SPECIAL USE PERMIT AMENDMENT #82-A-039-4

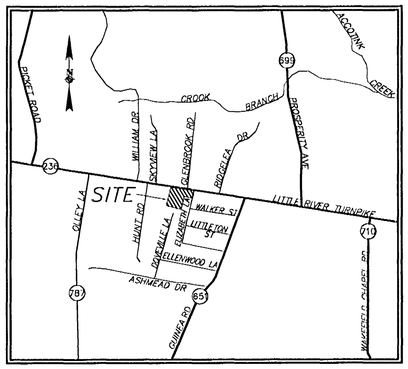
PROVIDENCE PRESBYTERIAN CHURCH

BRADDOCK DISTRICT
FAIRFAX COUNTY, VIRGINIA

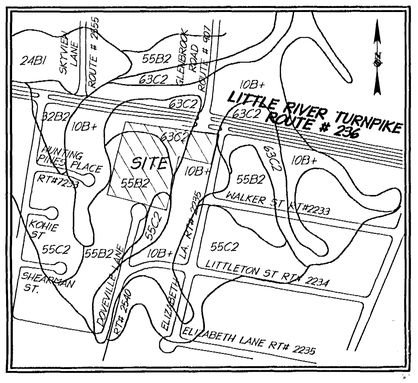
DATE	REVISION
01-4-06	REVS. PER COUNTY COMMENTS

Application No. SPA 82-A-039-4

John P. Ribble
Chairman, Board of Zoning Appeals



VICINITY MAP
SCALE: 1" = 2000'



SOILS MAP
SCALE: 1"=500'

SOIL ID NUMBERS	SERIES NAME	FOUNDATION SUPPORT	SUBSURFACE DRAINAGE	SLOPE STABILITY	ERODABILITY	GEOTECHNICAL REPORT REQD
10B+	GLENVILLE	FAIR	MARGINAL	GOOD	MODERATE	YES
55B2	GLENELG	GOOD	GOOD	GOOD	SEVERE	NO
55C2	GLENELG	GOOD	GOOD	GOOD	SEVERE	NO
63C2	LOUISBURG	GOOD	GOOD	GOOD	SEVERE	NO

AUGUST 29, 2005

PROVIDENCE PRESBYTERIAN CHURCH NOTES

UNDERGROUND UTILITY DESIGNATING GENERAL NOTES:

THE UNDERGROUND UTILITY LOCATIONS SHOWN HEREON REPRESENT A PROFESSIONAL OPINION NTERPRETATION BASED ON RECORD INDICATIONS AND FIELD EVIDENCE. THE RESULTS OF AND I THE AVAILABILITY OF UTILITY RECORD THIS UTILITY INVESTIGATION MAY BE AFFECTED BY A VARIETY OF EXISTING SITE CONDITIONS. SITE CONDITIONS THAT MAY AFFECT INFORMATION AND DENSITY OF THE RELIABILITY OF UTILITY LOCATIONS INCLUDE SOIL CONTENT, DEPTH OF UTILITY, MAGNETIC CHARACTERISTICS OF THE TARGET UTILITIES. UTILITY CLUSTERS, AND ELECTRO -

NOTE ABOUT "DESIGNER TICKETS":

TASK, ACCURATE INFRASTRUCTURE DATA, INC. AS PART OF THIS SUBSURFACE UTILITY DESIGNATING . THE FOLLOWING IS A LIST OF THE MISS UTILITY "DESIGNER" TICKET OPENED A B518900770) (# CONTACT INFORMATION FOR UTILITIES KNOWN TO OPERATE WITHIN THE AREA.

DOMINION VIRGINIA POWER:	FIELD CONTACT: UTILIQUEST (703)368 - 4333
FAIRFAX COUNTY DPW SEWER	FIELD CONTACT: LARRY DUNNUCK (703)239 - 8433
FAIRFAX WATER:	FIELD CONTACT: DOUBLE H LOCATES (540)364 -2005
VERIZON	FIELD CONTACT: JEFF BARBOUR (703)359 - 0585
WASHINGTON GAS:	FIELD CONTACT: DON JONES (703)750 -5510

INDICATIONS OF UTILITIES WHICH ARE NOT SHOWN ON THE UTILITY DESIGNATION PLAN WERE OBSERVED OUTSIDE OF THE AREA OF INVESTIGATION.

THE CODE OF VIRGINIA , § 56 265.171, REQUIRES DESIGNERS TO INDICATE ON CONSTRUCTION DRAWINGS:

- THE TYPE OF UNDERGROUND UTILITY LINES
- THE HORIZONTAL LOCATION OF THESE LINES
- THE NAMES OF THE OPERATORS OF THESE LINES
- THE DESIGNER TICKET NUMBER
- THE NOTIFICATION CENTER'S TOLL FREE NUMBER

THE TEXT OF THE CODEOF VIRGINIA UNDER THIS SECTION CAN BE FOUND AT:
http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+56 265.17c1

NOTES

1. THE PROPERTY SHOWN HEREON IS LOCATED ON TAX MAP #58-4 ((1)) PARCEL 1 ZONED: R-1 USE: CHURCH; AND 58-4-((8))-1 & 2, ZONED: R-1 USE: VACANT.
2. CURRENT OWNER: (58-4 ((1)) - 1) CHURCH PRESBYTERIAN, PRESBYTERY OF WASHINGTON CITY TRS OF 4915 45TH ST NW WASHINGTON, DC 20016 RECORDED IN DEED BOOK 2407 PAGE 362

