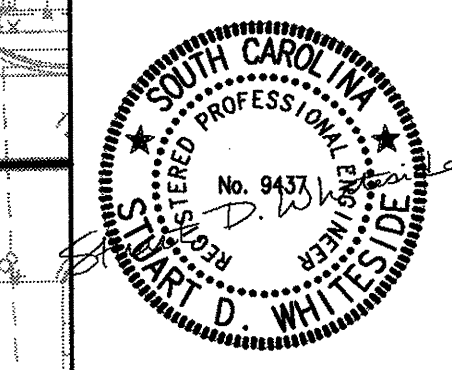


OFFICES at BELLE HALL
 Southeast Management and Leasing Corporation
 Mount Pleasant, South Carolina



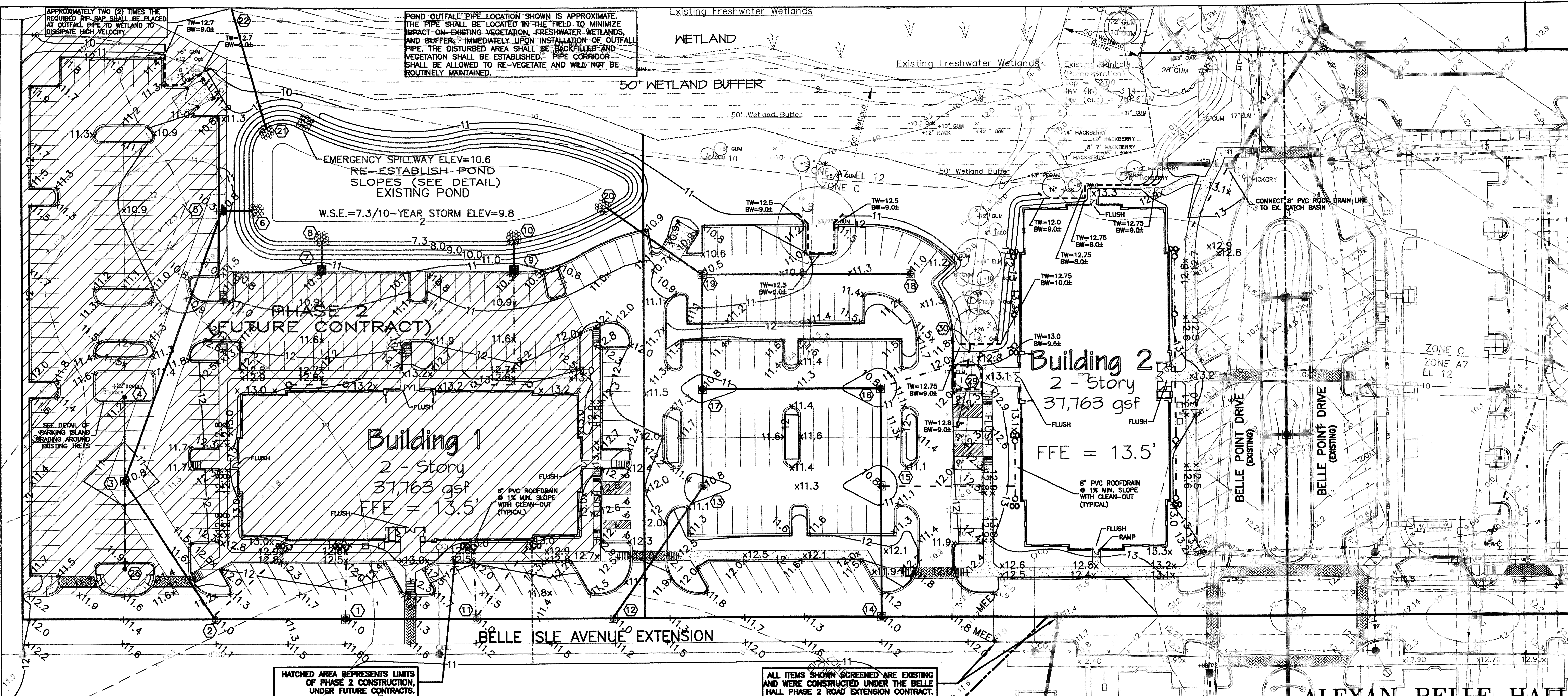
DRAWN BY: AJA
 CHECKED BY: SOW

PLOT SCALE:
 1" = 1'
 SERVER FILENAME:
 3552\CDWG\3552grad.dwg

PROJECT:
 DATE: 1/06/06

NO.	DATE	REVISION NOTES	BY	UD	JD	BP	BP	BP	BP
1	8/20/05	GRADING FROM REVISED PARKING LOT LAYOUT							
2	1/14/06	FLARE END OF TREE WELL RETAINING WALL PER MT PLEASANT SUBMITTAL TO TOWN							
3	1/16/06	FINAL SUBMITTAL TO TOWN							
4	1/27/06	RES. TO DR. CHARTS & CONSTRUCTION LIMITS							
5	1/27/06	ADDED ADDITIONAL ROOF DRAIN LINES & REVISED SIZE TO 8"							
6	1/30/06	REVISED SITE GRADING							
7	1/27/06	REVISED SITE PLAN PER UPDATED BOUNDARY							

GRADING & DRAINAGE PLAN



GENERAL NOTES:

- THE 5.61-AC. SITE IS CURRENTLY UNDEVELOPED AND IS IDENTIFIED AS CHARLESTON COUNTY TMS# 540-00-00-002
- THE PROPOSED USE OF THE SITE IS BUSINESS AND MEDICAL OFFICES
- CURRENT ZONING: PUD DEVELOPMENT (40 USES)
- BUILDING SETBACKS: FRONT/REAR YARD N/A
SIDE YARD N/A
- THE OWNER/DEVELOPER IS:
SOUTHEAST MANAGEMENT AND LEASING CORPORATION
171 VIRGINIA AVENUE
ATLANTA, GA 30354-1311
CONTACT: JIM SMITH PHONE: (404) 762-8001
- BOUNDARY, TOPOGRAPHIC, AND TREE SURVEY BY A.H. SCHWACKE AND ASSOCIATES, INC.
- ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL (M.S.L.) NGVD 1929
