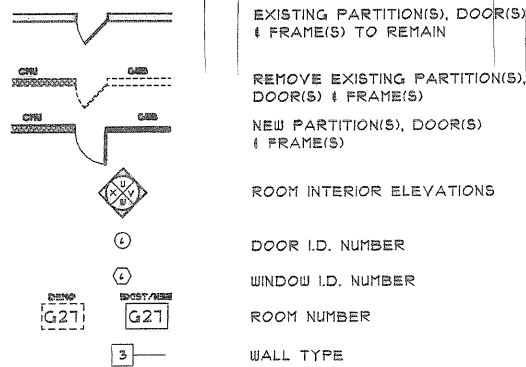


DRAWING SYMBOL LIST



GENERAL NOTES

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AT THE SITE. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THOSE SHOWN ON THE DRAWINGS SHALL BE REPORTED TO THE CONTRACTING OFFICER IMMEDIATELY.
- DO NOT SCALE DRAWINGS. ALL DIMENSIONS ARE TO FINISH FACE OF MATERIALS, UNLESS NOTED OTHERWISE.
- REMOVE DEBRIS PROMPTLY FROM THE PROPERTY.
- COORDINATE DEMOLITION AND NEW WORK SHOWN BY ALL DISCIPLINES.
- REPAIR ALL DEMOLITION REQUIRED TO INSTALL MECHANICAL, ELECTRICAL AND PLUMBING WORK.
- ALL PATCHING AND PAINTING OF AREAS DISTURBED BY WORK PERFORMED UNDER THIS CONTRACT SHALL MATCH THE FINISH OF EXISTING ADJACENT SURFACES, UNLESS OTHERWISE NOTED.
- ALL MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED.

ABBREVIATIONS

A	AIR	ETR	EXISTING TO REMAIN	N	NITROGEN
AC	ACOUSTICAL	EW	EMERGENCY EYE WASH	NIC	NOT IN CONTRACT
ACT	ACOUSTICAL	EWC	ELECTRIC WATER COOLER	NO	NUMBER
AD	ACCESS DOOR	Ex	EXHAUST	NTS	NOT TO SCALE
AD	AREA DRAIN	EX	EXISTING	OC	ON CENTER
AFF	ABOVE FINISHED FLOOR	EXIST	EXISTING	OD	OUTSIDE DIAMETER
AFG	ABOVE FINISHED GRADE	EXP	EXPANSION	OPNG	OPENING
APPROX	APPROXIMATELY	EXP	EXPOSED	PART	PARTIAL
ASSOC	ASSOCIATE	FD	FLOOR DRAIN	PC	PIPE CHASE
BC	BASE CABINET	FIN	FINISH	PLYWD	PLYWOOD
BD	BOARD	FLR(S)	FLOOR(S)	FR	PAIR
BS	BASE CABINET, SINK UNIT	FS	FLOOR SINK	PTD	PAINT(ED)
C	COLD WATER	G	GAS	QTY	QUANTITY
CEIL	CEILING	GA	GAUGE	R	RISER(S)
CER	CERAMIC	GALV	GALVANIZED	RD	ROOF DRAIN
CL	CENTER LINE	GRND	GROUND	RM(S)	ROOM(S)
CLG	CEILING	GSRU	GLAZED STRUCTURAL FACED UNITS	RO	ROUGH OPENING
CMU	CONCRETE MASONRY UNIT	GWB	GYPSPUM WALL BOARD	SB	SINK BASE
CONC	CONCRETE	GYP	GYPSPUM	SC	SOLID CORE
CONST	CONSTRUCTION	H	HOT WATER	SCHED	SCHEDULE
CONT	CONTINUOUS	HC	HOLLOW CORE	SFT	STRUCTURAL GLAZED FACING TILE
CORR'D	COORUGATED	HDWE	HARDWARE	SHT	SHEET
CS	CUP SINK	Hr	HELIUM	STRUCT'L	STRUCTURAL
D	DEPTH	HORZ	HORIZONTAL	ST'L	STEEL
DB	DISTILLED WATER	HR	HOUR	SUSP	SUSPENDED
DD	DRAWER BASE	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	T	TREAD(S)
DD	DESK DRAWER	ID	IDENTIFICATION	TH	THICK
DECK'G	DECKING	INCH	INCH	TRANS	TRANSPARENT
DEM	DEMOLITION	INSUL	INSULATION	TRD	TREAD
DET	DETAIL	INTERM	INTERMEDIATE	TRT'D	TREATED
DIA	DIAMETER	JC	JANITOR CLOSET	TYP	TYPICAL
DN	DOWN	LAND'G	LANDING	UL	UTILITY LEDGE
DR	DOOR	LLV	LONG LEG VERTICAL	V	VACUUM
DS	DOWNSPOUT	LOC	LOCATION	VCT	VINYL COMPOSITION TILE
DWG	DRAWING	MAT'L	MATERIAL	W	WIDTH
E	ELECTRIC	MAX	MAXIMUM	WC	WALL CABINET
EA	EACH	MECH	MECHANICAL	WR	WATER RESISTANT
ELEV	ELEVATION	MET	METAL	WS	WALL SHELF
EQ	EQUAL	MIN	MINIMUM	WUM	WELDED WIRE MESH
EQUIP	EQUIPMENT	MISC	MISCELLANEOUS	W	WITH
ES	EMERGENCY SHOWER	NO	MASONRY OPENING	W/O	WITH OUT
ETC	ET CETERA	HTL	METAL	!	AND
				°	AT

THE TOWNHOUSE APARTMENTS AT
HOLABIRD MANOR PUD



6625 & 6639 HARTWAIT ST., 1710 & 1720 MANOR AVE., AND MANOR AVENUE EXTENSION
 LOTS 78A; 78B; 79/83; 77/78; 95 96; 78C

BALTIMORE, MD

BUILDING INFORMATION

ZONING
 CURRENT ZONING IS R-5 & R-4 WITH A PUD APPROVAL AS A CCRC. ECONOMICS HAVE IMPACTED THIS ACTION. THE OWNER IS FILING THIS PERMIT BASED ON THE PUD, BUT UTILIZING CONDOMINIUMS & SR HOUSING.

SITE ADDRESS:
 6625 & 6639 HARTWAIT STREET
 1710 & 1720 MANOR AVENUE

LOT SIZE:
 95,921 SF

AREA OF DISTURBANCE
 25,00 SF

APPLICABLE CODES

- STATE OF MARYLAND SMART CODES
- 2015 INTERNATIONAL BLDG CODE
- 2015 INTERNATIONAL RESIDENTIAL CODE
- NATIONAL ELECTRICAL CODE
- LIFE SAFETY CODE
- AMERICANS WITH DISABILITIES ACT
- CITY OF BALTIMORE BLDG CODE
- CITY OF BALTIMORE ZONING CODE
- CITY OF BALTIMORE GREEN BLDG CODE
- CITY OF BALTIMORE OFC OF SUSTAINABILITY
- CITY OF BALTIMORE OFC OF VISITABILITY

CODE ANALYSIS

USE GROUP(S): R-5 & 4 RESIDENTIAL
LAND AREA: 95,921 SF
BLDG AREA: SECTION 504.3 HAS NOT BEEN UTILIZED IN THIS CALCULATION.
BLDG AREA: AREA INCREASE DUE TO FRONTAGE INCREASE HAS NOT BEEN USED.
BLDG HEIGHT: EXISTING HGT IS 49 FT FROM GRADE.
SPECIAL PROVISIONS: SECTION 504.2 HAS NOT BEEN UTILIZED FOR THIS PROJECT.
 IBC 508.4 INCREASES HGT FOR TYPE IIIA IN R-2 TO SIX STORIES AND 75 FT.
 ALL DWELLING UNIT SEPARATION WALLS & CORRIDOR WALLS SHALL BE 2 HR FIRE WALLS. NO UNIT IS OVER 3000 SF. SEE NOTE BELOW.
CONST TYPE: BASED ON THE DATA ABOVE, WE CAN UTILIZE A TYPE 3A FOR THIS PROJECT.
SPRINKLER: WOOD FRAMING IS ALLOWED PER IBC 402.3 WITHIN EXTERIOR WALL ASSEMBLIES.
 CONDO UNITS SHALL BE FULLY SPRINKLERED PER IRC / IBC

FIRE RESISTANCE RATING REQUIREMENTS:

STRUCTURAL FRAME	1 HR
BEARING WALLS	
EXTERIOR WALLS	2 HR
INTERIOR WALLS	1 HR
NON-BEARING WALLS	1 HR
FLOOR CONSTRUCTION	1 HR
ROOF CONSTRUCTION	1 HR
STAIRWAY	2 HR

BY NOT USING THE APPROVED AUTOMATIC SPKLR SYSTEM IN THE ABOVE CONSTRUCTION TYPE CALCULATION, TABLE 401 ITEM 4 CAN BE USED AS A SUBSTITUTION FOR 1 HR FIRE RESISTANCE RATED CONSTRUCTION.

DRAWING SCHEDULE

- COVER SHEET - TOWNHOUSE UNITS**
 CVRI COVER SHEET
- CIVIL**
- C001 CIVIL GENERAL NOTES
 - C001 EXISTING CONDITIONS PLAN
 - C101 DEMOLITION PLAN
 - C201 FINAL DEVELOPMENT PLAN
 - G202 GEOMETRY PLAN
 - C203 SITE DETAILS
 - C204 SITE DETAILS
 - C301 GRADING & STORM DRAIN PLAN
 - V001 NEW SUBDIVISION PLAT
 - VI SITE VISITATION PLAN
 - L101 LANDSCAPE PLAN
 - L102 LANDSCAPE DETAILS
- CIVIL - STORM WATER MGMT & EROSION CONTROL**
- C500 OVERALL STORM WATER MANAGEMENT PLAN
 - C501 EXISTING CONDITIONS DRAINAGE
 - C502 PROPOSED CONDITIONS DRAINAGE
 - C503 SWM MICRO-BIORETENTION
 - C504 SWM MICRO-BIORETENTION
 - C505 SWM MICRO-BIORETENTION
 - C506 SWM DETAILS: GREEN ROOF
 - C600 EROSION & SEDIMENT CONTROL PLAN - OVERALL
 - C601 EROSION & SEDIMENT CONTROL PLAN - PHASE 1
 - C602 EROSION & SEDIMENT CONTROL PLAN - PHASE 2
 - C603 EROSION & SEDIMENT CONTROL PLAN - PHASE 3
 - C604 EROSION & SEDIMENT CONTROL PLAN - PHASE 4
 - C605 EROSION & SEDIMENT CONTROL PLAN - PHASE 5
 - C606 EROSION & SEDIMENT CONTROL PLAN - PHASE 6
 - C607 EROSION & SEDIMENT CONTROL NOTES
 - C608 EROSION & SEDIMENT CONTROL DETAILS
 - C609 EROSION & SEDIMENT CONTROL DETAILS
 - C610 SECTIONS

- BUILDERS AGREEMENT**
- 1 OF 1 TITLE SHEET
 - 2 OF 1 INSTALL OF 8" WATER MAIN
 - 3 OF 1 4" AND 8" WATER MAIN PROFILES
 - 4 OF 1 STORM DRAINAGE SERVICE
 - 5 OF 1 STORM DRAINAGE SERVICE PROFILES
 - 6 OF 1 8" SANITARY SERVICE
 - 7 OF 1 ROAD IMPROVEMENT PLAN & PROFILES

- ARCHITECTURAL**
- A-1 FOUNDATION PLANS
 - A-1a FOUNDATION PLANS
 - A-1b FOUNDATION PLANS
 - A-2 UNIT FLOOR PLANS - GROUND, VISITABLE, 2ND
 - A-3 UNIT FLOOR PLAN - 3RD & LOFT
 - A-4 ELEVATIONS - TYP END & COLOR SELECTIONS
 - A-5 STRIP ELEVATIONS - 6615 HARTWAIT
 - A-6 STRIP ELEVATIONS - 6625 HARTWAIT
 - A-7 STRIP ELEVATIONS - 1710 MANOR
 - A-8 STRIP ELEVATIONS - 1720 HARTWAIT
 - A-9 CROSS SECTION

- STRUCTURAL**
- S-1 STRUCTURAL - GROUND & 2ND
 - S-2 STRUCTURAL - 3RD & LOFT/ROOF
 - S-3 FOUNDATION PLAN & DETAILS
 - S-3a FOUNDATION PLAN & DETAILS
 - S-3b FOUNDATION PLAN & DETAILS
 - S-4 STRUCTURAL DETAILS
 - S-5 STRUCTURAL DETAILS
 - S-6 STRUCTURAL NOTES

- MECHANICAL, ELECTRICAL, PLUMBING**
- M-0 MECHANICAL COVER SHEET
 - M-1 HVAC FLOOR PLANS
 - M-2 MECHANICAL SCHEDULES
 - M-3 MECHANICAL SCHEDULES
 - M-4 MECHANICAL DETAILS
 - P-0 PLUMBING COVER SHEET
 - P-1 PLUMBING FLOOR PLANS
 - P-2 PLUMBING FLOOR PLANS
 - P-3 DOMESTIC WATER RISE DIAGRAMS
 - P-4 SANITARY RISER DIAGRAMS
 - P-5 NATURAL GAS RISER DIAGRAMS
 - E-0 ELECTRICAL COVER SHEET
 - E-1 FLOOR PLANS - ELECTRICAL
 - E-2 FLOOR PLANS - ELECTRICAL
 - E-3 ELECTRICAL RISERS
 - E-4 ELECTRICAL SCHEDULE

The Diesselhorst Group
 8511 Virginia Ave., Annandale, VA 22003

HOLABIRD MANOR CONDO
 HOLABIRD APARTMENTS INC.
 SHEET TITLE COVER SHEET

ISSUE DATE

01.12.2016

REVISIONS

A 01.15.2016

4.07.2017

B 4/10/2017

C 1/16/2019

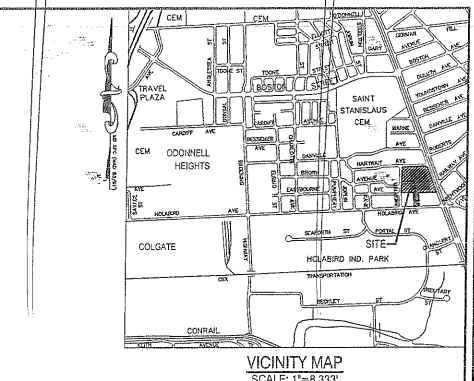
SHEET

CVRI

OF

HOLABIRD MANOR

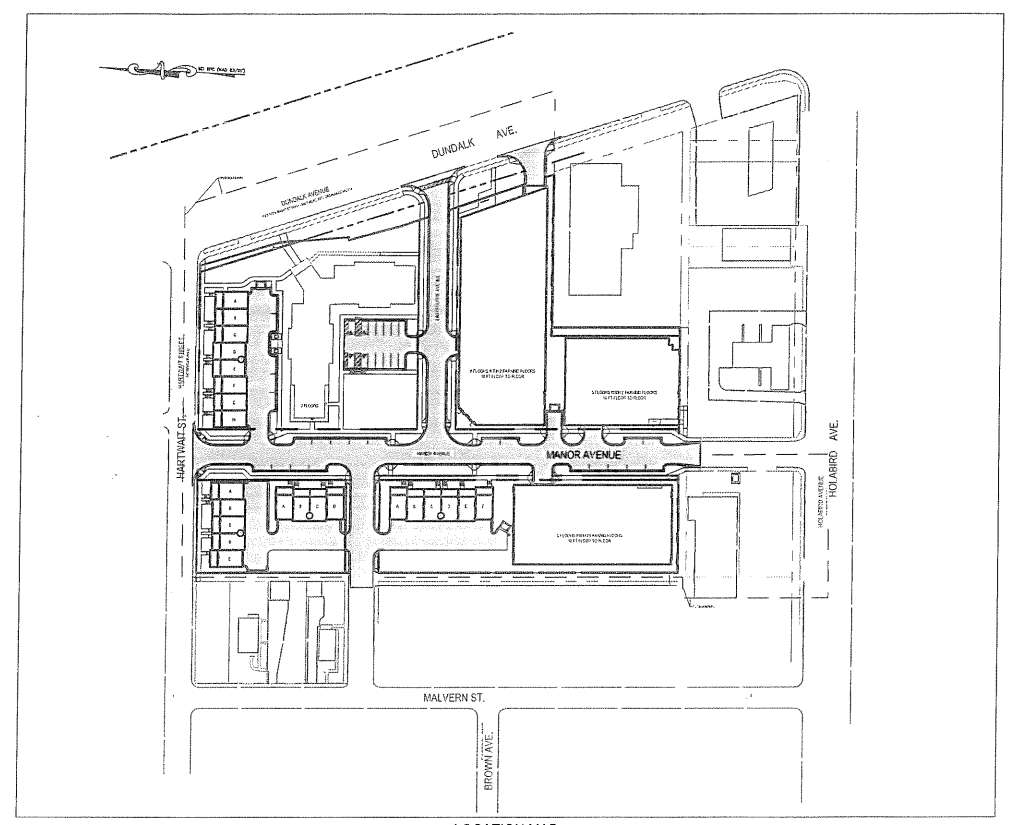
1710 DUNDALK AVE., BALTIMORE MARYLAND 21222
 WARD 26, SECTION 01, BLOCK 6750
 LOTS 16, 18, 22, 27, 31, 36, 38, 78A, 79, 83, 88, 92



NO.	DATE	REVISION

GENERAL NOTES

- THIS PLAN IS BASED UPON A FIELD-RUN BOUNDARY & TOPOGRAPHIC SURVEY PERFORMED BY WBCM IN DECEMBER, 2016 AND REFLECTS SITE CONDITIONS AS OF THAT DATE.
- HORIZONTAL COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MERIDIAN OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. TRAVERSE STATIONS:
 35221 N -8,656.459 E 23,870.408 "BRASS PLUG"
 35222 N -8,197.692 E 23,701.607 "BRASS PLUG"
 27385 N -9,133.114 E 23,740.752 "BRASS PLUG"
 27386 N -9,148.444 E 23,410.436 "BRASS PLUG"
 27387 N -9,166.522 E 23,075.391 "BRASS PLUG"
- ELEVATIONS SHOWN HEREON ARE REFERRED TO THE DATUM OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. BENCHMARKS:
 BM 8658 ELEV. 17.66 "BRASS SCREW"
- BEARINGS SHOWN ON THIS PLAN ARE REFERRED TO THE SYSTEM OF COORDINATES ESTABLISHED IN THE BALTIMORE CITY SURVEY CONTROL SYSTEM ARE BASED ON S.J. MARTENET & CO, RECORDS DATED OCTOBER 12, 1959.
- THE UTILITIES SHOWN HEREON ARE BASED SOLELY ON FIELD LOCATIONS. NO COMPARISON TO, OR ENHANCEMENT HAS BEEN MADE FROM ANY UTILITY DRAWINGS.
- ADDITIONAL SPOT ELEVATIONS RESIDE IN THE ELECTRONIC VERSION OF THIS DRAWING BUT ARE NOT PLOTTED HEREON.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY INVERTS AND CLEARANCES FROM NEW WORK PRIOR TO START OF ANY WORK.
- THE CONTRACTOR SHALL STAKE OUT ALL BASELINES OF CONSTRUCTION, THE LOCATION OF ALL NEW CONSTRUCTION AND VERIFY ALL SETBACKS, OFFSETS, AND CLEARANCES PRIOR TO START OF ANY WORK.
- ALL DISTURBED AREAS NOT STABILIZED WITH STRUCTURES, PAVING AND PLANTINGS SHALL BE STABILIZED WITH FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATER TO ESTABLISH AN ADEQUATE GROWTH OF GRASS ACCORDANCE WITH THE SPECIFICATIONS OF THE SEDIMENT CONTROL PLAN PRIOR TO CONTRACT COMPLETION.
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES.
- ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE.
- THE TOPS OF ALL FRAMES, GRATES, AND COVERS OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONTRACT A AND/OR DISTURBANCE SHALL BE ADJUSTED TO THE NEW GRADES.
- THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF ANY UTILITIES AND SHALL TAKE NECESSARY PRECAUTION TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES IN ADVANCE OF ALL CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITY SERVICES WITHOUT WRITTEN PERMISSION FROM THE OWNER OF THE UTILITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OFFICE OF THE ENGINEER, WHITNEY, BAILEY, COX & MAGNANI, OF ANY DISCREPANCIES IN THE PLANS OR IN THE RELATIONSHIPS OF FINISHED GRADES TO EXISTING, PRIOR TO BEGINNING WORK.
- THE LOCATION OF EXISTING UTILITIES IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE ENGINEER DO NOT WARRANT OR GUARANTEE THE VALIDITY OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY THE EXISTENCE AND LOCATION OF ALL THE UTILITIES TO HIS OWN SATISFACTION.
- THE CONTRACTOR SHALL NOTE THAT, IN CASE OF DISCREPANCIES BETWEEN THE SCALED AND FIGURED DIMENSION SHOWN ON THE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- EXISTING PAVING DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH MATERIAL EQUAL TO OR EXCEEDING THAT WHICH WAS DISTURBED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
- THE CONTRACTOR'S EQUIPMENT LEAVING THE SITE MUST BE CLEANED SO AS NOT TO TRACK MUD ON THE STREET LEADING INTO THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE STREET CLEAN AND THE SITE IN A WORKMAN LIKE MANNER.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT (1-800-257-7777) AND THE BALTIMORE CITY STREET LIGHT-CONDUIT SECTION (396-1311) BEFORE BEGINNING ANY WORK.
- ALL DIMENSIONS INVOLVING CURBS ARE MEASURED TO FACE OF CURB.
- PARKING SPACES SHALL BE MARKED WITH 4" WIDE WHITE PAINT STRIPES AS SHOWN, HANDICAPPED PARKING SPACES SHALL BE MARKED BY INTERNATIONAL HANDICAPPED SYMBOL APPLIED TO THE PAVEMENT AND BY RESERVED PARKING SIGNS. SIGNS SHALL CONFORM TO THE MARYLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, SIGN R7-10, FOR MATERIALS, MESSAGE AND MOUNTING REQUIREMENTS.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE PERMITS AND SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS FOR MATERIAL, HIGHWAYS, BRIDGES, UTILITIES, AND INCIDENTAL STRUCTURES AND THE BOOK OF STANDARDS, UNLESS OTHERWISE SHOWN OF SPECIFIED.
- BUILDING DIMENSIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
- SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTERIOR UTILITY WORK. WHERE CONNECTIONS ARE REQUIRED TO EXISTING UTILITIES AND DRAINS, THE CONTRACTOR SHALL LOCATE, BY TEST PIT, THE EXISTING UTILITY AT THE POINT OF PROPOSED CONNECTION BEFORE BEGINNING CONSTRUCTION OF NEW WORK. THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCIES IN ACTUAL LOCATION AND/OR ELEVATION OF THE EXISTING UTILITY FROM THE INFORMATION SHOWN ON THE DRAWINGS AND SHALL NOT PROCEED WITH THE WORK UNTIL DIRECTED BY THE ARCHITECT.



LOCATION MAP
SCALE: 1"=100'

W.B.C.M. SURVEY TRAVERSE CONTROL LISTING

PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
900	-9,059.47	23,856.69	18.75	X-CUT
901	-9,080.73	23,449.78	31.79	X-CUT
902	-9,095.65	23,160.28	39.26	X-CUT
903	-9,095.91	23,125.52	27.85	X-CUT
904	-8,389.74	23,124.27	34.22	X-CUT
905	-8,379.22	23,404.53	19.28	REBAR & CAP
906	-8,373.32	23,627.11	22.13	REBAR & CAP
907	-8,664.41	23,736.56	18.02	X-CUT
908	-8,596.62	23,430.71	20.15	REBAR & CAP
909	-8,429.74	23,476.55	19.89	REBAR & CAP
910	-8,561.53	23,403.94	30.32	MAGNAIL
911	-8,918.38	23,539.84	37.01	REBAR & CAP
912	-8,980.41	23,274.51	30.97	MAGNAIL
913	-8,516.44	23,851.29	19.92	REBAR & CAP
914	-8,762.69	23,755.42	16.45	REBAR & CAP
915	-8,752.22	23,649.42	15.97	REBAR & CAP
916	-8,701.02	23,608.71	16.21	REBAR & CAP
918	-8,477.94	23,373.71	21.04	MAGNAIL
919	-8,434.75	23,265.49	24.79	REBAR & CAP
920	-8,541.17	23,333.30	21.14	MAGNAIL
921	-8,511.05	23,337.98	21.05	MAGNAIL
922	-8,821.79	23,524.46	29.54	REBAR & CAP

DRAWING LIST:

DRAWING NUMBER	DRAWING TITLE
G001	TITLE SHEET
V001	SUBDIVISION PLAN
C001	EXISTING CONDITIONS PLAN
C101	DEMOLITION PLAN
C201	SITE LAYOUT PLAN
C202	GEOMETRY PLAN
C203	SITE DETAILS
C204	SITE DETAILS
C301	GRADING AND STORM DRAIN PLAN
C500	STORMWATER MANAGEMENT PLAN
C501	EXISTING DRAINAGE AREA MAP
C502	PROPOSED DRAINAGE AREA MAP
C503	STORMWATER MANAGEMENT PART PLAN - MICROBIORETENTION
C504	STORMWATER MANAGEMENT PART PLAN - MICROBIORETENTION
C505	STORMWATER MANAGEMENT DETAILS
C506	STORMWATER MANAGEMENT DETAILS
C601	EROSION AND SEDIMENT CONTROL PLAN
C602	EROSION AND SEDIMENT CONTROL NOTES
C603	EROSION AND SEDIMENT CONTROL DETAILS
C604	EROSION AND SEDIMENT CONTROL DETAILS
C605	SECTIONS
L101	PLANTING PLAN
L102	PLANTING PLAN

LEGEND:

DESCRIPTION	EXISTING	NEW
BUILDING	EX. BLDG	NEW BLDG.
BITUMINOUS CONCRETE PAVING	EX. MACADAM	
CONCRETE SIDEWALK	EX. CONC. WALK	
CONCRETE PAVING	EX. CONC.	
CLEAN OUT		
DRAIN INLET		
ELECTRIC BOX		
ELECTRIC CONDUIT		
ELECTRIC MH		
ELECTRIC RISER		
FIRE HYDRANT		
FIRE CONNECTION		
FLOOR DRAIN		
OBSERVATION WELL		
GAS VALVE		
HAND BOX		
INLET MH		
METAL POLE		
PARKING METER		
POWER POLE		
ROOF DRAIN		
SANITARY MH		
SIGNS		
STORM DRAIN MH		
STREET LIGHT		
TELEPHONE MH		
TELEPHONE RISER		
TRAVERSE STATION		
TREES		
UNKNOWN MH		
WATER MH		
WATER VALVE		
BUSHES		
SPOT ELEVATION	X 31.2	+ 31.2
MAJOR CONTOUR	--- 30 ---	250
MINOR CONTOUR	--- 31 ---	261
WALL	---	---
CONC. CURB	---	---
FENCE LINE	X-X-X	X-X-X
UG SANITARY	SS	---
UG STORM	D	---
UG WATER	W	---
PROPERTY LINE	---	---
OH ELECTRIC	DHE	---
UG ELECTRIC	E	---
UG GAS	G	---
SURVEY LIMITS	---	---
LIMIT OF DISTURBANCE	---	---
SOIL LINE	---	---

WHITNEY BAILEY COX & MAGNANI, LLC
 300 East Joppa Road, Suite 200
 Baltimore, MD 21286
 410.572.4500 www.wbcm.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

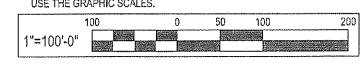
License #34862 Expiration Date: 07/08/19

TITLE SHEET

HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MD 21222

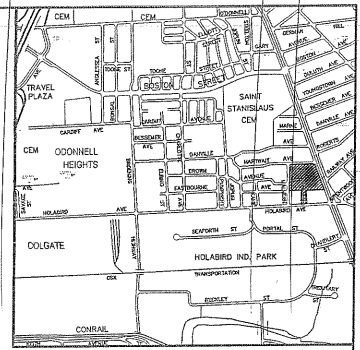
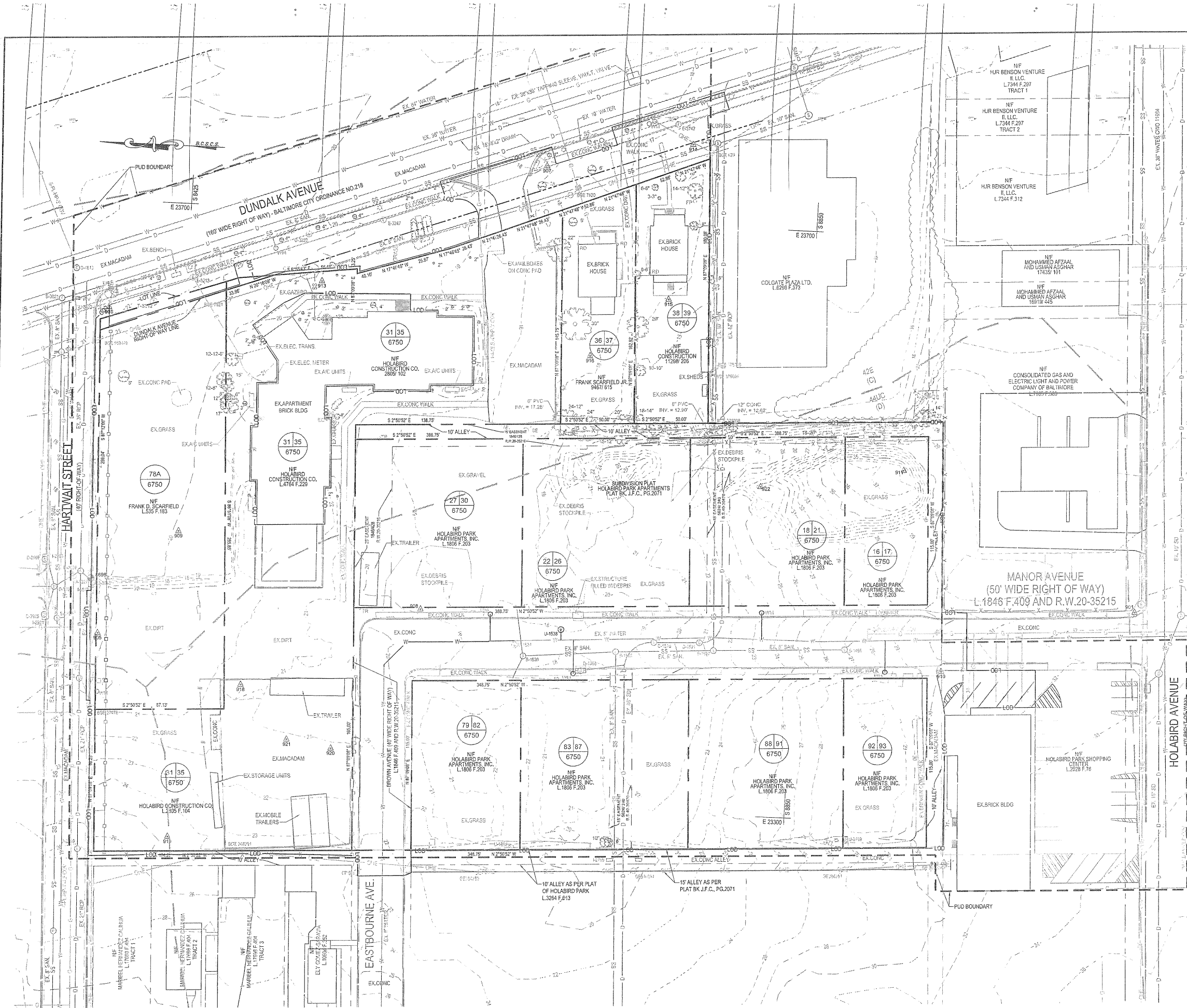
OWNER/DEVELOPER/APPLICANT
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200

DESIGNED: M.M./H.H.
 DRAWN: M.H.
 CHECKED: B.L.
 SCALE: AS NOTED
 DATE: 05/02/18
 PROJECT: 2016.0527.00
 DRAWING:



G001

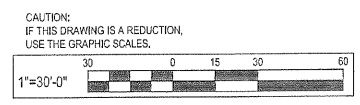
ESD #6654



VICINITY MAP
SCALE: 1"=8,333'

MH #	TOP	DIR.	INVERT	SIZE & TYPE
D-1368	18.22	S	15.80	6" CMP
		N	15.62	6" CMP
		S/W	14.27	18" RCP
S-1496	26.97	S/W	18.54	8"
		S/E	18.52	8"
		N	18.43	8"
S-1500	21.39	S	12.61	8"
		S	6.60	8"
		E	6.32	12"
		N	6.44	12"
D-1501	20.86	N	10.58	36" RCP
		S	8.99	36" RCP
S-1515	18.64	N	10.25	8"
		W	9.71	8"
		N	6.78	POSS. PIPE
		W	6.55	POSS. PIPE
		S	6.45	12"
D-1516	19.46	E	15.18	18" RCP
		W	14.48	18" RCP
		W	13.30	6"
		N	11.64	36" RCP
		S	11.41	36" RCP
S-1530	18.43	N/W	11.49	8"
		N/E	11.45	8"
		S	11.32	8"
I-2795	19.27	S/W	16.02	15" RCP
I-2802	19.24	N/E	16.24	15" RCP
D-2897	17.91	S	9.11	4"
		W	9.02	8"
		E	8.96	8"
D-2898	19.72	W	13.31	21" RCP
		E	13.01	24" RCP
D-2899	26.20	W	20.00	21" RCP
		E	19.79	21" RCP
D-2921	17.15	E	13.60	18" RCP
D-2965	16.84	S/W	12.18	18" RCP
S-3021	22.12	W	7.21	8"
		N	5.88	24"
		S	5.85	24"
S-3025	21.03	N	10.98	8"
		S/W	7.76	8"
		S/W	7.70	8"
		E	7.61	8"
D-3026	17.49	S/W	12.02	18" RCP
		W	11.27	24" RCP
		N/W	10.71	18" RCP
		E	10.57	36" RCP
D-3028	17.38	W	12.87	18" RCP
		E	12.37	18" RCP
		N	11.56	15" RCP
		S/E	11.17	18" RCP
D-3037	17.08	N/E	11.68	18" RCP
S-3321	20.31	N	10.35	8"
		S	9.88	8"
S-4069	25.09	W	16.29	8"
		S	16.24	8"
		N	16.18	8"
		E	16.15	8"
S-4101	17.23	W	5.42	8"
		N	5.32	8"
		S	5.20	8"
D-4613	22.54	S	6.91	P. N. V.
		N	6.88	P. N. V.
		W	6.81	36" RCP

PNV = PIPES NOT VISIBLE
NOTE: THE ABOVE INFORMATION REFLECT FIELD MEASUREMENTS & OBSERVATIONS AND THEY MAY DIFFER FROM PLANS BY OTHERS. (SEE GENERAL NOTES)



PLAN
SCALE: 1" = 30'

NO.	DATE	REVISION



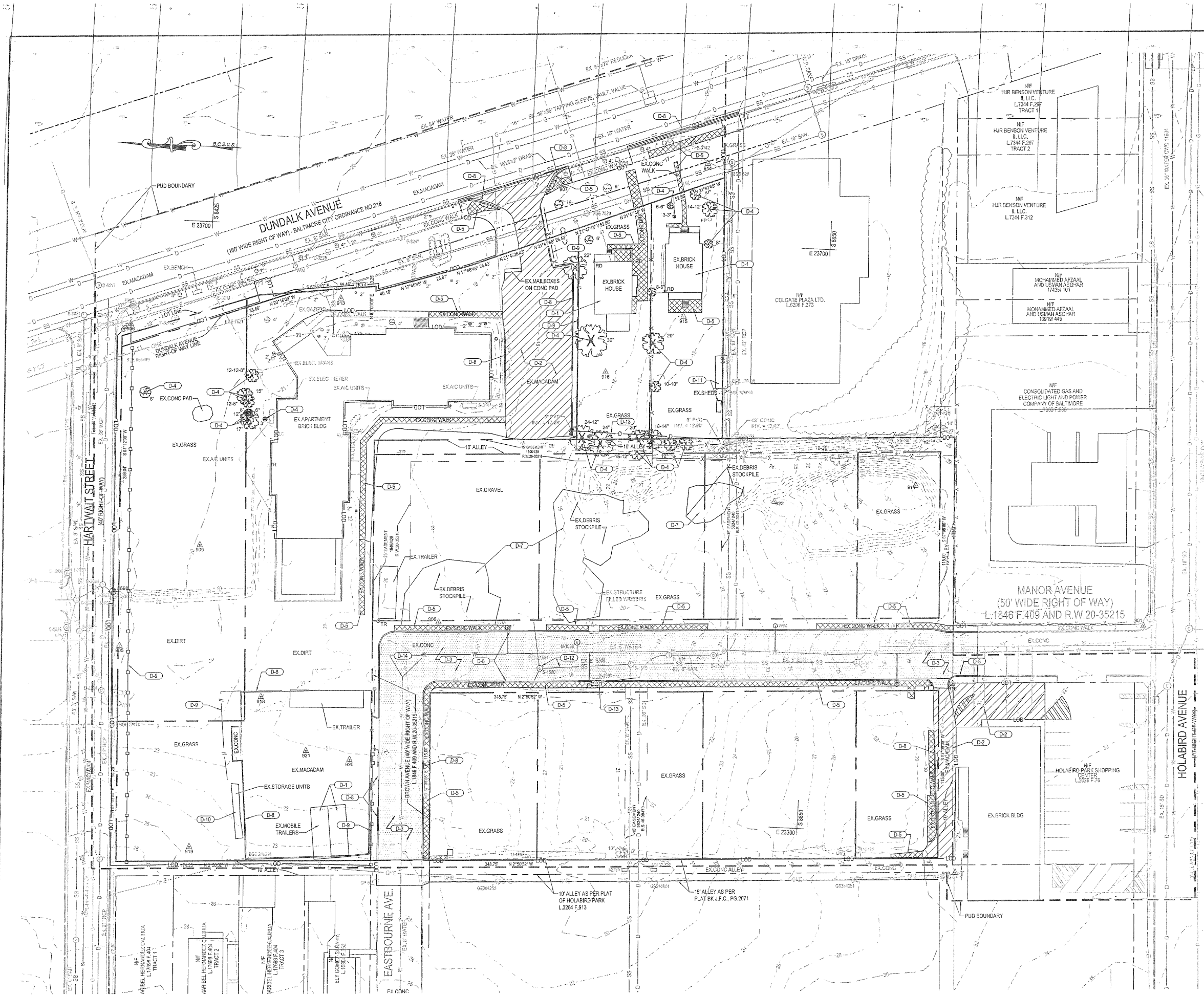
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34682 Expiration Date: 07/08/19

EXISTING CONDITIONS PLAN
HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1055 HOLABIRD RD.
BALTIMORE, MD 21222

DESIGNED: M.M./H.H.
DRAWN: M.H.
CHECKED: B.L.
SCALE: 1"=30'
DATE: 05/02/18
PROJECT: 2016.0527.00
DRAWING:

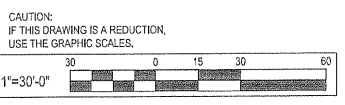
C001

ESD #6654



- DEMOLITION NOTES:**
- D-1 REMOVE EXISTING BUILDING IN IT'S ENTIRETY.
 - D-2 REMOVE EXISTING BITUMINOUS PAVING.
 - D-3 REMOVE EXISTING CONCRETE PAVING.
 - D-4 REMOVE EXISTING TREE.
 - D-5 REMOVE EXISTING CONCRETE WALK.
 - D-6 REMOVE EXISTING GRAVEL.
 - D-7 REMOVE EXISTING STOCKPILE.
 - D-8 REMOVE EXISTING CONCRETE CURB.
 - D-9 REMOVE EXISTING FENCE, INCLUDING ALL COLUMNS.
 - D-10 REMOVE EXISTING STORAGE UNITS.
 - D-11 REMOVE EXISTING SHEDS.
 - D-12 REMOVE EXISTING SANITARY PIPE AND MANHOLE.
 - D-13 REMOVE EXISTING STORM DRAIN PIPE AND STRUCTURE.
 - D-14 REMOVE EXISTING 45 DEGREE WATER PIPES.

- DEMOLITION LEGEND:**
- BITUMINOUS PAVING REMOVAL
 - CONCRETE PAVING REMOVAL
 - CONCRETE SIDEWALK REMOVAL
 - GRAVEL REMOVAL
 - TREE REMOVAL



NO.	DATE	REVISION

WINTERLEY RILEY COX & MCKENNA, LLC
300 East Jones Road, Suite 200
Baltimore, MD 21286
410.572.6500 www.wrcm.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #314682 Expiration Date: 07/08/19

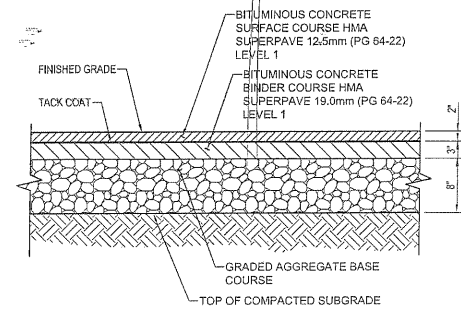
DEMOLITION PLAN

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=30'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

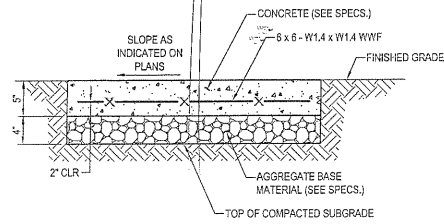
C101

ESD #6654



SECTION

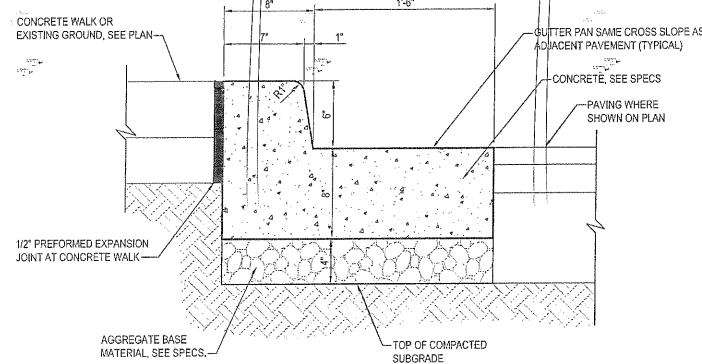
1 BITUMINOUS CONCRETE PAVING - LIGHT DUTY
C203 SCALE: 1" = 1'-0"



SECTION

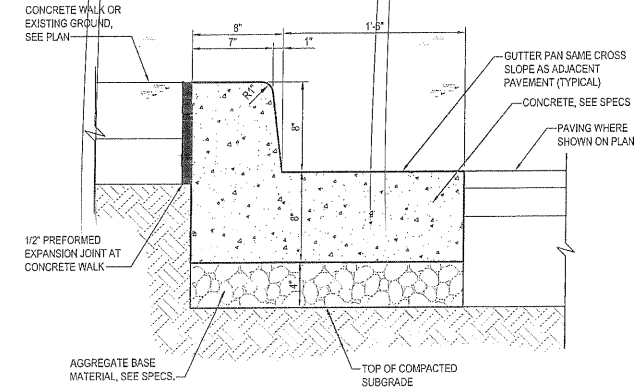
2 CONCRETE WALK
C203 SCALE: 1" = 1'-0"

- NOTES:
- 1/2" PREFORMED EXPANSION JOINT MATERIAL TO BE PLACED WHERE WALKS ABUT CURBS, STEPS, BUILDINGS, OTHER WALKS, ETC. AND AT A MAXIMUM OF 20' INTERVALS ALONG THE WALK.
 - SCORING SHALL BE PROVIDED AT 4' ON-CENTER FOR 4' & 8' WALKS, 5' ON-CENTER FOR 9' & 10' WALKS, AND 6' ON-CENTER FOR 9' AND LARGER NOT PREVIOUSLY MENTIONED.



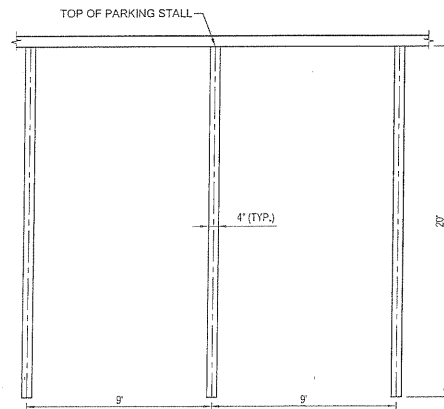
SECTION

3 6" CURB AND GUTTER
C203 NOT TO SCALE



SECTION

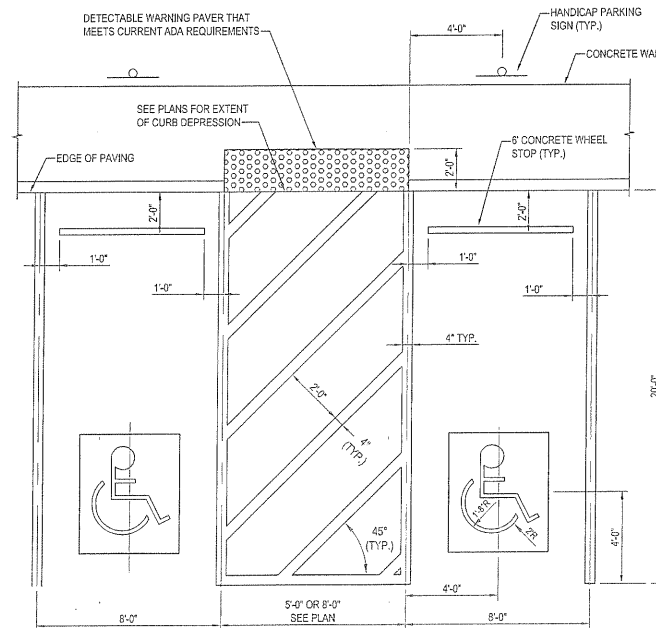
4 8" CURB AND GUTTER
C203 NOT TO SCALE



- NOTES:
1. PAINT IS TO BE WHITE TRAFFIC PAINT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS (TWO (2) COATS REQUIRED).
 2. DETAIL SHOWS TYPICAL SPACE DIMENSIONS. SEE PLAN FOR SPACE LOCATIONS.

PLAN

5 4" PAVEMENT MARKING
C203 NOT TO SCALE



- NOTES:
1. PAINT TO BE WHITE TRAFFIC PAINT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. TWO (2) COATS REQUIRED.
 2. SEE PLAN TO DETERMINE IF MULTIPLE HANDICAP SPACES ARE REQUIRED.
 3. HANDICAPPED SYMBOL TO BE WHITE TRAFFIC PAINT ON BLUE TRAFFIC PAINT BACKGROUND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. TWO (2) COATS REQUIRED.

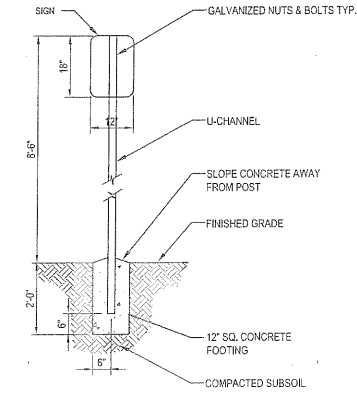
PLAN

6 HANDICAP PARKING MARKING
C203 NOT TO SCALE

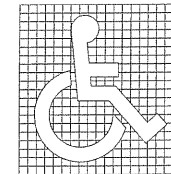


ENLARGEMENT

- SPECIFICATION: SHA STANDARD SPECIFICATION SECTION 813-SIGNS.
* SEE PROPORTIONS FOR SYMBOL DESIGN (ALL DIMENSIONS FOR SIGN IN INCHES)
COLORS: LEGEND & BORDER-GREEN
WHITE SYMBOL ON BLUE BACKGROUND, BACKGROUND-WHITE.

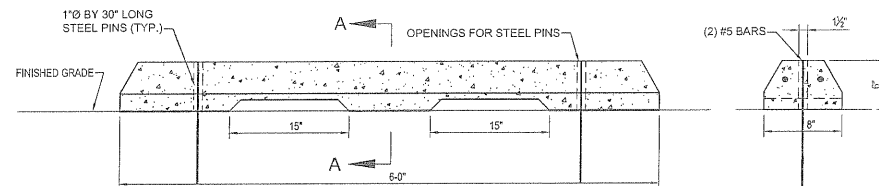


PLAN



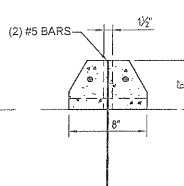
PROPORTIONS

7 HANDICAP PARKING SIGN
C203 NOT TO SCALE

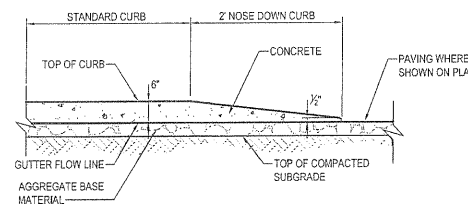


ELEVATION

8 CONCRETE WHEELSTOP
C203 SCALE: 1" = 1'-0"



SECTION A-A



SECTION

9 2' NOSE DOWN CURB
C204 NOT TO SCALE

BY	
REVISION	
DATE	
NO.	

WHITNEY EMBLEY COX & BACHMANN, LLC
300 East Pratt Street, Baltimore, MD 21202
410.512.4500 www.wbcm.com

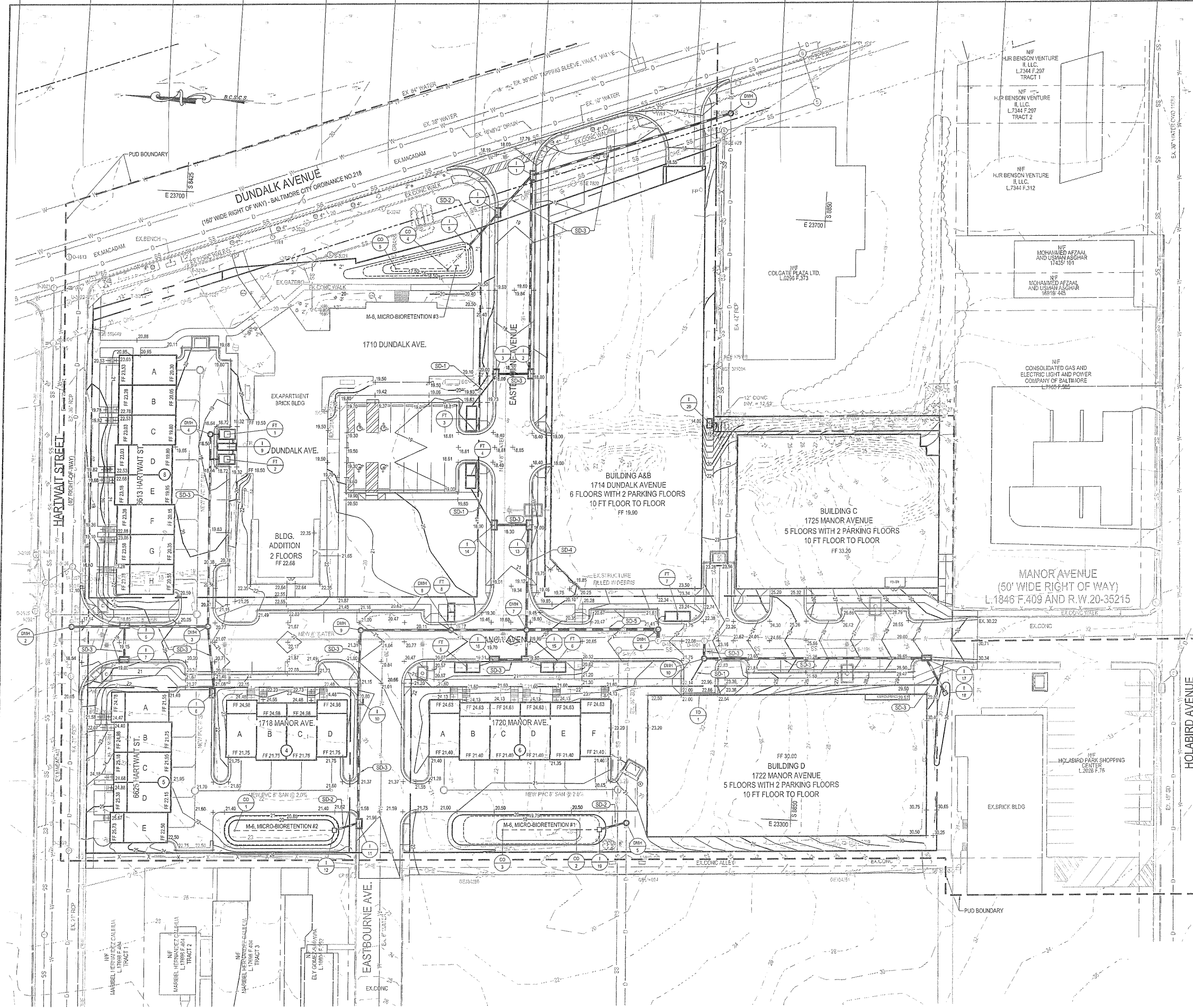
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34882 Expiration Date: 07/08/19

SITE DETAILS

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLABIRD RD.
BALTIMORE, MD 21222

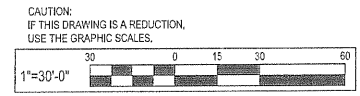
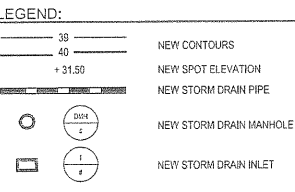
DESIGNED:	M.M. / H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	AS SHOWN
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C203



STRUCTURE SCHEDULE				
NO.	DESCRIPTION	TOP ELEV.	INVERTS	NORTHING EASTING
D-1501	EXISTING MANHOLE	23.28	INV IN 17.23 (W) INV IN 10.38 (N) INV OUT 8.89 (S)	8766.38 23416.35
D-1516	EXISTING MANHOLE	21.59	INV IN 12.09 (E) INV IN 11.64 (N) INV OUT 11.41 (S)	8756.70 23415.15
DMH-1	BC 383.06 - 72" DIA PRECAST MANHOLE	16.87	INV IN 8.75 (N) INV IN 7.60 (W) INV OUT 7.45 (E)	8763.03 23768.93
DMH-2	BC 383.04 - 48" DIA PRECAST MANHOLE	18.10	INV IN 12.75 (S) INV IN 12.30 (W) INV OUT 12.29 (E)	8567.17 23406.10
DMH-3	BC 383.04 - 48" DIA PRECAST MANHOLE	20.66	INV IN 13.55 (E) INV IN 14.71 (N) INV OUT 13.35 (N)	8573.35 23410.58
DMH-4	BC 383.04 - 48" DIA PRECAST MANHOLE	18.77	INV IN 14.02 (S) INV IN 14.20 (W)	8450.96 23358.94
DMH-5	BC 383.04 - 48" DIA PRECAST MANHOLE	21.55	INV IN 12.46 (N) INV IN 16.00 (E) INV OUT 12.16 (W)	8755.33 23422.64
DMH-7	BC 383.04 - 48" DIA PRECAST MANHOLE	19.89	INV IN 13.65 (N) INV IN 14.70 (W) INV IN 14.45 (E) INV OUT 12.00 (S)	8658.28 23418.30
DMH-8	BC 383.04 - 48" DIA PRECAST MANHOLE	19.56	INV IN 14.15 (N) INV IN 16.40 (E) INV OUT 14.05 (S)	8616.24 23415.81
DMH-9	BC 383.04 - 48" DIA PRECAST MANHOLE	21.08	INV IN 14.63 (W) INV IN 14.53 (S)	8558.74 23412.85
DMH-10	BC 383.04 - 48" DIA PRECAST MANHOLE	22.52	INV IN 17.43 (S) INV IN 17.33 (E)	8786.96 23404.67
I-1	BC 380.51 - TYPE S COMBINATION INLET	18.30	INV IN 12.12 (N) INV IN 10.81 (N) INV OUT 10.41 (S)	8654.51 23721.49
I-2	BC 380.51 - TYPE S COMBINATION INLET	18.02	INV IN 14.27 (N) INV IN 14.67 (E)	8661.08 23689.34
I-3	BC 380.51 - TYPE S COMBINATION INLET	18.02	INV IN 14.45 (N) INV IN 14.60 (S)	8637.29 23586.16
I-4	BC 380.51 - TYPE S COMBINATION INLET	19.61	INV IN 11.19 (N) INV IN 10.54 (S)	8631.94 23605.68
I-5	BC 380.21 - TYPE S	18.59	INV OUT 11.50 (S)	8613.85 23671.81
I-6	BC 380.51 - TYPE S COMBINATION INLET	19.02	INV IN 13.10 (S) INV IN 13.68 (N) INV OUT 12.80 (N)	8602.18 23469.16
I-7	BC 380.51 - TYPE S COMBINATION INLET	19.20	INV IN 14.00 (E)	8603.37 23385.37
I-8	BC 376.67 - TYPE H COMBINATION INLET	21.12	INV IN 15.34 (E)	8644.04 23366.56
I-9	COS INLET SEE DETAIL DIVG. C204	20.22	INV OUT 12.50 (N) INV OUT 17.70 (E)	8662.36 23531.17
I-10	BC 376.67 - TYPE H COMBINATION INLET	20.71	INV IN 15.10 (W) INV IN 15.09 (E)	8590.72 23368.70
I-11	BC 380.51 - TYPE S COMBINATION INLET	21.83	INV IN 16.81 (N) INV IN 15.76 (E)	8564.81 23284.42
I-12	BC 380.21 - TYPE S	20.50	INV OUT 16.15 (S)	8548.99 23279.21
I-13	BC 380.51 - TYPE S COMBINATION INLET	18.88	INV IN 15.20 (N) INV IN 14.80 (W)	8665.78 23488.44
I-14	BC 380.51 - TYPE S COMBINATION INLET	18.49	INV IN 14.05 (N) INV IN 15.35 (S)	8642.82 23487.29
I-15	BC 380.51 - TYPE S COMBINATION INLET	17.84	INV IN 15.00 (N) INV IN 15.54 (S) INV OUT 14.90 (E)	8669.26 23396.51
I-16	BC 380.51 - TYPE S COMBINATION INLET	19.33	INV IN 15.68 (N) INV IN 15.15 (S)	8648.09 23397.45
I-17	BC 380.51 - TYPE S COMBINATION INLET	29.05	INV IN 24.10 (S) INV IN 20.66 (E)	8684.32 23411.69
I-18	BC 380.51 - TYPE S COMBINATION INLET	30.00	INV OUT 25.01 (E)	8647.06 23396.50
I-19	BC 380.21 - TYPE S	19.75	INV OUT 15.80 (S)	8724.01 23287.52
I-20	BC 380.21 - TYPE S	0.17	INV OUT 12.85 (S)	8781.26 23561.62

STORM DRAIN NOTES:
SD-1 NEW 6" HDPE STORM DRAIN PIPE.
SD-2 NEW 12" RCP CL III STORM DRAIN PIPE.
SD-3 NEW 15" RCP CL III STORM DRAIN PIPE.
SD-4 NEW 18" RCP CL III STORM DRAIN PIPE.
SD-5 NEW 24" RCP CL III STORM DRAIN PIPE.



NO.	DATE	REVISION



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34682 Expiration Date: 07/09/19

GRADING AND STORM DRAIN PLAN
HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
BALTIMORE, MD 21222

DESIGNED: M.M./J.H.
DRAWN: M.H.
CHECKED: B.L.
SCALE: 1"=30'
DATE: 05/02/18
PROJECT: 2016.0527.00
DRAWING:

C301

ESD #6654

HOLABIRD MANOR CONDOS - PUD
PROPOSED SITE PLAN

07/22/2015

NORTH

RIGHT IN
RIGHT OUT

CENTER LINE OF DUNDALK AVE 60 FT ROW
DUNDALK AVENUE

DESIGNATED VISITABLE UNITS

445 Harbort St Unit A1
1 OF 4c UNITS

— VISITABLE ROUTE
▼ VISITABLE ENTRANCE

Total Project SF = 233,084
Total Bldg SF = 89,237
Total Open SF = 143,849 61.12%

HOLABIRD MANOR PUD ACCESSIBILITY DATA

Unit Const. Type Identification	Units	Parking Spaces Table 106.1		Accessible DU's	
		Total	Req'd	Req'd	Designated
Existing to Remain					
Senior Living	34	15	1	2	34
Efficiencies	12	24	2	2	0
New Construction					
Bldg A/B	14	105	5	10	5
Bldg C	54	53	3	4	4
Bldg D	44	43	3	4	4
2 Unit TH's	46	46	2	2	2
Open Site	24	2	1	na	na
Totals:	310	344	18	28	51

NOTES:

- IN ADDITION TO DESIGNATED UNITS, EVERY UNIT IN BLDG A/B, C, D HAVE BEEN DESIGNED FOR EASY HCP ADAPTABILITY.
- REQUIRED QUANTITIES ARE PER TABLE 107.04.1 AND 104.1.

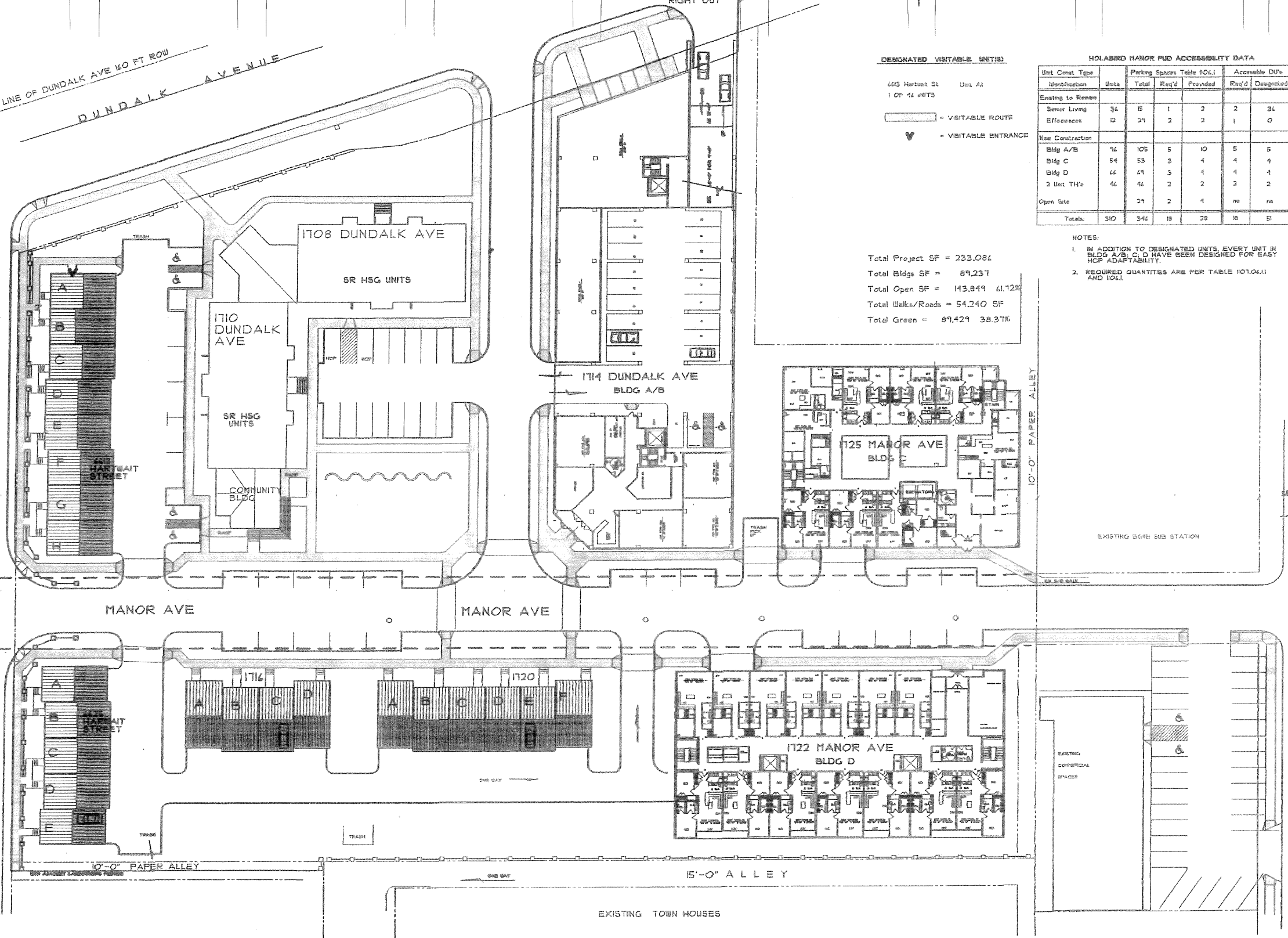
DESIGNED BY:
DRAIN BY:
CHECKED BY:
The Diesselhorst Group
8611 Virginia Ave, Annandale, VA 22003

SCALE: 1/4" = 1'-0"
SHEET TITLE: **HOLABIRD MANOR PUD**
DISCIPLINE: **HOLABIRD APTMENTS INC.**

ISSUE DATE: 07/28/2015
REVISIONS:

SHEET: VI
OF

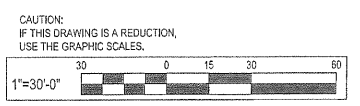
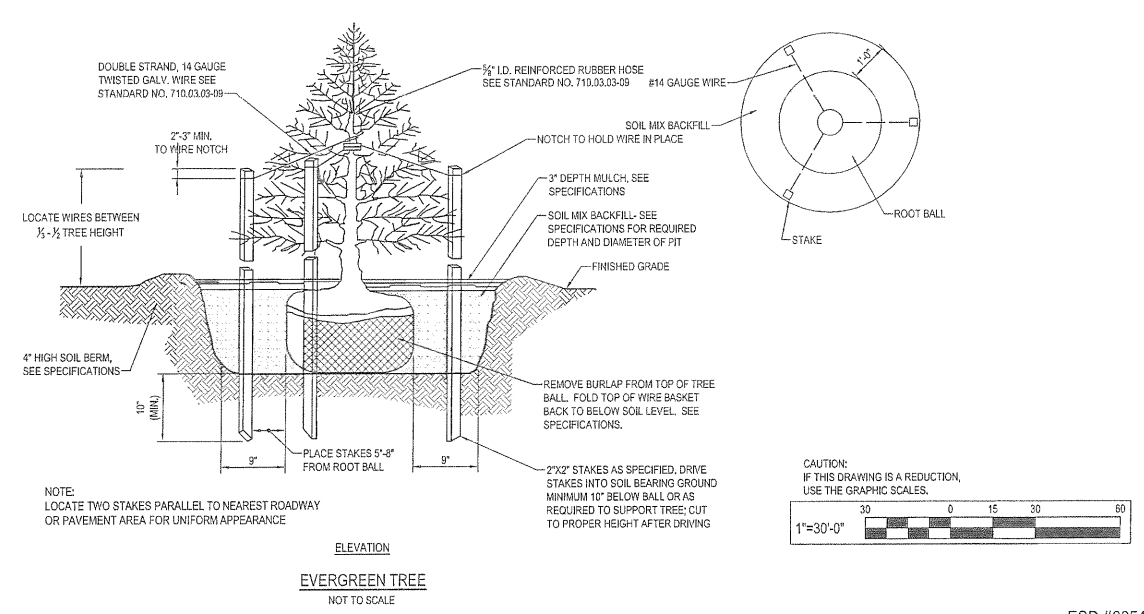
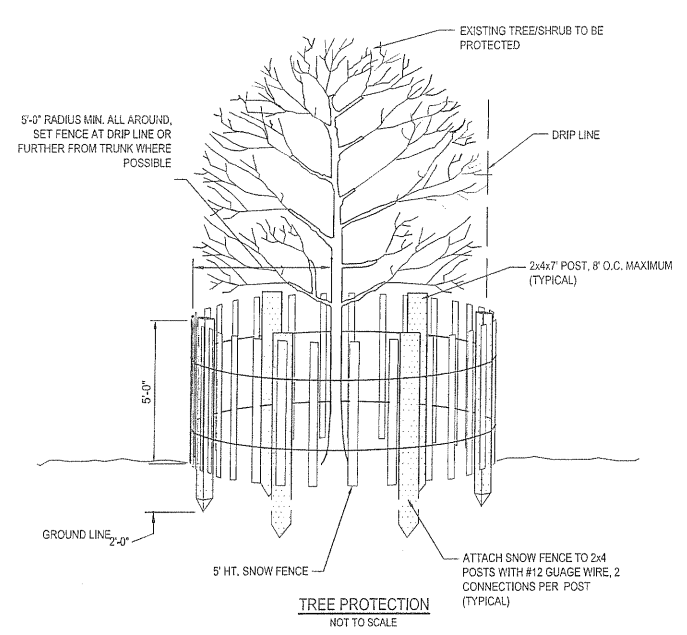
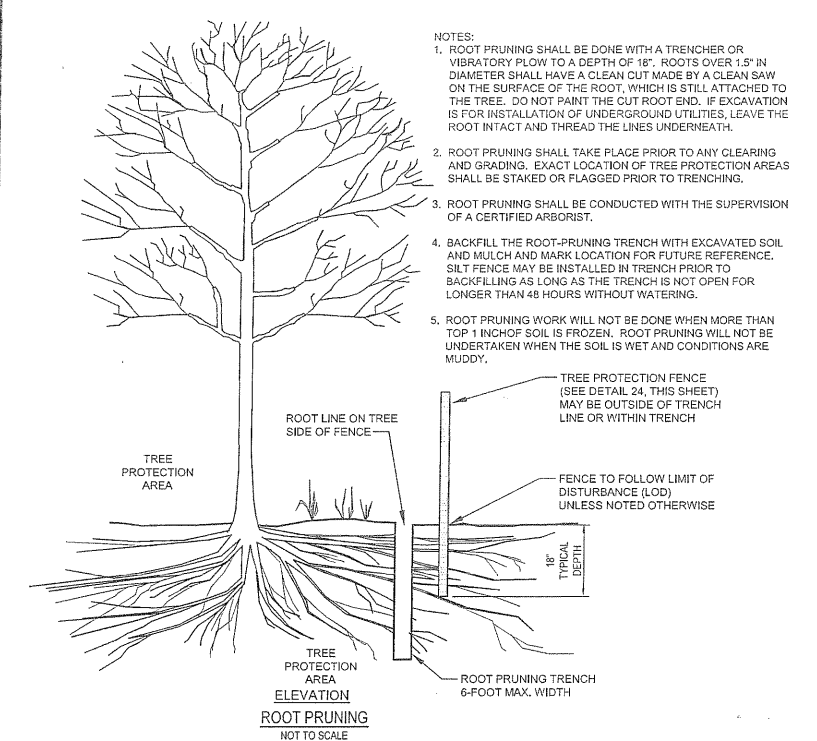
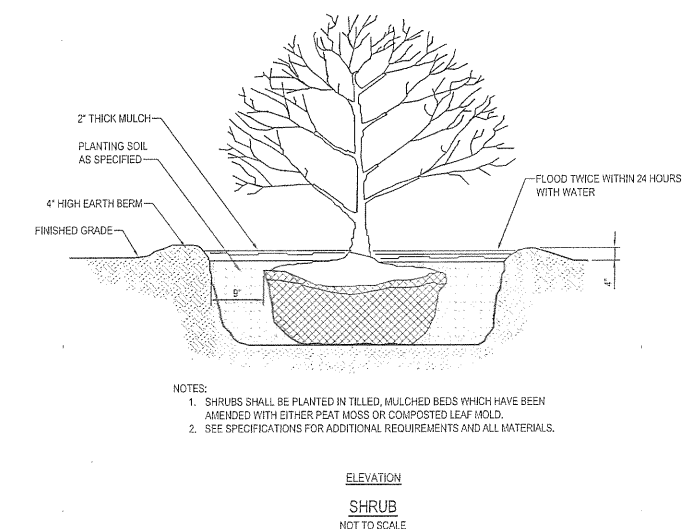
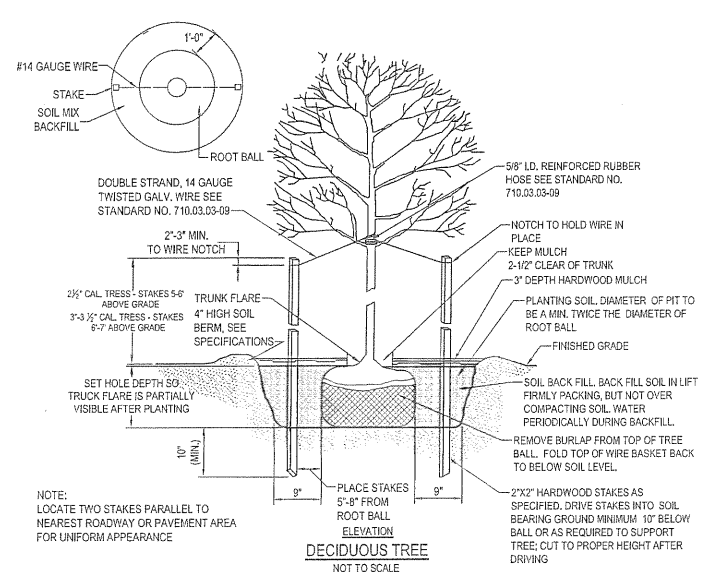
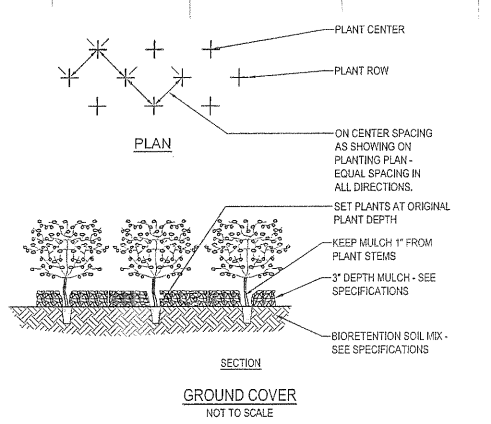
PRELIMINARY



PLANTING UNITS REQUIREMENTS			
Key	Condition	Required Planting Units	Proposed Planting Units
A Dundalk Avenue	Condition F	1 PU / 30 ft.	4 Major Trees (1:1) = 4 PU 10 Minor Trees (2:1) = 5 PU 42 Evergreens (2:1) = 21 PU Total PU = 30
	Street Frontage	449 LF / 30 = PU	
B Eastbourne Avenue	Condition F	1 PU / 30 ft.	2 Major Trees (1:1) = 2 PU 16 Minor Trees (2:1) = 8 PU 6 Shrubs (6:1) = 1 PU Total PU = 11
	Street Frontage	317 LF / 30 = PU	
C-1 Parking Lot Interior Parking Lot Area = 4519.5 sq.ft. Reserved Planting Area = 4519.5 x 10% = 451.95 SF	Condition G	1 PU / 200 SF of Reserved Planting Area	14 Shrubs (6:1) = 2.35 PU Total PU = 2.35
	Parking Lot	451.95 SF / 200 SF = PU	
C-2 Parking Lot Perimeter	Condition G	1 Major Tree / 35 ft.	8 Major Trees (1:1) = 8 PU 14 Shrubs (6:1) = 2.35 PU Total PU = 10.35
	Parking Lot	1 Shrub / 20 ft. 270 / 35 = Major Trees 270 / 20 = Shrubs Sub-Total Required = 8 Major Trees, 14 Shrubs	
D Interior Plaza	Condition D	1 PU / 1200 SF	1 Major Tree (1:1) = 1 PU 6 Minor Trees (2:1) = 3 PU 9 Shrubs (6:1) = 1.5 PU Total PU = 5.5
	Open Space	6637.4 SF / 1200 SF = PU	
E Manor Avenue	Condition F	1 PU / 30 ft.	26 Major Trees (1:1) = 26 PU 4 Minor Trees (2:1) = 2 PU 82 Evergreens (2:1) = 41 PU 6 Shrubs (6:1) = 1 PU Total PU = 70
	Street Frontage	564.5 LF / 30 = PU	
F Brown Avenue	Condition F	1 PU / 30 ft.	1 Major Trees (1:1) = 1 PU 3 Minor Trees (2:1) = 1.5 PU 22 Evergreens (2:1) = 11 PU Total PU = 13.5
	Street Frontage	127 LF / 30 = PU	
G Hartwait Street	Condition F	1 PU / 30 ft.	3 Major Trees (1:1) = 3 PU 5 Minor Trees (2:1) = 2.5 PU 9 Evergreens (2:1) = 4.5 PU 48 Shrubs (6:1) = 8 PU Total PU = 18
	Street Frontage	388 LF / 30 = PU	
		Sub-Total Required = 12.9 PU	Total PU = 18
		Total Required = 79.6 PU	Total Provided = 160.7 PU

PLANT SCHEDULE						
Key	Qty.	Botanical Name	Common Name	Size (Min.)	Root	Remarks
Major Deciduous Trees						
AS	28	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2-2.5" Cal.	B&B	FULL SPECIMEN, HEADED TO 6' HT.
GT	1	GLEDTISIA TRIA INERMIS 'SKYLINE'	SKYLINE HONEY LOCUST	2-2.5" Cal.	B&B	FULL SPECIMEN, HEADED TO 6' HT.
QP	11	QUERCUS PALUSTRIS	PIN OAK	2-2.5" Cal.	B&B	FULL SPECIMEN, HEADED TO 6' HT.
JAV	5	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE AMERICAN ELM	2-2.5" Cal.	B&B	FULL SPECIMEN, HEADED TO 6' HT.
ZS	19	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE ZELKOVA	2-2.5" Cal.	B&B	FULL SPECIMEN, HEADED TO 6' HT.
Minor Deciduous Trees						
AA	0	AMELANCHIER ARBOREA	SERVICEBERRY	8"-10" HT.	B&B	FULL HEAVY SPECIMEN, CLUMP
PXY	11	PRUNUS X YEDOENSIS	YOSHINO CHERRY	1-1/5" CAL.	B&B	FULL SPECIMEN
SR	10	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAP. TREE LILAC	1.75-2" CAL.	B&B	FULL SPECIMEN
Evergreen Trees						
JV	0	JUNIPERUS VIRGINIANA 'GREEN SENTINEL'	GREEN SENTINEL JUNIPER	5'-6" HT.	B&B	FULL, SPACED 6' O.C.
PA	4	PICEA ABIES	NORWAY SPRUCE	5'-6" HT.	B&B	FULL HEAVY, SPACED 10' O.C.
TO	21	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERALD GREEN ARBOVITAE	5'-6" HT.	B&B	FULL, SPACED 6' O.C.
Shrubs						
AG	0	ABELIA GRANDIFLORA 'EDWARD GOUCHER'	EDWARD GOUCHER GLOSSY ABELIA	24"-30" HT.	Cont.	FULL, SPACED 3' O.C.
JC	49	JUNIPERUS CHINENSIS 'SARGENTI'	SARGENT JUNIPER	15"-18" SPREAD	Cont.	FULL, SPACED 4' O.C. STAGGERED
PL	0	PRUNUS LAUROCERACUS 'OTTO LUYKEN'	OTTO LUYKEN CHERRY LAUREL	24"-30" HT.	Cont.	FULL, SPACED 4' O.C. STAGGERED
VD	0	VIBURNUM DENTATUM 'CHICAGO LUSTRE'	CHICAGO LUSTRE ARROWWOOD VIB.	3'-4" HT.	Cont.	FULL
Total						

PLANTING UNIT SUMMARY			
Category	Planting Unit Rate	Plants Proposed	Planting Units Proposed
Major Deciduous Trees	1 Tree = 1 PU	65	65.0
Minor Deciduous Trees	2 Trees = 1 PU	21	10.5
Evergreen Trees	2 Trees = 1 PU	25	12.5
Shrubs	5 Shrubs = 1 PU	49	8.2
Groundcover and Vines	500 SF = 1 PU	0	0.0
Perennials	10 Gal or 20 Qt = 1 PU	0	0.0
		Total	96.2



BY: [REDACTED]

REVISION: [REDACTED]

DATE: [REDACTED]

NO: [REDACTED]

WINNEYS REALTY CO. & MANAGERS, LLC
300 East Joppa Road, Suite 200
Beltsville, MD 21050
410.312.6500 www.wbcm.com

WBCM

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34582 Expiration Date: 07/08/19

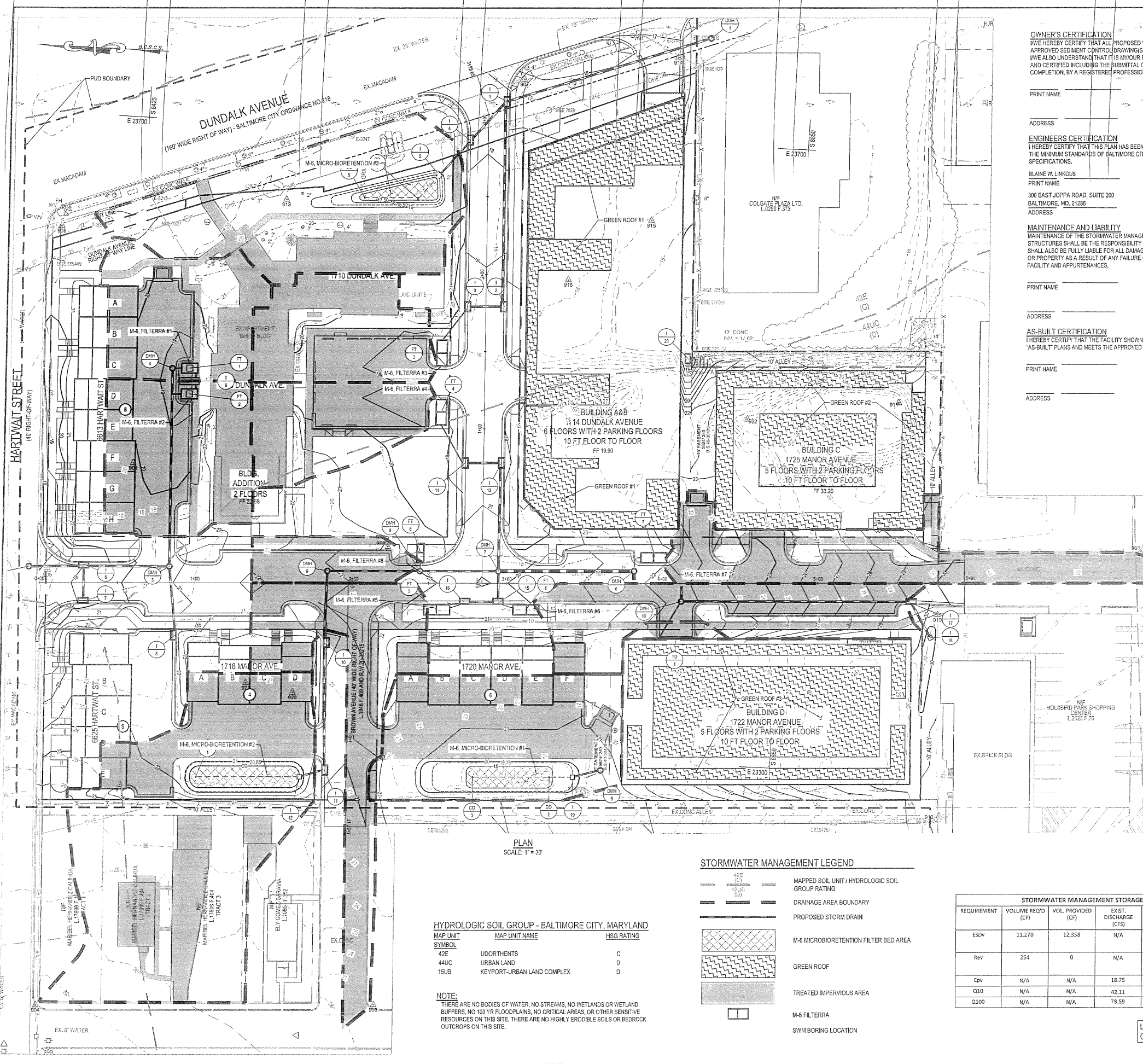
PLANTING PLAN

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
100 BALTIMORE AVENUE, 4TH FLOOR
BALTIMORE, MD 21202

DESIGNED: M.M. / H.H.
DRAWN: M.H.
CHECKED: B.L.
SCALE: AS SHOWN
DATE: 05/02/18
PROJECT: 2016.0527.00
DRAWING: L102

ESD #6654

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OWNER'S CERTIFICATION
 I HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN IN THESE CONSTRUCTION DRAWINGS(S) AND APPROVED SEDIMENT CONTROL DRAWING(S) WILL BE ACCOMPLISHED PURSUANT TO THESE PLANS. I AM ALSO UNDERSTANDING THAT IT IS MY OWN RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED INCLUDING THE SUBMITTAL OF 'AS-BUILT' PLANS WITHIN THIRTY (30) DAYS OF COMPLETION BY A REGISTERED PROFESSIONAL ENGINEER.