   (58-4-((8))-1 & 2) NATIONAL CAPITAL, PRESBYTERIAN INC. 8401 CONNECTICUT AV. SUITE 805 CHEVY CHASE, MD. 20815 RECORDED IN DEED BOOK 11317 PAGE 1968
3. NO TITLE REPORT FURNISHED.
4. BOUNDARY SURVEY FOR (58-4 ((1)) - 1) PROVIDED BY christopher consultants ltd. DATED: 2/20/98. BOUNDARY SURVEY FOR (58-4-((8))-1 & 2) FROM INFORMATION OF RECORD.
5. TOPOGRAPHY FOR (58-4 ((1)) - 1) PROVIDED BY christopher consultants ltd. DATED: 10/20/99. PARCELS (58-4-((8))-1 & 2) BY OTHERS. CONTOUR INTERVAL IS 2 (TWO) FEET.
6. THE PROPERTY SHOWN HEREON IS LOCATED ON F.E.M.A. MAP NO. 515525-0100 D, DATED 3/5/90, ZONE "X", AN AREA DETERMINED TO BE OUTSIDE 500 YEAR FLOOD PLAIN.
7. THE PROPERTY IS LOCATED IN THE ACCOTINK CREEK WATERSHED.
8. THIS DEVELOPMENT PROPOSAL IS IN CONFORMANCE WITH THE FAIRFAX COUNTY COMPREHENSIVE PLAN RECOMMENDATIONS, ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS, UNLESS OTHERWISE SPECIFICALLY NOTED.
9. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITY EASEMENTS HAVING A WIDTH OF 25 FEET OR GREATER.
10. THE PROPOSED DEVELOPMENT IS CONSISTENT WITH THE DENSITIES OF THE ADJACENT NEIGHBORING PROPERTIES AND NO ADVERSE EFFECTS TO NEIGHBORING PROPERTIES.
11. CONSTRUCTION SHALL COMMENCE AS SOON AS ALL NECESSARY APPROVALS HAVE BEEN OBTAINED, SUBJECT TO MARKET CONDITIONS.
12. NO HAZARDOUS OR TOXIC SUBSTANCES ARE KNOWN TO BE PRESENT ONSITE.
13. NO FLOODPLAINS, RESOURCE PROTECTION AREAS OR ENVIRONMENTAL QUALITY CORRIDORS (EQC) ARE IDENTIFIED ON THIS PROPERTY.
14. TO THE BEST OF OUR KNOWLEDGE, NO EVIDENCE OF GRAVES OR BURIAL MARKERS HAS BEEN IDENTIFIED ON THIS PROPERTY.
15. THE EXISTING WELL WILL BE CAPPED AND ABANDONED PER FAIRFAX COUNTY HEALTH DEPARTMENT STANDARDS. WHEN THE EXISTING HOUSE AND DRIVEWAY AT THE FRONT OF THE PROPERTY (ROUTE #236) WAS DEMOLISHED THE EXISTING SEPTIC TANK WAS REMOVED PER FAIRFAX COUNTY HEALTH DEPARTMENT STANDARDS.
16. THE PROPERTY IS CURRENTLY SERVED BY PUBLIC WATER AND SEWER SYSTEMS.
17. NOTWITHSTANDING THE IMPROVEMENTS AND TABULATIONS SHOWN ON THIS PLAN, THE APPLICANT RESERVES THE RIGHT TO MAKE MINOR MODIFICATIONS TO THE FINAL DESIGN CONCEPTS, TO COMPLY WITH NEW CRITERIA AND REGULATIONS WHICH MAY BE ADOPTED BY FAIRFAX COUNTY SUBSEQUENT TO THE SUBMISSION OF THIS APPLICATION, PROVIDED THAT SUCH MODIFICATIONS ARE CONSISTENT WITH THE APPROVED SPECIAL USE PERMIT, AS AMENDED.
18. NO ADU'S ARE REQUIRED OR PROPOSED WITH THIS PLAN.

ZONING TABULATION
R-1 RESIDENTIAL DISTRICT
CATAGORY 3 SPECIAL USE PERMIT

EXISTING SITE AREA:	227,789 SF OR 5.2293 AC.
ADDITION OF LOTS 1 AND 2:	44,152 SF OR 1.0136 AC.
GROSS SITE AREA:	271,941 S.F. OR 6.2429 AC. (EXISTING SITE AREA + ADDITION OF LOTS 1 & 2)
PROPOSED USE:	CHURCH / NURSERY SCHOOL WITH BUILDING ADDITION
EXISTING ZONING:	R-1 RESIDENTIAL DISTRICT
PROPOSED ZONING:	R-1 RESIDENTIAL DISTRICT CATEGORY 3, SPECIAL USE PERMIT
MINIMUM LOT AREA:	36,000 S.F.
MINIMUM LOT WIDTH:	36,000 S.F.
MAXIMUM BUILDING HEIGHT:	60 FEET

MINIMUM YARD REQUIREMENTS:
FRONT YARD: 50' ANGLE OF BULK PLAIN, BUT NOT LESS THAN 40'
SIDE YARD: 45' ANGLE OF BULK PLAIN, BUT NOT LESS THAN 20'
REAR YARD: 45' ANGLE OF BULK PLAIN, BUT NOT LESS THAN 25'

GROSS S.F. OF EXISTING BUILDINGS:	= 27,801 S..F.
GROSS S.F. OF PROPOSED BUILDING:	= 5,228 S.F.
TOTAL GROSS S.F. OF ALL BUILDINGS:	= 33,029 S.F.
MAXIMUM FLOOR AREA RATIO:	0.15
PROPOSED FLOOR AREA RATIO:	0.12
OPEN SPACE REQUIRED:	NOT REQUIRED
TREE COVER REQUIRED:	20% (45,558 S.F.)
TREE COVER PROVIDED:	+/- 39% (89,739 S.F.)

