Index Of Sheets

SHEET NO.	DESCRIPTION
1	TITLE SHEET TYPICAL SECTIONS PROPERTY MAPS AND RIGHT-OF-WAY ACQUISITION TABLE PRESENT LAYOUT R.O.W. DETAILS
4-7	PROPOSED LAYOUTS
8	PROFILES PROFILE OF PRIVATE DRIVES CULVERT CROSS-SECTIONS PROPOSED SIGNAL LAYOUT PROPOSED F.O. INTERCONNECT LAYOUT EROSION PREVENTION AND SEDIMENT CONTROL PLAN ROADWAY CROSS-SECTIONS
9-11	SEWER DETAILS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

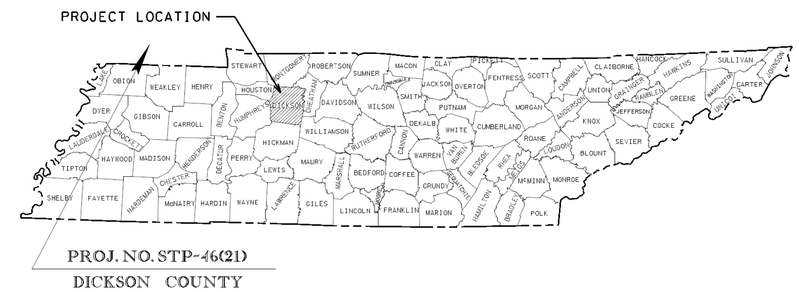
DICKSON COUNTY

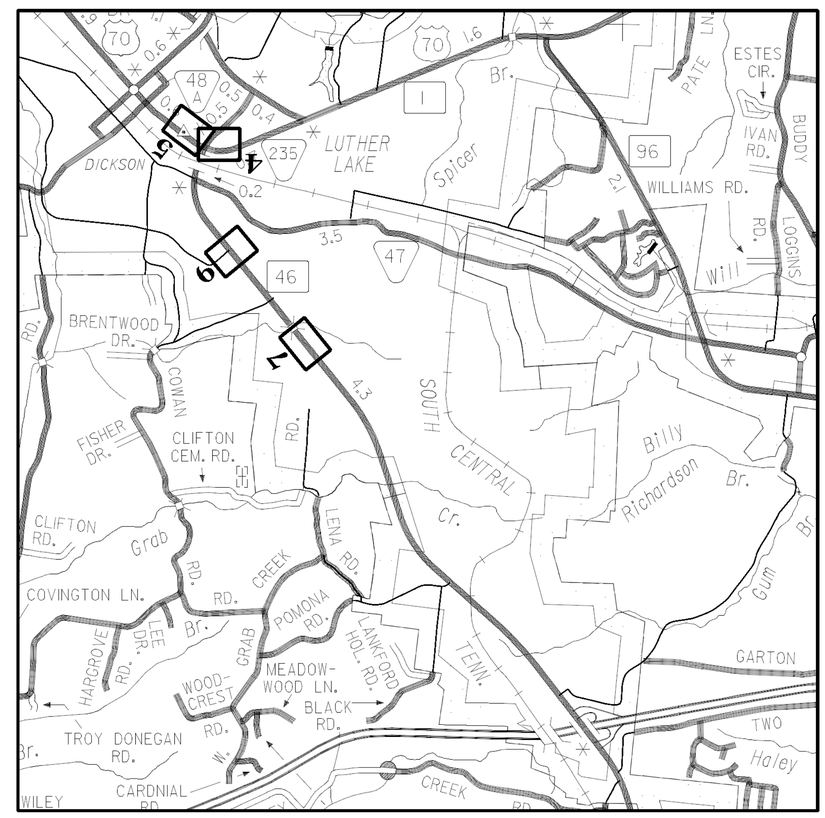
STATE ROUTE 46 UTILITY RELOCATION
FROM I-40 TO SR-1 (US-70, HENSLEE DRIVE), INCLUDING THE INTERSECTION OF SR-1 AT SR-1 (EAST COLLEGE STREET)

UTILITY RELOCATION

STATE HIGHWAY NO. 46 F.A.H.S. NO. NA

TENN.	YEAR	SHEET NO.
	2014	U5-1
FED. AID PROJ. NO.	STP-46(21)	
STATE PROJ. NO.	22004-3246-14	





SCALE: 1"= 1/2 MILE

NO EQUATIONS
NO EXCLUSIONS

SEWER PLANS

SEALED BY

MICHAEL W. ROGERS
REGISTERED ENGINEER
DESIGN ENGINEER
NUMBER
No. 115445
STATE OF TENNESSEE
8/15/14

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED FEBRUARY 4, 2014 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

DIRECTOR OF PROJECT DEVELOPMENT _____

DESIGNED BY _____

DESIGNER _____ CHECKED BY _____

P.E. NO. _____

PIN NO. _____

ICA Engineering
2550 Irvin Cobb Drive
Paducah, KY 42003
270.444.9691
www.icaeng.com

E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER\SOOLSHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-2

GENERAL NOTES:

1 CONDUCT ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS AND OTHER PREVAILING HEALTH & SAFETY STANDARDS.

2 PROVIDE ALL MISCELLANEOUS ITEMS, NOT LISTED BUT REQUIRED FOR CONSTRUCTION, AT NO ADDITIONAL COST TO THE OWNER.

3 VERIFY ALL TENNESSEE DEPARTMENT OF TRANSPORTATION, COUNTY, OR CITY ENCROACHMENT PERMITS REQUIRED FOR THIS PROJECT HAVE BEEN OBTAINED. POST ALL PERMITS ON THE CONSTRUCTION SITE.

4 IMPLEMENT TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, "THE TENNESSEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", WHEN ANY OPERATION ADVERSELY AFFECTS TRAFFIC CONTROL. DEPLOY PROPER LIGHTING, BARRICADING, AND FLAGMEN. FURNISH, ERECT AND MAINTAIN TRAFFIC CONTROL DEVICES AT NO ADDITIONAL COST TO THE OWNER.

5 ALL UTILITIES ARE SHOWN IN THEIR GENERAL LOCATION. PRIOR TO INITIATING CONSTRUCTION, FIELD LOCATE ALL UTILITIES. EXPOSE UTILITIES LOCATED WITHIN THE DISTURBED LIMITS UTILIZING MANUAL EXCAVATION WHERE NEEDED TO AVOID DAMAGE TO THE UTILITY. NOTIFY THE ENGINEER OF CONFLICTS WHICH MAY AFFECT PROPER COMPLETION OF THE WORK. TAKE MEASURES TO PROTECT THE UTILITIES FROM DAMAGE DURING CONSTRUCTION. COORDINATE REPAIRS OF DAMAGED UTILITIES WITH THE OWNERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REQUIRED REPAIR OR REPLACEMENT.

6 IMPLEMENT MEASURES TO PROTECT PROPERTY AND SURVEY MONUMENTS. REPLACE ALL SURVEY MONUMENTS, PROPERTY CORNERS, ETC. DISTURBED BY CONSTRUCTION. ALL PROPERTY CORNERS MUST BE REPLACED BY A PROFESSIONAL SURVEYOR LICENSED TO PRACTICE SURVEYING IN TENNESSEE.

7 RESTORE ALL SOIL AREAS DISTURBED AS A RESULT OF ANY CONSTRUCTION PROCESS TO A CONDITION EQUAL TO OR EXCEEDING PRE-CONSTRUCTION CONDITIONS.

8 FILL DRIVEWAY EXCAVATIONS TO GRADE WITH A TRAFFIC BEARING SURFACE WITHIN 24 HOURS OF EXCAVATION. COORDINATE ACTIVITIES WITH PROPERTY OWNER.

9 RESTORE ROADWAYS AND DRIVEWAYS DAMAGED BY EXCAVATION OR OTHER CONSTRUCTION OPERATIONS TO A CONDITION EQUAL TO OR EXCEEDING PRE-CONSTRUCTION CONDITIONS.

10 DO NOT STORE EXCAVATED MATERIAL IN LOCATIONS THAT BLOCK THE EXISTING STORM DRAINAGE.

11 RESHAPE ALL DITCH LINES DAMAGED DURING CONSTRUCTION TO ORIGINAL LINES AND GRADES OR AS NOTED ON THE GRADING PLAN.

12 REPLACE ALL DRAINAGE PIPES DISTURBED DURING CONSTRUCTION IN-KIND AT NO ADDITIONAL COST TO THE OWNER, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

13 MAINTAIN A MINIMUM 10 FEET HORIZONTAL OR AN 18 INCH VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES.

14 REPAIR ANY FENCE, OR PORTION THEREOF, DISTURBED DURING CONSTRUCTION TO A CONDITION EQUAL TO OR EXCEEDING THE PRE-CONSTRUCTION CONDITION.