PRINT NAME _____ SIGNATURE _____ DATE _____
 ADDRESS _____ TELEPHONE NUMBER _____

ENGINEER'S CERTIFICATION
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE MINIMUM STANDARDS OF BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS REQUIREMENTS AND SPECIFICATIONS.

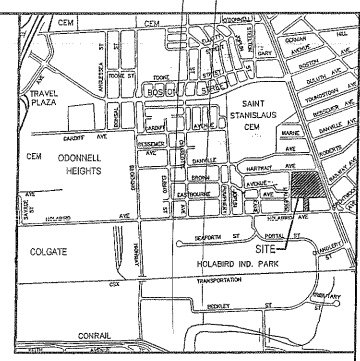
BLAINE W. LINKOUS
 PRINT NAME _____ SIGNATURE _____ DATE _____
 300 EAST JOPPA ROAD, SUITE 200
 BALTIMORE, MD. 21286
 ADDRESS _____ TELEPHONE NUMBER _____

MAINTENANCE AND LIABILITY
 MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITY AND APPURTENANT DRAINAGE STRUCTURES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE PROPERTY OWNER SHALL ALSO BE FULLY LIABLE FOR ALL DAMAGE OR INJURIES THAT MAY BE SUSTAINED BY ANY PERSON OR PROPERTY AS A RESULT OF ANY FAILURE OR MALFUNCTION OF THE STORMWATER MANAGEMENT FACILITY AND APPURTENANCES.

PRINT NAME _____ SIGNATURE _____ DATE _____
 ADDRESS _____ TELEPHONE NUMBER _____

AS-BUILT CERTIFICATION
 I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE 'AS-BUILT' PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

PRINT NAME _____ SIGNATURE _____ DATE _____
 ADDRESS _____ TELEPHONE NUMBER _____



VICINITY MAP
 SCALE: 1"=8.333'

CONTRACTOR'S AS-BUILT NOTE
 AS-BUILT PLANS AND CERTIFICATIONS ARE REQUIRED FOR THIS STORMWATER MANAGEMENT FACILITY. THESE MUST BE PREPARED AND SEALED BY A MARYLAND REGISTERED PROFESSIONAL ENGINEER. BALTIMORE CITY WILL NOT PERFORM THE INSPECTION OR PREPARE THE AS-BUILT PLANS OR CERTIFICATION. THE STORMWATER MANAGEMENT PERMIT SECURITY WILL NOT BE RELEASED UNTIL THE AS-BUILT PLANS AND CERTIFICATION ARE APPROVED BY BALTIMORE CITY. IN ORDER TO PREPARE THE REQUIRED AS-BUILT PLANS AND CERTIFICATIONS, THIS STORMWATER MANAGEMENT FACILITY MUST BE INSPECTED BY THE ENGINEER AT SPECIFIC STAGES DURING CONSTRUCTION AS REQUIRED BY THE CURRENT BALTIMORE CITY STORMWATER MANAGEMENT POLICY AND DESIGN MANUAL. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE PLANS.

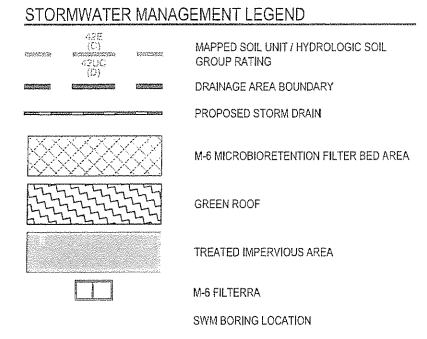
ENVIRONMENTAL SITE DESIGN SUMMARY TABLE							
PRACTICE	DIMENSIONS	DRAINAGE AREA (ac)	IMP. AREA (ac)	STORAGE VOLUME ESdV (cf)	TREATMENT VOLUME ESdV (cf)	RECHARGE VOLUME (cf)	PROVIDED PE
MICRO-BIOTRETENTION #1	AREA = 760 SF, 2' MEDIA W/ 0.75' PONDING	0.28	0.17	1504	1555	0	2.6
MICRO-BIOTRETENTION #2	AREA = 949 SF, 2' MEDIA W/ 0.85' PONDING	0.56	0.24	1745	2279	0	2.6
MICRO-BIOTRETENTION #3	AREA = 467 SF, 2' MEDIA W/ 1.0' PONDING	0.36	0.10	1087	1021	0	2.6
Filterra #1	AREA = 60 SF, 10' LONG, 6' WIDE, STORAGE DEPTH 6"	0.18	0.14	123	486	0	1.0
Filterra #2	AREA = 60 SF, 10' LONG, 6' WIDE, STORAGE DEPTH 6"	0.21	0.19	163	647	0	1.0
Filterra #3	AREA = 18 SF, 12' LONG, 6' WIDE, STORAGE DEPTH 6"	0.17	0.14	128	477	0	1.0
Filterra #4	AREA = 36 SF, 12' LONG, 6' WIDE, STORAGE DEPTH 6"	0.14	0.10	128	364	0	1.0
Filterra #5	AREA = 48 SF, 10' LONG, 6' WIDE, STORAGE DEPTH 6"	0.24	0.20	176	693	0	1.0
Filterra #6	AREA = 48 SF, 10' LONG, 6' WIDE, STORAGE DEPTH 6"	0.21	0.13	128	460	0	1.0
Filterra #7	AREA = 36 SF, 12' LONG, 6' WIDE, STORAGE DEPTH 6"	0.22	0.18	176	624	0	1.0
Filterra #8	AREA = 24 SF, 12' LONG, 4' WIDE, STORAGE DEPTH 6"	0.07	0.06	85	201	0	1.0
GREEN ROOF #1	AREA = 7695 SF, THICK 8"	0.22	0.18	1032	1032	0	1.7
GREEN ROOF #2	AREA = 8407 SF, THICK 8"	0.18	0.15	859	859	0	1.7
GREEN ROOF #3	AREA = 9673 SF, THICK 8"	0.28	0.22	1296	1296	0	1.7
TOTAL		3.32	0.18	8,514	11,994	0	1.0
Existing Imp. Area			2.70				
Proposed Imp. Area			3.50				
New Imp. Area (Proposed Imp. Area - Exist. Imp. Area)			0.80				
Redevelopment Imp. Area (1/2 Exist. Imp. Area)			1.35				
Total Imp. Area to Treat (Redev. + New Imp.)			2.15				
Total Imp. Area Treated by Facilities			2.18				
			ESdV PROVIDED (CF)				11,994
			ESdV REQUIRED (CF)				11,046
			RECHARGE PROVIDED (CF)				0
			RECHARGE REQUIRED (CF)				253

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License #34682 Expiration Date: 07/08/19

PLAN SCALE: 1" = 30'

HYDROLOGIC SOIL GROUP - BALTIMORE CITY, MARYLAND		
MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING
42E	UDORTHERENTS	C
44UC	URBAN LAND	D
15UB	KEYPORT-URBAN LAND COMPLEX	D

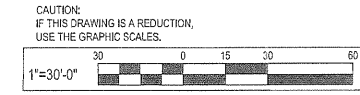
NOTE:
 THERE ARE NO BODIES OF WATER, NO STREAMS, NO WETLANDS OR WETLAND BUFFERS, NO 100 YR FLOODPLAINS, NO CRITICAL AREAS, OR OTHER SENSITIVE RESOURCES ON THIS SITE. THERE ARE NO HIGHLY ERODIBLE SOILS OR BEDROCK OUTCROPS ON THIS SITE.



STORMWATER MANAGEMENT STORAGE REQUIREMENTS					
REQUIREMENT	VOLUME REQ'D (CF)	VOL. PROVIDED (CF)	EXIST. DISCHARGE (CFS)	PROP. DISCHARGE (CFS)	NOTES
ESdV	11,270	12,358	N/A	N/A	TREATED BY MICROBIOTRETENTION, FILTERRA & GREEN ROOF
Rev	254	0	N/A	N/A	GROUNDWATER ELEVATION PREVENTS RECHARGE
Cdv	N/A	N/A	18.75	18.75	ADDRESSED BY ESdV
Q10	N/A	N/A	42.11	42.11	ADDRESSED BY ESdV
Q100	N/A	N/A	78.59	78.59	ADDRESSED BY ESdV

LOD = 215,024 SF / 4.94 AC.
 CUT / FILL = 25541 / 2940 CY

OWNER/DEVELOPER/APPLICANT
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200



BY _____
 REVISION _____
 DATE _____

WHITNEY HARTLEY COX & ASSOCIATES, LLC
 300 East Joppa Road, Suite 200
 Baltimore, MD 21286
 410.572.4500 www.wbcm.com

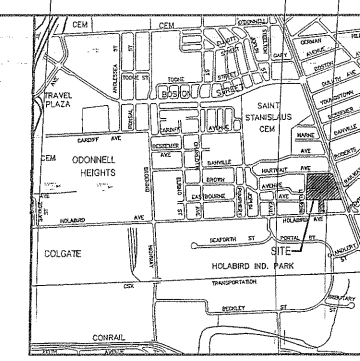
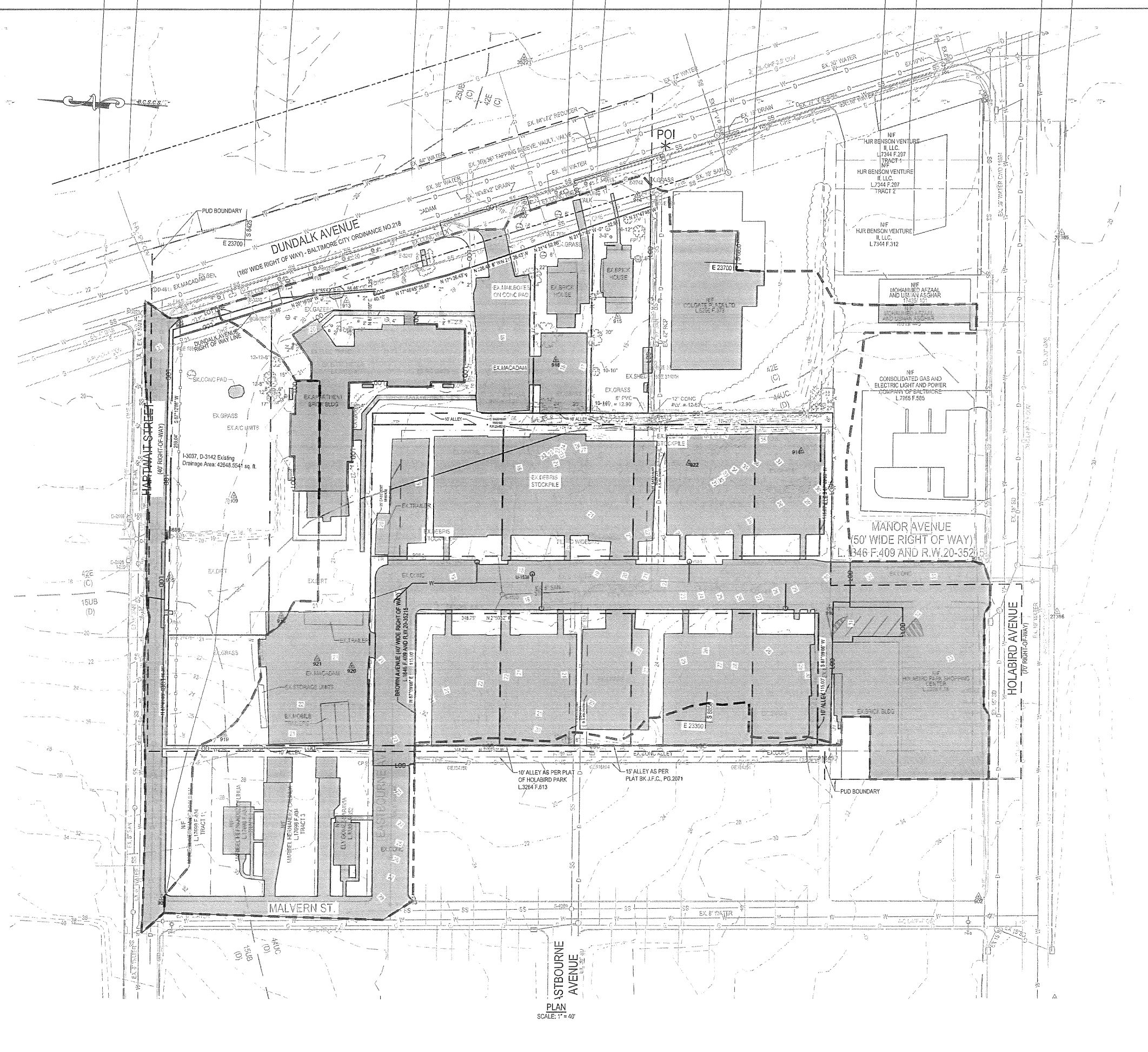
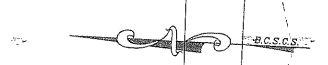
WBCM

OVERALL STORMWATER MANAGEMENT PLAN
 HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 BALTIMORE, MD 21222

DESIGNED: M.M. / H.H.
 DRAWN: M.H.
 CHECKED: B.L.
 SCALE: 1"=30'
 DATE: 05/02/18
 PROJECT: 2016.0527.00
 DRAWING: C500

ESD #6654

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VICINITY MAP
SCALE: 1"=8,333'

LEGEND:

DESCRIPTION	EXISTING
BUILDING	EX. BLDG
BITUMINOUS CONCRETE PAVING	EX. MACADAM
CONCRETE SIDEWALK	EX. CONC WALK
CONCRETE PAVING	EX. CONC
CLEAN OUT	
DRAIN INLET	
ELECTRIC BOX	
ELECTRIC CONDUIT	
ELECTRIC MH	
ELECTRIC RISER	
FIRE HYDRANT	
FIRE CONNECTION	
FLOOR DRAIN	
OBSERVATION WELL	
GAS VALVE	
HAND BOX	
INLET MH	
METAL POLE	
PARKING METER	
POWER POLE	
ROOF DRAIN	
SANITARY MH	
SIGNS	
STORM DRAIN MH	
STREET LIGHT	
TELEPHONE MH	
TELEPHONE RISER	
TRAVERSE STATION	
TREES	
UNKNOWN MH	
WATER MH	
WATER VALVE	
BUSHES	
SPOT ELEVATION	
MAJOR CONTOUR	
MINOR CONTOUR	
WALL	
CONC. CURB	
FENCE LINE	
UG SANITARY	
UG STORM	
UG WATER	
PROPERTY LINE	
OH ELECTRIC	
UG ELECTRIC	
UG GAS	
SURVEY LIMITS	
LIMIT OF DISTURBANCE	
SOIL LINE	
DRAINAGE AREA	
IMPERVIOUS AREA	
POINT OF INTEREST	* POI

OWNER/DEVELOPER/APPLICANT
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200

CAUTION:
 IF THIS DRAWING IS A REDUCTION,
 USE THE GRAPHIC SCALES.

1"=40'-0"

NO.	DATE	REVISION

WHITNEY BAILEY COX & MCKINNEY, LLC
 300 East Poplar Road, Suite 200
 Baltimore, MD 21206
 410.512.6300 www.wbcm.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License #34682 Expiration Date: 07/08/19

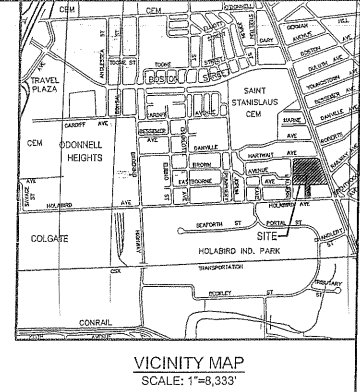
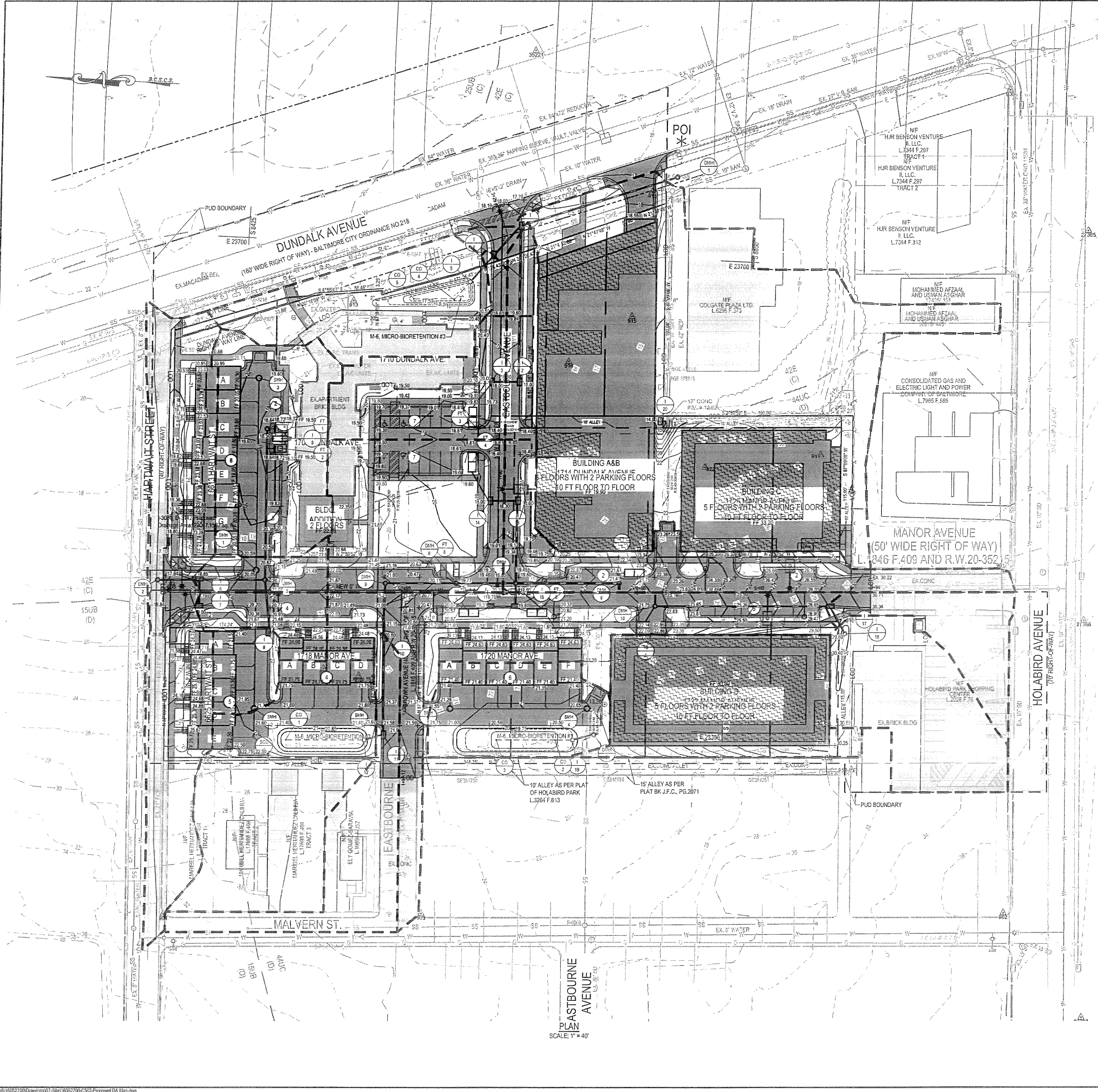
EXISTING CONDITIONS DRAINAGE AREA MAP

HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MD 21222

DESIGNED:	M.M. / H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C501

ESD #6654



LEGEND:

DESCRIPTION	EXISTING	NEW
BUILDING	EX. BLDG	NEW BLDG.
BITUMINOUS CONCRETE PAVING	EX. MACADAM	
CONCRETE SIDEWALK	EX. CONG. WALK	
CONCRETE PAVING	EX. CONG.	
CLEAN OUT		
DRAIN INLET		
ELECTRIC BOX		
ELECTRIC CONDUIT		
ELECTRIC MH		
ELECTRIC RISER		
FIRE HYDRANT		
FIRE CONNECTION		
FLOOR DRAIN		
OBSERVATION WELL		
GAS VALVE		
HAND BOX		
INLET MH		
METAL POLE		
PARKING METER		
POWER POLE		
ROOF DRAIN		
SANITARY MH		
SIGNS		
STORM DRAIN MH		
STREET LIGHT		
TELEPHONE MH		
TELEPHONE RISER		
TRAVERSE STATION		
TREES		
UNKNOWN MH		
WATER MH		
WATER VALVE		
BUSHES		
SPOT ELEVATION		
MAJOR CONTOUR		
MINOR CONTOUR		
WALL		
CONC. CURB		
FENCE LINE		
UG SANITARY		
UG STORM		
UG WATER		
PROPERTY LINE		
OH ELECTRIC		
UG ELECTRIC		
UG GAS		
SURVEY LIMITS		
LIMIT OF DISTURBANCE		
SOIL LINE		
DRAINAGE AREA		
IMPERVIOUS AREA		
IMPERVIOUS AREA GREEN ROOF		
POINT OF INTEREST		

OWNER/DEVELOPER/APPLICANT
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200

CAUTION:
 IF THIS DRAWING IS A REDUCTION,
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1"=40'-0"

NO.	DATE	REVISION

WHITNEY GARDNER & ASSOCIATES, LLC
 300 East North Avenue, Suite 200
 Baltimore, MD 21206
 410.512.4500 www.wgaml.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

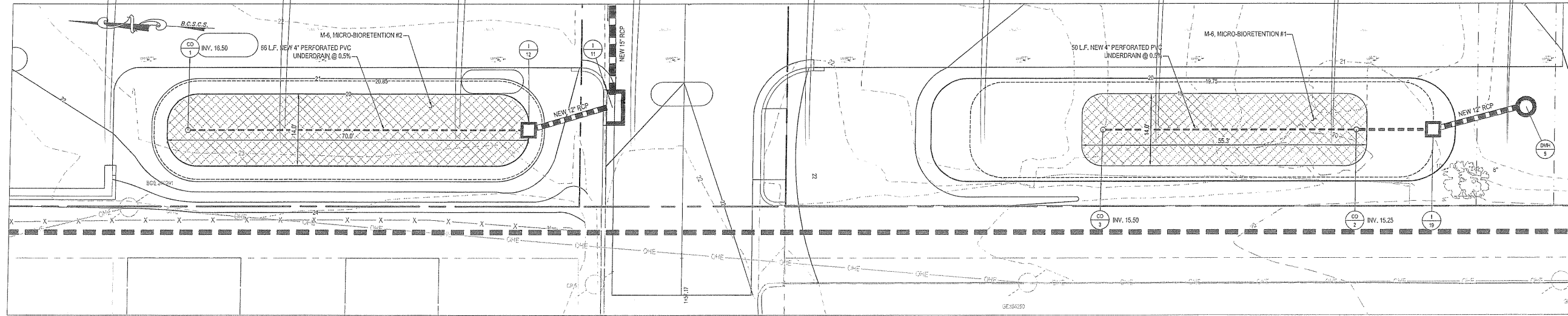
License #234682 Expiration Date: 07/08/19

PROPOSED CONDITIONS DRAINAGE AREA MAP

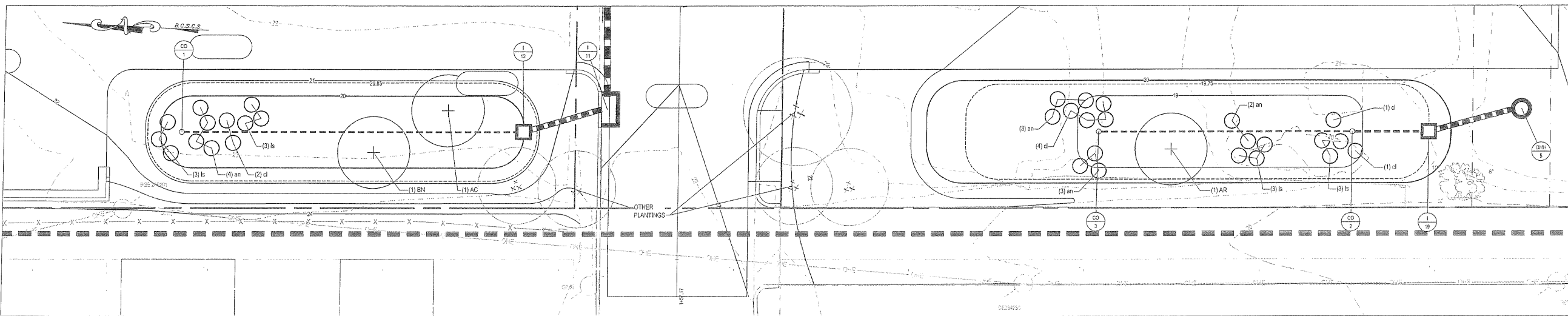
HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C502



M-6 MICRO-BIORETENTION FACILITY #1 AND #2
SCALE: 1" = 10'

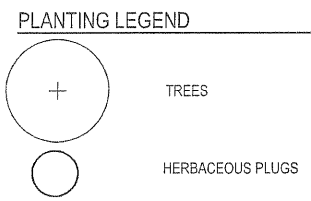


M-6 MICRO-BIORETENTION FACILITY #1 AND #2 - PLANTING PLAN
SCALE: 1" = 10'

DESIGN / AS - BUILT DATA FOR MICRO-BIORETENTION		
* TO BE COMPLETED BY THE CERTIFYING ENGINEER		
TYPE OF FACILITY: M-6, MICRO-BIORETENTION	BMP ID: TBD	NS85763 E1444416
FEATURE	DESIGN	*AS-BUILT
FILTER BED DIMENSIONS (L x W)	14' x 70'	
LEFT SIDE SLOPE	3:1	
RIGHT SIDE SLOPE	3:1	
FILTER BED SURFACE ELEVATION (TOP OF MULCH)	20.70	
ESD STORAGE ELEVATION	20.85	
10-YEAR FREEBOARD	0.5	
OVERFLOW INLET / TOP ELEVATION	1-12 / 20.00	
OUTLET PIPE DIAMETER / TYPE (HDPE, RCP, CMP)	12" / HDPE	
OUTLET PIPE INVERT	16.15	
UNDER DRAIN DIAMETER	4"	
TOP OF EMBANKMENT ELEVATION, TB	21.45	
TOP OF EMBANKMENT WIDTH (MIN.)	2'	
THICKNESS OF MULCH / ELEV.	3" / 20.00'	
THICKNESS OF FILTER MEDIA SHA BSM / ELEV.	2.00' / 19.75'	
THICKNESS OF COARSE SAND / ELEV.	4" / 17.75'	
THICKNESS OF PEA GRAVEL / ELEV.	4" / 17.42'	
THICKNESS OF UNDERDRAIN GRAVEL / ELEV.	10" / 17.09'	
RECHARGE SECTION THICKNESS, REv / ELEV.	0.00	
PLACEMENT OF GEOTEXTILE	SIDES & BOTTOM	
PLACEMENT OF IMPERMEABLE LINER	SIDES & BOTTOM	
PLANTINGS	SEE PLAN	
OBSERVATION WELL WITH DEPTH TO FILTER BOTTOM INDICATED ON CAP	OBS #1 (4.25')	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

DESIGN / AS - BUILT DATA FOR MICRO-BIORETENTION		
* TO BE COMPLETED BY THE CERTIFYING ENGINEER		
TYPE OF FACILITY: M-6, MICRO-BIORETENTION	BMP ID: TBD	NS85593 E1444425
FEATURE	DESIGN	*AS-BUILT
FILTER BED DIMENSIONS (L x W)	14' x 55.3'	
LEFT SIDE SLOPE	3:1	
RIGHT SIDE SLOPE	3:1	
FILTER BED SURFACE ELEVATION (TOP OF MULCH)	19.00	
ESD STORAGE ELEVATION	19.75	
10-YEAR FREEBOARD	0.25'	
OVERFLOW INLET / TOP ELEVATION	1-19 / 19.75	
OUTLET PIPE DIAMETER / TYPE (HDPE, RCP, CMP)	12" / HDPE	
OUTLET PIPE INVERT	15.08	
UNDER DRAIN DIAMETER	4"	
TOP OF EMBANKMENT ELEVATION, TB	20.5	
TOP OF EMBANKMENT WIDTH (MIN.)	2'	
THICKNESS OF MULCH / ELEV.	3" / 19.00'	
THICKNESS OF FILTER MEDIA SHA BSM / ELEV.	2.00' / 18.75'	
THICKNESS OF COARSE SAND / ELEV.	4" / 16.75'	
THICKNESS OF PEA GRAVEL / ELEV.	4" / 16.42'	
THICKNESS OF UNDERDRAIN GRAVEL / ELEV.	10" / 16.09'	
RECHARGE SECTION THICKNESS, REv / ELEV.	0.00	
PLACEMENT OF GEOTEXTILE	SIDES & BOTTOM	
PLACEMENT OF IMPERMEABLE LINER	SIDES & BOTTOM	
PLANTINGS	SEE PLAN	
OBSERVATION WELL WITH DEPTH TO FILTER BOTTOM INDICATED ON CAP	OBS #2 (4.25')	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

SWM PLANT SCHEDULE						
Trees						
Key	Qty.	Botanical Name	Common Name	Size (Min.)	Root	Spacing
BN	1	Betula nigra 'Heritage'	Heritage River Birch	10"-12" Hgt.	B&B	As shown
AC	1	Amelanchier canadensis	Serviceberry	5'-6" Hgt.	B&B	As shown
AR	2	Acer rubrum 'October Glory'	October Glory Red Maple	2" Cal.	B&B	As shown
4 Total						
Herbaceous Plants						
Key	Qty.	Botanical Name	Common Name	Size (Min.)	Root	Spacing
an	16	Aster novi-belgii	New York Aster	Plug	Cont.	36" on center
cl	15	Carex lurida	Lurid Sedge	Plug	Cont.	36" on center
ls	17	Lobelia siphilitica	Great Blue Lobelia	Plug	Cont.	36" on center
48 Total						



OWNER/DEVELOPER/APPLICANT
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200

CAUTION:
 IF THIS DRAWING IS A REDUCTION,
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NO.	DATE	REVISION



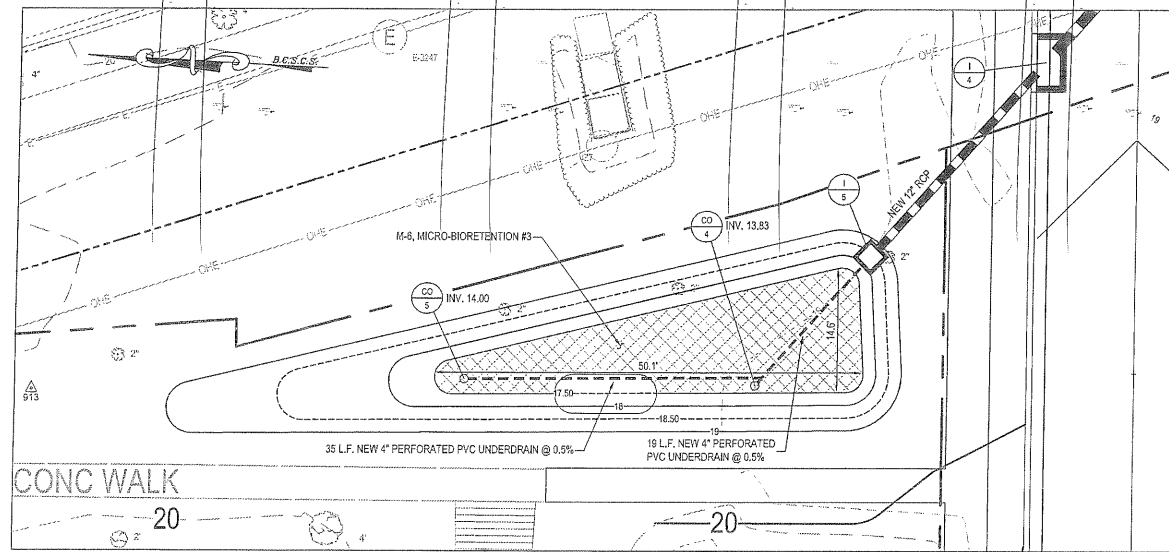
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License #34562 Expiration Date: 07/08/19

STORMWATER MANAGEMENT PLAN
 MICRO-BIORETENTION

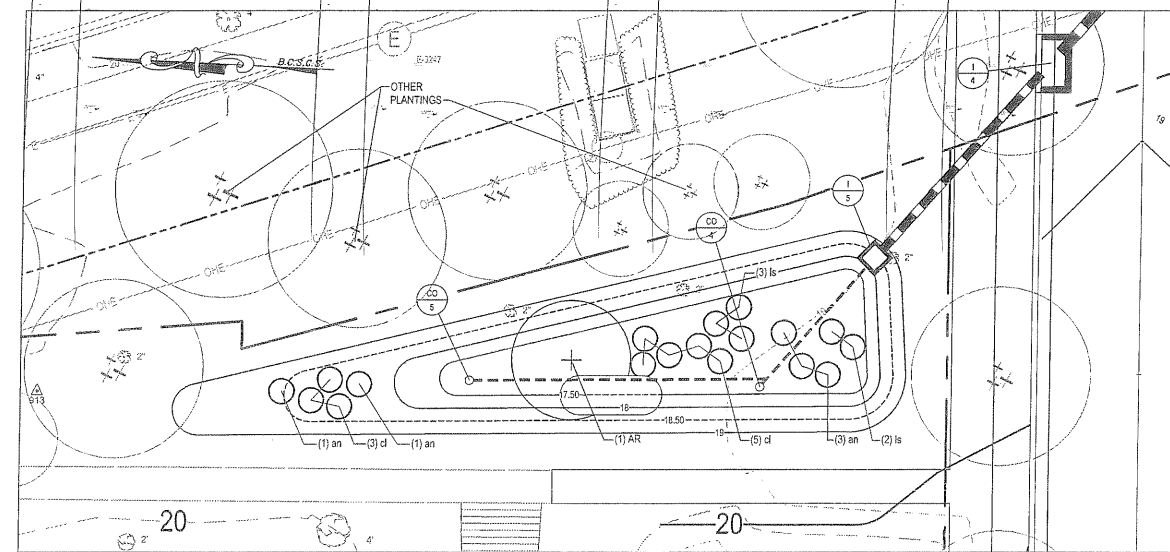
HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 (BALTIMORE, MD) 21222

DESIGNED:	M.M. / P.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=10'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C503



M-6 MICRO-BIORETENTION FACILITY #3
SCALE: 1" = 10'

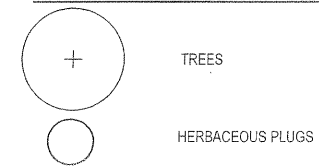


M-6 MICRO-BIORETENTION FACILITY #3 - PLANTING PLAN
SCALE: 1" = 10'

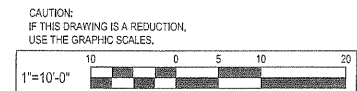
PROJECT NAME: HOLABIRD MANOR		SMP ID: TBD		NS65690 E344798	
DESIGN / AS - BUILT DATA FOR MICRO-BIORETENTION					
* TO BE COMPLETED BY THE CERTIFYING ENGINEER					
TYPE OF FACILITY: M-6, MICRO-BIORETENTION		BMP ID: MICRO-BIORETENTION (M-6) FACILITY #3			
FEATURE	DESIGN	*AS-BUILT			
FILTER BED DIMENSIONS (L x W)	14.6' x 50.1'				
LEFT SIDE SLOPE	3:1				
RIGHT SIDE SLOPE	3:1				
FILTER BED SURFACE ELEVATION (TOP OF MULCH)	17.50				
ESD STORAGE ELEVATION	18.50				
10-YEAR FREEBOARD	-				
OVERFLOW INLET / TOP ELEVATION	-5 / 18.50				
OUTLET PIPE DIAMETER / TYPE (HDPE, RCP, CMP)	12" / HDPE				
OUTLET PIPE INVERT	13.50				
UNDER DRAIN DIAMETER	4"				
TOP OF EMBANKMENT ELEVATION, T _b	19.20'				
TOP OF EMBANKMENT WIDTH (MIN.)	2'				
THICKNESS OF MULCH / ELEV.	8" / 17.50'				
THICKNESS OF FILTER MEDIA SHA BSM / ELEV.	2.00' / 17.25'				
THICKNESS OF COARSE SAND / ELEV.	4" / 15.25'				
THICKNESS OF #16 GRAVEL / ELEV.	4" / 14.92'				
THICKNESS OF UNDERDRAIN GRAVEL / ELEV.	10" / 14.59'				
RECHARGE SECTION THICKNESS, REV / ELEV.	0.00				
PLACEMENT OF GEOTEXTILE	SIDES & BOTTOM				
PLACEMENT OF IMPERMEABLE LINER	SIDES & BOTTOM				
PLANTINGS	SEE PLAN				
OBSERVATION WELL WITH DEPTH TO FILTER BOTTOM INDICATED ON CD	DBS #1 (4.25')				
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:					

SWM PLANT SCHEDULE						
Trees						
Key	Qty.	Botanical Name	Common Name	Size (Min.)	Root	Spacing
BN	1	Betula nigra 'Heritage'	Heritage River Birch	10'-12" Hgt.	B&B	As shown
AC	1	Amelanchier canadensis	Servicberry	5'-6' Hgt.	B&B	As shown
AR	2	Acer rubrum 'October Glory'	October Glory Red Maple	2" Cal.	B&B	As shown
				4 Total		
Herbaceous Plants						
Key	Qty.	Botanical Name	Common Name	Size (Min.)	Root	Spacing
an	16	Aster novi-belgii	New York Aster	Plug	Cont.	36" on center
cl	15	Carex lurida	Lurid Sedge	Plug	Cont.	36" on center
ls	17	Lobelia siphillica	Great Blue Lobelia	Plug	Cont.	36" on center
				48 Total		

PLANTING LEGEND



OWNER/DEVELOPER/APPLICANT
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200



ESD #6654

NO.	DATE	REVISION	BY



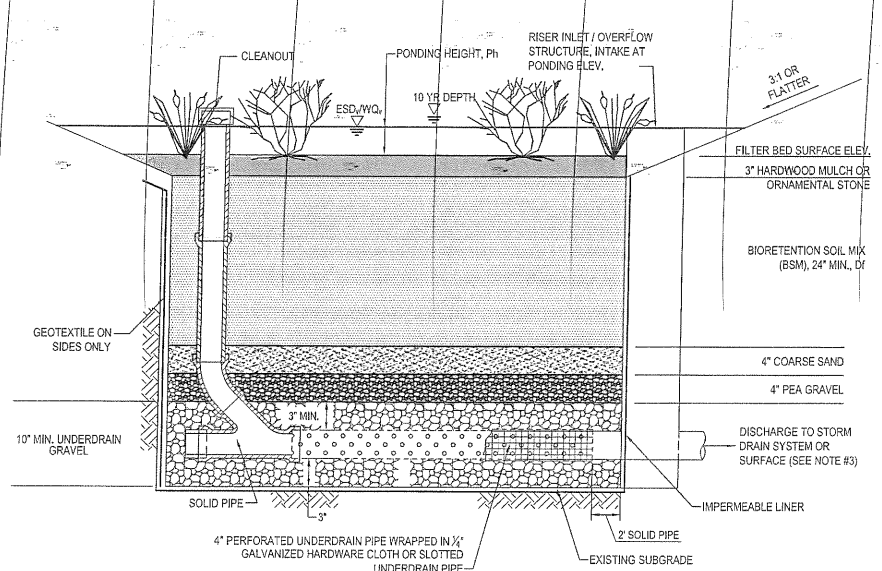
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34682 Expiration Date: 07/08/19

STORMWATER MANAGEMENT PLAN
MICRO-BIORETENTION

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

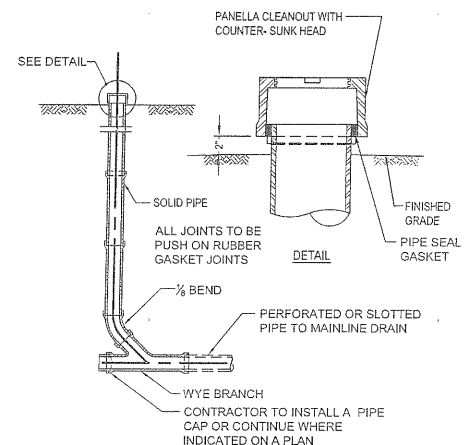
DESIGNED:	M.M. / H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=10'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C504

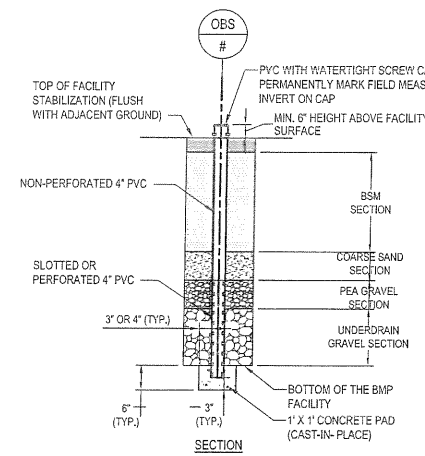


- NOTES:
1. A MINIMUM OF ONE OBSERVATION WELL MUST BE PROVIDED FOR EVERY 1000SF OF FILTER SURFACE AREA.
 2. DO NOT INSTALL GEOTEXTILE ALONG THE TOP, BOTTOM, OR ANY HORIZONTAL LAYER.
 3. DISCHARGE MUST BE TO A STABLE, NON-EROSIVE CUTOFF.

MICRO-BIORETENTION SECTION WITH RISER
NOT TO SCALE



CLEANOUT - DETAILS
NOT TO SCALE



MICRO-BIORETENTION OBSERVATION WELL
NOT TO SCALE

SPECIFICATIONS:

1. SEE CHART BELOW.
2. THE CONTRACTOR SHALL SUBMIT SOIL TEST RESULTS (1 PER 30 CY BSM) TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. PERFORM SOIL TESTS REQUIRED FOR BOTH IMPORTED SOIL AND RE-USED / AMENDED TOP SOIL. SOIL TEST AND RESULTS SHALL INCLUDE AT A MINIMUM: PHOSPHORUS, ORGANIC MATTER, SOLUBLE SALTS, NUTRIENTS, AND TEXTURAL ANALYSIS.
3. MINIMIZE COMPACTION OF SUBGRADE SOILS IN BIORETENTION AREAS. CONTRACTOR SHALL TILL THE SUBGRADE SOILS TO A DEPTH OF 6\"/>

MATERIAL	SPECIFICATION	SIZE	NOTES
PLANTINGS	SEE PLAN SHEET	NA	PLANTINGS ARE SITE SPECIFIC
BSM	SHA BIORETENTION SOIL MIX (BSM) SECTION 920.01.05	NA	MARYLAND STATE HIGHWAY ADMINISTRATION STANDARDS SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JULY 2008 INCLUDING AND ADDENDA THERE TO. COPY TO BE KEPT ON-SITE
MULCH	SHREDED HARDWOOD	AGED 6 MONTHS, MINIMUM NO PINE OR WOOD CHIPS	
PEA GRAVEL	ASTM D-448	#3 OR #4'S (19\"/>	

MAINTENANCE SCHEDULE:
AFTER CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE WORK, INSPECTION AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF HOLABIRD CONSTRUCTION INC.

INSPECTION ITEM	FREQUENCY OF INSPECTION	INSPECTION REQUIREMENTS	REMEDIAL ACTION
BIORETENTION BASIN	SEASONALLY AND AFTER MAJOR STORM	STABLE WITH GOOD STAND OF VEGETATION	REPAIR ERODED AREAS AND RE-PLANT WHERE NEEDED.
VEGETATION	SEASONALLY AND AFTER MAJOR STORM	FACILITY MUST DEWATER WITHIN 48 HOURS OF RAINFALL. NOTICEABLE ODDORS, STAINED WATER ON THE FILTER SURFACE OR AT THE OUTLET, OR THE PRESENCE OF ALGAE OR ANAEROBIC INDICATORS OF ANAEROBIC CONDITIONS, AND INADEQUATE DEWATERING OF THE FACILITY.	THE TOP THREE INCHES OF SOIL SHOULD BE REMOVED AND REPLACED WITH SOIL MATERIAL AS PER PLAN SPECIFICATIONS. FOLLOW UP INSPECTIONS MUST CONFORM TO LOCAL STANDARDS. IF THE FACILITY DOES NOT FUNCTION AS INTENDED AFTER THE ABOVE ACTION, THE ENTIRE FILTER AND UNDERDRAIN SYSTEM MAY NEED MAINTENANCE. IDEE APPROVAL MAY BE NECESSARY.
MULCH LAYER	SEASONALLY AND AFTER MAJOR STORM	CHECK MULCH FOR ADEQUATE COVER, SEDIMENT ACCUMULATION, OR DISCOLORATION.	REPLACE AND REMOVE OLD MULCH AND EXCESS SEDIMENTS. PROVIDE ADEQUATE COVER ACCORDING TO APPROVED DESIGN.
VEGETATIVE SURFACES	MONTHLY	HEALTHY COVERAGE	RE-SEED OR RE-PLANT
PLANT COMPOSITION AND HEALTH	MONTHLY	COMPARE PLANT COMPOSITION WITH APPROVED PLAN. CHECK FOR INVASIVE SPECIES OR WEEDS. CHECK FOR DEAD OR DYING VEGETATION.	REMOVE AND REPLACE PLANTS IN ACCORDANCE WITH PLAN SPECIFICATIONS.
VEGETATIVE COVER AND EROSION	MONTHLY	CHECK FOR EVIDENCE OF EROSION, BANKS, CHANNELING, OR BARE SPOTS.	RE-SEED OR RE-PLANT IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN. RE-GRADING MAY BE REQUIRED WHEN CONCENTRATED FLOW CAUSES EROSION THROUGH THE FACILITY.
SMUDGE AND TRASH CLEANOUT	MONTHLY	CHECK THAT THE FACILITY IS CLEAR OF TRASH AND DEBRIS. INLETS, OUTLETS, AND CONTRIBUTING AREAS AROUND THE FACILITY MUST BE CHECKED.	TRASH AND DEBRIS MUST BE REMOVED IN AN ACCEPTABLE MANNER ACCORDING TO CURRENT REGULATIONS.
STRUCTURAL COMPONENTS	ANNUALLY	CHECK FOR EVIDENCE OF STRUCTURAL DETERIORATION, SPALLING, OR CORROSION. INLET AND OUTLET STRUCTURES MUST BE IN GOOD CONDITION.	REPAIR TO GOOD CONDITION ACCORDING TO SPECIFICATIONS ON THE APPROVED PLANS.
OUTLETS	SEASONALLY AND AFTER MAJOR STORM	CHECK FOR EVIDENCE OF EROSION, PILES, OR GRAYING. RAINFALL OUTLET MUST BE MAINTAINED IN GOOD FUNCTIONAL CONDITION.	STABILIZE ALL ERODED AREAS AND GRADE TO PROVIDE STABLE CONVEYANCE. REPAIR ACCORDING TO APPROVED PLAN.
PRE-TREATMENT	SEASONALLY AND AFTER MAJOR STORM	CHECK FOR SEDIMENT ACCUMULATION.	IF NEEDED, WITH ACCUMULATIONS TO A DEPTH OF ONE HALF THE DESIGN PONDING DEPTH OR COVERS MORE THAN, SEDIMENT MUST BE REMOVED AND THE FACILITY RESTORED ACCORDING TO THE APPROVED DESIGN.
SEDIMENT ACCUMULATION	SEASONALLY AND AFTER MAJOR STORM	CHECK FOR SEDIMENT ACCUMULATION.	IF NEEDED, WITH ACCUMULATIONS TO A DEPTH OF ONE HALF THE DESIGN PONDING DEPTH OR COVERS MORE THAN, SEDIMENT MUST BE REMOVED AND THE FACILITY RESTORED ACCORDING TO THE APPROVED DESIGN.
GRASS CHANNEL CONVEYANCE SYSTEMS	SEASONALLY AND AFTER MAJOR STORM	CHECK FOR EROSION, FLOW BLOCKAGES, AND STABLE CONVEYANCE.	STABILIZE AND GRADE ACCORDING TO APPROVED PLAN.
OVERALL FUNCTION OF THE FACILITY	ANNUALLY	CHECK THAT FLOW SPLITTERS ARE FUNCTIONING AS DESIGNED AND THAT BYPASS IS OPERATING AS DESIGNED.	CONSTRUCTION MUST BE IN ACCORDANCE WITH APPROVED PLANS.

INSPECTION:

- REGULAR INSPECTIONS SHALL BE MADE DURING THE FOLLOWING STAGES OF CONSTRUCTION:
- DURING EXCAVATION TO SUBGRADE.
 - DURING PLACEMENT AND BACKFILL OF UNDERDRAIN PIPE AND GRAVEL.
 - DURING PLACEMENT OF GEOTEXTILE.
 - DURING PLACEMENT OF BACKFILL AND PLANTING SOIL.
 - DURING PLACEMENT OF MULCH.
 - DURING PLACEMENT OF PLANTS.
 - UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.
- OWNER TO KEEP COPIES OF ALL INSPECTIONS AND MAINTENANCE PERFORMED.

NO.	DATE	REVISION	BY

WHITNEY RAELEY COOK & MANORAN, LLC
300 East Jones Road, Suite 200
Baltimore, MD 21208
410.571.6700 www.wrcm.com

WBCM

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

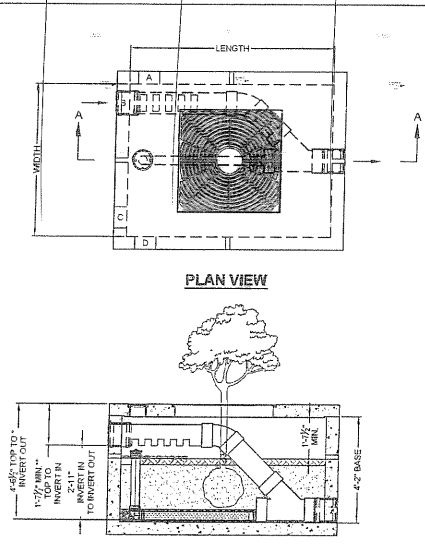
License #34682 Expiration Date: 07/08/19

STORMWATER MANAGEMENT DETAILS
MICRO-BIORETENTION

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
105 HOLABIRD RD.
BALTIMORE, MD 21222

DESIGNED:	M.M. / H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	AS NOTED
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

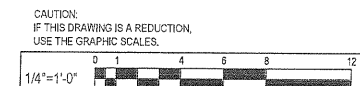
C505



10" BYPASS INLET PIPE CONFIGURATION
APPROXIMATE MAXIMUM BYPASS = 2.2 CFS

DESIGNATION	SIZE	LENGTH	WIDTH	INLET/OUTLET PIPE DIA.	UNDER-DRAIN PIPE DIA. (PERF.)	TREE GRATE QTY. & SIZE
FTBP1008-10	8 x 6	8'-0"	6'-0"	10" SDR 35	4" SDR 35	(1) 3' x 3'
FTBP1008-10	8 x 6	8'-0"	6'-0"	10" SDR 35	4" SDR 35	(1) 4' x 4'
FTBP1204-10	12 x 4	12'-0"	4'-0"	10" SDR 35	6" SDR 35	(2) 3' x 3'
FTBP1208-10	12 x 6	12'-0"	6'-0"	10" SDR 35	6" SDR 35	(2) 4' x 4'
FTBP1207-10	12 x 7	12'-0"	7'-0"	10" SDR 35	6" SDR 35	(2) 4' x 4'

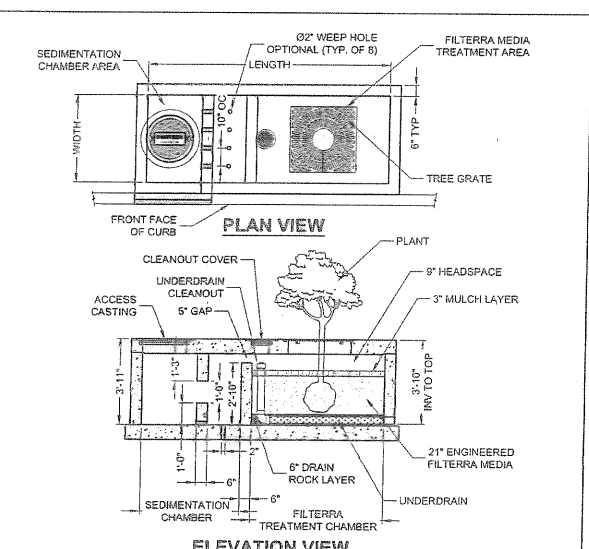
INTERNAL TYPING MAY VARY DEPENDING UPON INFLUENT LOCATION
 * MAXIMUM TOP TO INVERT OUT = 5'-7"
 ** MAXIMUM TOP TO INVERT IN = 2'-10"



CONTECH ENGINEERED SOLUTIONS LLC
 www.contechES.com
 8025 Centre Pointe Dr., Suite 400, West Chester, OH 45388
 937-334-1122 513-645-7000 513-645-7053 FAX

FILTERRA
INTERNAL BYPASS PIPE (FTBP)
CONFIGURATION DETAILS

* DIMENSIONS MAY VARY +/- DEPENDING ON PRECASTER BUILD CONFIGURATION.



UNIT DESIGNATION	INSIDE VAULT DIMENSIONS	FILTERRA TREATMENT AREA (SF)	FILTERRA TREATMENT AREA (CF)	STORAGE CAPACITY OF UNIT PRIOR TO FILTRATION (CF)	WQV TREATMENT EQUIVALENT (CF)
FTSC 6' x 6'	12' x 4'	8' x 6'	24	85	339
FTSC 6' x 4'	16' x 4'	6' x 4'	32	117	467
FTSC 6' x 6'	12' x 6'	6' x 6'	36	128	511
FTSC 8' x 6'	16' x 6'	8' x 6'	48	176	702
FTSC 10' x 6'	18' x 6'	10' x 6'	60	204	816
FTSC 10' x 8'	20' x 8'	10' x 8'	80	298	1,194
FTSC 11' x 6'	22' x 6'	11' x 6'	66	330	1,322

CONTECH ENGINEERED SOLUTIONS LLC
 www.contechES.com
 7037 Ridge Rd., Suite 350, Hanover, MD 21076
 410-740-6400 OFFICE 410-740-6402 FAX

FILTERRA WITH SEDIMENTATION CHAMBER

DESIGNED: M.M./H.H.
 DRAWN: M.H.
 CHECKED: B.L.
 SCALE: AS NOTED
 DATE: 05/02/18
 PROJECT: 2018.0527.00
 DRAWING: C506

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446077

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	10' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	10" / PVC	
INV. IN FILTERRA	10' / PVC / 17.60	
INV. OUT FILTERRA / INV. OUTFALL	14.78 / 14.65	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	10' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	10" / PVC	
INV. IN FILTERRA	10' / PVC / 17.60	
INV. OUT FILTERRA / INV. OUTFALL	14.78 / 14.65	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	4" / PVC	
INV. IN FILTERRA / INV. OUTFALL	15.24 / 14.95	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	15.24 / 14.95	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	10' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	15.88 / 15.68	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	16.37 / 15.58	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 6'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	16.87 / 16.00	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 4'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	16.37 / 16.16	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

PROJECT NAME: HOLABIRD MANOR BMP ID: TBD NS58516 E3446082

DESIGN / AS - BUILT DATA FOR FILTERRA
 * TO BE COMPLETED BY THE CERTIFYING ENGINEER

FEATURE	DESIGN	AS-BUILT
TYPE OF FACILITY: M-6, FILTERRA		
FILTERRA MEDIA DIMENSIONS LxW	12' x 4'	
DISCHARGE PIPE SIZE / MATERIAL	6" / PVC	
INV. IN FILTERRA / INV. OUTFALL	16.37 / 16.16	
PLANT TYPE	TREE	
DATE AS-BUILT ACCEPTED BY BALTIMORE CITY:		

MAINTENANCE AND INSPECTION:
 EACH MAINTENANCE VISIT CONSISTS OF THE FOLLOWING SIMPLE TASKS (DETAILED INSTRUCTIONS BELOW).
 • INSPECTION OF FILTERRA AND SURROUNDING AREA
 • REMOVAL OF TREE GRATE AND SURROUNDING STONES
 • REMOVAL OF DEBRIS, TRASH AND MULCH
 • MULCH REPLACEMENT
 • PLANT HEALTH EVALUATION AND PRUNING OR REPLACEMENT AS NECESSARY
 • CLEAN AREA AROUND FILTERRA
 • COMPLETE PAPERWORK
 OWNER TO KEEP COPIES OF ALL INSPECTIONS AND MAINTENANCE PERFORMED.

Maintenance Checklist

Drainage System	Problem	Conditions to Check	Conditions that Should Exist	Actions
Inlet	Excessive sediment or trash accumulation.	Accumulated sediments or trash impair free flow of water into Filterra.	Inlet should be free of obstructions allowing free distributed flow of water into Filterra.	Sediments and/or trash should be removed.
Mulch Cover	Trash and floatable debris accumulation.	Excessive trash and/or debris accumulation.	Minimal trash or other debris on mulch cover.	Trash and debris should be removed and mulch cover raked level. Ensure bark nugget mulch is not used.
Mulch Cover	"Ponding" of water on mulch cover.	"Ponding" in unit could be indicative of clogging due to excessive fine sediment accumulation or spill of petroleum oils.	Stormwater should drain freely and evenly through mulch cover.	Recommend contact manufacturer and replace mulch as a minimum.
Vegetation	Plants not growing or in poor condition.	Soil/mulch too wet, evidence of spill. Incorrect plant selection. Pest infestation. Vandalism to plants.	Plants should be healthy and pest free.	Contact manufacturer for advice.
Vegetation	Plant growth excessive.	Plants should be appropriate to the species and location of Filterra.		Trim/prune plants in accordance with typical landscaping and safety needs.
Structure	Structure has visible cracks.	Cracks wider than 1/2 inch or evidence of soil particles entering the structure through the cracks.		Vault should be repaired.

MAINTENANCE TO BE PERFORMED TWICE ANNUALLY.

B.4.A Green Roof Specifications

1. Material Specifications
 Because there is significant variation in green roof assembler and methods, providing comprehensive specifications is not feasible. Material specifications for green roofs will vary based on each roofing system and specific information should be obtained from the appropriate manufacturer or retailer. The following information and specifications, which include acceptable materials for generic applications, is not exclusive or limiting.

2. Planting Media
 Planting media should be a soil-like mixture with an organic content of 15% or less. The grain size distribution is necessary for to obtain proper moisture content, permeability, nutrient management and non-capillary porosity, and soil structure. Grain size guidelines vary for single and dual media green roof assemblies.

The planting media shall be tested and meet the following criteria:
 • Non-Capillary Pore Space at Field Capacity, 0.333 bar (THECC 03.01, A)
 • Moisture Content at Field Capacity (THECC 03.01, A)
 • Maximum Media Water Retention (FLL)
 • Alkalinity, CaCO3 equivalents (MSA)
 • Total Organic Matter by Wet Combustion (MSA)
 • pH (RCSTP)
 • Soluble Salts (DTPA saturated media extraction - RCSTP)
 • Cation Exchange Capacity (MSA)
 • Saturated Hydraulic Conductivity (FLL):

o Single Media Assemblies
 o Dual Media Assemblies

- = 15% (volume)
- = 12% (volume)
- = 30% (volume)
- = 2.5%
- = 3-15% (dry wt.)
- = 6.5 - 6.0
- = 6 mm/ho/cm
- = 10 mg/100 g
- = 0.65 m/min
- = 0.30 m/min

• Mineral Fraction Grain Size Distribution (ASTM D422):

Single Media Dual Media
 o Clay Fraction (2 microns) 0-0
 o % Passing #200 Sieve = 5% - 15%
 o % Passing # 60 Sieve = 10% - 25%
 o % Passing # 18 Sieve = 50% - 50%
 o % Passing - inch Sieve 20 = 70% - 80%
 o % Passing - inch Sieve 75 = 100% - 100%

3. Green Roof Layers
 Root Barriers - should be thermoplastic membranes with minimum thickness of 30 mils. Membranes certified for use as root barriers are recommended. However, only FLL currently offers a recognized certification test. Many FLL-certified materials are locally available.

Gravel: Drainage Media - should be a non-carbonate mineral aggregate meeting the following specifications:
 • Saturated Hydraulic Conductivity = 25 inches/minute
 • Total Organic Matter (by wet combustion) = 1%
 • Abrasion Resistance (ASTM C134-06) = 25% loss
 • Soundness (ASTM C88 or T103 or T103-01) = 5% loss
 • Porosity (ASTM C29) = 25%
 • Alkalinity, CaCO3 equivalents (MSA) = 1%
 • Grain Size Distribution (ASTM C136)

o Percent Passing #18 Sieve = 1%
 o Percent Passing 1/2 inch Sieve = 30%
 o Percent Passing 3/8 inch Sieve = 80%

Separation Fabric - should be a lightweight, non-woven geotextile that is easily penetrated by roots while providing a durable separation between drainage and growth media layers. Separation fabrics should meet the following:
 • Unit Weight (ASTM D3778) = 4.25 ounces per square yard
 • Grab Tensile Strength (ASTM D4832) = 90 lbs.
 • Mullen Burst Strength (ASTM D4832) = 135 lbs/ft²
 • Permittivity (ASTM D4901) = 2 sec-1

NO.	DATE	REVISION

WHITNEY PARKER COOK & ASSOCIATES, LLC
 500 East Park Road
 Baltimore, MD 21208
 410.512.6500 www.whcm.com

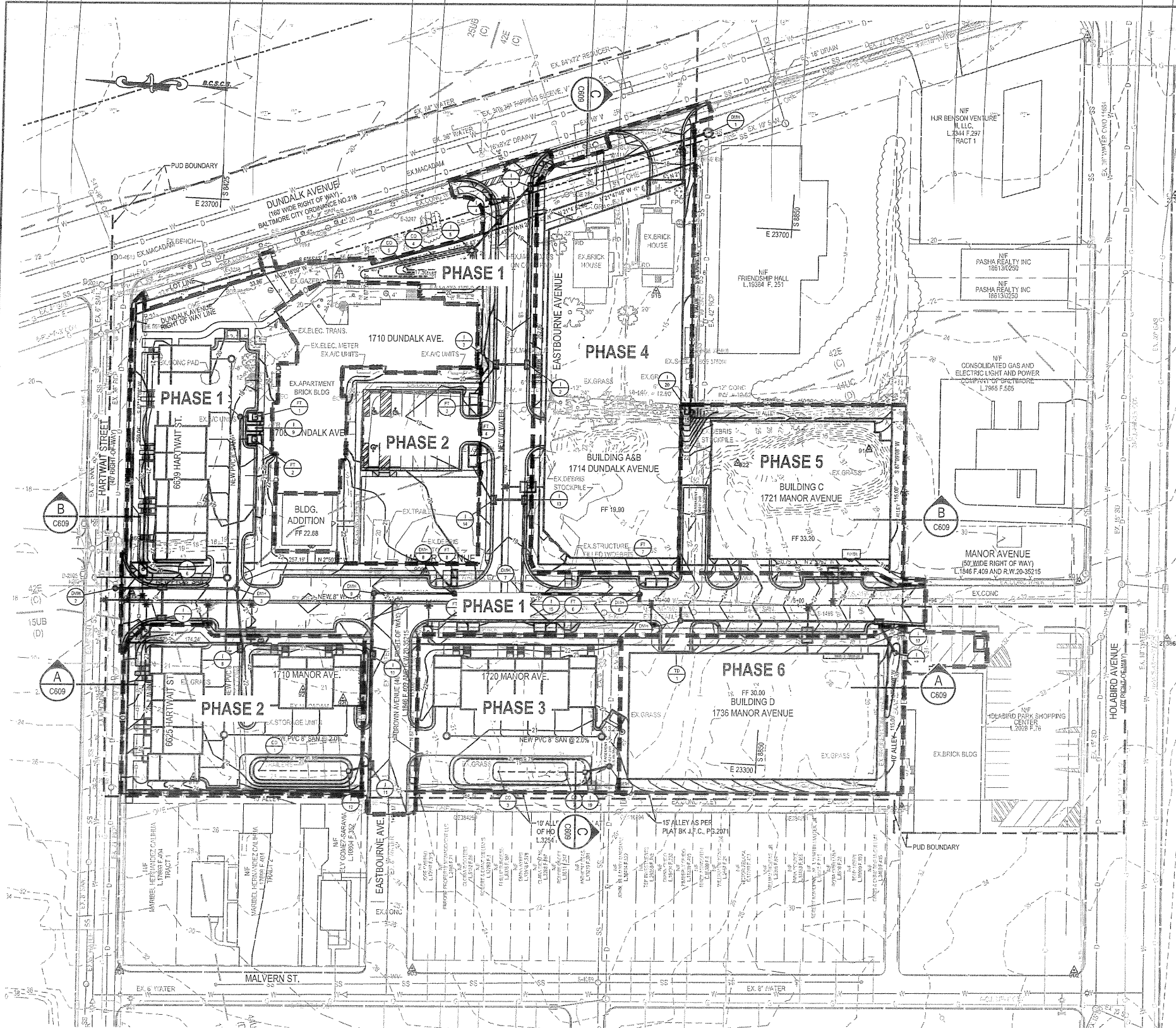
WBCM

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License #346622 Expiration Date: 07/08/19

STORMWATER MANAGEMENT DETAILS
 FILTERRA UNIT / GREEN ROOF

HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 1702 HOLABIRD RD.
 BALTIMORE, MD 21222

DESIGNED: M.M./H.H.
 DRAWN: M.H.
 CHECKED: B.L.
 SCALE: AS NOTED
 DATE: 05/02/18
 PROJECT: 2018.0527.00
 DRAWING: C506



PLAN
SCALE: 1" = 40'

HYDROLOGIC SOIL GROUP - BALTIMORE CITY, MARYLAND

MAP UNIT SYMBOL	MAP UNIT NAME	HSG RATING
42E	UDORTHENTS	C
44UC	URBAN LAND	D
15UB	KEYPORT-URBAN LAND COMPLEX	D

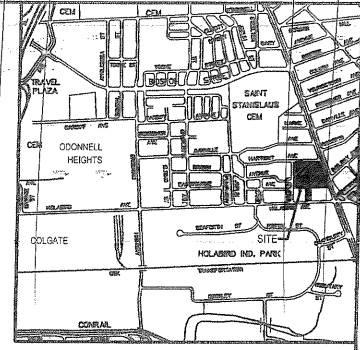
STANDARD STABILIZATION NOTE:
 FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND SEVEN DAYS (7) AS TO ALL OTHER DISTURBED OR GRADDED AREAS ON THE PROJECT SITE.

