTAL DISTANCES MEASURED AT THE MEAN ELEVATION OF THE SITE OR DEVELOPMENT.

THE BEARINGS SHOWN ARE REFERENCED TO THE VCS 1983 GRID NORTH. THE FOOT DEFINITION USED FOR CONVERSION OF THE MONUMENT COORDINATES IS THE "U.S. SURVEY FOOT" OR 1 FOOT = 1,200/3,937 METER.

GEODETIC CONTROL MONUMENTS EXISTING OR PLACED WITHIN THE BOUNDARIES OF THIS DEVELOPMENT OR SITE SHALL NOT BE DISTURBED. THE LANDOWNER ASSUMES THE RESPONSIBILITY FOR REPLACEMENT OF ANY DISTURBED MONUMENT.

8. A PORTION OF THE PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AND A PORTION OF THE PROPERTY IS LOCATED IN FLOOD ZONE "AE" (SHADED) (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) AND A PORTION OF THE PROPERTY LIES WITHIN FLOOD ZONE "AE" (BASE FLOOD ELEVATIONS DETERMINED) AS SHOWN ON F.E.M.A. MAP NO. 5101540182E, DATED FEBRUARY 4, 2005.

9. THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A CURRENT FIELD RUN SURVEY PERFORMED BY THIS FIRM.

10. THE VERTICAL ORIENTATION AS SHOWN HEREON HAS BEEN TIED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88).

11. THE CONTOURS AS SHOWN HEREON ARE SHOWN AT 2' (TWO) CONTOUR INTERVALS.

12. GEOTECHNICAL, SUBSURFACE, FIELD REVIEW, RESEARCH, AGENCY OF GOVERNMENT RECORDS REVIEW, OR OTHER INVESTIGATIONS HAVE NOT BEEN MADE FOR THE PURPOSE OF LOCATING, OR DETERMINING THE EXISTENCE OF, HAZARDOUS MATERIALS ON SITE IN PERFORMANCE OF THIS SURVEY.

13. NO CERTIFICATION IS MADE AS TO THE LOCATION OF UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION, WATER, SANITARY AND STORM SEWERS, ETC. ONLY ABOVE GROUND READILY OBSERVABLE VISIBLE FEATURES AS SHOWN HEREON ARE HEREBY CERTIFIED.

14. THE BUILDING RESTRICTION LINES AS SHOWN HEREON HAVE BEEN PROVIDED FROM INFORMATION OBTAINED WITHIN THE COUNTY ZONING ORDINANCE AND SHOULD BE VERIFIED BY THE DESIGN ENGINEER.

LEGEND

IPF	IRON PIPE FOUND
IRF	IRON ROD FOUND
C&G	CURB & GUTTER
BRL	BUILDING RESTRICTION LINE
INV.	INVERT
---	EXISTING CONTOUR
W	WATER VALVE
F	FIRE HYDRANT
S	STORM MANHOLE
○	SANITARY MANHOLE

SURVEYOR'S CERTIFICATE

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF BRUCE A. REESE, FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON MARCH 2, 2020; AND THAT THIS PLAT INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

BRUCE A. REESE
L.S. #3313

DATE 03/09/2020

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
CT	466.00'	214.55'	212.66'	N 31° 36' 21" E	26° 22' 46"	109.21'