PARKING TABULATIONS:
PARKING REQUIRED:

FOR CHURCH:	1 SPACE PER 4 SEATS @ 450 SEATS = 113 SP.
FOR NURSERY SCHOOL:	0.19 SPACE PER CHILD @ 70 CHILDREN = 14 SP.
TOTAL PARKING REQUIRED:	127
EXISTING SPACES:	181
PROPOSED TOTAL SPACES:	180 (OF WHICH 6 ARE HANDICAPPED)

REQUESTED WAIVERS/MODIFICATIONS

1. THE APPLICANT WILL REQUEST A FAIRFAX COUNTY WAIVER OF THE STORMWATER MANAGEMENT REQUIREMENTS PER SECTION 6-300 OF THE PFM FOR THIS SITE DUE TO THE MINOR INCREASE IN SITE RUNOFF.
2. THE APPLICANT WILL REQUEST A FAIRFAX COUNTY WAIVER FOR PROVIDING A SERVICE DRIVE ALONG PARCEL ONE FRONTAGE TO A PRIMARY HIGHWAY. (LITTLE RIVER TURNPIKE, RT. 236)
3. THE APPLICANT HEREBY REQUEST A FAIRFAX COUNTY MODIFICATION TO THE TRANSITIONAL SCREENING 1 REQUIREMENT, AND THE BARRIER REQUIREMENT D,E, OR F AS NOTED ON SHEET 5.

SHEET INDEX:

1. COVER SHEET
2. EXISTING VEGETATION MAP
3. SPECIAL USE PERMIT AMENDMENT PLAN
4. STORM WATER COMPUTATIONS
5. LANDSCAPE PLAN

5A. ILLUSTRATIVE SITE CROSS SECTION

christopher consultants
engineering · surveying · land planning
9900 main street (fourth floor) · fairfax, va 22031-3907
703 273 6820 · fax 703 273 7636

COMMONWEALTH OF VIRGINIA
WILLIAM R. ZINK
No. 21914
01-04-06
PROFESSIONAL ENGINEER

NOVEMBER 17, 2005

RECEIVED
Department of Planning & Zoning
JAN 20 2006
Zoning Evaluation Division

s\98-08-03\C-5102-SUP\01-SUP-COVER.dwg, 1/20/2006 10:49:56 AM, JR

EVM COVER TYPE SUMMARY TABLE

AREA	COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	ACREAGE	COMMENTS
A	BOTTOMLAND FOREST	RED MAPLE YELLOW POPLAR WHITE OAK SYCAMORE	SUB-CLIMAX	1.0 AC	EXISTING TREES GENERALLY IN FAIR CONDITION.
B	UPLAND FOREST	YELLOW POPLAR RED MAPLE	SUB-CLIMAX	0.65 AC	EXISTING TREES GENERALLY IN GOOD CONDITION.
C	DEVELOPED	VARIOUS ORNAMENTALS	N/A	4.1 AC	MAINTAINED LANDSCAPING
D	MAINTAINED LANDSCAPE	WHITE PINE	N/A	0.48 AC	VEGETATED PERIMETER SCREEN
TOTAL				6.2 AC	

CONDITION DESCRIPTIONS

A: HEAVY GROUNDCOVER, MIXED UNDERSTORY OF PRIMARY SPECIES LISTED. CONDITION, GENERALLY FAIR. SOME LIGHTNING DAMAGED TREES.

B: TREES IN GOOD CONDITION.

C: MAINTAINED LANDSCAPED AREAS.

D: MAINTAINED VEGETATIVE SCREENING.

DT 12" = DECIDUOUS TREE

DATE	REVISION
01-4-06	REVS. PER COUNTY COMMENTS

LEGEND

(TBR) : TO BE REMOVED
: EX. CONTOUR
: EX. WOODS LINE
: EX. STORM SEWER
: EX. SANITARY SEWER
: EX. WATER LINE
E.P. : EX. EDGE OF PAVEMENT
: EX. FENCE (ALL TYPES)
(D) : STORM STRUCTURE
(A) : PARKING SPACES QUANTITY
: EX. DECIDUOUS TREE
: EX. CONIFER TREE
(A) : EVM DESIGNATION

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COMMONWEALTH OF VIRGINIA
WILLIAM R. ZINK
No. 21914
01-04-06
PROFESSIONAL ENGINEER

EXISTING VEGETATION MAP,
EXISTING CONDITION AND
DEMOLITION PLAN

PROVIDENCE PRESBYTERIAN CHURCH

BRADDOCK DISTRICT FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 980803.00
SCALE: 1" = 30'
DATE: 11-17-05
DESIGN: CFA
DRAWN: CFA
CHECKED:
SHEET No. 2 OF 5

C-5102

GRAPHIC SCALE 1" = 30'

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DATE	REVISION
01-4-06	REVS. PER COUNTY COMMENTS

DOVEVILLE LANE
ROUTE 2540
(VARIABLE WIDTH RIGHT-OF-WAY)

CHURCH PRESBYTERIAN
PRESBYTERY OF WASHINGTON
CITY TRUSTEES
DB 2407 PG 362
PARCEL 1
ZONE R-1
USE: CHURCH
221,789 S.F.
5.2293 AC.

