

**DESIRABLE DRIVEWAY GRADES**

DRIVEWAY WIDTH	GRADE
8' OR LESS	2.0%
8' TO 12'	2.5%
12' TO 16'	3.0%
16' TO 20'	3.5%
20' TO 24'	4.0%
24' TO 28'	4.5%
28' TO 32'	5.0%
32' TO 36'	5.5%
36' TO 40'	6.0%
40' TO 44'	6.5%
44' TO 48'	7.0%
48' TO 52'	7.5%
52' TO 56'	8.0%
56' TO 60'	8.5%

**MAXIMUM DRIVEWAY GRADES**

DRIVEWAY WIDTH	GRADE
8' OR LESS	2.0%
8' TO 12'	2.5%
12' TO 16'	3.0%
16' TO 20'	3.5%
20' TO 24'	4.0%
24' TO 28'	4.5%
28' TO 32'	5.0%
32' TO 36'	5.5%
36' TO 40'	6.0%
40' TO 44'	6.5%
44' TO 48'	7.0%
48' TO 52'	7.5%
52' TO 56'	8.0%
56' TO 60'	8.5%

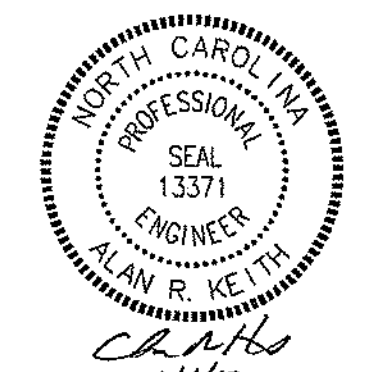
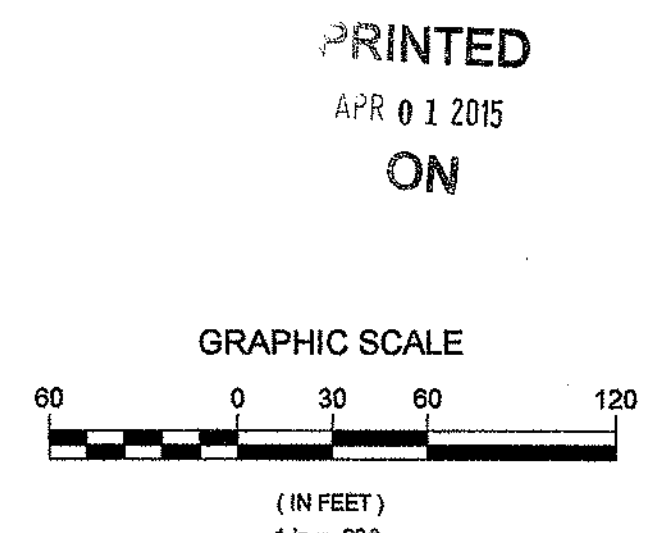
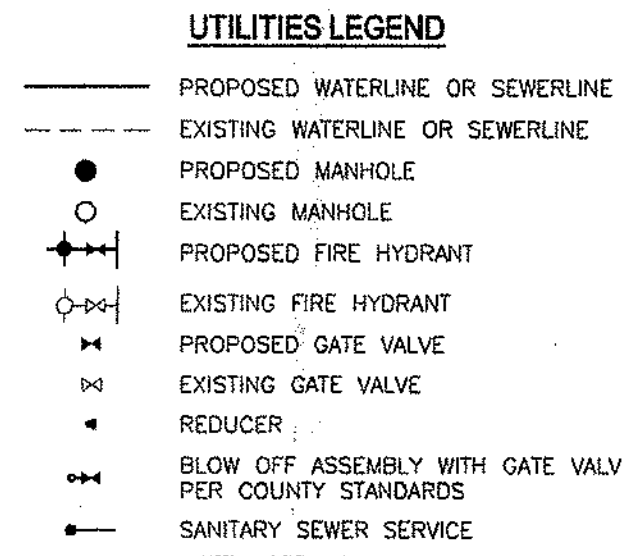
**PROPERTY INFORMATION**  
 PIN NO. : 9774-43-1655.000  
 PARCEL NO. : 18998  
 ZONING: CUD RA-40  
 FLOOD MAP NUMBER: 3710977400J

**AREA B**  
 ACREAGE: 12.71 AC  
 OPEN SPACE: 2.05 AC  
 RIGHT OF WAY: 1.56 AC  
 BUILDING LOT (FEE SIMPLE OWNERSHIP SINGLE FAMILY HOME): 9.12 AC

- GENERAL NOTES**
- SURVEY INFORMATION FROM VAN FINCH LAND SURVEYS, PITTSBORO, NC PROJECT LAYOUT AND SKETCH PLAN BY SEARS DESIGN GROUP, RALEIGH, NC.
  - ALL WATER MAINS SHALL BE OWNED AND OPERATED BY CHATHAM COUNTY PUBLIC UTILITIES. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH CHATHAM COUNTY PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS.
  - SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC. (FARRINGTON UTILITIES)
  - MAINTENANCE OF "MILLCREEK CIRCLE" WILL BE THE RESPONSIBILITY OF FITCH CREATIONS, INC. UNTIL CONVEYED TO THE HOMEOWNERS ASSOCIATION OR TO N.C.D.O.T.
  - EASEMENT FOR THE CHATHAM COUNTY WATER SYSTEM. CHATHAM COUNTY WILL NOT BE RESPONSIBLE FOR RESTORING PRIVATE INFRASTRUCTURE (WASTEWATER SYSTEM COMPONENTS, STREETS, SIDEWALKS, CURBS AND GUTTER LANDSCAPING, ETC.) IN THE COURSE OF REPAIRING THE PUBLIC WATER SYSTEM.

- PROTECTION ZONES FOR OPEN SPACE, BUFFERS AND UTILITY EASEMENTS - FROM SKETCH PLAN BY SEARS DESIGN GROUP, RALEIGH, NC.**
- Type 1 - Perimeter Open Space and Buffer Easement:**  
 This zone will have a trail system for pedestrians and mature trees will be maintained for buffering homes from surrounding uses. Utilities can be placed in this area, as can storm water control devices. Additional ornamental and evergreen plantings can be placed. Invasive species of vegetation can be removed as can pines less than 6" @. Pedestrian trail can occur in this zone.
- Type 2 - Open Space Buffer and Utility Easement:**  
 This zone is placed onto the property lot and is owned by the Property Owner. It is a no tree cut zone and a no build zone. Utilities can be placed through this on the property side lines. Individual lot storm water devices will be allowed in these areas. Invasive species of vegetation can be removed from this zone.
- Type 3 - Existing Off Site Water Hazard Setback/Vegetative Stream Buffer Open Space:**  
 This is an existing no cut, no build zone of 50' width per 1994 Chatham County Subdivision and Watershed Protection Ordinance, Section 304. This is on the existing Knolls Community project area, not in this section.
- Type 4 - Perennial Streamway Buffer:**  
 100' wide from top of stream bank. Riparian Buffer. This is a no cut, no build zone. Invasive species of vegetation can be removed by hand only. No utilities nor storm water devices can be placed in this zone.
- Type 5 - Open Space Buffer and Landscape Easement:**  
 This zone is for establishing long term buffering between dwellings. It will preserve existing vegetation where possible while allowing grading, individual storm water devices, pathways, and utilities. This zone allows placement of additional evergreen and ornamental plantings and is a no build zone.
- Type 6 - Utility and Storm Water Devices:**  
 This zone is for utilities and storm water devices and is to be owned by the H.O.A.

- NOTES:**
- CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - ALL WORK ON MILLCREEK RIGHT OF WAY SHALL BE IN COMPLIANCE WITH NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (NCDOT) STANDARDS AND SPECIFICATIONS. ALL WORK SHALL BE IN COMPLIANCE WITH ALL TERMS AND CONDITIONS OF DRIVEWAY PERMIT AND ENCROACHMENT AGREEMENTS. CONTRACTOR SHALL MAINTAIN A COPY ON SITE DURING CONSTRUCTION.
  - ALL APPLICABLE CHATHAM COUNTY EROSION CONTROL ORDINANCES SHALL BE FOLLOWED.
  - NOTIFY CHATHAM COUNTY (WATER, EROSION CONTROL), NCDOT (WORK ON R/W), OR FITCH CREATIONS, INC. (SEWER) PRIOR TO WORK ON THEIR RESPECTIVE SYSTEMS.
  - VERIFY FINAL LOT LINE LOCATION AND SANITARY SEWER SERVICE LOCATION WITH FITCH CREATIONS PRIOR TO SERVICE INSTALLATION.
  - RETROREFLECTIVE STOP SIGN PER NCDOT & MUTCD STANDARDS, MOUNT ON 350 CRASH COMPLIANT POST.



JOB NO. ?  
 DESIGN: ARK  
 DRAWING: MAT  
 CHECKED: ARK  
 SCALE: 1" = 60'  
 FILE: Millcreek Circle Area B.dwg

**DIEHL & PHILLIPS, P.A.**  
 CONSULTING ENGINEERS - LIC. NO. C-0465  
 1500 Phyllis Plaine Rd., Suite 200  
 CARY, N.C. 27518 • (919) 467-9972

**D&P**

**FARRINGTON VILLAGE**  
 SECTION X AREA B  
 FARRINGTON P.U.D.  
 CHATHAM COUNTY, NORTH CAROLINA

**SUBDIVISION AND UTILITY PLAN**

PRINTED ON APR 01 2015

SHEET 1 OF 8

**NOTES:**

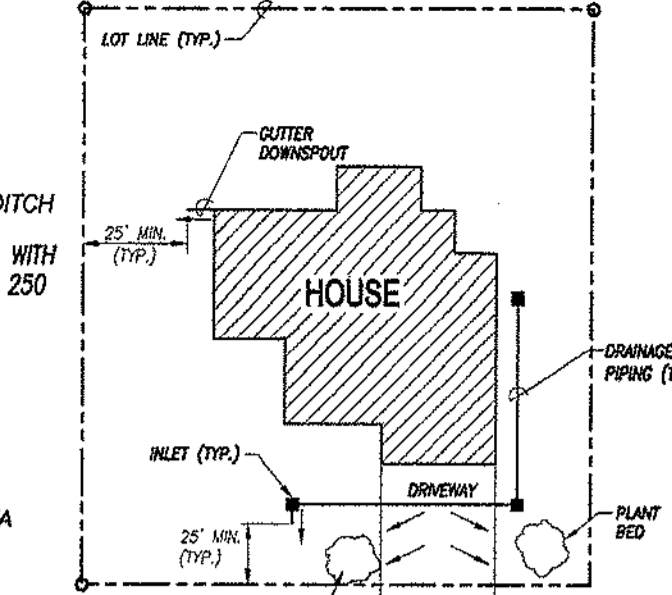
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- SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC.
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- STREETS SHALL BE MAINTAINED BY FITCH CREATIONS, INC. UNTIL SUCH TIME AS THEY ARE TAKEN OVER BY NCDOT OR HOMEOWNERS ASSOCIATION FOR MAINTENANCE.
- ALL APPLICABLE CHATHAM COUNTY EROSION CONTROL ORDINANCES SHALL BE FOLLOWED. THIS PROJECT WILL EMPLOY LOW IMPACT DEVELOPMENT METHODS. SEE SHEET 2.
- NOTIFY CHATHAM COUNTY (WATER EROSION CONTROL), NCDOT (WORK ON R/W), OR FITCH CREATIONS, INC. (SEWER) PRIOR TO WORK ON THEIR RESPECTIVE SYSTEMS.
- VERIFY FINAL LOT LINE LOCATION AND SANITARY SEWER SERVICE LOCATION WITH FITCH CREATIONS PRIOR TO SERVICE INSTALLATION.
- REMOVE SEDIMENT AS REQUIRED FROM EXISTING SEDIMENT BASIN NO. 1 IN AREA B. REPAIR/RESTORE BATTERIES INSTALL SIMMER - ATTACH TO 6" D.I. OUTLET PIPE.

