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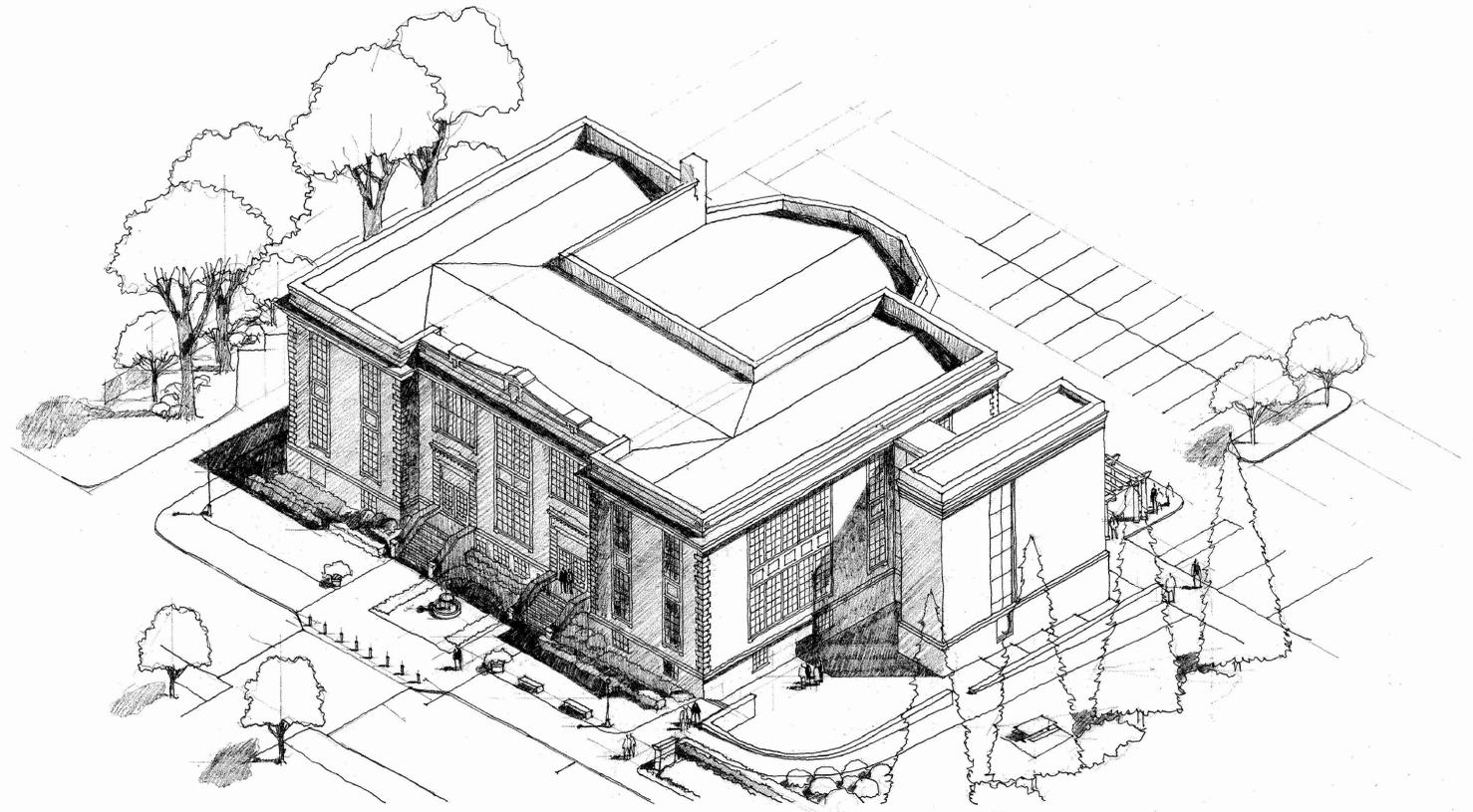
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RENOVATIONS TO MILLER CENTER

301 GROVE STREET LYNCHBURG, VIRGINIA

CITY PROJECT # P0072



BID SET FEBRUARY 13, 2013

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HANKINS & ANDERSON, INC.

BID SET
FEBRUARY 13, 2013

DATE:
REVISION

**RENOVATION TO
MILLER CENTER**
LYNCHBURG
VIRGINIA

CITY PROJECT # P0072

**CITY OF
LYNCHBURG
DEPARTMENT
OF PARKS AND
RECREATION**

301 GROVE STREET
LYNCHBURG, VIRGINIA 24501

TITLE SHEET

G101

PROJECT NO. 8261.00

ABBREVIATIONS

ABOVE FINISH FLOOR	AFF	FABRIC WALL COVERING	FWC	PLATE	PL
ACOUSTIC	AC OR ACOUST	FACE OF	FO	PLUMBING	PLUMB
ACOUSTIC TILE	ACT	FACE OF BRICK	FOB	PLYWOOD	PLYWD
ACOUSTIC CEILING PANEL	ACP	FAN COIL UNIT	FCU	POLISH	POL
ADHESIVE	ADH	FEMININE NAPKIN DISPENSER	FND	POUNDS	LB
ADJUSTABLE	ADJ	FEMININE NAPKIN RECEPTACLE	FNR	POUNDS PER SQUARE FOOT	PSF
AIR CONDITIONING	AC OR A/C	FINISH	FIN	POUNDS PER SQUARE INCH	PSI
AIR HANDLING UNIT	AHU	FINISHED GRADE	FIN GR	PRECAST	PC
ALUMINUM	AL OR ALUM	FIRE EXTINGUISHER (CABINET)	FE(C)	PREFINISHED	PREFIN
ANCHOR BOLTS	AB	FIXED GLASS	FG		
AND	&	FINISHED FLOOR	FF	QUARRY TILE	QT
ANGLE	L	FLASHING	FL		
APPROXIMATE	APPROX OR APPR	FLOOR	FLR	RADIUS	R
ARCHITECTURAL	ARCH	FLOOR DRAIN	FD	RAISED FLOOR	RSF
ARCHITECTURAL PRECAST CONCRETE	APC	FLOURESCENT	FLUOR	RECESSED	REC
ASBESTOS	ASB	FOOT/FEET	FT	REFRIGERATOR	REF OR REFR
AT	@	FOOTING	FTG	REINFORCE OR REINFORCING	REINF
		FOUNDATION	FND OR FNDN	REQUIRED	REQD
		FURRING	FUR	RESILIENT BASE	RB
BARRIER FREE	BF			REVISION	REV
BEAM	BM	GALVANIZED	GALV	RISER	R
BETWEEN	BET	GAUGE	GA	ROBE HOOK	RH
BLOCK(ING)	BLK(G)	GLASS	GL	ROOF(ING)	RF(G)
BOARD	BD	GRAB BAR	GB	ROOF DRAIN	RD
BOTTOM	BOT OR BOTT	GRADE	GR	ROOF TOP UNIT	RTU
BUILDING	BLDG	GROUT	G	ROOM	RM
BUILDING EXPANSION JOINT	BEJ	GUARD	GD	ROUGH	RGH
BUILT-UP ROOF	BUR	GYPSUM	GYP	ROUGH OPENING	RO
		GYPSUM WALLBOARD	GWB	RUBBER	RUB
				RUBBER BASE	RB
				RUBBER FLOOR	RF
CABINET	CAB			SCREW	SCR
CARPET	CPT	HANDICAPPED	HC OR H/C	SCUPPER	SCUP
CARPET BASE	CB	HARD	HD	SECTION	SECT
CASEWORK	CWK	HARDWARE	HDW	SERVICE SINK	SER S OR SS
CAST IRON	CI	HEATING, VENTILATING & AIR CONDITIONING	HVAC	SHEET	SHT
CAULKING	CLK(G)	HEIGHT	H OR HT	SHOWER	SHW
CEILING	CEM	HIGH POINT	HP	SIMILAR	SIM
CEMENT	CEM	HOLLOW METAL	HM	SPANDREL GLASS	SG
CENTER	CTR	HORIZONTAL	HORIZ	SPECIFICATIONS	SPECS
CENTERLINE	CL	HOSE BIB	HB	SOAP DISPENSER	SD
CENTER, ON	OC	HOUR	HR	SOLID CORE	SC
CERAMIC	CER			SPLASH BLOCK	SB
CERAMIC TILE	CT			SQUARE	SQ
CHANNEL	C	INCANDESCENT	INCAN	SQUARE FOOT	SQ FT OR SF
CLEANOUT	CO	INCH	IN	STAINLESS STEEL	SS
CLEAR	CLR	INFORMATION	INFO	STANDARD	STD
CLOSET	CLO OR CLOS	INSIDE DIAMETER	ID	STEEL	STL
COLUMN	COL	INSULATED GLASS	IG	STONE/SOUTH	S
COMMUNICATION	COMM	INSULATION	INSUL	STORAGE	STO OR STOR
COMPOSITION	COMP	INTERIOR	INT	STREET	ST
CONCRETE	CONC	INTERMEDIATE	INTER	STRUCTURAL	STRUCT
CONCRETE MASONRY UNIT	CMU			SUSPENDED	SUSP
CONNECTION	CONN	JANITOR	JAN	SUSPENDED ACOUSTICAL TILE SYSTEM	SAT
CONSTRUCTION	CONSTR OR CONSTR	JOINT	JT		SYS OR SYST
CONTINUOUS	CONT	JOIST	JST	TACKBOARD	TB
CONTRACTOR	CONTR			TELEPHONE	TELE
CONTROL JOINT	CJ	LADDER	LAD	TELEVISION	TV
COPPER	CU	LAMINATE	LAM	TEMPERED (GLASS)	T(G)
CORRUGATED	COR	LANDING	LAND	TEMPERATURE	TEMP
COUNTER FLASH	CF	LANDSCAPE ARCHITECT	LA	TERRAZZO	TERR
COUNTER SINK	CS	LAVATORY	LAV	THICK OR THICKNESS	TH
		LINEN CLOSET	LC	THRESHOLD	THLD
		LIVE LOAD	LL	TILE COUNCIL OF AMERICA	TCA
DEAD LOAD	DL	LONG/LENGTH	L	TOILET	TLT
DEEP/DEPTH	D			TOILET PAPER DISPENSER	TPD
DECK DRAIN	DD			TOILET PAPER HOLDER	TPH
DEGREE	° OR DEG	MACHINE	MACH	TONGUE AND GROOVE	T&G
DEPARTMENT	DEPT	MANHOLE	MH	TOP OF	TO
DETAIL	DET OR DTL	MANUFACTURER	MFR OR MANUF	TOP OF CURB	TC
DIAGONAL	DIAG	MARBLE	MAR	TOP OF STEEL	TOS
DIAMETER	Ø OR DIA	MARKED	MKD	TOP OF WALL	TOW
DIMENSION	DIM	MASONRY	MAS	TREAD	T
DISHWASHER	DW	MASONRY OPENING	MO	TREATED	TRTD
DITTO	DO	MATERIAL	MAT OR MATL	TUBE STEEL	TS
DIVISION	DIV	MAXIMUM	MAX	TYPICAL	TYP
DOWN	DN	MECHANICAL	MECH		
DOWNSPOUT	DS	MEDICINE CABINET	MC	UNDERCUT	UC
DRAWING	DWG	MEMBRANE	MEMB	UNDERWRITER'S LABORATORY	UL
DRINKING FOUNTAIN	DF	METAL	MTL OR MET	URINAL	UR
		MEZZANINE	MEZZ	VENTILATOR	VENT
EACH	EA	MINIMUM	MIN	VENT THRU ROOF	VTR
EAST	E	MIRROR	MIR	VERTICAL	VERT
ETHYLENE PROPYLENE DIENEMONOMER	EPDM	MISCELLANEOUS	MISC	VESTIBULE	VEST
ELECTRIC(AL)	ELEC OR ELECT	MULLION	MUL	VINYL BASE	VB
ELECTRIC WATER COOLER	EWC			VINYL COMPOSITION TILE	VCT
ELEVATION	EL OR ELEV	NATURAL	NAT	VINYL WALL COVERING	VWC
ELEVATOR	ELEV	NOMINAL	NOM		
EMERGENCY	EMER OR EMERG	NORTH	N	WALLBOARD	WALLBD
ENCLOSURE	ENCL	NOT IN CONTRACT	NIC	WASTE RECEPTACLE	WR
ENGINEER	ENGR	NOT TO SCALE	NTS	WATER COOLER	WC
ENTRANCE	ENT	NUMBER	NO OR #	WATER HEATER	WH
ENTRY MAT	EM			WATERPROOF (ING)	WP
EQUAL	EQ	OPENING	OPG	WATER RESISTANT	WR
EQUIPMENT	EQUIP	OPPOSITE	OPP	WEATHERSTRIP	WS
EXHAUST FAN	EF	OUNCE	OZ	WELDED WIRE FABRIC	WWF
EXISTING	EXIST	OUTSIDE DIAMETER	OD	WIDTH/WEST	W
EXIT	X	OWNER FURNISHED CONTRACTOR INSTALLED	OFCI	WITH	W/
EXPANSION	EXP	OWNER FURNISHED OWNER INSTALLED	OFOI	WITHOUT	W/O
EXPANSION BOLT	EB			WOOD	WD
EXPANSION JOINT	EJ	PAIR	PR		
EXPOSED	EXP	PAINT, PAINTED	P, PTD		
EXTERIOR	EXT	PANEL	PNL		
EXTERIOR INSULATION & FINISH SYSTEM	EIFS	PAPER TOWEL DISPENSER	PTD		
EXTRUSION	ETR	PARTITION	PART OR PRTN		
		PLASTER	PLAS		
		PLASTIC LAMINATE	P LAM		

ARCHITECTURAL DRAWING SYMBOLS

	TITLE MARKER		DETAIL SECTION REFERENCE		COLUMN LINE INDICATOR
	DETAIL DRAWN ON THIS SHEET		DETAIL DRAWN ON THIS SHEET		PARTITION TYPE MARKER
	WALL SECTION REFERENCE		INTERIOR ELEVATION REFERENCE		ELEVATION MARKER
	SECTION DRAWN ON THIS SHEET		ELEVATION LETTER		WORK NOTE INDICATOR
	ELEVATION DRAWN ON THIS SHEET		DEMOLITION NOTE MARKER		DOOR NUMBER REFERENCE
	BUILDING ELEVATION REFERENCE		CURTAIN WALL MARKER		REVISION MARKER
	DETAIL REFERENCE		EQUIPMENT/FURNISHING INDICATOR OR SPECIALTY NOTE INDICATOR		TOILET ACCESSORY MARKER
	DETAIL DRAWN ON THIS SHEET		ROOM NAME AND NUMBER REFERENCE		CONTROL JOINT MARKER

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ARCHITECTURAL DRAWINGS

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SECTION 3412 WORKSHEET

TABLE 3412.7

BUILDING CODE ANALYSIS

3412.6.1 **BUILDING HEIGHT**
 AH = 75' (ALLOWABLE HT FROM TABLE 503, W/ SPRINKLER INCR)
 EBH = 48' (EXISTING BUILDING HEIGHT IN FEET)
 AS = 3 (ALLOWABLE HT IN STORIES, W/ SPRINKLER INCR.)
 EBS = 3 (EXISTING BLDG HEIGHT IN STORIES)
 CF = 1
 HEIGHT VALUE, FEET = $\frac{75' - 48'}{12.5} \times 1 = 2.1$
 HEIGHT VALUE, STORIES = $(3 - 3) \times 1 = 0$ USE 0

3412.6.2 **BUILDING AREA**
 ALLOWABLE AREA FORMULA:
 SP (PERCENT INCREASE FOR SPRINKLERS) = 200%
 OP (PERCENT INCREASE FOR OPEN PERIMETER) = 51%
 FOR OP, FRONTAGE INCREASE = $100 \left[\frac{314 \text{ FT} \times 414 \text{ FT} - .25 \right] \times (30 / 30) = 51\%$
 AA = $\frac{(200 + 51 + 100) \times 9,500}{100} = 29,835$ SF
 AREA VALUE = $\frac{29,835}{1,200} [1 - (26,400/9,505)] = 17.5$
 MAX. VALUE = 50% OF MANDATORY FIRE SAFETY SCORE (16)
 USE 0

3412.6.3 **COMPARTMENTATION**
 COMPARTMENT SIZE IS GREATER THAN 15,000 SF (CATEGORY 'a')
 COMPARTMENTATION VALUE = 0

3412.6.4 **TENANT AND DWELLING UNIT SEPARATIONS**
 ONLY ONE TENANT (CATEGORY 'c')
 TENANT AND DWELLING UNIT SEPARATION VALUE = 0

3412.6.5 **CORRIDOR WALLS**
 CORRIDOR WALLS: LESS THAN 1 HOUR RATED (CATEGORY 'b')
 CORRIDOR WALLS VALUE = -4
 (GROUP A-1 VALUE GOVERNS)

3412.6.6 **VERTICAL OPENINGS**
 (EXISTING STAIRWELL WALL CONSTRUCTION EQUIVALENT TO 1-HOUR RATING)
 PV (PROTECTION VALUE) = 1 (FOR 1-HR RATING)
 CF (CONSTRUCTION TYPE FACTOR) = 3.5 (FOR TYPE III B CONSTR.)
 VO (VERTICAL OPENING VALUE) = $1 \times 3.5 = 3.5$

3412.6.7 **HVAC SYSTEMS**
 SYSTEMS IN COMPLIANCE WITH MECHANICAL CODE (CATEGORY 'd')
 HVAC SYSTEMS VALUE = 0

3412.6.8 **AUTOMATIC FIRE DETECTION**
 SMOKE DETECTORS INSTALLED THROUGHOUT (CATEGORY 'e')
 AUTOMATIC FIRE DETECTION VALUE = 6
 (GROUP A-1 VALUE GOVERNS)