ZONE: R-2 D.B. 3136 PG. 619
USE: SINGLE FAMILY DETACHED
N75°33'15"W 426.65'

LOT 88
1st ADDITION TO
DOVEVILLE SUBDIVISION

SECTION 2
LEE FARM
LOT 88
D.B. 748 PG. 29
ZONE: R-1 USE: SINGLE FAMILY DETACHED

LOT 100
D.B. 5405 PG. 80
USE: SINGLE FAMILY DETACHED
ZONE: R-2

TRUE NORTH

PROPOSED 1-STORY BRICK
FOYER/CHOIR
PROP. 1ST. FLR. F.F.= 387.66
W/ CELLAR HT.= 17.00
(MULTI-USE BLDG.)

2-STORY BRICK
F.F.= 387.66
HT.= 31.0'
(TO REMAIN)

1-STORY BRICK
F.F.= 387.66
HT.= 27.5
(TO REMAIN)

PROP. PORTE COCHERE

PROP. RET. WALL

PROP. 4 SIGNS

PROP. PAINT STRIPING FOR PARKING (TYP.)

PROP. PARKING SIGNS

PROP. CONC. WALKS

PROP. E.P.

EX. E.P.

LIMITS OF CLEARING AND GRADING

EX. BOARD WALK

EX. PICNIC AREA

BRICK PAD

EX. SHED

EX. PLAYGROUND

EX. CHAIN LINK FENCE

EX. 6' C.L. FENCE

EX. 6' BOARD FENCE

2" STEEL CONDUIT (TYP.)

ADJUST EX. WHEEL STOPS AS NEEDED

VAN ACCESS

EX. BOLLARDS

EX. FIRE HYDRANT

EX. BRICK PAVERS (TYP.)

PROP. PAINT STRIPING FOR WAY-FOR PARKING (TYP.)

ONE WAY

VISITORS

EX. ROW OF WHITE PINES

APPROX. LOC. 10' SAN. SEW. ESMT. DB 2785 PG. 316

STORM FACILITY TO BE REMOVED

EX. PEDESTRIAN BRIDGE

EX. STORM DRAINAGE EASEMENT DB 2785 PG. 316

APPROXIMATE LOCATION PROPOSED CONSERVATION EASEMENT. SUBJECT TO SITE PLAN REVIEW

APPROX. LOCATION EX. 10' ST. SIT. SEWER ESMT. DB 2785 PG. 316

APPROX. LOC. 15' R.C.W.L. ESMT. DB 2781 PG. 1124

CAP TELE. ESMT. D.B. 2782 PG. 590 VERIFIED BY D.B. 264 AND PG. 264

APPROX. LOCATION

EX. ASPHALT

EX. 6' ASPHALT TRAIL

EX. SERVICE DRIVE

EX. 8" SAN.

EX. 8" DIP W/L

EX. 12" GAS LINE

EX. 6" BOARD ON BOARD FENCE

EX. 12" CIP W/L

EX. 10" CIP W/L

EX. 8" CIP W/L

EX. 2" CIP W/L

EX. 12" CIP SAN.

EX. 12" CIP STORM

EX. 15" CIP STORM

EX. 18" CIP STORM

EX. 24" CIP STORM

EX. 30" CIP STORM

EX. 36" CIP STORM

EX. 42" CIP STORM

EX. 48" CIP STORM

EX. 54" CIP STORM

EX. 60" CIP STORM

EX. 66" CIP STORM

EX. 72" CIP STORM

EX.

BMP CALCULATIONS

I. Watershed Information

Part 1: List all of the Subareas and "C" Factors used in the BMP Computations

Subarea Designation & Description	"C"		Acres
A1 ONSITE, CONSERVATION EASEMENTS	0.30		0.91
A2 ONSITE, UNCONTROLLED	0.59		5.33
Phosphorus Removal - "Occoquan Method"			

Part 2: Compute the Weighted Average "C" Factor for the Site

(A)	Area of the Site	(a)	acres	6.24		
(B)						
Subarea Designation		"C"		Acres		Product
A1 ONSITE, CONSERVATION EASEMENTS		0.30	x	0.91	=	0.27
A2 ONSITE, UNCONTROLLED		0.59		5.33		3.14
		(b) Total		=		3.42
(C)	Weighted average "C" factor					0.55

Part 3: Compute the Total Phosphorus Removal for the Site

Subarea Designation	BMP Type	Removal Eff %		Offsite Reduction			Area Ratio				C* Factor Ratio			Product
A1 ONSITE, CONSERVATION EASEMENTS	GRASSED SWALE	100	x	1.00	x	0.91	/ 6.24	= 0.146	x	0.30	/ 0.55	= 1.000	14.58
A2 ONSITE, UNCONTROLLED	GRASSED SWALE	0	x	1.00	x	5.33	/ 6.24	= 0.854	x	0.59	/ 0.55	= 1.077	0.00
											(a) Total =		14.58%