MAINTENANCE OF SEDIMENT CONTROL
 CONTRACTOR SHALL WITHOUT EXTRA COST TO THE PROJECT, REPAIR AND MAINTAIN EXISTING SEDIMENT CONTROL DEVICES UNTIL ALL AREAS WITHIN LIMITS OF CONSTRUCTION ARE STABILIZED. ALL SEDIMENT CONTROL MEASURES REFERRED TO ON THESE PLANS SHALL BE IN ACCORDANCE WITH THE PUBLICATION ENTITLED "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL."

NOTE FOR SAME DAY STABILIZATION
 THE CONTRACTOR SHALL OPEN ONLY A SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED AT THE END OF EACH WORKDAY. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERTNIGHT. ANY EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE AT THE END OF EACH WORKDAY.

SEDIMENT CONTROL LEGEND

- STABILIZED CONSTRUCTION ENTRANCE: SCE
- LIMITS OF DISTURBANCE: LOD
- SILT FENCE: SF
- SUPER SILT FENCE: SSF
- CONSTRUCTION FENCE: CF
- COMBINATION INLET PROTECTION: COIP
- STANDARD INLET PROTECTION: SIP
- GABION INLET PROTECTION: GIP
- TEMPORARY STOCKPILE AREA: [Symbol]
- DRAINAGE AREA TO ESC MEASURE: [Symbol]
- CONTRACTOR STAGING AREA: [Symbol]
- AREA TO BE STABILIZED BY THE END OF EACH WORK DAY: [Symbol]



STABILIZATION SCHEDULE

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	74,584	EXCAVATED AREA (TEMPORARY)	SEE PHASE PLANS
BUILDING		COMPLETED STRUCTURE (PERMANENT)	
B	55,683	STONE BASE (TEMPORARY)	SEE PHASE PLANS
ROADWAY		CONCRETE / BITUMINOUS PAVING (PERMANENT)	
C	27,146	TEMPORARY SEEDING (TEMPORARY)	SEE PHASE PLANS
CURBS & SIDEWALK		CONCRETE CURBS / WALKS (PERMANENT)	
D	45,346	GRAVEL / SEEDING (TEMPORARY)	SEE PHASE PLANS
PERVIOUS AREAS		LANDSCAPING (PERMANENT)	
E	11,630	SEEDING/STONE (TEMPORARY)	SEE PHASE PLANS
SEDIMENT CONTROLS		PAYMENT, LANDSCAPING	

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 37 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

OWNER/DEVELOPER CERTIFICATION STATEMENTS

- ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN ADE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
- THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MARYLAND 21222
 ATTN: MR. FRANK SCARFIELD
 PHONE NO: 410-284-2200

CAUTION:
 IF THIS DRAWING IS A REDUCTION,
 USE THE GRAPHIC SCALES.



SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	214,889 SQ.FT. / 4.93 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT AND FILL VOLUMES	
CUT	25541 CUBIC YARD
FILL	2940 CUBIC YARD
NET CUT	22601 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

NO.	DATE	REVISION

WHITNEY BARLEY COY & ASSOCIATES, LLC
 300 East Jones Road, Suite 200
 Baltimore, MD 21286
 410.517.4500 www.wbcm.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
 License #34662, Expiration Date: 07/09/19

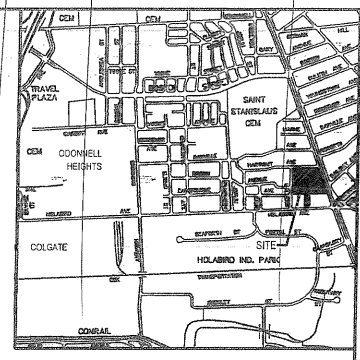
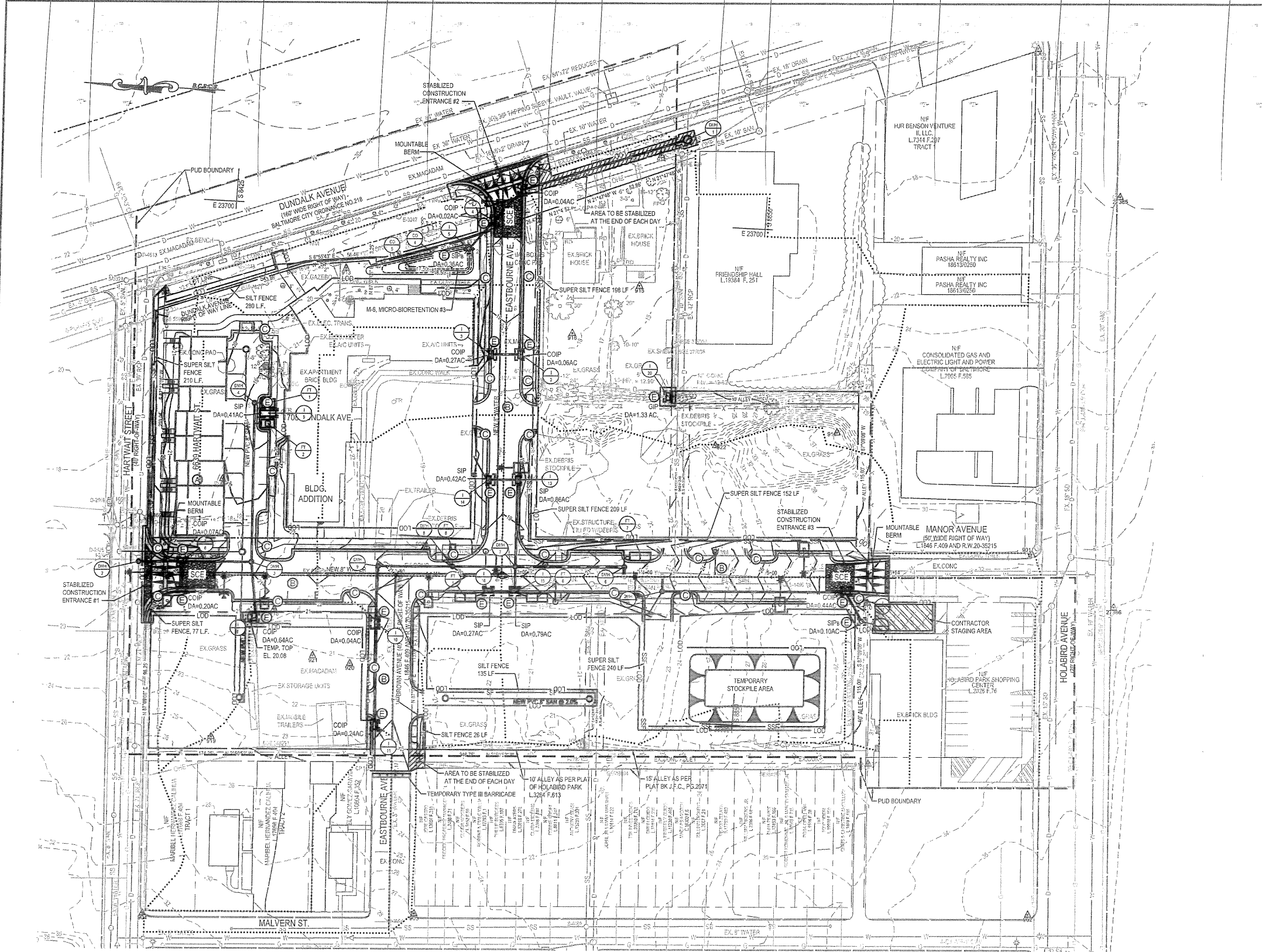
EROSION AND SEDIMENT CONTROL PLAN
 OVERALL

HOLABIRD MANOR
 HOLABIRD CONSTRUCTION CO., INC.
 1705 HOLAVIEW RD.
 BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C600

ESD #6654



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED PERMITS.
2. SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION 6301 DRUID PARK DRIVE, ROOM 227, BALTIMORE, PHONE 410-386-0732, FAX 410-523-9947, EMAIL DPW.ESCSINSPECTIONS@BALTIMORECITY.GOV, 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - A. REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - B. WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - C. CONTRACTOR'S TENTATIVE CLOSING DATE
 - D. CONTRACTOR'S INTENDED CLOSING DATE
 - E. SOURCE OF BORROW MATERIAL.
 - F. LOCATION OF DISPOSAL AREA OF SITE MATERIAL.
3. THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
4. UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERIMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCE IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCES 1, 2, AND 3, TEMPORARY BARRICADE, SITE PERIMETER SUPER SILT FENCE, AND SILT FENCE.
6. UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING.
7. CONSTRUCT NEW WATER MAIN, SANITARY SEWER AND STORM DRAIN SYSTEMS IN ACCORDANCE WITH THE PUBLIC WORKS AGREEMENT "I". INSTALL INLET PROTECTION AS INLETS ARE CONSTRUCTED. INSTALL FILTERRA UNITS BUT DO NOT ACTIVATE. (FILTERRA IS BLOCKED BY MANUFACTURER UNTIL ACTIVATED)
8. ROUGH GRADE FOR BUILDING GROUP AND ADJOINING PARKING.
9. CONSTRUCT NEW BUILDING GROUP.
10. CONSTRUCT BITUMINOUS BASE COURSE AND CURB AND GUTTER FOR MANOR AVENUE AND EASTBOURNE AVE.
11. CONSTRUCT CURB AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE FOR BUILDING GROUP.
12. COMPLETE BUILDING GROUP.
13. PERMANENTLY STABILIZE AREAS DRAINING TO STORMWATER MANAGEMENT FACILITIES.
14. NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES. CONSTRUCT MICRO-BIORETENTION #3. SEE SWM SEQUENCE ON SHEET "I".
15. INSTALL LANDSCAPING IN MICRO-BIORETENTION #3 AND IN FRONT OF TOWNHOMES.
16. CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
17. PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS.
18. ACTIVATE FILTERRA UNITS.
19. WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

STABILIZATION SCHEDULE PHASE #1

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	6,050	EXCAVATED AREA (TEMPORARY)	6
		COMPLETED STRUCTURE (PERMANENT)	9,12
B	38,678	STONE BASE (TEMPORARY)	10,11
		CONCRETE / BITUMINOUS PAVING (PERMANENT)	10,11,16
C	15,888	TEMPORARY SEEDING (TEMPORARY)	6,7
		CONCRETE CURBS / WALKS (PERMANENT)	10,11
D	40,457	GRAVEL / SEEDING (TEMPORARY)	6,8
		LANDSCAPING (PERMANENT)	12,13,15,17
E	5,207	SEEDING/STONE (TEMPORARY)	4,5,7
		PAVEMENT, LANDSCAPING	15,16,17

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 3/7 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

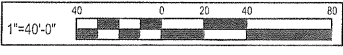
OWNER/DEVELOPER CERTIFICATION STATEMENTS

1. ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN ADE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
3. THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

CAUTION:
IF THIS DRAWING IS A REDUCTION,
USE THE GRAPHIC SCALES.



SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	104,510 SQ.FT. / 2.40 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT	565 CUBIC YARD
FILL	1,642 CUBIC YARD
*NET FILL	1,077 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

PLAN
SCALE: 1"=40'

NO.	DATE	REVISION



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34662 Expiration Date: 07/09/19

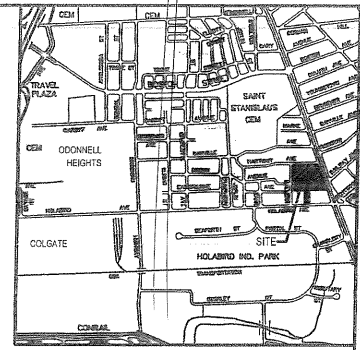
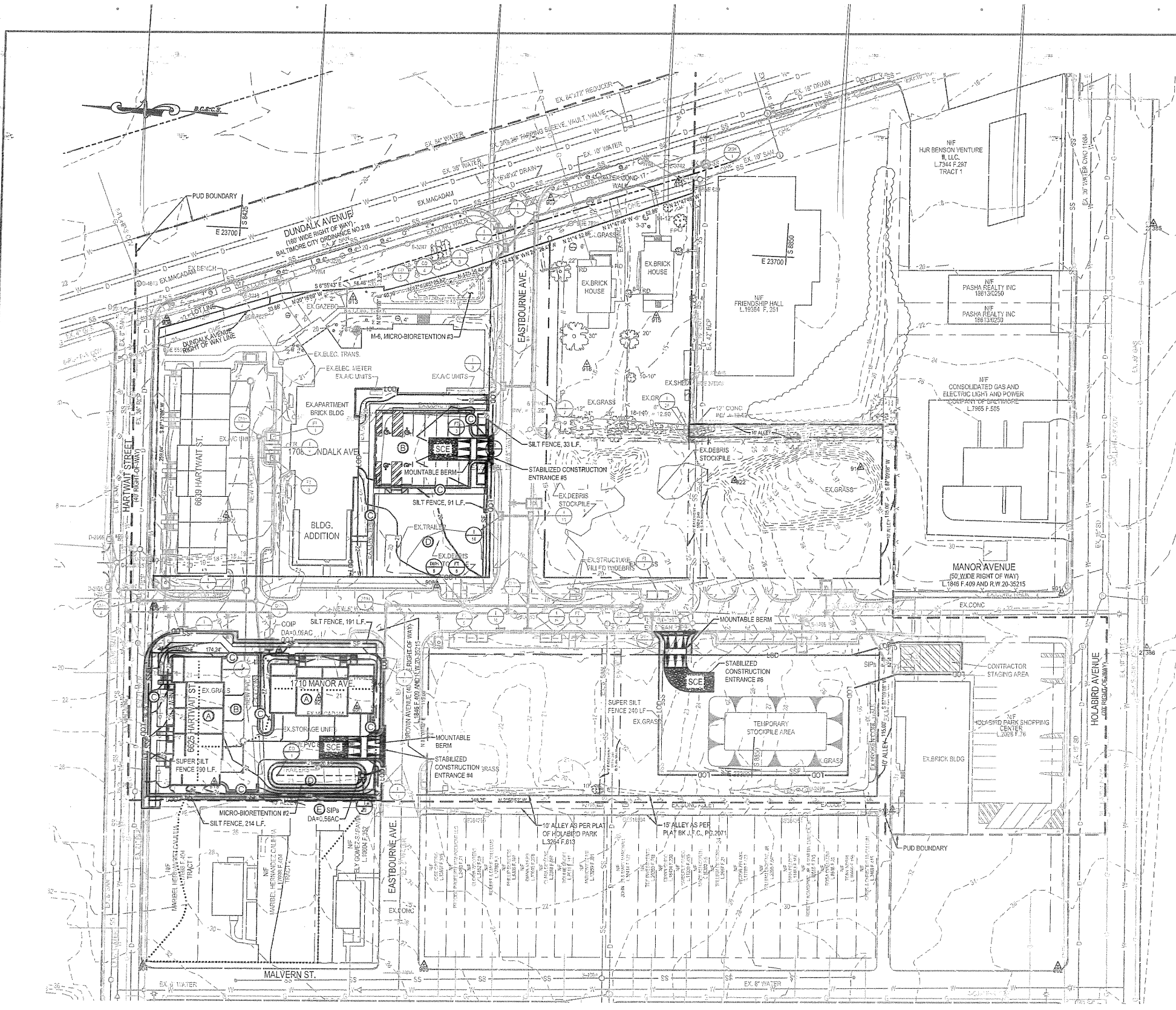
EROSION AND SEDIMENT CONTROL PLAN
PHASE 1

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M. / M.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C601

ESD #6654



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

- OBTAIN ALL REQUIRED PERMITS.
- SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION (3001 DRUID PARK DRIVE, ROOM 227, BALTIMORE (PHONE 410-366-0732, FAX 410-523-8047, EMAIL DPW.ESCSINSPECTIONS@BALTIMORECITY.GOV), 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - CONTRACTOR'S TENTATIVE CLOSING DATE
 - CONTRACTOR'S INTENDED CLOSING DATE
 - SOURCE OF BORROW MATERIAL
 - LOCATION OF DISPOSAL AREA OF SITE MATERIAL.
- THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERIMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCES IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
- INSTALL STABILIZED CONSTRUCTION ENTRANCES 4, 5 AND 6, SITE PERIMETER SUPER SILT FENCE, AND SILT FENCE.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING FOR PARKING LOT / OPEN SPACE.
- ROUGH GRADE FOR BUILDING GROUP AND ADJOINING PARKING.
- CONSTRUCT NEW BUILDING GROUP.
- CONSTRUCT NEW SANITARY SERVICE CONNECTIONS, WATER SERVICE, CONSTRUCT FILTERRA UNITS BUT DO NOT ACTIVATE (FILTERRA IS BLOCKED BY MANUFACTURER UNTIL ACTIVATED).
- CONSTRUCT CURBS AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE.
- COMPLETE BUILDING GROUP.
- PERMANENTLY STABILIZE AREAS DRAINING TO STORMWATER MANAGEMENT FACILITIES.
- NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES. CONSTRUCT MICRO-BIORETENTION #2. SEE SWM SEQUENCE ON SHEET "M".
- INSTALL LANDSCAPING IN MICRO-BIORETENTION #2, ALONG HARTWAY ST., ALONG MANOR AVE. FROM HARTWAY ST. TO EASTBOURNE AVE.
- CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
- PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS.
- ACTIVATE FILTERRAS.
- WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

STABILIZATION SCHEDULE PHASE #1

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	6,840	EXCAVATED AREA (TEMPORARY)	7
B		COMPLETED STRUCTURE (PERMANENT)	11
B		STONE BASE (TEMPORARY)	10
C	10,231	CONCRETE / BITUMINOUS PAVING (PERMANENT)	15
C	4,244	TEMPORARY SEEDING (TEMPORARY)	7
C		CONCRETE CURBS / WALKS (PERMANENT)	10
D	31,191	GRAVEL / SEEDING (TEMPORARY)	5,7
D		LANDSCAPING (PERMANENT)	12,14,16
E	2,824	SEEDING/STONE (TEMPORARY)	4,5
E		PAVEMENT, LANDSCAPING	10,14,15,16

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 37 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

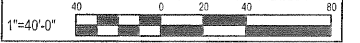
OWNER/DEVELOPER CERTIFICATION STATEMENTS

- ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN ADEQUATELY APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
- THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

CAUTION:
IF THIS DRAWING IS A REDUCTION,
USE THE GRAPHIC SCALES.



SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	55,330 SQ.FT. / 1.27 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT	637 CUBIC YARD
FILL	583 CUBIC YARD
NET CUT	54 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

PLAN
SCALE: 1" = 40'

NO.	DATE	REVISION	BY



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License #24662, Expiration Date: 07/06/19

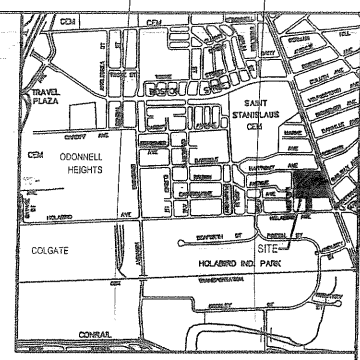
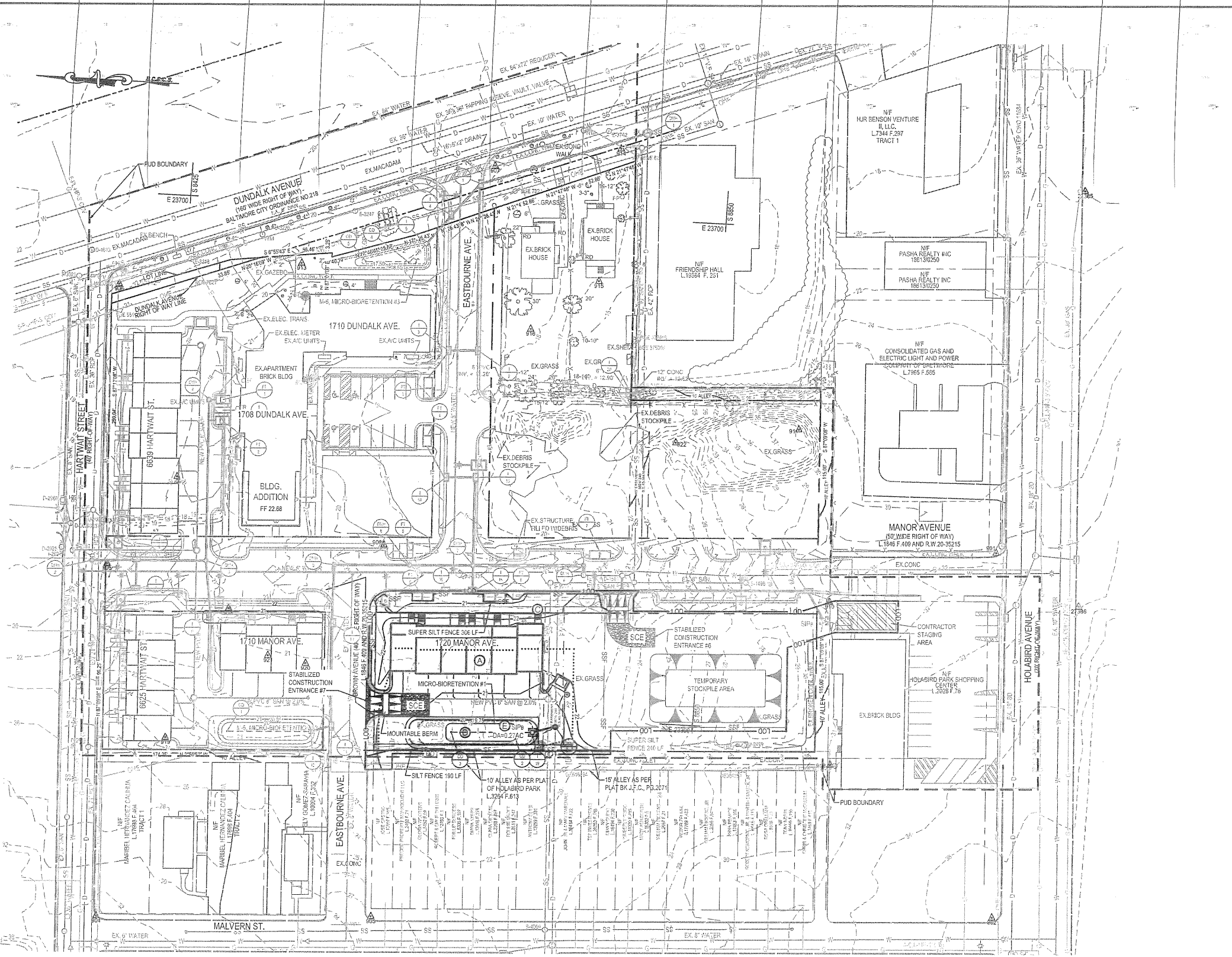
EROSION AND SEDIMENT CONTROL PLAN
PHASE 2

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	BLH
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C602

ESD #6654



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

- OBTAIN ALL REQUIRED PERMITS.
- SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION (3001 DRUID PARK DRIVE, ROOM 227, BALTIMORE (PHONE 410-385-0732, FAX 410-523-9047, EMAIL DPW.ESC@INSPECTIONS@BALTIMORECITY.GOV), 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - CONTRACTOR'S TENTATIVE CLOSING DATE
 - CONTRACTOR'S TENTATIVE CLOSING DATE
 - SOURCE OF BORROW MATERIAL
 - LOCATION OF DISPOSAL AREA OF SITE MATERIAL
- THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERIMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCE IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE #7, SITE PERIMETER SUPER SILT FENCE AND SILT FENCE.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING.
- CONSTRUCT SANITARY SEWER SERVICE CONNECTIONS AND STORM DRAIN. INSTALL INLET PROTECTION AS INLETS ARE CONSTRUCTED.
- CONSTRUCT NEW BUILDING GROUP.
- CONSTRUCT CURB AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE.
- COMPLETE BUILDING GROUP.
- PERMANENTLY STABILIZE AREAS DRAINING TO STORMWATER MANAGEMENT FACILITIES.
- NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES. CONSTRUCT MICRO-BIORETENTION #1. SEE SWM SCHEDULE ON SHEET.
- INSTALL LANDSCAPING IN MICRO-BIORETENTION #1, ALONG EASTBOURNE AVE. AND IN FRONT OF TOWN HOMES.
- CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
- PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS.
- WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

STABILIZATION SCHEDULE PHASE #1

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	4,560	EXCAVATED AREA (TEMPORARY)	6,8
B	5,924	STONE BASE (TEMPORARY)	9
C	1,328	CONCRETE / BITUMINOUS PAVING (PERMANENT)	11,14
D	28,225	TEMPORARY SEEDING (TEMPORARY)	6,9
E	907	CONCRETE CURBS / WALKS (PERMANENT)	9
F		GRAY SL / SEEDING (TEMPORARY)	6,8
G		LANDSCAPING (PERMANENT)	11,12
H		SEEDING/STONE (TEMPORARY)	4,5,7
I		PAVEMENT, LANDSCAPING	9,10,13,15

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 37 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

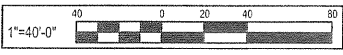
OWNER/DEVELOPER CERTIFICATION STATEMENTS

- ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN MDE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
- THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

CAUTION:
IF THIS DRAWING IS A REDUCTION,
USE THE GRAPHIC SCALES.



SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	40,844 SQ.FT. / 0.94 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT AND FILL VOLUMES	
CUT	392 CUBIC YARD
FILL	259 CUBIC YARD
NET CUT	133 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

PLAN
SCALE: 1" = 40'

NO.	DATE	REVISION



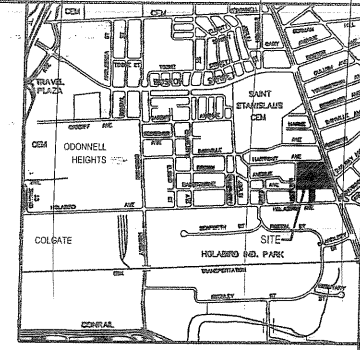
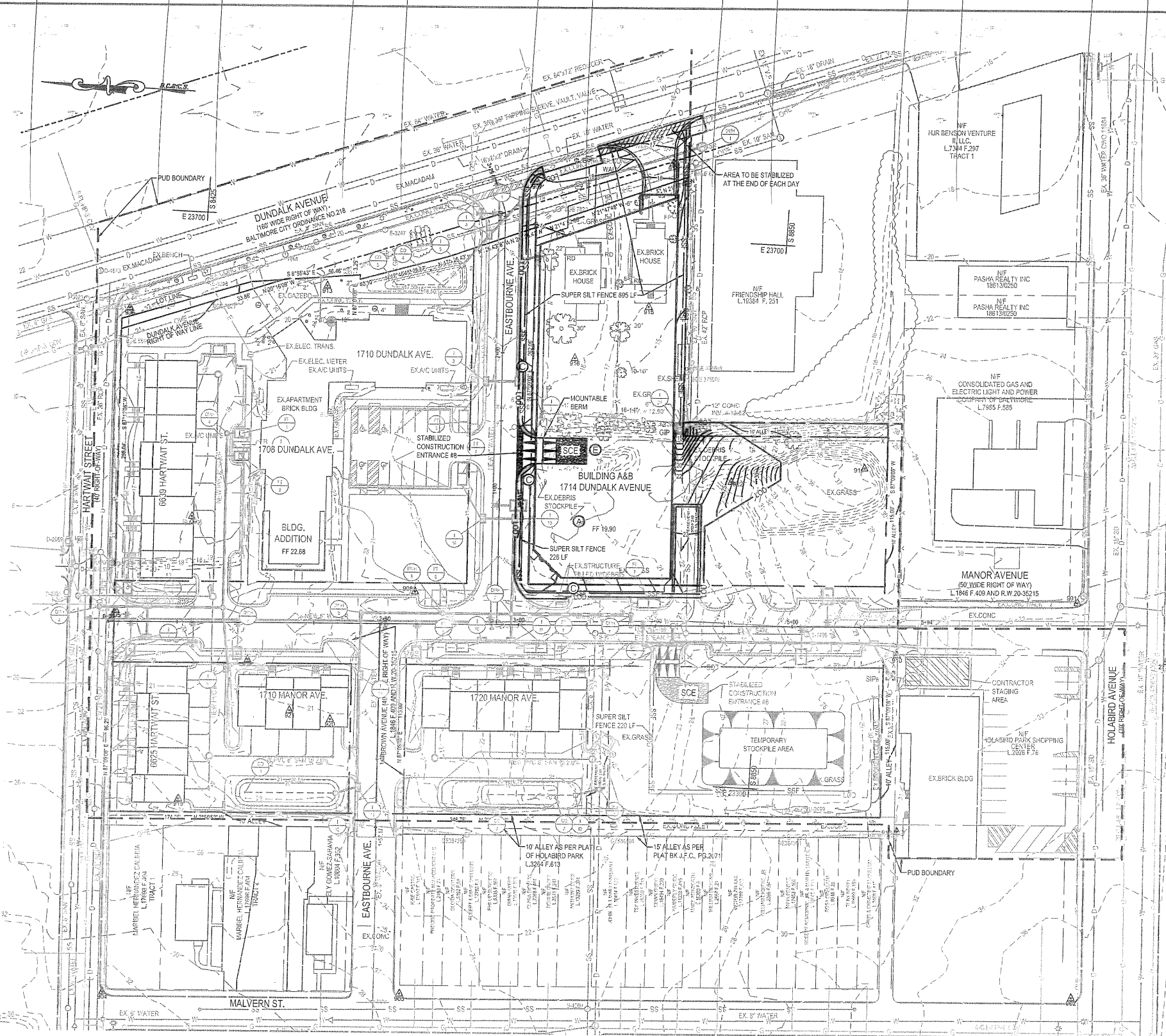
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34662 Expiration Date: 07/08/19

EROSION AND SEDIMENT CONTROL PLAN
PHASE 3

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C603



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED PERMITS.
2. SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION 8301 DRUID PARK DRIVE, ROOM 227, BALTIMORE (PHONE 410-395-0732, FAX 410-523-9047, EMAIL DPW.ESCONSPCTIONS@BALTIMORECITY.GOV), 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - A. REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - B. WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - C. CONTRACTOR'S TENTATIVE CLOSING DATE
 - D. CONTRACTOR'S INTENDED CLOSING DATE
 - E. SOURCE OF BORROW MATERIAL
 - F. LOCATION OF DISPOSAL AREA OF SITE MATERIAL.
3. THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
4. UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCE IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
5. INSTALL STABILIZED CONSTRUCTION ENTRANCE 7, SITE PERMETER SUPER SILT FENCE.
6. UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING.
7. ROUGH GRADE FOR BUILDING.
8. CONSTRUCT NEW BUILDING.
9. CONSTRUCT CURB AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE.
10. COMPLETE BUILDING.
11. NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES. CONSTRUCT GREEN ROOF. SEE SWM SEQUENCE ON SHEET ***.
12. INSTALL LANDSCAPING
13. CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
14. PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS
15. WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

STABILIZATION SCHEDULE PHASE #1

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	28,046	EXCAVATED AREA (TEMPORARY)	7.8
BUILDING		COMPLETED STRUCTURE (PERMANENT)	10
B	1,400	STONE BASE (TEMPORARY)	6.7
ROADWAY		CONCRETE / BITUMINOUS PAVING (PERMANENT)	9
C	3,545	TEMPORARY SEEDING (TEMPORARY)	6.7
CURBS & SIDEWALK		CONCRETE CURBS / WALKS (PERMANENT)	9
D	12,591	GRAVEL / SEEDING (TEMPORARY)	6.7
PERVIOUS AREAS		LANDSCAPING (PERMANENT)	12
E	1,025	SEEDINGSTONE (TEMPORARY)	4.5
SEDIMENT CONTROLS		PAVEMENT, LANDSCAPING	9, 10, 13, 14, 15

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 3/7 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

OWNER/DEVELOPER CERTIFICATION STATEMENTS

1. ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN AIDE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
3. THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

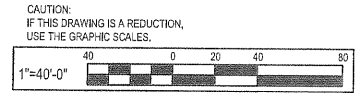
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	44,607 SQ.FT. / 1.02 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT AND FILL VOLUMES	
CUT	16,220 CUBIC YARD
FILL	361 CUBIC YARD
*NET CUT	15,859 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.



NO.	DATE	REVISION	BY



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

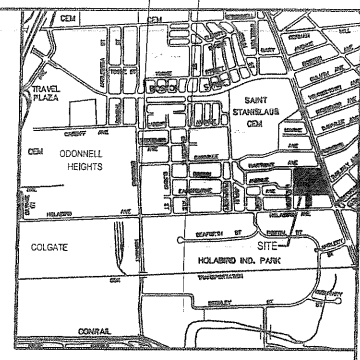
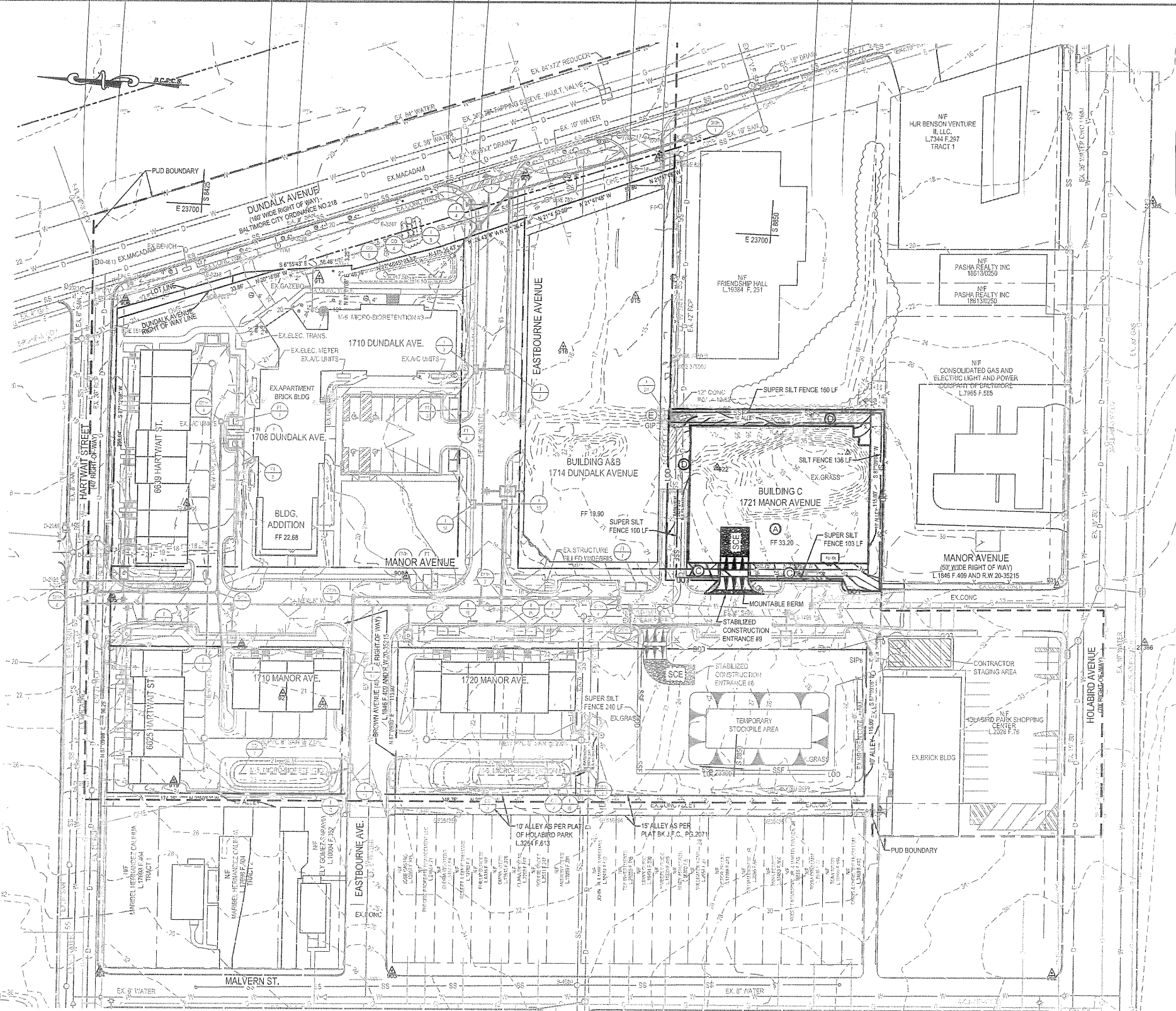
License #34682 Expiration Date: 07/08/19

EROSION AND SEDIMENT CONTROL PLAN
PHASE 4

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M. / H.H.
DRAWN:	MLH
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C604



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

- OBTAIN ALL REQUIRED PERMITS.
- SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION (3001 DRUID PARK DRIVE, ROOM 227, BALTIMORE (PHONE 410-386-0732, FAX 410-523-2047, EMAIL DPW.ESC@INSPECTIONS@BALTIMORECITY.GOV), 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - CONTRACTOR'S TENTATIVE CLOSING DATE
 - CONTRACTOR'S INTENDED CLOSING DATE
 - SOURCE OF BORROW MATERIAL
 - LOCATION OF DISPOSAL AREA OF SITE MATERIAL.
- THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERIMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCE IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE #9, SITE PERIMETER SUPER SILT FENCE AND SILT FENCE.
- UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING.
- ROUGH GRADE FOR BUILDING.
- CONSTRUCT NEW BUILDING.
- CONSTRUCT CURBS AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE.
- COMPLETE BUILDING.
- NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES, CONSTRUCT GREEN ROOF. SEE SWM SEQUENCE ON SHEET " ".
- INSTALL LANDSCAPING
- CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
- PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS
- WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

STABILIZATION SCHEDULE PHASE #1

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	13,548	EXCAVATED AREA (TEMPORARY)	6,7
B		COMPLETED STRUCTURE (PERMANENT)	8,10
B	1,103	STONE BASE (TEMPORARY)	6
		CONCRETE / BITUMINOUS PAVING (PERMANENT)	9,13
C	1,044	TEMPORARY SEEDING (TEMPORARY)	6
		CONCRETE CURBS / WALKS (PERMANENT)	9
D	4,506	GRAVEL / SEEDING (TEMPORARY)	6
		LANDSCAPING (PERMANENT)	10,12
E	907	SEEDING/STONE (TEMPORARY)	4,5
		PAVEMENT, LANDSCAPING	9,10,12,13,14,15

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 37 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

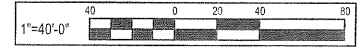
OWNER/DEVELOPER CERTIFICATION STATEMENTS

- ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN AIDE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
- THE CITY'S DPW AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

HOLABIRD CONSTRUCTION CO., INC.
1705 HOLABIRD RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

CAUTION:
IF THIS DRAWING IS A REDUCTION,
USE THE GRAPHIC SCALES.



SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	21,228 SQ.FT. / 0.50 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT AND FILL VOLUMES	
CUT	3,941 CUBIC YARD
FILL	162 CUBIC YARD
*NET CUT	3,779 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

PLAN
SCALE: 1" = 40'

NO.	DATE	REVISION	BY



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34682 Expiration Date: 07/26/19

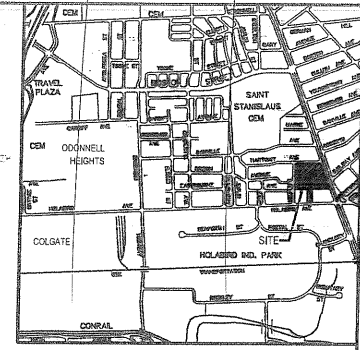
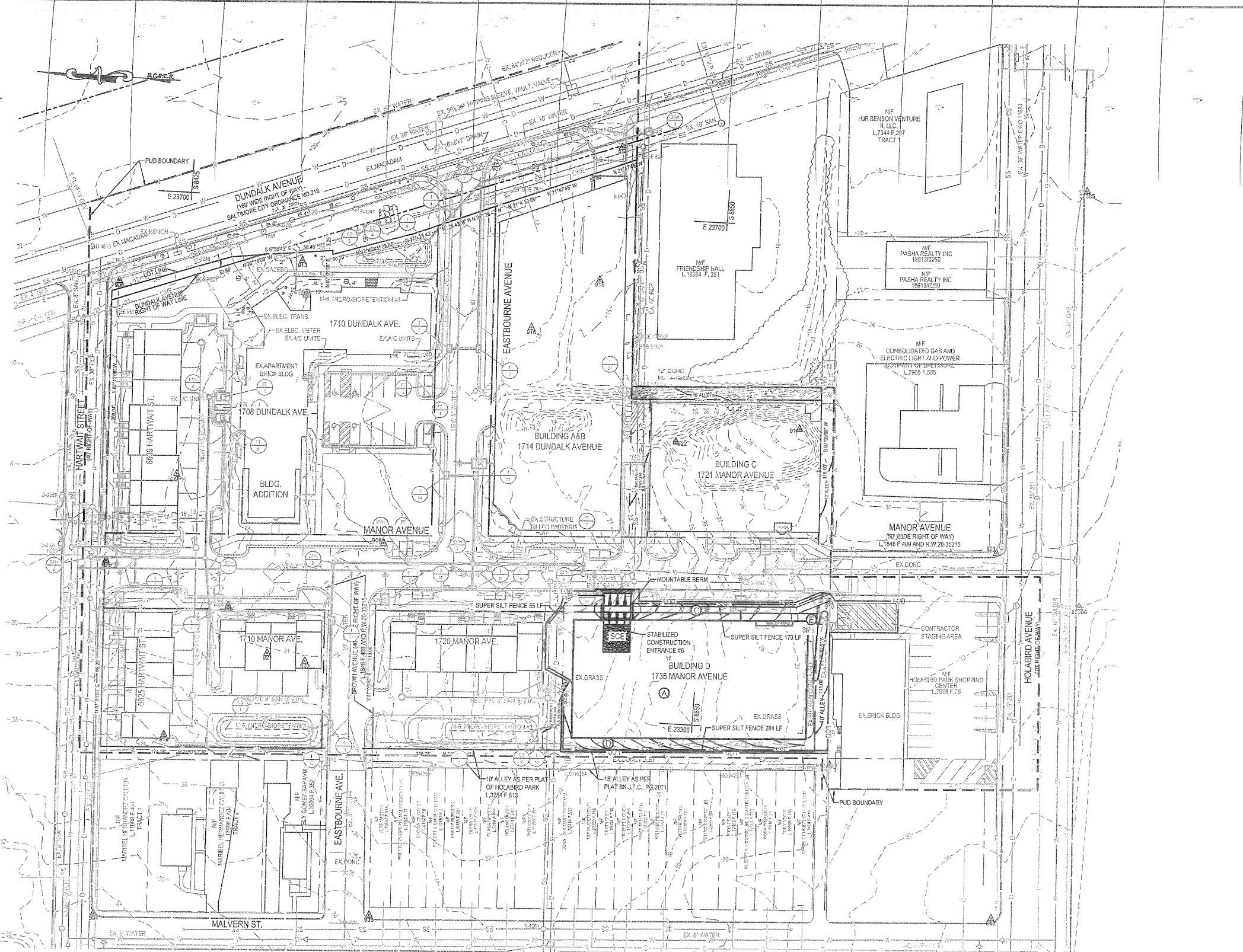
EROSION AND SEDIMENT CONTROL PLAN
PHASE 5

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLABIRD RD.
BALTIMORE, MD 21222

DESIGNED:	M.M. / H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	

C605

ESD #6654



VICINITY MAP
SCALE: 1"=2,000'

SEQUENCE OF CONSTRUCTION

1. OBTAIN ALL REQUIRED PERMITS.
2. SUBMIT WRITTEN NOTIFICATION TO THE BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS OFFICE OF COMPLIANCE AND LABORATORIES PLANS REVIEW AND INSPECTIONS SECTION (3001 DRUID PARK DRIVE, ROOM 227, BALTIMORE (PHONE 410-396-0732, FAX 410-923-8047, EMAIL DPW.ESCINSPECTIONS@BALTIMORECITY.GOV), 72 HOURS PRIOR TO ANY CONSTRUCTION STARTING:
 - A. REQUEST FOR A PRE-CONSTRUCTION MEETING.
 - B. WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION
 - C. CONTRACTOR'S TENTATIVE CLOSING DATE
 - D. CONTRACTOR'S INTENDED CLOSING DATE
 - E. SOURCE OF BORROW MATERIAL
 - F. LOCATION OF DISPOSAL AREA OF SITE MATERIAL.
3. THE LIMITS OF DISTURBANCE SHALL BE FIELD MARKED PRIOR TO ANY CLEARING, GRUBBING, GRADING OR SEDIMENT CONTROL INSTALLATION.
4. UPON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, CLEAR AND GRUB THE AREA FOR THE INSTALLATION OF PERIMETER SEDIMENT CONTROL DEVICES ONLY. FOR AREAS WHERE STABILIZED CONSTRUCTION ENTRANCE IS LOCATED ON EXISTING PAVEMENT, THE PAVEMENT WHERE THE DEVICE IS TO BE LOCATED SHALL BE REMOVED.
5. INSTALL SITE PERIMETER SUPER SILT FENCE.
6. ON WRITTEN APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR BEGIN ROUGH GRADING.
7. ROUGH GRADE FOR BUILDING.
8. CONSTRUCT NEW BUILDING.
9. CONSTRUCT CURB AND GUTTER, SIDEWALKS, AND BITUMINOUS BASE COURSE.
10. COMPLETE BUILDING.
11. NOTIFY CERTIFYING ENGINEER FOR AS-BUILT INSPECTIONS AT LEAST 72 HOURS PRIOR TO BEGINNING WORK ON STORMWATER MANAGEMENT FACILITIES. CONSTRUCT GREEN ROOF. SEE SWM SEQUENCE ON SHEET "A".
12. INSTALL LANDSCAPING.
13. CONSTRUCT BITUMINOUS CONCRETE SURFACE COURSE.
14. PERMANENTLY STABILIZE ANY REMAINING DISTURBED AREAS
15. WITH THE APPROVAL OF THE BALTIMORE CITY ESC INSPECTOR, REMOVE ANY REMAINING EROSION AND SEDIMENT CONTROL AND PERMANENTLY STABILIZE ALL AREAS DISTURBED BY THIS REMOVAL.

NOTE: THERE IS NO STOCKPILING OF ERODIBLE MATERIAL.

STABILIZATION SCHEDULE PHASE #6

KEY	SQUARE FEET	TYPE OF STABILIZATION	SEQUENCE OF CONSTRUCTION
A	17,350	EXCAVATED AREA (TEMPORARY)	6.7
BUILDING		COMPLETED STRUCTURE (PERMANENT)	6.10
B	347	STONE BASE (TEMPORARY)	6
ROADWAY		CONCRETE / BITUMINOUS PAVING (PERMANENT)	6.13
C	1,097	TEMPORARY SEEDING (TEMPORARY)	6
CURBS & SIDEWALK		CONCRETE CURBS / WALKS (PERMANENT)	9
D	6,076	GRAVEL / SEEDING (TEMPORARY)	7
PERVIOUS AREAS		LANDSCAPING (PERMANENT)	10,12
E	1,088	SEEDING/STONE (TEMPORARY)	4,5
SEDIMENT CONTROLS		PAVEMENT, LANDSCAPING	6.9,10,12,13,14,15

AREAS ARE TO BE VEGETATIVELY STABILIZED TO SATISFY THE 37 DAY REQUIREMENT AS PER THE BALTIMORE CITY STANDARD EROSION AND SEDIMENT CONTROL NOTES.

OWNER/DEVELOPER CERTIFICATION STATEMENTS

1. ANY CLEARING, GRADING, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE, BEFORE THE PROJECT BEGINS, A CERTIFICATE OF TRAINING FROM AN AIDE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT.
3. THE CITY'S DPH AND DHCD AND MDE WILL BE ALLOWED RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION.

OWNER/DEVELOPER/APPLICANT

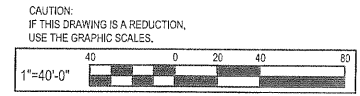
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

SITE INFORMATION

TOTAL LIMITS OF DISTURBANCE	27,938 SQ.FT. / 0.64 ACRES
VOLUME OF DISTURBANCE	CUBIC YARD
CUT AND FILL VOLUMES	
CUT	3,768 CUBIC YARD
FILL	101 CUBIC YARD
NET CUT	3,869 CUBIC YARD

*THE CONTRACTOR SHALL HAUL AND LEGALLY DISPOSE OF EXCESS CUT OFF SITE.

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.



NO.	DATE	REVISION



I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #24562 Expiration Date: 07/09/19

EROSION AND SEDIMENT CONTROL PLAN
PHASE 6

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	1"=40'
DATE:	05/03/18
PROJECT:	2016.0527.00
DRAWING:	

C606

B-4-3 SEEDING AND MULCHING

- 1. SEEDING
a. SPECIFICATIONS
1. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW...
2. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES...
3. SOIL OR SEED MUST BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS...
2. APPLICATION
a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS...
b. INCORPORATE SEED INTO THE SUBSOIL...
c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER...
3. MULCHING
a. MULCH MATERIALS (IN ORDER OF PREFERENCE)
1. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY...
2. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE...
b. ANCHORING
1. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION TO MINIMIZE LOSS BY WIND OR WATER...
2. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE...
3. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW...
4. SYNTHETIC BINDERS SUCH AS ACRYLIC CLR (AGRO-TACK), DCA-10, PETROSET, TERRA TACK, OR OTHER APPROVED EQUAL, MAY BE USED...
5. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS...

B-4-4 TEMPORARY STABILIZATION
CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS...

- CRITERIA
1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE...
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY...
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3 A.1.b AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

TEMPORARY SEEDING SUMMARY

Table with columns: NO., SPECIES, APPLICATION RATE (lb/ac), SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE, LIME RATE. Includes rows for Annual Ryegrass, Forktail Millet, and Cereal Rye.

B-4-5 PERMANENT STABILIZATION

CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.

- 1. SEED MIXTURE
a. GENERAL USE
1. SEE PERMANENT SEEDING SUMMARY...
2. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES...
3. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES...
4. FOR AREAS RECEIVING LOW MAINTENANCE...
b. TURFGRASS MIXTURES
1. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS...
2. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW...
3. KENTUCKY BLUEGRASS: FULL SUN MIXTURE...
4. KENTUCKY BLUEGRASS-PERENNIAL RYE: FULL SUN MIXTURE...
5. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE...
6. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE...
c. IDEAL TIMES OF SEEDING
1. WESTERN ILL: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1...
2. CENTRAL ILL: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15...
3. SOUTHERN ILL & EASTERN MISSOURI: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15...
4. TILLAGE TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS...
5. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER...
6. SEEDINGS ARE MADE LATE IN THE PLANTING SEASON...
2. SOIL TO PROVIDE QUICK COVER ON DISTURBED AREAS...
a. GENERAL SPECIFICATIONS
1. CLASS OF TURFGRASS SOO MUST BE MARYLAND STATE CERTIFIED...
2. SOO MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS...
3. STANDARD SIZE SECTIONS OF SOO MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT...
4. SOO MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT EXCEEDS 10%...
5. SOO MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS...
6. SOO INSTALLATION
a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE...
b. LAY THE FIRST ROW OF SOO IN A STRAIGHT LINE...
c. SOO MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT EXCEEDS 10%...
7. SOO MAINTENANCE
a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK...
b. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY...
c. DO NOT MOW UNTIL THE SOO IS FIRMLY ESTABLISHED...
8. SOO TO PROVIDE QUICK COVER ON DISTURBED AREAS (21 GRADE OR FLATTER)
a. GENERAL SPECIFICATIONS
1. CLASS OF TURFGRASS SOO MUST BE MARYLAND STATE CERTIFIED...
2. SOO MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS...
3. STANDARD SIZE SECTIONS OF SOO MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT...
4. SOO MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT EXCEEDS 10%...
5. SOO MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS...
6. SOO INSTALLATION
a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE...
b. LAY THE FIRST ROW OF SOO IN A STRAIGHT LINE...
c. SOO MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT EXCEEDS 10%...
7. SOO MAINTENANCE
a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK...
b. AFTER THE FIRST WEEK, SOO WATERING IS REQUIRED AS NECESSARY...
c. DO NOT MOW UNTIL THE SOO IS FIRMLY ESTABLISHED...

PERMANENT SEEDING SUMMARY
Table with columns: NO., SPECIES, APPLICATION RATE (lb/ac), SEEDING DATES, SEEDING DEPTHS, FERTILIZER RATE, LIME RATE. Includes rows for Switch Grass, Creeping Red Fescue, Bluegrass, Kentucky Bluegrass, and Cereals.

B-4-6 SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

- 1. SOIL PREPARATION
a. TEMPORARY STABILIZATION
1. SEEDING PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES...
2. PERMANENT STABILIZATION
a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE...
b. SOIL CONTAINS LESS THAN 40 PERCENT CLAY...
c. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION...
3. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE...
4. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN...
5. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL...
6. LAY AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS...
7. PREPARATION TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT...
8. SOIL CONTAINS LESS THAN 40 PERCENT CLAY...
9. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION...
2. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION...
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS...
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES...
4. THE TEXTURE OF THE EXPOSED SUBSOIL MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH...
5. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH...
6. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH...
7. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE...
8. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION...
9. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA...
10. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND...
11. UNIFORMITY: DISTRIBUTE TOPSOIL IN A 2 TO 8 INCH LAYER AND LIGHTLY COMPACT...
12. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION...
3. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES...
2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION...
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT) LIME...
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES...
5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE...

OWNER'S/DEVELOPER'S CERTIFICATION

I HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED PLAN AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE CERTIFICATION OF ATTENDANCE AT AN APPROVED MARYLAND DEPARTMENT OF THE ENVIRONMENT AND EROSION CONTROL TRAINING PROGRAM PRIOR TO THE BEGINNING OF WORK...

ENGINEER'S CERTIFICATION

I DO HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED UPON PERSONNEL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE CITY OFFICE OF COMPLIANCE AND LABORATORIES.

STANDARD EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE CONTRACTOR WILL COMPLY WITH ALL REQUIREMENTS OF SEDIMENT AND EROSION CONTROL AS SET FORTH IN THE BALTIMORE CITY SEDIMENT AND EROSION CONTROL MANUAL AND BALTIMORE CITY CODE, ARTICLE 7.
2. CONTRACTOR MUST SUBMIT WRITTEN NOTIFICATION 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY TO THE DEPARTMENT OF PUBLIC WORKS, OFFICE OF COMPLIANCE AND LABORATORIES...
3. INITIAL DISTURBANCE WILL BE LIMITED TO THAT NECESSARY TO GAIN ENTRANCE TO THE SITE...
4. ALL SEDIMENT CONTROLS AND CRITICAL SLOPES MUST BE STABILIZED WITHIN THREE CALENDAR DAYS...
5. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE HIGH SIDE...
6. PUMPING OF SEDIMENT LADEN WATER WILL NOT BE ALLOWED UNLESS IT IS FILTERED BY WAY OF AN APPROVED SEDIMENT TRAPPING DEVICE...
7. CONTINUOUS INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES IS MANDATORY...
8. ANY SEDIMENT CONTROL DEVICES DISTURBED DURING UTILITY CONSTRUCTION MUST BE RESTORED IMMEDIATELY...
9. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO MINIMIZE TRACKING OF MUD ON TO PUBLIC RIGHT-OF-WAYS...
10. ANY EARTH GRAVEL AND/OR OTHER MATERIAL TRACKED, SPILLED, OR WASHED ON TO ADJACENT ROADS MUST BE IMMEDIATELY REMOVED AND DISPOSED OF IN A PROPER MANNER...
11. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 5,000 S.F., THE CONTRACTOR SHALL HAVE A BALTIMORE CITY EROSION AND SEDIMENT CONTROL INSPECTOR INSPECT AND APPROVE THE WORK...
a. UPON COMPLETION OF THE INSTALLATION OF THE PERIMETER SEDIMENT CONTROLS...
b. DURING ALL GRADING AND SOILING OPERATIONS...
c. UPON FINAL STABILIZATION OF THE ENTIRE SITE PRIOR TO REMOVAL OF THE SEDIMENT CONTROLS...
12. THE CONTRACTOR SHALL NOT DEVIATE FROM THE APPROVED SEDIMENT AND EROSION CONTROL PLAN WITHOUT FIRST RECEIVING APPROVAL FROM THE OFFICE OF COMPLIANCE AND LABORATORIES...
NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

H-5 DUST CONTROL

- 1. MULCHES: SEE SECTION B-4.2, SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS...
2. VEGETATIVE COVER: SEE SECTION B-4.4, TEMPORARY STABILIZATION...
3. TILLAGE: TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE...
4. IRRIGATION: SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST...
5. BARRIERS: SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES...
6. CHEMICAL TREATMENT: USE REQUIRES APPROVAL BY THE APPROPRIATE APPROVAL AUTHORITY.

B-4-B STOCKPILE SPECIFICATION:

- 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED...
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL...
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE...
4. ACCESS TO THE STOCKPILE AREA SHOULD BE FROM THE UPGRADE SIDE...
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED...
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE...
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 37 DAY STABILIZATION REQUIREMENT...
8. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE...
9. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER MAY BE PROVIDED...
MAINTENANCE
THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION...
IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER MAY BE PROVIDED...
PERMITS AND SEDIMENT CONTROL NOTES

OWNER'S/DEVELOPER'S CERTIFICATION

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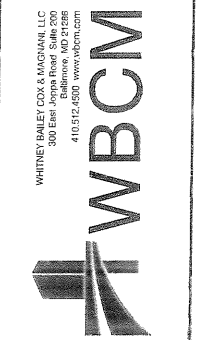
ENGINEER'S CERTIFICATION

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STANDARD EROSION AND SEDIMENT CONTROL NOTES:

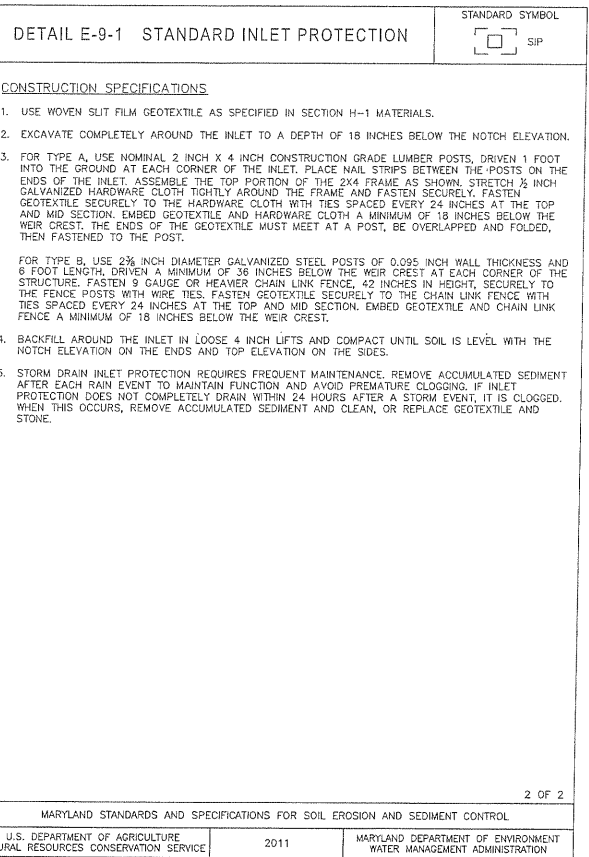
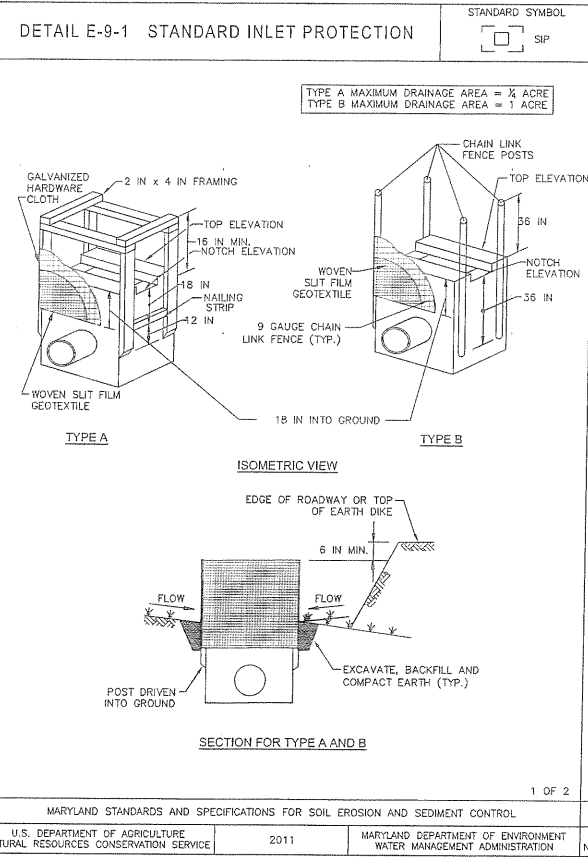
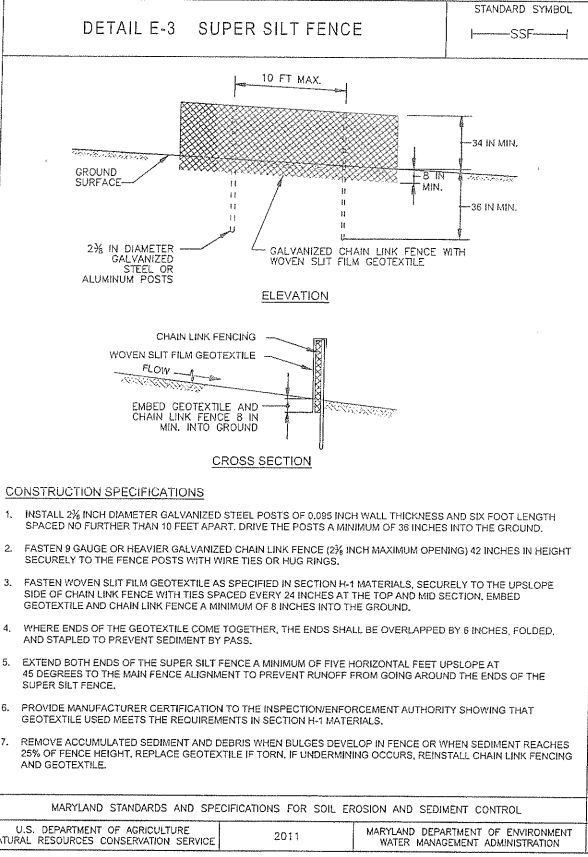
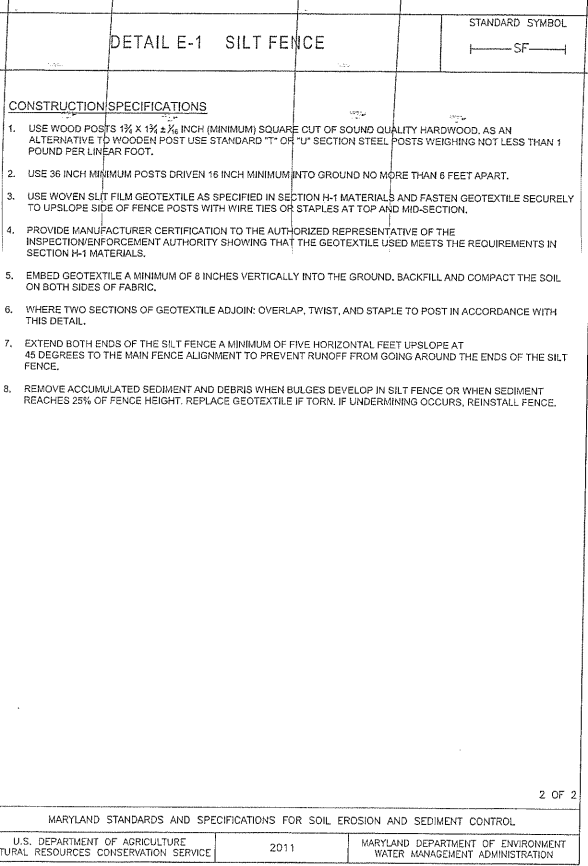
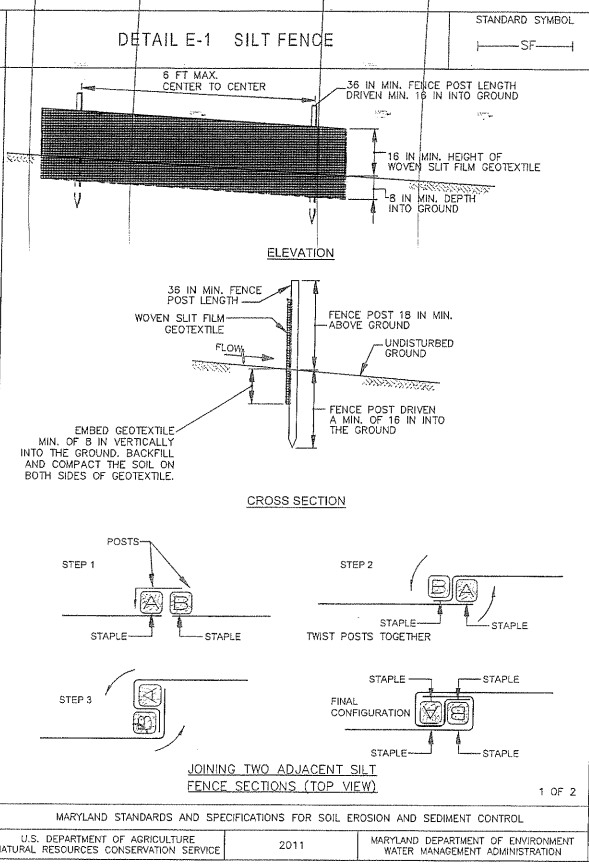
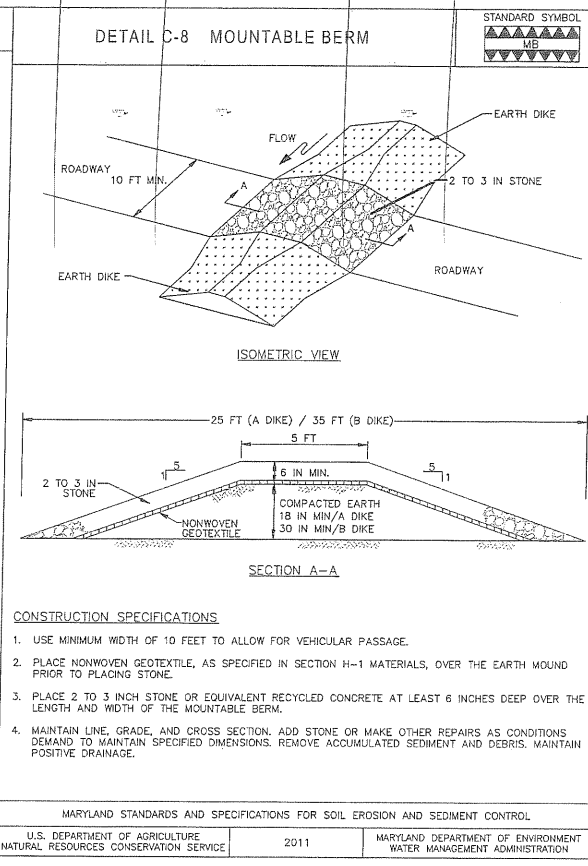
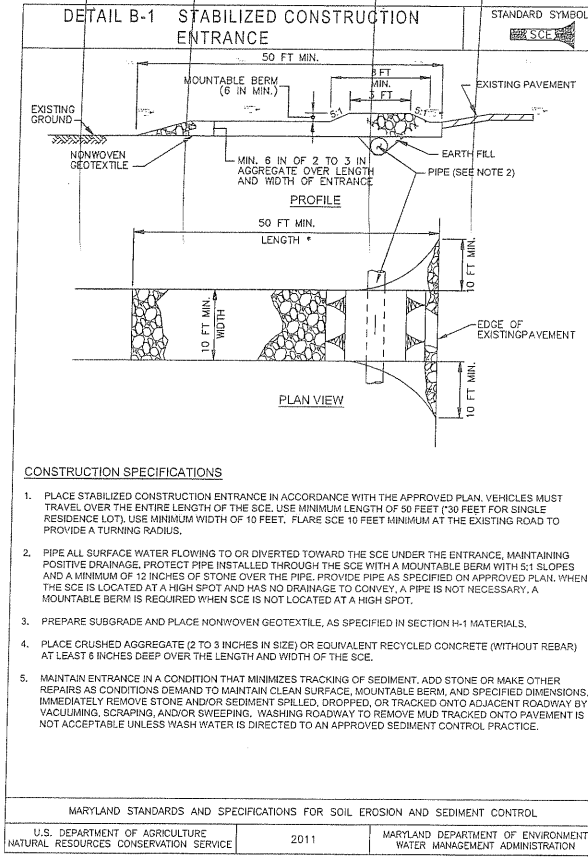
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2. CONTRACTOR MUST SUBMIT WRITTEN NOTIFICATION 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY TO THE DEPARTMENT OF PUBLIC WORKS, OFFICE OF COMPLIANCE AND LABORATORIES...
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NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

OWNER/DEVELOPER/APPLICANT
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200



EROSION AND SEDIMENT CONTROL NOTES
HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

Table with columns: DESIGNED: M.M./H.H., DRAWN: M.H., CHECKED: B.L., SCALE: N/A, DATE: 05/02/18, PROJECT: 2016.0527.00, DRAWING: C6027



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

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MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

NO.	DATE	REVISION

WHITNEY DALEY, CDR & ASSOCIATES, LLC
500 East
Baltimore, MD 21208
410.512.4500 www.wdaml.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34582 Expiration Date: 07/08/19

EROSION AND SEDIMENT CONTROL DETAILS

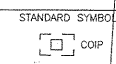
HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

OWNER/DEVELOPER/APPLICANT
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1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

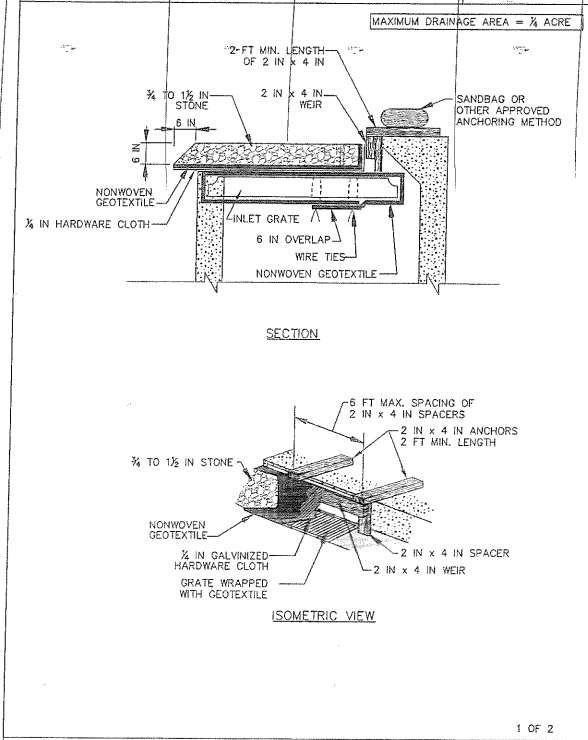
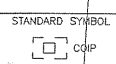
DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	N/A
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	C6038

NOTE TO CONTRACTOR: SEDIMENT AND EROSION CONTROL SHALL BE STRICTLY ENFORCED.

