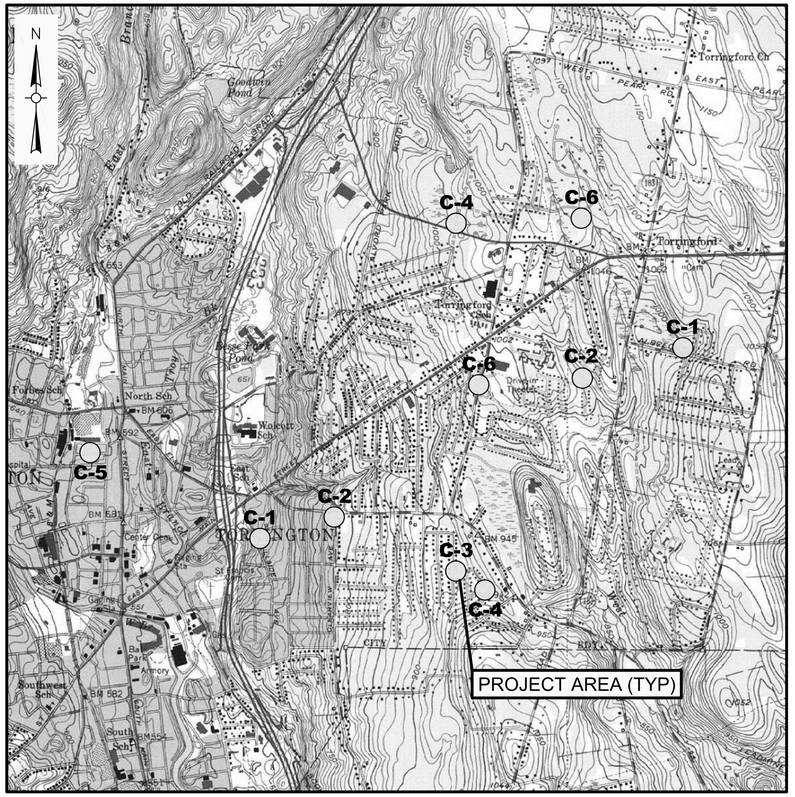

LOCATION MAP
SCALE: 1"=1500'

DRAWING INDEX

SHEET NO.	DRAWING NO.	TITLE
1	--	COVER
2	G-1	ABBREVIATIONS, NOTES AND LEGEND
3	C-1	ALBRECHT ROAD AND LOUIS CIRCLE AND BENPORTE TERRACE
4	C-2	CARRIAGE LANE AND CLEARVIEW AVENUE
5	C-3	EDGEWOOD DRIVE AND HARVARD DRIVE CROSS-COUNTRY
6	C-4	HARVARD DRIVE AND KENNEDY DRIVE CROSS-COUNTRY
7	C-5	JAMES STREET
8	C-6	TORRINGFORD WEST STREET AND WINDTREE STREET
9	C-7	DETAILS
10	C-8	DETAILS

CITY OF TORRINGTON, CONNECTICUT

DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION CONTROL AUTHORITY

EAST TORRINGTON SEWER REHABILITATION PROJECT

SEWER REPLACEMENTS

FEBRUARY 2014

Weston&Sampson®
273 Dividend Road, Rocky Hill, Connecticut 06067
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R:\Torrington CT\Wastewater Services\Task Order 1 - Sewer Rehab\CAD\Sewer Replacements.dwg

LEGEND

DESCRIPTION	EXISTING	PROPOSED
SANITARY SEWER	S	8"S PVC
FORCE MAIN		6"FM DI
WATER MAIN	W	6"W DI
TEMPORARY WATER		4"W
STORM DRAIN	D	18"D RCP
WATER SERVICE	WS WS	WS
SEWER SERVICE	SS SS	SS
GAS MAIN	G	
GAS SERVICE	GS GS	
ELECTRIC	E	
GRINDER PUMP	GP	GP
SANITARY SEWER MANHOLE	S	SMH
STORM DRAIN MANHOLE	D	DMH
ELECTRICAL MANHOLE	E	EMH
TELEPHONE MANHOLE	T	TMH
AIR RELEASE VALVE MANHOLE	A	ARMH
FORCE MAIN CLEANOUT MANHOLE	F	FMMH
CLEANOUT		CO
CATCH BASIN		CB
CATCH BASIN (CURB INLET)		
HYDRANT		
TEMPORARY HYDRANT		H
GATE VALVE	WV	
CHECK VALVE		
CURB STOP	S	
BUTTERFLY VALVE		
BALL VALVE		
REDUCER		
CAP OR PLUG	[	[
GAS GATE VALVE	GV	
UTILITY POLE		
GUY POLE		
LIGHT POST		
EDGE OF PAVEMENT		
EDGE OF UNPAVED ROAD		
CURB		
SIDEWALK		
"CAPE COD" BERM		
RAILROAD		
STONE WALL		
RETAINING WALL	RET WALL	RET WALL
FENCE	x x	
INDIVIDUAL DECIDUOUS TREE		
INDIVIDUAL EVERGREEN TREE		
TREE LINE		
SURVEY MARKER		
PROPERTY LINE		
EASEMENT LINE		
LIMIT OF WORK		
APPROX. LIMIT OF REFUSE		
SPOT ELEVATIONS	× 100.2	×101.5
CONTOUR LINES	56	56
DEPRESSION CONTOUR LINES		
HOUSE NUMBER	#35	
FLOOR ELEVATION	FL=56.7	
SILL ELEVATION	S=56.7	
WETLAND		
WETLAND FLAGS	•1	
RIP RAP		
IMPERVIOUS BARRIER		
GUARD POST		
BOLLARD		
SIGN		
BENCH MARK		
PERCOLATION TEST	PT 1	PT-1
TEST PIT	TP 1	TP-1
BORING	B-1	B-3
PROBE	P-1	P-1
GROUNDWATER MONITORING WELL	WSE-1	GW-1
AUGER	A-1	A-1
HAY BALES		
ROCK OUTCROP		
DRAINAGE DITCH / SWALE		

__NOTE:__ ITEMS SHOWN IN THE LEGEND MAY NOT BE PRESENT IN THESE PLANS

ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BC	BITUMINOUS CONCRETE
BIT	BITUMINOUS
BLDG	BUILDING
CATV	CABLE TELEVISION
CB	CATCH BASIN
CC	CONCRETE CURB
CI	CAST IRON
℄	CENTERLINE
CL	CEMENT LINED
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CTDOT	CONNECTICUT DEPT OF TRANSPORTATION
D	STORM DRAIN, DEPTH FROM RIM TO INVERT
DI	DROP INLET, DUCTILE IRON
DIA	DIAMETER
DMH	DRAIN MANHOLE
E	EAST, ELECTRIC
EA	EACH
EL.	ELEVATION
EOP	EDGE OF PAVEMENT
EW	EACH WAY
EX, EXIST	EXISTING
FFF	FINISHED FIRST FLOOR
FT	FEET, FOOT
G	NATURAL GAS
GALV	GALVANIZED
GC	GRANITE CURB
GR	GRANITE
HC	HOUSE CONNECTION
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
HP	HIGH PRESSURE
HYD	FIRE HYDRANT
INV	INVERT
ID	INSIDE DIAMETER
IP	IRON PIPE
LF	LINEAR FEET
LS	LUMP SUM
MAX	MAXIMUM
MB	MAIL BOX
MECH	MECHANICAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NE	NORTH EAST
NW	NORTH WEST
NF	NOT FOUND
N.T.S.	NOT TO SCALE
#	NUMBER
OD	OUTSIDE DIAMETER
PR	PROPOSED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
R	RECORD INFORMATION
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING WALL
ROW	RIGHT-OF-WAY
S	SEWER, SOUTH
SE	SOUTH EAST
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SPEC	SPECIFICATIONS
SQ FT	SQUARE FEET
SS	SEWER SERVICE, STAINLESS STEEL
ST	STUMP
STA	STATION
STL	STEEL
STN	STONE
SW	SIDEWALK, SOUTH WEST
T	HYDROSTATIC THRUST, TELEPHONE
TBM	TEMPORARY BENCH MARK
THK	THICK (NESS)
TYP	TYPICAL
UP	UTILITY POLE
VC	VITRIFIED CLAY
VERT	VERTICAL
W	WATER, WEST

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CALL "CALL BEFORE YOU DIG" (CBYD) AT 1-800-922-4455 AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE CBYD PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.

2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN. SOME UTILITIES MAY NOT BE SHOWN.

3. UNLESS OTHERWISE INDICATED, PROTECTION OR TEMPORARY REMOVAL AND REPLACEMENT OF EXISTING UTILITIES AND STRUCTURES SHALL NOT BE SEPARATELY MEASURED FOR PAYMENT AND SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT

4. TEST PITS TO LOCATE EXISTING UTILITIES MAY BE REQUIRED BY THE ENGINEER.

5. STONE WALLS, FENCES, MAIL BOXES, SIGNS, CURBS, LIGHT POLES, ETC. SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.

6. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.

7. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND PAYMENT LIMITS SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.

8. CONCRETE CRADLES OR ARCHES SHALL BE CONSTRUCTED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. UNLESS OTHERWISE INDICATED, CONCRETE USED FOR PIPE ANCHOR BLOCKS, BACKING, PIPE CRADLES, ARCHES, AND FILL SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.

9. THE CONTRACTOR SHALL NOT STORE ANY APPARATUS, MATERIALS, SUPPLIES, OR EQUIPMENT ON DRAINAGE STRUCTURES OR WITHIN 100 FEET OF WETLANDS.

10. SEWER TRENCHES MAY BE EXCAVATED WIDER THAN THE 'LIMIT OF EXCAVATION AND PAYMENT FOR EARTH EXCAVATION' ABOVE THE 'LINE OF NARROW TRENCH LIMIT.' ANY SUCH ADDITIONAL EXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE AND SHALL NOT BE MEASURED FOR PAYMENT.

11. BELOW THE 'LINE OF NARROW TRENCH LIMIT' THE TRENCH SHOULD NOT BE EXCAVATED BEYOND THE TRENCH WIDTH 'W'. IF MATERIAL IS LOOSENED OR REMOVED BEYOND THE ABOVE MENTIONED LIMITS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE CRUSHED STONE FOR THE FULL WIDTH OF THE TRENCH AT NO ADDITIONAL COST TO THE OWNER.

12. SHEETING TO BE LEFT IN PLACE SHALL BE USED WHERE SHOWN ON THE DRAWINGS OR WHERE REQUIRED BY THE ENGINEER. IT SHALL BE LEFT IN PLACE BELOW A LINE 12 INCHES ABOVE THE TOP OF THE PIPE UNLESS OTHERWISE REQUIRED BY THE ENGINEER.

13. OPENINGS FOR PIPE IN PRECAST MANHOLE BASES SHALL BE CAST IN THE REQUIRED LOCATIONS DURING MANHOLE MANUFACTURE. FIELD CUT OPENINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER.

14. FORM BRICK INVERTS IN MANHOLES WITH BRICK ON EDGE TO A DEPTH OF 0.8 INSIDE DIAMETER OF PIPE AND FORM A 1-INCH SLOPED BENCH WITH BRICK FLAT. INVERT SHALL BE SLOPED UNIFORMLY BETWEEN INLET AND OUTLET PIPE AND SHALL BE FORMED AND FILLED AS REQUIRED TO DIRECT THE FLOW AS INDICATED AND TO PREVENT DEPOSITION OF SOLIDS.

15. IN PAVED AREAS THE TOP OF THE MANHOLE COVER SHALL BE SET FLUSH WITH THE PAVED SURFACE. IN OTHER AREAS THE TOP OF THE COVER SHALL EXTEND 6 INCHES ABOVE FINISHED GRADE, AS SHOWN ON THE DRAWINGS, OR AS REQUIRED BY THE ENGINEER. PROVIDE LOCKING MANHOLE FRAME AND COVERS AT ALL CROSS COUNTRY MANHOLES.

16. HOUSE CONNECTION LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR AND ENGINEER IN THE FIELD.

17. SOLID-SLEEVE COUPLING SHALL BE USED WHEN CONNECTING PROPOSED SEWER TO EXISTING PVC SEWER. DOUBLE-STRAPPED FERNCO OR APPROVED EQUIVALENT SHALL BE USED ON CONNECTIONS TO ALL OTHER SEWER PIPE.

18. PROTECTION OF WATER SUPPLIES – WHENEVER A SEWER MUST CROSS UNDER A WATER MAIN, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THE ABOVE REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED BY THE CONTRACTOR AS REQUIRED BY THE ENGINEER TO PROVIDE THIS SEPARATION OR THE CONTRACTOR SHALL CONSTRUCT THE NEW SEWER OF CLASS 150 PRESSURE PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN. ONE FULL LENGTH OF CLASS 150 PRESSURE PIPE SEWER SHOULD BE CENTERED ON THE WATER MAIN AS MUCH AS POSSIBLE. THE SEWER SEGMENT CONSTRUCTED OF THE PRESSURE PIPE MUST BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS.

19. THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL COMPLETE ALL LAYOUTS, SURVEYS, BENCHMARK TRANSFERS, ETC. REQUIRED FOR CONSTRUCTION OF THE PROJECT.

20. SOME WATER, GAS AND SEWER SERVICE CONNECTIONS MAY NOT BE SHOWN ON THE DRAWINGS. THE OWNER/UTILITY WILL MARK THE LOCATION OF SUCH CONNECTIONS, PROVIDED THE CONTRACTOR GIVES THE OWNER AT LEAST 72 HOURS ADVANCE NOTICE AS REQUIRED BY LAW.

21. RIM/FRAME ELEVATIONS OF PROPOSED SANITARY STRUCTURES SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED AS REQUIRED TO MATCH FIELD CONDITIONS.

22. INLET PROTECTION SHALL BE PROVIDED ON THE EXISTING AND PROPOSED CATCH BASINS FOR THE DURATION OF THE PROJECT.

23. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING OR COVERING WITH STEEL PLATES.

24. IN AREAS REQUIRING CLEARING AND GRUBBING, THE CONTRACTOR SHALL STAKE OUT PROPOSED MANHOLES AND PIPELINE LOCATIONS AND FLAG LIMITS OF CLEARING AND GRUBBING AND TREES TO BE REMOVED FOR APPROVAL BY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. STAKE-OUT AND FLAGGING SHALL BE PERFORMED AT LEAST FIVE DAYS BEFORE PROPOSED CONSTRUCTION IN THESE AREAS.

25. CONTRACTOR SHALL PERFORM TEST PITS AT EACH BUILDING LOCATION ON JAMES STREET AND AS REQUIRED ELSEWHERE TO CONFIRM LOCATION AND DEPTH OF SANITARY SEWER SERVICE CONNECTIONS PRIOR TO THE START OF WORK. IF LOCATION AND DEPTH ARE DIFFERENT THAN AS SHOWN ON THE DRAWINGS THE CONTRACTOR SHALL CONTACT THE ENGINEER.

26. EXISTING UTILITIES, TOPOGRAPHY, EDGE OF PAVEMENT, UTILITY POLE LOCATIONS, EDGE OF PAVEMENT AND SIDEWALK, AND LOCATIONS OF ABOVE GROUND STRUCTURES FROM FIELD SURVEY PERFORMED BY WESTON & SAMPSON.

27. ELEVATIONS SHOWN BASED UPON AN ASSUMED DATUM OR TORRINGTON'S GIS WHERE AVAILABLE.

28. PROPERTY LINE INFORMATION BASED ON ASSESSOR'S MAPPING PROVIDED BY THE CITY OF TORRINGTON.

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No.	Date	Dr.By	Ck.By	App.By	Description

A P P R O V E D

REGISTERED PROFESSIONAL ENGINEER

February 25, 2014

DATE

STATE OF CONNECTICUT ★ DANIEL R. LAWRENCE No. 19828 LICENSED PROFESSIONAL ENGINEER ★

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY

EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

ABBREVIATIONS, NOTES AND LEGEND

CADD NO.	SCALE:	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
	AS NOTED			WGS	WGS	DCM	DRL

G-1

FILE NO.

R:\Torrington CT\Wastewater Services\Task Order 1 – Sewer Rehab\CAD\Sewer Replacements.dwg

34–7 TF=1027.79
INV=1018.00(IN 8" VC S)
INV=1015.46(8" VC S DROP)
INV=1015.33(8" VC N)
INV=1015.04(8" VC W)

34–23 TF=1013.34
INV=1008.22(IN 8" VC E)
INV=1008.09(OUT 8" VC W)

34–24 TF=1002.95
INV=999.16(IN 8" VC E)
INV=995.37(OUT 8" VC W)

34–25 TF=998.53
INV=993.78(IN 8" VC E)
INV=993.61(OUT 8" VC S)

34–26 TF=1005.26
INV=993.59(8" VC E)
INV=993.51(IN 8" VC N)
INV=993.39(OUT 8" VC W)

CB AL1 TF=1004.29
FL=997.96(24" RCP)

CB AL2 TF=1004.34
INV=998.59(IN 24" HDPE E)
INV=998.59(OUT 24" RCP N)

CB AL3 TF=1010.62
INV=1005.70(IN 12" HDPE N)
INV=1005.7018" HDPE E)
INV=1005.62(18" HDPE W)

CB LO1 TF=1025.62
INV=1022.20(4" HDPE E)
INV=1021.79(IN 12 PVC S)
INV=1021.54(OUT 12" PVC W)

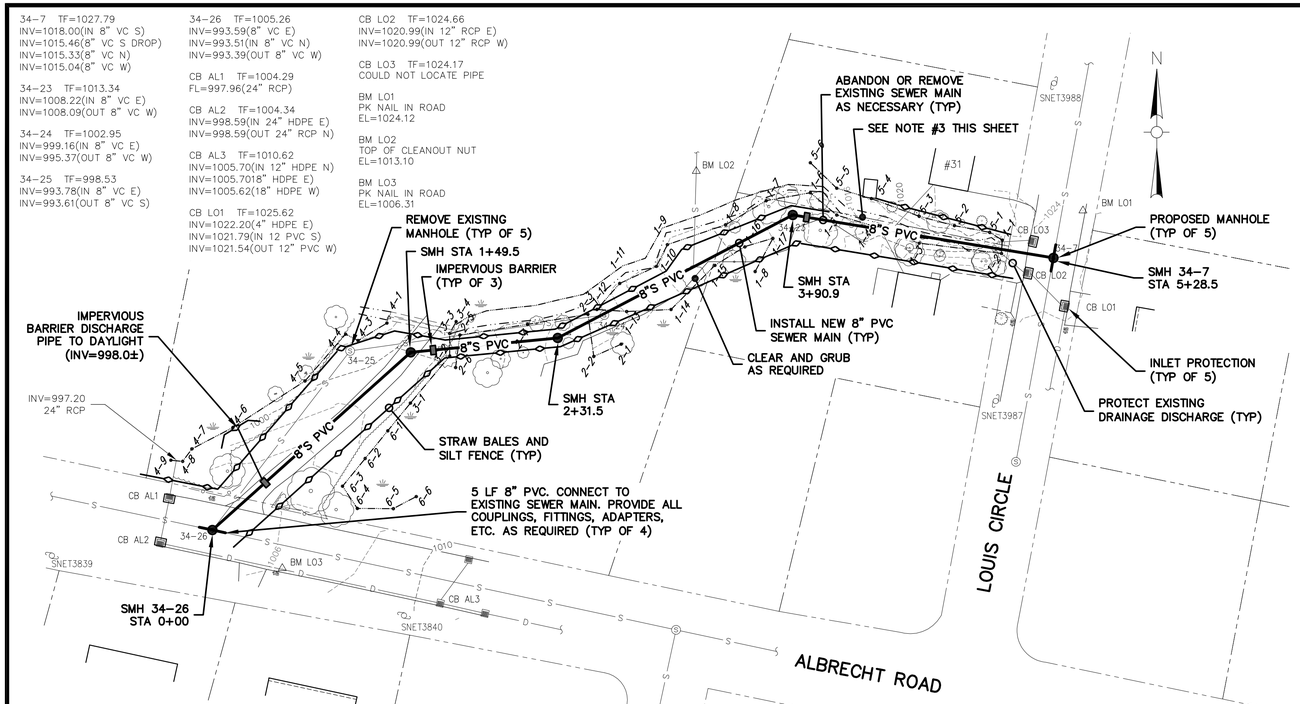
CB LO2 TF=1024.66
INV=1020.99(IN 12" RCP E)
INV=1020.99(OUT 12" RCP W)

CB LO3 TF=1024.17
COULD NOT LOCATE PIPE

BM LO1
PK NAIL IN ROAD
EL=1024.12

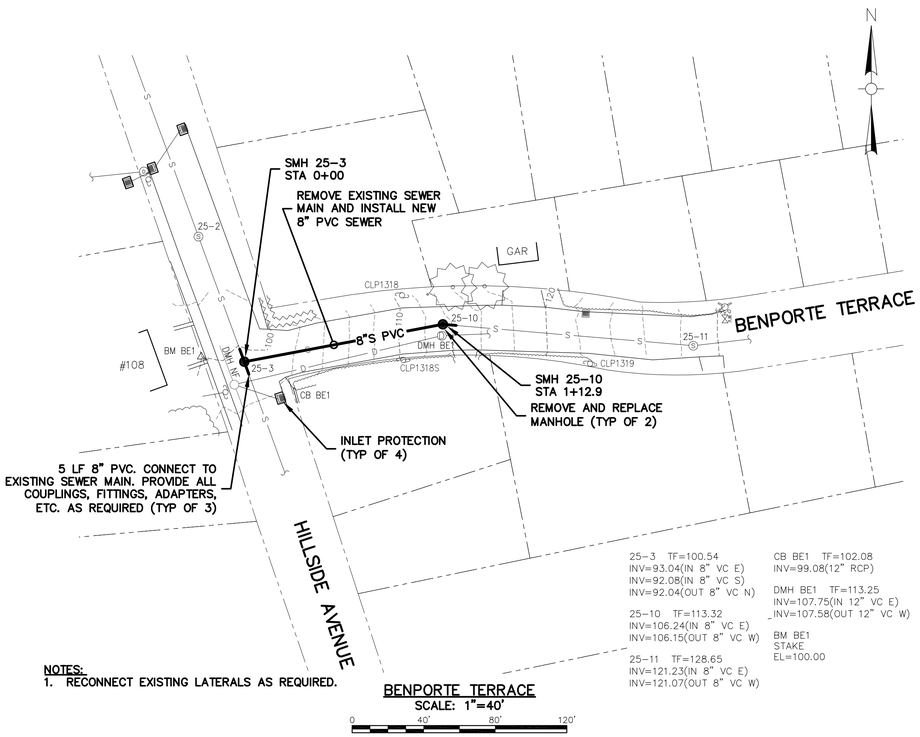
BM LO2
TOP OF CLEANOUT NUT
EL=1013.10

BM LO3
PK NAIL IN ROAD
EL=1006.31



NOTES:
1. PROVIDE LOCKING MANHOLE FRAME AND COVER AT SMH STA 1+49.5, SMH STA 2+31.5 AND SMH STA 3+90.9.
2. RECONNECT EXISTING LATERALS AS REQUIRED.
3. REMOVE AND STOCKPILE TOP 24" OF MATERIAL WITHIN WETLANDS AREA. AFTER PIPELINE INSTALLATION REPLACE TOP 24" WITH STOCKPILED MATERIAL AND SEED WITH NEW ENGLAND WETLAND SEED MIX. STABILIZE AS REQUIRED.
4. THE CONTRACTOR SHALL STAKE OUT PROPOSED MANHOLES AND PIPELINE LOCATIONS AND FLAG LIMITS OF CLEARING AND GRUBBING AND TREES TO BE REMOVE FOR APPROVAL BY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. STAKE–OUT AND FLAGGING SHALL BE PERFORMED AT LEAST FIVE DAYS BEFORE PROPOSED CONSTRUCTION IN THESE AREAS.

ALBRECHT ROAD AND LOUIS CIRCLE
SCALE: 1"=40'
0 40' 80' 120'



NOTES:
1. RECONNECT EXISTING LATERALS AS REQUIRED.

