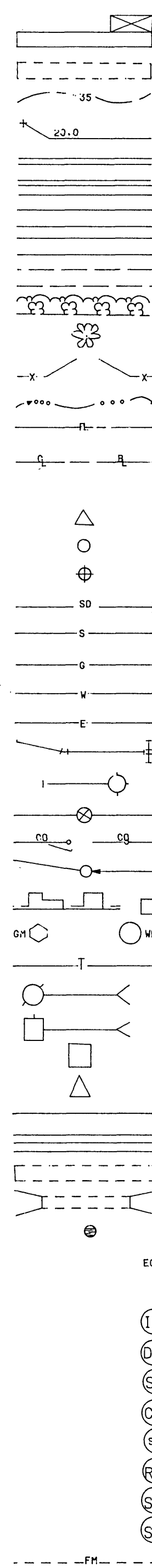


ABBREVIATIONS

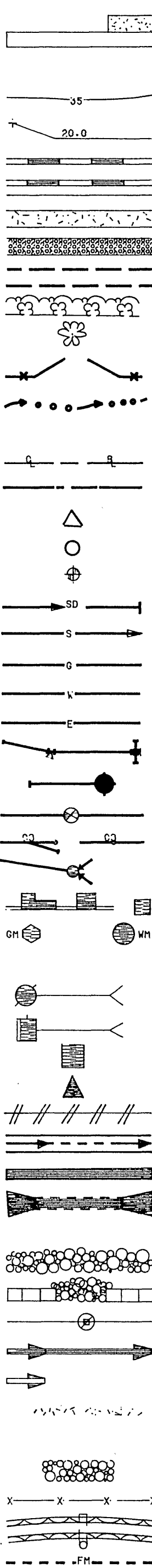
ABUT	ABUTMENT	PV	POST INDICATOR VALVE
ABV	ABOVE	PL	PLATE, PROPERTY LINE
ADD	ADDITIONAL	PLVD	PLUMB
ADJ	ADJACENT	PERF	PERFORATED
ADGR	ADGREGATE	POL	POINT ON LINE
ADR	ANCHOR	POL	POINT OF REVERSE CURVE
ALUN	ALUMINUM	PON	POUNDS PER SQ INCH
ALT	ALTERNATE	PT	POINT OF TANGENT
APPROX	APPROXIMATE	PVC	POINT OF VERTICAL CURVE
AKWA	AMERICAN WATER WORKS ASSOCIATION	PV1	POLYVINYL CHLORIDE
BIT	BITUMINOUS	PVMT	POINT OF VERTICAL INTERSECTION
BL	B/S LINE	PVT	POINT OF VERTICAL TANGENT
BLDG	BUILDING	R	RADIUS
BLKG	BLOCKING	RT	RIGHT
BM	BENCH MARK, BEAM	R/W	RIGHT OF WAY
BOTT	BOTTOM	RD	ROAD DRAIN, ROAD
B	BUILDING	REDUCER	REDUCER
BRG	BEARING	REINFORC.	REINFORCEMENT
BSMT	BASEMENT	REQD	REQUIRED
C TO C	CENTER TO CENTER	REV	REVISION
C & G	CURB & GUTTER	S	SANITARY SEWER, SOUTH, STORY
CF	CUBIC FEET	SAN	SANITARY
CT	CUBIC YARD	SD	STORM DRAIN
UL	CUT IRON	SECT	SECTION
CIRC	CIRCULAR	SHT	SHEET
CLR	CENTER LINE	SHTG	SHEETING
CLR	CLEAR	SIM	SIMILAR
CMF	CORRUGATED METAL PIPE	SPEC	SPECIFICATION
CND	CONDUIT	SPEC	SPECIFICATIONS
CO	CLEAN OUT	SQ	SQUARE
COL	COLUMN	ST	STAINLESS STEEL
CONC	CONCRETE	ST	STEEL
CON	CONCRETE MASONRY UNITS	STA	STATION
CONN	CONNECT, CONNECTION	STD	STANDARD
CONT	CONTINUOUS	STL	STEEL
CONTR	CONTRACTOR	SURF	SURFACE
CTR	CENTER	SEV	SEWERAGE
CR. STONE	CRUSHED STONE	SUR	SURVEY
CULV	CULVERT	SYM	SYMMETRICAL
D	DEPTH DEGREE OF CURVE	TOG	TURNED DOWN CURB
DEPT	DEPARTMENT	TEL	TELEPHONE
DTL	DETAIL	TEMP	TEMPORARY
DI	DIP INLET, DUCTILE IRON	THK	THICK
DIA	DIAMETER	TV	TELEVISION
DIM	DIMENSION	TY	TOP OF WALL
DISC	DISCONNECT	TY	TYPICAL
DIM	DIP MANHOLE	UND	UNDERGROUND
DN	DOWN	V	VALVE
DS	DOWN SPOUT	VAP. BAR.	VAPOR BARRIER
DR	DRIVE	VC	VERTICAL CURVE
DWL	DWELLING	VERT	VERTICAL
DWG	DRAWING	VOL	VOLUME
E	EAST	VMT	VIRGINIA DEPT OF HIGHWAYS AND TRANSPORTATION
EA	EACH	W	WITH
EF	EXPANSION JOINT	W/O	WITHOUT
ELEV	ELEVATION	WOOD	WOOD
ELEC	ELECTRIC, ELECTRICAL	WD	WATER LINE
ENGR	ENGINEER	WS	WATER SURFACE
ENTR	ENTRANCE	WT	WATER TIGHT
FOL	END OF LINE	WVF	WELDED WIRE FABRIC
FP	EDGE OF PAVEMENT	WVH	WEST VIRGINIA DEPT OF HIGHWAYS
EQ	EQUAL		
EQUIP	EQUIPMENT		
EX	EXH. WAY, EXH. WALL		
EXT	EXISTING		
EXT	EXTERIOR		
F	FACE		
FD	FLUID DRAIN		
FON	FOUNDATION		
FES	FLARED END SECTION		
FIO	FIGURE		
FIN	FINISH		
FL	FLOOR		
FLEX	FLEXIBLE		
FLG	FLANGE		
FT	FOOT		
FTG	FOOTING		
FUT	FUTURE		
GAL	GALVANIZED		
GALV	GALVANIZED		
GND	GROUND		
GOVT	GOVERNMENT		
GPM	GALLONS PER MINUTE		
GV	GATE VALVE		
HB	HOLLOW METAL		
HOR	HORIZONTAL		
HP	HORIZONTAL		
HPT	HORIZONTAL POINT		
HYD	HYDRAULIC		
ID	INSIDE DIAMETER		
IN	INCH		
INSUL	INSULATION		
INVT	INVERT		
JO	JOINT		
JB	JUNCTION BOX		
L	LENGTH		
LF	LINEAL FOOT		
LP	LOW POINT		
LT	LEFT		
PAR	PARALLEL		
MATL	MATERIAL		
MAX	MAXIMUM		
MFGR	MANUFACTURER		
MH	MANHOLE		
MIS	MISCELLANEOUS		
MISC	MISCELLANEOUS		
MON	MONUMENT		
N & C	NAIL & CAP		
NIC	NOT IN CONTRACT		
NO	NUMBER		
NTS	NOT TO SCALE		
OC	ON CENTER		
OD	OUTSIDE DIAMETER		
OPNG	OPENING		
OPF	OPPOSITE		
PER	PERIMETER		
PERP	PERPENDICULAR		
PC	POINT OF CURVE		
PCC	POINT OF COMPOUND		
PI	POINT OF INTERSECTION		
SM	SANITARY MANHOLE		