DETAIL E-9-6 COMBINATION INLET PROTECTION



DETAIL E-9-6 COMBINATION INLET PROTECTION



- CONSTRUCTION SPECIFICATIONS**
1. USE NOMINAL 2 INCH x 4 INCH LUMBER.
 2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
 3. LIFT GRATE, AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE.
 4. ATTACH A CONTINUOUS PIECE OF 1/4 INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2X4 WEIR, EXTENDING 2 FEET BEYOND THROAT ON EACH SIDE.
 5. PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH IT TO THE WEIR.
 6. NAIL THE 2X4 WEIR TO THE TOP OF A 9 INCH LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAXIMUM 4 FEET APART).
 7. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2X4 ANCHORS (MINIMUM 2 FOOT LENGTHS OF 2x4 INCH TO THE TOP OF THE WEIR AT SPACER LOCATIONS). EXTEND 2X4 ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
 8. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND BOTH ENDS OF THE THROAT OPENING.
 9. FORM THE 1/4 INCH HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 1/4 TO 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE OVER THE HARDWARE CLOTH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.
 10. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
 11. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

1 OF 2

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL	
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION		MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION	

NO.	DATE	REVISION	BY

WHITNEY HANLEY COS. & ASSOCIATES, L.P.C.
300 East Camp Road, Suite 200
Baltimore, MD 21288
410.512.6500 www.wbcm.com

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.
License #34882 Expiration Date: 07/08/19

EROSION AND SEDIMENT CONTROL DETAILS

HOLABIRD MANOR
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW RD.
BALTIMORE, MD 21222

DESIGNED:	M.M./H.H.
DRAWN:	M.H.
CHECKED:	B.L.
SCALE:	N/A
DATE:	05/02/18
PROJECT:	2016.0527.00
DRAWING:	C60A 9

OWNER/DEVELOPER/APPLICANT
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1705 HOLAVIEW RD.
BALTIMORE, MARYLAND 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

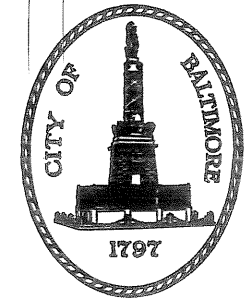
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ESD #6654

REVISIONS			
NO.	DESCRIPTION	DATE	BY

INDEX OF SHEETS	
NO.	DESCRIPTION
1	TITLE SHEET
2	8" WATER MAIN PLAN
3	8" WATER MAIN PROFILES
4	STORM DRAIN PLAN AND PROFILES
5	STORM DRAIN PLAN AND PROFILES
6	SANITARY SEWER SERVICE PLAN AND PROFILES
7	ROADWAY PLAN AND PROFILE

CITY OF BALTIMORE DEVELOPER'S AGREEMENT No. XXXX



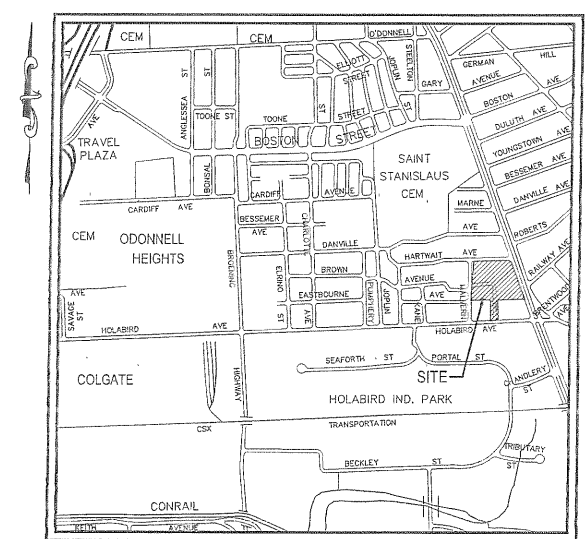
HOLABIRD MANOR

WARD 26, SECTION 01, BLOCK 6750

LOTS 16, 18, 22, 27, 31, 36, 38, 78A, 79, 83, 88, 92

LEGEND:

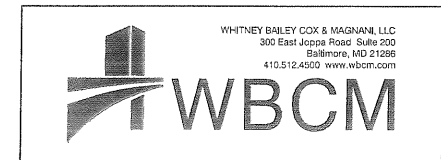
DESCRIPTION	EXISTING	NEW
BUILDING	EX. BLDG	NEW BLDG.
BITUMINOUS CONCRETE PAVING	EX. MACADAM	
CONCRETE SIDEWALK	EX. CONC. WALK	
CONCRETE PAVING	EX. CONC.	
CLEAN OUT		
DRAIN INLET		
ELECTRIC BOX		
ELECTRIC CONDUIT		
ELECTRIC MH		
ELECTRIC RISER		
FIRE HYDRANT		
FIRE CONNECTION		
FLOOR DRAIN		
OBSERVATION WELL		
GAS VALVE		
HAND BOX		
INLET MH		
METAL POLE		
PARKING METER		
POWER POLE		
ROOF DRAIN		
SANITARY MH		
SIGNS		
STORM DRAIN MH		
STREET LIGHT		
TELEPHONE MH		
TELEPHONE RISER		
TRAVERSE STATION		
TREES		
UNKNOWN MH		
WATER MH		
WATER VALVE		
BUSHES		
SPOT ELEVATION	X 31.2	+ 31.2
MAJOR CONTOUR	30	260
MINOR CONTOUR	31	261
WALL		
CONC. CURB		
FENCE LINE	X - X - X	X - X - X
UG SANITARY	SS	
UG STORM	D	
UG WATER	W	
PROPERTY LINE		



LOCATION MAP

WHITNEY, BAILEY, COX, AND MAGNANI	
ENGINEER: BLAINE W. LINKOUS	
DATE: 04-20-18	LIC. NO. 34682
DESIGNED BY: MM	
DRAWN BY: JH	
CHECKED BY: BL	

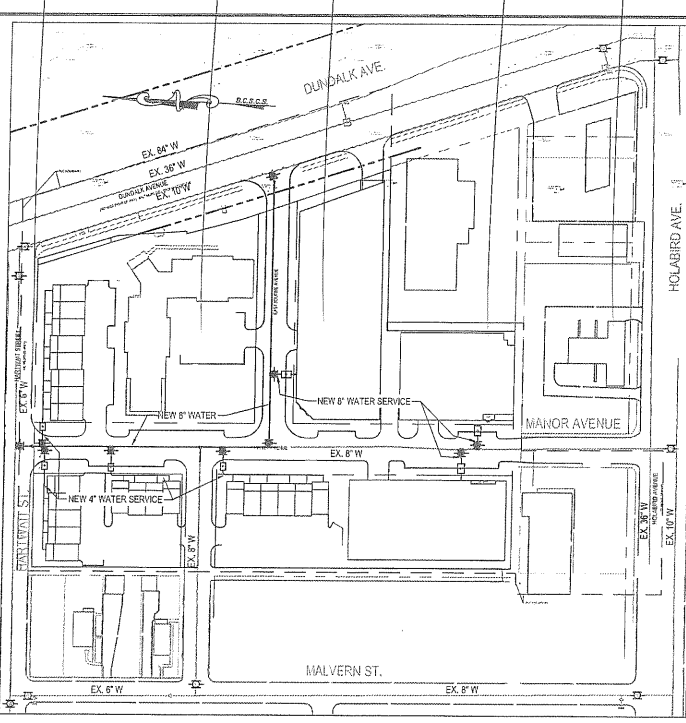
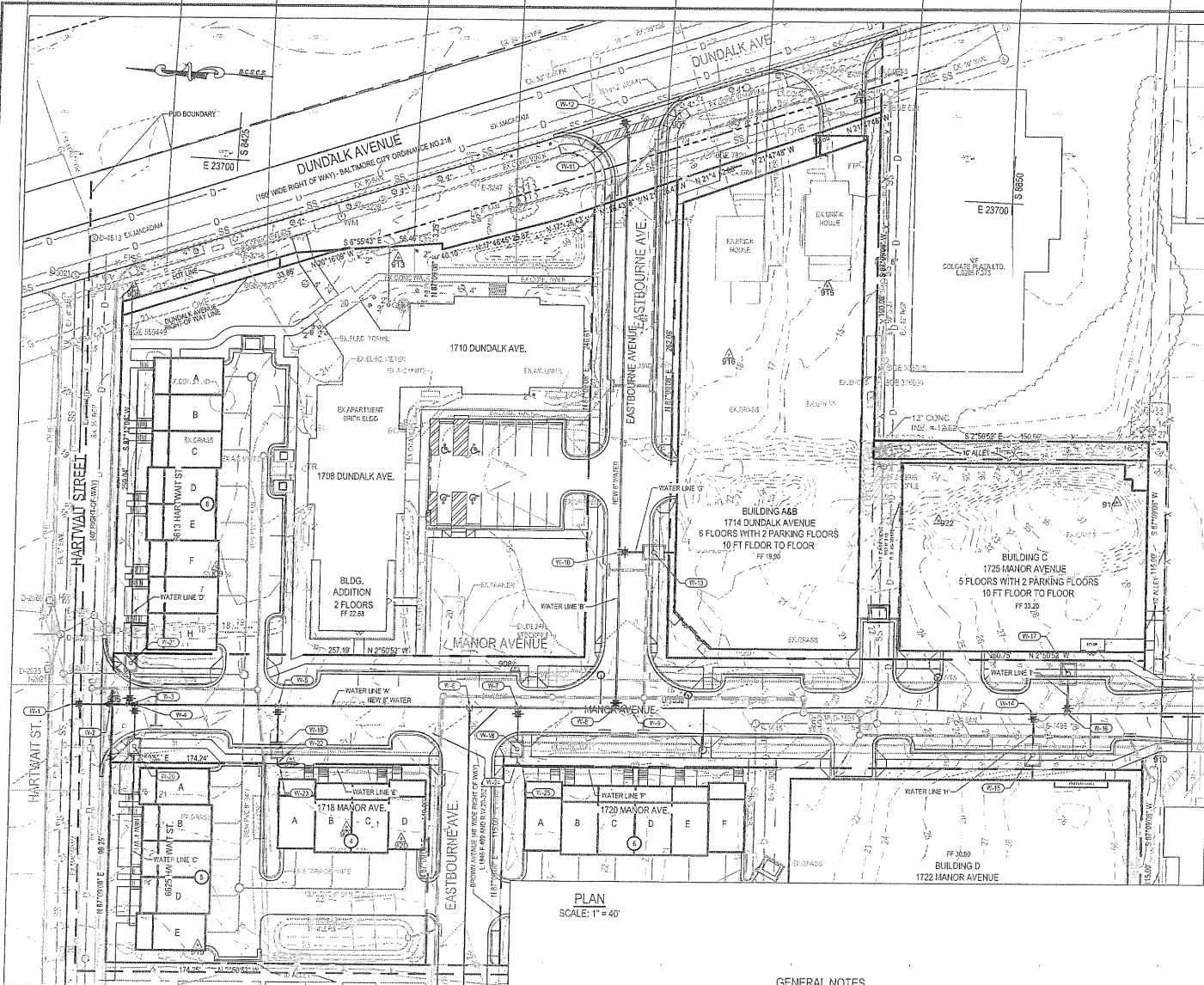
BALTIMORE CITY REVIEW	R/W RELEASE	GRADE ESTABLISHED	HIGHWAY DESIGN	STRUCTURAL	DRAINAGE	LIGHTING	CONDUIT	EROSION AND SEDIMENT CONTROL	TRAFFIC ENGINEERING	SIGNAL ENGINEERING	WASTE WATER ENGINEERING	WATER ENGINEERING
BY												
DATE												



CHIEF, TRANSPORTATION, ENGINEERING AND CONSTRUCTION DIVISION	DATE
DIRECTOR, DEPARTMENT OF TRANSPORTATION	DATE
DIRECTOR OF PUBLIC WORKS	DATE

C.W.O.

OWNER	HOLABIRD CONSTRUCTION CO., INC.
APPLICANT	HOLABIRD CONSTRUCTION CO., INC.
	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS PWDA NO. _____
	TITLE SHEET
	HOLABIRD MANOR
	1710 DUNDALK AVE. WARD 26, SECTION 01, BLOCK 6750 BALTIMORE, MARYLAND 21222
SCALE: NONE	DATE: JULY 2017
	SHEET 1 OF _____



WATER MAIN NOTES:

- W-1 NEW 5"x6" TEE & 6" VALVE W/ ROADWAY BOX.
- W-2 NEW 5"x8" REDUCER.
- W-3 NEW 5"x4" TEE & 4" VALVE.
- W-4 NEW 5"x4" TEE & 4" VALVE.
- W-5 NEW 5"x4" TEE & 4" VALVE.
- W-6 NEW 5"x8" TEE
- W-7 NEW 5"x4" TEE & 4" VALVE.
- W-8 NEW 5"x8" TEE & 8" VALVE.
- W-9 CONNECT TO EXISTING 8" WATER W/ SLEEVE & SPACER.
- W-10 NEW 5"x8" TEE & 8" VALVE W/ SMALL SECTIONAL VAULT.
- W-11 NEW 4" - 1/8" HORIZ. BEND
- W-12 NEW 10"x8" TAPPING SLEEVE & VALVE.
- W-13 NEW 8" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-14 NEW 8"x8" TEE AND VALVE.
- W-15 NEW 8" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-16 NEW 8"x8" TEE & VALVE.
- W-17 NEW 8" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-18 NEW 4" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-19 NEW 4" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-20 NEW 4" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-21 NEW 4" FM METER & VAULT, SEE BALTO. CITY STD. NO. BC 847.01.
- W-22 NEW 4" - 1/8" HORIZ. BEND
- W-23 NEW 4" - 1/8" HORIZ. BEND
- W-24 NEW 4" - 1/8" HORIZ. BEND
- W-25 NEW 4" - 1/8" HORIZ. BEND

REVISIONS			
NO.	DESCRIPTION	DATE	BY



VICINITY MAP SCALE: 1"=2,000'

UTILITY NOTES:

1. THE CONTRACTOR MUST NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FIVE (5) DAYS PRIOR TO BEGINNING WORK.
2. THE CONTRACTOR MUST NOTIFY WATER AND WASTEWATER MAINTENANCE DIVISION 410-396-7870 AT LEAST TWO (2) WEEKS PRIOR TO STARTUP OF CONSTRUCTION ON WATER SERVICES, FOR SANITARY, CONDUIT, AND STORM WATER SERVICES CONTACT THE PERMIT INSPECTION SECTION AT 410-396-4840. THE CONTRACTOR MUST RECEIVE WRITTEN NOTICE TO PROCEED FROM THE WATER AND WASTEWATER MAINTENANCE DIVISION OR THE PERMIT INSPECTION SECTION PRIOR TO PERFORMING ANY WORK.
3. CONTRACTOR FOR METER INSTALLATION MUST NOTIFY BALTIMORE CITY, BUREAU OF WATER AND WASTEWATER 410-396-0170, 72 HOURS BEFORE STARTING WORK.
4. ALL EXISTING WATER VALVES SHALL BE OPERATED BY WATER AND WASTEWATER MAINTENANCE DIVISION FORCES ONLY. NOTIFY MR. AUGIE SEVEREN AT 410-396-0229 AT LEAST SEVEN (7) WORKING DAYS IN ADVANCE OF ANY NECESSARY VALVE OPERATIONS.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PUBLIC WORKS DEVELOPER'S AGREEMENT, THE LATEST EDITION OF THE CITY OF BALTIMORE, DEPT. OF PUBLIC WORKS, SPECIFICATIONS FOR MATERIALS, HIGHWAYS, BRIDGES, UTILITIES AND STORM DRAINS, DATED 2008 AND AS AMENDED TO DATE, AND BOOK OF STANDARDS FOR STRUCTURES, ROADWAYS AND UTILITIES, AS AMENDED TO DATE.
6. CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING WATER FACILITIES.
7. ALL SERVICES MUST BE FLUSHED PRIOR TO SETTING METERS.
8. SERVICES MUST BE CAPPED AND THE COMPLETED SERVICES WILL BE VISUALLY INSPECTED FOR LEAKS.
9. WHENEVER MORE THAN ONE SERVICE IS INSTALLED TO ANY PROPERTY OR BUILDING, THEN CHECK VALVES MUST BE INSTALLED ON ALL SERVICES, BOTH EXISTING AND PROPOSED, THEY MUST BE SHOWN ON THE DRAWING, AND WILL BE VISUALLY VERIFIED BY THE WATER AND WASTEWATER MAINTENANCE DIVISION PRIOR TO BEGINNING WORK.
10. ALL SERVICES TO BE ABANDONED MUST BE ABANDONED AT THE MAINS, AND ALL METERS MUST BE RETURNED TO THE CITY.
11. THE DEVELOPER MUST VERIFY THROUGH THE UTILITY BILLING SECTION AT 410-396-5533 THE SERVICE ACCOUNT AND METER NUMBERS FOR ALL EXISTING WATER SERVICES TO REMAIN OR BE ABANDONED AND SHOWN ON THE PROPOSED PLANS.
12. METERS ARE NOT PERMITTED TO BE INSTALLED IN ROADWAYS OR DRIVEWAYS.
13. THE CONTRACTOR SHALL GIVE WRITTEN NOTICES, AS APPROVED BY THE RESIDENT ENGINEER, TO ALL CONSUMERS AFFECTED BY A SHUTDOWN OF THEIR SERVICES, A MINIMUM OF (3) DAYS PRIOR TO THE ACTUAL WORKS REQUIRED. WATER SERVICES FOUR (4) INCHES AND LARGER MAY NEED TO BE SCHEDULED AT NIGHT OR DURING WEEKENDS UNLESS THE AFFECTED CONSUMERS AGREE TO THE SCHEDULE AS PROPOSED BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF WATER AND WASTEWATER METER REPAIR SHOP, 410-396-0170, AT LEAST ONE (1) WEEK PRIOR TO PICK UP OF THE METERS.
15. METERS DESIGNATED FOR A SPECIFIC LOCATION OR ADDRESS SHALL NOT BE RELOCATED WITHOUT WRITTEN PERMISSION FROM THE BUREAU OF WATER AND WASTEWATER.
16. METER TO BE SUPPLIED BY BALTIMORE CITY DEPT. OF PUBLIC WORKS. CALL BALTIMORE CITY AT 410-396-0170 FOR METER PICK-UP, DELIVERY AND INSTALLATION ARE THE RESPONSIBILITY OF THE CONTRACTOR. COST OF METERS WILL BE PAID BY THE OWNER. PICK-UP OF METERS SHALL BE ARRANGED THROUGH THE INSPECTOR.
17. COMPLETED METER INSTALLATION TO BE INSPECTED BY BALTO. CITY BUREAU OF WATER WASTEWATER, PRIOR TO TOP SLAB PLACEMENT. CALL 410-396-7755, 48 HOURS PRIOR TO SETTING TOP SLAB.
18. SERVICES LEAD TO BE STRAIGHT AND LEVEL FOR A MINIMUM HORIZONTAL DISTANCE OF 8 TIMES THE PIPE DIAMETER ON THE INLET SIDE OF THE METER WITH A MINIMUM BURY OF 5.8" AND 6.3" MAXIMUM.
19. THE CONTRACTOR SHALL COORDINATE THE TAPPING OF 10" WATER MAIN IN DUNDALK AVE, THE 10" WATER MAIN IN HOLABIRD AVE, AND THE 6" WATER MAIN IN HARTWAY ST. WITH BALTIMORE CITY INSPECTOR DIVISION.
20. THE CONTRACTOR WILL DISCHARGE THE CHLORINATED FLUSH WATER INTO A SANITARY SEWER. THE MAX DISCHARGE RATE WILL BE 80 G.P.M. (COST TO BE INCLUDED IN PRICE OF ITEMS BID).
21. ONLY BALTIMORE CITY PERSONNEL WILL OPERATE EXISTING VALVES OR NEW VALVES AFTER THEY ARE PLACED IN SERVICE, THE CONTRACTOR WILL NOTIFY THE BALTIMORE CITY INSPECTOR TO ARRANGE A SHUTDOWN WITH THE CITY AT LEAST FOUR DAYS PRIOR TO THE PROPOSED SHUTDOWN IF REQUIRED. IF THE INSPECTION IN THE FIELD IS UNAVAILABLE, CALL THE BALTIMORE CITY AREA ENGINEER AT 410-396-1907.
22. MAIN TO HAVE 4" MIN. COVER BASED ON THE ESTABLISHED GRADE UNLESS OTHERWISE NOTED.
23. THE CONTRACTOR FOR THE MAIN EXTENSION WILL NOTIFY BALTO. CITY BUREAU OF WATER AND WASTEWATER, 410-396-7807, 72 HOURS BEFORE STARTING WORK.
24. RESTRAINED JOINTS WILL BE RETAINER GLANDS, MEGALUGS EBM IRON SALES SERIES 1100, OR APPROVED EQUAL.
25. THE CONTRACTOR SHALL INSTALL NON-DETECTABLE TAPE ON ALL RESTRAINED JOINT PIPE WHICH SHALL EXTEND 12" ON EACH SIDE OF THE RESTRAINED JOINT PIPE. CONTACT MR. JOHN WATERFORD AT 410-395-1453 FOR DETAILED SPECIFICATIONS OF THE NON-DETECTABLE TAPE FOR RESTRAINED JOINT PIPE. WATER SERVICE ABANDONMENT WITHOUT ABANDONING WATER MAIN.
26. A. AT WATER MAIN:
 - A1. SMALLER THAN OR EQUAL TO 2". REMOVE CORPORATION, INSTALL CORPORATION PLUG.
 - A2. LARGER THAN 2". REMOVE TEE AND VALVE, INSTALL SLEEVE AND SPACER.
- B. AT WATER METER VAULT/TIT:
 - A) IF THE METER VAULT/TIT IS A SECTIONAL VAULT, REMOVE TOP SECTION, BACKFILL, AND THEN COMPACT BACKFILL.
 - B) IF THE METER VAULT/TIT IS A PRECAST OR CAST-IN-PLACE VAULT/TIT, DRILL DRAINAGE HOLES AT BOTTOM SLAB, REMOVE TOP SLAB, BACKFILL, AND THEN COMPACT BACKFILL.
- RESTORE SURFACE PER APPLICABLE DOT STANDARD DETAILS, AND ANY OTHER SURFACE FEATURES TO RESTORE THE SITE, REMOVE FRAME COVER, AND WATER METER FROM THE VAULT/TIT, RETURN TO METER SHOP AND FRAME AND COVER TO WASHINGTON BOULEVARD YARD, AND REMOVE AND DISPOSE OF THE REMAINING INSIDE THE VAULT/TIT.
 - A) FOR WATER SERVICES SMALLER THAN OR EQUAL TO 2". LEAVE EXISTING SERVICE LINE IN PLACE.
 - B) FOR WATER SERVICE LARGER THAN 2". PLUG BOTH ENDS OF THE EXISTING SERVICE LINE.
- BACKFILL, COMPACT BACKFILL, INSTALL PAVING PER DETAIL 2 & 9, SHEET 8 OF 11.
- CONTRACTOR SHALL NOTIFY STREET LIGHTING MAINTENANCE AT 410-396-5985 OR 410-396-1888 AT LEAST FOURTEEN (14) DAYS PRIOR TO STARTING WORK.
- STREET LIGHTING CABLES AND POLES SHALL BE PROTECTED AND SERVICE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL CALL BGE, DEBBIE BAROFF, 410-291-9000, AT LEAST SEVEN (7) DAYS PRIOR TO ANY EXCAVATION.
- CONDUIT EXISTS WITHIN THE WORK AREA, CONTRACTOR SHALL USE CAUTION WHEN EXCAVATING AND INSTALLING ANY NEW UTILITY, CONTRACTOR SHALL CALL CONDUIT MAINTENANCE 410-396-1515 PRIOR TO STARTING WORK.
- BUTTRESSES FOR BENDS SHALL CONFORM TO B.C. 862.01, 866.01, 867.01, AS APPLICABLE.
- BUTTRESSES FOR CAPS SHALL CONFORM TO B.C. 861.01.
- BUTTRESSES FOR TEES SHALL CONFORM TO B.C. 865.01.
- CONTRACTOR SHALL CONFIRM INVERT ELEVATIONS OF EXISTING WATER MAINS AND ALL UTILITY CROSSINGS PRIOR TO ANY NEW CONSTRUCTION. ANY DEVIATION NOTED FROM TEST PIT INFORMATION WILL REQUIRE RED LINE REVISED PLANS APPROVED BY THE UTILITY ENGINEER SECTION PRIOR TO ANY NEW CONSTRUCTION.
- THE CONTRACTOR SHALL USE PRESSURE REDUCING VALVES ON ALL SERVICES EXCEEDING 80 PSI.
- THE BACKFLOW PREVENTER FOR THE PROPOSED WATER SERVICE IS LOCATED INSIDE THE BUILDING.

STREET LIGHTING NOTES

1. THE CONTRACTOR IS REQUIRED TO NOTIFY BGE AND BALTIMORE CITY STREET LIGHTING MAINTENANCE AT 410-396-4448 FOUR WEEKS PRIOR TO STARTING WORK.
2. CONTRACTOR TO NOTIFY DARYL WADE AT 410-396-2889 PRIOR TO ALL EXISTING STREET AND PAVEMENT DISTURBANCES.
3. IF THE CONTRACTOR UNCOVERS OR DAMAGES A STREET LIGHT CONDUIT OR CABLE DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO NOTIFY STREET LIGHTING MAINTENANCE AT 410-396-4448 AND BGE IMMEDIATELY. STREET LIGHTING MAINTENANCE WOULD AFFECT REPAIRS OR DIRECT BGE TO MAKE SAFE CONDITIONS AND/OR REPLACE CABLE PRIOR TO RESUMING CONSTRUCTION. ALL SUCH REPAIRS SHALL BE MADE AT THE CONTRACTOR'S OWN EXPENSE.
4. UNLESS OTHERWISE NOTED, ALL STREET LIGHTING RELATED WORK SHALL BE IN ACCORDANCE WITH THE CITY OF BALTIMORE'S DEPARTMENT OF PUBLIC WORKS, "CONSTRUCTION SPECIFICATIONS", "BOOK OF STANDARDS", THE BUILDING CODE OF BALTIMORE CITY, AND THE UTILITY DEVELOPER'S AGREEMENT.
5. FOR WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF GENERAL SERVICES PERMITS DIVISION, ABEL WOLMAN MUNICIPAL BUILDING, 1ST FLOOR, 200 NORTH HOLLIDAY STREET, BALTIMORE, MARYLAND, 21202, PHONE (410) 396-6885 OR (410) 396-4508.
6. THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE TEMPORARY LIGHTING AS PER BALTIMORE CITY STANDARDS IF THE EXISTING LIGHTS CAN NOT BE MAINTAINED IN SERVICE DURING CONSTRUCTION. THE TOTAL COST OF MATERIALS AND LABOR FOR STREET LIGHTING WORK INCLUDING BGE CABLE CONNECTION WORK SHALL BE BORNE BY THE CONTRACTOR.
7. THE CONTRACTOR IS REQUIRED TO CONTACT STREET LIGHTING MAINTENANCE FOR THE POLES AND LIGHT FIXTURES TO BE REMOVED AND TO COORDINATE DE-ENERGIZING AND RE-ENERGIZING THE LIGHT POLES.

TRAFFIC NOTES

1. THE CONTRACTOR MUST CONTACT MR. ROBERT E. FERGUSON, OF THE OFFICE OF TRANSPORTATION AT 443-984-2129 TWO WEEKS BEFORE CONSTRUCTION BEGINS AND ONE WEEK PRIOR TO ANY CHANGES TO THE CONTRACTOR'S MAINTENANCE OF TRAFFIC (M.O.T.) PLAN.
2. ALL EXCAVATIONS AND TRENCHES SHALL BE PLATED AT THE END OF EACH WORKDAY AND "STEEL PLATES AHEAD" WARNING SIGNS DISPLAYED IN ADVANCE. ALL STEEL PLATES THAT ARE INSTALLED AS PER BC-576.17 MUST BE CLEARLY MARKED SO THAT OWNERSHIP IS EASILY DISCERNIBLE.
3. THE CONTRACTOR SHALL MAINTAIN A MINIMUM FOUR-FOOT (4') WIDE PEDESTRIAN FOOTWAY OR IMPLEMENT AN APPROXIMATE DETOUR WHILE ACTIVELY WORKING IN THE SIDEWALK IN ACCORDANCE WITH ADA GUIDELINES AND APPROPRIATE SHA AND CITY STANDARDS.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL, AND MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THIS CONTRACT.
5. ALL TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE CURRENT REVISIONS OF THE FEDERAL HIGHWAY M.U.T.C.D. AND THE MARYLAND S.H.A. WORK ZONE TRAFFIC CONTROL STANDARDS AND THE CITY OF BALTIMORE BOOK OF STANDARDS.
6. TO WORK IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PERMITS DIVISION. APPLICATIONS ARE ACCEPTED AT THE DEPARTMENT OF PUBLIC WORKS PERMIT DIVISION IN THE ABEL WOLMAN MUNICIPAL BUILDING, ROOM #7, 200 N. HOLLIDAY STREET, PHONE 410-396-4539. DURING THE PERMIT REVIEW, THE CONTRACTOR MAY BE BILLED ADDITIONAL TRAFFIC INSPECTIONS FEES UNRELATED TO ANY PREVIOUS COSTS.
7. NO WORK OR DISRUPTION OF TRAFFIC BETWEEN THE HOURS OF 6AM - 8AM AND 3PM - 6PM.
8. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) ELEVEN FOOT (11') LANE IN EACH DIRECTION ON HARTWAY ST. THE CONTRACTOR SHALL MAINTAIN TWO (2) TWELVE FOOT (12') LANE IN SOUTH BOUND DIRECTION OF DUNDALK AVE. NORTH BOUND LANES OF DUNDALK AVE. SHALL REMAIN IN SERVICE THROUGHOUT. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) TWELVE FOOT (12') LANE IN EACH DIRECTION ON HOLABIRD AVE.
9. THE CONTRACTOR IS RESPONSIBLE FOR ANY SIGNING AND PAVEMENT MARKINGS DAMAGED OR DESTROYED DURING CONSTRUCTION, INCLUDING THOSE OUTSIDE THE PROJECT LIMITS.
10. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY TEMPORARY NO STOPPING PROHIBITION SIGNING THAT WILL BE NECESSARY TO COMPLETE THIS PROJECT.

SURVEY CONTROL NOTES

1. HORIZONTAL COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MERIDIAN OF THE BALTIMORE CITY SURVEY CONTROL SYSTEMS DETERMINED FROM THE FOLLOWING B.C.S.C.S. TRANSVERSE STATIONS:
 - 35221 N-6,856.459 E 23,870.408 "BRASS PLUG"
 - 35222 N-6,191.692 E 23,701.607 "BRASS PLUG"
 - 27385 N-6,123.114 E 23,760.732 "BRASS PLUG"
 - 27386 N-6,149.444 E 23,410.438 "BRASS PLUG"
 - 27387 N-6,186.522 E 23,075.391 "BRASS PLUG"
2. ELEVATIONS SHOWN HEREON ARE REFERRED TO THE DATUM OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. BENCH-MARKS:
 - BM 8559 ELEV. 17.89 "BRASS SCREW"

TEST PIT NOTE

TEST PIT EXISTING UTILITIES PRIOR TO UTILITY SERVICE INSTALLATION. NOTIFY DESIGN ENGINEER IF THERE ARE CONFLICTS. THE DESIGN ENGINEER SHALL MAKE REVISIONS TO THE APPROVED PLAN AND RESUBMIT TO BALTIMORE CITY UTILITY ENGINEERING SECTION. THEIR APPROVAL IS REQUIRED PRIOR TO CONTINUANCE OF CONSTRUCTION.

W.B.C.M. BENCHMARK DATA(SET ON SITE)

B.M. ELEV. DESCRIPTION
8558 17.65 BRASS SCREW

CHIEF, TRANSPORTATION, ENGINEERING AND CONSTRUCTION DIVISION DATE

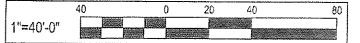
DIRECTOR, DEPARTMENT OF TRANSPORTATION DATE

DIRECTOR OF PUBLIC WORKS DATE

GENERAL NOTES

1. UTILITIES ARE SHOWN FROM THE BEST AVAILABLE INFORMATION AND NO GUARANTEE OF COMPLETENESS OR CORRECTNESS CAN BE GIVEN. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
2. ALL TRENCH REPAIRS TO BE MADE IN ACCORDANCE WITH ON.
3. ROADWAY, CURBS AND/OR SIDEWALKS SHALL BE REPAIRED "IN KIND" WHERE DISTURBED BY CONSTRUCTION. SIDEWALKS SHALL BE REPAIRED AS SHOWN IN DETAIL 7 ON SHEET 8 OF 11. CURBS SHALL BE REPAIRED TO THE NEAREST EXISTING JOINT AS SHOWN ON DETAIL 3 ON SHEET 8 OF 11.
4. CONTRACTOR SHALL ATTACH A COPY OF THE EXECUTED DEVELOPER'S AGREEMENT TO THE APPLICATION FOR A STREET-CUT PERMIT.
5. THE CONTRACTOR SHALL OBTAIN PROPER PERMITS.
6. CONTRACTOR MUST SUBMIT WRITTEN NOTIFICATION 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY TO THE BALTIMORE CITY SEDIMENT AND EROSION CONTROL SECTION STATING:
 - A. WHEN CONTRACTOR INTENDS TO BEGIN CONSTRUCTION.
 - B. SOURCE OF BORROW MATERIAL.
 - C. DISPOSAL SITE AREA.
 - D. CONTRACTOR'S TENTATIVE CLOSING DATE.
7. CONTRACTOR SHALL PROVIDE PORTABLE SEDIMENT TANK FOR WATER PUMPED FROM EXCAVATIONS WHERE WATER IS ENCOUNTERED.
8. ALL STREET LIGHTS, CABLES, CONDUITS AND HAND BOXES MUST BE PROTECTED THROUGHOUT ALL PHASES OF CONSTRUCTION. ANY DAMAGES TO STREET LIGHTS, CABLES, CONDUITS AND/OR HAND BOXES, RESULTING FROM ANY ASPECT OF CONSTRUCTION, WILL BE BORNE BY THE CONTRACTOR. SEE STREET LIGHTING NOTES, THIS SHEET.
9. ALL DRAINAGE STRUCTURES LOCATED IN THE LIMITS OF CONSTRUCTION, IF FOUND DAMAGED OR IN NEED OF REPLACEMENT, WILL BE REPORTED TO THE ONSITE CONSTRUCTION MANAGEMENT INSPECTOR, FOR FURTHER INVESTIGATION AND CONSIDERATION.
10. ALL PROPOSED CONSTRUCTION ACTIVITIES SHALL BE DESIGNED IN CONFORMANCE WITH THE BALTIMORE CITY MANUAL OF DESIGN PROCEDURE AND CRITERIA.

CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.



DUCTILE IRON FITTINGS

DUCTILE IRON PIPE FITTINGS SHALL MEET THE LATEST AWWA C1100A2.10 AND C153A2.51 (PRESSURE RATING SHALL BE 350 P.S.I.) NORMAL OPERATING PRESSURE, P.S.I.
TEST PRESSURE P.S.I.

DUCTILE IRON PIPE

8" CLASS 54 THICKNESS 0.39"

CONSULTANT
WHITNEY, BAILEY, COX & MAGNANI, LLC
ATTN: BLAINE W. LINKOUS, P.E.
PHONE NO.: (410) 512-4539
FAX NO.: (410) 324-4100

OWNER / DEVELOPER
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLABIRD ROAD
BALTIMORE, MD, 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

BILL OF MATERIALS

NO.	UNIT	DESCRIPTION	SIZE	BALTO. CITY STD.
3	EA	*METER VAULT COMPLETE--IN--PLACE	4"	847.01
4	EA	*METER VAULT COMPLETE--IN--PLACE	8"	847.01
560	L.F.	DUCTILE IRON PIPE & FITTINGS (CLASS 54)	4"	
20	L.F.	DUCTILE IRON PIPE & FITTINGS (CLASS 54)	6"	
685	L.F.	DUCTILE IRON PIPE & FITTINGS (CLASS 54)	8"	
1	EA	TAPPING SLEEVE	10"x8"	
1	EA	1/16--BEND	8"	
4	EA	1/8--BEND	4"	
1	EA	ROADWAY BOX	6"	834.03
1	EA	REDUCER	8"x6"	
1	EA	TEE	6"x6"	
4	EA	TEE	8"x4"	
5	EA	TEE	8"x8"	
4	EA	GATE VALVE	4"	
1	EA	GATE VALVE	6"	
5	EA	GATE VALVE	8"	

*ITEMS, INCLUDING ALL PIPING AND APPURTENANCES WITHIN VAULT SHALL BE BID LUMP SUM AS 4" AND/OR 8" F.M. METER W/BY-PASS, COMPLETE--IN--PLACE.

WHITNEY, BAILEY, COX & MAGNANI
ENGINEER BLAINE W. LINKOUS
DATE: LIC. NO. 34882
DESIGNED: MM
DRAWN BY: HH
CHECKED BY: BL

WATER PLAT: GC 33
WARD: 28
SECTION: 01
BLOCK: 6750
LOT: 16, 18, 22, 31, 36, 38, 79A, 79, 83, 86, 89

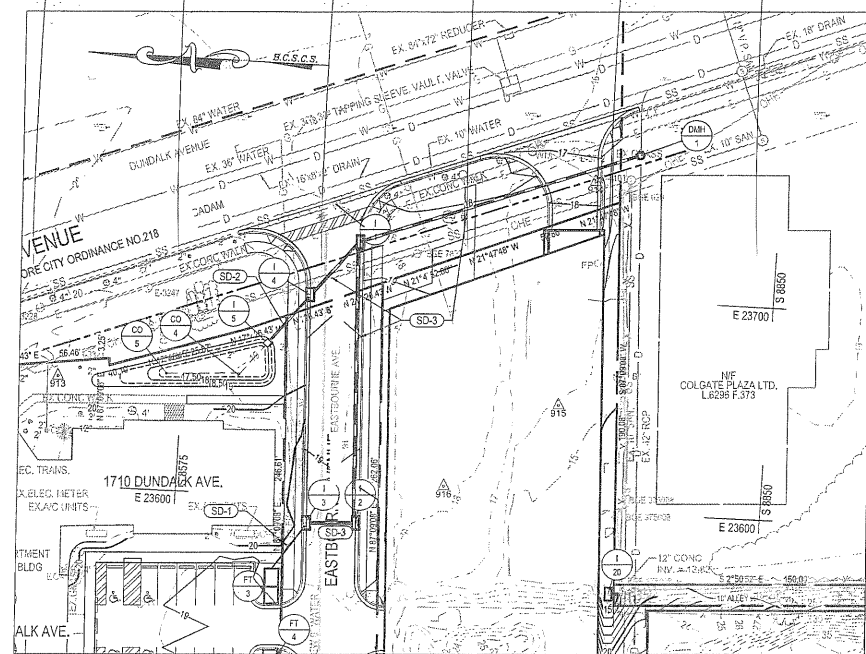
BALTIMORE CITY REVIEW	RIGHT OF WAY RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	SEDIMENT AND EROSION CONTROL	TRAFFIC ENGINEERING	WATER ENGINEERING	WASTEWATER ENGINEERING	UTILITY ENGINEERING	SIGNAL ENGINEERING

C.W.O.

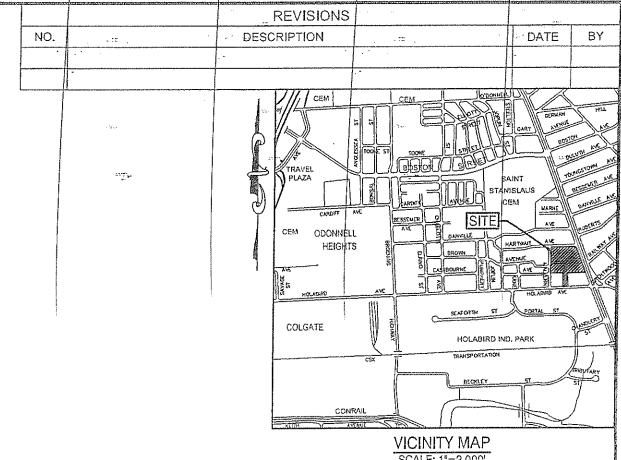
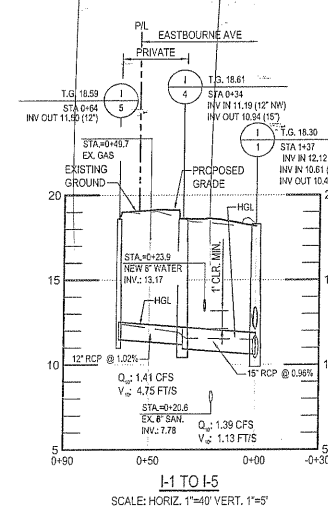
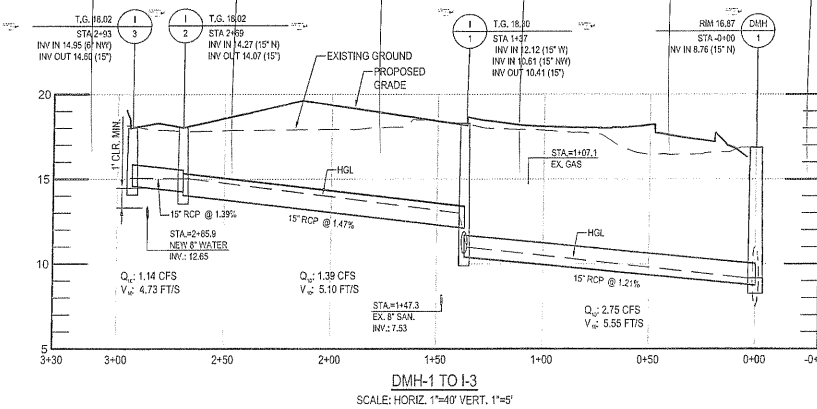
OWNER: HOLABIRD CONSTRUCTION CO., INC.
APPLICANT: HOLABIRD CONSTRUCTION CO., INC.
CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
PWDA NO. _____
INSTALLATION OF 8" WATER MAIN PLAN
HOLABIRD MANOR
1710 DUNDALK AVE.
WARD 28, SECTION 01, BLOCK 6750
BALTIMORE, MARYLAND 21222

SCALE: AS NOTED DATE: JULY 2017
SHEET 2 OF 2

SDE-



PLAN SCALE: 1"=40'



GENERAL NOTES

- OBTAIN PROPER PERMITS.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PUBLIC WORKS DEVELOPER'S AGREEMENT AND THE BOOK OF STANDARDS FOR BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR THE COST OF ANY AND ALL DAMAGES CAUSED AS A RESULT OF HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL EXISTING UTILITIES TO REMAIN.
- BEFORE BEGINNING CONSTRUCTION, CONTRACTOR SHALL PERFORM TEST PIT(S) TO VERIFY LOCATION OF ALL EXISTING UTILITIES AND CLEARANCE FROM NEW WORK.
- ALL TRENCH REPAIRS TO BE MADE IN ACCORDANCE WITH DETAIL ON SHEET OF CURBS REMOVED ALONG SHALL BE REPLACED IN KIND. CURBS SHALL BE REPLACED TO THE NEAREST EXISTING JOINT AS SHOWN IN DETAIL ON SHEET OF SIDEWALK DISTURBED ALONG. DUE TO THIS INSTALLATION SHALL BE REPAIRED IN KIND, JOINT TO JOINT, AS SHOWN IN DETAIL ON SHEET OF TEST PIT ALL UTILITY CROSSINGS INCLUDING TIE-IN POINTS PRIOR TO ANY NEW WORK. ANY DEVIATIONS IN DESIGN CAUSED BY THE TEST PIT INFORMATION WILL REQUIRE REE LINE REVISIONS SUBMITTED TO THE WATER AND WASTEWATER ENGINEERING DIVISION FOR APPROVAL.
- STREET LIGHT SYSTEM SHALL BE PROTECTED AND MAINTAINED DURING CONSTRUCTION.
- NOTIFY WATER AND WASTEWATER MAINTENANCE DIVISION (366-1663) AT LEAST TWO (2) WEEKS PRIOR TO START-UP OF CONSTRUCTION.
- CONTRACTOR SHALL EXPOSE EXTREME CAUTION WHEN WORKING NEAR OR OVER EXISTING WATER, GAS AND ELECTRIC FACILITIES.
- FULL TRENCH COMPACTION IS REQUIRED THROUGHOUT. FOR REPAIRING THE TRENCH OPENING, SEE DETAIL ON SHEET OF ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
- THE CONTRACTOR WILL DISCHARGE THE CHLORINATED FLUSH WATER INTO A SANITARY SEWER. THE MAX. DISCHARGE RATE WILL BE 80 G.P.M. (COST TO BE INCLUDED IN PRICE ITEMS BID).
- ONLY BALTO. CITY PERSONNEL WILL OPERATE EXISTING VALVES OR NEW VALVES AFTER THEY ARE PLACED IN SERVICE. THE CONTRACTOR WILL NOTIFY THE BALTIMORE CITY INSPECTOR TO ARRANGE A SHUTDOWN WITH THE CITY AT LEAST FOUR DAYS PRIOR TO THE PROPOSED SHUTDOWN. IF THE INSPECTOR IN THE FIELD IS UNAVAILABLE, CALL THE BALTIMORE CITY AREA ENGINEER AT 410-366-7897.
- THE CONTRACTOR FOR THE MAIN EXTENSION WILL NOTIFY BALTO. CITY BUREAU OF WATER AND WASTEWATER, 366-7800, 72 HOURS BEFORE STARTING WORK.
- ALL ELEVATIONS BASED UPON BALTIMORE CITY DATUM.
- FOR SERVICE ABANDONMENT'S, PLUG SHALL SERVICES 2-INCHES OR LESS AT THE CORPORATION ON THE MAIN. LARGER SERVICES SHALL BE PLUGGED (BC 893.3.2) AT THE TEE. ON THE MAIN, OR THE FITTING MUST BE CUT. CUT OUT METERS SHALL BE RETURNED TO THE METER SHOP AT 200 N. FRANKLIN TOWN ROAD.
- UNLESS OTHERWISE NOTED, THE BOLD LINE FOR EXCAVATION WILL BE SUBGRADE UNDER PROPOSED ROADS, ESTABLISHED GRADE UNDER TURF AREAS, AND EXISTING GRADE ALONG EXISTING PAVEMENT.
- THE CONTRACTOR WILL MAINTAIN, REPAIR AND OR REPLACE ANY EXIST. SEDIMENT CONTROL DEVICES, ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION UNDER THIS CONTRACT AND AS SHOWN ON THE APPROVED SEDIMENT CONTROL PLAN INCLUDED AS PART OF THE CONTRACT DOCUMENTS. ALL SUCH DISTURBED DEVICES WILL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE AT THE END OF EACH WORKING DAY. THE COST OF PERFORMING ALL SUCH WORK, INCLUDING MATERIAL, WILL BE PAID FOR BY LUMP SUM BID FOR MAINTENANCE AND REPAIR OF SEDIMENT CONTROL DEVICES.
- ONE WEEK PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE PARKING AUTHORITY OF BALTIMORE (PABO) AT 443-673-2831 TO VERIFY THE LOCATIONS OF THE EXISTING PARKING METERS. THE PABO SHALL REMOVE ALL EZ PARK METERS. THE CONTRACTOR SHOULD ALSO NOTIFY THE PABO 72 HOURS PRIOR TO COMPLETION OF THE PROJECT WHEN READY TO REINSTALL THE EZ PARK METERS.

STORM DRAIN GENERAL NOTES

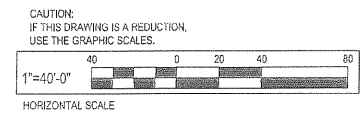
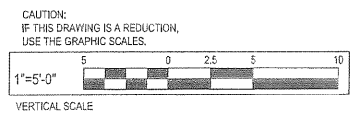
- ALL WORK WITHIN THE CITY RIGHT OF WAY SHALL BE ACCOMPLISHED IN ACCORDANCE WITH "SPECIFICATIONS" AND "BOOK OF STANDARDS" FOR THE CITY OF BALTIMORE, DEPARTMENT OF PUBLIC WORKS.
- OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND THE CITY OR WHITNEY, BAILEY, COX & MAGNANI DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY ALL SUCH INFORMATION TO HIS OWN SATISFACTION.
- BEFORE DOING ANY DIGGING, NOTIFY THE FOLLOWING: "MISS UTILITY" 1-800-387-7777 BUREAU OF TRANSPORTATION, STREET LIGHTING MAINT. SECTION, BILL COLBERT 410-366-5665 BUREAU OF TRANSPORTATION, CONDUIT MAINT. SECTION, JEFF HARTMAN, 410-366-1515.
- TYPE OF JOINT FOR PIPE: SDR 35 PVC PIPE/ DRAIN SUR 35 PVC MET CONNECTION TYPE JOINTS: PVC COUPLER PVC COUPLER
- ALL CHANNELS IN MANHOLES AND INLETS MUST BE CONSTRUCTED TO CONFORM AS CLOSE AS POSSIBLE TO THE STANDARD CHANNELS CALLED FOR ON THE PROFILES. A GRAVEL CRADLE IS REQUIRED UNDER ALL PIPING EXCEPT INLET CONNECTIONS. ALL BACKFILL SHALL BE MECHANICALLY TAMPED. SEE THE BALTIMORE CITY BOOK OF STANDARDS FOR STANDARD DETAILS.
- TEMPORARY STEEL PLATES WILL BE PLACED AT EXCAVATIONS AT THE END OF EACH WORKING DAY. SEE B.C. STD. 578.17.
- ROADWAY, CURBS, AND/OR SIDEWALKS SHALL BE REPAIRED "IN KIND" WHERE DISTURBED BY LINE CONSTRUCTION. SIDEWALKS SHALL BE REPAIRED AS SHOWN IN DETAIL ON SHEET OF CURBS SHALL BE REPLACED TO NEAREST EXISTING JOINT AS SHOWN IN DETAIL ON SHEET OF
- CONTRACTOR SHALL ATTACH A COPY OF THE EXECUTED AGREEMENT TO THE APPLICATION FOR A STREET-CUT PERMIT.

TRAFFIC NOTES

- THE CONTRACTOR MUST CONTACT MR. ROBERT E. FERGUSON, OF THE OFFICE OF TRANSPORTATION AT 443-884-2153 TWO WEEKS BEFORE CONSTRUCTION BEGINS AND ONE WEEK PRIOR TO ANY CHANGES TO THE CONTRACTOR'S MAINTENANCE OF TRAFFIC (M.O.T.) PLAN.
- CONTRACTOR TO NOTIFY DARYL WADE AT 410-366-2889 PRIOR TO ALL EXISTING STREET AND PAVEMENT DISTURBANCES.
- ALL EXCAVATIONS AND TRENCHES SHALL BE PLACED AT THE END OF EACH AHEAD WARNING SIGNS DISPLAYED IN ADVANCE. ALL STEEL PLATES THAT ARE INSTALLED AS PER WORKDAY AND STEEL PLATES BC-578.17 MUST BE CLEARLY MARKED SO THAT OWNERSHIP IS EASILY DISCERNIBLE. THE CONTRACTOR SHALL MAINTAIN A MINIMUM FOURFOOT (4') WIDE PEDESTRIAN FOOTWAY OR IMPLEMENT AN APPROPRIATE PEDESTRIAN DETOUR WHILE ACTIVELY WORKING IN THE SIDEWALK IN ACCORDANCE WITH ASA GUIDELINES AND APPROPRIATE SIGN AND CITY STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL, AND MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THIS CONTRACT.
- ALL TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE CURRENT REVISIONS OF THE FEDERAL HIGHWAY MULT. C.D. AND THE MARYLAND S.H.A. WORK ZONE TRAFFIC CONTROL STANDARDS AND THE CITY OF BALTIMORE BOOK OF STANDARDS.
- TO WORK IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PERMITS DIVISION. APPLICATIONS ARE ACCEPTED AT THE DEPARTMENT OF PUBLIC WORKS PERMITS DIVISION IN THE ASBL WOLMAN MUNICIPAL BUILDING, ROOM #7, 200 N. HOLIDAY STREET, PHONE 410-366-4508. DURING THE PERMIT REVIEW, THE CONTRACTOR MAY BE BILLED ADDITIONAL TRAFFIC INSPECTIONS FEES UNRELATED TO ANY PREVIOUS COSTS.
- NO WORK OR DISRUPTION OF TRAFFIC BETWEEN THE HOURS OF 6AM - 8PM AND 3PM - 6PM.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) ELEVEN FOOT (11') LANE IN EACH DIRECTION ON HARTWAT ST. NO ROADWAY CLOSURES WILL BE PERMITTED. THE CONTRACTOR SHALL MAINTAIN TWO (2) TWELVE FOOT (12') LANE IN SOUTH BOUND DIRECTION OF DUNDALK AVE. NORTH BOUND LANES OF DUNDALK AVE. SHALL REMAIN IN SERVICE THROUGHOUT. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) TWELVE FOOT (12') LANE IN EACH DIRECTION ON HOLABIRD AVE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY SIGNING AND PAVEMENT MARKINGS DAMAGED OR DESTROYED DURING CONSTRUCTION, INCLUDING THOSE OUTSIDE THE PROJECT LIMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY TEMPORARY NO STOPPING PROHIBITION SIGNING THAT WILL BE NECESSARY TO COMPLETE THIS PROJECT.

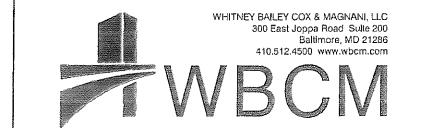
STRUCTURE SCHEDULE					
NO.	DESCRIPTION	TOP ELEV.	INVERTS	BALTO. CITY	
				NORTHING	EASTING
DMH-1	BC 383.06 - 72" DIA PRECAST MANHOLE	16.87	INV IN 8.79 (0)	-8783.03	23768.53
I-1	BC 380.51 - TYPE S COMBINATION INLET	18.30	INV IN 12.12 (1) INV IN 13.51 (1W) INV OUT 10.41 (S)	-8654.51	23721.48
I-2	BC 380.51 - TYPE S COMBINATION INLET	16.02	INV IN 14.27 (N) INV OUT 14.07 (E)	-8581.08	23589.34
I-3	BC 380.51 - TYPE S COMBINATION INLET	16.02	INV IN 14.26 (NW) INV OUT 14.60 (S)	-8537.29	23588.16
I-4	BC 380.51 - TYPE S COMBINATION INLET	16.51	INV IN 11.19 (WE) INV OUT 10.94 (SE)	-8531.94	23655.68

BILL OF MATERIALS			
NO.	DESCRIPTION	SIZE	BALTO. CITY STD.
145 L.F.	RCP STORM DRAIN PIPE CL III	6" DIA.	----
75 L.F.	RCP STORM DRAIN PIPE CL III	12" DIA.	831.04
1035 L.F.	RCP STORM DRAIN PIPE CL III	15" DIA.	----
65 L.F.	RCP STORM DRAIN PIPE CL III	18" DIA.	----
95 L.F.	RCP STORM DRAIN PIPE CL III	24" DIA.	----



TEST PIT NOTE
TEST PIT EXISTING UTILITIES PRIOR TO UTILITY SERVICE INSTALLATION. NOTIFY DESIGN ENGINEER IF THERE ARE CONFLICTS. THE DESIGN ENGINEER SHALL MAKE REVISIONS TO THE APPROVED PLAN AND RESUBMIT TO BALTIMORE CITY UTILITY ENGINEERING SECTION. THEIR APPROVAL IS REQUIRED PRIOR TO CONTINUANCE OF CONSTRUCTION.

W.B.C.M. BENCHMARK DATA (SET ON SITE)
BM# ELEV. DESCRIPTION
8598 17.66 BRASS SCREW



CHIEF, TRANSPORTATION, ENGINEERING AND CONSTRUCTION DIVISION
DATE
DIRECTOR, DEPARTMENT OF TRANSPORTATION
DATE
DIRECTOR OF PUBLIC WORKS
DATE

C.W.O.

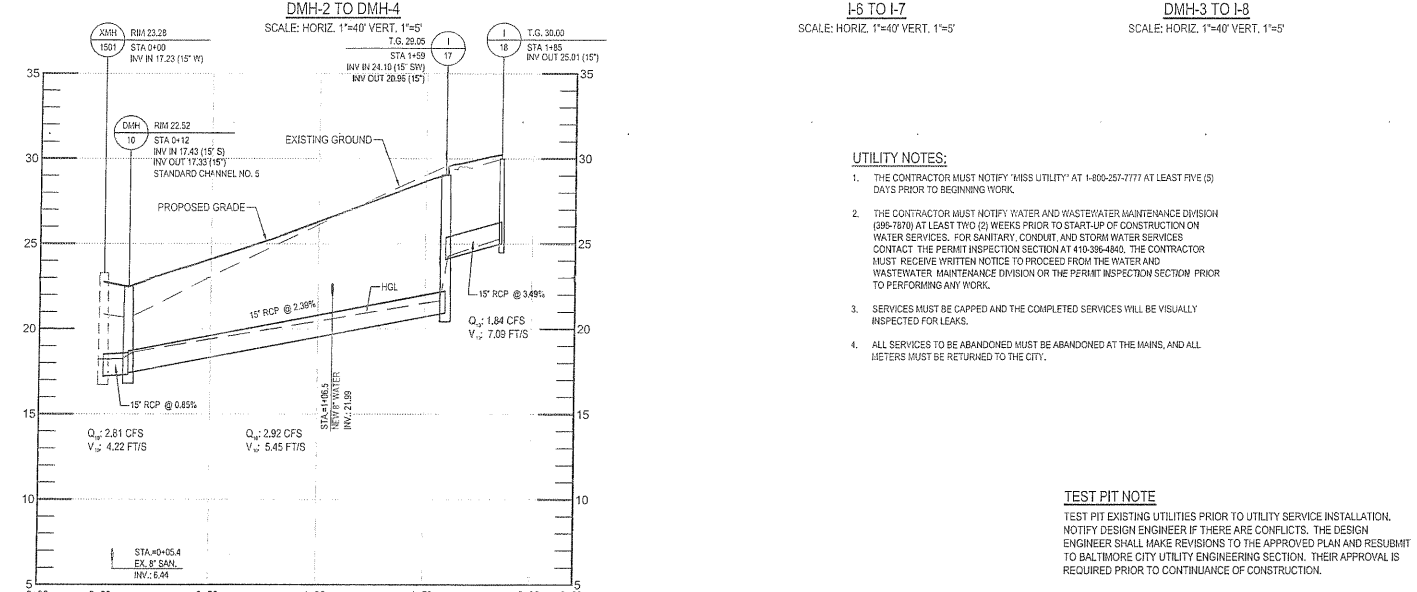
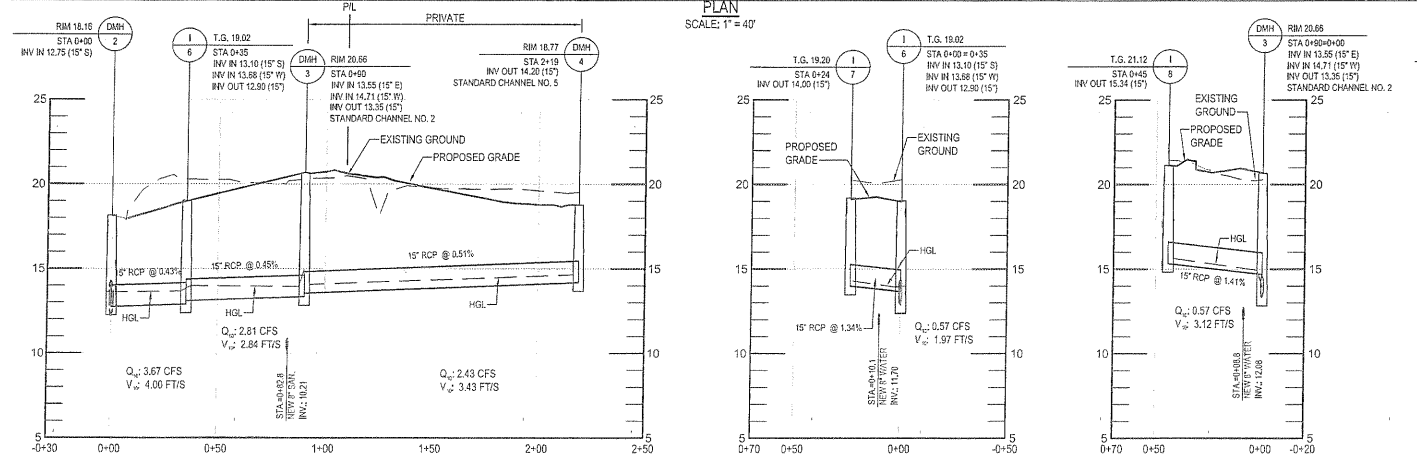
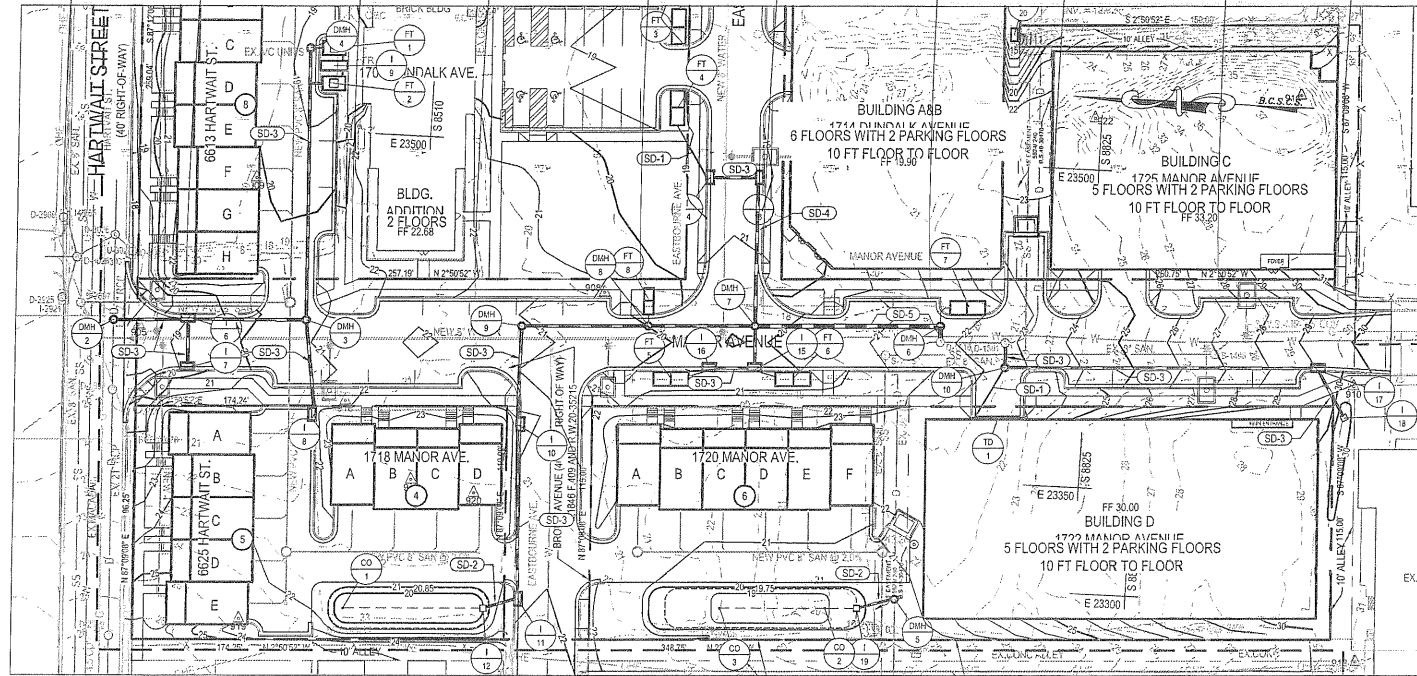
OWNER: HOLABIRD CONSTRUCTION CO., INC.
APPLICANT: HOLABIRD CONSTRUCTION CO., INC.
CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
PWDA NO. _____
INSTALLATION OF STORM DRAIN SERVICE
HOLABIRD MANOR
1710 DUNDALK AVE.
WARD 26, SECTION 01, BLOCK 6750
BALTIMORE, MARYLAND 21222
SCALE: AS NOTED
DATE: JULY 2017
SHEET 4 OF 4

WHITNEY, BAILEY, COX & MAGNANI
ENGINEER: BLAINE W. LINKOUS
DATE: _____ LIC. NO. 34882
DESIGNED BY: MM
DRAWN BY: HH
CHECKED BY: BL
WATER FLAT: GG 33
WATER ZONE: 1 st
WORKING PRESSURE: 85 psi
TEST PRESSURE: 150 psi
WARD: 26
SECTION: 01
BLOCK: 6750
LOT: 16, 18, 22, 31, 36, 38, 76A, 79, 83, 88, 92

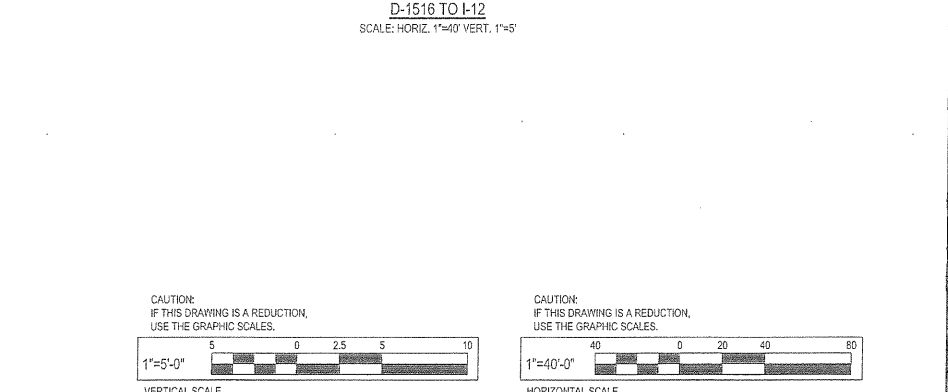
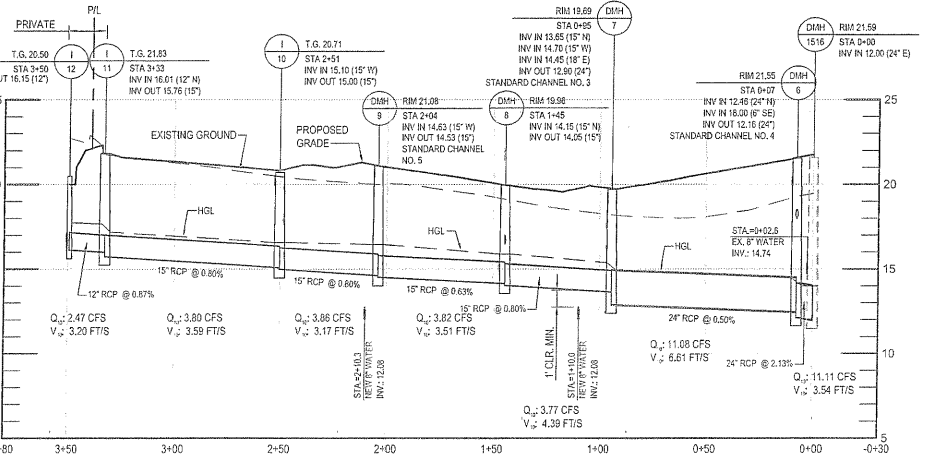
BALTIMORE CITY REVIEW	RIGHT OF WAY RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	SEDIMENT AND EROSION CONTROL	TRAFFIC ENGINEERING	WATER ENGINEERING	WASTEWATER ENGINEERING	UTILITY ENGINEERING	SIGNAL ENGINEERING
BY												
DATE												

CONSULTANT
WHITNEY, BAILEY, COX & MAGNANI, LLC
ATTN: BLAINE W. LINKOUS, P.E.
PHONE NO.: (410)-512-4539
FAX NO.: (410)-324-1100
OWNER / DEVELOPER
HOLABIRD CONSTRUCTION CO., INC.
1715 HOLAVIEW ROAD
BALTIMORE, MD 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

STRUCTURE SCHEDULE			BALT. CITY	
NO.	DESCRIPTION	TOP ELEV.	NORTHING	EASTING
D-1501	EXISTING MANHOLE	23.28	INV IN 17.23 (W)	-8786.38 23416.35
D-1515	EXISTING MANHOLE	21.59	INV IN 12.00 (E)	-8755.70 23415.15
DMH-1	BC 380.06 - 12" DIA PRECAST MANHOLE	16.87	INV IN 8.76 (N)	-8783.23 23768.93
DMH-2	BC 383.04 - 48" DIA PRECAST MANHOLE	18.16	INV IN 12.75 (S)	-8387.17 23406.10
DMH-3	BC 383.04 - 48" DIA PRECAST MANHOLE	20.66	INV IN 13.55 (E) INV IN 14.71 (W) INV OUT 13.35 (N)	-8457.35 23410.59
DMH-4	BC 383.04 - 48" DIA PRECAST MANHOLE	18.77	INV OUT 14.29 (W)	-8450.56 23538.04
DMH-5	BC 383.04 - 48" DIA PRECAST MANHOLE	21.55	INV IN 12.45 (W) INV IN 18.00 (SE) INV OUT 12.16 (W)	-8755.33 23422.54
DMH-7	BC 383.04 - 48" DIA PRECAST MANHOLE	19.59	INV IN 14.70 (W) INV IN 14.45 (E) INV OUT 12.89 (N)	-8684.28 23416.30
DMH-8	BC 383.04 - 48" DIA PRECAST MANHOLE	19.95	INV IN 14.15 (W) INV OUT 14.05 (S)	-8518.24 23415.81
DMH-9	BC 383.04 - 48" DIA PRECAST MANHOLE	21.68	INV IN 14.83 (W) INV OUT 14.33 (N)	-8558.74 23412.85
DMH-10	BC 383.04 - 48" DIA PRECAST MANHOLE	22.52	INV IN 17.43 (S) INV OUT 17.33 (E)	-8786.95 23404.67
I-1	BC 380.51 - TYPE S COMBINATION INLET	18.30	INV IN 12.12 (W) INV IN 12.61 (W) INV OUT 10.41 (S)	-8654.51 23721.49
I-2	BC 380.51 - TYPE S COMBINATION INLET	18.02	INV IN 14.27 (W) INV OUT 14.07 (E)	-8661.08 23589.34
I-3	BC 380.51 - TYPE S COMBINATION INLET	18.02	INV IN 14.85 (NW) INV OUT 14.80 (S)	-8637.29 23585.16
I-4	BC 380.51 - TYPE S COMBINATION INLET	18.61	INV IN 11.19 (NW) INV OUT 10.94 (SE)	-8631.84 23685.68
I-5	BC 380.21 - TYPE S COMBINATION INLET	18.59	INV OUT 11.50 (SE)	-8613.65 23671.01
I-6	BC 380.51 - TYPE S COMBINATION INLET	19.02	INV IN 13.19 (S) INV IN 13.88 (W) INV OUT 12.90 (N)	-8402.16 23409.16
I-7	BC 380.51 - TYPE S COMBINATION INLET	19.20	INV OUT 14.00 (E)	-8463.37 23385.37
I-8	BC 376.67 - TYPE H COMBINATION INLET	21.12	INV OUT 15.34 (E)	-8454.04 23365.56
I-9	CDS INLET SEE DETAIL DWG. C204	20.22	INV OUT 17.50 (W) INV OUT 17.70 (E)	-8452.36 23531.17
I-10	BC 376.67 - TYPE H COMBINATION INLET	20.71	INV IN 15.10 (W) INV OUT 15.00 (E)	-8590.72 23366.70
I-11	BC 380.51 - TYPE S COMBINATION INLET	21.63	INV IN 18.01 (E) INV OUT 15.76 (E)	-8554.81 23284.42
I-12	BC 380.21 - TYPE S COMBINATION INLET	20.50	INV OUT 18.15 (S)	-8548.99 23279.21
I-13	BC 380.51 - TYPE S COMBINATION INLET	18.69	INV IN 15.20 (N) INV OUT 14.80 (W)	-8655.78 23488.44
I-14	BC 380.51 - TYPE S COMBINATION INLET	18.49	INV IN 14.95 (NE) INV OUT 15.35 (S)	-8642.62 23497.29
I-15	BC 380.51 - TYPE S COMBINATION INLET	17.84	INV IN 14.79 (N) INV IN 15.58 (S) INV OUT 14.80 (E)	-8668.26 23385.51
I-16	BC 380.51 - TYPE S COMBINATION INLET	19.33	INV IN 15.08 (N) INV OUT 14.90 (S)	-8648.09 23397.45
I-17	BC 380.51 - TYPE S COMBINATION INLET	23.05	INV IN 24.10 (S) INV OUT 20.99 (N)	-8934.32 23411.89
I-18	BC 380.51 - TYPE S COMBINATION INLET	30.00	INV OUT 25.01 (NE)	-8947.05 23388.80
I-19	BC 380.21 - TYPE S COMBINATION INLET	19.75	INV OUT 15.80 (S)	-8724.01 23287.92
I-20	BC 380.21 - TYPE S COMBINATION INLET	0.17	INV OUT 12.85 (S)	-8781.26 23561.82



- UTILITY NOTES:**
- THE CONTRACTOR MUST NOTIFY 'MISS UTILITY' AT 1-800-257-7777 AT LEAST FIVE (5) DAYS PRIOR TO BEGINNING WORK.
 - THE CONTRACTOR MUST NOTIFY WATER AND WASTEWATER MAINTENANCE DIVISION (895-7870) AT LEAST TWO (2) WEEKS PRIOR TO START-UP OF CONSTRUCTION ON WATER SERVICES. FOR SANITARY, CONDUIT AND STORM WATER SERVICES CONTACT THE PERMIT INSPECTION SECTION AT 410-356-1840. THE CONTRACTOR MUST RECEIVE WRITTEN NOTICE TO PROCEED FROM THE WATER AND WASTEWATER MAINTENANCE DIVISION OR THE PERMIT INSPECTION SECTION PRIOR TO PERFORMING ANY WORK.
 - SERVICES MUST BE CAPPED AND THE COMPLETED SERVICES WILL BE VISUALLY INSPECTED FOR LEAKS.
 - ALL SERVICES TO BE ABANDONED MUST BE ABANDONED AT THE MAINS, AND ALL METERS MUST BE RETURNED TO THE CITY.



SURVEY CONTROL NOTES

- HORIZONTAL COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MERIDIAN OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.C.S. TRAVERSE STATIONS:
35221 N-8,856,459 E 23,870,408 "BRASS PLUG"
35222 N-8,197,692 E 23,701,407 "BRASS PLUG"
27365 N-6,333,114 E 23,740,792 "BRASS PLUG"
27366 N-6,149,444 E 23,410,436 "BRASS PLUG"
27367 N-6,166,522 E 23,075,391 "BRASS PLUG"
- ELEVATIONS SHOWN HEREON ARE REFERRED TO THE DATUM OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.C.S. BENCHMARKS:
BM 6868 ELEV. 17.56 "BRASS SCREW"

C.W.O.

OWNER: HOLABIRD CONSTRUCTION CO., INC.

APPLICANT: HOLABIRD CONSTRUCTION CO., INC.