- THIS PROPERTY LIES IN FLOOD ZONE AE (ELEVATION 12) BASED ON FEMA FLOOD INSURANCE RATE MAP COMMUNITY NUMBER #455417, PANEL 0528, SUFFIX J, DATED NOVEMBER 17, 2004
- ALL INTERNAL MEASUREMENTS ARE CALCULATED AND ARE NOT SURVEYED UNLESS OTHERWISE NOTED
- THE CONTRACTOR SHALL VERIFY THE EXISTING TOPOGRAPHIC WORK AND EXISTING UTILITY LINE LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING WORK. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES ON THE DRAWINGS PRIOR TO BEGINNING WORK OR DURING CONSTRUCTION, HE SHALL NOTIFY THE ENGINEER IMMEDIATELY
- ALL CONTRACTORS MUST HAVE A MT. PLEASANT BUSINESS LICENSE PRIOR TO BEGINNING WORK
- UTILITY SERVICE TO SITE PROVIDED AS FOLLOWS:
SEWER: MT. PLEASANT WATERWORKS
ELECTRICAL: SCE&G
TELEPHONE: BELLSOUTH
- REFER TO ARCHITECTURAL PLANS FOR BUILDING DETAILS
- AN AUTOCAD DISK OF THIS DRAWING WILL BE PROVIDED TO THE CONTRACTOR FOR STAKING PURPOSES
- SIGHT DISTANCE VISIBILITY AT ALL EXITS AND/OR INTERSECTIONS SHALL BE MAINTAINED ACCORDANCE WITH SCDOT'S ACCESS AND ROADSIDE MANAGEMENT STANDARDS MANUAL

EXISTING UTILITY NOTE:

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

THE CONTRACTOR IS REMINDED THAT IN ADDITION TO THE GRADING SCOPE OF WORK SHOWN ON THIS PLAN, ALL RECOMMENDATIONS CONTAINED IN THE SUBSURFACE EXPLORATION BY S&M, INC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR!!

