

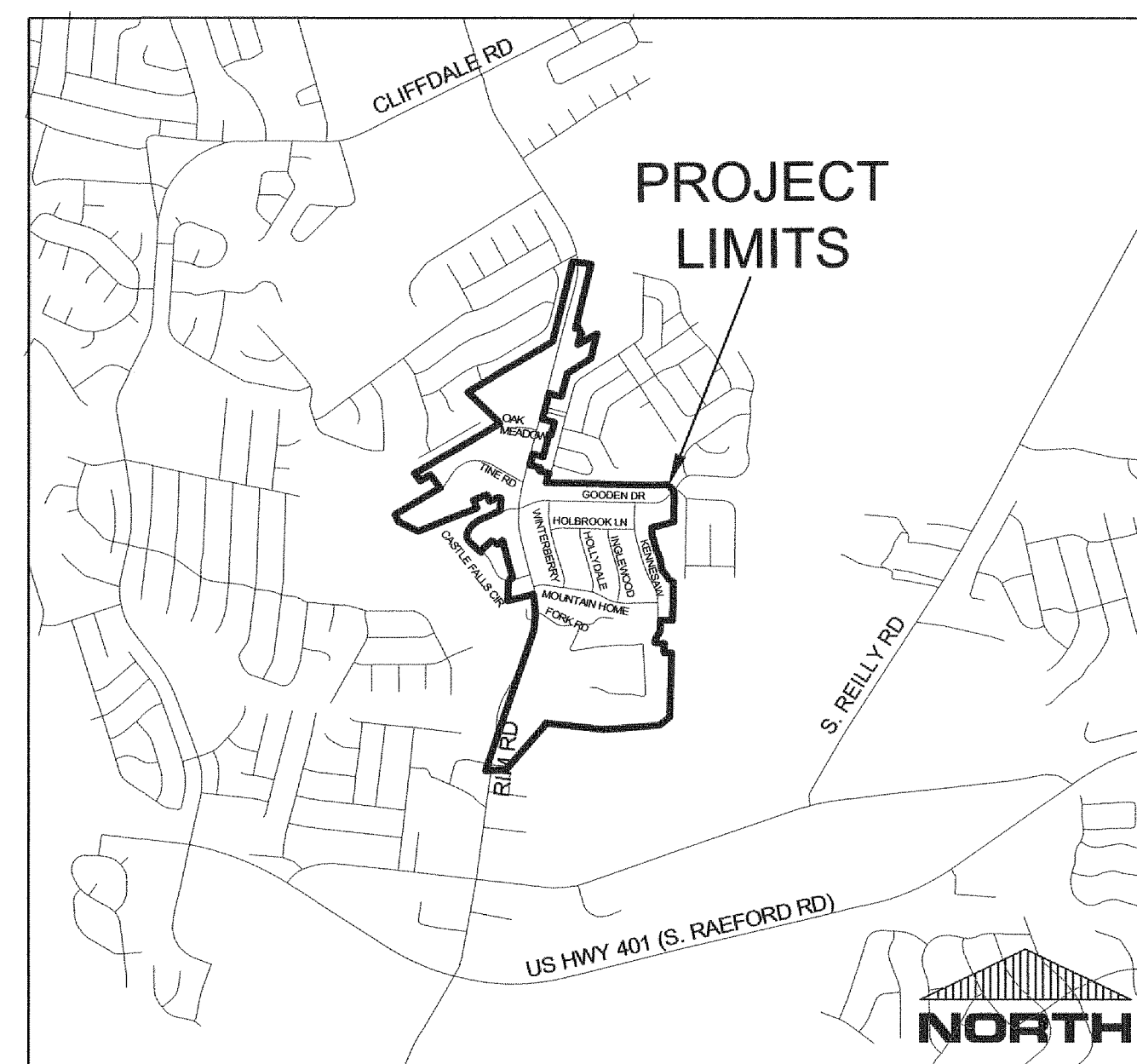


Fayetteville's HOME TOWN UTILITY

FAYETTEVILLE, N.C.

Fayetteville Annexation Phase V Construction Project XI Area 25 - Lake Rim Estates

SHEET INDEX

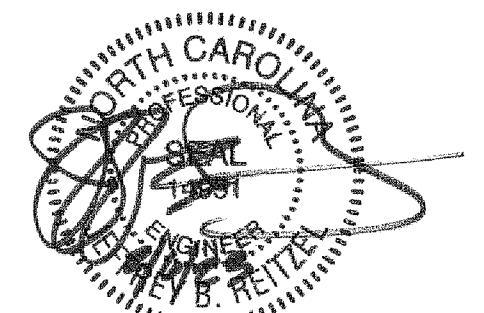


VICINITY MAP
N.T.S.



Know what's below.
Call before you dig.

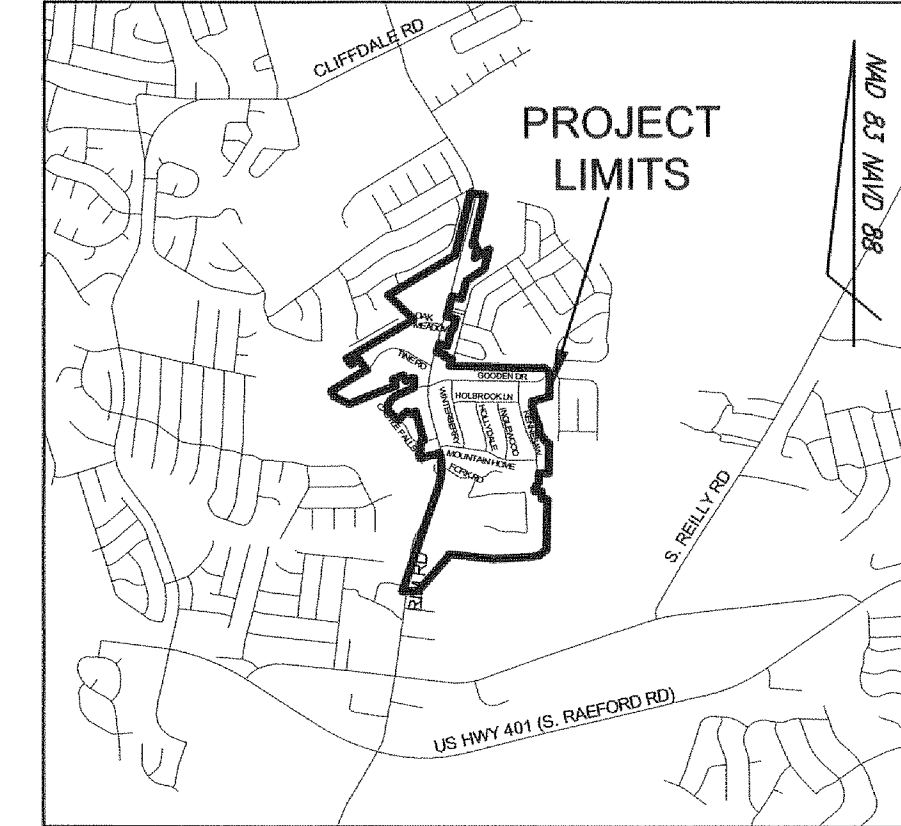
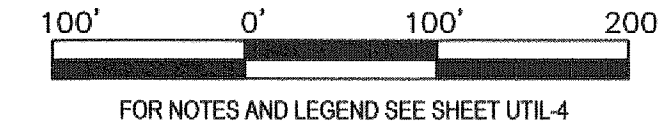
C-1	COVER SHEET	PP-16	PROFILE D & 9445 GOODEN STA 0+00 TO END
SK-1	PARTIAL SHEET KEY	PP-17	WINTERBERRY DR. STA 0+00 TO END
SK-2	PARTIAL SHEET KEY	PP-18	HOLLYDALE LN. STA 0+00 TO END
SK-3	PARTIAL SHEET KEY	PP-19	PROFILES E & I STA 0+00 TO END
SK-4	PARTIAL SHEET KEY	PP-20	CASTLE FALLS CIRCLE STA 0+00 TO END
UTIL-1	PARTIAL UTILITY PLAN	PP-20A	CASTLE FALLS OUTFALL STA 0+00 TO END
UTIL-2	PARTIAL UTILITY PLAN	PP-21	PROFILE F STA 0+00 TO END
UTIL-3	PARTIAL UTILITY PLAN	PP-22	PROFILE H STA 0+00 TO END
UTIL-3A	PARTIAL UTILITY PLAN	PP-23	TINE RD. STA 0+00 TO END
UTIL-4	UTILITY NOTES AND LEGEND	PP-24	PROFILES Q & R STA 0+00 TO 11+00
ECP-1	PARTIAL EROSION CONTROL PLAN	PP-25	PROFILE K STA 0+00 TO 11+00
ECP-2	PARTIAL EROSION CONTROL PLAN	PP-26	PROFILE K STA 11+00 TO END
ECP-3	PARTIAL EROSION CONTROL PLAN	PP-27	PROFILE N & P STA 0+00 TO END
ECP-4	EROSION CONTROL NOTES	PP-28	PROFILE L STA 0+00 TO END
NPDES-1	EROSION CONTROL NOTES	PP-29	PROFILE M & 1548 RIM RD STA 0+00 TO END
GP-1	PARTIAL GATE & FENCING PLAN	PP-30	PROFILE J STA 0+00 TO END
GP-2	PARTIAL GATE & FENCING PLAN	PP-31	PROFILES 1461 & 1549 RIM RD STA 0+00 TO END
GP-3	PARTIAL GATE & FENCING PLAN	PP-32	RIM RD WATER STA 0+00 TO 11+00
PP-1	PROFILE A STA 0+00 TO STA 11+00	PP-33	RIM RD WATER STA 11+00 TO 22+00
PP-2	PROFILE A STA 11+00 TO STA 22+00	PP-34	RIM RD WATER STA 22+00 TO 33+00
PP-3	PROFILE A STA 22+00 TO STA 33+00	PP-35	RIM RD WATER STA 33+00 TO 44+00
PP-4	PROFILE A STA 33+00 TO STA 44+00	PP-36	RIM RD WATER STA 44+00 TO 55+00
PP-5	PROFILE A STA 44+00 TO END	PP-37	RIM RD WATER STA 55+00 TO END
PP-6	KENNESAW DR. STA 0+00 TO STA 11+00	D-1	EROSION CONTROL DETAILS
PP-7	KENNESAW DR. STA 11+00 TO END	D-2	EROSION CONTROL DETAILS
PP-8	GOODEN DR. STA 0+00 TO STA 11+00	D-3	EROSION CONTROL DETAILS
PP-9	GOODEN DR. STA 11+00 TO END	D-4	SANITARY SEWER DETAILS
PP-10	MOUNTAIN HOME DR. STA 0+00 TO STA 11+00	D-5	SANITARY SEWER DETAILS
PP-11	MOUNTAIN HOME DR. STA 11+00 TO END	D-6	WATER DETAILS
PP-12	INGLEWOOD LN. STA 0+00 TO END	D-7	WATER DETAILS
PP-13	HOLBROOK LN. STA 0+00 TO END	D-8	PAVEMENT & TRAFFIC DETAILS
PP-14	PROFILE B STA 0+00 TO END	D-9	STORM DRAINAGE DETAILS
PP-15	PROFILE C STA 0+00 TO END		



PWC DWG #15380

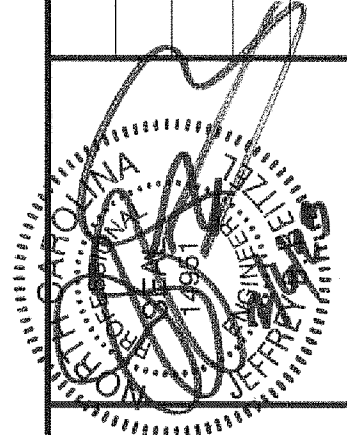
MATCHLINE SK-2

Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

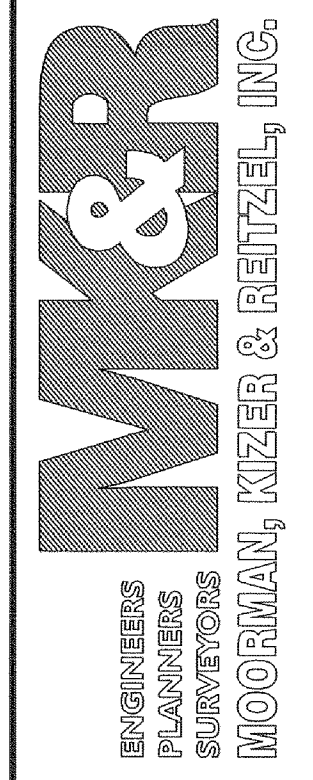


Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Partial Sheet Key

Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet

PWC DWG #15380

SK-1

MATCHLINE SK-3

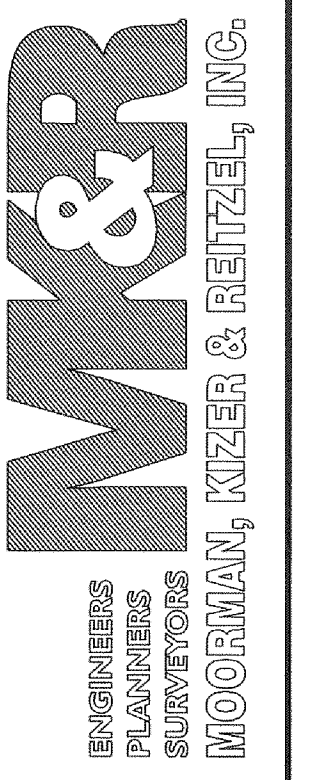
88' 0" MIN. 13' 0" MIN.

Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

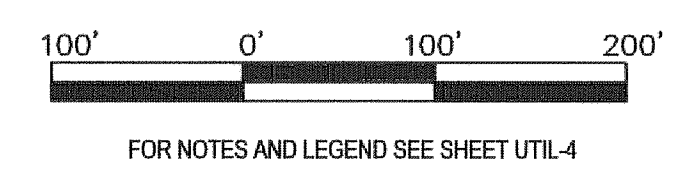
Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Partial Sheet Key

Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet
SK - 2



FOR NOTES AND LEGEND SEE SHEET UTIL-4



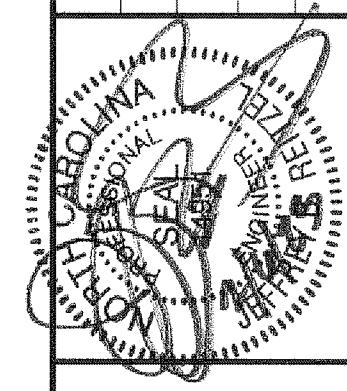
MATCHLINE SK-1

PWC DWG #15380

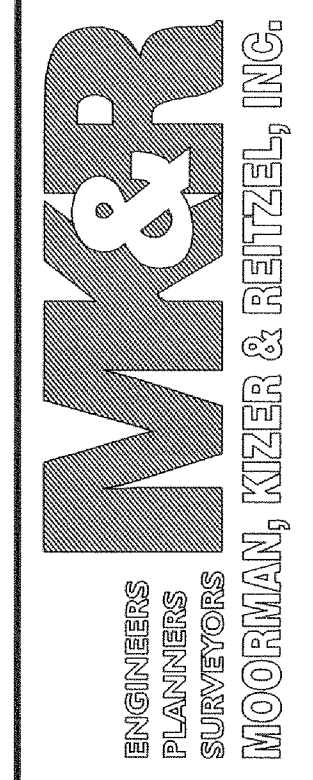
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
Construction Project IX
Area 25 - Lake Rim Estates
Partial Sheet Key

Revision	By	Date

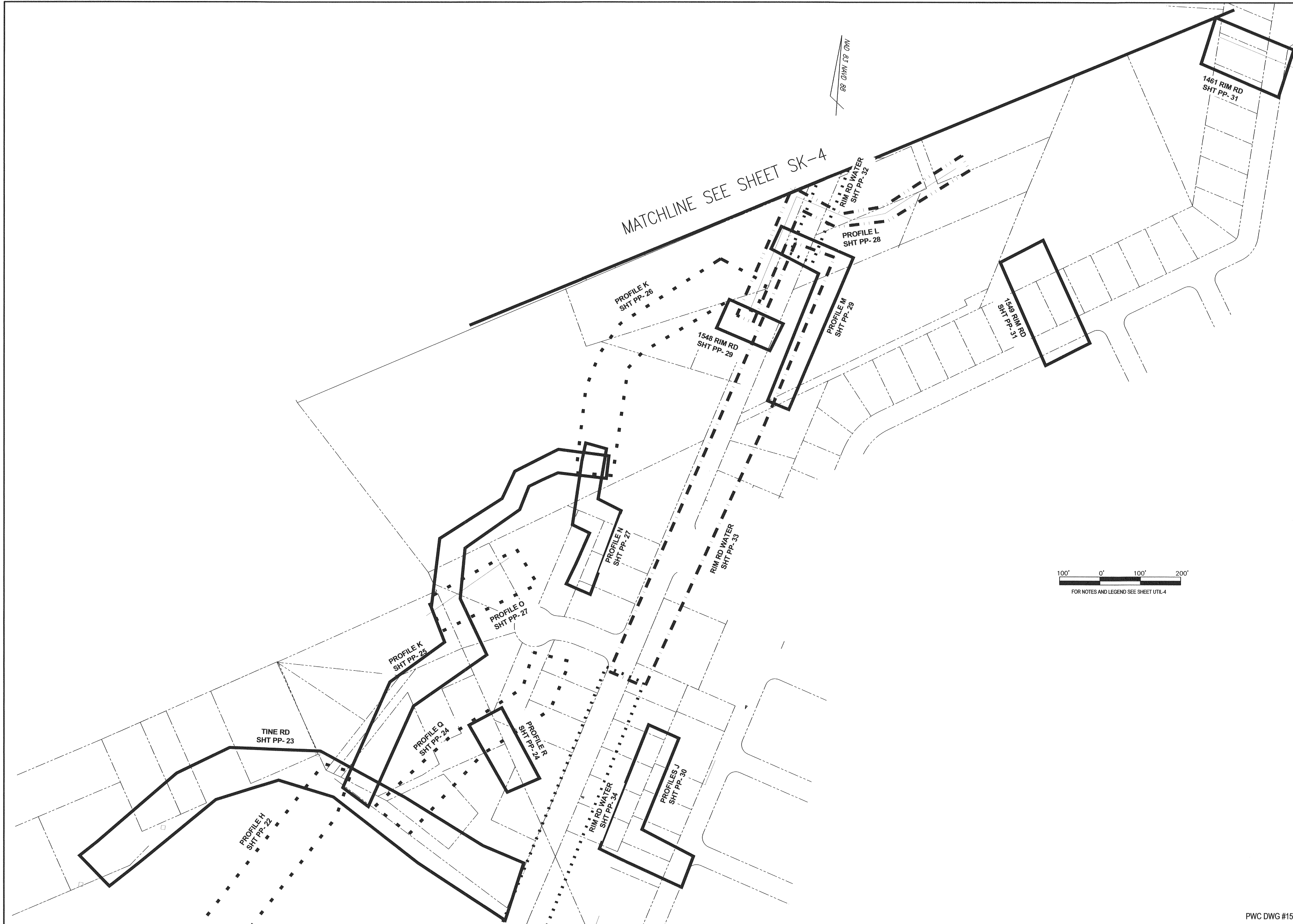


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet

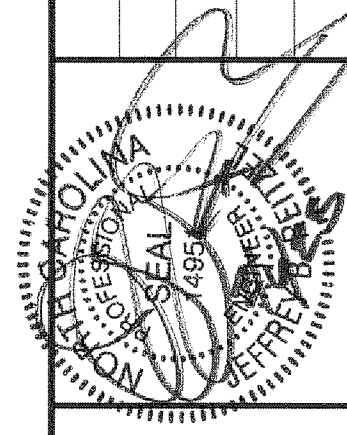
PWC DWG #15380 SK - 3



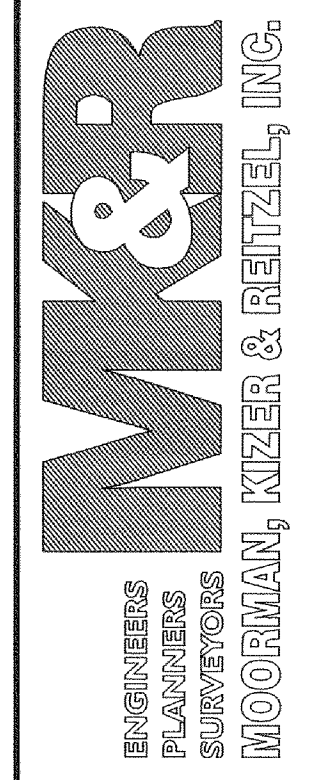
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
Construction Project IX
Area 25 - Lake Rim Estates
Partial Sheet Key

Revision	By	Date



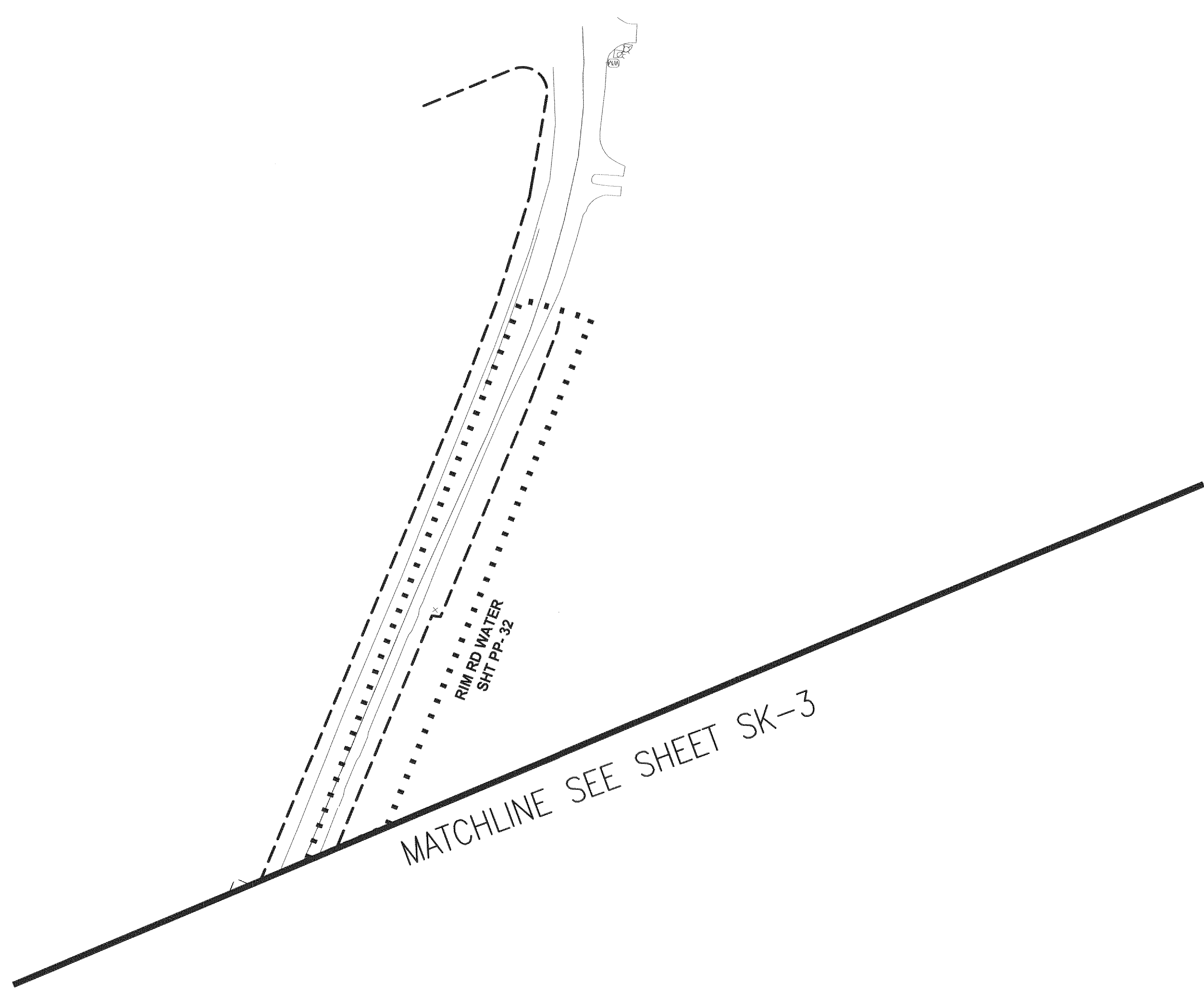
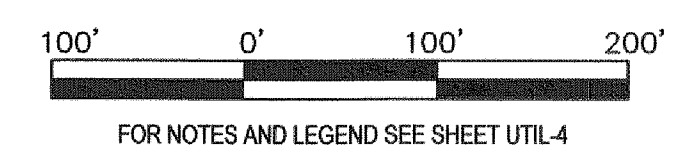
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



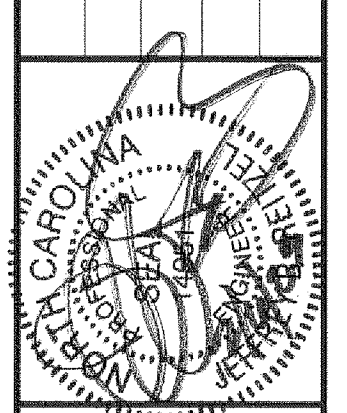
Scale 1" = 100'
Book no.
Sheet

SK - 4

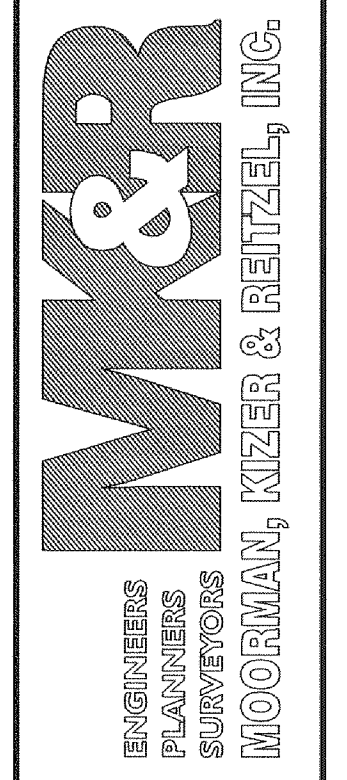
MAN 83 MAN 88



Revision	By	Date

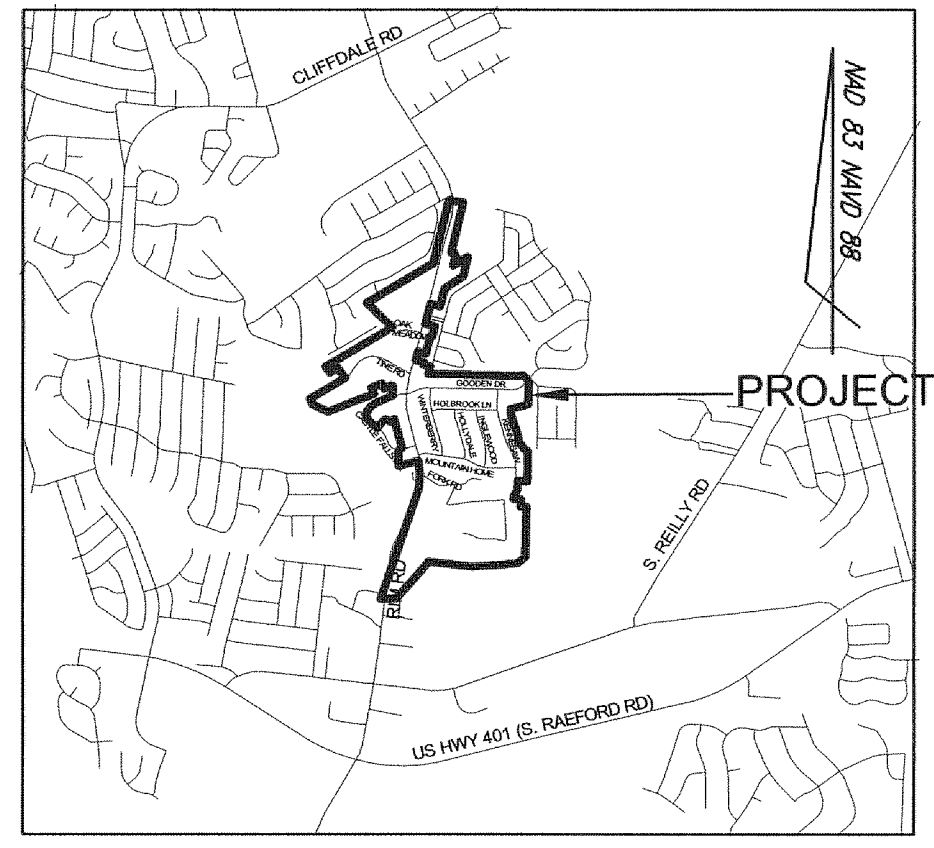


115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106



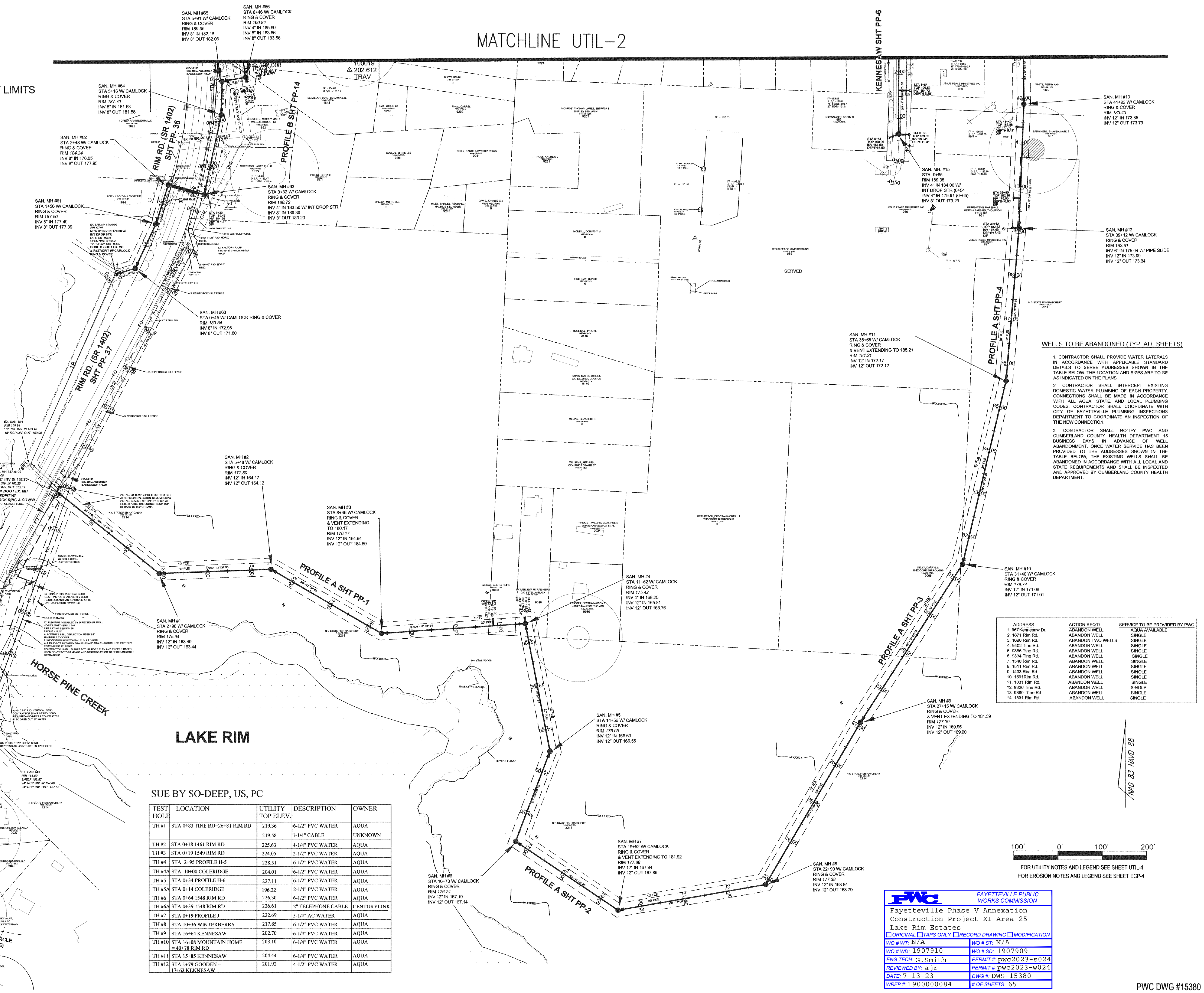
Scale 1" = 100'
 Book no.
 Sheet UTIL - 1

MATCHLINE UTIL-2



VICINITY MAP NTS

WATER SERVICE NOTE:
 CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)



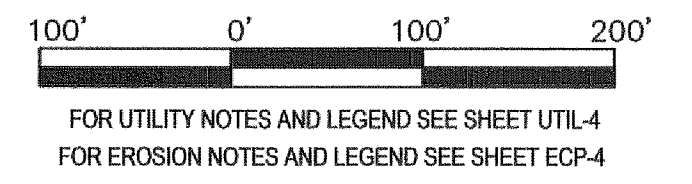
WELLS TO BE ABANDONED (TYP. ALL SHEETS)

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AQA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT. ONCE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW, THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 907 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1071 Rim Rd	ABANDON TWO WELLS	SINGLE
3. 1080 Rim Rd	ABANDON WELL	SINGLE
4. 9402 Time Rd	ABANDON WELL	SINGLE
5. 9396 Time Rd	ABANDON WELL	SINGLE
6. 9334 Time Rd	ABANDON WELL	SINGLE
7. 1548 Rim Rd	ABANDON WELL	SINGLE
8. 1511 Rim Rd	ABANDON WELL	SINGLE
9. 1403 Rim Rd	ABANDON WELL	SINGLE
10. 1501 Rim Rd	ABANDON WELL	SINGLE
11. 1831 Rim Rd	ABANDON WELL	SINGLE
12. 9326 Time Rd	ABANDON WELL	SINGLE
13. 9386 Time Rd	ABANDON WELL	SINGLE
14. 1831 Rim Rd	ABANDON WELL	SINGLE

SUE BY SO-DEEP, US, PC

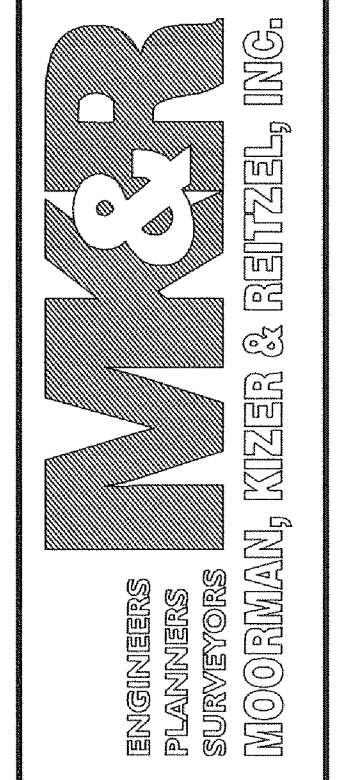
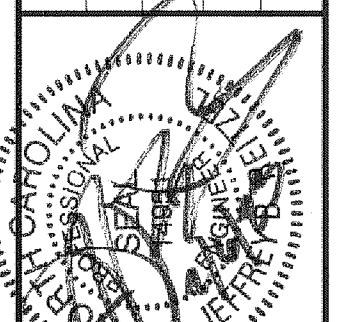
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #1	STA 0+83 TIME RD-26+81 RIM RD	219.36	6-1/2" PVC WATER	AQUA
		219.58	1-1/4" CABLE	UNKNOWN
TH #2	STA 0+18 1461 RIM RD	225.63	4-1/4" PVC WATER	AQUA
TH #3	STA 0+19 1549 RIM RD	224.05	2-1/2" PVC WATER	AQUA
TH #4	STA 2+95 PROFILE H-5	228.51	6-1/2" PVC WATER	AQUA
TH #4A	STA 10+00 COLERIDGE	204.01	6-1/2" PVC WATER	AQUA
TH #5	STA 0+34 PROFILE H-6	227.11	6-1/2" PVC WATER	AQUA
TH #5A	STA 0+14 COLERIDGE	196.32	2-1/4" PVC WATER	AQUA
TH #6	STA 0+64 1548 RIM RD	226.30	6-1/2" PVC WATER	AQUA
TH #6A	STA 0+39 1548 RIM RD	226.61	2" TELEPHONE CABLE	CENTURYLINK
TH #7	STA 0+19 PROFILE J	222.69	5-1/4" AC WATER	AQUA
TH #8	STA 10+36 WINTERBERRY	217.85	6-1/2" PVC WATER	AQUA
TH #9	STA 16+64 KENNESAW	202.70	6-1/4" PVC WATER	AQUA
TH #10	STA 16+08 MOUNTAIN HOME - 40+78 RIM RD	203.10	6-1/4" PVC WATER	AQUA
TH #11	STA 15+85 KENNESAW	204.44	6-1/4" PVC WATER	AQUA
TH #12	STA 1+79 GOODEN - 17+62 KENNESAW	201.92	4-1/2" PVC WATER	AQUA



FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL-4
 FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

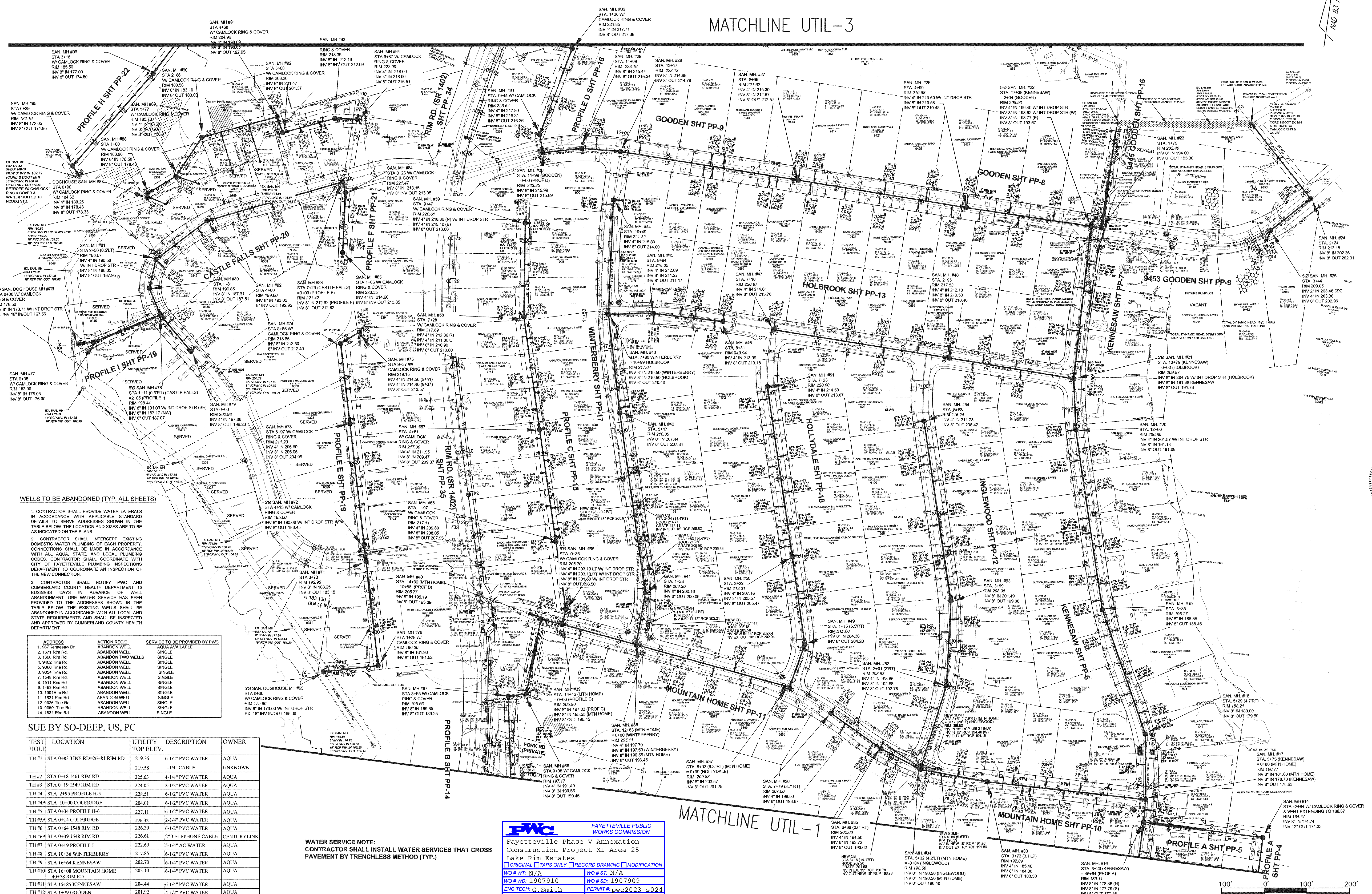
PWC FAYETTEVILLE PUBLIC WORKS COMMISSION
 Fayetteville Phase V Annexation
 Construction Project XI Area 25
 Lake Rim Estates
 ORIGINAL TAPS ONLY RECORD DRAWING MODIFICATION
 WO # W/ N/A WO # ST. N/A
 WO # WD: 1907910 WO # SD: 1907909
 ENG TECH: G. Smith PERMIT #: PWC2023-B024
 REVIEWED BY: a jr PERMIT #: PWC2023-W024
 DATE: 7-13-23 DWG #: DWS-15380
 WREP #: 190000084 # OF SHEETS: 65

PWC DWG #15380



MATCHLINE UTIL-3

MATCHLINE UTIL-1



WELLS TO BE ABANDONED (TYP. ALL SHEETS)

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW THE LOCATION AND SIZE ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AGA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT. ONE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW. THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 967 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 2771 Rim Rd.	ABANDON WELL	SINGLE
3. 1690 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 6388 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1493 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 8226 Time Rd.	ABANDON WELL	SINGLE
13. 8260 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #1	STA 0+83 TIME RD-2618 RIM RD	219.36	6-1/2" PVC WATER	AQUA
		219.58	1-1/4" CABLE	UNKNOWN
TH #2	STA 0+18 1461 RIM RD	225.63	4-1/4" PVC WATER	AQUA
TH #3	STA 0+19 1549 RIM RD	224.05	2-1/2" PVC WATER	AQUA
TH #4	STA 2+95 PROFILE II-5	228.51	6-1/2" PVC WATER	AQUA
TH #4A	STA 10+08 COLERIDGE	204.01	6-1/2" PVC WATER	AQUA
TH #5	STA 0+34 PROFILE II-6	227.11	6-1/2" PVC WATER	AQUA
TH #5A	STA 0+14 COLERIDGE	196.32	2-1/4" PVC WATER	AQUA
TH #6	STA 0+64 1548 RIM RD	226.30	6-1/2" PVC WATER	AQUA
TH #6A	STA 0+39 1548 RIM RD	226.61	7" TELEPHONE CABLE	CENTURYLINK
TH #7	STA 0+19 PROFILE J	222.69	5-1/4" AC WATER	AQUA
TH #8	STA 10+36 WINTERBERRY	217.85	6-1/2" PVC WATER	AQUA
TH #9	STA 16+64 KENNESAW	202.70	6-1/4" PVC WATER	AQUA
TH #10	STA 16+08 MOUNTAIN HOME - 40-78 RIM RD	203.10	6-1/4" PVC WATER	AQUA
TH #11	STA 15+85 KENNESAW	204.44	6-1/4" PVC WATER	AQUA
TH #12	STA 14+79 GOODEN - 1742 KENNESAW	201.92	4-1/2" PVC WATER	AQUA

WATER SERVICE NOTE:
 CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS
 PAVEMENT BY TRENCHLESS METHOD (TYP.)

FWC FAYETTEVILLE PUBLIC WORKS COMMISSION
 Fayetteville Phase V Annexation
 Construction Project XI Area 25
 Lake Rim Estates
 ORIGINAL TAPS ONLY RECORD DRAWING MODIFICATION
 WO # WT: N/A WO # ST: N/A
 WO # SD: 1907910 WO # SD: 1907909
 ENG TECH: G. Smith PERMIT #: pwc2023-s024
 REVIEWED BY: ajr PERMIT #: pwc2023-w024
 DATE: 7-13-23 DWG #: DWS-15380
 WREP #: 190000084 # OF SHEETS: 65



FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL 4
 FOR EROSION NOTES AND LEGEND SEE SHEET ECP 4

SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #1	STA 0+83 TIME RD-26+81 RIM RD	219.36	6-1/2" PVC WATER	AQUA
		219.58	1-1/4" CABLE	UNKNOWN
TH #2	STA 0+18 1461 RIM RD	225.63	4-1/4" PVC WATER	AQUA
TH #3	STA 0+19 1549 RIM RD	224.05	2-1/2" PVC WATER	AQUA
TH #4	STA 2+95 PROFILE H-5	228.51	6-1/2" PVC WATER	AQUA
TH #4A	STA 10+00 COLERIDGE	204.01	6-1/2" PVC WATER	AQUA
TH #5	STA 0+34 PROFILE H-6	227.11	6-1/2" PVC WATER	AQUA
TH #5A	STA 0+14 COLERIDGE	196.32	2-1/4" PVC WATER	AQUA
TH #6	STA 0+64 1548 RIM RD	226.30	6-1/2" PVC WATER	AQUA
TH #6A	STA 0+39 1548 RIM RD	226.61	2" TELEPHONE CABLE	CENTURYLINK
TH #7	STA 0+19 PROFILE J	222.69	5-1/4" AC WATER	AQUA
TH #8	STA 10+36 WINTERBERRY	217.85	6-1/2" PVC WATER	AQUA
TH #9	STA 16+64 KENNESAW	202.70	6-1/4" PVC WATER	AQUA
TH #10	STA 16+08 MOUNTAIN HOME = 40+78 RIM RD	203.10	6-1/4" PVC WATER	AQUA
TH #11	STA 15+85 KENNESAW	204.44	6-1/4" PVC WATER	AQUA
TH #12	STA 1+79 GOODEN = 17+62 KENNESAW	201.92	4-1/2" PVC WATER	AQUA

WELLS TO BE ABANDONED (TYP. ALL SHEETS)

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AQUA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT ONCE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW. THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 9677 KIRKWOOD DR	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9388 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1403 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9328 Time Rd.	ABANDON WELL	SINGLE
13. 9390 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

IMMEDIATELY UPON COMPLETION, STREAMBED SHALL BE RESTORED WITH NATURAL STREAMBED MATERIAL TO A DEPTH OF NO LESS THAN 12 INCHES OR TO THE BOTTOM DEPTH OF THE IMPACTED AREA IF SHALL COVER THAN 12 INCHES AND SHALL TIE IN TO THE ADJACENT STREAMBANK UP AND DOWN STREAM. (SEE STREAM STABILIZATION DETAIL SHEET D-2)

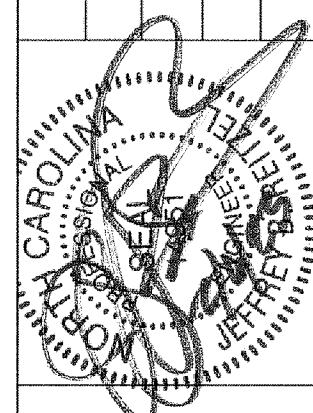
WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)

Drawn by
Checked
Reviewed
Date

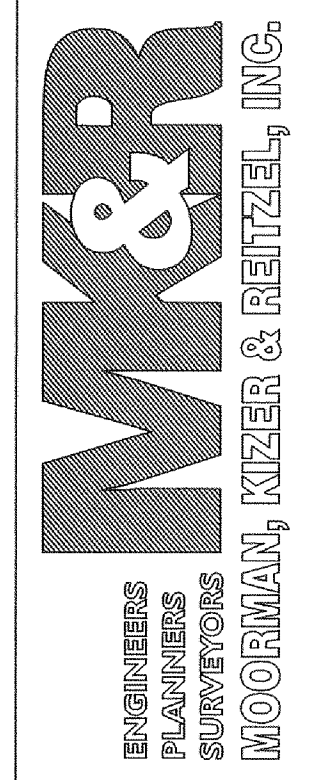
David Maples
David E. Vaughn, PE, PLS
Jeffrey B. Reitzel, PE, PLS
FEB 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Partial Utility Plan

Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet

UTIL - 3

PWC DWG #15380

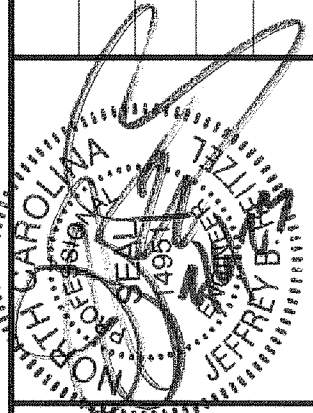
MATCHLINE UTIL-2



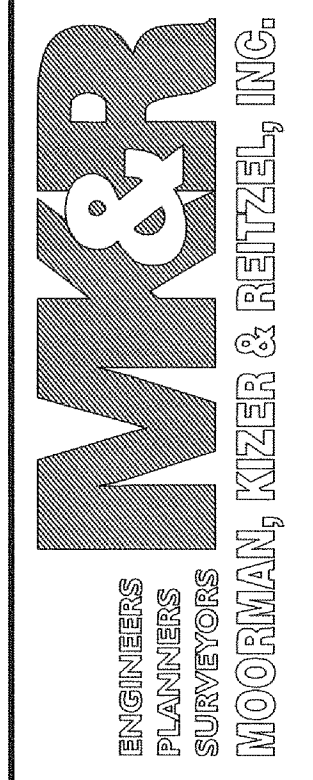
FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL-4
FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

PWC FAYETTEVILLE PUBLIC WORKS COMMISSION	
Fayetteville Phase V Annexation Construction Project XI Area 25 Lake Rim Estates	
<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> TAPS ONLY
<input type="checkbox"/> RECORD DRAWING	<input type="checkbox"/> MODIFICATION
WO # WT: N/A	WO # ST: N/A
WO # WD: 1907910	WO # SD: 1907909
ENG TECH: G. Smith	PERMIT #: pwc2023-s024
REVIEWED BY: a.j.	PERMIT #: pwc2023-w024
DATE: 7-13-23	DWG #: DWS-15380
WREP #: 190000084	# OF SHEETS: 65

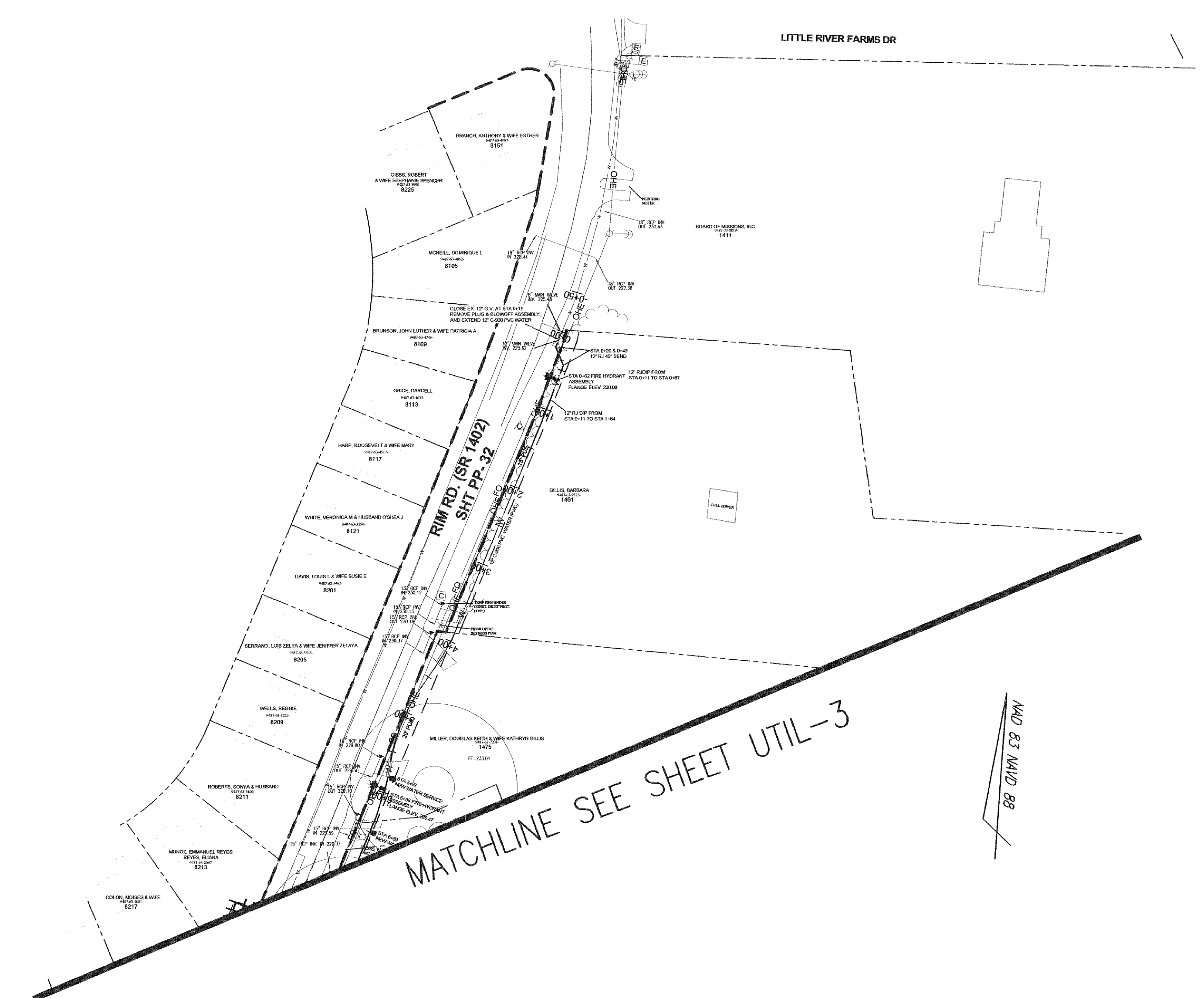
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



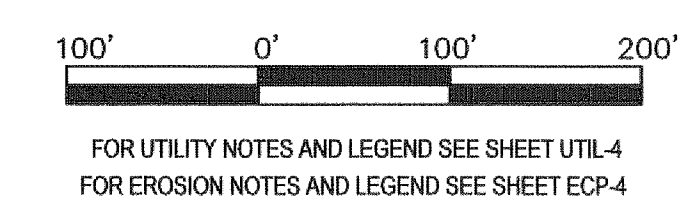
Scale
Book no.
Sheet
UTIL - 3A



WELLS TO BE ABANDONED (TYP. ALL SHEETS)

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AQUA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT. ONE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW. THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

ADDRESS	ACTION REQD.	SERVICE TO BE PROVIDED BY PWC
1. 927 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Tine Rd.	ABANDON WELL	SINGLE
5. 9388 Tine Rd.	ABANDON WELL	SINGLE
6. 8334 Tine Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1482 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE



FAYETTEVILLE PUBLIC WORKS COMMISSION	
Fayetteville Phase V Annexation Construction Project XI Area 25 Lake Rim Estates	
<input type="checkbox"/> ORIGINAL	<input type="checkbox"/> TAPS ONLY
<input type="checkbox"/> RECORD DRAWING	<input type="checkbox"/> MODIFICATION
WO # WT: N/A	WO # ST: N/A
WO # WD: 1907910	WO # SD: 1907909
ENG TECH: G. Smith	PERMIT #: PWC2023-s024
REVIEWED BY: JJC	PERMIT #: PWC2023-w024
DATE: 7-13-23	DWG # DWS-15380
WREP#: 190000084	# OF SHEETS: 65

PWC DWG #15380

GENERAL NOTES (TYPICAL ALL SHEETS)

- ACCESS TO SITES SHALL BE BY PUBLIC RIGHT-OF-WAYS AND UTILITY EASEMENTS. OTHER ACCESS LOCATIONS REQUIRED SHALL BE SECURED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. SUPPLEMENTAL EROSION CONTROL MEASURES SHALL BE REQUIRED TO INCLUDE CONSTRUCTION ENTRANCES, SILT FENCING, RESTORATION, ETC. EROSION CONTROL MEASURES SHALL BE INCLUDED AS PART OF A SUPPLEMENTAL EROSION CONTROL PLAN PREPARED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE THE CONSTRUCTION STAGING AREA AT HIS EXPENSE, INCLUDING ENVIRONMENTAL SURVEYS.
- THE CONTRACTOR IS EXPECTED AND REQUIRED TO COOPERATE WITH THE PROPERTY OWNERS AFFECTED BY THE WORK. PRIVATE AGREEMENTS WITH PROPERTY OWNERS MUST BE IN WRITING ON A FORM APPROVED BY THE PROJECT ENGINEER AND A COPY SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES AFFECTED BY SAID AGREEMENT. THE AGREEMENT MUST SPECIFY THAT PWC, THE CITY, CONSTRUCTION MANAGER AND THE ENGINEER SHALL BE HELD HARMLESS AGAINST ALL CLAIMS ARISING FROM THE AGREEMENT. THE OWNER DISCOURAGES PRIVATE AGREEMENTS. BEFORE FINAL ACCEPTANCE, A RELEASE FROM EACH PROPERTY OWNER THAT THE CONTRACTOR HAS MADE AN AGREEMENT WITH SHALL BE REQUIRED. THE PROPERTY OWNERS RELEASE IS A CONDITION OF FINAL ACCEPTANCE.
- CONTRACTOR SHALL MAINTAIN A NEAT AND CLEAN JOB-SITE TO INCLUDE STAGING/STORAGE AREAS AS FOLLOWS:
 - PERFORM DUST CONTROL BY WATERING DAILY AS NEEDED OR AS DIRECTED BY THE PWC PROJECT COORDINATOR.
 - SWEEP STREETS A MINIMUM OF ONCE WEEKLY (FRIDAY) OR AS DIRECTED BY THE PWC PROJECT COORDINATOR.
 - BLADE, LEVEL AND RE-COMPACT ALL EXPOSED TRENCHES WEEKLY OR AS DIRECTED BY THE PWC PROJECT COORDINATOR TO PRODUCE A FINISHED SURFACE.
 - PERFORM DAILY CLEAN-UP OF ALL DIRT, DEBRIS AND SCRAP MATERIALS.
 - REMOVE EXCESS EQUIPMENT, MATERIALS, TOOLS, ETC. NOT NEEDED.
- EXCESS SUITABLE SOIL EXCAVATED DURING CONSTRUCTION SHALL BE STOCKPILED ON THE PROJECT OR DISPOSED OF OFF-SITE AS DIRECTED BY THE PWC PROJECT COORDINATOR. THE CONTRACTOR SHALL NOT BE ALLOWED TO STOCKPILE MATERIALS OR EXCESS MATERIALS IN THE STREET RIGHT-OF-WAYS AT ANY TIME. THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT AND SUITABLE STOCKPILE AREA AND LOCATION AT THE CONTRACTOR'S EXPENSE.

- WORK TO REDUCE OBSTRUCTIONS TO TRAFFIC AND INCONVENIENCE TO RESIDENTS. WHERE UTILITIES ARE BEING CONSTRUCTED IN EASEMENTS OUT OF TRAFFIC AREAS CONTRACTOR MAY STORE MATERIALS AHEAD OF CONSTRUCTION FOR A DISTANCE NOT GREATER THAN 1800 FEET UNLESS APPROVED OTHERWISE BY THE PROJECT ENGINEER.
- AT THE PROPERTY OWNER'S REQUEST, THE CONTRACTOR SHALL DIG UP EXISTING SHRUBS AND BUSHES WITHIN UTILITY EASEMENT TO BE DISTURBED BY CONSTRUCTION AND SET OUTSIDE THE UTILITY EASEMENT AREA IN A LOCATION DETERMINED BY THE PROPERTY OWNER (NO SEPARATE PAYMENT). PROPERTY OWNER WILL BE RESPONSIBLE FOR REPLANTING SHRUBS AND BUSHES SO REMOVED, AND SHALL BE RESPONSIBLE FOR RE-ESTABLISHING GROWTH. IF NO REQUEST IS MADE BY THE PROPERTY OWNER, DISTURBED SHRUBS AND BUSHES SHALL BE REMOVED AND DISPOSED OF OFF-SITE UNLESS OTHERWISE INDICATED.
 - CLEARING AND GRUBBING SHALL BE RESTRICTED TO PERMANENT EASEMENTS ONLY. CONTRACTOR SHALL LIMIT TREE/BUSH CLEARING & GRUBBING IN THE TEMPORARY EASEMENTS, BETWEEN HOUSES AND ALONG PROPERTY LINES TO ONLY THAT WHICH IS ABSOLUTELY NECESSARY FOR CONSTRUCTION.
 - UPON COMPLETION OF CONSTRUCTION CONTRACTOR SHALL FLUSH AND CLEAN OUT STORM DRAINAGE SYSTEM TO INCLUDE DRIVEWAY PIPES, AND DISPOSE OF SPOIL MATERIAL OFFSITE. (NO SEPARATE PAYMENT)
 - THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF FAYETTEVILLE THE INSPECTION OF ALL STORM DRAINAGE TO BE IMPACTED BY CONSTRUCTION ACTIVITIES BEFORE AND AFTER ALL CONSTRUCTION ACTIVITIES HAVE TAKEN PLACE NEAR SUCH STORM DRAINAGE DEVICES (I.E. PIPE, CATCH BASINS, MANHOLES, ETC.). (NO SEPARATE PAYMENT)
 - AT LOCATIONS WHERE CONFLICTS MAY OCCUR, THE CONTRACTOR SHALL DIG UP STORM DRAINAGE PIPES PRIOR TO INSTALLING SANITARY SEWER AND ALLOW THE CITY OF FAYETTEVILLE REPRESENTATIVE TO VERIFY INVERT ELEVATIONS AND LOCATION TO ALLOW FOR ADJUSTMENT. NO SEPARATE PAYMENT.
 - THE CONTRACTOR SHALL REPAIR STORM DRAINAGE DAMAGED DUE TO CONSTRUCTION TO CITY OF FAYETTEVILLE STANDARD. NO SEPARATE PAYMENT.
 - CONTRACTOR SHALL REPAIR DAMAGE TO SEPTIC SYSTEMS DUE TO CONSTRUCTION TO EXISTING OR BETTER CONDITION IMMEDIATELY UPON DAMAGE. CONTRACTOR SHALL PUMP AND HAUL SEPTIC TANK CONTENTS AS NECESSARY DURING THE INTERIM BETWEEN SEPTIC SYSTEM DAMAGE AND REPAIR. NO SEPARATE PAYMENT.

SEPTIC TANK AND DRAIN FIELD CONFLICT RESOLUTION REQUIREMENTS

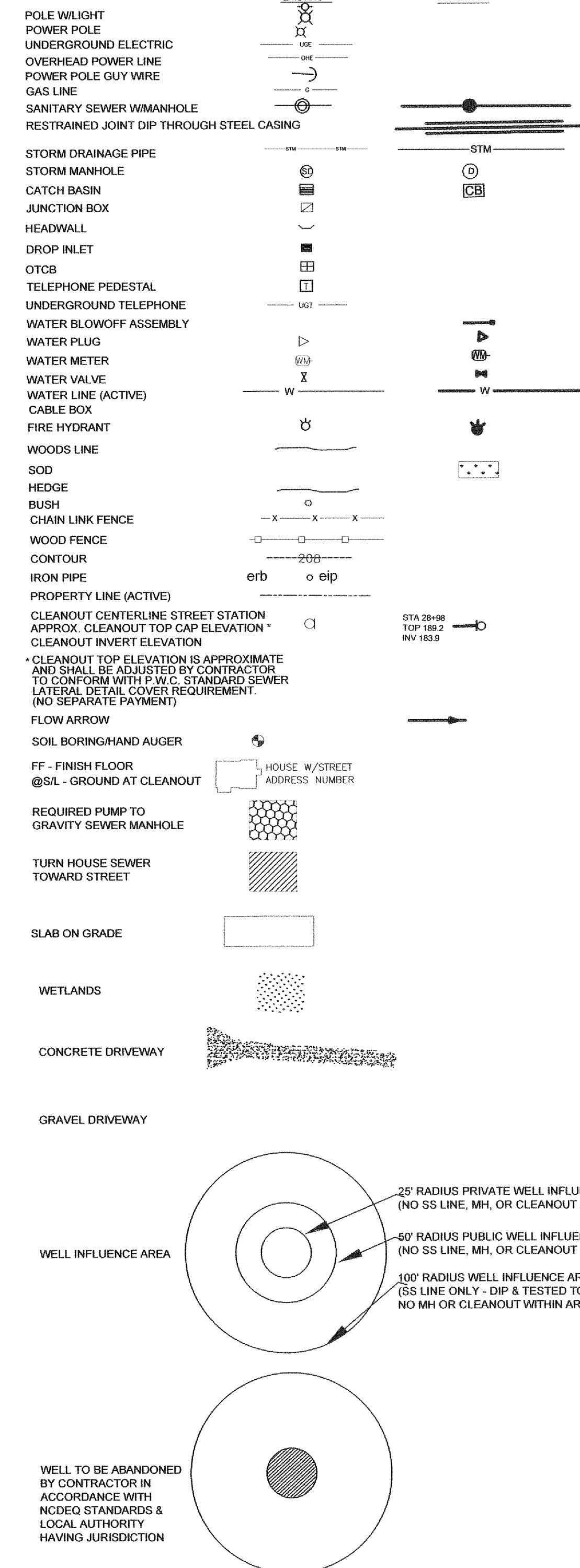
- THE SEWERS AS IDENTIFIED IN STEP 2 (EARLY SEWER CONNECTION) COULD CONTAIN UNFORESEEN CONFLICTS WITH SEPTIC TANKS OR RESULT IN SIGNIFICANT DAMAGE TO THE DRAIN FIELD THAT MAY NOT BE REPAIRABLE FOR CONTINUED USE. THEREFORE, THESE DESIGNATED SEWERS SHALL BE CONSTRUCTED SO EACH SUBSEQUENT SEGMENT IS READY FOR SERVICE AND CAN BE PLACED INTO SERVICE THEREBY ALLOWING EARLY SEWER CONNECTION IN THE EVENT SUCH CONFLICT ARISES.
- GIVEN THE UNCERTAINTY OF THE NUMBER AND EXTENT OF SEPTIC TANK AND DRAIN FIELD CONFLICTS, CONTRACTOR SHALL BE PREPARED TO PROVIDE THE FOLLOWING RESOLUTIONS WHERE AUTHORIZED BY PROJECT COORDINATOR AND NOT THE RESULT OF CONTRACTOR NEGLIGENCE OR ERROR:
 - REPAIR DAMAGE ALLOWING DRAIN FIELD TO RESUME OPERATION THE SAME DAY AS THE DAMAGE OCCURS (NO SEPARATE PAYMENT)
 - WHERE DAMAGE RENDERS THE DRAIN FIELD INOPERABLE FOR AN EXTENDED OUTAGE, PUMP THE SEPTIC TANK AND DISPOSE OF CONTENTS SAFELY AND AT A APPROVED SEPTIC RECEIVING STATION UNTIL THE DRAIN FIELD IS REPAIRED AND SERVICEABLE (SEPARATE PAYMENT PER OCCURRENCE PER DAY).
 - WHERE DAMAGE RENDERS THE DRAIN FIELD AND TANK INOPERABLE FOR AN EXTENDED OUTAGE, PROVIDE TEMPORARY 4" DIA. MANHOLE (MIN. 8 FEET IN DEPTH), TEMPORARILY RE-ROUTE PROPERTY OWNER'S SEWER PLUMBING TO THE TEMPORARY MANHOLE AND PUMP THE TEMPORARY MANHOLE AND DISPOSE OF CONTENTS SAFELY AND AT A APPROVED SEPTIC RECEIVING STATION DAILY UNTIL THE TANK AND DRAIN FIELD IS REPAIRED AND SERVICEABLE (SEPARATE PAYMENT FOR TEMPORARY MANHOLE AND PER PUMPING OCCURRENCE PER DAY)
 - WHERE DAMAGE RENDERS THE DRAIN FIELD AND TANK INOPERABLE AND CANNOT BE REPAIRED, PROVIDE TEMPORARY 4" DIA. MANHOLE (MIN. 8 FEET IN DEPTH), TEMPORARILY RE-ROUTE PROPERTY OWNER'S SEWER PLUMBING TO THE TEMPORARY MANHOLE AND PUMP THE TEMPORARY MANHOLE AND DISPOSE OF CONTENTS SAFELY AND AT A APPROVED SEPTIC RECEIVING STATION DAILY UNTIL THE PROPERTY CAN BE CONNECTED TO PWC SEWER. (SEPARATE PAYMENT FOR TEMPORARY MANHOLE AND PER PUMPING OCCURRENCE PER DAY AND PER EARLY SEWER CONNECTION OCCURRENCE).
- SEWER CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH PWC REQUIREMENTS AND STATE AND LOCAL PLUMBING CODES AND THE GENERAL CONTRACTOR SHALL BE REQUIRED TO HIRE A N.C. LICENSED PLUMBER TO MAKE ANY CONNECTIONS, RECONNECTIONS, REPAIRS ETC. ON THE HOUSE SIDE OF THE SERVICE.
- CONTRACTOR SHALL REPAIR ALL PRIVATE PROPERTY DISTURBED BY SEPTIC TANK AND DRAIN FIELD CONFLICT RESOLUTION WITH SOD.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING, SUBMITTING AND RECEIVING THE PLUMBING PERMIT FOR EACH SEWER SERVICE CONNECTION. THE PLUMBING PERMIT IS AVAILABLE VIA THE CITY OF FAYETTEVILLE'S WEBSITE AT <https://www.fayetteville.gov/city-services/development-services/permitting-inspections/administration-permitting/permits>. PERMIT FEE FOR EACH CONNECTION IS \$75.00 (2020 RATE) AND IT MUST BE PAID BY THE CONTRACTOR (NO SEPARATE PAYMENT OR REIMBURSEMENT FROM PWC).
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING THE CITY OF FAYETTEVILLE PLUMBING INSPECTION OF THE NEW SEWER SERVICE CONNECTION. CONTRACTOR SHALL ALLOW A MINIMUM OF 20 DAYS FROM THE APPROVED SEWER PLUMBING PERMIT APPLICATION TO OBTAIN AN INSPECTION. CONTRACTOR SHALL CONTACT CARL JOHNSON WITH CITY OF FAYETTEVILLE PERMITTING AND INSPECTIONS AT 910-433-1075. CONTRACTOR SHALL REQUEST INSPECTION BY EMAIL VIA inspections@ci.fay.nc.us. ANY DELAYS ASSOCIATED WITH INSPECTION REQUESTS AND OR RE-INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WELLS TO BE ABANDONED (TYP. ALL SHEETS)

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AQUA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT ONCE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW. THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 1671 Rembrandt Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1669 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Tine Rd.	ABANDON WELL	SINGLE
5. 8398 Tine Rd.	ABANDON WELL	SINGLE
6. 9334 Tine Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1483 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1631 Rim Rd.	ABANDON WELL	SINGLE

LEGEND



ORDER OF PRECEDENCE GENERAL NOTES/TECHNICAL SPECIFICATIONS/PHOTOS

- THE NOTES CONTAINED HEREIN ARE INTENDED TO SUPPLEMENT THE TECHNICAL SPECIFICATIONS AND PROVIDE EASY REFERENCE FOR THE CONTRACTOR. IN NO CASE SHALL THESE NOTES VOID ANY PART, SECTION OR REQUIREMENT OUTLINED IN THE TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENTS. IF CONFLICTS OCCUR BETWEEN THE TECHNICAL SPECIFICATIONS AND THE NOTES CONTAINED HEREIN, THE TECHNICAL SPECIFICATIONS SHALL SUPERSEDE.

EXISTING UNDERGROUND UTILITIES WARNING

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR LOCATING, PROTECTING, AND COORDINATING WITH OR ROUTING AROUND ALL EXISTING UTILITIES. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE, BASED UPON INFORMATION PROVIDED BY THE OWNER FROM PREVIOUS PROJECT DOCUMENTATION AND A PHYSICAL SURVEY OF VISIBLE OBJECTS AND SHOULD NOT BE CONSIDERED COMPLETE OR ACCURATE. THE CONTRACTOR MUST PROVIDE ALL NECESSARY LOCATING SERVICES AT CONTRACTOR'S EXPENSE PRIOR TO EXCAVATION AND NOTIFY ENGINEER OF SAME PRIOR TO BEGINNING CONSTRUCTION. THE USE OF CURRENT TECHNOLOGY, EXPLORATORY EXCAVATION, GROUND PENETRATING RADAR, VACUUM EXCAVATION AND SIGNIFICANT HAND EXCAVATION IS EXPECTED AND REQUIRED. ANY UNDERGROUND ITEMS DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

NOTE: UTILITIES SHOWN ON PLAN PROFILE SHEETS

UTILITY OWNERS IN AREA	CITY OF FAYETTEVILLE PUBLIC WORKS COMMISSION
WATER	AQUA AMERICA
SANITARY SEWER	CITY OF FAYETTEVILLE PUBLIC WORKS COMMISSION
CABLE TELEVISION	SPECTRUM/CHARTER
TELEPHONE	CENTURY LINK
STORM DRAINAGE	CITY OF FAYETTEVILLE AND NCDOT
NATURAL GAS	PROGRESS ENERGY
ELECTRIC	CITY OF FAYETTEVILLE PWC LUMBEE RIVER EMC

Easement Special Conditions Area 25 Lake Rim Estates

Parcel Number	Address	Special Conditions
9487-62-4994	1511 Rim Road	Do not disturb fencing.
9487-51-6597	9342 Tine Road	Temporary Fencing Required.
9487-50-0936		Remove all trees, stumps, and roots from easement area. Sod all areas disturbed by utility construction.
9487-50-7273	1750 Rim Road	Wooden Privacy Fence to be replaced with new wooden privacy fence.
9487-50-8017	1766 Rim Road	Temporary Fencing Required for small animals.
9486-59-8948	1774 Rim Road	Chain Link Fencing to be replaced.
9486-50-7460	1825 Collier Drive	Temporary Fencing Required.
9486-69-0096	1873 Rim Road	Possible septic conflict.
9486-69-1447	N/A	Temporary Fencing Required.
9486-69-1537	0 Rim Road	Possible septic conflict.
9486-69-1731	9597 Mountain Home Drive	Temporary Fencing Required.
9487-50-9562	1725 Rim Road	Possible septic conflict.
9487-50-9559	1717 Rim Road	Temporary Fencing Required for dog(s).
9487-50-9657	1709 Rim Road	Possible septic conflict.
9486-79-7469	957 Kennesaw Drive	Possible septic conflict.
9486-89-1378	936 Kennesaw Drive	CB building to be demoed and removed by contractor. Walnut trees marked with "X" cut into 8-foot lengths and laid outside the easement after they are cut.
9486-79-9256	967 Kennesaw Drive	Property owner to be connected to Aqua Water main before well abandonment is completed.
9486-69-2639	9593 Mountain Home Drive	Temporary Fencing is required.
9486-69-3525	1831 Rim Road	Possible septic conflict.
9487-61-1755	1629 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1638	1635 Rim Road	Move lawn ornaments and landscaping stone outside the easement and set aside for the property owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1610	1641 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0593	1649 Rim Road	Cut cedar tree in front yard along Rim Road into 24-inch lengths and left outside the PUE for owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0359	1659 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-71-4021	9445 Gooden Drive	Temporary Fencing Required along TCE. Temporary fence should be 6 ft. high. Remove/dispose of satellite dish at edge of PUE in front yard.
9487-50-1688	9361 Castle Falls Circle	Possible septic conflict.
9487-50-4871	9377 Castle Falls Circle	Temporary Fencing Required.
9487-61-1371	866 Rembrandt Drive	Remove clothesline.

PWC WATER LATERAL REPAIR (TYP.)
CONTRACTOR SHALL REPAIR 1" WATER LATERAL DISTURBED BY CONSTRUCTION WITH 1" COPPER FROM MAIN TO METER. IF 3/4" WATER LATERAL IS DISTURBED DUE TO CONSTRUCTION CONTRACTOR SHALL REPLACE LATERAL WITH 1" COPPER FROM MAIN TO METER IN ACCORDANCE WITH PWC STANDARDS. NO SEPARATE PAYMENT.

AQUA AMERICA WATER LATERAL REPAIR (TYP.)
CONTRACTOR SHALL REPAIR WATER LATERALS DISTURBED BY CONSTRUCTION IN ACCORDANCE WITH AQUA AMERICA WATER LATERAL STANDARDS. NO SEPARATE PAYMENT.

Drawn by David M. Moore
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Utility Notes & Legend

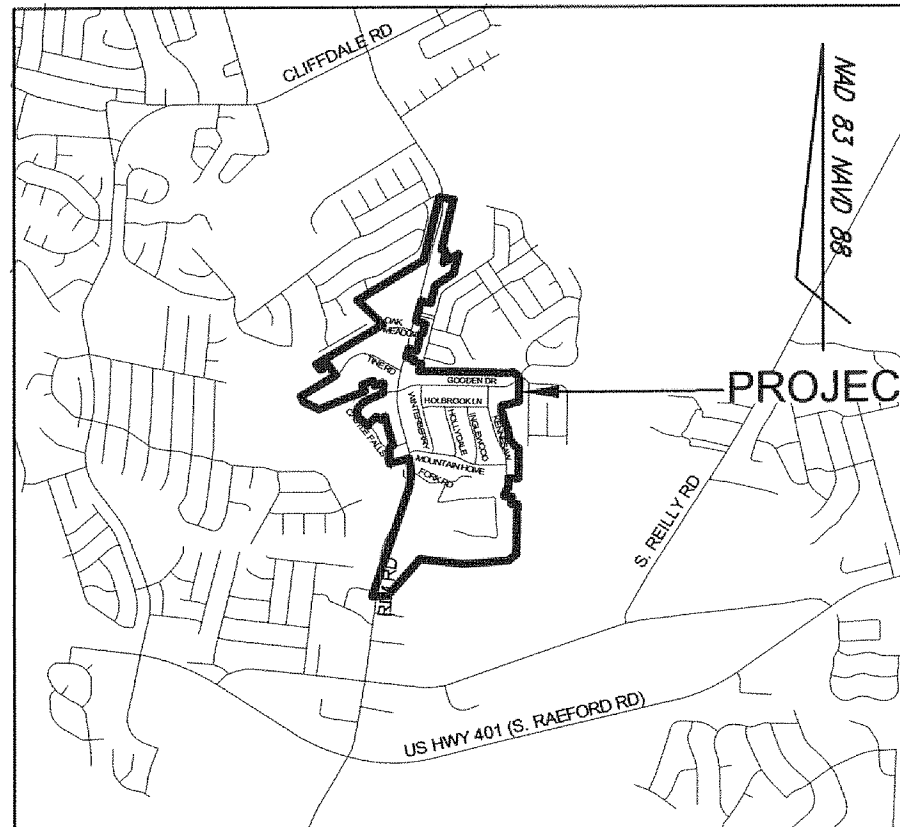
By	Date	Revision

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

MOORMAN, KIZER & REITZEL, INC.
ENGINEERS
PLANNERS
SURVEYORS

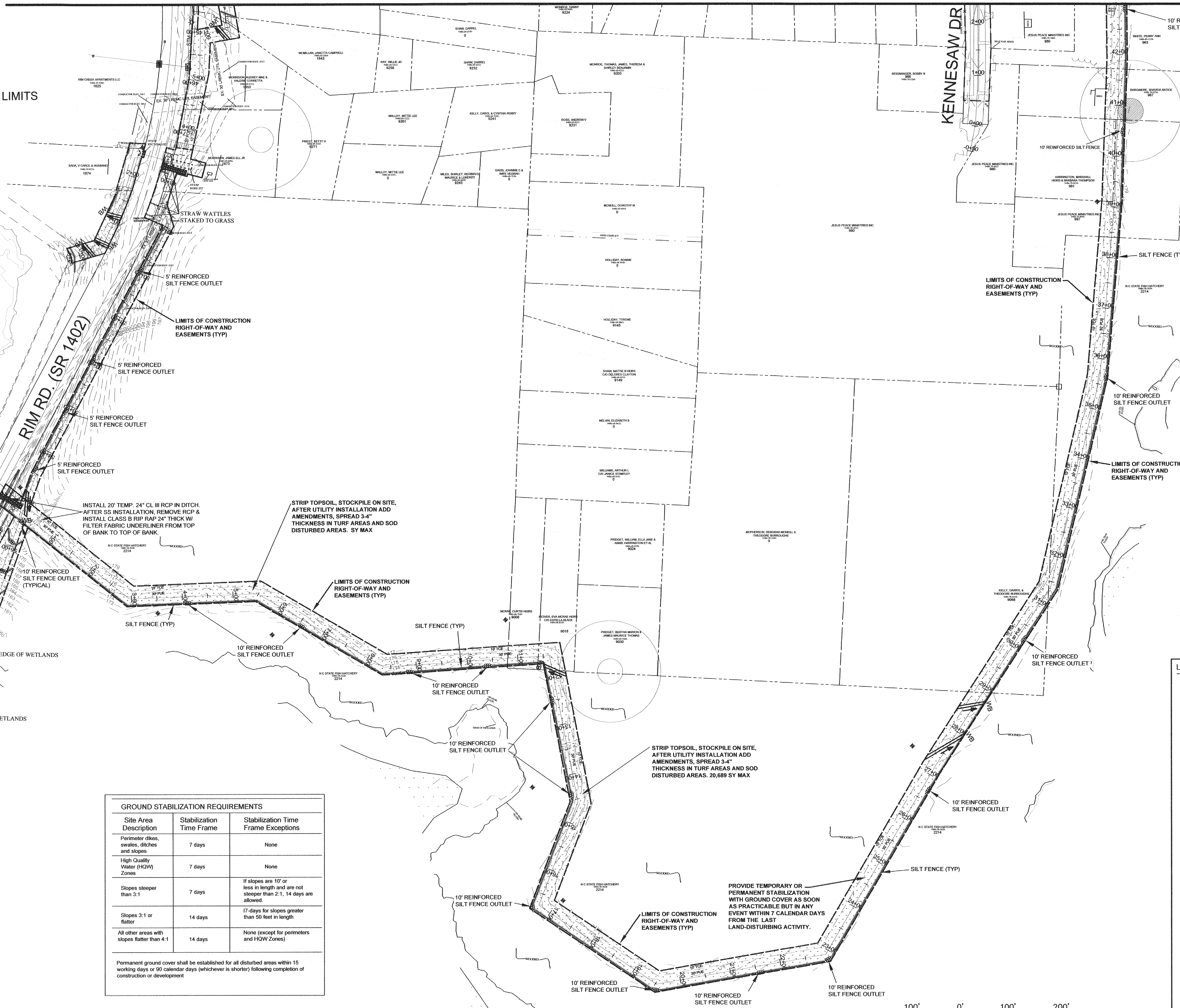
Scale
Book no.
Sheet
UTIL - 4

MATCHLINE ECP-2



VICINITY MAP NTS

PROJECT LIMITS



- CONSTRUCTION SEQUENCE**
- OBTAIN ALL PERMITS AND PLAN APPROVALS.
 - PRE-CONSTRUCTION CONFERENCE.
 - INSTALL GRAVEL CONSTRUCTION ENTRANCES
 - INSTALL SEDIMENT FENCING
 - INSTALL TEMPORARY HARDWARE CLOTH INLET PROTECTION.
 - INSTALL WATER BARS (RW DIVERSIONS)
 - INSTALL HIGH FLOW SILT SACKS IN STORM DRAIN BASINS.
 - INSTALL TEMP PIPE UNDER CONST. PROTECTION.
 - CLEAR AND GRUB PERMANENT EASEMENTS AND ONLY THOSE PORTIONS OF TEMPORARY EASEMENTS NECESSARY FOR CONSTRUCTION.
 - INSTALL WATER MAINS
 - INSTALL STORM DRAINAGE
 - INSTALL SEWER MAINS IN EASEMENTS. STRIP TOPSOIL DURING TRENCHING OPERATIONS AND SEPARATE FROM EXCAVATED MATERIAL. MATERIAL EXCAVATED SHALL BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION WITH THE TRENCH BETWEEN THE MATERIAL AND THE SEDIMENT FENCE.
 - REMOVE ASPHALT IN STREETS ALONG SEWER MAINS 300' MAXIMUM DISTURBANCE BY MILLING WITH ZIPPER TYPE EQUIPMENT. REPLACE CUTTINGS BACK ON ROAD AND COMPACT.
 - INSTALL SEWER MAIN 3000' MAX. DISTURBANCE. PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO PAVEMENT SURFACE.
 - INSTALL SEWER LATERALS, PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO SURFACE OF THE ASPHALT.
 - TEST AND INSPECT SEWER MAIN AND LATERALS.
 - PATCH DISTURBED PAVEMENT ALONG SEWER MAINS, LATERALS AND STORM DRAINAGE WITH PERMANENT ASPHALT PATCH.
 - SEED AND MULCH OR SOD ALL DISTURBED AREAS NOT OTHERWISE IMPROVED AND ESTABLISH PERMANENT GROUND COVER AS INDICATED ON THE PLANS..
 - PRE FINAL INSPECTION BY CONTRACTOR.
 - PRE FINAL INSPECTION BY OWNER AND CONTRACTOR (PUNCH LIST GENERATED).
 - FINAL INSPECTION (ALL PUNCH LIST ITEMS COMPLETED WITH NCDENR, PWC, OWNER AND DESIGNER PRESENT).
 - REMOVE TEMPORARY MEASURES.
 - CLOSEOUT PROJECT

LEGEND

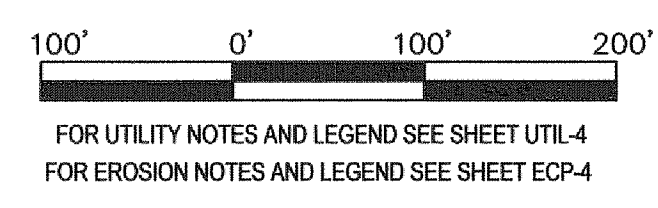
	INSTALL TEMPORARY HIGH FLOW SILT SACK IN BASIN, (TYPICAL)
	WETLANDS
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
	TEMPORARY SILT FENCE
	TEMPORARY REINFORCED SILT FENCE OUTLET
	SOD SYMBOL
	SEED SYMBOL
	CUT & PATCH ASPHALT
	LIMITS OF CONSTRUCTION (RIGHT OF WAY)
	LIMITS OF CONSTRUCTION (EASEMENTS)
	RW DIVERSION (WATER BAR)
	SOIL BORING/HAND AUGER
	TEMPORARY DRAINAGE UNDER CONSTRUCTION INLET PROTECTION
	TEMPORARY OTCB INLET PROTECTION
	STRAW WATTLE

GROUND STABILIZATION REQUIREMENTS

Site Area Description	Stabilization Time Frame	Stabilization Time Frame
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	17-days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

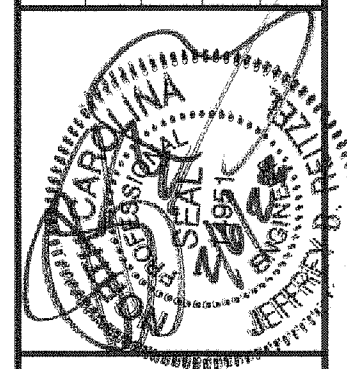
Permanent ground cover shall be established for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development

NOTES:
SEE SHEET D-1, 2 & 3 FOR EROSION CONTROL DETAILS AND MAINTENANCE REQUIREMENTS.
SEE PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

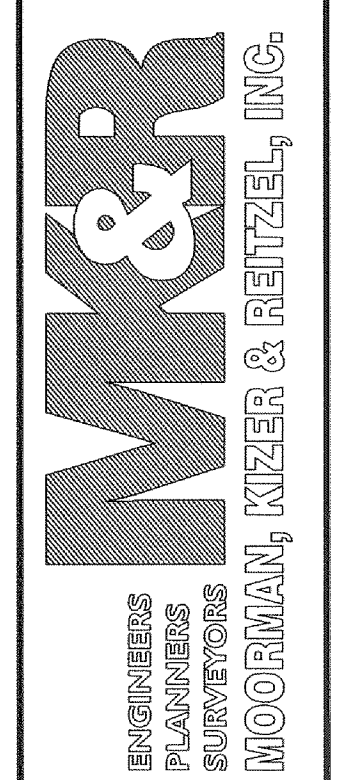


Fayetteville Annexation Phase V
Construction Project XI
Area 25
Partial Erosion Control Plan

Revision	By	Date



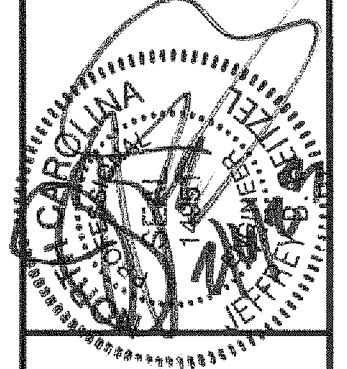
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



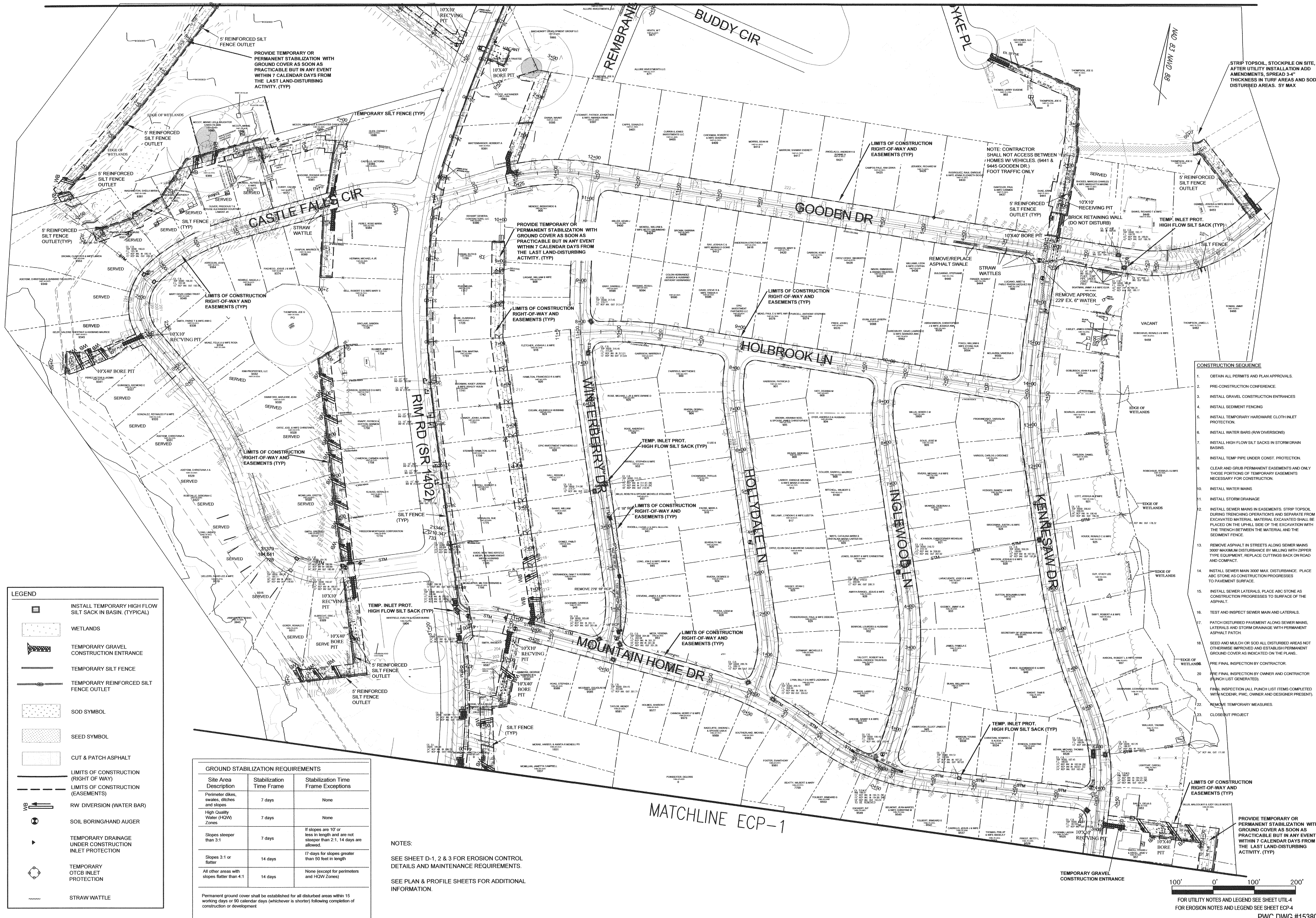
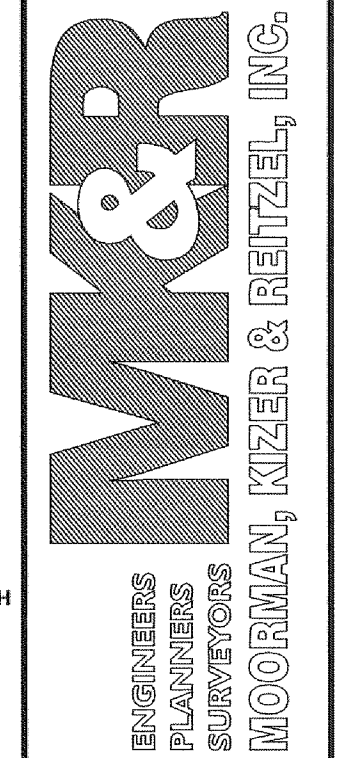
Scale 1" = 100'
Book no.
Sheet
ECP - 1

PWC DWG #15380

Revision	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



LEGEND

- INSTALL TEMPORARY HIGH FLOW SILT SACK IN BASIN. (TYPICAL)
- WETLANDS
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- TEMPORARY SILT FENCE
- TEMPORARY REINFORCED SILT FENCE OUTLET
- SOD SYMBOL
- SEED SYMBOL
- CUT & PATCH ASPHALT
- LIMITS OF CONSTRUCTION (RIGHT OF WAY)
- LIMITS OF CONSTRUCTION (EASEMENTS)
- RW DIVERSION (WATER BAR)
- SOIL BORING/HAND AUGER
- TEMPORARY DRAINAGE UNDER CONSTRUCTION INLET PROTECTION
- TEMPORARY OTCB INLET PROTECTION
- STRAW WATTLE

GROUND STABILIZATION REQUIREMENTS

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	17-days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

Permanent ground cover shall be established for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development

NOTES:

SEE SHEET D-1, 2 & 3 FOR EROSION CONTROL DETAILS AND MAINTENANCE REQUIREMENTS.