25–3 TF=100.54
INV=93.04(IN 8" VC E)
INV=92.08(IN 8" VC S)
INV=92.04(OUT 8" VC N)

25–10 TF=113.32
INV=106.24(IN 8" VC E)
INV=106.15(OUT 8" VC W)

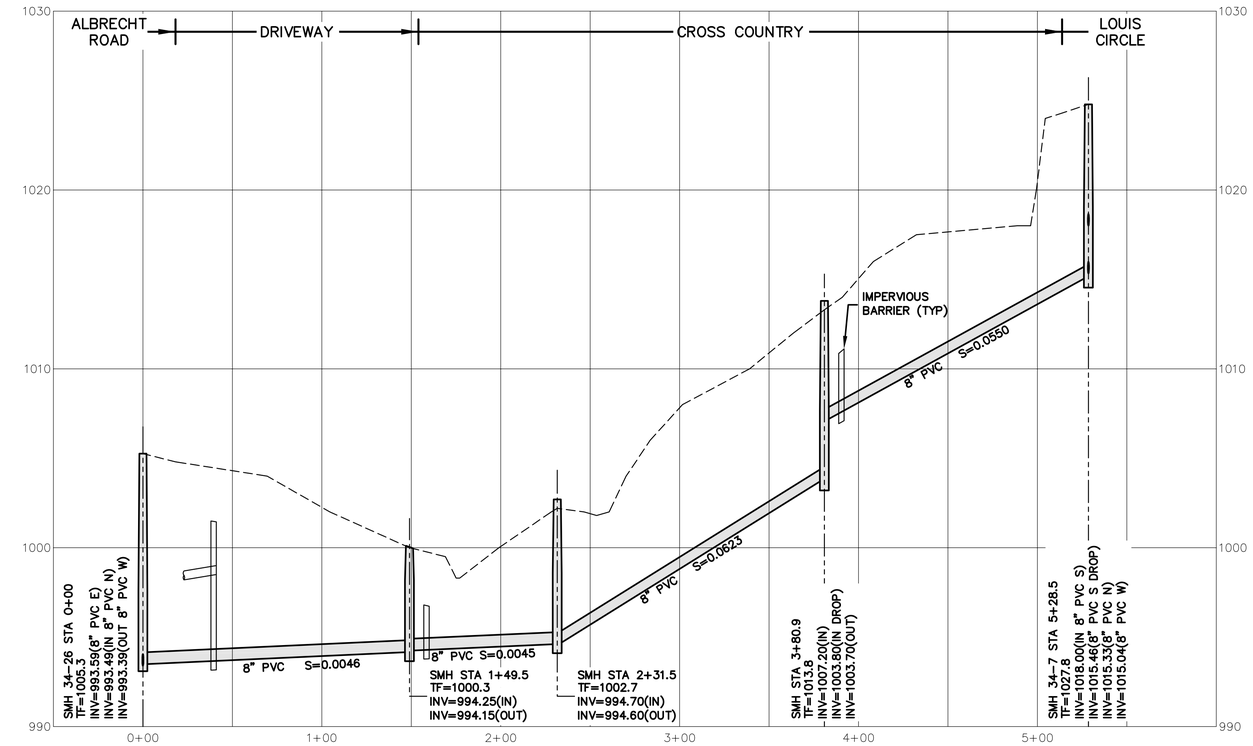
25–11 TF=128.65
INV=121.23(IN 8" VC E)
INV=121.07(OUT 8" VC W)

CB BE1 TF=102.08
INV=99.08(12" RCP)

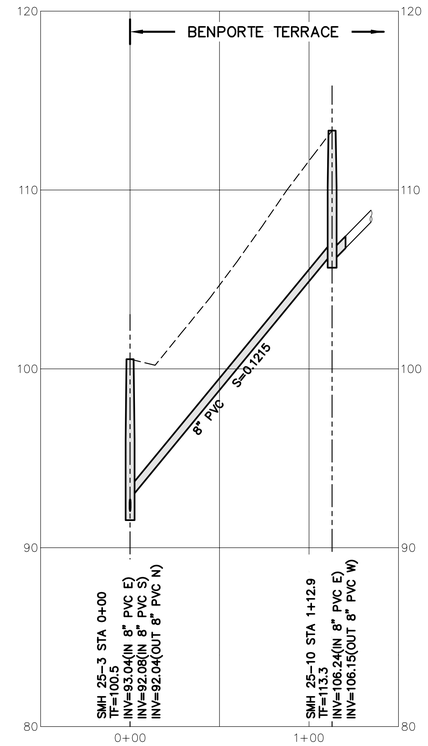
DMH BE1 TF=113.25
INV=107.75(IN 12" VC E)
INV=107.58(OUT 12" VC W)

BM BE1
STAKE
EL=100.00

BENPORTE TERRACE
SCALE: 1"=40'
0 40' 80' 120'



ALBRECHT ROAD AND LOUIS CIRCLE
SCALE: 1"=40' HORZ, 1"=4' VERT



BENPORTE TERRACE
SCALE: 1"=40' HORZ, 1"=4' VERT

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No.	Date	Description	Dr.By	Ck.By	App.By
A		PROVED			
B					
C					
D					
E					

February 25, 2014
DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

ALBRECHT ROAD AND LOUIS CIRCLE AND BENPORTE TERRACE

SCALE:	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
AS NOTED			WGS	WGS	DCM	DRL

CADD NO.

C-1

FILE NO.

SHEET 3 OF 10

R:\Torrington CT\Wastewater Services\Task Order 1 – Sewer Rehab\CAD\Sewer Replacements.dwg

34–125 TF=971.54
INV=961.54(IN 8" PVC)
INV=961.46(OUT 8" PVC)

34–140 TF=973.56
INV=963.10(IN 10" PVC)
INV=963.02(OUT 10" PVC)

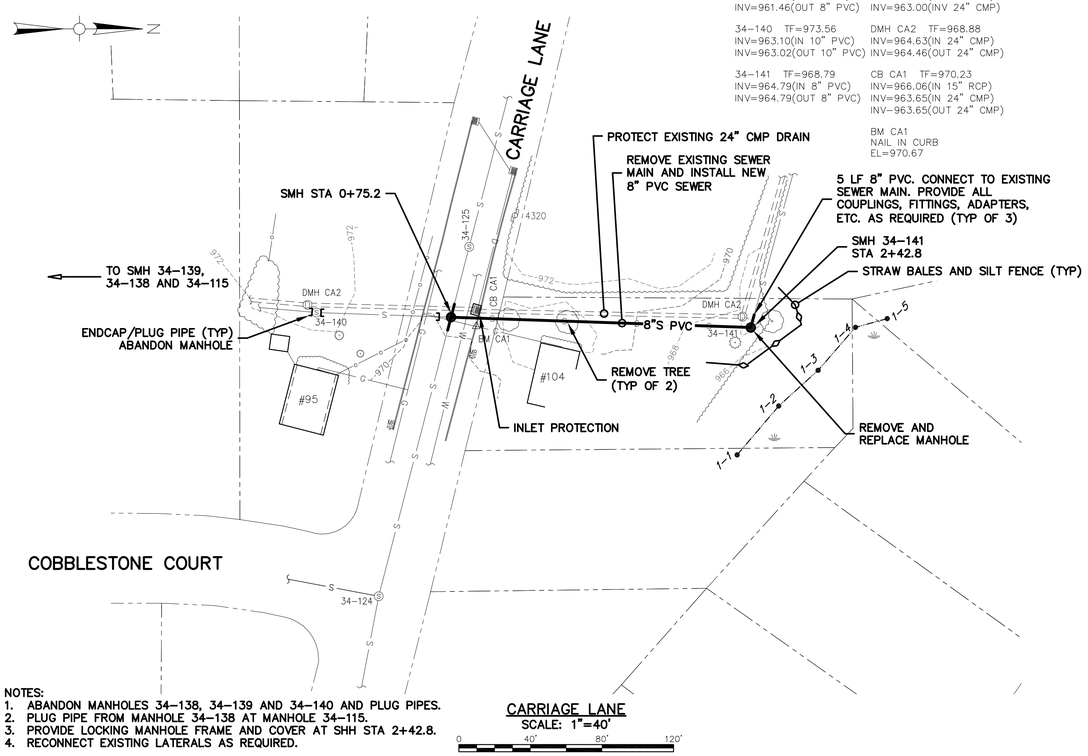
34–141 TF=968.79
INV=964.79(IN 8" PVC)
INV=964.79(OUT 8" PVC)

DMH CA1 TF=973.79
INV=963.00(IN 24" CMP)
INV=963.00(INV 24" CMP)

DMH CA2 TF=968.88
INV=964.63(IN 24" CMP)
INV=964.46(OUT 24" CMP)

CB CA1 TF=970.23
INV=966.06(IN 15" RCP)
INV=963.65(IN 24" CMP)
INV=963.65(OUT 24" CMP)

BM CA1
NAIL IN CURB
EL=970.67



NOTES:
1. ABANDON MANHOLES 34–138, 34–139 AND 34–140 AND PLUG PIPES.
2. PLUG PIPE FROM MANHOLE 34–138 AT MANHOLE 34–115.
3. PROVIDE LOCKING MANHOLE FRAME AND COVER AT SHH STA 2+42.8.
4. RECONNECT EXISTING LATERALS AS REQUIRED.

CARRIAGE LANE
SCALE: 1"=40'
0 40' 80' 120'

26–19 TF=99.54
INV=90.87(IN 8" PVC)
FL=89.71(18")

26–20 TF=100.28
INV=93.28(IN 8" VC)
INV=93.20(OUT 8" VC)

26–21 TF=101.26
INV=95.18(IN 8" VC E)
INV=95.01(IN 8" VC S)
INV=94.97(OUT 8" VC)

CB CL1 TF=98.94
INV=96.27(OUT 12" RCP)

CB CL2 TF=99.23
INV=96.56(IN 15" RCP S)
INV=96.52(IN 18" RCP E)
INV=96.48 (IN 12" RCP N)
INV=96.15(OUT 18"RCP W)

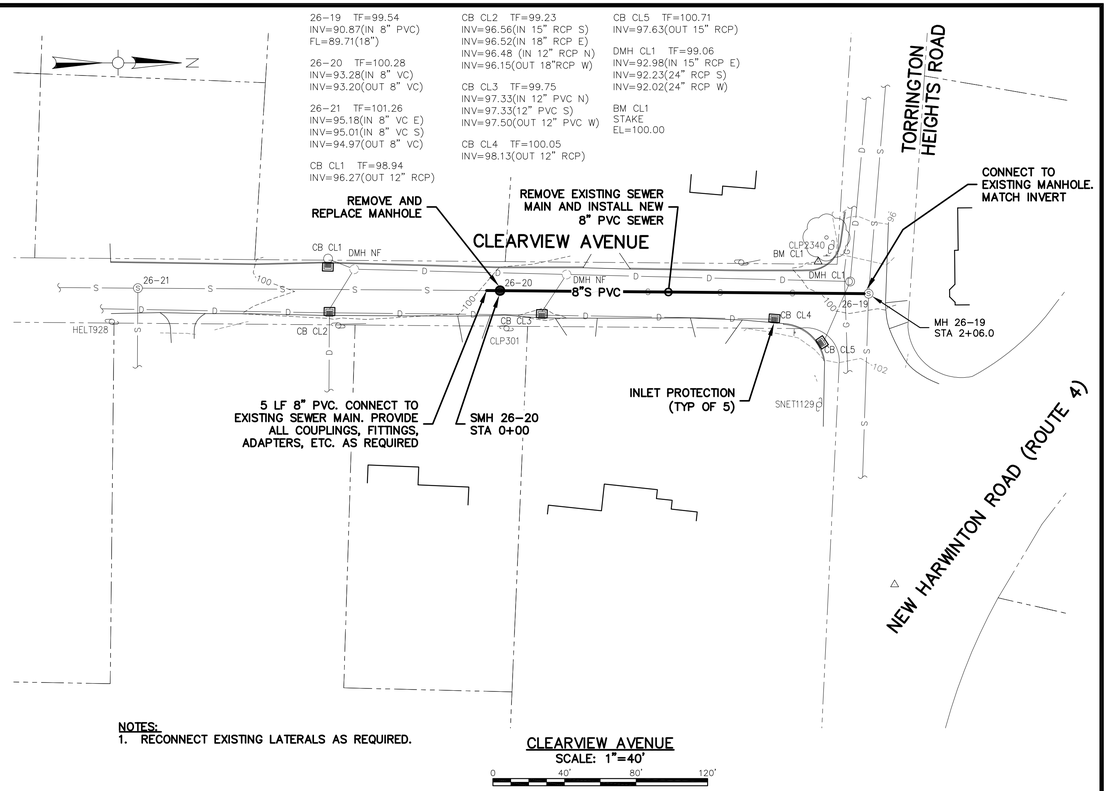
CB CL3 TF=99.75
INV=97.33(IN 12" PVC N)
INV=97.33(12" PVC S)
INV=97.50(OUT 12" PVC W)

CB CL4 TF=100.05
INV=98.13(OUT 12" RCP)

CB CL5 TF=100.71
INV=97.63(OUT 15" RCP)

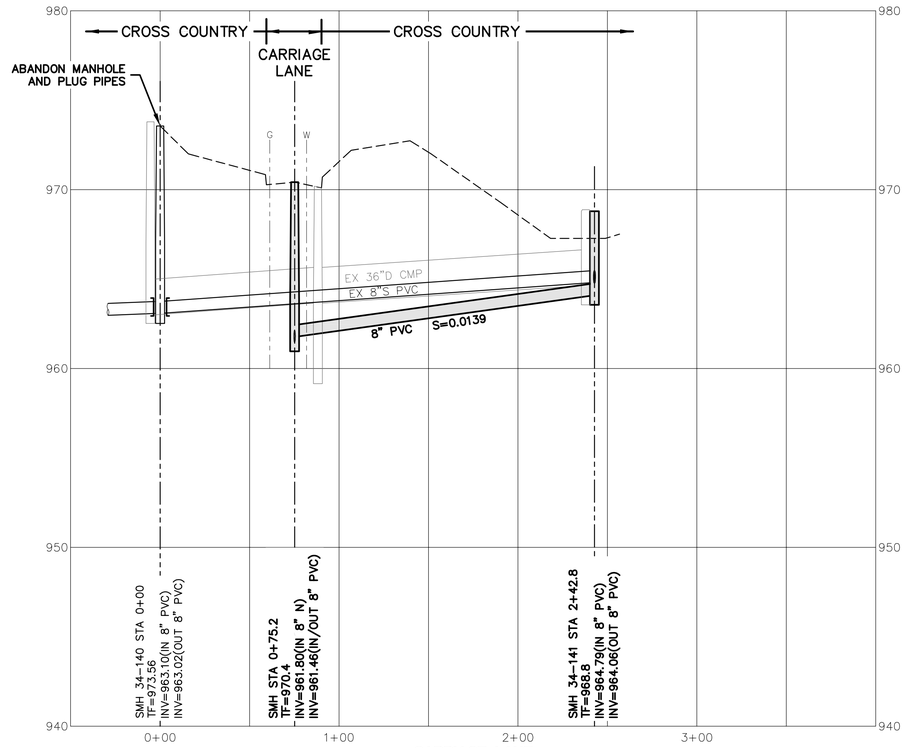
DMH CL1 TF=99.06
INV=92.98(IN 15" RCP E)
INV=92.23(24" RCP S)
INV=92.02(24" RCP W)