DNS, INC.  
PG. 97

EXISTING MILLCROFT CLUSTER HOMES

**EROSION CONTROL LEGEND**

- STORM DRAIN
- FLARED-END-SECTION
- TEMPORARY DIVERSION DITCH
- TEMPORARY DIVERSION DITCH WITH NORTH AMERICAN GREEN SC 250
- SILT FENCE
- GRAVEL CONSTRUCTION ENTRANCE PAD
- LIMITS OF DISTURBANCE
- STOCKPILE/BORROW AREA
- SLOPE STEEPER THAN 3:1
- INLET PROTECTION



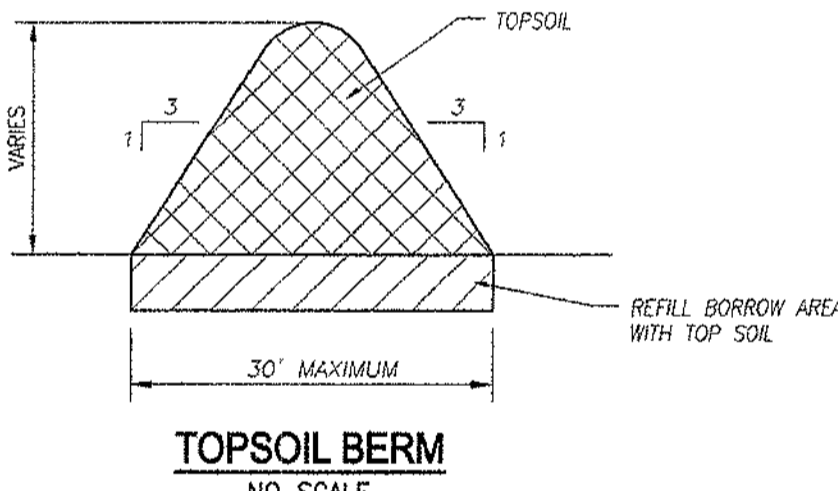
TYPICAL LOT DRAINAGE SCHEME FOR LOW IMPACT DEVELOPMENT  
NO SCALE

H:\V-Current Project Drawings\Mill Ridge\Phase 3\Stabilization Time Frame.dwg

**SELF INSPECTION NOTICE:**

**NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:**

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH STAGE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED. RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS TOOK EFFECT OCTOBER 1, 2010. THE SELF-INSPECTION PROGRAM IS SEPARATE FROM THE WEEKLY SELF-MONITORING PROGRAM OF THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES. THE FOCUS OF THE SELF-INSPECTION REPORT IS THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES ACCORDING TO THE APPROVED PLAN. THE INSPECTIONS MUST BE CONDUCTED AFTER EACH STAGE OF THE PROJECT, AND CONTINUED UNTIL PERMANENT GROUND COVER IS ESTABLISHED IN ACCORDANCE WITH NCGS 113A-54.1 AND 116A NCGS 48.0131. THE SELF-INSPECTION REPORT FORM IS AVAILABLE AS AN EXCEL SPREADSHEET FROM [HTTP://WWW.DLR.ENR.STATE.NC.US/PAGES/SEDIMENTATION\\_NEW.HTML](http://www.dlr.enr.state.nc.us/pages/SEDIMENTATION_NEW.HTML). IF YOU HAVE QUESTIONS OR CANNOT ACCESS THE FORM, PLEASE CONTACT THIS OFFICE AT (919) 791-4200.



TOPSOIL BERM  
NO SCALE

INLET DATA									
INLET No.	TYPE	STATION	DRAINAGE AREA (AC.)	Q <sub>10</sub> INTO INLET	INVERT IN	INVERT OUT	T.O.C./TOP	NCDOT DEPTH	
J	C.I.	MILLCREEK ENTRANCE 0+50 (13'RT)	0.19	0.7	404.20 (BOTH)	404.10	408.02	4.85	
K	C.I.	MILLCREEK ENTRANCE 0+50 (13'LT)	0.09	0.4	403.97	403.87	408.02	3.34	
L	C.I.	MILLCREEK CIRCLE 13+43.69 (13'LT)	0.20	0.9	410.00	415.23	3.57		
M	C.I.	MILLCREEK CIRCLE 2+19.94 (13'RT)	0.59	2.6	407.15	410.68	3.00		
N	Y.L.	MILLCREEK CIRCLE 2+19.94 (13'LT)	0.14	0.5	406.90	410.68	3.30		
O	C.I.	MILLCREEK CIRCLE 3+73.01 (13'LT)	0.11	0.4	402.80	402.70	406.74	3.46	
P	Y.L.	MILLCREEK CIRCLE 3+73.01 (13'RT)	0.38	1.9	402.44	402.34	406.74	3.82	
Q	C.I.	MILLCREEK CIRCLE 4+58.84 (13'RT)	0.13	0.5	399.50	399.40	403.55	3.57	
R	C.I.	MILLCREEK CIRCLE 5+13.30 (13'RT)	0.23	1.2	P-21 398.10 P-22 395.01	394.91	402.82	7.33	
S	C.I.	MILLCREEK CIRCLE 5+13.30 (13'LT)	0.35	1.7	394.39	394.29	402.82	7.95	
T	Y.L.	MILLCREEK CIRCLE 5+13.30 (25'RT)	1.64	5.6	395.41	401.75	—	—	
U	C.I.	MILLCREEK CIRCLE 7+84.75 (13'LT)	0.08	0.4	402.94	401.18	407.10	3.99	
V	C.I.	MILLCREEK CIRCLE 7+84.75 (13'RT)	0.22	1.0	403.30	403.20	407.10	3.63	
W	C.I.	MILLCREEK CIRCLE 8+74.82 (13'RT)	0.15	0.7	404.10	408.09	3.82		
X	C.I.	MILLCREEK CIRCLE 8+74.82 (13'LT)	0.40	1.7	404.23	408.09	3.69		
Y	Y.L.	OPEN SPACE LOT 19/20	1.15	3.9	377.10	377.00	380.50	—	
Z	Y.L.	MILLCROFT R/W	1.19	4.0	371.15	365.45	374.50	—	

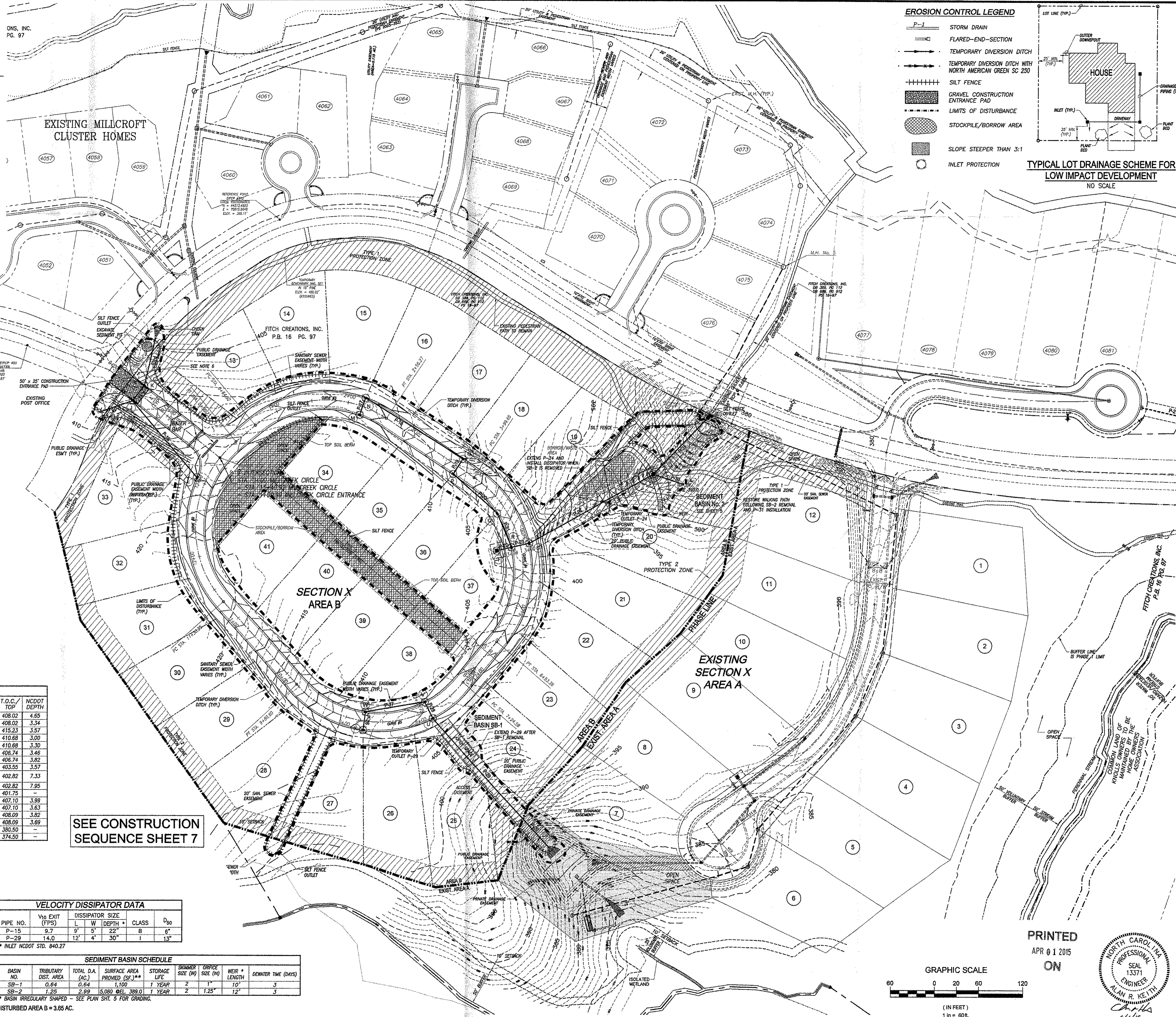
PIPE DATA								
PIPE No.	FROM	TO	Q <sub>10</sub> FROM INLET (CFS)	Q <sub>10</sub> TOTAL PIPE	MAT'L/DIA. (IN.)	LENGTH (FEET)	SLOPE (%)	CAPACITY (CFS)
P-13	FES	J	2.9	2.9	18" CL III RCP	48.00	1.0	10.5
P-14	J	K	0.7	4.5	18" CL III RCP	26.00	0.50	7.4
P-15	K	FES	0.4	4.9	18" CL III RCP	64.00	4.48	22.3
P-16	L	J	0.9	0.9	15" CL III RCP	135.45	4.28	13.4
P-17	M	N	2.8	2.8	15" CL III RCP	26.00	0.63	5.1
P-18	N	O	0.5	3.3	15" CL III RCP	155.91	2.57	10.4
P-19	O	P	0.4	3.7	15" CL III RCP	26.00	1.00	6.5
P-20	O	Q	1.9	5.6	15" CL III RCP	80.00	3.55	12.2
P-21	Q	R	0.5	6.1	15" CL III RCP	49.47	2.63	10.5
P-22	R	S	5.6	5.6	15" CL III RCP	20.00	2.00	9.2
P-23	R	S	1.2	12.9	18" CL III RCP	26.00	2.00	14.9
P-24	S	Y	1.7	14.6	24" CL III RCP	192.00	9.01	68.1
P-26	X	W	0.7	1.7	15" CL III RCP	26.00	0.50	4.6
P-27	X	W	1.7	2.4	15" CL III RCP	80.99	0.87	6.0
P-28	Y	Z	1.7	3.4	15" CL III RCP	26.00	1.00	6.5
P-29	Y	FES	0.4	4.3	15" CL III RCP	232.00	9.99	20.5
P-30	INLET	Z	1.2	1.2	12" HDPE	40.00	8.5	6.2
P-31	Y	Z	3.9	19.7	24" CL III RCP	106.08	5.52	53.3

VELOCITY DISSIPATOR DATA					
PIPE NO.	V <sub>10</sub> EXIT (FPS)	DISSIPATOR SIZE		CLASS	D <sub>50</sub>
		L	W	DEPTH	B
P-15	9.7	9'	5'	22"	6"
P-29	14.0	12'	4'	30"	13"

SEDIMENT BASIN SCHEDULE						
BASIN NO.	TRIBUTARY DIST. AREA (AC.)	TOTAL D.A. (AC.)	SURFACE AREA PROVIDED (SQ. FT.)	STORAGE LIFE	WEIR #	DEWATER TIME (DAYS)
SB-1	0.64	1.109	1,109	1	10"	3
SB-2	1.25	2.89	5,080 DEL. 398.0	1	1.25"	3

\*\* BASIN IRREGULARLY SHAPED - SEE PLAN SH. 5 FOR GRADING.  
DISTURBED AREA B = 3.85 AC.