CIVIL LEGEND

EXISTING



NEW



DESCRIPTION

BUILDING WITH PORCH OR STOOP
FOUNDATION ONLY
CONTOUR, CONTOUR WITH ELEVATION
SPOT ELEVATION
CONCRETE CURB
CONCRETE CURB & GUTTER
CONCRETE WALK OR SLAB
PAVEMENT
UNPAVED OR GRAVEL ROAD
TREE LINE
TREE OR SHRUB
FENCE AND GATE
CENTERLINE OF DITCH OR SWALE
PROPERTY LINE
CENTERLINE OR BASELINE
LIMIT OF WORK LINE
FIELD SURVEY TRAVERSE POINT
P.C. OR P.T.
GEODETIC BORE HOLE
STOP DRAIN AND END WALL
SANITARY SEWER
GAS MAIN OR SERVICE LINE
WATER MAIN OR SERVICE LINE
ELECTRICAL LINE
PIPE FITTINGS AND REACTION BLOCKING
FIRE HYDRANT
GATE VALVE
LEAKOUT
MANHOLE
DROP INLET (CURB AND GRATING TYPES)
G.M. - GAS METER, W.M. - WATER METER
TELEPHONE LINE
TELEPHONE POLE, GUY AND ANCHOR
POWER POLE, GUY AND ANCHOR
TELEPHONE PEDestal
BURIED TELEPHONE VAULT
ABANDON OR REMOVE
PAVED DITCH
DRIVEWAY CULVERT
CULVERT WITH FLARED END SECTION
IRON PIN OR PINCH PIPE
POSITION CONTROL STONE
STRAW BALES AND SILT TRAP
STORM DRAIN INLET PROTECTION
TEMPORARY DIVERSION DIKE
TEMPORARY SEDIMENT TRAP
TEMPORARY DRIVE CONSTRUCTION ENTRANCE
STRAW BALE BARRIER
RIPRAP
SILT FENCE
TEMPORARY SEDIMENT BASIN
FORCE MAIN
WATER FIRELINE
UNDERGROUND ELECTRICAL
FOUNDATION DRAIN