BM CL1
STAKE
EL=100.00

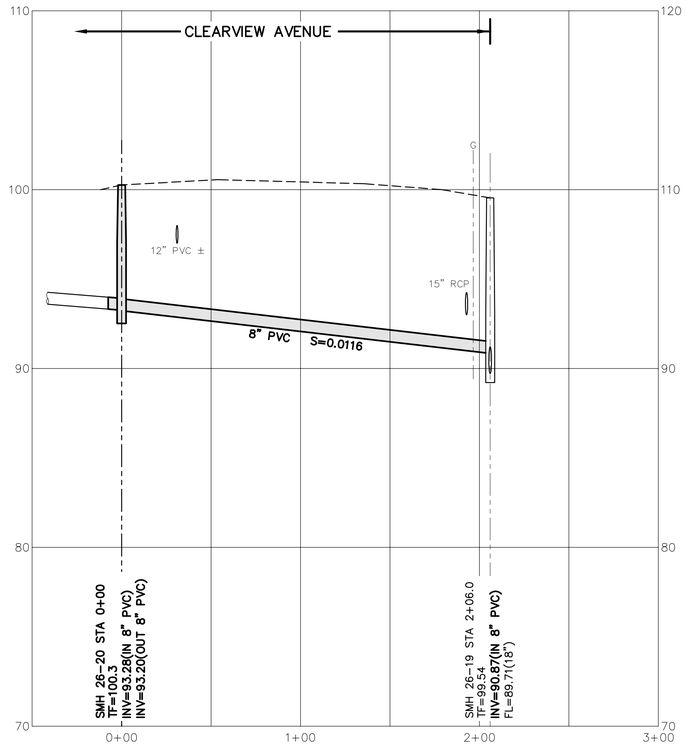


NOTES:
1. RECONNECT EXISTING LATERALS AS REQUIRED.

CLEARVIEW AVENUE
SCALE: 1"=40'
0 40' 80' 120'



CARRIAGE LANE
SCALE: 1"=40' HORZ, 1"=4' VERT



CLEARVIEW AVENUE
SCALE: 1"=40' HORZ, 1"=4' VERT

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No.	Date	Dr.By	Ck.By	App.By	Description
A	P	P	R	O	V	E	D

February 25, 2014
DATE

REGISTERED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT
DAVID C. MARTINEZ
No. 18850
REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

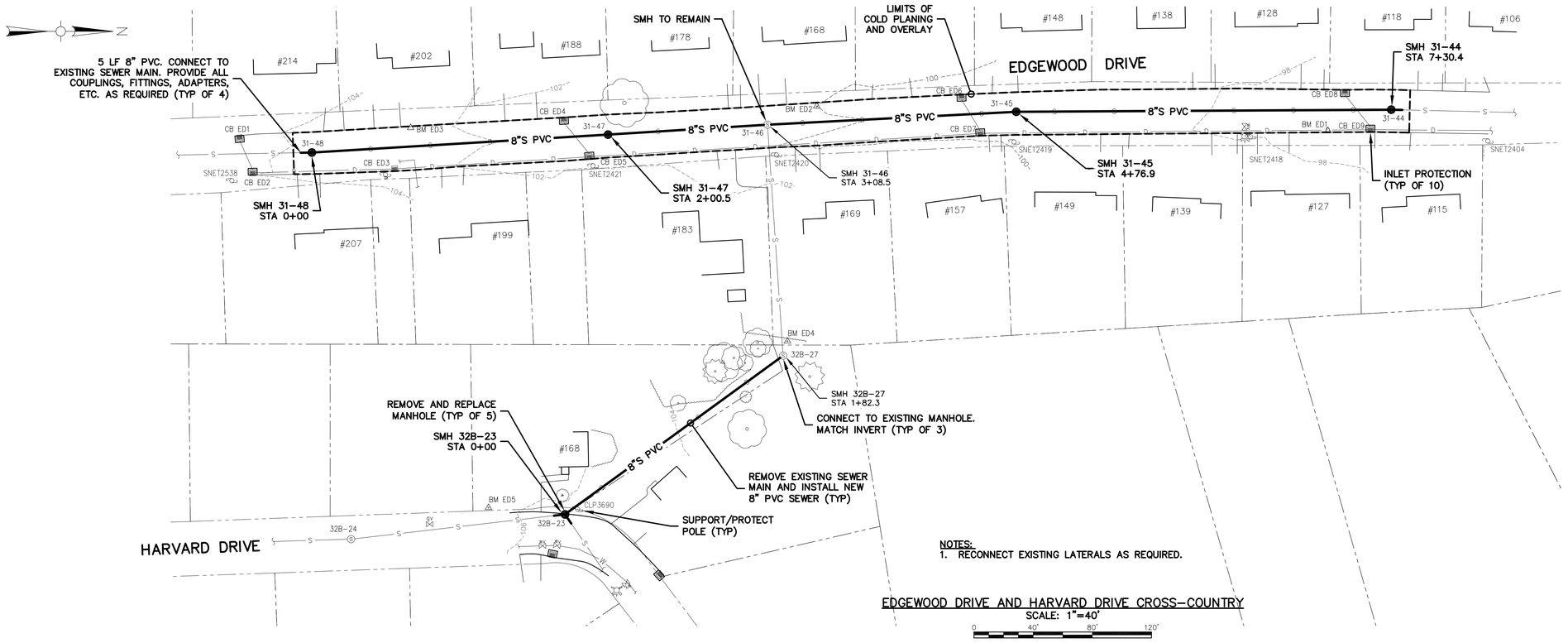
CARRIAGE LANE AND CLEARVIEW AVENUE

CADD NO.	SCALE:	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
	AS NOTED			WGS	WGS	DCM	DRL

C-2
FILE NO.

SHEET 4 OF 10

R:\Torrington, CT\Wastewater Services\Task Order 1 – Sewer Rehab\CAD\Sewer Replacements.dwg



NOTES:
1. RECONNECT EXISTING LATERALS AS REQUIRED.

EDGEWOOD DRIVE AND HARVARD DRIVE CROSS-COUNTRY
SCALE: 1"=40'

32B-23 TF=105.17
INV=97.34(IN 8" HDPE E)
INV=97.25(IN 8" VC S)
INV=97.17(OUT 8" VC N)

32B-27 TF=103.73
INV=96.23(IN 8" VC S)
INV=96.06(OUT 8" VC W)

31-44 TF=96.89
INV=89.72(IN 8" VC S)
INV=89.64(OUT 8" VC N)

31-45 TF=99.29
INV=92.29(IN 8" VC S)
INV=92.21(OUT 8" VC N)

31-46 TF=100.37
INV=93.91(IN 8" VC E)
INV=93.62(IN 8" VC S)
INV=93.50(OUT 8" VC N)

31-47 TF=101.09
INV=94.38(IN 8" VC S)
INV=94.38(OUT 8" VC N)

31-48 TF=103.90
INV=96.07(IN 8" VC S)
INV=96.07(OUT 8" VC N)

CB ED1 TF=104.40
INV=102.11(OUT 10" PVC E)

CB ED2 TF=103.98
INV=101.98(IN 4" HDPE (3))
INV=101.94(IN 12" PVC W)
INV=100.65(IN 12" RCP S)

CB ED3 TF=102.25
INV=99.04(IN 12" RCP S)
INV=98.08(OUT 18" RCP N)

CB ED4 TF=101.07
INV=98.32(OUT 12" CMP E)

CB ED5 TF=100.66
INV=97.83(IN 12" CMP W)
INV=97.58(IN 18" RCP S)
INV=97.37(OUT 18" RCP N (DEBRIS))

CB ED6 TF=99.02
INV=96.27(OUT E PIPE NOT VISIBLE)

CB ED7 TF=98.84
INV=96.01(IN W PIPE NOT VISIBLE)
INV=95.51(IN 18" CMP S)
INV=95.42(OUT 18" CMP N)

CB ED8 TF=96.75
INV=93.67(OUT E PIPE NOT VISIBLE)

CB ED9 TF=96.44
INV=93.40(IN HDPE)
INV=93.27(IN 15" PVC S)
INV=93.07(OUT 18" CMP N)

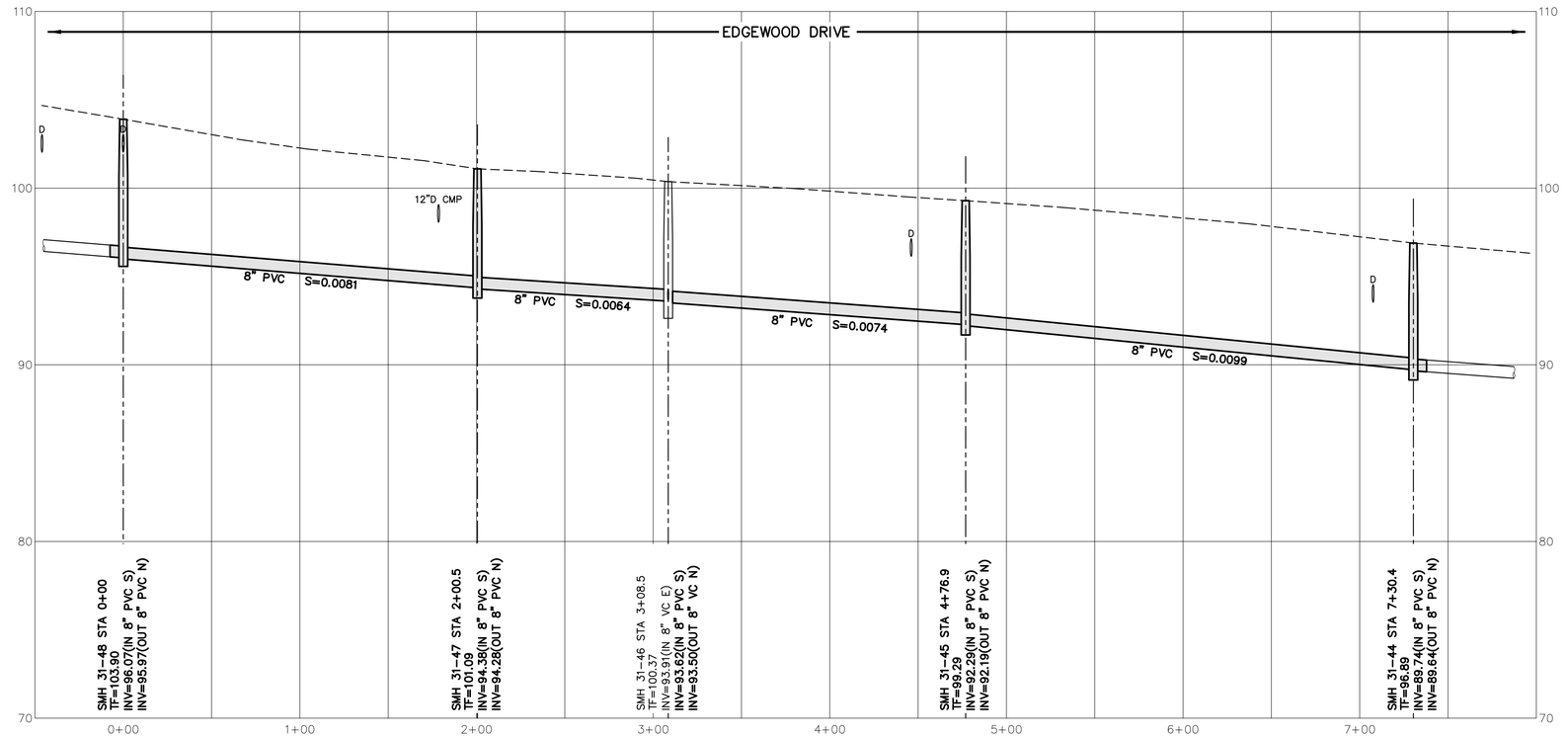
BM ED1
PK NAIL IN ROAD
EL=96.98

BM ED2
PK NAIL IN ROAD
EL=100.00

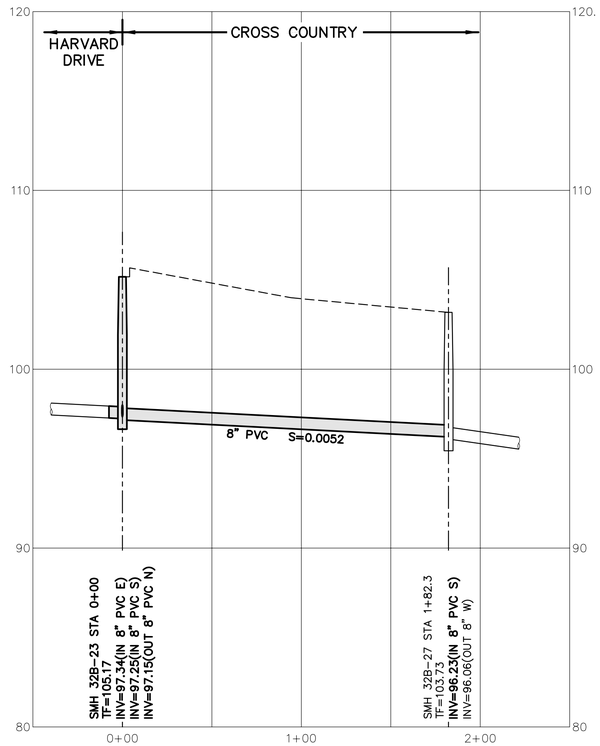
BM ED3
PK NAIL IN ROAD
EL=102.45

BM ED4
TOP OF REBAR
EL=103.56

BM ED5
TOP OF IRON PIPE
EL=106.85



EDGEWOOD DRIVE
SCALE: 1"=40' HORZ, 1"=4' VERT



HARVARD DRIVE CROSS-COUNTRY
SCALE: 1"=40' HORZ, 1"=4' VERT

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No.	Date	Dr.By	Ck.By	App.By	Description
A	February 25, 2014	WGS		PP	ROVED

DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

EDGEWOOD DRIVE AND HARVARD DRIVE CROSS-COUNTRY

DR.BY	DSN.BY	CHK.BY	APP.BY
WGS	WGS	DCM	DRL

JOB NO.

CONTRACT:

SCALE: AS NOTED

CADD NO.

C-3

FILE NO.

SHEET 5 OF 10

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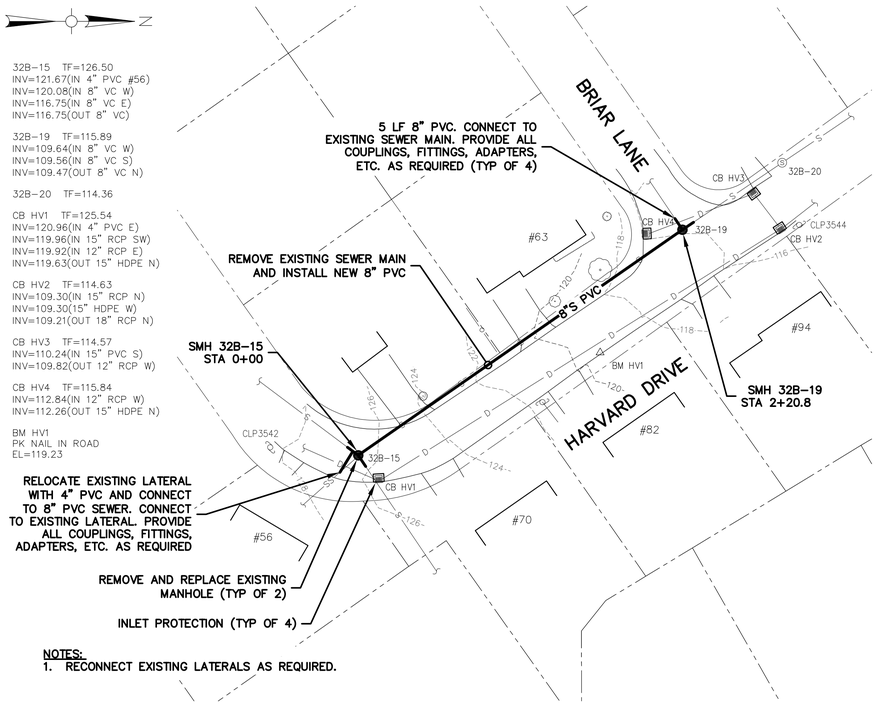
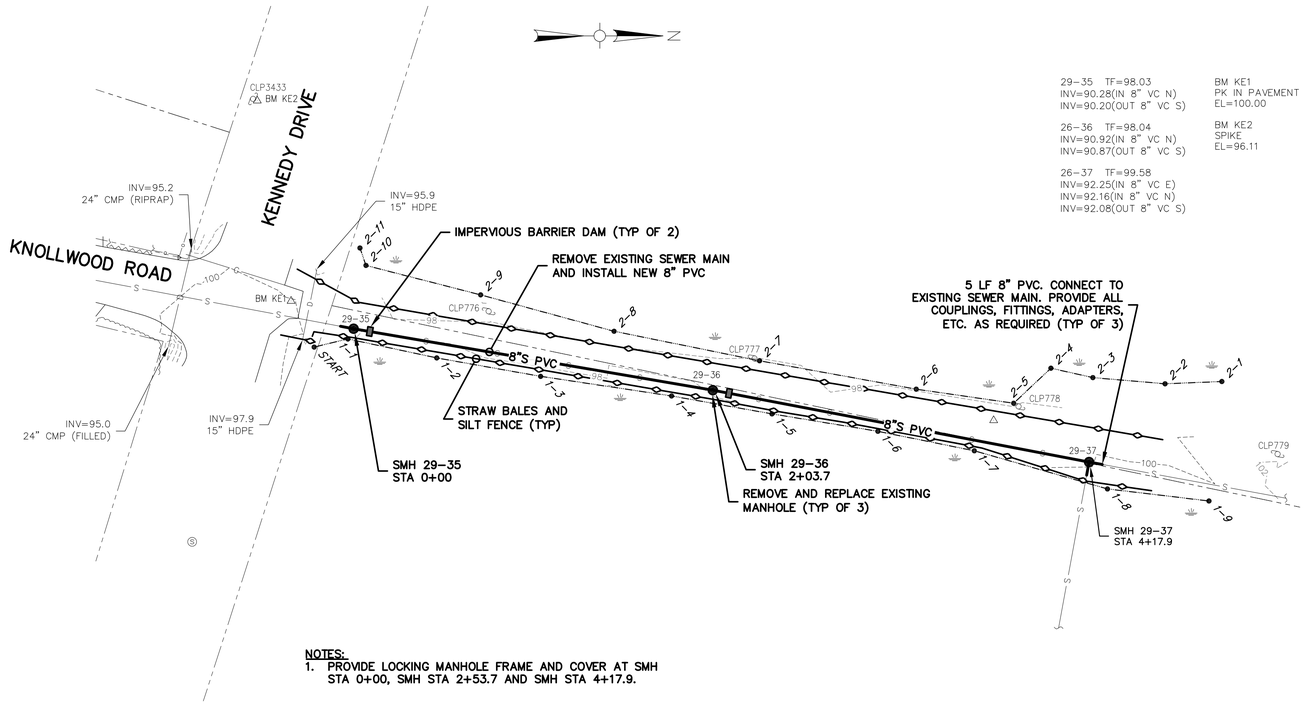


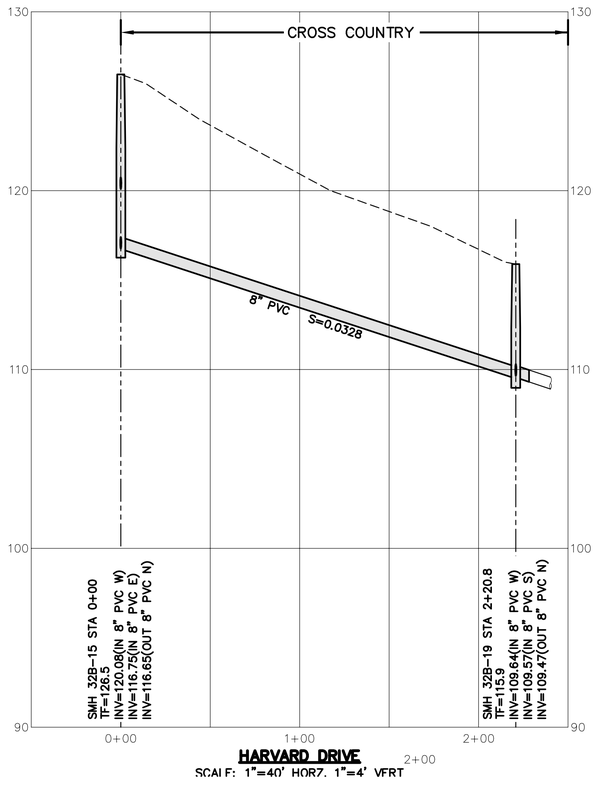
NOTES:
1. RECONNECT EXISTING LATERALS AS REQUIRED.

HARVARD DRIVE
SCALE: 1"=40'
0 40' 80' 120'

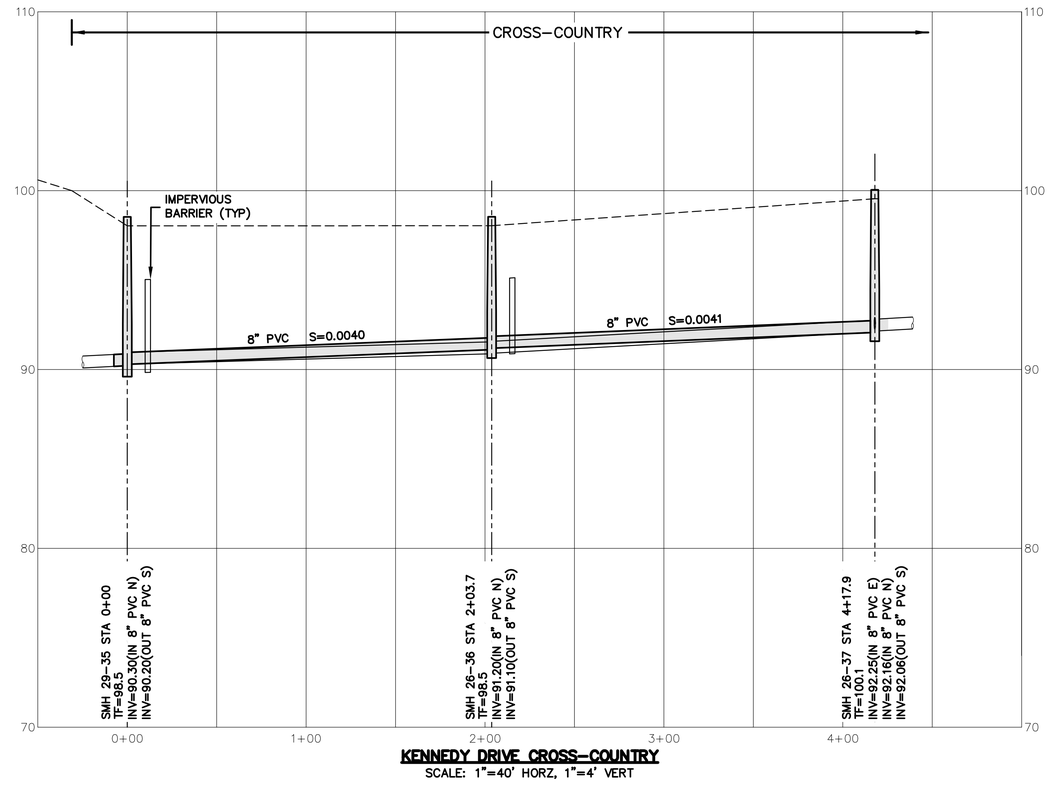


NOTES:
1. PROVIDE LOCKING MANHOLE FRAME AND COVER AT SMH STA 0+00, SMH STA 2+53.7 AND SMH STA 4+17.9.