Part 4: Determine Compliance with Phosphorus Removal Requirement

(A) Select Requirement (a) 9

Water Supply Overlay District (Occoquan Watershed) = 50% (Fairfax County and Prince William County)

Chesapeake Bay Preservation Area (New Development) = 40% (Fairfax County) 50% (Prince William County)

Chesapeake bay Reservation Area (Redevelopment) = [1-0.9 x ("i"pre/"i"post)] x 100 = 9.416 %

(B) If Line 3(a) 14.58 > Line 4(a) 9.416 the phosphorus removal requirement is satisfied

SWM/BMP Narrative

Stormwater Management for the proposed improvements to the site are provided with two 40" 48" corrugated metal pipes. These pipes will detain water from 1.1 acres of the site. The detention facility will provide the required detention for the 2 and 10-year storm events. The release rate from the detention pipes shall be such that the overall post-development runoff rate of the site shall be at or less than the predevelopment rates. The outfall of the detention pipes shall be into an adequate existing storm drain system.

This site is a redevelopment site and BMP's are provided by platting a conservation easement in the undeveloped land in the northeast corner of the site. BMP's for the site are provided for within this easement.

Outfall Narrative

The site consists of an existing church located on 6.2 acres. The storm water outfall is a pipe system that releases the water into a natural channel located on the church property. All of the site runoff drains to the existing natural channel in the northeast corner of the site. This channel flows to an existing culvert under the service drive located on the south side of Route 236, Little River Turnpike. This culvert outflows to a channel between the service drive and Route 236. A culvert conveys the flows under Route 236 to the north to a natural channel. Three cross sections in this channel shall be provided showing that the channel is adequate. At this point, the site is contributing less than 45 % of the flows in the channel and shall be the end of the computational analysis of the channel.

DATE	REVISION
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STORMWATER MANAGEMENT CALCULATIONS

MASTER DESIGN STORM SUMMARY

Network Storm Collection: Fairfax

Return Event	Total Depth in	Rainfall Type	RNF ID
10yr	5.4000	Synthetic Curve	Distribution A

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID		Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage ac-ft
*OUT 10		JCT	10	.378		.2667	5.80		
POND 10	IN	POND	10	.378		.2333	6.70		
POND 10	OUT	POND	10	.378		.2667	5.80	3.85	.017
SUBAREA 10		AREA	10	.378		.2333	6.70		

TIME OF CONCENTRATION CALCULATOR

Segment #1: Tc: User Defined

Segment #1 Time: .0833 hrs

Total Tc: .0833 hrs

RUNOFF CURVE NUMBER DATA

Soil/Surface Description	CN	Area acres	Impervious Adjustment %C	%UC	Adjusted CN
Paved parking lots, roofs, driveway	98	.649			98.00
Good condition; grass cover > 75%	74	.472			74.00
COMPOSITE AREA & WEIGHTED CN --->		1.121			87.89 (88)

OUTLET STRUCTURE INPUT DATA

Structure ID =
Structure Type = Orifice-Circular

# of Openings = 1
Invert Elev. = 1.00 ft
Diameter = 1.0000 ft
Orifice Coeff. = .600

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

LEVEL POOL ROUTING SUMMARY

Inflow HYG file = NONE STORED - POND 10 IN 10yr
Outflow HYG file = NONE STORED - POND 10 OUT 10yr

Pond Node Data = POND 10
Pond Volume Data = POND 10
Pond Outlet Data = Outlet 1

No Infiltration

INITIAL CONDITIONS

Starting WS Elev = 1.00 ft
Starting Volume = .000 ac-ft
Starting Outflow = .00 cfs
Starting Infiltr. = .00 cfs
Starting Total Qout= .00 cfs
Time Increment = .0167 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow = 6.70 cfs at .2333 hrs
Peak Outflow = 5.80 cfs at .2667 hrs

Peak Elevation = 3.85 ft
Peak Storage = .017 ac-ft

MASS BALANCE (ac-ft)

+ Initial Vol = .000
+ HYG Vol IN = .378
- Infiltration = .000
- HYG Vol OUT = .378
- Retained Vol = .000
Unrouted Vol = .000 ac-ft (.000% of Inflow Volume)

COMPUTED VOLUMES FOR A PIPE

US Invert Elev.= 1.00 ft
DS Invert Elev.= 1.00 ft
Barrel Length = 40.00 ft
Computed Slope = .00000 ft/ft
Diameter = 4.0000 ft
# of Barrels = 2.00