3412.6.9 **FIRE ALARM SYSTEMS**
 FIRE ALARM PROVIDED THROUGHOUT (CATEGORY 'c')
 FIRE ALARM SYSTEM VALUE = 0

3412.6.10 **SMOKE CONTROL**
 SPRINKLER SYSTEM THROUGHOUT, WITH OPERABLE WINDOWS (CATEGORY 'b')
 SMOKE CONTROL VALUE = 1
 (GROUP A-1 VALUE GOVERNS)

3412.6.11 **MEANS OF EGRESS CAPACITY AND NUMBER**
 CAPACITY AND NO. OF MEANS OF EGRESS COMPLY WITH CODE (CATEGORY 'b')
 MEANS OF EGRESS VALUE = 0

3412.6.12 **DEAD ENDS**
 MAX DEAD END CORRIDOR 20 FT (CATEGORY 'b')
 DEAD END VALUE = 0

3412.6.13 **MAXIMUM EXIT ACCESS TRAVEL DISTANCE**
 MAXIMUM ALLOWABLE TRAVEL DISTANCE = 250 FT.
 MAXIMUM ACTUAL TRAVEL DISTANCE = 100 FT.
 POINTS = $20 \times [(250 - 100)/250] = 12.0$
 MAX. EXIT ACCESS TRAVEL DIST. VALUE = 12

3412.6.14 **ELEVATOR CONTROL**
 ELEVATOR SERVING ALL FLOORS COMPLIES W/ NEW CONSTRUCTION REQUIREMENTS (CATEGORY 'd')
 TRAVEL DISTANCE 25 FEET OR MORE
 ELEVATOR CONTROL VALUE = 4

3412.6.15 **MEANS OF EGRESS EMERGENCY LIGHTING**
 EMERGENCY POWER FOR MEANS OF EGRESS LIGHTING & EXIT SIGNS, TWO OR MORE EXITS (CATEGORY 'b')
 MEANS OF EGRESS EMERGENCY LIGHTING VALUE = 0

3412.6.16 **MIXED OCCUPANCIES**
 MIXED OCCUPANCIES NON-SEPARATED, AS ALLOWED BY 508.3.2
 MIXED OCCUPANCIES VALUE = 0

3412.6.17 **AUTOMATIC SPRINKLERS**
 SPRINKLERS REQUIRED AND PROVIDED THROUGHOUT (CATEGORY 'e')
 AUTOMATIC SPRINKLERS VALUE = 4
 (GROUP A-1 VALUE GOVERNS)

3412.6.18 **STANDPIPES**
 STANDPIPES ARE NOT REQUIRED & NONE ARE PROVIDED (CATEGORY 'b')
 STANDPIPE VALUE = 0

3412.6.19 **INCIDENTAL ACCESSORY OCCUPANCY**
 PROTECTION OF INCIDENTAL ACCESSORY OCCUPANCIES COMPLIES WITH 508.2.5
 INCIDENTAL ACCESSORY OCCUPANCY VALUE = 0

SUMMARY SHEET - BUILDING CODE

Existing occupancy: Mixed (A-1, B, & S-1)	Proposed occupancy: Mixed (A-1, B, & S-1)
Year building was constructed: 1911	Number of stories: 3 Height in feet: 48
Type of construction: III B	Area per floor: Max. 9,735 SF (1st Floor)
Percentage of open perimeter: 76%	
Completely suppressed: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Corridor wall rating: 0 hour
Compartmentation: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Required door closers: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Fire resistance rating of vertical opening enclosures: 0 hours (1 hour equivalent at stairs)	
Type of HVAC system: Heat pump	servicing number of floors: 3
Automatic fire detection: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Type and location: See Electrical Drawings.
Fire alarm system: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Type: See Electrical Drawings.
Smoke control: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Type: Sprinklers and operable windows
Adequate exit routes: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Dead ends: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Maximum exit access travel distance: 100 ft.	Elevator controls: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Means of egress emerg. Lighting: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mixed occupancies: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

SAFETY PARAMETERS	FIRE SAFETY (FS)	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
3412.6.1 Building Height	0	0	0
3412.6.2 Building Area	8	8	8
3412.6.3 Compartmentation	0	0	0
3412.6.4 Tenant & Dwelling Unit Separations	0	0	0
3412.6.5 Corridor Walls	-4	-4	-4
3412.6.6 Vertical Openings	3.5	3.5	3.5
3412.6.7 HVAC Systems	0	0	0
3412.6.8 Automatic Fire Detection	6	6	6
3412.6.9 Fire Alarm Systems	0	0	0
3412.6.10 Smoke Control	****	1	1
3412.6.11 Means of Egress Capacity	****	0	0
3412.6.12 Dead Ends	****	0	0
3412.6.13 Max. Exit Access Travel Dist.	****	12	12
3412.6.14 Elevator Control	4	4	4
3412.6.15 Means of Egress Emerg Lighting	****	0	0
3412.6.16 Mixed Occupancies	0	****	0
3412.6.17 Automatic Sprinklers	4	4 + 2 = 2	4
3412.6.18 Standpipes	0	0	0
3412.6.19 Incidental Accessory Occupancy	0	0	0
Building Score - Total Value	21.5	32.5	34.5
Mandatory Safety Score, Use Group A-1	16	27	27
	PASS	PASS	PASS

****No applicable value to be inserted.

101.1 **APPLICABLE CODES**
 BUILDING CODE: 2009 VIRGINIA UNIFORM STATEWIDE BUILDING CODE (EFFECTIVE DATE MARCH 1, 2011)
 (IBC 2009 WITH VIRGINIA AMENDMENTS)
 ACCESSIBILITY: ICC/ANSI A117.1-03, ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES.
 ELEVATOR: ASME A17.1-00, SAFETY CODE FOR ELEVATORS AND ESCALATORS (WITH 2002/2003 ADDENDA).
 IECC-09 INTERNATIONAL ENERGY CONSERVATION CODE.
 IFC-09 INTERNATIONAL FIRE CODE.
 PLUMBING: IPC-09, INTERNATIONAL PLUMBING CODE, 2009 EDITION.
 MECHANICAL: IMC-09, INTERNATIONAL MECHANICAL CODE, 2009 EDITION.
 ELECTRICAL: NATIONAL ELECTRICAL CODE (NFPA 70), 2008 EDITION, AS REFERENCED IN THE ICC-09 ELECTRICAL CODE.

302.1 **USE GROUP CLASSIFICATION**
 MIXED USE; REFER TO 508.3.3.

410.3.1 **STAGE CONSTRUCTION**
 FIRE-RESISTANCE RATED FLOOR NOT REQUIRED PER CONSTRUCTION TYPE III B

410.3.4 **PROSCENIUM WALL**
 FIRE-RATED PROSCENIUM WALL NOT REQUIRED (STAGE IS LESS THAN 50 FEET IN HEIGHT)

410.3.7 **STAGE VENTILATION**
 ROOF VENTS AND SMOKE CONTROL NOT REQUIRED (STAGE IS LESS THAN 1000 SF IN AREA AND LESS THAN 50 FEET IN HEIGHT).

410.5.1 **SEPARATION FROM STAGE**
 COMPARTMENTS APPURTENANT TO THE STAGE = 1-HOUR

410.5.3 **STAGE EXITS**
 MINIMUM ONE MEANS OF EGRESS FROM EACH SIDE OF THE STAGE.

410.7 **STANDPIPES (AT STAGE)**
 NOT REQUIRED, PER EXCEPTION TO 905.3.4 (STAGE IS LESS THAN 1,000 SF IN AREA).

503.1 **ALLOWABLE HEIGHT**
 TYPE III B CONSTRUCTION GROUP A-1 GOVERNS
 TABULAR LIMIT = 2 STORIES, 55 FT.
 SPRINKLER SYSTEM INCREASE = 1 STORY, 20 FT. (*)
 ALLOWABLE HEIGHT = 3 STORIES, 75 FT.
 ACTUAL BUILDING HEIGHT = 3 STORIES, 48 FT.
 (*) PER SECTION 504.2

503.1 **ALLOWABLE AREA**
 TYPE III B CONSTRUCTION GROUP A-1 GOVERNS
 TABULAR LIMIT = 8,500 SF PER FLOOR
 SPRINKLER SYSTEM INCREASE = 17,000 SF PER FLOOR (*)
 ALLOWABLE AREA = 25,500 SF PER FLOOR
 (*) PER SECTION 506.3

ACTUAL FLOOR AREAS:
 FIRST FLOOR
 EXISTING 9,095 SF
 ADDITION 640 SF
 SUB-TOTAL 9,735 SF
 SECOND FLOOR
 EXISTING 8,960 SF
 ADDITION 590 SF
 SUB-TOTAL 9,550 SF
 THIRD FLOOR
 EXISTING 6,525 SF
 ADDITION 590 SF
 SUB-TOTAL 7,115 SF
 TOTAL FLOOR AREA 26,400 SF

508.2 **ACCESSORY OCCUPANCIES**
 NOT APPLICABLE

508.2.5 **INCIDENTAL USE AREAS**
 QUALIFYING BOILER ROOM: SMOKE PARTITIONS (*)
 (*) WITH SPRINKLER PROTECTION

508.3.3 **MIXED OCCUPANCY, NON-SEPARATED**
 GROUP B BUSINESS
 GROUP A-1 ASSEMBLY
 GROUP S-1 STORAGE

NOTE: FOR THE PURPOSE OF OCCUPANCY CLASSIFICATION, MULTI-USE CLASSROOM/MEETING ROOM SPACES ARE GROUP B (BUSINESS) BASED ON AGE OF USERS (BEYOND 12TH GRADE) AND CODE DEFINITION "TRAINING AND SKILL DEVELOPMENT NOT WITHIN A SCHOOL OR ACADEMIC PROGRAM." HOWEVER, DETERMINATION OF OCCUPANT LOAD FOR EXITING CALCULATIONS IS BASED ON EDUCATIONAL NATURE AND ACTUAL EXPECTED USE OF CLASSROOM SPACES.

602.3 **TYPE OF CONSTRUCTION**
 TYPE III B [NONCOMBUSTIBLE/COMBUSTIBLE, UNPROTECTED]

602.3 **REQUIRED FIRE RESISTANCE RATING OF STRUCTURE ELEMENTS (TABLE 601)**
 STRUCTURAL FRAME = 0 HOURS
 EXTERIOR BEARING WALLS = 2 HOURS
 INTERIOR BEARING WALLS = 0 HOURS
 NON-BEARING INT WALLS & PARTNS = 0 HOURS
 FLOOR CONSTRUCTION = 0 HOURS
 ROOF CONSTRUCTION = 0 HOURS

602.3 **REQUIRED FIRE RESISTANCE RATING OF NON-BEARING EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602)**
 DISTANCE GROUPS A, B GROUP S
 LESS THAN 5 FEET = 1 HOUR 2 HOURS
 BETWEEN 5 AND 30 FEET = 1 HOUR 1 HOUR
 GREATER THAN 30 FEET = 0 HOURS 0 HOURS

705.8 **MAXIMUM AREA OF EXTERIOR WALL OPENINGS**
 UNPROTECTED OPENINGS, BASED ON FIRE SEPARATION DISTANCE:
 LESS THAN 5 FT = NOT PERMITTED
 5 FEET TO 10 FEET = 10%
 10 FEET TO 15 FEET = 15%
 15 FEET TO 20 FEET = 25%
 20 FEET TO 25 FEET = 45%
 25 FEET TO 30 FEET = 70%
 GREATER THAN 30 FEET = NOT LIMITED

708.4 **SHAFT ENCLOSURES, FIRE-RESISTANCE RATING**
 CONNECTING LESS THAN FOUR STORIES = 1 HOUR

708.14.1 **ELEVATOR LOBBY**
 ENCLOSED ELEVATOR LOBBY NOT REQUIRED PER VIRGINIA AMENDMENTS.

717.2 **FIREBLOCKING**
 REQUIRED TO CUT OFF CONCEALED DRAFT OPENINGS: BETWEEN FLOORS BETWEEN A TOP STORY AND ROOF OR ATTIC SPACE ARCHITECTURAL TRIM (MAX. 20 FOOT INTERVALS)

717.3 **DRAFTSTOPPING IN FLOORS**
 NOT REQUIRED, PER EXCEPTION TO 717.3.3 FOR SPRINKLERED BUILDING

720.1 **PRESCRIPTIVE FIRE RESISTANCE**
 SOLID CLAY OR SHALE BRICK WALLS
 1-HOUR RATED = 2.7" MIN. THICKNESS
 2-HOUR RATED = 3.8" MIN. THICKNESS
 HOLLOW BRICK WALLS, NOT FILLED
 1-HOUR RATED = 2.3" MIN. THICKNESS
 2-HOUR RATED = 3.4" MIN. THICKNESS

903.2.1 **AUTOMATIC FIRE SUPPRESSION SYSTEM**
 AUTOMATIC FIRE SUPPRESSION SYSTEM REQUIRED THROUGHOUT (MIXED USE, GROUP A-1 USE WITH TOTAL OCCUPANCY LOAD EXCEEDING 300 GOVERNS).

903.5.1 **SPRINKLER SYSTEM STANDPIPES**
 STANDPIPES NOT REQUIRED (FLOOR LEVEL OF THE HIGHEST STORY IS LESS THAN 30 FEET ABOVE LOWEST LEVEL OF FIRE DEPARTMENT VEHICLE ACCESS).

1004.1 **DESIGN OCCUPANT LOAD: OCCUPANT LOAD CALCULATIONS ARE BASED ON FUNCTION AND THE FOLLOWING ALLOWANCES (TABLE 1004.1.1):**
 ASSEMBLY W/ FIXED SEATS = NUMBER OF SEATS
 ASSEMBLY W/OUT FIXED SEATS: UNCONCENTRATED (TABLES & CHAIRS) 1 PERSON/15 SF NET
 STANDING SPACE 1 PERSON/5 SF NET
 EDUCATIONAL CLASSROOM AREA = 1 PERSON/20 SF NET
 SHOPS & VOCATIONAL AREAS = 1 PERSON/50 SF NET
 BUSINESS AREAS = 1 PERSON/100 SF GROSS
 STAGE = 1 PERSON/15 SF NET
 STORAGE AREAS = 1 PERSON/300 SF GROSS
 MECHANICAL EQUIPMENT ROOMS = 1 PERSON/300 SF GROSS

OCCUPANT LOADING:
 FIRST FLOOR = 202
 SECOND FLOOR = 339
 THIRD FLOOR = 134
 TOTAL = 675

1014.3 **COMMON PATH OF EGRESS TRAVEL**
 GROUP A-1 = 75 FT MAXIMUM
 GROUPS B & S1 = 100 FT MAXIMUM

1015.1 **SPACES REQUIRING TWO EXITS OR EXIT ACCESS DOORWAYS (BASED ON OCCUPANT LOAD)**
 GROUPS A AND B = 50 OR MORE PER VA. AMENDMENT
 GROUP S = 29 OR MORE

1016.1 **EXIT ACCESS TRAVEL DISTANCE**
 GROUPS A AND S = 250 FT MAXIMUM
 GROUP B = 300 FT MAXIMUM

1018.1 **CORRIDOR FIRE RESISTANCE RATING**
 GROUPS A, B, AND S = 0 HOURS

1018.2 **CORRIDOR WIDTH**
 44 INCHES MINIMUM, EXCEPT WHERE GREATER WIDTH IS REQUIRED BY OCCUPANT LOAD CALCULATION.

1018.4 **DEAD END CORRIDOR**
 GROUP A AND S = 20 FEET MAXIMUM
 GROUPS B AND S = 50 FEET MAXIMUM

1021.1 **MINIMUM NUMBER OF EXITS**
 ALL FLOORS (LESS THAN 500 OCCUPANTS PER FLOOR) = 2

1022.1 **VERTICAL EXIT ENCLOSURES**
 INT. EXIT STAIRWAYS CONNECTING LESS THAN 4 STORIES = 1-HOUR

1028.2 **ASSEMBLY MAIN EXIT**
 NOT REQUIRED FOR AUDITORIUM (OCCUPANT LOAD LESS THAN 300)

1028.8 **COMMON PATH OF EGRESS TRAVEL (ASSEMBLY)**
 30 FEET MAXIMUM FROM ANY SEAT TO A POINT WHERE AN OCCUPANT HAS A CHOICE OF TWO PATHS OF EGRESS TRAVEL TO TWO EXITS.

1028.9.1 **MINIMUM AISLE WIDTH**
 42 INCHES CLEAR (RAMPED AISLES WITH SEATING ON BOTH SIDES)

1028.13 **HANDRAILS (AT RAMPED AISLES)**
 NOT REQUIRED FOR SLOPE LESS THAN 1:8 AND SEATING ON BOTH SIDES, PER EXCEPTION NO.1

1106.1 **REQUIRED ACCESSIBLE PARKING SPACES (TABLE 1106.1)**
 MINIMUM OF 3 (FOR LOT BETWEEN 51 AND 75 TOTAL SPACES)

1106.5 **VAN SPACES**
 MINIMUM OF 1 (ONE FOR EVERY SIX OR FRACTION THEREOF)

1108.2.2 **WHEELCHAIR SPACES (THEATER) (TABLE 1108.2.2.1)**
 MINIMUM OF 5 (FOR SEATING CAPACITY BETWEEN 101 AND 300)

1108.2.5 **DESIGNATED AISLE SEATS**
 MINIMUM OF 2 (FIVE PERCENT OF TOTAL NUMBER OF AISLE SEATS)

1108.2.8 **PERFORMANCE AREAS**
 AN ACCESSIBLE ROUTE SHALL CONNECT THE PERFORMANCE AREA TO THE ASSEMBLY SEATING AREA.