SEE PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

- CONSTRUCTION SEQUENCE**
1. OBTAIN ALL PERMITS AND PLAN APPROVALS.
 2. PRE-CONSTRUCTION CONFERENCE.
 3. INSTALL GRAVEL CONSTRUCTION ENTRANCES
 4. INSTALL SEDIMENT FENCING
 5. INSTALL TEMPORARY HARDWARE CLOTH INLET PROTECTION.
 6. INSTALL WATER BARS (RW DIVERSIONS)
 7. INSTALL HIGH FLOW SILT SACKS IN STORM DRAIN BASINS.
 8. INSTALL TEMP PIPE UNDER CONST. PROTECTION.
 9. CLEAR AND GRUB PERMANENT EASEMENTS AND ONLY THOSE PORTIONS OF TEMPORARY EASEMENTS NECESSARY FOR CONSTRUCTION.
 10. INSTALL WATER MAINS
 11. INSTALL STORM DRAINAGE
 12. INSTALL SEWER MAINS IN EASEMENTS. STRIP TOPSOIL DURING TRENCHING OPERATIONS AND SEPARATE FROM EXCAVATED MATERIAL. MATERIAL EXCAVATED SHALL BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION WITH THE TRENCH BETWEEN THE MATERIAL AND THE SEGMENT FENCE.
 13. REMOVE ASPHALT IN STREETS ALONG SEWER MAINS 3000' MAXIMUM DISTURBANCE BY MILLING WITH ZIPPER TYPE EQUIPMENT. REPLACE CUTTINGS BACK ON ROAD AND COMPACT.
 14. INSTALL SEWER MAIN 3000' MAX. DISTURBANCE. PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO PAVEMENT SURFACE.
 15. INSTALL SEWER LATERALS. PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO SURFACE OF THE ASPHALT.
 16. TEST AND INSPECT SEWER MAIN AND LATERALS.
 17. PATCH DISTURBED PAVEMENT ALONG SEWER MAINS, LATERALS AND STORM DRAINAGE WITH PERMANENT ASPHALT PATCH
 18. SEED AND MULCH OR SOO ALL DISTURBED AREAS NOT OTHERWISE IMPROVED AND ESTABLISH PERMANENT GROUND COVER AS INDICATED ON THE PLANS.
 19. PRE FINAL INSPECTION BY CONTRACTOR.
 20. PRE FINAL INSPECTION BY OWNER AND CONTRACTOR (PUNCH LIST GENERATED).
 21. FINAL INSPECTION (ALL PUNCH LIST ITEMS COMPLETED WITH INCENR, PWC, OWNER AND DESIGNER PRESENT).
 22. REMOVE TEMPORARY MEASURES.
 23. CLOSE-OUT PROJECT

FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL-4
FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

CONSTRUCTION SEQUENCE

1. OBTAIN ALL PERMITS AND PLAN APPROVALS.
2. PRE-CONSTRUCTION CONFERENCE.
3. INSTALL GRAVEL CONSTRUCTION ENTRANCES
4. INSTALL SEDIMENT FENCING
5. INSTALL TEMPORARY HARDWARE CLOTH INLET PROTECTION.
6. INSTALL WATER BARS (RW DIVERSIONS)
7. INSTALL HIGH FLOW SILT SACKS IN STORM DRAIN BASINS.
8. INSTALL TEMP PIPE UNDER CONST. PROTECTION.
9. CLEAR AND GRUB PERMANENT EASEMENTS AND ONLY THOSE PORTIONS OF TEMPORARY EASEMENTS NECESSARY FOR CONSTRUCTION.
10. INSTALL WATER MAINS
11. INSTALL STORM DRAINAGE
12. INSTALL SEWER MAINS IN EASEMENTS. STRIP TOPSOIL DURING TRENCHING OPERATIONS AND SEPARATE FROM EXCAVATED MATERIAL. MATERIAL EXCAVATED SHALL BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION WITH THE TRENCH BETWEEN THE MATERIAL AND THE SEDIMENT FENCE.
13. REMOVE ASPHALT IN STREETS ALONG SEWER MAINS 300' MAXIMUM DISTURBANCE BY MILLING WITH ZIPPER TYPE EQUIPMENT, REPLACE CUTTINGS BACK ON ROAD AND COMPACT.
14. INSTALL SEWER MAIN 3000' MAX. DISTURBANCE. PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO PAVEMENT SURFACE.
15. INSTALL SEWER LATERALS, PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO SURFACE OF THE ASPHALT.
16. TEST AND INSPECT SEWER MAIN AND LATERALS.
17. PATCH DISTURBED PAVEMENT ALONG SEWER MAINS, LATERALS AND STORM DRAINAGE WITH PERMANENT ASPHALT PATCH.
18. SEED AND MULCH OR SOD ALL DISTURBED AREAS NOT OTHERWISE IMPROVED AND ESTABLISH PERMANENT GROUND COVER AS INDICATED ON THE PLANS.
19. PRE FINAL INSPECTION BY CONTRACTOR.
20. PRE FINAL INSPECTION BY OWNER AND CONTRACTOR (PUNCH LIST GENERATED).
21. FINAL INSPECTION (ALL PUNCH LIST ITEMS COMPLETED WITH NCDENR, PWC, OWNER AND DESIGNER PRESENT).
22. REMOVE TEMPORARY MEASURES.
23. CLOSEOUT PROJECT

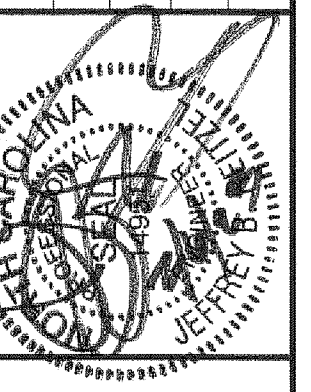
MATCHLINE SEE SHEET ECP-4

MATCHLINE ECP-2

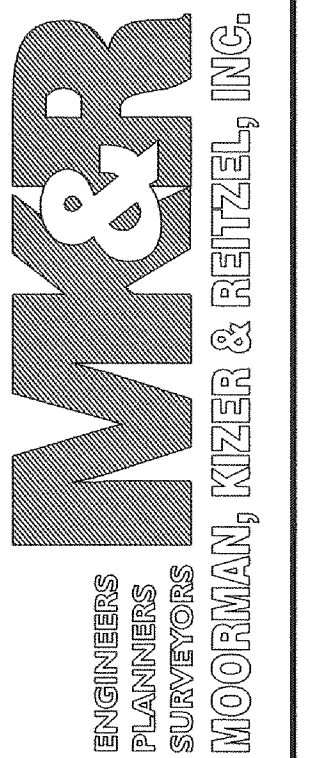
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
Construction Project IX
Area 25 - Lake Rim Estates
Partial Erosion Control Plan

Revision	By	Date

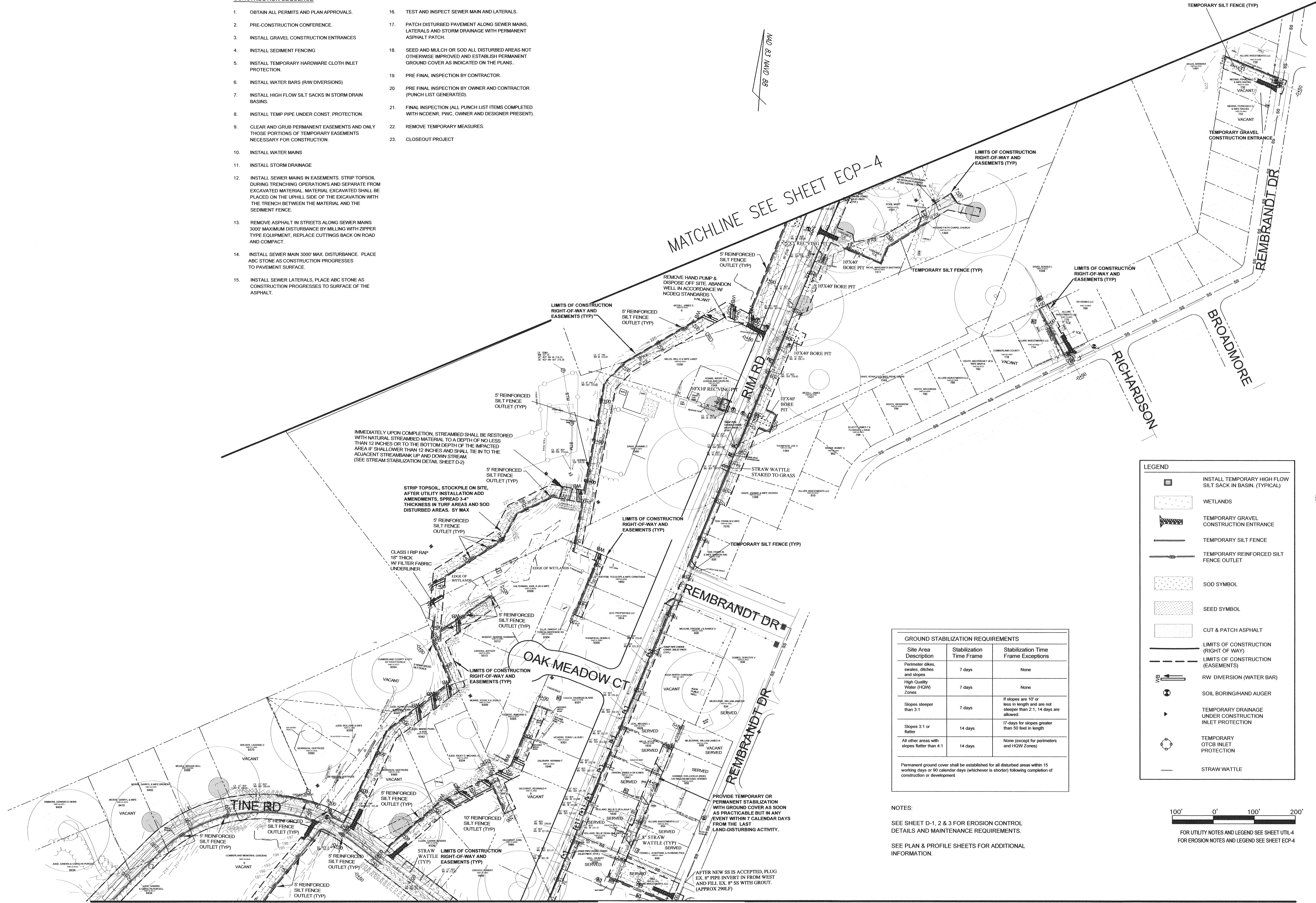


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet
ECP - 3

PWC DWG #15380



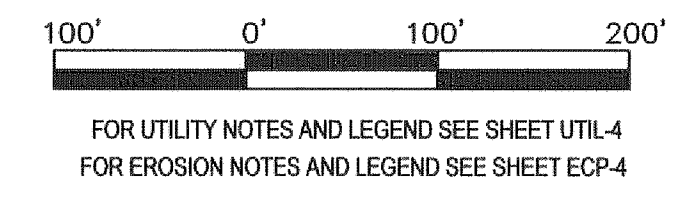
GROUND STABILIZATION REQUIREMENTS		
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	17-days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HQW Zones)

Permanent ground cover shall be established for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development.

LEGEND

- INSTALL TEMPORARY HIGH FLOW SILT SACK IN BASIN. (TYPICAL)
- WETLANDS
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
- TEMPORARY SILT FENCE
- TEMPORARY REINFORCED SILT FENCE OUTLET
- SOD SYMBOL
- SEED SYMBOL
- CUT & PATCH ASPHALT
- LIMITS OF CONSTRUCTION (RIGHT OF WAY)
- LIMITS OF CONSTRUCTION (EASEMENTS)
- RW DIVERSION (WATER BAR)
- SOIL BORING/HAND AUGER
- TEMPORARY DRAINAGE UNDER CONSTRUCTION INLET PROTECTION
- TEMPORARY OTCB INLET PROTECTION
- STRAW WATTLE

NOTES:
SEE SHEET D-1, 2 & 3 FOR EROSION CONTROL DETAILS AND MAINTENANCE REQUIREMENTS.
SEE PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



GENERAL NOTES SEDIMENT POLLUTION CONTROL ACT

SEE SHEET D-3 FOR EROSION CONTROL DETAILS

MINIMUM REQUIREMENTS FOR EROSION CONTROL ARE SHOWN ON THE DRAWINGS, BASED ON THE DESIGNER'S ANTICIPATED CONSTRUCTION METHODS AND SEQUENCES. INDIVIDUAL CONTRACTORS SHALL SUPPLEMENT, ADJUST OR PROVIDE ADDITIONAL MEASURES TO COMPLIMENT HIS/HER TYPE OF CONSTRUCTION AND/OR PHASING AND SEQUENCING TO PREVENT TRANSMITTAL OF SILT. INDIVIDUAL CONTRACTORS ARE REQUIRED TO MAINTAIN MINIMUM STANDARDS FOR EROSION CONTROL AS APPROVED OR REQUIRED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES. ALL FEES, PENALTIES, FINES FOR NONCOMPLIANCE AND ALL CIVIL ACTIONS RESULTING THERE FROM SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND IN NO WAY INVOLVES THE OWNER OR DESIGNER. THE CONTRACTOR MAY BE REQUIRED TO MODIFY OR SUPPLEMENT MEASURES AT NO ADDITIONAL COST TO THE OWNER. ALL EROSION CONTROL MEASURES SHALL REMAIN SERVICEABLE UNTIL THE SITE IS RESTORED AND STABILIZED, UPON SUCH TIME THE MEASURES SHALL BE REMOVED BY THE CONTRACTOR. THE SITE MUST BE RESTORED, STABILIZED AND ANY OFF SITE SEDIMENTATION MUST HAVE BEEN REMOVED AND AREAS AFFECTED RESTORED PRIOR TO THE DESIGNER'S APPROVAL FOR FINAL REQUEST FOR PAYMENT.

THE CONTRACTOR SHALL BE REQUIRED TO PREPARE AND OBTAIN AN APPROVED EROSION CONTROL PLAN AMENDING THE ORIGINAL PERMITTED PLAN SUBMITTED BY THE OWNER. THE SUPPLEMENTAL PLAN SHALL ADDRESS STAGING/STORAGE AREAS, HAUL ROADS, BORROW PIT OPERATIONS AND/OR DISPOSAL/WASTE AREAS REGARDLESS OF THE SIZE OF DISTURBANCE. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE SUPPLEMENTAL PLAN AND A COPY OF THE NCDENR APPROVED PLAN SHALL BE FURNISHED TO THE DESIGNER. WORK CANNOT BEGIN UNTIL THE PLAN IS APPROVED. PERMANENT AND TEMPORARY EROSION CONTROL MEASURES PROPOSED BY THE CONTRACTOR FOR STAGING AREAS, HAUL ROADS, ETC. SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT CONSTITUTE ADDITIONAL COMPENSATION.

THE CONTRACTOR SHALL BE REQUIRED TO DISPLAY AT THE JOB-SITE OFFICE (OR READILY AVAILABLE ON THE PROJECT SITE), BOTH THE OWNER'S EROSION CONTROL PERMIT AND THE CONTRACTOR'S SUPPLEMENT EROSION CONTROL PERMIT. A COPY OF THE AMENDED PERMIT OR EVIDENCE OF AN APPROVAL SHALL BE FURNISHED TO THE DESIGNER PRIOR TO BEGINNING WORK.

NPDES STORM WATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES: REGULATIONS ADOPTED BY THE US ENVIRONMENTAL PROTECTION AGENCY (US EPA) AND BY THE NORTH CAROLINA DIVISION OF WATER QUALITY REQUIRE THAT A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT BE OBTAINED FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITH LAND DISTURBANCE OF 1 OR MORE ACRES. THIS PERMIT IS IN ADDITION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN APPROVAL. THE DIVISION OF WATER QUALITY IS DELEGATED BY THE US EPA TO ADMINISTER THE NPDES PERMIT PROGRAM IN NORTH CAROLINA. THIS PROJECT IS SUBJECT TO THESE NPDES GENERAL PERMITTING REQUIREMENTS. THE CONTRACTOR SHALL COMPLY WITH THE APPLICATION TERMS AND CONDITIONS OF THIS GENERAL PERMIT AND IS SUBJECT TO ENFORCEMENT BY THE DIVISION OF WATER QUALITY FOR ANY VIOLATIONS OF THE GENERAL PERMIT.

THE GENERAL PERMIT IS TIED TO AN APPROVED EROSION AND SEDIMENT CONTROL PLAN ISSUED BY THE NORTH CAROLINA DIVISION OF LAND RESOURCES. ADHERENCE TO THE EROSION AND SEDIMENTATION CONTROL PLAN IS AN ENFORCEABLE COMPONENT TO THE GENERAL PERMIT. THE GENERAL PERMIT NOT ONLY REQUIRES ADHERENCE TO THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN, BUT ALSO INCLUDES OTHER LIMITATIONS AND CONTROLS. SOME OF THE MAJOR ITEMS ARE OUTLINED BELOW.

- * COVERAGE: THE PERMIT COVERS PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND.
- * INSPECTIONS: THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENTATION CONTROL FACILITIES AND ALSO SHALL OBSERVE RUNOFF AT STORM WATER DISCHARGES IN ACCORDANCE WITH THE GENERAL PERMIT (SEE PART I BELOW FOR SPECIFIC FREQUENCIES, ETC.) DISCHARGES SUBJECT TO CERTAIN IMPAIRED WATERS REQUIRE MORE FREQUENT INSPECTIONS.
- * RECORDS: RECORDS OF INSPECTIONS SHALL BE MAINTAINED BY THE CONTRACTOR WITH A COPY OF THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AT THE PROJECT SITE.
- * THE GENERAL PERMIT HAS OTHER PROVISIONS THAT ADDRESS AREAS THAT COULD AFFECT STORM WATER RUNOFF FROM CONSTRUCTION ACTIVITY THAT ARE NOT A PART OF AN EROSION AND SEDIMENTATION CONTROL PLAN. THESE AREAS INCLUDE MATTERS SUCH AS DEMOLITION DEBRIS, CHEMICAL USAGE, AND OIL SPILLS THAT MAY CONTAMINATE STORM WATER RUNOFF ON A CONSTRUCTION SITE.

1. MINIMUM MONITORING AND REPORTING REQUIREMENTS

* ALL SEDIMENTATION AND EROSION CONTROL OF FACILITIES SHALL BE INSPECTED AND DOCUMENTED BY THE CONTRACTOR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A RAIN GAUGE ON THE SITE AND A RECORD OF THE RAINFALL AMOUNTS AND DATES.

* STORM WATER RUNOFF DISCHARGES SHALL BE INSPECTED BY VISUAL OBSERVATION FOR COLOR, FOAM, OUTFALL, STAINING, VISIBLE SHEENS, DRY WEATHER FLOWS AND MUDDY WATER (AT THE FREQUENCY DESCRIBED ABOVE) TO EVALUATE THE EFFECTIVENESS OF THE POLLUTION CONTROL FACILITIES OR PRACTICES. IF ANY VISIBLE OFF-SITE SEDIMENTATION IS LEAVING THE SITE, CORRECTIVE ACTION SHALL BE TAKEN TO REDUCE THE DISCHARGE OF SEDIMENTS.

* THE CONTRACTOR SHALL SUBMIT WITH EACH REQUEST FOR PAYMENT, A WRITTEN REPORT OF WEEKLY INSPECTIONS. A SAMPLE REPORT LOG IS INCLUDED IN THE CONTRACT DOCUMENTS. VISIBLE SEDIMENTATION FOUND OFF THE SITE SHALL BE RECORDED WITH A BRIEF EXPLANATION AS TO THE MEASURES TAKEN TO PREVENT FUTURE RELEASES AS WELL AS ANY MEASURES TAKEN TO CLEAN UP THE SEDIMENT THAT HAS LEFT THE SITE. THESE RECORDS SHALL BE MADE AVAILABLE TO DEM OR AUTHORIZED AGENT UPON REQUEST.

2. MAINTENANCE AND INSPECTIONS

* THE CONTRACTOR SHALL PROVIDE THE NECESSARY OPERATION AND MAINTENANCE TO KEEP ALL EROSION CONTROL DEVICES AND MATERIALS IN GOOD REPAIR AND OPERATING AT OPTIMUM EFFICIENCY. THE OWNER RESERVES THE RIGHT, WITHIN 24 HOURS PRIOR NOTICE TO THE CONTRACTOR TO REPAIR ANY EROSION CONTROL MEASURES OR MATERIALS AS REQUIRED, AND DEDUCT THE COST OF THOSE REPAIRS FROM THE CONTRACTOR'S REQUEST FOR PAYMENT.

* THE OWNER, DESIGNER OR DEM REPRESENTATIVES MAY PERIODICALLY EVALUATE THE PROJECT FOR COMPLIANCE WITH THESE REQUIREMENTS.

* THE CLEAN WATER ACT PROVIDES THAT ANY PERSON WHO KNOWINGLY MAKES ANY FALSE STATEMENT, REPRESENTATION, OR CERTIFICATION IN ANY RECORD OR OTHER DOCUMENT SUBMITTED OR REQUIRED TO BE MAINTAINED UNDER THIS GENERAL PERMIT, INCLUDING MONITORING REPORTS OR REPORTS OF COMPLIANCE OR NONCOMPLIANCE SHALL, UPON CONVICTION, BE PUNISHED BY A FINE OF NOT MORE THAN \$10,000 PER VIOLATION, OR BY IMPRISONMENT FOR NOT MORE THAN TWO YEARS PER VIOLATION, OR BY BOTH.

THE CONTRACTOR SHALL INSURE THAT THE STREETS CONNECTING TO THE PROJECT ARE PROTECTED FROM MUD, SAND, STONE, LITTER OR DEBRIS IN ANY FORM. ALL MUD COLLECTED ON VEHICLE WHEELS SHALL BE REMOVED OR CLEANED OFF BEFORE LEAVING THE CONSTRUCTION SITE. SHOULD ANY MUD OR DEBRIS FROM THE PROJECT COLLECT ON THE STREETS THE MUD OR DEBRIS SHALL BE REMOVED IMMEDIATELY TO PREVENT ANY HAZARDS TO VEHICULAR OR PEDESTRIAN TRAFFIC AS WELL AS FROM ENTERING THE STORM DRAINAGE SYSTEM. THE CONTRACTOR IS REQUIRED TO CLEAN THE STREETS DAILY OF CONSTRUCTION RELATED DEBRIS, DUST AND MUD AND IS REQUIRED TO CLEAN THE STORM DRAINAGE SYSTEM (AND DOWNSTREAM SYSTEMS) AFFECTED BY CONSTRUCTION RUN OFF COMPLETELY PRIOR TO FINAL ACCEPTANCE AND PAYMENT. THE OWNER RESERVES THE RIGHT TO PROCEED WITH STREET CLEANING SHOULD THE CONTRACTOR FAIL TO COMPLY WITH THIS REQUIREMENT AND DEDUCT THE COSTS FROM THE CONTRACTOR'S REQUEST FOR PAYMENT.

GROUND STABILIZATION REQUIREMENTS		
Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter dikes, swales, ditches and slopes	7 days	None
High Quality Water (HOW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	17-days for slopes greater than 50 feet in length
All other areas with slopes flatter than 4:1	14 days	None (except for perimeters and HOW Zones)
Permanent ground cover shall be established for all disturbed areas within 15 working days or 90 calendar days (whichever is shorter) following completion of construction or development		

LEGEND	
	INSTALL TEMPORARY HIGH FLOW SILT SACK IN BASIN. (TYPICAL)
	WETLANDS
	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE
	TEMPORARY SILT FENCE
	TEMPORARY REINFORCED SILT FENCE OUTLET
	SOD SYMBOL
	SEED SYMBOL
	CUT & PATCH ASPHALT
	LIMITS OF CONSTRUCTION (RIGHT OF WAY)
	LIMITS OF CONSTRUCTION (EASEMENTS)
	RW DIVERSION (WATER BAR)
	SOIL BORING/HAND AUGER
	TEMPORARY DRAINAGE UNDER CONSTRUCTION INLET PROTECTION
	TEMPORARY OTCB INLET PROTECTION
	STRAW WATTLE

NOTES (TYPICAL FOR ALL SHEETS)

- SEE THIS SHEET FOR POLLUTION CONTROL NOTES
- TOTAL DISTURBED ACREAGE: 17.12 ACRES
- APPROX. TOTAL AREA TO BE VEGETATIVELY STABILIZED: 13.99 ACRES
AREA TO BE ASPHALT, CONCRETE & GRAVEL PERMANENTLY PATCHED: 3.13 AC.
- SOIL STABILIZATION SHALL BE ACHIEVED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
 - ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
 - ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
- CONDITIONS - IN MEETING THE STABILIZATION REQUIREMENTS ABOVE, THE FOLLOWING CONDITIONS OR EXEMPTIONS SHALL APPLY:
 - EXTENSIONS OF TIME MAY BE APPROVED BY THE PERMITTING AUTHORITY BASED ON WEATHER OR OTHER SITE-SPECIFIC CONDITIONS THAT MAKE COMPLIANCE IMPRACTICABLE.
 - ALL SLOPES 50' IN LENGTH OR GREATER SHALL APPLY THE GROUND COVER WITHIN 7 DAYS EXCEPT WHEN THE SLOPE IS FLATTER THAN 4:1. SLOPES LESS THAN 50' SHALL APPLY COVER WITHIN 14 DAYS EXCEPT WHEN SLOPES ARE STEEPER THAN 3:1. THE 7-DAY REQUIREMENT APPLIES.
 - ANY SLOPED AREA FLATTER THAN 4:1 SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT.
 - SLOPES 10' OR LESS IN LENGTH SHALL BE EXEMPT FROM THE 7-DAY GROUND COVER REQUIREMENT EXCEPT WHEN THE SLOPE IS STEEPER THAN 2:1.
 - ALTHOUGH STABILIZATION IS USUALLY SPECIFIED AS GROUND COVER, OTHER METHODS, SUCH AS CHEMICAL STABILIZATION, MAY BE ALLOWED ON A CASE-BY-CASE BASIS.
 - FOR PORTIONS OF PROJECTS WITHIN THE SEDIMENT CONTROL COMMISSION-DEFINED "HIGH QUALITY WATER ZONE" (15A NCGS 04A. 0109), STABILIZATION WITH GROUND COVER SHALL BE ACHIEVED AS SOON AS PRACTICABLE BUT IN ANY EVENT ON ALL AREAS OF THE SITE WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACT. PORTIONS OF A SITE THAT ARE LOWER IN ELEVATION THAN ADJACENT DISCHARGE LOCATIONS AND ARE NOT EXPECTED TO DISCHARGE DURING CONSTRUCTION MAY BE EXEMPT FROM THE TEMPORARY GROUND COVER REQUIREMENTS IF IDENTIFIED ON THE APPROVED E&S PLAN OR ADDED BY THE PERMITTING AUTHORITY.
- TOPSOIL SHALL BE STOCKPILED ALONG UPPER SIDE OF TRENCH WITH TRENCH SEPARATING THE TOPSOIL FROM DOWN-SLOPE SIDE OF EASEMENT. FOR ADDITIONAL INFORMATION SEE SPECIFICATIONS.
- CONTACT PERSON RESPONSIBLE FOR MAINTENANCE IS A.J. RIDDE, PE FAYETTEVILLE PUBLIC WORKS COMMISSION, PH 910-223-4785
- SEEDING SPECIFICATIONS ARE INCLUDED ON THE EROSION CONTROL DETAILS SHEET D-2.
- TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREAS (NO SEPARATE PAYMENTS). FOR TEMPORARY DRIVEWAY ACCESSSES WITHIN NCDOT RIGHT OF WAY, CONTRACTOR SHALL ADHERE TO NCDOT'S "POLICY ON STREET AND DRIVEWAY ACCESS TO NORTH CAROLINA HIGHWAYS" AND PROVIDE APPLICABLE PERFORMANCE AND INDEMNITY BOND UNLESS OTHERWISE NOTED. FOR EXISTING PRIVATE DRIVEWAYS, WHICH WILL ACCOMMODATE CONSTRUCTION ENTRANCES, CONTRACTOR SHALL MAKE DRIVEWAY ACCOMMODATING FOR CONTINUED USE BY RESIDING/PROPERTY OWNERS AND INSTALL TEMPORARY CONSTRUCTION ENTRANCE AT END OF PRIVATE DRIVE OR WHERE CONSTRUCTION ENTRANCE VEERS FROM PRIVATE DRIVEWAY. TEMPORARY CONSTRUCTION ENTRANCE TO COMPLY WITH EROSION AND SEDIMENTATION GUIDELINES.

NOTES:

SEE SHEET D-1, 2 & 3 FOR EROSION CONTROL DETAILS AND MAINTENANCE REQUIREMENTS.

SEE PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

POLLUTION PREVENTION

(TYPICAL FOR ALL SHEETS)

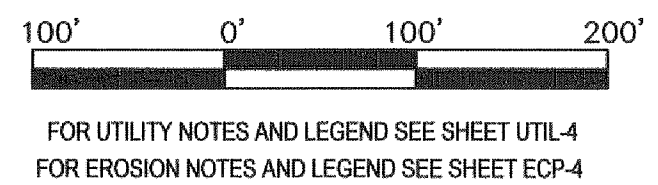
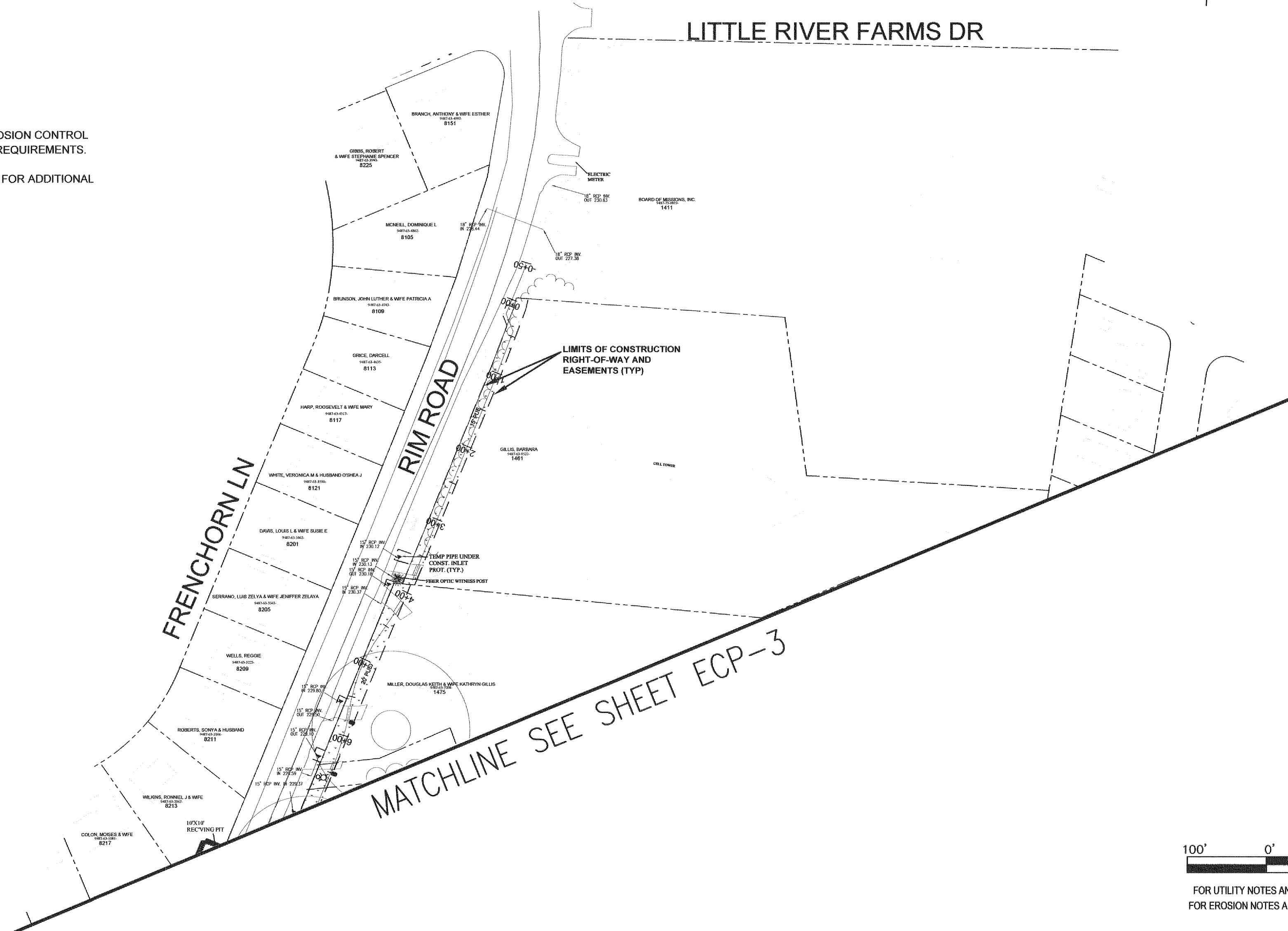
- EQUIPMENT UTILIZED DURING THE CONSTRUCTION ACTIVITY ON A SITE MUST BE OPERATED AND MAINTAINED IN A MANNER AS TO PREVENT THE POTENTIAL OR ACTUAL POLLUTION OF THE SURFACE OR GROUND WATERS, FUELS, LUBRICANTS, COOLANTS, AND HYDRAULIC FLUIDS, OR ANY OTHER PETROLEUM PRODUCTS, SHALL NOT BE DISCHARGED ON THE GROUND OR INTO SURFACE WATERS. SPENT FLUIDS SHALL BE DISPOSED OF IN A MANNER SO AS NOT TO ENTER THE WATERS, SURFACE OR GROUND, AND IN ACCORDANCE WITH APPLICABLE AND FEDERAL DISPOSAL REGULATIONS. ANY SPILLED FLUIDS SHALL BE CLEANED UP TO THE EXTENT PRACTICABLE AND DISPOSED OF IN A MANNER SO AS NOT TO ALLOW THEIR ENTRY INTO THE WATERS, SURFACE OR GROUND, STORM SEWERS, OR DRAINS ON PRIVATE OR PUBLIC (STATE) PROPERTY. THE CONTRACTOR IS REQUIRED TO PROVIDE PRIMARY AND SECONDARY CONTAINMENT SYSTEM FOR FLUID STORAGE, FUELING AND SERVICING EQUIPMENT.
- THE CONTRACTOR, HIS SUBCONTRACTORS AND MATERIAL SUPPLIERS ARE PROHIBITED FROM DISCHARGING ANY WASTE PRODUCTS FROM CONCRETE TRUCKS TO INCLUDE WASH DOWN WATER OR FROM CONCRETE CORING AND SAWING WORK OR ANY OTHER UNSUITABLE CONSTRUCTION MATERIALS OR PRODUCTS INTO THE STORM SEWER SYSTEM OR DISCHARGE ONTO THE OWNER'S PROPERTY.
- THE CONTRACTOR SHALL CONTROL THE MANAGEMENT AND DISPOSAL OF LITTER AND SANITARY WASTE FROM THE SITE SUCH THAT NO ADVERSE IMPACTS TO WATER QUALITY OCCUR.
- THE CONTRACTOR SHALL PAY ALL COSTS OF THE CLEAN UP AND REMOVAL OF ANY SUCH UNAUTHORIZED DISCHARGE AND PAY ANY AND ALL FINES, PENALTIES AND/OR DAMAGES.

CONSTRUCTION SEQUENCE

- OBTAIN ALL PERMITS AND PLAN APPROVALS.
- PRE-CONSTRUCTION CONFERENCE.
- INSTALL GRAVEL CONSTRUCTION ENTRANCES
- INSTALL SEDIMENT FENCING
- INSTALL TEMPORARY HARDWARE CLOTH INLET PROTECTION.
- INSTALL WATER BARS (RW DIVERSIONS)
- INSTALL HIGH FLOW SILT SACKS IN STORM DRAIN BASINS.
- INSTALL TEMP PIPE UNDER CONST. PROTECTION.
- CLEAR AND GRUB PERMANENT EASEMENTS AND ONLY THOSE PORTIONS OF TEMPORARY EASEMENTS NECESSARY FOR CONSTRUCTION.
- INSTALL WATER MAINS
- INSTALL STORM DRAINAGE
- INSTALL SEWER MAINS IN EASEMENTS. STRIP TOPSOIL DURING TRENCHING OPERATIONS AND SEPARATE FROM EXCAVATED MATERIAL. MATERIAL EXCAVATED SHALL BE PLACED ON THE UPHILL SIDE OF THE EXCAVATION WITH THE TRENCH BETWEEN THE MATERIAL AND THE SEDIMENT FENCE.
- REMOVE ASPHALT IN STREETS ALONG SEWER MAINS 3000' MAXIMUM DISTURBANCE.
- INSTALL SEWER MAIN 3000' MAX. DISTURBANCE. PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO PAVEMENT SURFACE.
- INSTALL SEWER LATERALS, PLACE ABC STONE AS CONSTRUCTION PROGRESSES TO SURFACE OF THE ASPHALT.

SURVEY NOTES

- SURVEY WAS PERFORMED BY: MOORMAN, KIZER & REITZEL, INC. FIRM LICENSE # F-0106 115 BROADFOOT AVE. FAYETTEVILLE, NC 28305 (910) 484-5191 (OFFICE)
- ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
- THE PRIMARY VERTICAL AND HORIZONTAL CONTROL POINTS FOR THIS PROJECT WERE GENERATED FROM SURVEY GRADE GPS OBSERVATIONS UTILIZING A SPECTRA SP90 FREQUENCY RECEIVER WITH BROADCAST CORRECTIONS FROM THE NORTH CAROLINA VIRTUAL REFERENCE SYSTEM (VRS).
- THE HORIZONTAL DATUM IS NC GRID (NAD83/2011) IN U.S. SURVEY FEET.
- THE VERTICAL DATUM IS (NAVD83) IN U.S. SURVEY FEET.
- THIS IS NOT A BOUNDARY SURVEY. PROPERTY LINES SHOWN HEREON ARE PLOTTED FROM DEEDS AND MAPS OF RECORD.
- THIS MAP WAS PREPARED WITHOUT THE BENEFIT OF A CERTIFIED TITLE REPORT AND THEREFORE, THE PROPERTY SHOWN MAY BE SUBJECT TO RECORDED OR UN-RECORDED RIGHT-OF-WAYS, EASEMENTS, RESTRICTIONS OF RECORD, OR OTHER ENCUMBRANCES NOT OBSERVED OR SHOWN.
- THE UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND ARE BASED ON ABOVE GROUND FEATURES, PHYSICAL EVIDENCE, PAINT MARKINGS PROVIDED BY OTHERS, AND UTILITY PLANS. THE SURVEYOR DOES NOT GUARANTEE THAT ALL EXISTING UNDERGROUND STRUCTURES SUCH AS UTILITIES, TANKS, PIPES, ETC. ARE LOCATED EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. NO EXCAVATIONS WERE MADE BY THE SURVEYOR TO LOCATE ANY BURIED UTILITIES OR STRUCTURES.
- NO DETERMINATION HAS BEEN MADE BY THE SURVEYOR AS TO THE FOLLOWING: WETLANDS, UNDERGROUND STORAGE FACILITIES, GRAVES, CEMETERIES OR BURIAL GROUNDS, HAZARDOUS WASTE DEPOSITS, OR MATERIALS.
- DATE OF SURVEY: 6/2020 THRU 12/2020.



Drawn by David Mares
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

Fayetteville Annexation Phase V
Construction Project IX
Area 25 - Lake Rim Estates
Partial Erosion Control Plan

Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

M&B
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KIZER & REITZEL, INC.

Scale 1" = 100'
Book no.
Sheet ECP - 4
PWC DWG #15380

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Table with 3 columns: Site Area Description, Stabilize within this many calendar days after ceasing land disturbance, and Timeframe variations.

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable...

GROUND STABILIZATION SPECIFICATION

Table with 2 columns: Temporary Stabilization and Permanent Stabilization, detailing methods like grass seed, mulch, and erosion control products.

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

- 1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWR List of Approved PAM/Flocculants.

EQUIPMENT AND VEHICLE MAINTENANCE

- 1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

- 1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.

PAINT AND OTHER LIQUID WASTE

- 1. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.

PORTABLE TOILETS

- 1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available.

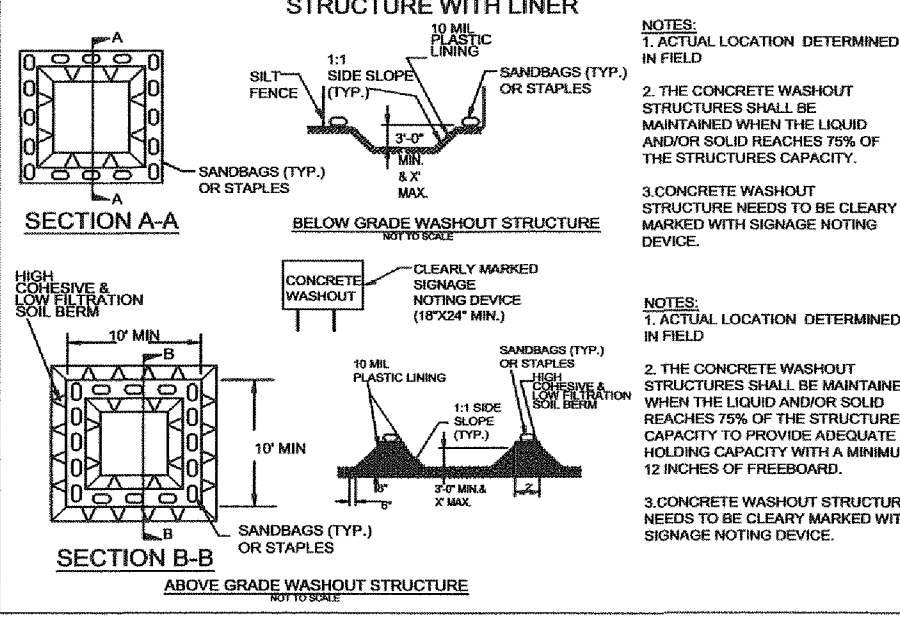
EARTHEN STOCKPILE MANAGEMENT

- 1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.

HAZARDOUS AND TOXIC WASTE

- 1. Create designated hazardous waste collection areas on-site.

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



CONCRETE WASHOUTS

- 1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.

HERBICIDES, PESTICIDES AND RODENTICIDES

- 1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.

PART II, SECTION 6, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT
Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible.

PART III SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Table with 2 columns: Inspect and Inspection records must include. Lists items like rain gauges, EASC measures, stormwater discharge outlets, perimeter of site, streams or wetlands, and ground stabilization measures.

SECTION B: RECORDKEEPING

Table with 2 columns: Item to Document and Document Requirements. Lists items like EASC Plan Documentation, grading completion, ground cover, and corrective actions.

SECTION C: REPORTING

Table with 2 columns: Occurrence and Reporting Timeframe (After Discovery) and Other Requirements. Details reporting procedures for various occurrences like visible sediment, oil spills, and non-compliance.

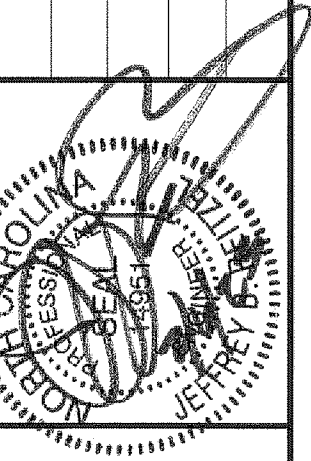
NCG01- SELF INSPECTION

NCG-01 GROUND COVER & MATERIALS HANDLING

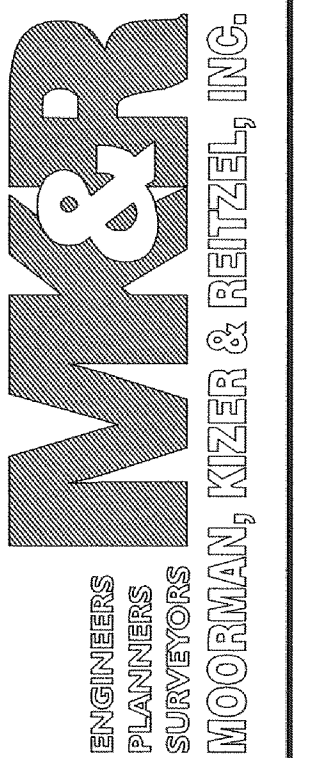
Drawn by David Maples, Checked David E. Vaughn, PE, PLS, Reviewed Jeffrey B. Reitzel, PE, PLS, Date FEB 2023

Fayetteville Annexation Phase V Construction Project XI Area 25 - Lake Rim Estates Erosion Control Notes

Table with 2 columns: Revision and Date, for tracking changes to the document.



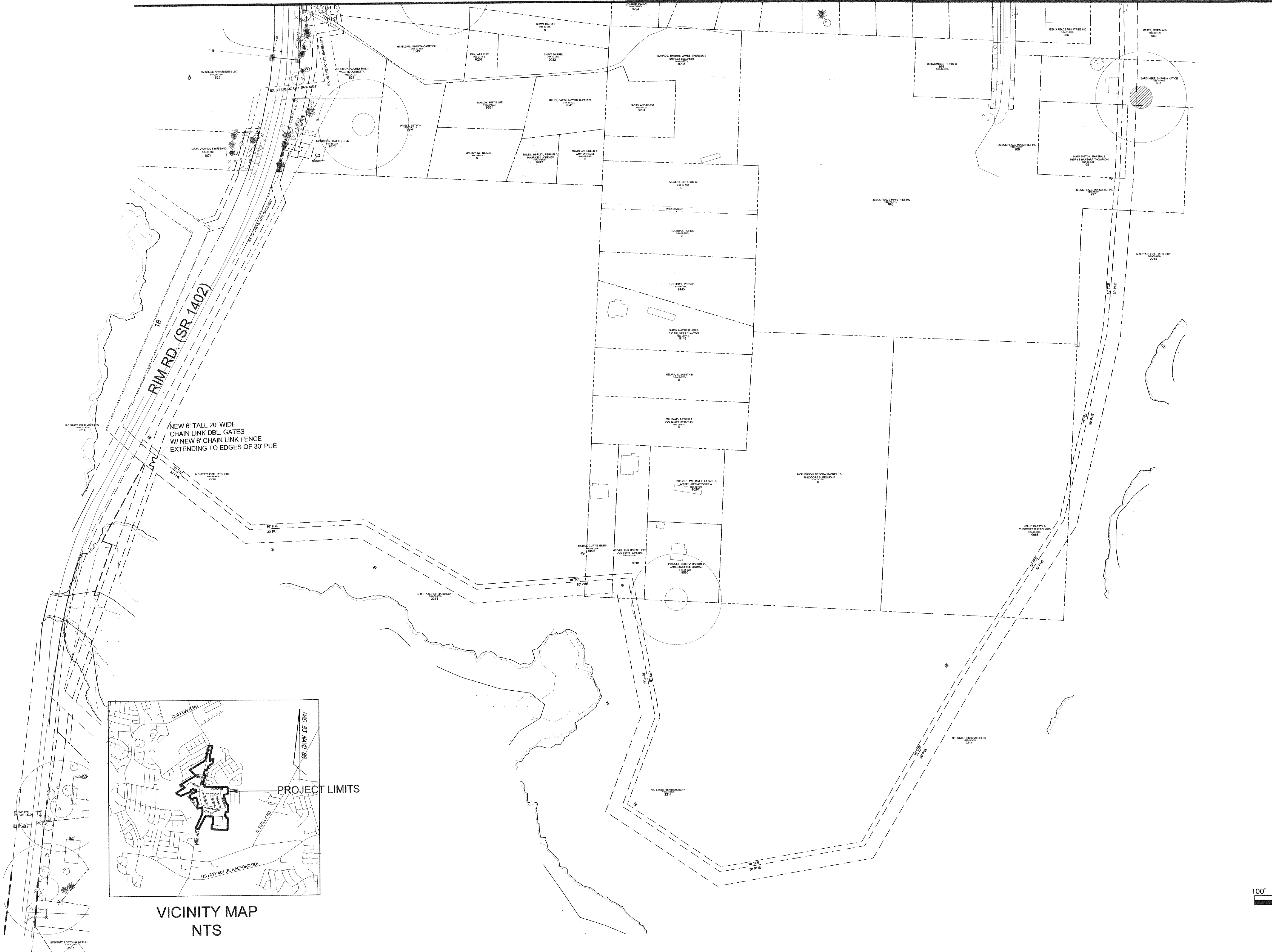
115 Broadfoot Avenue Fayetteville, N.C. P.O. Box 53774 Phone 910-484-5191 Firm No. F-0106



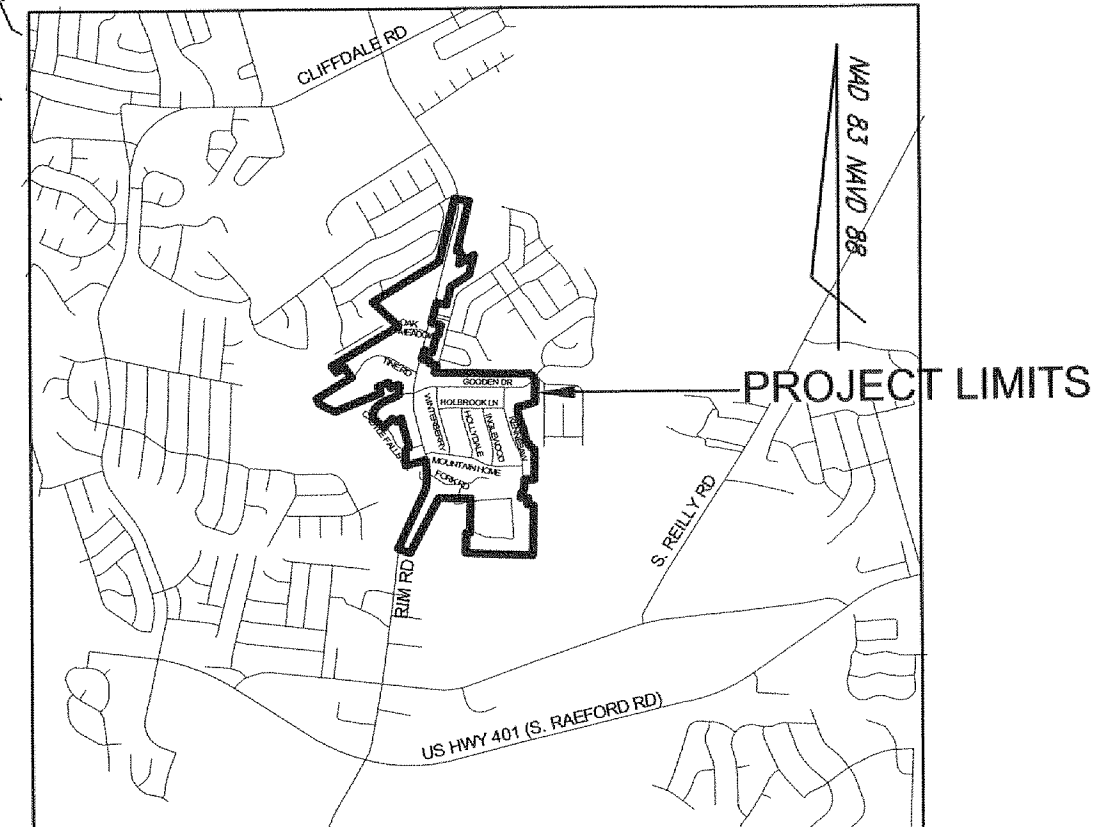
Scale 1" = 100', Book no., Sheet NPDES-1

PWC DWG #15380

MATCHLINE GP-2



GP DWG 88



VICINITY MAP
NTS

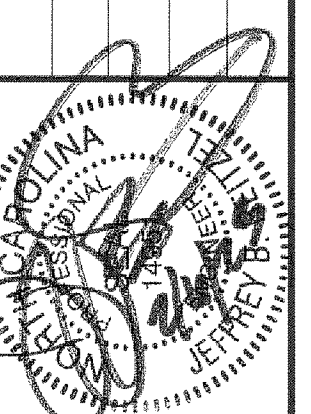


PWC DWG #15380

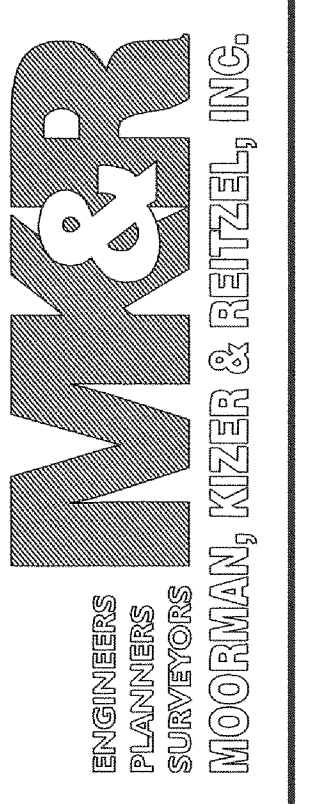
Drawn by David Maples Checked David E. Vaughn, PE, PLS Reviewed Jeffrey B. Reitzel, PE, PLS Date FEB 2023	
Fayetteville Annexation Phase V Construction Project XI Area 25 Partial Fence & Gate Plan	
Revision	By Date
115 Broadfoot Avenue Fayetteville, N.C. P.O. Box 53774 Phone 910-484-5191 Firm No. F-0106	
Scale 1" = 100'	
Book no.	
Sheet	GP - 1

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Partial Fence & Gate Plan

By	Date

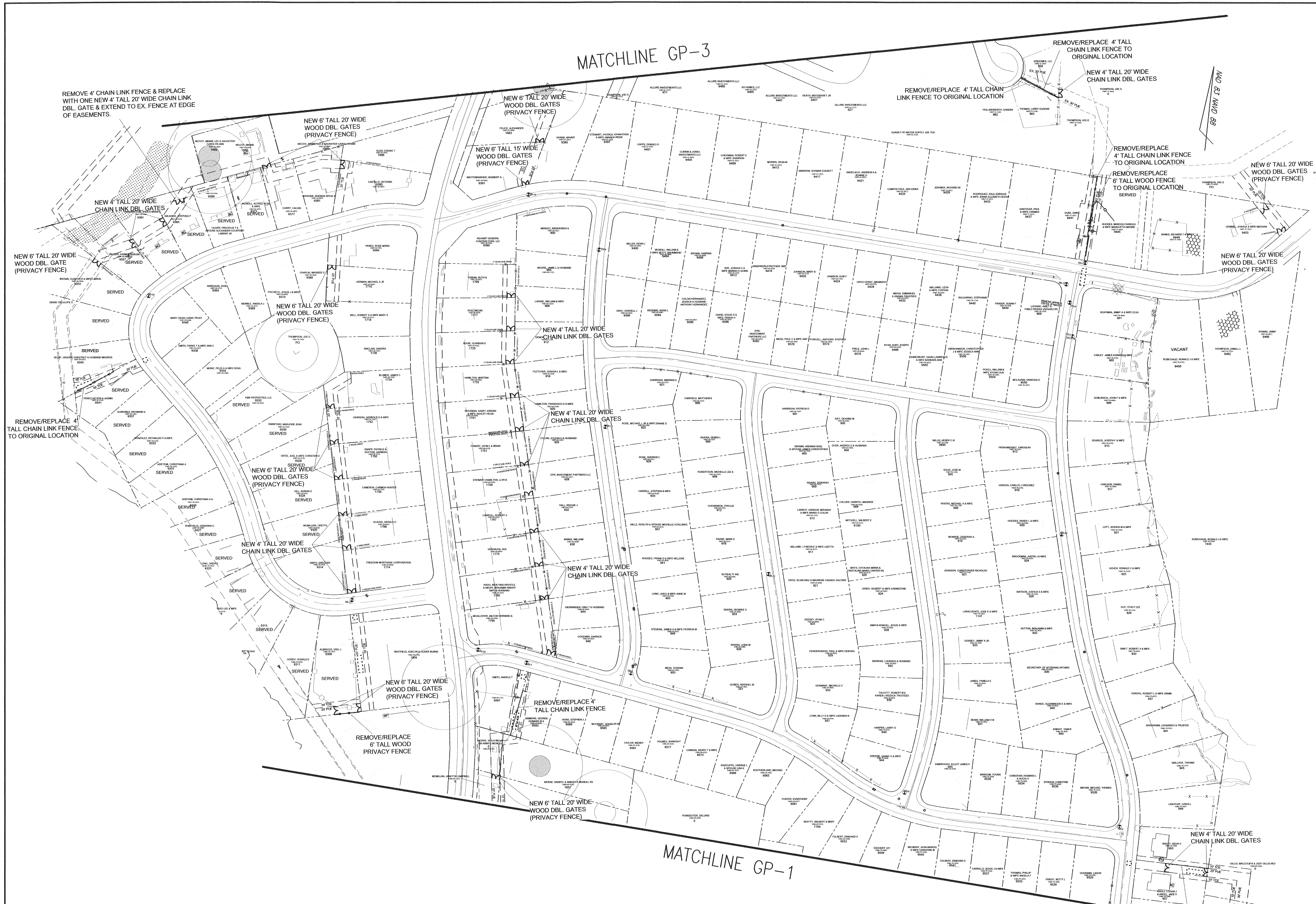


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



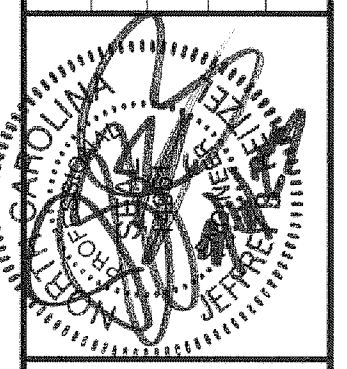
MATCHLINE GP-3

MATCHLINE GP-1

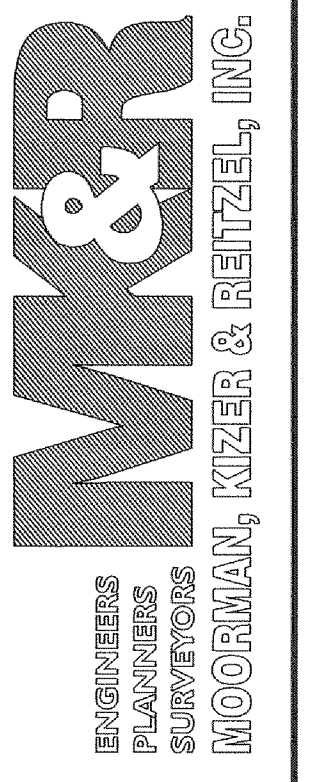


Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Partial Fence & Gate Plan

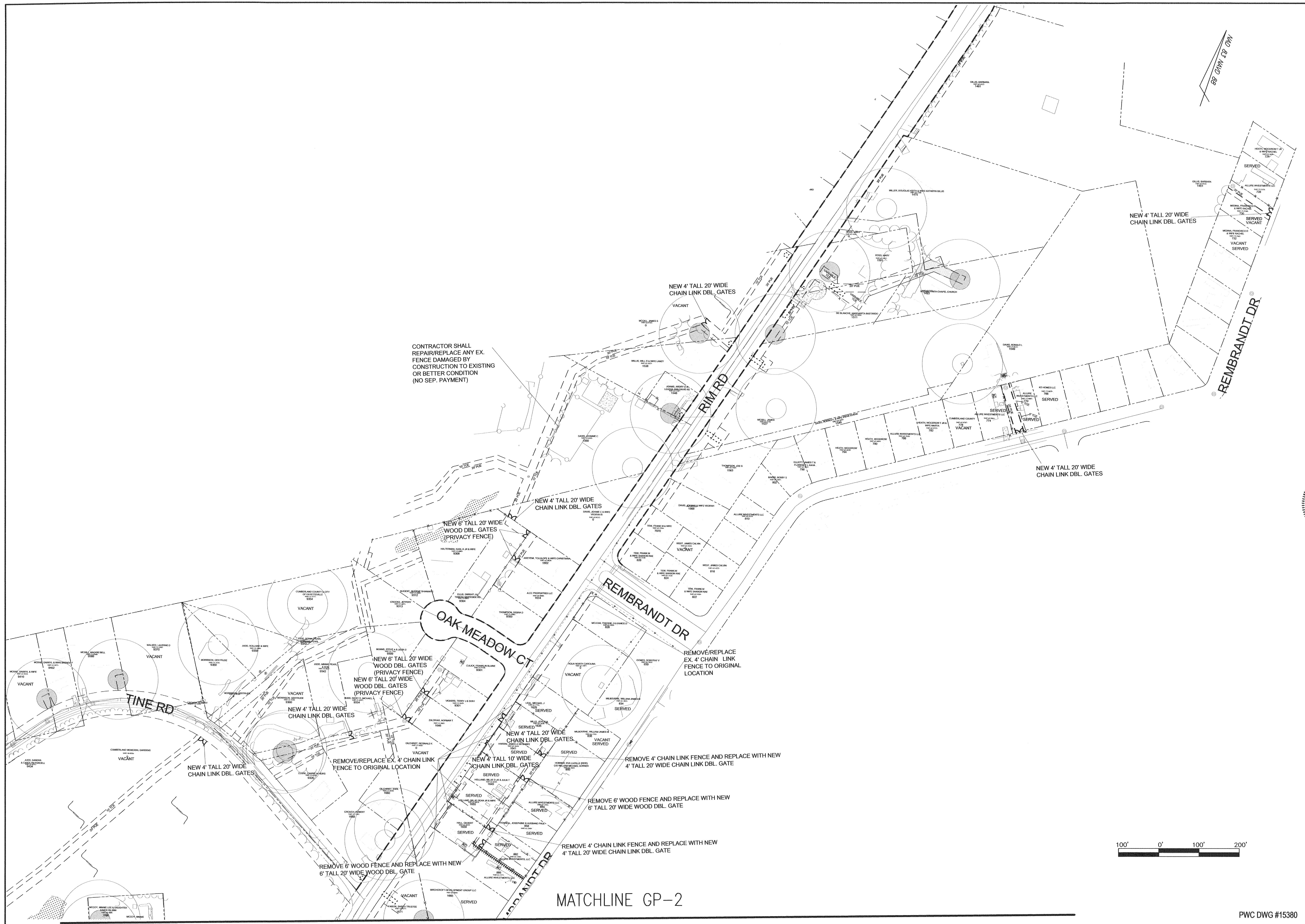
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale 1" = 100'
Book no.
Sheet
GP - 3

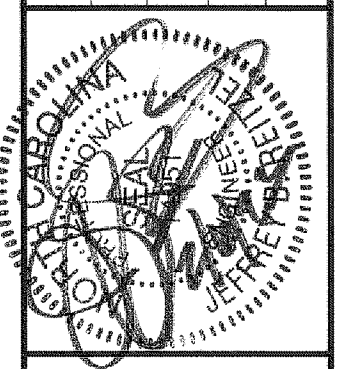


CONTRACTOR SHALL REPAIR/REPLACE ANY EX. FENCE DAMAGED BY CONSTRUCTION TO EXISTING OR BETTER CONDITION (NO SEP. PAYMENT)

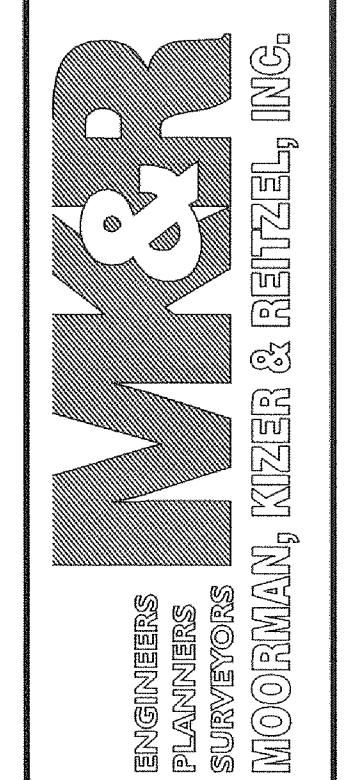
MATCHLINE GP-2

PWC DWG #15380

By	Date
Revision	

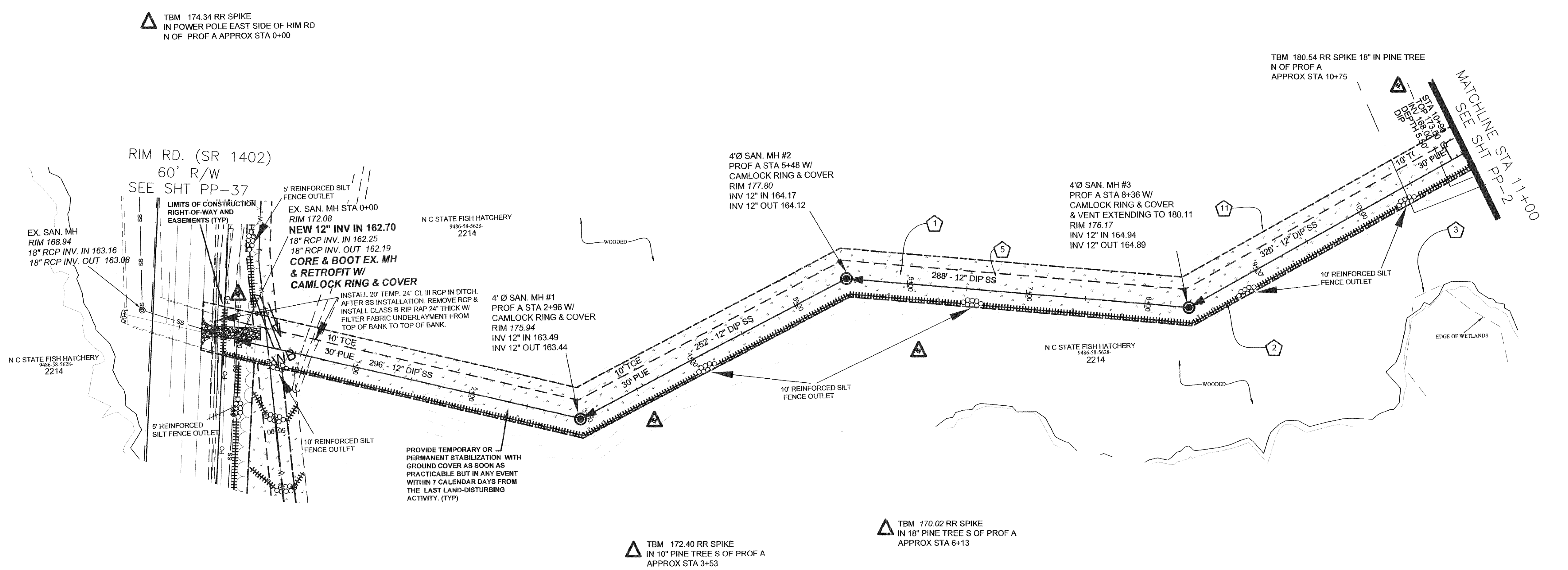


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

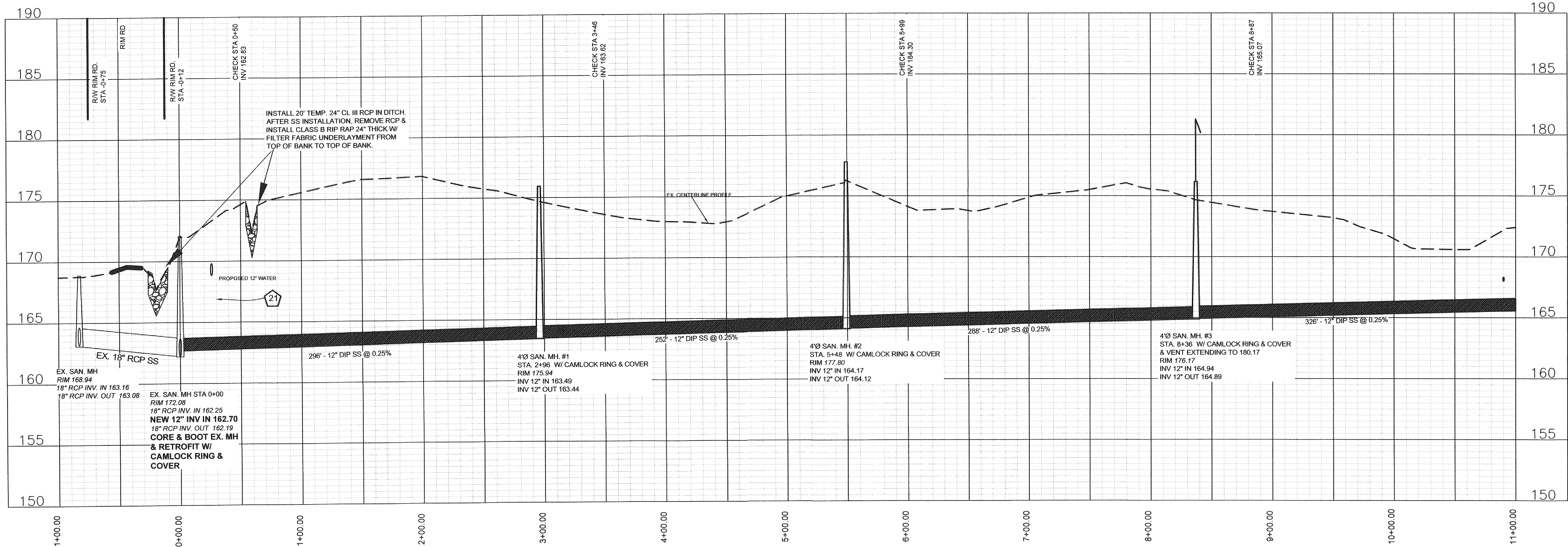
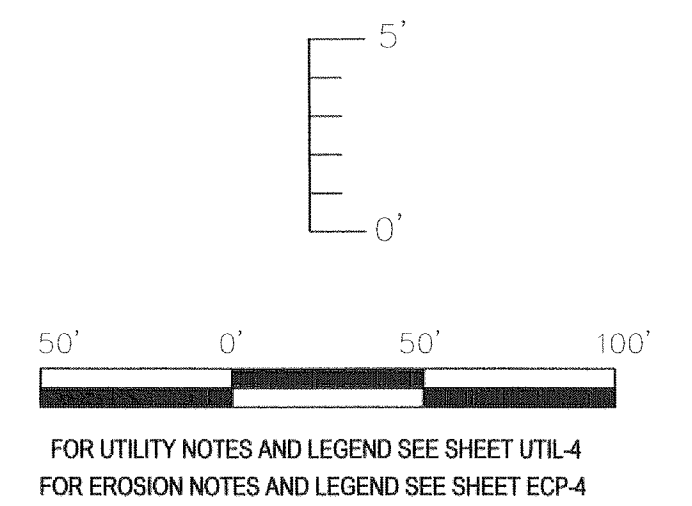


Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-1

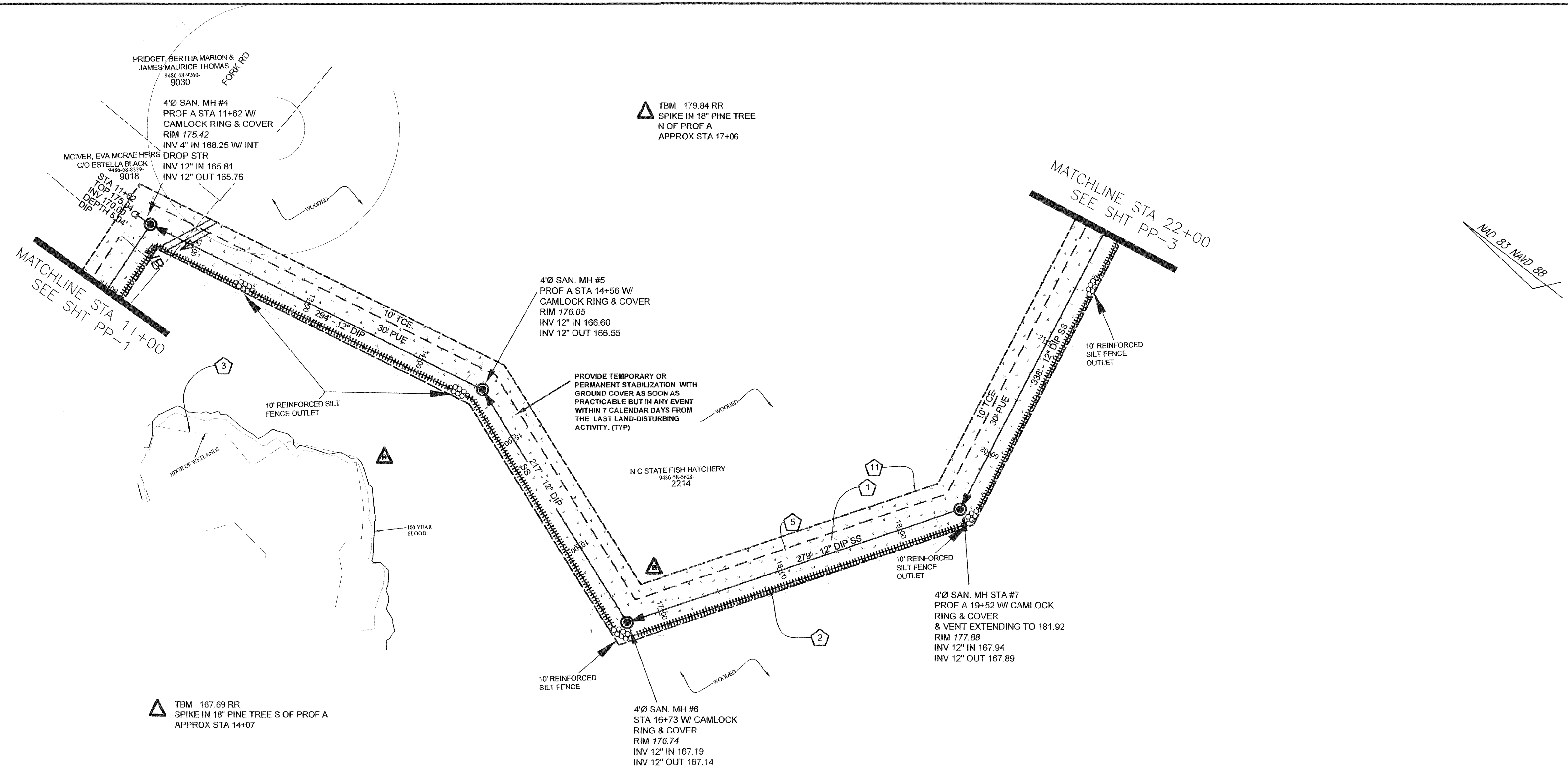
NO. 85 NWD 88



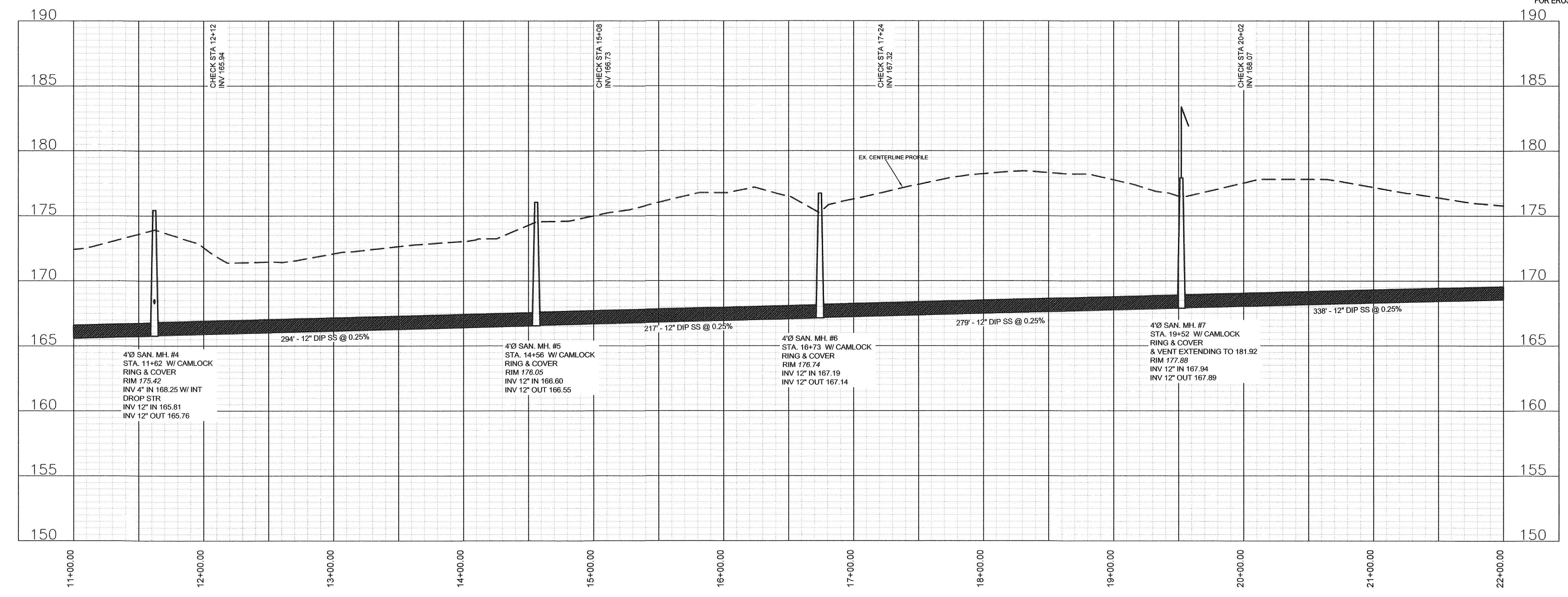
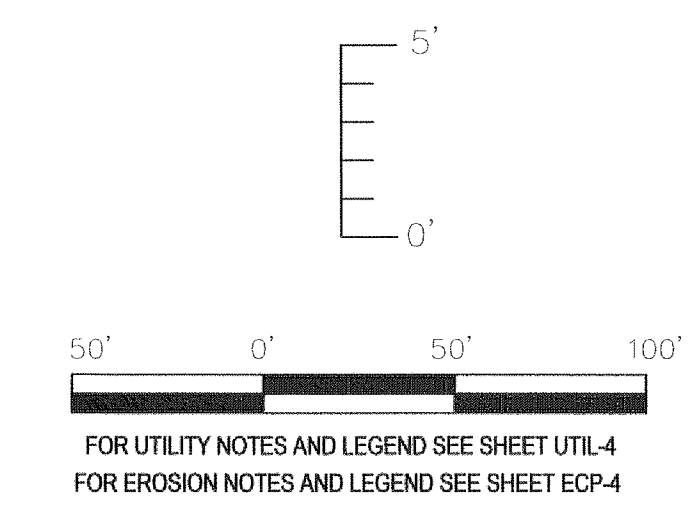
PROFILE A
STA -1+00 TO 11+00



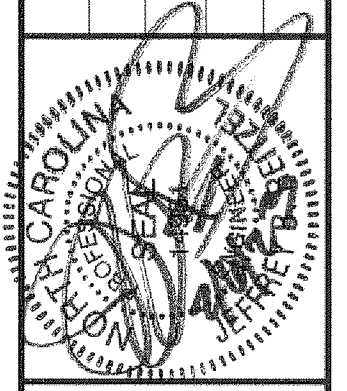
PWC DWG #15380



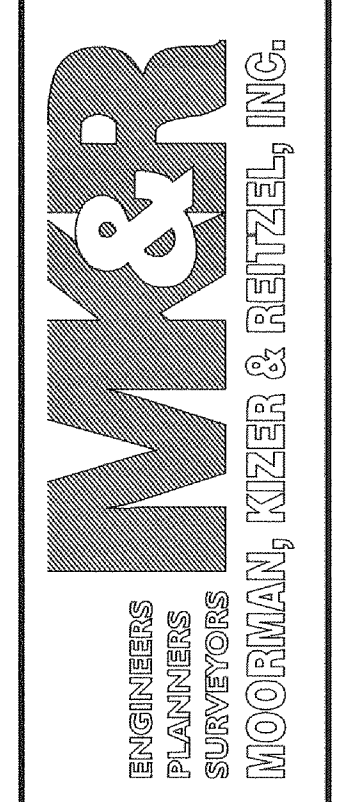
PROFILE A
STA 11+00 TO 22+00

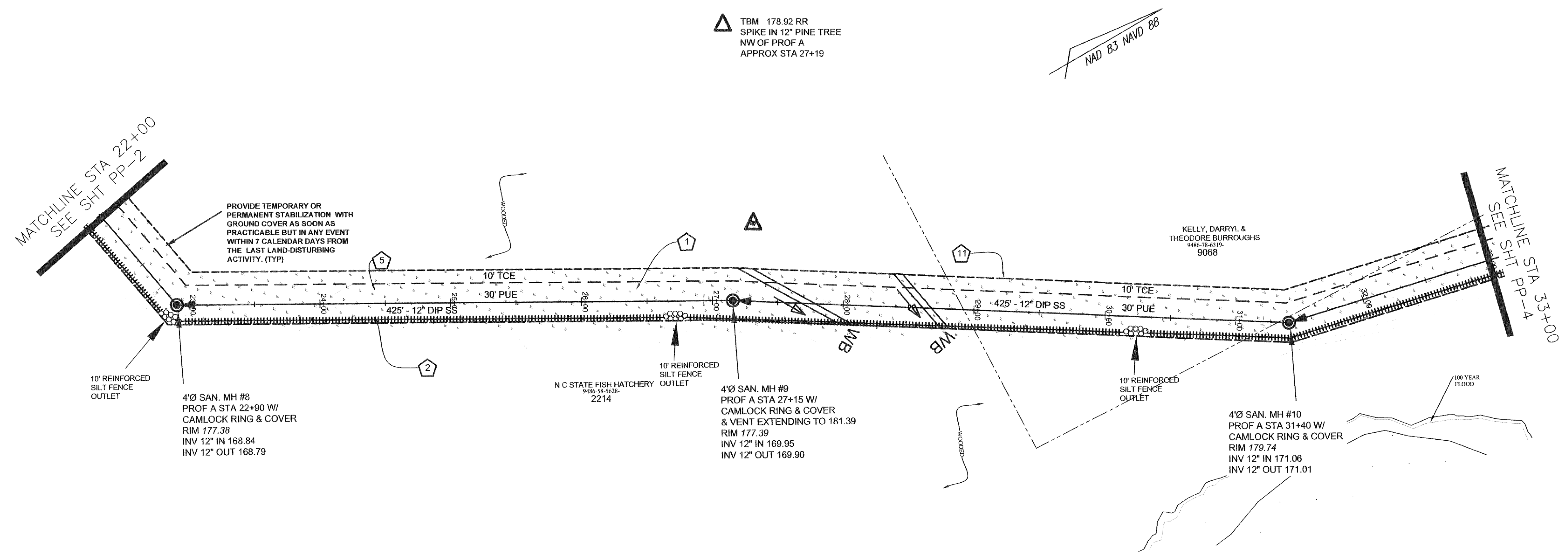


Revision	By	Date

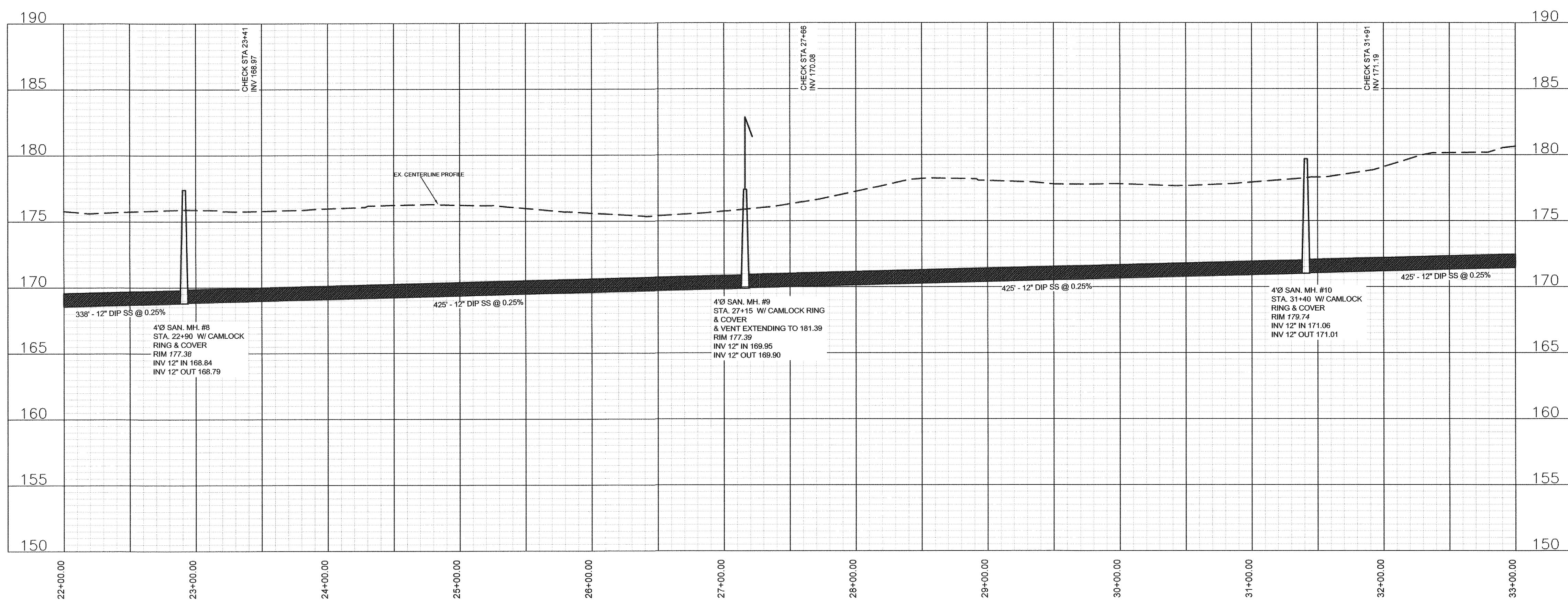
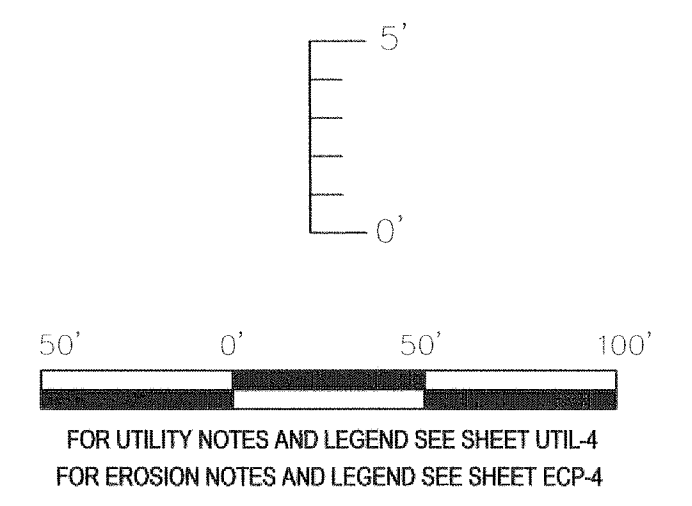