Slice Width = .50 ft
Vertical Incr. = .25 ft

Elevation (ft)	Perpendicular DS Depth (ft)	DS Area (sq.ft)	Netted Length (ft)	Filled Length (ft)	Perpendicular US Depth (ft)	US Area (sq.ft)	Total Volume (ac-ft)
1.00	.00	.0000	40.00	.00	.00	.0000	.000
1.25	.25	.3270	40.00	.00	.25	.3270	.001
1.50	.50	.9066	40.00	.00	.50	.9066	.002
1.75	.75	1.6311	40.00	.00	.75	1.6311	.003
2.00	1.00	2.4567	40.00	.00	1.00	2.4567	.004
2.25	1.25	3.3551	40.00	.00	1.25	3.3551	.006
2.50	1.50	4.3042	40.00	.00	1.50	4.3042	.008
2.75	1.75	5.2858	40.00	.00	1.75	5.2858	.010
3.00	2.00	6.2832	40.00	.00	2.00	6.2832	.011
3.25	2.25	7.2806	40.00	.00	2.25	7.2806	.013
3.50	2.50	8.2622	40.00	.00	2.50	8.2622	.015
3.75	2.75	9.2113	40.00	.00	2.75	9.2113	.017
4.00	3.00	10.1096	40.00	.00	3.00	10.1096	.018
4.25	3.25	10.9353	40.00	.00	3.25	10.9353	.020
4.50	3.50	11.6598	40.00	.00	3.50	11.6598	.021
4.75	3.75	12.2394	40.00	.00	3.75	12.2394	.022
5.00	4.00	12.5664	40.00	40.00	4.00	12.5664	.023

POND ROUTED TOTAL OUTFLOW HYG...
HYG file =
HYG ID = POND 10 OUT
HYG Tag = 10yr

Peak Discharge = 5.80 cfs
Time to Peak = .2667 hrs
HYG Volume = .378 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time Increment = .0167 hrs
Time on Left represents time for first value in each row.

Time hrs					
.0333	.00	.00	.03	.22	.67
.1167	1.39	2.28	3.05	3.61	4.14
.2000	4.65	5.10	5.48	5.71	5.80
.2833	5.77	5.68	5.58	5.48	5.37
.3667	5.27	5.17	5.08	5.00	4.94
.4500	4.87	4.79	4.71	4.64	4.57
.5333	4.50	4.39	4.25	4.09	3.92
.6167	3.78	3.64	3.51	3.37	3.23
.7000	3.11	3.01	2.93	2.82	2.71
.7833	2.55	2.42	2.36	2.32	2.30
.8667	2.29	2.28	2.28	2.27	2.24
.9500	2.16	2.05	1.96	1.88	1.81
1.0334	1.74	1.65	1.53	1.41	1.32
1.1167	1.26	1.22	1.19	1.18	1.16
1.2000	1.16	1.16	1.15	1.15	1.15
1.2834	1.15	1.15	1.15	1.15	1.15
1.3667	1.15	1.15	1.15	1.16	1.16
1.4500	1.16	1.16	1.16	1.16	1.16
1.5334	1.16	1.16	1.16	1.16	1.16
1.6167	1.16	1.16	1.16	1.16	1.16
1.7000	1.16	1.15	1.12	1.05	.95
1.7834	.85	.76	.70	.65	.63
1.8667	.61	.60	.59	.59	.62
1.9500	.69	.79	.90	.98	1.03
2.0334	1.02	.91	.72	.52	.37
2.1167	.25	.17	.11	.08	.05
2.2000	.03	.03	.02	.02	.02
2.2834	.01	.01	.01	.01	.01
2.3667	.01	.00	.00	.00	

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COMMONWEALTH OF VIRGINIA
WILLIAM R. ZINK
No. 21914
01-04-06
PROFESSIONAL ENGINEER