CONSTRUCTION SEQUENCE:

- CLEAR & GRUB AREAS REQUIRED FOR INSTALLATION OF PERIMETER EROSION CONTROL
- INSTALL & MAINTAIN TEMPORARY CONSTRUCTION ENTRANCE
- INSTALL & MAINTAIN PERIMETER EROSION CONTROLS
- COMPLETE CLEARING AND GRUBBING
- COMPLETE ROUGH GRADING OF SITE
- BEGIN BUILDING CONSTRUCTION
- INSTALL STORMWATER DRAINAGE CULVERTS, AND UTILITIES (STORMDRAINS WILL BE UTILIZED DURING CONSTRUCTION)
- COMPLETE POUD EXCAVATION
- INSTALL & MAINTAIN EROSION CONTROL AROUND STORMDRAIN BOXES
- COMPLETE FRONTYARD AND PARKING LOT CONSTRUCTION
- COMPLETE FINE GRADING OF LANDSCAPED AREAS
- INSTALL SEED AND ESTABLISH TURF ON ALL DISTURBED AREAS
- REMOVE EROSION CONTROL PROTECTION

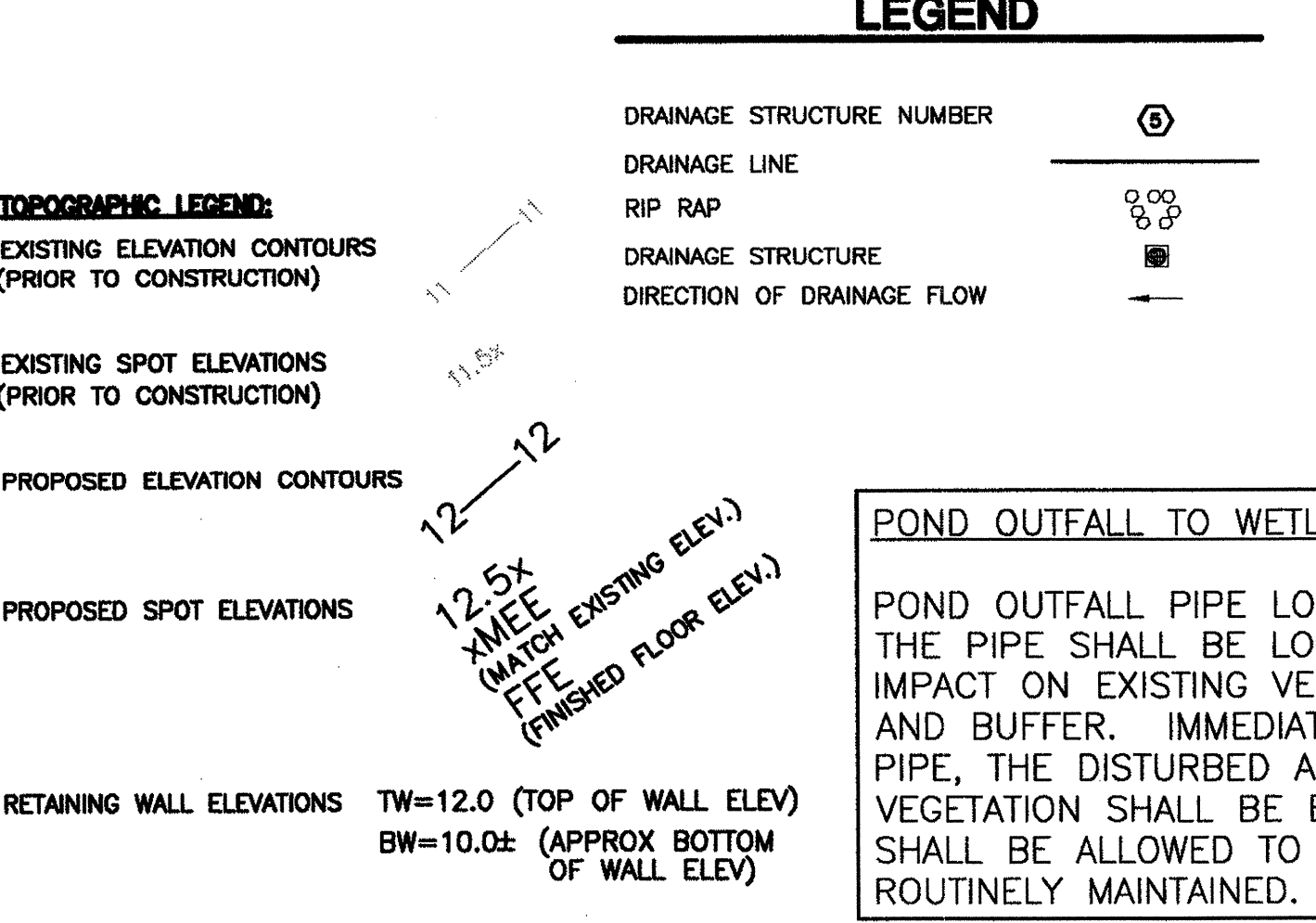
DRAINAGE SYSTEM MAINTENANCE PLAN (EXISTING AND PROPOSED):