15 CONDUCT CLEARING, GRUBBING AND CONSTRUCTION ACTIVITIES IN A MANNER MINIMIZING, TO THE EXTENT PRACTICAL, THE DESTRUCTION OF TREES, SHRUBBERY, ETC. THAT MAY BE IN THE PATH OF THE PROPOSED UTILITY.

16 REMOVE ALL DEBRIS, EXCESS MATERIALS, ETC. FROM THE PROJECT SITE AND DISPOSE OF AT AN APPROVED LOCATION AT NO ADDITIONAL COST TO THE OWNER. NO OPEN BURNING WILL BE PERMITTED ON THE SITE.

17 MAINTAIN A CLEAN AND ORDERLY JOB SITE AT ALL TIMES.

18 WITHOUT REGARD TO THE MATERIALS ENCOUNTERED, ALL EXCAVATION ON THIS PROJECT SHALL BE UNCLASSIFIED. ANY REFERENCE TO ROCK, EARTH, OR ANY OTHER MATERIAL ON THE PLAN WHETHER IN NUMBERS, WORDS, LETTERS, OR LINES IS FOR INFORMATION ONLY AND IS NOT TO BE TAKEN AS AN INDICATION OF CLASSIFIED EXCAVATION. UNAUTHORIZED EXCAVATION SHALL BE BACKFILLED AT THE CONTRACTORS EXPENSE WITH COMPACTED EARTH, GRAVEL, OR OTHER MATERIAL AS APPROVED AND DIRECTED BY THE ENGINEER. ANY UNSUITABLE MATERIAL ENCOUNTERED SHALL BE WASTED.

19 "SEED AND PROTECT" ALL DISTURBED AREAS OUTSIDE OF THE T.D.O.T. RIGHT OF WAY IN ACCORDANCE WITH THE T.D.O.T. STANDARD SPECIFICATIONS.

20 WORK HOURS SHALL BE LIMITED TO MONDAY THRU FRIDAY - 6:00 A.M. TO 6:00 P.M. - UNLESS REQUESTED BY THE CONTRACTOR AND APPROVED IN WRITING BY THE OWNER.

21 WORKING ON SITE DURING FEDERALLY OBSERVED HOLIDAYS IS PROHIBITED UNLESS REQUESTED BY THE CONTRACTOR AND APPROVED IN WRITING BY THE OWNER.

23 CONTRACTOR WILL BE REQUIRED TO PROVIDE A DETAILED & ANNOTATED VIDEO CASSETTE OF THE PROPOSED SEWER & FORCEMAIN LINES TO THE ENGINEER PRIOR TO COMMENCING WORK. THE RECORDING SHALL BE CLEAR WITH LOCATIONS DEFINED AND FOCUS ON EXISTING SURFACE CONDITIONS IN AN EFFORT TO ALLEVIATE PROPERTY OWNER CONFRONTAIONS AT THE CONCLUSION OF THE PROJECT.

24 INCLUDE THE COST OF ALL WYE BRANCHES, TEES AND OTHER FITTINGS FOR SEWER LINE CONSTRUCTION IN THE UNIT PRICE BID FOR PIPE.

25 MAINTAIN ACCURATE AS-BUILT RECORDS INCLUDING THE LOCATION OF MANHOLES, WYES AND ENDS OF LATERALS, AND THE ELEVATIONS OF MANHOLE INVERTS, TOP OF CASTINGS AND LATERAL DEPTHS AT THE PROPERTY LINES. AS-BUILT RECORDS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO CERTIFICATION OF COMPLETION.

26 MINIMIZE BANK EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION. PRIOR TO COMMENCING CONSTRUCTION. AN EROSION CONTROL PLAN DESCRIBING TYPES AND LOCATIONS OF EROSION CONTROL DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE EROSION CONTROL PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION PUBLICATION "EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION.

27 FIELD VERIFY THE EXISTING SEWER ELEVATIONS AND COORDINATE PLAN REVISIONS, IF REQUIRED WITH THE ENGINEER PRIOR TO COMMENCING WORK.

28 THE LOCATIONS OF WYES AND SEWER LATERALS ARE SHOWN IN GENERAL LOCATION. COORDINATE WITH THE ENGINEER ANY LOCATION OR GRADE REQUIREMENTS NECESSARY FOR THE PROPER CONNECTION OF BUILDING SEWERS TO THE SYSTEM.

29 THE QUANTITY FOR DI FITTINGS, GLANDS AND RESTRAINT DEVICES DESCRIBED IN POUNDS.

30 THE UNIT PRICE FOR "RESTORE ASPHALT" AND "RESTORE CONCRETE" SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT, SETUP AND TRAFFIC CONTROL.

31 THE UNIT PRICE FOR GRAVITY SEWERS, FORCEMAINS, AND SERVICE LATERALS SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT FOR COMPLETE EXCAVATION INCLUDING, BUT NOT LIMITED TO, BEDDING, BACKFILLING, THRUST BLOCKING, PIPE FUSION, APPURTENANCES, FLOWABLE FILL, MAINTAINING THE TRENCH, TESTING, CHECK DAMS, AND ANY OTHER LABOR OR MATERIAL REQUIRED TO COMPLETE GRAVITY SEWER LINES OR FORCE MAINS AS SPECIFIED ON THE PLANS. DUCTILE IRON PIPE GRAVITY SEWER LINES SHALL BE EPOXY LINED.

32 THE UNIT PRICE FOR BORE/JACK STEEL CASING PIPE SHALL INCLUDE, BUT NOT BE LIMITED TO, CASING PIPE, PIPE SPACERS, CASING END SEALS, ANY OTHER APPURTENANCES TO COMPLETE THE WORK AS SPECIFIED ON THE PLANS, AND TRAFFIC CONTROL. IF CASING PIPE HAS CARRIER PIPE, THE CARRIER PIPE SHALL BE PAID AT THE OPEN CUT ITEM.

33 THE UNIT PRICE FOR CONNECTING SEWERS TO EXISTING MANHOLE, CONNECTING SEWERS TO NEW MANHOLE, AND CONNECTING TO EXISTING FORCE MAIN SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY FOR CONNECTING TO AN EXISTING FORCE MAIN, SEWER LINE, PUMP STATION OR MANHOLE AS SPECIFIED ON PLANS, INCLUDING TRAFFIC CONTROL.

34 THE UNIT PRICE FOR NEW MANHOLES SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY FOR INSTALLATION OF PRECAST MANHOLE PREFORMED BASE OR OPEN BOTTOM (DOGHOUSE) INCLUDING, BUT NOT LIMITED TO, VENT ASSEMBLY (WHERE REQUIRED), CRUSHED STONE, PIPE TO MANHOLE CONNECTORS, EXCAVATION, BACKFILL, BUTYL RESIN GASKET, MANHOLE STEPS, ASPHALTIC WATERPROOFING, FRAME AND COVER, AND TRAFFIC CONTROL.

35 THE UNIT PRICE FOR MANHOLE DROP CONNECTION ASSEMBLY SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO, MACHINERY, TOOLS, OR APPARATUS NECESSARY FOR INSTALLATION OF ASSEMBLIES AS DESCRIBED AND DETAILED IN THE PLANS AND SPECS.

36 THE UNIT PRICE FOR BY-PASS PUMPING SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT FOR INTERNAL OR EXTERNAL POINT REPAIRS AS SPECIFIED ON THE BID FORM.

37 THE UNIT PRICE FOR REMOVE AND RETIRE IN PLACE MANHOLES AND SEWERS SHALL INCLUDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR RETIRE IN PLACE OR REMOVE ITEMS AS SPECIFIED ON THE BID FORM INCLUDING TRAFFIC CONTROL.