SEE CONSTRUCTION SEQUENCE SHEET 7



JOB NO. ?  
DESIGN: ARK  
DRAWN: MAT  
CHECKED: ARK  
SCALE: 1" = 60'  
FILE: Millcreek Circle Area B R1.dwg

REVISIONS:

**DIEHL & PHILLIPS, P.A.**  
CONSULTING ENGINEERS - I.C. NO. C-4645  
1500 Piney Plains Rd., Suite 200  
CARY, N.C. 27518 • (919) 467-9972

**D&P**

FEARRINGTON VILLAGE  
SECTION X AREA B  
FEARRINGTON P.U.D.  
CHATHAM COUNTY, NORTH CAROLINA

EROSION CONTROL PLAN

PRINTED APR 01 2015 ON

GRAPHIC SCALE (IN FEET) 1 in = 60 ft.

SEAL 13371  
ALAN R. KEITLY  
REGISTERED PROFESSIONAL ENGINEER

SHEET 2 OF 8

H:\Current Project Drawings\Mill Creek\Phase 3\Stabilization\Tms Frame.dwg

ONS, INC.  
PG. 97

**SELF INSPECTION NOTICE:**

**NOTIFICATION OF LAND RESOURCES SEDIMENT AND EROSION CONTROL SELF-INSPECTION PROGRAM:**

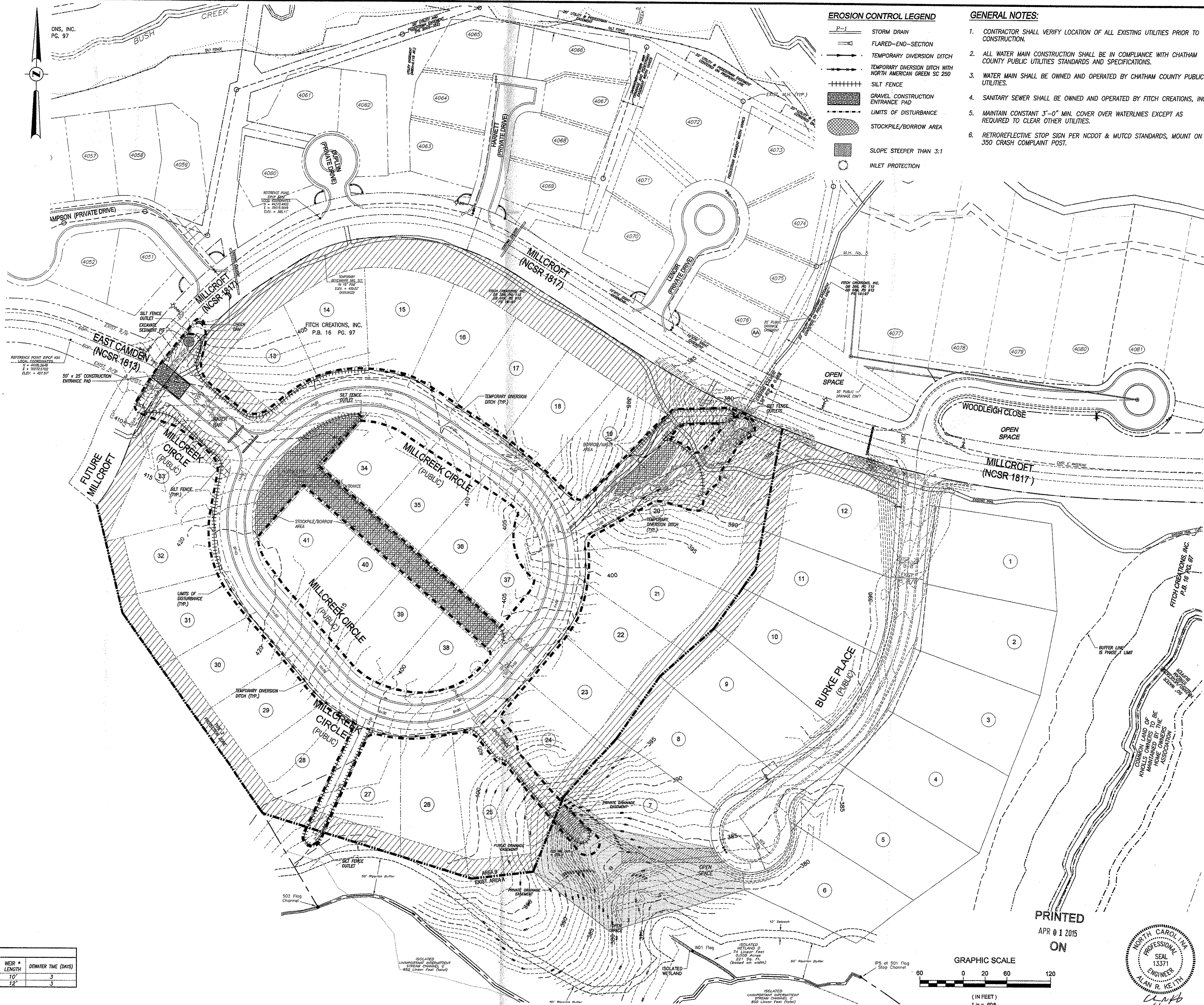
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**EROSION CONTROL LEGEND**

- STORM DRAIN
- FLARED-END-SECTION
- TEMPORARY DIVERSION DITCH
- TEMPORARY DIVERSION DITCH WITH NORTH AMERICAN GREEN SC 250
- SILT FENCE
- GRAVEL CONSTRUCTION ENTRANCE PAD
- LIMITS OF DISTURBANCE
- STOCKPILE/BORROW AREA
- SLOPE STEEPER THAN 3:1
- INLET PROTECTION

**GENERAL NOTES:**

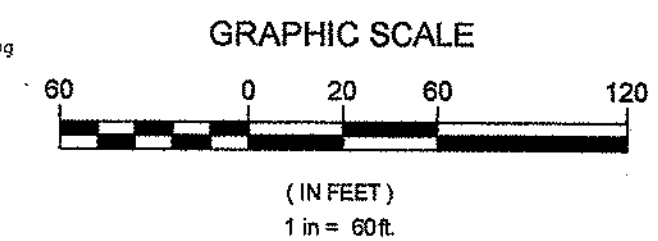
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3. WATER MAIN SHALL BE OWNED AND OPERATED BY CHATHAM COUNTY PUBLIC UTILITIES.
4. SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC.
5. MAINTAIN CONSTANT 3'-0" MIN. COVER OVER WATERLINES EXCEPT AS REQUIRED TO CLEAR OTHER UTILITIES.
6. RETROREFLECTIVE STOP SIGN PER NCDOT & MUTCD STANDARDS, MOUNT ON 350 CRASH COMPLAINT POST.



SEDIMENT BASIN SCHEDULE								
BASIN NO.	TRIBUTARY DIST. AREA	TOTAL D.A. (AC)	SURFACE AREA PROVIDED (SQ. FT.)**	STORAGE LIFE	SKIMMER SIZE (IN)	ORIFICE SIZE (IN)	WEIR # LENGTH	DEWATER TIME (DAYS)
SB-1	0.64	0.64	1,100	1 YEAR	2	1"	10'	3
SB-2	1.25	2.99	5,080 @ EL. 389.0	1 YEAR	2	1.25"	12'	3

\*\* BASIN IRREGULARLY SHAPED - SEE PLAN SHIT. 5 FOR GRADING.  
DISTURBED AREA B = 3.65 AC.

PRINTED  
APR 01 2015  
ON



JOB NO. ?  
DESIGN ARK  
DRAWN MAT  
CHECKED ARK  
SCALE 1" = 60'  
FILE MillCreek Circle Area B R1.dwg

REVISIONS:

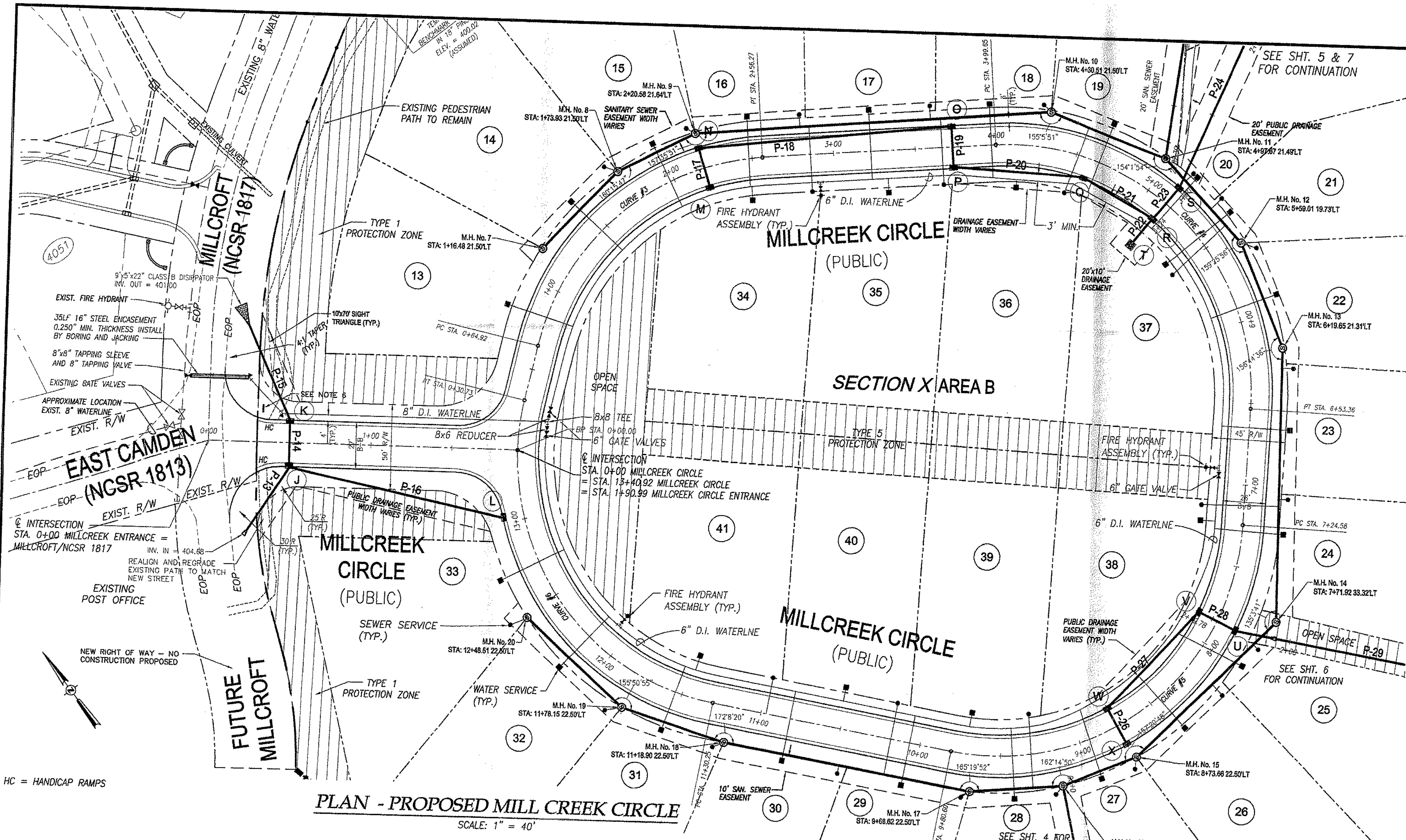
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1500 Piney Plains Rd., Suite 200  
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**D&P**