STORM WATER COMPUTATIONS

PROVIDENCE PRESBYTERIAN CHURCH
BRADDOCK DISTRICT FAIRFAX COUNTY, VIRGINIA

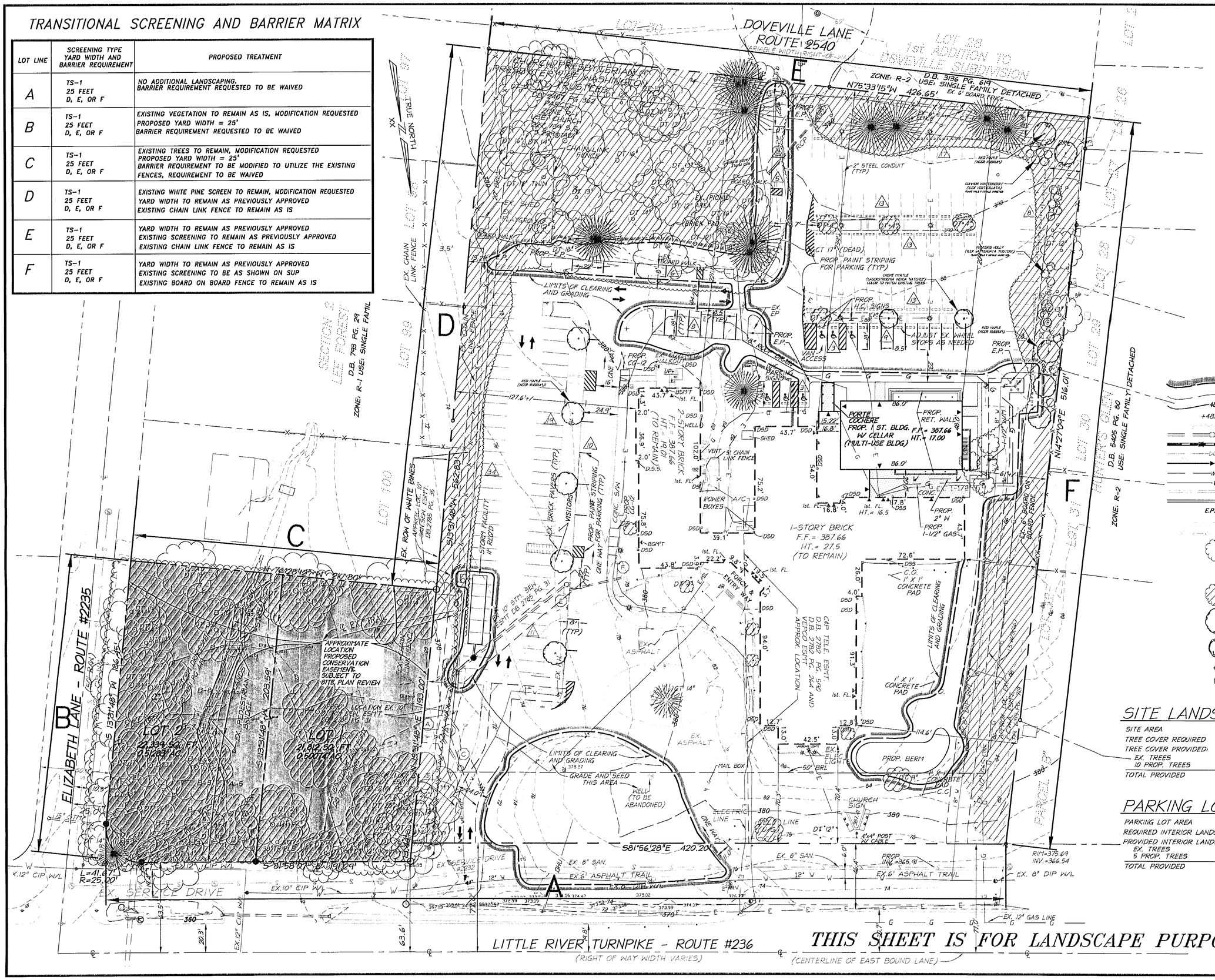
PROJECT NO: 980803.00
SCALE: AS SHOWN
DATE: 11-17-05
DESIGN: DM
DRAWN: JR
CHECKED: MA
SHEET No. 4 OF 5

C-5102

Projects\98-08-03\C-5102-SUP\04-STM-COMPS.dwg, 1/20/2006 10:59:05 AM, JR

TRANSITIONAL SCREENING AND BARRIER MATRIX

LOT LINE	SCREENING TYPE YARD WIDTH AND BARRIER REQUIREMENT	PROPOSED TREATMENT
A	TS-1 25 FEET D, E, OR F	NO ADDITIONAL LANDSCAPING. BARRIER REQUIREMENT REQUESTED TO BE WAIVED
B	TS-1 25 FEET D, E, OR F	EXISTING VEGETATION TO REMAIN AS IS, MODIFICATION REQUESTED PROPOSED YARD WIDTH = 25' BARRIER REQUIREMENT REQUESTED TO BE WAIVED
C	TS-1 25 FEET D, E, OR F	EXISTING TREES TO REMAIN, MODIFICATION REQUESTED PROPOSED YARD WIDTH = 25' BARRIER REQUIREMENT TO BE MODIFIED TO UTILIZE THE EXISTING FENCES, REQUIREMENT TO BE WAIVED
D	TS-1 25 FEET D, E, OR F	EXISTING WHITE PINE SCREEN TO REMAIN, MODIFICATION REQUESTED YARD WIDTH TO REMAIN AS PREVIOUSLY APPROVED EXISTING CHAIN LINK FENCE TO REMAIN AS IS
E	TS-1 25 FEET D, E, OR F	YARD WIDTH TO REMAIN AS PREVIOUSLY APPROVED EXISTING SCREENING TO REMAIN AS PREVIOUSLY APPROVED EXISTING CHAIN LINK FENCE TO REMAIN AS IS
F	TS-1 25 FEET D, E, OR F	YARD WIDTH TO REMAIN AS PREVIOUSLY APPROVED EXISTING SCREENING TO BE AS SHOWN ON SUP EXISTING BOARD ON BOARD FENCE TO REMAIN AS IS



DATE	REVISION
01-4-06	REVS. PER COUNTY COMMENTS

LEGEND

- LIMITS OF CLEARING AND GRADING
- EXISTING CONTOUR
- 18 PROPOSED CONTOUR
- +48.3 PROPOSED SPOT ELEVATION
- EXISTING WOODS LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- E.P. EDGE OF PAVEMENT
- EDGE OF PAVEMENT
- FENCE (ALL TYPES)
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- EXISTING TREE COVER
- PROPOSED RED MAPLE
- PROPOSED CREPE MYRTLE
- PROPOSED FOSTER'S HOLLY
- PROPOSED WINTERBERRY

SITE LANDSCAPING

SITE AREA	227,789 SF
TREE COVER REQUIRED	45,558 SF (20%)
TREE COVER PROVIDED:	
EX. TREES	87,739 SF
10 PROP. TREES	2,000 SF
TOTAL PROVIDED	±89,739 SF (±39%)

PARKING LOT LANDSCAPING

PARKING LOT AREA	70,090 SF
REQUIRED INTERIOR LANDSCAPING	3,505 SF (5%)
PROVIDED INTERIOR LANDSCAPING:	
EX. TREES	13,000 SF
5 PROP. TREES	1,000 SF
TOTAL PROVIDED	±14,000 SF (±20%)