CITY OF BALTIMORE
DEPARTMENT OF PUBLIC WORKS
PWDA NO. _____

INSTALLATION OF
STORM DRAIN SERVICE

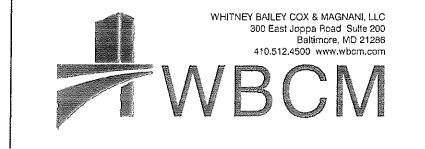
HOLABIRD MANOR

1710 DUNDALK AVE.
WARD 26, SECTION 01, BLOCK 6750
BALTIMORE, MARYLAND 21222

SCALE: AS NOTED DATE: JULY 2017 SHEET 5 OF 5

CONSULTANT
WHITNEY, BAILEY, COX AND MAGNANI, LLC
ATTN: BLAINE W. LINKOUS, P.E.
PHONE NO: (410)-512-4539
FAX NO: (410)-324-4100

OWNER / DEVELOPER
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLABIRD ROAD
BALTIMORE, MD, 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200



CHIEF, TRANSPORTATION, ENGINEERING AND CONSTRUCTION DIVISION

DIRECTOR, DEPARTMENT OF TRANSPORTATION

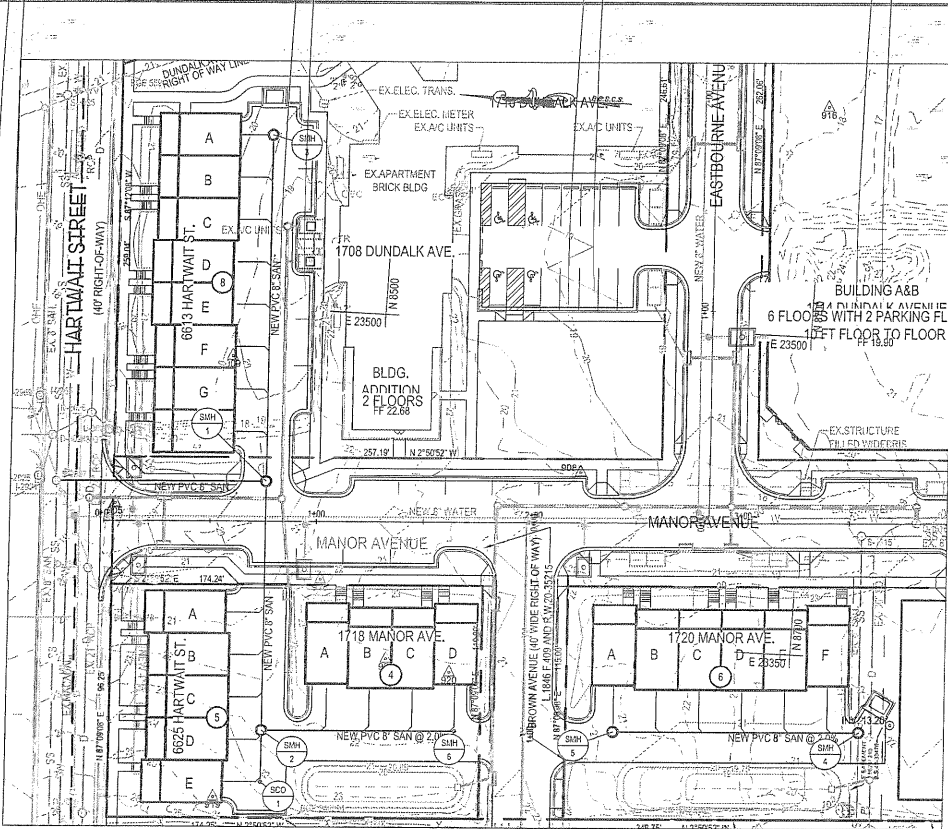
DIRECTOR OF PUBLIC WORKS

WHITNEY, BAILEY, COX & MAGNANI
ENGINEER: BLAINE W. LINKOUS
DATE: _____ LIC. NO. 34682

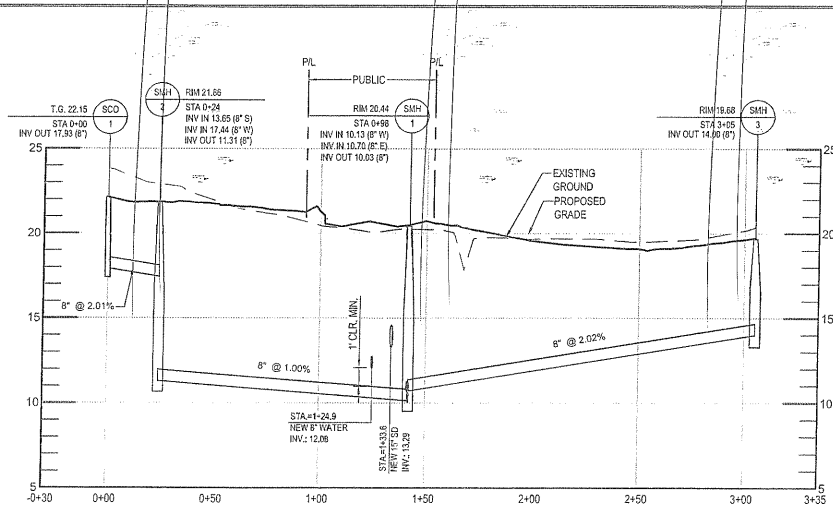
DESIGNED: MM
DRAWN BY: BH
CHECKED BY: BL

WATER PLAT: GG 33	WARD: 26
WATER ZONE: 1 st	SECTION: 01
WORKING PRESSURE: 85 psi	BLOCK: 6750
TEST PRESSURE: 150 psi	LOT: 16, 18, 22, 31, 35, 38, 76A, 79, 83, 86, 90

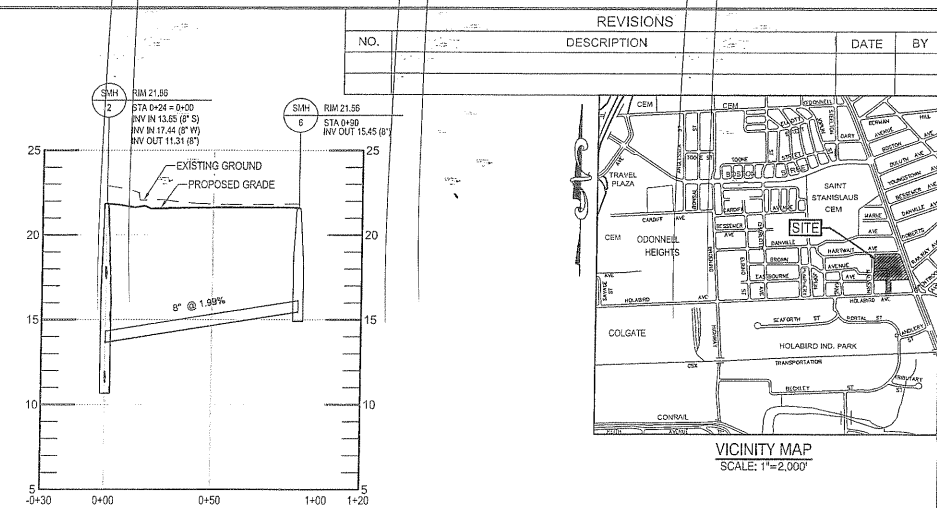
BALTIMORE CITY REVIEW	RIGHT OF WAY RELEASE	HIGHWAY DESIGN	BRIDGES	DRAINAGE	LIGHTING	CONDUIT	SEDIMENT AND EROSION CONTROL	TRAFFIC ENGINEERING	WATER ENGINEERING	WASTEWATER ENGINEERING	UTILITY ENGINEERING	SIGNAL ENGINEERING
BY: _____												
DATE: _____												



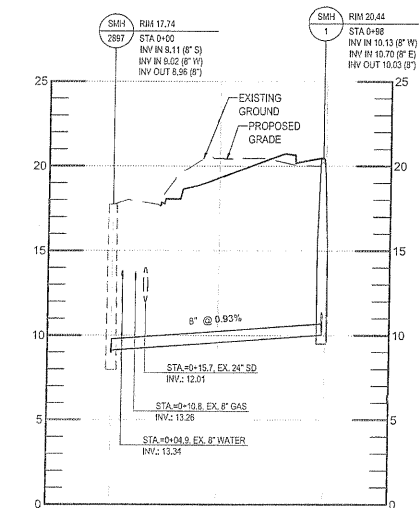
PLAN
SCALE: 1"=40'



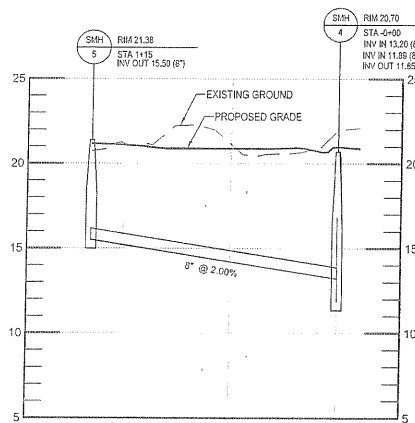
SCO-1 TO SMH-4
SCALE: HORIZ. 1"=40' VERT. 1"=5'



SMH-2 TO SMH-3
SCALE: HORIZ. 1"=40' VERT. 1"=5'



XSMH-2897 TO SMH-1
SCALE: HORIZ. 1"=40' VERT. 1"=5'



SMH-5 TO SMH-6
SCALE: HORIZ. 1"=40' VERT. 1"=5'

SANITARY SEWER STRUCTURE SCHEDULE					
NO.	DESCRIPTION	TOP ELEV.	INVERTS	NORTHING	EASTING
S-2897	EXISTING SANITARY MANHOLE	17.74	INV IN 9.11 (S) INV IN 10.02 (E) INV OUT 8.95 (E)	-8351.15	23413.30
SCO-1	NEW SANITARY CLEANOUT	22.15	INV OUT 17.63 (E)	-8456.47	23276.79
SMH-1	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	20.44	INV IN 10.13 (W) INV IN 10.70 (E) INV OUT 10.03 (E)	-8449.43	23418.40
SMH-2	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	21.66	INV IN 13.65 (S) INV IN 17.44 (W) INV OUT 11.31 (E)	-8455.27	23301.10
SMH-3	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	19.88	INV OUT 14.00 (W)	-8441.30	23581.58
SMH-4	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	20.70	INV IN 13.20 (S) INV IN 14.89 (W) INV OUT 11.85 (E)	-8734.73	23315.01
SMH-5	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	21.38	INV OUT 15.50 (S)	-8610.81	23309.29
SMH-6	NEW 48" Ø PRECAST SANITARY MANHOLE BC-831-04	21.56	INV OUT 15.45 (S)	-8545.41	23305.59

BILL OF MATERIALS			
NO.	DESCRIPTION	SIZE	BALTO. CITY STD.
6 EA.	PRECAST CONCRETE SANITARY MANHOLE	48" DIA.	831.04
1 EA.	SANITARY CLEANOUT	8" DIA.	----
600 LF.	PVC PIPE (SDR 35)	8"	----

TRAFFIC NOTES

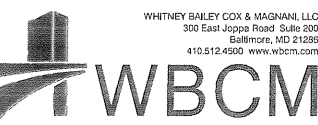
- THE CONTRACTOR MUST CONTACT MR. ROBERT E. FERRELLSON, OF THE OFFICE OF TRANSPORTATION AT 410-396-2153 TWO WEEKS BEFORE CONSTRUCTION BEGINS AND ONE WEEK PRIOR TO ANY CHANGES TO THE CONTRACTOR'S MAINTENANCE OF TRAFFIC (M.O.T.) PLAN.
- ONE WEEK PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CONTACT THE PARKING AUTHORITY OF BALTIMORE CITY (PAO) AT 443-873-2651 TO VERIFY THE LOCATIONS OF EXISTING PARKING METERS. THE PAO SHALL REMOVE ALL EX-ZIP PARK METERS. THE CONTRACTOR SHOULD ALSO NOTIFY THE PAO 72 HOURS PRIOR TO COMPLETION OF THE PROJECT WHEN READY TO REINSTALL THE EX-ZIP METERS.
- CONTRACTOR SHALL NOTIFY DMV WADE AT 410-396-2886 PRIOR TO ALL EXISTING STREET AND PAVEMENT DISTURBANCES.
- ALL EXCAVATIONS AND TRENCHES SHALL BE PLATED AT THE END OF EACH WORKDAY AND 'STEEL PLATES AHEAD' WARNING SIGNS DISPLAYED IN ADVANCE. ALL STEEL PLATES THAT ARE INSTALLED AS PER BC-576.17 MUST BE CLEARLY MARKED SO THAT OWNERSHIP IS EASILY DISCERNIBLE.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM FOUR-FOOT (4') WIDE PEDESTRIAN FOOTWAY OR IMPLEMENT AN APPROPRIATE PEDESTRIAN DETOUR WHILE ACTIVELY WORKING IN THE SIDEWALK IN ACCORDANCE WITH ADA GUIDELINES AND APPROPRIATE STATE AND CITY STANDARDS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL, AND MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THIS CONTRACT.
- ALL TRAFFIC CONTROL MUST BE IN ACCORDANCE WITH THE CURRENT REVISIONS OF THE FEDERAL HIGHWAY MUTCD AND THE MARYLAND S.H.A. WORK ZONE TRAFFIC CONTROL STANDARDS AND THE CITY OF BALTIMORE BOOK OF STANDARDS.
- TO WORK IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR MUST OBTAIN PERMITS FROM THE DEPARTMENT OF PUBLIC WORKS PERMITS DIVISION. APPLICATIONS ARE ACCEPTED AT THE DEPARTMENT OF PUBLIC WORKS PERMITS DIVISION IN THE ABEL WOLMAN MUNICIPAL BUILDING, ROOM 87, 200 N. HOLLAND STREET, PHONE 410-396-5956. DURING THE PERMIT REVIEW, THE CONTRACTOR MAY BE BILLED ADDITIONAL TRAFFIC INSPECTIONS FEES UNRELATED TO ANY PREVIOUS COSTS.
- NO WORK OR OBSTRUCTION OF TRAFFIC BETWEEN THE HOURS OF 6AM - 8AM AND 5PM - 6PM.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) ELEVEN FOOT (11') LANE IN EACH DIRECTION ON HARTWAIT ST. NO ROADWAY CLOSURES WILL BE PERMITTED. THE CONTRACTOR SHALL MAINTAIN TWO (2) TWELVE FOOT (12') LANES IN SOUTHBOUND DIRECTION OF DUNDALK AVE. NORTHBOUND LANES OF DUNDALK AVE. SHALL REMAIN IN SERVICE THROUGHOUT. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE (1) TWELVE FOOT (12') LANE IN EACH DIRECTION ON HOLLABIRD AVE.
- THE CONTRACTOR IS RESPONSIBLE FOR ANY SIGNING AND PAVEMENT MARKINGS DAMAGED OR DESTROYED DURING CONSTRUCTION, INCLUDING THOSE OUTSIDE THE PROJECT LIMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY TEMPORARY NO STOPPING PROHIBITION SIGNING THAT WILL BE NECESSARY TO COMPLETE THIS PROJECT.

TEST PIT NOTE

TEST PIT EXISTING UTILITIES PRIOR TO UTILITY SERVICE INSTALLATION. NOTIFY DESIGN ENGINEER IF THERE ARE CONFLICTS. THE DESIGN ENGINEER SHALL MAKE REVISIONS TO THE APPROVED PLAN AND RESUBMIT TO BALTIMORE CITY UTILITY ENGINEERING SECTION. THEIR APPROVAL IS REQUIRED PRIOR TO CONTINUANCE OF CONSTRUCTION.

W.B.C.M. BENCHMARK DATA(SET ON SITE)

BM#	ELEV.	DESCRIPTION
8658	17.66	BRASS SCREW



WHITNEY BAILEY COX & MAGNANI, LLC
300 East Joppa Road, Suite 200
Baltimore, MD 21286
410.512.4500 www.wbcm.com

CONSULTANT
WHITNEY, BAILEY, COX AND MAGNANI, LLC
ATTN: BLAINE W. LINKOUS, P.E.
PHONE NO.: (410) 512-4509
FAX NO.: (410) 324-4100

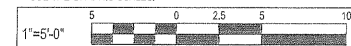
OWNER / DEVELOPER
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLLAVIEW ROAD
BALTIMORE, MD 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

WHITNEY, BAILEY, COX & MAGNANI ENGINEER: BLAINE W. LINKOUS DATE: _____ LIC. NO.: 34682		WATER PLAT: GG 33 WATER ZONE: 1 st WORKING PRESSURE: 85 psi TEST PRESSURE: 150 psi	
DESIGNED: MM DRAWN BY: NH CHECKED BY: BL		WARD: 26 SECTION: 01 BLOCK: 6750	
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License # 34682 Expiration Date: 07-08-19		LOT: 16, 18, 22, 31, 36, 38, 78A, 79, 83, 88, 92	
BALTIMORE CITY REVIEW	RIGHT OF WAY RELEASE	HIGHWAY DESIGN	BRIDGES
BY	DATE	DRAINAGE	LIGHTING
		CONDUIT	SEDIMENT AND EROSION CONTROL
		TRAFFIC ENGINEERING	WATER ENGINEERING
		WASTEWATER ENGINEERING	LUTILITY ENGINEERING
		SIGNAL ENGINEERING	

SURVEY CONTROL NOTES

- HORIZONTAL COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MERIDIAN OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. TRAVERSE STATIONS:
35221 N-8,655,459 E 23,870,368 "BRASS PLUG"
35222 N-8,187,592 E 23,791,607 "BRASS PLUG"
27885 N-9,133,114 E 23,740,792 "BRASS PLUG"
27886 N-9,103,441 E 23,610,439 "BRASS PLUG"
27887 N-9,186,522 E 23,935,351 "BRASS PLUG"
- ELEVATIONS SHOWN HEREON ARE REFERRED TO THE DATUM OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. BENCHMARKS:
BM 6868 ELEV. 17.66 "BRASS SCREW"

CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.



CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.

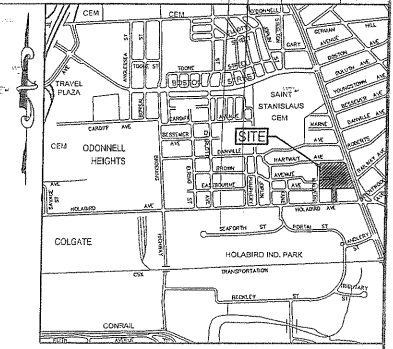


C.W.O.

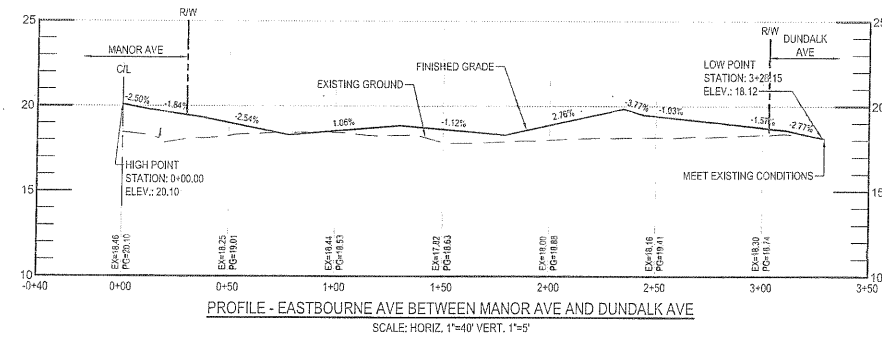
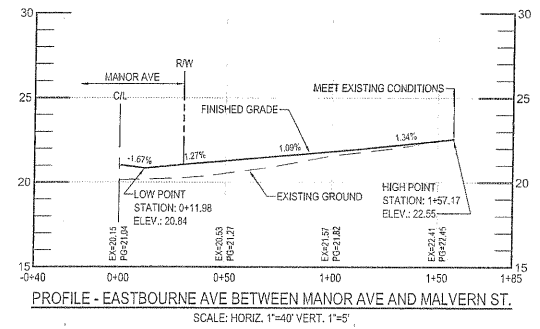
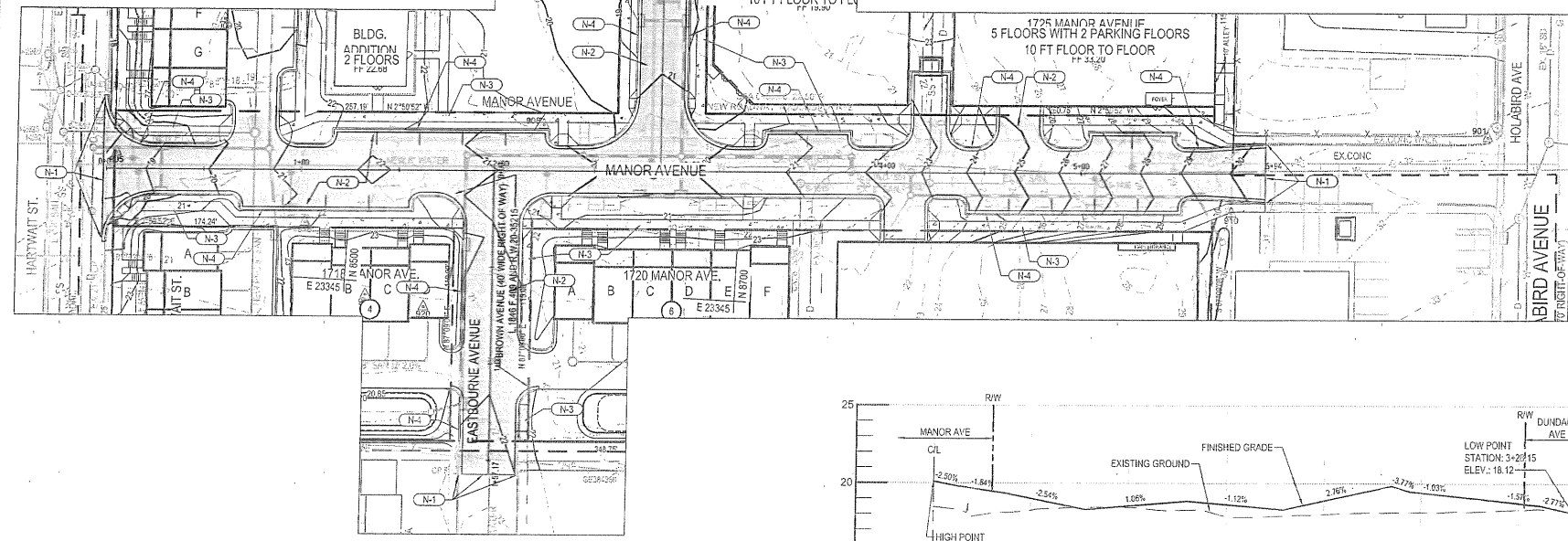
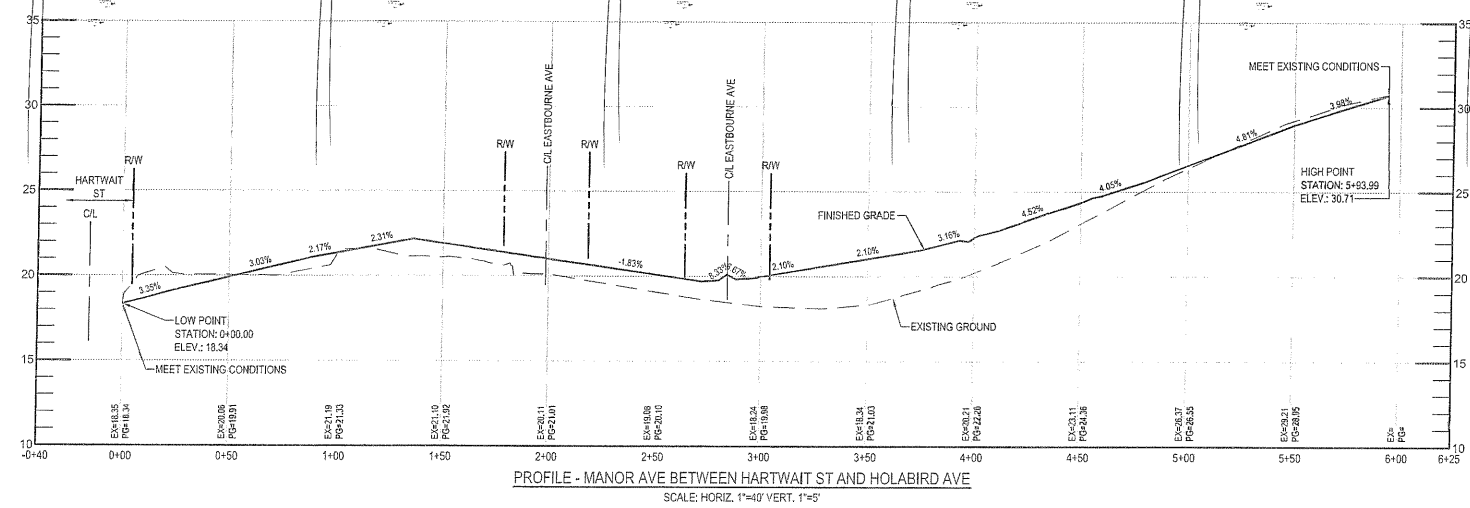
OWNER	HOLABIRD CONSTRUCTION CO., INC.
APPLICANT	HOLABIRD CONSTRUCTION CO., INC.
	CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS PWDA NO. _____
	INSTALLATION OF 8" SANITARY SEWER SERVICE
	1710 DUNDALK AVE. WARD 26, SECTION 01, BLOCK 6750 BALTIMORE, MARYLAND 21222
SCALE: AS NOTED	DATE: JULY 2017
	SHEET 6 OF _____

CHIEF, TRANSPORTATION, ENGINEERING AND CONSTRUCTION	DATE
DIRECTOR, DEPARTMENT OF TRANSPORTATION	DATE
DIRECTOR OF PUBLIC WORKS	DATE

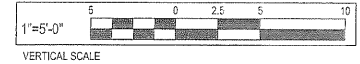
NO.	REVISIONS	DESCRIPTION	DATE	BY



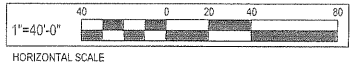
- CONSTRUCTION NOTES:**
- N-1 MEET EXISTING CONDITIONS
 - N-2 NEW BITUMINOUS CONCRETE PAVING
 - N-3 NEW CONCRETE SIDEWALK, SEE DETAIL
 - N-4 NEW 6" CONCRETE CURB, SEE DETAIL
 - N-5 NEW PEDESTRIAN RAMP, SEE BALTIMORE CITY STD. DETAIL BC 655.20



CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.



CAUTION: IF THIS DRAWING IS A REDUCTION, USE THE GRAPHIC SCALES.



SURVEY CONTROL NOTES

- HORIZONTAL COORDINATES AND DIRECTIONS SHOWN HEREON ARE REFERRED TO THE MERIDIAN OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. TRAVERSE STATIONS:
35221 N-6, 355,458 E 23,870,408 "BRASS PLUG"
35222 N-6, 191,650 E 23,751,607 "BRASS PLUG"
27385 N-6, 133,114 E 23,740,752 "BRASS PLUG"
27386 N-6, 149,444 E 23,610,438 "BRASS PLUG"
27387 N-6, 166,522 E 23,075,391 "BRASS PLUG"
- ELEVATIONS SHOWN HEREON ARE REFERRED TO THE DATUM OF THE BALTIMORE CITY SURVEY CONTROL SYSTEM AS DETERMINED FROM THE FOLLOWING B.C.S.C.S. BENCHMARKS:
BM 8698 ELEV. 17.66 "BRASS SCREW"

C.W.O.

OWNER	HOLABIRD CONSTRUCTION CO., INC.
APPLICANT	HOLABIRD CONSTRUCTION CO., INC.
CITY OF BALTIMORE DEPARTMENT OF PUBLIC WORKS PWDA NO. _____	
ROADWAY IMPROVEMENT PLAN AND PROFILES	
HOLABIRD MANOR	
1710 DUNDALK AVE. WARD 26, SECTION 01, BLOCK 6750 BALTIMORE, MARYLAND 21222	
SCALE: AS NOTED	DATE: JULY 2017
SHEET 7 OF ____	

CONSULTANT
WHITNEY, BAILEY, COX & MAGNANI, LLC
ATTN: BLAINE W. LINKOUS, P.E.
PHONE NO.: (410) 512-4539
FAX NO.: (410) 524-4100

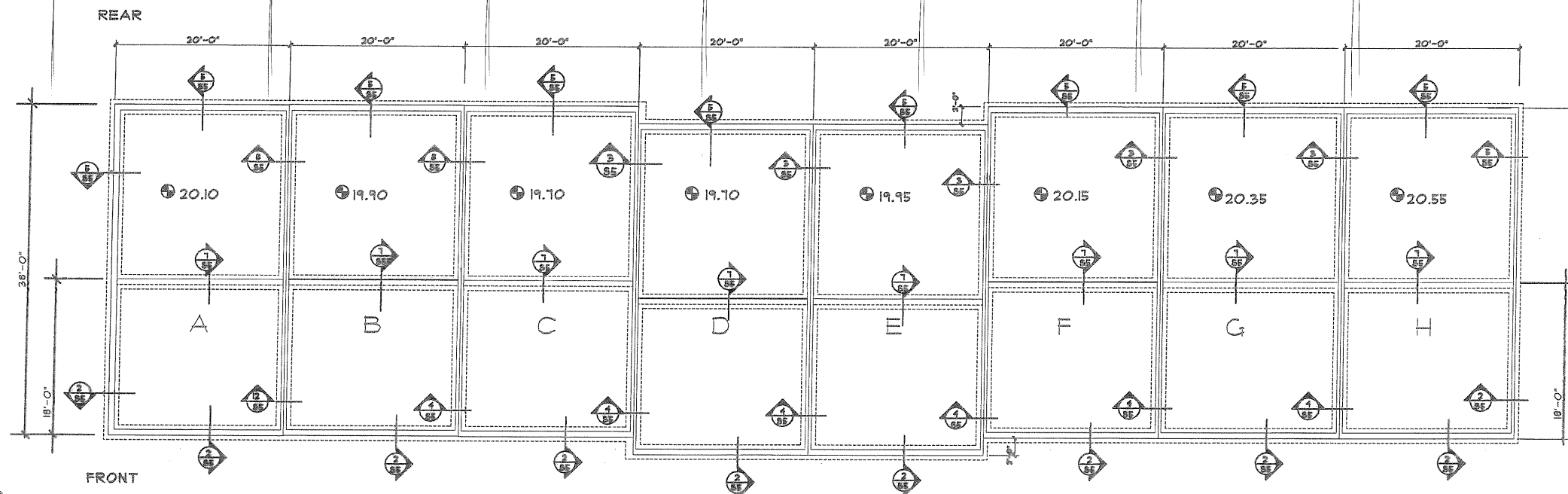
OWNER / DEVELOPER
HOLABIRD CONSTRUCTION CO., INC.
1705 HOLAVIEW ROAD
BALTIMORE, MD, 21222
ATTN: MR. FRANK SCARFIELD
PHONE NO: 410-284-2200

W.B.C.M. BENCHMARK DATA (SET ON SITE)

B.M.#	ELEV.	DESCRIPTION
8698	17.66	BRASS SCREW

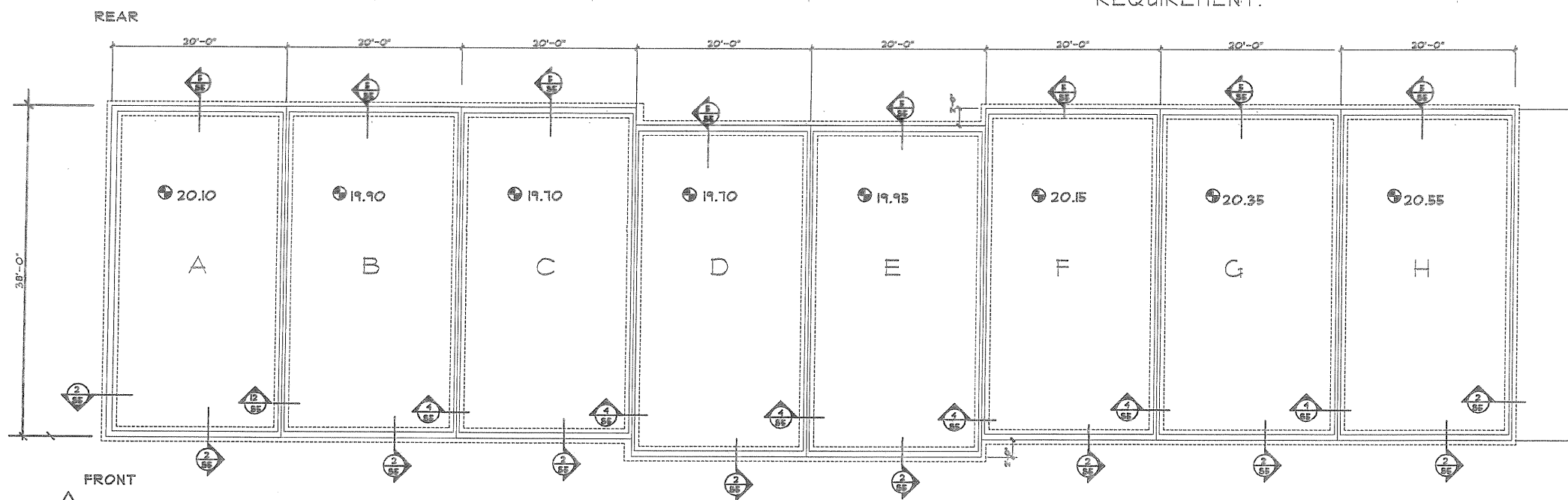
WHITNEY BAILEY COX & MAGNANI, LLC
300 East Joppa Road, Suite 200
Baltimore, MD 21288
410.512.4500 www.wbcm.com

WHITNEY, BAILEY, COX & MAGNANI ENGINEER: BLAINE W. LINKOUS DATE: _____ LIC. NO. 34682		WATER PLAT: GG 33 WATER ZONE: 1 st WORKING PRESSURE: 85 psi TEST PRESSURE: 150 psi	WARD: 26 SECTION: 01 BLOCK: 6750 LOT: 16, 18, 22, 31, 36, 38, 76A, 79, 83, 88, 92
DESIGNED: MM DRAWN BY: HH CHECKED BY: BL	BALTIMORE CITY REVIEW RIGHT OF WAY RELEASE HIGHWAY DESIGN BRIDGES DRAINAGE LIGHTING CONDUIT SEDIMENT AND EROSION CONTROL TRAFFIC ENGINEERING WATER ENGINEERING WASTEWATER ENGINEERING UTILITY ENGINEERING SIGNAL ENGINEERING	DATE: _____	DATE: _____



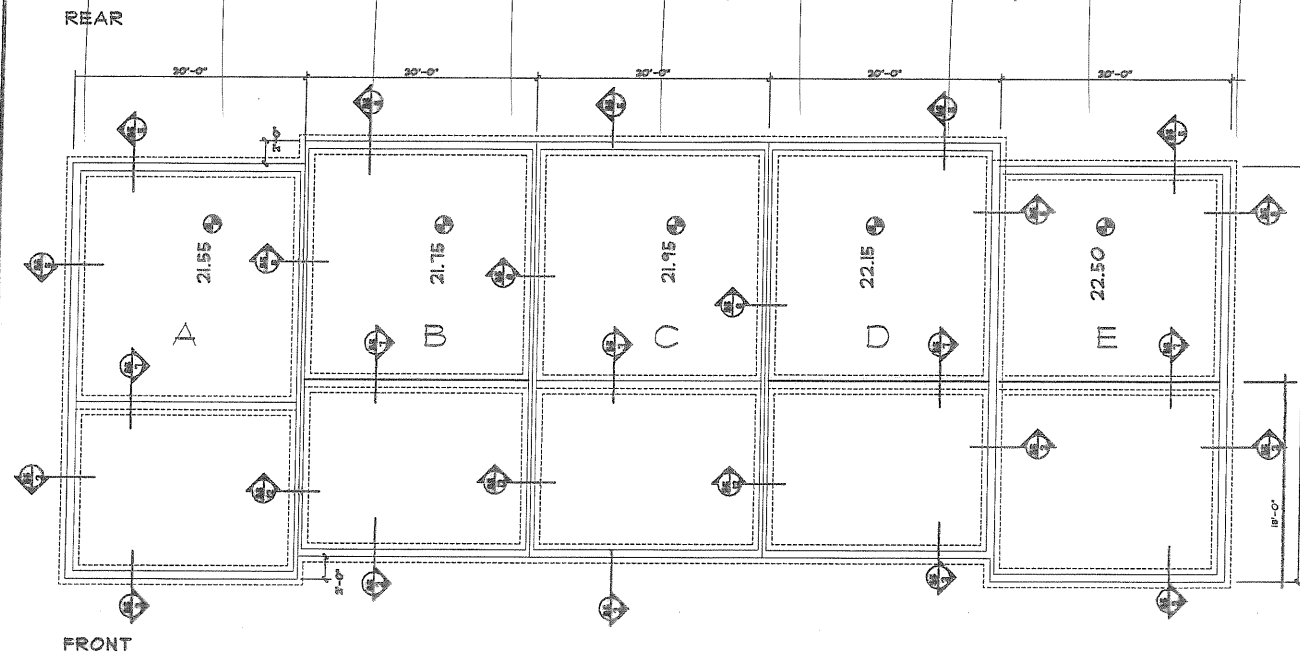
6639 HARTWAIT STREET

NOTE -
 BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.
 ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.

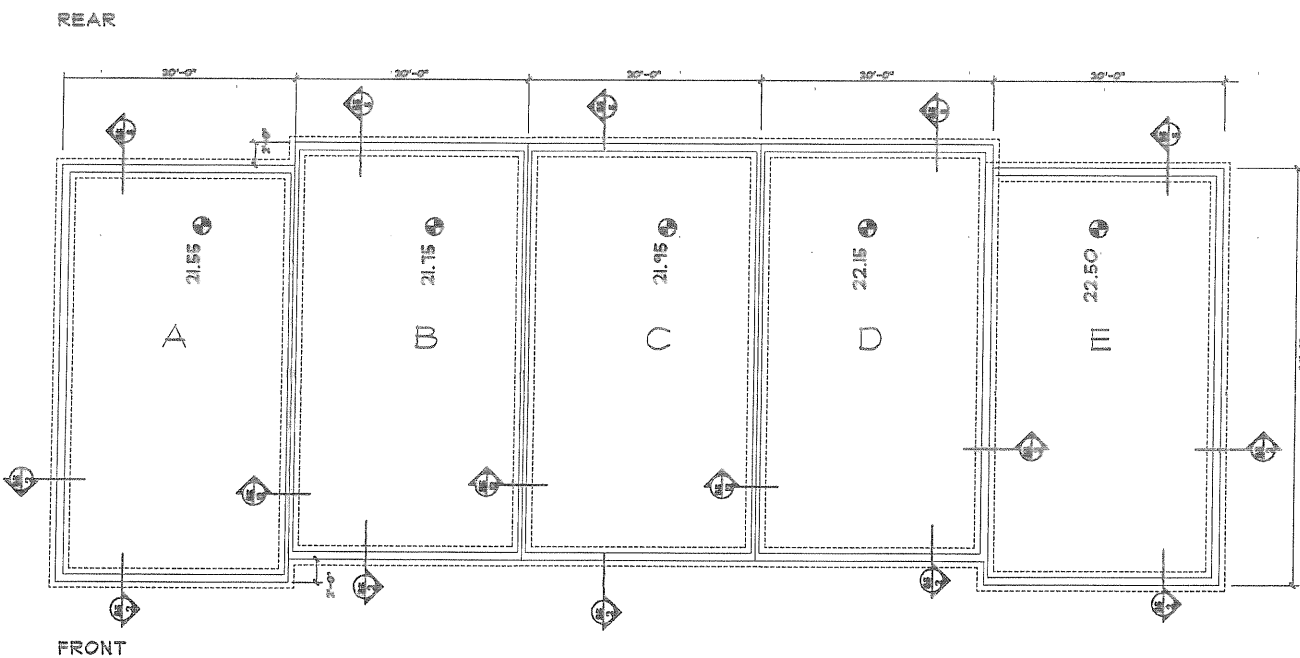


6639 HARTWAIT ST - ALTERNATE I

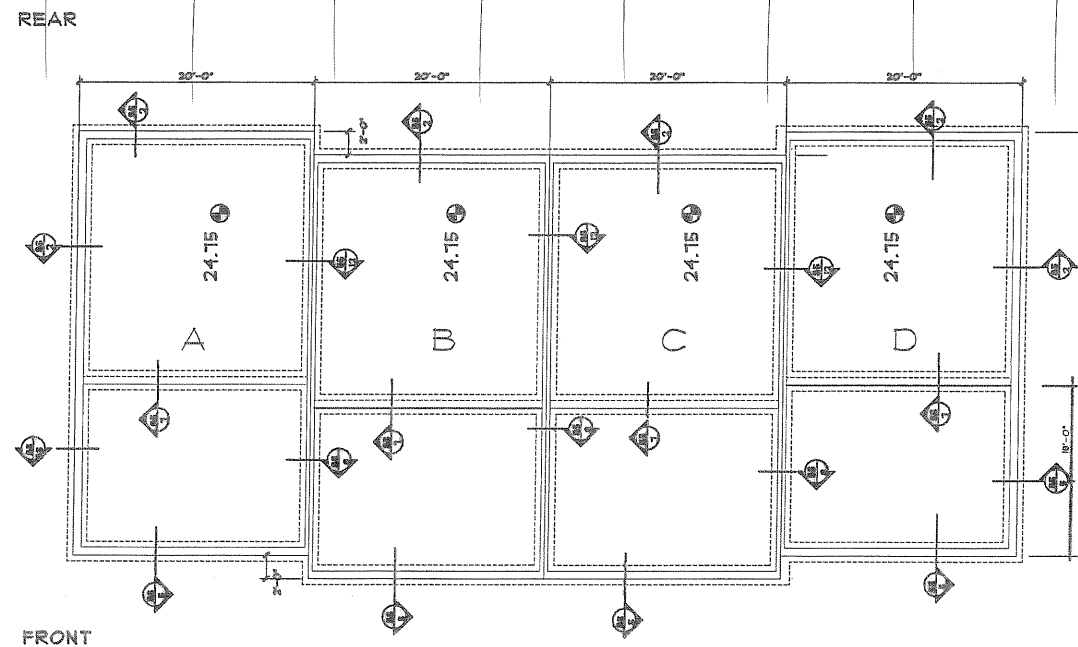
DESIGNED BY:	DRAWN BY:	CHECKED BY:
The Diesselhorst Group		
6511 Virginia Ave, Annandale, VA 22003		
HOLABIRD MANOR CONDO		
HOLABIRD APTMENTS INC.		
DISCIPLINE	SHEET TITLE	SCALE
	FOUNDATION PLAN	
ISSUE DATE		
01.12.2016		
REVISIONS		
6.07.2017		
B 4/10/2018		
C 1/16/2019		
SHEET		
AI		
OF		



B
6625 HARTWAIT STREET



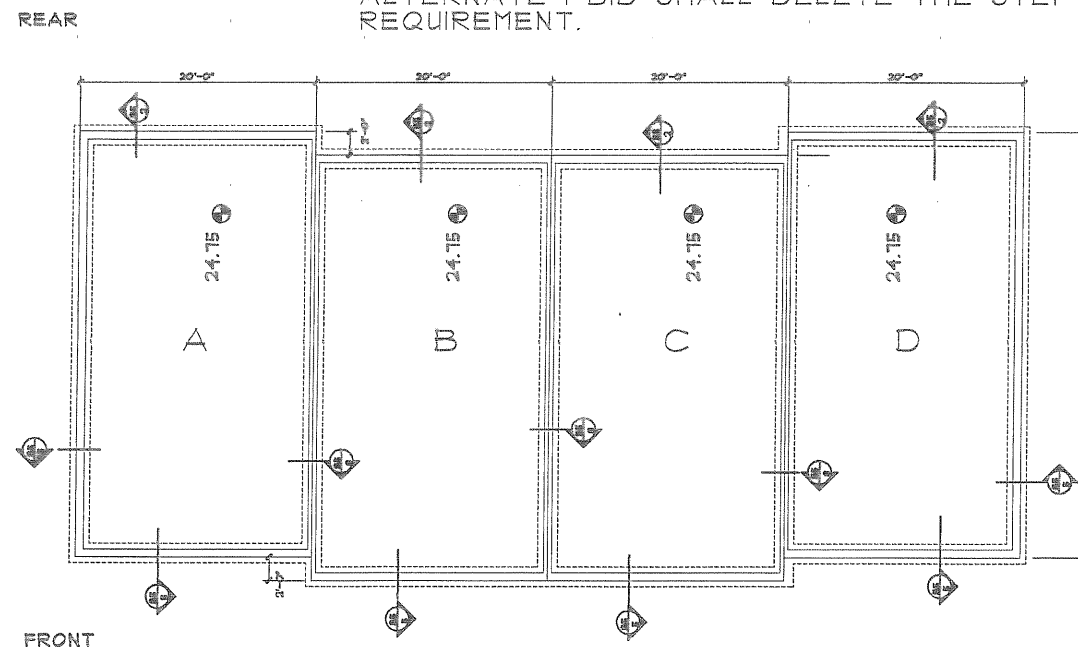
B
6625 HARTWAIT STREET - ALTERNATE I



1710 MANOR AVENUE

C NOTE - BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.

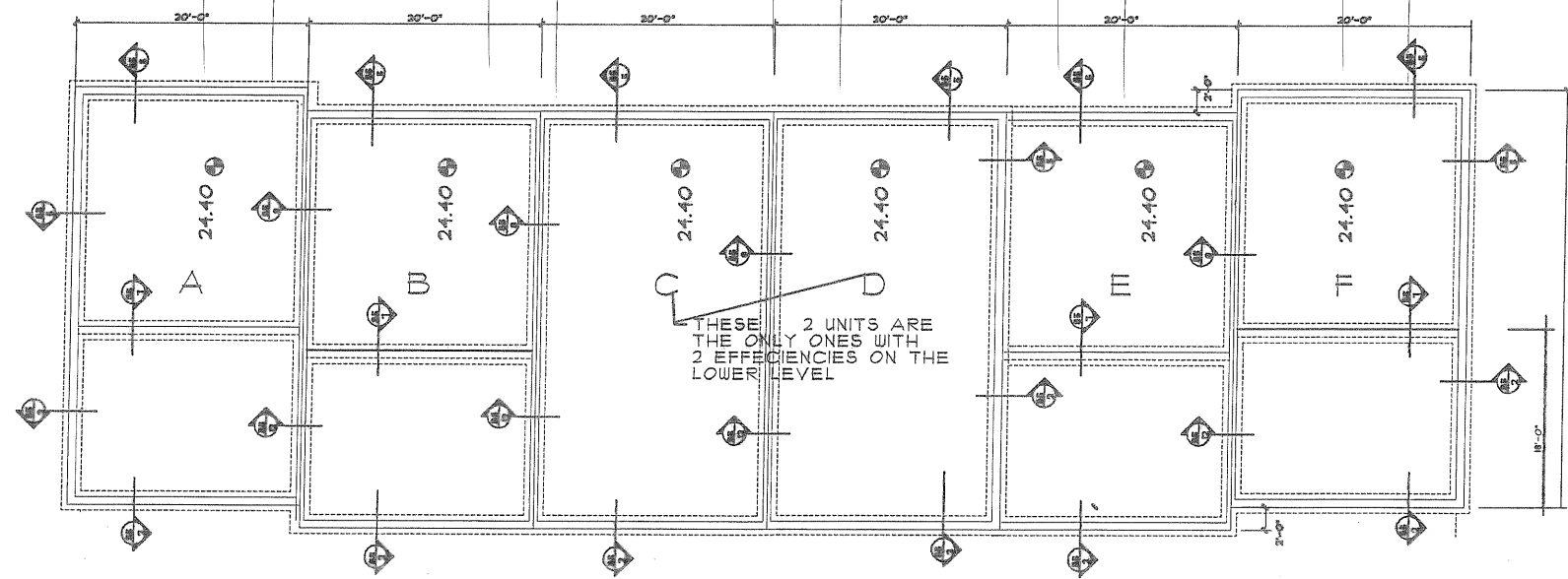
ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.



1710 MANOR AVENUE - ALTERNATE I

DESIGNED BY:	DRAIN BY:	CHECKED BY:
The Diesselhorst Group		
8511 Virginia Ave, Annandale, VA 22003		
HOLABIRD MANOR CONDO		
HOLABIRD APARTMENTS INC.		
DISCIPLINE	SHEET TITLE	SCALE
	FOUNDATION PLAN	
ISSUE DATE		
01.12.2016		
REVISIONS		
6.07.2017		
B	4/10/2018	
C	1/16/2019	
SHEET		
Ala		
OF		

REAR



FRONT

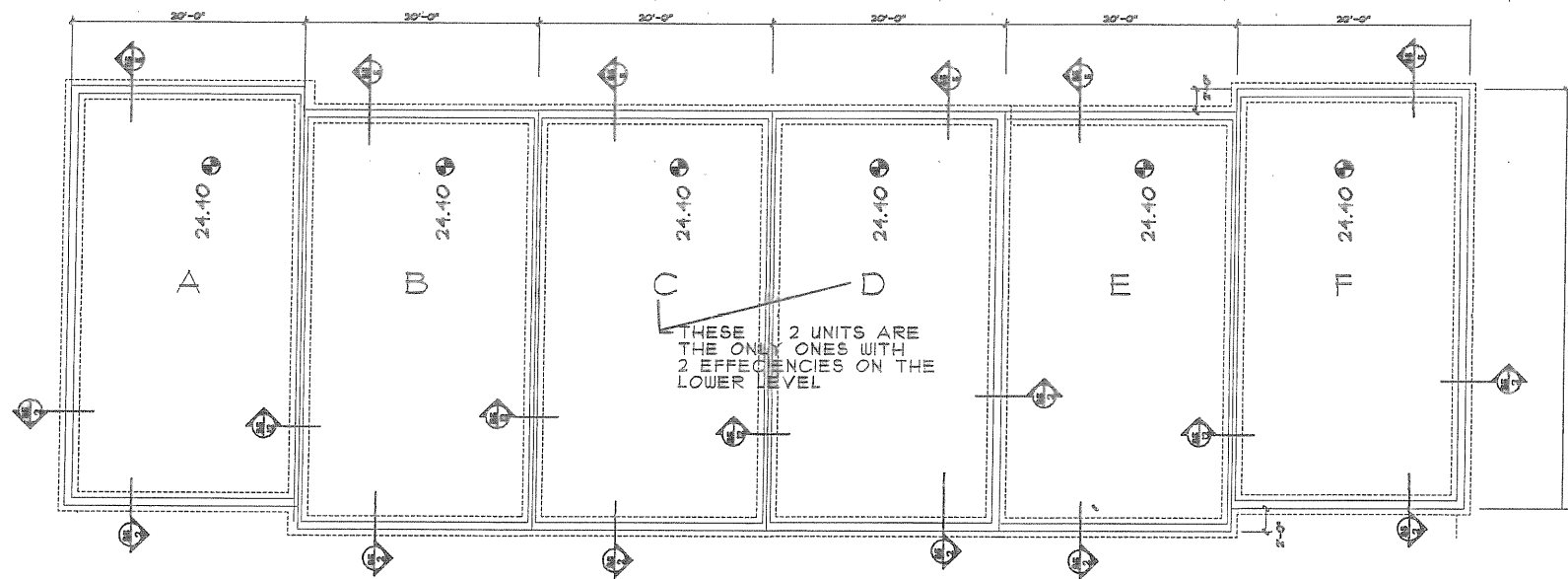
1720 MANOR AVE

NOTE -

BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.

ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.

REAR



FRONT

1720 MANOR AVE - ALTERNATE I

The Dieselhorst Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO

HOLABIRD APARTMENTS INC.

SCALE AS SHOWN

FOUNDATION PLAN

ISSUE DATE
01.12.2016

REVISIONS

6.07.2017

B 4/10/2018

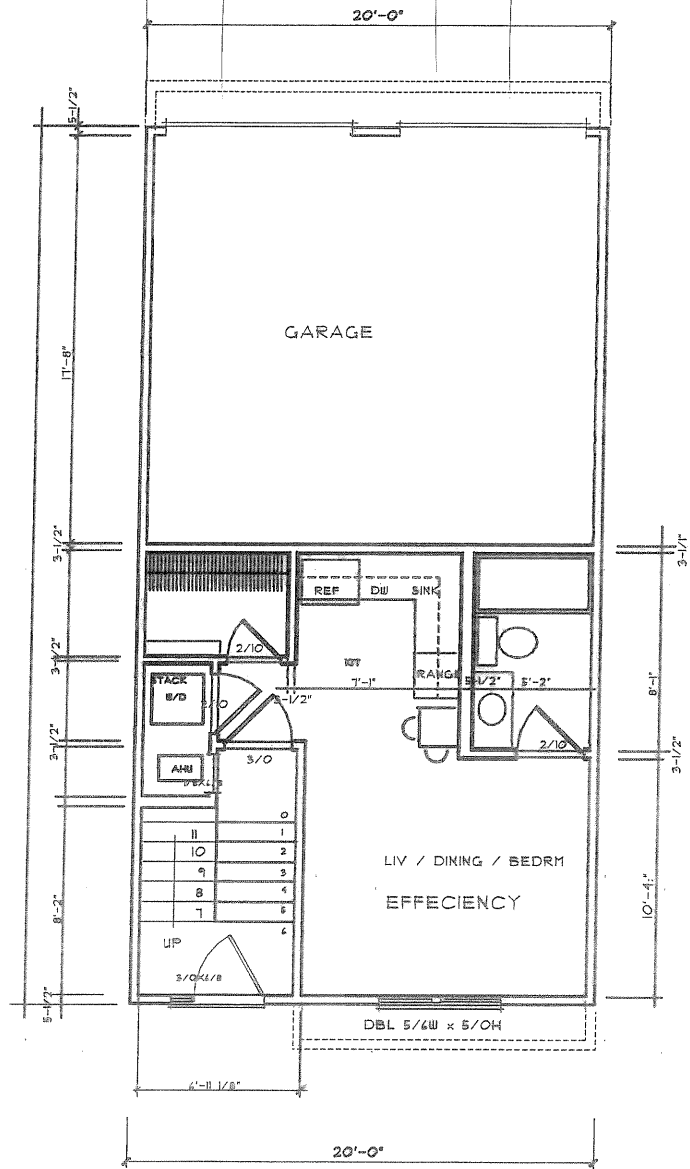
C 1/16/2019

SHEET

A1b

OF

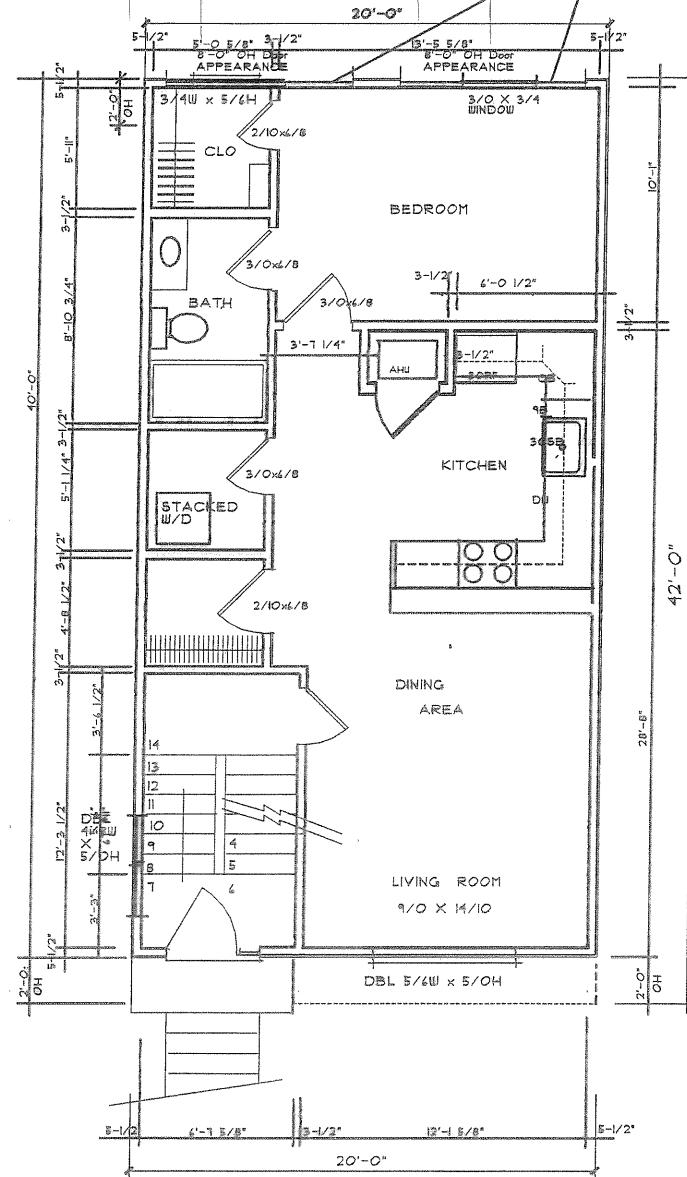
UNIT I
BASE BID | GARAGE



LOWER LEVEL - UNIT I & GARAGE

THIS UNIT SHALL APPLY TO ALL TOWNHOUSE UNITS EXCEPT AT 1120 MANOR AVE UNITS C & D

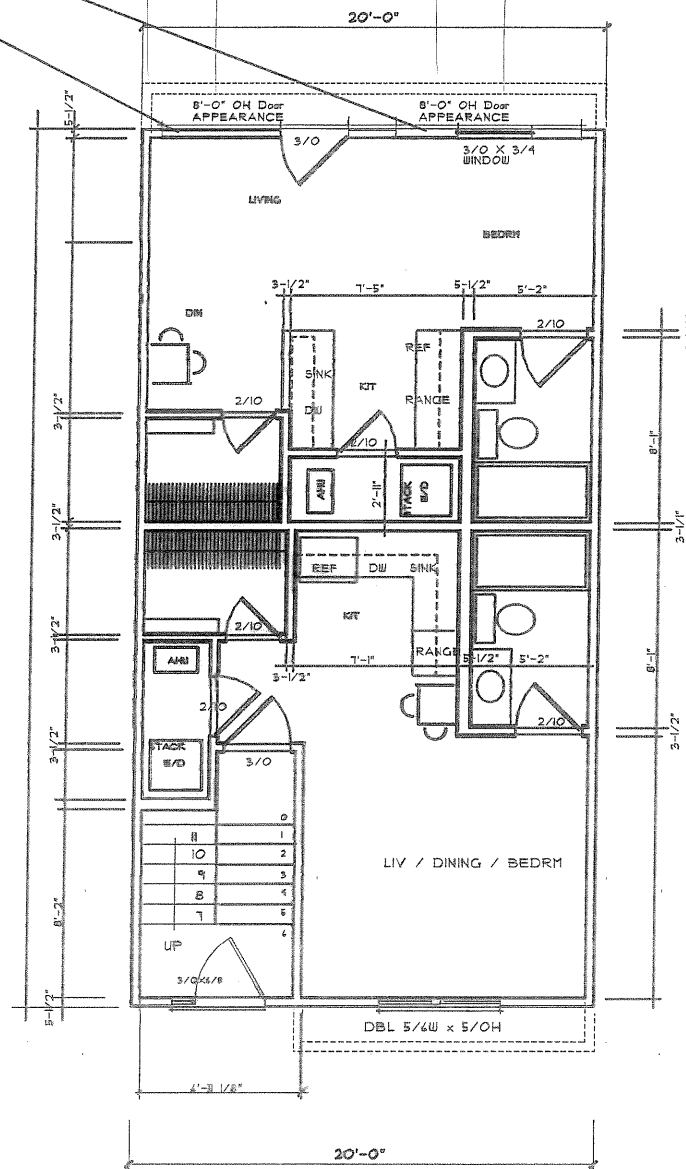
UNIT NUMBER I, ALTERNATE I, IA, & IB



LOWER LEVEL - ALTERNATE I

THIS UNIT SHALL APPLY TO ALL TOWNHOUSE UNITS EXCEPT AT 1120 MANOR AVE UNITS C & D

UNIT IA
UNIT IB

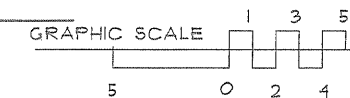


UNIT Ia & Ib - LOWER LEVEL

THIS LAYOUT SHALL ONLY APPEAR AT 1120 MANOR AVE UNITS C & D

NOTE - BASE BID SHALL BE DONE ON THE UNIT I PLAN FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.

ALTERNATE I & Ia+Ib BID SHALL DELETE THE STEP REQUIREMENT.



The Diesselhorst Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
UNIT FLOOR PLANS

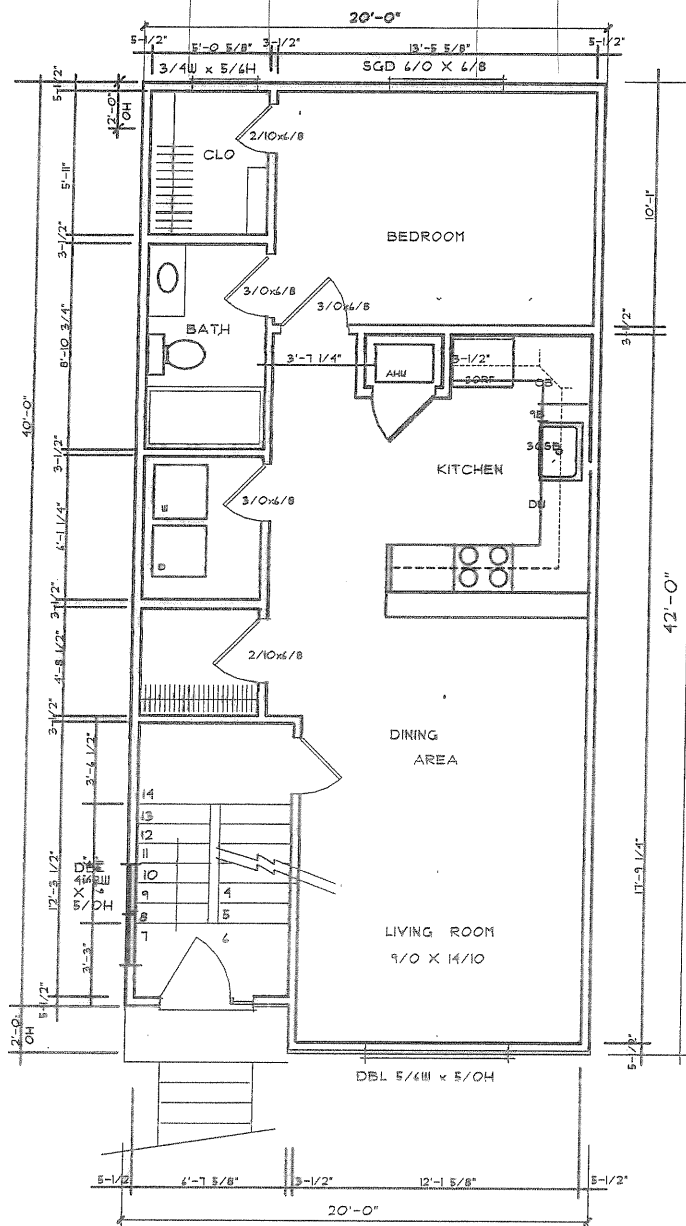
DISCIPLINE: SHEET TITLE: SCALE: AS SHOWN

ISSUE DATE: 01.12.2016

REVISIONS:

A	6.01.2011
B	4/10/2018
C	1/16/2019

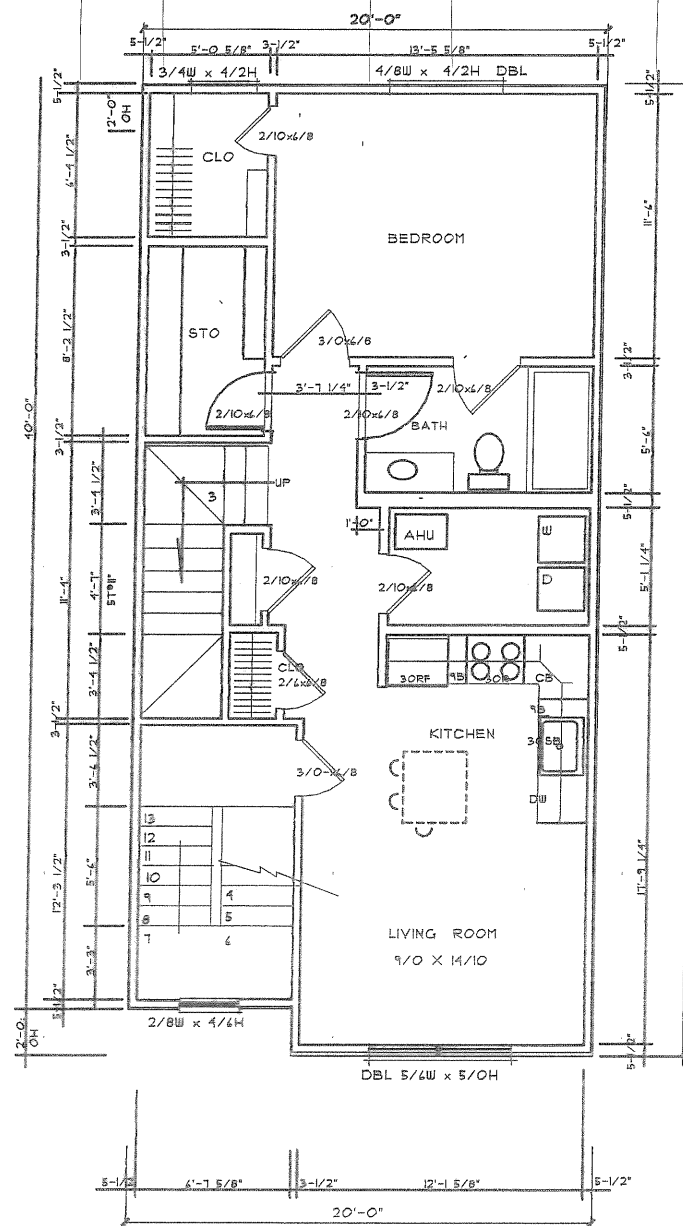
SHEET A2 OF



MIDDLE LEVEL
TWO BEDROOM UNIT

UNIT NUMBER 2

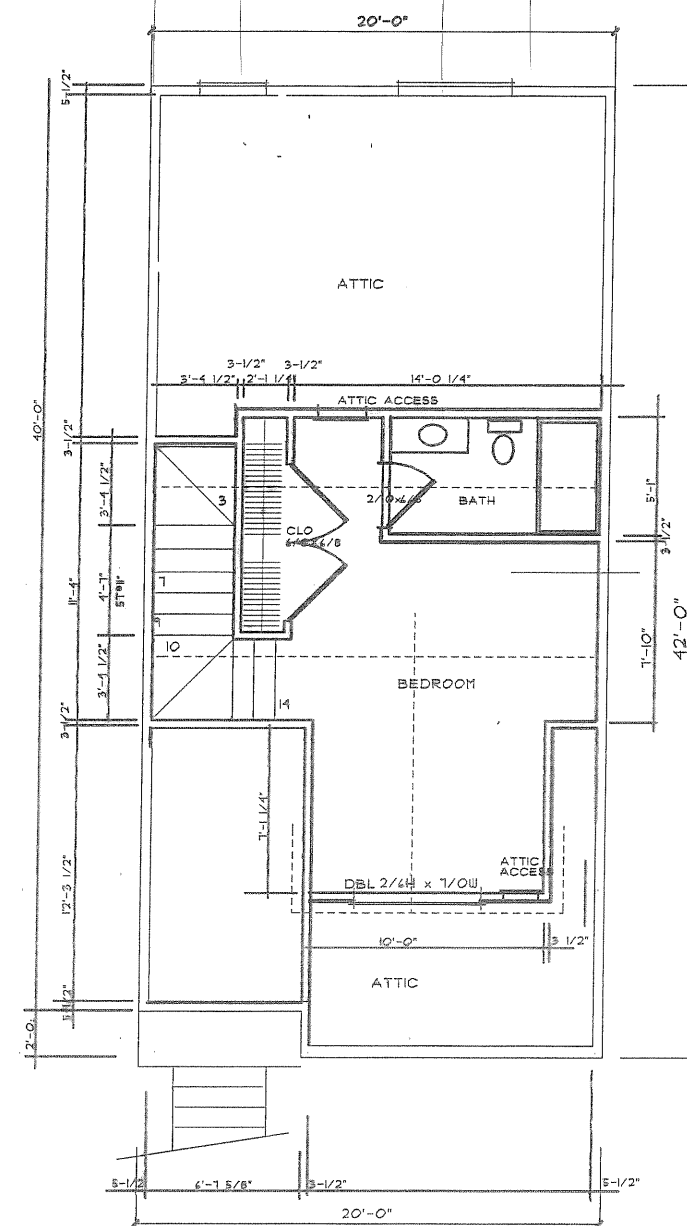
THIS UNIT APPEARS AT EVERY TOWNHOUSE UNIT
IT IS THE SECOND FLOOR



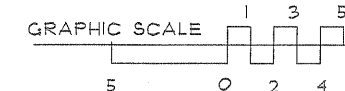
UPPER LEVEL
TWO BEDROOM UNIT

UNIT NUMBER 3

THIS UNIT APPEARS AT EVERY TOWNHOUSE UNIT
IT IS THE THIRD FLOOR AND THE LOFT.