**FEARRINGTON VILLAGE**  
SECTION X AREA B  
FEARRINGTON P.U.D.  
CHATHAM COUNTY, NORTH CAROLINA

**EROSION CONTROL CLEARING & GRUBBING PLAN**

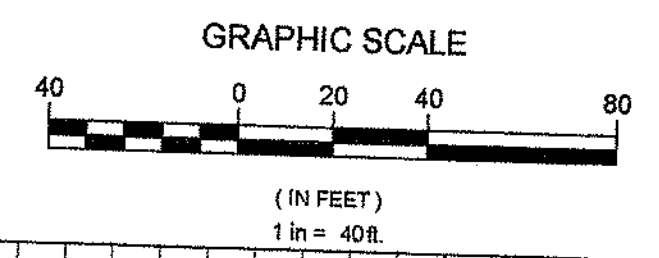
SHEET 2A OF 8



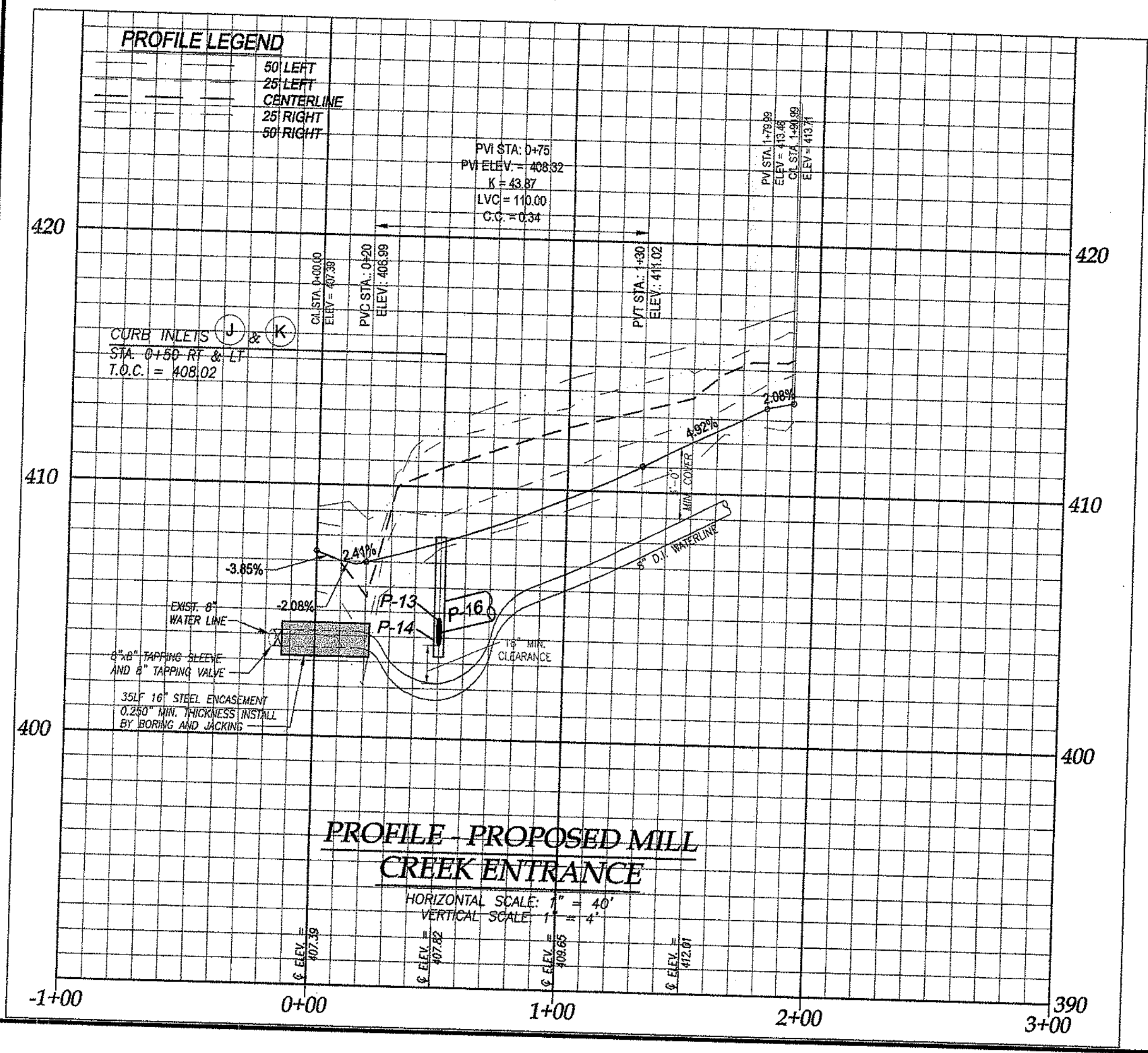
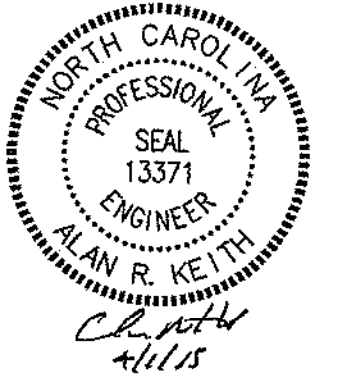
Curve Data				
Curve #	Radius	Length	Delta	
Curve #3	150.00	191.35	178.64	73.09
Curve #4	150.00	253.72	224.53	96.91
Curve #5	150.00	256.02	226.05	97.79
Curve #6	150.00	241.40	216.18	92.21

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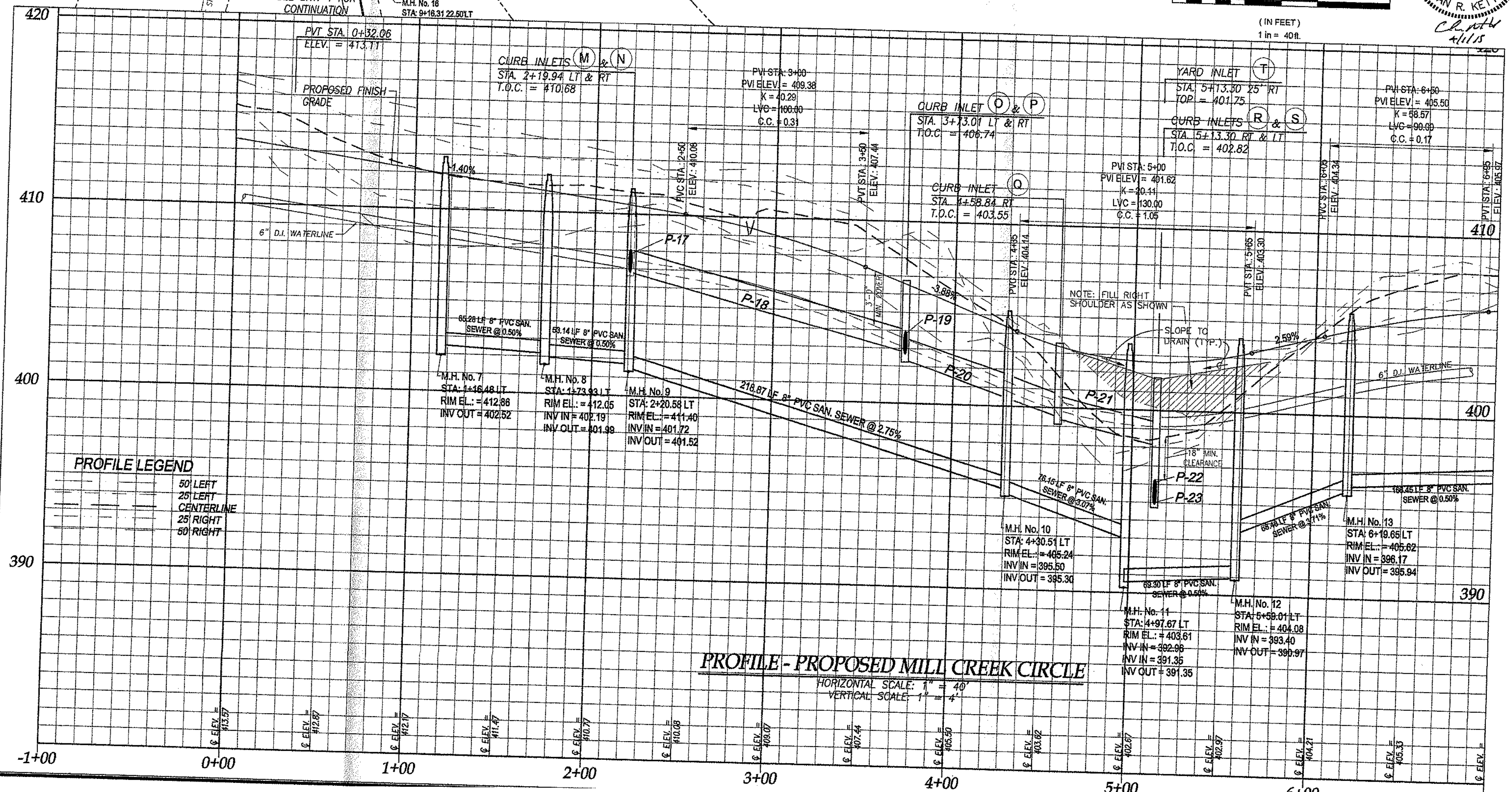
**PLAN - PROPOSED MILL CREEK CIRCLE**  
SCALE: 1" = 40'