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



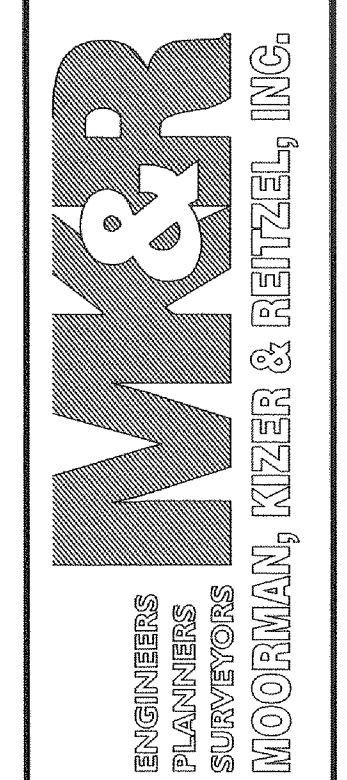


PROFILE A
STA 22+00 TO 33+00

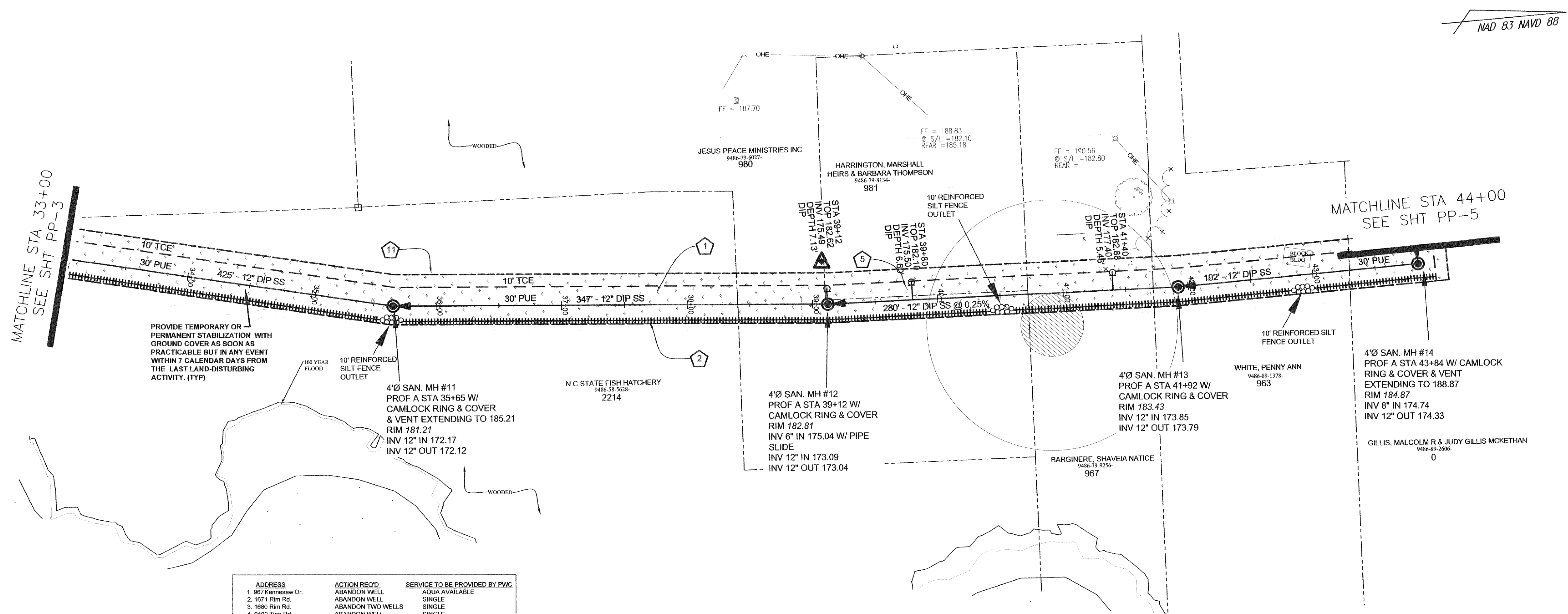


Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-3

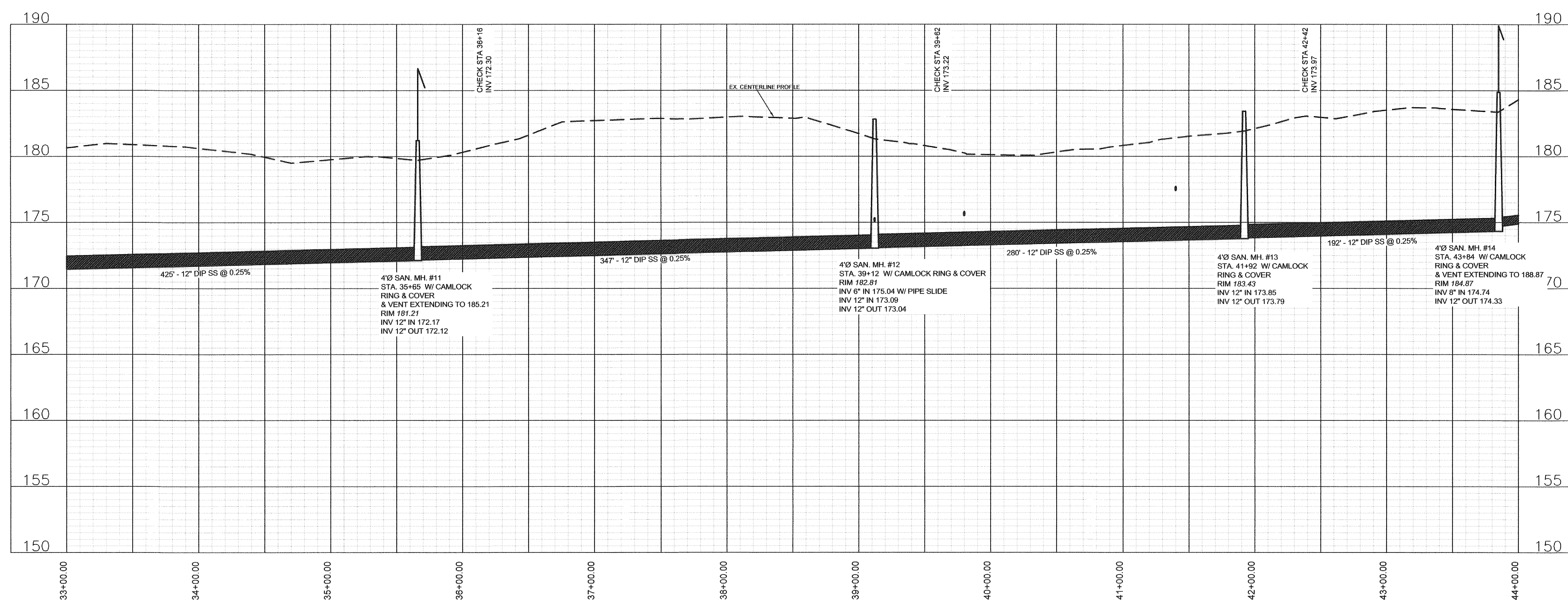
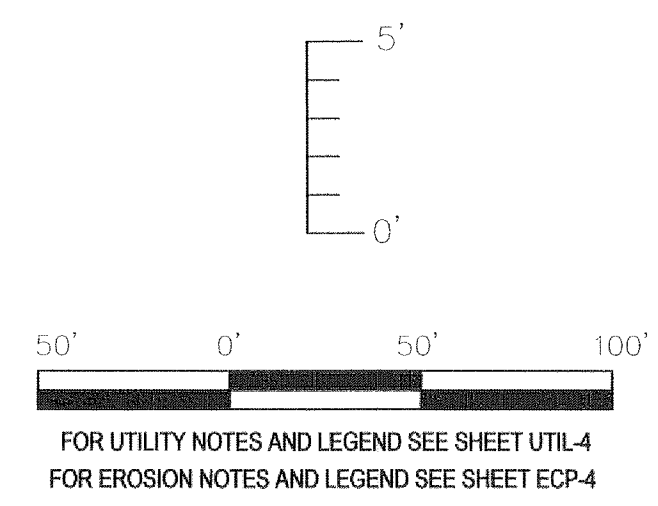


PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. (TYP)

ADDRESS	ACTION REQD.	SERVICE TO BE PROVIDED BY PWC
1. 867 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rm Rd.	ABANDON WELL	SINGLE
3. 1690 Rm Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9386 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rm Rd.	ABANDON WELL	SINGLE
8. 1511 Rm Rd.	ABANDON WELL	SINGLE
9. 1463 Rm Rd.	ABANDON WELL	SINGLE
10. 1501 Rm Rd.	ABANDON WELL	SINGLE
11. 1631 Rm Rd.	ABANDON WELL	SINGLE
12. 8326 Time Rd.	ABANDON WELL	SINGLE
13. 8390 Time Rd.	ABANDON WELL	SINGLE
14. 1631 Rm Rd.	ABANDON WELL	SINGLE

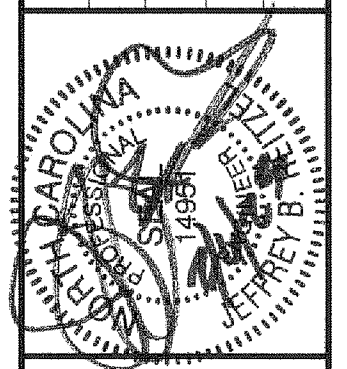
PROFILE A
STA 33+00 TO 44+00

△ TBM 185.95 RR
SPIKE IN 18" PINE TREE
BETWEEN 981 & 997 KENNESAW

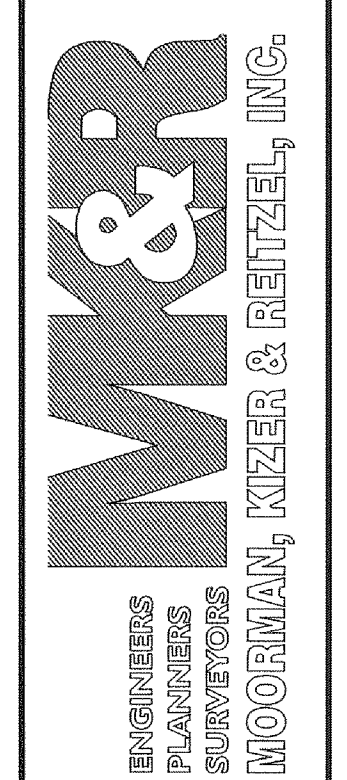


PWC DWG #15380

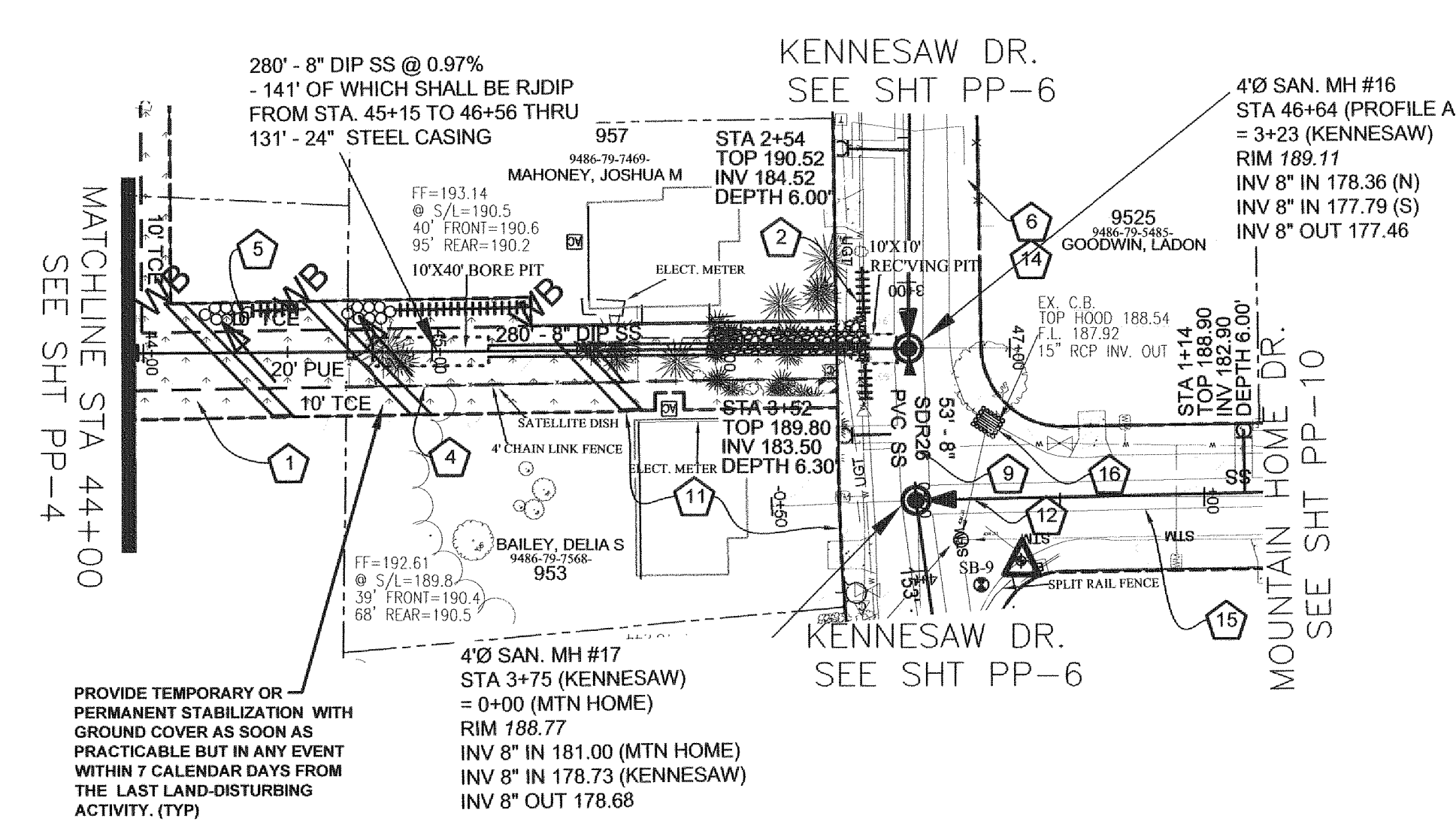
Revision	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



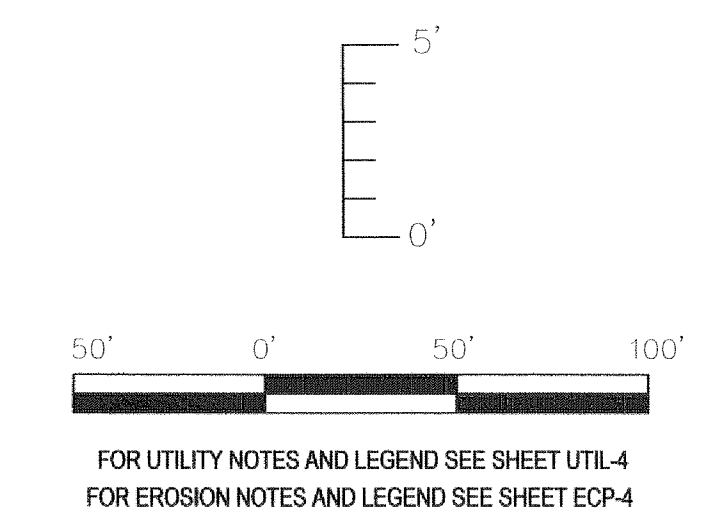
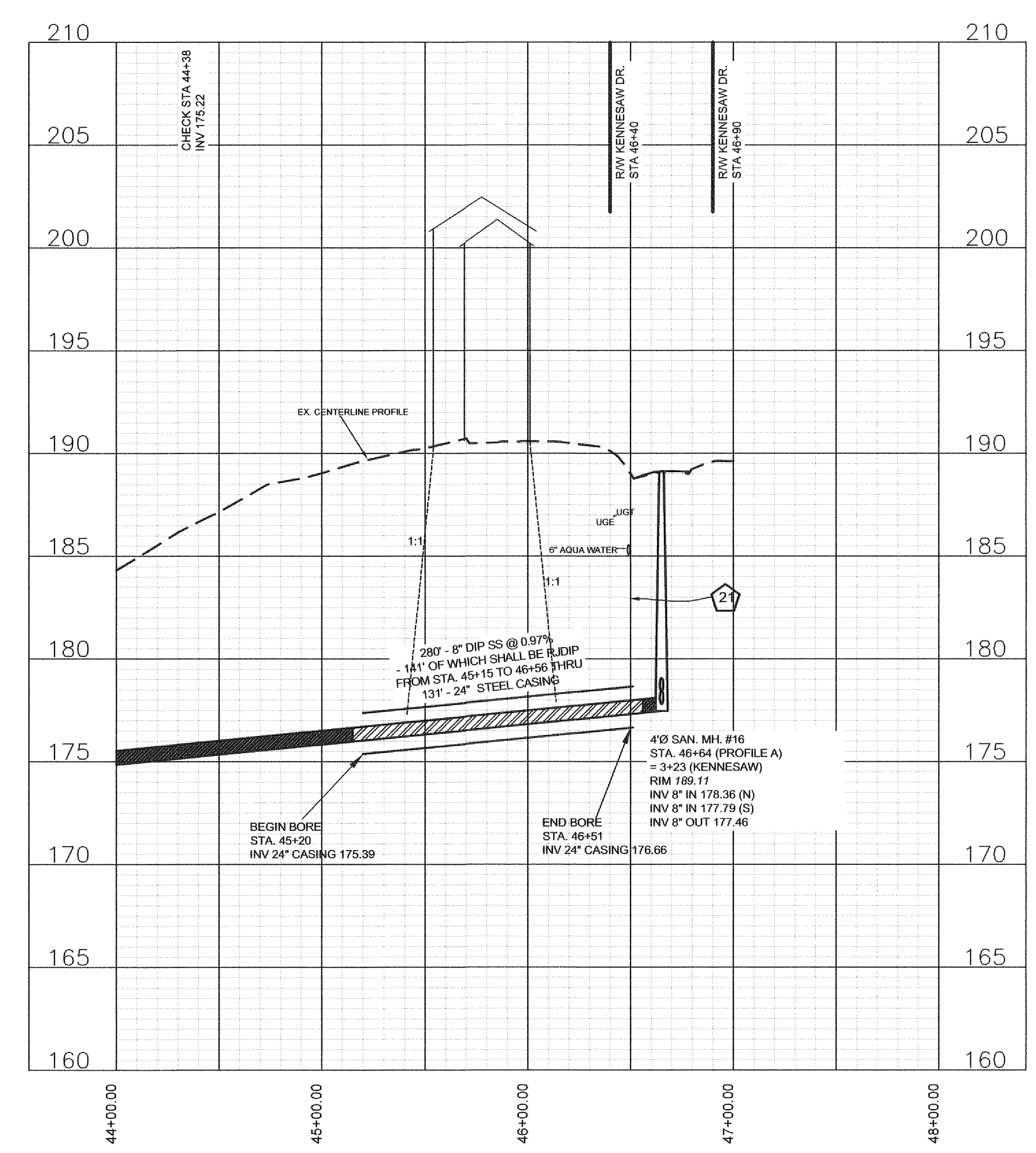
Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-4



△ TBM 188.50 R/R
SPIKE IN BACK OF CURB
NW CORNER OF KENNESAW AND MOUNTAIN HOME

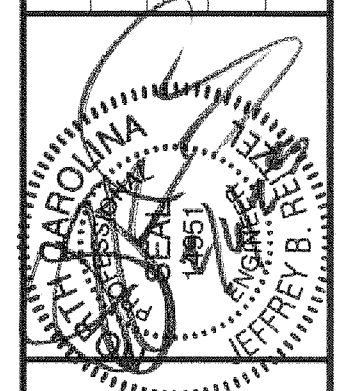
Parcel Number	Address	Special Conditions
9486-79-7469	957 Kennesaw Drive	Possible septic conflict.

PROFILE A STA 44+00 TO END

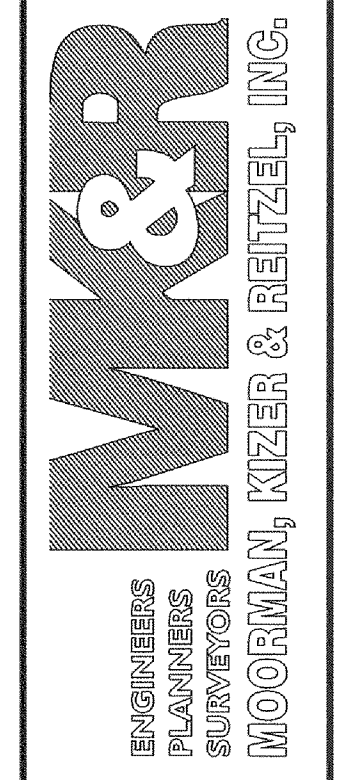


FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL-4
FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

Revision	By	Date



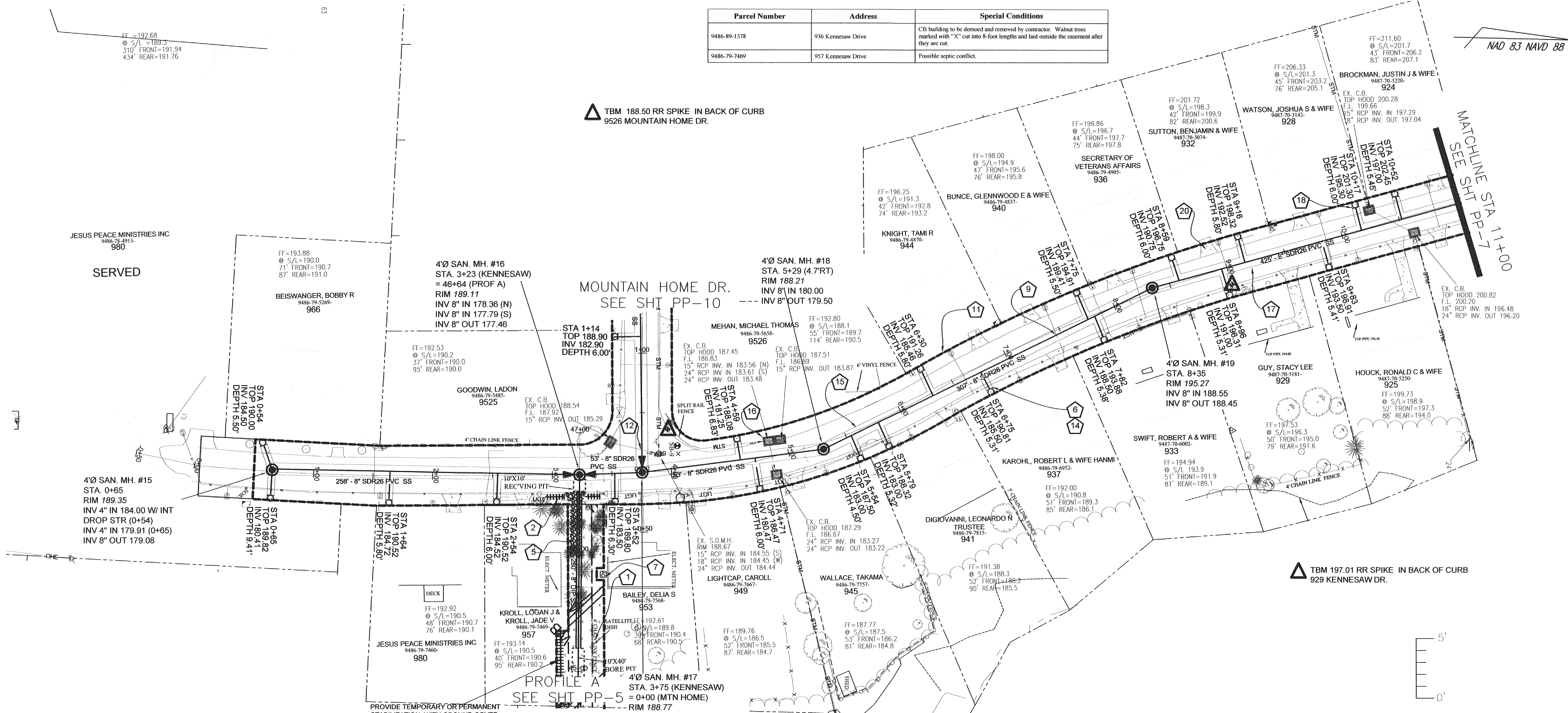
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



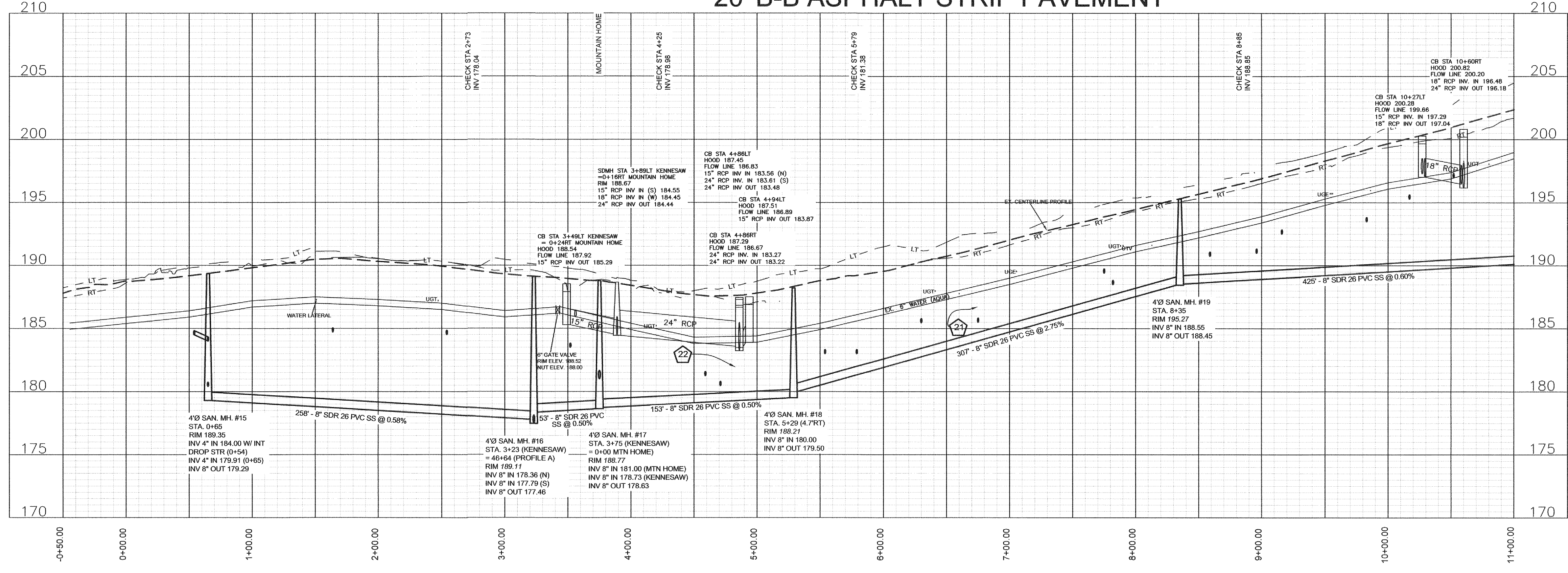
Scale	Book no.	Sheet
1" = 50' HOR 1" = 5' VER		PP-5

PWC DWG #15380

Parcel Number	Address	Special Conditions
9486-89-1378	936 Kennesaw Drive	CB building to be demoed and removed by contractor. Walnut trees marked with "X" cut into 8-foot lengths and laid outside the easement after they are cut.
9486-79-7469	957 Kennesaw Drive	Possible septic conflict.



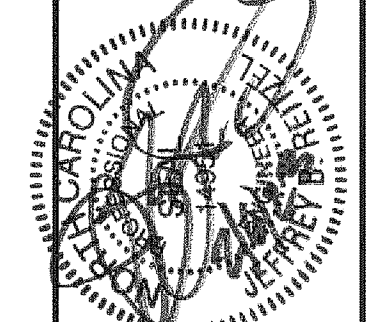
KENNESAW DR. 50' ROW
STA 0+00 TO 11+00
20' B-B ASPHALT STRIP PAVEMENT



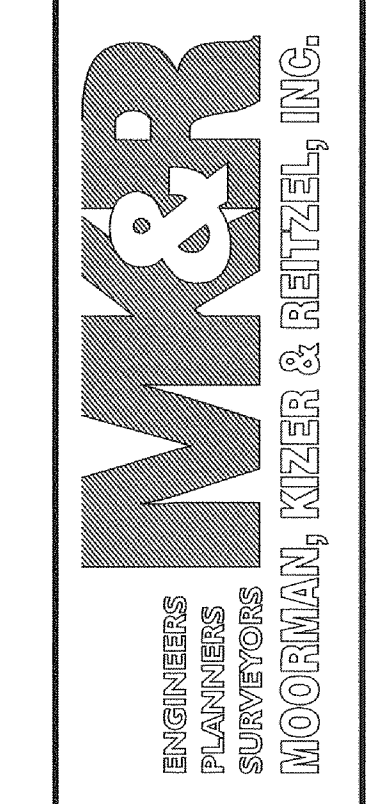
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
 Construction Project XI
 Area 25 - Lake Rim Estates
 Kennesaw Dr. STA 0+00 to 11+00

Revision	By	Date

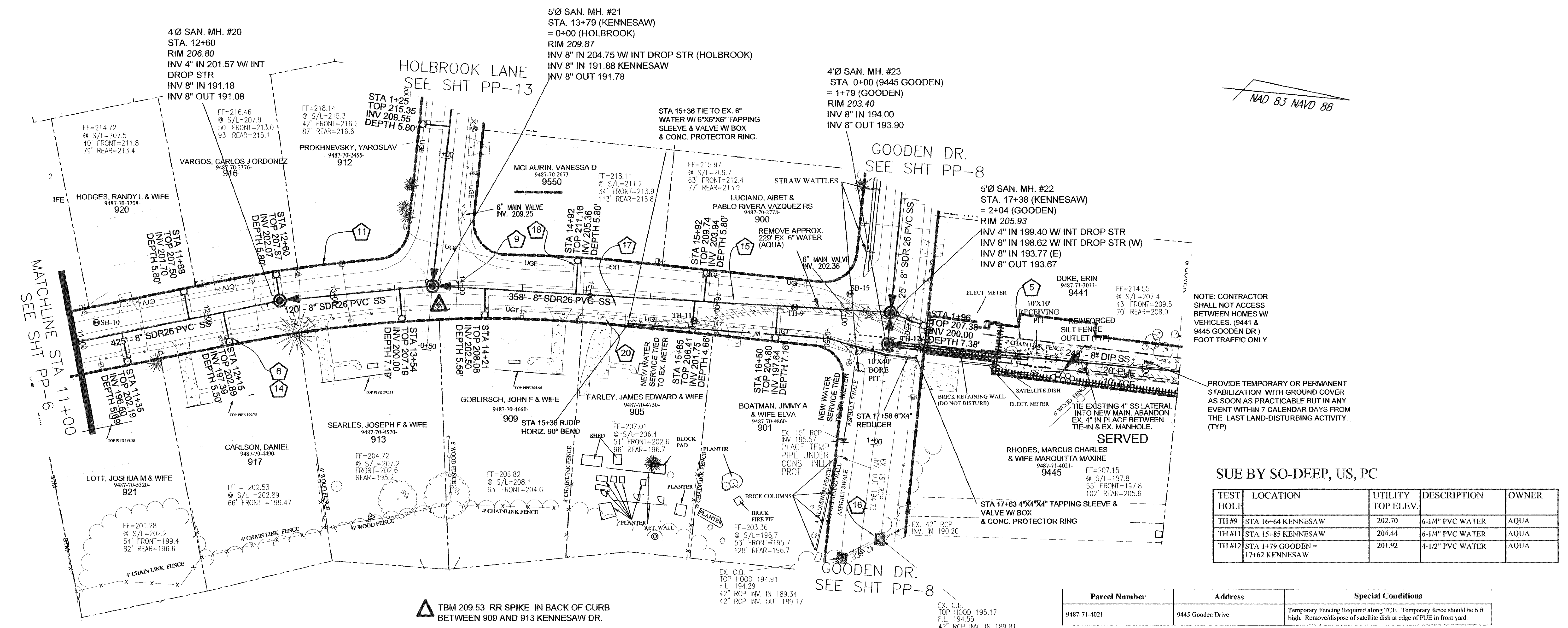


115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-6

PWC DWG #15380



NOTE: CONTRACTOR SHALL NOT ACCESS BETWEEN HOMES W/ VEHICLES (9441 & 9445 GOODEN DR.) FOOT TRAFFIC ONLY.

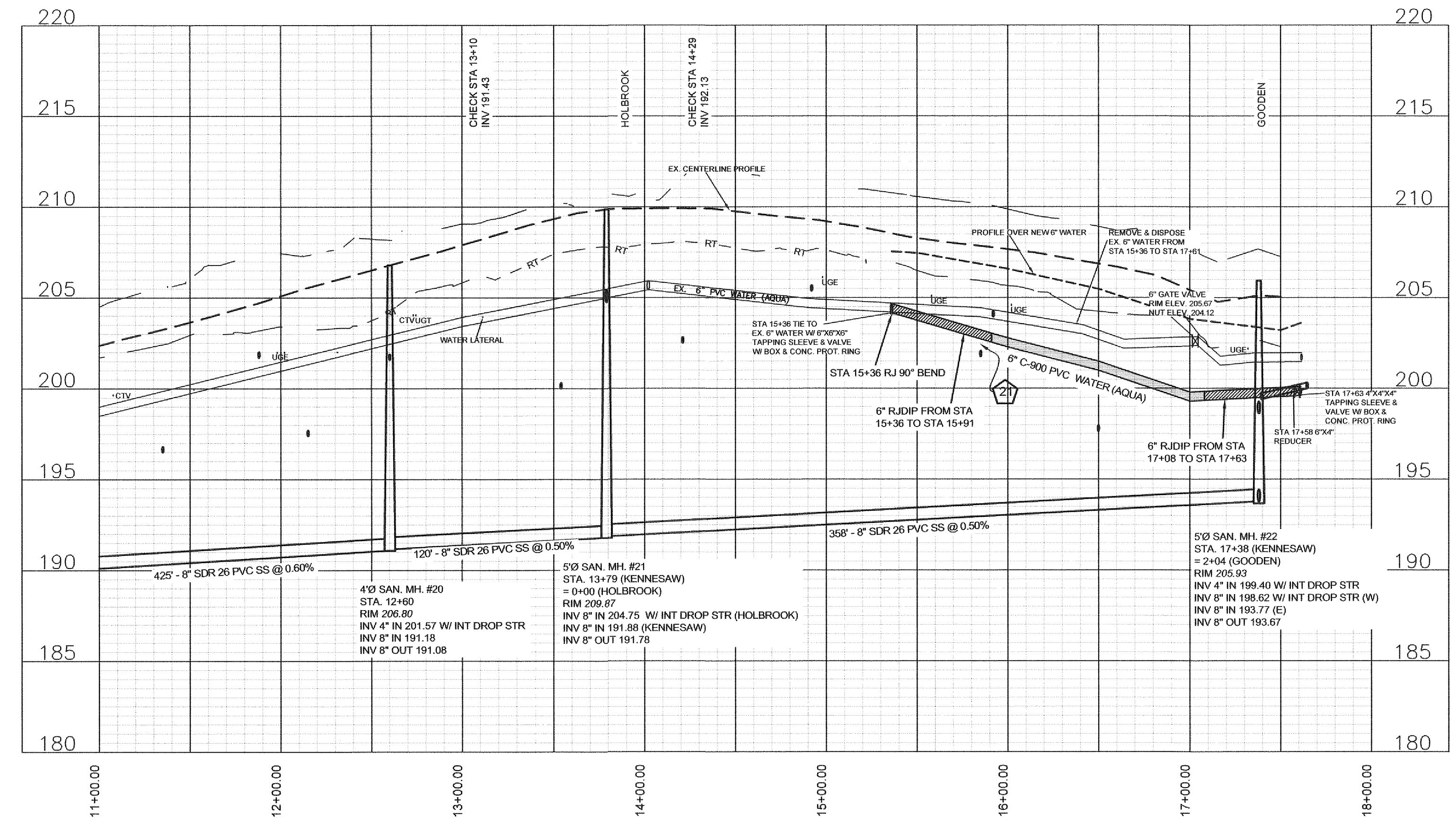
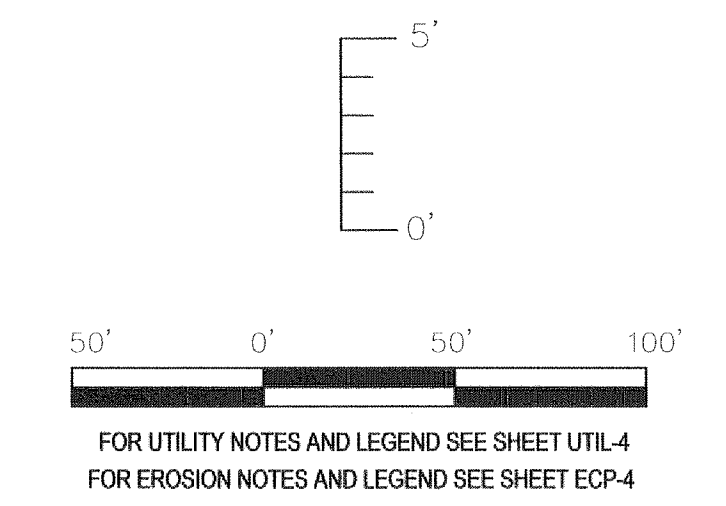
PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. (TYP)

SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH 99	STA 16+64 KENNESAW	202.70	6-1/4" PVC WATER	AQUA
TH #11	STA 15+85 KENNESAW	204.44	6-1/4" PVC WATER	AQUA
TH #12	STA 1+79 GOODEN = 17+62 KENNESAW	201.92	4-1/2" PVC WATER	AQUA

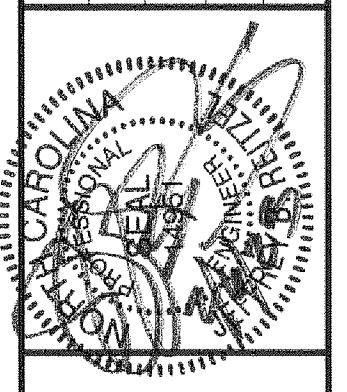
Parcel Number	Address	Special Conditions
9487-71-0021	9445 Gooden Drive	Temporary Fencing Required along TCE. Temporary fence should be 6 ft. high. Remove/dispose of satellite dish at edge of PUE in front yard.

**KENNESAW DR. 50' ROW
STA 11+00 TO END
20' B-B ASPHALT STRIP PAVEMENT**

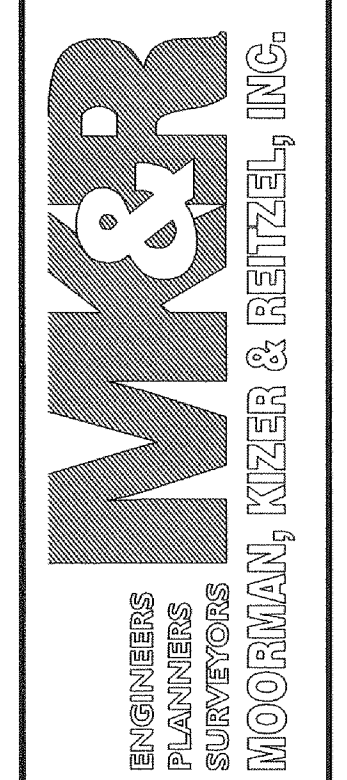


PWC DWG #15380

Revision	Date

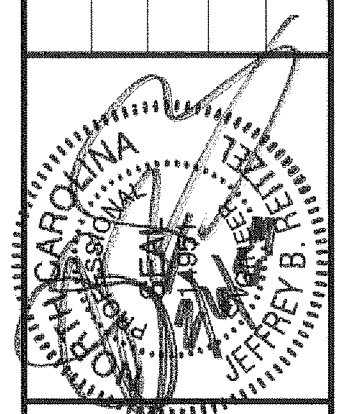


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

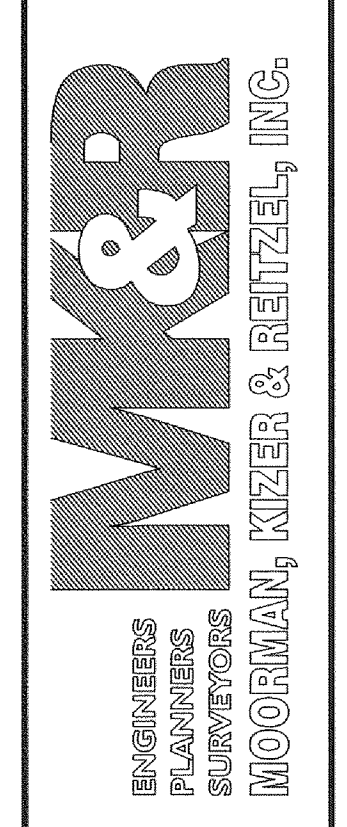


Scale: 1" = 50' HOR, 1" = 5' VER
Book No.
Sheet: PP-7

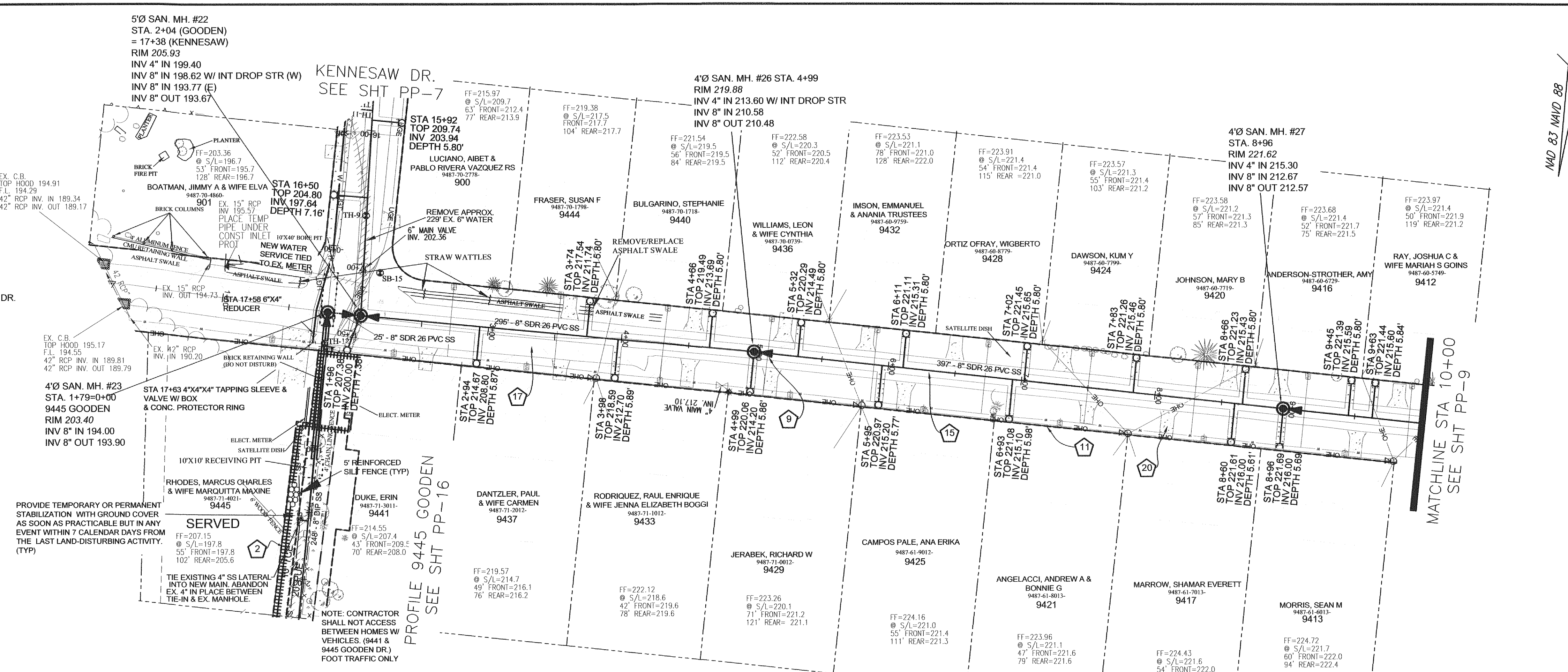
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

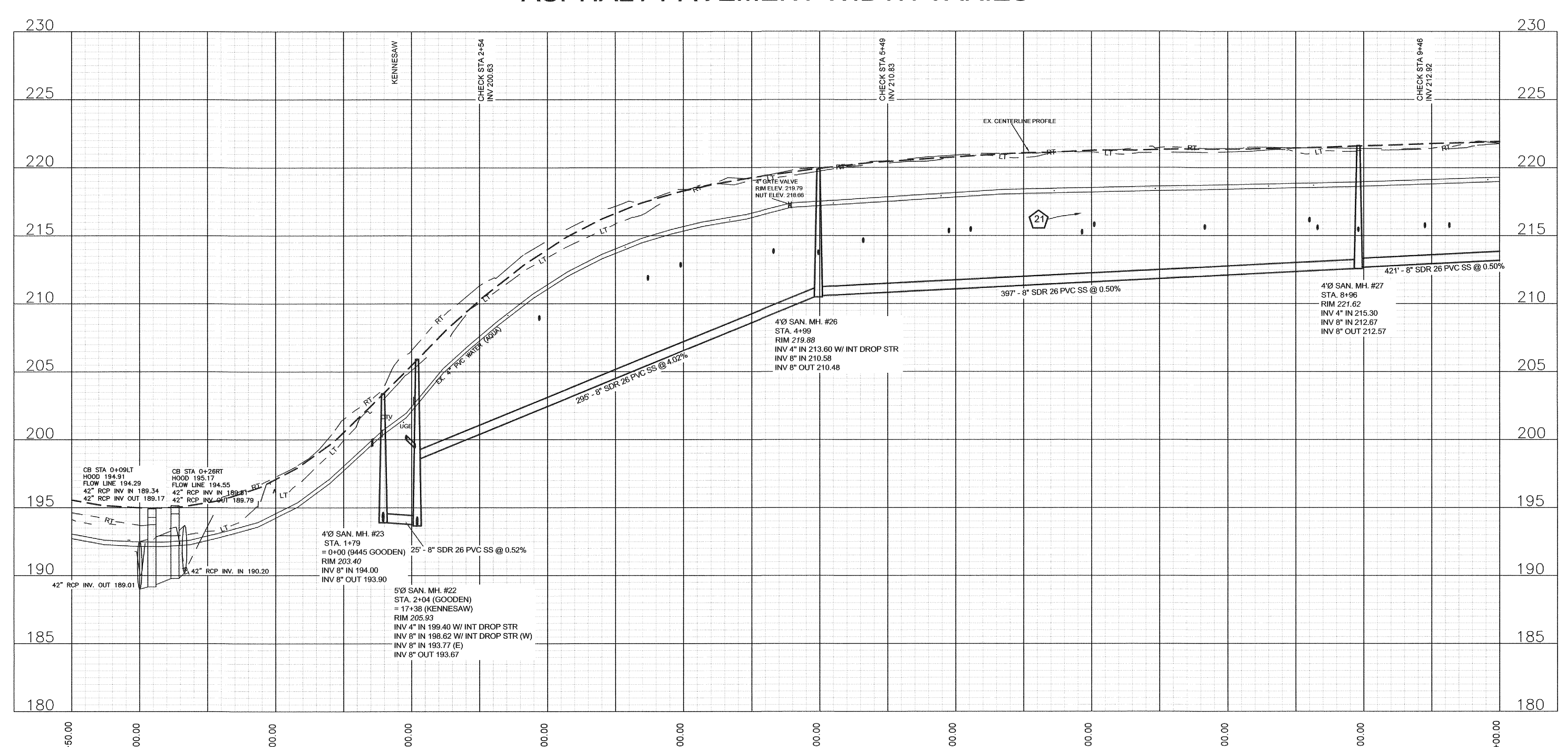
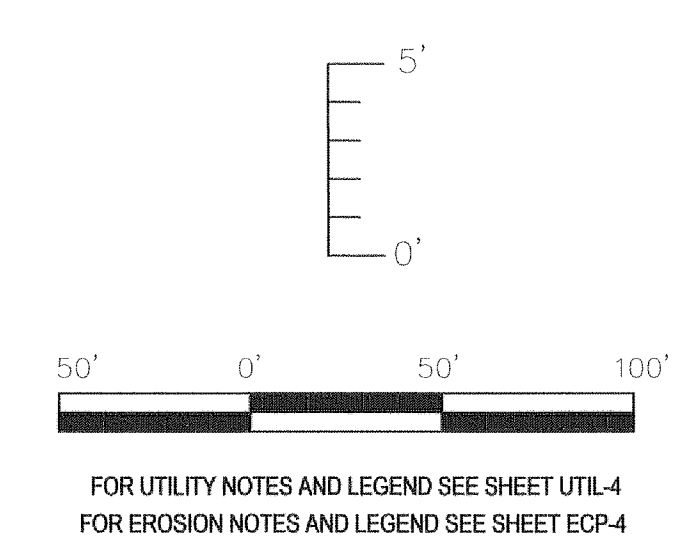


Scale: 1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-8



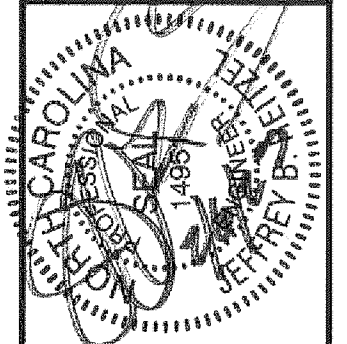
Parcel Number	Address	Special Conditions
9487-71-4021	9445 Gooden Drive	Temporary Fencing Required along TCE. Temporary fence should be 6 ft. high. Remove/dispose of satellite dish at edge of PUE in front yard.

GOODEN DR. 60' ROW
STA 0+00 TO 10+00
ASPHALT PAVEMENT WIDTH VARIES

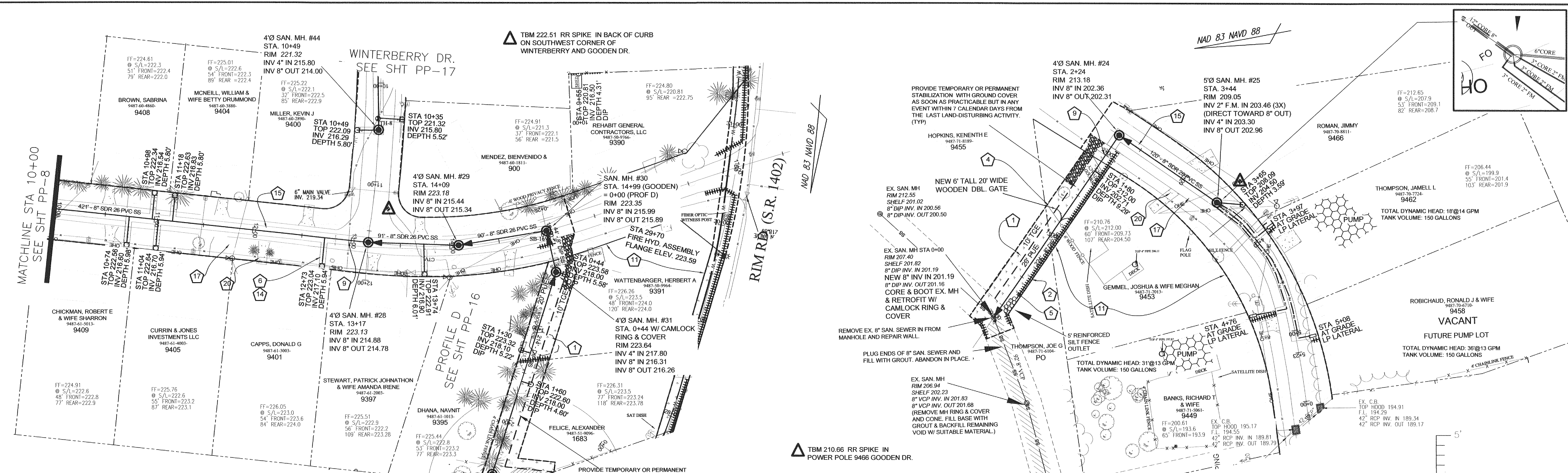
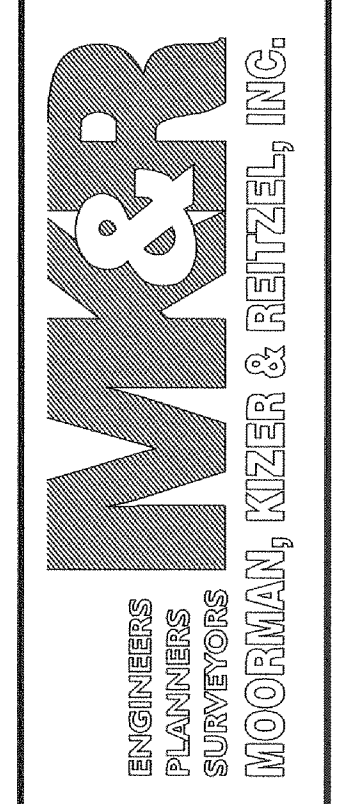


PWC DWG #15380

Revision	By	Date

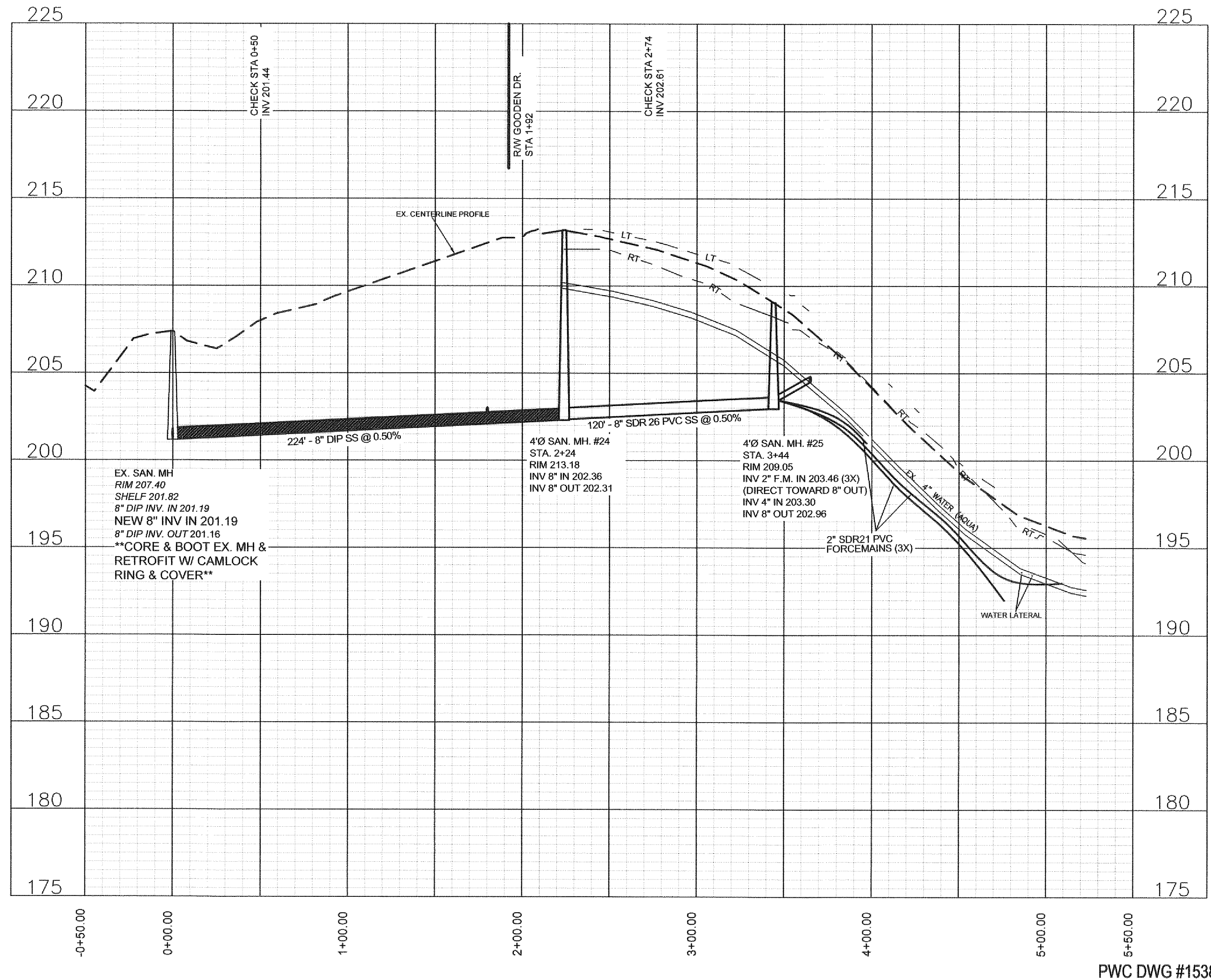
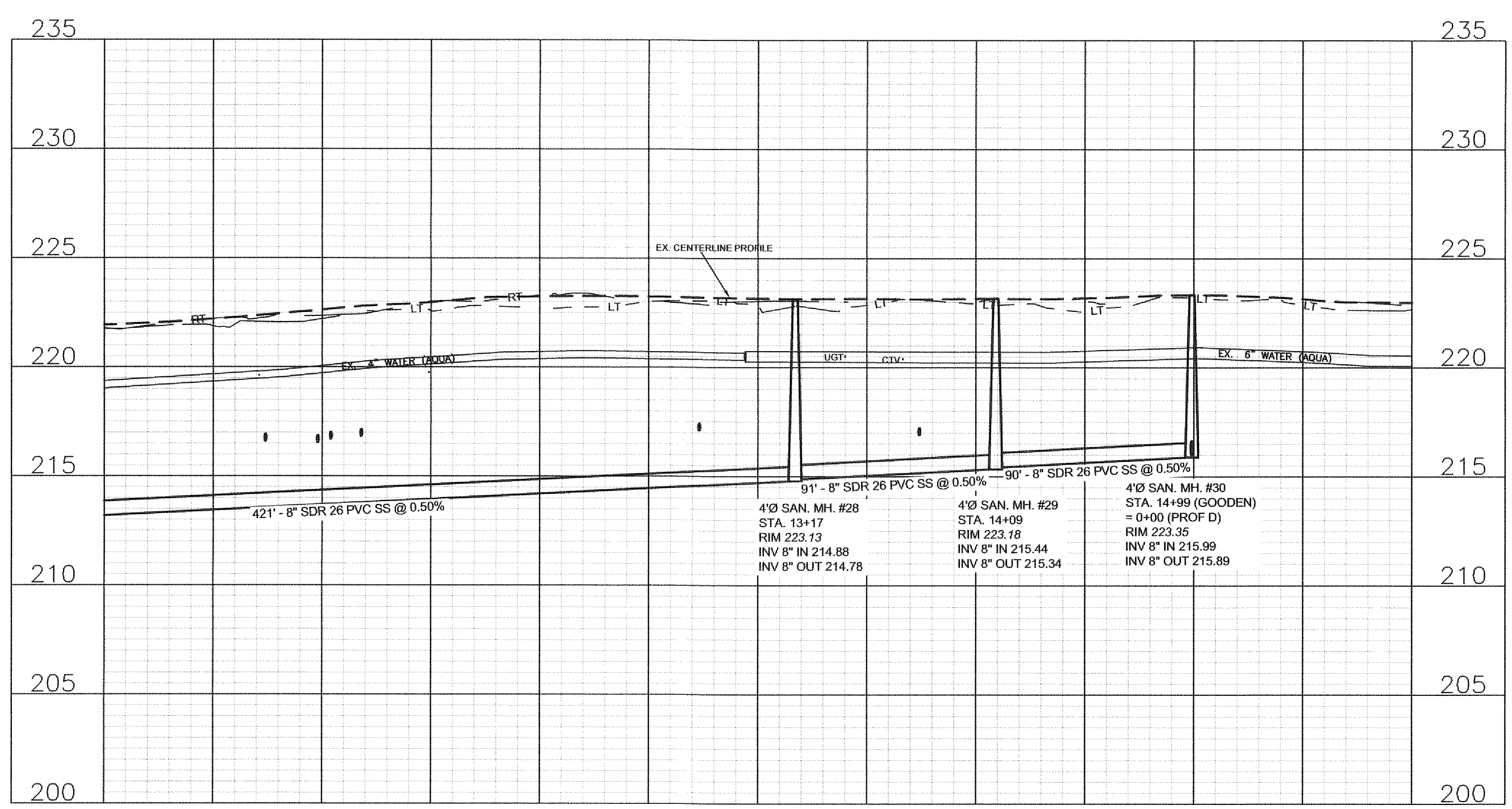


115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106



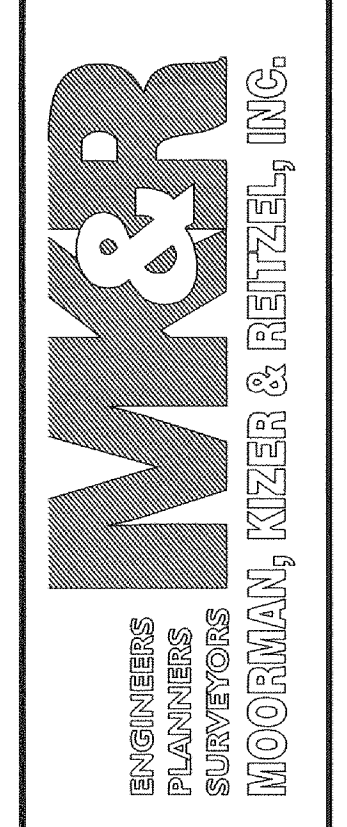
ADDRESS	ACTION REQ'D.	SERVICE TO BE PROVIDED BY PWC
1. 967 Kamesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1071 Rim Rd.	ABANDON WELL	SINGLE
3. 1080 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9396 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1483 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9328 Time Rd.	ABANDON WELL	SINGLE
13. 9386 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

GOODEN DR. 60' ROW
 STA 10+00 TO END
 20' ASPHALT STRIP PAVEMENT

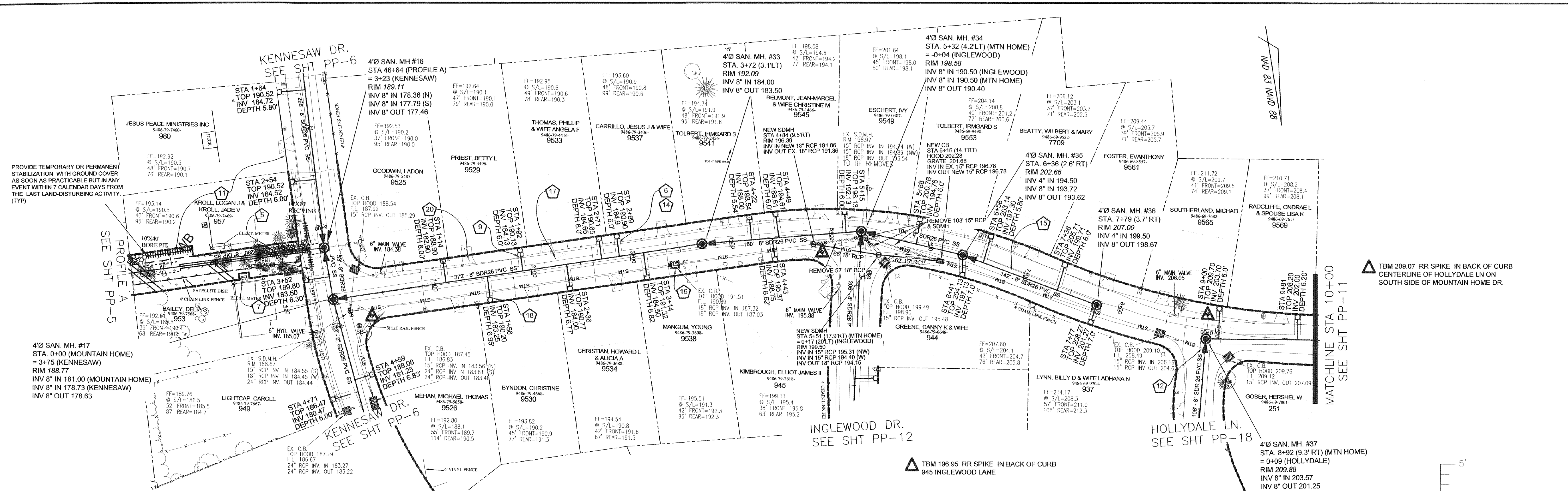


Revision	Date	By

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



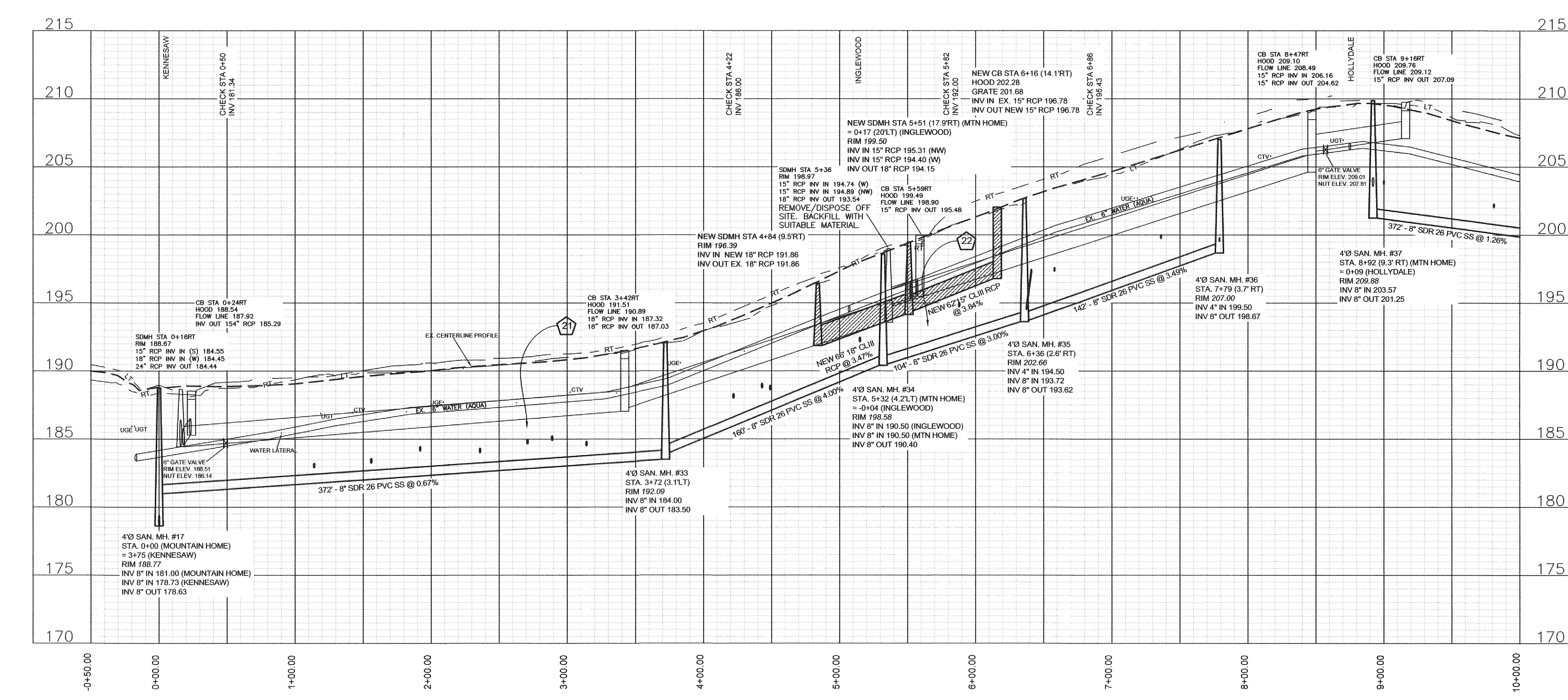
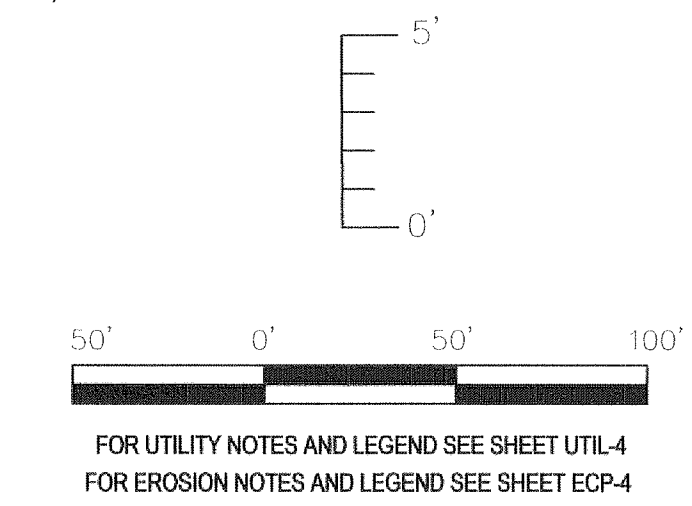
Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-10



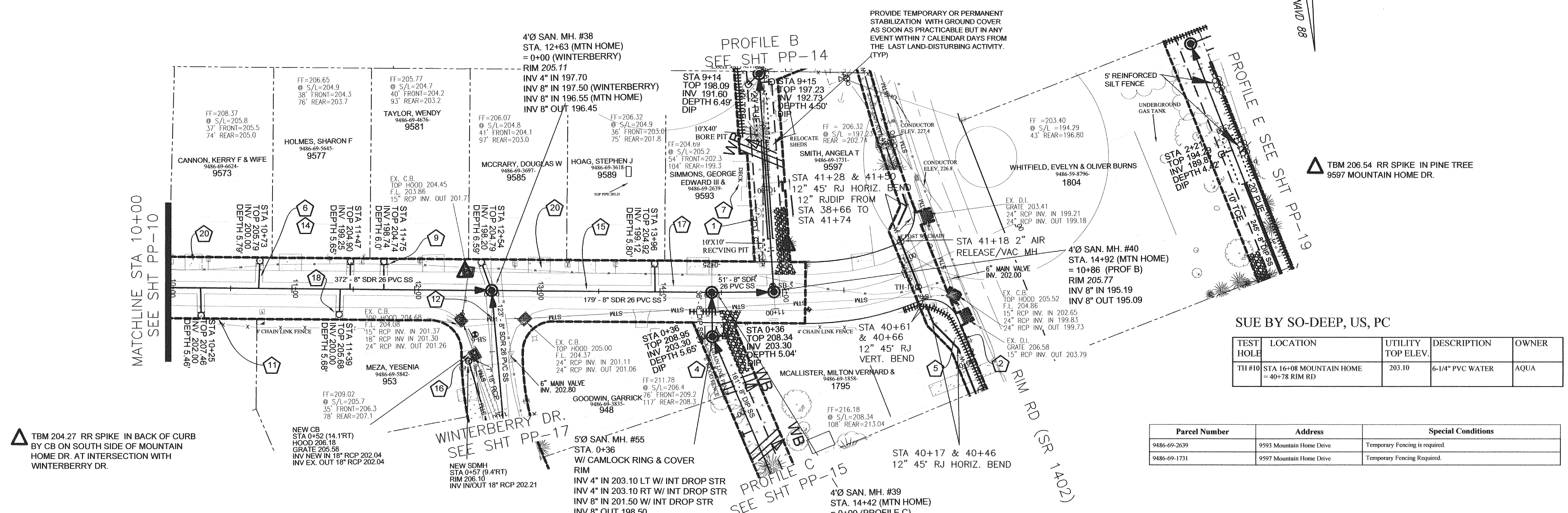
MOUNTAIN HOME DR. 50' ROW
STA 0+00 TO 10+00
29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB

▲ TBM 188.50 RR SPIKE IN BACK OF CURB
9526 MOUNTAIN HOME DR.

Parcel Number	Address	Special Conditions
9486-79-7469	957 Kennesaw Drive	Possible septic conflict.



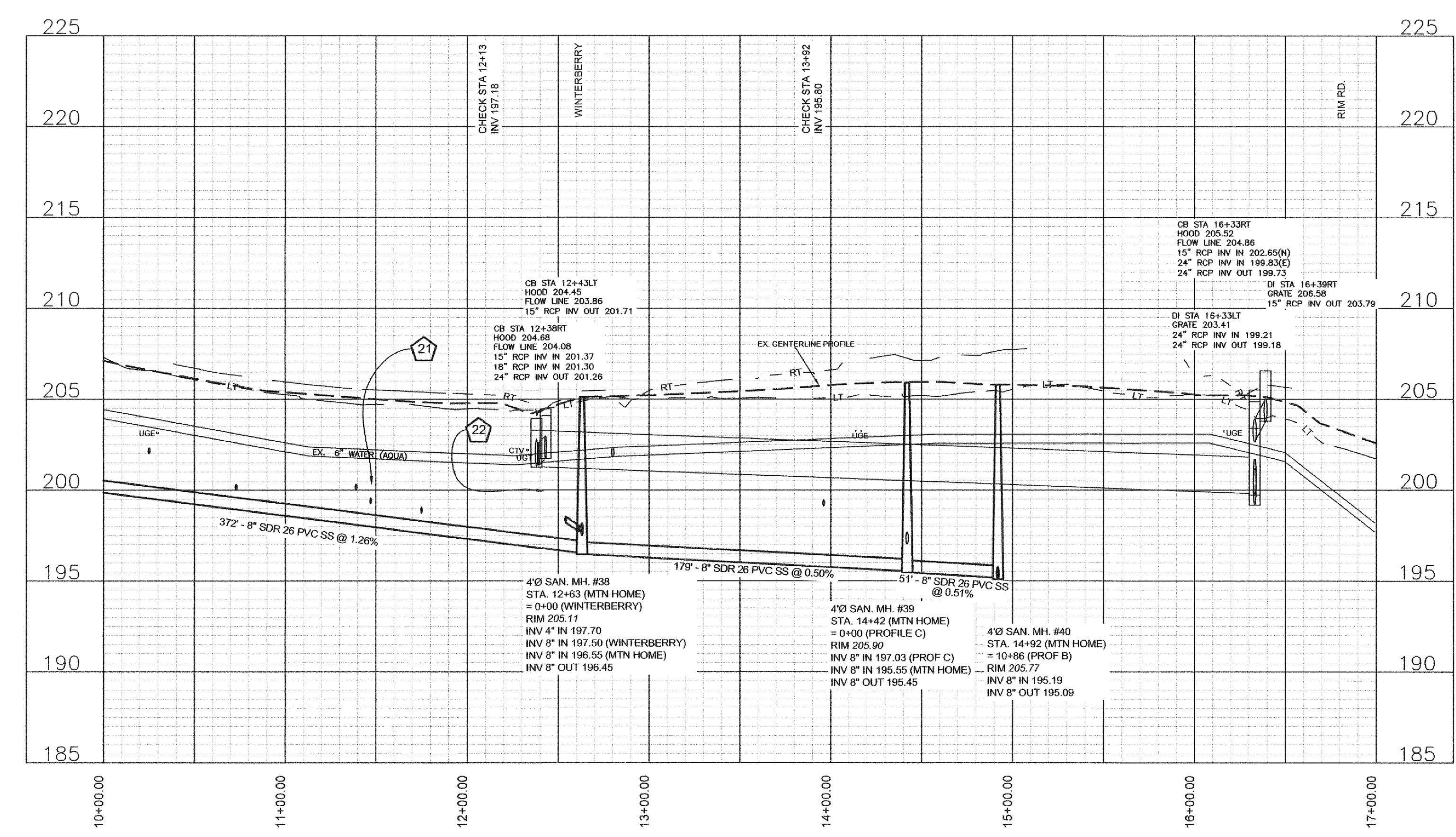
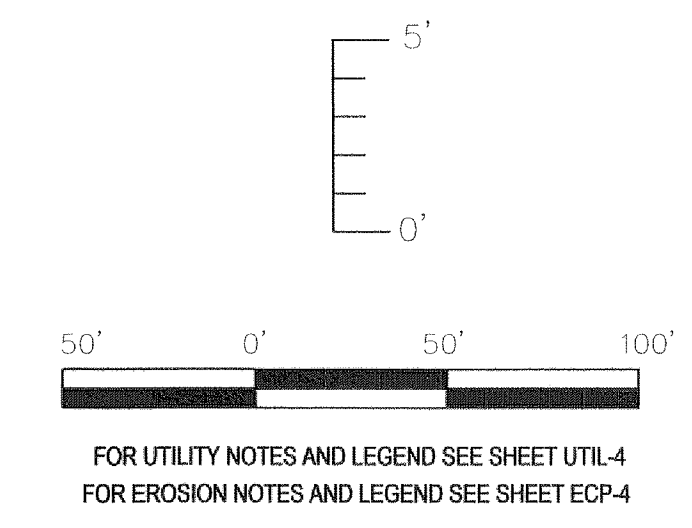
PWC DWG #15380



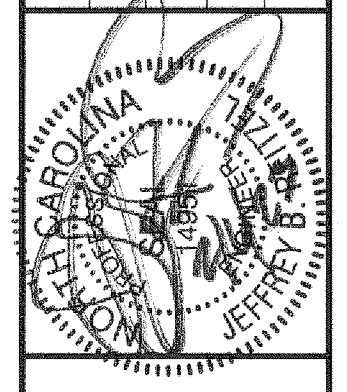
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH#10	STA 16+08 MOUNTAIN HOME = 40+78 RIM RD	203.10	6-1/4" PVC WATER	AQUA

Parcel Number	Address	Special Conditions
9486-69-2639	9993 Mountain Home Drive	Temporary Fencing is required.
9486-69-1731	9997 Mountain Home Drive	Temporary Fencing Required.

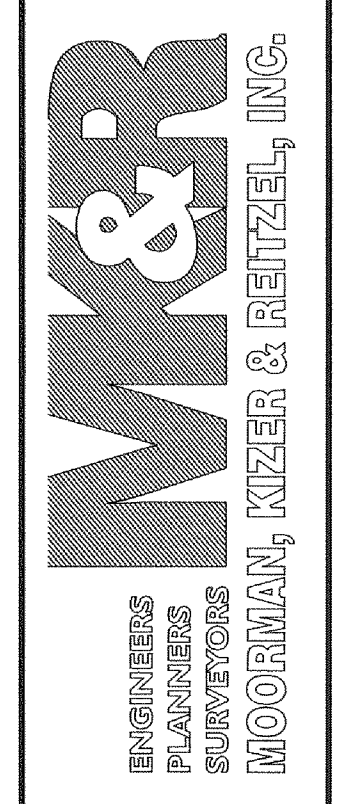
**MOUNTAIN HOME DR. 50' ROW
STA 10+00 TO END
29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB**



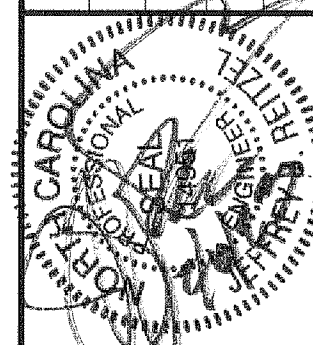
By	Date



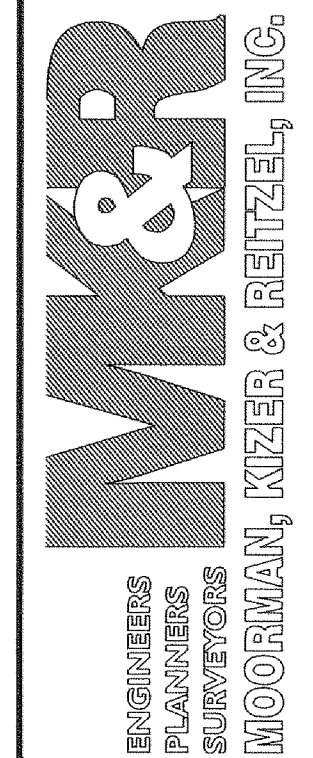
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



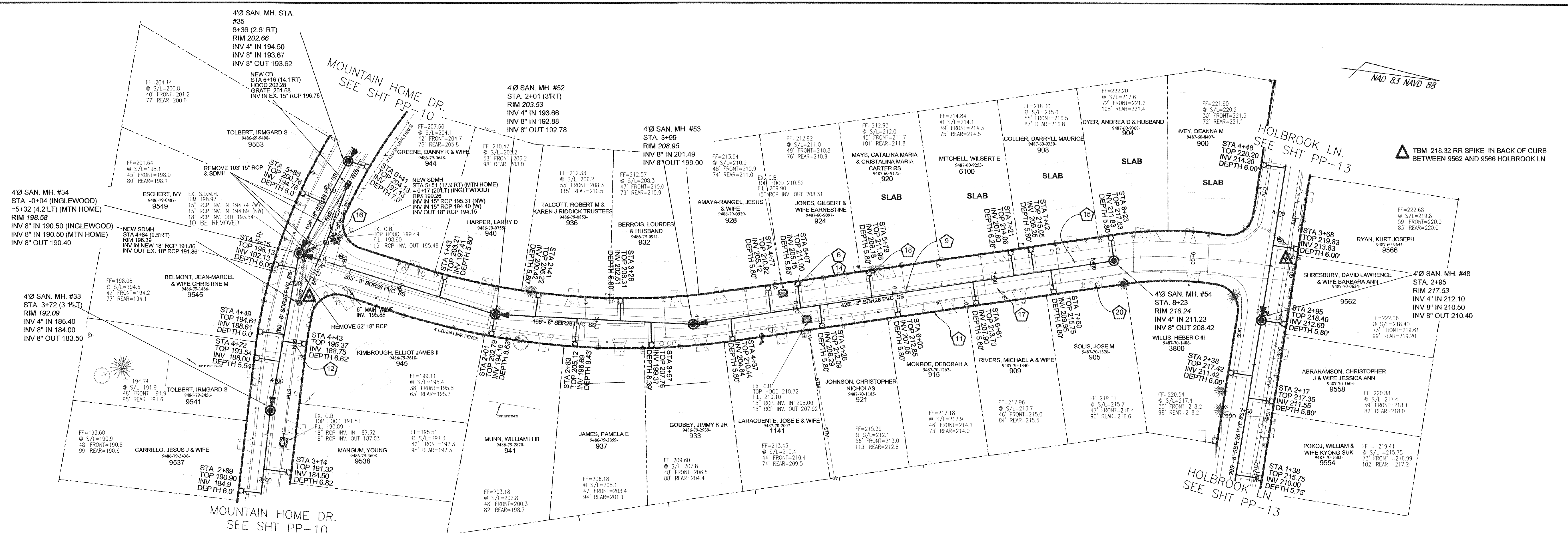
Revision	By	Date



115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106

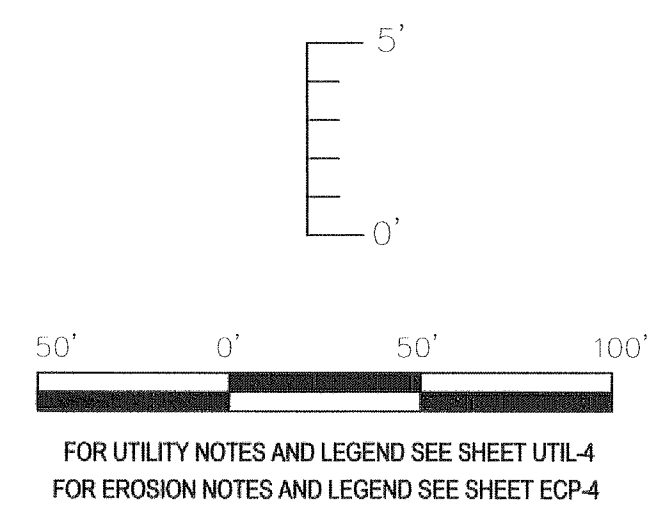
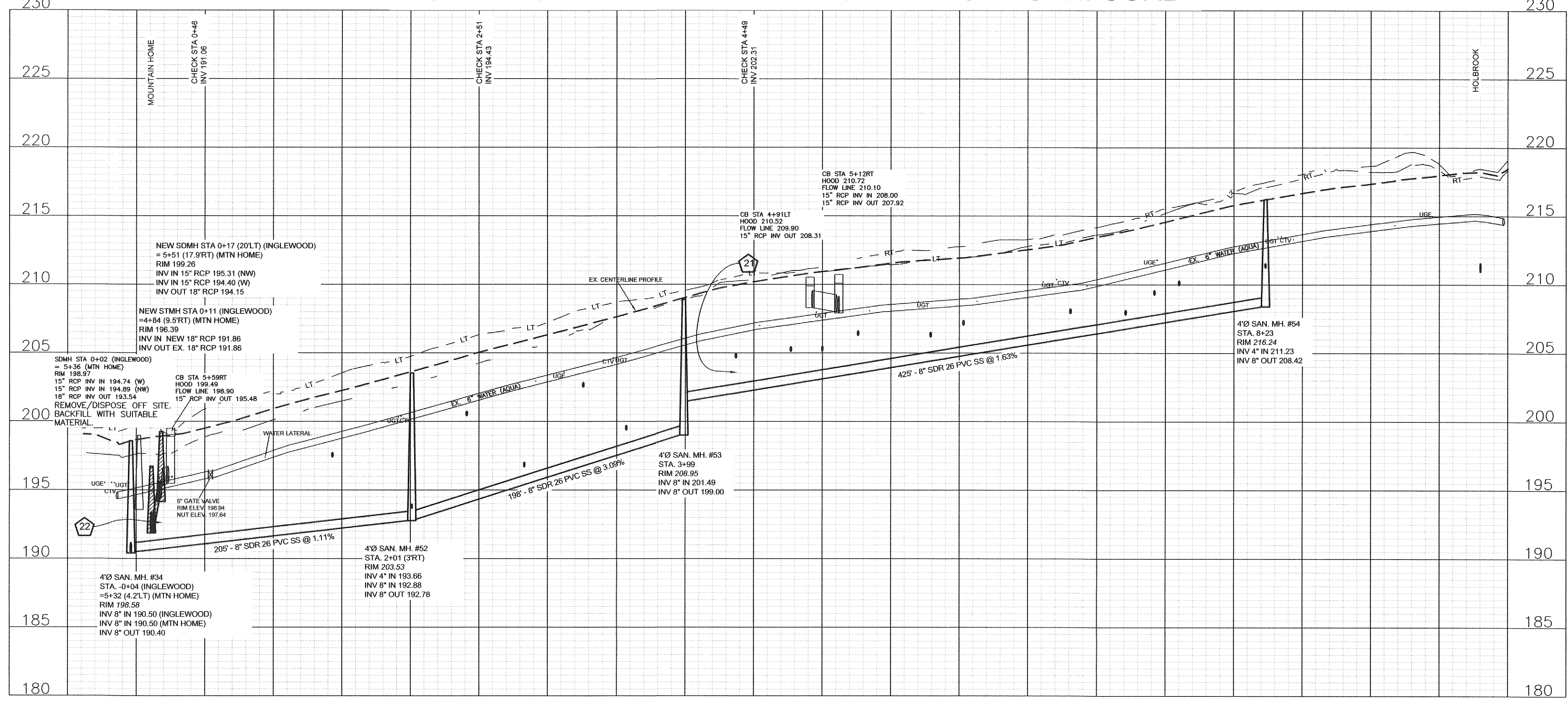


Scale 1" = 50' HOR
 1" = 5' VER
 Book no.
 Sheet PP-12

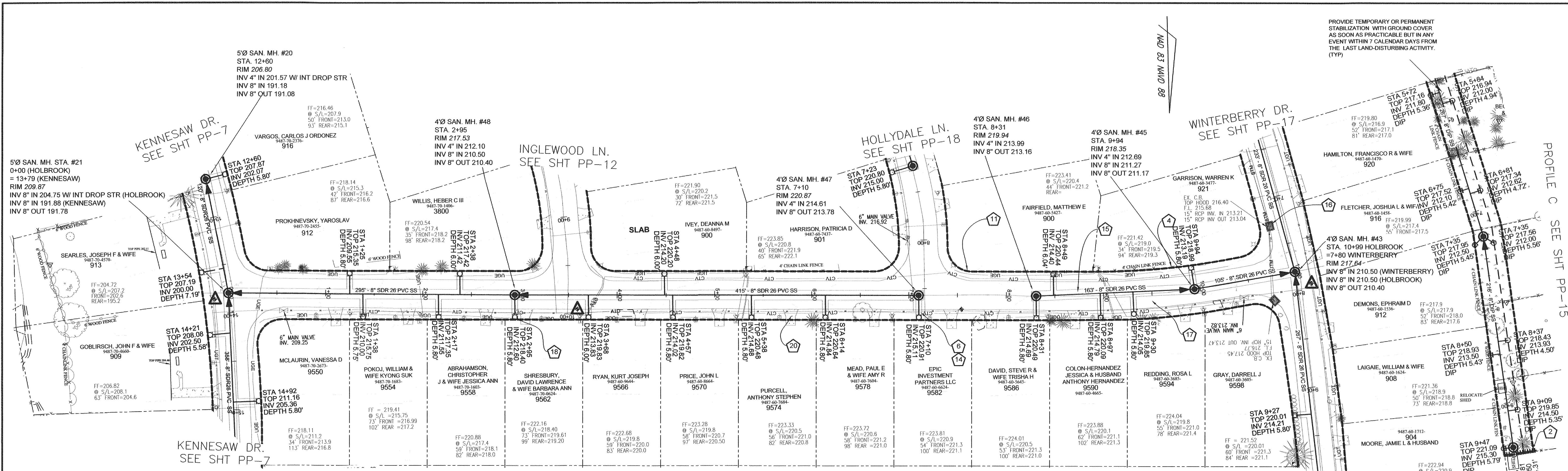


**INGLEWOOD LANE. 50' ROW
 STA 0+00 TO END
 29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB**

▲ TBM 196.95 RR SPIKE IN BACK OF CURB
 945 INGLEWOOD LANE

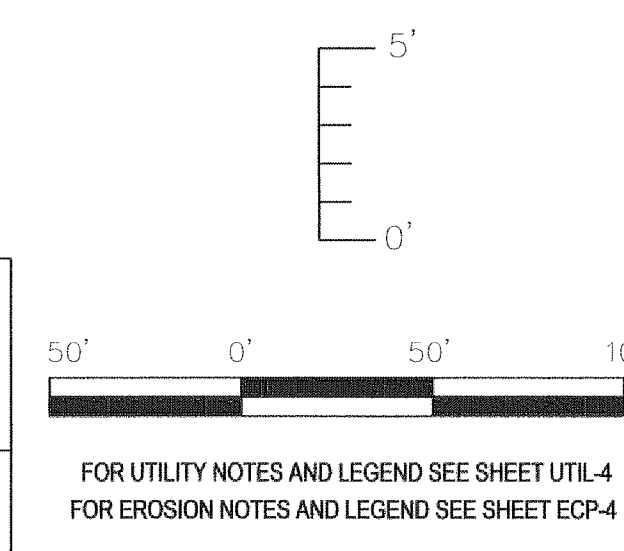
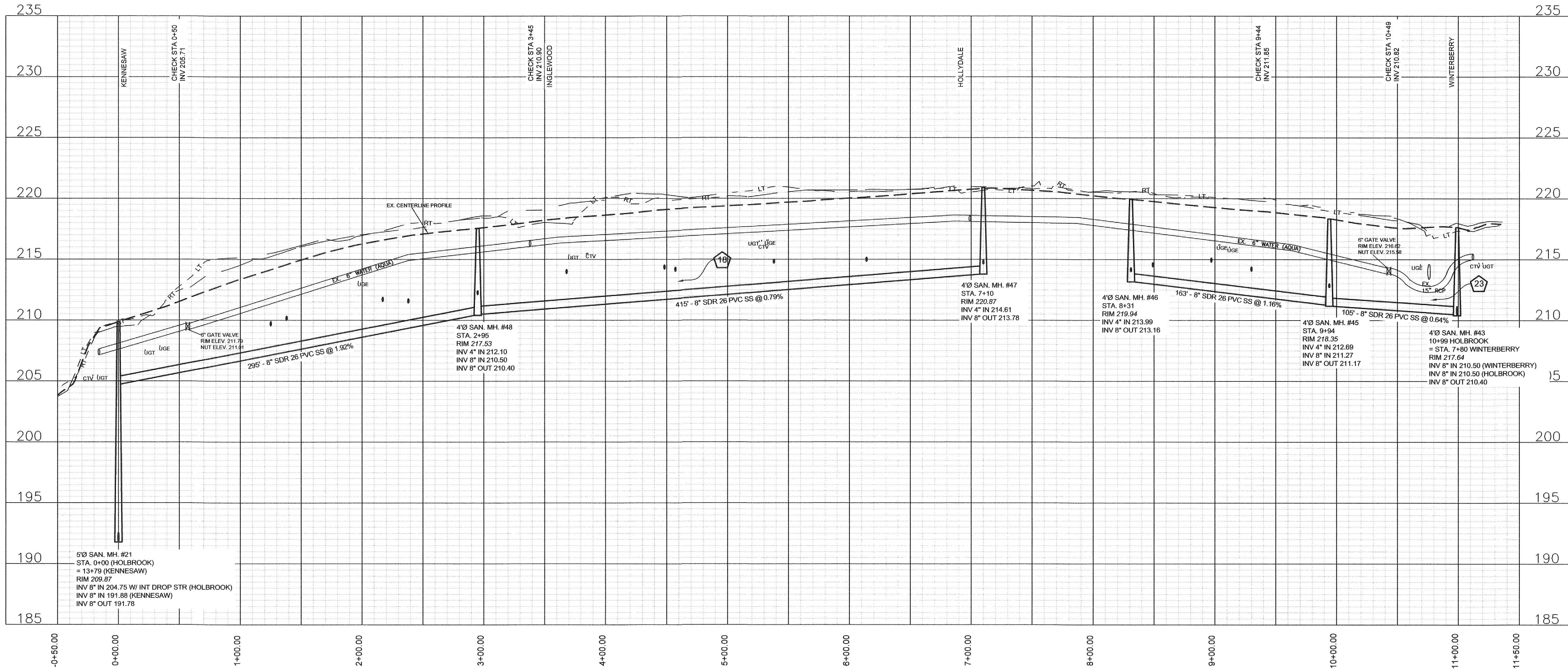


PWC DWG #15380



▲ TBM 209.53 RR SPIKE IN BACK OF CURB BETWEEN 909 AND 913 KENNESAW DR.
 ▲ TBM 218.32 RR SPIKE IN BACK OF CURB BETWEEN 9562 AND 9566 HOLBROOK LN.
 ▲ TBM 217.78 RR SPIKE IN BACK OF CURB ON WEST SIDE OF WINTERBERRY DR. AT INTERSECTION WITH HOLBROOK LN.