1 inch = 40 feet

LINE TABLE

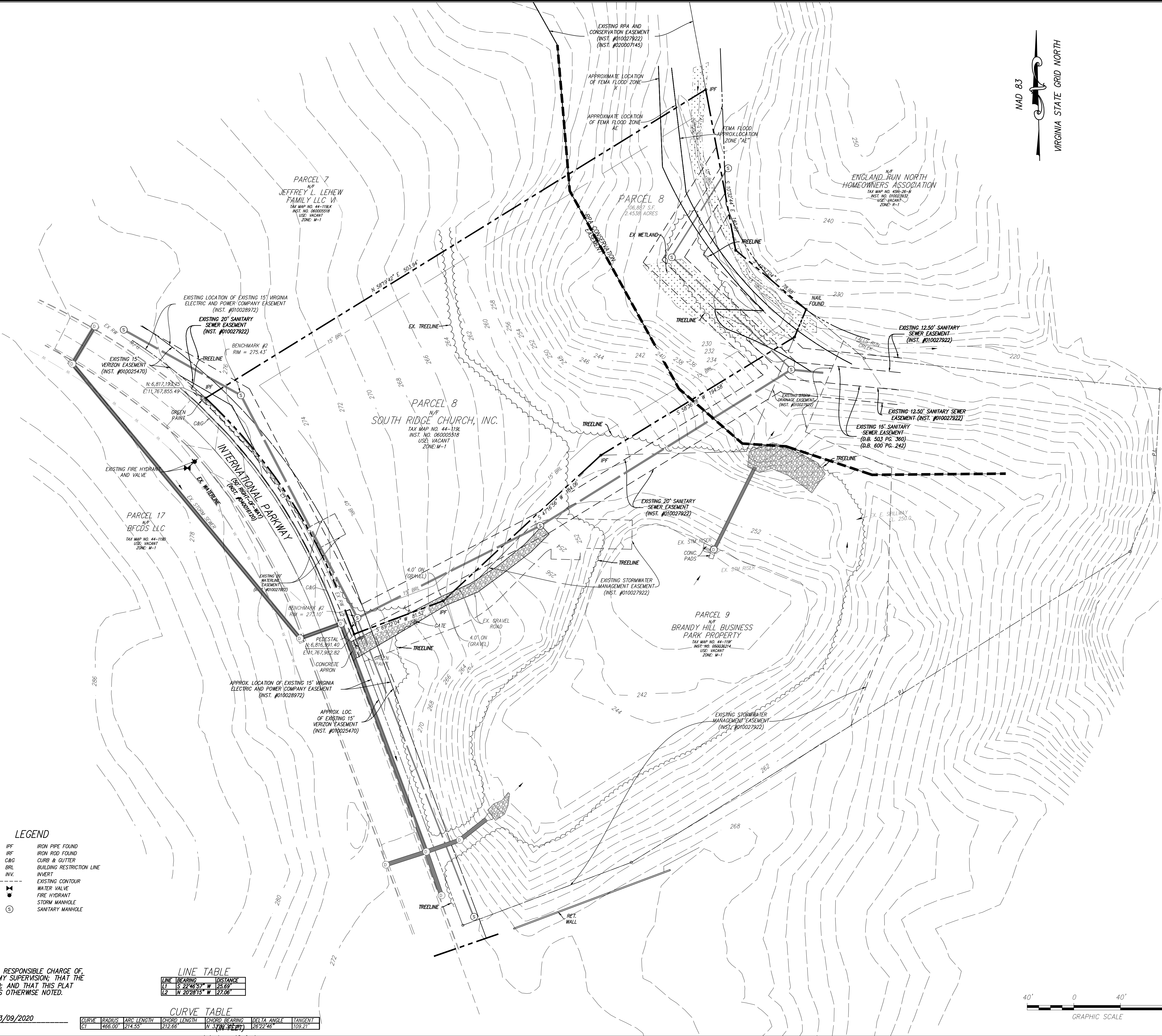
LINE	BEARING	DISTANCE
L1	S 22° 46' 57" W	125.69'
L2	N 20° 26' 15" W	127.06'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
CT	466.00'	214.55'	212.66'	N 31° 36' 21" E	26° 22' 46"	109.21'