PRINTED  
APR 01 2015  
ON

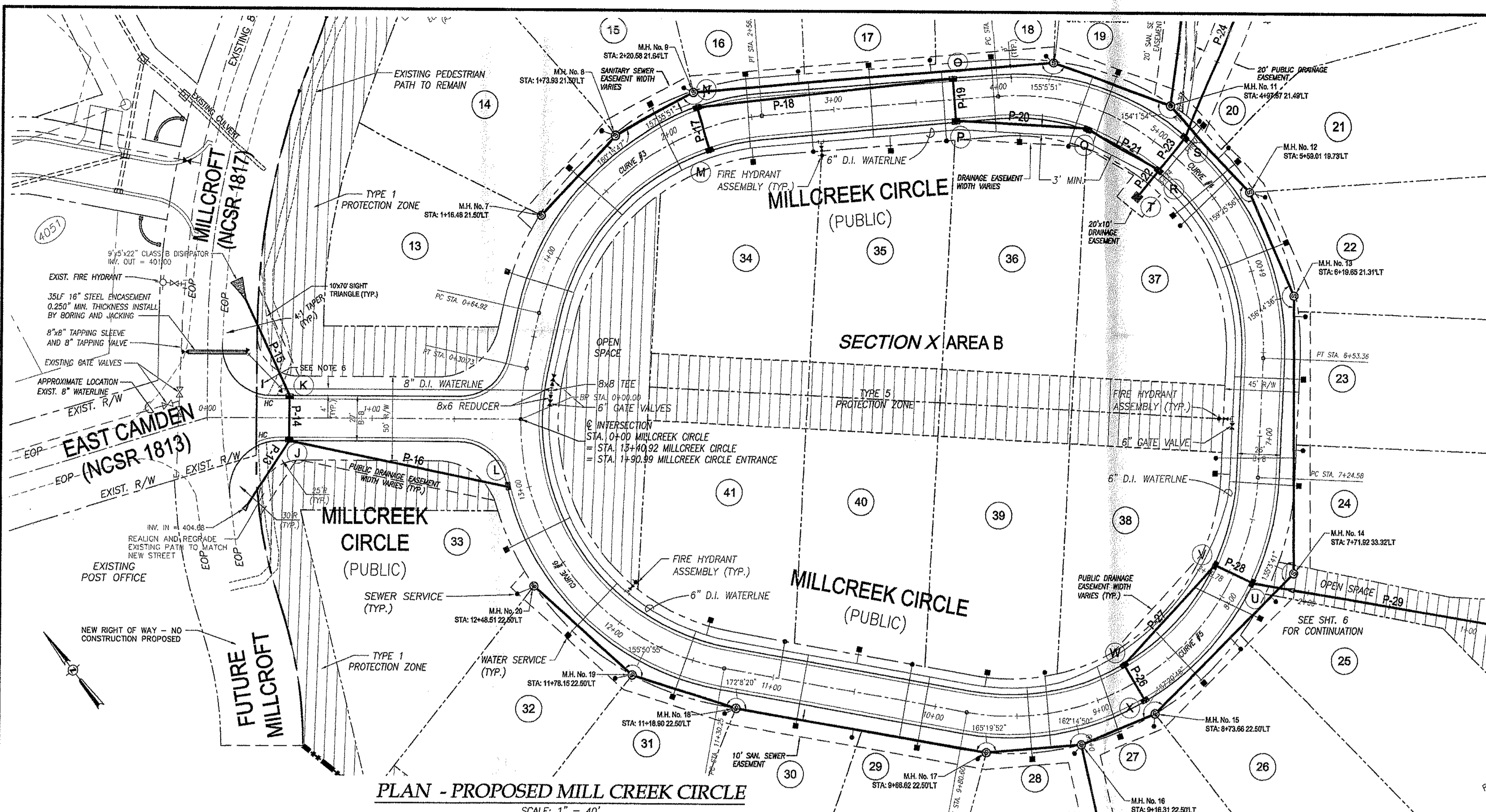


**PROFILE - PROPOSED MILL CREEK ENTRANCE**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



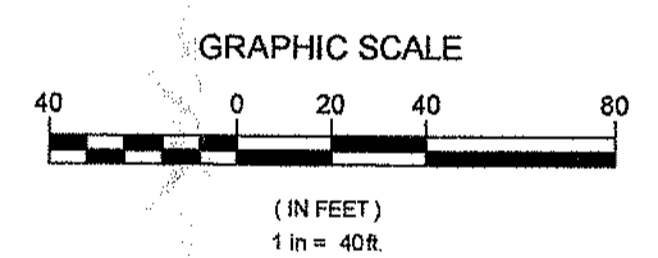
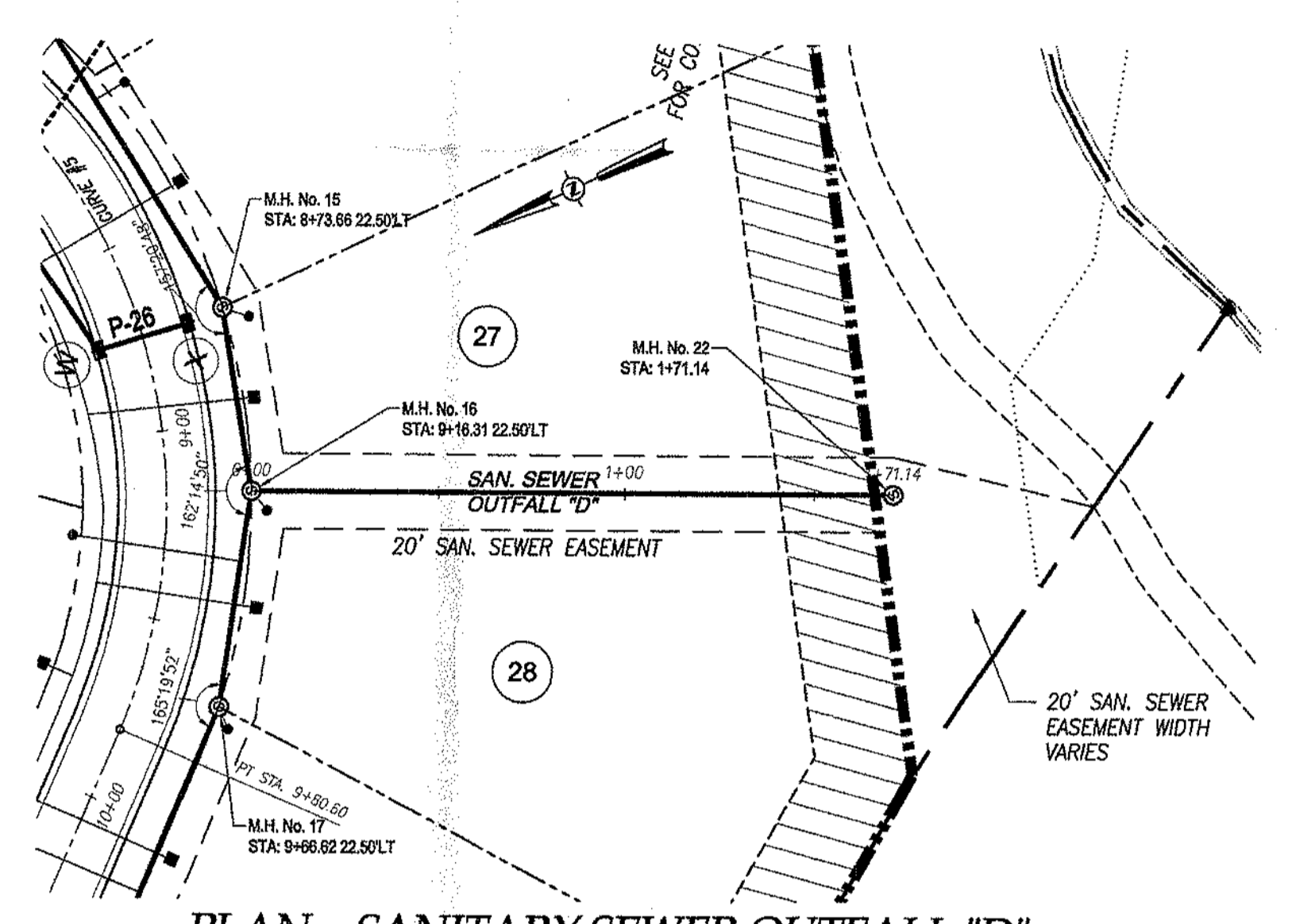
**PROFILE - PROPOSED MILL CREEK CIRCLE**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

JOB NO. ?  
 DESIGN ARK  
 DRAWING MAT  
 CHECKED ARK  
 SCALE 1" = 40'  
 FILE Millcreek Circle Area B R1.dwg  
 DIEHL & PHILLIPS, P.A.  
 CONSULTING ENGINEERS - I.C. NO. C-0465  
 1500 Piney Plains Rd., Suite 200  
 CARY, N.C. 27518 • (919) 367-9972  
 PROFESSIONAL SEAL  
 13371  
 ENGINEER  
 ALAN R. KEITH  
 NORTH CAROLINA  
 D & P  
 FERRINGTON VILLAGE  
 SECTION X AREA B  
 FERRINGTON P.U.D.  
 CHATHAM COUNTY, NORTH CAROLINA  
 PLAN AND PROFILE  
 MILLCREEK CIRCLE ENTRANCE &  
 MILLCREEK CIRCLE STA. 0+00 TO 7+00  
 SHEET 3

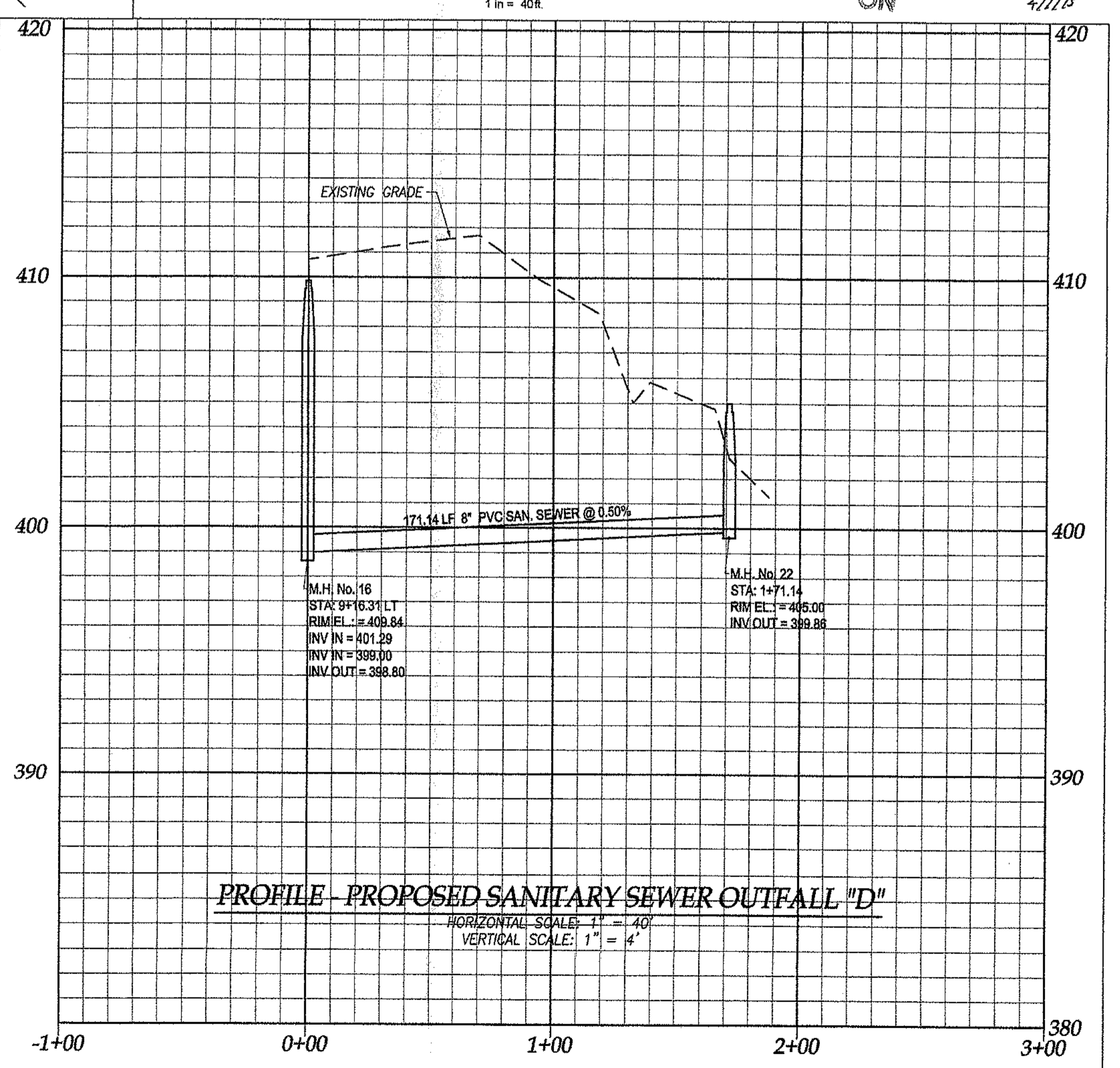
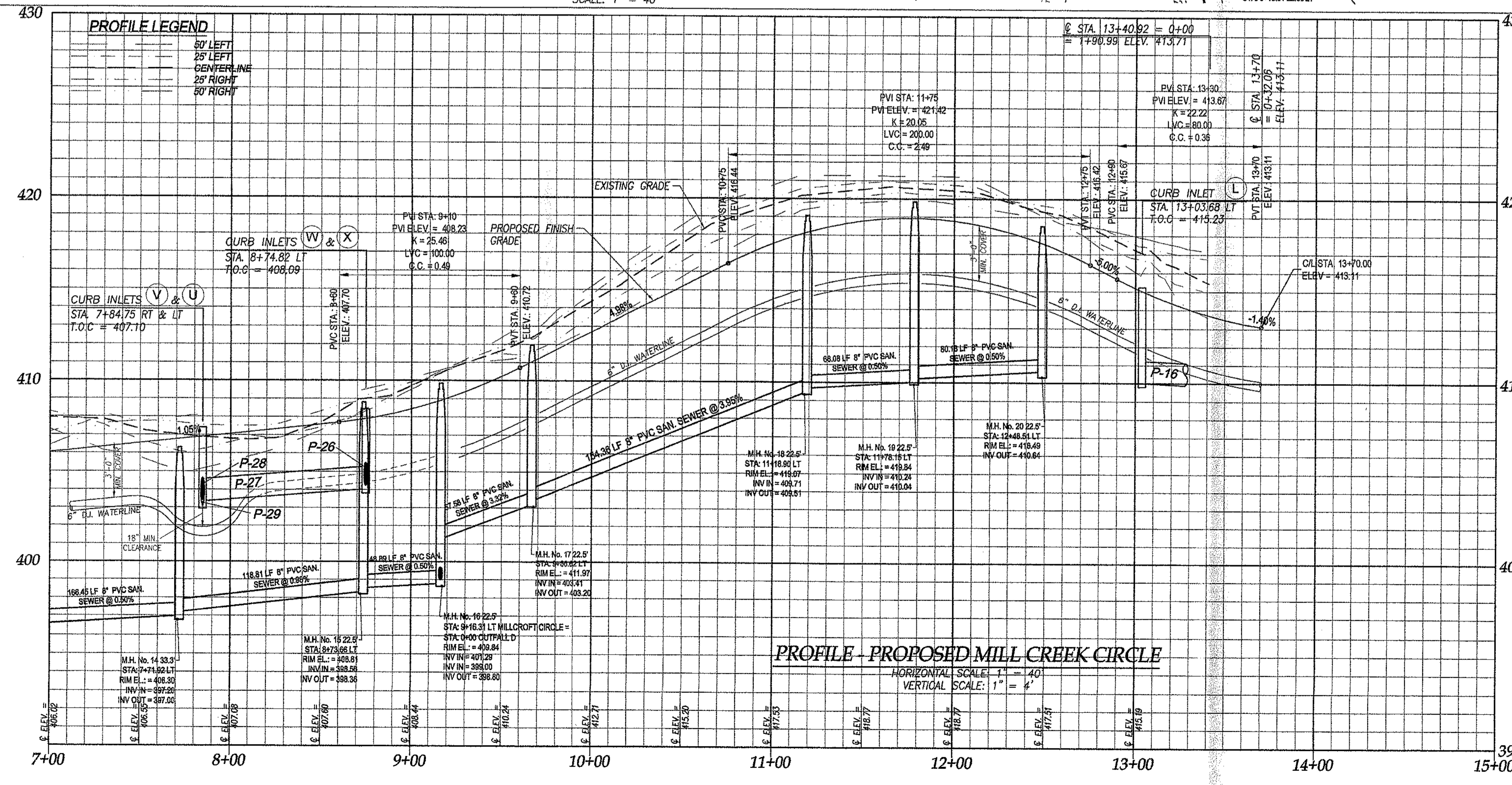