HOLBROOK LANE. 50' ROW
STA 0+00 TO END
29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB



Drawn by David Males
 Checked David E. Vaughn, PE, PLS
 Reviewed Jeffrey B. Retzel, PE, PLS
 Date FEB 2023

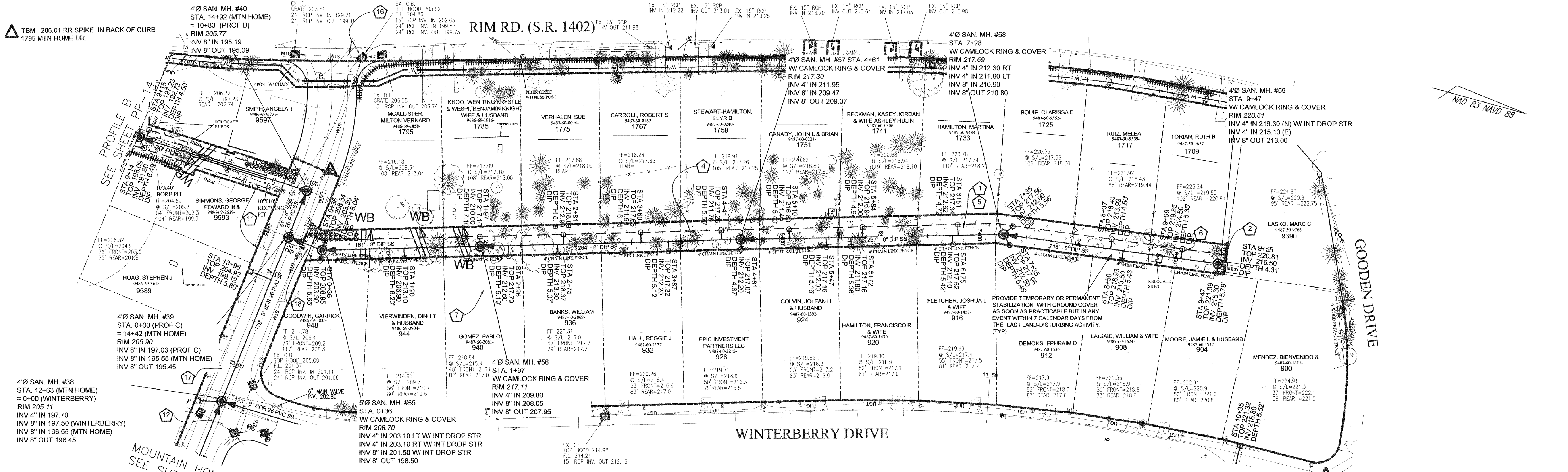
Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Holbrook Ln. STA 0+00 to End

Revision	By	Date

M&R
 ENGINEERS
 PLANNERS
 SURVEYORS
MOORMAN, KIZER & RETZEL, INC.

Scale: 1" = 50' HOR
 1" = 5' VER
 Book No.
 Sheet **PP-13**

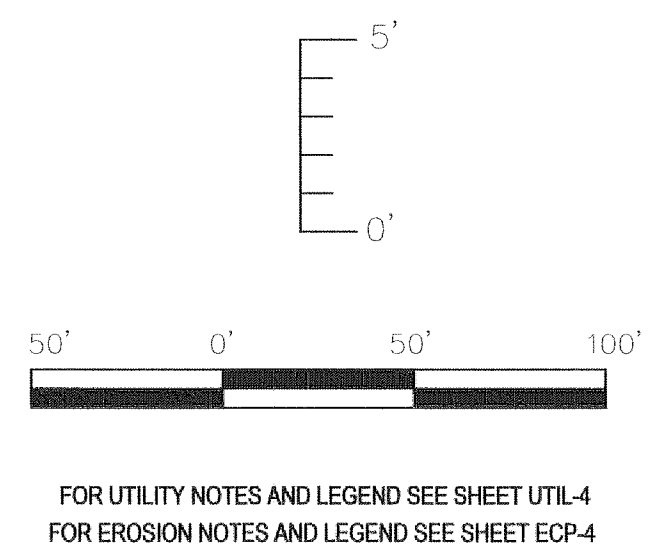
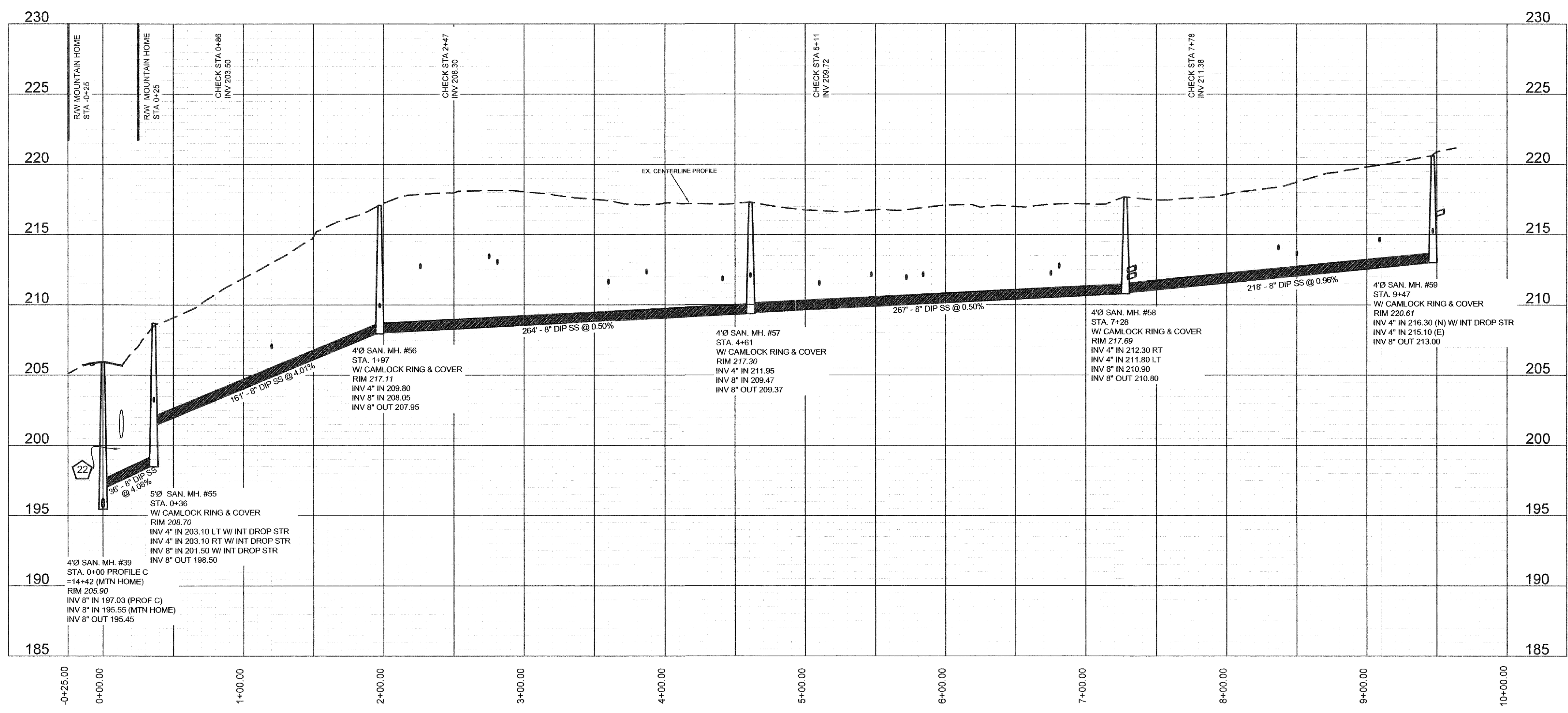
PWC DWG #15380



**PROFILE C
STA 0+00 TO END**

△ TBM 222.51 RR SPIKE IN EDGE OF PAVEMENT SW CORNER OF GOLDEN DR. & WINTERBERRY DR.

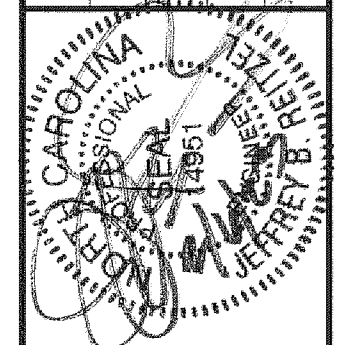
Parcel Number	Address	Special Conditions
9487-50-9657	1709 Rim Road	Possible septic conflict.
9487-50-9559	1717 Rim Road	Temporary Fencing Required for dogs.
9487-50-9562	1725 Rim Road	Possible septic conflict.



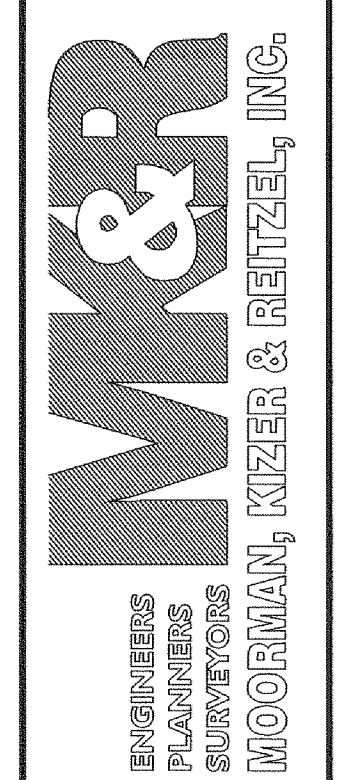
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

**Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILE C STA 0+00 TO END**

Revision	By	Date



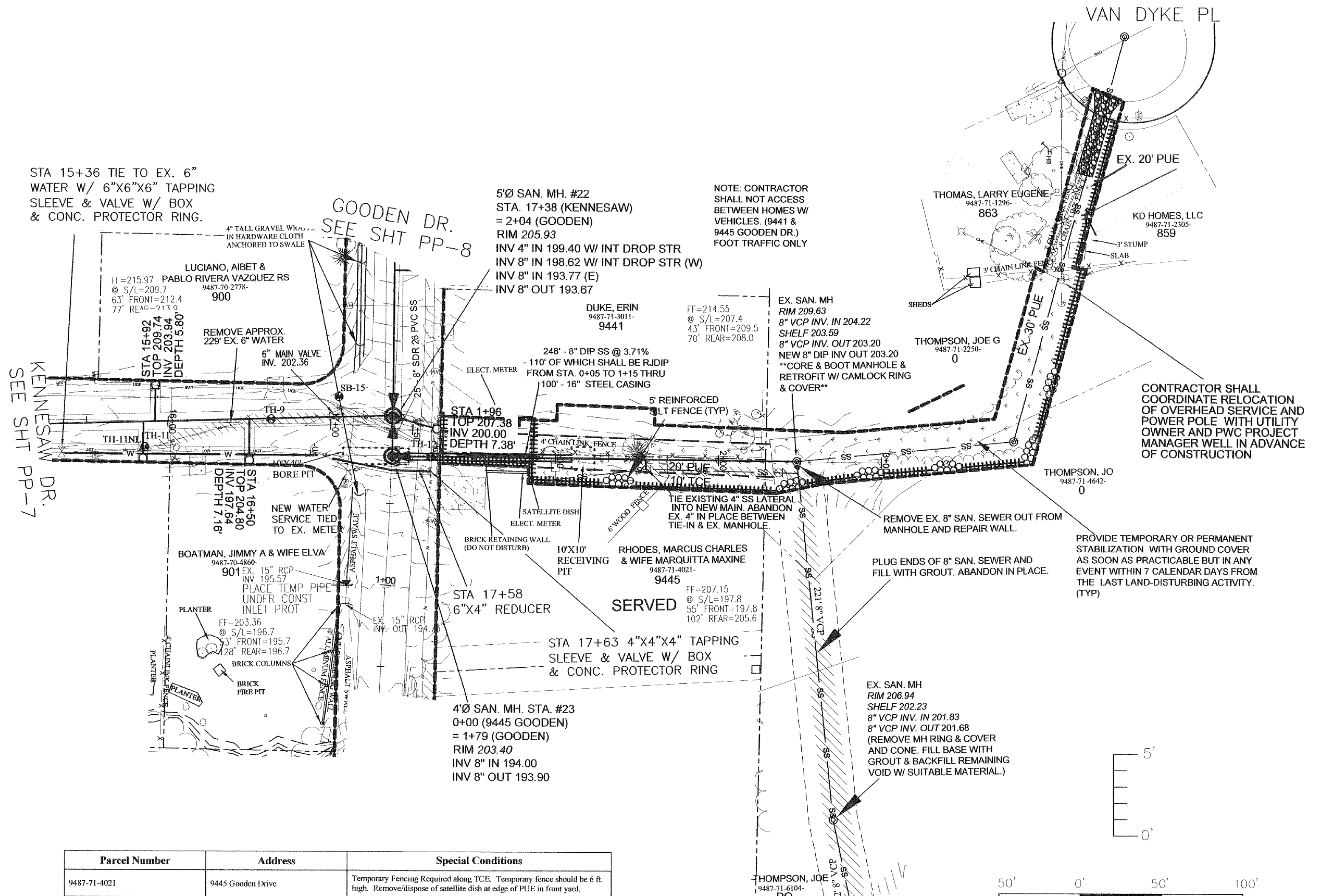
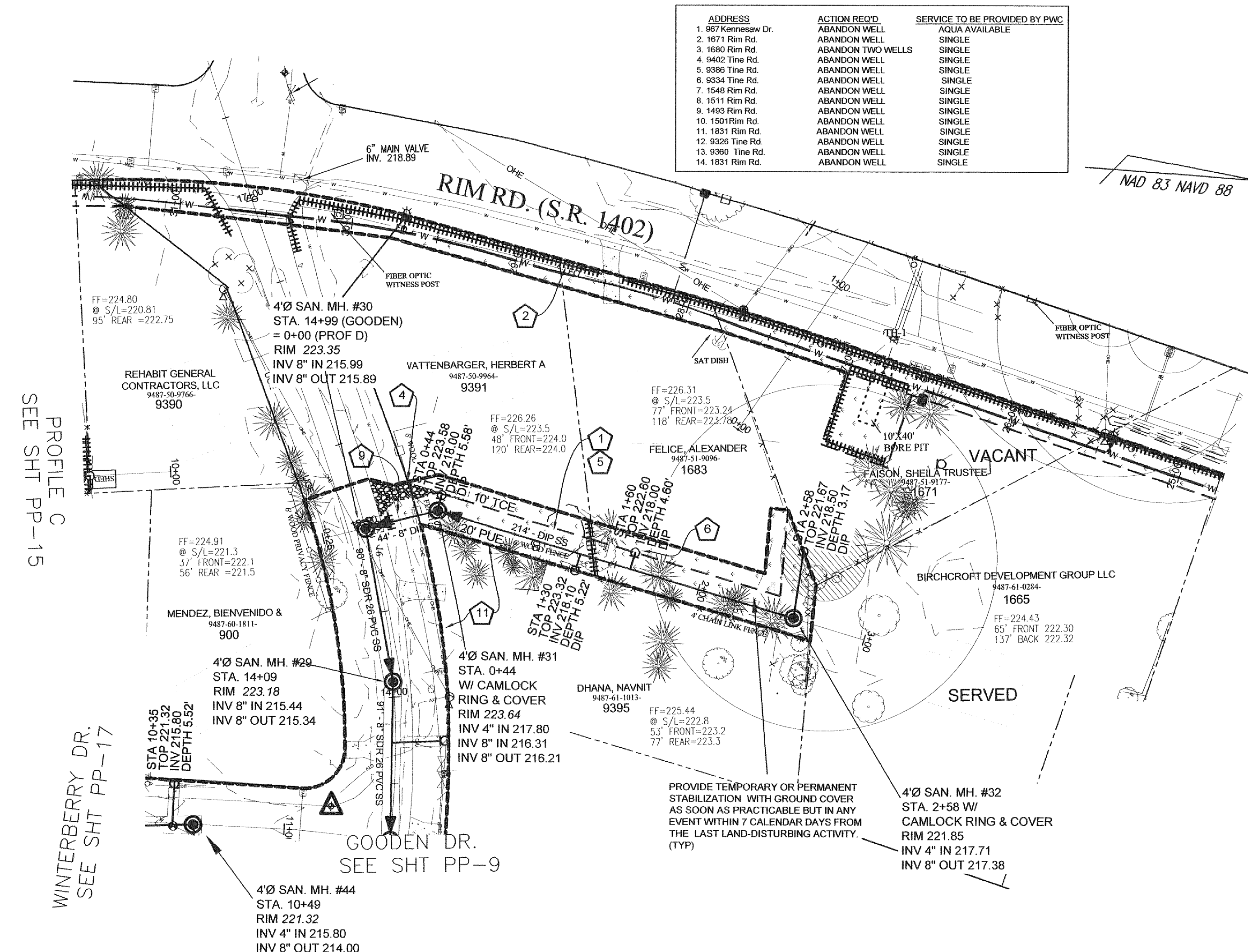
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



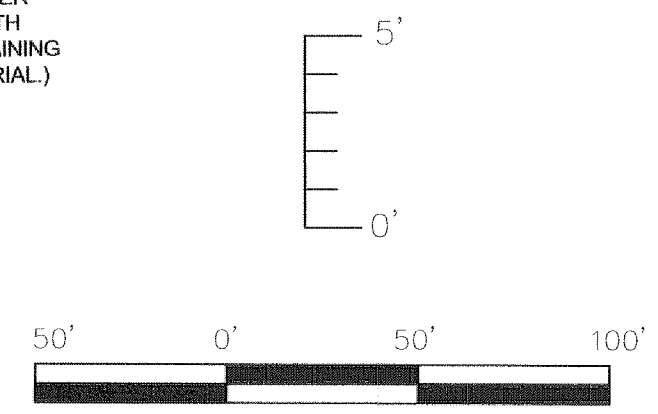
Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-15

PWC DWG #15380

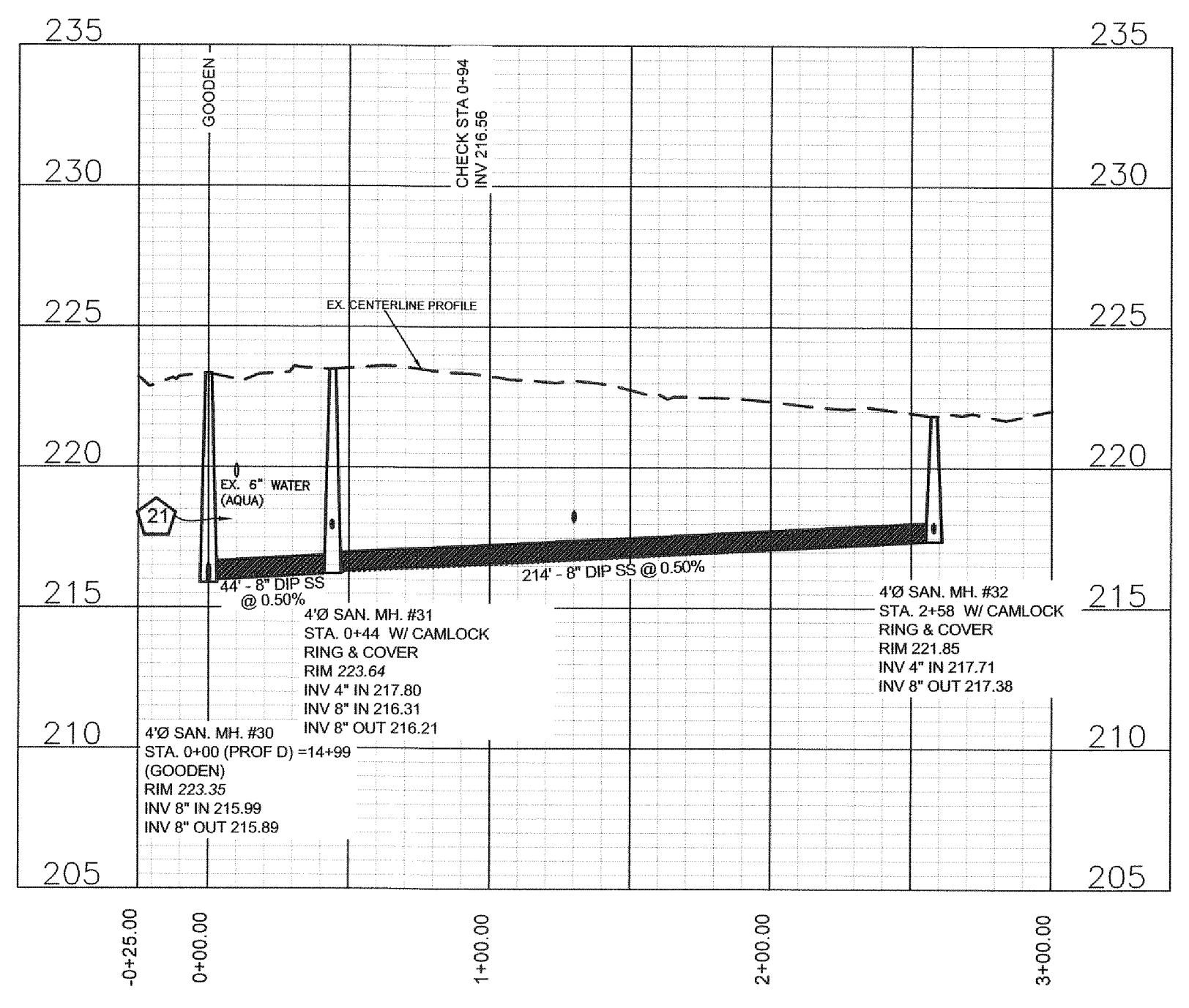
ADDRESS	ACTION REQD.	SERVICE TO BE PROVIDED BY PWC
1. 967 Kennessaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON TWO WELLS	SINGLE
3. 1680 Rim Rd.	ABANDON WELL	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9380 Time Rd.	ABANDON WELL	SINGLE
6. 9384 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1489 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9306 Time Rd.	ABANDON WELL	SINGLE
13. 9360 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE



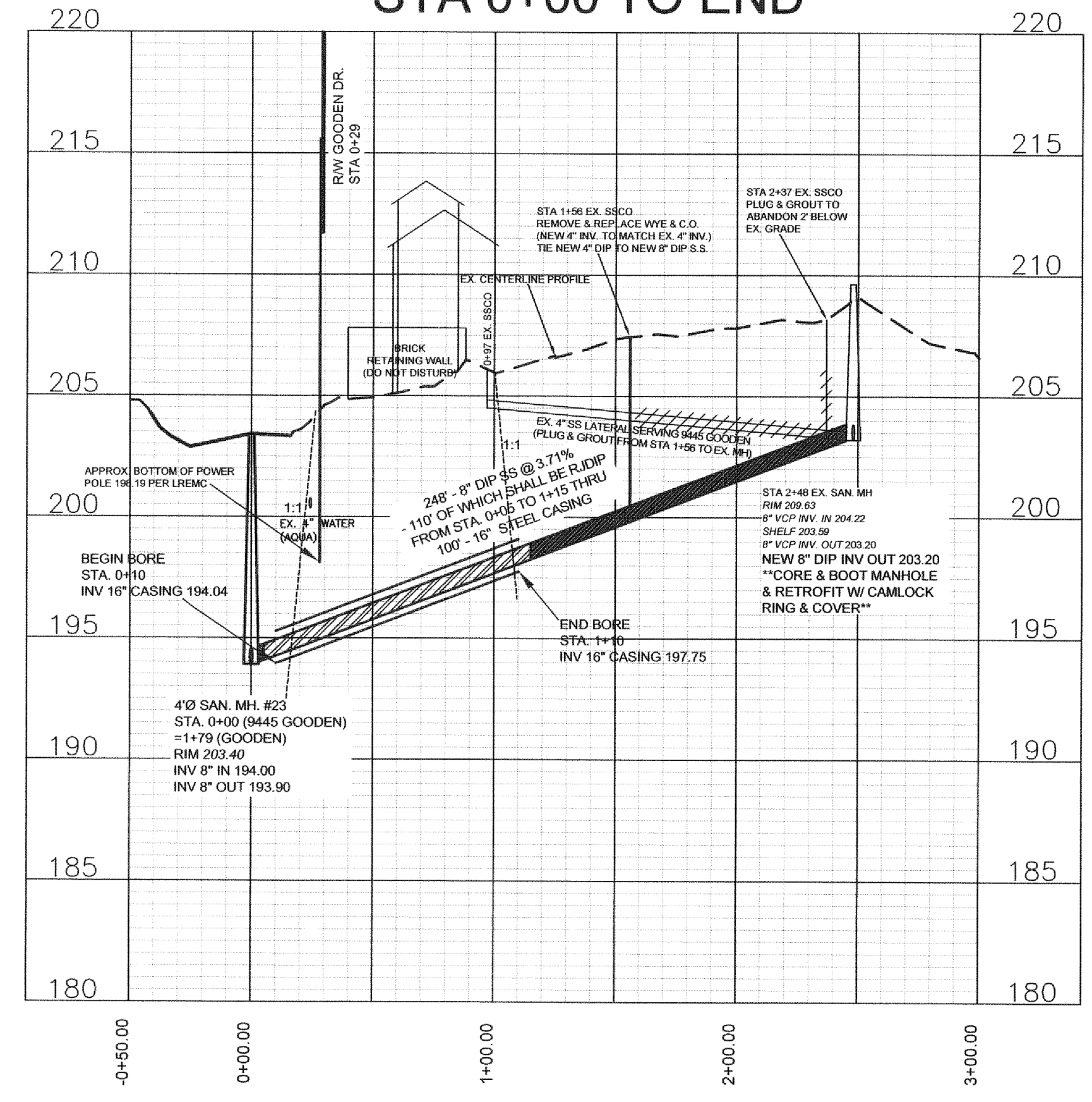
Parcel Number	Address	Special Conditions
9487-71-4021	9445 Gooden Drive	Temporary Fencing Required along TCE. Temporary fence should be 6 ft. High. Remove/dispose of satellite dish at edge of PUE in front yard.



**PROFILE D
STA 0+00 TO END**



**9445 GOODEN DR.
STA 0+00 TO END**



PWC DWG #15380

Drawn by David Maples
Checked by David E. Vaughn, PE, PLS
Reviewed by Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

**Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILE D & 9445 GOODEN DR. 0+00 to End**

Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-10106

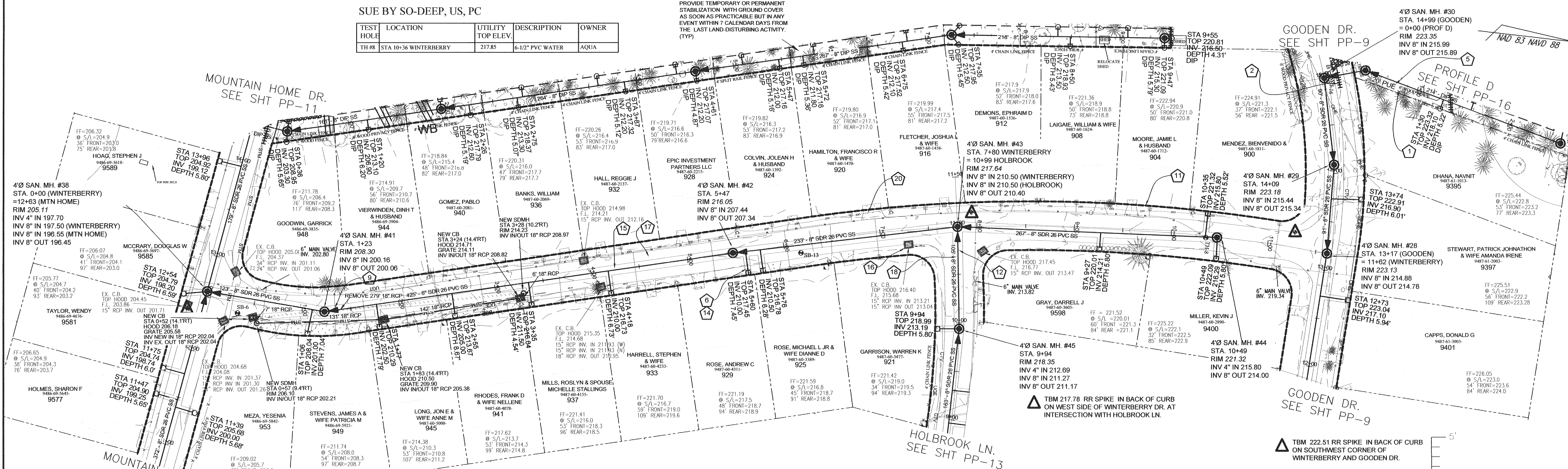
M&R
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KIZER & REITZEL, INC.

Scale: 1" = 50' HOR
1" = 5' VER
Book no.
Sheet: PP-16

SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH#8	STA 10+36 WINTERBERRY	217.85	6-1/2" PVC WATER	AQUA

PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. (TYP)

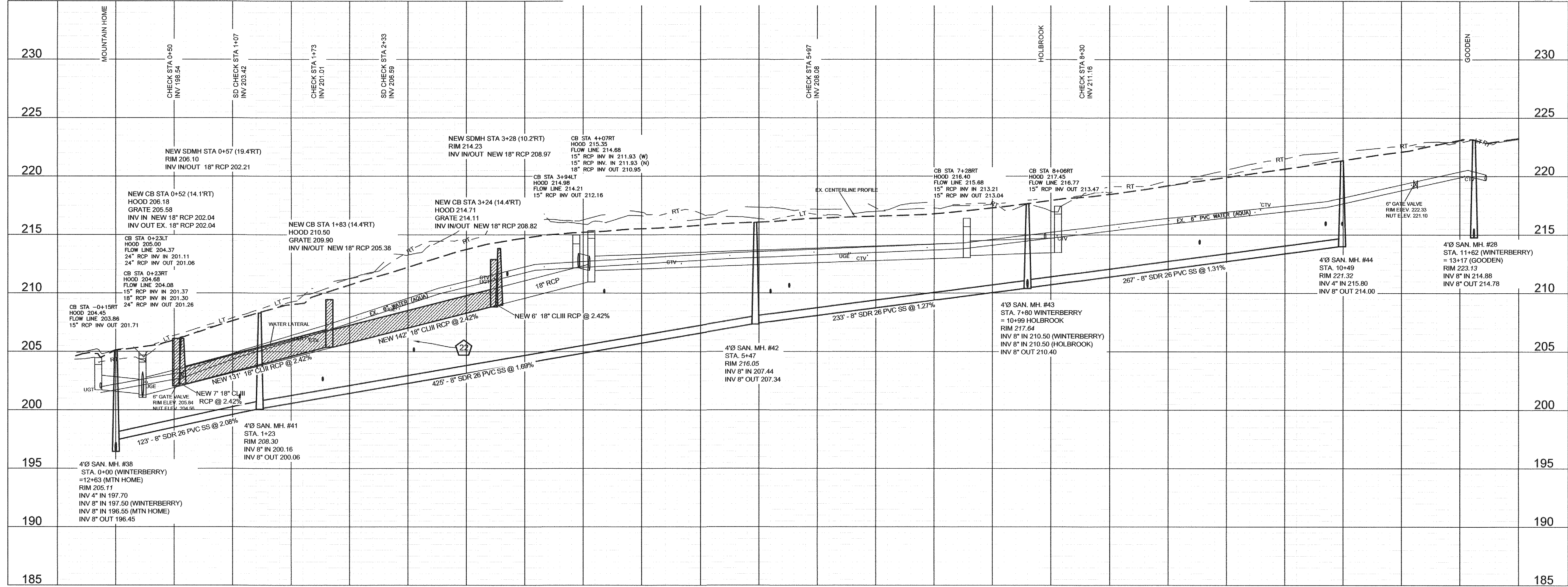
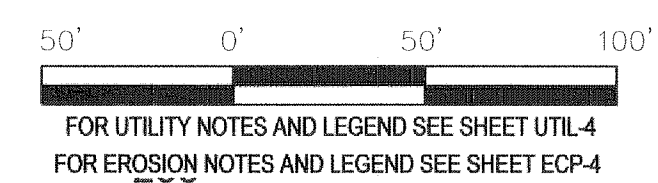


**WINTERBERRY DR. 50' ROW
STA 0+00 TO END
29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB**

▲ TBM 204.27 RR SPIKE IN BACK OF CURB BY CB ON SOUTH SIDE OF MOUNTAIN HOME DR. AT INTERSECTION WITH WINTERBERRY DR.

▲ TBM 217.78 RR SPIKE IN BACK OF CURB ON WEST SIDE OF WINTERBERRY DR. AT INTERSECTION WITH HOLBROOK LN.

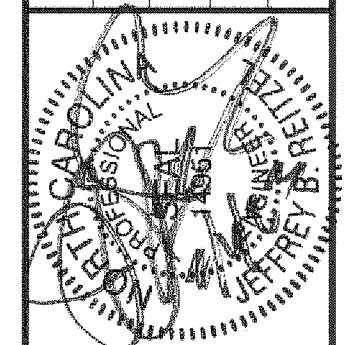
▲ TBM 222.51 RR SPIKE IN BACK OF CURB ON SOUTHWEST CORNER OF WINTERBERRY AND GOODEN DR.



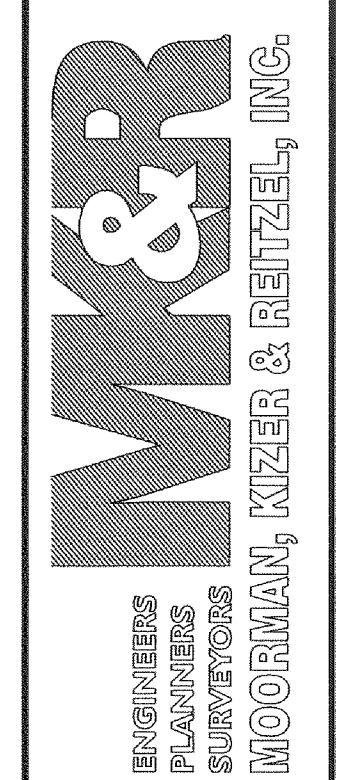
Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
Winterberry Dr. STA 0+00 to END

Revision	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

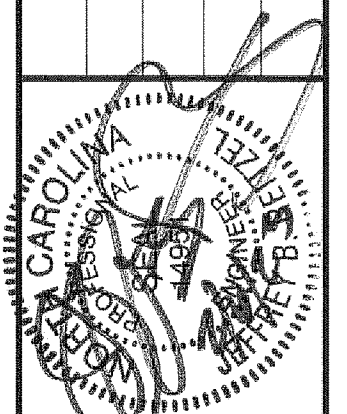


Scale: 1" = 50' HOR
1" = 5' VER
Book No.
Sheet PP-17

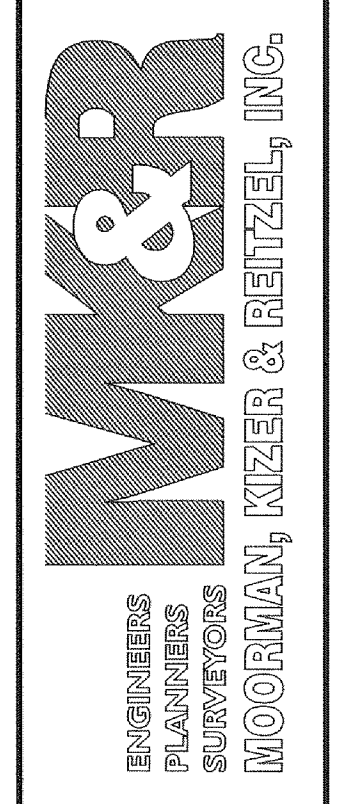
PWC DWG #15380

Fayetteville Annexation Phase V
 Construction Project XI
 Area 25 - Lake Rim Estates
 Hollydale Ln. STA 0+00 to End

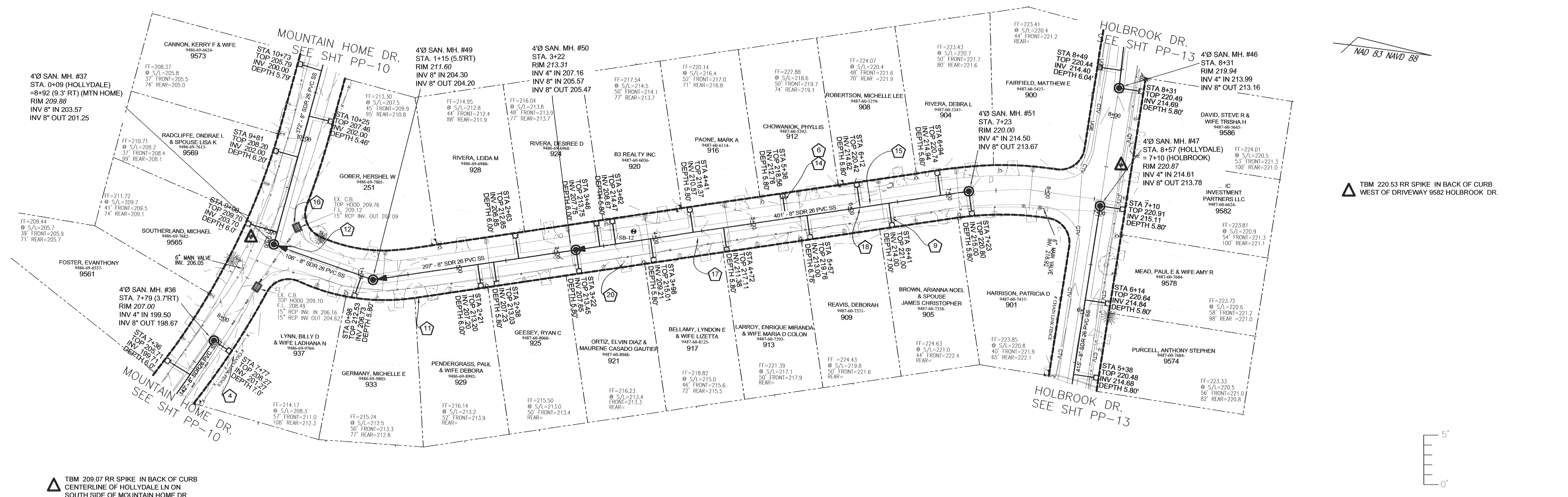
Revision	By	Date



115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106



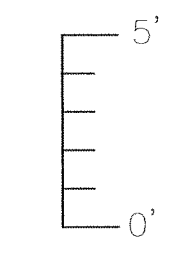
Scale: 1" = 50' HOR
 1" = 5' VER
 Book no.
 Sheet PP-18



NAD 83 NAVD 88

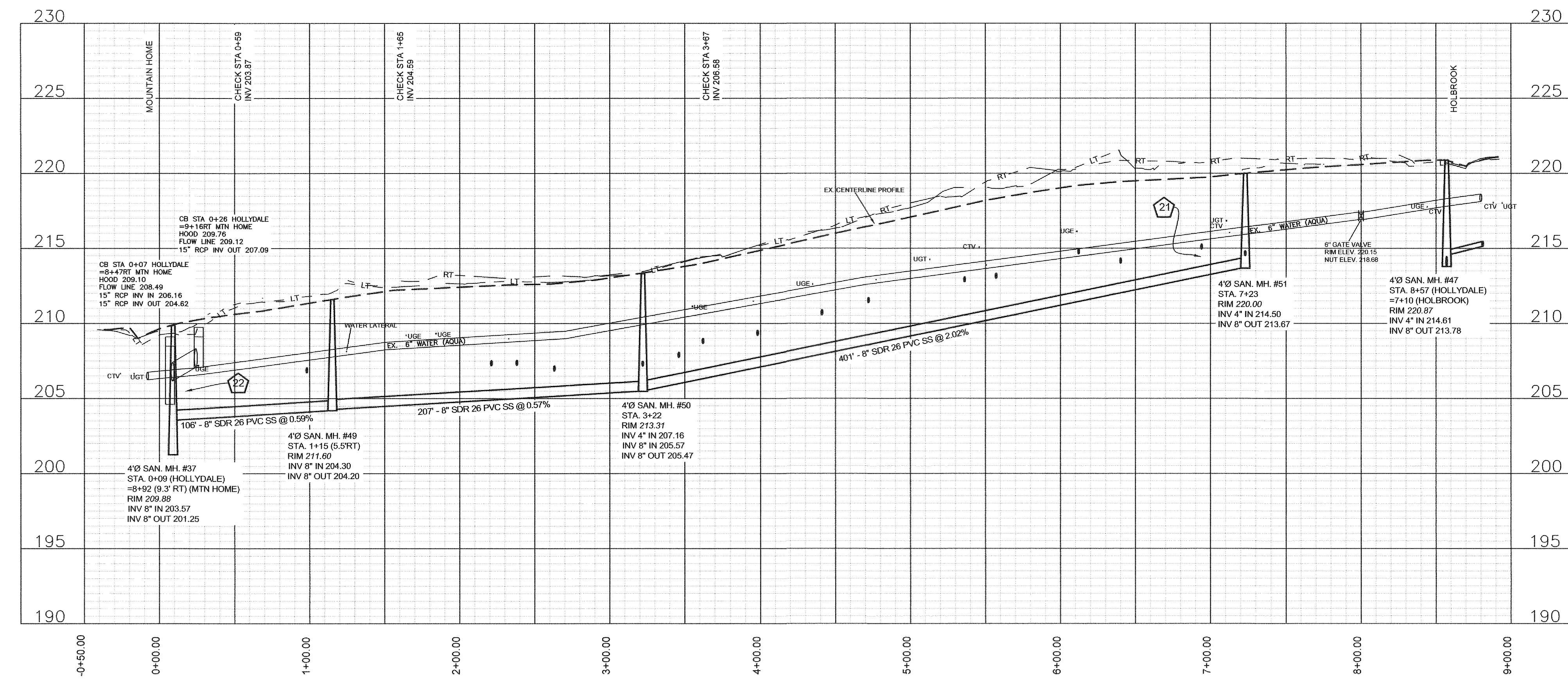
TBM 220.53 RR SPIKE IN BACK OF CURB WEST OF DRIVEWAY 9582 HOLBROOK DR.

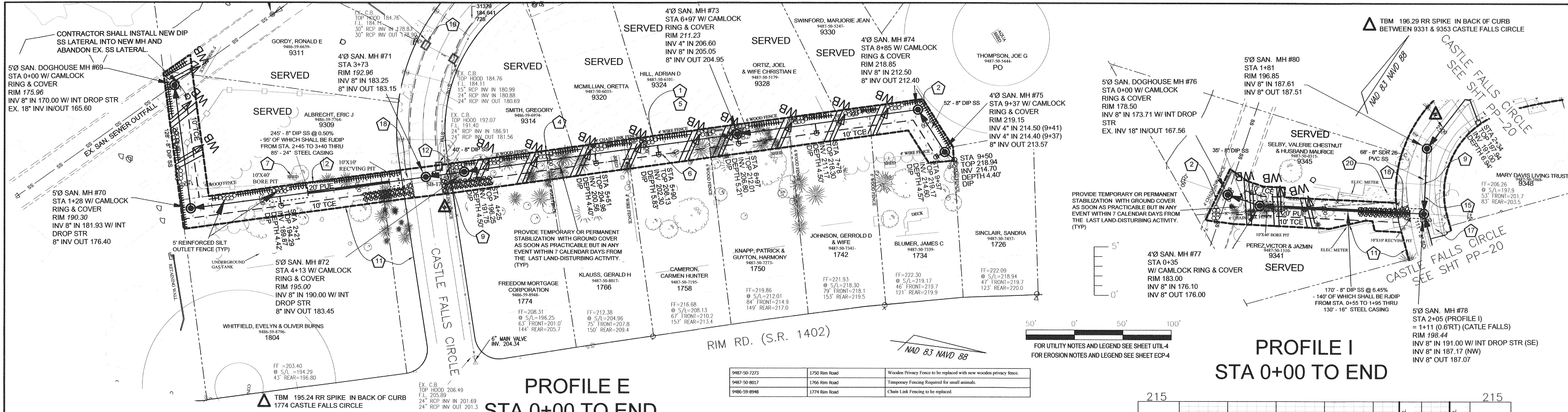
TBM 209.07 RR SPIKE IN BACK OF CURB CENTERLINE OF HOLLYDALE LN ON SOUTH SIDE OF MOUNTAIN HOME DR.



FOR UTILITY NOTES AND LEGEND SEE SHEET UTL-4
 FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

HOLLYDALE LN. 50' ROW
 STA 0+00 TO END
 29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPH. CURB

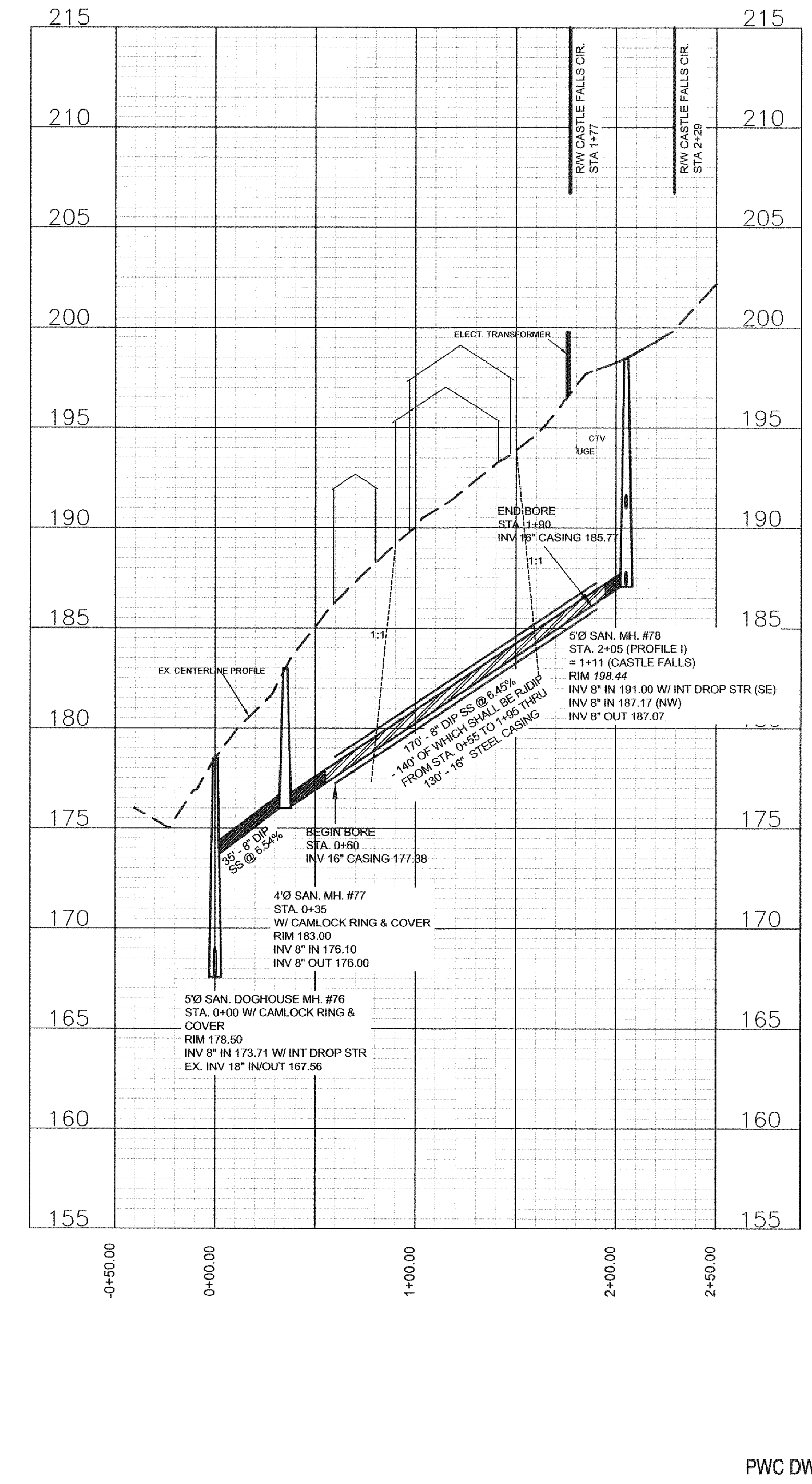
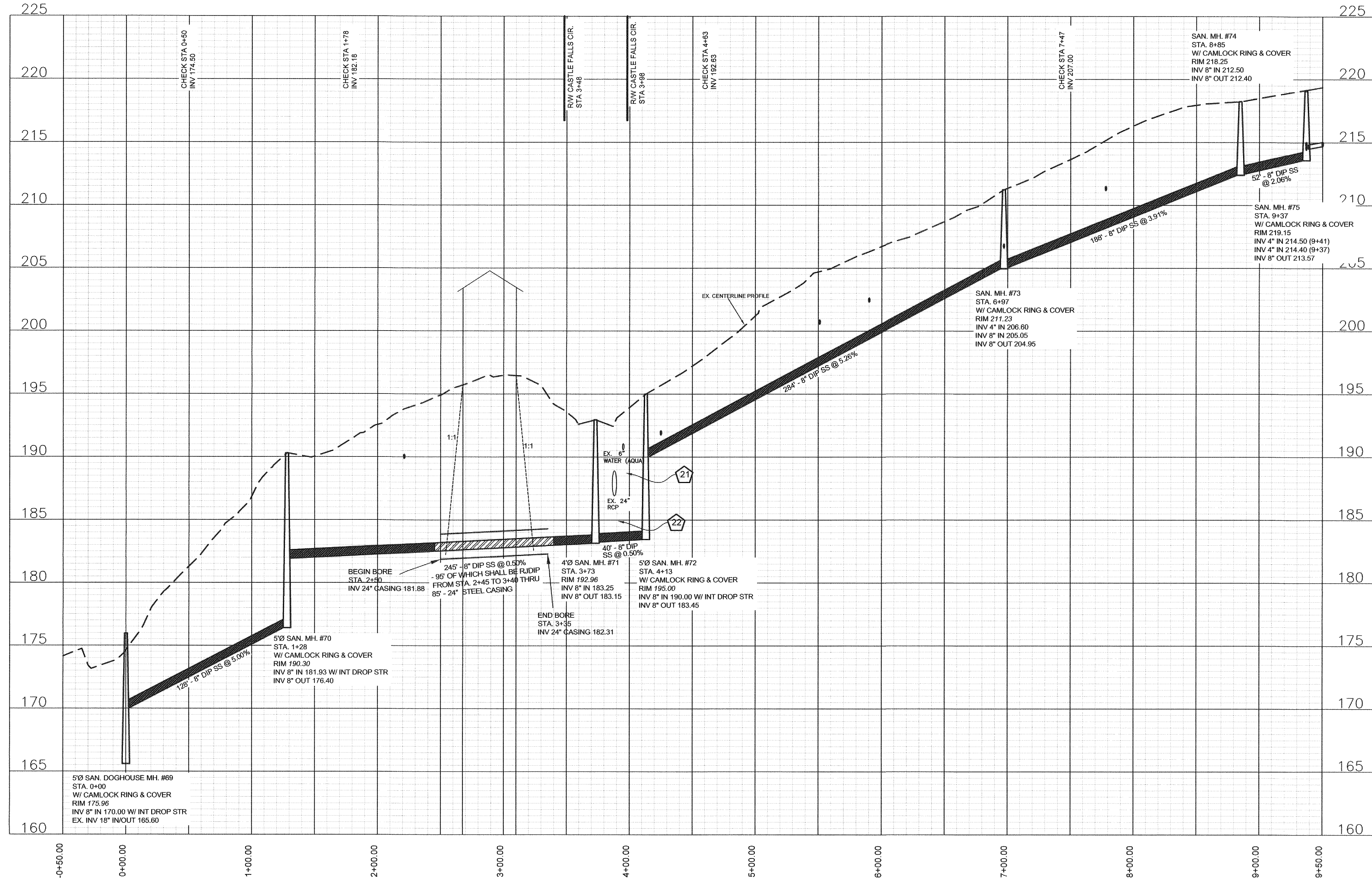




**PROFILE E
STA 0+00 TO END**

**PROFILE I
STA 0+00 TO END**

9487-50-7273	1750 Rim Road	Wooden Privacy Fence to be replaced with new wooden privacy fence.
9487-50-8017	1766 Rim Road	Temporary Fencing Required for small animals.
9486-59-8998	1774 Rim Road	Chain Link Fencing to be replaced.



PWC DWG #15380

Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

**Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILES E & I STA -0+50 to END**

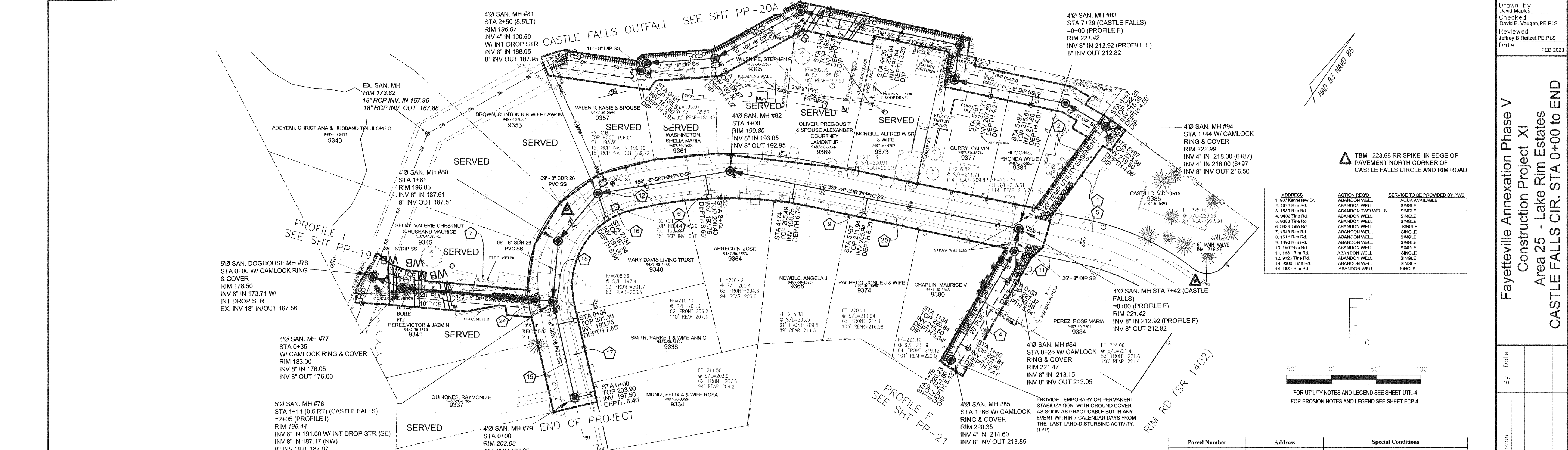
Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

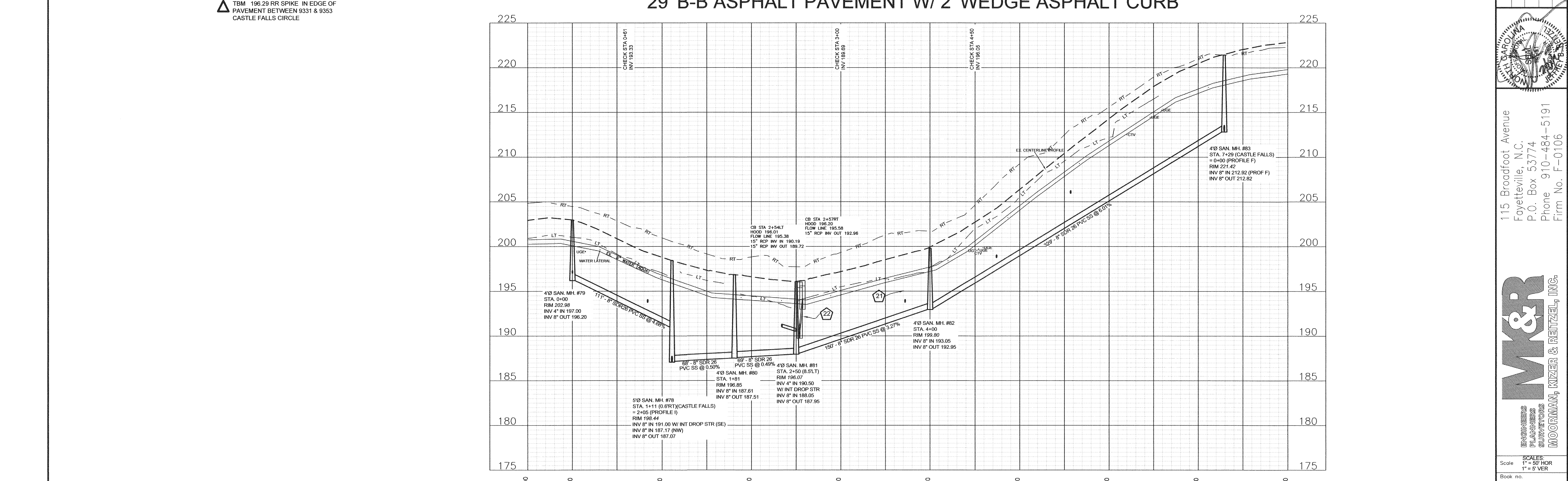
M&R
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KNEER & REITZEL, INC.

Scale: 1" = 50' HOR
1" = 5' VER

Book no.
Sheet: PP-19



**CASTLE FALLS CIRCLE 50' ROW
STA 0+00 TO END
29' B-B ASPHALT PAVEMENT W/ 2' WEDGE ASPHALT CURB**



Parcel Number	Address	Special Conditions
9487-50-1688	9361 Castle Falls Circle	Possible septic conflict.
9487-50-4871	9377 Castle Falls Circle	Temporary Fencing Required.

Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date FEB 2023

Fayetteville Annexation Phase V
 Construction Project XI
 Area 25 - Lake Rim Estates
 CASTLE FALLS CIR. STA 0+00 TO END

By	Date	Revision

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

M&R
 ENGINEERS
 PLANNERS
 SURVEYORS
 MOORMAN, KIZER & REITZEL, INC.

Scale: 1" = 50' HOR
1" = 5' VER

Book no.
Sheet: PP-20

EX. SAN. MH
RIM 177.82
SHELF 169.69
NEW 8" INV IN 169.79
(CORE & BOOT MH)
18" RCP INV. IN 168.70
18" RCP INV. OUT 168.63
RETROFIT W/ CAMLOCK
RING & COVER

PROVIDE TEMPORARY OR PERMANENT
STABILIZATION WITH GROUND COVER
AS SOON AS PRACTICABLE BUT IN ANY
EVENT WITHIN 7 CALENDAR DAYS FROM
THE LAST LAND-DISTURBING ACTIVITY
(TYP)

EX. SAN. MH
RIM 180.86
8" PVC INV IN 172.06 W/ DROP
SHELF 169.39
18" PVC INV. IN 168.35
18" PVC INV. OUT 168.34

4" DOGHOUSE SAN. MH #87
STA 0+90 W/ CAMLOCK RING
& COVER
RIM 184.62
INV 4" IN 180.26
INV 8" OUT 178.43

4" SAN. MH #88
STA 1+00 W/ CAMLOCK
RING & COVER
RIM 183.90
INV 4" IN 178.58
INV 8" OUT 178.48

4" SAN. MH #89
STA 1+77 W/ CAMLOCK
RING & COVER
RIM 185.73
INV 4" IN 181.30
INV 8" OUT 179.07

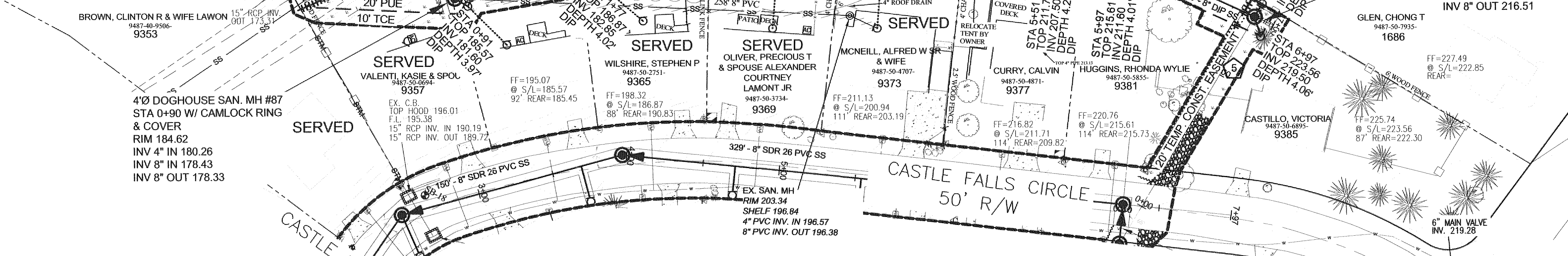
4" SAN. MH #90
STA 2+86 W/ CAMLOCK
RING & COVER
RIM 189.59
INV 4" IN 183.10
INV 8" OUT 183.00

4" SAN. MH #91
STA 4+68 W/ CAMLOCK
RING & COVER
RIM 204.96
INV 4" IN 198.89
INV 8" IN 198.05
INV 8" OUT 197.95

4" SAN. MH #92
STA 5+08 W/ CAMLOCK
RING & COVER
RIM 208.26
INV 8" IN 201.47
INV 8" OUT 201.37

4" SAN. MH #93
STA 6+36 W/ CAMLOCK
RING & COVER
RIM 218.35
INV 8" OUT 212.09

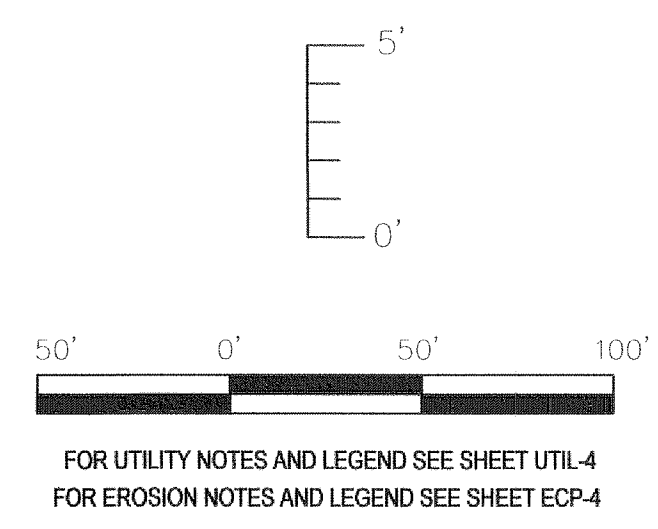
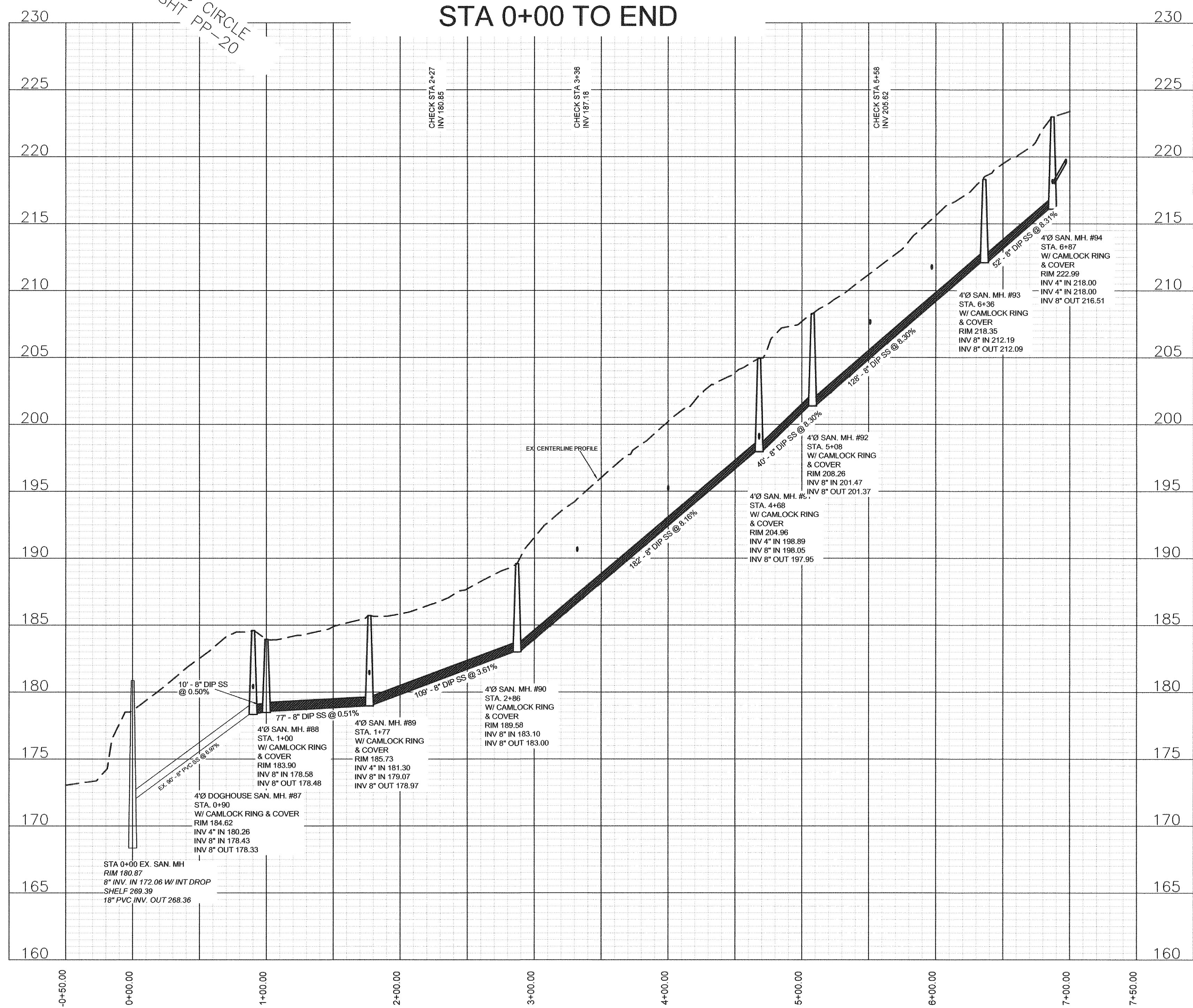
4" SAN. MH #94
STA 6+87 W/ CAMLOCK
RING & COVER
RIM 222.99
INV 4" IN 218.00
INV 4" IN 218.00
INV 8" OUT 216.51



Parcel Number	Address	Special Conditions
9487-50-1688	9361 Castle Falls Circle	Possible septic conflict.
9487-50-4871	9377 Castle Falls Circle	Temporary Fencing Required.

- The Contractor shall install new sanitary sewer main, manholes and cleanouts while maintaining existing active sanitary sewer service.
- The Contractor shall obtain approval from PWC of the new sanitary sewer main, manholes and cleanouts from PWC when completed.
- Once PWC has accepted the new sanitary sewer and notified the contractor that the existing services can be tied into the new sanitary sewer cleanouts, the Contractor shall hire a N.C. licensed plumber to connect existing house sewers to the new sanitary sewer system cleanouts beginning at the upstream service at 9373 Castle Falls Circle and continuing the transfer of services at 9369, 9365 & 9361 Castle Falls Circle from upstream to downstream.
- The sewer main penetration from the existing lateral being abandoned shall be repaired/plugged immediately after tie in to the new sewer cleanout at each residence.
- Existing sewer main shall remain active until all residences are tied into the new sewer main and approved by PWC.
- Contractor shall include in his bid installing a new cleanout near the residence at an elevation that allows for the tie in (change over) of the existing house sewer main cleanout to the new sewer lateral while crossing the existing active sewer main to connect to the new sewer main without conflict.
- Once all residences are tied to the new sanitary sewer and accepted by PWC, the Contractor shall abandon the existing sanitary sewer as follows:
 - Contractor shall plug the existing 8" sewer main invert in to the new doghouse manhole at Sta 0+90 and the upstream manhole invert out at 9373 Castle Falls Circle with brick and mortar. The abandoned sewer main shall be filled with Portland cement grout.
 - The ring, cover and concrete riser are to be removed from the upstream manhole at 9373 Castle Falls Circle. Manhole shall be filled with compacted onsite soils.
- Contractor shall be responsible for temporary pumping and hauling of sanitary sewer as necessary to accommodate construction.
- Manhole ring and cover removed shall be delivered to PWC's warehouse.
- The Contractor shall schedule and coordinate all work with the PWC Project Coordinator 10 days in advance of beginning work.

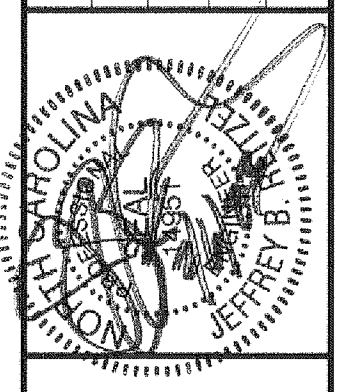
ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 967 Kennesaw Dr.	ABANDON WELL	AQIA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9398 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1463 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9329 Time Rd.	ABANDON WELL	SINGLE
13. 9360 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE



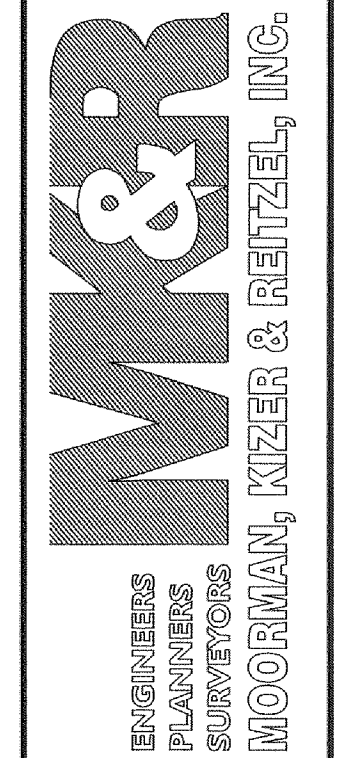
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Retzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
CASTLE FALLS OUTFALL STA 0+00 TO END

Revision	By	Date



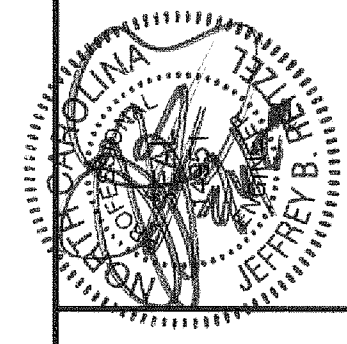
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



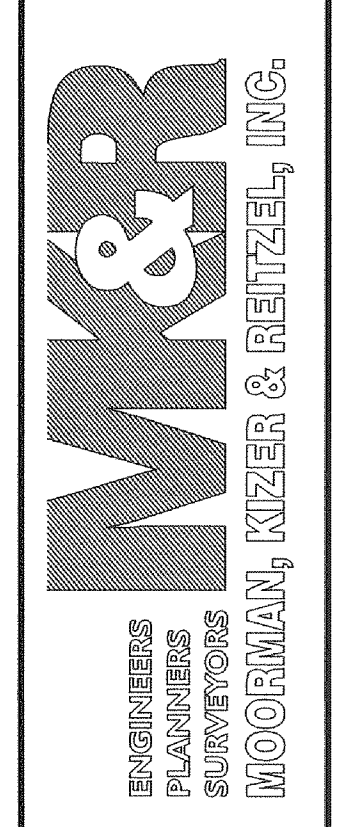
Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-20A

PWC DWG #15380

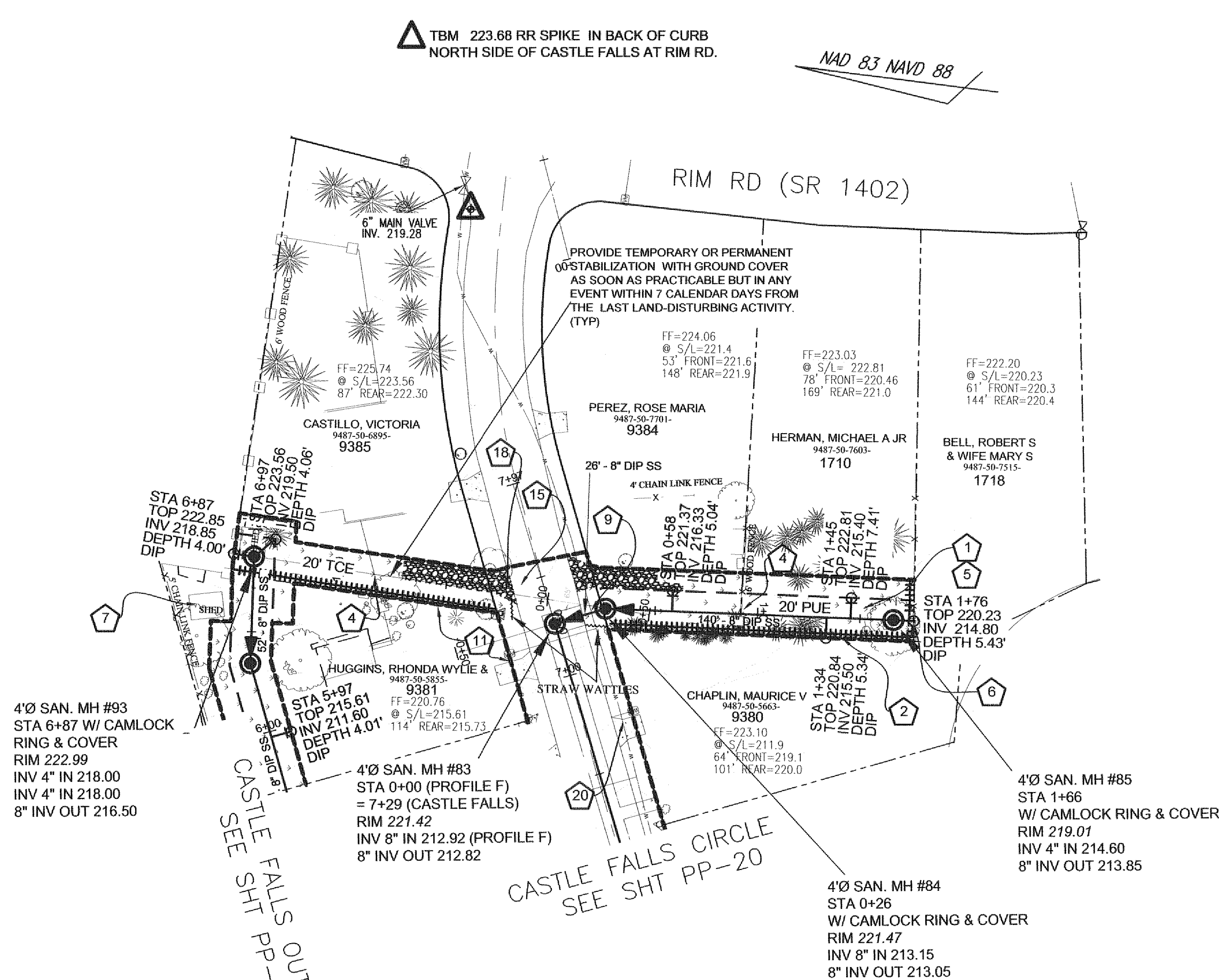
Revision	By	Date



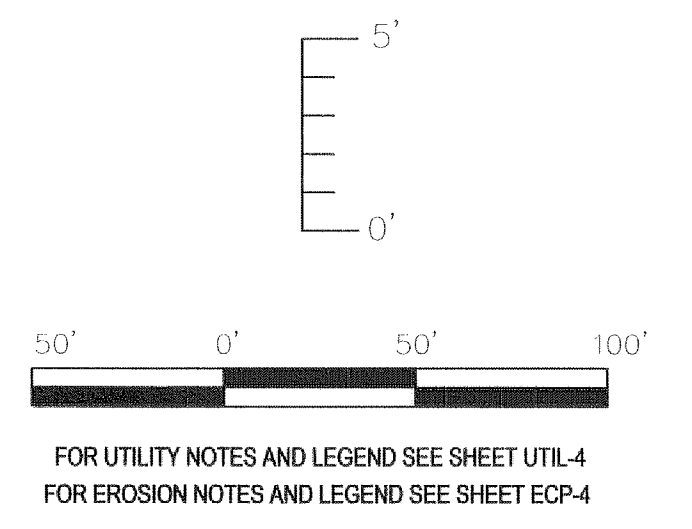
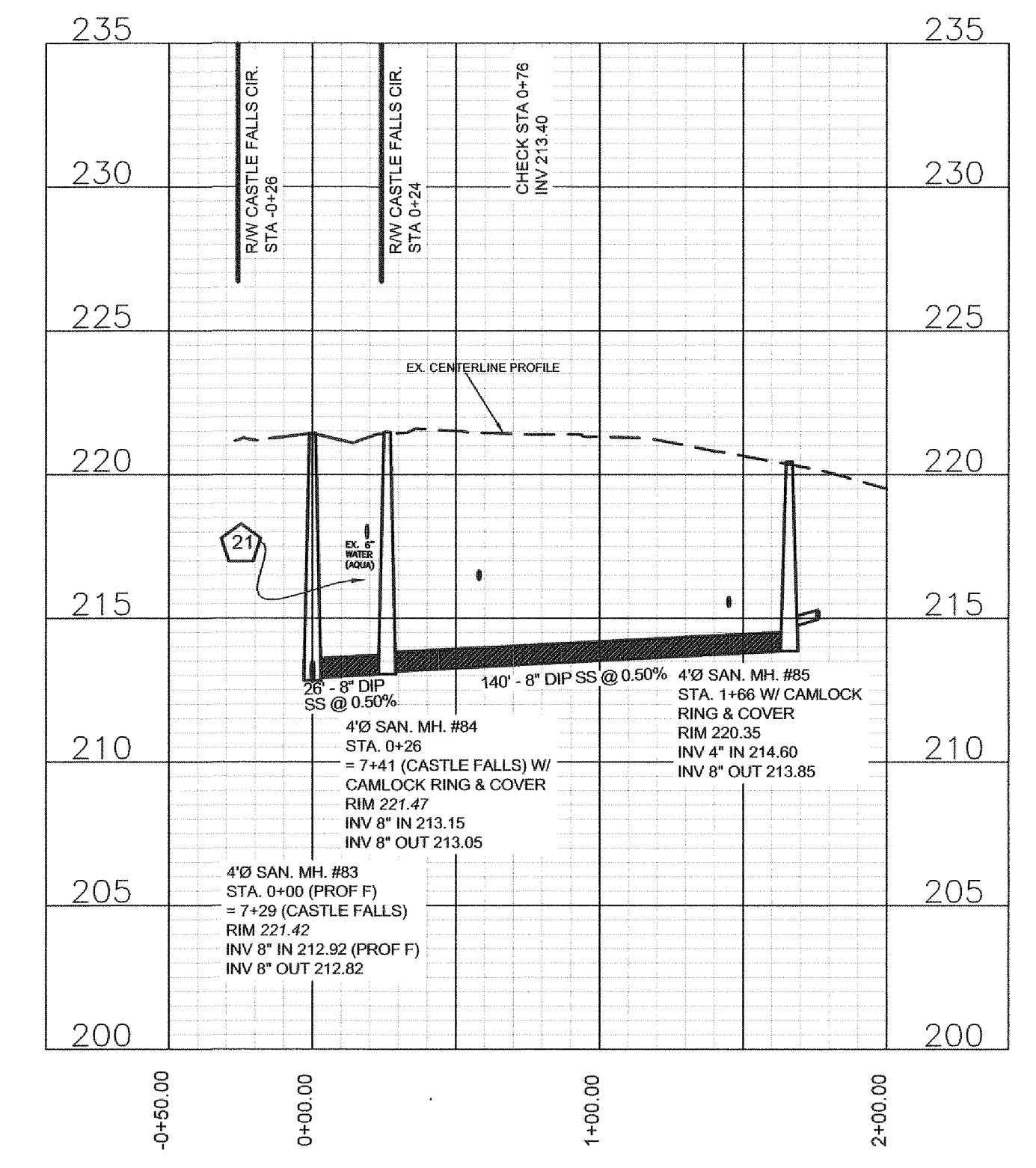
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

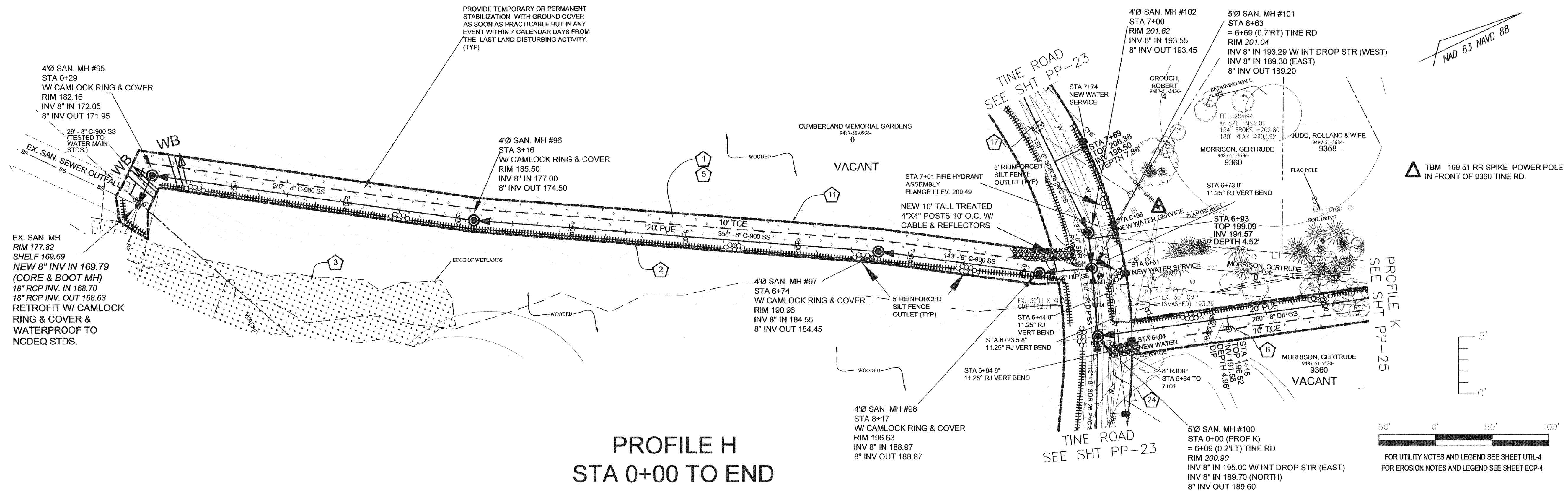


Scale
Book no.
Sheet
PP-21



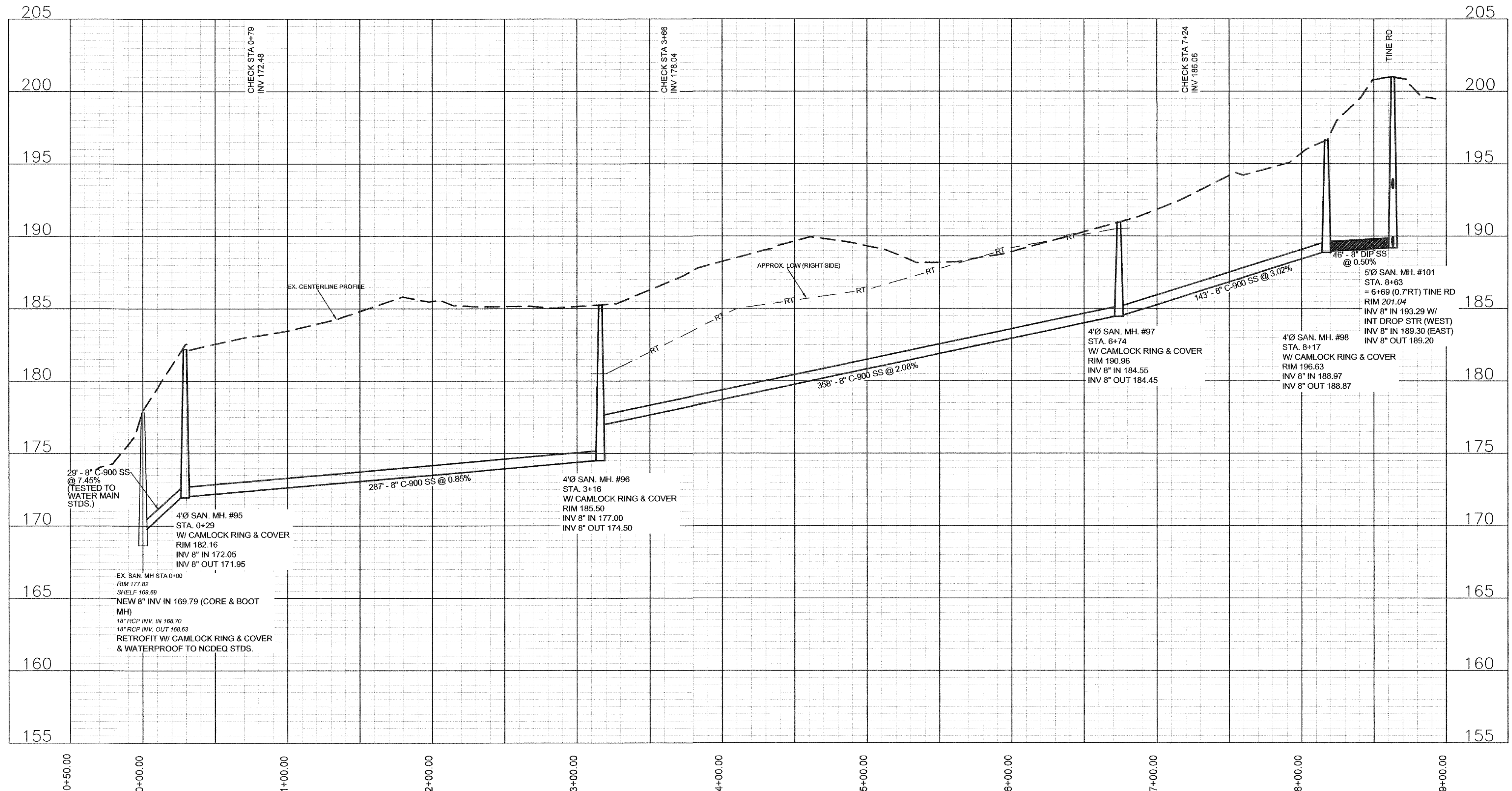
**PROFILE F
STA -0+00 TO END**





**PROFILE H
STA 0+00 TO END**

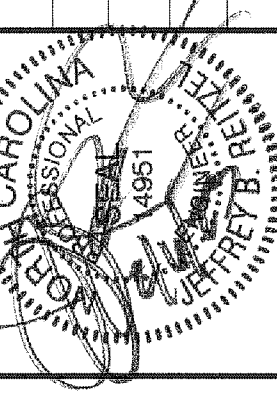
Parcel Number	Address	Special Conditions
9487.50-0936		Remove all trees, stumps, and roots from easement area. Sod all areas disturbed by utility construction.