LOFT



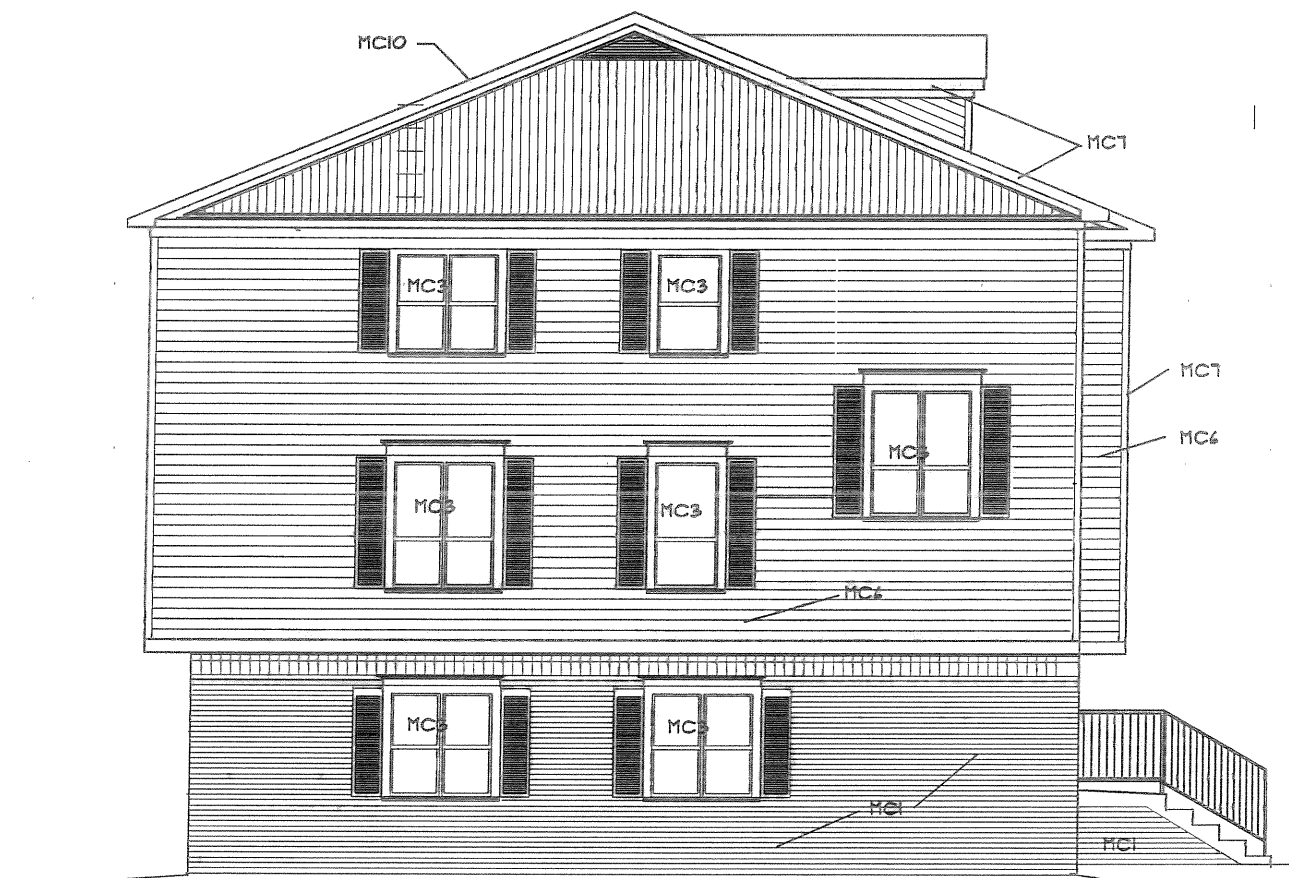
The Diesselhorst Group
8611 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
UNIT TYPES 2 & 3
SCALE AS SHOWN

ISSUE DATE	01.12.2016
REVISIONS	
	6.07.2017
B	4/10/2018
C	1/16/2019

SHEET
A3
OF

MATERIALS & COLORS				
	USE	MANUFACTURER	MODEL	COLOR
MC1	FACE BRICK	PALMETTO	QUEEN SIZE	OLD MARLBORO RED & WHITE
MC2	MORTAR	ROMAN MORTAR		LEHIGH GRAY
MC3	WINDOWS	ANDERSON	AMERICAN CRAFTSMAN	BEIGE
MC4	DOORS - SWING	MASONITE-FBRGL	9 LITE;	GOLDEN HAYSTACK - BEIGE
MC5	DOORS - SGD	MASONITE-FBRGL	CANYON VIEW	CANYON VIEW - BEIGE
MC6	SIDING	JAMES HARDIE	HARDIPANEL / HARDIEPLANK	YELLOW
MC7	SIDING TRIM BOARDS	VERANDA HP	CELLULAR PVC	WHITE
MC8	FACIAL & SOFFITS	VERANDA HP	CELLULAR PVC	WHITE
MC9	GUTTER & DWSNPTS	AMERIMAX PRODUCTS		WHITE
MC10	SHINGLES	GAF TIMBERLINE HD	ULTRA HD	CHARCOAL
MC11	ENTRANCE GLAZING	TUBELITE ECOLUMINUM	MEDIUM STILE	NATURAL ALUMINUM



TYPICAL END ELEVATION

The
Dieselhorst
Group
9511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
ARCHITECTURAL
SCALE AS NOTED
SHEET TITLE
TYF EEND ELEVATION, COLORS

ISSUE DATE
4/10/2018
REVISIONS

SHEET
A4
OF



6629 HARTWAIT STREET - REAR ELEVATION

3RD FLR + LOFT	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM
2ND FLR	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM
1ST FLR	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM	BEDRM



6629 HARTWAIT STREET - FRONT ELEVATION

The
 -Dieselhorst-
 Group
 8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
 HOLABIRD APARTMENTS INC.
 SHEET TITLE
 ARCHITECTURAL STRIP ELEVATIONS - 6629 HARTWAIT
 SCALE
 AS NOTED

ISSUE DATE
 4/10/2018

REVISIONS

SHEET
 A5
 OF



E D C B A
6625 HARTWAIT STREET - REAR ELEVATION

3RD FLR + LOFT	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM
2ND FLR	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM
1ST FLR	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM



A B C D E
6625 HARTWAIT STREET - FRONT ELEVATION

The Diesselhorst Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO

HOLABIRD APARTMENTS INC.
DISCIPLINE ARCHITECTURAL
SHEET TITLE STRIP ELEVATIONS - 6625 HARTWAIT
SCALE AS NOTED

ISSUE DATE
4/10/2018
REVISIONS

SHEET
A6
OF



D C B A

1710 MANOR AVE - FRONT ELEVATION

3RD FLR + LOFT	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM
2ND FLR	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM
1ST FLR	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM



A B C D

1710 MANOR AVE - REAR ELEVATION

The
Diesselhorst
Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
DISCIPLINE ARCHITECTURAL
SHEET TITLE STRIP ELEVATIONS - 1710 MANOR
SCALE AS NOTED

ISSUE DATE
4/10/2018
REVISIONS

SHEET
A7
OF



1720 MANOR AVE - FRONT ELEVATION

3RD FLR + LOFT	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM	2 BEDRM
2ND FLR	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM	1 BEDRM
1ST FLR	1 BEDRM	1 BEDRM	2 EFFEC	2 EFFEC	1 BEDRM	1 BEDRM



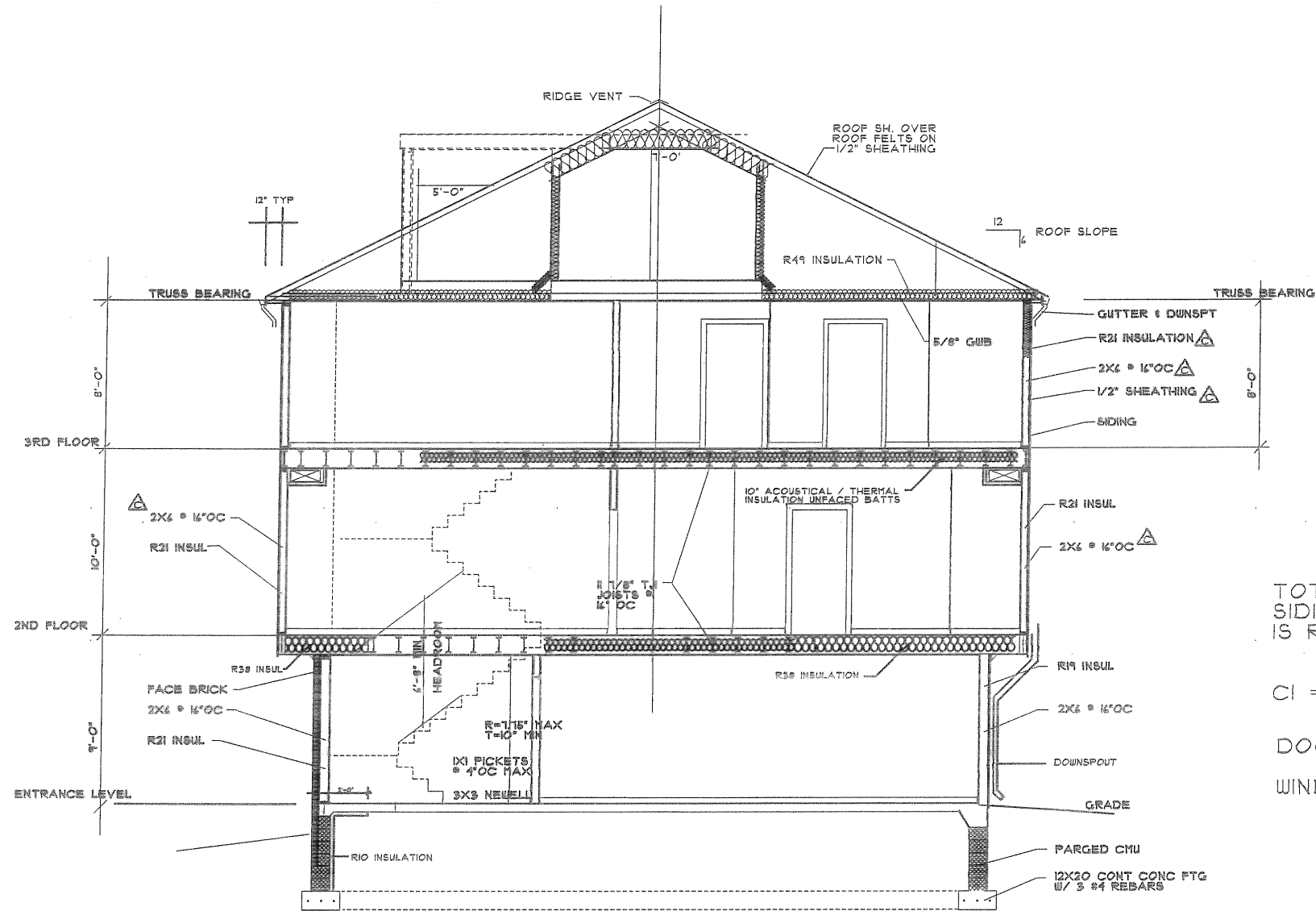
1720 MANOR AVE - REAR ELEVATION

The
Diesselhorst
Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
STRIP ELEVATIONS - 1720 MANOR
SCALE AS NOTED
DISCIPLINE ARCHITECTURAL
SHEET TITLE

ISSUE DATE
4/10/2018
REVISIONS

SHEET
A8
OF



▲ C
ALTERNATE 2
 FOR THE UPPER 2 LEVELS ONLY -
 THE 2X4 STUDS CAN BE 2X4 STUDS
 IF AND ONLY IF THE OWNER ALLOWS
 THE WALL INSULATION TO BE FOAM
 SPRAYED W/ R=25

TOTAL EXTERIOR WOOD
 SIDING INSULATION SYSTEM
 IS R 24.3 ▲

CI = 4
 DOORS = R4.256
 WINDOWS = R4.25

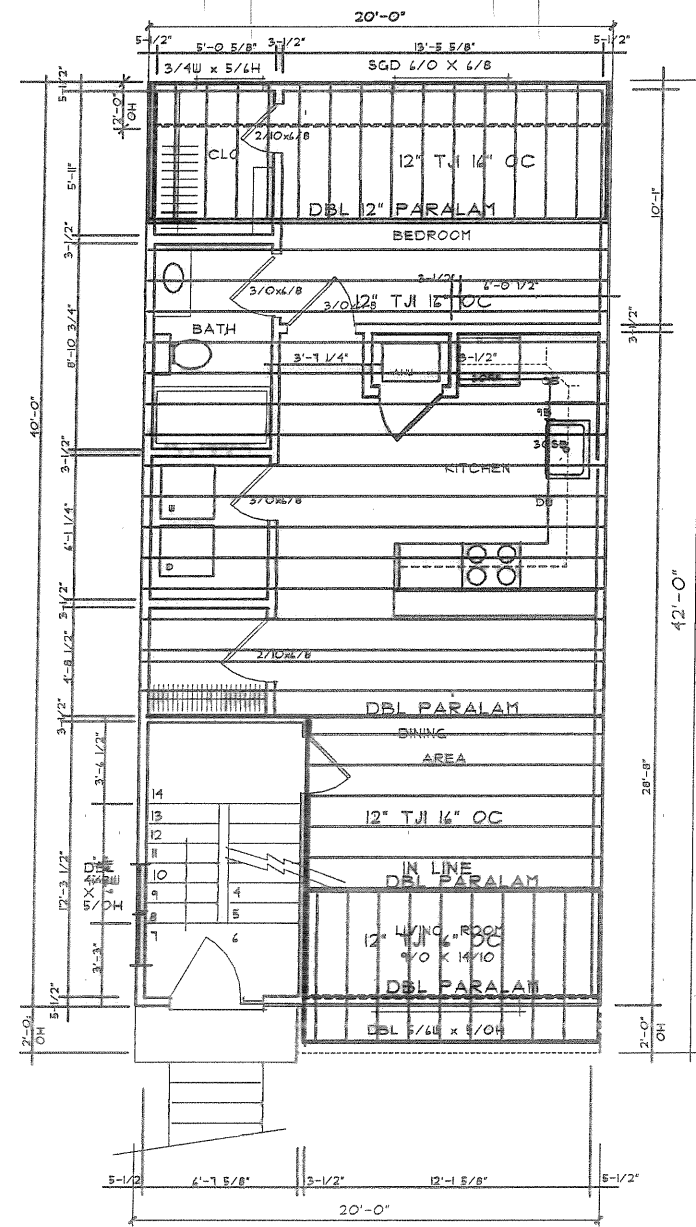
CROSS SECTION
 ▲ NOTE - THIS SECTION IS SHOWN AS THE ALTERNATE I CONDITION

The
-Diesselhorst-
 Group
 8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
 HOLABIRD APARTMENTS INC.
 DISCIPLINE CROSS SECTION

ISSUE DATE	01.12.2016
REVISIONS	
	6.01.2017
B	4/10/2018
C	1/16/2019

SHEET
 ▲ B
A9
 OF



FLOOR FRAMING - BETWEEN UNIT 1 AND 2



The
Diesselhorst
Group
8511 Virginia Ave, Ammanaleg, VA 22003

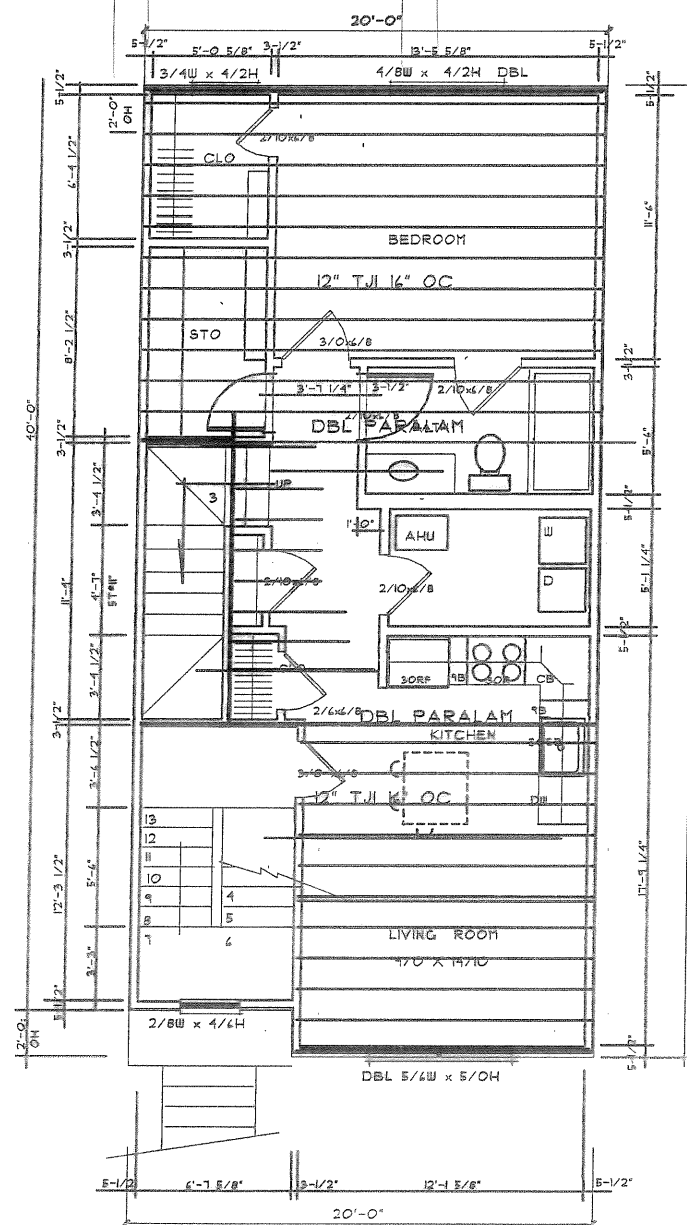
HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
UNIT TYPE I - STRUCTURAL
SCALE AS SHOWN

ISSUE DATE	01.12.2016
REVISIONS	
B	4/10/2018

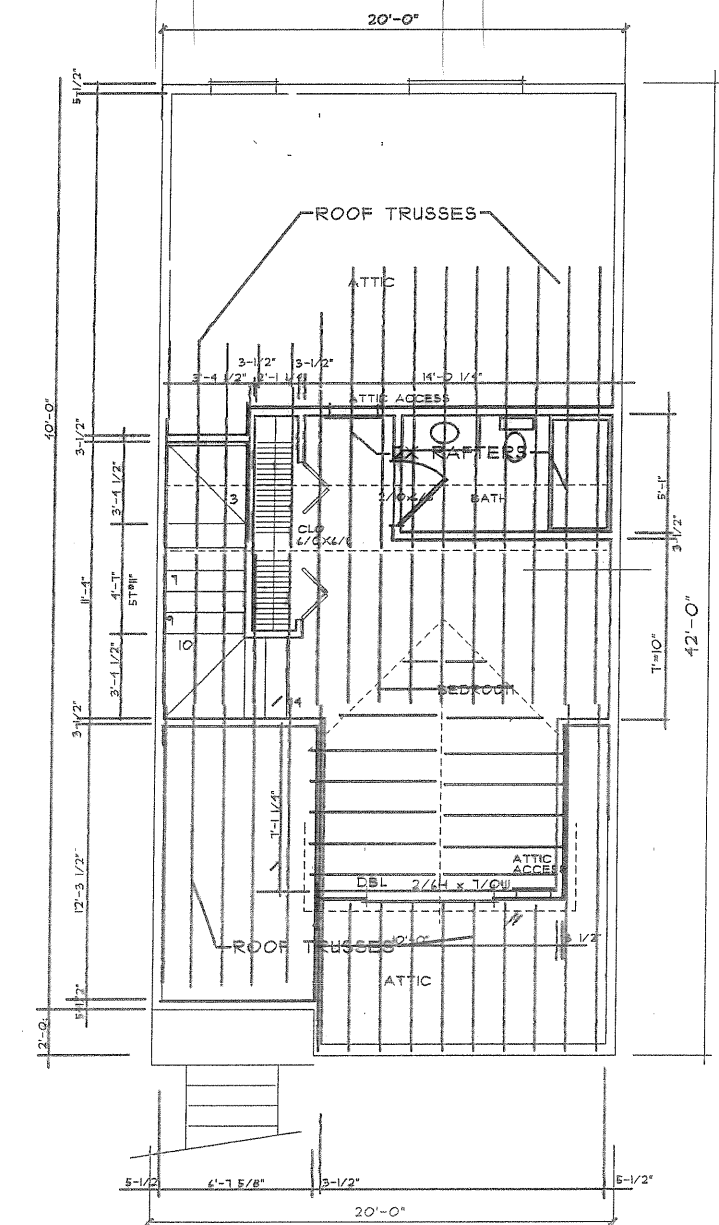
SHEET
SI
OF

SEE S4 FOR LINTEL SCHEDULES, NOTES, AND SPECIFICATIONS

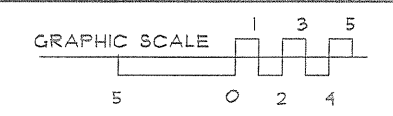
CONSTRUCTION BID SET 1/16/2019



THIRD FLOOR FRAMING

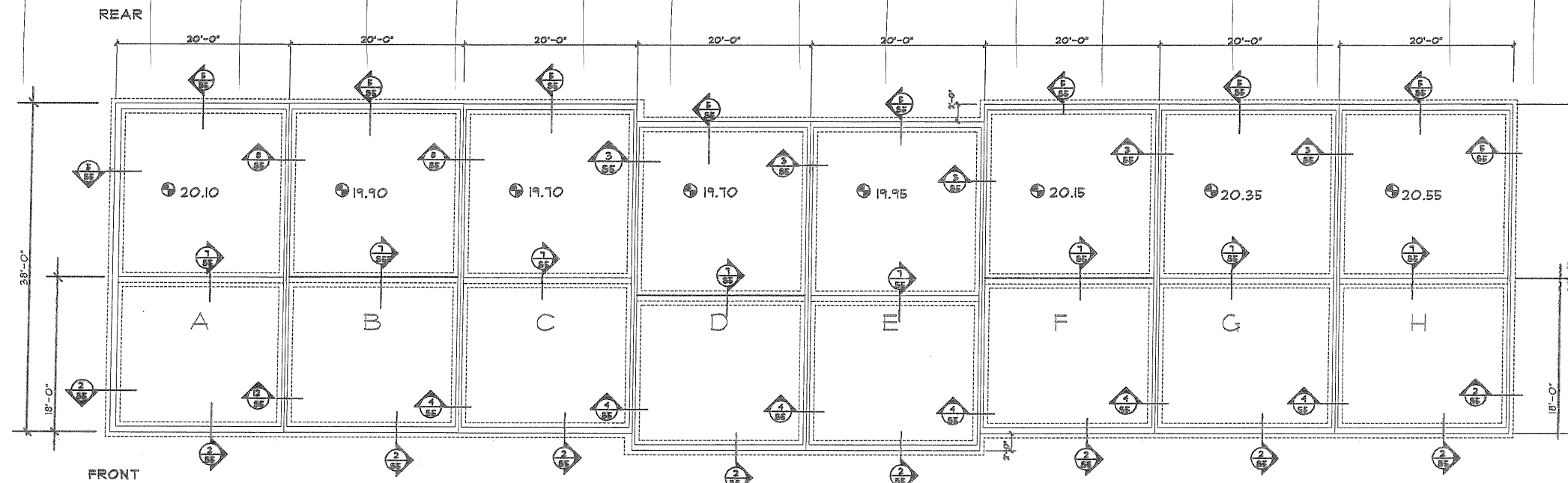


ROOF FRAMING



UNIT NUMBER SEE 34 FOR LINTEL SCHEDULES, NOTES, AND SPECIFICATIONS

<p>The Diesselhorst Group</p> <p>8511 Virginia Ave, Annandale, VA 22003</p>	
<p>HOLABIRD MANOR CONDO</p> <p>HOLABIRD APARTMENTS INC.</p>	<p>DISCIPLINE</p> <p>SHEET TITLE</p> <p>OPTIONAL UNIT TYPE 2 - STRUCTURAL</p> <p>SCALE</p> <p>AS SHOWN</p>
<p>ISSUE DATE</p> <p>01.12.2016</p>	
<p>REVISIONS</p> <p>6.07.2017</p> <p>B 4/10/2018</p>	
<p>SHEET</p> <p>S2</p> <p>OF</p>	

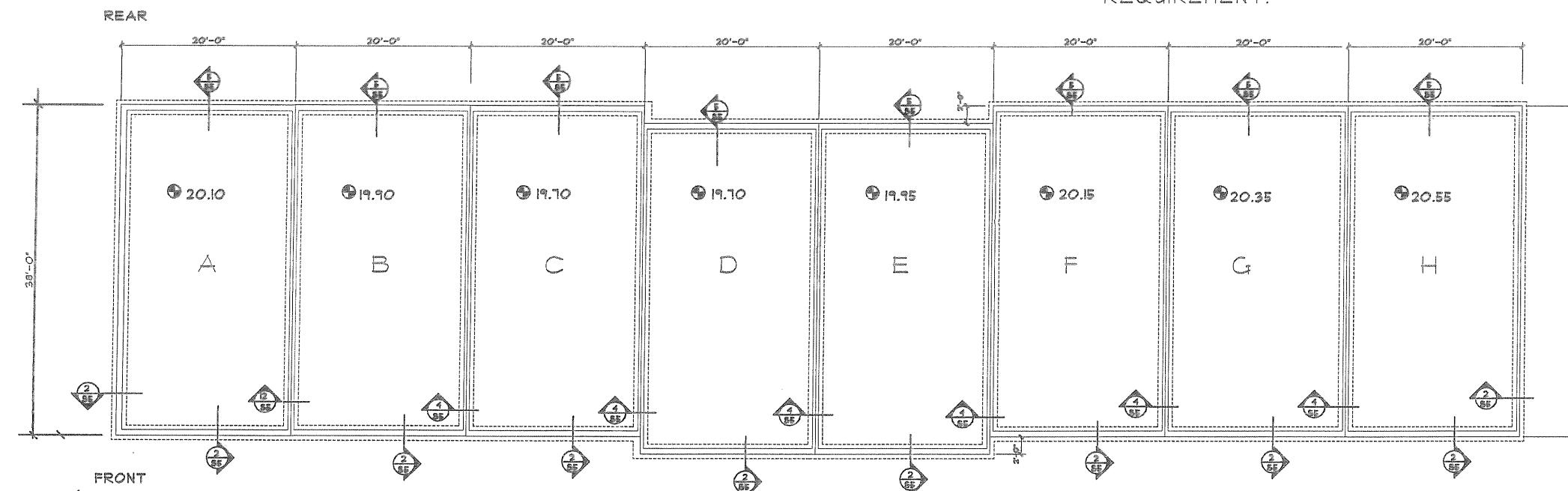


△ 6639 HARTWAIT STREET

△ NOTE -

BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.

ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.



△ 6639 HARTWAIT ST - ALTERNATE I

DESIGNED BY:
DRAWN BY:
CHECKED BY:

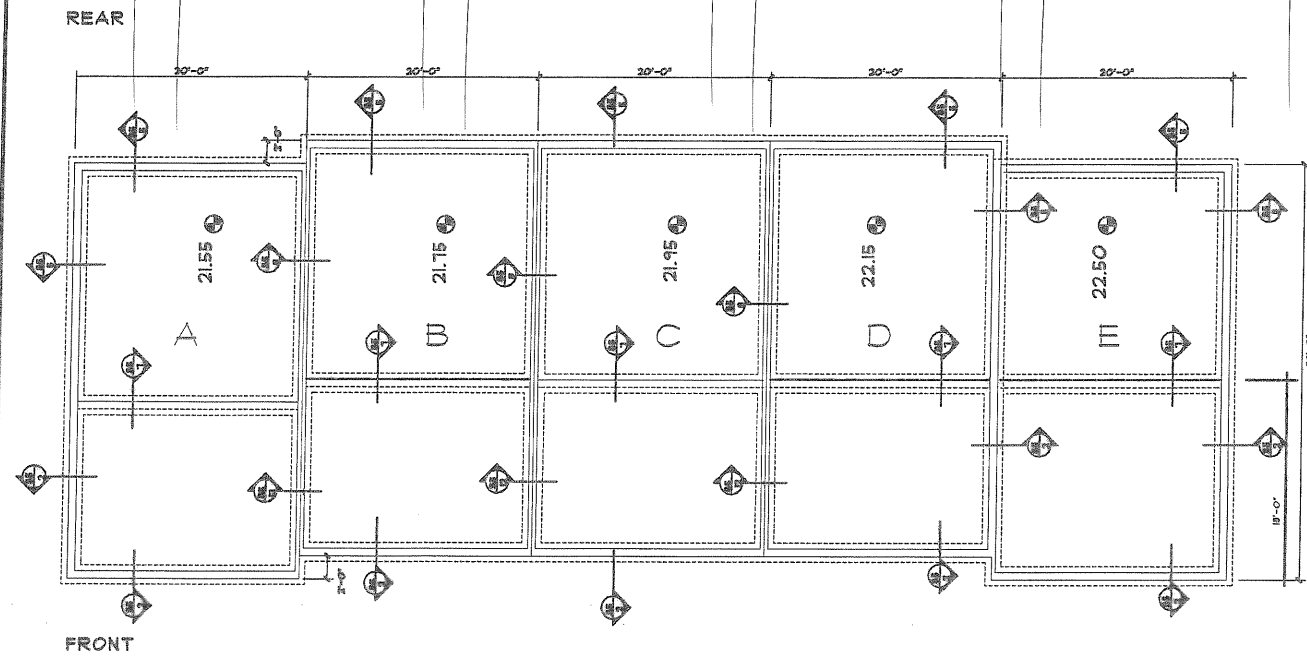
The
Dieselhorst
Group
851 Virginia Ave. Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
FOUNDATION PLAN
SCALE

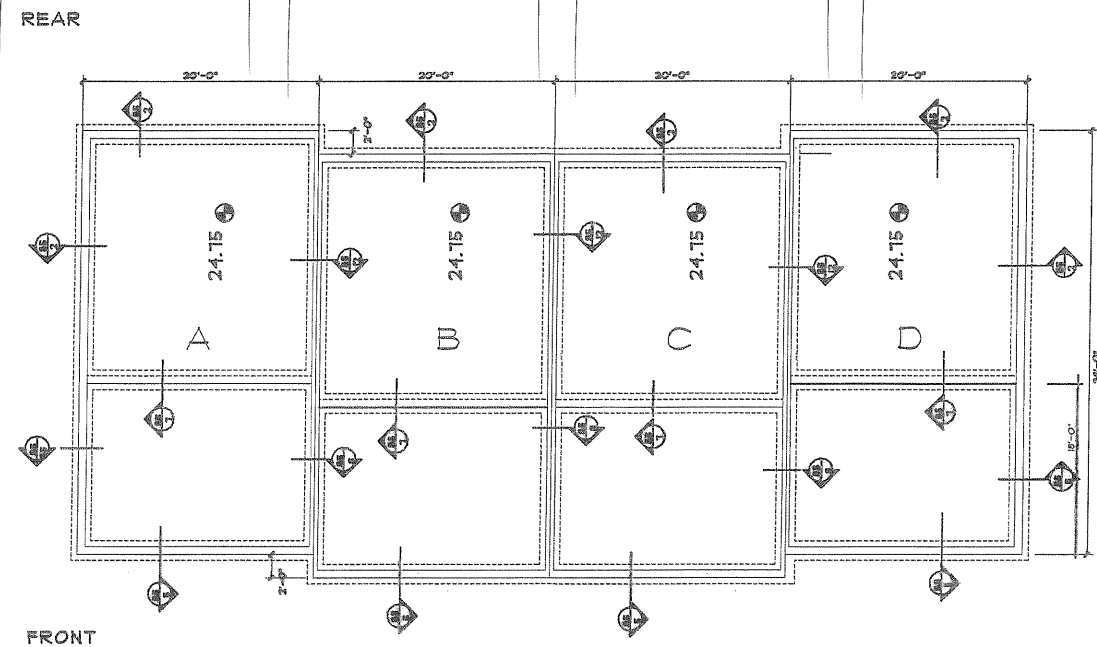
ISSUE DATE
01.12.2016

REVISIONS
6.07.2017
B 4/10/2018
C 1/16/2019

SHEET
S3
OF



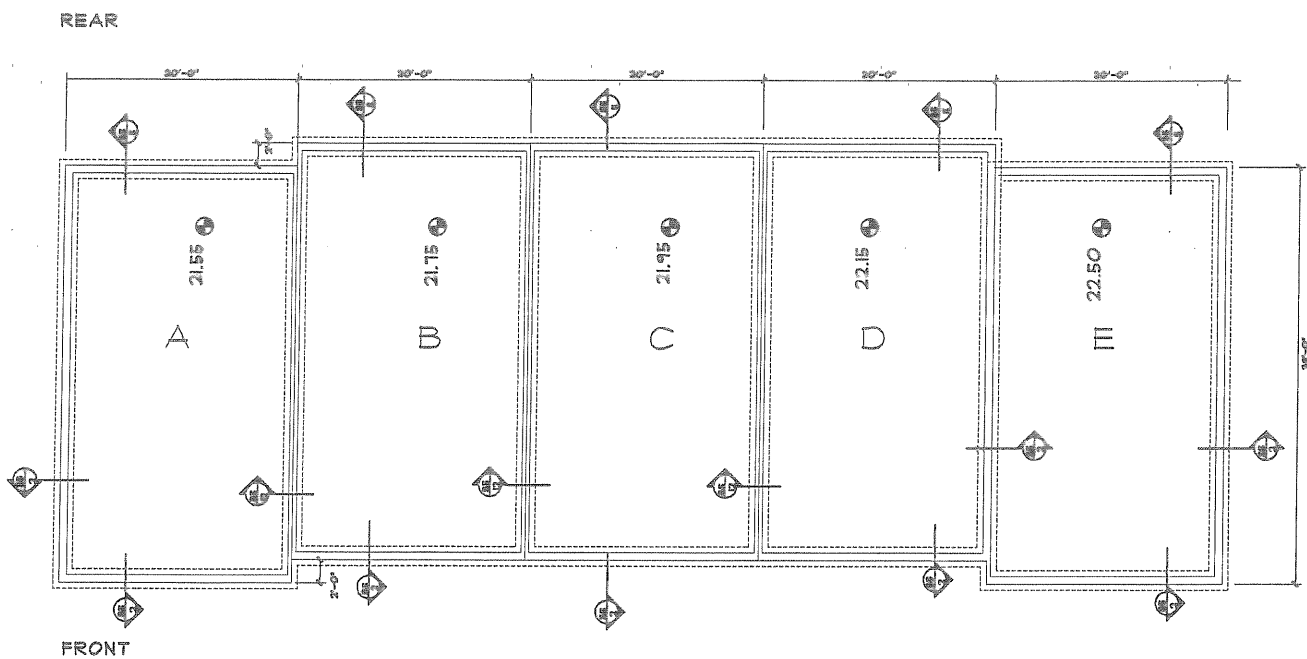
B 6625 HARTWAIT STREET



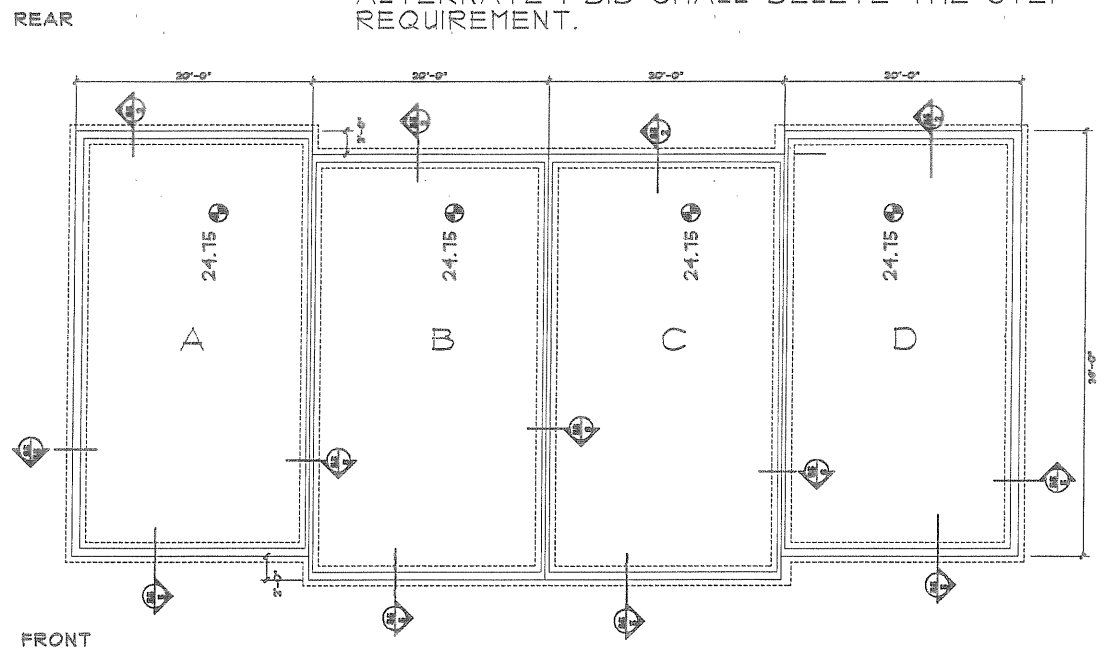
1710 MANOR AVENUE

A NOTE - BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT.

ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.



B 6625 HARTWAIT STREET - ALTERNATE I



1710 MANOR AVENUE - ALTERNATE I

DESIGNED BY:
DRAWN BY:
CHECKED BY:

The
Dieselhorst
Group
8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APTMENTS INC.
FOUNDATION PLAN
SCALE

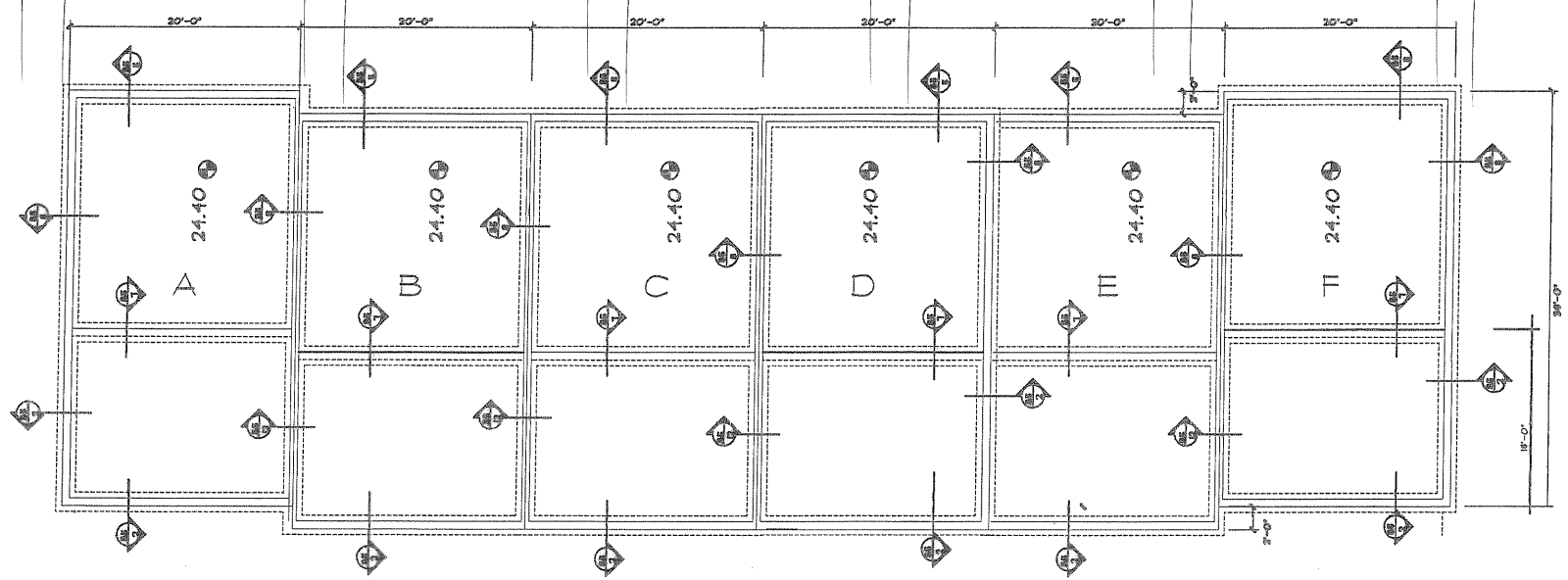
ISSUE DATE	01.12.2016
REVISIONS	
B	4/10/2018
C	1/16/2019

SHEET

S3a

OF

REAR



FRONT

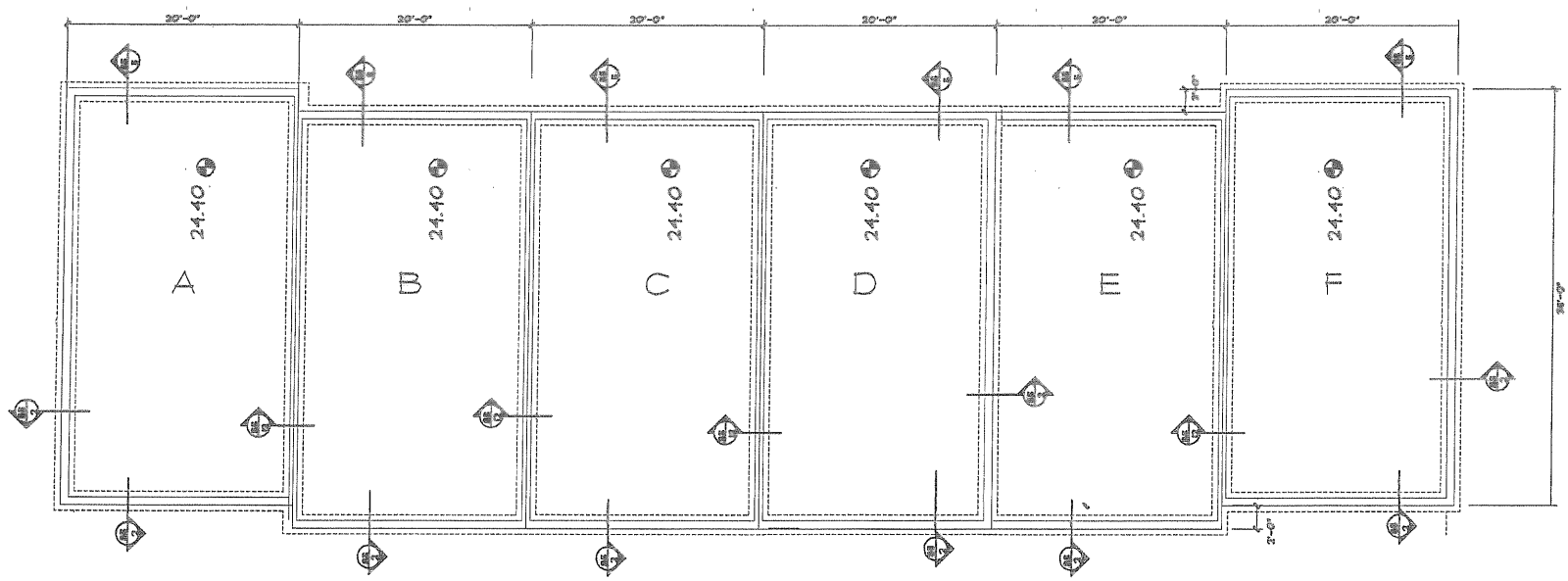
1720 MANOR AVE

△ NOTE -

BASE BID SHALL BE DONE ON THE UPPER FOUNDATION PLAN THAT INCLUDES A STEP UP IN THE MIDDLE OF THE UNIT

ALTERNATE I BID SHALL DELETE THE STEP REQUIREMENT.

REAR



FRONT

1720 MANOR AVE - ALTERNATE I

The DiesseIhorst Group
 8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
 HOLABIRD APARTMENTS INC.
 DISCIPLINE SHEET TITLE SCALE AS SHOWN
 FOUNDATION PLAN

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△ SHEET
S3b
 OF

The
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Group

8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO

HOLABIRD APARTMENTS INC.

SCALE
AS SHOWN

SHEET TITLE
STRUCTURAL DETAILS

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REVISIONS

6.01.2011

B 4/10/2018

C 1/16/2019

SHEET

S4

OF

NOTES

SEE ADDITIONAL NOTES ON DWG S4

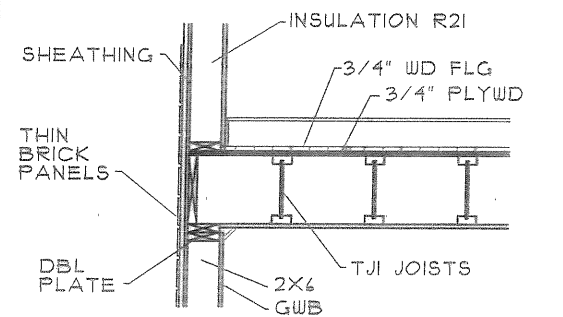
SEE STRUCTURAL NOTES ON DWG S4

ANY WOOD TO REMAIN IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED

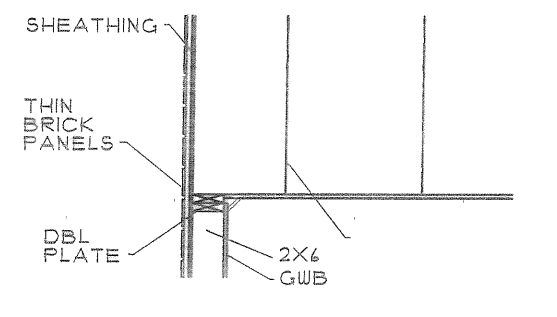
SEE S4 FOR INFO ON SPACING, SIZING, QTY'S OF MATERIALS

SEE S1 TO S4 FOR SIZING AND SPACING INFORMATION

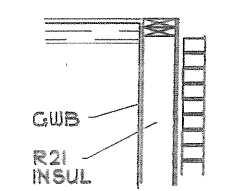
C WALL BETWEEN UNITS:
THE GWB CAN BE 2" SHAFTLINER
OR
5/8" W/ 1" SPACE BETWEEN THE INNER LAYERS W/ 5/8" ON THE INTERIOR SIDE.



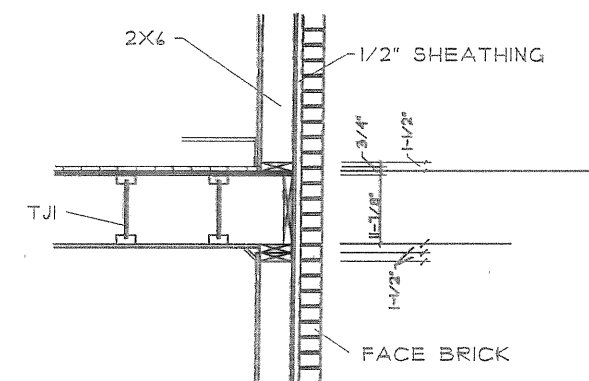
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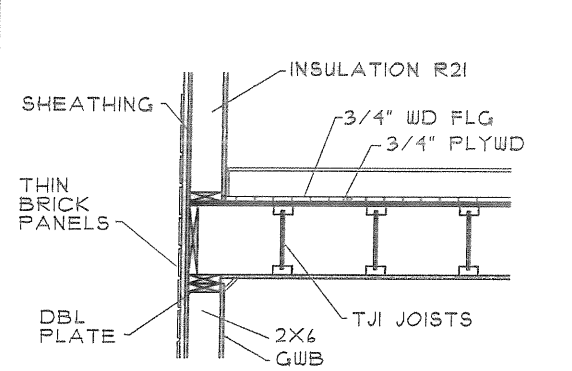
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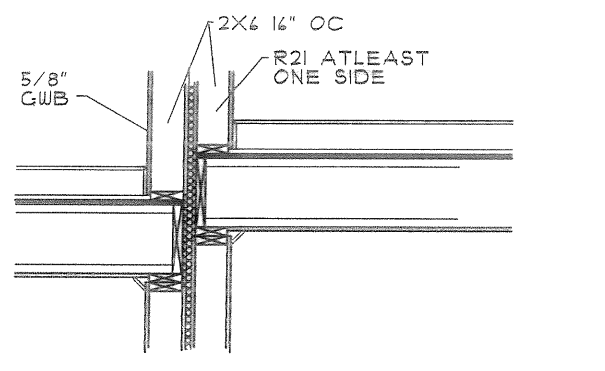
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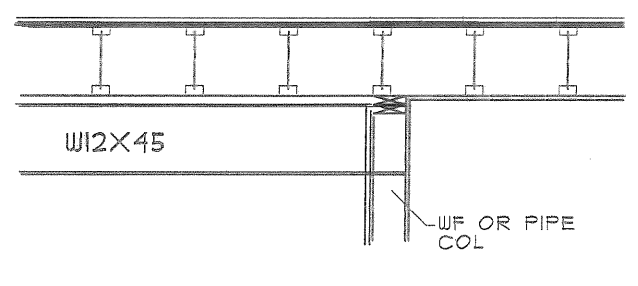
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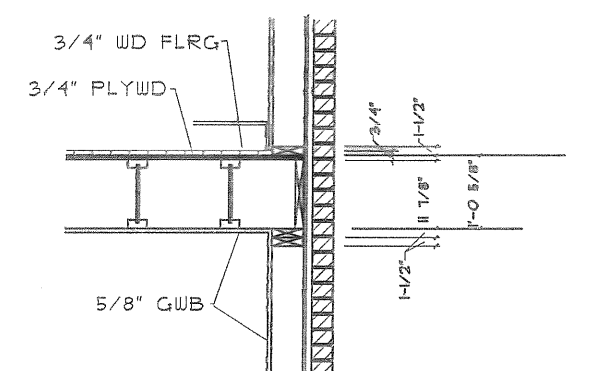
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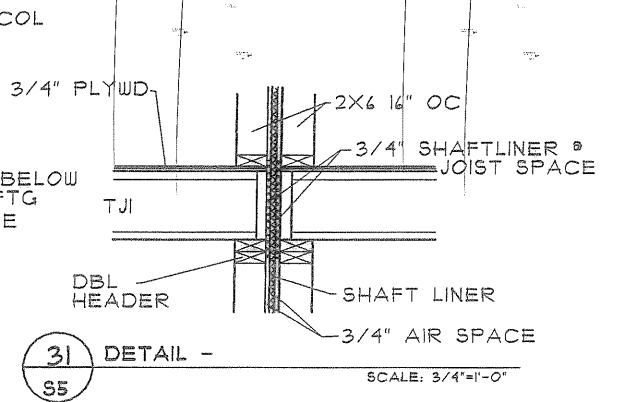
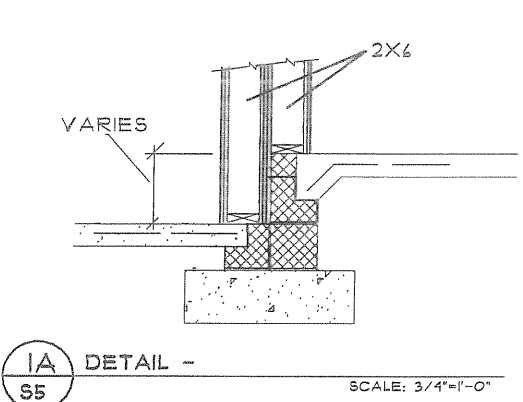
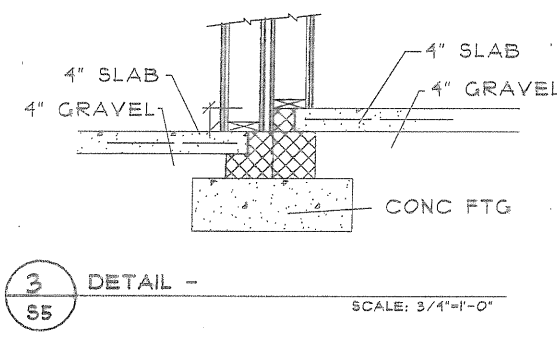
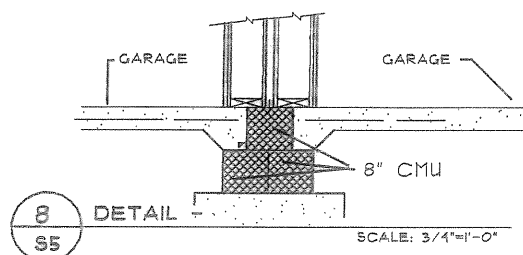
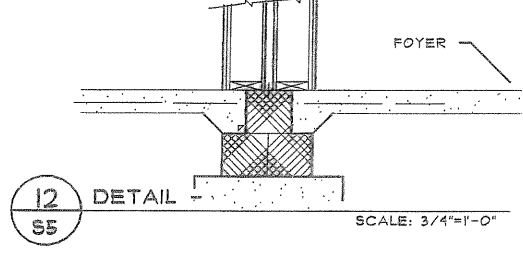
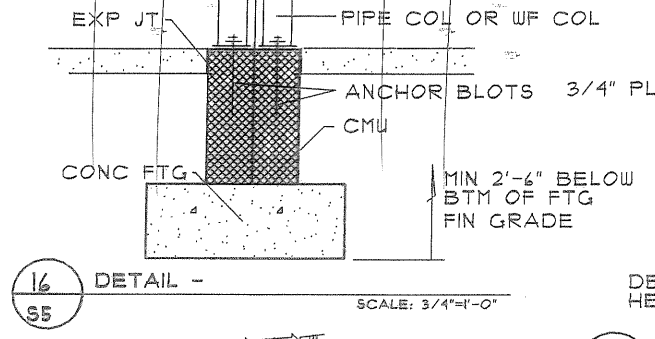
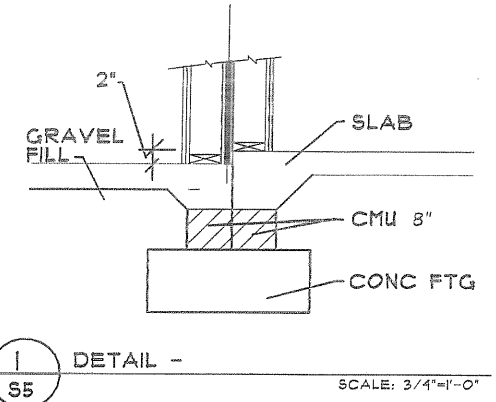
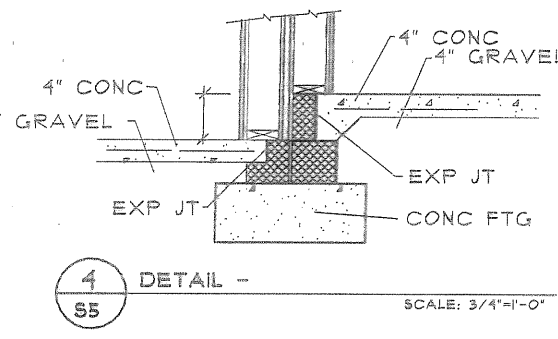
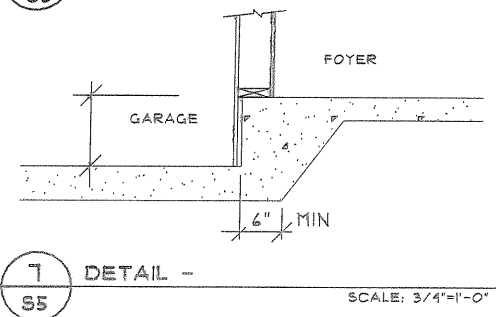
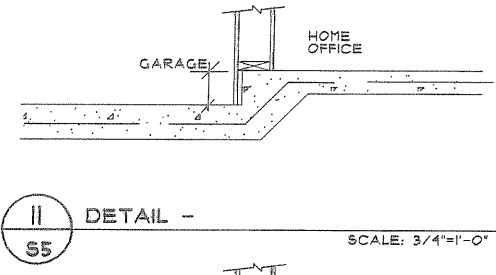
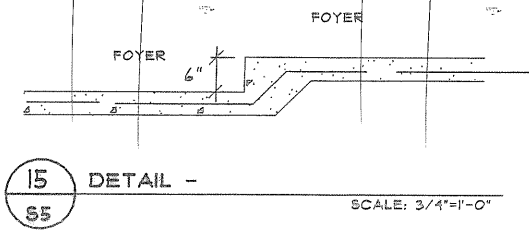
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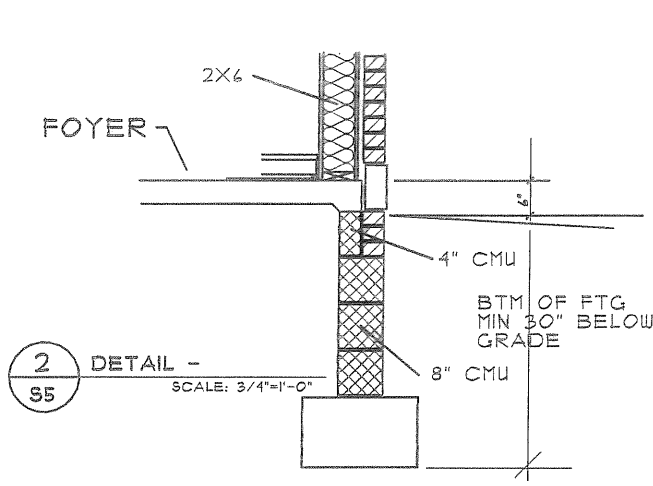
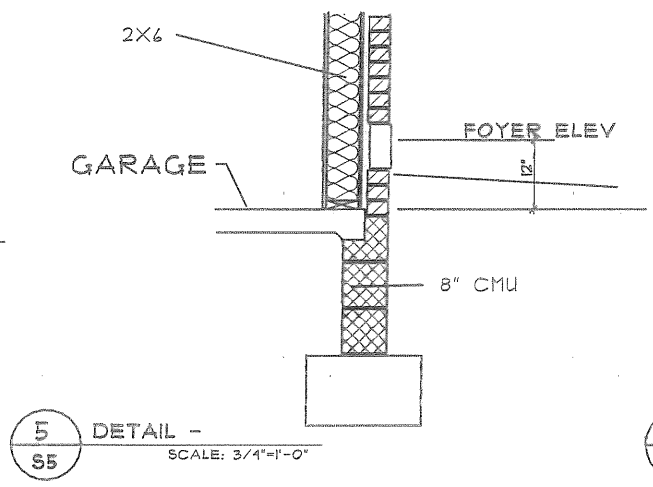
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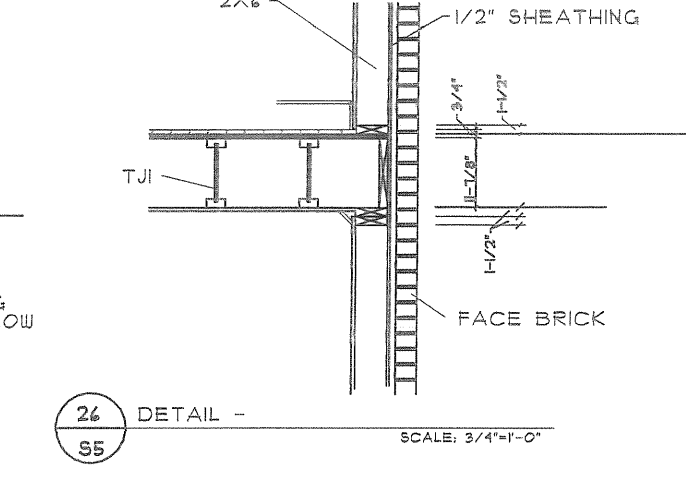
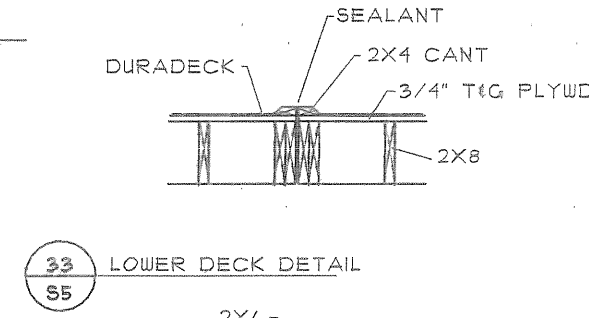
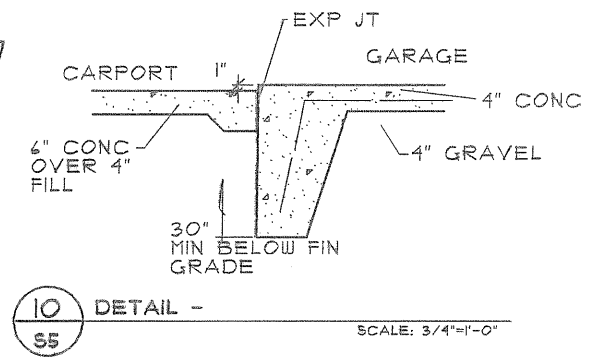
18 DETAIL -
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OR
5/8" W/ 1" SPACE BETWEEN
THE INNER LAYERS W/ 5/8"
ON THE INTERIOR SIDE.



NOTES:
SEE FOUNDATION PLAN FOR FTG SIZES & REBAR SIZE & LOCATION
SEE STR NOTES ON S6 FOR ADDITIONAL INFO CONCERNING SPACING, SIZING, QTY'S ETC OF STRUCTURAL MATLS.
ANY WOOD TO REMAIN IN CONTACT W/ CONCRETE SHALL BE PRESSURE TREATED



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S5
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STRUCTURAL NOTES

DESIGN LOADS

ROOF LOAD	12	PSF	SLEEPING ROOMS	30	PSF
SNOW LOAD	25	PSF	ATTIC W/ STOR	20	PSF
BALCONY	60	PSF	ATTIC W/O STOR	10	PSF
SEISMIC ZONE	4.3		ALL OTHER RMS	40	PSF
BASIC WIND SPEED	10				

FOUNDATIONS

SOIL BEARING CAPACITY IS 4000 PSF.

BOTTOM OF FOOTINGS SHALL BEAR 30 INCHES MINIMUM BELOW FINISHED GRADE AND PROJECT A MINIMUM OF 12" INTO UNDISTURBED SOIL.

BOTTOM OF FOOTING ELEVATIONS ARE NOTE THIS: EL____ AND SHALL BE LOWERED IF THE REQUIRED SOIL BEARING CAPACITY CAN NOT BE ACHIEVED BY COMPACTION.

ALL FILL SHALL BE PLACED PRIOR TO EXCAVATION OF FOOTING. FILL SHALL BE CAOMPACTED TO ____% MAXIMUM DRY DENSITY AS DETERMINED BY AN APPROVED TESTING COMPANY PRIOR TO PLACING FLOOR SLABS.

WALL FOOTINGS, EXCEPT WERE NOTED, SHALL BE A MINIMUM DEPTH OF 12, WITH A 6" PROJECTION BEYOND EACH FACE.

CONCRETE

CONCRETE FOR SLAB ON GRADE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 PSI. ALL OTHER CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI.

SLABS PLACED ON GRADE SHALL BE DONE IN ALTERNATE STRIPS LIMITED TO 10 FEET IN WIDTH OR CHECKERED PATTERN OF 1000 SF.

CONCRETE COVER

REINFORCING STEEL SHALL HAVE MINIMUM COVER AS FOLLOWS:

FOOTINGS	3"	SURFACES EXPOSED TO WEATHER	1-1/2"
SLABS	1-1/2"	BEAMS & COLUMNS	1-1/2"

SLABS ON GROUND SHALL HAVE REINFORCING LOCATED AT MID-DEPTH UNLESS OTHERWISE NOTED.

REINFORCING STEEL

REINFORCING STEEL SHALL CONFORM TO ASTM A-415, GRADE 60 (F=60,000 PSI) AND DEFORMED IN ACCORDANCE WITH ASTM A-305. ALL TIES SHALL BE NEW INTERMEDIATE GRADE STEEL CONFORMING TO ASTM A-415, GRADE 40. REINFORCING BARS SHALL BE FABRICATED, LAPPED AND SPLICED IN ACCORDANCE WITH THE ACI CODE.

PROVIDE 6 X 6 - 10 X 10 WWM IN ALL SLABS ON GROUND UNLESS OTHERWISE NOTED.

ALL WELDED FABRIC SHALL CONFORM TO ASTM A-185.

REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD DETAILS FOR DETAILING REINFORCED CONCRETE STRUCTURES." PROVIDE PLACING ACCESSORIES IN ACCORDANCE WITH ACI RECOMMENDATIONS.

MASONRY

ALL MASONRY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE "AMERICAN STANDARD BUILDING CODE REQUIREMENTS FOR MASONRY", ANSI 211.

PROVIDE HORIZONTAL JOINT REINFORCING EVERY OTHER COURSE ABOVE GRADE.

HOLLOW NON-BEARING CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-120. HOLLOW LOAD BEARING CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-90. SOLID LOAD BEARING CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C-145. MORTAR & GROUT SHALL CONFORM TO ASTM C-270, TYPE S.

PROVIDE A MIN OF THREE COURSES OF SOLID MASONRY UNDER WALL BEARING ENDS OF ALL JOISTS AND BEAMS. SOLID MASONRY MAYBE SEMI-SOLID LIGHT WEIGHT CONCRETE UNITS OR SOLID BRICK WHERE PERMITTED. NO FILLED HOLLOW UNITS WILL BE ACCEPTED.

WALL BRACING: EXTREME CARE AND PROPER PREVENTIVE MEASURES MUST BE TAKEN SO AS TO NOT DAMGE, BULGE OR TIP WALLS DUE TO EQUIPMENT OR EARTH PRESSURE. SHORING, BACK PROPPONG OR OTHER SUITABLE METHODS OF PROTECTION SHALL BE EMPLOYED UNTIL THE FULL DEAD LOAD OF THE BUILDING IS ON THE WALLS. DURING CONSTRUCTION, WALLS SHALL NOT BE BUILT HIGHER THAN 10 TIMES THEIR THICKNESS UNLESS ADEQUATELY BRACED.

STRUCTURAL STEEL

ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.

SHOP AND/OR FIELD CONNECTIONS SHALL BE WELDED OR MADE WITH 3/4" DIAMETER BOLTS.

STEEL BEAMS BEARING ON MASONRY OR CONCRETEE WALLS SHALL HAVE STANDARD ANGLE WALL ANCHORS, UNLESS NOTED.

THE EXPOSED STEEL OVER WINDOWS SHALL BE MC8X22.8 CHANNELS

LINTELS

UNLESS OTHERWISE NOTEE, PROVIDE ANGLE LINTELS WHERE ARCHITECTURAL DRUGS INDICATE FACE BRICK AND PRECAST ELSEWHERE FOR MISC OPENINGS IN WALLS 6" AND THICKER. PROVIDE ONE LINTEL WITH 6" MIN BEARING FOR EACH 4" OF WALL THICKNESS AS FOLLOWS:

L1	OPNG TO 3'-0"	L 3 1/2 X 3	X 1/4	OR 4" X 8" FCC W/#3 T&B
L2	3'-1" TO 4'-0"	L 3 1/2 X 3	X 1/4	OR 4" X 8" FCC W/#4 T&B
L3	4'-1" TO 5'-0"	L 4 X 3 1/2	X 1/4	OR 4" X 8" FCC W/#5 T&B
L4	5'-1" TO 6'-0"	L 5 X 3 1/2	X 1/4	OR 4" X 8" FCC W/#5 T&B
L5	6'-1" TO 8'-0"	L 6 X 3 1/2	X 1/4	OR 4" X 8" FCC W/#5 T&B

TIMBER

MAXIMUM SPANS FOR CEILING / FLOOR JOISTS AND TRUSSES SHALL BE IN ACCORDANCE WITH NFOPA SPAN TABLES AND ACCEPTED ENGINEERING PRACTICES.

THE DESIGN OF METAL PLATE CONNECTD WOOD FLOOR / ROOF TRUSSES SHALL COMPLY WITH TPI DESIGN SPECIFICATIONS FOR "LIGHT METAL PLATE CONNECTED WOOD TRUSSES."

ALL FRAMING MEMBERS SHALLBE DOUGLAS FIR NO 1 OR SOUTHERN PINE DENSE NO 2 WITH Fb = 1400 PSI AND E = 1,600,000 PSI MINIMUM.

JOISTS SHALL HAVE A MINMUM BEARING OF 4 INCHES.

LAMINATED LUMBER

ALL LAMINATED LUMBER SHALL BE FABRICATED IN ACCORDANCE WITH AITC A190.1 STANDARDS BASED ON SOUTHERN PINE, Fb = 2400 PSI, FC = 1700 PSI, E = 1,800,000 PSI, Fv = 200 PSI, AND A DEFLECTION LIMITATION OF 1/180.

LAMINATED ROOF DECK SHALL BE 3" DOUBLE TONGUE AND GROOVE WOOD DECK. WOOD DECK SHALL BE BASED ON RANDOM LENGTH CONTINUOUS WITH Fv = 2440, E = 1,800,000 PSI, 1/180 DEFLECTION 40 PSF LIVE LOAD ON HORIZONTAL PROJECTION. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AITC AND MANUFACTURERS RECOMMENDATIONS.

WOOD HEADERS

WOOD HEADERS SHALL BE IN ACCORDANC WITH THE FOLLOWING:

OPENING SIZE	2X4 PTN		2X6 PTN	
	LUMBER	PARALAN	LUMBER	PARALAN
H1 TO 3'-0"	2-2X6 w/1/2" PLYWD	3-1/2X5-1/2 2 PLY	3-2X6 w/1/2"PLYWDX2	5-1/4X5-1/2 3 PLY
H2 3'-1" TO 4'-0"	2-2X6 w/1/2" PLYWD	3-1/2X5-1/2 2 PLY	3-2X6 w/1/2"PLYWDX2	5-1/4X5-1/2 3 PLY
H3 4'-1" TO 5'-0"	2-2X8 w/1/2" PLYWD	3-1/2X7-1/4 2 PLY	3-2X8 w/1/2"PLYWDX2	5-1/4X7-1/4 3 PLY
H4 5'-1" TO 10'-0"	2-2X12 w/1/2" PLYWD	3-1/2X11-1/4 2 PLY	3-2X12 w/1/2"PLYWDX2	5-1/4X11-1/4 3 PLY

MISCELLANEOUS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING NECESSARY INSERTS, SLEEVES, CLIPS, ANCHORS AND MISC DEVICES AS MAY BE REQUIRED FOR CONSTRUCTION DIMENSIONS AND LOCATIONS OF THESE SHALL BE VERIFIED BEFORE PLACEMENT OF CONCRETE.

ALL BUILDING MATERIALS, SIZING AND SPACING, SHALL BE IN ACCORDANCE WITH THE GOVERNING CODES IDENTIFIED ON DWG C2 OF THE C ONSTRUCTION DOCUMENTS.

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OF

MECHANICAL SPECIFICATIONS

- ALL NEW DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE MOST RECENT SMACNA STANDARDS. RIGIDITY CLASS, DIMENSIONS OF TRANSVERSE JOINTS AND INTERMEDIATE REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE PHYSICAL SPACE LIMITATIONS OF PROJECT. THE ENTIRE AIR DISTRIBUTION SYSTEM INCLUDING ALL BRANCH DUCTWORK AND DIFFUSER CONNECTIONS SHALL BE SEALED AS REQUIRED TO PREVENT AIR LEAKAGE IN EXCESS OF 5%. DUCT SEALANT HAVE A FIRE HAZARD RATING NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. ALL SQUARE THROUGH 90 ELBOWS SHALL HAVE TURNING VANES. FIBERGLASS DUCTWORK WILL NOT BE ACCEPTABLE.
- ALL DUCTWORK DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. DUCTWORK SIZES SHOWN DO NOT ACCOUNT FOR DUCTWORK LINER OR INSULATION WRAP THICKNESS.
- RETURN AIR DUCTWORK SHALL BE INTERNALLY INSULATED WITH 1" THICK FIBERGLASS DUCT LINER WITH FIRE-RESISTANT COATING ON THE SURFACE FACING THE AIR STREAM. DUCT LINER SHALL BE 2-LB DENSITY WITH A MAXIMUM THERMAL CONDUCTIVITY (K) OF 0.26 AT 75 DEGREES F. ALL SUPPLY AND EXHAUST DUCTWORK SHALL BE EXTERNALLY INSULATED WITH A FIBERGLASS FLEXIBLE BLANKET TYPE OF INSULATION 0.6 LB DENSITY, 1-1/2" THICK WITH VAPOR BARRIER FACING, UNLESS OTHERWISE NOTED ON PLANS.
- ALL NEW FLEXIBLE DUCT SHALL BE INSULATED WITH FIBERGLASS VAPOR JACKET HAVING A MAXIMUM THERMAL CONDUCTIVITY (K) OF 0.23 AT 75 DEGREES F. NEW FLEXIBLE DUCT SHALL BE WOUND SPIRAL ALUMINUM HELIX OR REINFORCED ALUMINUM FOIL FABRIC LOCKED INTO A SPIRAL ALUMINUM HELIX SUITABLE FOR A POSITIVE WORKING PRESSURE OF AT LEAST 3" W.C. NEW FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 3, TYPE 5, TYPE 8 OR APPROVED EQUAL.
- ALL LINER AND INSULATION SHALL HAVE A COMPOSITE (INSULATION, JACKET OR FACING, AND ADHESIVE) FIRE HAZARD RATING NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED AS DETERMINED BY THE APPLICABLE UL OR ASTM STANDARD. ACCESSORIES SUCH AS COATINGS, TAPES, AND ADHESIVES SHALL HAVE THE SAME COMPONENT RATINGS. INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- THE MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 8'-0", WHERE A LENGTH GREATER THAN 8'-0" OCCURS, CONTRACTOR SHALL EXTEND THE DUCTWORK WITH EXTERNALLY INSULATED ROUND SHEET METAL OF THE SAME SIZE AS THE FLEXIBLE DUCT.
- FLEXIBLE DUCTWORK SHALL NOT EXTEND THROUGH FULL HEIGHT PARTITIONS. CONTRACTOR SHALL EXTEND RIGID ROUND DUCTWORK THROUGH FULL HEIGHT PARTITIONS BEFORE CONNECTING FLEXIBLE DUCTWORK.
- PROVIDE SPIN COLLAR BRANCH FITTINGS, CONSTRUCTED OF GALVANIZED STEEL, WITH VOLUME DAMPER AT ALL NEW ROUND BRANCH TAPS SERVING ALL SUPPLY AIR CEILING DIFFUSERS AND EXHAUST AIR CEILING GRILLES OR REGISTERS. WHERE THE DEPTH OF THE SPIN COLLAR FITTING SHALL NOT PERMIT A SPIN COLLAR FITTING, PROVIDE AN EQUIVALENT FLAT OVAL CONNECTION WITH MANUAL VOLUME DAMPER AND AN OVAL TO ROUND TRANSITION FOR EACH DIFFUSER TAP.
- UNLESS OTHERWISE NOTED ON THE DRAWINGS, ALL DUCTWORK SHALL BE INSTALLED AS CLOSE TO THE BOTTOM OF THE STRUCTURE AS POSSIBLE. ALL DUCTWORK SHALL BE INSTALLED TO MAXIMIZE CLEARANCE BETWEEN THE BOTTOM OF DUCTWORK AND THE TOP OF CEILING CONSTRUCTION. DUCTWORK SHALL BE CONFIGURED, POSITIONED, AND INSTALLED TO PERMIT THE INSTALLATION OF LIGHT FIXTURES. PROVIDE ALL NECESSARY RISERS, DROPS, OFFSETS, AND OTHER FITTINGS AS REQUIRED TO ACCOMMODATE THIS CRITERIA. ANY DUCTWORK WHICH MUST TRANSITION AND DROP BELOW PIPING OR OTHER DUCTWORK SHALL TRANSITION BACK TO THE BOTTOM OF THE STRUCTURE IMMEDIATELY.
- PROVIDE FLEXIBLE CONNECTION AT INLETS AND OUTLETS OF ALL UNITS, AND FANS. MATERIAL SHALL BE VENT-FABRICS, INC., "METALEDGE VENTGLAS" OR APPROVED EQUAL. ENDS OF FABRIC MUST BE OVERLAPPED 2" AND GLUED WITH R-H PRODUCTS COMPANY, INC., NUMBER XLS CONTACT GLUE. SEWING OR STAPLING MAY BE USED IN CONJUNCTION WITH GAINING. AT LEAST ONE INCH SLACK SHALL BE ALLOWED IN ALL FLEXIBLE CONNECTION INSTALLATIONS TO INSURE THAT NO VIBRATION IS TRANSMITTED.
- ALL NEW SUPPLY AIR DIFFUSERS AND EXHAUST OR RETURN AIR GRILLES AND REGISTERS SHALL BE AS INDICATED ON THE DIFFUSER SCHEDULE OR ON THE DRAWINGS. DIFFUSERS SHALL BE SUITABLE FOR INSTALLATION IN THE CEILING TYPE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. A NECK SIZE OF DIFFUSERS SHALL BE THE SAME AS THE FLEXIBLE SUPPLY DUCT UNLESS OTHERWISE INDICATED. AIR VOLUME SHALL BE AS INDICATED ON THE DRAWINGS. PROVIDE AIR THROW WITH 4-WAY ADJUSTABLE DISCHARGE PATTERN UNLESS OTHERWISE INDICATED.
- THE INSTALLATION OF ALL VIBRATION ISOLATION DEVICES AND SYSTEMS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS AND PROCEDURES OF THE VIBRATION ISOLATOR MANUFACTURER. IT SHALL BE THE RESPONSIBILITY OF THE VIBRATION ISOLATOR MANUFACTURER TO COORDINATE THE SELECTION OF PIPING SUPPORTS WITH EQUIPMENT SUPPORTS TO PROVIDE FOR A CAREFULLY ENGINEERED SYSTEM DESIGNED TO ACCOMMODATE AND CONTRACTOR WITHOUT CREATING EXCESSIVE STRESSES AT ANY EQUIPMENT CONNECTIONS OR IN ANY PORTION OF THE PIPING.
- ALL NEW VIBRATION ISOLATORS SHALL BE FURNISHED WITH ZINC ELECTROPLATED HARDWARE TO PREVENT CORROSION AND BOLT FREEZE-UP AND TO MAINTAIN ATTRACTIVE APPEARANCE. TO PREVENT CORROSION, STEEL OR CAST IRON HOUSING SHALL BE TREATED BY PHOSPHATING AND PAINTING WHILE ALUMINUM HOUSING SHALL BE ETCHED IN CHROMIUM-COAT SOLUTION AND PAINTED. ISOLATORS EXPOSED TO WEATHER SHALL HAVE THE SPRING CADMIUM PLATED AND NEOPRENE COATED. HOUSINGS SHALL BE OF CAST ALUMINUM, HOT-DIPPED GALVANIZED STEEL, OR STEEL CADMIUM PLATED AFTER FABRICATION. ISOLATORS FOR EQUIPMENT SUBJECT TO WIND LOADING SHALL BE PROVIDED WITH UPLIFT RESTRAINTS.
- PROVIDE TYPE M COPPER PIPING, WITH SOLDER JOINTS AND DRAINAGE-TYPE FITTINGS, FOR ALL CONDENSATE DRAIN PIPING. INSTALL CONDENSATE DRAIN PIPING WITH A SLOPE OF 1/8" PER LINEAR FOOT AND PROVIDE A TRAP AT EACH UNIT. GRAVITY DRAINAGE IS SHOWN ON THE PLANS. IF NOT POSSIBLE, INSTALL A FLENUM RATED CONDENSATE PUMP USING 1" TYPE M COPPER CONDENSATE LINES FOR CONDENSATE PUMP DISCHARGE PIPING. INSTALL A BACKWATER VALVE AT THE DISCHARGE OF ALL CONDENSATE PUMPS.
- REFRIGERANT PIPING SHALL BE SOFT DRAWN TYPE ACR COPPER, MAXIMUM LENGTH OF REFRIGERANT PIPING SHALL BE AS PER MANUFACTURERS REQUIREMENTS.
- EXPOSED REFRIGERANT, POWER AND CONTROL WIRING FROM BUILDING TO THE REMOTE HEAT PUMP UNIT MUST BE PROTECTED. PIPING MUST BE BUNDLED AND COVERED WITH P.V.C. SPLIT INSULATION JACKET WITH CEMENTED JOINTS.
- EXHAUST DUCTWORK MUST BE RIGID DUCT WITH ACCESSIBLE CLEANOUTS TO VACUUM CLEAN ENTIRE DUCT SYSTEM.
- ALL DUCT JOINTS AND SEAMS SHALL BE SEALED WITH MASTIC OR SIMILAR PRODUCT AS LISTED IN SMACNA MANUAL N.
- DUCT HANGERS SHALL NOT INCLUDE FASTENERS THAT PENETRATE THE DUCT.

INSULATION

- INSULATE ALL SUPPLY AND OUTSIDE AIR DUCTWORK WHICH IS NOT SOUND LINED WITH (R-6) 1-1/2" THICK, 1-1/2 POUNDS PER CUBIC FOOT DENSITY FIBERGLASS INSULATION DUCT WRAP WITH AN INTEGRAL VAPOR BARRIER. MAINTAIN 3" CLEARANCE FROM THE DUCT INSULATION TO RECESSED LIGHTING FIXTURES.
- INSULATE ALL CONDENSATE DRAIN PIPING WITH 1/2" THICK FLEXIBLE UNICELLULAR PIPING INSULATION.
- INSULATE ALL REFRIGERANT PIPING WITH 1-1/2" THICK FLEXIBLE UNICELLULAR PIPING INSULATION.

MECHANICAL SPECIFICATIONS

INSULATION (CONT.)

- INSTALL ALL INSULATION IN ACCORDANCE WITH ASTM E84. PROVIDE INSULATION WITH A FLAME SPREAD RATING OF LESS THAN 25 AND A SMOKE DEVELOPED RATING OF LESS THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84.
- MAINTAIN VAPOR BARRIER ON ALL INSULATION APPLIED TO ALL EQUIPMENT, PIPING, OR DUCTWORK WHICH CONVEYS LIQUID OR AIR AT A TEMPERATURE OF LESS THAN 70 DEGREES F.
- PIPING INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, INCLUDING THAT CAUSED BY SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND, AND SHALL PROVIDE SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE PERMITTED.
- INSULATE ALL SUPPLY AND OUTSIDE AIR DUCTWORK LOCATED IN ATTIC SPACE WHICH IS NOT SOUND LINED WITH (R-8) 2" THICK, 1-1/2 POUNDS PER CUBIC FOOT DENSITY FIBERGLASS INSULATION DUCT WRAP WITH AN INTEGRAL VAPOR BARRIER. MAINTAIN 3" CLEARANCE FROM THE DUCT INSULATION TO RECESSED LIGHTING FIXTURES.
- MECHANICAL PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F (41°C) OR BELOW 55°F (13°C) SHALL BE INSULATED TO A MINIMUM OF R-3.