Curve Data				
Curve #	Radius	Length	Chord Length	Delta
Curve #3	150.00	191.35	178.64	73.09
Curve #4	150.00	253.72	224.53	96.91
Curve #5	150.00	256.02	226.05	97.79
Curve #6	150.00	241.40	216.18	92.21

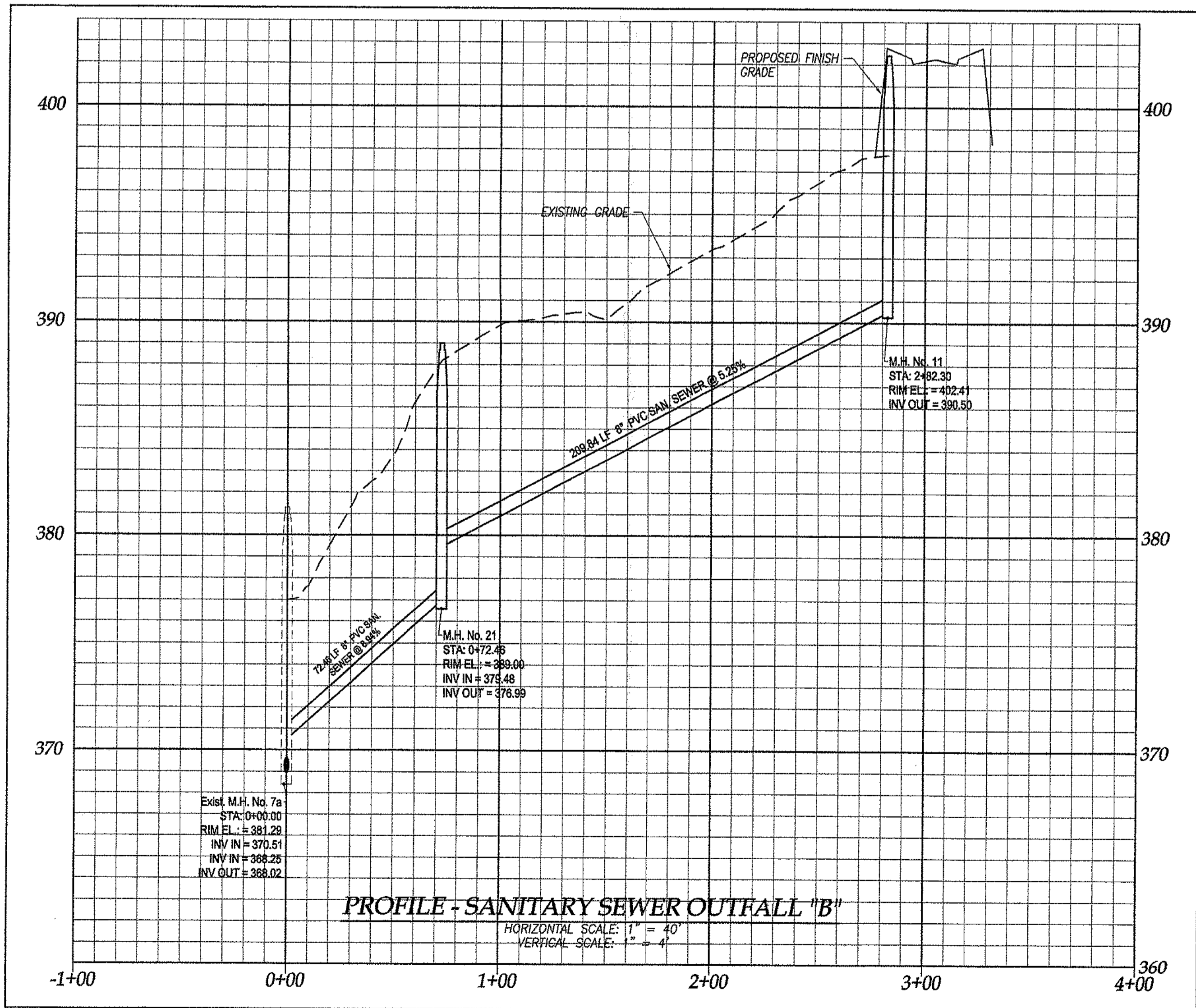
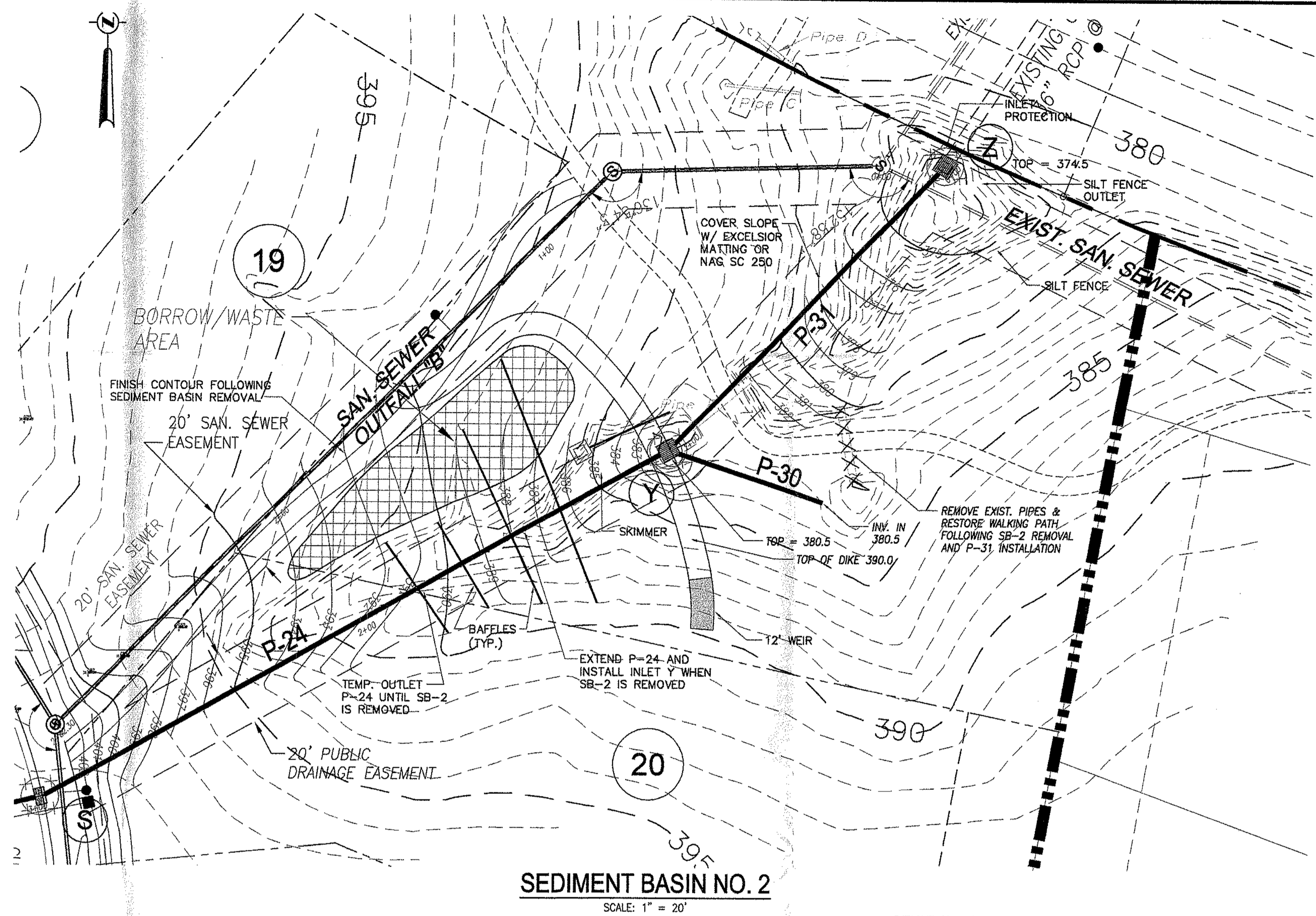
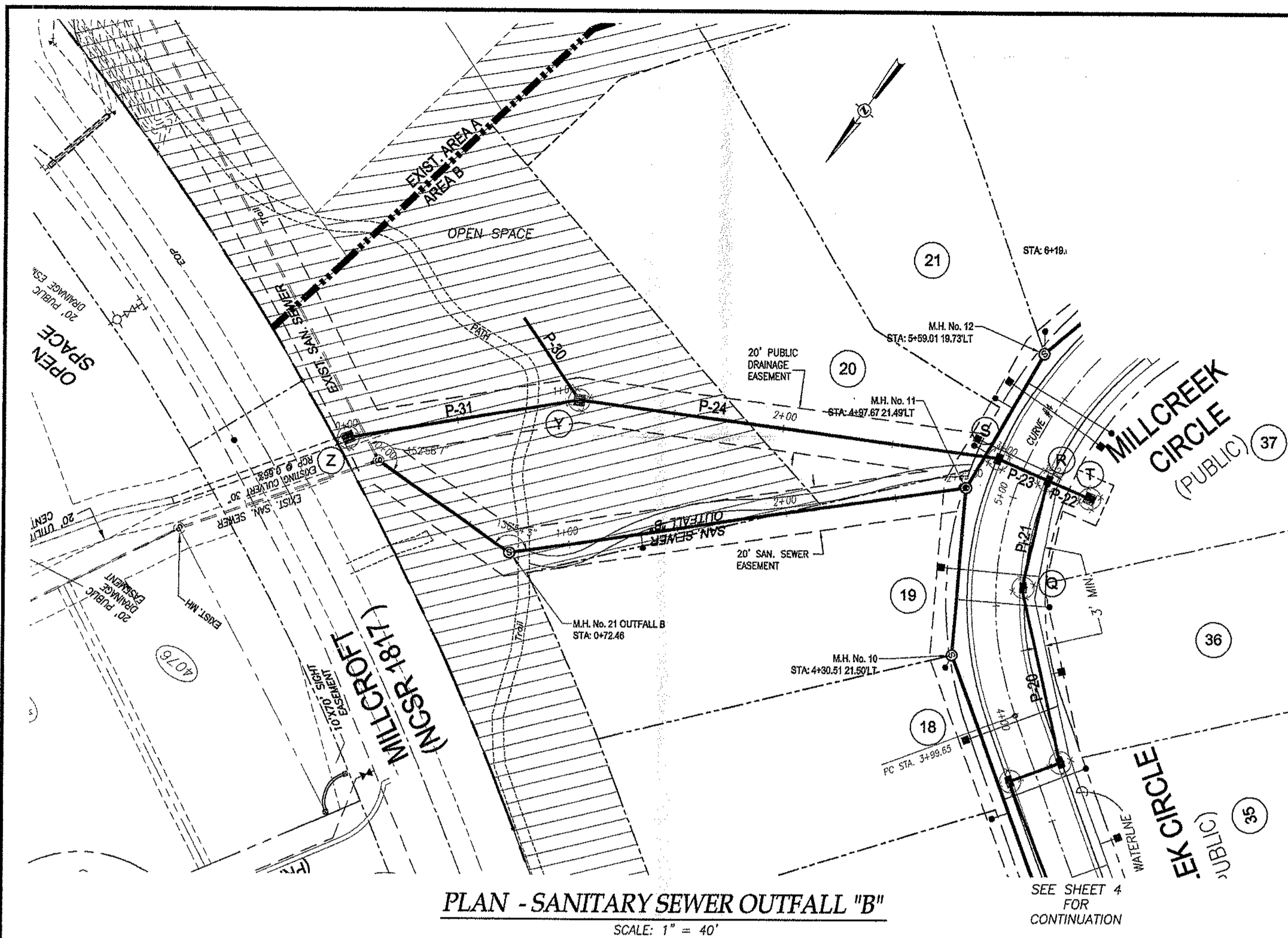
- GENERAL NOTES:**
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - ALL WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH CHATHAM COUNTY PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS.
  - WATER MAIN SHALL BE OWNED AND OPERATED BY CHATHAM COUNTY PUBLIC UTILITIES.
  - SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC.
  - MAINTAIN CONSTANT 3'-0" MIN. COVER OVER WATERLINES EXCEPT AS REQUIRED TO CLEAR OTHER UTILITIES.
  - RETROREFLECTIVE STOP SIGN PER MCDOT & MUTCD STANDARDS, MOUNT ON 350 CRASH COMPLIANT POST.