LEGEND:

- 8" SA — PROP. SANITARY SEWER
- 10" FMS — PROP. FORCE MAIN
- 12" W — PROP. WATER LINE
- 2" G — PROP. GAS LINE
- 18" ST — PROP. STORM DRAINAGE
- 8" SA — EXIST. SANITARY SEWER
- 10" FMS — EXIST. FORCE MAIN
- 8" W — EXIST. WATER LINE
- 2" G — EXIST. GAS LINE

- PROP. M.H. A-13 STA. 29+04.18
- EXIST. M.H. A-14 STA. 30+92.21
- PROP. STORM INLET

SEWER PLANS

SEALED BY

MICHAEL W. ROGERS REGISTERED ENGINEER NO. 115449 STATE OF TENNESSEE 8/15/14

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000083 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER NOTES

NTS

ICA Engineering
2550 Irvin Cobb Drive
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270.444.9691
www.icaeng.com

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E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER\S002 Notes.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-3

SUMMARY OF QUANTITIES

TDOT ITEM #	DESCRIPTION	UNIT	U5-4	U5-5	U5-6	U5-7							TOTAL
	MATERIAL AND INSTALLATION BY THE CONTRACTOR												
797-05.02	8" DIP GRAVITY SEWER 6FT-12FT DEPTH	L.F.	200	175	45	120							540
797-05.30	6" DIP GRAVITY SEWER 6FT-12FT DEPTH	L.F.			35								35
797-03.16	14" PVC FORCE MAIN	L.F.		470									470
797-01.11	14" DIP FORCE MAIN (w/in Encasement)	L.F.		105									105
797-06.67	BORE/JACK 24IN STEEL CASING PIPE - UNCON.	L.F.		90									90
797-07.04	48" MANHOLE 8FT-10FT DEPTH	EACH		1		1							2
797-07.05	48" MANHOLE 10FT-12FT DEPTH	EACH	1		1								2
797-07.56	MANHOLE DROP CONNECTION ASSEMBLY	EACH		1									1
797-10.02	CONNECT 8IN SEWER TO EXIST. MANHOLE	EACH	1										1
797-10.09	CONNECT EX. 8IN SEWER TO NEW MANHOLE	EACH			1								1
797-10.08	CONNECT EX. 6IN SEWER TO NEW MANHOLE	EACH			1								1
797-10.21	CONNECT TO 14IN FORCE MAIN	EACH		2									2
797-10.24	REMOVE AND REPLACE MANHOLE	EACH		1		1							2
797-11.25	RETIREIN PLACE 48" MANHOLE	EACH	1		1								2
797-11.31	RETIREIN PLACE EXISTING SEWER 8IN-14IN	L.F.	180			125							305
797-08.01	DI FITTINGS	LBS.		3000									3000
797-11.38	BY-PASS PUMPING	LS	1	1	1	1							4
797-11.40	RESTORE ASPHALT	S.Y.	80	140	39	91							350
797-11.41	RESTORE CONCRETE	S.Y.			320								320
797-09.26	2IN AIR/VAC VALVE ASSEMBLY AND CONCRETE VAULT	L.S.		1									1

SEWER PLANS

SEALED BY

MICHAEL W. ROGERS REGISTERED ENGINEER COMMERCE No. 115449 STATE OF TENNESSEE

8/18/14

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEWER QUANTITIES

NTS

ICA Engineering
2550 Irvin Cobb Drive
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270.444.9691
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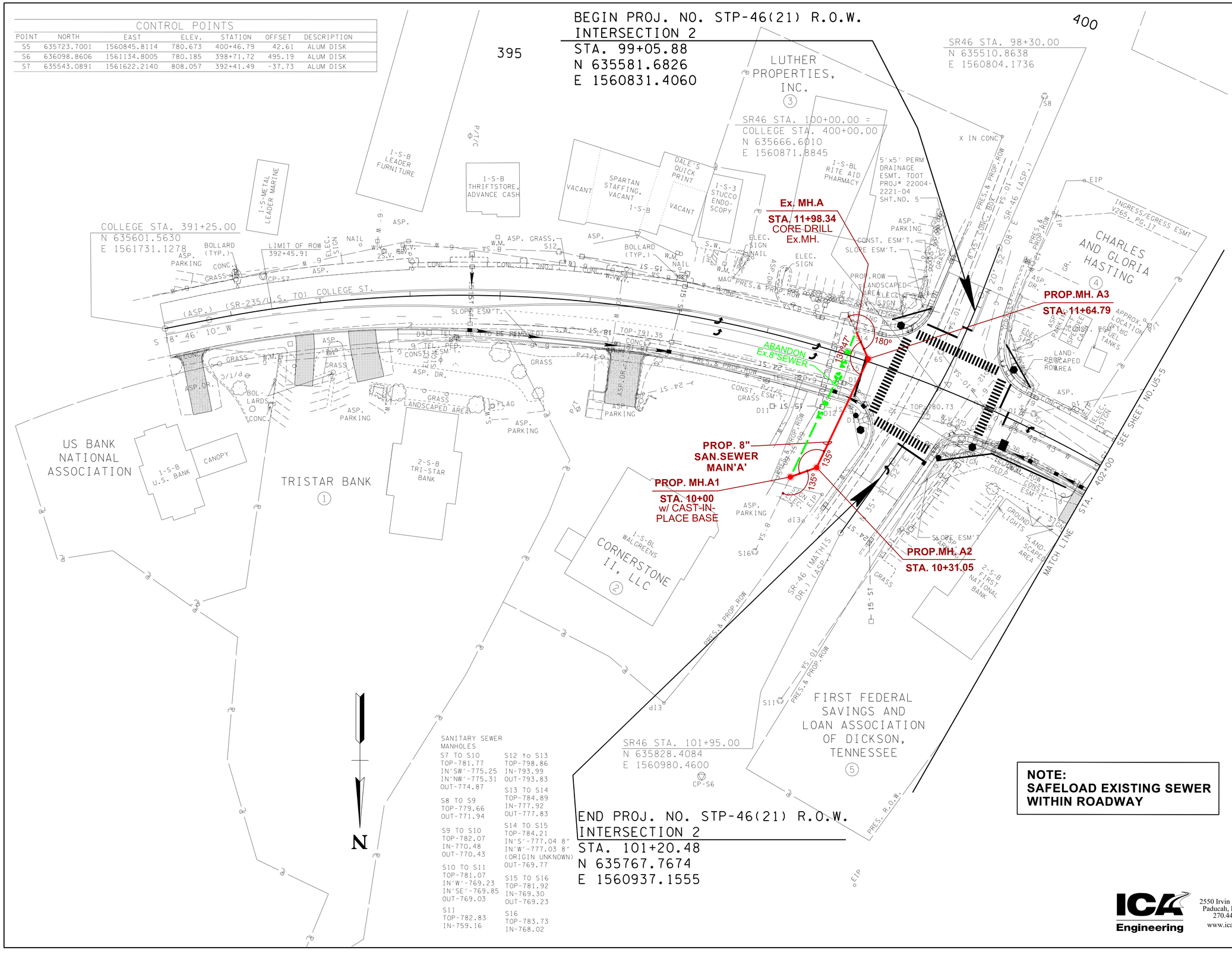
E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER\S003 Quantities.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-4

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET	DESCRIPTION
S5	635723.7001	1560845.8114	780.673	400+46.79	42.61	ALUM DISK
S6	636098.8606	1561134.8005	780.185	398+71.72	495.19	ALUM DISK
S7	635543.0891	1561622.2140	808.057	392+41.49	-37.73	ALUM DISK



SANITARY SEWER MANHOLES

S7 TO S10
TOP-781.77
IN'SW'-775.25
IN'NW'-775.31
OUT-774.87

S8 TO S9
TOP-779.66
OUT-771.94

S9 TO S10
TOP-782.07
IN-770.48
OUT-770.43

S10 TO S11
TOP-781.07
IN'W'-769.23
IN'SE'-769.85
OUT-769.03

S11
TOP-782.83
IN-759.16

S12 to S13
TOP-798.86
IN-793.99
OUT-793.83

S13 TO S14
TOP-784.89
IN-777.92
OUT-777.83

S14 TO S15
TOP-784.21
IN'S'-777.04 8"
IN'W'-777.03 8"
(ORIGIN UNKNOWN)
OUT-769.77

S15 TO S16
TOP-781.92
IN-769.30
OUT-769.23

S16
TOP-783.73
IN-768.02

NOTE:
SAFELOAD EXISTING SEWER WITHIN ROADWAY

SEWER PLANS

SEALED BY

MICHAEL W. ROGERS REGISTERED ENGINEER COMMERCE No. 115449 STATE OF TENNESSEE
8/15/14

COORDINATES ARE NAD/83(1995), ARE DATUM ADJUSTED BY THE FACTOR OF 1.000083 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT
INTERSECTION NO. 2
STA.391+25 TO STA.402+00
SCALE: 1"= 50'

ICA Engineering
2550 Irvin Cobb Drive
Paducah, KY 42003
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10/7/2014 2:08:05 PM
E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER COLOR\S004 C.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-5