NAD 83
VIRGINIA STATE GRID NORTH

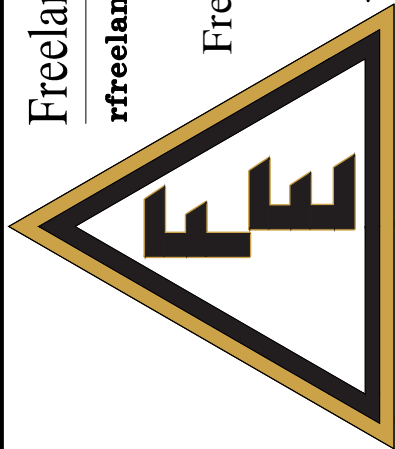


EXISTING CONDITIONS

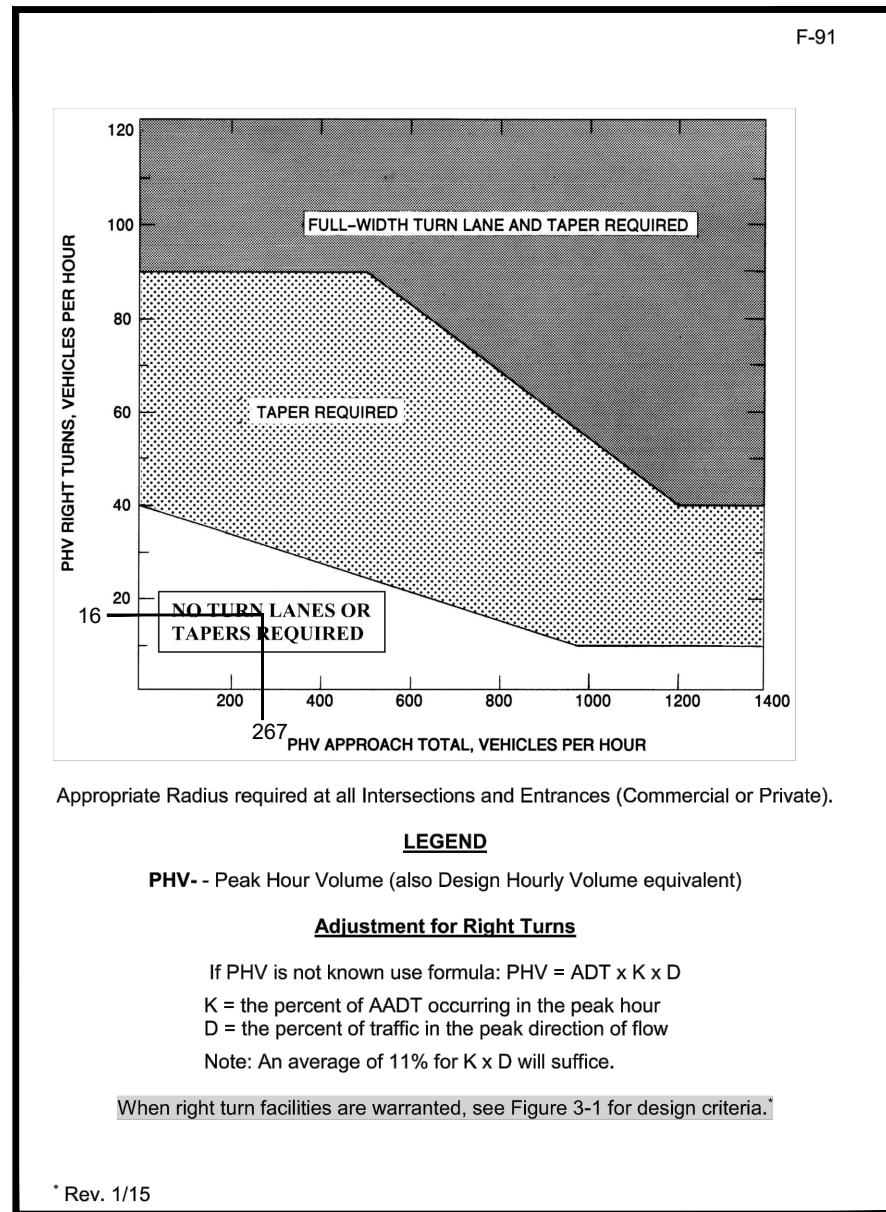
SOUTH RIDGE CHURCH

FALMOUTH ELECTION DISTRICT
STAFFORD COUNTY, VIRGINIA

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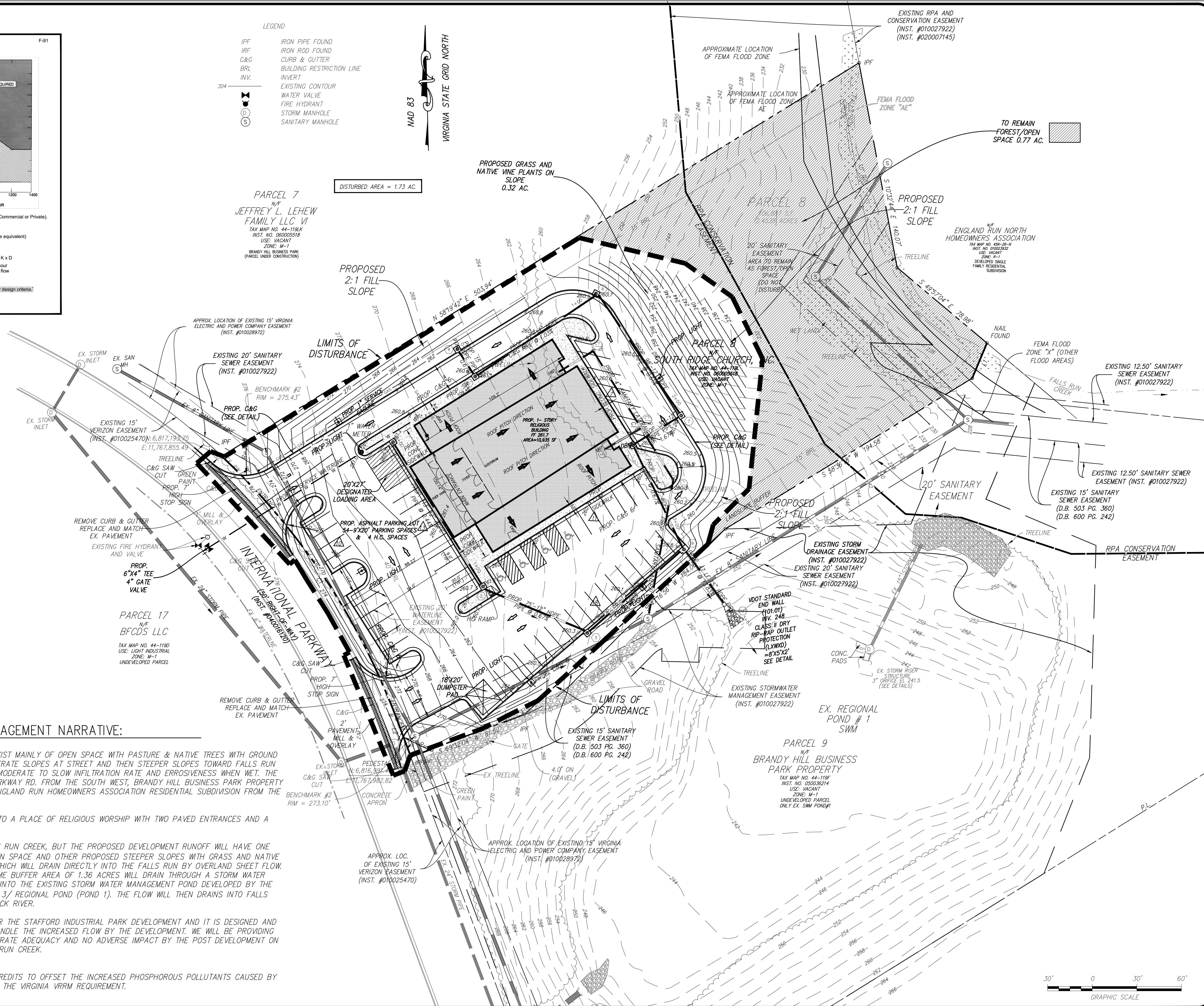


SEAL
County Plan Number:
Drawn By: SAR
Designed By: SAR
Checked By: RPT
Date: 09/29/2020
Scale: 1" = 40'
Sheet: 2 of 20
PROJECT # 4762