1108.2.1 **FAMILY OR ASSISTED USE TOILET ROOM**
 NOT REQUIRED (AGGREGATE NUMBER OF REQUIRED MALE AND FEMALE WATER CLOSETS FOR ASSEMBLY OCCUPANCY IS LESS THAN SIX.)

2902.1 **MINIMUM NUMBER OF PLUMBING FIXTURES**
 GROUP A-1 (ASSEMBLY SPACES)
 TOTAL OCCUPANT LOAD = 405
 MALE WATER CLOSETS (203 OCCUPANTS) NO. REQUIRED (1 PER 125) = 1.7
 MALE LAVATORIES (203 OCCUPANTS) NO. REQUIRED (1 PER 200) = 1.1
 FEMALE WATER CLOSETS (203 OCCUPANTS) NO. REQUIRED (1 PER 65) = 3.2
 FEMALE LAVATORIES (203 OCCUPANTS) NO. REQUIRED (1 PER 200) = 1.1
 DRINKING FOUNTAINS (405 OCCUPANTS) NO. REQUIRED (1 PER 500) = 0.9
 SERVICE SINK NO. REQUIRED (1 PER BUILDING) = 1
 GROUP B (OFFICES, CLASSROOMS, STORAGE, & MECH. ROOMS)
 TOTAL OCCUPANT LOAD = 270
 WATER CLOSETS (1 PER 25 FOR FIRST 50, 1 PER 50 THEREAFTER) NO. FEMALE WATER CLOSETS REQUIRED = 3.2
 NO. MALE WATER CLOSETS REQUIRED = 3.2
 LAVATORIES (1 PER 40 FOR FIRST 80, 1 PER 80 THEREAFTER) NO. FEMALE LAVATORIES REQUIRED = 2.2
 NO. MALE LAVATORIES REQUIRED = 2.2
 DRINKING FOUNTAINS NO. REQUIRED (1 PER 100) = 2.7
 SERVICE SINK NO. REQUIRED (1 PER BUILDING) = 1
 COMBINED MINIMUM NUMBER OF FIXTURES GROUPS A-1 AND B
 MALE WATER CLOSETS TOTAL NO. REQUIRED (1.7 + 3.2) NO. PROVIDED = 4.9
 FEMALE WATER CLOSETS TOTAL NO. REQUIRED (1.1 + 2.2) NO. PROVIDED = 5
 FEMALE LAVATORIES TOTAL NO. REQUIRED (1.1 + 2.2) NO. PROVIDED = 3.3
 DRINKING FOUNTAINS TOTAL NO. REQUIRED (0.9 + 2.7) NO. PROVIDED = 4
 SERVICE SINK NO. REQUIRED (1 PER BUILDING) = 1
 NO. PROVIDED = 2
 (*) URINALS PERMITTED FOR UP TO 50% OF REQUIRED NO. FOR GROUP B AND UP TO 97% OF REQUIRED NO. FOR GROUP A (I.E., ONLY 3 OF THE 4 URINALS COUNT TOWARD MEETING MINIMUM NO. OF FIXTURES)

3004.1 **ELEVATOR HOISTWAY VENTING**
 NOT REQUIRED (HOISTWAY DOES NOT PENETRATE MORE THAN THREE STORIES).

3411.3 **ACCESSIBILITY FOR EXISTING BUILDINGS**
 ALTERATIONS SHALL NOT REDUCE OR HAVE THE EFFECT OF REDUCING ACCESSIBILITY OF THE EXISTING BUILDING.

3411.8.1 **ENTRANCES**
 EXISTING SECOND FLOOR ENTRANCES NOT REQUIRED TO BE ACCESSIBLE SINCE ADDITION WILL INCLUDE AN ACCESSIBLE FIRST FLOOR ENTRANCE AND ELEVATOR.

3411.8.1.4 **THRESHOLDS**
 MAX. HEIGHT OF THRESHOLDS AT DOORWAYS IN EXISTING BUILDING SHALL BE 3/4", PROVIDED THRESHOLD HAS BEVELED EDGES ON BOTH SIDES.

3412.2.3 **ADDITIONS**
 COMBINED HEIGHT AND AREA OF THE EXISTING BUILDING AND THE NEW ADDITION SHALL NOT EXCEED THE HEIGHT AND AREA ALLOWED BY CHAPTER 5.

3412.2.4 **ALTERATIONS AND REPAIRS**
 THE EXISTING BUILDING SHALL NOT BE ALTERED OR REPAIRED IN SUCH A MANNER THAT RESULTS IN THE BUILDING BEING LESS SAFE OR SANITARY THAN SUCH BUILDING IS CURRENTLY.

3412.6 **EVALUATION PROCESS (EXISTING BUILDING)**
 REFER TO SECTION 3412 WORKSHEET



HANKINS & ANDERSON, INC.

BID SET
 FEBRUARY 13, 2013
 DATE:
 REVISION

RENOVATION TO MILLER CENTER
 LYNCHBURG VIRGINIA

CITY PROJECT # P0072
CITY OF LYNCHBURG DEPARTMENT OF PARKS AND RECREATION

301 GROVE STREET
 LYNCHBURG, VIRGINIA 24501

BUILDING CODE DATA

G103

PROJECT NO. 8261.00

LEGEND AND NOTES

- ○ ○ ○ ○ SMOKE PARTITION
- ● ● ● ● 1 HOUR FIRE RATED SEPARATION ASSEMBLY
- OFFICE ROOM NAME
- 280 SF FLOOR AREA
- 100 3 OCCUPANT LOAD
- OCCUPANT LOAD FACTOR (BASED ON FUNCTION OF SPACE)
- 1 HOUR RATED DOOR ASSEMBLY
- 20 MINUTE RATED DOOR ASSEMBLY
- 45 MINUTE RATED DOOR ASSEMBLY
- FIRE EXTINGUISHER (WALL MOUNTED W/BRACKET)
- FE FIRE EXTINGUISHER CABINET W/ FIRE EXTINGUISHER
- FEC
- ▲ EXIT EGRESS CAPACITY
- NEW CONSTRUCTION

1. SEE FLOOR PLAN DRAWINGS AND REFERENCED SECTIONS FOR SIZE AND TYPE OF WALL CONSTRUCTION.
2. SEE SHEET A011 FOR PARTITION TYPES.
3. PROVIDE SIGNAGE TO IDENTIFY ALL VERTICAL FIRE-RESISTANT RATED ASSEMBLIES LOCATED ON THE ASSEMBLY ABOVE THE CEILING. SUCH SIGNAGE SHALL HAVE LETTERS NO SMALLER THAN ONE INCH IN HEIGHT STATING "FIRE RATED ASSEMBLY" AND GIVING THE HOURLY RATING OF THE ASSEMBLY. PLACE SIGNAGE AT HORIZONTAL INTERNALS OF 8 FEET MAXIMUM.

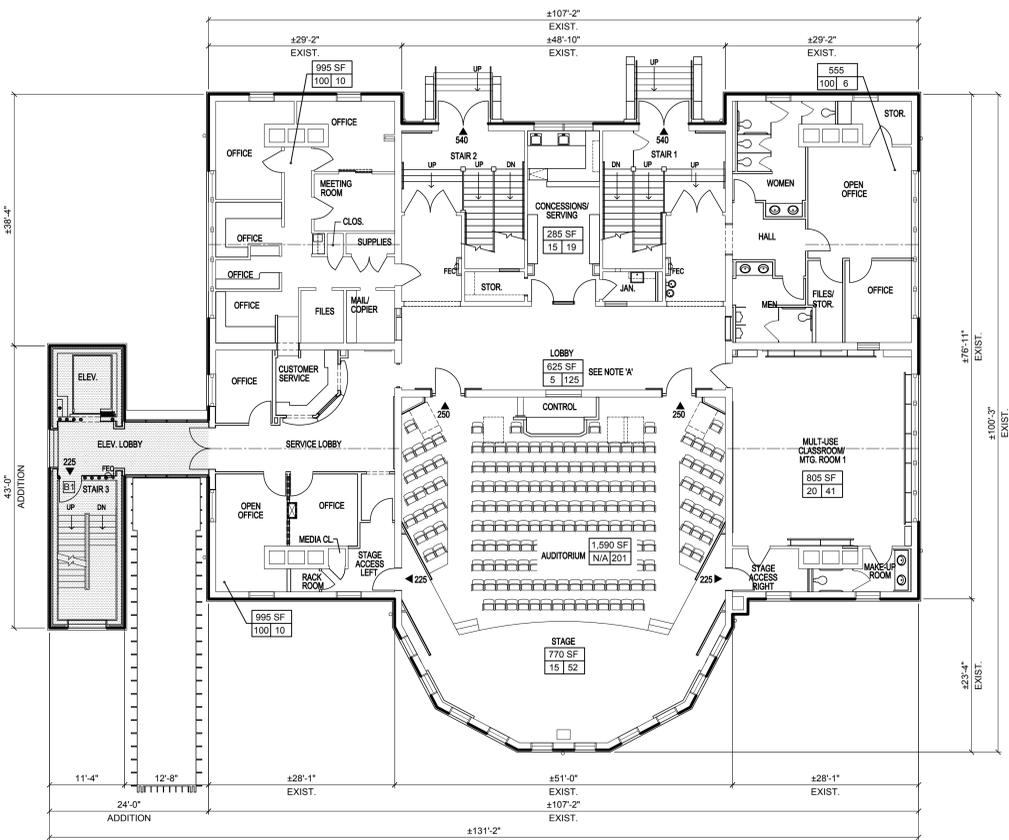
NOTE 'A':
LOBBY OCCUPANCY IS NON-SIMULTANEOUS WITH AUDITORIUM, AND NOT INCLUDED IN OVERALL OCCUPANCY CALCULATIONS, PROVIDED FOR INFORMATION ONLY.

NOTE 'B':
REFER TO SHEET A121 FOR DETERMINATION OF MAXIMUM OCCUPANT LOAD @ AUDITORIUM.

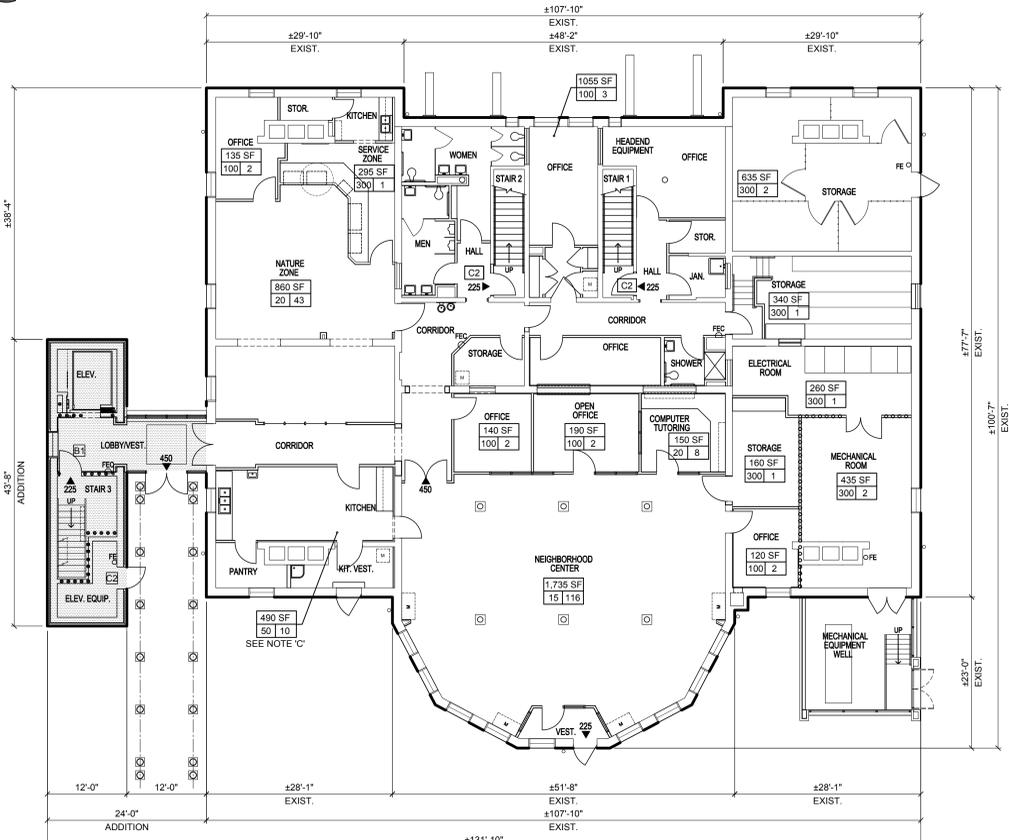
NOTE 'C':
KITCHEN OCCUPANCY BASED ON EDUCATIONAL "VOCATIONAL AREA" OCCUPANT LOAD FACTOR TO ALLOW FOR COOKING CLASSES.

BUILDING SUMMARY

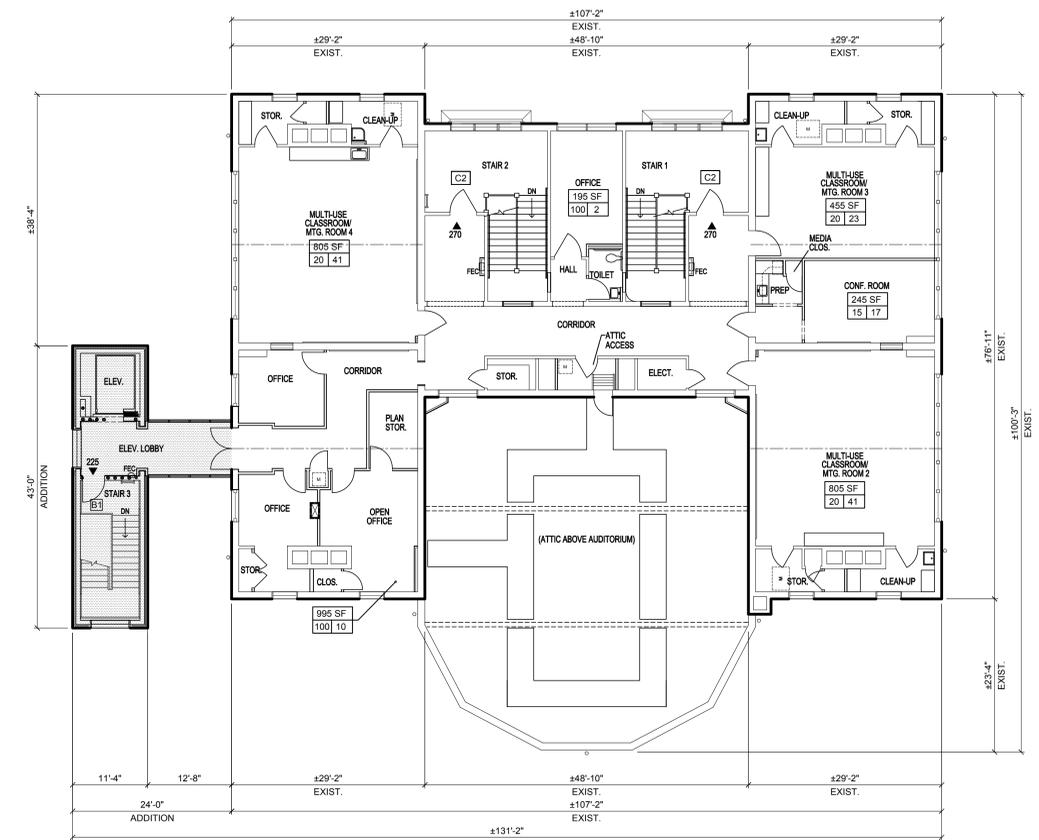
LEVEL	AREA	OCCUPANT LOAD		
		A-1	B	TOTAL
FIRST FLOOR	9,735 SF	116	86	202
SECOND FLOOR	9,550 SF	272	67	339
THIRD FLOOR	7,115 SF	17	117	134
TOTAL	26,400 SF	405	270	675