SANITARY SEWER MANHOLES

S1 TO S2
TOP-810.81
OUT-804.75

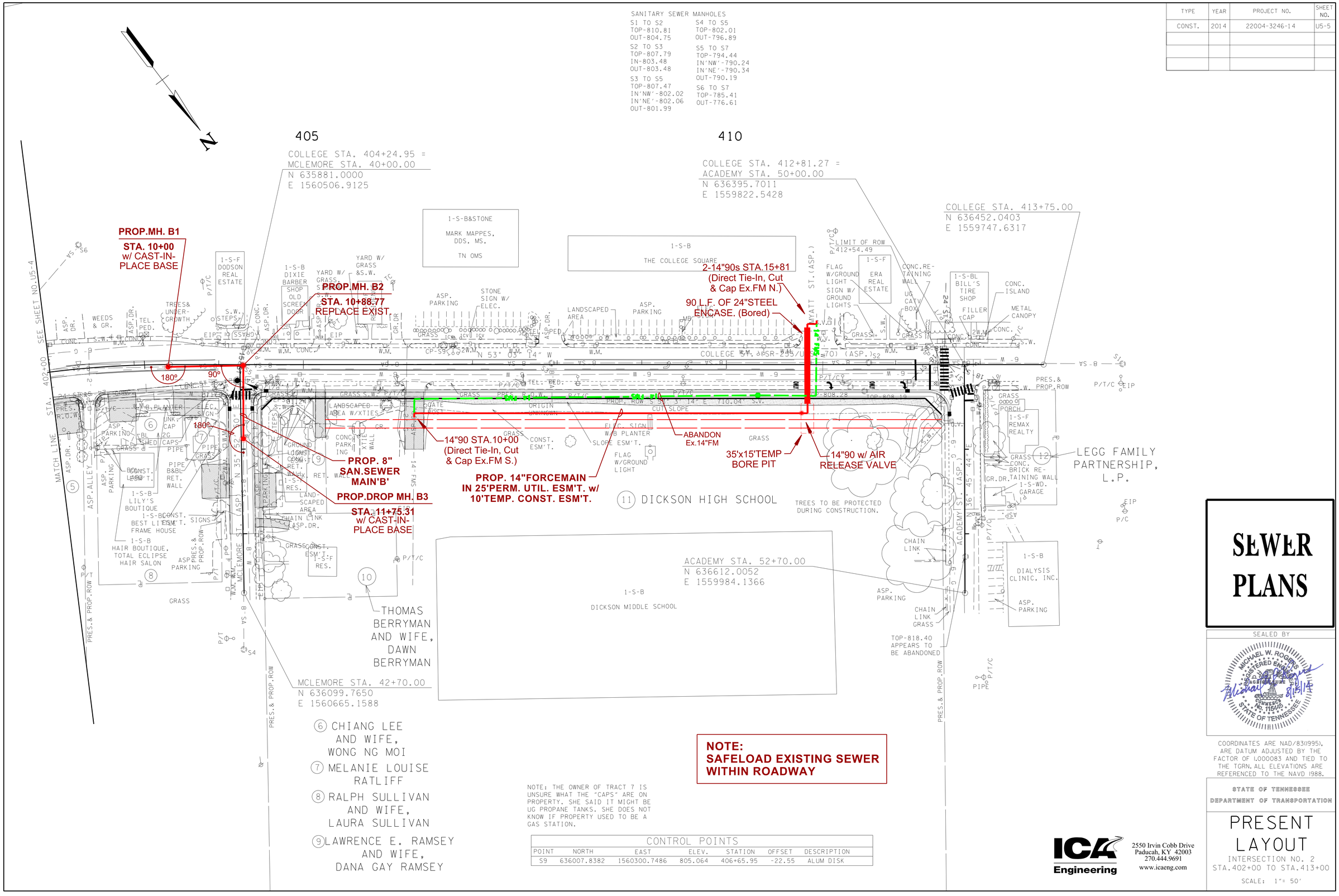
S2 TO S3
TOP-807.79
IN-803.48
OUT-803.48

S3 TO S5
TOP-807.47
IN'NW'-802.02
IN'NE'-802.06
OUT-801.99

S4 TO S5
TOP-802.01
OUT-796.89

S5 TO S7
TOP-794.44
IN'NW'-790.24
IN'NE'-790.34
OUT-790.19

S6 TO S7
TOP-785.41
OUT-776.61



NOTE:
SAFELOAD EXISTING SEWER WITHIN ROADWAY

NOTE: THE OWNER OF TRACT 7 IS UNSURE WHAT THE "CAPS" ARE ON PROPERTY. SHE SAID IT MIGHT BE UG PROPANE TANKS. SHE DOES NOT KNOW IF PROPERTY USED TO BE A GAS STATION.

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET	DESCRIPTION
S9	636007.8382	1560300.7486	805.064	406+65.95	-22.55	ALUM DISK

SEWER PLANS

SEALED BY

MICHAEL W. ROGERS REGISTERED ENGINEER AGRICULTURE COMMERCE No. 115449 STATE OF TENNESSEE
Michael W. Rogers 8/13/14

COORDINATES ARE NAD/83(1995). ARE DATUM ADJUSTED BY THE FACTOR OF 1.000083 AND TIED TO THE TGRN. ALL ELEVATIONS ARE REFERENCED TO THE NAVD 1988.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

INTERSECTION NO. 2
STA.402+00 TO STA.413+00

SCALE: 1"= 50'

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10/7/2014 2:11:23 PM
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TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-6

STORM DRAINAGE STRUCTURES

D1
TOP-851.57
OUT-849.08
15"RCP

D2
TOP-851.27
IN-848.07
15"RCP
BOT-847.62
OUT-847.53
18"RCP

D3 (TO BE REMOVED)
TOP-854.97
IN-'SW'-844.66
18"RCP
IN'NW'-851.17
18"RCP
BOT-840.77
OUT-840.76
18"RCP

D4
INV-852.34
8"PVC W/
STONE EW

D5
INV-851.18
18"RCP
W/CONC. EW

D6
INV-854.22
W/CONC. EW

D7
INV-852.77
W/CONC. EW

D8
INV-858.58
W/CONC. EW

D9
INV-859.25
W/CONC. EW

D10
TOP-854.35
OUT-840.54
18"RCP

D11
TOP-863.19
OUT-859.88
18"RCP

D12
INV-875.83
18"CMP

D13
INV-872.76
18"CPP

D14
INV-869.54

D15
INV-867.57

D16
INV-868.79

D17
NOT FOUND
APPROX.
LOC. SHOWN

D18
INV-864.90
W/CONC. EW
22"X14" RCP

D19
INV-863.66
W/CONC. EW
22"X14" RCP

D20 (TO BE REMOVED)
TOP-863.39
OUT-862.78
3-4" CPP

D21
INV-860.61
3-4" CPP

D22 (TO BE REMOVED)
INV-860.39
18"RCP
W/CONC. EW

D23
TOP-861.84
OUT-857.93
18"RCP

J1
NOTE: ALL UNDERGROUND
STORM DRAINAGE LINE LOCATIONS
& BLIND PIPE INTERSECTIONS AND JUNCTION
BOXES ALONG WITH JUNCTION BOX LOCATIONS
SHOWN HEREON WERE INTERPOLATED FROM
PLANS OR ASSUMED.

END PROJ. NO. STP-46(21) R.O.W.
INTERSECTION 5
STA. 501+00.50
N 632390.2032
E 1561629.6861

SR46 STA. 502+50.00
N 632506.6504
E 1561535.9299

SR46 STA. 500+16.78 =
SKYLINECIRCLE STA. 20+00.00
N 632324.9951
E 1561682.1876

SR46 STA. 500+00.00 =
BEASLEY STA. 10+00.00
N 632311.9223
E 1561692.7130

BEASLEY STA. 4+50.00
N 631961.0741
E 1561269.1501

SKYLINECIRCLE
STA. 25+00.00
N 632682.0711
E 1562008.4628

SKYLINECIRCLE
STA. 24+49.90 =
SKYLINEDRIVE
STA. 5+00.00
N 632632.5805
E 1562001.5277

BEGIN PROJ. NO. STP-46(21) R.O.W.
INTERSECTION 5
STA. 499+73.13
N 632290.9912
E 1561709.5655

SR46 STA. 497+50.00
N 632117.1942
E 1561849.4962

J.J. YOUNG, INC.,
A TENNESSEE
CORPORATION

BANK OF DICKSON

C.K. PRUETT

C.P.
ASSOCIATES,
L.P.

ARCHWAY PARTNERS, LLC,
A DELAWARE LIMITED
LIABILITY COMPANY

ELMER GLASS
AND WIFE,
WANDA GLASS

PINNACLE
NATIONAL BANK

ROBERT E. MOORE
AND WIFE
DIANA F. MOORE

FLOYD E. ALBRIGHT,
JR. AND WIFE,
ANDREA H. ALBRIGHT

STA.10+43
Direct Tie-In

PROP. 8"
SAN.SEWER
MAIN'D'

ABANDON
Ex.MH.