GRAPHIC SCALE
30 15 0 30 60
1" = 30'

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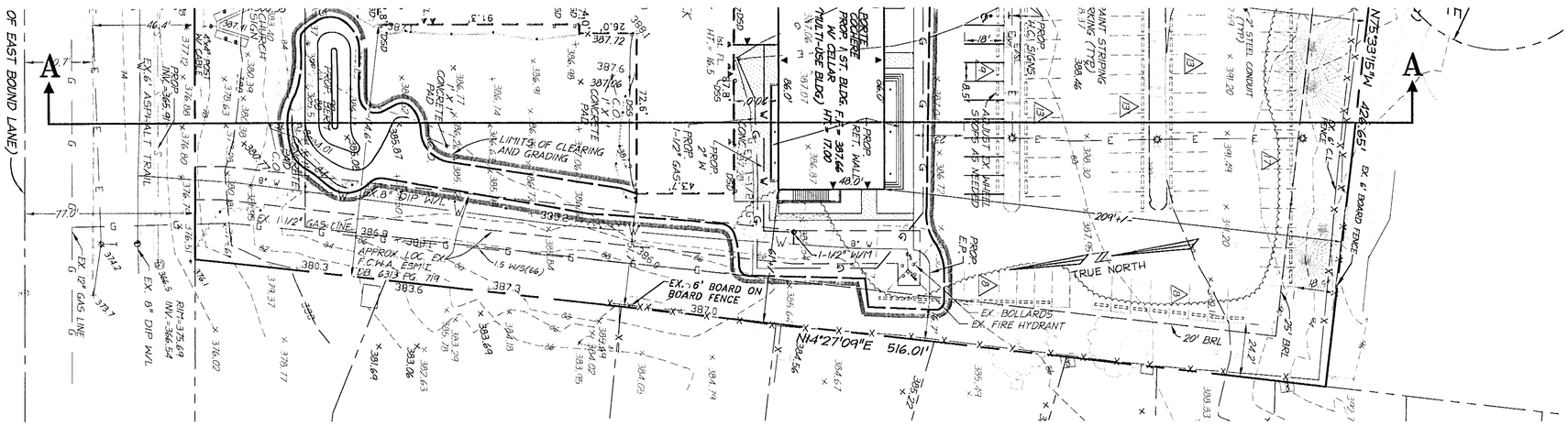
COMMONWEALTH OF VIRGINIA
WILLIAM R. ZINK
No. 21914
01-04-06
PROFESSIONAL ENGINEER

LANDSCAPE PLAN

PROVIDENCE PRESBYTERIAN CHURCH

BRADDOCK DISTRICT FAIRFAX COUNTY, VIRGINIA

PROJECT NO: 980803.00
SCALE: 1"=30"
DATE: 11-17-05
DESIGN: MB
DRAWN: CFA
CHECKED:
SHEET No.
5 OF 5
C-5102


A
A
N75°33'15"W 428.65'
EX. 6' BOARD FENCE
N14°27'09"E 516.01'
EX. 6' BOARD ON BOARD FENCE
EX. BOLLARDS
EX. FIRE HYDRANT
TRUE NORTH
20' BRL
25' BRL
209'+/-
LIMITS OF CLEARING AND GRADING
PROP. RET. WALL
PROP. 2" W
PROP. 1 1/2" GAS
EX. 8" DIP W/L
EX. 1 1/2" GAS LINE
EX. 12" GAS LINE
EX. 8" DIP W/L
APPROX. LOC. EX. F.C.W.A. ESMT. DB. 6313 PG. 719
EX. 1.5 WS(66)
EX. 6" ASPHALT TRAIL
PROP. 8" DIP W/L
PROP. 1 1/2" W/M
EX. 1 1/2" W/M
PROP. 6" DIP W/L
PROP. 1 1/2" W/M
PROP. 1 1/2" GAS
PROP. 2" W
PROP. 8" DIP W/L
PROP. 6" DIP W/L
EX. 1 1/2" GAS LINE
EX. 8" DIP W/L
EX. 12" GAS LINE
EXISTING CHURCH
PROPOSED ADDITION
MULTI-USE BLDG. F.F.= 387.44
MULTI-USE BLDG.) H.T.= 17.00
PROP. RET. WALL
PROP. 1 1/2" GAS
PROP. 2" W
PROP. 1 1/2" W/M
PROP. E.P.
EX. E.P.
PROP. H.C. SIGNS
EX. H.C. SIGNS
PAINT STRIPING (TYP.)
8.33'
7" STEEL CONDUIT (TYP.)
3.50'
EX. 6' BOARD FENCE
EX. 6' CHAIN LINK FENCE
WATER STOPS AS NEEDED
EX. W/M
PROP. 1 1/2" W/M
PROP. 8" DIP W/L
PROP. 6" DIP W/L
EX. 1 1/2" GAS LINE
EX. 8" DIP W/L
EX. 12" GAS LINE
EX. 6" ASPHALT TRAIL
PROP. 8" DIP W/L
PROP. 1 1/2" W/M
EX. 1 1/2" W/M
PROP. 6" DIP W/L
PROP. 1 1/2" W/M
PROP. 1 1/2" GAS
PROP. 2" W