MECHANICAL GENERAL NOTES

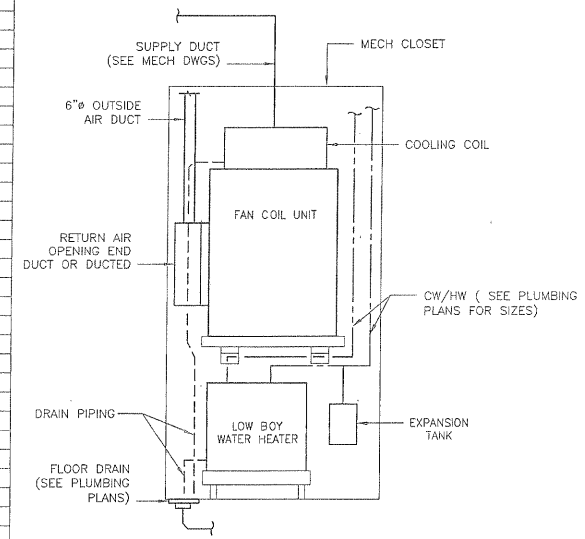
- ALL WORK SHALL BE IN ACCORDANCE WITH ALL STATE CODE-REQUIREMENTS, LOCAL AUTHORITIES, AND NFPA 90.
- PRIOR TO BID, THE CONTRACTOR SHALL EXAMINE ALL PROJECT DOCUMENTS TO DEVELOP A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE. FAILURE TO REVIEW ALL CONTRACT DRAWINGS AND EXISTING CONDITIONS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM ALL WORK REQUIRED. THE CONTRACTOR SHALL, UPON REVIEW OF THE DRAWINGS AND EXISTING CONDITIONS, ADVISE THE OWNER OF ANY DISCREPANCIES WHICH WILL AFFECT THE WORK REQUIRED.
- IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INDICATE FINISHED WORK THAT IS FULLY ADJUSTED, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE", UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL FURNISH AND INSTALL THE COMPLETE AND FUNCTIONAL SYSTEMS REQUIRED, INCLUDING EQUIPMENT, CONTROLS, DUCTWORK, PIPING, WIRING, VALVES, AND ALL OTHER APPURTENANCES AND HARDWARE FOR A COMPLETE SYSTEM.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE EQUIPMENT AS REQUIRED BY CODE WITHOUT ADDITIONAL COST TO THE OWNER, REGARDLESS WHETHER THE ITEMS ARE INDICATED IN THE CONTRACT DRAWINGS OR SPECIFICATIONS. SUCH ITEMS COULD BE, BUT ARE NOT LIMITED TO, SUPPORTS, INSULATION, WIRING, LUBRICATION, MOTOR CONTROLLERS, REFRIGERANTS, START-UP AND SERVICE, ETC.
- THE CONTRACTOR SHALL FURNISH AND INSTALL A FIRST CLASS SYSTEM AND SHALL COMPLETELY COORDINATE WITH ALL OTHER TRADES.
- ALL CONFLICTS WHICH MAY PREVENT THE COMPLETION OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK UNTIL THE CONFLICT IS RESOLVED.
- THE CONTRACTOR SHALL INSTALL ALL MECHANICAL AND ELECTRICAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL COMPONENTS AND ACCESSORIES REQUIRED FOR THE COMPLETE INSTALLATION. THE CONTRACTOR SHALL PROVIDE SUCH ITEMS TO COMPLETE THE ENTIRE SYSTEM AND PLACE IN PROPER OPERATION IN ACCORDANCE WITH APPLICABLE CODES, INDUSTRY STANDARDS, AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
- LOCATIONS OF EQUIPMENT, PIPING, VALVES, ETC. ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN EXACT LOCATIONS AND ESTABLISH EXACT DIMENSIONS ON THE JOB SITE AFTER STUDYING THE CONDITIONS.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE FOR ALL INSPECTIONS BY LOCAL AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ADDITIONAL FITTINGS AND ROUTING OF DUCTWORK AS REQUIRED TO ASSURE THE AIR DISTRIBUTION SYSTEMS ARE INSTALLED PROPERLY AND IN ACCORDANCE WITH SMACNA STANDARDS.
- THE CONTRACTOR SHALL INSTALL ALL AIR DISTRIBUTION SYSTEMS SO AS TO NOT INTERFERE WITH THE PLUMBING, STRUCTURAL, ELECTRICAL, ARCHITECTURAL AND FIRE PROTECTION SYSTEMS. THE CONTRACTOR SHALL COORDINATE THIS PROJECT REQUIREMENT.
- ALL NEW AIR SYSTEMS SHALL BE BALANCED AND TESTED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. IT SHALL BE ESTABLISHED THAT ALL EQUIPMENT IS CAPABLE OF OPERATING AT THE DESIGN CAPACITY AND ALL CONTROLS ARE OPERATING TO THE SATISFACTION OF THE OWNER. ALL SYSTEMS SHALL BE CHECKED FOR EXCESSIVE NOISE OR VIBRATION AND ALL SUCH CONDITIONS BE CORRECTED BY THE CONTRACTOR. A BALANCING CONTRACTOR SHALL BE NEBB OR AABC. THE CONTRACTOR SHALL SUBMIT A CERTIFIED BALANCING REPORT TO THE OWNER UPON COMPLETION OF THE PROJECT.
- PROVIDE NFPA APPROVED FIRE STOPPING AT ALL PIPING AND CONDUIT PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND COMPONENTS.
- THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL MOTOR STARTERS FOR MECHANICAL EQUIPMENT AND THE EQUIPMENT SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR.
- THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP, MATERIALS, EQUIPMENT, AND RELATED ITEMS FOR A PERIOD AFTER COMPLETION OF THE PROJECT AND REPLACE ANY DEFECTIVE MATERIALS, EQUIPMENT, AND RELATED ITEMS WITHIN THE GUARANTEE PERIOD. THE PERIOD SHALL BE TWELVE MONTHS FROM THE COMPLETION OF THE PROJECT UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATIONS OR CONTRACT DOCUMENTS.
- ALL CONTRACT DOCUMENTS INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING ARE COMPLEMENTARY AND MUST BE USED IN COMBINATION BY THE CONTRACTOR TO OBTAIN COMPLETE CONSTRUCTION INFORMATION AND PROVIDE A COMPLETE OPERABLE SYSTEM.
- THE CONTRACTOR SHALL PROVIDE MINIMUM OF FOUR COPIES OF SUBMITTALS ON UNITS, FIXTURES, DIFFUSERS, AND FANS FOR ENGINEER REVIEW PRIOR TO PURCHASE. SUBMITTALS SHALL INCLUDE ALL INFORMATION NECESSARY TO INDICATE COMPLIANCE WITH THE SPECIFIED MATERIALS.
- PROVIDE SUBMITTALS OF ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO THE FOLLOWING: (SUBMITTALS SHALL BE IN ACCORDANCE WITH PROJECT GENERAL CONDITIONS AND ARCHITECTURAL DIVISIONS):
 - SPLIT SYSTEM INDOOR & OUTDOOR UNITS
 - FANS
 - HEATERS
 - GAS FURNACES
 - PIPING MATERIAL
- REFER TO SPECIFICATIONS ON THIS DRAWING FOR MORE INFORMATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COORDINATING ALL EQUIPMENT (INCLUDING OWNER SUPPLIED) WITH DUCT, PIPING AND CONDUITS SHOWN ON MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS.
- DUCTWORK & EQUIPMENT SHOWN ARE SHOWN FOR DIAGRAMMATICAL PURPOSES. EQUIPMENT OR DUCTWORK MIGHT HAVE TO BE SHIFTED SOME DUE TO EXISTING ELECTRICAL CONDUIT, DUCTWORK, SPRINKLER PIPING & PLUMBING PIPING.
- ALL THERMOSTAT SHALL BE A 7-DAY PROGRAMMABLE THERMOSTAT.
- MECHANICAL CONTRACTOR SHALL COORDINATE EQUIPMENT WITH THE PLUMBING CONTRACTOR & THE ELECTRICAL CONTRACTOR PRIOR TO FINAL BID.
- ALL AIR TRANSFER GRILLES SHALL BE AMERICAN LOUVER SIGHT GUARD GRILLE.
- INSTALLED BACKDRAFT DAMPERS ON ALL INTAKE/EXHAUST PENETRATING EXTERIOR WALL.
- ALL AIR HANDLERS SHALL HAVE A MANUFACTURER'S DESIGNATION FOR AN AIR LEAKAGE OF NO MORE THAN 2 PERCENT OF THE DESIGN AIR FLOW RATE WHEN TESTED IN ACCORDANCE WITH ASHRAE 19.3.
- WHEN ELECTRIC HEATER IS BEING USED AN OUTDOOR AMBIENT THERMOSTAT ACCESSORY SHALL BE INSTALLED ON HEAT PUMP.
- ALL DRYERS THAT ARE INSTALLED SHALL HAVE LONG VENT OPTION.

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
ABV-FV	ABOVE
AC	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECTURAL
BLW	BELOW
BTU	BRITISH THERMAL UNIT
BPD	BYPASS DAMPER
CD	CONDENSATE
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
DB, db	DRY BULB
DEG	DEGREES
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
EA	EACH/EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
(E)	EXISTING TO REMAIN
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
F	FAHRENHEIT
FLA	FULL LOAD AMP
FPM	FEET PER MINUTE
FTZ	SQUARE FEET
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HR	HOUR
HZ	HERTZ
IN WG	INCH WATER GAUGE
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LF	LINEAR FOOT
LV	LEAVING
MAX	MAXIMUM
MBH	1000 BRITISH THERMAL UNITS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MOCP	MAXIMUM OVERCURRENT PROTECTION
MOD	MOTORIZED DAMPER
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
ODB	OPPOSED BLADE DAMPER
PD	PRESSURE DROP
PH	PHASE
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SENS	SENSIBLE
SF	SQUARE FEET
SD	SMOKE DETECTOR
SP	STATIC PRESSURE
TEMP	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UNO	UNLESS OTHERWISE NOTED
V	VOLTAGE
VD	VOLUME DAMPER
VEL	VELOCITY
W	WATTS
WB, wdb	WET BULB
WG	WATER GAUGE
W/	WITH
Ø	ROUND
ZD	ZONE DAMPER

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION
	NEW DUCTWORK OR EQUIPMENT
	NEW DUCT SIZE TRANSITION FITTING
	RISE IN SUPPLY AIR DUCT
	RISE IN RETURN AIR DUCT
	NEW FLEXIBLE DUCTWORK
	NEW SUPPLY AIR CEILING DIFFUSER
	NEW RETURN AIR CEILING GRILLE
	NEW CEILING MOUNTED EXHAUST FAN
	THERMOSTAT (WITH CONTROL WIRING/TUBING)
	REFERENCED NEW WORK PLAN NOTE DESIGNATION
	MANUAL VOLUME DAMPER
	POINT OF CONNECTION (NEW TO EXISTING)
	DUCT SMOKE DETECTOR
	MINIMUM 1" UNDERCUT DOOR
	PLAN OR DETAIL NUMBER
	DRAWING NUMBER WHERE PLAN OR DETAIL APPEARS
	DIFFUSER/REGISTER/GRILLE DESIGNATION WITH CFM INDICATION
	MOTORIZED DAMPER



**TYPICAL GROUND FLOOR UNIT 1A/1B
MECH CLOSET DETAIL**
NOT TO SCALE

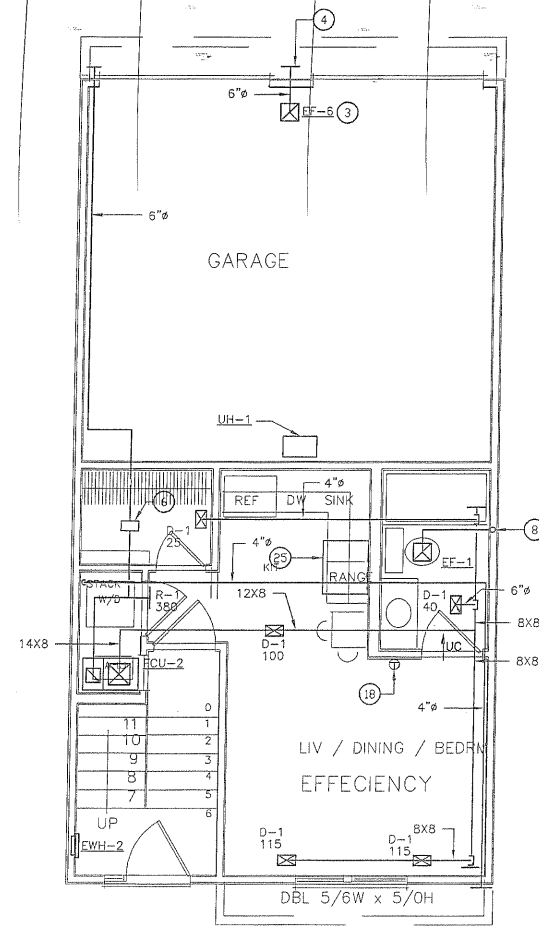
The Diesselhorst Group
8511 Virginia Ave Annandale, VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
SCALE AS SHOWN
SHEET TITLE MECHANICAL COVER SHEET
DISCIPLINE

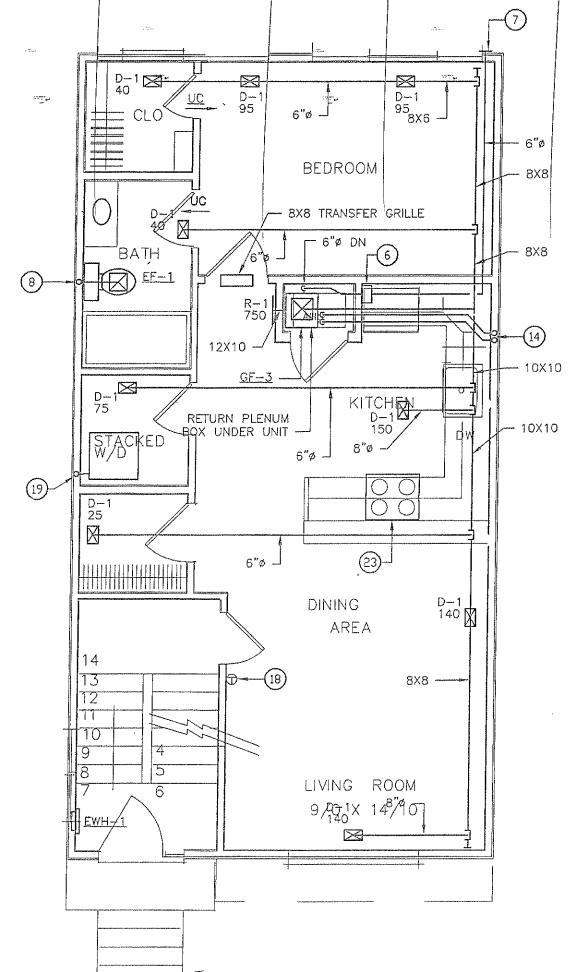
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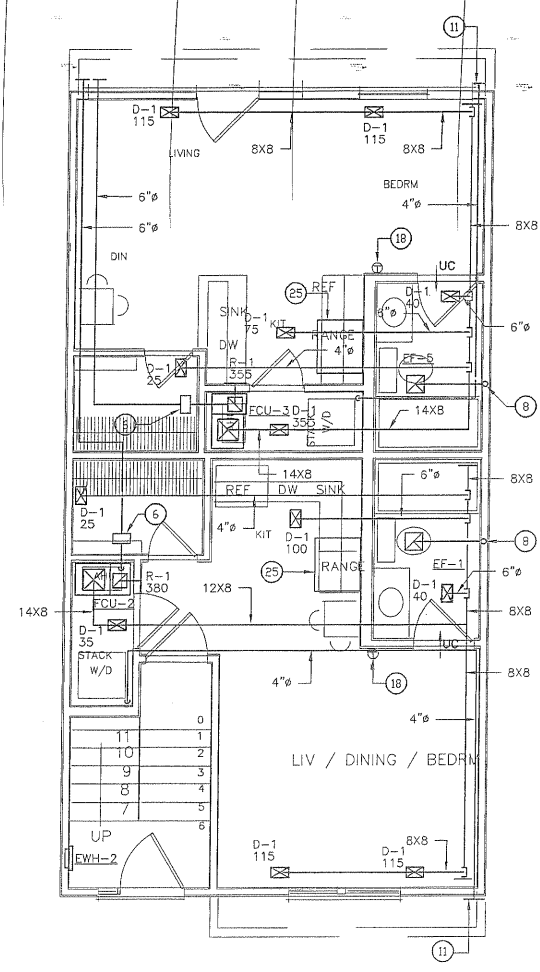
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**UNIT TYPE 1/ GARAGE OPTION
GROUND FLOOR PLAN - HVAC**
SCALE: 1/4"=1'-0"



UNIT 1 TYPE GROUND FLOOR PLAN - HVAC
SCALE: 1/4"=1'-0"



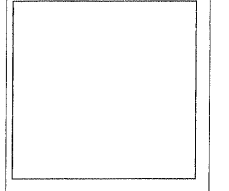
**UNIT TYPE 1A/1B OPTION-
GROUND FLOOR PLAN - HVAC**
SCALE: 1/4"=1'-0"

DRAWINGS NOTES

- ① OPTIONAL ROOFTOP UNIT ONLY INSTALLED WITH UNIT 1B.
- ② 4" BATHROOM EXHAUST UP TO ROOF CAP EQUAL TO GREENHECK MODEL RJ-4. PROVIDE DUCT TRANSITION.
- ③ PROVIDE SOFFIT FOR EXHAUST IF NEEDED.
- ④ EXHAUST WALL CAP WITH 6" INLET CONNECTION.
- ⑤ HEAT PUMP UNIT SHALL BE SECURED TO ROOF STRUCTURE.
- ⑥ 6" AIRCYCLER MOTORIZED DAMPER.
- ⑦ OUTSIDE AIR WALL CAP WITH 6" INLET CONNECTION.
- ⑧ 3" BATHROOM EXHAUST UP IN WALL CAVITY.
- ⑨ HEAT PUMP ONLY INSTALLED IN OPTIONAL 1A/1B OPTION.
- ⑩ 3" BATHROOM EXHAUST DN IN WALL CAVITY.
- ⑪ DRYER EXHAUST WALL CAP WITH 4" INLET CONNECTION.
- ⑫ 3" BATHROOM EXHAUST UP & DN IN WALL CAVITY.
- ⑬ AIR COOLED CONDENSOR NOT INSTALLED WHEN 1A/1B OPTION IS USED.
- ⑭ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP.
- ⑮ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP & DN.
- ⑯ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING DN.
- ⑰ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP THROUGH ROOF TO CONCENTRIC VENT.
- ⑱ 1 COMFORT PROGRAMMABLE THERMOSTAT.
- ⑲ 4" DRYER EXHAUST UP.
- ⑳ 4" DRYER EXHAUST UP & DN.
- ㉑ 4" DRYER EXHAUST DN.
- ㉒ 4" DRYER EXHAUST UP TO ROOF CAP EQUAL TO GREENHECK MODEL RJ-6X9.
- ㉓ DENLAR RECIRCULATING RANGE HOOD MODEL D1030F. 130 CFM, 30" WIDE, STAINLESS STEEL CONSTRUCTION, FIRE SUPPRESSION SYSTEM FACTORY INSTALLED. UNIT INCLUDES A FUEL SHUT-OFF DEVICE FOR GAS APPLIANCE ACTIVATED AT SUPPRESSION SYSTEM DISCHARGE, 115 V, 5 AMP BREAKER.
- ㉔ ONLY APPLIES IF 1A/1B OPTION IS SELECTED.
- ㉕ DENLAR RECIRCULATING RANGE HOOD MODEL D1030F. 130 CFM, 30" WIDE, STAINLESS STEEL CONSTRUCTION, FIRE SUPPRESSION SYSTEM FACTORY INSTALLED. UNIT INCLUDES A FUEL SHUT-OFF DEVICE FOR GAS APPLIANCE ACTIVATED AT SUPPRESSION SYSTEM DISCHARGE, 115 V, 50 AMP BREAKER.

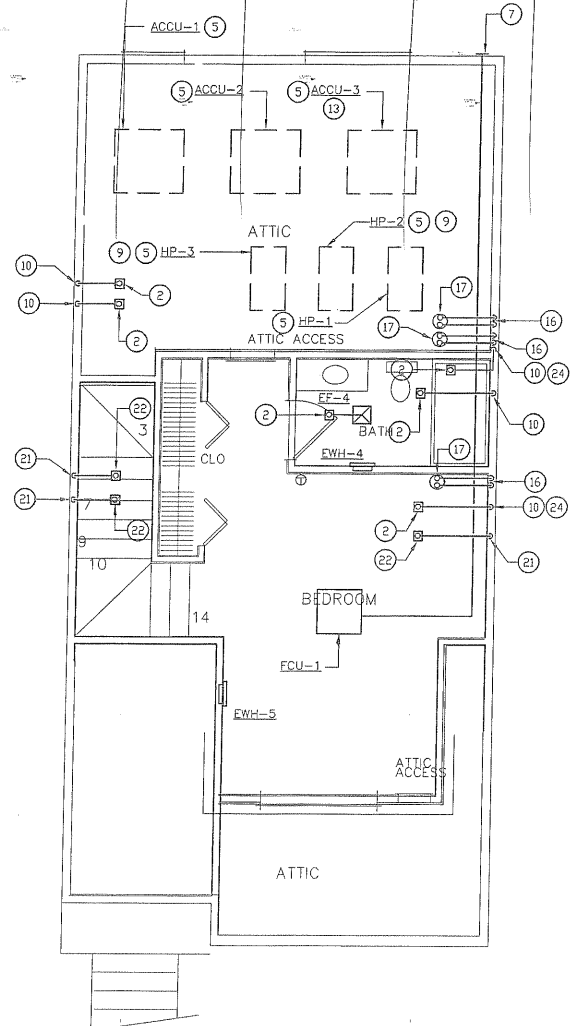
The
Diesselhorst
Group
8511 Virginia Ave, Annandale,
VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
DISCIPLINE: HVAC FLOOR PLANS
SCALE: AS SHOWN
SHEET TITLE: HVAC FLOOR PLANS

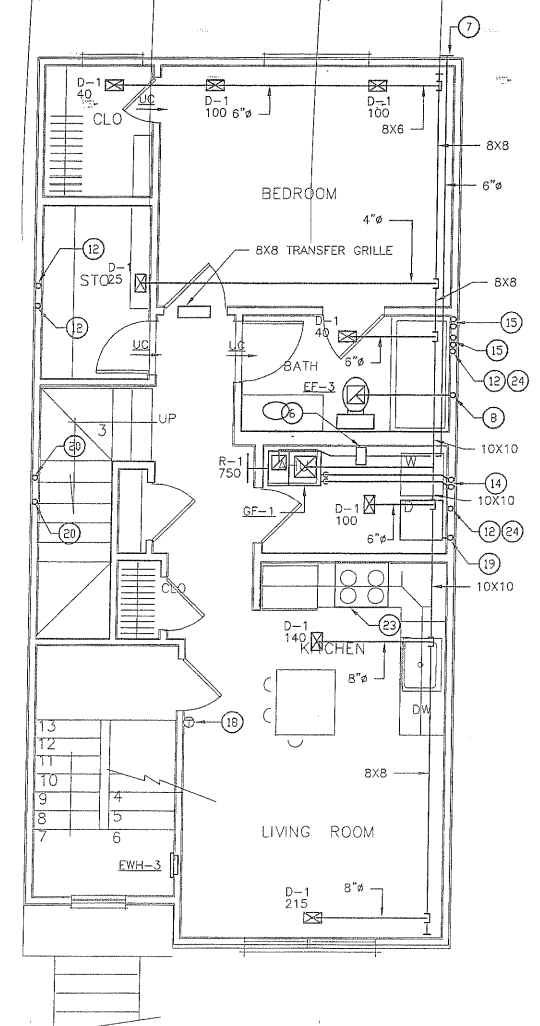


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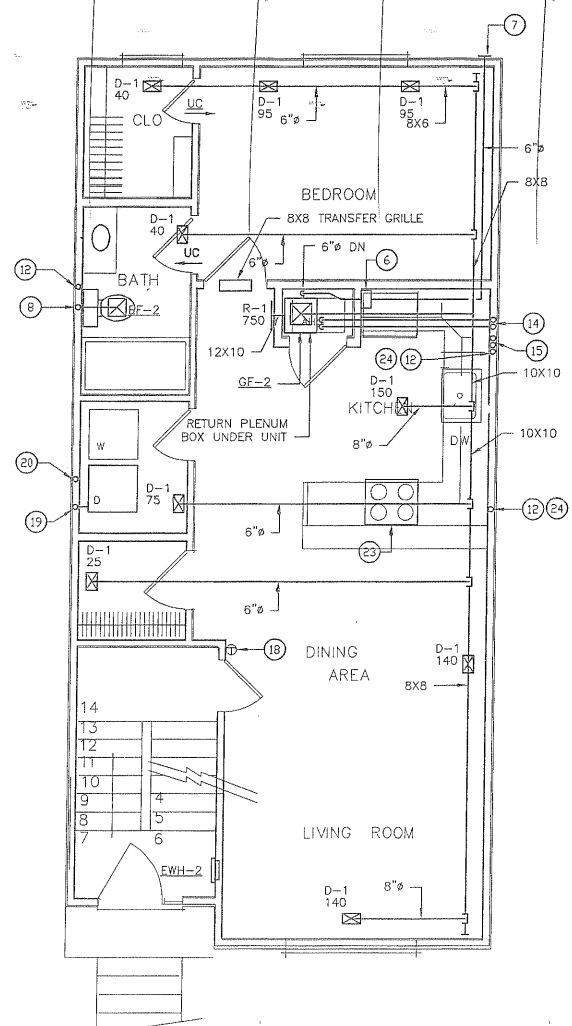
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THIRD FLOOR PLAN - HVAC
 SCALE: 1/4"=1'-0"



SECOND FLOOR PLAN - HVAC
 SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN - HVAC
 SCALE: 1/4"=1'-0"

DRAWINGS NOTES

- ① OPTIONAL ROOFTOP UNIT ONLY INSTALLED WITH UNIT 1B.
- ② 4" BATHROOM EXHAUST UP TO ROOF CAP EQUAL TO GREENHECK MODEL RJ-4. PROVIDE DUCT TRANSITION.
- ③ PROVIDE SOFFIT FOR EXHAUST IF NEEDED.
- ④ EXHAUST WALL CAP WITH 6" INLET CONNECTION.
- ⑤ HEAT PUMP UNIT SHALL BE SECURED TO ROOF STRUCTURE.
- ⑥ 6" AIRCYCLER MOTORIZED DAMPER.
- ⑦ OUTSIDE AIR WALL CAP WITH 6" INLET CONNECTION.
- ⑧ 3" BATHROOM EXHAUST UP IN WALL CAVITY.
- ⑨ HEAT PUMP ONLY INSTALLED IN OPTIONAL 1A/1B OPTION.
- ⑩ 3" BATHROOM EXHAUST DN IN WALL CAVITY.
- ⑪ DRYER EXHAUST WALL CAP WITH 4" INLET CONNECTION.
- ⑫ 3" BATHROOM EXHAUST UP & DN IN WALL CAVITY.
- ⑬ AIR COOLED CONDENSOR NOT INSTALLED WHEN 1A/1B OPTION IS USED.
- ⑭ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP.
- ⑮ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP & DN.
- ⑯ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING DN.
- ⑰ 3" COMBUSTION AIR & 3" EXHAUST AIR PIPING UP THROUGH ROOF TO CONCENTRIC VENT.
- ⑱ I COMFORT PROGRAMMABLE THERMOSTAT.
- ⑲ 4" DRYER EXHAUST UP.
- ⑳ 4" DRYER EXHAUST UP & DN.
- ㉑ 4" DRYER EXHAUST DN.
- ㉒ 4" DRYER EXHAUST UP TO ROOF CAP EQUAL TO GREENHECK MODEL RJ-6X9.
- ㉓ DENLAR RECIRCULATING RANGE HOOD MODEL D1030F, 130 CFM, 30" WIDE, STAINLESS STEEL CONSTRUCTION, FIRE SUPPRESSION SYSTEM FACTORY INSTALLED, UNIT INCLUDE A FUEL SHUT-OFF DEVICE FOR GAS APPLIANCE ACTIVATED AT SUPPRESSION SYSTEM DISCHARGE, 115 V, 5 AMP BREAKER.
- ㉔ ONLY APPLIES IF 1A/1B OPTION IS SELECTED.
- ㉕ DENLAR RECIRCULATING RANGE HOOD MODEL D1030F, 130 CFM, 30" WIDE, STAINLESS STEEL CONSTRUCTION, FIRE SUPPRESSION SYSTEM FACTORY INSTALLED, UNIT INCLUDE A FUEL SHUT-OFF DEVICE FOR GAS APPLIANCE ACTIVATED AT SUPPRESSION SYSTEM DISCHARGE, 115 V, 50 AMP BREAKER.

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GAS FURNACE UNIT SCHEDULE

ID NO.	LOCATION	AREA SERVED	CONTROL	OA (CFM)	FAN DATA		COOLING COIL		REFR.	GAS HEATING INPUT MBH	ELECTRIC			WEIGHT LBS	MANUFACTURER AND MODEL NUMBER
					CFM	ESP (IN. WG)	TYPE	TOTAL TON			VOLTS/PHASE	FLA	MOP		
GF-1	SEE DRAWINGS	SEE DRAWINGS	ATC	40	800	.8	DX	2.0	R410A	44	120V/1 ϕ	6.8	15	129	LENNOX EL29BUH045XE36B
GF-2	SEE DRAWINGS	SEE DRAWINGS	ATC	40	800	.8	DX	2.0	R410A	44	120V/1 ϕ	6.8	15	129	LENNOX EL29BUH045XE36B
GF-3	SEE DRAWINGS	SEE DRAWINGS	ATC	30	400	.8	DX	2.0	R410A	44	120V/1 ϕ	6.8	15	129	LENNOX EL29BUH045XE36B

- NOTES:**
1. WATER LEVELING DEVICE SHALL BE INSTALLED ON UNIT TO SHUT UNIT IF PRIMARY DRAIN IS BLOCKED.
 2. A NEUTRALIZATION KIT SHALL BE INSTALLED ON GAS FURNACE DRAIN BEFORE DRAINING TO FLOOR DRAIN.

AIR-COOLED CONDENSOR UNIT SCHEDULE

ID NO.	LOCATION	CONDENSER FAN			FLA	COMPRESSOR		ELECTRIC			WEIGHT LBS	MANUFACTURER AND MODEL NUMBER
		TOTAL CFM	NO. MOTOR	MOTOR SIZE HP		TYPE	REFR.	VOLTS/PHASE	MCA	MOP		
ACCU-1	SEE DRAWINGS	2600	1	1/6	2.8	PROPELLOR TYPE	R410A	240V/1 ϕ	19.1	30	243	LENNOX XC20-024-230 A05
ACCU-2	SEE DRAWINGS	2600	1	1/6	2.8	PROPELLOR TYPE	R410A	240V/1 ϕ	19.1	30	243	LENNOX XC20-024-230 A05

- NOTES:**
1. UNITS SHALL BE INSTALLED ON & SECURED TO CONCRETE PAD.
 2. UNITS SHALL BE INSTALLED WITH A HOT GAS BYPASS.

DIFFUSER, REGISTER, AND GRILLE SCHEDULE

ID NO.	SERVICE	MOUNTING	FACE SIZE (IN.)	NECK SIZE (IN.)	LINEAR			CFM RANGE	MAX NC	NOTES	REMARKS
					SLOT LENGTH (IN.)	SLOT WIDTH (IN.)	QTY OF SLOTS				
D-1	SUPPLY	SURFACE MOUNTED	10X6	8X4	-	-	-	0-100	30	-	HART & COOLEY MODEL 92HV0 SIDEWALL/CEILING REGISTER WITH DOUBLE DEFLECTION & OPPOSED BLADE DAMPER. BORDER SHALL MATCH ARCHITECT CEILING TYPE.
			14X6	12X4	-	-	-	101-145			
			14X8	12X6	-	-	-	146-225			
R-1	RETURN	SURFACE MOUNTED	14X8	12X6	-	-	-	0-200	30	-	HART & COOLEY MODEL 672 RETURN GRILLE WITH FIXED DEFLECTION & SURFACE MOUNTED FRAME.
			16X8	14X6	-	-	-	201-235			
			14X14	12X12	-	-	-	201-400			
			16X16	14X14	-	-	-	401-525			
			16X10	14X8	-	-	-	201-300			

- NOTES:**
- * ALL DIFFUSERS SHALL BE STEEL UNLESS NOTED OTHERWISE.

FAN SCHEDULE

DESIGNATION	CFM	E.S.P. (W.G.)	VOLTS/PHASE	RPM	POWER	DRIVE TYPE	FAN TYPE	CONTROL	MANUFACTURER AND MODEL	NOTES
EF-1 TO EF-5	57	.250	120/1	-	29.1 W	DIRECT	CEILING	SEPERATE TIMER SWITCH	PANASONIC FV-08VFL2	LOW PROFILE CEILING MOUNTED FAN. FAN SHALL BE INSTALLED WITH VIBRATION ISOLATOR. 3" DUCT DIAMETER WITH ADAPTER AND HOODED ROOF CAP.
EF-6	110	.250	120/1	-	55 W	DIRECT	CEILING	VIA CO SENSOR	GREENHECK SP-A125	ENERGY START QUALIFIED, MOUNTED POTENTIOMETER DIAL SWITCH, NEMA-A TOGGLE, JUNCTION BOX MOUNTED VIBRATION ISOLATOR. 4" DUCT DIAMETER WITH ADAPTER AND HOODED ROOF CAP.

- SCHEDULE NOTES:**
1. PROVIDE ALL FANS WITH BACKDRAFT DAMPERS.
 2. PROVIDE ALL FANS WITH ADJUSTABLE SPEED CONTROLS.
 3. EXHAUST FANS SHALL BE INSTALLED WITH A EXHAUST TIMER SWITCH EQUAL TO AIR CYCLER, "SMARTEXHAUST" MODEL (BATH FAN/LIGHT SWITCH/DELAY TIMER/VENTILATION CONTROLLER). ELECTRICAL CONTRACTOR TO INSTALL. SET THE DELAY SETTING AT 5 MINUTES AND THE VENTILATION SETTING AT 0 (WWW.AIRCYCLER.COM)

ELECTRIC HEATER SCHEDULE

DESIGNATION	MAXIMUM CFM	OUTPUT (KW)	VOLTS/PHASE	MOUNTING TYPE	CONTROL TYPE	MANUFACTURER AND MODEL
EWH-1 TO EWH-5	-	1.5	120/1	RECESSED	BUILT-IN THERMOSTAT	QMARK AWH3180F
UH-1	350	3.0	240/1	WALL	THERMOSTAT	QMARK MUH0321

- SCHEDULE NOTES:**
1. EACH HEATER SHALL BE PROVIDED WITH INTERNAL DISCONNECT AND THERMAL OVERLOAD PROTECTION UNLESS OTHERWISE NOTED.
 2. EBH-1 & EBH-2 SHALL BE INSTALLED WITH A SINGLE POLE THERMOSTAT & DOUBLE POLE DISCONNECT SWITCH.

MITSUBISHI SPLIT SYSTEM UNIT SCHEDULE

DESIGNATION	SUPPLY AIR TOTAL CFM	MINIMUM OUTSIDE AIR CFM	ESP ("W.G.)	COOLING CAPACITY		HEATING OUTPUT (MBH)	AUXILIARY HEATER (KW)	SUPPLY FAN FLA	AIR HANDLING UNIT ELECTRICAL DATA		CONDENSING UNIT ELECTRICAL DATA		MANUFACTURER AND MODEL NUMBER	
				SENS (MBH)	TOTAL (MBH)				MCA/MOCP	VOLTS/PHASE	MCA/MOCP	VOLTS/PHASE	AIR HANDLING UNIT	CONDENSING UNIT
FCU-1/HP-1	530	30	-	-	12	12.2	-	0.36	POWERED BY HP	240/1	11/28	240/1	MITSUBISHI PLU-A12EA7	MITSUBISHI PUZ-A12NK47
FCU-2/HP-2	448	30	-	-	12	8.8	5	2.4	POWERED BY HP	240/1	12/15	240/1	MITSUBISHI SVZ-KP12NA	MITSUBISHI SUZ-KA12NAR1
FCU-3/HP-3	448	30	-	-	12	8.8	5	2.4	POWERED BY HP	240/1	12/15	240/1	MITSUBISHI SVZ-KP12NA	MITSUBISHI SUZ-KA12NAR1

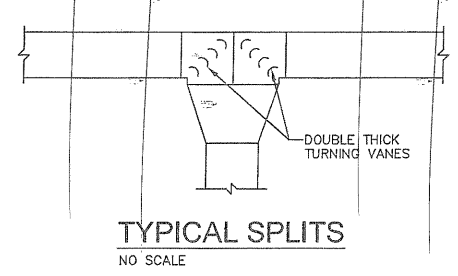
- SCHEDULE NOTES:**
1. COOLING DESIGN BASED ON 95°FDB/78°FWB AMBIENT OUTDOOR CONDITION, 45°F SUCTION TEMPERATURE, AND 75% 50% RH SPACE CONDITION.
 2. CONTRACTOR TO FURNISH AND INSTALL INSULATED REFRIGERANT PIPING BETWEEN AHU'S AND CONDENSING UNITS. REFER TO PIPING MANUAL PUBLICATION OF MANUFACTURER. SIZE AND CHARGE REFRIGERANT PER MANUFACTURER'S RECOMMENDATIONS FOR SUCH APPLICATION.
 3. PROVIDE LIQUID LINE SOLENOID VALVES WITH OUTDOOR UNITS. PROVIDE ALL UNITS WITH FILTERS, LOW AMBIENT CONTROL TO 055DF.
 4. HEATING OUTPUT SHOWN ABOVE IS BASED ON A AMBIENT TEMPERATURE OF 17°F

The Diesselhorst Group
 8511 Virginia Ave, Annandale, VA 22003

HOLABIRD MANOR CONDO
 HOLABIRD APARTMENTS INC.
 SCALE AS SHOWN
 SHEET TITLE MECHANICAL SCHEDULES
 DISCIPLINE

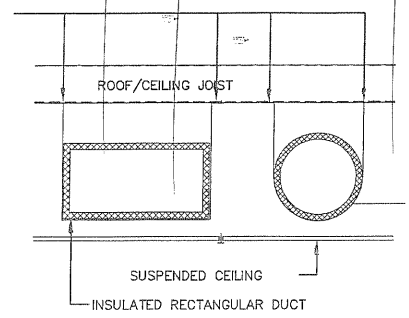
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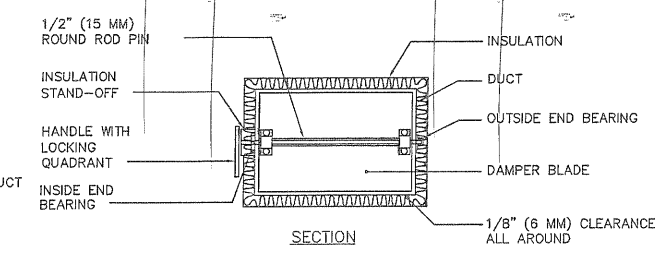


TYPICAL SPLITS
NO SCALE

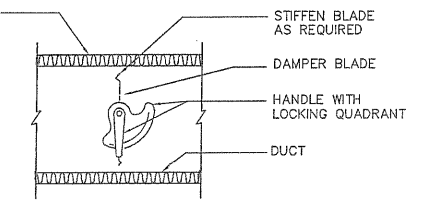
1-1/2" x 26 GAUGE STRAPS WITH 2-#8 SMS EACH SIDE OF DUCT - DUCT SUPPORT SPACING AS PER UMC Table 6-E.



TYPICAL DUCT SUPPORT
NO SCALE



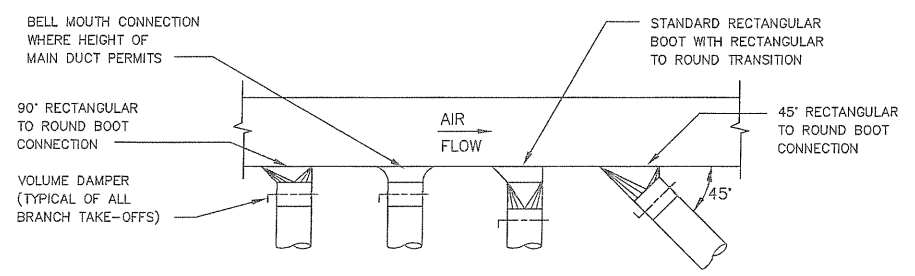
SECTION



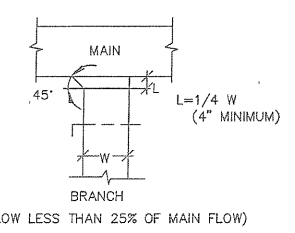
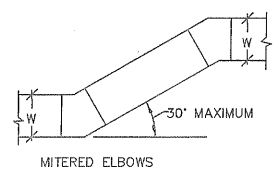
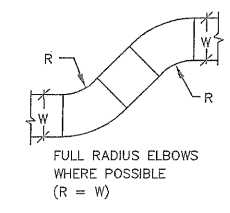
SIDE ELEVATION

TYPICAL VOLUME DAMPER DETAIL
NOT TO SCALE

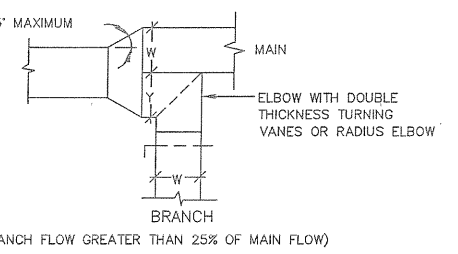
- NOTES:
1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
 2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.



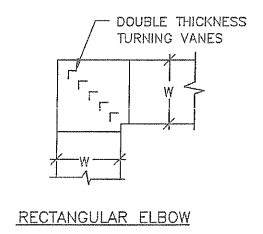
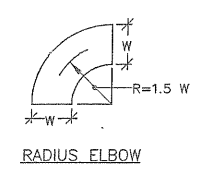
ALTERNATE RECTANGULAR TO ROUND DUCT BRANCH CONNECTIONS
(BRANCH FLOW LESS THEN 25% OF MAIN FLOW)



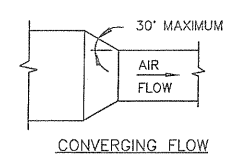
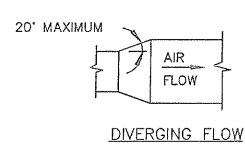
DUCT OFFSETS



BRANCH TAKE-OFFS



LOW VELOCITY ELBOWS

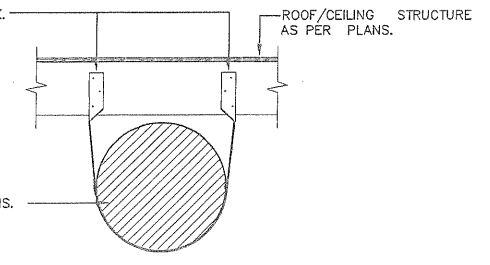


RECTANGULAR TO RECTANGULAR TRANSITIONS

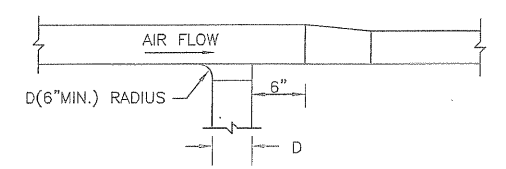
TYPICAL DETAILS - RECTANGULAR DUCT FITTINGS
N.T.S.

1" x 18 GA GALV. STEEL SUPPORT STRAP (FOR DIAMETERS UP TO 10") OR 1" x 1/8" GALV. STEEL SUPPORT STRAP (FOR DIAMETERS UP TO 40") @ 10'-0" O.C. MAX.
ROOF/CEILING STRUCTURE AS PER PLANS.

GALVANIZED STEEL HORIZONTAL DUCT (GAGE AS PER UMC Table 10-B & C) - SIZE AS PER PLANS.

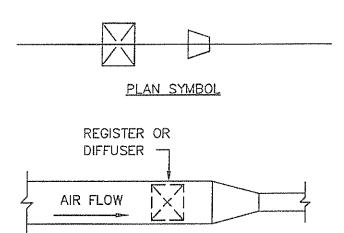


TYPICAL ROUND DUCT SUPPORT
NO SCALE

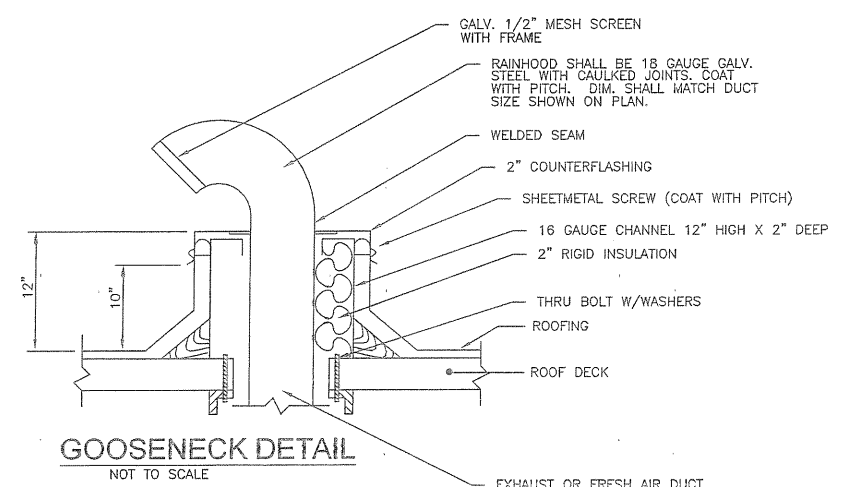


TYPICAL TAPOFF AND TRANSITION FROM SIDE OF DUCT

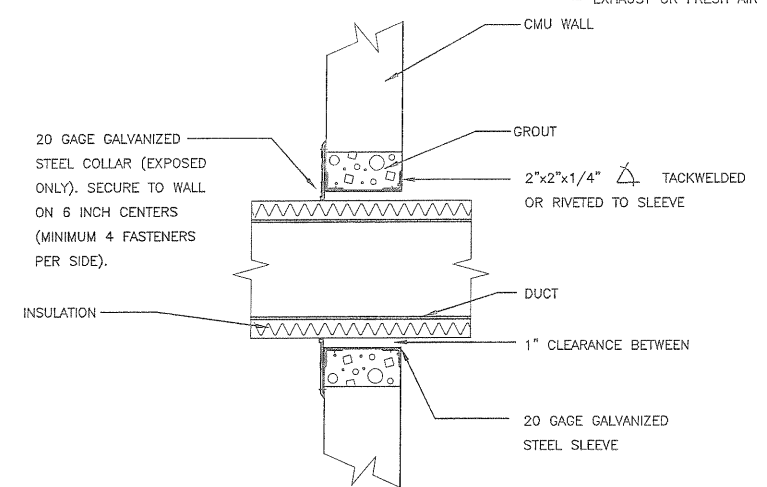
SEE SMACNA MANUAL FOR METHOD OF SECURING TAPOFF CONNECTION TO MAIN (SAME FOR EXHAUST DUCTS EXCEPT AIR FLOW IS REVERSED)



DIFFUSER OR REGISTER TAPOFF AND TRANSITION
(SAME FOR EXHAUST DUCT EXCEPT FLOW IS REVERSED)



GOOSENECK DETAIL
NOT TO SCALE



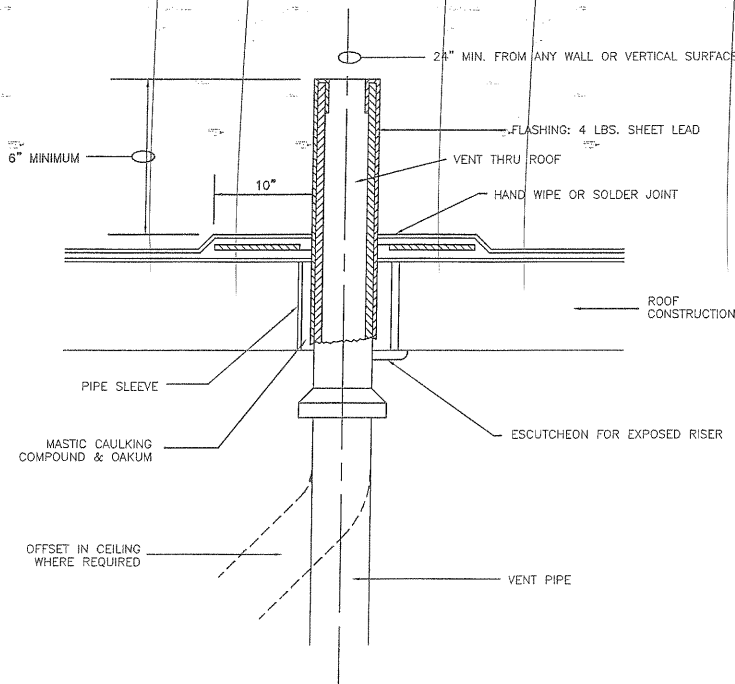
TYPICAL DUCT PENETRATION THROUGH WALL
(NOT APPLICABLE TO FIRE-RATED WALLS)
N.T.S.

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HOLABIRD APARTMENTS INC.
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DISCIPLINE

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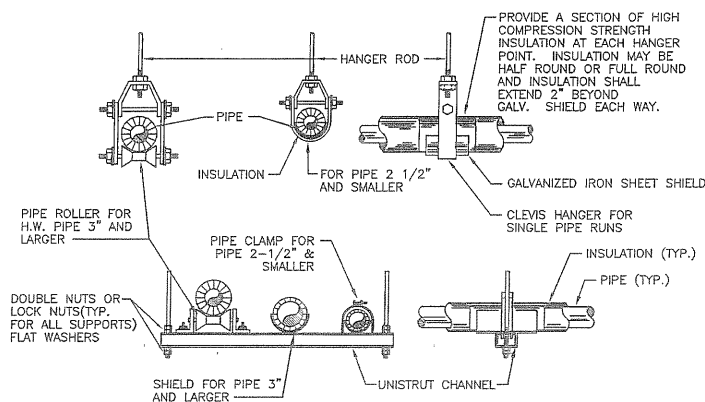
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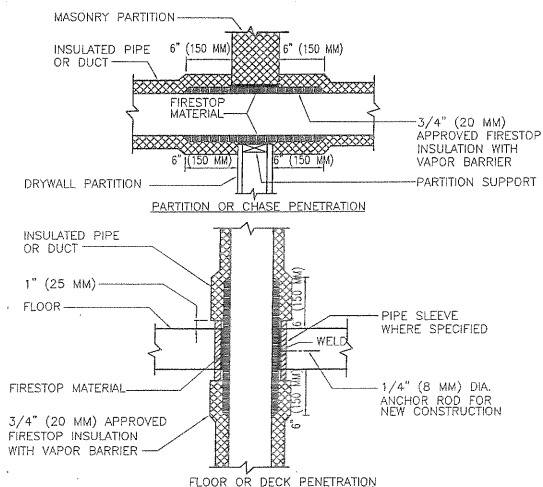
VENT THRU ROOF DETAIL
NO SCALE

LEGEND & ABBREVIATIONS

—	SANITARY PIPING
—	VENT PIPING
—	COLD WATER PIPING
—	HOT WATER PIPING
—	TEMPERED WATER PIPING
—	CONDENSATE PIPING
—	FIRE PROTECTION PIPING
—	CONNECT TO EXISTING
—	TAMPER SWITCH
—	FLOW SWITCH
—	BACKFLOW PREVENTER
—	GATE VALVE
—	PIPE GOING DOWN
—	PIPE GOING UP
—	REMOVE EXISTING
—	EXISTING EXISTING
—	COLD WATER
—	HOT WATER
—	TEMPERED WATER
—	SANITARY
—	STORM WATER
—	VENT
—	FLOOR DRAIN
—	EXISTING TO REMAIN
—	RAIN LEADER
—	DOWN
—	TYP.
—	VENT THRU ROOF
—	FIRE DEPARTMENT VALVE
—	TAMPER SWITCH
—	FLOW SWITCH
—	UP
—	SEWER HOUSE CONNECTION
—	WALL HYDRANT

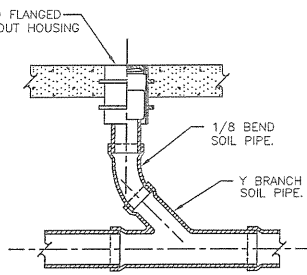


WATER PIPING HANGERS AND SUPPORTS DETAILS
NO SCALE

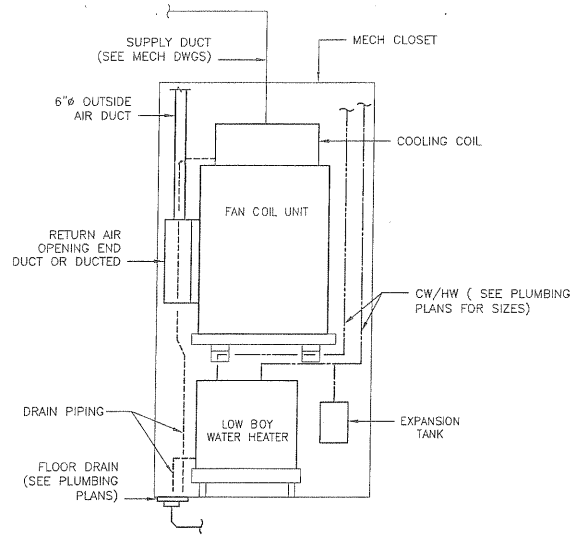


PIPE/DUCT PENETRATION OF FIRE/SMOKE BARRIERS
NO SCALE

NOTE:
1. APPLICABLE TO PENETRATIONS OF ALL FIRE RATED MEMBRANES, IN ACCORDANCE WITH NFPA 101. REFER TO SPECIFICATIONS SECTION 07270, FIRE STOPPING SYSTEMS.



SANITARY CLEANOUT FLOOR SLAB DETAIL
NO SCALE



TYPICAL GROUND FLOOR UNIT 1A/1B MECH CLOSET DETAIL
NOT TO SCALE

PLUMBING FIXTURE SCHEDULE

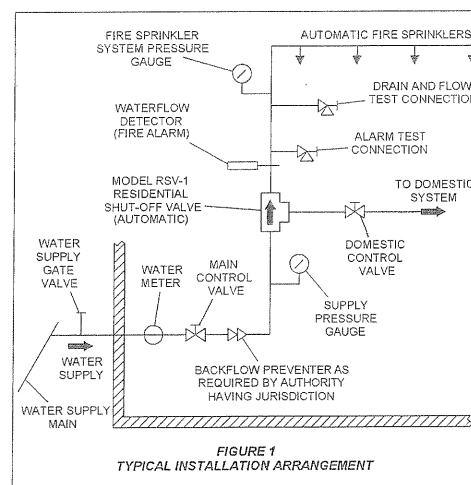
NO.	TYPE	CONNECTIONS					COMMENTS
		COLD WATER	HOT WATER	WASTE	VENT	GAS	
P-1	WATER CLOSET	1/2"	-	4"	2"	-	AMERICAN STANDARD CHAMPION PRO ELONGATED TOILET MODEL 211CA.104 OR APPROVED EQUAL
P-2	LAVATORY	1/2"	1/2"	1-1/2"	1-1/4"	-	AMERICAN STANDARD STANDARD COLLECTION COUNTERTOP SINK MODEL 0293.004 OR APPROVED EQUAL. FAUCET SHALL BE A AMERICAN STANDARD HAMPTON TWO-HANDLE W/ 4" CENTERS.
P-3	BATHTUB	1/2"	1/2"	1-1/2"	1-1/4"	-	AMERICAN STANDARD PRINCETON INTEGRAL APRON BATHTUB MODEL 2390.202ICHC OR APPROVED EQUAL. FAUCET SHALL BE A HAMPTON TWO HANDLE BATH/SHOWER FAUCET MODEL 7220.732OR APPROVED EQUAL.
P-4	KITCHEN SINK	1/2"	1/2"	1-1/2"	1-1/4"	-	AMERICAN STANDARD LUXURY 18 GAUGE STAINLESS STEEL SINK MODEL 791565-211070A OR APPROVED EQUAL. FAUCET SHALL BE A HAMPTON TWO HANDLE TOP MOUNT MODEL 4771.732 OR APPROVED EQUAL.
P-5	REFRIGERATOR ICE-MAKER	1/2"	-	-	-	-	OWNER SELECTED
WMB	WASHING MACHINE BOX	1/2"	1/2"	2"	1-1/2"	-	OWNER SELECTED
P-7	GAS RANGE	-	-	-	-	3/4"	OWNER SELECTED

NOTES:

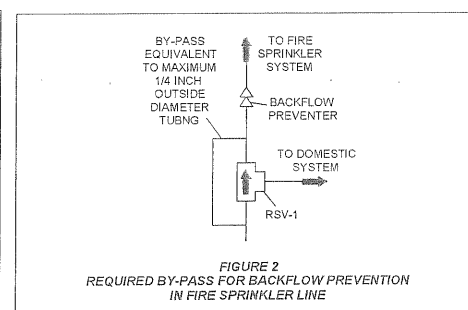
WATER HEATER SCHEDULE

DESIGNATION	MODEL NO.	GALLONS	PLUMBING				VOLTAGE /PHASE	GAS INPUT (MBH)	COMMENTS
			CW	HW	GAS	KW			
WH-1A/ WH-1B	LD-40L3-3	40	3/4"	3/4"	-	9	240/1	-	BRADFORD WHITE LIGHT DUTY COMMERCIAL LOW-BOY ENERGY SAVER ELECTRIC WATER HEATER
WH-2	GDHE-75	75	3/4"	3/4"	3/4"	-	120/1	100	A.O. SMITH VERTEX RESIDENTIAL GAS WATER HEATER
WH-3	GDHE-75	75	3/4"	3/4"	3/4"	-	120/1	100	A.O. SMITH VERTEX RESIDENTIAL GAS WATER HEATER
WH-4	GDHE-75	75	3/4"	3/4"	3/4"	-	120/1	100	A.O. SMITH VERTEX RESIDENTIAL GAS WATER HEATER

NOTES:
1. WH-1 SHALL BE SUSPENDED FROM THE CEILING STRUCTURE.
2. WATER HEATERS SHALL BE INSTALLED WITH A DRAIN PAN.



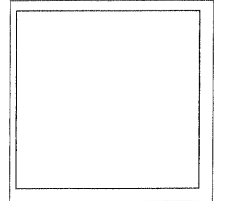
TYPICAL COMBO INCOMING SPRINKLER/DOMESTIC WATER SERVICE DETAIL
NO SCALE



**FIGURE 2
REQUIRED BY-PASS FOR BACKFLOW PREVENTION
IN FIRE SPRINKLER LINE**

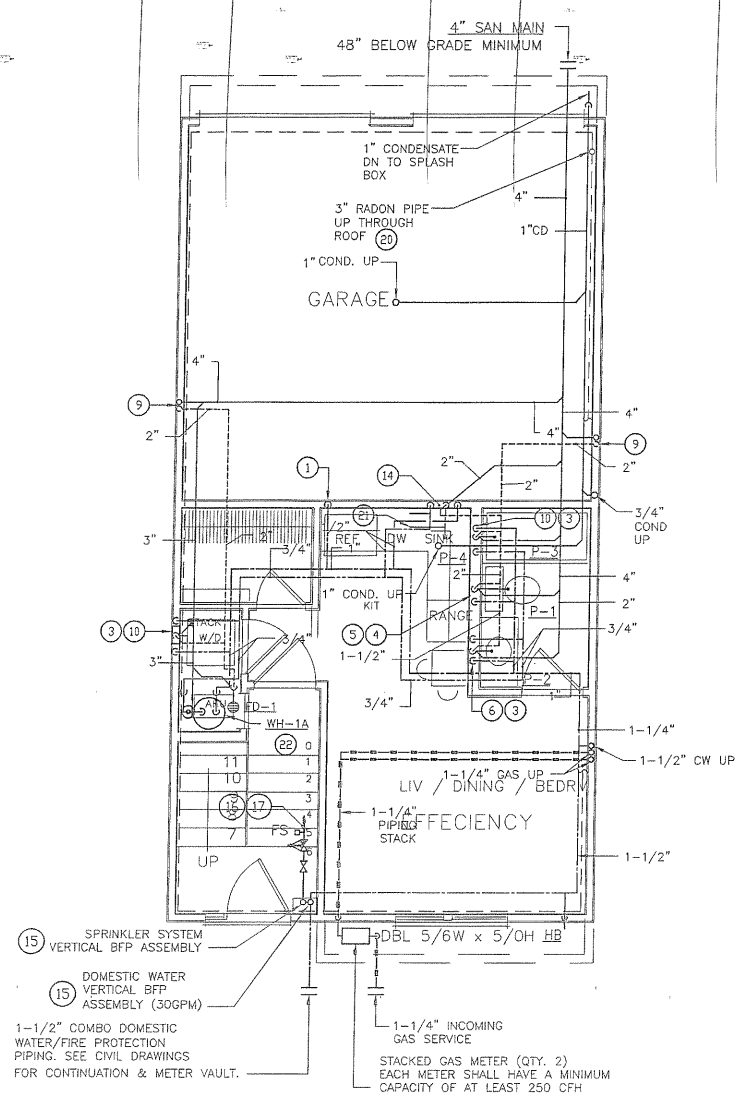
The
Diesselhorst
Group
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VA 22003

HOLABIRD MANOR CONDO
HOLABIRD APARTMENTS INC.
DISCIPLINE PLUMBING COVER SHEET
SCALE AS SHOWN
SHEET TITLE

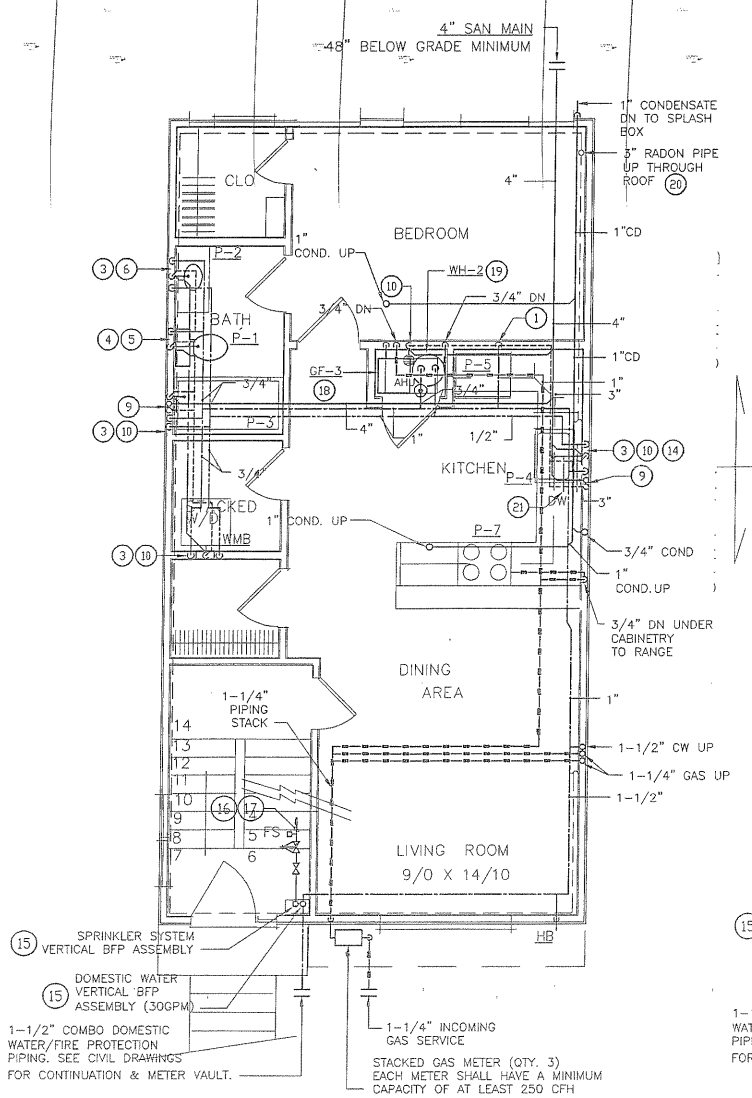


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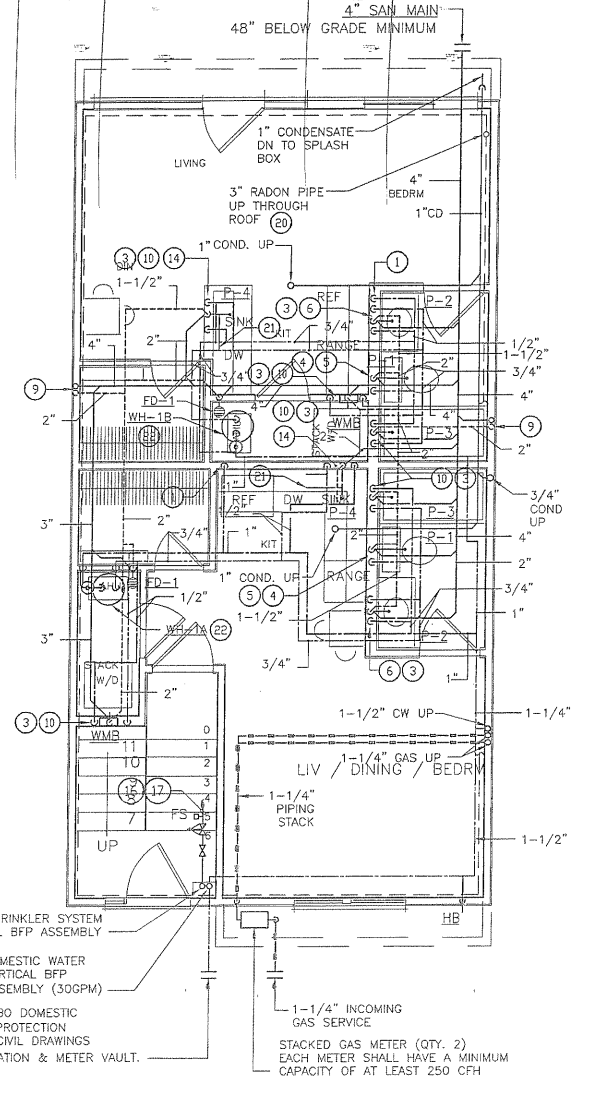
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UNIT TYPE 1/ GARAGE OPTION
GROUND FLOOR PLAN - PLUMBING
 SCALE: 1/4"=1'-0"



UNIT 1 TYPE GROUND FLOOR PLAN - PLUMBING
 SCALE: 1/4"=1'-0"

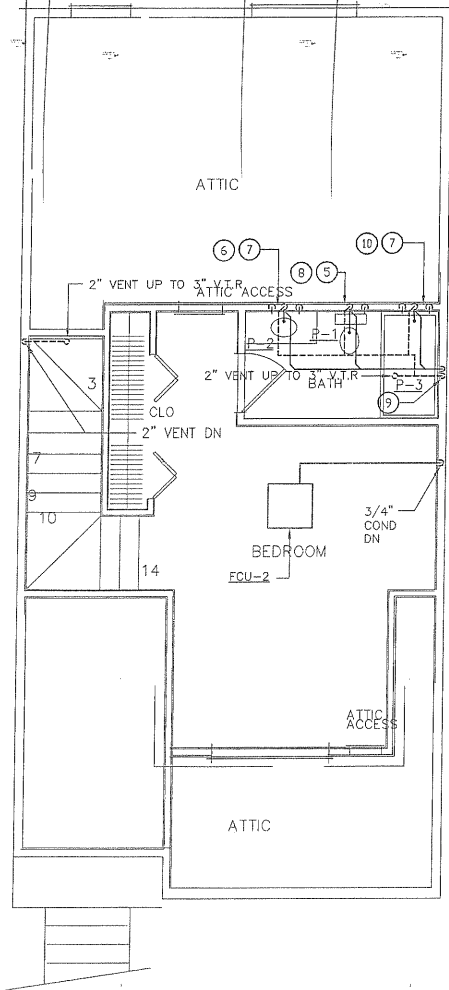


UNIT TYPE 1A/1B OPTION-
GROUND FLOOR PLAN - PLUMBING
 SCALE: 1/4"=1'-0"

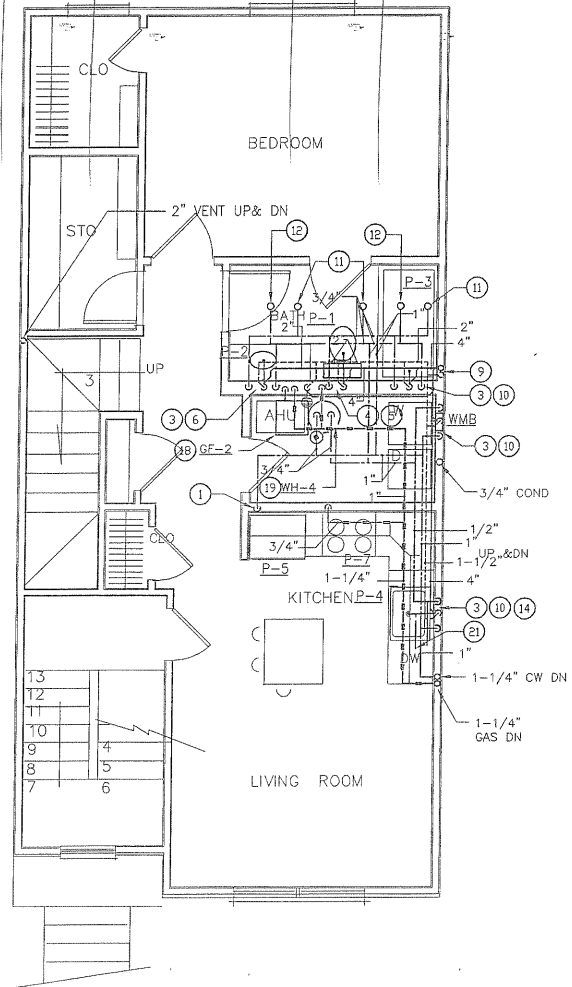
- DRAWINGS NOTES**
- 1/2" CW LINE DN TO REFRIGERATOR ICE BOX CONNECTION.
 - CONDENSATE DRAIN PIPING SHALL DRAIN TO SPLASH BOX.
 - CW/HW DN TO FIXTURE.
 - 1/2" CW DN TO FIXTURE.
 - SAN DN & 2" VENT UP.
 - SAN DN & 1-1/2" VENT UP.
 - 1/2" CW/HW UP TO FIXTURE AND DN TO MAIN WATER PIPING BELOW FLOOR.
 - 1/2" CW UP TO FIXTURE AND DN TO MAIN WATER PIPING BELOW FLOOR.
 - SAN & 2" VENT STACK.
 - SAN & 2" VENT STACK.
 - 1/2" CW UP TO FIXTURE.
 - 1/2" HW UP TO FIXTURE.
 - SAN UP.
 - 1/2" HW WATER PIPING SHALL BE INSTALLED UNDER COUNTERTOP TO CONNECT TO DISHWASHER FROM SINK CONNECTION.
 - PROVIDE BACKFLOW ASSEMBLY AS PER NSPS 2003 AND LOCAL CODES.
 - TO HYDRAULICALLY DESIGNED SPRINKLER SYSTEM.
 - SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING SPRINKLER SYSTEM BASED ON HIS/HER CALCULATIONS FOR THE FIRE PROTECTION SYSTEM.
 - GAS FURNACE DRAIN SHALL DRAIN TO NEUTRALIZING KIT THEN TO NEAREST FLOOR DRAIN. COOLING COIL DRAIN SHALL DRAIN TO 1" STORM WATER PIPING RISER LOCATED BEHIND FURNACE.
 - WATER HEATER DRAIN PAN SHALL DRAIN TO 1" STORM WATER PIPING RISER LOCATED BEHIND FURNACE.
 - PIPING SHOWN FOR DIAGNOSTIC PURPOSES.
 - RADON PROFESSIONAL SHALL DESIGN & INSTALL SYSTEM.
 - DISHWASHER SHALL DRAIN TO KITCHEN SINK DRAIN.
 - WATER HEATER DRAIN PAN & COOLING COIL SHALL DRAIN TO NEAREST FLOOR DRAIN.

- GENERAL NOTES**
- ALL PIPING SHOWN ON THIS PLAN EXCEPT FOR SANITARY & CONDENSATE SHALL BE INSTALLED IN THE CEILING SPACE OF THE RESPECTIVE FLOOR UNLESS OTHERWISE NOTED.
 - ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS.
 - ALL WATER HEATERS UNITS SHALL HAVE A DRAIN PAN.
 - CONTRACTOR SHALL FIELD VERIFY LOCATION OF EX. SANITARY AND DOMESTIC WATER PIPING PRIOR TO BEGINNING HIS/HER WORK.
 - ALL PENETRATIONS THROUGH THE ROOF SHALL BE SEALED AND FLASHED.
 - INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
 - COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
 - ALL SAN, VENT, CW & HW PIPING LOCATED IN OPEN CEILING AREAS SHALL BE PAINTED BLACK.
 - ALL PIPING LOCATED INSIDE OF A FIRE-RATED PARTITION SHALL BE FIRE-STOPPED PER UL-TESTED ASSEMBLY.
 - PROVIDE CLEANOUTS IN SANITARY SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 50 FEET IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED.
 - ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 6 INCHES SMALLER AND SHALL BE 6 INCHES FOR PIPE SIZES LARGER THAN 6 INCHES.
 - UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF SLAB, WITH SPACE FOR INSULATION IF REQUIRED.
 - PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
 - IF PRESSURE ON THE EXISTING CW PIPING EXCEEDS PLUMBING FIXTURES MANUFACTURERS RECOMMENDATIONS & DESIGN GUIDELINES, A PRESSURE REDUCING VALVE SHALL BE INSTALLED ON THE DOMESTIC CW LINE WHERE THE NEW CW PIPING CONNECTS TO THE EXISTING CW PIPING.

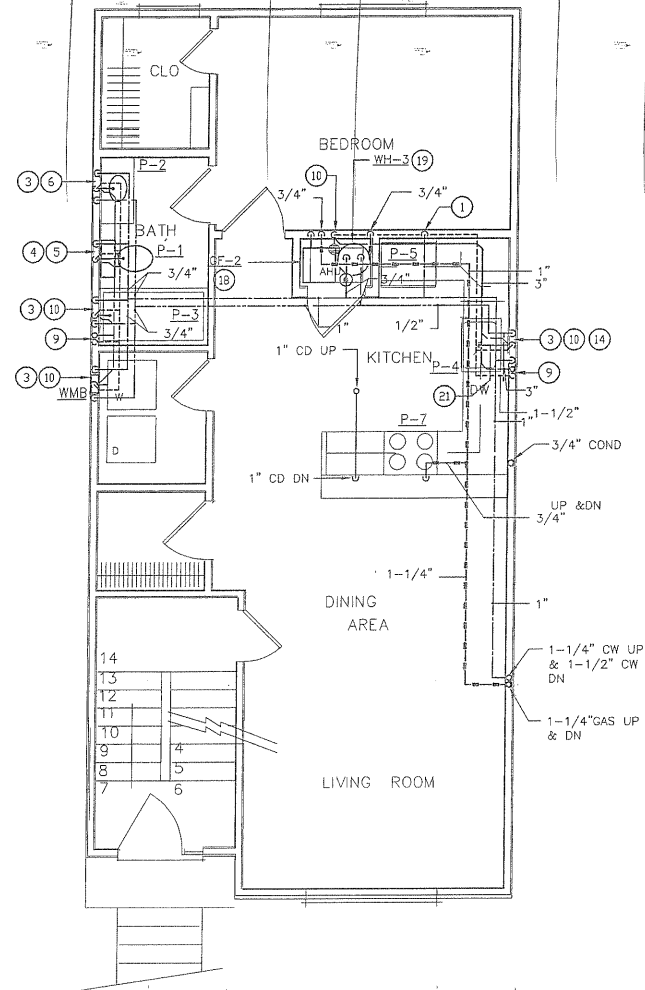
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LOFT PLAN - PLUMBING
SCALE: 1/4"=1'-0"



SECOND FLOOR PLAN - PLUMBING
SCALE: 1/4"=1'-0"



FIRST FLOOR PLAN - PLUMBING
SCALE: 1/4"=1'-0"

DRAWINGS NOTES

1. 1/2" CW LINE DN TO REFRIGERATOR ICE BOX CONNECTION.
2. 1" CONDENSATE DRAIN PIPING SHALL DRAIN TO SPLASH BOX.
3. 1/2" CW/HW DN TO FIXTURE.
4. 1/2" CW DN TO FIXTURE.
5. 4" SAN DN & 2" VENT UP.
6. 2" SAN DN & 1-1/2" VENT UP.
7. 1/2" CW/HW UP TO FIXTURE AND DN TO MAIN WATER PIPING BELOW FLOOR.
8. 1/2" CW UP TO FIXTURE AND DN TO MAIN WATER PIPING BELOW FLOOR.
9. 4" SAN & 2" VENT STACK.
10. 2" SAN & 2" VENT STACK.
11. 1/2" CW UP TO FIXTURE.
12. 1/2" HW UP TO FIXTURE.
13. 4" SAN UP.
14. 1/2" HW WATER PIPING SHALL BE INSTALLED UNDER COUNTERTOP TO CONNECT TO DISHWASHER FROM SINK CONNECTION.
15. PROVIDE BACKFLOW ASSEMBLY AS PER NSPS 2003 AND LOCAL CODES.
16. TO HYDRAULICALLY DESIGNED SPRINKLER SYSTEM.
17. SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING SPRINKLER SYSTEM BASED ON HIS/HER CALCULATIONS FOR THE FIRE PROTECTION SYSTEM.
18. GAS FURNACE DRAIN SHALL DRAIN TO NEUTRALIZING KIT THEN TO NEAREST FLOOR DRAIN. COOLING COIL DRAIN SHALL DRAIN TO 1" STORM WATER PIPING RISER LOCATED BEHIND FURNACE.
19. WATER HEATER DRAIN PAN SHALL DRAIN TO 1" STORM WATER PIPING RISER LOCATED BEHIND FURNACE.
20. PIPING SHOWN FOR DIAGRAMMATIC PURPOSES. RADON PROFESSIONAL SHALL DESIGN & INSTALL SYSTEM.
21. DISHWASHER SHALL DRAIN TO KITCHEN SINK DRAIN.
22. WATER HEATER DRAIN PAN & COOLING COIL SHALL DRAIN TO NEAREST FLOOR DRAIN.