122°04'

PROP. 6"
SAN.SEWER
MAIN'C'

STA.10+31
Direct Tie-In

PROP.MH. C1
STA. 10+00
w/ CAST-IN-
PLACE BASE

NOTE:
SAFELOAD EXISTING SEWER
WITHIN ROADWAY

NOTE: EXISTING BUS. ENT.
TO BE CONSTRUCTED AS A
RIGHT-OUT ONLY EXIT.

S1
TOP-860.80
IN'W'-854.81
IN'N'-854.91
ORIGINS
UNKNOWN
OUT-854.76

S1
TOP-867.75
IN 6"-858.39
IN 8"-858.50
OUT-858.34

TOP-851.81
IN-845.74

TOP-854.19
IN-849.66
24"RCP

TOP-854.01
INV-844.01

TOP-886.96
OUT-878.94

TOP-873.69
IN-856.94

CONTROL POINTS

POINT	NORTH	EAST	ELEV.	STATION	OFFSET	DESCRIPTION
S12	631992.2161	1561245.7452	852.380	4+51.84	-38.91	ALUM DISK (BEASLEY)
S13	632293.2359	1561612.9534	862.598	9+26.66	-36.49	ALUM DISK (BEASLEY)
S14	632639.4348	1562060.2400	878.627	24+67.07	55.84	ALUM DISK (SKYLINE)

SEWER PLANS

SEALED BY

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

INTERSECTION NO.5

SCALE: 1"= 50'

ICA Engineering
2550 Irvin Cobb Drive
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270.444.9691
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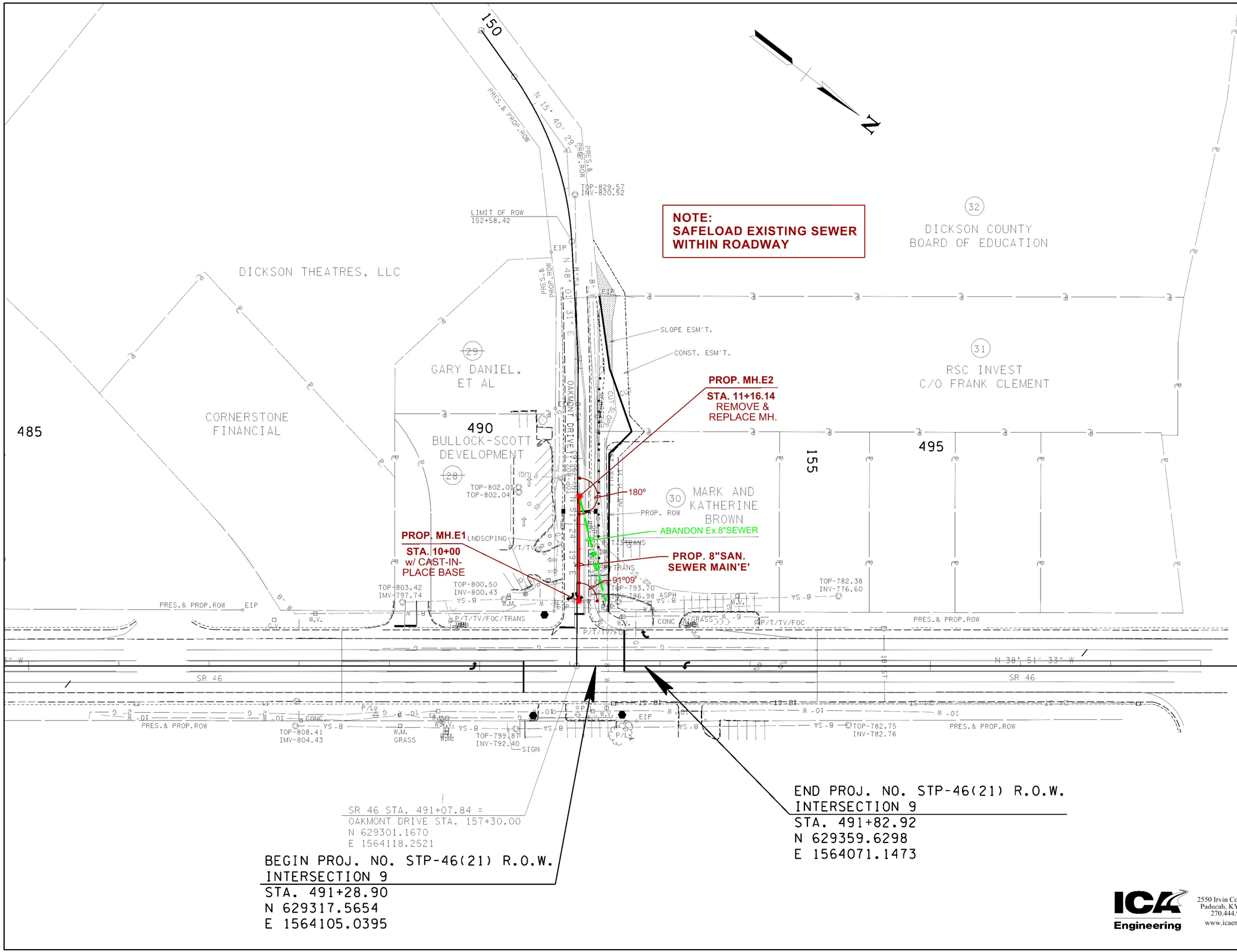
8/18/2014 12:7:13 PM
E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER COLOR\S006 C.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-7



SEWER PLANS

SEALED BY

MICHAEL W. ROGERS REGISTERED ENGINEER NO. 115445 STATE OF TENNESSEE

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PRESENT LAYOUT

INTERSECTION NO.9

SCALE: 1"= 50'

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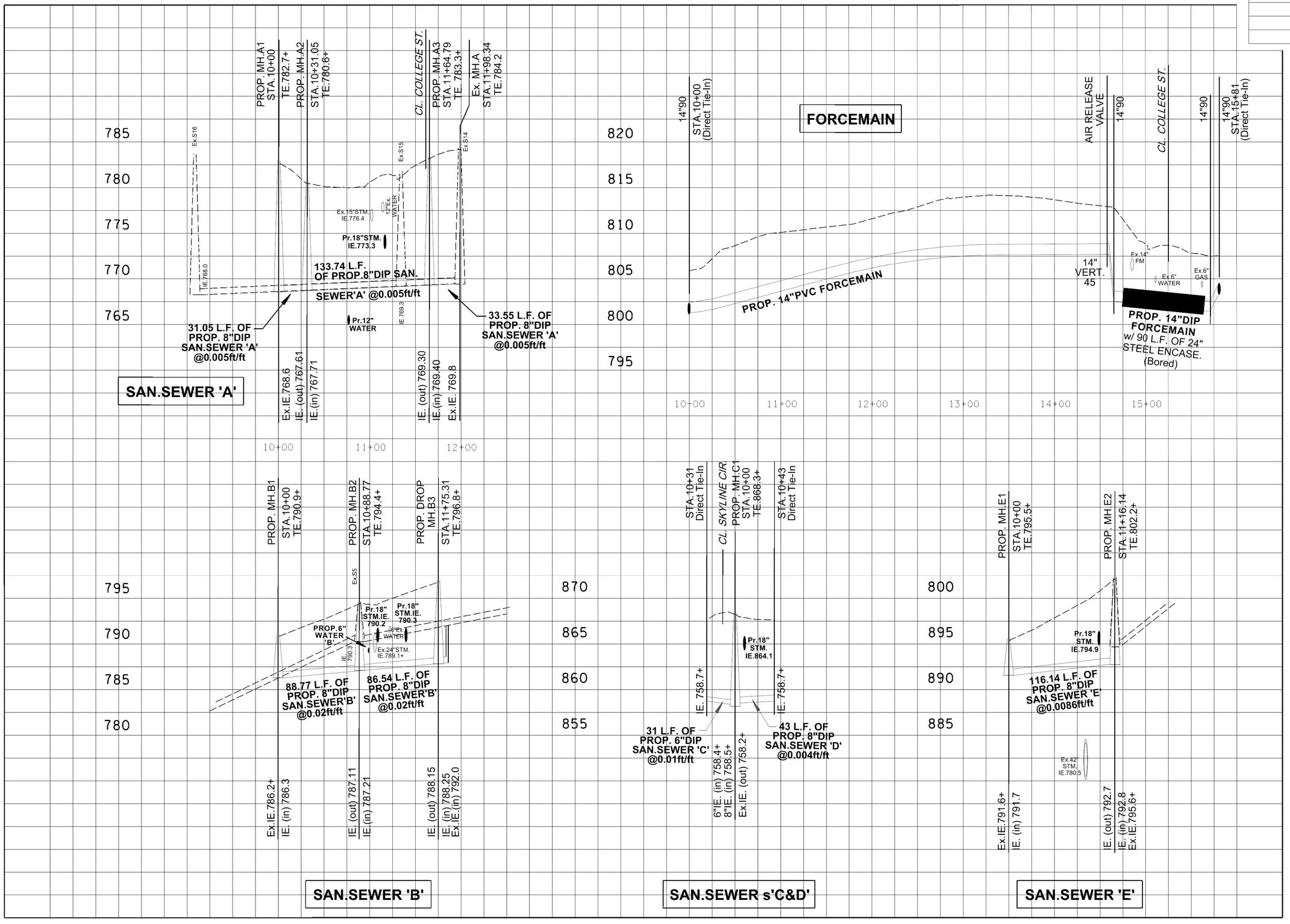
E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER COLOR\S007 C.SHT