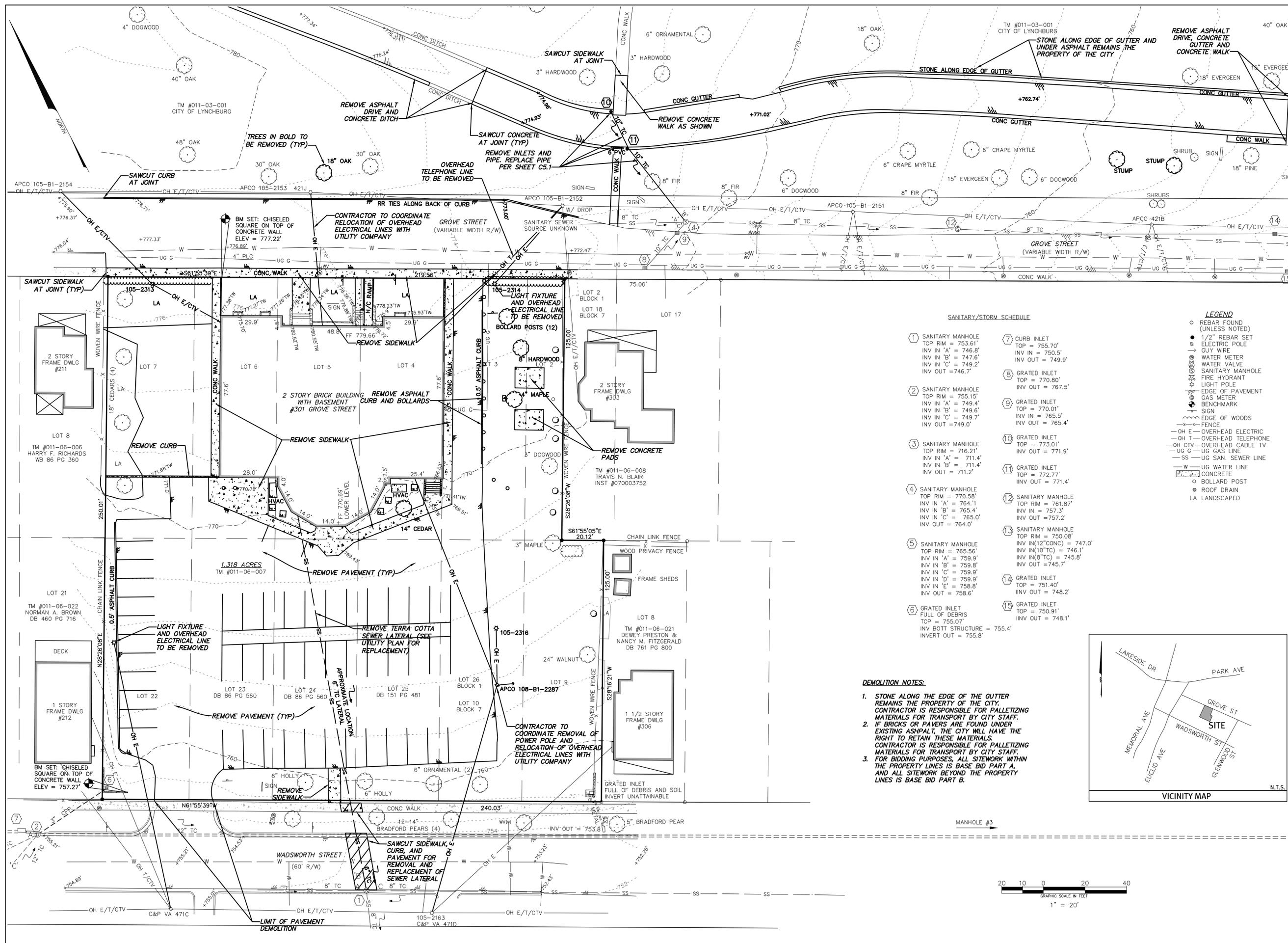
SECOND FLOOR FIRE SAFETY PLAN
3/32" = 1'-0"



FIRST FLOOR FIRE SAFETY PLAN
3/32" = 1'-0"



THIRD FLOOR FIRE SAFETY PLAN
3/32" = 1'-0"



SANITARY/STORM SCHEDULE

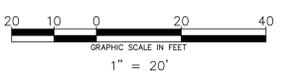
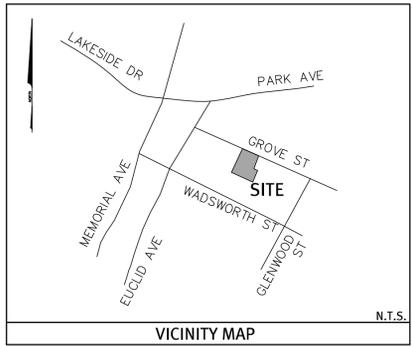
1	SANITARY MANHOLE TOP RIM = 753.61' INV IN 'A' = 746.8' INV IN 'B' = 747.6' INV IN 'C' = 749.2' INV OUT = 746.7'
2	SANITARY MANHOLE TOP RIM = 755.15' INV IN 'A' = 749.4' INV IN 'B' = 749.6' INV IN 'C' = 749.7' INV OUT = 749.0'
3	SANITARY MANHOLE TOP RIM = 776.21' INV IN 'A' = 711.4' INV IN 'B' = 711.4' INV OUT = 711.2'
4	SANITARY MANHOLE TOP RIM = 770.58' INV IN 'A' = 764.1' INV IN 'B' = 765.4' INV IN 'C' = 765.0' INV OUT = 764.0'
5	SANITARY MANHOLE TOP RIM = 765.56' INV IN 'A' = 759.9' INV IN 'B' = 759.8' INV IN 'C' = 759.9' INV IN 'D' = 759.9' INV IN 'E' = 758.8' INV OUT = 758.6'
6	GRATED INLET FULL OF DEBRIS TOP = 755.07' INV BOTT STRUCTURE = 755.4' INVERT OUT = 755.8'
7	CURB INLET TOP = 755.70' INV IN = 750.5' INV OUT = 749.9'
8	GRATED INLET TOP = 770.80' INV OUT = 767.5'
9	GRATED INLET TOP = 770.01' INV IN = 765.5' INV OUT = 765.4'
10	GRATED INLET TOP = 773.01' INV OUT = 771.9'
11	GRATED INLET TOP = 772.77' INV OUT = 771.4'
12	SANITARY MANHOLE TOP RIM = 761.87' INV IN = 757.3' INV OUT = 757.2'
13	SANITARY MANHOLE TOP RIM = 750.08' INV IN(12"CONC) = 747.0' INV IN(10"TC) = 746.1' INV IN(8"TC) = 745.8' INV OUT = 745.7'
14	GRATED INLET TOP = 751.40' INV OUT = 748.2'
15	GRATED INLET TOP = 750.91' INV OUT = 748.1'

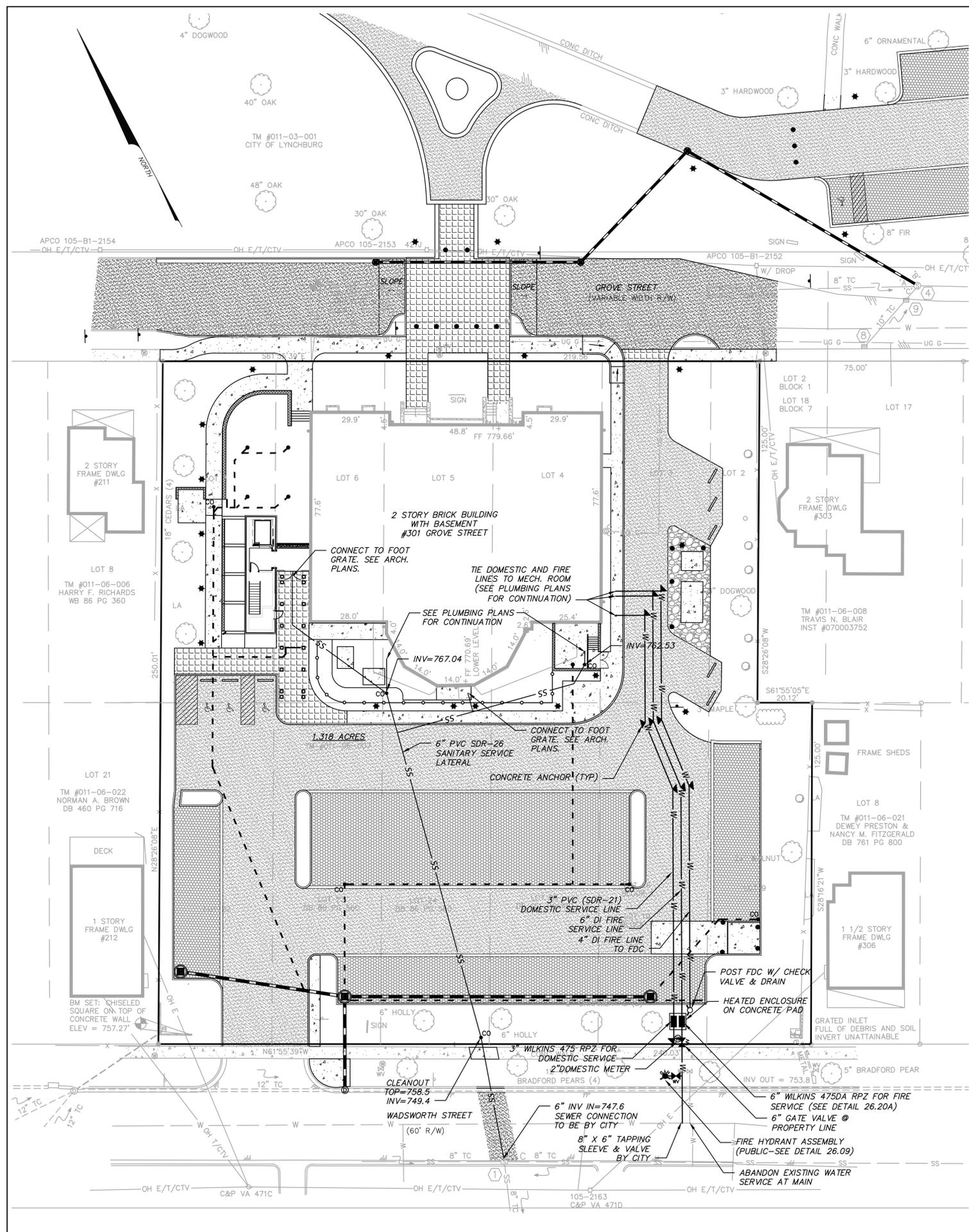
LEGEND

- REBAR FOUND (UNLESS NOTED)
- 1/2" REBAR SET
- ⊕ ELECTRIC POLE
- GUY WIRE
- ⊕ WATER METER
- ⊕ WATER VALVE
- ⊕ SANITARY MANHOLE
- ⊕ FIRE HYDRANT
- ⊕ LIGHT POLE
- ⊕ EDGE OF PAVEMENT
- ⊕ GAS METER
- ⊕ BENCHMARK
- ⊕ SIGN
- ⊕ EDGE OF WOODS
- ⊕ FENCE
- OH E — OVERHEAD ELECTRIC
- OH T — OVERHEAD TELEPHONE
- OH CTV — OVERHEAD CABLE TV
- UG G — UG GAS LINE
- SS — UG SAN. SEWER LINE
- W — UG WATER LINE
- CONCRETE
- BOLLARD POST
- ROOF DRAIN
- LA LANDSCAPED

DEMOLITION NOTES:

1. STONE ALONG THE EDGE OF THE GUTTER REMAINS THE PROPERTY OF THE CITY. CONTRACTOR IS RESPONSIBLE FOR PALLETIZING MATERIALS FOR TRANSPORT BY CITY STAFF.
2. IF BRICKS OR PAVERS ARE FOUND UNDER EXISTING ASPHALT, THE CITY WILL HAVE THE RIGHT TO RETAIN THESE MATERIALS. CONTRACTOR IS RESPONSIBLE FOR PALLETIZING MATERIALS FOR TRANSPORT BY CITY STAFF.
3. FOR BIDDING PURPOSES, ALL SITEWORK WITHIN THE PROPERTY LINES IS BASE BID PART A, AND ALL SITEWORK BEYOND THE PROPERTY LINES IS BASE BID PART B.

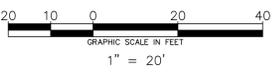




UTILITY NOTES:
 1. RPZ SHALL MEET ASSE 1013 SPECIFICATIONS.

PROPOSED LEGEND

- | | |
|-------------------------|-----------------------------|
| ★ LIGHT POLE | —SS— STORM SEWER LINE |
| ● SANITARY CLEANOUT | —SS— SANITARY SEWER LINE |
| ○ BOLLARD | —W— WATERLINE |
| ⊙ SANITARY MANHOLE | CONCRETE |
| — SIGN | TYPICAL ASPHALT PAVEMENT |
| ⊕ STORM MANHOLE | HEAVY DUTY ASPHALT PAVEMENT |
| ⊖ STORM STRUCTURE LABEL | PERMEABLE CONCRETE PAVERS |
| ⊗ WATER METER | GRAVEL |
| ⊘ WATER VALVE | |
| ▲ TYPE F ANCHOR | |



HANKINS & ANDERSON, INC.

BID SET
 FEBRUARY 13, 2013

DATE:
 REVISIONS:

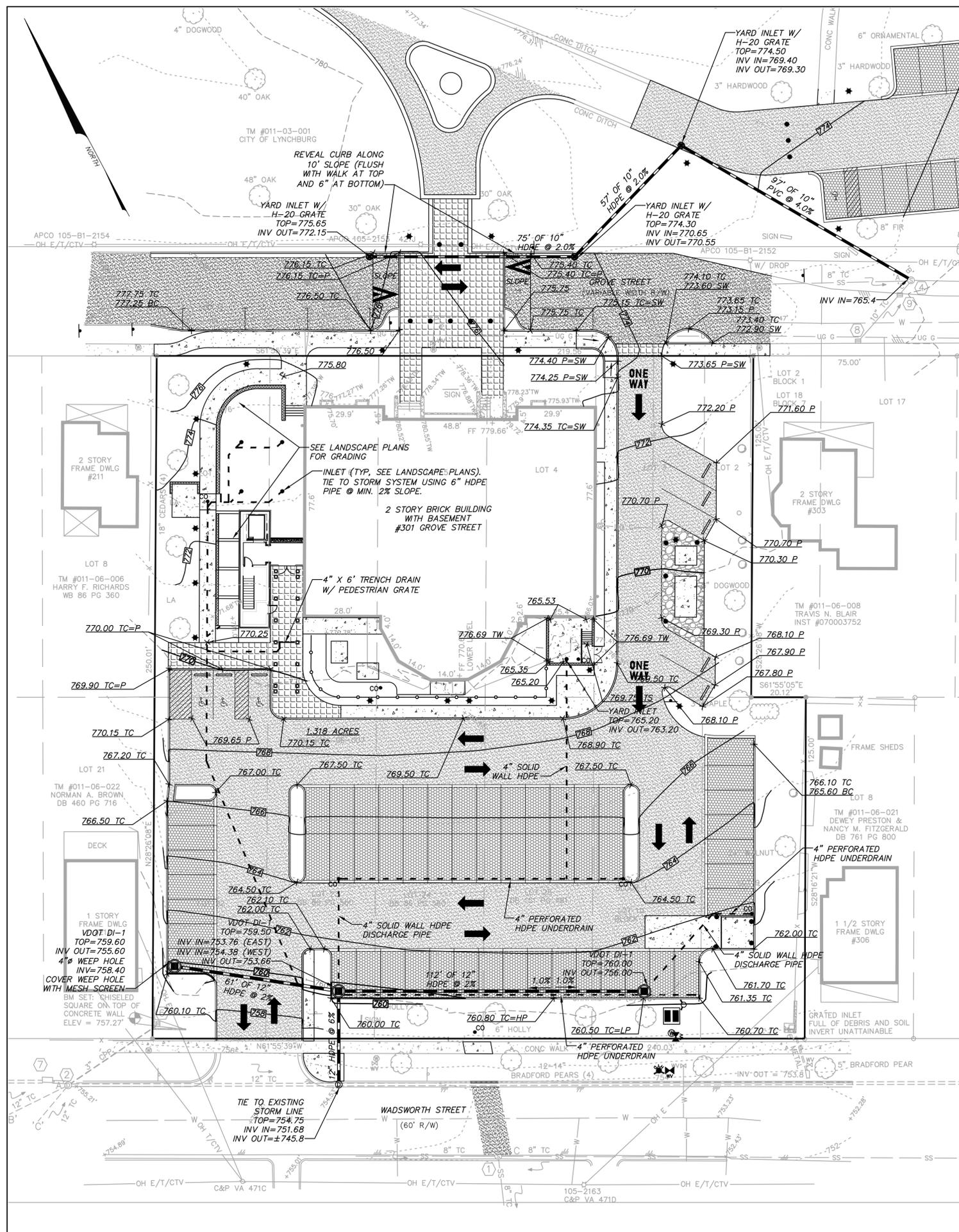
RENOVATION TO MILLER CENTER
 LYNCHBURG
 VIRGINIA
 CITY PROJECT # P0072

CITY OF LYNCHBURG
 DEPARTMENT OF PARKS AND RECREATION

301 GROVE STREET
 LYNCHBURG, VIRGINIA 24501

UTILITY PLAN

C3.0



GRADING NOTES:

1. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PER THE STANDARDS AND SPECIFICATIONS OF THE MOST RECENT VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT. ALL EROSION CONTROL DEVICES SHALL BE CHECKED DAILY TO ENSURE THAT ALL ARE PROPERLY IN PLACE AND FUNCTIONING AS PLANNED. ALL EROSION CONTROL DEVICES WILL BE REPAIRED (CLEANED) AS NECESSARY, AND AFTER EACH RAINFALL PRODUCING RUNOFF AS A MINIMUM.
3. ALL DISTURBED AREAS TO RECEIVE TEMPORARY SEEDING, PERMANENT SEEDING AND MULCH. ALL SLOPES OF 3:1 OR GREATER MUST RECEIVE BLANKET AND MATTING IN ADDITION TO SEEDING AND MULCHING PRACTICES AS STATED IN THE MOST RECENT VERSION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
4. ALL FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR, PLACED IN 8" LOOSE LIFTS.
5. CONTRACTOR IS TO FURNISH THE NAME OF THEIR VIRGINIA CERTIFIED RESPONSIBLE LAND DISTURBER TO THE CITY OF LYNCHBURG PRIOR TO ANY LAND DISTURBANCE.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ADDITIONAL E&S MEASURES OR MAINTENANCE REQUESTS OR REROUTING, OR RELOCATING, E&S MEASURES AS DEEMED NECESSARY BY THE CITY OF LYNCHBURG OR LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
7. ALL FILL AREAS TO BE STRIPPED OF UNSUITABLE MATERIAL BEFORE PLACING AND COMPACTING FILL MATERIAL.
8. CONTRACTOR SHALL BACKFILL TO THE EDGE OF PAVEMENT AND COMPACT. CONTRACTOR SHALL SEED, FERTILIZE AND MULCH IMMEDIATELY UPON COMPLETION OF GRADING OPERATIONS.
9. CONTRACTOR SHALL CONTACT ENGINEER IF ADDITIONAL CONSTRUCTION ENTRANCE MEASURES ARE NEEDED TO PREVENT THE TRACKING OF MUD, DIRT, OR DEBRIS ONTO ANY PAVED SURFACES INSIDE OR OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS.
10. UPON COMMENCEMENT OF DEMOLITION ACTIVITIES THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND SUPPLYING THE NECESSARY SOIL SAMPLES AND RESULTS TO DETERMINE FERTILIZER AND NUTRIENT APPLICATION FOR THE ESTABLISHMENT OF GRASS IN THE SITE.
11. NO IMPACTS TO WETLANDS AND STREAMS ARE BEING PROPOSED. THEREFORE NO STATE OR FEDERAL PERMITS FOR IMPACTS TO WETLANDS AND STREAMS ARE REQUIRED.
12. A SOIL TEST IS REQUIRED, PRIOR TO FINAL SITE STABILIZATION, TO DETERMINE FERTILIZER APPLICATION RATES FOR THE ESTABLISHMENT OF GRASS ON THE SITE.
13. ALL EROSION & SEDIMENT CONTROL MEASURES MUST BE DEWATERED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. ALL TEMPORARY MEASURES MUST BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION OF THE SITE.