- ALL STORMWATER MAINTENANCE OF THE DRAINAGE SYSTEM SHALL BE BY THE PROPERTY OWNER. FUNCTIONAL MAINTENANCE BY THE OWNER SHALL BE PERFORMED ONCE EVERY THREE (3) MONTHS OR AS NECESSARY TO INSURE THAT THE DRAINAGE SYSTEM PERFORMS AS DESIGNED TO PROVIDE NECESSARY FLOOD AND WATER QUALITY CONTROL
- THE PROPERTY OWNER IS RESPONSIBLE FOR AESTHETIC MAINTENANCE OF THE SYSTEM AND SHALL ESTABLISH AND PERFORM AN ACCEPTABLE LEVEL OF MAINTENANCE PER THE COMMUNITY STANDARDS.
- MAINTENANCE SHALL INCLUDE PERIODIC INSPECTIONS OF CATCH BASINS, EXISTING AND PROPOSED DETENTION PONDS, DRAINAGE LINES, REMOVAL OF DEBRIS, WEED REMOVAL (MANUAL REMOVAL PREFERRED), REPAIR AND REPLACEMENT OF DAMAGED STRUCTURES, AND REPAIR OF EROSION IN AND AROUND THE SYSTEM. ALL ACCUMULATED DEBRIS AND SILTATION SHALL BE REMOVED FROM THE SYSTEM TO PROVIDE THE DESIGN STORAGE VOLUME OF THE DRAINAGE SYSTEM
- IT SHALL BE THE OWNER'S RESPONSIBILITY TO MAINTAIN AND OPERATE ALL DRAINAGE LINES AND STRUCTURES IN A MANNER TO ADHERE TO THE TOWN OF MT. PLEASANT AND THE OFFICE OF OCEAN AND COASTAL RESOURCES MANAGEMENT'S REGULATIONS AND GUIDELINES
- SILT FENCE INSTALLED BY THE SITE CONTRACTOR SHALL BE MAINTAINED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION. SEDIMENT BUILD UP AT THE SILT FENCING SHALL BE REMOVED PERIODICALLY AS NEEDED.
- IT IS THE OWNER'S RESPONSIBILITY TO PERIODICALLY INSPECT AND IMMEDIATELY REMOVE OIL, GREASE, GAS, ETC. PRESENT IN THE PARKING LOT (AS A RESULT FROM VEHICLES) AS THEY THREATEN THE PERFORMANCE OF THE DRAINAGE SYSTEM.

ALL ELEVATIONS SHOWN ARE TO THE BOTTOM FACE OF CURB OR EDGE OF ASPHALT UNLESS OTHERWISE NOTED.

SEDIMENT CONTROL NOTES:

- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST EVERY 7 CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES IN PRECIPITATION DURING ANY 24 HR PERIOD. ALL SEDIMENT CONTROL FEATURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN 21 DAYS.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFF SITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
- THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO THE PAVED ROADWAY FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION.