GENERAL NOTES

1. ALL PIPING SHOWN ON THIS PLAN EXCEPT FOR SANITARY & CONDENSATE SHALL BE INSTALLED IN THE CEILING SPACE OF THE RESPECTIVE FLOOR UNLESS OTHERWISE NOTED.
2. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND MAXIMUM ADJUSTABLE STOPS.
3. ALL WATER HEATERS UNITS SHALL HAVE A DRAIN PAN.
4. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EX. SANITARY AND DOMESTIC WATER PIPING PRIOR TO BEGINNING HIS/HER WORK.
5. ALL PENETRATIONS THROUGH THE ROOF SHALL BE SEALED AND FLASHED.
6. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
7. COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
8. ALL SAN, VENT, CW & HW PIPING LOCATED IN OPEN CEILING AREAS SHALL BE PAINTED BLACK.
9. ALL PIPING LOCATED INSIDE OF A FIRE-RATED PARTITION SHALL BE FIRE-STOPPED PER U.L.-TESTED ASSEMBLY.
10. PROVIDE CLEANOUTS IN SANITARY SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, NEAR THE BASE OF STACKS, EVERY 50 FEET IN HORIZONTAL RUNS AND ELSEWHERE AS INDICATED.
11. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE FOR PIPE SIZES 6 INCHES SMALLER AND SHALL BE 6 INCHES FOR PIPE SIZES LARGER THAN 6 INCHES.
12. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO UNDERSIDE OF SLAB, WITH SPACE FOR INSULATION IF REQUIRED.
13. PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
14. IF PRESSURE ON THE EXISTING CW PIPING EXCEEDS PLUMBING FIXTURES MANUFACTURERS RECOMMENDATIONS & DESIGN GUIDELINES, A PRESSURE REDUCING VALVE SHALL BE INSTALLED ON THE DOMESTIC CW LINE WHERE THE NEW CW PIPING CONNECTS TO THE EXISTING CW PIPING.

HOLABIRD MANOR CONDO

HOLABIRD APARTMENTS INC.

DISCIPLINE

SHEET TITLE PLUMBING FLOOR PLANS

SCALE

AS SHOWN

The Diesselhorst Group

8511 Virginia Ave, Annandale, VA 22003

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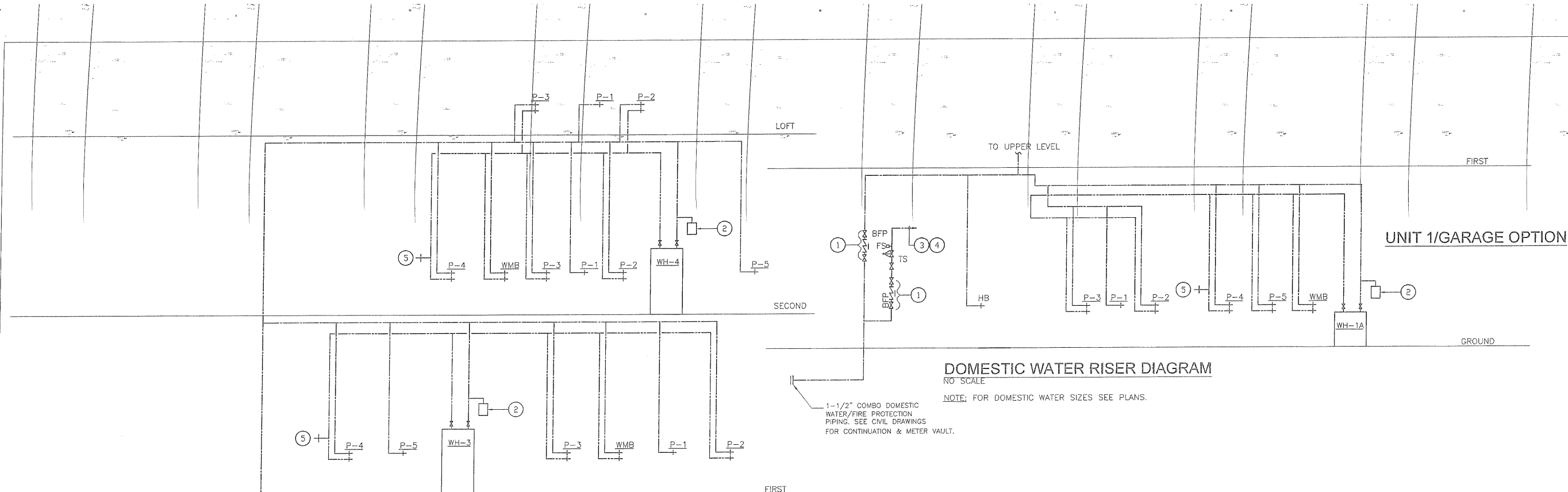
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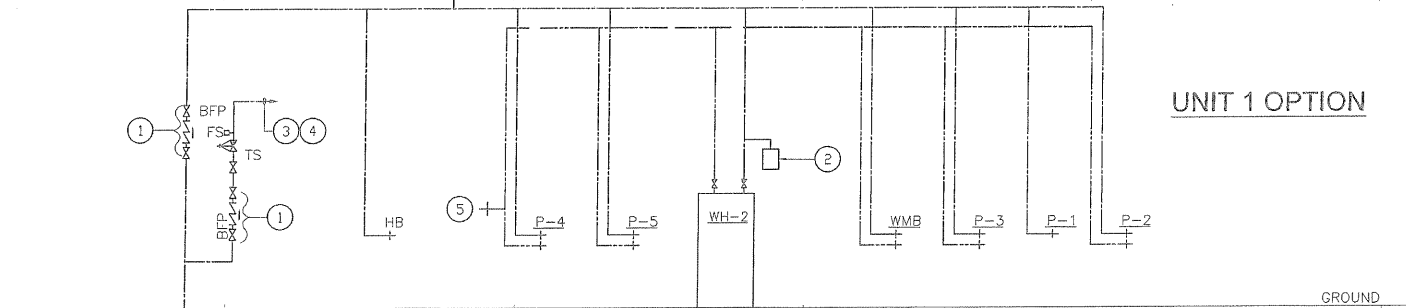
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DOMESTIC WATER RISER DIAGRAM
NO SCALE

NOTE: FOR DOMESTIC WATER SIZES SEE PLANS.

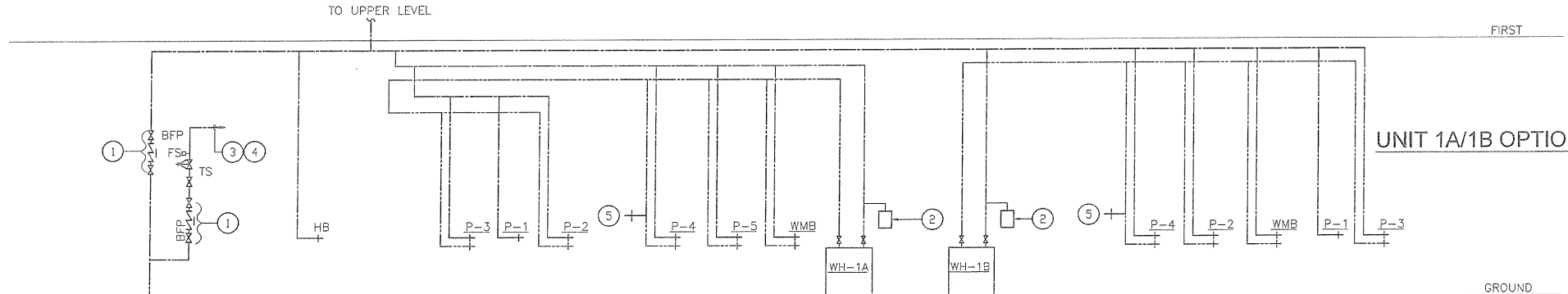
1-1/2" COMBO DOMESTIC WATER/FIRE PROTECTION PIPING. SEE CIVIL DRAWINGS FOR CONTINUATION & METER VAULT.



DOMESTIC WATER RISER DIAGRAM
NO SCALE

NOTE: FOR DOMESTIC WATER SIZES SEE PLANS.

1-1/2" COMBO DOMESTIC WATER/FIRE PROTECTION PIPING. SEE CIVIL DRAWINGS FOR CONTINUATION & METER VAULT.



DOMESTIC WATER RISER DIAGRAM
NO SCALE

NOTE: FOR DOMESTIC WATER SIZES SEE PLANS.

1-1/2" COMBO DOMESTIC WATER/FIRE PROTECTION PIPING. SEE CIVIL DRAWINGS FOR CONTINUATION & METER VAULT.

DRAWING NOTES

- ① PROVIDE BACKFLOW ASSEMBLY AS PER NSPS 2003 AND LOCAL CODES.
- ② EXPANSION TANK
- ③ TO HYDRAULICALLY DESIGNED SPRINKLER SYSTEM.
- ④ SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING SPRINKLER SYSTEM BASED ON HIS/HER CALCULATIONS FOR THE FIRE PROTECTION SYSTEM.
- ⑤ DISHWASHER HOT WATER CONNECTION.
- ⑥ INCOMING WATER SIZE MAY INCREASE BASE ON REQUIRED FLOW NEEDED BY SPRINKLER CONTRACTOR AFTER THEY COMPLETE THEIR CALCULATIONS.

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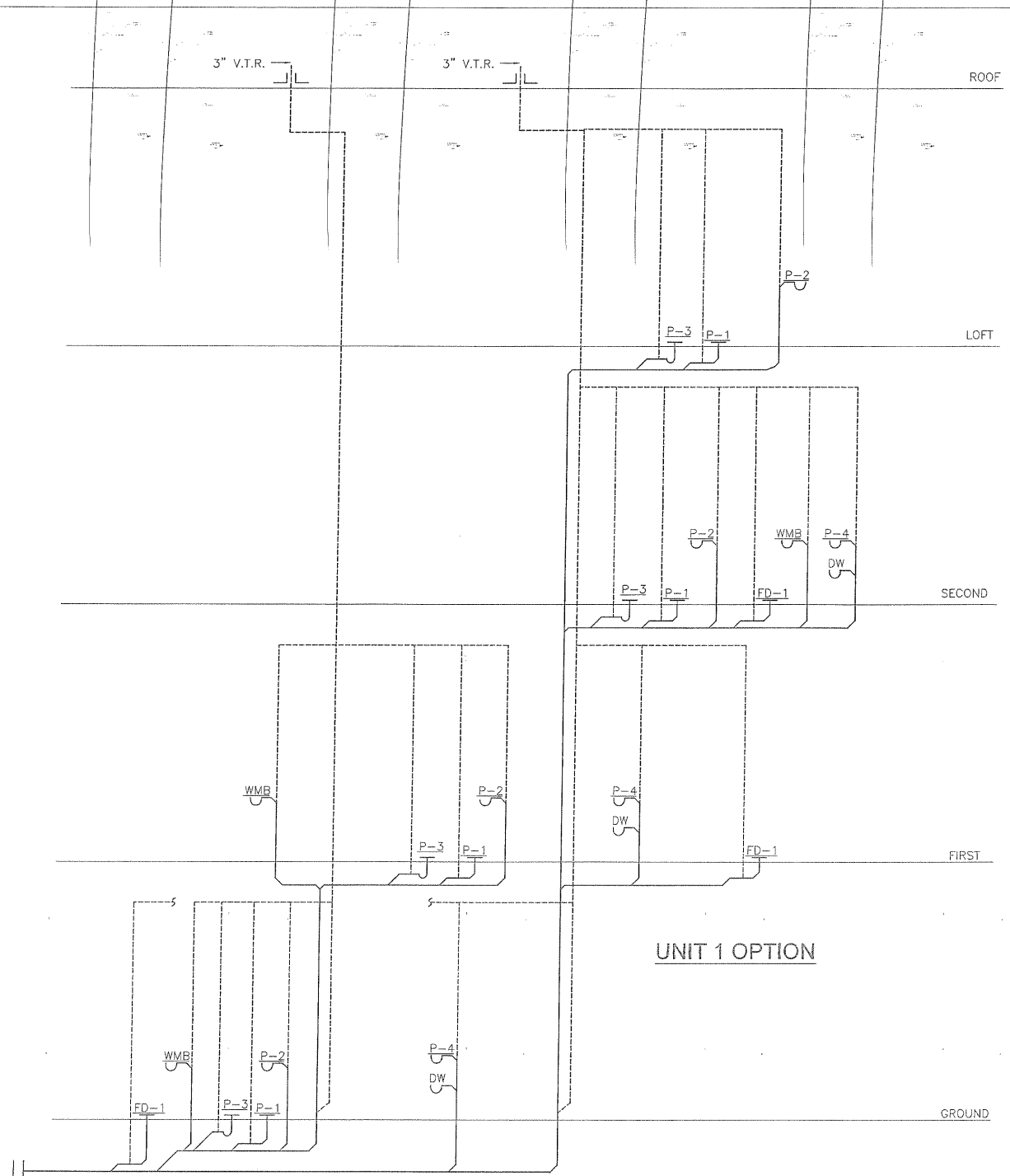
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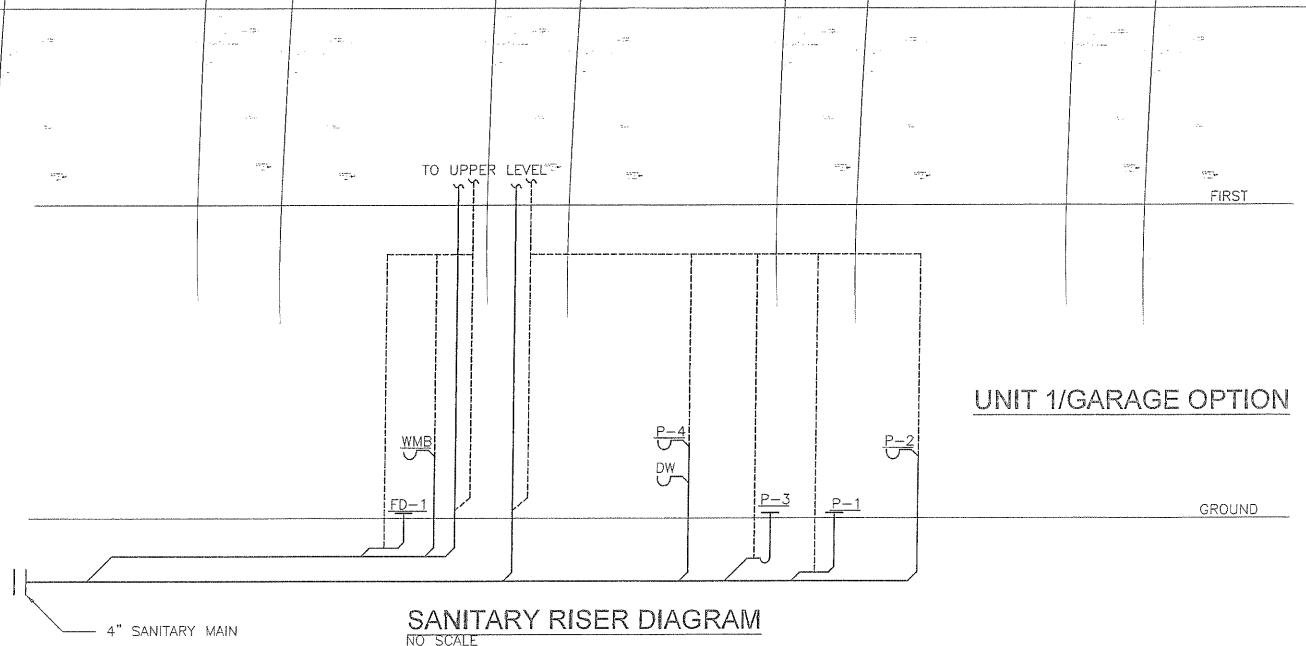
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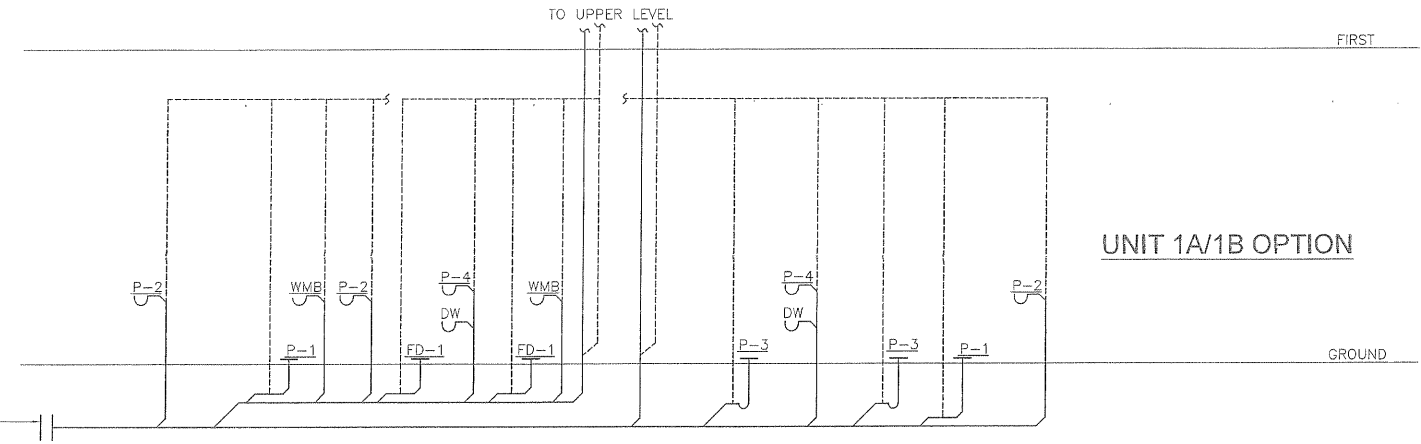
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SANITARY RISER DIAGRAM
NO SCALE
GENERAL NOTE:
1. FOR SANITARY AND VENT SIZES
SEE PLANS.



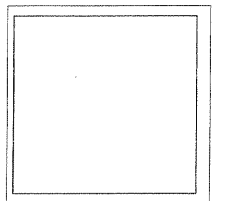
SANITARY RISER DIAGRAM
NO SCALE
GENERAL NOTE:
1. FOR SANITARY AND VENT SIZES
SEE PLANS.



SANITARY RISER DIAGRAM
NO SCALE
GENERAL NOTE:
1. FOR SANITARY AND VENT SIZES
SEE PLANS.

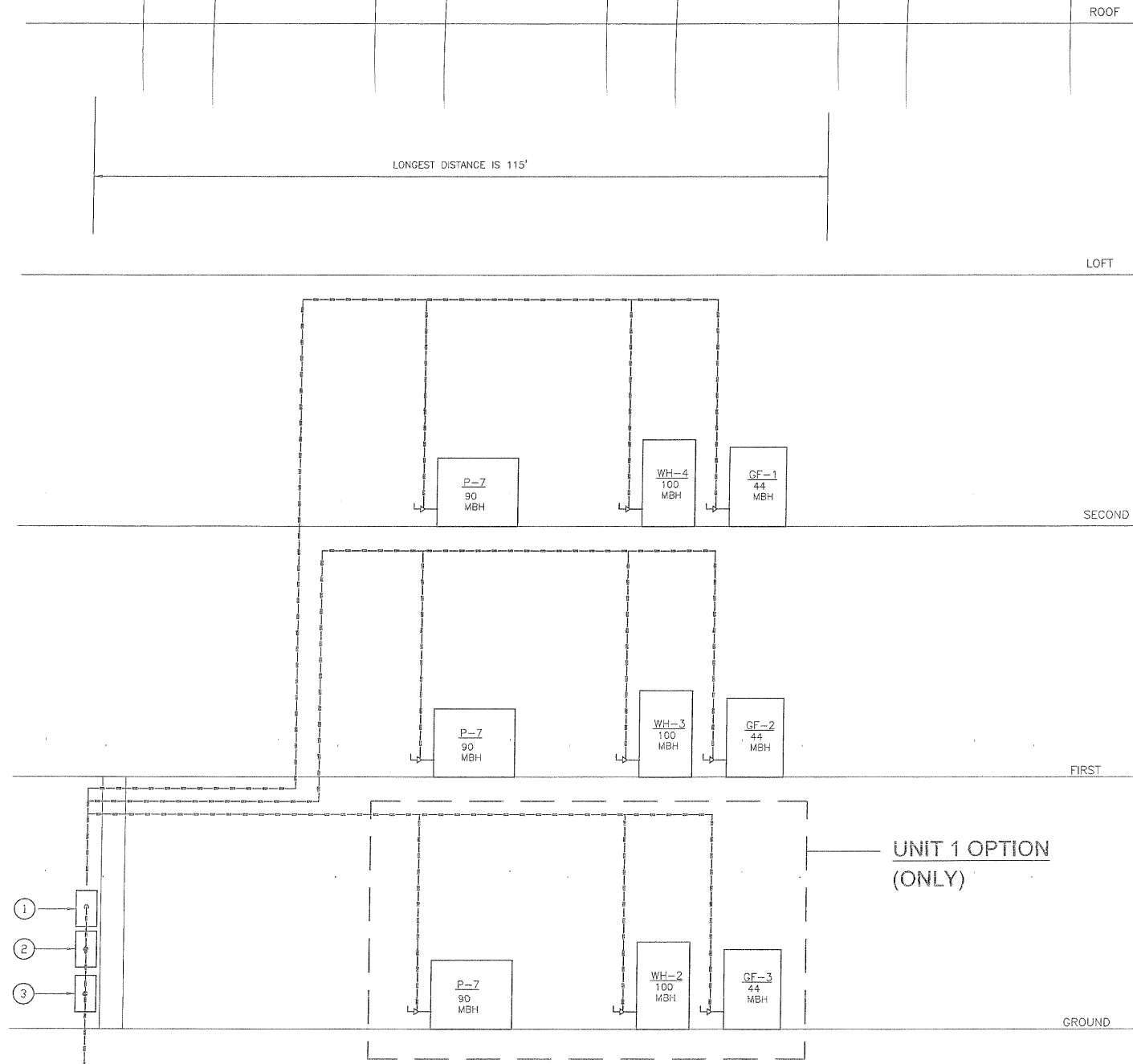
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OF



GAS RISER DIAGRAM
NO SCALE

NOTES:

1. FOR GAS PIPING SIZES SEE PLANS.
2. ALL GAS EQUIPMENT SHALL HAVE AN INDIVIDUAL SHUTOFF VALVE UNION AND REGULATOR, IF EQUIPMENT IS NOT EQUIPPED WITH A BUILT-IN REGULATOR, A 2 PSI REGULATOR AND UNION SHALL BE INSTALLED.
3. GAS PIPING SIZED BASED ON BTU INPUTS SHOWN AND SCHEDULE 40 PIPING. IF INPUTS CHANGES PIPING SHALL BE CHECK AND RESIZED BY CONTRACTOR BASED ON THE INTERNATIONAL FUEL GAS CODE.
4. NEW EXHAUST HOOD AUTOMATIC MECHANICAL GAS VALVE SHALL SYNCHRONIZED WITH FIRE SUPPRESSION SYSTEM PER IFGC 2012 505.1.1, 503.3.4 AND 304.9
5. ALL LENGTH SHOWN ARE FROM THE GAS METER TO EITHER THE GAS APPLIANCE OR TEE FITTING.
6. PIPE GAS REGULATORS TO IFGC 2012 SECTION 410.2 AND VENT WHERE NEEDED TO 410.3

DRAWING NOTES

- ① FIRST FLOOR APARTMENT GAS METER SHALL HAVE AT LEAST 250 CFH CAPACITY.
- ② SECOND FLOOR APARTMENT GAS METER SHALL HAVE AT LEAST 250 CFH CAPACITY.
- ③ GROUND FLOOR APARTMENT GAS METER SHALL HAVE AT LEAST 250 CFH CAPACITY.

1-1/4" GAS MAIN
48" BELOW GRADE MINIMUM

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ELECTRICAL LEGEND	
X-1	HOMERUN TO DESIGNATED PANEL IN MINIMUM 3/4" CONDUIT WITH AN INSULATED GROUND WIRE (U.O.N. "X-1" INDICATES PANELBOARD AND CIRCUIT NO. RESPECTIVELY.
	CIRCUIT (IN MINIMUM 3/4" U.O.N.) CONCEALED IN WALL OR ABOVE CEILING WITH MINIMUM INSULATED GROUND WIRE (MINIMUM #12 AWG, U.O.N.) FOR EACH CONDUIT RUN #12 AWG WIRE. NUMBER OF HATCHES INDICATE NUMBER OF PHASE & NEUTRAL WIRES.
	WIRING CONCEALED IN OR UNDER FLOOR WITH MINIMUM INSULATED GROUND WIRE (MINIMUM #12 AWG, U.O.N.) FOR EACH CONDUIT RUN #12 AWG WIRE. NUMBER OF HATCHES INDICATE NUMBER OF PHASE & NEUTRAL WIRES.
CP	20A, 125V, 2P, 3W, GROUNDING TYPE DUPLEX RECEPTACLE IN SUITABLE CONCEALED WALL MOUNTED BOX, MH=18" AFF., U.O.N., (CHILD PROOF)
	20A, 125V, 2P, 3W, GROUNDING TYPE DUPLEX RECEPTACLE MOUNTED 8" ABOVE THE COUNTERTOP.
	DOUBLE DUPLEX RECEPTACLE.
WP	20A, 125V, 2P, 3W, GFCI TYPE WEATHERPROOF RECEPTACLE MH=18" AFF., U.O.N.
	20A, 125V, 2P, 3W GFCI TYPE RECEPTACLE MH=8" ABOVE THE COUNTERTOP.
	SINGLE SPECIAL RECEPTACLE, AMPERE & VOLTAGE RATINGS AS NOTED.
	DATA/COMMUNICATION OUTLET IN CONCEALED WALL BOX, MH=18" AFF., PROVIDE EMPTY 3/4" C. WITH NYLON PULL LINE FROM OUTLET BOX UP TO MINIMUM 12" ABOVE CEILING. INDICATES TWO VOICE OUTLETS AND ONE DATA OUTLET.
	DEDICATED TELEPHONE OUTLET IN CONCEALED WALL BOX, MH=18" AFF., U.O.N. PROVIDE EMPTY 3/4" C. WITH NYLON PULL LINE FROM OUTLET BOX, UP TO MINIMUM 12" ABOVE CEILING.
	DISCONNECT SWITCH IN NEMA-1 TYPE ENCLOSURE, NONFUSED, LOCKABLE HANDLE. AMP/VOLTAGE/POLE AS NOTED ON DRAWING.
	ELECTRICAL MOTOR
	PANELBOARD-120/208V. WALL MOUNTED. TOP CB IN PANEL SHALL BE MAXIMUM 72" AFF.
TTB	TELEPHONE BACKBOARD, 3/4" THK. X 48"W. X 48"H. U.O.N.
S	20A, 120/277V, 1P. TOGGLE SWITCH, MH = 48" AFF.
S3	FRACTIONAL HORSE POWER MANUAL STARTER SWITCH MELTING ALLOY 20A, 1P., 120-277V., 3-WAY TOGGLE SWITCH, MH = 48" AFF.
S3M	FRACTIONAL HORSE POWER MANUAL STARTER SWITCH MELTING ALLOY TYPE THERMAL OVERLOAD, 2 POLE, 125V., WITH RED PILOT LIGHT IN IN NEMA-3R ENCLOSURE. WALL MOUNTED AT 48" AFF.
	1'X4' FLUORESCENT FIXTURE, LETTER DESIGNATIONS CORRESPOND TO LIGHTING FIXTURE SCHEDULE.
J	JUNCTION BOX.
	20A, 125V. DUPLEX RECEPTACLE. MH = 34" AFF.
	EMERGENCY WALL PACK LIGHTING.
	CABLE TELEVISION OUTLET M.H.=18" AFF
	SMOKE DETECTOR, CEILING MOUNTED
	EXHAUST FAN.
	RECESSED LIGHTING FIXTURE. LETTER DESIGNATIONS CORRESPOND TO LIGHTING FIXTURE SCHEDULE. CROSS HATCHING IN FIXTURE INDICATES A FIXTURE ON AN EMERGENCY CIRCUIT.
	WALL MOUNTED LIGHTING FIXTURE. LETTER DESIGNATIONS CORRESPOND WITH LIGHTING FIXTURE SCHEDULE.
	UNIVERSAL MOUNTED EMERGENCY EXIT SIGN, CEILING MOUNTED, WALL MOUNTED.
	PHOTO CELL.
	OCCUPANCY SENSOR.
1	DENOTES DRAWING NOTES.
UON	UNLESS OTHERWISE NOTED.
AFF	ABOVE FINISHED FLOOR.
ECB	ENCLOSED CIRCUIT BREAKER.

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL MATERIAL AND INSTALLATION SHALL BE IN CONFORMITY WITH THE APPLICABLE CURRENT STANDARDS, RULES, REGULATIONS, AND SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:
 -NFPA 70 (NATIONAL ELECTRICAL CODE)
 -NFPA 101 (LIFE SAFETY CODE)
 -NFPA (NATIONAL BOARD OF FIRE UNDERWRITERS)
 -ADA (AMERICANS WITH DISABILITIES ACT)
 -NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 -IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS)
 -ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE)
 -ALL LOCAL AUTHORITIES HAVING JURISDICTION
2. THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS AS REQUIRED TO MEET THE DESIGN INTENT OF THESE DOCUMENTS. COORDINATE WITH FIELD CONDITIONS AT THE JOB SITE AND ALL OTHER TRADES TO DETERMINE ALL ELECTRICAL CONNECTIONS THAT MAY BE REQUIRED. ALL ELECTRICAL MATERIAL AND WORK SHALL HAVE A MINIMUM ONE YEAR GUARANTEE PERIOD TO BEGIN AT THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS AND INSPECTIONS FROM THE AUTHORITY HAVING JURISDICTION.
4. ALL WIRING INSTALLED WITHIN A RETURN AIR PLENUM SHALL BE RATED FOR SUCH AN APPLICATION.
5. INSTALL CONDUIT AND JUNCTION BOXES CONCEALED IN FINISHED SPACES.
6. ALL EQUIPMENT SHALL BE UL LISTED AND LABELED.
7. ALL CONDUCTORS SHALL BE IDENTIFIED. ALL CONDUCTORS SHALL BE COPPER WITH 600V INSULATION. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOUD COPPER WITH TYPE THHN/THWN, 90°C INSULATION. ALL CONDUCTORS 8 AWG AND LARGER SHALL BE STRANDED COPPER WITH TYPE THHN/THWN INSULATION RATED AT 90°C. AMPACITY OF CONDUCTORS SHALL BE AT 75°C RATING OR RATING OF TERMINATION, WHICHEVER IS LESS.
8. ELECTRICAL CONTRACTOR MAY UTILIZE TYPE MC CABLE IN LIEU OF CONDUIT AND WIRE IN INTERIOR, DRY, FURRED LOCATIONS WHEN PERMITTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
9. PROVIDE "HACR" CIRCUIT BREAKERS FOR HVAC EQUIPMENT.
10. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING FOR CORRECT PHASING WITHIN THE PANELS THEMSELVES. DO NOT INSTALL MORE THAN (2) SINGLE PHASE CIRCUITS WITHIN ANY ONE CONDUIT. AT COMPLETION OF WORK, ALL PANELS SHALL BE LOAD BALANCED UNDER NORMAL OPERATING CONDITIONS; PROVIDE TYPED WRITTEN PANEL DIRECTORY FOR ALL PANELBOARDS. DIRECTORY SHALL INCLUDE TYPE OF LOAD SERVED AND ROOM NUMBERS OF CIRCUIT LOCATION.
11. THE QUANTITY OF WIRES FOR CIRCUITS SHALL BE AS INDICATED AT THOSE AREAS WHERE CLARIFICATION IS REQUIRED IN ORDER TO INSURE THE PROPER OPERATION OF THE SYSTEM.
12. WIRING SHALL BE #12 AWG MINIMUM UNLESS OTHERWISE INDICATED; CONDUIT SHALL BE EMT WITH COMPRESSION FITTINGS, 3/4" MINIMUM SIZE UNLESS OTHERWISE INDICATED.
13. COORDINATE ALL LIGHT FIXTURE TYPES WITH THE ARCHITECTURAL DRAWINGS. SHOULD THERE BE A DISCREPANCY BETWEEN THE TWO, CONTACT THE ARCHITECT PRIOR TO THE PURCHASE OF ANY FIXTURES. VERIFY COMPATIBILITY WITH FINISHES. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY.
14. THE ELECTRICAL PLANS ARE DIAGRAMMATIC IN NATURE; DIMENSIONS SHOWN ARE AT A MINIMUM. ALL WRITTEN DIMENSIONS ON THESE PLANS SHALL TAKE PRIORITY OVER SCALED DIMENSIONS. CONTACT ARCHITECT SHOULD THERE BE ANY DISCREPANCIES BETWEEN WHAT IS SHOWN ON THE PLANS AND WHAT EXISTS IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. SHOULD EXACT DIMENSIONS BE REQUIRED, REFER TO THE ARCHITECTURAL PLANS.
15. MOUNTING HEIGHTS OF DEVICES, UNLESS NOTED OTHERWISE, ARE TO THE CENTERLINE OF THE EQUIPMENT. THE EXCEPTION TO THIS IS LIGHTING FIXTURES; MOUNTING HEIGHTS INDICATED ARE TO THE BOTTOM OF THE FIXTURE. COORDINATE ALL MOUNTING HEIGHTS OF THE VARIOUS DEVICES IN ORDER TO PROVIDE FOR A FINAL INSTALLATION THAT IS CONSISTENT THROUGHOUT THE SPACE.
16. ANY CUTTING AND PATCHING SHALL BE PERFORMED IN A MANNER THAT IS ACCEPTABLE TO THE ARCHITECT AND SHALL MATCH THE SURROUNDING SURFACES.
17. VERIFY DOOR SWINGS PRIOR TO LIGHT SWITCH INSTALLATION. GENERALLY, INSTALL SWITCHES ON LATCH SIDE OF DOOR.
18. GANG MULTIPLE SWITCHES UNDER ON COVER PLATE.
19. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ALL OUTLETS, SWITCHES, AND LIGHTING FIXTURES; DO NOT USE ENGINEERING PLANS FOR LOCATING DEVICES. SHOULD A CONTRACTOR PLACE A DEVICE BASED ON THE ENGINEER'S PLANS AND IT IS NOT LOCATED AS PER THE ARCHITECT'S PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS RELOCATION AT HER/HIS COST.
20. OUTLET BOXES SHALL BE INSTALLED SUCH THAT THEY ARE NOT BACK-TO-BACK; PROVIDE AN 8" MINIMUM OFFSET. ALL ELECTRICAL OUTLETS SHALL HAVE A TAG BEHIND THE COVERPLATE INDICATING THE PANELBOARD AND CIRCUIT NUMBER FROM WHICH THEY ARE FED.
21. ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL EQUIPMENT. IF APPROVED SUBMITTALS ARE FOR EQUIPMENT THAT DIFFERS WITH WHAT WAS SPECIFIED BY THE DESIGN ENGINEER, THE CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR INSURING THAT THIS EQUIPMENT IS EQUIVALENT TO THE ORIGINAL SPECIFIED EQUIPMENT AND ANY ADDITIONAL WORK OR COST AS A RESULT OF USING DIFFERING EQUIPMENT SHALL BE ABSORBED BY THE CONTRACTOR.
22. THE ELECTRICAL SYSTEM SHALL BE FULLY GROUNDED; PROVIDE GROUND WIRE IN EACH FEEDER AND EACH BRANCH CIRCUIT WHETHER INDICATED OR NOT.

23. WIRING FOR 20A BRANCH CIRCUITS SHALL BE SIZED AS INDICATED BELOW.

120V	277V
CIRCUIT LENGTH (FT.)	AWG
0-75	#12
75-150	#10
151-200	#8
24. WORK AREA SHALL BE LEFT CLEAN AT THE END OF EACH BUSINESS DAY.
25. ALL PENETRATIONS OF FIRE RATED WALL ASSEMBLIES SHALL BE PROTECTED WITH AN APPROVED FIRESTOP SYSTEM OR IN ACCORDANCE WITH IBC SECTION 712.3.1 WHERE APPLICABLE.
26. ALL PANELBOARD BUSSES AND GROUND BARS SHALL BE COPPER. BUS BAR SIZE SHALL BE BASED ON CURRENT DENSITY OF 1000A PER SQUARE INCH OF CROSS SECTIONAL AREA. PANELBOARDS SHALL BE FULLY RATED. CIRCUIT BREAKER SHALL BE BOLT ON TYPE. SUB-FEED CIRCUIT BREAKERS ARE NOT ACCEPTABLE.
27. ALL DISCONNECT SWITCH CURRENT CARRYING COMPONENTS SHALL BE COPPER.
28. THE CONTRACTOR SHALL VERIFY THAT ALL THE LIGHTING FIXTURES, RECEPTACLES, DEVICES, WIRING, EQUIPMENT, AND THEIR INSTALLATION COMPLY WITH ALL THE NEC AND LOCAL CODE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION AND OCCUPANCY REQUIREMENTS FOR THIS PROJECT. PROVIDE HANGERS AS REQUIRED BY CODE.
29. THE CONTRACTOR SHALL FURNISH AND INSTALL THE LIGHTING FIXTURES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN.
30. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE LAMPS REQUIRED (ALL THE LAMPS FOR SIMILAR FIXTURES SHALL MATCH). VERIFY MANUFACTURER AND MODEL OF BASE BUILDING FIXTURES WITH THE BUILDING OWNER'S REPRESENTATIVE.
31. THE FINAL LOCATION OF SWITCHES, OUTLETS AND OTHER DEVICES SHALL MEET ALL LOCAL CODE REQUIREMENTS (INCLUDING ALL HANDICAPPED CODE AND ADA REQUIREMENTS).
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL CIRCUITS. LIGHTING FIXTURES, OUTLETS AND ALL OTHER DEVICES FOR THEIR PROPER OPERATION (INCLUDING ALL GROUNDING).
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND PERFORMING ALL THE TESTS AND INSPECTIONS REQUIRED BY THE LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.
34. THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL THE LIGHTING FIXTURES, RECEPTACLES, DEVICES AND EQUIPMENT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE HARDWARE, PARTS, AND ACCESSORIES REQUIRED FOR THEIR PROPER INSTALLATION AND OPERATION (INCLUDING ALL THE PARTS, ACCESSORIES, AND SAFETY DEVICES REQUIRED BY CODE).
35. THE CONTRACTOR SHALL REFER TO ALL THE DRAWINGS, DETAILS, AND SPECIFICATIONS RELATED TO THIS PROJECT FOR ADDITIONAL REQUIREMENTS.
36. THE CONTRACTOR SHALL INSTALL ALL WIRING AND CONDUIT CONCEALED IN PARTITIONS AND ABOVE THE CEILING, UNLESS OTHERWISE INDICATED.
37. THE CONTRACTOR SHALL COORDINATE ALL THE ELECTRICAL WORK WITH ALL THE FIELD CONDITIONS AT THE JOB-SITE AND ALL THE OTHER TRADES INVOLVED.
38. ALL WIRING, CONDUIT, AND JUNCTION BOXES SHALL BE COLOR CODED, IDENTIFIED, AND LABELED. ALL WORK AND INSTALLATION SHOWN ON THESE DRAWINGS SHALL BE DONE BY A LICENSED CONTRACTOR WITH EXPERIENCE IN THE TYPE OF WORK REQUIRED FOR THIS PROJECT.
39. THE CONTRACTOR SHALL COORDINATE THE MANUFACTURER, MODEL, COLOR AND FINISH FOR ALL NEW.
40. COORDINATE RECEPTACLES, OUTLETS AND COVERPLATES WITH THE ARCHITECT (UNLESS A SPECIFIC COLOR CODING IS REQUIRED BY CODE).
41. ALL THE PANEL AND CIRCUIT BREAKER CAPACITY RATINGS AND THEIR CONSTRUCTION SHALL MEET ALL THE AND LOCAL CODE REQUIREMENTS.
42. THE CONTRACTOR SHALL IDENTIFY AND LABEL ALL CIRCUITS.
43. COORDINATE THE LOCATION AND INSTALLATION OF EXIT SIGN LIGHTING FIXTURES AT THE JOB-SITE AS REQUIRED TO INDICATE THE EXIT PATH AS REQUIRED BY CODE.
44. PROVIDE CAST METAL JUNCTION BOXES AND CONDUIT FOR CIRCUITS BEING INSTALLED IN EXPOSED VISIBLE LOCATIONS.

LIGHTING FIXTURE SCHEDULE					
TYPE	DESCRIPTION	MANUFACTURER	CATALOG	LAMP	VOLT.
A	15" DIAMETER PENDANT MOUNTED FLUORESCENT FIXTURE WITH BRUSHED STEEL FINISH AND SATIN WHITE GLASS.	PROGRESS LIGHTING	OWNER SELECT	LED	120
B	15" DIAMETER PENDANT MOUNTED FLUORESCENT FIXTURE WITH BRUSHED STEEL FINISH AND SATIN WHITE GLASS.	PROGRESS LIGHTING	P7327-13EBWB	2-13W QUAD CFL 4-PIN	120
C	8" DIAMETER SURFACE MOUNTED FIXTURE WITH BRUSHED NICKEL FINISH.	SEAGULL LIGHTING	5921BLE-962	1-13W GU-24 (INCLUDED)	120
D	SURFACE MOUNTED FLUORESCENT FIXTURE WITH WHITE ACRYLIC DIFFUSER IN WET LOCATION APPROVAL.	PROGRESS LIGHTING	P7372-30	2-22W FCB79 CFL	120
F	2' WALL MOUNTED DECORATIVE FIXTURE WITH BRUSHED NICKEL FINISH.	SEAGULL LIGHTING	49215BLE-962	2-14W BI-PIN TR	120
G	15" DIAMETER SURFACE MOUNTED FLUORESCENT FIXTURE WITH BRUSHED STEEL FINISH AND SATIN WHITE GLASS.	PROGRESS LIGHTING	P7324-13EBWB	2-13W QUAD CFL 4-PIN	120
H	WALL MOUNTED DECORATIVE FIXTURE WITH BRUSHED NICKEL FINISH.	PROGRESS LIGHTING	OWNER SELECT	LED	120
J	EXTERIOR WALL MOUNTED DECORATIVE FIXTURE WITH BLACK FINISH.	PROGRESS LIGHTING	P5685-31	1-13W CF	120
	SELF - CONTAINED EMERGENCY BATTERY WITH TWO HEADS.	EELP INC.	EM-1	2-5.4W KRYPTON LAMPS	120
	SELF CONTAINED EXIT SIGN WITH LED LAMPS, WHITE HOUSING AND GREEN LETTERS.	EELP INC.	XE1GW-EM XE2GW-EM	LED LAMPS (INCLUDED)	120

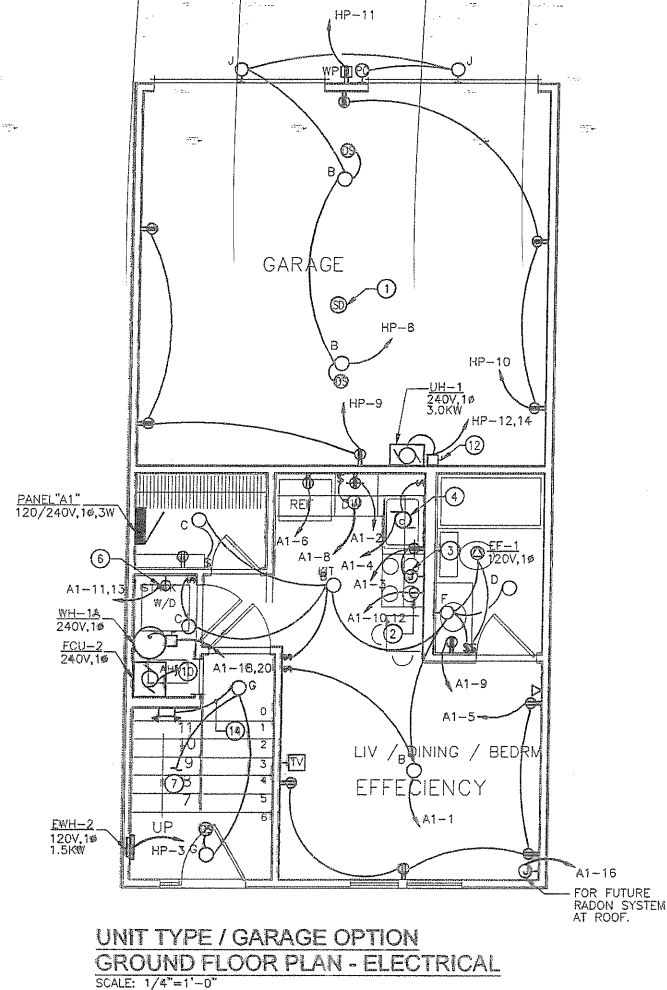
- NOTES:
 1. PROVIDE ALL LAMPS FOR LIGHT FIXTURE UNLESS WHERE NOTED OTHERWISE.
 2. CONTRACTOR SHALL COORDINATE ALL FIXTURE FINISHES PRIOR TO ORDERING.

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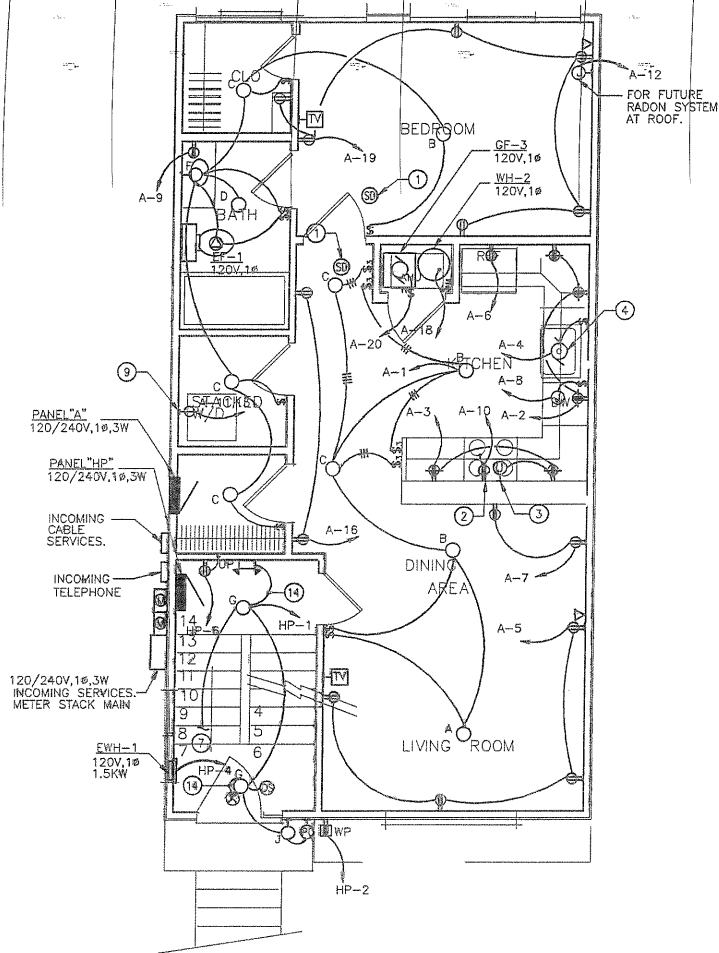
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 SCALE AS SHOWN
 DISCIPLINE ELECTRICAL
 SHEET TITLE ELECTRICAL COVER SHEET

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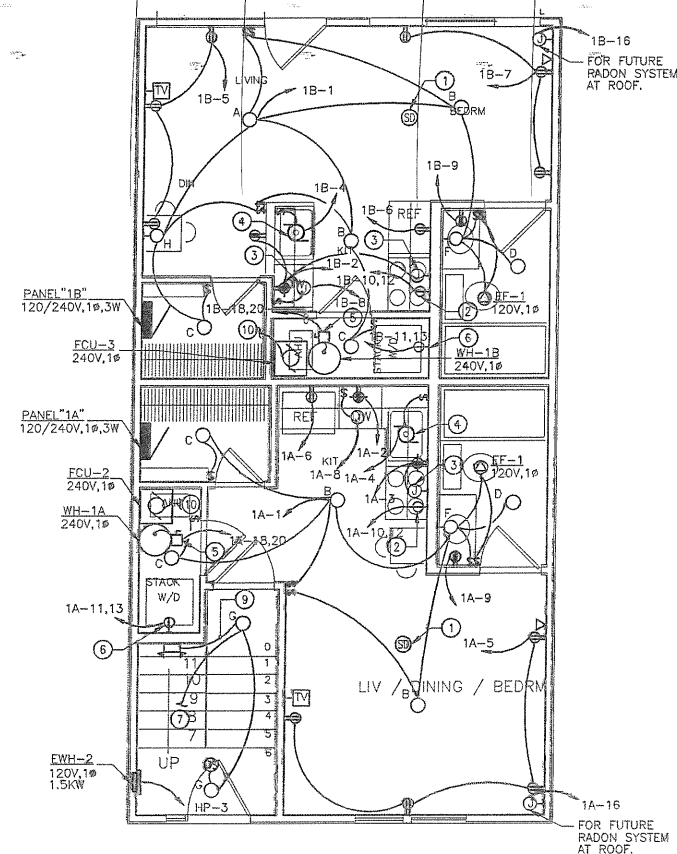
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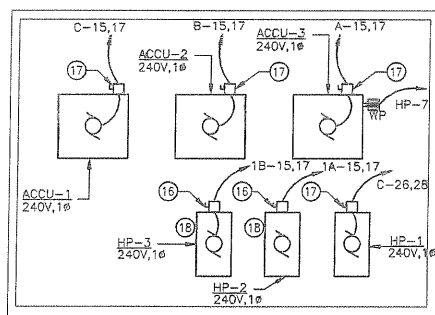
UNIT TYPE / GARAGE OPTION
 GROUND FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"



UNIT TYPE 1 GROUND FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"



UNIT TYPE 1A/1B OPTION - GROUND FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"



ROOF PART PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"

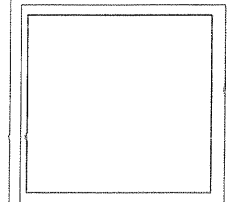
GENERAL NOTE:

- ALL APARTMENT PANELS SHALL HAVE A WHITE COVER OR COLOR AS DIRECTED BY ARCHITECT.
- PROVIDE TAMPER RESISTANT RECEPTACLES FOR ALL 125-VOLT 15 AND 20 AMP RECEPTACLES IN DWELLING UNITS IN ACCORDANCE WITH 2008 NEC ART. 406.11

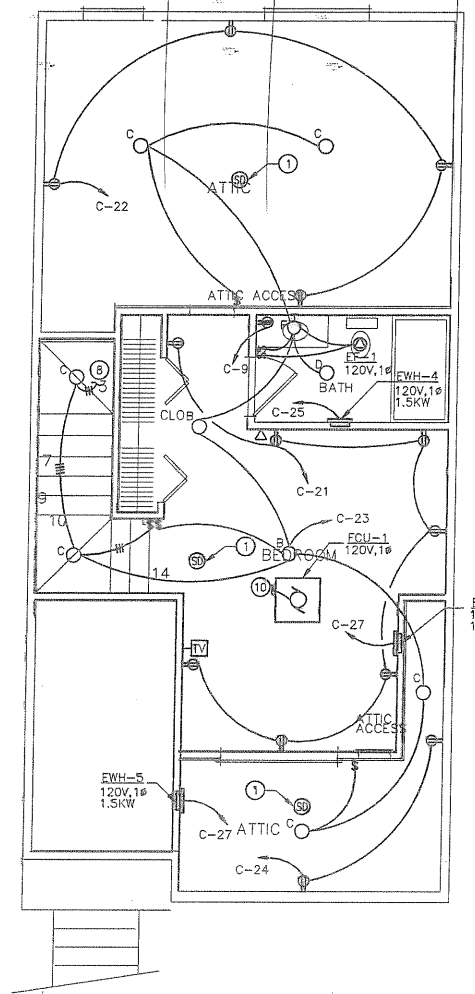
DRAWING NOTES:

- CONTRACTOR SHALL FURNISH AND INSTALL A RESIDENTIAL GRADE SMOKE DETECTOR AS INDICATED WITH 120V LINE VOLTAGE AND 9V DC BACK-UP BATTERY. ALL SHALL BE WIRED TOGETHER SO THAT WHEN ONE DETECTOR IS IN ALARM, ALL OTHERS SHALL SOUND A AUDIBLE SIGNAL.
- PROVIDE A 50A,2P,240V, SINGLE RECEPTACLE FOR THE ELECTRIC RANGE.
- CONTRACTOR TO MAKE FINAL CONNECTION TO RANGE HOOD.
- CONTRACTOR TO MAKE FINAL CONNECTION GARAGE DISPOSAL.
- PROVIDE A DUPLEX NEMA 5-20R RECEPTACLE MOUNTED 3'-6" ABOVE FINISHED FLOOR FOR WASHER (U.O.N).
- PROVIDE A SINGLE NEMA 6-30R RECEPTACLE MOUNTED 3'-6" ABOVE FINISHED FLOOR FOR DRYER (U.O.N).
- CONNECT TO LIGHTS ABOVE.
- CONNECT TO LIGHTS BELOW.
- PROVIDE A 60A,2P,240V, FSS FUSED @ 40A IN NEMA 1 ENCLOSURE FOR THE ELECTRIC TANK WATER HEATERS.
- FCU 1,2,3 IS ABOVE THE CEILING AND SHALL BE POWERED BY THE OUT DOOR UNITS.
- CONNECT TO RECEPTACLES ABOVE.
- PROVIDE A 30A,2P,240V, FSS FUSED @ 20A IN NEMA 1 ENCLOSURE FOR UH-1,2.
- PROVIDE A 30A,2P,240V, FSS FUSED @ 20A IN NEMA 1 ENCLOSURE FOR THE ELECTRIC WALL HEATERS.
- CONNECT UNSWITCHED PHASE AND NEUTRAL WIRING TO EXIT/EMERGENCY LIGHT.
- CONNECT TO RECEPTACLES BELOW.
- PROVIDE A 30A,2P,240V, FSS FUSED @ 15A IN NEMA 3R ENCLOSURE FOR HP-2,3.
- PROVIDE A 30A,2P,240V, NFSS IN NEMA 3R ENCLOSURE FOR HP-1 & ACCU-1,2,3.
- THESE UNITS ARE ONLY TO BE INSTALLED AND CONNECTED IF OWNER USE UNIT OPTION 1A/1B/A1.

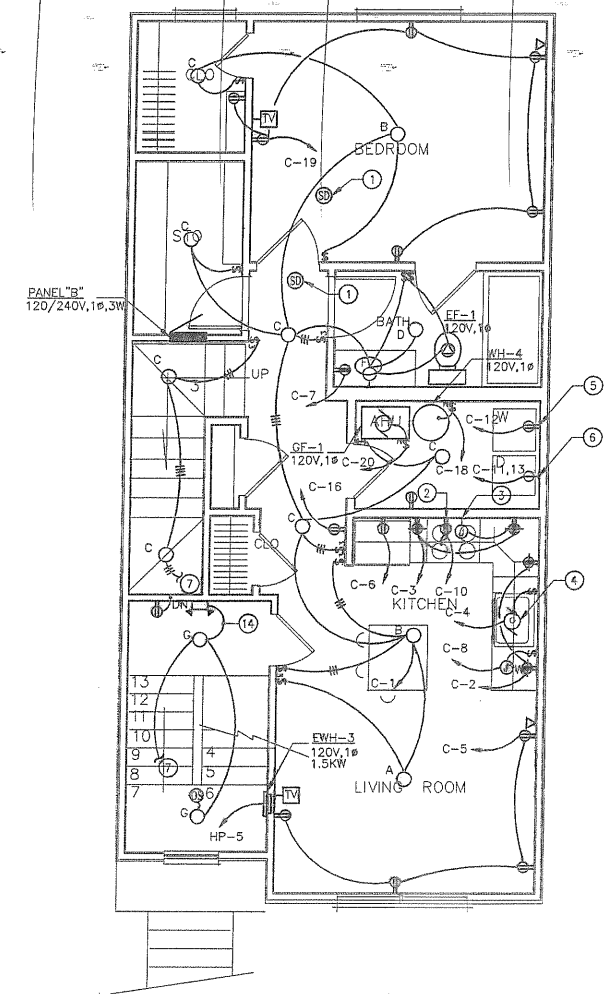
ISSUE DATE	
7.07.2017	
REVISIONS	
1	5.09.2018
2	9.14.2018
3	02.01.2019
SHEET	
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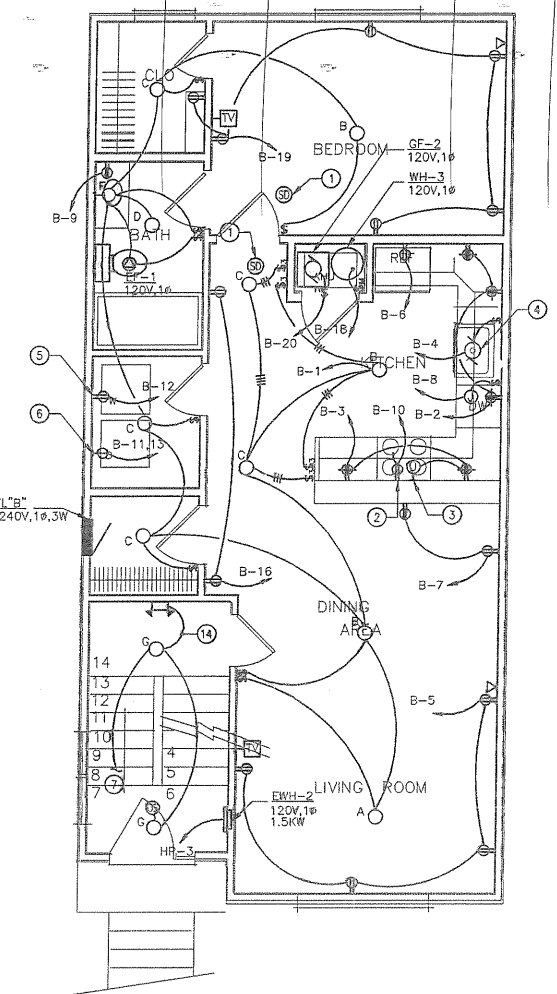
ISSUE DATE	
7.07.2017	
REVISIONS	
1	5.09.2018
2	9.14.2018
3	02.01.2019



THIRD FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"



SECOND FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"



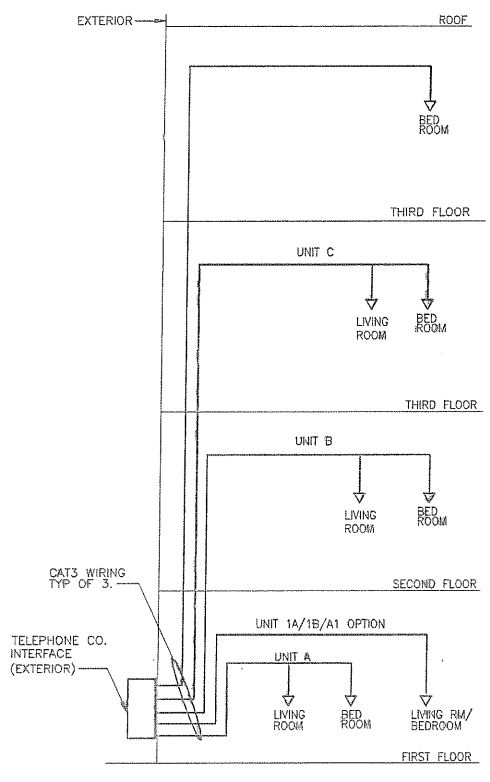
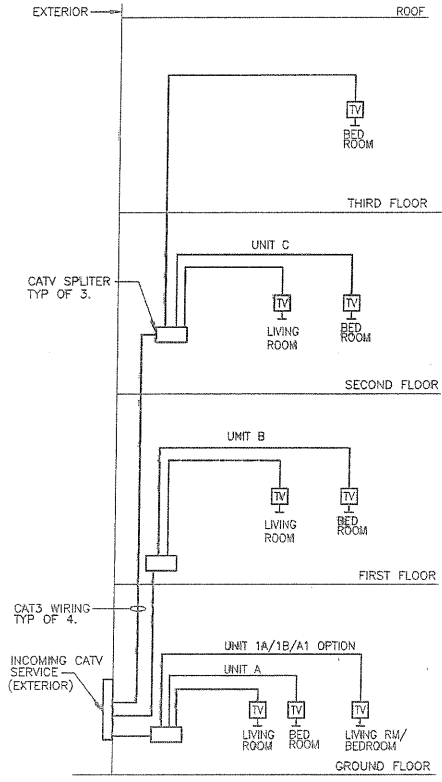
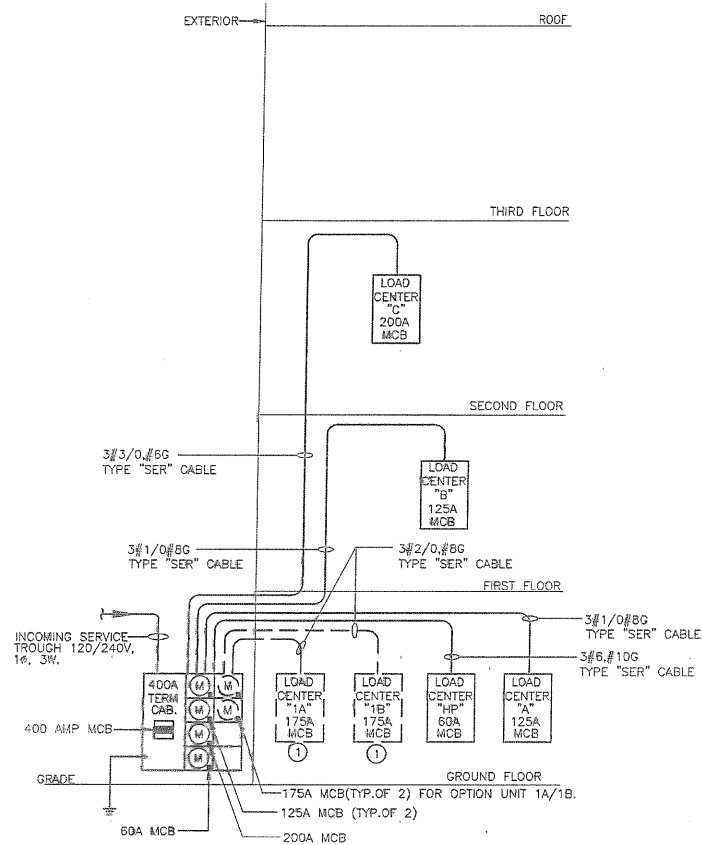
FIRST FLOOR PLAN - ELECTRICAL
 SCALE: 1/4"=1'-0"

GENERAL NOTE:

1. ALL APARTMENT PANELS SHALL HAVE A WHITE COVER OR COLOR AS DIRECTED BY ARCHITECT.
2. PROVIDE TAMPER RESISTANT RECEPTACLES FOR ALL 125-VOLT 15 AND 20 AMP RECEPTACLES IN DWELLING UNITS IN ACCORDANCE WITH 2014 NEC ART. 405.12
3. ALL ELECTRIC WALL HEATER ARE FURNISHED WITH INTERNAL DISCONNECTS FOR THERMAL OVERLOAD PROTECTION.

DRAWING NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL A RESIDENTIAL GRADE SMOKE DETECTOR AS INDICATED WITH 120V LINE VOLTAGE AND 9V DC BACK-UP BATTERY. ALL SHALL BE WIRED TOGETHER SO THAT WHEN ONE DETECTOR IS IN ALARM, ALL OTHERS SHALL SOUND A AUDIBLE SIGNAL.
2. PROVIDE A 20A, 1P, 120V, DUPLEX RECEPTACLE FOR THE GAS RANGE.
3. CONTRACTOR TO MAKE FINAL CONNECTION TO RANGE HOOD.
4. CONTRACTOR TO MAKE FINAL CONNECTION GARAGE DISPOSAL.
5. PROVIDE A DUPLEX NEMA 5-20R RECEPTACLE MOUNTED 3'-6" ABOVE FINISHED FLOOR FOR WASHER (U.O.N).
6. PROVIDE A SINGLE NEMA 6-30R RECEPTACLE MOUNTED 3'-6" ABOVE FINISHED FLOOR FOR DRYER (U.O.N).
7. CONNECT TO LIGHTS OR SWITCH ABOVE.
8. CONNECT TO LIGHTS OR SWITCH BELOW.
9. PROVIDE A SINGLE NEMA 6-30R RECEPTACLE MOUNTED 3'-6" ABOVE FINISHED FLOOR FOR STACKABLE WASHER AND DRYER (U.O.N).
10. FCU 1,2,3 IS ABOVE THE CEILING AND SHALL BE POWERED BY THE OUT DOOR UNITS HP-1,2,3.
11. CONNECT TO RECEPTACLES ABOVE.
12. PROVIDE A 30A, 2P, 240V, FSS FUSED @ 15A IN NEMA 3R ENCLOSURE FOR HP-2,3.
13. PROVIDE A 30A, 2P, 240V, NFSS IN NEMA 3R ENCLOSURE FOR HP-1 & ACCU-1,2,3.
14. CONNECT UNSWITCHED PHASE AND NEUTRAL WIRING TO EXIT/EMERGENCY LIGHT.
15. CONNECT TO RECEPTACLES BELOW.
16. THESE UNITS ARE ONLY TO BE INSTALLED AND CONNECTED IF OWNER USE UNIT OPTION 1A/1B/A1.



ISSUE DATE	
7.07.2017	
REVISIONS	
1	5.09.2018
2	9.14.2018
3	02.01.2019

SHEET
E3
 OF

LOADCENTER A														
PHASE:		WIRE:		125 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.5	2	12	1	20	KITCHEN RECEPT GFI	2
3	KITCHEN RECEPT GFI	1	20	2	12	0.5	B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING RM REC	1	20	2	12	0.9	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	DINING RM REC	1	20	2	12	0.4	B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	GAS RANGE INGHTER	10
11	DRYER	2	30	2	10	3.0	B	0.5	2	12	1	20	SMOKE DETECTOR	14
13						3.0	A	0.5	2	12	1	20	HALLWAY RECEPT	16
15	ACCU-3	2	30	2	10	2.2	B	0.4	2	12	1	20	GAS WATER HEATER	18
17						2.2	A	0.5	2	14	1	15	GF-3	20
19	BEDROOM #1 REC	1	20	2	12	1.1	B	0.5	2	14	1	15	GF-1	22
21	SPARE	1	20				A				1	20	SPARE	24
23	SPARE	1	20				B				1	20	SPARE	26
25	SPARE	1	20				A				1	20	SPARE	28
27	BUSSED SPACE						B						BUSSED SPACE	30
29	BUSSED SPACE						A						BUSSED SPACE	32
TOTAL DEMAND KVA (PER PHASE):		A: 10.6		B: 10.6		DESIGN KVA: 21.2			DESIGN AMPS: 96					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH NEC 210.12.

LOADCENTER 1B														
PHASE:		WIRE:		175 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.5	2	12	1	20	KITCHEN RECEPT GFI	2
3	SPARE	1	20				B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING/DINING RM REC	1	20	2	12	0.7	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	BEDROOM REC	1	20	2	12	0.5	B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	ELECTRIC RANGE	10
11	DRYER	2	30	2	10	3.0	B	4.0					WASHER	12
13						3.0	A	0.5	2	12	1	20	SMOKE DETECTOR	14
15	HP-3/FCU-3	2	15	2	14	1.5	B	0.5	2	12	1	20	RADON SYSTEM FAN	16
17						1.5	A	4.5	2	6	2	50	ELECTRIC WATER HEATER	18
19							B	4.5					GF-3	20
21	SPARE	1	20				A				1	20	SPARE	22
23	SPARE	1	20				B				1	20	SPARE	24
25	SPARE	1	20				A				1	20	SPARE	26
27	BUSSED SPACE						B						BUSSED SPACE	28
29	BUSSED SPACE						A						BUSSED SPACE	30
TOTAL DEMAND KVA (PER PHASE):		A: 17.2		B: 16.0		DESIGN KVA: 33.2			DESIGN AMPS: 151					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH NEC 210.12.

LOADCENTER A1														
PHASE:		WIRE:		175 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.2	2	12	1	20	KITCHEN RECEPT GFI	2
3	KITCHEN RECEPT GFI	1	20	2	12	0.4	B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING/ BEDRM REC	1	20	2	12	0.7	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	SPARE	1	20				B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	ELECTRIC RANGE	10
11	WASHER/DRYER	2	30	2	10	3.0	B	4.0					WASHER	12
13						3.0	A	0.5	2	12	1	20	SMOKE DETECTOR	14
15	HP-2/FCU-2	2	15	2	14	1.5	B	0.5	2	12	1	20	RADON SYSTEM FAN	16
17						1.5	A	4.5	2	6	2	50	ELECTRIC WATER HEATER	18
19	SPARE	1	20				B	4.5					GF-3	20
21	SPARE	1	20				A				1	20	SPARE	22
23	SPARE	1	20				B				1	20	SPARE	24
25	SPARE	1	20				A				1	20	SPARE	26
27	BUSSED SPACE						B						BUSSED SPACE	28
29	BUSSED SPACE						A						BUSSED SPACE	30
TOTAL DEMAND KVA (PER PHASE):		A: 17.1		B: 15.9		DESIGN KVA: 33.0			DESIGN AMPS: 150					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH NEC 210.12.

LOADCENTER B														
PHASE:		WIRE:		125 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.5	2	12	1	20	KITCHEN RECEPT GFI	2
3	KITCHEN RECEPT GFI	1	20	2	12	0.5	B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING RM REC	1	20	2	12	0.9	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	DINING RM REC	1	20	2	12	0.4	B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	GAS RANGE INGHTER	10
11	DRYER	2	30	2	10	3.0	B	1.5	2	12	1	20	SMOKE DETECTOR	14
13						3.0	A	0.5	2	12	1	20	SMOKE DETECTOR	14
15	ACCU-2	2	30	2	10	2.2	B	0.4	2	12	1	20	HALLWAY RECEPT	16
17						2.2	A	0.5	2	14	1	15	GAS WATER HEATER	18
19	BEDROOM #1 REC	1	20	2	12	1.1	B	0.5	2	14	1	15	GF-1	20
21	SPARE	1	20				A				1	20	SPARE	22
23	SPARE	1	20				B				1	20	SPARE	24
25	SPARE	1	20				A				1	20	SPARE	26
27	BUSSED SPACE						B						BUSSED SPACE	28
29	BUSSED SPACE						A						BUSSED SPACE	30
TOTAL DEMAND KVA (PER PHASE):		A: 10.6		B: 11.6		DESIGN KVA: 22.2			DESIGN AMPS: 101					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH NEC 210.12.

LOADCENTER 1A														
PHASE:		WIRE:		175 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.2	2	12	1	20	KITCHEN RECEPT GFI	2
3	KITCHEN RECEPT GFI	1	20	2	12	0.4	B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING RM REC	1	20	2	12	0.9	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	SPARE	1	20				B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	ELECTRIC RANGE	10
11	DRYER	2	30	2	10	3.0	B	4.0					WASHER	12
13						3.0	A	0.5	2	12	1	20	SMOKE DETECTOR	14
15	HP-2/FCU-2	2	15	2	14	1.5	B	0.5	2	12	1	20	RADON SYSTEM FAN	16
17						1.5	A	4.5	2	6	2	50	ELECTRIC WATER HEATER	18
19	SPARE	1	20				B	4.5					GF-3	20
21	SPARE	1	20				A				1	20	SPARE	22
23	SPARE	1	20				B				1	20	SPARE	24
25	SPARE	1	20				A				1	20	SPARE	26
27	BUSSED SPACE						B						BUSSED SPACE	28
29	BUSSED SPACE						A						BUSSED SPACE	30
TOTAL DEMAND KVA (PER PHASE):		A: 17.1		B: 15.9		DESIGN KVA: 33.0			DESIGN AMPS: 150					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH NEC 210.12.

LOADCENTER C														
PHASE:		WIRE:		200 AMP MAIN C/B									A.I.C.: 10k FLUSH MOUNTED:	
CKT	SERVING	P	TRIP	QTY	AWG	KVA	PH	KVA	QTY	AWG	P	TRIP	SERVING	CKT
1	LIGHTING	1	20	2	12	1.2	A	0.4	2	12	1	20	KITCHEN RECEPT GFI	2
3	KITCHEN RECEPT GFI	1	20	2	12	0.5	B	0.8	2	12	1	20	GARAGE DISPOSAL	4
5	LIVING RM REC	1	20	2	12	1.3	A	1.1	2	12	1	20	REFRIGERATOR REC	6
7	BATH RM #1 REC GFI	1	20	2	12	0.2	B	1.2	2	12	1	20	DISHWASHER	8
9	BATH RM #2 REC GFI	1	20	2	12	0.2	A	0.5	2	12	1	20	GAS RANGE INGHTER	10
11	DRYER	2	30	2	10	3.0	B	1.5	2	12	1	20	WASHER	12
13						3.0	A	0.5	2	12	1	20	SMOKE DETECTOR	14
15	ACCU-2	2	30	2	10	2.2	B	0.4	2	12	1	20	HALLWAY RECEPT	16
17						2.2	A	0.5	2	14	1	15	GAS WATER HEATER	18
19	BEDROOM #1 REC	1	20	2	12	1.1	B	0.5	2	14	1	15	GF-1	20
21	BEDROOM #2 REC	1	20	2	12	1.3	A	0.7	2	12	1	20	ATTIC RECEPT GFI	22
23	LIGHTING	1	20	2	12	1.0	B	0.4	2	12	1	20	ATTIC RECEPT GFI	24
25	ENH-5	1	20	2	12	1.5	A	3.3	2	10	2	30	HP-1/FCU-1	26
27	ENH-7	1	20	2	12	1.5	B	3.3					HP-1/FCU-1	28
29	SPARE	1	20				A				1	20	SPARE	30
31	SPARE	1	20				B				1	20	SPARE	32
33	SPARE	1	20				A				1	20	SPARE	34
35	SPARE	1	20				B				1	20	SPARE	36
37	BUSSED SPACE						A						BUSSED SPACE	38
39	BUSSED SPACE						B						BUSSED SPACE	40
41	BUSSED SPACE						A						BUSSED SPACE	42
TOTAL DEMAND KVA (PER PHASE):		A: 17.7		B: 17.6		DESIGN KVA: 35.3			DESIGN AMPS: 161					

* PROVIDE HANDLE LOCK-ON C/B COVER.
 NOTES:
 1. PROVIDE ARC-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKERS FOR ALL BRANCH CIRCUITS FEEDING RECEPTACLES IN DWELLING UNITS, IN ACCORDANCE WITH