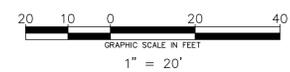
CONTRACTOR SHALL PROVIDE AN APPROVED PLAN ADDENDUM PRIOR TO ISSUANCE OF ANY LAND DISTURBANCE PERMIT, IDENTIFYING THE LOCATION, ADEQUATE STABILIZATION MEASURES AND AN APPROVED PERMIT FOR ANY OFFSITE BORROW/FILL/WASTE AREAS THAT WILL BE USED IN CONJUNCTION WITH THIS PROJECT. APPROXIMATELY 100 CY OF MATERIAL WILL BE GRADED ONSITE TO CONSTRUCT THE PROPOSED FINISH ELEVATIONS. THE ULTIMATE DESTINATION OF ALL DEBRIS FROM DEMOLITION MUST BE IDENTIFIED AT THE PRE-CONSTRUCTION CONFERENCE. THE EARTHWORK VOLUME IS BASED ON A COMPARISON OF THE EXISTING SURFACE AND THE PROPOSED FINISH SURFACE AND DOES NOT INCLUDE OR EXCLUDE VOLUMES FOR ADDITIONAL SUB-BASE FILL OR EXCAVATION. THE CONTRACTOR SHALL PERFORM AN INDEPENDENT EARTHWORK ANALYSIS TO DETERMINE THE VOLUME OF MATERIAL THAT WILL BE MOVED TO CONSTRUCT THE PROPOSED IMPROVEMENTS TO THE DESIGN ELEVATIONS.

ABBREVIATION LEGEND

FF	FINISHED FLOOR	TW	TOP OF WALL
BLDG	BUILDING	BW	BOTTOM OF WALL
EX	EXISTING	EP	EDGE OF PAVEMENT
INV	INVERT	TC	TOP OF CURB
ELEV	ELEVATION	TG	TOP OF GRATE
R	RADIUS	FL	FLOW LINE OF GUTTER
HVY	HEAVY	G	GROUND
LT	LEFT	P	PAVEMENT
RT	RIGHT	W	SIDEWALK
CR	CURB RAMP	TC=MG	TOP OF CURB TO MATCH GRADE
TS	TOP OF STAIRS	FL=MG	FLOW LINE TO MATCH GRADE
BS	BOTTOM OF STAIRS	G=MG	GROUND TO MATCH GRADE
HP	HIGH POINT	W=MG	SIDEWALK TO MATCH GRADE
LP	LOW POINT	P=MG	PAVEMENT TO MATCH GRADE
MG	MATCH GRADE	G=HP	HIGH POINT AT GROUND ELEVATION

PROPOSED LEGEND

★	LIGHT POLE	—SS—	SANITARY SEWER LINE
⊙	SANITARY CLEANOUT	—W—	WATERLINE
⊙	BOLLARD	▨	CONCRETE
⊙	SANITARY MANHOLE	▨	TYPICAL ASPHALT PAVEMENT
⊙	SIGN	▨	HEAVY DUTY ASPHALT PAVEMENT
⊙	STORM MANHOLE	▨	PERMEABLE CONCRETE PAVERS
⊙	STORM STRUCTURE LABEL	▨	GRAVEL
⊙	WATER METER	—2'—	PROPOSED 2' CONTOUR
⊙	WATER VALVE	—10'—	PROPOSED 10' CONTOUR
▲	TYPE F ANCHOR	▨	LIMITS OF CLEARING/CONSTRUCTION



HANKINS & ANDERSON, INC.

BID SET
FEBRUARY 13, 2013

DATE:
REVISIONS:

RENOVATION TO MILLER CENTER
LYNCHBURG
VIRGINIA
CITY PROJECT # P0072

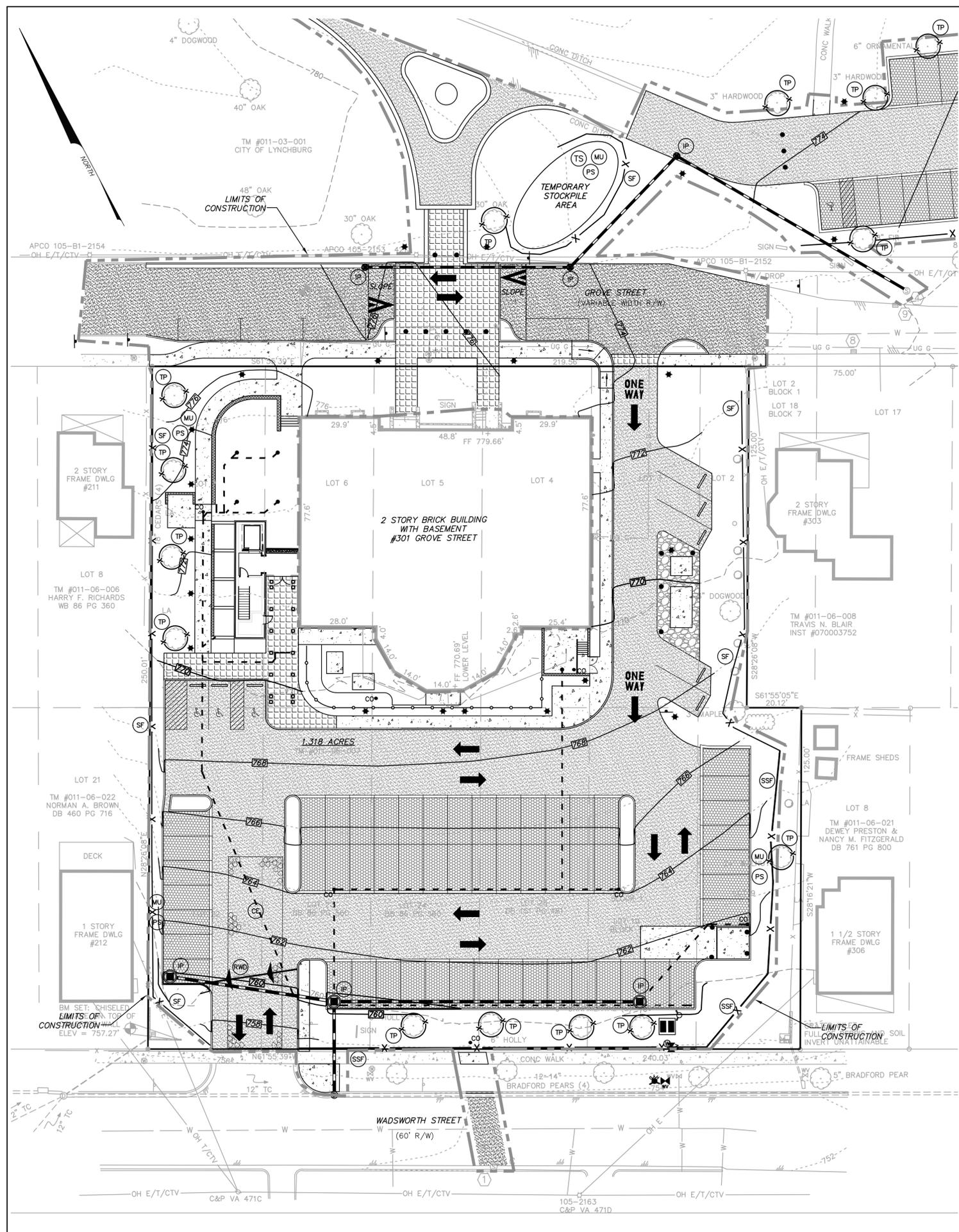
**CITY OF LYNCHBURG
DEPARTMENT OF PARKS AND RECREATION**

301 GROVE STREET
LYNCHBURG, VIRGINIA 24501

GRADING PLAN

C4.0

PROJECT NO. 008261.00.001

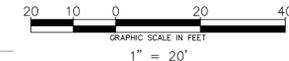


VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES
 * CHART TAKEN FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (JULY 1992)

- (CE) TEMPORARY CONSTRUCTION ENTRANCE
- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (TS) TEMPORARY SEEDING
- (PS) PERMANENT SEEDING
- (MU) MULCH
- (TP) TREE PROTECTION
- (RWD) TEMPORARY RIGHT-OF-WAY DIVERSION
- (SSF) SUPER SILT FENCE

PROPOSED LEGEND

- ★ LIGHT POLE
- SANITARY CLEANOUT
- BOLLARD
- SANITARY MANHOLE
- SIGN
- ⊕ STORM MANHOLE
- Ⓜ STORM STRUCTURE LABEL
- ⊗ WATER METER
- ⊕ WATER VALVE
- ▲ TYPE F ANCHOR
- STORM SEWER LINE
- SS — SANITARY SEWER LINE
- W — WATERLINE
- CONCRETE
- TYPICAL ASPHALT PAVEMENT
- HEAVY DUTY ASPHALT PAVEMENT
- PERMEABLE CONCRETE PAVERS
- GRAVEL
- TEMPORARY CONSTRUCTION ENTRANCE
- 802 PROPOSED 2' CONTOUR
- 810 PROPOSED 10' CONTOUR
- LIMITS OF CLEARING/CONSTRUCTION
- SILT FENCE
- SUPER SILT FENCE



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 LYNCHBURG
 VIRGINIA
 CITY PROJECT # P0072

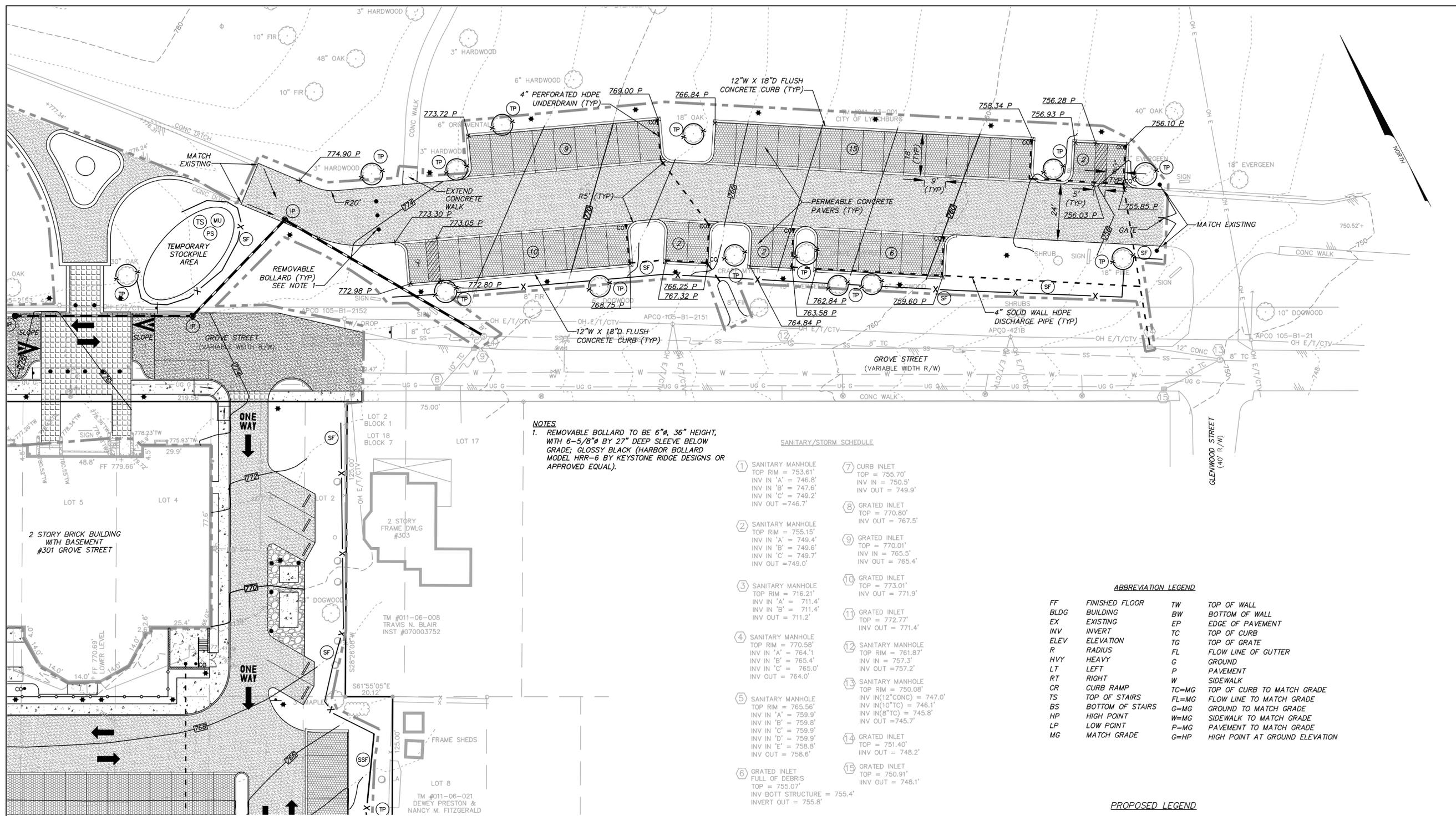
CITY OF LYNCHBURG
 DEPARTMENT OF PARKS AND RECREATION

301 GROVE STREET
 LYNCHBURG, VIRGINIA 24501

EROSION & SEDIMENT CONTROL PLAN

C5.0

PROJECT NO. 008261.00.001



NOTES
 1. REMOVABLE BOLLARD TO BE 6" Ø, 36" HEIGHT, WITH 6-5/8" Ø BY 27" DEEP SLEEVE BELOW GRADE; GLOSSY BLACK (HARBOR BOLLARD MODEL HRR-6 BY KEYSTONE RIDGE DESIGNS OR APPROVED EQUAL).

SANITARY/STORM SCHEDULE

① SANITARY MANHOLE TOP RIM = 753.61' INV IN 'A' = 746.8' INV IN 'B' = 747.6' INV IN 'C' = 749.2' INV OUT = 746.7'	⑦ CURB INLET TOP = 755.70' INV IN = 750.5' INV OUT = 749.9'
② SANITARY MANHOLE TOP RIM = 755.15' INV IN 'A' = 749.4' INV IN 'B' = 749.6' INV IN 'C' = 749.7' INV OUT = 749.0'	⑧ GRATED INLET TOP = 770.80' INV OUT = 767.5'
③ SANITARY MANHOLE TOP RIM = 716.21' INV IN 'A' = 711.4' INV IN 'B' = 711.4' INV OUT = 711.2'	⑨ GRATED INLET TOP = 770.01' INV IN = 765.5' INV OUT = 765.4'
④ SANITARY MANHOLE TOP RIM = 770.58' INV IN 'A' = 764.1' INV IN 'B' = 765.4' INV IN 'C' = 765.0' INV OUT = 764.0'	⑩ GRATED INLET TOP = 773.01' INV OUT = 771.9'
⑤ SANITARY MANHOLE TOP RIM = 765.56' INV IN 'A' = 759.9' INV IN 'B' = 759.8' INV IN 'C' = 759.9' INV IN 'D' = 759.9' INV IN 'E' = 758.8' INV OUT = 758.6'	⑪ GRATED INLET TOP = 772.77' INV OUT = 771.4'
⑥ GRATED INLET FULL OF DEBRIS TOP = 755.07' INV BOTT STRUCTURE = 755.4' INVERT OUT = 755.8'	⑫ SANITARY MANHOLE TOP RIM = 761.87' INV IN = 757.3' INV OUT = 757.2'
	⑬ SANITARY MANHOLE TOP RIM = 750.08' INV IN(12"CONC) = 747.0' INV IN(10"TC) = 746.1' INV IN(8"TC) = 745.8' INV OUT = 745.7'
	⑭ GRATED INLET TOP = 751.40' INV OUT = 748.2'
	⑮ GRATED INLET TOP = 750.91' INV OUT = 748.1'

ABBREVIATION LEGEND

FF	FINISHED FLOOR	TW	TOP OF WALL
BLDG	BUILDING	BW	BOTTOM OF WALL
EX	EXISTING	EP	EDGE OF PAVEMENT
INV	INVERT	TC	TOP OF CURB
ELEV	ELEVATION	TG	TOP OF GRATE
R	RADIUS	FL	FLOW LINE OF GUTTER
HVY	HEAVY	G	GROUND
LT	LEFT	P	PAVEMENT
RT	RIGHT	W	SIDEWALK
CR	CURB RAMP	TC=MG	TOP OF CURB TO MATCH GRADE
TS	TOP OF STAIRS	FL=MG	FLOW LINE TO MATCH GRADE
BS	BOTTOM OF STAIRS	G=MG	GROUND TO MATCH GRADE
HP	HIGH POINT	W=MG	SIDEWALK TO MATCH GRADE
LP	LOW POINT	P=MG	PAVEMENT TO MATCH GRADE
MG	MATCH GRADE	G=HP	HIGH POINT AT GROUND ELEVATION

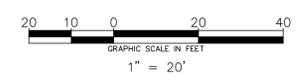
PROPOSED LEGEND

★	LIGHT POLE	—SS—	STORM SEWER LINE
CO	SANITARY CLEANOUT	—W—	SANITARY SEWER LINE
●	BOLLARD	—	WATERLINE
⊙	SANITARY MANHOLE	CONCRETE	CONCRETE
—	SIGN	TYPICAL ASPHALT PAVEMENT	TYPICAL ASPHALT PAVEMENT
⊕	STORM MANHOLE	HEAVY DUTY ASPHALT PAVEMENT	HEAVY DUTY ASPHALT PAVEMENT
⊕	STORM STRUCTURE LABEL	PERMEABLE CONCRETE PAVERS	PERMEABLE CONCRETE PAVERS
⊕	WATER METER	GRAVEL	GRAVEL
⊕	WATER VALVE	TEMPORARY CONSTRUCTION ENTRANCE	TEMPORARY CONSTRUCTION ENTRANCE
▲	TYPE F ANCHOR	PROPOSED 2' CONTOUR	PROPOSED 2' CONTOUR
		PROPOSED 10' CONTOUR	PROPOSED 10' CONTOUR
		LIMITS OF CLEARING/CONSTRUCTION	LIMITS OF CLEARING/CONSTRUCTION
		SILT FENCE	SILT FENCE

PARKING CALCULATIONS:
 TOTAL PROPOSED AVIARY PARKING: 46 (INCL. 2 HC SPACES)

VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES
 * CHART TAKEN FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (JULY 1992)

- ⊕ TEMPORARY CONSTRUCTION ENTRANCE
- ⊕ SILT FENCE
- ⊕ INLET PROTECTION
- ⊕ PERMANENT SEEDING
- ⊕ MULCH
- ⊕ TREE PROTECTION



HANKINS & ANDERSON, INC.