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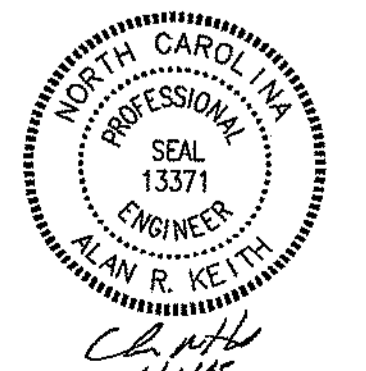
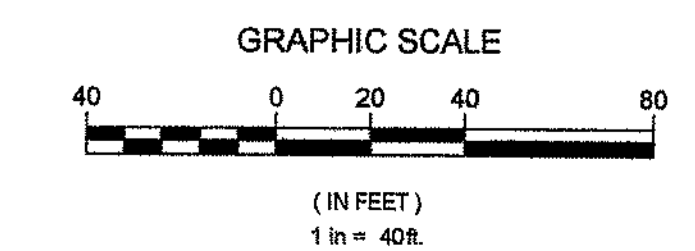


JOB NO. ?  
 DESIGN ARK  
 DRAWING MAT  
 CHECKED ARK  
 SCALE 1" = 40'  
 FILE Millcreek Circle Area B R1.dwg  
 REVISIONS  
**DIEHL & PHILLIPS, P.A.**  
 CONSULTING ENGINEERS, L.L.C. NO. C-40465  
 1500 Flory Platte Rd., Suite 200  
 CARY, N.C. 27518 • (919) 467-9972  
**D&P**  
 FEARRINGTON VILLAGE  
 SECTION X AREA B  
 FEARRINGTON P.U.D.  
 CHATHAM COUNTY, NORTH CAROLINA  
 PLAN AND PROFILE  
 MILLCREEK CIRCLE STA. 7+00  
 TO END  
 SHEET 4 OF 8



**GENERAL NOTES:**

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL WATER MAIN CONSTRUCTION SHALL BE IN COMPLIANCE WITH CHATHAM COUNTY PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS.
3. WATER MAIN SHALL BE OWNED AND OPERATED BY CHATHAM COUNTY PUBLIC UTILITIES.
4. SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC.
5. MAINTAIN CONSTANT 3"-0" MIN. COVER OVER WATERLINES EXCEPT AS REQUIRED TO CLEAR OTHER UTILITIES.
6. RETROREFLECTIVE STOP SIGN PER NCDOT & MUTCD STANDARDS, MOUNT ON 350 CRASH COMPLAINT POST.



JOB NO. \_\_\_\_\_  
 DESIGN ARK  
 DRAWN MAT  
 CHECKED ARK  
 SCALE 1" = 40'  
 FILE Millcreek Circle Area B R1.dwg

REVISIONS \_\_\_\_\_

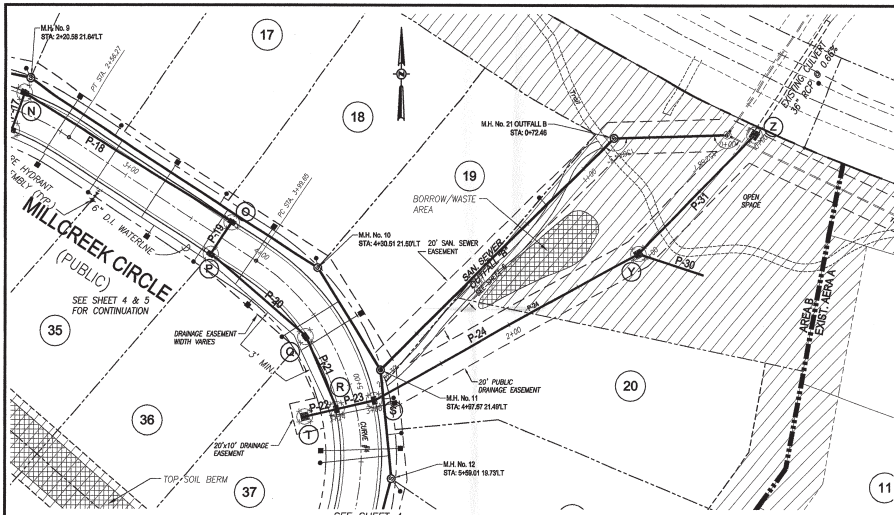
**DIEHL & PHILLIPS, P.A.**  
 CONSULTING ENGINEERS - LIC. NO. C-0465  
 1500 Pines Rd., Suite 200  
 CARY, N.C. 27518 • (919) 467-5972

**D&P**

FEARRINGTON VILLAGE  
 SECTION X AREA B  
 FEARRINGTON P.U.D.  
 CHATHAM COUNTY, NORTH CAROLINA

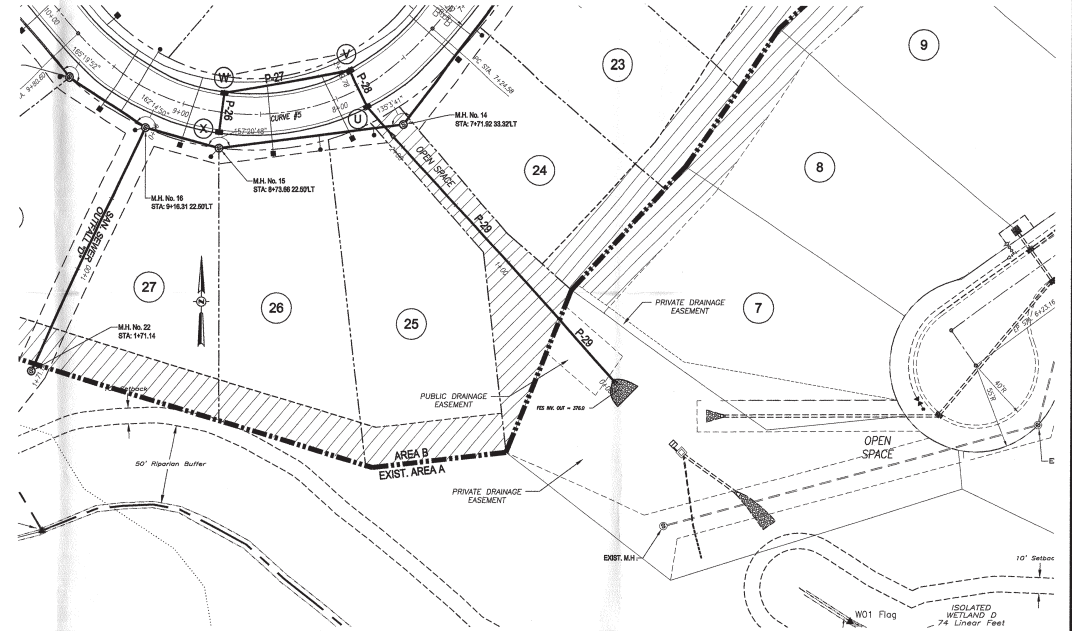
PLAN AND PROFILE  
 SANITARY SEWER OUTFALL B &  
 SEDIMENT BASIN No. 2

SHEET 5 OF 8



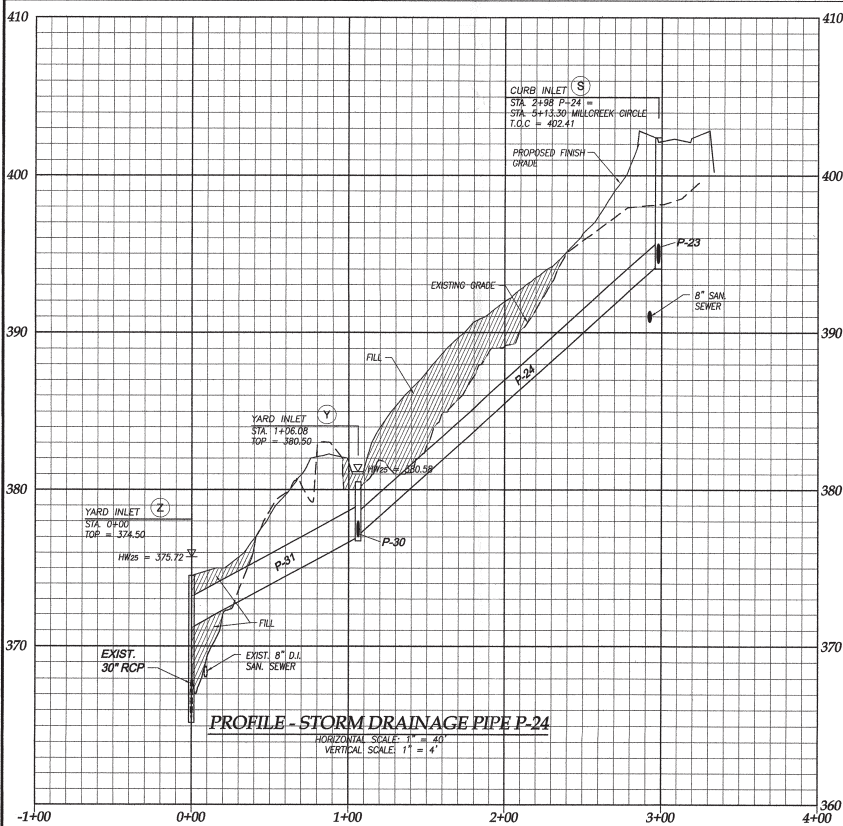
PLAN - STORM DRAINAGE PIPE P-24

SCALE: 1" = 40'



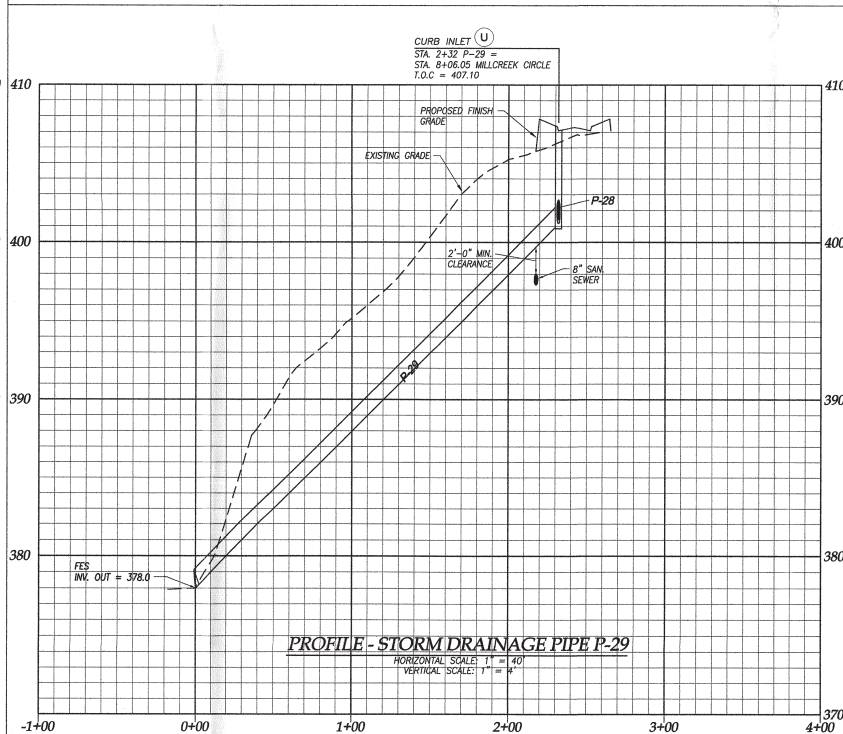
PLAN - STORM DRAINAGE PIPE P-9

SCALE: 1" = 40'