DRAINAGE STRUCTURES

CODE	STRUCTURE TYPE	INVERT ELEVATION
1	CATCH BASIN	11.00
2	CATCH BASIN	11.00
3	CATCH BASIN	10.80
4	CATCH BASIN	10.80
5	CURB INLET	10.80
6	RIP RAP PIPE OUTLET	---
7	RIP RAP PIPE OUTLET	---
8	RIP RAP PIPE OUTLET	---
9	RIP RAP PIPE OUTLET	---
10	RIP RAP PIPE OUTLET	---
11	CATCH BASIN	11.00
12	CATCH BASIN	11.00
13	CATCH BASIN	10.80
14	CATCH BASIN	11.00
15	CATCH BASIN	10.80
16	CATCH BASIN	10.80
17	CATCH BASIN	10.80
18	CATCH BASIN	11.00
19	CATCH BASIN	10.50
20	RIP RAP PIPE OUTLET	---
21	RIP RAP PIPE INLET	---
22	PIPE OUTLET	---
23	PIPE INLET	---
29	PIPE INLET	---
30	PIPE OUTLET	---

DRAINAGE STRUCTURES

LINE	AREA (ACRES)	CUM. C	Ts (HR)	I (IN/HR)	Q (CFS)	PIPE DIA.	SLOPE (FT/FT)	LENGTH (FT)	UPPER ELEV.	LOWER ELEV.
1-2	0.32	0.93	10.00	6.54	1.95	15	0.00325	80	7.68	7.42
2-3	0.48	0.93	10.44	6.38	2.85	18	0.00250	100	7.17	6.91
3-5	0.97	0.88	11.40	6.13	5.23	18	0.00255	176	6.91	6.46
5-6	1.43	0.88	12.00	6.05	7.81	24	0.00250	24	5.96	5.90
7-8	0.26	0.85	10.00	6.54	1.57	15	0.00325	80	7.68	7.42
9-10	0.32	0.85	10.00	6.54	1.24	15	0.00325	80	7.68	7.42
11-12	0.35	0.93	10.00	6.54	2.13	15	0.00325	80	7.57	7.31
12-13	0.53	0.88	10.44	6.38	2.88	18	0.00250	100	7.06	6.81
13-17	0.72	0.87	11.00	6.18	3.87	18	0.00250	80	6.81	6.86
17-19	1.50	0.86	11.33	6.14	7.92	24	0.00250	72	6.16	5.98
19-20	1.80	0.86	11.73	6.08	9.42	24	0.00250	72	5.98	5.80
14-15	0.22	0.85	10.00	6.54	1.22	15	0.00325	80	7.57	7.31
15-16	0.41	0.85	10.44	6.38	2.22	18	0.00250	80	7.06	6.91
16-17	0.60	0.86	10.78	6.26	3.23	18	0.00250	100	6.91	6.86
18-19	0.10	0.86	10.00	6.54	0.56	15	0.00400	128	7.24	6.73
21-22	ROUTED	---	---	---	9.54	15	0.0042	72	7.30	7.00
29-30	0.01	0.40	10.00	6.54	0.03	6 (ADS)	0.01866	15	9.75	9.5

RCP: SHALL BE TONGUE AND GROOVE REINFORCED CONCRETE PIPE PER ASTM-C76, CLASS III. JOINTS SHALL BE SEALED WITH RAM-NEK (SEE SPECIFICATIONS) OR EQUIVALENT AND THE EXTERIOR OF THE JOINT SHALL BE WRAPPED WITH FILTER FABRIC 18" IN WIDTH.

POND OUTFALL TO WETLANDS NOTE:

POND OUTFALL PIPE LOCATION SHOWN IS APPROXIMATE. THE PIPE SHALL BE LOCATED IN THE FIELD TO MINIMIZE IMPACT ON EXISTING VEGETATION, FRESHWATER WETLANDS, AND BUFFER. IMMEDIATELY UPON INSTALLATION OF OUTFALL PIPE, THE DISTURBED AREA SHALL BE BACKFILLED AND VEGETATION SHALL BE ESTABLISHED. PIPE CORRIDOR SHALL BE ALLOWED TO RE-VEGETATE AND WILL NOT BE ROUTINELY MAINTAINED.