BID SET
 FEBRUARY 13, 2013

DATE:
 REVISIONS:

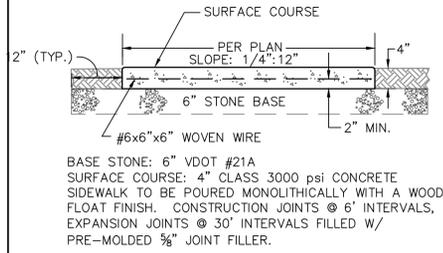
RENOVATION TO MILLER CENTER
 LYNCHBURG
 VIRGINIA
 CITY PROJECT # P0072

CITY OF LYNCHBURG
 DEPARTMENT OF PARKS AND RECREATION

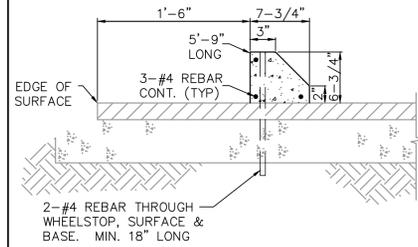
301 GROVE STREET
 LYNCHBURG, VIRGINIA 24501

AVIARY PARKING PLAN

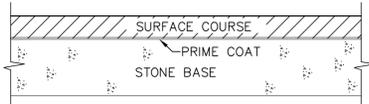
C5.1



TYP. CONC. WALK SECTION
N.T.S.



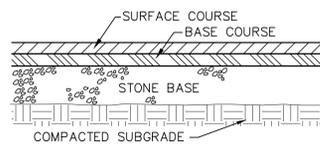
PRECAST CONCRETE WHEELSTOP
N.T.S.



NOTE: APPLICATION OF TACK AT JOINTS, ADJACENT TO CURBS, GUTTERS OR OTHER APPURTENANCES SHALL BE APPLIED BY HAND WAND AT THE RATE OF 0.2 GAL./SQ.YD.

NOTE: ACTUAL PAVING SECTIONS TO BE BASED ON CBR RESULTS.

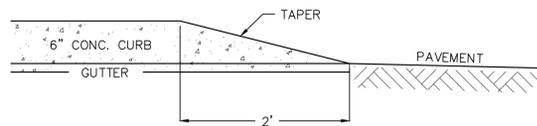
TYPICAL PAVING SECTION
N.T.S.



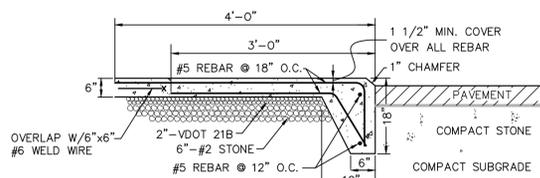
NOTE: APPLICATION OF TACK AT JOINTS, ADJACENT TO CURBS, GUTTERS OR OTHER APPURTENANCES SHALL BE APPLIED BY HAND WAND AT THE RATE OF 0.2 GAL./SQ.YD.

NOTE: ACTUAL PAVING SECTIONS TO BE BASED ON CBR RESULTS.

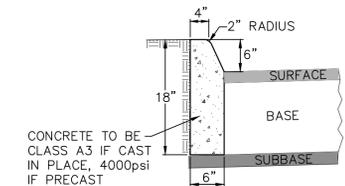
HEAVY DUTY PAVEMENT SECTION
N.T.S.



TYPICAL 6" CONC. CURB TAPER
N.T.S.

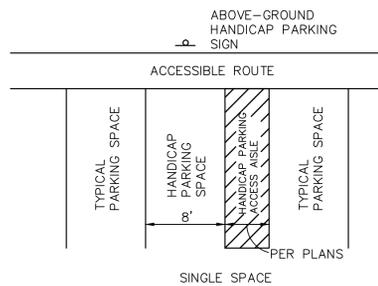


DUMPSTER PAD TURNDOWN DETAIL
(TRUCK APPROACH SIDE ONLY)
N.T.S.



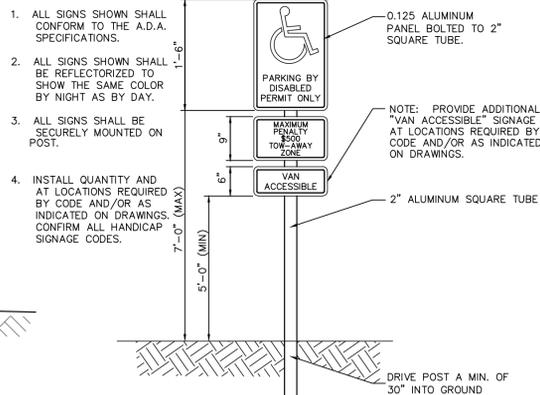
6"x 18" CONCRETE CURB SHALL BE CONSTRUCTED OF ONE COURSE CLASS "A3" CONCRETE (AE) CONFORMING TO THE ABOVE SECTION. UPON REMOVAL OF FORMS, ALL HONEYCOMB SHALL BE FILLED AND FRONT FACE OF CURB RUBBED TO A SMOOTH FINISH TO A DEPTH OF 8" FROM TOP. EXPANSION JOINTS SHALL BE PLACED AT 90' INTERVALS. THE DEPTH OF CURB MAY BE REDUCED OR INCREASED AS MUCH AS 3" (15"-21" DEPTH) IN ORDER THAT THE BOTTOM OF CURB WILL COINCIDE WITH THE TOP OF A COURSE OF PAVEMENT SUBSTRUCTURE, OTHERWISE THE DEPTH IS TO BE 18" AS SHOWN.

STANDARD 6" CURB
N.T.S.

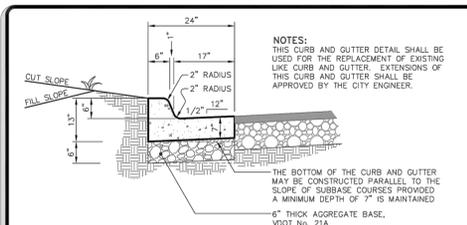


HANDICAP PARKING DETAIL
N.T.S.

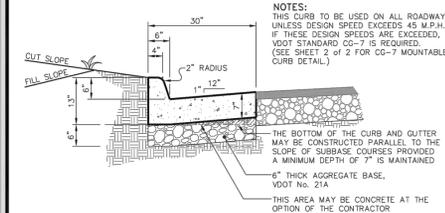
- NOTES:**
- TWO ADJACENT HANDICAP SPACES MAY SHARE THE SAME PARKING ACCESS AISLE.
 - HANDICAP PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 2% IN ANY DIRECTION.
 - 1 OUT OF EVERY 6 HANDICAP SPACES, BUT NOT LESS THAN 1, SHALL BE VAN ACCESSIBLE AND SHALL HAVE PROPER SIGNAGE NOTING "VAN ACCESSIBLE".
 - HANDICAP AND VAN ACCESSIBLE PARKING SPACES SHALL HAVE PROPER SIGNAGE AS PER LOCAL CODE AND A.D.A. REQUIREMENTS.
 - HANDICAP SPACES SHALL COMPLY WITH LOCAL CODES AND A.D.A. REQUIREMENTS.



HANDICAP PARKING SIGN
N.T.S.



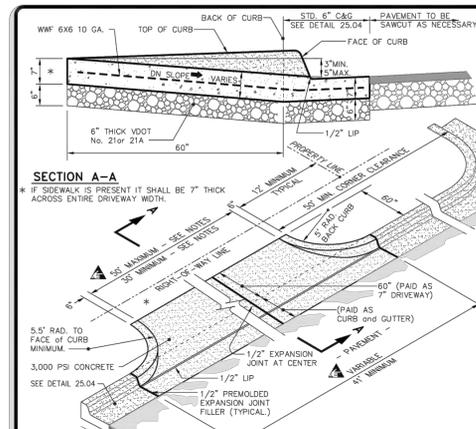
25.04A - STANDARD CITY COMBINED 6" CURB & GUTTER



25.04B - STANDARD VDOT COMBINATION 6" CURB & GUTTER (CG-6)*

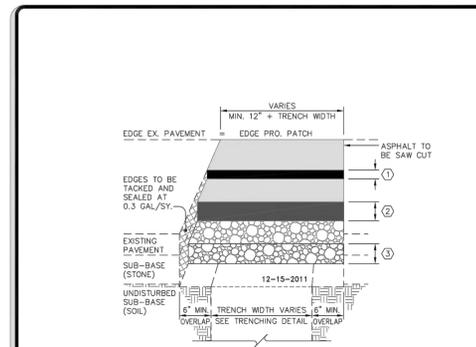
- NOTES:**
- SCORE CURB / VALLEY GUTTER AT 10' O.C.
 - PROVIDE 1/2" EXPANSION JOINTS AT 90' O.C.
 - CONCRETE TO BE 3000 P.S.I. @ 28 DAYS, AIR ENTRAINED.
 - THESE NOTES APPLY TO SHEETS 1 THRU 3 OF THIS DETAIL.

THE CITY OF LYNCHBURG
STD. CURB & GUTTER & VALLEY GUTTER DETAIL
SCALE: NOT TO SCALE
SHEET # 25.04
REVISION DATE: 12-15-2011
SHEET 1 OF 3



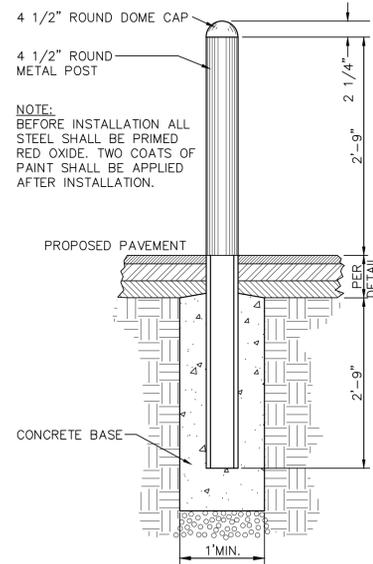
- NOTES:**
- USE OF GUTTERPAN ACROSS ENTRANCE MAY BE WAIVED BY APPROVAL OF CITY ENGINEER.
 - ENTRANCE WIDTH AND RADIUS SHALL BE SIZED TO ACCOMMODATE TURNING RADIUS OF PROPOSED TRUCKS TO/FROM SITE DEVELOPMENT.
 - VDOT STANDARDS MAY BE SUBSTITUTED IF APPROVED BY CITY ENGINEER.
 - GRAVEL DRIVEWAYS ON COLLECTOR AND ARTERIAL STREETS SHALL BE PAVED A MIN. OF 10 FEET FROM EDGE OF CURB OR TO THE RIGHT-OF-WAY LINE, WHICHEVER IS GREATER.
 - FOR ONE-WAY DRIVEWAY, THE WIDTH IS 15' MINIMUM AND 24' MAXIMUM.
 - ENTRANCE/EXIT SHALL BE MARKED ACCORDINGLY BY SIGN OR PAVEMENT ARROW.
 - ENTIRE ENTRANCE INCLUDING GUTTER AND APRON SHALL BE POURED MONOLITHICALLY.
 - WIDTH OF CURB & GUTTER SHALL MATCH WIDTH OF EXISTING CURB & GUTTER.
 - DRIVEWAY ENTRANCES TO BE APPROVED BY CITY ENGINEER PRIOR TO PLACEMENT OF CONC.

THE CITY OF LYNCHBURG
COMMERCIAL DRIVEWAY ENTRANCE
SCALE: NOT TO SCALE
SHEET # 25.12
REVISION DATE: 12-15-2011
SHEET 1 OF 1

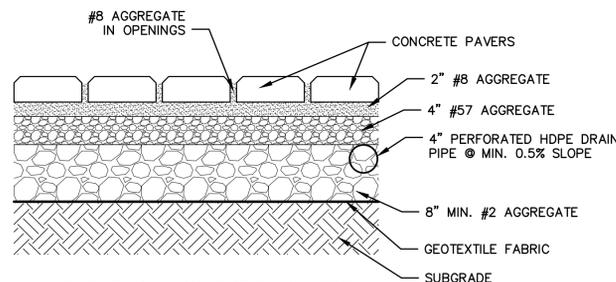


TYPE STREET TYPE PATCH	ARTERIAL and INDUSTRIAL TYPE A	COLLECTOR TYPE B	RESIDENTIAL TYPE C
①	2" SM-12.5D	2" SM-12.5D	2" SM-12.5A
②	8" BM25	6" BM25	4" BM25
③	7" VDOT NO.21A	4" VDOT NO.21A	4" VDOT NO.21A
PATCH DEPTH	TOTAL = 17"	TOTAL = 12"	TOTAL = 10"

THE CITY OF LYNCHBURG
TRENCH PATCH ASPHALT STREETS - TYPE A,B,& C
SCALE: NOT TO SCALE
SHEET # 25.18
REVISION DATE: 12-15-2011
SHEET 1 OF 1

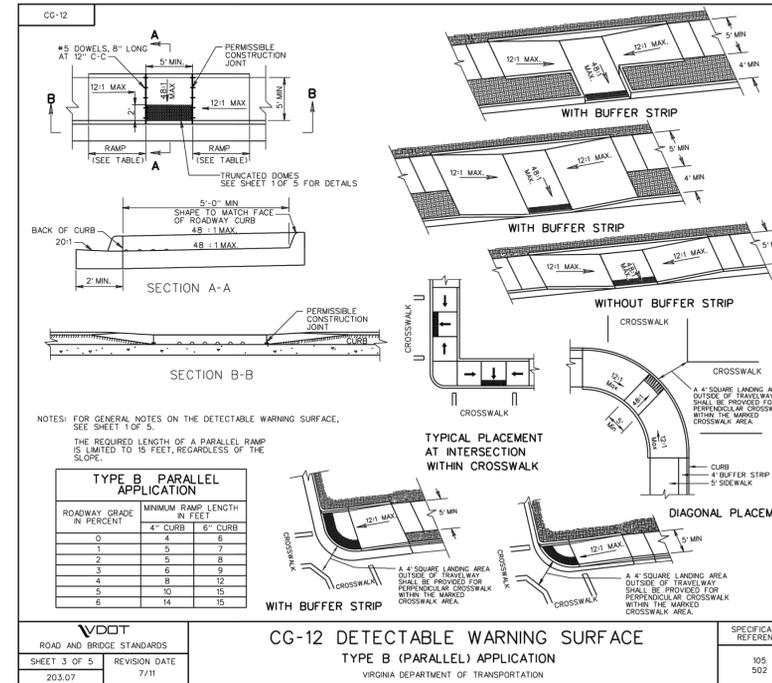


PERMANENT STEEL BOLLARD DETAIL
N.T.S.

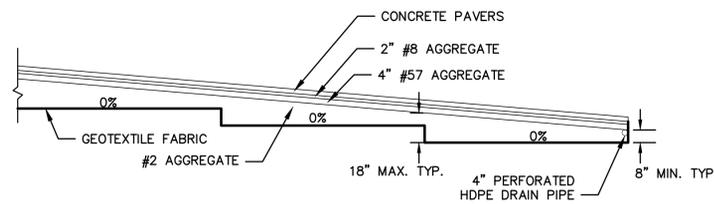


PERMEABLE CONCRETE PAVERS TYPICAL SECTION
N.T.S.

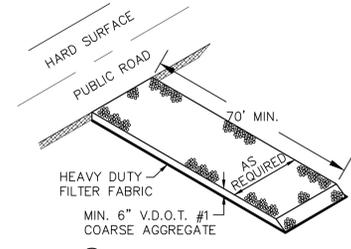
GEOTEXTILE SPECIFICATION
USE A NEEDLED, NON-WOVEN, POLYPROPYLENE GEOTEXTILE WITH GRAB TENSILE STRENGTH EQUAL TO OR GREATER THAN 120 LBS (ASTM D4632), WITH A MULLEN BURST STRENGTH EQUAL TO OR GREATER THAN 225 LBS./SQ. IN. (ASTM D3786), WITH A FLOW RATE GREATER THAN 125 GPM/SQ. FT. (ASTM D4491), AND AN APPARENT PORE SIZE (AOS) EQUIVALENT TO A US #70 OR #80 SIEVE (ASTM D4751). THE GEOTEXTILE AOS SELECTION IS BASED ON THE PERCENT PASSING THE NO. 200 SIEVE IN "A" SOIL SUBGRADE, USING FHWA OR AASHTO SELECTION CRITERIA.