KENNEDY DRIVE CROSS-COUNTRY
SCALE: 1"=40'
0 40' 80' 120'



HARVARD DRIVE
SCALE: 1"=40' HORZ, 1"=4' VERT



KENNEDY DRIVE CROSS-COUNTRY
SCALE: 1"=40' HORZ, 1"=4' VERT

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No.	Date	Dr.By	Ck.By	App.By	Description
D	February 25, 2014	DRL	DCM	WGS	ADDENDUM

DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

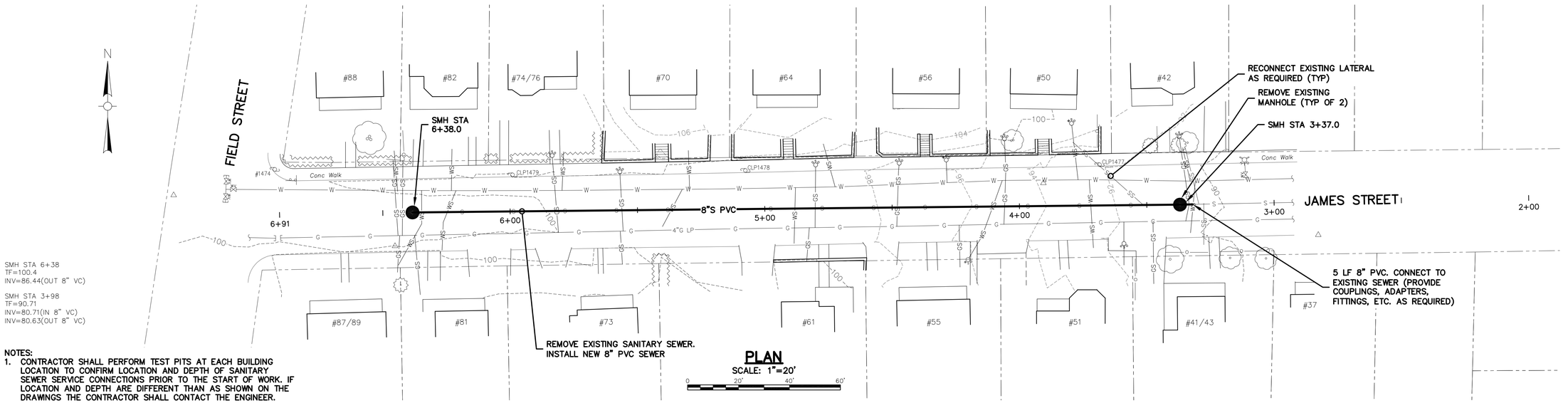
HARVARD DRIVE AND KENNEDY DRIVE CROSS-COUNTRY

CADD NO.	SCALE:	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
	AS NOTED			WGS	WGS	DCM	DRL

FILE NO. C-4

SHEET 6 OF 10

R:\Torrington CT\Wastewater Services\Task Order 1 - Sewer Rehab\CAD\Sewer Replacements.dwg



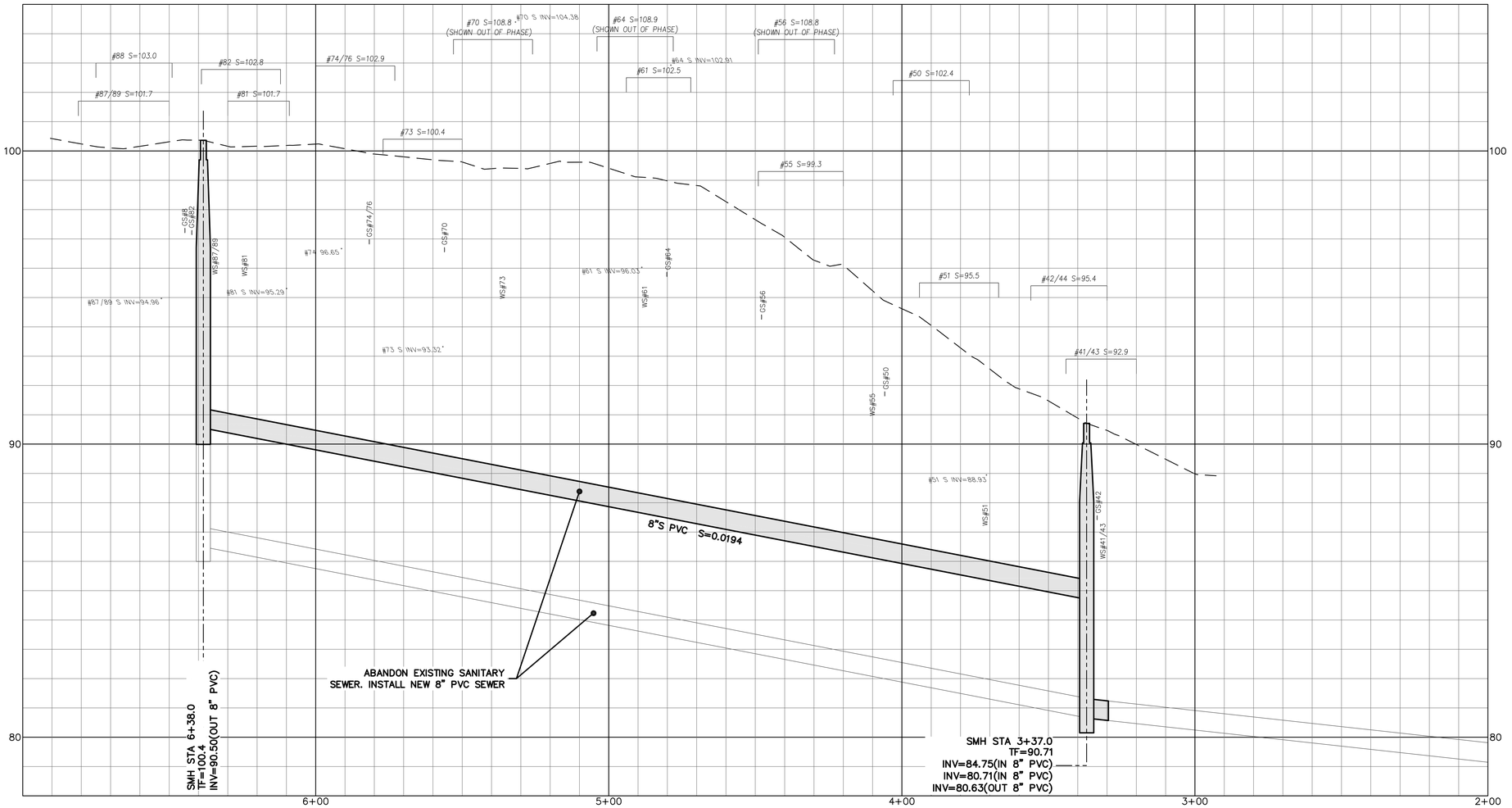
SMH STA 6+38
TF=100.4
INV=86.44(OUT 8" VC)

SMH STA 3+98
TF=90.71
INV=80.71(IN 8" VC)
INV=80.63(OUT 8" VC)

NOTES:
1. CONTRACTOR SHALL PERFORM TEST PITS AT EACH BUILDING LOCATION TO CONFIRM LOCATION AND DEPTH OF SANITARY SEWER SERVICE CONNECTIONS PRIOR TO THE START OF WORK. IF LOCATION AND DEPTH ARE DIFFERENT THAN AS SHOWN ON THE DRAWINGS THE CONTRACTOR SHALL CONTACT THE ENGINEER.

PLAN
SCALE: 1"=20'

0 20' 40' 60'



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No.	Date	Description
A	February 25, 2014	PROVED

Dr.By | Ck.By | App.By

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

JAMES STREET

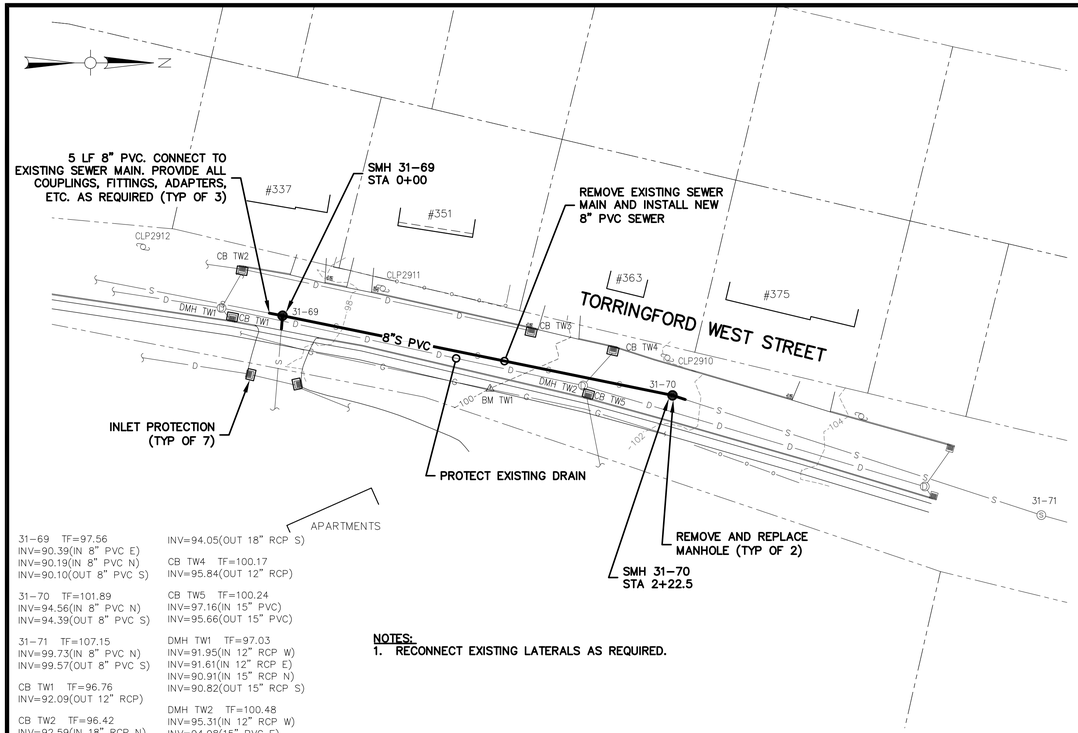
DR.BY	DSN.BY	CHK.BY	APP.BY
WGS	WGS	DCM	DRL

JOB NO.	CONTRACT:	SCALE:	CADD NO.	FILE NO.
		AS NOTED		

C-5

SHEET 7 OF 10

R:\Torrington CT\Westewater Services\Task Order 1 – Sewer Rehab\CAD\Sewer Replacements C-5 James St.dwg



31-69 TF=97.56
INV=90.39(IN 8" PVC E)
INV=90.19(IN 8" PVC N)
INV=90.10(OUT 8" PVC S)

31-70 TF=101.89
INV=94.56(IN 8" PVC N)
INV=94.39(OUT 8" PVC S)

31-71 TF=107.15
INV=99.73(IN 8" PVC N)
INV=99.57(OUT 8" PVC S)

CB TW1 TF=96.76
INV=92.09(OUT 12" RCP)

CB TW2 TF=96.42
INV=92.59(IN 18" RCP N)
INV=92.55(OUT STONE CHANNEL)
INV=92.50(OUT 12" RCP BLOCKED)

CB TW3 TF=99.50
INV=94.75(IN 15" RCP N)
INV=94.05(OUT 18" RCP S)

CB TW4 TF=100.17
INV=95.84(OUT 12" RCP)

CB TW5 TF=100.24
INV=97.16(IN 15" PVC)
INV=95.66(OUT 15" PVC)

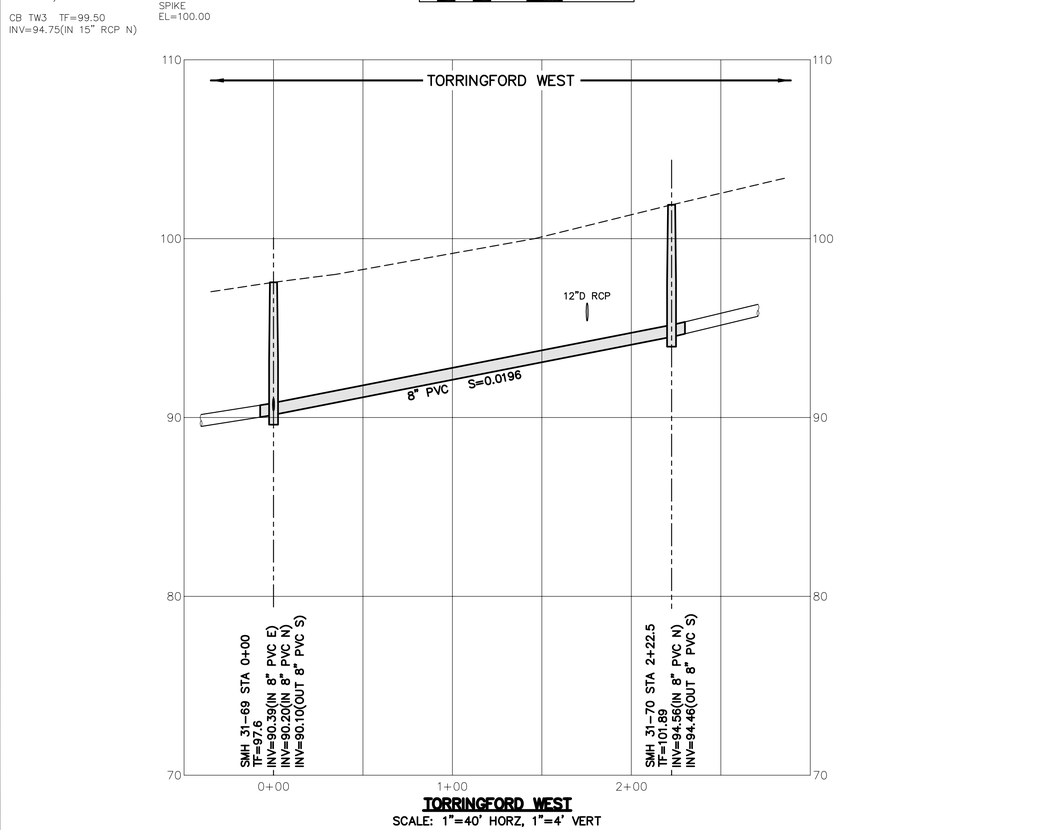
DMH TW1 TF=97.03
INV=91.95(IN 12" RCP W)
INV=91.61(IN 12" RCP E)
INV=90.91(IN 15" RCP N)
INV=90.82(OUT 15" RCP S)