- LEGEND**
- IPF IRON PIPE FOUND
 - IRF IRON ROD FOUND
 - C&G CURB & GUTTER
 - BRL BUILDING RESTRICTION LINE
 - INV. INVERT
 - EXISTING CONTOUR
 - WATER VALVE
 - FIRE HYDRANT
 - STORM MANHOLE
 - SANITARY MANHOLE

NAD 83
VIRGINIA STATE GRID NORTH



PROJECT & STORMWATER MANAGEMENT NARRATIVE:

WATER QUANTITY:

THE SITE AREA IS 2.45 ACERS. THE AREA CONSIST MAINLY OF OPEN SPACE WITH PASTURE & NATIVE TREES WITH GROUND SLOPES AVERAGING BETWEEN 2-18% WITH MODERATE SLOPES AT STREET AND THEN STEEPER SLOPES TOWARD FALLS RUN CREEK AND SOILS GROUP B AND C THAT ARE MODERATE TO SLOW INFILTRATION RATE AND ERROSIVENESS WHEN WET. THE PROPERTY IS BOUNDED BY INTERNATIONAL PARKWAY RD. FROM THE SOUTH WEST, BRANDY HILL BUSINESS PARK PROPERTY SWM POND FROM THE SOUTH EAST AND THE ENGLAND RUN HOMEOWNERS ASSOCIATION RESIDENTIAL SUBDIVISION FROM THE NORTH-EAST.

THE PROPERTY IS MAINLY TO BE DEVELOPED INTO A PLACE OF RELIGIOUS WORSHIP WITH TWO PAVED ENTRANCES AND A PAVED PARKING LOT.

THE EXISTING SITE DRAINS DIRECTLY INTO FALLS RUN CREEK, BUT THE PROPOSED DEVELOPMENT RUNOFF WILL HAVE ONE PART 0.77 ACERS TO REMAIN AS FOREST/ OPEN SPACE AND OTHER PROPOSED STEEPER SLOPES WITH GRASS AND NATIVE VINE PLANTS OF APPROXIMATELY 0.32 ACERS WHICH WILL DRAIN DIRECTLY INTO THE FALLS RUN BY OVERLAND SHEET FLOW. THE PROPOSED PARKING LOT SURFACE AND SOME BUFFER AREA OF 1.36 ACERS WILL DRAIN THROUGH A STORM WATER CONVEYANCE SYSTEM THAT DIRECTS THE FLOW INTO THE EXISTING STORM WATER MANAGEMENT POND DEVELOPED BY THE STAFFORD INDUSTRIAL PARK PHASE 1, SECTION 3/ REGIONAL POND (POND 1). THE FLOW WILL THEN DRAINS INTO FALLS RUN CREEK AND ULTIMATELY THE RAPPAHANNOCK RIVER.

POND # 1 IS ONE OF THE REGIONAL PONDS FOR THE STAFFORD INDUSTRIAL PARK DEVELOPMENT AND IT IS DESIGNED AND CONSTRUCTED WITH ADEQUATE CAPACITY TO HANDLE THE INCREASED FLOW BY THE DEVELOPMENT. WE WILL BE PROVIDING THE HYDROLOGICAL COMPUTATIONS TO DEMONSTRATE ADEQUACY AND NO ADVERSE IMPACT BY THE POST DEVELOPMENT ON THE DOWNSTREAM PEAK FLOW TOWARDS FALLS RUN CREEK.

WATER QUALITY:

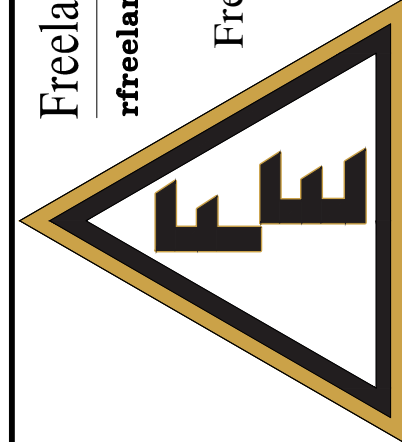
THE OWNER INTENDS TO PURCHASE NUTRIENT CREDITS TO OFFSET THE INCREASED PHOSPHOROUS POLLUTANTS CAUSED BY THE PROPOSED IMPERVIOUS SURFACES TO MEET THE VIRGINIA VRRM REQUIREMENT.

REVISION

DATE

Freeland Engineering, PC

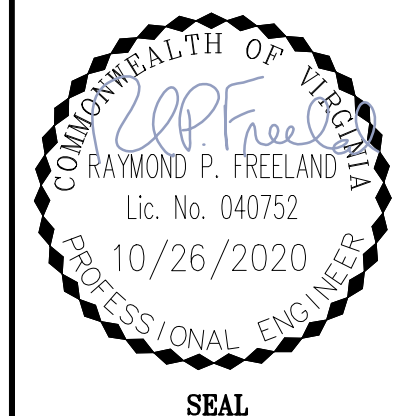
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SITE, GRADING AND STORMWATER

SOUTH RIDGE CHURCH

FALMOUTH ELECTION DISTRICT
STAFFORD COUNTY, VIRGINIA



County Plan Number:

Drawn By: SAR

Designed By: SAR

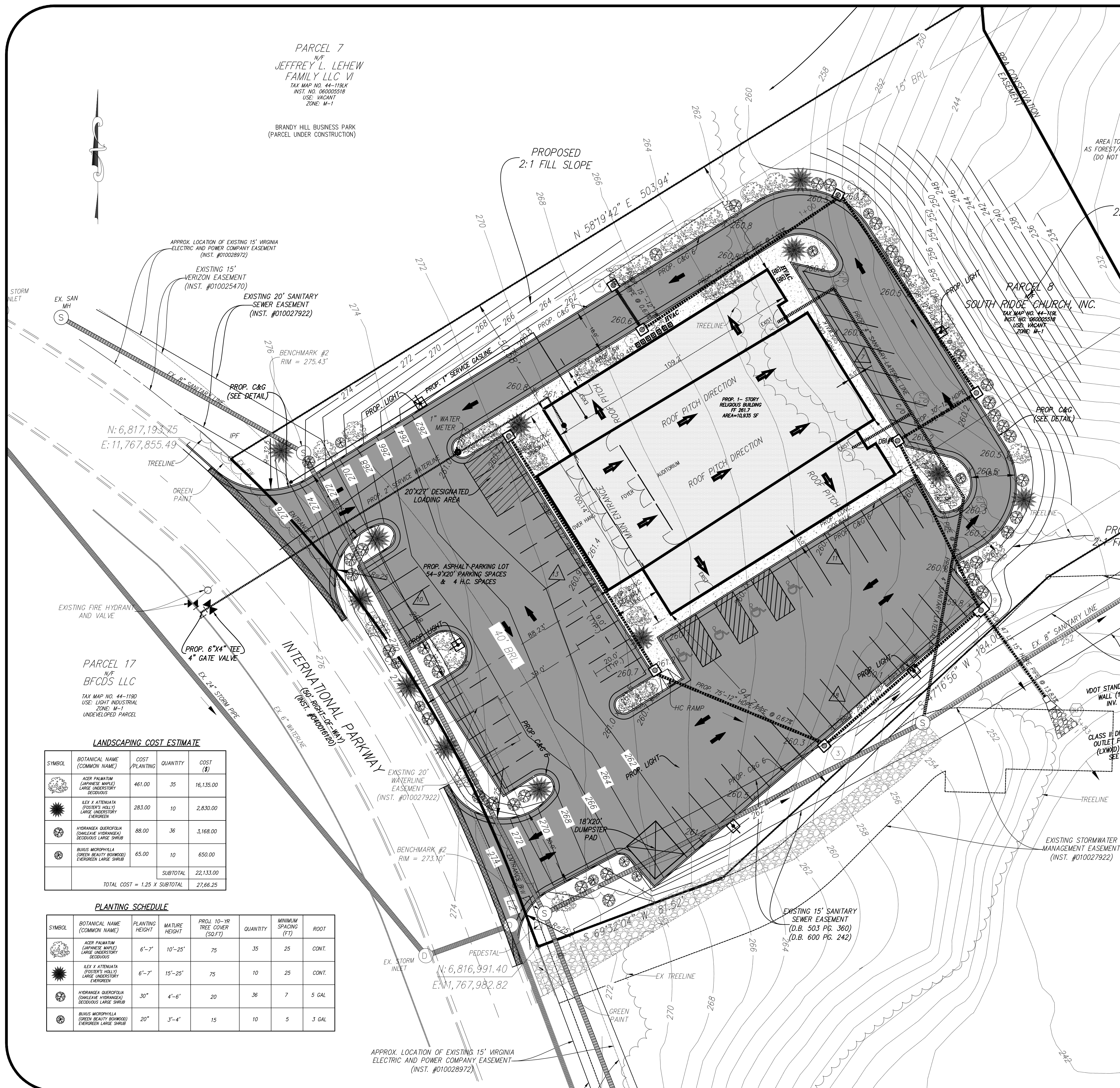
Checked By: RPF

Date: 10/26/2020

Scale: 1" = 30'

Sheet: 4 of 6

PROJECT # 3041



PARCEL 7
NT
JEFFREY L. LEHEW
FAMILY LLC VI
TAX MAP NO. 44-119K
INST. NO. 06002518
USE: VACANT
ZONE: M-1

BRANDY HILL BUSINESS PARK
(PARCEL UNDER CONSTRUCTION)

PARCEL 8
SOUTH RIDGE CHURCH, INC.
TAX MAP NO. 44-119K
INST. NO. 06002518
USE: VACANT
ZONE: M-1

PARCEL 17
BFCDS LLC
TAX MAP NO. 44-119D
USE: LIGHT INDUSTRIAL
ZONE: M-1
UNDEVELOPED PARCEL

LANDSCAPING COST ESTIMATE

SYMBOL	BOTANICAL NAME (COMMON NAME)	COST /PLANTING	QUANTITY	COST (\$)
	ACER PALMATUM (JAPANESE MAPLE) LARGE UNDERSTORY DECIDUOUS	461.00	35	16,135.00
	ILEX X ATTENUATA (DOUGLAS HOLLY) LARGE UNDERSTORY EVERGREEN	283.00	10	2,830.00
	HYDRANGEA QUERCIFOLIA (OAKLEAF HYDRANGEA) DECIDUOUS LARGE SHRUB	88.00	36	3,168.00
	BUXUS MICROPHYLLA (GREEN BEAUTY BUXOM) EVERGREEN LARGE SHRUB	65.00	10	650.00
	SUBTOTAL			22,133.00
	TOTAL COST = 1.25 X SUBTOTAL			27,662.50