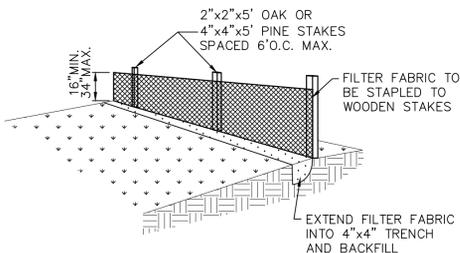
CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION
V.DOT ROAD AND BRIDGE STANDARDS SHEET 3 OF 5 REVISION DATE 203.07 7/11
SPECIFICATION REFERENCE 105 502



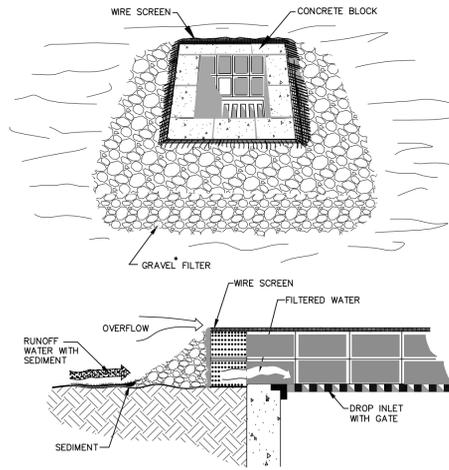
PERMEABLE CONCRETE PAVERS PROFILE
N.T.S.



(CE) TEMPORARY CONSTRUCTION ENTRANCE
N.T.S.



(SF) SILT FENCE
(WITHOUT WIRE SUPPORT)
N.T.S.



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

PLATE: 3.07-3
SOURCE: VA. DSWC
* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

(IP) BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER
N.T.S.

EROSION AND SEDIMENT CONTROL DEVICES:

PERIMETER EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITY. AS CONSTRUCTION PROCEEDS, ALL ADDITIONAL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS SOON AS POSSIBLE. EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN ARE A MINIMUM AND THE PROJECT CONDITION MAY DICTATE ADDITIONAL CONTROL. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PER THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

EROSION AND SEDIMENT CONTROL MAINTENANCE:

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CHECKED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL TO INSURE THAT ALL DEVICES ARE IN PLACE AND FUNCTIONING AS REQUIRED. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED PER THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. IN GENERAL, IF THE SILT BUILT UP BEHIND A BARRIER BECOMES AS DEEP AS 9 INCHES, THE SILT IS TO BE REMOVED AND THE BARRIER REPAIRED OR REPLACED. AFTER COMPLETION OF THE PROJECT, AND PERMANENT SEEDING HAS BEEN ESTABLISHED, EROSION CONTROL DEVICES AND ANY SILT BUILT UP SHALL BE REMOVED. DISTURBED AREAS DUE TO THIS CLEANUP OPERATION SHALL BE REPAIRED, RESEEDED AND REMULCHED.

SEEDING SPECIFICATIONS:

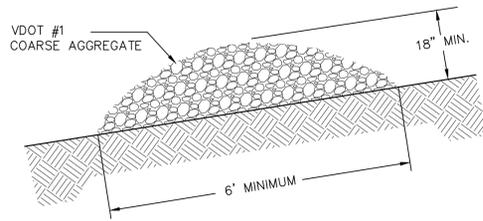
(PS) PERMANENT SEEDING-		
SEASONAL SPECIFICATION - PER ACRE		
03/01 THRU 05/15	128 LBS. KENTUCKY 31 FESCUE 2 LBS. RED TOP GRASS 20 LBS. ANNUAL RYE	
05/16 THRU 08/15	128 LBS. KENTUCKY 31 FESCUE 2 LBS. RED TOP GRASS 20 LBS. FOXTAIL MILLET	
08/16 THRU 10/31	128 LBS. KENTUCKY 31 FESCUE 2 LBS. RED TOP GRASS 20 LBS. ANNUAL RYE	
11/01 THRU 02/28	128 LBS. KENTUCKY 31 FESCUE 2 LBS. RED TOP GRASS 20 LBS. WINTER RYE	
FERTILIZER - ALL SEASONS - 1000 LBS. 10-20-10/ACRE		
LIME - ALL SEASONS - 2 TONS/ACRE		

- (MU) * A MULCH COVER IS REQUIRED ON EVERY SEEDING**
- * STRAW AT 80 BALES PER ACRE OR AN APPROVED MANUFACTURED MULCH/STABILIZATION MATERIAL**

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.

TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

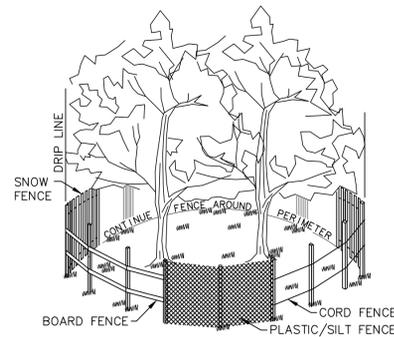
FIBER MULCH DOES NOT PROVIDE SUFFICIENT PROTECTION TO HIGHLY ERODIBLE SOILS AND WILL NOT BE CONSIDERED ADEQUATE MULCH WHEN USED DURING THE DRY SUMMER MONTHS OR WHEN USED FOR LATE FALL MULCH COVER. USE STRAW MULCH DURING THESE PERIODS.



TYP. GRAVEL STRUCTURE

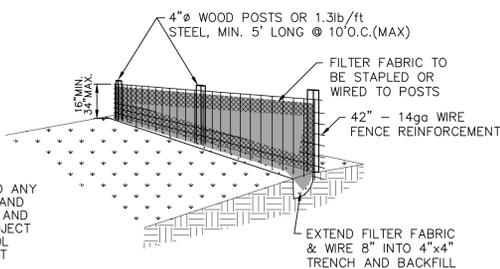
Plate 3.11-1
Source: Va. SWCC

TEMPORARY RIGHT-OF-WAY DIVERSIONS
N.T.S.



METHODS OF TREE FENCING

SOURCE: VA. DSWC
PLATE 3.38-2
TREE PROTECTION (TP)
N.T.S.



SUPER SILT FENCE (SSF)
(WITH WIRE SUPPORT)
N.T.S.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION
THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A BUILDING ADDITION AND ASSOCIATED GRADING, WALKWAYS, PARKING, AND UTILITIES FOR THE EXISTING MILLER CENTER. A TOTAL OF 1.9 ACRES WILL BE DISTURBED AS A RESULT OF CONSTRUCTION ACTIVITIES, WHICH WILL RESULT IN A DECREASE OF 0.06 ACRES OF IMPERVIOUS SURFACE.

EXISTING SITE CONDITIONS
THIS SITE IS OCCUPIED BY AN EXISTING BUILDING, PAVING, WALKS, AND UTILITY PADS. SITE DRAINAGE FLOWS GENERALLY TO THE SOUTH, WHERE IT DISCHARGES TO WADSWORTH STREET.

ADJACENT PROPERTY
THIS SITE IS BORDERED BY GROVE STREET TO THE NORTH, WADSWORTH STREET TO THE SOUTH, AND RESIDENTIAL AREAS TO THE EAST AND WEST.

CRITICAL AREAS
NO CRITICAL AREAS HAVE BEEN IDENTIFIED FOR THIS SITE.

OFFSITE AREAS
ALL GRADING SHALL OCCUR ON SITE. ANY ADDITIONAL BORROW OR WASTED SOIL FROM THE SITE WILL BE EITHER STOCKPILED ON SITE, OR REMOVED TO A LOCATION CHOSEN BY THE CONTRACTOR AT A LATER DATE. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT A SITE PLAN IS SUBMITTED FOR APPROVAL, FOR ANY BORROW OR FILL AREAS OFF SITE, OR AN AMENDED PLAN IS FILED FOR ANY STOCKPILE AREAS ON SITE.

SOILS
THE SOIL SURVEY MAP FOR CAMPBELL COUNTY AND THE CITY OF LYNCHBURG, VIRGINIA, VERSION 7, DATED AUGUST 9, 2010 INDICATES THAT THIS SITE CONSISTS OF THE FOLLOWING SOIL TYPE: URBAN LAND AND GEORGEVILLE LOAM (HYD. GROUP B; K=0.43).

STORMWATER
PROPOSED DEVELOPMENT WILL RESULT IN A DECREASE IN IMPERVIOUS AREA, WHICH WILL RESULT IN A DECREASE IN POST-DEVELOPED RUNOFF. STORMWATER QUANTITY AND QUALITY TREATMENT FOR THIS SITE WILL BE PROVIDED BY PROPOSED PERMEABLE CONCRETE PAVERS.

EROSION AND SEDIMENT CONTROL
3.02 CONSTRUCTION ENTRANCE (CE) - ONE CONSTRUCTION ENTRANCE IS PROPOSED AT THE ENTRANCE TO THE SITE, AS SHOWN ON PLANS. WHERE THE ENTRANCE IS PROPOSED IN PAVED AREAS CONTRACTOR SHALL REMOVE ALL MUD, DIRT, AND DEBRIS PRIOR TO ENTERING THE PUBLIC RIGHT OF WAY. CONTRACTOR SHALL INSTALL ADDITIONAL STONE STABILIZATION AS NECESSARY TO PREVENT TRACKING ONTO THE EXISTING ROADWAY WITHIN THE LIMITS OF CONSTRUCTION.

3.05 SILT FENCE (SF) - A TEMPORARY SEDIMENT BARRIER CONSTRUCTED OF POSTS PLACED ACROSS OR AT THE TOE OF A SLOPE OR IN A MINOR DRAINAGE WAY TO INTERCEPT AND DETAIN SEDIMENT AND DECREASE FLOW VELOCITIES FROM DRAINAGE AREAS OF LIMITED SIZE.

3.07 INLET PROTECTION (IP) - STORM DRAIN INLET PROTECTION SHALL BE PLACED AT THE INLET OF ALL CURB AND DROP INLETS TO FILTER SEDIMENT-LADEN RUNOFF.

3.11 TEMPORARY RIGHT-OF-WAY DIVERSION (RWD) - A RIDGE OF COMPACTED GRAVEL CONSTRUCTED ACROSS A DISTURBED RIGHT OF WAY TO DIVERT SEDIMENT LADEN RUNOFF TO A SEDIMENT TRAPPING MEASURE.

3.32 PERMANENT SEEDING (PS) - ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER BY PLANTING SEED ON ROUGH-GRADED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A YEAR OR MORE OR WHERE PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED ON FINE-GRADED AREAS.

3.35 MULCHING (MU) - APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO DISTURBED SURFACES TO PREVENT EROSION AND REDUCE OVERLAND FLOW VELOCITIES. FOSTERS PLANT GROWTH BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT OR COLD.

3.38 TREE PROTECTION (TP) - PROTECTING EXISTING TREES FROM MECHANICAL AND OTHER INJURIES DURING LAND-DISTURBING ACTIVITIES.

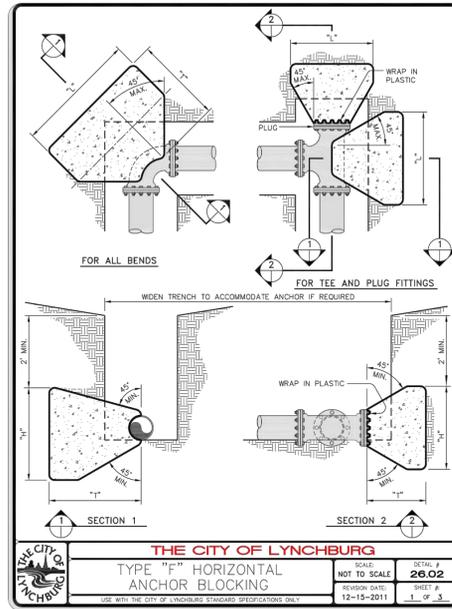
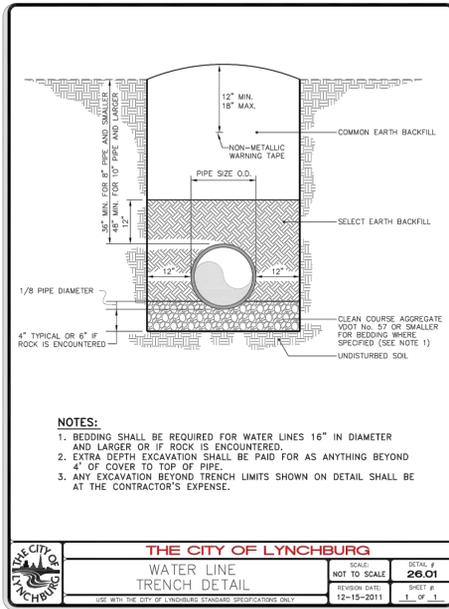
VEGETATIVE MEASURES
TEMPORARY SEEDING/PERMANENT STABILIZATION: SEEDING MEASURES SHALL BE TAKEN ON DISTURBED SOIL AT CUT/FILL SLOPES, SIDES OF SEDIMENT BASINS, DITCH LINES, OR AREAS OUTSIDE OF ON-GOING CONSTRUCTION PRACTICES WITHIN SEVEN (7) DAYS OF COMPLETED GRADING. ALL AREAS DISTURBED BY CONSTRUCTION WILL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINAL GRADING. UNLESS OTHERWISE INDICATED, ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

MANAGEMENT STRATEGIES
- EROSION AND SEDIMENT CONTROL SHOULD BE DISCUSSED BETWEEN THE GRADING CONTRACTOR AND THE OWNER PRIOR TO ANY EXCAVATION SO THAT LIMITS OF CONSTRUCTION AND EROSION CONTROL METHODS ARE CLEARLY UNDERSTOOD BY BOTH PARTIES.
- CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- THERE IS TO BE NO TRACKING OF MUD OR DIRT BY CONSTRUCTION EQUIPMENT ONTO ANY PAVED DRIVES OR ROADS.
- SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDING AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.
- SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
- AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY E&S CONTROLS WILL BE CLEANED UP AND REMOVED.