DMH TW2 TF=100.48
INV=95.31(IN 12" RCP W)
INV=94.98(15" PVC E)
INV=94.31(IN 12" RCP N)
INV=94.31(OUT 15" RCP S)

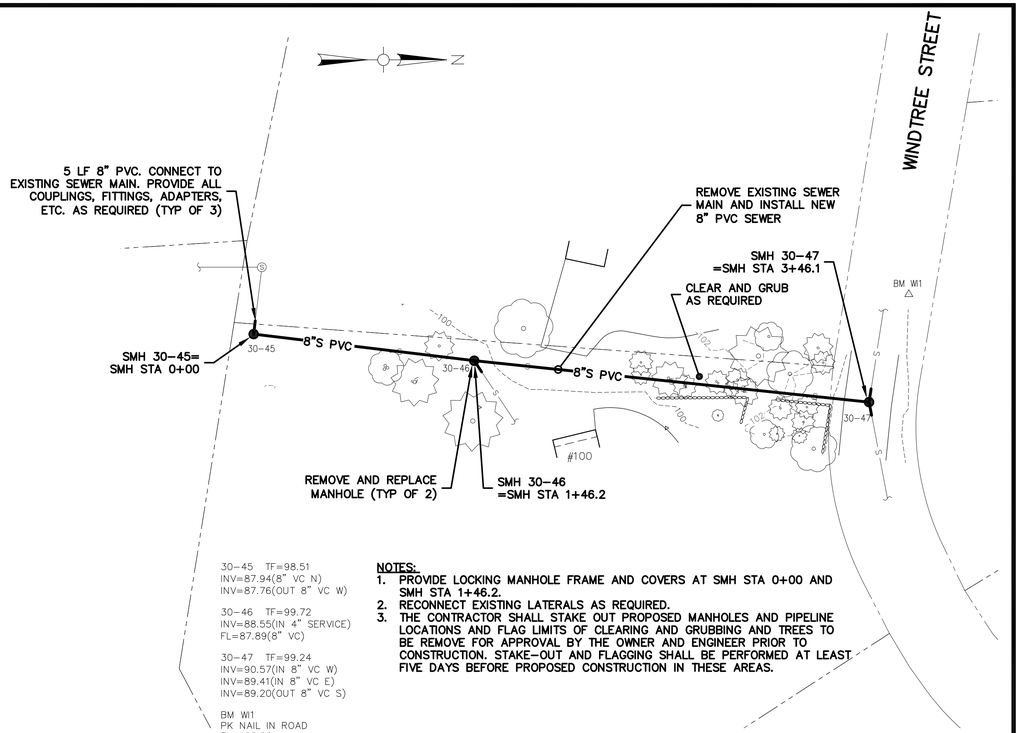
BM TW1
SPIKE
EL=100.00

NOTES:
1. RECONNECT EXISTING LATERALS AS REQUIRED.

TORRINGFORD WEST STREET
SCALE: 1"=40'



TORRINGFORD WEST
SCALE: 1"=40' HORZ, 1"=4' VERT



30-45 TF=98.51
INV=87.94(8" VC N)
INV=87.76(OUT 8" VC W)

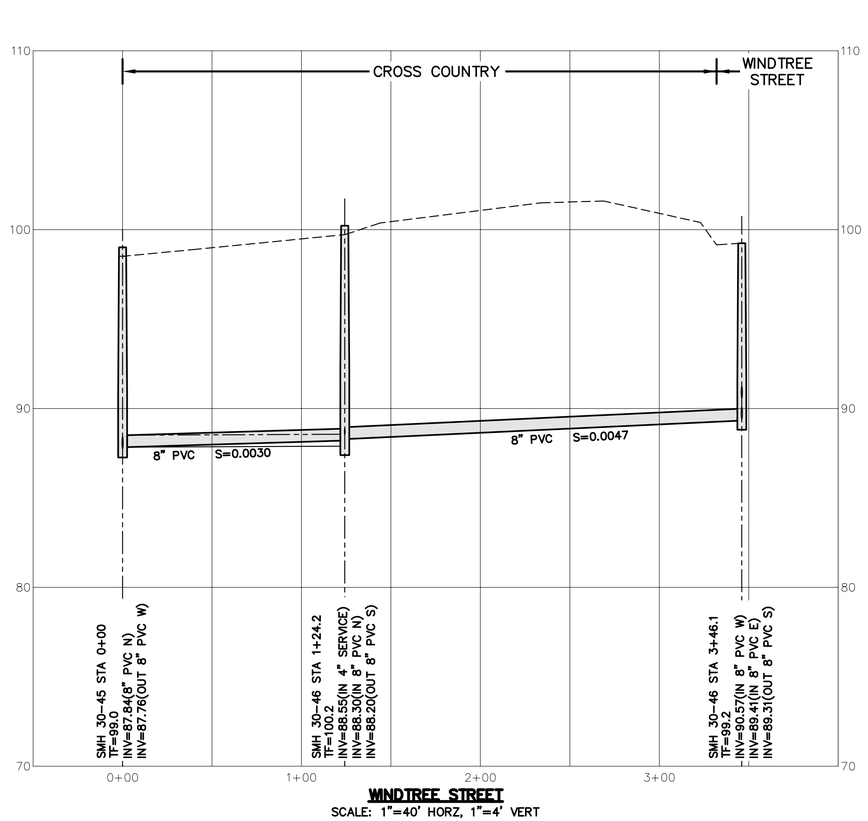
30-46 TF=99.72
INV=88.55(IN 4" SERVICE)
FL=87.89(8" VC)

30-47 TF=99.24
INV=90.57(IN 8" VC W)
INV=89.41(IN 8" VC E)
INV=89.20(OUT 8" VC S)

BM WI1
PK NAIL IN ROAD
EL=100.00

NOTES:
1. PROVIDE LOCKING MANHOLE FRAME AND COVERS AT SMH STA 0+00 AND SMH STA 1+46.2.
2. RECONNECT EXISTING LATERALS AS REQUIRED.
3. THE CONTRACTOR SHALL STAKE OUT PROPOSED MANHOLES AND PIPELINE LOCATIONS AND FLAG LIMITS OF CLEARING AND GRUBBING AND TREES TO BE REMOVE FOR APPROVAL BY THE OWNER AND ENGINEER PRIOR TO CONSTRUCTION. STAKE-OUT AND FLAGGING SHALL BE PERFORMED AT LEAST FIVE DAYS BEFORE PROPOSED CONSTRUCTION IN THESE AREAS.

WINDTREE STREET
SCALE: 1"=40'



WINDTREE STREET
SCALE: 1"=40' HORZ, 1"=4' VERT

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No.	Date	Description	Dr.By	Ck.By	App.By
A	P	REVISED			

February 25, 2014
DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

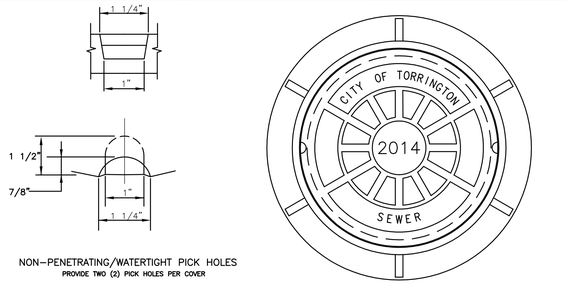
TORRINGFORD WEST STREET AND WINDTREE STREET

CADD NO.	CONTRACT:	JOB NO.	DR.BY	DSN.BY	CHK.BY	APP.BY
	SCALE: AS NOTED		WGS	WGS	DCM	DRL

FILE NO. C-6

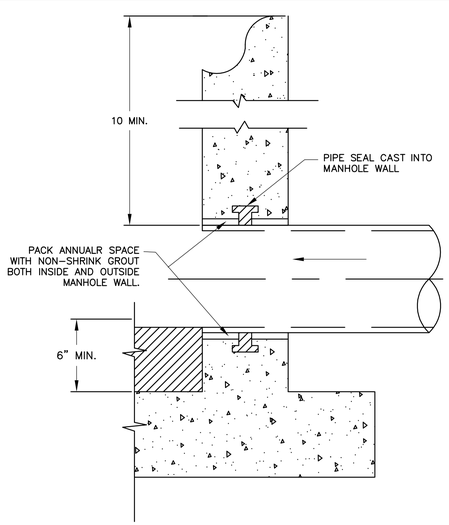
SHEET 8 OF 10

R:\Torrington CT\Wastewater Services\Task Order 1 – Sewer Rehab\CAD\Sewer Replacements.dwg

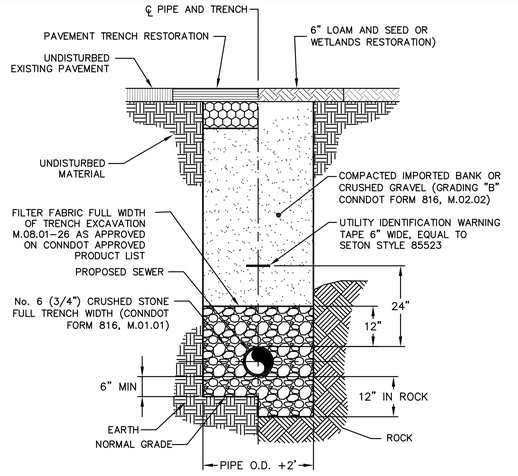


NOTES:
1. MANHOLE FRAME EQUAL TO CAMPBELL FOUNDRY PATTERN NO. 1009.
2. MANHOLE COVER EQUAL TO CAMPBELL FOUNDRY PATTERN NO. 1203.
3. BEARING SURFACE (COVER TO FRAME) TO BE MACHINED FOR FIT.
4. MATERIAL TO BE GRAY CAST IRON. ASTM A48-83, CLASS 30B
5. CASTINGS TO MEET AASHTO HS-20-44 (M818) HIGHWAY LOADINGS.
6. ALL TEXT SHOWN ON COVER TO BE 1 1/2" HIGH, DATE IN CENTER TO BE YEAR COVER INSTALLED.
7. COVER IN OFF STREET RIGHTS-OF-WAY AND AS NOTED ON THE PLANS SHALL HAVE TYPE A CAMLOCK PROVISIONS.

MANHOLE FRAME AND COVER
N.T.S.

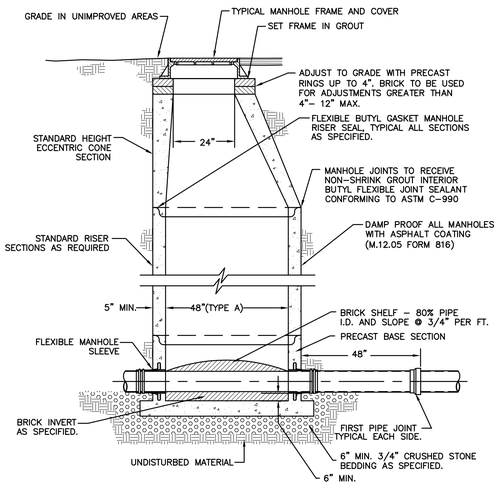


PRECAST MANHOLE CONNECTION
N.T.S.



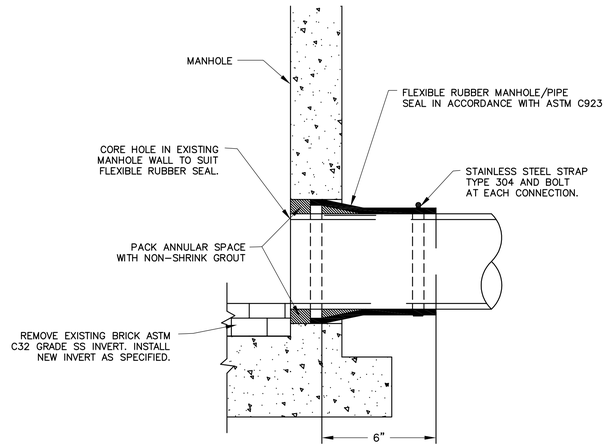
NOTES:
1. MATERIALS EXCAVATED ABOVE NORMAL GRADE SHALL BE REMOVED AND PROPERLY DISPOSED OF AND REPLACED WITH MATERIALS AS SPECIFIED AND AS SHOWN ON THE DRAWINGS.
2. BEDDING TO BE 6" OF 3/4" CRUSHED STONE.
3. UNSUITABLE MATERIAL BELOW NORMAL GRADE SHALL BE REPLACED WITH NO. 6 (3/4") CRUSHED STONE (DOT FORM 816, ART. M.01.01) AS REQUIRED BY THE CITY ENGINEER.
4. SOLID-SLEEVE COUPLING SHALL BE USED WHEN CONNECTING PROPOSED SEWER TO EXISTING PVC SEWER. DOUBLE-STRAPPED FERNCO OR APPROVED EQUIVALENT SHALL BE USED ON CONNECTIONS TO ALL OTHER SEWER PIPE
5. ALL WORK MUST BE CONDUCTED IN STRICT ACCORDANCE WITH THE LATEST REGULATIONS OF OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) FOR EXCAVATIONS.