CONST.	2014	22004-3246-14	US-8



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SEWER PLANS

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MICHAEL W. ROGERS REGISTERED ENGINEER COMMERCE No. 115449 STATE OF TENNESSEE

8/18/14

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROFILE

SEWER MAINS 'A-E'

SCALE: 1"=5' VERT.
1"= 50'HORIZ.

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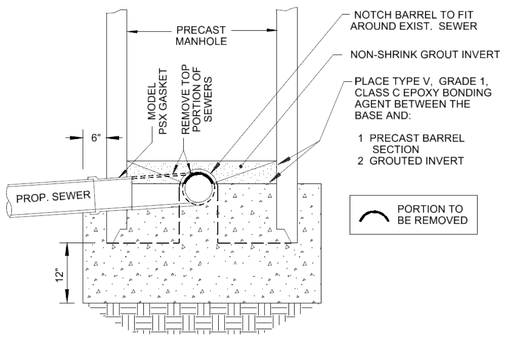
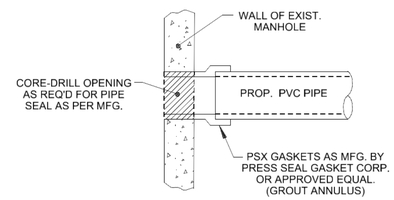
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-9



CAST-IN-PLACE MANHOLE BASE



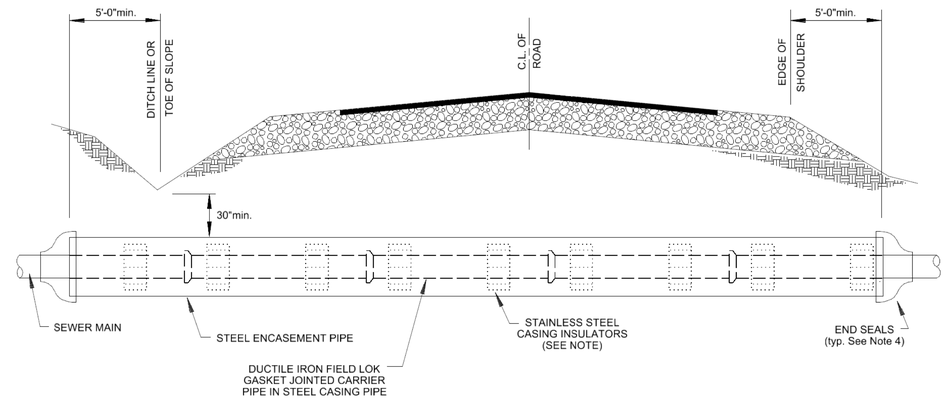
CORE-DRILL EXIST. MANHOLE

NOTES:

INSTALL PIPE SEALS IN ACCORDANCE WITH MANUFACTURE'S INSTRUCTIONS.

ALL PENETRATION OF EXIST. MANHOLES SHALL BE IN ACCORDANCE WITH THIS DETAIL.

PAYMENT SHALL BE BASED UPON THE SIZE OF THE PROPOSED PIPE TO BE TIED IN AND NOT THE SIZE OF THE CORE-DRILLED HOLE.



STEEL CASING & CARRIER PIPE (BORE)

NOTES:

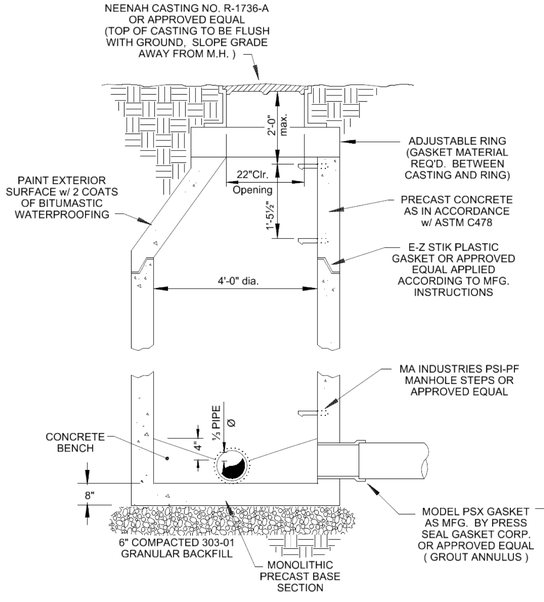
EXCAVATION BETWEEN DITCH LINES OR WITHIN 5'-0" OF THE SHOULDER IF THERE IS NO DITCH IS PROHIBITED. VERIFY THE LENGTH OF ENCASEMENT AT EACH ROADWAY CROSSING AND NOTIFY THE ENGINEER PRIOR TO INSTALLATION, IF THE LENGTH NOTED ON THE PLANS IS INSUFFICIENT.

INSTALL FIELD LOK GASKETS WITHIN ALL ENCASEMENT PIPE AND ONE PIPE LENGTH OUTSIDE OF THE CASING ON BOTH ENDS.

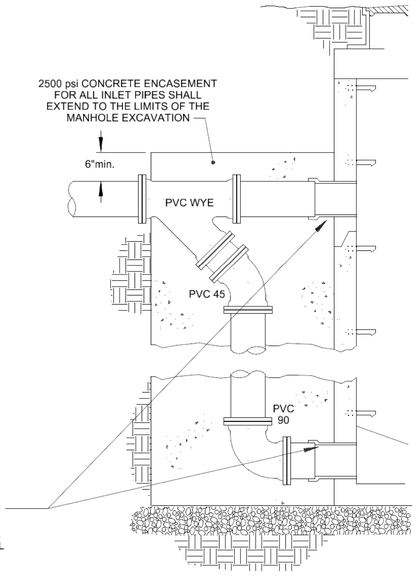
CASING INSULATORS SHALL BE MODEL S8G-2 AS MFR. BY PSI, 6525 GOFORTH ST., HOUSTON, TX. 77021 OR EQUIVALENT. SPACE AT 6'-0"max. C/C.

CASING SEALS SHALL BE MODEL 'S' AS MFR. BY PSI OR EQUIVALENT.

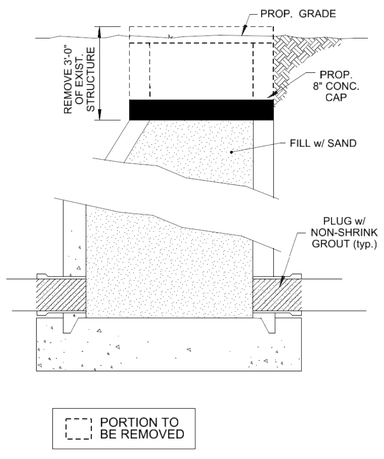
THE UNIT PRICE FOR STEEL ENCASEMENT SHALL INCLUDE ALL ACCESSORY ITEMS SUCH AS CASING SKIDS, CASING SEALS, & JOINT RESTRAINT GASKETS. THE UNIT PRICE FOR BORE & JACKED STEEL ENCASEMENT SHALL ALSO INCLUDE THE LINEAR FOOT OF CARRIER PIPE.