PLANTING SCHEDULE

SYMBOL	BOTANICAL NAME (COMMON NAME)	PLANTING HEIGHT	MATURE HEIGHT	PROL. 10-YR TREE COVER (SQ.FT.)	QUANTITY	MINIMUM SPACING (FT)	ROOT
	ACER PALMATUM (JAPANESE MAPLE) LARGE UNDERSTORY DECIDUOUS	6'-7"	10'-25'	75	35	25	CONT.
	ILEX X ATTENUATA (DOUGLAS HOLLY) LARGE UNDERSTORY EVERGREEN	6'-7"	15'-25'	75	10	25	CONT.
	HYDRANGEA QUERCIFOLIA (OAKLEAF HYDRANGEA) DECIDUOUS LARGE SHRUB	30"	4'-6'	20	36	7	5 GAL
	BUXUS MICROPHYLLA (GREEN BEAUTY BUXOM) EVERGREEN LARGE SHRUB	20"	3'-4'	15	10	5	3 GAL

LANDSCAPING SCHEDULE:

SCHEDULE FOR SECTION 120.1

PARKING LOT, INTERIOR

VARIABLES:

- TOTAL SQUARE FOOTAGE OF PARKING LOT: 34,069 SQ. FEET
- MINIMUM PLANTING AREA REQUIRED: $(\#1 \times 0.05) = \underline{1,703 \text{ SQ. FEET}}$
- ADDITIONAL SQUARE FOOTAGE REQUIRED TO MEET LANDSCAPE ISLAND SPACING/PLACEMENT: 0 SQ. FEET
- AMOUNT OF PLANTING AREA UTILIZING IMP: 0 SQ. FEET
- TOTAL PLANTING AREA REQUIRED: $(\#2 + \#3) - \#4 = \underline{1,703 \text{ SQ. FEET}}$
- TOTAL PLANT UNITS REQUIRED: $(\#5 / 150) \times 12 = \underline{136 \text{ P.U.}}$
 - TOTAL TREES REQUIRED: $(\#5 / 150) = \underline{12 \text{ TREES}}$ (MINIMUM 1 TREE/ 150 SQ. FT. PLANTING AREA)

CALCULATION OF INDIVIDUALS: (PERCENTAGES ARE EXPRESSED IN DECIMAL FORMAT)

- NUMBER OF PROPOSED LARGE DECIDUOUS TREES: 0 (PLANTS) $\times 10 = \underline{0 \text{ P.U.}}$
- NUMBER OF PROPOSED LARGE EVERGREEN TREES: 0 (PLANTS) $\times 10 = \underline{0 \text{ P.U.}}$
- NUMBER OF PROPOSED UNDERSTORY TREES: 17 (PLANTS)
 - NUMBER OF DECIDUOUS UNDERSTORY TREES REQUIRED: $(C \times 0.8) = 13.6 = 14$ (PLANTS) $\times 7 = \underline{98 \text{ P.U.}}$
 - NUMBER OF EVERGREEN UNDERSTORY TREES REQUIRED: $(C \times 0.2) = 3.4 = 4$ (PLANTS) $\times 7 = \underline{28 \text{ P.U.}}$
- NUMBER OF PROPOSED LARGE SHRUBS: 6 (PLANTS)
 - NUMBER OF DECIDUOUS LARGE SHRUBS REQUIRED: $(6 \times 0.8) = 4.8 = 5$ (PLANTS) $\times 3 = \underline{15 \text{ P.U.}}$
 - NUMBER OF EVERGREEN LARGE SHRUBS REQUIRED: $(6 \times 0.2) = 1.2 = 2$ (PLANTS) $\times 3 = \underline{6 \text{ P.U.}}$
- NUMBER OF PROPOSED SMALL SHRUBS/ORNAMENTAL GRASSES: 0 (PLANTS)
 - NUMBER OF DECIDUOUS SMALL SHRUBS/ORNAMENTAL GRASSES REQUIRED: $(EX \ 0.8) = 0$ (PLANTS) $= \underline{0 \text{ P.U.}}$
 - NUMBER OF EVERGREEN SMALL SHRUBS REQUIRED: $(EX \ 0.2) = 0$ (PLANTS) $= \underline{0 \text{ P.U.}}$
- TOTAL PLANT UNITS PROPOSED: 147 P.U.

NOTES:

- * REFERS TO CORRESPONDING "VARIABLES" LINE ITEMS.
- PLANT UNIT (P.U.) CALCULATION RESULTS SHALL BE ROUNDED UP TO THE NEXT WHOLE NUMBER.
- THE "TOTAL PLANT UNITS PROPOSED" SHOWN ON LINE ITEM F FROM THE ABOVE "CALCULATION OF INDIVIDUALS" SHALL BE EQUAL TO OR GREATER THAN LINE ITEM #6 FROM THE ABOVE "VARIABLES".