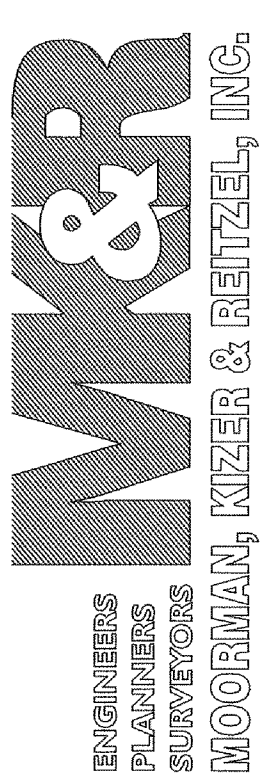
PWC DWG #15380

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILE H STA 0+00 to End

By	Date	Revision

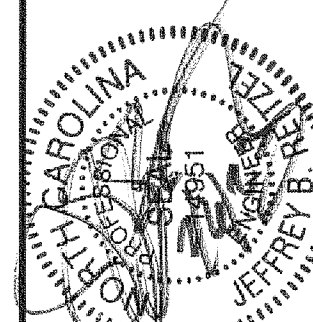


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

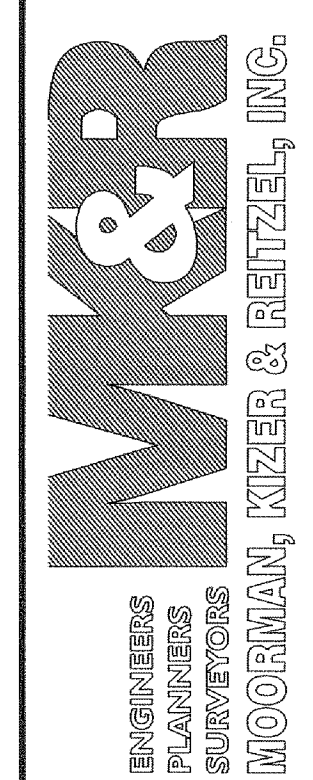


Scale	Book No.	Sheet
1" = 50' HOR 1" = 5' VER		PP-22

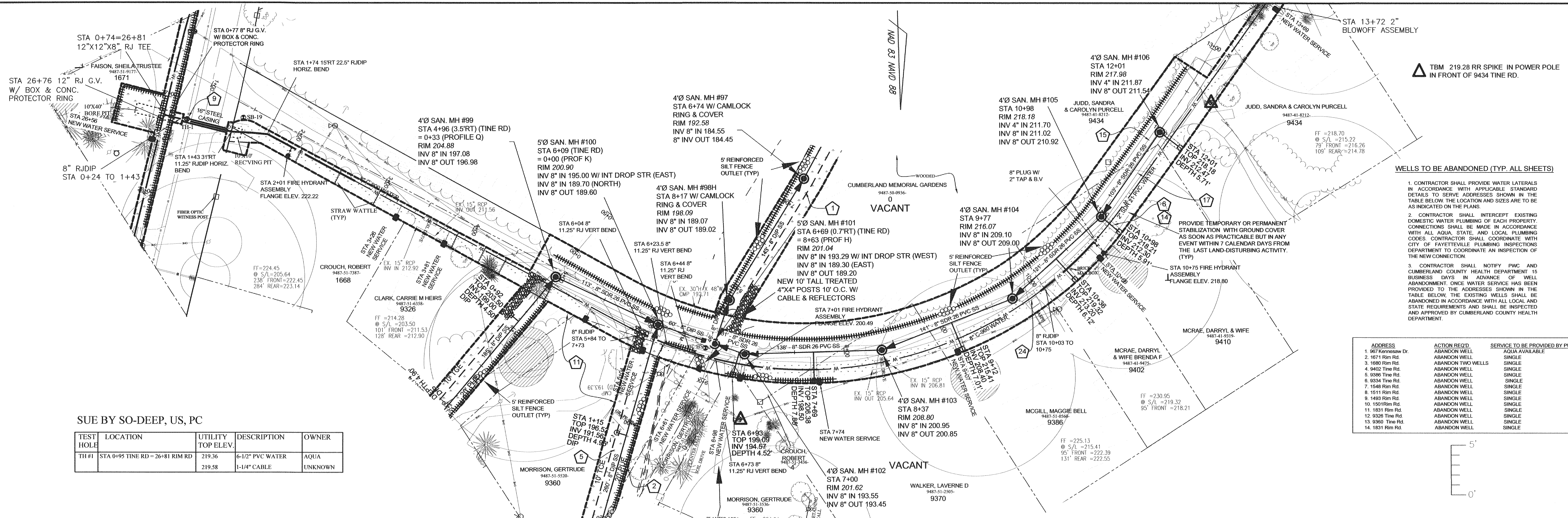
By	Date	Revision



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Sheet
PP-23



ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 987 Karmah Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd	ABANDON WELL	SINGLE
3. 1680 Rim Rd	ABANDON TWO WELLS	SINGLE
4. 9402 Tine Rd	ABANDON WELL	SINGLE
5. 9386 Tine Rd	ABANDON WELL	SINGLE
6. 9334 Tine Rd	ABANDON WELL	SINGLE
7. 1548 Rim Rd	ABANDON WELL	SINGLE
8. 1511 Rim Rd	ABANDON WELL	SINGLE
9. 1465 Rim Rd	ABANDON WELL	SINGLE
10. 1501 Rim Rd	ABANDON WELL	SINGLE
11. 1831 Rim Rd	ABANDON WELL	SINGLE
12. 9328 Tine Rd	ABANDON WELL	SINGLE
13. 9360 Tine Rd	ABANDON WELL	SINGLE
14. 1831 Rim Rd	ABANDON WELL	SINGLE

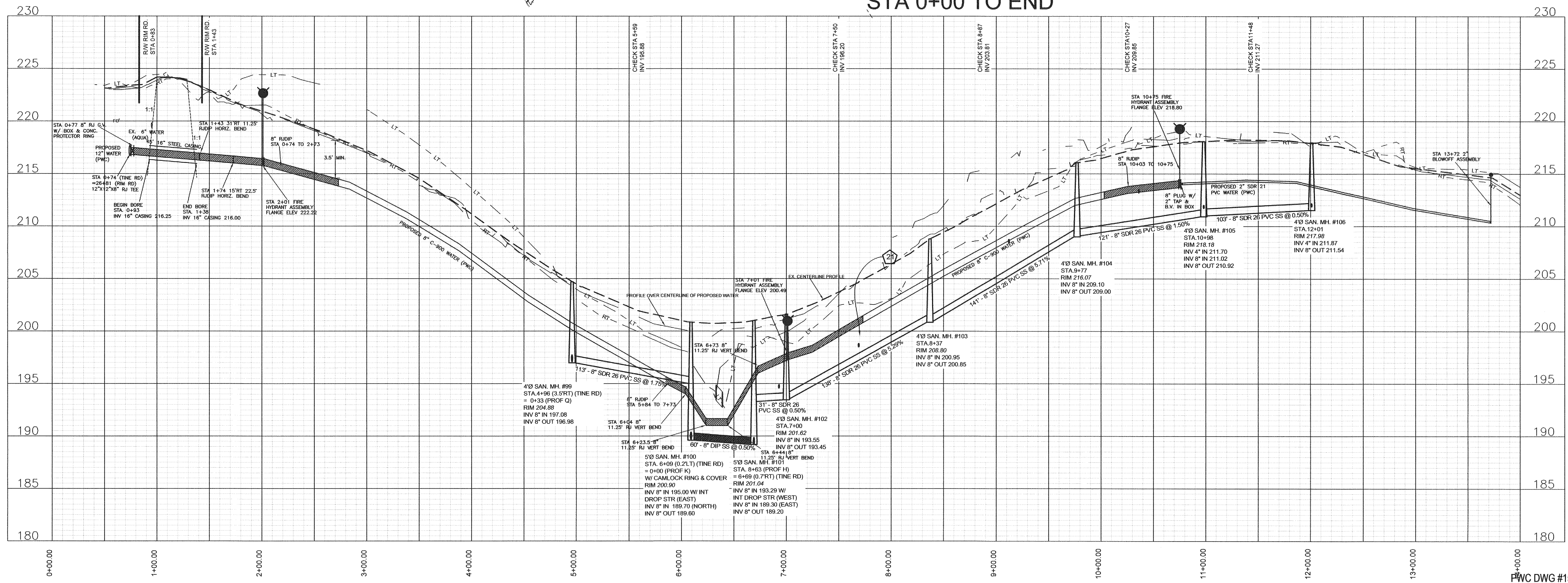
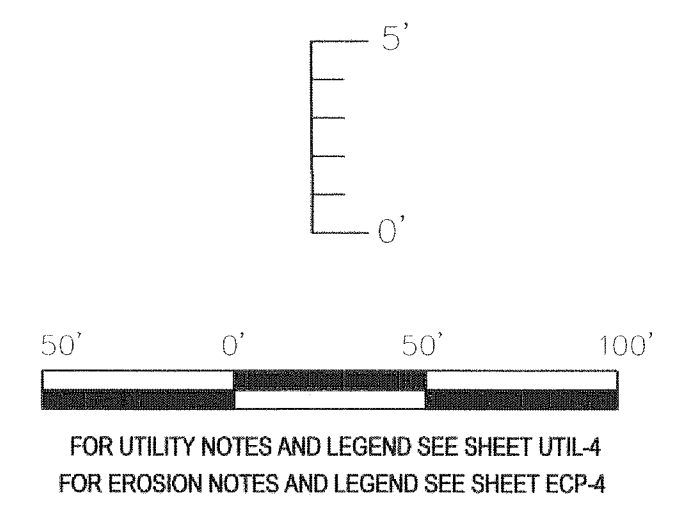
SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #1	STA 0+95 TINE RD = 26+81 RIM RD	219.36	6-12" PVC WATER	AQUA
		219.58	1-1/4" CABLE	UNKNOWN

Parcel Number	Address	Special Conditions
9487-50-0936		Remove all trees, stumps, and roots from easement area. Sod all areas disturbed by utility construction.

TINE ROAD 60' ROW
20' ASPHALT STRIP PAVEMENT
STA 0+00 TO END

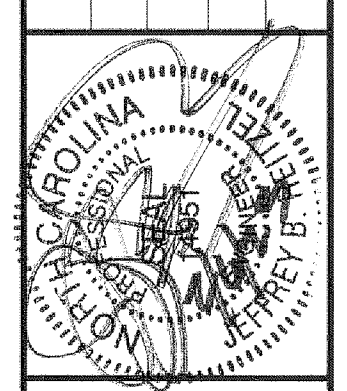
TBM 199.51 RR SPIKE IN POWER POLE
IN FRONT OF 9360 TINE RD.



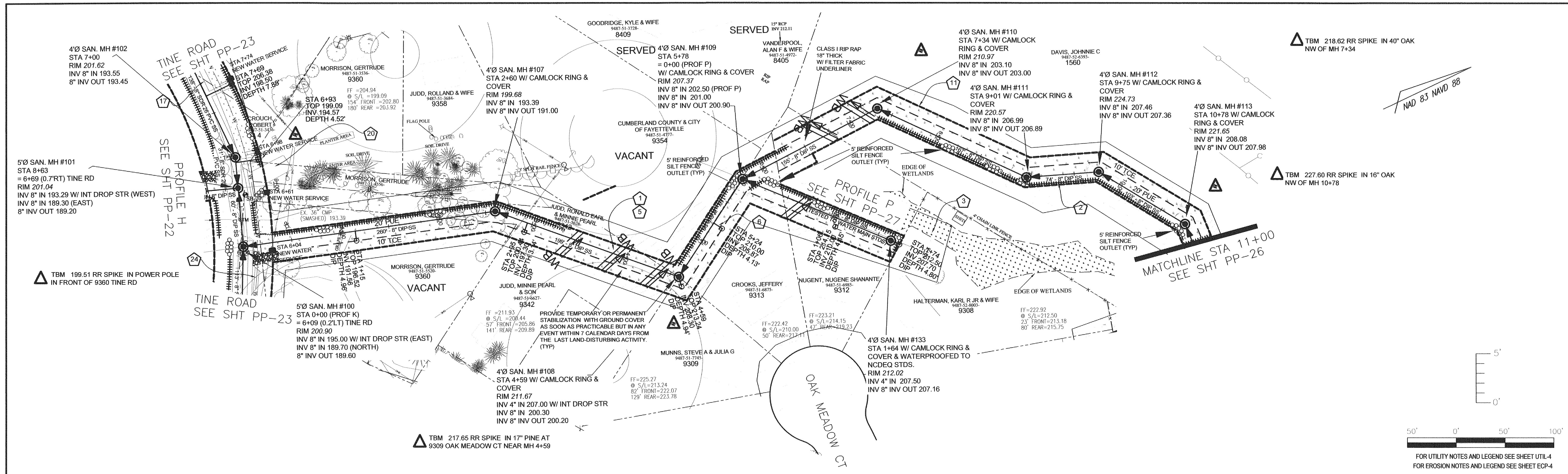
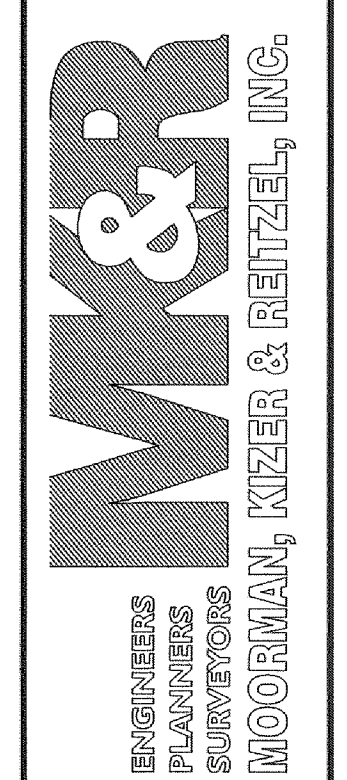
PWC DWG #15380

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILE K STA 0+00 TO 11+00

By	Date

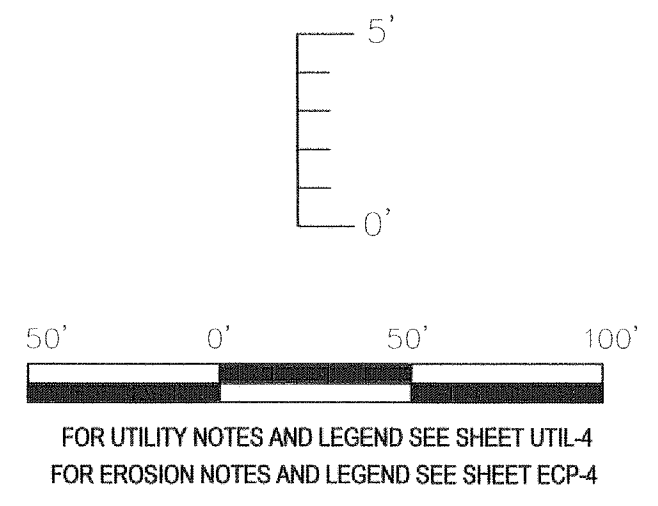
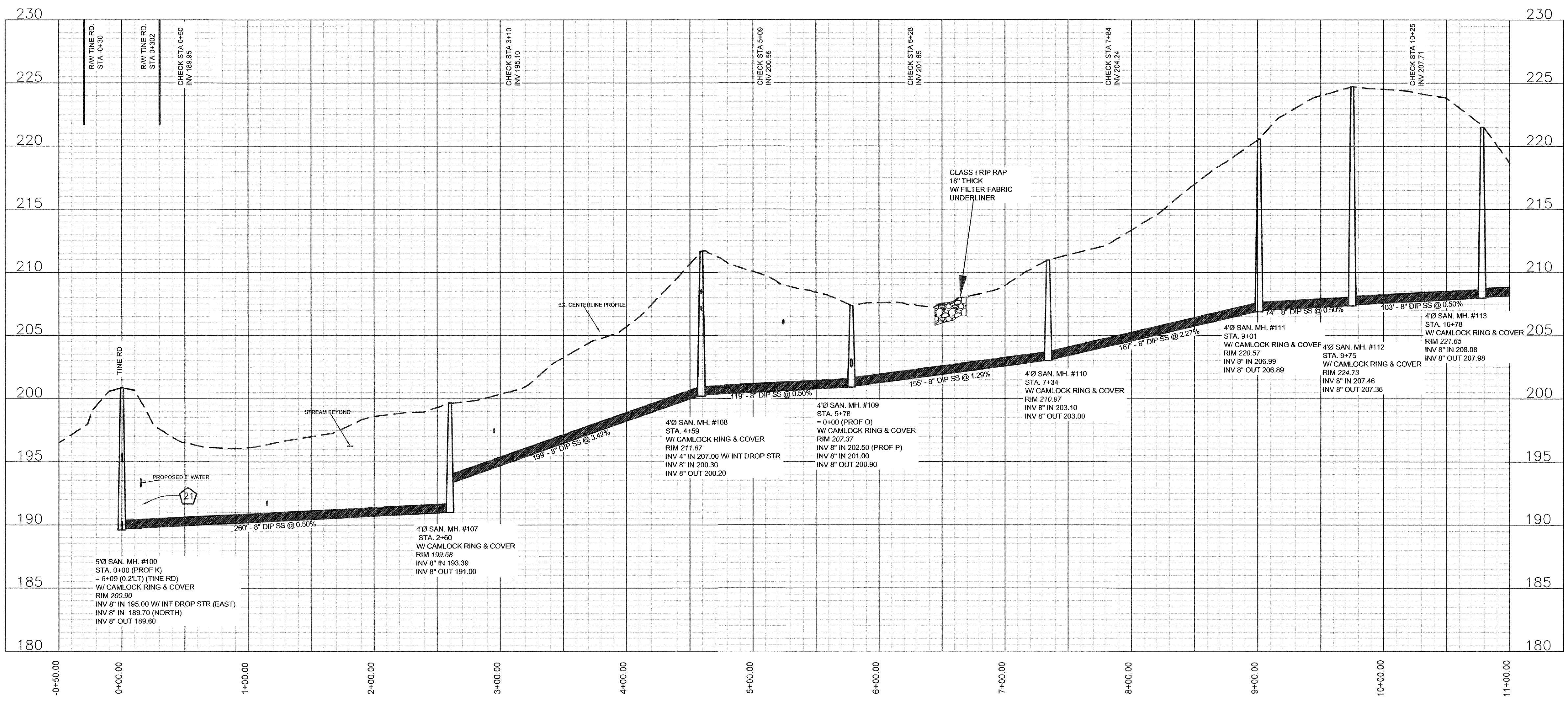


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

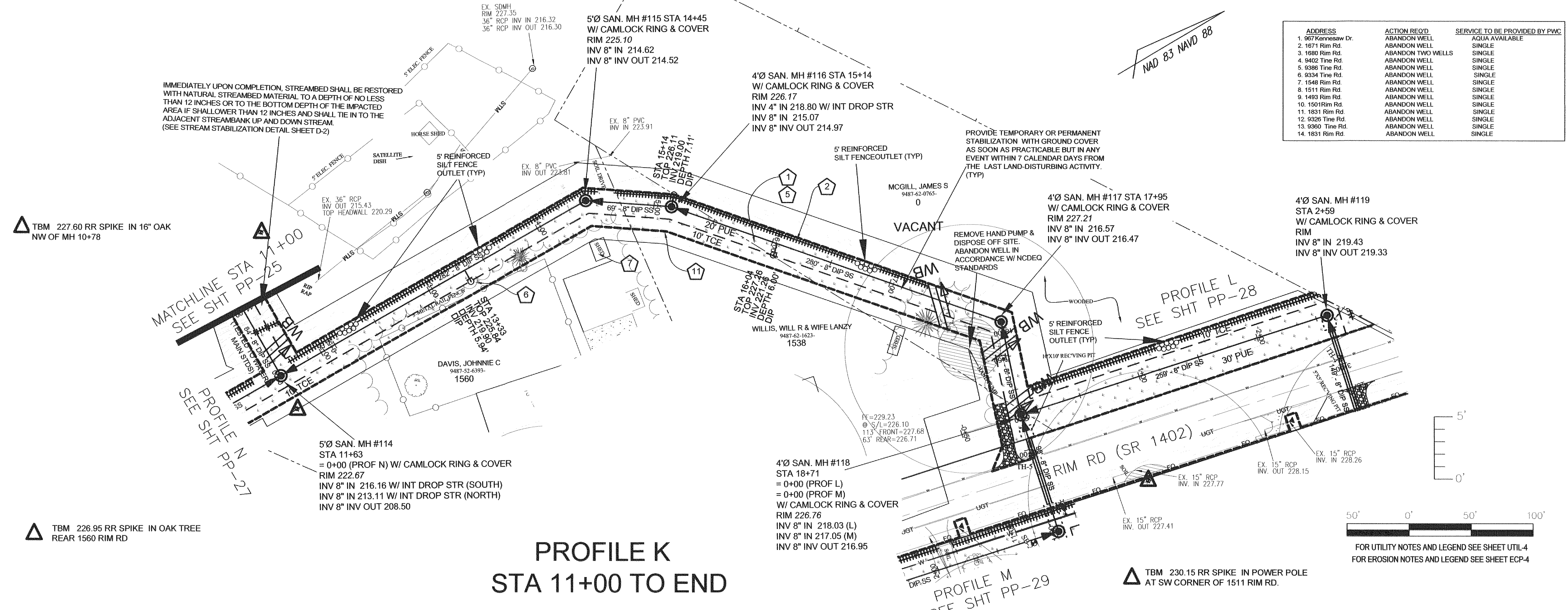


Parcel Number	Address	Special Conditions
9487-51-6597	9342 Tine Road	Temporary Fencing Required.

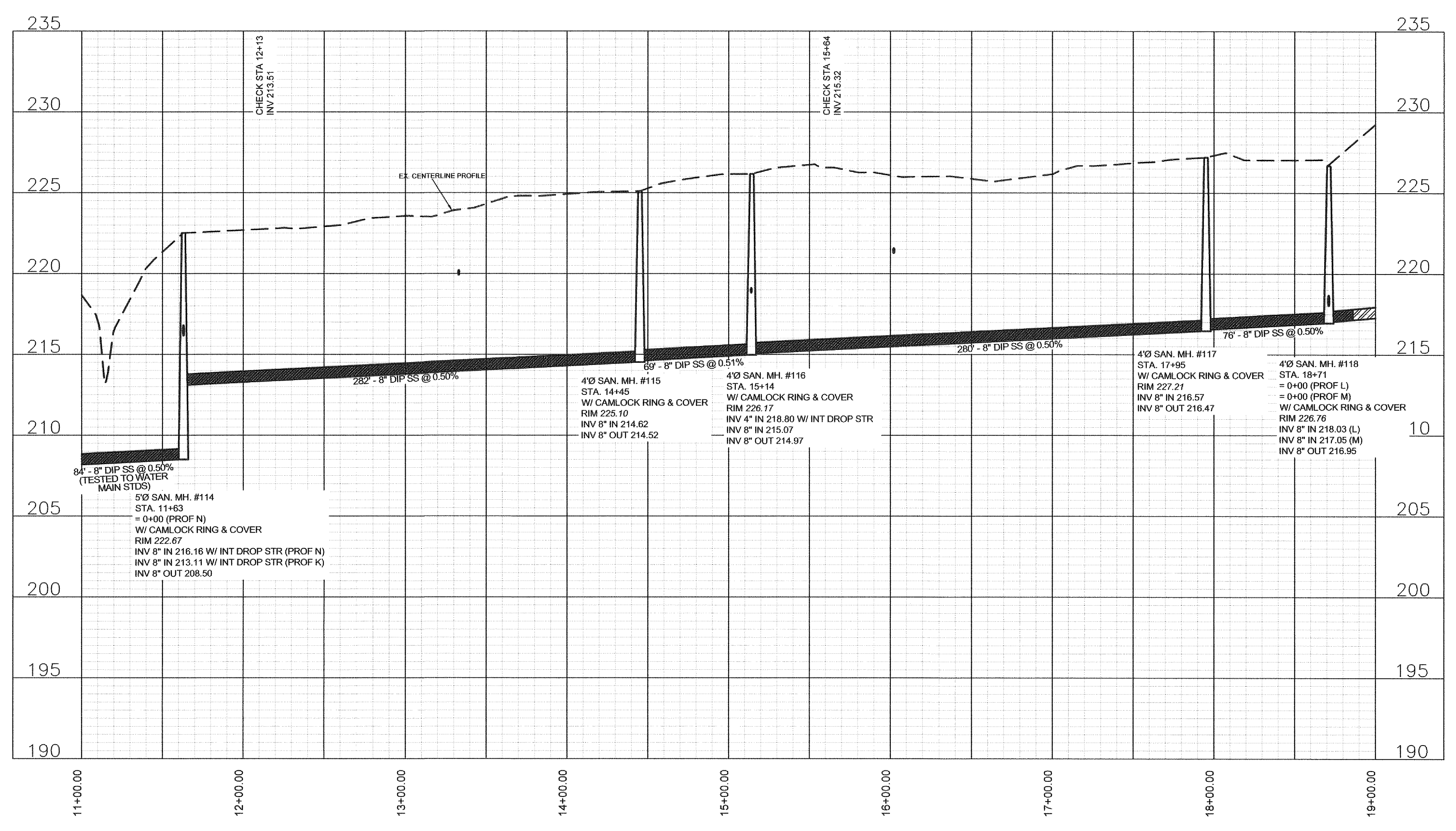
PROFILE K
STA 0+00 TO 11+00



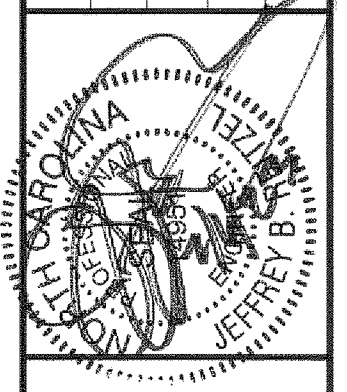
Address	Action Req'd.	Service to be Provided by PWS
1. 907 Keneaw Dr.	ABANDON WELL	ASUR AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1580 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9388 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1483 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1531 Rim Rd.	ABANDON WELL	SINGLE
12. 9329 Time Rd.	ABANDON WELL	SINGLE
13. 9360 Time Rd.	ABANDON WELL	SINGLE
14. 1631 Rim Rd.	ABANDON WELL	SINGLE



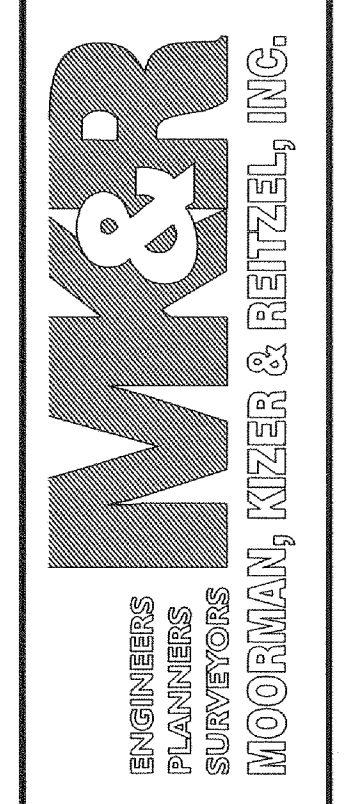
PROFILE K
STA 11+00 TO END



PWC DWG #15380



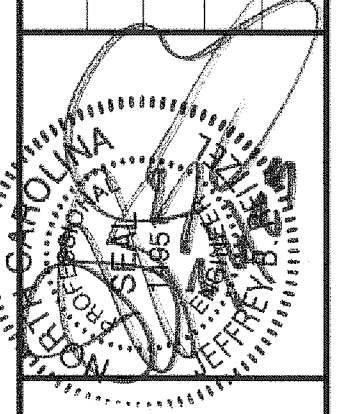
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



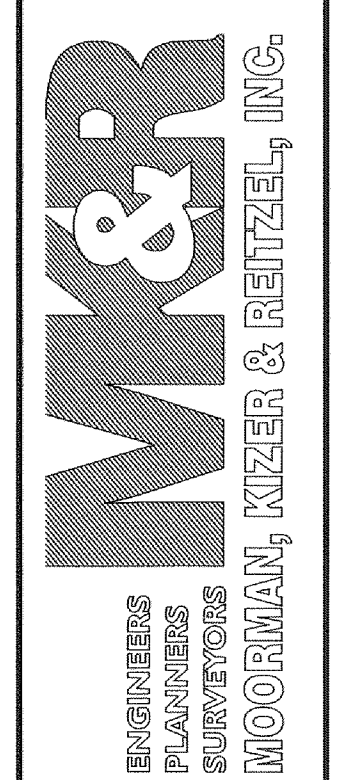
Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-26

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
PROFILES N & P STA 0+00 to End

By	Date

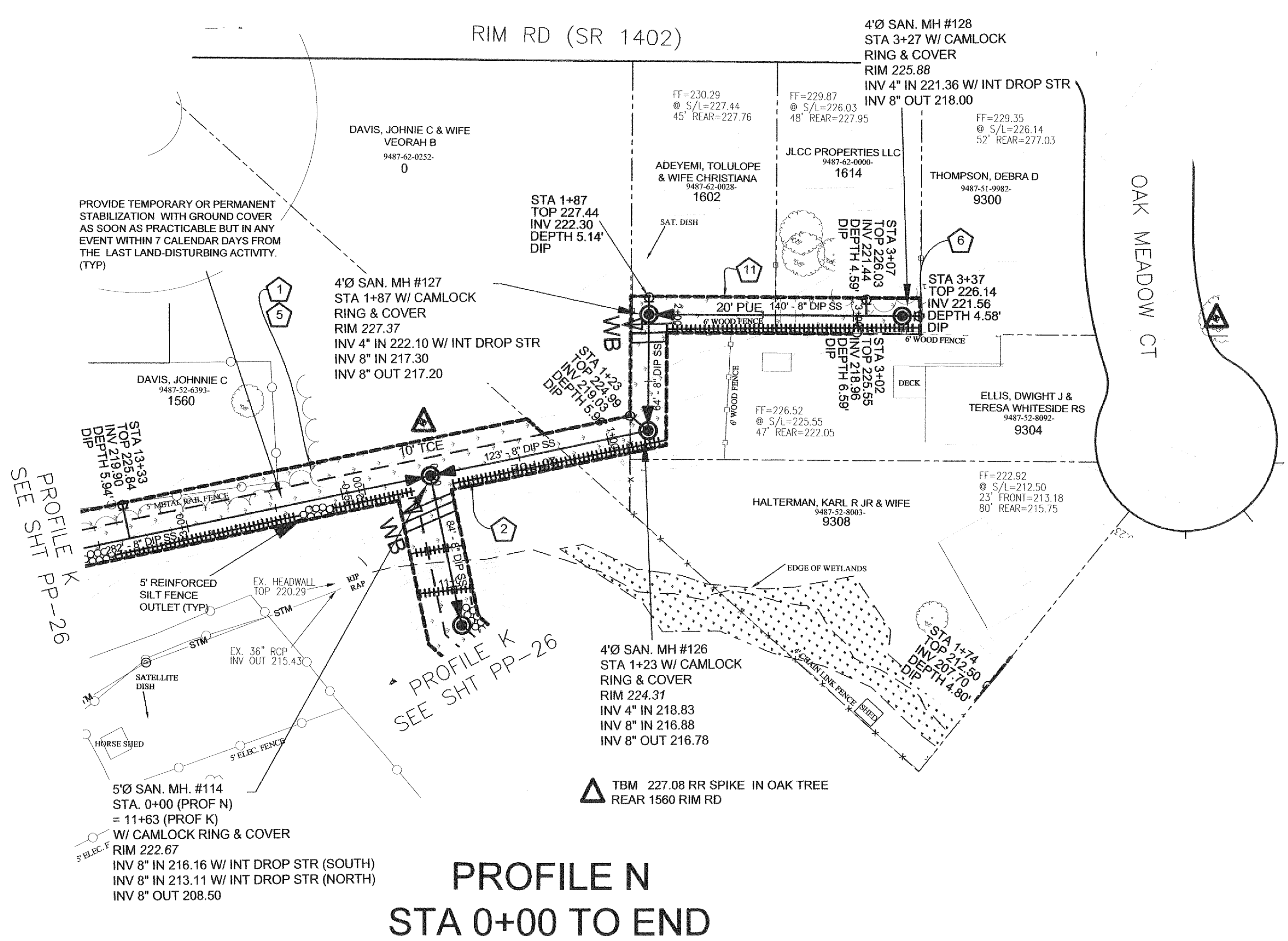


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

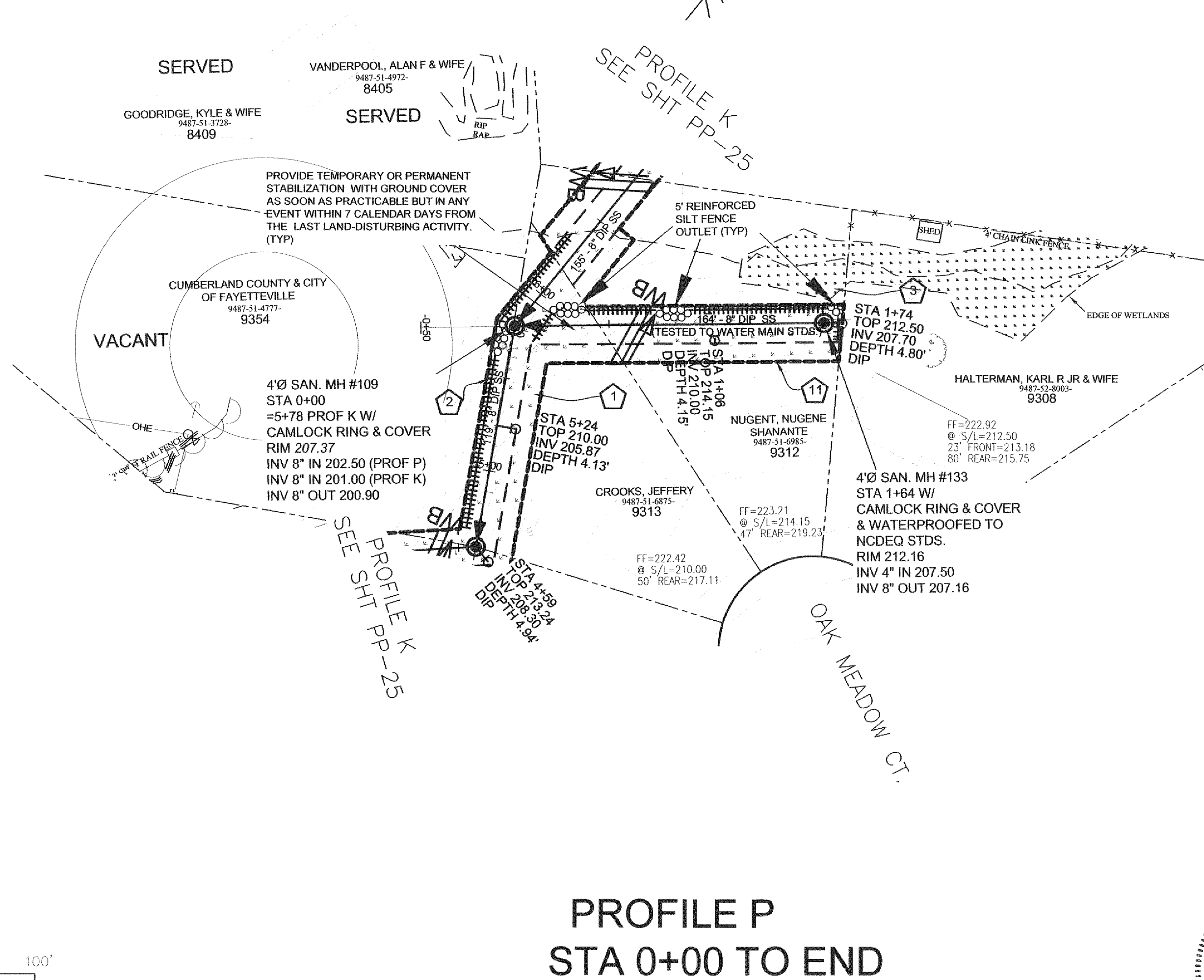


Scale
1" = 50' HOR
1" = 5' VER

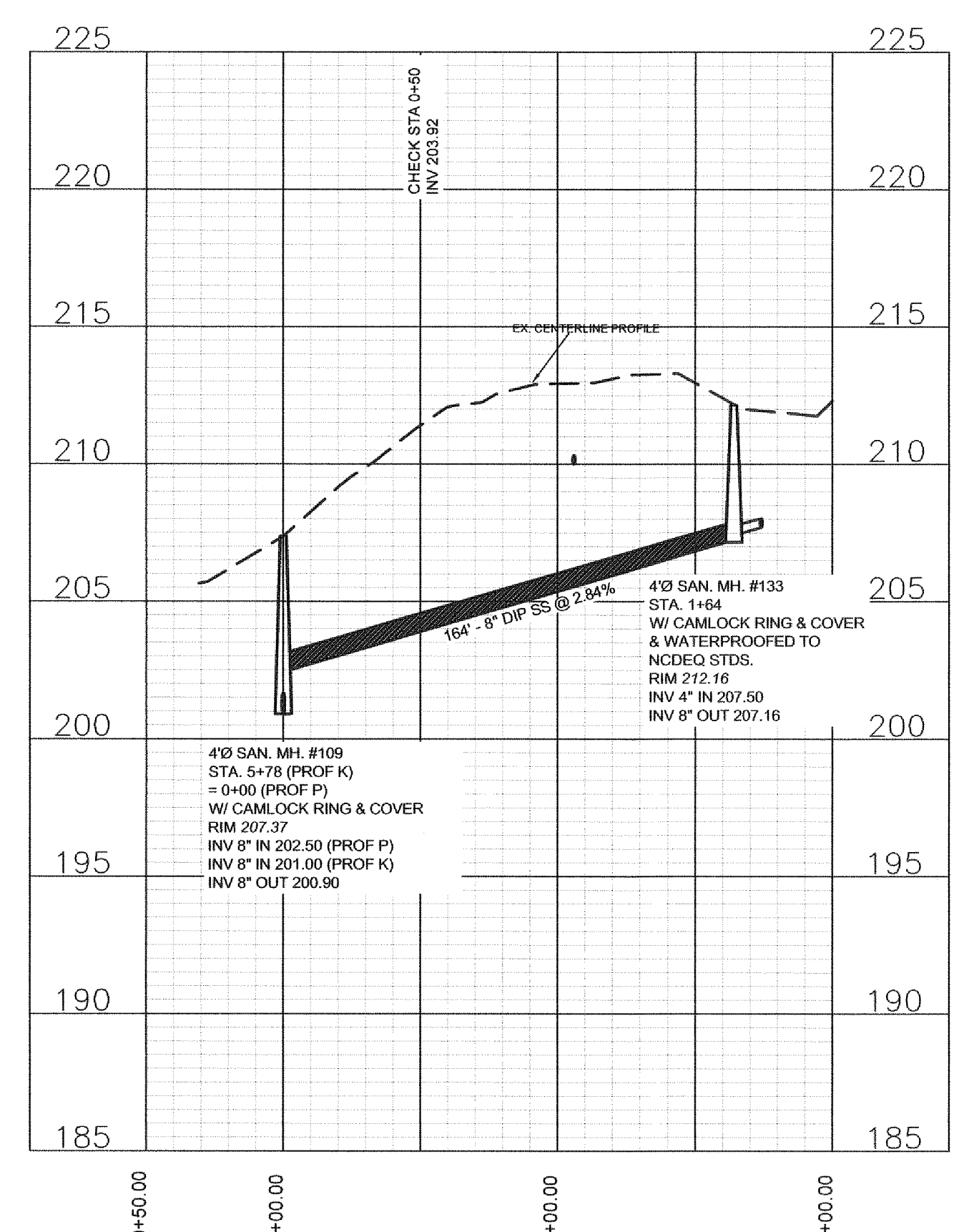
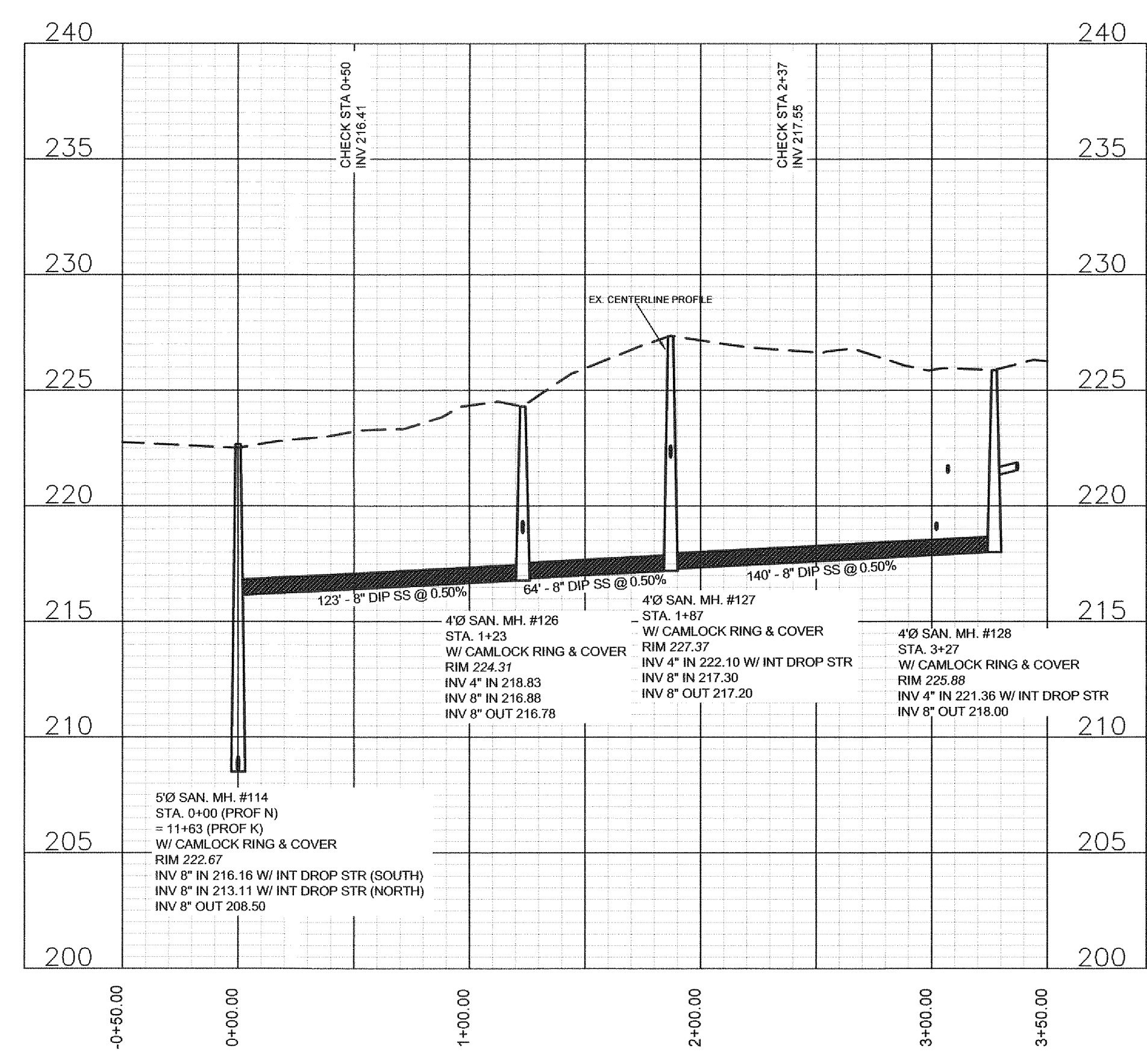
Book no.
Sheet
PP-27



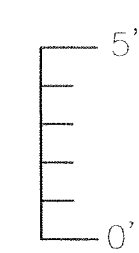
**PROFILE N
STA 0+00 TO END**



**PROFILE P
STA 0+00 TO END**



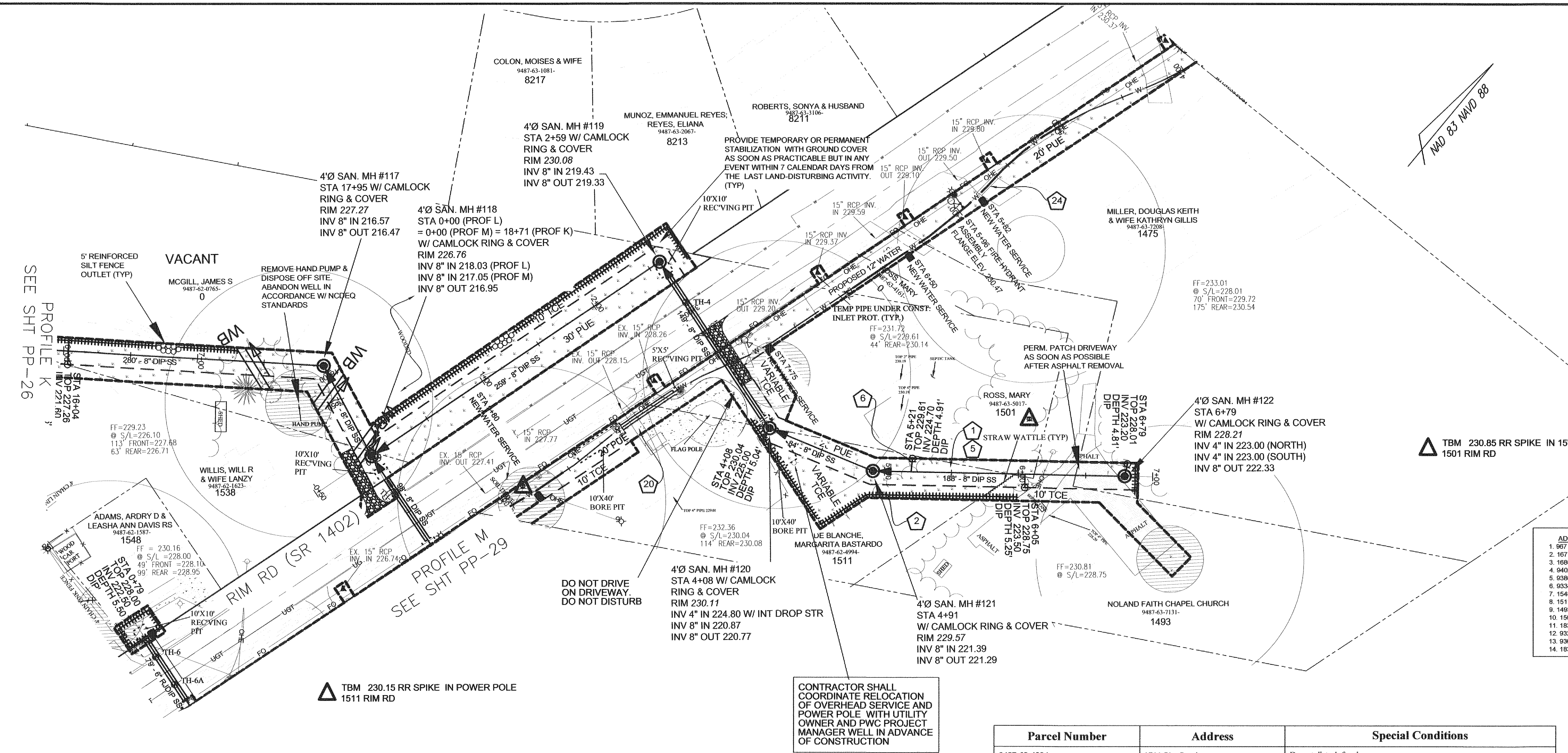
△ TBM 227.56 RR SPIKE IN OAK TREE BETWEEN 9301 & 9305 OAK MEADOW CT.



50' 0' 50' 100'

FOR UTILITY NOTES AND LEGEND SEE SHEET UTIL-4
FOR EROSION NOTES AND LEGEND SEE SHEET ECP-4

- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
- CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL ALA. STATE AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
- CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT. ONCE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW, THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.



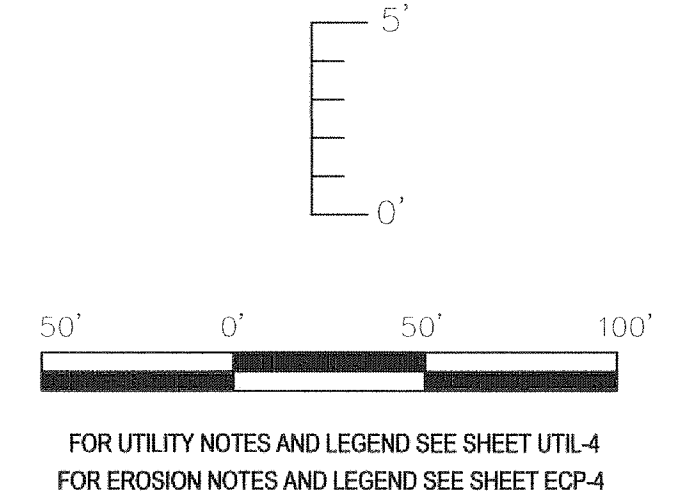
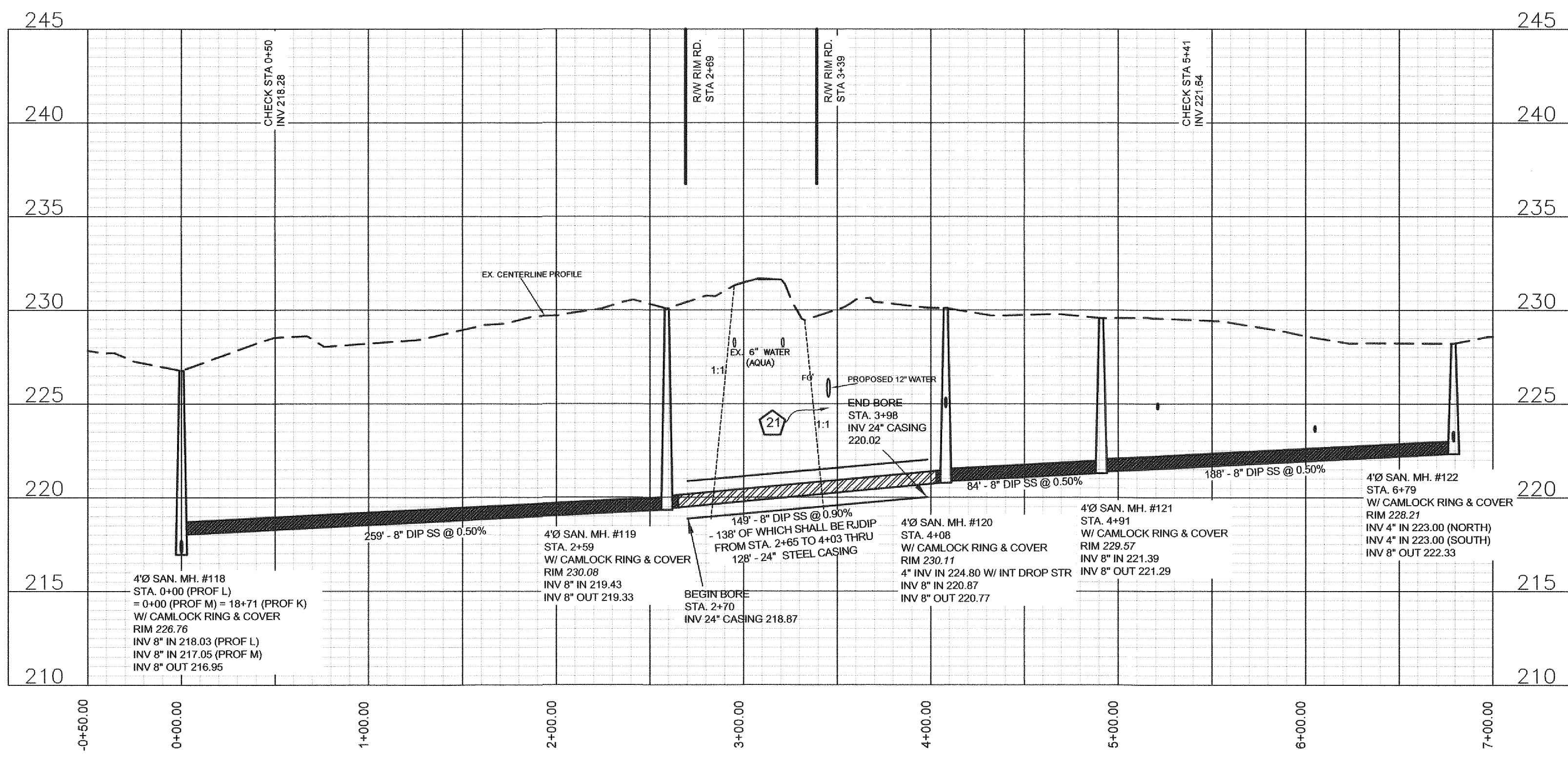
ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 927 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9386 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1460 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9326 Time Rd.	ABANDON WELL	SINGLE
13. 9390 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

Parcel Number	Address	Special Conditions
9487-62-4994	1511 Rim Road	Do not disturb fencing.

SUE BY SO-DEEP, US, PC

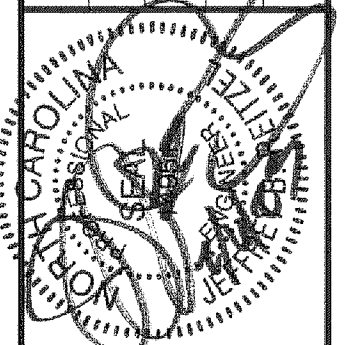
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #4	STA 2+95 PROFILE H-5	228.51	6-1/2" PVC WATER	AQUA
TH #5	STA 0+34 PROFILE H-6	227.11	6-1/2" PVC WATER	AQUA
TH #6	STA 0+64 1548 RIM RD	229.32	6-1/2" PVC WATER	AQUA
TH #6A	STA 0+39 1548 RIM RD	226.61	2" TELEPHONE CABLE	CENTURYLINK

PROFILE L STA 0+00 TO END

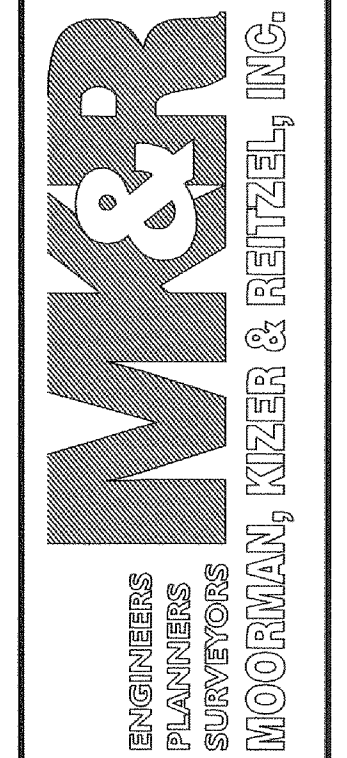


Fayetteville Annexation Phase V Construction Project XI Area 25 - Lake Rim Estates PROFILE L STA 0+00 to End

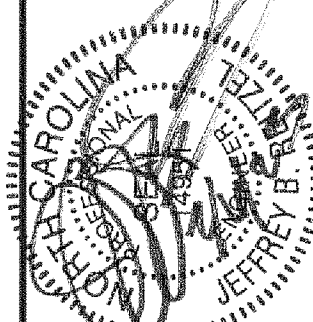
Revision	By	Date



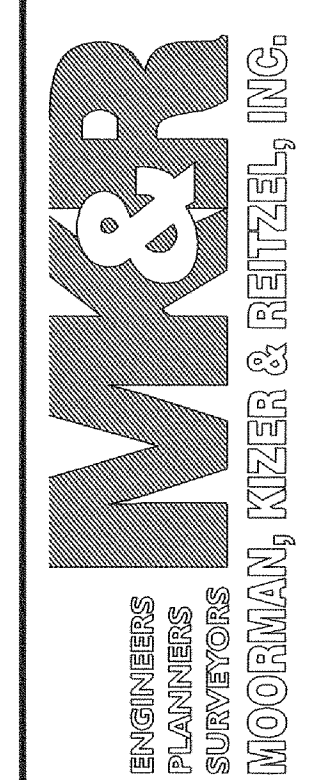
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



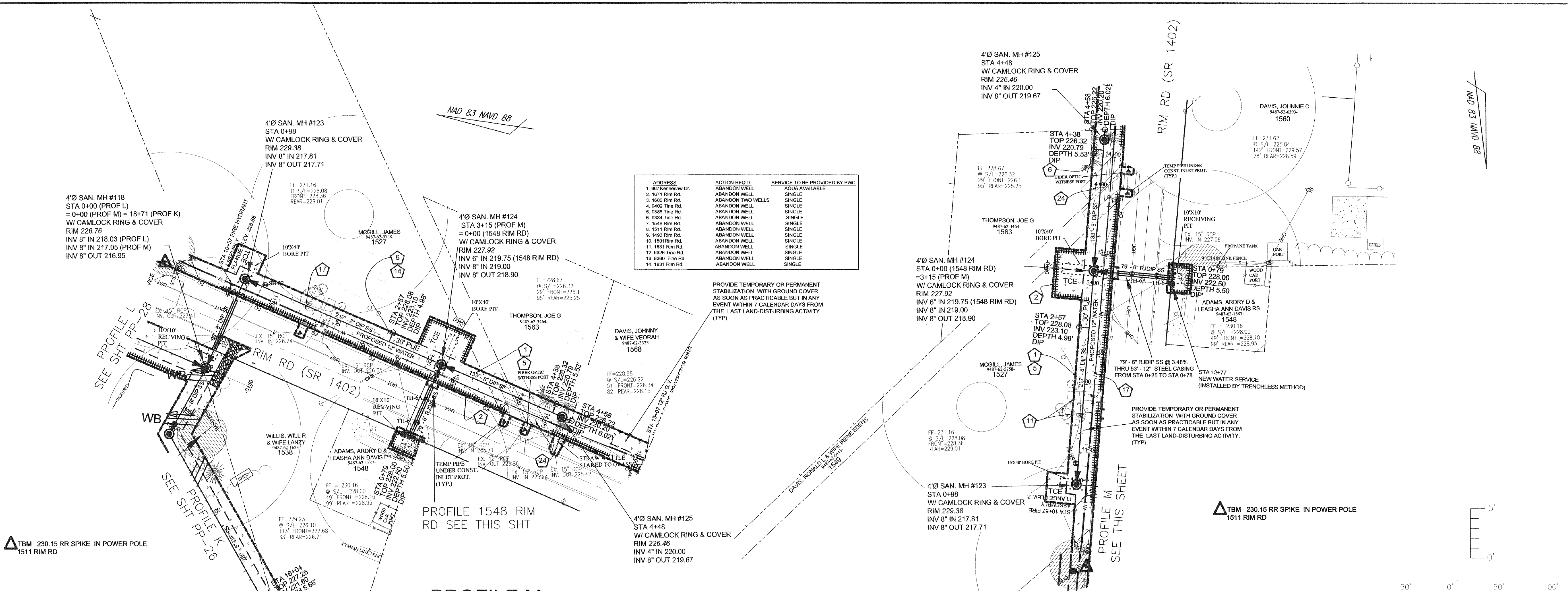
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-29

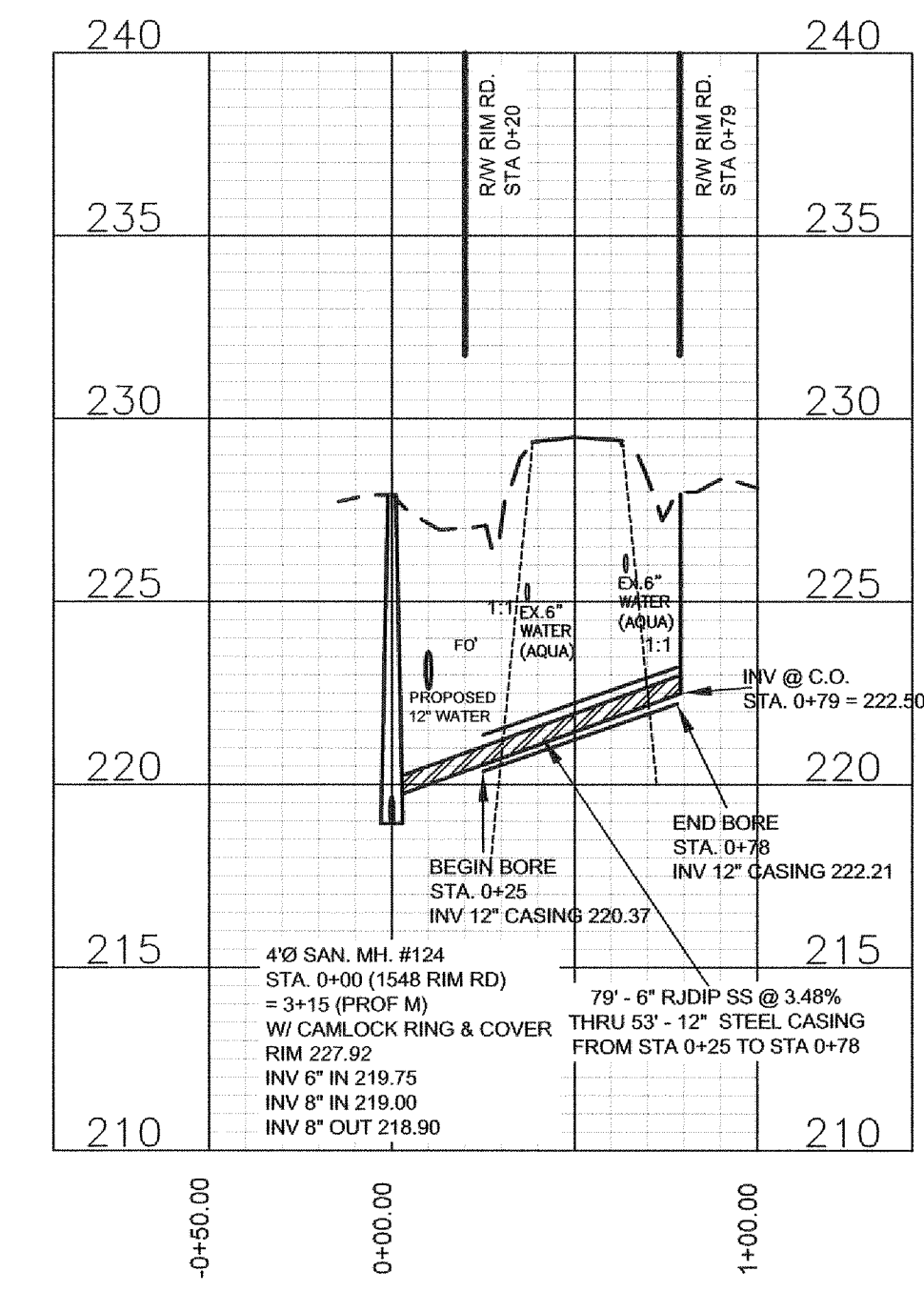
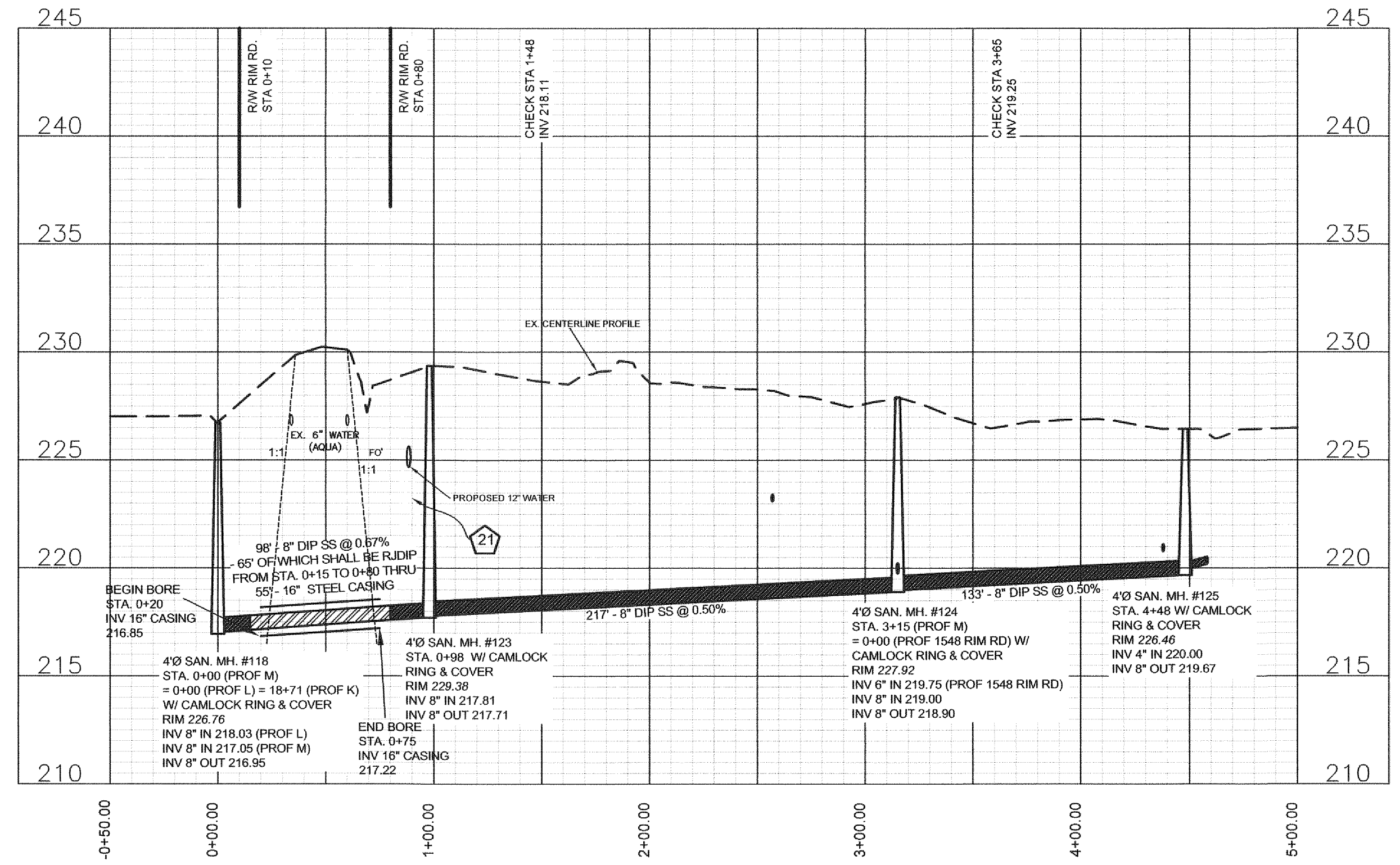


PROFILE M
STA 0+00 TO END

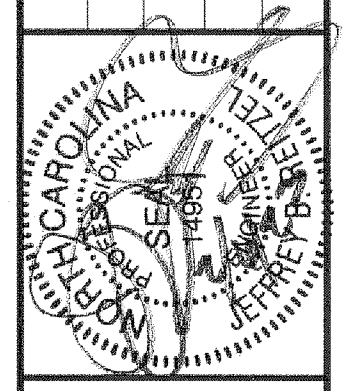
1548 RIM RD
STA 0+00 TO END

SUE BY SO-DEEP, US, PC

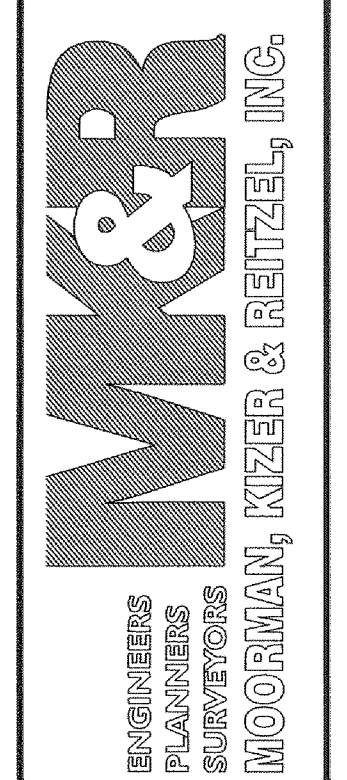
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #5	STA 0+34 PROFILE H-6	227.11	6-12" PVC WATER	AQUA
TH #6	STA 0+64 1548 RIM RD	229.32	6-12" PVC WATER	AQUA
TH #6A	STA 0+39 1548 RIM RD	226.61	2" TELEPHONE CABLE	CENTURYLINK



Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-30

4'Ø SAN. FLAT TOP DOGHOUSE MH #136
STA 2+16
W/ CAMLOCK RING & COVER
RIM 223.62
INV 4" IN 219.87
INV 8" IN 219.73
INV 8" OUT 219.63
EX. INV 8" IN/OUT 218.83
* NOTE: CONTRACTOR SHALL FILL
BOTTOM OF MANHOLE WITH GROUT AND
FORM NEW INVERT AFTER NEW SS IS
ACCEPTED BY FAYPWC

4'Ø SAN. SAN FLAT TOP MH #135
STA 1+65 W/ CAMLOCK
RING & COVER
RIM 223.29
INV 4" IN 220.02
INV 8" IN 219.37
INV 8" OUT 219.27

4'Ø SAN. DOGHOUSE MH #134
STA 0+00
RIM 224.27
INV 8" IN 218.44
INV 8" IN/OUT 218.38

REMOVE RING & COVER AND
CONE. AFTER NEW SS IS
ACCEPTED. PLUG EX. 8" PIPE &
FILL WITH GROUT. FILL EX. MH W/
SOIL AND ABANDON IN PLACE.

AFTER NEW SS IS ACCEPTED, PLUG
EX. 8" PIPE INVERT IN FROM WEST
AND FILL EX. 8" SS WITH GROUT.
(APPROX 290LF)
EX. SAN. MH
RIM 224.87
8" PVC INV. IN 218.24 (N)
8" PVC INV. IN 218.21 (S)
8" PVC INV. IN 218.12 (W)
8" PVC INV. OUT 218.09

EX. SAN. MH
RIM 226.04
SHELF 222.68
8" PVC INV. OUT 222.47

NAD 83 NAVD 88

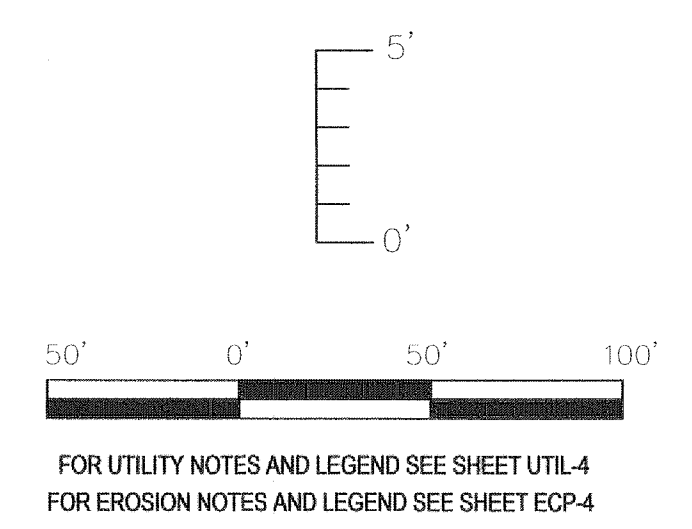
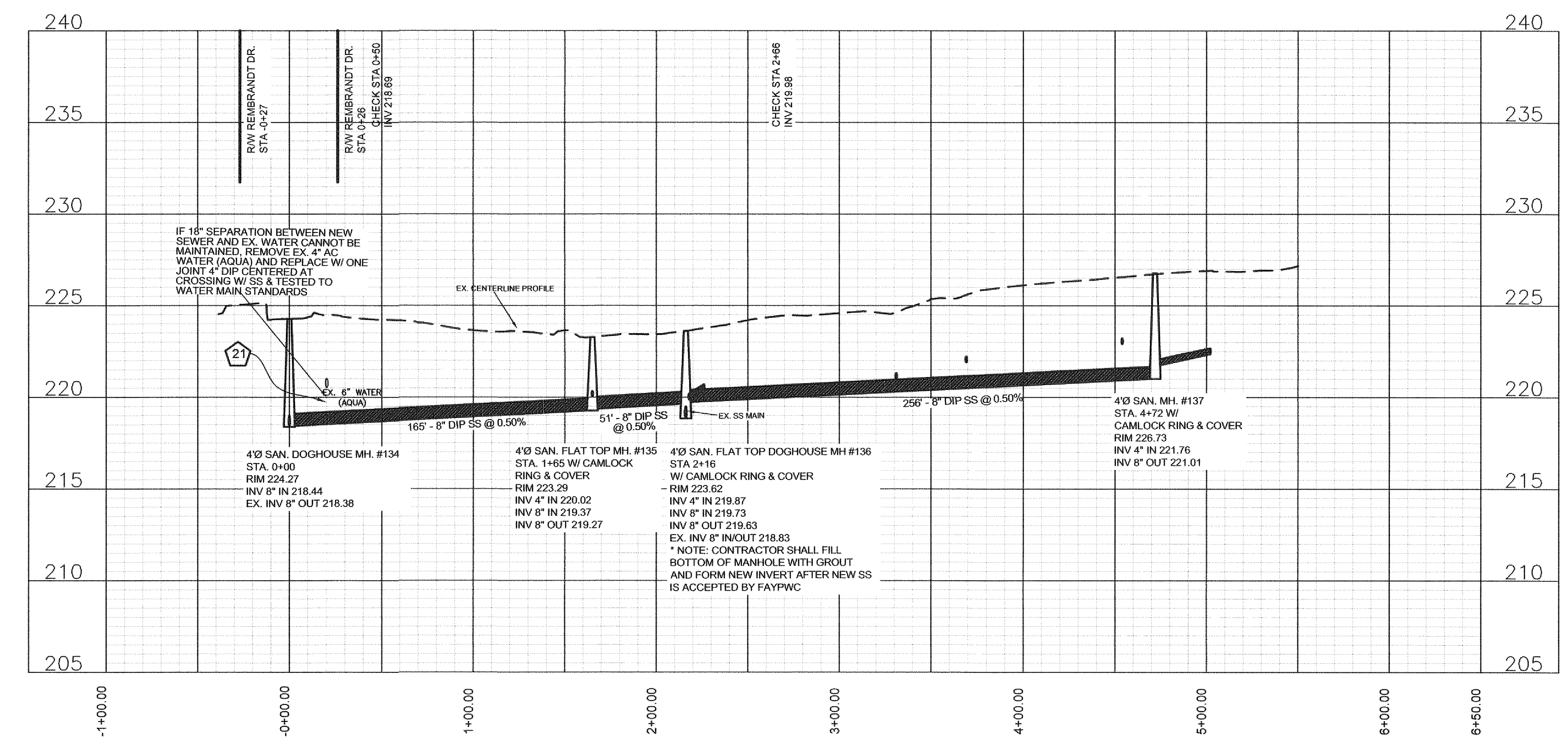
- 1659, 1655, 1649, 1641, 1635 & 1629 Rim Road are served with existing sanitary sewer believed to be tied into the sewer main between Rembrandt Drive & Rim Road. The services and the main line location/depth etc serving these addresses is unknown and is likely to be disturbed during the new sanitary sewer installation. The contractor shall ascertain the location of the existing services for these addresses and shall maintain continuous un-interrupted service to these addresses by pumping, hauling and/or bypassing the services during the construction of the new sanitary sewer main.
- The Contractor shall install new sanitary sewer main, manholes and cleanouts while maintaining existing active sanitary sewer service.
- The Contractor shall obtain approval from PWC of the new sanitary sewer main, manholes and cleanouts from PVC when completed.
- Once PWC has accepted the new sanitary sewer and notified the contractor that the existing services can be tied into the new sanitary sewer cleanouts, the Contractor shall hire a N.C. bonded plumber to connect existing house sewers to the new sanitary sewer system cleanouts beginning at the upstream service at 1659 Rim Road continuing the transfer of services from upstream to downstream.
- The sewer main penetration from the existing lateral being abandoned shall be repaired/plugged immediately after tie in to the new sewer main and approved by PWC unless services are being pumped/hailed or bypassed.
- Existing sewer main shall remain active until all residences are tied into the new sewer main and approved by PWC.
- Contractor shall include in his bid installing a new cleanout near the residence of an elevation that allows for the tie in (change over) of the existing house sewer main cleanout to the new sewer lateral while crossing the existing active sewer main to connect to the new sewer main without conflict where feasible.
- Once all residences are tied to the new sanitary sewer and accepted by PWC, the Contractor shall abandon the existing sanitary sewer as follows:
 - Contractor shall plug the existing unknown sewer main invert in to the existing sanitary sewer between Rembrandt Drive & Rim Road. The abandoned sewer main shall have its contents removed and disposed in accordance with N.C. General Statutes & Regulations and shall then be filled with Portland cement grout.
 - If uncharted manholes exist along the line to be abandoned, the ring, cover and concrete riser are to be removed and manhole shall be filled with compacted onsite soils. If uncharted manholes as in conflict with new sanitary sewer it shall be removed and disposed of offsite in accordance with N.C. General Statutes in a permitted landfill.
- The Contractor shall schedule and coordinate all work with the PWC Project Coordinator 10 days in advance of beginning work.
- Contractor shall be responsible for providing all necessary measures to insure a safe, non-offensive odor producing, water tight bypass system if bypass is necessary.
- Any pumping bypass system shall be provided with noise abatement measures to insure no disruption to residents.
- Contractor shall have personnel onsite at all times during bypass or pump/haul operations to insure that any mishaps of the system are immediately rectified such as pump failure, pipe leakage, etc.

SUE BY SO-DEEP, US, PC

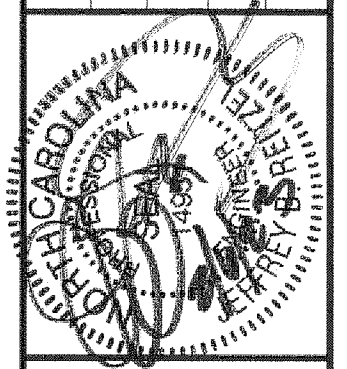
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #7	STA 0+19 PROFILE J	222.69	5-1/4" AC WATER	AQUA

Parcel Number	Address	Special Conditions
9487-61-1755	1629 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1638	1635 Rim Road	Move lawn ornaments and landscaping stone outside the easement and set aside for the property owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1610	1641 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0593	1649 Rim Road	Cut cedar tree in front yard along Rim Road into 24-inch lengths and left outside the PUE for owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0359	1659 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1371	866 Rembrandt Drive	Remove clothesline.

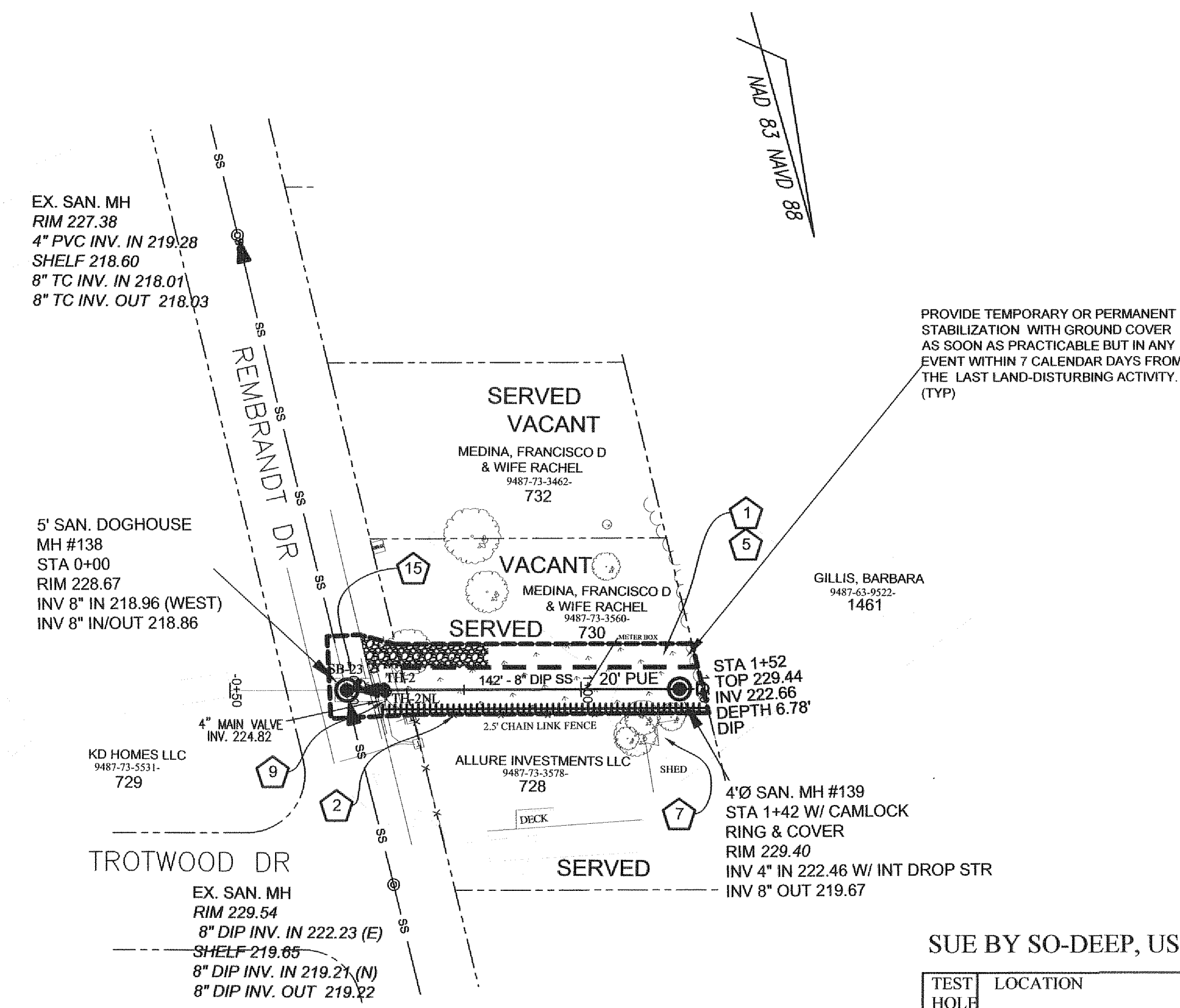
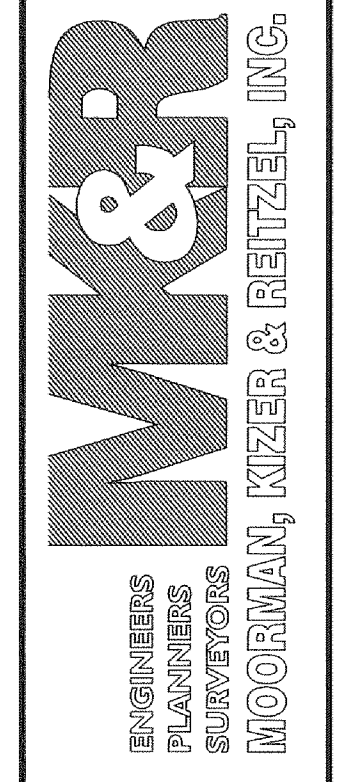
PROFILE J
STA 0+00 TO END



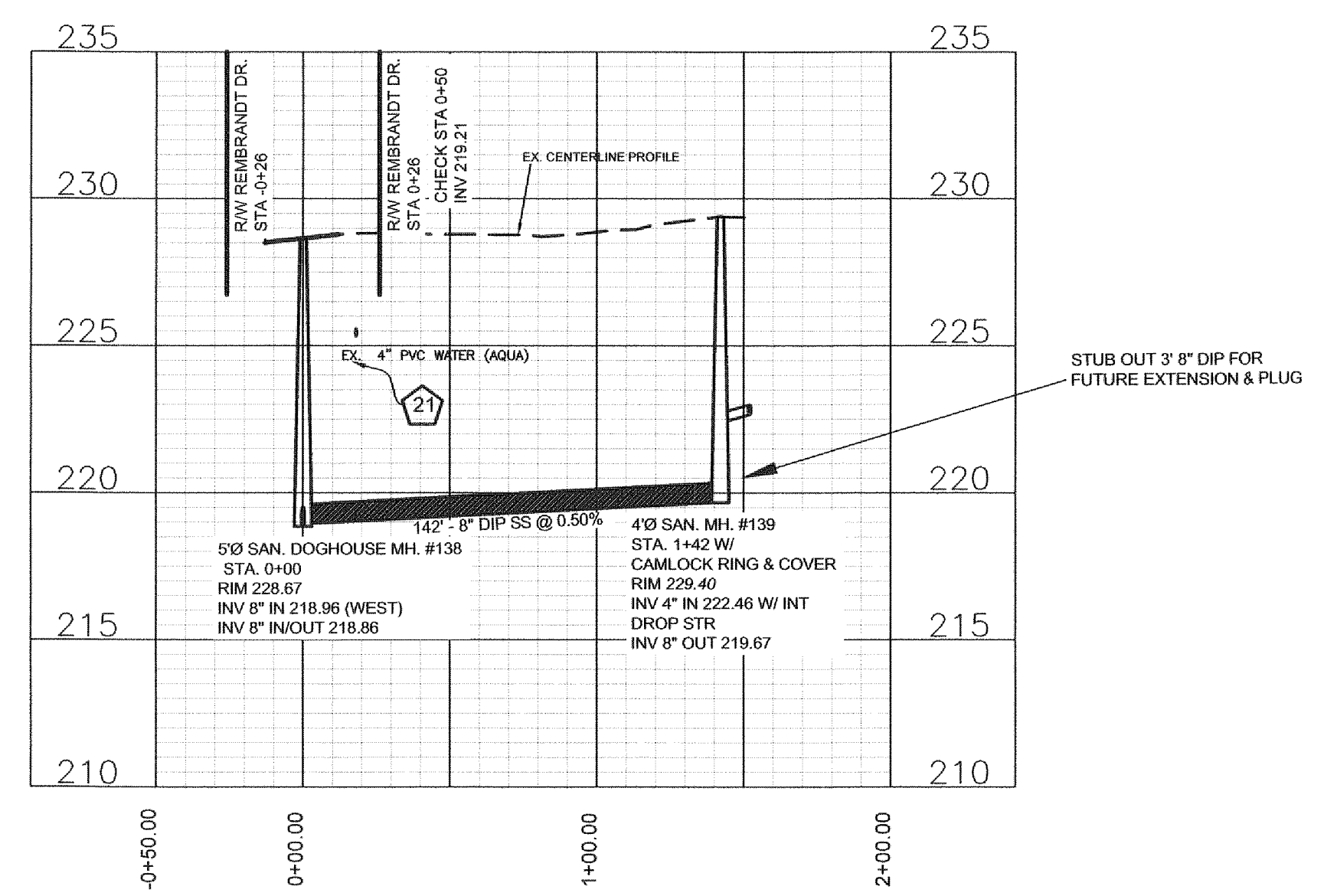
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

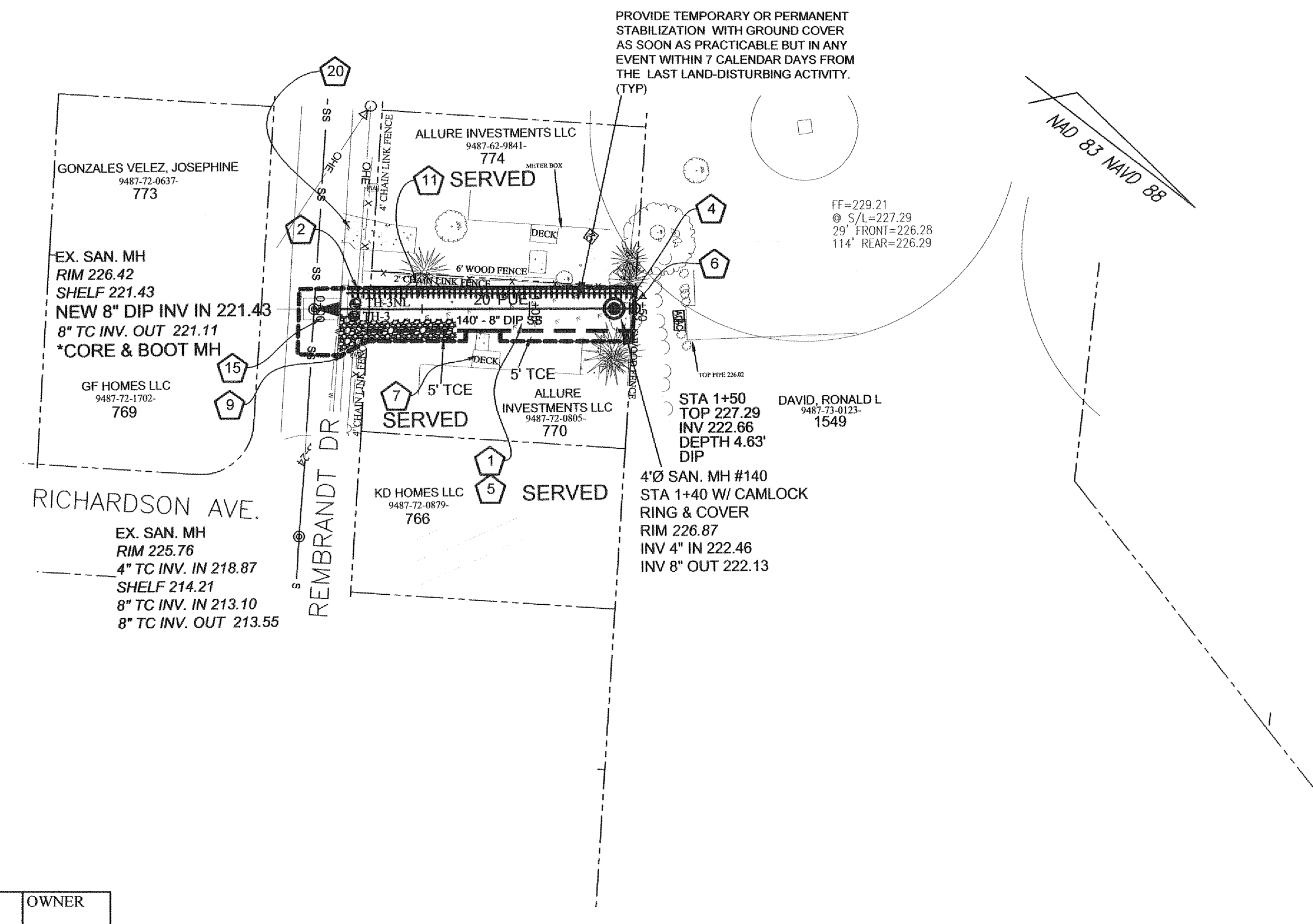


PROFILE TO
SERVE 1461 RIM RD
STA 0+00 TO END

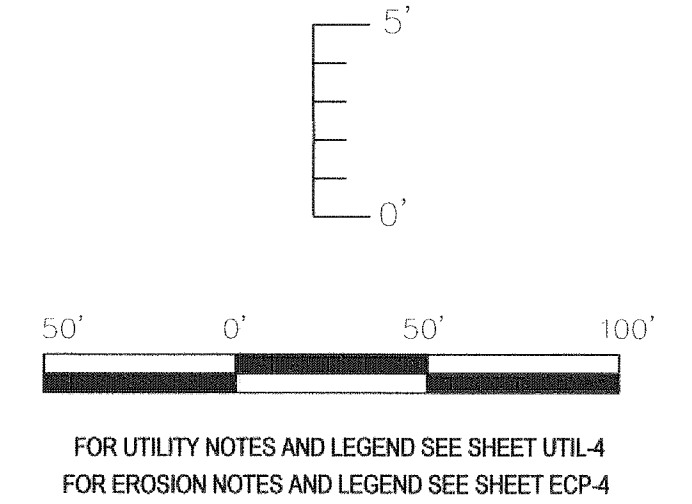
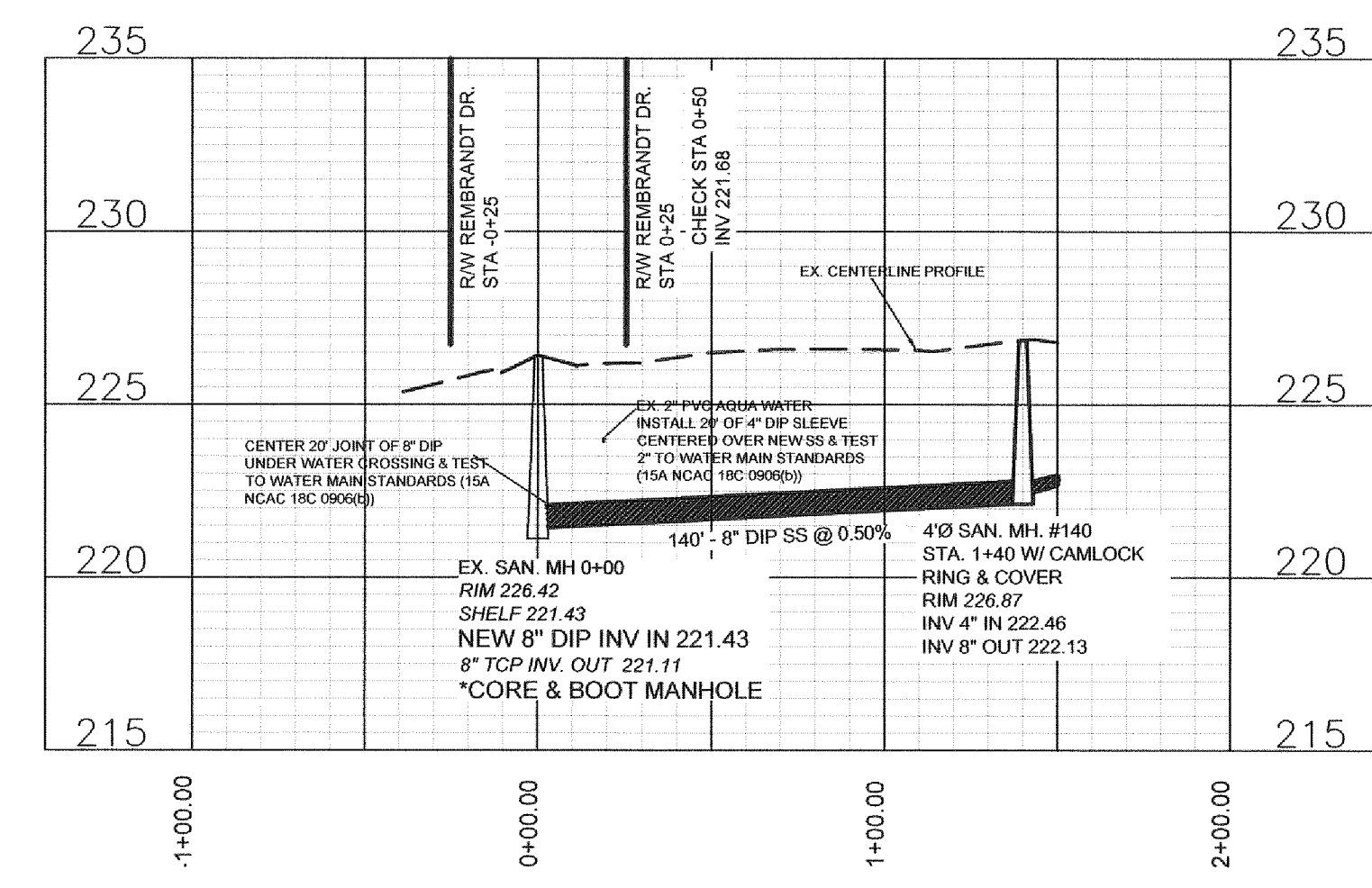


SUE BY SO-DEEP, US, PC

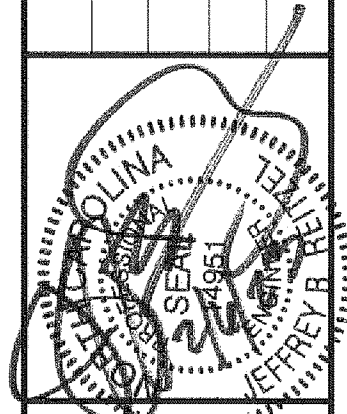
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #2	STA 0+18 1461 RIM RD	225.63	4-1/4" PVC WATER	AQUA
TH #3	STA 0+19 1549 RIM RD	224.05	2-1/2" PVC WATER	AQUA



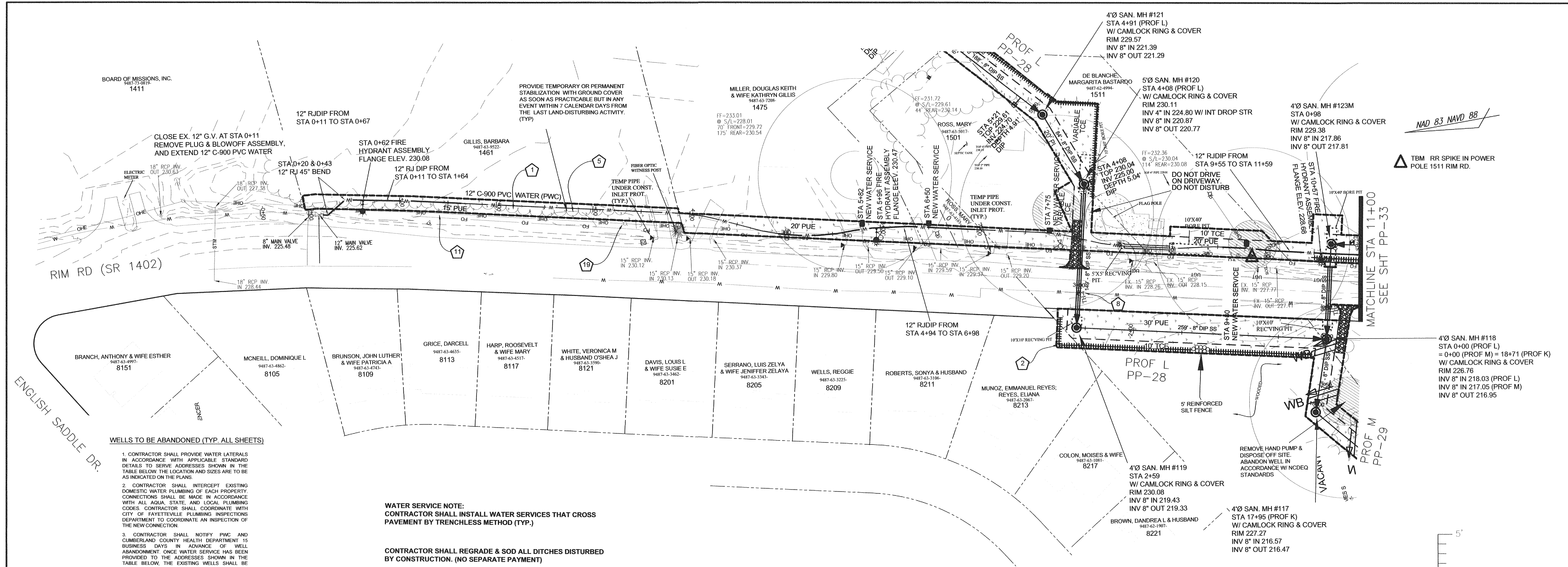
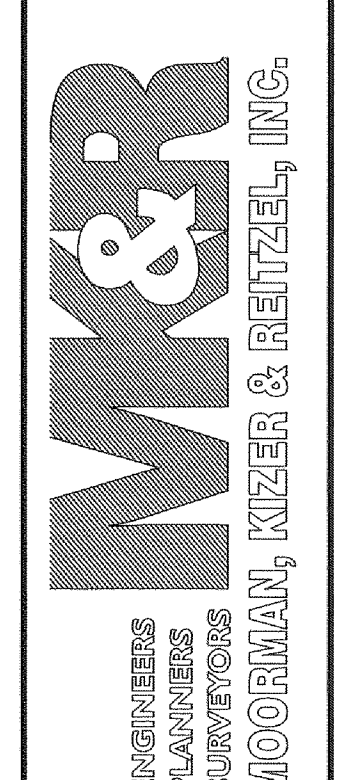
PROFILE TO
SERVE 1549 RIM RD
STA 0+00 TO END



Revision	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



- WELLS TO BE ABANDONED (TYP. ALL SHEETS)**
- CONTRACTOR SHALL PROVIDE WATER LATERALS IN ACCORDANCE WITH APPLICABLE STANDARD DETAILS TO SERVE ADDRESSES SHOWN IN THE TABLE BELOW. THE LOCATION AND SIZES ARE TO BE AS INDICATED ON THE PLANS.
 - CONTRACTOR SHALL INTERCEPT EXISTING DOMESTIC WATER PLUMBING OF EACH PROPERTY. CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH ALL AQA, STATE, AND LOCAL PLUMBING CODES. CONTRACTOR SHALL COORDINATE WITH CITY OF FAYETTEVILLE PLUMBING INSPECTIONS DEPARTMENT TO COORDINATE AN INSPECTION OF THE NEW CONNECTION.
 - CONTRACTOR SHALL NOTIFY PWC AND CUMBERLAND COUNTY HEALTH DEPARTMENT 15 BUSINESS DAYS IN ADVANCE OF WELL ABANDONMENT. ONCE WATER SERVICE HAS BEEN PROVIDED TO THE ADDRESSES SHOWN IN THE TABLE BELOW, THE EXISTING WELLS SHALL BE ABANDONED IN ACCORDANCE WITH ALL LOCAL AND STATE REQUIREMENTS AND SHALL BE INSPECTED AND APPROVED BY CUMBERLAND COUNTY HEALTH DEPARTMENT.

WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)

CONTRACTOR SHALL REGRADE & SOD ALL DITCHES DISTURBED BY CONSTRUCTION. (NO SEPARATE PAYMENT)

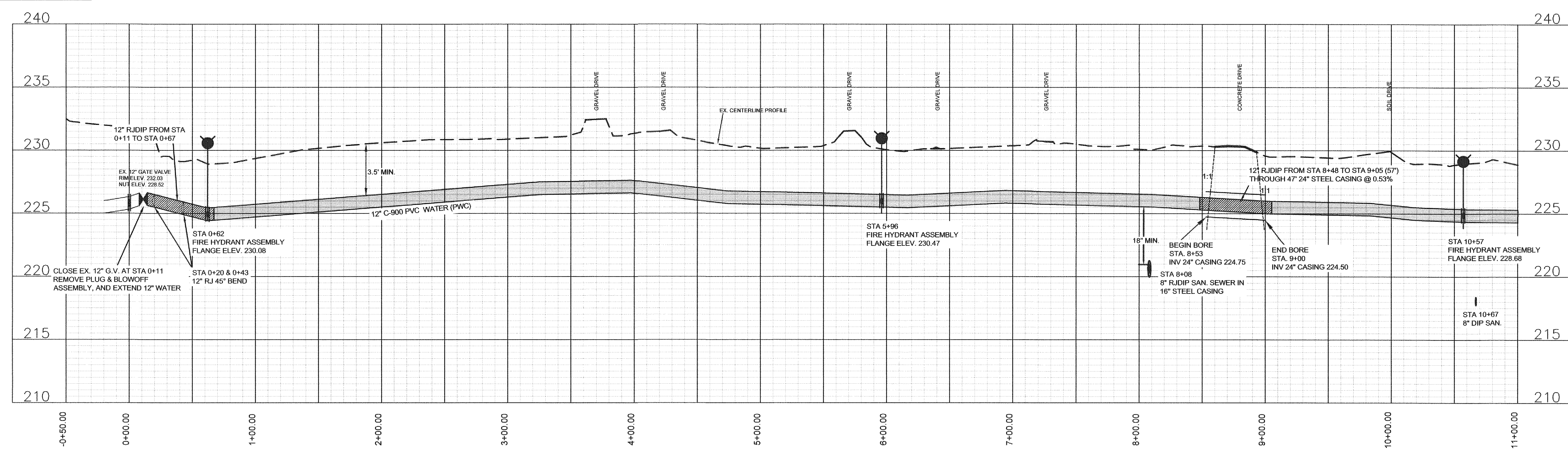
ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 967 Kershaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1880 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 5402 Time Rd.	ABANDON WELL	SINGLE
5. 9386 Time Rd.	ABANDON WELL	SINGLE
6. 8234 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1469 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9320 Time Rd.	ABANDON WELL	SINGLE
13. 9320 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

12" WATER MAIN EXTENSION RIM RD STA 0+00 TO 11+00

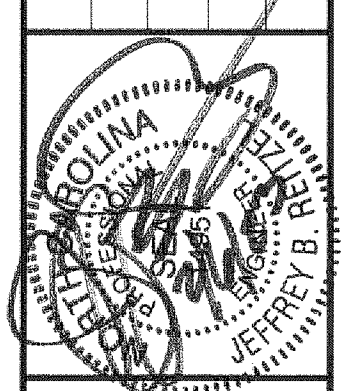
SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #4	STA 2+95 PROFILE H-5	228.51	6-1/2" PVC WATER	AQUA
TH #5	STA 9+34 PROFILE H-6	227.11	6-1/2" PVC WATER	AQUA

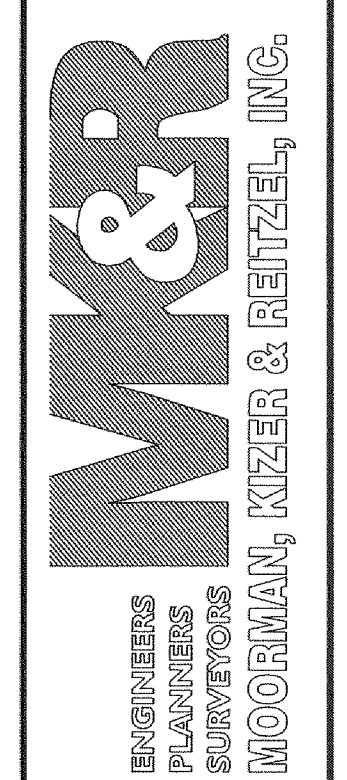
Parcel Number	Address	Special Conditions
9487-62-4994	1511 Rim Road	Do not disturb fencing.



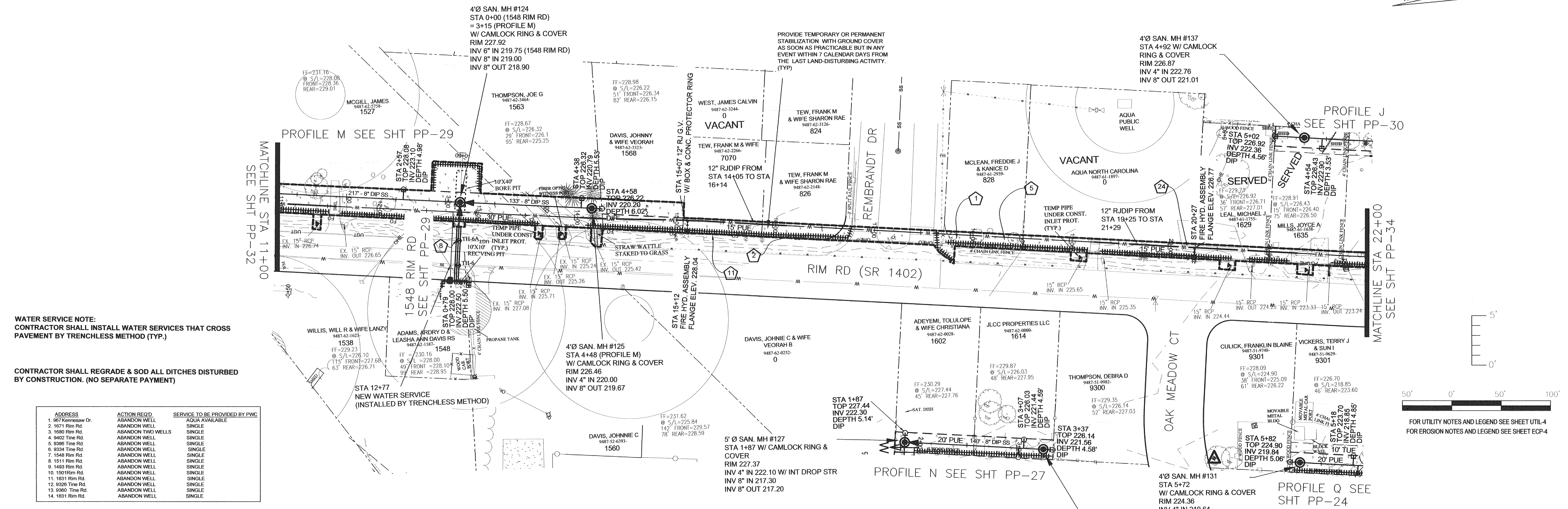
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



NAD 83 NAVD 88



WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)

CONTRACTOR SHALL REGRADE & SOD ALL DITCHES DISTURBED BY CONSTRUCTION. (NO SEPARATE PAYMENT)

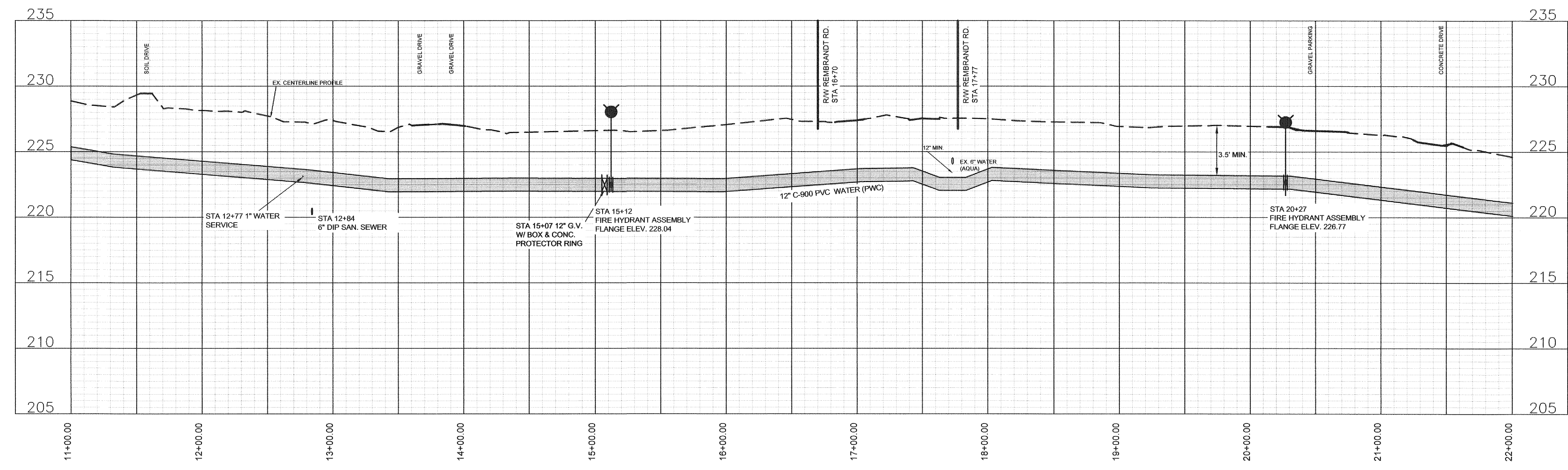
ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 967 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9386 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1483 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9308 Time Rd.	ABANDON WELL	SINGLE
13. 9360 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

SUE BY SO-DEEP, US, PC

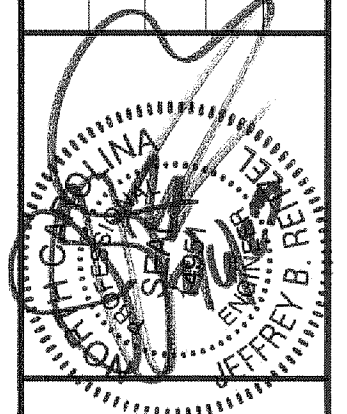
TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #6	STA 0+64 1548 RIM RD	226.30	6-1/2" PVC WATER	AQUA

12" WATER MAIN EXTENSION RIM RD STA 11+00 TO 22+00

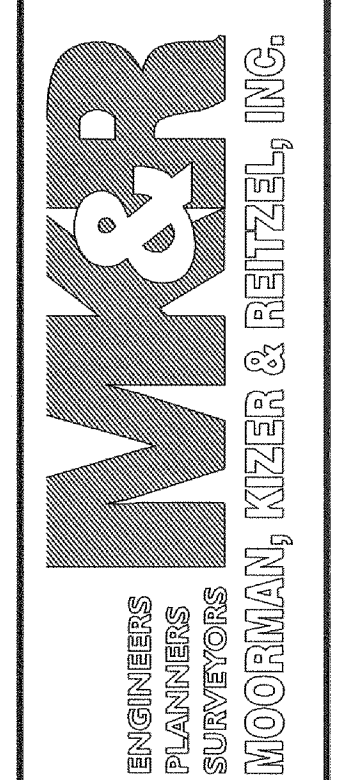
Parcel Number	Address	Special Conditions
9487-61-1755	1629 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-1638	1633 Rim Road	Move lawn ornaments and landscaping stone outside the easement and set aside for the property owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.



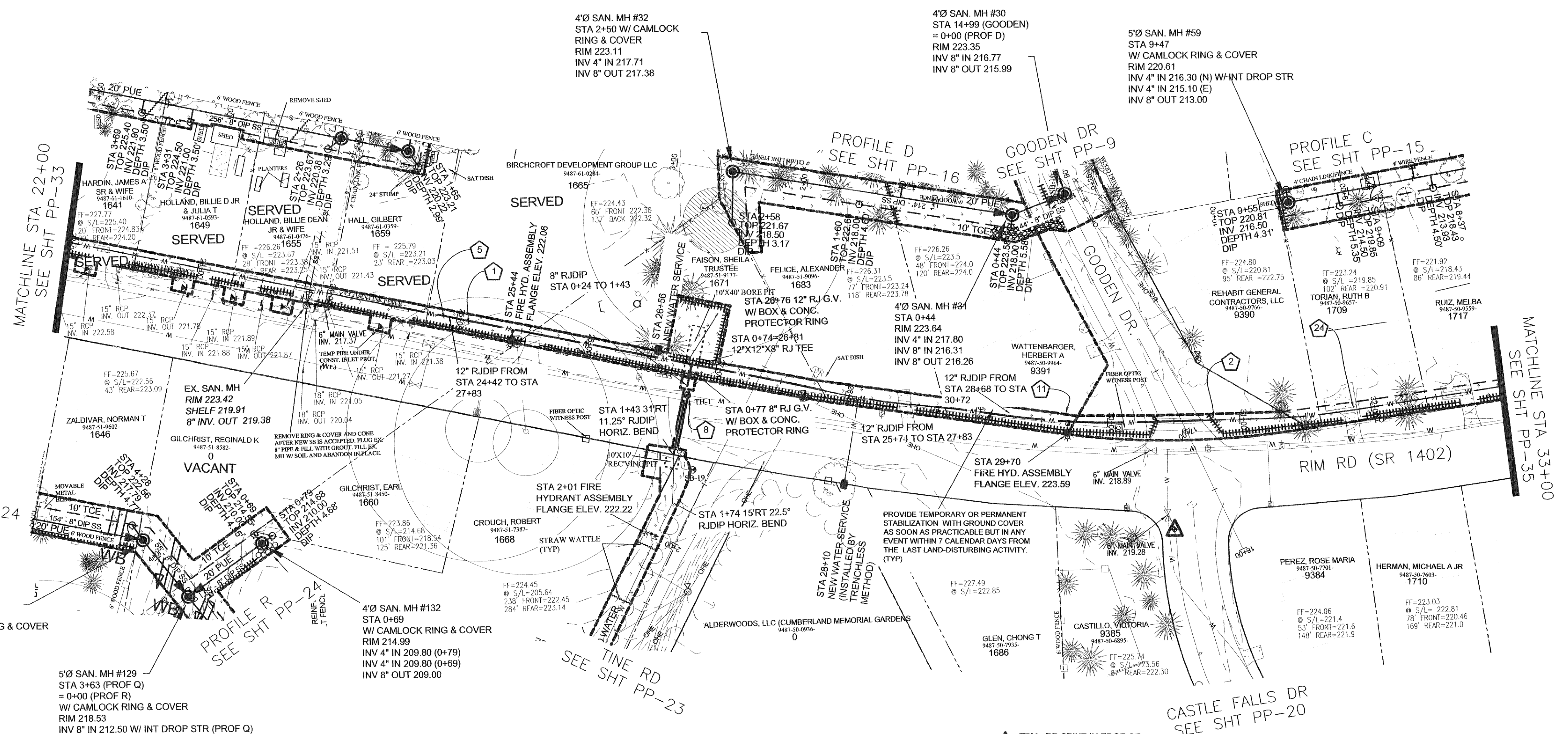
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



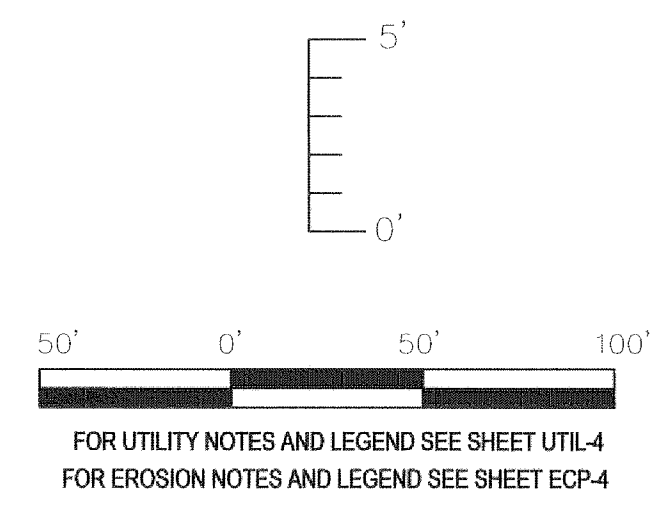
NAD 83 NAVD 88



ADDRESS	ACTION REQ'D	SERVICE TO BE PROVIDED BY PWC
1. 987 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1660 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9390 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1493 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 9326 Time Rd.	ABANDON WELL	SINGLE
13. 9380 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)

CONTRACTOR SHALL REGRADE & SOD ALL DITCHES DISTURBED BY CONSTRUCTION. (NO SEPARATE PAYMENT)

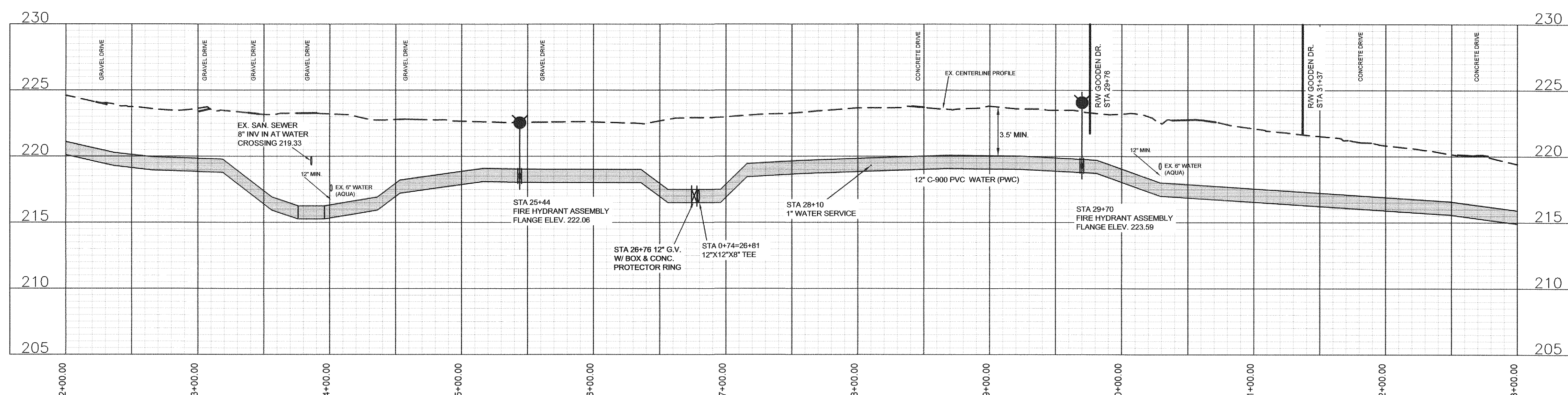


SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #1	STA 0+83 TIME RD=26+81 RIM RD	219.36	6-1/2" PVC WATER	AQUA
		219.58	1-1/4" CABLE	UNKNOWN

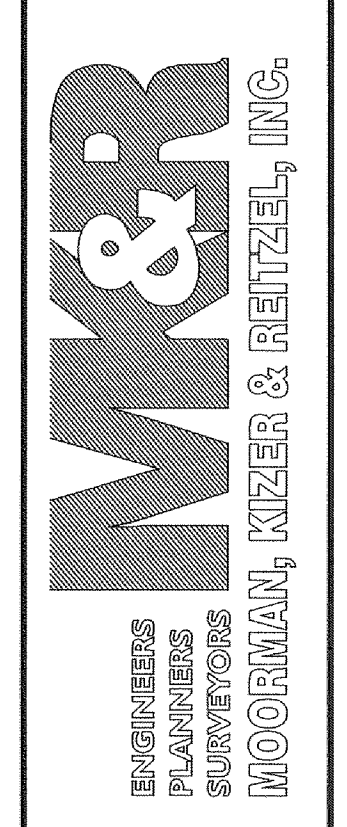
Parcel Number	Address	Special Conditions
9487-61-1610	1641 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0993	1649 Rim Road	Cut cedar tree in front yard along Rim Road into 34-inch lengths and left outside the PLE for owner. Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-61-0359	1659 Rim Road	Property is presently on a shared, non-conforming lateral. Contractor will connect owner to new sanitary sewer lateral and main.
9487-50-9627	1709 Rim Road	Possible septic conflict.
9487-50-9559	1717 Rim Road	Temporary Fencing Requested for dig(s).
9487-50-0936		Remove all trees, stumps, and roots from encroachment area. Sod all areas disturbed by utility construction.

12" WATER MAIN EXTENSION RIM RD STA 22+00 TO 33+00

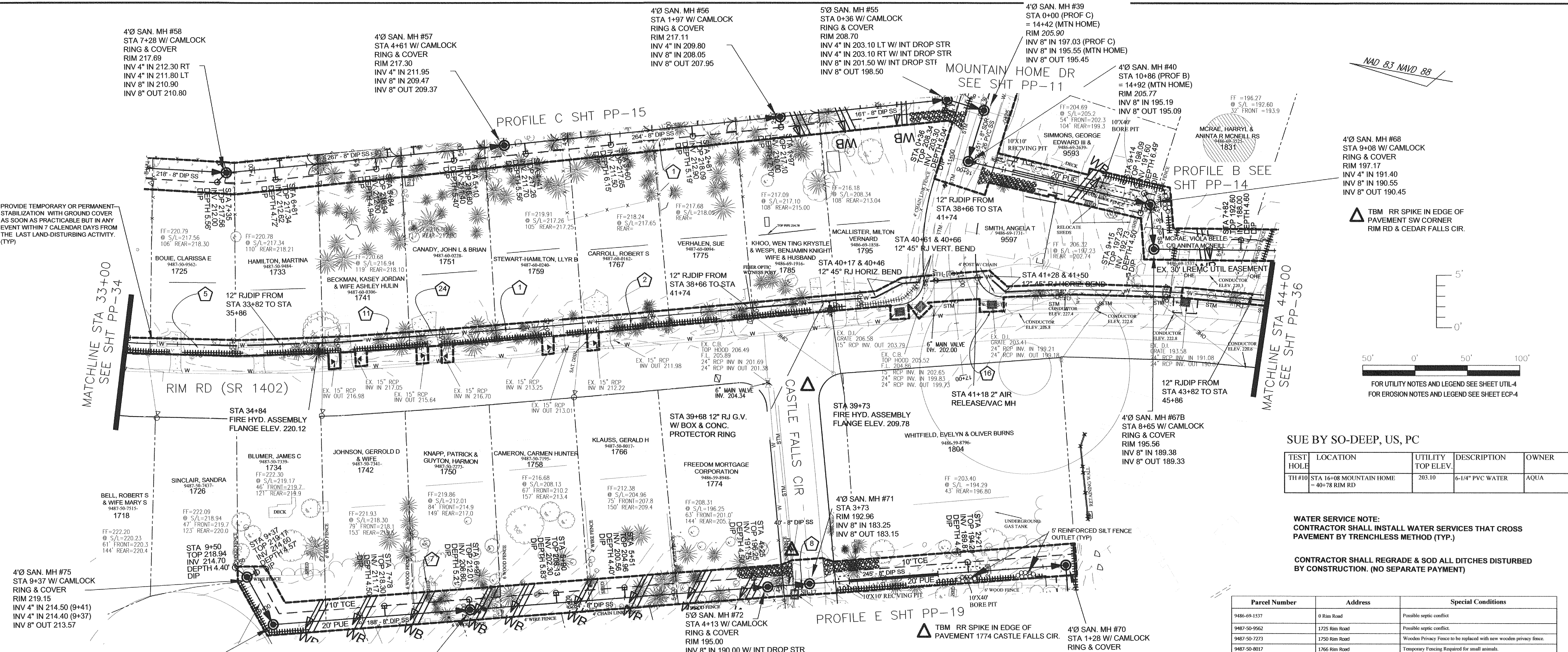


By	Date	Revision

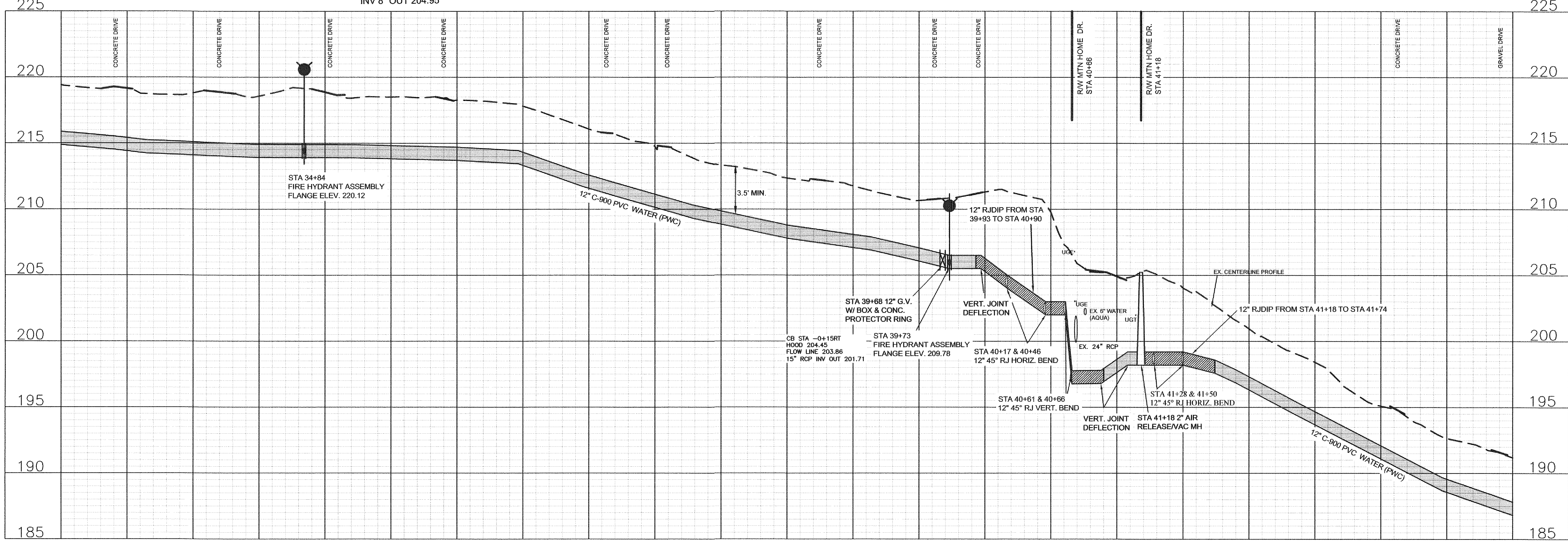
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-35



**12" WATER MAIN EXTENSION RIM RD
STA 33+00 TO 44+00**



SUE BY SO-DEEP, US, PC

TEST HOLE	LOCATION	UTILITY TOP ELEV.	DESCRIPTION	OWNER
TH #10	STA 16+08 MOUNTAIN HOME = 40+78 RIM RD	203.10	6-1/4" PVC WATER	AQUA

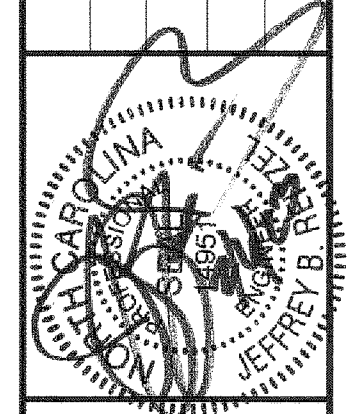
WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TTP.)

CONTRACTOR SHALL REGRADE & SOD ALL DITCHES DISTURBED BY CONSTRUCTION. (NO SEPARATE PAYMENT)

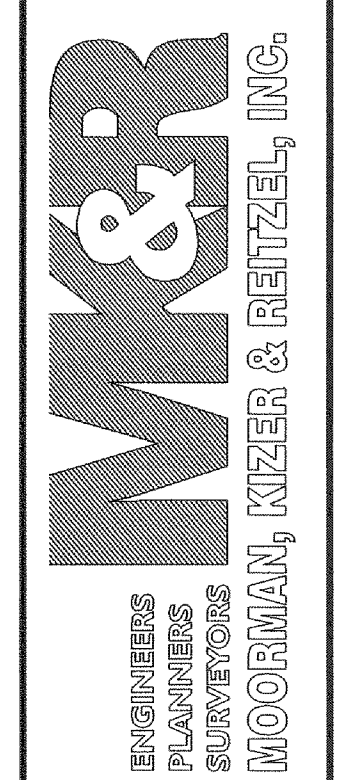
Parcel Number	Address	Special Conditions
9486-69-1537	0 Rim Road	Possible septic conflict
9487-50-9562	1725 Rim Road	Possible septic conflict
9487-50-7273	1750 Rim Road	Wooden Privacy Fence to be replaced with new wooden privacy fence.
9487-50-8017	1766 Rim Road	Temporary Fencing Required for small animals.
9486-59-8948	1774 Rim Road	Chain Link Fencing to be replaced.
9486-69-3525	1831 Rim Road	Possible septic conflict.
9486-69-2639	9593 Mountain Home Drive	Temporary Fencing is required.
9486-69-1731	9597 Mountain Home Drive	Temporary Fencing Required.

ADDRESS	ACTION REQD.	SERVICE TO BE PROVIDED BY PWC
1. 967 Kennesaw Dr.	ABANDON WELL	AQUA AVAILABLE
2. 1671 Rim Rd.	ABANDON WELL	SINGLE
3. 1680 Rim Rd.	ABANDON TWO WELLS	SINGLE
4. 9402 Time Rd.	ABANDON WELL	SINGLE
5. 9380 Time Rd.	ABANDON WELL	SINGLE
6. 9334 Time Rd.	ABANDON WELL	SINGLE
7. 1548 Rim Rd.	ABANDON WELL	SINGLE
8. 1511 Rim Rd.	ABANDON WELL	SINGLE
9. 1403 Rim Rd.	ABANDON WELL	SINGLE
10. 1501 Rim Rd.	ABANDON WELL	SINGLE
11. 1831 Rim Rd.	ABANDON WELL	SINGLE
12. 8208 Time Rd.	ABANDON WELL	SINGLE
13. 8380 Time Rd.	ABANDON WELL	SINGLE
14. 1831 Rim Rd.	ABANDON WELL	SINGLE

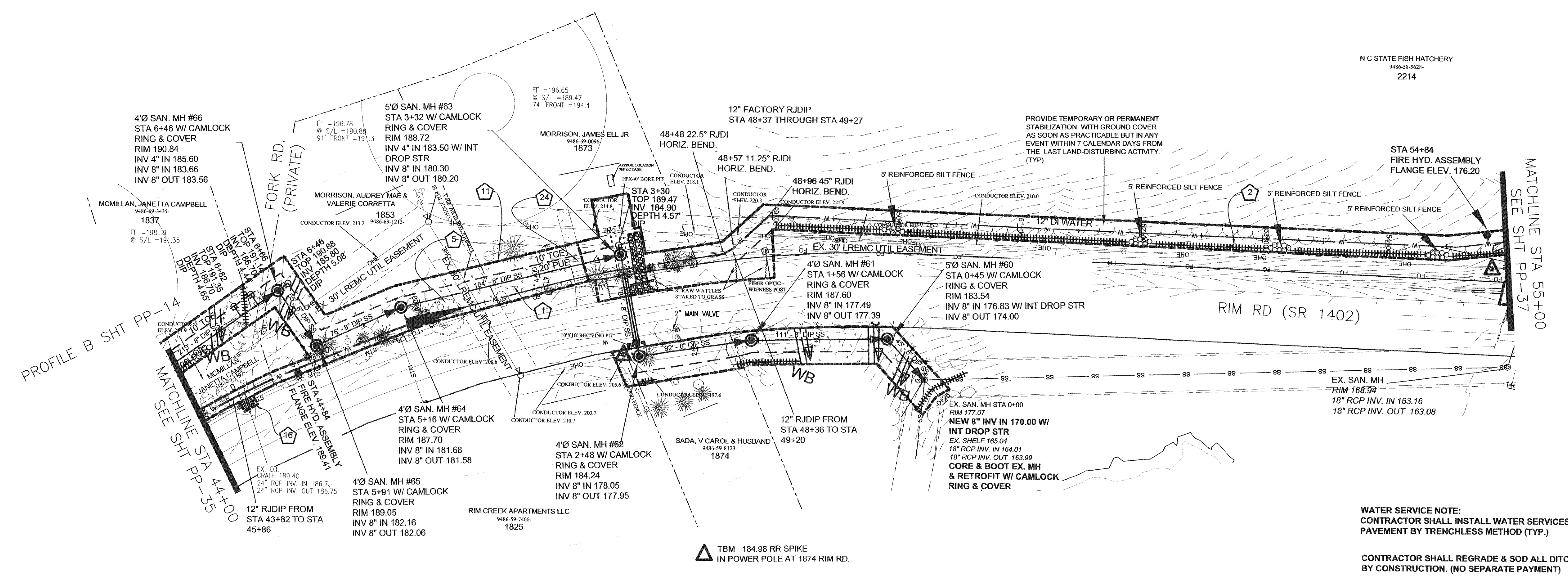
Revision	By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



NAD 83 NVD 88

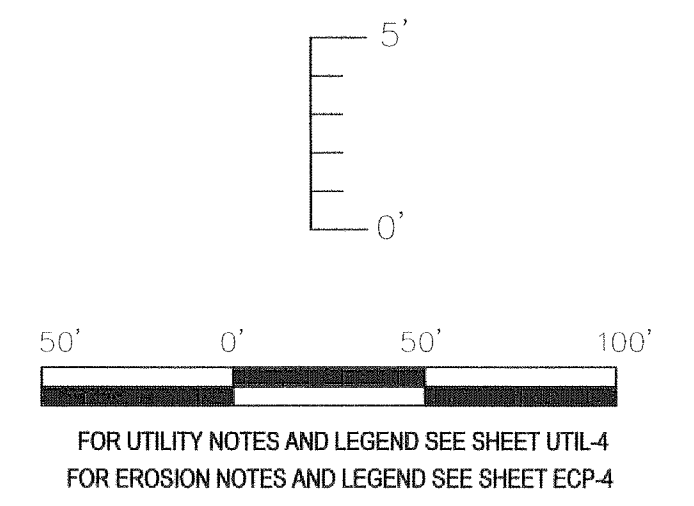
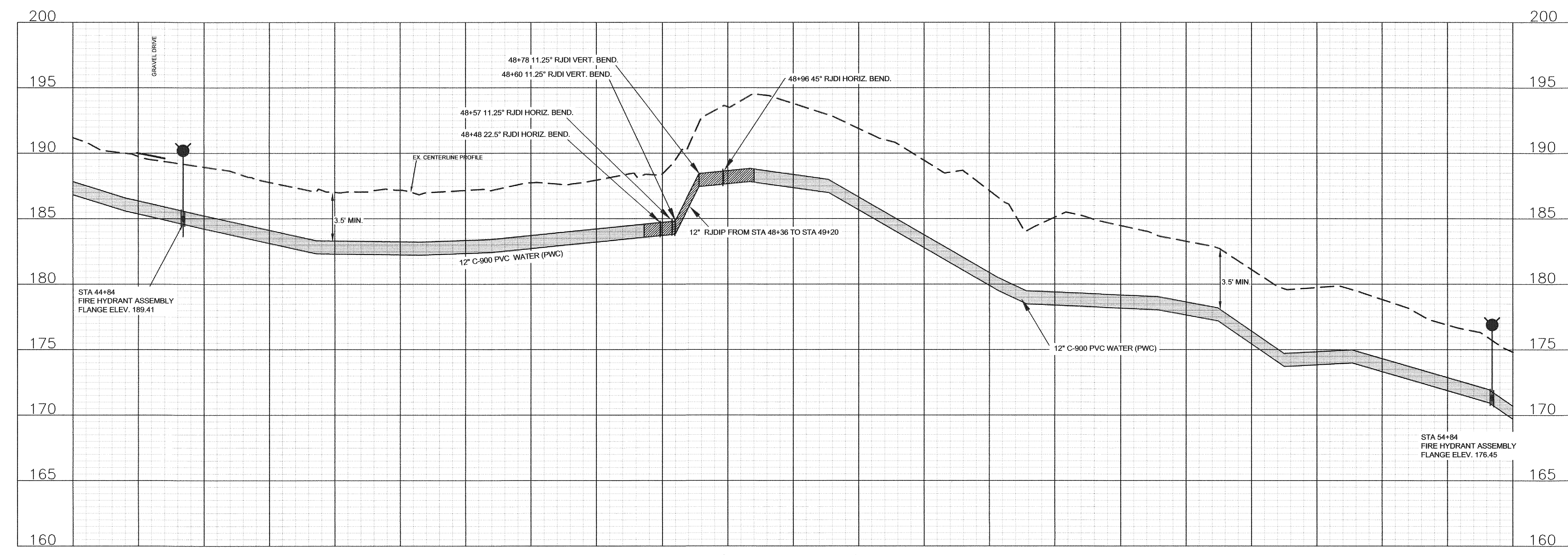


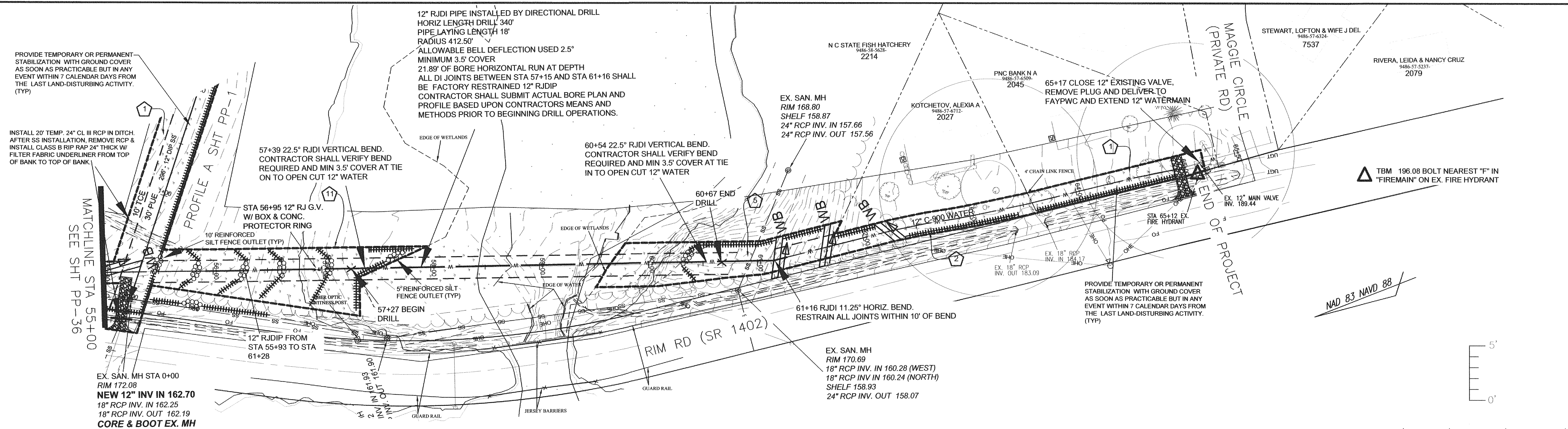
12" WATER MAIN EXTENSION RIM RD STA 44+00 TO 55+00

Parcel Number	Address	Special Conditions
9486-69-0096	1873 Rim Road	Possible septic conflict.
9486-69-1447	N/A	Temporary Fencing Required.
9486-50-7460	1825 Callner Drive	Temporary Fencing Required.

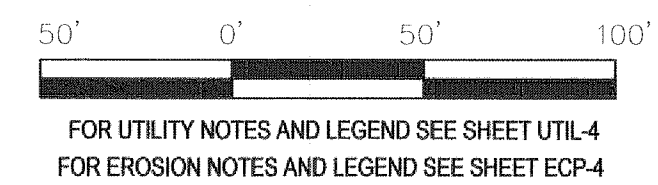
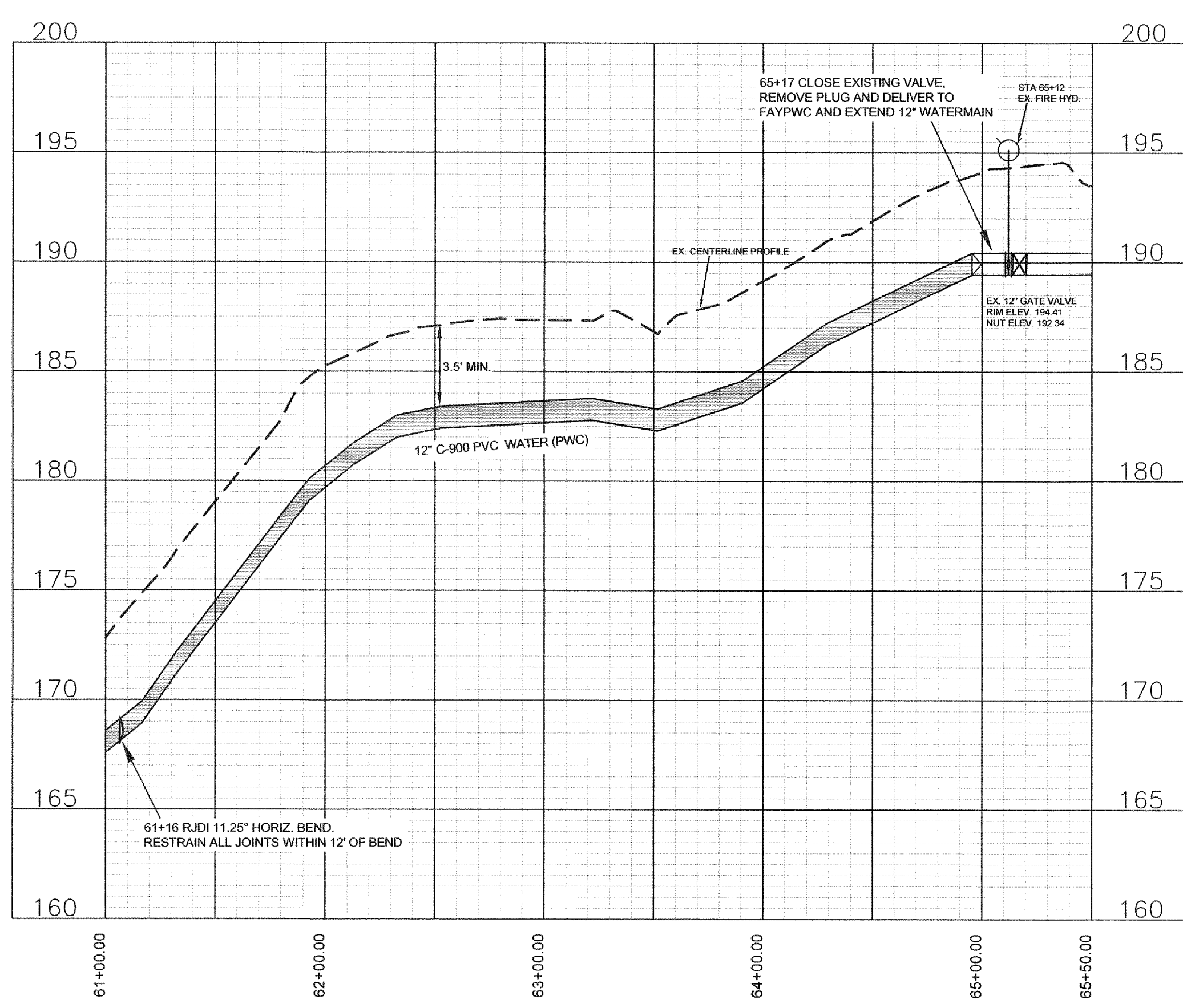
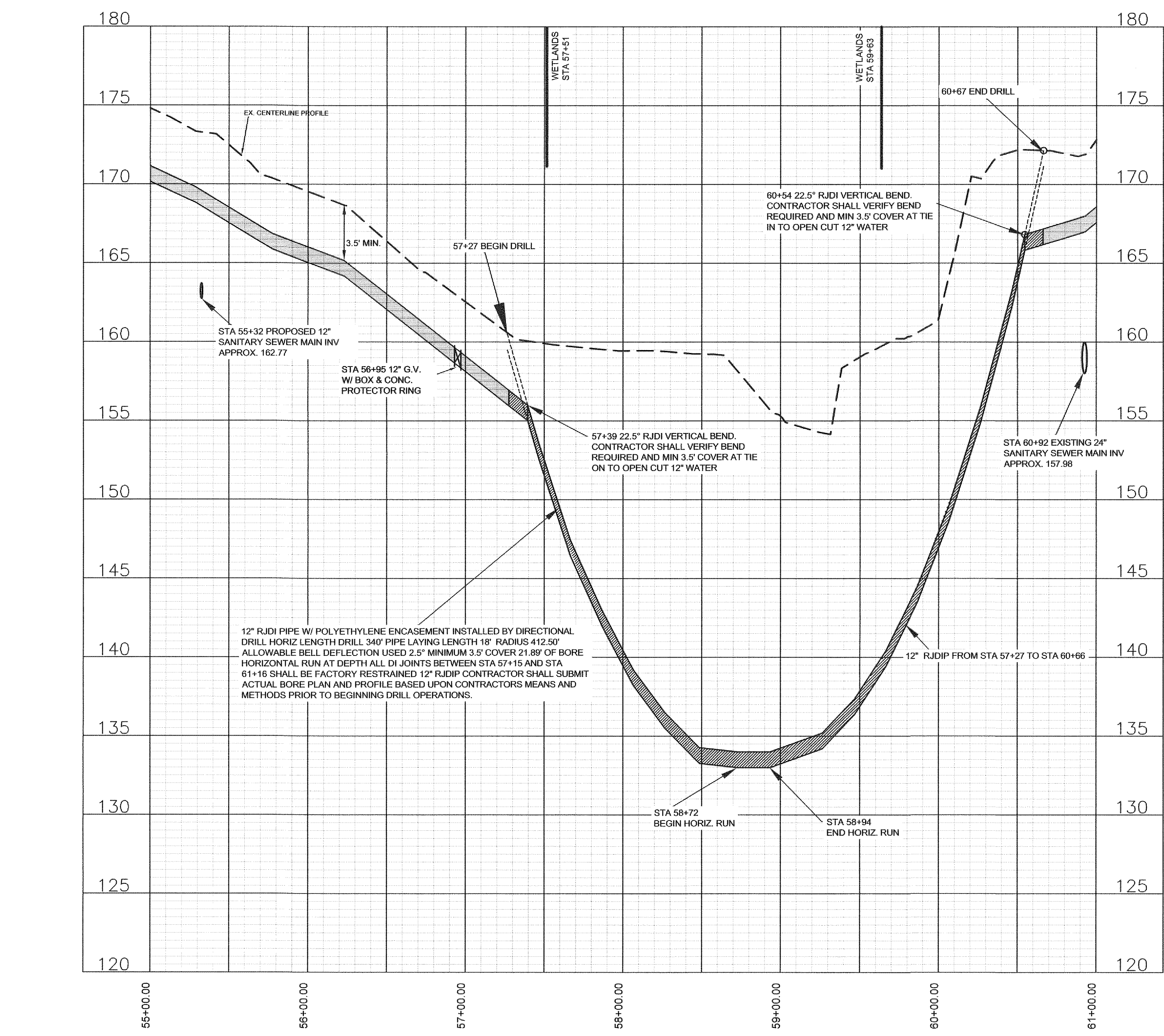
WATER SERVICE NOTE:
CONTRACTOR SHALL INSTALL WATER SERVICES THAT CROSS PAVEMENT BY TRENCHLESS METHOD (TYP.)

CONTRACTOR SHALL REGRADE & SOD ALL DITCHES DISTURBED BY CONSTRUCTION. (NO SEPARATE PAYMENT)





12" WATER MAIN EXTENSION RIM RD STA 55+00 TO END



PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. (TYP)

INSTALL 20" TEMP. 24" CL III RCP IN DITCH. AFTER SS INSTALLATION, REMOVE RCP & INSTALL CLASS B RIP RAP 24" THICK W/ FILTER FABRIC UNDERLINER FROM TOP OF BANK TO TOP OF BANK.

EX. SAN. MH STA 0+00
RIM 172.08
NEW 12" INV IN 162.70
18" RCP INV. IN 162.25
18" RCP INV. OUT 162.19
CORE & BOOT EX. MH & RETROFIT W/ CAMLOCK RING & COVER

12" RJDIP INSTALLED BY DIRECTIONAL DRILL
HORIZ LENGTH DRILL 340'
PIPE LAYING LENGTH 18'
RADIUS 412.50'
ALLOWABLE BELL DEFLECTION USED 2.5"
MINIMUM 3.5' COVER
21.89' OF BORE HORIZONTAL RUN AT DEPTH
ALL DI JOINTS BETWEEN STA 57+15 AND STA 61+16 SHALL
BE FACTORY RESTRAINED 12" RJDIP
CONTRACTOR SHALL SUBMIT ACTUAL BORE PLAN AND
PROFILE BASED UPON CONTRACTORS MEANS AND
METHODS PRIOR TO BEGINNING DRILL OPERATIONS.

57+39 22.5° RJDIP VERTICAL BEND.
CONTRACTOR SHALL VERIFY BEND
REQUIRED AND MIN 3.5' COVER AT TIE
ON TO OPEN CUT 12" WATER

60+54 22.5° RJDIP VERTICAL BEND.
CONTRACTOR SHALL VERIFY BEND
REQUIRED AND MIN 3.5' COVER AT TIE
IN TO OPEN CUT 12" WATER

EX. SAN. MH
RIM 168.80
SHELF 158.87
24" RCP INV. IN 157.66
24" RCP INV. OUT 157.56

65+17 CLOSE 12" EXISTING VALVE.
REMOVE PLUG AND DELIVER TO
FAYPWC AND EXTEND 12" WATERMAIN

PROVIDE TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY. (TYP)

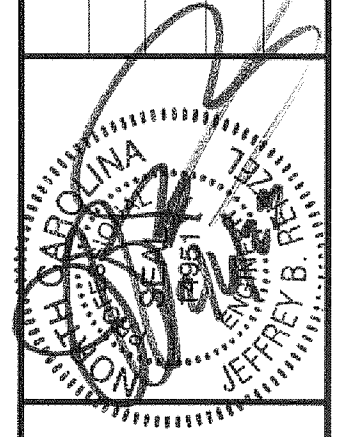
EX. SAN. MH
RIM 170.69
18" RCP INV. IN 160.28 (WEST)
18" RCP INV IN 160.24 (NORTH)
SHELF 158.93
24" RCP INV. OUT 158.07

TBM 196.08 BOLT NEAREST "F" IN
"FIREMAIN" ON EX. FIRE HYDRANT

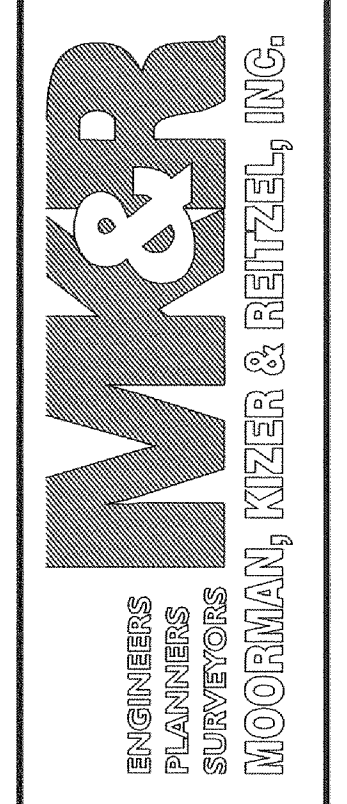
Drawn by
David Maples
Checked
David E. Vaughn, PE, PLS
Reviewed
Jeffrey B. Reitzel, PE, PLS
Date
FEB 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25
Rim Rd. STA 55+00 to End

Revision	By	Date

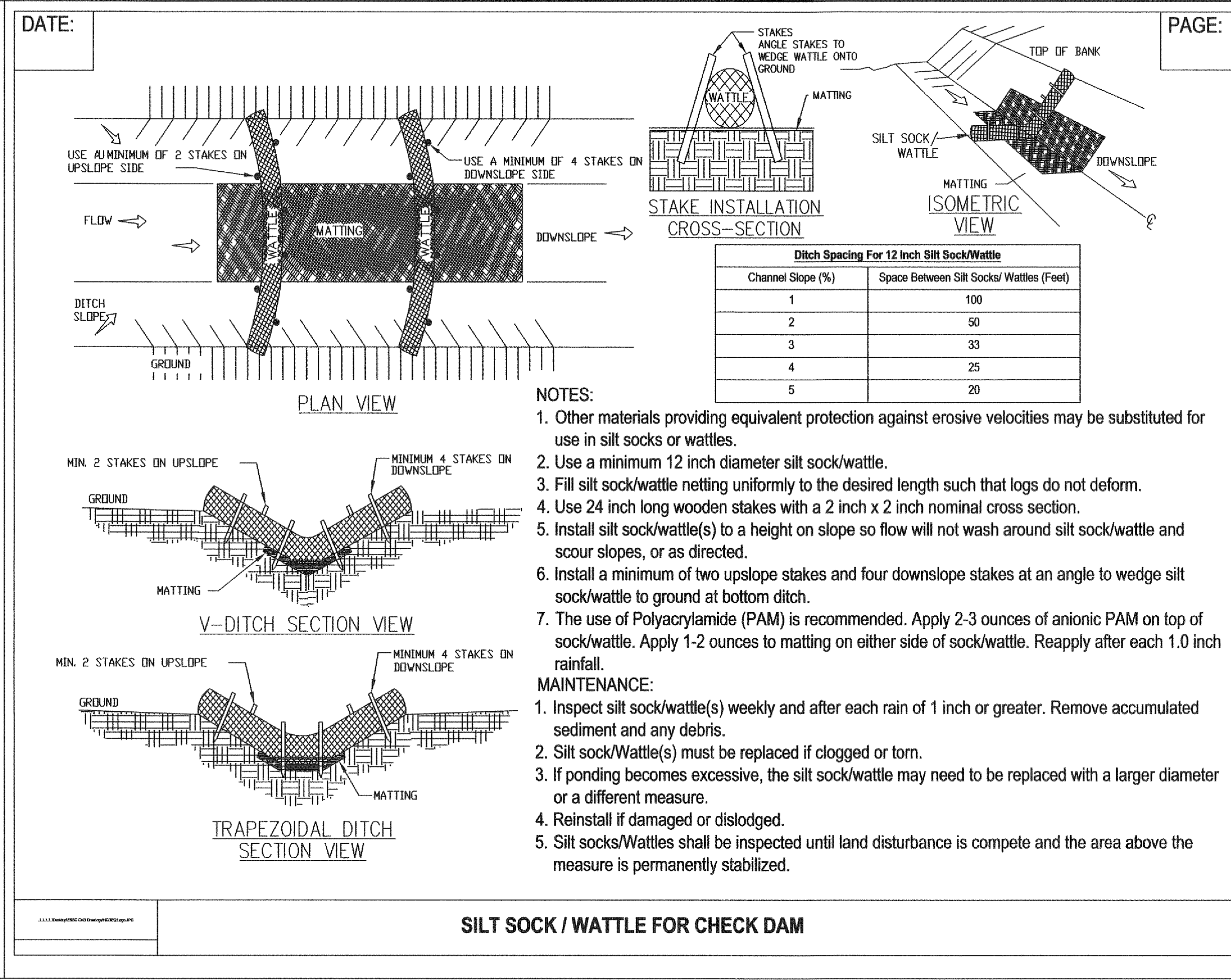
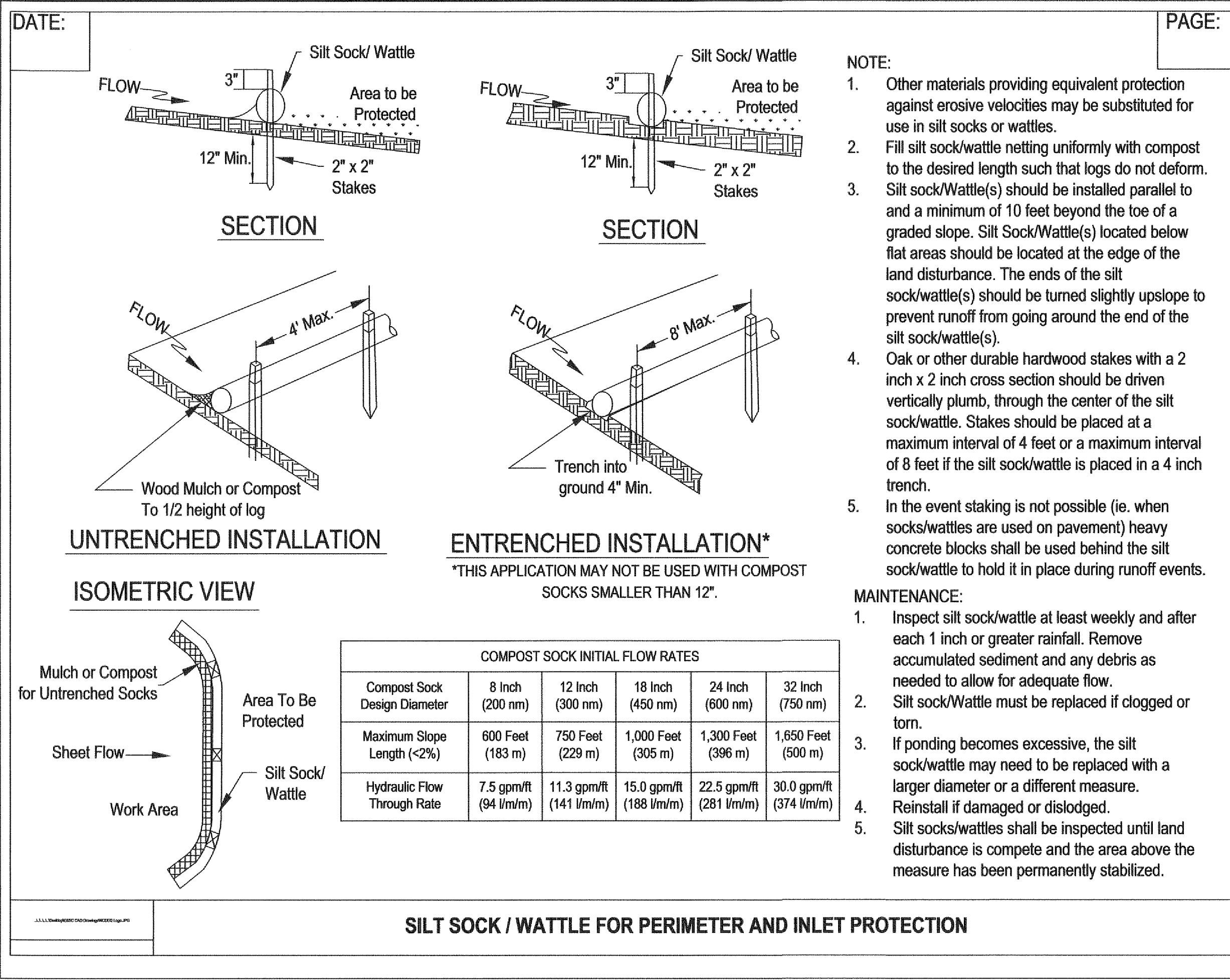


115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale
1" = 50' HOR
1" = 5' VER
Book no.
Sheet
PP-37

PWC DWG #15380

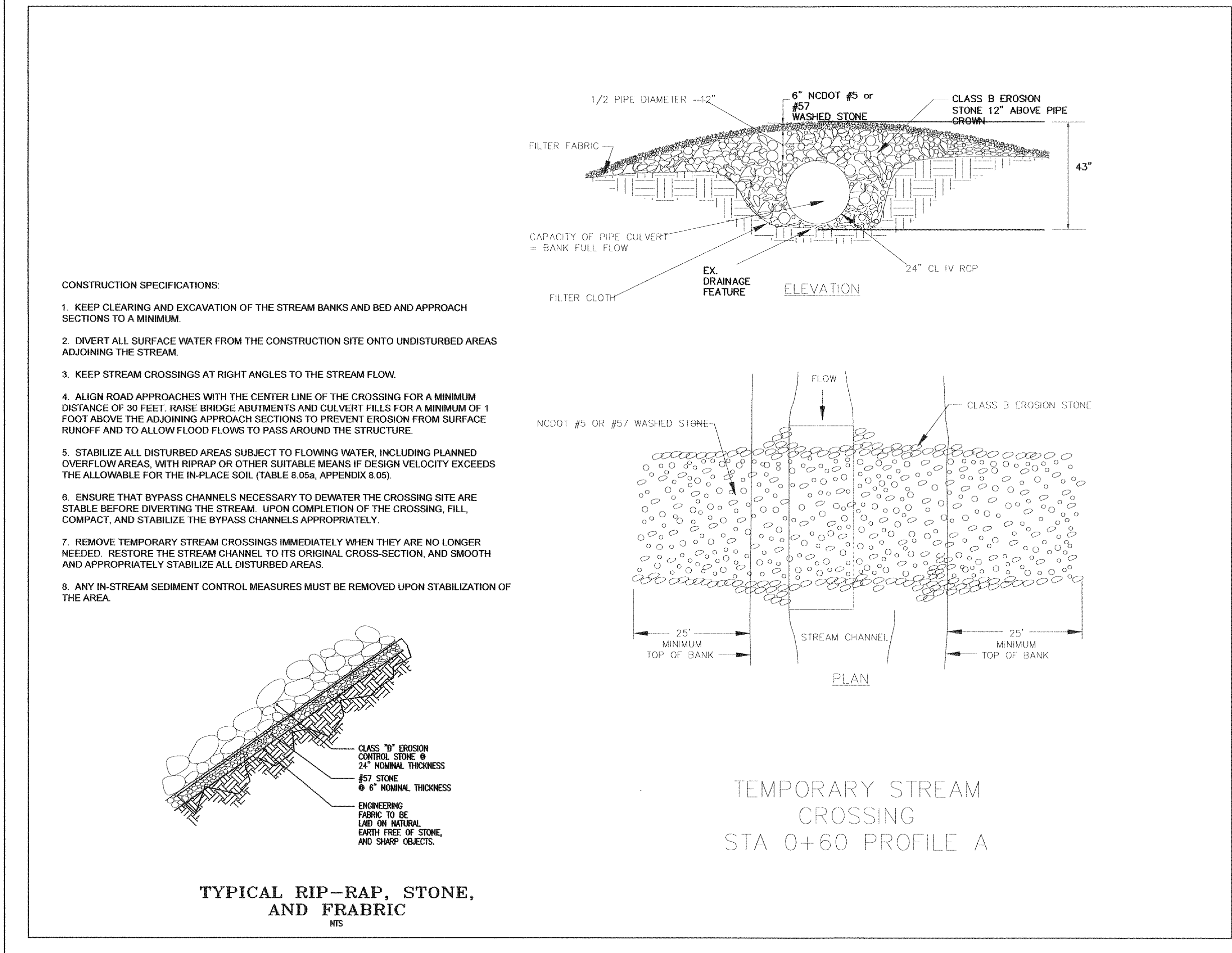
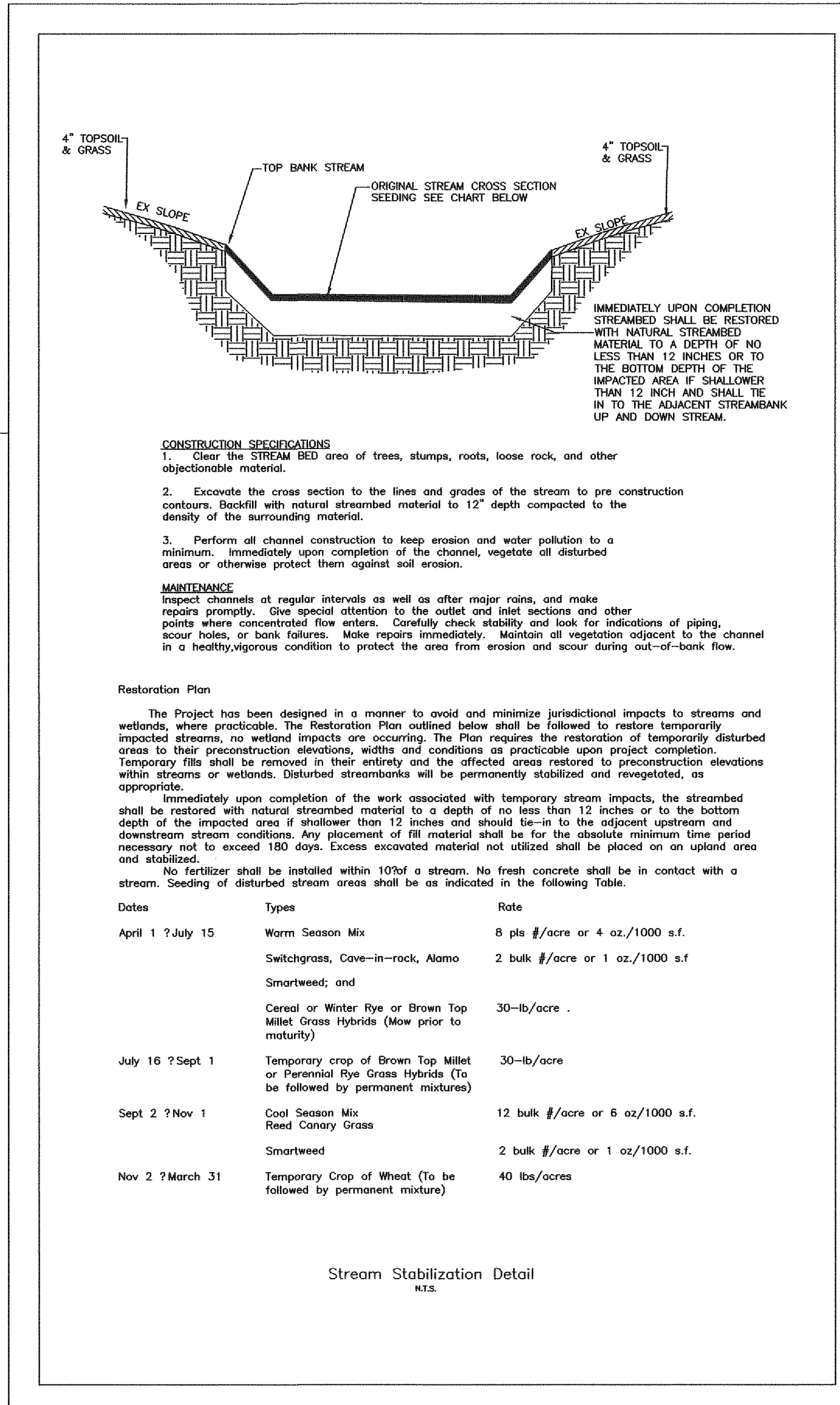


WETLAND CONSTRUCTION REQUIREMENTS

- CONSTRUCTION LIMITS/CORRIDOR (INCLUDING ROADS AND STOCKPILE AREA) TO A MAXIMUM 40 FOOT WIDTH.
- POST CONSTRUCTION GROUND CONTOURS AND ELEVATIONS MUST BE RESTORED TO THE ORIGINAL ELEVATIONS.
- THE TOP 6" TO 12" OF THE TRENCH SHALL BE BACKFILLED WITH THE TOPSOIL AND/OR SOIL EXISTING PRIOR TO CONSTRUCTION.
- EXCESS MATERIAL MUST BE REMOVED TO UPLAND AREAS AND DISPOSED OF OFF-SITE. TEMPORARY PLACEMENT/STOCKPILE FOR ABSOLUTE MINIMUM PERIOD OF TIME.
- DISTURBED SLOPES AND STREAM BANKS MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF THE UTILITY LINE OR IMMEDIATELY AT EACH STREAM CROSSING.
- NOTIFY COE DISTRICT ENGINEER AND RECEIVE WRITTEN APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
- INSTALL ANTI-SEEP COLLARS EVERY 150 FEET OR AS SHOWN ON PLANS.
- NO FERTILIZER SHALL BE APPLIED WITHIN 10 FEET OF STREAM.
- NO FRESH CONCRETE SHALL BE IN CONTACT WITH STREAMS.
- SEEDING SHALL BE IN ACCORDANCE WITH THE SPECIFIED MIXTURE FOR WETLAND AREAS.

WETLAND CONSTRUCTION REQUIREMENTS		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
DWG. NO. N.6	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT				
DATE: JAN. 01, 2021	APPROVED BY: J.E.G.					

Scale AS SHOWN
Book no.
Sheet D-1



Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date JAN 2023

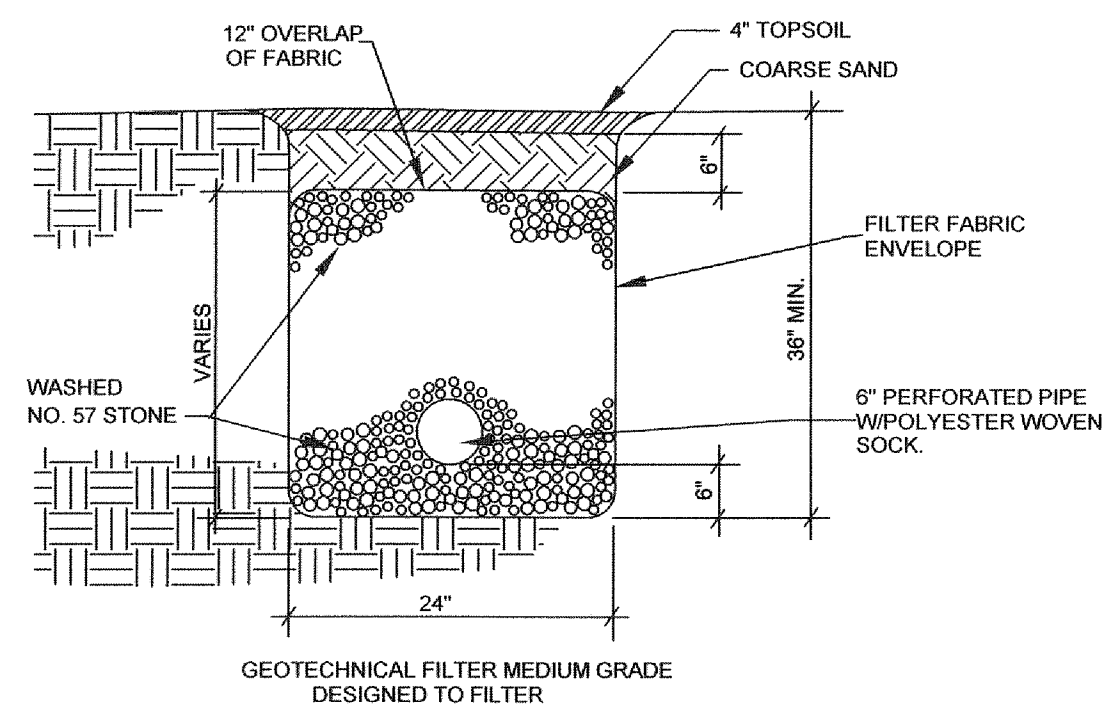
Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
EROSION CONTROL DETAILS

Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

M&R
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, NIZER & REITZEL, INC.

Scale AS SHOWN
Book no.
Sheet D-1



- NOTES:
1. WRAP PERFORATED PIPE WITH FILTER FABRIC. PROVIDE 1.5 TIMES THE CIRCUMFERENCE.
 2. PIPE SHALL BE PERFORATED WITH 1/2\"/>

FABRIC REQUIREMENTS		
PHYSICAL PROPERTIES	TEST METHOD	TYP. MIN. AVG
TENSILE STRENGTH (lb/in)	ASTM D-1682	90
TENSILE ELONGATION (%)	ASTM D-1682	60
BURST STRENGTH (PSI)	MULLEN BURST	230
ACCELERATED WEATHERING (STRENGTH RETAINED %)	FEDERAL TEST METHOD CCC-T-191 METHOD 5804 (500 HOURS EXPOSURE)	70
PERMEABILITY COEFFICIENT (cm/sec)	FALLING HEAD (75mm TO 25mm)	0.20
EQUIV. OPNG SIZE	CW-02215, U.S. SIEVE NO. EQUIV.	70 MIN.

FRENCH DRAIN NTS

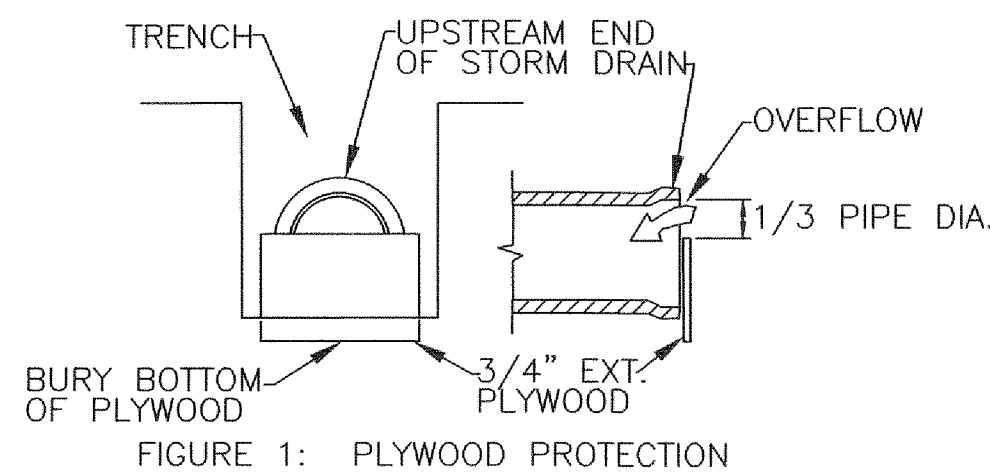


FIGURE 1: PLYWOOD PROTECTION

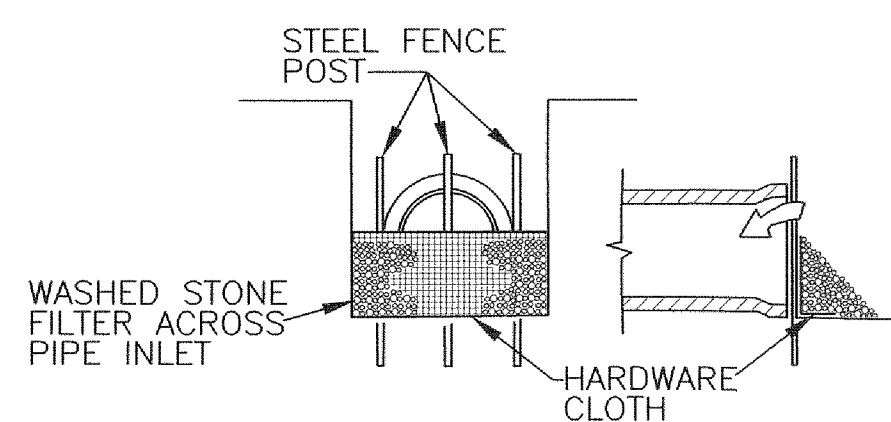
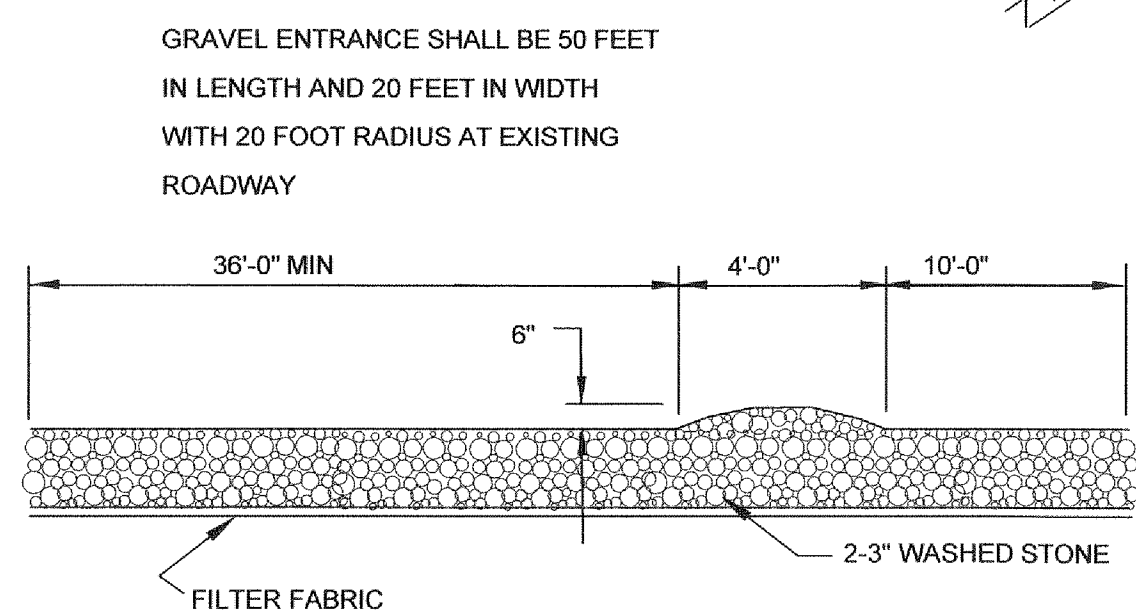


FIGURE 2: STONE FILTER PROTECTION INLET PROTECTION FOR STORM DRAINAGE UNDER CONSTRUCTION N.T.S.

CONSTRUCTION SPECIFICATIONS

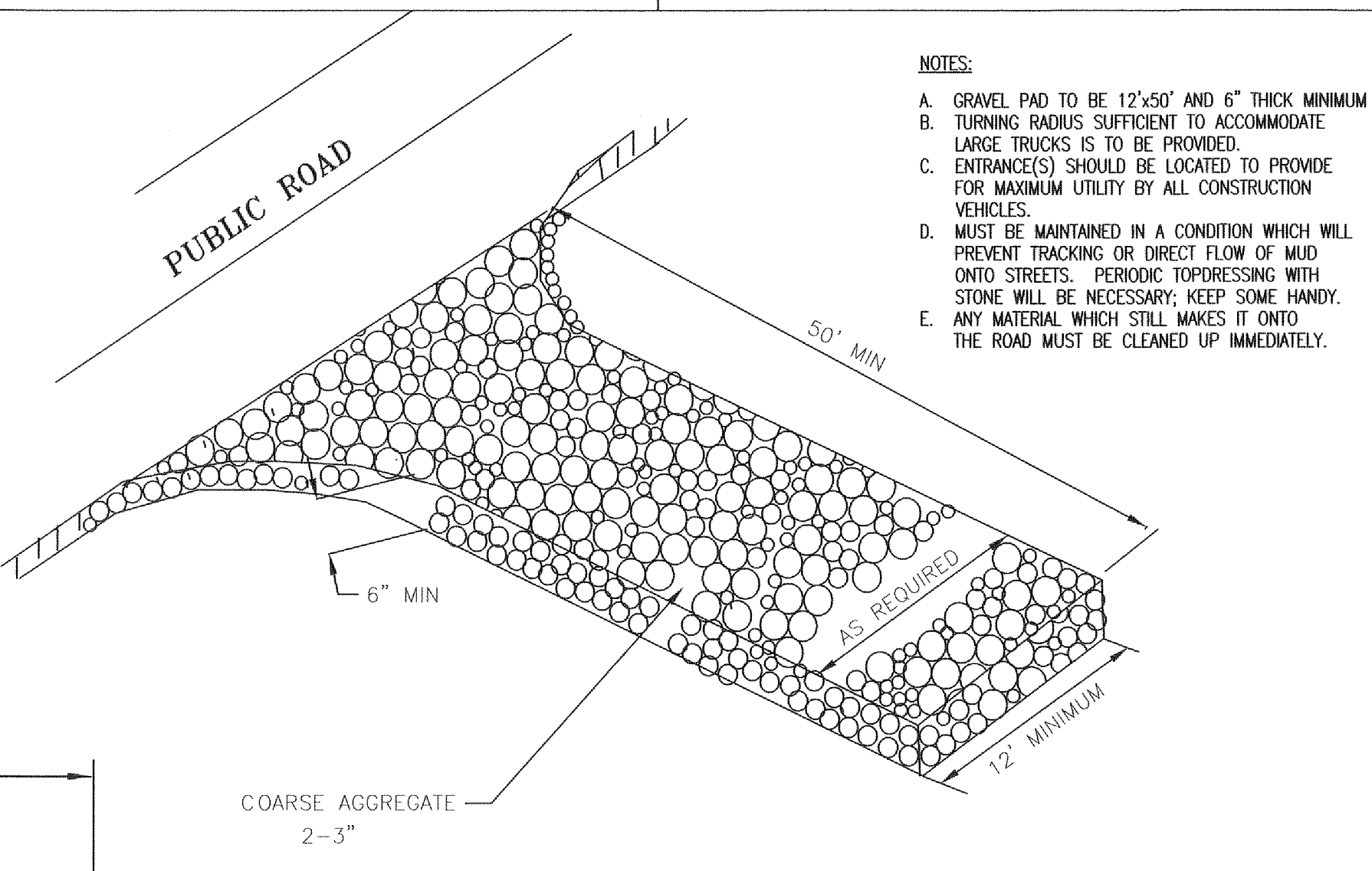
1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.
3. Provide drainage to carry water to a sediment trap or other suitable outlet.
4. Use geotextile fabrics because they improve stability of the foundation in locations subject to seepage or high water table.

MAINTENANCE
Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic tamping with 2-inch stone. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.



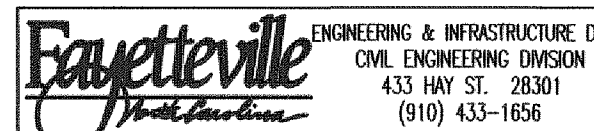
TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S.



COARSE AGGREGATE 2-3"

NOTES: APPLICABLE AT ALL POINTS OF INGRESS & EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.



GRAVEL CONSTRUCTION ENTRANCE/EXIT

DATE	4/3/08	DRAWN BY	CSA
SCALE	N.T.S.	CK'D BY	JFB

CAD FILE : ENTXIT

EC-2

Restoration Plan

The Project has been designed in a manner to avoid and minimize jurisdictional impacts to streams and wetlands, where practicable. The Restoration Plan outlined below shall be followed to restore temporarily impacted streams, no wetland impacts are occurring. The Plan requires the restoration of temporarily disturbed areas to their preconstruction elevations, widths and conditions as practicable upon project completion. Temporary fills shall be removed in their entirety and the affected areas restored to preconstruction elevations within streams or wetlands. Disturbed streambanks will be permanently stabilized and revegetated, as appropriate.

Immediately upon completion of the work associated with temporary stream impacts, the streambed shall be restored with natural streambed material to a depth of no less than 12 inches or to the bottom depth of the impacted area if shallower than 12 inches and should tie-in to the adjacent upstream and downstream stream conditions. Any placement of fill material shall be for the absolute minimum time period necessary not to exceed 180 days. Excess excavated material not utilized shall be placed on an upland area and stabilized.

No fertilizer shall be installed within 10' of a stream. No fresh concrete shall be in contact with a stream. Seeding of disturbed stream areas shall be as indicated in the following Table.

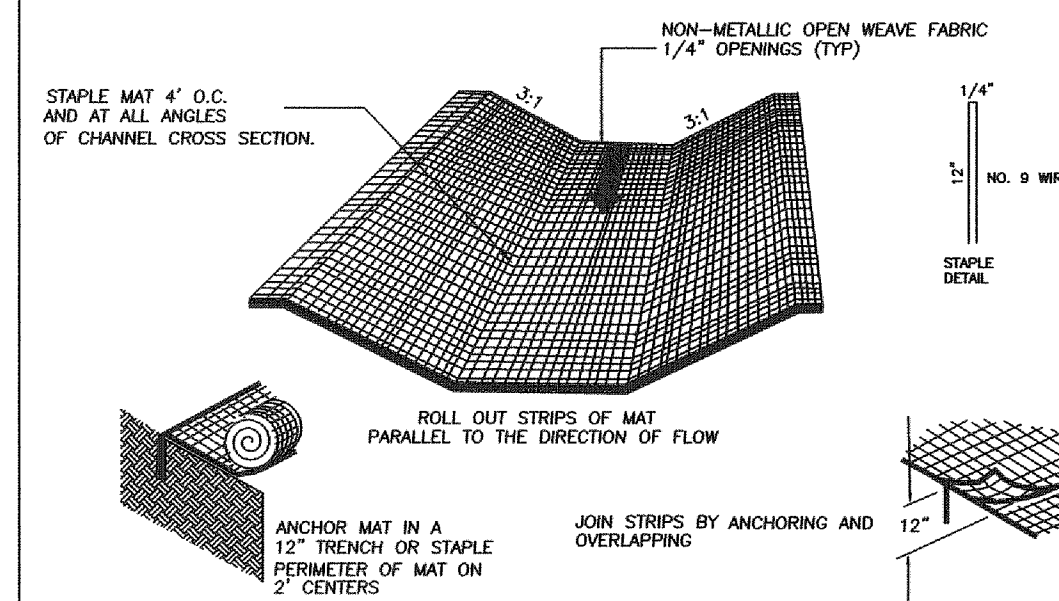
Dates	Types	Rate
April 1 – July 15	Warm Season Mix Switchgrass, Cave-in-rock, Alamo Smartweed; and Cereal or Winter Rye or Brown Top Millet Grass Hybrids (Mow prior to maturity)	8 pls #/acre or 4 oz./1000 s.f. 2 bulk #/acre or 1 oz./1000 s.f.
July 16 – Sept 1	Temporary crop of Brown Top Millet or Perennial Rye Grass Hybrids (To be followed by permanent mixtures)	30-lb/acre
Sept 2 – Nov 1	Cool Season Mix Reed Canary Grass	12 bulk #/acre or 6 oz/1000 s.f.
Nov 2 – March 31	Smartweed Temporary Crop of Wheat (To be followed by permanent mixture)	2 bulk #/acre or 1 oz/1000 s.f. 40 lbs/acre

STREAM RESTORATION

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE NORTH CAROLINA EROSION AND SEDIMENT CONTROL HANDBOOK. (NO SEPARATE PAYMENT).
2. THE CONTRACTOR SHALL NOTIFY PLAN APPROVING AUTHORITY ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO CLEARING AND/OR LAND DISTURBANCE.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO OFF-SITE BORROW OR WASTE AREAS, STAGING OR STORAGE AREAS), THE CONTRACTOR SHALL PREPARE AND SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND TO NCDEM'S REGIONAL OFFICE FOR APPROVAL. CONTRACTOR SHALL PAY ALL FEES REQUIRED AND SHALL INSTALL NECESSARY MEASURES AT NO SEPARATE PAYMENT. THE CONTRACTOR SHALL PROVIDE THE OWNER AND THE ENGINEER A COPY OF THE AMENDED PERMIT.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY EITHER NCDEM OR THE ENGINEER. (NO SEPARATE PAYMENT).