PRECAST MANHOLE



w/ DROP INLET



EXIST. MANHOLE RETIRED

SEWER PLANS

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MICHAEL W. ROGERS REGISTERED ENGINEER CIVIL ENGINEERING No. 115485 STATE OF TENNESSEE

8/13/14

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

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SEWER DETAILS

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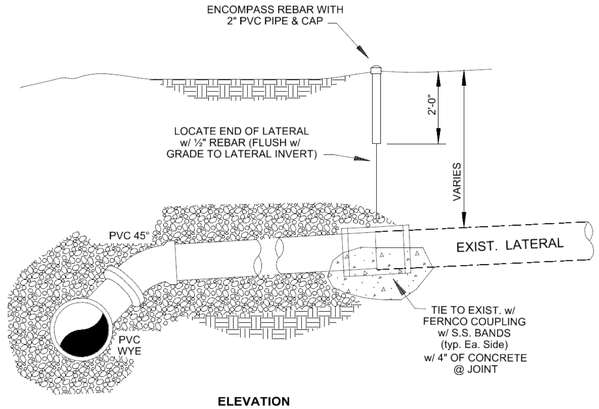
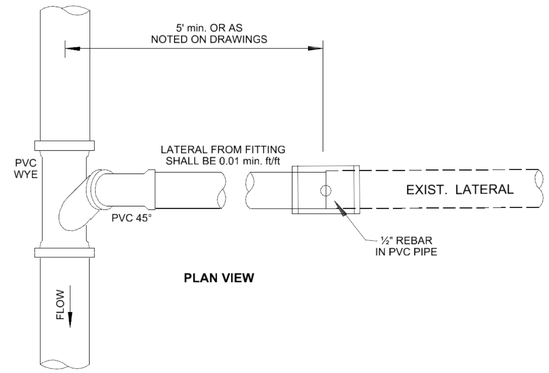
E:_2014 JOBS\14077 Dickson County\Dwgs\SEWER\S009 Details.SHT

TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-10



ELEVATION

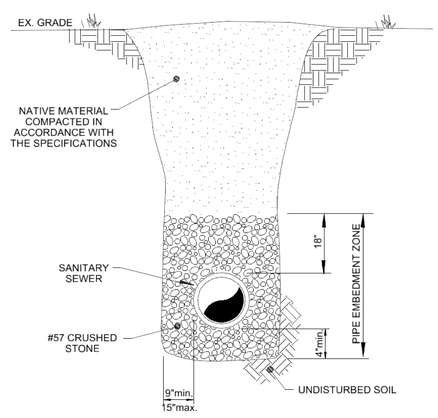


PLAN VIEW

SERVICE LATERAL w/ NO CLEANOUT

NOTE:

FOR NEW CONSTRUCTION OMIT CLEANOUT BOX AND EXTEND 6" PVC ABOVE GRADE 48" AND INSTALL SOLVENT CAP.



SANITARY SEWER TRENCH
(Unimproved)

NOTES:

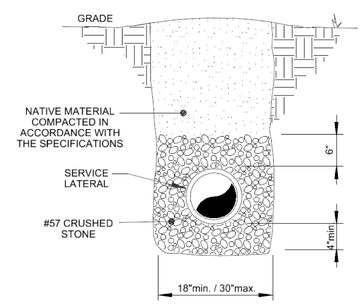
#57 CRUSHED STONE BEDDING, WYES AND TEES SHALL BE INCIDENTAL TO THE COST PER LINEAR FOOT OF SEWER.

TRENCH WIDTH ABOVE THE PIPE EMBEDMENT ZONE SHALL BE THE MINIMUM ALLOWABLE TO SAFELY AND PRACTICALLY INSTALL THE SEWER. REFER TO ASTM D2321 FOR MINIMUM WIDTH REQUIREMENTS.

MATERIAL WITHIN THE PIPE EMBEDMENT ZONE SHALL BE PLACED AGAINST UNDISTURBED SOIL.

THIS DETAIL SHALL BE APPLICABLE WHERE THE PROP. SEWER MAIN IS TO BE INSTALLED IN AREAS OUTSIDE THE LIMITS OF IMPROVED SURFACES

THE MINIMUM THICKNESS OF BEDDING SHALL BE INCREASED TO 6" WHEN ROCK IN ENCOUNTERED AT SUBGRADE ELEVATION.



SERVICE LATERAL TRENCH
(Unimproved)

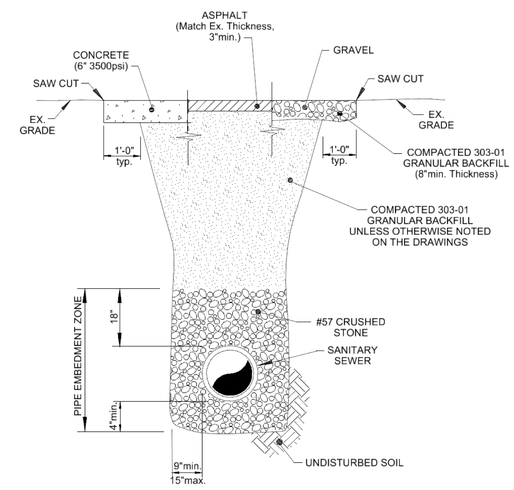
NOTES:

#57 CRUSHED STONE BEDDING SHALL BE INCIDENTAL TO THE COST PER LINEAR FOOT OF LATERAL.

TRENCH WIDTH ABOVE THE PIPE EMBEDMENT ZONE SHALL BE THE MINIMUM ALLOWABLE TO SAFELY AND PRACTICALLY INSTALL THE LATERAL. REFER TO ASTM D2321 FOR MINIMUM WIDTH REQUIREMENTS.

MATERIAL WITHIN THE PIPE EMBEDMENT ZONE SHALL BE PLACED AGAINST UNDISTURBED SOIL.

THE MINIMUM THICKNESS OF BEDDING SHALL BE INCREASED TO 6" WHEN ROCK IN ENCOUNTERED AT SUBGRADE ELEVATION.



SANITARY SEWER TRENCH
(Improved)

NOTES:

#57 CRUSHED STONE BEDDING SHALL BE INCIDENTAL TO THE COST PER LINEAR FOOT OF SEWER.

TRENCH WIDTH ABOVE THE PIPE EMBEDMENT ZONE SHALL BE THE MINIMUM ALLOWABLE TO SAFELY AND PRACTICALLY INSTALL THE SEWER. REFER TO ASTM D2321 FOR MINIMUM WIDTH REQUIREMENTS.

MATERIAL WITHIN THE PIPE EMBEDMENT ZONE SHALL BE PLACED AGAINST UNDISTURBED SOIL.

THIS DETAIL SHALL BE APPLICABLE WHERE THE PROP. SEWER MAIN IS TO BE INSTALLED WITHIN THE LIMITS OF DRIVEWAY PAVEMENT OR SIDEWALK TO 2'-0" BEHIND BACK OF CURB OR EDGE OF PAVEMENT.

THE MAXIMUM WIDTH OF THE TRENCH SHALL BE LIMITED TO FOUR (4) FEET WHERE COMPACTED SELECT FILL IS USED UNLESS APPROVED OTHERWISE BY THE ENGINEER.

THE MINIMUM THICKNESS OF BEDDING SHALL BE INCREASED TO 6" WHEN ROCK IS ENCOUNTERED AT SUBGRADE ELEVATION.

SEWER PLANS

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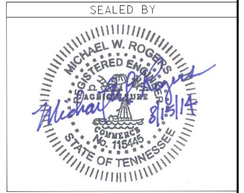

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DEPARTMENT OF TRANSPORTATION

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SEWER DETAILS

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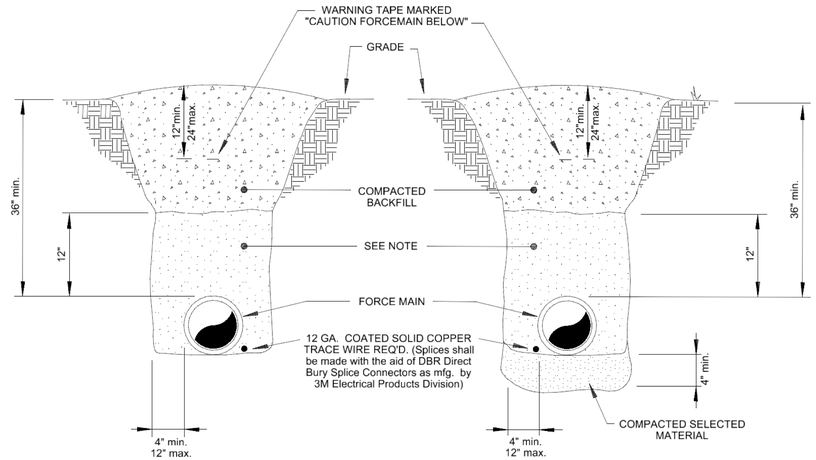
TYPE	YEAR	PROJECT NO.	SHEET NO.
CONST.	2014	22004-3246-14	U5-11