GENERAL NOTES

- EXISTING TOPOGRAPHIC INFORMATION IS TAKEN FROM:
 - AERIAL PHOTOGRAPHY TAKEN BY AERIAL DATA REDUCTION ASSOCIATES, INC. IN FEBRUARY, 1983.
 - FIELD SURVEYS PERFORMED BY MATTERN & CRAIG IN 1986.
- ELEVATIONS ARE USGS DATUM, UNLESS OTHERWISE INDICATED.
- SOIL BORINGS ARE FROM GEOTECHNICS, INC., 1986.
- CONTRACTOR SHALL CONFIRM THE LOCATION OF EXISTING HORIZONTAL AND VERTICAL CONTROL POINTS AND SHALL ESTABLISH ANY ADDITIONAL CONTROL POINTS REQUIRED FOR CONSTRUCTION.
- THE LOCATION OF EXISTING UTILITIES, INCLUDING UNDERGROUND UTILITIES, IS INDICATED ON THE DRAWINGS INsofar AS THEIR EXISTENCE AND LOCATION WERE KNOWN AT THE TIME OF PREPARATION OF THE DRAWINGS. HOWEVER, NOTHING IN THESE CONTRACT DOCUMENTS SHALL BE CONSTRUED AS A GUARANTEE THAT SUCH UTILITIES ARE IN THE LOCATION INDICATED OR THAT THEY ACTUALLY EXIST, OR THAT OTHER UTILITIES ARE NOT WITHIN THE AREA OF OPERATIONS. THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO DETERMINE THE EXISTENCE AND LOCATIONS OF SUCH UTILITIES. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO AND FOR MAINTENANCE AND PROTECTION OF EXISTING UTILITIES AND STRUCTURES.
- BENCHMARK IS SET ON TOP OF DROP INLET, LOCATED AT END OF EXISTING CURB & GUTTER ON NORTHEAST SIDE OF BLUE HILLS DRIVE, N.E. IN FRONT OF THE SITE, ELEV. 1045.38.
- TOTAL PAVEMENT THICKNESS IS AS INDICATED ON THE PLANS.
- THE CONTRACTOR SHALL NOTE THAT GRADING HAS BEEN (OR IS BEING) PERFORMED ON THE SITE. GRADING OF THE SITE IS NOT INCLUDED AS PART OF THIS CONTRACT. EXCAVATION AND BACKFILL FOR UTILITIES ARE INCLUDED IN THIS CONTRACT.
- THE CITY OF ROANOKE WILL PROVIDE THE TAP TO THE EXISTING 12" WATER MAIN, THE VALVE VAULT, A DETECTOR CHECK, A WATER METER AND GATE VALVES IN VAULT. THE 4" WATER LINE WILL BE INSTALLED TO WITHIN 20 FEET OF BUILDING BY THE CITY.
- DRAINAGE STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION DESIGN STANDARDS.
- THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION AND INSURANCE SERVICES OFFICE STANDARDS. THE SYSTEM SHALL BE FACTORY MUTUAL APPROVED. THE CONTRACTOR IS RESPONSIBLE FOR FIRE PROTECTION DESIGN AND APPROVAL. EXTERIOR FIRE LINES SHOWN ON PLANS ARE SUBJECT TO APPROVAL BY INSURANCE UNDERWRITERS.
- ROANOKE GAS COMPANY TO INSTALL GAS LINE FROM BLUE HILLS DRIVE TO GAS METER LOCATED AT BUILDING. GAS METER INSTALLED BY GAS COMPANY ON CONCRETE PAD FURNISHED BY CONTRACTOR.

SHEET NO.

TITLE

C-1	ABBREV.. LEGEND & GENERAL NOTES
C-2	GRADING PLAN
C-3	GRADING PLAN
C-4	DIMENSIONAL LAYOUT PLAN
C-5	DIMENSIONAL LAYOUT PLAN
C-6	UTILITY PLAN
C-7	UTILITY PLAN
C-8	DETAILS
C-9	SANITARY & STORM DRAIN PROFILES
C-10	STORM DRAIN PROFILES & DETAILS

86-20

ABBREVIATIONS, LEGEND, AND GENERAL NOTES

NEW FULFILLMENT CENTER
ROANOKE CENTRE FOR
INDUSTRY AND TECHNOLOGY
ROANOKE, VIRGINIA

Orvis
A Sporting Tradition Since 1856

Horner & Associates

DATE 10/24/86
SCALE NONE
DRAWN CAT
JOB 86-42
SHEET C1
OF 9 SHEETS

ORVIS

86-20

T# 7810106 1711 Blue Hills Dr.

RCUT-ORVIS