SCHEDULE FOR SECTION 120.2

PARKING LOT, PERIMETER

VARIABLES:

- TOTAL LINEAR FEET OF PARKING LOT PERIMETER: 972 FEET
- LINEAR FEET OF PARKING LOT PERIMETER USED FOR VEHICULAR ACCESS: 140 FEET
- LINEAR FEET OF PARKING LOT PERIMETER UTILIZING IMP: FEET
- NET LINEAR FEET OF PARKING LOT PERIMETER: $(\#1 - \#2) - \#3 = \underline{832 \text{ FEET}}$
- TOTAL PLANT UNITS REQUIRED: $(\#4 / 100) \times 35 = \underline{292 \text{ P.U.}}$

CALCULATION OF INDIVIDUALS: (PERCENTAGES ARE EXPRESSED IN DECIMAL FORMAT)

- NUMBER OF PROPOSED LARGE DECIDUOUS TREES: 0 (PLANTS) $\times 10 = \underline{0 \text{ P.U.}}$
- NUMBER OF PROPOSED LARGE EVERGREEN TREES: 0 (PLANTS) $\times 10 = \underline{0 \text{ P.U.}}$
- NUMBER OF PROPOSED UNDERSTORY TREES: 26 (PLANTS)
 - NUMBER OF DECIDUOUS UNDERSTORY TREES REQUIRED: $(26 \times 0.8) = 20.8 = 21$ (PLANTS) $\times 7 = \underline{147 \text{ P.U.}}$
 - NUMBER OF EVERGREEN UNDERSTORY TREES REQUIRED: $(26 \times 0.2) = 5.2 = 6$ (PLANTS) $\times 7 = \underline{42 \text{ P.U.}}$
- NUMBER OF PROPOSED LARGE SHRUBS: 38 (PLANTS)
 - NUMBER OF DECIDUOUS LARGE SHRUBS REQUIRED: $(38 \times 0.8) = 30.4 = 31$ (PLANTS) $\times 3 = \underline{91 \text{ P.U.}}$
 - NUMBER OF EVERGREEN LARGE SHRUBS REQUIRED: $(38 \times 0.2) = 7.6 = 8$ (PLANTS) $\times 3 = \underline{24 \text{ P.U.}}$
- NUMBER OF PROPOSED SMALL SHRUBS/ORNAMENTAL GRASSES: (PLANTS)
 - NUMBER OF DECIDUOUS SMALL SHRUBS/ORNAMENTAL GRASSES REQUIRED: $(EX \ 0.8) = (PLANTS)$ $= \underline{\text{P.U.}}$
 - NUMBER OF EVERGREEN SMALL SHRUBS REQUIRED: $(EX \ 0.2) = (PLANTS) = \underline{\text{P.U.}}$
- TOTAL PLANT UNITS PROPOSED: 304 P.U.

NOTES:

- * REFERS TO CORRESPONDING "VARIABLES" LINE ITEMS.
- PLANT UNIT (P.U.) CALCULATION RESULTS SHALL BE ROUNDED UP TO THE NEXT WHOLE NUMBER.
- THE "TOTAL PLANT UNITS PROPOSED" SHOWN ON LINE ITEM F FROM THE ABOVE "CALCULATION OF INDIVIDUALS" SHALL BE EQUAL TO OR GREATER THAN LINE ITEM #5 FROM THE ABOVE "VARIABLES".



REVISION

DATE

Freeland Engineering, PC

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Fredericksburg, Virginia 22408
Phone: 540.898.3092
Fax: 877.658.7735
www.FreelandEngineeringPC.com

LANDSCAPING PLAN AND SCHEDULE

SOUTH RIDGE CHURCH

FALMOUTH ELECTION DISTRICT
STAFFORD COUNTY, VIRGINIA

COMMONWEALTH OF VIRGINIA
RAYMOND P. FREELAND
Lic. No. 040752
10/26/2020
PROFESSIONAL ENGINEER
SEAL

County Plan Number:

Drawn By: SAR
Designed By: SAR
Checked By: RPF
Date: 10/26/2020
Scale: 1"=20'
Sheet: 5 of 6
PROJECT # 5041

- LEGEND
- IPF IRON PIPE FOUND
 - IRF IRON ROD FOUND
 - C&G CURB & GUTTER
 - BRL BUILDING RESTRICTION LINE
 - INV. INVERT
 - EXISTING CONTOUR
 - WATER VALVE
 - FIRE HYDRANT
 - STORM MANHOLE
 - SANITARY MANHOLE