SANITARY SEWER TRENCH
N.T.S.

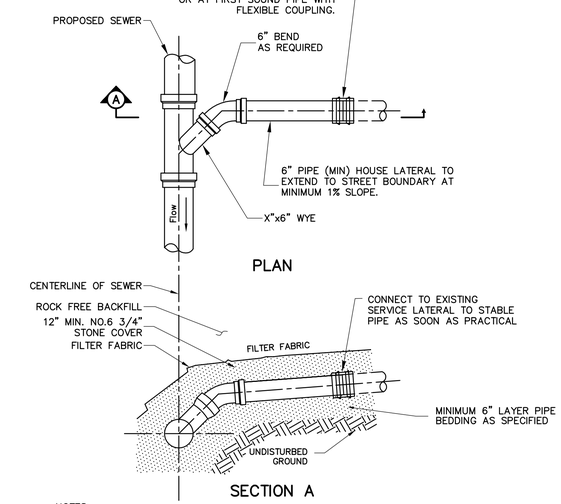


NOTES:
1. REINFORCED CONCRETE MANHOLE SECTIONS CONFORMING TO ASTM C-478.
2. RUBBER LIFT HOLE PLUGS TO BE INSERTED FROM THE OUTSIDE AND HOLE FILLED WITH NON-SHRINK INSIDE AND OUTSIDE.
3. TYPE "A" MANHOLE SHALL BE 48" IN DIAMETER.
4. THERE WILL BE NO STEPS IN ANY MANHOLE.
5. VACUUM TEST REQUIRED.
6. RISER SHALL CONTAIN NO INTERIOR STEPS OR HOLES FOR STEPS.

PRECAST MANHOLE
N.T.S.

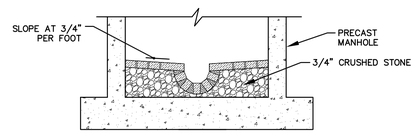


FLEXIBLE PIPE SEAL CONNECTION TO EXISTING MANHOLE
N.T.S.

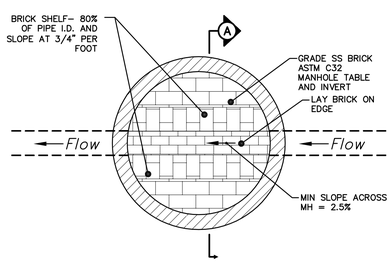


NOTES:
1. REFER TO TYPICAL TRENCH DETAIL FOR REQUIRED PIPE BEDDING, WARNING TAPE, AND RESTORATION REQUIREMENTS.
2. MAXIMUM BEND SHALL NOT EXCEED 22.5°.
3. PVC PIPE SHALL CONFORM TO ASTM D-3034 SDR35.
4. REFER TO TYPICAL TRENCH DETAIL SHEET FOR FILTER FABRIC, UTILITY IDENTIFICATION.
5. SOLID-SLEEVE COUPLING SHALL BE USED WHEN CONNECTING PROPOSED SEWER TO EXISTING PVC SEWER. DOUBLE-STRAPPED FERNCO OR APPROVED EQUIVALENT SHALL BE USED ON CONNECTIONS TO ALL OTHER SEWER PIPE

STANDARD LATERAL INSTALLATION
N.T.S.



SECTION A



MANHOLE PAVED INVERT
N.T.S.

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No.	Date	Dr.By	Ck.By	App.By	Description
A	P	P	R	O	V	E	D

February 25, 2014
DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS - WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT - SEWER REPLACEMENTS

DETAILS

APP.BY	CHK.BY	DSN.BY	DR.BY	JOB NO.	CONTRACT:	SCALE:	CADD NO.
DRL	DCM	WGS	WGS			AS NOTED	

C-7

FILE NO.

SHEET 9 OF 10

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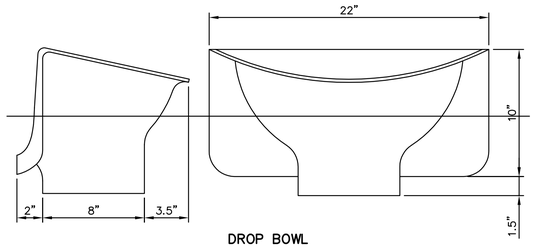
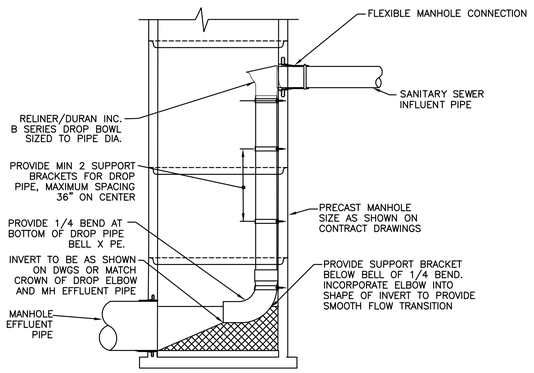
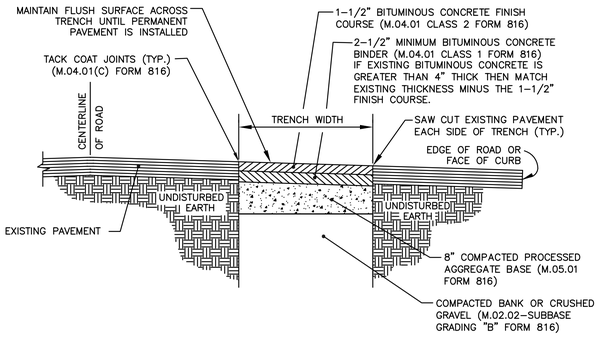


DROP BOWL

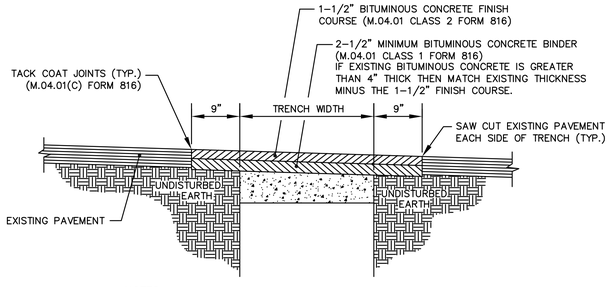


NOTES:
1. REFER TO PRECAST MANHOLE DETAIL FOR ADDITIONAL INFORMATION

INSIDE DROP MAHOLE
N.T.S.

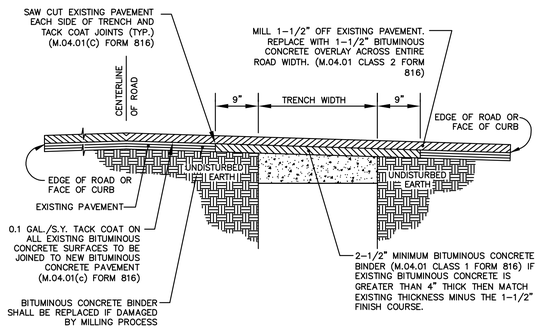


TEMPORARY TRENCH PAVEMENT REPAIR
N.T.S.



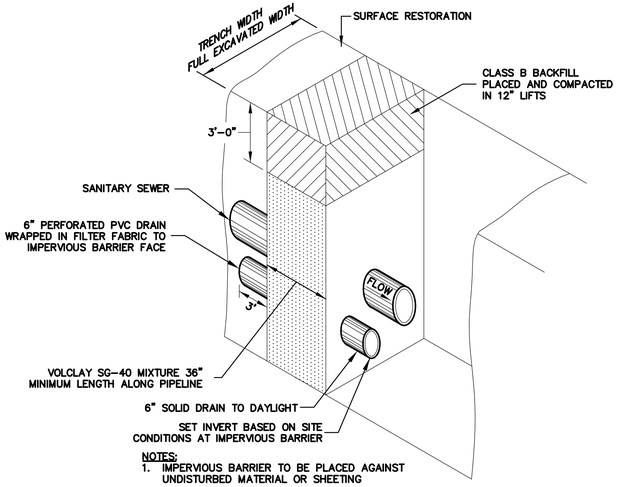
NOTES:
1. PERMANENT PAVEMENT REPAIR SHALL BE COMPLETED BETWEEN 6 AND 12 MONTHS AFTER TEMPORARY PAVEMENT REPAIR IS INSTALLED.
2. SHORING REQUIRED PER OSHA STANDARDS.
3. IF EDGE OF TRENCH IS WITHIN TWO (2) FEET OF CURBED GUTTER LINE OR UNPAVED SHOULDER, THEN REMOVE AND REPLACE PAVEMENT.

PERMANENT TRENCH PAVEMENT REPAIR
N.T.S.



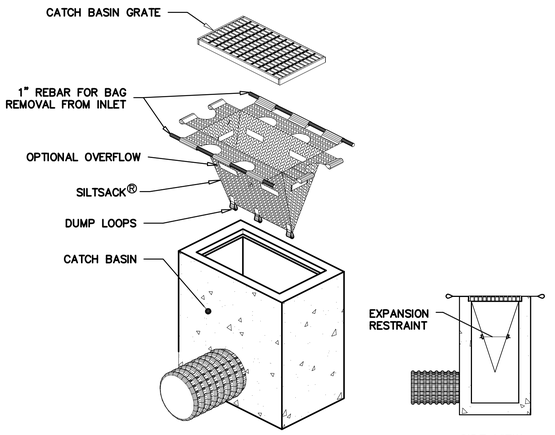
NOTES:
1. PERMANENT PAVEMENT REPAIR SHALL BE COMPLETED BETWEEN 6 AND 12 MONTHS AFTER TEMPORARY PAVEMENT REPAIR IS INSTALLED.

PERMANENT TRENCH PAVEMENT REPAIR
COLD PLANING AND OVERLAY – EDGEWOOD STREET
N.T.S.

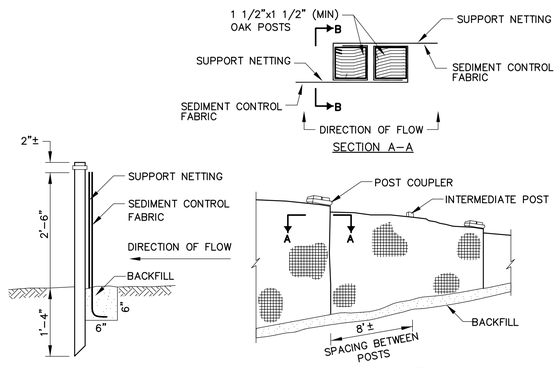


NOTES:
1. IMPERVIOUS BARRIER TO BE PLACED AGAINST UNDISTURBED MATERIAL OR SHEETING

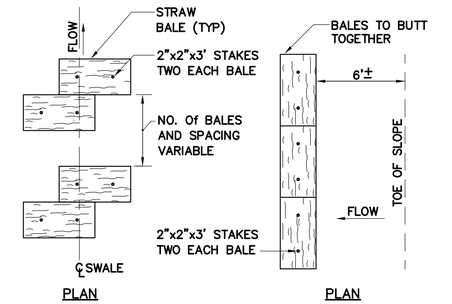
IMPERVIOUS BARRIER DETAIL
N.T.S.

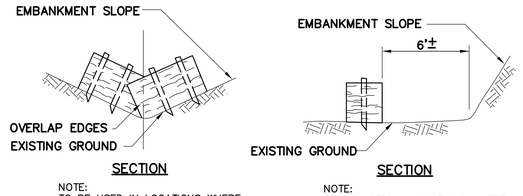


CATCH BASIN INLET PROTECTION
N.T.S.



SILT FENCE DETAIL
N.T.S.





HAY BALES DETAIL
N.T.S.

Weston&Sampson®
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(860) 513-1473 (800) SAMPSON
www.westonandsampson.com

No.	Date	Dr.By	Ck.By	App.By	Description	D
		A	P	P	R O V E	

February 25, 2014
DATE

REGISTERED PROFESSIONAL ENGINEER

CITY OF TORRINGTON, CONNECTICUT
DEPARTMENT OF PUBLIC WORKS – WATER POLLUTION CONTROL AUTHORITY
EAST TORRINGTON SEWER REHABILITATION PROJECT – SEWER REPLACEMENTS

DETAILS

DR.BY	DSN.BY	CHK.BY	APP.BY
WGS	WGS	DCM	DRL

JOB NO.
CONTRACT:
SCALE: AS NOTED
CADD NO.
FILE NO.

C-8

SHEET 10 OF 10

R:\Torrington CT\Wastewater Services\Task Order 1 - Sewer Rehab\CAD\Sewer Replacements.dwg