PROFILE - STORM DRAINAGE PIPE P-24

HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 4'



PROFILE - STORM DRAINAGE PIPE P-29

HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

GENERAL NOTES

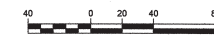
1. SURVEY INFORMATION FROM VAN FINCH LAND SURVEYS, PITTSBORO, NC PROJECT LAYOUT AND SKETCH PLAN BY SEARS DESIGN GROUP, RALEIGH, NC.
2. ALL WATER MAINS SHALL BE OWNED AND OPERATED BY CHATHAM COUNTY PUBLIC UTILITIES. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH CHATHAM COUNTY PUBLIC UTILITIES STANDARDS AND SPECIFICATIONS.
3. SANITARY SEWER SHALL BE OWNED AND OPERATED BY FITCH CREATIONS, INC.
4. MAINTENANCE OF "BURKE PLACE & MILLCREEK CIRCLE" WILL BE THE RESPONSIBILITY OF FITCH CREATIONS, INC. UNTIL CONVEYED TO THE HOMEOWNERS ASSOCIATION OR TO N.C.G.O.T.
5. EASEMENT FOR THE CHATHAM COUNTY WATER SYSTEM. CHATHAM COUNTY WILL NOT BE RESPONSIBLE FOR RESTORING PRIVATE INFRASTRUCTURE (WASTEWATER SYSTEM COMPONENTS, STREETS, SIDEWALKS, CURBS AND GUTTER LANDSCAPING, ETC.) IN THE COURSE OF REPAIRING THE PUBLIC WATER SYSTEM.
6. AN EROSION CONTROL PLAN WILL BE SUBMITTED PER SECTION 1002 OF THE CHATHAM ORDINANCES OF 2008.
7. CHATHAM STORMWATER ORDINANCE WILL BE FOLLOWED.

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APR 01 2015

ON

GRAPHIC SCALE



(IN FEET)

1" = 40'



DESIGN ARK  
DOWN MAT  
PREFILED ARK

SCALE: 1" = 40'  
FILE: Microvell  
Grid Area: 8 21.dwg

REVISIONS:

**DIEHL & PHILLIPS, P.A.**  
CONSULTING ENGINEERS - LIC. NO. C-00465  
1500 Piney Plains Rd., Suite 200  
CARY, N.C. 27518 • (919) 467-2972

**D&P**

FEARRINGTON VILLAGE  
SECTION X AREA B  
FEARRINGTON P.U.D.  
CHATHAM COUNTY, NORTH CAROLINA

PLAN AND PROFILE  
STORM DRAINAGE PIPES P-24 & P-29

SHEET 6 OF 8

**SEEDBED PREPARATION**

1. Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions, if available.
2. Rip the entire area to 6 inches depth.
3. Remove all loose rocks, roots, and other obstructions leaving surface reasonably smooth and uniform.
4. Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below).
5. Continue tillage until a well-aerated, firm, reasonably uniform seedbed is prepared 4 to 6 inches deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultivate after seeding.
7. Muck immediately after seeding and another muck.
8. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If muck should be over 60% damaged, reseed/replace following original lime, fertilizer and seeding rates.
9. Consult Erosion Control Officer maintenance treatment and agricultural treatment once established.
10. Fertilizer = 1,000 lbs/acre = 10-15-15  
Superphosphate = 1/2 ton/acre = 10-0-10  
Inertor = 1/2 ton/acre = 10-0-10  
Anchor = 1/2 ton/acre = 10-0-10

**SEEDING SCHEDULE**

Date	Type	Planting Rate
Aug 15-Nov 1	Tall Fescue	300 lbs./acre
Nov 1-Mar 1	Tall Fescue + Annual Ryegrass + Annual Ryegrass	300 lbs./acre 25 lbs./acre 25 lbs./acre
Mar 1-May 15	Tall Fescue	300 lbs./acre
Apr 15-June 30	Trifolium Common Bermudagrass	25 lbs./acre
Jul 1-Aug 15	Tall Fescue spp. + Broadtop Millet	120 lbs./acre 30 lbs./acre
	** St. Sorghum-Sudan Hybrids	30 lbs./acre

**Soils (3:1 to 2:1)**

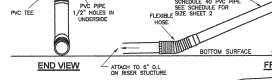
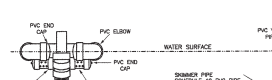
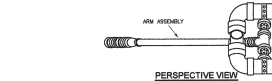
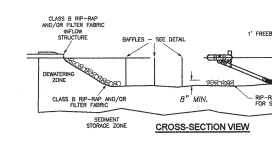
Mar 1-June 1	Sericeo Lespedeza (soarified)	50 lbs./acre
(Mar 1-Apr 15)	ADD Tall Fescue	120 lbs./acre
(Mar 1-June 30)	** Add Hybrid Common Bermudagrass	25 lbs./acre
June 1-Sep 1	** Tall Fescue spp. + Broadtop Millet + St. Sorghum-Sudan Hybrids	120 lbs./acre 30 lbs./acre 30 lbs./acre
Sep 1-Mar 1	Sericeo Lespedeza (unharled-unsoarified)	70 lbs./acre
(Nov 1-Mar 1)	ADD Annual Ryegrass	25 lbs./acre

Consult Conservation Engineer or Soil Conservation Services for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those which do well under local conditions other seeding rates combinations are possible. For a loan quality turf, gravel or light rotas.

\*\*Temporary - Replaced according to approved section for desired permanent vegetation. Do not seed temporary cover to grow over 12" in height before mowing, otherwise fescue may be choked out.

**TEMPORARY DIVERSION SWALE DETAIL**

**Maintenance**  
Inspect temporary diversion swales once a week and after every rainfall. Immediately remove sediment from the flow only and repair the diversion ridge. Carefully check outlets and make timely repairs as needed. When the area protected is permanently stabilized, remove the ridge and the channel to blend with the natural ground level and appropriately stabilize it.



**CONSTRUCTION SEQUENCE**

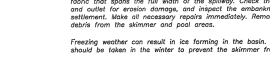
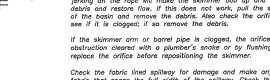
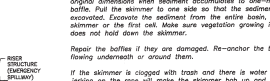
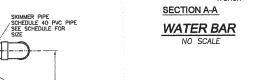
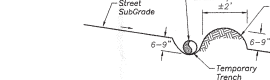
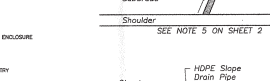
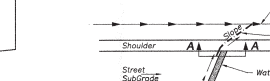
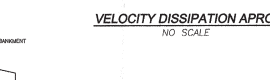
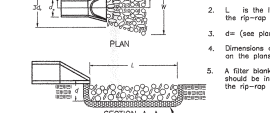
1. Obtain grading permits.
2. Install gravel entrance and all silt fence. Clear only as required for all fences.
3. Construct temporary diversion ditches. Stabilize immediately.
4. Construct temporary diversion ditches. Stabilize immediately.
5. Call (919) 445-8143 for an on-site inspection by an Erosion Control Officer. If approved, begin clearing and grading.
6. Provide all monitoring, inspection, and record keeping as required by conditions or NCCO/NOI Storm Water Discharge Permit. Provide copies to Chatham County Erosion Control Officer.
7. Rough grade site. Maintain desired water discharge for each rain and as needed. Stabilize pipe outlet areas before pipe construction.
8. Install ditches and storm drainages. Provide final protection for all inlets.
9. Stabilize site as areas are brought up to finish grade with vegetation, paving, etc. The origin for graded slopes and fills shall be no greater than the slope that can be retained by vegetation or other adequate erosion control devices or structures. In any event, slopes left exposed shall, within 21 calendar days of completion of any phase of grading, be planted or otherwise protected with temporary ground cover, erosion or structure treatment to restrain erosion.
10. When construction is complete and all areas are established completely, call for inspection by Erosion Control Officer.
11. If site is approved, remove temporary diversion, silt fencing, and seed out or pave any bare areas. Stabilize those areas immediately. See sediment basin construction notes.
12. When vegetation has become established, call for final site inspection by Erosion Control Officer.
13. Obtain Certificate of Completion.

**SEDIMENT BASIN CONVERSION**

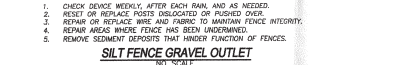
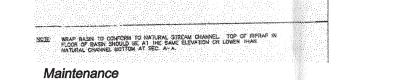
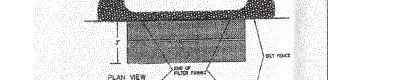
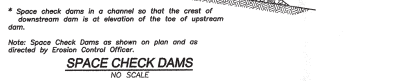
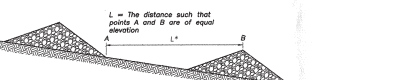
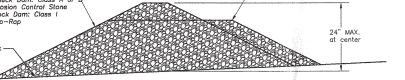
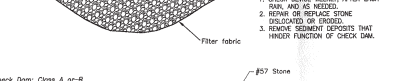
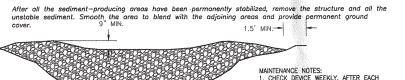
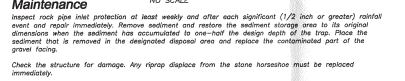
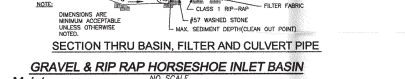
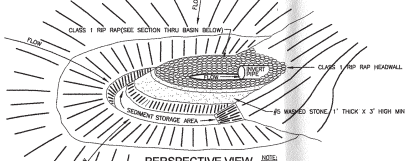
1. Remove skimmer.
  2. Remove sediment and deposit on approved site.
  3. Grade sediment basin to determine basin final contours.
  4. Seed and stabilize slopes.
  5. Clean outlet pipes. Install rip rap disposals, rip rap weirs.
- When site is fully stabilized, call Erosion Control Officer for approval of removing remaining temporary erosion control measures and advice on when site can be issued a certificate of completion.

Check the structure for damage. Any riprap displaced from the stone horseshoe must be replaced immediately.

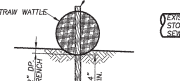
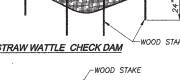
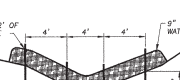
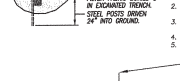
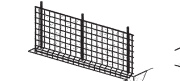
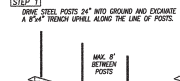
After all the sediment-producing areas have been permanently stabilized, remove the structure and all of the unstable sediment. Smooth the area to blend with the adjoining areas and provide permanent ground cover.



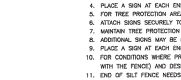
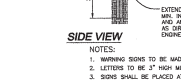
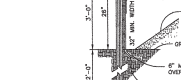
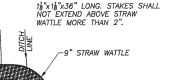
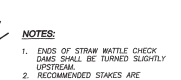
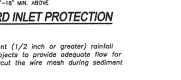
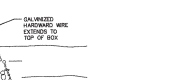
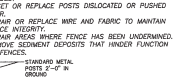
**GRAVEL & RIP RAP HORSESHOE INLET BASIN**



**SILT FENCE**



**TEMPORARY GRAVEL CONSTRUCTION ENTRANCE**



**STANDARD CATCH BASIN / YARD INLET PROTECTION**