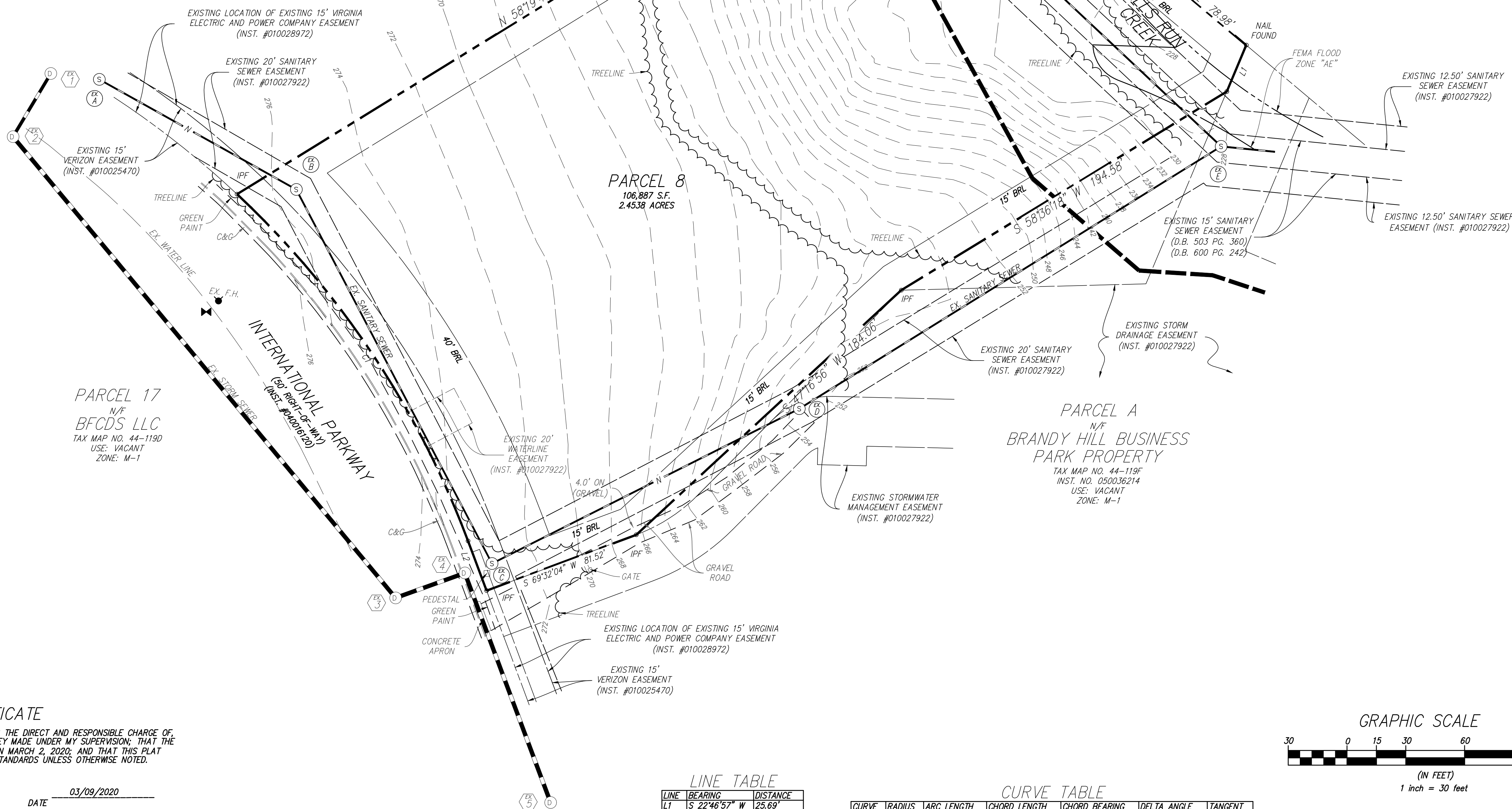
NAD 83

VIRGINIA STATE GRID NORTH

PARCEL 7
N/F
JEFFREY L. LEHEW
FAMILY LLC VI
TAX MAP NO. 44-119LK
INST. NO. 060005518
USE: VACANT
ZONE: M-1

STAFFORD COUNTY
ZONING ORDINANCE
(BUILDING RESTRICTION LINES)
(AS SHOWN)
FRONT: 40'
SIDE: 15'
REAR: 15'

N/F
ENGLAND RUN NORTH
HOMEOWNERS ASSOCIATION
TAX MAP NO. 45N-26-N
INST. NO. 010023932
USE: RESIDENTIAL
ZONE: R-1



SURVEYOR'S CERTIFICATE

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF, BRUCE A. REESE, FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON MARCH 2, 2020; AND THAT THIS PLAT INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

Bruce A. Reese
L.S. #3313

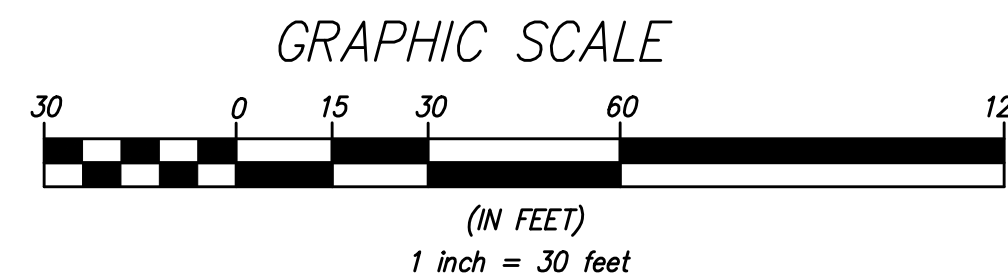
DATE 03/09/2020

LINE TABLE

LINE	BEARING	DISTANCE
LT	S 22°46'57" W	25.69
L2	N 20°28'15" W	27.06

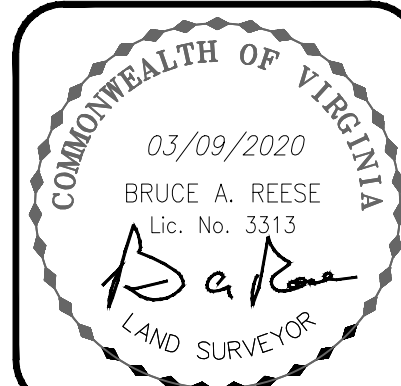
CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
CT	466.00	214.55	212.66	N 33°39'36" W	26°22'46"	109.21



BOUNDARY SURVEY PLAT
PARCEL 8
STAFFORD INDUSTRIAL PARK
PLAT MAP #060000008
GEORGE WASHINGTON MAGISTERIAL DISTRICT
STAFFORD COUNTY, VIRGINIA

REVISION:



DATE: 03/09/2020
SCALE: 1" = 30'
SHEET: 6 OF 6