7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. ALL AREAS DISTURBED BY CONSTRUCTION UNLESS OTHERWISE IMPROVED SHALL BE SOODED OR SEEDED AS INDICATED AND STABILIZED.
9. DURING DEMATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE PRIOR TO DISCHARGE TO RECEIVING OUTLET.
10. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED BY CONTRACTOR ONCE STABILIZATION OR A SUFFICIENT GROUND COVER HAS BEEN ESTABLISHED OR AS DIRECTED BY THE ENGINEER. (NO SEPARATE PAYMENT). NCDEM'S FINAL APPROVAL IS REQUIRED.
12. TEMPORARY GRAVEL CONSTRUCTION ENTRANCE SHALL BE REQUIRED AT ALL CONSTRUCTION STAGING AREA ENTRANCES AND ALL CONSTRUCTION ACCESS LOCATIONS INTO NON-PAVED AREA. (NO SEPARATE PAYMENT).
13. WHEN CROSSING CREEK OR DRAINAGE-WAY, THE CONTRACTOR SHALL RIP-RAP WITH FABRIC DISTURBED BANKS AND CHANNEL AND RESTORE SLOPES TO ORIGINAL CONTOURS, BUT NOT STEEPER THAN 2:1 MAXIMUM. DISTURBED CREEK AREA SHALL BE STABILIZED IMMEDIATELY.

GENERAL EROSION AND SEDIMENT CONTROL NOTES



CURLED WOOD MATTING N.T.S.

- NOTES:
1. PRODUCTS DESIGNED TO CONTROL EROSION SHOULD BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ANY MAT OR BLANKET-TYPE PRODUCT USED AS A PROTECTIVE MESH SHOULD PROVIDE COVER OF AT LEAST 90% OF THE SURFACE WHERE IT IS APPLIED.
 1. APPLY LIQUID FERTILIZER, AND SEED BEFORE LAYING THE NET OR MAT.
 2. START LAYING THE NET FROM THE TOP OF THE CHANNEL OR SLOPE, AND UNROLL IT DOWN THE GRADE ALLOWING NETTING TO LAY LOOSELY ON THE SOIL OR MULCH COVER BUT WITHOUT WRINKLES. DO NOT STRETCH.
 3. TO SECURE THE NET, BURY THE LIPS OF NET END IN A SLOT OR TRENCH NO LESS THAN 6 INCHES DEEP. COVER WITH SOIL, AND TAMP FIRMLY. STAPLE THE NET EVERY 12 INCHES ACROSS THE TOP END AND EVERY 3 FEET ALONG THE SIDES AND BOTTOM. WHERE STAPLES ARE NOT AVAILABLE, STAPLE THE ADJACENT EDGES SHOULD BE OVERLAPPED 3 INCHES AND STAPLED TOGETHER. EACH END OF NETTING SHOULD ALSO BE STAPLED DOWN THE CENTER, EVERY 3 FEET TO 6 FEET ON THE NET WHEN APPLYING STAPLES.
 4. TO JOIN 2 STRIPS, CUT A TRENCH TO ANCHOR THE END OF THE NEW MAT OVERLAP THE END OF THE PREVIOUS ROLL 18 INCHES AND STAPLE EVERY 12 INCHES JUST BELOW THE ANCHOR SLOT.

- MAINTENANCE
1. Inspect Rolled Erosion Control Products at least weekly and after each significant (1/2 inch or greater) rainfall event repair immediately.
 2. Contact with the ground must be maintained, and erosion must not occur beneath the RECP.
 3. Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and applied immediately.
 4. If erosion occurs due to seeds controlled drainage, the problem shall be fixed and the eroded area protected.
 5. Monitor and repair the RECP as necessary until ground cover is established.

DESIGN CRITERIA:

Height: 18" Minimum from Channel Bottom to Ridge Top

Side Slopes: 2:1 or flatter
3:1 or flatter where vehicles cross

Base Width of Ridge: 6' minimum

Slope (%)	Spacing (ft)
<5	125
5 to 10	100
10 to 20	75
20 to 35	50
>35	25

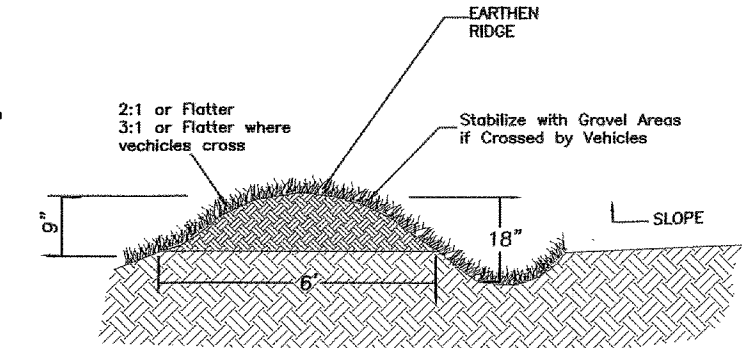
Grade and Angle: Crossing angle selected to provide a positive grade not to exceed 2%

Outlet: Diversions should have stable outlets, either natural or constructed. Site spacing may need to be adjusted for field conditions to use the most suitable areas for water disposal.

NOTES:

1. Install the diversion as soon as the right-of-way has been cleared and graded.
2. Disk the base for the constructed ridge before placing fill.
3. Track the ridge to compact it to the design cross section.
4. Locate the outlet on an undisturbed area. Adjust field spacing of the diversion to use the most stable outlet areas. When natural areas are not deemed satisfactory, provide outlet protection (Practices 6.40, Level Spreader, and 6.41, Outlet Stabilization Structure).
5. Immediately seed and match the portions of the diversions not subject to construction traffic. Stabilize with gravel areas to be crossed by vehicles.

R/W DIVERSION (WATER BAR) N.T.S.



MAINTENANCE:

Periodically inspect right-of-way diversions for wear and after every heavy rainfall for erosion damage. Immediately remove sediment from the flow area and repair dike. Check outlet areas and make timely repairs as needed. When permanent road drainage is established and the area above the temporary right-of-way diversions is permanently stabilized, remove the dike and fill the channel to blend with the natural ground, and appropriately stabilize the disturbed area.

SILTSACK SPECIFICATIONS

NOTE: THE SILTSACK SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

REGULAR FLOW SILTSACK

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4365	80 %
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI-FLOW SILTSACK

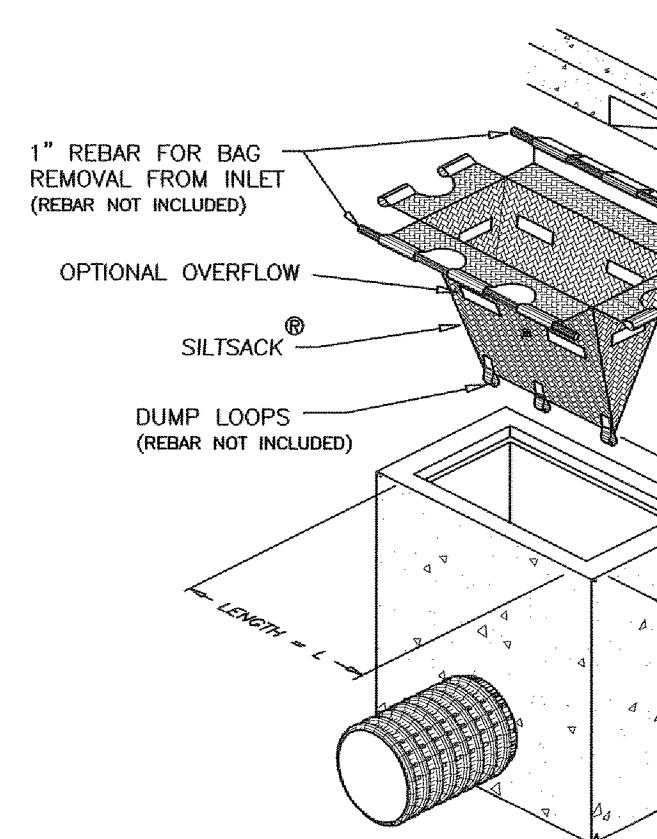
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20 %
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4365	90 %
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

OIL-ABSORBANT SILTSACK

(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILTSACK CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WITH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK WITH A WOVEN PILLOW INSERT.



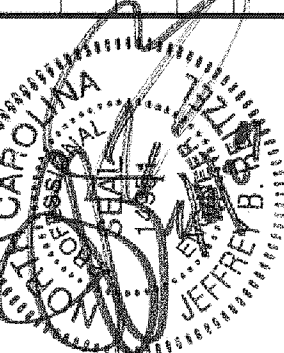
HIGH FLOW SILTSACK N.T.S.

- MAINTENANCE**
Inspect silt sack at least once a week and after each rainfall. Make any required repairs immediately.
- Should the fabric of a silt sack collapse, tear, decompose or become ineffective, replace it promptly.
- Removal of Accumulated Silt
Remove sediment deposits, soil on flaps and around foam at inlet opening as necessary.
Remove basin cover grate.
Remove silt sack by attaching cables to rebar for lifting.
Place wheel barrow or similar device under bag.
Remove rebar from dump loops and empty bag.
Brush inside of bag to remove soil materials left after dumping operation.
Replace rebar in dump loops.
Place silt sack in basin, ensure emptying flaps are flat.
Place grate insure sack is properly positioned in inlet.
Remove soil from wheel barrow and haul to approved disposal area or permitted landfill.
- Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

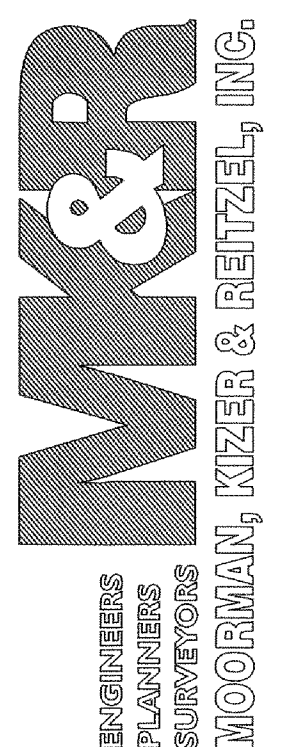
Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Retzel, PE, PLS
Date JAN 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
EROSION CONTROL DETAILS

By	Date



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



Scale AS SHOWN
Book no.
Sheet D-2

Fertilizer Topdressing:

Fertilizer used for topdressing on all roadway areas except slopes 2:1 and steeper shall be 10-20-20 written approval of the Engineer, a different analysis of fertilizer may be used provided grade and shall be applied at the rate of 500 pounds per acre (560kg per hectare). Upon the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 10-20-20 analysis.

Fertilizer used for topdressing on slopes 2:1 and steeper and waste and borrow areas shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre (560 kg per hectare). Upon written approval of the Engineer, a different analysis of fertilizer may be used providing the 2-1-1 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 16-8-8 analysis.

Crimping Straw Mulch:

Crimping will be required on these project adjacent to any section of roadway where traffic is to be maintained or allowed during construction. In areas within six feet (2 meters) of the edge of pavement, straw is to be crimped and the immediately tacked with asphalt tack.

Crimping of straw in lieu of asphalt tack will be allowed on this project subject to the following conditions:

All areas seeded and mulched shall be crimped and/or tacked with asphalt as directed by the Engineer.

Crimping will be limited to slopes 4:1 or flatter unless the Contractor can demonstrate to the Engineer that the steeper slopes can be negotiated without altering the typical section.

Straw mulch to be of sufficient length and quality to withstand the crimping operation and provide adequate ground cover.

Crimping equipment including power source shall be subject to the approval of the Engineer providing that maximum spacing of crimper blades shall not exceed 8 inches (200 mm).

MAINTENANCE SCHEDULE:

- All erosion and sediment control practices will be checked for stability and operation following every storm event, but in no case less than once every week. Any repairs or cleaning necessary to maintain erosion and sediment control practices shall be completed immediately.
- All seeded areas will be reseeded, reseeded as necessary, and mulched according to the project specifications.

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined by the Engineer. All rates per acre (kilograms per hectare.)

March 1 - August 31	September 1 - February 28
50# (55kg) Tall Fescue	50# (55kg) Tall Fescue
5# (6kg) Centipede	5# (6kg) Centipede
25# (28kg) Bermudagrass (hulled)	35# (40kg) Bermudagrass (unhulled)
500# (560kg) Fertilizer	500# (560kg) Fertilizer
4000# (4500kg) Limestone	4000# (4500kg) Limestone

Slopes 2:1 and Steeper and Waste and Borrow Locations:

March 1 - August 31	September 1 - February 28
75# (85kg) Tall Fescue	75# (85kg) Tall Fescue
25# (28kg) Bermudagrass (hulled)	35# (40kg) Bermudagrass (unhulled)
500# (560kg) Fertilizer	500# (560kg) Fertilizer
4000# (4500kg) Limestone	4000# (4500kg) Limestone

PERMANENT SEEDING SPECIFICATION:

- All disturbed areas shall be dressed to typical sections and plowed to a depth of 5 inches. The top 2 inches shall be pulverized to provide uniform seedbed. NOTE: If law should be applied with necessary equipment to give uniform distribution of these materials. The handbroadcast method is not acceptable. Lime and fertilizer should be incorporated into the soil prior to seeding.

	RATES
Artemis Ryegrass	50 lb/acre
Pennsetum Bahagrass	50 lb/acre
Kentucky 31 Fescue	50 lb/acre
Korean Lespedeza	50 lb/acre
Centipedegrass	50 lb/acre
Common Bermudagrass	25 lb/acre
10-20-20 Fertilizer	500 lb/acre
Agricultural Limestone	4000 lb/acre

- Seeded areas shall be mulched to firm seedbed and to cover seed.
- Grass straw shall be applied over seeded areas as much. No bare ground shall be visible in the mulched area if proper applications is achieved. Thick clumps of straw are not permissible as uniform coverage is expected. Straws shall be applied at a minimum of 4000 lb/acre.
- The mulched area shall be tacked with liquid asphalt sufficient to hold straw in place where directed by Engineer.
- Ditch treatment shall be used in areas where steep grades could cause ditch erosion. Use of lime mesh, excelsior matting, or fibreglass matting is acceptable. Ditch treatment should be installed before mulching operation.
- Buildup is to provide a permanent ground cover sufficient to restrain erosion on such exposed areas within 15 working days or 90 calendar days, whichever is shorter, after completion of construction or development.

Approved Tall Fescue Cultivars:

Artemis	Adventure	Aringo
Aslan	Apache	Arlt
Chapel Hill	Bookstone	Bonanza II
Crossfire II	Chesapeake	Cherish
Falcon	Duster	Falcon
Genesis	Guardian	Finesawn I
Jaguar	Guarant	Hounding
Monarch	Kentucky 31	K9 Hawk
Pacer	Mustang	Olympic
Royal	Pace	Pyramid
Safari	Rebel II	Remegade
Tanahawk	Tango	Tantrum
Wolfpack	Tribute	Vegas

Fertilizer shall be 10-20-20 analysis. Upon written approval of the Engineer, a different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as 10-20-20 analysis.

PERMANENT SEEDING

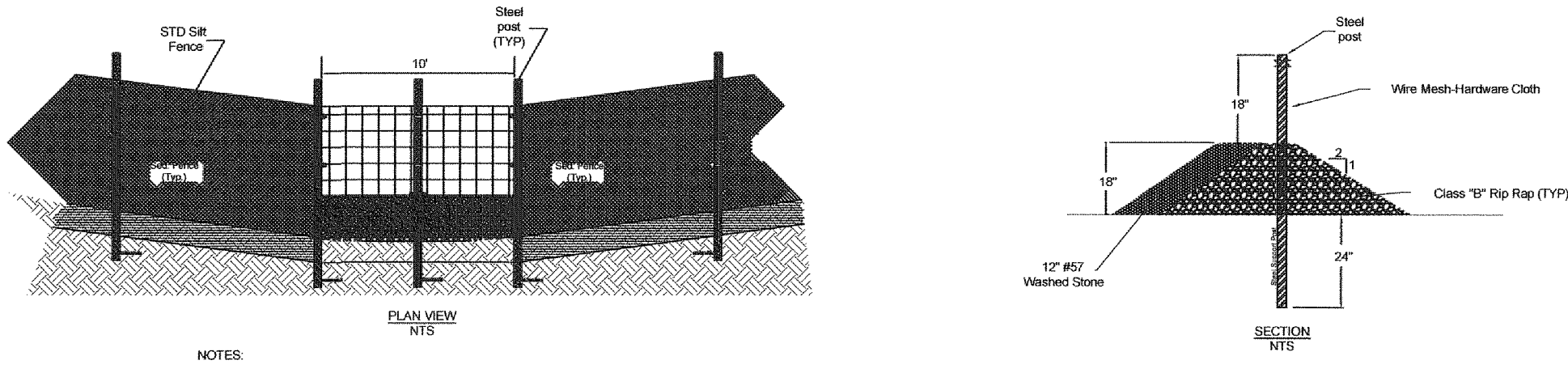
Restoration Plan

The Project has been designed in a manner to avoid and minimize jurisdictional impacts to streams and wetlands, where practicable. The Restoration Plan outlined below shall be followed to restore temporarily impacted streams, no wetland impacts are occurring. The Plan requires the restoration of temporarily disturbed areas to their preconstruction elevations, widths and conditions as practicable upon project completion. Temporary fills shall be removed in their entirety and the affected areas restored to preconstruction elevations within streams or wetlands. Disturbed streambanks will be permanently stabilized and revegetated, as appropriate.

Immediately upon completion of the work associated with temporary stream impacts, the streambed shall be restored with natural streambed material to a depth of no less than 12 inches or to the bottom depth of the impacted area if shallower than 12 inches and should tie-in to the adjacent upstream and downstream stream conditions. Any placement of fill material shall be for the absolute minimum time period necessary not to exceed 180 days. Excess excavated material not utilized shall be placed on an upland area and stabilized.

No fertilizer shall be installed within 10' of a stream. No fresh concrete shall be in contact with a stream. Seeding of disturbed stream areas shall be as indicated in the following Table.

Dates	Types	Rate
April 1 - July 15	Warm Season Mix Switchgrass, Cave-in-rock, Alamo Smartweed; and	8 pls #/acre or 4 oz./1000 s.f.
	Cornal or Winter Rye or Brown Top Millet Grass Hybrids (Mow prior to maturity)	30-lb/acre .
July 16 - Sept 1	Temporary crop of Brown Top Millet or Perennial Rye Grass Hybrids (To be followed by permanent mixtures)	30-lb/acre
Sept 2 - Nov 1	Cool Season Mix Reed Canary Grass	12 bulk #/acre or 6 oz./1000 s.f.
	Smartweed	2 bulk #/acre or 1 oz./1000 s.f.
Nov 2 - March 31	Temporary Crop of Wheat (To be followed by permanent mixture)	40 lbs/acres



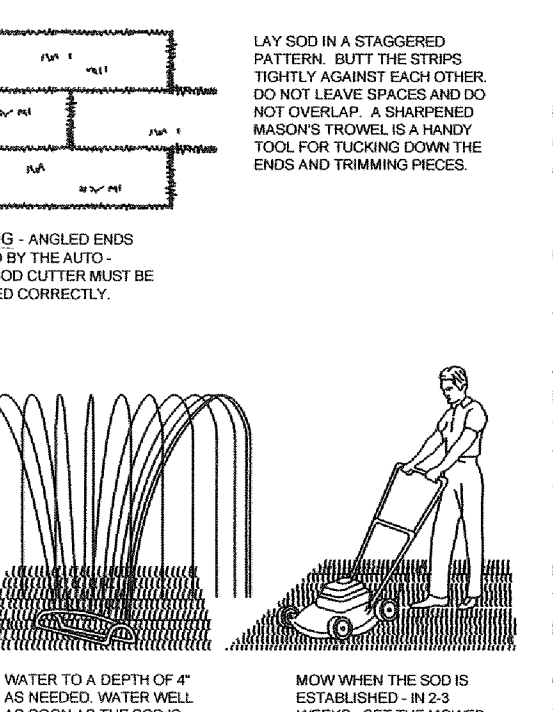
REINFORCED SILT FENCE OUTLET

- NOTES:**
- INSTALL SILT FENCE PER STD. SILT FENCE DETAIL.
 - LOCATE REINFORCED OUTLET AT LOW POINTS OF SILT FENCE BARRIER.
 - PLACE RIP-RAP WITH CARE. DO NOT TEAR SILT FENCE FABRIC.
- MAINTENANCE NOTES:**
- REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE/OUTLET. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE & REPLACE STONE AS NECESSARY AS IT BECOMES CLOGGED WITH SEDIMENT.
 - REMOVE ALL FENCING MATERIALS AND UNDESIRABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

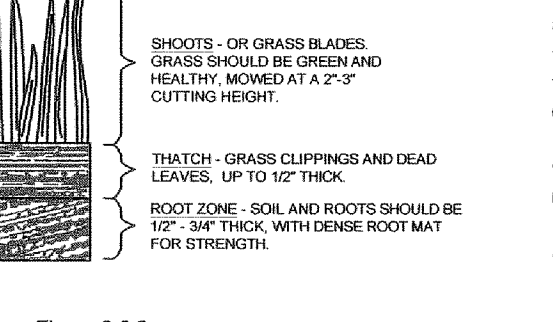
TEMPORARY SEEDING

TEMPORARY SEEDING RECOMMENDATIONS (a)	TEMPORARY SEEDING RECOMMENDATIONS (c)
Winter and Early Spring	Fall
SEEDING MIXTURE	SEEDING MIXTURE
SPECIES	Rye (grain)
Rye (grain)	120
Annual lespedeza (kobe in Piedmont and Coastal Plain, Korean in Mountains)	50
Omit annual lespedeza when duration of temporary cover is not to extend beyond June.	
SEEDING DATES	SEEDING DATES
Mountains—Above 2500 ft. Feb. 15-May 15	Below 2500 ft. Feb. 1-May 1
Piedmont—Jan. 1-May 1	Coastal Plain—Dec. 1-Apr. 15
SOIL AMENDMENTS	SOIL AMENDMENTS
Follow recommendations of soil tests or apply 2,000 lb./acre ground agriculture limestone and 750 lb./acre 10-10-10 fertilizer.	Apply 4,000 lb./acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearby straight can be used as a mulch anchoring tool.
MULCH	MULCH
Apply 4,000 lb./acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearby straight can be used as a mulch anchoring tool.	Apply 4,000 lb./acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearby straight can be used as a mulch anchoring tool.
MAINTENANCE	MAINTENANCE
Refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate.	Repair and refer to the Engineer for growth is not fully adequate. Topdress with 50 lb./acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb./acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.
TEMPORARY SEEDING RECOMMENDATIONS (b)	TEMPORARY SEEDING RECOMMENDATIONS (d)
Summer	Fall
SEEDING MIXTURE	SEEDING MIXTURE
SPECIES	Rye (grain)
German millet	40
In the Piedmont and Mountains, a small-stemmed Sudan grass may be substituted at a rate of 50 lb./acre.	
SEEDING DATES	SEEDING DATES
Mountains—May 15-Aug. 15	Piedmont—May 1-Aug. 15
Coastal Plain—Apr. 15-Aug. 15	
SOIL AMENDMENTS	SOIL AMENDMENTS
Follow recommendations of soil tests or apply 2,000 lb./acre ground agriculture limestone and 750 lb./acre 10-10-10 fertilizer.	
MULCH	MULCH
Apply 4,000 lb./acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearby straight can be used as a mulch anchoring tool.	
MAINTENANCE	MAINTENANCE
Refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate. Reseed, refer to the Engineer for growth is not fully adequate.	

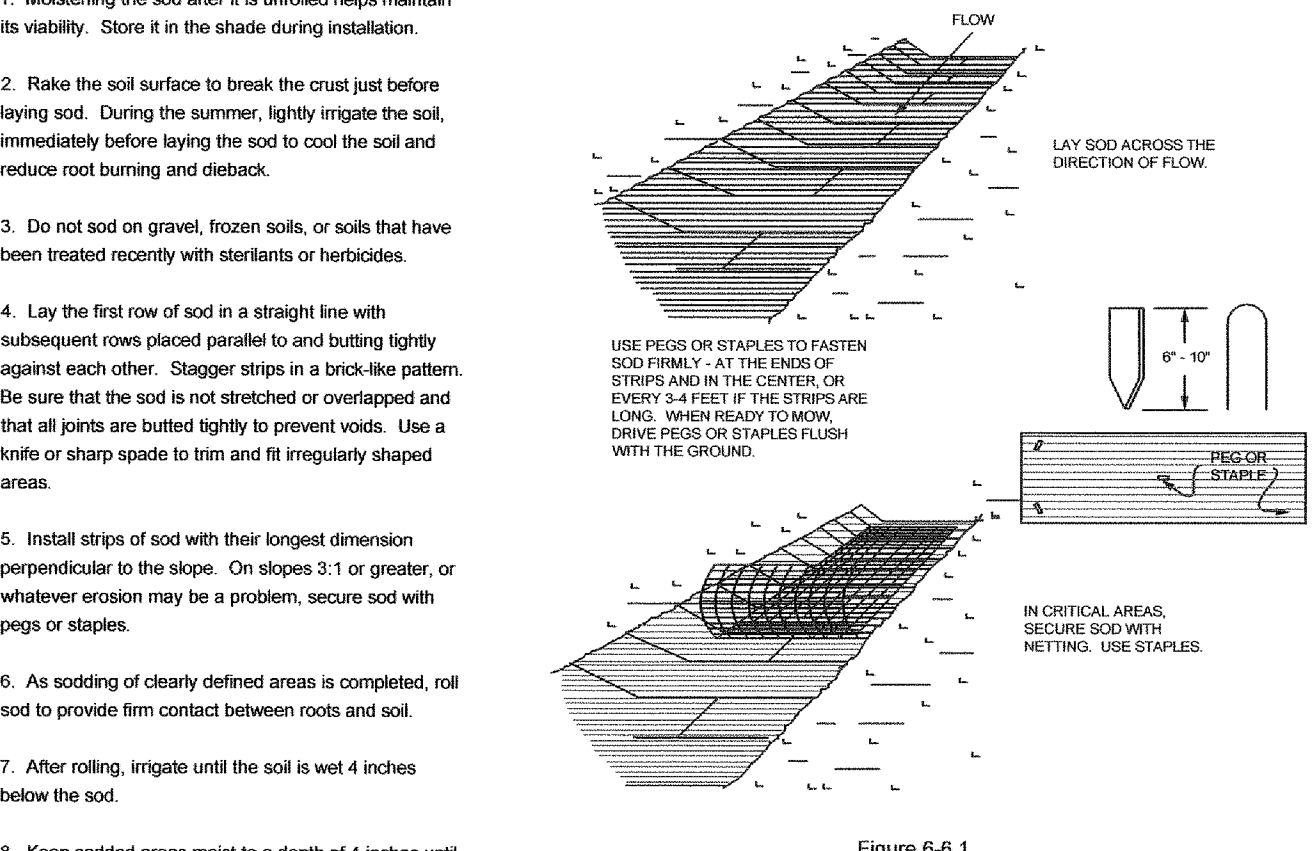
SODDING



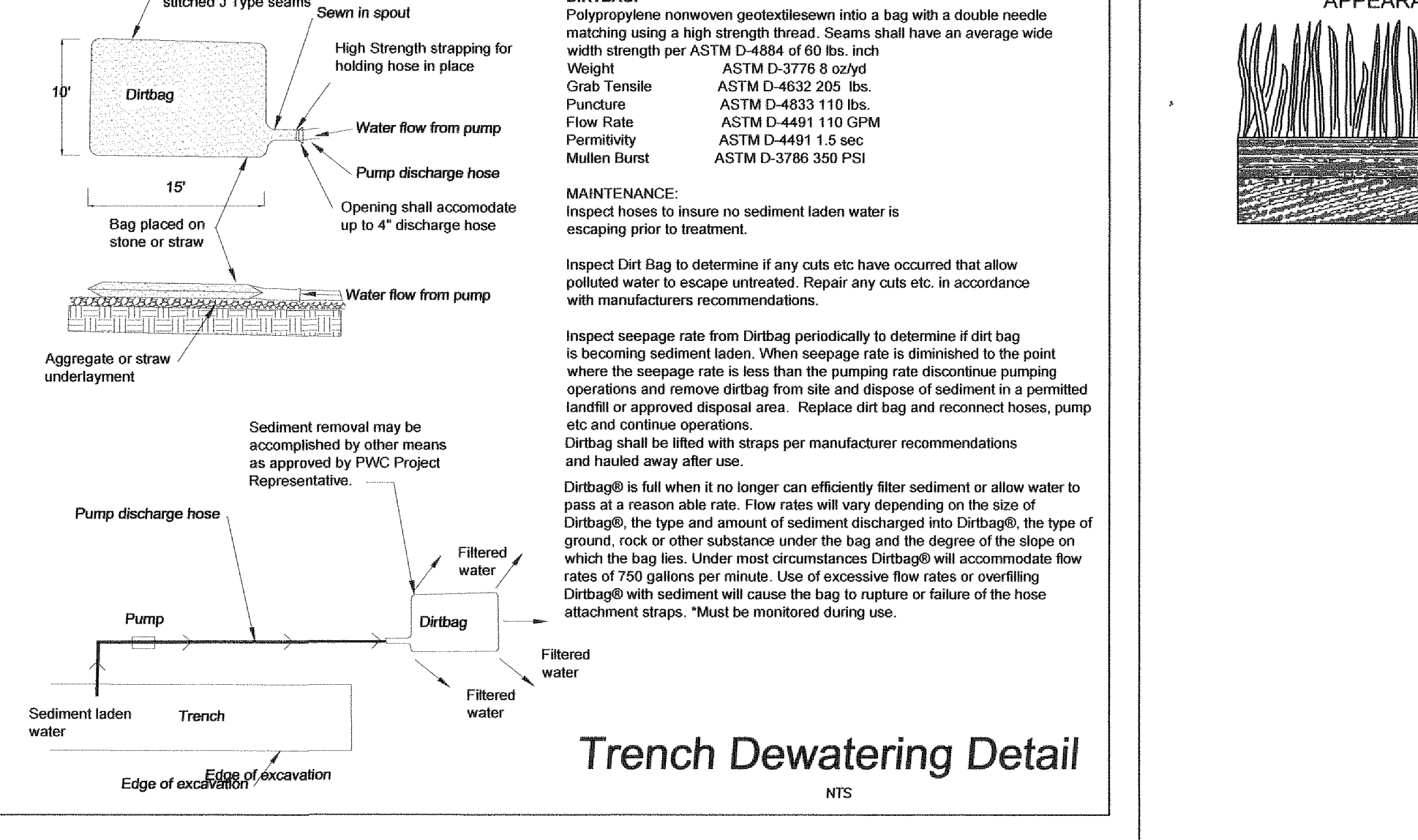
APPEARANCE OF GOOD SOD



SODDED WATERWAYS



CONSTRUCTION SPECIFICATIONS and MAINTENANCE



Trench Dewatering Detail

Drawn by
David Maples
Checked
David E. Vaughn/PE,PLS
Reviewed
Jeffrey B Reitzel/PE,PLS
Date
JAN 2023

**Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
EROSION CONTROL DETAILS**

Revision	By	Date

115 Broodfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

M&R
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KIZER & REITZEL, INC.

Scale
AS SHOWN
Book no.
Sheet
D-3

GENERAL NOTES SANITARY SEWER UTILITY

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0716	ADDED NOTE 6
2	0118	ADDED NOTES 8, 9
3	0621	ADDED NOTES 14 AND RENUMBERED

S1-SEWER-MANHOLE.dwg

STANDARD MANHOLE N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0207	CREATED S.2A ADDED NOTES 13-17
2	0713	ADDED SHEET 2 OF 2

S2-STANDARD-MANHOLE.dwg

STANDARD MANHOLE N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0108	CREATED DETAIL, ADDED NOTES 14-20
2	0713	REVISED NOTES 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
3	0101	REVISED NOTES 10, 18

S2-STANDARD-MANHOLE.dwg

DOGHOUSE MANHOLE (MAINS 15" OR LESS)

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0108	CREATED DETAIL, ADDED NOTES 14-20
2	0713	REVISED NOTES 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
3	0101	REVISED NOTES 10, 18

S3-DOGHOUSE-MH.dwg

PIPE SLIDE AND SHELF DETAILS

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0106	ADDED NOTE 8
2	0207	REVISED NOTES 8, SLIDE DETAIL
3	0917	ADDED NOTES 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

S4-PIPE-SLIDE.dwg

INTERIOR DROP STRUCTURE SEWER MAINS AND LATERALS

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
4	1108	REVISED FITTING MATERIAL
5	0712	REVISED NOTES 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100
6	0714	ADDED FORCE MAIN NOTE

S5-DROP-MH.dwg

STANDARD NON-TRAFFIC AREA MANHOLE RING AND CAM LOCK WITH WIPER GASKET AND CAM LOCK

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0709	REVISED NOTES ON FRAME
2	0717	ADDED NOTES ON WEAR AND CAM LOCKS
3	0718	UPDATED NOTES 7 AND 8

S6-RING-COVER.dwg

STANDARD TRAFFIC AREA MANHOLE RING AND COVER

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0106	CHANGED NON TRAFFIC DETAIL
2	0709	ADDED NOTES ON CONCRETE COLLAR
3	0207	REMOVED NON TRAFFIC AREA AND REVISED NOTES
4	0708	REVISED AVERAGE THICKNESS

S7-RING-COVER.dwg

STRUCTURE STEP N.T.S.

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0106	REVISED NOTES 1 AND 6
2	1108	ADDED NOTE ON LATERALS
3	0621	ADDED LATERAL AND MH SEPARATION

S8-STEP.dwg

SEWER LATERAL (4-INCH AND 6-INCH)

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
2	0114	ADDED TABLE NOTES
3	0115	REVISED NOTES RE: TABLE
4	0718	REVISED RE: LATERAL DEPTH

S10-RSESLAT.dwg

SEWER LATERAL NOTES

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0113	REVISED NOTES AND ADDED TABLE
4	0115	REVISED NOTE 22, TABLE
5	0718	REVISED NOTES 8, 9

S11-RSESLAT.dwg

SEWER LATERAL UTILITY CONFLICT SEPARATION REQUIREMENTS

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0106	REVISED NOTES 1 AND 6
2	1108	ADDED NOTE ON LATERALS
3	0621	ADDED LATERAL AND MH SEPARATION

S12-LTL-CONFLICT.dwg

2" LOW PRESSURE SEWER LATERAL ASSEMBLY TO 2" LATERAL

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0918	REVISED NOTES
2	0106	REVISED NOTES

S13-SEWER-BEDDING.dwg

ANTI SEEP COLLAR

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0618	REVISED NOTES
2	0106	REVISED NOTES

S14-ANTI-SEEP-COLLAR.dwg

SEWER BEDDING

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0101	REVISED NOTES
2	0106	REVISED NOTES

S15-SEWER-BEDDING.dwg

TERMINAL MANHOLE

FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.

WATER RESOURCES ENGINEERING DEPARTMENT

NO.	DATE	REVISION
1	0106	REVISED NOTES
2	0106	REVISED NOTES

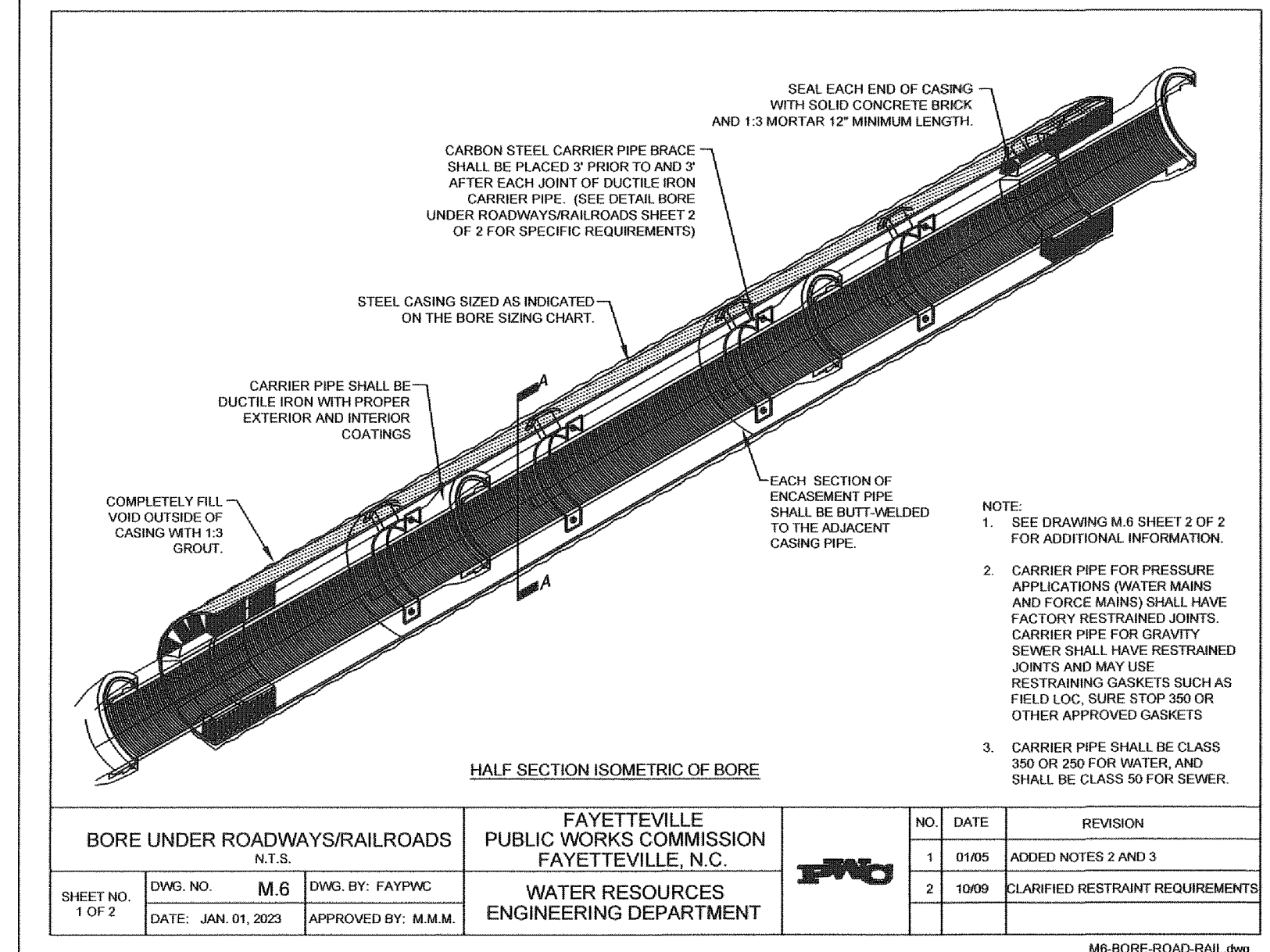
S20-TERMINAL-MANHOLE.dwg

Checked David Maples
Reviewed Jeffrey B. Reitzel, PE, L.S.
Date JAN 2023

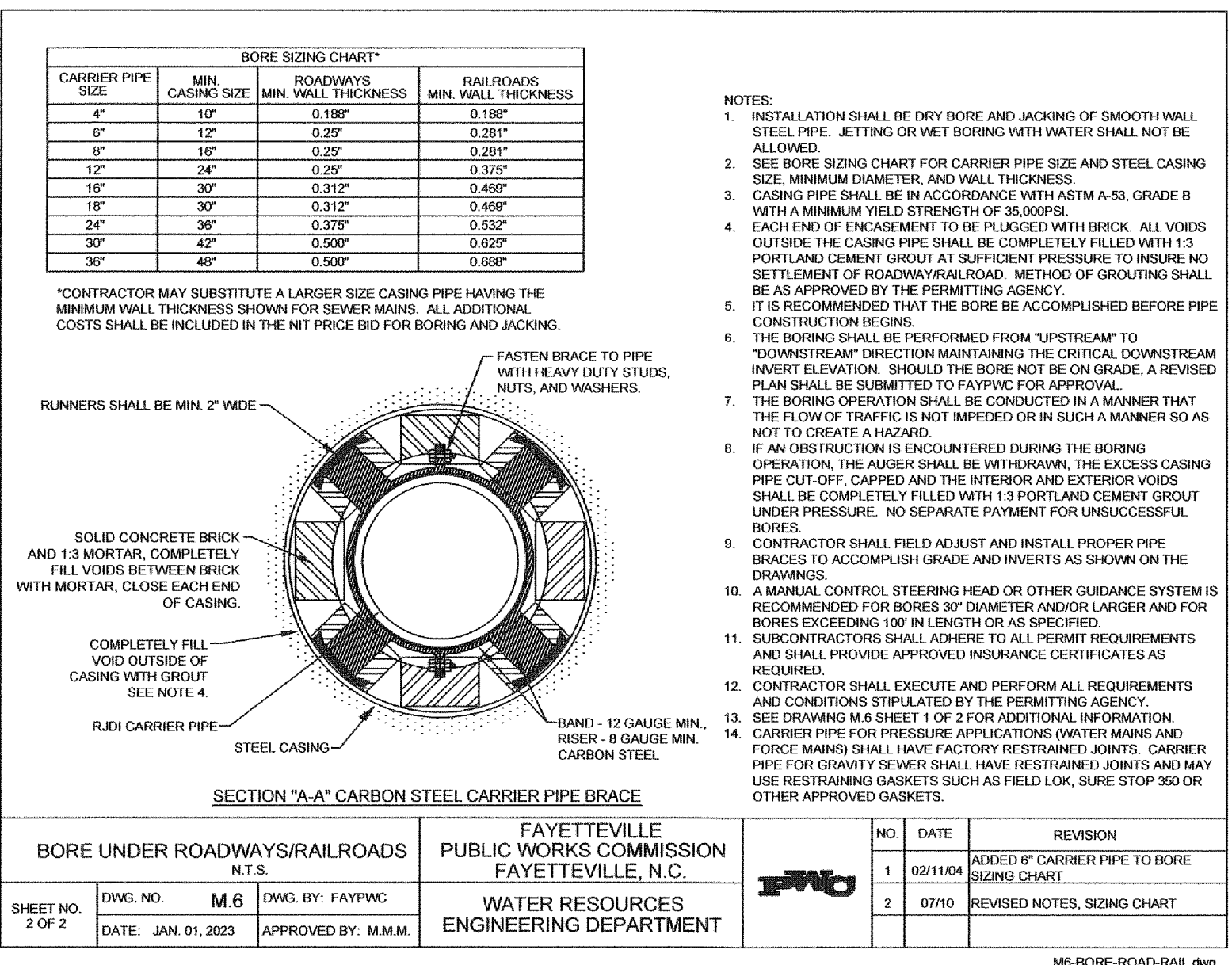
Fayetteville Annexation Phase V Construction Project XI Area 25 - Lake Rim Estates SANITARY SEWER DETAILS

Scale AS SHOWN

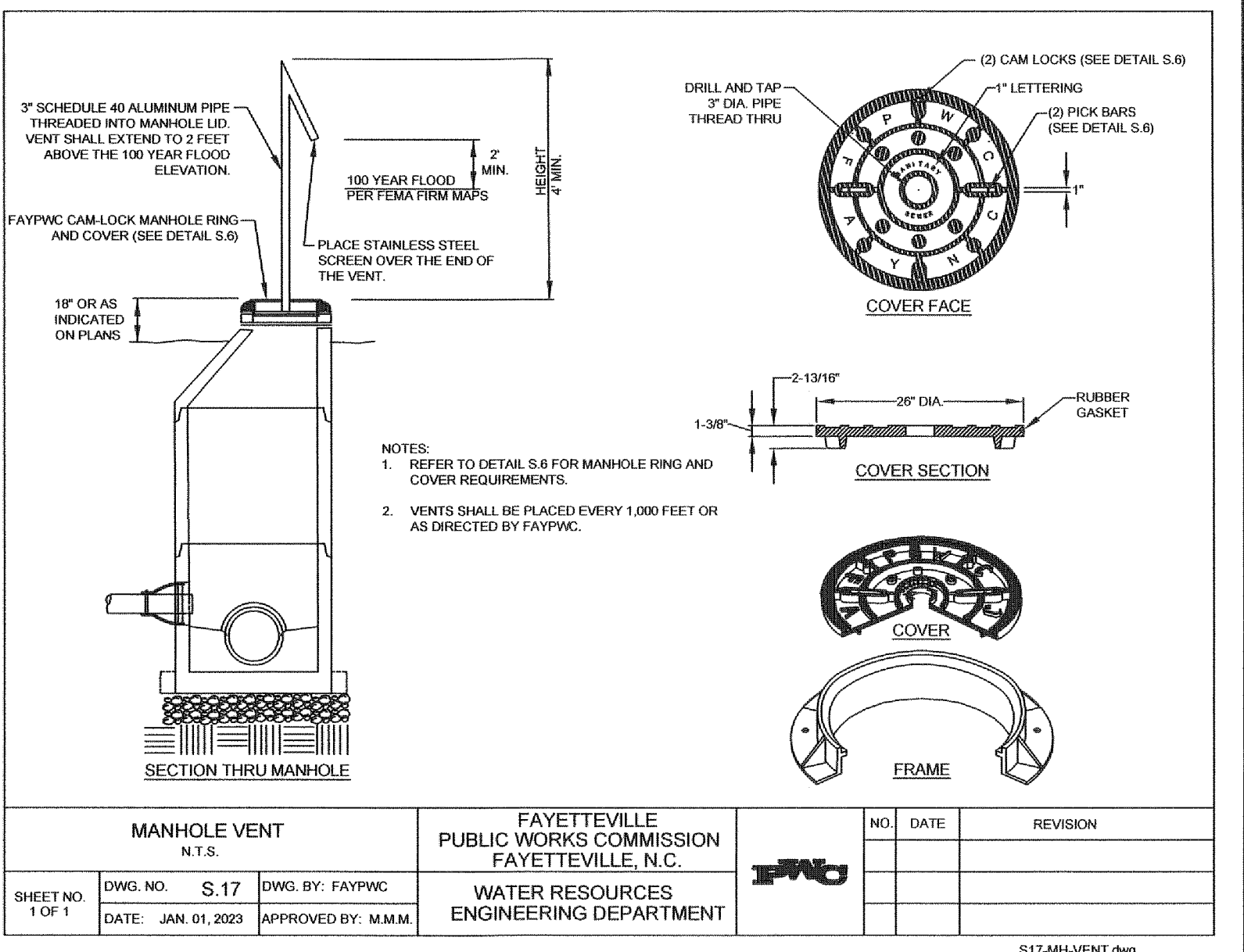
Book No. Sheet



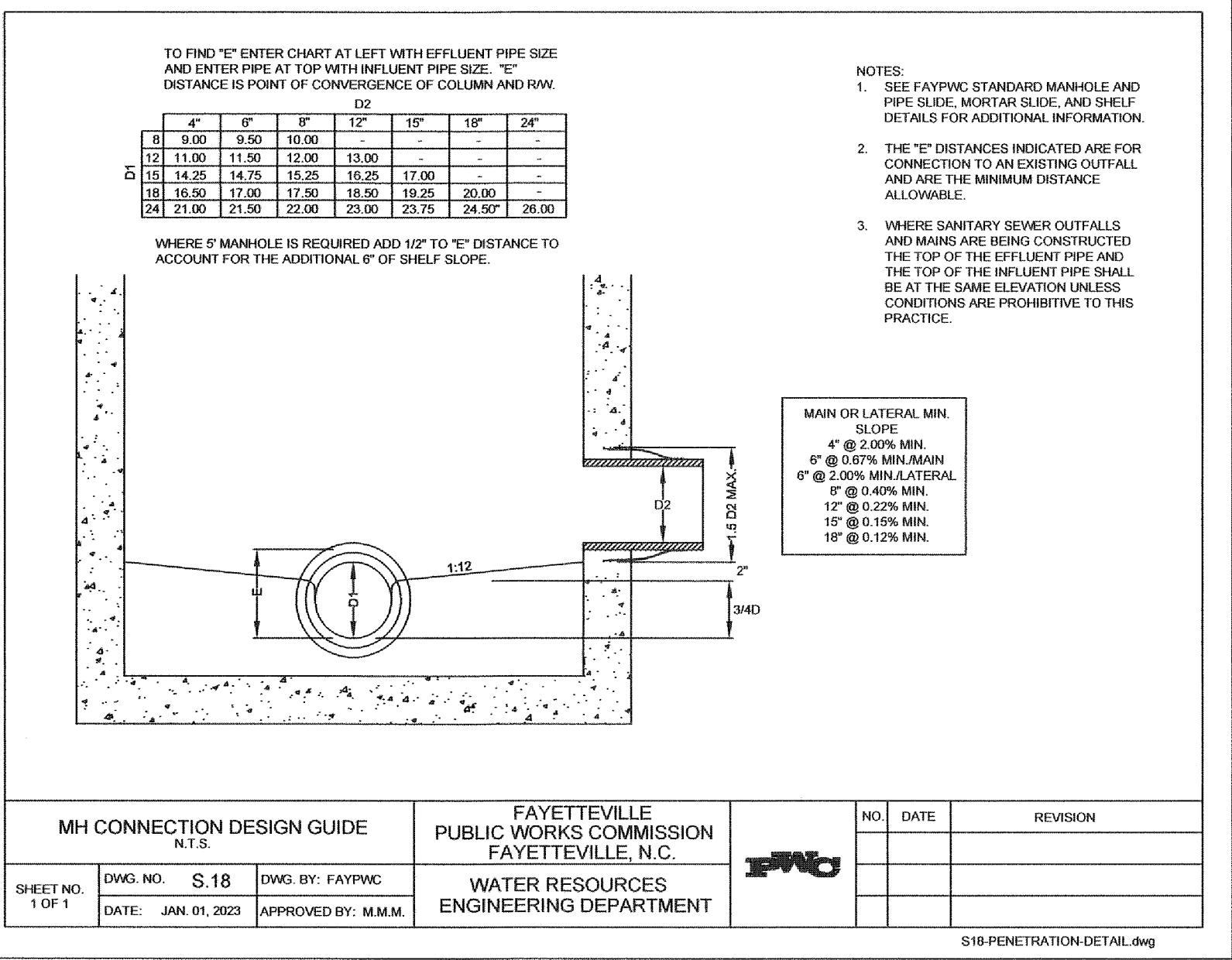
BORE UNDER ROADWAYS/RAILROADS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION		
DWG. NO. M.6	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	01/05	ADDED NOTES 2 AND 3
DATE: JAN. 01, 2023	APPROVED BY: M.M.M.			2	10/09	CLARIFIED RESTRAINT REQUIREMENTS
SHEET NO. 1 OF 2				M6-BORE-ROAD-RAIL.dwg		



BORE UNDER ROADWAYS/RAILROADS N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION		
DWG. NO. M.6	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT		1	02/11/04	ADDED B' CARRIER PIPE TO BORE SIZING CHART
DATE: JAN. 01, 2023	APPROVED BY: M.M.M.			2	07/10	REVISED NOTES, SIZING CHART
SHEET NO. 2 OF 2				M6-BORE-ROAD-RAIL.dwg		



MANHOLE VENT N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION		
DWG. NO. S.17	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT				
DATE: JAN. 01, 2023	APPROVED BY: M.M.M.					
SHEET NO. 1 OF 1				S17-MH-VENT.dwg		



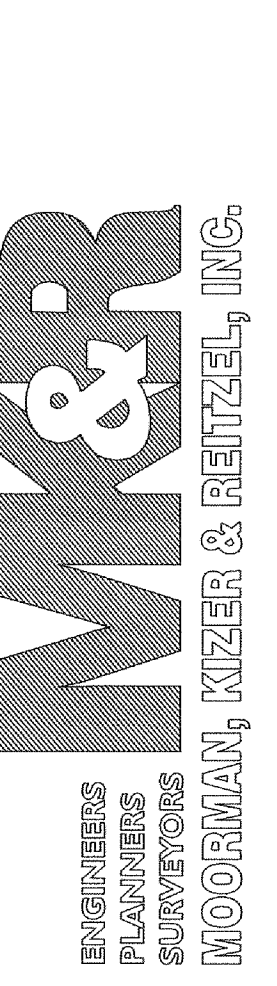
MH CONNECTION DESIGN GUIDE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO. DATE REVISION		
DWG. NO. S.18	DWG. BY: FAYPWC	WATER RESOURCES ENGINEERING DEPARTMENT				
DATE: JAN. 01, 2023	APPROVED BY: M.M.M.					
SHEET NO. 1 OF 1				S18-PENETRATION-DETAIL.dwg		

Drawn by David Maples
Checked David E. Vaughn, PE, PLS
Reviewed Jeffrey B. Reitzel, PE, PLS
Date JUN 2023

Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
SANITARY SEWER DETAILS

Revision	By	Date

115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



1. ALL WATER MAINS, LATERALS AND APPURTENANCES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS.

2. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

3. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE FOR ALL WATER OUTAGES.

4. CONSTRUCTION STAKES IS REQUIRED FOR ALL PWC WATER AND SEWER UTILITY INSTALLATIONS. LOT STAKES, BOUNDARIES AND SETBACKS SHALL BE PROVIDED TO THE PWC WATER RESOURCES ENGINEERING DEPARTMENT AND THE CONTRACTOR IN ADVANCE OF CONSTRUCTION FOR WATER AND SEWER UTILITIES.

5. CONTRACTOR SHALL MAINTAIN A COPY OF THE SIGNED AND SEALED OUT SHEET ON THE JOB SITE. CONSTRUCTION ON PWC WATER AND SEWER UTILITIES CANNOT BEGIN UNTIL THE CONTRACTOR POSSESSES, ON SITE, A SIGNED AND SEALED OUT SHEET FROM THE PROFESSIONAL LAND SURVEYOR.

6. ALL NEW WATER AND SEWER MAINS, LATERALS, AND APPURTENANCES SHALL BE TESTED AND/OR INSPECTED TO IN ACCORDANCE WITH FAYETTEVILLE PWC STANDARDS PRIOR TO BACKFILLING INTO SERVICE.

7. CONTRACTOR SHALL COORDINATE TESTING AND INSPECTION WITH THE FAYETTEVILLE PWC PROJECT COORDINATOR.

8. CONTRACTOR SHALL REPAIR ALL WATER LATERALS AND MAINS DAMAGED DURING CONSTRUCTION. THE CONTRACTOR SHALL REPORT IMMEDIATELY ALL WATER MAIN AND LATERAL BREAKS TO THE PWC PROJECT COORDINATOR. THE CONTRACTOR SHALL IMMEDIATELY REPAIR IN ACCORDANCE WITH PWC STANDARDS. CONTRACTOR SHALL NOT OPERATE THE WATER MAIN VALVES WITHOUT PWC APPROVAL AND SHALL COORDINATE ALL VALVE CLOSURES WITH PWC.

9. THE CONTRACTOR SHALL NOT USE HOUSE HOSE REELS OR ANY OTHER METHOD OF BLOW OFF WHICH ALLOWS DOMESTIC WATER CONTAINING SEDIMENTS OR HIGH LEVELS OF CHLORINE TO PASS THROUGH RESIDENTIAL METERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ALLOWING "DIRTY" WATER TO ENTER RESIDENTIAL PLUMBING SYSTEM, SUCH AS WATER HEATERS, STAINED CEILING, CLOSETED BURNERS, ETC.

10. TRANSFER OF WATER SERVICES SHALL BE ACCOMPLISHED AS FOLLOWS:

A. INITIAL TEST AND OPERATIONAL NEW MAINS AND LATERALS. LATERALS SHALL BE INSTALLED 18" INSIDE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY PWC.

B. TRANSFER EXISTING METER TO NEW METER BOX AND THE NEW WATER LATERAL TO EXISTING DOMESTIC SERVICE UTILIZING BRASS FITTINGS. SAME METER NUMBER SHALL BE INSTALLED ON SAME ADDRESS. EXISTING COUNTER, BLOW OFF SERVICE AND HOUSE BBS ON HOUSE ONLY AFTER METER HAS BEEN TRANSFERRED.

C. AFTER ALL SERVICES ARE TRANSFERRED TO THE NEW SYSTEM, SHUT OFF VALVE ON EXISTING SYSTEM AND REMOVE EXISTING MAIN IN ACCORDANCE WITH PWC DETAILS.

D. CONTRACTOR SHALL SUPPLY NEW METER BOXES AND DISPOSAL OF EXISTING METER BOXES.

11. CONTRACTOR SHALL ABANDON/PLUG/CUT/ANY EXISTING WATER SERVICES THAT WILL NOT BE UTILIZED BY CUTTING THE SERVICE AT THE MAIN, PLUGGING THE CORPORATION, AND TURNING OFF THE CORPORATION AT THE METER BOX. THE ABANDONED SERVICE IS TO BE CUT OR CRIMPED, AND BURIED A MINIMUM OF 3 FEET BELOW GRADE.

12. ALL EXISTING UTILITIES IMPACTED BY CONSTRUCTION SHALL BE ADJUSTED TO FINISHED GRADE, IN ACCORDANCE WITH PWC REQUIREMENTS.

13. ALL WORK ON PWC WATER UTILITIES (MAIN, LATERALS, ETC.) SHALL BE PERFORMED BY A LICENSED UTILITY CONTRACTOR. THE FAYETTEVILLE PUBLIC WORKS COMMISSION SHALL OBSERVE AND APPROVE ALL WORK ON PWC WATER UTILITIES. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH PWC REQUIREMENTS.

14. SEPARATION REQUIREMENTS:

A. LATERAL SEPARATION OF BEMES AND WATER MAINS. WATER MAIN SHALL BE LAD AT LEAST 18" LATERALLY FROM EXISTING OR PROPOSED SEWER MAIN LATERAL. UNDER LATERAL CONCRETE COLLARS PROVIDE A 10-FOOT LATERAL SEPARATION - IN EACH CASE.

B. THE WATER MAIN LAD IN A SEPARATE TRENCH WITH THE ELEVATION OF THE BOTTOM OF THE WATER MAIN AT LEAST 8 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL.

C. THE WATER MAIN LAD IN THE SAME TRENCH AS THE SEWER MAIN LATERAL WITH THE WATER MAIN LOCATED AT ONE SIDE ON A SLOPE OF ONE INCH PER FOOT AND THE SEWER MAIN LATERAL LOCATED AT THE BOTTOM OF THE WATER MAIN AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL.

D. CROSSING WATER MAIN OVER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS OVER A SEWER MAIN LATERAL, THE WATER MAIN SHALL BE AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL. UNDER LOCAL CONDITIONS OR SURVEYS PRESENT IN 18 INCH VERTICAL SEPARATION - IN EACH CASE BOTH THE WATER MAIN AND SEWER MAIN LATERAL SHALL BE LOCATED IN ACCORDANCE WITH PWC REQUIREMENTS.

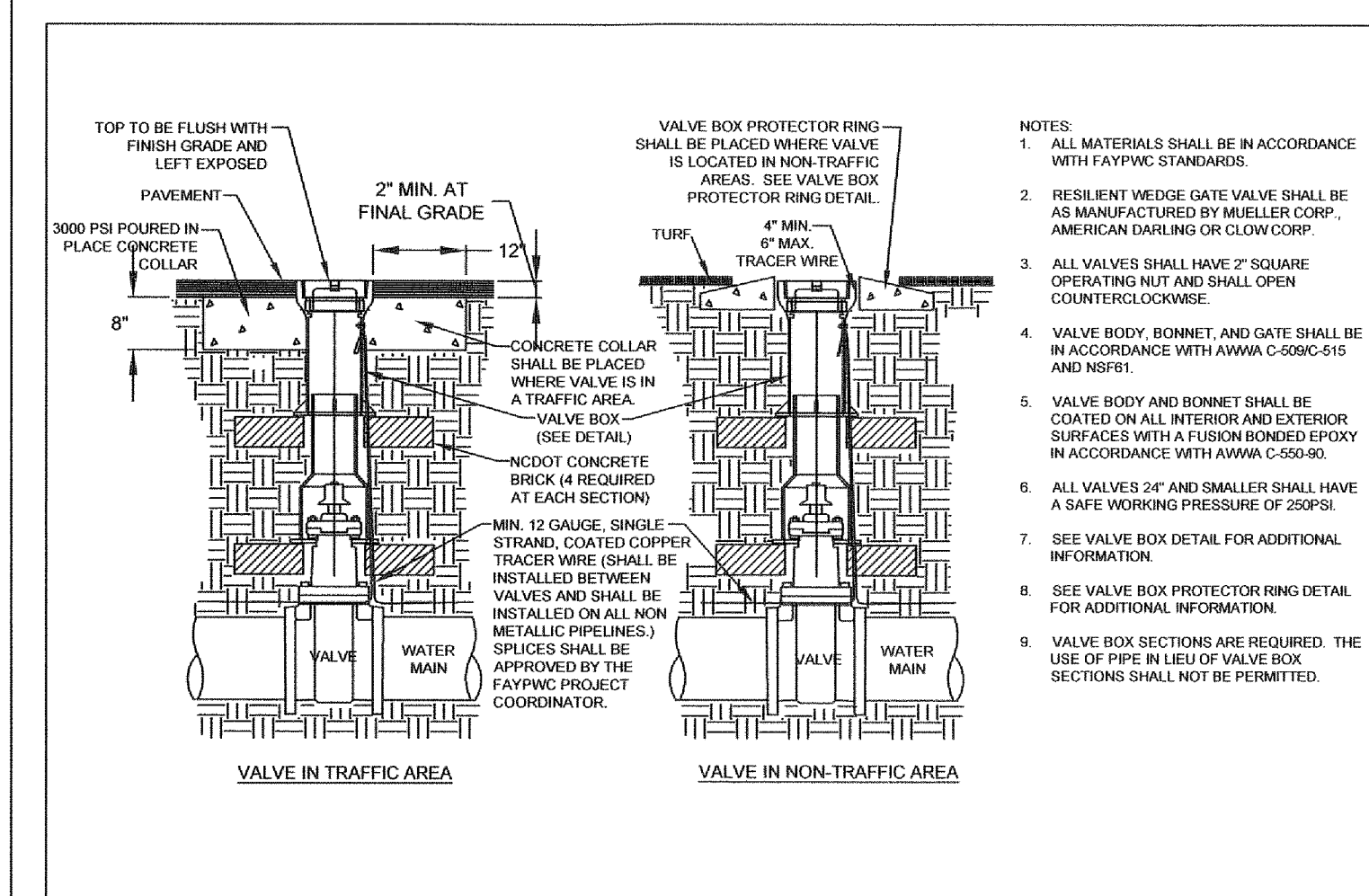
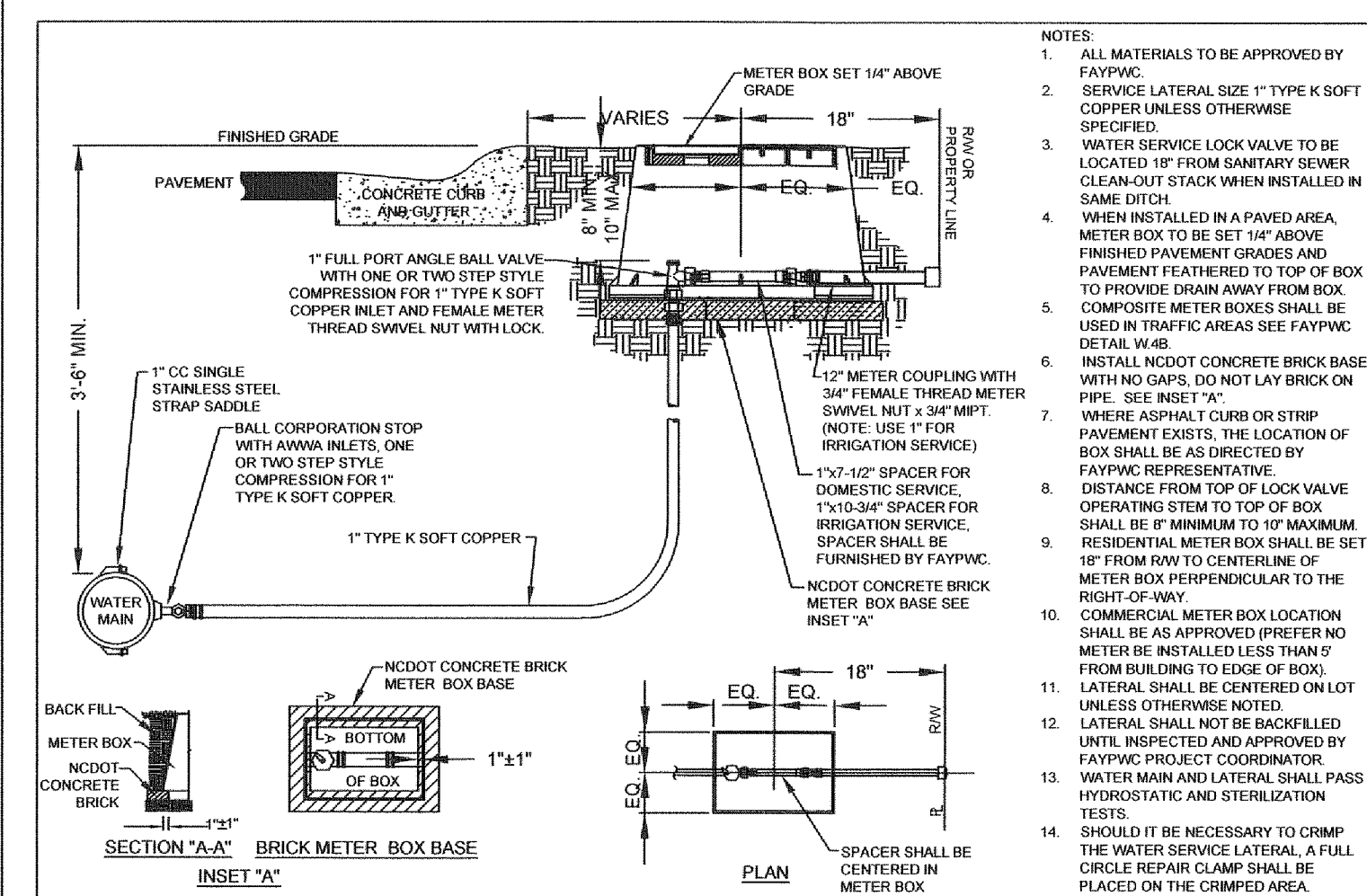
E. CROSSING WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN LATERAL, THE WATER MAIN SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL. UNDER LOCAL CONDITIONS OR SURVEYS PRESENT IN 18 INCH VERTICAL SEPARATION - IN EACH CASE BOTH THE WATER MAIN AND SEWER MAIN LATERAL SHALL BE LOCATED IN ACCORDANCE WITH PWC REQUIREMENTS.

F. CROSSING WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN LATERAL, THE WATER MAIN SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL. UNDER LOCAL CONDITIONS OR SURVEYS PRESENT IN 18 INCH VERTICAL SEPARATION - IN EACH CASE BOTH THE WATER MAIN AND SEWER MAIN LATERAL SHALL BE LOCATED IN ACCORDANCE WITH PWC REQUIREMENTS.

G. CROSSING WATER MAIN UNDER A SEWER. WHENEVER IT IS NECESSARY FOR A WATER MAIN TO CROSS UNDER A SEWER MAIN LATERAL, THE WATER MAIN SHALL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER MAIN LATERAL. UNDER LOCAL CONDITIONS OR SURVEYS PRESENT IN 18 INCH VERTICAL SEPARATION - IN EACH CASE BOTH THE WATER MAIN AND SEWER MAIN LATERAL SHALL BE LOCATED IN ACCORDANCE WITH PWC REQUIREMENTS.

D. CROSSING UNDER DRAINAGE LINES. A MINIMUM OF 13 INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN A WATER LINE CROSSING OVER A DRAINAGE LINE (UNLESS OTHERWISE SPECIFIED). IF A DRAINAGE LINE IS LOCATED UNDER A WATER LINE, THE WATER MAIN SHALL BE MAINTAINED OVER THE DRAINAGE LINE. IF THE WATER MAIN AND A DRAINAGE LINE CROSS, THE WATER MAIN SHALL BE MAINTAINED OVER THE DRAINAGE LINE. THE WATER MAIN SHALL BE MAINTAINED OVER THE DRAINAGE LINE. THE WATER MAIN SHALL BE MAINTAINED OVER THE DRAINAGE LINE. THE WATER MAIN SHALL BE MAINTAINED OVER THE DRAINAGE LINE.

16. WATER OUTAGES. THE CONTRACTOR SHALL CONDUCT A COORDINATION MEETING WITH THE PWC PROJECT COORDINATOR AND PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO PLANNED WATER OUTAGES. THE COORDINATION MEETING SHALL BE CONDUCTED PRIOR TO ANY NOTICES BEING ISSUED. ADDITIONALLY, THE CONTRACTOR SHALL NOTIFY VERTICALLY AND HORIZONTALLY ANY UTILITIES WITHIN THE WORK AREA. IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS, THE LOCATION OF ALL UTILITIES WITHIN THE WORK AREA SHALL BE DETERMINED PRIOR TO THE COORDINATION MEETING. ANY CONFLICTS WITH THE PROPOSED WORK AND THE EXISTING UTILITIES SHALL BE IDENTIFIED AND A PLAN FOR RESOLVING ANY CONFLICTS SHALL BE PRESENTED. THE PURPOSE OF THIS COORDINATION MEETING IS TO ENSURE THAT THE CONTRACTOR HAS A GOOD UNDERSTANDING OF THE REQUIREMENTS RELATED TO THE PROPOSED OUTAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE PUBLIC WORKS COMMISSION THAT THE CONTRACTOR IS NOT BEING DISTRIBUTED AND THE OUTAGE SHALL BE POSTPONED A MINIMUM OF TWO (2) WEEKS. THE FAYETTEVILLE PUBLIC WORKS COMMISSION WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR OF THIS DELAY. NO ADDITIONAL CONTRACT TIME WILL BE GRANTED FOR THIS DELAY. SHOULD THE CONTRACT TIME EXPIRE WITHIN TWO (2) WEEKS OF THE DELAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DELAY. THE FAYETTEVILLE PUBLIC WORKS COMMISSION RESERVES THE RIGHT TO SUSPEND WORK DURING ANY DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DELAY. THE FAYETTEVILLE PUBLIC WORKS COMMISSION RESERVES THE RIGHT TO SUSPEND WORK DURING ANY DELAY.



WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/01/19	ADDED NOTE 6.8				
2	01/01/19	ADDED NOTES 6.8				
3	06/01/21	ADDED NOTES 1-7 AND RENUMBERED				

WI-WATER-UTILITY-NOTES.dwg

WATER UTILITY NOTES		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/01/19	ADDED NOTE 6				
2	01/01/19	ADDED NOTES 6.8				
3	06/01/21	ADDED NOTES 1-7 AND RENUMBERED				

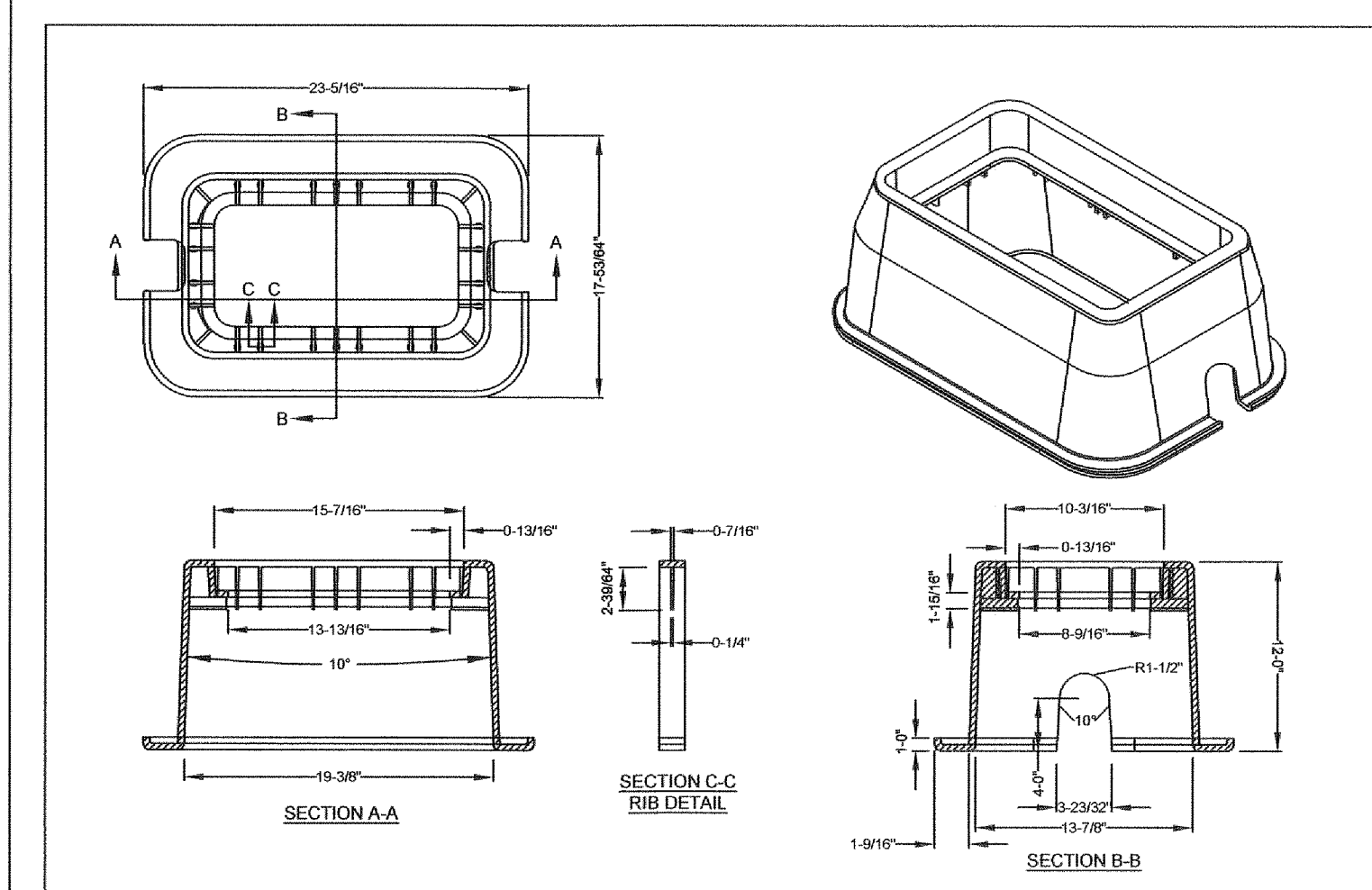
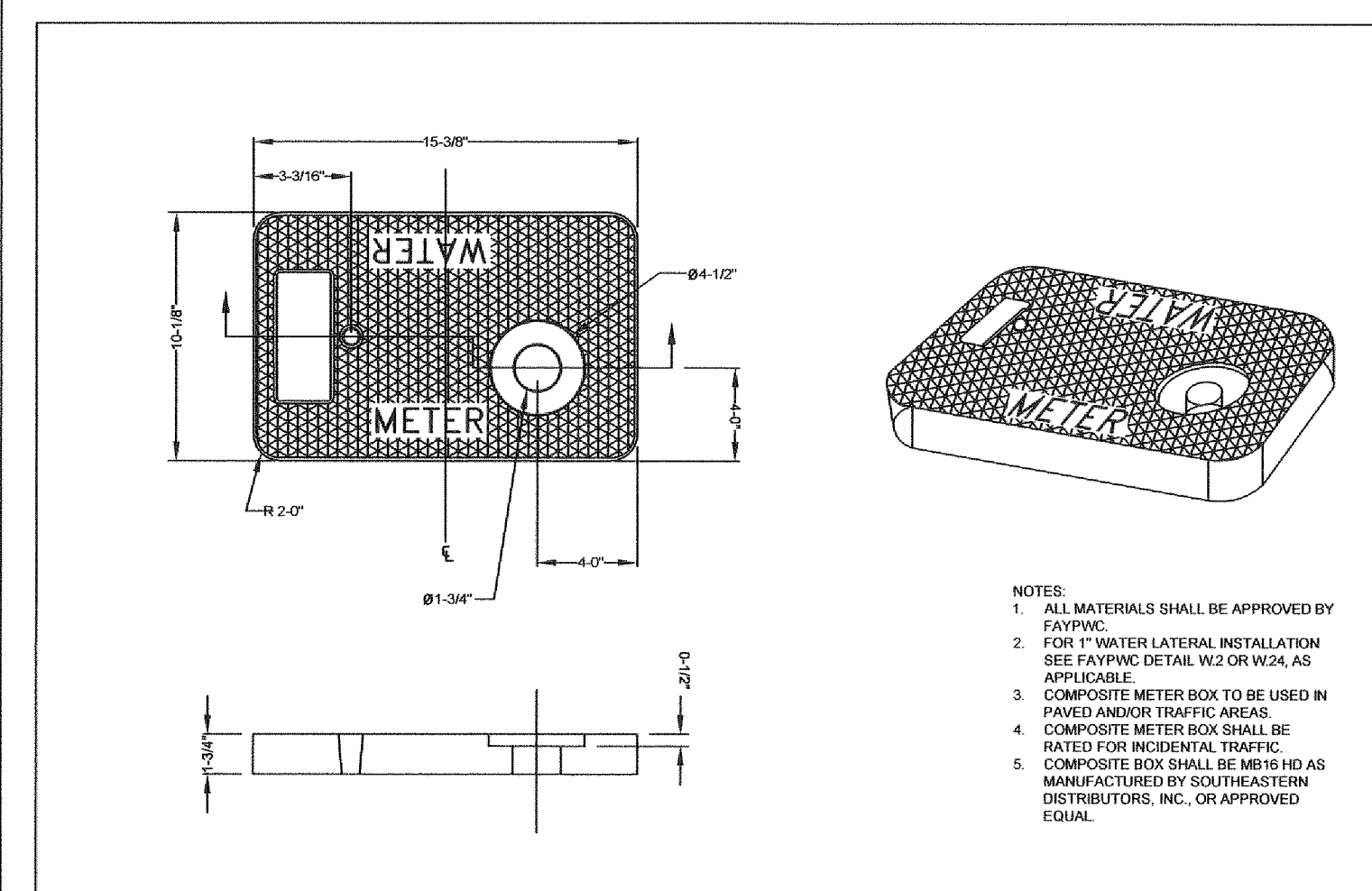
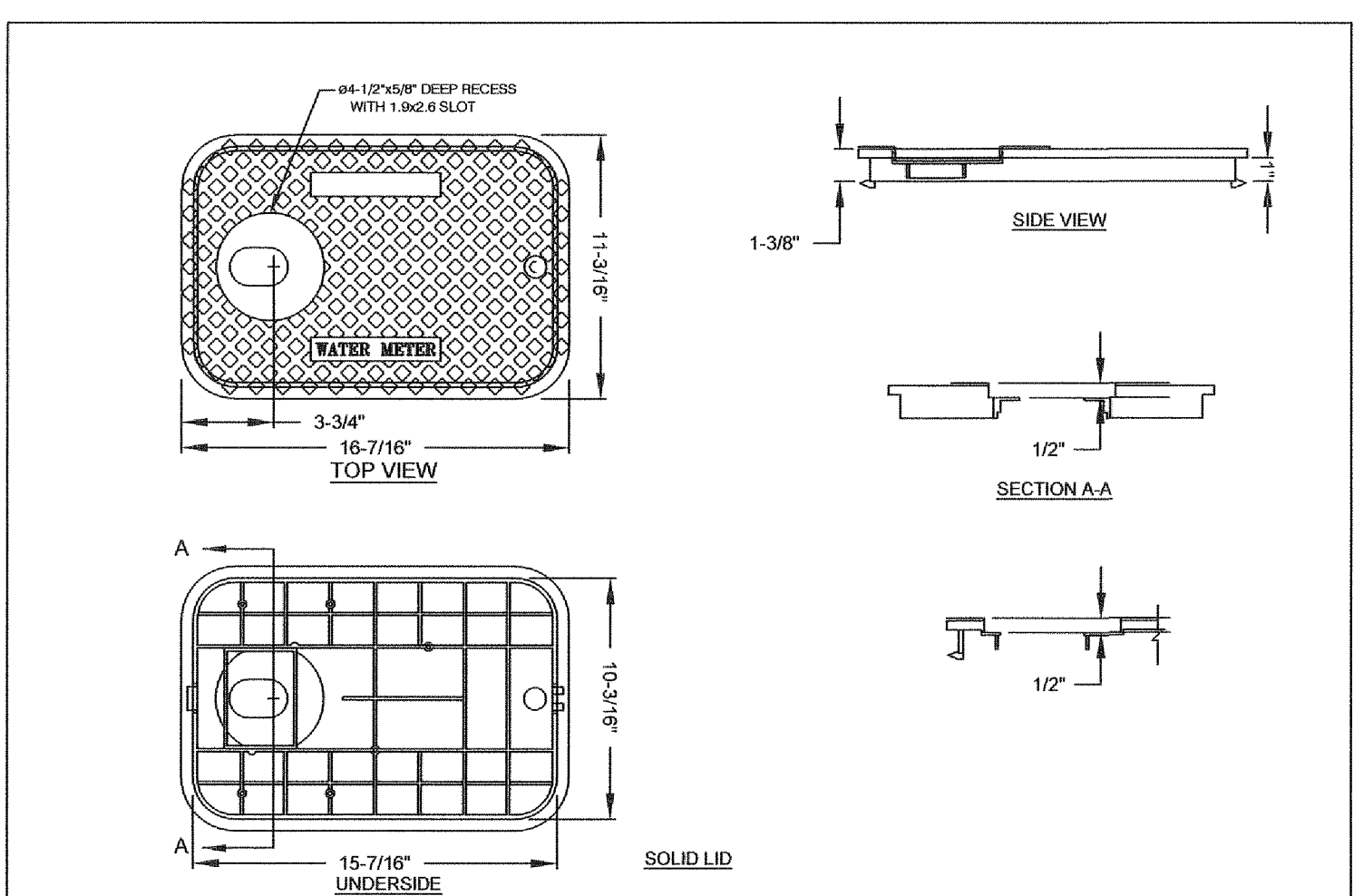
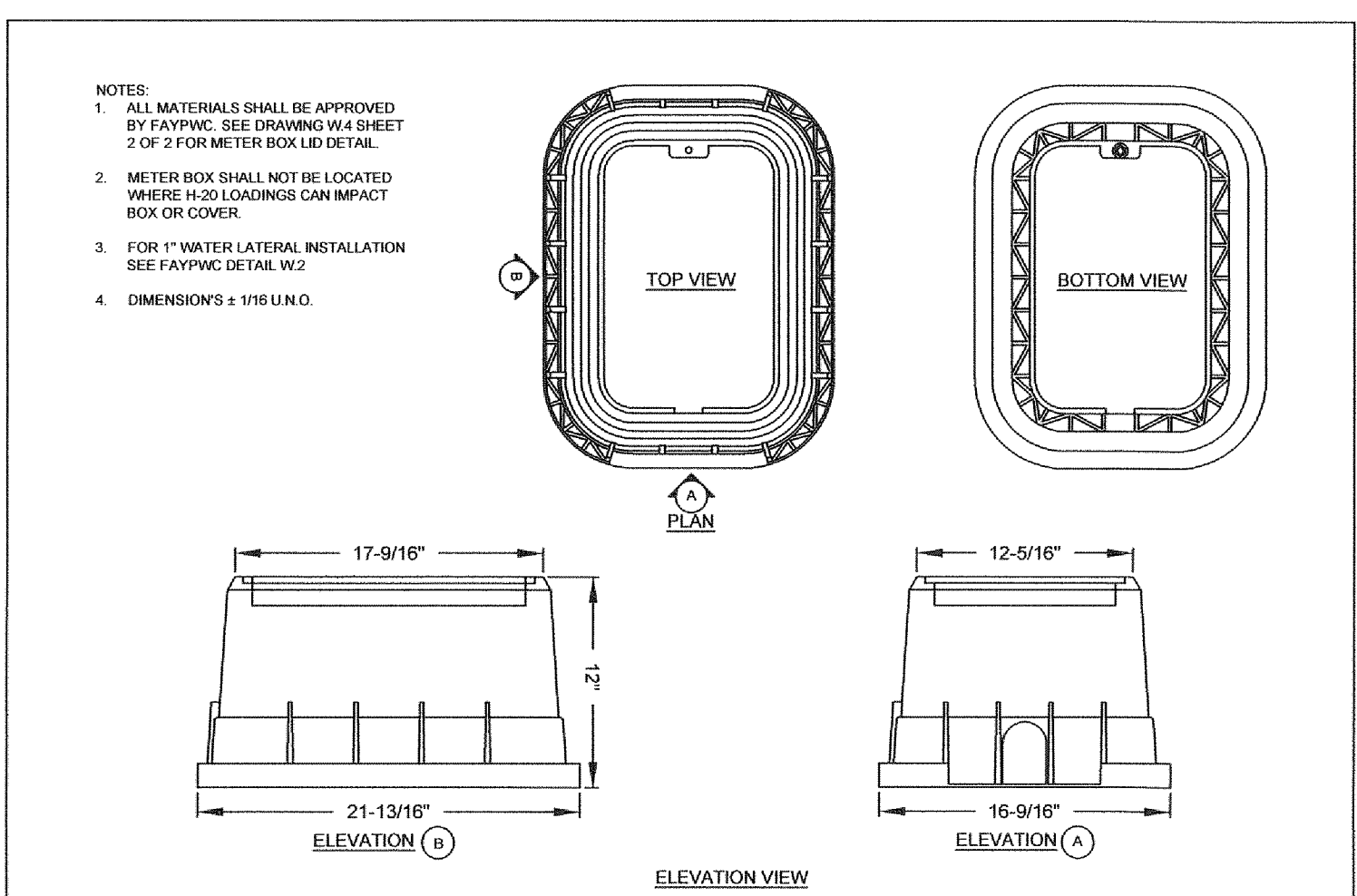
WI-WATER-UTILITY-NOTES.dwg

1" COPPER WATER SERVICE LATERAL		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/01/19	ADDED NOTE 16				
2	09/05	VALVE CHANGE, ADD NOTE 16				
3	07/06	RESIZED METER COUPLING				
4	07/17	RESIZED NOTES				

W04-COPPER-SERVICE-LATERAL.dwg

GATE VALVE		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/06	ADDED NOTE NO. 9				
2	7/09	CLARIFIED NOTES				

WB-GATEVALVE.dwg



1-INCH METER BOX DETAILS		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	03/10	CHANGED BOX DIMENSIONS				

WI-1IN-METERBOX.dwg

1-INCH METER BOX LID		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/07	REVISED LID				
1	07/10	CHANGED BOX AND LID DIMENSIONS				
2	01/15	REVISED LID				