PERMANENT STABILIZATION
ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

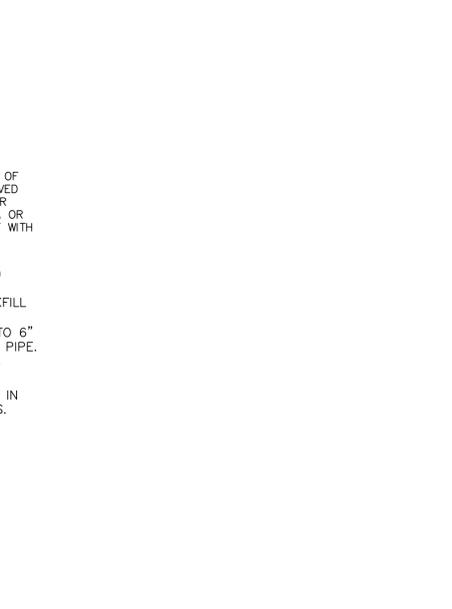
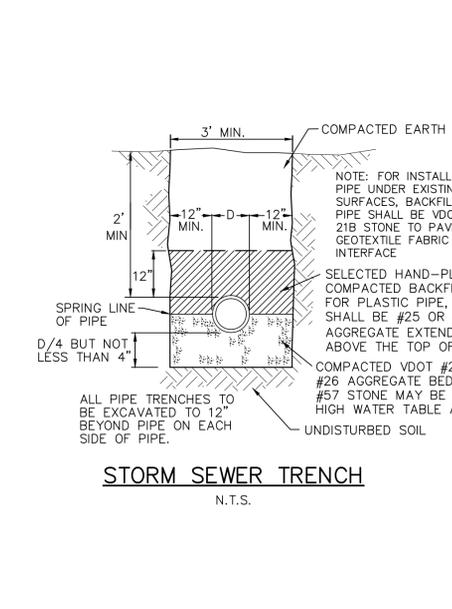
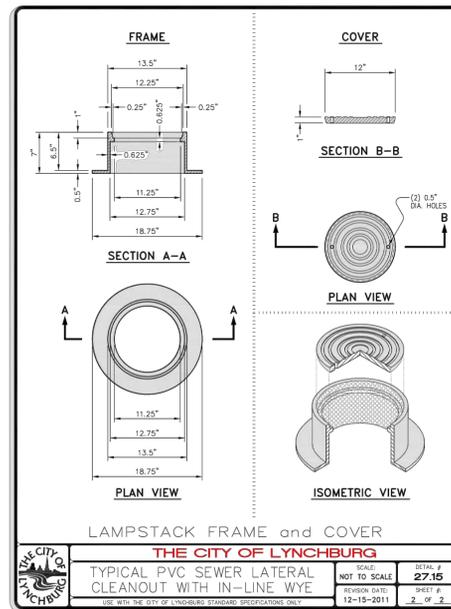
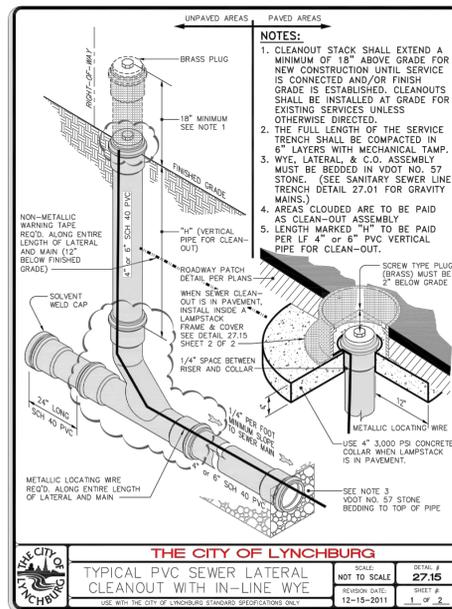
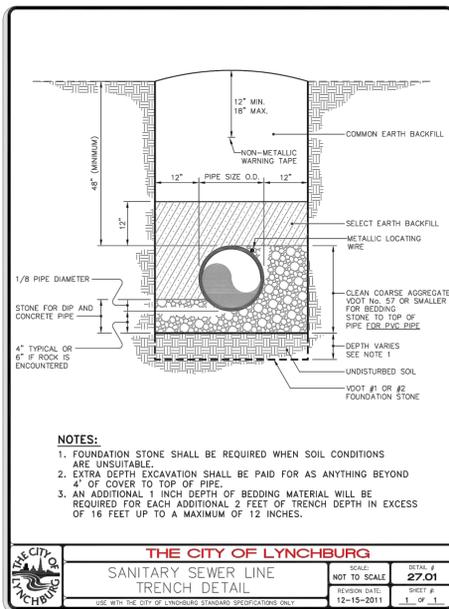
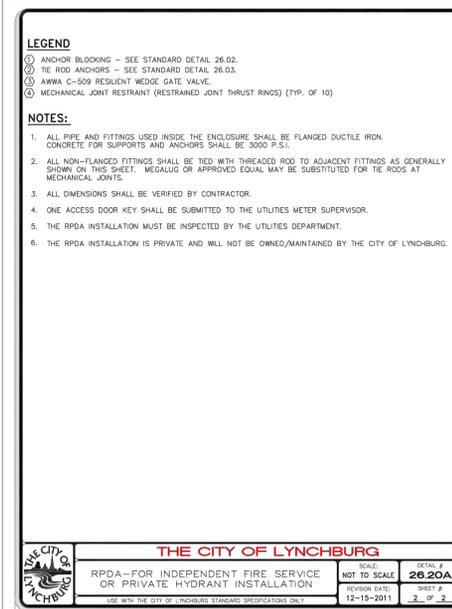
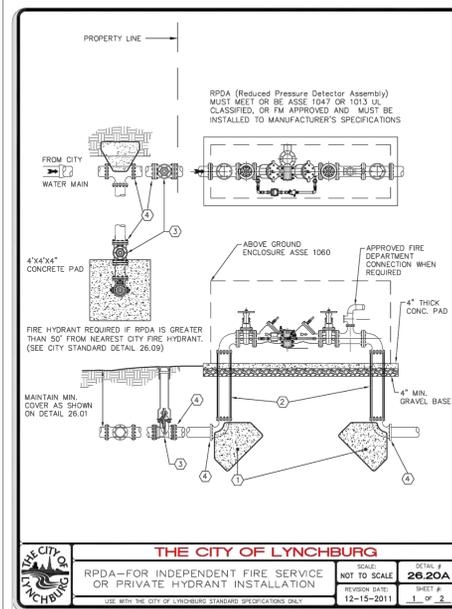
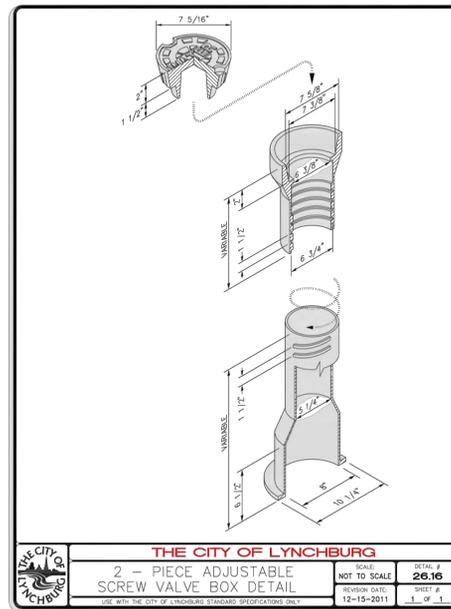
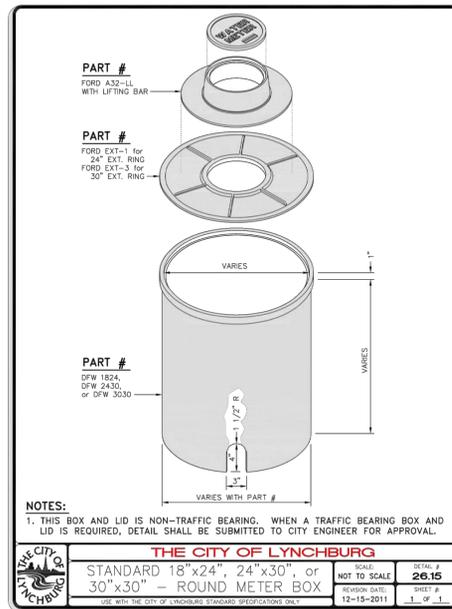
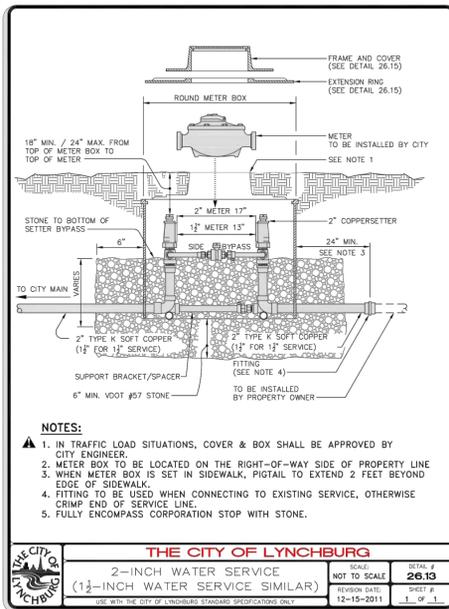
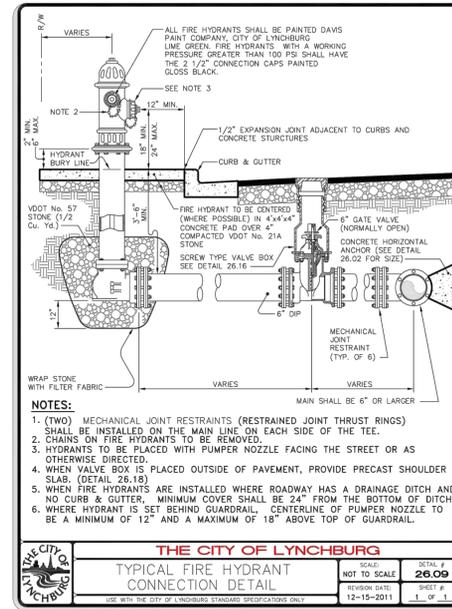
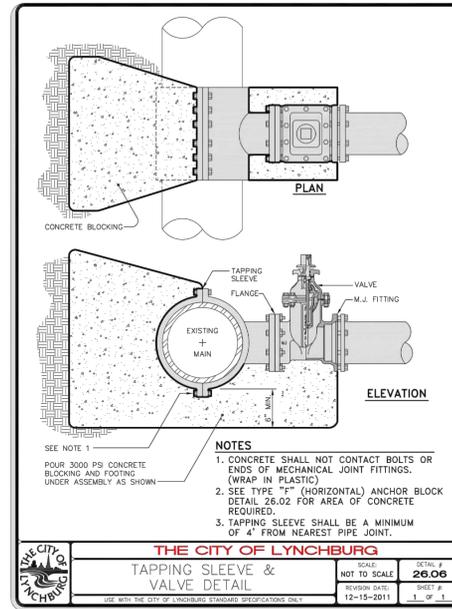
MAINTENANCE
THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES. THESE SHALL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL; ANY DEFICIENCIES SHALL BE REPAIRED IMMEDIATELY IN ACCORDANCE WITH THE LATEST EDITION OF THE VESCH OR AS DEEMED NECESSARY BY THE LOCAL APPROVING AUTHORITY.

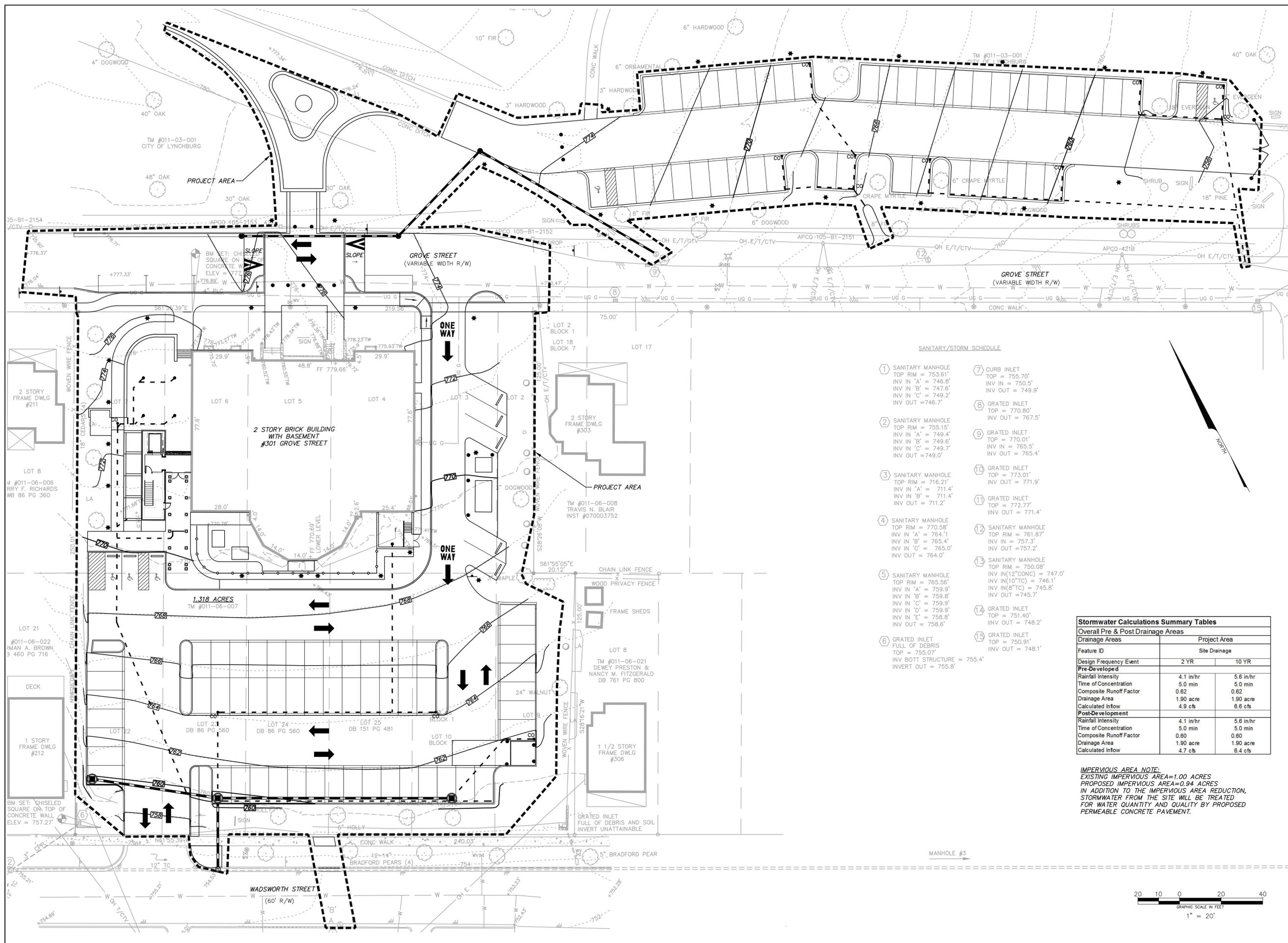
CONSTRUCTION SEQUENCE
1. INSTALL CONSTRUCTION ENTRANCE AND PERIMETER CONTROLS AS SHOWN ON PLANS.
2. BEGIN SITE GRADING.
3. TEMPORARY AND PERMANENT SEEDING AND MULCHING TO BE PLACED ON ALL DISTURBED AREAS.
4. UPON STABILIZATION OF ALL UPSTREAM DRAINAGE AREAS, INSTALL PERMEABLE PAVERS.
5. CONTRACTOR TO RESTORE ALL AREAS BACK TO EITHER PROPOSED GRADES OR EXISTING CONDITIONS AFTER COMPLETION OF THE PROJECT. ALL DISTURBED AREAS, HAUL ROADS, CONSTRUCTION ROADS, LAY DOWN AREAS, ETC. SHALL BE RESTORED.



THE CITY OF LYNCHBURG
TYPE "F" HORIZONTAL ANCHOR BLOCKING
 SCALE: NOT TO SCALE
 SHEET # 26.02
 REVISION DATE: 12-15-2011
 SHEET # 2 OF 3

TYPE	PIPE SIZE INCHES	DIMENSIONS (F.T.)	VOL. CONC. CU. YARDS
TEST PRESSURE = 100 P.S.I. & BELOW	11 1/4"	6	1.5
	22 1/2"	8	2.5
	48"	9	3.5
TEST PRESSURE = 151 P.S.I. TO 200 P.S.I.	11 1/4"	6	1.86
	22 1/2"	8	2.86
	48"	9	3.86
TEST PRESSURE = 201 P.S.I. TO 250 P.S.I.	11 1/4"	6	2.25
	22 1/2"	8	3.25
	48"	9	4.25





SANITARY/STORM SCHEDULE

- ① SANITARY MANHOLE
TOP RIM = 753.61'
INV IN 'A' = 746.8'
INV IN 'B' = 747.6'
INV IN 'C' = 749.2'
INV OUT = 746.7'
- ② SANITARY MANHOLE
TOP RIM = 755.15'
INV IN 'A' = 749.4'
INV IN 'B' = 749.6'
INV IN 'C' = 749.7'
INV OUT = 749.0'
- ③ SANITARY MANHOLE
TOP RIM = 716.21'
INV IN 'A' = 711.4'
INV IN 'B' = 711.4'
INV OUT = 711.2'
- ④ SANITARY MANHOLE
TOP RIM = 770.58'
INV IN 'A' = 764.1'
INV IN 'B' = 765.4'
INV IN 'C' = 765.0'
INV OUT = 764.0'
- ⑤ SANITARY MANHOLE
TOP RIM = 765.56'
INV IN 'A' = 759.9'
INV IN 'B' = 759.8'
INV IN 'C' = 759.9'
INV IN 'D' = 759.9'
INV IN 'E' = 758.8'
INV OUT = 758.6'
- ⑥ GRATED INLET
FULL OF DEBRIS
TOP = 755.07'
INV BOTT STRUCTURE = 755.4'
INVERT OUT = 755.8'
- ⑦ CURB INLET
TOP = 755.70'
INV IN = 750.5'
INV OUT = 749.9'
- ⑧ GRATED INLET
TOP = 770.80'
INV OUT = 767.5'
- ⑨ GRATED INLET
TOP = 770.01'
INV IN = 765.5'
INV OUT = 765.4'
- ⑩ GRATED INLET
TOP = 773.01'
INV OUT = 771.9'
- ⑪ GRATED INLET
TOP = 772.77'
INV OUT = 771.4'
- ⑫ SANITARY MANHOLE
TOP RIM = 761.87'
INV IN = 757.3'
INV OUT = 757.2'
- ⑬ SANITARY MANHOLE
TOP RIM = 750.08'
INV IN(12" CONC) = 747.0'
INV IN(10" TC) = 746.1'
INV IN(8" TC) = 745.8'
INV OUT = 745.7'
- ⑭ GRATED INLET
TOP = 751.40'
INV OUT = 748.2'
- ⑮ GRATED INLET
TOP = 750.91'
INV OUT = 748.1'

Stormwater Calculations Summary Tables

Overall Pre & Post Drainage Areas		
Drainage Areas	Project Area	
Feature ID	Site Drainage	
Design Frequency Event	2 YR	10 YR
Pre-Developed		
Rainfall Intensity	4.1 in/hr	5.6 in/hr
Time of Concentration	5.0 min	5.0 min
Composite Runoff Factor	0.62	0.62
Drainage Area	1.90 acre	1.90 acre
Calculated Inflow	4.9 cfs	6.6 cfs
Post-Development		
Rainfall Intensity	4.1 in/hr	5.6 in/hr
Time of Concentration	5.0 min	5.0 min
Composite Runoff Factor	0.60	0.60
Drainage Area	1.90 acre	1.90 acre
Calculated Inflow	4.7 cfs	6.4 cfs

IMPERVIOUS AREA NOTE:
 EXISTING IMPERVIOUS AREA=1.00 ACRES
 PROPOSED IMPERVIOUS AREA=0.94 ACRES
 IN ADDITION TO THE IMPERVIOUS AREA REDUCTION,
 STORMWATER FROM THE SITE WILL BE TREATED
 FOR WATER QUANTITY AND QUALITY BY PROPOSED
 PERMEABLE CONCRETE PAVEMENT.

HANKINS & ANDERSON, INC.

BID SET
 FEBRUARY 13, 2013

DATE:
 REVISIONS:

RENOVATION TO MILLER CENTER
 LYNCHBURG
 VIRGINIA
 CITY PROJECT # P0072

CITY OF LYNCHBURG
 DEPARTMENT OF PARKS AND RECREATION

301 GROVE STREET
 LYNCHBURG, VIRGINIA 24501

DRAINAGE AREA MAPS

C9.0