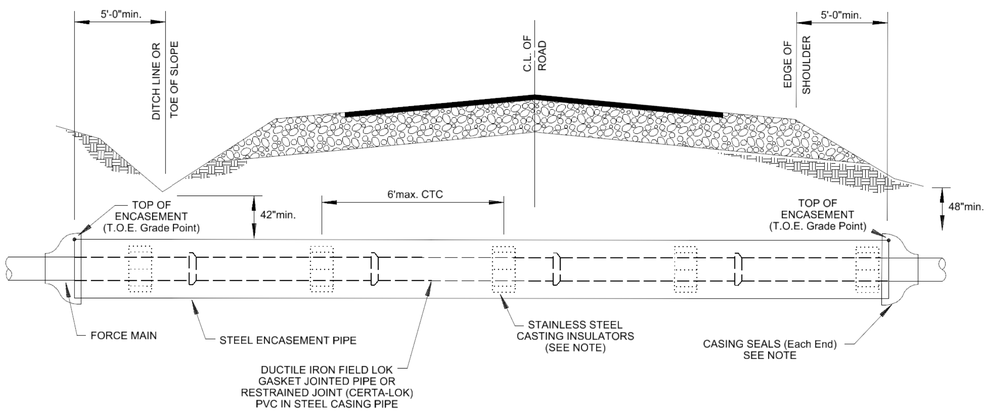


TRENCH SECTION IN SOIL **TRENCH SECTION IN ROCK**

NOTES:

COMPACTED BACKFILL SHALL BE PLACED TO A ONE FOOT min. DEPTH OF COVER. THE INITIAL BACKFILL SHALL BE A MATERIAL FREE FROM ROCKS GREATER THAN ½" DIA., SOIL CLODS, OR FROZEN MATERIAL. IF AUTOMATIC TAMPERS ARE USED, CARE SHALL BE EXERCISED TO AVOID DAMAGE TO THE PIPE.

COST ASSOCIATED WITH ITEMS DEPICTED IN THIS DETAIL SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE FOR FORCEMAIN.



STEEL ENCASEMENT & CARRIER PIPE

NOTES :

EXCAVATION BETWEEN DITCH LINES OR WITHIN 5'-0" OF THE SHOULDER IF THERE IS NO DITCH IS PROHIBITED. VERIFY THE LENGTH OF ENCASEMENT AT EACH ROADWAY CROSSING AND NOTIFY THE ENGINEER PRIOR TO INSTALLATION IF THE LENGTH NOTED ON THE PLANS IS INSUFFICIENT.

INSTALL FIELD LOK GASKETS WITHIN ALL ENCASEMENT PIPE AND ONE PIPE LENGTH OUTSIDE OF THE CASING ON BOTH ENDS.

ALL DIP FORCE MAIN WITHIN STEEL ENCASEMENT SHALL BE POLY-WRAPPED IN ACCORDANCE WITH THE DETAIL PROVIDED.

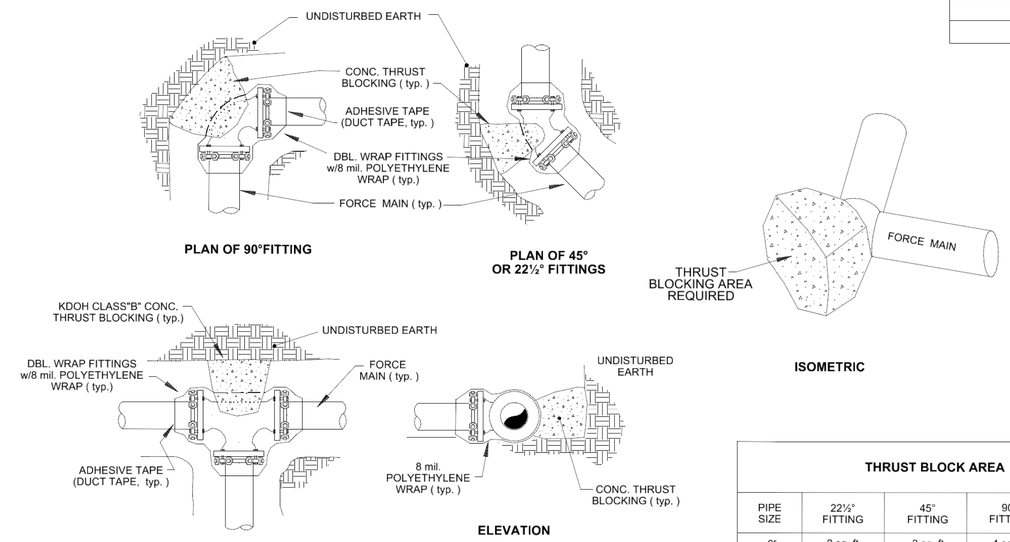
ALL PVC FORCE MAIN WITHIN STEEL ENCASEMENT AND ONE PIPE SECTION EACH SIDE SHALL BE RESTRAINED JOINT YELOMINE PVC (CERTA-LOK OR APPROVED EQUAL).

CASING INSULATORS SHALL BE MODEL S8G-2 AS MFR. BY PSI, 6525 GOFORTH ST., HOUSTON, TX. 77021 OR EQUIVALENT. SPACE AT 6'-0"max. C/C.

CASING SEALS SHALL BE MODEL "S" AS MFR. BY PSI OR EQUIVALENT.

THE UNIT PRICE FOR STEEL ENCASEMENT SHALL INCLUDE ALL ACCESSORY ITEMS SUCH AS CASING SKIDS, CASING SEALS, & JOINT RESTRAINT GASKETS.

FINISHED STEEL ENCASEMENT PRODUCT SHALL BE INSTALLED WITHIN 6" OF GRADE POINT ELEVATIONS OR WITHIN 6" OF GRADE POINTS AS PRIOR AGREED BY FIELD ENGINEER.



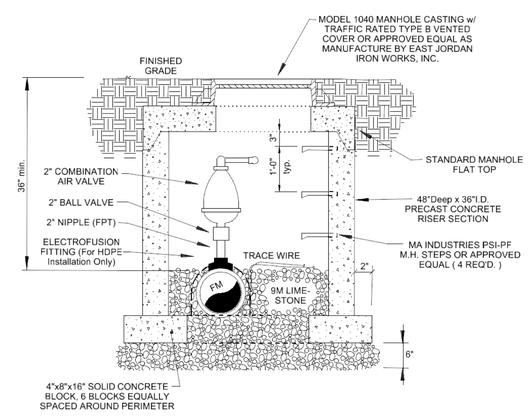
THRUST BLOCK AREA				
PIPE SIZE	22½° FITTING	45° FITTING	90° FITTING	TEES
6"	2 sq. ft.	3 sq. ft.	4 sq. ft.	4 sq. ft.
8"	3 sq. ft.	4 sq. ft.	8 sq. ft.	8 sq. ft.
10"	4 sq. ft.	6½ sq. ft.	12 sq. ft.	12 sq. ft.
12"	5 sq. ft.	9 sq. ft.	16 sq. ft.	16 sq. ft.
16"	8 sq. ft.	16 sq. ft.	29 sq. ft.	29 sq. ft.
18"	12 sq. ft.	20 sq. ft.	35 sq. ft.	35 sq. ft.

MECHANICAL JOINT PIPE THRUST BLOCKING

NOTES:

PROVIDE THRUST RESTRAINT GLANDS BY EBBA IRON OR APPROVED EQUAL FOR ALL MECHANICAL JOINT FITTINGS.

COST ASSOCIATED WITH POLY WRAP AND TAPE SHALL BE INCLUDED AS INCIDENTAL TO THE UNIT PRICE FOR MECHANICAL JOINT FITTINGS.



AIR RELEASE VALVE & VAULT

NOTES:

12 GA. COATED SOLID COPPER TRACE WIRE TO BE EXTENDED 30" INTO THE VAULT.

COMBINATION AIR VALVE SHALL BE A 2" MODEL D-025 AS MANUFACTURED BY A.R.I. FLOW CONTROL ACCESSORIES OR ENGINEER APPROVED EQUAL.

UNLESS DIRECTED OTHERWISE BY THE ENGINEER, RISER AND BALL VALVE SHALL BE STAINLESS STEEL.

COST ASSOCIATED WITH ITEMS DEPICTED IN THIS DETAIL SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR AIR RELEASE VALVE AND VAULT.

SEWER PLANS

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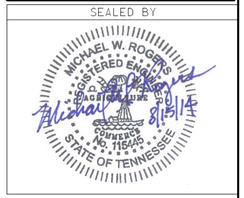

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DEPARTMENT OF TRANSPORTATION

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