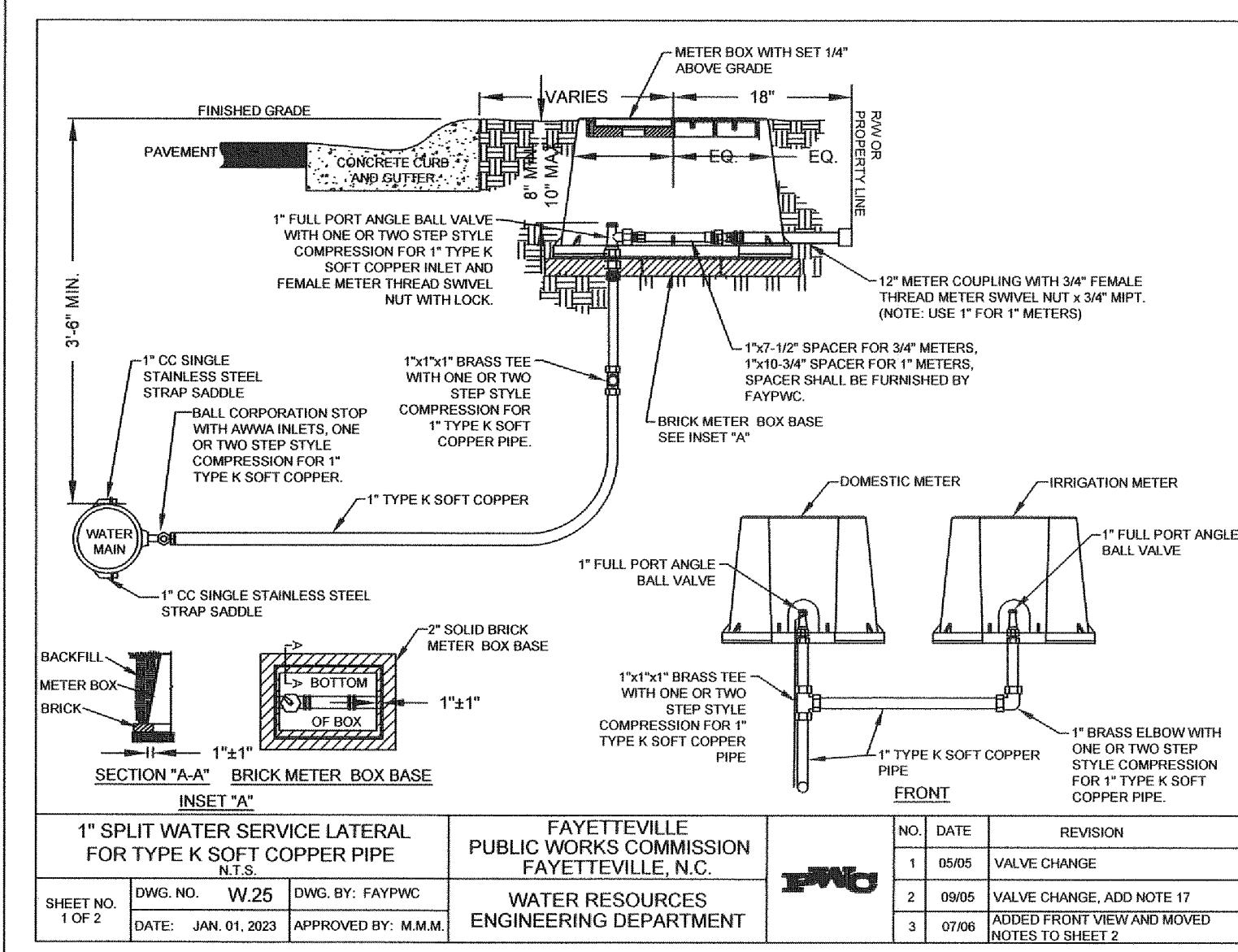
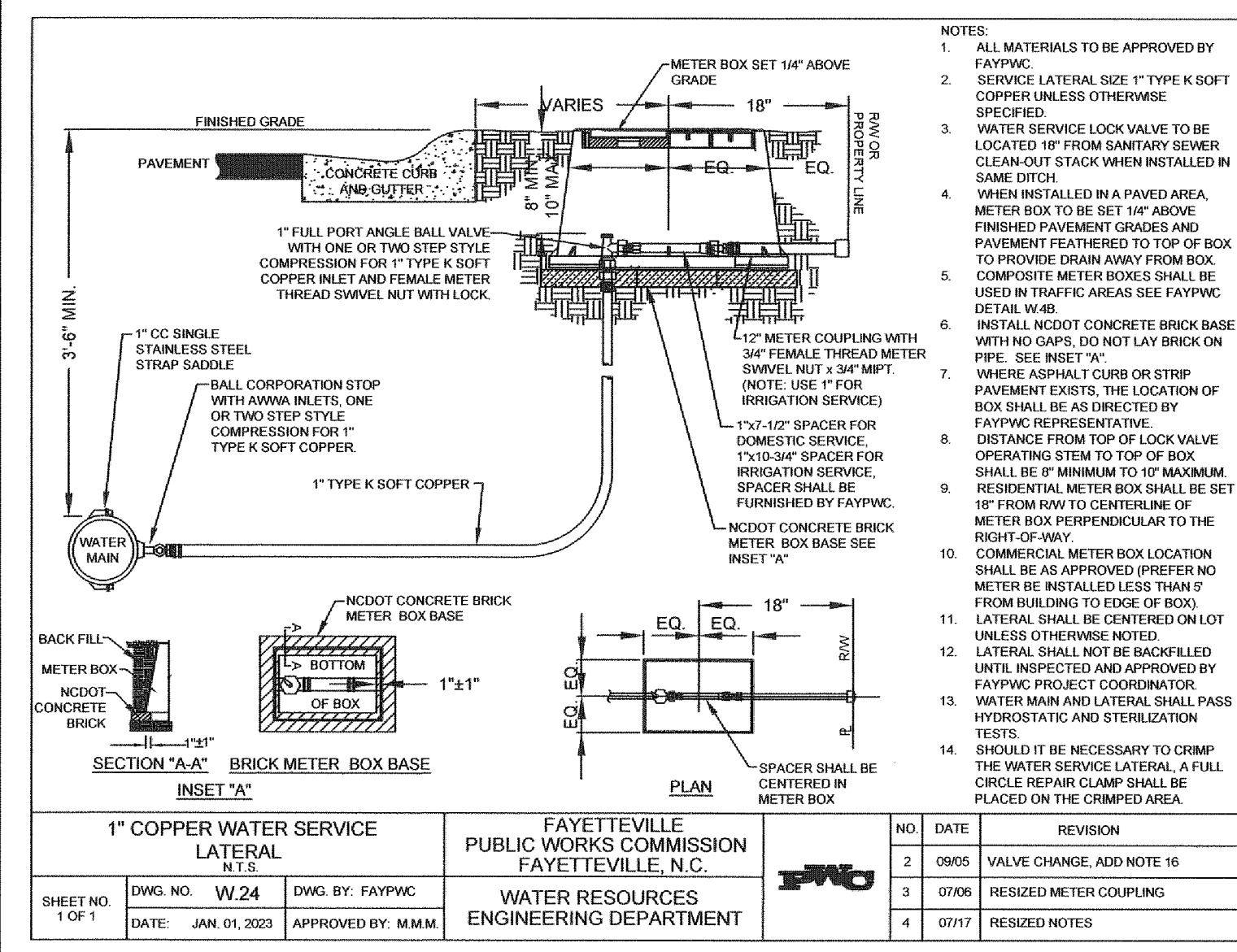
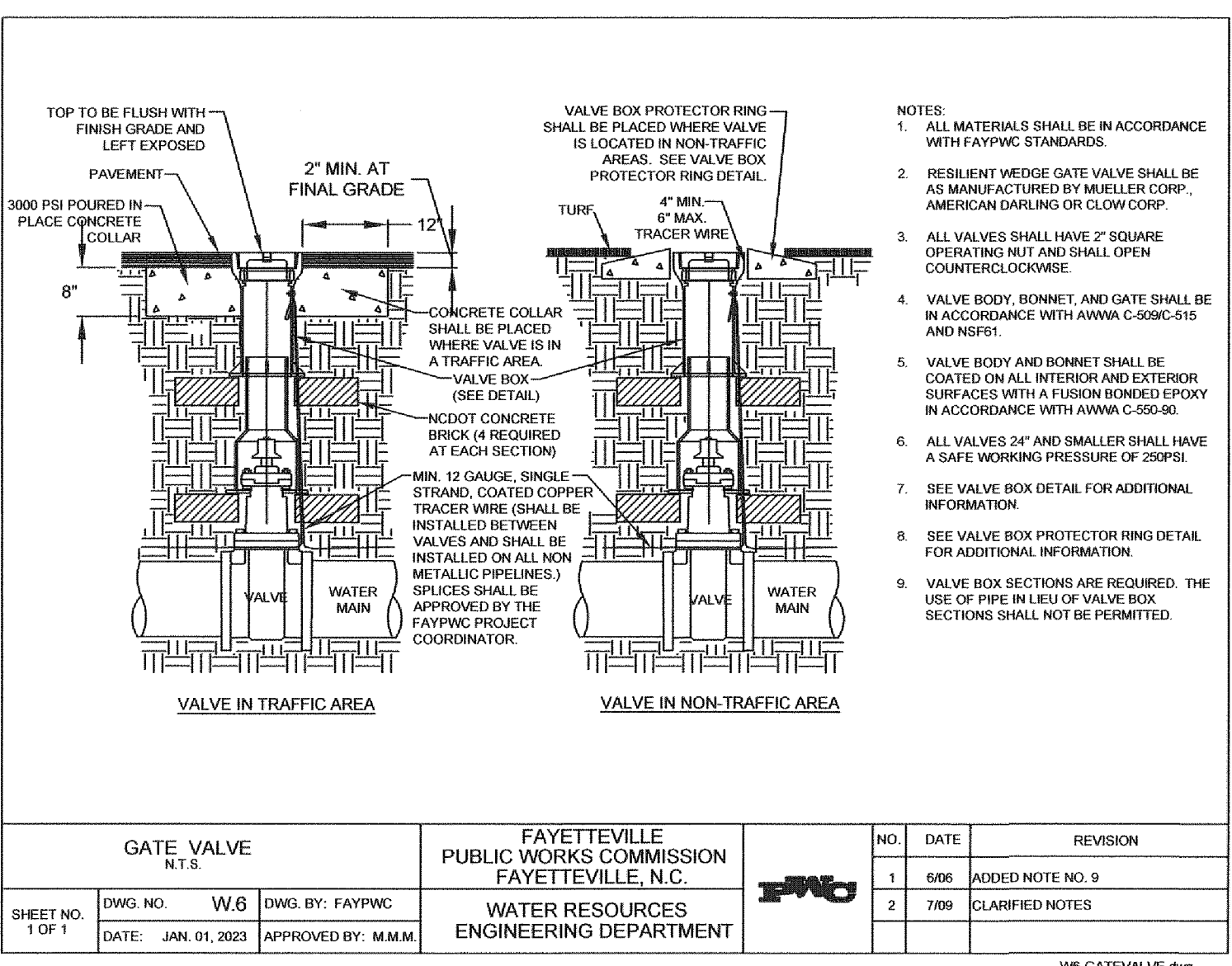
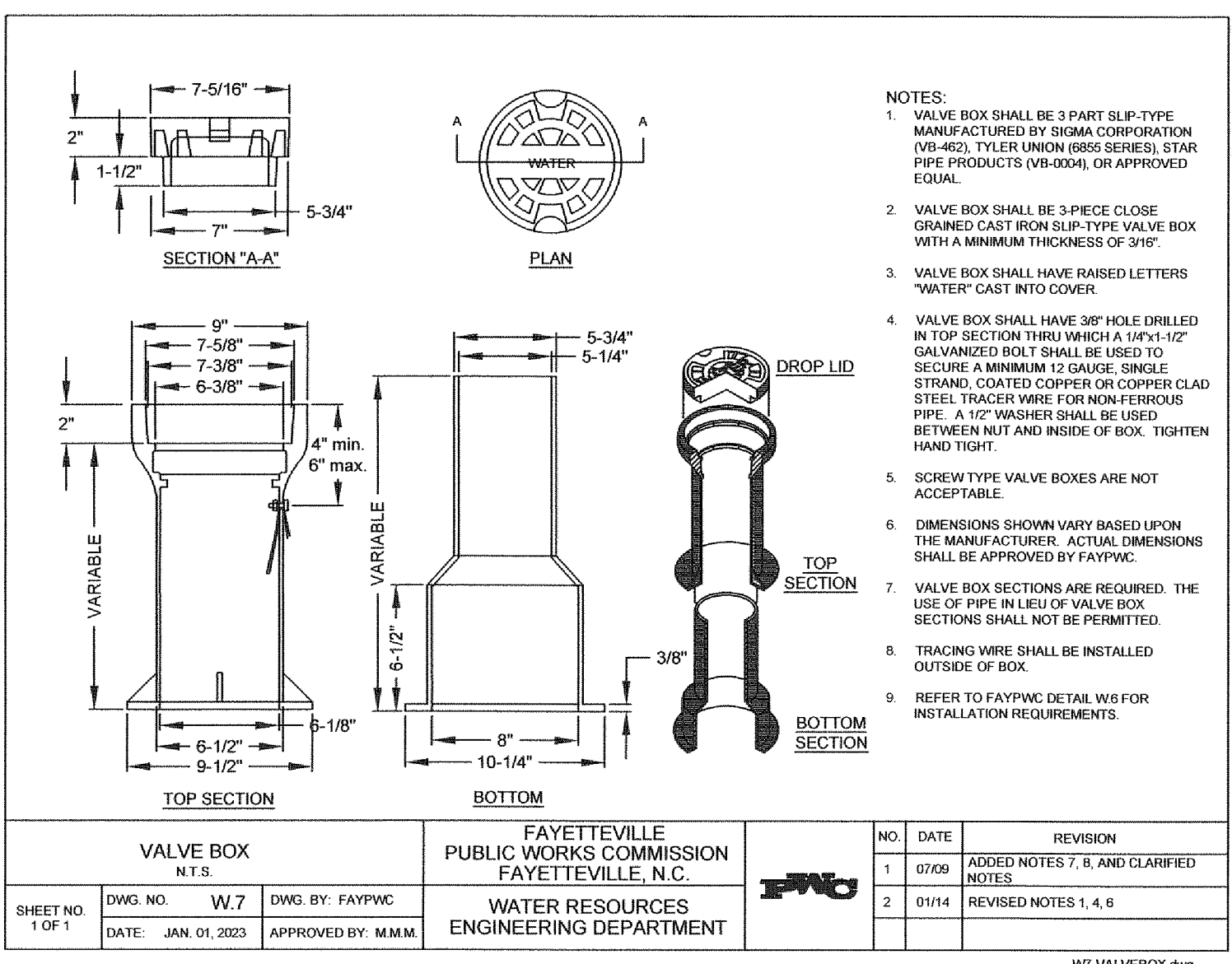
WI-1IN-METERBOX.dwg

1-INCH COMPOSITE METER BOX & COVER		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	03/10	CHANGED BOX & LID DIMENSIONS				
2	12/15	REPLACED C3 BOX w/COMPOSITE BOX				

W06-METERBOX-LID.dwg

1-INCH COMPOSITE METER BOX & COVER		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	12/15	REPLACED C3 BOX WITH COMPOSITE BOX				

W06-METERBOX-LID.dwg



VALVE BOX		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	07/09	ADDED NOTES 1, 6, AND CLARIFIED NOTES				
2	01/14	ADDED NOTES 1, 4, 6				

WF-VALVEBOX.dwg

GATE VALVE		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	06/06	ADDED NOTE NO. 9				
2	7/09	CLARIFIED NOTES				

WB-GATEVALVE.dwg

1" COPPER WATER SERVICE LATERAL		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
2	09/05	VALVE CHANGE, ADD NOTE 16				
3	07/06	RESIZED METER COUPLING				
4	07/17	RESIZED NOTES				

W04-COPPER-SERVICE-LATERAL.dwg

1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		NO.	DATE	REVISION
1	09/05	VALVE CHANGE				
2	09/05	VALVE CHANGE, ADD NOTE 17				
3	07/06	ADDED FRONT VIEW AND MOVED NOTES TO SHEET 2				

W02-COPPER-SPLIT-WLAT.dwg

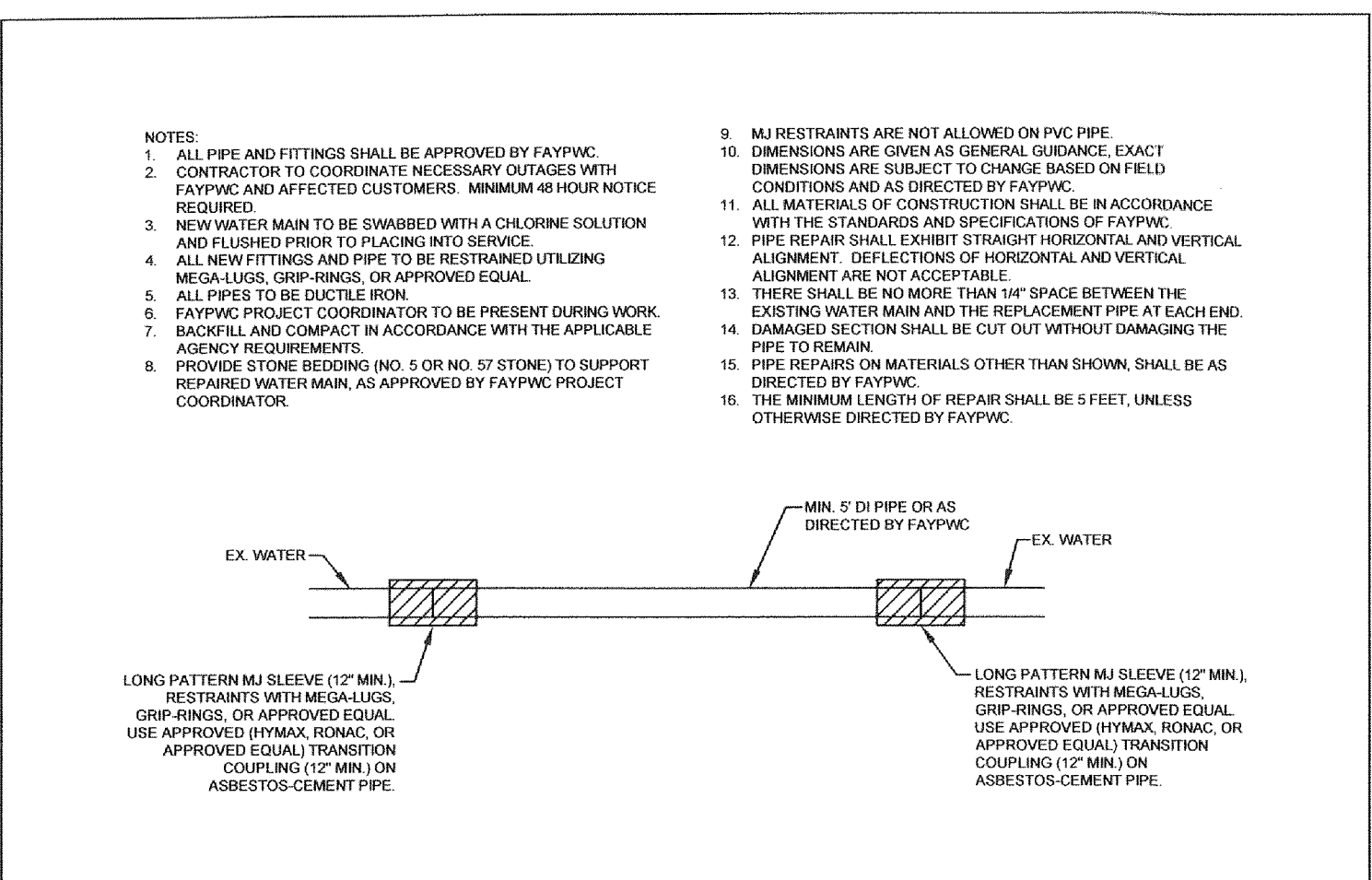
Drawn by David Maples
Checked by David E. Vaughn, PE, PLS
Reviewed by Jeffrey B. Reitzel, PE, PLS
Date: JAN 2023

Fayetteville Annexation Phase V
Construction Project X1
Area 25 - Lake Rim Estates
WATER DETAILS & GENERAL NOTES

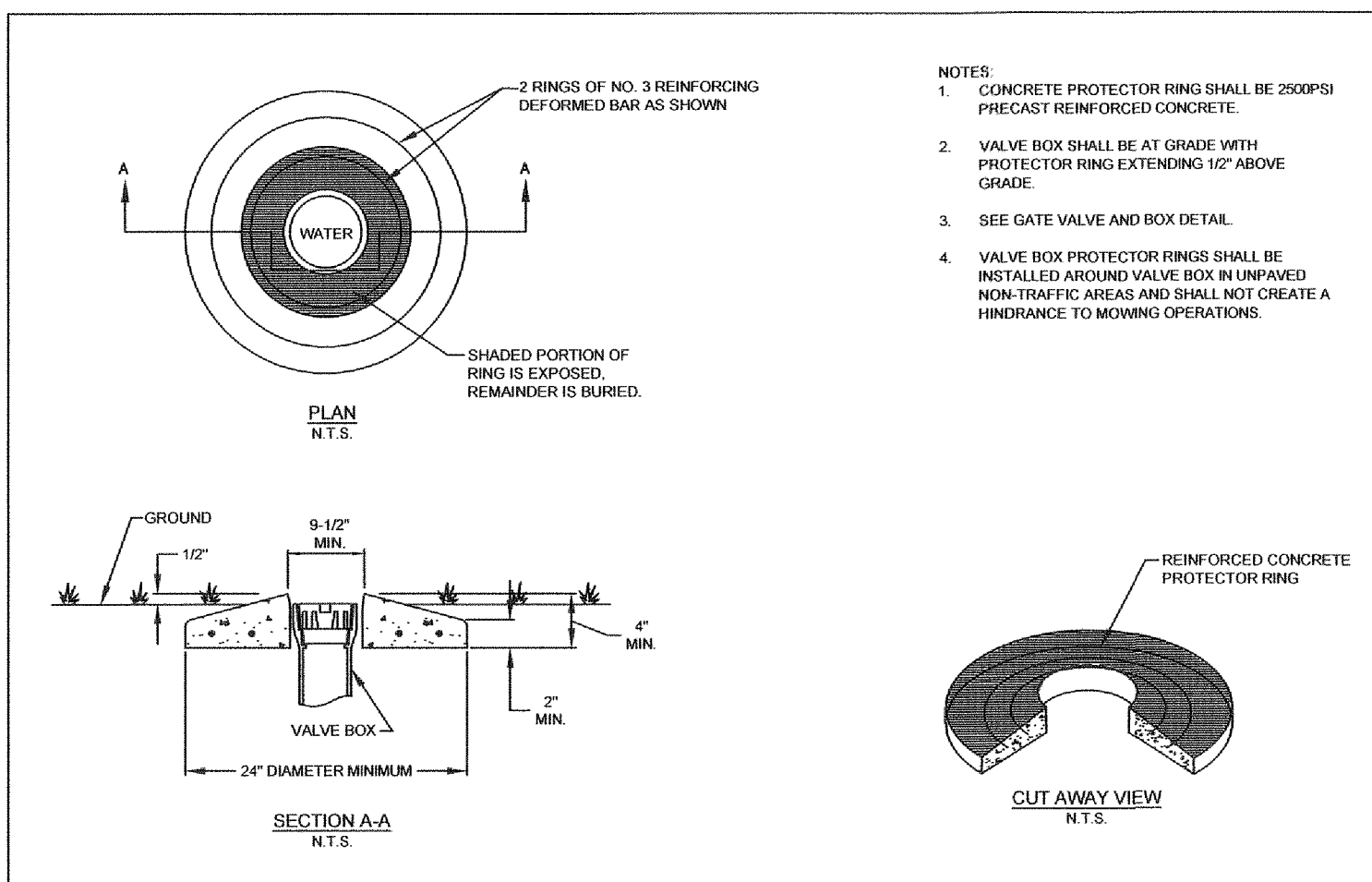
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

MOORMAN, KIZER & REITZEL, INC.
ENGINEERS
PLANNERS
SURVEYORS

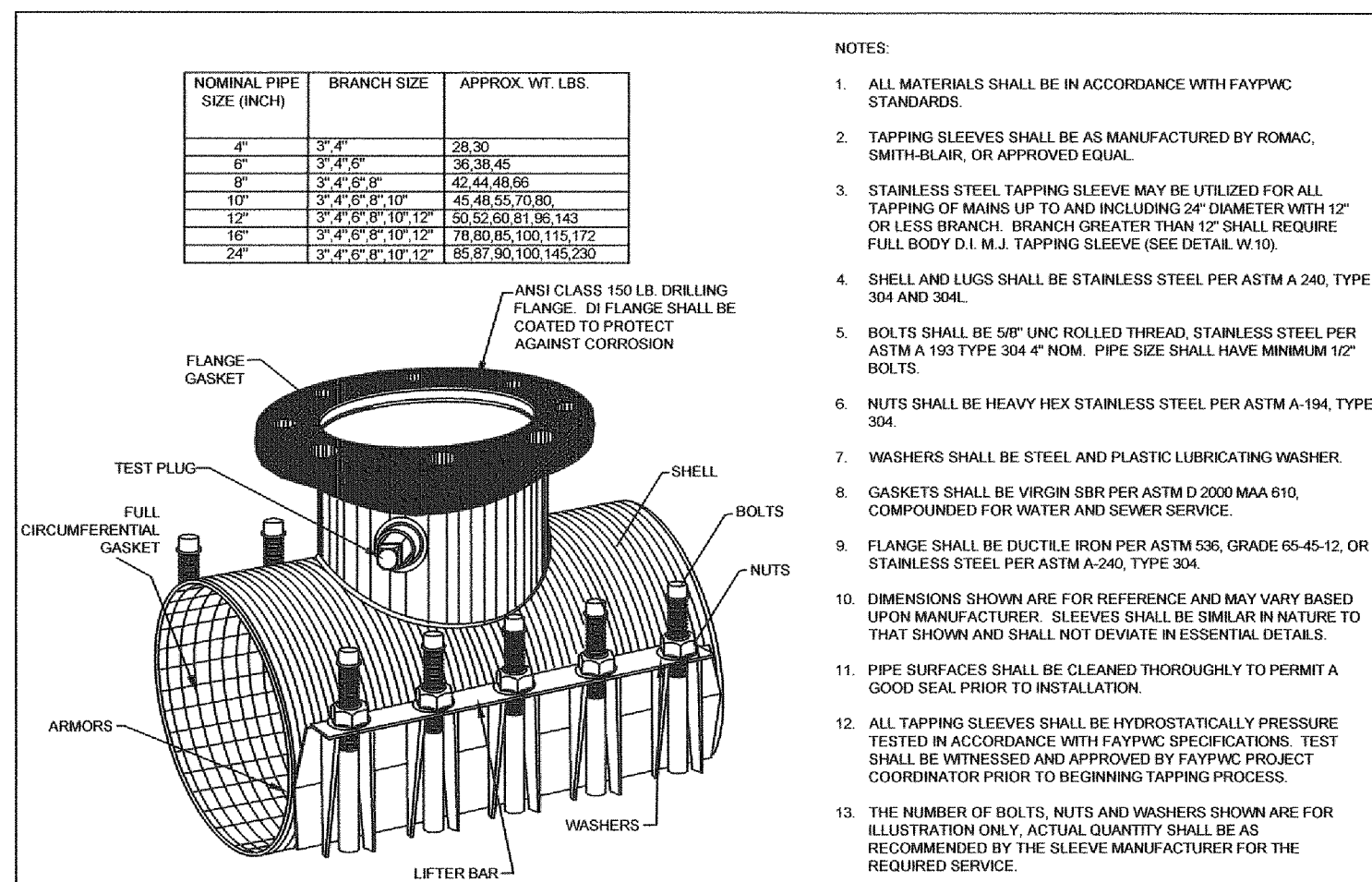
Scale: AS SHOWN
Book no.
Sheet: D-6



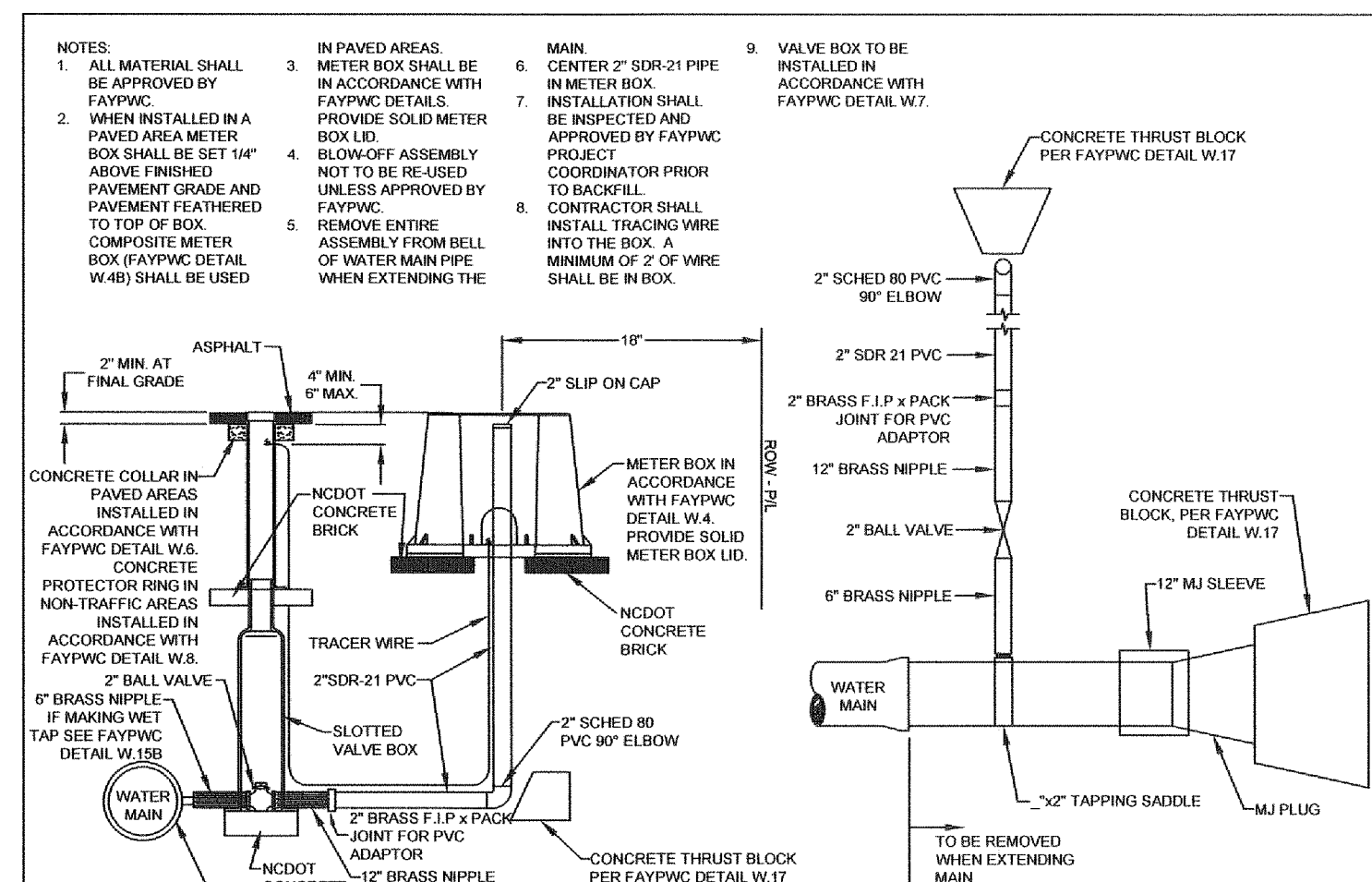
PIPE REPAIR DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTES
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



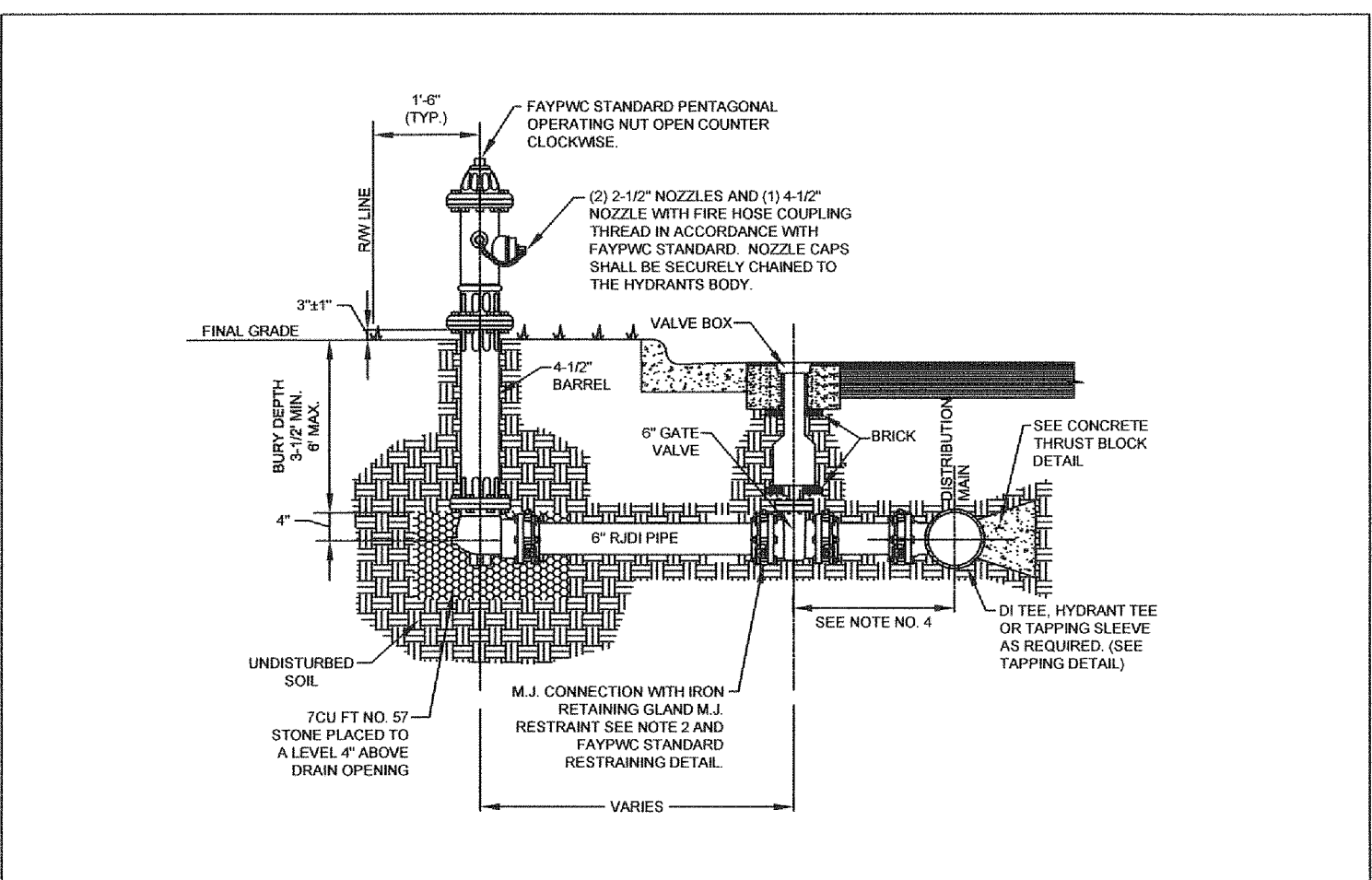
VALVE BOX PROTECTOR RING N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTES
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



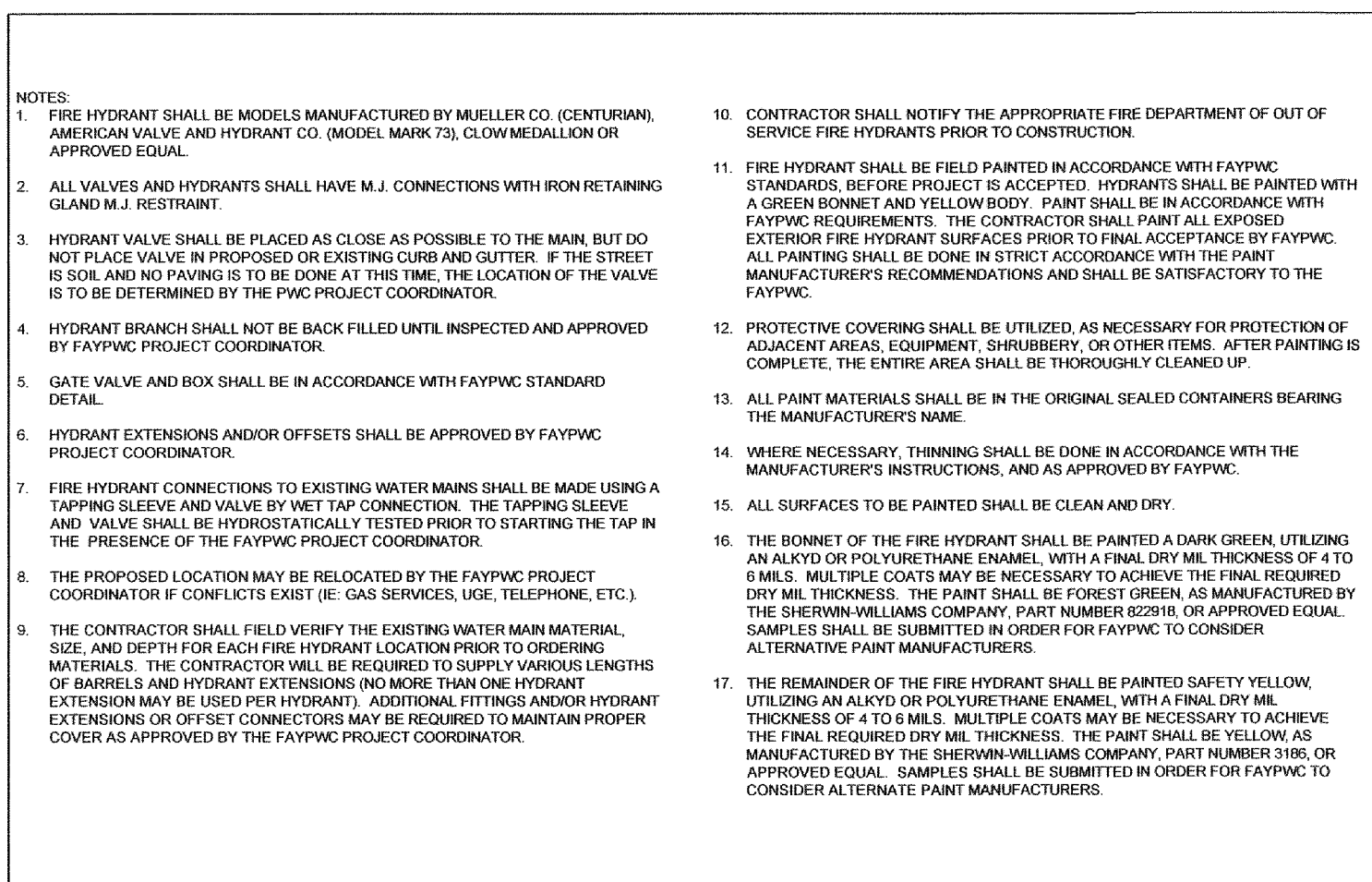
STAINLESS STEEL TAPPING SLEEVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTES
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



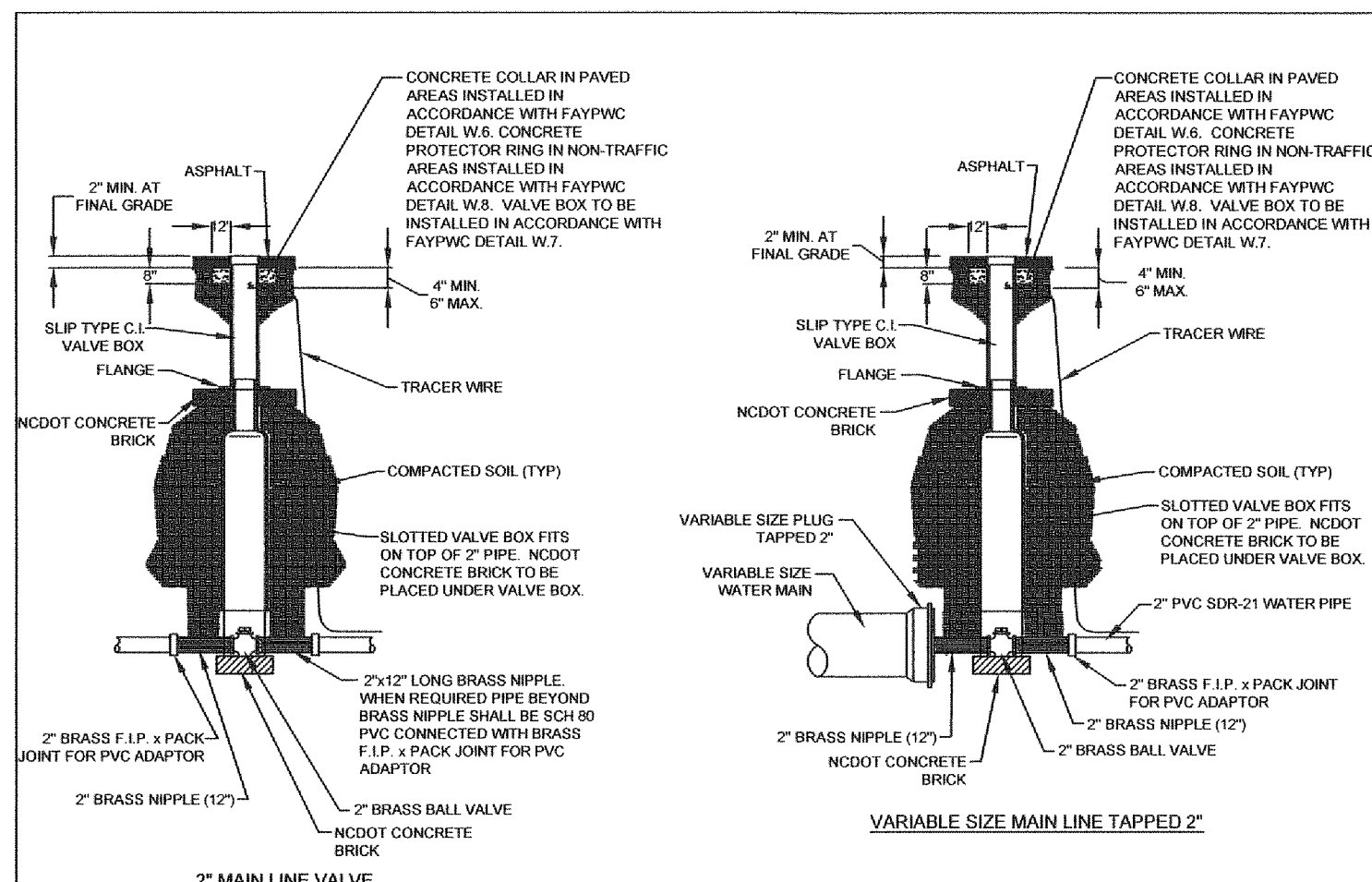
2" BLOW OFF N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	08/08	CHANGED FITTINGS TO SCHED 80	1	08/08	CHANGED FITTINGS TO SCHED 80
2	11/06	REVISED CONFIGURATION	2	11/06	REVISED CONFIGURATION
3	07/17	REVISED NOTES	3	07/17	REVISED NOTES



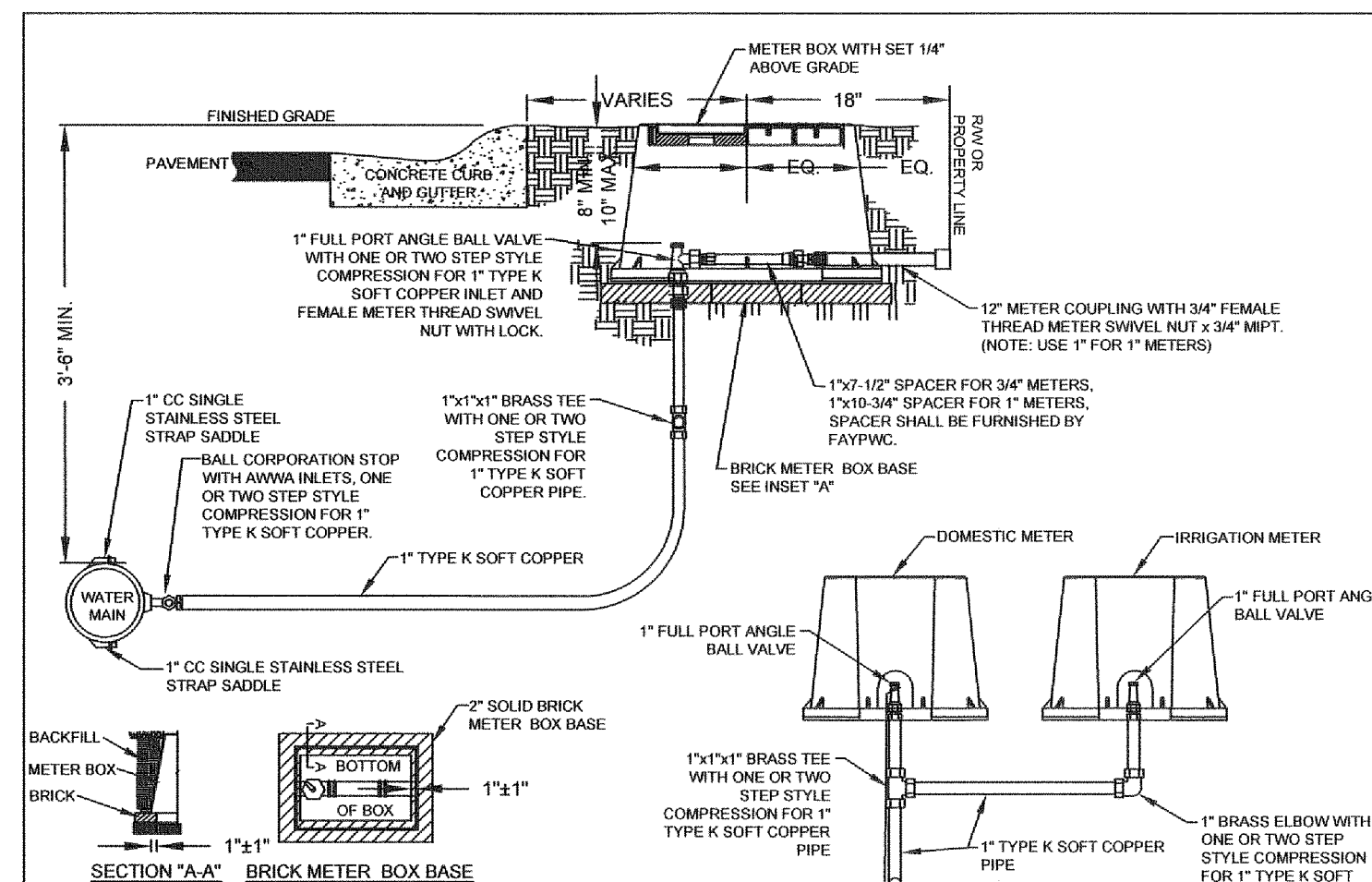
FIRE HYDRANT AND VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTE NO. 4	1	07/16/18	REVISED NOTE NO. 4
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



2" MAIN LINE VALVE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



2" VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



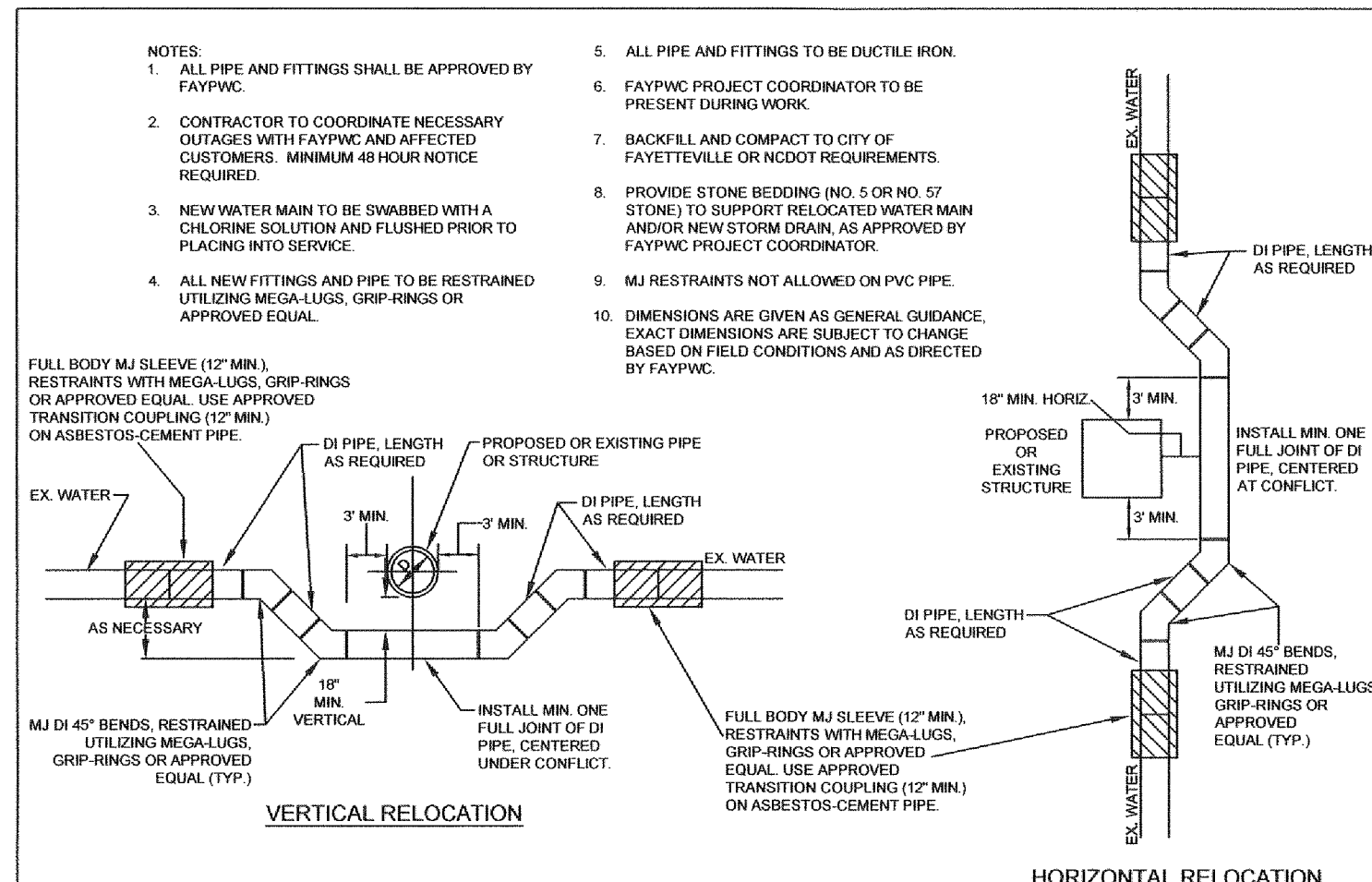
1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	08/05	VALVE CHANGE	1	08/05	VALVE CHANGE
2	08/05	VALVE CHANGE, ADD NOTE 17	2	08/05	VALVE CHANGE, ADD NOTE 17
3	07/08	ADD FRONT VIEW AND MOVED NOTES TO SHEET 2	3	07/08	ADD FRONT VIEW AND MOVED NOTES TO SHEET 2



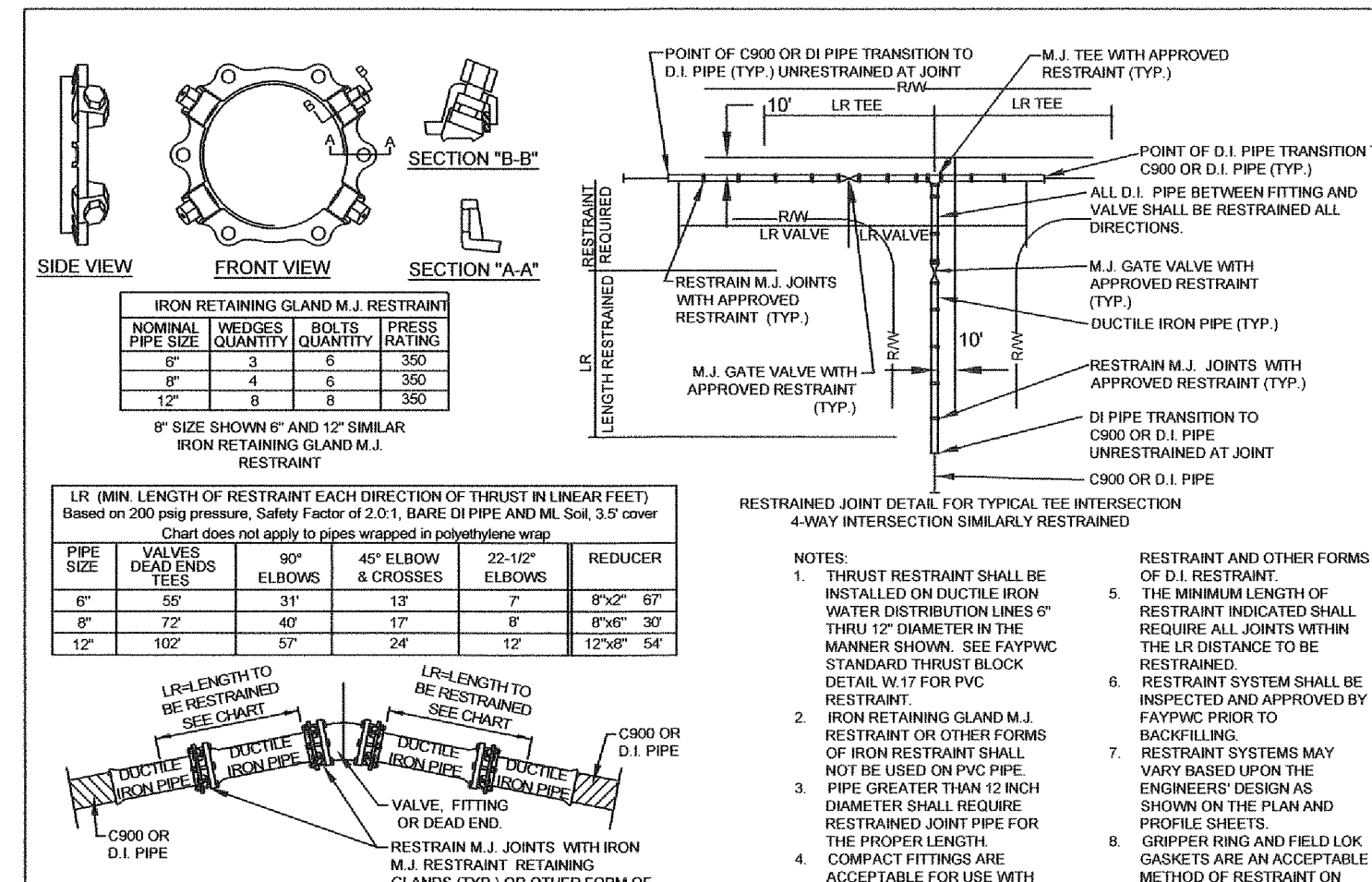
PIPE RELOCATION DETAIL N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/17	REVISED NOTES, ADDED HORIZONTAL RELOCATION	1	07/17	REVISED NOTES, ADDED HORIZONTAL RELOCATION



2" VALVE INSTALLATION N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	07/16/18	REVISED NOTES	1	07/16/18	REVISED NOTES
2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL	2	07/16/18	REVISED NOTE NO. 2, REMOVED NOTE NO. 3 AND ALTERED RESTRAINT DETAIL
3	07/16/18	REVISED NOTES	3	07/16/18	REVISED NOTES



1" SPLIT WATER SERVICE LATERAL FOR TYPE K SOFT COPPER PIPE N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	08/05	VALVE CHANGE	1	08/05	VALVE CHANGE
2	08/05	VALVE CHANGE, ADD NOTE 17	2	08/05	VALVE CHANGE, ADD NOTE 17
3	07/08	ADD FRONT VIEW AND MOVED NOTES TO SHEET 2	3	07/08	ADD FRONT VIEW AND MOVED NOTES TO SHEET 2



RESTRAINT DETAIL (DUCTILE IRON PIPE ONLY) N.T.S.		FAYETTEVILLE PUBLIC WORKS COMMISSION FAYETTEVILLE, N.C.		WATER RESOURCES ENGINEERING DEPARTMENT	
NO.	DATE	REVISION	NO.	DATE	REVISION
1	11/19/07	REVISED TABLE, ADDED NOTE 9	1	11/19/07	REVISED TABLE, ADDED NOTE 9

Drawn by David Maples
Checked by David E. Vaughn/PE,PLS
Reviewed by Jeffrey B. Reitzel/PE,PLS
Date: JAN 2023

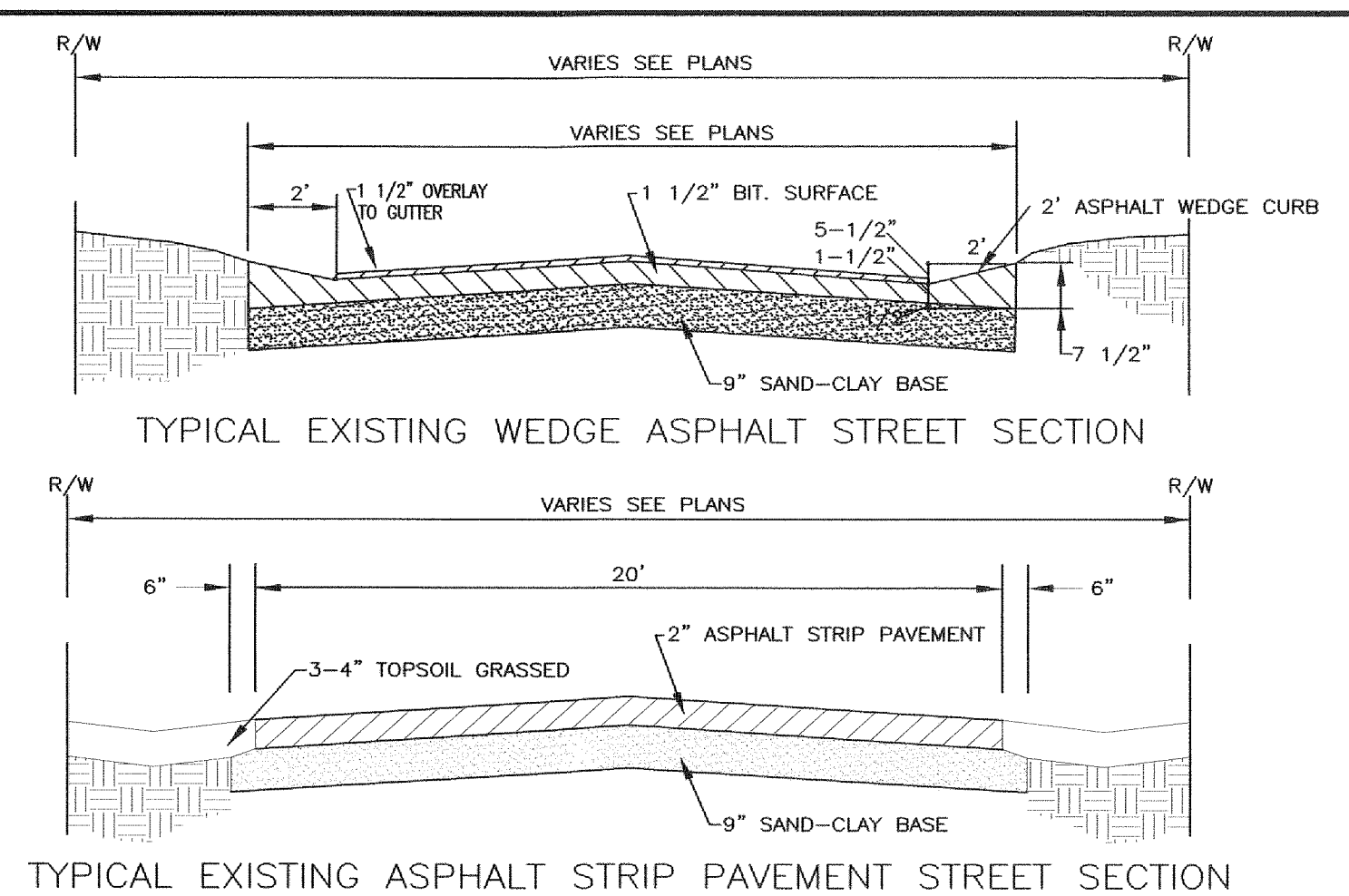
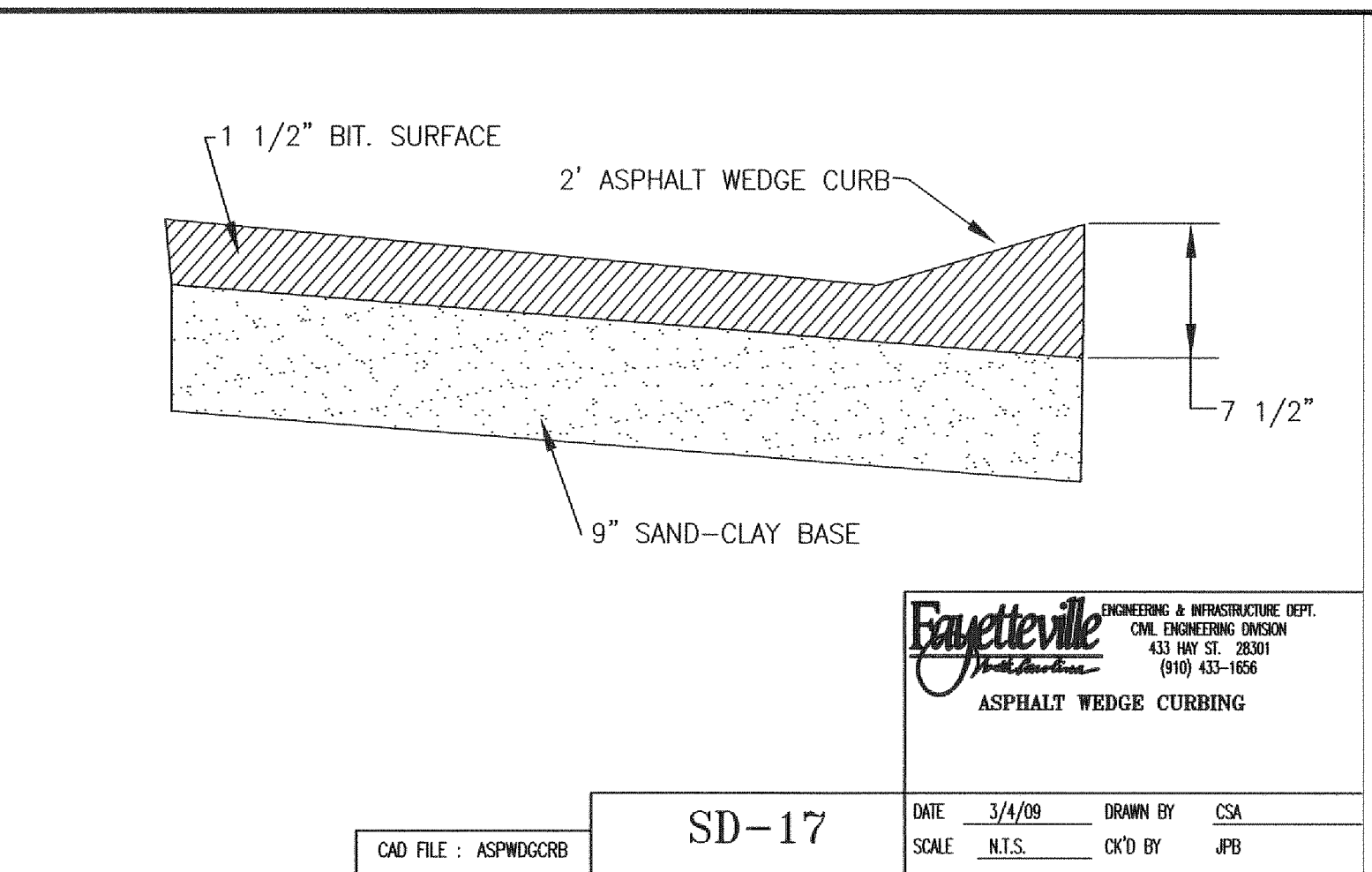
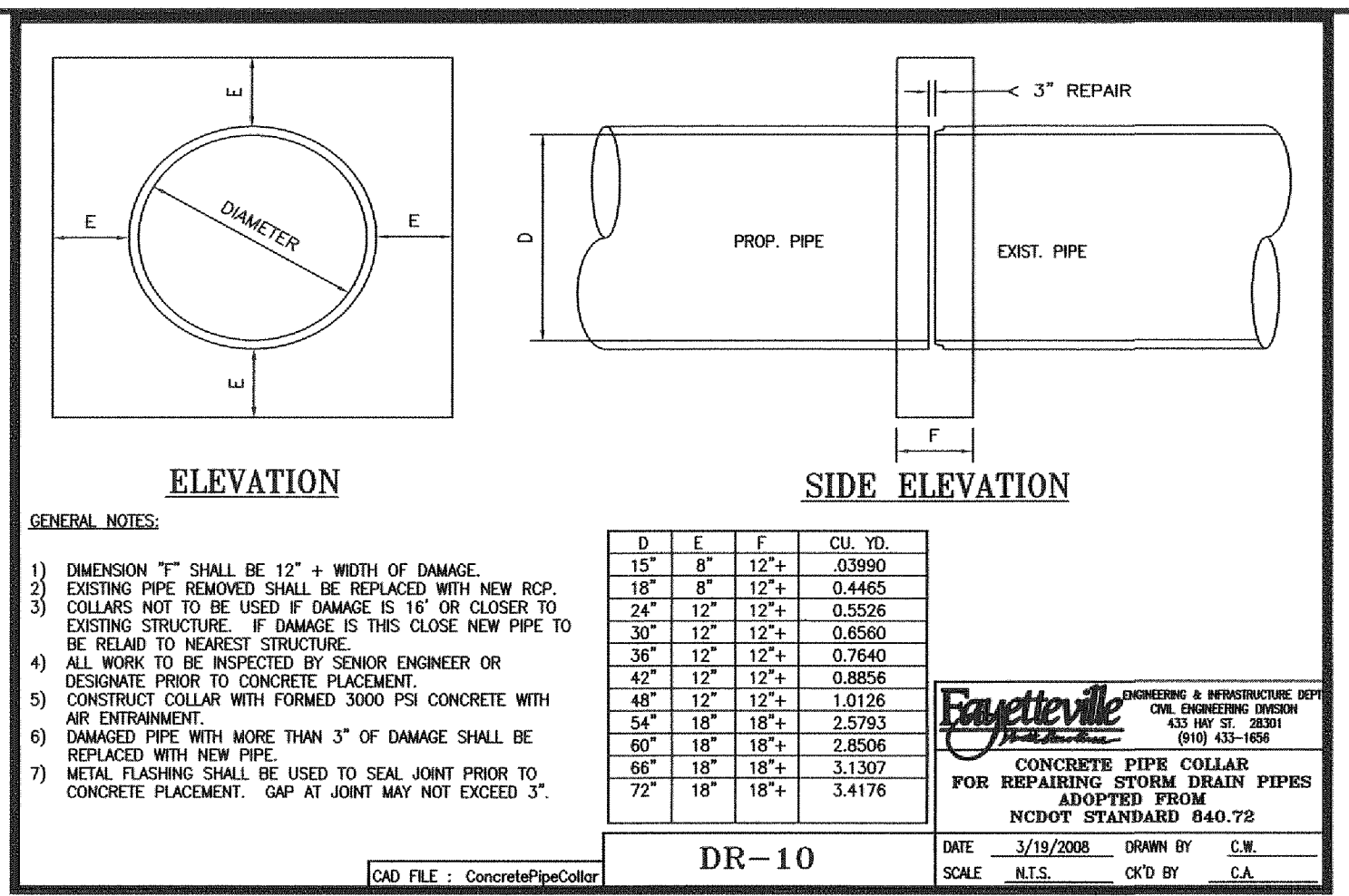
Fayetteville Annexation Phase V
Construction Project XI
Area 25 - Lake Rim Estates
WATER DETAILS & GENERAL NOTES

By: Date: Revision: 1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

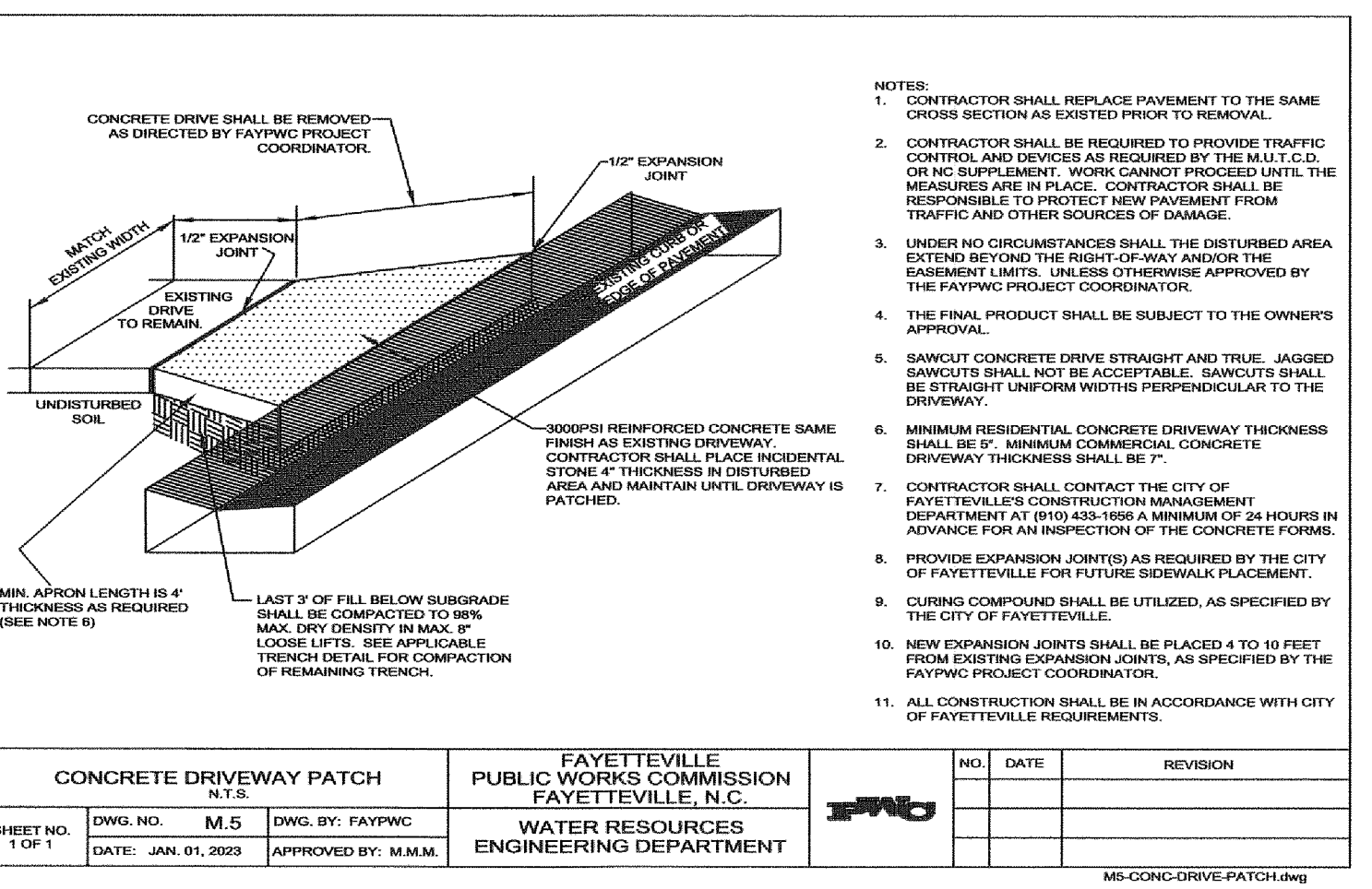
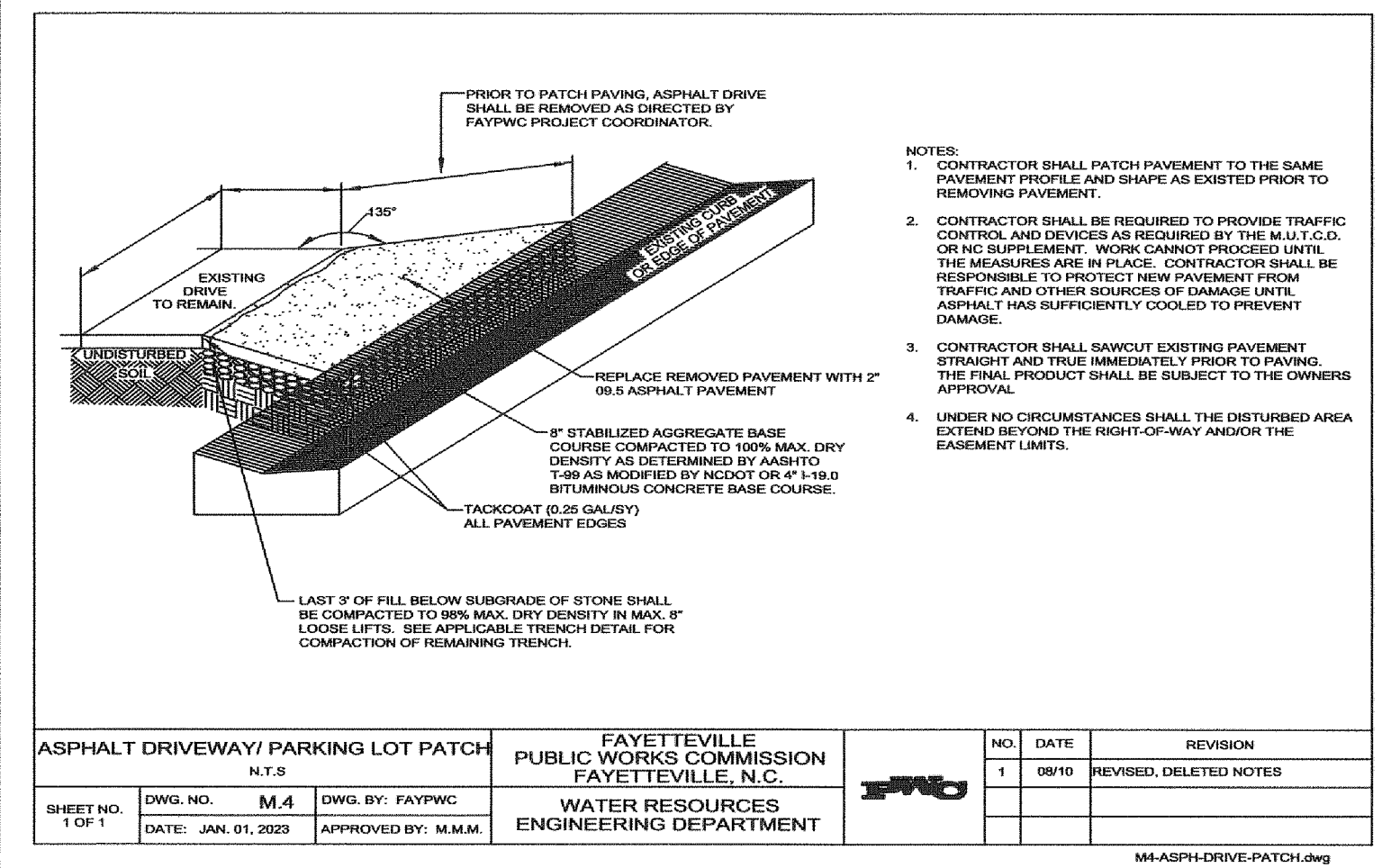
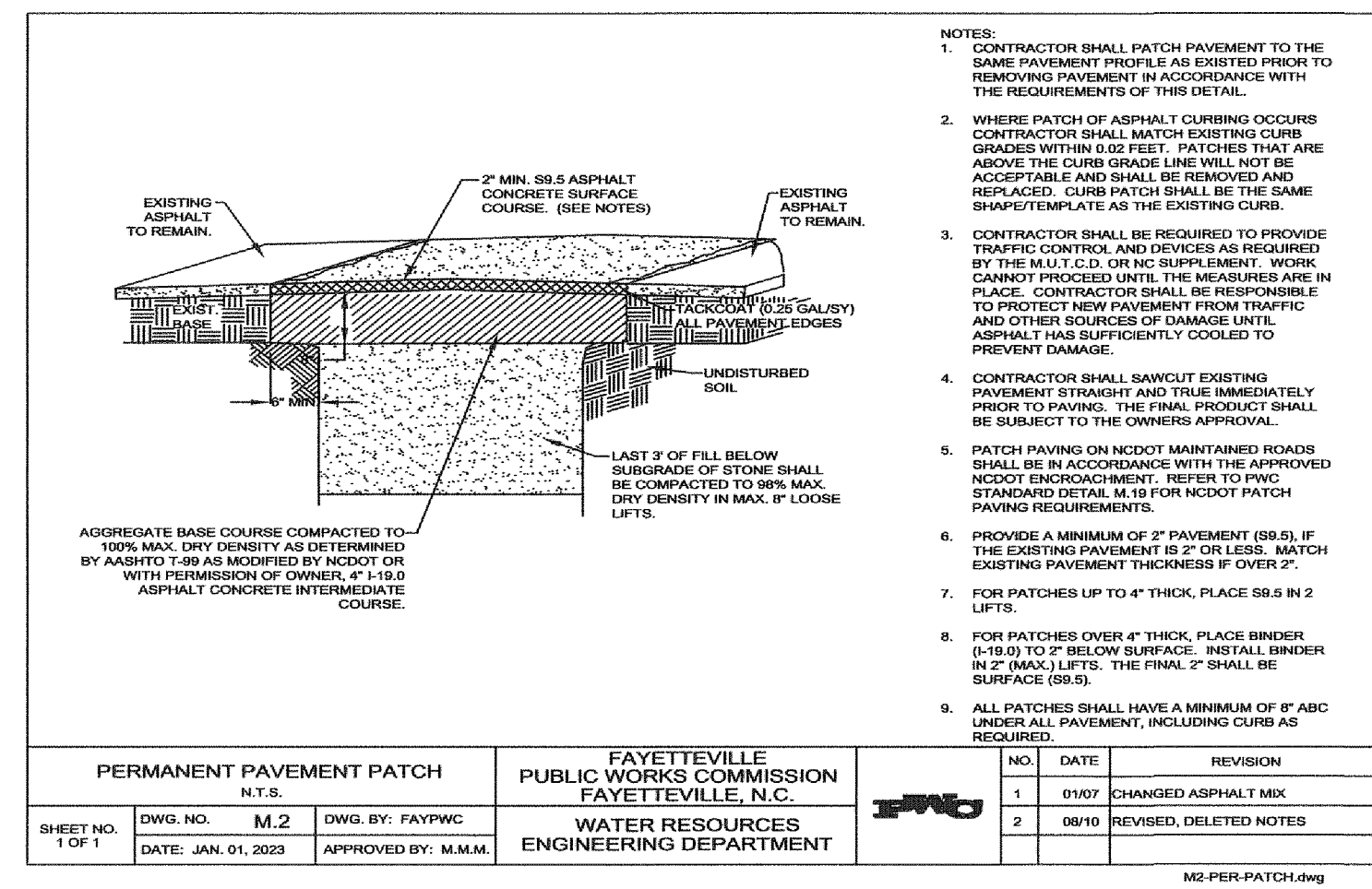
115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Form No. F-0106

M&R
ENGINEERS
PLANNERS
SURVEYORS
MOORMAN, KIZER & REITZEL, INC.

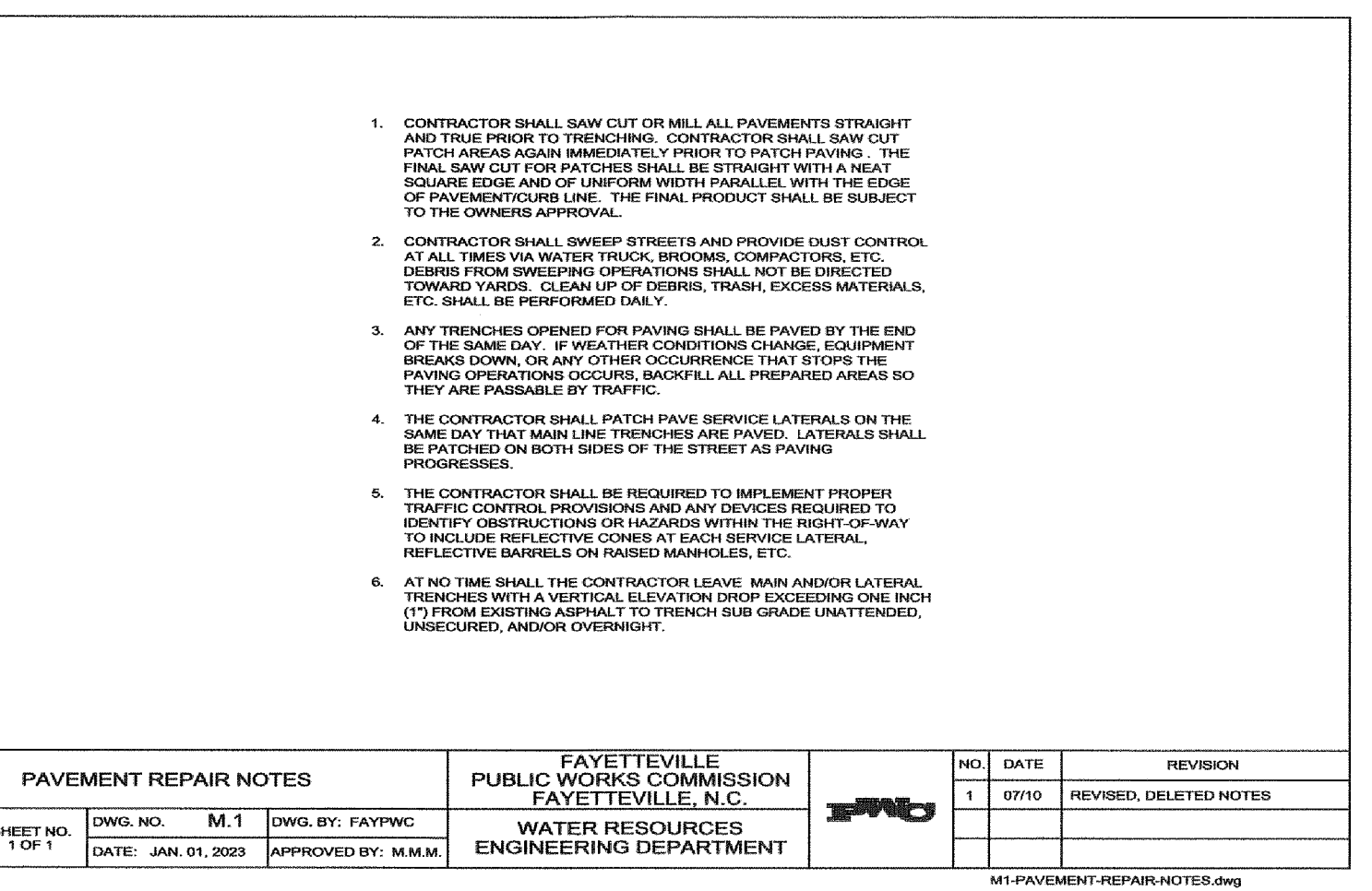
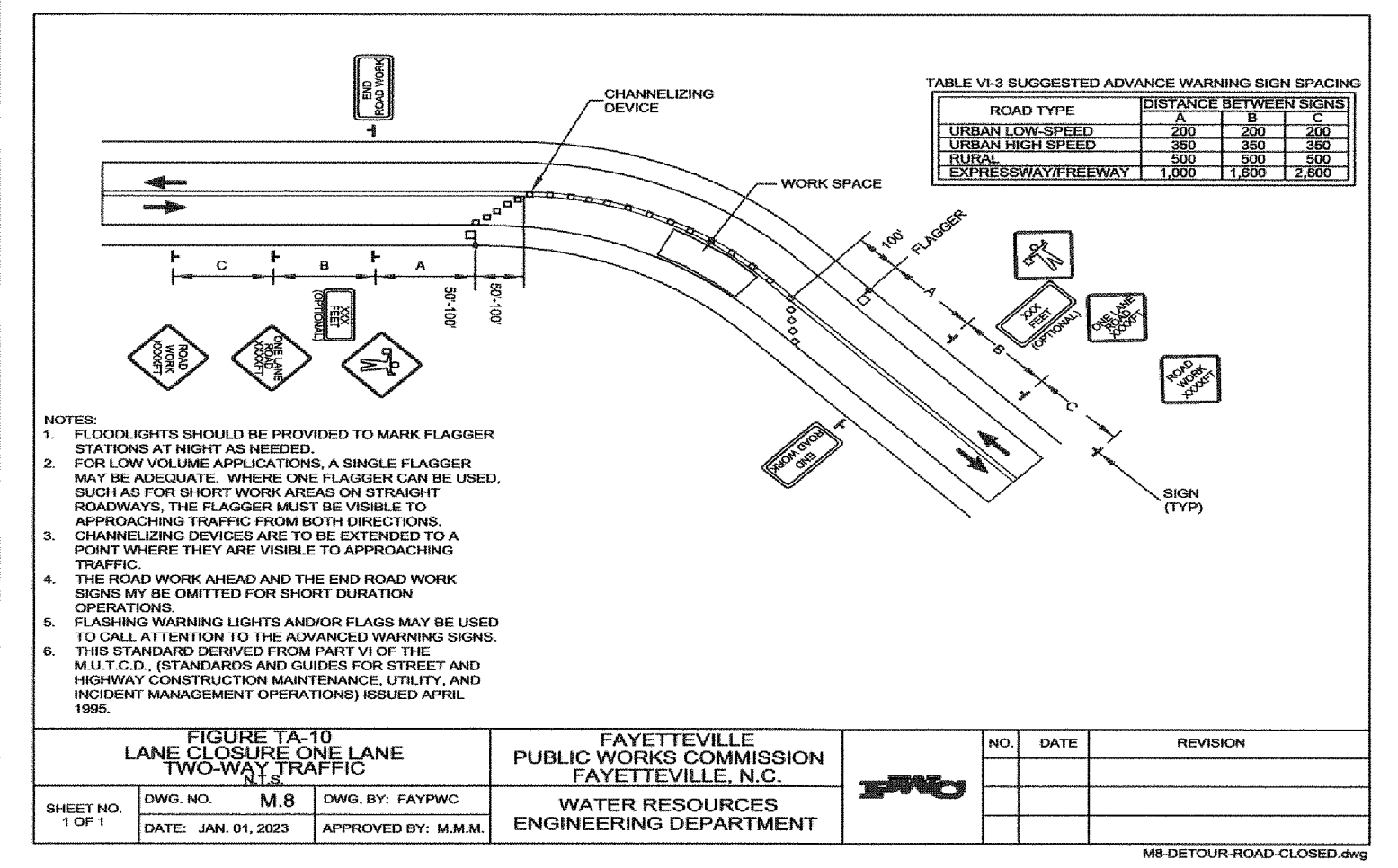
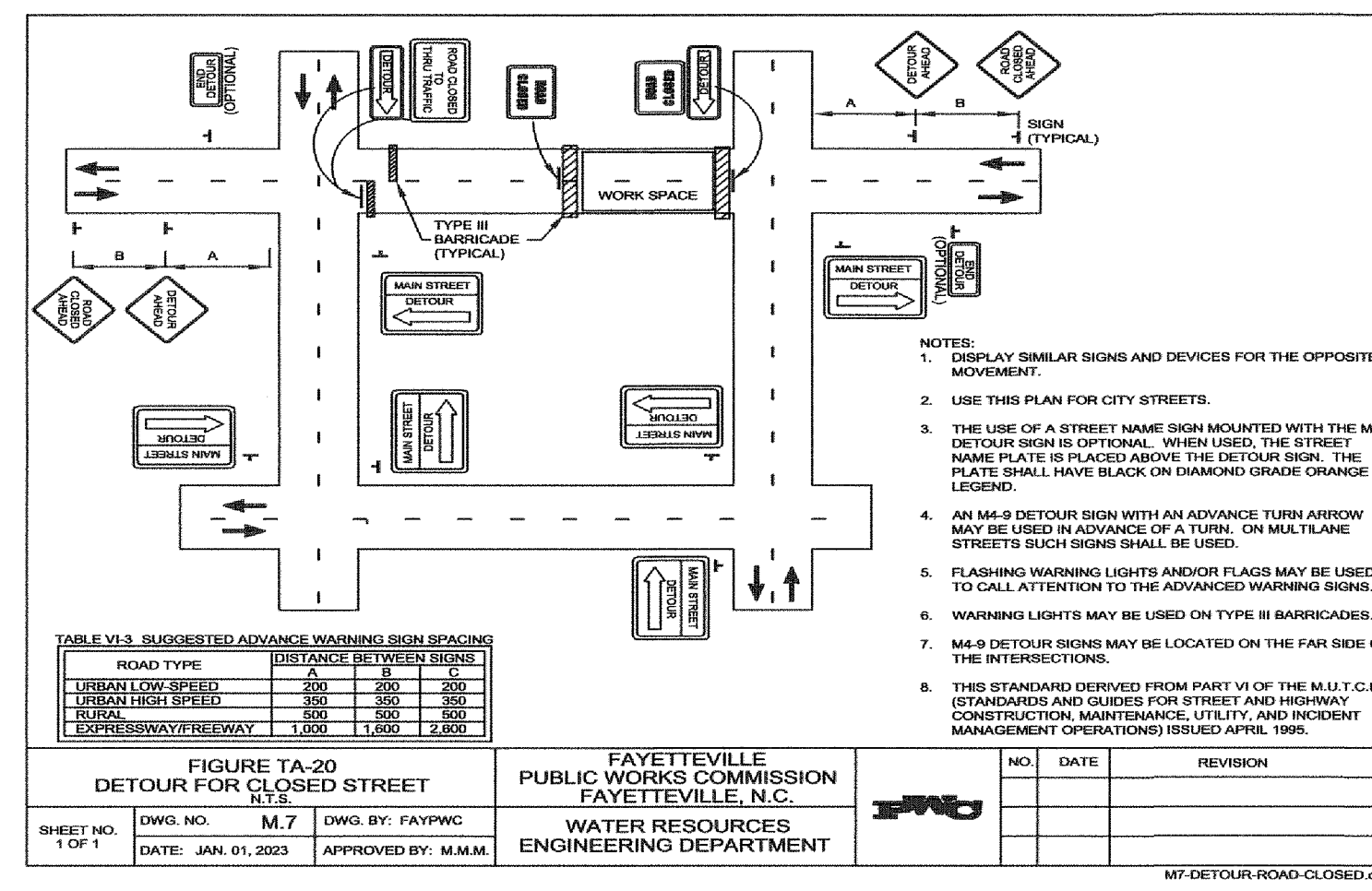
Scale AS SHOWN
Book no.
Sheet D-7



Drawn by David Maples
Checked by David E. Vaughn, PE, PLS
Reviewed by Jeffrey B. Reitzel, PE, PLS
Date: JAN 2023



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106



115 Broadfoot Avenue
Fayetteville, N.C.
P.O. Box 53774
Phone 910-484-5191
Firm No. F-0106

SIZE	T	L	POUNDS PER FOOT	ASTM SPEC. & CLASS	OD	A	B	C	E	F	G	J	K	M	N	PLANT
15	B2-1	8'	134	ASTM C76 III N-V	18 1/2	2	16 1/8	17 1/4	2	17 1/2	17	21 3/8	4 1/2	7 1/8	1 1/2	SR-VN-KN
18	B2-2	8'	173	ASTM C76 III N-V	23	2	20	20 3/4	2	21 1/2	20 1/2	23 1/2	6 1/2	3 1/4	1 1/2	SR-VN-KN
24	B3	8'	268	ASTM C76 III N-V	30	2 1/2	26 3/8	26 7/8	2 1/8	27 3/4	27	31 3/32	4 1/4	1 1/2	1 1/2	SR-K
30	B3-1	8'	396	ASTM C76 III N-V	37	2 1/8	32 1/8	33 1/8	3	34 1/2	33 1/2	38 1/2	5 1/2	1 1/2	1 1/2	SR-K
36	B4	8'	543	ASTM C76 III N-V	44	3 3/4	39 1/4	39 3/8	3 1/8	40 1/2	40 1/8	46 1/2	6	1 1/2	1 1/2	SR-K

MODIFIED TONGUE AND GROOVE
8 FOOT LENGTH
MORTAR OF FLEXIBLE PLASTIC TYPE JTB
SPECIFICATIONS:
 ASTM C 76 - LATEST
 NCDOT
 REINFORCED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS
 LET HOLES STANDARD ON 30" AS ALLOWED PER ASTM SPECIFICATIONS

DR-19
 DATE 3/25/2008 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY CA.

STANDARD MANHOLE RING AND COVER

N.T.S.

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 170 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-1
 DATE 10/03/95 DRAWN BY G.GODWIN
 SCALE N.T.S. CK'D BY M.L.W.

4 FOOT DIAMETER

ASTM C 76 - LATEST
 ASHTO M 199 - LATEST
 WITH SAND OR HIGH FLOWING FILLING
 WITH 10% TO 15% EXCESS GRAVEL
 REINFORCED IN ACCORDANCE WITH APPLICABLE SPECIFICATIONS

HEIGHT FEET	HEIGHT INCHES	WEIGHT POUNDS
2.00	24"	1695
3.00	36"	2550
4.00	48"	3400

DR-1
 DATE 1/3/2011 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY CA.

Drawn by D. Maples
 Checked Jeffrey B. Reitzel, PE, PLS
 Reviewed Jeffrey B. Reitzel, PE, PLS
 Date JAN 2023

Fayetteville Annexation Phase V
 Construction Project IX
 Area 21 Arran Lakes West
 STORM DRAINAGE DETAILS

STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-13
 DATE 3/24/2008 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY CA.

STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-3.1
 DATE 3/18/2008 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY GA.

STANDARD BRICK CATCH BASIN (15" THRU 54" PIPE)

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-3
 DATE 3/18/2008 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY GA.

STANDARD CATCH BASIN TRANSITION FOR 24" ROLL CURB AND GUTTER

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

SD-4
 DATE 3/11/2008 DRAWN BY C.W.
 SCALE N.T.S. CK'D BY CA.

STANDARD FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-26
 DATE 4/3/08 DRAWN BY CSA
 SCALE N.T.S. CK'D BY JPB

STANDARD FRAME, GRATES, AND HOOD FOR USE ON STANDARD CATCH BASIN

(N.T.S.)

SPECIFICATIONS

- MANHOLE RING AND COVER TO BE MADE OF GREY CAST IRON CONFORMING TO ASTM SPECIFICATIONS A 48-74, CLASS 30. ALL CASTINGS SHALL CONFORM TO THE SHAPE AND DIMENSIONS SHOWN. THEY SHALL BE CLEAN AND PERFECT WITHOUT BLOW OR SANDHOLES OR DEFECTS OF ANY KIND, TENDING TO IMPAIR THEIR STRENGTH. NO PLUGGING OR STOPPING OF DEFECTIVE HOLES WILL BE PERMITTED.
- CASTINGS SHALL BE DIPPED WHILE IN HOT COAL TAR.
- MANHOLE RING AND COVER TO WITHSTAND VEHICULAR TRAFFIC WITHOUT OBJECTIONABLE NOISE.
- MINIMUM AVERAGE WEIGHT:
 FRAME: 180 LBS
 COVER: 120 LBS

DEWEY BROS., INC.-MH-RCR- 2001 OR APPROVED EQUAL

DR-26.1
 DATE 4/3/08 DRAWN BY CSA
 SCALE N.T.S. CK'D BY JPB

By: _____
 Date: _____
 Revision: _____

115 Broadfoot Avenue
 Fayetteville, N.C.
 P.O. Box 53774
 Phone 910-484-5191
 Firm No. F-0106

M&R
 ENGINEERS
 PLANNERS
 SURVEYORS
 MOORMAN, KIZER & REITZEL, INC.

Scale AS SHOWN
 Book no. _____
 Sheet D-9

